CITY OF STAR, IDAHO

CITY COUNCIL REGULAR MEETING AGENDA

City Hall - 10769 W State Street, Star, Idaho
Tuesday, January 16, 2024 at 7:00 PM

PUBLIC NOTICE: THIS MEETING IS RECORDED AND PLACED IN AN ONLINE FORMAT. PERSONS MAY EITHER VIEW OR LISTEN TO VIDEO / AUDIO OF THIS MEETING UNTIL SUCH TIME THE RECORDING IS DESTROYED UNDER THE CITY'S RETENTION POLICY.

1. **CALL TO ORDER –** Welcome/Pledge of Allegiance
2. **INVOCATION –** Bishop Scott Snelders, 2nd Ward Church of Jesus Christ of Latter Day Saints
3. **ROLL CALL**
4. **PRESENTATIONS**
   - A. **Star Police Chief Report**
   - B. **Star Fire Chief Report**
5. **CONSENT AGENDA (ACTION ITEM)** **All matters listed within the Consent Agenda have been distributed to each member of the Star City Council for reading and study, they are considered to be routine and will be enacted by one motion of the Consent Agenda or placed on the Regular Agenda by request.*
   - A. **Approval of Minutes:** January 2, 2024, June 20, 2023
   - B. **Claims Approval**
6. **PUBLIC HEARINGS with ACTION ITEMS:**
   - A. **PUBLIC HEARING: Talega Village Subdivision (Files: AZ-22-11, RZ-22-03, CUP-22-05, DA-22-12, PP-22-15 & PR-22-08) -** The Applicant is requesting approval of an Annexation and Zoning (Residential R-10-DA), a Rezone (from R-1 & C-2 to Residential R-10-DA) a Development Agreement, a Conditional Use Permit for a proposed multifamily residential use (340 units), a Preliminary Plat for proposed residential and commercial uses consisting of 162 buildable lots (1 commercial lot, 1 multi-family lot, 65 single-family residential lots, 95 townhome lots and multiple common lots), and private streets. A residential density of 10 du/acres is proposed. The property is located at 58 N. Truman Place and 8370 W. Shultz Court in Star, Idaho. **TABLED FROM 11/21/23 & 12/05/23 (ACTION ITEM)**
   - B. **PUBLIC HEARING - Calvary Chapel Star (FILE: CU-23-08):** The Applicant is requesting approval of a Conditional Use Permit for a Church Facility that includes retail space and a drive-thru restaurant. The property is located at the Northwest Corner of Hwy16 and Floating Feather Road in Star, Idaho, and consists of 17.21 acres. **(ACTION ITEM)**
   - C. **PUBLIC HEARING - Keely CUP (FILE: RZ-23-04; DA-23-06; CU-23-07)** The Applicant is requesting approval of a Rezone (R-1 to CBD), a Development Agreement and Conditional Use Permit for two, 4700 square foot Live/Work units. The property is located at 856 S. Star Road, Star, Idaho and consists of .909 acres. **THE APPLICATION IS BEING TABLED TO 2/6/2024 TO ALLOW FOR ACHD TO PROVIDE AN UPDATED REVIEW LETTER (ACTION ITEM)**
   - D. **PUBLIC HEARING - Starpointe Subdivision Phase 2 (FILES: AZ-23-03, DA-21-09 MOD, PP-23-02, PR-23-02 & PP-21-10) -** The Applicant is requesting approval of an Annexation and Zoning (R-4), a Development Agreement Modification, a Preliminary Plat for a proposed residential subdivision consisting of 12 residential lots and 2 common lots, a private street and an amendment to the original Starpointe Subdivision Preliminary Plat. The property is located at 6777 and 6825 N. Star Road in Star, Idaho, and consists of 3.08 acres with a proposed density of 3.08 dwelling units per acre. **(Previously Noticed for October 3, 2023 / Requesting Postponement to February 20, 2024) (ACTION ITEM)**
7. **ACTION ITEMS:**
   - A. **Bid Award** - Pavilion Park Restroom Utilities & Pad **(ACTION ITEM)**
8. **ADJOURNMENT**

Any person needing special accommodation to participate in the above noticed meeting should contact the City Clerk's Office at 208-286-7247, at least 24 hours in advance of the meeting date.

The meeting can be viewed via a link posted to the City of Star website at *staridaho.org*. Information on how to participate in a public hearing remotely will be posted to *staridaho.org* under the meeting information. The public is always welcomed to submit comments in writing.

Land Use Public Hearing Process

Public signs up to speak at the public hearing

Mayor Opens the Public Hearing

Mayor asks council if there is any Ex Parte Contact

Applicant has up to **20 minutes** to present their project

Council can ask the applicant questions and staff questions

Public Testimony **(3 minutes per person)**

1. Those for the project speak
2. Those against the project speak
3. Those who are neither for or against but wish to speak to the project
4. Council may ask the individual speaking follow-up questions that does not count towards their 3 minutes

Applicant rebuttal **(10 minutes)**

Council can ask the applicant and staff questions

Mayor closes the public hearing

Council deliberates

Motion is made to approve, approve with conditions, deny or table the application to a date certain in the future

Thank you for coming to the Star City Council meeting, public involvement is fantastic and helps in shaping our city for the future. As this is a public hearing, there will be no cheering, clapping, jeering or speaking out during the hearing. Only the person at the podium has the floor to speak during their allotted time. If someone does speak out, cheer, claps, etc. they will be asked to leave the hearing and or escorted out of the hearing. We want to keep these hearings civil so everyone can be heard.

Thank you for your participation.

Mayor Trevor Chadwick

December 2023 Police Report

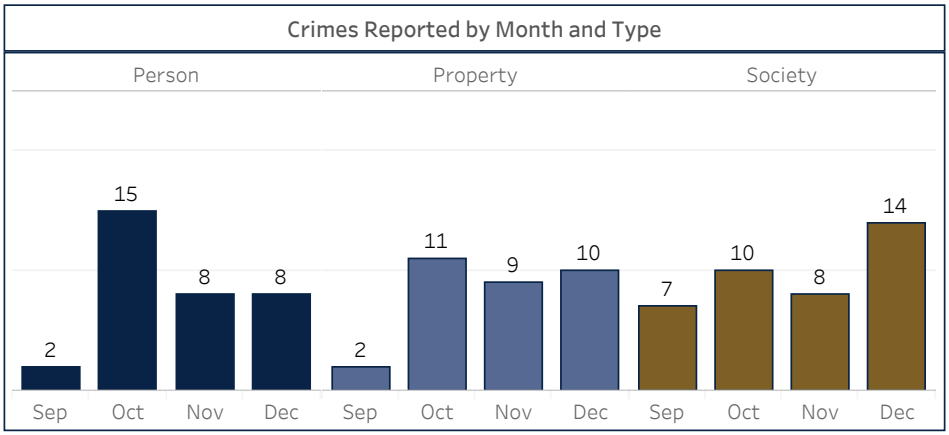
Release Date 2024-01-10

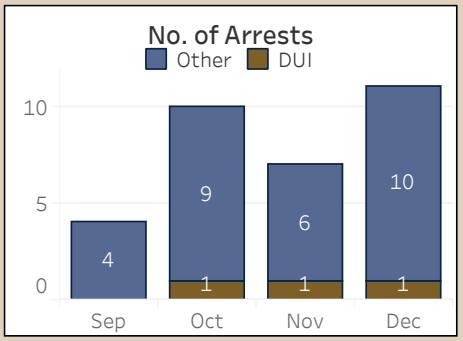
Offenses Reported[1]

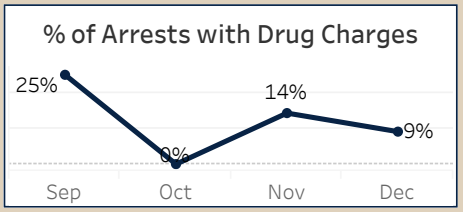
Type	2020	2021	2022	2023 YTD
Person	62	74	110	86
Property	99	59	92	106
Society	50	52	67	132
Total Crimes	211	185	269	324
Crimes/1,000 Pop	19.0	13.8	17.7	

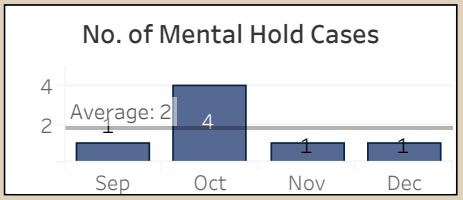
Case Report Types

- **Person Crimes** = murder, manslaughter, rape/sodomy, assault, intimidation and kidnapping offenses
- **Property Crimes** = robbery, burglary, larceny/theft, arson, destruction of property, counterfeiting, fraud, embezzlement, blackmail and stolen property offenses
- **Society Crimes** = drugs/narcotics, gambling, pornography, prostitution and weapons law violations







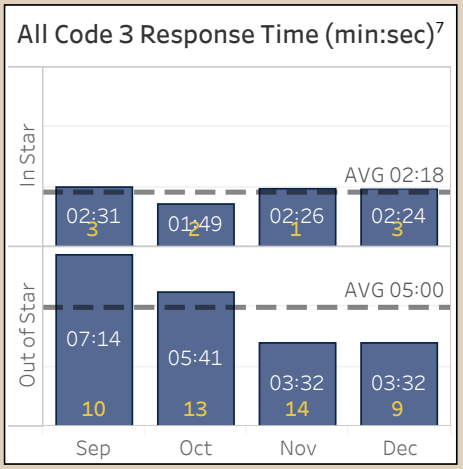


Police Activity[2]

	2023 Monthly Avg[3]	Sep	Oct	Nov	Dec	December 2022
Citizen Calls for Service (CFS)	319	310	307	276	255	273
Proactive Policing	1,466	1,622	1,611	1,688	1,341	1,323

Select Call Types

	2023 Monthly Avg[3]	Sep	Oct	Nov	Dec	December 2022
Crash Response	25	25	22	25	27	39
Crisis/Mental Health[4]	10	14	14	13	9	5
Domestic Violence	6	2	5	5	4	6
Juvenile Activity	13	24	19	18	12	15
Location Checks[5]	451	430	394	351	322	506
Property Crime Calls[6]	19	13	26	16	20	22
School Checks	62	72	49	43	37	57
Traffic Stops	313	284	254	401	279	322
Welfare Checks	22	19	24	28	16	23



[1]Offense Reports are compiled from NIBRS RMS. [2]Police Activity reflects calls within the City of Star and all calls dispatched with a Star deputy. [3]Monthly averages are based on all prior months of the current year. [4]Calls are for Crisis, Mental Holds, and Suicidal Subjects. [5]Location checks include Construction Site, Property, and Security checks. [6]Property Crime Calls include Theft, Vandalism, Burglary, Fraud. [7]Code 3 Calls represent all incidents that are routed at Priority 3, where Priority 3 calls require an immediate emergency response.

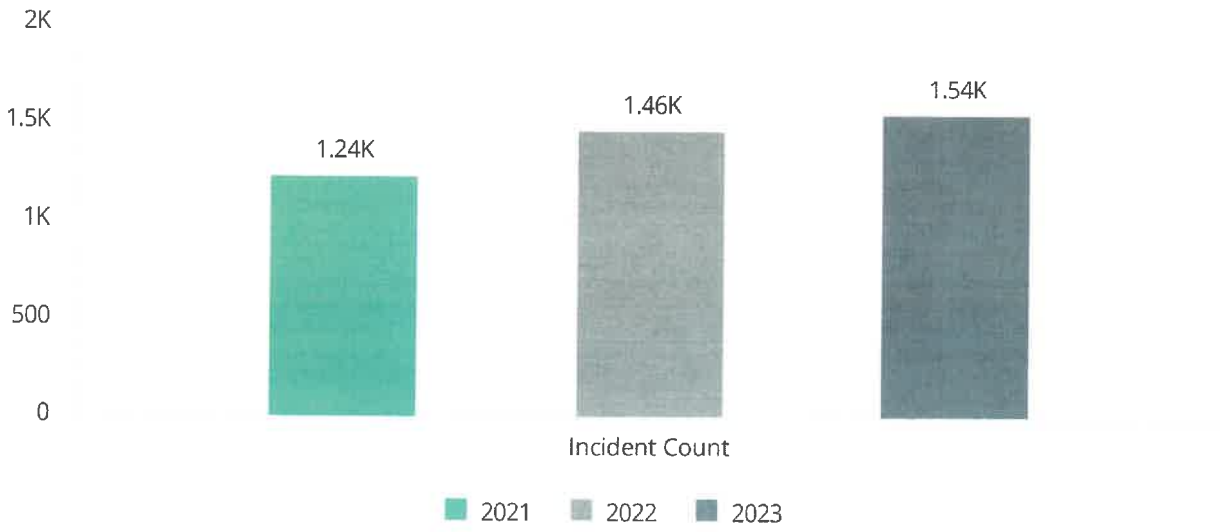
Last Updated: 9/14/23 VB Crime Analysis Unit

Mayor Report

2023 Incidents Y...	AVG Response T...	Acres Burned	Dollar Loss
1,543	7.52	59.31	Total Estimated Property Loss 417,678

Total Estimated Content Loss 432,700

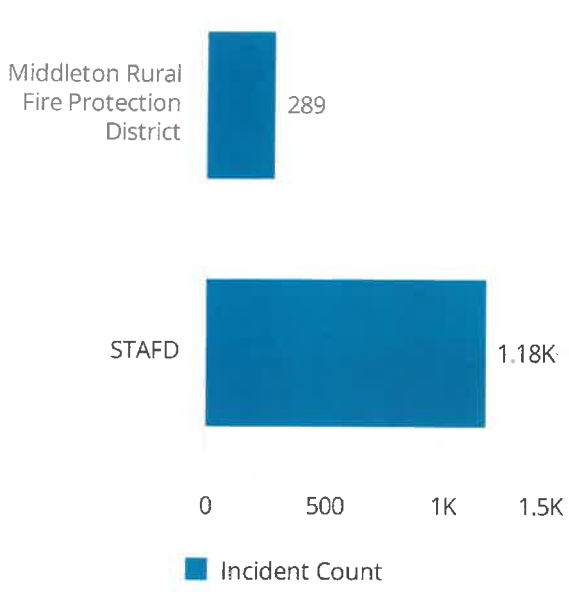
Incident Count By Year Group Comparison



Count By Specific Call Types

Incident Type Group	Count
100 - Fire	132
200 - Overpressure Rupture, Explosion, Overheat	1
300 - Rescue & EMS	786
400 - Hazardous Condition	59
500 - Service Call	255
600 - Good Intent Call	214
700 - False Alarm	94
900 - Special Incident	1
Other	1
Count	1,543

District

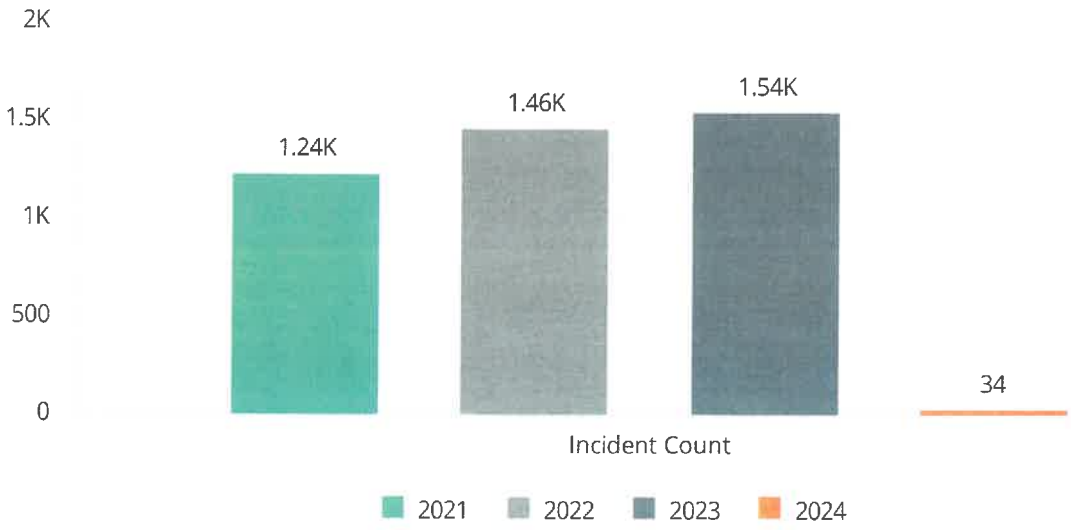


Mayor Report

2024 Incidents Y...	AVG Response T...	Acres Burned	Dollar Loss
34	6.47	#N/A	Total Estimated Property Loss #N/A

Total Estimated Content Loss #N/A

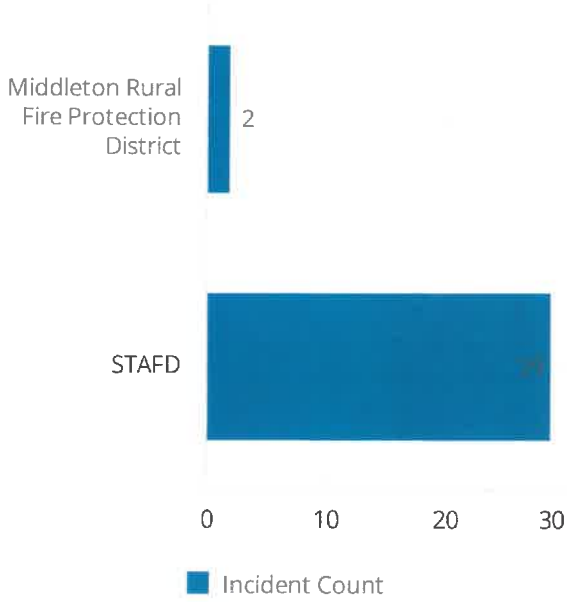
Incident Count By Year Group Comparison



Count By Specific Call Types

Incident Type Group	Count
300 - Rescue & EMS	20
400 - Hazardous Condition	1
500 - Service Call	5
600 - Good Intent Call	3
Other	5
Count	34

District



CITY OF STAR, IDAHO

CITY COUNCIL REGULAR MEETING MINUTES

City Hall - 10769 W State Street, Star, Idaho
Tuesday, January 02, 2024 at 7:00 PM

1. **CALL TO ORDER –** Welcome/Pledge of Allegiance

   Mayor Chadwick called the meeting to order at 7:00 p.m. and led the Pledge of Allegiance.

2. **INVOCATION –** Bishop Daniel Bitter, 5th Ward of the Church of Jesus Christ of Latter-Day Saints

   Bishop Bitter led the invocation.

3. **ROLL CALL**

   Elected Officials: David Hershey, Kevan Wheelock, Trevor Chadwick, Jennifer Salmonsen, Kevin Neilsen.

   Staff: City Clerk – Treasurer Jacob M Qualls, Assistant City Planner Ryan Field, Public Information Officer Dana Partridge, City Engineer Ryan Morgan, Polie Chief Zach Hessing, Sergeant Steele, Deputy Brashears, Planning & Zoning Administrator Shawn Nickel and City Attorney Chris Yorgason (remotely).

4. **PRESENTATIONS**

   No presentations.

5. **CONSENT AGENDA (ACTION ITEM)**

A. **Approval of Minutes:** December 19, 2023

B. **Approval of Claims**

- Council Member Salmonsen moved to approve the consent agenda; Council Member Hershey seconded the motion. ROLL CALL VOTE: Hershey – aye; Wheelock – aye; Salmonsen – aye; Neilsen – aye. Motion carried.

6. **ACTION ITEMS:**

A. **Sine' Die (Adjournment of Current City Council)**

Mayor called Sine' Die at 7:03pm

B. **Swearing in of Newly / Re-Elected City Officials**

City Clerk -Treasurer Qualls swore in Trevor A Chadwick as Mayor of Star and he signed the Oath of Office. Mayor Chadwick then swore in Kevin Nielsen and Jennifer Salmonsen to the Star City Council. They both signed the Oath of Office.

Mayor Chadwick, Council Member Neilsen and Salmonsen all thanked the community for re-electing them to new terms of office and expressed appreciation to their families, staff and community for the support over the last terms of office.

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C. **Roll Call - New City Council & Mayor**

Elected Officials: Mayor Trevor A Chadwick, Council Members: David Hershey, Kevan Wheelock, Jennifer Salmonsen, Kevin Neilsen.

D. **City Council President Election**

- Council Member Wheelock moved to nominate David Hershey as City Council President; City Council Member Nielsen seconded the motion. ROLL CALL VOTE: Neilsen – aye; Salmonsen – aye; Neilsen – aye; Wheelock – aye; Hershey – aye. Motion carried.

7. ADJOURNMENT

Mayor Chadwick adjourned the meeting at 7:14 p.m.

_____ ATTEST: _____

Trevor A. Chadwick, Mayor Jacob M Qualls, City Clerk - Treasurer

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CITY COUNCIL REGULAR MEETING MINUTES

LifeSpring Church - 174 North Star Road, Star Idaho
Tuesday, June 20, 2023 at 7:00 PM

NOTICE: The following minutes constitute a Summary Overview of the meeting from Audio, Video Recordings and Live Testimony. A formal meeting transcript has also been prepared by M&M Court Reporting Services and is attached as an addendum at the end of these minutes.

1. CALL TO ORDER – Welcome/Pledge of Allegiance

Mayor Trevor Chadwick called the meeting to order at 7:00 p.m.

2. INVOCATION –

The invocation was provided by Michael Maglish, Youth Minister at LifeSpring Church.

3. ROLL CALL

Elected Officials: Mayor Trevor Chadwick, Council President David Hershey, and Council Members Kevin Nielsen, Jennifer Salmonsen, and Kevan Wheelock.

City Staff: City Clerk / Treasurer Jacob Qualls, City Attorney Chris Yorgason, Public Information Officer Dana Partridge, City Engineer Ryan Morgan, City Planner / Zoning Administrator Shawn Nickel, Assistant City Planner / Code Enforcement Official Ryan Field, Star Fire Chief Greg Timinsky, Deputy Fire Chief Victor Islas, and Star Police Chief Zach Hessing.

4. CONSENT AGENDA (ACTION ITEM)

A. Approval of Claims Provided
B. City Council Meeting Minutes - **May 30, 2023**
C. **Findings of Fact / Conclusion of Law** - Garnet Subdivision Annexation & Preliminary Plat **(FILE # AZ-23-01 / DA-23-01 / PP-23-01 / PR 23-01)**
D. **Findings of Fact / Conclusion of Law** - Red Barn Inn **(FILE # RZ-23-02 / DA-23-03 / CU-23-04)**
E. **Findings of Fact / Conclusion of Law** - Hood Rats Garage **(FILE # RZ-23-01 / DA-23-02 / CU-23-03)**
F. **Findings of Fact / Conclusion of Law** - Mink Creek Subdivision **(FILE # PP-23-02)**
G. **Final Plat** - Saunders Ridge Subdivision **(FILE # FP-23-06)**
H. **Final Plat** - Milestone Subdivision Phase 5 **(FILE # FP-23-05)**
I. **Final Plat** - Edgefield at Star River Ranch Phase 1 **(FILE # FP-23-07)**

- Council Member Salmonsen noted that under Topic 4.A., no Claims were present for this meeting and moved to approve the Consent Agenda; Council President Hershey seconded the motion. ROLL CALL VOTE: Nielsen - aye; Salmonsen - aye; Wheelock - aye; Hershey - aye. Motion carried.

5. PUBLIC HEARINGS with ACTION ITEMS: (The Council may move to approve, approve with conditions, delay, deny or table the application to a date certain in the future.)

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A. **PUBLIC HEARING - Willowbrook Development Annexation & Development Agreement (FILE: AZ-21-12 & DA-21-20)** - The Applicant is requesting approval of an Annexation and Zoning (R-2-DA) with a Development Agreement for a proposed master planned development consisting of up to 1,094 single-family residential lots, 2 non-residential lots for future neighborhood commercial and municipal services, and an 18-hole golf course on approximately 726.6 acres. The property is located west of Highway 16 in Star, Idaho. The project is exclusively in Ada County. **(ACTION ITEM - PUBLIC TESTIMONY CLOSED ON MAY 9, 2023 - CONTINUATION OF APPLICANT REBUTTAL WITH CITY COUNCIL QUESTIONS)**

Mayor Chadwick re-opened the Public Hearing at 7:04 p.m.

Mayor Chadwick clarified that Topic 5.A./Willowbrook development annexation and development agreement was a continued public hearing from the City Council meeting date of May 9, 2023 and called the Applicant back up to continue the Applicant Rebuttal section of the hearing with City Council questions being taken at this time. Chadwick noted that once this section was completed, the Council would move into deliberations and conclude with a decision on the project.

Applicant Rebuttal (continued):

Applicant Team representative Debra Nelson of Givens Pursley at 601 West Bannock Street in Boise utilized a slide presentation she stated was from the last meeting that had suggested additional conditions, with an added visual overlay in red providing responses to some of the questions that she said the Applicant Team heard at the last meeting.

Ms. Nelson said the Applicant Team would present their commentary and expressed that the team would welcome any further discussion that Council would like to have. Nelson summarized the questions asked, including requests to reduce density from the original number of 1094 units, as well as matters of transition and setbacks. For the number of units, she noted the requested number was to go down to 1000. For setbacks, Nelson clarified that it would be twenty-five feet for the proposed half-acre lots in terms of matching up the Rural Residential Zone to the adjacent Rural Zone.

Per the discussion of one-acre lots, Nelson noted that the Applicant would also match adjacent lot lines and the adjacent setbacks that are required in the rural zoning. Per a request from the Mayor and Council about expediting bringing forward a key roadway improvement at CanAda and Highway 44, Nelson stated that the Applicant was willing to do this before the golf course operation begins but noted that they would need to coordinate with the Highway District. Nelson said the Applicant was interested in entering into a cost share agreement or late-comers agreement with the Highway District or City as appropriate.

Council Member Nielsen referenced citizen Richard Moore's public testimony given earlier in the hearing at the May 9, 2023 City Council meeting, with respect to traffic impacts on local roads. Given the length of a project of this nature, Nielsen asked the applicant team to discuss how they work with ACHD (Ada County Highway District) and ITD (Idaho Transportation Department) over the course of the project. Nelson replied the first point to address was that the application was about the initial phase of the project with the golf course, and it is their position this initial phase will not overburden local roads.

For future phases, Nelson explained the City had asked for and the Applicant Team provided a Traffic Impact Study that looked out at all future phases of the project and what will happen when future phases are brought in. She said that matters of directional roadway connectivity and Wing Road were noted.

Applicant Team Member Nate Mitchell of Willowbrook Development at 1470 Northbrook Way, Star, discussed residential Dark Sky concerns with respect to the proposed driving range, noting that the project remains consistent with Department of Fish & Game recommendations on "dawn to dusk" use. Mitchell noted ongoing planning would not only need to address any lighting at the golf course, but also the nature of the streetlights from ACHD. Mitchell said the Applicant Team agrees with the City's preference for downward-facing lighting on the golf course to help mitigate light pollution.

Council questions surrounded the matter of proposed density versus project cost. Council Member Salmonsen asked what would happen if the Applicant had to reduce density or would they not be able to make proposed improvements. The applicant team representative replied that it was their position that the proposed density was needed to cover the cost of the full project. The representative explained using the example offer of removing ninety-four lots, noting it was 94 times two-hundred thousand dollars, so ending up with $18,800,000 being removed from the project. The applicant representative underscored the significant financial impact in addressing density.

Council discussion moved on to West Ada School District and how the school planning process involves population growth. It was noted that a ten-acre school site was being offered within the conditions of approval.

Nate Mitchell of the Applicant Team answered Council questions about possible improvements to support what the Highway District and the City need over the course of the development process. Matters of phasing and proportionate share were discussed.

Council questioning moved on to concerns about preserving Bureau of Land Management parking and trail access.

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Mayor Chadwick asked for City Engineer / Star Sewer & Water Engineer Ryan Morgan to comment on pipe planning for the sewage. Morgan recommended a 12 or 15-inch pipe, noting that 14-inch piping was difficult to come by right currently. Chadwick noted a desire to have the piping go in as early as feasible, to avoid having to open the road back up multiple times.

Council Member Wheelock asked about the process of the developer processing the earth, expressing concerns about noise. The applicant representative verified that no earth crushing/processing is slated to occur onsite, and that the construction team will comply with the City nuisance ordinance and time restrictions.

Council discussion moved to concerns over Fire and Police and response times given the proposed additional occupancy over future years. It was noted that per Fire Code, water must be available at the time any combustible material arrives on the building site, so Star Fire will work with the applicant to ensure the review process is followed and that life safety is met. With respect to Police coverage, Council discussion surrounded a new officer being needed for approximately every 370 houses built.

Mayor Chadwick called for a brief recess at 8:45 p.m. Chadwick called the meeting back to order at 8:50 p.m.

Council Member Nielsen asked City Planner / Zoning Administrator Shawn Nickel if there were any remaining questions that Council wasn't asking. Nickel replied that with the application presently before Council, the Council Members have addressed all the key issues in their questioning such as traffic, land uses, and conditions of approval. Nickel noted once the City gets into the later details of the preliminary plat and the planned unit of development, any unanswered questions would be addressed in more detail, especially questions on traffic because that will be the appropriate time for detailed ACHD, ITD, and Canyon Highway District research on the various phases.

Mayor Chadwick closed the Public Hearing at 8:57 p.m.

Council Deliberations:

Council Member Salmonsen read a prepared statement indicating she hoped would help kick off the Council Deliberations. Salmonsen said nothing has changed her mind this evening. She said she believes the main ingredients of a great community are connected residents, diverse community activities, a strong business environment and a place where everyone feels safe, welcome and at home.

Salmonsen said these ingredients shine bright here in Star, and the primary responsibility of this Council is to not only protect these existing ingredients but also to strengthen and foster their growth with new development. She noted many positives that the development would bring to Star, including donation of land for future Fire and School sites, investing and expanding City water and sewer services, funding needed local road improvements, and bringing in a variety of housing options and recreation amenities.

Salmonsen noted she had an issue with two findings. 1. The point that the map amendment would not result in an adverse impact on the delivery of public services and 2. Finding the proposed development is in the best interest of the citizens of Star. On the first point, Salmonsen expressed concern that this would place a requirement on the school system to respond by building a new school, which would require taxpayer support. On the second point, Salmonsen expressed concern for the quality of life of the neighboring Hillsdale Subdivision residents. She expressed she could not support the project.

Council President Hershey countered that the ability to have the land for a future school was already secured as one of the conditions of approval and presented a large future cash savings to the School District. He noted the land use concern won't go away and recalled having read an article about another Treasure Valley development scenario where Boise and Kuna rejected developments only to have Ada County pass the development. He stated his position was passing the proposed project this evening would keep conditions of approval under the purview of the City. He further noted the applicant's response of a reduction in density came close to the number he had hoped for. Hershey noted he wished it was just a golf course as that would be an easier project to support, expressed that the dedication of land for a school site has been done in many other places and should not be a concern, and noted that upfront, the need for police is important.

Council Member Wheelock said he had also prepared a written response after the last meeting and shared he came to this meeting undecided. After the Public Testimony, Wheelock said he went home and reviewed all the feedback and studied. Wheelock shared that his history is he has watched the change from growing thriving farming to growing thriving community, and that he signed the City's incorporation document twenty-five years ago. Wheelock noted he still has major ties to the Eastern side of the state. For politics, he said he is not against those who join the community and do not bring political views from where they have migrated from.

Wheelock said he would rather have growth than a ghost town. He expressed love for the City of Star, noting he still knows many of the original residents who are looking for good neighbors, not people who are trying to change what has been here for 100 years. Wheelock said this is America, if you buy the land, you have the right to use it and asked everyone to be good neighbors. He said he has been doing his homework for a long time on this project. He said he appreciated constructive ideas and noted concerns from both those for and against the project. Wheelock noted this area had been originally conceived with more houses, noting that each discussion has brought improvements, but each discussion has become harder.

Council Member Nielsen said he appreciated Council Member Wheelock's perspective and concerns, and Council Member Salmonsen's passionate plea to fix the process. He said he had watched Mayor Chadwick go to the mat for House Bill 389 to help Star, given the challenges the bill placed on Star. Nielsen said the Council was here to determine whether the application was in the best interest of the City of Star long-term.

Council Member Hershey asked about the conditions of approval list. Mayor Chadwick asked City Planner / Zoning Administrator Shawn Nickel to provide the details.

Shawn Nickel read the recommended condition wording as follows:

Council hereby approves the golf course and associated facility amenities including the clubhouse and accessory structures, restaurant & bar, and driving range; prior to the approval of any additional commercial uses the applicant shall submit and receive approval of a planned unit of development and preliminary plan and this approval shall be part of a new public hearing through the City Council; the golf course shall be hooked onto Star Sewer and Water District reclaimed water for application to the course (at time of availability from the Sewer and Water District) to provide that reclaimed water; all Golf Course details shall receive further review and approval through the design review process, the architecture of the clubhouse and restaurant shall meet current City design review standards, applicants shall provide a minimum ten acre public school site and a future fire station site within the development; the applicant shall work with Star Fire District on the location of the station; the fire station site and school site shall be deeded to the appropriate agency within the first phase of the residential development; the development shall meet all requirements of the Star Fire District and Star Sewer and Water District; the applicant shall adopt for the application all recommended conditions of approval from ITD, ACHD, and Canyon County Highway District 4, maximum density set at 1.38 with a maximum lot count not to exceed one thousand lots; a minimum lot size adjacent to all existing residential lots at one half acre matching to one acre with a 100 foot buffer strip and matching lot lines; applicant to pay all proportionate share mitigation fees; at the time of recordation of the development agreement the $370,000 up front as proportionate share start as mitigation fee that would be credited back to the total; the development agreement will be revisited during the preliminary plat and planned unit development in order to update or add any new conditions of approval that may be required by the City Council or other Reviewing Agencies; Wing Road will not be connected to the development from Beacon Light Road; and a traffic signal light shall be constructed by the applicant at Highway 44 and Canyon Highway and Canyon Highway and Can Ada Road prior to the first day of operation of the golf course; and facilities agreement shall be entered into between the Applicant and the City for future reimbursement; driving range hours shall be Dawn to Dusk with the Dark Sky Initiative being addressed by downward lighting with soffit lights within the residential structures; applicants will provide a fiber conduit for future fiber optic connections; the fire station lot will have the infrastructure; no raw crushing of dirt/soil on the worksite unless the future conditional use permit is approved by the City Council; no connections to Lanktree Gulch Road; sound barrier berm and visual barrier to be constructed by the applicant along the golf course.

- Council Member Salmonsen moved to deny the Willowbrook Development Annexation & Development Agreement (FILE: AZ-21-12 & DA-21-20). Mayor Chadwick noted that no one seconded, so that the motion died.

Mayor Chadwick gave Council Members a few minutes to attempt to provide a new motion, then called for a brief recess at 9:48 p.m. in order to give them time to draft the motion.

Chadwick called the meeting back to order at 9:55 p.m. and reminded Council that they must make a motion this evening: to either approve, deny, or table.

Council Member Nielsen said that a big part of him wanted to second Council Member Salmonsen's motion earlier as he agreed with several points. However, he said he felt the application meets Star's Comprehensive Plan and Zoning Ordinances. He noted positives such as forcing improvements to Can Ada Road, and that it will bring an inevitable project under Star's Planning Department in terms of process and oversight.

- Council Member Nielsen moved to approve the Willowbrook Development Annexation & Development Agreement (FILE: AZ-21-12 & DA-21-20) with the following conditions of approval as read by Staff earlier in the meeting: that Council hereby approves the golf course and associated facility amenities including the clubhouse and accessory structures, restaurant & bar, and driving range; prior to the approval of any additional commercial uses the applicant shall submit and receive approval of a planned unit of development and preliminary plan and this approval shall be part of a new public hearing through the City Council; the golf course shall be hooked onto Star Sewer and Water District reclaimed water for application to the course (at time of availability from the Sewer and Water District) to provide that reclaimed water; all Golf Course details shall receive further review and approval through the design review process, the architecture of the clubhouse and restaurant shall meet current City design review standards, applicants shall provide a minimum ten acre public school site and a future fire station site within the development; the applicant shall work with Star Fire District on the location of the station; the fire station site and school site shall be deeded to the appropriate agency within the first phase of the residential development; the development shall meet all requirements of the Star Fire District and Star Sewer and Water District; the applicant shall adopt for the application all recommended conditions of approval from ITD, ACHD, and Canyon County Highway District 4, maximum density set at 1.38 with a maximum lot count not to exceed one thousand lots; a minimum lot size adjacent to all existing residential lots at one half acre matching to one acre with a 100 foot buffer strip and matching lot lines; applicant to pay all proportionate share mitigation fees; at the time of recordation of the development agreement the $370,000 up front as proportionate share start as mitigation fee that would be credited back to the total; the development agreement will be revisited during the preliminary plat and planned unit development in order to update or add any new conditions of approval that may be required by the City Council or other Reviewing Agencies; Wing Road will not be connected to the development from Beacon Light Road; and a traffic signal light shall be constructed by the applicant at Highway 44 and Canyon Highway and Canyon Highway and Can Ada Road prior to the first day of operation of the golf course; and facilities agreement shall be entered into between the Applicant and the City for future reimbursement; driving range hours shall be Dawn to Dusk with the Dark Sky Initiative being addressed by downward lighting with soffit lights within the residential structures; applicants will provide a fiber conduit for future fiber optic connections; the fire station lot will have the infrastructure; no raw crushing of dirt/soil on the worksite unless the future conditional use permit is approved by the City Council; no connections to Lanktree Gulch Road; sound barrier berm and visual barrier to be constructed by the applicant along the golf course; Council President Hershey seconded the motion. ROLL CALL VOTE: Nielsen - aye; Salmonsen - nay; Wheelock - aye; Hershey - aye. Motion carried.

DRAFT

6. ACTION ITEMS:(The Council at its option may suspend the rules requiring three separate readings on three separate days for ordinances on the agenda for approval. This may be by a single motion to suspend the rules under Idaho Code 50-902; second of the motion; ROLL CALL VOTE; Title of the Ordinance is read aloud; motion to approve; second of the motion: ROLL CALL VOTE.)

A. **Ordinance 379-2023 - Medici Vista Subdivision:** AN ORDINANCE ANNEXING TO THE CITY OF STAR CERTAIN REAL PROPERTY LOCATED IN THE UNINCORPORATED AREA OF ADA COUNTY, IDAHO; MORE SPECIFICALLY LOCATED AT 4401 N. POLLARD LANE, IN STAR, IDAHO (ADA COUNTY PARCELS S0333212580) AND CONTIGUOUS TO THE CITY OF STAR; THE PROPERTY IS OWNED BY BRUCE A. BENTE; ESTABLISHING THE ZONING CLASSIFICATION OF THE ANNEXED PROPERTY AS RESIDENTIAL WITH A DEVELOPMENT AGREEMENT (R-1-DA) OF APPROXIMATELY 13.13 ACRES; DIRECTING THAT CERTIFIED COPIES OF THIS ORDINANCE BE FILED AS PROVIDED BY LAW; PROVIDING FOR RELATED MATTERS; AND PROVIDING FOR AN EFFECTIVE DATE. **(ACTION ITEM)**

- Council President Hershey moved to introduce Ordinance 379-2023 Medici Vista Subdivision Annexation and pursuant to the rules under Idaho Code 50-902, the rule requiring an ordinance be read on three different days with one reading to be in full to be dispensed with and that Ordinance 379-2023 be considered after reading once by title only; Council Member Wheelock seconded the motion. ROLL CALL VOTE: Nielsen - aye; Salmonsen - aye; Wheelock - aye; Hershey - aye. Motion carried.
- Council President Hershey moved to approve Ordinance 379-2023 Medici Vista Subdivision Annexation and read the title of the ordinance; Council Member Wheelock seconded the motion. ROLL CALL VOTE: Nielsen - aye; Salmonsen - aye; Wheelock - aye; Hershey - aye. Motion carried.

B. **Ordinance 380-2023 Medici Hills Subdivision Annexation:** AN ORDINANCE ANNEXING TO THE CITY OF STAR CERTAIN REAL PROPERTY LOCATED IN THE UNINCORPORATED AREA OF ADA COUNTY, IDAHO; MORE SPECIFICALLY LOCATED ON N. HIGHWAY 16, IN STAR, IDAHO (ADA COUNTY PARCEL S0328346600) AND CONTIGUOUS TO THE CITY OF STAR; THE PROPERTY IS OWNED BY MEDICI HILLS JOINT VENTURE; ESTABLISHING THE ZONING CLASSIFICATION OF THE ANNEXED PROPERTY AS RESIDENTIAL WITH A DEVELOPMENT AGREEMENT (R-2-DA) OF APPROXIMATELY 48.73 ACRES; DIRECTING THAT CERTIFIED COPIES OF THIS ORDINANCE BE FILED AS PROVIDED BY LAW; PROVIDING FOR RELATED MATTERS; AND PROVIDING FOR AN EFFECTIVE DATE. **(ACTION ITEM)**

- Council President Hershey moved to introduce Ordinance 380-2023 Medici Hills Subdivision Annexation and pursuant to the rules under Idaho Code 50-902, the rule requiring an ordinance be read on three different days with one reading to be in full to be dispensed with and that Ordinance 380-2023 be considered after reading once by title only; Council Member Wheelock seconded the motion. ROLL CALL VOTE: Nielsen - aye; Salmonsen - aye; Wheelock - aye; Hershey - aye. Motion carried.

DRAFT

- Council President Hershey moved to approve Ordinance 380-2023-Medici Hills Subdivision Annexation and read the title of the ordinance; Council Member Wheelock seconded the motion. ROLL CALL VOTE: Nielsen - aye; Salmonsen - aye; Wheelock - aye; Hershey - aye. Motion carried.

7. ADJOURNMENT

Mayor Chadwick adjourned the Star City Council meeting at 10:07 p.m.

_____ ATTEST: _____

Trevor A Chadwick, Mayor Jacob M Qualls, City Clerk - Treasurer

DRAFT

BEFORE THE CITY OF STAR CITY COUNCIL

IN RE:	)	
WILLOWBROOK DEVELOPMENT	)	FILE: AZ-21-12 &
MEDICI HILLS SUBDIVISION	)	DA-21-20
MEDICI HILLS SUBDIVISION	)	ORDINANCE 379-2023
ANNEXATION	)	ORDINANCE 380-2023
_____	)	

TRANSCRIPT OF RECORDED COUNCIL MEETING

TUESDAY, JUNE 20, 2023

COUNCILMEMBERS PRESENT:

TREVOR A. CHADWICK, MAYOR

DAVID HERSHEY, COUNCIL PRESIDENT

KEVIN NIELSEN, COUNCILMAN

JENNIFER SALMONSEN, COUNCILWOMAN

KEVAN WHEELOCK, COUNCILMAN

DAVID HERSHEY, COUNCILMAN

TRANSCRIBED BY:

VICTORIA HILLES, RPR, CSR NO. 1173

Notary Public

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(Beginning of audio file.)
MAYOR CHADWICK: Okay. I'm going to call the Star City Council meeting to order. It's 7:00 p.m. on Tuesday, June 20th, 2023, at the LifeSpring Church. And I'd just like to thank the LifeSpring Church again for allowing us to use this facility tonight.
Can you all please join me in the pledge of allegiance.
ALL: I pledge allegiance to the flag of the United States of America and to the Republic for which it stands, one Nation under God, indivisible, with liberty and justice for all.
MAYOR CHADWICK: Thank you.
Tonight's invocation is going to be by Pastor Michael Maglish. Pastor Tim Nay was going to do our invocation, but he hurt his back, so we'll do a little extra prayer for Pastor Nay.
PASTOR MICHAEL MAGLISH: So please bow with me in a word of prayer.
Heavenly Father, we invite you here tonight to be in the center of our space. We invite you to guide us and guide our Mayor, our City Councilmen, God -- that -- that clarity can be brought, that decisions can be made that are going to honor you. We pray for our country. God, we pray for our -- our

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state. We pray for what you are trying to do, and we pray that we give you the space to do that.
In Jesus' name. Amen.
ALL: Amen.
MAYOR CHADWICK: Amen.
Thank you, sir.
Roll call.
THE CLERK: Nielsen.
COUNCILMAN NIELSEN: Present.
THE CLERK: Salmonsen.
COUNCILWOMAN SALMONSEN: Here.
THE CLERK: Chadwick.
MAYOR CHADWICK: Here.
THE CLERK: Wheelock.
COUNCILMAN WHEELOCK: Here.
THE CLERK: Hershey.
COUNCILMAN HERSHEY: Here.
MAYOR CHADWICK: All right. We'll move on to Item 4, the Consent Agenda.
COUNCILWOMAN SALMONSEN: Mayor Chadwick.
MAYOR CHADWICK: Councilwoman.
COUNCILWOMAN SALMONSEN: I'll move to approve the Consent Agenda consisting of Item -- we didn't have claims so --
MAYOR CHADWICK: Okay.

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COUNCILWOMAN SALMONSEN: -- I'll skip 4A -- 4B, City Council Meeting Minutes from May 30th, 2023; Item 4C, Findings of Fact/Conclusion of Law for the Garnet Subdivision Annexation & Preliminary Plat (FILE AZ-23-01/DA-23-01/PP-23-01/PR23-01); Item 4D, the Findings of Fact/Conclusion of Law for Red Barn Inn (FILE RZ-23-02/DA-23-03/CU-23-04); Item 4E, Findings of Fact/Conclusion of Law for Hood Rats Garage (FILE RZ-23-01/DA-23-02/CU-23-03); Item 4F, Findings of Fact/Conclusion of Law for Mink Crick -- Creek Subdivision (FILE No. PP-23-02); 4G, the Final Plat, Saunders Ridge Subdivision (FILE FP-23-06); Item 4H, Final Plat, Milestone Subdivision Phase 5 (FILE FP-23-05); and Item 4I, Final Plat for Edgefield at Star River Ranch Phase 1 (FILE No. 4 -- FP-23-07).
MAYOR CHADWICK: Okay. We have a motion to approve the Consent Agenda, minus Item A, which -- we did not have any claims.
Do we have a second?
Anybody want to second?
COUNCILMAN HERSHEY: I'll second that.
MAYOR CHADWICK: We have a motion and a second by Councilman Hershey.
Any further discussion?
Hearing none.

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Roll call.
THE CLERK: Nielsen.
COUNCILMAN NIELSEN: Aye.
THE CLERK: Salmonsen.
COUNCILWOMAN SALMONSEN: Aye.
THE CLERK: Wheelock.
COUNCILMAN WHEELOCK: Aye.
THE CLERK: Hershey.
COUNCILMAN HERSHEY: Aye.
MAYOR CHADWICK: Okay. That motion carries.
We're on to Item 5, the continued hearing for the Willowbrook Development Annexation & Development Agreement. It is 7:04, and I invite the applicant to come back up.
We're continuing this -- this -- this is the continuation of the applicant rebuttal with the City Council questions at this time. Once this section is done, the Council will move into deliberations for a decision on the project.
Okay. Are we good, Shawn?
SHAWN NICKEL: We're good.
MAYOR CHADWICK: Okay. All right.
I know that it was late on May 9th. Anybody have questions they want to start with -- with asking the applicant?

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COUNCILWOMAN SALMONSEN: Mayor Chadwick.
MAYOR CHADWICK: Councilwoman.
COUNCILWOMAN SALMONSEN: Maybe -- first, could we just get a quick review, high level. I know that you had some slides here. If we can just -- just a quick review --
MAYOR CHADWICK: Okay.
COUNCILWOMAN SALMONSEN: -- from the applicant. That would be awesome.
MAYOR CHADWICK: Very good.
DEBORAH NELSON: Mayor and Council Members, I appreciate that.
Deborah Nelson.
MAYOR CHADWICK: Hey. If you don't mind, can you speak into that a little bit closer?
UNIDENTIFIED SPEAKER: [Unintelligible]. I can't --
MAYOR CHADWICK: Yeah.
UNIDENTIFIED SPEAKER: -- hear anything.
MAYOR CHADWICK: Yeah, because we can't hear it.
DEBORAH NELSON: Maybe I could make it higher. Is that better?
MAYOR CHADWICK: There we go.
UNIDENTIFIED SPEAKER: Oh, there we go.

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DEBORAH NELSON: Deborah Nelson. I'm here on behalf of the applicant. Address is 601 West Bannock.
Good evening, Mayor and Council Members. You might not have heard that part.
So we have a couple slides just to provide a visual recap of what we heard the Council ask of us last time. We're not providing any new information. This is actually the slide that was presented in our presentation last time that had suggested additional conditions for the DA. And we've added for -- a visual for everyone to see our commentary back to you and the red underlining, answers to some of the questions that we heard at the last hearing and requests from the Council.
So we just wanted to provide that, rather than just verbally -- so you could visually see how that would fit into the conditions that we had previously suggested. We heard a lot of asks of the Council, and so we wanted to respond to those, and I'll just capture them briefly and then welcome any further discussion you guys want to have about that.
There was a request to reduce the density, and so the developer did look at that carefully and considered what they could bring that down to and -- could get down from 1,094 -- was -- the

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application asked to -- 1,000 units.
There was also a request about transition, and we did have information about transition at the last hearing, but there was additional discussion that -- where there are one-acre lots that were already offered, that we would also match adjacent lot lines and the adjacent setbacks that are required in that adjacent rural zoning.
We also already had offered one-acre lots, but we've just included that in the list here of the conditions, and I've got a -- that transition slide that's referenced in the condition language there. It was also in our presentation last time, and I've got that with us tonight just to repeat that so you could see that again.
And then, finally, there was a request from the Mayor and Council about expediting, bringing forward a key roadway improvement, and that is the intersection improvements that were requested at Can Ada and Highway 44. And that is something that the developer is willing to do, even before the golf-course operation begins, rather than waiting for the subsequent phases, when additional TISs will be required and additional mitigation will be imposed.
But we do need to -- to coordinate with

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the Highway District on available right-of-way to make sure that we can construct that. And then, also, we'd like to enter into a -- a cost-share agreement or a late-comer's agreement with the Highway District or the City, as appropriate, just to make sure that everything above the development's 18-percent share, there's an opportunity, at least, to try to recoup some of that.
So those are -- and I'm happy to come back to this slide just to share it with you, but this is -- there we go.
I can't get this to advance. Maybe Shawn can help me. That's not -- there we go.
Thank you.
UNIDENTIFIED SPEAKER: [Unintelligible].
DEBORAH NELSON: Thank you.
This was presented at the last hearing, and this is -- just illustrates the condition that I just shared with you about the transitional lots. The coloring is really faded in this visual, but the yellow exterior areas are where we've already agreed to a minimum, one-acre-lot transition.
The red exterior areas are where we've agreed to the half-acre-lot transition and, also, to match the adjacent setbacks and lot lines. And then we've got a landscape buffer strip in the area shown

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just south of the golf course.
And, Shawn, if you wouldn't mind advancing briefly.
Again, this next slide also was -- that's -- you're having the same problem I did. There we go -- was also part of our last presentation. The -- those provisions that we just showed with the transition, the buffer strip, that may include setbacks that match or the provision of one-half-to-one-acre-sized lots is directly from your applicable City Code for this. And so I just wanted to show that.
And finally -- Shawn, if you wouldn't mind, the very last slide -- again, a slide that was part of our presentation last time. This time the red lining was already in it. This isn't new. This was the change we had requested to the conditions. So I just wanted to bring that forward so you have all of the conditions that we're suggesting and requesting in addition to what staff had requested.
And this was where we had just asked for the clarification that, based on your City Code, golf courses are already defined to include clubhouses with a restaurant and bar. And so that was just a reminder about that condition.

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So with that, I don't want to go further until you have -- have questions, but that's what we just wanted to bring forward for our -- what we can do in response to your specific questions at the last hearing.
MAYOR CHADWICK: Okay. Any -- oh -- any questions of the applicant?
I know we've got questions, I'm sure.
COUNCILWOMAN SALMONSEN: Excuse me.
MAYOR CHADWICK: I will ask a question here real quick.
When we're talking about the setbacks on those half-acre lots, what are those setbacks, exactly? What's the number? It's not --
DEBORAH NELSON: Mayor, they're 25 feet in the rural residential zone, which is the adjacent rural zone that we would be matching.
MAYOR CHADWICK: So 25 feet from the back line?
DEBORAH NELSON: That's right.
MAYOR CHADWICK: Okay.
DEBORAH NELSON: That's the rear setback in the County Code.
MAYOR CHADWICK: Okay.
COUNCILMAN NIELSEN: Mayor Chadwick.

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MAYOR CHADWICK: Councilman Nielsen.
COUNCILMAN NIELSEN: So I -- you know, I -- I took -- I took the opportunity. It was really nice to actually have quite a bit of time between the -- the first part of this hearing and -- and what we're doing here tonight.
I -- I took notes on everybody who testified, and -- and it was -- it was really helpful, I think, to go back and read through all of those notes and -- and to read through the packet again and really look for those elements of testimony that -- that are actionable or that we should -- or that we could really consider as part of -- of this application and make part of our decision here tonight.
And I want to key in on -- on Richard Moore's testimony, where he -- he began, really, the -- the conversation that was kind of a theme throughout the evening around traffic. And -- and I'm summarizing here, but he -- he testified that traffic impacts are significant, local roads cannot be expanded, and that -- and a really significant concern about the -- the concept or the idea of -- of connecting Wing Road up into Hillsdale.
And so I -- I'd like for the applicant -- or for you, as -- as the applicant -- your

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group to -- to kind of holistically address and maybe get into some significant detail because there isn't a lot of information about roadways at this time. And -- and that's natural for the state of where this application is.
However, I -- I think that understanding the process of how -- how you work with ACHD and ITD over the course of -- of the anticipated life of a project of this size, to really understand what impacts there will be to roads, how those decisions are made, the timeline of when those decisions are made, and -- and the possibility of -- of -- of these local roads that exist being expanded.
I -- as I look at the application, you know, I -- I have to agree with -- with Mr. Moore that it looks extremely difficult to expand those existing local roads. And -- and I have to agree that -- that the -- the idea of connecting Wing Road up into Hillsdale seems extremely problematic.
And -- and so if you could address, again, kind of the -- the process, in general, but then -- specifically, what does this application look like without a Wing Road expansion?
DEBORAH NELSON: Mr. Mayor, Council Members, I appreciate the question.

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So maybe the -- the first point to address -- you know, what is this application about? It is -- the initial phase will just include the golf course.

COUNCILMAN NIELSEN: I understand.

DEBORAH NELSON: The trip -- the trips from the golf course them -- itself will not overburden the existing roads or exceed the capacity of even the local roads.

And so -- then we look to future phases. And the City did request and the applicant provided a traffic impact study that looked further and included all of the phases and a significant horizon. And so that's, really, more what you're getting at, so the -- the future phases of what will happen when additional phases are brought on, and there are additional trips added to the local roadways.

The Wing Road extension was included in the traffic study because it is shown on ACHD's Master Street Map, and so that is a planned connection, based on ACHD's plan for the ultimate roadway build-out in this area. So we're obligated to evaluate that and -- and did.

Whether -- if that turns out not to be desired, feasible, required by the transportation

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agencies when we get into these future phases, and we have to submit supplemental traffic impact studies, you know, we'll live with whatever is decided about that, and that's what we'll build out.

The -- the desire, I think, from ACHD's Master Street Map, in general, is to provide connectivity. That's usually what ACHD's looking for. North/south connectivity, east/west connectivity in this area alleviates problems. Kind of the more ways you've got to get through, then it disperses the traffic. So that's -- I guess, specific to Wing Road --

COUNCILMAN NIELSEN: Can I ask you a question about that.

DEBORAH NELSON: Yes.

COUNCILMAN NIELSEN: So my -- my recollection of -- of the presentation a couple of months ago was that Wing Road was considered because some -- there -- there were -- was another road that either could not be built or could not be built in a timely fashion. So then you went to ACHD and requested to consider Wing Road.

DEBORAH NELSON: Mr. Mayor, Council Member, if that's the case, then I'll have to have the applicant and the -- the traffic engineer talk about that history because I wasn't involved in those specific meetings.

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COUNCILMAN NIELSEN: Sure.

DEBORAH NELSON: It is shown -- I can tell you it is shown on the Master Street Map, so we are obligated to include it and evaluate it, as far as like the order of that.

But I -- I think, maybe, what you're talking about is the Aerie -- Aerie Way extension is also part of the future improvements that will be needed and appropriate to serve trips in this area, that will also help protect trips from some of the local roadways, such as Deep Canyon. And so between Wing Road and the Aerie Way extension, those are two new roads that will help disperse trips in the area.

And -- and there is capacity limitations on Deep Canyon of 2,000 trips per day. It's a local road. That's just the local-road limitation for just functional target capacities from ACHD's policy manual. And so either Aerie Way or Wing Road does offer relief from that. And we are conditioned, based on ACHD's comments at this point, to not be able to proceed with any of those phases until there is that relief from the local-road impacts.

And so, at this point, it's not just that we're asking for the golf course. Like we cannot move forward with anything that would add impacts beyond the

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golf course until that is evaluated and the mitigation is provided. So that will happen with future phases, when they lay out, "Okay. This needs to happen at this timeline."

COUNCILMAN NIELSEN: Yeah. Thank -- thank you for that.

I -- I think it was that conversation about Deep Canyon and the limited capacity that -- that --

DEBORAH NELSON: Yes.

COUNCILMAN NIELSEN: -- led to the exploration of -- of Wing Road. So...

MAYOR CHADWICK: Can I ask a follow-up there --

COUNCILMAN NIELSEN: Please.

MAYOR CHADWICK: -- on your question?

So when I -- when I go back and I look at ACHD's comment on the most recent one, on April 27th, it says that, "No connection to Deep Canyon Drive" may "be considered until Aerie Way is constructed" and open to provide "access to the site," and that -- and that -- to provide access to the golf course. The applicant may "apply for a driveway approach permit for a driveway or private road onto Can Ada Road to provide access to the site."

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So they're not even bringing up Wing Road any further into this thing; right? So it -- it -- in my opinion, Wing Road, to me, is not a viable road to handle all that traffic that's intended to come down. And I'd be inclined to say that we don't even make that connection because of where they put Wing Road onto Beacon Light on the corner, which, to me, is providing -- is creating a -- a safety nightmare, you know, in the long term.

DEBORAH NELSON: Mm-hmm.

MAYOR CHADWICK: But what -- what are we doing, I guess, when we're talking about this Aerie Way and Canyon Drive, to get constructed -- I guess, is this an either/or in how they're wording this, whether -- you either have Aerie Way constructed for the golf course or you can apply for the private road permit for the -- for the golf course on the Can Ada --

DEBORAH NELSON: Mr. --

MAYOR CHADWICK: -- or how it's read?

DEBORAH NELSON: Mr. Mayor, so ACHD was allowing the golf course to proceed, and that's why the -- the access onto Can Ada was appropriate, but they did not want to go forward with any residential until these future TISs are evaluated and Aerie Way was provided -- provided an outlet.

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We did provide analysis to ACHD about how there is existing capacity on local roads, including Deep Canyon, before that's -- before you need to get -- like you could allow some of the residential, in other words, before you needed to get to that next phase, and they drew the line more conservatively and said, "Let's just stop at the golf course before you've" -- "you're able to even move forward with any residential, even though some residential would have capacity there." So they were focused on Aerie Way.

Wing Road does provide additional capacity in the interim if that were done before Aerie Way. Again, if -- you know, the City obviously gets to comment on your preferences for these roads, and we'll -- we're open to what needs to be done in this area. At this point, we're following what's on the Master Street Map. The -- the traffic impact study did evaluate all of the connectivity and the roadways and intersections that were defined and the scope that was set out by ITD, ACHD, and COMPASS.

MAYOR CHADWICK: Okay. Sorry, Kevin.

Go ahead.

Thank you.

COUNCILMAN NIELSEN: Thank -- thank you.

So -- and -- and I -- again, I appreciate

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this little -- little detour that's specific to Wing Road and wonder if -- if, you know, the focus can continue on kind of how that -- that plan develops over time, you know, toward the end of the project, what sort of activities take place.

And -- and, look, think -- think about it from the standpoint of what ACHD provided to the Council as -- as part of this packet, that -- they basically say, "Nothing has capacity today;" right?

DEBORAH NELSON: Mm-hmm.

COUNCILMAN NIELSEN: How do you go from no capacity to -- to fully-capable capacity at the end?

DEBORAH NELSON: Mr. Mayor, Council Member, we -- we can't unless they agree that we can; right? So that does require these future studies, that does require the mitigation, but it's not completely unknown. I mean, because we've done this larger traffic study that they have reviewed, at least there's an indication that causes these questions -- right? -- about -- okay -- that Aerie Way needs to be extended, that the Wing Road extension would also serve trips.

The Can Ada/Highway 44 intersection improvements that we've talked about, that came up because of looking forward to see, "Okay. Well, when we

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do have actual mitigation that's imposed on the project, what might that look like?"

But until we get to a further approval -- so we have to come back, still, to this body for a plan -- a -- a planned unit development permit and a preliminary plat. So at this point, we can't do anything but the golf course, but that's significant because you have applications that will then be before you that are specific development applications.

ACHD and ITD weigh in on those. They've -- this is our -- this one's already conditioned, if you approve it, on having to do subsequent TISs. That will outline the phasing plan and mitigation before anything can move forward. And so the mitigations you've got a scope of right now, basically, from this larger TIS, will have to be planned out so that it's -- it's in line with the development phasing.

The one that we're expediting because of those comments that have come forward that -- and the concerns that have been raised, just the -- I mean, the level of service at the Can-Ada/Highway 44 is already Level F. Of course that's not our doing because we're not there yet, but the development will help correct that by stepping that one up.

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The others -- it's -- it's a little bit premature to know exactly where they might be. As you're pointing out, there may be some limitation on some of these options. Maybe it isn't the Wing Road extension. Maybe the Aerie Way is done first. Maybe there's different options that are evaluated at that time.

So those -- those will have to be laid out with the residential, but what you have before you will at least mitigate more than our fair share with -- with stepping up that signalized intersection and will certainly mitigate the trips for the golf course, which do not exceed capacities.

COUNCILMAN NIELSEN: So what is the -- what -- what is the likelihood of the development of Aerie Way to occur -- maybe "likelihood" is not the right -- right word. I guess, "possibility," maybe is a better one -- instead of and before that interim capacity that you mentioned could be considered for Wing Road?

DEBORAH NELSON: At this point, based on ACHD's language, it has to be done. So there is no other option.

COUNCILMAN NIELSEN: Okay.

DEBORAH NELSON: And that's what the Mayor was

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just alluding to in the -- in their comment --

COUNCILMAN NIELSEN: Right.

DEBORAH NELSON: -- letter.

COUNCILMAN NIELSEN: Okay. Thank you.

Was there any other thoughts you wanted to share --

DEBORAH NELSON: No, I'm --

COUNCILMAN NIELSEN: -- on -- on that?

DEBORAH NELSON: No.

COUNCILMAN NIELSEN: Mayor Chadwick, may I continue to ask questions?

MAYOR CHADWICK: You may continue, Councilman Nielsen.

COUNCILMAN NIELSEN: Mr. Ben Pelka talked about a concern that he had regarding the potential for light pollution from a -- from a driving range. You know, the City of Star does have an ordinance -- a dark-sky -- an ordinance based on the common dark-sky initiative. The thing that came to my mind as he was talking was -- is the new Topgolf out on the freeway.

DEBORAH NELSON: Mm-hmm.

COUNCILMAN NIELSEN: And I -- you -- you may have all driven at night along that way, going -- going west. It is blinding. Now, I know that this isn't going -- going to be that, but that was the image that

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flashed into my mind; right?

Can you talk a little bit about the possibilities of mitigation for light pollution onto existing -- I mean, existing properties that have enjoyed dark skies for years and -- and how that would comply with the City's ordinance?

NATE MITCHELL: I don't think we have a problem at this point conditioning our driving-range operating hours to daylight hours.

COUNCILMAN NIELSEN: Okay.

UNIDENTIFIED SPEAKER: Dawn to dusk?

NATE MITCHELL: Dawn to dusk, yeah.

UNIDENTIFIED SPEAKER: Can you state your name.

NATE MITCHELL: Let's call it "shooting hours."

DEBORAH NELSON: State your name.

MAYOR CHADWICK: Nate, just state your name.

NATE MITCHELL: Sorry. Nate Mitchell. Willowbrook Development. 4 -- 1470 North Rook Way, Star, Idaho.

COUNCILMAN NIELSEN: And I like the concept of shooting hours. That -- that way, we could actually follow what's in the -- the Fish and Game handbook.

MAYOR CHADWICK: Yeah.

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UNIDENTIFIED SPEAKER: [Unintelligible].

MAYOR CHADWICK: So I -- I just kind of -- I'm going to follow up -- for the remainder of that project, how are we going to maintain dark sky for the residential components of this as well?

I know we're having, currently, a challenge with ACHD on what they anticipate using for streetlights, versus what we want for streetlights on collectors, which is an interesting thing. But how are we going to mitigate the light pollution, like he was talking about, on the remainder of that, not just on the golf course?

DEBORAH NELSON: Mayor, we agree with what -- the City's preferences there for down-lighting.

MAYOR CHADWICK: Down-lighting?

DEBORAH NELSON: Yes.

MAYOR CHADWICK: And then on the eaves and stuff of the houses, instead of a -- a sconce light or whatever, it's in the soffits, where it shines it down. I mean, it's just trying to find ways to maintain that -- that feel if this should get approved up there in that area -- right? -- so we're not blinding out everybody.

DEBORAH NELSON: We're in agreement and prefer that as well.

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MAYOR CHADWICK: Okay. Thank you.
Councilman Nielsen, sorry. The floor is yours again.
COUNCILMAN NIELSEN: Yeah. Thank you.
I -- I'll yield for now.
MAYOR CHADWICK: Okay. Any further questions here of the Council to the applicant?
COUNCILMAN HERSHEY: Yeah, Mr. Mayor. I've got a -- just a couple.
There -- there --
MAYOR CHADWICK: Is his mic on?
Okay. Go ahead.
COUNCILMAN HERSHEY: Don't say anything if you can hear me.
Perfect. All right.
Man, I -- I'm having a hard time seeing this thing.
The red are half-acre and transitions. The yellow are full-acre and transitions. Can you tell me what the brown are again and -- just for reference. They're really hard to see. So it's --
DEBORAH NELSON: [Unintelligible].
COUNCILMAN HERSHEY: -- it's up at the north side, more towards the west --
NATE MITCHELL: [Unintelligible].

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COUNCILMAN HERSHEY: -- and south side.
DEBORAH NELSON: [Unintelligible].
COUNCILMAN HERSHEY: -- specifically on the borders. I'm not concerned about the infield.
NATE MITCHELL: Yeah. A minimum of 12,000 square feet is what those show.
COUNCILMAN HERSHEY: Okay. And -- and what do they -- they don't -- do they abut with anything up there, or is it all --
NATE MITCHELL: Are you talking on the north side or on the south side?
COUNCILMAN HERSHEY: North side, more towards the west.
NATE MITCHELL: They butt up to Deep -- Deep Canyon Road [sic].
COUNCILMAN HERSHEY: All righty. And you said you went to 1,000 lots instead of the 985? Can you get those other 15 in?
DEBORAH NELSON: 1090 -- yeah.
NATE MITCHELL: From 10 -- yeah, we -- so we did some land planning based off of the proposed conditions and stuff, and -- and we're hovering right there at that 1,000-lot mark that we think we could make work.
COUNCILMAN HERSHEY: All right.

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[Unintelligible]. All right. Thank you.
I am trying to think.
That's all I've got on that for now.
MAYOR CHADWICK: Okay.
COUNCILWOMAN SALMONSEN: Mayor Chadwick.
MAYOR CHADWICK: Councilwoman.
COUNCILWOMAN SALMONSEN: So I believe, when we heard -- you know, in the public hearing before, you mentioned that the density was really needed to help -- like the density that you have was needed to help with -- like to cover the cost of building the golf course.
So I'm curious to know, just long-term-planning-wise -- so if the golf course is going to be built first, it sounds like -- I mean, there's going to be a lot of -- a lot of things that have -- you know, a lot of phases, a lot of, you know, investment that has to come for the residential components to come in. So, I mean, what happens if the -- you know, you -- you have to reduce the density, or if you can't make those improvements?
DEBORAH NELSON: Mr. Mayor, Council Member, it -- it's a fair question. That's part of the phasing that comes in because, of course, the -- the density isn't just needed to pay for one amenity. The density's

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needed to pay for the whole project. I mean, the whole project has to pencil at some level; right?
So we have to balance the cost of construction, which includes all the off-site infrastructure, including all the road mitigation, which is going to be expensive. We've got the -- the civic site donation. You've got extension of sewer and water lines to and through the property. You've got a significant upgrade to the waste-water treatment, so there's a lot of expensive infrastructure on site and off site that goes into serving such a large project. And so all of it, just as a whole, has to be planned out pretty well.
Now, the cost of the construction associated with the residential and the infrastructure will come along with that residential, and so that is planned out, but that is -- part of the evaluation, as Nate was just mentioning, is they're looking at the -- the threshold of kind of what will work here to think about the total costs of everything that can come in and the total density that could be -- benefit from and serve that -- all those costs. So it's a -- it's a complete balance.
There are a lot of up-front costs that will just happen, that will be expensive, and -- and

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that's part of why we're asking for the -- the density that we're asking for. So we do have an expectation that we'll be able to build the project. That's -- that's part of the investment risk -- right? --

COUNCILWOMAN SALMONSEN: Mm-hmm.

DEBORAH NELSON: -- of doing things like the Can Ada and 44 intersection. That's a big investment. It is an expectation of being able to forward with further development.

COUNCILWOMAN SALMONSEN: And so if the density is reduced -- or is that even an option, to reduce the density and have this project with the golf course work?

DEBORAH NELSON: Not below what we're offering here.

COUNCILWOMAN SALMONSEN: Okay.

DEBORAH NELSON: I'll let Nate jump into that if he wants to add more.

NATE MITCHELL: Yeah. No. And I understand the -- the struggle with the density. I -- I mean, we're at -- at 1,000 units on 726 acres. I think we're 1.3 units to the acre.

UNIDENTIFIED SPEAKER: 1.38.

NATE MITCHELL: It -- it simply comes down to the math of -- of -- okay. So we just -- we just

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offered 94 lots -- not a huge number -- 8.6 percent of the overall density, something like that. We're working a -- a fiscal analysis on this, so if -- if -- let's -- let's call it an average lot-sales price, a gross revenue, not the cost of it, not what we make in profit, but a gross sales price. Let's average $200,000 a lot up there. 94 lots times 200,000 bucks is $18,800,000.

So we're taking that revenue off the table to do -- balance our cost -- balance our off-site costs; right? So we still have to do the intersection. We still have to fix Can Ada. We still have to build Aerie Way. We still have to bring the reuse water up. We've still got to do everything we still have to do, and now I've got 18-and-a-half million dollars less to do it with.

So we're basically -- that's where we came up with the magic number of 1,000. We can still make a profit at that number. When we start going below that number, we get to the point where it just doesn't make sense to take the risk --

COUNCILWOMAN SALMONSEN: Yeah.

NATE MITCHELL: -- right? And those are -- I -- I mean, the -- the numbers we're throwing around with densities and things, they all seem like

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pretty small numbers, but when you get into the actual revenue produced by that, it's -- it's a significant financial impact; right? We've -- we -- I could do it a lot better at 1,000. If you give me the 1,094 units -- let me go to 1,094, and I can do that much more off-site costs. There's another $18 million I've got to spend to make the same profit I can make at 1,000 units.

COUNCILWOMAN SALMONSEN: Yeah. All right. Thank you.

And I'll ask another question kind of along the same lines. So about the school. I think West Ada -- their response was, "The project would add like 1,000" -- and I can't remember -- "a little over 1,000 students."

And I appreciate the offer to donate the land, but we have a real struggle with getting the school built. And, you know, I -- I see the -- you know, like you are investing a lot of money into this project. It's a big risk of -- and -- but there's no guarantee that a school will be built. And so I'm having a hard time, you know, without any sort of investment made into the actual school -- school building.

So I -- I guess that's not really a

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question and more of a statement, but I will just --

DEBORAH NELSON: Mayor.

COUNCILWOMAN SALMONSEN: If you want to respond to that...

DEBORAH NELSON: Yeah. If I could, I -- I will.

Yes, I mean, the -- the way schools are funded and facilities are funded here in West Ada, you know, they're always having to go out for bonds. But the -- the reason that system generally works, is it allows the property taxes that are paid towards facilities to be time-limited; right? So for the life of that facility, when it's needed, there's taxes that go to pay for it, rather than general-fund property taxes going to it forever. That piece gets paid for. It moves on. That's why they do bonds the way they do.

And so there is always a risk because they have to go out. Under State law, they have to go out for an election, and when they fail, they come back again, and they restructure it, and they ask again because West Ada School District and every other school district plans their facilities out to meet growth, to meet children's educational needs, as it happens. They don't build empty school buildings in advance; right?

So they have to respond. So they have a

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plan. They've got sites already ready. We've offered another one if they need it, but they've already got sites planned. They'll go out for another bond, and they'll do that.

This property, this project, will contribute tax dollars like anybody else who's developing in Star; right? And -- and based on the average value of the homes that we expect in this development, even at 1,000 units, we expect that to be over a million dollars, based on current levy rates, contributed to the school district every year.

So that's the annual property tax associated with an average $800,000 home for 1,000 units, based on their current levy. So that's -- I mean, so there is money going to the school district to cover our kids' costs.

And -- but -- but it's an issue for any development; right? I mean, you have people that want to live in Star. They're going to move to Star wherever they can get a home. If it's not here, if this project isn't a place where they're going to live, they're going to live somewhere else, and the same issues will be happening.

This one adds two benefits, I guess, I would just ask you to consider with schools. One, it

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has a higher-average-value home that's planned than in your average homes in -- in Star, and so the amount of property tax contributed on average is higher, and yet the impacts to the school are the same for -- per -- per household. And the second one is that, likely, we will have fewer kids because this is a golf community, and so the expectation is there will be fewer kids than the average number.

So it's an issue wherever you've got residential development, but those are some special considerations here.

COUNCILWOMAN SALMONSEN: Thank you. I appreciate that.

But I did think that, you know, those -- the West Ada taxes that we pay from our property tax, that goes more towards like ongoing maintenance, not towards building the school; is that correct?

DEBORAH NELSON: Mayor, Council Member -- oh, go ahead.

MAYOR CHADWICK: [Unintelligible]. Go ahead. You can explain it.

DEBORAH NELSON: So the money goes to the school district, and then, because they want -- they -- and often need, for their budgeting

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reasons, additional money for facilities, they can go out to bond for the additional property taxes to be levied for the facilities.

COUNCILWOMAN SALMONSEN: Right. And that's what we've seen in the past. I -- I don't know if any school has -- I -- I -- I've been here for a while.

Yeah, anyway. Maybe someone else knows if a school has been built with funds that West Ada already had, and they --

MAYOR CHADWICK: No.

COUNCILWOMAN SALMONSEN: -- didn't have to go out to a bond.

MAYOR CHADWICK: Everything's been built with a bond.

DEBORAH NELSON: That's the way they finance them, exactly.

MAYOR CHADWICK: Yeah.

DEBORAH NELSON: Charter schools, for example, don't get --

COUNCILWOMAN SALMONSEN: Right. Private.

DEBORAH NELSON: -- that opportunity, so they have to use their -- the same amount of per-student cash they get from the State general fund for education on both, but school districts that are not charter schools have the opportunity to go out for bond financing for

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facilities, and so that's what they do.

COUNCILWOMAN SALMONSEN: Yeah. That's all for now.

MAYOR CHADWICK: Okay.

COUNCILWOMAN SALMONSEN: Thank you.

MAYOR CHADWICK: Councilman Wheelock.

COUNCILMAN WHEELOCK: Yeah. I have some questions regarding Aerie Way and some of the roadway issues that have been brought up.

On -- on Can Ada, they -- you talked a lot about the -- the light at State and -- and Can Ada Road and -- and that funding. Is there any plan for you to help with Can Ada at the hill, where it hits into New Hope? Has that been discussed?

Because that's a hill that -- if you're going to bring all the construction trucks from this project down that road because Aerie's not open and Deep Canyon isn't an option that I'm aware of, then it's all coming down Can Ada Road or Purple Sage.

DEBORAH NELSON: Mayor and Council Member, at this point, we are just looking at the intersection improvements. Of course we understand that Can Ada is on the list of projects that have been identified for off-site mitigation beyond the golf course. The golf course trips alone and -- and understand the

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construction point you're making too -- wouldn't trigger those -- that need, but practically, I understand your point.
COUNCILMAN WHEELOCK: Let -- let me -- let me come back to January 25th of 2022, and -- and I'm going to put Nate on the -- on the hot seat for a second. And it says -- and this is from that meeting of -- that we had --
MAYOR CHADWICK: It was our workshop. The workshop, yeah.
NATE MITCHELL: It's the workshop with the traffic agencies.
COUNCILMAN WHEELOCK: Call it what you will. It was about this same development.
So Willowbrook is asking for some land-use entitlements, but the developers want to make sure they are restricted properly in a development agreement to ensure the transportation authorities have the leverage they need over the development process to ensure various phases build out, that the proper improvements are made to support what the Highway Districts and City need. And if we're saying, "We may need something on Can Ada and Hill Road," what does that -- what does that answer from you look like?
NATE MITCHELL: The same as it did in January

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of 2022. If we need to improve something at the intersection of -- of New Hope, Foothill, Can Ada for temporary construction access, I -- I -- so -- so here's -- here's where I'm at.
We -- not knowing what you want -- not knowing -- what -- what do you want me to do to the intersection? If you want me to make it five lanes each direction and you want a signal there, I'm probably not going to agree to that tonight.
If we want some -- some improvements to widen so that -- so that -- but we had a -- a -- a box van with a trailer pull off into the ditch on the -- the southeast corner the other night, scraped stuff up for a little while. I -- we can widen those corners. We can make more room at that intersection.
The real improvement, in our mind, that needs to be made to Can Ada -- the hill needs to -- the -- the -- the grade needs to be shallower. It needs to be less --
COUNCILMAN WHEELOCK: Maybe that's -- maybe that's what I'm talking about.
NATE MITCHELL: Okay. Which -- so we will participate in our proportionate share for that. I'm happy to -- same as we're doing at Can Ada and the intersection. We're happy to look at fronting some of

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those costs.
I'm not going to -- I -- the problem you're going to run into is -- I don't want to be in a spot where you want me to go build something and hold development up. Canyon Highway District Number No. 4 doesn't have the right-of-away for me to do it, and you'd put me in a spot where I've got to go negotiate with the neighbor, who thinks my -- his ground's worth a million dollars a square foot; right? So it's got to be a -- a group effort.
We can -- we can look at restricting construction traffic to wherever we want to do it. I -- I don't -- one of the benefits, I -- I think, actually, of as large a project as this is like we've got a grading plan, construction drawings for the golf course. So I've got to move big equipment in there once. They're going to spend a lot of time on site, moving dirt around. I end up with an extra 500,000 yards of material on site, so I'm not bringing anything to the site.
I don't have to have -- I don't have to have gravel trucks, one after the other, in 10-minute intervals, bringing gravel from Emmett or from -- from Parma or from somewhere -- you -- you guys see the trucks all day, every day on the -- the roads. We're

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moving tons and tons and tons and tons of gravel around the Valley.
This project actually has enough area, where we produce a lot of that material on site and end up with enough excess after the golf course to go build lot pads, to build some roads, to build some stuff like that. So we're not importing things until Aerie Way's built; right?
Like so -- so -- I -- I -- I -- if I had a specific improvement -- like you asked -- you asked to build a -- a signalized intersection at 44 and -- and Can Ada. We know what that looks like because an engineer's drawn it. We don't know what it looks like for Foothill up over the hill to Can Ada. We just don't know what it looks like.
There's a plat going on right now on Tommy Foster's [phonetic] property to the west of Can Ada, all the way up. I've been working with Highway -- or I've been plugging in Highway District 4 to fix part of that problem in that plat because we can use the draw in that grade that you can't build houses in anyway to build a lot shallower road, the same thing we're doing on Kingsbury to the west. We've engineered that ourselves. It -- it just has to be a little bit more specific of a -- a request of what we're looking at.

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MAYOR CHADWICK: So I just want to -- can I just follow-up real quick on here.
So I just want to go to the Canyon Highway District 4's comments on this. On No. 4 they do specifically say, "The existing alignment and grade of Can Ada Road between New Hope and Lanktree Gulch is not suitable for increases in development traffic, including construction haul trucks. CHD4 recommends this segment be improved coincident with development of the site. CHD4 has developed a concept for re-alignment and regrading" -- "portions of this segment that may be useful to the developer."
And so that -- that information is there. So if we're getting specific, I mean, that's --
NATE MITCHELL: Yeah, that's fine.
MAYOR CHADWICK: Great. That's --
NATE MITCHELL: I --
MAYOR CHADWICK: That's the specificity, I think, that --
NATE MITCHELL: I --
MAYOR CHADWICK: -- we're looking for because that -- that 8-percent grade's not feasible for, really, anybody to actually live there right now.
NATE MITCHELL: If it was 8-percent grade, it'd be reasonable. There's parts of that that are --

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MAYOR CHADWICK: Right.
NATE MITCHELL: -- 23 percent.
I -- so -- so I would offer two things. I -- I -- I would obviously participate. They're showing us that 34 percent of that -- our traffic at 34 percent of that improvement, that's a condition we have to comply with.
I don't want to jump out and say -- I haven't seen the engineered drawings or the concept alignment plans -- that we would build the whole thing up front, but let's figure out how to restrict our construction traffic, otherwise, if we -- if we don't go build it up front. We can't use Can Ada.
MAYOR CHADWICK: Okay.
COUNCILMAN WHEELOCK: Okay.
MAYOR CHADWICK: Got your question answered?
COUNCILMAN WHEELOCK: As good as I'm going to get it, I would bet.
MAYOR CHADWICK: Okay. You got more questions?
COUNCILMAN HERSHEY: I've got a follow-up to that.
MAYOR CHADWICK: Okay.
COUNCILMAN HERSHEY: You -- you mentioned the -- pay your fair share. You're talking about the

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ITT [sic] proportionate share? You're amenable to that?
NATE MITCHELL: Sorry. Can you restate that.
COUNCILMAN HERSHEY: The ITT --
NATE MITCHELL: ITD proportionate share?
COUNCILMAN HERSHEY: Yes. Thank you.
NATE MITCHELL: Do I have a choice?
COUNCILMAN HERSHEY: No. I'm just making sure.
NATE MITCHELL: Okay. Okay.
COUNCILMAN HERSHEY: And also, one other mitigation fee is our Star police and fire -- is that -- that is --
NATE MITCHELL: I -- if they're fees you've adopted by ordinance, we're going to pay them.
COUNCILMAN HERSHEY: Okay. Just making sure --
NATE MITCHELL: Yeah.
COUNCILMAN HERSHEY: -- because that one is new.
NATE MITCHELL: Yeah.
MAYOR CHADWICK: And -- and we're going to build them into the Development Agreement so they're part of the development forever. I'm -- I'm just -- I'm just going to tell you that too. I mean --
NATE MITCHELL: So --

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MAYOR CHADWICK: -- any fees that we come up with --
NATE MITCHELL: So I -- no. So I'm going to -- I -- the only thing -- the only caution I'm going to say on that is we're fine building them into the Development Agreement because I don't think they're going to get cheaper in the future.
MAYOR CHADWICK: No.
NATE MITCHELL: So when you build them into my development agreement, they're going to be built in. And when you raise your fees 500 bucks for the police mitigation fee, I'm going to look at my development agreement and tell you that's what I'm going to pay --
MAYOR CHADWICK: Right.
NATE MITCHELL: -- is what we put in the Development Agreement.
MAYOR CHADWICK: Or we can figure out a rate of increase for the next 25 years.
NATE MITCHELL: Or we could set them; right?
It -- it -- I -- it's -- it's appropriate to build them into the Development Agreement. It's also appropriate to -- to put language in there that determines those fees at the time of our building permit, not at the time of this application.
If you're charging a greater fee 10 years

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from now, you need us to pay the greater fee. If you're charging a lesser fee, we need to pay the lesser fee. We don't need to set a number on that fee today and say, "We're going to pay $1,286 a house in police mitigation," when, 10 years down the road, you're going to be charging three times that.

MAYOR CHADWICK: Okay. And we can -- we can set it up to where it says that -- that --

COUNCILWOMAN SALMONSEN: That time.

MAYOR CHADWICK: -- the -- the -- the cost of the fees at the time of -- whatever.

Do -- do you have more questions?

DEBORAH NELSON: And -- and, Mayor, I'll just note quickly -- that's what the statute requires to -- the amount that's in place at the time the building permit -- currently, it's even at 1,000 -- 1,000 units. It's still close to 10 million in fees with all of those that are listed in the staff report.

COUNCILWOMAN SALMONSEN: Mayor Chadwick.

MAYOR CHADWICK: Councilwoman.

COUNCILWOMAN SALMONSEN: Back to the last question about Can Ada and using that road for construction. So if I understood correctly -- and CHD4 says, "No, you can't use it for construction." What

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road would you use?

DEBORAH NELSON: Mr. Mayor, Council Member, Canyon County Highway District hasn't restricted that from use for construction. So they do describe in their comment letter that there is -- improvements that will be needed in the development share of Can Ada improvements is 34 percent. They talk about -- that they've developed a concept for realignment and regrading for portions of that road.

So they've -- are moving forward with some pieces of it and plans that there -- it sounds like they're willing to share, but they're -- they're not saying that no construction can take place on that road now.

MAYOR CHADWICK: Well, okay. But I read it differently, based on what this is saying from them, the six conditions.

On Condition 4, it says, "The existing alignment and grade of Can Ada Road between New Hope and Lanktree" -- "is not suitable for increases in development traffic, including construction haul trucks. CHD4 recommends this segment be improved coincident with development of the site. CHD4 has developed" -- "has developed a concept for re-alignment and regard" -- "and regrading" -- "portions of this segment that may be

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useful to the developer."

So they are saying that no construction traffic can go up this road unless it's improved. Do you see what I'm saying? I mean, so that question she's asking, I think, is very valid. How in the world are you getting stuff in there if you can't use Deep Canyon, New Hope, Lanktree Gulch? How are you getting stuff in there?

DEBORAH NELSON: And -- and, Mayor, Council Member, that's a -- that's a fair comment. I don't know the alternative, and so, you know, I'd welcome others to jump in with that.

The current -- the current access, though, the -- there is legal access on this road; right? I mean, everybody is using this road now. And the -- the way that I understood Canyon County Highway District's comments to the developer is that we need to contribute our fair share of this. So they're asking to -- us to provide this 34 percent.

Now, obviously, as Nate said, we need to be working with them to see what the opportunities are for what their plans show. We don't know what they show or what their progress is on those.

I don't know if you've got alternatives to add that.

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MAYOR CHADWICK: Okay. Did you want to follow-up on that, Mr. Nate?

NATE MITCHELL: No. I -- I guess -- well, the -- the -- obviously, knowing the area, the only other alternative if you can't use Can Ada and you can't use Deep Canyon -- both public roads that have existing capacity on them that, legally, anybody can drive on -- you're sending everything down Purple Sage.

One of the things -- I guess the only thing I'd point out in our concerns about a specific traffic -- traffic problem in one spot versus another -- you cut me off at Deep Canyon. You cut me off at New Hope. You cut me off at Can Ada. All you're doing is putting all of the pressure onto one access point. You're creating a bigger problem in front of somebody else's house to make somebody else over here have less traffic in front of their house.

I -- I don't know that we can -- if -- if a road's got capacity, I don't think we can legally -- I -- I can't tell somebody they can't drive down that road. It's a public road that we all pay for.

Very sensitive to the construction traffic. Very happy to produce a construction-traffic plan, when we get to building, that's suitable for -- for the City, suitable for the neighbors. I

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can't -- I can't not tell somebody there's not going to be a gravel truck going past in front of their house.
Let's make it as safe as we can, but if we choke everything to Purple Sage -- right? -- I -- I -- I don't even care about truck time. I don't care about cost associated with that. We're going to get there one way or another. So everybody goes up Highway 16, turns left on Chaparral, comes back around, down Purple Sage.
MAYOR CHADWICK: Well, and I --
NATE MITCHELL: [Unintelligible].
MAYOR CHADWICK: And I think that's all to be discussed with the traffic agency, in reality, because they're the ones that are creating these conditions.
NATE MITCHELL: For sure.
MAYOR CHADWICK: We don't create those conditions on there. So...
NATE MITCHELL: No. And -- and -- and we're happy to comply with -- I -- I mean, we understand the proportionate share -- our proportionate share that the TIS put out. We have no choice but to comply with those; right?
Like Councilman Hershey asked, am -- am I okay with the ITD proportionate share? I don't like them. I think they're pretty big numbers, but I don't have a choice. And I'm not going to have a choice with

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Canyon Highway District No. 4, and I'm not going to have a choice with Ada County Highway District. They -- they say it; we do it, or we don't do what we're asking for.
MAYOR CHADWICK: So it is -- so just -- okay. I'm going to bring this up now then.
So it is very possible, even with the 1,000s approved units that you had -- that you're asking for today, that you're not -- may not ever get to the 1,000 units, based on what these conditions from these traffic agencies say; correct?
NATE MITCHELL: The current conditions from the traffic agencies -- I can build those 1,000 units. I can fit those 1,000 units on the ground.
MAYOR CHADWICK: With all these conditions of -- all these intersections and --
NATE MITCHELL: I have --
MAYOR CHADWICK: -- roadways to be improved?
NATE MITCHELL: Yes, I have -- that's -- that's where -- when we talk about density levels, when we talk about acceptable housing units, I'm -- I'm doing math every day, trying to figure out if, at the end of the day --
MAYOR CHADWICK: Right.
NATE MITCHELL: -- we're a nonprofit or a profit. And now, at this point, yeah, the 1,000

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units -- we think we can comply with the mitigation that our TIS has pointed out.
MAYOR CHADWICK: All right. Okay.
COUNCILMAN WHEELOCK: Mr. Mayor.
MAYOR CHADWICK: Councilman.
COUNCILMAN WHEELOCK: So I have another question with Aerie Way, and this has more to do with the BLM side of that.
Currently, there is -- if we go back to the work -- workshops that we did, it shows you having ownership of land all the way across Deep Canyon that -- that has access to the BLM.
NATE MITCHELL: We have an access point to the BLM that we own, yes.
COUNCILMAN WHEELOCK: Yes. Then, currently, it's got railroad ties and has restricted its access. Is that something you'd be willing to open back up so that pickups could reuse the roads that had been used traditionally?
NATE MITCHELL: I --
COUNCILMAN WHEELOCK: And would you provide access along Aerie Way to the BLM? Is that part -- if you could make that part of your application --
NATE MITCHELL: Yeah. So --
COUNCILMAN WHEELOCK: -- to the BLM?

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NATE MITCHELL: So, with BLM, we're -- we're talking about building some -- some parking areas, trailheads, making sure connectivity to whatever trails exist still exist.
As far as the railroad ties and the restriction point on our property, I -- I would actually tell you that -- that those -- we put the -- those railroad ties up and the no-trespassing signs up at the request of the Hillsdale -- Hillsdale Homeowners Association. We didn't have them there until we were asked to have them there. I -- I'll take them out tomorrow.
I don't think that's going to make the Hillsdale area happy with -- they -- they -- there was a negotiation that took place six or seven -- eight years ago, I think, that they asked us to restrict the trespassing because traffic was coming both directions; right? They've got their equestrian center right there, and we were having problems with --
COUNCILMAN WHEELOCK: I'm farther up the -- towards Can Ada more, there's another place that has railroad ties that are cutting it off. It's west of that inner -- of the corrals up on the top of the hill.
NATE MITCHELL: I'm not familiar with it. I -- I can take a look at it, for sure. I don't think

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we're trying to restrict access. I -- I mean, a lot of that ground's not suitable for anything other than foot traffic anyway, but --

COUNCILMAN WHEELOCK: Thank you.

MAYOR CHADWICK: Okay. I'm -- I just -- I want to go through some notes that I put together, some conditions of approval for the Development Agreement if the Council chooses to approve this. I want to make sure that these things are included.

So are you -- you ready?

Is Council ready for what I'm about to say on here?

With the golf course and associated facility amenities -- would be approved, including the clubhouse and accessory structures, restaurant, bar, and driving range, and of course, the driving range and whatnot would have hours of operation of dusk to day -- daylight -- or dawn to dusk -- right? -- on that.

Prior to approval of any additional commercial uses, the applicant shall submit and receive a preliminary -- or an approval of a planned unit development or preliminary plat. This approval shall be part of a new public hearing through the City Council on any of the other commercial aspects up there if they

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choose to do that.

The golf course shall be hooked onto the Star Sewer & Water District to reclaim water for application to the course within five years of the completion of the course because -- I don't think you're intending to hook that up right away; correct?

NATE MITCHELL: Correct. I think we intend to start up with our existing water right.

MAYOR CHADWICK: Water right.

So -- but within five years of the completion of that course, we need to have that hooked up to the Star Sewer & Water's reclamation project because -- so -- with -- with the concerns about water and stuff, to me, the reclamation water going up on that area helps with aquifer issues in the future.

So let me just read them all, and you can write down your notes and stuff on there, I guess.

All golf-course details shall receive further review and approval through a Design Review Committee. The architects for the clubhouse and restaurant shall meet current City design review standards.

The applicant shall provide a minimum of a 10-acre, public-school site and a future fire station site -- site within the development. The applicant

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shall work with the Star Fire District on the location of that station. The fire station and school site shall be deeded to the appropriate agency with the first phase of the residential development. Far too often we have guys waiting until the end to deed these sites, so we want to get that done right away.

This development shall meet all the requirements of the Star Fire District and Star Sewer & Water District.

We need to also adopt all recommended conditions of approval from ITD, ACHD, and CHD4, including, but not limited to, the following: an access connection of the development of -- to Aerie Way and Highway 16 prior to the first residential building permit issued; improvements to Can Ada Road, like we have been discussing tonight; no direct connections to Lanktree -- Lanktree Gulch Road and Deep Canyon; have an updated TIS with every phase of this project within the preliminary plat; and we would like to see a -- a phase schedule put in there with the preliminary plat; and any additional off-site improvements, per the agencies' request.

Based on what we discussed tonight, we have a maximum density of 1.38 units per acre with 1,000 number of lots, as -- as approved, if this gets annexed.

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I also have the -- I know we've -- we're going to go back and forth probably more, but a half-acre-to-one-acre-minimum-required lot size adjacent to all existing residential lots, an agreement from you to pay all the proportionate shares and mitigation fees in place at the time of recordation of the DA to include the following: any ITD proportionate shares will be based on final-plat phasing, and those costs will be determined in the future, like we discussed.

The Star fire mitigation fees of 1,200 per lot can be -- is going to probably change at the time of the building permit, so that's not something you pay up front. It's at the time of the building permit, along with Star police mitigation fees.

The Development Agreement will be revisited during the preliminary plat and planned unit development in order to update or add any new conditions of approval that may be required by the City Council at the time or other reviewing agencies.

And Wing Road will not be connected to the development from Beacon Light Road because, in our opinion, that's a hazard and a safety concern.

And a traffic signal light at Highway 44 and Can Ada Road shall be constructed by the applicant -- applicant, as we discussed tonight.

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And any latecomer's agreements shall be entered in between the applicant and the City for future reimbursement with that.

So those are items that I've had with -- going through this project on here. So I want to -- if you want to address any of those or if you have any concerns with them, we can talk about them now, but I -- I would encourage the Council to include all of those if they choose to approve this tonight.

NATE MITCHELL: Yeah. So the -- I guess the first one we'll address -- your -- your condition about connecting to the Star Sewer & Water District reclaimed water within five years of completion of the golf course. I -- my only -- I -- my only hesitation is that -- is the Star Sewer & Water District has to be ready. And if they're not ready, I still have a legal water right that I can use.

MAYOR CHADWICK: So if -- if we adjust that to indicate at -- within five years --

NATE MITCHELL: I -- I guess the way I would -- I -- I would simply state it is that we will take their reclaimed water as soon as it's available.

MAYOR CHADWICK: Well, as soon as Star Sewer & Water is ready for the hookup for that --

NATE MITCHELL: Yes.

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MAYOR CHADWICK: -- you'll have that in place?

NATE MITCHELL: Yeah.

MAYOR CHADWICK: Okay.

NATE MITCHELL: We want to use that water. We think it's great for the City. We think it's --

MAYOR CHADWICK: Sure.

NATE MITCHELL: I -- I think it's great for the [unintelligible] at Star Sewer & Water District. I -- I don't see us having any reason to delay in using that water. We've just got to make sure that DAQ and -- and the EPA say that water's ready to be put on that ground and safe for everybody to have it applied directly to the ground.

COUNCILMAN WHEELOCK: What does -- what does that line look like as far as size? Do you have any projections of that?

NATE MITCHELL: As far as pipe --

COUNCILMAN WHEELOCK: Yeah.

NATE MITCHELL: -- size?

COUNCILMAN WHEELOCK: Yeah.

NATE MITCHELL: Hank [phonetic] and I have discussed it a little bit -- probably a -- a -- either a 12 or a 14-inch line -- but I -- maybe, Ryan, you can --

MAYOR CHADWICK: Is Ryan Morgan down here?

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NATE MITCHELL: He is.

MAYOR CHADWICK: Oh, I can't see him.

RYAN MORGAN: I'm --

MAYOR CHADWICK: [Unintelligible] --

RYAN MORGAN: I'm sitting right here, Mr. Mayor.

MAYOR CHADWICK: -- Ryan, please, and what you do.

RYAN MORGAN: Hello, Mr. Mayor. Over here. Other way.

MAYOR CHADWICK: I -- I hear you over there, yeah. I see you.

COUNCILMAN HERSHEY: Where is he?

COUNCILMAN WHEELOCK: [Unintelligible].

RYAN MORGAN: I would not go with 14. I would say a 12 or a 15-inch line. 14-inch pipe is very hard to come by these days. But, yes, a 12-or-15-inch line is what we anticipate that being.

MAYOR CHADWICK: Did you hear that?

COUNCILMAN WHEELOCK: 12-or-15-inch something.

MAYOR CHADWICK: 12-to-15-inch line?

NATE MITCHELL: Yes. Yeah.

COUNCILMAN WHEELOCK: My -- my question is -- we -- we talked in the -- in the workshops about putting all that stuff up in the original -- open the

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trench one time, limiting the amount of road construction -- that we have to reopen the road over and over and over. Can that be put in as we go up the hill with all the other amenities?

NATE MITCHELL: Yes. So -- so the driver on that is -- I'm going to come up over the hill with the pressurized sewer line. I'm going to send our waste water to their treatment plant. I've got to get it there. At the same time we do that, we'll get it back; right?

While we're running our pressure waste line down, we'll bring the -- the reclaimed water line with it so that we're not tearing up Can Ada Road or whatever route we take --

MAYOR CHADWICK: So you'll --

NATE MITCHELL: -- more than once.

MAYOR CHADWICK: -- have a dry line for a while, basically; right?

NATE MITCHELL: Pardon?

MAYOR CHADWICK: It'll be a dry line --

NATE MITCHELL: Yes.

MAYOR CHADWICK: -- for a while?

NATE MITCHELL: Yeah. But we've already got portions of that. I mean, the Sewer & Water District already have portions of that pipe in place across the

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front of Pinewood Lakes and sleeved in different roads. We've got dry lines that exist that we have to go tie to.
COUNCILMAN WHEELOCK: It just -- if we can eliminate opening up the road one more time --
NATE MITCHELL: True, yeah.
COUNCILMAN WHEELOCK: -- the whole world would be happier.
NATE MITCHELL: Councilman, we like completely agree with you and understand from our standpoint. I -- we'd rather do it over the first time. It costs us less money. Every time we tear that road up to put our infrastructure in, we've got to pay to rebuild the road. We're not going to do it more than we have to.
MAYOR CHADWICK: Okay.
DEBORAH NELSON: Mr. Mayor.
MAYOR CHADWICK: Yes, ma'am.
DEBORAH NELSON: Can we offer additional comments --
MAYOR CHADWICK: Yep.
DEBORAH NELSON: -- questions on your list?
On the school site, I -- you know, that would just be -- we can't force a school district to accept, so it does need to fit into their plans.
And then --

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MAYOR CHADWICK: But we are -- but we are going to provide a 10-acre site on the plat for them; correct?
DEBORAH NELSON: A 10-acre site is what the -- we -- and we've offered a condition of approval --
MAYOR CHADWICK: Yeah. Okay.
DEBORAH NELSON: -- to that effect as well.
MAYOR CHADWICK: All right.
DEBORAH NELSON: On the transition, your language for -- it was for a half-acre to one-acre minimum. We have one section, as shown here, that is accommodated by a landscape-buffer strip, which is also allowed under your Code as a transition.
MAYOR CHADWICK: Oh, the -- the 100-foot buffer strip --
DEBORAH NELSON: Mm-hmm.
MAYOR CHADWICK: -- along the --
DEBORAH NELSON: And so we have a -- those three, and we would accept the plan being put into the DA to show where things have to be half-acre, where they have to be one-acre, and where the buffer strip is.
And then no connection on Wing Road. I mean, as we talked about --
NATE MITCHELL: So --

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DEBORAH NELSON: Do you want to jump in on that?
NATE MITCHELL: Yeah, let me -- talking about no connection to Wing Road, no connection to Lanktree Gulch -- our plan shows connections to Lanktree Gulch. I -- I'm uncomfortable restricting connectivity without the Highway District's approval to restrict that connectivity. I do think we've got a Highway District liaison here that could speak to the policy for ACHD.
I just -- I -- I guess the way I would like to word that -- or the way I would like to go about that is, "If ACHD tells me not to connect it, we won't connect it." If they tell me to connect it, I don't want to be stuck between you and them.
MAYOR CHADWICK: Well, I'm going to just say this, and I'm going to put this on the record, and it's going to cause a fight with ACHD. I'm just going to tell you that right now.
You have a Commissioner with ACHD that continues to yell at the City of Star for improvements and these road closures, and they continue to say that we do have -- he does -- that we do have the right to do this stuff. So I'm going to put my money where my mouth is, and I'm going to put it on there and tell ACHD that we're not going to accept a Wing Road connection; right?

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I mean, it's as simple as that.
So -- but, guys, please. Hey. None of that, please. We're not doing any of that in here. It's just -- it's the most frustrating --
NATE MITCHELL: I --
MAYOR CHADWICK: -- thing, that we're dealing with all these traffic issues in the City of Star, but we can't get the -- the simple impact fees that you all pay on all these houses to come back to the City of Star. We're, right now, trying to work on that and get that done, but it's -- it's a frustrating point -- point. So I'm -- I would prefer just to put it in the Development Agreement and let them know we're not making that connection. Simple as that, for me.
UNIDENTIFIED SPEAKER: It's in there now.
MAYOR CHADWICK: I don't know what you're going to say to that, Nate, but -- but that's --
NATE MITCHELL: Well, I -- I --
MAYOR CHADWICK: -- that's just my --
NATE MITCHELL: I --
MAYOR CHADWICK: -- my frustration on that.
NATE MITCHELL: I guess I -- I understand -- I -- I understand your frustration with -- with different commissioners and different boards and everybody that you guys have to deal with in

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the transportation world. I -- I understand this is -- we've got -- we've got ITD, we've got ACHD, we've got CHD4, we've got COMPASS that we're all --
MAYOR CHADWICK: Right.
NATE MITCHELL: -- trying to coordinate on a project of this size. I -- I totally understand the frustration. I've sat there long enough to understand --
MAYOR CHADWICK: Yep.
NATE MITCHELL: -- what you're dealing with.
I -- I guess I'm hesitant to agree to conditions that current -- that currently would be in direct conflict with ACHD's policy because I'm going to end up in a situation where I'm trying to plat a final plat somewhere, and I've got ACHD telling me -- so -- so what ACHD does have is plat-signing authority; right? And -- and if you -- if you tell me to send a Mylar to them with a road that doesn't connect where it should connect, they're not going to sign it for me.
MAYOR CHADWICK: But they -- but they also tell us that we can put these things in development agreements and that they would follow those. So, again, I'd like to throw this back at them and say, "This is what we're choosing."
Now, Aerie Way. If Aerie Way gets built,

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all that traffic is going to be funneled out Aerie Way, and we don't have an issue; right? Wing Road is not necessary at that point.
NATE MITCHELL: Wing Road's another option to disperse traffic. We're not looking for Wing Road to be a major collector road. We're looking for another option, just like every other option in your town, for people to have a choice to drive somewhere else.
MAYOR CHADWICK: The unfortunate part, though, is -- just in the -- in the realistic world, if you build that road, that's where they're going to go. That's the easiest -- that's going to be the route straight down the center, along -- along a road, and onto Beacon Light. That's not safe. It's that -- that corner's not safe.
If -- if they really wanted this in their Functional Classification map, in my opinion, they would have never designed that road to connect onto the corner of Beacon Light, where you're coming around each direction. You're not going to see it. I think we're just setting people up in the future for failure and potential deaths by doing that.
I -- I would rather just say that we're not doing it, and we're going to force everything out Aerie Way or the improvements that you make on Can-Ada,

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on the other side, or another direction if we can find that. I just --
NATE MITCHELL: Sure.
MAYOR CHADWICK: It's just not -- to me, I -- I know what we want to try to do, and we'll try to utilize that. But when I -- I see that, I drive it, I see the near accidents that happen on that corner --
NATE MITCHELL: Well, I -- I --
MAYOR CHADWICK: -- with the current folks that live there, which blows me away; right? So I don't want to add to that problem.
COUNCILMAN HERSHEY: Yeah, Mr. Mayor. If I can add one thing...
MAYOR CHADWICK: Councilman Hershey.
COUNCILMAN HERSHEY: Now, one thing I've learned is temporary becomes permanent, and that's one thing I've been worrying about the whole time with this, is using something temporarily --
NATE MITCHELL: I --
COUNCILMAN HERSHEY: It becomes permanent.
NATE MITCHELL: Yeah. Let's be clear. I'm not -- we're not suggesting a temporary Wing Road connection. In our vision, it's been a -- if -- if -- if it's going to get built, it's going to be a road. It -- it's -- it -- it is permanent.

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We're not suggesting any kind of temporary construction access or any of that kind of stuff with that. It's just another connection to disperse traffic.
If you condition us to not connect, we'll -- we'll sort out the weeds with the Highway District when we get to that point.
MAYOR CHADWICK: Yeah. And I just don't know how Wing Road connecting there doesn't prevent people from going onto Lanktree Gulch and those other areas because you have to run right through that to get to most of your development; right?
I mean, I -- I just -- I look at that as a -- as a problematic approach to try to alleviate the traffic concerns that has been brought up by all these folks on Lanktree Gulch and -- and Deep Canyon. So...
NATE MITCHELL: We'll have to work -- so, yeah. Yeah. I -- again, the other -- I -- so what are we talk -- from a land-planning standpoint, you've got -- I guess we can work with the Fire District to figure out secondary access on all those roads that are using Lanktree Gulch as secondary access. I mean, I -- it's -- it's --
MAYOR CHADWICK: And that's -- I think that's part of the challenge we have in -- in the traffic things, is their -- they continue to say, "There'll be

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no access on these roads or limited access," but every time you put a connection [unintelligible] that makes it a major access, and people are going to go up and down those roads. So how do you -- how do we make all the traffic internally flow in two different directions to get in and out?

And if you're building a fire station up inside that project, you're creating your internal connection points to that fire station that's going to service that in the future. I know it's not going to be that way initially, but in the future...

NATE MITCHELL: Yeah. I -- I guess the only way I'm going to respond to that is -- I -- I -- I can -- we -- we'll deal with -- with a lack of Wing Road connection. I -- I just think that not connecting any of that to Lanktree Gulch is -- is short-sighted from a safety standpoint.

MAYOR CHADWICK: And we can discuss -- I mean, we can discuss that, but it's going to have to come out with ACHD involvement as well, I would believe.

NATE MITCHELL: So --

MAYOR CHADWICK: And --

NATE MITCHELL: So --

MAYOR CHADWICK: -- not Wing Road --

NATE MITCHELL: Okay.

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MAYOR CHADWICK: -- but your internal stuff --

NATE MITCHELL: Yeah.

MAYOR CHADWICK: -- with -- with some of those --

NATE MITCHELL: The internal stuff just seems --

MAYOR CHADWICK: -- with some of those secondary accesses for life-safety issues; right?

NATE MITCHELL: Right.

MAYOR CHADWICK: Yeah. [Unintelligible] --

NATE MITCHELL: [Unintelligible]. I -- I -- I -- I don't think any of these guys sitting over here are going to tell me they want less connectivity in their roadways. They've got to get to --

MAYOR CHADWICK: They got to get there.

NATE MITCHELL: -- somebody having a heart attack or --

MAYOR CHADWICK: Sure.

NATE MITCHELL: -- they got to get -- they -- they want every option available to them to get there.

MAYOR CHADWICK: Right. And not just that, but if we have a catastrophic event, get people out. I

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get it; right? I understand that.

So -- okay. All right.

Go ahead, Deb [phonetic] -- sorry -- or Nate.

NATE MITCHELL: I can't read that.

MAYOR CHADWICK: She's an attorney. You can't read any attorney writing.

DEBORAH NELSON: I'm showing him my chicken scratch.

I don't think we had any other comments or questions on your list, Mayor. Thank you.

MAYOR CHADWICK: Okay. Any further questions?

COUNCILMAN NIELSEN: Mayor Chadwick.

MAYOR CHADWICK: Councilman Nielsen.

COUNCILMAN NIELSEN: Let's mix it up a little bit.

MAYOR CHADWICK: Okay.

COUNCILMAN NIELSEN: You know, there were a couple of folks that -- that brought up concerns about the -- the economic viability of the golf course. I think somebody even wanted a -- a Harvard Business review of it, and -- and we -- we don't -- weren't that way here.

But -- if the golf course isn't economically viable, what -- what would the plan

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be -- look like? And I would imagine that would be over -- over the course of a number of years, but we're -- we're putting a -- a restriction on -- over this entire property, -- you know, potentially, if -- if this is annexed -- of 1,000 units, which would make that -- that land un-developable without some significant changes.

So let -- let's -- let's say that forever that golf course -- you don't put houses on it. What does -- what does Plan B look like?

DEBORAH NELSON: Well, Mayor, Council Member, we -- we aren't proposing an alternative because that is what we plan there, and so, I mean, we -- we also presented testimony about the, you know, in -- increased interest in golf and the lack -- the in -- incredible demand, the lack of supply in the valley. So we have a different opinion about the likely success of the golf course.

But as far as just an entitlement standpoint, it will be entitled for a -- a golf course and nothing else until you allow differently. And so if at some point in the future it's not viable, we would have to come back to you. We'd have to develop that plan and come back to you, but there is no other plan for that area right now, except the golf course.

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COUNCILMAN NIELSEN: So in -- in perpetuity, it would remain a golf course. Somebody would have to maintain it, going forward.
DEBORAH NELSON: Certainly, we would have to keep it maintained to avoid being a nuisance. Anything that's not operated there would certainly have to, you know, meet that standard, and --
COUNCILMAN NIELSEN: Is -- is it property --
DEBORAH NELSON: -- and any --
COUNCILMAN NIELSEN: Is it property of the HOA at that point? Is it deeded to another organization?
DEBORAH NELSON: No. It'll be a -- a commercial operation owned by the -- the -- owned by the golf-course operator. So they -- that will be separate from the HOA so it won't burden the HOA on having to maintain that. It'll -- it's -- it's like approving a commercial enterprise; right? They -- they will have to make that viable.
COUNCILMAN NIELSEN: Yeah, okay.
Thank you.
COUNCILWOMAN SALMONSEN: So --
MAYOR CHADWICK: Councilwoman.
COUNCILWOMAN SALMONSEN: Mayor Chadwick.
So I guess, maybe, for us --
MAYOR CHADWICK: Can you talk into the

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microphone, though, for --
COUNCILWOMAN SALMONSEN: Yeah, sorry.
Or -- would it -- would you be willing to include in the condition that, -- if it fails, that the City would have like the first right of refusal to take over that property --
MAYOR CHADWICK: As open space?
COUNCILWOMAN SALMONSEN: -- or to do with it -- however we would need to handle it?
DEBORAH NELSON: Well, Nate can jump in on --
COUNCILWOMAN SALMONSEN: And hopefully that doesn't happen, but, you know, I think it has happened in other areas. And so --
COUNCILMAN NIELSEN: That -- that's a big commitment to the City.
COUNCILWOMAN SALMONSEN: I know.
DEBORAH NELSON: It --
COUNCILWOMAN SALMONSEN: It is.
DEBORAH NELSON: Exactly.
COUNCILMAN NIELSEN: That's what I was --
COUNCILWOMAN SALMONSEN: Yeah, but that's why I said "first right of refusal."
COUNCILMAN NIELSEN: Fist right of refusal.
DEBORAH NELSON: I -- I think, at that point -- and, you know, Nate, you can correct me if this

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isn't the case -- that, you know, we would -- we'd need to come back to you and ask for permission to do something different. And if that involves approaching the City to acquire the golf course, then that can certainly be on the table, but not as a -- a -- a -- the -- the only legal option the developer is allowed to consider -- the owner of the golf course is allowed to consider.
They need to be able to develop an alternative and come back to the City and ask for permission to do something different at that point.
COUNCILWOMAN SALMONSEN: Mayor Chadwick.
MAYOR CHADWICK: Councilwoman.
COUNCILWOMAN SALMONSEN: I -- I'll -- did you want to have more --
COUNCILMAN NIELSEN: No, go ahead.
COUNCILWOMAN SALMONSEN: -- questions?
So regarding the open space, can you refresh my memory. I was trying to go through my notes. What is the usable open space with these changes that --
MAYOR CHADWICK: Gosh darn it. I'm sorry.
COUNCILWOMAN SALMONSEN: -- we've made?
DEBORAH NELSON: Mayor and Council Member, so we exceed the 15 percent that's required for open space

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and the 10-percent active without the golf course.
COUNCILWOMAN SALMONSEN: Okay.
DEBORAH NELSON: And so that is still met with open space within the development, and the exact percentage -- I mean, right now the -- I think the last land plan -- it was about 18 percent, but that'll have to come in through the PUD and the preliminary plat with exactly how that shakes out. But we will meet, without the golf course, the 15 percent and 10 percent, and we will meet the 15 amenities required by your Code --
COUNCILWOMAN SALMONSEN: Okay.
DEBORAH NELSON: -- aside from the golf course.
COUNCILWOMAN SALMONSEN: And does that include -- would -- would one of those amenities be like some sort of clubhouse, pool --
DEBORAH NELSON: Residential, yes. Residential clubhouse, pocket parks, those -- those types of --
COUNCILWOMAN SALMONSEN: Okay.
DEBORAH NELSON: -- amenities. Trails, of course.
MAYOR CHADWICK: Okay.
COUNCILWOMAN SALMONSEN: Yep. Thank you.
MAYOR CHADWICK: Good.

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Councilman Nielsen, did you have further --
COUNCILMAN NIELSEN: Not at this point.
MAYOR CHADWICK: This is the time to ask the -- there's one more thing I -- I failed to put on here.
And we would run fiber-connection conduit throughout the whole development -- correct? -- as we're doing in the rest of the city --
DEBORAH NELSON: Yes. That's already in -- yes.
MAYOR CHADWICK: -- as -- as part of the conditions? Okay.
Councilman Wheelock.
COUNCILMAN WHEELOCK: Yeah, Mr. Mayor.
We're -- we're talking about approving a commercial use for the golf course. Clubhouse, restaurant, bar, and that's all in this original application; correct?
DEBORAH NELSON: Mayor.
And the golf-course operations and whatever retail is in that clubhouse. The -- the additional commercial that's out on Can-Ada would not be part of any initial golf course.
COUNCILMAN WHEELOCK: What are you proposing

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to have as the commercial entity of the golf course? I guess, what is that entailing?
NATE MITCHELL: When we -- when we talk about the retail associated with the golf course -- so we want to be able to sell a polo shirt and some golf shoes and some clubs -- type stuff. We're not talking about putting a retail mall inside of our golf course or clubhouse, but we're just talking about typical commercial uses that you see inside golf courses everywhere.
If you don't approve that use --
COUNCILMAN WHEELOCK: I -- I don't golf.
NATE MITCHELL: -- for me, then I can't --
COUNCILMAN WHEELOCK: So I don't know what that is.
NATE MITCHELL: I understand.
COUNCILMAN WHEELOCK: That's why I'm asking.
NATE MITCHELL: The -- the -- the reason we're asking it that way is if -- if you don't approve it the way we've asked, then I can't set up my pro shop with -- with some shirts and some shorts and some shoes and some golf clubs and things like that to be able to sell to the golfers; right? Somebody shows up in -- in a white T-shirt, and we say, "You have to have a colored shirt on."

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COUNCILMAN WHEELOCK: You -- you -- you answered my question when you said you didn't want to make it into a mall. That's what --
NATE MITCHELL: Okay.
COUNCILMAN WHEELOCK: -- I want to make sure we're not doing.
NATE MITCHELL: Any uses outside of traditional golf retail --
COUNCILMAN WHEELOCK: All right.
NATE MITCHELL: -- uses inside that clubhouse have to come back to you guys, before the -- through the PUD process.
COUNCILMAN WHEELOCK: And -- and with that -- with that approval, are we going through the design review for a modern, mountain look in that clubhouse or -- what are we doing, as far as its look --
NATE MITCHELL: That's --
COUNCILMAN WHEELOCK: -- elevations?
UNIDENTIFIED SPEAKER: That was a recommended condition.
COUNCILMAN WHEELOCK: That's what I wanted to know.
MAYOR CHADWICK: Yep. That's -- that's in --
COUNCILMAN WHEELOCK: I don't want a glass

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tower --
MAYOR CHADWICK: -- my [unintelligible].
COUNCILMAN WHEELOCK: -- out in the middle of Hillsdale or Willowbrook, whatever you want to call it.
MAYOR CHADWICK: Shawn.
SHAWN NICKEL: Mr. Mayor, just to -- just to -- to clarify and get on the record.
So you would be approving the golf-course use. The details on the golf course, specifically, the clubhouse, the look of the clubhouse, parking, lighting, netting, hours of operation, elevations of the clubhouse, things like that would all come back through staff as a zoning certificate and go through our Design Review Commission for approval.
MAYOR CHADWICK: But we can set --
SHAWN NICKEL: At that time, we can set those condition --
MAYOR CHADWICK: But we can set --
SHAWN NICKEL: -- the conditions.
MAYOR CHADWICK: -- certain things that we don't want or want --
SHAWN NICKEL: Yes, you can --
MAYOR CHADWICK: -- in this --
SHAWN NICKEL: -- set certain conditions --
MAYOR CHADWICK: -- [unintelligible] --

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SHAWN NICKEL: -- within the Development Agreement that --
COUNCILMAN WHEELOCK: -- [unintelligible] development agreement --
SHAWN NICKEL: -- you do or don't want --
COUNCILMAN WHEELOCK: To eliminate them --
SHAWN NICKEL: -- tonight.
COUNCILMAN WHEELOCK: -- from having to go through the question and answer. I'm trying to divide it out without us saying, "That's not what we're interested in." We'd like -- not to have a Top -- Topgolf out in the middle of the --
SHAWN NICKEL: Correct.
COUNCILMAN WHEELOCK: -- area.
SHAWN NICKEL: Correct. But they are asking for the approval of the golf facility tonight, which includes the retail, the restaurant and bar, driving range, and clubhouse associated with the golf course itself.
MAYOR CHADWICK: Okay.
COUNCILWOMAN SALMONSEN: Mayor Chadwick.
MAYOR CHADWICK: Councilwoman.
COUNCILWOMAN SALMONSEN: Another question, and this is for the Fire staff.
So in the Development Agreement, you know,

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there's a line in there that says "Provisions for Potential Fire Station." So I'm wondering, from the Fire Department, if that would -- like if there's any special other needs that you would need for that site.
So, for example, water. Like can you have the water put in at the time of -- as our -- as our development's going in -- I don't know -- or whatever you might have?
DEPUTY CHIEF ISLAS: Councilwoman. Deputy Chief Islas, Fire Marshal.
Yeah. So per Fire Code, it does state that water will be available when combustible material arrives on site. And so what we'll do is we'll work with the applicant to make sure that they go through our review, to make sure that life safety is met, and that -- before we start building vertically, that we do have our hydrants that have been tested, meet the standards of the Fire District, along with Star Sewer & Water, that they're charged, tested, we have fire flow before they start building.
COUNCILWOMAN SALMONSEN: Yeah. So I think my question was more towards a future Fire building site. So would you like to see anything included in -- that the applicant could provide, that we could include in the DA for building that site?

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I don't know if that --
DEPUTY CHIEF ISLAS: If -- if I can --
COUNCILWOMAN SALMONSEN: -- if we can do that or not, but --
DEPUTY CHIEF ISLAS: Yeah.
COUNCILWOMAN SALMONSEN: -- I'm asking.
DEPUTY CHIEF ISLAS: And so what -- for us, the -- you know, for that, if we're looking, in particular, for that future site -- obviously is to make sure that we have, you know, utilities stubbed to the site, ready to go, so that way, when we build -- that we're able to -- to build without having to bring those on -- so gas, water, sewer -- that we have those available for us at that site.
COUNCILWOMAN SALMONSEN: Okay.
NATE MITCHELL: And we have no issue with that at all.
COUNCILWOMAN SALMONSEN: Okay.
NATE MITCHELL: That -- that's anticipated.
COUNCILWOMAN SALMONSEN: Okay.
COUNCILMAN WHEELOCK: Mr. Mayor.
COUNCILWOMAN SALMONSEN: Thank you.
MAYOR CHADWICK: Okay. You good?
COUNCILWOMAN SALMONSEN: Yep.
MAYOR CHADWICK: Councilman Wheelock.

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COUNCILMAN WHEELOCK: So you talked about processing your own land up there so you didn't have construction trucks running everywhere. Are you able to limit the hours of processing that dirt? I know it's not quiet when they're doing all the rock crushing that's going to be required to --
NATE MITCHELL: We don't need to -- we don't -- we're not authorized to do any crushing on site. All -- all we're doing is Earth moving.
COUNCILMAN WHEELOCK: They'll be limited to our Star City Code --
NATE MITCHELL: Correct.
COUNCILMAN WHEELOCK: -- which is --
NATE MITCHELL: We'll comply with your --
COUNCILMAN WHEELOCK: Yeah.
NATE MITCHELL: -- nuisance ordinance and your -- your time restriction, your -- your noise hours, and dust mitigation -- everything else that goes along with construction, but we're not asking to -- to crush gravel on site.
COUNCILMAN WHEELOCK: Okay. I assumed that that would be part of the road construction.
NATE MITCHELL: Well, it's --
COUNCILMAN WHEELOCK: If you're talking about not bringing in construction trucks --

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NATE MITCHELL: We're talking about creating a pit run, six-inch minus. There will be a point in construction, when we start on residential and road-building stuff, that there's -- is some material that needs to be imported, crushed gravel -- either that or we'd have to come back to you for a conditional use permit -- for a crushing permit.
COUNCILMAN WHEELOCK: Thank you.
MAYOR CHADWICK: Okay. Any further questions of the applicant or staff?
COUNCILMAN HERSHEY: I just have one, Mr. Mayor.
MAYOR CHADWICK: Councilman Hershey.
COUNCILMAN HERSHEY: It's -- it's Aerie Way -- correct? -- or Aerie? Oh, it --
NATE MITCHELL: Aerie Way; correct.
COUNCILMAN HERSHEY: -- doesn't matter.
NATE MITCHELL: A-E-R-I-E.
COUNCILMAN HERSHEY: When -- when would you be building that?
NATE MITCHELL: Before we have the ability to -- to build a single residential lot.
COUNCILMAN HERSHEY: So a golf course, yes, but housing, no?
NATE MITCHELL: That's the way the condition's

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written, yeah.
COUNCILMAN HERSHEY: Okay. Just making sure.
NATE MITCHELL: Yep.
MAYOR CHADWICK: So I'm going to -- I'm going to bring up one more thing here, real quick, too on our police-safety stuff.
You know, we've determined that, with every 370 houses, roughly, we need a new officer, but we're adding 700 -- how many acres is that? 780 or something like that? 90?
NATE MITCHELL: 726.
MAYOR CHADWICK: Oh, okay. 726. I'm trying to give you more.
So that increases our -- our areas, even during the construction phase and stuff like that, for us to be able to -- to handle police response times up in that area. That's going to require our officers to go up there and be further away from our farthest southern border, and we have minimal officers right now.
So I need to try to figure out a way -- I know we're going to do some police mitigation fees. Is there a way that we can pay those up front to add two additional officers to our shifts so we have one in each shift that provides us with additional officer capacity? I think that's what we're about -- what we need,

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probably, two.
COUNCILMAN NIELSEN: Mayor Chadwick.
NATE MITCHELL: Define "up front."
MAYOR CHADWICK: Councilman Nielsen.
COUNCILMAN NIELSEN: I think, along with that, you know, that -- that area's part of North County [phonetic] currently --
MAYOR CHADWICK: Right.
COUNCILMAN NIELSEN: -- and patrolled by an officer that sometimes is in that area. So annexation would put our officers as the closest ones to respond to North County calls, as well?
MAYOR CHADWICK: Correct.
COUNCILMAN NIELSEN: Right.
MAYOR CHADWICK: So -- yeah. So we'll be responding to more Hillsdale calls as well in that.
Do you want to say anything to that, Chief, before -- you don't have to. I'm putting you on the spot.
POLICE CHIEF HESSING: Chief Zach Hessing, Star Police Department.
Hoping you can hear me here.
So, I -- I mean, you're correct. So this adds about a -- a mile north and south to our -- we're -- the City of Star, right now, is about 5

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miles by 5 miles in size. This would add another mile north and south and about 2 miles east and west. What Councilman Nielsen brought up is, if we're up there in that area, kind of checking the construction of this golf course.
If a Code-3 call comes out of Hillsdale, they will -- dispatch will give it to us, no matter -- it doesn't matter what your jurisdiction is. It's the same way, as if we're the closest Star unit, and we're going to Meridian; right? Because Code-3 calls are lights and sirens, that means somebody's life's in danger, and we're -- we're headed there directly. So an increased call volume would impact the City of Star or Star Police Department.
MAYOR CHADWICK: Okay. So could we up-front the funds to pay for the two police officers on this as part of this agreement for the annexation because they're going to have to do construction-site checks. They're going to have to do all this stuff as well up there.
NATE MITCHELL: Where do you collect your mitigation fees from everybody else now?
MAYOR CHADWICK: We collect them at the building-permit stage. However, we're adding 720 acres in the foothills. That's going to -- what -- what

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that's going to do here -- here -- and just hear me out here. What that's going to do is increase our call-response times.
UNIDENTIFIED SPEAKER: Mm-hmm.
MAYOR CHADWICK: Let's say my officer's up there, and we have something -- a crash or something down here, and we only had the one on duty at the time. That's going to increase his call response time. If we can get the two additional officers, that almost gives us two officers through all shifts throughout the day, and it allows us to have response times that are going to be better.
NATE MITCHELL: Can I have my 94 lots back?
MAYOR CHADWICK: Well, no, but you're paying them anyway. If we up-front it, you just add it to the cost of your lot.
NATE MITCHELL: Well, I mean, but it's out of my pocket.
MAYOR CHADWICK: No, I understand.
NATE MITCHELL: You understand; right? Like -- like that's a -- that's a typical -- typically a builder-borne cost. When they buy a lot, they know they have to pay that mitigation fee, just like everybody else in your town does now. So do the math.
MAYOR CHADWICK: I'm doing math right now.

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And I'm not asking for the Fire at this time because they would have to -- yeah, that's -- $1,120 is what that fee would be.
NATE MITCHELL: It's -- it -- it's $1,120 per house.
MAYOR CHADWICK: Correct.
NATE MITCHELL: So multiply that by 1,000.
MAYOR CHADWICK: Okay.
NATE MITCHELL: Well, then how does it end up being the same number?
MAYOR CHADWICK: Yeah, 1,120,000.
NATE MITCHELL: Yeah, it's just a million bucks --
MAYOR CHADWICK: That's what I was -- yeah.
NATE MITCHELL: -- and 2 million for the intersection.
MAYOR CHADWICK: That's four lots.
NATE MITCHELL: It's five lots.
MAYOR CHADWICK: Okay. Five lots.
NATE MITCHELL: We use 200,000, and I can't --
MAYOR CHADWICK: But at the same time, though, the -- the -- the annexation of the property is creating an undue burden on the existing citizens of Star if my people are up there. So we've got to look at ways to

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mitigate that so we're not running into a situation where my officers are stuck --
NATE MITCHELL: As soon as you annex me --
MAYOR CHADWICK: -- [unintelligible].
NATE MITCHELL: -- I'm going to pay the same property taxes everybody else is.
MAYOR CHADWICK: Exactly. And -- and you know that we can't collect all the new --
NATE MITCHELL: I --
MAYOR CHADWICK: -- annex -- new -- new growth on that to help pay for that. So, I mean, we can go round and round and round on this. I'm just trying to find a way to make this work so we're not impacting the existing levels of service for our citizens on that. That's all.
COUNCILMAN NIELSEN: Mayor Chadwick.
MAYOR CHADWICK: Councilman Nielsen.
COUNCILMAN NIELSEN: Just for everybody's information, what he's referring to is -- is House Bill 389 that limits our ability to collect taxes on new construction.
MAYOR CHADWICK: So -- but I --
COUNCILWOMAN SALMONSEN: But --
MAYOR CHADWICK: If we -- if we could figure out a way to make this work --

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COUNCILWOMAN SALMONSEN: Would it be possible to say, "Okay. This is how much it will cost to spend to" -- "for the two officers" --
NATE MITCHELL: [Unintelligible].
COUNCILWOMAN SALMONSEN: -- and then, you know, they pay that up front?
MAYOR CHADWICK: Well, that's the -- the start is -- it's 150 -- about $155,000 per officer, per year, and then a car; right? And so for us to get to that $1.1-million mark, we would have to utilize those over the next -- what is that? -- 300,000 -- four years, until such a time that our revenues can increase to cover those officers in the long term. That's what we're trying to figure out.
I -- I need to -- I -- I guess -- we just got to figure out how to make this work with everything else we've got going on to make sure that our -- that our city is not suffering, that our citizens are not being impacted.
COUNCILMAN NIELSEN: Mayor Chadwick.
MAYOR CHADWICK: Councilman Nielsen.
COUNCILMAN NIELSEN: Sorry. I keep interrupting you.
MAYOR CHADWICK: No. You can. That's fine.
COUNCILMAN NIELSEN: You keep giving me ideas,

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though.
No. Look, one of the -- one of the thoughts to -- to consider here, normally, with a -- with a project, Nate, we'd be looking at -- at developing houses up front, which would then start those builders coming in and pulling permits and paying for those. Where you're building the golf course, you're adding the whole property to the city of Star, but without the ability for any of those building permits to come over the course of the next -- what? -- three to four years -- five years -- whatever it is.
NATE MITCHELL: So I -- I guess -- a couple of things I -- I want to ask. Grading a golf course out and building a golf course -- I -- I don't -- I -- I'm going to disagree with the fact that that's going to increase your call volume. Once the golf course is operational, maybe, it'd increase call volume. Building houses, adding people, yes, it'll increase call volume.
The -- do -- do you have a commercial police mitigation fee?
MAYOR CHADWICK: No.
NATE MITCHELL: Why not?
MAYOR CHADWICK: Because the commercial doesn't apply nearly as much with the calls as the residential does at this time.

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NATE MITCHELL: Then why is my commercial a problem while nobody else's is?
MAYOR CHADWICK: I'm not calling -- asking you to put it on your commercial. I'm asking you to put it -- to put it towards your residential. And I'm -- I'm -- I'm simply asking that -- we're adding 720 acres, 1 mile by 2 miles, into our -- into our impact area in the foothills with very crazy access right now -- to have to respond to these calls. I -- there's going to be calls up there. I promise you. I -- I guarantee you that he's --
NATE MITCHELL: There's always -- there --
MAYOR CHADWICK: -- going to get calls.
NATE MITCHELL: -- there's already calls up there --
MAYOR CHADWICK: Right.
NATE MITCHELL: -- that they already respond to. I understand that.
MAYOR CHADWICK: Right.
NATE MITCHELL: I'm not -- I'm not arguing that. I just don't see --
MAYOR CHADWICK: I mean, even on a payment plan, Nate -- what -- what -- what if you were to do a by-year on that thing when the golf course -- I'm just trying -- I'm trying to figure out how to make this work

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all the way around the board because --
NATE MITCHELL: I understand that, but you're asking me to pay up front the total impact of a 40-year development.
MAYOR CHADWICK: Well, okay. So we say, "a 40-year development," but I look at your traffic impact study, and it's only a 25-year development based off of that.
NATE MITCHELL: Okay. So you're asking me to pay for a 25-year development Day 1, and you don't ask anybody else in town to do that.
MAYOR CHADWICK: Because no one else --
NATE MITCHELL: I'm just asking to be --
MAYOR CHADWICK: -- is up in the foothills right now, in an area that's hard to get to.
NATE MITCHELL: What about the plats you're approving that border this? Did they do that?
MAYOR CHADWICK: In -- in the where?
NATE MITCHELL: The stuff that's along Highway 16, north of Pollard, did you ask them to pay those?
And I'm not -- I -- I understand your quandary. I just -- it's -- that's -- we're all -- that number's getting really large. The up-front cost is getting really large.

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MAYOR CHADWICK: No, I -- I get that, but I also -- I have to -- I -- I have -- I am charged with the responsibility of looking out for the entire safety of my community. That's part of my job, and so that's why I'm in this little argument -- disagreement with you, right now, on this.
I don't know if there's a way that we can put it in that we'll -- we will review this to see the impacts with the police on -- on how we cover that over a period of time, but it's -- something's got to be done.
I mean, I -- I -- I hate to bring up this word over there, but Avimor, from what I understand, is adding police officers with their development agreement over there.
NATE MITCHELL: They've developed significant residential development --
MAYOR CHADWICK: Right.
NATE MITCHELL: -- and commercial development.
MAYOR CHADWICK: Right.
NATE MITCHELL: Right?
So I -- I guess I understand your desire. I understand your want. You're going to condition me with what you guys decide. I -- I would be -- timing, obviously -- we haven't defined "up front." Does that

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mean, before you sign my annexation ordinance, I have to pay you a million --
MAYOR CHADWICK: No.
NATE MITCHELL: -- 120,000 bucks?
MAYOR CHADWICK: 120 -- what did you say?
NATE MITCHELL: What -- whatever your 1,120 times 1,000 is.
MAYOR CHADWICK: Oh, 1,120,000.
NATE MITCHELL: Yeah.
MAYOR CHADWICK: Okay. Sorry.
No, I'm not saying you have to pay that at the -- right now, right up front. We can work on the plan with the police on how that gets paid, but we've got to get the officers in place so we can cover that for the next couple of years.
We -- I -- this -- this is a problem. I'm -- I'm telling you, Nate, it's a problem. It's -- it's a problem right now. We would not have this discussion at all -- I'm going to bring it up -- if we didn't have 389 on the books.
Star has experienced extreme growth -- and you've seen it -- over the last five years -- four years, and we -- we can't cover those costs. That's why we had to put the mitigation fee in place. That's why I had to go to the Building Contractors Association and

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tell them, "We have a problem. I need help. We've got to fix that problem."
This wouldn't even be a conversation if that wasn't here, but it's -- unfortunately, that's -- this is the -- the -- the -- the -- the place that we have been left at to try to figure out how to maintain the public safety of the community while allowing a development to happen up in the foothills that's adding land area to our community.
And Ada County, on that site, they have four total officers, I think, for North County, and that North County goes all the way from up here to Lucky Peak. So asking them for backup is not feasible for that.
I don't -- if you want to -- we -- we could recess for five minutes if you want to hammer that out for a minute with Ms. Deb so we're not --
NATE MITCHELL: Let's take a break. Let's take a break.
MAYOR CHADWICK: Let's take a quick break?
Okay. So we'll take a five-minute recess to 8:45.
(Recess taken from 1:40:34 of 1:47:33 of audio file.)
MAYOR CHADWICK: We're going to wait until

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8:50, folks, just so they can finish discussion over there.
(Recess taken from 1:47:37 of 1:50:30 of audio file.)
MAYOR CHADWICK: It's 8:50, and we're going to call the City Council meeting back to order, and we'll see if we can get the applicant and my staff back over here.
COUNCILMAN NIELSEN: Maybe.
MAYOR CHADWICK: Maybe.
Well, it's not two attorneys talking, so that's good.
UNIDENTIFIED SPEAKER: [Unintelligible].
MAYOR CHADWICK: No.
All right, Ms. Deb and Mr. Nate.
DEBORAH NELSON: Mayor, just one quick comment, if I could.
So for context, Avimor paid $138,000 as their --
MAYOR CHADWICK: I couldn't -- I couldn't hear that.
DEBORAH NELSON: Avimor paid $138,000 as their additional police mitigation fee, over and above their property taxes, just to add to your comment.
MAYOR CHADWICK: Sure.

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NATE MITCHELL: So I guess we're discussing a one-time fee of $370,000 and then --
MAYOR CHADWICK: Yep. That would come out of that total.
NATE MITCHELL: -- credited to our mitigation fees --
MAYOR CHADWICK: Credited to your mitigation fees.
NATE MITCHELL: -- and then start collecting mitigation fees at the residential building permit.
MAYOR CHADWICK: Correct. This allows -- yeah. The 370 is --
NATE MITCHELL: So let's -- let's say that's fine.
MAYOR CHADWICK: Okay.
NATE MITCHELL: Timing of that 370 needs to be at or after we move the first yard of dirt.
MAYOR CHADWICK: Correct, so the start of the construction of the golf course.
NATE MITCHELL: Okay. Yeah.
MAYOR CHADWICK: Okay. All right.
And to go back to what you said, you're paying today's rates now, instead of a higher rate in the future.
NATE MITCHELL: They're going to go down when

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we add more people.
MAYOR CHADWICK: Right. All right.
Any further questions or comments --
UNIDENTIFIED SPEAKER: [Unintelligible] costs are going down.
MAYOR CHADWICK: -- of the applicant?
Councilman Hershey, did you have a further question?
COUNCILMAN HERSHEY: Mr. Mayor, no. I was just -- what -- well, you -- when you were hashing back and forth with Mr. Mitchell there, I was just -- you know, he -- he's discussing his risk, and we're discussing ours. And in all reality, if we don't mitigate these risks now, at least, to some level, when would we?
MAYOR CHADWICK: Right. Okay.
Any questions of the applicant or staff before we close this portion?
Do you have anything further to say, Ms. Deb?
DEBORAH NELSON: No. Thank you, Mayor and Council.
MAYOR CHADWICK: No?
Okay. Everybody good?
Once we -- once we end it with them, it's

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gone.
COUNCILWOMAN SALMONSEN: I know. Big -- big step here.
UNIDENTIFIED SPEAKER: It's never done.
MAYOR CHADWICK: Okay. I'm going to take that as --
COUNCILMAN NIELSEN: Hey, Mayor Chadwick.
MAYOR CHADWICK: Councilman Nielsen.
COUNCILMAN NIELSEN: A question for staff.
MAYOR CHADWICK: Okay.
COUNCILMAN NIELSEN: What questions are we not asking?
UNIDENTIFIED SPEAKER: Yeah. Thank you.
MAYOR CHADWICK: Can we turn on Shawn's mic, please.
SHAWN NICKEL: Hello, oh --
MAYOR CHADWICK: There we go.
SHAWN NICKEL: Mr. Mayor --
COUNCILMAN NIELSEN: And --
SHAWN NICKEL: -- and Council, I -- I --
COUNCILMAN NIELSEN: And let -- let me just clarify a little bit.
SHAWN NICKEL: Okay.
COUNCILMAN NIELSEN: You've -- you guys have spent a lot more time on this application, had a lot

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more conversations over the years. And -- and we -- we limit this to -- when we get to what's in the packet, to these conversations. That -- that's why I'm asking you. What -- what aren't we asking? Help us. Be our -- our eyes and ears here.
SHAWN NICKEL: Mr. Mayor and -- and Council, I believe with -- with what you have -- the -- the -- with the applications you have in front of you, I think you've addressed the key issues, which is the traffic, the land -- the land uses, and the conditions that the Mayor has proposed.
I think, once you get into the details of the preliminary plat and the planned unit development, a lot of those unanswered questions were -- are -- are going to be addressed in more detail, specifically the traffic, because you'll have -- you will have detailed ACHD, ITD, and Canyon Highway District 4 reviews and approval letters and conditions that will -- that will break down and phase every aspect of the development.
And again, what you're doing is you're putting a cap on the density. It's up to them and those traffic agencies to determine what that number's going to actually be, and that's going to happen as that preliminary plat comes in. So I think you've addressed everything that's within this application in front of

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you this evening.
COUNCILMAN NIELSEN: Okay. Thank you.
SHAWN NICKEL: Mm-hmm.
COUNCILMAN NIELSEN: And, real quick, that sounded like a diabetic alarm. Is -- is there -- anybody need help?
Okay. Just making sure.
MAYOR CHADWICK: Okay. All right.
Anything else? Any further questions of staff or the applicant before we move forward?
COUNCILMAN WHEELOCK: I have a question of staff.
MAYOR CHADWICK: Okay.
COUNCILMAN WHEELOCK: Maybe the applicant. I'm not sure.
MAYOR CHADWICK: Pull your -- pull your mic closer to you.
COUNCILMAN WHEELOCK: So going back to the lot sizes, the red borders are half-acre lots or acre lots. How do they look matching up to the -- and that's a preliminary-plat problem, maybe -- I don't know -- but I'd love to -- I'd love to hear that answer.
NATE MITCHELL: It -- it's a question. We have committed to matching lot lines, one new neighbor to one new neighbor.

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COUNCILMAN WHEELOCK: So they're matching lot lines with --
NATE MITCHELL: Yeah.
COUNCILMAN WHEELOCK: -- half-acre --
NATE MITCHELL: Correct. Minimum.
COUNCILMAN WHEELOCK: -- in size.
NATE MITCHELL: In -- in minimum -- there will -- there will be lots bigger than a half-an-acre, but a minimum -- a minimum of one-half acre.
COUNCILMAN WHEELOCK: Lot line to lot line --
NATE MITCHELL: Yeah.
COUNCILMAN WHEELOCK: -- is my question.
MAYOR CHADWICK: Okay. Any further?
COUNCILMAN WHEELOCK: I'm good. Well...
MAYOR CHADWICK: We'll see how good you are.
COUNCILMAN WHEELOCK: We'll see.
MAYOR CHADWICK: All right. I'm going to say that it's 8:57, and we're closing the public hearing and going to Council deliberations. Someone needs to start.
COUNCILWOMAN SALMONSEN: Mayor Chadwick.
MAYOR CHADWICK: Councilwoman.
COUNCILWOMAN SALMONSEN: I'll -- I'll go ahead and start if you don't mind.
MAYOR CHADWICK: Okay.
COUNCILWOMAN SALMONSEN: I wasn't feeling very

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good, so I prepared a statement.
MAYOR CHADWICK: So make sure you talk all the way into the mic so --
COUNCILWOMAN SALMONSEN: All right.
MAYOR CHADWICK: -- we don't get yelled at anymore.
COUNCILWOMAN SALMONSEN: All right. So I prepared a statement earlier, and from what I've heard here tonight, nothing has changed my mind. And so, you know, I'm -- I -- maybe as we deliberate here something will -- will, but I'll go ahead and read what I wrote and maybe we can use this to kick it off, the deliberation.
All right. So I believe that the main ingredients of a great community are connected residents, diverse community activities, a strong business environment, and a place where everyone feels safe, welcome, and at home. These ingredients shine bright here in Star.
The primary responsible -- responsibility of this Council is to not only protect these existing ingredients, but also to strengthen and foster their growth with new development.
I see many positives that this development would bring to Star, including their donation of land

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for future fire and schools -- school sites; investing and expanding the City Water & Sewer services; funding much-needed, local road improvements; bringing a variety of housing options; and providing additional recreation amenities everyone can enjoy. I have little doubt that Nate and this team that -- would construct an -- an exceptional development.
However, I'm having a real hard time agreeing with two findings that we're required to make in order to approve this project. The first is that -- I'm going to quote. So, "The map amendment shall not result in an adverse impact upon the delivery of services by any political subdivision providing public services within the city including, but not limited to, school districts."
In my opinion, this statement means other agencies that provide a service to the residents of Star must be able to continue their current level of service if this application is approved. This project clearly creates the need to build and expand roads, which has a lot of hurdles to clear, but it also creates the need to build a new school building.
This is a hurdle I don't see jumping because they would be constructed -- the -- the schools would have to be constructed by taxpayer funds, which

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voters have to approve, and there's no guarantee in that. With -- without some sort of guarantee that a school will be built, I can't say that this development would not have an impact -- negative impact on -- on schools alone, along with other things.
The second finding I'm having trouble with is that the annexation isn't -- is -- let me start over. The second finding I am having trouble with is to find that the annexation is in the best interest of Star. When I look at this application, I'm not convinced that approving it would be in the best interest of Star. I don't believe we're ready for a development of this size and scope.
I also think that the site's significantly impacting the way of life for Hillsdale residents. The addition of this development would put a significant strain on the current residents and City services. Because I can't say, "Yes," to these two required findings, I don't think I can approve this tonight.
Then I will also add that -- my kudos to the public. You put together -- you know, you did your research and made a very factual presentation. It's very easy for people to come and testify simply because they do not want a specific development, but we -- we, the Council -- we must base our decision on factual

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testimony and the land use laws that govern our community.
I hope anyone wishing to testify for the -- for a -- or against future developments will reference the efforts that the public put into this, given -- during this public hearing and this application.
That is all.
Thank you.
MAYOR CHADWICK: Okay. Anybody else?
COUNCILMAN NIELSEN: Mayor Chadwick.
MAYOR CHADWICK: Councilman Nielsen.
COUNCILMAN NIELSEN: The councilwoman [unintelligible]. Can we -- can we have --
COUNCILWOMAN SALMONSEN: Yeah. Yep.
COUNCILMAN NIELSEN: -- discussion for --
COUNCILWOMAN SALMONSEN: Yep. Yep.
COUNCILMAN NIELSEN: -- around that?
So I just want to understand a little bit better your concern about impacts to -- to schools. No guarantee that -- that a school will -- will be built; right? And -- and I'm curious. I mean, the -- we don't have any control --
COUNCILWOMAN SALMONSEN: Right.
COUNCILMAN NIELSEN: -- right? So the State

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has -- has outlined how -- how schools are funded, and -- and the school districts, they wait until schools are -- are overcrowded, basically until they have enough students for the new school, until they go for a bond to build that new school because then -- then it's practically full as soon as it's built; right?
And so I -- I'm just curious. How -- how could we ever meet that expectation? And -- and this question's not just about this application, but it -- just in general --
COUNCILWOMAN SALMONSEN: Right.
COUNCILMAN NIELSEN: -- what -- what -- what are your thoughts on that?
COUNCILWOMAN SALMONSEN: Right. Yeah. With the current system, I think it's -- it's -- it's broken, you know, the way that the -- the schools are -- they're tied to be built, and I don't see it being fixed.
And I feel sorry for the developer, you know, I mean, or any development because they're all going to be in this same boat. But I think, with this project, it's a little -- it's -- it's harder to swallow because the significant -- the size of it.
And then -- you know, sure, it will be done over many years, but we are -- have already approved so many lots, you know, and -- and -- that can

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be built tomorrow. So where are -- you know, to add that on -- into the mix -- and it just doesn't make sense to me.
MAYOR CHADWICK: So -- hey. No. Please.
Thank you.
So I'm going to -- I'm going to come back. I'm going to ask you a question, or I'm going to just bring a statement up, based on what you said.
COUNCILWOMAN SALMONSEN: Yeah.
MAYOR CHADWICK: With the West Ada School District, which we're a part of -- we're part of a massive -- the -- the largest district in the State of Idaho. The school district currently has capacity. The capacity is shifted to other schools; right?
So when we're talking about this, we're providing a school site to get built so we can try to provide convenience more than anything for students to be schooled locally. We already have this issue south of Highway 44, where every student south of Highway 44 gets shifted to Eagle, to the school that has capacity.
So in my opinion, based off of what you said, I do believe that -- that there is the capacity and the ability to -- to educate these students. It's not the most ideal way, by keeping them home, because I would prefer to have the schools built here, but it's

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the way that the State has given us, and the -- and the monstrosity of the school district that is provided; right?
If this happened to be on the Middleton side, they have no capacity. They have four schools that are 140-percent capacity. It's not the case. The West Ada side, there is capacity available for that.
So I just want to make sure that that was out there on that --
COUNCILWOMAN SALMONSEN: Yeah.
MAYOR CHADWICK: -- as well --
COUNCILWOMAN SALMONSEN: Mayor Chadwick.
MAYOR CHADWICK: -- and our -- this doesn't --
COUNCILWOMAN SALMONSEN: And I -- I understand that, that we do -- you know, that the school district -- you know, one school gets full, and so -- okay. Let's change the boundaries and shift them around. The kids in Heron River, they're going to Eagle Elementary School.
MAYOR CHADWICK: Yep.
COUNCILWOMAN SALMONSEN: And, you know, there's a -- the Star Elementary is -- what? -- maybe a mile away.
And I guess I -- I have a hard time -- you

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know, I just don't think that that's the community that -- that we -- that we want to live in, you know, that we're just -- our -- our kids are going to school all over the place.

And I understand that that's the solution, and we have to work within it, but I just -- I can't agree with it --

MAYOR CHADWICK: Okay. That's fine.

COUNCILWOMAN SALMONSEN: -- and I can't continue to support it.

MAYOR CHADWICK: And you're -- and you're entitled to your -- your opinion on that. That's --

COUNCILWOMAN SALMONSEN: Yeah.

MAYOR CHADWICK: -- absolutely right.

Okay. Any further discussion?

Come on. Discussion? Motion? Something?

COUNCILMAN HERSHEY: You're looking at me.

MAYOR CHADWICK: I'm -- because you grabbed your --

COUNCILMAN WHEELOCK: You grabbed your mic.

MAYOR CHADWICK: -- microphone.

So --

COUNCILMAN HERSHEY: Oh, yeah. Well --

MAYOR CHADWICK: -- Councilman Hershey.

COUNCILMAN HERSHEY: Yeah. There's -- there's

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a lot of unknowns that I'm -- I'm still trying to ponder in this. I think the school thing is something that is completely out of my wheelhouse. It's not -- it's not my -- it's not my area to -- to do. I like the fact that we actually have land secured to give them. That's an amazing savings of cash.

The --

COUNCILWOMAN SALMONSEN: I know.

COUNCILMAN HERSHEY: -- things that I have thought about and continue to think about are the traffic, which is very hard to wrap your head around -- however, I do like the fact that it's extremely limited to what they can do at any one time and a traffic impact has to be done specifically with every single plat that comes before us. I like the -- I like the design review, but there's still things that are just tough to consider.

First off, like Wing Road, yeah, I think that should never be accessed, plain and simple. And Mayor Chadwick's right. I've -- I've heard him talk to ACHD about this, and I -- and I know who he's talking about, when they said, "You can put this in your plans," and we -- I think we need to if we approve this.

Here's something that I do think about, and it -- it stems from an article I read a while back,

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and it had nothing to do with this until I made the connection -- but what happens if we say, "No?" Does this just go away? It doesn't. I can tell you it will not just go away.

It doesn't mean it's going to come back to us, but it's not going to go away. And that concerns me because I read an article about ACHD -- excuse me -- Ada County. Let me make sure I'm not pissing off the lawyer.

But I read a -- an article about the County approving a development of much considerably-larger size than this that had been rejected by Boise and rejected by Kuna, and it was passed by them. Even with their objections stated, it was passed, and that's something that concerns me because growth is inevitable. You know how I know? I'm here.

I came here for a job. It was not this one. And the job I came here for, I loved to do, and then -- and I fell in love with Idaho. Yeah, I'm one of the few that actually knew very little about Idaho, and I fell in love with Idaho.

But I still have thoughts and concerns about traffic. The -- the buffering that's been offered is something I asked for. The density reduction has, in

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spirit, been met to an extremely close level that I requested. It's only a few houses off of actually where I pinned it on the 8th, but there's just a lot that I'm still trying to process with it.

I wish -- I wish it was just, literally, a golf course and nothing else. That would be a lot easier on me. But it has all the other that goes with it. And when we annex this in, we don't annex in just a golf course that isn't started. We would annex in the potential of 1,000 houses and 770-something [sic] acres.

And so I believe the school thing is -- is actually not a concern in my world. I -- I believe they've -- they've done this many, many times, and the dedication of the land is not a problem.

I think the up-front need for the police is very important, but it is -- it is a -- it is very tricky.

And if this is approved tonight, the only thing that could happen is the golf course. Everything else would have to come right back here, where, once again, it would be dictated, and it would also have a much more considerable impact on the traffic because it would be very specific to location.

That's where my brain is.

MAYOR CHADWICK: Okay. Any further

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discussion?
COUNCILMAN WHEELOCK: Mr. -- Mr. Mayor.
MAYOR CHADWICK: Councilman Wheelock.
COUNCILMAN WHEELOCK: I -- I also wrote a -- a response after -- and -- and -- and I'm on -- [unintelligible] -- I came to this meeting undecided tonight. I'm still -- I'm in the middle of my fence, but I don't know whether to go forward or not. I'm still deciding and -- and have listened to all the testimony, but I -- after the public testimony, I -- I went home and -- and reviewed all the -- the public input, and I wanted to share my thoughts on the public testimony and -- and where we're coming from as a City Council. So bear with me while I read my little piece of the pie.
I want to share my Star ties. I personally have watched the change from growing, thriving farming to a growing, thriving community. I signed the City's incorporation document more than 25 years ago and have farmed more than 100 acres in a year, personally. I still own more than 95 percent of the Star residences, and my family settled eastern Idaho in the 1890s. I still have major ties to that side of the state also.
I share this not only to rebut public

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testimony that thought we, as a City Council, were from a state west of here that has different political views as a whole -- I'm not against anyone that has -- that is new, but leave what you left and come join what you recognize is a positive future. I am witness to the change.
I would rather have growing pains than a ghost town. I recently drove through a town whose downtown was boarded up. That's not the case here. Years ago, we were the armpit of Ada County, and one of the farmers that lives in the city impact and I were friends and agreed that it was a great armpit. Many of you apparently agreed with that, and the majority of the population has moved here since that conversation.
I love this town and those that have been here since way before me. I still personally know many of the original citizens, and they're great people. They recognize the change, and they don't fault anyone that comes here. They're looking for good neighbors, not people that want to change the values that have been here and have been here for 100 years.
Please, let's be those neighbors. If you don't like the other side of the fence that bought it, this is America. If you buy the ground, you have the

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right to use it. I believe that firmly in land rights, and -- and I stand by that. Let's figure out how to work civilly to be good friends and better -- and a better Star.
Please don't assume that we don't understand or are ill informed in that -- that we don't understand the -- the whole scope of the project. We're learning, but it's offensive when you say we don't understand because we haven't done our homework. Believe me, we've been doing our homework for a long time. This project has been approved and approved and approved, and they didn't finish it, and it's gotten less -- and more refined every time it's come back. We're still getting that.
I also want to note that the keyboard negativity that goes on the internet keeps us from straightening out those misinformation -- that are on the -- on the internet because it's not worth getting on there to correct something for being personally attacked. Being informed is all but impossible, to make a comment and correct a bit of misinformation without being thoroughly attacked. We're all doing all we know how to do and appreciate the ideas that help and are constructive, rather than destructive.
Let me be clear that I know very well the

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situation we're talking about. I recognize that a lot of people have expressed opposition, but also, we have had many that have appreciated and talked positively about this same project. They don't want to be ridiculed either, whether they are for the project because it's always -- not as popular with everybody -- and you generally feel very strongly if you're not for it. You're very, very against it.
This area has been approved with way more houses than we're discussing tonight, and it has been headed in the correct direction ever -- every application and in every Council meeting that I've watched in the five or eight years that this has been going on -- eight years that it's been going on.
I don't know whether I'm for it or against it. I think it's getting better each -- each discussion, but each discussion's getting harder. I know that.
That's my thoughts.
MAYOR CHADWICK: Okay. Any further comments or motions?
Councilman Nielsen.
COUNCILMAN NIELSEN: Thank you.
You know, I -- I really appreciate the comments of -- of my colleagues here.

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And, you know, Councilman Wheelock, I -- I hear a lot of emotion in -- in -- in what you read and appreciate where you're coming from and the perspective that -- that you have on -- on the town of Star and -- and, you know, how we got here tonight.

But I -- I think, Councilwoman Salmonsen, as well, your -- your passionate plea for, "Let" -- "Let's fix the process" -- I've mentioned House Bill 389 here tonight. It -- you know, it just doesn't limit our ability to collect taxes. What it does is it -- it limits the ability for growth to pay for itself.

And -- and I've watched Mayor Chadwick absolutely go to the mat with the full support of this Council, with the State of Idaho, with all the agencies involved, even with the -- the political organizations like the Building Contractors Association to -- to get them on board with -- with the challenges that that bill places upon the cities of Idaho and -- and to find ways to mitigate it so that here in Star, where we've been the -- the No. 1, percentage-wise, growing city in the United States for several -- for -- for over a year. I don't know if we're still there right now, but -- but it was that case for well over a year.

And -- and the struggle is real.

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And -- and I've -- I've watched this man and this Council band together and wonderful people in the agencies in our -- and -- and organizations in our community -- to face the challenges, not just House Bill 389. That -- that one -- I mean, that -- that's not just an accidental shot to the foot. That's a shotgun and intentional.

And -- and I -- I want that to be heard loud and clear by the people of Star because our State politicians don't get it, and they're putting unnecessary restrictions for political purposes in place that -- that really, really hurt the people of the state of Idaho.

The -- the way that schools are funded hurts the state of Idaho, in my opinion, but it's also one of the reasons why we're such a fiscally-conservative state because we don't go out and build a school until -- until we've got enough students to fill it. It just puts a lot of pain into the system and a lot of suffering, same with the roads. We don't build roads until we've got cars to fill them to capacity. It puts a lot of pain and suffering into the system.

I happen to believe there are better ways, but I don't see that -- that this body here tonight, as

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part of this application, has a way to -- to deal with that pain or a way to affect it.

The -- the purpose that -- that we're gathered here tonight is, really, to sit in judgment on -- on the applicant's right to use the property that -- Councilman Wheelock pointed out that this -- it's their right to use -- does it match up with the -- the plans of the City of Star? Does it -- does it fit with the -- the zoning ordinances that we have?

And in this case, because it's an annexation, we've got a lot of leeway, as a City Council, and the -- the real question is, "Do we feel like this is in the best interest of the City of Star long-term, to annex this property, to" -- "to have it developed the way that it's being proposed, and" -- "and what does that -- that prepare us for?"

As -- as I, again, reflect on -- on the testimony, I'd like to share a few thoughts. You know, the -- the project is -- is gone from pretty high density, years ago, down to 1. -- just under 1.4 density per acre -- units per acre. Now, if the golf course wasn't there and you still put 1.4 density out there, things would be spread out a little bit more, but you'd still have the same number of units.

Statistics show that by -- from our

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highway districts that the more sprawl you get, actually, the higher number of trips. You get more vehicles per lot. You get more trips per lot.

And so part of our -- our City's Comprehensive Plan is to employ, where -- where it makes sense, the concept called "coving" in planning circles, which is to have lots of open space with pockets of developments, more -- more dense development and -- and roads that, as you travel, make it seem like you're -- you're more in open space than you are in -- in urban-type development.

I see that as one of the positives of -- of this particular application. We've got a -- a ton of open space and -- and, yeah, it's a golf course, but, you know, in my experience, golf courses grow up to be -- be real nice open space.

And I -- I think that the -- the -- the question is -- really is, "You know, how are these" -- "these" -- "how is this plan for the residential?" It -- it is more compact than sprawl, and, you know, there's -- there's two sides of the fence to that. Some people like the -- like the sprawl, and others like to see it more dense, and it's hard to please everybody on that.

I -- I don't believe that Wing Road is a

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good idea to connect, so I'm -- I'm with the -- the Mayor and his request to have that part of the -- the development agreement.

I agree with Councilman Hershey that this property will develop at some point in time. It's likely that -- that when that happens, it will be R-1 to R-2, and -- and this is right in the middle of that. And so -- so then the question is, "Is it good for the city of Star that we bring this property under planning and" -- "and plan for it, according to our ordinances, to have consistent and" -- "and regulated development as" -- "as we" -- "as we grow as a city or not?"

You know, our traffic agencies are tasked by law to condition the highway needs upon each project as phases are prepared and development plans are made, and I think that's probably the -- the most difficult part of every application, especially one of this size that is so preliminary and anticipated to go over a long period of time.

It -- it -- it's -- you can't see the answers from where we sit today. And -- and that's one of the reasons why it's -- at City Hall, in the Council Chambers, we have up on the wall behind us the -- the slogan, "To hold the vision and trust the process." We've got a vision for the city of Star that -- that

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means growth pays for itself, that means that -- as -- as Councilwoman Salmonsen so eloquently stated, that -- that our neighborhoods and -- and our town is constructed in ways that let us grow and be good neighbors and -- and develop, you know, in -- in friendly ways.

And yet part of that process is we have to put a lot of trust in -- in our partner agencies like ACHD and ITD and Canyon Highway District. We've got to put a lot of trust in -- in -- you know, even -- even in -- in the -- the State laws that allow the city to be created and sometimes negatively affect us, that -- overall and over time that things will work out, that -- that cooler heads prevail, that -- that common sense eventually prevails.

And -- and so trusting that process is something that I've had to learn to do over the last, you know, several years that I've served on the Council. And -- and I get it, that from where many of you are sitting, it's hard to see that, and -- and it's even harder to understand it.

So I -- I -- I think those are -- those are some of my prevailing thoughts. I -- I'm generally looking at this application as one that -- that the applicant has put together in accordance with our

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Comprehensive Plan, in accordance with our development codes. I find that -- that the application -- the densities of the application, given the open space -- I think you could find it in different configurations, but I think it's what's going to be there, regardless of any decision that's made here tonight.

The assumption is -- is the land will develop, and unless there is some sort of legal instrument that locks that land out of development, that is the -- the assumption that cities have to take.

The question as to whether or not this is good for the City of Star, it doesn't really -- that -- that question doesn't consider whether it's good for the people of Hillsdale that already live there, whether it's good for Middleton or good for the school district or good for, you know, the -- the highway districts or anything like that, and -- and yet those are important considerations as well.

And so I guess where I'm going with that is -- is I think that the development to the north of where the city is today is an important part of the strategic growth of the city of Star. Where we sit today, as far as the City's revenue base, where we're still over 90-percent residential taxes that -- that pay for the basic services in the city of Star, a healthy

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city sits at about 70-percent residential.

And so we're seeing the commercial development come, and yet, in order for this city to be sustainable over the long term, we're going to need more of that commercial development to come in. And -- and so both commercial and residential growth, really, in the only direction that we have to grow, which is north, weighs into the factor -- is -- is a factor that weighs into where I'm -- I'm kind of leaning toward tonight.

So I -- I tend to be on -- on the side of the fence that this -- this is an application that is good for the city of Star, and I say that knowing that it's not good for a lot of you, and -- and that weighs heavy on me as well because a lot of you are my friends and neighbors, and I've got to live in this community just like -- as -- as well as you.

And so as that falls into the property rights of -- of the -- of the person who owns the property versus the property rights of the person that looks at a property, the -- the one that owns the property is what's in -- in question here tonight.

So -- so I -- I say that I'm generally in favor. And -- and now that we've all had an opportunity to -- to kind of share our thoughts on this, I'd -- I'd be interested in -- in additional thoughts from the

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Council on -- on what a motion either way might look like.
COUNCILMAN HERSHEY: Was that what "emotions?"
MAYOR CHADWICK: "Motion."
COUNCILMAN HERSHEY: "Motion," oh.
MAYOR CHADWICK: Not "emotion," "a motion."
COUNCILMAN WHEELOCK: I prefer to talk to my emotions, and I don't --
COUNCILMAN NIELSEN: Not "emotion."
COUNCILMAN WHEELOCK: Well --
COUNCILMAN NIELSEN: "Motion."
COUNCILMAN WHEELOCK: You know, I've heard --
COUNCILMAN NIELSEN: I -- I -- I don't have a sense for -- for where -- where the Council is, generally.
COUNCILMAN HERSHEY: Then I will elaborate on that, if I -- if I may.
You know, one thing I do appreciate about this is the same thing that I hated about this. It's the fact that it is large, but it's long-range vision, is what I'm seeing.
I'm going to ask the Mayor in a few minutes to read all the conditions because I've captured them on several pages. I don't have them compiled. I think you have a better list -- but not yet, sir, if you

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wouldn't.
And the reason is -- when I first heard of Willowbrook -- and I have heard a lot of Willowbrook, an awful lot, because I've been sitting here. And I remember the first time this came across. It was 3,000 homes, and it had no density reduction. It was 3,000 houses. I remember that quite clearly. And it's trickled down 1,000, which is actually rather significant. I never thought it'd actually get to that.
Now, before I go off on too much of a tangent -- when we have something like this and we've discussed it and the -- and the public's brought it up too -- is the unknowns, the unknowns of what's out there. And when I first heard of this, I said, "Oh, this is ridiculous. Who would ever approve that?" But that was before any testimony. This was when I read the packet, and all of a sudden I'm looking at something that says, "3,000 houses," and it was -- it was a -- it was just unbelievable, and I was so new on the Council. It was not a good way to cut your teeth.
But when we have unknowns and when I have unknowns -- and I believe you all do this too -- we tend to fill it with fear. When we have something we don't know and we can't quite process it, we generally turn it into a fear. And I had an awful lot of that, but as I

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was going through this slowly and surely, I noticed that one thing that I can point out is we are trying our darnedest to control growth.
And I believe, by the conditions that we can list, we can actually make this a very slow and a very controlled growth because of the stipulation that they have to come back with everything, every single time.
And, Nate, I don't care what it costs you. I'm just going to tell you that right now. I have no concerns on that at all. I'm a federal contracting officer. I don't care what it costs you. I work helicopters. Those things are expensive, and so I have to take that emotion out, and I'm sorry. That's just -- I had to learn that.
But I do see a slow and controlled growth.
And, Mr. Mayor, if you would -- I need to hear those conditions because I don't want to make sure -- if I swing towards doing it, I must make sure that I absolutely am true to my point that this is a slow and controlled growth.
MAYOR CHADWICK: Shawn, do you have the conditions --
COUNCILMAN HERSHEY: Yeah, somebody.
MAYOR CHADWICK: -- all written down,

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that it's all been discussed tonight, or --
SHAWN NICKEL: I think so, yeah. Do you want me to read them?
MAYOR CHADWICK: Yeah.
COUNCILMAN WHEELOCK: How many is there?
SHAWN NICKEL: A lot.
MAYOR CHADWICK: We'll have him read them again so everybody knows what they are, yeah.
Oh, you're writing them down?
COUNCILMAN WHEELOCK: [Unintelligible].
UNIDENTIFIED SPEAKER: Yeah, and capture these.
SHAWN NICKEL: Are you ready?
MAYOR CHADWICK: Yep.
SHAWN NICKEL: So the conditions that were read by the Mayor earlier included -- I'll just read them here.
The Council hereby approves the golf course and associated facility amenities including the clubhouse and accessory structures, restaurant and bar, and driving range. Prior to approval of any additional commercial uses, the applicant shall submit and receive approval of a planned unit development and preliminary plat. This approval shall be part of a new public hearing through the City Council.

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The next one is -- the golf course shall be hooked onto the Star Sewer & Water District reclaimed water for application to the course within -- I believe that was modified after --
MAYOR CHADWICK: At the time of availability from the golf -- or from the Sewer & Water.
SHAWN NICKEL: At the time of the availability by the Star Sewer & Water District to provide that reclaimed water.
All golf-course details shall be -- receive further review and approval through design review -- through the Design Review Committee. The architecture of the clubhouse and restaurant shall meet current City design review standards.
The applicant shall provide a minimum 10-acre public school site and a future fire station site within the development. The applicant shall work with the Star Fire District on the location of the station. The fire station site and school site shall be deeded to the appropriate agency with the first phase of the residential development.
The development shall meet all requirements of the Star Fire District and the Star Sewer & Water District.
The applicant -- or the application shall

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adopt all recommended conditions of approval from ITD, ACHD, and Canyon Highway District.
The maximum density adds --
MAYOR CHADWICK: 1.38.
SHAWN NICKEL: -- 1.38 with a -- a maximum lot count of -- not to exceed 1,000 lots is hereby approved as part of this annexation. A minimum required lot size adjacent to all existing residential lots -- and I believe it was a half-acre with matching --
MAYOR CHADWICK: Half-acre to one-acre --
SHAWN NICKEL: -- lot lines.
MAYOR CHADWICK: -- with a 100-foot buffer strip --
COUNCILMAN WHEELOCK: And matching lot lines.
MAYOR CHADWICK: -- and matching lot lines.
SHAWN NICKEL: 100-foot or a 25-foot --
MAYOR CHADWICK: Yeah, a 100-foot buffer strip is up there.
SHAWN NICKEL: Oh, correct.
MAYOR CHADWICK: I think that's above Monument Ridge.
SHAWN NICKEL: Correct. With -- also with a --
MAYOR CHADWICK: Yeah.
SHAWN NICKEL: -- 25-foot rear --

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MAYOR CHADWICK: Setback.
SHAWN NICKEL: -- setback.
MAYOR CHADWICK: Yeah.
SHAWN NICKEL: Agreement from the applicant to pay all proportionate share and mitigation fees -- and I have here -- in place at the time of recordation of the development agreement.
MAYOR CHADWICK: Well, which includes the 370,000 up front --
SHAWN NICKEL: Right. Yeah. I'll get there -- I'll --
MAYOR CHADWICK: -- to be subtracted from the total.
SHAWN NICKEL: -- get -- okay.
This includes the ITD proportionate share, the Star Fire District mitigation fees, and the Star Police mitigation fees, with the addition of the one-time $375,000, up-front --
MAYOR CHADWICK: 3 -- 370.
SHAWN NICKEL: -- 370, up-front mitigation fee that will be credited back to the --
MAYOR CHADWICK: The total.
SHAWN NICKEL: -- total.
The development agreement will be revisited during the preliminary plat and planned unit

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development in order to update or add any new conditions of approval that may be required by the City Council or other reviewing agencies.
Wing Road will not be connected to the development from Beacon Light Road.
And -- and the final one is a traffic-signal light at Highway 44 and Canyon Highway -- and Canyon -- and Can Ada Road -- excuse me -- shall be constructed by the applicant prior to the first day of operation of the golf course and facilities. A latecomer's agreement shall be entered between the applicant and the City for future reimbursement.
And then -- let me just look at my notes here -- drive -- driving-range hours will be dawn to dusk with no -- with no lighting.
MAYOR CHADWICK: The dark-sky initiative with --
SHAWN NICKEL: Dark-sky initiative for downward lighting with soffit lights within the residential structures.
MAYOR CHADWICK: And a fiber connection.
SHAWN NICKEL: Yeah, I'm working on it.
MAYOR CHADWICK: Oh, you're not there yet? Sorry.

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SHAWN NICKEL: The applicant shall provide fiber conduit for future fiber-optic connections.
The fire station lot will have infrastructure, I guess, run to it. I don't -- I don't have a -- I don't have a timing on that, but I'm assuming it'd be as part of the -- part of the development of that phase of the -- of the development.
There'll be no rock crushing on the site unless a future conditional use permit is approved by the Council.
That's it.
MAYOR CHADWICK: Okay.
COUNCILMAN NIELSEN: Mayor Chadwick.
MAYOR CHADWICK: Councilman Nielsen.
COUNCILMAN NIELSEN: Shawn, did you miss it or was it not there, connections to Lanktree Gulch or that -- was that part of the conditions?
UNIDENTIFIED SPEAKER: I think so, yeah.
MAYOR CHADWICK: I think those were part of ACHD's --
COUNCILMAN HERSHEY: That was ACHD.
MAYOR CHADWICK: -- conditions.
SHAWN NICKEL: That was part of ACHD's requirements that -- that were adopted in their recommended conditions of approval.

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COUNCILMAN NIELSEN: Okay.
SHAWN NICKEL: Yeah.
COUNCILMAN NIELSEN: I -- I thought you said, "No" -- like, "No connections to Lanktree Gulch."
MAYOR CHADWICK: No. No. And I think that was part of what ACHD was talking about in their -- in their conditions; correct?
SHAWN NICKEL: Correct.
COUNCILMAN NIELSEN: I think --
SHAWN NICKEL: Yes.
COUNCILMAN NIELSEN: -- they were talking about Deep Canyon.
MAYOR CHADWICK: Okay.
COUNCILMAN NIELSEN: I mean, we're -- we're drawing on the map here connections to Lanktree Gulch; right?
MAYOR CHADWICK: And I think part of that was working with Fire and them on emergency access.
COUNCILMAN NIELSEN: Okay. So -- so we're not applying any additional conditions other than what --
SHAWN NICKEL: Other than the Wing -- other -- and the Wing -- and the --
COUNCILMAN NIELSEN: -- traffic agencies --
MAYOR CHADWICK: The Wing Road was --
SHAWN NICKEL: -- the Wing -- Wing --

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MAYOR CHADWICK: -- an additional condition.
SHAWN NICKEL: -- Road.
COUNCILMAN NIELSEN: -- that --
MAYOR CHADWICK: Yeah.
COUNCILMAN NIELSEN: But on Lanktree Gulch --
MAYOR CHADWICK: Right.
COUNCILMAN NIELSEN: Okay. Good.
So, Mayor, we also -- from the last hearing, we also discussed the -- a sound-barrier berm and a visual barrier would be constructed along the driving range.
MAYOR CHADWICK: Okay.
COUNCILMAN NIELSEN: I think that was the only one that I had noted from -- from the previous hearing.
MAYOR CHADWICK: All right.
Do we got everything?
COUNCILMAN HERSHEY: Did we need to mention a water-lift station or is that --
MAYOR CHADWICK: That's going to be part of the --
COUNCILMAN HERSHEY: That's going --
MAYOR CHADWICK: -- annexation agreement with Star Sewer & Water.
COUNCILMAN HERSHEY: Right.
MAYOR CHADWICK: A separate agreement.

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COUNCILMAN HERSHEY: And a traffic impact study at all phases. I think that's --
MAYOR CHADWICK: That's part of the ACHD's --
COUNCILMAN HERSHEY: That's the ACHD one.
MAYOR CHADWICK: -- comments, yeah.
COUNCILMAN HERSHEY: I'm just making it clear.
And we talked about matching lots.
The lighted intersection at 44 and Can Ada, that's already been agreed upon by the developer?
MAYOR CHADWICK: Yep, that's on here.
COUNCILMAN HERSHEY: That's on there.
And Wing Road is nothing...
MAYOR CHADWICK: Okay. Does that answer your question, Councilman Hershey?
COUNCILMAN HERSHEY: Yes, it -- it does.
I -- like I said, I -- I truly believe that growth happens, and it's -- it's inevitable, but where we can help is mitigating the risk. And these conditions are, by far, greater than any conditions I believe I've ever seen on an application, and they should be. They should be.
I realize that there's never making everybody happy. That's -- that's -- that's an illusion you better get out of your head.
UNIDENTIFIED SPEAKER: [Unintelligible].

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MAYOR CHADWICK: Hey. Hey.
Go ahead.
COUNCILMAN HERSHEY: Oh, all right.
Well, that just goes to my point. I said, "You're not going to make everybody happy." And -- however, it's the -- it's the risk that we have to assume. And when we assume it, we have to recognize it, identify it, and work to mitigate it. I believe -- by these processes we have in place, after all I've heard and all I've recorded, I believe we do have the ability to control this in a nice, slow, steady method.
And to the point where -- of Councilwoman Salmonsen, I believe it's slow enough and steady enough to where we could help mitigate the schools as well.
MAYOR CHADWICK: Okay. You got a motion?
COUNCILWOMAN SALMONSEN: Mayor Chadwick.
COUNCILMAN HERSHEY: No. I'd bet money --
MAYOR CHADWICK: Councilwoman.
COUNCILMAN HERSHEY: -- there's still more deliberation --
COUNCILWOMAN SALMONSEN: Mind if I add --
COUNCILMAN HERSHEY: -- that has to --
COUNCILWOMAN SALMONSEN: Councilman.
MAYOR CHADWICK: Councilwoman.

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COUNCILWOMAN SALMONSEN: Yeah. Can I -- can I add a couple things.
MAYOR CHADWICK: Sure.
COUNCILWOMAN SALMONSEN: So I appreciate everybody's comments --
MAYOR CHADWICK: Make sure you talk --
COUNCILWOMAN SALMONSEN: -- up here.
MAYOR CHADWICK: -- into the microphone.
COUNCILWOMAN SALMONSEN: I appreciate everyone's input, and you've given me things to think about.
But I still -- I think that ACHD and our road situation is very similar to the process that -- or the problem that we have with our school system. I think -- I think that a lot of the problems that we are feeling today is a result of, you know, growth that has happened over the last five years.
And ACHD has not -- you know, we've -- we stood up here. We approved these -- these projects, but ACHD, at some point, they say, "We're going to make these" -- you know, whatever the load is, that they're going to -- the street will need to be widened. We -- we're not seeing that happening.
And so my fear is that that is going to continue. And, you know, until I see some sort of, you

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know, like improvement there, I just -- I'm having a hard -- I just -- I -- I can't believe it -- it will happen. So I just wanted to add that.
And then, with the conditions, I -- I think we want to include in our conditions that the -- if there's public pathways, that they need to be -- or if there's pathways, that they all need to be public with a public easement, solid surface, and then with a safe route to school.
So with the Star Middle School, you know, that was not put in. And I think, you know, if we have the site we can plan for a safe route to school. We'll figure out where the funding comes from, if it's the developer or if it's -- you know, whoever, but we need to have that in the -- in the conditions, I think.
MAYOR CHADWICK: Okay.
COUNCILMAN HERSHEY: I agree with that statement.
MAYOR CHADWICK: Okay. Any further comments, motions?
COUNCILMAN WHEELOCK: Mr. Mayor.
MAYOR CHADWICK: Councilman Wheelock.
COUNCILMAN WHEELOCK: How do we address the Can Ada 38-percent proportionate share to move that forward?

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MAYOR CHADWICK: I think that has to -- that's all part of the -- the conditions of approval with CHD4, so that'll have to be discussions between them and CHD4 on how that gets paid.
COUNCILMAN WHEELOCK: How do we encourage that to happen?
MAYOR CHADWICK: That's a good question. I mean, we'll have to --
COUNCILMAN WHEELOCK: Because we can say it, but if we don't say how it's going to happen, it'll never happen.
MAYOR CHADWICK: The -- let's see how they wrote that in here again -- hang on -- from Mr. Hopper.
So how we -- how we -- this is how we make this happen. Basically, what they're saying is we have to reclassify that segment from the collector to the minor arterial. So we're going to have to do that, reclassify the road; right?
"This segment is included on the Mid-Star CIP with partial mitigation." "A full 3-lane section" -- so, "CHD4 recommends the City require a proportionate share contribution from the development (34% of total" traffic of 2045) "for costs of additional right-of-way and travel."
I mean, if we're adopting their conditions

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in our thing, then it's going to be up to them to satisfy this with CHD4 before they can move forward.
Am I correct?
UNIDENTIFIED SPEAKER: Yes.
MAYOR CHADWICK: Huh?
UNIDENTIFIED SPEAKER: Yes, you're correct.
MAYOR CHADWICK: Yes.
COUNCILMAN WHEELOCK: Okay.
MAYOR CHADWICK: We don't have a -- we don't have a mechanism in place with the Highway District to collect anything outside of their [unintelligible]. So that's going to have to be done with CHD4 directly.
All right.
COUNCILMAN WHEELOCK: Okay.
MAYOR CHADWICK: Any further comments, motions?
Somebody's got to make a motion because we could sit here all night.
COUNCILWOMAN SALMONSEN: Mayor Chadwick.
MAYOR CHADWICK: Councilwoman.
COUNCILWOMAN SALMONSEN: Just so everyone knows my opinion, I will make a motion that we deny this application.
MAYOR CHADWICK: Okay. We have a -- no -- no clapping, please.

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We have a motion. Do we have a second?
Hearing no second, that motion dies.
Do we have a new motion?
UNIDENTIFIED SPEAKER: I just don't know how to make it.
MAYOR CHADWICK: Anybody?
UNIDENTIFIED SPEAKER: Hang on.
MAYOR CHADWICK: You got a motion, Councilman Nielsen?
COUNCILMAN NIELSEN: Not yet.
MAYOR CHADWICK: Not yet?
Councilman Hershey?
Councilman Wheelock?
Councilman Hershey gave me the finger to wait.
COUNCILMAN HERSHEY: One -- I said, "Give me a second."
MAYOR CHADWICK: Give you a second?
COUNCILMAN HERSHEY: Not the other finger.
MAYOR CHADWICK: No.
Okay. We'll sit here for a few minutes while they write their motions.
COUNCILMAN NIELSEN: Does the silence make you nervous?
MAYOR CHADWICK: It's -- it's the silence.

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It's -- yeah.
Anybody got a motion yet?
Okay. Someone please provide a motion one way or the other.
COUNCILMAN HERSHEY: There's no, "Maybe."
Hang on.
MAYOR CHADWICK: We had one way, and -- and no one went with it so --
COUNCILWOMAN SALMONSEN: Yep.
MAYOR CHADWICK: -- we need a different motion.
We could do -- okay. Let's do --
COUNCILMAN WHEELOCK: There's a lot -- there's a lot to consider --
MAYOR CHADWICK: Okay.
COUNCILMAN WHEELOCK: -- in the motion.
MAYOR CHADWICK: So then let's do 9 -- we're going to take a -- a recess until 9:55 for you to collect your thoughts. That's seven minutes; okay?
(Recess taken from 2:48:24 to 2:54:48 of audio file.)
MAYOR CHADWICK: We're going to call the Star City Council meeting back to order. It's 9:55.
We've got -- Jacob [phonetic], you got it? You're ready?

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And we're good online, Ms. Dana [phonetic]?
Okay. So we're coming back. We took a brief recess for the Council to get some thoughts together. We must have a -- a motion to either approve or deny this project tonight or table it. So I need to have -- I need a motion, please.
COUNCILMAN NIELSEN: Mayor Chadwick.
MAYOR CHADWICK: Councilman Nielsen.
COUNCILMAN NIELSEN: I appreciate the recess.
I'll -- I'll go ahead and make a motion. And -- and I want to share just a couple of last thoughts as -- yeah, well, you guys got to talk for hours last time, and I get to talk for a few minutes this time.
MAYOR CHADWICK: All right.
COUNCILMAN NIELSEN: So, you know, as Councilwoman Salmonsen made her motion, a -- a big part of me wanted to go ahead and second that. I know where -- where she's going with that, but, you know, we've -- as we've talked about, we've got challenges for funding and -- and -- and making some things happen in this state.
And -- and again, where I land is that I -- I can't make that fight be borne by a private

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citizen all by themselves. That's one consideration.
You know, I've already shared
that -- and I do find that the application -- on the
technical and legal merits, it -- it matches up with our
Comprehensive Plan and our zoning ordinances.
There's -- there's no challenge that I find there.
Some of the -- the things that I find
positive -- it will force improvements to Can Ada Road,
which we sorely need; it will force the development of
Aerie Road [sic], which we sorely need; and -- and it
will bring the property under -- under planning for
the -- within the City of Star, which -- you know,
we've -- we've spent years on this application as a
City, and -- and I know County processes,
that -- that you're lucky to get one or two hours
of -- of consideration.
And so -- so as I -- I look at the
inevitable development of this land, at -- at some
point, I believe what we have before us is a -- is a
really well-thought-out plan. I believe that the
process that we've gone through here and some of the
conditions that we're making at this early stage of the
project set us up for -- for a good start.
And trusting in the process, that
additional hearings and additional public input

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will -- will only further make improvements and -- and
clarifications to that process, I'm going to go ahead
and make a motion that we approve the project with the
conditions that -- that Councilman Hershey had staff
read earlier.
That's my motion.
MAYOR CHADWICK: Okay. We have a motion.
Do we have a second?
We need a second.
COUNCILMAN HERSHEY: I will second it,
Mr. Mayor.
MAYOR CHADWICK: We've got a motion and a
second by Councilman Hershey.
Any further discussion?
COUNCILMAN HERSHEY: Yes, sir. I --
MAYOR CHADWICK: Councilman Hershey.
COUNCILMAN HERSHEY: Like I said, I do believe
that we have the best chance of slow, steady growth, and
the fact that it has immediate impact on some road
improvements is a positive.
MAYOR CHADWICK: Okay.
COUNCILMAN HERSHEY: That's --
MAYOR CHADWICK: Any further discussion?
Hearing none.
Roll call.

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THE CLERK: Nielsen.
MAYOR CHADWICK: Oh. Oh, microphone on.
THE CLERK: Nielsen.
COUNCILMAN NIELSEN: Aye.
THE CLERK: Salmonsen.
COUNCILWOMAN SALMONSEN: No.
THE CLERK: Wheelock.
COUNCILMAN WHEELOCK: Aye.
THE CLERK: Hershey.
COUNCILMAN HERSHEY: Aye.
MAYOR CHADWICK: Okay. That motion carries,
three to one.
Thank you.
All right. We're going to move on to
Item -- we've got more on our agenda tonight. We need
to move on to Item 6A, Ordinance for the Medici Vista
Subdivision.
UNIDENTIFIED SPEAKER: [Unintelligible].
MAYOR CHADWICK: We must introduce it and
dispense of the rules.
Anybody got the card?
COUNCILMAN HERSHEY: I have one.
MAYOR CHADWICK: Who wants to do the motion?
UNIDENTIFIED SPEAKER: David.
MAYOR CHADWICK: David will do it. Okay.

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COUNCILMAN HERSHEY: I haven't looked at the
agenda in a minute.
MAYOR CHADWICK: Make sure you speak into the
microphone there.
UNIDENTIFIED SPEAKER: [Unintelligible].
COUNCILMAN HERSHEY: Oh, let's see.
MAYOR CHADWICK: Okay. Please, folks. Wait
for your conversations until out in the hallway.
Thank you.
COUNCILMAN HERSHEY: Yeah. So, Mr. Mayor, I
move that, pursuant to Idaho Code -- oh, Mr. Mayor,
I -- I move that we introduce Ordinance No. 379-2023,
Medici Vista Subdivision, and I move that, pursuant to
Code -- Idaho Code Section 50-902, the rule requiring an
ordinance to be read on three different days, with one
reading to be in full, be dispensed with and that
Ordinance No. 379-2023 be considered after reading once
by title only.
MAYOR CHADWICK: Okay. We have a motion.
Do we have a second?
COUNCILMAN WHEELOCK: Second.
MAYOR CHADWICK: We have a motion and a
second.
Any further discussion?
Hearing none.

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Roll call.
THE CLERK: Nielsen.
COUNCILMAN NIELSEN: Aye.
THE CLERK: Salmonsen.
COUNCILWOMAN SALMONSEN: Aye.
THE CLERK: Wheel -- Wheelock.
COUNCILMAN WHEELOCK: Aye.
THE CLERK: And Hershey.
COUNCILMAN HERSHEY: Aye.
MAYOR CHADWICK: Okay. That motion carries.
Thank you.
Approve the motion --
COUNCILMAN HERSHEY: Oh, shoot. Sorry.
MAYOR CHADWICK: -- I mean, the -- the ordinance.
COUNCILMAN HERSHEY: Yes. Mr. Mayor, I move that we approve Ordinance No. 379-2023, Medici Vista Subdivision, "an ordinance annexing" -- excuse me -- "an ordinance annexing to the city of Star certain real property located in the unincorporated area of Ada County, Idaho; more specifically located at 4401 North Pollard Lane, in Star, Idaho (Ada County Parcel S0333212580) and contiguous to the city of Star; the property is owned by Bruce A. Bente; establishing the zoning classification of the annexed property as

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residential with a development agreement" (RD-1) -- "(R-1-DA) of approximately 13.13 acres; directing that certified copies of this ordinance be filed as provided by law; providing for related matters; and providing for an effective date."
MAYOR CHADWICK: Okay. We have a motion.
Do we have a second?
COUNCILMAN HERSHEY: I'm struggling.
COUNCILMAN WHEELOCK: Second.
MAYOR CHADWICK: We have a motion and a second by Councilman Wheelock.
Roll call.
THE CLERK: Nielsen.
COUNCILMAN NIELSEN: Aye.
THE CLERK: Salmonsen.
COUNCILWOMAN SALMONSEN: Aye.
THE CLERK: Wheelock.
COUNCILMAN WHEELOCK: Aye.
THE CLERK: Hershey.
COUNCILMAN HERSHEY: Aye.
MAYOR CHADWICK: Okay. That motion carries.
On to Item 6B, Ordinance 380-2023, Medici Hills Subdivision Annexation.
COUNCILMAN HERSHEY: Yeah, Mr. Mayor.
MAYOR CHADWICK: Councilman Hershey, sorry.

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COUNCILMAN HERSHEY: I move to introduce, and I move that, pursuant to Idaho Code Section 50-902, requiring an ordinance to be read on three different days, with one reading to be in full, be dispensed with and that Ordinance No. 30 -- excuse me -- 380-2023 be considered after reading by title -- be -- be considered after reading once by title only.
MAYOR CHADWICK: Okay. We've got a motion.
Do we have a second?
COUNCILMAN WHEELOCK: Second.
MAYOR CHADWICK: A motion and a second by Councilman Wheelock.
Any further discussion?
Hearing none.
Roll call.
THE CLERK: Nielsen.
COUNCILMAN NIELSEN: Aye.
THE CLERK: Salmonsen.
COUNCILWOMAN SALMONSEN: Aye.
THE CLERK: Wheelock.
COUNCILMAN WHEELOCK: Aye.
THE CLERK: Hershey.
COUNCILMAN HERSHEY: Aye.
MAYOR CHADWICK: Okay. That motion carries.
Do you want to approve the ordinance?

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COUNCILMAN HERSHEY: Sure.
MAYOR CHADWICK: Does someone else want to read it [unintelligible] --
COUNCILMAN HERSHEY: Mr. Mayor, I -- I move that we approve Ordinance No. 380-2023, Medici Hills Subdivision Annexation, "an ordinance annexing to the city of Star certain real property located in the unincorporated area of Ada County, Idaho; more specifically located on North Highway 16, in Star, Idaho (Ada County Parcel S0328346600) and contiguous to the city of Star; the property is owned by Medici Hills Joint Venture; establishing the zoning classification of the annexed property as residential with a development agreement of approximately 48.73 acres; directing that certified copies of this ordinance be filed as provided by law; providing for related" materials; "and providing for an effective date."
MAYOR CHADWICK: "Related matters."
COUNCILMAN HERSHEY: Excuse me. "Related" -- yes. "Providing for related matters; and providing for an effective date."
MAYOR CHADWICK: Okay. We've got a motion.
Do we have a second?
COUNCILMAN WHEELOCK: Second.
MAYOR CHADWICK: Any further discussion?

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COUNCILMAN NIELSEN: Mayor Chadwick.
MAYOR CHADWICK: Councilman Nielsen.
COUNCILMAN NIELSEN: So as -- as Councilman Hershey's reading through that, I'm thinking back to our -- to our hearing on this property. This was the application where they wanted to -- to basically bulldoze the -- the hills, flatten them out, and put more houses.
MAYOR CHADWICK: Correct.
COUNCILMAN NIELSEN: And -- and we had some pretty stringent restrictions on their ability to do that. I don't have the development agreement in front of me, and so I -- I want to ask staff or -- or others who may have recently reviewed that, "Did that make it into the development agreement?" I want to make sure that we're not letting somebody bulldoze hills.
COUNCILWOMAN SALMONSEN: Yeah, Mayor Chadwick.
UNIDENTIFIED SPEAKER: Mr. -- Mr. Mayor and Council, the motion that -- that the Council made was to approve the -- the annexation ordinance -- or the annexation and table the development agreement and preliminary plat. So the preliminary plat will come before this body for approval at a later date, along with the development agreement for -- for conditions and final approval.

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So we've separated the development agreement out from the annexation ordinance, and staff has made notes of all of those conditions that were put on -- as a matter of fact, the -- the -- the conditions are in the findings of fact that you guys already -- have already adopted, so those will transfer over to the future development agreement.
MAYOR CHADWICK: So I'm going to go -- I don't know where you're going with this.
So it says in our ordinance, with the development agreement, that we need to remove that language since the development agreement's coming later?
COUNCILMAN WHEELOCK: I don't see why not. Or is it a develop --
UNIDENTIFIED SPEAKER: That's fine. The -- the -- the reason that's in there is because we need -- we need to have that R-1-DA in the zoning --
COUNCILMAN WHEELOCK: You're looking at the -- at the [unintelligible] --
MAYOR CHADWICK: R -- R-2-DA.
UNIDENTIFIED SPEAKER: Well, there's both.
Well, I guess, yeah. Yeah. The --
MAYOR CHADWICK: Yeah.
UNIDENTIFIED SPEAKER: -- R -- R-2-DA has to be -- the County has to recognize that and put it on

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their zoning maps. If we don't have the -- the DA next to it, then it's just R-2, and it -- we --
COUNCILMAN WHEELOCK: [Unintelligible].
UNIDENTIFIED SPEAKER: It eliminates that development agreement acknowledgment in the -- that zoning classification.
COUNCILMAN NIELSEN: And yet, it adopts the development agreement.
What -- what you're saying -- saying, though, is that -- and -- and I -- and I believe I remember this -- that -- that, yes, the preliminary plat's coming, and the development agreement can be modified at that point in time.
UNIDENTIFIED SPEAKER: Correct.
COUNCILMAN NIELSEN: So -- so we're going to have --
UNIDENTIFIED SPEAKER: So -- so I -- I guess you're not -- you're not adopting the development agreement. You're just -- we're just -- we're approving the ordinance with the R-2-DA --
COUNCILMAN NIELSEN: We're creating the --
UNIDENTIFIED SPEAKER: -- zoning classification --
COUNCILMAN NIELSEN: -- possibility of a --
UNIDENTIFIED SPEAKER: Yes.

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COUNCILMAN NIELSEN: -- development agreement that --
UNIDENTIFIED SPEAKER: Yes.
COUNCILMAN NIELSEN: -- will be created and approved and adopted --
UNIDENTIFIED SPEAKER: Correct.
COUNCILMAN NIELSEN: -- later.
UNIDENTIFIED SPEAKER: I just -- just verifying for --
COUNCILMAN HERSHEY: So, Mr. Mayor.
UNIDENTIFIED SPEAKER: -- Council [unintelligible]. That's okay.
COUNCILMAN HERSHEY: I will amend my reading --
MAYOR CHADWICK: Oh, you don't have to. Chris [phonetic] said we're okay.
COUNCILMAN HERSHEY: Oh, I will not do that.
MAYOR CHADWICK: Okay. Any further discussion?
COUNCILMAN WHEELOCK: Thank you for that clarification.
MAYOR CHADWICK: Yep. Okay.
Roll call.
THE CLERK: Nielsen.
COUNCILMAN NIELSEN: Aye.

THE CLERK: Salmonsen.
COUNCILWOMAN SALMONSEN: Aye.
THE CLERK: Wheelock.
COUNCILMAN WHEELOCK: Aye.
THE CLERK: And Hershey.
COUNCILMAN HERSHEY: Aye.
MAYOR CHADWICK: All right. That concludes. We're at Item 7, Adjournment.
Thank you, everybody, for these long nights on our City Council meetings.
And thank you, LifeSpring Church, again, for the use of your facility.
It's 10:07, and we're adjourned.
(End transcription at 3:06:51 of audio file.)
-o0o-

REPORTER'S CERTIFICATE

I, VICTORIA HILLES, RPR, Registered Professional Reporter, CSR No. 1173, Certified Shorthand Reporter, certify:

That the audio recording of the proceedings was transcribed by me or under my direction.

That the foregoing is a true and correct transcription of all testimony given, to the best of my ability.

I further certify that I am not a relative or employee of any attorney or party, nor am I financially interested in the action.

IN WITNESS WHEREOF, I set my hand and seal this 11th day of July, 2023.

VICTORIA HILLES, RPR, CSR NO. 1173
Notary Public
Post Office Box 2636
Boise, Idaho 83701-2636

My commission expires December 3, 2026

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CITY OF STAR
Claim Approval List
For the Accounting Period: 12/23
For Pay Date: 01/02/24

Claim/ Check	Vendor #/Name/ Invoice #/Inv Date/Description	Document $/ Line $	Disc $	PO #	Fund	Org	Acct	Object	Proj	Cash Account
2996	20 ADA COUNTY HIGHWAY DISTRICT	164,171.00								
	18099 12/31/23 ACHD Impact Fees Dec 2023	164,171.00*			10		41510	731		10110
	Total for Vendor:	**164,171.00**								
2986	145 BSN SPORTS	1,405.38								
	924314801 12/20/23 Team wristbands	47.96*			10	241	44021	612		10110
	924314801 12/20/23 Excel TF-500 27.5#	869.71*			10	241	44021	612		10110
	924314801 12/20/23 Excel TF-500 28.5#	329.89*			10	241	44021	612		10110
	924314801 12/20/23 Recruit Basketball Set of 6	44.99*			10	241	44021	612		10110
	924314801 12/20/23 Colt 25.5" Basketball Set o	59.99*			10	241	44021	612		10110
	924314801 12/20/23 Freight	52.84*			10	241	44021	612		10110
	Total for Vendor:	**1,405.38**								
2995	270 EAGLE LAND SURVEYING LLC	500.00								
	2456 12/19/23 Easement - Pathway Project	500.00*			10		45110	741		10110
	Total for Vendor:	**500.00**								
2988	271 ECI CONTRACTORS	15,765.44								
Electrical Inspections, 60% of Total										
	Dec 2023 01/02/24 Electrical Inspections	15,765.44*			10		41510	454		10110
	Total for Vendor:	**15,765.44**								
2997	382 IDAHO CENTRAL CREDIT UNION	6,876.92								
Visa Charges from 11/22/23 to 12/21/23										
	11/22/23 Chadwick	1,105.17*			10		41810	611		10110
IDAHO PRESS TRIBUNE										
	11/22/23 Qualls	2,612.12*			10		41810	611		10110
PARKBOISE										
	11/22/23 Little	199.88*			10		41810	611		10110
PARKBOISE										
	11/22/23 Field	2,959.75*			10		41810	611		10110
RUSTIC TABLE										
	Total for Vendor:	**6,876.92**								

CITY OF STAR
Claim Approval List
For the Accounting Period: 12/23
For Pay Date: 01/02/24

Claim/ Check	Vendor #/Name/ Invoice #/Inv Date/Description	Document $/ Line $	Disc $	PO #	Fund	Org	Acct	Object	Proj	Cash Account
2990	1073 INSPECT LLC	12,744.00								
Monthly Plumbing Inspections, 60% of Total										
Dec 2023 01/02/24	Plumbing Inspections	12,744.00*			10	41510		453		10110
	Total for Vendor:	**12,744.00**								
2998	583 MASTERCARD	3,645.65								
Mastercard charges from 10/11/23 to 11/09/23										
11/10/23	Chadwick	36.00*			10	41810		611		10110
UNITED STATES POSTAL SERVICE										
11/10/23	Qualls	2,252.51*			10	41810		611		10110
UNITED STATES POSTAL SERVICE										
11/10/23	Little	1,357.14*			10	41810		611		10110
UNITED STATES POSTAL SERVICE										
	Total for Vendor:	**3,645.65**								
2989	1037 RIMI INC	14,599.43								
Mechanical Inspections, 60% of total										
Dec 2023 01/02/24	Mechanical Inspections	14,599.43*			10	41510		455		10110
	Total for Vendor:	**14,599.43**								
2987	737 RYAN FIELD	530.00								
Reimburesment for expenditures										
12/29/23	Reimburse Bldg Clerk Training	530.00*			10	41510		560		10110
	Total for Vendor:	**530.00**								
2992	811 STAR FIRE DEPARTMENT	45,227.28								
Dec 2023 01/02/24	Star Fire Impact Fees	45,227.28*			10	41510		734		10110
	Total for Vendor:	**45,227.28**								
2993	862 TERMINIX COMMERCIAL	151.00								
441856545 12/31/23	Pest Control - City Hall	151.00*			10	41540		434		10110
	Total for Vendor:	**151.00**								

CITY OF STAR
Claim Approval List
For the Accounting Period: 12/23
For Pay Date: 01/02/24

Claim/	Check	Vendor #/Name/ Invoice #/Inv Date/Description	Document $/ Line $	Disc $	PO #	Fund	Org	Acct	Object	Proj	Cash Account
2947		1030 WHITE PETERSON	7,974.30								
	154848	10/31/23 Middleton - postage	0.63*			10		41310	323		10110
	159486	10/31/23 Keith Hill-First Church of God	3,594.66*			10		41310	323		10110
	160629	11/30/23 Keith Hill-First Church of God	4,379.01*			10		41310	323		10110
		Total for Vendor:	**7,974.30**								
2991		952 WHITMAN & ASSOC INC	62,078.61								
	2023-12	01/02/24 Building Inspections - August	62,078.61*			10		41510	452		10110
		Total for Vendor:	**62,078.61**								
2994		963 YORGASON LAW OFFICES PLLC	3,720.00								
	Contract	01/01/24 City Attorney Monthly Servic	3,500.00*			10		41310	322		10110
	2023-Dec	01/01/24 City Attorney Additional Svc	220.00*			10		41310	322		10110
		Total for Vendor:	**3,720.00**								
		# of Claims 14	**Total:**	**339,389.01**	**# of Vendors 14**						

CITY OF STAR
Claim Approval List
For the Accounting Period: 1/24
For Pay Date: 01/05/24

Claim/ Check	Vendor #/Name/ Invoice #/Inv Date/Description	Document $/ Line $	Disc $	PO #	Fund	Org	Acct	Object	Proj	Cash Account
3024	22 ADA COUNTY PROSECUTORS OFFICE	2,630.14								
	JAN 2024 12/26/23 Prosecutions Contract	2,630.14*			10		42110	322		10110
	Total for Vendor:	**2,630.14**								
3014	23 ADA COUNTY SHERIFF'S OFFICE	13,632.00								
	121994 01/02/24 Lease of Vehicles Jan-Sep 2024	13,632.00*			10	800	45110	741		10110
	Total for Vendor:	**13,632.00**								
3021	1344 HORROCKS	39,258.12								
	80997 10/19/23 SH-44 CE&I Progress Pay App 9	39,258.12*			10	500	41510	331		10110
	Total for Vendor:	**39,258.12**								
3020	707 REPUBLIC SERVICES INC	968.74								
	001339464 12/31/23 Hunters Creek Park	528.42*			10		41540	411		10110
	001339755 12/31/23 Star River Access 1000 S Ma	86.29*			10		41540	411		10110
	001339804 12/31/23 River Park 1000 S Main St	117.70*			10		41540	411		10110
	001343161 12/31/23 Star City Hall	145.01*			10		41540	411		10110
	001343540 12/31/23 Blake Haven Park	91.32*			10		41540	411		10110
	Total for Vendor:	**968.74**								
3022	1238 ROYALTY ELECTRIC LLC	14,447.00								
	23156 01/04/24 Cameras City Hall	9,815.00*			10		45110	741		10110
	24005-1 01/03/24 Cameras/Licensing Rec Center	4,632.00*			10	850	45110	741		10110
	Total for Vendor:	**14,447.00**								
3023	898 TREASURE VALLEY COFFEE	173.91								
	10079075 01/02/24 City Hall Coffee/Water/FA	116.38*			10		41810	610		10110
	10038910 01/02/24 Rec Cntr Water	23.10*			10		44022	610		10110
	10079078 01/02/24 Bldg Maint First Aid/Cups	34.43*			10		41540	610		10110
	Total for Vendor:	**173.91**								
	*** Claim from another period (12/23) ****									
3026	930 VALLEY WIDE COOP	347.79								
	A69348 12/01/23 Gas	347.79*			10		41540	626		10110
	Total for Vendor:	**347.79**								

CITY OF STAR
Claim Approval List
For the Accounting Period: 1/24
For Pay Date: 01/05/24

Claim/	Check	Vendor #/Name/ Invoice #/Inv Date/Description	Document $/ Line $	Disc $	PO #	Fund	Org	Acct	Object	Proj	Cash Account
3025		962 XEROX	160.80								
Meter Read from 11/30/23 - 12/30/23											
		020533287 01/04/24 Meter Usage	160.80*			10	41810		324		10110
		Total for Vendor:	**160.80**								
		# of Claims 8	**Total:**	**71,618.50**	**# of Vendors 8**						

CITY OF STAR
Claim Approval List
For the Accounting Period: 1/24
For Pay Date: 01/05/24

Claim/	Check	Vendor #/Name/ Invoice #/Inv Date/Description	Document $/ Line $	Disc $	PO #	Fund	Org	Acct	Object	Proj	Cash Account
3013		21 ADA COUNTY LANDFILL	63.36								
	2401030294	01/02/24 Landfill Fees	29.12*			10		41540	411		10110
	2401020385	01/02/24 Landfill Fees	34.24*			10		41540	411		10110
		Total for Vendor:	**63.36**								
		*** Claim from another period (12/23) ****									
3006		23 ADA COUNTY SHERIFF'S OFFICE	243,235.57								
	121982	01/02/24 Police Services Nov 2023	243,235.57*			10		42110	365		10110
		Total for Vendor:	**243,235.57**								
3015		159 CANYON COUNTY CLERK	100.00								
	Dec 2023	01/02/24 Prosecution Services	100.00*			10		42110	322		10110
		Total for Vendor:	**100.00**								
3000		1478 COUNTRY TIME ASST LIVING	500.00								
	01/05/24	Refund River House Deposit	500.00*			10		41810	698		10110
		Total for Vendor:	**500.00**								
3003		231 DANA PARTRIDGE	2,925.54								
	01/05/24	Services Dec 21- Jan 4, 2024	2,709.59*			10		41140	351		10110
	01/05/24	NYE Party Favors	99.62*			10		46000	599		10110
	01/05/24	NYE Plastic Cups	52.98*			10		46000	599		10110
	01/05/24	NYE Cider	63.35*			10		46000	599		10110
		Total for Vendor:	**2,925.54**								
3017		302 FATBEAM LLC	2,597.50								
	40628	01/01/24 Fiber Optic Internet Service	2,597.50*			10		41810	419		10110
		Total for Vendor:	**2,597.50**								
2999		308 FIREWORKS & STAGE FX AMERICA LLC	18,000.00								
	21889	12/13/23 Fireworks HT DEPOSIT 2024	18,000.00*			10	50	41810	597		10110
		Total for Vendor:	**18,000.00**								
		*** Claim from another period (12/23) ****									
3004		398 IDAHO POWER COMPANY	3,284.29								
	0033022594	12/13/23 1000 S MAIN ST / PUMP	20.61*			10		41540	412		10110
	0033022589	12/13/23 10769 W STATE ST / CITY HA	580.59*			10		41810	412		10110
	0033022563	12/13/23 10775 W STATE ST / STAR OU	104.56*			10		41810	412		10110

CITY OF STAR
Claim Approval List
For the Accounting Period: 1/24
For Pay Date: 01/05/24

Claim/	Check	Vendor #/Name/ Invoice #/Inv Date/Description	Document $/ Line $	Disc $	PO #	Fund	Org	Acct	Object	Proj	Cash Account
	0033022576	12/13/23 11225 W BLAKE DR / BLAKE P	31.03*			10		41540	412		10110
	0033157130	12/13/23 11380 W HIDDEN BROOK	37.17*			10		41540	412		10110
	0033207654	12/13/23 11665 W STATE ST A	227.32*			10		41540	412		10110
	0033207655	12/13/23 11665 W STATE ST A1	191.99*			10		41540	412		10110
	0030885171	12/13/23 11665 W STATE ST C	108.04*			10		41540	412		10110
	0033022554	12/13/23 1250 N STAR RD / HUNTERS P	32.80*			10		41540	412		10110
	0033022592	12/13/23 1300 N STAR RD / HC ENTRY	45.40*			10		41540	412		10110
	0033022572	12/13/23 1310 N LITTLE CAMAS / SHOP	154.56*			10		41540	412		10110
	0033022587	12/13/23 1500 N STAR RD	608.73*			10		41540	412		10110
	0033246240	12/13/23 946 S MAIN ST	10.22*			10		41810	413		10110
	0033075641	12/13/23 HIGHBROOK / HWY 44 STRT LI	53.78*			10		41810	413		10110
	0030204591	12/13/23 HUNTER'S CREEK STRT LIGHTS	15.37*			10		41810	413		10110
	0033022596	12/13/23 BLAKE SPRINKLER ELECT	3.73*			10		41540	412		10110
	0033022580	12/13/23 STATE/PLUMMER STRT LIGHTS	12.29*			10		41810	413		10110
	0033022584	12/13/23 STRT LIGHTS STAR	404.42*			10		41810	413		10110
	0030204606	12/13/23 STRT LIGHTS / BLAKE PARK	17.94*			10		41810	413		10110
	0032863989	12/13/23 960 S MAIN ST	582.36*			10		41810	412		10110
	0032863988	12/13/23 960 S MAIN ST	41.38*			10		41810	412		10110
		Total for Vendor:	**3,284.29**								
		*** Claim from another period (12/23) ****									
3009	413	IDAHO TRACTOR INC	632.60								
	213	12/27/23 Oil and Filters	632.60*			10		41540	437		10110
		Total for Vendor:	**632.60**								
3001	1477	K & R ELECTRIC	500.00								
	01/05/24	Refund River House Deposit	500.00*			10		41810	698		10110
		Total for Vendor:	**500.00**								
		*** Claim from another period (12/23) ****									
3012	1480	KRISTINA SCHMID	70.00								
	12/30/23	Hiking Instructor	70.00*			10		44022	352		10110
		Total for Vendor:	**70.00**								
		*** Claim from another period (12/23) ****									
3011	1374	MADYSSON JUNGENBERG	135.10								
	12/30/23	Cheer Balance	135.10*			10		44022	352		10110
		Total for Vendor:	**135.10**								

CITY OF STAR
Claim Approval List
For the Accounting Period: 1/24
For Pay Date: 01/05/24

Claim/ Check	Vendor #/Name/ Invoice #/Inv Date/Description	Document $/ Line $	Disc $	PO #	Fund	Org	Acct	Object	Proj	Cash Account
3019	635 MOUNTAIN ALARM	42.50								
	4177226 01/01/24 Security Cellular Backup	17.00*			10		41810	344		10110
	4177226 01/01/24 Security Monitoring	25.50*			10		41810	344		10110
	Total for Vendor:	**42.50**								
3018	642 NAPA AUTO PARTS	43.33								
	100035 01/03/24 Windshield Wash	9.98*			10		41540	437		10110
	099996 01/02/24 Oil Filters	33.35*			10		41540	437		10110
	Total for Vendor:	**43.33**								
	*** Claim from another period (12/23) ****									
3007	656 OFFICE SAVERS ONLINE	218.16								
	10326 12/29/23 File Folder Labels	35.99*			10		41810	611		10110
	10326 12/29/23 Desktop Copyholder (2)	53.98*			10		41810	611		10110
	10326 12/29/23 Chair Mat	75.99*			10		41810	610		10110
	10326 12/29/23 Desk Tray	52.20*			10		41810	610		10110
	Total for Vendor:	**218.16**								
	*** Claim from another period (9/23) ****									
3002	1479 REBECCA DUROCHER	100.57								
Reimbursements / Costco / Albertsons - ****delayed entry / delayed reimbursement *****										
	COSTCO 08/25/23 Costco / Concert Series	75.19			10		45130	590		10110
	ALBERTSONS 09/12/23 Albertsons / Back to Schoo	25.38			10		45130	590		10110
	Total for Vendor:	**100.57**								
3016	1238 ROYALTY ELECTRIC LLC	940.00								
	24001-1 01/03/24 Phone Service	940.00*			10		41810	416		10110
	Total for Vendor:	**940.00**								
	*** Claim from another period (12/23) ****									
3010	812 STAR MERCANTILE INC	157.69								
	Multiple 12/31/23 Bldg & Grounds Supplies	157.69*			10		41540	611		10110
	Total for Vendor:	**157.69**								
	*** Claim from another period (12/23) ****									
3005	818 STAR STORAGE LLC	330.00								
	01/01/24 Unit C04 January 2024	175.00*			10		41810	699		10110
	01/01/24 Unit C08 January 2024	155.00*			10		41810	699		10110
	Total for Vendor:	**330.00**								
	# of Claims 19	**Total: 273,876.21**		**# of Vendors 19**						

CITY OF STAR
Claim Approval List
For the Accounting Period: 1/24
For Pay Date: 01/08/24

Claim/ Invoice	Check	Vendor #/Name/ #/Inv Date/Description	Document $/ Line $	Disc $	PO #	Fund	Org	Acct	Object	Proj	Cash Account
		*** Claim from another period (12/23) ****									
3027		1355 THE STAR COURIER NEWSPAPER	140.40								
1941	12/20/23	Rec Dept Advertising	140.40*			10		44022	530		10110
		Total for Vendor:	**140.40**								
		# of Claims 1	**Total:**	**140.40**	**# of Vendors 1**						

CITY OF STAR
Claim Approval List
For the Accounting Period: 12/23
For Pay Date: 12/29/23

Claim/	Check	Vendor #/Name/ Invoice #/Inv Date/Description	Document $/ Line $	Disc $	PO #	Fund	Org	Acct	Object	Proj	Cash Account
2964		21 ADA COUNTY LANDFILL	39.20								
	2312290222	12/29/23 Landfill Fees	19.20*			10		41540	411		10110
	2312290122	12/29/23 Landfill Fees	20.00*			10		41540	411		10110
		Total for Vendor:	**39.20**								
2983		1067 ANNIE PEW	405.99								
Ion Grant											
	12/27/23	Reimburse Community Fund	55.75*			10		41810	598		10110
	12/27/23	Reimburse Christmas Party	56.82*			10		41810	611		10110
	12/27/23	Reimburse Bef/Aft School	293.42*			10	101	44022	611		10110
		Total for Vendor:	**405.99**								
2971		1475 CANON FINANCIAL SERVICES, INC	1,024.96								
	31756880	12/12/23 Copier Lease City Hall	128.12*			10		41810	742		10110
	31756880	12/12/23 Copier Lease Rec Center	128.12*			10		44022	742		10110
	31590315	11/11/23 Copier Lease City Hall	128.12*			10		41810	742		10110
	31590315	11/11/23 Copier Lease Rec Center	128.12*			10		44022	742		10110
	31416214	10/12/23 Copier Lease City Hall	128.12*			10		41810	742		10110
	31416214	10/12/23 Copier Lease Rec Center	128.12*			10		44022	742		10110
	31245977	09/11/23 Copier Lease City Hall	128.12*			10		41810	742		10110
	31245977	09/11/23 Copier Lease Rec Center	128.12*			10		44022	742		10110
		Total for Vendor:	**1,024.96**								
2982		1288 DANIEL W LANE	374.50								
	12/22/23	Dec Lego/Robotics Instructor	374.50*			10		44022	352		10110
		Total for Vendor:	**374.50**								
2979		1318 DENIELLE REDONDO	308.00								
	12/22/23	December Barre Strength	308.00*			10		44022	352		10110
		Total for Vendor:	**308.00**								
2985		1113 DOMAIN LISTINGS	288.00								
From February 1, 2024 - January 31, 2025											
	DL69013030	12/14/23 Annual Website Domain List	288.00*			10		41810	751		10110
		Total for Vendor:	**288.00**								

CITY OF STAR
Claim Approval List
For the Accounting Period: 12/23
For Pay Date: 12/29/23

Claim/	Check	Vendor #/Name/ Invoice #/Inv Date/Description	Document $/ Line $	Disc $	PO #	Fund	Org	Acct	Object	Proj	Cash Account
2966		331 GEM STATE PAPER & SUPPLY COMPANY	18.12								
	3083103-01	12/27/23 Air Freshener	18.12*			10	41540		611		10110
		Total for Vendor:	**18.12**								
2975		1432 GREG CASEY	196.00								
	12/28/23	December Evening Tai Chi	196.00*			10	44022		352		10110
		Total for Vendor:	**196.00**								
2965		373 HORIZON	143.48								
	3L223719	12/27/23 Oscillat 2-way Hoe	143.48*			10	41540		613		10110
		Total for Vendor:	**143.48**								
2978		1354 LARA YOUNGMAN	224.00								
	12/22/23	December Mat Pilates	224.00*			10	44022		352		10110
		Total for Vendor:	**224.00**								
2980		524 LARRY BEARG	476.00								
	12/22/23	December Tai Chi Instruction	476.00*			10	44022		352		10110
		Total for Vendor:	**476.00**								
2976		1374 MADYSSON JUNGENBERG	1,513.10								
	12/28/23	December Interstellar	1,513.10*			10	44022		352		10110
		Total for Vendor:	**1,513.10**								
2967		642 NAPA AUTO PARTS	113.42								
	099868	12/28/23 Chevrolet Silverado Oil Change	84.95*			10	41540		437		10110
	099863	12/28/23 Brake Fluid	17.98*			10	41540		437		10110
	099825	12/27/23 3Jaw Oil Fil/Wrench	10.49*			10	41540		437		10110
		Total for Vendor:	**113.42**								
2981		649 NIKI DEAN	1,015.00								
	12/22/23	December Yoga Instruction	1,015.00*			10	44022		352		10110
		Total for Vendor:	**1,015.00**								

CITY OF STAR
Claim Approval List
For the Accounting Period: 12/23
For Pay Date: 12/29/23

Claim/	Check	Vendor #/Name/ Invoice #/Inv Date/Description	Document $/ Line $	Disc $	PO #	Fund	Org	Acct	Object	Proj	Cash Account
2963		686 PORTAPROS LLC	421.60								
	128708C-1	12/28/23 River House	160.80*			10		41540	411		10110
	121435T-1	12/21/23 Dog Park	260.80*			10		41540	411		10110
		Total for Vendor:	**421.60**								
2970		737 RYAN FIELD	57.40								
Reimburesment for expenditures											
	12/12/23	Reimburse Amazon Lasers	41.31*			10		41810	611		10110
	10/03/23	Reimburse Ridleys EE Recogn	16.09*			10		41810	610		10110
		Total for Vendor:	**57.40**								
2968		1474 SURVEYMONKEY INC	264.00								
	45117272	12/23/23 Annual Subscription	264.00*			10		41810	751		10110
		Total for Vendor:	**264.00**								
2974		1370 TAYLOR HAMMRICH	1,523.20								
	12/28/23	Dec Tumbling Instructor	1,523.20*			10		44022	352		10110
		Total for Vendor:	**1,523.20**								
2984		915 ULINE	1,137.30								
	172213222	12/15/23 Boot Scraper	298.50*			10		41540	435		10110
	172213222	12/15/23 Dog Waste Container	498.00*			10		41540	435		10110
	172213222	12/15/23 Glove Dispenser	70.00*			10		41540	435		10110
	172213222	12/15/23 Gloves	94.00*			10		41540	435		10110
	172213222	12/15/23 Portable Stove	0.00*			10		41540	435		10110
	172213222	12/15/23 Freight/Handling	176.80*			10		41540	435		10110
		Total for Vendor:	**1,137.30**								
2962		1295 VALLEY OFFICE SYSTEMS	194.33								
	AR1246891	12/26/23 Monthly Lease - Copier	163.93*			10		41810	610		10110
	AR1246891	12/26/23 Contract Overage Charge	30.40*			10		41810	610		10110
		Total for Vendor:	**194.33**								

CITY OF STAR
Claim Approval List
For the Accounting Period: 12/23
For Pay Date: 12/29/23

Claim/	Check	Vendor #/Name/ Invoice #/Inv Date/Description	Document $/ Line $	Disc $	PO #	Fund	Org	Acct	Object	Proj	Cash Account
2969		1308 YOUNG ELEVATOR INC	150.00								
	305	12/21/23 Service Maintenance	150.00*			10		41810	431		10110
		Total for Vendor:	**150.00**								
2973		966 ZOOM	2,268.60								
	232529527	12/22/23 Cloud Recording Annual	480.00*			10		41810	570		10110
	232529527	12/22/23 Zoom One Pro Annual	599.60*			10		41810	570		10110
	232529527	12/22/23 Webinar 500 Annual	690.00*			10		41810	570		10110
	232529527	12/22/23 Zoom Rooms Annual	499.00*			10		41810	570		10110
		Total for Vendor:	**2,268.60**								
		# of Claims 22	**Total:**	**12,156.20**	**# of Vendors 22**						

LEGAL NOTICE
PUBLIC HEARING

Notice is hereby given that the Star City Council will hold a Public Hearing on **November 21, 2023** at the Star City Hall, 10769 W. State Street, Star, Idaho at 7:00 pm, or as soon thereafter as the matter may be heard.

Application: Talega Village Subdivision
Files #'s AZ-22-11 Annexation/Zoning
RZ-22-03 Rezone
CU-22-05 Conditional Use
DA-22-12 Development Agreement
PP-22-15 Preliminary Plat
PR-22-08 Private Road

Representative: Chad Garner, Focus Engineering & Surveying

Owner: Derk Pardoe, 3454 Stone Mountain Ln. Sandy, Utah 84092

Action: The Applicant is requesting approval of an Annexation and Zoning (Residential R-10-DA), a Rezone (from R-1 & C-2 to Residential R-10-DA) a Development Agreement, a Conditional Use Permit for a proposed multifamily residential use (340 units), a Preliminary Plat for proposed residential and commercial uses consisting of 162 buildable lots (1 commercial lot, 1 multi-family lot, 65 single-family residential lots, 95 townhome lots and multiple common lots), and private streets. A residential density of 10 du/acres is proposed. The property is located at 58 N. Truman Place and 8370 W. Shultz Court in Star, Idaho.

Property Location: The subject property is generally located on the northeast corner of State Highway 16 and State Highway 44. Ada County Parcels: R3720002880, R3720003030, R3720002500, R3720002480, R3720001505, R3720002412, & S0409417201

Information/Comments: A complete copy of the applications are available at City Hall for public review. The City invites all interested parties to attend the meeting and provide public testimony. Written comments will be accepted by the City up to 2 days prior to the date of the public hearing.

Services for persons with disabilities may be made available if notice is received in advance of the meeting by calling Star City Hall at (208) 286-7247.

Shawn L. Nickel
Planning Director and Zoning Administrator
snickel@staridaho.org

CITY OF STAR

LAND USE STAFF MEMO

TO: Mayor & Council

FROM: City of Star Planning & Zoning Department

MEETING DATE: **January 16, 2024 – PUBLIC HEARING (tabled from 12-5-2023)**

FILE(S) #: AZ-22-11 - Annexation and Zoning
RZ-23-03 – Rezone
DA-22-12 – Development Agreement
PP-22-17 – Preliminary Plat for Talega Village Subdivision
CUP-22-05 – Talega Village Multi-Family

OWNER/APPLICANT/REPRESENTATIVE

Representative:
Chad Garner
Focus Engineering & Surveying
6949 S. High Tech Dr., Ste. 200
Midvale, UT 84047

Owner/Applicant:
Derk Pardoe
3454 Stone Mountain Lane
Sandy, UT 84092

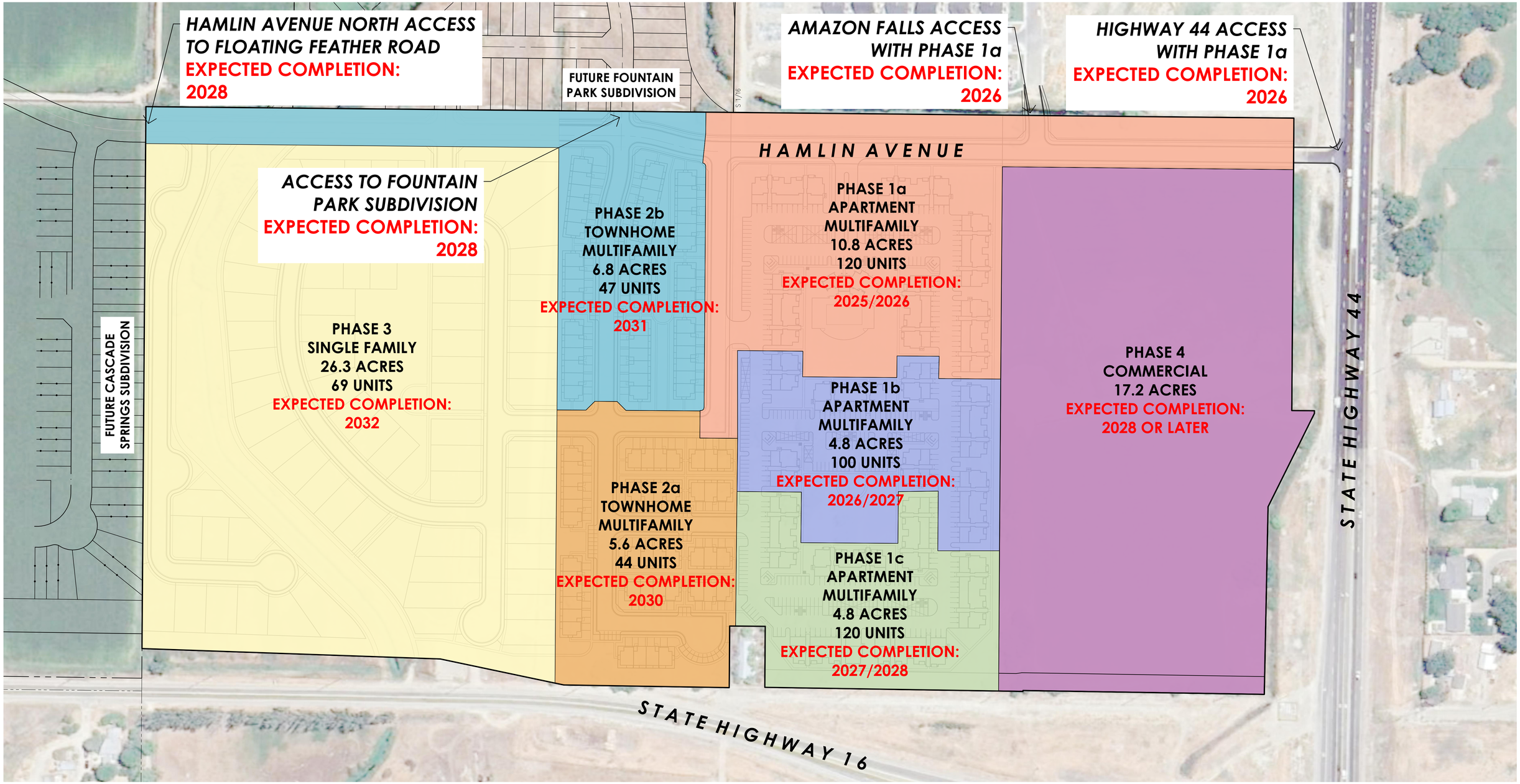
REQUEST

Request: The Applicant is requesting approval of an Annexation and Zoning (Residential R-10-DA), a Rezone (from R-1 & C-2 to Residential R-10-DA), a Development Agreement, a Preliminary Plat for proposed residential and commercial uses consisting of 162 buildable lots (1 commercial lot, 1 multi-family lot, 65 single-family residential lots, 95 townhome lots and multiple common lots), and a Conditional Use Permit for a proposed multifamily residential use (340 units), A residential density of 10 du/acre is proposed. The property is located at 58 N. Truman Place and 8370 W. Shults Court in Star, Idaho. The entire property consists of 74.61 acres.

SUMMARY

The application was table from December 5, 2023. Council directed the applicant to bring back revised plans addressing staff comments, project phasing information and updated transportation agency comments.

UPDATED EXHIBITS FROM APPLICANT FOR JANUARY 16, 2024 COUNCIL MEETING



N S

GRAPHIC SCALE

100 0 50 100 200 400

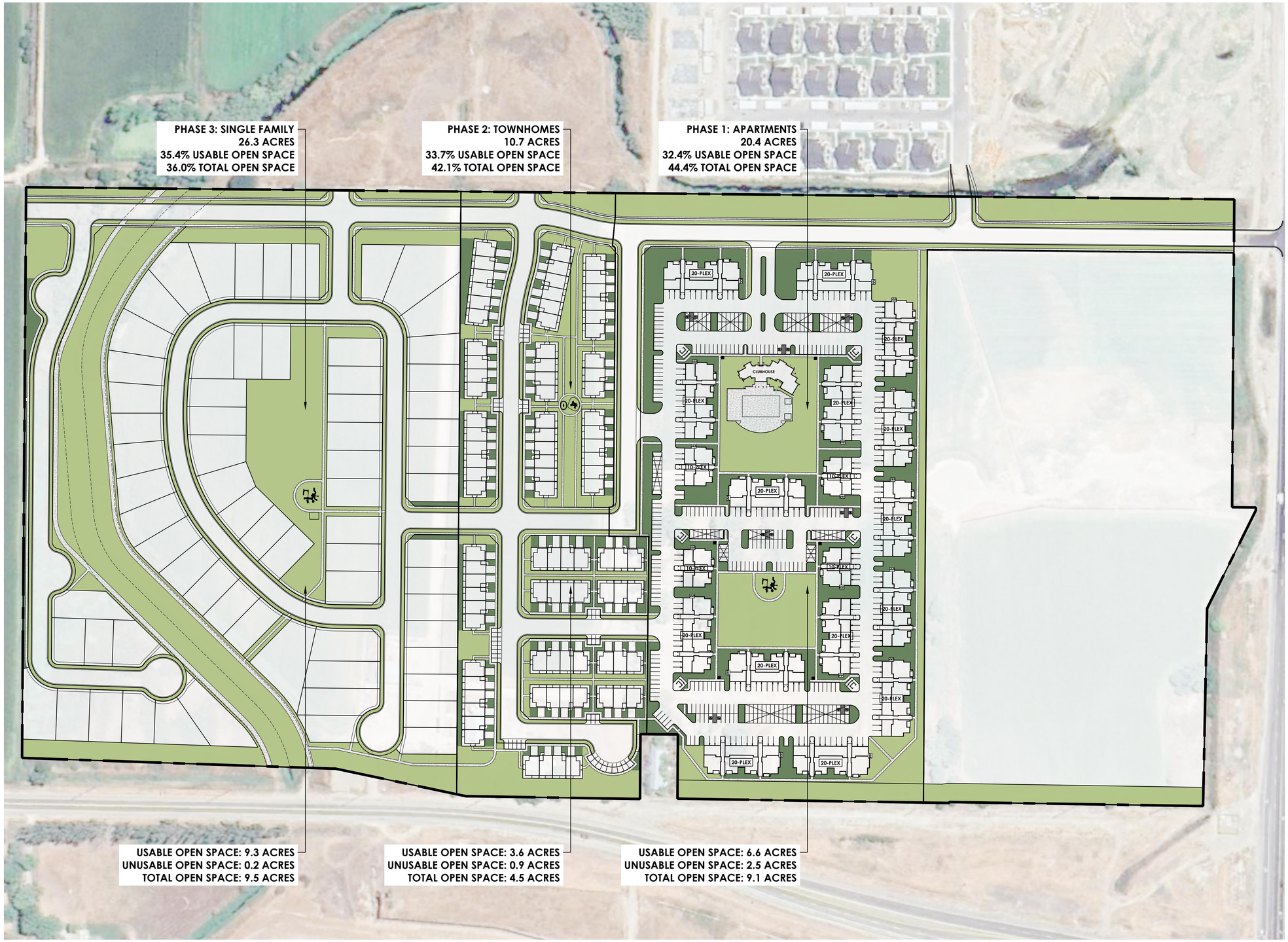
(IN FEET)
1 inch = 100ft.

TALEGA VILLAGE overall phasing exhibit

STAR CITY, ADA COUNTY, IDAHO
1/2/2024
21-0488

FOCUS ENGINEERING AND SURVEYING, LLC

Z:_2021\21-0488 Talega Village\design 21-0488\dwg\exhibit\New Phasing Exhibit 12123.dwg



OPEN SPACE

	USABLE OS	UNUSABLE OS	TOTAL OS
APARTMENTS	6.6 ACRES	2.5 ACRES	9.1 ACRES
AREA: 20.4 ACRES	32.4%		44.4%
TOWNHOMES	3.6 ACRES	0.9 ACRES	4.5 ACRES
AREA: 10.7 ACRES	33.7%		42.1%
SINGLE FAMILY	9.3 ACRES	0.2 ACRES	9.5 ACRES
AREA: 26.3 ACRES	35.4%		36.0%
TOTAL OS	**19.5 ACRES**	**3.6 ACRES**	**23.1 ACRES**
AREA: 57.4 ACRES	**34.0%**		**40.2%**

LEGEND

USABLE OPEN SPACE

UNUSABLE OPEN SPACE

N S

GRAPHIC SCALE

100 0 50 100 200 400

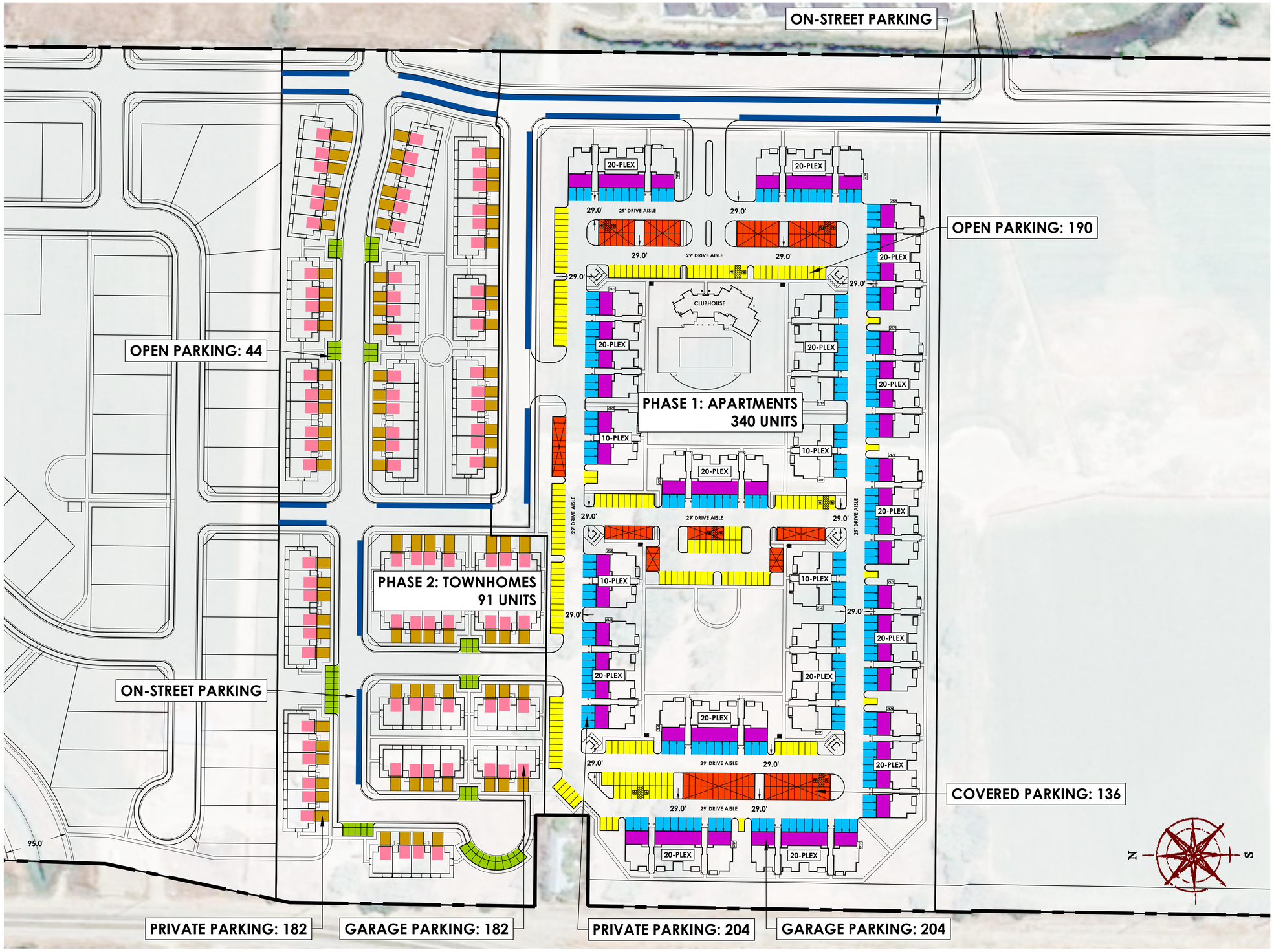
(IN FEET)
1 inch = 100ft.

TALEGA VILLAGE open space exhibit

STAR CITY, ADA COUNTY
12/22/2023
21-0488

FOCUS ENGINEERING AND SURVEYING, LLC

Z:_2021\21-0488 Talega Village\design\21-0488\dwg\exhibits\21-0488 Open Space Exhibit.dwg



PARKING

PARKING REQUIREMENTS (PER STAR CITY CODE 8-4B-3)

1-BD UNITS	1.5 STALLS/UNIT, INCLUDING 1 COVERED
2- OR 3-BD UNITS	2 STALLS/UNIT, INCLUDING 1 COVERED
GUEST PARKING	0.25 STALLS/UNIT
BIKE PARKING	1 BIKE STALL/25 UNITS

APARTMENT PARKING TABULATIONS

OPEN PARKING	190 STALLS
COVERED PARKING	136 STALLS
DRIVEWAY PARKING	204 STALLS
GARAGE PARKING (COVERED)	204 STALLS
BIKE PARKING	30 STALLS
TOTAL APARTMENT PARKING	**340 COVERED STALLS, 734 TOTAL STALLS (INCLUDES 14 ADA STALLS)**

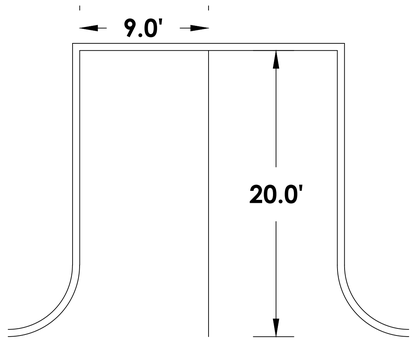
TOWNHOME PARKING TABULATIONS

OPEN PARKING	44 STALLS
DRIVEWAY PARKING	182 STALLS
GARAGE PARKING (COVERED)	182 STALLS
BIKE STALLS	5
TOTAL TOWNHOME PARKING	**182 COVERED STALLS, 408 TOTAL STALLS**
GUEST PARKING RATIO	**0.48 STALLS/UNIT**

LEGEND

- APARTMENT OPEN PARKING (190 STALLS)
- APARTMENT COVERED PARKING (136 STALLS)
- APARTMENT PRIVATE PARKING (204 STALLS)
  6 STALLS/10-PLEX; 12 STALLS/20-PLEX
- APARTMENT GARAGE PARKING (204 STALLS)
  6 STALLS/10-PLEX; 12 STALLS/20-PLEX
- TOWNHOME OPEN PARKING (44 STALLS)
- TOWNHOME PRIVATE PARKING (182 STALLS)
  2 STALLS/UNIT
- TOWNHOME GARAGE PARKING (182 STALLS)
  2 STALLS/UNIT
- ON-STREET PARKING

TYPICAL PARKING DIMENSIONS



GRAPHIC SCALE

70 0 35 70 140 280

(IN FEET)
1 inch = 70 ft.

TALEGA VILLAGE parking exhibit

STAR CITY, ADA COUNTY
1/2/2024
21-0488

FOCUS ENGINEERING AND SURVEYING, LLC

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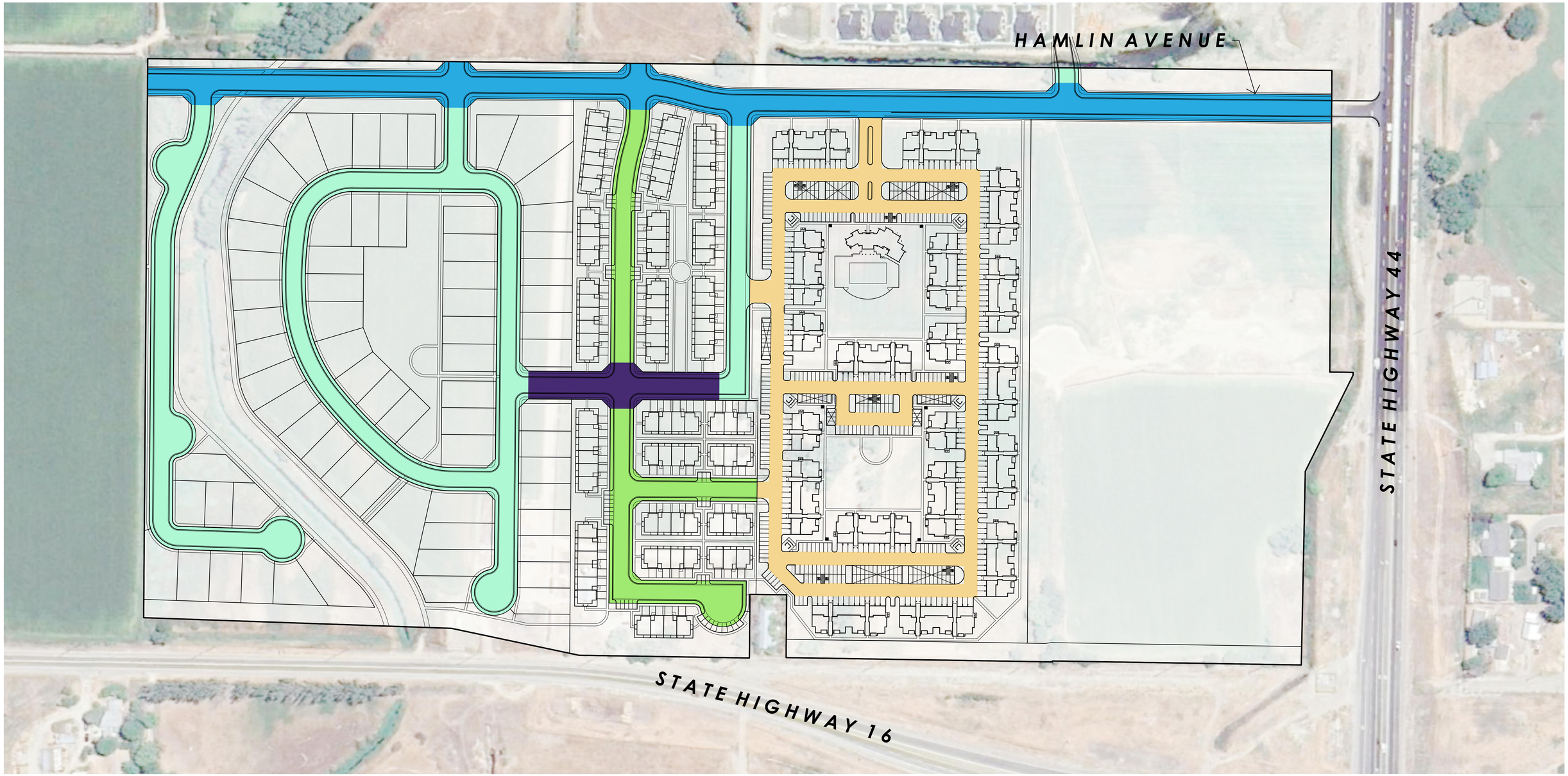

N S

GRAPHIC SCALE

100 0 50 100 200 400

(IN FEET)
1 inch = 100ft.

LEGEND

- 29' DRIVE AISLE
- 50' PRIVATE ROAD
- 50' RESIDENTIAL ROAD
- 60' RESIDENTIAL ROAD
- 60' RESIDENTIAL ROAD WITH MEDIAN

TALEGA VILLAGE roadway exhibit

STAR CITY, ADA COUNTY, IDAHO
1/2/2024
21-0488

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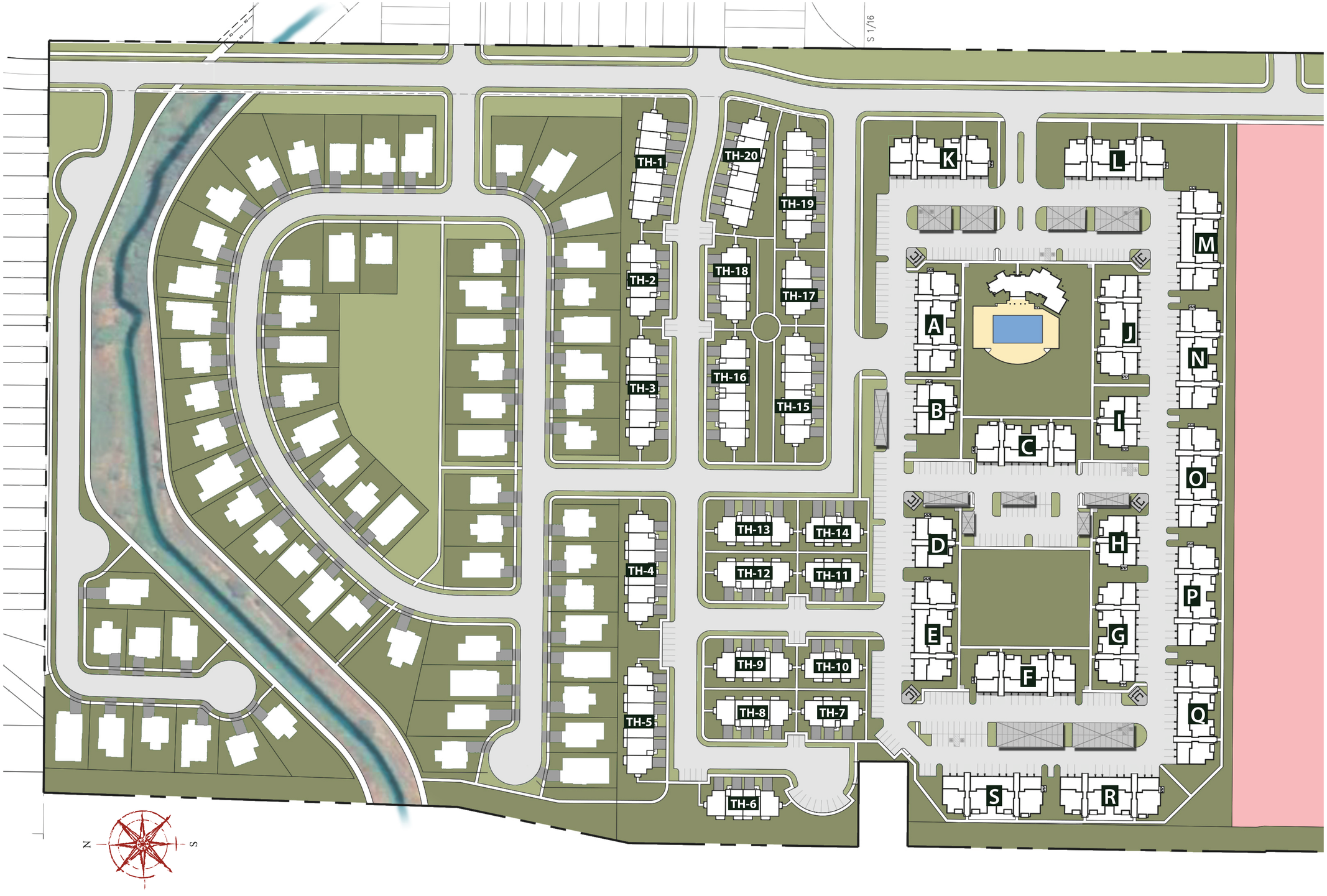
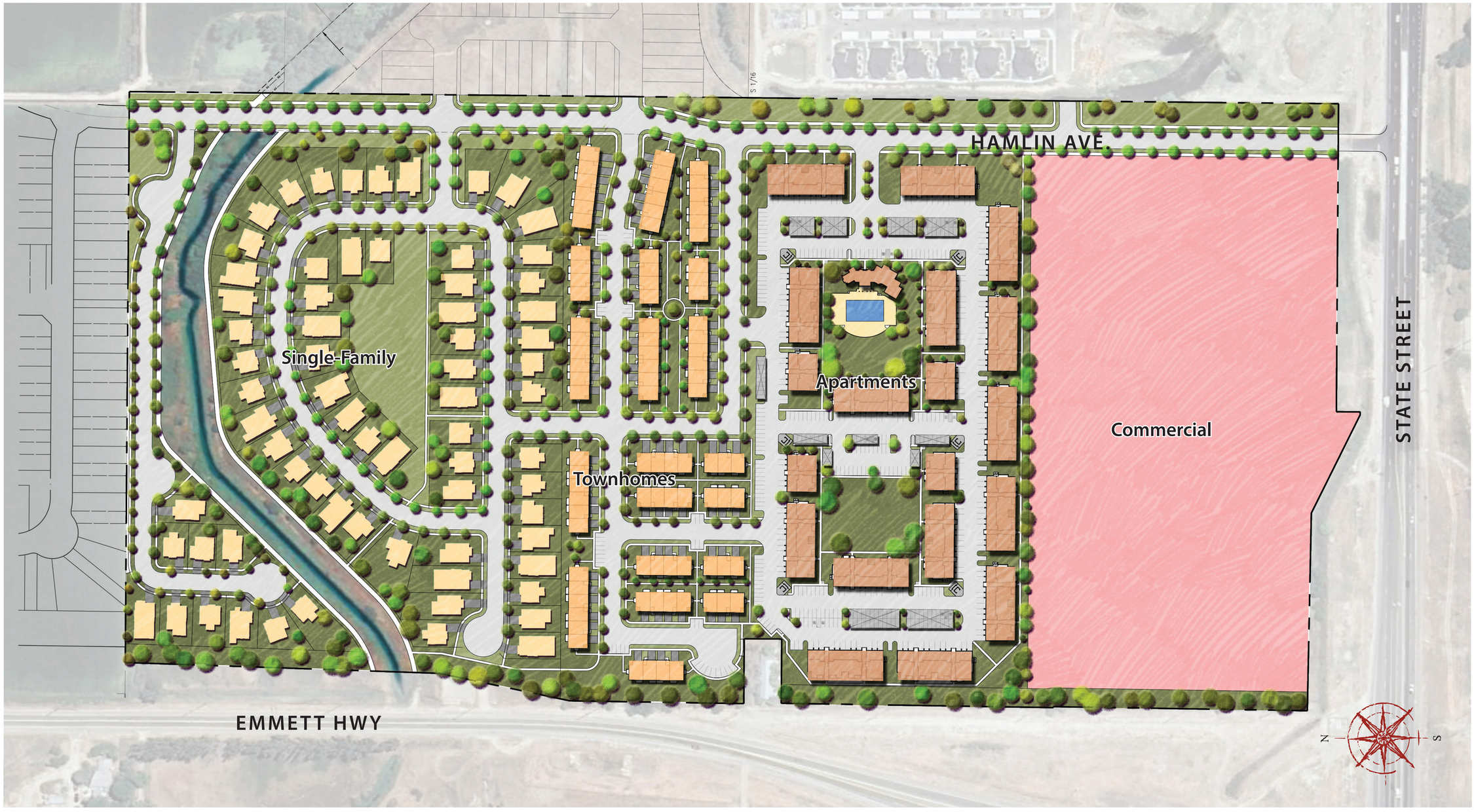
Xref Z:__Engineering Standards\acad\blocks



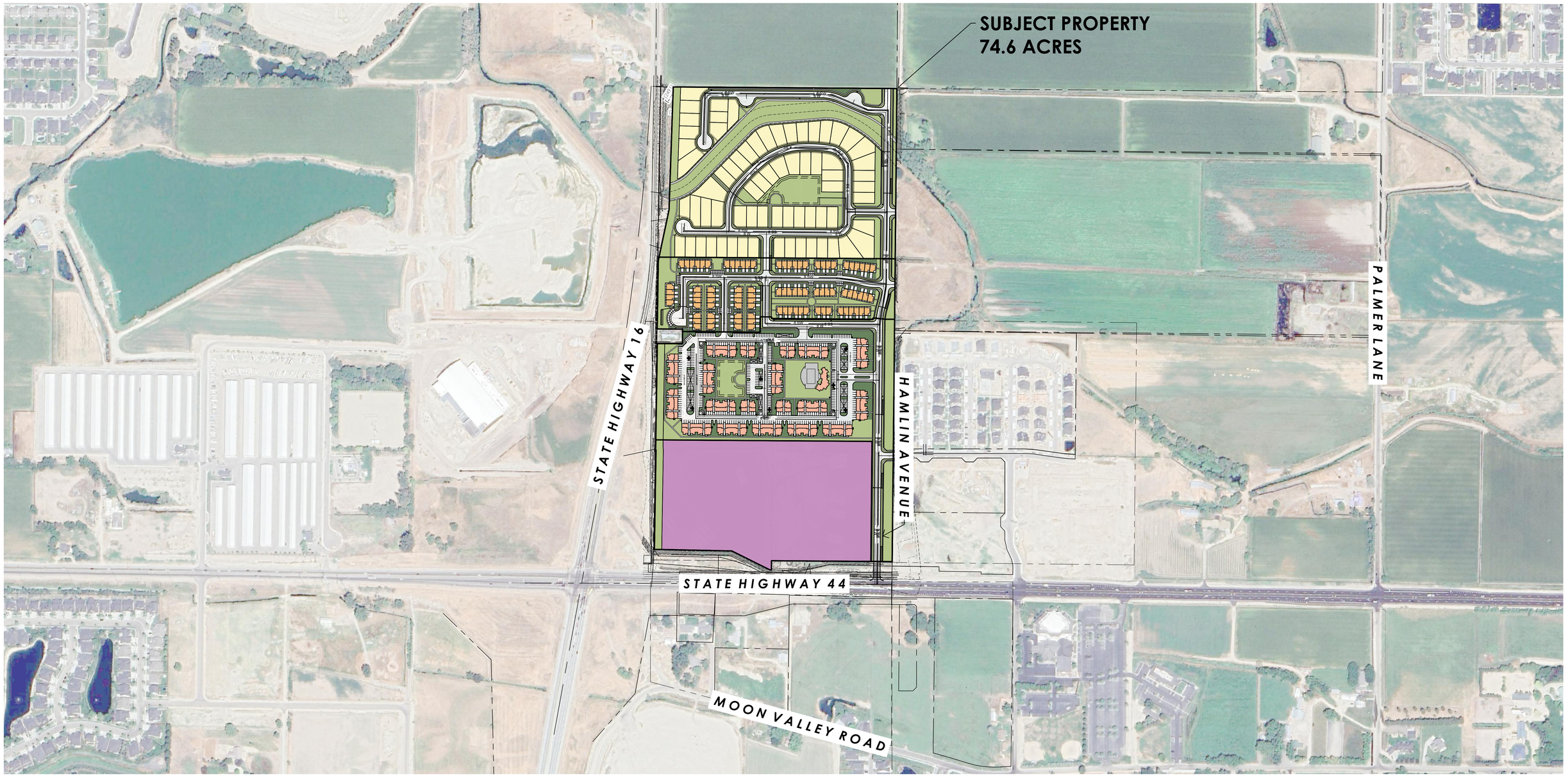
TALEGA VILLAGE *community map*

STAR, IDAHO
21-0488



TALEGA VILLAGE *color master plan*

STAR, IDAHO
21-0488



N

S

GRAPHIC SCALE

250 0 125 250 500 1,000

(IN FEET)
1 inch = 250ft.

TALEGA VILLAGE vicinity map

STAR CITY, ADA COUNTY, IDAHO
1/2/2024
21-0488

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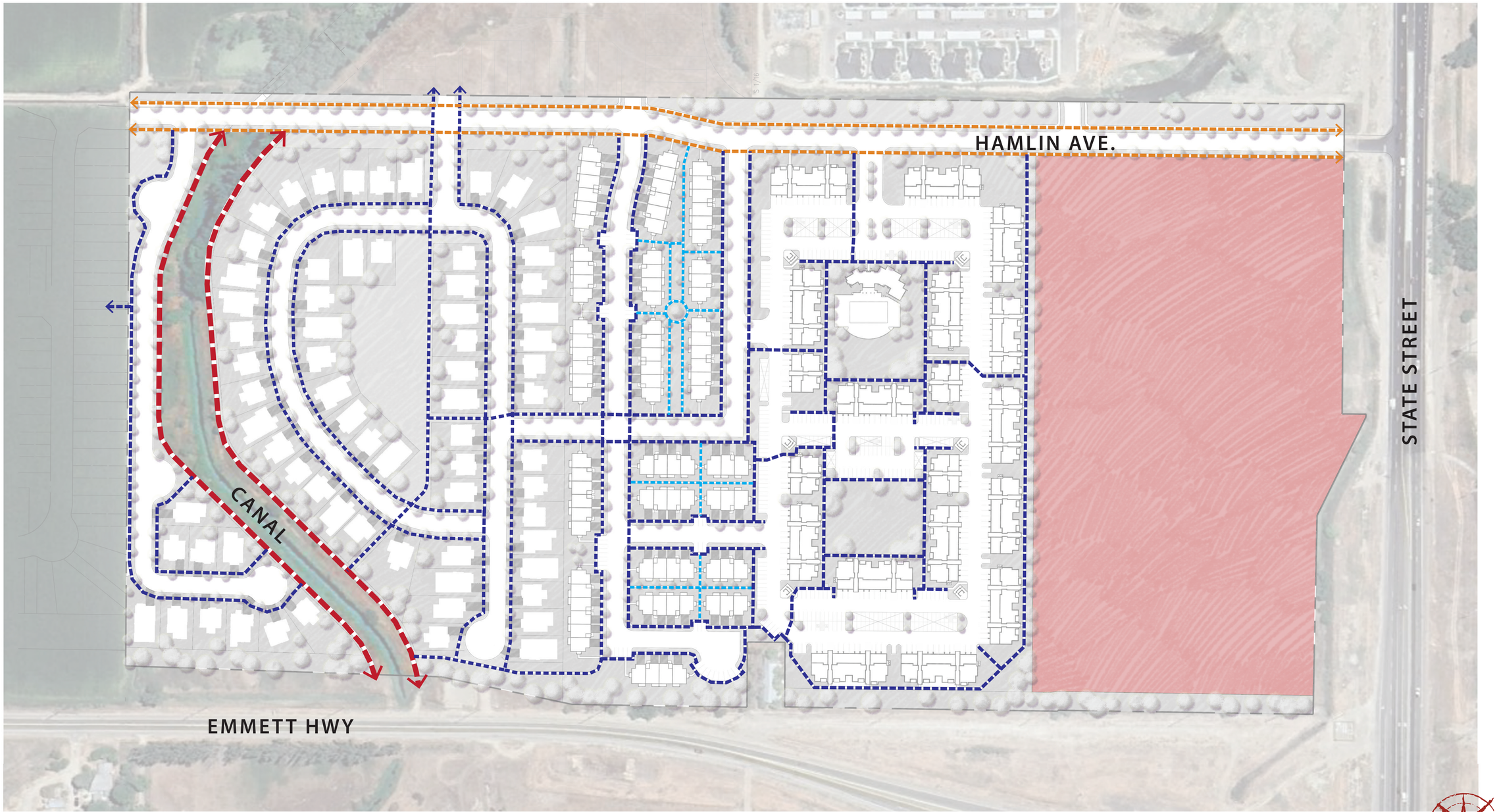


TALEGA VILLAGE *walkability plan*

STAR, IDAHO
21-0488

1 - Playground

2 - Trails & Pedestrian Connections

3 - Open Play Field

4 - Pool Amenity (3,600 sq. ft.)

5 - Spa

6 - Cabanas with TVs

7 - BBQ Areas

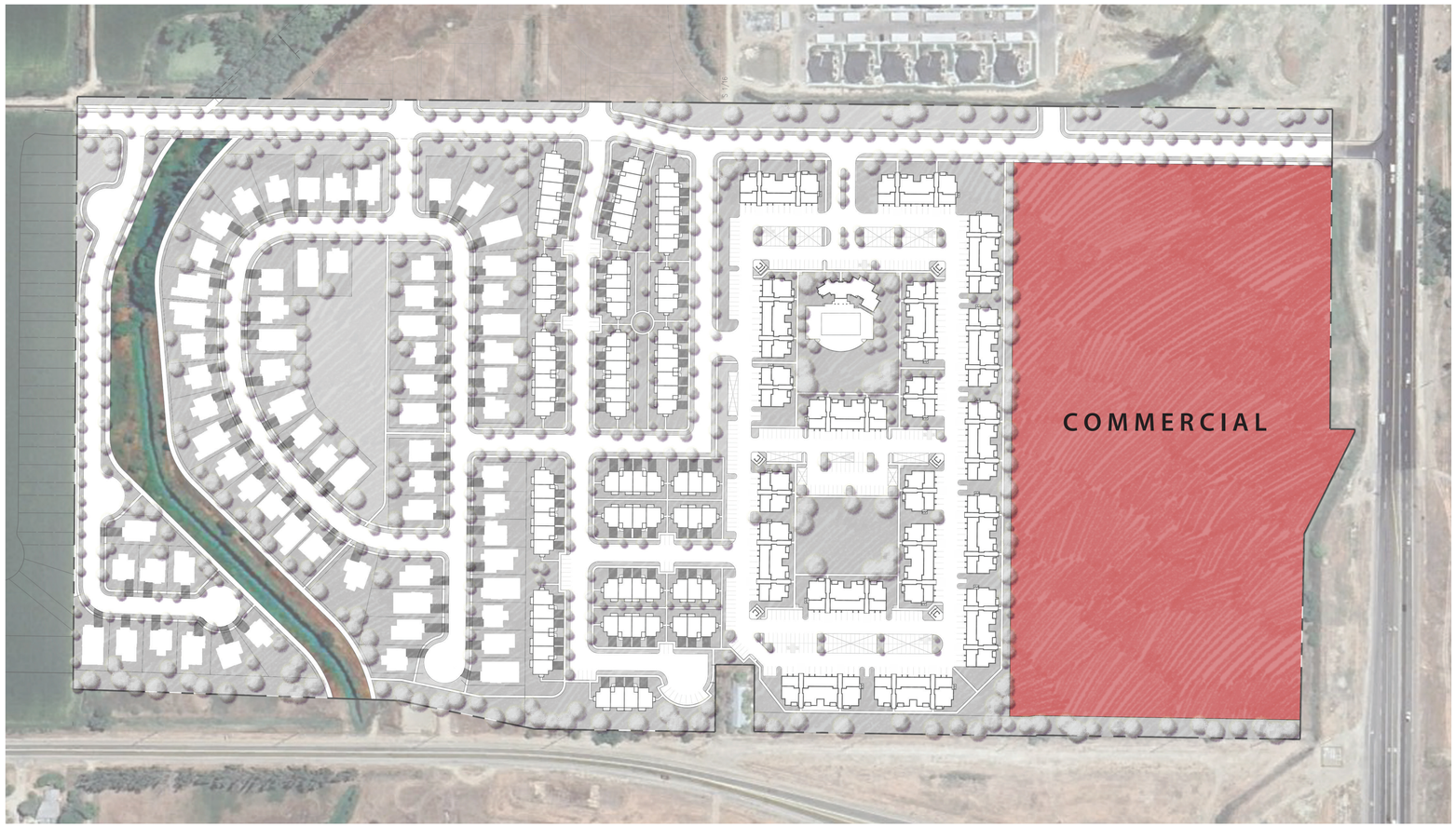
8 - Clubhouse

9 - Indoor Fitness Center

10 - Additional Open Space (beyond minimum requirement)

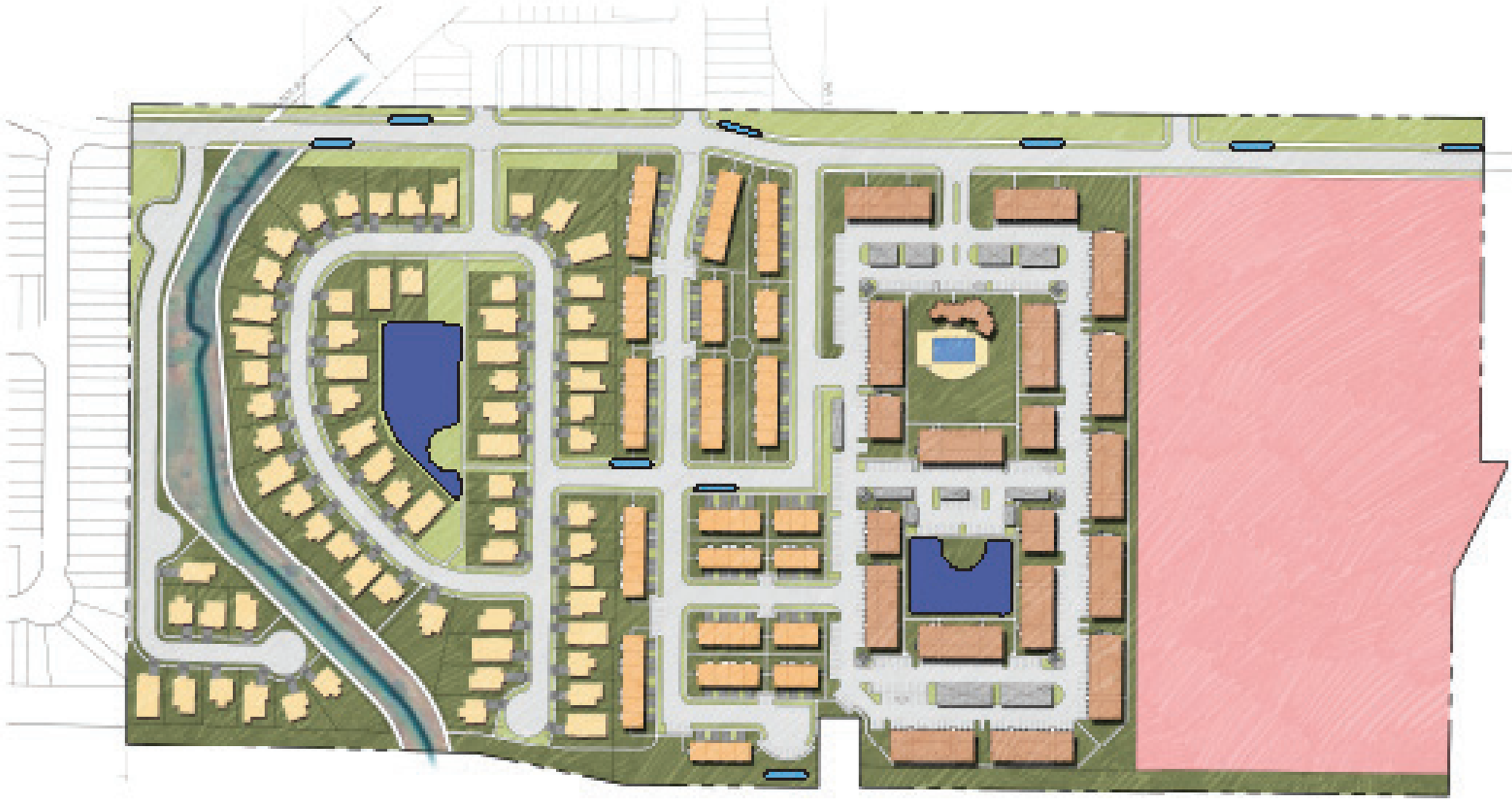
TALEGA VILLAGE *amenities*

STAR, IDAHO
21-0488



TALEGA VILLAGE *commercial*

STAR, IDAHO
21-0488



RETENTION POND

SEEPAGE BEDS

N

S

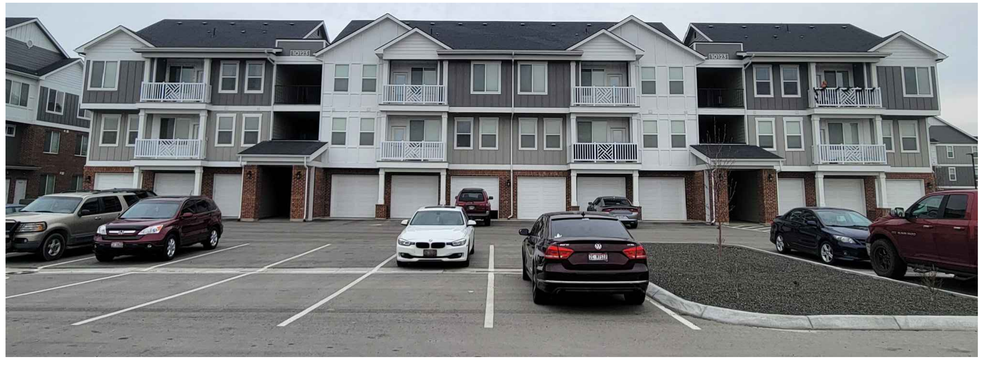
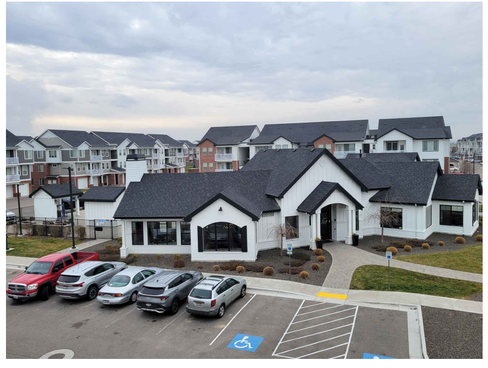
TALEGA VILLAGE *drainage plan*

STAR, IDAHO
21-0488

SINGLE FAMILY ELEVATIONS

TOWNHOME ELEVATIONS

APARTMENT ELEVATIONS

TALEGA VILLAGE *home plan elevations exhibit*

STAR CITY, ADA COUNTY
12/21/2023
21-0488

FOCUS ENGINEERING AND SURVEYING, LLC

Z:_2021\21-0488 Talegra Village\design\21-0488 dwg\exhibits\21-0488 Home Plan Elevations Exhibit.dwg

To:	City of Star	From:	Jason Watson, PE, PTOE FOCUS Engineering & Surveying, LLC
File:	Talega Village	Date:	December 13, 2023

Reference: Talega Village (Northern Star Development) Traffic Statement – Hamlin Right In Only

INTRODUCTION

In order to address the traffic concerns brought up by city staff, this traffic statement was generated to further breakdown the traffic generated by the proposed Talega Village development by phases. A full traffic impact study was completed for the Northern Star Development, now known as Talega Village, in August 2022. This traffic study was accepted by Idaho Transportation Department and Ada County Highway District. Acceptance letters and emails can be found in the back of this memo. To further break down the timing of the construction of this development and associate the traffic generated during each phase, the following timeline indicates each phase.

- Phase 1a – 120 apartment units, improve Hamlin Ave from Shultz to Hwy 44, connect Hamlin Ave to Amazon Drive (2026)
- Phase 1b – 100 apartment units (2027)
- Phase 1c – 120 apartment units (2028)
- Phase 2a – 48 townhome units and improve Hamline Ave to the north (2030)
- Phase 2b – 47 townhome units (2031)
- Phase 3 – 65 single-family units (2032)
- The commercial phase (timing unknown, driven by market)

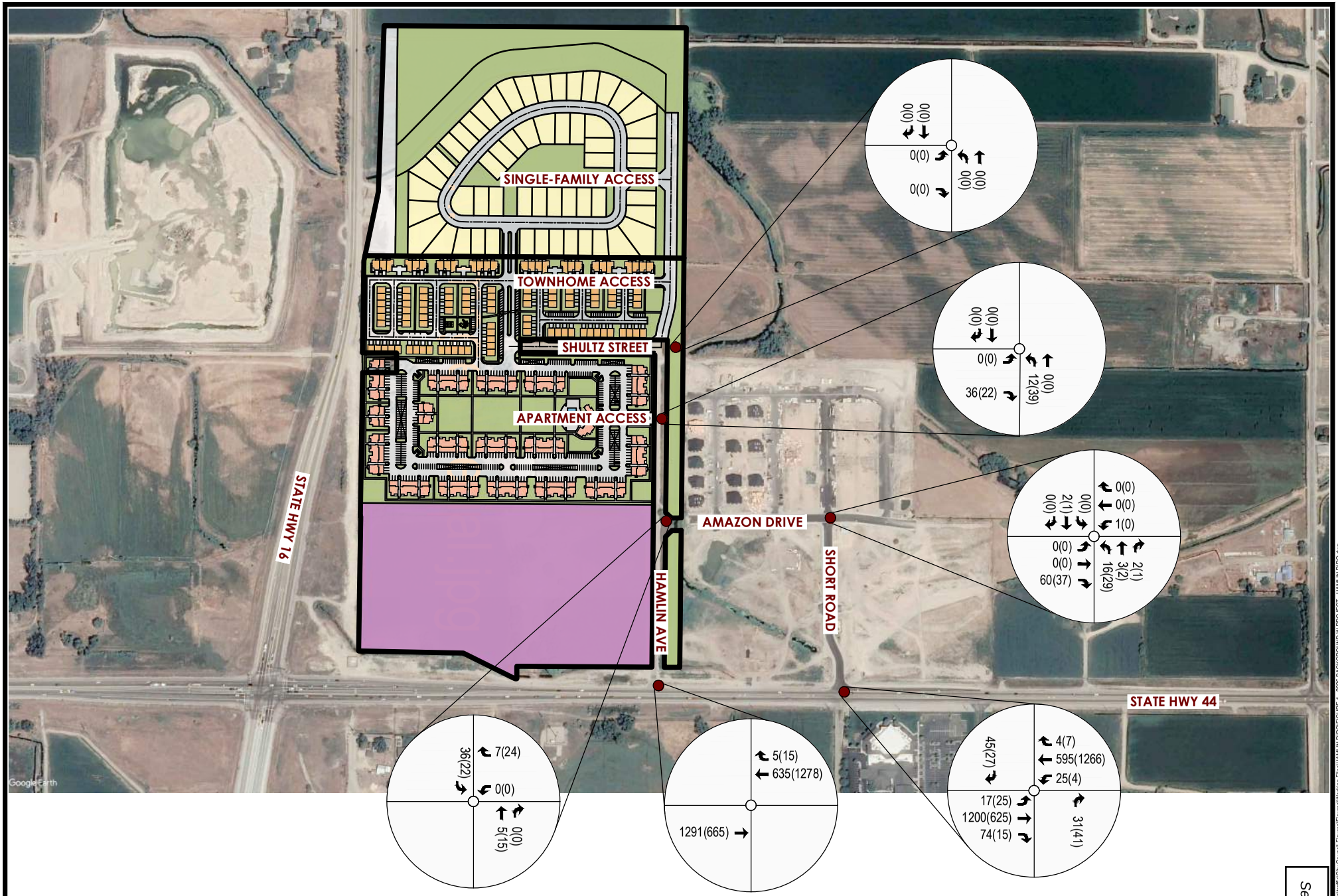
Using the Institute of Transportation Engineers (ITE) Trip Generation Manuals, traffic generated by the apartments, townhomes, single-family homes and commercial were all generated. The following figures break down the traffic generated during each phase along with the growth in traffic along Highway 44 throughout the projected construction timeframe of this development. Along with the projected traffic in this area, the anticipated level of service at the Hamlin Avenue/Hwy 44 intersection and the Short Road/Hwy 44 intersections are illustrated in the following tables.

It can be seen from the level of service tables, with each phase of the residential development (phases 1a to 3) the Hamlin Ave/Hwy 44 intersection and the Short Road/Hwy 44 intersection will function with acceptable levels of service "C" or better for each traffic movement.

It should be noted, the intersection of Short Road and Highway 44 currently does not function with acceptable levels of service with the northbound and southbound left turn movements. In the traffic impact study for the Amazon Developments, it recommends the Short Road and Hwy 44 intersection to be reconfigured to right-in/right-out/left-in (RIROLI) movements. The analysis we performed for this traffic statement, assumes the Short Road/Hwy 44 intersection functions under this lane configuration.

Idaho Transportation Department also has a future phased project to grade separate Highway 16 and Highway 44. This project is not funded and therefore the timing of this project is unknown at this time. Highway 44 was recently widened to add an additional eastbound and westbound through lane. With the reconstruction of the Highway 16 and Highway 44 intersection, ITD has mentioned there is a possibility that Hamlin Ave may become a Right In Only (RI Only), and remove the southbound right turn onto Highway 44. If this were to happen, this would shift all the exiting traffic from the Talega Village development to use the RIROLI Short Road and Highway 44 intersection. This analysis illustrates the levels of service if this scenario were to happen.

This traffic statement also illustrates the addition of the commercial phase. The specific land uses for the commercial phase are unknown at this time, therefore General Office was used to generate traffic associated with this phase of the development. The timeline of the commercial phase is also unknown as it will be driven by the market and economic needs in this area. In order to illustrate the traffic impacts associated with the commercial phase, at each of the previously described phases (1a, 1b, 1c, etc.) the traffic generated by the commercial phase was added to illustrate a scenario if the commercial were constructed during that year. The level of service tables illustrate that with the addition of Phase 1a and 1b, along with the commercial phase, the right in only Hamlin Ave/Hwy 44 intersection and the RIROLI Short Road/Hwy 44 intersection will function at acceptable levels of service. However, if the commercial phase is constructed during 2028 with the addition of Phase 1c, then these two intersections will start to fall below acceptable levels of service. Therefore, at that time, additional connections such as Amazon Drive connecting to Palmer Lane to the east, or Hamlin Ave connecting to the north to tie into the planned developments north of Talega Village, will be needed to accommodate the traffic.



NORTHERN STAR DEVELOPMENT

FIGURE 1 - 2026 BACKGROUND W/ PROJECT TRAFFIC VOLUMES - PH 1a

XX(XX) = AM(PM) PEAK HOUR TRAFFIC VOLUMES

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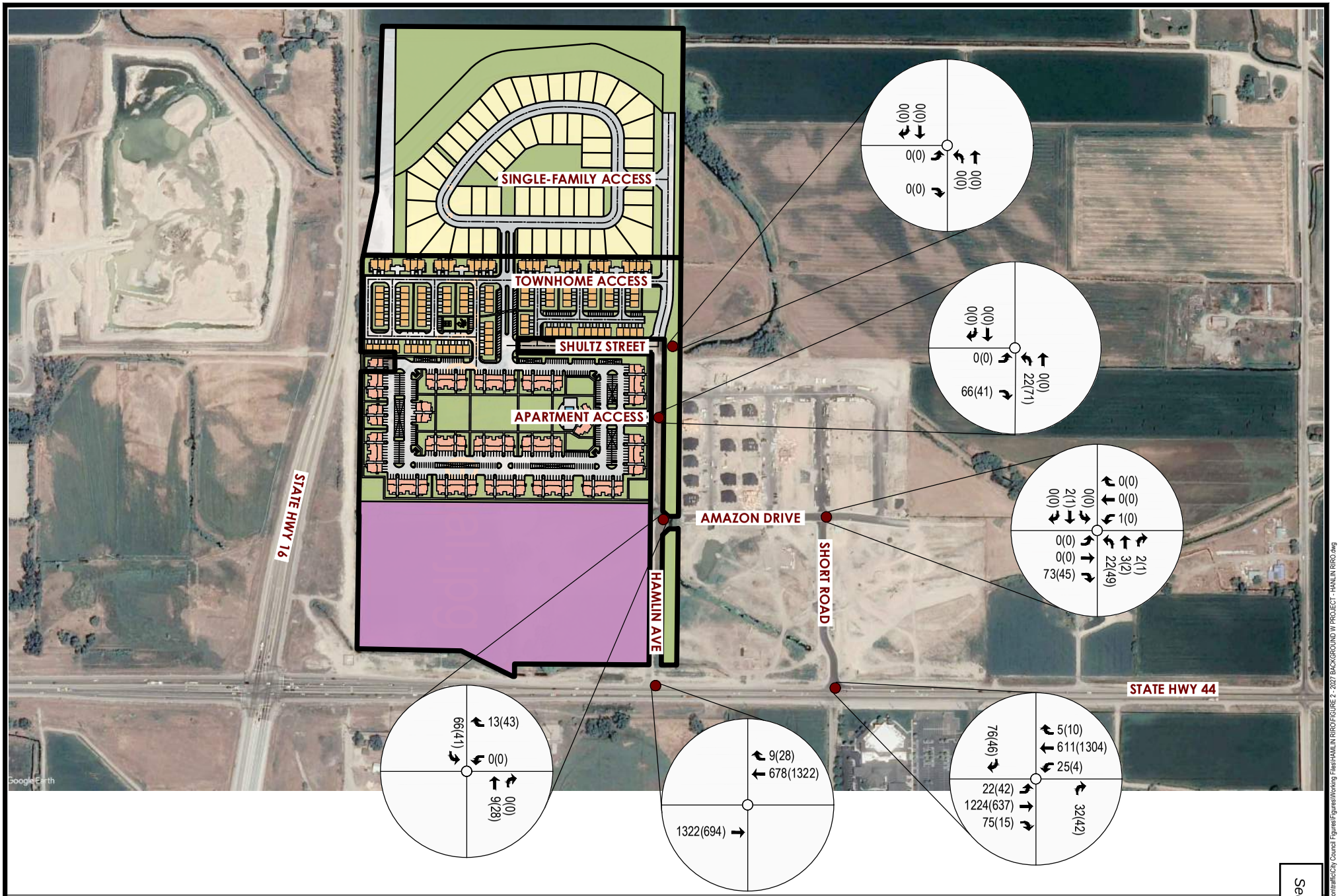
ALE, UTAH 84047 PH: (801) 352-0075
www.focusutah.com

Z:_2021\21-0488 Talega Village\transportation\traffic\City Council Figures\Figures\Working Files\HAMLIN RIRO\FIGURE 1 - 2026 BACKGROUND W PROJECT - HAMLIN RIRO.dwg

Level of Service Table 1:

Intersection		Lane Group	AM Peak Hour			PM Peak Hour		
			LOS	Delay (s/veh)	v/c ratio	LOS	Delay (s/veh)	v/c ratio
1	Hamlin Ave & SH 44	EBT	-	-	-	-	-	-
		WBTR	-	-	-	-	-	-
		SBR	-	-	-	-	-	-
2	Short Road SH 44	NBR	B	14.8	0.09	B	11	0.07
		EBL	A	9	0.02	B	13	0.06
		EBT	-	-	-	-	-	-
		EBR	-	-	-	-	-	-
		WBL	B	13	0.06	A	9.1	0.01
		WBT	-	-	-	-	-	-
		WBR	-	-	-	-	-	-
		SBR	B	10.9	0.08	C	15.3	0.08

With the addition of Phase 1a (120 apartment units), the full width construction of Hamlin Avenue to a Collector Road from Shultz Road to Highway 44, and the connection of Amazon Drive to Hamlin Avenue, both the Hamlin Ave/Hwy 44 RI Only intersection and the Short Road/Hwy 44 RIROLI intersection will function with acceptable levels of service "C" or better for each traffic movement.



NORTHERN STAR DEVELOPMENT

FIGURE 2 - 2027 BACKGROUND W/ PROJECT TRAFFIC VOLUMES - PH 1a & 1b

XX(XX) = AM(PM) PEAK HOUR TRAFFIC VOLUMES

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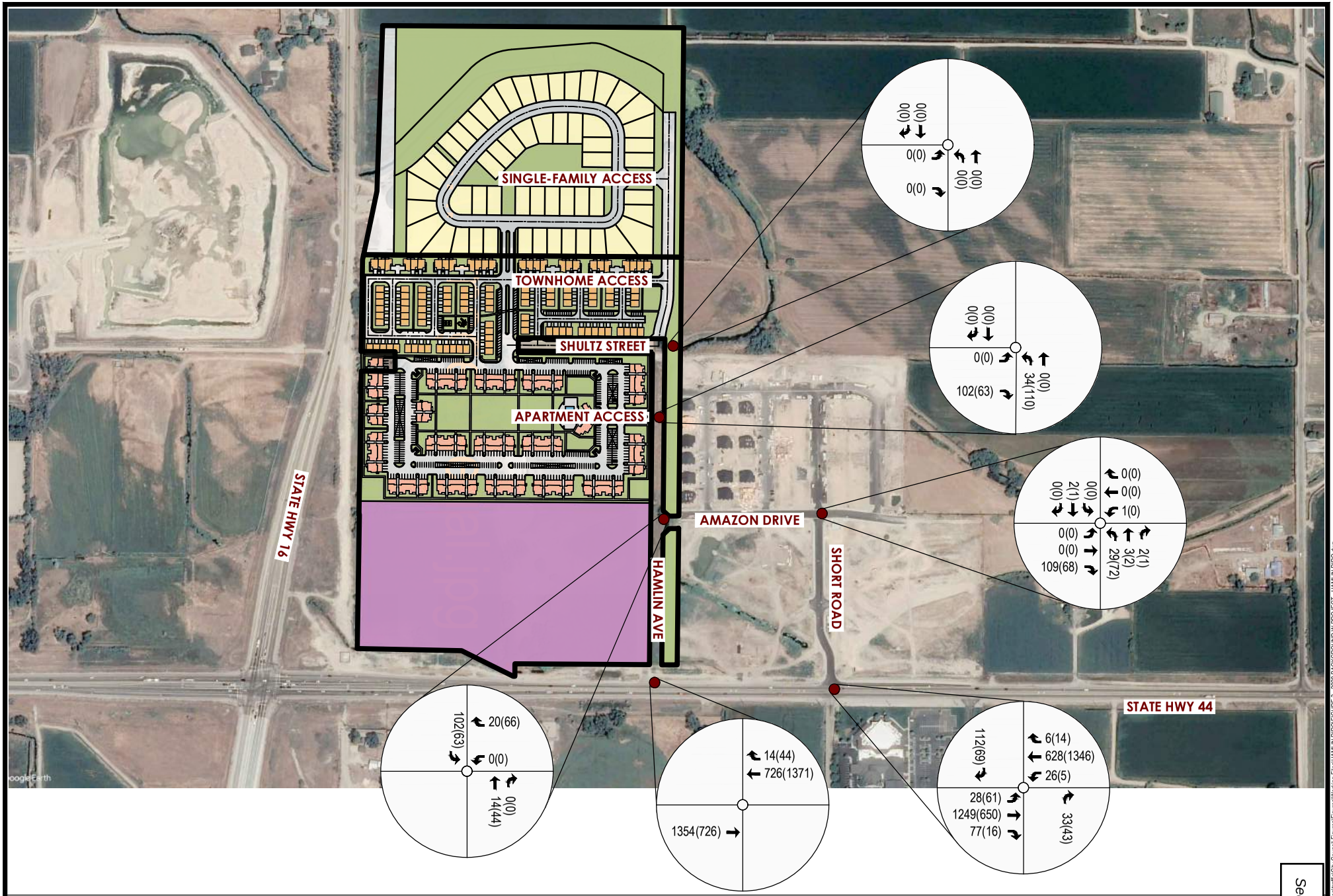
Z:_2021\21-0488 Talega Village\transportation\traffic\City Council Figures\Figures\Working Files\HAMLIN RIRO\FIGURE 2 - 2027 BACKGROUND W PROJECT - HANLIN RIRO.dwg

Level of Service Table 2:

Intersection		Lane Group	AM Peak Hour			PM Peak Hour		
			LOS	Delay (s/veh)	v/c ratio	LOS	Delay (s/veh)	v/c ratio
1	Hamlin Ave & SH 44	EBT	-	-	-	-	-	-
		WBTR	-	-	-	-	-	-
		SBR	-	-	-	-	-	-
2	Short Road SH 44	NBR	C	15.1	0.09	B	11	0.07
		EBL	A	9.1	0.03	B	13.7	0.1
		EBT	-	-	-	-	-	-
		EBR	-	-	-	-	-	-
		WBL	B	13.2	0.06	A	9.1	0.01
		WBT	-	-	-	-	-	-
		WBR	-	-	-	-	-	-
		SBR	B	11.3	0.13	B	16.4	0.14

With the addition of Phase 1b (100 apartment units) to the previous phase and surrounding traffic, both the Hamlin Ave/Hwy 44 RI Only intersection and the Short Road/Hwy 44 RIROLI intersection will function with acceptable levels of service "C" or better for each traffic movement.



NORTHERN STAR DEVELOPMENT

FIGURE 3 - 2028 BACKGROUND W/ PROJECT TRAFFIC VOLUMES - PH 1a,1b &1c

XX(XX) = AM(PM) PEAK HOUR TRAFFIC VOLUMES

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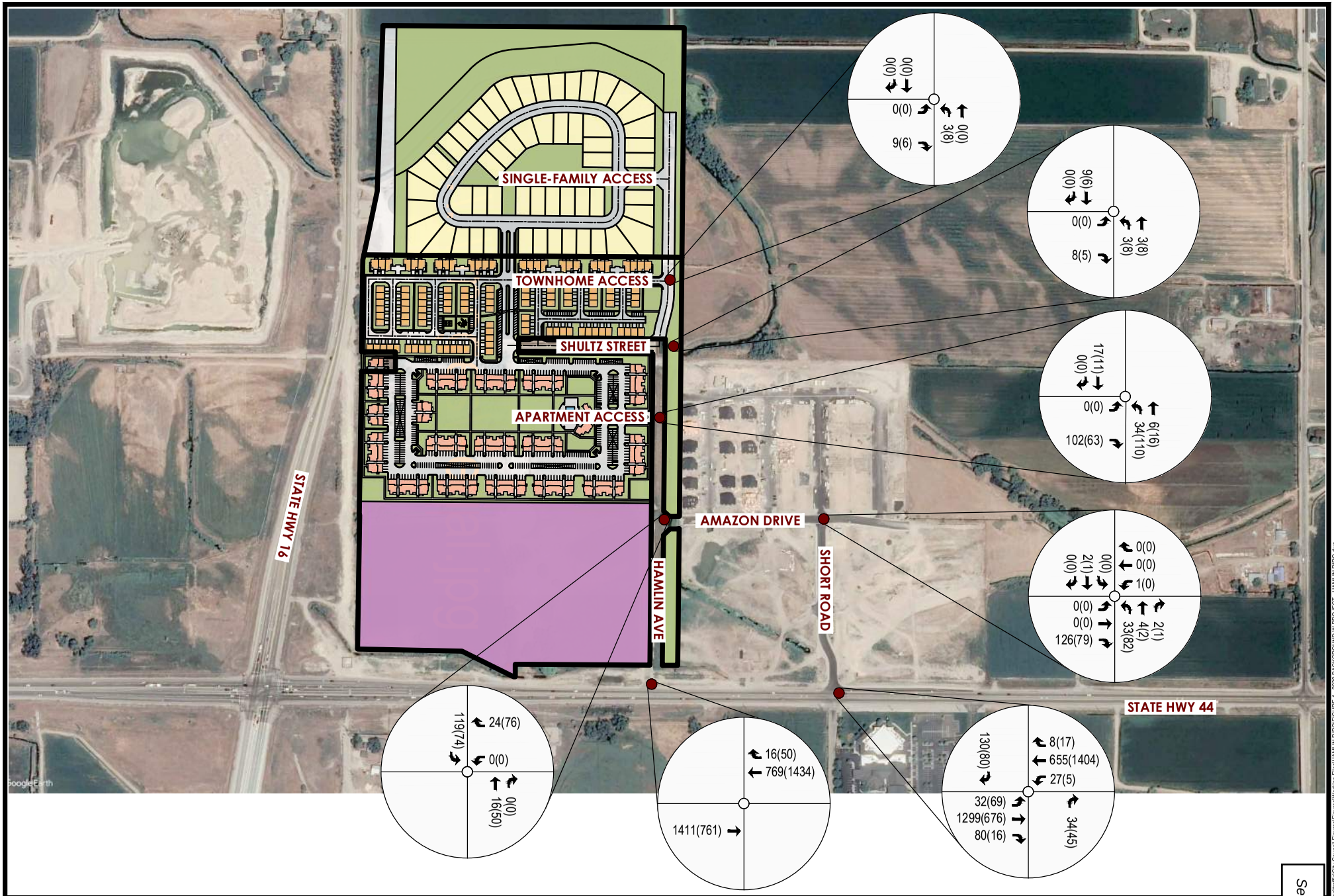
Z:_2021\21-0488 Talega Village\transportation\traffic\City Council Figures\Figures\Working Files\HAMLIN RIRO\FIGURE 3 - 2028 BACKGROUND W PROJECT - HAMLIN RIRO.dwg

Level of Service Table 3:

Intersection		Lane Group	AM Peak Hour			PM Peak Hour		
			LOS	Delay (s/veh)	v/c ratio	LOS	Delay (s/veh)	v/c ratio
1	Hamlin Ave & SH 44	EBT	-	-	-	-	-	-
		WBTR	-	-	-	-	-	-
		SBR	-	-	-	-	-	-
2	Short Road SH 44	NBR	C	15.3	0.1	B	11.1	0.08
		EBL	A	9.2	0.04	B	14.7	0.16
		EBT	-	-	-	-	-	-
		EBR	-	-	-	-	-	-
		WBL	B	13.5	0.06	A	9.2	0.01
		WBT	-	-	-	-	-	-
		WBR	-	-	-	-	-	-
		SBR	B	11.9	0.19	C	17.9	0.22

With the addition of Phase 1c (120 apartment units) to the previous development phases 1a and 1b, both the Hamlin Ave/Hwy 44 RI Only intersection and the Short Road/Hwy 44 RIROLI intersection will function with acceptable levels of service "C" or better for each traffic movement.

6949 South High Tech Drive
Midvale
801.352.0075



NORTHERN STAR DEVELOPMENT

FIGURE 4 - 2030 BACKGROUND W/ PROJECT TRAFFIC VOLUMES - PH 1a,1b,1c &2a

XX(XX) = AM(PM) PEAK HOUR TRAFFIC VOLUMES

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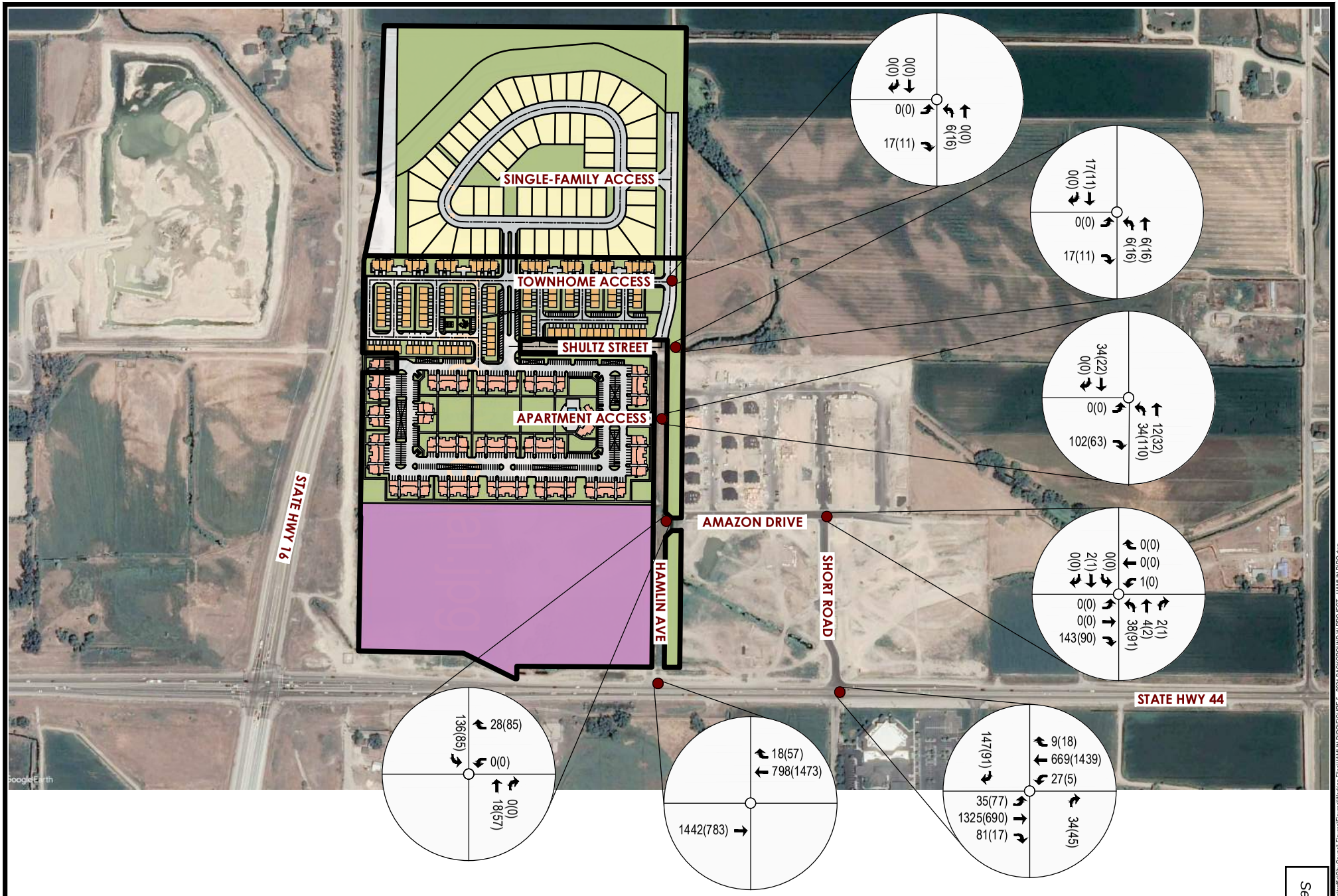
Level of Service Table 4:

Intersection		Lane Group	AM Peak Hour			PM Peak Hour		
			LOS	Delay (s/veh)	v/c ratio	LOS	Delay (s/veh)	v/c ratio
1	Hamlin Ave & SH 44	EBT	-	-	-	-	-	-
		WBTR	-	-	-	-	-	-
		SBR	-	-	-	-	-	-
2	Short Road SH 44	NBR	C	15.9	0.1	B	11.3	0.08
		EBL	A	9.3	0.04	C	15.7	0.19
		EBT	-	-	-	-	-	-
		EBR	-	-	-	-	-	-
		WBL	B	14	0.07	A	9.3	0.01
		WBT	-	-	-	-	-	-
		WBR	-	-	-	-	-	-
		SBR	B	12.4	0.23	C	19.4	0.26

With the addition of Phase 2a (48 townhomes) to the previous development phases 1a, 1b and 1c, both the Hamlin Ave/Hwy 44 RI Only intersection and the Short Road/Hwy 44 RIROLI intersection will function with acceptable levels of service "C" or better for each traffic movement. With the addition of Phase 2a, Hamlin Ave would be constructed to the northern boundary of the Talega Village. However, this analysis illustrates without the connection to future development to the north and just the two connections to Hwy 44 via Hamlin Ave and Short Road, the levels of service are acceptable with the traffic generated by Talega Village.



NORTHERN STAR DEVELOPMENT

FIGURE 5 - 2031 BACKGROUND W/ PROJECT TRAFFIC VOLUMES - PH 1a,1b,1c,2a & 2b

XX(XX) = AM(PM) PEAK HOUR TRAFFIC VOLUMES

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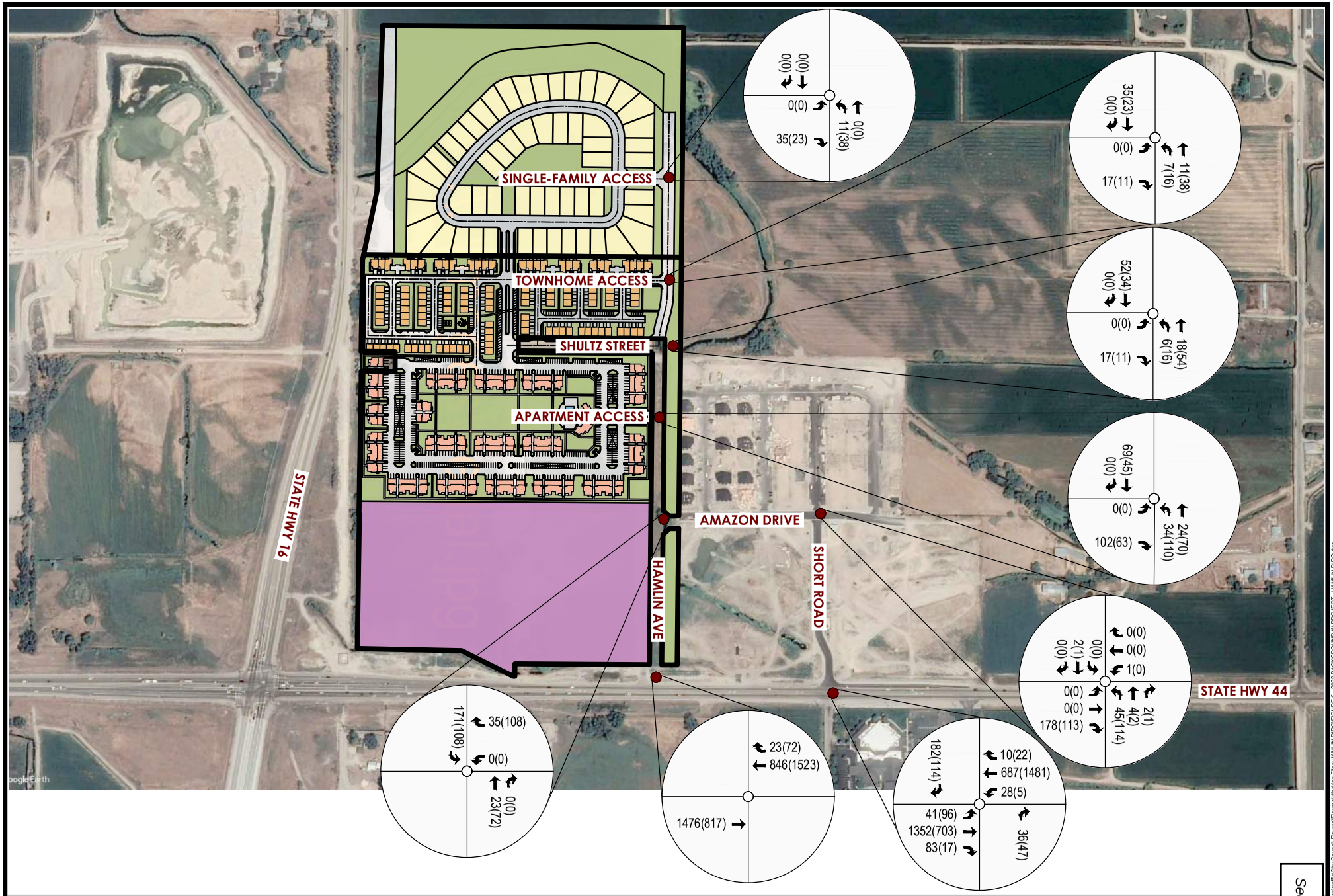
Z:_2021\21-0488 Talega Village\transportation\traffic\City Council Figures\Figures\Working Files\HAMLIN RIRO\FIGURE 5 - 2031 BACKGROUND W PROJECT - HAMLIN RIRO.dwg

Level of Service Table 5:

Intersection		Lane Group	AM Peak Hour			PM Peak Hour		
			LOS	Delay (s/veh)	v/c ratio	LOS	Delay (s/veh)	v/c ratio
1	Hamlin Ave & SH 44	EBT	-	-	-	-	-	-
		WBTR	-	-	-	-	-	-
		SBR	-	-	-	-	-	-
2	Short Road SH 44	NBR	C	16.1	0.11	B	11.4	0.08
		EBL	A	9.4	0.05	C	16.5	0.22
		EBT	-	-	-	-	-	-
		EBR	-	-	-	-	-	-
		WBL	B	14.3	0.07	A	9.4	0.01
		WBT	-	-	-	-	-	-
		WBR	-	-	-	-	-	-
		SBR	B	12.8	0.26	C	20.8	0.31

With the addition of Phase 2b (47 townhomes) to the previously developed phases 1a, 1b, 1c, and 2a, both the Hamlin Ave/Hwy 44 RI Only intersection and the Short Road/Hwy 44 RIROLI intersection will function with acceptable levels of service "C" or better for each traffic movement.



NORTHERN STAR DEVELOPMENT

FIGURE 6 - 2032 BACKGROUND W/ PROJECT TRAFFIC VOLUMES - PH 1a,1b,1c,2a,2b & 3

XX(XX) = AM(PM) PEAK HOUR TRAFFIC VOLUMES

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Z:_2021\21-0488 Talega Village\transportation\traffic\City Council Figures\Figures\Working Files\HAMLIN RIRO\FIGURE 6 - 2032 BACKGROUND W PROJECT - HAMLIN RIRO.dwg

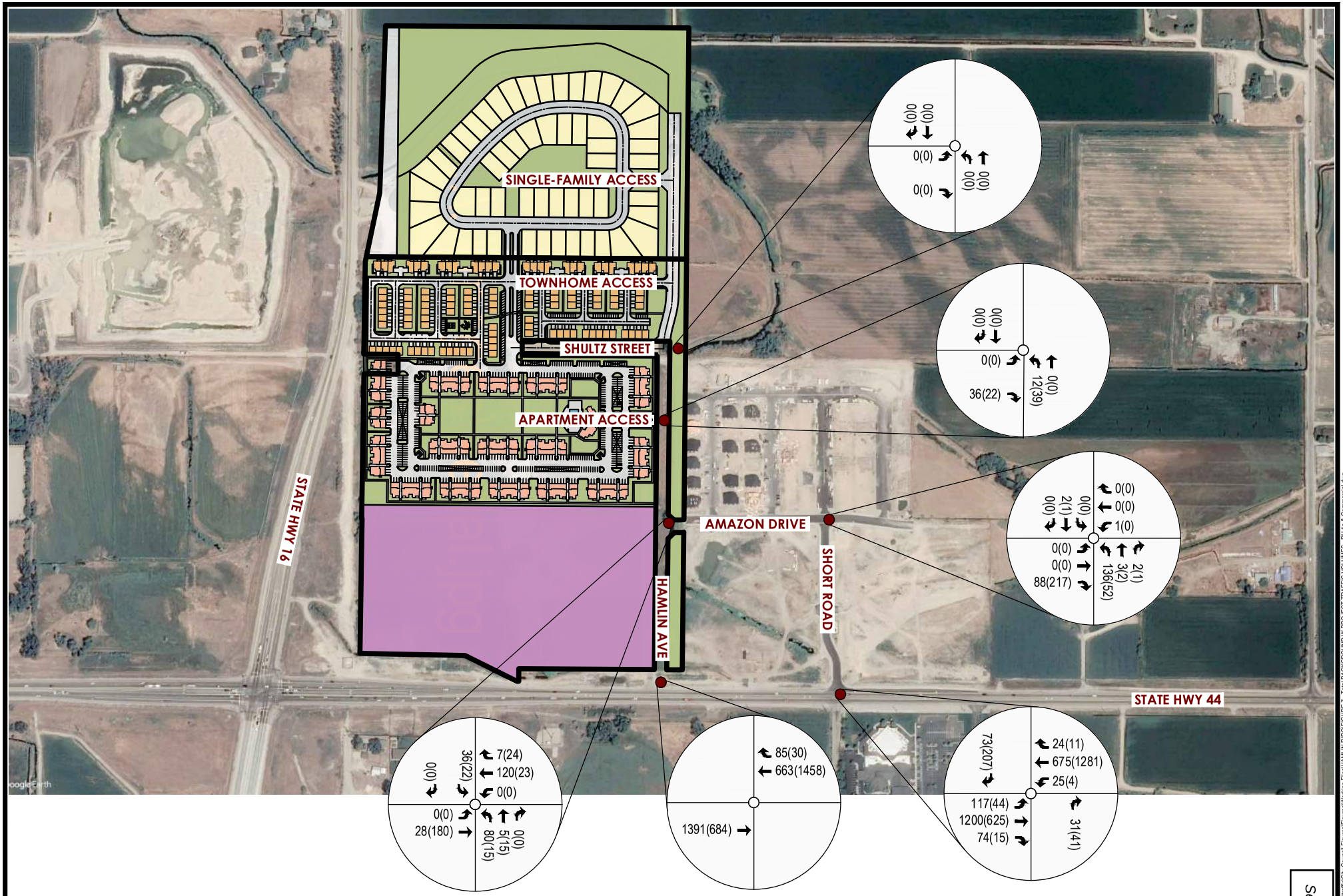
Level of Service Table 6:

Intersection		Lane Group	AM Peak Hour			PM Peak Hour		
			LOS	Delay (s/veh)	v/c ratio	LOS	Delay (s/veh)	v/c ratio
1	Hamlin Ave & SH 44	EBT	-	-	-	-	-	-
		WBTR	-	-	-	-	-	-
		SBR	-	-	-	-	-	-
2	Short Road SH 44	NBR	C	16.5	0.11	B	11.5	0.09
		EBL	A	9.5	0.05	C	18.1	0.28
		EBT	-	-	-	-	-	-
		EBR	-	-	-	-	-	-
		WBL	B	14.6	0.08	A	9.4	0.01
		WBT	-	-	-	-	-	-
		WBR	-	-	-	-	-	-
		SBR	B	13.7	0.33	C	23.7	0.4

With the addition of Phase 3 (65 single-family lots) to the previously developed phases 1a, 1b, 1c, 2a and 2b, both the Hamlin Ave/Hwy 44 RI Only intersection and the Short Road/Hwy 44 RIROLI intersection will function with acceptable levels of service "C" or better for each traffic movement.

This analysis illustrates that with all the residential development planned within the Talega Village development, the RI Only intersection of Hamlin Ave and Hwy 44 will function with acceptable levels of service. The RIROLI intersection of Short Road and Hwy 44 will also function with acceptable levels of service.

The specific land uses for the commercial phase of this development are unknown at this time. The timing of the commercial phase is also unknown as it will be driven by the economy and need within this area. In order to generate traffic associated with this commercial phase, and also as illustrated in the previously approved traffic impact study for this development, General Office was used. Using the land use code for General Office, we generated traffic associated with this phase of the development. Since the timing of this phase is unknown, we applied the traffic associated with this phase to each of the previously planned phases. The following figures illustrate the traffic volumes with the addition of the commercial phase to each phase. The level of service tables are also illustrated.



NORTHERN STAR DEVELOPMENT

FIGURE 7 - 2026 BACKGROUND W/ PROJECT TRAFFIC VOLUMES - PH 1a & Commercial

XX(XX) = AM(PM) PEAK HOUR TRAFFIC VOLUMES

FOCUS
ENGINEERING AND SURVEYING, LLC
9 S. HIGH TECH DRIVE SUITE 200
ALE, UTAH 84047 PH: (801) 352-0075
www.focusutah.com

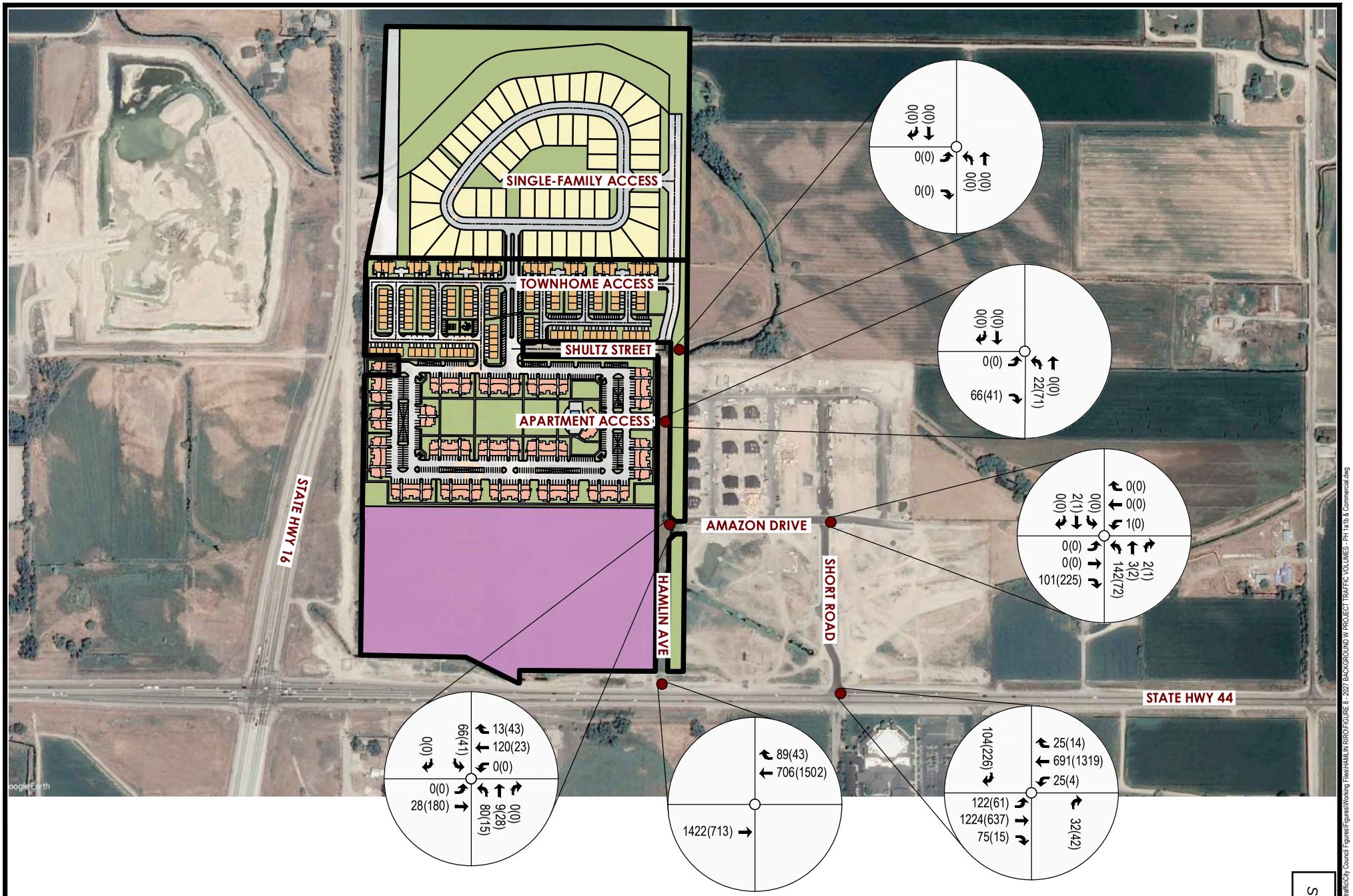
Z:_2021\21-0488 Talega Village\transportation\traffic\City Council Figures\Figures\Working Files\HAMLIN RIRO\FIGURE 7 - Total BACKGROUND W PROJECT TRAFFIC VOLUMES - PH 1a & Commercial.dwg

Level of Service Table 7:

Intersection		Lane Group	AM Peak Hour			PM Peak Hour		
			LOS	Delay (s/veh)	v/c ratio	LOS	Delay (s/veh)	v/c ratio
1	Hamlin Ave & SH 44	EBT	-	-	-	-	-	-
		WBTR	-	-	-	-	-	-
		SBR	-	-	-	-	-	-
2	Short Road SH 44	NBR	B	14.8	0.09	B	11	0.07
		EBL	B	10.1	0.16	B	13.6	0.1
		EBT	-	-	-	-	-	-
		EBR	-	-	-	-	-	-
		WBL	B	13	0.06	A	9.1	0.01
		WBT	-	-	-	-	-	-
		WBR	-	-	-	-	-	-
		SBR	B	11.6	0.13	D	28.7	0.61

With the addition of the commercial phase in 2026 with the construction of Phase 1a, the RI Only Hamlin Ave/Hwy 44 intersection and the Short Road/Hwy 44 intersection will continue to function with acceptable levels of service.

6949 South High Tech Drive
Midvale
801.352.0075



NORTHERN STAR DEVELOPMENT

FIGURE 8 - 2027 BACKGROUND W/ PROJECT TRAFFIC VOLUMES - PH 1a,1b & Commercial

XX(XX) = AM(PM) PEAK HOUR TRAFFIC VOLUMES

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ALE, UTAH 84047 PH: (801) 352-0075
www.focusutah.com

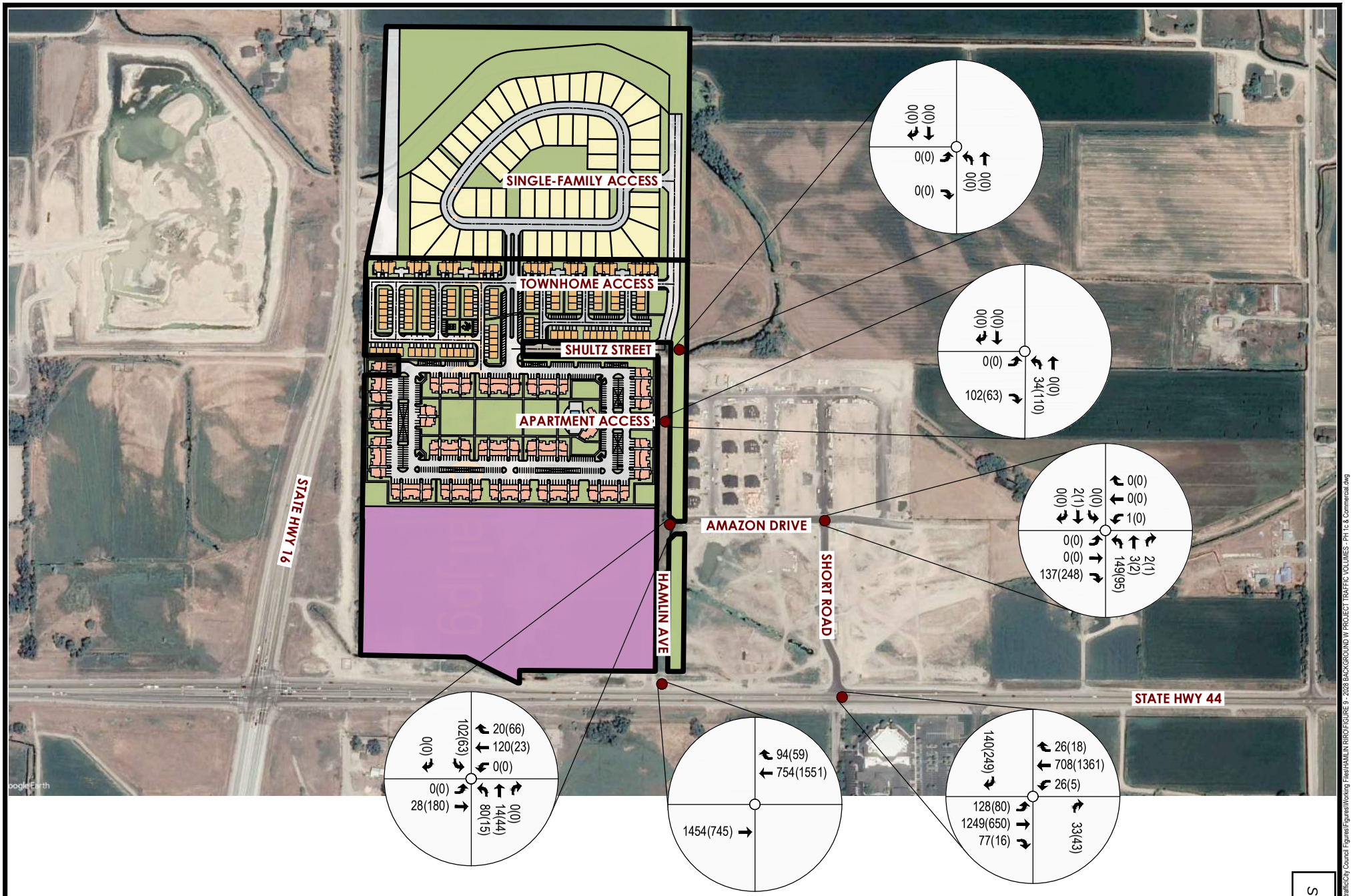
Z:_2021\21-0488 Talega Village\transportation\traffic\City Council Figures\Figures\Working Files\HAMLIN RIRO\FIGURE 8 - 2027 BACKGROUND W PROJECT TRAFFIC VOLUMES - PH 1a1b & Commercial.dwg

Level of Service Table 8:

Intersection		Lane Group	AM Peak Hour			PM Peak Hour		
			LOS	Delay (s/veh)	v/c ratio	LOS	Delay (s/veh)	v/c ratio
1	Hamlin Ave & SH 44	EBT	-	-	-	-	-	-
		WBTR	-	-	-	-	-	-
		SBR	-	-	-	-	-	-
2	Short Road SH 44	NBR	C	15.1	0.09	B	11	0.07
		EBL	B	10.2	0.17	B	14.4	0.15
		EBT	-	-	-	-	-	-
		EBR	-	-	-	-	-	-
		WBL	B	13.2	0.06	A	9.1	0.01
		WBT	-	-	-	-	-	-
		WBR	-	-	-	-	-	-
		SBR	B	12.2	0.19	D	34.4	0.69

In 2027, with the construction of Phase 1b, if the commercial phase is also added to this area, the Hamlin Ave/Hwy 44 RI Only intersection and Short Rd/Hwy 44 RIROLI intersection will continue to function with acceptable levels of service.

6949 South High Tech Drive
Midvale
801.352.0075



NORTHERN STAR DEVELOPMENT

FIGURE 9 - 2028 BACKGROUND W/ PROJECT TRAFFIC VOLUMES - PH 1a,1b,1c & Commercial

XX(XX) = AM(PM) PEAK HOUR TRAFFIC VOLUMES

FOCUS
ENGINEERING AND SURVEYING, LLC
9 S. HIGH TECH DRIVE SUITE 200
ALE, UTAH 84047 PH: (801) 352-0075
www.focusutah.com

Z:_2021\21-0488 Talega Village\transportation\traffic\City Council Figures\Figures\Working Files\HAMLIN RIRO\FIGURE 9 - 2028 BACKGROUND W PROJECT TRAFFIC VOLUMES - PH 1c & Commercial.dwg

Level of Service Table 9:

Intersection		Lane Group	AM Peak Hour			PM Peak Hour		
			LOS	Delay (s/veh)	v/c ratio	LOS	Delay (s/veh)	v/c ratio
1	Hamlin Ave & SH 44	EBT	-	-	-	-	-	-
		WBTR	-	-	-	-	-	-
		SBR	-	-	-	-	-	-
2	Short Road SH 44	NBR	C	15.3	0.1	B	11.1	0.08
		EBL	B	10.4	0.18	C	15.5	0.21
		EBT	-	-	-	-	-	-
		EBR	-	-	-	-	-	-
		WBL	B	13.5	0.06	A	9.2	0.01
		WBT	-	-	-	-	-	-
		WBR	-	-	-	-	-	-
		SBR	B	13	0.26	E	44.5	0.79

As illustrated in the table above, if the commercial phase is constructed in 2028 with Phase 1c, the Short Road/Hwy 44 RIROLI intersection will begin to fall below the acceptable levels of service in the PM peak hour. At this time, it would be recommended that additional connections are necessary. These connections may include Hamlin Ave connecting to the planned development to the north. This connection would provide additional routes to access onto Highway 16, or to Palmer Lane. Another connection could be Amazon Drive connecting to the east onto Palmer Lane. Palmer Lane and Highway 44 is planned to be signalized which would assist vehicles in making a left turn to travel east along Highway 44.

Please feel free to contact me with any questions or comments.

Sincerely,

FOCUS ENGINEERING & SURVEYING, LLC

Jason Watson, PE, PTOE
Transportation Department Manager
801.352.0075
jwatson@focusutah.com

Your Safety • Your Mobility
Your Economic Opportunity

IDAHO TRANSPORTATION DEPARTMENT
P.O. Box 8028 • Boise, ID 83707-2028
(208) 334-8300 • itd.idaho.gov

September 29, 2022

Jason Watson, PE, PTOE
Focus Engineering & Surveying, LLC.
6949 S High Tech Dr, Ste 200
Midvale, UT 84047
801-352-0075

VIA EMAIL

RE: Northern Star Development – ITD Traffic Impact Study Acceptance Letter

To Whom it May Concern,

Thank you for providing the Idaho Transportation Department (ITD) the Northern Star development TIS to review. The proposed development is located north of SH-44, east of SH-16 and west of Hamlin Avenue in Star, Idaho. The proposed development will consist of 55 single-family units, 110 townhome units, 310 apartment units, and 18 acres of commercial/office. We have completed our review. However, ITD is not requiring study of these impacts and they do not warrant any further consideration. ITD does not have objections to the development nor has any requests currently.

If you have any questions or concerns, please contact me at Andrew.marini@itd.idaho.gov or 208-334-8336.

Sincerely,

Andrew Marini
ITD – District 3
Development Services Coordinator

cc:
Mindy Wallace, PE – ACHD

Jason Watson

From: Paige Bankhead <pbankhead@achdidaho.org>
Sent: Friday, August 5, 2022 3:07 PM
To: Jason Watson; Regan Hansen
Cc: jramseyconstruction@gmail.com; snickel@staridaho.org
Subject: RE: [EXTERNAL] RE: Northern Star Development Traffic Impact Study

Caution: This email originated from outside of FOCUS. Do not click links or open attachments unless you are positive of the sender's identity and have verified the content is safe.

Hi Jason,

Thank you. The study is acceptable. I'm sorry, I forgot one other item: please provide the percentage of site traffic at each intersection. We can accept the study, but please provide this information before the application submittal so that we have it for when we write the staff report with ACHD's final requirements. The staff report will be assigned to a Planner by my supervisor when the development application transmittal is received from the City of Star. She assigns these weekly every Thursday.

Thanks,

Paige Bankhead, PE
Traffic Engineer

Ada County Highway District
Development Services
1301 N. Orchard St. Ste. 200
Phone: (208) 387-6293

From: Jason Watson <jwatson@focus-es.com>
Sent: Tuesday, August 2, 2022 11:33 AM
To: Paige Bankhead <pbankhead@achdidaho.org>; Regan Hansen <Regan.Hansen@itd.idaho.gov>
Cc: jramseyconstruction@gmail.com
Subject: RE: [EXTERNAL] RE: Northern Star Development Traffic Impact Study

CAUTION: This email originated from outside your organization. Exercise caution when opening attachments or clicking links, especially from unknown senders.

Paige,

From: Dawn Battles <Dbattles@achdidaho.org>
Sent: Wednesday, January 3, 2024 3:28 PM
To: Jason Watson <jwatson@focus-es.com>
Cc: Ryan Field <rfield@staridaho.org>; Shawn Nickel <snickel@staridaho.org>; Thomas Romney <tromney@focus-es.com>; Chad Garner <cgarner@focus-es.com>; Dennis Jordan <djordan@focus-es.com>; Trenton Smith <tsmith@focus-es.com>; jramseyconstruction@gmail.com
Subject: SPP22-0006 Talega Village Traffic Study

Jason,

The ACHD report I issued in September 2023 is based off the TIS that was approved by ACHD in April 2022. For future reference, ACHD does not issue a report unless the TIS is approved by ACHD.

The question regarding ACHD being good to go with Talega Village is too broad of a question to just answer yes or no. The Planning Department has issued a report with Site Specific Conditions of Approval that are required as part of the development. As part of those Site Specific Conditions of Approval, plans are required to be submitted to ACHD for review and approval and the plans shall include the Site Specific Conditions of Approval required in the report. An Engineer Tech will be assigned the plans submitted for review and approval. I hope this helps clarify your question.

Happy New Year!

Thanks,

Dawn Battles
Senior Planner | Development Services

Ada County Highway District (ACHD)
1301 N. Orchard Street, Suite 200, Boise, ID 83706
Phone: (208)387-6218
www.achdidaho.org
Connect with us on social! ***@achdidaho***

From: Brandon Atchley <batchley@achdidaho.org>
Sent: Wednesday, January 3, 2024 2:58 PM
To: Dawn Battles <Dbattles@achdidaho.org>; Mindy Wallace <Mwallace@achdidaho.org>
Subject: FW: Talega Village Traffic Study

Hi Dawn and Mindy,
Let me know how you'd like me to handle this. They called regarding changes in phasing time of the project, and was reached out by City/ITD to my understanding.

Thanks,

Brandon Atchley
Assistant Traffic Engineer | Traffic Services

1301 N Orchard Street, Ste 200, Boise, ID 83706
Phone: (208) 387-6294

From: Jason Watson < **Sent:** Wednesday, January 3, 2024 13:10
To: Brandon Atchley <batchley@achdidaho.org>
Cc: rfield@staridaho.org; snickel@staridaho.org; Thomas Romney <tromney@focus-es.com>; Chad Garner <cgarner@focus-es.com>; Dennis Jordan <djordan@focus-es.com>; Trenton Smith <tsmith@focus-es.com>; jramseyconstruction@gmail.com
Subject: Talega Village Traffic Study

Caution: This is an external email and has a suspicious subject or content. Please take care when clicking links or opening attachments. When in doubt, contact your IT Department

Happy New Year Brandon,

I just wanted to follow up from our phone conversation we had before the Holiday break with respect to the Talega Village Traffic Study. Just confirming that ACHD has accepted and provided their report for the Talega Village development, see attached. The attached email from Paige is the acceptance. We discussed the ITD project along Hwy 44 and Hwy 16 and some timing of the Phase 3 of that project, which is currently not funded and the timing is unknown. As far as ACHD is concerned with this project, we are good to go, correct?

Just wanted to send a follow up. I have CC'd Shawn and Ryan with the city on this so they are in the loop. If I missed anything, please let me know.

Thanks again Brandon for taking the time to chat with me and I hope you have a great new year…

FOCUS ENGINEERING & SURVEYING, LLC

78 Platinum TOP WORK PLACES 2022

JASON WATSON PTOE, PE
TRANSPORTATION

O: 801-352-0075
M: 480-540-0010
JWATSON@FOCUS-ES.COM
FOCUS-ES.COM
6949 S. HIGH TECH DRIVE
SUITE 200
MIDVALE, UT 84047

CITY OF STAR

LAND USE STAFF REPORT

TO: Mayor & Council

FROM: City of Star Planning & Zoning Department

MEETING DATE: **December 5, 2023 – PUBLIC HEARING (tabled from 11-21-23)**

FILE(S) #: AZ-22-11 - Annexation and Zoning
RZ-23-03 – Rezone
DA-22-12 – Development Agreement
PP-22-17 – Preliminary Plat for Talega Village Subdivision
CUP-22-05 – Talega Village Multi-Family

OWNER/APPLICANT/REPRESENTATIVE

Representative:
Chad Garner
Focus Engineering & Surveying
6949 S. High Tech Dr., Ste. 200
Midvale, UT 84047

Owner/Applicant:
Derk Pardoe
3454 Stone Mountain Lane
Sandy, UT 84092

REQUEST

Request: The Applicant is requesting approval of an Annexation and Zoning (Residential R-10-DA), a Rezone (from R-1 & C-2 to Residential R-10-DA), a Development Agreement, a Preliminary Plat for proposed residential and commercial uses consisting of 162 buildable lots (1 commercial lot, 1 multi-family lot, 65 single-family residential lots, 95 townhome lots and multiple common lots), and a Conditional Use Permit for a proposed multifamily residential use (340 units), A residential density of 10 du/acre is proposed. The property is located at 58 N. Truman Place and 8370 W. Shults Court in Star, Idaho. The entire property consists of 74.61 acres.

PROPERTY INFORMATION

Property Location: The subject property is generally located on the northeast corner of State Highway 16 and State Highway 44. Ada County Parcels: R3720002880,

R3720003030, R3720002500, R3720002480, R3720001505, R3720002412, & S0409417201.

Existing Site Characteristics: The property currently is vacant.

Irrigation/Drainage District(s): Middleton Irrigation Association
Middleton Mill Ditch Company
P.O. Box 848
Middleton, ID 83644

Pioneer Ditch Company
P.O. Box 70
Star, Idaho 86369

Flood Zone: This property is not currently located in a Special Flood Hazard Area.

Special On-Site Features:

- ✪ Areas of Critical Environmental Concern – No known areas.
- ✪ Evidence of Erosion – No evidence.
- ✪ Fish Habitat – No.
- ✪ Floodplain – No.
- ✪ Mature Trees – Several existing mature trees.
- ✪ Riparian Vegetation – None.
- ✪ Steep Slopes – None.
- ✪ Stream/Creek – Yes, Drainage District No. 2 main drain in the northern portion of property.
- ✪ Unique Animal Life – No unique animal life has been identified.
- ✪ Unique Plant Life – No unique plant life has been identified.
- ✪ Unstable Soils – No known issues.
- ✪ Historical Assets – No historical assets have been observed.
- ✪ Wildlife Habitat – No known sensitive wildlife habitat observed.

APPLICATION REQUIREMENTS

Pre-Application Meeting Held	December 1, 2021
Neighborhood Meeting Held	March 15, 2022
Application Submitted & Fees Paid	November 21, 2022
Application Accepted	October 10, 2023
Residents within 300' Notified	November 2, 2023
Agencies Notified	August 15, 2023
Legal Notice Published	November 7, 2023

Property Posted November 21, 2023

HISTORY

On March 6, 2018, the Council voted 4 to 0 to approve CPA-18-01 Comprehensive Plan Map Amendment to Commercial; AZ-18-01, Annexation and Zoning to Commercial (C2) for the Eagle Crossroads, LLC. Application.

On December 8, 2021, Council approved the 2020 Comprehensive Plan Map Amendment, recognizing this property with single-family, townhomes, multi-family and commercial.

SURROUNDING ZONING/COMPREHENSIVE PLAN MAP/LAND USE DESIGNATIONS

	Zoning Designation	Comp Plan Designation	Land Use
Existing	Commercial (C-2) Residential (R-1) Rural Urban Transition (RUT)	Commercial/High Density Residential/Compact Residential/Neighborhood Residential	Vacant
Proposed	Commercial (C-2-DA) Residential (R-10-DA)	Commercial/High Density Residential/Compact Residential/Neighborhood Residential	Commercial/Multi-Family Residential/Single-Family Residential
North of site	Residential (R-6-DA) City of Eagle	City of Eagle Comprehensive Plan	Approved 400 residential lot Cascade Springs Subdivision
South of site	Commercial (C-1) Residential (R-1) Rural Urban Transition (RUT)	Commercial	Hwy 44 Single Family Residential Vacant Agricultural
East of site	Residential (R-13/R-5) Commercial (C-2) Mixed Use (MU)	Commercial/High Density Residential/ Neighborhood Residential/Eagle's Jurisdiction	Multi-Family Residential (Amazon Falls) Vacant (Junction Crossing)/Agricultural
West of site	Rural Urban Transition (RUT) Mixed Use (MU) Light Industrial (LI) Greyloch	Mixed Use Light Industrial	Hwy 16 Vacant Greyloch Cabinets

ZONING ORDINANCE STANDARDS / COMPREHENSIVE PLAN

UNIFIED DEVELOPMENT CODE:

8-1B-1: ANNEXATION AND ZONING; REZONE:

B. Standards:

1. The subject property shall meet the minimum dimensional standards of the proper district.

2. The city may require a development agreement in conjunction with the annexation and zoning, or rezone, pursuant to Idaho Code section 67-6511A, which may include a concept plan. In addition to other processes permitted by city and state code, exceptions or waivers of standards, other than use, may be permitted through execution of a development agreement. A development agreement and concept plan shall be required for any rezone to a mixed-use zone, high density zone or land which includes steep slope (land over 25%) or floodway.

3. The termination of a development agreement shall result in the reversal of the official zoning map amendment approval and applicable development approval for any undeveloped portion of property subject to the development agreement. The undeveloped property subject to the development agreement shall be rezoned to the district classification as designated by the development agreement. When no designation is provided, the property shall revert to its original zoning or, if the original designation no longer exists, to the closest current equivalent zoning as determined by the current Comprehensive Plan Land Use Map designation.

4. An amendment or termination of a previously recorded development agreement shall be recorded in the office of the county recorder by the clerk.

5. An approved development agreement must be executed within ninety (90) days of the meeting at which the development agreement is approved by the city council. A one-time administrative extension of maximum thirty (30) days may be granted by the zoning administrator. Additional extensions may be approved by majority vote of the city council. Failure to execute the development agreement within the required timeframe will result in the denial of all related applications.

C. Required Findings: The council shall review the application at the public hearing. In order to grant an annexation and zoning or rezone, the council shall make the following findings:

1. The map amendment complies with the applicable provisions of the comprehensive plan;

2. The map amendment complies with the regulations outlined for the proposed district;

3. The map amendment shall not be materially detrimental to the public health, safety, and

welfare; and

4. The map amendment shall not result in an adverse impact upon the delivery of services by any political subdivision providing public services within the city.

5. The annexation (as applicable) is in the best interest of city.

8-1B-4: CONDITIONAL USES:

A. Purpose: The purpose of this section is to establish procedures that allow for a particular use on a specific property subject to specific terms and conditions of approval.
B. Applicability: The provisions of this section apply to all uses identified as conditional use within this title. In addition to other processes permitted by city and state code, exceptions or waivers of standards, other than use, may be permitted through issuance of a conditional use permit, development agreement or PUD.
C. Process:
1. The applicant shall complete a pre-application conference with the administrator prior to submittal of an application for a conditional use.
2. A neighborhood meeting shall be held by the applicant pursuant to Section 8-1A-6C of this title.
3. An application and appropriate application fees shall be submitted to the City on forms provided by the city.
4. Prior to issuing the conditional use permit, the administrator may require additional information, including studies, concerning the social, economic, fiscal or environmental effects of the proposed conditional use. Traffic studies may be required by the transportation authority prior to acceptance of an application.
D. Standards: In approving any conditional use, the city council may prescribe appropriate conditions, bonds and safeguards in conformity with this title that:
1. Minimize adverse impact of the use on other property.
2. Control the sequence and timing of the use.
3. Control the duration of the use.
4. Assure that the use and the property in which the use is located is maintained properly.
5. Designate the location and nature of the use and the property development.
6. Require the provision for on site or off-site public facilities or services.
7. Require more restrictive standards than those generally required in this title.
8. Require mitigation of adverse impacts of the proposed development upon service delivery by any political subdivision, including school districts, that provides services within the city.
E. Findings: The council shall base its determination on the conditional use permit request upon the following:
1. That the site is large enough to accommodate the proposed use and meet all the dimensional and development regulations in the district in which the use is located.
2. That the proposed use shall meet the intent of the Star comprehensive plan and be in compliance with the requirements of this title.

3. That the design, construction, operation and maintenance will be compatible with other uses in the general neighborhood and with the existing or intended character of the general vicinity.
4. That the proposed use, if it complies with all conditions of the approval imposed, will not adversely affect other property in the vicinity.
5. That the proposed use will be served adequately by essential public facilities and services such as highways, streets, schools, parks, police and fire protection, drainage structures, refuse disposal, water, and sewer.
6. That the proposed use will not create excessive additional costs for public facilities and services and will not be detrimental to the economic welfare of the community.
7. That the proposed use will not involve activities or processes, materials, equipment and conditions of operation that will be detrimental to any persons, property or the general welfare by reason of excessive production of traffic, noise, smoke, fumes, glare or odors.
8. That the proposed use will not result in the destruction, loss or damage of a natural, scenic or historic feature considered to be of major importance as determined by the City.
F. Time Limitations and Extensions:
1. A conditional use permit, upon council approval, shall be valid for a maximum period of twenty-four (24) months unless otherwise approved by the City Council. During this time, the applicant shall commence the use as permitted in accord with the conditions of approval, satisfy the requirements set forth in the conditions of approval, and acquire building permits and commence construction of permanent footings or structures on or in the ground. Once all requirements are satisfied, permits are acquired and the use is commenced, the conditional use permit will become permanent unless otherwise revoked by the city council.
2. A conditional use permit that also requires plating: The final plat must be recorded within this twenty-four (24) month period.
a. For projects with multiple phases, the twenty-four (24) month deadline shall apply to the first phase. In the event that the development is made in successive contiguous segments or multiple phases, such phases shall be constructed within successive intervals of one year from the original date of approval. If the successive phases are not submitted within the one-year interval, the conditional use approval of the future phases shall be null and void.
3. Time Extension. Upon written request and filed by the applicant prior to the termination of the period in accord with this subsection F, the administrator may authorize a single, administrative time extension to commence the use not to exceed one (1), twelve (12) month period. The administrator may require the conditional use comply with the current provisions of this chapter. Additional requests must be approved by the council.
a. Council approval of requests for time extension for an approved conditional use shall be determined by the city council at a public hearing and will not be granted if any of the following conditions exist:
(1) Significant amendments to the comprehensive plan or this unified development code have been adopted that change the basis under which the conditional use permit was granted.
(2) Significant changes in land use have occurred in the area that will impact or be impacted by the project.
(3) Hazardous conditions have developed or have been discovered that will impact the project.
4. Community facilities and/or services are no longer adequate to serve the project.

a. The city council may place additional requirements, modify the previous approval or deny the request for time extension.
b. No more than one-time extension may be granted to a single conditional use.
G. Transfers and Modifications:
1. Conditional use permits are an entitlement to the specific property on which the approval was granted and upon property sale the entitlement transfers to the new owner(s) without further application or approval, provided, however, the new owner(s) shall be bound by the same conditions of approval as the original permit holder(s). This is for a specific use and may not be used for other applications.
2. A conditional use permit is not transferable from one property to another.
3. All requested modifications to an approved conditional use shall be considered by the city council at a public hearing. The city council may modify the conditions, limitations and/or scope of the permit.
H. Revocation:
1. A conditional use permit may be revoked or modified by the city council, upon notice and public hearing, for breach or violation of any condition of approval or limitation of the permit.
2. If the city council decides to revoke a conditional use permit, either on its own action or upon complaint to the city council, the administrator shall notify the permit holder of its intention to revoke the conditional use permit and provide the permit holder with the opportunity to contest the revocation.
3. Fifteen (15) days' prior notice of the hearing shall be given to the permit holder and all property owners of record (to be obtained from the County Assessor's office) within the radius required in subsection 8-1A-4B of this article.
4. The council shall make findings of fact and conclusions of law supporting its decision to revoke the conditional use permit. If the council decides not to revoke the conditional use permit, no findings of fact and conclusions of law shall be made.
5. An affected person may appeal the decision of the city council under the administrative procedure act of the state of Idaho, Idaho Code title 67, chapter 52.

8-3A-1: ZONING DISTRICTS AND PURPOSE ESTABLISHED:

The following zoning districts are hereby established for the interpretation of this title, the zoning districts have been formulated to realize the general purposes as set forth in this title. In addition, the specific purpose of each zoning district shall be as follows:

RESIDENTIAL DISTRICT: To provide regulations and districts for various residential neighborhoods. Gross density in a Residential (R) district shall be determined according to the numeral following the R. The numeral designates the maximum number of dwelling units per acre. In zoning designations of R-1, R-2, R-3, R-4 and R-5, housing shall be single family detached unless approved with a PUD or development agreement. Connection to municipal water and sewer facilities are required for all subdivision and lot split applications submitted after the effective date hereof in all districts exceeding one dwelling unit per acre. Wells and septic systems may be permitted for larger lots in this land use designation that are not adjacent

to municipal services, as determined by the Sewer District, and if approved by the applicable Health Department. Private streets may be approved in this district for access to newly subdivided or split property. This district does allow for some non-residential uses as specified in 8-3A-3.

(C-2) GENERAL BUSINESS DISTRICT: To provide for the establishment of areas for commercial uses allowed in other commercial zones and commercial uses which are more intensive than those permitted in other commercial zones, and typically located adjacent to arterial roadways and not immediately adjacent to residential, including the establishment of areas for travel related services such as hotels, motels, service stations, drive-in restaurants, offices, limited warehousing, commercial services and retail sales.

DA DEVELOPMENT AGREEMENT: This designation, following any zoning designation noted on the official zoning map of the city (i.e., C-2-DA), indicates that the zoning was approved by the city with a development agreement, with specific conditions of zoning.

8-3A-3: USES WITHIN ZONING DISTRICTS

The following table lists principal permitted (P), accessory uses (A), conditional (C), or prohibited (N) uses.

ZONING DISTRICT USES	R	C-2
Dwelling		
Multi-family 1	C	N
Single-family attached	P	N
Single-family detached	P	N

Notes:

1. **Indicates uses that are subject to specific use standards in accord with chapter 5 of this title.**

8-3A-4: ZONING DISTRICT DIMENSIONAL STANDARDS:

Zoning District	Maximum Height Note Conditions	Minimum Yard Setbacks Note Conditions			
		Front (1)	Rear	Interior Side	Street Side

R-6 to R-11 attached housing	35'	15' to living area 20' to garage 10' if alley load	15' 4' if alley load	7.5' (2)	20'
C-2	35'	20'	5'	0(4)	20'

Notes:
1. Front yard setback shall be measured from the face of the garage to the face of the sidewalk, allowing for 20' of parking on the driveway without overhang onto the sidewalk.
2. Zero-Lot-Line and reduced front and rear setback waivers may be requested through the Development Agreement process. All other side yard setback requests for detached structures shall not be granted waivers, unless as part of a Planned Unit Development.
3. All setbacks in the CBD, C-1. C-2, LO, IL, PS, RC and M-U zone shall maintain a minimum 15' when adjacent to a residential use or zone.
4. As approved by the Fire District.

8-3B-3: ADDITIONAL RESIDENTIAL DISTRICT STANDARDS

A. Comply with Section 8-3A-1: ZONING DISTRICTS AND PURPOSE ESTABLISHED.
B. When development is planned with lots that directly abut existing lots within a Rural Residential area, or "Special Transition Overlay Area" as shown on the Comprehensive Plan Land Use map, an appropriate transition shall be provided for the two abutting residential lot types. A transition shall take into consideration site constraints that may exist and may include clustering of the urban lots in order to provide an open space area avoiding urban lots directly abutting rural residential lots, or may include the provision of a buffer strip avoiding urban lots directly abutting rural residential lots, or may include setbacks within the urban lots similar to the rural residential lots directly abutting, or may include the provision of one half to one acre size lots directly abutting the rural residential lots.
C. Urban style development, as guided by provisions within the compressive plan and this Title, is required to limit urban sprawl, however, densities of no more than 1 to 2 dwelling units per acre are to be designed within the floodplain, ridgeline developable areas and hillside developable areas (both as defined within the comprehensive plan).
D. Housing developments with densities of R-11 and higher shall be designed to limit height, increase setbacks and/or provide additional landscaping along the perimeter of the development, if determined by the council, where abutting areas are planned for lower densities.
E. Rezoning to R-11 and higher shall not be allowed unless adequate ingress/egress to major transportation corridors is assured.

F. All new residential, accessory uses or additions/remodels within the residential zones shall pave all unpaved driveways to the home.

G. Spite strips, common lots, unreasonable development phasing, or other means of any type purposely or unintentional that may result in the blocking of services or development, including but not limited to sewer, water, streets, or utilities are prohibited in any zoning district within the City of Star.

H. In any development that requires a traffic signal as part of the approval process, the developer shall be responsible for providing an Emergency Opticom System to the intersection.

8-3C-1: ADDITIONAL COMMERCIAL DISTRICT STANDARDS:

ALL COMMERCIAL DISTRICTS:

A. Comply with Section 8-3A-1: ZONING DISTRICTS AND PURPOSE ESTABLISHED.

B. New commercial developments shall incorporate site and architectural design recommendations from the Architectural Overlay Design Guidelines for the Central Business District and Riverfront Center.

C. Site Improvements: 1) Prior to any ground disturbance for any commercial, industrial or other non-residential buildings, a Commercial Site Improvements application shall be submitted to the City for approval by the City Engineer. This shall include any new site development initiated prior to a City Building permit.

2) In any development that requires a traffic signal as part of the approval process, the applicant shall be responsible for providing an Emergency Opticom System to the intersection.

3) One (1) full-size copy of the construction drawings, drawn in accordance with the requirements hereinafter stated. The construction Drawings shall be submitted on good quality paper, be professionally drafted, shall have the dimensions of not less than twenty-four inches by thirty-six inches (24" x 36"), and shall be drawn to a scale of not less than one inch to one hundred feet (1"=100') and contain a drafting date and north arrow.

a. Application shall include compliance with Section 8-4A-8 and 8-4A-11 of this ordinance.

b. Construction drawings shall include both above ground and below ground improvements, including the proposed building envelope of proposed improvements. Said improvements must include proposed finished grades of all impervious surfaces, and shall be in conformance with all Federal, State, and local regulations.

c. Electronic file of all application materials in original .pdf format shall be submitted with the application on a thumb drive.

8-3G-1: ARCHITECTURAL OVERLAY DISTRICT:

A. An Architectural Overlay District boundary is all of the existing CBD north of the Boise River, and approximately 750' on either side of SH-44 from city limit to city limit, including future annexations. This shall also include all other non-residential zoned uses and properties throughout the City. Single-family dwellings that are part of an approved PUD or Conditional Use Permit shall comply with this section.

B. Architectural Overlay District includes the entirety of the South of the River Area Plan.

C. The "STAR DESIGN GUIDELINES, CENTRAL BUSINESS DISTRICT AND RIVERFRONT CENTER" (the Guidelines), is adopted through this ordinance. It may be amended from time to time by a Resolution of the Star City Council and shall be used within the Architectural Overlay District.

D. If the Architectural Overlay District Guidelines conflict with other parts of the City of Star code, the Architectural Overlay District Guidelines shall be used.

8-4B-3: REQUIRED NUMBER OF OFF-STREET PARKING SPACES:

A. Required parking spaces for other permitted or conditional uses not listed herein or uses that are listed but may be different from normal operation, shall be determined by the administrator and/or Council. Among the factors for determining the number of spaces to be required for a use not listed herein, the administrator may compare the proposed use with a use which has similar traffic generating characteristics as outlined in the most recent version of the institute of transportation engineers trip generation manual.

B. Minimum Number of Off-Street Parking Spaces: The minimum number of required off street vehicle parking spaces for residential uses shall be:

Type Of Use	**Off-Street Parking Spaces Required**
RESIDENTIAL	
Apartments or multi-family dwellings	For each unit with 2 or more bedrooms - 2 including 1 covered; for each 1 bedroom or studio unit - 1.5 including 1 covered. Guest parking shall be provided at a ratio of .25 spaces per unit.

COMMON OPEN SPACE AND SITE AMENITY REQUIREMENTS

8-4E-1: APPLICABILITY:

The standards for common open space and site amenities shall apply to all residential developments with a density exceeding one dwelling unit per acre.

8-4E-2: STANDARDS:

A. Open Space and Site Amenity Requirement (see also Chapter 8 "Architectural Review"):
1. The total land area of all common open space shall equal or exceed fifteen percent (15%) of the total gross acreage of land area of the development. A minimum of 10% of the total gross acreage of the development shall be for useable area open space. Open space shall be

designated as a total of 15% minimum for residential developments in all zones with densities of R-2 or greater.
2. Each development is required to have at least one site amenity.
3. One additional site amenity shall be required for each additional twenty (20) acres of development area, plus one additional amenity per 75 residential units.
4. Developments with a density of less than 1 dwelling unit per acre may request a waiver of open space and amenities to the Council. Developments with a density of less than 2 dwelling units per acre may request a 50% reduction in total required open space and amenities to the Council.
5. For multi-family developments, see Section 8-5-20 for additional standards.
B. Qualified Usable Area Open Space: The following qualifies to meet the useable area open space requirements:
1. Any open space that is active or passive in its intended use, and accessible or visible by all residents of the development, including, but not limited to:
a. Open grassy area of at least fifty feet by one hundred feet (50' x 100') in area;
b. Qualified natural areas, as determined by the Administrator;
c. Ponds or water features where active fishing, paddle boarding or other activities are provided (50% qualifies towards total required usable area open space, must be accessible by all residents to qualify.) ponds must be aerated;
d. A plaza.
e. Common lots that include a pathway providing local or regional connectivity that is a minimum of 20’ in width.
f. Irrigation easements/ditches when a pathway is included (to be measured from the center of the ditch to the property line of the common lot).
2. Additions to a public park or other public open space area.
3. The buffer area along collector and arterial streets may be included in required overall common open space for residential subdivisions.
4. Parkways along local residential streets with detached sidewalks that meet all the following standards may count toward the common open space requirement:
a. The parkway is a minimum of eight feet (8') in width from street curb to edge of sidewalk and includes street trees as specified otherwise herein.
b. Except for alley accessed dwelling units, the area for curb cuts to each residential lot or common driveway shall be excluded from the open space calculation. For purposes of this calculation, the curb cut area shall be a minimum area of twenty-six feet (26') by the width of the parkway.
c. Stormwater detention facilities do not qualify to meet the common area open space requirements, unless all of the following is met:
1. Must be at least fifty feet by one hundred feet (50' x 100') in area;
2. Specifically designed as a dual use facility, as determined by the administrator, to include minimal slopes, grass throughout, and guarantee of water percolation within 24 hours of storm event.
3. Is located in a development that has a second usable open space area that contains a qualified site amenity as herein defined.

5. Visual natural space, including open ditches, wetlands, slopes or other areas that may not be readily accessible to residents, and is provided with open style fencing, may qualify for up to 20% of the required open space total, as determined by the Administrator.
C. Qualified Site Amenities: Qualified site amenities shall include, but not be limited to, the following:
1. Clubhouse;
2. Fitness facilities, indoors or outdoors;
3. Public art;
4. Picnic area; or
5. Recreation amenities:
a. Swimming pool with an enlarged deck and changing and restroom facility (pools shall count towards 3 required site amenities).
b. Children's play structures.
c. Sports courts.
d. Additional open space in excess of 10% qualified usable space.
e. RV parking for the use of the residents within the development.
f. School and/or Fire station sites if accepted by the district.
g. Pedestrian or bicycle circulation system amenities meeting the following requirements:
(1) The system is not required for sidewalks adjacent to public right of way;
(2) The system connects to existing or planned pedestrian or bicycle routes outside the development; and
(3) The system is designed and constructed in accord with standards set forth by the city of Star;
D. Location: The common open space and site amenities shall be located on a common lot or an area with a common maintenance agreement.
E. Maintenance:
1. All common open space and site amenities shall be owned by and be the responsibility of an owners' association for the purpose of maintaining the common area and improvements thereon.

8-5-21: MULTI-FAMILY DWELLING/DEVELOPMENT:

Multi-family developments with multiple properties shall be considered as one property for the purpose of implementing the standards set forth in this section.

A. Storage of Recreational Vehicles: No recreational vehicles, snowmobiles, boats or other personal recreation vehicles shall be stored on the site unless provided for in a separate, designated and screened area, and approved as part of the development.

B. Developments with Twenty Units Or More: Developments with twenty (20) units or more shall provide the following:

1. A property management office.

2. A maintenance storage area.

3. A map of the development at an entrance or convenient location for those entering the development.

C. Open Space Requirement (see also Chapter 8 "Architectural Review").

1. The total land area of all common open space shall equal or exceed fifteen percent (15%) of the gross land area of the development. Ten percent (10%) of that area shall be usable open space.

2. Private Open Space: In addition to the common open space and site amenity requirements of this title, a minimum of eighty (80) square feet of additional, private, usable open space shall be provided for each residential unit not planned as single-family detached. This requirement can be satisfied through porches, patios, decks, and enclosed yards. Landscaping, entryway and other accessways do not count toward this requirement.

D. Amenities

1. The number of amenities shall depend on the size of multi-family development as follows:

a. A multi-family development with less than twenty (20) units, two (2) amenities shall be provided from two (2) separate amenity categories.

b. A multi-family development between twenty (20) and seventy-five (75) units, three (3) amenities shall be provided, with one from each amenity category.

c. A multi-family development with seventy-five (75) units or more, four (4) amenities shall be provided, with at least one from each amenity category.

d. A multi-family development with more than one hundred (100) units, the Council shall require additional amenities commensurate to the size of the proposed development.

e. All multi-family developments greater than 75 units shall be required to provide a swimming pool with a changing and restroom facilities, and an enlarged deck. The minimum pool size shall be equal to the following:

(1) Developments between 75 and 149 units = 1,600 square feet

(2) Developments between 150 and 299 units = 2,400 square feet

(3) Developments over 300 units = minimum of 3,600 square feet

E. Any required traffic impact study shall be submitted and accepted by the appropriate transportation authority prior to submittal of an application. A hearing date before the Council shall not be scheduled until the traffic impact study has been approved and the transportation authority has issued a Staff report on the development application.

2. Amenity Categories. The council may consider other amenities in addition to those listed below.

a. Clubhouse.

b. Fitness facilities -Indoor/Outdoor.

c. Enclosed bike storage.

d. Public art.

e. Covered bus stops as approved by the School District or Regional Transportation Authority.

f. Ponds or water features.

g. Plaza.

h. Recreation areas.

i. Pool.

j. Walking trails and/or bike paths.

k. Children's play structures.

l. Sports courts.

m. Natural Areas (as approved by Council).

n. RV parking for the use of the residents within the development.

o. Additional open space in excess of 5% usable space.

p. School and/or Fire station sites if accepted by the district.

q. Pedestrian or bicycle circulation system amenities meeting the following requirements:

(1) The system is not required for sidewalks adjacent to public right of way;

(2) The system connects to existing or planned pedestrian or bicycle routes outside the development; and

(3) The system is designed and constructed in accord with standards set forth by the city of Star

E. Maintenance and Ownership Responsibilities: All multi-family developments shall record legally binding documents that state the maintenance and ownership responsibilities for the management of the development, including, but not limited to, structures, parking, common areas, and other development features.

F. Architectural standards in Chapter 8 shall be applied to all multi-family developments.

G. Signs:

(1) Addressing Signage. The following shall apply to all multi-family developments:

A. Approval from Fire District and Addressing Authority.

B. The sign(s) shall be front or back lit from dusk to dawn.

C. Sign materials shall be of wood, plastic or metal.

D. Minimum size of the plan view diagram portion of the sign shall be 3'x3' or presented at a larger size to be easily readable and visible from the distance of the intended viewer.

E. Text on the map shall be of a contrasting color to the background of the sign.

F. Maps can be produced as a digital print on a variety of substrates such as vinyl, paper, or a laminated graphic. The method of production needs to be compatible with the environmental conditions as well as with the structure that the map is to be integrated with.

G. Isometric or Three-Dimensional Signs are allowed if approved by the addressing agent.

H. Orientation: Vehicle oriented maps should always be positioned in the direction that a vehicle is facing.

I. The sign(s) shall be inspected annually by the owner/property manager for damage, visibility and legibility and appearance issues.

J. Nearby vegetation should be kept back from the sign(s) and low plantings used as to not block the sign when fully grown.

FIGURE 8-5-20(a)
ADDRESSING SIGN STYLE

COMPREHENSIVE PLAN:

8.2.3 Land Use Map Designations:

NEIGHBORHOOD RESIDENTIAL - Suitable primarily for single family residential use. Densities in the majority of this land use area are to range from 3.01 units per acre to 5 dwelling units per acre. Densities not exceeding 1 to 2 units per acre are to be encouraged in areas of the floodplain, ridgeline developable areas, hillside developable areas, and where new residential lots are proposed immediately adjacent to existing residential lots of one acre and larger where those existing larger lots are not likely to be subdivided in the future.

COMPACT RESIDENTIAL - Suitable primarily for residential use allowing a mix of housing types such as single family, two family, and multi-family. Densities range from 5.01 units per acre to 10 units per acre.

HIGH DENSITY RESIDENTIAL - Suitable primarily for multi-family. This use should generally be located in close proximity to commercial centers and primary transportation corridors. The use is also suitable within the Central Business District in mixed-use buildings with commercial or office uses on the first floor and high density residential on upper floors. Densities range from 10.01 units per acre and up. Density may be limited to ensure compatibility and transition between uses adjacent to the site. Design specifications may include increased setbacks for multi-story buildings, landscape buffers, and transitional densities. Rezoning to this designation should not be allowed unless adequate ingress/egress to major transportation corridors are assured.

COMMERCIAL - Suitable primarily for the development of a wide range of commercial activities including offices, retail, and service establishments. Rezoning to this designation should not be allowed unless adequate ingress/egress to major transportation corridors are assured. Light industrial uses may be considered at the discretion of the City Council without amending this plan.

8.3 Goal:

> Encourage the development of a diverse community that provides a mix of land uses, housing types, and a variety of employment options, social and recreational opportunities, and where possible, an assortment of amenities within walking distance of residential development.

8.4 Objectives:

- Implement the Land Use Map and associated policies as the official guide for development.
- Manage urban sprawl in order to minimize costs of urban services and to protect rural areas.
- Encourage land uses that are in harmony with existing resources, scenic areas, natural wildlife areas, and surrounding land uses.

- Encourage commercial development that is consistent with a family friendly feel, not overburdening the community with big box and franchise uses and discourage the development of strip commercial areas.

8.5.6 Policies Related Mostly to the Commercial Planning Areas:

- Assist in the provision of coordinated, efficient, and cost-effective public facilities and utility services, carefully managing both residential and non-residential development and design, and proactively reinforcing downtown Star's role as the urban core while protecting existing property rights. B. Encourage commercial facilities to locate on transportation corridors. C. Locate neighborhood services within walking distance to residential development. D. Discourage the development of strip commercial areas. E. Maintain and develop convenient access and opportunities for shopping and employment activities. F. Commercial areas of five acres or less should be encouraged in residential land use designations with appropriate zoning to allow for commercial services for residential neighborhoods and to limit trip lengths. Such commercial areas should be submitted for approvals with a Conditional Use Permit or Development Agreement to assure that conditions are placed on the use to provide for compatibility with existing or planned residential uses. These areas should be oriented with the front on a collector or arterial street.8.5.9 Additional Land Use Component Policies:
- Encourage flexibility in site design and innovative land uses.
- Work with Ada County Highway District (ACHD), Canyon Highway District #4 (CHD4), and Idaho Department of Transportation (ITD) for better coordination of roadway and access needs.
- Support well-planned, pedestrian-friendly developments.
- Dark sky provision should be adopted within the code to assure down style lighting in all developments and Star should consider joining the International Dark Sky Association.

8.5.8 Policies Related Mostly to Open Space and Special Areas:

A. Projects that hold a residential designation, where the developers would like to provide or dedicate amenities similar to those allowed in the Public Use/Parks/Open Space designation, may transfer unused density from these areas to other areas within the development, as may be approved by the City Council through the Planned Unit Development or Development Agreement processes.
B. Where possible, open space should be located to be contiguous to public lands and existing open space areas.
C. Open space should be designed to capitalize on and expand the open space areas around natural features and environmentally sensitive areas. Priorities for preservation include: The most sensitive resources – floodways and floodplains (including riparian and wetland areas), slopes in

excess of 25%, locally significant features, and scenic viewpoints. Fragmentation of open space areas should be minimized so that resource areas are able to be managed and viewed as an integrated network.
D. Open space areas along the Boise River should be designed to function as part of a larger regional open space network.
E. Require the conservation and preservation of open spaces and public access to the Boise River and BLM lands and interconnected pathways, open to the public, through new developments.
F. The city should work with property owners adjacent to the Boise River to maintain and enhance the river corridor as an amenity for residents and visitors and to obtain public pathway easements and to have pathways constructed. Uses which complement this public access include trails and interpretive signage.
G. Common areas in subdivisions should be centrally located for the residents use and should include micro-path connections where feasible.
H. Discourage development within the floodplain, excluding within the Riverfront Center area, in which development could mitigate floodplain areas and provide for civic space within the floodway and adjacent areas.
I. Floodway areas are to remain "open space" because of the nature of the floodway which can pose significant hazards during a flood event. Within the Riverfront Center, this floodway area should be developed as civic gathering area, open and park space, with the design allowing for floodwaters to inundate the area without contributing to hazard risk.
J. Floodway areas are excluded from being used for calculating residential and development densities.
K. Any portion of the floodway developed as a substantially improved wildlife habitat and/or wetlands area that is open to and usable by the public for open space, such as pathways, ball fields, parks, or similar amenities, as may be credited toward the minimum open space required for a development, if approved by the City Council.
L. Encourage land uses that are in harmony with existing resources, scenic areas, natural wildlife areas, and surrounding land uses.
M. Areas over 25% slope are to be "no development" areas except for city approved trails and except where isolated areas of steep slope are located on property where site grading can easily modify the steep slope area for buildable area. In those cases where grading can be accomplished to modify the isolated steep slope areas the surrounding land use designation will apply within the area designated "steep slope."
N. Clustering of housing is to be encouraged where needed to preserve hillsides, natural features, and to avoid mass grading of land in areas determined to be preserved.

8.5.9 Additional Land Use Component Policies:

- Encourage flexibility in site design and innovative land uses.
- Work with Ada County Highway District (ACHD), Canyon Highway District #4 (CHD4), and Idaho Department of Transportation (ITD) for better coordination of roadway and access needs.

- Support well-planned, pedestrian-friendly developments.
- Dark sky provision should be adopted within the code to assure down style lighting in all developments and Star should consider joining the International Dark Sky Association.

18.4 Implementation Policies:

F. Development Agreements allow the city to enter into a contract with a developer upon rezoning. The Development Agreement may provide the city and the developer with certain assurances regarding the proposed development upon rezoning.

PROJECT OVERVIEW

ANNEXATION & ZONING:

The annexation, zoning, and rezone request from County Rural Urban Transition (RUT) and Residential (R-1) and General Business District (C-2) to Residential (R-10-DA) on the applicant's property will allow for the development and subdivision of the subject property into a residential subdivision with accompanying commercial uses that will be consistent with the recently adopted Comprehensive Plan. The property consists of a total of 74.61 acres, including 55.68 acres for residential use and 18.93 acres for commercial use. The total proposed residential units is 500, with an overall gross residential density of 8.98 dwelling units per acre, which excludes the 18.93 acres that is currently designated for commercial in the calculations. A further density breakdown shows:

- Approximately 2.17 dwelling units per acre for the single family residential dwellings - The current Comprehensive Plan Land Use Map designates this portion of the property as Neighborhood Residential, with an allowed density of 3-5 dwelling units per acre;
- Approximately 9.25 dwelling units per acre for the townhomes – The current Comprehensive Plan Land Use Map designates the portion of the property as Compact Residential, with an allowed density of 5-10 dwelling units per acre;
- Approximately 22 dwelling units per acre for the multi-family dwellings - The current Comprehensive Plan Land Use Map designates this portion of the property as High Density Residential, with an allowed density of 10 plus dwelling units per acre.

The requested land uses of residential and commercial within the annexation and zoning and rezone applications meet the intent of the zoning designations intended in the Comprehensive Plan.

PRELIMINARY PLAT:

The proposed Preliminary Plat contains 161 residential lots, 1 commercial lot and 19 common area lots for a total of 181 total lots. The Preliminary Plat contains 65 single family residential lots with an average lot size of 8,400 square feet, 95 townhome lots with and 340 apartment units. The 65 single family residential lots range in size from 6,623 square feet to 15,690 square feet with the average buildable lot area of approximately 8,400 square feet. The 95 townhome lots range in size from 4,851 square feet to 9,016 square feet with the average lot size of 6,974 square feet. The 340 apartments are located on 1 parcel.

The Preliminary Plat has been submitted with information that does not meet UDC and the Ada County Surveyor requirements for plats. Specifically, platted lots require lot and block numbers, and common lots should be numbered within the individual blocks and not as parcels (A-Q). A revised Preliminary Plat shall be submitted prior to final plat application that clearly shows compliance with all Ada County platting procedures.

All streets are proposed to be public within the single family and townhome residential portion of the development, with private driveways proposed within the multi-family residential section. Residential roads are proposed as follows: The road section for the Hamin collector road and one internal roadway between the single family and the multi-family proposes a 60-foot wide right of way, with a roadway measurement of 36 feet from back of curb to back of curb, and a 5-foot-wide detached sidewalk with an 8-foot-wide park strip. **The UDC requires sidewalks along collectors to be a minimum of 7 feet. The sidewalks along both sides of Hamlin Avenue shall be revised to include a 7 foot width**. The remaining roadway sections in the residential development include a 50-foot-wide right of way with 36 feet from back of curb to back of curb and a 5-foot-wide detached sidewalk with an 8-foot-wide park strip.

The project has 55.68 acres of residential housing area. Section 8-4E-2 of the Unified Development Code states *"The total land area of all common open space shall equal or exceed fifteen percent (15%) of the total gross acreage of land area of the development. A Minimum of 10% of the total gross acreage of the development shall be for useable area open space. Open space shall be designated as a total of 15% minimum for residential developments in all zones with densities of R-2 or greater."* As the submitted site plan does not appear to have the correct calculations for open space, Staff has done its own calculation, and the residential area appears to exceed the required amount of open space. With 55.68 acres of total residential area, the development should have a total of 8.35 acres of total open space (15%) and 5.57 acres of usable open space (10%). Staff calculations of the submitted plans are as follows:

- **Total provided Open Space* = 20.67 acres (37%). This breaks down as follows for the 3 individual residential sections of the development:**
    - **Single-Family = 8.54 acres (32.5%)**
    - **Townhomes = 9.09 acres (77.6%)**
    - **Multi-Family = 3.04 acres (17.2%)**

- **Total provided Usable Open Space* =**
  - **Single Family = 5.98 acres (22.7%)**
  - **Townhomes = 2.13 acres (18.2%)**
  - **Multi-Family = 2.52 acres (14.3%)**

***All provided calculations have been determined by Staff as best as possible, as correctly detailed breakdowns of the open spaces has not been provided. Staff will require accurate calculations of total open space and usable open space from the applicant prior to final approval. This should include separated actual acreages of the 3 different residential types so Staff can properly review the calculations.**

It is also unclear from the information submitted as to what type of common lots "Parcels G & H" are. If they are to be landscaped usable open space lots, they should be accessible to the residential portion of the development. They appear to be too large for the Hwy 16 required buffer. Staff recommends a pathway connection between Lots 3022 & 3023 to access the area.

Section 8-4E-2 also states *"Each development is required to have a least one site amenity. One additional site amenity shall be required for each additional twenty (20) acres of development area, plus one additional amenity per 75 residential units."* The Applicant is proposing 500 residential units on 55.68 acres, which requires a minimum of nine (9) amenities. The Applicant is proposing a tot lot, dog park, clubhouse, pool, 3 large open areas, a picnic shelter, walking paths and a bench as amenities. These meet the required number and kind of amenities as outline in the Unified Development Code. **The pool shall be required to be a minimum of 3,600 square feet in size. It is assumed and also recommended that all amenities and open spaces shall be utilized by the residents of all 500 residential units.**

Section 8-8C-2 paragraph J states "Any road designated as a principal arterial on the applicable highway district function class map: A minimum of forty feet (40') wide buffer area (not including right of way) shall be provided with the following plants per one hundred (100) linear feet of right of way: four (4) shade trees, three (3) evergreen trees, two (2) flowering/ornamental trees, and twelve (12) shrubs. Each required shade tree may be substituted with two (2) flowering/ornamental trees, provided that not more than fifty percent (50%) of the shade trees are substituted. A minimum seven foot (7') high buffer consisting of a berm, wall, fence, or combination thereof shall be provided within the buffer area. The maximum slope for any berm shall be three feet (3') horizontal distance to one foot (1') vertical distance. Unsightly fencing shall not be permitted." The Applicant has provided the correct buffer along Hwy 16 and the proposed landscape appears to satisfy the code requirements.

The development is currently provided with ingress/egress to the south from Highway 44 (State Street) via Hamlin Avenue. This is currently a right in/right out only and is subject to further access modification once the Hwy 16/44 interchange is constructed. There is a secondary access proposed via Amazon Drive, a public road through the Amazon Falls development off Short

Road. This connection is not yet built and will need to cross the drainage ditch to connect to Hamlin Avenue. **The council should consider the limited access and may want to condition this connection to be completed prior to any construction activities when making a decision on the application.** The Applicant will need to receive approval from both transportation agencies (ITD and ACHD) and possibly the proper irrigation district and adhere to their requirements for access and improvements.

The applicant has provided a conceptual phasing plan showing 4 phases for the development. Phase 1 appears to be the apartments (17.67 acres), Phase 2 the townhomes (11.7 acres), Phase 3 the single family residential (26.3 acres) and Phase 4 the commercial portion (18.93 acres) of the development. **The council should consider this phasing plan and the timing of the commercial development when making a decision on the application.**

ADDITIONAL DEVELOPMENT FEATURES:

- Sidewalks

  Sidewalks are proposed at five-foot (5') widths and will be detached throughout the subdivision. **The Hamlin Avenue sidewalks shall be 7 feet minimum.** The Applicant is proposing 8-foot landscape strips throughout, satisfying the Unified Development Code.

- Streetlights

  A streetlight location plan and design sample has been submitted by the applicant. Streetlights shall reflect the "Dark Sky" criteria with all lighting. The same streetlight design shall continue throughout the entire development. The proposed streetlight locations and proposed fixtures satisfy code and the City's requirements for a common style of streetlight. **Although the streetlight plan and design meet City Code, upon installation and inspection, shielding of lights may be required to prevent light trespass as necessary.**

- Subdivision and Street Names

  The Applicant has provided approval from Ada County for the subdivision name with the application packet. **No street name approval was included in the application materials, this will be required before signing the final plat.**

- Landscaping

  As required by the Unified Development Code, Chapter 8, Section 8-8C-2-M (2) Street Trees; A minimum of one street tree shall be planted for every thirty-five (35) linear feet of street frontage. For open areas, one shade tree shall be planted for every four thousand (4,000) square feet. The applicant shall use "Treasure Valley Tree Selection Guide", as adopted by the Unified Development Code. The proposed landscape plan appears to meet these requirements for street trees. **In instances**

where street trees will be planted by the builder, certificate of occupancy may be held up if trees are not planted in accordance with this code.

Applicant should be prepared to address Staff's question on the landscaping and usability of "Parcels G & H".

- Mail Cluster

  The Applicant has provided an approval letter from the Eagle Postmaster of a location for the mail clusters, however the map showing the approved location was not included in the application materials. **Staff will require this map prior to signing the final plat. Per Section 8-4A-20, all mailboxes and clusters shall be covered with an architecturally designed cover, to be approved by the Administrator prior to final plat signature. All covers shall be provided with lighting and shall be stained/painted and kept in good condition at all times. The administrator may issue a letter of violation to the HOA when any mailbox cluster or cover falls into disrepair. Maintenance shall be included in the CC&R's.**

- Block Length

  Part of Hamlin Avenue is already constructed, as the northern section is extended, Staff suggests the Applicant work with the Highway District and Fire District with regards to traffic calming techniques. Staff is supportive of the waiver to the block lengths in this development as only 1 appears to exceed the 750' limit.

- Setbacks

  The applicant is not requesting any setback waivers and will adhere to the setbacks outlined in this report and as follows:
  - Single-Family Detached = 15'/20' Front; 7.5' Side Yard; 15' Rear; 20' Street Side
  - Townhomes = 0' Front; Zero-Lot Lines for Interior Sides; 5' Rear; 5' Exterior Side
  - Multi-Family = N/A

- Common Driveways

  The preliminary plat is currently showing two common driveways in the townhome section (lots 2030 & 2031). Section 8-6B-2D of the Unified Development Code states *"Common driveways shall serve a maximum of two (2) dwelling units and shall approved by the Fire District."* **Staff recommends that the two lots be eliminated from the plat, as the Fire District has been denying all common and shared driveways due to emergency access and turn-around issues.**

- **Old Grange Hall Property:**

  The old grange hall property located currently at 8377 W Shultz Court is surrounded by this project. As Hwy 16 is improved, it will be necessary to provide access to this out-parcel internally within the Talega Village development. A cul-

de-sac turn-around is designed north of the parcel. The right of way should be extended to provide legal access to this parcel.

CONDITIONAL USE PERMIT:**

The applicant is requesting approval of a Conditional Use Permit for 340 apartment units in approximately 22 buildings. The applicant has not indicated if the apartment units will be one or two bedroom units. For a two-bedroom unit, parking requirements are calculated at 2 spaces for each unit with 1 space being covered and .25 spaces per unit for guest parking. The Applicant is proposing approximately 500 parking spaces, based on what Staff can estimate. **This number is short approximately 265 parking spaces.** Section 8-4B-2 of the Unified Development Code requires parking stalls to be a minimum of nine feet (9') wide and twenty feet (20') deep. **Parking stall measurements are not clearly marked on the submitted plan. Prior to final approval, the Applicant shall provide to Staff a site plan that clearly meets all the requirements of the Unified Development Code.**

Section 8-4B-3H of the Unified Development Code states that one bicycle parking space shall be provided for every twenty-five (25) vehicle parking spaces. Based on the required number of parking spaces, **the Applicant will be required to provide 30 bicycle spaces, this is not clearly denoted on the submitted plan.**

The Applicant has provided elevations for the proposed apartments, which appear to be three (3) stories tall. Section 8-4B-2 of the UDC requires "*all drive aisles adjacent to a building shall be a minimum of 25'0" or as required by the fire code, unless the building is 30 feet in height or greater, at which point the drive aisle shall be 26'0" or as otherwise approved by the Fire District."* **The drive aisles are not clearly marked on the submitted site plan or preliminary plat. The Applicant will be required to submit a site plan that clearly shows all drive aisle measurements, meeting code as required.**

The Applicant is not asking for an exception of the height requirement, therefore buildings will be limited to thirty-five feet (35') in height, unless otherwise approved by Council.

All signage, including building and directionals require separate permit and approval from Staff prior to installation.

The applicant has submitted very brief color renderings of the proposed building, which will still need to go through design review (Certificate of Zoning Compliance) for approval prior to building permits being issued.

It is unclear from the site plan if the following requirements of Section 8-5-21 of the UDC has been included as part of the multi-family development. This includes:

- **Any storage for recreational vehicles**

- **Location of the management office**
- **Location of maintenance storage area**
- **Location of the map of the development, including vehicle orientation map**
- **Maintenance and ownership responsibilities documents**
- **Architectural standards and materials**
- **Bicycle parking**

****The site plan submitted for review for the multi-family residential provides very minimal information necessary for Staff to properly review the layout. Staff recommends that, if Council approves the land use, that the applicant be required to submit a detailed site plan with information as required in Section 8-5-21 of the UDC, and that the site plan be brought before the Council and/or Design Review Committee for review and final approval. Because of the appearance of needed extra parking, the 500 unit count proposed may not be achievable.**

DEVELOPMENT AGREEMENT:

Through the Development Agreement process, the applicant is proposing to work with the City to provide further insurance that the development will be built as presented and/or modified by the Council through the review process. Items that should be considered by the applicant and Council include the following:

- **ITD Proportionate Share Fees at $1,000.00 per residential unit**
- **Density**
- **Fire Sprinklers Requirements**
- **Parking Requirements**
- **Commercial Acreage/Use**
- **Traffic**
- **Potential phasing limitations on the project**
- **Access to the old Grange Hall property**
- **Guest parking for townhomes**
- **Hamlin Avenue 7' sidewalks**
- **Usability of "Parcels G & H" as related to landscaping**
- **Open space usage for entire development**
- **Access to Amazon Falls Drive prior to construction**
- **Elimination of common drive lots**

AGENCY RESPONSES

ITD	March 21, 2023/October 25, 2023
ACHD	September 26, 2023
Ada County Dev. Services	February 27, 2023

COMPASS	March 13, 2023
West Ada School District	March 29, 2023
Central District Health	March 3, 2023
Star Fire Department	Pending

PUBLIC RESPONSES

No public comments have been received.

STAFF ANALYSIS & RECOMMENDATIONS

Based upon the information provided to Staff in the applications and agency comments received to date, Staff finds that the proposed request for annexation and zoning, rezone, and preliminary plat, as conditioned, meets the requirements, standards and intent for development as they relate to the Unified Development Code and Comprehensive Plan. **Regarding the conditional use permit for the multi-family residential, Staff would need additional information to make a clear recommendation on all aspects of the CUP application. Staff would recommend that the Council consider approval of the land use for multi-family residential with a maximum allowed density to be confirmed once the revised site plan is fully reviewed to determine if additional parking is required and density need to be reduced.**

Traffic Concerns:

Staff is concerned with the amount of traffic that will be generated by the uses in this development upon full build-out in relationship with the current access to the site. Currently, Hamlin Avenue is the only access to the site. With the additional connection to Amazon Falls Drive to the east and access to Hwy 44 via Short Road, there will still be considerable traffic from this development, in addition to the currently approved residential and commercial developments north, east and west of Short Road. And if Hamlin Avenue is further restricted by ITD once the interchange is constructed, the strain on Short Road will be extreme. Staff has been informed by representatives of the two developments to the north and northeast of Talega Village (Cascade Springs and Fountain Park Subdivisions) that connection from Hamlin Road north towards Floating Feather Road and east towards Palmer Lane, are anticipated to be a minimum of 5-years out, based on current phasing of those projects and with the current market. The Palmer Lane signal light will also be necessary to handle all of the current and future traffic from the currently approved developments in Star and Eagle in this immediate area. Council may want to consider additional phasing and/or unit limitation conditions on this development until the proposed improvement to the traffic system are completed prior to final build-out of this development. While ACHD and ITD have provided initial review comments for this development, Staff has had discussions with both ITD and the Fire

District regarding concerns on access and traffic. These two agencies will be providing additional comment prior to the public hearing.

The Council should consider the entire record and testimony presented at their scheduled public hearing prior to rendering its decision on the matter. Should the Council vote to approve the applications, either as presented or with added or revised conditions of approval, Council shall direct Staff to draft findings of fact and conclusions of law for the Council to consider at a future date.

FINDINGS

The Council may **approve**, **conditionally approve**, **deny** or **table** this request. In order to approve these applications, the Unified Development Code requires that Council must find the following:

ANNEXATION/REZONE FINDINGS:

1. The map amendment complies with the applicable provisions of the Comprehensive Plan.

   The purpose of the Star Comprehensive Plan is to promote the health, safety, and general welfare of the people of the City of Star and its Impact Area. Some of the prime objectives of the Comprehensive Plan include:

   - ✓ *Protection of property rights.*
   - ✓ *Adequate public facilities and services are provided to the people at reasonable cost.*
   - ✓ *Ensure the local economy is protected.*
   - ✓ *Encourage urban and urban-type development and overcrowding of land.*
   - ✓ *Ensure development is commensurate with the physical characteristics of the land.*

   The goal of the Comprehensive Plan for Land Use is to encourage the development of a diverse community that provides a mixture of land uses, housing types, and a variety of employment options, social and recreational opportunities, and where possible provides an assortment of amenities within walking distance of a residential development. The Council must find compliance with the Comprehensive Plan.

2. The map amendment complies with the regulations outlined for the proposed district, specifically, the purposes statement.

   The Council must find that the proposal complies with the proposed district and purpose statement. The purpose of the residential districts is to provide regulations and districts for various residential neighborhoods with gross densities in compliance with the intent of the Comprehensive Plan designation. Housing shall be single family detached unless approved with a PUD or development agreement. Connection to municipal water and sewer facilities are required for all subdivision and lot split applications in all districts exceeding one dwelling unit per acre. Private streets may be approved in this district for

access to newly subdivided or split property.

3. The map amendment shall not be materially detrimental to the public health, safety, and welfare; and

   The Council must find that there is no indication from the material submitted by any political agency stating that this annexation and zoning of this property will be materially detrimental to the public health, safety or welfare.

4. The map amendment shall not result in an adverse impact upon the delivery of services by any political subdivision providing public services within the city including, but not limited to, school districts.

   The Council must find that it has not been presented with any information from agencies having jurisdiction that public services will be adversely impacted other than traffic, which will continue to be impacted as the City grows.

5. The annexation is in the best interest of the city.

   The Council must find that this annexation is reasonably necessary for the orderly development of the City.

PRELIMINARY PLAT FINDINGS:

1. The plat is in compliance with the Comprehensive Plan.

   The City must find that this Plat follows designations, spirit and intent of the Comprehensive Plan regarding residential development and meets several of the objectives of the Comprehensive Plan such as:

   1. Designing development projects that minimize impacts on existing adjacent properties, and
   2. Managing urban sprawl to protect outlying rural areas.

2. Public Services are available or can be made available and are adequate to accommodate the proposed development.

   The City must find that Agencies having jurisdiction on this parcel were notified of this action, and that it has not received notice that public services are not available or cannot be made available for this development.

3. There is public financial capability of supporting services for the proposed development;

   The City must find that they have not been notified of any deficiencies in public financial capabilities to support this development.

4. The development will not be detrimental to the public health, safety or general welfare;

   The City must find that it has not been presented with any facts stating this Preliminary Plat will be materially detrimental to the public health, safety and welfare. Residential uses are a permitted use.

5. The development preserves significant natural, scenic or historic features;
The City must find that there are no known natural, scenic, or historic features that have been identified within this Preliminary Plat.

Upon granting approval or denial of the application, the Council shall specify:

1. The Ordinance and standards used in evaluating the application;
2. The reasons for recommending approval or denial; and
3. The actions, if any, that the applicant could take to obtain approval.

Upon granting approval or denial of the application, the Council shall specify:

1. The Ordinance and standards used in evaluating the application;
2. The reasons for recommending approval or denial; and
3. The actions, if any, that the applicant could take to obtain approval.

CONDITIONAL USE PERMIT FINDINGS:

1. That the site is large enough to accommodate the proposed use and meet all the dimensional and development regulations in the district in which the use is located.
The Council must find that the site of the proposed use would be large enough to accommodate the proposed use or meet all of the dimensional and development regulations in the district in which the use would be located.

2. That the proposed use will be harmonious with the Star comprehensive plan and in accord with the requirements of this title.
The Council must find that the proposed use request is harmonious with the Star Comprehensive Plan and is in accord with the requirements of this Title. The proposed development should meet the intent or purpose of the Mixed-Use District.

3. That the design, construction, operation and maintenance will be compatible with other uses in the general neighborhood and with the existing or intended character of the general vicinity and that such use will not adversely change the essential character of the same area.
The Council must find that the operation of the proposed use would be compatible with the other uses in the general area.

4. That the proposed use, if it complies with all conditions of the approval imposed, will not adversely affect other property in the vicinity.
The Council must find that the proposed use, with imposed conditions of approval, would not adversely affect other property in the vicinity.

5. That the proposed use will be served adequately by essential public facilities and services such as highways, streets, schools, parks, police and fire protection, drainage structures, refuse

disposal, water, and sewer.

The Council must find that the proposed use be adequately served by essential public facilities and services.

6. That the proposed use will not create excessive additional costs for public facilities and services and will not be detrimental to the economic welfare of the community.

The Council must find that the proposed use would not create excessive additional costs for public facilities and would not be detrimental to the economic welfare of the community.

7. That the proposed use will not involve activities or processes, materials, equipment and conditions of operation that will be detrimental to any persons, property or the general welfare by reason of excessive production of traffic, noise, smoke, fumes, glare or odors.

The Council must find that the proposed use would involve activities that would not be detrimental to any person, property or the general welfare by reason of excessive production of traffic, noise, smoke, fumes, glare or odors.

8. That the proposed use will not result in the destruction, loss or damage of a natural, scenic or historic feature considered to be of major importance.

The Council must find that the proposed use would not result in the destruction, loss or damage of natural, scenic or historic feature of major importance since none are apparent on this site.

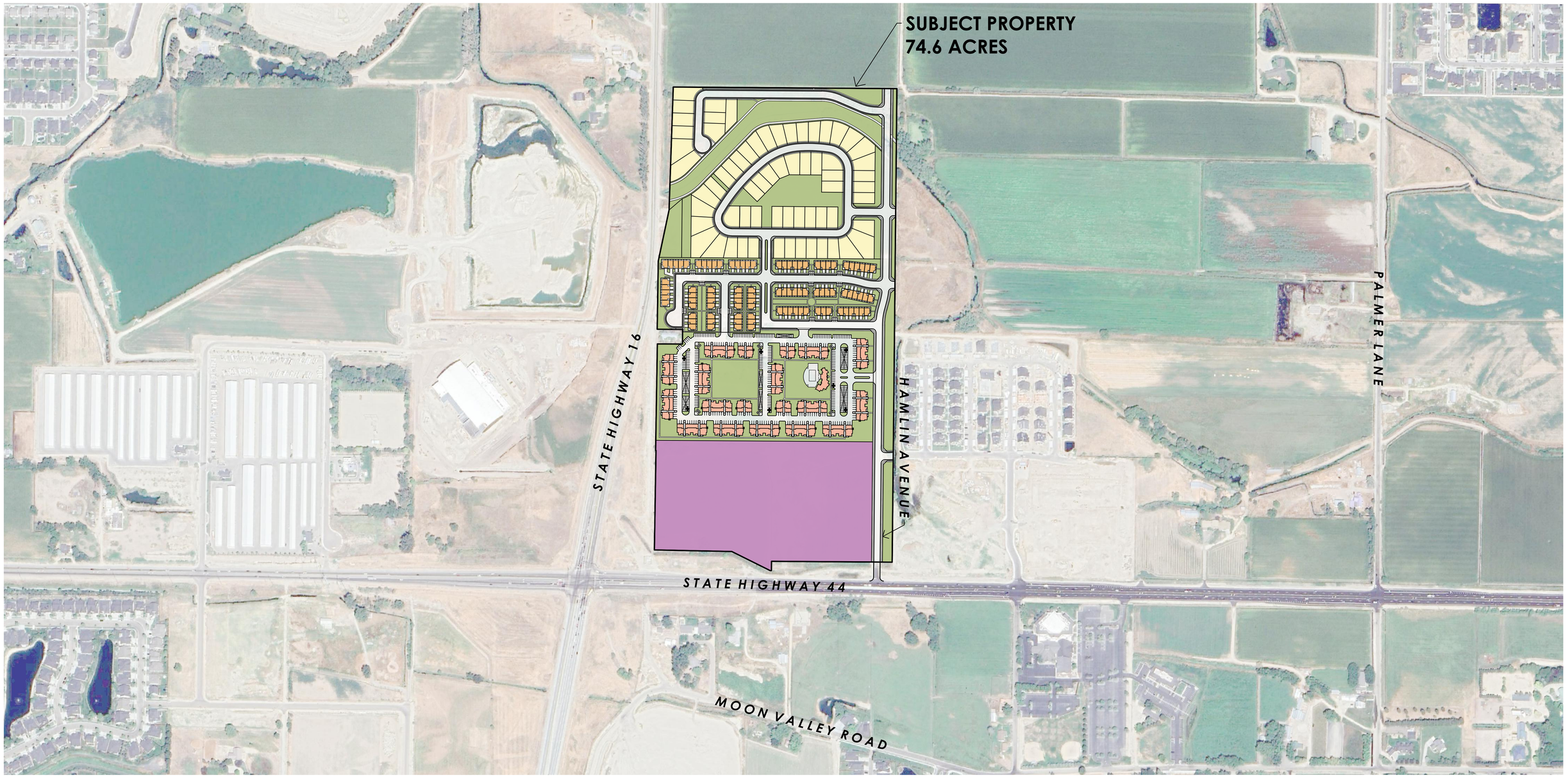
CONDITIONS OF APPROVAL

1. The approved Conditional Use shall comply with all statutory requirements of applicable agencies and districts having jurisdiction in the City of Star.
2. **The applicant shall enter into a Development Agreement with the City, agreeing to proportionate share assessment by ITD regarding impacts to the State Highway System. ITD has calculated the fees to be $1000.00 per residential unit for a total of $500,000 ($1000 x 500). These fees will be collected by the City of Star, by phase, prior to final plat signature. The development agreement shall be signed and recorded as part of the ordinance for annexation and zoning and shall contain the details of the fees to be collected**.
3. **A revised preliminary plat shall be submitted indicating the 7 feet sidewalk along both sides of Hamlin Avenue and showing the correct lot and block numbering as required by Ada Count and the City of Star. This shall be submitted prior to final plat approval.**
4. **Prior to issuance of a building permit, all Star Sewer and Water District requirements shall be met. A letter of approval from the District shall be submitted with the building permit.**
5. **Prior to issuance of any building permits for any use in this development, a final plat shall be recorded with Ada County.**

6. **The multi-family buildings will need to go through the design review process (Certificate of Zoning Compliance) and receive approval prior to issuing building permits.**
7. **The applicant may be responsible for additional mitigation measures regarding noise and lighting for existing, adjacent residential uses when it is determined by the City that unreasonable, negative impacts are a direct result of the business activity. This shall include, but not be limited to additional landscaping, fencing/walls, and light shields or relocation of light poles.**
8. **The Applicant shall revise the site plan for the apartments so show the correct number of parking spaces, proper size spaces, location and correct number of bicycle parking spots and clearly marked drive aisle dimensions. This site plan shall be required to be reviewed by Council and/or the Design Review Committee prior to final approval of the CUP.**
9. **The Applicant shall revise the site plan for the townhomes and remove the 2 lots with the common driveways. This updated site plan will be required prior to signing the mylar for the final plat.**
10. **The Applicant shall provide renderings of the cover for the mail clusters and receive Staff approval, prior to signing the final plat.**
11. **The Applicant shall provide documentation from Ada County that the proposed street names have been approved and they shall be accurately reflected on the final plat prior to signature.**
12. Pressurized irrigation systems shall comply with the Irrigation District(s) and the City of Star Codes. Plans for pressurized irrigation systems shall be submitted to, and approved by the City of Star Engineer, prior to installation.
13. A form signed by the Star Sewer & Water District shall be submitted to the City prior to issuance of building permit stating that all conditions of the district have been met, including annexation into the District.
14. The applicant shall provide a sign, to be located at all construction entrances, indicating the rules for all contractors that will be working on the property starting at grading and running through occupancy that addresses items including but not limited to dust, music, dogs, starting/stopping hours for contractors (7a.m. start time). **Sign shall be approved by the City prior to start of any construction.**
15. The applicant shall obtain all the proper building permits from the City Building Department prior to occupancy of the unit.
16. The Conditional Use Permit may be revoked or modified by the City Council for any violation of any Condition of Approval.
17. **The applicant shall obtain a sign permit prior to any signage being placed on the site or building.**
18. A Certificate of Zoning Compliance will be required prior to the start of construction.
19. Any additional Condition of Approval as required by Staff and City Council.
20. Any Conditions of Approval as required by Star Fire Protection District.

COUNCIL DECISION

The Star City Council _____ File Number AZ-22-11/RZ-23-03/DA-22-12/PP-22-17/CUP-22-05 for Talega Village Subdivision on _____ _____, 2023.



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GRAPHIC SCALE

250 0 125 250 500 1,000

(IN FEET)
1 inch = 250ft.

TALEGA VILLAGE vicinity map

STAR CITY, ADA COUNTY, IDAHO
5/18/2023
21-0488

FOCUS ENGINEERING AND SURVEYING, LLC

Z:_2021\21-0488 Talegra Village\design 21-0488\dwg\concept\21-0488 Site Plan.dwg

ANNEXATION & ZONING – REZONE APPLICATION
NARRATIVE

May 19, 2023

The property located on the northeast corner of State Highway 16 and State Highway 44, referred to Talega Village, is being considered for development. The overall site consisting of 74.6 acres is under consideration for annexation into Star City and rezoning to the R-10 and C-2 zone. The R-10 zone would consist of 57.4 acres while the C-2 zone would consist of 17.2 acres. Within the proposed R-10 zone is a proposed multifamily residential development phase consisting of 19.4 acres and portions of seven parcels with three identified addresses (shown below).

IDENTIFIED ADDRESSES: **58 N Truman Pl.**
8245 W Shultz Ct.
8370 W Shultz Ct.

PARCEL NUMBERS:

R3720001507
R3720001509
R3720002500
R3720002480
A portion of R3720001505
A portion of R3720002412
A portion of S0409417201

The applicant is requesting annexation of the property into the City of Star and a rezone from RUT (Rural Urban Transition), R1 (Single Family Residential), and C-2 (General Commercial) to R-10 (Residential – 10 units/acre) and C-2 (General Commercial) with a development agreement and preliminary plat approval of approximately 17.2 acres of commercial & retail and 57.4 acres of residential consisting of approximately 65 single-family lots, 95 townhome units, and 340 apartment units with an overall density of 9.1 units per acre. The average lot size of the single family portion is approximately 8,400 square feet.

The purpose of this annexation and rezone application is to annex the property into the City of Star and rezone the property to allow for greater flexibility in the placement of commercial and residential. The intent is to incorporate a variety of housing types to appeal to a wide range of home buyers while still implementing commercial and single family residential uses as currently shown in the general plan.

City of Star
P.O. Box 130
Star, Idaho 83669
P: 208-286-7247 F: 208-286-7569

ANNEXATION & ZONING - REZONE APPLICATION

****All information must be filled out to be processed.*

FILE NO.: AZ-22-11
Date Application Received: 5/27/2023 Fee Paid: _____
Processed by: City: Barbara Norgrove

Applicant Information:

PRIMARY CONTACT IS: Derk Pardoe

Applicant Name: Derk Pardoe
Applicant Address: 3454 Stone Mountain Ln. Sandy, UT Zip: 84092
Phone: 801-808-2357 Email: derkpardoe@gmail.com

Owner Name: Derk Pardoe
Owner Address: 3454 Stone Mountain Ln. Sandy, UT Zip: 84092
Phone: 801-808-2357 Email: derkpardoe@gmail.com

Representative (e.g., architect, engineer, developer):
Contact: Chad Garner Firm Name: Focus Engineering & Surveying
Address: 6949 S High Tech Dr. Ste. 200 Zip: 84047
Phone: 801-352-0075 Email: cgarner@focus-es.com

Property Information:

Site Address: 58 N Truman Pl 8370 W Shultz Ct 8245 W Shultz Ct Parcel Number: (see below)
Total Acreage of Site: ±74.6 acres
Total Acreage of Site in Special Flood Hazard Area: N/A
Proposed Zoning Designation of Site: R-10 & C-2
Parcel Numbers: R3720002880, R3720003030, R3720001505, R3720001507, R3720001509, S0409417201, R3720002500, R3720002480, R3720002412

Zoning Designations:

	Zoning Designation	Comp Plan Designation	Land Use
Existing	C-2, R1, RUT	Commercial, High Density Residential, Compact Residential, Neighborhood Residential	Commercial, High Density Residential, Compact Residential, Neighborhood Residential
Proposed	C-2 & R-10	Commercial, Compact Residential	Commercial, Compact Residential
North of site	RUT	N/A	N/A
South of site	C-1, R1, RUT (Hwy 44)	Commercial	Commercial
East of site	MU, R-13, RUT	Commercial, High Density Residential, Neighborhood Residential	Commercial, High Density Residential, Neighborhood Residential
West of site	RUT (Hwy 16)	ITD 44/16 R.O.W.	ITD 44/16 R.O.W.

Special On-Site Features *(Yes or No – If yes explain)*:

Areas of Critical Environmental Concern - No
Evidence of Erosion - No
Fish Habitat - No
Floodplain - No
Mature Trees - No
Riparian Vegetation - No
Steep Slopes - No
Stream/Creek - Yes, runs east/west on north side of development
Unique Animal Life - No
Unique Plant Life - No
Unstable Soils - No
Wildlife Habitat - No
Historical Assets - No

Application Requirements:

(Applications are required to contain one copy of the following unless otherwise noted. ***When combining with other applications (Prelim Plat, CUP, etc.) please include one paper copy for all applications****)*

Applicant (√)	Description	Staff (√)
DP	Pre-application meeting with the Planning Department required prior to neighborhood meeting.	
DP	Copy of neighborhood meeting notice sent to property owners within 300 feet and meeting sign-in sheet. **(Please contact the City for addresses & labels)** (Applicants are required to hold a neighborhood meeting to provide an opportunity for public review of the proposed project prior to the submittal of an application.)	
DP	Completed and signed Annexation & Zoning/Rezone Application	
DP	Fee: (Include Development Agreement Fee). Please contact the City for current fee. Fees may be paid in person with check or electronically with credit card. Please call City for electronic payment. Additional service fee will apply to all electronic payments.	
	Narrative fully describing the proposed project (must be signed by applicant)	
DP	Legal description of the property to be annexed and/or rezoned: • Include a metes & bounds description to the section line/centerline of all adjacent roadways, stamped and signed by a registered professional land surveyor, with a calculated closure sheet. • Scaled exhibit map showing the boundaries of the legal description in compliance w/the requirements of the Idaho State Tax Commission Property Tax Administrative Rules IDAPA 35.01.03.225.01h. • If requesting more than one zoning designation, include a legal description for each zone along with an overall annexation/rezone boundary description. Also include the boundaries of each different zone on the map. • Submit word.doc and pdf version with engineer's seal.	
DP	Recorded warranty deed for the subject property	

DP	If the signature on this application is not the owner of the property, an **original** notarized statement (affidavit of legal interest) from the owner stating the applicant is authorized to submit this application.	
DP	One (1) 8½" X 11" copy and electronic copy in pdf. format of vicinity map showing the location of the subject property	
DP	One (1) full-size 24" X 36" copy and one (1) 11" X 17" copy of associated CUP/PUD Site Plan/Preliminary Plat. If this application is not accompanied by a plat or site plan, please submit conceptual development plan for the property.	
DP	Electronic copy in pdf. format of submitted plat, site or conceptual plan.	
DP	List of name(s) and address(es) of all canal or irrigation ditches within or contiguous to the proposed development.	
DP	One (1) copy of names and addresses printed on address labels, of property owners within three hundred feet (300') of the external boundaries of the property being considered as shown on record in the County Assessor's office. **Please contact the City to request addresses and labels.**	
DP	Two (2) copies of the Electronic versions of submitted application including neighborhood meeting information, signed application, narrative, legal description, warranty deed, vicinity map, preliminary plat/site plan, irrigation district information, shall be submitted in original pdf format (no scans for preliminary plat/site plans) on two (2) thumb drives only (no discs) with the files named with project name and plan type.	
DP	Signed Certification of Posting with pictures. (see attached posting requirements and certification form) – To be completed by application after acceptance of application. Staff will notify applicant of hearing and posting date.	
DP	*Applicant agrees to enter into a Development Agreement with this application. Applicant's Signature: Derk Pardoe	
DP	Property shall be annexed into Star Sewer and Water District prior to Final Plat approval, building permits. Please contact SSWD for details.	

FEE REQUIREMENT:

*** I have read and understand the above requirements. I further understand fees will be collected at the time of filing an application. I understand that there may be other fees associated with this application incurred by the City in obtaining reviews or referrals by architect, engineering, or other professionals necessary to enable the City to expedite this application. I understand that I, as the applicant, am responsible for all payments to the City of Star.*

Derk Pardoe
Applicant/Representative Signature

5/26/23
Date

City of Star
P.O. Box
Star, Idaho 83669
P: 208-286-7247

CONDITIONAL USE PERMIT APPLICATION

****All applicable information must be filled out to be processed.*

FILE NO.: CU-22-05
Date Application Received: 5/27/2023 Fee Paid: _____
Processed by: City: Barbara Norgrove

Applicant Information:

PRIMARY CONTACT IS: Derk Pardoe

Applicant Name: Derk Pardoe
Applicant Address: 3454 Stone Mountain Ln. Sandy, UT Zip: 84092
Phone: 801-808-2357 Email: derkpardoe@gmail.com

Owner Name: Derk Pardoe
Owner Address: 3454 Stone Mountain Ln. Sandy, UT Zip: 84092
Phone: 801-808-2357 Email: derkpardoe@gmail.com

Representative (e.g., architect, engineer, developer):
Contact: Chad Garner Firm Name: Focus Engineering & Surveying
Address: 6949 S High Tech Dr. Ste. 200 Zip: 84047
Phone: 801-352-0075 Email: cgarner@focus-es.com

Property Information:

Site Address: 58 N Truman Pl, 8370 W Shultz Ct., 8245 W Shultz Ct
Parcel Number: R3720001507, R3720001509, R3720002500, R3720002480, Part of R3720001505, Part of R3720002412, Part of S0409417201

Requested Condition(s) for Conditional Use: Requesting a conditional use for multifamily residential dwellings. The proposed boundaries of this multifamily development are currently zoned in Boise as C-2 and R1. We are currently filing for annexation into Star City and requesting a rezone of the entire property to the C-2 and R-10 zone. The multifamily residential dwellings would fall in the R-10 zone.

	Zoning Designation	Comp Plan Designation
Existing	C-2, R1, small portion of RUT	Commercial, High Density Residential, Compact Residential, Neighborhood Residential
Proposed	C-2 & R-10	Commercial & Compact Residential
North of site	RUT	N/A
South of site	C-1, R1, RUT (Hwy 44)	Commercial
East of site	MU, R-13, RUT	Commercial, High Density Residential, Neighborhood Residential
West of site	RUT (Hwy 16)	ITD 44/16 R.O.W.

Site Data:

Total Acreage of Site: ±19.4 acres for apartments; ±74.6 acres for entire development
Proposed Percentage of Site Devoted to Bldg Coverage: Approx. 23%
Proposed Percentage of Site Devoted to Landscaping: Approx. 35%
Number of Parking spaces: Proposed 701 stalls Required 686 stalls
Requested Front Setback: 10' Requested Rear Setback: 10'
Requested Side Setback: 0' Requested Side Setback: 0'
Requested Side Setback: 20' between buildings
Existing Site Characteristics: Existing homes, some abandoned buildings, partially improved portions of Hamlin Drive, Shultz St, and Shultz Cir, existing irrigation, storm drain, and overhead powerlines.
Number and Uses of Proposed Buildings: 19 residential multifamily building + 1 clubhouse building
Location of Buildings: Throughout property
Gross Floor Area of Proposed Buildings: Approx. 500,000 SQFT
Describe Proposed On and Off-Site Traffic Circulation: Property is near the intersection of Highways 16 and 44. Main access would be located off of Hamlin Ave, which is accessed from Highway 44. There would be circular traffic flow with internal roads/drive aisles located off of Shultz St and Hamlin Ave.
Proposed Signs – number, type, location: Entry monument signage at east entrance.
(include draft drawing) Secondary entry monument at north entrance.
Public Services (state what services are available and what agency is providing the service):

- Potable Water - Star Sewer and Water
- Irrigation Water - Middleton Mill Canal
- Sanitary Sewer - Star Sewer and Water
- Schools - Eagle Elementary, Star Middle School, Eagle High School
- Fire Protection - Middleton/Star Fire District
- Roads - Roads within property to be privately owned and maintained.

Flood Zone Data (This Info Must Be Filled Out Completely Prior to Acceptance):

Subdivision/Project Name: Talega Village Phase: 1
Special Flood Hazard Area: total acreage 0 number of homes/structures
0 Subject property does not have any special flood hazard areas.

a. A note must be provided on the site plan documenting the current flood zone in which the property or properties are located. The boundary line must be drawn on the plan in situations where two or more flood zones intersect over the property or properties being surveyed.

b. FEMA FIRM panel(s): #160xxxxxC, 160xxxxxE, etc.: 16001C0130J
FIRM effective date(s): mm/dd/year 06/19/2020
Flood Zone(s): Zone X, Zone A, Zone AE, Zone AH, etc.: Zone X
Base Flood Elevation(s): AE____.0 ft., etc.: N/A

c. Flood Zones are subject to change by FEMA and all land within a floodplain is regulated by Chapter 10 of the Star City Code.

Application Requirements:

(Applications are required to contain <u>one</u> copy of the following unless otherwise noted.)

Applicant (√)	Description	Staff (√)
	Pre-application meeting with Planning Department required prior to neighborhood meeting.	
	Copy of neighborhood meeting notice sent to property owners within 300 feet and meeting sign-in sheet. **(Please contact the City for addresses & labels)** (Applicants are required to hold a neighborhood meeting to provide an opportunity for public review of the proposed project prior to the submittal of an application.)	
	Completed and signed Conditional Use Application	
	Fee: Please contact the City for current fee. Fees may be paid in person with check or electronically with credit card. Please call City for electronic payment. Additional service fee will apply to all electronic payments.	
	Narrative fully describing the existing use, and the proposed project. (must be signed by applicant)	
	Legal description of the property (word.doc and electronic version with engineer's seal):	
	Copy of recorded warranty deed.	
	If the signature on this application is not the owner of the property, an **original** notarized statement (affidavit of legal interest) from the owner stating the applicant is authorized to submit this application.	
	One (1) copy of names and addresses printed on address labels, of property owners within three hundred feet (300') of the external boundaries of the property being considered as shown on record in the County Assessor's office. Please contact the City to request addresses and labels.	
	List of names(s) and address(es) of all canal or irrigation ditches within or contiguous to the proposed development.	
	Vicinity map showing the location of the subject property	
	One (1) full-size copy and One (1) 11"x 17" reduction of the Site Plan	
	One (1) full-size copy and One (1) 11"x 17" reduction of the landscape plan (if applicable)	
	Building elevations showing construction materials	
	Two (2) copies electronic versions of submitted application including signed application, narrative, legal description, warranty deed, vicinity map, site plan, landscape plan, building elevations, <u>shall be submitted in original pdf format (no scans) on a thumb drive only (no discs)</u> with the files named with project name and plan type. We encourage you to also submit at least one (1) color version for presentation purposes.	
	Signed Certification of Posting with pictures. (see attached posting requirements and certification form) – To be completed by application after acceptance of application. Staff will notify applicant of hearing and posting date.	

Site Plan (If applicable):

	The following items must be included on the site plan:	
	• Date, scale, north arrow, and project name	
	• Names, addresses, and phone number of owner(s), applicant, and engineer, surveyor or planner who prepared the site plan	
	• Existing boundaries, property lines, and dimensions of the lot	
	• Relationship to adjacent properties, streets, and private lanes	
	• Easements and right-of-way lines on or adjacent to the lot	
	• Existing and proposed zoning of the lot, and the zoning and land use of all adjacent properties	
	• Building locations(s) (including dimensions to property lines)	
	• Parking and loading areas (dimensioned)	
	• Traffic access drives and traffic circulation (dimensioned)	

	• Open/common spaces	
	• Refuse and service areas	
	• Utilities plan, including the following: Sewer, water, irrigation, and storm drainage (existing & proposed)	
	• All on-site lighting proposed – Must Meet City "Dark Sky" Ordinances	

Landscape Plan (If applicable):

	The following items must be included on the landscape plan:	
	• Date, scale, north arrow, and project name	
	• Names, addresses, and phone numbers of the developer and the person and/or firm preparing the plan	
	• Existing natural features such as canals, creeks, drains, ponds, wetlands, floodplains, high groundwater areas, and rock outcroppings	
	• Location, size, and species of all existing trees on site with trunks 4 inches or greater in diameter, measured 6 inches above the ground. Indicate whether the tree will be retained or removed.	
	• Existing buildings, structures, planting areas, light poles, power poles, walls, fences, berms, parking and loading areas, vehicular drives, trash areas, sidewalks, pathways, storm water detention areas, signs, street furniture, and other man-made elements	
	• Existing and proposed contours for all areas steeper than 20% slope. Berms shall be shown with one-foot contours	
	• Sight Triangles as defined in 8-4 A-7 of this Ordinance	
	• Location and labels for all proposed plants, including trees, shrubs, and groundcovers (trees must not be planted in City water or sewer easements). Scale shown for plant materials shall reflect approximate mature size	
	• Proposed screening structures	
	• Design drawings(s) of all fencing proposed	
	• Calculations of project components to demonstrate compliance with requirements of this ordinance, including: ➢ Number of street trees and lineal feet of street frontage ➢ Width of street buffers (exclusive of right-of-way) ➢ Width of parking lot perimeter landscape strip ➢ Buffer width between different land uses ➢ Number of parking stalls and percent of parking area with internal landscaping ➢ Total number of trees and tree species mix ➢ Mitigation for removal of existing trees, including number of caliper inches being removed	

SIGNS (If applicable):

All signs will require separate submittal of a sign application.

FEE REQUIREMENT:

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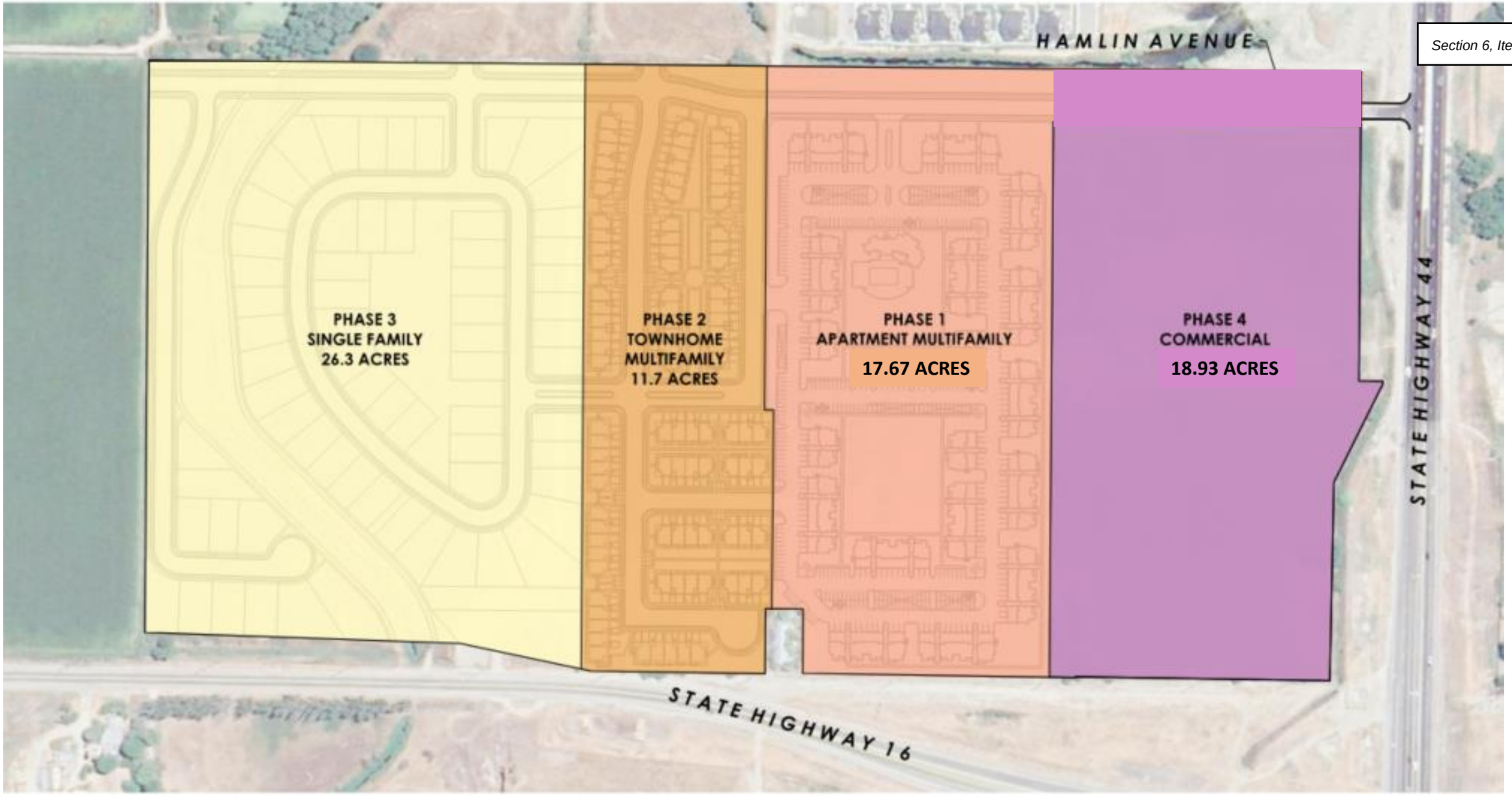
Derk Pardoe _____ 11/28/22 _____


HAMLIN AVENUE
PHASE 3
SINGLE FAMILY
26.3 ACRES
PHASE 2
TOWNHOME
MULTIFAMILY
11.7 ACRES
PHASE 1
APARTMENT MULTIFAMILY
17.67 ACRES
PHASE 4
COMMERCIAL
18.93 ACRES
STATE HIGHWAY 44
STATE HIGHWAY 16
GRAPHIC SCALE

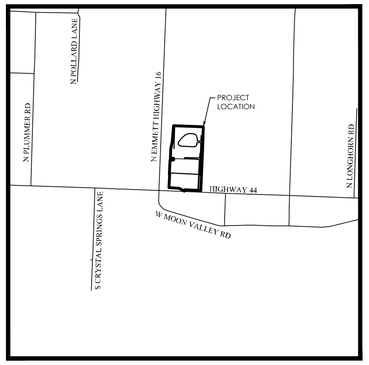
TALEGA VILLAGE

PREPARED FOR:

CIG ENTERPRISES

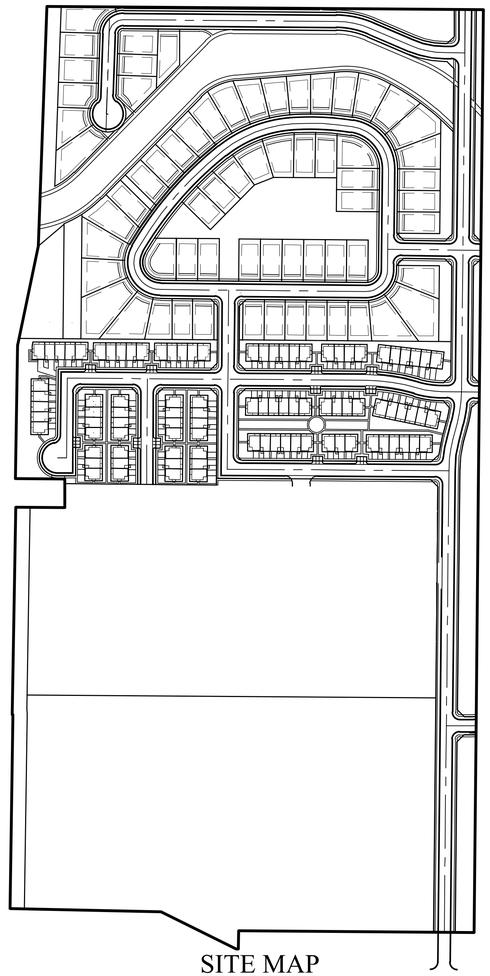
LOCATED IN:

STAR, IDAHO



VICINITY MAP

NTS



SITE MAP

Sheet List Table	
Sheet Number	Sheet Title
C1	COVER SHEET
C2.1	PRELIMINARY PLAT
C2.2	PRELIMINARY PLAT
C2.3	PRELIMINARY PLAT
C2.4	PRELIMINARY PLAT
C3	PRELIMINARY SITE PLAN
C4.1	GRADING & DRAINAGE PLAN
C4.2	GRADING & DRAINAGE PLAN
C4.3	GRADING & DRAINAGE PLAN
L1.0	OVERALL LANDSCAPE PLAN
L1.1	LANDSCAPE PLAN SINGLE FAMILY
L1.2	LANDSCAPE PLAN SINGLE FAMILY
L1.3	LANDSCAPE PLAN SINGLE FAMILY
L1.4	LANDSCAPE PLAN SINGLE FAMILY
L1.5	LANDSCAPE PLAN SINGLE FAMILY
L1.6	LANDSCAPE PLAN SINGLE FAMILY
L1.7	LANDSCAPE PLAN SINGLE FAMILY
L1.8	LANDSCAPE PLAN TOWNHOMES
L1.9	LANDSCAPE PLAN TOWNHOMES
L1.10	LANDSCAPE PLAN TOWNHOMES
L1.11	LANDSCAPE DETAILS

GENERAL NOTES

1. CONTRACTOR TO FIELD VERIFY HORIZONTAL AND VERTICAL LOCATIONS OF ALL EXISTING UTILITIES PRIOR TO COMMENCEMENT OF CONSTRUCTION, AND REPORT ANY DISCREPANCIES TO THE ENGINEER.

2. ANY AND ALL DISCREPANCIES IN THESE PLANS ARE TO BE BROUGHT TO THE ENGINEER'S ATTENTION PRIOR TO COMMENCEMENT OF CONSTRUCTION.

3. ALL CONSTRUCTION SHALL ADHERE TO CITY OF STAR AND ISPWC STANDARD PLANS AND SPECIFICATIONS.

4. ALL UTILITIES AND ROAD IMPROVEMENTS SHOWN ON THE PLANS HEREIN SHALL BE CONSTRUCTED USING REFERENCE TO SURVEY CONSTRUCTION STAKES PLACED UNDER THE SUPERVISION OF A PROFESSIONAL LICENSED SURVEYOR WITH A CURRENT LICENSE ISSUED BY THE STATE OF ICAHO. ANY IMPROVEMENTS INSTALLED BY ANY OTHER VERTICAL OR HORIZONTAL REFERENCE WILL NOT BE ACCEPTED OR CERTIFIED BY THE ENGINEER OF RECORD.

5. THIS DRAWING SET IS SCALED TO BE PRINTED ON A 24" X 36" SIZE OF PAPER (ARCH. D). IF PRINTED ON A SMALLER PAPER SIZE, THE DRAWING WILL NOT BE TO SCALE AND SHOULD NOT BE USED TO SCALE MEASUREMENTS FROM THE PAPER DRAWING. ALSO USE CAUTION, AS THERE MAY BE TEXT OR DETAIL THAT MAY BE OVERLOOKED DUE TO THE SMALL SIZE OF THE DRAWING.

NOTICE

BEFORE PROCEEDING WITH THIS WORK, THE CONTRACTOR SHALL CAREFULLY CHECK AND VERIFY ALL CONDITIONS, QUANTITIES, DIMENSIONS, AND GRADE ELEVATIONS, AND SHALL REPORT ALL DISCREPANCIES TO THE ENGINEER.

ENGINEER'S NOTES TO CONTRACTOR

1. THE EXISTENCE AND LOCATION OF ANY UNDERGROUND UTILITY PIPES, CONDUITS OR STRUCTURES SHOWN ON THESE PLANS WERE OBTAINED BY A SEARCH OF THE AVAILABLE RECORDS, TO THE BEST OF OUR KNOWLEDGE, THERE ARE NO EXISTING UTILITIES EXCEPT AS SHOWN ON THESE PLANS. THE CONTRACTOR IS REQUIRED TO TAKE DUE PRECAUTIONARY MEASURES TO PROTECT THE UTILITY LINES SHOWN ON THESE DRAWINGS. THE CONTRACTOR FURTHER ASSUMES ALL LIABILITY AND RESPONSIBILITY FOR THE UTILITY PIPES, CONDUITS OR STRUCTURES SHOWN OR NOT SHOWN ON THESE DRAWINGS. IF UTILITY LINES ARE ENCOUNTERED DURING CONSTRUCTION THAT ARE NOT IDENTIFIED BY THESE PLANS, CONTRACTOR SHALL NOTIFY ENGINEER IMMEDIATELY.

2. CONTRACTOR AGREES THAT HE SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS; AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD THE CITY, THE OWNER, AND THE ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER OR THE ENGINEER.

3. UNAUTHORIZED CHANGES & USES: THE ENGINEER PREPARING THESE PLANS WILL NOT BE RESPONSIBLE FOR, OR LIABLE FOR, UNAUTHORIZED CHANGES TO OR USES OF THESE PLANS. ALL CHANGES TO THE PLANS MUST BE IN WRITING AND MUST BE APPROVED BY THE PREPARER OF THESE PLANS.

4. ALL CONTOUR LINES SHOWN ON THE PLANS ARE AN INTERPRETATION BY CAD SOFTWARE OF FIELD SURVEY WORK PERFORMED BY A LICENSED SURVEYOR. DUE TO THE POTENTIAL DIFFERENCES IN INTERPRETATION OF CONTOURS BY VARIOUS TYPES OF GRADING SOFTWARE BY OTHER ENGINEERS OR CONTRACTORS, FOCUS DOES NOT GUARANTEE OR WARRANTY THE ACCURACY OF SUCH LINEWORK. FOR THIS REASON, FOCUS WILL NOT PROVIDE ANY GRADING CONTOURS IN CAD FOR ANY TYPE OF USE BY THE CONTRACTOR. SPOT ELEVATIONS AND PROFILE ELEVATIONS SHOWN IN THE DESIGN DRAWINGS GOVERN ALL DESIGN INFORMATION ILLUSTRATED ON THE APPROVED CONSTRUCTION SET. CONSTRUCTION EXPERTISE AND JUDGMENT BY THE CONTRACTOR IS ANTICIPATED BY THE ENGINEER TO COMPLETE BUILD-OUT OF THE INTENDED IMPROVEMENTS.

CONTACTS

ENGINEER & SURVEYOR
FOCUS ENGINEERING & SURVEYING, LLC
1001 N. ROSARIO STREET, SUITE 100
MERIDIAN, IDAHO 83642
(208) 974-0075
PROJECT MANAGER: DENNIS JORDAN
SURVEY MANAGER: TRENTON SMITH

OWNER/DEVELOPER
CIG ENTERPRISES
2255 E SUNNYSIDE AVE
SALT LAKE CITY, UTAH 84158
DERKPARDOE@GMAIL.COM
CONTACT: DERK PARDOE

N

S

GRAPHIC SCALE

200 0 100 200 400 800

(IN FEET)
1 inch = 200 ft.

811 Know what's below. Call 811 before you dig.

FOCUS©
ENGINEERING AND SURVEYING, LLC
6949 S. HIGH TECH DRIVE SUITE 200
MIDVALE, UTAH 84047 PH: (801) 352-0075
www.focusutah.com

FOR REVIEW ONLY

TALEGA VILLAGE
STAR, IDAHO
COVER SHEET

REVISION BLOCK

#	DATE	DESCRIPTION
1	----	----
2	----	----
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COVER SHEET

Scale: 1"=200' | Drawn: DCJ
Date: 11/28/2023 | Job #: 21-0488
Sheet: C1

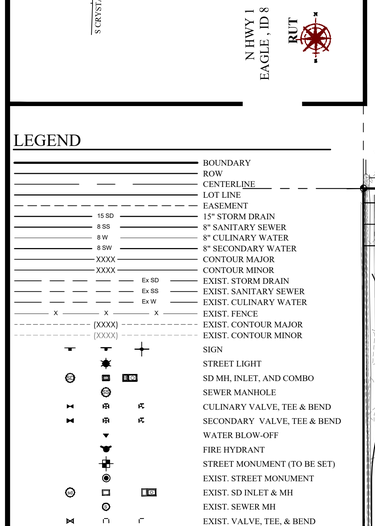
2021\21-0488 Talega Village\design\21-0488.dwg\sheets preliminary subdivision\21-0488 C1 Cover Sheet.dwg

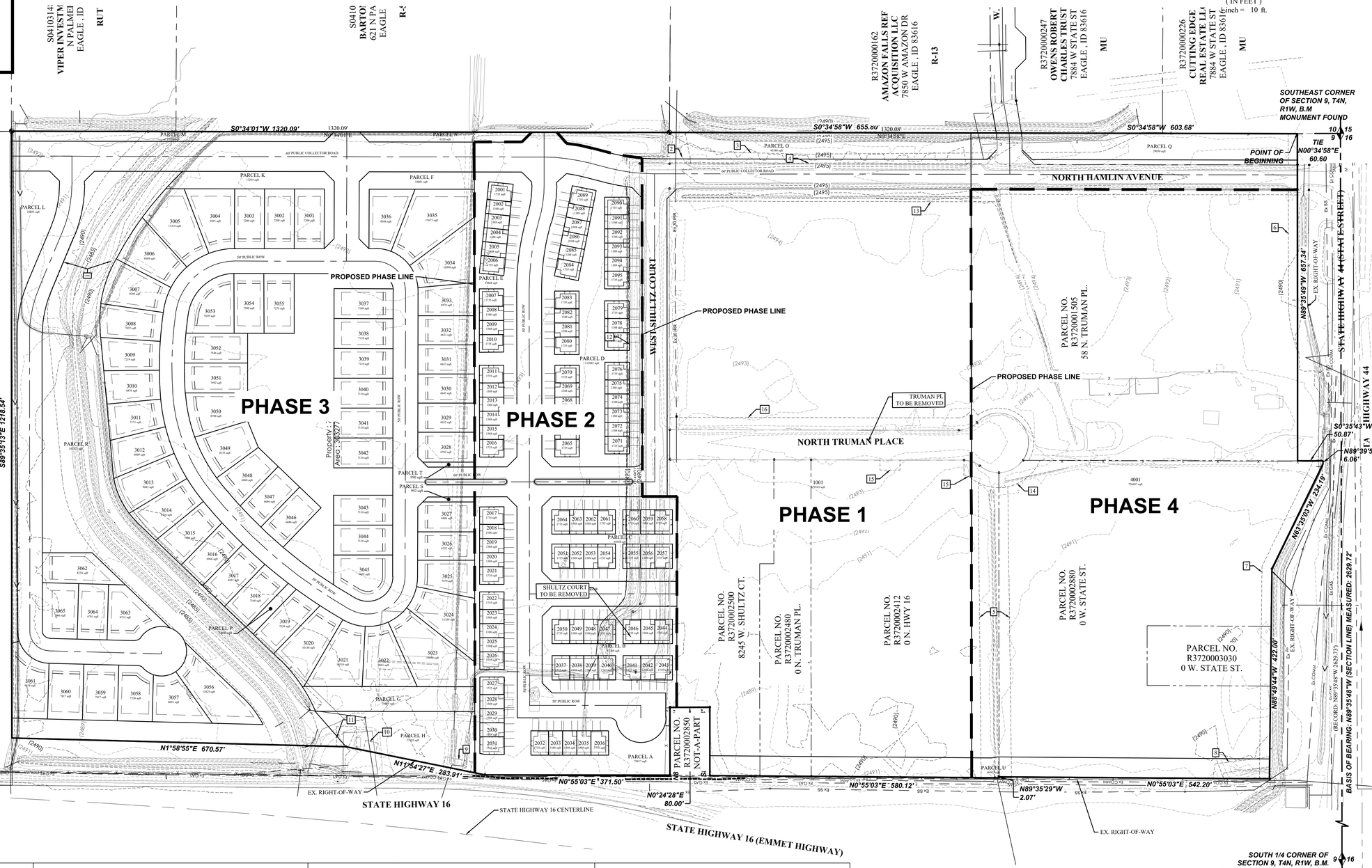
PRELIMINARY PLAT

TALEGA VILLAGE

ADA COUNTY, IDAHO

LOCATE WITHIN THE SE 1/4 OF SECTION 9, TOWNSHIP 4 NORTH., RANGE 1 WEST.,
B.M. ADA COUNTY, IDAHO.





GRAPHIC SCALE

(IN FEET)
1 inch = 10 ft.

1 OF 4

ENGINEER	SURVEYOR	DEVELOPER	OWNERS OF RECORD
TOM ROMNEY FOCUS ENGINEERING AND SURVEYING 1001 N. ROSARIO STREET, SUITE 100 MERIDIAN, ID 83642. PHONE: (801) 403-5281 EMAIL: TROMNEY@FOCUS-ES.COM	JOHN GLETNE 5099 S VALLEY ST, BOISE, ID 83709 PHONE: (208) 261-2226 EMAIL:JOHN@VALLEYLANDSURVEYING.COM	DERK PARDOE 3454 STONE MOUNTAIN LANE, SANDY, UT 84092. EMAIL:DERKPARDOE@GMAIL.COM	CIG ENTERPRISES, LLC 2255 E SUNNYSIDE AVE. SALT LAKE CITY, UTAH 84158.

Know what's below. Call 811 before you dig.

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MIDVALE, UTAH 84047 PH: (801) 352-0075
www.focusutah.com

FOR REVIEW ONLY

TALEGA VILLAGE
ADA COUNTY, IDAHO
LOCATE WITHIN THE SE 1/4 OF SECTION 9, T4N,
RANGE 1 WEST, B.M. ADA COUNTY, IDAHO.
PRELIMINARY PLAT

REVISION BLOCK		
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PRELIMINARY PLAT

Scale: 1"=100' | Drawn: MJT
Date: 5/25/2023 | Job #: 21-0488
Sheet: C2

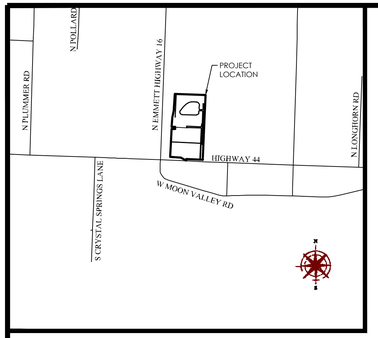
J:\2021\21-0488 Talega Village\design 21-0488 v3\wg\sheet\ preliminary subdivision\21-0488 C2 Preliminary Plat.dwg

PRELIMINARY PLAT

TALEGA VILLAGE

ADA COUNTY, IDAHO

LOCATE WITHIN THE SE 1/4 OF SECTION 9, TOWNSHIP 4 NORTH., RANGE 1 WEST.,
B.M. ADA COUNTY, IDAHO.



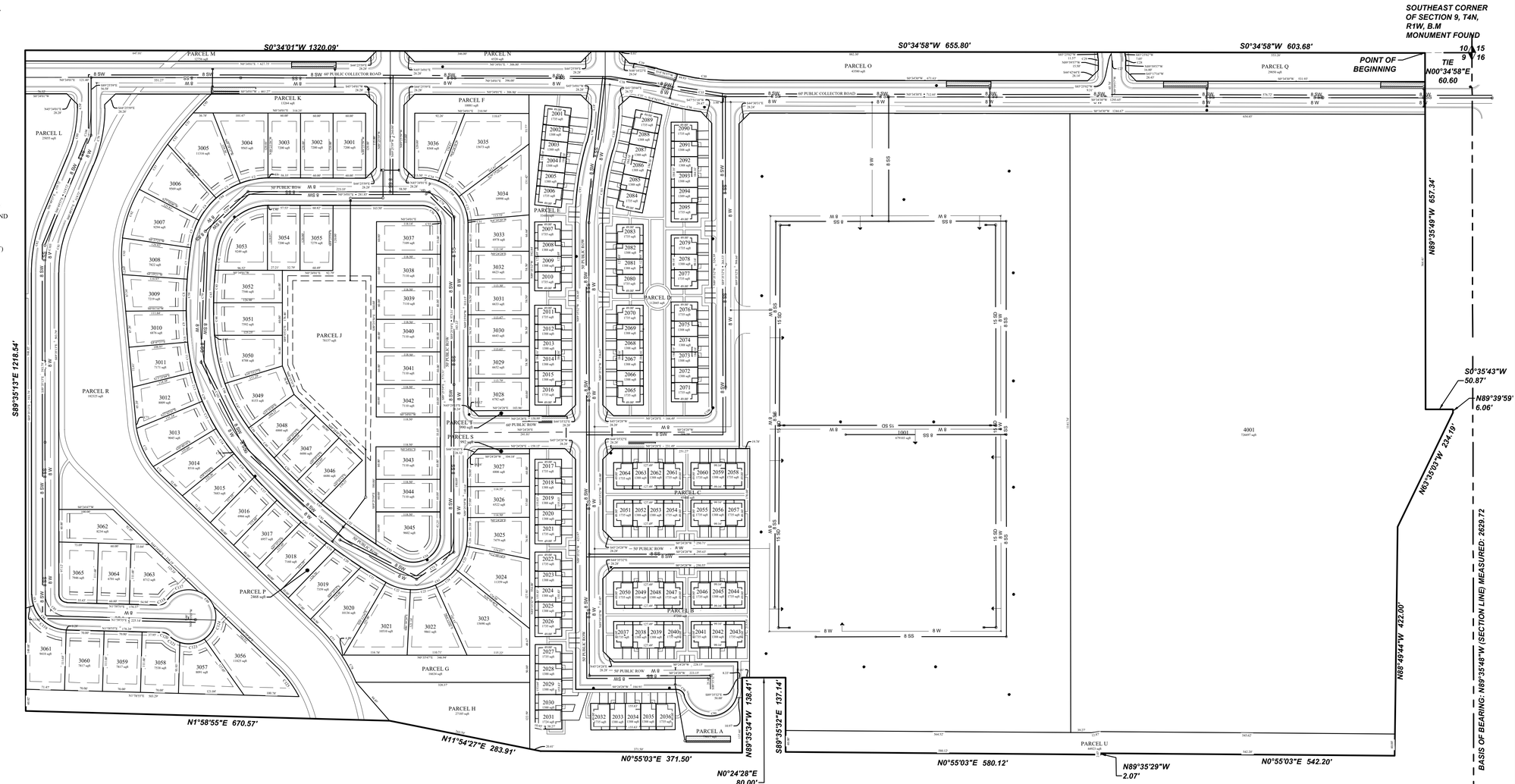
GRAPHIC SCALE

100 0 50 100 200 400

(IN FEET)
1 inch = 10 ft.

LEGEND

- BOUNDARY
- ROW
- CENTERLINE
- LOT LINE
- EASEMENT
- 15" STORM DRAIN
- 8" SANITARY SEWER
- 8" CULINARY WATER
- 8" SECONDARY WATER
- CONTOUR MAJOR
- CONTOUR MINOR
- EXIST. STORM DRAIN
- EXIST. SANITARY SEWER
- EXIST. CULINARY WATER
- EXIST. FENCE
- EXIST. CONTOUR MAJOR
- EXIST. CONTOUR MINOR
- SIGN
- STREET LIGHT
- SD MH, INLET, AND COMBO
- SEWER MANHOLE
- CULINARY VALVE, TEE & BEND
- SECONDARY VALVE, TEE & BEND
- WATER BLOW-OFF
- FIRE HYDRANT
- STREET MONUMENT (TO BE SET)
- EXIST. STREET MONUMENT
- EXIST. SD INLET & MH
- EXIST. SEWER MH
- EXIST. VALVE, TEE, & BEND
- EXIST. FIRE HYDRANT
- XXXX.XX SPOT ELEVATION



ENGINEER
TOM ROMNEY
FOCUS ENGINEERING AND SURVEYING
1001 N. ROSARIO STREET, SUITE 100
MERIDIAN, ID 83642.
PHONE: (801) 403-5281
EMAIL: TROMNEY@FOCUS-ES.COM

SURVEYOR
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5099 S VALLEY ST, BOISE, ID 83709
PHONE: (208) 261-2226
EMAIL:JOHN@VALLEYLANDSURVEYING.COM

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FOR REVIEW ONLY

TALEGA VILLAGE
ADA COUNTY, IDAHO
LOCATE WITHIN THE SE 1/4 OF SECTION 9, TOWNSHIP 4 NORTH.,
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PRELIMINARY PLAT

REVISION BLOCK

#	DATE	DESCRIPTION
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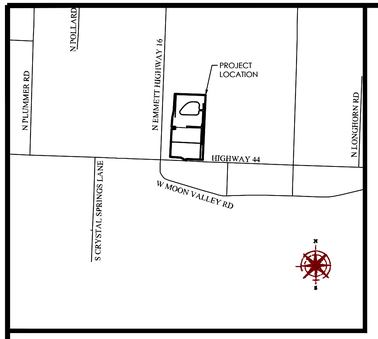
PRELIMINARY PLAT

Scale: 1"=100'	Drawn: MJT
Date: 5/25/2023	Job #: 21-0488
Sheet: C2.1	

Know what's below. Call 811 before you dig.



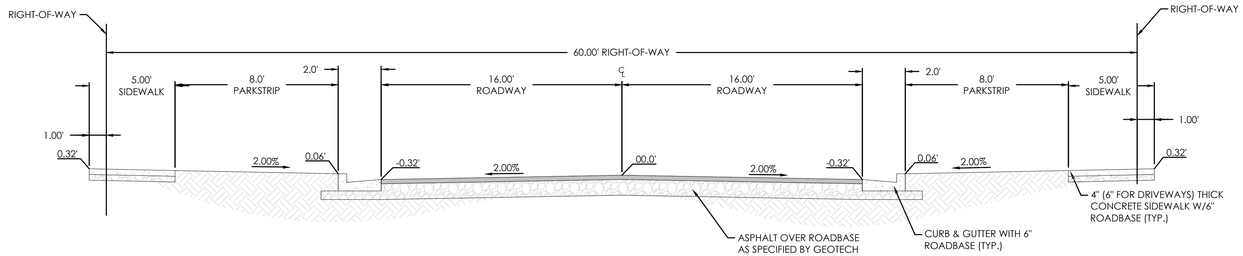
BOUNDARY LINE
SECTION LINE
EXIST. EASEMENT LINE
EXIST. PROPERTY LINE
EXIST. RIGHT-OF-WAY LINE
EXIST. CONTOUR MAJOR
EXIST. CONTOUR MINOR
EXIST. STORM DRAIN
EXIST. SANITARY SEWER
EXIST. CULINARY WATER
EXIST. SECONDARY WATER
EXIST. IRRIGATION
EXIST. NATURAL GAS
EXIST. COMMUNICATIONS
EXIST. OVERHEAD POWER
EXIST. UNDERGROUND POWER
EXIST. FENCE
EXIST. IRRIGATION DITCH FLOWLINE
EXIST. CONCRETE, CURB & GUTTER
EXIST. EDGE OF ASPHALT
PROPOSED CURB & GUTTER
SECTION MONUMENT (FOUND)
SECTION MONUMENT (NOT FOUND)
BOUNDARY MARKER
EXIST. SD INLET, MANHOLE & COMBO BOX
EXIST. SEWER MANHOLE
EXIST. WATER VALVE & WATER METER
EXIST. FIRE HYDRANT
EXIST. IRRIGATION BOX
EXIST. GAS VALVE & GAS METER
EXIST. STREET LIGHT
EXIST. POWER POLE
EXIST. ELECTRICAL BOX
EXIST. COMMUNICATIONS BOX

PRELIMINARY PLAT

TALEGA VILLAGE

ADA COUNTY, IDAHO

LOCATE WITHIN THE SE 1/4 OF SECTION 9, TOWNSHIP 4 NORTH., RANGE 1 WEST.,
B.M. ADA COUNTY, IDAHO.



60' RESIDENTIAL ROAD
N.T.S.

GENERAL NOTES:

1. ALL PUBLIC UTILITY EASEMENTS PLATTED HEREON ARE IN PERPETUITY FOR INSTALLATION, MAINTENANCE, REPAIR AND REPLACEMENT OF PUBLIC UTILITIES, SIDEWALKS AND APPURTENANT PARTS THEREOF AND THE RIGHT TO REASONABLE ACCESS TO GRANTOR'S PROPERTY FOR THE ABOVE DESCRIBED PURPOSES. THE EASEMENT SHALL RUN WITH THE REAL PROPERTY AND SHALL BE BINDING UPON THE GRANTOR AND THE GRANTOR'S SUCCESSORS, HEIRS, AND ASSIGNS.

2. ALL COMMON AREAS AND STREETS OR DRIVES TO SERVE AS PUBLIC UTILITY EASEMENTS.

3. ALL AREAS ARE COMMON AREAS AND FACILITIES EXCEPT AS OTHERWISE SPECIFICALLY DESIGNATED.

4. THE INSTALLATION OF IMPROVEMENTS SHALL CONFORM TO ALL CITY STANDARDS, RESOLUTIONS AND ORDINANCES.

5. BUILDING PERMITS WILL NOT BE ISSUED UNTIL ALL IMPROVEMENTS HAVE BEEN INSTALLED AND ACCEPTED BY THE CITY IN WRITING OR BONDED FOR.

6. THIS AREA IS SUBJECT TO THE NORMAL, EVERYDAY SOUNDS, ODORS, SIGHTS, EQUIPMENT, FACILITIES, AND ANY OTHER ASPECTS ASSOCIATED WITH AGRICULTURAL LIFESTYLES. FUTURE RESIDENTS SHOULD ALSO RECOGNIZE THE RISK INHERENT WITH LIVESTOCK.

7. SANITARY SEWER AND DOMESTIC WATER SERVICE TO BE PROVIDED BY STAR SEWER AND WATER DISTRICT.

8. SUBJECT PROPERTY DOES NOT FALL WITHIN FEMA FLOOD HAZARD ZONES A AND X. SEE FIRM PANEL

9. ALL LOTS ARE HEREBY DESIGNATED AS HAVING A PERMANENT EASEMENT FOR PUBLIC UTILITIES, IRRIGATION AND LOT DRAINAGE OVER THE TEN (10) FEET ADJACENT TO ANY PUBLIC STREET. THIS EASEMENT SHALL NOT PRECLUDE THE CONSTRUCTION OF HARD-SURFACED DRIVEWAYS AND WALKWAYS TO EACH LOT.

10. UNLESS OTHERWISE SHOWN AND DIMENSIONED, ALL LOT ARE HEREBY DESIGNATED AS HAVING A PERMANENT EASEMENT FOR PUBLIC UTILITIES, IRRIGATION AND LOT DRAINAGE OVER THE FIVE (5) FEET ADJACENT TO ANY INTERIOR SIDE LOT LINE, AND OVER THE TWELVE (12) FEET ADJACENT TO ANY REAR LOT LINE OR SUBDIVISION BOUNDARY.

11. THIS SUBDIVISION WILL BE SUBJECT TO THE TERMS OF A DEVELOPMENT AGREEMENT WITH THE CITY OF STAR.

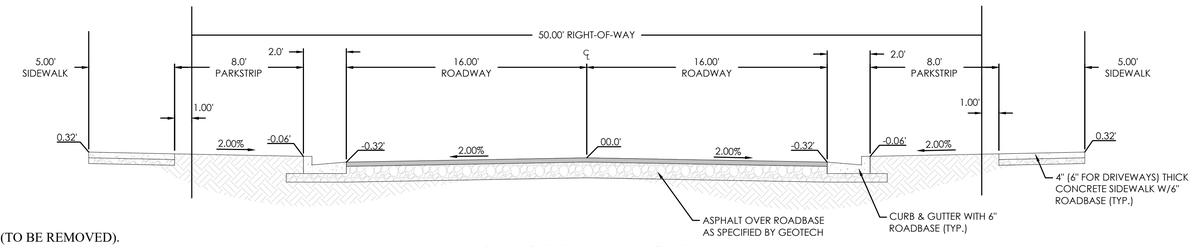
12. IRRIGATION WATER SHALL BE PROVIDED FROM THE GROUNDWATER RIGHTS WITH IDWR (63-2957) IN COMPLIANCE WITH IDAHO CODE 31-3805(B). LOTS WITHIN THE SUBDIVISION SHALL BE ENTITLED TO IRRIGATION WATER RIGHTS, AND THE INDIVIDUAL LOTS SHALL BE SUBJECT TO IRRIGATION WATER ASSESSMENTS.

13. BUILDING SETBACKS AND DIMENSIONAL STANDARDS IN THIS SUBDIVISION SHALL BE IN COMPLIANCE WITH THE APPLICABLE ZONING REGULATIONS OF THE CITY OF STAR OR AS APPROVED UNDER THE DEVELOPMENT AGREEMENT.

14. DIRECT LOT ACCESS TO STATE HIGHWAY 16 AND 44 IS PROHIBITED. (EXCEPT EMERGENCY VEHICLE ACCESS)

EASEMENTS NOTES:

1. DRY CREEK CANAL EASEMENT 25' FROM TOP OF BANK ON EACH SIDE.
2. ACCESS EASEMENT INST. NO. 2017-121572
3. DRY CREEK CANAL EASEMENT 25' FROM TOP OF BANK
4. ACHD SIDEWALK EASEMENT INST. NO. 2019-046199.
5. MIDDLETON MILL CANAL EASEMENT 25' FROM TOP OF BANK.
6. DRAINAGE DISTRICT 2 EASEMENT 25' FROM TOP OF BANK.
7. DRAINAGE DISTRICT 2 EASEMENT 25' FROM TOP OF BANK.
8. 20' TELECOMMUNICATIONS EASEMENT, INST. NO. 9001613 & 9129096.
9. ITD PERMANENT DRAINAGE AND IRRIGATION EASEMENT, INST NO. 111101448.
10. ITD PERMANENT DRAINAGE AND IRRIGATION EASEMENT, INST NO. 111101448.
11. TELECOMMUNICATIONS EASEMENT, INST. NO. 8961467.
12. ITD PERMANENT DRAINAGE AND IRRIGATION EASEMENT, INST NO. 111101448.
13. ITD PERMANENT DRAINAGE AND IRRIGATION EASEMENT, INST. NO 111092656.
14. ITD PERMANENT DRAINAGE AND IRRIGATION EASEMENT, INST NO. 112005782. (TO BE REMOVED).
15. ITD PERMANENT DRAINAGE AND IRRIGATION EASEMENT, INST NO. 112005783. (TO BE REMOVED).
16. ITD PERMANENT DRAINAGE AND IRRIGATION EASEMENT, INST NO. 111092656. (TO BE REMOVED).



50' RESIDENTIAL ROAD
N.T.S.

PRELIMINARY PLAT DEVELOPMENT DATA

TOTAL ACRES (ENTIRE DEVELOPMENT)	74.60 AC
SINGLE-FAMILY LOTS	(16.9%) 12.6 AC
TOWNHOME UNITS	(4.6%) 3.4 AC
PUBLIC RIGHT-OF-WAY	(14.9%) 11.1 AC
TOTAL OPEN SPACE	(63.7%) 47.5 AC
TOTAL USABLE OPEN SPACE	(58.6%) 43.7 AC
TOTAL LOTS	
SINGLE-FAMILY RESIDENTIAL	65
TOWNHOMES RESIDENTIAL	95
MULTI-FAMILY LOT	1
COMMON LOTS/PARCELS	5
COMMERCIAL LOT	1
OPEN SPACE	14
TOTAL LOTS	181
LOT AREA DATA	
SMALLEST LOT SIZE (SINGLE-FAMILY)	6,686 SQ. FT.
SMALLEST LOT SIZE (TOWNHOMES)	4,859 SQ. FT.
AVERAGE LOT SIZE (SINGLE FAMILY)	8,400 SQ. FT.
AVERAGE LOT SIZE (TOWNHOMES)	6,974 SQ. FT.
RESIDENTIAL DENSITY	
OVERALL DENSITY	2.39 DU/AC
RESIDENTIAL GROSS DENSITY	8.7 UNITS/AC
ZONING	
EXISTING:	RUT, R-1 & C-2
PROPOSED:	R-10 & C-2

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FOR REVIEW ONLY

TALEGA VILLAGE
ADA COUNTY, IDAHO
LOCATE WITHIN THE SE 1/4 OF SECTION 9, TOWNSHIP 4 NORTH.,
RANGE 1 WEST., B.M. ADA COUNTY, IDAHO.
PRELIMINARY PLAT

REVISION BLOCK

#	DATE	DESCRIPTION
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PRELIMINARY PLAT

Scale: N.T.S. | Drawn: MJT
Date: 5/25/2023 | Job #: 21-0488
Sheet:

C2.2

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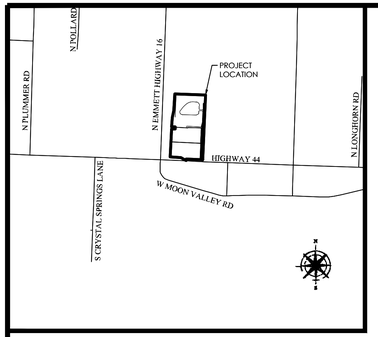

PRELIMINARY PLAT

TALEGA VILLAGE

ADA COUNTY, IDAHO

LOCATE WITHIN THE SE 1/4 OF SECTION 9, TOWNSHIP 4 NORTH., RANGE 1 WEST.,
B.M. ADA COUNTY, IDAHO.

Curve Table					
CURVE	RADIUS	DELTA	LENGTH	CHORD DIRECTION	CHORD LENGTH
C1	145.00	0°39'11"	1.65	S00°14'25"W	1.65
C2	145.00	20°36'39"	52.16	S10°23'30"E	51.88
C3	145.00	20°40'02"	52.30	S31°01'50"E	52.02
C4	145.00	20°40'02"	52.30	S51°41'52"E	52.02
C5	145.00	18°59'23"	48.06	S71°31'35"E	47.84
C6	775.00	0°21'18"	4.80	S81°11'56"E	4.80
C7	775.00	4°18'04"	58.18	S83°31'37"E	58.17
C8	775.00	4°18'04"	58.18	S87°49'42"E	58.17
C9	775.00	3°47'27"	51.27	N88°07'33"E	51.27
C10	375.00	1°01'17"	6.68	N85°43'11"E	6.68
C11	375.00	8°37'37"	56.46	N80°53'44"E	56.41
C12	375.00	8°37'37"	56.46	N72°16'07"E	56.41
C13	375.00	8°37'37"	56.46	N63°38'30"E	56.41
C14	375.00	7°58'43"	52.22	N55°20'20"E	52.18
C15	1025.00	0°14'49"	4.42	N51°13'35"E	4.42
C16	1025.00	3°11'33"	57.11	N49°30'24"E	57.10
C17	1025.00	3°21'22"	60.04	N46°13'56"E	60.03
C18	1025.00	3°22'00"	60.23	N39°30'55"E	60.22
C19	1025.00	1°07'36"	20.16	N37°16'07"E	20.16
C20	1025.00	3°13'45"	57.77	N35°05'26"E	57.76

Curve Table					
CURVE	RADIUS	DELTA	LENGTH	CHORD DIRECTION	CHORD LENGTH
C21	1025.00	3°00'30"	53.82	N31°58'19"E	53.81
C22	100.00	27°07'29"	47.34	N16°54'19"E	46.90
C23	100.00	27°07'29"	47.34	N10°13'11"W	46.90
C24	100.00	27°06'25"	47.31	N37°20'08"W	46.87
C25	100.00	27°06'25"	47.31	N64°26'33"W	46.87
C26	100.00	11°26'13"	19.96	S83°42'52"E	19.93
C27	100.00	4°35'01"	8.00	S87°42'32"W	8.00
C28	125.00	4°35'01"	10.00	N87°42'32"E	10.00
C29	75.00	4°35'01"	6.00	N87°42'32"E	6.00
C30	315.00	14°22'27"	79.03	S07°45'43"W	78.82
C31	85.00	5°08'21"	7.62	S87°59'51"W	7.62
C32	85.00	31°55'19"	47.36	S69°28'00"W	46.75
C33	85.00	31°55'19"	47.36	S37°32'41"W	46.75
C34	85.00	21°01'01"	31.18	S11°04'32"W	31.00
C35	345.00	14°22'27"	86.55	S07°45'43"W	86.33
C36	375.00	8°07'07"	53.14	S10°53'23"W	53.09
C37	325.00	6°26'38"	36.55	N11°43'38"E	36.53
C38	355.00	14°22'56"	89.11	N07°45'29"E	88.88
C39	385.00	7°40'56"	51.62	N11°06'29"E	51.58
C40	95.00	1°29'34"	2.47	N00°10'46"W	2.47

Curve Table					
CURVE	RADIUS	DELTA	LENGTH	CHORD DIRECTION	CHORD LENGTH
C41	95.00	80°05'45"	132.80	N40°58'25"W	122.25
C42	725.00	3°05'48"	39.18	N82°34'11"W	39.18
C43	725.00	4°44'58"	60.10	N86°29'33"W	60.08
C44	725.00	4°44'44"	60.05	S88°45'36"W	60.03
C45	725.00	0°09'25"	1.98	S86°18'32"W	1.98
C46	325.00	15°47'14"	89.55	S78°20'13"W	89.27
C47	325.00	16°26'44"	93.28	S62°13'14"W	92.96
C48	325.00	2°38'53"	15.02	S52°40'26"W	15.02
C49	975.00	3°24'03"	57.87	S49°38'57"W	57.86
C50	975.00	3°31'41"	60.04	S46°11'05"W	60.03
C51	975.00	3°31'41"	60.04	S42°39'24"W	60.03
C52	671.49	2°47'49"	32.78	N51°58'25"W	32.78
C52	975.00	7°25'28"	126.34	S37°10'49"W	126.26
C53	755.00	3°07'23"	41.15	N49°00'49"W	41.15
C53	975.00	3°00'01"	51.06	S31°58'04"W	51.05
C54	50.00	119°54'02"	104.63	S29°28'58"E	86.56
C55	35.00	8°12'48"	5.02	N86°27'37"E	5.01
C56	35.00	81°47'12"	49.96	N41°27'37"E	45.83
C57	671.49	8°26'20"	98.90	N57°35'30"W	98.81
C58	775.00	12°44'53"	172.44	N87°23'44"W	172.08

Curve Table					
CURVE	RADIUS	DELTA	LENGTH	CHORD DIRECTION	CHORD LENGTH
C59	375.00	34°52'51"	228.29	S68°47'24"W	224.78
C60	1025.00	20°52'55"	373.57	S40°54'31"W	371.51
C61	100.00	119°54'02"	209.27	S29°28'58"E	173.12
C62	254.66	21°26'03"	95.27	N70°17'55"W	94.71
C63	237.50	13°21'26"	55.37	N88°04'59"W	55.24
C64	85.00	90°00'00"	133.52	N45°34'01"E	120.21
C65	725.00	12°44'53"	161.31	N87°23'44"W	160.98
C66	325.00	34°52'51"	197.85	S68°47'24"W	194.81
C67	975.00	20°52'55"	355.35	S40°54'31"W	353.38
C68	35.00	90°00'00"	54.98	N45°34'01"E	49.50
C69	120.00	81°35'18"	170.88	N40°13'38"W	156.80
C70	750.00	12°44'53"	166.87	N87°23'44"W	166.53
C71	157.50	4°12'15"	11.56	S83°08'11"W	11.55
C72	157.50	28°09'13"	77.39	S66°57'27"W	76.61
C73	75.00	119°54'02"	156.95	S29°28'58"E	129.84
C74	60.00	90°00'00"	94.25	N45°34'01"E	84.85
C75	157.50	8°28'03"	23.28	S48°38'50"W	23.26
C76	1025.00	3°21'20"	60.03	N42°52'35"E	60.02
C77	312.50	12°50'39"	70.05	S50°50'07"W	69.91
C78	312.50	10°24'36"	56.78	S62°27'45"W	56.70

Curve Table					
CURVE	RADIUS	DELTA	LENGTH	CHORD DIRECTION	CHORD LENGTH
C79	275.00	22°36'21"	108.50	S78°07'48"E	107.80
C80	225.00	22°36'21"	88.77	S78°07'48"E	88.20
C81	225.00	22°45'36"	89.38	N78°12'25"W	88.79
C82	275.00	22°45'36"	109.24	N78°12'25"W	108.52
C83	65.00	18°11'43"	20.64	S81°18'55"W	20.56
C84	65.00	88°25'52"	100.32	S46°11'51"W	90.66
C85	40.00	88°25'52"	61.74	S46°11'51"W	55.79
C89	50.00	283°36'29"	247.49	N86°21'54"E	61.84
C91	15.00	57°25'16"	15.03	S26°43'43"E	14.41
C93	1000.00	20°52'55"	364.46	S40°54'31"W	362.45
C94	145.00	81°35'18"	206.48	N40°13'38"W	189.47
C95	755.00	3°41'01"	48.54	S45°36'43"E	48.53
C96	225.00	16°07'34"	63.33	S81°22'12"E	63.12
C97	525.00	16°17'08"	149.22	N81°26'58"W	148.72
C98	15.00	76°39'27"	20.07	N38°44'12"E	18.61
C99	50.00	166°39'27"	145.44	S06°15'48"E	99.32
C100	15.00	90°00'00"	23.56	S44°35'32"E	21.21
C101	475.00	16°17'08"	135.01	N81°26'58"W	134.56
C102	275.00	16°07'34"	77.40	S81°22'12"E	77.15
C103	350.00	34°52'51"	213.07	S68°47'24"W	209.80

Curve Table					
CURVE	RADIUS	DELTA	LENGTH	CHORD DIRECTION	CHORD LENGTH
C104	250.00	22°36'21"	98.64	S78°07'48"E	98.00
C105	250.00	22°45'36"	99.31	N78°12'25"W	98.66
C117	50.00	76°46'42"	67.00	S17°02'59"E	62.10
C118	15.00	57°25'16"	15.03	S26°43'43"E	14.41
C119	65.00	70°14'08"	79.68	N37°05'59"E	74.78
C120	15.00	46°11'13"	12.09	N25°04'32"E	11.77
C121	50.00	28°54'03"	25.22	N33°43'07"E	24.95
C123	50.00	54°08'09"	47.24	N07°48'00"W	45.50
C124	50.00	77°38'42"	67.76	N73°41'25"W	62.69
C125	206.00	18°45'05"	67.42	N53°47'20"E	67.12

4 OF 4

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PRELIMINARY PLAT

REVISION BLOCK

#	DATE	DESCRIPTION
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PRELIMINARY PLAT

Scale: N.T.S. Drawn: MJT
Date: 5/25/2023 Job #: 21-0488
Sheet: C2.3

811 Know what's below. Call 811 before you dig.

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N

S

GRAPHIC SCALE

100 0 50 100 200 400

(IN FEET)
1 inch = 100 ft.

LEGEND

- BOUNDARY
- ROW
- CENTERLINE
- LOT LINE
- EASEMENT
- 15" STORM DRAIN
- 8" SANITARY SEWER
- 8" CULINARY WATER
- 8" SECONDARY WATER
- CONTOUR MAJOR
- CONTOUR MINOR
- EXIST. STORM DRAIN
- EXIST. SANITARY SEWER
- EXIST. CULINARY WATER
- EXIST. FENCE
- EXIST. CONTOUR MAJOR
- EXIST. CONTOUR MINOR
- SIGN
- STREET LIGHT
- SD MH, INLET, AND COMBO
- SEWER MANHOLE
- CULINARY VALVE, TEE & BEND
- SECONDARY VALVE, TEE & BEND
- WATER BLOW-OFF
- FIRE HYDRANT
- STREET MONUMENT (TO BE SET)
- EXIST. STREET MONUMENT
- EXIST. SD INLET & MH
- EXIST. SEWER MH
- EXIST. VALVE, TEE, & BEND
- EXIST. FIRE HYDRANT
- o XXXX.XX SPOT ELEVATION

STREET LIGHT #101 W/ XPJ-1 MAST ARM & DSS20 HEAD OR EQUIVALENT

STREET LIGHT #102 W/ XPJ-1 MAST ARM & DSS20 HEAD OR EQUIVALENT

STREET LIGHT #103 W/ XPJ-1 MAST ARM & DSS20 HEAD OR EQUIVALENT

STREET LIGHT #104 W/ XPJ-1 MAST ARM & DSS20 HEAD OR EQUIVALENT

STREET LIGHT #105 W/ XPJ-1 MAST ARM & DSS20 HEAD OR EQUIVALENT

STREET LIGHT #106 W/ XPJ-1 MAST ARM & DSS20 HEAD OR EQUIVALENT

STREET LIGHT #107 W/ XPJ-1 MAST ARM & DSS20 HEAD OR EQUIVALENT

STREET LIGHT #108 W/ XPJ-1 MAST ARM & DSS20 HEAD OR EQUIVALENT

STREET LIGHT #109 W/ XPJ-1 MAST ARM & DSS20 HEAD OR EQUIVALENT

STREET LIGHT #110 W/ XPJ-1 MAST ARM & DSS20 HEAD OR EQUIVALENT

STREET LIGHT #111 W/ XPJ-1 MAST ARM & DSS20 HEAD OR EQUIVALENT

STREET LIGHT #112 W/ XPJ-1 MAST ARM & DSS20 HEAD OR EQUIVALENT

STREET LIGHT #113 W/ XPJ-1 MAST ARM & DSS20 HEAD OR EQUIVALENT

STREET LIGHT #114 W/ XPJ-1 MAST ARM & DSS20 HEAD OR EQUIVALENT

STREET LIGHT #115 W/ XPJ-1 MAST ARM & DSS20 HEAD OR EQUIVALENT

STREET LIGHT #116 W/ XPJ-1 MAST ARM & DSS20 HEAD OR EQUIVALENT

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STREET LIGHT #123 W/ XPJ-1 MAST ARM & DSS20 HEAD OR EQUIVALENT

STREET LIGHT #124 W/ XPJ-1 MAST ARM & DSS20 HEAD OR EQUIVALENT

STREET LIGHT #125 W/ XPJ-1 MAST ARM & DSS20 HEAD OR EQUIVALENT

STREET LIGHT #126 W/ XPJ-1 MAST ARM & DSS20 HEAD OR EQUIVALENT

STREET LIGHT #127 W/ XPJ-1 MAST ARM & DSS20 HEAD OR EQUIVALENT

STREET LIGHT #128 W/ XPJ-1 MAST ARM & DSS20 HEAD OR EQUIVALENT

STREET LIGHT #129 W/ XPJ-1 MAST ARM & DSS20 HEAD OR EQUIVALENT

STREET LIGHT #130 W/ XPJ-1 MAST ARM & DSS20 HEAD OR EQUIVALENT

STREET LIGHT #131 W/ XPJ-1 MAST ARM & DSS20 HEAD OR EQUIVALENT

STREET LIGHT #132 W/ XPJ-1 MAST ARM & DSS20 HEAD OR EQUIVALENT

STREET LIGHT #133 W/ XPJ-1 MAST ARM & DSS20 HEAD OR EQUIVALENT

STREET LIGHT #134 W/ XPJ-1 MAST ARM & DSS20 HEAD OR EQUIVALENT

8" WATER (TYP)
8" SEWER (TYP)
8" PRESSURE IRRIGATION (TYP)

CLUSTER MAILBOX UNIT IN PARK STRIP BETWEEN SIGLE FAMILY AND TOWNHOMES

40' BUFFER SPACE (TYP.)

231.66 ft
236 ft
229.66 ft
208.10 ft
1,140.77 ft
91.00 ft

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TALEGA VILLAGE
STAR, IDAHO
PRELIMINARY SITE PLAN

REVISION BLOCK

#	DATE	DESCRIPTION
1	----	----
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3	----	----
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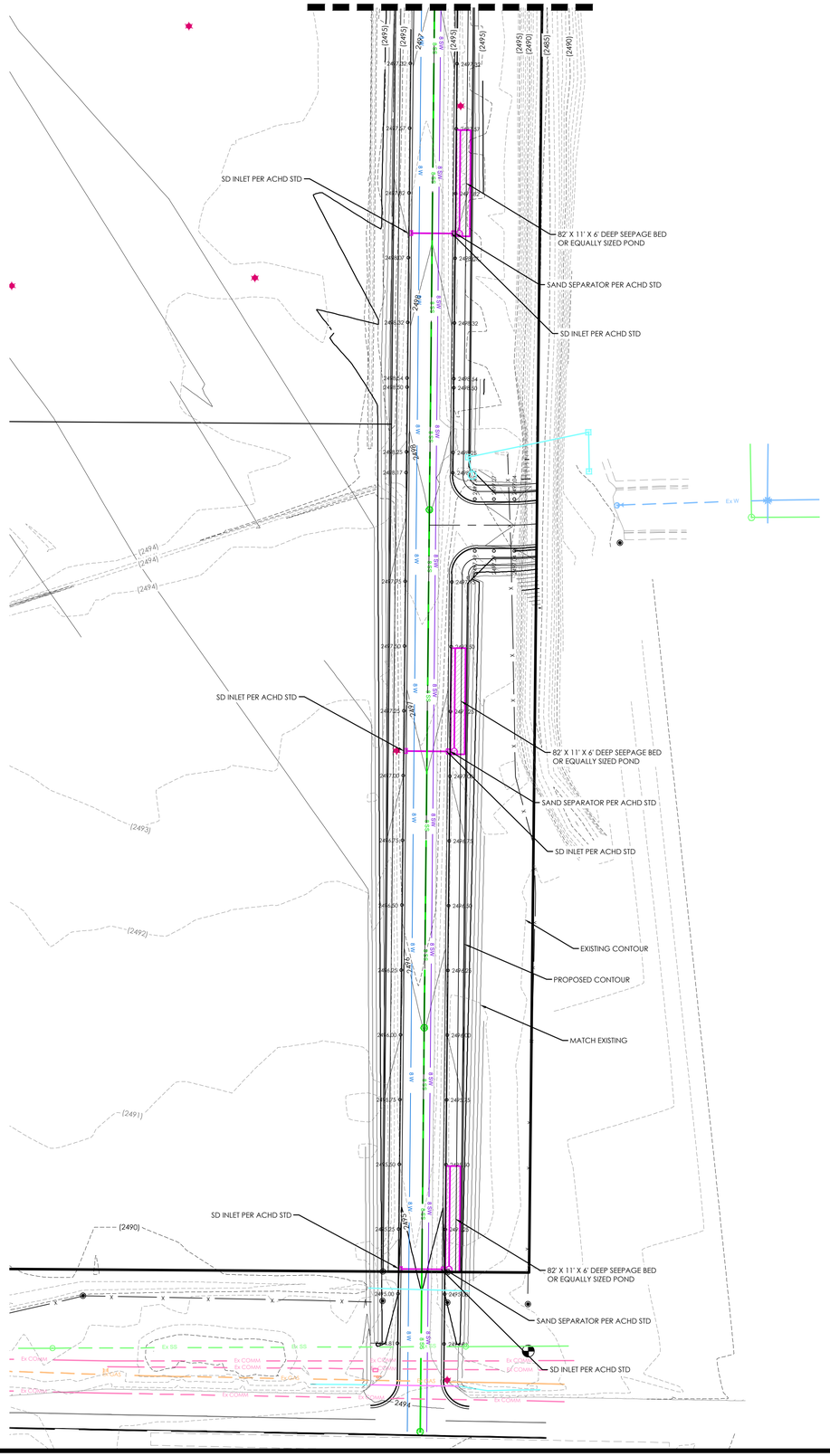
PRELIMINARY SITE PLAN

Scale: 1"=100' | Drawn: DCJ
Date: 11/28/2023 | Job #: 21-0488
Sheet: C3

Know what's below. Call 811 before you dig.

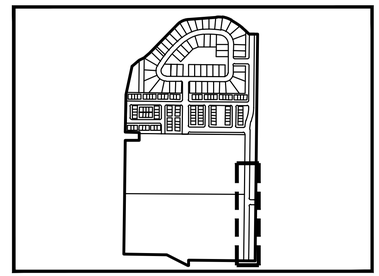
J:\2021\21-0488 Talega Village\design\21-0488\dwg\sheets preliminary subdivision\21-0488 C3 Preliminary Site Plan.dwg

MATCH SHEET C4.2



LEGEND

- BOUNDARY
- ROW
- CENTERLINE
- LOT LINE
- EASEMENT
- 15" STORM DRAIN
- 8" SANITARY SEWER
- 8" CULINARY WATER
- 8" SECONDARY WATER
- CONTOUR MAJOR
- CONTOUR MINOR
- EXIST. STORM DRAIN
- EXIST. SANITARY SEWER
- EXIST. CULINARY WATER
- EXIST. FENCE
- EXIST. CONTOUR MAJOR
- EXIST. CONTOUR MINOR
- SIGN
- STREET LIGHT
- SD MH, INLET, AND COMBO
- SEWER MANHOLE
- CULINARY VALVE, TEE & BEND
- SECONDARY VALVE, TEE & BEND
- WATER BLOW-OFF
- FIRE HYDRANT
- STREET MONUMENT (TO BE SET)
- EXIST. STREET MONUMENT
- EXIST. SD INLET & MH
- EXIST. SEWER MH
- EXIST. VALVE, TEE, & BEND
- EXIST. FIRE HYDRANT
- o XXXX.XX — SPOT ELEVATION



KEY MAP
N.T.S

N

S

GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)
1 inch = 50 ft.

811 Know what's below. Call 811 before you dig.

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TALEGA VILLAGE
STAR, IDAHO
GRADING & DRAINAGE PLAN

REVISION BLOCK

#	DATE	DESCRIPTION
1	----	----
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3	----	----
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5	----	----
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GRADING & DRAINAGE PLAN

Scale: 1"=50'	Drawn: DCJ
Date: 11/28/2023	Job #: 21-0488
Sheet: C4.1	

P:\2021\21-0488 Talega Village\design 21-0488\dwg\sheets preliminary subdivision\21-0488 C4.1 Preliminary Grading and Drainage.dwg

MATCH SHEET C4.3

SD INLET PER ACHD STD
SAND SEPARATOR PER ACHD STD
82' X 11' X 6' DEEP SEEPAGE BED OR EQUALLY SIZED POND

EXISTING CONTOUR
MATCH EXISTING
PROPOSED CONTOUR

82' X 11' X 6' DEEP SEEPAGE BED OR EQUALLY SIZED POND
SAND SEPARATOR PER ACHD STD
SD INLET PER ACHD STD

MATCH SHEET C4.1

N

S

GRAPHIC SCALE

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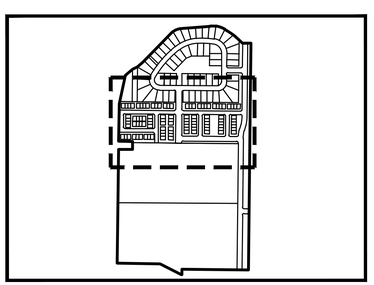
(IN FEET)
1 inch = 50 ft.



KEY MAP
N.T.S

LEGEND

- BOUNDARY
- ROW
- CENTERLINE
- LOT LINE
- EASEMENT
- 15" STORM DRAIN
- 8" SANITARY SEWER
- 8" CULINARY WATER
- 8" SECONDARY WATER
- CONTOUR MAJOR
- CONTOUR MINOR
- EXIST. STORM DRAIN
- EXIST. SANITARY SEWER
- EXIST. CULINARY WATER
- EXIST. FENCE
- EXIST. CONTOUR MAJOR
- EXIST. CONTOUR MINOR
- SIGN
- STREET LIGHT
- SD MH, INLET, AND COMBO
- SEWER MANHOLE
- CULINARY VALVE, TEE & BEND
- SECONDARY VALVE, TEE & BEND
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- EXIST. VALVE, TEE, & BEND
- EXIST. FIRE HYDRANT
- SPOT ELEVATION

o XXXX.XX

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TALEGA VILLAGE
STAR, IDAHO
GRADING & DRAINAGE PLAN

REVISION BLOCK

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GRADING & DRAINAGE PLAN

Scale: 1"=50'	Drawn: DCJ
Date: 11/28/2023	Job #: 21-0488
Sheet: C4.2	

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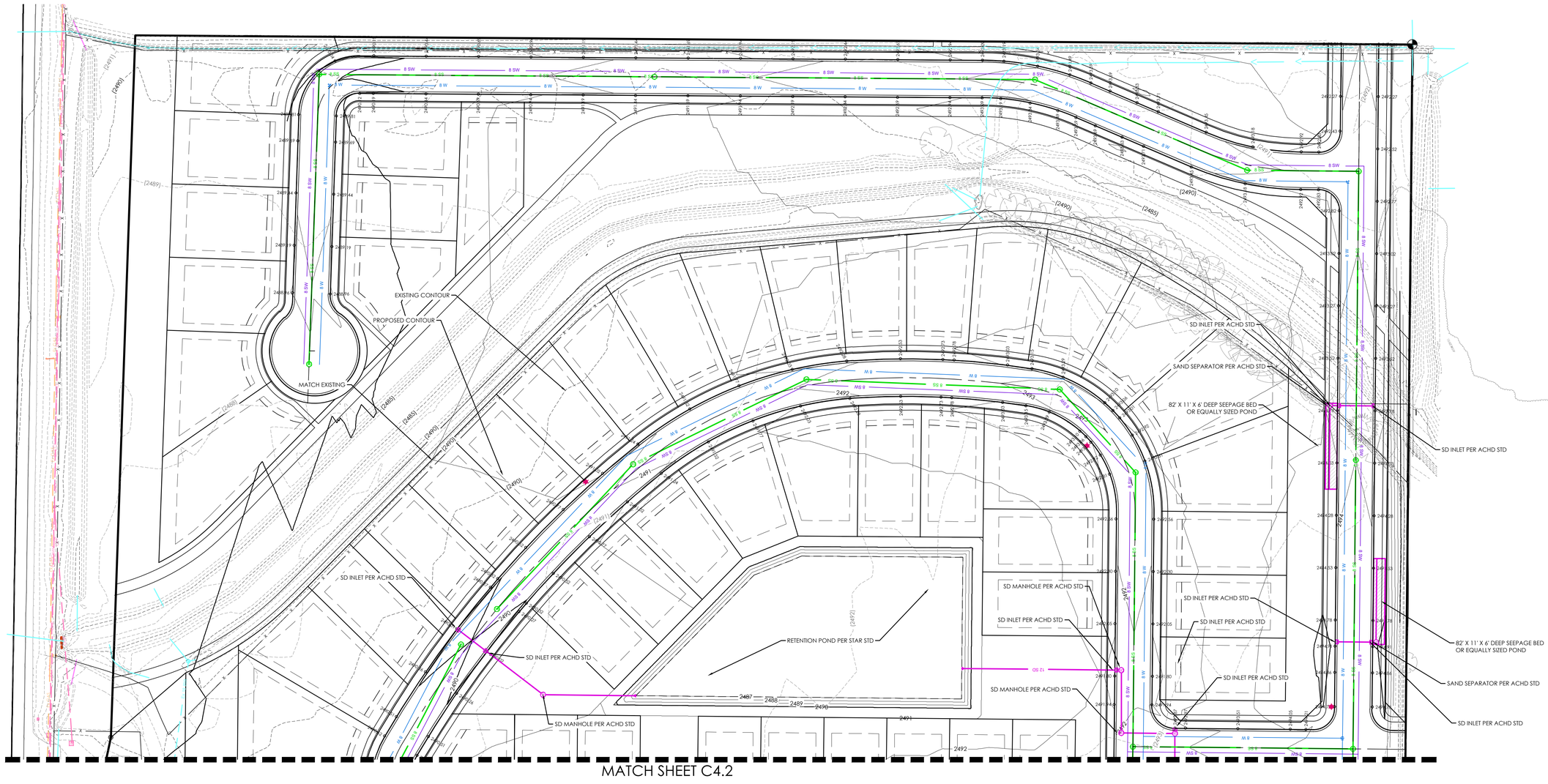
EXISTING CONTOUR
PROPOSED CONTOUR
MATCH EXISTING
SD INLET PER ACHD STD
SAND SEPARATOR PER ACHD STD
82' X 11' X 6' DEEP SEEPAGE BED
OR EQUALLY SIZED POND
SD MANHOLE PER ACHD STD
RETENTION POND PER STAR STD
12 SD
8 SW
8 W
8 SS
8 W
8 SW
8 SW
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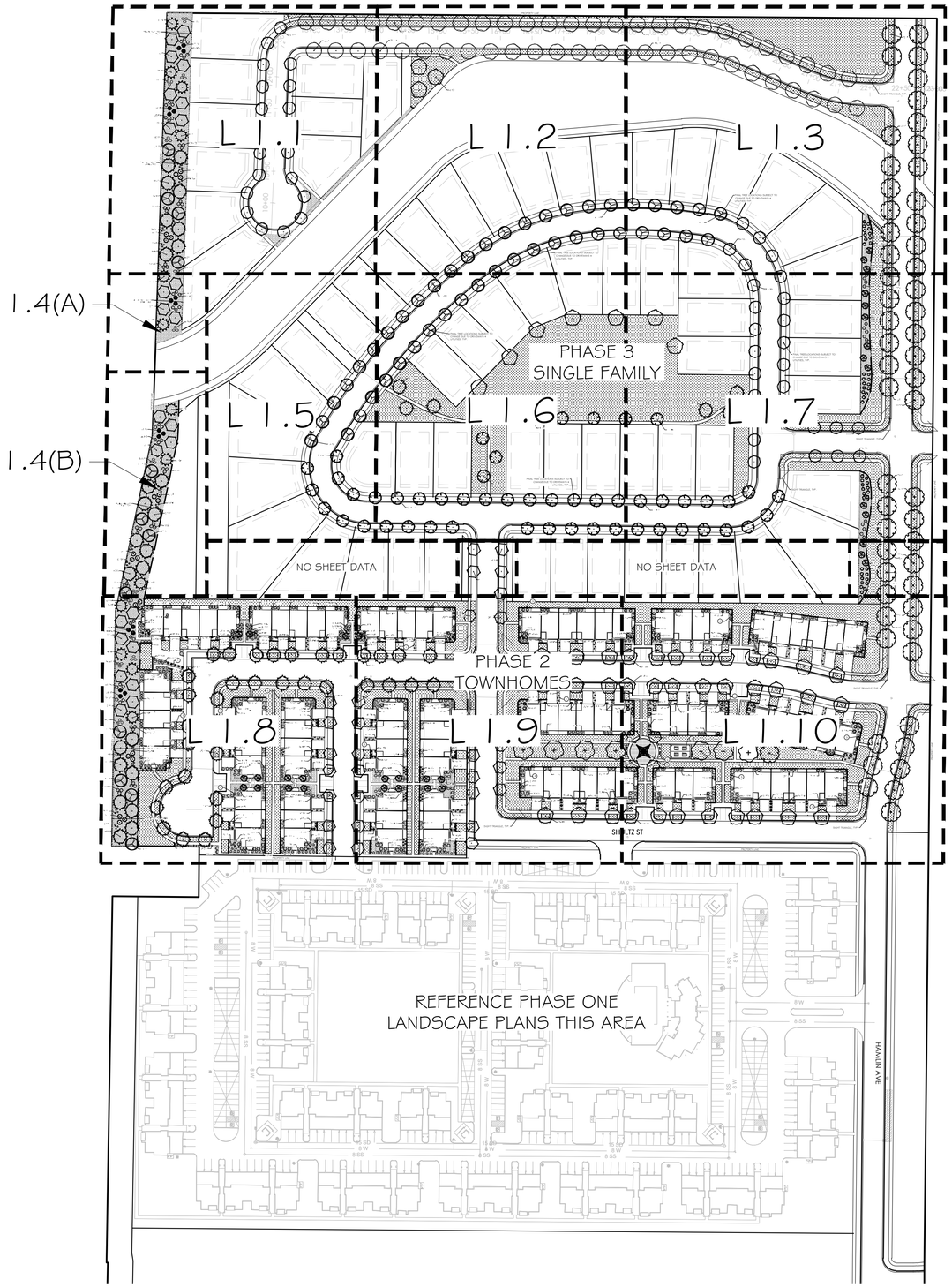
8 SS
8 W
8 SW
8 SW
8 W
8 SS
8 W
8 SW



OVERALL PHASES 2-3 PLANT SCHEDULE

	CODE	BOTANICAL NAME	COMMON NAME	SIZE	QTY
TREES					
	AP	Acer platanoides	Norway Maple	2" Cal.	56
	AX	Acer x freemanii	Freeman Maple	2" Cal.	65
	SB	Amelanchier x grandiflora	Serviceberry	2" Cal.	45
	CC	Cercis canadensis	Eastern Redbud	2" Cal.	46
	CF	Cornus florida	Flowering Dogwood	2" Cal.	13
	GY	Ginkgo biloba 'JN9' TM	Sky Tower Ginkgo	2" Cal.	35
	JW	Juniperus scopulorum 'Wichita Blue'	Wichita Blue Juniper	6` Ht.	18
	MS	Malus x `Spring Snow`	Spring Snow Crabapple	2" Cal.	51
	PF	Pinus aristata 'Formal Form'	Formal Form Bristlecone Pine	6` Ht.	21
	PV	Prunus virginiana `Canada Red`	Canada Red Chokecherry	2" Cal.	57
	PJ	Pyrus calleryana 'Jaczam' TM	Jack Callery Pear	2" Cal.	59
	QR	Quercus robur	English Oak	2" Cal.	7
	UA	Ulmus x `Accolade`	Accolade Elm	2" Cal.	52
SHRUBS					
	AMG	Aronia melanocarpa `UCONNAMO12` TM	Ground Hug Black Chokeberry	2 gal.	76
	BTC	Berberis thunbergii `Concorde`	Concorde Japanese Barberry	5 gal.	34
	BG	Berberis thunbergii 'Goruzam' TM	Golden Ruby Japanese Barberry	5 gal.	85
	BDH	Buddleja davidii `Buzz Hot Raspberry`	Hot Raspberry Butterfly Bush	2 gal.	78
	BGM	Buxus x `Green Mountain`	Green Mountain Boxwood	5 gal.	22
	CAB	Cornus alba `Bailhalo` TM	Ivory Halo Dogwood	5 gal.	92
	CSK	Cornus sencea `Kelseyi`	Kelsey`s Dwarf Red Twig Dogwood	2 gal.	108
	EAC	Euonymus alatus 'Grove Compactus'	Grove Compact Burning Bush	5 gal.	54
	POL	Physocarpus opulifolius `Donna May` TM	Little Devil Ninebark	5 gal.	121
	PMM	Pinus mugo var. pumilio	Dwarf Mugo Pine	5 gal.	40
	PLC	Prunus laurocerasus `Chestnut Hill`	Chestnut Hill English Laurel	5 gal.	61
	SSS	Sorbaria sorbifolia `Sem`	Sem Ash Leaf Spirea	5 gal.	61
	SJD	Spiraea japonica `Double Play Doozie`	Doozie Spirea	2 gal.	33
	SBL	Syringa x `SMSJBP7` `Bloomerang`	Bloomerang Dark Purple Lilac	5 gal.	47
	VCS	Viburnum carlesii 'SMVCB' TM	Spice Baby Koreanspice Viburnum	5 gal.	105
ORNAMENTAL GRASSES					
	CAK	Calamagrostis x acutiflora `Karl Foerster`	Karl Foerster Feather Reed Grass	1 gal.	133
	HSS	Helictotrichon sempervirens `Sapphire`	Sapphire Blue Oat Grass	1 gal.	86
	MSG	Miscanthus sinensis `Gold Bar`	Gold Bar Eulalia Grass	1 gal.	72
	PAH	Pennisetum alopecuroides `Hameln`	Hameln Fountain Grass	1 gal.	72
PERENNIALS					
	HSO	Hemerocallis x `Stella de Oro`	Stella de Oro Daylily	1 gal.	36
	PAL	Perovskia atriplicifolia `Little Spire`	Little Spire Russian Sage	1 gal.	26
SYMBOL	**CODE**	**BOTANICAL NAME**	**COMMON NAME**	**SIZE**	**QTY**
GROUND COVERS					
	KB	Poa pratensis	Kentucky Bluegrass	sod	235,183 sf

OVERALL PHASES 2-3 REFERENCE NOTES SCHEDULE

SYMBOL	DESCRIPTION	QTY	DETAIL
1	RIVER ROCK, SIZE 2"	93,774 sf	
2	PLAYGROUND WOOD MULCH, 14" DEPTH	1,385 sf	
3	STEEL EDGING, TBD.	5,216 lf	
4	PICNIC SHELTER, T.B.D.	1	
5	PLAYGROUND STRUCTURE, T.B.D.	1	
6	BENCH, TBD.	4	

LANDSCAPE NOTES

1. LAWN AREAS WILL BE SODDED WITH KENTUCKY BLUEGRASS BLEND OVER 4 INCHES GOOD GRADE TOPSOIL.
2. TOP DRESS ALL SHRUB BED AREAS AND OTHER AREAS LABELED RIVER ROCK OR CRUSHED GRAVEL WITH A 4" DEPTH OF MULCH BY TYPE AND PLAN LOCATION AS SPECIFIED IN THE REFERENCE NOTE SCHEDULE. PLACE ROCK MULCH OVER DEWITT PRO-5 WEED BARRIER FABRIC. FABRIC SHALL BE INSTALLED AFTER PRE-EMERGENT HAS BEEN APPLIED.
3. INSTALL STEEL EDGING FOR MOW STRIPS BETWEEN LAWN AREAS AND PLANTING BEDS.
4. CONTRACTOR TO CONDUCT THEIR OWN QUANTITY TAKE-OFFS IN THE PLAN AND VERIFY ANY DISCREPANCIES WITH THE LANDSCAPE ARCHITECT.

NOTE:
REFERENCE SHEET L1.10 FOR DETAILS AND SEPARATE LANDSCAPE TABULATION CHARTS & SCHEDULES FOR PHASES 2&3.

N

S

GRAPHIC SCALE

100 0 50 100 200 400

(IN FEET)
1 inch = 100ft.

OWNER/APPLICANT
DERK PARDOE
3454 STONE MOUNTAIN LN.
SANDY, UT 84092
801-808-2357

OWNER/APPLICANT
JASON RAMSEY
RAMSEY CONSTRUCTION
7950 HORSESHOE BEND RD. STE. 106
BOISE, ID 83714
208-941-1711

SURVEYOR
JOHN GLETNE
VALLEY LAND SURVEYING
5099 S VALLEY ST.
BOISE, ID 83709
208-261-2226

PLANNER
CHAD GARNER
FOCUS ENGINEERING & SURVEYING
6949 S HIGH TECH DR. STE. 200
MIDVALE, UT 84047
801-352-0075

ENGINEER
JACOB HOLMES
FOCUS ENGINEERING & SURVEYING
1001 N ROSARIO ST. STE. 100
MERIDIAN, ID
801-352-0075

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TALEGA VILLAGE PHASE 2 & 3
STAR CITY, IDAHO
OVERALL LANDSCAPE PLAN

REVISION BLOCK

#	DATE	DESCRIPTION
1	----	----
2	----	----
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OVERALL LANDSCAPE PLAN

Scale:	1"=100'	Drawn:	BW
Date:	11/29/2023	Job #:	21-0488
Sheet:	L1.0		

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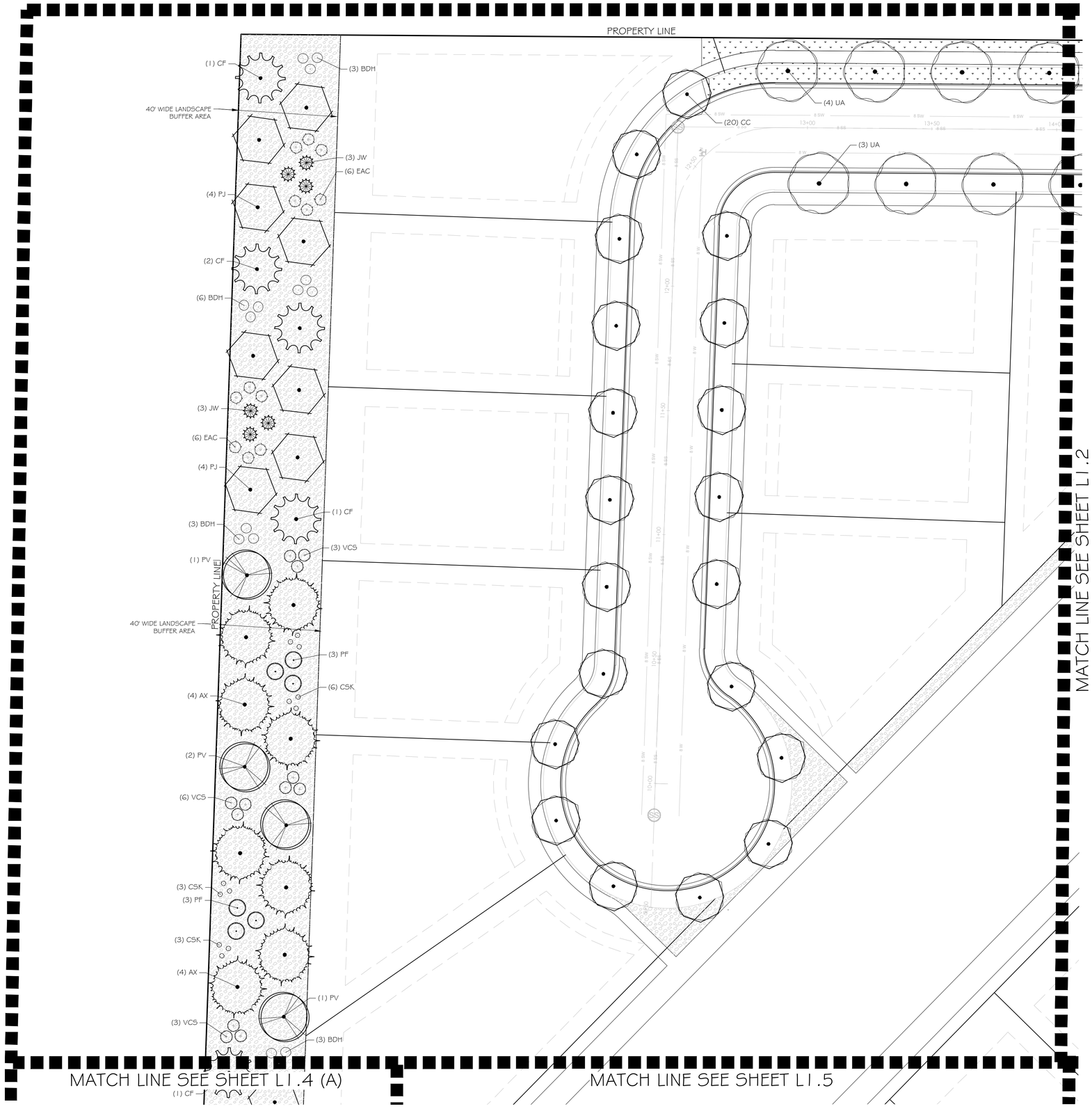

OVERALL PHASES 2-3 PLANT SCHEDULE

	CODE	BOTANICAL NAME	COMMON NAME
TREES			
	AP	Acer platanoides	Norway Maple
	AX	Acer x freemanii	Freeman Maple
	SB	Amelanchier x grandiflora	Serviceberry
	CC	Cercis canadensis	Eastern Redbud
	CF	Cornus florida	Flowering Dogwood
	GY	Ginkgo biloba 'JN9' TM	Sky Tower Ginkgo
	JW	Juniperus scopulorum 'Wichita Blue'	Wichita Blue Juniper
	MS	Malus x `Spring Snow`	Spring Snow Crabapple
	PF	Pinus aristata 'Formal Form'	Formal Form Bristlecone Pine
	PV	Prunus virginiana `Canada Red`	Canada Red Chokecherry
	PJ	Pyrus calleryana 'Jaczam' TM	Jack Gallery Pear
	QR	Quercus robur	English Oak
	UA	Ulmus x `Accolade`	Accolade Elm
SHRUBS			
	AMG	Aronia melanocarpa `UCONNAM012` TM	Ground Hug Black Chokeberry
	BTC	Berberis thunbergii `Concorde`	Concorde Japanese Barberry
	BG	Berberis thunbergii 'Gorvzam' TM	Golden Ruby Japanese Barberry
	BDH	Buddleja davidii `Buzz Hot Raspberry`	Hot Raspberry Butterfly Bush
	BGM	Buxus x `Green Mountain`	Green Mountain Boxwood
	CAB	Cornus alba `Bailhalo` TM	Ivory Halo Dogwood
	CSK	Cornus sericea `Kelseyi`	Kelsey's Dwarf Red Twig Dogwood
	EAC	Euonymus alatus 'Grove Compactus'	Grove Compact Burning Bush
	POL	Physocarpus opulifolius `Donna May` TM	Little Devil Ninebark
	PMM	Pinus mugo var. pumilio	Dwarf Mugo Pine
	PLC	Prunus laurocerasus `Chestnut Hill`	Chestnut Hill English Laurel
	SSS	Sorbaria sorbifolia `Sem`	Sem Ash Leaf Spirea
	SJD	Spiraea japonica `Double Play Doozie`	Doozie Spirea
	SBL	Syringa x `SMSJBP7` `Bloomerang`	Bloomerang Dark Purple Lilac
	VCS	Viburnum carlesii 'SMVCB' TM	Spice Baby Koreanspice Viburnum
ORNAMENTAL GRASSES			
	CAK	Calamagrostis x acutiflora `Karl Foerster`	Karl Foerster Feather Reed Grass
	HSS	Helictotrichon sempervirens `Sapphire`	Sapphire Blue Oat Grass
	MSG	Miscanthus sinensis `Gold Bar`	Gold Bar Eulalia Grass
	PAH	Pennisetum alopecuroides `Hameln`	Hameln Fountain Grass
PERENNIALS			
	HSO	Hemerocallis x `Stella de Oro`	Stella de Oro Daylily
	PAL	Perovskia atriplicifolia `Little Spire`	Little Spire Russian Sage
SYMBOL	**CODE**	**BOTANICAL NAME**	**COMMON NAME**
GROUND COVERS			
	KB	Poa pratensis	Kentucky Bluegrass

OVERALL PHASES 2-3 REFERENCE NOTES SCHEDULE

SYMBOL	DESCRIPTION
1	RIVER ROCK, SIZE 2"
2	PLAYGROUND WOOD MULCH, 14" DEPTH
3	STEEL EDGING, TBD.
4	PICNIC SHELTER, T.B.D.
5	PLAYGROUND STRUCTURE, T.B.D.
6	BENCH, TBD.

NOTE:
REFERENCE SHEET L1.11 FOR DETAILS AND SEPARATE LANDSCAPE TABULATION CHARTS & SCHEDULES FOR PHASES 2&3.

N

S

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

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TALEGA VILLAGE PHASE 3
STAR CITY, IDAHO
LANDSCAPE PLAN

REVISION BLOCK

#	DATE	DESCRIPTION
1	----	----
2	----	----
3	----	----
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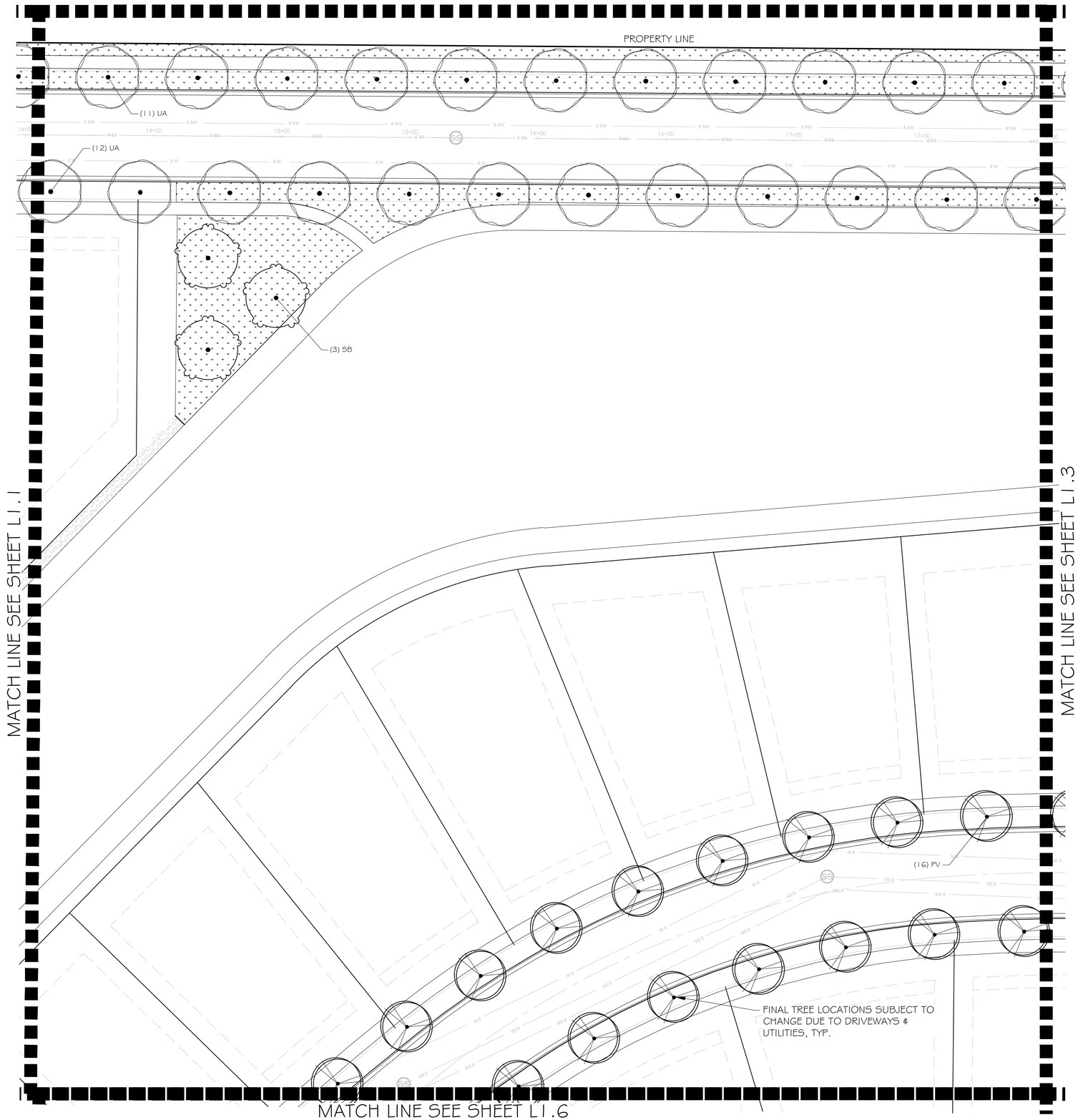
LANDSCAPE PLAN

Scale:	1"=20'	Drawn:	BW
Date:	11/29/2023	Job #:	21-0488
Sheet:	L1.1		



OVERALL PHASES 2-3 PLANT SCHEDULE

	CODE	BOTANICAL NAME	COMMON NAME
TREES			
	AP	Acer platanoides	Norway Maple
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SYMBOL	**CODE**	**BOTANICAL NAME**	**COMMON NAME**
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	KB	Poa pratensis	Kentucky Bluegrass

OVERALL PHASES 2-3 REFERENCE NOTES SCHEDULE

SYMBOL	DESCRIPTION
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3	STEEL EDGING, TBD.
4	PICNIC SHELTER, T.B.D.
5	PLAYGROUND STRUCTURE, T.B.D.
6	BENCH, TBD.

NOTE:
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N

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GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
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TALEGA VILLAGE PHASE 3
STAR CITY, IDAHO
LANDSCAPE PLAN

REVISION BLOCK

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LANDSCAPE PLAN

Scale:	1"=20'	Drawn:	BW
Date:	11/29/2023	Job #:	21-0488
Sheet:	L1.2		

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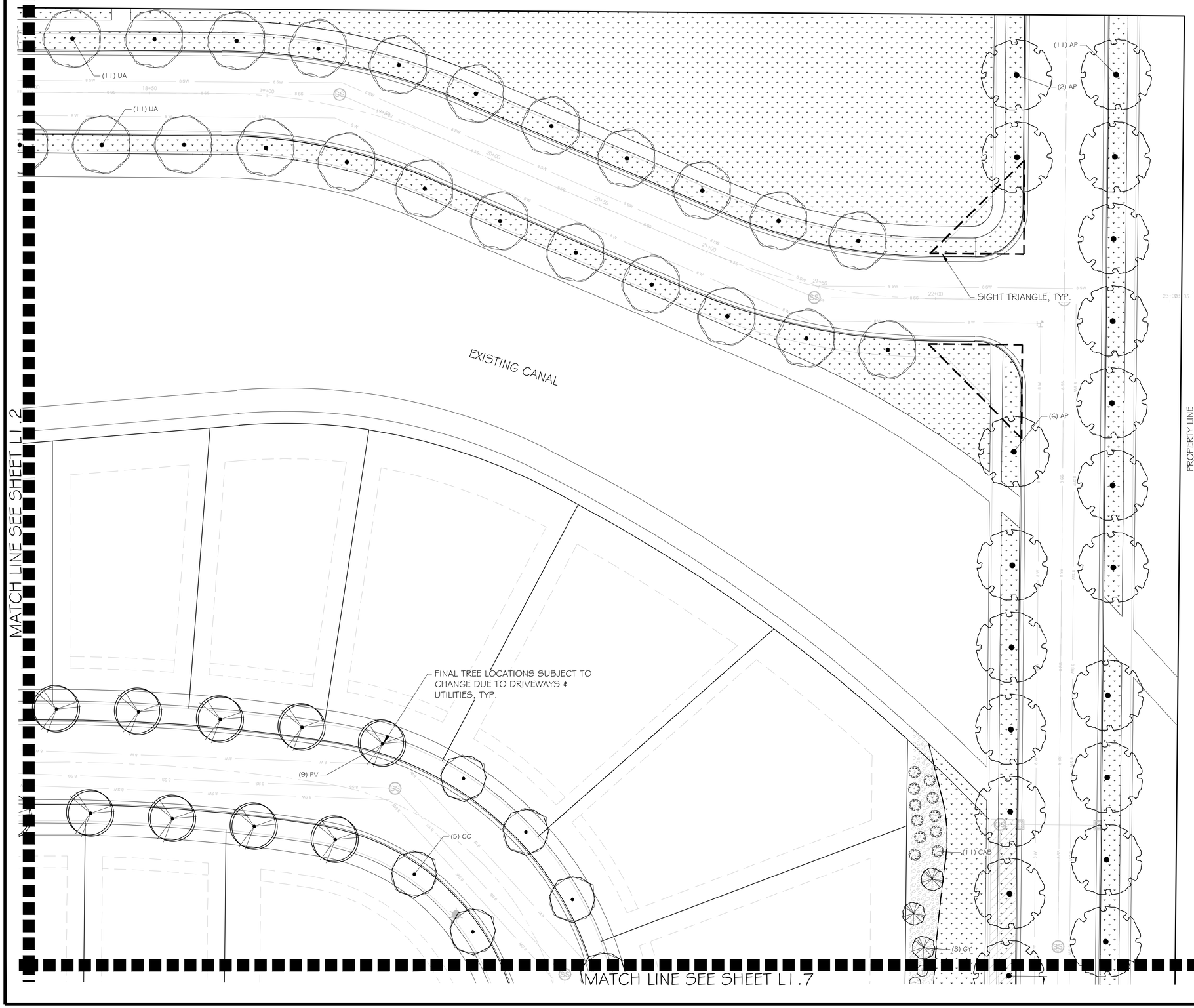

OVERALL PHASES 2-3 PLANT SCHEDULE

	CODE	BOTANICAL NAME	COMMON NAME
TREES			
	AP	Acer platanoides	Norway Maple
	AX	Acer x freemanii	Freeman Maple
	SB	Amelanchier x grandiflora	Serviceberry
	CC	Cercis canadensis	Eastern Redbud
	CF	Cornus florida	Flowering Dogwood
	GY	Ginkgo biloba 'JN9' TM	Sky Tower Ginkgo
	JW	Juniperus scopulorum 'Wichita Blue'	Wichita Blue Juniper
	MS	Malus x 'Spring Snow'	Spring Snow Crabapple
	PF	Pinus aristata 'Formal Form'	Formal Form Bristlecone Pine
	PV	Prunus virginiana 'Canada Red'	Canada Red Chokecherry
	PJ	Pyrus calleryana 'Jaczam' TM	Jack Callery Pear
	QR	Quercus robur	English Oak
	UA	Ulmus x 'Accolade'	Accolade Elm
SHRUBS			
	AMG	Aronia melanocarpa 'UCONNAM012' TM	Ground Hug Black Chokeberry
	BTC	Berberis thunbergii 'Concorde'	Concorde Japanese Barberry
	BG	Berberis thunbergii 'Gonzam' TM	Golden Ruby Japanese Barberry
	BDH	Buddleja davidii 'Buzz Hot Raspberry'	Hot Raspberry Butterfly Bush
	BGM	Buxus x 'Green Mountain'	Green Mountain Boxwood
	CAB	Cornus alba 'Bailhalo' TM	Ivory Halo Dogwood
	CSK	Cornus sericea 'Kelseyi'	Kelsey's Dwarf Red Twig Dogw
	EAC	Euonymus alatus 'Grove Compactus'	Grove Compact Burning Bush
	POL	Physocarpus opulifolius 'Donna May' TM	Little Devil Ninebark
	PMM	Pinus mugo var. pumilio	Dwarf Mugo Pine
	PLC	Prunus laurocerasus 'Chestnut Hill'	Chestnut Hill English Laurel
	SSS	Sorbaria sorbifolia 'Sem'	Sem Ash Leaf Spirea
	SJD	Spiraea japonica 'Double Play Doozie'	Doozie Spirea
	SBL	Syringa x 'SMSJBP7' 'Bloomerang'	Bloomerang Dark Purple Lilac
	VCS	Viburnum carlesii 'SMVCB' TM	Spice Baby Koreanspice Viburn
ORNAMENTAL GRASSES			
	CAK	Calamagrostis x acutiflora 'Karl Foerster'	Karl Foerster Feather Reed Gra
	HSS	Helictotrichon sempervirens 'Sapphire'	Sapphire Blue Oat Grass
	MSG	Miscanthus sinensis 'Gold Bar'	Gold Bar Eulalia Grass
	PAH	Pennisetum alopecuroides 'Hameln'	Hameln Fountain Grass
PERENNIALS			
	HSO	Hemerocallis x 'Stella de Oro'	Stella de Oro Daylily
	PAL	Perovskia atriplicifolia 'Little Spire'	Little Spire Russian Sage
SYMBOL	**CODE**	**BOTANICAL NAME**	**COMMON NAME**
GROUND COVERS			
	KB	Poa pratensis	Kentucky Bluegrass

OVERALL PHASES 2-3 REFERENCE NOTES

SYMBOL	DESCRIPTION
1	RIVER ROCK, SIZE 2"
2	PLAYGROUND WOOD MULCH, 14" DEPTH
3	STEEL EDGING, TBD.
4	PICNIC SHELTER, T.B.D.
5	PLAYGROUND STRUCTURE, T.B.D.
6	BENCH, TBD.

NOTE:
REFERENCE SHEET L1.11 FOR DETAILS AND SEPARATE LANDSCAPE TABULATION CHARTS & SCHEDULES FOR PHASES 2&3.

N

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GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
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TALEGA VILLAGE PHASE 3
STAR CITY, IDAHO
LANDSCAPE PLAN

REVISION BLOCK

#	DATE	DESCRIPTION
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LANDSCAPE PLAN

Scale:	1"=20'	Drawn:	BW
Date:	11/29/2023	Job #:	21-0488
Sheet:	L1.3		

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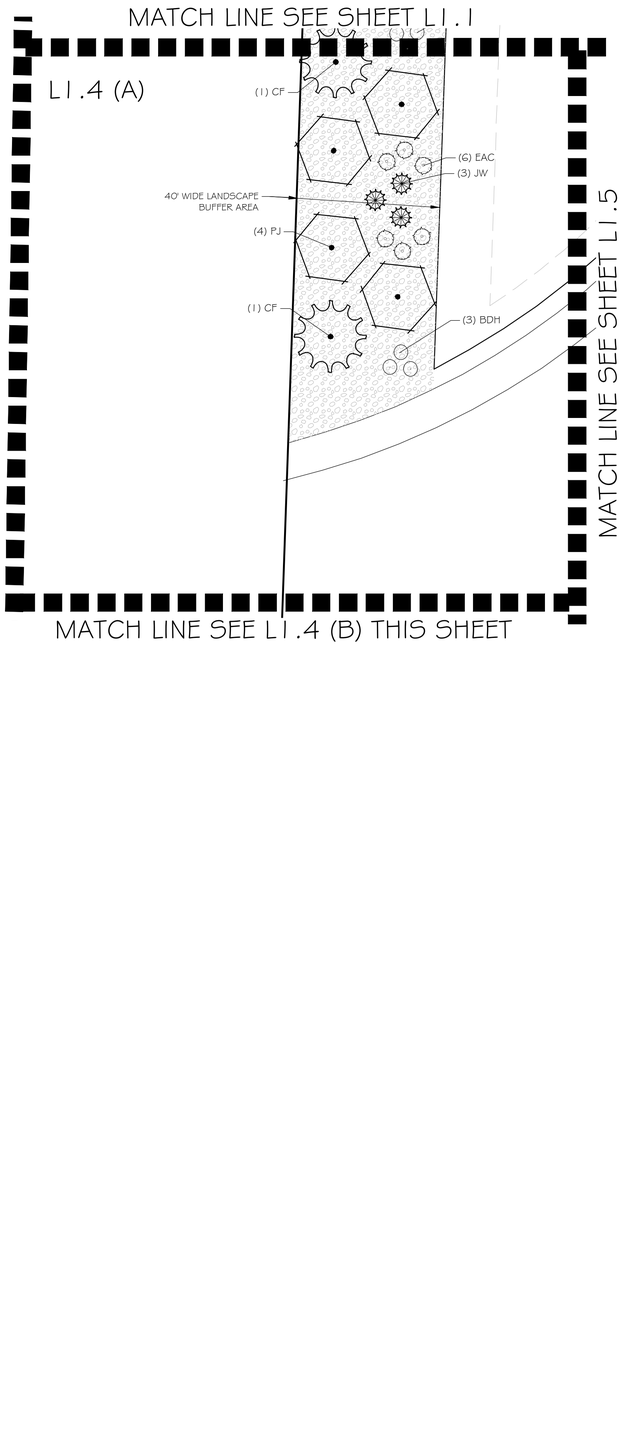

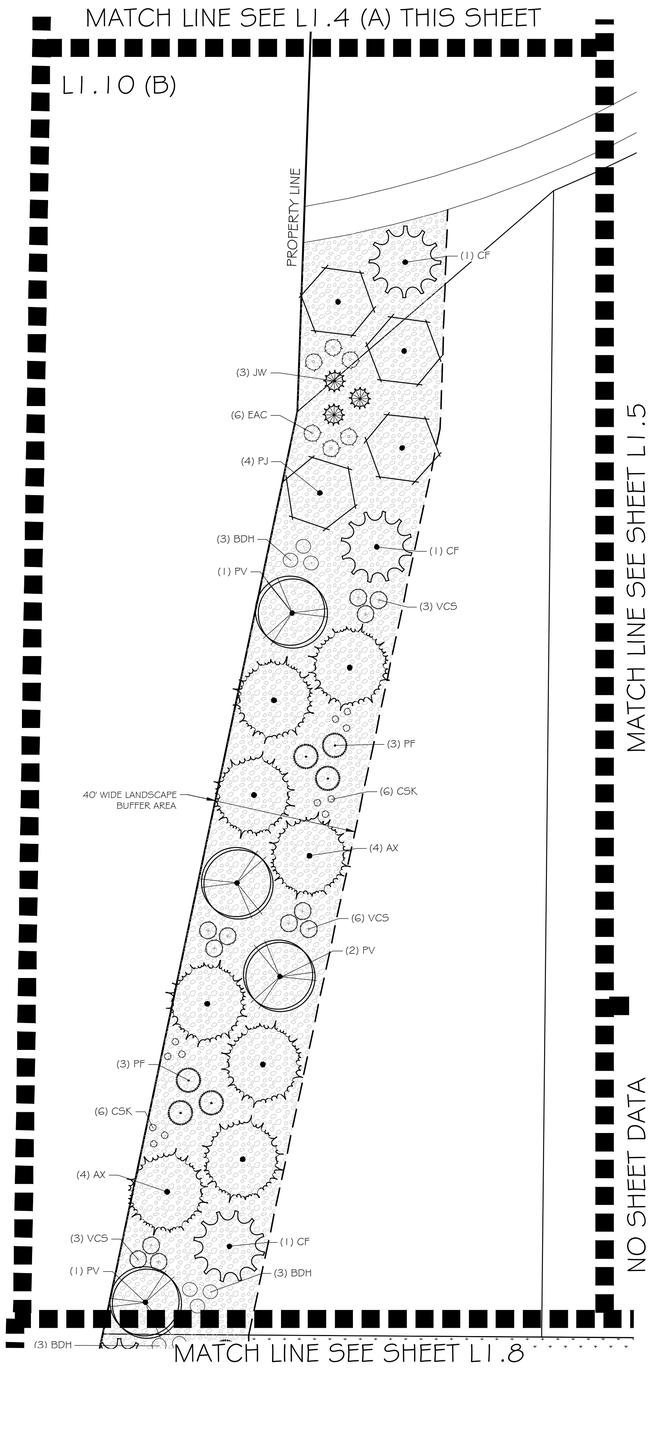

OVERALL PHASES 2-3 PLANT SCHEDULE

	CODE	BOTANICAL NAME	COMMON NAME
TREES			
	AP	Acer platanoides	Norway Maple
	AX	Acer x freemanii	Freeman Maple
	SB	Amelanchier x grandiflora	Serviceberry
	CC	Cercis canadensis	Eastern Redbud
	CF	Cornus florida	Flowering Dogwood
	GY	Ginkgo biloba 'JN9' TM	Sky Tower Ginkgo
	JW	Juniperus scopulorum 'Wichita Blue'	Wichita Blue Juniper
	MS	Malus x `Spring Snow`	Spring Snow Crabapple
	PF	Pinus aristata 'Formal Form'	Formal Form Bristlecone Pine
	PV	Prunus virginiana `Canada Red`	Canada Red Chokecherry
	PJ	Pyrus calleryana 'Jaczam' TM	Jack Callery Pear
	QR	Quercus robur	English Oak
	UA	Ulmus x `Accolade`	Accolade Elm
SHRUBS			
	AMG	Aronia melanocarpa `UCONNAMO12` TM	Ground Hug Black Chokeberry
	BTC	Berberis thunbergii `Concorde`	Concorde Japanese Barberry
	BG	Berberis thunbergii 'Goruzam' TM	Golden Ruby Japanese Barberry
	BDH	Buddleja davidii `Buzz Hot Raspberry`	Hot Raspberry Butterfly Bush
	BGM	Buxus x `Green Mountain`	Green Mountain Boxwood
	CAB	Cornus alba `Bailhalo` TM	Ivory Halo Dogwood
	CSK	Cornus sericea `Kelseyi`	Kelsey's Dwarf Red Twig Dogwood
	EAC	Euonymus alatus 'Grove Compactus'	Grove Compact Burning Bush
	POL	Physocarpus opulifolius `Donna May` TM	Little Devil Ninebark
	PMM	Pinus mugo var. pumilio	Dwarf Mugo Pine
	PLC	Prunus laurocerasus `Chestnut Hill`	Chestnut Hill English Laurel
	SSS	Sorbaria sorbifolia `Sem`	Sem Ash Leaf Spirea
	SJD	Spiraea japonica `Double Play Doozie`	Doozie Spirea
	SBL	Syringa x `SMSJBP7` `Bloomerang`	Bloomerang Dark Purple Lilac
	VCS	Viburnum carlesii 'SMVCB' TM	Spice Baby Koreanspice Viburnum
ORNAMENTAL GRASSES			
	CAK	Calamagrostis x acutiflora `Karl Foerster`	Karl Foerster Feather Reed Grass
	HSS	Helictotrichon sempervirens `Sapphire`	Sapphire Blue Oat Grass
	MSG	Miscanthus sinensis `Gold Bar`	Gold Bar Eulalia Grass
	PAH	Pennisetum alopecuroides `Hameln`	Hameln Fountain Grass
PERENNIALS			
	HSO	Hemerocallis x `Stella de Oro`	Stella de Oro Daylily
	PAL	Perovskia atriplicifolia `Little Spire`	Little Spire Russian Sage

SYMBOL	CODE	BOTANICAL NAME	COMMON NAME
GROUND COVERS			
	KB	Poa pratensis	Kentucky Bluegrass

OVERALL PHASES 2-3 REFERENCE NOTES SCHEDULE

SYMBOL	DESCRIPTION
1	RIVER ROCK, SIZE 2"
2	PLAYGROUND WOOD MULCH, 14" DEPTH
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6	BENCH, TBD.

NOTE:
REFERENCE SHEET L1.11 FOR DETAILS AND SEPARATE LANDSCAPE TABULATION CHARTS & SCHEDULES FOR PHASES 2&3.

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GRAPHIC SCALE

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TALEGA VILLAGE PHASE 3
STAR CITY, IDAHO
LANDSCAPE PLAN

REVISION BLOCK

#	DATE	DESCRIPTION
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LANDSCAPE PLAN

Scale:	1"=20'	Drawn:	BW
Date:	11/29/2023	Job #:	21-0488
Sheet:	L1.4		

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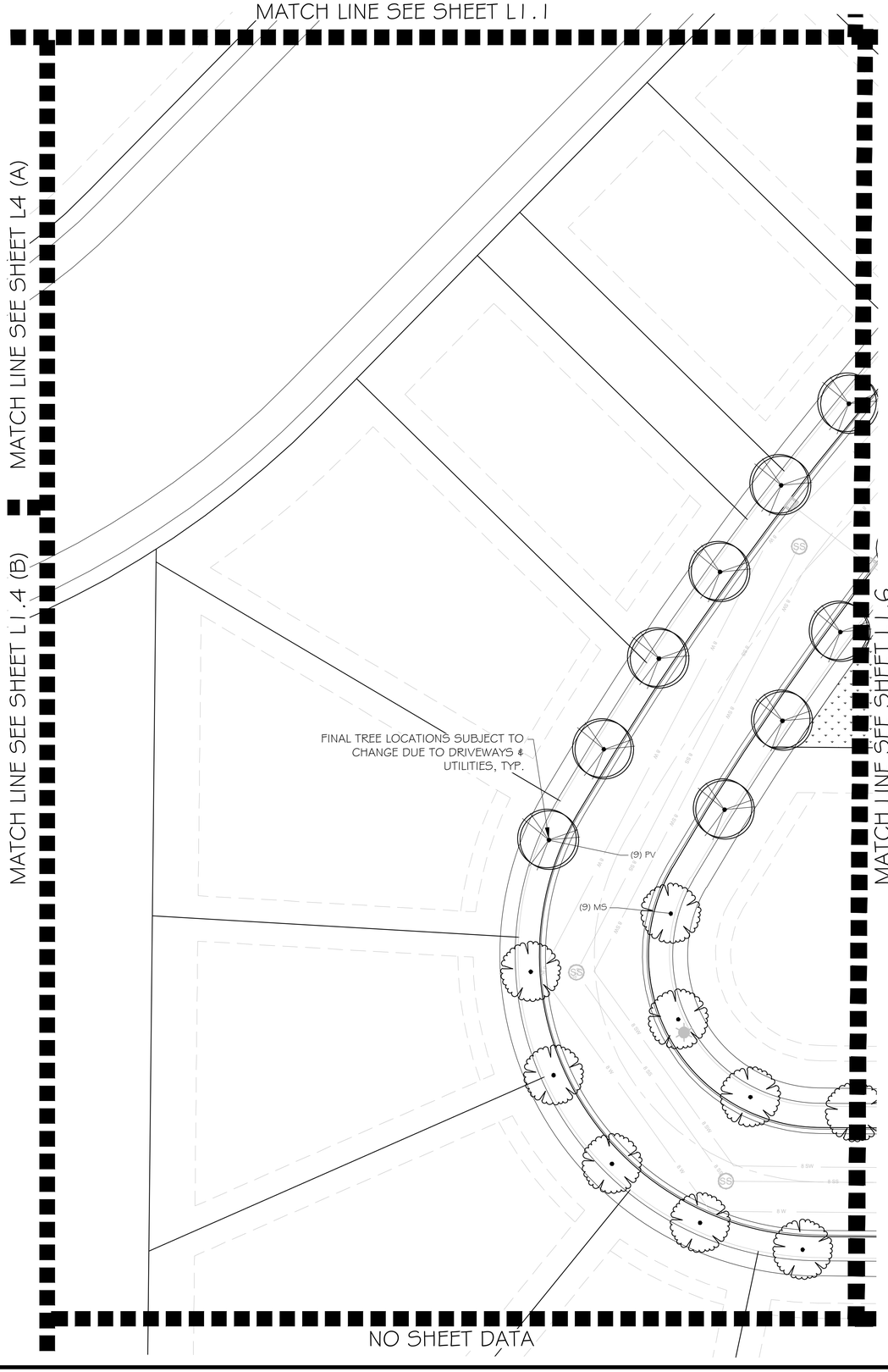

OVERALL PHASES 2-3 PLANT SCHEDULE

	CODE	BOTANICAL NAME	COMMON NAME
TREES			
	AP	Acer platanoides	Norway Maple
	AX	Acer x freemanii	Freeman Maple
	SB	Amelanchier x grandiflora	Serviceberry
	CC	Cercis canadensis	Eastern Redbud
	CF	Cornus florida	Flowering Dogwood
	GY	Ginkgo biloba 'JN9' TM	Sky Tower Ginkgo
	JW	Juniperus scopulorum 'Wichita Blue'	Wichita Blue Juniper
	MS	Malus x `Spring Snow`	Spring Snow Crabapple
	PF	Pinus aristata 'Formal Form'	Formal Form Bristlecone Pine
	PV	Prunus virginiana `Canada Red`	Canada Red Chokecherry
	PJ	Pyrus calleryana 'Jaczam' TM	Jack Callery Pear
	QR	Quercus robur	English Oak
	UA	Ulmus x `Accolade`	Accolade Elm
SHRUBS			
	AMG	Aronia melanocarpa `UCONNAM012` TM	Ground Hug Black Chokeberry
	BTC	Berberis thunbergii `Concorde`	Concorde Japanese Barberry
	BG	Berberis thunbergii 'Goruzam' TM	Golden Ruby Japanese Barberry
	BDH	Buddleja davidii `Buzz Hot Raspberry`	Hot Raspberry Butterfly Bush
	BGM	Buxus x `Green Mountain`	Green Mountain Boxwood
	CAB	Cornus alba `Bailhalo` TM	Ivory Halo Dogwood
	CSK	Cornus sericea `Kelseyi`	Kelsey`s Dwarf Red Twig Dogwood
	EAC	Euonymus alatus 'Grove Compactus'	Grove Compact Burning Bush
	POL	Physocarpus opulifolius `Donna May` TM	Little Devil Ninebark
	PMM	Pinus mugo var. pumilio	Dwarf Mugo Pine
	PLC	Prunus laurocerasus `Chestnut Hill`	Chestnut Hill English Laurel
	SSS	Sorbaria sorbifolia `Sem`	Sem Ash Leaf Spirea
	SJD	Spiraea japonica `Double Play Doozie`	Doozie Spirea
	SBL	Syringa x `SMSJBP7` `Bloomerang`	Bloomerang Dark Purple Lilac
	VCS	Viburnum carlesii 'SMVCB' TM	Spice Baby Koreanspice Viburnum
ORNAMENTAL GRASSES			
	CAK	Calamagrostis x acutiflora `Karl Foerster`	Karl Foerster Feather Reed Grass
	HSS	Helictotrichon sempervirens `Sapphire`	Sapphire Blue Oat Grass
	MSG	Miscanthus sinensis `Gold Bar`	Gold Bar Eulalia Grass
	PAH	Pennisetum alopecuroides `Hameln`	Hameln Fountain Grass
PERENNIALS			
	HSO	Hemerocallis x `Stella de Oro`	Stella de Oro Daylily
	PAL	Perovskia atriplicifolia `Little Spire`	Little Spire Russian Sage
SYMBOL	**CODE**	**BOTANICAL NAME**	**COMMON NAME**
GROUND COVERS			
	KB	Poa pratensis	Kentucky Bluegrass

OVERALL PHASES 2-3 REFERENCE NOTES SCHEDULE

SYMBOL	DESCRIPTION
1	RIVER ROCK, SIZE 2"
2	PLAYGROUND WOOD MULCH, 14" DEPTH
3	STEEL EDGING, TBD.
4	PICNIC SHELTER, T.B.D.
5	PLAYGROUND STRUCTURE, T.B.D.
6	BENCH, TBD.

NOTE:
REFERENCE SHEET L1.11 FOR DETAILS AND SEPARATE LANDSCAPE TABULATION CHARTS & SCHEDULES FOR PHASES 2&3.

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GRAPHIC SCALE

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TALEGA VILLAGE PHASE 3
STAR CITY, IDAHO
LANDSCAPE PLAN

REVISION BLOCK

#	DATE	DESCRIPTION
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LANDSCAPE PLAN

Scale:	1"=20'	Drawn:	BW
Date:	11/29/2023	Job #:	21-0488
Sheet:	L1.5		

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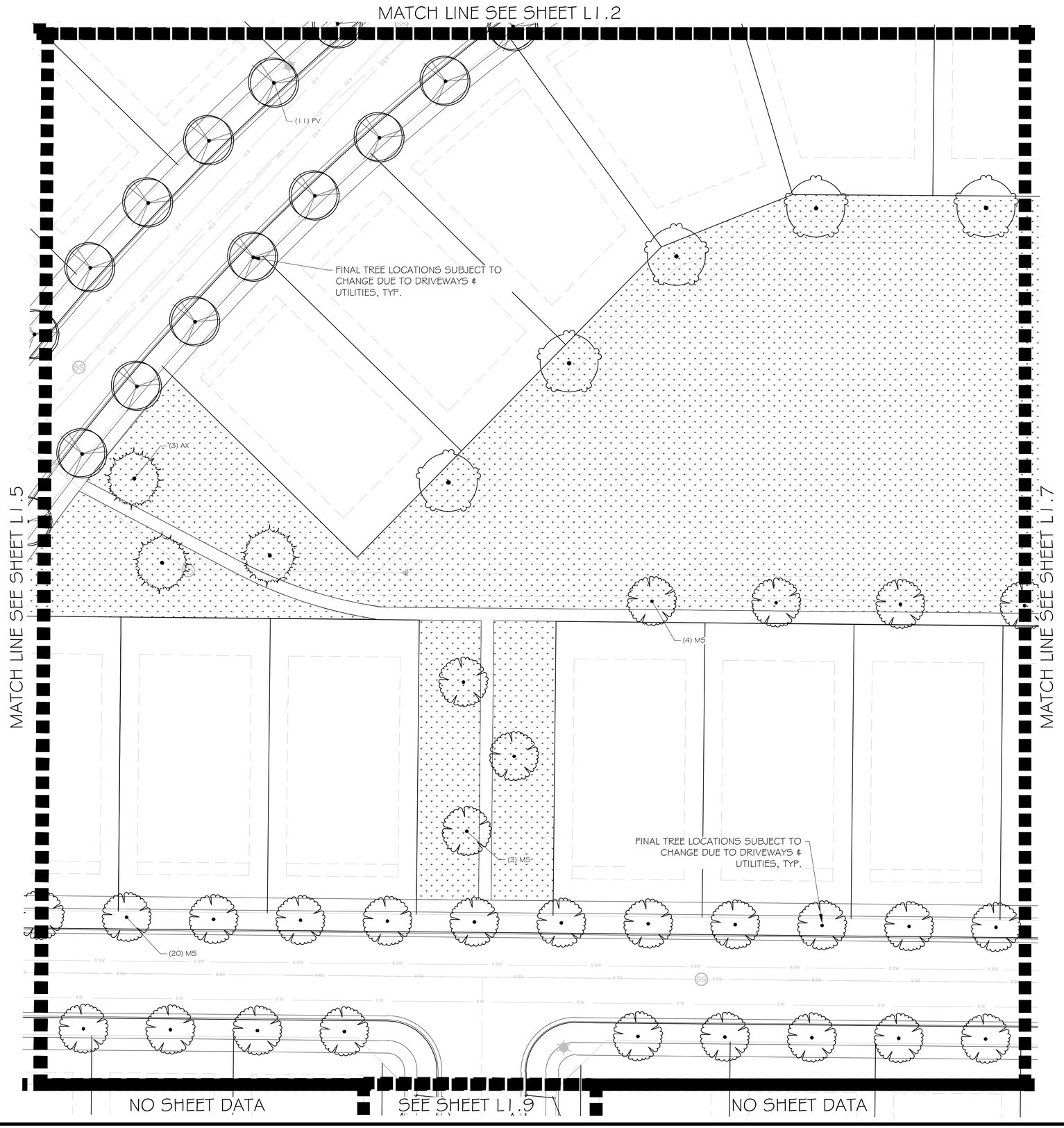

OVERALL PHASES 2-3 PLANT SCHEDULE

	CODE	BOTANICAL NAME	COMMON NAME
TREES			
	AP	Acer platanoides	Norway Maple
	AX	Acer x freemanii	Freeman Maple
	SB	Amelanchier x grandiflora	Serviceberry
	CC	Cercis canadensis	Eastern Redbud
	CF	Cornus florida	Flowering Dogwood
	GY	Ginkgo biloba 'JN9' TM	Sky Tower Ginkgo
	JW	Juniperus scopulorum 'Wichita Blue'	Wichita Blue Juniper
	MS	Malus x `Spring Snow`	Spring Snow Crabapple
	PF	Pinus aristata 'Formal Form'	Formal Form Bristlecone Pine
	PV	Prunus virginiana `Canada Red`	Canada Red Chokecherry
	PJ	Pyrus calleryana 'Jaczam' TM	Jack Gallery Pear
	QR	Quercus robur	English Oak
	UA	Ulmus x `Accolade`	Accolade Elm
SHRUBS			
	AMG	Aronia melanocarpa `UCONNAM012` TM	Ground Hug Black Chokeberry
	BTC	Berberis thunbergii `Concorde`	Concorde Japanese Barberry
	BG	Berberis thunbergii 'Goruzam' TM	Golden Ruby Japanese Barberry
	BDH	Buddleja davidii `Buzz Hot Raspberry`	Hot Raspberry Butterfly Bush
	BGM	Buxus x `Green Mountain`	Green Mountain Boxwood
	CAB	Cornus alba `Bailhalo` TM	Ivory Halo Dogwood
	CSK	Cornus sericea `Kelseyi`	Kelsey's Dwarf Red Twig Dogwood
	EAC	Euonymus alatus 'Grove Compactus'	Grove Compact Burning Bush
	POL	Physocarpus opulifolius `Donna May` TM	Little Devil Ninebark
	PMM	Pinus mugo var. pumilio	Dwarf Mugo Pine
	PLC	Prunus laurocerasus `Chestnut Hill`	Chestnut Hill English Laurel
	SSS	Sorbaria sorbifolia `Sem`	Sem Ash Leaf Spirea
	SJD	Spiraea japonica `Double Play Doozie`	Doozie Spirea
	SBL	Syringa x `SMSJBP7` `Bloomerang`	Bloomerang Dark Purple Lilac
	VCS	Viburnum carlesii 'SMVCB' TM	Spice Baby Koreanspice Viburnum
ORNAMENTAL GRASSES			
	CAK	Calamagrostis x acutiflora `Karl Foerster`	Karl Foerster Feather Reed Grass
	HSS	Helictotrichon sempervirens `Sapphire`	Sapphire Blue Oat Grass
	MSG	Miscanthus sinensis `Gold Bar`	Gold Bar Eulalia Grass
	PAH	Pennisetum alopecuroides `Hameln`	Hameln Fountain Grass
PERENNIALS			
	HSO	Hemerocallis x `Stella de Oro`	Stella de Oro Daylily
	PAL	Perovskia atriplicifolia `Little Spire`	Little Spire Russian Sage

SYMBOL	CODE	BOTANICAL NAME	COMMON NAME
GROUND COVERS			
	KB	Poa pratensis	Kentucky Bluegrass

OVERALL PHASES 2-3 REFERENCE NOTES SCHEDULE

SYMBOL	DESCRIPTION
1	RIVER ROCK, SIZE 2"
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NOTE:
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GRAPHIC SCALE

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LANDSCAPE PLAN

Scale:	1"=20'	Drawn:	BW
Date:	11/29/2023	Job #:	21-0488
Sheet:	L1.6		

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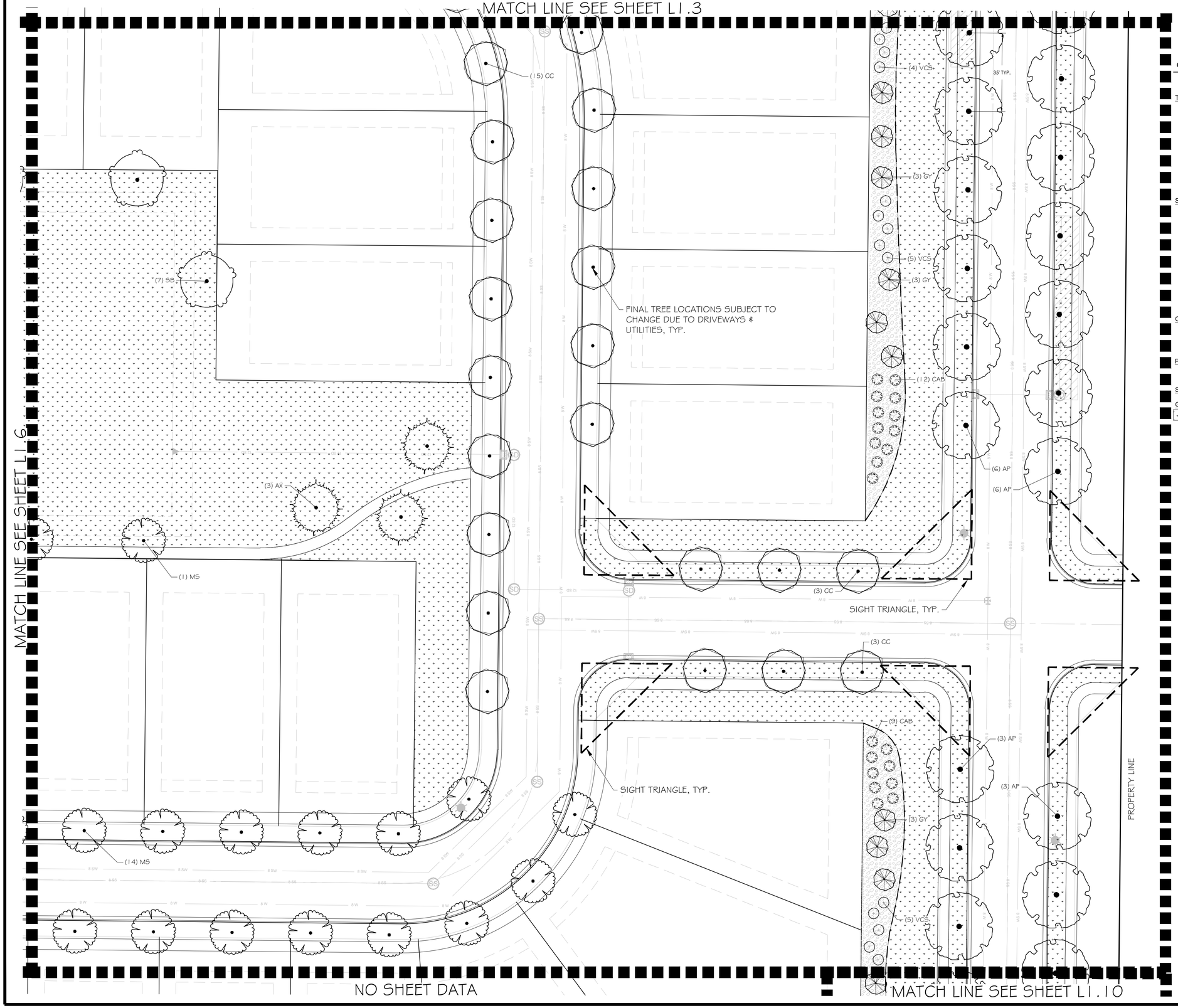

OVERALL PHASES 2-3 PLANT SCHEDULE

	CODE	BOTANICAL NAME	COMMON NAME
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	GY	Ginkgo biloba 'UNP' TM	Sky Tower Ginkgo
	JW	Juniperus scopulorum 'Wichita Blue'	Wichita Blue Juniper
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	BGM	Buxus x 'Green Mountain'	Green Mountain Boxwood
	CAB	Cornus alba 'Bailhalo' TM	Ivory Halo Dogwood
	CSK	Cornus sericea 'Kelseys'	Kelsey's Dwarf Red Twig Dogwoo
	EAC	Euonymus alatus 'Grove Compactus'	Grove Compact Burning Bush
	POL	Physocarpus opulifolius 'Donna May' TM	Little Devil Ninebark
	PMM	Pinus mugo var. pumilio	Dwarf Mugo Pine
	PLC	Prunus laurocerasus 'Chestnut Hill'	Chestnut Hill English Laurel
	SSS	Sorbaria sorbifolia 'Sem'	Sem Ash Leaf Spirea
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SYMBOL	**CODE**	**BOTANICAL NAME**	**COMMON NAME**
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OVERALL PHASES 2-3 REFERENCE NOTES

SYMBOL	DESCRIPTION
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REVISION BLOCK		
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LANDSCAPE PLAN

Scale:	1"=20'	Drawn:	BW
Date:	11/29/2023	Job #:	21-0488
Sheet:	L1.7		

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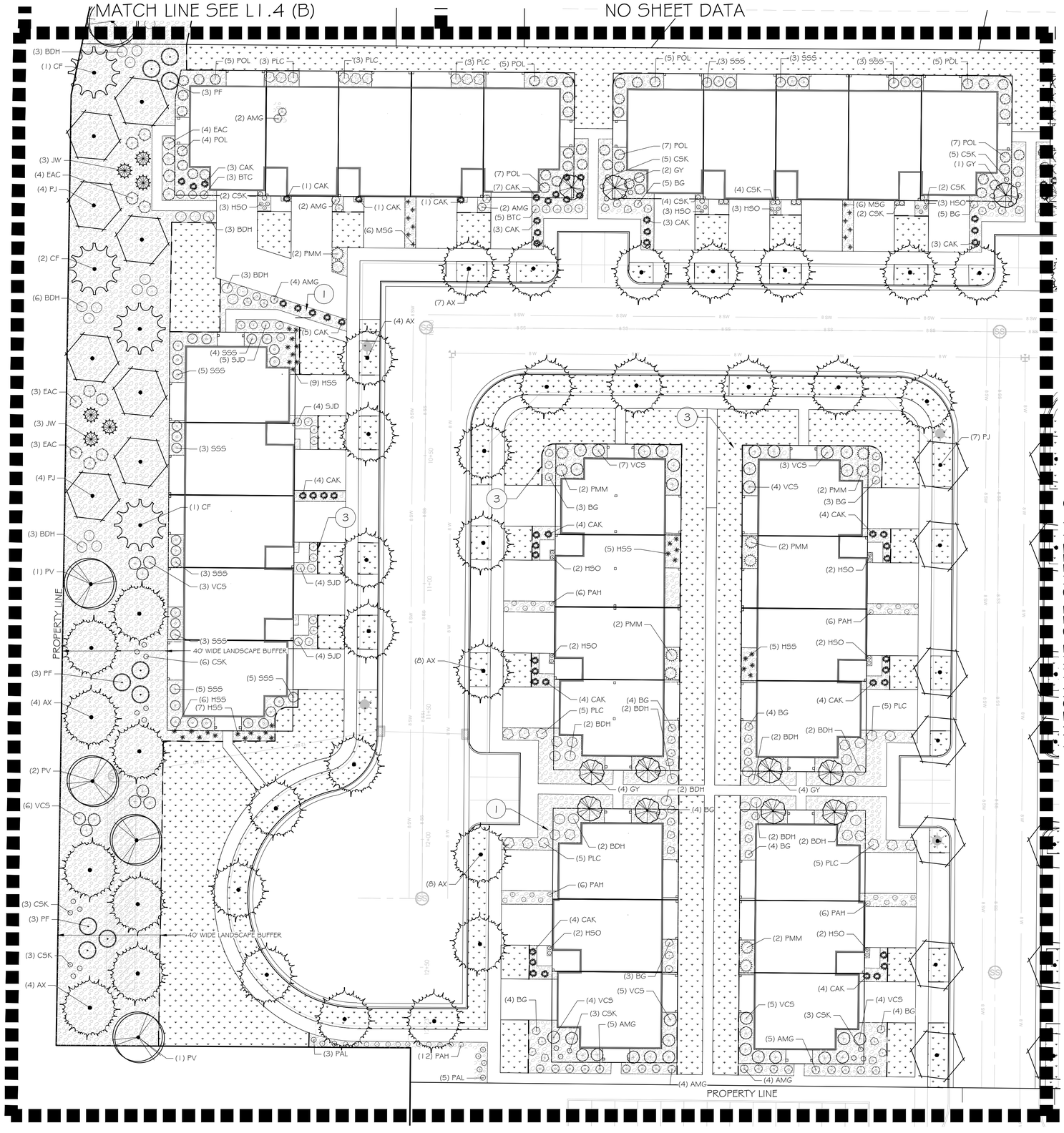

OVERALL PHASES 2-3 PLANT SCHEDULE

	CODE	BOTANICAL NAME	COMMON NAME
TREES			
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	PMM	Pinus mugo var. pumilio	Dwarf Mugo Pine
	PLC	Prunus laurocerasus `Chestnut Hill`	Chestnut Hill English Laurel
	SSS	Sorbaria sorbifolia `Sem`	Sem Ash Leaf Spirea
	SJD	Spiraea japonica `Double Play Doozie`	Doozie Spirea
	SBL	Syringa x `SMSJBP7` `Bloomerang`	Bloomerang Dark Purple Lilac
	VCS	Viburnum carlesii 'SMVCB' TM	Spice Baby Koreanspice Viburnum
ORNAMENTAL GRASSES			
	CAK	Calamagrostis x acutiflora `Karl Foerster`	Karl Foerster Feather Reed Grass
	HSS	Helictotrichon sempervirens `Sapphire`	Sapphire Blue Oat Grass
	MSG	Miscanthus sinensis `Gold Bar`	Gold Bar Eulalia Grass
	PAH	Pennisetum alopecuroides `Hameln`	Hameln Fountain Grass
PERENNIALS			
	HSO	Hemerocallis x `Stella de Oro`	Stella de Oro Daylily
	PAL	Perovskia atriplicifolia `Little Spire`	Little Spire Russian Sage

SYMBOL	CODE	BOTANICAL NAME	COMMON NAME
GROUND COVERS			
	KB	Poa pratensis	Kentucky Bluegrass

OVERALL PHASES 2-3 REFERENCE NOTES SCHEDULE

SYMBOL	DESCRIPTION
1	RIVER ROCK, SIZE 2"
2	PLAYGROUND WOOD MULCH, 14" DEPTH
3	STEEL EDGING, TBD.
4	PICNIC SHELTER, T.B.D.
5	PLAYGROUND STRUCTURE, T.B.D.
6	BENCH, TBD.

NOTE:
REFERENCE SHEET L1.11 FOR DETAILS AND SEPARATE LANDSCAPE TABULATION CHARTS & SCHEDULES FOR PHASES 2&3.

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GRAPHIC SCALE

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(IN FEET)
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TALEGA VILLAGE PHASE 2
STAR CITY, IDAHO
LANDSCAPE PLAN

REVISION BLOCK		
#	DATE	DESCRIPTION
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LANDSCAPE PLAN

Scale:	1"=20'	Drawn:	BW
Date:	11/29/2023	Job #:	21-0488
Sheet:	L1.8		

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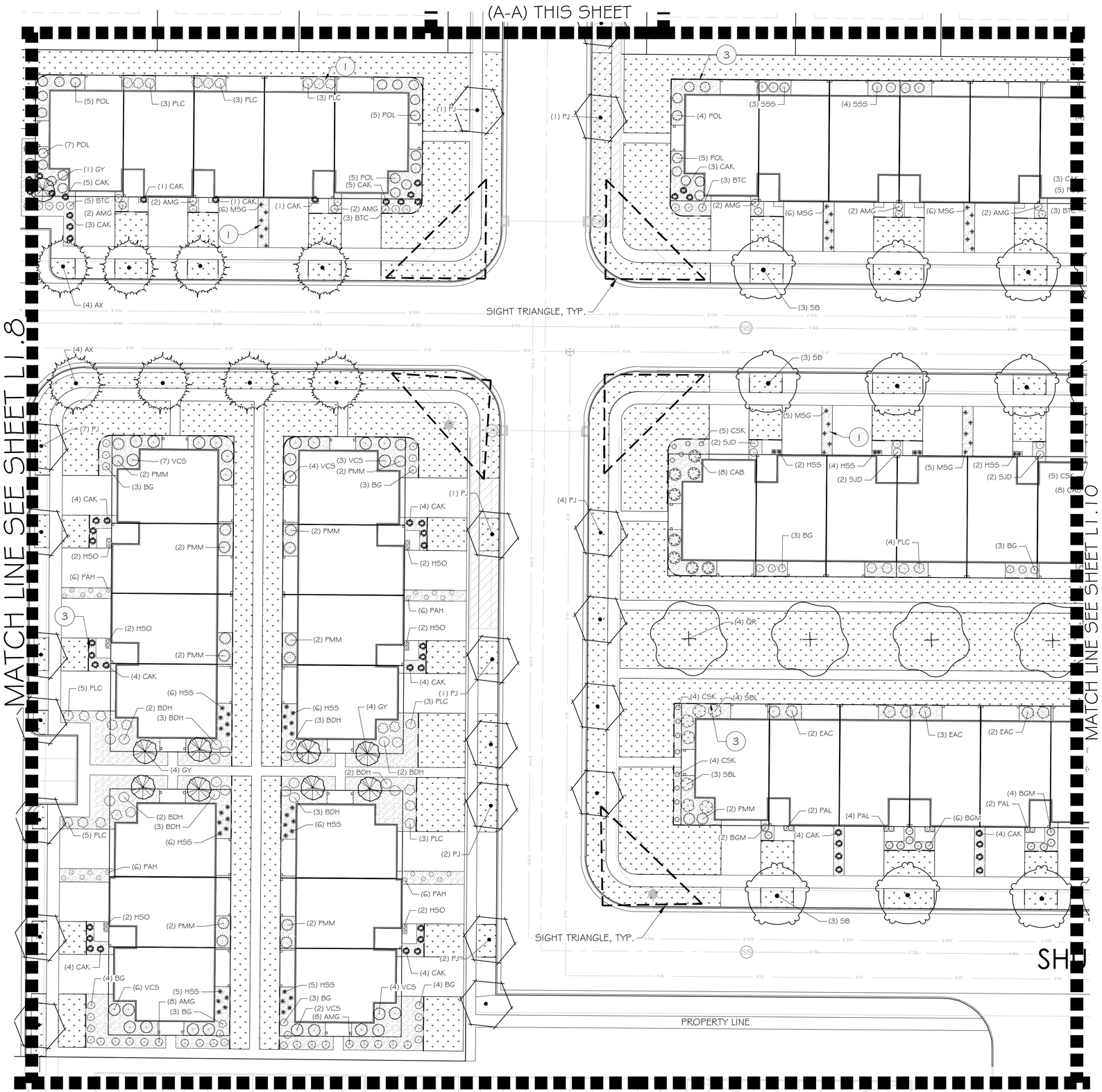

OVERALL PHASES 2-3 PLANT SCHEDULE

	CODE	BOTANICAL NAME	COMMON NAME
TREES			
	AP	Acer platanoides	Norway Maple
	AX	Acer x freemanii	Freeman Maple
	SB	Amelanchier x grandiflora	Serviceberry
	CC	Cercis canadensis	Eastern Redbud
	CF	Cornus florida	Flowering Dogwood
	GY	Ginkgo biloba 'JN9' TM	Sky Tower Ginkgo
	JW	Juniperus scopulorum 'Wichita Blue'	Wichita Blue Juniper
	MS	Malus x `Spring Snow`	Spring Snow Crabapple
	PF	Pinus aristata 'Formal Form'	Formal Form Bristlecone Pine
	PV	Prunus virginiana `Canada Red`	Canada Red Chokecherry
	PJ	Pyrus calleryana 'Jaczam' TM	Jack Gallery Pear
	QR	Quercus robur	English Oak
	UA	Ulmus x `Accolade`	Accolade Elm
SHRUBS			
	AMG	Aronia melanocarpa `UCONNAMO12` TM	Ground Hug Black Chokeberry
	BTC	Berberis thunbergii `Concorde`	Concorde Japanese Barberry
	BG	Berberis thunbergii 'Goruzam' TM	Golden Ruby Japanese Barberry
	BDH	Buddleja davidii `Buzz Hot Raspberry`	Hot Raspberry Butterfly Bush
	BGM	Buxus x `Green Mountain`	Green Mountain Boxwood
	CAB	Cornus alba `Bailhalo` TM	Ivory Halo Dogwood
	CSK	Cornus sencea `Kelseyi`	Kelsey`s Dwarf Red Twig Dogwood
	EAC	Euonymus alatus 'Grove Compactus'	Grove Compact Burning Bush
	POL	Physocarpus opulifolius `Donna May` TM	Little Devil Ninebark
	PMM	Pinus mugo var. pumilio	Dwarf Mugo Pine
	PLC	Prunus laurocerasus `Chestnut Hill`	Chestnut Hill English Laurel
	SSS	Sorbaria sorbifolia `Sem`	Sem Ash Leaf Spirea
	SJD	Spiraea japonica `Double Play Doozie`	Doozie Spirea
	SBL	Syringa x `SMSJBP7` `Bloomerang`	Bloomerang Dark Purple Lilac
	VCS	Viburnum carlesii 'SMVCB' TM	Spice Baby Koreanspice Viburnum
ORNAMENTAL GRASSES			
	CAK	Calamagrostis x acutiflora `Karl Foerster`	Karl Foerster Feather Reed Grass
	HSS	Helictotrichon sempervirens `Sapphire`	Sapphire Blue Oat Grass
	MSG	Miscanthus sinensis `Gold Bar`	Gold Bar Eulalia Grass
	PAH	Pennisetum alopecuroides `Hameln`	Hameln Fountain Grass
PERENNIALS			
	HSO	Hemerocallis x `Stella de Oro`	Stella de Oro Daylily
	PAL	Perovskia atriplicifolia `Little Spire`	Little Spire Russian Sage
SYMBOL	**CODE**	**BOTANICAL NAME**	**COMMON NAME**
GROUND COVERS			
	KB	Poa pratensis	Kentucky Bluegrass

OVERALL PHASES 2-3 REFERENCE NOTES SCHEDULE

SYMBOL	DESCRIPTION
1	RIVER ROCK, SIZE 2"
2	PLAYGROUND WOOD MULCH, 14" DEPTH
3	STEEL EDGING, TBD.
4	PICNIC SHELTER, T.B.D.
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6	BENCH, TBD.

NOTE:
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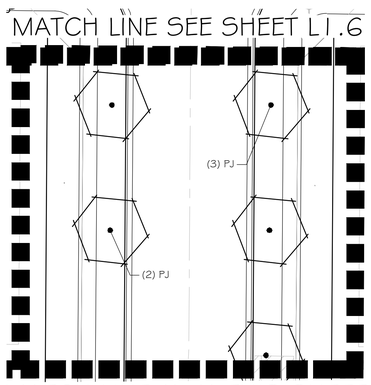

GRAPHIC SCALE

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LANDSCAPE PLAN

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LANDSCAPE PLAN

Scale:	1"=20'	Drawn:	BW
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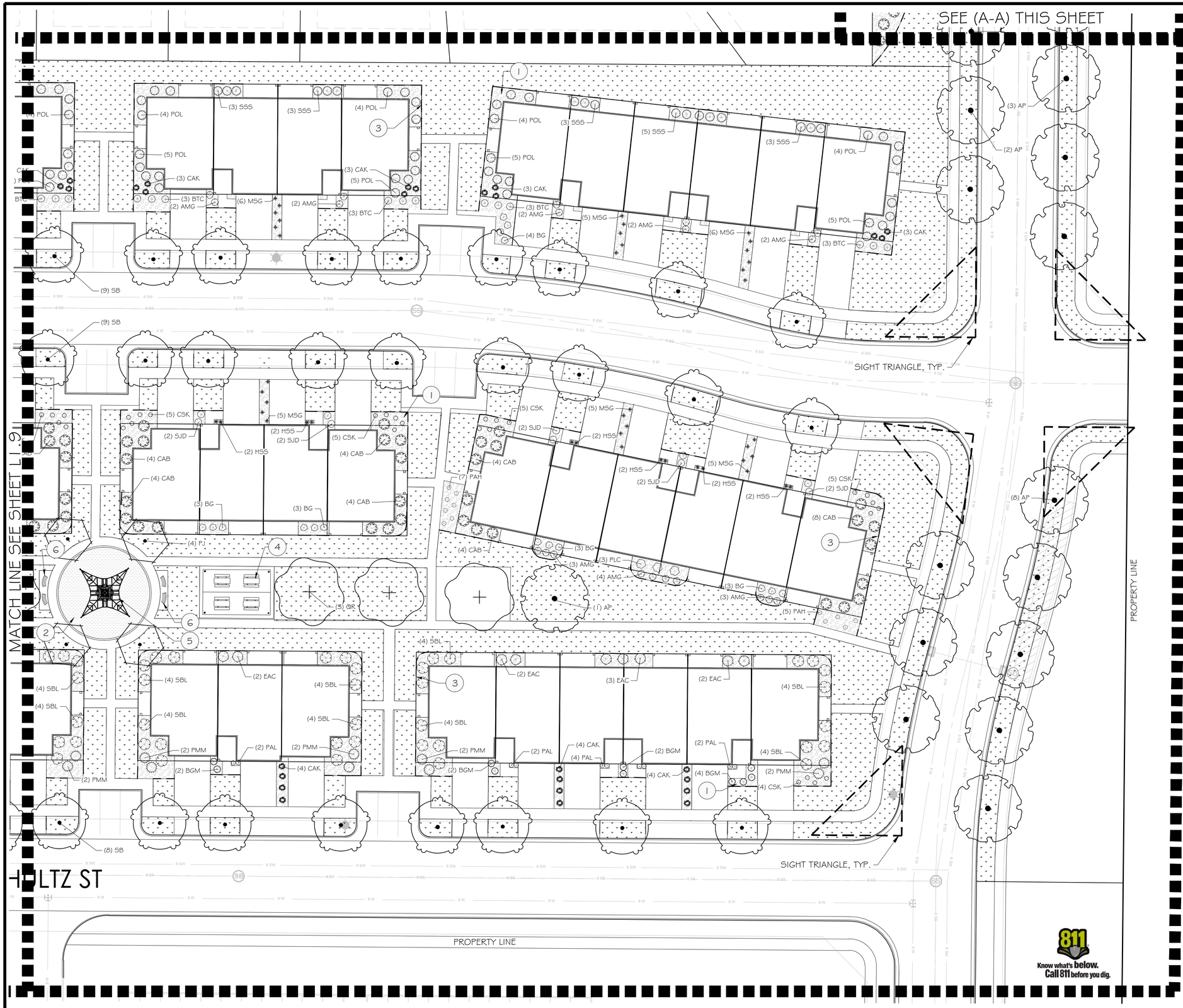

OVERALL PHASES 2-3 PLANT SCHEDULE

	CODE	BOTANICAL NAME	COMMON NAME
TREES			
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	AX	Acer x freemanii	Freeman Maple
	SB	Amelanchier x grandiflora	Serviceberry
	CC	Cercis canadensis	Eastern Redbud
	CF	Cornus florida	Flowering Dogwood
	GY	Ginkgo biloba 'JN9' TM	Sky Tower Ginkgo
	JW	Juniperus scopulorum 'Wichita Blue'	Wichita Blue Juniper
	MS	Malus x `Spring Snow`	Spring Snow Crabapple
	PF	Pinus aristata 'Formal Form'	Formal Form Bristlecone Pine
	PV	Prunus virginiana `Canada Red`	Canada Red Chokecherry
	PJ	Pyrus calleryana 'Jaczam' TM	Jack Gallery Pear
	QR	Quercus robur	English Oak
	UA	Ulmus x `Accolade`	Accolade Elm
SHRUBS			
	AMG	Aronia melanocarpa `UCONNAM012` TM	Ground Hug Black Chokeberry
	BTC	Berberis thunbergii `Concorde`	Concorde Japanese Barberry
	BG	Berberis thunbergii 'Gonzam' TM	Golden Ruby Japanese Barberry
	BDH	Buddleja davidii `Buzz Hot Raspberry`	Hot Raspberry Butterfly Bush
	BGM	Buxus x `Green Mountain`	Green Mountain Boxwood
	CAB	Cornus alba `Bailhalo` TM	Ivory Halo Dogwood
	CSK	Cornus sericea `Kelseys`	Kelsey's Dwarf Red Twig Dogwood
	EAC	Euonymus alatus 'Grove Compactus'	Grove Compact Burning Bush
	POL	Physocarpus opulifolius `Donna May` TM	Little Devil Ninebark
	PMM	Pinus mugo var. pumilio	Dwarf Mugo Pine
	PLC	Prunus laurocerasus `Chestnut Hill`	Chestnut Hill English Laurel
	SSS	Sorbaria sorbifolia `Sem`	Sem Ash Leaf Spirea
	SJD	Spiraea japonica `Double Play Doozie`	Doozie Spirea
	SBL	Syringa x `SMSJBP7` `Bloomerang`	Bloomerang Dark Purple Lilac
	VCS	Viburnum carlesii 'SMVCB' TM	Spice Baby Koreanspice Viburnum
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	HSS	Helictotrichon sempervirens `Sapphire`	Sapphire Blue Oat Grass
	MSG	Miscanthus sinensis `Gold Bar`	Gold Bar Eulalia Grass
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PERENNIALS			
	HSO	Hemerocallis x `Stella de Oro`	Stella de Oro Daylily
	PAL	Perovskia atriplicifolia `Little Spire`	Little Spire Russian Sage
SYMBOL	**CODE**	**BOTANICAL NAME**	**COMMON NAME**
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OVERALL PHASES 2-3 REFERENCE NOTES

SYMBOL	DESCRIPTION
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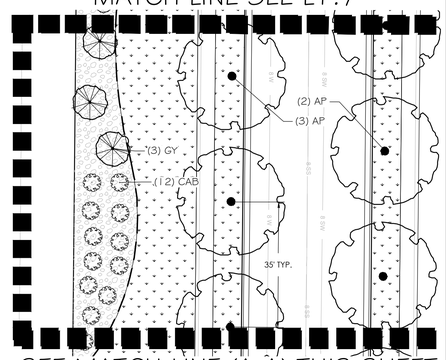

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LANDSCAPE PLAN

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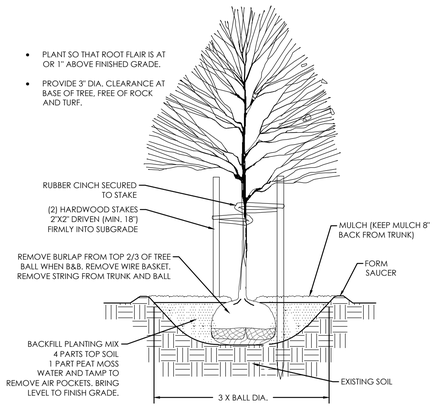
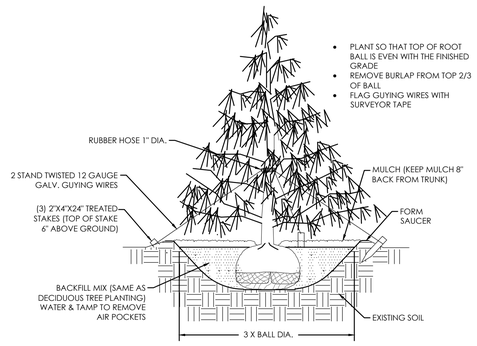
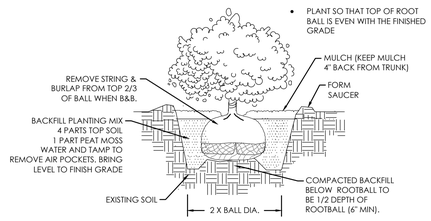


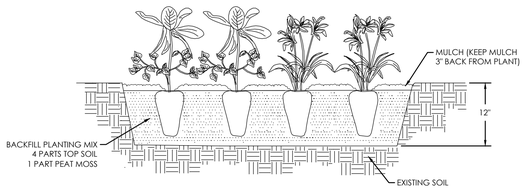
A TREE PLANTING & STAKING
NOT TO SCALE



B EVERGREEN PLANTING & GUYING
NOT TO SCALE



C SHRUB PLANTING
NOT TO SCALE



D PERENNIAL PLANTING
NOT TO SCALE

Star Idaho Landscape City Requirements - Townhomes Phase 2

Mandatory Provisions	
Existing Site Trees	Existing trees identified by species and size
Site Trees	1 Tree per 4,000 sf of overall landscape area
Perimeter Landscape Buffer Strip	When a commercial or indusrial use abuts a residential use, a 10 foor wide by 6 foot high landscaped buffer i.e. plants, berms, fences, or walls
Street Trees	A minimum of one street tree shall be plated for every 35 linear feet of street frontage
Parking Lot Trees	A terminal island for a single row of parking spaces shall be landscaped with at least one tree and shurbs, ground cover, or grass. A terminal island for a double row of parking spaces shall contain not less than two tree and shrubs, ground cover, or grass.
Dumpster Screen	To conceal outdoor storage areas or trash receptacles when adjacent to or in view from a residential activity or public street right of way, a three foot wide by six foot high landscaped buffer is required.
Internal Parking Landscape	Any lot with 51 or more parking spaces shall provide a minimum of 8% interior landscaping of the total overall lot area.

Site Trees				Required	Provided	Comments
Overall Landscape Area: 153,094 sf (3.5 ac.)	153,094 sf /4,000=	38.27	Trees	39	**39**	See parking lot tree quanities below.
Use-able Landscape Area:	63,326 sf open space					
Parking Lot Trees				**Required**	**Provided**	**Comments**
One canopy tree placed in landscape islands at the terminus of each parking row. A termial island for a double row of parking spaces shall contain not less than two trees.				N/A	**N/A**	
Landscape Internal Parking				**Required**	**Provided**	**Comments**
6 ft height masonry wall provided on South property line				N/A	**N/A**	Not applicable. No residential adj. exists
Street Trees				**Required**	**Provided**	**Comments**
All public & private streets to receive one street tree for every 35' linear feet of frontage				102	**102**	
Buffer Area				**Required**	**Provided**	**Comments**
40' wide landscape buffer on western property line. Per each 100 linear feet of frontage provide 4 shade trees, 3 evergreen trees, 2 ornamental trees, and 12 shrubs				Yes	Yes	16 Canopy Trees, 8 Ornamental Trees, 15 Evergreen Trees, and 43 Shrubs
Internal Parking Landscape				**Required**	**Provided**	**Comments**

Star Idaho Landscape City Requirements - Single-Family Phase 3

Mandatory Provisions	
Existing Site Trees	Existing trees identified by species and size
Site Trees	1 Tree per 4,000 sf of overall landscape area
Perimeter Landscape Buffer Strip	When a commercial or indusrial use abuts a residential use, a 10 foor wide by 6 foot high landscaped buffer i.e. plants, berms, fences, or walls
Street Trees	A minimum of one street tree shall be plated for every 35 linear feet of street frontage
Parking Lot Trees	A terminal island for a single row of parking spaces shall be landscaped with at least one tree and shurbs, ground cover, or grass. A terminal island for a double row of parking spaces shall contain not less than two tree and shrubs, ground cover, or grass.
Dumpster Screen	To conceal outdoor storage areas or trash receptacles when adjacent to or in view from a residential activity or public street right of way, a three foot wide by six foot high landscaped buffer is required.
Internal Parking Landscape	Any lot with 51 or more parking spaces shall provide a minimum of 8% interior landscaping of the total overall lot area.

Site Trees				Required	Provided	Comments
Total Landscape Area: 152,910 sf (3.51 ac.)	152,910 sf /4,000=	38.23	Trees	39	**39**	See parking lot tree quanities below.
Use-able Landscape Area:	96,240 sf open space					
Parking Lot Trees				**Required**	**Provided**	**Comments**
One canopy tree placed in landscape islands at the terminus of each parking row. A termial island for a double row of parking spaces shall contain not less than two trees.				N/A	**N/A**	
Landscape Internal Parking				**Required**	**Provided**	**Comments**
6 ft height masonry wall provided on South property line				N/A	**N/A**	Not applicable. No residential adj. exists
Street Trees				**Required**	**Provided**	**Comments**
All public & private streets to receive one street tree for every 35' linear feet of frontage				236	**236**	
Buffer Area				**Required**	**Provided**	**Comments**
40' wide landscape buffer on western property line. Per each 100 linear feet of frontage provide 4 shade trees, 3 evergreen trees, 2 ornamental trees, and 12 shrubs				Yes	Yes	32 Canopy Trees, 17 Ornamental Trees, 24 Evergreen Trees, and 96 Shrubs
Internal Parking Landscape				**Required**	**Provided**	**Comments**
Parking Lot Landscape: None Provided				N/A	**N/A**	Single family residential, no parking lot.

PLANT SCHEDULE TOWNHOMES PH.2

	CODE	BOTANICAL NAME	COMMON NAME	SIZE	QTY
TREES					
	AP	Acer platanoides	Norway Maple	2" Cal.	14
	AX	Acer x freemanii	Freeman Maple	2" Cal.	43
	SB	Amelanchier x grandiflora	Serviceberry	2" Cal.	35
	CF	Cornus florida	Flowering Dogwood	2" Cal.	4
	GY	Ginkgo biloba 'JN9' TM	Sky Tower Ginkgo	2" Cal.	20
	JW	Juniperus scopulorum 'Wichita Blue'	Wichita Blue Juniper	6` Ht.	6
	PF	Pinus anstata 'Formal Form'	Formal Form Bristlecone Pine	6` Ht.	9
	PV	Prunus virginiana `Canada Red`	Canada Red Chokecherry	2" Cal.	4
	PJ	Pyrus calleryana 'Jaczam' TM	Jack Callery Pear	2" Cal.	38
	QR	Quercus robur	English Oak	2" Cal.	7
SHRUBS					
	AMG	Aronia melanocarpa `UCONNAMO12` TM	Ground Hug Black Chokeberry	2 gal.	76
	BTC	Berberis thunbergii `Concorde`	Concorde Japanese Barberry	5 gal.	34
	BG	Berberis thunbergii 'Goruzam' TM	Golden Ruby Japanese Barberry	5 gal.	85
	BDH	Buddleja davidii `Buzz Hot Raspberry`	Hot Raspberry Butterfly Bush	2 gal.	54
	BGM	Buxus x `Green Mountain`	Green Mountain Boxwood	5 gal.	22
	CAB	Cornus alba `Bailhalo` TM	Ivory Halo Dogwood	5 gal.	48
	CSK	Cornus sencea `Kelseyi`	Kelsey`s Dwarf Red Twig Dogwood	2 gal.	84
	EAC	Euonymus alatus 'Grove Compactus'	Grove Compact Burning Bush	5 gal.	30
	POL	Physocarpus opulifolius `Donna May` TM	Little Devil Ninebark	5 gal.	121
	PMM	Pinus mugo var. pumilio	Dwarf Mugo Pine	5 gal.	40
	PLC	Prunus laurocerasus `Chestnut Hill`	Chestnut Hill English Laurel	5 gal.	61
	SSS	Sorbaria sorbifolia `Sem`	Sem Ash Leaf Spirea	5 gal.	61
	SJD	Spiraea japonica `Double Play Doozie`	Doozie Spirea	2 gal.	33
	SBL	Syringa x `SMSJBP7` `Bloomerang`	Bloomerang Dark Purple Lilac	5 gal.	47
	VCS	Viburnum carlesii 'SMVCB' TM	Spice Baby Koreanspice Viburnum	5 gal.	67
ORNAMENTAL GRASSES					
	CAK	Calamagrostis x acutiflora `Karl Foerster`	Karl Foerster Feather Reed Grass	1 gal.	133
	HSS	Helictotrichon sempervirens `Sapphire`	Sapphire Blue Oat Grass	1 gal.	86
	MSG	Miscanthus sinensis `Gold Bar`	Gold Bar Eulalia Grass	1 gal.	72
	PAH	Pennisetum alopecuroides `Hameln`	Hameln Fountain Grass	1 gal.	72
PERENNIALS					
	HSO	Hemerocallis x `Stella de Oro`	Stella de Oro Daylily	1 gal.	36
	PAL	Perovskia atriplicifolia `Little Spire`	Little Spire Russian Sage	1 gal.	26
SYMBOL	CODE	BOTANICAL NAME	COMMON NAME	SIZE	QTY
GROUND COVERS					
	KB	Poa pratensis	Kentucky Bluegrass	sod	100,104 sf

REFERENCE NOTES TOWNHOMES PH.2

SYMBOL	DESCRIPTION	QTY	DETAIL
1	RIVER ROCK, SIZE 2"	51,153 sf	
2	PLAYGROUND WOOD MULCH, 14" DEPTH	1,385 sf	
3	STEEL EDGING, TBD.	4,041 lf	
4	PICNIC SHELTER, T.B.D.	1	
5	PLAYGROUND STRUCTURE, T.B.D.	1	
6	BENCH, TBD.	4	

PLANT SCHEDULE SINGLE FAMILY PH.3

	CODE	BOTANICAL NAME	COMMON NAME	SIZE	QTY
TREES					
	AP	Acer platanoides	Norway Maple	2" Cal.	42
	AX	Acer x freemanii	Freeman Maple	2" Cal.	22
	SB	Amelanchier x grandiflora	Serviceberry	2" Cal.	10
	CC	Cercis canadensis	Eastern Redbud	2" Cal.	46
	CF	Cornus florida	Flowering Dogwood	2" Cal.	9
	GY	Ginkgo biloba 'JN9' TM	Sky Tower Ginkgo	2" Cal.	15
	JW	Juniperus scopulorum 'Wichita Blue'	Wichita Blue Juniper	6` Ht.	12
	MS	Malus x `Spring Snow`	Spring Snow Crabapple	2" Cal.	51
	PF	Pinus anstata 'Formal Form'	Formal Form Bristlecone Pine	6` Ht.	12
	PV	Prunus virginiana `Canada Red`	Canada Red Chokecherry	2" Cal.	53
	PJ	Pyrus calleryana 'Jaczam' TM	Jack Callery Pear	2" Cal.	21
	UA	Ulmus x `Accolade`	Accolade Elm	2" Cal.	52
SHRUBS					
	BDH	Buddleja davidii `Buzz Hot Raspberry`	Hot Raspberry Butterfly Bush	2 gal.	24
	CAB	Cornus alba `Bailhalo` TM	Ivory Halo Dogwood	5 gal.	44
	CSK	Cornus sencea `Kelseyi`	Kelsey`s Dwarf Red Twig Dogwood	2 gal.	24
	EAC	Euonymus alatus 'Grove Compactus'	Grove Compact Burning Bush	5 gal.	24
	VCS	Viburnum carlesii 'SMVCB' TM	Spice Baby Koreanspice Viburnum	5 gal.	38
SYMBOL	CODE	BOTANICAL NAME	COMMON NAME	SIZE	QTY
GROUND COVERS					
	KB	Poa pratensis	Kentucky Bluegrass	sod	137,439 sf

REFERENCE NOTES- SINGLE FAMILY PH.3

SYMBOL	DESCRIPTION	QTY	DETAIL
1	RIVER ROCK, SIZE 2"	42,621 sf	
3	STEEL EDGING, TBD.	1,175 lf	

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TALEGA VILLAGE PHASE 2 & 3
STAR CITY, IDAHO
LANDSCAPE DETAILS

REVISION BLOCK		
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LANDSCAPE DETAILS

Scale:		Drawn:	BW
Date:	11/29/2023	Job #:	21-0488
Sheet:	L1.11		

2021\21-0488 Talega Village\Design 21-0488.dwg\sheets apartments CUP\L1.0 - L1.2 LANDSCAPE PLAN TOWNS.dwg

SINGLE FAMILY ELEVATIONS

TOWNHOME ELEVATIONS

APARTMENT ELEVATIONS

TALEGA VILLAGE home plan elevations exhibit

STAR CITY, ADA COUNTY
5/17/2023
21-0488

Note: This plan is for illustrative purposes. Boundaries may be based on information obtained through public data and we can't confirm it's accuracy. It is recommended that a boundary survey be performed to determine actual boundary size and dimensions as well as other potential boundary conflicts.

FOCUS ENGINEERING AND SURVEYING, LLC

Z:_2021\21-0488 Talega Village\design\21-0488 dwg\exhibits\Home Plan Elevations Exhibit.dwg

Project/File: **Talega Village/ SPP22-0006/ AZ-22-11/ RZ-22-03/ DA-22-12/ CU-22-05/ PP-22-17/ PR-22-08**
This is an annexation, a rezone, a conditional use permit, a private street and a preliminary plat application to allow for the development of a 181-lot mixed use subdivision on 66-acres. The site is located at the northwest corner of SH-44 and SH-16.

Lead Agency: City of Star

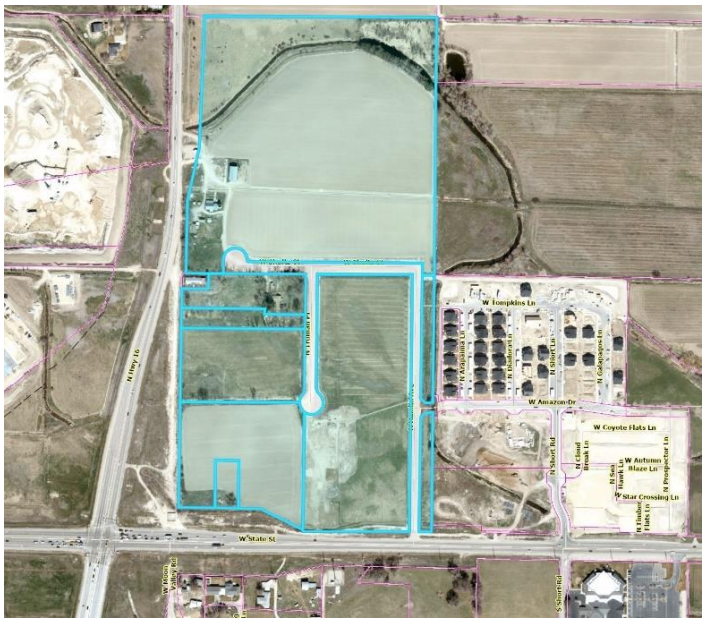
Site address: 58 N. Truman Place

Staff Approval: September 26, 2023

Applicant: Derk Pardoe
3454 Stone Mountain Lane
Sandy, UT 84092

Representative: Chad Garner
Focus Engineering & Surveying
6949 High Tech Drive Suite 200
Midvale, UT 84047

Staff Contact: Dawn Battles, Senior Planner
Phone: 387-6218
E-mail: dbattles@achdidaho.org



A. Findings of Fact

1. **Description of Application:** The applicant is requesting approval of an annexation with rezone from RUT (Rural-Urban Transition), R1 (Estate Residential) and C-2 (Commercial) to R-10-DA (Residential), a conditional use permit, a private street and a preliminary plat application to allow for the development of a 181 lot mixed-use development consisting of 1 commercial lot, 1 multi-family lot, 65 single family residential lots, 95 townhome lots, 5 common lots and 14 open space lots which will include 340 apartment units on 66-acres. The application includes a development agreement with the City of Star. The applicant's rezone proposal is consistent with the City of Star's future land use map which designates this area as commercial, high density residential, neighborhood residential and compact residential.

2. **Description of Adjacent Surrounding Area:**

Direction	Land Use	Zoning
North	Rural-Urban Transition (Ada County)	RUT
South	Rural-Urban Transition (Ada County), Residential, Commercial	RUT, R-1, C-1
East	Rural-Urban Transition (Ada County), Residential, Commercial	RUT, R-5-DA, C-2
West	Rural-Urban Transition (Ada County), Mixed Use, Light Industrial	RUT, MU, LI-DA

3. **Site History:** ACHD staff previously reviewed a portion of this site for an annexation with rezone and a comprehensive plan map amendment (STAR18-0004) in January 2018. The requirements of this staff report have been updated to reflect the current proposed site plan.

4. **Adjacent Development:** The following developments are pending or underway in the vicinity of the site:

   - Everton, a 241 lot mixed use development consisting of 212 single-family residential lots, 11 commercial lots and 18 common lots on 77-acres is located southeast of the site at the northeast corner of Palmer Lane and SH-44 and was approved by ACHD in August 2023.
   - Cascade Springs, a 470 lot residential subdivision consisting of 400 residential lots and 70 common lots is located directly adjacent to the north of the site and was approved by ACHD in March 2023.
   - Junction Crossing 2, a 9 lot mixed-use subdivision consisting of 3 mixed use lots, 3 commercial lots and 3 buildable lots which will comprise of 32 multi-family units, 80,000 square feet of commercial/office, an amphitheater, common areas and a park is located adjacent to the east of the site at the northeast corner of SH-44 and Hamlin Avenue and was approved in October 2022.
   - Junction Crossing, a 4 lot commercial subdivision consisting of 2 commercial lots and 2 common lots is located east of the site at the northeast corner of SH-44 and Short Road and was approved by ACHD in January 2022.
   - Fountain Park, a 278 residential lot subdivision consisting of 251 residential lots and 27 common lots on 60-acres is located directly adjacent to the east and was approved in August 2021.

5. **Transit:** Transit services are not available to serve this site.

6. **Pathway Crossings:** United States Access Board R304.5.1.2 Shared Use Paths. In shared use paths, the width of curb ramps runs and blended transitions shall be equal to the width of the shared use path.

   AASHTO's Guidelines for the Development of Bicycle Facilities 5.3.5 Other Intersection Treatments: The opening of a shared use path at the roadway should be at least the same width as the shared use path itself. If a curb ramp is provided, the ramp should be the full width of the path, not including any flared sides if utilized. . . . Detectable warnings should be placed across the full width of the ramp.

   FHWA's "Designing Sidewalks and Trails for Access" (1999) reflected common ADA-related concepts: Chapter 6, Page 16-6: The width of the ramp should be at least as wide as the average width of the trail to improve safety for users who will be traveling at various speeds. In addition, the overall width of the trail should be increased, so the curb ramp can be slightly offset to the side. The increased width reduces conflict at the intersection by providing more space for users at the bottom of the ramp.

7. **New Center Lane Miles:** The proposed development includes 1.06 centerline miles of new public road.

8. **Impact Fees:** There will be an impact fee that is assessed and due prior to issuance of any building permits. The assessed impact fee will be based on the impact fee ordinance that is in effect at that time. The impact fee assessment will not be released until the civil plans are approved by ACHD.

9. **Capital Improvements Plan (CIP)/ Integrated Five Year Work Plan (IFYWP):**

   There are no roadways, bridges or intersections in the general vicinity of the project that are in the Integrated Five Year Work Plan (IFYWP) or the District's Capital Improvement Plan (CIP).

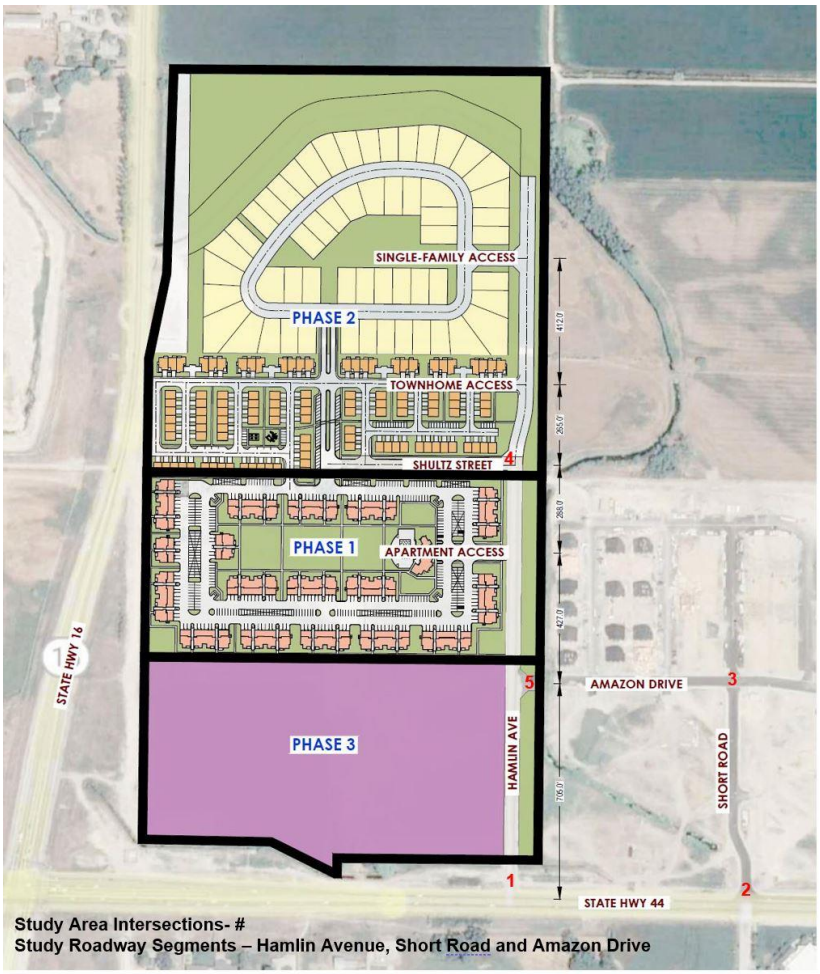
10. **Roadways to Bikeways Master Plan:** ACHD's Roadways to Bikeways Master Plan (BMP) was adopted by the ACHD Commission in May of 2009 and was update in 2018. The plan seeks to implement the Planned Bicycle Network to support bicycling as a viable transportation option for Ada County residents with a wide range of ages and abilities, maintain bicycle routes in a state of good repair in order to ensure they are consistently available for use, promote awareness of existing bicycle routes and features and support encouragement programs and to facilitate coordination and cooperation among local jurisdictions in implementing the Roadways to Bikeways Plan recommendations.

    The BMP identifies Palmer Lane located east of the site as Level 2 facilities that will be constructed as part of a future ACHD project. The BMP does not identify bike facilities on Hamlin Avenue, Short Road, Schultz Street or Amazon Drive.

B. Traffic Findings for Consideration

1. **Trip Generation:** This development is estimated to generate 4,529 vehicle trips per day; 417 vehicle trips per hour in the PM peak hour, based on the traffic impact study.

2. **Traffic Impact Study**
    Focus Engineering and Surveying, Inc. prepared a traffic impact study for the proposed Talega Village development. The executive summary of the findings **as presented by Focus Engineering and Surveying, Inc.** can be found as Attachment 3. The following executive summary is **not the opinion of ACHD staff**. ACHD has reviewed the submitted traffic impact study for consistency with ACHD policies and practices and may have additional requirements beyond what is noted in the summary. ACHD Staff comments on the submitted traffic impact study can be found below under staff comments.



a. Policy:

Mitigation Proposals: Mitigation recommendations shall be provided within the report. At a minimum, for each roadway segment and intersection that does not meet the minimum acceptable level of service planning threshold or v/c ratio, the report must discuss feasible measures to avoid or reduce the impact to the system. To be considered adequate, measures should be specific and feasible. Mitigation may also include:

- Revision to the Phasing Plan to coincide with the District's planning Capital Projects.
- Reducing the scope and/or scale of the project.

Alternative Mitigation Measures: 7106.7.3 states that if traditional mitigation measures such as roadway widening and intersection improvements are infeasible as determined by ACHD, the TIS may recommend alternative mitigation measures. Alternative mitigation measures shall demonstrate that impacts from the project will be offset.

- If the impacted roadway segments and/or intersections are programmed as funded in the Integrated Five Year Work Plan (IFYWP) or the Capital Improvements Plan (CIP); no alternative mitigation is required.
- If the impacted roadway segments and/or intersections are not programmed in either the IFYWP or the CIP; the applicant may (i) analyze the shoulder hour and (ii) provide a safety analysis to determine alternative mitigation requirements.
    - If the impacted roadway segments and intersections meet the minimum acceptable level of service planning thresholds in the shoulder hour the applicant may suggest feasible alternative mitigation such as: sidewalks, bike facilities, connectivity, safety improvements, etc. within 1.5 miles of the proposed development.
    - If the shoulder hour planning thresholds are exceeded the applicant may request to enter into a Development Agreement and pay into the Priority Corridor Fund an amount determined by the ACHD to offset impacts from the project.
- Alternative Mitigation may also include:
    - Revision to the Phasing Plan to coincide with the District's future Capital Projects.
    - Reducing the scope and/or scale of the project.

Level of Service Planning Thresholds: District Policy 7206.4.1 states that, Level of Service Planning Thresholds have been established for principal arterials and minor arterials within ACHD's Capital Improvement Plan and are also listed in section 7106. Unless otherwise required to provide a Traffic Impact Study under section 7106, a proposed development with site traffic less than 10% of the existing downstream roadway or intersection peak hour traffic shall not be required to provide mitigation for a roadway or intersection that currently exceeds the minimum acceptable level of service planning threshold or V/C ratio.

b. TIS Findings: Staff have reviewed the submitted traffic impact study (TIS) and generally agree with the findings and recommendations. The TIS analyzed phases which included 2023 Plus Phase 1 total traffic, 2024 Plus Phase 2 total traffic, and 2030 Plus Phase 3 total traffic.

The study found the following intersection deficiencies described below, coupled with the percentage site traffic contributions relative to the PM peak hour total traffic, followed with their recommendations for improvements.

Intersections:

- Short Road/ SH-44 (8%)
    - The northbound and southbound left-turn lane exceeds ACHD's acceptable Level of Service Planning Thresholds in the AM and PM peak hours under 2030 background and 2030 total traffic conditions. In 2022, ITD widened SH-44 to five lanes between SH-16 and Linder Road. The TIS recommended the following capacity improvements under 2023 Plus Phase 1 total traffic, 2024 Plus Phase 2 total traffic and 2030 total traffic conditions:
        - Restrict to right-in/right-out/left-in
            - If restricted, then the eastbound left-turn lane exceeds ACHD's acceptable Level of Service Planning Thresholds in the PM peak hour under 2030 total traffic conditions.
        - Signal Warrant analysis indicated that the intersection meets warrants under 2030 total traffic conditions.
        - ITD did not submit comments regarding the TIS.
            - No additional improvements are recommended at this intersection on the ACHD roadways, as the proposed site traffic at this intersection will be less than 10% of the 2030 total traffic conditions. Therefore, consistent with District policy 7205.3.1 Level of Service Planning Threshold, which states, a proposed development with site traffic less than 10% of the existing downstream roadway or intersection peak hour traffic shall not be required to provide mitigation.
            - The applicant should coordinate with ITD and the City of Star to determine if any additional improvements or right-of-way are required on SH-44 at the intersection with Short Road.
- Hamlin Avenue and SH-44 (8%)
    - The southbound right-turn lane exceeds ACHD's acceptable Level of Service Planning Thresholds in the PM peak hours under 2030 total traffic if the Short Road/SH-44 intersection is restricted to right-in/right-out/left-in only as intended in the State Street Corridor Study.
        - ITD did not submit comments regarding the TIS.
            - No additional improvements are recommended at this intersection on the ACHD roadways, as the proposed site traffic at this intersection will be less than 10% of the 2030 total traffic conditions. Therefore, consistent with District policy 7205.3.1 Level of Service Planning Threshold, which states, a proposed development with site traffic less than 10% of the existing downstream roadway or intersection peak hour traffic shall not be required to provide mitigation.
            - The applicant should coordinate with ITD and the City of Star to determine if any additional improvements or right-of-way are required on SH-44 at the intersection with Hamlin Avenue.

Turn Lanes:
The applicant's TIS included turn lane warrant analysis at all off-site and site access study area intersections with the exception of the proposed local street access located at the site's north property line (See Findings #7), as the site plan was updated after the completion of the TIS. The following turn lanes are warranted based on the findings in the TIS:

- Short Road/SH-44
    - Extend the northbound approach an additional 140-feet
        - No site generated traffic is anticipated to impact this movement. Therefore, this improvement is not required.

c. Staff Comments/Recommendations: Based on the findings of the TIS, no additional improvements are recommended at the above listed intersections on the ACHD roadways, as the proposed site traffic at these intersections will be less than 10% of the 2030 total traffic conditions.

The applicant should coordinate with ITD and the City of Star to determine if any additional improvements or right-of-way are required on SH-44 at the intersection with Short Road and Hamlin Avenue.

3. Condition of Area Roadways
Traffic Count is based on Vehicles per hour (VPH)

Roadway	Frontage	Functional Classification	PM Peak Hour Traffic Count	PM Peak Hour Level of Service
**State Highway 44 State Street	1,085-feet	Principal Arterial	1,187	N/A
Hamlin Avenue	2,240-feet	Collector	6	Better than "D"
Short Road	None	Collector	13	Better than "D"
***Amazon Drive	88-feet	Commercial	N/A	N/A

* Acceptable level of service for a two-lane collector is "D" (425 VPH).
* Acceptable level of service for a three-lane collector is "D" (530 VPH).
** ACHD does not set level of service thresholds for State Highways.
*** ACHD does not set level of service planning thresholds for local roads.

4. Average Daily Traffic Count (VDT)
Average daily traffic counts are based on ACHD's most current traffic counts.

- The average daily traffic count for Hamlin Avenue north of SH-44 was estimated to be 28.
- The average daily traffic count on Amazon Drive west of Short Lane was estimated to be 774.
- The average daily traffic count on Short Road north of SH-44 was estimated to be 1,347.

C. Findings for Consideration

1. Public Streets vs. Private Streets

The applicant has proposed to improve a portion of an existing local public street, Shultz Street, abutting the site and is proposing to incorporate a portion of the existing local public streets, Shultz Street/Shultz Court and Truman Place into the site and to construct the internal local streets as public roadways. However, staff recommends the construction of private streets as there is no connectivity to the adjacent parcel to the north as it was approved to have lots constructed at the

site's north property line providing no public benefit and there is a proposed local street at the site's north property line that will provide access to only 10 single family lots. Furthermore, the internal street layout does not meet ACHD's policies as there is a local street proposed to dead end into a parking lot, there are roadways that exceed 750-feet in length and there are several perpendicular parking stalls proposed within the public right-of-way.

The following findings will provide three different scenarios which include the ACHD requirements if the roadways are to be constructed as private, the requirements for the existing public roadway, Hamlin Avenue, and if the roadways are to be constructed as public.

If Private Roads are constructed within the site, then the following conditions apply.

2. Private Roads

a. Policy:

Private Road Policy: District policy 7212.1 states that the lead land use agencies in Ada County establish the requirements for private streets. The District retains authority and will review the proposed intersection of a private and public street for compliance with District intersection policies and standards. The private road should have the following requirements:

- Designed to discourage through traffic between two public streets,
- Graded to drain away from public street intersection, and
- If a private road is gated, the gate or keypad (if applicable) shall be located a minimum of 50-feet from the near edge of the intersection and a turnaround shall be provided.

b. Staff Comments/Recommendations: As noted above, staff recommends the existing streets within the site, Shultz Street, Shultz Court, Truman Place be vacated or vacated/exchanged (See Findings for Consideration 3) and the internal roadways be constructed as private roadways. See image below for location of recommended private streets.

Additionally, if private roads are to be constructed, then the applicant should be required to vacate/exchange all of Shultz Street abutting the site.

If the City of Star approves private roads, the applicant shall be required to pave the private roadways their full widths and at least 30-feet into the site beyond the edge of pavement of all public streets and install pavement tapers with 15-foot curb radii abutting the existing roadway edge. If private roads are not approved by the City of Eagle, the applicant will be required to revise and resubmit the preliminary plat to provide public standard local streets in these locations.

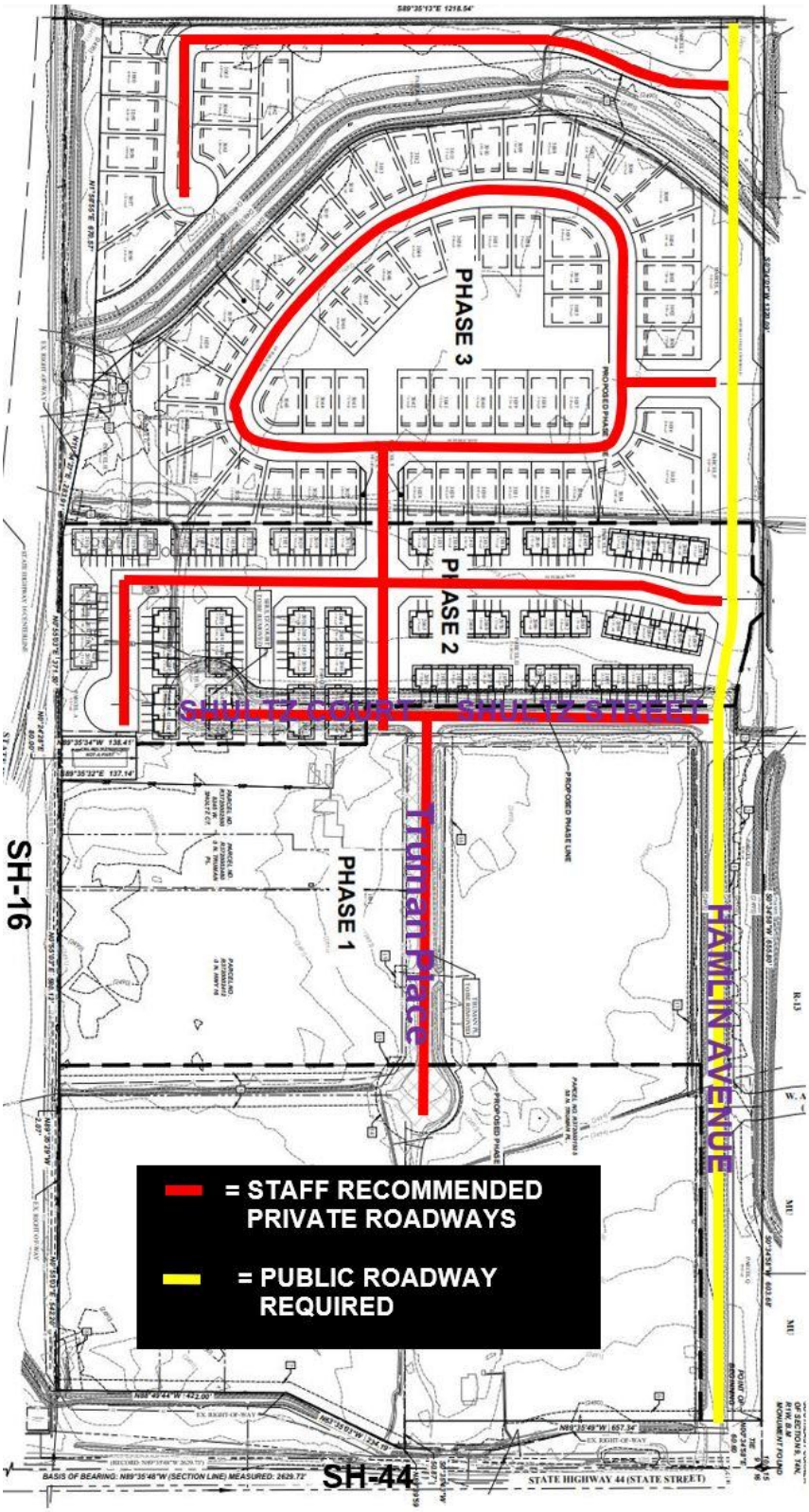
Street name and stop signs are required for the private road. The signs may be ordered through the District. Verification of the correct, approved name of the road is required.

ACHD does not make any assurances that the private road, which is a part of this application, will be accepted as a public road if such a request is made in the future. Substantial redesign and reconstruction costs may be necessary in order to qualify this road for public ownership and maintenance.

The following requirements must be met if the applicant wishes to dedicate the roadway to ACHD:

- Dedicate a minimum of 50-feet of right-of-way for the road.
- Construct the roadway to the minimum ACHD requirements.
- Construct a stub street to the surrounding parcels.

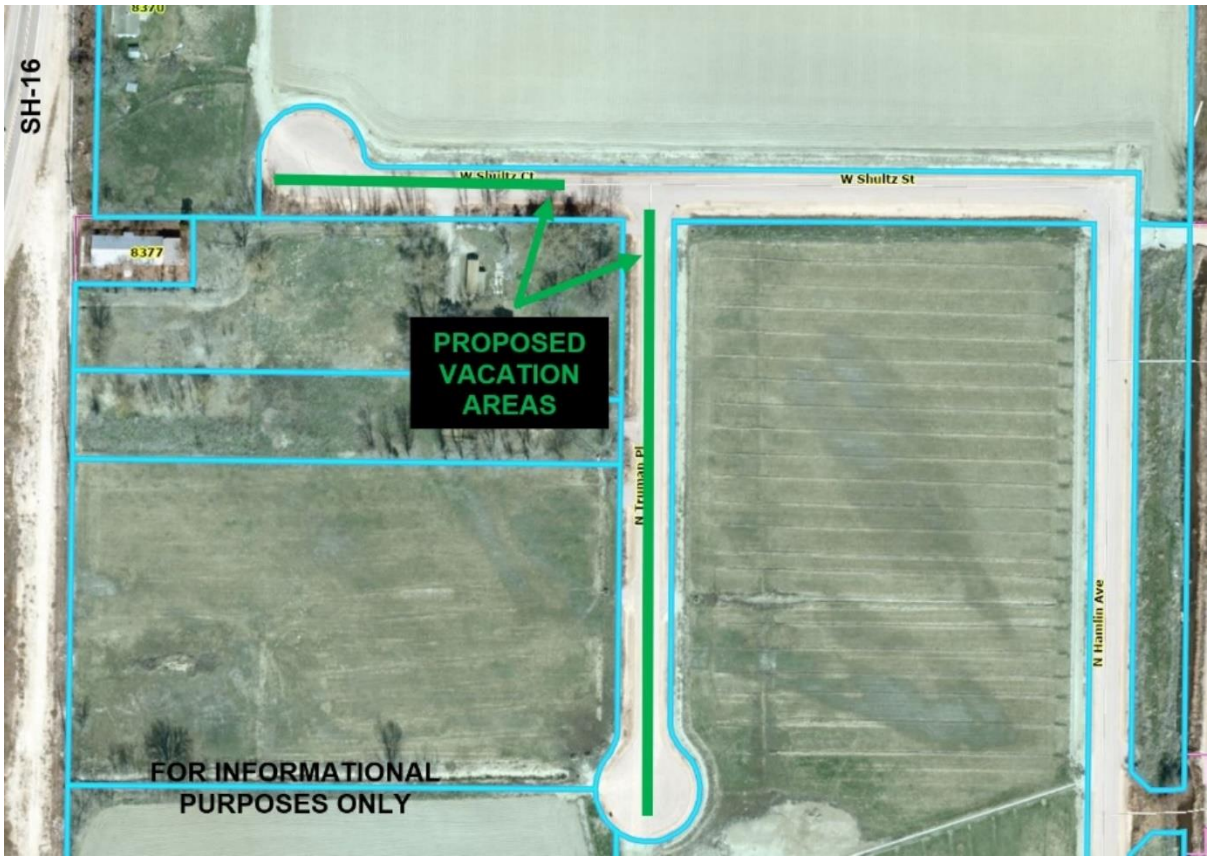
If the City of Star does not approve private roadways, then the applicant should be required to modify the site plan to meet District policies for ACHD to accept public streets.



The following conditions apply whether or not the internal roadways are public or private.

3. Vacation of Right-of-Way

a. Applicant's Proposal: The applicant is proposing to vacate a portion of the existing local streets, Shultz Street/Shultz Court and is proposing to vacate all of Truman Place within the site and incorporate those areas into the site as part of their development.



b. Staff Comments/Recommendations: At the time of this application, a vacation or vacation/exchange has not been completed. If the right-of-way is proposed to be vacated, then the applicant should apply to vacate/exchange a portion of Shultz Street/Shultz Court and Truman Place within the site by submitting an application to the Right-of-Way department prior to plan submittal. A right-of-way vacation or vacation/exchange is a separate application with its own public hearing process. Until the right-of-way of Shultz Street/Shultz Court and Truman Place have been vacated it is public right-of-way under the jurisdiction of ACHD. See Findings for Consideration #7 for the requirements of the roadways if they remain public right-of-way. If Shultz Street is not redesigned to meet District policy, then the applicant should apply to vacate/exchange the entire segment of Shultz Street abutting the site.

4. State Highway SH-44 / State Street

SH-44 is under the jurisdiction of the Idaho Transportation Department (ITD). The applicant, City of Star, and ITD should work together to determine if additional right-of-way or improvements are necessary on SH-44.

5. Maximum Traffic on One Access-Hamlin Avenue

a. Policy:

Maximum Traffic on One Access: District Policy 7206.3.3 states that if a proposed development only has one access to a public street that is a collector street, or if it proposes to

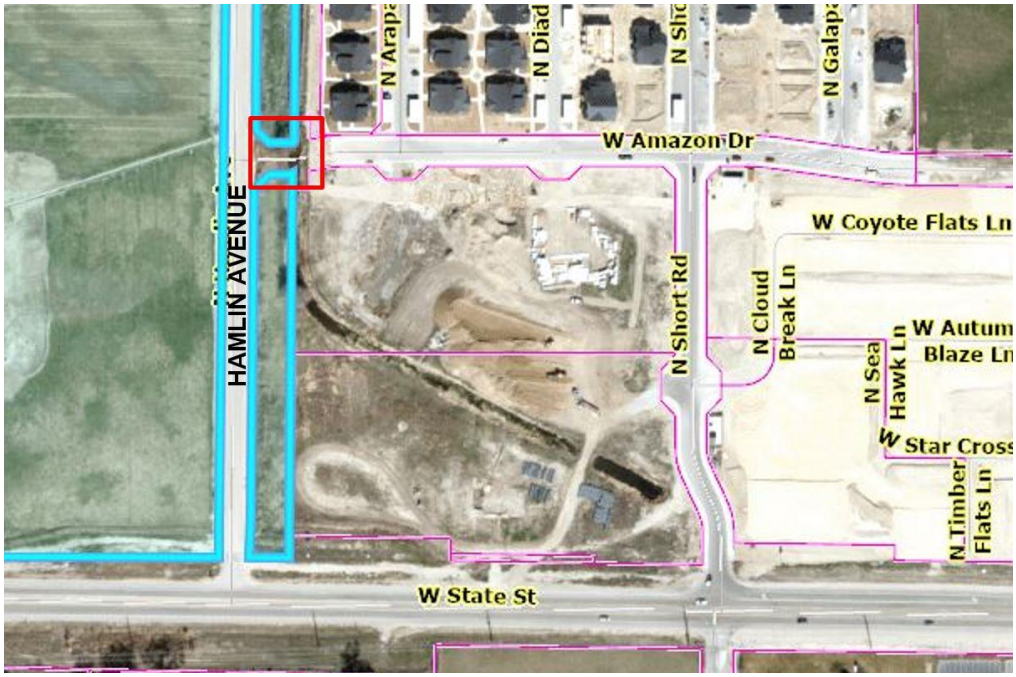
extend public streets from existing development with only collector street access to the public street system, the maximum forecast ADT (Average Daily Trips) to be allowed at any point on the collector street is 3,000. This volume may be reduced or increased based on information received from the lead land use agency, the applicable fire department, and/or emergency services. The District will also take into consideration the following items when determining whether or not to reduce or increase the maximum allowable ADT: railroad crossings, canal crossings, and topography.

Off-site Streets: District Policy 7208.2.3 states that if the proposed development is not served by a paved public street, the developer shall pave the street or widen the existing pavement to provide a 30-foot wide (minimum) paved street with 3-foot gravel shoulders from the proposed development to the public street specified by the District. Wider street widths may be required depending on the magnitude of the development and other factors, including the potential for bicycle, bus and pedestrian traffic.

b. Staff Comments/Recommendations: Amazon Drive on the east side of Hamlin Avenue across from the site was constructed as part of the first phase of the Amazon Falls development, with Amazon Drive stubbing to the Amazon Falls development's west property line. Originally, a spite strip restricted Amazon Drive from being constructed to connect to Hamlin Avenue; however, this issue has been resolved and the right-of-way for Amazon Drive to connect to Hamlin Avenue has been dedicated.

As part of ACHD's action on Junction Crossing 1, the applicant was required to construct Amazon Drive to intersect Hamlin Avenue prior to ACHD's approval of the first final plat for that development. The construction plans for the completion of Amazon Drive are currently under review by ACHD.

Until Amazon Drive can be constructed to intersect Hamlin Avenue, Hamlin Avenue will serve as the only public access for the site from SH-44. District Policy restricts the daily traffic to 3,000 trips per day for a collector road that serves as the sole access to a development. The study shows that the projected daily traffic on Hamlin Avenue will exceed 4,800 if Amazon Drive is not extended to connect to Hamlin Avenue. This development proposal is expected to generate approximately 4,529 daily trips which would cause the daily traffic on Hamlin Avenue to exceed 3,000 trips. Therefore, staff recommends that the applicant be required to construct Amazon Drive to intersect Hamlin Avenue with a minimum 30-feet of pavement and 3-foot wide gravel shoulders within the existing 50-feet of right-of-way prior to plan approval and ACHD's signature on the first final plat for this development. The applicant may also choose to fully construct Amazon Drive to connect to Hamlin Avenue as a 36-foot wide commercial street section with vertical curb, gutter and 5-foot wide attached concrete sidewalk



to match the existing Amazon Drive. All irrigation facilities are required to be relocated outside of the right-of-way.

6. Hamlin Avenue

a. Existing Conditions: Hamlin Avenue is an existing roadway abutting a portion of the site, intersects SH-44 at the site's south property line and extends 1,375-feet north to the intersection with Shultz Street and is improved with 2-travel lanes, 26-feet of pavement and no curb, gutter or sidewalk abutting the site. There is 50-feet of right-of-way for Hamlin Avenue (25-feet from centerline).

As part of ACHD's approval of Cascade Springs, Hamlin Avenue, proposed to stub to the site's north property line.

b. Policy:

Collector Street Policy: District policy 7206.2.1 states that the developer is responsible for improving all collector frontages adjacent to the site or internal to the development as required below, regardless of whether access is taken to all of the adjacent streets.

Master Street Map and Typologies Policy: District policy 7206.5 states that if the collector street is designated with a typology on the Master Street Map, that typology shall be considered for the required street improvements. If there is no typology listed in the Master Street Map, then standard street sections shall serve as the default.

Street Section and Right-of-Way Policy: District policy 7206.5.2 states that the standard right-of-way width for collector streets shall typically be 50 to 70-feet, depending on the location and width of the sidewalk and the location and use of the roadway. The right-of-way width may be reduced, with District approval, if the sidewalk is located within an easement; in which case the District will require a minimum right-of-way width that extends 2-feet behind the back-of-curb on each side.

The standard street section shall be 46-feet (back-of-curb to back-of-curb). This width typically accommodates a single travel lane in each direction, a continuous center left-turn lane, and bike lanes.

Residential Collector Policy: District policy 7206.5.2 states that the standard street section for a collector in a residential area shall be 36-feet (back-of-curb to back-of-curb). The District will consider a 33-foot or 29-foot street section with written fire department approval and taking into consideration the needs of the adjacent land use, the projected volumes, the need for bicycle lanes, and on-street parking.

Continuation of Streets Policy: District Policy 7206.2.4 states that an existing street, or a street in an approved preliminary plat, which ends at a boundary of a proposed development shall be extended in that development. The extension shall include provisions for continuation of storm drainage facilities. Benefits of connectivity include but are not limited to the following:

- Reduces vehicle miles traveled.
- Increases pedestrian and bicycle connectivity.
- Increases access for emergency services.
- Reduces need for additional access points to the arterial street system.
- Promotes the efficient delivery of services including trash, mail and deliveries.
- Promotes appropriate intra-neighborhood traffic circulation to schools, parks, neighborhood commercial centers, transit stops, etc.
- Promotes orderly development.

Sidewalk Policy: District policy 7206.5.6 requires a concrete sidewalk at least 5-feet wide to be constructed on both sides of all collector streets. A parkway strip at least 6-feet wide between the back-of-curb and street edge of the sidewalk is required to provide increased safety and protection of pedestrians. Consult the District's planter width policy if trees are to be placed within the parkway strip. Sidewalks constructed next to the back-of-curb shall be a minimum of 7-feet wide.

Detached sidewalks are encouraged and should be parallel to the adjacent roadway. Meandering sidewalks are discouraged.

A permanent right-of-way easement shall be provided if public sidewalks are placed outside of the dedicated right-of-way. The easement shall encompass the entire area between the right-of-way line and 2-feet behind the back edge of the sidewalk. Sidewalks shall either be located wholly within the public right-of-way or wholly within an easement.

ACHD Master Street Map: ACHD Policy Section 3111.1 requires the Master Street Map (MSM) guide the right-of-way acquisition, collector street requirements, and specific roadway features required through development. This segment of Hamlin Avenue is designated in the MSM as a Commercial Collector with 2-lanes and on-street bike lanes, a 36-foot street section within 54 to 70-feet of right-of-way.

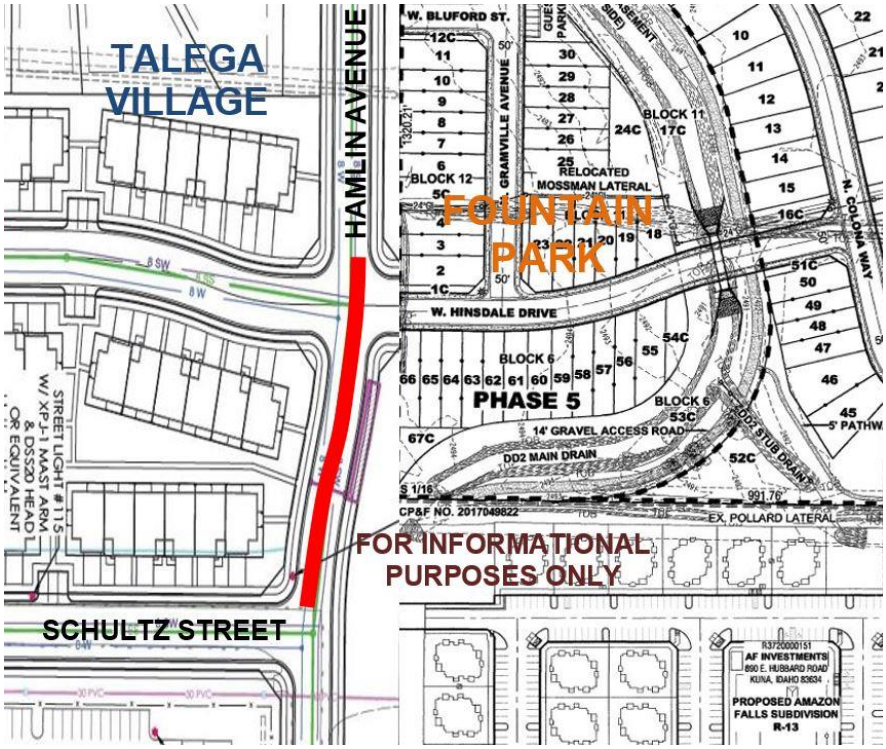
c. Applicant Proposal: The applicant is proposing to complete the existing segment of Hamlin Avenue from SH-44 north 1,375-feet to the intersection of Shultz Street as a complete 36-foot wide collector street section with vertical curb, gutter, a 6-foot wide planter strip and 5-foot wide detached concrete sidewalk on both sides of the roadway within 60-feet of right of way.

The applicant is proposing to extend Hamlin Avenue into the site from the intersection with Shultz Street north to stub to the site's north property line and in alignment with the stub street location approved as part of Cascade Springs located north of the site as a 36-foot wide collector street section with vertical curb, gutter, a 6-foot wide planter strip and 5-foot wide detached concrete sidewalk within 60-feet of right-of-way.

d. Staff Comments/Recommendations: The applicant's proposal to complete the existing segment of Hamlin Avenue from SH-44 north to the intersection with Shultz Street as a 36-foot wide collector street section with vertical curb, gutter, a 6-foot wide planter strip and 5-foot wide detached concrete sidewalk on both sides of the roadway meets District policy, as the applicant has control of both sides of the roadway and should be approved.

The applicant's proposal to extend Hamlin Avenue into the site from the intersection with Shultz Street north to stub to the site's north property line and in alignment with the stub street location approved as part of Cascade Springs located north of the site as a 36-foot wide collector street section with vertical curb, gutter, a 6-foot wide planter strip and 5-foot wide detached concrete sidewalk meets District policy and should be approved, as proposed.

As part of the approval of the Fountain Park subdivision located on the east side of Hamlin Avenue across from the site, the applicant was required to construct Hamlin Avenue from the intersection with Schultz Street north to the proposed local street, Hinsdale Drive, with a minimum 30-feet of pavement and 3-foot wide gravel shoulders or 24-feet of pavement, 3-foot gravel shoulders and a minimum 6-foot wide detached asphalt/concrete pedestrian facilities, or as a complete 36-foot wide collector street section with vertical curb, gutter and 5-foot wide attached or 7-foot wide detached concrete sidewalk (shown in red).



If Hamlin Avenue has been constructed from the intersection with Shultz Street north to the proposed local street, Hinsdale Drive as part of the Fountain Park subdivision, then the applicant should be required to construct this segment of Hamlin Avenue as ½ of a 36-foot wide collector street section with vertical curb, gutter, a 6-foot wide planter strip and 5-foot wide detached concrete sidewalk. Or, if Hamlin Avenue has been constructed as a complete 36-foot wide collector street section with vertical curb, gutter and 5-foot wide attached or 7-foot wide detached concrete sidewalk, then the applicant should have no additional requirements for the segment of Hamlin Avenue shown in red.

The applicant should be required to provide an 8-foot wide planter strip abutting Hamlin Avenue if street trees are desired.

The applicant should dedicate right-of-way for Hamlin Avenue to 2-feet behind back of sidewalk, or for detached sidewalk the applicant may reduce the right-of-way to 2-feet behind back of curb and provide a permanent right-of-way easement from the right-of-way line to extend to 2-feet behind back of sidewalk abutting the site on both sides of the roadway. Sidewalk should be located wholly within the right-of-way of wholly within an easement.

7. Stub Streets

a. Existing Conditions: As part of ACHD's approval of Cascade Springs one collector Street, Hamlin Avenue, is proposed to stub to the site's north property line.

b. Policy:

Stub Street Policy: District policy 7206.2.4.3 states that stub streets will be required to provide circulation or to provide access to adjoining properties. Stub streets will conform with the requirements described in Section 7206.2.4, except a temporary cul-de-sac will not be required if the stub street has a length no greater than 150-feet. A sign shall be installed at the terminus of the stub street stating that, "THIS IS A DESIGNATED COLLECTOR ROADWAY. THIS STREET WILL BE EXTENDED AND WIDENDED IN THE FUTURE."

In addition, stub streets must meet the following conditions:

- A stub street shall be designed to slope towards the nearest street intersection within the proposed development and drain surface water towards that intersection; unless an alternative storm drain system is approved by the District.
- The District may require appropriate covenants guaranteeing that the stub street will remain free of obstructions.

Temporary Dead End Streets Policy: District policy 7206.2.4.4 requires that the design and construction for cul-de-sac streets shall apply to temporary dead end streets. The temporary cul-de-sac shall be paved and shall be the dimensional requirements of a standard cul-de-sac. The developer shall grant a temporary turnaround easement to the District for those portions of the cul-de-sac which extend beyond the dedicated street right-of-way. In the instance where a temporary easement extends onto a buildable lot, the entire lot shall be encumbered by the easement and identified on the plat as a non-buildable lot until the street is extended.

c. Applicant's Proposal: The applicant is proposing to construct a collector stub street to the north, Hamlin Avenue, in alignment with the approved stub street to the site's north property line as part of ACHD's approval of Cascade Springs.

d. Staff Comments/Recommendations: The applicant's proposal meets District policy and should be approved, as proposed.

If Hamlin Avenue has not been constructed as a stub street to the site's north property line, as part of Cascade Springs, then the applicant should be required to install a sign at the terminus of the stub street stating, "THIS IS A DESIGNATED COLLECTOR ROADWAY. THIS STREET WILL BE EXTENDED AND WIDENDED IN THE FUTURE." A temporary turnaround is not required at the terminus of this stub street as it does not extend greater than 150-feet.

8. Driveways

8.1 Hamlin Avenue

a. Existing Conditions: There is an existing unimproved driveway from the site onto the east side of Hamlin Avenue located 670-feet north of Amazon Drive (measured centerline-to-centerline).

b. Policy:

Access Policy: District Policy 7205.4.1 states that all access points associated with development applications shall be determined in accordance with the policies in this section and Section 7202. Access points shall be reviewed only for a development application that is being considered by the lead land use agency. Approved access points may be relocated and/or restricted in the future if the land use intensifies, changes, or the property redevelops.

District Policy 7206.1 states that the primary function of a collector is to intercept traffic from the local street system and carry that traffic to the nearest arterial. A secondary function is to service adjacent property. Access will be limited or controlled. Collectors may also be designated at bicycle and bus routes.

Driveway Location Policy (Stop Controlled Intersection): District policy 7206.4.4 requires driveways located on collector roadways near a STOP controlled intersection to be located outside of the area of influence; OR a minimum of 150-feet from the intersection, whichever is greater. Dimensions shall be measured from the centerline of the intersection to the centerline of the driveway.

Successive Driveways: District policy 7206.4.5 Table 1, requires driveways located on collector roadways with a speed limit of 25 MPH or less and daily traffic volumes greater than 100 VTD to align or offset a minimum of 245-feet from any existing or proposed driveway.

Driveway Width Policy: District policy 7206.4.6 restricts high-volume driveways (100 VTD or more) to a maximum width of 36-feet and low-volume driveways (less than 100 VTD) to a maximum width of 30-feet. Curb return type driveways with 30-foot radii will be required for high-volume driveways with 100 VTD or more. Curb return type driveways with 15-foot radii will be required for low-volume driveways with less than 100 VTD.

Driveway Paving Policy: Graveled driveways abutting public streets create maintenance problems due to gravel being tracked onto the roadway. In accordance with District policy, 7206.4.6, the applicant should be required to pave the driveway its full width and at least 30-feet into the site beyond the edge of pavement of the roadway and install pavement tapers in accordance with Table 2 under District Policy 7206.4.6.

c. Applicant's Proposal: The applicant is proposing to close the existing unimproved driveway onto the east side of Hamlin Avenue located 672-feet north of Amazon Drive with vertical curb, gutter, a 6-foot wide planter strip and 5-foot wide detached concrete sidewalk.

The applicant is proposing to construct a curb return type driveway/private road onto Hamlin Avenue located 285-feet south of Shultz Street with two 20-foot wide travel lanes and two 10-foot wide center landscape islands.

d. Staff Comments/Recommendations: The applicant's proposal to close the existing driveway on the east side of Hamlin Avenue meets District policy and should be approved, as proposed.

The applicant's proposal to construct a curb return type driveway onto Hamlin Avenue located 285-feet south of Shultz Street with two 20-foot wide travel lanes and two 10-foot wide center landscape islands meet District policy and should be approved. The applicant should be required to construct the driveway to a maximum width of 36-feet within the right-of-way. Once outside of the right-of-way the driveway/private road may be widened. The center landscape islands should be located outside of the right-of-way.

The following conditions apply if the City of Star does not approve private roads and public streets are constructed within the site.

9. Shultz Street/Shultz Court & Truman Place

a. Existing Conditions: Shultz Street is improved with 2-travel lanes, 26-feet of pavement and no curb, gutter and sidewalk abutting the site. Shultz Street changes to Shultz Court and is improved as a temporary turnaround with 96-feet of pavement and no curb, gutter, or sidewalk abutting the site. There is 60-feet of right-of-way for Shultz Street with an additional 130-feet of right-of-way for the temporary turnaround.

Truman Place is improved with 2-travel lanes, 26-feet of pavement and no curb, gutter and sidewalk and terminates into a temporary turnaround that is improved with 98-feet of pavement and no curb, gutter and sidewalk abutting the site. There is 60-feet of right-of-way for Truman Place with an additional 116-feet of right-of-way for the cul-de-sac turnaround.

b. Policy:

Local Roadway Policy: District Policy 7207.2.1 states that the developer is responsible for improving all local street frontages adjacent to the site regardless of whether or not access is taken to all of the adjacent streets.

Street Section and Right-of-Way Policy: District Policy 7207.5 states that right-of-way widths for all local streets shall generally not be less than 47-feet wide and that the standard street section shall be 33-feet (back-of-curb to back-of-curb).

Standard Urban Local Street—33-foot Street Section and Right-of-way Policy: District Policy 7207.5.2 states that the standard street section shall be 33-feet (back-of-curb to back-of-curb) for developments with any buildable lot that is less than 1 acre in size. This street section

shall include curb, gutter, and minimum 5-foot wide concrete sidewalks on both sides and shall typically be constructed within 47-feet of right-of-way.

For the City of Kuna and City of Star: Unless otherwise approved by Kuna or Star, the standard street section shall be 36-feet (back-of-curb to back-of-curb) for developments with any buildable lot that is less than 1 acre in size. This street section shall include curb, gutter, and minimum 5-foot wide concrete sidewalks on both sides and shall typically be constructed within 50-feet of right-of-way.

Sidewalk Policy: District Policy 7207.5.7 states that five-foot wide concrete sidewalk is required on both sides of all local street, except those in rural developments with net densities of one dwelling unit per 1.0 acre or less, or in hillside conditions where there is no direct lot frontage, in which case a sidewalk shall be constructed along one side of the street. Some local jurisdictions may require wider sidewalks.

The sidewalk may be placed next to the back-of-curb. Where feasible, a parkway strip at least 8-feet wide between the back-of-curb and the street edge of the sidewalk is recommended to provide increased safety and protection of pedestrians and to allow for the planting of trees in accordance with the District's Tree Planting Policy. If no trees are to be planted in the parkway strip, the applicant may submit a request to the District, with justification, to reduce the width of the parkway strip.

Detached sidewalks are encouraged and should be parallel to the adjacent roadway. Meandering sidewalks are discouraged.

A permanent right-of-way easement shall be provided if public sidewalks are placed outside of the dedicated right-of-way. The easement shall encompass the entire area between the right-of-way line and 2-feet behind the back edge of the sidewalk. Sidewalks shall either be located wholly within the public right-of-way or wholly within an easement.

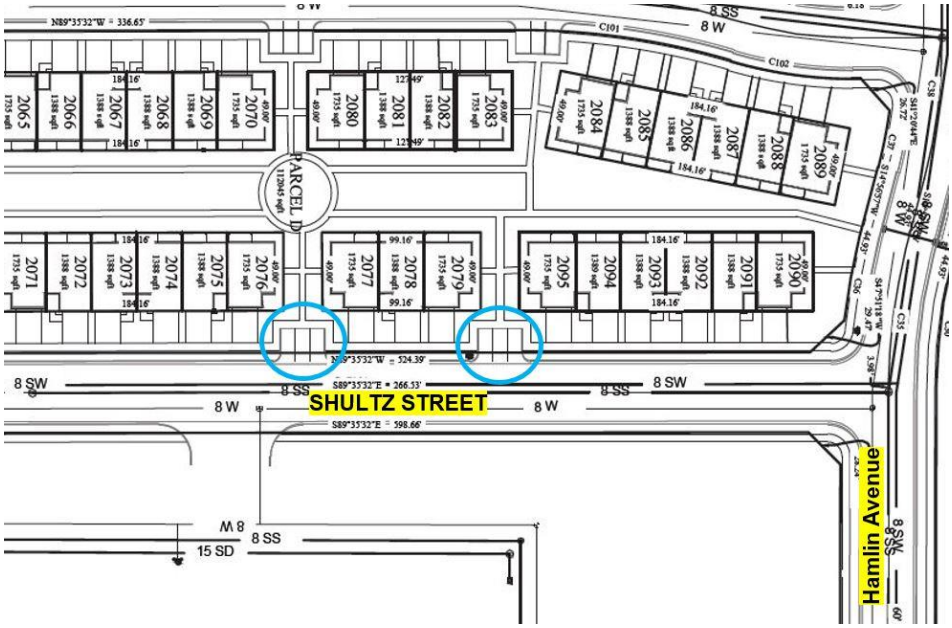
Cul-de-sac Streets Policy: District policy 7207.5.8 requires cul-de-sacs to be constructed to provide a minimum turning radius of 50-feet; in rural areas or for temporary cul-de-sacs the emergency service providers may require a greater radius. Landscape and parking islands may be constructed in turnarounds if a minimum 29-foot street section is constructed around the island. The pavement width shall be sufficient to allow the turning around of a standard AASHTO SU design vehicle without backing. The developer shall provide written approval from the appropriate fire department for this design element.

The District will consider alternatives to the standard cul-de-sac turnaround on a case-by-case basis. This will be based on turning area, drainage, maintenance considerations and the written approval of the agency providing emergency fire service for the area where the development is located.

c. **Applicant's Proposal:** The applicant is proposing to construct Shultz Street from the intersection with Hamlin Avenue approximately 615-feet to the west as a 40-foot wide street section with vertical curb, gutter, a 6-foot wide planter strip and 5-foot wide detached concrete sidewalk.

As noted above, the applicant is proposing to vacate a portion of the existing local streets, Shultz Street/Shultz Court and is proposing to vacate all of Truman Place (see image-page 9) abutting the site and incorporate those areas into the site as part of their development.

The applicant is proposing to construct 6 perpendicular parking stalls within a portion of the right-of-way of Shultz Street.



d. Staff Comments/Recommendations: The applicant's proposal to construct Shultz Street from the intersection with Hamlin Avenue approximately 615-feet to the west as a 40-foot wide street section exceeds District policy which requires the construction of a 36-foot wide local street section (measured back-of-curb to back-of-curb) and should not be approved as proposed. The applicant should be required to construct Shultz Street as a 36-foot wide local street section with curb, gutter, a 6-foot wide planter strip and 5-foot wide detached concrete sidewalk abutting the site.

The applicant's proposal to incorporate a portion of Shultz Street/Shultz Court and Truman Place into the site as part of their development does not meet District policy as those roadways are public right-of-way and should not be approved, as proposed. The applicant should be required to either improve or vacate the right-of-way (See Findings 3 above) for Shultz Street/Shultz Court and Truman Place.

If the right-of-way is improved then, complete Shultz Street/Shultz Court and Truman Place as 36-foot wide local street sections with curb, gutter and 5-foot wide concrete sidewalk abutting the site. The cul-de-sac turnarounds at the terminus of Shultz Court and Truman Place should be constructed with curb, gutter and 5-foot wide concrete sidewalk and a minimum turning radius of 50-feet.

The applicant's proposal to construct 6 perpendicular parking stalls within a portion of the right-of-way of Shultz Street is not approved, as ACHD does not allow parking stalls within the right-of-way and does not allow backing out onto a public street. If additional parking is needed to serve the site, then the applicant should redesign the site to add additional parking to the parking lots proposed to serve the site. If Shultz Street is not redesigned to meet District policy, then the applicant should apply to vacate/exchange the entire segment of Shultz Street abutting the site.

10. Internal Local Streets

a. Existing Conditions: There are no local streets within the site.

a. Policy:

Local Roadway Policy: District Policy 7207.2.1 states that the developer is responsible for improving all local street frontages adjacent to the site regardless of whether or not access is taken to all of the adjacent streets.

Street Section and Right-of-Way Policy: District Policy 7207.5 states that right-of-way widths for all local streets shall generally not be less than 47-feet wide and that the standard street section shall be 33-feet (back-of-curb to back-of-curb).

Standard Urban Local Street—33-foot Street Section and Right-of-way Policy: District Policy 7207.5.2 states that the standard street section shall be 33-feet (back-of-curb to back-of-curb) for developments with any buildable lot that is less than 1 acre in size. This street section shall include curb, gutter, and minimum 5-foot wide concrete sidewalks on both sides and shall typically be constructed within 47-feet of right-of-way.

For the City of Kuna and City of Star: Unless otherwise approved by Kuna or Star, the standard street section shall be 36-feet (back-of-curb to back-of-curb) for developments with any buildable lot that is less than 1 acre in size. This street section shall include curb, gutter, and minimum 5-foot wide concrete sidewalks on both sides and shall typically be constructed within 50-feet of right-of-way.

Sidewalk Policy: District Policy 7207.5.7 states that five-foot wide concrete sidewalk is required on both sides of all local street, except those in rural developments with net densities of one dwelling unit per 1.0 acre or less, or in hillside conditions where there is no direct lot frontage, in which case a sidewalk shall be constructed along one side of the street. Some local jurisdictions may require wider sidewalks.

The sidewalk may be placed next to the back-of-curb. Where feasible, a parkway strip at least 8-feet wide between the back-of-curb and the street edge of the sidewalk is recommended to provide increased safety and protection of pedestrians and to allow for the planting of trees in accordance with the District's Tree Planting Policy. If no trees are to be planted in the parkway strip, the applicant may submit a request to the District, with justification, to reduce the width of the parkway strip.

Detached sidewalks are encouraged and should be parallel to the adjacent roadway. Meandering sidewalks are discouraged.

A permanent right-of-way easement shall be provided if public sidewalks are placed outside of the dedicated right-of-way. The easement shall encompass the entire area between the right-of-way line and 2-feet behind the back edge of the sidewalk. Sidewalks shall either be located wholly within the public right-of-way or wholly within an easement.

Landscape Medians Policy: District policy 7207.5.16 states that landscape medians are permissible where adequate pavement width is provided on each side of the median to accommodate the travel lanes and where the following is provided:

- The median is platted as right-of-way owned by ACHD.
- The width of an island near an intersection is 12-feet maximum for a minimum distance of 150-feet. Beyond the 150-feet, the island may increase to a maximum width of 30-feet.
- At an intersection that is signalized or is to be signalized in the future, the median width shall be reduced to accommodate the necessary turn lane storage and tapers.
- The Developer or Homeowners Association shall apply for a license agreement if landscaping is to be placed within these medians.
- The license agreement shall contain the District's requirements of the developer including, but not limited to, a "hold harmless" clause; requirements for maintenance by the developer; liability insurance requirements; and restrictions.
- Vertical curbs are required around the perimeter of any raised median. Gutters shall slope away from the curb preventing ponding.

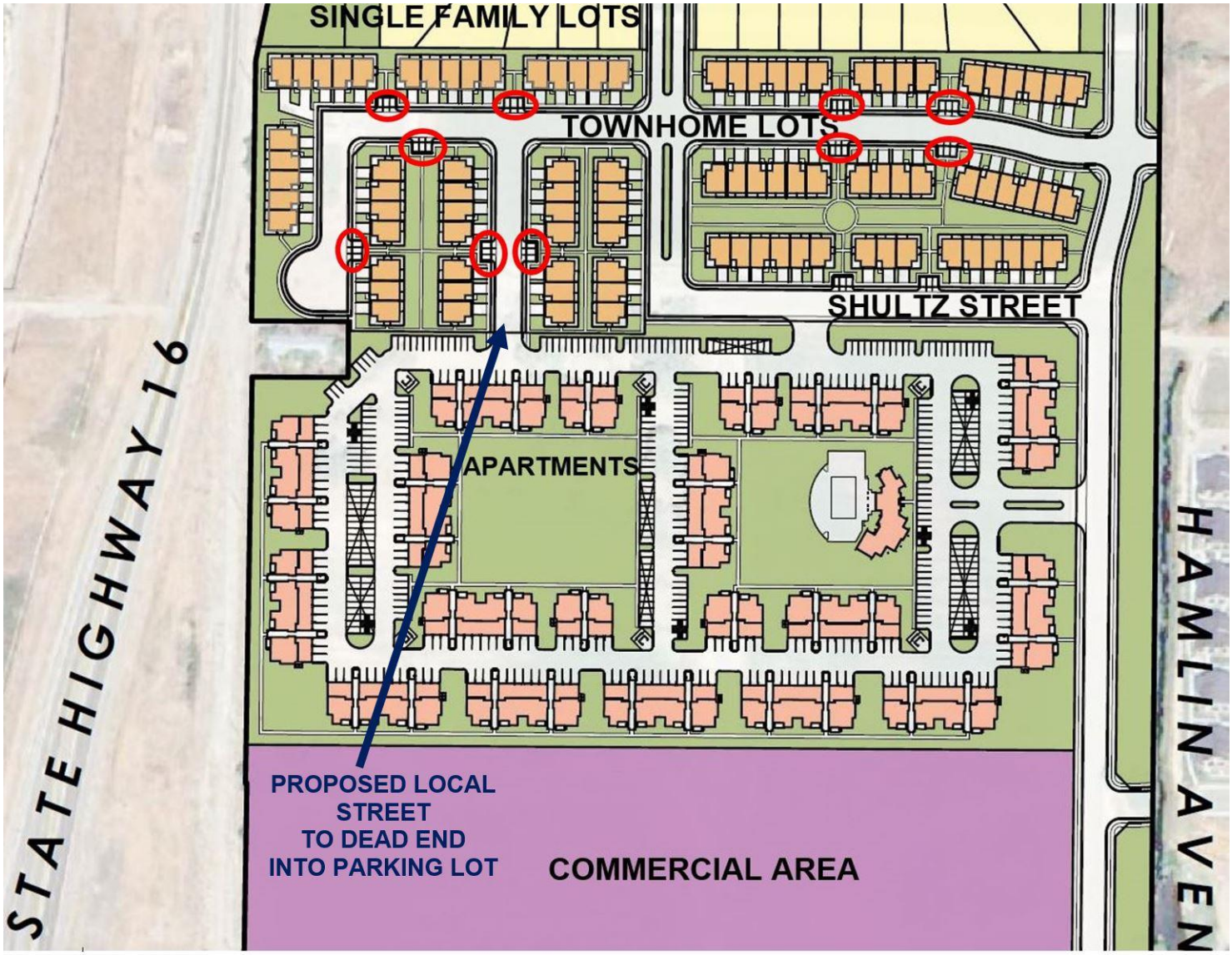
b. Applicant's Proposal: The applicant is proposing to construct a new local street that runs north/south from Shultz Street located 613-feet west of Hamlin Avenue (measured centerline-to-centerline) for approximately 485-feet with two 20-foot wide travel lanes, two 10-foot wide center landscape islands, vertical curb, gutter, a 6-foot wide planter strip within 60-feet of right-of-way and 5-foot wide detached concrete sidewalk located outside of the right-of-way.

The applicant is proposing to construct the other internal local streets as 40-foot wide street sections with vertical curb, gutter, a 6-foot wide planter strip within 50-feet of right-of-way and 5-foot wide detached concrete sidewalk located outside of the right-of-way.

The applicant is proposing to construct two cul-de-sac turnarounds within the site.

The applicant is proposing to construct a local street that dead-ends into a parking lot located 614-feet west of Hamlin Avenue to the apartment portion of the site shown below.

The applicant is proposing 30 perpendicular parking stalls within a portion of the right-of-way of the internal local streets. (See Findings 4 above regarding the parking stalls on Shultz Street.) The locations are shown below:



c. Staff Comments/Recommendations: As noted above, staff recommends the construction of private streets internal to the site. If the City of Star does not approve the private roads, then the applicant should construct the roadways to meet District policy.

The applicant's proposal to construct a new local street that runs north/south from Shultz Street located 613-feet west of Hamlin Avenue (measured centerline-to-centerline) for approximately 485-feet with two 20-foot wide travel lanes, two 10-foot wide center landscape islands, vertical curb, gutter, a 6-foot wide planter strip and 5-foot wide detached concrete sidewalk meets District policy and should be approved, as proposed.

The applicant's proposal to construct the other internal local streets as 40-foot wide local street sections with vertical curb, exceeds District policy which requires the construction of a 36-foot wide street section with rolled curb (measured back-of-curb to back-of-curb) and should not be approved, as proposed. The applicant should be required to construct the internal local streets as 36-foot wide street sections with rolled curb, gutter, a 6-foot wide planter strip and 5-foot wide detached concrete sidewalk.

The applicant should be required to dedicate right-of-way to 2-feet behind back of sidewalk, or for detached sidewalk, the applicant may reduce the right-of-way to total 2-feet behind the back of curb and provide a permanent right-of-way easement that extends from the right-of-way line to 2-feet behind back of sidewalk. Sidewalk shall be located wholly within right-of-way or wholly within an easement.

The applicant should be required to construct both cul-de-sacs turnarounds with a minimum turning radius of 50-feet.

The applicant's proposal to construct a local street that dead-ends into a parking lot located 614-feet west of Hamlin Avenue to the apartment portion of the site does not meet District policy which does not allow dead end roadways. The applicant should be required to construct a permanent cul-de-sac turnaround with a minimum turning radius of 50-feet at the terminus of the proposed local street that dead ends into the apartment portion of the site.

The applicant's proposal to construct 30 perpendicular parking stalls within a portion of the right-of-way of the internal local streets is not approved, as ACHD does not allow parking stalls within the right-of-way and does not allow backing out onto a public street. If additional parking is needed to serve the site, then the applicant should redesign the site to add additional parking to the parking lots proposed to serve the site.

11. Roadway Offsets

a. Existing Conditions: There are no existing roadways within the site.

b. Policy:

Collector Offset Policy: District policy 7206.4.5, states that the preferred spacing for a new local street intersecting a collector roadway to align or offset a minimum of 330-feet from any other street (measured centerline to centerline).

Local Offset Policy: District policy 7207.4.2, requires local roadways to align or provide a minimum offset of 125-feet from any other street (measured centerline to centerline).

c. Applicant's Proposal: The applicant is proposing to construct three new local streets to intersect Hamlin Avenue, a collector roadway, located as follows:

- 245-feet north of Shultz Street and in alignment with Hinsdale Drive, a proposed local street approved as part of Fountain Park subdivision located on the east side of Hamlin Avenue across from the site

- 629-feet north of Shultz Street and in alignment with Bluford Street, a proposed local street approved as part of Fountain Park subdivision located on the east side of Hamlin Avenue across from the site
- 1,254-feet north of Shultz Street and 179-feet south of Whetstone Street, a proposed local street approved as part of Cascade Springs located north of the site.

The applicant is proposing to construct all other internal local streets to align or offset by a minimum of 125-feet.

d. Staff Comments/Recommendations: The applicant's proposal to construct the two following local streets meets District policy and should be approved:

- 245-feet north of Shultz Street and in alignment with Hinsdale Drive, a proposed local street approved as part of Fountain Park subdivision located on the east side of Hamlin Avenue across from the site
- 629-feet north of Shultz Street and in alignment with Bluford Street, a proposed local street approved as part of Fountain Park subdivision located on the east side of Hamlin Avenue across from the site

The applicant's proposal to construct a local street onto Hamlin Avenue located 1,254-feet north of Shultz Street and 179-feet south of Whetstone Street, does not meet District Collector Offset policy which requires a new local street intersecting a collector roadway to align or offset a minimum of 330-feet from any other street and should not be approved as proposed. As noted above, staff recommend this roadway be constructed as a private street, as it only provides access to 10 single family lots or be constructed to intersect Hamlin Avenue with a minimum offset of 330-feet from any other street.

12. Driveways

12.1 Shultz Court and Truman Place

a. Existing Conditions: There are two existing unimproved driveways from the site onto Shultz Court located as follows (measured centerline-to-centerline):

- 22-foot wide driveway located 238-feet west of Truman Place
- 18-foot wide driveway located at the terminus of the temporary turnaround

There are five existing unimproved driveways from the site onto Truman Place located as follows:

- 13-foot wide driveway located 50-feet south of Shultz Street
- 22-foot wide driveway located 285-feet south of Shultz Street
- 22-foot wide driveway located 358-feet south of Shultz Street
- 18-foot wide driveway located 476-feet south of Shultz Street
- 24-foot wide driveway located 484-feet south of Shultz Street

b. Policy:

Driveway Location Policy: District policy 7208.4.1 requires driveways near intersections to be located a minimum of 75-feet (measured centerline-to-centerline) from the nearest local street intersection, and 150-feet from the nearest collector/arterial or arterial street intersection.

Successive Driveways: District Policy 7208.4.1 states that successive driveways away from an intersection shall have no minimum spacing requirements for access points along a local street, but the District does encourage shared access points where appropriate.

Driveway Width Policy: District policy 7208.4.3 restricts commercial driveways to a maximum width of 40-feet. Most commercial driveways will be constructed as curb-cut type facilities.

Driveway Paving Policy: Graveled driveways abutting public streets create maintenance problems due to gravel being tracked onto the roadway. In accordance with District policy, 7208.4.3, the applicant should be required to pave the driveway its full width and at least 30-feet into the site beyond the edge of pavement of the roadway.

Driveway Design Requirements: District policy 7208.4.3 states if an access point is to be gated, the gate or keypad (whichever is closer) shall be located a minimum of 50-feet from the near edge of the intersection and a turnaround shall be provided.

c. Applicant's Proposal: The applicant is proposing to close the two existing driveways onto Shultz Court and the five existing driveways onto Truman Place by incorporating the roadways into the site as part of the development.

The applicant is proposing to construct a 48-foot wide curb return type driveway onto Shultz Street located 410-feet west of Hamlin Avenue.

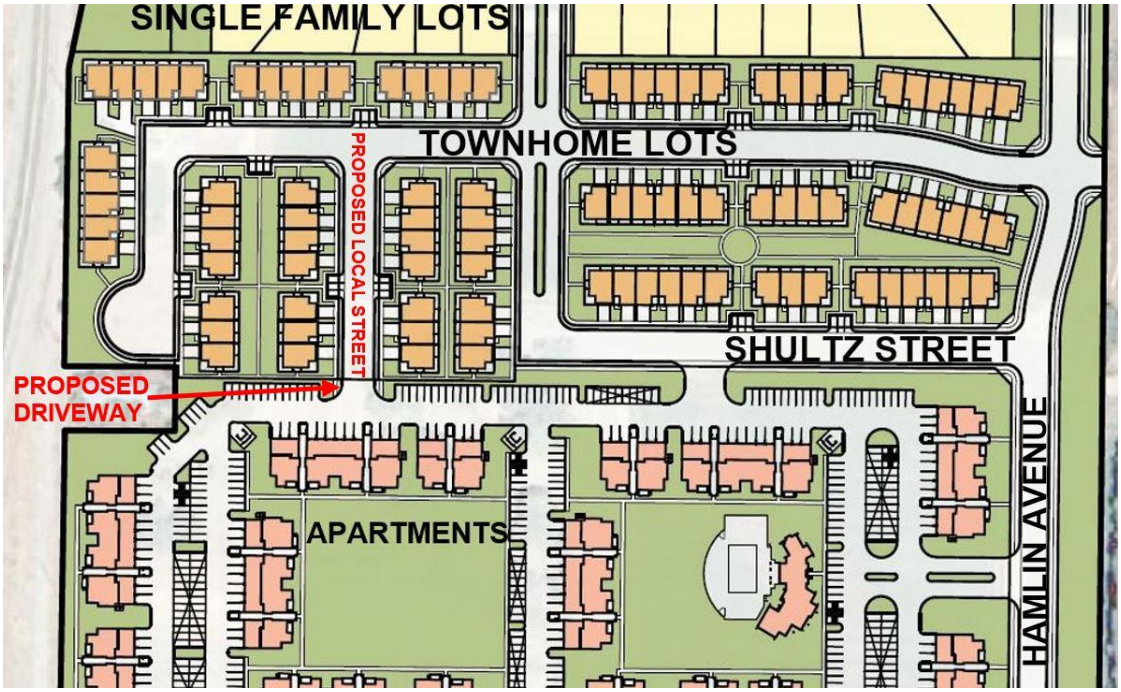
The applicant is proposing to construct a 38-foot wide driveway in alignment with the proposed local street located 613-feet west of Hamlin Avenue to provide access to the apartment area of the site.

d. Staff Comments/Recommendations: The applicant's proposal to close the two existing driveways onto Shultz Court and the five existing driveways onto Truman Place by incorporating the roadways into the site as part of the development does not meet District policy as the roadways are public right-of-way and under the jurisdiction of ACHD. See Findings C3b above regarding the vacation requirements for Shultz Street/Shultz Court and Truman Place.

If Shultz Street/Shultz Court and Truman Place are not vacated and are improved the applicant should be required to close the two existing driveways onto Shultz Court and the five existing driveways onto Truman Place with curb, gutter and 5-foot wide concrete sidewalk.

The applicant's proposal to construct a curb return type driveway onto Shultz Street located 410-feet west of Hamlin Avenue meets District policy and should be approved. The driveway will be restricted to a maximum width of 36-feet.

The applicant's proposal to construct a driveway in alignment with the proposed local street located 613-feet west of Hamlin Avenue meets District policy; however, the driveway should be constructed as a curb return type driveway approach and be designed to look like a driveway and not an extension of the proposed local street. The driveway will be restricted to a maximum width of 36-feet.



13. Traffic Calming

a. Policy:

Speed Control and Traffic Calming Policy: District policy 7207.3.7 states that the design of local street systems should discourage excessive speeds by using passive design elements. If the design or layout of a development is anticipated to necessitate future traffic calming implementation by the District, then the District will require changes to the layout and/or the addition of passive design elements such as horizontal curves, bulb-outs, chokers, etc. The District will also consider texture changes to the roadway surface (i.e. stamped concrete) as a passive design element. These alternative methods may require maintenance and/or license agreement.

b. Staff Comments/Recommendations: The applicant is proposing to construct two roadways, a local street located at the site's north property line and a local street located 236-feet north of Shults Street which are greater in length than 750-feet and should be required to be redesigned to reduce the length or include passive design elements and submit a revised preliminary plat showing the redesigned roadway for review and approval prior to ACHD's signature on the first final plat.

Stop signs, speed humps/bumps and valley gutters will not be accepted as traffic calming.

14. Bridge for Lateral 12 and Middleton Mill Canal Crossing

The District will require that the applicant have ACHD approved plans for the crossing of the Lateral 12 (Amazon Drive) and the Middleton Mill (Hamlin Avenue) canal crossing prior to the pre-construction meeting and final plat approval. Note: Timing of project plan submittals should take into account review times, lead time for precast members and potential roadway closures. To ensure construction prior to irrigation season, approval of the project plans must be attained by January 15th. The District retains the right to modify road closure approvals on any project based on the needs of the District. Construction of projects approved after January 15th may be postponed until after irrigation season is over in October. It is recommended that bridge submittals be submitted before the end of the current irrigation season to ensure the best time frame for

construction is attained. Submittals will need to include the street section extending over the bridge to ensure the requirements of the roadway are met.

15. Tree Planters

Tree Planter Policy: Tree Planter Policy: The District's Tree Planter Policy prohibits all trees in planters less than 8-feet in width without the installation of root barriers. Class II trees may be allowed in planters with a minimum width of 8-feet, and Class I and Class III trees may be allowed in planters with a minimum width of 10-feet.

16. Landscaping

Landscaping Policy: A license agreement is required for all landscaping proposed within ACHD right-of-way or easement areas. Trees shall be located no closer than 10-feet from all public storm drain facilities. Landscaping should be designed to eliminate site obstructions in the vision triangle at intersections. District Policy 5104.3.1 requires a 40-foot vision triangle and a 3-foot height restriction on all landscaping located at an uncontrolled intersection and a 50-foot offset from stop signs. Landscape plans are required with the submittal of civil plans and must meet all District requirements prior to signature of the final plat and/or approval of the civil plans.

17. Other Access

Hamlin Avenue is classified as a collector roadway. Other than the access specifically approved with this application, direct lot access is prohibited to this roadway and should be noted on the final plat.

D. Site Specific Conditions of Approval

If Private Roads are constructed within the site, then the following conditions apply.

1. If the City of Star approves private roads, then construct the internal streets as private. See image on page 8 for location of recommended private streets and apply to vacate/exchange Shultz Street/Shultz Court and Truman Place abutting the site by submitting an application to the Right-of-Way department. A right-of-way vacation is a separate application with its own public hearing process. Until the right-of-way of Shultz Street/Shultz Court and Truman Place have been vacated it is public right-of-way under the jurisdiction of ACHD.

2. If the City of Star approves private roads, the applicant shall be required to pave the private roadways their full widths and at least 30-feet into the site beyond the edge of pavement.

3. Install street name and stop signs for the private road/drive aisle. The signs may be ordered through the District. Verification of the correct, approved name of the road is required.

The following conditions apply whether or not the internal roadways are public or private.

4. Construct Amazon Drive to intersect Hamlin Avenue with a minimum of 30-feet of pavement and 3-foot wide gravel shoulders within the existing 50-feet of right-of-way. The applicant may also fully construct Amazon Drive as a 36-foot wide commercial street section with vertical curb, gutter and 5-foot wide attached concrete sidewalk to match the existing Amazon Drive prior to ACHD's signature on the first final plat. Relocate irrigation facilities outside of the right-of-way.

5. Complete the existing segment of Hamlin Avenue from SH-44 north to the intersection with Shultz Street as a 36-foot wide collector street section with vertical curb, gutter, a 6-foot wide planter strip and 5-foot wide detached concrete sidewalk on both sides of the roadway, as proposed.

6. Extend Hamlin Avenue into the site from the intersection with Shultz Street north to stub to the site's north property line and in alignment with the stub street location approved as part of Cascade Springs located north of the site as a 36-foot wide collector street section with vertical curb, gutter, a 6-foot wide planter strip and 5-foot wide detached concrete sidewalk, as proposed.

7. If Hamlin Avenue has been constructed from the intersection with Shultz Street north to the proposed local street, Hinsdale Drive, as part of the Cascade Springs development (see image on page 10) with a minimum 30-feet of pavement and 3-foot wide gravel shoulders or 24-feet of pavement, 3-foot gravel shoulders and a minimum 6-foot wide detached asphalt/concrete pedestrian facilities as part of the Fountain Park subdivision, then construct this segment of Hamlin Avenue as ½ of a 36-foot wide collector street section with vertical curb, gutter, a 6-foot wide planter strip and 5-foot wide detached concrete sidewalk.

8. Dedicate right-of-way for Hamlin Avenue to 2-feet behind back of sidewalk, or for detached sidewalk the applicant may reduce the right-of-way to 2-feet behind back of curb and provide a permanent right-of-way easement from the right-of-way line to extend to 2-feet behind back of sidewalk abutting the site on both sides of the roadway. Sidewalk should be located wholly within the right-of-way of wholly within an easement. Provide an 8-foot wide planter strip if street trees are desired.

9. Construct a collector stub street to the north, Hamlin Avenue, located in alignment with the approved stub street to the site's north property line, as proposed. If Hamlin Avenue has not been constructed to the site's north property line, then install a sign at the terminus of the stub street stating, "THIS IS A DESIGNATED COLLECTOR ROADWAY. THIS STREET WILL BE EXTENDED AND WIDENDED IN THE FUTURE."

10. Close the existing unimproved driveway onto the east side of Hamlin Avenue located 672-feet north of Amazon Drive with vertical curb, gutter, a planter strip and concrete sidewalk, as proposed.

11. Construct a 36-foot wide curb return type driveway onto Hamlin Avenue located 285-feet south of Shultz Street with two 20-foot wide travel lanes and two 10-foot wide center landscape. Once outside of the right-of-way the driveway/private road may be widened to two 20-foot wide travel lanes and two 10-foot wide center landscape islands. The center landscape islands should be located outside of the right-of-way.

12. Provide ACHD approved plans for the crossing of the Lateral 12 (Amazon Drive) and the Middleton Mill (Hamlin Avenue) canal crossing prior to the pre-construction meeting and final plat approval. Note: Timing of project plan submittals should take into account review times, lead time for precast members and potential roadway closures. To ensure construction prior to irrigation season, approval of the project plans must be attained by January 15th. The District retains the right to modify road closure approvals on any project based on the needs of the District. Construction of projects approved after January 15th may be postponed until after irrigation season is over in October. It is recommended that bridge submittals be submitted before the end of the current irrigation season to ensure the best time frame for construction is attained. Submittals will need to include the street section extending over the bridge to ensure the requirements of the roadway are met.

The following conditions apply if the City of Star does not approve private roads and public streets are constructed within the site.

13. Construct Shultz Street as a 36-foot wide local street section with curb, gutter, a 6-foot wide planter strip and 5-foot wide detached concrete sidewalk abutting the site.

14. Complete Shultz Street/Shultz Court and Truman Place as 36-foot wide local street sections with curb, gutter and 5-foot wide concrete sidewalk abutting the site. Construct the cul-de-sac turnarounds at the terminus of Shultz Court and Truman Place with curb, gutter and 5-foot wide concrete sidewalk and a minimum turning radius of 50-feet.

15. Revise the preliminary plat to remove the parking stalls on Shultz Street prior to ACHD's plan approval of the first final plat.

16. Construct the internal local streets as 36-foot wide street sections with curb, gutter, a 6-foot wide planter strip and 5-foot wide detached concrete sidewalk.

17. Construct the proposed local street onto Hamlin Avenue located 1,254-feet north of Shultz Street and 179-feet south of Whetstone Street as a private road/driveway or construct the roadway to intersect Hamlin Avenue with a minimum offset of 330-feet from Whetstone Street.

18. Construct a new local street that runs north/south from Shultz Street located 613-feet west of Hamlin Avenue (measured centerline-to-centerline) for approximately 485-feet with two 20-foot wide travel lanes, two 10-foot wide center landscape islands, vertical curb, gutter, a 6-foot wide planter strip and 5-foot wide detached concrete sidewalk.

19. Construct a permanent cul-de-sac turnaround with a minimum turning radius of 50-feet at the terminus of the proposed local street located 614-feet west of Hamlin Avenue that dead ends into the apartment portion of the site.

20. Construct both proposed cul-de-sacs within the site with a minimum turning radius of 50-feet.

21. Revise the site plan prior to ACHD's plan approval of the first final plat to remove the parking stalls on the internal local streets.

22. Dedicate right-of-way to 2-feet behind back of sidewalk, or for detached sidewalk, the applicant may reduce the right-of-way to total 2-feet behind the back of curb and provide a permanent right-of-way easement that extends from the right-of-way line to 2-feet behind back of sidewalk. Sidewalk shall be located wholly within right-of-way or wholly within an easement. Provide an 8-foot wide planter strip if street trees are desired.

23. Construct the two proposed local streets in the following locations:

- 245-feet north of Shultz Street and in alignment with Hinsdale Drive, a proposed local street approved as part of Fountain Park subdivision located on the east side of Hamlin Avenue across from the site
- 629-feet north of Shultz Street and in alignment with Bluford Street, a proposed local street approved as part of Fountain Park subdivision located on the east side of Hamlin Avenue across from the site

24. Close the two existing driveways onto Shultz Court and the five existing driveways onto Truman Place with curb, gutter and 5-foot wide concrete sidewalk.

25. Construct a 36-foot wide curb return type driveway onto Shultz Street located 410-feet west of Hamlin Avenue.

26. Construct a 36-foot wide curb return type driveway in alignment with the proposed local street located 613-feet west of Hamlin Avenue designed to look like a driveway and not an extension of the proposed local street (see image on page 16).

27. Redesign the proposed roadway located at the site's north property line and the local street located 236-feet north of Shultz Street to reduce the length or include passive design elements and submit a revised preliminary plat showing the redesigned roadway for review and approval prior to ACHD's signature on the first final plat.

Stop signs, speed humps/bumps and valley gutters will not be accepted as traffic calming.

28. Other than the access specifically approved with this application, direct lot access is prohibited to Hamlin Avenue and should be noted on the final plat.

29. Submit civil plans to ACHD Development Services for review and approval. The impact fee assessment will not be released until the civil plans are approved by ACHD.

30. Payment of impact fees is due prior to issuance of a building permit.

31. Comply with all Standard Conditions of Approval.

E. Standard Conditions of Approval

1. All proposed irrigation facilities shall be located outside of the ACHD right-of-way (including all easements). Any existing irrigation facilities shall be relocated outside of the ACHD right-of-way (including all easements).

2. Private Utilities including sewer or water systems are prohibited from being located within the ACHD right-of-way.

3. In accordance with District policy, 7203.3, the applicant may be required to update any existing non-compliant pedestrian improvements abutting the site to meet current Americans with Disabilities Act (ADA) requirements. The applicant's engineer should provide documentation of ADA compliance to District Development Review staff for review.

4. Replace any existing damaged curb, gutter and sidewalk and any that may be damaged during the construction of the proposed development. Contact Construction Services at 387-6280 (with file number) for details.

5. A license agreement and compliance with the District's Tree Planter policy is required for all landscaping proposed within ACHD right-of-way or easement areas.

6. All utility relocation costs associated with improving street frontages abutting the site shall be borne by the developer.

7. It is the responsibility of the applicant to verify all existing utilities within the right-of-way. The applicant at no cost to ACHD shall repair existing utilities damaged by the applicant. The applicant shall be required to call DIGLINE (1-811-342-1585) at least two full business days prior to breaking ground within ACHD right-of-way. The applicant shall contact ACHD Traffic Operations 387-6190 in the event any ACHD conduits (spare or filled) are compromised during any phase of construction.

8. Utility street cuts in pavement less than five years old are not allowed unless approved in writing by the District. Contact the District's Utility Coordinator at 387-6258 (with file numbers) for details.

9. All design and construction shall be in accordance with the ACHD Policy Manual, ISPWC Standards and approved supplements, Construction Services procedures and all applicable ACHD Standards unless specifically waived herein. An engineer registered in the State of Idaho shall prepare and certify all improvement plans.

10. Construction, use and property development shall be in conformance with all applicable requirements of ACHD prior to District approval for occupancy.

11. No change in the terms and conditions of this approval shall be valid unless they are in writing and signed by the applicant or the applicant's authorized representative and an authorized representative of ACHD. The burden shall be upon the applicant to obtain written confirmation of any change from ACHD.

12. If the site plan or use should change in the future, ACHD Planning Review will review the site plan and may require additional improvements to the transportation system at that time. Any change in the planned use of the property which is the subject of this application, shall require the applicant to comply with ACHD Policy and Standard Conditions of Approval in place at that time unless a waiver/variance of the requirements or other legal relief is granted by the ACHD Commission.

F. Conclusions of Law

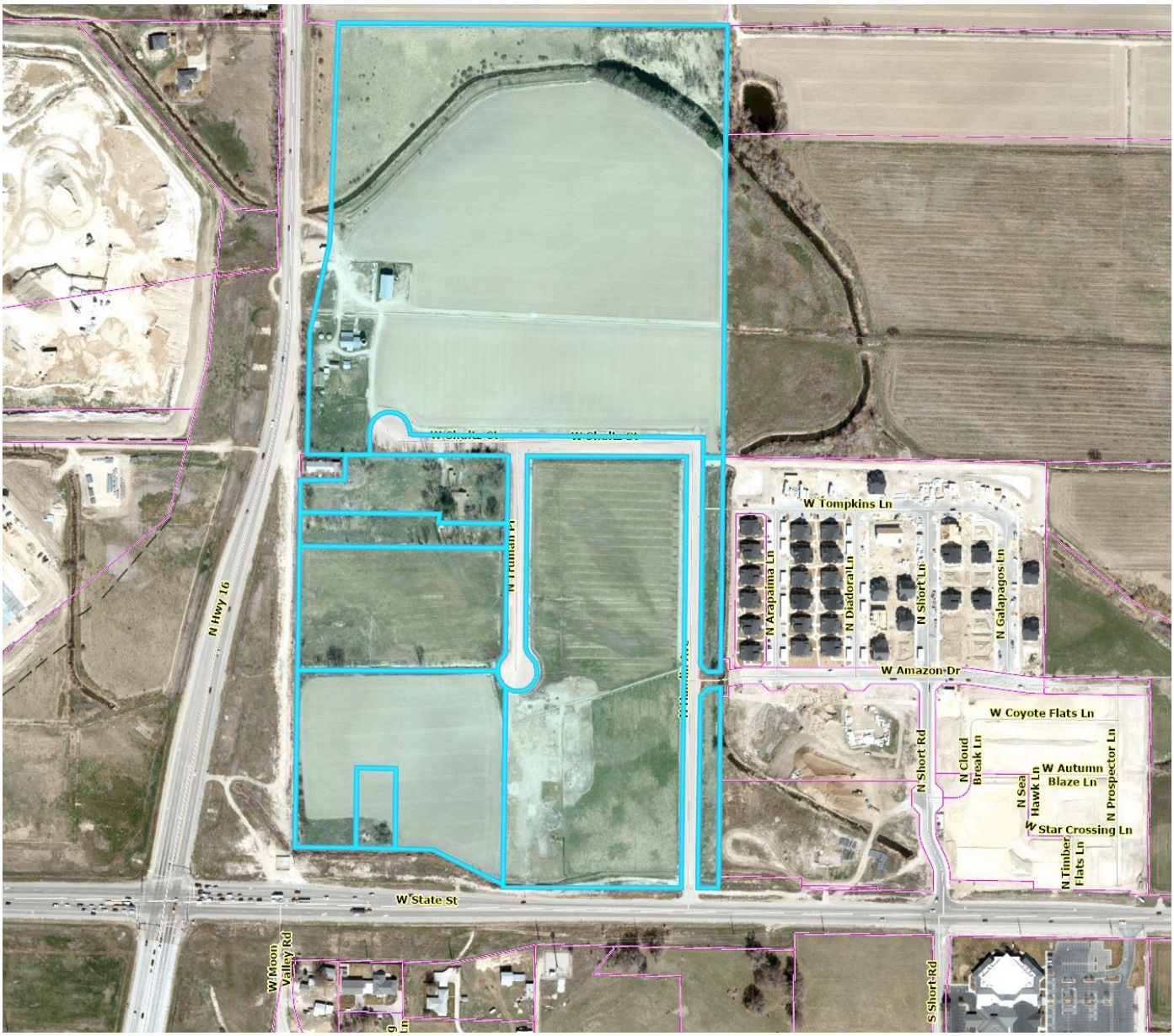
1. The proposed site plan is approved, if all of the Site Specific and Standard Conditions of Approval are satisfied.

2. ACHD requirements are intended to assure that the proposed use/development will not place an undue burden on the existing vehicular transportation system within the vicinity impacted by the proposed development.

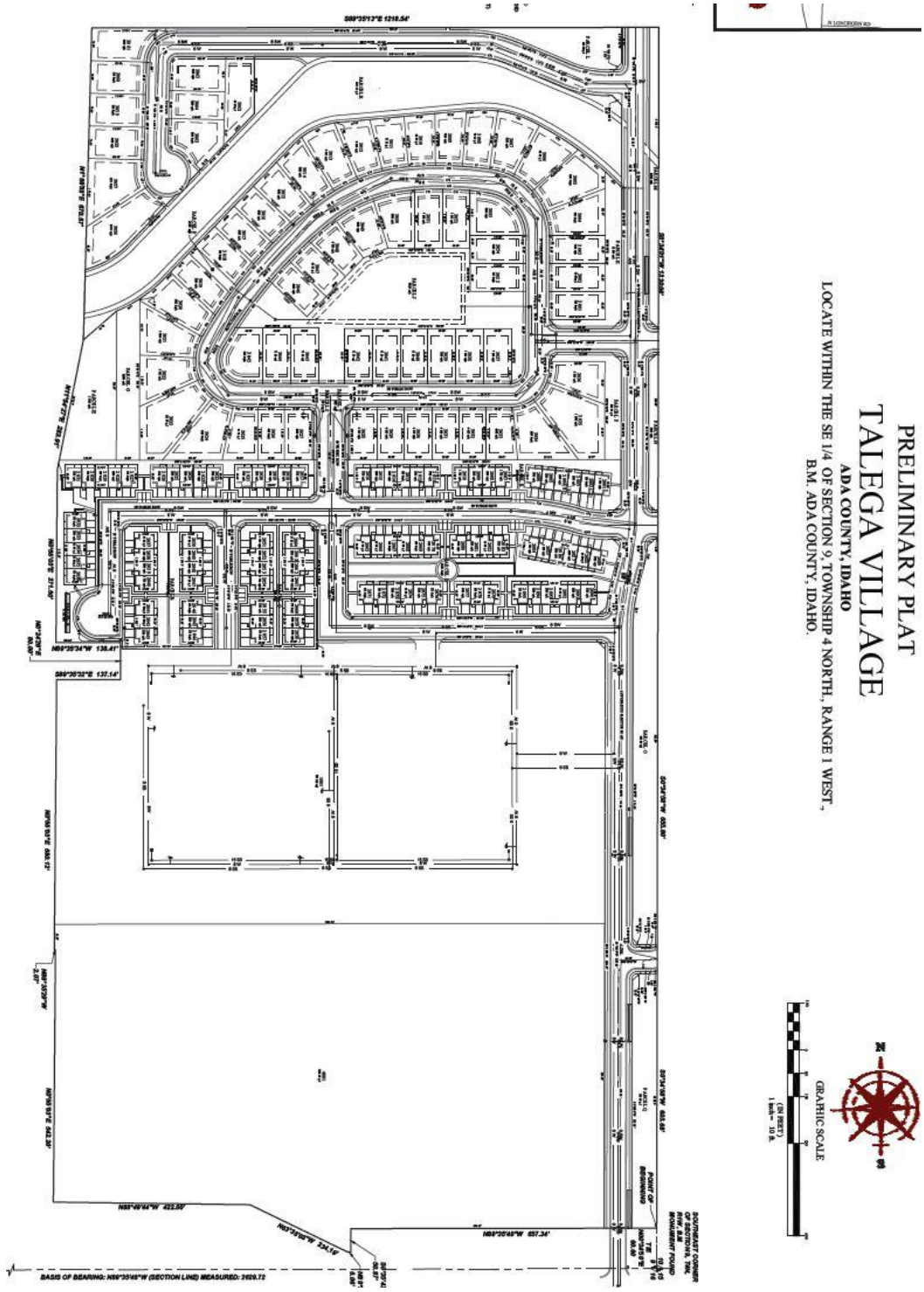
G. Attachments

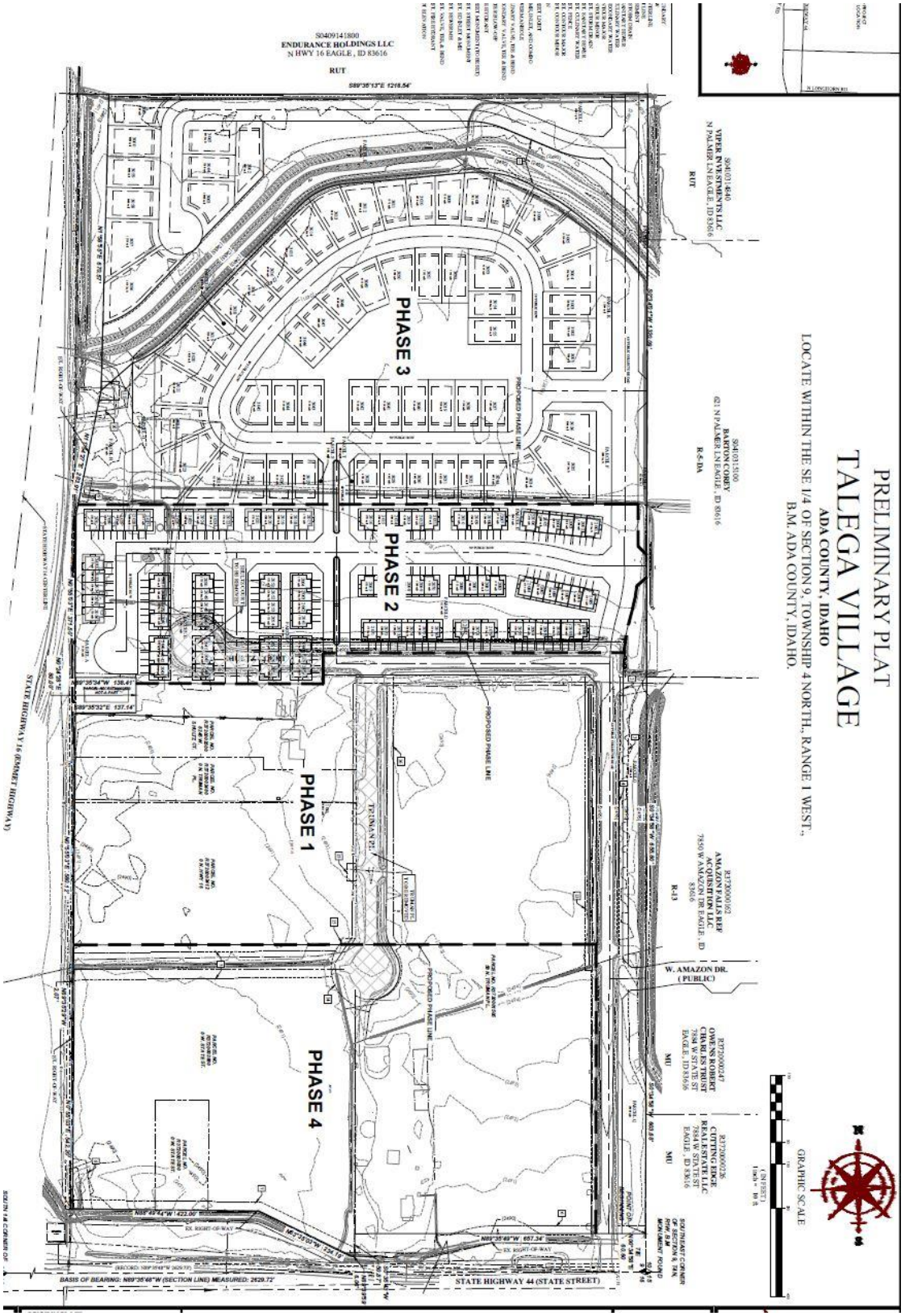
1. Vicinity Map
2. Site Plan
3. TIS Executive Summary
4. Utility Coordinating Council
5. Development Process Checklist
6. Appeal Guidelines

VICINITY MAP



SITE PLANS


PRELIMINARY PLAT
TALEGA VILLAGE
ADA COUNTY, IDAHO
LOCATE WITHIN THE SE 1/4 OF SECTION 9, TOWNSHIP 4 NORTH, RANGE 1 WEST,
B.M. ADA COUNTY, IDAHO.
GRAPHIC SCALE
BASIS OF BEARING: N89°35'45"W (SECTION LINE) MEASURED: 2629.72
POINT OF BEGINNING


PRELIMINARY PLAT
TALEGA VILLAGE
ADA COUNTY, IDAHO
LOCATE WITHIN THE SE 1/4 OF SECTION 9, TOWNSHIP 4 NORTH, RANGE 1 WEST,
B.M. ADA COUNTY, IDAHO.
PHASE 1
PHASE 2
PHASE 3
PHASE 4
PROPOSED PHASE LINE
W. AMAZON DR. (PUBLIC)
STATE HIGHWAY 44 (STATE STREET)
STATE HIGHWAY 16 (EMMET HIGHWAY)
GRAPHIC SCALE

1.0 Executive Summary

1.1 DESCRIPTION OF PROJECT

This report presents the results of a traffic impact analysis for the Northern Star Development, located in Star, Idaho. The project site is located north of State Highway (SH) 44, east of State Highway 16 and west of Hamlin Avenue. Currently the proposed parcel of land consists of farmland with a few residential homes. Figure 1 illustrates the Vicinity Map and the location of this development related to the adjacent roadway network.

This proposed Northern Star Development will consist of:

- 55 single-family dwelling units
- 110 townhome units
- 310 apartment units
- 18 acres of commercial/office

Refer to Figure 2 for the site plan of this development and the location of the proposed accesses onto the surrounding roadways.

Coordinating with Ada County (ACHD) and Idaho Transportation Department (ITD), it was determined the study area for this traffic impact study would include the following intersections:

- Hamlin Avenue/SH 44 (existing)
- Short Road/SH 44 (existing)
- Amazon Drive/Short Lane (existing)
- Shultz Street/Hamlin Avenue (existing)
- Amazon Drive/Hamlin Avenue (future)

It is anticipated, at full build-out, the Northern Star Development will generate 4,529 average daily trips with 379 AM peak hour trips and 417 PM peak hour trips. With a mix of residential and commercial/office within the same development, it is anticipated there will be some internal trips between the two land uses. It is not anticipated a large reduction in trips due to internal capture, but using the ITE Trip Generation reduction, roughly 6 vehicles in the AM peak hour and 14 in the PM peak hour are anticipated to be shared between land uses.

It is anticipated the Northern Star Development will be constructed in three main phases. The first phase is planned for the 310 apartment units and will be fully occupied by the end of 2023. The second phase will consist of the 55 single-family units and the 110 townhomes and be constructed by the end of 2024. The third and final phase will consist of the 18 acres of commercial/office and is planned to be constructed by 2030. Therefore, the study years for this development are 2022 existing, 2023 background, 2024 background and 2030 background.

As part of the analysis for the Northern Star Development, projected future traffic volumes from surrounding developments were included in the Background traffic volumes. Currently the Amazon Falls Phase 1 development is under construction and is planned for full build-out by the end of this year. Therefore the 2023 Background traffic volumes include the full build-out traffic from the Amazon Falls Phase 1 development. The Amazon Falls Phase 2 development and the Fountain Park development are also planned developments in this area; however, they are planned for full build-out by 2025, therefore their projected traffic volumes are included in the 2030 Background traffic scenario. Recommendations from the traffic impact studies from these surrounding developments were implemented in the analysis for this Northern Star Development. Recommended improvements included:

- By 2023, SH 44 be widened to two lanes in each direction with separate right turn lanes at the Short Road intersection
- By 2025, the SH 44 and Short Road intersection be restricted to right-in/right-out with left turn (RIROLI) in movements only.

1.2 PRINCIPAL FINDINGS & RECOMMENDATIONS

The following is a summary of the principal findings and recommendations for the addition of the Northern Star Development.

2022 Existing Conditions

State Highway 44 and Hamlin Avenue

- Under the 2022 existing traffic conditions, each traffic movement at the SH 44 and Hamlin Avenue intersection currently functions at a Level of Service (LOS) "C" or better in the AM and PM peak hours. This intersection was recently constructed to only allow right-in and right-out movements. No additional improvements are needed.

Short Road and SH 44

- The northbound and southbound approaches of the SH 44 and Short Road, currently function at a LOS "F" on both the AM and PM peak hours. However, the volume to capacity ratio is acceptable, not higher than 1.0 for ACHD guidelines or 0.90 for ITD guidelines.

Amazon Drive and Short Road

- The Amazon Drive and Short Road intersection was recently constructed and currently functions with a LOS "A". Traffic volumes are fairly light at this intersection as the development in this area are under construction. No improvements are needed.

Shultz Court and Hamlin Avenue

- The Shultz Court and Hamlin Avenue currently consists of a northbound left turn and an eastbound right turn that accesses the residential home and farmland. This intersection functions with acceptable levels of service with very minimal traffic.

Roadway Segment LOS

Under the 2022 Existing conditions, Hamlin Avenue, Short Road and Amazon Drive all meet the planning level of service threshold for roadway segments within the study area.

2023 Background Traffic Conditions

Growth in traffic was applied using growth rates provided by COMPASS and also using the future build-out traffic volumes from the Amazon Phase 1 development to generate the 2023 Background traffic volumes. As outlined in the Idaho Transportation Invest Program (ITIP), SH 44 is planned to be widened to two lanes in each direction by 2023. Therefore, the 2023 Background traffic conditions illustrate SH 44 as two lanes in each direction at each of the study area intersections.

SH 44 and Hamlin Avenue

- With this intersection functioning and continuing to function as a right in/right out intersection, it is anticipated this intersection will continue to function at a LOS "C" or better under the background scenarios and no improvements are needed.

Short Road and SH 44

- With the proposed widening of SH 44, this intersection will continue to function with a LOS "F" in the northbound and southbound movements, and the v/c ratio will continue to function below the recommended threshold.

Amazon Drive and Short Road

- The traffic volumes for a fully built-out Amazon Falls 1 development were applied to this intersection to generate the 2023 Background traffic volumes. This intersection will continue to function with a LOS "A" in all movements and stop controlled movements along Short Road and free-flowing traffic along Amazon Drive.

Shultz Court and Hamlin Avenue

- In the 2023 Background conditions, this intersection will continue to function with minimal traffic that only accesses the single residents in this area and functions with acceptable levels of service.

Roadway Segment LOS

Under the 2023 Background conditions, Hamlin Avenue, Short Road and Amazon Drive all meet the planning level of service threshold for roadway segments within the study area.

2023 Background with Project Traffic Conditions

By 2023, it is planned the Phase 1 of the Northern Star development will be at full buildout. This phase will consist of the 310 apartment units.

SH44 and Hamlin Avenue

- With the addition of the Northern Star Development's first phase, this intersection will continue to function with an acceptable LOS "C" or better and will continue to function as right-in/right-out.

Short Road and SH 44

- With the addition of the Northern Star Development's first phase, the Short Road and SH 44 intersection will continue to experience similar levels of service as it experiences without the proposed development. The northbound and southbound traffic movements will still experience a LOS "F". The v/c ratio for the southbound left turning movements will fall above the minimum required of 1.0 per Ada County standards.

- As has been proposed in the Amazon Falls Phase 2 traffic study, signalizing this intersection will improve the LOS and v/c ratio, however, this location does not meet the signal spacing per Idaho Department of Transportation.

Short Road and Amazon Drive

- This intersection will continue to function with LOS "A" at each traffic movement with the addition of the Northern Star Development. No additional improvements are needed.

Hamlin Avenue and Shultz Court

- With the addition of Phase 1, the Shultz Court and Hamlin Avenue intersection will continue to function with acceptable levels of service.
- It is recommended Hamlin Avenue be constructed with one lane in each direction as a Collector Road, to provide access into the proposed development.

Hamlin Avenue and Amazon Drive

- With the addition of Phase 1, the Hamlin Avenue and Amazon Drive intersection will function with acceptable levels of service.
- Under the 2023 Background with Project scenario, the turning volumes at this intersection do not warrant separate left or right turn lanes. Therefore, each leg of the intersection should be constructed with one lane in each direction.

Hamlin Avenue and the Apartment Access

- This intersection will function with acceptable levels of service under the 2023 Background with Project scenario.
- It is recommended this intersection be constructed with one lane in each direction as the traffic volumes do not meet the warrants for separate left and right turn lanes.

Roadway Segment LOS

Under the 2023 Background with Project conditions, Hamlin Avenue, Short Road and Amazon Drive all meet the planning level of service threshold for roadway segments within the study area.

2024 Background Traffic Conditions

Hamlin Avenue and SH 44

- This intersection will continue to function with acceptable levels of service "C" or better under the 2024 Background traffic conditions. This intersection is proposed to continue to function as right-in/right-out. It is recommended SH 44 be widened to two lanes in each direction with a separate westbound right turn lane as planned with ITD.

Short Road and SH 44

- Under the 2024 Background traffic conditions, it is assumed the Amazon Falls Phase 1 development will be built-out. The traffic at this intersection will continue to function with a LOS "F" in the northbound and southbound directions.

- Amazon Falls 2 development is not planned for full build-out until 2025, however, this study does recommend this intersection follow the recommended access management strategies identified in the SH 44 corridor study. It was also recommended this intersection be restricted to a right-in/right-out with left-in.

- As outlined in the Amazon Falls Phase 2 traffic study, this intersection is planned to restrict left turn movements onto SH 44 as a right-in-right-out with left turn in movements. With this modification, the intersection will function with acceptable levels of service and also acceptable v/c ratios. It should be noted, by restricting turning movements at this intersection, it would be assumed vehicles from the Northern Star Development will not use this intersection to exit onto SH 44. With restrictions to left turn movements so vehicles can only exit to the west, most vehicles will just use the existing SH 44 and Hamlin Avenue intersection as it functions with the same controlled movements. With re-distribution of the traffic

from Phase 1, all intersections will function with acceptable levels of service and acceptable v/c ratios.

- It should also be noted if the Palmer Lane and SH 44 is signalized, which is planned, additional gaps in traffic along SH 44 may be present to reduce the average vehicle delay on Short Road which is not measured with the Synchro software.

Short Road and Amazon Drive

- In the 2024 Background scenario, the Short Road and Amazon Drive intersection will function with LOS "A" at each movement and v/c ratio's that are below 1.0.

Hamlin Avenue and Shultz Court

- This intersection will continue to function with minimal traffic under the 2024 Background scenario and the LOS and v/c ratios will be acceptable.

Roadway Segment LOS

Under the 2024 Background conditions, Hamlin Avenue, Short Road and Amazon Drive all meet the planning level of service threshold for roadway segments within the study area.

2024 Background with Project Traffic Conditions

It is planned by 2024, Phase 2 of the Northern Star development will be constructed. This phase will consist of the townhomes and single-family homes located on the north end of the proposed project.

Hamlin Avenue and SH 44

- With the addition of phase 2 of the Northern Star development, the Hamlin Avenue and SH 44 will continue to function with right-in and right-out movements. SH 44 is planned to be widened to two lanes in the eastbound and westbound directions with a separate westbound right turn lane.

- This intersection will continue to function with acceptable LOS "C" or better and acceptable v/c ratios for each movement.

Short Road and SH 44

- Similar operations will continue to occur at the Short Road and SH 44 intersection. It is planned SH 44 will be widened to two lanes in each direction with separate right turn lanes in the eastbound and westbound directions. It is also planned the southbound approach of this intersection will consist of separate right/through and left turn lanes.

- With the addition of the phase 2 traffic from the Northern Star development, and the above-mentioned recommendations in the Background scenarios, this intersection will continue to function with LOS "F" in the southbound and northbound approaches and the southbound approach.

- If the Short Road and SH 44 intersection is modified to RIROLI movements, it is also assumed traffic from the Northern Star development will use Hamlin Avenue to access SH 44 and little to no traffic will use Short Road. With this assumption, all intersections will continue to function with acceptable levels of service and acceptable v/c ratios.

Short Road and Amazon Drive

- This intersection will continue to function with acceptable levels of service "A" and v/c ratios during both the AM and PM peak hours.

- This intersection will continue to function as a two-way stop-controlled intersection with the stop-control along Amazon Drive.

Hamlin Avenue and Shultz Court

- With the addition of Phase 2, this intersection will continue to function with one lane in each direction as turn lanes are not warranted with the projected traffic volumes.

- This intersection will function with acceptable LOS "A" and v/c ratios for all vehicular movements.

Hamlin Avenue and Amazon Drive

- This intersection also continues to function with acceptable LOS "A" and v/c ratios for all vehicular movements under the 2024 Background with Project traffic conditions.

Hamlin Avenue and Apartment Access

- This access to apartments will continue to function with a LOS "A" and v/c ratios for all traffic movements with the addition of phase 2.

Hamlin Avenue and Single-Family Housing Access

- This access will function with acceptable LOS "A" and v/c ratios for all traffic movements with the addition of Phase 2.

- It is recommended this intersection be constructed with one lane in each direction to service the development. Projected traffic volumes do not warrant the need for separate left or right turn lanes.

Roadway Segment LOS

Under the 2024 Background with Project conditions, Hamlin Avenue, Short Road and Amazon Drive all meet the planning level of service threshold for roadway segments within the study area.

2030 Background Traffic Conditions

Under the 2030 Background traffic conditions, it is planned multiple developments surrounding the proposed Northern Star Development will be fully built out and occupied. These developments include Amazon Falls Phase 2 (planned for full build-out by 2025), Fountain Park Subdivision (planned for full build-out by 2025).

Hamlin Avenue and SH 44

- This intersection will continue to function with acceptable LOS "D" or better under the AM and PM peak hours. This intersection is planned to continue to function with a right-in/right-out turning movements.

Short Road and SH 44

- This intersection will continue to function with unacceptable LOS and v/c ratios during the AM and PM peak hours for the northbound and southbound left turn movements. All other traffic movements will continue to function with acceptable LOS.

- If the recommendations from the Amazon Falls Phase 2 traffic study are implemented, this intersection would become a right-in/right-out with left in only movements. With these improvements, this intersection will function with acceptable LOS in all traffic movements. The v/c ratio will also be acceptable for each traffic movement. It should be noted, with future development that may occur to the east, Amazon Drive would extend to Palmer Lane and provide another access/connection of the roadways. It would be assumed with a connection along Amazon Drive to Palmer Lane, a large majority of the traffic making left turn movements at the Short Road and SH 44 intersection would use the Amazon Drive route to travel eastbound. However, since this connection of Amazon Drive will be driven by future developments, these developments are not planned so therefore this connection was not used in this study.

Short Road and Amazon Drive

- The Short Road and Amazon Drive intersection will continue to function with acceptable LOS "A" and v/c ratios during the AM and PM peak hour for each traffic movement.

Hamlin Avenue and Shultz Court

- It is assumed this intersection will continue to service the existing residents in this area under the 2030 Background conditions and will function with minimal delays, a LOS "A" and v/c ratios that all meet minimal requirements.

Roadway Segment LOS

Under the 2030 Background conditions, Hamlin Avenue, Short Road and Amazon Drive all meet the planning level of service threshold for roadway segments within the study area.

2030 Background with Project Traffic Conditions

In 2030, it is planned the final Phase 3 will be constructed and fully built. This phase of the Northern Star Development will consist of roughly 18 acres of commercial/office space. For purposes of this study, 20% of the overall 18 acreage was determined to be occupied by the building and the land use for Office Space was used to calculate the project generated traffic for this phase.

Hamlin Avenue and SH 44

- The Hamlin Avenue and SH 44 intersection is planned to continue to function with right-in/right-out traffic movements.
- Under the AM peak hour this intersection is planned to continue to function with acceptable LOS "C" or better for each traffic movements and an acceptable v/c ratio.
- Under the PM peak hour, this intersection may function with a LOS "F", however the v/c ratio of 0.93 is acceptable per county guidelines but fall below the ITD guidelines of 0.90. However, since this intersection will not be signalized, and already functions with a right-in and right-out movements, no other improvements can be made.

Short Road and SH 44

- Similar to previous study years, this intersection will continue to function with unacceptable levels of service and v/c ratio for the northbound and southbound left turn movements. If this intersection is modified to RIROLI movements, the intersection will function with acceptable LOS and v/c ratios in the AM peak hour, however will fall below the threshold in the PM peak hour.

- If this intersection cannot be signalized, the connection of Amazon Drive to Palmer Lane will help provide an additional route for traffic to exit the development and travel eastbound along SH 44.

Short Road and Amazon Drive

- This intersection will continue to function with acceptable LOS "A" and v/c ratios under both the AM and PM peak hours. It is recommended this intersection be designed and constructed to meet city standards. It is also recommended adequate sight distance be accounted for in the design at this intersection with no obstructions within the required line of sight.

Hamlin Avenue and Amazon Drive

- With the addition of the Northern Star Phase 3, the west leg of this intersection will be added to this intersection. This intersection is recommended to be constructed with one lane in each direction as turn lane warrants are not met with the projected traffic volumes. This intersection will also continue to function with acceptable LOS "A" and v/c ratios for each traffic movements under the AM and PM peak hours.

Hamlin Avenue and Shultz Court

- Each turning movement at the Hamlin Avenue and Shultz Court intersection will continue to function with acceptable LOS "B" or better under the 2030

Background with Project traffic conditions and continue with acceptable v/c ratios.

Hamlin Avenue and Apartment Access

- Each traffic movement at this intersection will also continue to function with acceptable LOS and v/c ratio.

Hamlin Avenue and Single-Family Housing Access

- This intersection will also continue to function with acceptable LOS "A" and acceptable v/c ratio for each traffic movements.

Roadway Segment LOS

Under the 2030 Background with Project conditions, Hamlin Avenue, Short Road and Amazon Drive all meet the planning level of service threshold for roadway segments within the study area.

Ada County Utility Coordinating Council

Developer/Local Improvement District
Right of Way Improvements Guideline Request

Purpose: To develop the necessary avenue for proper notification to utilities of local highway and road improvements, to help the utilities in budgeting and to clarify the already existing process.

1) **Notification:** Within five (5) working days upon notification of required right of way improvements by Highway entities, developers shall provide written notification to the affected utility owners and the Ada County Utility Coordinating Council (UCC). Notification shall include but not be limited to, project limits, scope of roadway improvements/project, anticipated construction dates, and any portions critical to the right of way improvements and coordination of utilities.

2) **Plan Review:** The developer shall provide the highway entities and all utility owners with preliminary project plans and schedule a plan review conference. Depending on the scale of utility improvements, a plan review conference may not be necessary, as determined by the utility owners. Conference notification shall also be sent to the UCC. During the review meeting the developer shall notify utilities of the status of right of way/easement acquisition necessary for their project. At the plan review conference each company shall have the right to appeal, adjust and/or negotiate with the developer on its own behalf. Each utility shall provide the developer with a letter of review indicating the costs and time required for relocation of its facilities. Said letter of review is to be provided within thirty calendar days after the date of the plan review conference.

3) **Revisions:** The developer is responsible to provide utilities with any revisions to preliminary plans. Utilities may request an updated plan review meeting if revisions are made in the preliminary plans which affect the utility relocation requirements. Utilities shall have thirty days after receiving the revisions to review and comment thereon.

4) **Final Notification:** The developer will provide highway entities, utility owners and the UCC with final notification of its intent to proceed with right of way improvements and include the anticipated date work will commence. This notification shall indicate that the work to be performed shall be pursuant to final approved plans by the highway entity. The developer shall schedule a preconstruction meeting prior to right of way improvements. Utility relocation activity shall be completed within the times established during the preconstruction meeting, unless otherwise agreed upon.

Notification to the Ada County UCC can be sent to: 50 S. Cole Rd. Boise 83707, or Visit iducc.com for e-mail notification information.

Development Process Checklist

Items Completed to Date:

☒Submit a development application to a City or to Ada County

☒The City or the County will transmit the development application to ACHD

☒The ACHD **Planning Review Section** will receive the development application to review

☒The **Planning Review Section** will do one of the following:

☐Send a **"No Review"** letter to the applicant stating that there are no site specific conditions of approval at this time.

☒Write a **Staff Level** report analyzing the impacts of the development on the transportation system and evaluating the proposal for its conformance to District Policy.

☒Write a **Commission Level** report analyzing the impacts of the development on the transportation system and evaluating the proposal for its conformance to District Policy.

Items to be completed by Applicant:

☐For **ALL** development applications, including those receiving a **"No Review"** letter:

- The applicant should submit one set of engineered plans directly to ACHD for review by the **Development Review Section** for plan review and assessment of impact fees. (Note: if there are no site improvements required by ACHD, then architectural plans may be submitted for purposes of impact fee assessment.)
- The applicant is required to get a permit from Construction Services (ACHD) for ANY work in the right-of-way, including, but not limited to, driveway approaches, street improvements and utility cuts.

☐Pay Impact Fees prior to issuance of building permit. Impact fees cannot be paid prior to plan review approval.

DID YOU REMEMBER:
Construction (Non-Subdivisions)
☐ **Driveway or Property Approach(s)**

- Submit a "Driveway Approach Request" form to ACHD Construction (for approval by Development Services & Traffic Services). There is a one week turnaround for this approval.

☐ **Working in the ACHD Right-of-Way**

- Four business days prior to starting work have a bonded contractor submit a "Temporary Highway Use Permit Application" to ACHD Construction – Permits along with:
  a) Traffic Control Plan
  b) An Erosion & Sediment Control Narrative & Plat, done by a Certified Plan Designer, if trench is >50' or you are placing >600 sf of concrete or asphalt.

Construction (Subdivisions)
☐ **Sediment & Erosion Submittal**

- At least one week prior to setting up a Pre-Construction Meeting an Erosion & Sediment Control Narrative & Plan, done by a Certified Plan Designer, must be turned into ACHD Construction to be reviewed and approved by the ACHD Stormwater Section.

☐ **Idaho Power Company**

- Vic Steelman at Idaho Power must have his IPCO approved set of subdivision utility plans prior to Pre-Con being scheduled.

☐ **Final Approval from Development Services is required** prior to scheduling a Pre-Con.

Request for Appeal of Staff Decision

1. **Appeal of Staff Decision:** The Commission shall hear and decide appeals by an applicant of the final decision made by the Development Services Manager when it is alleged that the Development Services Manager did not properly apply this section 7101.6, did not consider all of the relevant facts presented, made an error of fact or law, abused discretion or acted arbitrarily and capriciously in the interpretation or enforcement of the ACHD Policy Manual.

    a. Filing Fee: The Commission may, from time to time, set reasonable fees to be charged the applicant for the processing of appeals, to cover administrative costs.

    b. Initiation: An appeal is initiated by the filing of a written notice of appeal with the Secretary and Clerk of the District, which must be filed within ten (10) working days from the date of the decision that is the subject of the appeal. The notice of appeal shall refer to the decision being appealed, identify the appellant by name, address and telephone number and state the grounds for the appeal. The grounds shall include a written summary of the provisions of the policy relevant to the appeal and/or the facts and law relied upon and shall include a written argument in support of the appeal. The Commission shall not consider a notice of appeal that does not comply with the provisions of this subsection.

    c. Time to Reply: The Development Services Manager shall have ten (10) working days from the date of the filing of the notice of appeal to reply to the notice of the appeal, and may during such time meet with the appellant to discuss the matter, and may also consider and/or modify the decision that is being appealed. A copy of the reply and any modifications to the decision being appealed will be provided to the appellant prior to the Commission hearing on the appeal.

    d. Notice of Hearing: Unless otherwise agreed to by the appellant, the hearing of the appeal will be noticed and scheduled on the Commission agenda at a regular meeting to be held within thirty (30) days following the delivery to the appellant of the Development Services Manager's reply to the notice of appeal. A copy of the decision being appealed, the notice of appeal and the reply shall be delivered to the Commission at least one (1) week prior to the hearing.

    e. Action by Commission: Following the hearing, the Commission shall either affirm or reverse, in whole or part, or otherwise modify, amend or supplement the decision being appealed, as such action is adequately supported by the law and evidence presented at the hearing.

ADA COUNTY DEVELOPMENT SERVICES

200 W. FRONT STREET, BOISE, IDAHO 83702-7300
https://adacounty.id.gov/developmentservices
PHONE (208) 287-7900
FAX (208) 287-7909

BUILDING • COMMUNITY PLANNING • ENGINEERING & SURVEYING • PERMITTING

February 27, 2023

Shawn Nickel
City of Star Planning & Zoning
10769 W State St
Star, ID 83669

RE: AZ-22-11 / Northeast Corner of SH-16 and SH-44 / Talega Village Subdivision

Shawn,

The City of Star has requested feedback regarding the proposed annexation and preliminary plat for the Talega Village Subdivision, which will consist of 55 single-family homes, 98 Townhome units, 340 multi-family units, and 1 commercial lot on 65.7 acres located on the northeast corner of SH-16 and SH-44/ State Street (Parcels: R3720002880, R3720003030, R3720002500, R3720002480, R3720001505, R3720002412, & S0409417201). Ada County supports the application due to its compatibility with the Star Comprehensive Plan, as adopted by Ada County, which designates the site as a mixture of *Multiple Use 1*, and *Commercial*.

The proposal to include single-family and multi-family housing within the development is supported by *Multiple Use Policy 2*, which encourages diverse housing types and densities, and the proposed mix of residential and commercial development is compatible with *Multiple Use Policy 6* which encourages residential uses near commercial uses. The proposal to set aside over 34% (16.4 acres) as common area, which will include playgrounds, dog parks, and pedestrian pathways, is also compatible with *Residential Policy 3* of the Star Comprehensive Plan which encourages neighborhood parks and open spaces to be provided within residential areas.

It is suggested that a pedestrian pathway be considered along the Dry Creek Canal as encouraged by *Goal 1.2d* of the Ada County Comprehensive Plan, which supports the enhancement of manmade drainage ways as valuable resources for recreational pathways and potential pedestrian and bicycle routes.

Thank you for this opportunity to provide feedback.

Sincerely,

Stacey Yarrington

Stacey Yarrington
Community & Regional Planner
Ada County Development Services

Communities in Motion (CIM) Development Review Checklist

Development Name:	Talega Village
CIM Vision Category:	Future Neighborhood
Consistent with CIM Vision?	YES
New Households:	493
New Jobs:	±220

Safety

How safe and comfortable is the nearest major road (minor arterial or above) for bicyclists and pedestrians? Analysis is limited to existing roadway conditions.

State Highway 44 (West State Street)

Pedestrian level of stress	✗
Bicycle level of stress	✗

Economic Vitality

To what extent does the project enable people, government, and businesses to prosper?

Economic Activity Center Access	✓
Impact on Existing Surrounding Farmland	✓
Net Fiscal Impact	✓

Convenience

What services are available within 0.5 miles (green) or 1 mile (yellow) of the project?

Nearest bus stop	✗
Nearest public school	✗
Nearest public park	✗

Quality of Life

Checked boxes indicate that additional information is attached.

Active Transportation	
Automobile Transportation	
Public Transportation	✓
Roadway Projects	✓

✓ **Improves performance** — **Does not improve or reduce performance** — ✗ **Reduces performance**

Comments:
When developing the site plan for Phase 4 consider including a public multiuse pathway along the southern boundary, as shown in the City of Star's *Pathways Master Plan*. To support future transit along State Street consider installing sidewalks that are wide enough to allow for passenger and wheelchair loading and unloading (72-84 inches).

Who we are: *The Community Planning Association of Southwest Idaho (COMPASS) is the metropolitan planning organization for Ada and Canyon Counties. This review evaluates whether land developments are consistent with Communities in Motion, the regional long-range transportation plan for Ada and Canyon Counties. This checklist is not intended to be prescriptive, but rather a guidance document. Past checklists are available online. See the* ***Development Review User Guide*** for more information on the red, yellow, and green checklist thresholds.

Sent: 3/13/23

www.compassidaho.org
info@compassidaho.org
COMPASS COMMUNITY PLANNING ASSOCIATION of Southwest Idaho

Complete Network Appendix

Checkmarks (✓) below indicate suggested changes to a site plan, based on the COMPASS Complete Network Policy (No. 2022-01). Both the Complete Network Policy and site-specific suggestions are intended to better align land use with identified transportation uses in the corridor. Please see the Complete Network map for primary and secondary uses for roadways (minor arterial and above) in Ada and Canyon Counties.

Corridor Name:	State Highway 44 (West State Street)
Primary Use:	Public Transportation
Secondary Use:	Freight

Land Use to Support Public Transportation

✓ Orient buildings toward potential transit corridors, with parking on the back side rather than the street side

The COMPASS-compiled catalog of Transit Oriented Developments in the *Communities in Motion Implementation Guidebook* provides examples of how higher-density development can integrate in existing neighborhoods.

Public Transportation Infrastructure

✓ Provide sidewalks and/or bike paths designed to meet the needs of all users (including elderly, children, and individuals with disabilities) to connect development to transit stops

✓ Include doors with 32 inches of clear passage space, and at least one zero-step entrance and accessible bathroom on the main floor to support those with limited mobility

Fiscal Impact Analysis

Below are the expected revenues and costs to local governments from this project. The purpose of this analysis is to help the public, stakeholders, and the decision-makers better manage growth.

Capital and operating expenditures are determined based on service and infrastructure needs, including persons per household, student generation rates, lot sizes, street frontages, vehicle trip and trip adjustment factors, average trip lengths, construction values, income, discretionary spending, and employment densities.

Net Fiscal Impact by Agency

✗ City	✗ County
✗ Highway District	✓ School District

Breakeven point across all agencies: 16 years

Additional Information:

- City of Star fiscal impact is estimated to be positive prior to phase 4.
- The largest estimated expense to City of Star is law enforcement (50% of total expenses).
- Highway District fiscal impact is estimated to be positive in stabilization year (on-going impact), however capital costs to state highway system result in breakeven point beyond 20 years.

Disclaimer*: This tool only looks out 20 years and does not include replacement costs for infrastructure, public utilities, or unfunded transportation needs in the project area. More information about the COMPASS Fiscal Impact Tool is available at:* www.compassidaho.org/prodserv/fiscalimpact.htm

Long-Term Funded and Unfunded Capital Projects

CIM Priority Corridor: State Highway 44 (West State Street)

Widening State Highway 44 (West State Street) is a short-term funded project in *Communities in Motion 2050* (Key# 20266 in the FY23-29 Transportation Improvement Program).

More information on transportation needs and projects based on forecasted future growth is available at: https://compassidaho.maps.arcgis.com/apps/instant/portfolio/index.html?appid=6c1eebca233d49c4935825136f338fac

Short-Term Funded Capital Projects

SH-44 (State Street), SH-16 to Linder Road, Ada County

Regionally Significant: ☑ ☑ **Inflated**

Key # : 20266

Requesting Agency: ITD

Project Year: 2023

Total Previous Allocations: $654

Total Programmed Budget: $7,017

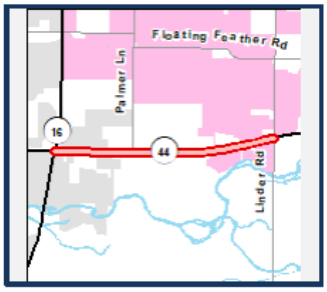
Total Cost (Prev. + Prog.): $7,671

TIP Achievement:

System Performance

NHS-LOTTR

Safety



Project Description

Add an additional westbound and eastbound lane to improve congestion and reduce crashes along State Highway 44 (State Street), from State Highway 16 to Linder Road near the City of Eagle.

Funding Source HB132 and HB312 **Program** State Hwy - Safety & Capacity (Capacity) **Local Match** 100.00%

Cost Year*	Preliminary Engineering	Preliminary Engineering Consulting	Right-of-Way	Utilities	Construction Engineering	Construction	Total	Federal Share	Local Share
2023	0	0	0	0	1,145	5,872	7,017	0	7,017
Fund Totals:	$0	$0	$0	$0	$1,145	$5,872	$7,017	$0	$7,017

Study, SH-16, SH-44 to Junction SH-52, Environmental Reevaluation

Regionally Significant: ☑ ☐ **Inflated**

Key # : 23175

Requesting Agency: ITD

Project Year: 2023

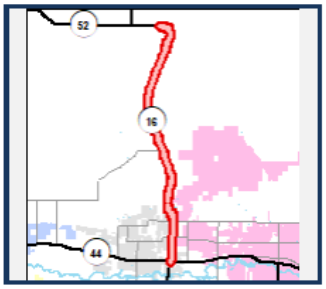
Total Previous Allocations: $0

Total Programmed Budget: $3,000

Total Cost (Prev. + Prog.): $3,000

TIP Achievement:

Support



Project Description

Reevaluate the environmental assessment regarding proposed improvements to State Highway 16 from State Highway 44 in Ada County to the junction of State Highway 52 in the City of Emmett to reaffirm the Idaho Transportation Department's proposed improvements on the corridor.

Funding Source STBG-State **Program** State Hwy - Early Development **Local Match** 7.34%

Cost Year*	Preliminary Engineering	Preliminary Engineering Consulting	Right-of-Way	Utilities	Construction Engineering	Construction	Total	Federal Share	Local Share
2023	50	2,950	0	0	0	0	3,000	2,780	220
Fund Totals:	$50	$2,950	$0	$0	$0	$0	$3,000	$2,780	$220

Source: *The* COMPASS Transportation Improvement Program (TIP). *The TIP is a short-range (seven-year) budget of transportation projects for which federal funds are anticipated, along with non-federally funded projects that are regionally significant and is available at:* https://www.compassidaho.org/documents/prodserv/trans/FY22/FY23_29TIPdoc.pdf

West Ada SCHOOL DISTRICT

March 29, 2023

RE: Talega Village Subdivision
PP-22-17, CU-22-05

Dear Planners:

West Ada School District has experienced sustained growth in student enrollment during the last ten years. Based on current enrollment data specific to new development (within the last 5 years) in proximity to this proposed development, we estimate this development consisting of 55 single-family lots, 98 townhomes and 340 multifamily units could house approximately **109 school aged children.** Approval of this application will affect enrollments at the following schools in West Ada School District based on attendance areas for the 2022-23 school year. For your information, included in this data is the number of approved lots and multi-family units approved by this and other agencies.

	Enrollment	Capacity	Approved lots per attendance area	Approved MF units per attendance area	Projected Students from Approved Dev.
Eagle Elementary	**342**	**500**	**2841**	**60**	**259**
Star Middle School	**906**	**1000**	**9938**	**622**	**913**
Eagle High School	**1787**	**1800**	**6499**	**357**	**859**
School of Choice Options					
Galileo STEM Academy	**744**	**775**	**N/A**	**N/A**	

West Ada School District supports economic growth. Based on future enrollment forecasts, the middle and high schools are projected to be operating above building capacity upon the completion of the previously approved lots. Future developments will continue to have an impact on the district's capacity.

To meet the need for additional school capacity in this area one or more of the following may need to be accomplished:

- Transporting students to an alternate school with available classrooms.
- Attendance area adjustments if there is availability in a nearby school.
- Portable classrooms placed on the property.
- Passage of a bond or plant facilities levy to build new schools to fit the enrollment needs.

Please encourage the developer to provide safe walkways, bike paths and pedestrian access for our students.

Sincerely,

Marci Horner
Planning and Development Administrator

Your Safety • Your Mobility
Your Economic Opportunity

IDAHO TRANSPORTATION DEPARTMENT
P.O. Box 8028 • Boise, ID 83707-2028
(208) 334-8300 • itd.idaho.gov

March 21, 2023

City of Star
Shawn Nickels, P&Z Administrator
10769 W State St
Star, ID 83669
snickel@staridaho.org

Re: Talega Village Subdivision, File #s: AZ-22-11, RZ-22-03, DA-22-12, CU-22-05, PP-22-17, PR-22-08

Dear Mr. Nickels,

Idaho Transportation Department (ITD) appreciates this opportunity to provide comments regarding Talega Village Subdivision located near milepost 100.2, on the east side of SH-16 and north of SH-44, Star, Idaho. Please see the below comments:

1. This project abuts State Highway 16 (SH-16).
2. No direct access to the State Highway system has been requested with this application and none is approved.
3. N Hamlin Avenue is currently designed as a right-in right-out. It is possible that Hamlin will eventually be a right-in only. The location of N Hamlin Avenue and SH-44 is the beginning of the taper for the widening of Chinden to three (3) more lanes to its west. The development to the east of Hamlin is supposed to eventually have its interior road connected to Hamlin at which point a right-out can happen there.
4. Traffic generation numbers were not provided with this application. ITD needs more information on the trip generations to determine what mitigations if any, the applicant may be required to construct on the State Highway system. If the new development generates 100 or more new trips in the peak hour or 1,000 new trips in a day, a Traffic Impact Study (TIS) is required. Mitigations identified by the Traffic Impact Study shall be the responsibility of the applicant to install.
5. Idaho Code 40-1910 does not allow advertising within the right-of-way of any State highway.
6. The Idaho Administrative Procedures Act (IDAPA) 39.03.60 governs advertising along the State highway system. The applicant may contact Justin Pond, Program Manager for ITD's Headquarters Right-of-Way Section at (208) 334-8832 for more information.

The City is reminded the SH-20/26 corridor is already congested. This project will increase the number of vehicle trips in the corridor. As the City continues to add additional trips to the corridor through development, the congestion will worsen until the roadway system is ultimately overloaded and fails.

ITD reserves the right to make further comments upon review of the submitted TIS and any other documentation.

Sincerely,

Wendy I. Howell, Development Services Coordinator

CENTRAL DISTRICT HEALTH

Ada County Transmittal

Division of Community and Environmental Health

Return to:
- ☐ ACZ
- ☐ Boise
- ☐ Eagle
- ☐ Garden City
- ☐ Meridian
- ☐ Kuna
- ☒ Star

Rezone/OTD # _____

Conditional/Accessory Use # _____

Preliminary / Final / Short Plat PP-22-17

Development Name/Section Talega Village

☐ 1. We have No Objections to this Proposal.

☐ 2. We recommend Denial of this Proposal.

☐ 3. Specific knowledge as to the exact type of use must be provided before we can comment on this Proposal.

☐ 4. Before we can comment concerning individual sewage disposal, we will require more data concerning the depth of:
☐ high seasonal ground water ☐ waste flow characteristics
☐ bedrock from original grade ☐ other _____

☐ 5. This office may require a study to assess the impact of nutrients and pathogens to receiving ground waters and surface waters.

☒ 6. After written approvals from appropriate entities are submitted, we can approve this proposal for:
☒ central sewage ☐ community sewage system ☐ community water well
☐ interim sewage ☒ central water
☐ individual sewage ☐ individual water

☒ 7. The following plan(s) must be submitted to and approved by the Idaho Department of Environmental Quality:
☒ central sewage ☐ community sewage system ☐ community water
☐ sewage dry lines ☒ central water

☒ 8. Infiltration beds for storm water disposal are considered shallow injection wells. If they are not in the City of Boise or ACHD right-of-way, an application and fee per well, vicinity map and construction plans must be submitted to CDH.

☐ 9. If restroom or plumbing facilities are to be installed, then a sewage system MUST be installed to meet Idaho State Sewage Regulations.

☐ 10. An accessory use application, fee, detailed site plan and floor plans must be submitted to CDH for review.

☐ 11. Land development application, fee per lot, test holes and full engineering report is required.

☐ 12. CDH makes no guarantee a septic permit will be issued on the split off lot. A speculative site evaluation is recommended.

☐ 13. We will require plans be submitted for a plan review for any:
☐ food establishment ☐ swimming pools or spas ☐ child care center
☐ beverage establishment ☐ grocery store

☐ 14. _____

_____

_____

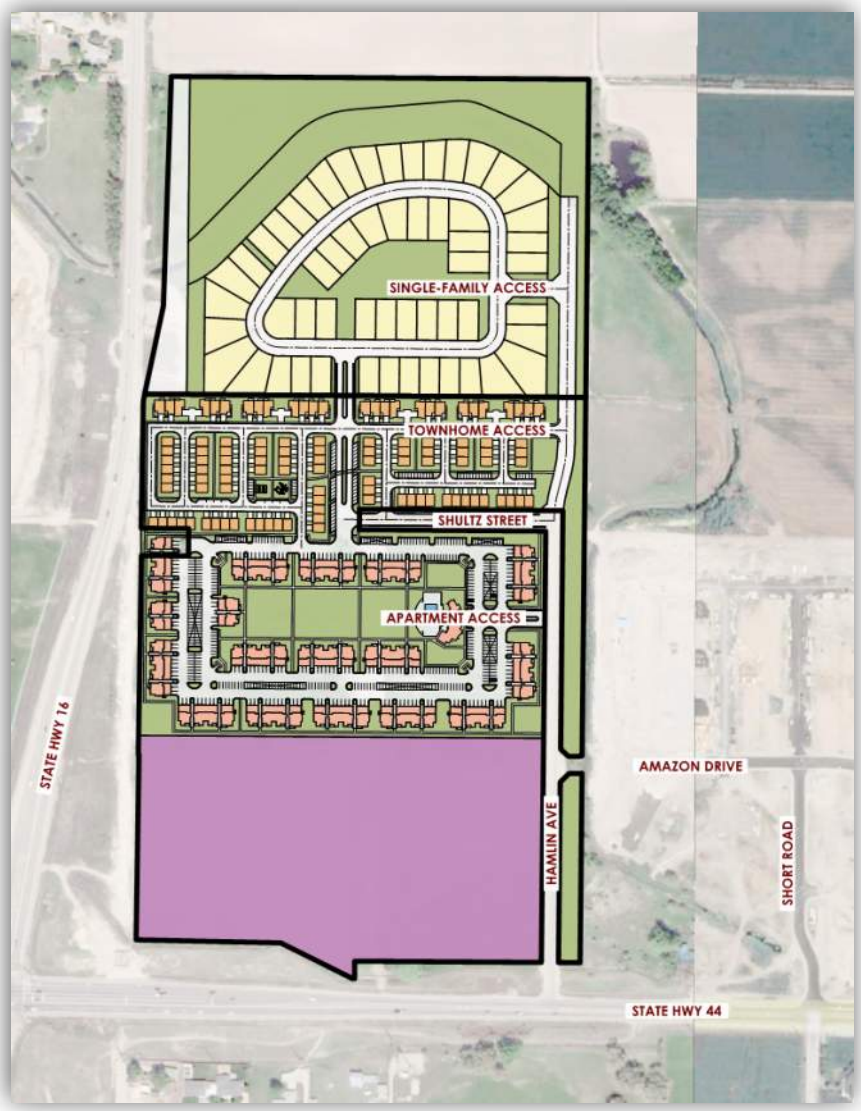
Reviewed By: _____ Date: 3/3/23

3/22 lb

NORTHERN STAR DEVELOPMENT

TRAFFIC IMPACT STUDY

STAR, IDAHO



FOCUS
ENGINEERING & SURVEYING, LLC

August, 2022

6949 South High Tech Drive, Suite 200, Midvale, Utah 84047 p 801.352.0075

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1.0 Executive Summary

1.1 DESCRIPTION OF PROJECT

This report presents the results of a traffic impact analysis for the Northern Star Development, located in Star, Idaho. The project site is located north of State Highway (SH) 44, east of State Highway 16 and west of Hamlin Avenue. Currently the proposed parcel of land consists of farmland with a few residential homes. Figure 1 illustrates the Vicinity Map and the location of this development related to the adjacent roadway network.

This proposed Northern Star Development will consist of:

- 55 single-family dwelling units
- 110 townhome units
- 310 apartment units
- 18 acres of commercial/office

Refer to Figure 2 for the site plan of this development and the location of the proposed accesses onto the surrounding roadways.

Coordinating with Ada County (ACHD) and Idaho Transportation Department (ITD), it was determined the study area for this traffic impact study would include the following intersections:

- Hamlin Avenue/SH 44 (existing)
- Short Road/SH 44 (existing)
- Amazon Drive/Short Lane (existing)
- Shultz Street/Hamlin Avenue (existing)
- Amazon Drive/Hamlin Avenue (future)

It is anticipated, at full build-out, the Northern Star Development will generate 4,529 average daily trips with 379 AM peak hour trips and 417 PM peak hour trips. With a mix of residential and commercial/office within the same development, it is anticipated there will be some internal trips between the two land uses. It is not anticipated a large reduction in trips due to internal capture, but using the ITE Trip Generation reduction, roughly 6 vehicles in the AM peak hour and 14 in the PM peak hour are anticipated to be shared between land uses.

It is anticipated the Northern Star Development will be constructed in three main phases. The first phase is planned for the 310 apartment units and will be fully occupied by the end of 2023. The second phase will consist of the 55 single-family units and the 110 townhomes and be constructed by the end of 2024. The third and final phase will consist of the 18 acres of commercial/office and is planned to be constructed by 2030. Therefore, the study years for this development are 2022 existing, 2023 background, 2024 background and 2030 background.

As part of the analysis for the Northern Star Development, projected future traffic volumes from surrounding developments were included in the Background traffic volumes. Currently the Amazon Falls Phase 1 development is under construction and is planned for full build-out by the end of this year. Therefore the 2023 Background traffic volumes include the full build-out traffic from the Amazon Falls Phase 1 development. The Amazon Falls Phase 2 development and the Fountain Park development are also planned developments in this area; however, they are planned for full build-out by 2025, therefore their projected traffic volumes are included in the 2030 Background traffic scenario. Recommendations from the traffic impact studies from these surrounding developments were implemented in the analysis for this Northern Star Development. Recommended improvements included:

- By 2023, SH 44 be widened to two lanes in each direction with separate right turn lanes at the Short Road intersection
- By 2025, the SH 44 and Short Road intersection be restricted to right-in/right-out with left turn (RIROLI) in movements only.

1.2 PRINCIPAL FINDINGS & RECOMMENDATIONS

The following is a summary of the principal findings and recommendations for the addition of the Northern Star Development.

2022 Existing Conditions

State Highway 44 and Hamlin Avenue

- Under the 2022 existing traffic conditions, each traffic movement at the SH 44 and Hamlin Avenue intersection currently functions at a Level of Service (LOS) "C" or better in the AM and PM peak hours. This intersection was recently constructed to only allow right-in and right-out movements. No additional improvements are needed.

Short Road and SH 44

- The northbound and southbound approaches of the SH 44 and Short Road, currently function at a LOS "F" on both the AM and PM peak hours. However, the volume to capacity ratio is acceptable, not higher than 1.0 for ACHD guidelines or 0.90 for ITD guidelines.

Amazon Drive and Short Road

- The Amazon Drive and Short Road intersection was recently constructed and currently functions with a LOS "A". Traffic volumes are fairly light at this intersection as the development in this area are under construction. No improvements are needed.

Shultz Court and Hamlin Avenue

- The Shultz Court and Hamlin Avenue currently consists of a northbound left turn and an eastbound right turn that accesses the residential home and farmland. This intersection functions with acceptable levels of service with very minimal traffic.

Roadway Segment LOS

Under the 2022 Existing conditions, Hamlin Avenue, Short Road and Amazon Drive all meet the planning level of service threshold for roadway segments within the study area.

2023 Background Traffic Conditions

Growth in traffic was applied using growth rates provided by COMPASS and also using the future build-out traffic volumes from the Amazon Phase 1 development to generate the 2023 Background traffic volumes. As outlined in the Idaho Transportation Invest Program (ITIP), SH 44 is planned to be widened to two lanes in each direction by 2023. Therefore, the 2023 Background traffic conditions illustrate SH 44 as two lanes in each direction at each of the study area intersections.

SH 44 and Hamlin Avenue

- With this intersection functioning and continuing to function as a right in/right out intersection, it is anticipated this intersection will continue to function at a LOS "C" or better under the background scenarios and no improvements are needed.

Short Road and SH 44

- With the proposed widening of SH 44, this intersection will continue to function with a LOS "F" in the northbound and southbound movements, and the v/c ratio will continue to function below the recommended threshold.

Amazon Drive and Short Road

- The traffic volumes for a fully built-out Amazon Falls 1 development were applied to this intersection to generate the 2023 Background traffic volumes. This intersection will continue to function with a LOS "A" in all movements and stop controlled movements along Short Road and free-flowing traffic along Amazon Drive.

Shultz Court and Hamlin Avenue

- In the 2023 Background conditions, this intersection will continue to function with minimal traffic that only accesses the single residents in this area and functions with acceptable levels of service.

Roadway Segment LOS

Under the 2023 Background conditions, Hamlin Avenue, Short Road and Amazon Drive all meet the planning level of service threshold for roadway segments within the study area.

2023 Background with Project Traffic Conditions

By 2023, it is planned the Phase 1 of the Northern Star development will be at full buildout. This phase will consist of the 310 apartment units.

SH44 and Hamlin Avenue

- With the addition of the Northern Star Development's first phase, this intersection will continue to function with an acceptable LOS "C" or better and will continue to function as right-in/right-out.

Short Road and SH 44

- With the addition of the Northern Star Development's first phase, the Short Road and SH 44 intersection will continue to experience similar levels of service as it experiences without the proposed development. The northbound and southbound traffic movements will still experience a LOS "F". The v/c ratio for the southbound left turning movements will fall above the minimum required of 1.0 per Ada County standards.

- As has been proposed in the Amazon Falls Phase 2 traffic study, signalizing this intersection will improve the LOS and v/c ratio, however, this location does not meet the signal spacing per Idaho Department of Transportation.

Short Road and Amazon Drive

- This intersection will continue to function with LOS "A" at each traffic movement with the addition of the Northern Star Development. No additional improvements are needed.

Hamlin Avenue and Shultz Court

- With the addition of Phase 1, the Shultz Court and Hamlin Avenue intersection will continue to function with acceptable levels of service.
- It is recommended Hamlin Avenue be constructed with one lane in each direction as a Collector Road, to provide access into the proposed development.

Hamlin Avenue and Amazon Drive

- With the addition of Phase 1, the Hamlin Avenue and Amazon Drive intersection will function with acceptable levels of service.
- Under the 2023 Background with Project scenario, the turning volumes at this intersection do not warrant separate left or right turn lanes. Therefore, each leg of the intersection should be constructed with one lane in each direction.

Hamlin Avenue and the Apartment Access

- This intersection will function with acceptable levels of service under the 2023 Background with Project scenario.
- It is recommended this intersection be constructed with one lane in each direction as the traffic volumes do not meet the warrants for separate left and right turn lanes.

Roadway Segment LOS

Under the 2023 Background with Project conditions, Hamlin Avenue, Short Road and Amazon Drive all meet the planning level of service threshold for roadway segments within the study area.

2024 Background Traffic Conditions

Hamlin Avenue and SH 44

- This intersection will continue to function with acceptable levels of service "C" or better under the 2024 Background traffic conditions. This intersection is proposed to continue to function as right-in/right-out. It is recommended SH 44 be widened to two lanes in each direction with a separate westbound right turn lane as planned with ITD.

Short Road and SH 44

- Under the 2024 Background traffic conditions, it is assumed the Amazon Falls Phase 1 development will be built-out. The traffic at this intersection will continue to function with a LOS "F" in the northbound and southbound directions.

- Amazon Falls 2 development is not planned for full build-out until 2025, however, this study does recommend this intersection follow the recommended access management strategies identified in the SH 44 corridor study. It was also recommended this intersection be restricted to a right-in/right-out with left-in.

- As outlined in the Amazon Falls Phase 2 traffic study, this intersection is planned to restrict left turn movements onto SH 44 as a right-in-right-out with left turn in movements. With this modification, the intersection will function with acceptable levels of service and also acceptable v/c ratios. It should be noted, by restricting turning movements at this intersection, it would be assumed vehicles from the Northern Star Development will not use this intersection to exit onto SH 44. With restrictions to left turn movements so vehicles can only exit to the west, most vehicles will just use the existing SH 44 and Hamlin Avenue intersection as it functions with the same controlled movements. With re-distribution of the traffic

from Phase 1, all intersections will function with acceptable levels of service and acceptable v/c ratios.

- It should also be noted if the Palmer Lane and SH 44 is signalized, which is planned, additional gaps in traffic along SH 44 may be present to reduce the average vehicle delay on Short Road which is not measured with the Synchro software.

Short Road and Amazon Drive

- In the 2024 Background scenario, the Short Road and Amazon Drive intersection will function with LOS "A" at each movement and v/c ratio's that are below 1.0.

Hamlin Avenue and Shultz Court

- This intersection will continue to function with minimal traffic under the 2024 Background scenario and the LOS and v/c ratios will be acceptable.

Roadway Segment LOS

Under the 2024 Background conditions, Hamlin Avenue, Short Road and Amazon Drive all meet the planning level of service threshold for roadway segments within the study area.

2024 Background with Project Traffic Conditions

It is planned by 2024, Phase 2 of the Northern Star development will be constructed. This phase will consist of the townhomes and single-family homes located on the north end of the proposed project.

Hamlin Avenue and SH 44

- With the addition of phase 2 of the Northern Star development, the Hamlin Avenue and SH 44 will continue to function with right-in and right-out movements. SH 44 is planned to be widened to two lanes in the eastbound and westbound directions with a separate westbound right turn lane.

- This intersection will continue to function with acceptable LOS "C" or better and acceptable v/c ratios for each movement.

Short Road and SH 44

- Similar operations will continue to occur at the Short Road and SH 44 intersection. It is planned SH 44 will be widened to two lanes in each direction with separate right turn lanes in the eastbound and westbound directions. It is also planned the southbound approach of this intersection will consist of separate right/through and left turn lanes.

- With the addition of the phase 2 traffic from the Northern Star development, and the above-mentioned recommendations in the Background scenarios, this intersection will continue to function with LOS "F" in the southbound and northbound approaches and the southbound approach.

- If the Short Road and SH 44 intersection is modified to RIROLI movements, it is also assumed traffic from the Northern Star development will use Hamlin Avenue to access SH 44 and little to no traffic will use Short Road. With this assumption, all intersections will continue to function with acceptable levels of service and acceptable v/c ratios.

Short Road and Amazon Drive

- This intersection will continue to function with acceptable levels of service "A" and v/c ratios during both the AM and PM peak hours.

- This intersection will continue to function as a two-way stop-controlled intersection with the stop-control along Amazon Drive.

Hamlin Avenue and Shultz Court

- With the addition of Phase 2, this intersection will continue to function with one lane in each direction as turn lanes are not warranted with the projected traffic volumes.

- This intersection will function with acceptable LOS "A" and v/c ratios for all vehicular movements.

Hamlin Avenue and Amazon Drive

- This intersection also continues to function with acceptable LOS "A" and v/c ratios for all vehicular movements under the 2024 Background with Project traffic conditions.

Hamlin Avenue and Apartment Access

- This access to apartments will continue to function with a LOS "A" and v/c ratios for all traffic movements with the addition of phase 2.

Hamlin Avenue and Single-Family Housing Access

- This access will function with acceptable LOS "A" and v/c ratios for all traffic movements with the addition of Phase 2.

- It is recommended this intersection be constructed with one lane in each direction to service the development. Projected traffic volumes do not warrant the need for separate left or right turn lanes.

Roadway Segment LOS

Under the 2024 Background with Project conditions, Hamlin Avenue, Short Road and Amazon Drive all meet the planning level of service threshold for roadway segments within the study area.

2030 Background Traffic Conditions

Under the 2030 Background traffic conditions, it is planned multiple developments surrounding the proposed Northern Star Development will be fully built out and occupied. These developments include Amazon Falls Phase 2 (planned for full build-out by 2025), Fountain Park Subdivision (planned for full build-out by 2025).

Hamlin Avenue and SH 44

- This intersection will continue to function with acceptable LOS "D" or better under the AM and PM peak hours. This intersection is planned to continue to function with a right-in/right-out turning movements.

Short Road and SH 44

- This intersection will continue to function with unacceptable LOS and v/c ratios during the AM and PM peak hours for the northbound and southbound left turn movements. All other traffic movements will continue to function with acceptable LOS.

- If the recommendations from the Amazon Falls Phase 2 traffic study are implemented, this intersection would become a right-in/right-out with left in only movements. With these improvements, this intersection will function with acceptable LOS in all traffic movements. The v/c ratio will also be acceptable for each traffic movement. It should be noted, with future development that may occur to the east, Amazon Drive would extend to Palmer Lane and provide another access/connection of the roadways. It would be assumed with a connection along Amazon Drive to Palmer Lane, a large majority of the traffic making left turn movements at the Short Road and SH 44 intersection would use the Amazon Drive route to travel eastbound. However, since this connection of Amazon Drive will be driven by future developments, these developments are not planned so therefore this connection was not used in this study.

Short Road and Amazon Drive

- The Short Road and Amazon Drive intersection will continue to function with acceptable LOS "A" and v/c ratios during the AM and PM peak hour for each traffic movement.

Hamlin Avenue and Shultz Court

- It is assumed this intersection will continue to service the existing residents in this area under the 2030 Background conditions and will function with minimal delays, a LOS "A" and v/c ratios that all meet minimal requirements.

Roadway Segment LOS

Under the 2030 Background conditions, Hamlin Avenue, Short Road and Amazon Drive all meet the planning level of service threshold for roadway segments within the study area.

2030 Background with Project Traffic Conditions

In 2030, it is planned the final Phase 3 will be constructed and fully built. This phase of the Northern Star Development will consist of roughly 18 acres of commercial/office space. For purposes of this study, 20% of the overall 18 acreage was determined to be occupied by the building and the land use for Office Space was used to calculate the project generated traffic for this phase.

Hamlin Avenue and SH 44

- The Hamlin Avenue and SH 44 intersection is planned to continue to function with right-in/right-out traffic movements.
- Under the AM peak hour this intersection is planned to continue to function with acceptable LOS "C" or better for each traffic movements and an acceptable v/c ratio.
- Under the PM peak hour, this intersection may function with a LOS "F", however the v/c ratio of 0.93 is acceptable per county guidelines but fall below the ITD guidelines of 0.90. However, since this intersection will not be signalized, and already functions with a right-in and right-out movements, no other improvements can be made.

Short Road and SH 44

- Similar to previous study years, this intersection will continue to function with unacceptable levels of service and v/c ratio for the northbound and southbound left turn movements. If this intersection is modified to RIROLI movements, the intersection will function with acceptable LOS and v/c ratios in the AM peak hour, however will fall below the threshold in the PM peak hour.

- If this intersection cannot be signalized, the connection of Amazon Drive to Palmer Lane will help provide an additional route for traffic to exit the development and travel eastbound along SH 44.

Short Road and Amazon Drive

- This intersection will continue to function with acceptable LOS "A" and v/c ratios under both the AM and PM peak hours. It is recommended this intersection be designed and constructed to meet city standards. It is also recommended adequate sight distance be accounted for in the design at this intersection with no obstructions within the required line of sight.

Hamlin Avenue and Amazon Drive

- With the addition of the Northern Star Phase 3, the west leg of this intersection will be added to this intersection. This intersection is recommended to be constructed with one lane in each direction as turn lane warrants are not met with the projected traffic volumes. This intersection will also continue to function with acceptable LOS "A" and v/c ratios for each traffic movements under the AM and PM peak hours.

Hamlin Avenue and Shultz Court

- Each turning movement at the Hamlin Avenue and Shultz Court intersection will continue to function with acceptable LOS "B" or better under the 2030

Background with Project traffic conditions and continue with acceptable v/c ratios.

Hamlin Avenue and Apartment Access

- Each traffic movement at this intersection will also continue to function with acceptable LOS and v/c ratio.

Hamlin Avenue and Single-Family Housing Access

- This intersection will also continue to function with acceptable LOS "A" and acceptable v/c ratio for each traffic movements.

Roadway Segment LOS

Under the 2030 Background with Project conditions, Hamlin Avenue, Short Road and Amazon Drive all meet the planning level of service threshold for roadway segments within the study area.

2.0 Introduction

2.1 DEVELOPMENT DESCRIPTION

The proposed Northern Star Development is situated on roughly 63 acres of vacant land within the City of Star. Refer to the Vicinity Map and Site Plan in Figures 1 and 2, respectively. The proposed site will consist of:

- 55 single-family dwelling units
- 110 townhome units
- 310 apartment units
- 18 acres of commercial

Full build-out of this development is anticipated for 2030. Phase 1 will consist of the apartments units and is planned to be constructed by 2023. The second phase will consist of the single-family and townhome units and is planned to be constructed by 2024. The third phase will finish with the commercial/office parcel by 2030.

The proposed development is surrounded by SH 16 to the west, SH 44 to the south and Hamlin Avenue to the east. To the north is farmland.

Northern Star is anticipated to generate 4,529 average daily trips with 379 AM peak hour trips and 417 PM peak hour trips.

NORTHERN STAR DEVELOPMENT

FIGURE 1 - VICINITY MAP

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Z:_2021\21-0488 CIG Star Idaho Development\transportation\traffic\figures\FIGURE 1 - VICINITY MAP.dwg

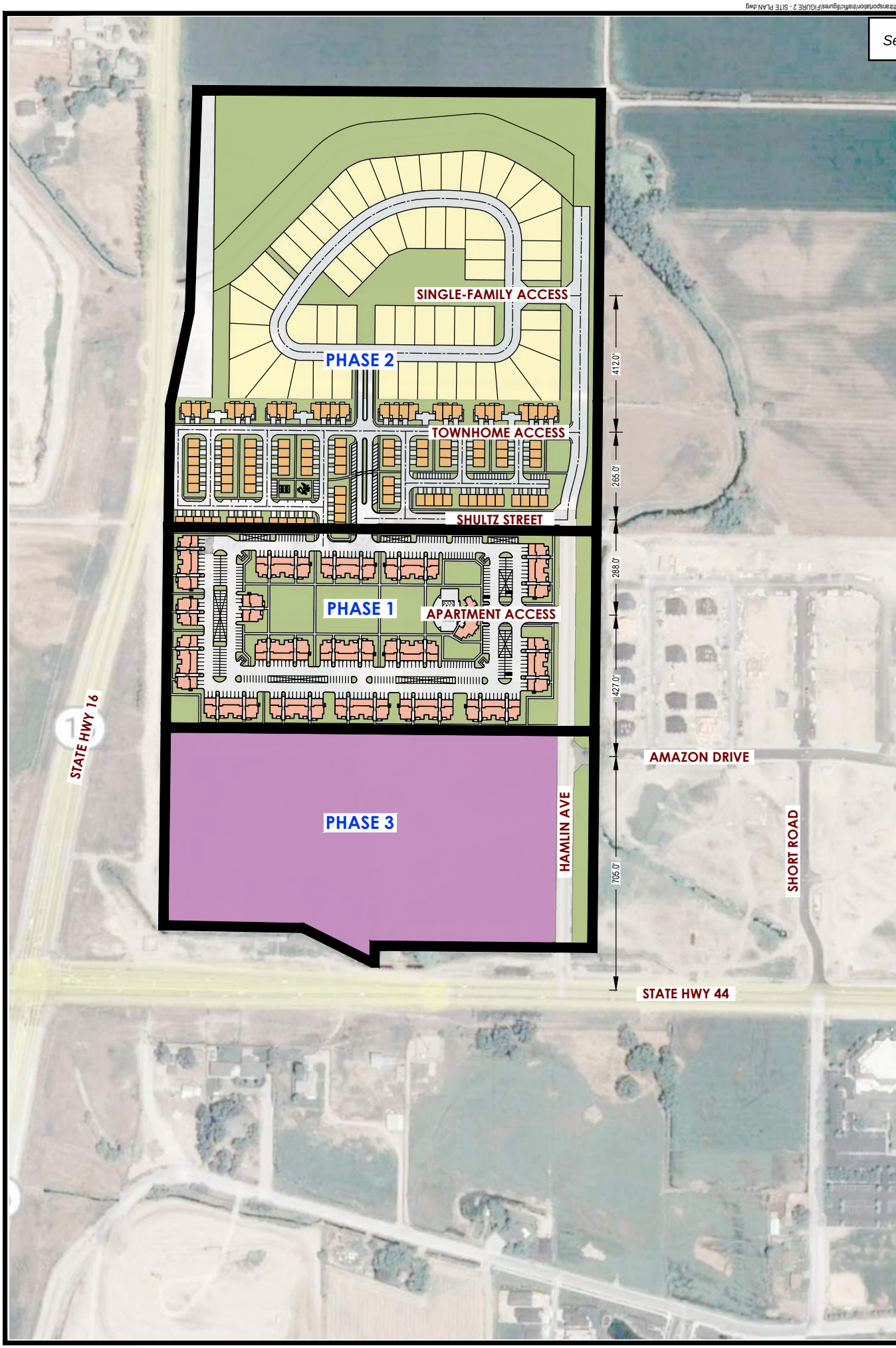

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FIGURE 2 - SITE PLAN

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3.0 Existing Conditions

3.1 ROADWAYS

State Highway 44 is a major roadway through this study area and extends east and west through Star's city limits. SH 44 currently consists of one lane in each direction with a center two-way left turn lane. SH 44 is planned to be widened and will consist of two lanes in each direction with the center two-way left turn lane by the end of 2023. Future improvements of SH 44 and SH 16 will consist of a full freeway interchange. The posted speed limit is 55 mph.

Short Road is a two-lane roadway that connects SH 44 and Moon Valley Road. Recently Short Road was constructed to the north of SH 44 to provide access to the Amazon Falls Phase 1 development. Phase 2 of Amazon Fallis is also planned and will access off Short Road. Short Road consists of one lane in each direction with separate left and right turn lanes at the intersection with SH 44. The posted speed limit along Short Road is 25 mph.

Hamlin Avenue is a two-lane roadway that runs between SH 44 and Shultz Court. Hamlin Ave primarily serves the existing homes on the proposed property. Hamlin will be improved to add a two-way left turn lane to provide safe turning movements onto the cross streets. The Hamlin Avenue and SH 44 intersection was recently improved to only allow right turn movements on and off Hamlin Avenue. The posted speed limit is 25 mph.

Amazon Drive is planned as a Collector roadway that currently runs within the Amazon Falls development. Amazon Drive consists of one lane in each direction. Currently Amazon Drive terminates prior to Hamlin Avenue and just east of Short Road. With the addition of the Northern Star Development, Amazon Drive will connect to Hamlin Avenue. As future developments occur in this area, Amazon Drive will extend east, eventually tying into Palmer Lane. However, the timeframe for this connection is unknown and will be based on future development in this area and therefore was not anticipated for the analysis and traffic distribution in this study.

3.2 EXISTING TRAFFIC VOLUMES

Coordinating with Ada County and ITD at the beginning of this traffic study, it was determined the following intersections would be analyzed within the study area:

- Hamlin Avenue/SH-44 (existing)
- Short Road/SH-44 (existing)
- Amazon Drive/Short Road (existing)

Existing traffic counts were collected on January 20, 2022 at the study area intersection. Existing AM and PM peak hour traffic volumes were collected between the peak hours of 7 AM to 9 AM and 4 PM to 6 PM. From the existing counts that were collected, it was determined the peak hours at the study area intersections are from 7:15 AM to 8:15 AM and from 4:45 PM to 5:45 PM. These volumes are illustrated in Figure 3.

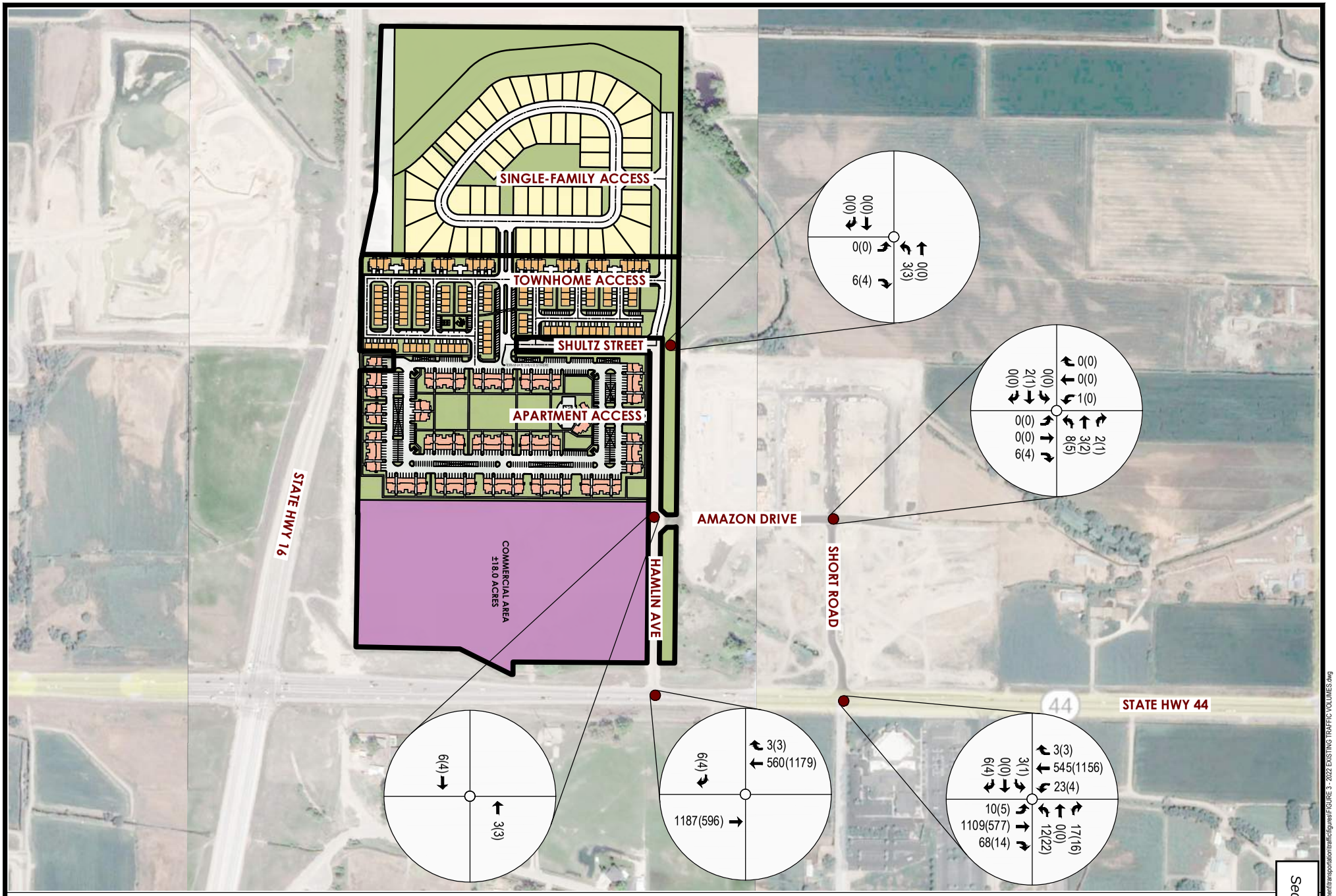
3.3 ROADWAY SEGMENT PLANNING LEVEL OF SERVICE

Roadway segments within the study area consisting of Hamlin Avenue, Amazon Drive and Short Lane were analyzed using the guidelines outlined with ACHD for planning level of service. Using the existing lane configuration, traffic volumes and projected ADT volumes from the Amazon 1 traffic study, the following table illustrates that each roadway segment meets the level of service planning threshold.

Table 1 – Roadway Segment LOS – 2022 Existing Traffic

Roadway	Segment	ADT	Functional Classification (No. of Lanes)	Left-Turn Lane Type	ACHD Planning Threshold (vph)	Peak Hour Directional Volumes (vph)*		Meets LOS Planning Threshold?
						AM Peak	PM Peak	
Hamlin Avenue	Shultz Ct. to SH 44	28	Local Road (2)	None	N/A	6(SB)	4(SB)	Yes ADT < 1,000
Amazon Drive	Hamlin Ave to Short Ln	774	Collector (2)	None	425	8(WB)	5(WB)	Yes
Short Road	Amazon Dr to SH 44	1347	Collector (2)	None	425	13(NB)	8(NB)	Yes

* = Direction of higher volume shown in ()



NORTHERN STAR DEVELOPMENT

FIGURE 3 - 2022 EXISTING TRAFFIC VOLUMES

XX(XX) = AM(PM) PEAK HOUR TRAFFIC VOLUMES

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Z:_2021\21-0488 CIG Star Idaho Development\transportation\traffic\figures\FIGURE 3 - 2022 EXISTING TRAFFIC VOLUMES.dwg

4.0 Background Year Traffic Volumes

In coordinating with Ada County, COMPASS and ITD, it was determined the Background Year and build-out of the Northern Star development phases would be 2023, 2024, and 2030. Population projections along SH 44 were provided by COMPASS and were used to project the future traffic volumes within this study. A projected growth in traffic of 9.9% along SH 44 is planned until 2025. After 2025 the growth rate is anticipated to adjust to 4.9%. These growth rates were applied to the existing traffic volumes to establish the 2023, 2024 and 2030 Background traffic scenarios.

It should also be noted, surrounding developments are planned in this area. To the east are the Amazon Falls Phase 1 and 2 developments. Phase 1 is currently under construction and is planned for full build-out by this year, 2022. Therefore, the projected traffic volumes from the Amazon Falls Phase 1 traffic impact study were incorporated into the 2023 Background traffic volumes and are illustrated in Figure 4.

The 2024 Background Year traffic volumes are illustrated in Figure 5 and represent growth in traffic along SH 44, however very minor growth, if any, will occur along Short Road and Hamlin Avenue due to no new development occurring by the year 2024.

The 2030 Background traffic volumes are illustrated in Figure 6, and include the projected traffic volumes from the Amazon Falls Phase 2 development and also the Fountain Park development. Both these proposed developments are planned to be constructed and full build-out by 2025 and were therefore included in the 2030 Background traffic conditions.

All these volumes are the anticipated traffic volumes on the existing roadway network whether the proposed Northern Star development is constructed or not.

4.1 ROADWAY SEGMENT PLANNING LEVEL OF SERVICE

Using the 2023 Background, 2024 Background and 2030 Background traffic volumes, the roadway segments within the study area were analyzed for level of service following the

guidelines outline by ACHD. The following tables outline the levels of service and if the roadways meet the thresholds. As can be seen, under the background scenarios, all roadways will meet the planning level thresholds for roadway classifications.

Table 2 – Roadway Segment LOS – 2023 Background Traffic

Roadway	Segment	ADT	Functional Classification (No. of Lanes)	Left-Turn Lane Type	ACHD Planning Threshold (vph)	Peak Hour Directional Volumes (vph)*		Meets LOS Planning Threshold?
						AM Peak	PM Peak	
Hamlin Avenue	Shultz Ct. to SH 44	28	Local Road (2)	None	N/A	7(SB)	4(SB)	Yes ADT < 1,000
Amazon Drive	Hamlin Ave to Short Ln	774	Collector (2)	None	425	33(EB)	33(WB)	Yes
Short Lane	Amazon Dr to SH 44	1347	Collector (2)	None	425	67(SB)	67(NB)	Yes

* = Direction of higher volume shown in ()

The Average Daily Traffic (ADT) volumes were taken from the Amazon Falls 1 traffic impact study, which by 2023 will be the only development fully built out in this study area and is represented by the traffic volumes in Figure 4.

Table 3 – Roadway Segment LOS – 2024 Background Traffic

Roadway	Segment	ADT	Functional Classification (No. of Lanes)	Left-Turn Lane Type	ACHD Planning Threshold (vph)	Peak Hour Directional Volumes (vph)*		Meets LOS Planning Threshold?
						AM Peak	PM Peak	
Hamlin Avenue	Shultz Ct. to SH 44	28	Local Road (2)	None	N/A	7(SB)	5(SB)	Yes ADT < 1,000
Amazon Drive	Hamlin Ave to Short Ln	774	Collector (2)	None	425	33(EB)	33(WB)	Yes
Short Lane	Amazon Dr to SH 44	1347	Collector (2)	None	425	67(SB)	67(NB)	Yes

* = Direction of higher volume shown in ()

As outlined in the Amazon Falls 1 and Amazon Falls 2 traffic impact studies, by 2024, the Amazon Falls 1 development will be fully built out. Therefore, the ADT represented in Table 3 illustrates the traffic from that development, similar to the traffic volumes in Figure 5.

Table 4 – Roadway Segment LOS – 2030 Background Traffic

Roadway	Segment	ADT	Functional Classification (No. of Lanes)	Left-Turn Lane Type	ACHD Planning Threshold (vph)	Peak Hour Directional Volumes (vph)*		Meets LOS Planning Threshold?
						AM Peak	PM Peak	
Hamlin Avenue	Shultz Ct. to SH 44	311	Local Road (2)	None	N/A	42(SB)	27(SB)	Yes ADT < 1,000
Amazon Drive	Hamlin Ave to Short Ln	774	Collector (2)	None	425	39(EB)	33(WB)	Yes
Short Lane	Amazon Dr to SH 44	7467	Collector (2)	None	425	189(SB)	297(NB)	Yes

* = Direction of higher volume shown in ()

As outlined in the Amazon Falls 2 and the Fountain Park traffic impact studies, by 2030, this development will be built out and generate the traffic within this study area. Therefore, the ADT represented in Table 4 illustrates the traffic from these development along these roadways, similar to the traffic volumes in Figure 6.

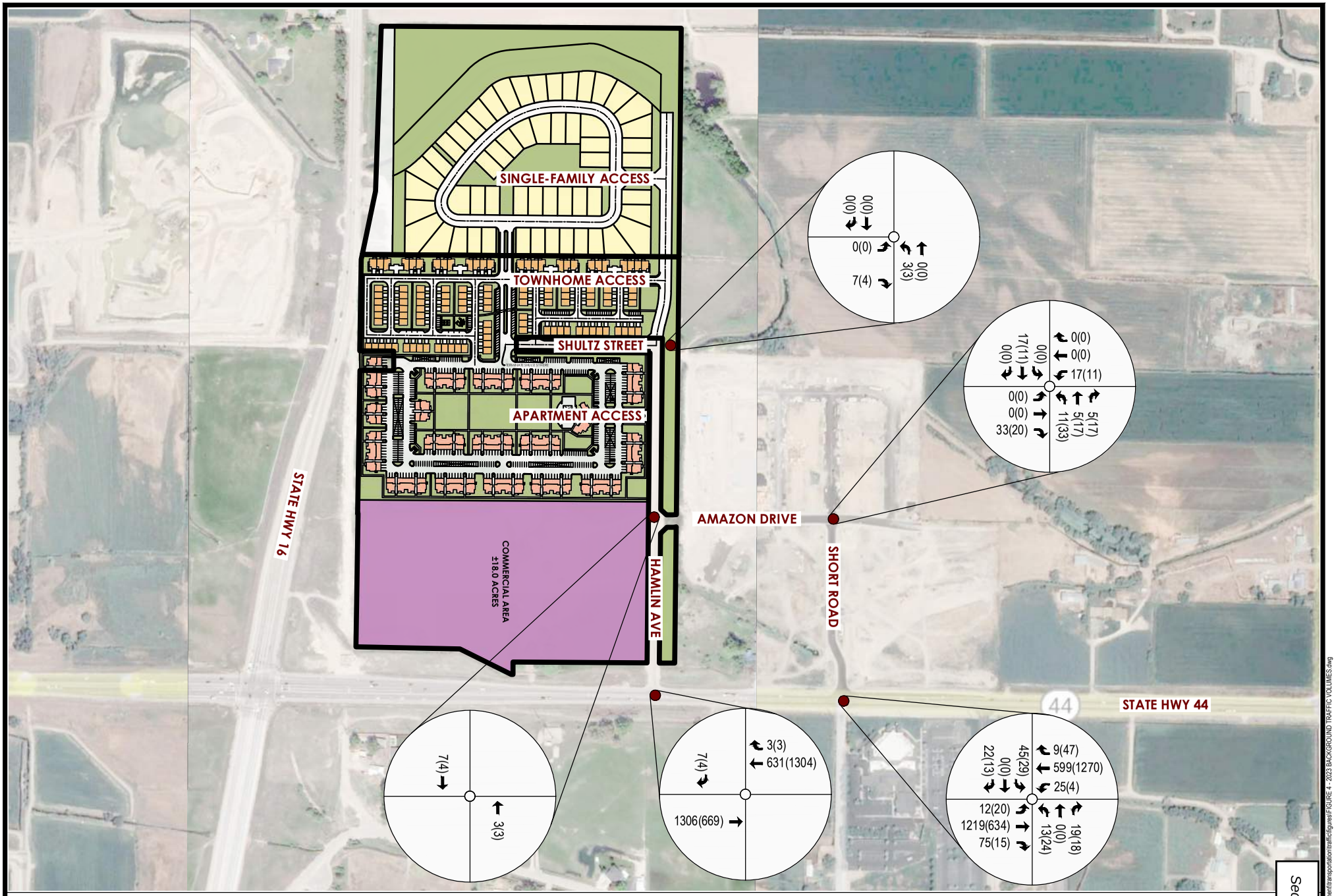

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FIGURE 4 - 2023 BACKGROUND TRAFFIC VOLUMES

XX(XX) = AM(PM) PEAK HOUR TRAFFIC VOLUMES

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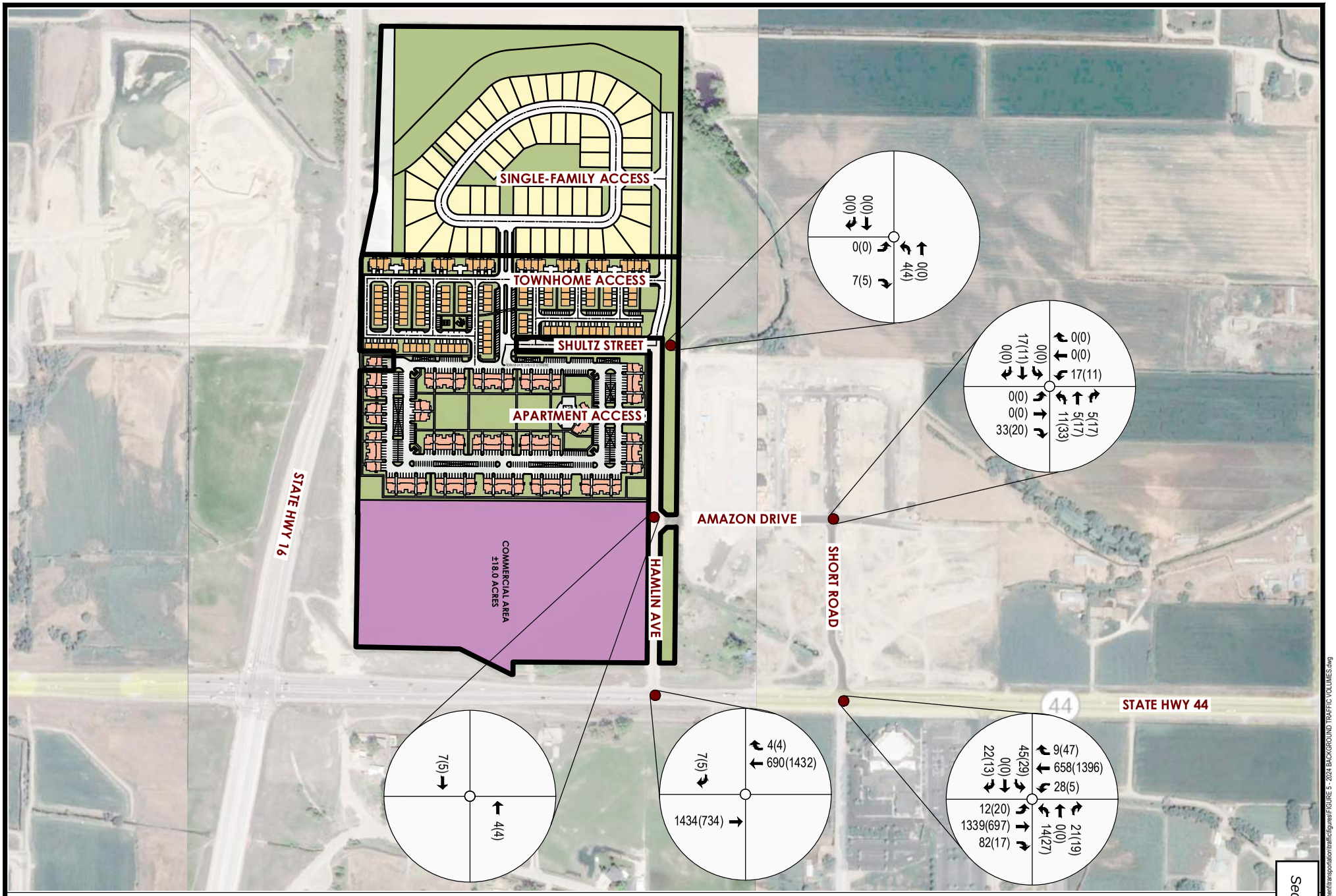
Z:_2021\21-0488 CIG Star Idaho Development\transportation\traffic\figures\FIGURE 4 - 2023 BACKGROUND TRAFFIC VOLUMES.dwg



NORTHERN STAR DEVELOPMENT

FIGURE 5 - 2024 BACKGROUND TRAFFIC VOLUMES

XX(XX) = AM(PM) PEAK HOUR TRAFFIC VOLUMES

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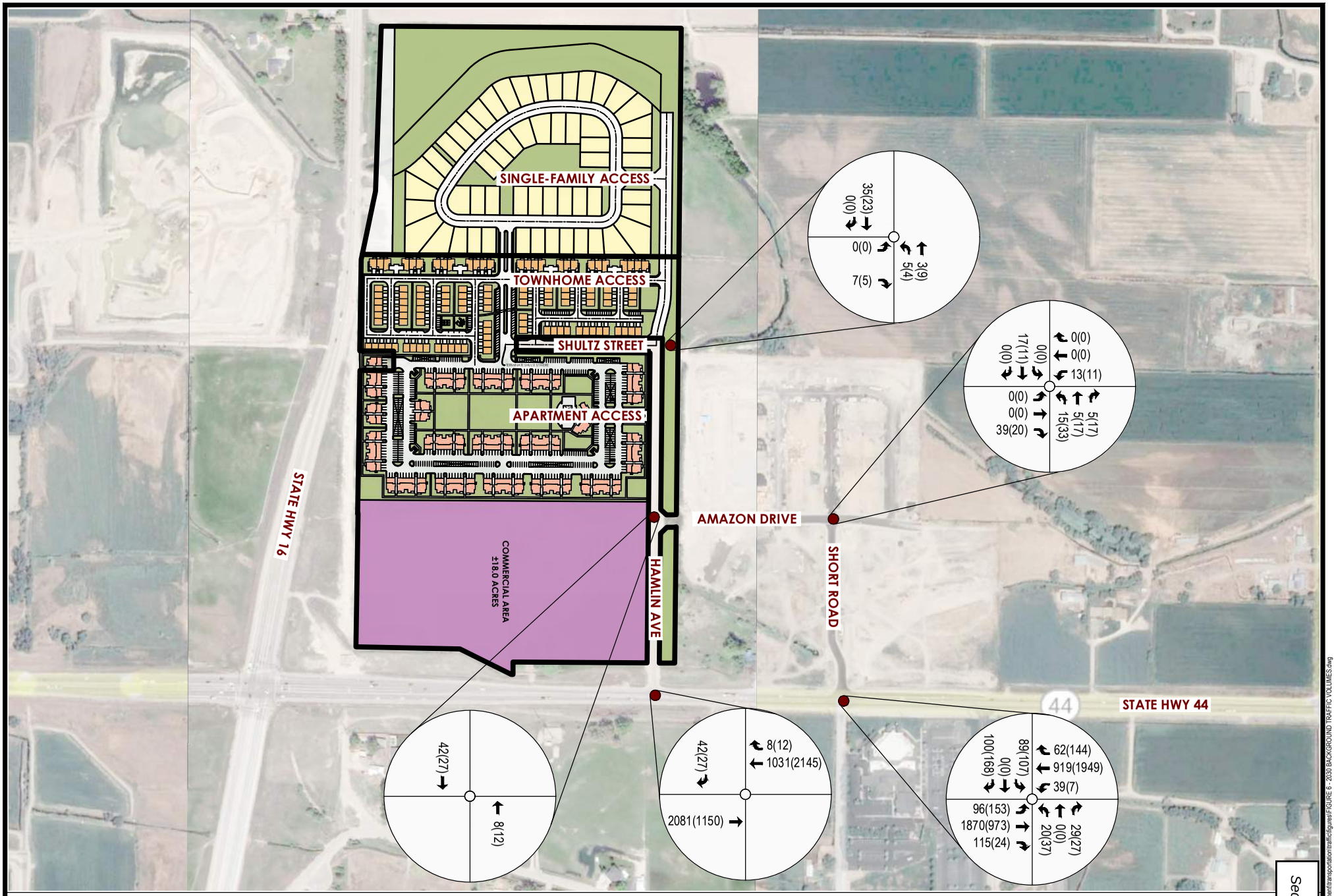
Z:_2021\21-0488 CIG Star Idaho Development\transportation\traffic\figures\FIGURE 5 - 2024 BACKGROUND TRAFFIC VOLUMES.dwg



NORTHERN STAR DEVELOPMENT

FIGURE 6 - 2030 BACKGROUND TRAFFIC VOLUMES

XX(XX) = AM(PM) PEAK HOUR TRAFFIC VOLUMES

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Z:_2021\21-0488 CIG Star Idaho Development\transportation\traffic\figures\FIGURE 6 - 2030 BACKGROUND TRAFFIC VOLUMES.dwg

5.0 Trip Generation and Trip Distribution

5.1 TRIP GENERATION

For purposes of this study, the trip generation was performed for each phase of the development. It is planned the first phase will consist of the 310 apartment units in 2023. In 2024, the second phase will be constructed that will consist of the 110 townhomes and the 55 single-family homes. The third phase will be constructed by 2030 and will consist of the 18 acres of the commercial/office space. The third phase is still undetermined with the specific land use, but is planned for office buildings. To generate the anticipated number of vehicles entering and exiting the proposed site during a typical weekday a.m. and p.m. peak hour, the *Institute of Transportation Engineer's (ITE) Trip Generation Manual* is used. For single-family residential lots, the land use codes 210 – Single-Family Detached Housing, 220 – Multifamily Housing (Low-Rise), and 221 – Multifamily Housing (Mid-Rise) were used to generate the number of trips entering and exiting the development. The Mid-Rise land use was used for the apartments as they are planned for three story apartment buildings. Since the specific land use for the 18 acres of commercial is unknown at this time, land use code 710 for General Office Building was used. It was assumed 20% of the overall acreage would be used as the actual building size. Using these assumptions, roughly 156,000 square foot office building was used to calculate the trip generation.

Trips generated by the proposed development, which will occur during the peak hours of the proposed development, were used for the analysis. For purposes of this study, the Peak Hour of Adjacent Street Traffic rates are used to generate the AM and PM Peak Hour Volumes. The trips generated from the proposed development are presented in Table 1.

Table 5 - Trip Generation – Average Weekday Driveway Volumes

ITE Land Use Code	Land Use Description	Size	Daily (AADT)	Trip Generation (AM)		Trip Generation (PM)	
				Enter	Exit	Enter	Exit
210	Single-Family	55 DU	519	10	31	34	20
220	Low-Rise	110 DU	805	12	39	39	23
221	Mid-Rise	310 DU	1686	29	83	83	53
710	Gen Office	156 TGFA	1519	156	25	29	150

As can be seen in Table 1, the Northern Star Development will generate approximately 4,529 daily trips, with 385 trips occurring in the AM peak hour (207 entering, 178 exiting) and 431 trips occurring in the PM peak hour (185 entering, 246 exiting). It is assumed with the combination of residential and office within the development, there is potential for internal capture trips. With the internal capture trips, this development will generate 379 total AM peak hour trips (204 entering, 175 exiting) and 417 PM peak hour trips (178 entering, 239 exiting).

5.2 SITE TRAFFIC DISTRIBUTION & GENERATION

The project trip distribution onto the existing and proposed roadways at each project site access is based on the area of impact model runs by COMPASS, review of the roadway system by ACHD and ITD, as well as knowledge of travel patterns in this study area. Based on the land use types for this development, the distribution will vary between residential and office space. In order to illustrate this, Figure 7 illustrates the trip distribution for the residential portions of this development. Figure 8 illustrates the proposed distribution percentages for the commercial/office land use. Using these distribution percentages combined with the trip generation volumes from Table 1, the project generated traffic volumes for the apartments are illustrated in Figure 9. Figure 10 illustrates the traffic volumes generated by the apartments combined with the townhomes and single-family units. Figure 11 illustrates the project generated traffic volumes for the full build-out of all phases of the Northern Star development and their distribution onto the surrounding roadways within the study area.

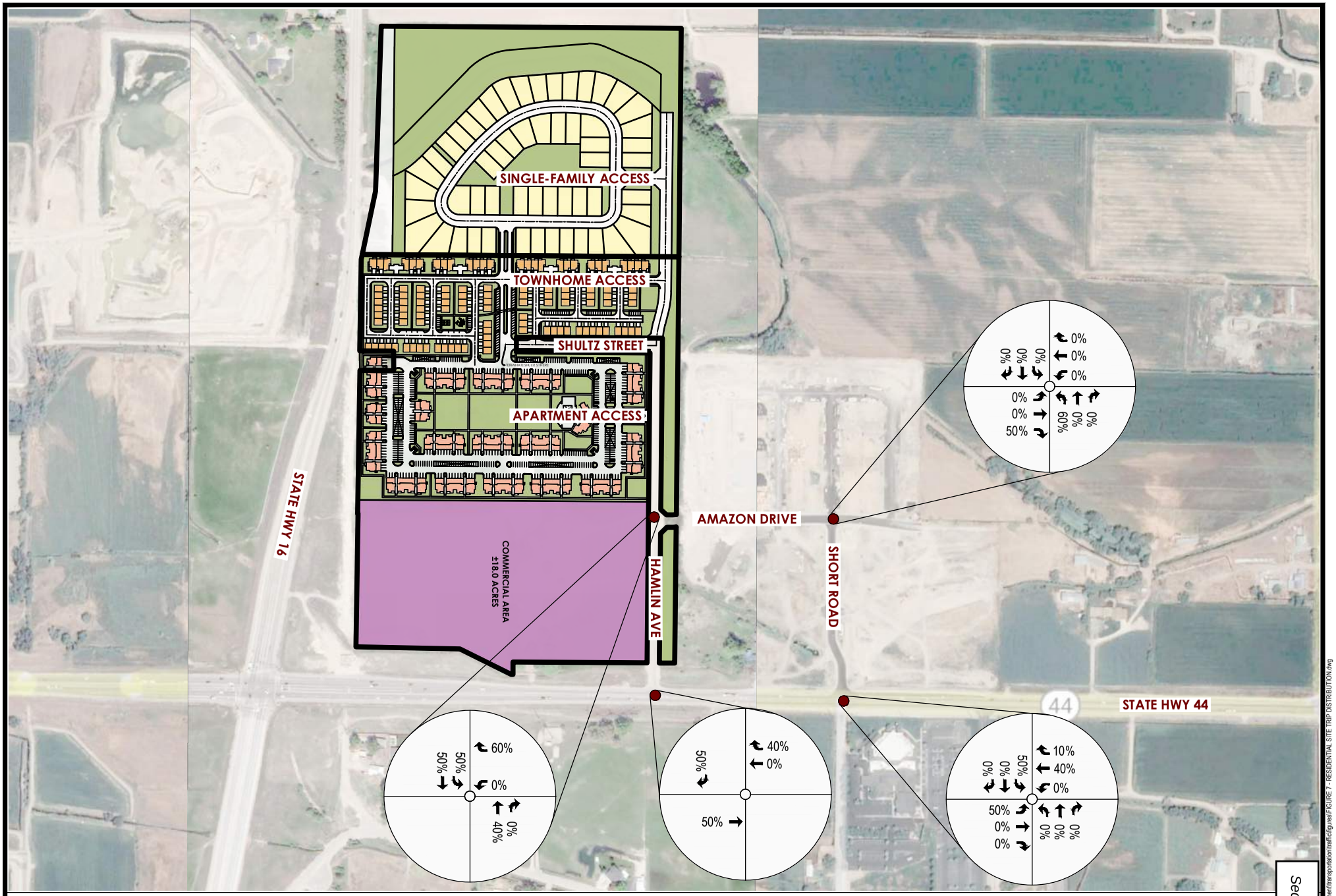

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FIGURE 7 - RESIDENTIAL TRIP DISTRIBUTION PERCENTAGES

XX% = DISTRIBUTION PERCENTAGES

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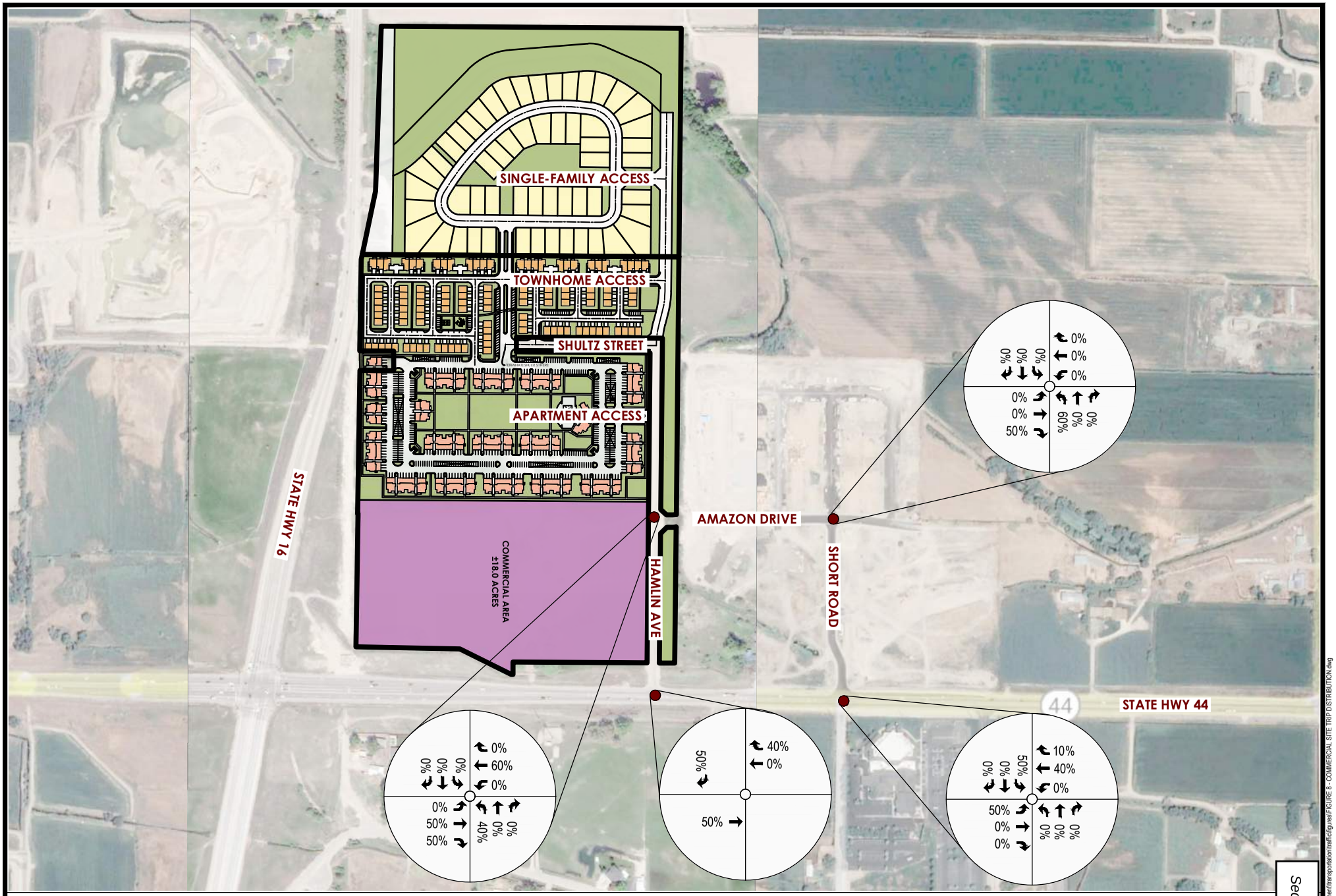
Z:_2021\21-0488 CIG Star Idaho Development\transportation\traffic\figures\FIGURE 7 - RESIDENTIAL SITE TRIP DISTRIBUTION.dwg


SINGLE-FAMILY ACCESS
TOWNHOME ACCESS
SHULTZ STREET
APARTMENT ACCESS
COMMERCIAL AREA
±18.0 ACRES
STATE HWY 16
HAMLIN AVE
AMAZON DRIVE
SHORT ROAD
STATE HWY 44
0%
0%
0%

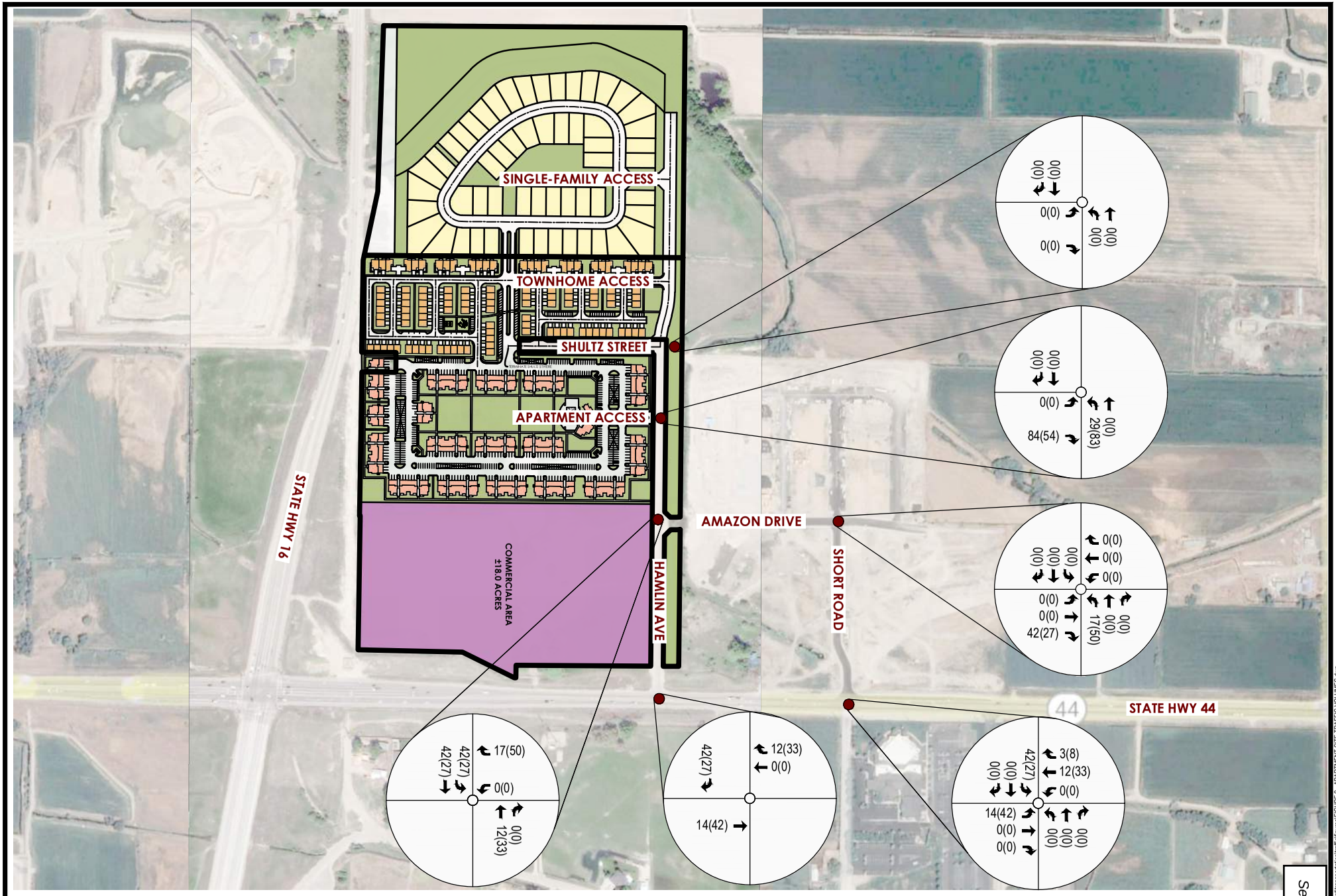


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FIGURE 9 - 2023 PROJECT GENERATED TRAFFIC VOLUMES

XX(XX) = AM(PM) PEAK HOUR TRAFFIC VOLUMES

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Z:_2021\21-0488 CIG Star Idaho Development\transportation\traffic\figures\FIGURE 9 - APARTMENT SITE TRAFFIC VOLUMES.dwg

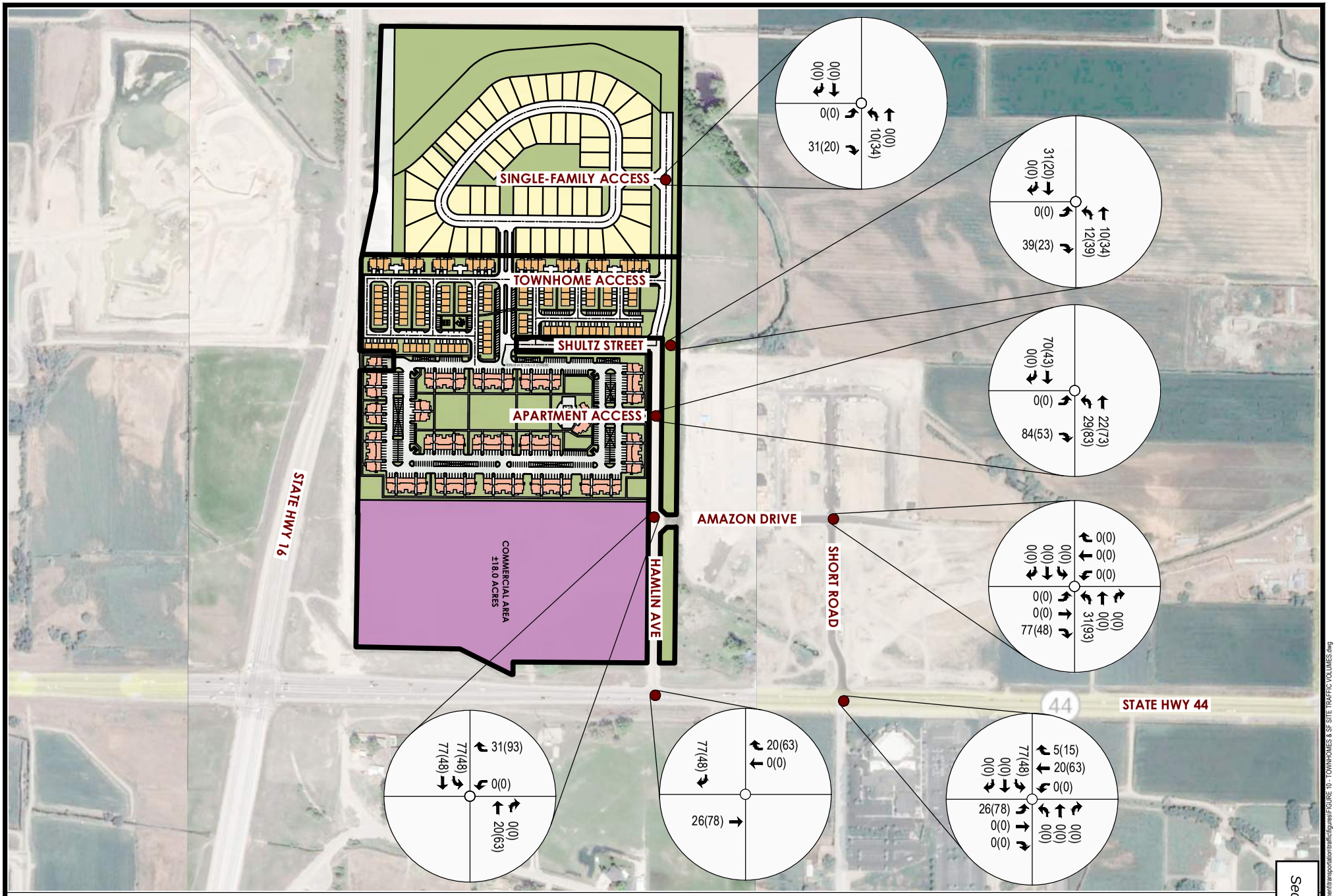

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FIGURE 10 - 2024 PROJECT GENERATED TRAFFIC VOLUMES

XX(XX) = AM(PM) PEAK HOUR TRAFFIC VOLUMES

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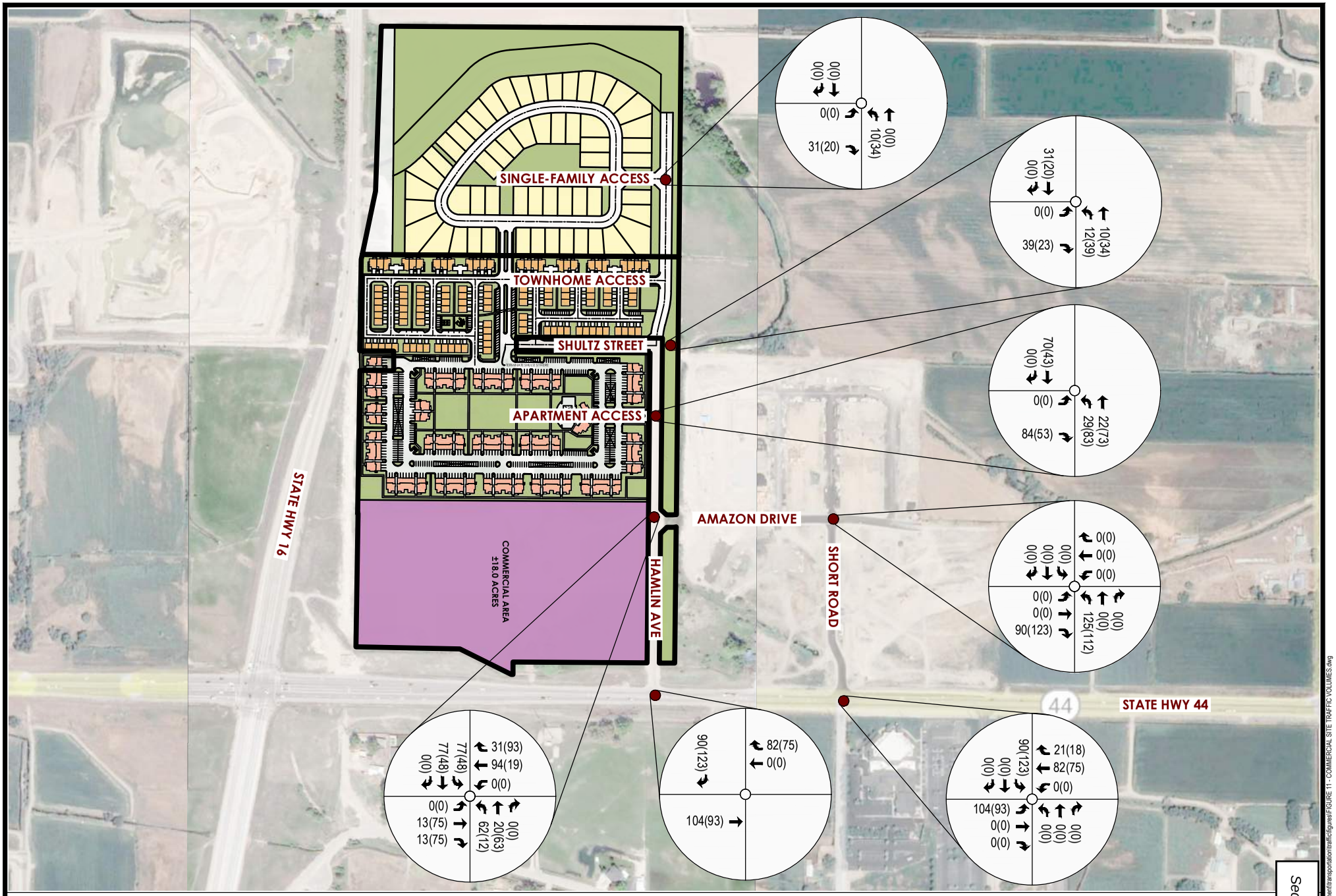

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FIGURE 11 - 2030 PROJECT GENERATED TRAFFIC VOLUMES

XX(XX) = AM(PM) PEAK HOUR TRAFFIC VOLUMES

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Z:_2021\21-0488 CIG Star Idaho Development\transportation\traffic\figures\FIGURE 11 - COMMERCIAL SITE TRAFFIC VOLUMES.dwg

6.0 Background Year with Project Traffic Conditions

The Background Year with Project traffic volumes represent the traffic that will be added to the study area with the addition of the proposed Northern Star development. Using the 2023 Background Year traffic volumes (Figure 4) and the site generated traffic volumes (Figure 9), the 2023 Background Year with Project traffic volumes are generated. Per the developer's schedule, it is anticipated Phase 1 will be built out in 2023. The 2023 Background Year with Project traffic volumes, which illustrate the full build-out of Phase 1, are illustrated in Figure 12. Combining the 2024 Background Year traffic volumes (Figure 5) and the site generated traffic volumes (Figure 9), Figure 13 represents the 2024 Background Year with Project traffic volumes. The 2030 Background Year with Project traffic volumes, which combine the 2030 Background Year traffic volumes (Figure 6) with the full build-out project generated traffic volumes (Figure 11), are illustrated in Figure 14.

6.1 ROADWAY SEGMENT PLANNING LEVEL OF SERVICE

With the addition of the Northern Star development, the roadway segments within the study area were analyzed for roadway classification. Using the traffic volumes in the 2023 Background with Project, 2024 Background with Project and 2030 Background with Project scenarios, the roadway segments within the study area were analyzed for level of service following the guidelines outlined by ACHD. The following tables outline the roadway segment planning levels of service and if the roadways meet the thresholds. With the addition of the Northern Star development, it is planned Hamlin Avenue will become a Collector Roadway with two lanes and no left turn lanes. As can be seen, under the background scenarios, all roadways will meet the planning level thresholds for roadway classifications.

I this table the Average Daily Traffic volumes are also illustrated. These ADT volumes are generated from taking the trip generation ADT volumes for the different phases of this development and combining them with the ADT volumes from the Background conditions found in Section 4 of this report.

Table 6 – Roadway Segment LOS – 2023 Background w/ Project Traffic

Roadway	Segment	ADT	Functional Classification (No. of Lanes)	Left-Turn Lane Type	ACHD Planning Threshold (vph)	Peak Hour Directional Volumes (vph)*		Meets LOS Planning Threshold?
						AM Peak	PM Peak	
Hamlin Avenue	Shultz Ct. to SH 44	788	Collector (2)	None	425	49(SB)	36(NB)	Yes
Amazon Drive	Hamlin Ave to Short Ln	1702	Collector (2)	None	425	75(EB)	83(WB)	Yes
Short Lane	Amazon Dr to SH 44	2275	Collector (2)	None	425	109(SB)	117(NB)	Yes

* = Direction of higher volume shown in ()

Table 7 – Roadway Segment LOS – 2024 Background w/ Project Traffic

Roadway	Segment	ADT	Functional Classification (No. of Lanes)	Left-Turn Lane Type	ACHD Planning Threshold (vph)	Peak Hour Directional Volumes (vph)*		Meets LOS Planning Threshold?
						AM Peak	PM Peak	
Hamlin Avenue	Shultz Ct. to SH 44	1384	Collector (2)	None	425	77(SB)	63(NB)	Yes
Amazon Drive	Hamlin Ave to Short Ln	2430	Collector (2)	None	425	110(EB)	126(WB)	Yes
Short Lane	Amazon Dr to SH 44	3003	Collector (2)	None	425	144(SB)	160(NB)	Yes

* = Direction of higher volume shown in ()

Table 8 – Roadway Segment LOS – 2030 Background w/ Project Traffic

Roadway	Segment	ADT	Functional Classification (No. of Lanes)	Left-Turn Lane Type	ACHD Planning Threshold (vph)	Peak Hour Directional Volumes (vph)*		Meets LOS Planning Threshold?
						AM Peak	PM Peak	
Hamlin Avenue	Shultz Ct. to SH 44	2351	Collector (2)	None	425	125(SB)	146(SB)	Yes
Amazon Drive	Hamlin Ave to Short Ln	3266	Collector (2)	None	425	140(WB)	145(WB)	Yes
Short Lane	Amazon Dr to SH 44	9959	Collector (2)	None	425	283(NB)	408(NB)	Yes

* = Direction of higher volume shown in ()

6.2 SITE TRAFFIC CONTRIBUTION PERCENTAGE

The following tables illustrate the site traffic contribution as a percentage of the 2023 Background with Project total traffic, 2024 Background with Project total traffic, and the 2030 Background with Project total traffic volumes entering the intersection.

Table 9 – Site Traffic Percentage of 2023 Total Traffic

Intersection		% Site Traffic of 2023 Total Traffic		
		AM Peak	PM Peak	Average
1	Hamlin Ave & SH 44	3.4%	4.9%	4.2%
2	Short Rd & SH 44	3.4%	5.0%	4.2%

Table 10 – Site Traffic Percentage of 2024 Total Traffic

Intersection		% Site Traffic of 2024 Total Traffic		
		AM Peak	PM Peak	Average
1	Hamlin Ave & SH 44	5.5%	8.0%	6.8%
2	Short Rd & SH 44	5.4%	8.3%	6.9%

Table 11 – Site Traffic Percentage of 2030 Total Traffic

Intersection		% Site Traffic of 2030 Total Traffic		
		AM Peak	PM Peak	Average
1	Hamlin Ave & SH 44	8.0%	8.0%	8.0%
2	Short Rd & SH 44	8.2%	7.9%	8.1%

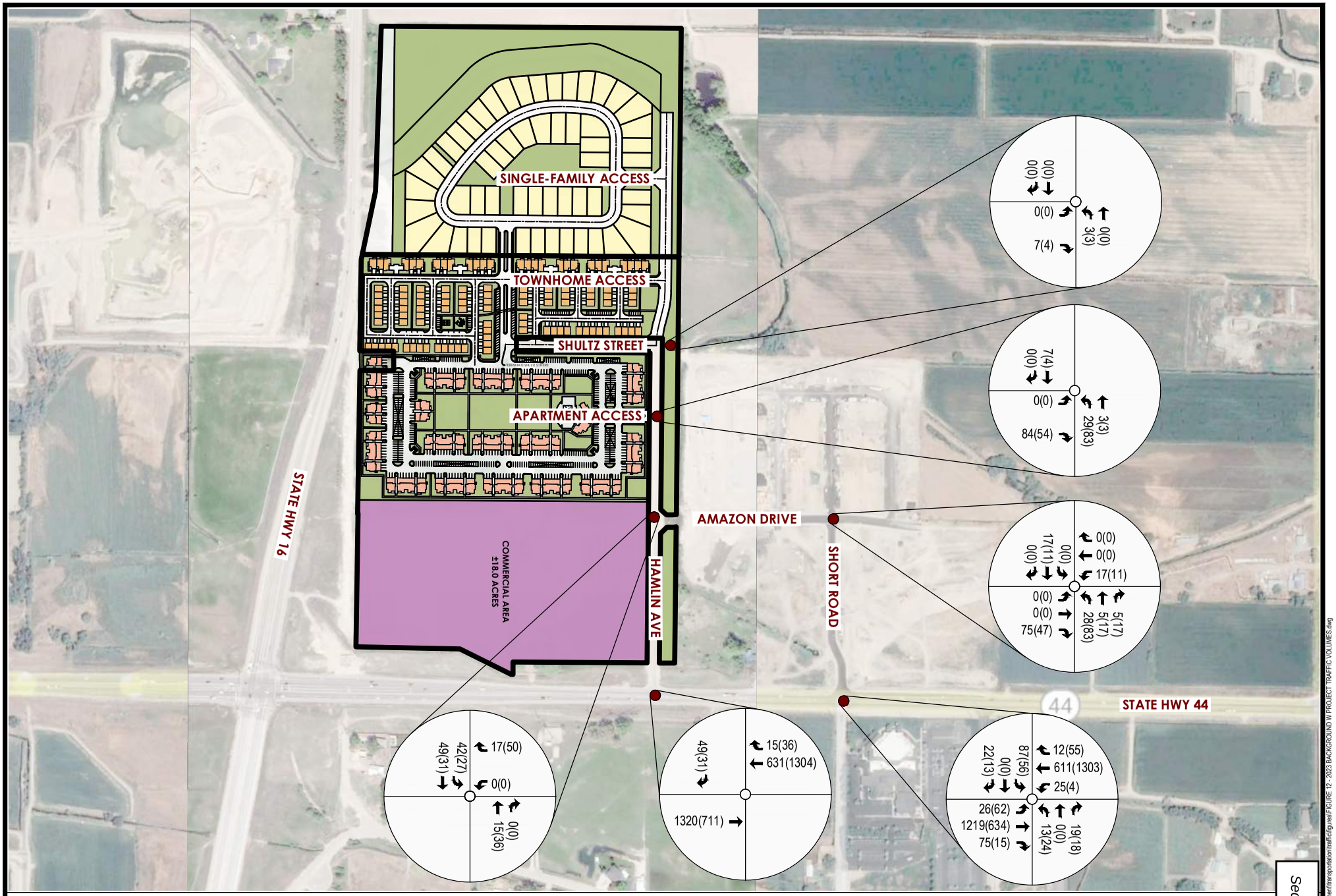

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FIGURE 12 - 2023 BACKGROUND W/ PROJECT TRAFFIC VOLUMES

XX(XX) = AM(PM) PEAK HOUR TRAFFIC VOLUMES

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Z:_2021\21-0488 CIG Star Idaho Development\transportation\traffic\figures\FIGURE 12 - 2023 BACKGROUND W PROJECT TRAFFIC VOLUMES.dwg

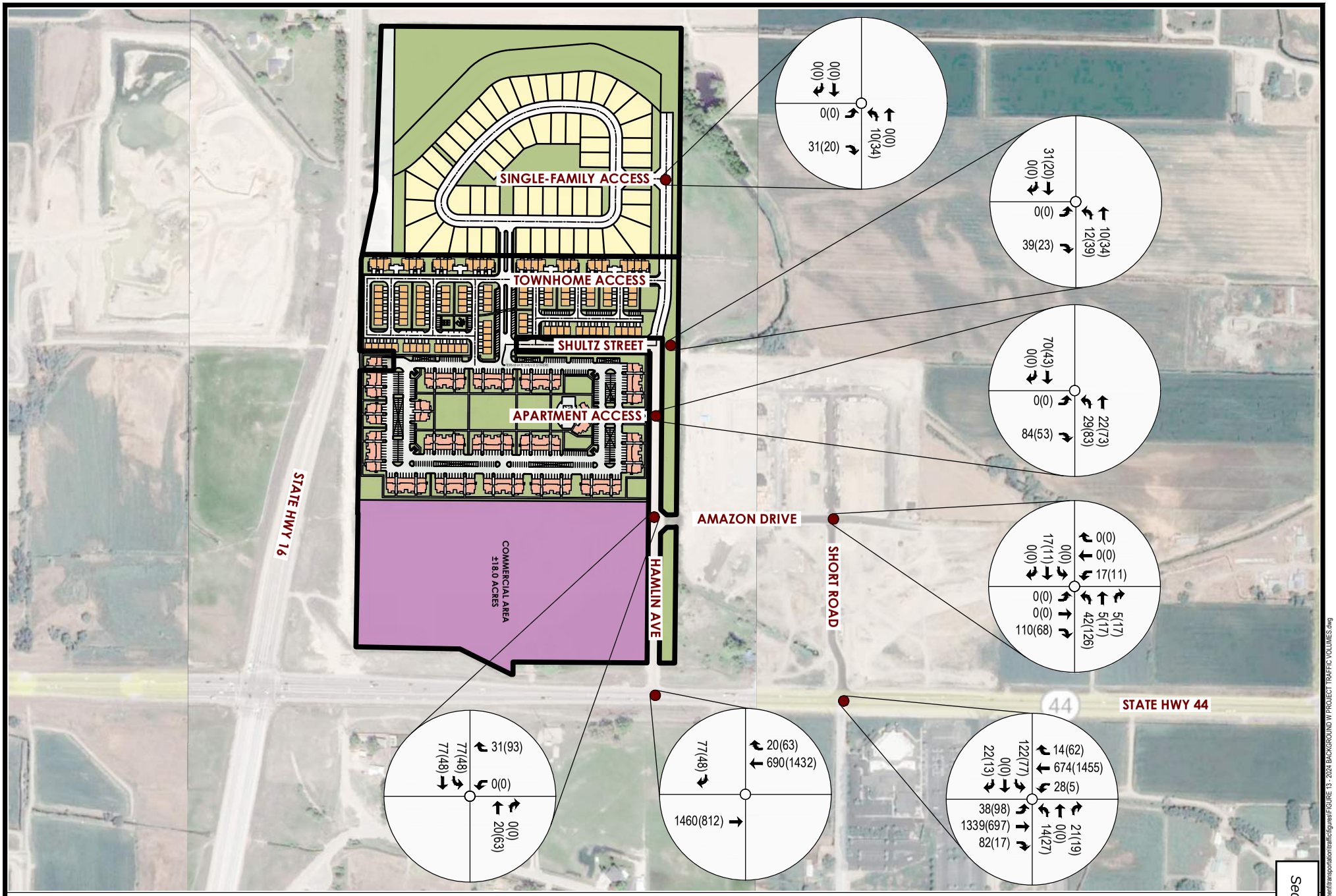

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FIGURE 13 - 2024 BACKGROUND W/ PROJECT TRAFFIC VOLUMES

XX(XX) = AM(PM) PEAK HOUR TRAFFIC VOLUMES

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Z:_2021\21-0488 CIG Star Idaho Development\transportation\traffic\figures\FIGURE 13 - 2024 BACKGROUND W PROJECT TRAFFIC VOLUMES.dwg

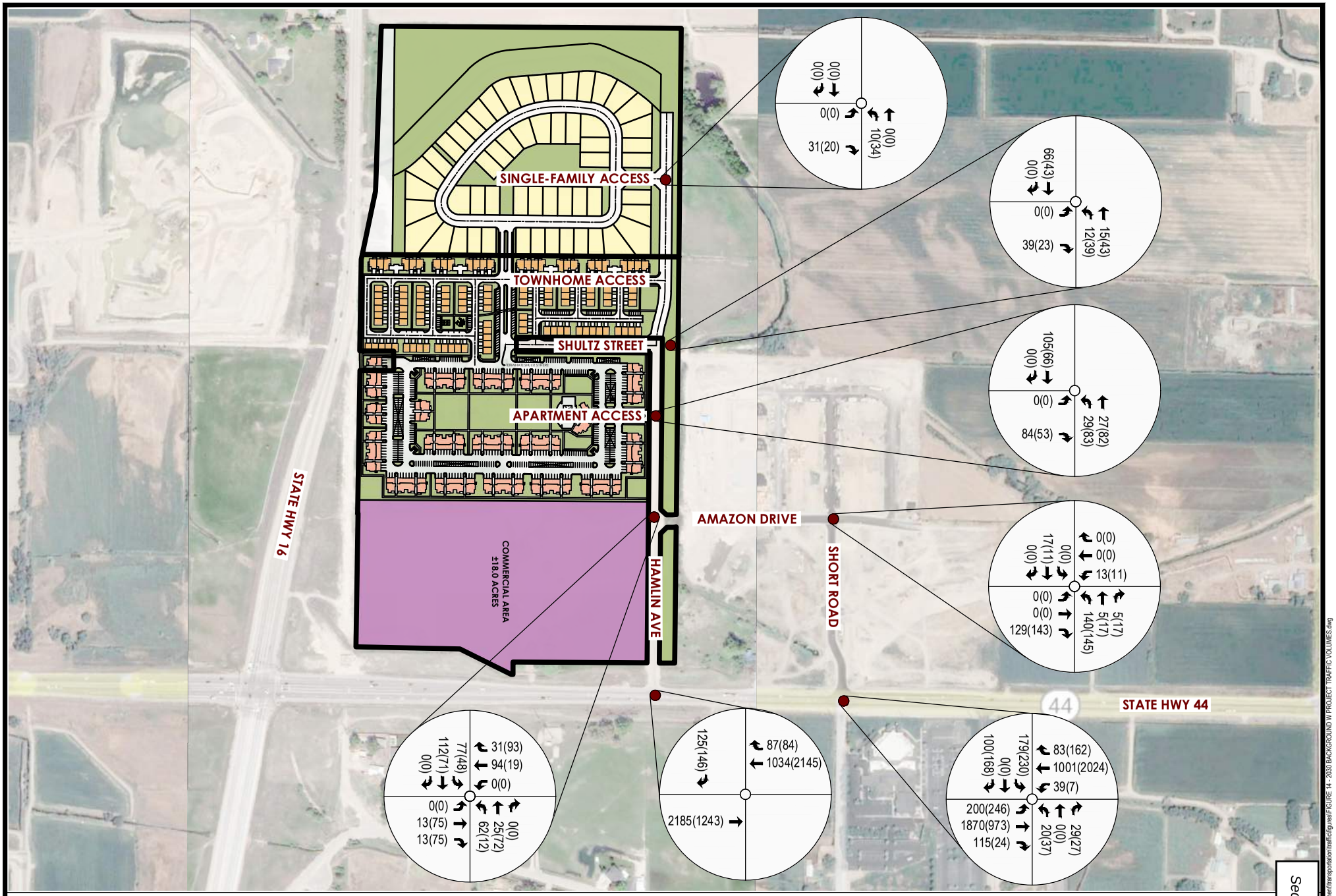

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FIGURE 14 - 2030 BACKGROUND W/ PROJECT TRAFFIC VOLUMES

XX(XX) = AM(PM) PEAK HOUR TRAFFIC VOLUMES

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Z:_2021\21-0488 CIG Star Idaho Development\transportation\traffic\figures\FIGURE 14 - 2030 BACKGROUND W PROJECT TRAFFIC VOLUMES.dwg

7.0 Capacity Analysis

Intersection capacity analysis was performed at the study area intersections. Synchro© Version 11 was used to analyze the study intersection for the proposed trip conditions according to methods put forth by the Transportation Research Board's *Highway Capacity Manual (HCM) 6th Edition.*

The Level of Service (LOS) of an intersection range from A to F where LOS A has a low vehicular delay indicating smooth free-flowing traffic. LOS F has a high vehicular delay and indicates the worst-case scenario with high congestion and a complete breakdown of traffic flow. Although LOS A through C are the desired levels, LOS D is considered acceptable in urban conditions. Traffic conditions with LOS of E or F are generally deemed unacceptable and represent significant travel delay, increased accident potential, and inefficient motor vehicle operation. Table 2 shows the relation between LOS and vehicular delay for signalized and unsignalized intersections.

Table 12 - Signalized and Unsignalized intersection LOS and Delay Parameters

Level of Service (LOS)	Vehicular Delay (seconds/vehicle)	
	Signalized Intersection	Stop Controlled Approach
A	0.0 ≤10.0	0.0 < 10.0
B	>10.0 ≤ 20.0	> 10.0 < 15.0
C	> 20.0 ≤ 35.0	> 15.0 < 25.0
D	> 35.0 ≤ 55.0	> 25.0 < 35.0
E	> 55.0 ≤ 80.0	> 35.0 < 50.0
F	> 80.0	> 50.0

Using guidelines for operational threshold from both ACHD and ITD, each of the study area intersections were analyzed on both the level of service and also the volume to capacity ratio. ACHD minimum threshold for level of service is D with a v/c ratio of 0.90 for overall intersection and 1.00 for lane movement. ITD minimum threshold is level of service D with a v/c ratio of 0.90 for overall intersection and lane movements.

The 2022 Existing, 2023 Background Year, 2024 Background Year, and 2030 Background Year traffic volumes at each of the study area intersections were input into the Synchro Software. The levels of service and v/c ratio at each of the turning movements can be seen in the following tables.

Table 13 – 2022 Existing Level of Service

Intersection		Lane Group	AM Peak Hour			PM Peak Hour		
			LOS	Delay (s/veh)	v/c ratio	LOS	Delay (s/veh)	v/c ratio
1	Hamlin Ave & SH 44	EBT	-	-	-	-	-	-
		WBTR	-	-	-	-	-	-
		SBR	B	12.5	0.03	C	22.1	0.06
2	Short Rd & SH 44	NBL	**F**	**116.7**	0.37	**F**	**174.2**	0.70
		NBTR	C	23.8	0.12	B	13.3	0.06
		EBL	A	8.7	0.01	B	11.2	0.01
		EBTR	-	-	-	-	-	-
		WBL	B	11.9	0.05	A	8.9	<0.01
		WBT	-	-	-	-	-	-
		WBR	-	-	-	-	-	-
		SBL	**F**	**101.3**	0.18	**F**	**81.9**	0.07
		SBTR	B	12.3	0.03	C	21.7	0.06
3	Short Rd & Amazon Dr	NB	-	-	-	A	8.7	0.01
		EB	A	0	-	A	0	-
		WB	A	7.2	<0.01	A	0	-
		SB	-	-	-	A	9.1	<0.01
4	Hamlin Ave & Shultz Ct	NB	A	8.6	<0.01	A	8.5	<0.01
		EB	A	0	-	A	0	-
		SB	-	-	-	-	-	-

Under the 2022 Existing conditions, all movements at the SH 44 and Hamlin Ave intersection currently function with acceptable LOS and v/c ratio. The Short Road and Amazon Drive intersection also functions with acceptable LOS and v/c ratio. Hamlin Avenue and Shultz Court intersection also functions with acceptable LOS and v/c ratios. All traffic movements at the Short Road and SH 44 intersection function with acceptable levels of service and v/c ratios except the northbound and southbound left turning

movements. The northbound and southbound left turn movements functions with an unacceptable LOS, but the v/c ratio is acceptable.

Table 14 – 2023 Background Year Level of Service

Intersection		Lane Group	AM Peak Hour			PM Peak Hour		
			LOS	Delay (s/veh)	v/c ratio	LOS	Delay (s/veh)	v/c ratio
1	Hamlin Ave & SH 44	EBT	-	-	-	-	-	-
		WBTR	-	-	-	-	-	-
		SBR	B	10.7	0.01	B	14.9	0.01
2	Short Rd & SH 44	NBL	**F**	**109.5**	0.30	**F**	**67.7**	0.32
		NBTR	B	14.2	0.05	B	10.8	0.03
		EBL	A	9	0.01	B	13.3	0.05
		EBT	-	-	-	-	-	-
		EBR	-	-	-	-	-	-
		WBL	B	13.2	0.06	A	9.1	<0.01
		WBT	-	-	-	-	-	-
		WBR	-	-	-	-	-	-
		SBL	**F**	**93.5**	0.58	**F**	**186.8**	0.70
		SBTR	B	10.6	0.04	B	14.9	0.04
3	Short Rd & Amazon Dr	NB	-	-	-	-	-	-
		EB	A	0	-	A	0	-
		WB	A	7.3	0.01	A	7.3	0.01
		SB	-	-	-	-	-	-
4	Hamlin Ave & Shultz Ct	NB	A	8.6	<0.01	A	8.5	<0.01
		EB	A	0	-	A	0	-
		SB	-	-	-	-	-	-

All intersections and movements will continue to function with acceptable levels of service and v/c ratios at the Hamlin Ave and SH44 intersection, Short Rd and Amazon Dr intersection and the Hamlin Ave and Shultz Ct intersection. With the proposed widening and improvements to SH 44 to 5-lanes by 2023, the v/c ratios at the Short Rd and SH 44 intersection will continue to be acceptable levels, however the LOS will still remain an "F" for the northbound and southbound left turn movements.

Table 15 – 2024 Background Year Level of Service

Intersection		Lane Group	AM Peak Hour			PM Peak Hour		
			LOS	Delay (s/veh)	v/c ratio	LOS	Delay (s/veh)	v/c ratio
1	Hamlin Ave & SH 44	EBT	-	-	-	-	-	-
		WBTR	-	-	-	-	-	-
		SBR	B	11.0	0.01	C	16.1	0.02
2	Short Rd & SH 44	NBL	**F**	**173.1**	0.44	**F**	**103.4**	0.47
		NBTR	C	15.8	0.07	B	11.1	0.04
		EBL	A	9.2	0.02	B	14.4	0.06
		EBT	-	-	-	-	-	-
		EBR	-	-	-	-	-	-
		WBL	B	14.4	0.08	A	9.3	0.01
		WBT	-	-	-	-	-	-
		WBR	-	-	-	-	-	-
		SBL	**F**	**151.9**	0.76	**F**	**327.8**	**0.98**
		SBTR	B	10.9	0.04	C	16.1	0.04
3	Short Rd & Amazon Dr	NB	-	-	-	-	-	-
		EB	A	0	-	A	0	-
		WB	A	7.3	0.01	A	7.3	0.01
		SB	-	-	-	-	-	-
4	Hamlin Ave & Shultz Ct	NB	A	8.6	<0.01	A	8.6	<0.01
		EB	A	0	-	A	0	-
		SB	-	-	-	-	-	-

Under the 2024 Background Year conditions all movements at the SH 44 and Hamlin Ave, Short Rd and Amazon Dr intersection, as well as the Hamlin Ave and Shultz Ct intersection will continue to function at an acceptable LOS "C" or better. SH 44 and Short Road will continue to function with an unacceptable LOS "F" for the northbound and southbound movements, and the v/c ration for the southbound left turn movement will fall to an unacceptable lever by ITD requirements.

Table 16 – 2030 Background Year Level of Service

Intersection		Lane Group	AM Peak Hour			PM Peak Hour		
			LOS	Delay (s/veh)	v/c ratio	LOS	Delay (s/veh)	v/c ratio
1	Hamlin Ave & SH 44	EBT	-	-	-	-	-	-
		WBTR	-	-	-	-	-	-
		SBR	B	13.7	0.1	D	29.3	0.17
2	Short Rd & SH 44	NBL	**F**	**$**	**5.56**	**F**	**$**	**41.11**
		NBTR	C	23.5	0.14	B	12.9	0.06
		EBL	B	11.8	0.17	**F**	**69.2**	0.81
		EBT	-	-	-	-	-	-
		EBR	-	-	-	-	-	-
		WBL	C	23.8	0.18	B	10.8	0.01
		WBT	-	-	-	-	-	-
		WBR	-	-	-	-	-	-
		SBL	**F**	**$**	**8.24**	**F**	**$**	**59.44**
		SBTR	B	14.1	0.22	**F**	**80.3**	0.88
3	Short Rd & Amazon Dr	NB	-	-	-	-	-	-
		EB	A	0	-	A	0	-
		WB	A	7.3	0.01	A	7.3	0.01
		SB	-	-	-	-	-	-
4	Hamlin Ave & Shultz Ct	NB	A	7.3	<0.01	A	7.3	<0.01
		EB	A	8.5	0.01	A	8.4	<0.01
		SB	-	-	-	-	-	-

Under the 2030 Background Year conditions all movements at the SH 44 and Hamlin Ave intersection, the Short Rd and Amazon DR intersection and the Hamlin Ave and Shultz Ct intersection will continue to function at an acceptable LOS "C" or better and acceptable v/c ratios. SH 44 and Short Road will continue to function with an unacceptable LOS "F" and experience a significant increase in delay time for the northbound and southbound movements. The v/c ratios in both the northbound and southbound directions will fall to unacceptable levels under these conditions.

With the addition of the Northern Star Development, the following tables illustrate the anticipated levels of service and v/c ratios at each of the study area intersections.

Table 17 – 2023 Background Year w/ Project Level of Service

Intersection		Lane Group	AM Peak Hour			PM Peak Hour		
			LOS	Delay (s/veh)	v/c ratio	LOS	Delay (s/veh)	v/c ratio
1	Hamlin Ave & SH 44	EBT	-	-	-	-	-	-
		WBTR	-	-	-	-	-	-
		SBR	B	11.2	0.09	C	16.2	0.1
2	Short Rd & SH 44	NBL	**F**	**122.6**	0.33	**F**	**101.2**	0.43
		NBTR	B	14.6	0.05	B	10.8	0.03
		EBL	A	9.1	0.03	B	14.7	0.16
		EBT	-	-	-	-	-	-
		EBR	-	-	-	-	-	-
		WBL	B	13.2	0.06	A	9.1	<0.01
		WBT	-	-	-	-	-	-
		WBR	-	-	-	-	-	-
		SBL	**F**	**274.2**	**1.24**	**F**	**677.0**	**1.89**
		SB	B	10.7	0.04	B	15.2	0.04
3	Short Rd & Amazon Dr	NB	-	-	-	-	-	-
		EB	A	0	-	A	0	-
		WB	A	7.4	0.01	A	7.3	0.01
		SB	-	-	-	-	-	-
4	Hamlin Ave & Shultz Ct	NB	A	8.6	<0.01	A	8.5	<0.01
		EB	A	0	-	A	0	-
		SB	-	-	-	-	-	-
5	Hamlin Ave & Amazon Dr	NB	-	-	-	-	-	-
		WBL	A	0	-	A	0	-
		WBR	A	8.5	0.02	A	8.7	0.05
		SB	A	7.3	0.03	A	7.3	0.02
6	Hamlin Ave & Apartment Access	NBL	A	7.3	0.02	A	7.4	0.06
		NBT	A	0	-	-	-	-
		EB	A	8.7	0.09	A	8.5	0.05
		SB	-	-	-	-	-	-

Under the 2023 Background Year with Project conditions, all movements at the study area intersection will continue with acceptable LOS and v/c ratios, except for the northbound LOS and the southbound LOS and v/c at SH 44 and Short Road.

With the proposed mitigations as outlined in the Amazon Falls 2 traffic impact study to restrict Short Road to right-in right-out movements, the following table illustrates the levels of service and v/c ratios at the Hamlin Ave and Short Road intersections with SH 44.

Table 18 – 2023 Background Year w/ Project w/ Mitigations Level of Service

Intersection		Lane Group	AM Peak Hour			PM Peak Hour		
			LOS	Delay (s/veh)	v/c ratio	LOS	Delay (s/veh)	v/c ratio
1	Hamlin Ave & SH 44	EBT	-	-	-	-	-	-
		WBTR	-	-	-	-	-	-
		SBR	B	11.9	0.16	C	17.4	0.18
2	Short Rd & SH 44	NBR	C	15.0	0.09	B	11.0	0.07
		EBL	A	9.1	0.03	B	14.7	0.16
		EBT	-	-	-	-	-	-
		EBR	-	-	-	-	-	-
		WBL	B	13.2	0.06	A	9.1	<0.01
		WBT	-	-	-	-	-	-
		WBR	-	-	-	-	-	-
		SBR	B	11.2	0.11	C	16.2	0.13

The Hamlin Ave and SH 44 intersection will continue to function with acceptable LOS and v/c ratios. The Short Road and SH 44 intersection will improve to acceptable LOS "C" or better and v/c ratios at each turning movements with right and left turning movements in along SH 44 and right-out movements along Short Road.

Table 19 – 2024 Background Year w/ Project Level of Service

Intersection		Lane Group	AM Peak Hour			PM Peak Hour		
			LOS	Delay (s/veh)	v/c ratio	LOS	Delay (s/veh)	v/c ratio
1	Hamlin Ave & SH 44	EBT	-	-	-	-	-	-
		WBTR	-	-	-	-	-	-
		SBR	B	11.9	0.14	C	18.8	0.17
2	Short Rd & SH 44	NBL	**F**	**206.0**	0.50	**F**	**264.7**	0.83
		NBTR	C	15.8	0.07	B	11.1	0.04
		EBL	A	9.5	0.05	C	18.5	0.29
		EBT	-	-	-	-	-	-
		EBR	-	-	-	-	-	-
		WBL	B	14.4	0.08	A	9.4	0.01
		WBT	-	-	-	-	-	-
		WBR	-	-	-	-	-	-
		SBL	**F**	**803.9**	**2.42**	**F**	**$**	**5.03**
		SB	B	11.0	0.04	C	16.7	0.05
3	Short Rd & Amazon Dr	NB	-	-	-	-	-	-
		EB	A	0	-	A	0	-
		WB	A	7.5	0.01	A	7.4	0.01
		SB	-	-	-	-	-	-
4	Hamlin Ave & Shultz Ct	NB	A	7.3	0.01	A	7.3	0.03
		EB	A	8.6	0.04	A	8.5	0.02
		SB	A	0	-	A	0	-
5	Hamlin Ave & Amazon Dr	NB	-	-	-	-	-	-
		WBL	A	0	-	A	0	-
		WBR	A	8.5	0.03	A	9	0.10
		SB	A	7.4	0.05	A	7.4	0.04
6	Hamlin Ave & Apartment Access	NBL	A	7.4	0.02	A	7.5	0.06
		NBT	-	-	-	-	-	-
		EB	A	9.0	0.1	A	8.7	0.06
		SB	-	-	-	-	-	-
7	Hamlin Ave & SF Housing Access	NBL	A	7.2	0.01	A	7.3	0.02
		NBT	-	-	-	-	-	-
		EB	A	8.4	0.03	A	8.4	0.02
		SB	-	-	-	-	-	-

Under the 2024 Background Year with Project conditions, and assuming Short Rd and Hamlin Ave are full traffic movements, all movements will continue to function with acceptable LOS and v/c ratios except the northbound and southbound left turn movements at Short Road and SH 44. The northbound left turn will have acceptable v/c ratios, but the level of service will fail.

With the proposed improvements as outlined in the Amazon Falls 2 traffic impact study to restrict left turning movements out of Short Road onto SH 44, the following table illustrates the LOS and v/c ratios at the Hamlin Ave and Short Road intersections with SH 44 as traffic would be redistributed to all use the Hamlin Ave connection.

Table 20 – 2024 Background Year w/ Project w/ Mitigations Level of Service

Intersection		Lane Group	AM Peak Hour			PM Peak Hour		
			LOS	Delay (s/veh)	v/c ratio	LOS	Delay (s/veh)	v/c ratio
1	Hamlin Ave & SH 44	EBT	-	-	-	-	-	-
		WBTR	-	-	-	-	-	-
		SBR	B	13.6	0.29	C	22.4	0.34
2	Short Rd & SH 44	NBR	C	16.3	0.11	B	11.4	0.08
		EBL	A	9.5	0.05	C	18.5	0.29
		EBT	-	-	-	-	-	-
		EBR	-	-	-	-	-	-
		WBL	B	14.4	0.08	A	9.4	<0.01
		WBT	-	-	-	-	-	-
		WBR	-	-	-	-	-	-
		SBR	B	11.6	0.12	C	18.0	0.14

With the recommended improvements under the Amazon Falls 2 traffic impact study, these two intersections will continue to function with acceptable LOS and v/c ratios.

Table 21 – 2030 Background Year w/ Project Level of Service

Intersection		Lane Group	AM Peak Hour			PM Peak Hour		
			LOS	Delay (s/veh)	v/c ratio	LOS	Delay (s/veh)	v/c ratio
1	Hamlin Ave & SH 44	EBT	-	-	-	-	-	-
		WBTR	-	-	-	-	-	-
		SBR	C	17.4	0.32	**F**	**117.4**	**0.97**
2	Short Rd & SH 44	NBL	**F**	**$**	**11.11**	**F**	**$**	**$**
		NBTR	C	23.5	0.14	B	12.9	0.06
		EBL	C	15.2	0.39	**F**	**264.3**	**1.42**
		EBT	-	-	-	-	-	-
		EBR	-	-	-	-	-	-
		WBL	C	23.8	0.18	B	10.8	0.01
		WBT	-	-	-	-	-	-
		WBR	-	-	-	-	-	-
		SBL	**F**	**$**	**33.15**	**F**	**$**	**$**
		SB	B	14.9	0.23	**F**	**97.6**	**0.94**
3	Short Rd & Amazon Dr	NB	-	-	-	-	-	-
		EB	A	0	-	A	0	-
		WB	A	7.5	0.01	A	7.6	0.01
		SB	-	-	-	-	-	-
4	Hamlin Ave & Shultz Ct	NB	A	7.4	0.01	A	7.4	0.03
		EB	A	8.8	0.04	A	8.6	0.03
		SB	-	-	-	A	0	-
5	Hamlin Ave & Amazon Dr	NBL	A	7.6	0.05	A	7.4	0.01
		NBTR	-	-	-	-	-	-
		EBL	A	0	-	A	0	-
		EBTR	B	11.3	0.05	B	11.3	0.23
		WBL	A	0	-	A	0	-
		WBTR	B	14.4	0.27	A	9.8	0.14
		SBL	A	7.4	0.05	A	7.5	0.04
		SBTR	-	-	-	-	-	-
6	Hamlin Ave & Apartment Access	NBL	A	7.5	0.02	A	7.5	0.06
		NBT	-	-	-	-	-	-
		EB	A	9.3	0.1	A	8.9	0.06
		SB	-	-	-	-	-	-

7	Hamlin Ave & SF Housing Access	NBL	A	7.2	0.01	A	7.3	0.02
		NBT	-	-	-	-	-	-
		EB	A	8.4	0.03	A	8.4	0.02
		SB	-	-	-	-	-	-

$ = values from analysis exceed capacity

Under the 2030 Background Year with Project conditions, all movements at the Amazon Dr and Short Road intersection, the Hamlin Dr and Shultz Ct intersection and the Amazon Dr and Hamlin Ave intersection will continue to function at an acceptable LOS "B" or better. The Hamlin Ave and access to the apartments will also continue to function with acceptable levels of service. The Hamlin Ave and access to the single-family housing will continue to function at acceptable levels of service. The northbound and southbound movements at the SH 44 and Hamlin Avenue intersection will function with a LOS "F", and the v/c ratio will be unacceptable.

With the improvements as outlined in the Amazon Falls 2 traffic impact study to make the intersection of Short Road and SH 44 a right-in, left-in and right-out, the following table outlines the projected LOS and v/c ratios as the traffic patterns will change.

Table 22 – 2030 Background Year w/ Project w/ Mitigations Level of Service

Intersection		Lane Group	AM Peak Hour			PM Peak Hour		
			LOS	Delay (s/veh)	v/c ratio	LOS	Delay (s/veh)	v/c ratio
1	Hamlin Ave & SH 44	EBT	-	-	-	-	-	-
		WBTR	-	-	-	-	-	-
		SBR	D	30.0	0.64	F	532.1	2.02
2	Short Rd & SH 44	NBR	D	25.8	0.24	B	13.7	0.15
		EBL	C	15.2	0.39	**F**	**264.3**	**1.42**
		EBT	-	-	-	-	-	-
		EBR	-	-	-	-	-	-
		WBL	C	23.8	0.18	B	10.8	0.01
		WBT	-	-	-	-	-	-
		WBR	-	-	-	-	-	-
		SBR	C	18.4	0.44	**F**	**307.9**	**1.54**

8.0 Traffic Signal Warrant Analysis

As part of the traffic impact study, the SH 44 and Short Road intersection will experience some heavy delays in the northbound direction with the increase of traffic along SH 44 and the level of service will drop to an unacceptable level. In order to improve the intersection, we analyzed the need for a traffic signal at the intersection. In order to analyze the need for a traffic signal, the 2009 Edition of the *Manual on Traffic Control Devices (MUTCD)*, Part 4 is used. As per the *MUTCD* there are nine signal warrants and even if one warrant is met, a signal may be installed at the study intersection. The warrants are:

Warrant 1 - Eight Hour Vehicular Volume

Warrant 2 - Four Hour Vehicular Volume

Warrant 3 - Peak Hour

Warrant 4 - Pedestrian Volume

Warrant 5 - School Crossing

Warrant 6 - Coordinated Signal System

Warrant 7 - Crash Experience

Warrant 8 - Roadway Network

Warrant 9 - Intersection near a Grade Crossing

Based on the study location, traffic patterns and information we have available at this time, only Warrant 3 - Peak Hour was able to be analyzed with the projected peak hour traffic volumes under the 2023 Background, 2024 Background and 2030 Background Years. The following paragraphs provide the details of the signal warrant analysis. It should be noted that this Peak Hour Warrant Analysis was performed using the projected traffic volumes. It is strongly recommended the intersection be monitored when actual traffic volumes are present and the signal warrant analysis be performed.

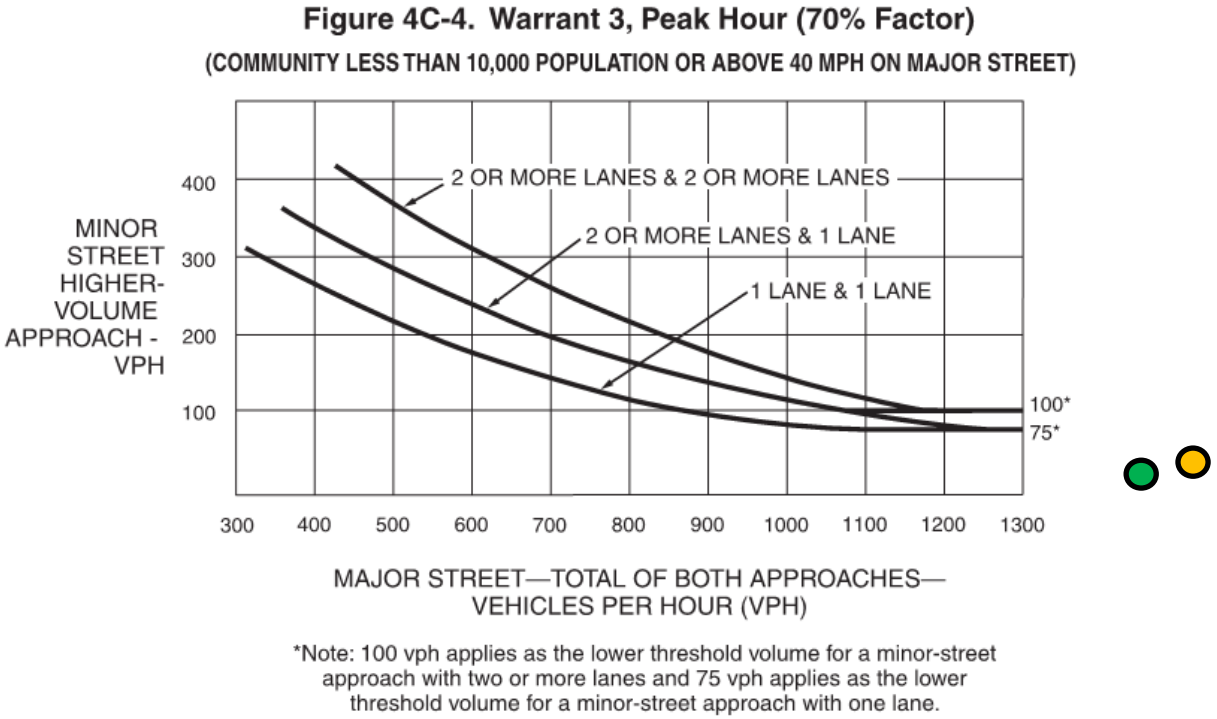
Note that in all scenarios that were analyzed for a traffic signal warrant, the Major Street totals for both directions does not include the vehicles making a right turn from the Major Street. Right turning vehicles when in a separate right turn lane from the Major Streets are not often counted in a Traffic Signal Warrant Analysis as they do not impede the Minor Street traffic from making their appropriate movement.

Warrant 3 (Peak Hour)

This traffic signal warrant analysis was performed at the SH 44 and Short Road intersection. The graph from the MUTCD that is used to analyze the need for a signal. SH 44 is considered the Major Street for this analysis with Short Road as the Minor Street. It is anticipated that for the future years used in this analysis, SH 44 will be two lanes in each direction with separate left turn lanes and right turn lanes at the intersections. Short Road is only one lane in each direction. The speed limit along the Major Street (SH 44) is above 40 mph, therefore the 70% Factor graph is used in this analysis per the MUTCD.

Figure 15 illustrates the signal warrant analysis for the AM and PM peak hour traffic volumes under the 2023 Background Year scenario. The Major Street (SH 44) will see 1,854 vph in the AM peak hour, and 1,923 vph in the PM peak hour. The Minor Street (Short Road) will have 32 vph in the AM peak hour and 42 vph in the PM peak hour.

Figure 15 – SH 44 and Short Road 2023 Background Signal Warrant



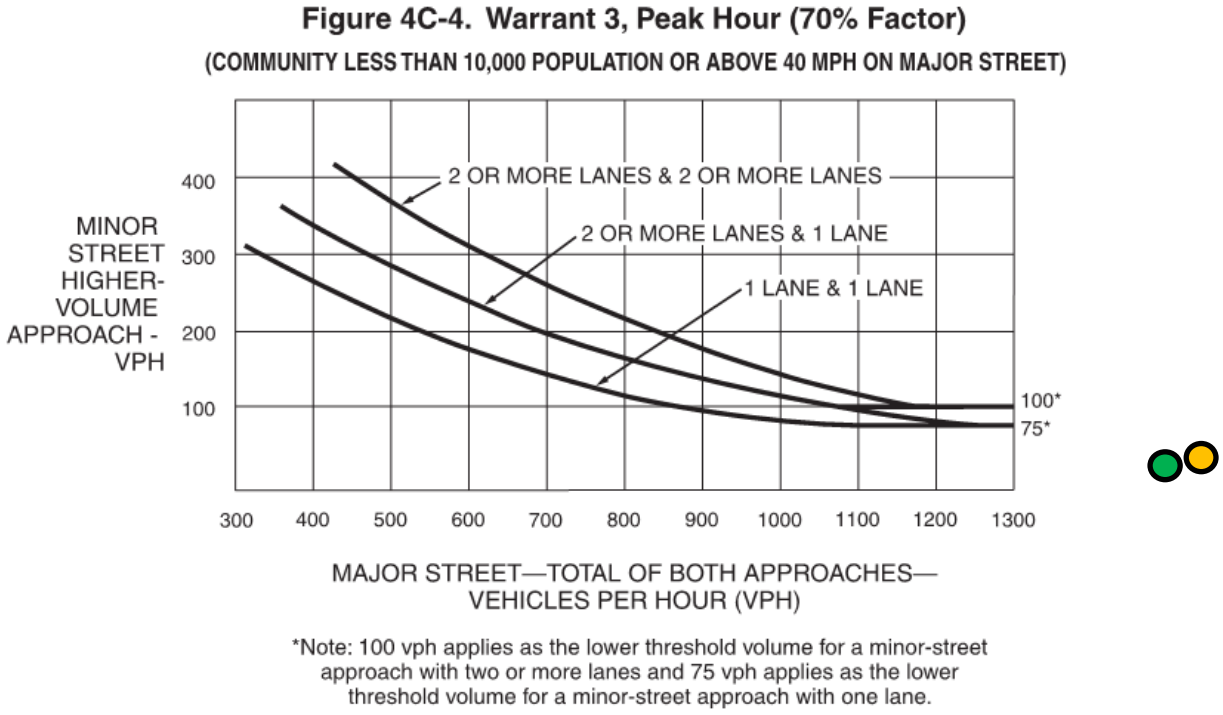
= 2023 Background Year Traffic Volumes. (AM Peak Hour)

= 2023 Background Year Traffic Volumes. (PM Peak Hour)

As seen in Figure 15, the plotted points of these volumes fall well below the applicable curve and therefore do not warrant a traffic signal at this time. Since the projected traffic volumes do not warrant a traffic signal under the 2023 Background scenario, it is recommended the city monitor this intersection for when actual traffic volumes are present since the intersection experience an unacceptable level of service.

Figure 16 illustrates the signal warrant analysis for the AM and PM peak hour traffic volumes under the 2024 Background Year scenario. The Major Street (SH 44) will see 2,037 vph in the AM peak hour, and 2,104 vph in the PM peak hour. The Minor Street (Short Road) will have 35 vph in the AM peak hour and 46 vph in the PM peak hour.

Figure 16 – SH 44 and Short Road 2024 Background Signal Warrant



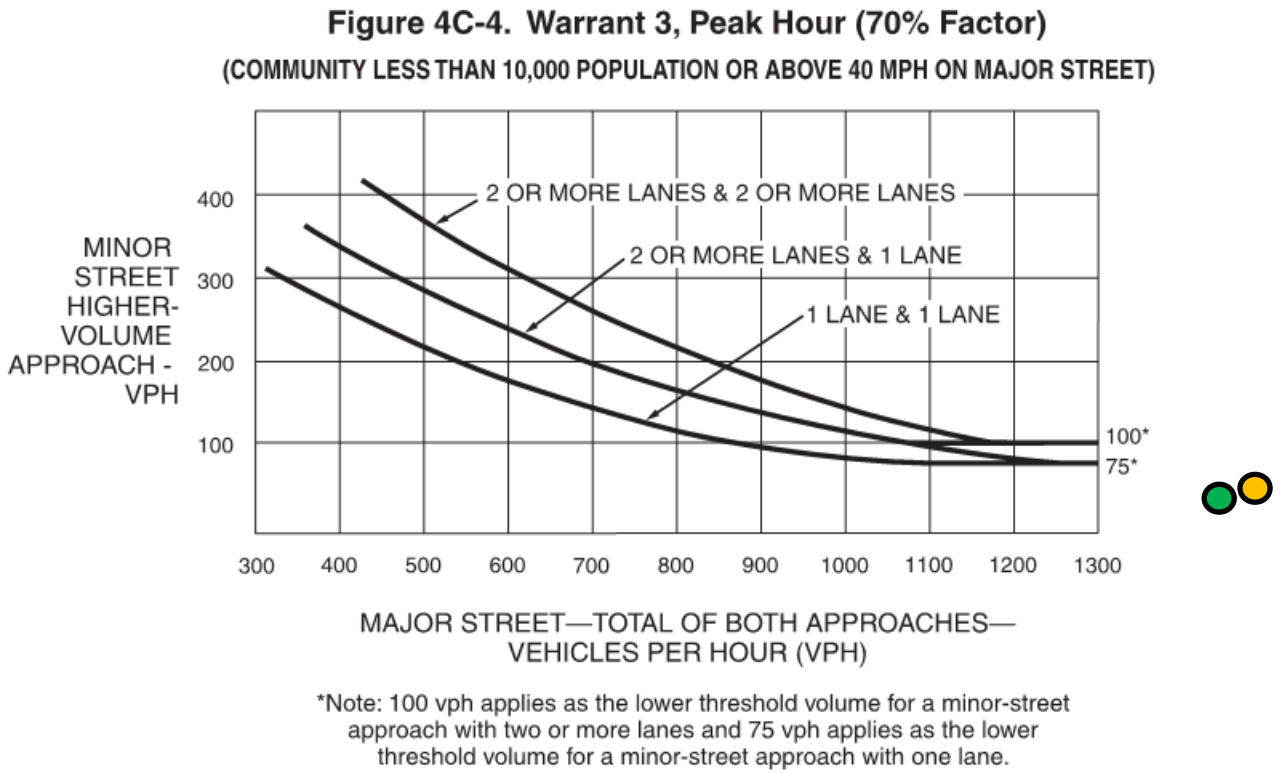
= 2024 Background Year Traffic Volumes. (AM Peak Hour)

= 2024 Background Year Traffic Volumes. (PM Peak Hour)

As seen in Figure 16, the plotted points of these volumes fall well below the applicable curve and therefore do not warrant a traffic signal at this time. It is recommended the city monitor this intersection for when actual traffic volumes are present.

Figure 17 illustrates the signal warrant analysis for the AM and PM peak hour traffic volumes under the 2030 Background Year scenario. The Major Street (SH 44) will see 2,845 vph in the AM peak hour, and 2,937 vph in the PM peak hour. The Minor Street (Short Road) will have 49 vph in the AM peak hour and 64 vph in the PM peak hour.

Figure 17 – SH 44 and Short Road 2030 Background Signal Warrant



= 2030 Background Year Traffic Volumes. (AM Peak Hour)

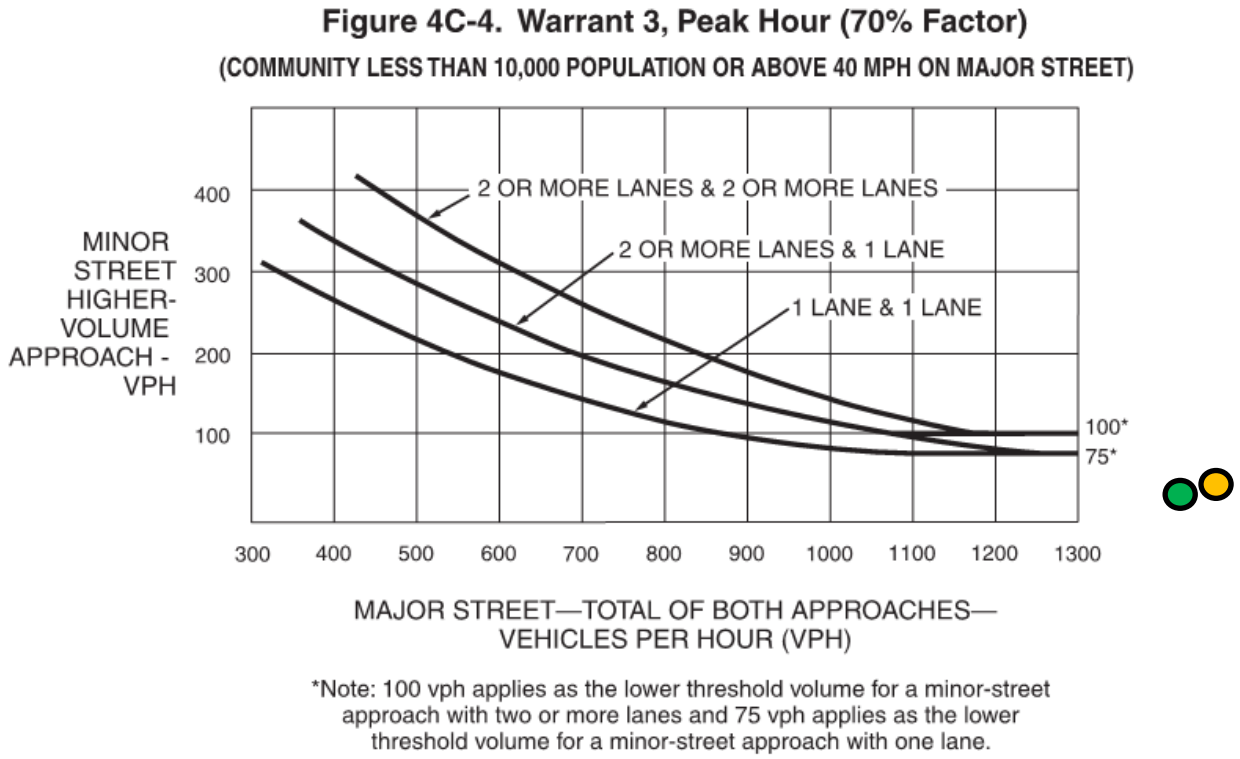
= 2030 Background Year Traffic Volumes. (PM Peak Hour)

As seen in Figure 17, the plotted points of these volumes fall well below the applicable curve and therefore do not warrant a traffic signal at this time. It is recommended the city monitor this intersection for when actual traffic volumes are present.

With the addition of the Northern Start Development, we also analyzed the SH 44 and Short Road intersection for a traffic signal warrant. Figure 18 illustrates the signal warrant analysis for the AM and PM peak hour traffic volumes under the 2023 Background Year with Project scenario. The Major Street (SH 44) will see 1,880 vph in the AM peak hour, and

1,988 vph in the PM peak hour. The Minor Street (Short Road) will have 52 vph in the AM peak hour and 42 vph in the PM peak hour.

Figure 18 – SH 44 and Short Road 2023 Background w/ Project Signal Warrant



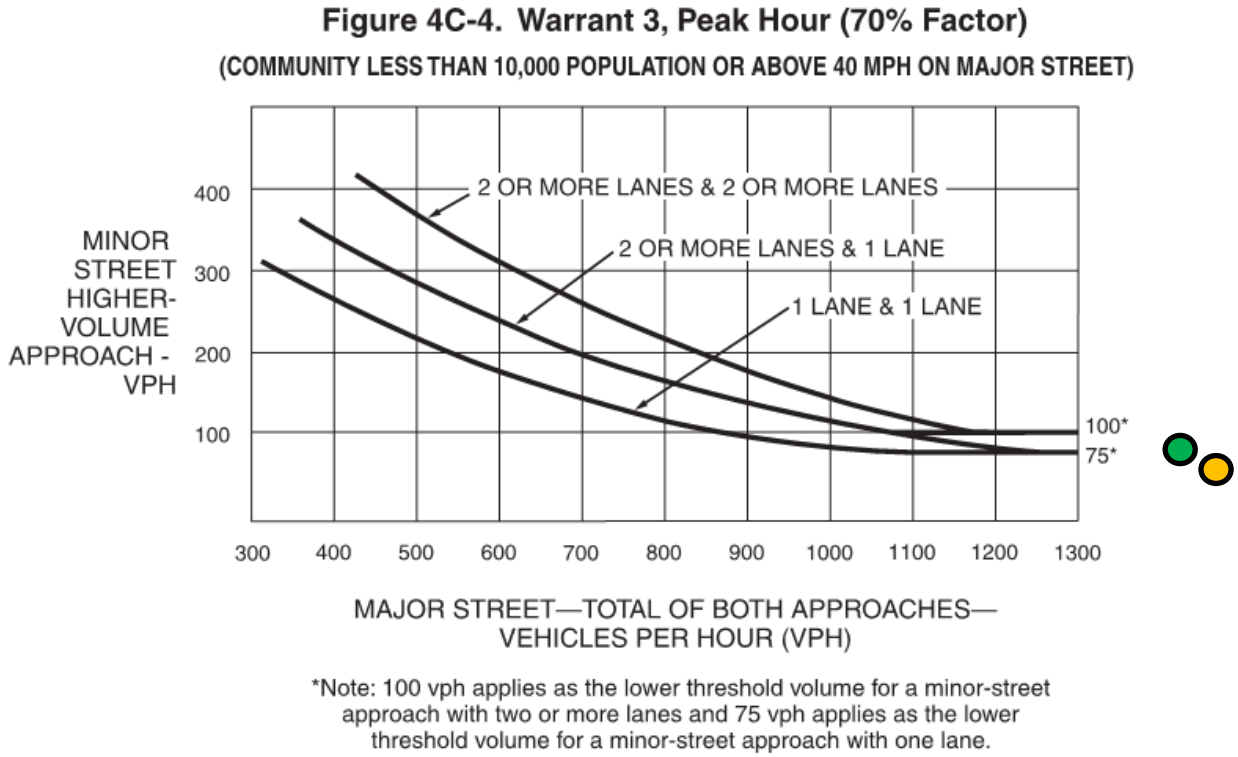
= 2023 Background Year with Project Traffic Volumes. (AM Peak Hour)

= 2023 Background Year with Project Traffic Volumes. (PM Peak Hour)

As seen in Figure 18, the plotted points of these volumes fall below the applicable curve and therefore do not warrant a traffic signal at this time.

Figure 19 illustrates the signal warrant analysis for the AM and PM peak hour traffic volumes under the 2024 Background Year with Project scenario. The Major Street (SH 44) will see 2,083 vph in the AM peak hour, and 2,245 vph in the PM peak hour. The Minor Street (Short Road) will run with 88 vph in the AM peak hour and 46 vph in the PM peak hour.

Figure 19 – SH 44 and Short Road 2024 Background w/ Project Signal Warrant



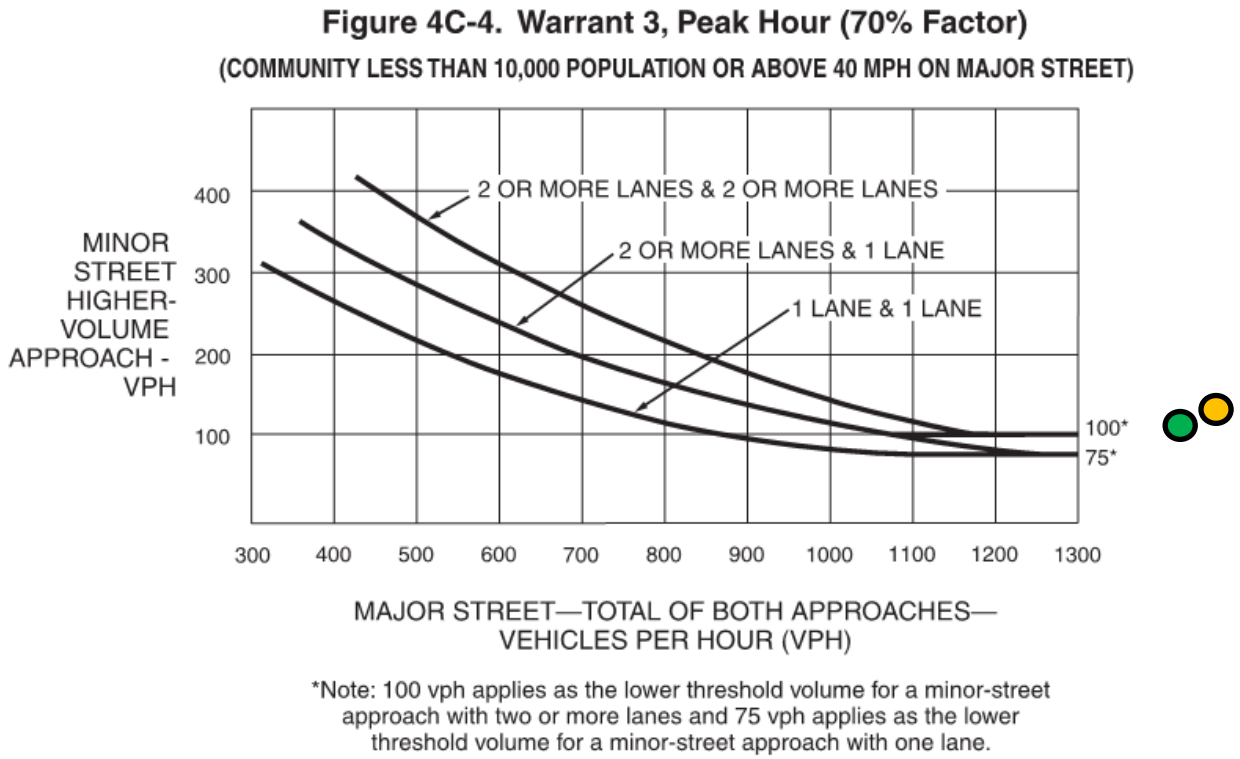
= 2024 Background Year with Project Traffic Volumes. (AM Peak Hour)

= 2024 Background Year with Project Traffic Volumes. (PM Peak Hour)

As seen in Figure 19, the plotted points of these volumes fall below the applicable curve and therefore do not warrant a traffic signal at this time.

Figure 20 illustrates the signal warrant analysis for the AM and PM peak hour traffic volumes under the 2030 Background Year with Project scenario. The Major Street (SH 44) will see 3,031 vph in the AM peak hour, and 3,105 vph in the PM peak hour. The Minor Street (Short Road) will run with 105 vph in the AM peak hour and 132 vph in the PM peak hour.

Figure 20 – SH 44 and Short Road 2030 Background w/ Project Signal Warrant



= 2030 Background Year with Project Traffic Volumes. (AM Peak Hour)

= 2030 Background Year with Project Traffic Volumes. (PM Peak Hour)

As seen in Figure 20, the plotted points of these volumes will warrant a traffic signal as the plotted points fall above the applicable curve. It is recommended since these traffic volumes are projected volumes for the 2030 year, and this intersection will function with unacceptable levels of service well before 2030, this intersection continue to be monitored.

9.0 Turn Lane Warrant Analysis

Following the District Policy as outlined in 7106.4.4, the proposed intersections along Hamlin Avenue with the addition of the Northern Star Development were analyzed for turn lane warrants. For major roads at an intersection, District Policy per NCHRP Reports 279 and 457 were used applying Figure 1 for Left-Turn Guidelines for Two-Lane Roads less than or equal to 40 mph. For minor roads, the evaluation of a second lane per NCHRP Report 457 was followed. Within this study area, Hamlin Ave would follow the major roadway analysis, where the site accesses would fall under the minor roadway analysis. The following Advancing Volumes and Opposing Volumes under the different scenarios were used. Refer to the appendix of this report for the graphs from the NCHRP Reports and District Policy.

Hamlin Avenue and Amazon Drive:

2030 Background with Project Northbound Left Turn Lane: **Does Not Warrant**

AM Northbound Advancing Volume = 87 vph (71% left turns)

AM Southbound Opposing Volumes = 112 vph

PM Northbound Advancing Volumes = 84 vph (15% left turns)

PM Southbound Opposing Volumes = 71 vph

2030 Background with Project Southbound Left Turn Lane: **Does Not Warrant**

AM Southbound Advancing Volumes = 189 vph (41% left turns)

AM Northbound Opposing Volumes = 25 vph

PM Southbound Advancing Volumes = 119 vph (40% left turns)

PM Northbound Opposing Volumes = 72 vph

2030 Background with Project Westbound Left Turn Lane: **Does Not Warrant as "0" vehicles are planned to make this movement**

2030 Background with Project Eastbound Left Turn Lane: **Does Not Warrant as "0" vehicles are proposed to make this turning moment.**

2030 Background with Project Northbound Right Turn Lane: **Does Not Warrant as "0" vehicles are proposed to make this turning moment.**

2030 Background with Project Southbound Right Turn Lane: **Does Not Warrant as "0" vehicles are proposed to make this turning moment.**

The following analysis was performed using the NCHRP Report 457 for evaluation of a second lane for minor roads.

2030 Background Eastbound Right Turn Lane: **Does Not Warrant**

AM Eastbound Minor Road Volume = 26 vph

AM Major Road Volume = 276 vph

PM Eastbound Minor Road Volume = 150 vph

PM Major Road Volume = 203 vph

2030 Background Westbound Right Turn Lane: **Does Not Warrant**

AM Westbound Minor Road Volumes = 125 vph

AM Major Road Volumes = 276 vph

PM Westbound Right Turn Volumes = 112 vph

PM Major Road Volumes = 203 vph

Hamlin Avenue and Apartment Access:

2030 Background with Project Northbound Left Turn Lane: **Does Not Warrant**

AM Northbound Advancing Volume = 56 vph (52% left turns)

AM Southbound Opposing Volumes = 105 vph

PM Northbound Advancing Volumes = 165 vph (50% left turns)

PM Southbound Opposing Volumes = 66 vph

2030 Background with Project Westbound Left Turn Lane: **Does Not Warrant as "0" vehicles are planned to make this movement**

2030 Background with Project Southbound Right Turn Lane: **Does Not Warrant as "0" vehicles are proposed to make this turning moment.**

The following analysis was performed using the NCHRP Report 457 for evaluation of a second lane for minor roads.

2030 Background Eastbound Right Turn Lane: **Does Not Warrant**

AM Eastbound Minor Road Volume = 84 vph

AM Major Road Volume = 161 vph

PM Eastbound Minor Road Volume = 53 vph

PM Major Road Volume = 231 vph

Hamlin Avenue and Shultz Court:

2030 Background with Project Northbound Left Turn Lane: **Does Not Warrant**

AM Northbound Advancing Volume = 27 vph (44% left turns)

AM Southbound Opposing Volumes = 66 vph

PM Northbound Advancing Volumes = 82 vph (48% left turns)

PM Southbound Opposing Volumes = 43 vph

2030 Background with Project Westbound Left Turn Lane: **Does Not Warrant as "0" vehicles are planned to make this movement**

2030 Background with Project Southbound Right Turn Lane: **Does Not Warrant as "0" vehicles are proposed to make this turning moment.**

The following analysis was performed using the NCHRP Report 457 for evaluation of a second lane for minor roads.

2030 Background Eastbound Right Turn Lane: **Does Not Warrant**

AM Eastbound Minor Road Volume = 39 vph

AM Major Road Volume = 93 vph

PM Eastbound Minor Road Volume = 23 vph

PM Major Road Volume = 125 vph

Hamlin Avenue and Single-Family Access:

2030 Background with Project Northbound Left Turn Lane: **Does Not Warrant**

AM Northbound Advancing Volume = 10 vph (100% left turns)

AM Southbound Opposing Volumes = 0 vph

PM Northbound Advancing Volumes = 34 vph (100% left turns)

PM Southbound Opposing Volumes = 0 vph

2030 Background with Project Westbound Left Turn Lane: **Does Not Warrant as "0" vehicles are planned to make this movement**

2030 Background with Project Southbound Right Turn Lane: **Does Not Warrant as "0" vehicles are proposed to make this turning moment.**

The following analysis was performed using the NCHRP Report 457 for evaluation of a second lane for minor roads.

2030 Background Eastbound Right Turn Lane: **Does Not Warrant**

AM Eastbound Minor Road Volume = 31 vph

AM Major Road Volume = 10 vph

PM Eastbound Minor Road Volume = 20 vph

PM Major Road Volume = 34 vph

Based on the above analysis for the needs of right and left turn lanes along Hamlin Avenue and the roadway intersecting from the Northern Star Development, no turn lanes are warranted.

10.0 Queuing Analysis

Sim Traffic Queueing Analysis

Using the 95th percentile queue lengths from Sim Traffic for the study scenarios, the following table illustrates the existing measured queue lengths, the calculated queue length from Sim Traffic and the rounded recommended queue lengths at the study area intersections. Note the queue lengths for proposed intersections along Hamlin Ave are not recorded as no separate left or right turn lanes are necessary under the turn lane warrant analysis.

Table 23 – 2023 Background w Project Sim Traffic Queuing Analysis Summary

Intersection		Lane Group	AM Peak Hour			PM Peak Hour	
			Existing Storage Length	Sim Traffic 95th % Queue	Rec Queue	Sim Traffic 95th % Queue	Rec Queue
1	Hamlin Ave & SH 44	SBR	Single Lane	50	100	50	100
2	Short Rd & SH 44	EBL	TWLTL - 750	34	100	54	100
		EBR	150	6	100	-	-
		WBL	TWLTL - 1920	34	100	12	100
		WBR	375			8	100
		NBL	100	33	100	53	100
		SBL	Single Lane	125	125	118	120

Table 24 – 2024 Background w Project Sim Traffic Queuing Analysis Summary

Intersection		Lane Group	AM Peak Hour			PM Peak Hour	
			Existing Storage Length	Sim Traffic 95th % Queue	Rec Queue	Sim Traffic 95th % Queue	Rec Queue
1	Hamlin Ave & SH 44	SBR	Single Lane	55	100	54	100
2	Short Rd & SH 44	EBL	TWLTL - 750	37	100	80	100
		EBR	150	5	100	3	-
		WBL	TWLTL - 1920	40	100	15	100
		WBR	375			9	100
		NBL	100	33	100	112	115
		SBL	Single Lane	251	255	241	245

Table 25 – 2030 Background w Project Sim Traffic Queuing Analysis Summary

Intersection		Lane Group	AM Peak Hour			PM Peak Hour	
			Existing Storage Length	Sim Traffic 95th % Queue	Rec Queue	Sim Traffic 95th % Queue	Rec Queue
1	Hamlin Ave & SH 44	SBR	Single Lane	85	100	120	120
2	Short Rd & SH 44	EBL	TWLTL - 750	107	150	266	270
		EBR	150	14	100	-	-
		WBL	TWLTL - 1920	70	150	16	150
		WBR	375	16	100	15	100
		NBL	100	237	240	232	240
		SBL	Single Lane	205	205	195	200

The following table illustrates the queue lengths under the 2030 Background with Project scenario with the proposed mitigations as outlined above to make the northbound and southbound movements along Short Road a RIROLI intersection.

Table 26 – 2030 Background w Project -Mit Sim Traffic Queuing Analysis Summary

Intersection		Lane Group	AM Peak Hour			PM Peak Hour	
			Existing Storage Length	Sim Traffic 95th % Queue	Rec Queue	Sim Traffic 95th % Queue	Rec Queue
1	Hamlin Ave & SH 44	SBR	Single Lane	75	100	273	275
2	Short Rd & SH 44	EBL	TWLTL - 750	100	150	209	210
		EBR	150	9	100	3	100
		WBL	TWLTL - 1920	72	150	21	100
		WBR	375	11	100	23	100
		NBR	-	56	100	61	100
		SBR	-	119	120	515	515
		EB		55	100	49	100
		SB		-	-	-	-

In the above table, at the Hamlin Ave and SH 44 intersection, the southbound leg of this intersection is a right turn only. This lane is a single lane that extends north to the next

intersection which is 700 feet. Therefore, there is plenty of distance between SH 44 and Amazon Drive to hold the queuing distance for the southbound right turn movement.

The Short Road and SH 44 eastbound leg is planned for a two way left turn lane. Therefore, there is roughly 750 feet between Short Road and Hamlin Ave to the west, which provides adequate queuing for the eastbound left and right turn lanes. The westbound approach is similar as there is planned to be constructed a two way left turn lane and there is over 1900 feet to Palmer Lane, which is the next intersection to the east. Therefore, there is adequate distance for the westbound left and right turn lane at this intersection. The northbound approach is currently striped with roughly 100 feet of storage. This leg of the intersection does not consist of a two way left turn lane. Therefore, this storage length would need to be lengthened to 240 feet in order to meet the demands of the future growth in this area. Since there are no trips associated to this turning movements from the Northern Star Development, this storage length would need to be extended even without this development and is recommended to occur under the 2030 Background Year conditions. The southbound left turn movement at this intersection at the time of this study, was not striped. However, it has been required that a southbound left turn lane be constructed according to the Amazon Falls 2 requirements from ACHD. This storage length is planned to be constructed with a two way left turn lane that will extend to the next intersection to the north, which is over 300 feet. Therefore, the recommended storage length from this report of 205 feet should be adequate.

Synchro Queuing Analysis

Using the 95th percentile queue lengths provided in the Synchro Reports in the appendix of this study, the following tables reflect the queue lengths per Synchro under the different study scenarios. Note, Synchro provides a 95th percentile queue in number of vehicles. In order to convert this value to a queuing distance, the value was multiplied by 25 ft which represents the average length of a vehicle.

Note, since left and right turn lanes along Hamlin Avenue and at the proposed project accesses are not warranted, these intersections were not included in these tables.

Table 27 – 2023 Background w/ Project Synchro Queuing Analysis Summary

Intersection		Lane Group	Exist Storage Length	AM Peak Hour			PM Peak Hour		
				Synchro 95th % Queue (VEH)	Calc Queue	Rec Queue	Synchro 95th % Queue (VEH)	Calc Queue	Rec Queue
1	Hamlin Ave & SH 44	SBR	Single Lane	0.3	7.5	100	0.3	7.5	100
2	Short Rd & SH 44	EBL	TWLTL - 750	0.1	2.5	100	0.6	15	100
		EBR	150	0	0	150	0	0	150
		WBL	TWLTL - 1920	0.2	5	100	0	0	100
		WBR	375	0	0	375	0	0	375
		NBL	100	1.1	27.5	100	1.6	40	100
		SBL	Single Lane	7.3	182.5	185	7	175	175

Table 28 – 2024 Background w/ Project Synchro Queuing Analysis Summary

Intersection		Lane Group	Exist Storage Length	AM Peak Hour			PM Peak Hour		
				Synchro 95th % Queue (VEH)	Calc Queue	Rec Queue	Synchro 95th % Queue (VEH)	Calc Queue	Rec Queue
1	Hamlin Ave & SH 44	SBR	Single Lane	0.5	12.5	100	0.6	15	100
2	Short Rd & SH 44	EBL	TWLTL - 750	0.2	5	100	1.2	30	100
		EBR	150	0	0	150	0	0	150
		WBL	TWLTL - 1920	0.2	5	100	0	0	100
		WBR	375	0	0	375	0	0	375
		NBL	100	1.6	40	100	3	75	100
		SBL	Single Lane	13.7	342.5	345	11.4	285	285

Table 29 – 2030 Background w/ Project Synchro Queuing Analysis Summary

Intersection		Lane Group		AM Peak Hour			PM Peak Hour		
			Exist Storage Length	Synchro 95th % Queue (VEH)	Calc Queue	Rec Queue	Synchro 95th % Queue (VEH)	Calc Queue	Rec Queue
1	Hamlin Ave & SH 44	SBR	Single Lane	1.4	35	100	7.5	187.5	190
2	Short Rd & SH 44	EBL	TWLTL - 750	1.8	45	100	16.4	410	410
		EBR	150	0	0	150	0	0	150
		WBL	TWLTL - 1920	0.7	17.5	100	0	0	100
		WBR	375	0	0	375	0	0	375
		NBL	100	4.4	110	110	0	0	100
		SBL	Single Lane	26.9	672.5	675	0	0	100

The following table illustrates the Synchro queuing recommendations with the proposed mitigations.

Table 30 – 2030 Background w/ Project - Mit Synchro Queuing Analysis Summary

Intersection		Lane Group		AM Peak Hour			PM Peak Hour		
			Exist Storage Length	Synchro 95th % Queue (VEH)	Calc Queue	Rec Queue	Synchro 95th % Queue (VEH)	Calc Queue	Rec Queue
1	Hamlin Ave & SH 44	SBR	Single Lane	4.2	105	105	23.6	590	590
2	Short Rd & SH 44	EBL	TWLTL - 750	1.8	45	100	16.4	410	410
		EBR	150	0	0	150	0	0	150
		WBL	TWLTL - 1920	0.7	17.5	100	0	0	100
		WBR	375	0	0	375	0	0	375
		NBR	100	0.9	22.5	100	0.5	12.5	100
		SBR	Single Lane	2.2	55	100	19.3	482.5	485

All lane configurations with no recommended queue length are proposed to share left, through and right turn lanes and therefore no additional queuing analysis was performed on the intersections presented in these tables.

Comparing the two different methods, the Sim Traffic calculations illustrate less queuing is likely to occur at the intersections. In particular the southbound left turning lane at Short Road and SH 44. This is likely caused because Sim Traffic runs different simulations of the traffic and the average over those runs is used in this analysis. We ran 5 different simulations to compile the average. The Synchro analysis is based on a specific number. Using the Sim Traffic method, the intersection of Short Road and SH 44 illustrates no significant queuing will occur if the intersection were to remain with full left and right turning movements and the need to convert this intersection to a RIROLI would not be necessary. Converting this intersection to RIROLI, the southbound queuing under the 2030 Background with Project scenario will experience heavy queuing in the PM peak hour. The queuing reports for both Synchro and Sim Traffic can be found in the appendix of this report.

11.0 Recommendations

Based on the information and findings presented in this report, the following recommendations are to improve the overall flow of traffic.

- The Hamlin Avenue and SH 44 intersection will remain a right in/right out intersection as per Idaho Department of Transportation. With the addition of a full interchange at SH 16 and SH 44, the close proximity of Hamlin Ave will require this roadway to remain right in and right out.

- SH 44 is planned to be widened to two lanes in each direction and a center two-way left turn lane by the end of 2023.

- As outlined in the Amazon Phase 2 traffic impact study, the recommendations to reconstruct the Short Road and SH 44 intersection to a right-in/right-out with left-in movements is planned to occur by 2025.

- The intersection of Short Road and SH 44 does not meet the intersection spacing for a traffic signal as outlined in the ITIP. However, a signal at this intersection would sufficiently improve the flow of traffic and allow vehicles entering and exiting onto SH 44 from the multiple developments planned for this area a safe connection.

- It should also be noted that as future developments occur to the east, there should be planned connections to allow vehicles to access Palmer and other surrounding roadways a way to travel east along SH 44.

- With the addition of the Northern Star Development, the intersection of Hamlin Avenue and Amazon Drive will be constructed. It is recommended this intersection be constructed with to meet city standards with one lane in each direction. Adequate sight distance at this intersection will be required as per District Policy 5104.3. It is recommended at a speed limit of 35 mph; 390 feet of sight distance should be accounted for in the design of this intersection. No

obstructions within the sight distance triangles as outlined in Figure 2 of the District Policy 5104.3.

- It is recommended Hamlin Avenue be widened to meet the city standards for a Collector roadway with one lane in each direction at each access to the Northern Star Development.

- Shultz Street and Hamlin Ave should also be constructed to meet city standards. If Shultz Street is planned to remain as a city owned and maintained roadway. The roadway will need to terminate with a cul-de-sac prior to connecting to a private road. Shultz Street should be constructed with one lane in each direction as the projected volumes do not warrant the need for additional turn lanes. Shultz Street will be stop controlled with free-flowing traffic along Hamlin Ave.

- The single-family access and Hamlin Ave intersection should be constructed with one lane in each direction as the projected traffic volumes do not meet the turn lane warrants. The single-family access will be stop controlled with free-flowing traffic along Hamlin Ave.

- The townhomes access and Hamlin Ave intersection should be constructed with one lane in each direction as the projected traffic volumes do not meet the turn lane warrants. The townhomes access will be stop controlled with free-flowing traffic along Hamlin Ave.

- The apartment access and Hamlin Ave intersection should be constructed with one lane in each direction as the projected traffic volumes do not meet the turn lane warrants. The apartment access will be stop controlled with free-flowing traffic along Hamlin Ave.

- Hamlin Avenue and Amazon Drive should be constructed with one lane in each direction and stop controlled along Amazon Drive.

12.0 Appendix

Scoping Memo

6949 South High Tech Drive
Midvale, UT 84047
801.352.0075

MEMORANDUM - REVISED

Date:	January 20, 2022
To:	Paige Bankhead – Ada County Highway District (ACHD)
From:	Jason Watson, PE, PTOE
Project:	Northern Star Development – Star City, Idaho
Subject:	Proposed Scope of Work for the Transportation Impact Analysis

FOCUS Engineering and Surveying, LLC (FOCUS) has been retained to complete a Traffic Impact Study for the proposed Northern Star Development. This memorandum summarizes the assumptions and discussions that have been held between FOCUS, ACHD, Community Planning Association (COMPASS) and Idaho Transportation Department (ITD) to determine the overall scope for this study. The Northern Star Development is located north of SH 44 and east of SH 16 within Star City. Figure 1 illustrates the vicinity map and project area.

Conversations that were held with ACHD, COMPASS and ITD staff, along with the project Developer and Star City staff developed the outline for this project and the needs for the traffic impact study. This memorandum addresses the following items:

- Project Description
- Estimated Trip Generation and Distribution
- Analysis Scenarios and Study Assumptions
- Analysis Tools

PROJECT DESCRIPTION

The Northern Star Development is located along SH 44, between SH 16 and Hamlin Avenue. The proposed site is currently vacant land used for agricultural purposes. The proposed development will consist of 55 single-family lots, 110 townhome lots, 310 apartment units and roughly 18 acres of commercial land that could consist of office space, retail shops, etc. Figure 2 illustrates the proposed Northern Star Development site plan.

Access to the Northern Star Development will be provided from the following intersections:

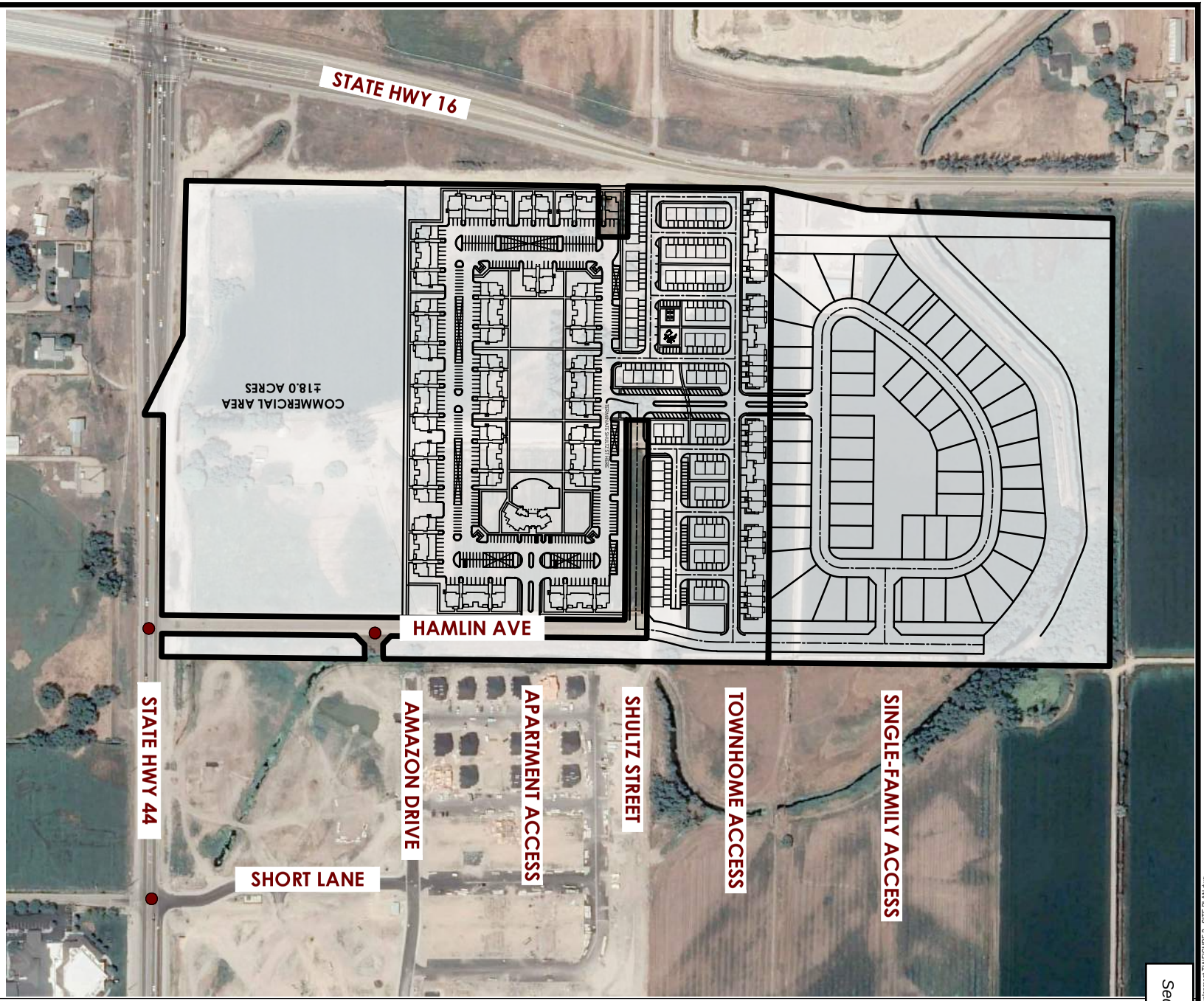
- State Highway 44 & Hamlin Avenue – Right-in & Right-out
  - Existing Access
- Hamlin Avenue & Amazon Drive
  - Approximately 725 feet from SH 44
- Hamlin Avenue & Apartment Access
  - Approximately 250 north of Amazon Drive
- Hamlin Avenue & Shultz Street
  - Approximately 525 feet north of Amazon Drive
- Hamlin Avenue & Private Road Access to Townhomes
  - Approximately 300 feet north of Shultz
- Hamlin Avenue & Single-Family Access
  - Approximately 300 feet north of Townhomes Access

NORTHERN STAR DEVELOPMENT

FIGURE 1 - VICINITY MAP

FOCUS
ENGINEERING AND SURVEYING, LLC
9 S. HIGH TECH DRIVE SUITE 200
ALE, UTAH 84047 PH: (801) 352-0075
www.focusutah.com

C:\Users\jwatson\Desktop\Northern Star Development TIA\FIGURE 1 - VICINITY MAP.dwg



NORTHERN STAR DEVELOPMENT

FIGURE 2 - SITE PLAN

FOCUS©
ERING AND SURVEYING, LLC
9 S. HIGH TECH DRIVE SUITE 200
ALE, UTAH 84047 PH: (801) 352-0075
www.focusutah.com

C:\Users\jwatson\Desktop\Northern Star Development TIA\FIGURE 2 - SITE PLAN.dwg

ESTIMATED TRIP GENERATION AND DISTRIBUTION

Trip Generation

To generate the anticipated number of vehicles entering and exiting the proposed site during a typical weekday a.m. and p.m. peak hour, the *Institute of Transportation Engineer's (ITE) Trip Generation Manual* is used. For single-family residential lots, the land use codes 210 – Single-Family Detached Housing, 220 – Multifamily Housing (Low-Rise), and 221 – Multifamily Housing (Mid-Rise) were used to generate the number of trips entering and exiting the development. The Mid-Rise land use was used for the apartments as they are planned for three story apartment buildings. Since the specific land use for the 18 acres of commercial is unknown at this time, land use code 710 for General Office Building was used. It was assumed 20% of the overall acreage would be used as the actual building size. Using these assumptions, roughly 156,000 square foot office building was used to calculate the trip generation. Table 1 illustrates the number of trips the Northern Star Development is anticipated to generate based on the adjacent street traffic.

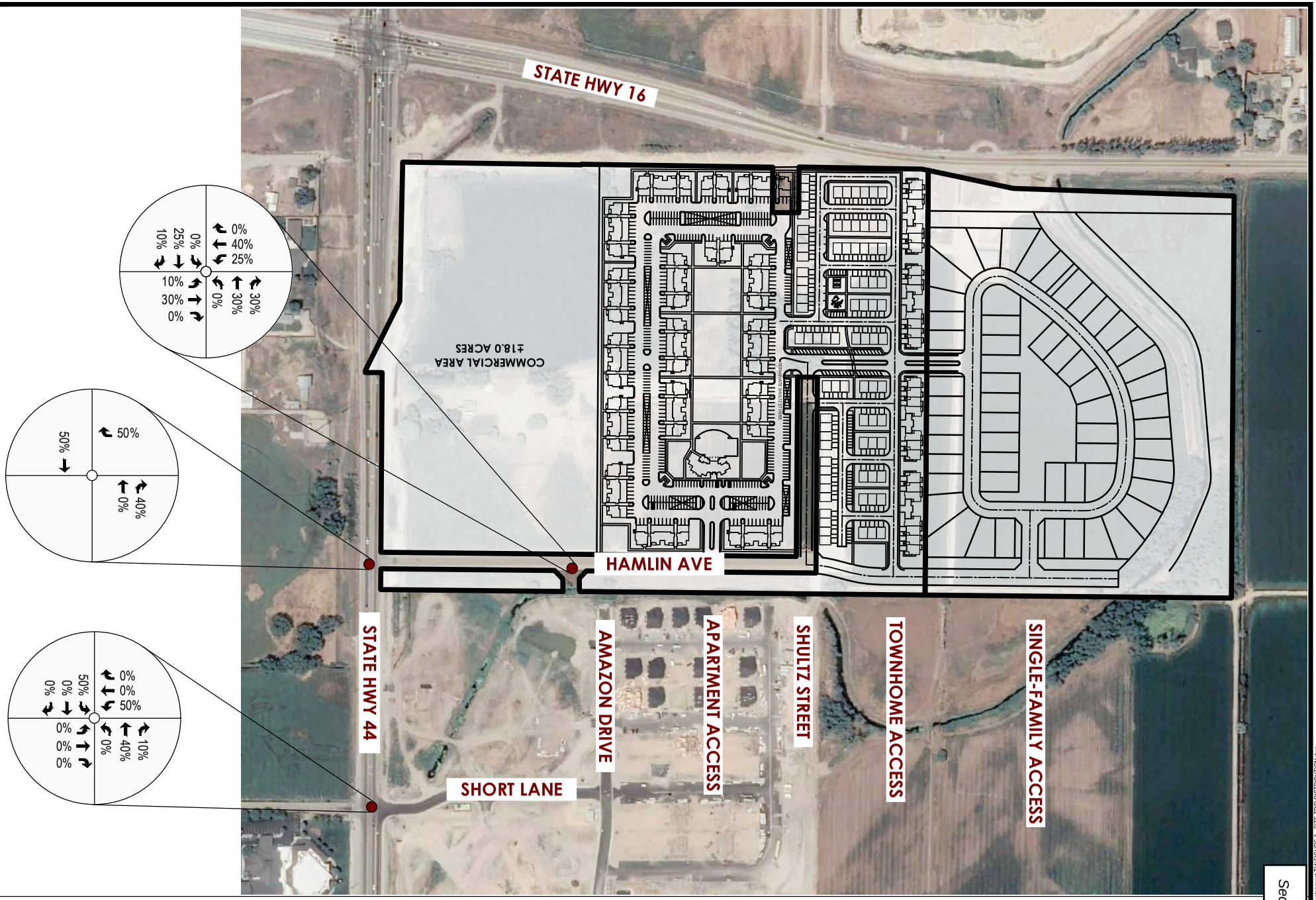
Table 1 – Trip Generation for Northern Star

ITE Land Use Code	Land Use Description	Size	Daily (AADT)	Trip Generation (AM)		Trip Generation (PM)	
				Enter	Exit	Enter	Exit
210	Single-Family	55 DU	519	10	31	34	20
220	Low-Rise	110 DU	805	12	39	39	23
221	Mid-Rise	310 DU	1686	29	83	83	53
710	Gen Office	1,000 GFA	1519	156	25	29	150

As can be seen in Table 1, the Northern Star Development will generate approximately 4,529 daily trips, with 385 trips occurring in the AM peak hour (207 entering, 178 exiting) and 431 trips occurring in the PM peak hour (185 entering, 246 exiting). It is assumed with the combination of residential and office within the development, there is potential for internal capture trips. With the internal capture trips, this development will generate 379 total AM peak hour trips (204 entering, 175 exiting) and 417 PM peak hour trips (178 entering, 239 exiting).

Trip Distribution

The project trip distribution onto the existing and proposed roadways at each project site access is based on the area of impact model runs by COMPASS, review of the roadway system by ACHD and ITD, as well as knowledge of travel patterns in this study area. The proposed distribution percentages are illustrated in Figure 3.



NORTHERN STAR DEVELOPMENT

FIGURE 3 - PROJECT TRIP DISTRIBUTION PERCENTAGES

XX% = DISTRIBUTION PERCENTAGES

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www.focusutah.com

C:\Users\jwatson\Desktop\Northern Star Development TIA\FIGURE 3 - SITE TRIP DISTRIBUTION.dwg

ANALYSIS SCENARIOS & STUDY ASSUMPTIONS

The proposed traffic impact analysis assumptions are as follows:

- Study Years:
  - Existing traffic conditions (2022)
  - Buildout year background traffic conditions (2023). Includes growth and in-process developments without the proposed Northern Star Development.
  - Buildout year total traffic conditions (2023). Included background traffic plus the build-out of the first phase (310 apartment units).
  - Buildout year background traffic conditions (2024). Includes growth and in-process developments without the remaining phases of the proposed development.
  - Buildout year total traffic conditions (2024). Includes background traffic plus the build-out of the second phase (110 townhome units and 55 single-family units).
  - Buildout year background traffic conditions (2030). Includes growth and in-process developments without the remaining phases of the proposed development.
  - Buildout year total traffic conditions (2030). Includes background traffic plus the build-out of the third phase (commercial).
- Time Periods:
  - Weekday AM peak hour (7-9 AM)
  - Weekday PM peak hour (4-6 PM)
- Study Intersections:
  - Amazon Drive/Hamlin Avenue
  - Amazon Drive/Short Lane
  - Shultz Street/Hamlin Avenue
  - Hamlin Avenue/SH-44
  - Short Lane/SH-44
- Roadway Segments:
  - Hamlin Avenue – from Schultz Street to SH-44
  - Amazon Drive – from Hamlin Avenue to Short Lane
  - Short Lane
- Data Collection:
  - Turning movement counts will be collected during the typical midweek (Tuesday -Thursday) AM peak period (7:00 AM to 9:00 AM) and also the PM peak period (4:00 PM to 6:00 PM).
- Background Growth Rate and In-Process Developments:
  - Growth rates obtained from COMPASS illustrate a 9.9% growth along SH 44 until 2025. After 2025 the growth rate is anticipated to adjust to 4.9%.

- Trip Assignment from recently approved development within this study are will also be included in the background scenarios of this study. We will work with ACHD to obtain the studies on these developments. These developments include:
  - Amazon Falls 2
  - Fountain Park

- Access Spacing & Needs:
  - Access locations will be evaluated with respect to ACHD policy and spacing requirements.
  - The need for traffic control and turn lanes will also be evaluated at each site access.
- Planned Transportation Improvements:
  - Planned widening of SH 44 between SH 16 and Linder Road from 3 lanes to 5 lanes by 2023.
  - Planned future improvements to SH 44 and Palmer Lane call for a signalized intersection by FY 2027.
  - Hamlin Avenue is also planned to extend north to connect Floating Feather Road and SH 44.
  - All of these planned improvements are based on future developments to construct these improvements. The analysis shown in this study will account for these improvements to be completed in the background years of this study.

ANALYSIS TOOLS AND OPERATING STANDARDS

The study area intersections operational analysis will be evaluated using the *Highway Capacity Manual (HCM) 6th Edition* analysis procedures. The intersections will be evaluated with the appropriate calculation of level of service using Synchro 11 and SimTraffic software. Signalized intersections within the study area will be evaluated using the HCM 6th Edition procedure as provided in the Synchro Software to provide the overall intersection control delay and level of service along with each individual approaches delay in seconds per vehicle and level of service. Unsignalized intersections will be evaluated using the HCM 6th Edition procedures and will provide the individual approach delay in seconds per vehicle as well as approach level of service.

Traffic Impact Analysis will be performed in accordance with methodologies outlined in Section 7106.6 of the *ACHD Policy Manual*. Queue lengths, needs for left and right turn lanes will be included in the analysis. Intersection and roadway segments analysis will be determined using the ACHD thresholds outlined in the Policy Manual.

ACHD requires signalized intersections operate at a minimum LOS E for Principal Arterials and Minor Arterials and a LOS D for Collectors. All unsignalized intersections that have a projected LOS D or worse, shall perform a traffic signal warrant analysis or roundabout analysis. The acceptable volume -to-capacity ratio for signalized intersection is 0.90 for the overall intersection and 1.00 for each lane group. The acceptable volume-to-capacity ratio is 0.90 for the critical lane group at unsignalized intersections.

NEXT STEPS

FOCUS asks ACHD to review this scope of work for the traffic impact analysis for the Northern Start Development. We ask for any comments or response to the assumptions we have made in this scoping document so we may move forward with the traffic impact study. Please feel free to reach out to Jason Watson (801) 352-0075 or email at jwatson@focusutah.com with any questions or comments on the information we have presented in this scoping document.

Existing Traffic Counts

L2 Data Collection

L2DataCollection.com
Idaho (208) 860-7554 Utah (801) 413-2993

Study: FOCU0006
Intersection: Short Rd / SH-44
City, State: Canyon County, Idaho
Control: Stop Sign

File Name : SH-44 (State St) & Short Rd - revised
Site Code : 00000000
Start Date : 1/20/2022
Page No : 1

Groups Printed- General Traffic

	Short Road From North					SH-44 From East					Short Road From South					SH-44 From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
07:00 AM	0	0	1	0	1	0	113	6	0	119	2	0	3	0	5	10	268	1	0	279	404
07:15 AM	1	0	2	0	3	0	134	2	0	136	8	0	2	0	10	17	289	2	0	308	457
07:30 AM	5	0	1	0	6	0	148	5	0	153	3	0	1	0	4	13	256	4	0	273	436
07:45 AM	0	0	0	0	0	3	133	7	0	143	4	0	7	0	11	22	296	1	0	319	473
Total	6	0	4	0	10	3	528	20	0	551	17	0	13	0	30	62	1109	8	0	1179	1770
08:00 AM	0	0	0	0	0	0	130	9	0	139	2	0	2	0	4	16	268	3	0	287	430
08:15 AM	0	0	1	0	1	1	144	9	0	154	4	0	3	0	7	18	263	4	0	285	447
08:30 AM	1	0	2	0	3	0	105	6	0	111	6	0	5	0	11	8	297	3	0	308	433
08:45 AM	2	0	6	0	8	2	119	4	0	125	2	0	3	0	5	11	251	1	0	263	401
Total	3	0	9	0	12	3	498	28	0	529	14	0	13	0	27	53	1079	11	0	1143	1711

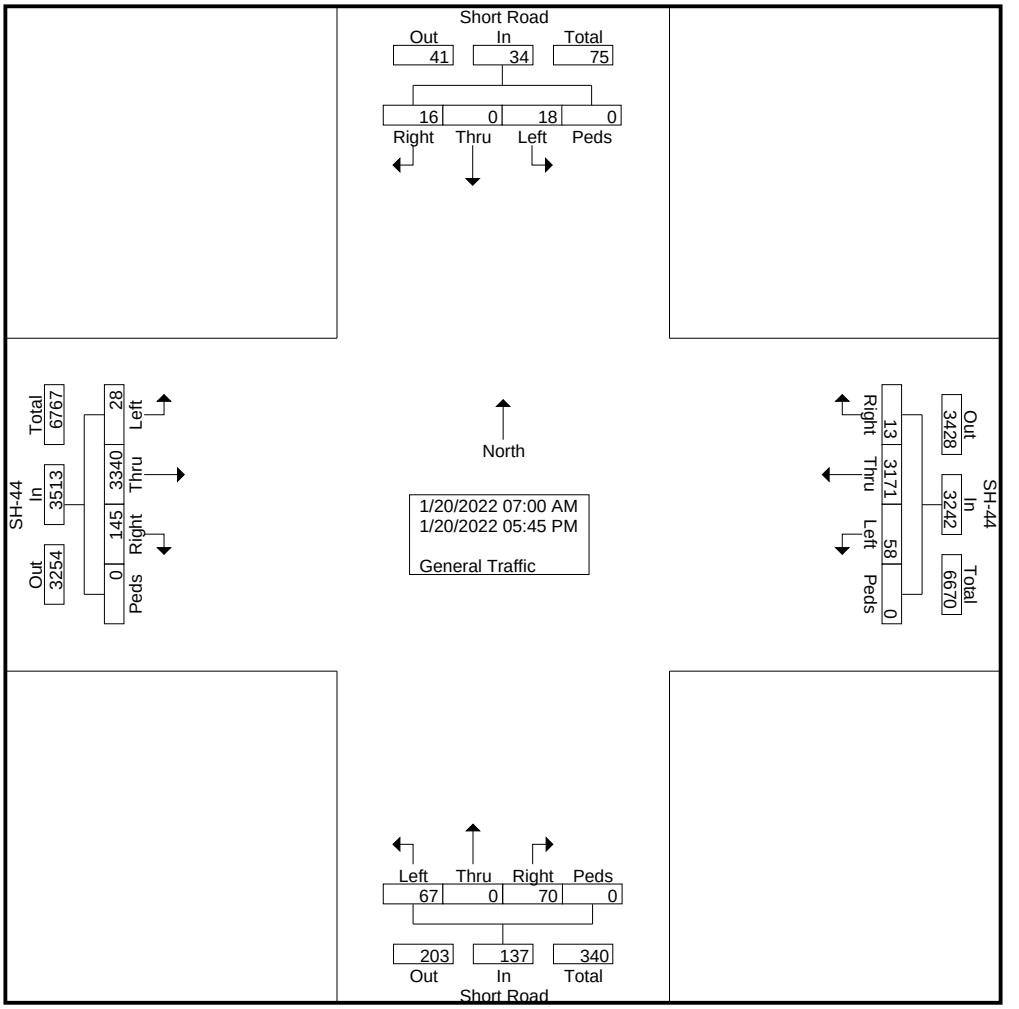
04:00 PM	1	0	2	0	3	0	243	2	0	245	10	0	5	0	15	5	187	0	0	192	455
04:15 PM	0	0	1	0	1	1	258	0	0	259	4	0	6	0	10	2	120	1	0	123	393
04:30 PM	1	0	0	0	1	2	255	4	0	261	4	0	7	0	11	4	134	1	0	139	412
04:45 PM	4	0	0	0	4	0	293	0	0	293	7	0	2	0	9	4	142	0	0	146	452
Total	6	0	3	0	9	3	1049	6	0	1058	25	0	20	0	45	15	583	2	0	600	1712
05:00 PM	0	0	1	0	1	1	279	1	0	281	1	0	7	0	8	5	132	3	0	140	430
05:15 PM	0	0	0	0	0	0	289	1	0	290	5	0	10	0	15	2	136	2	0	140	445
05:30 PM	0	0	0	0	0	2	295	2	0	299	3	0	3	0	6	3	167	0	0	170	475
05:45 PM	1	0	1	0	2	1	233	0	0	234	5	0	1	0	6	5	134	2	0	141	383
Total	1	0	2	0	3	4	1096	4	0	1104	14	0	21	0	35	15	569	7	0	591	1733
Grand Total	16	0	18	0	34	13	3171	58	0	3242	70	0	67	0	137	145	3340	28	0	3513	6926
Apprch %	47.1	0	52.9	0		0.4	97.8	1.8	0		51.1	0	48.9	0		4.1	95.1	0.8	0		
Total %	0.2	0	0.3	0	0.5	0.2	45.8	0.8	0	46.8	1	0	1	0	2	2.1	48.2	0.4	0	50.7	

L2 Data Collection

L2DataCollection.com
Idaho (208) 860-7554 Utah (801) 413-2993

Study: FOCU0006
Intersection: Short Rd / SH-44
City, State: Canyon County, Idaho
Control: Stop Sign

File Name : SH-44 (State St) & Short Rd - revised
Site Code : 00000000
Start Date : 1/20/2022
Page No : 2



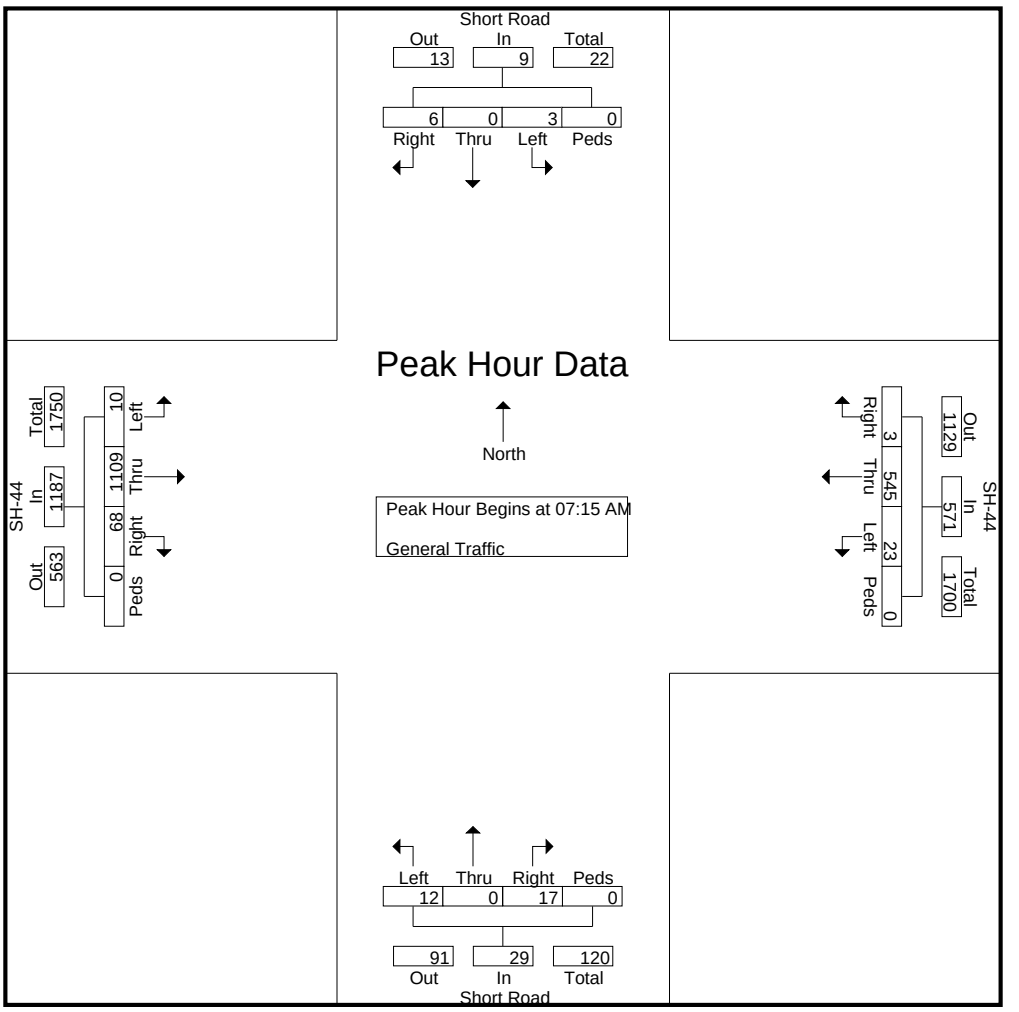
L2 Data Collection

L2DataCollection.com
Idaho (208) 860-7554 Utah (801) 413-2993

Study: FOCU0006
Intersection: Short Rd / SH-44
City, State: Canyon County, Idaho
Control: Stop Sign

File Name : SH-44 (State St) & Short Rd - revised
Site Code : 00000000
Start Date : 1/20/2022
Page No : 3

	Short Road From North					SH-44 From East					Short Road From South					SH-44 From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:15 AM																					
07:15 AM	1	0	**2**	0	3	0	134	2	0	136	**8**	0	2	0	10	17	289	2	0	308	457
07:30 AM	**5**	0	1	0	**6**	0	**148**	5	0	**153**	3	0	1	0	4	13	256	**4**	0	273	436
07:45 AM	0	0	0	0	0	**3**	133	7	0	143	4	0	**7**	0	**11**	**22**	**296**	1	0	**319**	**473**
08:00 AM	0	0	0	0	0	0	130	**9**	0	139	2	0	2	0	4	16	268	3	0	287	430
Total Volume	6	0	3	0	9	3	545	23	0	571	17	0	12	0	29	68	1109	10	0	1187	1796
% App. Total	66.7	0	33.3	0		0.5	95.4	4	0		58.6	0	41.4	0		5.7	93.4	0.8	0		
PHF	.300	.000	.375	.000	.375	.250	.921	.639	.000	.933	.531	.000	.429	.000	.659	.773	.937	.625	.000	.930	.949



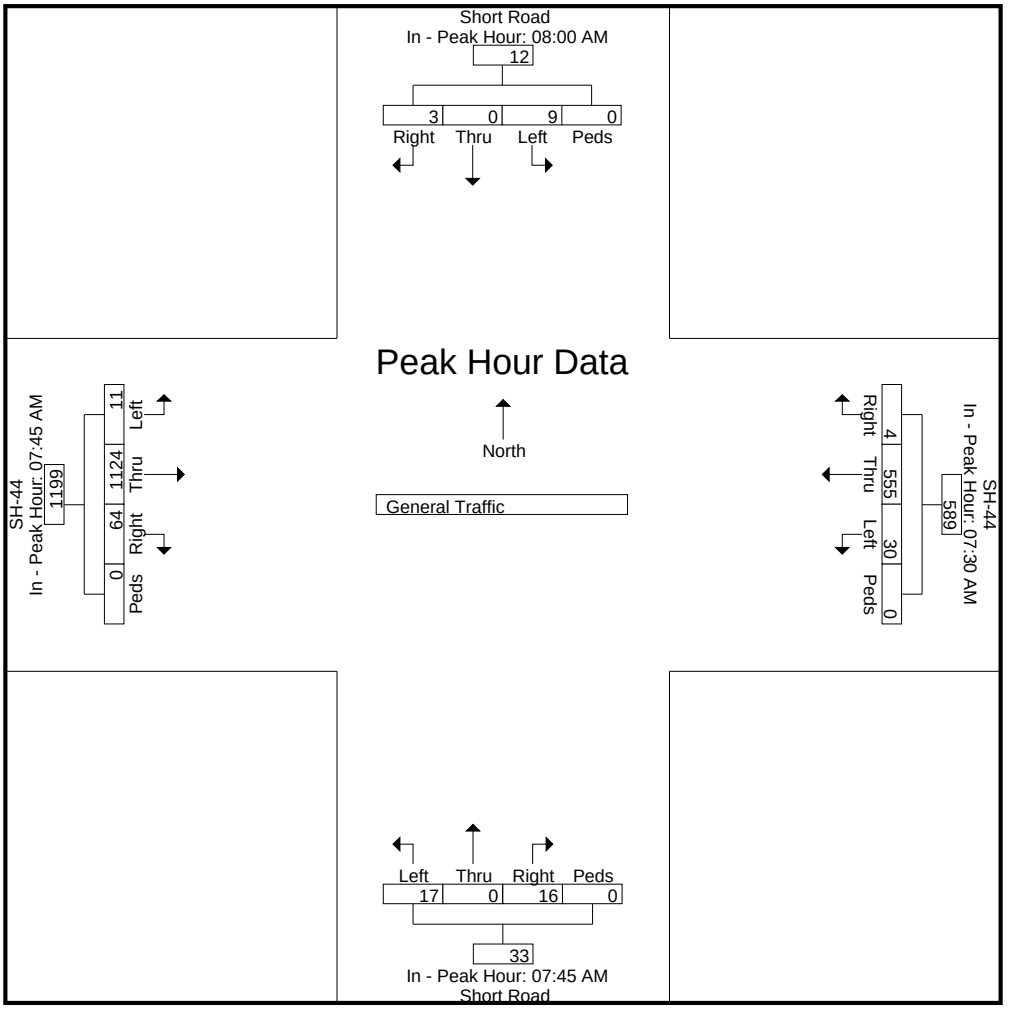
L2 Data Collection

L2DataCollection.com
Idaho (208) 860-7554 Utah (801) 413-2993

Study: FOCU0006
Intersection: Short Rd / SH-44
City, State: Canyon County, Idaho
Control: Stop Sign

File Name : SH-44 (State St) & Short Rd - revised
Site Code : 00000000
Start Date : 1/20/2022
Page No : 4

	Short Road From North					SH-44 From East					Short Road From South					SH-44 From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1																					
Peak Hour for Each Approach Begins at:																					
	08:00 AM					07:30 AM					07:45 AM					07:45 AM					
+0 mins.	0	0	0	0	0	0	**148**	5	0	153	4	0	**7**	0	**11**	**22**	296	1	0	**319**	
+15 mins.	0	0	1	0	1	**3**	133	7	0	143	2	0	2	0	4	16	268	3	0	287	
+30 mins.	1	0	2	0	3	0	130	**9**	0	139	4	0	3	0	7	18	263	**4**	0	285	
+45 mins.	**2**	0	**6**	0	**8**	1	144	9	0	**154**	**6**	0	5	0	11	8	**297**	3	0	308	
Total Volume	3	0	9	0	12	4	555	30	0	589	16	0	17	0	33	64	1124	11	0	1199	
% App. Total	25	0	75	0		0.7	94.2	5.1	0		48.5	0	51.5	0		5.3	93.7	0.9	0		
PHF	.375	.000	.375	.000	.375	.333	.938	.833	.000	.956	.667	.000	.607	.000	.750	.727	.946	.688	.000	.940	



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Study: FOCU0006
Intersection: Short Rd / SH-44
City, State: Canyon County, Idaho
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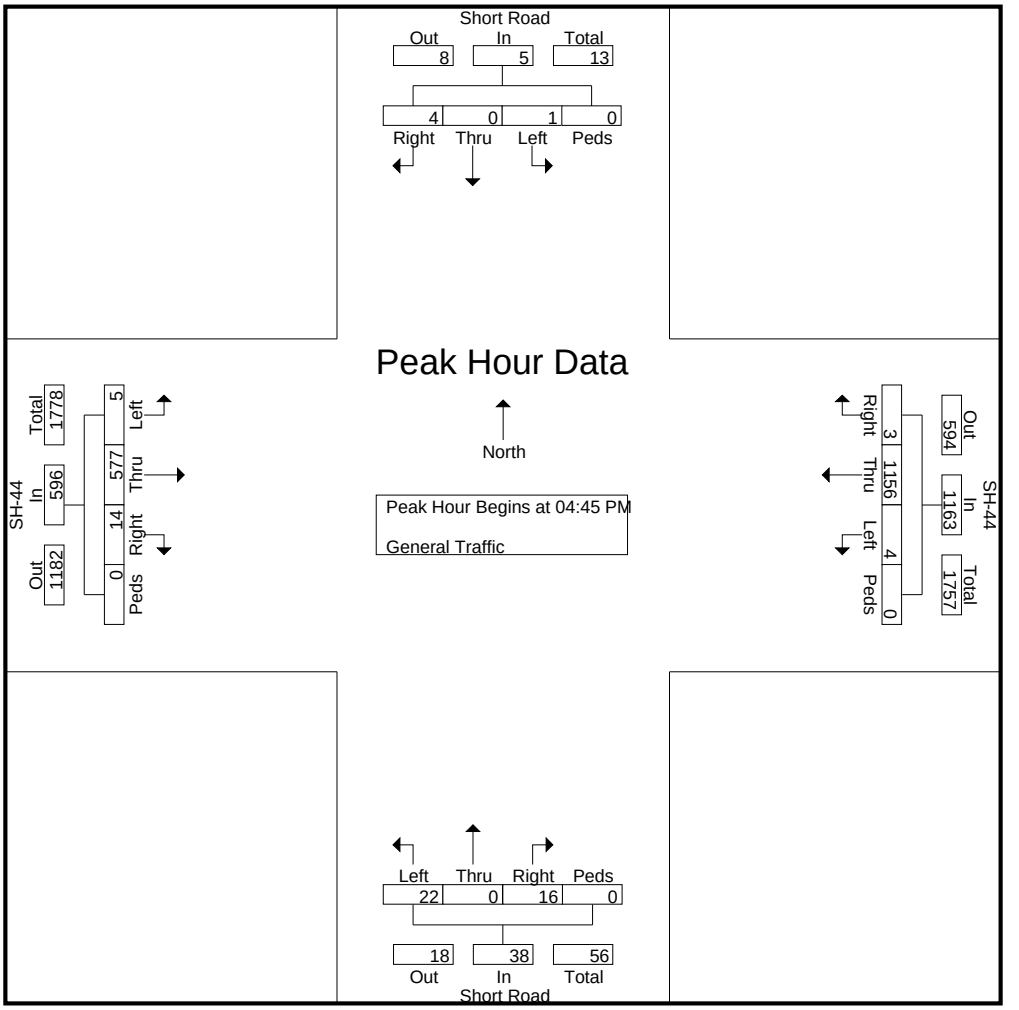
File Name : SH-44 (State St) & Short Rd - revised
Site Code : 00000000
Start Date : 1/20/2022
Page No : 5

	Short Road From North					SH-44 From East					Short Road From South					SH-44 From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:45 PM																					
04:45 PM	**4**	0	0	0	**4**	0	293	0	0	293	**7**	0	2	0	9	4	142	0	0	146	452
05:00 PM	0	0	**1**	0	1	1	279	1	0	281	1	0	7	0	8	**5**	132	**3**	0	140	430
05:15 PM	0	0	0	0	0	0	289	1	0	290	5	0	**10**	0	**15**	2	136	2	0	140	445
05:30 PM	0	0	0	0	0	**2**	**295**	**2**	0	**299**	3	0	3	0	6	3	**167**	0	0	**170**	**475**
Total Volume	4	0	1	0	5	3	1156	4	0	1163	16	0	22	0	38	14	577	5	0	596	1802
% App. Total	80	0	20	0		0.3	99.4	0.3	0		42.1	0	57.9	0		2.3	96.8	0.8	0		
PHF	.250	.000	.250	.000	.313	.375	.980	.500	.000	.972	.571	.000	.550	.000	.633	.700	.864	.417	.000	.876	.948



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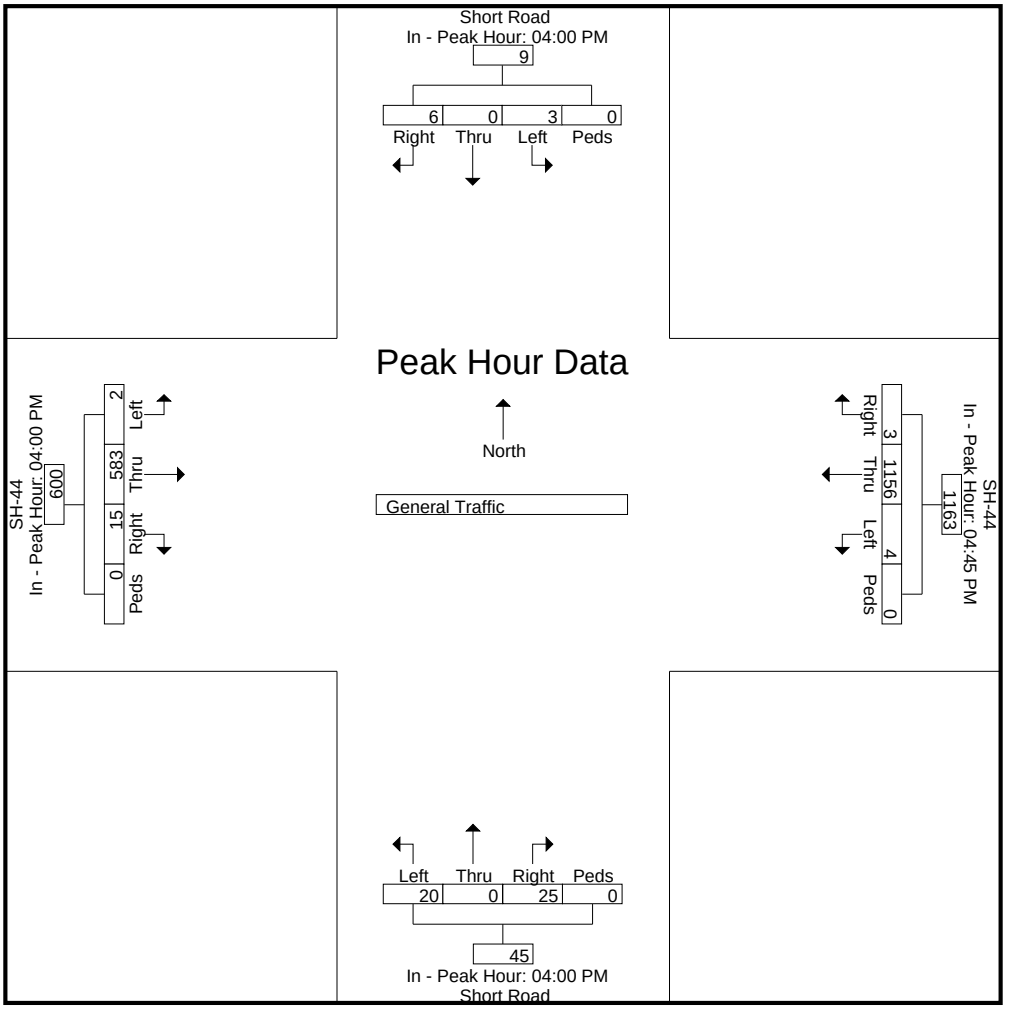
Study: FOCU0006
Intersection: Short Rd / SH-44
City, State: Canyon County, Idaho
Control: Stop Sign

File Name : SH-44 (State St) & Short Rd - revised
Site Code : 00000000
Start Date : 1/20/2022
Page No : 6

	Short Road From North					SH-44 From East					Short Road From South					SH-44 From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Each Approach Begins at:																					
	04:00 PM					04:45 PM					04:00 PM					04:00 PM					
+0 mins.	1	0	**2**	0	3	0	293	0	0	293	**10**	0	5	0	**15**	**5**	**187**	0	0	**192**	
+15 mins.	0	0	1	0	1	1	279	1	0	281	4	0	6	0	10	2	120	**1**	0	123	
+30 mins.	1	0	0	0	1	0	289	1	0	290	4	0	**7**	0	11	4	134	1	0	139	
+45 mins.	**4**	0	0	0	**4**	**2**	**295**	**2**	0	**299**	7	0	2	0	9	4	142	0	0	146	
Total Volume	6	0	3	0	9	3	1156	4	0	1163	25	0	20	0	45	15	583	2	0	600	
% App. Total	66.7	0	33.3	0		0.3	99.4	0.3	0		55.6	0	44.4	0		2.5	97.2	0.3	0		
PHF	.375	.000	.375	.000	.563	.375	.980	.500	.000	.972	.625	.000	.714	.000	.750	.750	.779	.500	.000	.781	



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Study: FOCU0006
Intersection: Short Rd / SH-44
City, State: Canyon County, Idaho
Control: Stop Sign

File Name : SH-44 (State St) & Short Rd - revised
Site Code : 00000000
Start Date : 1/20/2022
Page No : 7

Image 1

L2 Data Collection

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Idaho (208) 860-7554 Utah (801) 413-2993

Study: FOCU0006
Intersection: SH-44 / Hamblin Road
City, State: Canyon, County, Idaho
Control: Stop Sign

File Name : SH-44 (State St) & Hamblin Rd
Site Code : TURNS
Start Date : 1/20/2022
Page No : 1

Groups Printed- General Traffic

	Hamblin Road From North				SH-44 (State Street) From East				SH-44 (State Street) From West				
Start Time	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	Int. Total
07:00 AM	0	1	0	1	0	113	0	113	268	1	0	269	383
07:15 AM	1	2	0	3	0	134	0	134	289	2	0	291	428
07:30 AM	5	1	0	6	0	148	0	148	256	4	0	260	414
07:45 AM	0	0	0	0	3	133	0	136	296	1	0	297	433
Total	6	4	0	10	3	528	0	531	1109	8	0	1117	1658
08:00 AM	0	0	0	0	0	130	0	130	268	3	0	271	401
08:15 AM	0	1	0	1	1	144	0	145	263	4	0	267	413
08:30 AM	1	2	0	3	0	105	0	105	297	3	0	300	408
08:45 AM	2	6	0	8	2	119	0	121	251	1	0	252	381
Total	3	9	0	12	3	498	0	501	1079	11	0	1090	1603

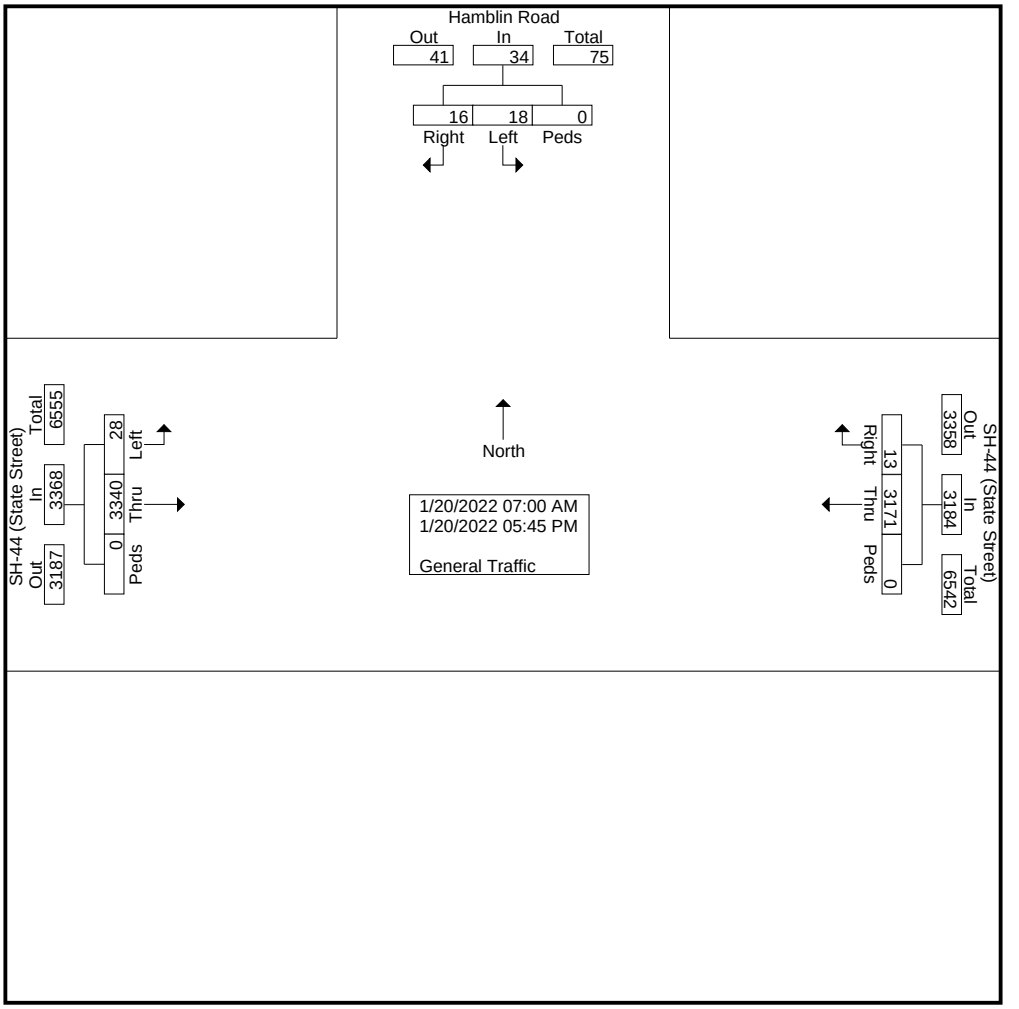
04:00 PM	1	2	0	3	0	243	0	243	187	0	0	187	433
04:15 PM	0	1	0	1	1	258	0	259	120	1	0	121	381
04:30 PM	1	0	0	1	2	255	0	257	134	1	0	135	393
04:45 PM	4	0	0	4	0	293	0	293	142	0	0	142	439
Total	6	3	0	9	3	1049	0	1052	583	2	0	585	1646
05:00 PM	0	1	0	1	1	279	0	280	132	3	0	135	416
05:15 PM	0	0	0	0	0	289	0	289	136	2	0	138	427
05:30 PM	0	0	0	0	2	295	0	297	167	0	0	167	464
05:45 PM	1	1	0	2	1	233	0	234	134	2	0	136	372
Total	1	2	0	3	4	1096	0	1100	569	7	0	576	1679
Grand Total	16	18	0	34	13	3171	0	3184	3340	28	0	3368	6586
Apprch %	47.1	52.9	0		0.4	99.6	0		99.2	0.8	0		
Total %	0.2	0.3	0	0.5	0.2	48.1	0	48.3	50.7	0.4	0	51.1	

L2 Data Collection

L2DataCollection.com
Idaho (208) 860-7554 Utah (801) 413-2993

Study: FOCU0006
Intersection: SH-44 / Hamblin Road
City, State: Canyon, County, Idaho
Control: Stop Sign

File Name : SH-44 (State St) & Hamblin Rd
Site Code : TURNS
Start Date : 1/20/2022
Page No : 2



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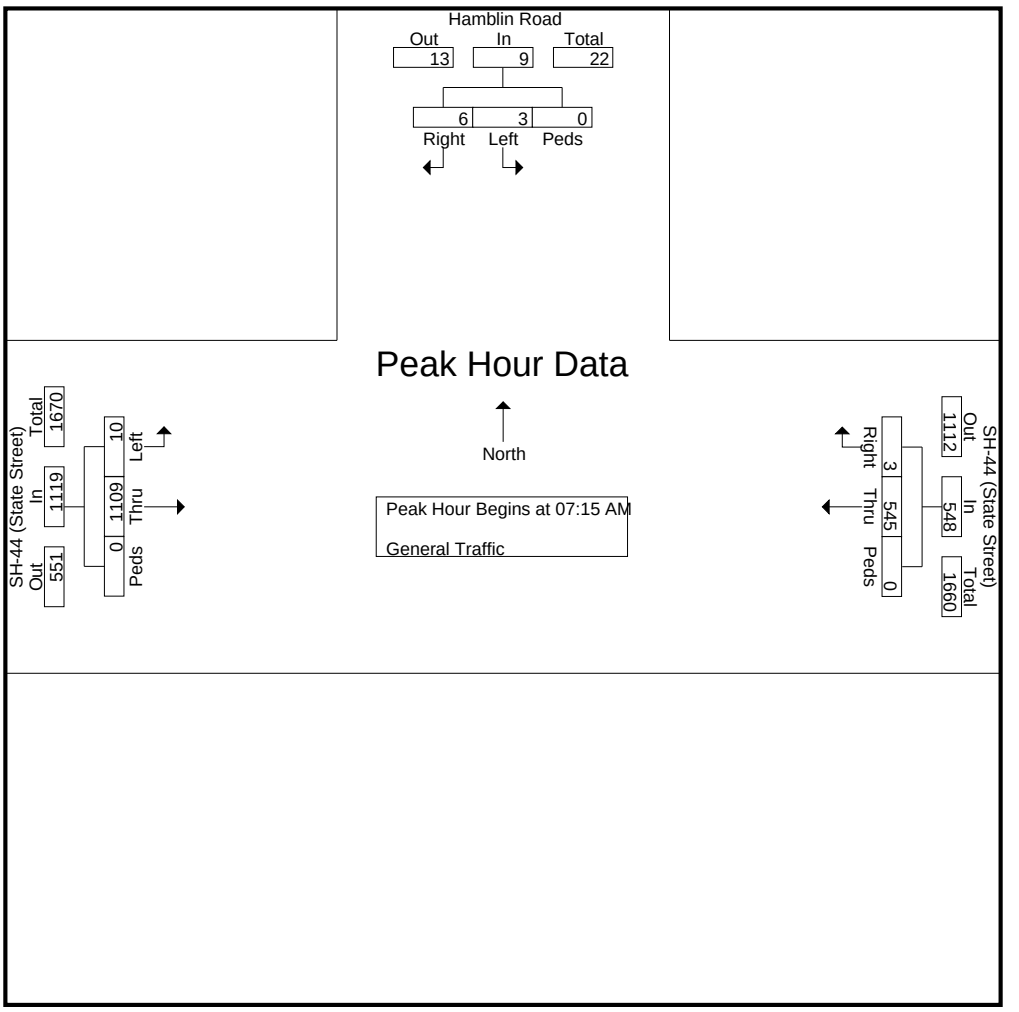
Study: FOCU0006
Intersection: SH-44 / Hamblin Road
City, State: Canyon, County, Idaho
Control: Stop Sign

File Name : SH-44 (State St) & Hamblin Rd
Site Code : TURNS
Start Date : 1/20/2022
Page No : 3

	Hamblin Road From North				SH-44 (State Street) From East				SH-44 (State Street) From West				
Start Time	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 07:15 AM													
07:15 AM	1	**2**	0	3	0	134	0	134	289	2	0	291	428
07:30 AM	**5**	1	0	**6**	0	**148**	0	**148**	256	**4**	0	260	414
07:45 AM	0	0	0	0	**3**	133	0	136	**296**	1	0	**297**	**433**
08:00 AM	0	0	0	0	0	130	0	130	268	3	0	271	401
Total Volume	6	3	0	9	3	545	0	548	1109	10	0	1119	1676
% App. Total	66.7	33.3	0		0.5	99.5	0		99.1	0.9	0		
PHF	.300	.375	.000	.375	.250	.921	.000	.926	.937	.625	.000	.942	.968



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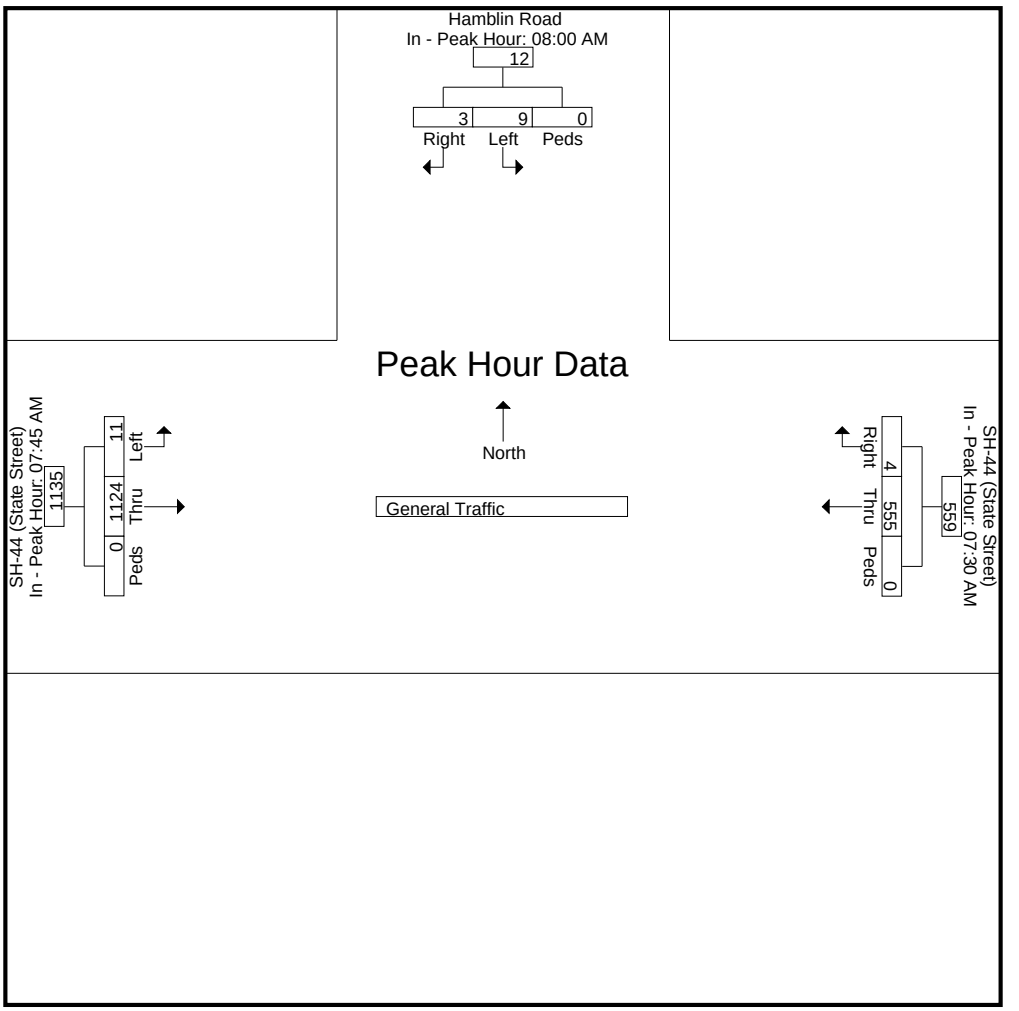
Study: FOCU0006
Intersection: SH-44 / Hamblin Road
City, State: Canyon, County, Idaho
Control: Stop Sign

File Name : SH-44 (State St) & Hamblin Rd
Site Code : TURNS
Start Date : 1/20/2022
Page No : 4

	Hamblin Road From North				SH-44 (State Street) From East				SH-44 (State Street) From West				
Start Time	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1													
Peak Hour for Each Approach Begins at:													
	08:00 AM				07:30 AM				07:45 AM				
+0 mins.	0	0	0	0	0	**148**	0	**148**	296	1	0	297	
+15 mins.	0	1	0	1	**3**	133	0	136	268	3	0	271	
+30 mins.	1	2	0	3	0	130	0	130	263	**4**	0	267	
+45 mins.	**2**	**6**	0	**8**	1	144	0	145	**297**	3	0	**300**	
Total Volume	3	9	0	12	4	555	0	559	1124	11	0	1135	
% App. Total	25	75	0		0.7	99.3	0		99	1	0		
PHF	.375	.375	.000	.375	.333	.938	.000	.944	.946	.688	.000	.946	



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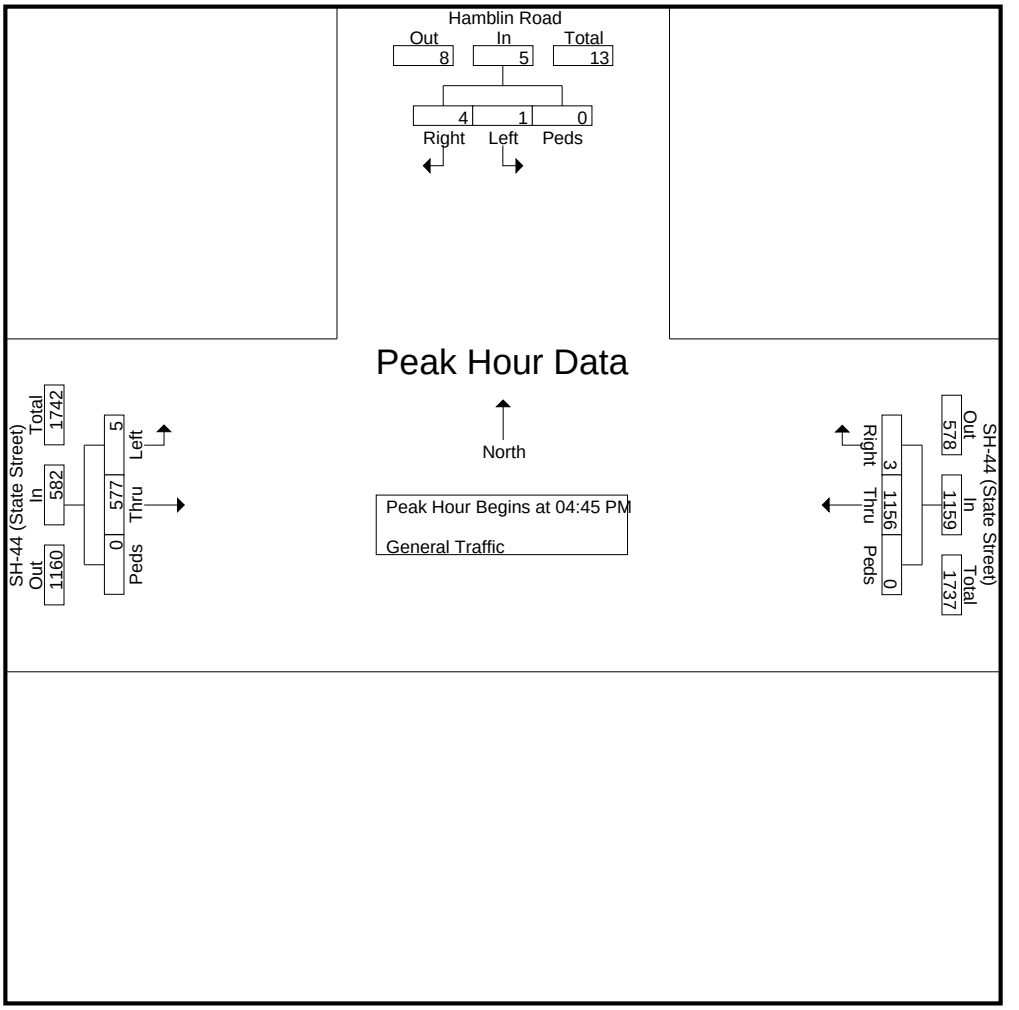
Idaho (208) 860-7554 Utah (801) 413-2993

Study: FOCU0006
Intersection: SH-44 / Hamblin Road
City, State: Canyon, County, Idaho
Control: Stop Sign

File Name : SH-44 (State St) & Hamblin Rd
Site Code : TURNS
Start Date : 1/20/2022
Page No : 5

	Hamblin Road From North				SH-44 (State Street) From East				SH-44 (State Street) From West				
Start Time	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 04:45 PM													
04:45 PM	**4**	0	0	**4**	0	293	0	293	142	0	0	142	439
05:00 PM	0	**1**	0	1	1	279	0	280	132	**3**	0	135	416
05:15 PM	0	0	0	0	0	289	0	289	136	2	0	138	427
05:30 PM	0	0	0	0	**2**	**295**	0	**297**	**167**	0	0	**167**	**464**
Total Volume	4	1	0	5	3	1156	0	1159	577	5	0	582	1746
% App. Total	80	20	0		0.3	99.7	0		99.1	0.9	0		
PHF	.250	.250	.000	.313	.375	.980	.000	.976	.864	.417	.000	.871	.941



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Study: FOCU0006
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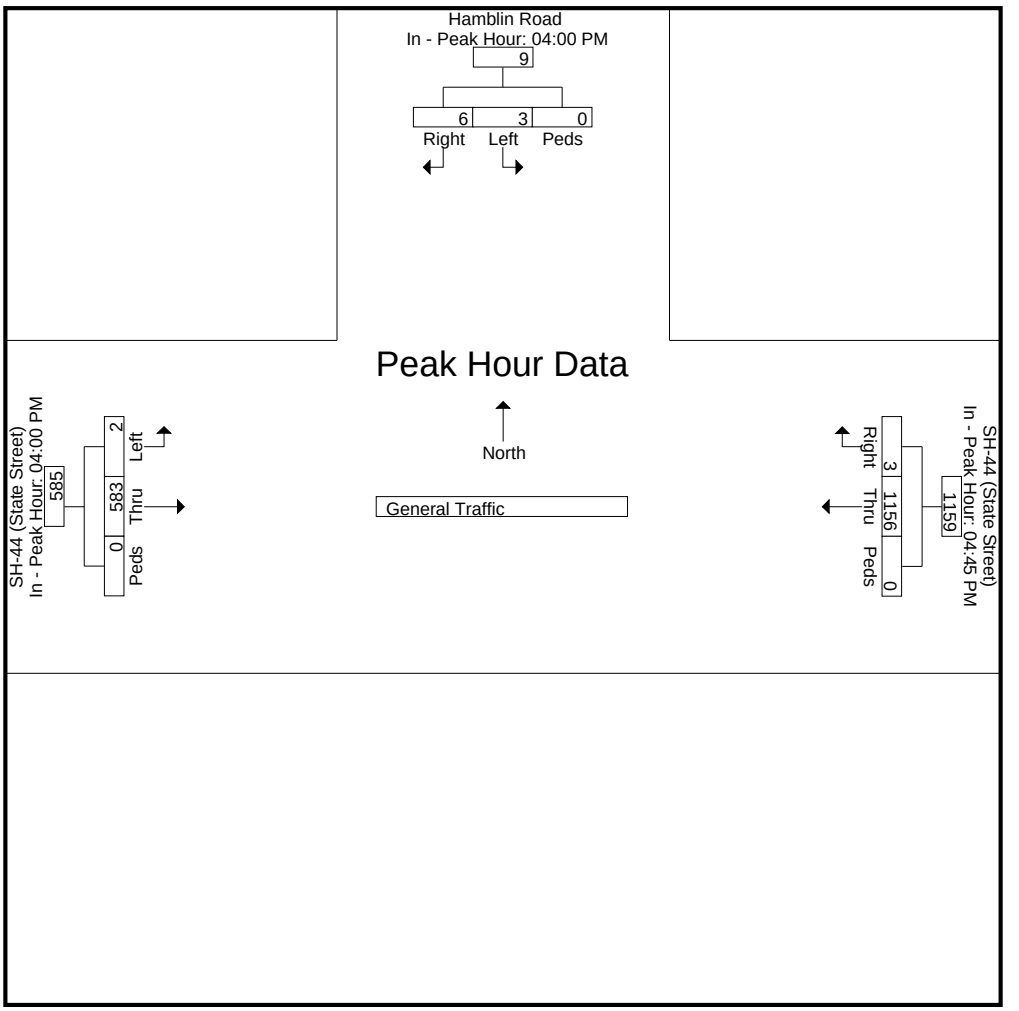
Control: Stop Sign

File Name : SH-44 (State St) & Hamblin Rd
Site Code : TURNS
Start Date : 1/20/2022
Page No : 6

	Hamblin Road From North				SH-44 (State Street) From East				SH-44 (State Street) From West				
Start Time	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Each Approach Begins at:													
	04:00 PM				04:45 PM				04:00 PM				
+0 mins.	1	**2**	0	3	0	293	0	293	**187**	0	0	**187**	
+15 mins.	0	1	0	1	1	279	0	280	120	**1**	0	121	
+30 mins.	1	0	0	1	0	289	0	289	134	1	0	135	
+45 mins.	**4**	0	0	**4**	**2**	**295**	0	**297**	142	0	0	142	
Total Volume	6	3	0	9	3	1156	0	1159	583	2	0	585	
% App. Total	66.7	33.3	0		0.3	99.7	0		99.7	0.3	0		
PHF	.375	.375	.000	.563	.375	.980	.000	.976	.779	.500	.000	.782	



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Control: Stop Sign

File Name : SH-44 (State St) & Hamblin Rd
Site Code : TURNS
Start Date : 1/20/2022
Page No : 7

Image 1

Trip Generation Report

Trip Generation Summary

Alternative: Alternative 1
Phase:
Project: Northern Star

Open Date: 1/14/2022
Analysis Date: 1/14/2022

ITE	Land Use		Weekday Average Daily Trips *	Enter	Exit	Total	Weekday AM Peak Hour of Adjacent Street Traffic *	Enter	Exit	Total	Weekday PM Peak Hour of Adjacent Street Traffic *	Enter	Exit	Total
210	SFHOUSE 1			260	259	519		10	31	41		34	20	54
	55	Dwelling Units												
220	LOW-RISE 1			403	402	805		12	39	51		39	23	62
	110	Dwelling Units												
221	MID-RISE 1			843	843	1686		29	83	112		83	53	136
	310	Dwelling Units												
710	OFFICEGENERAL 1			760	759	1519		156	25	181		29	150	179
	156	1000 Sq. Ft. GFA												
Unadjusted Volume				2266	2263	4529		207	178	385		185	246	431
Internal Capture Trips				0	0	0		3	3	6		7	7	14
Pass-By Trips				0	0	0		0	0	0		0	0	0
Volume Added to Adjacent Streets				2266	2263	4529		204	175	379		178	239	417

Total Weekday Average Daily Trips Internal Capture = 0 Percent
Total Weekday AM Peak Hour of Adjacent Street Traffic Internal Capture = 2 Percent
Total Weekday PM Peak Hour of Adjacent Street Traffic Internal Capture = 3 Percent

* - Custom rate used for selected time period.

Source: Institute of Transportation Engineers, Trip Generation Manual 10th Edition
TRIP GENERATION 10, TRAFFICWARE, LLC

Build-out Year Traffic Volumes from Surrounding Developments

Figure 5 – Site Traffic Distribution Patterns

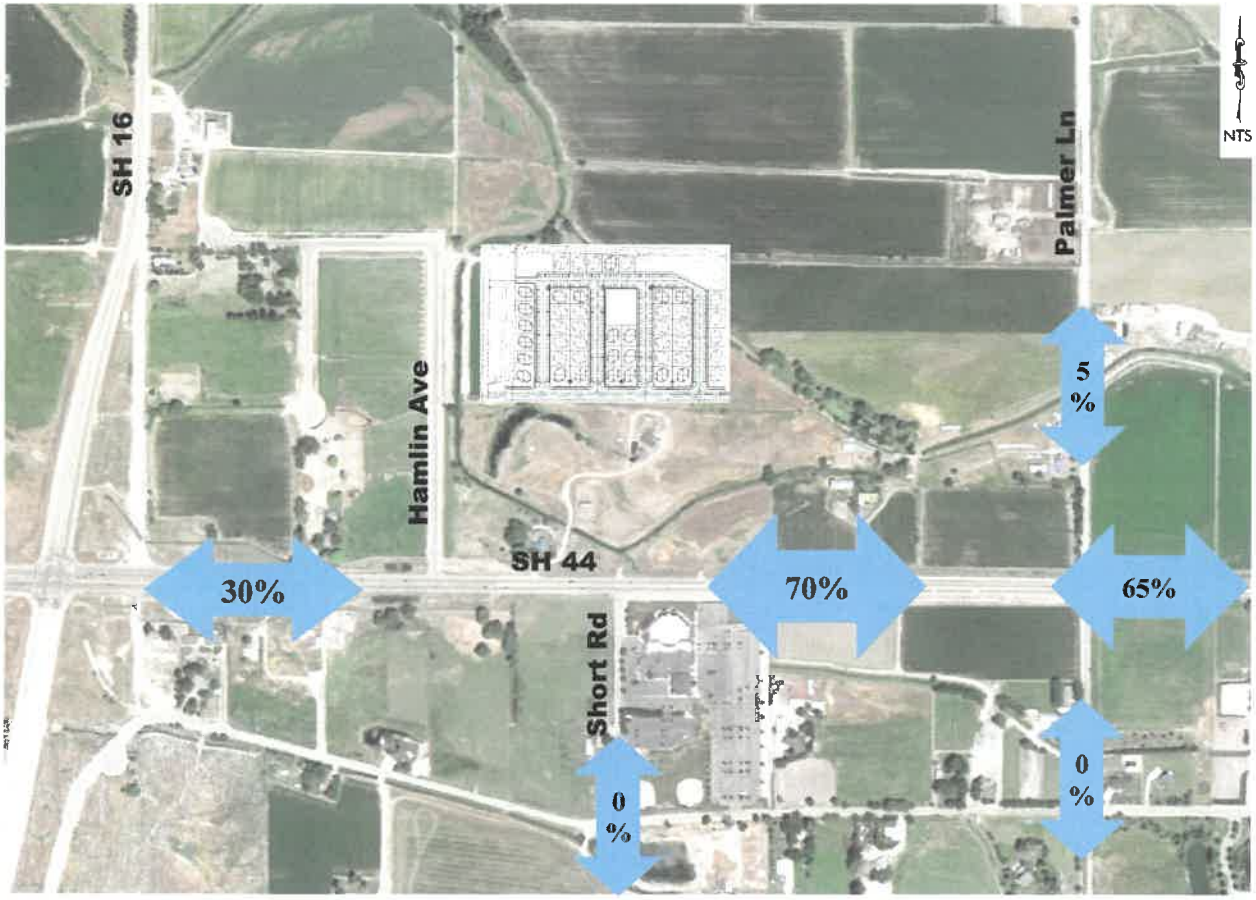


Figure 6 – AM Peak Hour Site Traffic

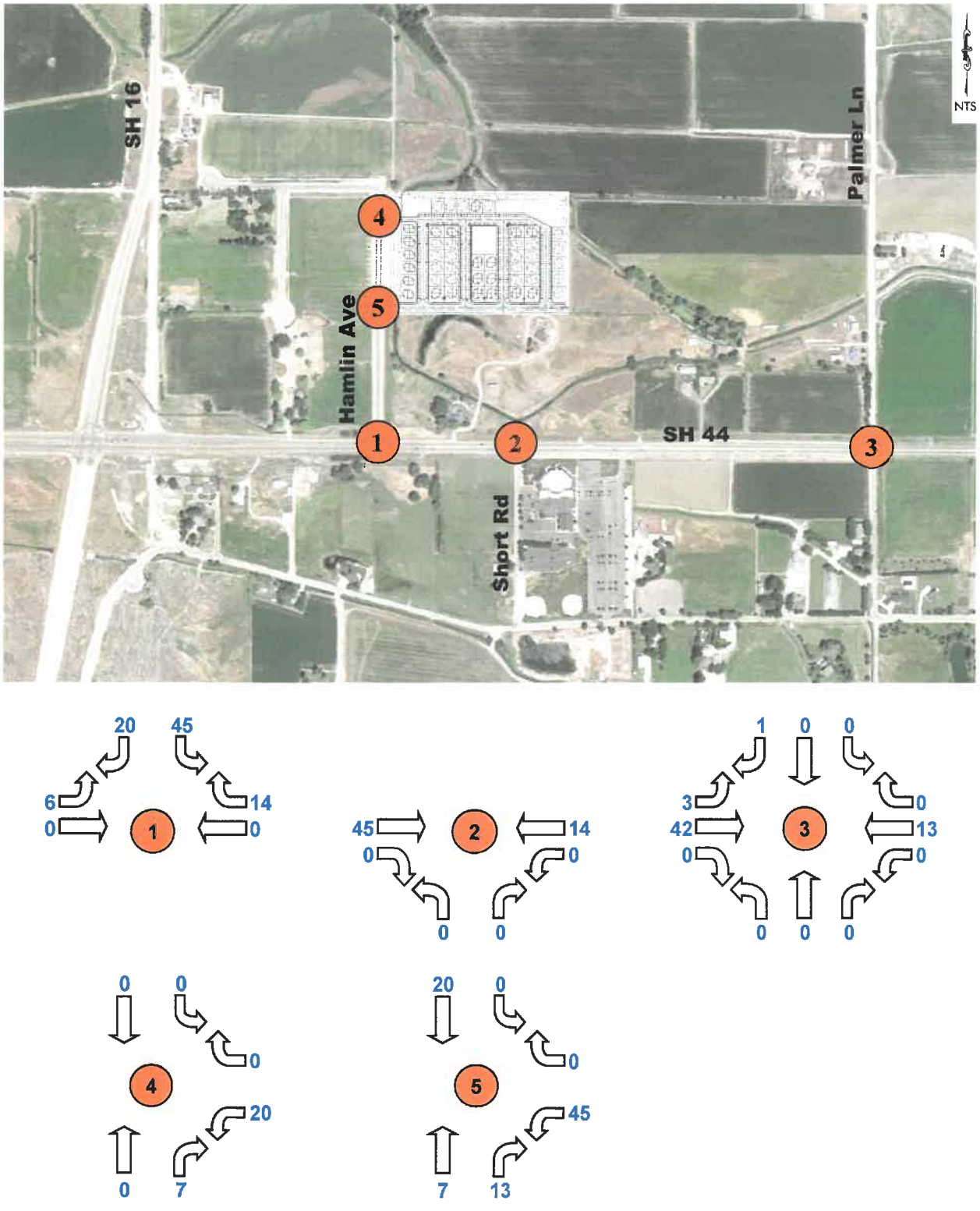
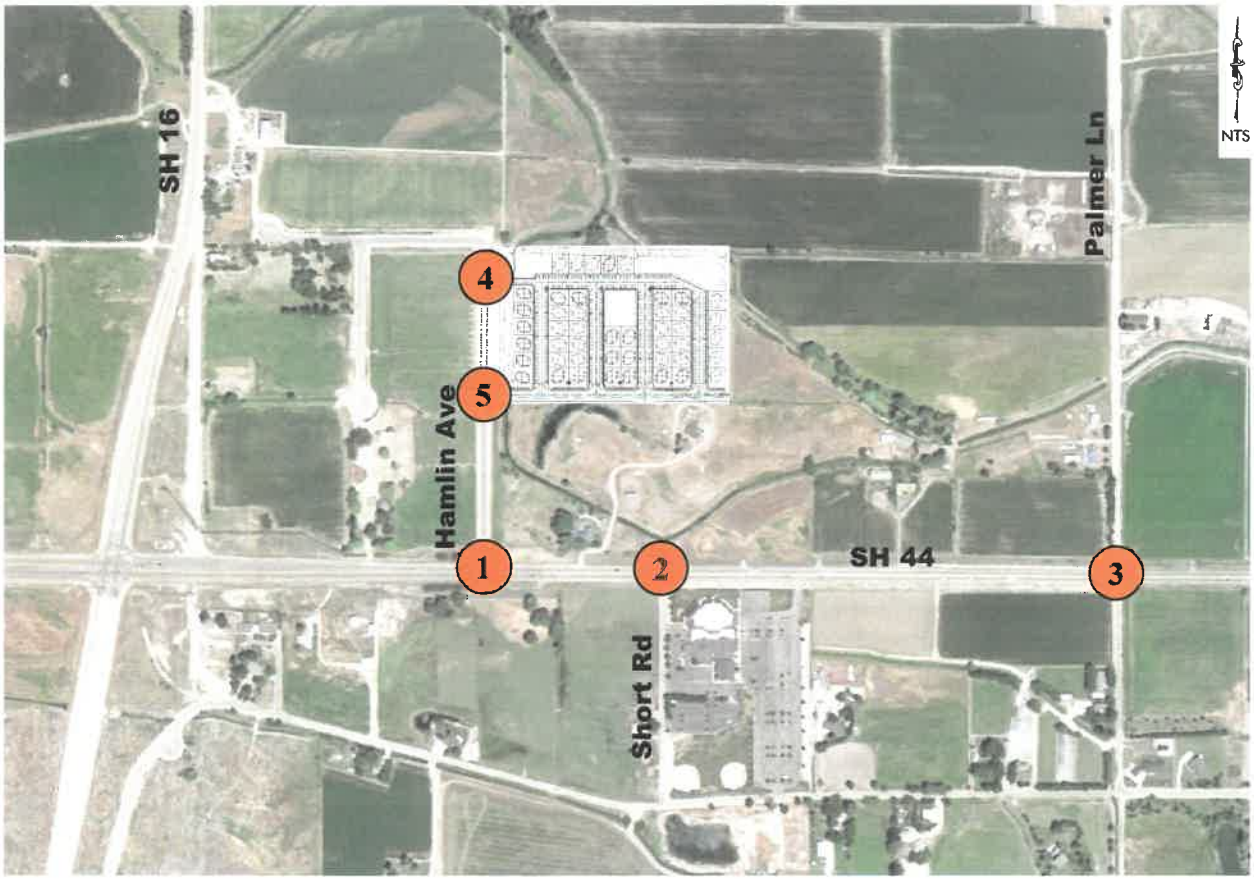


Figure 7 – PM Peak Hour Site Traffic



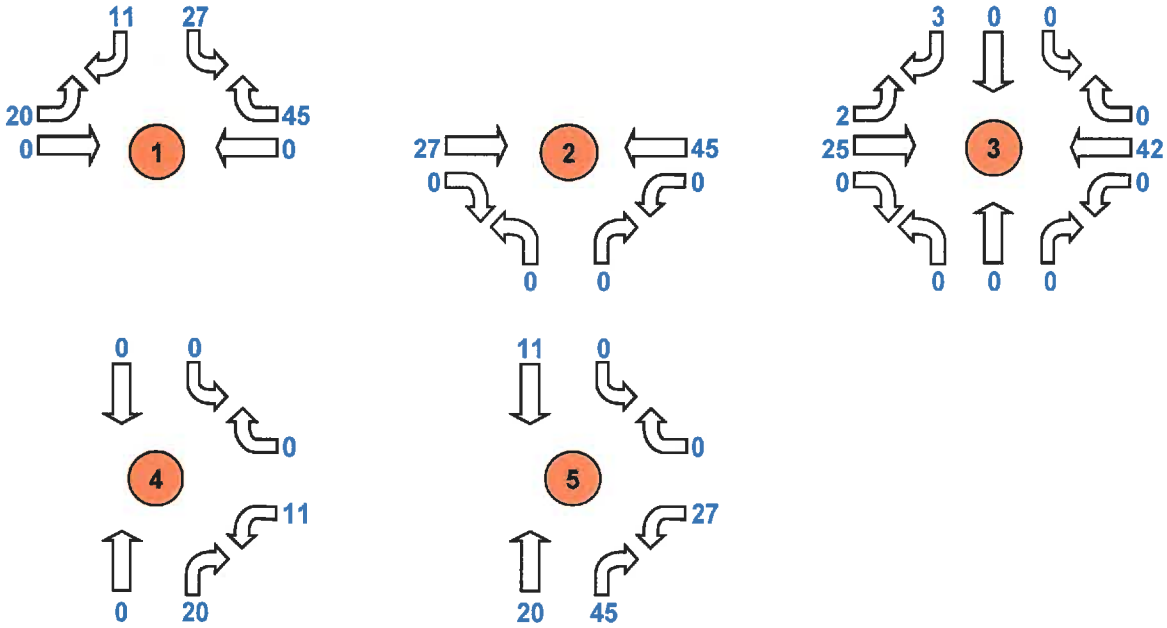


Figure 8 – 2022 AM Peak Hour Total Traffic

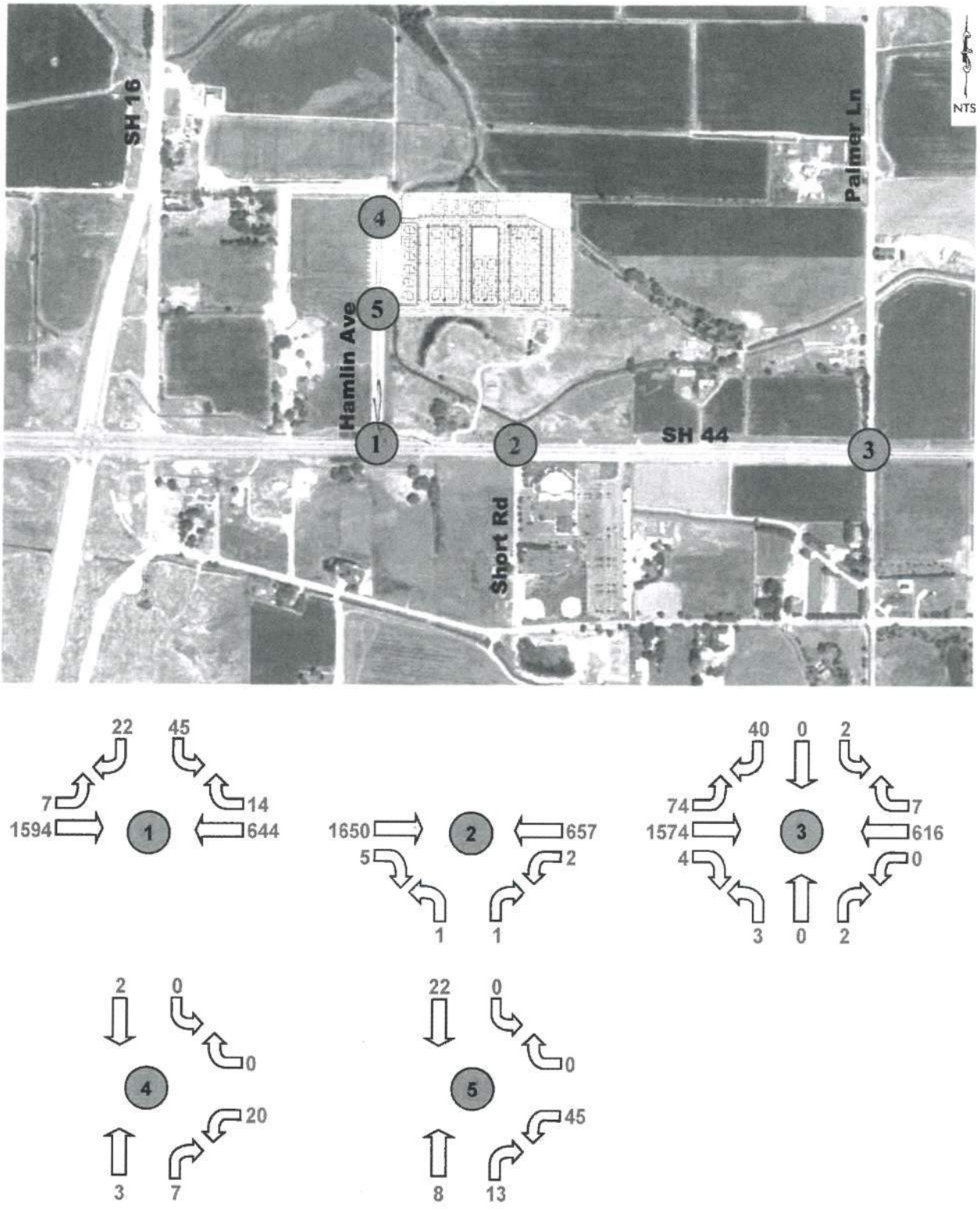
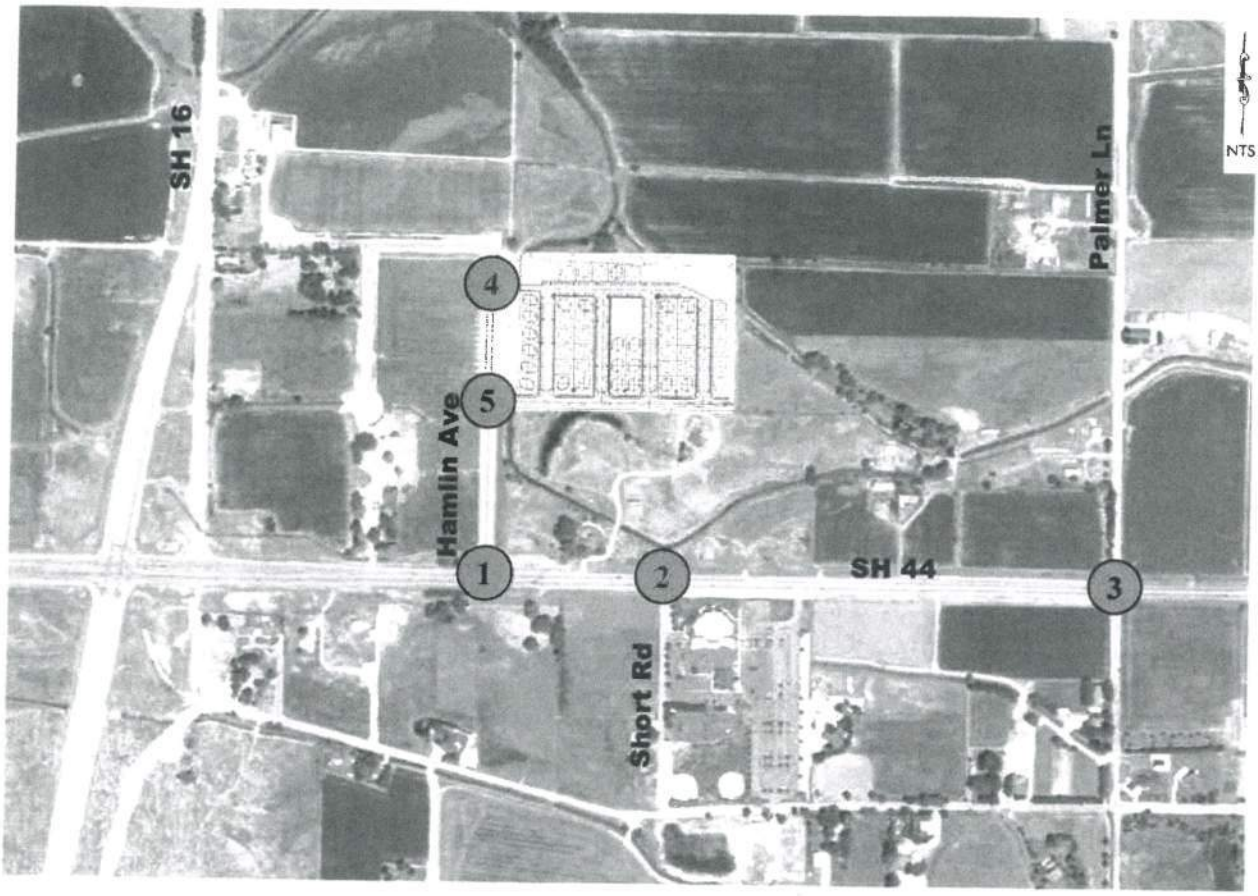


Figure 9 – 2022 PM Peak Hour Total Traffic



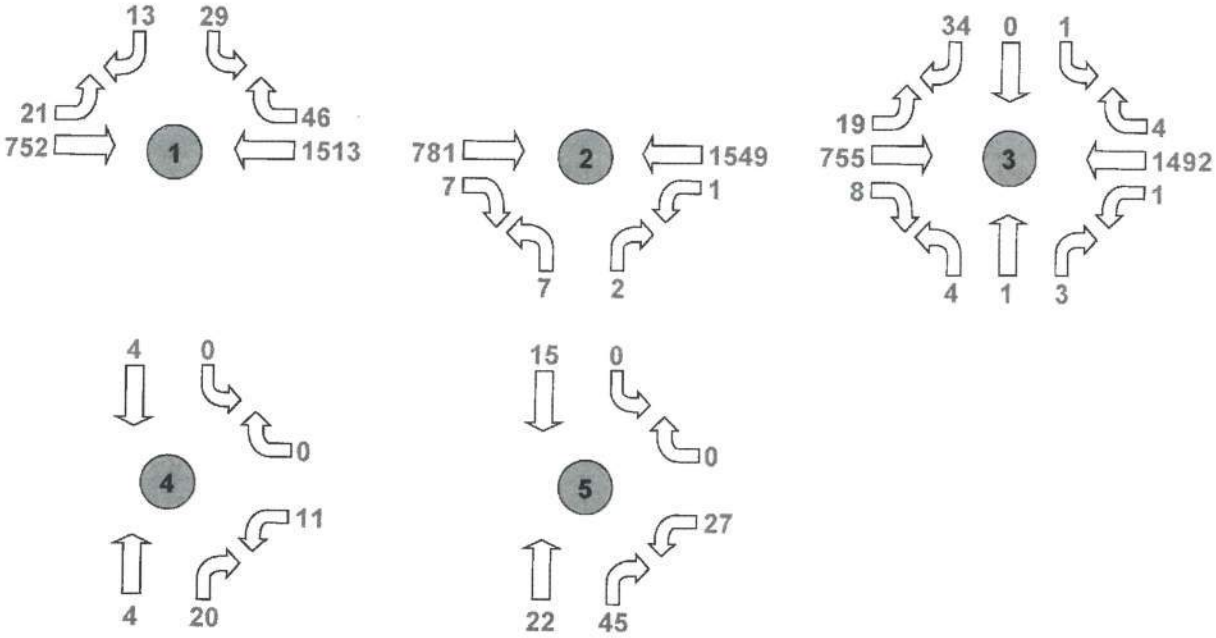


Figure 4.1 – Estimated Site Traffic Distribution Patterns

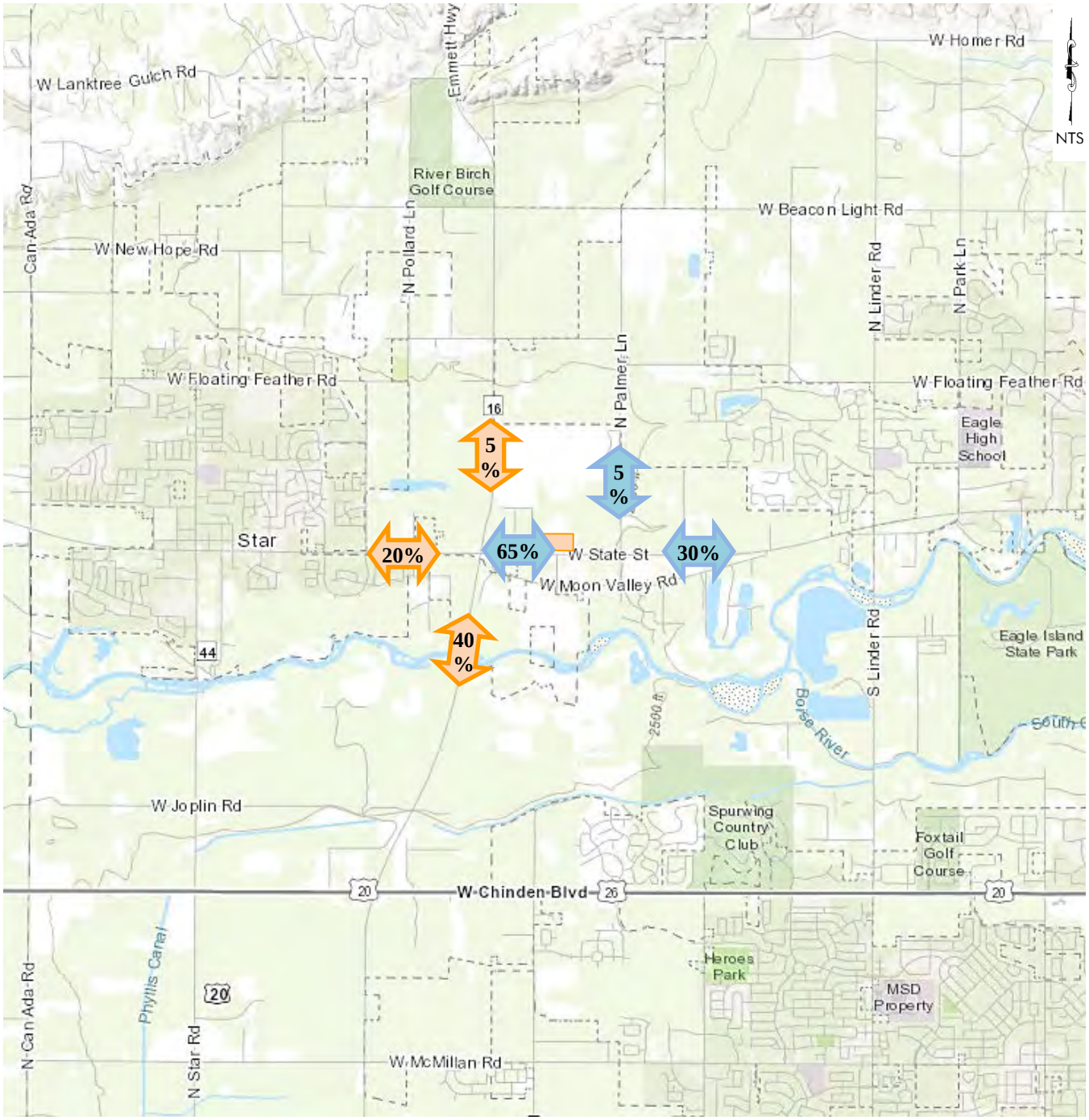
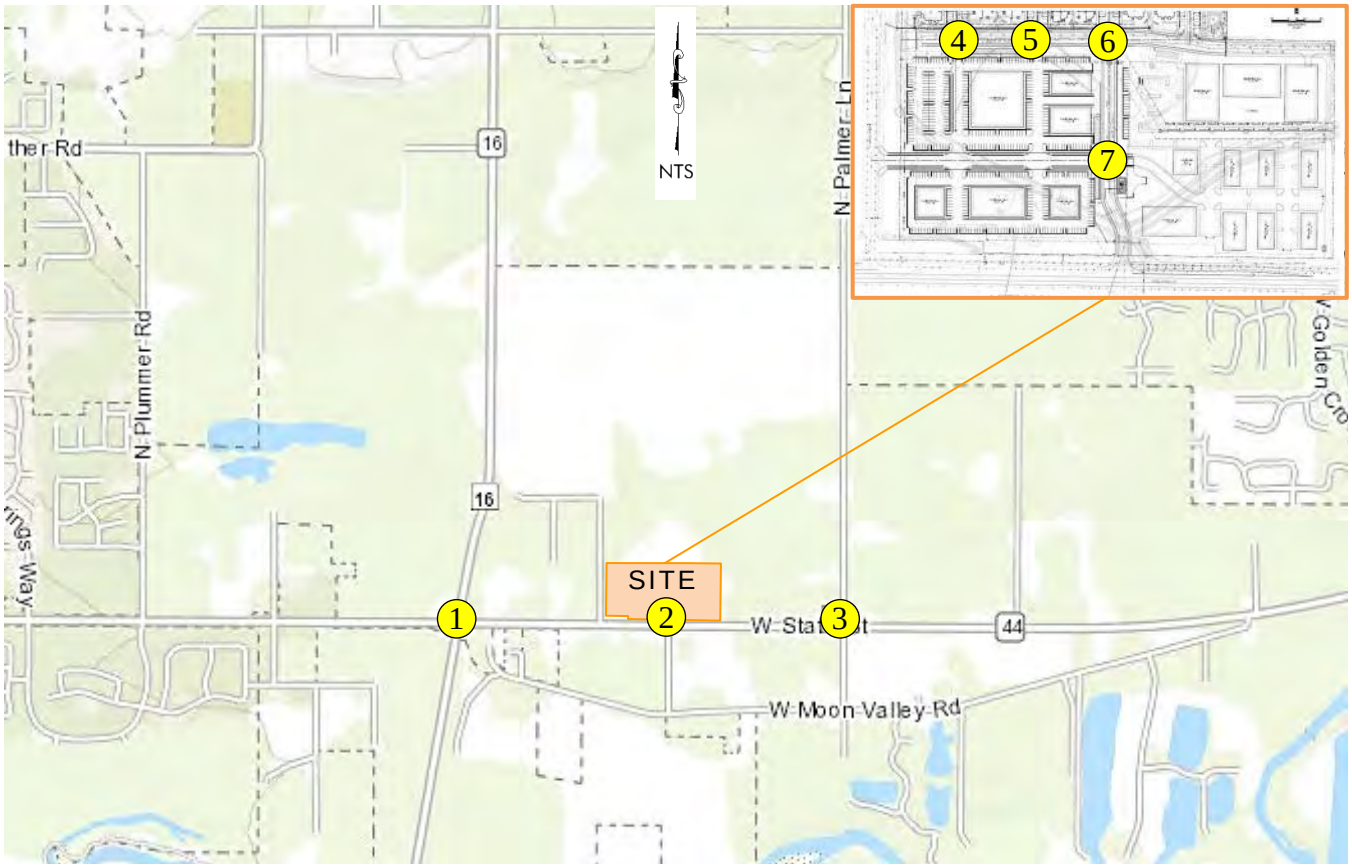
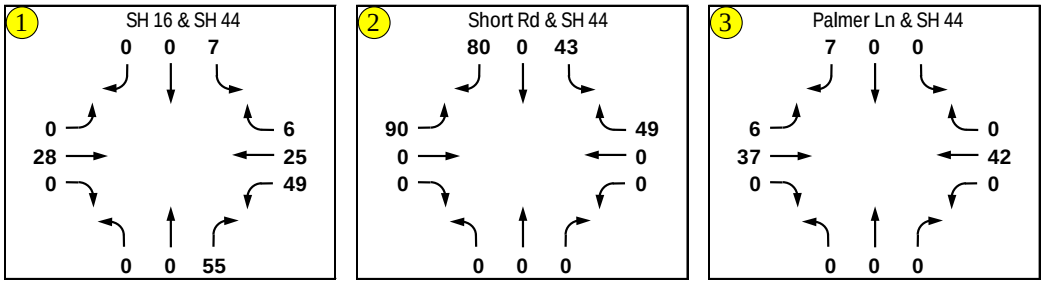


Figure 4.2 – Build-Out Year AM Peak Hour Site Traffic





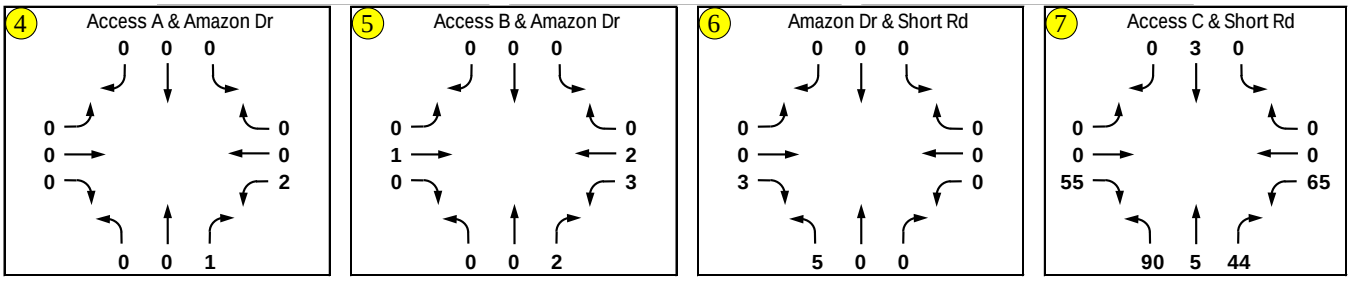
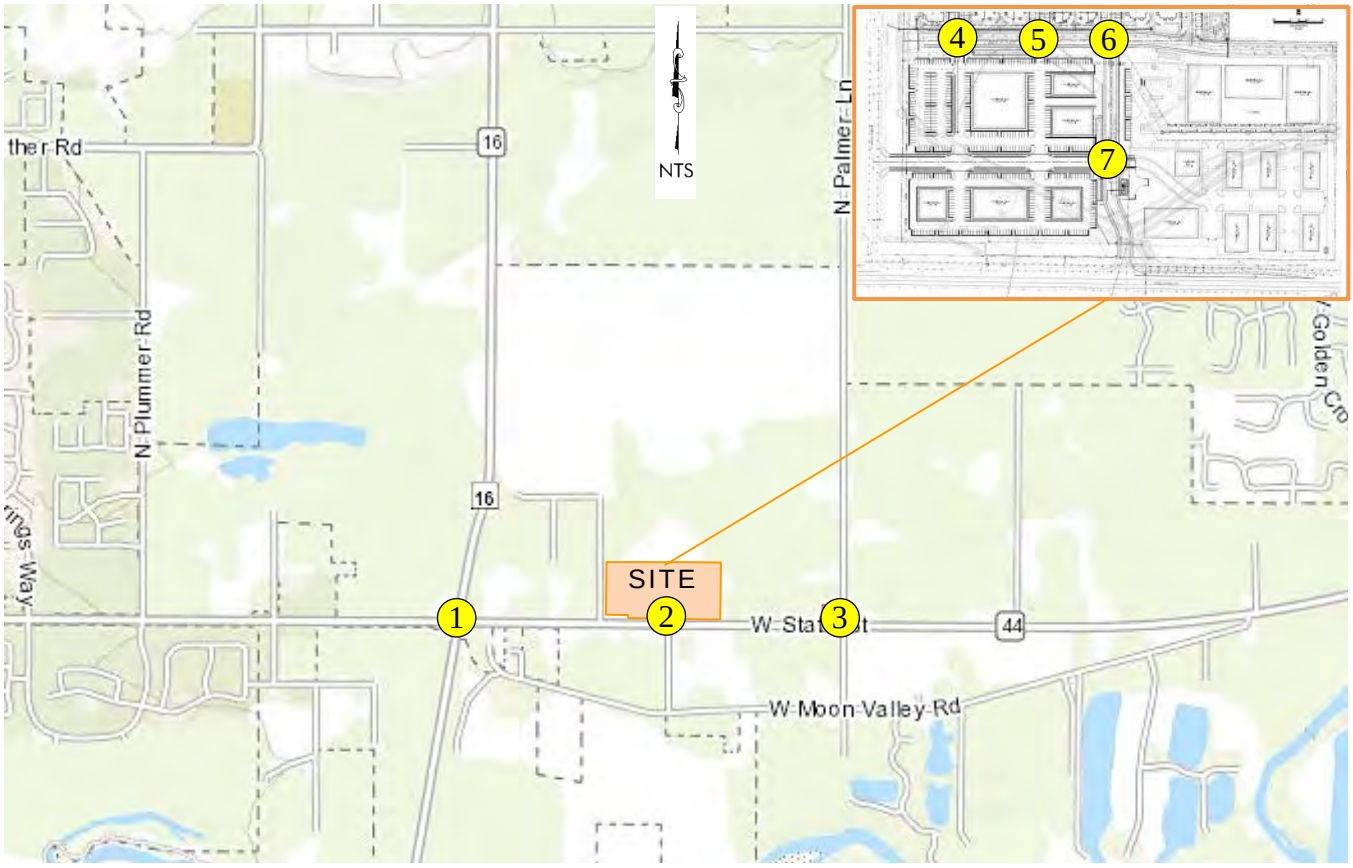
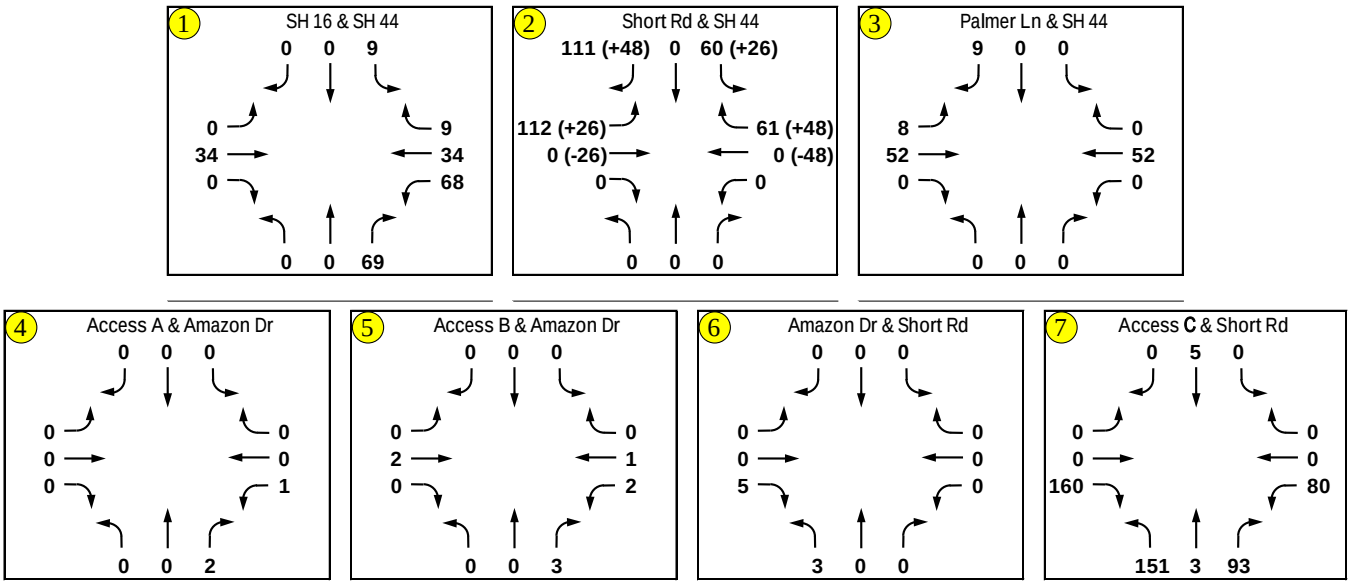


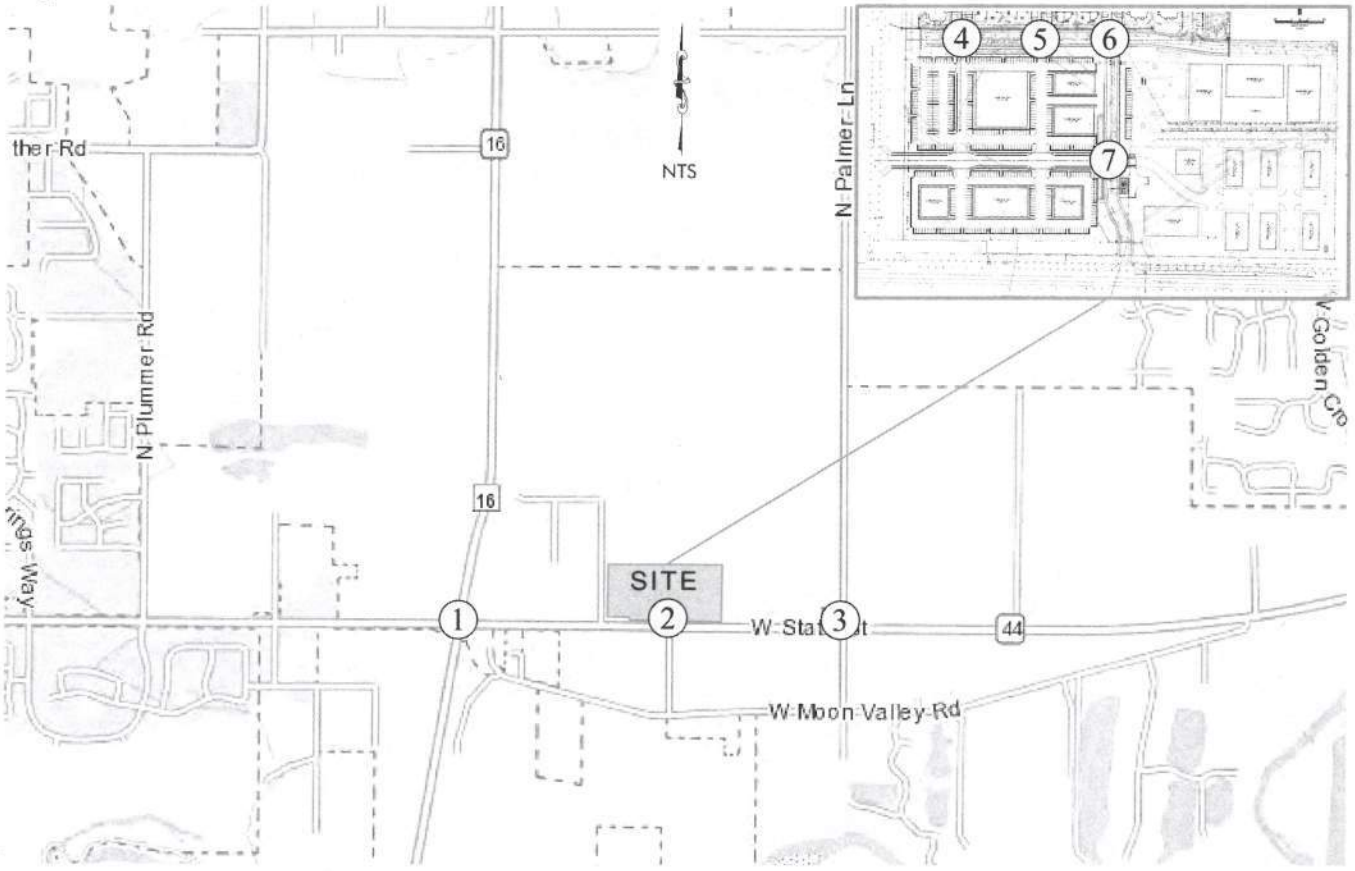
Figure 4.3 – Build-Out Year PM Peak Hour Site Traffic

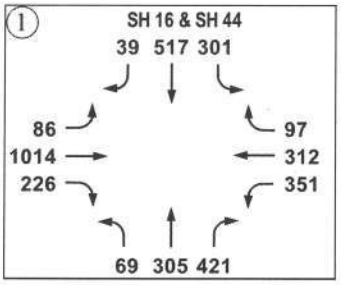


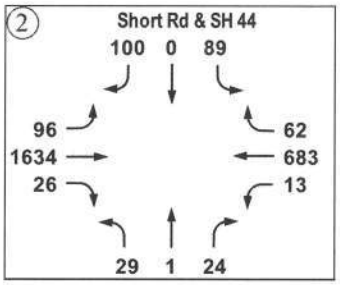


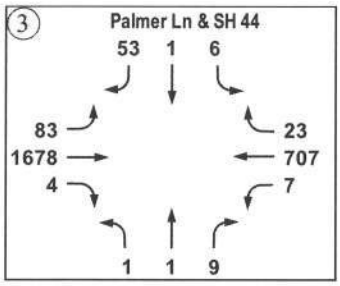
Note: Numbers in parentheses are pass-by trips

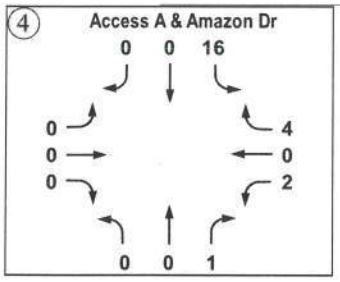
Figure 4.4 – 2025 Build-Out Year AM Peak Hour Total Traffic

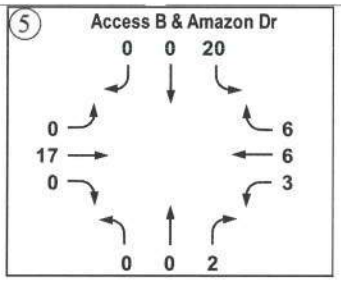


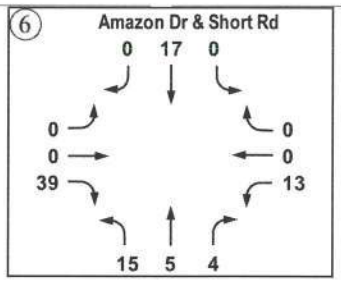












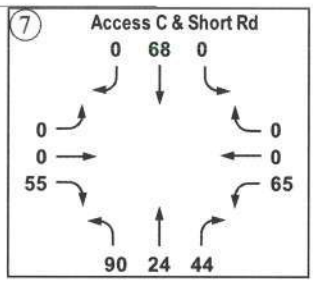
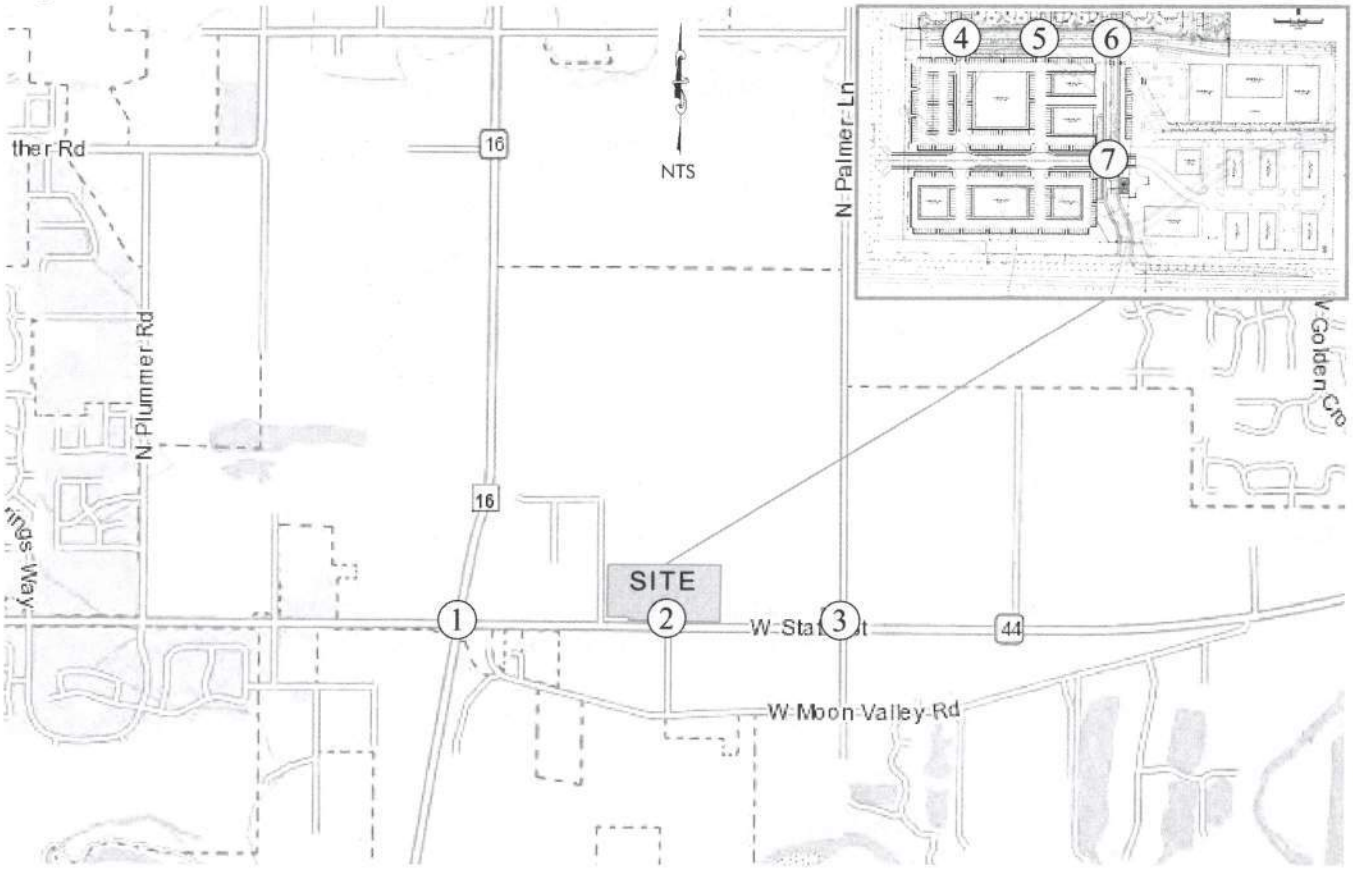
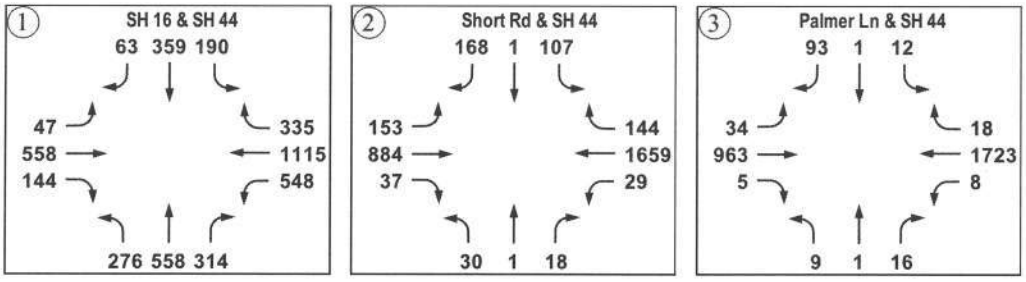


Figure 4.5 – 2025 Build-Out Year PM Peak Hour Total Traffic





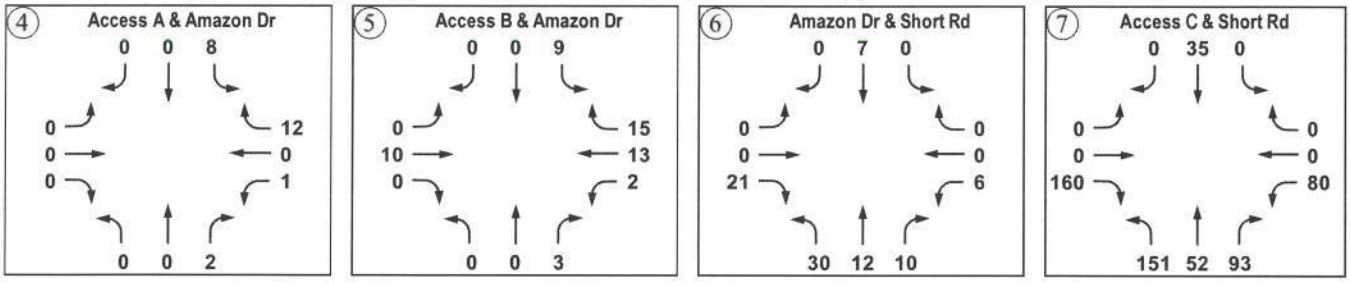


Figure 4.1 – Estimated Site Traffic Distribution Patterns

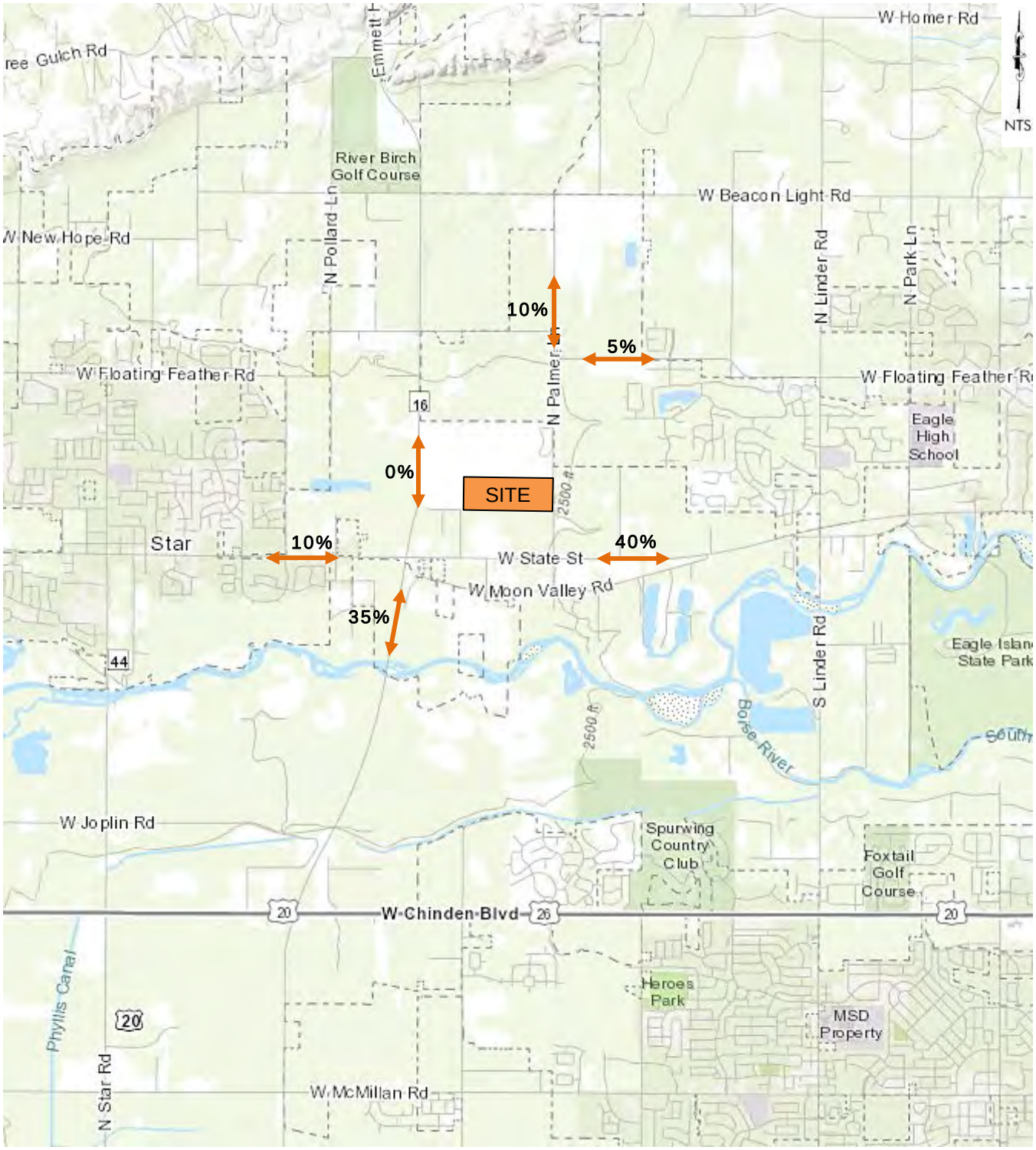
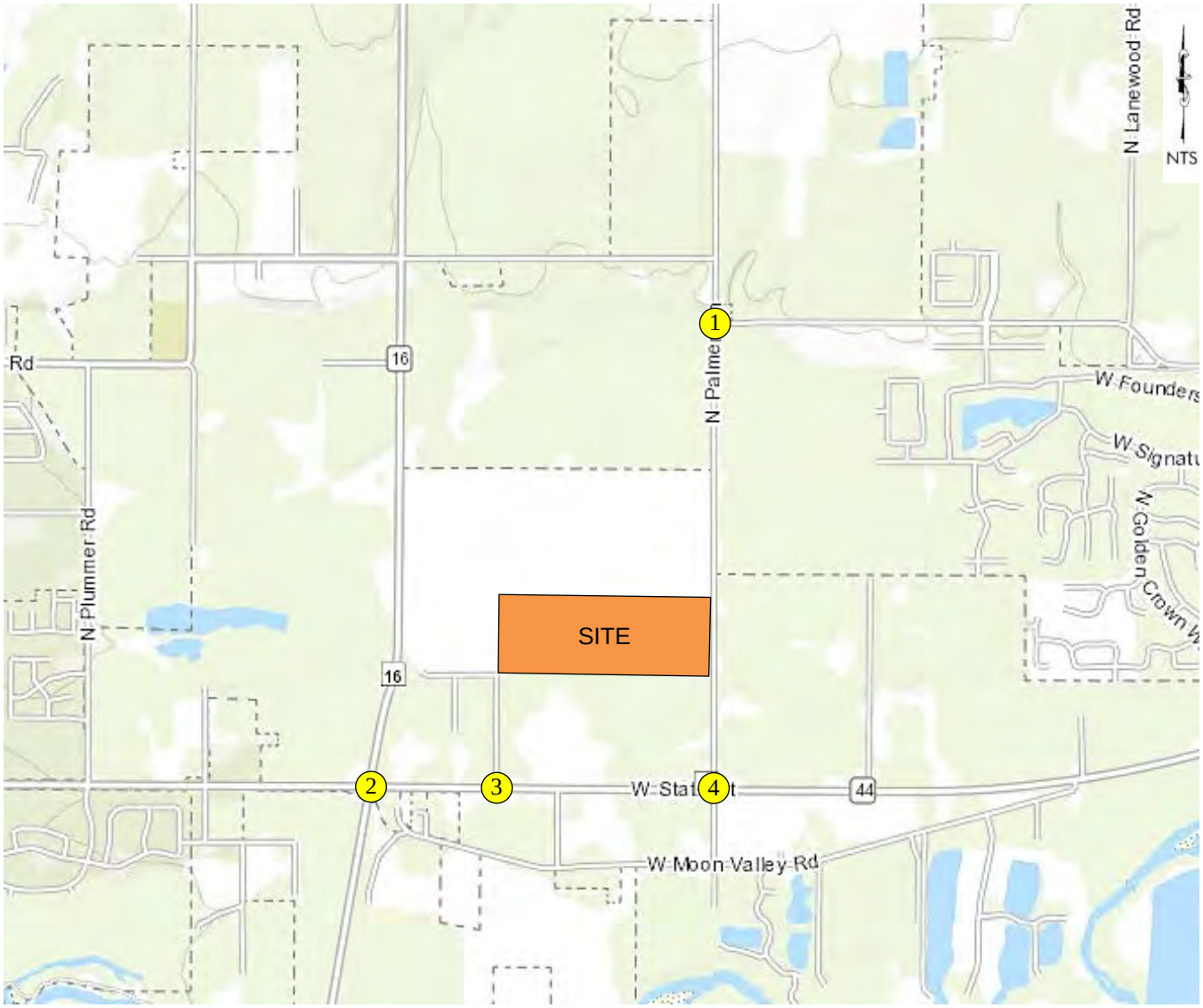


Figure 4.2 – Build-Out Year AM Peak Hour Site Traffic



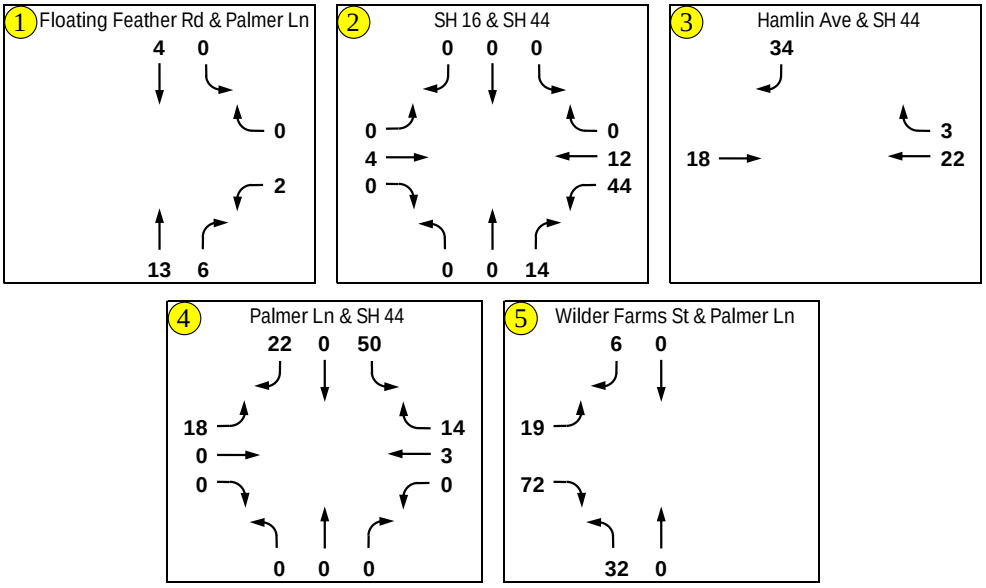
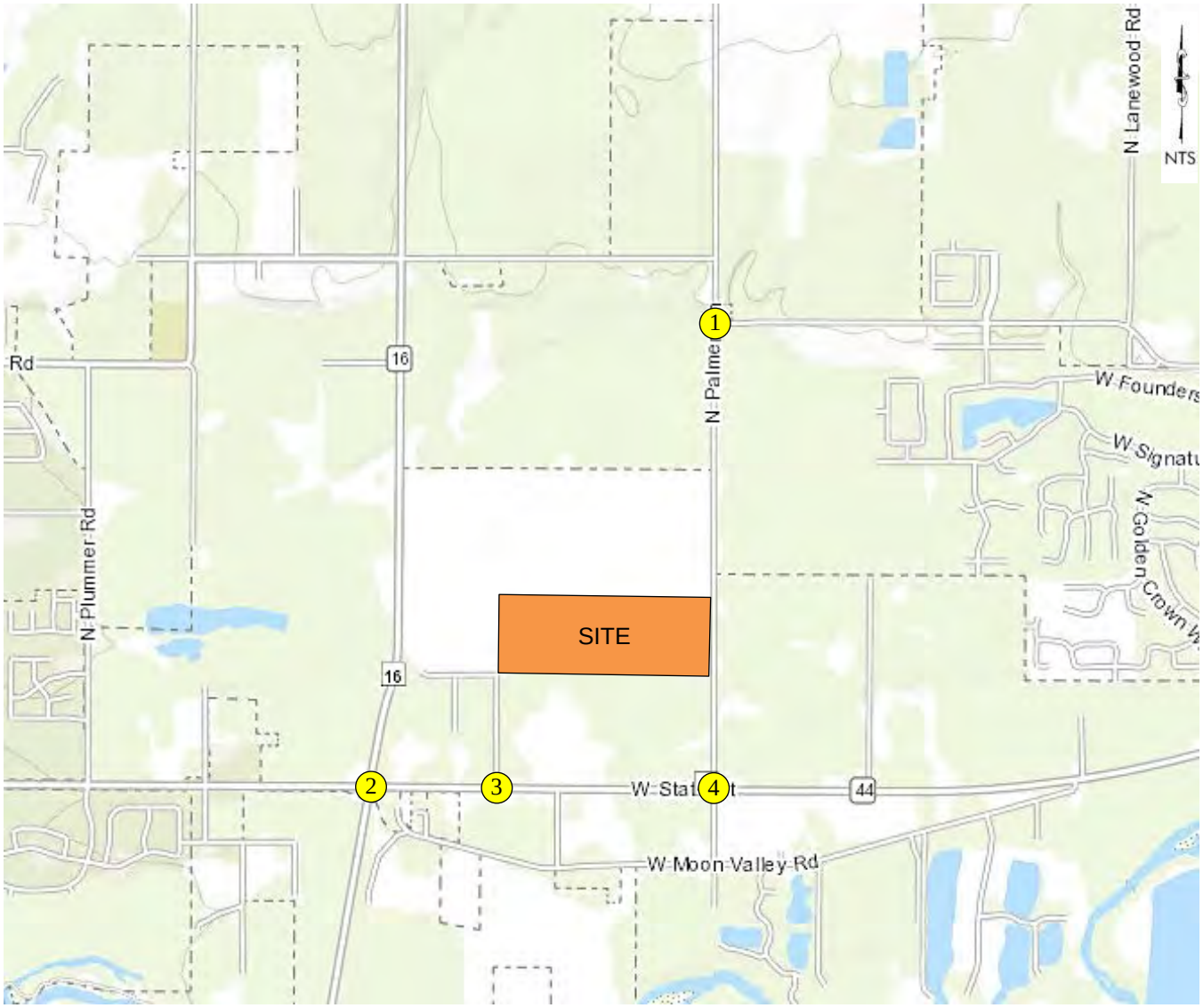


Figure 4.3 – Build-Out Year PM Peak Hour Site Traffic



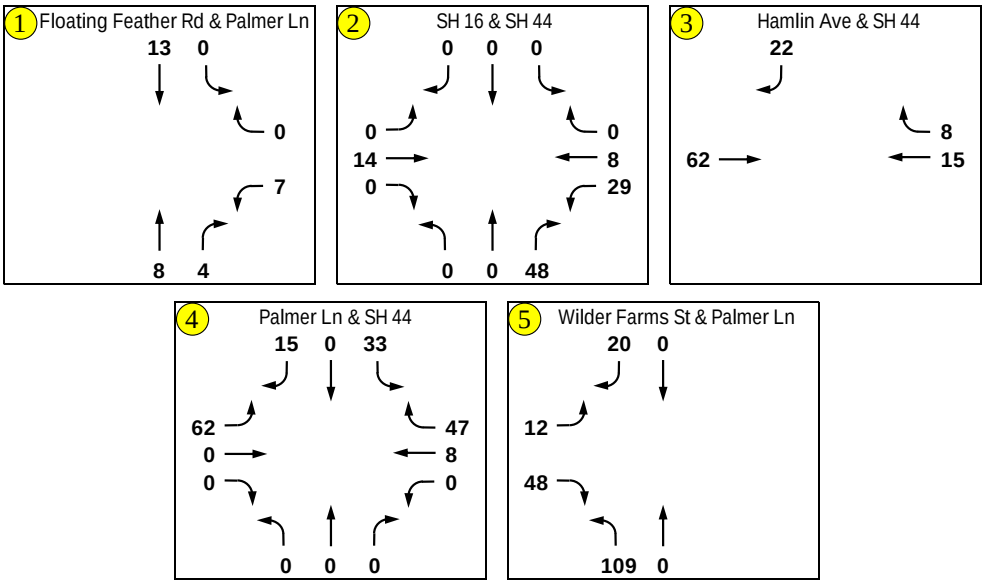


Figure 4.4 – 2025 Build-Out Year AM Peak Hour Total Traffic

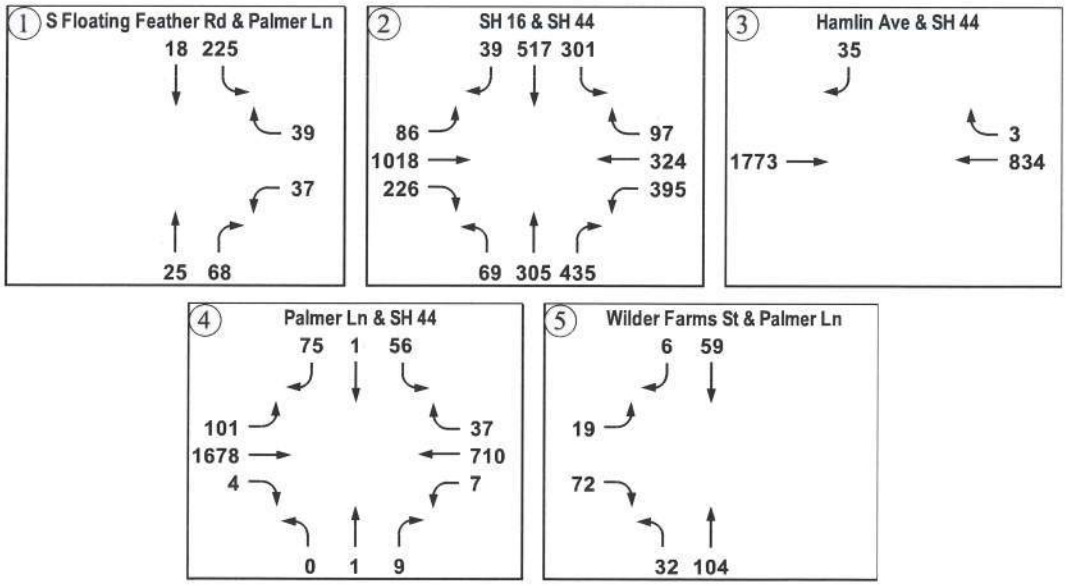
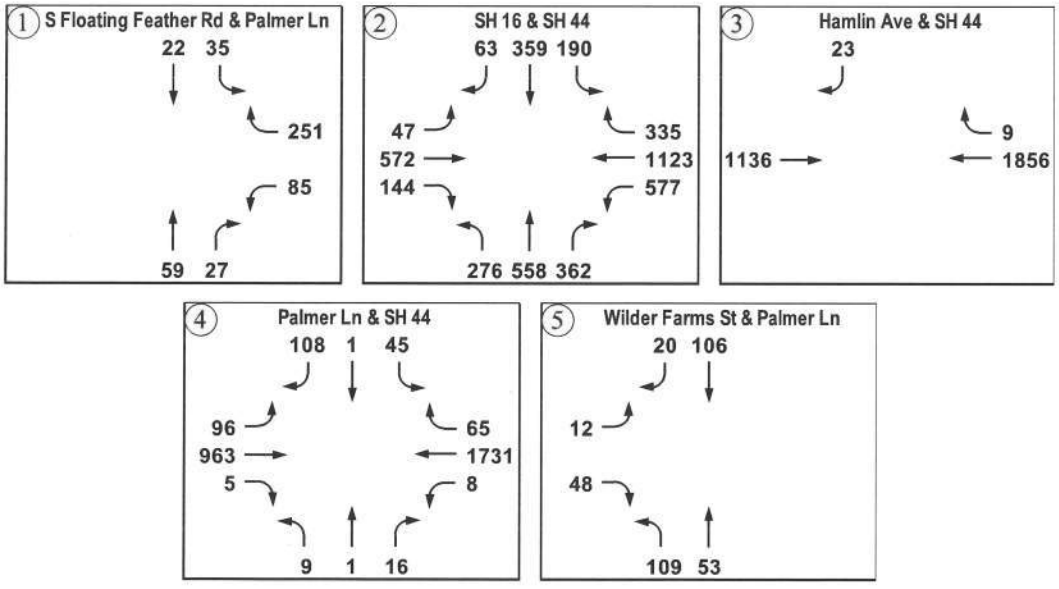


Figure 4.5 – 2025 Build-Out Year PM Peak Hour Total Traffic



COMPASS Population Growth Rates

Northern Star Proposed Development

The following summarizes the results of an area of influence model run for a proposed development located northeast of SH-16 and SH-44. The proposed development shown in Figure 1 will consist of 55 single family units, 81 townhomes, 320 apartment units, and 10.34 acres for possible commercial use with an anticipated build out by 2024. Year 2025 was used for this analysis.

Figure 1

Table 1 provides the existing demographics for TAZs 875 and 876 and the proposed development's demographics used for the area of influence model run. Temporary TAZs were used to isolate the impact of this development.

Table 1

	2021		2025 (Proposed)		2050	
	HH	Jobs	HH	Jobs	HH	Jobs
TAZs 875 and 876	*6*	70	*98*	337	417	1,175
Temp TAZs 1552,1553 and 1554	*0*	*0*	*456*	*185*	*0*	*0*
Surrounding TAZs	185	207	319	606	1,018	1,270
Total	191	277	873	1,128	1,435	2,445

Figure 2: Area of Influence (percent contribution to the total peak hour demand)
Figure 3: Peak Hour Demand with Proposed Development
Figure 4: Peak Hour Demand without Proposed Development
Figure 5: Surrounding Area TAZs
Figure 6, Figure 7, Figure 8, Figure 9, Figure 10, and Figure 11: Compounded Annual Growth Rates

Note to Reviewers: *The primary purpose of this report is to help agencies determine the scope of a Traffic Impact Study (TIS) and to assist TIS preparers in establishing trip distributions. New demand forecasted by the regional model for a proposed development may not match ITE Trip Generation estimates and they are not intended to replace the trip generation process of the TIS.*

Disclaimer Regarding Updated Model: *The results documented in this report are based on the latest regional model, maintained by COMPASS, released in October of 2021, and based on the COMPASS 2050 Vision adopted in August 2021. Due to changes in demographics, TAZs, model network and model parameters, results should not be compared to those provided prior to October of 2021.*

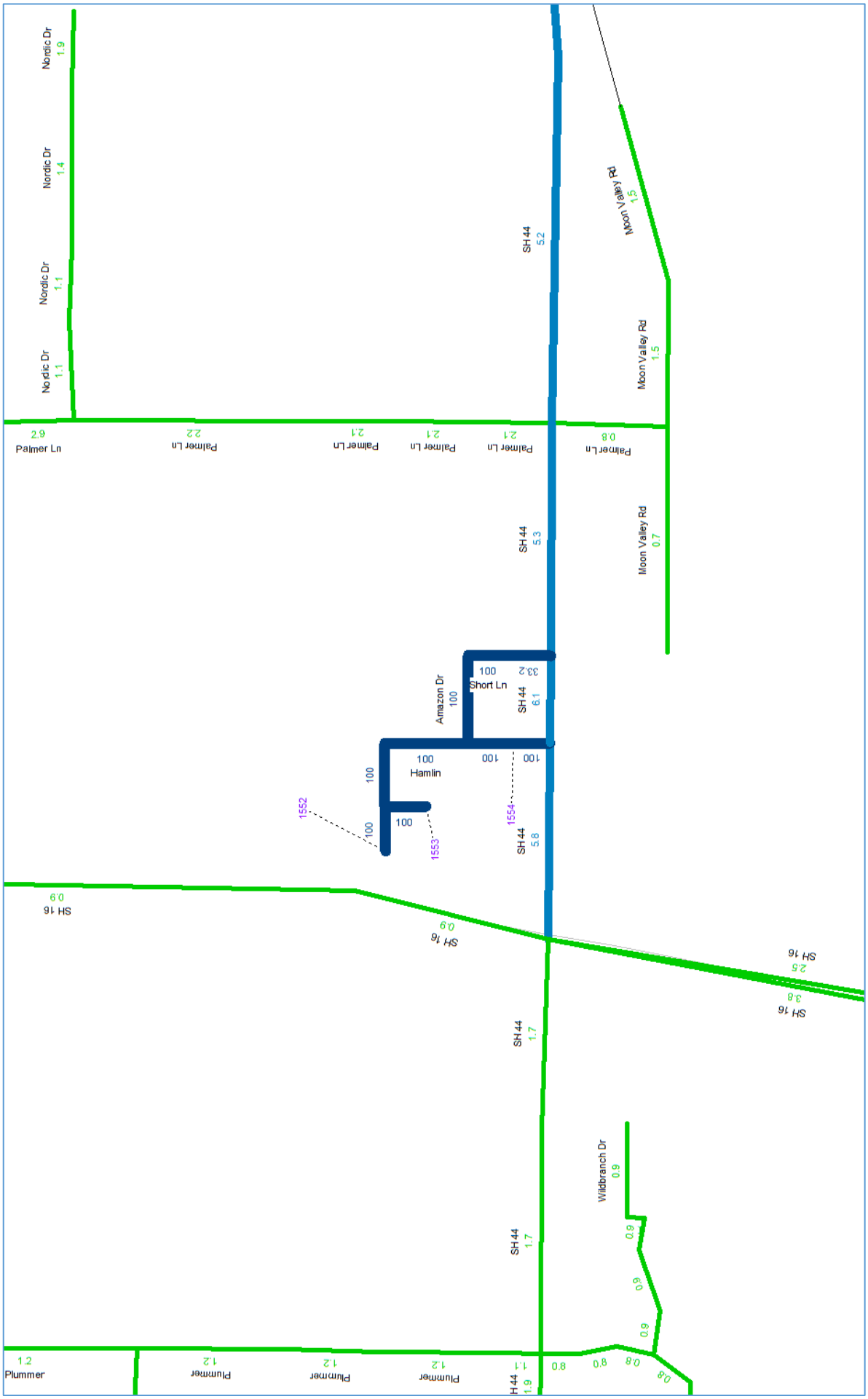


Figure 2: Area of Influence (percent contribution to the total peak hour demand)

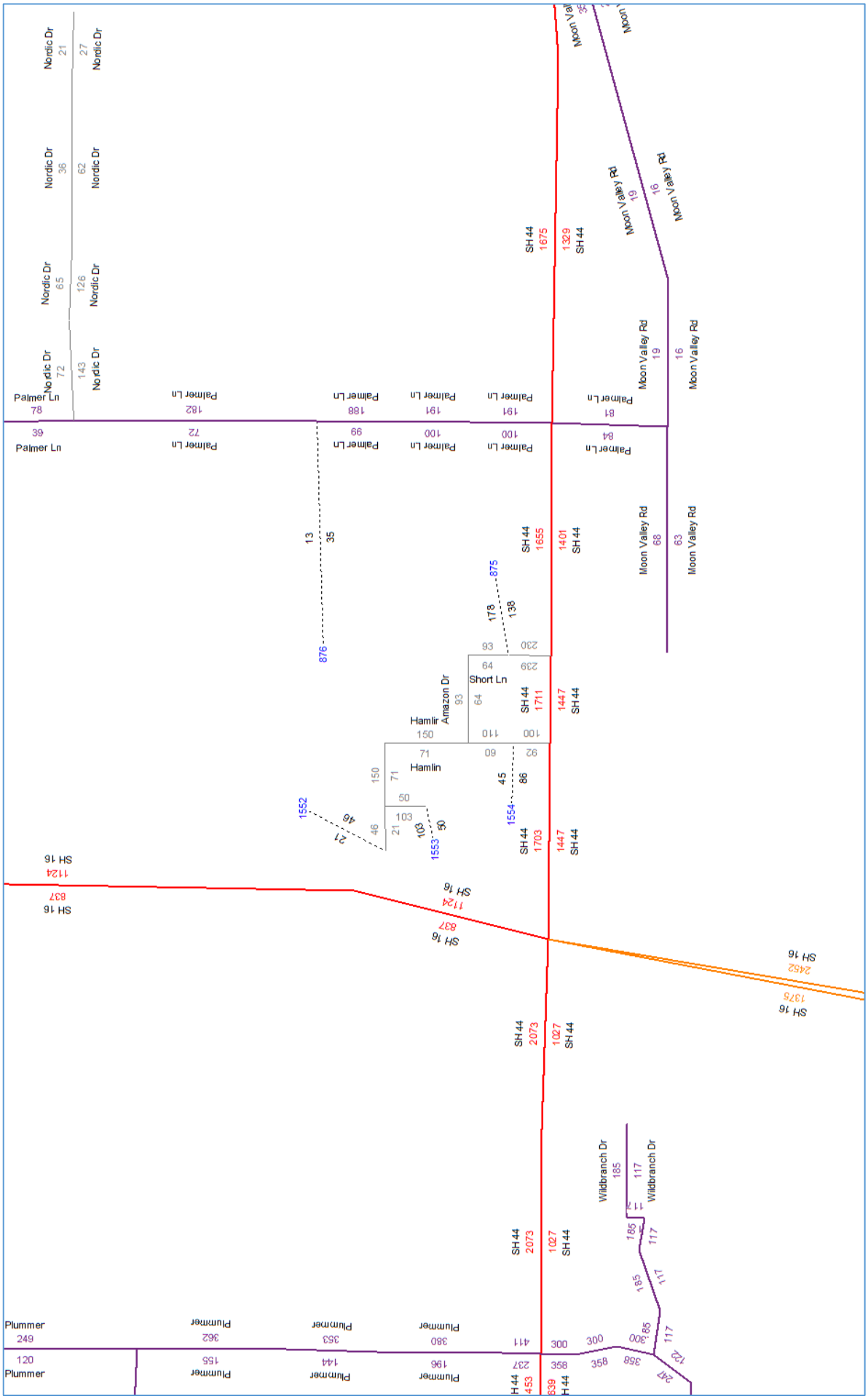


Figure 3: Peak Hour Demand with Proposed Development (Hamlin RI/RO)

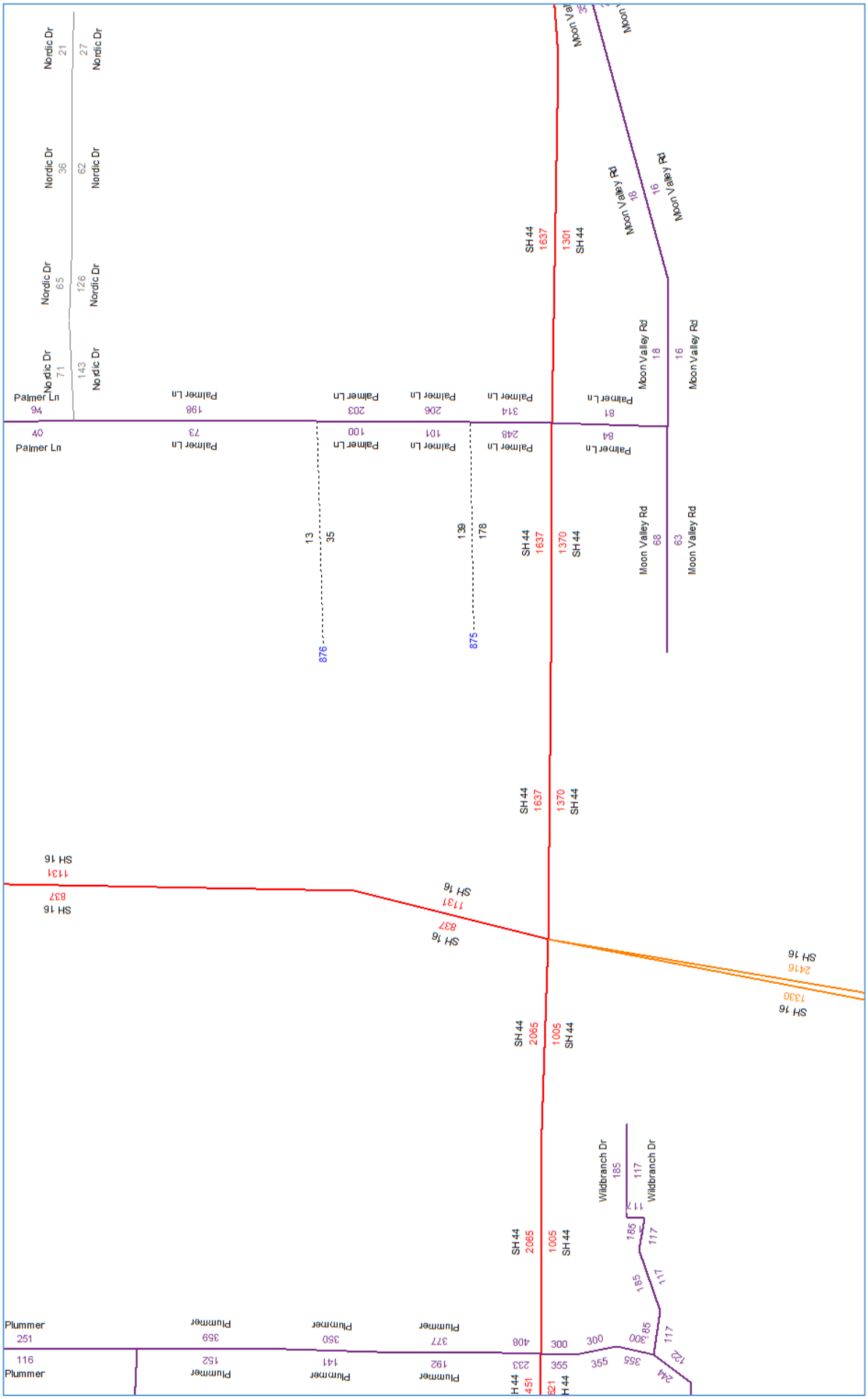
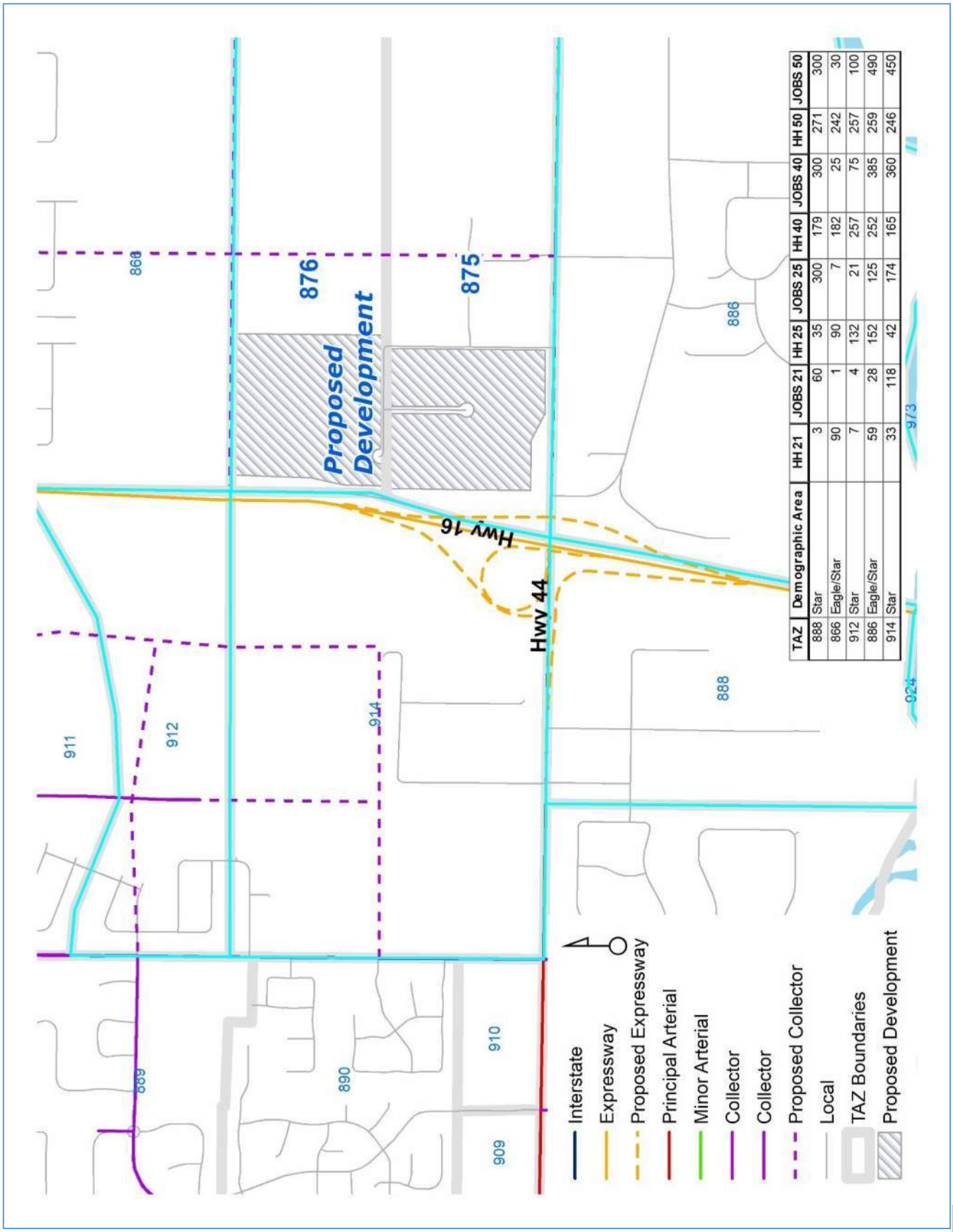


Figure 4: Peak Hour Demand without Proposed Development



TAZ	Demographic Area	HH 21	JOBS 21	HH 25	JOBS 25	HH 40	JOBS 40	HH 50	JOBS 50
888	Star	3	60	35	300	179	300	271	300
866	Eagle/Star	90	1	90	7	182	25	242	30
912	Star	7	4	132	21	257	75	257	100
886	Eagle/Star	59	28	152	125	252	385	259	490
914	Star	33	118	42	174	165	360	246	450

Figure 5: Surrounding Area TAZs

Figure 6: 2021 to 2025 Compounded Annual Growth Rates

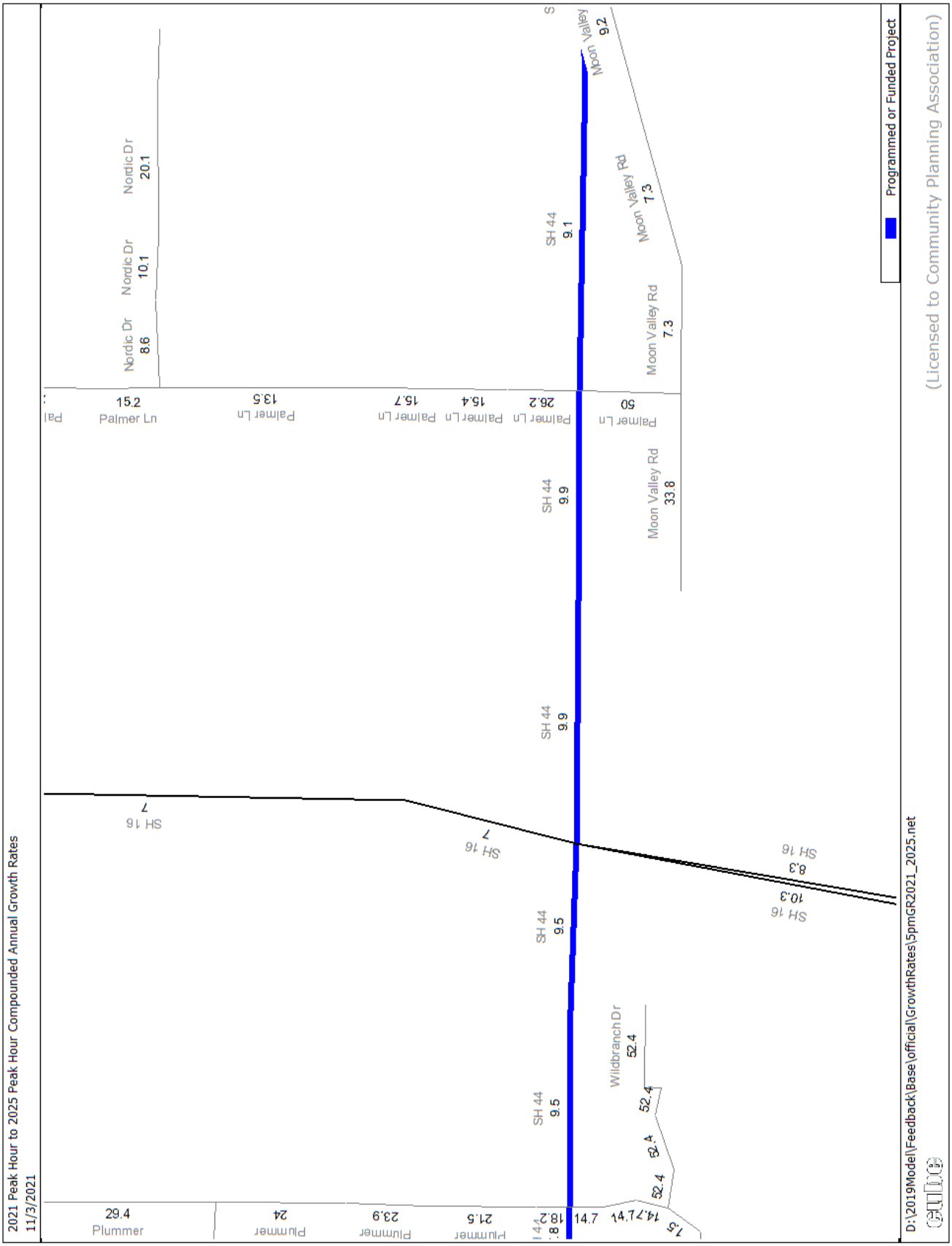


Figure 7: 2025 to 2030 Compounded Annual Growth Rates

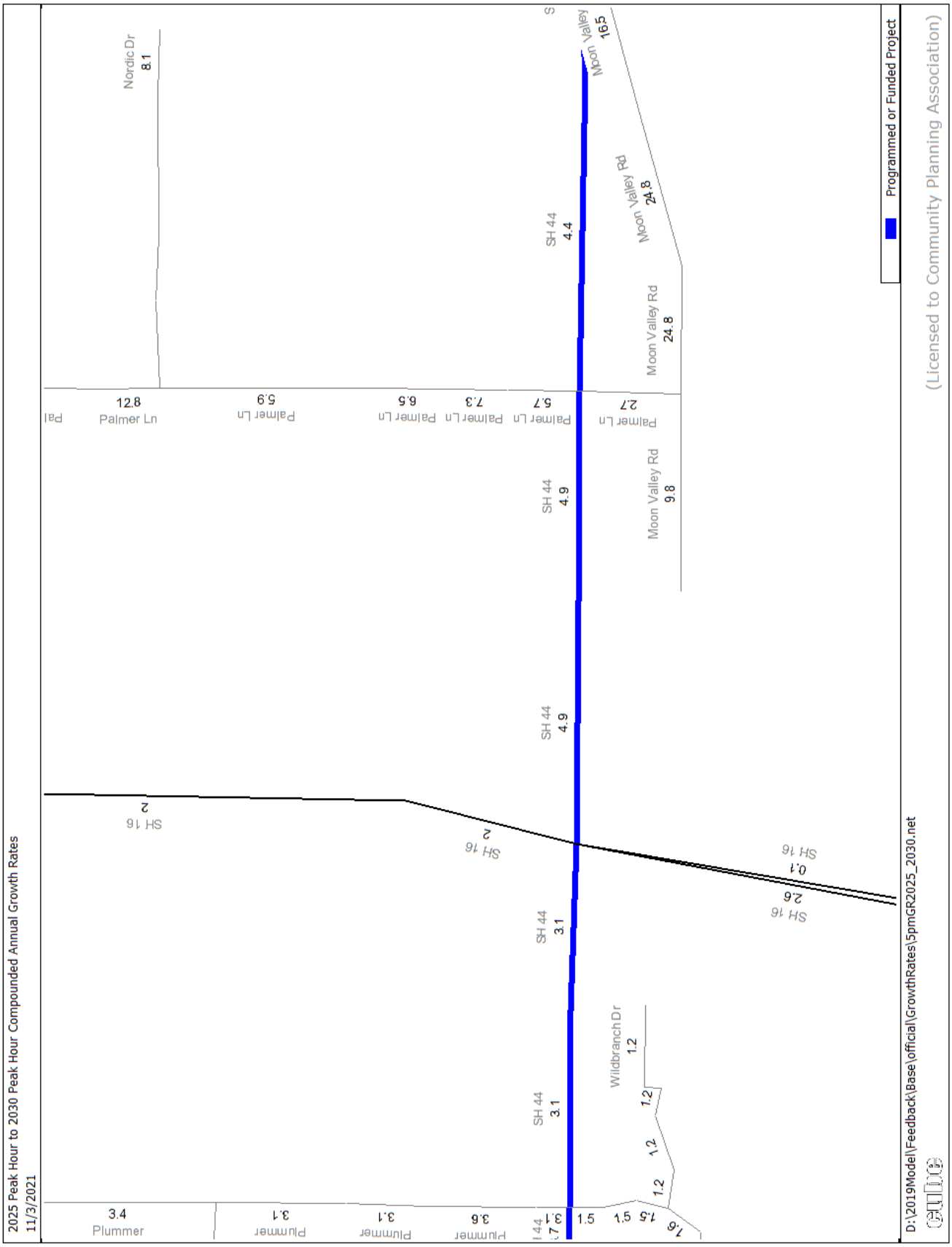


Figure 8: 2030 to 2035 Compounded Annual Growth Rates

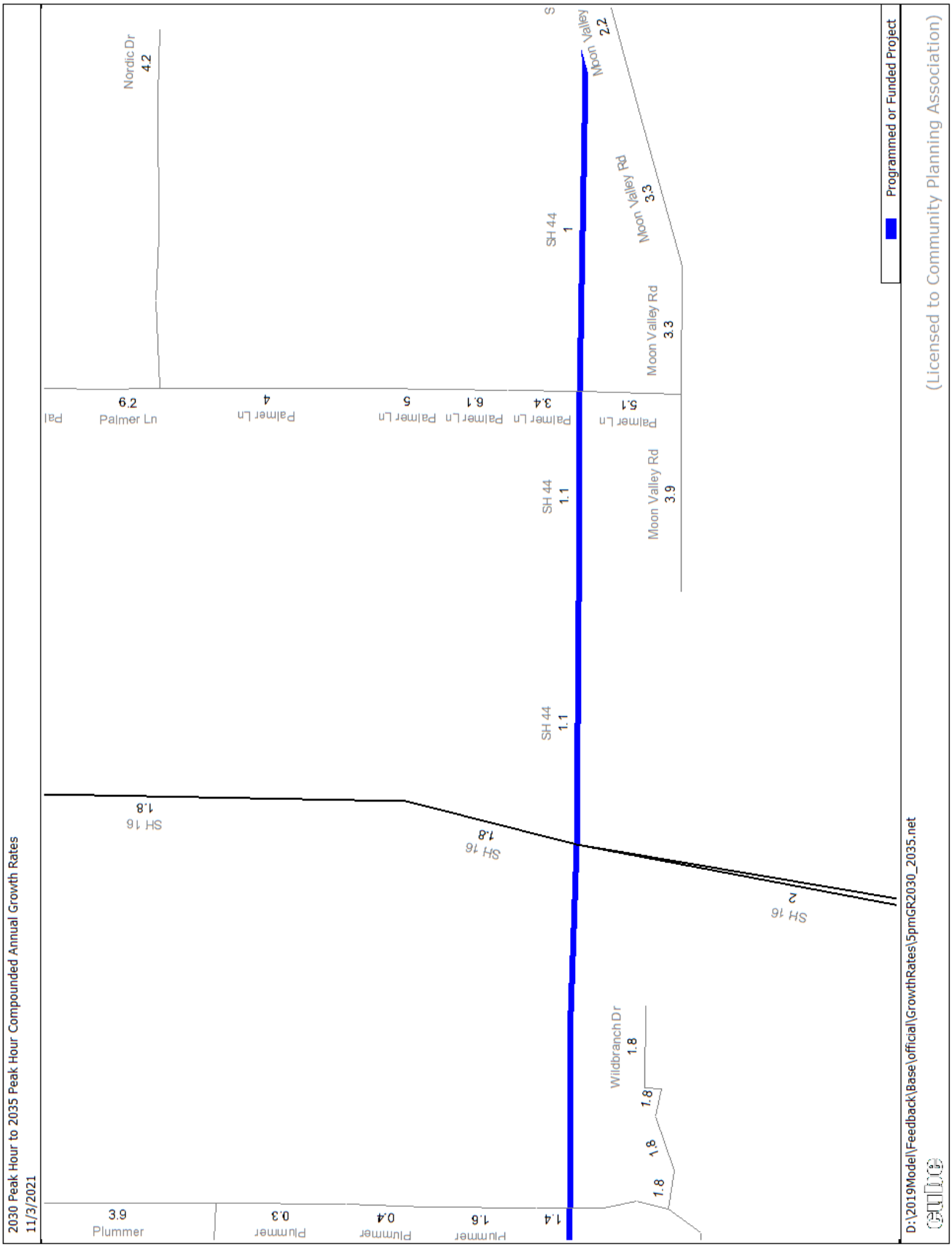


Figure 9: 2035 to 2040 Compounded Annual Growth Rates

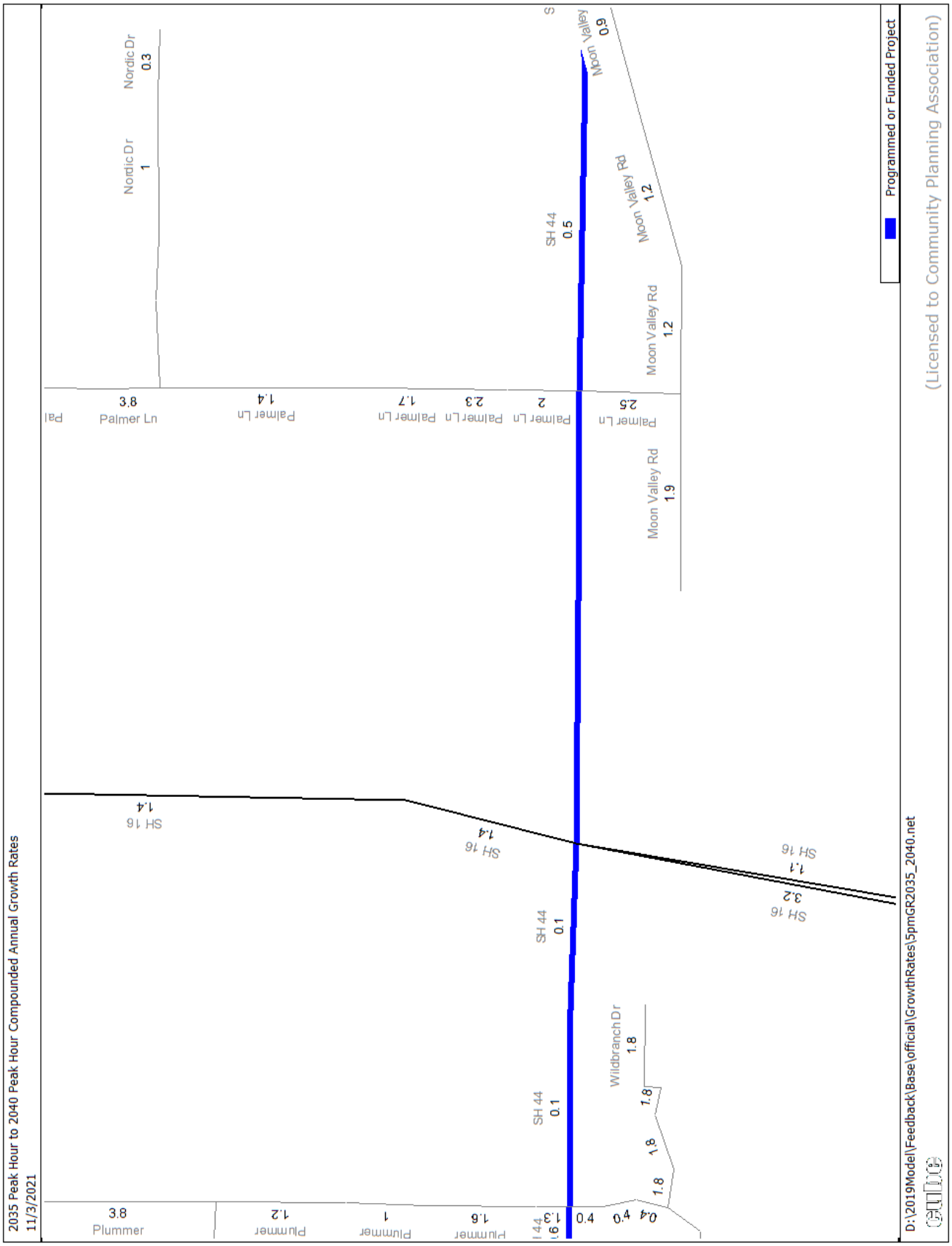


Figure 10: 2040 to 2045 Compounded Annual Growth Rates

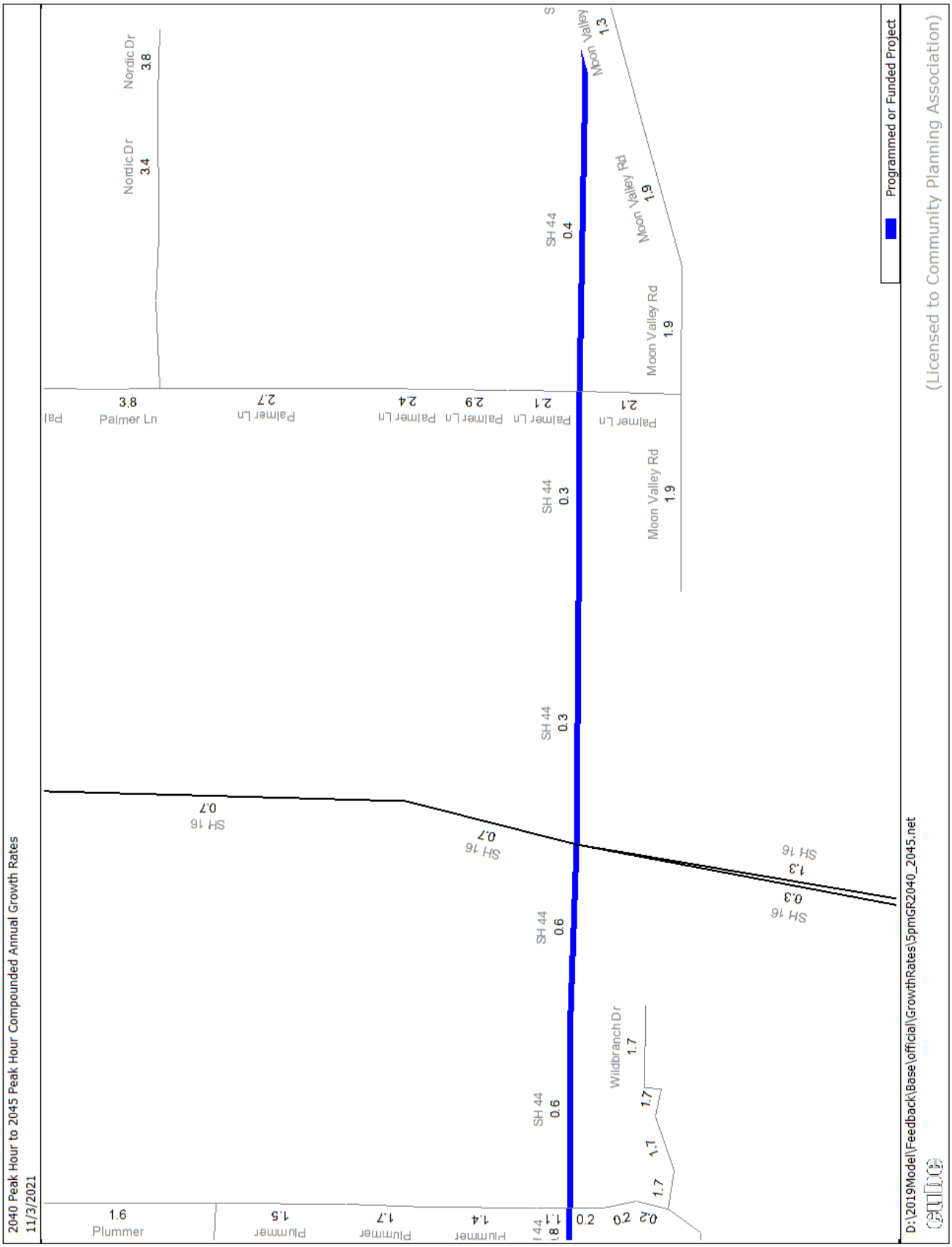
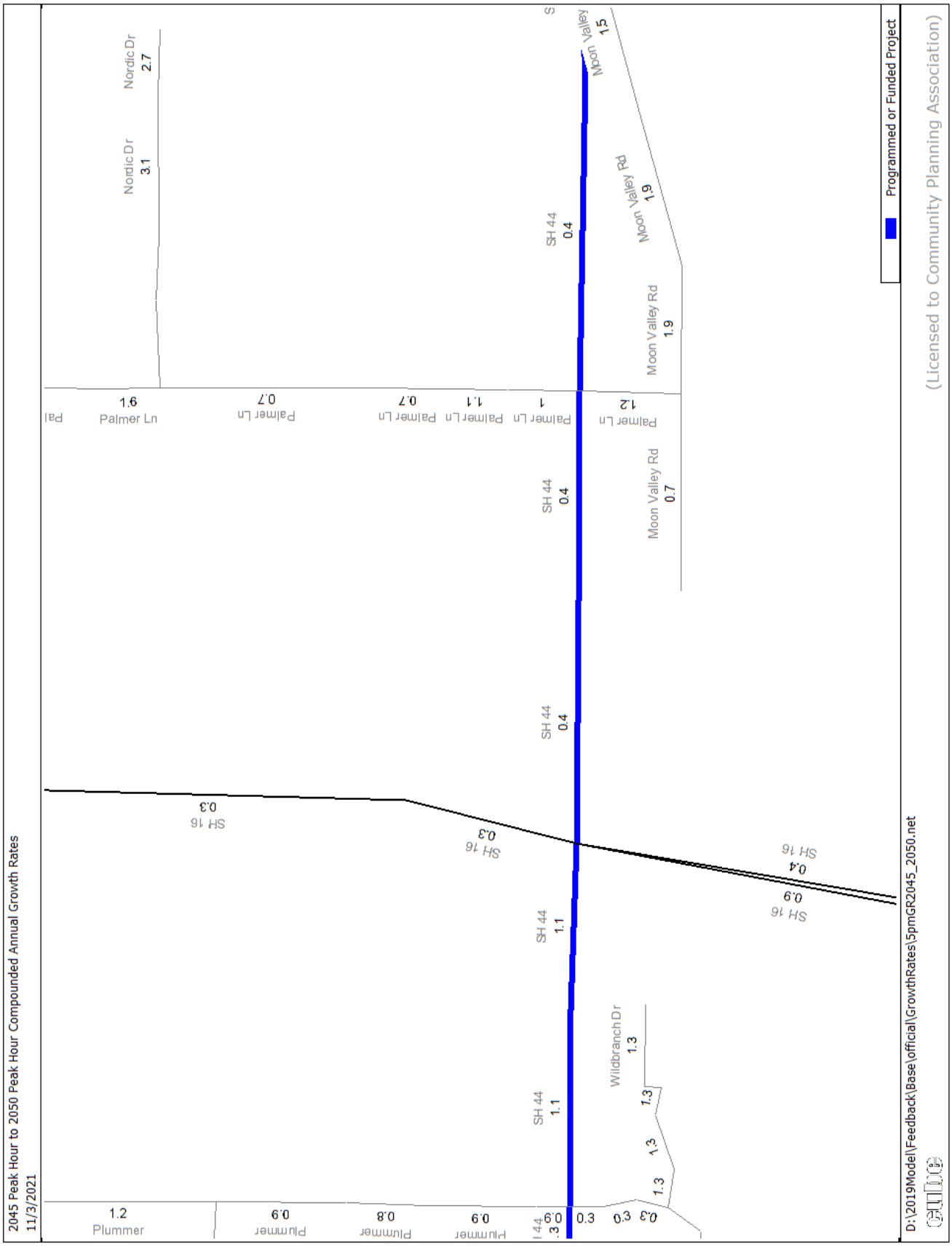


Figure 11: 2045 to 2050 Compounded Annual Growth Rates



Traffic Analysis Reports

2022 Existing Traffic Analysis

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↱			↱
Traffic Vol, veh/h	0	1187	560	3	0	6
Future Vol, veh/h	0	1187	560	3	0	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	94	94	93	93	38	38
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	1263	602	3	0	16

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	604
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.318
Pot Cap-1 Maneuver	0	-	-	-	0	498
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	498
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	12.5
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	498
HCM Lane V/C Ratio	-	-	-	0.032
HCM Control Delay (s)	-	-	-	12.5
HCM Lane LOS	-	-	-	B
HCM 95th %tile Q(veh)	-	-	-	0.1

Intersection	
Int Delay, s/veh	2.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	10	1109	68	23	545	3	12	0	17	3	0	6
Future Vol, veh/h	10	1109	68	23	545	3	12	0	17	3	0	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	100	-	375	100	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	66	66	66	38	38	38
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	11	1192	73	25	586	3	18	0	26	8	0	16

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	589	0	0	1265	0	0	1897	1890	1229	1900	1923	586
Stage 1	-	-	-	-	-	-	1251	1251	-	636	636	-
Stage 2	-	-	-	-	-	-	646	639	-	1264	1287	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	986	-	-	549	-	-	53	70	217	53	67	510
Stage 1	-	-	-	-	-	-	211	244	-	466	472	-
Stage 2	-	-	-	-	-	-	460	470	-	208	235	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	986	-	-	549	-	-	49	66	217	45	63	510
Mov Cap-2 Maneuver	-	-	-	-	-	-	49	66	-	45	63	-
Stage 1	-	-	-	-	-	-	209	241	-	461	450	-
Stage 2	-	-	-	-	-	-	425	448	-	181	232	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.5	62.2	42
HCM LOS			F	E

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	49	217	986	-	-	549	-	-	45	510
HCM Lane V/C Ratio	0.371	0.119	0.011	-	-	0.045	-	-	0.175	0.031
HCM Control Delay (s)	116.7	23.8	8.7	-	-	11.9	-	-	101.3	12.3
HCM Lane LOS	F	C	A	-	-	B	-	-	F	B
HCM 95th %tile Q(veh)	1.3	0.4	0	-	-	0.1	-	-	0.6	0.1

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	6	1	0	0	8	3	2	0	2	0
Future Vol, veh/h	0	0	6	1	0	0	8	3	2	0	2	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	7	1	0	0	9	3	2	0	2	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	0	0	0	7	0	0	7	6	4	8	9	0
Stage 1	-	-	-	-	-	-	4	4	-	2	2	-
Stage 2	-	-	-	-	-	-	3	2	-	6	7	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	-	-	-	1614	-	-	1013	889	1080	1011	886	-
Stage 1	-	-	-	-	-	-	1018	892	-	1021	894	-
Stage 2	-	-	-	-	-	-	1020	894	-	1016	890	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	1614	-	-	-	888	1080	1005	885	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	888	-	1005	885	-
Stage 1	-	-	-	-	-	-	1018	892	-	1021	893	-
Stage 2	-	-	-	-	-	-	1016	893	-	1010	890	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	7.2		
HCM LOS			-	-

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	-	1614	-	-	-
HCM Lane V/C Ratio	-	-	-	-	0.001	-	-	-
HCM Control Delay (s)	-	0	-	-	7.2	0	-	-
HCM Lane LOS	-	A	-	-	A	A	-	-
HCM 95th %tile Q(veh)	-	-	-	-	0	-	-	-

Intersection	
Int Delay, s/veh	2.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	0	6	0	0	3	0
Future Vol, veh/h	0	6	0	0	3	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	7	0	0	3	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	7	0	5	4
Stage 1	-	-	-	-	4	-
Stage 2	-	-	-	-	1	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1614	-	1017	1080
Stage 1	-	-	-	-	1019	-
Stage 2	-	-	-	-	1022	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1614	-	1017	1080
Mov Cap-2 Maneuver	-	-	-	-	1017	-
Stage 1	-	-	-	-	1019	-
Stage 2	-	-	-	-	1022	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	8.6
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1017	-	-	1614	-
HCM Lane V/C Ratio	0.003	-	-	-	-
HCM Control Delay (s)	8.6	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↱			↗
Traffic Vol, veh/h	0	596	1179	3	0	4
Future Vol, veh/h	0	596	1179	3	0	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	87	87	98	98	31	31
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	685	1203	3	0	13

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	1205
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.318
Pot Cap-1 Maneuver	0	-	-	-	0	224
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	224
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	22.1
HCM LOS			C

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	224
HCM Lane V/C Ratio	-	-	-	0.058
HCM Control Delay (s)	-	-	-	22.1
HCM Lane LOS	-	-	-	C
HCM 95th %tile Q(veh)	-	-	-	0.2

Intersection	
Int Delay, s/veh	3.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	577	14	4	1156	3	22	0	16	1	0	4
Future Vol, veh/h	5	577	14	4	1156	3	22	0	16	1	0	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	100	-	375	100	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	97	97	97	63	63	63	31	31	31
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	6	656	16	4	1192	3	35	0	25	3	0	13

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1195	0	0	672	0	0	1884	1879	664	1889	1884	1192
Stage 1	-	-	-	-	-	-	676	676	-	1200	1200	-
Stage 2	-	-	-	-	-	-	1208	1203	-	689	684	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	584	-	-	919	-	-	54	71	461	53	71	228
Stage 1	-	-	-	-	-	-	443	453	-	226	258	-
Stage 2	-	-	-	-	-	-	224	257	-	436	449	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	584	-	-	919	-	-	50	70	461	50	70	228
Mov Cap-2 Maneuver	-	-	-	-	-	-	50	70	-	50	70	-
Stage 1	-	-	-	-	-	-	439	448	-	224	257	-
Stage 2	-	-	-	-	-	-	210	256	-	408	445	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0	106.5	33.7
HCM LOS			F	D

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	50	461	584	-	-	919	-	-	50	228
HCM Lane V/C Ratio	0.698	0.055	0.01	-	-	0.004	-	-	0.065	0.057
HCM Control Delay (s)	174.2	13.3	11.2	-	-	8.9	-	-	81.9	21.7
HCM Lane LOS	F	B	B	-	-	A	-	-	F	C
HCM 95th %tile Q(veh)	2.8	0.2	0	-	-	0	-	-	0.2	0.2

Intersection	
Int Delay, s/veh	5.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	0	0	4	0	0	0	5	2	1	0	1	0
Future Vol, veh/h	0	0	4	0	0	0	5	2	1	0	1	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	4	0	0	0	5	2	1	0	1	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1	0	0	4	0	0	4	3	2	5	5	1
Stage 1	-	-	-	-	-	-	2	2	-	1	1	-
Stage 2	-	-	-	-	-	-	2	1	-	4	4	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1622	-	-	1618	-	-	1017	893	1082	1016	890	1084
Stage 1	-	-	-	-	-	-	1021	894	-	1022	895	-
Stage 2	-	-	-	-	-	-	1021	895	-	1018	892	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1622	-	-	1618	-	-	1016	893	1082	1013	890	1084
Mov Cap-2 Maneuver	-	-	-	-	-	-	1016	893	-	1013	890	-
Stage 1	-	-	-	-	-	-	1021	894	-	1022	895	-
Stage 2	-	-	-	-	-	-	1020	895	-	1015	892	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	8.7	9.1
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	989	1622	-	-	1618	-	-	890
HCM Lane V/C Ratio	0.009	-	-	-	-	-	-	0.001
HCM Control Delay (s)	8.7	0	-	-	0	-	-	9.1
HCM Lane LOS	A	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0

Intersection	
Int Delay, s/veh	3.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	0	4	0	0	3	0
Future Vol, veh/h	0	4	0	0	3	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	4	0	0	3	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	4	0	3	2
Stage 1	-	-	-	-	2	-
Stage 2	-	-	-	-	1	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1618	-	1019	1082
Stage 1	-	-	-	-	1021	-
Stage 2	-	-	-	-	1022	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1618	-	1019	1082
Mov Cap-2 Maneuver	-	-	-	-	1019	-
Stage 1	-	-	-	-	1021	-
Stage 2	-	-	-	-	1022	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	8.5
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1019	-	-	1618	-
HCM Lane V/C Ratio	0.003	-	-	-	-
HCM Control Delay (s)	8.5	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

2023 Background Year Traffic Analysis

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	1306	631	3	0	7
Future Vol, veh/h	0	1306	631	3	0	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	1451	701	3	0	8

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	352
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	-	0	644
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	644
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	10.7
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	644
HCM Lane V/C Ratio	-	-	-	0.012
HCM Control Delay (s)	-	-	-	10.7
HCM Lane LOS	-	-	-	B
HCM 95th %tile Q(veh)	-	-	-	0

Intersection	
Int Delay, s/veh	3.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	12	1219	75	25	599	9	13	0	19	45	0	22
Future Vol, veh/h	12	1219	75	25	599	9	13	0	19	45	0	22
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	100	100	-	375	100	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	13	1354	83	28	666	10	14	0	21	50	0	24

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	676	0	0	1437	0	0	1769	2112	677	1425	2185	333
Stage 1	-	-	-	-	-	-	1380	1380	-	722	722	-
Stage 2	-	-	-	-	-	-	389	732	-	703	1463	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	911	-	-	468	-	-	53	50	395	96	45	663
Stage 1	-	-	-	-	-	-	152	210	-	384	429	-
Stage 2	-	-	-	-	-	-	606	425	-	394	191	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	911	-	-	468	-	-	48	46	395	86	42	663
Mov Cap-2 Maneuver	-	-	-	-	-	-	48	46	-	86	42	-
Stage 1	-	-	-	-	-	-	150	207	-	379	403	-
Stage 2	-	-	-	-	-	-	549	400	-	368	188	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.5	53.2	66.3
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	48	395	911	-	-	468	-	-	86	663
HCM Lane V/C Ratio	0.301	0.053	0.015	-	-	0.059	-	-	0.581	0.037
HCM Control Delay (s)	109.5	14.6	9	-	-	13.2	-	-	93.5	10.6
HCM Lane LOS	F	B	A	-	-	B	-	-	F	B
HCM 95th %tile Q(veh)	1	0.2	0	-	-	0.2	-	-	2.6	0.1

Intersection	
Int Delay, s/veh	1.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	33	17	0	0	11	5	5	0	17	0
Future Vol, veh/h	0	0	33	17	0	0	11	5	5	0	17	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	37	19	0	0	12	6	6	0	19	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	0	0	0	37	0	0	67	57	19	63	75	0
Stage 1	-	-	-	-	-	-	19	19	-	38	38	-
Stage 2	-	-	-	-	-	-	48	38	-	25	37	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	-	-	-	1574	-	-	926	834	1059	932	815	-
Stage 1	-	-	-	-	-	-	1000	880	-	977	863	-
Stage 2	-	-	-	-	-	-	965	863	-	993	864	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	1574	-	-	-	824	1059	914	805	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	824	-	914	805	-
Stage 1	-	-	-	-	-	-	1000	880	-	977	853	-
Stage 2	-	-	-	-	-	-	932	853	-	982	864	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	7.3		
HCM LOS			-	-

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	-	1574	-	-	-
HCM Lane V/C Ratio	-	-	-	-	0.012	-	-	-
HCM Control Delay (s)	-	0	-	-	7.3	0	-	-
HCM Lane LOS	-	A	-	-	A	A	-	-
HCM 95th %tile Q(veh)	-	-	-	-	0	-	-	-

Intersection	
Int Delay, s/veh	2.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	0	7	0	0	3	0
Future Vol, veh/h	0	7	0	0	3	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	8	0	0	3	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	8	0	5	4
Stage 1	-	-	-	-	4	-
Stage 2	-	-	-	-	1	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1612	-	1017	1080
Stage 1	-	-	-	-	1019	-
Stage 2	-	-	-	-	1022	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1612	-	1017	1080
Mov Cap-2 Maneuver	-	-	-	-	1017	-
Stage 1	-	-	-	-	1019	-
Stage 2	-	-	-	-	1022	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	8.6
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1017	-	-	1612	-
HCM Lane V/C Ratio	0.003	-	-	-	-
HCM Control Delay (s)	8.6	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↱			↱
Traffic Vol, veh/h	0	669	1304	3	0	4
Future Vol, veh/h	0	669	1304	3	0	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	743	1449	3	0	4

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	726
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	-	0	367
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	367
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	14.9
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	367
HCM Lane V/C Ratio	-	-	-	0.012
HCM Control Delay (s)	-	-	-	14.9
HCM Lane LOS	-	-	-	B
HCM 95th %tile Q(veh)	-	-	-	0

Intersection	
Int Delay, s/veh	3.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	20	634	15	4	1270	47	24	0	18	29	0	13
Future Vol, veh/h	20	634	15	4	1270	47	24	0	18	29	0	13
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	100	100	-	375	100	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	22	704	17	4	1411	52	27	0	20	32	0	14

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1463	0	0	721	0	0	1462	2219	352	1815	2184	706
Stage 1	-	-	-	-	-	-	748	748	-	1419	1419	-
Stage 2	-	-	-	-	-	-	714	1471	-	396	765	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	458	-	-	877	-	-	90	43	644	49	45	378
Stage 1	-	-	-	-	-	-	371	418	-	144	201	-
Stage 2	-	-	-	-	-	-	388	190	-	601	410	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	458	-	-	877	-	-	83	41	644	46	43	378
Mov Cap-2 Maneuver	-	-	-	-	-	-	83	41	-	46	43	-
Stage 1	-	-	-	-	-	-	353	398	-	137	200	-
Stage 2	-	-	-	-	-	-	371	189	-	554	390	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.4	0	43.3	133.6
HCM LOS			E	F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	83	644	458	-	-	877	-	-	46	378
HCM Lane V/C Ratio	0.321	0.031	0.049	-	-	0.005	-	-	0.7	0.038
HCM Control Delay (s)	67.7	10.8	13.3	-	-	9.1	-	-	186.8	14.9
HCM Lane LOS	F	B	B	-	-	A	-	-	F	B
HCM 95th %tile Q(veh)	1.2	0.1	0.2	-	-	0	-	-	2.7	0.1

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	0	0	20	11	0	0	33	17	17	0	11	0
Future Vol, veh/h	0	0	20	11	0	0	33	17	17	0	11	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	22	12	0	0	37	19	19	0	12	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	0	0	0	22	0	0	41	35	11	54	46	0
Stage 1	-	-	-	-	-	-	11	11	-	24	24	-
Stage 2	-	-	-	-	-	-	30	24	-	30	22	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	-	-	-	1593	-	-	963	857	1070	944	846	-
Stage 1	-	-	-	-	-	-	1010	886	-	994	875	-
Stage 2	-	-	-	-	-	-	987	875	-	987	877	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	1593	-	-	-	850	1070	906	839	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	850	-	906	839	-
Stage 1	-	-	-	-	-	-	1010	886	-	994	868	-
Stage 2	-	-	-	-	-	-	965	868	-	949	877	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	7.3		
HCM LOS			-	-

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	-	1593	-	-	-
HCM Lane V/C Ratio	-	-	-	-	0.008	-	-	-
HCM Control Delay (s)	-	0	-	-	7.3	0	-	-
HCM Lane LOS	-	A	-	-	A	A	-	-
HCM 95th %tile Q(veh)	-	-	-	-	0	-	-	-

Intersection	
Int Delay, s/veh	3.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	0	4	0	0	3	0
Future Vol, veh/h	0	4	0	0	3	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	4	0	0	3	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	4	0	3	2
Stage 1	-	-	-	-	2	-
Stage 2	-	-	-	-	1	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1618	-	1019	1082
Stage 1	-	-	-	-	1021	-
Stage 2	-	-	-	-	1022	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1618	-	1019	1082
Mov Cap-2 Maneuver	-	-	-	-	1019	-
Stage 1	-	-	-	-	1021	-
Stage 2	-	-	-	-	1022	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	8.5
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1019	-	-	1618	-
HCM Lane V/C Ratio	0.003	-	-	-	-
HCM Control Delay (s)	8.5	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

2024 Background Year Traffic Analysis

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↱			↱
Traffic Vol, veh/h	0	1434	690	4	0	7
Future Vol, veh/h	0	1434	690	4	0	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	1593	767	4	0	8

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	386
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	-	0	612
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	612
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	11
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	612
HCM Lane V/C Ratio	-	-	-	0.013
HCM Control Delay (s)	-	-	-	11
HCM Lane LOS	-	-	-	B
HCM 95th %tile Q(veh)	-	-	-	0

Intersection	
Int Delay, s/veh	4.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	12	1339	82	28	658	9	14	0	21	45	0	22
Future Vol, veh/h	12	1339	82	28	658	9	14	0	21	45	0	22
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	100	100	-	375	100	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	13	1488	91	31	731	10	16	0	23	50	0	24

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	741	0	0	1579	0	0	1942	2317	744	1563	2398	366
Stage 1	-	-	-	-	-	-	1514	1514	-	793	793	-
Stage 2	-	-	-	-	-	-	428	803	-	770	1605	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	862	-	-	413	-	-	39	37	357	76	33	631
Stage 1	-	-	-	-	-	-	125	181	-	348	398	-
Stage 2	-	-	-	-	-	-	575	394	-	359	163	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	862	-	-	413	-	-	35	34	357	66	30	631
Mov Cap-2 Maneuver	-	-	-	-	-	-	35	34	-	66	30	-
Stage 1	-	-	-	-	-	-	123	178	-	343	368	-
Stage 2	-	-	-	-	-	-	511	364	-	330	161	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.6	78.7	105.6
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	35	357	862	-	-	413	-	-	66	631
HCM Lane V/C Ratio	0.444	0.065	0.015	-	-	0.075	-	-	0.758	0.039
HCM Control Delay (s)	173.1	15.8	9.2	-	-	14.4	-	-	151.9	10.9
HCM Lane LOS	F	C	A	-	-	B	-	-	F	B
HCM 95th %tile Q(veh)	1.5	0.2	0	-	-	0.2	-	-	3.4	0.1

Intersection	
Int Delay, s/veh	1.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	33	17	0	0	11	5	5	0	17	0
Future Vol, veh/h	0	0	33	17	0	0	11	5	5	0	17	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	37	19	0	0	12	6	6	0	19	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	0	0	0	37	0	0	67	57	19	63	75	0
Stage 1	-	-	-	-	-	-	19	19	-	38	38	-
Stage 2	-	-	-	-	-	-	48	38	-	25	37	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	-	-	-	1574	-	-	926	834	1059	932	815	-
Stage 1	-	-	-	-	-	-	1000	880	-	977	863	-
Stage 2	-	-	-	-	-	-	965	863	-	993	864	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	1574	-	-	-	824	1059	914	805	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	824	-	914	805	-
Stage 1	-	-	-	-	-	-	1000	880	-	977	853	-
Stage 2	-	-	-	-	-	-	932	853	-	982	864	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	7.3		
HCM LOS			-	-

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	-	1574	-	-	-
HCM Lane V/C Ratio	-	-	-	-	0.012	-	-	-
HCM Control Delay (s)	-	0	-	-	7.3	0	-	-
HCM Lane LOS	-	A	-	-	A	A	-	-
HCM 95th %tile Q(veh)	-	-	-	-	0	-	-	-

Intersection	
Int Delay, s/veh	2.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	0	7	0	0	4	0
Future Vol, veh/h	0	7	0	0	4	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	8	0	0	4	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	8	0	5	4
Stage 1	-	-	-	-	4	-
Stage 2	-	-	-	-	1	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1612	-	1017	1080
Stage 1	-	-	-	-	1019	-
Stage 2	-	-	-	-	1022	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1612	-	1017	1080
Mov Cap-2 Maneuver	-	-	-	-	1017	-
Stage 1	-	-	-	-	1019	-
Stage 2	-	-	-	-	1022	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	8.6
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1017	-	-	1612	-
HCM Lane V/C Ratio	0.004	-	-	-	-
HCM Control Delay (s)	8.6	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	734	1432	4	0	5
Future Vol, veh/h	0	734	1432	4	0	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	816	1591	4	0	6

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	798
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	-	0	329
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	329
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	16.1
HCM LOS			C

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	329
HCM Lane V/C Ratio	-	-	-	0.017
HCM Control Delay (s)	-	-	-	16.1
HCM Lane LOS	-	-	-	C
HCM 95th %tile Q(veh)	-	-	-	0.1

Intersection	
Int Delay, s/veh	5.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	20	697	17	5	1396	47	27	0	19	29	0	13
Future Vol, veh/h	20	697	17	5	1396	47	27	0	19	29	0	13
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	100	100	-	375	100	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	22	774	19	6	1551	52	30	0	21	32	0	14

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1603	0	0	793	0	0	1606	2433	387	1994	2400	776
Stage 1	-	-	-	-	-	-	818	818	-	1563	1563	-
Stage 2	-	-	-	-	-	-	788	1615	-	431	837	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	404	-	-	824	-	-	70	31	611	36	33	340
Stage 1	-	-	-	-	-	-	336	388	-	117	171	-
Stage 2	-	-	-	-	-	-	350	161	-	573	380	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	404	-	-	824	-	-	64	29	611	33	31	340
Mov Cap-2 Maneuver	-	-	-	-	-	-	64	29	-	33	31	-
Stage 1	-	-	-	-	-	-	318	367	-	111	170	-
Stage 2	-	-	-	-	-	-	333	160	-	523	359	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.4	0	65.3	231.3
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	64	611	404	-	-	824	-	-	33	340
HCM Lane V/C Ratio	0.469	0.035	0.055	-	-	0.007	-	-	0.976	0.042
HCM Control Delay (s)	103.4	11.1	14.4	-	-	9.4	-	-	$ 327.8	16.1
HCM Lane LOS	F	B	B	-	-	A	-	-	F	C
HCM 95th %tile Q(veh)	1.8	0.1	0.2	-	-	0	-	-	3.4	0.1

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	20	11	0	0	33	17	17	0	11	0
Future Vol, veh/h	0	0	20	11	0	0	33	17	17	0	11	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	22	12	0	0	37	19	19	0	12	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	0	0	0	22	0	0	41	35	11	54	46	0
Stage 1	-	-	-	-	-	-	11	11	-	24	24	-
Stage 2	-	-	-	-	-	-	30	24	-	30	22	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	-	-	-	1593	-	-	963	857	1070	944	846	-
Stage 1	-	-	-	-	-	-	1010	886	-	994	875	-
Stage 2	-	-	-	-	-	-	987	875	-	987	877	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	1593	-	-	-	850	1070	906	839	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	850	-	906	839	-
Stage 1	-	-	-	-	-	-	1010	886	-	994	868	-
Stage 2	-	-	-	-	-	-	965	868	-	949	877	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	7.3		
HCM LOS			-	-

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	-	1593	-	-	-
HCM Lane V/C Ratio	-	-	-	-	0.008	-	-	-
HCM Control Delay (s)	-	0	-	-	7.3	0	-	-
HCM Lane LOS	-	A	-	-	A	A	-	-
HCM 95th %tile Q(veh)	-	-	-	-	0	-	-	-

Intersection	
Int Delay, s/veh	3.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	0	5	0	0	4	0
Future Vol, veh/h	0	5	0	0	4	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	6	0	0	4	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	6	0	4	3
Stage 1	-	-	-	-	3	-
Stage 2	-	-	-	-	1	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1615	-	1018	1081
Stage 1	-	-	-	-	1020	-
Stage 2	-	-	-	-	1022	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1615	-	1018	1081
Mov Cap-2 Maneuver	-	-	-	-	1018	-
Stage 1	-	-	-	-	1020	-
Stage 2	-	-	-	-	1022	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	8.6
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1018	-	-	1615	-
HCM Lane V/C Ratio	0.004	-	-	-	-
HCM Control Delay (s)	8.6	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

2030 Background Year Traffic Analysis

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	2081	1031	8	0	42
Future Vol, veh/h	0	2081	1031	8	0	42
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	2312	1146	9	0	47

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	578
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	-	0	459
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	459
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	13.7
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	459
HCM Lane V/C Ratio	-	-	-	0.102
HCM Control Delay (s)	-	-	-	13.7
HCM Lane LOS	-	-	-	B
HCM 95th %tile Q(veh)	-	-	-	0.3

Intersection	
Int Delay, s/veh	126.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	96	1870	115	39	919	62	20	0	29	89	0	100
Future Vol, veh/h	96	1870	115	39	919	62	20	0	29	89	0	100
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	100	100	-	375	100	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	107	2078	128	43	1021	69	22	0	32	99	0	111

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1090	0	0	2206	0	0	2889	3468	1039	2360	3527	511
Stage 1	-	-	-	-	-	-	2292	2292	-	1107	1107	-
Stage 2	-	-	-	-	-	-	597	1176	-	1253	2420	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	636	-	-	235	-	-	~ 7	7	227	~ 19	6	508
Stage 1	-	-	-	-	-	-	40	73	-	224	284	-
Stage 2	-	-	-	-	-	-	456	263	-	182	63	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	636	-	-	235	-	-	~ 4	5	227	~ 12	4	508
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 4	5	-	~ 12	4	-
Stage 1	-	-	-	-	-	-	33	61	-	186	232	-
Stage 2	-	-	-	-	-	-	291	215	-	130	52	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.5	0.9	$ 1543.2	$ 1832.2
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	4	227	636	-	-	235	-	-	12	508
HCM Lane V/C Ratio	5.556	0.142	0.168	-	-	0.184	-	-	8.241	0.219
HCM Control Delay (s)	$ 3746.8	23.5	11.8	-	-	23.8	-	-	$ 3875	14.1
HCM Lane LOS	F	C	B	-	-	C	-	-	F	B
HCM 95th %tile Q(veh)	4.2	0.5	0.6	-	-	0.7	-	-	13.6	0.8

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	39	13	0	0	15	5	5	0	17	0
Future Vol, veh/h	0	0	39	13	0	0	15	5	5	0	17	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	43	14	0	0	17	6	6	0	19	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	0	0	0	43	0	0	60	50	22	56	71	0
Stage 1	-	-	-	-	-	-	22	22	-	28	28	-
Stage 2	-	-	-	-	-	-	38	28	-	28	43	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	-	-	-	1566	-	-	936	841	1055	941	819	-
Stage 1	-	-	-	-	-	-	996	877	-	989	872	-
Stage 2	-	-	-	-	-	-	977	872	-	989	859	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	1566	-	-	-	833	1055	925	812	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	833	-	925	812	-
Stage 1	-	-	-	-	-	-	996	877	-	989	864	-
Stage 2	-	-	-	-	-	-	947	864	-	978	859	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	7.3		
HCM LOS			-	-

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	-	1566	-	-	-
HCM Lane V/C Ratio	-	-	-	-	0.009	-	-	-
HCM Control Delay (s)	-	0	-	-	7.3	0	-	-
HCM Lane LOS	-	A	-	-	A	A	-	-
HCM 95th %tile Q(veh)	-	-	-	-	0	-	-	-

Intersection	
Int Delay, s/veh	1.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	7	5	3	35	0
Future Vol, veh/h	0	7	5	3	35	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	100	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	8	6	3	39	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	54	39	39	0	-	0
Stage 1	39	-	-	-	-	-
Stage 2	15	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	954	1033	1571	-	-	-
Stage 1	983	-	-	-	-	-
Stage 2	1008	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	950	1033	1571	-	-	-
Mov Cap-2 Maneuver	885	-	-	-	-	-
Stage 1	979	-	-	-	-	-
Stage 2	1008	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.5	4.6	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1571	-	1033	-	-
HCM Lane V/C Ratio	0.004	-	0.008	-	-
HCM Control Delay (s)	7.3	-	8.5	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	1150	2145	12	0	27
Future Vol, veh/h	0	1150	2145	12	0	27
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	1278	2383	13	0	30

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	1198
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	-	0	178
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	178
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	29.3
HCM LOS			D

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	178
HCM Lane V/C Ratio	-	-	-	0.169
HCM Control Delay (s)	-	-	-	29.3
HCM Lane LOS	-	-	-	D
HCM 95th %tile Q(veh)	-	-	-	0.6

Intersection	
Int Delay, s/veh	1151.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	153	973	24	7	1949	144	37	0	27	107	0	168
Future Vol, veh/h	153	973	24	7	1949	144	37	0	27	107	0	168
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	100	100	-	375	100	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	170	1081	27	8	2166	160	41	0	30	119	0	187

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	2326	0	0	1108	0	0	2520	3763	541	3063	3630	1083
Stage 1	-	-	-	-	-	-	1421	1421	-	2182	2182	-
Stage 2	-	-	-	-	-	-	1099	2342	-	881	1448	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	210	-	-	626	-	-	~ 14	4	485	~ 5	5	213
Stage 1	-	-	-	-	-	-	143	201	-	~ 47	83	-
Stage 2	-	-	-	-	-	-	227	69	-	308	195	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	210	-	-	626	-	-	~ 1	1	485	~ 2	1	213
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 1	1	-	~ 2	1	-
Stage 1	-	-	-	-	-	-	~ 27	38	-	~ 9	82	-
Stage 2	-	-	-	-	-	-	~ 28	68	-	~ 55	37	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.2	0	$ 14341.6	$ 11653.1
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1	485	210	-	-	626	-	-	2	213
HCM Lane V/C Ratio	41.111	0.062	0.81	-	-	0.012	-	-	59.444	0.876
HCM Control Delay (s)	$ 24797.6	12.9	69.2	-	-	10.8	-	-	$ 29823.5	80.3
HCM Lane LOS	F	B	F	-	-	B	-	-	F	F
HCM 95th %tile Q(veh)	7.2	0.2	5.9	-	-	0	-	-	17.2	6.9

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	20	11	0	0	33	17	17	0	11	0
Future Vol, veh/h	0	0	20	11	0	0	33	17	17	0	11	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	22	12	0	0	37	19	19	0	12	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	0	0	0	22	0	0	41	35	11	54	46	0
Stage 1	-	-	-	-	-	-	11	11	-	24	24	-
Stage 2	-	-	-	-	-	-	30	24	-	30	22	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	-	-	-	1593	-	-	963	857	1070	944	846	-
Stage 1	-	-	-	-	-	-	1010	886	-	994	875	-
Stage 2	-	-	-	-	-	-	987	875	-	987	877	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	1593	-	-	-	850	1070	906	839	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	850	-	906	839	-
Stage 1	-	-	-	-	-	-	1010	886	-	994	868	-
Stage 2	-	-	-	-	-	-	965	868	-	949	877	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	7.3		
HCM LOS			-	-

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	-	1593	-	-	-
HCM Lane V/C Ratio	-	-	-	-	0.008	-	-	-
HCM Control Delay (s)	-	0	-	-	7.3	0	-	-
HCM Lane LOS	-	A	-	-	A	A	-	-
HCM 95th %tile Q(veh)	-	-	-	-	0	-	-	-

Intersection	
Int Delay, s/veh	1.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	4	3	9	23	0
Future Vol, veh/h	0	4	3	9	23	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	100	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	4	3	10	26	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	42	26	26	0	-	0
Stage 1	26	-	-	-	-	-
Stage 2	16	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	969	1050	1588	-	-	-
Stage 1	997	-	-	-	-	-
Stage 2	1007	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	967	1050	1588	-	-	-
Mov Cap-2 Maneuver	898	-	-	-	-	-
Stage 1	995	-	-	-	-	-
Stage 2	1007	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.4	1.8	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1588	-	1050	-	-
HCM Lane V/C Ratio	0.002	-	0.004	-	-
HCM Control Delay (s)	7.3	-	8.4	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

2030 Background Year Traffic Analysis - Mitigations

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	2081	1100	8	0	42
Future Vol, veh/h	0	2081	1100	8	0	42
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	2312	1222	9	0	47

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	616
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	-	0	433
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	433
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	14.3
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	433
HCM Lane V/C Ratio	-	-	-	0.108
HCM Control Delay (s)	-	-	-	14.3
HCM Lane LOS	-	-	-	B
HCM 95th %tile Q(veh)	-	-	-	0.4

Intersection	
Int Delay, s/veh	1.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	96	1870	115	39	919	62	0	0	49	0	0	189
Future Vol, veh/h	96	1870	115	39	919	62	0	0	49	0	0	189
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	100	100	-	375	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	107	2078	128	43	1021	69	0	0	54	0	0	210

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1090	0	0	2206	0	0	-	-	1039	-	-	511
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	4.14	-	-	4.14	-	-	-	-	6.94	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	-	-	3.32	-	-	3.32
Pot Cap-1 Maneuver	636	-	-	235	-	-	0	0	227	0	0	508
Stage 1	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	636	-	-	235	-	-	-	-	227	-	-	508
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.5	0.9	25.8	17
HCM LOS			D	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	227	636	-	-	235	-	-	508
HCM Lane V/C Ratio	0.24	0.168	-	-	0.184	-	-	0.413
HCM Control Delay (s)	25.8	11.8	-	-	23.8	-	-	17
HCM Lane LOS	D	B	-	-	C	-	-	C
HCM 95th %tile Q(veh)	0.9	0.6	-	-	0.7	-	-	2

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	39	13	0	0	15	5	5	0	17	0
Future Vol, veh/h	0	0	39	13	0	0	15	5	5	0	17	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	43	14	0	0	17	6	6	0	19	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	0	0	0	43	0	0	60	50	22	56	71	0
Stage 1	-	-	-	-	-	-	22	22	-	28	28	-
Stage 2	-	-	-	-	-	-	38	28	-	28	43	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	-	-	-	1566	-	-	936	841	1055	941	819	-
Stage 1	-	-	-	-	-	-	996	877	-	989	872	-
Stage 2	-	-	-	-	-	-	977	872	-	989	859	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	1566	-	-	-	833	1055	925	812	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	833	-	925	812	-
Stage 1	-	-	-	-	-	-	996	877	-	989	864	-
Stage 2	-	-	-	-	-	-	947	864	-	978	859	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	7.3		
HCM LOS			-	-

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	-	1566	-	-	-
HCM Lane V/C Ratio	-	-	-	-	0.009	-	-	-
HCM Control Delay (s)	-	0	-	-	7.3	0	-	-
HCM Lane LOS	-	A	-	-	A	A	-	-
HCM 95th %tile Q(veh)	-	-	-	-	0	-	-	-

Intersection	
Int Delay, s/veh	1.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	7	5	3	35	0
Future Vol, veh/h	0	7	5	3	35	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	100	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	8	6	3	39	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	54	39	39	0	-	0
Stage 1	39	-	-	-	-	-
Stage 2	15	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	954	1033	1571	-	-	-
Stage 1	983	-	-	-	-	-
Stage 2	1008	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	950	1033	1571	-	-	-
Mov Cap-2 Maneuver	885	-	-	-	-	-
Stage 1	979	-	-	-	-	-
Stage 2	1008	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.5	4.6	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1571	-	1033	-	-
HCM Lane V/C Ratio	0.004	-	0.008	-	-
HCM Control Delay (s)	7.3	-	8.5	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	1150	2212	12	0	27
Future Vol, veh/h	0	1150	2212	12	0	27
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	1278	2458	13	0	30

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	1236
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	-	0	168
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	168
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	31
HCM LOS			D

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	168
HCM Lane V/C Ratio	-	-	-	0.179
HCM Control Delay (s)	-	-	-	31
HCM Lane LOS	-	-	-	D
HCM 95th %tile Q(veh)	-	-	-	0.6

Intersection	
Int Delay, s/veh	23.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	153	973	24	7	1949	144	0	0	64	0	0	275
Future Vol, veh/h	153	973	24	7	1949	144	0	0	64	0	0	275
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	100	100	-	375	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	170	1081	27	8	2166	160	0	0	71	0	0	306

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	2326	0	0	1108	0	0	-	-	541	-	-	1083
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	4.14	-	-	4.14	-	-	-	-	6.94	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	-	-	3.32	-	-	3.32
Pot Cap-1 Maneuver	210	-	-	626	-	-	0	0	485	0	0	~ 213
Stage 1	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	210	-	-	626	-	-	-	-	485	-	-	~ 213
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.2	0	13.7	262.7
HCM LOS			B	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	485	210	-	-	626	-	-	213
HCM Lane V/C Ratio	0.147	0.81	-	-	0.012	-	-	1.435
HCM Control Delay (s)	13.7	69.2	-	-	10.8	-	-	262.7
HCM Lane LOS	B	F	-	-	B	-	-	F
HCM 95th %tile Q(veh)	0.5	5.9	-	-	0	-	-	18

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	20	11	0	0	33	17	17	0	11	0
Future Vol, veh/h	0	0	20	11	0	0	33	17	17	0	11	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	22	12	0	0	37	19	19	0	12	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	0	0	0	22	0	0	41	35	11	54	46	0
Stage 1	-	-	-	-	-	-	11	11	-	24	24	-
Stage 2	-	-	-	-	-	-	30	24	-	30	22	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	-	-	-	1593	-	-	963	857	1070	944	846	-
Stage 1	-	-	-	-	-	-	1010	886	-	994	875	-
Stage 2	-	-	-	-	-	-	987	875	-	987	877	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	1593	-	-	-	850	1070	906	839	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	850	-	906	839	-
Stage 1	-	-	-	-	-	-	1010	886	-	994	868	-
Stage 2	-	-	-	-	-	-	965	868	-	949	877	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	7.3		
HCM LOS			-	-

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	-	1593	-	-	-
HCM Lane V/C Ratio	-	-	-	-	0.008	-	-	-
HCM Control Delay (s)	-	0	-	-	7.3	0	-	-
HCM Lane LOS	-	A	-	-	A	A	-	-
HCM 95th %tile Q(veh)	-	-	-	-	0	-	-	-

Intersection	
Int Delay, s/veh	1.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	4	3	9	23	0
Future Vol, veh/h	0	4	3	9	23	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	100	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	4	3	10	26	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	42	26	26	0	-	0
Stage 1	26	-	-	-	-	-
Stage 2	16	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	969	1050	1588	-	-	-
Stage 1	997	-	-	-	-	-
Stage 2	1007	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	967	1050	1588	-	-	-
Mov Cap-2 Maneuver	898	-	-	-	-	-
Stage 1	995	-	-	-	-	-
Stage 2	1007	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.4	1.8	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1588	-	1050	-	-
HCM Lane V/C Ratio	0.002	-	0.004	-	-
HCM Control Delay (s)	7.3	-	8.4	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

2023 Background Year with Project Traffic Analysis

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	1320	631	15	0	49
Future Vol, veh/h	0	1320	631	15	0	49
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	1467	701	17	0	54

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	359
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	-	0	638
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	638
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	11.2
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	638
HCM Lane V/C Ratio	-	-	-	0.085
HCM Control Delay (s)	-	-	-	11.2
HCM Lane LOS	-	-	-	B
HCM 95th %tile Q(veh)	-	-	-	0.3

Intersection	
Int Delay, s/veh	12.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	26	1219	75	25	611	12	13	0	19	87	0	22
Future Vol, veh/h	26	1219	75	25	611	12	13	0	19	87	0	22
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	100	100	-	375	100	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	29	1354	83	28	679	13	14	0	21	97	0	24

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	692	0	0	1437	0	0	1808	2160	677	1470	2230	340
Stage 1	-	-	-	-	-	-	1412	1412	-	735	735	-
Stage 2	-	-	-	-	-	-	396	748	-	735	1495	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	899	-	-	468	-	-	49	47	395	~ 89	42	656
Stage 1	-	-	-	-	-	-	145	203	-	377	424	-
Stage 2	-	-	-	-	-	-	601	418	-	377	185	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	899	-	-	468	-	-	44	43	395	~ 78	38	656
Mov Cap-2 Maneuver	-	-	-	-	-	-	44	43	-	~ 78	38	-
Stage 1	-	-	-	-	-	-	140	197	-	365	399	-
Stage 2	-	-	-	-	-	-	544	393	-	345	179	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	0.5	58.5	221
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	44	395	899	-	-	468	-	-	78	656
HCM Lane V/C Ratio	0.328	0.053	0.032	-	-	0.059	-	-	1.239	0.037
HCM Control Delay (s)	122.6	14.6	9.1	-	-	13.2	-	-	274.2	10.7
HCM Lane LOS	F	B	A	-	-	B	-	-	F	B
HCM 95th %tile Q(veh)	1.1	0.2	0.1	-	-	0.2	-	-	7.3	0.1

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	75	17	0	0	28	5	5	0	17	0
Future Vol, veh/h	0	0	75	17	0	0	28	5	5	0	17	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	83	19	0	0	31	6	6	0	19	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	0	0	0	83	0	0	90	80	42	86	121	0
Stage 1	-	-	-	-	-	-	42	42	-	38	38	-
Stage 2	-	-	-	-	-	-	48	38	-	48	83	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	-	-	-	1514	-	-	895	810	1029	900	769	-
Stage 1	-	-	-	-	-	-	972	860	-	977	863	-
Stage 2	-	-	-	-	-	-	965	863	-	965	826	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	1514	-	-	-	799	1029	882	759	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	799	-	882	759	-
Stage 1	-	-	-	-	-	-	972	860	-	977	852	-
Stage 2	-	-	-	-	-	-	931	852	-	954	826	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	7.4		
HCM LOS			-	-

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	-	1514	-	-	-
HCM Lane V/C Ratio	-	-	-	-	0.012	-	-	-
HCM Control Delay (s)	-	0	-	-	7.4	0	-	-
HCM Lane LOS	-	A	-	-	A	A	-	-
HCM 95th %tile Q(veh)	-	-	-	-	0	-	-	-

Intersection	
Int Delay, s/veh	2.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	0	7	0	0	3	0
Future Vol, veh/h	0	7	0	0	3	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	8	0	0	3	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	8	0	5	4
Stage 1	-	-	-	-	4	-
Stage 2	-	-	-	-	1	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1612	-	1017	1080
Stage 1	-	-	-	-	1019	-
Stage 2	-	-	-	-	1022	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1612	-	1017	1080
Mov Cap-2 Maneuver	-	-	-	-	1017	-
Stage 1	-	-	-	-	1019	-
Stage 2	-	-	-	-	1022	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	8.6
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1017	-	-	1612	-
HCM Lane V/C Ratio	0.003	-	-	-	-
HCM Control Delay (s)	8.6	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection	
Int Delay, s/veh	3.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	17	15	0	42	49
Future Vol, veh/h	0	17	15	0	42	49
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	19	17	0	47	54

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	165	17	0	0	17	0
Stage 1	17	-	-	-	-	-
Stage 2	148	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	826	1062	-	-	1600	-
Stage 1	1006	-	-	-	-	-
Stage 2	880	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	801	1062	-	-	1600	-
Mov Cap-2 Maneuver	801	-	-	-	-	-
Stage 1	1006	-	-	-	-	-
Stage 2	854	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.5	0	3.4
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	1062	1600	-
HCM Lane V/C Ratio	-	-	0.018	0.029	-
HCM Control Delay (s)	-	-	8.5	7.3	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0.1	-

Intersection	
Int Delay, s/veh	7.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	84	29	3	7	0
Future Vol, veh/h	0	84	29	3	7	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	93	32	3	8	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	75	8	8	0	-	0
Stage 1	8	-	-	-	-	-
Stage 2	67	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	928	1074	1612	-	-	-
Stage 1	1015	-	-	-	-	-
Stage 2	956	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	909	1074	1612	-	-	-
Mov Cap-2 Maneuver	909	-	-	-	-	-
Stage 1	995	-	-	-	-	-
Stage 2	956	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.7	6.6	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1612	-	1074	-	-
HCM Lane V/C Ratio	0.02	-	0.087	-	-
HCM Control Delay (s)	7.3	0	8.7	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.3	-	-

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	711	1304	36	0	31
Future Vol, veh/h	0	711	1304	36	0	31
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	790	1449	40	0	34

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	745
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	-	0	357
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	357
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	16.2
HCM LOS			C

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	357
HCM Lane V/C Ratio	-	-	-	0.096
HCM Control Delay (s)	-	-	-	16.2
HCM Lane LOS	-	-	-	C
HCM 95th %tile Q(veh)	-	-	-	0.3

Intersection	
Int Delay, s/veh	19.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	62	634	15	4	1303	55	24	0	18	56	0	13
Future Vol, veh/h	62	634	15	4	1303	55	24	0	18	56	0	13
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	100	100	-	375	100	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	69	704	17	4	1448	61	27	0	20	62	0	14

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1509	0	0	721	0	0	1574	2359	352	1946	2315	724
Stage 1	-	-	-	-	-	-	842	842	-	1456	1456	-
Stage 2	-	-	-	-	-	-	732	1517	-	490	859	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	439	-	-	877	-	-	74	35	644	~ 39	37	368
Stage 1	-	-	-	-	-	-	325	378	-	136	193	-
Stage 2	-	-	-	-	-	-	379	180	-	529	371	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	439	-	-	877	-	-	62	29	644	~ 33	31	368
Mov Cap-2 Maneuver	-	-	-	-	-	-	62	29	-	~ 33	31	-
Stage 1	-	-	-	-	-	-	274	319	-	115	192	-
Stage 2	-	-	-	-	-	-	362	179	-	432	313	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.3	0	62.5	$ 552.3
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	62	644	439	-	-	877	-	-	33	368
HCM Lane V/C Ratio	0.43	0.031	0.157	-	-	0.005	-	-	1.886	0.039
HCM Control Delay (s)	101.2	10.8	14.7	-	-	9.1	-	-	$ 677	15.2
HCM Lane LOS	F	B	B	-	-	A	-	-	F	C
HCM 95th %tile Q(veh)	1.6	0.1	0.6	-	-	0	-	-	7	0.1

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	47	11	0	0	83	17	17	0	11	0
Future Vol, veh/h	0	0	47	11	0	0	83	17	17	0	11	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	52	12	0	0	92	19	19	0	12	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	0	0	0	52	0	0	56	50	26	69	76	0
Stage 1	-	-	-	-	-	-	26	26	-	24	24	-
Stage 2	-	-	-	-	-	-	30	24	-	45	52	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	-	-	-	1554	-	-	941	841	1050	923	814	-
Stage 1	-	-	-	-	-	-	992	874	-	994	875	-
Stage 2	-	-	-	-	-	-	987	875	-	969	852	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	1554	-	-	-	834	1050	885	807	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	834	-	885	807	-
Stage 1	-	-	-	-	-	-	992	874	-	994	868	-
Stage 2	-	-	-	-	-	-	965	868	-	931	852	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	7.3		
HCM LOS			-	-

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	-	1554	-	-	-
HCM Lane V/C Ratio	-	-	-	-	0.008	-	-	-
HCM Control Delay (s)	-	0	-	-	7.3	0	-	-
HCM Lane LOS	-	A	-	-	A	A	-	-
HCM 95th %tile Q(veh)	-	-	-	-	0	-	-	-

Intersection	
Int Delay, s/veh	3.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	0	4	0	0	3	0
Future Vol, veh/h	0	4	0	0	3	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	4	0	0	3	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	4	0	3	2
Stage 1	-	-	-	-	2	-
Stage 2	-	-	-	-	1	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1618	-	1019	1082
Stage 1	-	-	-	-	1021	-
Stage 2	-	-	-	-	1022	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1618	-	1019	1082
Mov Cap-2 Maneuver	-	-	-	-	1019	-
Stage 1	-	-	-	-	1021	-
Stage 2	-	-	-	-	1022	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	8.5
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1019	-	-	1618	-
HCM Lane V/C Ratio	0.003	-	-	-	-
HCM Control Delay (s)	8.5	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection	
Int Delay, s/veh	4.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	50	36	0	27	31
Future Vol, veh/h	0	50	36	0	27	31
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	56	40	0	30	34

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	134	40	0	0	40	0
Stage 1	40	-	-	-	-	-
Stage 2	94	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	860	1031	-	-	1570	-
Stage 1	982	-	-	-	-	-
Stage 2	930	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	844	1031	-	-	1570	-
Mov Cap-2 Maneuver	844	-	-	-	-	-
Stage 1	982	-	-	-	-	-
Stage 2	912	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.7	0	3.4
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	1031	1570	-
HCM Lane V/C Ratio	-	-	0.054	0.019	-
HCM Control Delay (s)	-	-	8.7	7.3	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0.1	-

Intersection	
Int Delay, s/veh	7.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	54	83	3	4	0
Future Vol, veh/h	0	54	83	3	4	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	60	92	3	4	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	191	4	4	0	-	0
Stage 1	4	-	-	-	-	-
Stage 2	187	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	798	1080	1618	-	-	-
Stage 1	1019	-	-	-	-	-
Stage 2	845	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	753	1080	1618	-	-	-
Mov Cap-2 Maneuver	753	-	-	-	-	-
Stage 1	961	-	-	-	-	-
Stage 2	845	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.5	7.1	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1618	-	1080	-	-
HCM Lane V/C Ratio	0.057	-	0.056	-	-
HCM Control Delay (s)	7.4	0	8.5	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.2	-	0.2	-	-

2023 Background Year with Project Traffic Analysis - Mitigations

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	1320	663	15	0	91
Future Vol, veh/h	0	1320	663	15	0	91
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	1467	737	17	0	101

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	377
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	-	0	621
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	621
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	11.9
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	621
HCM Lane V/C Ratio	-	-	-	0.163
HCM Control Delay (s)	-	-	-	11.9
HCM Lane LOS	-	-	-	B
HCM 95th %tile Q(veh)	-	-	-	0.6

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	26	1219	75	25	611	12	0	0	32	0	0	67
Future Vol, veh/h	26	1219	75	25	611	12	0	0	32	0	0	67
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	100	100	-	375	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	29	1354	83	28	679	13	0	0	36	0	0	74

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	692	0	0	1437	0	0	-	-	677	-	-	340
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	4.14	-	-	4.14	-	-	-	-	6.94	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	-	-	3.32	-	-	3.32
Pot Cap-1 Maneuver	899	-	-	468	-	-	0	0	395	0	0	656
Stage 1	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	899	-	-	468	-	-	-	-	395	-	-	656
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	0.5	15	11.2
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	395	899	-	-	468	-	-	656
HCM Lane V/C Ratio	0.09	0.032	-	-	0.059	-	-	0.113
HCM Control Delay (s)	15	9.1	-	-	13.2	-	-	11.2
HCM Lane LOS	C	A	-	-	B	-	-	B
HCM 95th %tile Q(veh)	0.3	0.1	-	-	0.2	-	-	0.4

Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	33	17	0	0	28	5	5	0	17	0
Future Vol, veh/h	0	0	33	17	0	0	28	5	5	0	17	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	37	19	0	0	31	6	6	0	19	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	0	0	0	37	0	0	67	57	19	63	75	0
Stage 1	-	-	-	-	-	-	19	19	-	38	38	-
Stage 2	-	-	-	-	-	-	48	38	-	25	37	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	-	-	-	1574	-	-	926	834	1059	932	815	-
Stage 1	-	-	-	-	-	-	1000	880	-	977	863	-
Stage 2	-	-	-	-	-	-	965	863	-	993	864	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	1574	-	-	-	824	1059	914	805	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	824	-	914	805	-
Stage 1	-	-	-	-	-	-	1000	880	-	977	853	-
Stage 2	-	-	-	-	-	-	932	853	-	982	864	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	7.3		
HCM LOS			-	-

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	-	1574	-	-	-
HCM Lane V/C Ratio	-	-	-	-	0.012	-	-	-
HCM Control Delay (s)	-	0	-	-	7.3	0	-	-
HCM Lane LOS	-	A	-	-	A	A	-	-
HCM 95th %tile Q(veh)	-	-	-	-	0	-	-	-

Intersection	
Int Delay, s/veh	2.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	0	7	0	0	3	0
Future Vol, veh/h	0	7	0	0	3	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	8	0	0	3	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	8	0	5	4
Stage 1	-	-	-	-	4	-
Stage 2	-	-	-	-	1	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1612	-	1017	1080
Stage 1	-	-	-	-	1019	-
Stage 2	-	-	-	-	1022	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1612	-	1017	1080
Mov Cap-2 Maneuver	-	-	-	-	1017	-
Stage 1	-	-	-	-	1019	-
Stage 2	-	-	-	-	1022	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	8.6
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1017	-	-	1612	-
HCM Lane V/C Ratio	0.003	-	-	-	-
HCM Control Delay (s)	8.6	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection	
Int Delay, s/veh	1.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	17	15	0	0	91
Future Vol, veh/h	0	17	15	0	0	91
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	19	17	0	0	101

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	118	17	0	0	17	0
Stage 1	17	-	-	-	-	-
Stage 2	101	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	878	1062	-	-	1600	-
Stage 1	1006	-	-	-	-	-
Stage 2	923	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	878	1062	-	-	1600	-
Mov Cap-2 Maneuver	878	-	-	-	-	-
Stage 1	1006	-	-	-	-	-
Stage 2	923	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.5	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	1062	1600	-
HCM Lane V/C Ratio	-	-	0.018	-	-
HCM Control Delay (s)	-	-	8.5	0	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Intersection	
Int Delay, s/veh	7.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	84	29	3	7	0
Future Vol, veh/h	0	84	29	3	7	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	93	32	3	8	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	75	8	8	0	-	0
Stage 1	8	-	-	-	-	-
Stage 2	67	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	928	1074	1612	-	-	-
Stage 1	1015	-	-	-	-	-
Stage 2	956	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	909	1074	1612	-	-	-
Mov Cap-2 Maneuver	909	-	-	-	-	-
Stage 1	995	-	-	-	-	-
Stage 2	956	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.7	6.6	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1612	-	1074	-	-
HCM Lane V/C Ratio	0.02	-	0.087	-	-
HCM Control Delay (s)	7.3	0	8.7	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.3	-	-

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	711	1309	36	0	58
Future Vol, veh/h	0	711	1309	36	0	58
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	790	1454	40	0	64

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	747
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	-	0	355
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	355
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	17.4
HCM LOS			C

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	355
HCM Lane V/C Ratio	-	-	-	0.182
HCM Control Delay (s)	-	-	-	17.4
HCM Lane LOS	-	-	-	C
HCM 95th %tile Q(veh)	-	-	-	0.7

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	62	634	15	4	1303	55	0	0	42	0	0	42
Future Vol, veh/h	62	634	15	4	1303	55	0	0	42	0	0	42
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	100	100	-	375	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	69	704	17	4	1448	61	0	0	47	0	0	47

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1509	0	0	721	0	0	-	-	352	-	-	724
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	4.14	-	-	4.14	-	-	-	-	6.94	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	-	-	3.32	-	-	3.32
Pot Cap-1 Maneuver	439	-	-	877	-	-	0	0	644	0	0	368
Stage 1	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	439	-	-	877	-	-	-	-	644	-	-	368
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.3	0	11	16.2
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	644	439	-	-	877	-	-	368
HCM Lane V/C Ratio	0.072	0.157	-	-	0.005	-	-	0.127
HCM Control Delay (s)	11	14.7	-	-	9.1	-	-	16.2
HCM Lane LOS	B	B	-	-	A	-	-	C
HCM 95th %tile Q(veh)	0.2	0.6	-	-	0	-	-	0.4

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	0	0	20	11	0	0	83	17	17	0	11	0
Future Vol, veh/h	0	0	20	11	0	0	83	17	17	0	11	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	22	12	0	0	92	19	19	0	12	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	0	0	0	22	0	0	41	35	11	54	46	0
Stage 1	-	-	-	-	-	-	11	11	-	24	24	-
Stage 2	-	-	-	-	-	-	30	24	-	30	22	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	-	-	-	1593	-	-	963	857	1070	944	846	-
Stage 1	-	-	-	-	-	-	1010	886	-	994	875	-
Stage 2	-	-	-	-	-	-	987	875	-	987	877	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	1593	-	-	-	850	1070	906	839	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	850	-	906	839	-
Stage 1	-	-	-	-	-	-	1010	886	-	994	868	-
Stage 2	-	-	-	-	-	-	965	868	-	949	877	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	7.3		
HCM LOS			-	-

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	-	1593	-	-	-
HCM Lane V/C Ratio	-	-	-	-	0.008	-	-	-
HCM Control Delay (s)	-	0	-	-	7.3	0	-	-
HCM Lane LOS	-	A	-	-	A	A	-	-
HCM 95th %tile Q(veh)	-	-	-	-	0	-	-	-

Intersection	
Int Delay, s/veh	3.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	0	4	0	0	3	0
Future Vol, veh/h	0	4	0	0	3	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	4	0	0	3	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	4	0	3	2
Stage 1	-	-	-	-	2	-
Stage 2	-	-	-	-	1	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1618	-	1019	1082
Stage 1	-	-	-	-	1021	-
Stage 2	-	-	-	-	1022	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1618	-	1019	1082
Mov Cap-2 Maneuver	-	-	-	-	1019	-
Stage 1	-	-	-	-	1021	-
Stage 2	-	-	-	-	1022	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	8.5
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1019	-	-	1618	-
HCM Lane V/C Ratio	0.003	-	-	-	-
HCM Control Delay (s)	8.5	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection	
Int Delay, s/veh	3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	50	36	0	0	58
Future Vol, veh/h	0	50	36	0	0	58
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	56	40	0	0	64

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	104	40	0	0	40	0
Stage 1	40	-	-	-	-	-
Stage 2	64	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	894	1031	-	-	1570	-
Stage 1	982	-	-	-	-	-
Stage 2	959	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	894	1031	-	-	1570	-
Mov Cap-2 Maneuver	894	-	-	-	-	-
Stage 1	982	-	-	-	-	-
Stage 2	959	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.7	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	1031	1570	-
HCM Lane V/C Ratio	-	-	0.054	-	-
HCM Control Delay (s)	-	-	8.7	0	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	0.2	0	-

Intersection	
Int Delay, s/veh	7.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	54	83	3	4	0
Future Vol, veh/h	0	54	83	3	4	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	60	92	3	4	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	191	4	4	0	-	0
Stage 1	4	-	-	-	-	-
Stage 2	187	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	798	1080	1618	-	-	-
Stage 1	1019	-	-	-	-	-
Stage 2	845	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	753	1080	1618	-	-	-
Mov Cap-2 Maneuver	753	-	-	-	-	-
Stage 1	961	-	-	-	-	-
Stage 2	845	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.5	7.1	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1618	-	1080	-	-
HCM Lane V/C Ratio	0.057	-	0.056	-	-
HCM Control Delay (s)	7.4	0	8.5	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.2	-	0.2	-	-

2024 Background Year with Project Traffic Analysis

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	1460	690	20	0	77
Future Vol, veh/h	0	1460	690	20	0	77
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	1622	767	22	0	86

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	395
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	-	0	604
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	604
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	11.9
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	604
HCM Lane V/C Ratio	-	-	-	0.142
HCM Control Delay (s)	-	-	-	11.9
HCM Lane LOS	-	-	-	B
HCM 95th %tile Q(veh)	-	-	-	0.5

Intersection	
Int Delay, s/veh	43.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	38	1339	82	28	674	14	14	0	21	122	0	22
Future Vol, veh/h	38	1339	82	28	674	14	14	0	21	122	0	22
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	100	100	-	375	100	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	42	1488	91	31	749	16	16	0	23	136	0	24

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	765	0	0	1579	0	0	2009	2399	744	1639	2474	375
Stage 1	-	-	-	-	-	-	1572	1572	-	811	811	-
Stage 2	-	-	-	-	-	-	437	827	-	828	1663	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	844	-	-	413	-	-	35	33	357	~ 66	29	623
Stage 1	-	-	-	-	-	-	115	169	-	339	391	-
Stage 2	-	-	-	-	-	-	568	384	-	332	152	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	844	-	-	413	-	-	31	29	357	~ 56	25	623
Mov Cap-2 Maneuver	-	-	-	-	-	-	31	29	-	~ 56	25	-
Stage 1	-	-	-	-	-	-	109	161	-	322	362	-
Stage 2	-	-	-	-	-	-	505	355	-	295	144	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	0.6	91.9	$ 682.8
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	31	357	844	-	-	413	-	-	56	623
HCM Lane V/C Ratio	0.502	0.065	0.05	-	-	0.075	-	-	2.421	0.039
HCM Control Delay (s)	206	15.8	9.5	-	-	14.4	-	-	$ 803.9	11
HCM Lane LOS	F	C	A	-	-	B	-	-	F	B
HCM 95th %tile Q(veh)	1.6	0.2	0.2	-	-	0.2	-	-	13.7	0.1

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	110	17	0	0	42	5	5	0	17	0
Future Vol, veh/h	0	0	110	17	0	0	42	5	5	0	17	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	122	19	0	0	47	6	6	0	19	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	0	0	0	122	0	0	109	99	61	105	160	0
Stage 1	-	-	-	-	-	-	61	61	-	38	38	-
Stage 2	-	-	-	-	-	-	48	38	-	67	122	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	-	-	-	1465	-	-	870	791	1004	875	732	-
Stage 1	-	-	-	-	-	-	950	844	-	977	863	-
Stage 2	-	-	-	-	-	-	965	863	-	943	795	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	1465	-	-	-	781	1004	857	722	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	781	-	857	722	-
Stage 1	-	-	-	-	-	-	950	844	-	977	852	-
Stage 2	-	-	-	-	-	-	931	852	-	932	795	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	7.5		
HCM LOS			-	-

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	-	1465	-	-	-
HCM Lane V/C Ratio	-	-	-	-	0.013	-	-	-
HCM Control Delay (s)	-	0	-	-	7.5	0	-	-
HCM Lane LOS	-	A	-	-	A	A	-	-
HCM 95th %tile Q(veh)	-	-	-	-	0	-	-	-

Intersection	
Int Delay, s/veh	4.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	39	12	10	31	0
Future Vol, veh/h	0	39	12	10	31	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	43	13	11	34	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	71	34	34	0	-	0
Stage 1	34	-	-	-	-	-
Stage 2	37	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	933	1039	1578	-	-	-
Stage 1	988	-	-	-	-	-
Stage 2	985	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	926	1039	1578	-	-	-
Mov Cap-2 Maneuver	926	-	-	-	-	-
Stage 1	980	-	-	-	-	-
Stage 2	985	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.6	4	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1578	-	1039	-	-
HCM Lane V/C Ratio	0.008	-	0.042	-	-
HCM Control Delay (s)	7.3	0	8.6	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection	
Int Delay, s/veh	4.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	31	20	0	77	77
Future Vol, veh/h	0	31	20	0	77	77
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	34	22	0	86	86

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	280	22	0	0	22	0
Stage 1	22	-	-	-	-	-
Stage 2	258	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	710	1055	-	-	1593	-
Stage 1	1001	-	-	-	-	-
Stage 2	785	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	670	1055	-	-	1593	-
Mov Cap-2 Maneuver	670	-	-	-	-	-
Stage 1	1001	-	-	-	-	-
Stage 2	740	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.5	0	3.7
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	1055	1593	-
HCM Lane V/C Ratio	-	-	0.033	0.054	-
HCM Control Delay (s)	-	-	8.5	7.4	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0.2	-

Intersection	
Int Delay, s/veh	4.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	84	29	22	70	0
Future Vol, veh/h	0	84	29	22	70	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	93	32	24	78	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	166	78	78	0	-	0
Stage 1	78	-	-	-	-	-
Stage 2	88	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	824	983	1520	-	-	-
Stage 1	945	-	-	-	-	-
Stage 2	935	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	807	983	1520	-	-	-
Mov Cap-2 Maneuver	807	-	-	-	-	-
Stage 1	925	-	-	-	-	-
Stage 2	935	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9	4.2	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1520	-	983	-	-
HCM Lane V/C Ratio	0.021	-	0.095	-	-
HCM Control Delay (s)	7.4	0	9	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.3	-	-

Intersection	
Int Delay, s/veh	7.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	31	10	0	0	0
Future Vol, veh/h	0	31	10	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	34	11	0	0	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	23	1	1	0	-	0
Stage 1	1	-	-	-	-	-
Stage 2	22	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	993	1084	1622	-	-	-
Stage 1	1022	-	-	-	-	-
Stage 2	1001	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	986	1084	1622	-	-	-
Mov Cap-2 Maneuver	986	-	-	-	-	-
Stage 1	1015	-	-	-	-	-
Stage 2	1001	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.4	7.2	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1622	-	1084	-	-
HCM Lane V/C Ratio	0.007	-	0.032	-	-
HCM Control Delay (s)	7.2	0	8.4	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	812	1432	63	0	48
Future Vol, veh/h	0	812	1432	63	0	48
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	902	1591	70	0	53

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	831
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	-	0	313
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	313
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	18.8
HCM LOS			C

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	313
HCM Lane V/C Ratio	-	-	-	0.17
HCM Control Delay (s)	-	-	-	18.8
HCM Lane LOS	-	-	-	C
HCM 95th %tile Q(veh)	-	-	-	0.6

Intersection	
Int Delay, s/veh	74.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	98	697	17	5	1455	62	27	0	19	77	0	13
Future Vol, veh/h	98	697	17	5	1455	62	27	0	19	77	0	13
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	100	100	-	375	100	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	109	774	19	6	1617	69	30	0	21	86	0	14

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1686	0	0	793	0	0	1813	2690	387	2234	2640	809
Stage 1	-	-	-	-	-	-	992	992	-	1629	1629	-
Stage 2	-	-	-	-	-	-	821	1698	-	605	1011	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	375	-	-	824	-	-	49	21	611	~ 23	23	323
Stage 1	-	-	-	-	-	-	264	322	-	106	159	-
Stage 2	-	-	-	-	-	-	335	146	-	451	315	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	375	-	-	824	-	-	36	15	611	~ 17	16	323
Mov Cap-2 Maneuver	-	-	-	-	-	-	36	15	-	~ 17	16	-
Stage 1	-	-	-	-	-	-	187	228	-	~ 75	158	-
Stage 2	-	-	-	-	-	-	318	145	-	309	223	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	2.2	0	160	$ 1940.8
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	36	611	375	-	-	824	-	-	17	323
HCM Lane V/C Ratio	0.833	0.035	0.29	-	-	0.007	-	-	5.033	0.045
HCM Control Delay (s)	264.7	11.1	18.5	-	-	9.4	-	-	$ 2265.6	16.7
HCM Lane LOS	F	B	C	-	-	A	-	-	F	C
HCM 95th %tile Q(veh)	3	0.1	1.2	-	-	0	-	-	11.4	0.1

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	68	11	0	0	126	17	17	0	11	0
Future Vol, veh/h	0	0	68	11	0	0	126	17	17	0	11	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	76	12	0	0	140	19	19	0	12	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	0	0	0	76	0	0	68	62	38	81	100	0
Stage 1	-	-	-	-	-	-	38	38	-	24	24	-
Stage 2	-	-	-	-	-	-	30	24	-	57	76	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	-	-	-	1523	-	-	925	829	1034	907	790	-
Stage 1	-	-	-	-	-	-	977	863	-	994	875	-
Stage 2	-	-	-	-	-	-	987	875	-	955	832	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	1523	-	-	-	822	1034	870	784	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	822	-	870	784	-
Stage 1	-	-	-	-	-	-	977	863	-	994	868	-
Stage 2	-	-	-	-	-	-	965	868	-	917	832	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	7.4		
HCM LOS			-	-

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	-	1523	-	-	-
HCM Lane V/C Ratio	-	-	-	-	0.008	-	-	-
HCM Control Delay (s)	-	0	-	-	7.4	0	-	-
HCM Lane LOS	-	A	-	-	A	A	-	-
HCM 95th %tile Q(veh)	-	-	-	-	0	-	-	-

Intersection	
Int Delay, s/veh	4.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	23	39	34	20	0
Future Vol, veh/h	0	23	39	34	20	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	26	43	38	22	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	146	22	22	0	-	0
Stage 1	22	-	-	-	-	-
Stage 2	124	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	846	1055	1593	-	-	-
Stage 1	1001	-	-	-	-	-
Stage 2	902	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	822	1055	1593	-	-	-
Mov Cap-2 Maneuver	822	-	-	-	-	-
Stage 1	973	-	-	-	-	-
Stage 2	902	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.5	3.9	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1593	-	1055	-	-
HCM Lane V/C Ratio	0.027	-	0.024	-	-
HCM Control Delay (s)	7.3	0	8.5	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.1	-	-

Intersection	
Int Delay, s/veh	4.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	93	63	0	48	48
Future Vol, veh/h	0	93	63	0	48	48
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	103	70	0	53	53

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	229	70	0	0	70	0
Stage 1	70	-	-	-	-	-
Stage 2	159	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	759	993	-	-	1531	-
Stage 1	953	-	-	-	-	-
Stage 2	870	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	732	993	-	-	1531	-
Mov Cap-2 Maneuver	732	-	-	-	-	-
Stage 1	953	-	-	-	-	-
Stage 2	839	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9	0	3.7
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	993	1531	-
HCM Lane V/C Ratio	-	-	0.104	0.035	-
HCM Control Delay (s)	-	-	9	7.4	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.3	0.1	-

Intersection	
Int Delay, s/veh	4.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	53	83	73	43	0
Future Vol, veh/h	0	53	83	73	43	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	59	92	81	48	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	313	48	48	0	-	0
Stage 1	48	-	-	-	-	-
Stage 2	265	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	680	1021	1559	-	-	-
Stage 1	974	-	-	-	-	-
Stage 2	779	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	638	1021	1559	-	-	-
Mov Cap-2 Maneuver	638	-	-	-	-	-
Stage 1	914	-	-	-	-	-
Stage 2	779	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.7	4	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1559	-	1021	-	-
HCM Lane V/C Ratio	0.059	-	0.058	-	-
HCM Control Delay (s)	7.5	0	8.7	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.2	-	0.2	-	-

Intersection	
Int Delay, s/veh	7.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	20	34	0	0	0
Future Vol, veh/h	0	20	34	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	22	38	0	0	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	77	1	1	0	-	0
Stage 1	1	-	-	-	-	-
Stage 2	76	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	926	1084	1622	-	-	-
Stage 1	1022	-	-	-	-	-
Stage 2	947	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	905	1084	1622	-	-	-
Mov Cap-2 Maneuver	905	-	-	-	-	-
Stage 1	998	-	-	-	-	-
Stage 2	947	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.4	7.3	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1622	-	1084	-	-
HCM Lane V/C Ratio	0.023	-	0.021	-	-
HCM Control Delay (s)	7.3	0	8.4	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.1	-	-

2024 Background Year with Project Traffic Analysis - Mitigations

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	1460	721	20	0	154
Future Vol, veh/h	0	1460	721	20	0	154
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	1622	801	22	0	171

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	412
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	-	0	589
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	589
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	13.6
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	589
HCM Lane V/C Ratio	-	-	-	0.291
HCM Control Delay (s)	-	-	-	13.6
HCM Lane LOS	-	-	-	B
HCM 95th %tile Q(veh)	-	-	-	1.2

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	38	1339	82	28	674	14	0	0	35	0	0	67
Future Vol, veh/h	38	1339	82	28	674	14	0	0	35	0	0	67
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	100	100	-	375	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	42	1488	91	31	749	16	0	0	39	0	0	74

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	765	0	0	1579	0	0	-	-	744	-	-	375
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	4.14	-	-	4.14	-	-	-	-	6.94	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	-	-	3.32	-	-	3.32
Pot Cap-1 Maneuver	844	-	-	413	-	-	0	0	357	0	0	623
Stage 1	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	844	-	-	413	-	-	-	-	357	-	-	623
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	0.6	16.3	11.6
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	357	844	-	-	413	-	-	623
HCM Lane V/C Ratio	0.109	0.05	-	-	0.075	-	-	0.119
HCM Control Delay (s)	16.3	9.5	-	-	14.4	-	-	11.6
HCM Lane LOS	C	A	-	-	B	-	-	B
HCM 95th %tile Q(veh)	0.4	0.2	-	-	0.2	-	-	0.4

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	33	17	0	0	42	5	5	0	17	0
Future Vol, veh/h	0	0	33	17	0	0	42	5	5	0	17	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	37	19	0	0	47	6	6	0	19	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	0	0	0	37	0	0	67	57	19	63	75	0
Stage 1	-	-	-	-	-	-	19	19	-	38	38	-
Stage 2	-	-	-	-	-	-	48	38	-	25	37	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	-	-	-	1574	-	-	926	834	1059	932	815	-
Stage 1	-	-	-	-	-	-	1000	880	-	977	863	-
Stage 2	-	-	-	-	-	-	965	863	-	993	864	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	1574	-	-	-	824	1059	914	805	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	824	-	914	805	-
Stage 1	-	-	-	-	-	-	1000	880	-	977	853	-
Stage 2	-	-	-	-	-	-	932	853	-	982	864	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	7.3		
HCM LOS			-	-

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	-	1574	-	-	-
HCM Lane V/C Ratio	-	-	-	-	0.012	-	-	-
HCM Control Delay (s)	-	0	-	-	7.3	0	-	-
HCM Lane LOS	-	A	-	-	A	A	-	-
HCM 95th %tile Q(veh)	-	-	-	-	0	-	-	-

Intersection	
Int Delay, s/veh	4.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	39	12	10	31	0
Future Vol, veh/h	0	39	12	10	31	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	43	13	11	34	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	71	34	34	0	-	0
Stage 1	34	-	-	-	-	-
Stage 2	37	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	933	1039	1578	-	-	-
Stage 1	988	-	-	-	-	-
Stage 2	985	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	926	1039	1578	-	-	-
Mov Cap-2 Maneuver	926	-	-	-	-	-
Stage 1	980	-	-	-	-	-
Stage 2	985	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.6	4	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1578	-	1039	-	-
HCM Lane V/C Ratio	0.008	-	0.042	-	-
HCM Control Delay (s)	7.3	0	8.6	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection	
Int Delay, s/veh	1.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	31	20	0	0	154
Future Vol, veh/h	0	31	20	0	0	154
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	34	22	0	0	171

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	193	22	0	0	22	0
Stage 1	22	-	-	-	-	-
Stage 2	171	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	796	1055	-	-	1593	-
Stage 1	1001	-	-	-	-	-
Stage 2	859	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	796	1055	-	-	1593	-
Mov Cap-2 Maneuver	796	-	-	-	-	-
Stage 1	1001	-	-	-	-	-
Stage 2	859	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.5	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	1055	1593	-
HCM Lane V/C Ratio	-	-	0.033	-	-
HCM Control Delay (s)	-	-	8.5	0	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Intersection	
Int Delay, s/veh	4.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	84	29	22	70	0
Future Vol, veh/h	0	84	29	22	70	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	93	32	24	78	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	166	78	78	0	-	0
Stage 1	78	-	-	-	-	-
Stage 2	88	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	824	983	1520	-	-	-
Stage 1	945	-	-	-	-	-
Stage 2	935	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	807	983	1520	-	-	-
Mov Cap-2 Maneuver	807	-	-	-	-	-
Stage 1	925	-	-	-	-	-
Stage 2	935	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9	4.2	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1520	-	983	-	-
HCM Lane V/C Ratio	0.021	-	0.095	-	-
HCM Control Delay (s)	7.4	0	9	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.3	-	-

Intersection	
Int Delay, s/veh	7.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	31	10	0	0	0
Future Vol, veh/h	0	31	10	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	34	11	0	0	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	23	1	1	0	-	0
Stage 1	1	-	-	-	-	-
Stage 2	22	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	993	1084	1622	-	-	-
Stage 1	1022	-	-	-	-	-
Stage 2	1001	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	986	1084	1622	-	-	-
Mov Cap-2 Maneuver	986	-	-	-	-	-
Stage 1	1015	-	-	-	-	-
Stage 2	1001	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.4	7.2	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1622	-	1084	-	-
HCM Lane V/C Ratio	0.007	-	0.032	-	-
HCM Control Delay (s)	7.2	0	8.4	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	812	1434	63	0	96
Future Vol, veh/h	0	812	1434	63	0	96
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	902	1593	70	0	107

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	832
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	-	0	312
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	312
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	22.4
HCM LOS			C

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	312
HCM Lane V/C Ratio	-	-	-	0.342
HCM Control Delay (s)	-	-	-	22.4
HCM Lane LOS	-	-	-	C
HCM 95th %tile Q(veh)	-	-	-	1.5

Intersection	
Int Delay, s/veh	1.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	98	697	17	5	1455	62	0	0	46	0	0	42
Future Vol, veh/h	98	697	17	5	1455	62	0	0	46	0	0	42
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	100	100	-	375	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	109	774	19	6	1617	69	0	0	51	0	0	47

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1686	0	0	793	0	0	-	-	387	-	-	809
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	4.14	-	-	4.14	-	-	-	-	6.94	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	-	-	3.32	-	-	3.32
Pot Cap-1 Maneuver	375	-	-	824	-	-	0	0	611	0	0	323
Stage 1	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	375	-	-	824	-	-	-	-	611	-	-	323
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	2.2	0	11.4	18
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	611	375	-	-	824	-	-	323
HCM Lane V/C Ratio	0.084	0.29	-	-	0.007	-	-	0.144
HCM Control Delay (s)	11.4	18.5	-	-	9.4	-	-	18
HCM Lane LOS	B	C	-	-	A	-	-	C
HCM 95th %tile Q(veh)	0.3	1.2	-	-	0	-	-	0.5

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	20	11	0	0	126	17	17	0	11	0
Future Vol, veh/h	0	0	20	11	0	0	126	17	17	0	11	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	22	12	0	0	140	19	19	0	12	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	0	0	0	22	0	0	41	35	11	54	46	0
Stage 1	-	-	-	-	-	-	11	11	-	24	24	-
Stage 2	-	-	-	-	-	-	30	24	-	30	22	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	-	-	-	1593	-	-	963	857	1070	944	846	-
Stage 1	-	-	-	-	-	-	1010	886	-	994	875	-
Stage 2	-	-	-	-	-	-	987	875	-	987	877	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	1593	-	-	-	850	1070	906	839	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	850	-	906	839	-
Stage 1	-	-	-	-	-	-	1010	886	-	994	868	-
Stage 2	-	-	-	-	-	-	965	868	-	949	877	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	7.3		
HCM LOS			-	-

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	-	1593	-	-	-
HCM Lane V/C Ratio	-	-	-	-	0.008	-	-	-
HCM Control Delay (s)	-	0	-	-	7.3	0	-	-
HCM Lane LOS	-	A	-	-	A	A	-	-
HCM 95th %tile Q(veh)	-	-	-	-	0	-	-	-

Intersection	
Int Delay, s/veh	4.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	23	39	34	20	0
Future Vol, veh/h	0	23	39	34	20	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	26	43	38	22	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	146	22	22	0	-	0
Stage 1	22	-	-	-	-	-
Stage 2	124	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	846	1055	1593	-	-	-
Stage 1	1001	-	-	-	-	-
Stage 2	902	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	822	1055	1593	-	-	-
Mov Cap-2 Maneuver	798	-	-	-	-	-
Stage 1	973	-	-	-	-	-
Stage 2	902	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.5	3.9	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1593	-	1055	-	-
HCM Lane V/C Ratio	0.027	-	0.024	-	-
HCM Control Delay (s)	7.3	0	8.5	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.1	-	-

Intersection	
Int Delay, s/veh	3.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	93	63	0	0	96
Future Vol, veh/h	0	93	63	0	0	96
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	103	70	0	0	107

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	177	70	0	0	70	0
Stage 1	70	-	-	-	-	-
Stage 2	107	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	813	993	-	-	1531	-
Stage 1	953	-	-	-	-	-
Stage 2	917	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	813	993	-	-	1531	-
Mov Cap-2 Maneuver	813	-	-	-	-	-
Stage 1	953	-	-	-	-	-
Stage 2	917	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	993	1531	-
HCM Lane V/C Ratio	-	-	0.104	-	-
HCM Control Delay (s)	-	-	9	0	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	0.3	0	-

Intersection	
Int Delay, s/veh	4.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	53	83	73	43	0
Future Vol, veh/h	0	53	83	73	43	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	59	92	81	48	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	313	48	48	0	-	0
Stage 1	48	-	-	-	-	-
Stage 2	265	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	680	1021	1559	-	-	-
Stage 1	974	-	-	-	-	-
Stage 2	779	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	638	1021	1559	-	-	-
Mov Cap-2 Maneuver	638	-	-	-	-	-
Stage 1	914	-	-	-	-	-
Stage 2	779	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.7	4	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1559	-	1021	-	-
HCM Lane V/C Ratio	0.059	-	0.058	-	-
HCM Control Delay (s)	7.5	0	8.7	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.2	-	0.2	-	-

Intersection	
Int Delay, s/veh	7.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	20	34	0	0	0
Future Vol, veh/h	0	20	34	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	22	38	0	0	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	77	1	1	0	-	0
Stage 1	1	-	-	-	-	-
Stage 2	76	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	926	1084	1622	-	-	-
Stage 1	1022	-	-	-	-	-
Stage 2	947	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	905	1084	1622	-	-	-
Mov Cap-2 Maneuver	852	-	-	-	-	-
Stage 1	998	-	-	-	-	-
Stage 2	947	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.4	7.3	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1622	-	1084	-	-
HCM Lane V/C Ratio	0.023	-	0.021	-	-
HCM Control Delay (s)	7.3	0	8.4	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.1	-	-

2030 Background Year with Project Traffic Analysis

Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	2185	1034	87	0	125
Future Vol, veh/h	0	2185	1034	87	0	125
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	2428	1149	97	0	139

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	623
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	-	0	429
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	429
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	17.4
HCM LOS			C

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	429
HCM Lane V/C Ratio	-	-	-	0.324
HCM Control Delay (s)	-	-	-	17.4
HCM Lane LOS	-	-	-	C
HCM 95th %tile Q(veh)	-	-	-	1.4

Intersection	
Int Delay, s/veh	816.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	200	1870	115	39	1001	83	20	0	29	179	0	100
Future Vol, veh/h	200	1870	115	39	1001	83	20	0	29	179	0	100
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	100	100	-	375	100	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	222	2078	128	43	1112	92	22	0	32	199	0	111

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1204	0	0	2206	0	0	3164	3812	1039	2681	3848	556
Stage 1	-	-	-	-	-	-	2522	2522	-	1198	1198	-
Stage 2	-	-	-	-	-	-	642	1290	-	1483	2650	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	575	-	-	235	-	-	~ 4	4	227	~ 11	4	475
Stage 1	-	-	-	-	-	-	28	55	-	~ 197	257	-
Stage 2	-	-	-	-	-	-	429	232	-	~ 131	47	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	575	-	-	235	-	-	~ 2	2	227	~ 6	2	475
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 2	2	-	~ 6	2	-
Stage 1	-	-	-	-	-	-	~ 17	34	-	~ 121	210	-
Stage 2	-	-	-	-	-	-	269	190	-	~ 69	29	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.4	0.8	$ 3216	$ 10056.2
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	2	227	575	-	-	235	-	-	6	475
HCM Lane V/C Ratio	11.111	0.142	0.386	-	-	0.184	-	-	33.148	0.234
HCM Control Delay (s)	$ 7845.1	23.5	15.2	-	-	23.8	-	-	$ 15665.9	14.9
HCM Lane LOS	F	C	C	-	-	C	-	-	F	B
HCM 95th %tile Q(veh)	4.4	0.5	1.8	-	-	0.7	-	-	26.9	0.9

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	129	13	0	0	140	5	5	0	17	0
Future Vol, veh/h	0	0	129	13	0	0	140	5	5	0	17	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	143	14	0	0	156	6	6	0	19	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	0	0	0	143	0	0	110	100	72	106	171	0
Stage 1	-	-	-	-	-	-	72	72	-	28	28	-
Stage 2	-	-	-	-	-	-	38	28	-	78	143	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	-	-	-	1440	-	-	868	790	990	873	722	-
Stage 1	-	-	-	-	-	-	938	835	-	989	872	-
Stage 2	-	-	-	-	-	-	977	872	-	931	779	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	1440	-	-	-	782	990	856	715	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	782	-	856	715	-
Stage 1	-	-	-	-	-	-	938	835	-	989	863	-
Stage 2	-	-	-	-	-	-	946	863	-	920	779	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	7.5		
HCM LOS			-	-

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	-	1440	-	-	-
HCM Lane V/C Ratio	-	-	-	-	0.01	-	-	-
HCM Control Delay (s)	-	0	-	-	7.5	0	-	-
HCM Lane LOS	-	A	-	-	A	A	-	-
HCM 95th %tile Q(veh)	-	-	-	-	0	-	-	-

Intersection	
Int Delay, s/veh	3.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	39	12	15	66	0
Future Vol, veh/h	0	39	12	15	66	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	43	13	17	73	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	116	73	73	0	-	0
Stage 1	73	-	-	-	-	-
Stage 2	43	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	880	989	1527	-	-	-
Stage 1	950	-	-	-	-	-
Stage 2	979	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	872	989	1527	-	-	-
Mov Cap-2 Maneuver	872	-	-	-	-	-
Stage 1	941	-	-	-	-	-
Stage 2	979	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.8	3.3	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1527	-	989	-	-
HCM Lane V/C Ratio	0.009	-	0.044	-	-
HCM Control Delay (s)	7.4	0	8.8	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection	
Int Delay, s/veh	7.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	0	13	13	0	94	31	62	25	0	77	112	0
Future Vol, veh/h	0	13	13	0	94	31	62	25	0	77	112	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	14	14	0	104	34	69	28	0	86	124	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	531	462	124	476	462	28	124	0	0	28	0	0
Stage 1	296	296	-	166	166	-	-	-	-	-	-	-
Stage 2	235	166	-	310	296	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	459	497	927	499	497	1047	1463	-	-	1585	-	-
Stage 1	712	668	-	836	761	-	-	-	-	-	-	-
Stage 2	768	761	-	700	668	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	336	446	927	442	446	1047	1463	-	-	1585	-	-
Mov Cap-2 Maneuver	336	446	-	442	446	-	-	-	-	-	-	-
Stage 1	678	629	-	796	724	-	-	-	-	-	-	-
Stage 2	605	724	-	634	629	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.3	14.4	5.4	3
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1463	-	-	602	520	1585	-	-
HCM Lane V/C Ratio	0.047	-	-	0.048	0.267	0.054	-	-
HCM Control Delay (s)	7.6	0	-	11.3	14.4	7.4	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.2	1.1	0.2	-	-

Intersection	
Int Delay, s/veh	4.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	84	29	27	105	0
Future Vol, veh/h	0	84	29	27	105	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	93	32	30	117	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	211	117	117	0	-	0
Stage 1	117	-	-	-	-	-
Stage 2	94	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	777	935	1471	-	-	-
Stage 1	908	-	-	-	-	-
Stage 2	930	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	760	935	1471	-	-	-
Mov Cap-2 Maneuver	760	-	-	-	-	-
Stage 1	888	-	-	-	-	-
Stage 2	930	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.3	3.9	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1471	-	935	-	-
HCM Lane V/C Ratio	0.022	-	0.1	-	-
HCM Control Delay (s)	7.5	0	9.3	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.3	-	-

Intersection	
Int Delay, s/veh	7.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	31	10	0	0	0
Future Vol, veh/h	0	31	10	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	34	11	0	0	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	23	1	1	0	-	0
Stage 1	1	-	-	-	-	-
Stage 2	22	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	993	1084	1622	-	-	-
Stage 1	1022	-	-	-	-	-
Stage 2	1001	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	986	1084	1622	-	-	-
Mov Cap-2 Maneuver	986	-	-	-	-	-
Stage 1	1015	-	-	-	-	-
Stage 2	1001	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.4	7.2	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1622	-	1084	-	-
HCM Lane V/C Ratio	0.007	-	0.032	-	-
HCM Control Delay (s)	7.2	0	8.4	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection	
Int Delay, s/veh	4.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	1243	2145	84	0	146
Future Vol, veh/h	0	1243	2145	84	0	146
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	1381	2383	93	0	162

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	1238
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	-	0	167
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	167
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	117.4
HCM LOS			F

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	167
HCM Lane V/C Ratio	-	-	-	0.971
HCM Control Delay (s)	-	-	-	117.4
HCM Lane LOS	-	-	-	F
HCM 95th %tile Q(veh)	-	-	-	7.5

Intersection	
Int Delay, s/veh	16.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	246	973	24	7	2024	162	37	0	27	230	0	168
Future Vol, veh/h	246	973	24	7	2024	162	37	0	27	230	0	168
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	100	100	-	375	100	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	273	1081	27	8	2249	180	41	0	30	256	0	187

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	2429	0	0	1108	0	0	2768	4072	541	3352	3919	1125
Stage 1	-	-	-	-	-	-	1627	1627	-	2265	2265	-
Stage 2	-	-	-	-	-	-	1141	2445	-	1087	1654	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	~ 192	-	-	626	-	-	~ 9	3	485	~ 3	3	199
Stage 1	-	-	-	-	-	-	106	159	-	~ 42	75	-
Stage 2	-	-	-	-	-	-	214	61	-	~ 231	154	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	~ 192	-	-	626	-	-	-	0	485	-	0	199
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	0	-	-	0	-
Stage 1	-	-	-	-	-	-	106	0	-	~ 42	74	-
Stage 2	-	-	-	-	-	-	~ 13	60	-	-	0	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	52.3	0		
HCM LOS			-	-

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	-	485	~ 192	-	-	626	-	-	-	199
HCM Lane V/C Ratio	-	0.062	1.424	-	-	0.012	-	-	-	0.938
HCM Control Delay (s)	-	12.9	264.3	-	-	10.8	-	-	-	97.6
HCM Lane LOS	-	B	F	-	-	B	-	-	-	F
HCM 95th %tile Q(veh)	-	0.2	16.4	-	-	0	-	-	-	7.6

Notes
~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	143	11	0	0	145	17	17	0	11	0
Future Vol, veh/h	0	0	143	11	0	0	145	17	17	0	11	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	159	12	0	0	161	19	19	0	12	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	0	0	0	159	0	0	110	104	80	123	183	0
Stage 1	-	-	-	-	-	-	80	80	-	24	24	-
Stage 2	-	-	-	-	-	-	30	24	-	99	159	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	-	-	-	1420	-	-	868	786	980	852	711	-
Stage 1	-	-	-	-	-	-	929	828	-	994	875	-
Stage 2	-	-	-	-	-	-	987	875	-	907	766	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	1420	-	-	-	780	980	815	705	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	780	-	815	705	-
Stage 1	-	-	-	-	-	-	929	828	-	994	868	-
Stage 2	-	-	-	-	-	-	965	868	-	869	766	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	7.6		
HCM LOS			-	-

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	-	1420	-	-	-
HCM Lane V/C Ratio	-	-	-	-	0.009	-	-	-
HCM Control Delay (s)	-	0	-	-	7.6	0	-	-
HCM Lane LOS	-	A	-	-	A	A	-	-
HCM 95th %tile Q(veh)	-	-	-	-	0	-	-	-

Intersection	
Int Delay, s/veh	3.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	23	39	43	43	0
Future Vol, veh/h	0	23	39	43	43	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	26	43	48	48	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	182	48	48	0	-	0
Stage 1	48	-	-	-	-	-
Stage 2	134	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	807	1021	1559	-	-	-
Stage 1	974	-	-	-	-	-
Stage 2	892	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	784	1021	1559	-	-	-
Mov Cap-2 Maneuver	784	-	-	-	-	-
Stage 1	947	-	-	-	-	-
Stage 2	892	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.6	3.5	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1559	-	1021	-	-
HCM Lane V/C Ratio	0.028	-	0.025	-	-
HCM Control Delay (s)	7.4	0	8.6	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.1	-	-

Intersection	
Int Delay, s/veh	7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	0	75	75	0	19	93	12	72	0	48	71	0
Future Vol, veh/h	0	75	75	0	19	93	12	72	0	48	71	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	83	83	0	21	103	13	80	0	53	79	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	353	291	79	374	291	80	79	0	0	80	0	0
Stage 1	185	185	-	106	106	-	-	-	-	-	-	-
Stage 2	168	106	-	268	185	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	602	619	981	583	619	980	1519	-	-	1518	-	-
Stage 1	817	747	-	900	807	-	-	-	-	-	-	-
Stage 2	834	807	-	738	747	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	506	591	981	459	591	980	1519	-	-	1518	-	-
Mov Cap-2 Maneuver	506	591	-	459	591	-	-	-	-	-	-	-
Stage 1	810	719	-	892	800	-	-	-	-	-	-	-
Stage 2	720	800	-	575	719	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.3	9.8	1.1	3
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1519	-	-	738	882	1518	-	-
HCM Lane V/C Ratio	0.009	-	-	0.226	0.141	0.035	-	-
HCM Control Delay (s)	7.4	0	-	11.3	9.8	7.5	0	-
HCM Lane LOS	A	A	-	B	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.9	0.5	0.1	-	-

Intersection	
Int Delay, s/veh	3.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	53	83	82	66	0
Future Vol, veh/h	0	53	83	82	66	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	59	92	91	73	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	348	73	73	0	-	0
Stage 1	73	-	-	-	-	-
Stage 2	275	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	649	989	1527	-	-	-
Stage 1	950	-	-	-	-	-
Stage 2	771	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	608	989	1527	-	-	-
Mov Cap-2 Maneuver	608	-	-	-	-	-
Stage 1	890	-	-	-	-	-
Stage 2	771	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.9	3.8	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1527	-	989	-	-
HCM Lane V/C Ratio	0.06	-	0.06	-	-
HCM Control Delay (s)	7.5	0	8.9	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.2	-	0.2	-	-

Intersection	
Int Delay, s/veh	7.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	20	34	0	0	0
Future Vol, veh/h	0	20	34	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	22	38	0	0	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	77	1	1	0	-	0
Stage 1	1	-	-	-	-	-
Stage 2	76	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	926	1084	1622	-	-	-
Stage 1	1022	-	-	-	-	-
Stage 2	947	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	905	1084	1622	-	-	-
Mov Cap-2 Maneuver	905	-	-	-	-	-
Stage 1	998	-	-	-	-	-
Stage 2	947	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.4	7.3	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1622	-	1084	-	-
HCM Lane V/C Ratio	0.023	-	0.021	-	-
HCM Control Delay (s)	7.3	0	8.4	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.1	-	-

2030 Background Year with Project Traffic Analysis - Mitigations

Intersection	
Int Delay, s/veh	1.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	2185	1193	87	0	215
Future Vol, veh/h	0	2185	1193	87	0	215
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	2428	1326	97	0	239

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	712
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	-	0	375
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	375
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	30
HCM LOS			D

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	375
HCM Lane V/C Ratio	-	-	-	0.637
HCM Control Delay (s)	-	-	-	30
HCM Lane LOS	-	-	-	D
HCM 95th %tile Q(veh)	-	-	-	4.2

Intersection	
Int Delay, s/veh	2.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	200	1870	115	39	1001	83	0	0	49	0	0	189
Future Vol, veh/h	200	1870	115	39	1001	83	0	0	49	0	0	189
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	100	100	-	375	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	222	2078	128	43	1112	92	0	0	54	0	0	210

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1204	0	0	2206	0	0	-	-	1039	-	-	556
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	4.14	-	-	4.14	-	-	-	-	6.94	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	-	-	3.32	-	-	3.32
Pot Cap-1 Maneuver	575	-	-	235	-	-	0	0	227	0	0	475
Stage 1	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	575	-	-	235	-	-	-	-	227	-	-	475
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.4	0.8	25.8	18.4
HCM LOS			D	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	227	575	-	-	235	-	-	475
HCM Lane V/C Ratio	0.24	0.386	-	-	0.184	-	-	0.442
HCM Control Delay (s)	25.8	15.2	-	-	23.8	-	-	18.4
HCM Lane LOS	D	C	-	-	C	-	-	C
HCM 95th %tile Q(veh)	0.9	1.8	-	-	0.7	-	-	2.2

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	129	13	0	0	140	5	5	0	17	0
Future Vol, veh/h	0	0	129	13	0	0	140	5	5	0	17	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	143	14	0	0	156	6	6	0	19	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	0	0	0	143	0	0	110	100	72	106	171	0
Stage 1	-	-	-	-	-	-	72	72	-	28	28	-
Stage 2	-	-	-	-	-	-	38	28	-	78	143	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	-	-	-	1440	-	-	868	790	990	873	722	-
Stage 1	-	-	-	-	-	-	938	835	-	989	872	-
Stage 2	-	-	-	-	-	-	977	872	-	931	779	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	1440	-	-	-	782	990	856	715	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	782	-	856	715	-
Stage 1	-	-	-	-	-	-	938	835	-	989	863	-
Stage 2	-	-	-	-	-	-	946	863	-	920	779	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	7.5		
HCM LOS			-	-

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	-	1440	-	-	-
HCM Lane V/C Ratio	-	-	-	-	0.01	-	-	-
HCM Control Delay (s)	-	0	-	-	7.5	0	-	-
HCM Lane LOS	-	A	-	-	A	A	-	-
HCM 95th %tile Q(veh)	-	-	-	-	0	-	-	-

Intersection	
Int Delay, s/veh	3.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	39	12	15	66	0
Future Vol, veh/h	0	39	12	15	66	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	43	13	17	73	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	116	73	73	0	-	0
Stage 1	73	-	-	-	-	-
Stage 2	43	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	880	989	1527	-	-	-
Stage 1	950	-	-	-	-	-
Stage 2	979	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	872	989	1527	-	-	-
Mov Cap-2 Maneuver	872	-	-	-	-	-
Stage 1	941	-	-	-	-	-
Stage 2	979	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.8	3.3	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1527	-	989	-	-
HCM Lane V/C Ratio	0.009	-	0.044	-	-
HCM Control Delay (s)	7.4	0	8.8	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection	
Int Delay, s/veh	7.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	13	13	0	94	31	62	25	0	77	112	0
Future Vol, veh/h	0	13	13	0	94	31	62	25	0	77	112	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	14	14	0	104	34	69	28	0	86	124	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	531	462	124	476	462	28	124	0	0	28	0	0
Stage 1	296	296	-	166	166	-	-	-	-	-	-	-
Stage 2	235	166	-	310	296	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	459	497	927	499	497	1047	1463	-	-	1585	-	-
Stage 1	712	668	-	836	761	-	-	-	-	-	-	-
Stage 2	768	761	-	700	668	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	336	446	927	442	446	1047	1463	-	-	1585	-	-
Mov Cap-2 Maneuver	336	446	-	442	446	-	-	-	-	-	-	-
Stage 1	678	629	-	796	724	-	-	-	-	-	-	-
Stage 2	605	724	-	634	629	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.3	14.4	5.4	3
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1463	-	-	602	520	1585	-	-
HCM Lane V/C Ratio	0.047	-	-	0.048	0.267	0.054	-	-
HCM Control Delay (s)	7.6	0	-	11.3	14.4	7.4	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.2	1.1	0.2	-	-

Intersection	
Int Delay, s/veh	4.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	84	29	27	105	0
Future Vol, veh/h	0	84	29	27	105	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	93	32	30	117	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	211	117	117	0	-	0
Stage 1	117	-	-	-	-	-
Stage 2	94	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	777	935	1471	-	-	-
Stage 1	908	-	-	-	-	-
Stage 2	930	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	760	935	1471	-	-	-
Mov Cap-2 Maneuver	760	-	-	-	-	-
Stage 1	888	-	-	-	-	-
Stage 2	930	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.3	3.9	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1471	-	935	-	-
HCM Lane V/C Ratio	0.022	-	0.1	-	-
HCM Control Delay (s)	7.5	0	9.3	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.3	-	-

Intersection	
Int Delay, s/veh	7.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	31	10	0	0	0
Future Vol, veh/h	0	31	10	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	34	11	0	0	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	23	1	1	0	-	0
Stage 1	1	-	-	-	-	-
Stage 2	22	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	993	1084	1622	-	-	-
Stage 1	1022	-	-	-	-	-
Stage 2	1001	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	986	1084	1622	-	-	-
Mov Cap-2 Maneuver	986	-	-	-	-	-
Stage 1	1015	-	-	-	-	-
Stage 2	1001	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.4	7.2	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1622	-	1084	-	-
HCM Lane V/C Ratio	0.007	-	0.032	-	-
HCM Control Delay (s)	7.2	0	8.4	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection	
Int Delay, s/veh	36.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	1243	2288	84	0	269
Future Vol, veh/h	0	1243	2288	84	0	269
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	1381	2542	93	0	299

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	1318
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	-	0	~ 148
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	~ 148
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	$ 532.1
HCM LOS			F

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	148
HCM Lane V/C Ratio	-	-	-	2.02
HCM Control Delay (s)	-	-	-	$ 532.1
HCM Lane LOS	-	-	-	F
HCM 95th %tile Q(veh)	-	-	-	23.6

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	39.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	246	973	24	7	2024	162	0	0	64	0	0	275
Future Vol, veh/h	246	973	24	7	2024	162	0	0	64	0	0	275
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	100	100	-	375	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	273	1081	27	8	2249	180	0	0	71	0	0	306

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	2429	0	0	1108	0	0	-	-	541	-	-	1125
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	4.14	-	-	4.14	-	-	-	-	6.94	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	-	-	3.32	-	-	3.32
Pot Cap-1 Maneuver	~ 192	-	-	626	-	-	0	0	485	0	0	~ 199
Stage 1	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	~ 192	-	-	626	-	-	-	-	485	-	-	~ 199
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	52.3	0	13.7	$ 307.9
HCM LOS			B	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	485	~ 192	-	-	626	-	-	199
HCM Lane V/C Ratio	0.147	1.424	-	-	0.012	-	-	1.535
HCM Control Delay (s)	13.7	264.3	-	-	10.8	-	-	$ 307.9
HCM Lane LOS	B	F	-	-	B	-	-	F
HCM 95th %tile Q(veh)	0.5	16.4	-	-	0	-	-	19.3

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	93	11	0	0	145	17	17	0	11	0
Future Vol, veh/h	0	0	93	11	0	0	145	17	17	0	11	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	103	12	0	0	161	19	19	0	12	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	0	0	0	103	0	0	82	76	52	95	127	0
Stage 1	-	-	-	-	-	-	52	52	-	24	24	-
Stage 2	-	-	-	-	-	-	30	24	-	71	103	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	-	-	-	1489	-	-	905	814	1016	888	764	-
Stage 1	-	-	-	-	-	-	961	852	-	994	875	-
Stage 2	-	-	-	-	-	-	987	875	-	939	810	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	1489	-	-	-	807	1016	851	758	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	807	-	851	758	-
Stage 1	-	-	-	-	-	-	961	852	-	994	868	-
Stage 2	-	-	-	-	-	-	965	868	-	901	810	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	7.4		
HCM LOS			-	-

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	-	1489	-	-	-
HCM Lane V/C Ratio	-	-	-	-	0.008	-	-	-
HCM Control Delay (s)	-	0	-	-	7.4	0	-	-
HCM Lane LOS	-	A	-	-	A	A	-	-
HCM 95th %tile Q(veh)	-	-	-	-	0	-	-	-

Intersection	
Int Delay, s/veh	3.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	23	39	43	43	0
Future Vol, veh/h	0	23	39	43	43	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	26	43	48	48	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	182	48	48	0	-	0
Stage 1	48	-	-	-	-	-
Stage 2	134	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	807	1021	1559	-	-	-
Stage 1	974	-	-	-	-	-
Stage 2	892	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	784	1021	1559	-	-	-
Mov Cap-2 Maneuver	784	-	-	-	-	-
Stage 1	947	-	-	-	-	-
Stage 2	892	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.6	3.5	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1559	-	1021	-	-
HCM Lane V/C Ratio	0.028	-	0.025	-	-
HCM Control Delay (s)	7.4	0	8.6	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.1	-	-

Intersection	
Int Delay, s/veh	6.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	25	125	0	19	93	12	72	0	48	71	0
Future Vol, veh/h	0	25	125	0	19	93	12	72	0	48	71	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	28	139	0	21	103	13	80	0	53	79	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	353	291	79	375	291	80	79	0	0	80	0	0
Stage 1	185	185	-	106	106	-	-	-	-	-	-	-
Stage 2	168	106	-	269	185	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	602	619	981	582	619	980	1519	-	-	1518	-	-
Stage 1	817	747	-	900	807	-	-	-	-	-	-	-
Stage 2	834	807	-	737	747	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	506	591	981	465	591	980	1519	-	-	1518	-	-
Mov Cap-2 Maneuver	506	591	-	465	591	-	-	-	-	-	-	-
Stage 1	810	719	-	892	800	-	-	-	-	-	-	-
Stage 2	720	800	-	586	719	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10	9.8	1.1	3
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1519	-	-	884	882	1518	-	-
HCM Lane V/C Ratio	0.009	-	-	0.189	0.141	0.035	-	-
HCM Control Delay (s)	7.4	0	-	10	9.8	7.5	0	-
HCM Lane LOS	A	A	-	B	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.7	0.5	0.1	-	-

Intersection	
Int Delay, s/veh	3.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	53	83	82	66	0
Future Vol, veh/h	0	53	83	82	66	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	59	92	91	73	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	348	73	73	0	-	0
Stage 1	73	-	-	-	-	-
Stage 2	275	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	649	989	1527	-	-	-
Stage 1	950	-	-	-	-	-
Stage 2	771	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	608	989	1527	-	-	-
Mov Cap-2 Maneuver	608	-	-	-	-	-
Stage 1	890	-	-	-	-	-
Stage 2	771	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.9	3.8	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1527	-	989	-	-
HCM Lane V/C Ratio	0.06	-	0.06	-	-
HCM Control Delay (s)	7.5	0	8.9	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.2	-	0.2	-	-

Intersection	
Int Delay, s/veh	7.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	20	34	0	0	0
Future Vol, veh/h	0	20	34	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	22	38	0	0	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	77	1	1	0	-	0
Stage 1	1	-	-	-	-	-
Stage 2	76	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	926	1084	1622	-	-	-
Stage 1	1022	-	-	-	-	-
Stage 2	947	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	905	1084	1622	-	-	-
Mov Cap-2 Maneuver	905	-	-	-	-	-
Stage 1	998	-	-	-	-	-
Stage 2	947	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.4	7.3	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1622	-	1084	-	-
HCM Lane V/C Ratio	0.023	-	0.021	-	-
HCM Control Delay (s)	7.3	0	8.4	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.1	-	-

Queuing Analysis

Intersection: 1: SH 44 & Hamlin Ave

Movement	SB
Directions Served	R
Maximum Queue (ft)	61
Average Queue (ft)	28
95th Queue (ft)	50
Link Distance (ft)	650
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 2: Short Road & SH 44

Movement	EB	EB	WB	NB	NB	SB	SB
Directions Served	L	R	L	L	TR	L	TR
Maximum Queue (ft)	45	11	42	38	34	152	82
Average Queue (ft)	11	0	11	12	10	61	13
95th Queue (ft)	34	6	34	33	28	125	51
Link Distance (ft)					784		648
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)	100	100	100	100		100	
Storage Blk Time (%)						8	0
Queuing Penalty (veh)						2	0

Intersection: 3: Short Road & Amazon Dr

Movement	WB	NB	SB
Directions Served	LTR	LTR	LTR
Maximum Queue (ft)	18	50	36
Average Queue (ft)	2	24	12
95th Queue (ft)	12	48	37
Link Distance (ft)	271	648	276
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 4: Hamlin Ave & Schultz Ct

Movement	NB
Directions Served	LR
Maximum Queue (ft)	31
Average Queue (ft)	4
95th Queue (ft)	20
Link Distance (ft)	295
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 5: Hamlin Ave & Amazon Dr

Movement	WB	SB
Directions Served	LR	LT
Maximum Queue (ft)	31	19
Average Queue (ft)	13	1
95th Queue (ft)	37	12
Link Distance (ft)	714	296
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 6: Hamlin Ave & Apartment Access

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	58	6
Average Queue (ft)	32	0
95th Queue (ft)	50	4
Link Distance (ft)	270	296
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

Network wide Queuing Penalty: 2

Queuing and Blocking Report
2023 Background w/ Project PM

08/01/2022

Intersection: 1: SH 44 & Hamlin Ave

Movement	WB	SB
Directions Served	TR	R
Maximum Queue (ft)	8	67
Average Queue (ft)	0	22
95th Queue (ft)	6	50
Link Distance (ft)	711	640
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 2: Short Road & SH 44

Movement	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	L	R	L	TR	L	TR
Maximum Queue (ft)	61	18	25	11	72	30	125	86
Average Queue (ft)	25	1	2	0	22	11	55	14
95th Queue (ft)	54	13	12	8	53	29	118	70
Link Distance (ft)		711				784		642
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	100		100	375	100		100	
Storage Blk Time (%)		0			0		9	0
Queuing Penalty (veh)		0			0		1	0

Intersection: 3: Short Road & Amazon Dr

Movement	WB	NB	SB
Directions Served	LTR	LTR	LTR
Maximum Queue (ft)	18	57	31
Average Queue (ft)	1	32	10
95th Queue (ft)	10	49	33
Link Distance (ft)	251	642	281
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 4: Hamlin Ave & Schultz Ct

Movement	NB
Directions Served	LR
Maximum Queue (ft)	31
Average Queue (ft)	3
95th Queue (ft)	18
Link Distance (ft)	277
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 5: Hamlin Ave & Amazon Dr

Movement	WB	SB
Directions Served	LR	LT
Maximum Queue (ft)	40	25
Average Queue (ft)	24	1
95th Queue (ft)	45	11
Link Distance (ft)	707	326
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 6: Hamlin Ave & Apartment Access

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	65	6
Average Queue (ft)	28	0
95th Queue (ft)	54	6
Link Distance (ft)	170	326
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

Network wide Queuing Penalty: 1

Queuing and Blocking Report
2023 Background w/ Project AM - Mitigations

Intersection: 1: SH 44 & Hamlin Ave

Movement	SB
Directions Served	R
Maximum Queue (ft)	56
Average Queue (ft)	33
95th Queue (ft)	50
Link Distance (ft)	650
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 2: Short Road & SH 44

Movement	EB	EB	WB	NB	SB
Directions Served	L	R	L	R	R
Maximum Queue (ft)	40	9	46	44	46
Average Queue (ft)	9	0	10	15	21
95th Queue (ft)	31	4	33	35	39
Link Distance (ft)				783	647
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)	100	100	100		
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 3: Short Road & Amazon Dr

Movement	WB	NB	SB
Directions Served	LTR	LTR	LTR
Maximum Queue (ft)	18	48	31
Average Queue (ft)	1	21	15
95th Queue (ft)	8	47	40
Link Distance (ft)	277	647	276
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 4: Hamlin Ave & Schultz Ct

Movement	NB
Directions Served	LR
Maximum Queue (ft)	31
Average Queue (ft)	2
95th Queue (ft)	16
Link Distance (ft)	295
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 5: Hamlin Ave & Amazon Dr

Movement	WB
Directions Served	LR
Maximum Queue (ft)	31
Average Queue (ft)	12
95th Queue (ft)	36
Link Distance (ft)	720
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 6: Hamlin Ave & Apartment Access

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	58	6
Average Queue (ft)	31	0
95th Queue (ft)	50	4
Link Distance (ft)	270	296
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

Network wide Queuing Penalty: 0

Queuing and Blocking Report
2023 Background w/ Project PM - Mitigations

Intersection: 1: SH 44 & Hamlin Ave

Movement	SB
Directions Served	R
Maximum Queue (ft)	66
Average Queue (ft)	30
95th Queue (ft)	55
Link Distance (ft)	640
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 2: Short Road & SH 44

Movement	EB	WB	WB	NB	SB
Directions Served	L	L	R	R	R
Maximum Queue (ft)	61	15	4	44	49
Average Queue (ft)	24	1	0	18	19
95th Queue (ft)	52	9	3	35	39
Link Distance (ft)				783	642
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)	100	100	375		
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 3: Short Road & Amazon Dr

Movement	WB	NB	SB
Directions Served	LTR	LTR	LTR
Maximum Queue (ft)	18	57	31
Average Queue (ft)	1	32	9
95th Queue (ft)	8	47	32
Link Distance (ft)	257	642	281
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 4: Hamlin Ave & Schultz Ct

Movement	NB
Directions Served	LR
Maximum Queue (ft)	31
Average Queue (ft)	3
95th Queue (ft)	17
Link Distance (ft)	277
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 5: Hamlin Ave & Amazon Dr

Movement	WB
Directions Served	LR
Maximum Queue (ft)	42
Average Queue (ft)	24
95th Queue (ft)	46
Link Distance (ft)	713
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 6: Hamlin Ave & Apartment Access

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	53	6
Average Queue (ft)	28	0
95th Queue (ft)	49	4
Link Distance (ft)	170	326
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

Network wide Queuing Penalty: 0

Queuing and Blocking Report
2024 Background w/ Project AM

08/01/2022

Intersection: 1: SH 44 & Hamlin Ave

Movement	SB
Directions Served	R
Maximum Queue (ft)	64
Average Queue (ft)	33
95th Queue (ft)	55
Link Distance (ft)	650
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 2: Short Road & SH 44

Movement	EB	EB	WB	NB	NB	SB	SB
Directions Served	L	R	L	L	TR	L	TR
Maximum Queue (ft)	49	12	48	42	40	200	554
Average Queue (ft)	13	0	14	10	11	166	318
95th Queue (ft)	37	5	40	33	30	251	748
Link Distance (ft)					784		648
Upstream Blk Time (%)							15
Queuing Penalty (veh)							21
Storage Bay Dist (ft)	100	100	100	100		100	
Storage Blk Time (%)						77	
Queuing Penalty (veh)						17	

Intersection: 3: Short Road & Amazon Dr

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	84	44	52	61
Average Queue (ft)	23	6	26	19
95th Queue (ft)	119	32	48	59
Link Distance (ft)	707	237	648	276
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 4: Hamlin Ave & Schultz Ct

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	46	12
Average Queue (ft)	24	0
95th Queue (ft)	47	6
Link Distance (ft)	496	316
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 5: Hamlin Ave & Amazon Dr

Movement	WB	SB
Directions Served	LR	LT
Maximum Queue (ft)	46	36
Average Queue (ft)	21	2
95th Queue (ft)	45	16
Link Distance (ft)	707	296
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 6: Hamlin Ave & Apartment Access

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	76	29
Average Queue (ft)	33	2
95th Queue (ft)	61	17
Link Distance (ft)	219	296
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 7: Hamlin Ave & SF Housing Access

Movement	EB
Directions Served	LR
Maximum Queue (ft)	67
Average Queue (ft)	22
95th Queue (ft)	51
Link Distance (ft)	254
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Network Summary

Network wide Queuing Penalty: 38

Queuing and Blocking Report
2024 Background w/ Project PM

08/01/2022

Intersection: 1: SH 44 & Hamlin Ave

Movement	SB
Directions Served	R
Maximum Queue (ft)	64
Average Queue (ft)	28
95th Queue (ft)	54
Link Distance (ft)	640
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 2: Short Road & SH 44

Movement	EB	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	R	L	R	L	TR	L	TR
Maximum Queue (ft)	105	33	4	27	18	130	28	200	592
Average Queue (ft)	42	2	0	3	1	49	11	174	358
95th Queue (ft)	80	21	3	15	9	112	29	241	793
Link Distance (ft)		711					784		644
Upstream Blk Time (%)									24
Queuing Penalty (veh)									22
Storage Bay Dist (ft)	100		100	100	375	100		100	
Storage Blk Time (%)	1	0				13		87	
Queuing Penalty (veh)	2	0				2		11	

Intersection: 3: Short Road & Amazon Dr

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	225	76	66	66
Average Queue (ft)	56	16	38	20
95th Queue (ft)	244	70	57	65
Link Distance (ft)	706	237	644	279
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 4: Hamlin Ave & Schultz Ct

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	31	26
Average Queue (ft)	15	1
95th Queue (ft)	39	12
Link Distance (ft)	414	292
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 5: Hamlin Ave & Amazon Dr

Movement	WB	SB
Directions Served	LR	LT
Maximum Queue (ft)	61	31
Average Queue (ft)	31	2
95th Queue (ft)	47	16
Link Distance (ft)	706	324
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 6: Hamlin Ave & Apartment Access

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	54	35
Average Queue (ft)	27	4
95th Queue (ft)	47	20
Link Distance (ft)	219	324
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 7: Hamlin Ave & SF Housing Access

Movement	EB
Directions Served	LR
Maximum Queue (ft)	40
Average Queue (ft)	15
95th Queue (ft)	41
Link Distance (ft)	170
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Network Summary

Network wide Queuing Penalty: 38

Queuing and Blocking Report
2024 Background w/ Project AM - Mitigations

Intersection: 1: SH 44 & Hamlin Ave

Movement	SB
Directions Served	R
Maximum Queue (ft)	72
Average Queue (ft)	40
95th Queue (ft)	63
Link Distance (ft)	650
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 2: Short Road & SH 44

Movement	EB	WB	NB	SB
Directions Served	L	L	R	R
Maximum Queue (ft)	42	52	62	59
Average Queue (ft)	13	15	17	22
95th Queue (ft)	37	40	44	42
Link Distance (ft)			783	647
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	100	100		
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 3: Short Road & Amazon Dr

Movement	EB	NB	SB
Directions Served	LTR	LTR	LTR
Maximum Queue (ft)	4	48	36
Average Queue (ft)	0	24	14
95th Queue (ft)	3	47	39
Link Distance (ft)		647	276
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 4: Hamlin Ave & Schultz Ct

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	44	6
Average Queue (ft)	21	0
95th Queue (ft)	45	4
Link Distance (ft)	496	316
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 5: Hamlin Ave & Amazon Dr

Movement	WB
Directions Served	LR
Maximum Queue (ft)	35
Average Queue (ft)	18
95th Queue (ft)	42
Link Distance (ft)	713
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 6: Hamlin Ave & Apartment Access

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	57	18
Average Queue (ft)	32	1
95th Queue (ft)	53	10
Link Distance (ft)	219	296
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Queuing and Blocking Report
2024 Background w/ Project AM - Mitigations

Intersection: 7: Hamlin Ave & SF Housing Access

Movement	EB
Directions Served	LR
Maximum Queue (ft)	48
Average Queue (ft)	20
95th Queue (ft)	45
Link Distance (ft)	254
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Network Summary

Network wide Queuing Penalty: 0

Queuing and Blocking Report
2024 Background w/ Project PM - Mitigations

08/01/2022

Intersection: 1: SH 44 & Hamlin Ave

Movement	SB
Directions Served	R
Maximum Queue (ft)	80
Average Queue (ft)	41
95th Queue (ft)	68
Link Distance (ft)	640
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 2: Short Road & SH 44

Movement	EB	EB	WB	WB	WB	NB	SB
Directions Served	L	T	L	T	R	R	R
Maximum Queue (ft)	96	27	20	4	17	48	56
Average Queue (ft)	42	1	1	0	1	18	19
95th Queue (ft)	84	14	11	3	9	39	43
Link Distance (ft)		717		2639		783	644
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)	100		100		375		
Storage Blk Time (%)	1	0					
Queuing Penalty (veh)	2	0					

Intersection: 3: Short Road & Amazon Dr

Movement	WB	NB	SB
Directions Served	LTR	LTR	LTR
Maximum Queue (ft)	6	71	31
Average Queue (ft)	0	39	11
95th Queue (ft)	4	59	35
Link Distance (ft)	243	644	279
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 4: Hamlin Ave & Schultz Ct

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	31	19
Average Queue (ft)	18	1
95th Queue (ft)	42	9
Link Distance (ft)	414	292
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 5: Hamlin Ave & Amazon Dr

Movement	WB
Directions Served	LR
Maximum Queue (ft)	62
Average Queue (ft)	32
95th Queue (ft)	47
Link Distance (ft)	712
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 6: Hamlin Ave & Apartment Access

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	59	42
Average Queue (ft)	28	5
95th Queue (ft)	50	26
Link Distance (ft)	219	324
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Queuing and Blocking Report
2024 Background w/ Project PM - Mitigations

Intersection: 7: Hamlin Ave & SF Housing Access

Movement	EB
Directions Served	LR
Maximum Queue (ft)	30
Average Queue (ft)	16
95th Queue (ft)	41
Link Distance (ft)	170
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Network Summary

Network wide Queuing Penalty: 2

Intersection: 1: SH 44 & Hamlin Ave

Movement	SB
Directions Served	R
Maximum Queue (ft)	120
Average Queue (ft)	29
95th Queue (ft)	85
Link Distance (ft)	656
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 2: Short Road & SH 44

Movement	EB	EB	EB	WB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	R	L	T	T	R	L	TR	L	TR
Maximum Queue (ft)	143	103	30	96	45	6	34	194	465	200	658
Average Queue (ft)	60	3	2	30	1	0	3	133	159	188	617
95th Queue (ft)	107	40	14	70	21	4	16	237	490	205	792
Link Distance (ft)		711			2633	2633			784		650
Upstream Blk Time (%)											84
Queuing Penalty (veh)											134
Storage Bay Dist (ft)	100		100	100			375	100		100	
Storage Blk Time (%)	2	0		1	0			71	1	99	
Queuing Penalty (veh)	18	0		3	0			21	0	99	

Intersection: 3: Short Road & Amazon Dr

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	720	184	72	264
Average Queue (ft)	501	80	38	115
95th Queue (ft)	953	204	59	265
Link Distance (ft)	714	257	650	274
Upstream Blk Time (%)	50	1		9
Queuing Penalty (veh)	45	0		0
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 4: Hamlin Ave & Schultz Ct

Movement	EB	NB	SB
Directions Served	LR	LT	TR
Maximum Queue (ft)	197	6	286
Average Queue (ft)	48	1	47
95th Queue (ft)	143	8	202
Link Distance (ft)	507	322	365
Upstream Blk Time (%)			1
Queuing Penalty (veh)			0
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 5: Hamlin Ave & Amazon Dr

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	250	71	38	273
Average Queue (ft)	77	36	4	127
95th Queue (ft)	220	56	21	342
Link Distance (ft)	399	714	656	270
Upstream Blk Time (%)	0			41
Queuing Penalty (veh)	0			78
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 6: Hamlin Ave & Apartment Acess

Movement	EB	NB	SB
Directions Served	LR	LT	TR
Maximum Queue (ft)	209	24	330
Average Queue (ft)	93	1	112
95th Queue (ft)	222	12	350
Link Distance (ft)	198	270	322
Upstream Blk Time (%)	31		25
Queuing Penalty (veh)	0		27
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 7: Hamlin Ave & SF Housing Access

Movement	EB
Directions Served	LR
Maximum Queue (ft)	52
Average Queue (ft)	20
95th Queue (ft)	47
Link Distance (ft)	291
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Network Summary

Network wide Queuing Penalty: 424

Intersection: 1: SH 44 & Hamlin Ave

Movement	EB	EB	SB
Directions Served	T	T	R
Maximum Queue (ft)	2921	2917	181
Average Queue (ft)	1352	1336	34
95th Queue (ft)	3297	3287	120
Link Distance (ft)	2944	2944	649
Upstream Blk Time (%)	26	23	
Queuing Penalty (veh)	0	0	
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 2: Short Road & SH 44

Movement	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	T	L	T	R	L	TR	L	TR
Maximum Queue (ft)	250	726	716	22	8	27	183	790	189	650
Average Queue (ft)	246	665	138	3	0	2	162	471	188	625
95th Queue (ft)	266	913	563	16	4	15	232	992	195	732
Link Distance (ft)		711	711		2633			784		642
Upstream Blk Time (%)		69	0					36		88
Queuing Penalty (veh)		429	2					0		146
Storage Bay Dist (ft)	150			100		375	100		100	
Storage Blk Time (%)	98	0					89		100	1
Queuing Penalty (veh)	477	0					24		168	1

Intersection: 3: Short Road & Amazon Dr

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	724	171	65	226
Average Queue (ft)	565	71	35	104
95th Queue (ft)	987	176	55	233
Link Distance (ft)	714	247	642	282
Upstream Blk Time (%)	65			4
Queuing Penalty (veh)	79			0
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 4: Hamlin Ave & Schultz Ct

Movement	EB	NB	SB
Directions Served	LR	LT	TR
Maximum Queue (ft)	186	19	236
Average Queue (ft)	39	1	56
95th Queue (ft)	132	8	203
Link Distance (ft)	419	364	344
Upstream Blk Time (%)			0
Queuing Penalty (veh)			0
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 5: Hamlin Ave & Amazon Dr

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	314	57	13	247
Average Queue (ft)	202	29	1	151
95th Queue (ft)	410	49	8	342
Link Distance (ft)	309	714	649	247
Upstream Blk Time (%)	56			55
Queuing Penalty (veh)	0			66
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 6: Hamlin Ave & Apartment Access

Movement	EB	NB	SB
Directions Served	LR	LT	TR
Maximum Queue (ft)	224	40	369
Average Queue (ft)	114	2	168
95th Queue (ft)	260	17	445
Link Distance (ft)	214	247	364
Upstream Blk Time (%)	37		35
Queuing Penalty (veh)	0		23
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 7: Hamlin Ave & SF Housing Access

Movement	EB
Directions Served	LR
Maximum Queue (ft)	31
Average Queue (ft)	14
95th Queue (ft)	39
Link Distance (ft)	308
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Network Summary

Network wide Queuing Penalty: 1415

Intersection: 1: SH 44 & Hamlin Ave

Movement	SB
Directions Served	R
Maximum Queue (ft)	89
Average Queue (ft)	44
95th Queue (ft)	75
Link Distance (ft)	656
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 2: Short Road & SH 44

Movement	EB	EB	EB	WB	WB	WB	WB	NB	SB
Directions Served	L	T	R	L	T	T	R	R	R
Maximum Queue (ft)	121	38	13	93	58	4	20	73	147
Average Queue (ft)	58	1	1	28	2	0	1	24	69
95th Queue (ft)	100	19	9	72	25	3	11	56	119
Link Distance (ft)		717			2639	2639		783	649
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)	100		100	100			375		
Storage Blk Time (%)	1	0		2	0				
Queuing Penalty (veh)	13	0		9	0				

Intersection: 3: Short Road & Amazon Dr

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	8	31	68	31
Average Queue (ft)	0	3	38	12
95th Queue (ft)	4	17	57	36
Link Distance (ft)	720	263	649	274
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 4: Hamlin Ave & Schultz Ct

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	49	25
Average Queue (ft)	22	1
95th Queue (ft)	47	9
Link Distance (ft)	507	322
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 5: Hamlin Ave & Amazon Dr

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	35	73	39	25
Average Queue (ft)	17	36	7	2
95th Queue (ft)	42	55	28	16
Link Distance (ft)	399	720	656	270
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 6: Hamlin Ave & Apartment Acess

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	64	39
Average Queue (ft)	34	5
95th Queue (ft)	55	24
Link Distance (ft)	198	270
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 7: Hamlin Ave & SF Housing Access

Movement	EB
Directions Served	LR
Maximum Queue (ft)	50
Average Queue (ft)	19
95th Queue (ft)	45
Link Distance (ft)	291
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Network Summary

Network wide Queuing Penalty: 22

Intersection: 1: SH 44 & Hamlin Ave

Movement	EB	EB	SB
Directions Served	T	T	R
Maximum Queue (ft)	2981	2981	300
Average Queue (ft)	1443	1420	144
95th Queue (ft)	3325	3308	273
Link Distance (ft)	2944	2944	649
Upstream Blk Time (%)	23	22	
Queuing Penalty (veh)	0	0	
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 2: Short Road & SH 44

Movement	EB	EB	EB	EB	WB	WB	WB	NB	SB
Directions Served	L	T	T	R	L	T	R	R	R
Maximum Queue (ft)	200	730	722	4	34	18	54	87	536
Average Queue (ft)	197	685	134	0	4	1	4	26	402
95th Queue (ft)	209	878	568	3	21	13	23	61	515
Link Distance (ft)		717	717			2639		783	641
Upstream Blk Time (%)		73	0						
Queuing Penalty (veh)		451	2						
Storage Bay Dist (ft)	100			100	100		375		
Storage Blk Time (%)	99					0			
Queuing Penalty (veh)	481					0			

Intersection: 3: Short Road & Amazon Dr

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	4	25	63	31
Average Queue (ft)	0	1	35	8
95th Queue (ft)	3	10	53	29
Link Distance (ft)	720	253	641	282
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 4: Hamlin Ave & Schultz Ct

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	36	12
Average Queue (ft)	16	1
95th Queue (ft)	41	10
Link Distance (ft)	419	364
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 5: Hamlin Ave & Amazon Dr

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	75	55	19	36
Average Queue (ft)	38	31	1	5
95th Queue (ft)	60	45	10	24
Link Distance (ft)	309	720	649	247
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 6: Hamlin Ave & Apartment Access

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	52	31
Average Queue (ft)	29	3
95th Queue (ft)	49	18
Link Distance (ft)	214	247
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 7: Hamlin Ave & SF Housing Access

Movement	EB
Directions Served	LR
Maximum Queue (ft)	31
Average Queue (ft)	16
95th Queue (ft)	40
Link Distance (ft)	308
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Network Summary

Network wide Queuing Penalty: 934

Turn Lane Analysis Worksheets

Turn Lane Warrant Analysis

Following the District Policy as outlined in 7106.4.4, the proposed intersections along Hamlin Avenue with the addition of the Northern Star Development were analyzed for turn lane warrants. For major roads at an intersection, District Policy per NCHRP Reports 279 and 457 were used applying Figure 1 for Left-Turn Guidelines for Two-Lane Roads less than or equal to 40 mph. For minor roads, the evaluation of a second lane per NCHRP Report 457 was followed. Within this study area, Hamlin Ave would follow the major roadway analysis, where the site accesses would fall under the minor roadway analysis. The following Advancing Volumes and Opposing Volumes under the different scenarios were used. **Red AM**, **Blue PM**

Hamlin Avenue and Amazon Drive:

2030 Background with Project Northbound Left Turn Lane: **Does Not Warrant**

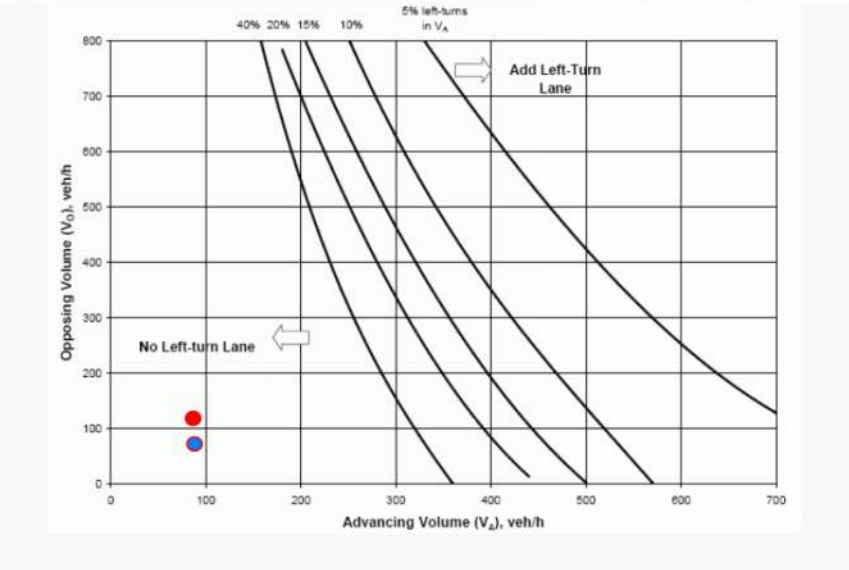
AM Northbound Advancing Volume = 87 vph (71% left turns)

AM Southbound Opposing Volumes = 112 vph

PM Northbound Advancing Volumes = 84 vph (15% left turns)

PM Southbound Opposing Volumes = 71 vph

Figure 1 – Left-Turn Lane Guidelines for Two-Lane Roads less than or equal to 40 mph



2030 Background with Project Southbound Left Turn Lane: **Does Not Warrant**

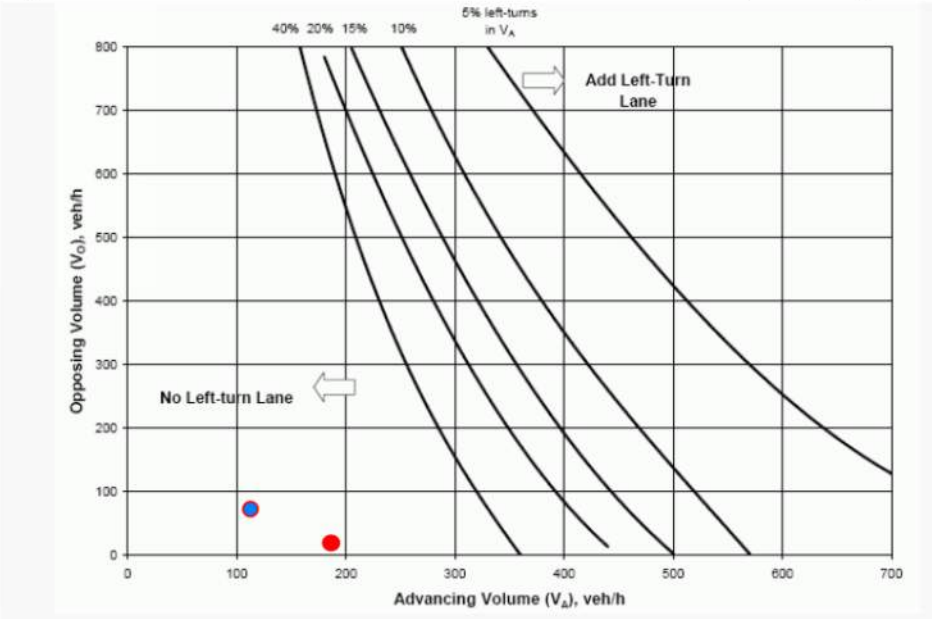
AM Southbound Advancing Volumes = 189 vph (41% left turns)

AM Northbound Opposing Volumes = 25 vph

PM Southbound Advancing Volumes = 119 vph (40% left turns)

PM Northbound Opposing Volumes = 72 vph

Figure 1 – Left-Turn Lane Guidelines for Two-Lane Roads less than or equal to 40 mph



2030 Background with Project Westbound Left Turn Lane: **Does Not Warrant as "0" vehicles are planned to make this movement**

2030 Background with Project Eastbound Left Turn Lane: **Does Not Warrant as "0" vehicles are proposed to make this turning moment.**

2030 Background with Project Northbound Right Turn Lane: **Does Not Warrant as "0" vehicles are proposed to make this turning moment.**

2030 Background with Project Southbound Right Turn Lane: **Does Not Warrant as "0" vehicles are proposed to make this turning moment.**

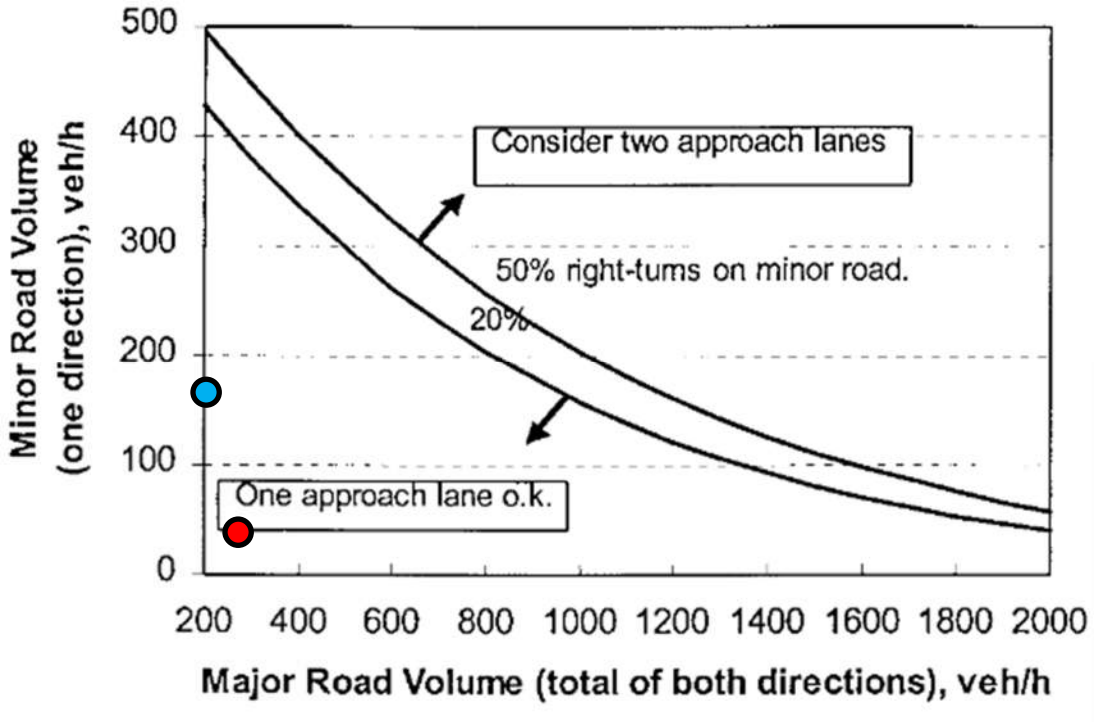
2030 Background Eastbound Right Turn Lane: **Does Not Warrant**

AM Eastbound Minor Road Volume = 26 vph

AM Major Road Volume = 276 vph

PM Eastbound Minor Road Volume = 150 vph

PM Major Road Volume = 203 vph



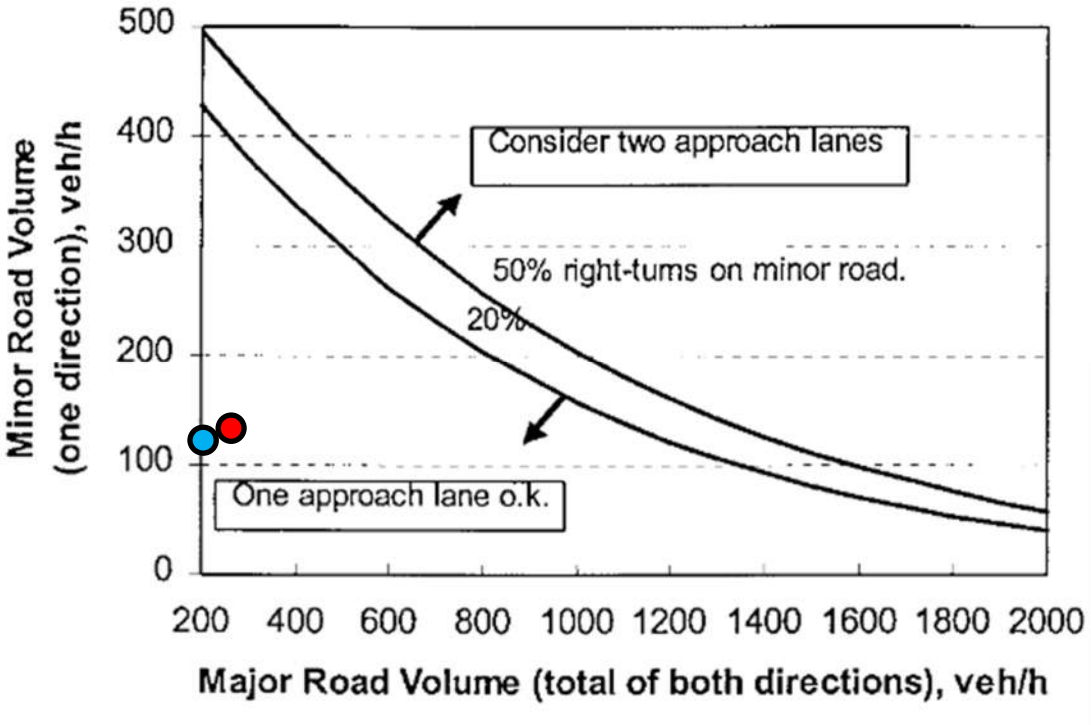
2030 Background Westbound Right Turn Lane: **Does Not Warrant**

AM Westbound Minor Road Volumes = 125 vph

AM Major Road Volumes = 276 vph

PM Westbound Right Turn Volumes = 112 vph

PM Major Road Volumes = 203 vph



Hamlin Avenue and Apartment Access:

2030 Background with Project Northbound Left Turn Lane: **Does Not Warrant**

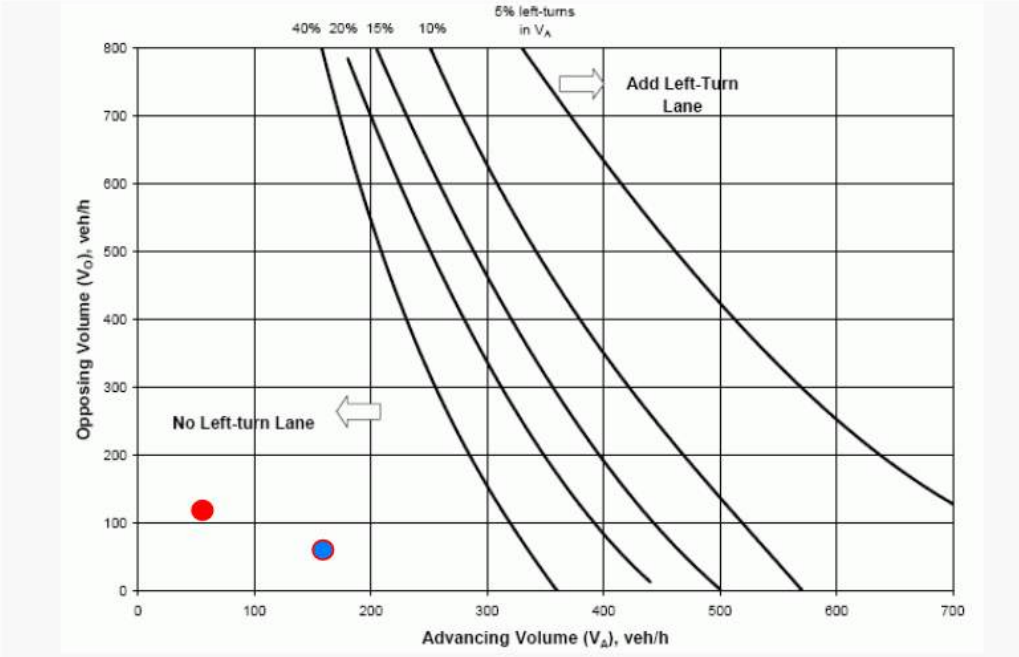
AM Northbound Advancing Volume = 56 vph (52% left turns)

AM Southbound Opposing Volumes = 105 vph

PM Northbound Advancing Volumes = 165 vph (50% left turns)

PM Southbound Opposing Volumes = 66 vph

Figure 1 – Left-Turn Lane Guidelines for Two-Lane Roads less than or equal to 40 mph



2030 Background with Project Westbound Left Turn Lane: **Does Not Warrant as "0" vehicles are planned to make this movement**

2030 Background with Project Southbound Right Turn Lane: **Does Not Warrant as "0" vehicles are proposed to make this turning moment.**

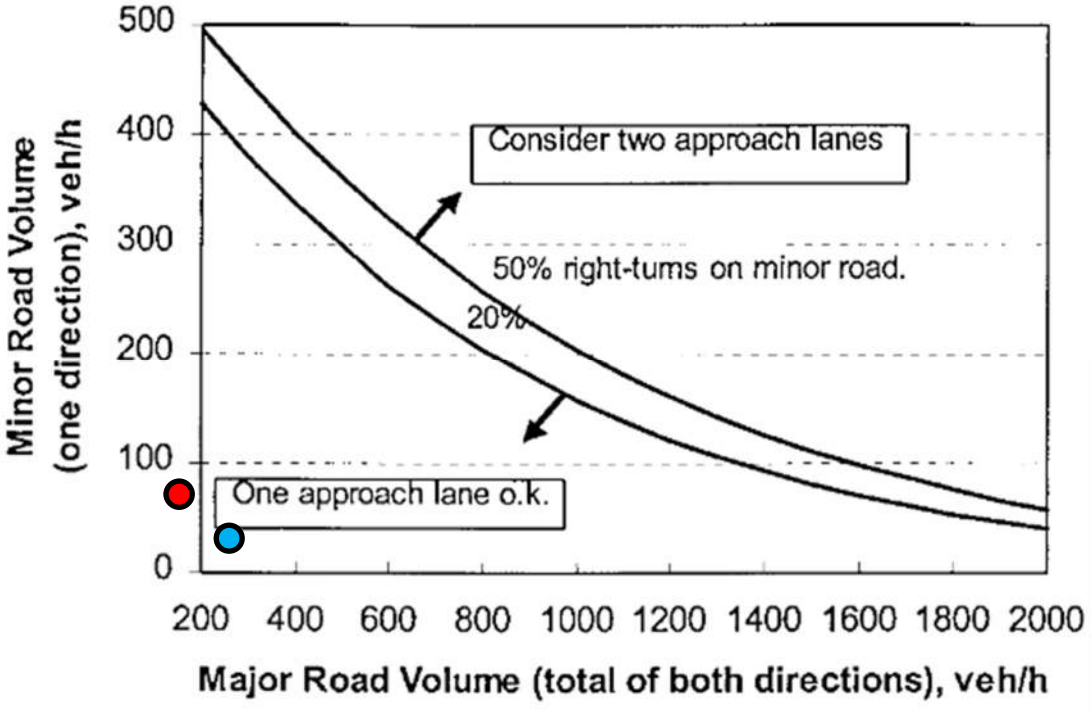
2030 Background Eastbound Right Turn Lane: **Does Not Warrant**

AM Eastbound Minor Road Volume = 84 vph

AM Major Road Volume = 161 vph

PM Eastbound Minor Road Volume = 53 vph

PM Major Road Volume = 231 vph



Hamlin Avenue and Schultz Court:

2030 Background with Project Northbound Left Turn Lane: **Does Not Warrant**

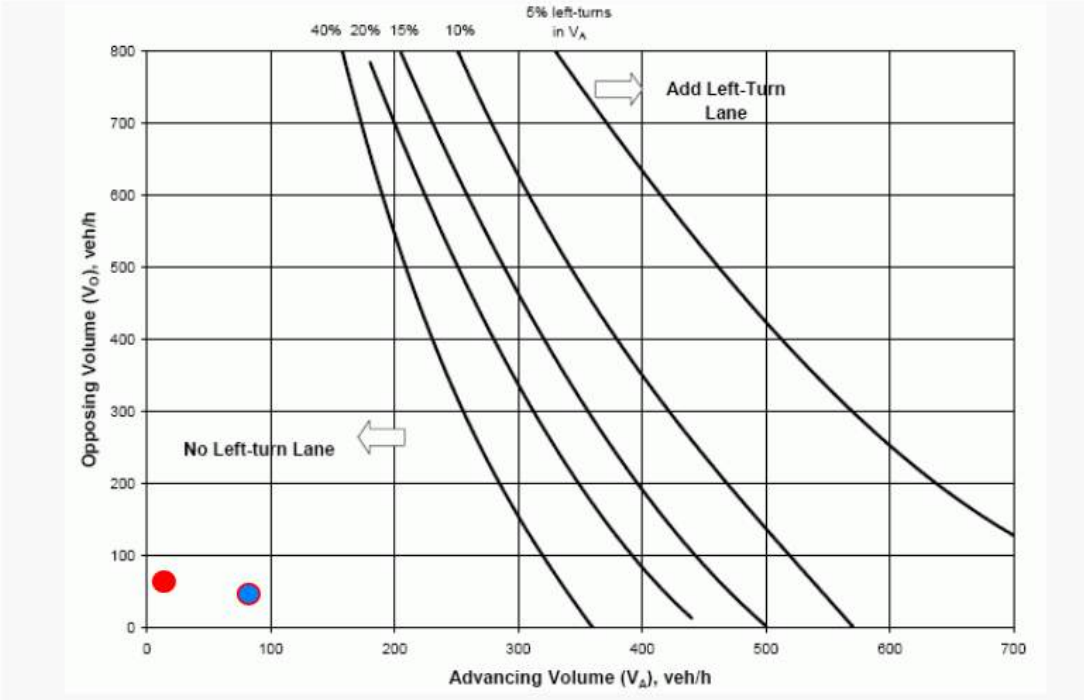
AM Northbound Advancing Volume = 27 vph (44% left turns)

AM Southbound Opposing Volumes = 66 vph

PM Northbound Advancing Volumes = 82 vph (48% left turns)

PM Southbound Opposing Volumes = 43 vph

Figure 1 – Left-Turn Lane Guidelines for Two-Lane Roads less than or equal to 40 mph



2030 Background with Project Westbound Left Turn Lane: **Does Not Warrant as "0" vehicles are planned to make this movement**

2030 Background with Project Southbound Right Turn Lane: **Does Not Warrant as "0" vehicles are proposed to make this turning moment.**

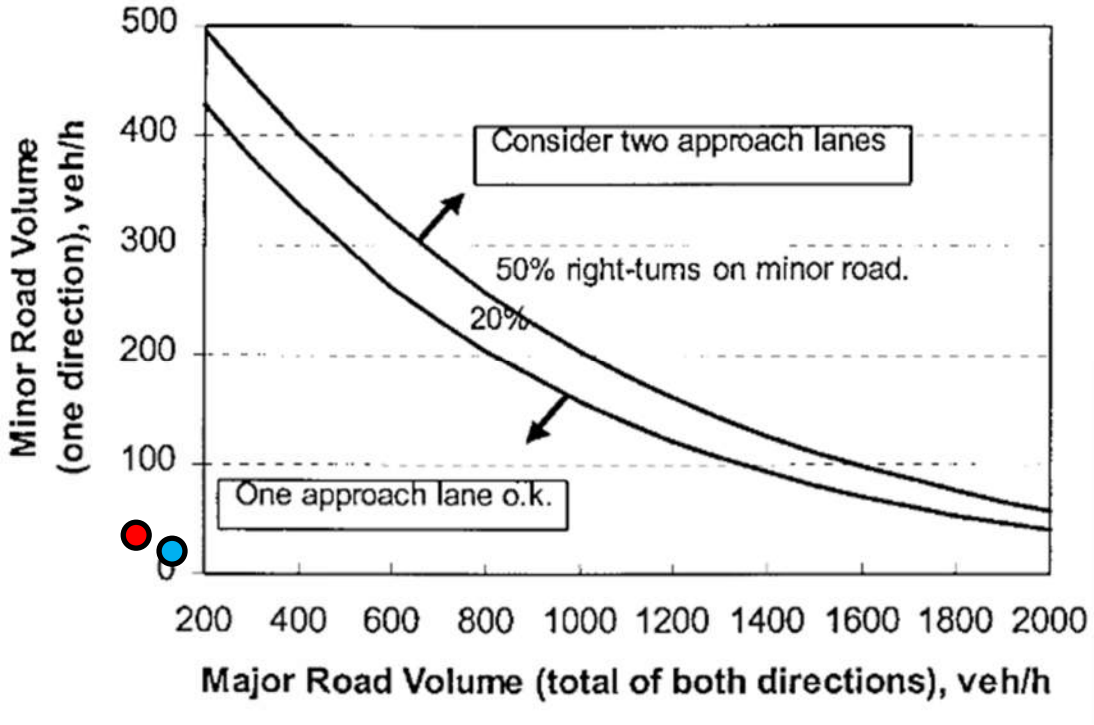
2030 Background Eastbound Right Turn Lane: **Does Not Warrant**

AM Eastbound Minor Road Volume = 39 vph

AM Major Road Volume = 93 vph

PM Eastbound Minor Road Volume = 23 vph

PM Major Road Volume = 125 vph



Hamlin Avenue and Single-Family Access:

2030 Background with Project Northbound Left Turn Lane: **Does Not Warrant**

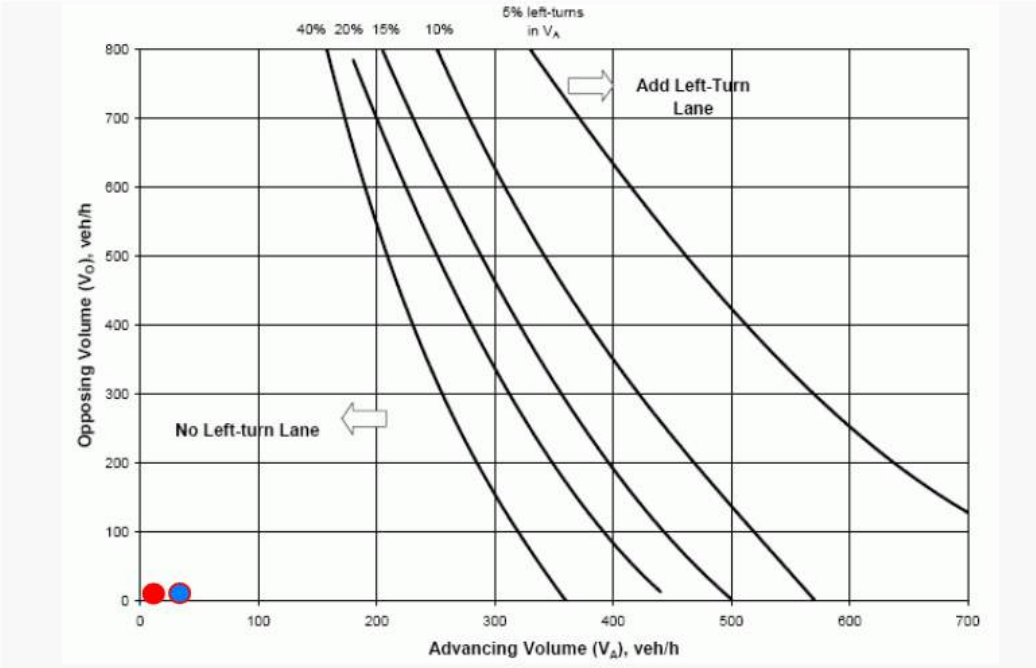
AM Northbound Advancing Volume = 10 vph (100% left turns)

AM Southbound Opposing Volumes = 0 vph

PM Northbound Advancing Volumes = 34 vph (100% left turns)

PM Southbound Opposing Volumes = 0 vph

Figure 1 – Left-Turn Lane Guidelines for Two-Lane Roads less than or equal to 40 mph



2030 Background with Project Westbound Left Turn Lane: **Does Not Warrant as "0" vehicles are planned to make this movement**

2030 Background with Project Southbound Right Turn Lane: **Does Not Warrant as "0" vehicles are proposed to make this turning moment.**

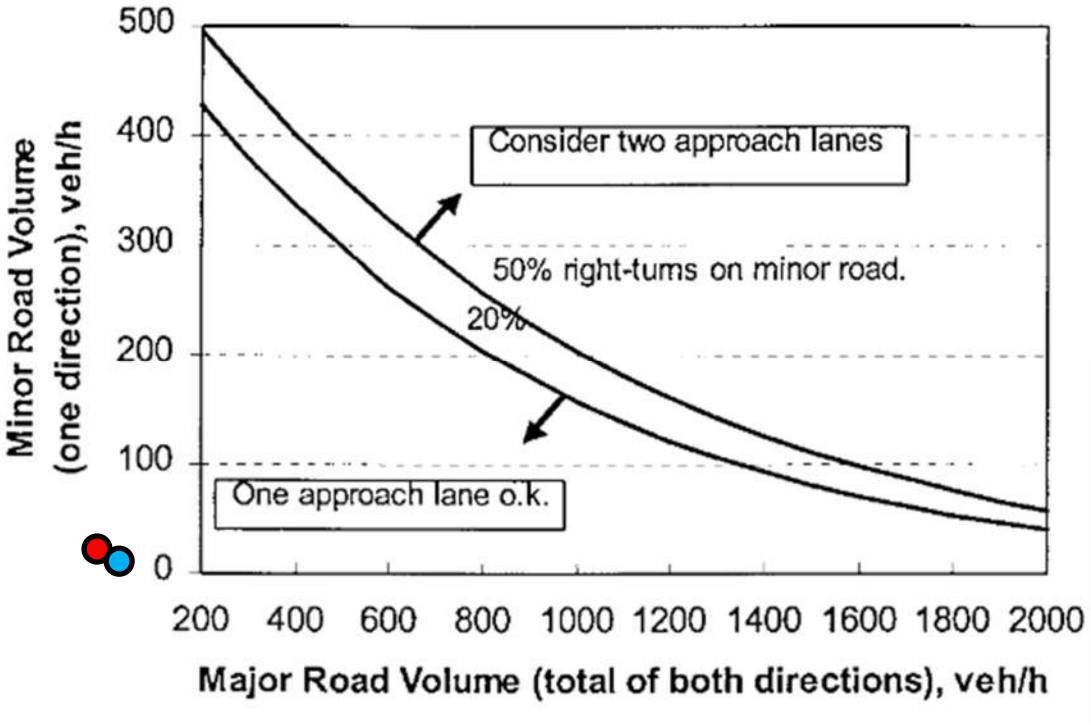
2030 Background Eastbound Right Turn Lane: **Does Not Warrant**

AM Eastbound Minor Road Volume = 31 vph

AM Major Road Volume = 10 vph

PM Eastbound Minor Road Volume = 20 vph

PM Major Road Volume = 34 vph



Based on the above analysis for the needs of right and left turn lanes along Hamlin Avenue and the roadway intersecting from the Northern Star development, no turn lanes are warranted.

Hamlin Avenue & SH 44

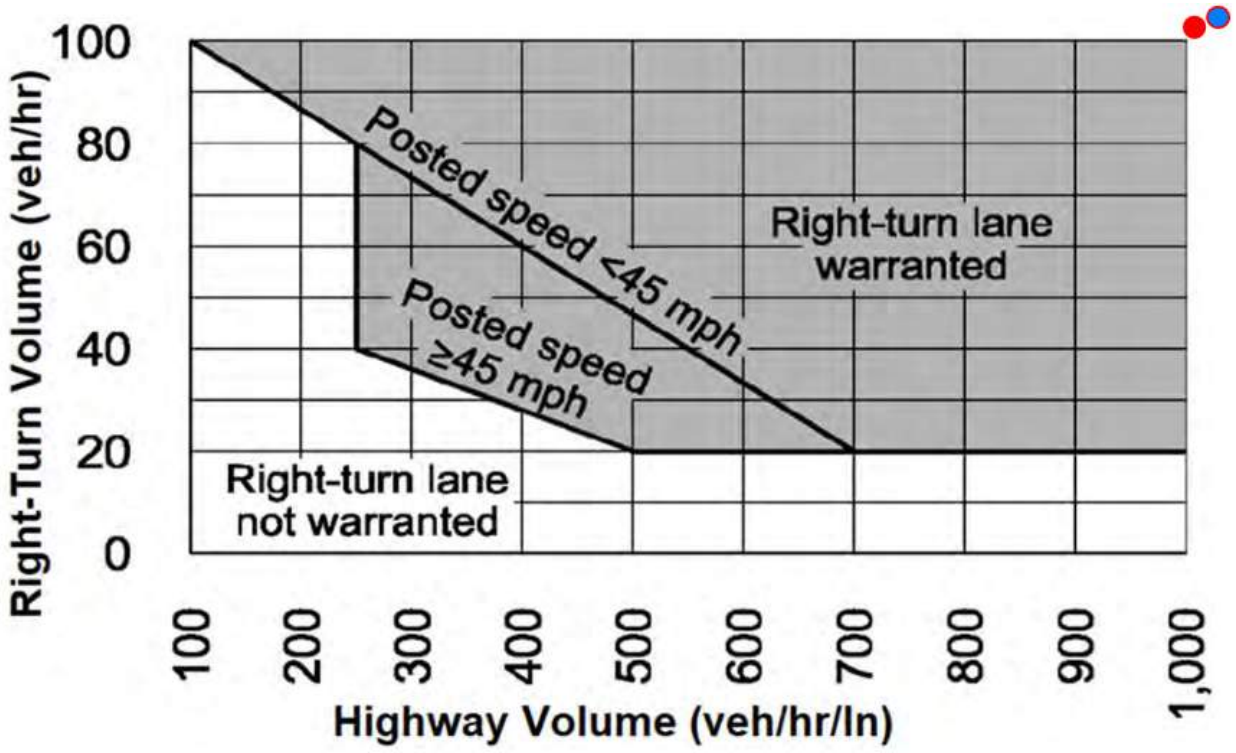
2030 Background Southbound Right Turn Lane: **Warrant**

AM Southbound Right Turn Volume = 125 vph

AM Westbound Major Roadway Volume = 1034 vph

PM Southbound Right Turn Volume = 146 vph

PM Westbound Major Roadway Volume = 2145 vph



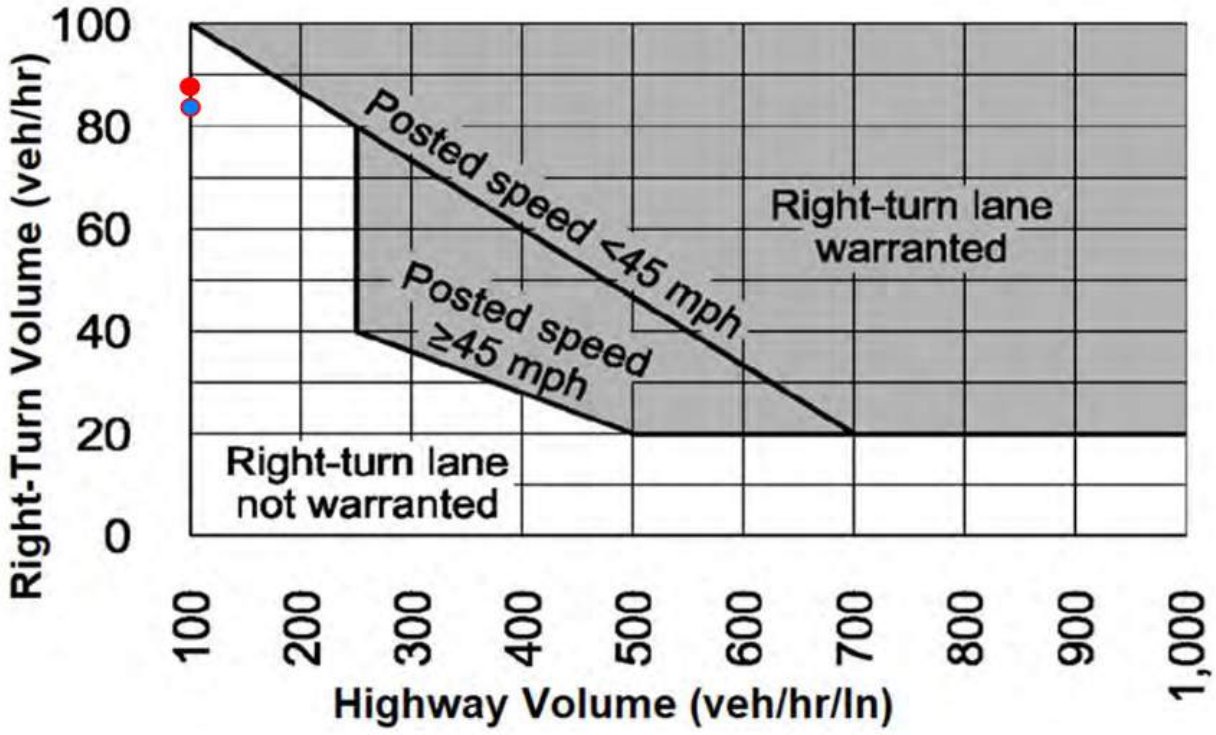
2030 Background Westbound Right Turn Lane: **Does Not Warrant**

AM Westbound Right Turn Volume = 87 vph

AM Northbound Major Roadway Volume = 0 vph

PM Westbound Right Turn Volume = 84 vph

PM Northbound Major Roadway Volume = 0 vph



CITY OF STAR

LAND USE STAFF MEMO

TO: Mayor & Council

FROM: City of Star Planning & Zoning Department

MEETING DATE: **December 5, 2023 – PUBLIC HEARING (tabled from 11-21-23)**

FILE(S) #: AZ-22-11 - Annexation and Zoning
RZ-23-03 – Rezone
DA-22-12 – Development Agreement
PP-22-17 – Preliminary Plat for Talega Village Subdivision
CUP-22-05 – Talega Village Multi-Family

OWNER/APPLICANT/REPRESENTATIVE

Representative:
Chad Garner
Focus Engineering & Surveying
6949 S. High Tech Dr., Ste. 200
Midvale, UT 84047

Owner/Applicant:
Derk Pardoe
3454 Stone Mountain Lane
Sandy, UT 84092

REQUEST

Request: The Applicant is requesting approval of an Annexation and Zoning (Residential R-10-DA), a Rezone (from R-1 & C-2 to Residential R-10-DA), a Development Agreement, a Preliminary Plat for proposed residential and commercial uses consisting of 162 buildable lots (1 commercial lot, 1 multi-family lot, 65 single-family residential lots, 95 townhome lots and multiple common lots), and a Conditional Use Permit for a proposed multifamily residential use (340 units), A residential density of 10 du/acre is proposed. The property is located at 58 N. Truman Place and 8370 W. Shults Court in Star, Idaho. The entire property consists of 74.61 acres.

PROPERTY INFORMATION

Property Location: The subject property is generally located on the northeast corner of State Highway 16 and State Highway 44. Ada County Parcels: R3720002880,

R3720003030, R3720002500, R3720002480, R3720001505, R3720002412, & S0409417201.

Existing Site Characteristics: The property currently is vacant.

Irrigation/Drainage District(s): Middleton Irrigation Association
Middleton Mill Ditch Company
P.O. Box 848
Middleton, ID 83644

Pioneer Ditch Company
P.O. Box 70
Star, Idaho 86369

Flood Zone: This property is not currently located in a Special Flood Hazard Area.

Special On-Site Features:

- Areas of Critical Environmental Concern – No known areas.
- Evidence of Erosion – No evidence.
- Fish Habitat – No.
- Floodplain – No.
- Mature Trees – Several existing mature trees.
- Riparian Vegetation – None.
- Steep Slopes – None.
- Stream/Creek – Yes, Drainage District No. 2 main drain in the northern portion of property.
- Unique Animal Life – No unique animal life has been identified.
- Unique Plant Life – No unique plant life has been identified.
- Unstable Soils – No known issues.
- Historical Assets – No historical assets have been observed.
- Wildlife Habitat – No known sensitive wildlife habitat observed.

APPLICATION REQUIREMENTS

Pre-Application Meeting Held	December 1, 2021
Neighborhood Meeting Held	March 15, 2022
Application Submitted & Fees Paid	November 21, 2022
Application Accepted	October 10, 2023
Residents within 300' Notified	November 2, 2023
Agencies Notified	August 15, 2023
Legal Notice Published	November 7, 2023

Property Posted November 21, 2023

HISTORY

On March 6, 2018, the Council voted 4 to 0 to approve CPA-18-01 Comprehensive Plan Map Amendment to Commercial; AZ-18-01, Annexation and Zoning to Commercial (C2) for the Eagle Crossroads, LLC. Application.

On December 8, 2021, Council approved the 2020 Comprehensive Plan Map Amendment, recognizing this property with single-family, townhomes, multi-family and commercial.

SURROUNDING ZONING/COMPREHENSIVE PLAN MAP/LAND USE DESIGNATIONS

	Zoning Designation	Comp Plan Designation	Land Use
Existing	Commercial (C-2) Residential (R-1) Rural Urban Transition (RUT)	Commercial/High Density Residential/Compact Residential/Neighborhood Residential	Vacant
Proposed	Commercial (C-2-DA) Residential (R-10-DA)	Commercial/High Density Residential/Compact Residential/Neighborhood Residential	Commercial/Multi-Family Residential/Single-Family Residential
North of site	Residential (R-6-DA) City of Eagle	City of Eagle Comprehensive Plan	Approved 400 residential lot Cascade Springs Subdivision
South of site	Commercial (C-1) Residential (R-1) Rural Urban Transition (RUT)	Commercial	Hwy 44 Single Family Residential Vacant Agricultural
East of site	Residential (R-13/R-5) Commercial (C-2) Mixed Use (MU)	Commercial/High Density Residential/ Neighborhood Residential/Eagle's Jurisdiction	Multi-Family Residential (Amazon Falls) Vacant (Junction Crossing)/Agricultural
West of site	Rural Urban Transition (RUT) Mixed Use (MU) Light Industrial (LI) Greyloch	Mixed Use Light Industrial	Hwy 16 Vacant Greyloch Cabinets

ZONING ORDINANCE STANDARDS / COMPREHENSIVE PLAN

UNIFIED DEVELOPMENT CODE:

8-1B-1: ANNEXATION AND ZONING; REZONE:

B. Standards:

1. The subject property shall meet the minimum dimensional standards of the proper district.

2. The city may require a development agreement in conjunction with the annexation and zoning, or rezone, pursuant to Idaho Code section 67-6511A, which may include a concept plan. In addition to other processes permitted by city and state code, exceptions or waivers of standards, other than use, may be permitted through execution of a development agreement. A development agreement and concept plan shall be required for any rezone to a mixed-use zone, high density zone or land which includes steep slope (land over 25%) or floodway.

3. The termination of a development agreement shall result in the reversal of the official zoning map amendment approval and applicable development approval for any undeveloped portion of property subject to the development agreement. The undeveloped property subject to the development agreement shall be rezoned to the district classification as designated by the development agreement. When no designation is provided, the property shall revert to its original zoning or, if the original designation no longer exists, to the closest current equivalent zoning as determined by the current Comprehensive Plan Land Use Map designation.

4. An amendment or termination of a previously recorded development agreement shall be recorded in the office of the county recorder by the clerk.

5. An approved development agreement must be executed within ninety (90) days of the meeting at which the development agreement is approved by the city council. A one-time administrative extension of maximum thirty (30) days may be granted by the zoning administrator. Additional extensions may be approved by majority vote of the city council. Failure to execute the development agreement within the required timeframe will result in the denial of all related applications.

C. Required Findings: The council shall review the application at the public hearing. In order to grant an annexation and zoning or rezone, the council shall make the following findings:

1. The map amendment complies with the applicable provisions of the comprehensive plan;

2. The map amendment complies with the regulations outlined for the proposed district;

3. The map amendment shall not be materially detrimental to the public health, safety, and

welfare; and

4. The map amendment shall not result in an adverse impact upon the delivery of services by any political subdivision providing public services within the city.

5. The annexation (as applicable) is in the best interest of city.

8-1B-4: CONDITIONAL USES:

A. Purpose: The purpose of this section is to establish procedures that allow for a particular use on a specific property subject to specific terms and conditions of approval.
B. Applicability: The provisions of this section apply to all uses identified as conditional use within this title. In addition to other processes permitted by city and state code, exceptions or waivers of standards, other than use, may be permitted through issuance of a conditional use permit, development agreement or PUD.
C. Process:
1. The applicant shall complete a pre-application conference with the administrator prior to submittal of an application for a conditional use.
2. A neighborhood meeting shall be held by the applicant pursuant to Section 8-1A-6C of this title.
3. An application and appropriate application fees shall be submitted to the City on forms provided by the city.
4. Prior to issuing the conditional use permit, the administrator may require additional information, including studies, concerning the social, economic, fiscal or environmental effects of the proposed conditional use. Traffic studies may be required by the transportation authority prior to acceptance of an application.
D. Standards: In approving any conditional use, the city council may prescribe appropriate conditions, bonds and safeguards in conformity with this title that:
1. Minimize adverse impact of the use on other property.
2. Control the sequence and timing of the use.
3. Control the duration of the use.
4. Assure that the use and the property in which the use is located is maintained properly.
5. Designate the location and nature of the use and the property development.
6. Require the provision for on site or off-site public facilities or services.
7. Require more restrictive standards than those generally required in this title.
8. Require mitigation of adverse impacts of the proposed development upon service delivery by any political subdivision, including school districts, that provides services within the city.
E. Findings: The council shall base its determination on the conditional use permit request upon the following:
1. That the site is large enough to accommodate the proposed use and meet all the dimensional and development regulations in the district in which the use is located.
2. That the proposed use shall meet the intent of the Star comprehensive plan and be in compliance with the requirements of this title.

3. That the design, construction, operation and maintenance will be compatible with other uses in the general neighborhood and with the existing or intended character of the general vicinity.
4. That the proposed use, if it complies with all conditions of the approval imposed, will not adversely affect other property in the vicinity.
5. That the proposed use will be served adequately by essential public facilities and services such as highways, streets, schools, parks, police and fire protection, drainage structures, refuse disposal, water, and sewer.
6. That the proposed use will not create excessive additional costs for public facilities and services and will not be detrimental to the economic welfare of the community.
7. That the proposed use will not involve activities or processes, materials, equipment and conditions of operation that will be detrimental to any persons, property or the general welfare by reason of excessive production of traffic, noise, smoke, fumes, glare or odors.
8. That the proposed use will not result in the destruction, loss or damage of a natural, scenic or historic feature considered to be of major importance as determined by the City.
F. Time Limitations and Extensions:
1. A conditional use permit, upon council approval, shall be valid for a maximum period of twenty-four (24) months unless otherwise approved by the City Council. During this time, the applicant shall commence the use as permitted in accord with the conditions of approval, satisfy the requirements set forth in the conditions of approval, and acquire building permits and commence construction of permanent footings or structures on or in the ground. Once all requirements are satisfied, permits are acquired and the use is commenced, the conditional use permit will become permanent unless otherwise revoked by the city council.
2. A conditional use permit that also requires plating: The final plat must be recorded within this twenty-four (24) month period.
a. For projects with multiple phases, the twenty-four (24) month deadline shall apply to the first phase. In the event that the development is made in successive contiguous segments or multiple phases, such phases shall be constructed within successive intervals of one year from the original date of approval. If the successive phases are not submitted within the one-year interval, the conditional use approval of the future phases shall be null and void.
3. Time Extension. Upon written request and filed by the applicant prior to the termination of the period in accord with this subsection F, the administrator may authorize a single, administrative time extension to commence the use not to exceed one (1), twelve (12) month period. The administrator may require the conditional use comply with the current provisions of this chapter. Additional requests must be approved by the council.
a. Council approval of requests for time extension for an approved conditional use shall be determined by the city council at a public hearing and will not be granted if any of the following conditions exist:
(1) Significant amendments to the comprehensive plan or this unified development code have been adopted that change the basis under which the conditional use permit was granted.
(2) Significant changes in land use have occurred in the area that will impact or be impacted by the project.
(3) Hazardous conditions have developed or have been discovered that will impact the project.
4. Community facilities and/or services are no longer adequate to serve the project.

a. The city council may place additional requirements, modify the previous approval or deny the request for time extension.
b. No more than one-time extension may be granted to a single conditional use.
G. Transfers and Modifications:
1. Conditional use permits are an entitlement to the specific property on which the approval was granted and upon property sale the entitlement transfers to the new owner(s) without further application or approval, provided, however, the new owner(s) shall be bound by the same conditions of approval as the original permit holder(s). This is for a specific use and may not be used for other applications.
2. A conditional use permit is not transferable from one property to another.
3. All requested modifications to an approved conditional use shall be considered by the city council at a public hearing. The city council may modify the conditions, limitations and/or scope of the permit.
H. Revocation:
1. A conditional use permit may be revoked or modified by the city council, upon notice and public hearing, for breach or violation of any condition of approval or limitation of the permit.
2. If the city council decides to revoke a conditional use permit, either on its own action or upon complaint to the city council, the administrator shall notify the permit holder of its intention to revoke the conditional use permit and provide the permit holder with the opportunity to contest the revocation.
3. Fifteen (15) days' prior notice of the hearing shall be given to the permit holder and all property owners of record (to be obtained from the County Assessor's office) within the radius required in subsection 8-1A-4B of this article.
4. The council shall make findings of fact and conclusions of law supporting its decision to revoke the conditional use permit. If the council decides not to revoke the conditional use permit, no findings of fact and conclusions of law shall be made.
5. An affected person may appeal the decision of the city council under the administrative procedure act of the state of Idaho, Idaho Code title 67, chapter 52.

8-3A-1: ZONING DISTRICTS AND PURPOSE ESTABLISHED:

The following zoning districts are hereby established for the interpretation of this title, the zoning districts have been formulated to realize the general purposes as set forth in this title. In addition, the specific purpose of each zoning district shall be as follows:

RESIDENTIAL DISTRICT: To provide regulations and districts for various residential neighborhoods. Gross density in a Residential (R) district shall be determined according to the numeral following the R. The numeral designates the maximum number of dwelling units per acre. In zoning designations of R-1, R-2, R-3, R-4 and R-5, housing shall be single family detached unless approved with a PUD or development agreement. Connection to municipal water and sewer facilities are required for all subdivision and lot split applications submitted after the effective date hereof in all districts exceeding one dwelling unit per acre. Wells and septic systems may be permitted for larger lots in this land use designation that are not adjacent

to municipal services, as determined by the Sewer District, and if approved by the applicable Health Department. Private streets may be approved in this district for access to newly subdivided or split property. This district does allow for some non-residential uses as specified in 8-3A-3.

(C-2) GENERAL BUSINESS DISTRICT: To provide for the establishment of areas for commercial uses allowed in other commercial zones and commercial uses which are more intensive than those permitted in other commercial zones, and typically located adjacent to arterial roadways and not immediately adjacent to residential, including the establishment of areas for travel related services such as hotels, motels, service stations, drive-in restaurants, offices, limited warehousing, commercial services and retail sales.

DA DEVELOPMENT AGREEMENT: This designation, following any zoning designation noted on the official zoning map of the city (i.e., C-2-DA), indicates that the zoning was approved by the city with a development agreement, with specific conditions of zoning.

8-3A-3: USES WITHIN ZONING DISTRICTS

The following table lists principal permitted (P), accessory uses (A), conditional (C), or prohibited (N) uses.

ZONING DISTRICT USES	R	C-2
Dwelling		
Multi-family 1	C	N
Single-family attached	P	N
Single-family detached	P	N

Notes:

1. **Indicates uses that are subject to specific use standards in accord with chapter 5 of this title.**

8-3A-4: ZONING DISTRICT DIMENSIONAL STANDARDS:

Zoning District	Maximum Height Note Conditions	Minimum Yard Setbacks Note Conditions			
		Front (1)	Rear	Interior Side	Street Side

R-6 to R-11 attached housing	35'	15' to living area 20' to garage 10' if alley load	15' 4' if alley load	7.5' (2)	20'
C-2	35'	20'	5'	0(4)	20'

Notes:
1. Front yard setback shall be measured from the face of the garage to the face of the sidewalk, allowing for 20' of parking on the driveway without overhang onto the sidewalk.
2. Zero-Lot-Line and reduced front and rear setback waivers may be requested through the Development Agreement process. All other side yard setback requests for detached structures shall not be granted waivers, unless as part of a Planned Unit Development.
3. All setbacks in the CBD, C-1. C-2, LO, IL, PS, RC and M-U zone shall maintain a minimum 15' when adjacent to a residential use or zone.
4. As approved by the Fire District.

8-3B-3: ADDITIONAL RESIDENTIAL DISTRICT STANDARDS

A. Comply with Section 8-3A-1: ZONING DISTRICTS AND PURPOSE ESTABLISHED.
B. When development is planned with lots that directly abut existing lots within a Rural Residential area, or "Special Transition Overlay Area" as shown on the Comprehensive Plan Land Use map, an appropriate transition shall be provided for the two abutting residential lot types. A transition shall take into consideration site constraints that may exist and may include clustering of the urban lots in order to provide an open space area avoiding urban lots directly abutting rural residential lots, or may include the provision of a buffer strip avoiding urban lots directly abutting rural residential lots, or may include setbacks within the urban lots similar to the rural residential lots directly abutting, or may include the provision of one half to one acre size lots directly abutting the rural residential lots.
C. Urban style development, as guided by provisions within the compressive plan and this Title, is required to limit urban sprawl, however, densities of no more than 1 to 2 dwelling units per acre are to be designed within the floodplain, ridgeline developable areas and hillside developable areas (both as defined within the comprehensive plan).
D. Housing developments with densities of R-11 and higher shall be designed to limit height, increase setbacks and/or provide additional landscaping along the perimeter of the development, if determined by the council, where abutting areas are planned for lower densities.
E. Rezoning to R-11 and higher shall not be allowed unless adequate ingress/egress to major transportation corridors is assured.

F. All new residential, accessory uses or additions/remodels within the residential zones shall pave all unpaved driveways to the home.

G. Spite strips, common lots, unreasonable development phasing, or other means of any type purposely or unintentional that may result in the blocking of services or development, including but not limited to sewer, water, streets, or utilities are prohibited in any zoning district within the City of Star.

H. In any development that requires a traffic signal as part of the approval process, the developer shall be responsible for providing an Emergency Opticom System to the intersection.

8-3C-1: ADDITIONAL COMMERCIAL DISTRICT STANDARDS:

ALL COMMERCIAL DISTRICTS:

A. Comply with Section 8-3A-1: ZONING DISTRICTS AND PURPOSE ESTABLISHED.

B. New commercial developments shall incorporate site and architectural design recommendations from the Architectural Overlay Design Guidelines for the Central Business District and Riverfront Center.

C. Site Improvements: 1) Prior to any ground disturbance for any commercial, industrial or other non-residential buildings, a Commercial Site Improvements application shall be submitted to the City for approval by the City Engineer. This shall include any new site development initiated prior to a City Building permit.

2) In any development that requires a traffic signal as part of the approval process, the applicant shall be responsible for providing an Emergency Opticom System to the intersection.

3) One (1) full-size copy of the construction drawings, drawn in accordance with the requirements hereinafter stated. The construction Drawings shall be submitted on good quality paper, be professionally drafted, shall have the dimensions of not less than twenty-four inches by thirty-six inches (24" x 36"), and shall be drawn to a scale of not less than one inch to one hundred feet (1"=100') and contain a drafting date and north arrow.

a. Application shall include compliance with Section 8-4A-8 and 8-4A-11 of this ordinance.

b. Construction drawings shall include both above ground and below ground improvements, including the proposed building envelope of proposed improvements. Said improvements must include proposed finished grades of all impervious surfaces, and shall be in conformance with all Federal, State, and local regulations.

c. Electronic file of all application materials in original .pdf format shall be submitted with the application on a thumb drive.

8-3G-1: ARCHITECTURAL OVERLAY DISTRICT:

A. An Architectural Overlay District boundary is all of the existing CBD north of the Boise River, and approximately 750' on either side of SH-44 from city limit to city limit, including future annexations. This shall also include all other non-residential zoned uses and properties throughout the City. Single-family dwellings that are part of an approved PUD or Conditional Use Permit shall comply with this section.

B. Architectural Overlay District includes the entirety of the South of the River Area Plan.

C. The "STAR DESIGN GUIDELINES, CENTRAL BUSINESS DISTRICT AND RIVERFRONT CENTER" (the Guidelines), is adopted through this ordinance. It may be amended from time to time by a Resolution of the Star City Council and shall be used within the Architectural Overlay District.

D. If the Architectural Overlay District Guidelines conflict with other parts of the City of Star code, the Architectural Overlay District Guidelines shall be used.

8-4B-3: REQUIRED NUMBER OF OFF-STREET PARKING SPACES:

A. Required parking spaces for other permitted or conditional uses not listed herein or uses that are listed but may be different from normal operation, shall be determined by the administrator and/or Council. Among the factors for determining the number of spaces to be required for a use not listed herein, the administrator may compare the proposed use with a use which has similar traffic generating characteristics as outlined in the most recent version of the institute of transportation engineers trip generation manual.

B. Minimum Number of Off-Street Parking Spaces: The minimum number of required off street vehicle parking spaces for residential uses shall be:

Type Of Use	**Off-Street Parking Spaces Required**
RESIDENTIAL	
Apartments or multi-family dwellings	For each unit with 2 or more bedrooms - 2 including 1 covered; for each 1 bedroom or studio unit - 1.5 including 1 covered. Guest parking shall be provided at a ratio of .25 spaces per unit.

COMMON OPEN SPACE AND SITE AMENITY REQUIREMENTS

8-4E-1: APPLICABILITY:

The standards for common open space and site amenities shall apply to all residential developments with a density exceeding one dwelling unit per acre.

8-4E-2: STANDARDS:

A. Open Space and Site Amenity Requirement (see also Chapter 8 "Architectural Review"):
1. The total land area of all common open space shall equal or exceed fifteen percent (15%) of the total gross acreage of land area of the development. A minimum of 10% of the total gross acreage of the development shall be for useable area open space. Open space shall be

designated as a total of 15% minimum for residential developments in all zones with densities of R-2 or greater.
2. Each development is required to have at least one site amenity.
3. One additional site amenity shall be required for each additional twenty (20) acres of development area, plus one additional amenity per 75 residential units.
4. Developments with a density of less than 1 dwelling unit per acre may request a waiver of open space and amenities to the Council. Developments with a density of less than 2 dwelling units per acre may request a 50% reduction in total required open space and amenities to the Council.
5. For multi-family developments, see Section 8-5-20 for additional standards.
B. Qualified Usable Area Open Space: The following qualifies to meet the useable area open space requirements:
1. Any open space that is active or passive in its intended use, and accessible or visible by all residents of the development, including, but not limited to:
a. Open grassy area of at least fifty feet by one hundred feet (50' x 100') in area;
b. Qualified natural areas, as determined by the Administrator;
c. Ponds or water features where active fishing, paddle boarding or other activities are provided (50% qualifies towards total required usable area open space, must be accessible by all residents to qualify.) ponds must be aerated;
d. A plaza.
e. Common lots that include a pathway providing local or regional connectivity that is a minimum of 20’ in width.
f. Irrigation easements/ditches when a pathway is included (to be measured from the center of the ditch to the property line of the common lot).
2. Additions to a public park or other public open space area.
3. The buffer area along collector and arterial streets may be included in required overall common open space for residential subdivisions.
4. Parkways along local residential streets with detached sidewalks that meet all the following standards may count toward the common open space requirement:
a. The parkway is a minimum of eight feet (8') in width from street curb to edge of sidewalk and includes street trees as specified otherwise herein.
b. Except for alley accessed dwelling units, the area for curb cuts to each residential lot or common driveway shall be excluded from the open space calculation. For purposes of this calculation, the curb cut area shall be a minimum area of twenty-six feet (26') by the width of the parkway.
c. Stormwater detention facilities do not qualify to meet the common area open space requirements, unless all of the following is met:
1. Must be at least fifty feet by one hundred feet (50' x 100') in area;
2. Specifically designed as a dual use facility, as determined by the administrator, to include minimal slopes, grass throughout, and guarantee of water percolation within 24 hours of storm event.
3. Is located in a development that has a second usable open space area that contains a qualified site amenity as herein defined.

5. Visual natural space, including open ditches, wetlands, slopes or other areas that may not be readily accessible to residents, and is provided with open style fencing, may qualify for up to 20% of the required open space total, as determined by the Administrator.
C. Qualified Site Amenities: Qualified site amenities shall include, but not be limited to, the following:
1. Clubhouse;
2. Fitness facilities, indoors or outdoors;
3. Public art;
4. Picnic area; or
5. Recreation amenities:
a. Swimming pool with an enlarged deck and changing and restroom facility (pools shall count towards 3 required site amenities).
b. Children's play structures.
c. Sports courts.
d. Additional open space in excess of 10% qualified usable space.
e. RV parking for the use of the residents within the development.
f. School and/or Fire station sites if accepted by the district.
g. Pedestrian or bicycle circulation system amenities meeting the following requirements:
(1) The system is not required for sidewalks adjacent to public right of way;
(2) The system connects to existing or planned pedestrian or bicycle routes outside the development; and
(3) The system is designed and constructed in accord with standards set forth by the city of Star;
D. Location: The common open space and site amenities shall be located on a common lot or an area with a common maintenance agreement.
E. Maintenance:
1. All common open space and site amenities shall be owned by and be the responsibility of an owners' association for the purpose of maintaining the common area and improvements thereon.

8-5-21: MULTI-FAMILY DWELLING/DEVELOPMENT:

Multi-family developments with multiple properties shall be considered as one property for the purpose of implementing the standards set forth in this section.

A. Storage of Recreational Vehicles: No recreational vehicles, snowmobiles, boats or other personal recreation vehicles shall be stored on the site unless provided for in a separate, designated and screened area, and approved as part of the development.

B. Developments with Twenty Units Or More: Developments with twenty (20) units or more shall provide the following:

1. A property management office.

2. A maintenance storage area.

3. A map of the development at an entrance or convenient location for those entering the development.

C. Open Space Requirement (see also Chapter 8 "Architectural Review").

1. The total land area of all common open space shall equal or exceed fifteen percent (15%) of the gross land area of the development. Ten percent (10%) of that area shall be usable open space.

2. Private Open Space: In addition to the common open space and site amenity requirements of this title, a minimum of eighty (80) square feet of additional, private, usable open space shall be provided for each residential unit not planned as single-family detached. This requirement can be satisfied through porches, patios, decks, and enclosed yards. Landscaping, entryway and other accessways do not count toward this requirement.

D. Amenities

1. The number of amenities shall depend on the size of multi-family development as follows:

a. A multi-family development with less than twenty (20) units, two (2) amenities shall be provided from two (2) separate amenity categories.

b. A multi-family development between twenty (20) and seventy-five (75) units, three (3) amenities shall be provided, with one from each amenity category.

c. A multi-family development with seventy-five (75) units or more, four (4) amenities shall be provided, with at least one from each amenity category.

d. A multi-family development with more than one hundred (100) units, the Council shall require additional amenities commensurate to the size of the proposed development.

e. All multi-family developments greater than 75 units shall be required to provide a swimming pool with a changing and restroom facilities, and an enlarged deck. The minimum pool size shall be equal to the following:

(1) Developments between 75 and 149 units = 1,600 square feet

(2) Developments between 150 and 299 units = 2,400 square feet

(3) Developments over 300 units = minimum of 3,600 square feet

E. Any required traffic impact study shall be submitted and accepted by the appropriate transportation authority prior to submittal of an application. A hearing date before the Council shall not be scheduled until the traffic impact study has been approved and the transportation authority has issued a Staff report on the development application.

2. Amenity Categories. The council may consider other amenities in addition to those listed below.

a. Clubhouse.

b. Fitness facilities -Indoor/Outdoor.

c. Enclosed bike storage.

d. Public art.

e. Covered bus stops as approved by the School District or Regional Transportation Authority.

f. Ponds or water features.

g. Plaza.

h. Recreation areas.

i. Pool.

j. Walking trails and/or bike paths.

k. Children's play structures.

l. Sports courts.

m. Natural Areas (as approved by Council).

n. RV parking for the use of the residents within the development.

o. Additional open space in excess of 5% usable space.

p. School and/or Fire station sites if accepted by the district.

q. Pedestrian or bicycle circulation system amenities meeting the following requirements:

(1) The system is not required for sidewalks adjacent to public right of way;

(2) The system connects to existing or planned pedestrian or bicycle routes outside the development; and

(3) The system is designed and constructed in accord with standards set forth by the city of Star

E. Maintenance and Ownership Responsibilities: All multi-family developments shall record legally binding documents that state the maintenance and ownership responsibilities for the management of the development, including, but not limited to, structures, parking, common areas, and other development features.

F. Architectural standards in Chapter 8 shall be applied to all multi-family developments.

G. Signs:

(1) Addressing Signage. The following shall apply to all multi-family developments:

A. Approval from Fire District and Addressing Authority.

B. The sign(s) shall be front or back lit from dusk to dawn.

C. Sign materials shall be of wood, plastic or metal.

D. Minimum size of the plan view diagram portion of the sign shall be 3'x3' or presented at a larger size to be easily readable and visible from the distance of the intended viewer.

E. Text on the map shall be of a contrasting color to the background of the sign.

F. Maps can be produced as a digital print on a variety of substrates such as vinyl, paper, or a laminated graphic. The method of production needs to be compatible with the environmental conditions as well as with the structure that the map is to be integrated with.

G. Isometric or Three-Dimensional Signs are allowed if approved by the addressing agent.

H. Orientation: Vehicle oriented maps should always be positioned in the direction that a vehicle is facing.

I. The sign(s) shall be inspected annually by the owner/property manager for damage, visibility and legibility and appearance issues.

J. Nearby vegetation should be kept back from the sign(s) and low plantings used as to not block the sign when fully grown.

FIGURE 8-5-20(a)
ADDRESSING SIGN STYLE

COMPREHENSIVE PLAN:

8.2.3 Land Use Map Designations:

NEIGHBORHOOD RESIDENTIAL - Suitable primarily for single family residential use. Densities in the majority of this land use area are to range from 3.01 units per acre to 5 dwelling units per acre. Densities not exceeding 1 to 2 units per acre are to be encouraged in areas of the floodplain, ridgeline developable areas, hillside developable areas, and where new residential lots are proposed immediately adjacent to existing residential lots of one acre and larger where those existing larger lots are not likely to be subdivided in the future.

COMPACT RESIDENTIAL - Suitable primarily for residential use allowing a mix of housing types such as single family, two family, and multi-family. Densities range from 5.01 units per acre to 10 units per acre.

HIGH DENSITY RESIDENTIAL - Suitable primarily for multi-family. This use should generally be located in close proximity to commercial centers and primary transportation corridors. The use is also suitable within the Central Business District in mixed-use buildings with commercial or office uses on the first floor and high density residential on upper floors. Densities range from 10.01 units per acre and up. Density may be limited to ensure compatibility and transition between uses adjacent to the site. Design specifications may include increased setbacks for multi-story buildings, landscape buffers, and transitional densities. Rezoning to this designation should not be allowed unless adequate ingress/egress to major transportation corridors are assured.

COMMERCIAL - Suitable primarily for the development of a wide range of commercial activities including offices, retail, and service establishments. Rezoning to this designation should not be allowed unless adequate ingress/egress to major transportation corridors are assured. Light industrial uses may be considered at the discretion of the City Council without amending this plan.

8.3 Goal:

> Encourage the development of a diverse community that provides a mix of land uses, housing types, and a variety of employment options, social and recreational opportunities, and where possible, an assortment of amenities within walking distance of residential development.

8.4 Objectives:

- Implement the Land Use Map and associated policies as the official guide for development.
- Manage urban sprawl in order to minimize costs of urban services and to protect rural areas.
- Encourage land uses that are in harmony with existing resources, scenic areas, natural wildlife areas, and surrounding land uses.

- Encourage commercial development that is consistent with a family friendly feel, not overburdening the community with big box and franchise uses and discourage the development of strip commercial areas.

8.5.6 Policies Related Mostly to the Commercial Planning Areas:

- Assist in the provision of coordinated, efficient, and cost-effective public facilities and utility services, carefully managing both residential and non-residential development and design, and proactively reinforcing downtown Star's role as the urban core while protecting existing property rights. B. Encourage commercial facilities to locate on transportation corridors. C. Locate neighborhood services within walking distance to residential development. D. Discourage the development of strip commercial areas. E. Maintain and develop convenient access and opportunities for shopping and employment activities. F. Commercial areas of five acres or less should be encouraged in residential land use designations with appropriate zoning to allow for commercial services for residential neighborhoods and to limit trip lengths. Such commercial areas should be submitted for approvals with a Conditional Use Permit or Development Agreement to assure that conditions are placed on the use to provide for compatibility with existing or planned residential uses. These areas should be oriented with the front on a collector or arterial street.8.5.9 Additional Land Use Component Policies:
- Encourage flexibility in site design and innovative land uses.
- Work with Ada County Highway District (ACHD), Canyon Highway District #4 (CHD4), and Idaho Department of Transportation (ITD) for better coordination of roadway and access needs.
- Support well-planned, pedestrian-friendly developments.
- Dark sky provision should be adopted within the code to assure down style lighting in all developments and Star should consider joining the International Dark Sky Association.

8.5.8 Policies Related Mostly to Open Space and Special Areas:

A. Projects that hold a residential designation, where the developers would like to provide or dedicate amenities similar to those allowed in the Public Use/Parks/Open Space designation, may transfer unused density from these areas to other areas within the development, as may be approved by the City Council through the Planned Unit Development or Development Agreement processes.
B. Where possible, open space should be located to be contiguous to public lands and existing open space areas.
C. Open space should be designed to capitalize on and expand the open space areas around natural features and environmentally sensitive areas. Priorities for preservation include: The most sensitive resources – floodways and floodplains (including riparian and wetland areas), slopes in

excess of 25%, locally significant features, and scenic viewpoints. Fragmentation of open space areas should be minimized so that resource areas are able to be managed and viewed as an integrated network.
D. Open space areas along the Boise River should be designed to function as part of a larger regional open space network.
E. Require the conservation and preservation of open spaces and public access to the Boise River and BLM lands and interconnected pathways, open to the public, through new developments.
F. The city should work with property owners adjacent to the Boise River to maintain and enhance the river corridor as an amenity for residents and visitors and to obtain public pathway easements and to have pathways constructed. Uses which complement this public access include trails and interpretive signage.
G. Common areas in subdivisions should be centrally located for the residents use and should include micro-path connections where feasible.
H. Discourage development within the floodplain, excluding within the Riverfront Center area, in which development could mitigate floodplain areas and provide for civic space within the floodway and adjacent areas.
I. Floodway areas are to remain "open space" because of the nature of the floodway which can pose significant hazards during a flood event. Within the Riverfront Center, this floodway area should be developed as civic gathering area, open and park space, with the design allowing for floodwaters to inundate the area without contributing to hazard risk.
J. Floodway areas are excluded from being used for calculating residential and development densities.
K. Any portion of the floodway developed as a substantially improved wildlife habitat and/or wetlands area that is open to and usable by the public for open space, such as pathways, ball fields, parks, or similar amenities, as may be credited toward the minimum open space required for a development, if approved by the City Council.
L. Encourage land uses that are in harmony with existing resources, scenic areas, natural wildlife areas, and surrounding land uses.
M. Areas over 25% slope are to be "no development" areas except for city approved trails and except where isolated areas of steep slope are located on property where site grading can easily modify the steep slope area for buildable area. In those cases where grading can be accomplished to modify the isolated steep slope areas the surrounding land use designation will apply within the area designated "steep slope."
N. Clustering of housing is to be encouraged where needed to preserve hillsides, natural features, and to avoid mass grading of land in areas determined to be preserved.

8.5.9 Additional Land Use Component Policies:

- Encourage flexibility in site design and innovative land uses.
- Work with Ada County Highway District (ACHD), Canyon Highway District #4 (CHD4), and Idaho Department of Transportation (ITD) for better coordination of roadway and access needs.

- Support well-planned, pedestrian-friendly developments.
- Dark sky provision should be adopted within the code to assure down style lighting in all developments and Star should consider joining the International Dark Sky Association.

18.4 Implementation Policies:

F. Development Agreements allow the city to enter into a contract with a developer upon rezoning. The Development Agreement may provide the city and the developer with certain assurances regarding the proposed development upon rezoning.

PROJECT OVERVIEW

ANNEXATION & ZONING:

The annexation, zoning, and rezone request from County Rural Urban Transition (RUT) and Residential (R-1) and General Business District (C-2) to Residential (R-10-DA) on the applicant's property will allow for the development and subdivision of the subject property into a residential subdivision with accompanying commercial uses that will be consistent with the recently adopted Comprehensive Plan. The property consists of a total of 74.61 acres, including 55.68 acres for residential use and 18.93 acres for commercial use. The total proposed residential units is 500, with an overall gross residential density of 8.98 dwelling units per acre, which excludes the 18.93 acres that is currently designated for commercial in the calculations. A further density breakdown shows:

- Approximately 2.17 dwelling units per acre for the single family residential dwellings - The current Comprehensive Plan Land Use Map designates this portion of the property as Neighborhood Residential, with an allowed density of 3-5 dwelling units per acre;
- Approximately 9.25 dwelling units per acre for the townhomes – The current Comprehensive Plan Land Use Map designates the portion of the property as Compact Residential, with an allowed density of 5-10 dwelling units per acre;
- Approximately 22 dwelling units per acre for the multi-family dwellings - The current Comprehensive Plan Land Use Map designates this portion of the property as High Density Residential, with an allowed density of 10 plus dwelling units per acre.

The requested land uses of residential and commercial within the annexation and zoning and rezone applications meet the intent of the zoning designations intended in the Comprehensive Plan.

PRELIMINARY PLAT:

The proposed Preliminary Plat contains 161 residential lots, 1 commercial lot and 19 common area lots for a total of 181 total lots. The Preliminary Plat contains 65 single family residential lots with an average lot size of 8,400 square feet, 95 townhome lots with and 340 apartment units. The 65 single family residential lots range in size from 6,623 square feet to 15,690 square feet with the average buildable lot area of approximately 8,400 square feet. The 95 townhome lots range in size from 4,851 square feet to 9,016 square feet with the average lot size of 6,974 square feet. The 340 apartments are located on 1 parcel.

The Preliminary Plat has been submitted with information that does not meet UDC and the Ada County Surveyor requirements for plats. Specifically, platted lots require lot and block numbers, and common lots should be numbered within the individual blocks and not as parcels (A-Q). A revised Preliminary Plat shall be submitted prior to final plat application that clearly shows compliance with all Ada County platting procedures.

All streets are proposed to be public within the single family and townhome residential portion of the development, with private driveways proposed within the multi-family residential section. Residential roads are proposed as follows: The road section for the Hamin collector road and one internal roadway between the single family and the multi-family proposes a 60-foot wide right of way, with a roadway measurement of 36 feet from back of curb to back of curb, and a 5-foot-wide detached sidewalk with an 8-foot-wide park strip. **The UDC requires sidewalks along collectors to be a minimum of 7 feet. The sidewalks along both sides of Hamlin Avenue shall be revised to include a 7 foot width**. The remaining roadway sections in the residential development include a 50-foot-wide right of way with 36 feet from back of curb to back of curb and a 5-foot-wide detached sidewalk with an 8-foot-wide park strip.

The project has 55.68 acres of residential housing area. Section 8-4E-2 of the Unified Development Code states *"The total land area of all common open space shall equal or exceed fifteen percent (15%) of the total gross acreage of land area of the development. A Minimum of 10% of the total gross acreage of the development shall be for useable area open space. Open space shall be designated as a total of 15% minimum for residential developments in all zones with densities of R-2 or greater."* As the submitted site plan does not appear to have the correct calculations for open space, Staff has done its own calculation, and the residential area appears to exceed the required amount of open space. With 55.68 acres of total residential area, the development should have a total of 8.35 acres of total open space (15%) and 5.57 acres of usable open space (10%). Staff calculations of the submitted plans are as follows:

- **Total provided Open Space* = 20.67 acres (37%). This breaks down as follows for the 3 individual residential sections of the development:**
    - **Single-Family = 8.54 acres (32.5%)**
    - **Townhomes = 9.09 acres (77.6%)**
    - **Multi-Family = 3.04 acres (17.2%)**

- **Total provided Usable Open Space* =**
  - **Single Family = 5.98 acres (22.7%)**
  - **Townhomes = 2.13 acres (18.2%)**
  - **Multi-Family = 2.52 acres (14.3%)**

***All provided calculations have been determined by Staff as best as possible, as correctly detailed breakdowns of the open spaces has not been provided. Staff will require accurate calculations of total open space and usable open space from the applicant prior to final approval. This should include separated actual acreages of the 3 different residential types so Staff can properly review the calculations.**

It is also unclear from the information submitted as to what type of common lots "Parcels G & H" are. If they are to be landscaped usable open space lots, they should be accessible to the residential portion of the development. They appear to be too large for the Hwy 16 required buffer. Staff recommends a pathway connection between Lots 3022 & 3023 to access the area.

Section 8-4E-2 also states *"Each development is required to have a least one site amenity. One additional site amenity shall be required for each additional twenty (20) acres of development area, plus one additional amenity per 75 residential units."* The Applicant is proposing 500 residential units on 55.68 acres, which requires a minimum of nine (9) amenities. The Applicant is proposing a tot lot, dog park, clubhouse, pool, 3 large open areas, a picnic shelter, walking paths and a bench as amenities. These meet the required number and kind of amenities as outline in the Unified Development Code. **The pool shall be required to be a minimum of 3,600 square feet in size. It is assumed and also recommended that all amenities and open spaces shall be utilized by the residents of all 500 residential units.**

Section 8-8C-2 paragraph J states "Any road designated as a principal arterial on the applicable highway district function class map: A minimum of forty feet (40') wide buffer area (not including right of way) shall be provided with the following plants per one hundred (100) linear feet of right of way: four (4) shade trees, three (3) evergreen trees, two (2) flowering/ornamental trees, and twelve (12) shrubs. Each required shade tree may be substituted with two (2) flowering/ornamental trees, provided that not more than fifty percent (50%) of the shade trees are substituted. A minimum seven foot (7') high buffer consisting of a berm, wall, fence, or combination thereof shall be provided within the buffer area. The maximum slope for any berm shall be three feet (3') horizontal distance to one foot (1') vertical distance. Unsightly fencing shall not be permitted." The Applicant has provided the correct buffer along Hwy 16 and the proposed landscape appears to satisfy the code requirements.

The development is currently provided with ingress/egress to the south from Highway 44 (State Street) via Hamlin Avenue. This is currently a right in/right out only and is subject to further access modification once the Hwy 16/44 interchange is constructed. There is a secondary access proposed via Amazon Drive, a public road through the Amazon Falls development off Short

Road. This connection is not yet built and will need to cross the drainage ditch to connect to Hamlin Avenue. **The council should consider the limited access and may want to condition this connection to be completed prior to any construction activities when making a decision on the application.** The Applicant will need to receive approval from both transportation agencies (ITD and ACHD) and possibly the proper irrigation district and adhere to their requirements for access and improvements.

The applicant has provided a conceptual phasing plan showing 4 phases for the development. Phase 1 appears to be the apartments (17.67 acres), Phase 2 the townhomes (11.7 acres), Phase 3 the single family residential (26.3 acres) and Phase 4 the commercial portion (18.93 acres) of the development. **The council should consider this phasing plan and the timing of the commercial development when making a decision on the application.**

ADDITIONAL DEVELOPMENT FEATURES:

- Sidewalks

  Sidewalks are proposed at five-foot (5') widths and will be detached throughout the subdivision. **The Hamlin Avenue sidewalks shall be 7 feet minimum.** The Applicant is proposing 8-foot landscape strips throughout, satisfying the Unified Development Code.

- Streetlights

  A streetlight location plan and design sample has been submitted by the applicant. Streetlights shall reflect the "Dark Sky" criteria with all lighting. The same streetlight design shall continue throughout the entire development. The proposed streetlight locations and proposed fixtures satisfy code and the City's requirements for a common style of streetlight. **Although the streetlight plan and design meet City Code, upon installation and inspection, shielding of lights may be required to prevent light trespass as necessary.**

- Subdivision and Street Names

  The Applicant has provided approval from Ada County for the subdivision name with the application packet. **No street name approval was included in the application materials, this will be required before signing the final plat.**

- Landscaping

  As required by the Unified Development Code, Chapter 8, Section 8-8C-2-M (2) Street Trees; A minimum of one street tree shall be planted for every thirty-five (35) linear feet of street frontage. For open areas, one shade tree shall be planted for every four thousand (4,000) square feet. The applicant shall use "Treasure Valley Tree Selection Guide", as adopted by the Unified Development Code. The proposed landscape plan appears to meet these requirements for street trees. **In instances**

where street trees will be planted by the builder, certificate of occupancy may be held up if trees are not planted in accordance with this code.

Applicant should be prepared to address Staff's question on the landscaping and usability of "Parcels G & H".

- Mail Cluster

  The Applicant has provided an approval letter from the Eagle Postmaster of a location for the mail clusters, however the map showing the approved location was not included in the application materials. **Staff will require this map prior to signing the final plat. Per Section 8-4A-20, all mailboxes and clusters shall be covered with an architecturally designed cover, to be approved by the Administrator prior to final plat signature. All covers shall be provided with lighting and shall be stained/painted and kept in good condition at all times. The administrator may issue a letter of violation to the HOA when any mailbox cluster or cover falls into disrepair. Maintenance shall be included in the CC&R's.**

- Block Length

  Part of Hamlin Avenue is already constructed, as the northern section is extended, Staff suggests the Applicant work with the Highway District and Fire District with regards to traffic calming techniques. Staff is supportive of the waiver to the block lengths in this development as only 1 appears to exceed the 750' limit.

- Setbacks

  The applicant is not requesting any setback waivers and will adhere to the setbacks outlined in this report and as follows:
  - Single-Family Detached = 15'/20' Front; 7.5' Side Yard; 15' Rear; 20' Street Side
  - Townhomes = 0' Front; Zero-Lot Lines for Interior Sides; 5' Rear; 5' Exterior Side
  - Multi-Family = N/A

- Common Driveways

  The preliminary plat is currently showing two common driveways in the townhome section (lots 2030 & 2031). Section 8-6B-2D of the Unified Development Code states *"Common driveways shall serve a maximum of two (2) dwelling units and shall approved by the Fire District."* **Staff recommends that the two lots be eliminated from the plat, as the Fire District has been denying all common and shared driveways due to emergency access and turn-around issues.**

- **Old Grange Hall Property:**

  The old grange hall property located currently at 8377 W Shultz Court is surrounded by this project. As Hwy 16 is improved, it will be necessary to provide access to this out-parcel internally within the Talega Village development. A cul-

de-sac turn-around is designed north of the parcel. The right of way should be extended to provide legal access to this parcel.

CONDITIONAL USE PERMIT:**

The applicant is requesting approval of a Conditional Use Permit for 340 apartment units in approximately 22 buildings. The applicant has not indicated if the apartment units will be one or two bedroom units. For a two-bedroom unit, parking requirements are calculated at 2 spaces for each unit with 1 space being covered and .25 spaces per unit for guest parking. The Applicant is proposing approximately 500 parking spaces, based on what Staff can estimate. **This number is short approximately 265 parking spaces.** Section 8-4B-2 of the Unified Development Code requires parking stalls to be a minimum of nine feet (9') wide and twenty feet (20') deep. **Parking stall measurements are not clearly marked on the submitted plan. Prior to final approval, the Applicant shall provide to Staff a site plan that clearly meets all the requirements of the Unified Development Code.**

Section 8-4B-3H of the Unified Development Code states that one bicycle parking space shall be provided for every twenty-five (25) vehicle parking spaces. Based on the required number of parking spaces, **the Applicant will be required to provide 30 bicycle spaces, this is not clearly denoted on the submitted plan.**

The Applicant has provided elevations for the proposed apartments, which appear to be three (3) stories tall. Section 8-4B-2 of the UDC requires "*all drive aisles adjacent to a building shall be a minimum of 25'0" or as required by the fire code, unless the building is 30 feet in height or greater, at which point the drive aisle shall be 26'0" or as otherwise approved by the Fire District."* **The drive aisles are not clearly marked on the submitted site plan or preliminary plat. The Applicant will be required to submit a site plan that clearly shows all drive aisle measurements, meeting code as required.**

The Applicant is not asking for an exception of the height requirement, therefore buildings will be limited to thirty-five feet (35') in height, unless otherwise approved by Council.

All signage, including building and directionals require separate permit and approval from Staff prior to installation.

The applicant has submitted very brief color renderings of the proposed building, which will still need to go through design review (Certificate of Zoning Compliance) for approval prior to building permits being issued.

It is unclear from the site plan if the following requirements of Section 8-5-21 of the UDC has been included as part of the multi-family development. This includes:

- **Any storage for recreational vehicles**

- **Location of the management office**
- **Location of maintenance storage area**
- **Location of the map of the development, including vehicle orientation map**
- **Maintenance and ownership responsibilities documents**
- **Architectural standards and materials**
- **Bicycle parking**

****The site plan submitted for review for the multi-family residential provides very minimal information necessary for Staff to properly review the layout. Staff recommends that, if Council approves the land use, that the applicant be required to submit a detailed site plan with information as required in Section 8-5-21 of the UDC, and that the site plan be brought before the Council and/or Design Review Committee for review and final approval. Because of the appearance of needed extra parking, the 500 unit count proposed may not be achievable.**

DEVELOPMENT AGREEMENT:

Through the Development Agreement process, the applicant is proposing to work with the City to provide further insurance that the development will be built as presented and/or modified by the Council through the review process. Items that should be considered by the applicant and Council include the following:

- **ITD Proportionate Share Fees at $1,000.00 per residential unit**
- **Density**
- **Fire Sprinklers Requirements**
- **Parking Requirements**
- **Commercial Acreage/Use**
- **Traffic**
- **Potential phasing limitations on the project**
- **Access to the old Grange Hall property**
- **Guest parking for townhomes**
- **Hamlin Avenue 7' sidewalks**
- **Usability of "Parcels G & H" as related to landscaping**
- **Open space usage for entire development**
- **Access to Amazon Falls Drive prior to construction**
- **Elimination of common drive lots**

AGENCY RESPONSES

ITD	March 21, 2023/October 25, 2023
ACHD	September 26, 2023
Ada County Dev. Services	February 27, 2023

COMPASS	March 13, 2023
West Ada School District	March 29, 2023
Central District Health	March 3, 2023
Star Fire Department	Pending

PUBLIC RESPONSES

No public comments have been received.

STAFF ANALYSIS & RECOMMENDATIONS

Based upon the information provided to Staff in the applications and agency comments received to date, Staff finds that the proposed request for annexation and zoning, rezone, and preliminary plat, as conditioned, meets the requirements, standards and intent for development as they relate to the Unified Development Code and Comprehensive Plan. **Regarding the conditional use permit for the multi-family residential, Staff would need additional information to make a clear recommendation on all aspects of the CUP application. Staff would recommend that the Council consider approval of the land use for multi-family residential with a maximum allowed density to be confirmed once the revised site plan is fully reviewed to determine if additional parking is required and density need to be reduced.**

Traffic Concerns:

Staff is concerned with the amount of traffic that will be generated by the uses in this development upon full build-out in relationship with the current access to the site. Currently, Hamlin Avenue is the only access to the site. With the additional connection to Amazon Falls Drive to the east and access to Hwy 44 via Short Road, there will still be considerable traffic from this development, in addition to the currently approved residential and commercial developments north, east and west of Short Road. And if Hamlin Avenue is further restricted by ITD once the interchange is constructed, the strain on Short Road will be extreme. Staff has been informed by representatives of the two developments to the north and northeast of Talega Village (Cascade Springs and Fountain Park Subdivisions) that connection from Hamlin Road north towards Floating Feather Road and east towards Palmer Lane, are anticipated to be a minimum of 5-years out, based on current phasing of those projects and with the current market. The Palmer Lane signal light will also be necessary to handle all of the current and future traffic from the currently approved developments in Star and Eagle in this immediate area. Council may want to consider additional phasing and/or unit limitation conditions on this development until the proposed improvement to the traffic system are completed prior to final build-out of this development. While ACHD and ITD have provided initial review comments for this development, Staff has had discussions with both ITD and the Fire

District regarding concerns on access and traffic. These two agencies will be providing additional comment prior to the public hearing.

The Council should consider the entire record and testimony presented at their scheduled public hearing prior to rendering its decision on the matter. Should the Council vote to approve the applications, either as presented or with added or revised conditions of approval, Council shall direct Staff to draft findings of fact and conclusions of law for the Council to consider at a future date.

FINDINGS

The Council may **approve**, **conditionally approve**, **deny** or **table** this request. In order to approve these applications, the Unified Development Code requires that Council must find the following:

ANNEXATION/REZONE FINDINGS:

1. The map amendment complies with the applicable provisions of the Comprehensive Plan.

   The purpose of the Star Comprehensive Plan is to promote the health, safety, and general welfare of the people of the City of Star and its Impact Area. Some of the prime objectives of the Comprehensive Plan include:

   - ✓ *Protection of property rights.*
   - ✓ *Adequate public facilities and services are provided to the people at reasonable cost.*
   - ✓ *Ensure the local economy is protected.*
   - ✓ *Encourage urban and urban-type development and overcrowding of land.*
   - ✓ *Ensure development is commensurate with the physical characteristics of the land.*

   The goal of the Comprehensive Plan for Land Use is to encourage the development of a diverse community that provides a mixture of land uses, housing types, and a variety of employment options, social and recreational opportunities, and where possible provides an assortment of amenities within walking distance of a residential development. The Council must find compliance with the Comprehensive Plan.

2. The map amendment complies with the regulations outlined for the proposed district, specifically, the purposes statement.

   The Council must find that the proposal complies with the proposed district and purpose statement. The purpose of the residential districts is to provide regulations and districts for various residential neighborhoods with gross densities in compliance with the intent of the Comprehensive Plan designation. Housing shall be single family detached unless approved with a PUD or development agreement. Connection to municipal water and sewer facilities are required for all subdivision and lot split applications in all districts exceeding one dwelling unit per acre. Private streets may be approved in this district for

access to newly subdivided or split property.

3. The map amendment shall not be materially detrimental to the public health, safety, and welfare; and

   The Council must find that there is no indication from the material submitted by any political agency stating that this annexation and zoning of this property will be materially detrimental to the public health, safety or welfare.

4. The map amendment shall not result in an adverse impact upon the delivery of services by any political subdivision providing public services within the city including, but not limited to, school districts.

   The Council must find that it has not been presented with any information from agencies having jurisdiction that public services will be adversely impacted other than traffic, which will continue to be impacted as the City grows.

5. The annexation is in the best interest of the city.

   The Council must find that this annexation is reasonably necessary for the orderly development of the City.

PRELIMINARY PLAT FINDINGS:

1. The plat is in compliance with the Comprehensive Plan.

   The City must find that this Plat follows designations, spirit and intent of the Comprehensive Plan regarding residential development and meets several of the objectives of the Comprehensive Plan such as:

   1. Designing development projects that minimize impacts on existing adjacent properties, and
   2. Managing urban sprawl to protect outlying rural areas.

2. Public Services are available or can be made available and are adequate to accommodate the proposed development.

   The City must find that Agencies having jurisdiction on this parcel were notified of this action, and that it has not received notice that public services are not available or cannot be made available for this development.

3. There is public financial capability of supporting services for the proposed development;

   The City must find that they have not been notified of any deficiencies in public financial capabilities to support this development.

4. The development will not be detrimental to the public health, safety or general welfare;

   The City must find that it has not been presented with any facts stating this Preliminary Plat will be materially detrimental to the public health, safety and welfare. Residential uses are a permitted use.

5. The development preserves significant natural, scenic or historic features;
The City must find that there are no known natural, scenic, or historic features that have been identified within this Preliminary Plat.

Upon granting approval or denial of the application, the Council shall specify:

1. The Ordinance and standards used in evaluating the application;
2. The reasons for recommending approval or denial; and
3. The actions, if any, that the applicant could take to obtain approval.

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1. The Ordinance and standards used in evaluating the application;
2. The reasons for recommending approval or denial; and
3. The actions, if any, that the applicant could take to obtain approval.

CONDITIONAL USE PERMIT FINDINGS:

1. That the site is large enough to accommodate the proposed use and meet all the dimensional and development regulations in the district in which the use is located.
The Council must find that the site of the proposed use would be large enough to accommodate the proposed use or meet all of the dimensional and development regulations in the district in which the use would be located.

2. That the proposed use will be harmonious with the Star comprehensive plan and in accord with the requirements of this title.
The Council must find that the proposed use request is harmonious with the Star Comprehensive Plan and is in accord with the requirements of this Title. The proposed development should meet the intent or purpose of the Mixed-Use District.

3. That the design, construction, operation and maintenance will be compatible with other uses in the general neighborhood and with the existing or intended character of the general vicinity and that such use will not adversely change the essential character of the same area.
The Council must find that the operation of the proposed use would be compatible with the other uses in the general area.

4. That the proposed use, if it complies with all conditions of the approval imposed, will not adversely affect other property in the vicinity.
The Council must find that the proposed use, with imposed conditions of approval, would not adversely affect other property in the vicinity.

5. That the proposed use will be served adequately by essential public facilities and services such as highways, streets, schools, parks, police and fire protection, drainage structures, refuse

disposal, water, and sewer.

The Council must find that the proposed use be adequately served by essential public facilities and services.

6. That the proposed use will not create excessive additional costs for public facilities and services and will not be detrimental to the economic welfare of the community.

The Council must find that the proposed use would not create excessive additional costs for public facilities and would not be detrimental to the economic welfare of the community.

7. That the proposed use will not involve activities or processes, materials, equipment and conditions of operation that will be detrimental to any persons, property or the general welfare by reason of excessive production of traffic, noise, smoke, fumes, glare or odors.

The Council must find that the proposed use would involve activities that would not be detrimental to any person, property or the general welfare by reason of excessive production of traffic, noise, smoke, fumes, glare or odors.

8. That the proposed use will not result in the destruction, loss or damage of a natural, scenic or historic feature considered to be of major importance.

The Council must find that the proposed use would not result in the destruction, loss or damage of natural, scenic or historic feature of major importance since none are apparent on this site.

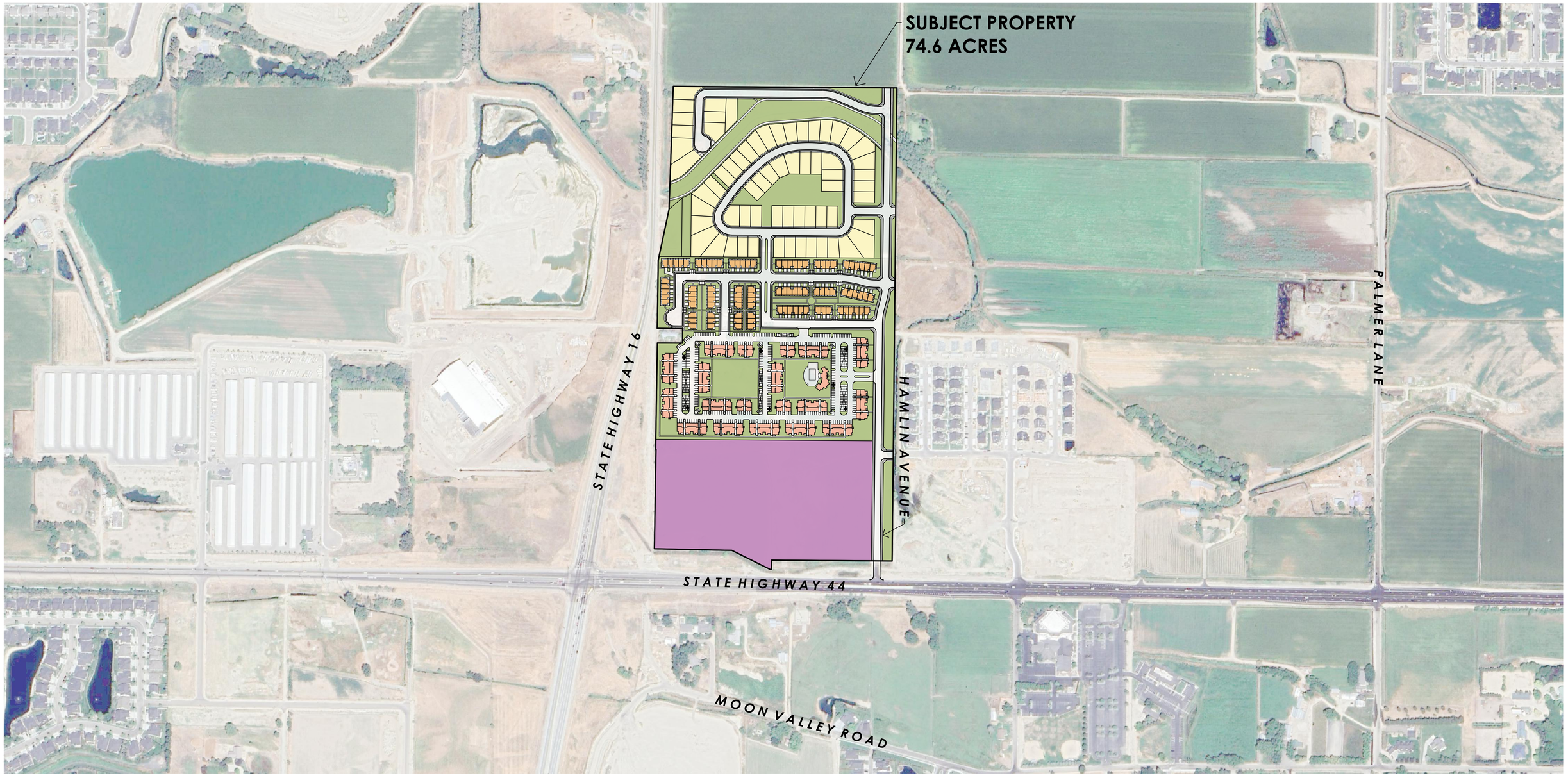
CONDITIONS OF APPROVAL

1. The approved Conditional Use shall comply with all statutory requirements of applicable agencies and districts having jurisdiction in the City of Star.
2. **The applicant shall enter into a Development Agreement with the City, agreeing to proportionate share assessment by ITD regarding impacts to the State Highway System. ITD has calculated the fees to be $1000.00 per residential unit for a total of $500,000 ($1000 x 500). These fees will be collected by the City of Star, by phase, prior to final plat signature. The development agreement shall be signed and recorded as part of the ordinance for annexation and zoning and shall contain the details of the fees to be collected**.
3. **A revised preliminary plat shall be submitted indicating the 7 feet sidewalk along both sides of Hamlin Avenue and showing the correct lot and block numbering as required by Ada Count and the City of Star. This shall be submitted prior to final plat approval.**
4. **Prior to issuance of a building permit, all Star Sewer and Water District requirements shall be met. A letter of approval from the District shall be submitted with the building permit.**
5. **Prior to issuance of any building permits for any use in this development, a final plat shall be recorded with Ada County.**

6. **The multi-family buildings will need to go through the design review process (Certificate of Zoning Compliance) and receive approval prior to issuing building permits.**
7. **The applicant may be responsible for additional mitigation measures regarding noise and lighting for existing, adjacent residential uses when it is determined by the City that unreasonable, negative impacts are a direct result of the business activity. This shall include, but not be limited to additional landscaping, fencing/walls, and light shields or relocation of light poles.**
8. **The Applicant shall revise the site plan for the apartments so show the correct number of parking spaces, proper size spaces, location and correct number of bicycle parking spots and clearly marked drive aisle dimensions. This site plan shall be required to be reviewed by Council and/or the Design Review Committee prior to final approval of the CUP.**
9. **The Applicant shall revise the site plan for the townhomes and remove the 2 lots with the common driveways. This updated site plan will be required prior to signing the mylar for the final plat.**
10. **The Applicant shall provide renderings of the cover for the mail clusters and receive Staff approval, prior to signing the final plat.**
11. **The Applicant shall provide documentation from Ada County that the proposed street names have been approved and they shall be accurately reflected on the final plat prior to signature.**
12. Pressurized irrigation systems shall comply with the Irrigation District(s) and the City of Star Codes. Plans for pressurized irrigation systems shall be submitted to, and approved by the City of Star Engineer, prior to installation.
13. A form signed by the Star Sewer & Water District shall be submitted to the City prior to issuance of building permit stating that all conditions of the district have been met, including annexation into the District.
14. The applicant shall provide a sign, to be located at all construction entrances, indicating the rules for all contractors that will be working on the property starting at grading and running through occupancy that addresses items including but not limited to dust, music, dogs, starting/stopping hours for contractors (7a.m. start time). **Sign shall be approved by the City prior to start of any construction.**
15. The applicant shall obtain all the proper building permits from the City Building Department prior to occupancy of the unit.
16. The Conditional Use Permit may be revoked or modified by the City Council for any violation of any Condition of Approval.
17. **The applicant shall obtain a sign permit prior to any signage being placed on the site or building.**
18. A Certificate of Zoning Compliance will be required prior to the start of construction.
19. Any additional Condition of Approval as required by Staff and City Council.
20. Any Conditions of Approval as required by Star Fire Protection District.

COUNCIL DECISION

The Star City Council _____ File Number AZ-22-11/RZ-23-03/DA-22-12/PP-22-17/CUP-22-05 for Talega Village Subdivision on _____ _____, 2023.



N

S

GRAPHIC SCALE

250 0 125 250 500 1,000

(IN FEET)
1 inch = 250ft.

TALEGA VILLAGE vicinity map

STAR CITY, ADA COUNTY, IDAHO
5/18/2023
21-0488

FOCUS ENGINEERING AND SURVEYING, LLC

Z:_2021\21-0488 Talegra Village\design 21-0488\.dwg\.concept\21-0488 Site Plan.dwg

ANNEXATION & ZONING – REZONE APPLICATION
NARRATIVE

May 19, 2023

The property located on the northeast corner of State Highway 16 and State Highway 44, referred to Talega Village, is being considered for development. The overall site consisting of 74.6 acres is under consideration for annexation into Star City and rezoning to the R-10 and C-2 zone. The R-10 zone would consist of 57.4 acres while the C-2 zone would consist of 17.2 acres. Within the proposed R-10 zone is a proposed multifamily residential development phase consisting of 19.4 acres and portions of seven parcels with three identified addresses (shown below).

IDENTIFIED ADDRESSES: **58 N Truman Pl.**
8245 W Shultz Ct.
8370 W Shultz Ct.

PARCEL NUMBERS:

R3720001507
R3720001509
R3720002500
R3720002480
A portion of R3720001505
A portion of R3720002412
A portion of S0409417201

The applicant is requesting annexation of the property into the City of Star and a rezone from RUT (Rural Urban Transition), R1 (Single Family Residential), and C-2 (General Commercial) to R-10 (Residential – 10 units/acre) and C-2 (General Commercial) with a development agreement and preliminary plat approval of approximately 17.2 acres of commercial & retail and 57.4 acres of residential consisting of approximately 65 single-family lots, 95 townhome units, and 340 apartment units with an overall density of 9.1 units per acre. The average lot size of the single family portion is approximately 8,400 square feet.

The purpose of this annexation and rezone application is to annex the property into the City of Star and rezone the property to allow for greater flexibility in the placement of commercial and residential. The intent is to incorporate a variety of housing types to appeal to a wide range of home buyers while still implementing commercial and single family residential uses as currently shown in the general plan.

City of Star
P.O. Box 130
Star, Idaho 83669
P: 208-286-7247 F: 208-286-7569

ANNEXATION & ZONING - REZONE APPLICATION

****All information must be filled out to be processed.*

FILE NO.: AZ-22-11
Date Application Received: 5/27/2023 Fee Paid: _____
Processed by: City: Barbara Norgrove

Applicant Information:

PRIMARY CONTACT IS: Derk Pardoe

Applicant Name: Derk Pardoe
Applicant Address: 3454 Stone Mountain Ln. Sandy, UT Zip: 84092
Phone: 801-808-2357 Email: derkpardoe@gmail.com

Owner Name: Derk Pardoe
Owner Address: 3454 Stone Mountain Ln. Sandy, UT Zip: 84092
Phone: 801-808-2357 Email: derkpardoe@gmail.com

Representative (e.g., architect, engineer, developer):
Contact: Chad Garner Firm Name: Focus Engineering & Surveying
Address: 6949 S High Tech Dr. Ste. 200 Zip: 84047
Phone: 801-352-0075 Email: cgarner@focus-es.com

Property Information:

Site Address: 58 N Truman Pl 8370 W Shultz Ct 8245 W Shultz Ct Parcel Number: (see below)
Total Acreage of Site: ±74.6 acres
Total Acreage of Site in Special Flood Hazard Area: N/A
Proposed Zoning Designation of Site: R-10 & C-2
Parcel Numbers: R3720002880, R3720003030, R3720001505, R3720001507, R3720001509, S0409417201, R3720002500, R3720002480, R3720002412

Zoning Designations:

	Zoning Designation	Comp Plan Designation	Land Use
Existing	C-2, R1, RUT	Commercial, High Density Residential, Compact Residential, Neighborhood Residential	Commercial, High Density Residential, Compact Residential, Neighborhood Residential
Proposed	C-2 & R-10	Commercial, Compact Residential	Commercial, Compact Residential
North of site	RUT	N/A	N/A
South of site	C-1, R1, RUT (Hwy 44)	Commercial	Commercial
East of site	MU, R-13, RUT	Commercial, High Density Residential, Neighborhood Residential	Commercial, High Density Residential, Neighborhood Residential
West of site	RUT (Hwy 16)	ITD 44/16 R.O.W.	ITD 44/16 R.O.W.

Special On-Site Features *(Yes or No – If yes explain)*:

Areas of Critical Environmental Concern - No
Evidence of Erosion - No
Fish Habitat - No
Floodplain - No
Mature Trees - No
Riparian Vegetation - No
Steep Slopes - No
Stream/Creek - Yes, runs east/west on north side of development
Unique Animal Life - No
Unique Plant Life - No
Unstable Soils - No
Wildlife Habitat - No
Historical Assets - No

Application Requirements:

(Applications are required to contain one copy of the following unless otherwise noted. ***When combining with other applications (Prelim Plat, CUP, etc.) please include one paper copy for all applications****)*

Applicant (√)	Description	Staff (√)
DP	Pre-application meeting with the Planning Department required prior to neighborhood meeting.	
DP	Copy of neighborhood meeting notice sent to property owners within 300 feet and meeting sign-in sheet. **(Please contact the City for addresses & labels)** (Applicants are required to hold a neighborhood meeting to provide an opportunity for public review of the proposed project prior to the submittal of an application.)	
DP	Completed and signed Annexation & Zoning/Rezone Application	
DP	Fee: (Include Development Agreement Fee). Please contact the City for current fee. Fees may be paid in person with check or electronically with credit card. Please call City for electronic payment. Additional service fee will apply to all electronic payments.	
	Narrative fully describing the proposed project (must be signed by applicant)	
DP	Legal description of the property to be annexed and/or rezoned: • Include a metes & bounds description to the section line/centerline of all adjacent roadways, stamped and signed by a registered professional land surveyor, with a calculated closure sheet. • Scaled exhibit map showing the boundaries of the legal description in compliance w/the requirements of the Idaho State Tax Commission Property Tax Administrative Rules IDAPA 35.01.03.225.01h. • If requesting more than one zoning designation, include a legal description for each zone along with an overall annexation/rezone boundary description. Also include the boundaries of each different zone on the map. • Submit word.doc and pdf version with engineer's seal.	
DP	Recorded warranty deed for the subject property	

DP	If the signature on this application is not the owner of the property, an **original** notarized statement (affidavit of legal interest) from the owner stating the applicant is authorized to submit this application.	
DP	One (1) 8½" X 11" copy and electronic copy in pdf. format of vicinity map showing the location of the subject property	
DP	One (1) full-size 24" X 36" copy and one (1) 11" X 17" copy of associated CUP/PUD Site Plan/Preliminary Plat. If this application is not accompanied by a plat or site plan, please submit conceptual development plan for the property.	
DP	Electronic copy in pdf. format of submitted plat, site or conceptual plan.	
DP	List of name(s) and address(es) of all canal or irrigation ditches within or contiguous to the proposed development.	
DP	One (1) copy of names and addresses printed on address labels, of property owners within three hundred feet (300') of the external boundaries of the property being considered as shown on record in the County Assessor's office. **Please contact the City to request addresses and labels.**	
DP	Two (2) copies of the Electronic versions of submitted application including neighborhood meeting information, signed application, narrative, legal description, warranty deed, vicinity map, preliminary plat/site plan, irrigation district information, shall be submitted in original pdf format (no scans for preliminary plat/site plans) on two (2) thumb drives only (no discs) with the files named with project name and plan type.	
DP	Signed Certification of Posting with pictures. (see attached posting requirements and certification form) – To be completed by application after acceptance of application. Staff will notify applicant of hearing and posting date.	
DP	*Applicant agrees to enter into a Development Agreement with this application. Applicant's Signature: Derk Pardoe	
DP	Property shall be annexed into Star Sewer and Water District prior to Final Plat approval, building permits. Please contact SSWD for details.	

FEE REQUIREMENT:

*** I have read and understand the above requirements. I further understand fees will be collected at the time of filing an application. I understand that there may be other fees associated with this application incurred by the City in obtaining reviews or referrals by architect, engineering, or other professionals necessary to enable the City to expedite this application. I understand that I, as the applicant, am responsible for all payments to the City of Star.*

Derk Pardoe
Applicant/Representative Signature

5/26/23
Date

City of Star
P.O. [illegible]
Star, Idaho [illegible]
P: 208-286-7247

CONDITIONAL USE PERMIT APPLICATION

****All applicable information must be filled out to be processed.*

FILE NO.: CU-22-05
Date Application Received: 5/27/2023 Fee Paid: _____
Processed by: City: Barbara Norgrove

Applicant Information:

PRIMARY CONTACT IS: Derk Pardoe

Applicant Name: Derk Pardoe
Applicant Address: 3454 Stone Mountain Ln. Sandy, UT Zip: 84092
Phone: 801-808-2357 Email: derkpardoe@gmail.com

Owner Name: Derk Pardoe
Owner Address: 3454 Stone Mountain Ln. Sandy, UT Zip: 84092
Phone: 801-808-2357 Email: derkpardoe@gmail.com

Representative (e.g., architect, engineer, developer):
Contact: Chad Garner Firm Name: Focus Engineering & Surveying
Address: 6949 S High Tech Dr. Ste. 200 Zip: 84047
Phone: 801-352-0075 Email: cgarner@focus-es.com

Property Information:

Site Address: 58 N Truman Pl 8370 W Shultz Ct. 8245 W Shultz Ct
Parcel Number: R3720001507, R3720001509, R3720002500, R3720002480 Part of R3720001505 Part of R3720002412 Part of S0409417201

Requested Condition(s) for Conditional Use: Requesting a conditional use for multifamily residential dwellings. The proposed boundaries of this multifamily development are currently zoned in Boise as C-2 and R1. We are currently filing for annexation into Star City and requesting a rezone of the entire property to the C-2 and R-10 zone. The multifamily residential dwellings would fall in the R-10 zone.

	Zoning Designation	Comp Plan Designation
Existing	C-2, R1, small portion of RUT	Commercial, High Density Residential, Compact Residential, Neighborhood Residential
Proposed	C-2 & R-10	Commercial & Compact Residential
North of site	RUT	N/A
South of site	C-1, R1, RUT (Hwy 44)	Commercial
East of site	MU, R-13, RUT	Commercial, High Density Residential, Neighborhood Residential
West of site	RUT (Hwy 16)	ITD 44/16 R.O.W.

Site Data:

Total Acreage of Site: ±19.4 acres for apartments; ±74.6 acres for entire development
Proposed Percentage of Site Devoted to Bldg Coverage: Approx. 23%
Proposed Percentage of Site Devoted to Landscaping: Approx. 35%
Number of Parking spaces: Proposed 701 stalls Required 686 stalls
Requested Front Setback: 10' Requested Rear Setback: 10'
Requested Side Setback: 0' Requested Side Setback: 0'
Requested Side Setback: 20' between buildings
Existing Site Characteristics: Existing homes, some abandoned buildings, partially improved portions of Hamlin Drive, Shultz St, and Shultz Cir, existing irrigation, storm drain, and overhead powerlines.
Number and Uses of Proposed Buildings: 19 residential multifamily building + 1 clubhouse building
Location of Buildings: Throughout property
Gross Floor Area of Proposed Buildings: Approx. 500,000 SQFT
Describe Proposed On and Off-Site Traffic Circulation: Property is near the intersection of Highways 16 and 44. Main access would be located off of Hamlin Ave, which is accessed from Highway 44. There would be circular traffic flow with internal roads/drive aisles located off of Shultz St and Hamlin Ave.
Proposed Signs – number, type, location: Entry monument signage at east entrance.
(include draft drawing) Secondary entry monument at north entrance.
Public Services (state what services are available and what agency is providing the service):

- Potable Water - Star Sewer and Water
- Irrigation Water - Middleton Mill Canal
- Sanitary Sewer - Star Sewer and Water
- Schools - Eagle Elementary, Star Middle School, Eagle High School
- Fire Protection - Middleton/Star Fire District
- Roads - Roads within property to be privately owned and maintained.

Flood Zone Data (This Info Must Be Filled Out Completely Prior to Acceptance):

Subdivision/Project Name: Talega Village Phase: 1
Special Flood Hazard Area: total acreage 0 number of homes/structures
0 Subject property does not have any special flood hazard areas.

a. A note must be provided on the site plan documenting the current flood zone in which the property or properties are located. The boundary line must be drawn on the plan in situations where two or more flood zones intersect over the property or properties being surveyed.

b. FEMA FIRM panel(s): #160xxxxxC, 160xxxxxE, etc.: 16001C0130J
FIRM effective date(s): mm/dd/year 06/19/2020
Flood Zone(s): Zone X, Zone A, Zone AE, Zone AH, etc.: Zone X
Base Flood Elevation(s): AE____.0 ft., etc.: N/A

c. Flood Zones are subject to change by FEMA and all land within a floodplain is regulated by Chapter 10 of the Star City Code.

Application Requirements:

(Applications are required to contain <u>one</u> copy of the following unless otherwise noted.)

Applicant (√)	Description	Staff (√)
	Pre-application meeting with Planning Department required prior to neighborhood meeting.	
	Copy of neighborhood meeting notice sent to property owners within 300 feet and meeting sign-in sheet. **(Please contact the City for addresses & labels)** (Applicants are required to hold a neighborhood meeting to provide an opportunity for public review of the proposed project prior to the submittal of an application.)	
	Completed and signed Conditional Use Application	
	Fee: Please contact the City for current fee. Fees may be paid in person with check or electronically with credit card. Please call City for electronic payment. Additional service fee will apply to all electronic payments.	
	Narrative fully describing the existing use, and the proposed project. (must be signed by applicant)	
	Legal description of the property (word.doc and electronic version with engineer's seal):	
	Copy of recorded warranty deed.	
	If the signature on this application is not the owner of the property, an **original** notarized statement (affidavit of legal interest) from the owner stating the applicant is authorized to submit this application.	
	One (1) copy of names and addresses printed on address labels, of property owners within three hundred feet (300') of the external boundaries of the property being considered as shown on record in the County Assessor's office. Please contact the City to request addresses and labels.	
	List of names(s) and address(es) of all canal or irrigation ditches within or contiguous to the proposed development.	
	Vicinity map showing the location of the subject property	
	One (1) full-size copy and One (1) 11"x 17" reduction of the Site Plan	
	One (1) full-size copy and One (1) 11"x 17" reduction of the landscape plan (if applicable)	
	Building elevations showing construction materials	
	Two (2) copies electronic versions of submitted application including signed application, narrative, legal description, warranty deed, vicinity map, site plan, landscape plan, building elevations, <u>shall be submitted in original pdf format (no scans) on a thumb drive only (no discs)</u> with the files named with project name and plan type. We encourage you to also submit at least one (1) color version for presentation purposes.	
	Signed Certification of Posting with pictures. (see attached posting requirements and certification form) – To be completed by application after acceptance of application. Staff will notify applicant of hearing and posting date.	

Site Plan (If applicable):

	The following items must be included on the site plan:	
	• Date, scale, north arrow, and project name	
	• Names, addresses, and phone number of owner(s), applicant, and engineer, surveyor or planner who prepared the site plan	
	• Existing boundaries, property lines, and dimensions of the lot	
	• Relationship to adjacent properties, streets, and private lanes	
	• Easements and right-of-way lines on or adjacent to the lot	
	• Existing and proposed zoning of the lot, and the zoning and land use of all adjacent properties	
	• Building locations(s) (including dimensions to property lines)	
	• Parking and loading areas (dimensioned)	
	• Traffic access drives and traffic circulation (dimensioned)	

	• Open/common spaces	
	• Refuse and service areas	
	• Utilities plan, including the following: Sewer, water, irrigation, and storm drainage (existing & proposed)	
	• All on-site lighting proposed – Must Meet City "Dark Sky" Ordinances	

Landscape Plan (If applicable):

	The following items must be included on the landscape plan:	
	• Date, scale, north arrow, and project name	
	• Names, addresses, and phone numbers of the developer and the person and/or firm preparing the plan	
	• Existing natural features such as canals, creeks, drains, ponds, wetlands, floodplains, high groundwater areas, and rock outcroppings	
	• Location, size, and species of all existing trees on site with trunks 4 inches or greater in diameter, measured 6 inches above the ground. Indicate whether the tree will be retained or removed.	
	• Existing buildings, structures, planting areas, light poles, power poles, walls, fences, berms, parking and loading areas, vehicular drives, trash areas, sidewalks, pathways, storm water detention areas, signs, street furniture, and other man-made elements	
	• Existing and proposed contours for all areas steeper than 20% slope. Berms shall be shown with one-foot contours	
	• Sight Triangles as defined in 8-4 A-7 of this Ordinance	
	• Location and labels for all proposed plants, including trees, shrubs, and groundcovers (trees must not be planted in City water or sewer easements). Scale shown for plant materials shall reflect approximate mature size	
	• Proposed screening structures	
	• Design drawings(s) of all fencing proposed	
	• Calculations of project components to demonstrate compliance with requirements of this ordinance, including: ➢ Number of street trees and lineal feet of street frontage ➢ Width of street buffers (exclusive of right-of-way) ➢ Width of parking lot perimeter landscape strip ➢ Buffer width between different land uses ➢ Number of parking stalls and percent of parking area with internal landscaping ➢ Total number of trees and tree species mix ➢ Mitigation for removal of existing trees, including number of caliper inches being removed	

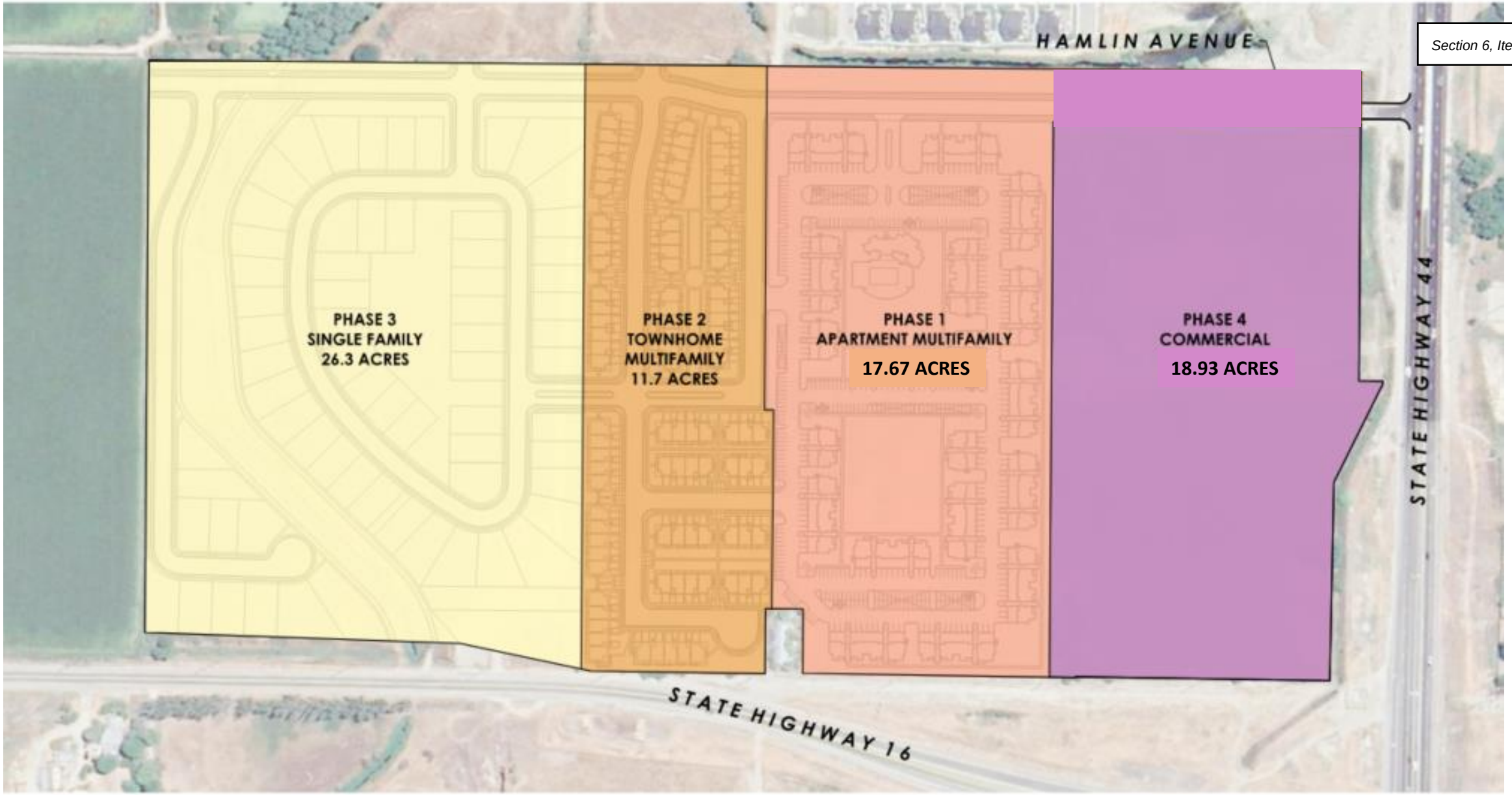
SIGNS (If applicable):

All signs will require separate submittal of a sign application.

FEE REQUIREMENT:

*** I have read and understand the above requirements. I further understand fees will be collected at the time of filing an application**. I understand that there may be other fees associated with this application incurred by the City in obtaining reviews or referrals by architect, engineering, or other professionals necessary to enable the City to expedite this application. I understand that I, as the applicant, am responsible for all payments to the City of Star.***

Derk Pardoe _____ 11/28/22 _____


HAMLIN AVENUE
PHASE 3
SINGLE FAMILY
26.3 ACRES
PHASE 2
TOWNHOME
MULTIFAMILY
11.7 ACRES
PHASE 1
APARTMENT MULTIFAMILY
17.67 ACRES
PHASE 4
COMMERCIAL
18.93 ACRES
STATE HIGHWAY 44
STATE HIGHWAY 16
GRAPHIC SCALE

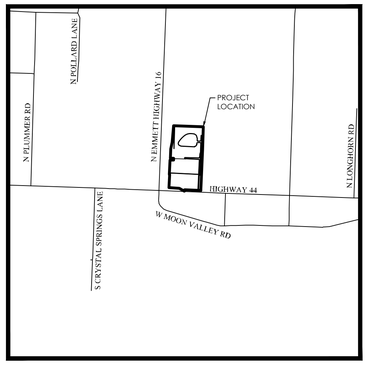
TALEGA VILLAGE

PREPARED FOR:

CIG ENTERPRISES

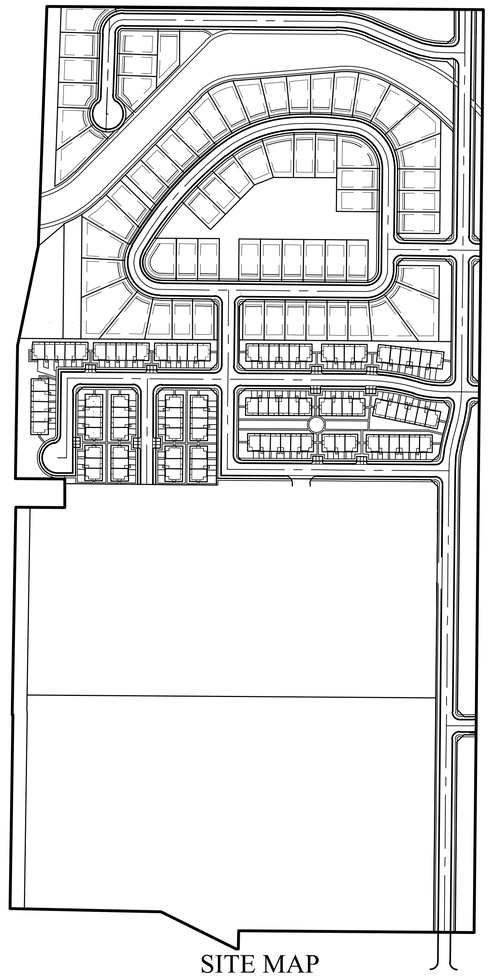
LOCATED IN:

STAR, IDAHO



VICINITY MAP

NTS



SITE MAP

Sheet List Table	
Sheet Number	Sheet Title
C1	COVER SHEET
C2.1	PRELIMINARY PLAT
C2.2	PRELIMINARY PLAT
C2.3	PRELIMINARY PLAT
C2.4	PRELIMINARY PLAT
C3	PRELIMINARY SITE PLAN
C4.1	GRADING & DRAINAGE PLAN
C4.2	GRADING & DRAINAGE PLAN
C4.3	GRADING & DRAINAGE PLAN
L1.0	OVERALL LANDSCAPE PLAN
L1.1	LANDSCAPE PLAN SINGLE FAMILY
L1.2	LANDSCAPE PLAN SINGLE FAMILY
L1.3	LANDSCAPE PLAN SINGLE FAMILY
L1.4	LANDSCAPE PLAN SINGLE FAMILY
L1.5	LANDSCAPE PLAN SINGLE FAMILY
L1.6	LANDSCAPE PLAN SINGLE FAMILY
L1.7	LANDSCAPE PLAN SINGLE FAMILY
L1.8	LANDSCAPE PLAN TOWNHOMES
L1.9	LANDSCAPE PLAN TOWNHOMES
L1.10	LANDSCAPE PLAN TOWNHOMES
L1.11	LANDSCAPE DETAILS

GENERAL NOTES

1. CONTRACTOR TO FIELD VERIFY HORIZONTAL AND VERTICAL LOCATIONS OF ALL EXISTING UTILITIES PRIOR TO COMMENCEMENT OF CONSTRUCTION, AND REPORT ANY DISCREPANCIES TO THE ENGINEER.

2. ANY AND ALL DISCREPANCIES IN THESE PLANS ARE TO BE BROUGHT TO THE ENGINEER'S ATTENTION PRIOR TO COMMENCEMENT OF CONSTRUCTION.

3. ALL CONSTRUCTION SHALL ADHERE TO CITY OF STAR AND ISPWC STANDARD PLANS AND SPECIFICATIONS.

4. ALL UTILITIES AND ROAD IMPROVEMENTS SHOWN ON THE PLANS HEREIN SHALL BE CONSTRUCTED USING REFERENCE TO SURVEY CONSTRUCTION STAKES PLACED UNDER THE SUPERVISION OF A PROFESSIONAL LICENSED SURVEYOR WITH A CURRENT LICENSE ISSUED BY THE STATE OF ICAHO. ANY IMPROVEMENTS INSTALLED BY ANY OTHER VERTICAL OR HORIZONTAL REFERENCE WILL NOT BE ACCEPTED OR CERTIFIED BY THE ENGINEER OF RECORD.

5. THIS DRAWING SET IS SCALED TO BE PRINTED ON A 24" X 36" SIZE OF PAPER (ARCH. D). IF PRINTED ON A SMALLER PAPER SIZE, THE DRAWING WILL NOT BE TO SCALE AND SHOULD NOT BE USED TO SCALE MEASUREMENTS FROM THE PAPER DRAWING. ALSO USE CAUTION, AS THERE MAY BE TEXT OR DETAIL THAT MAY BE OVERLOOKED DUE TO THE SMALL SIZE OF THE DRAWING.

NOTICE

BEFORE PROCEEDING WITH THIS WORK, THE CONTRACTOR SHALL CAREFULLY CHECK AND VERIFY ALL CONDITIONS, QUANTITIES, DIMENSIONS, AND GRADE ELEVATIONS, AND SHALL REPORT ALL DISCREPANCIES TO THE ENGINEER.

ENGINEER'S NOTES TO CONTRACTOR

1. THE EXISTENCE AND LOCATION OF ANY UNDERGROUND UTILITY PIPES, CONDUITS OR STRUCTURES SHOWN ON THESE PLANS WERE OBTAINED BY A SEARCH OF THE AVAILABLE RECORDS, TO THE BEST OF OUR KNOWLEDGE, THERE ARE NO EXISTING UTILITIES EXCEPT AS SHOWN ON THESE PLANS. THE CONTRACTOR IS REQUIRED TO TAKE DUE PRECAUTIONARY MEASURES TO PROTECT THE UTILITY LINES SHOWN ON THESE DRAWINGS. THE CONTRACTOR FURTHER ASSUMES ALL LIABILITY AND RESPONSIBILITY FOR THE UTILITY PIPES, CONDUITS OR STRUCTURES SHOWN OR NOT SHOWN ON THESE DRAWINGS. IF UTILITY LINES ARE ENCOUNTERED DURING CONSTRUCTION THAT ARE NOT IDENTIFIED BY THESE PLANS, CONTRACTOR SHALL NOTIFY ENGINEER IMMEDIATELY.

2. CONTRACTOR AGREES THAT HE SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS; AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD THE CITY, THE OWNER, AND THE ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER OR THE ENGINEER.

3. UNAUTHORIZED CHANGES & USES: THE ENGINEER PREPARING THESE PLANS WILL NOT BE RESPONSIBLE FOR, OR LIABLE FOR, UNAUTHORIZED CHANGES TO OR USES OF THESE PLANS. ALL CHANGES TO THE PLANS MUST BE IN WRITING AND MUST BE APPROVED BY THE PREPARER OF THESE PLANS.

4. ALL CONTOUR LINES SHOWN ON THE PLANS ARE AN INTERPRETATION BY CAD SOFTWARE OF FIELD SURVEY WORK PERFORMED BY A LICENSED SURVEYOR. DUE TO THE POTENTIAL DIFFERENCES IN INTERPRETATION OF CONTOURS BY VARIOUS TYPES OF GRADING SOFTWARE BY OTHER ENGINEERS OR CONTRACTORS, FOCUS DOES NOT GUARANTEE OR WARRANTY THE ACCURACY OF SUCH LINEWORK. FOR THIS REASON, FOCUS WILL NOT PROVIDE ANY GRADING CONTOURS IN CAD FOR ANY TYPE OF USE BY THE CONTRACTOR. SPOT ELEVATIONS AND PROFILE ELEVATIONS SHOWN IN THE DESIGN DRAWINGS GOVERN ALL DESIGN INFORMATION ILLUSTRATED ON THE APPROVED CONSTRUCTION SET. CONSTRUCTION EXPERTISE AND JUDGMENT BY THE CONTRACTOR IS ANTICIPATED BY THE ENGINEER TO COMPLETE BUILD-OUT OF THE INTENDED IMPROVEMENTS.

CONTACTS

ENGINEER & SURVEYOR
FOCUS ENGINEERING & SURVEYING, LLC
1001 N. ROSARIO STREET, SUITE 100
MERIDIAN, IDAHO 83642
(208) 974-0075
PROJECT MANAGER: DENNIS JORDAN
SURVEY MANAGER: TRENTON SMITH

OWNER/DEVELOPER
CIG ENTERPRISES
2255 E SUNNYSIDE AVE
SALT LAKE CITY, UTAH 84158
DERKPARDOE@GMAIL.COM
CONTACT: DERK PARDOE

N

S

GRAPHIC SCALE

200 0 100 200 400 800

(IN FEET)
1 inch = 200 ft.

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ENGINEERING AND SURVEYING, LLC
6949 S. HIGH TECH DRIVE SUITE 200
MIDVALE, UTAH 84047 PH: (801) 352-0075
www.focusutah.com

FOR REVIEW ONLY

TALEGA VILLAGE
STAR, IDAHO
COVER SHEET

REVISION BLOCK

#	DATE	DESCRIPTION
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COVER SHEET

Scale: 1"=200' | Drawn: DCJ
Date: 11/28/2023 | Job #: 21-0488
Sheet: C1

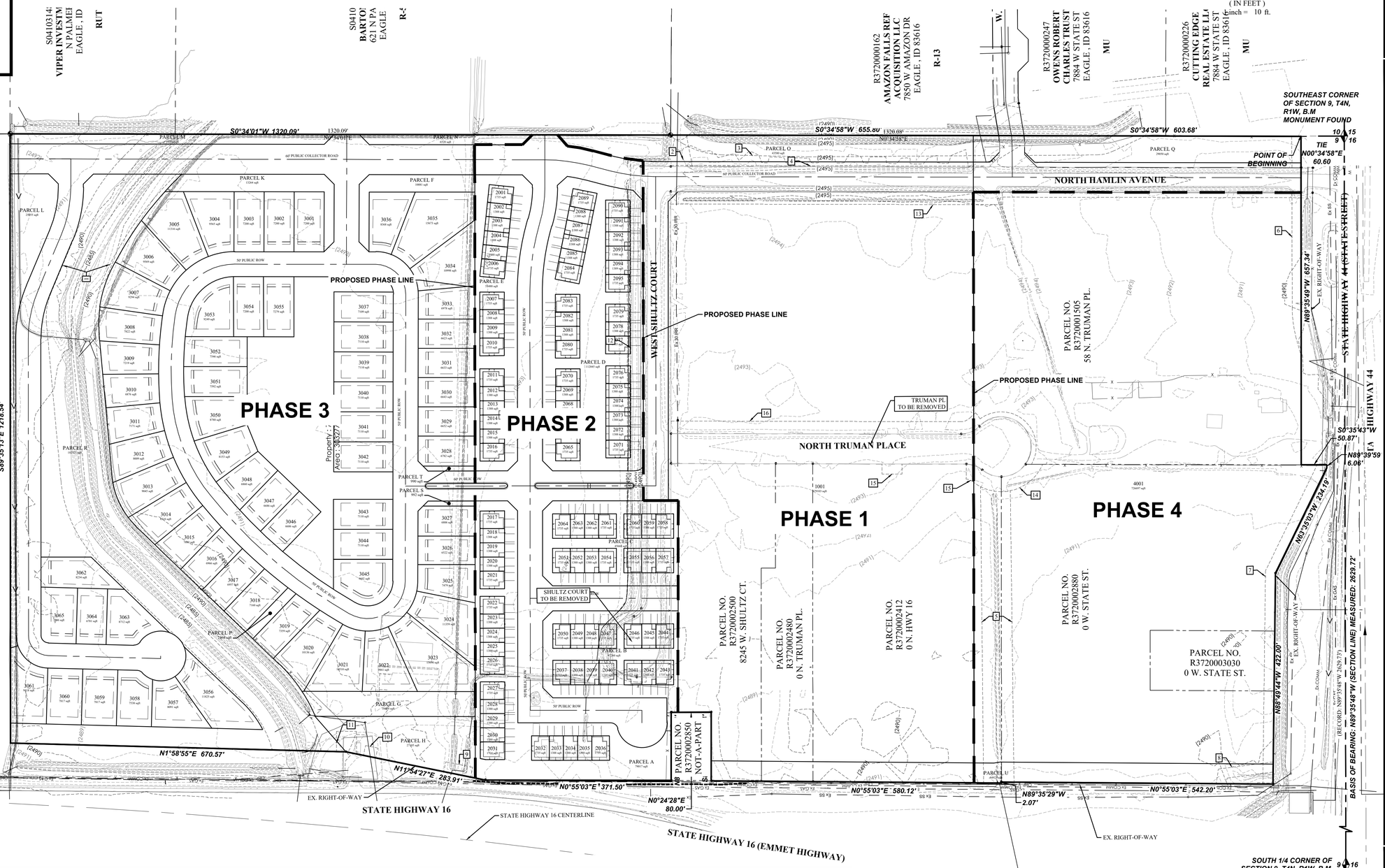
2021\21-0488 Talega Village\design\21-0488.dwg\sheets preliminary subdivision\21-0488 C1 Cover Sheet.dwg

PRELIMINARY PLAT

TALEGA VILLAGE

ADA COUNTY, IDAHO

LOCATE WITHIN THE SE 1/4 OF SECTION 9, TOWNSHIP 4 NORTH., RANGE 1 WEST.,
B.M. ADA COUNTY, IDAHO.



LEGEND

- BOUNDARY
- ROW
- CENTERLINE
- LOT LINE
- EASEMENT
- 15" STORM DRAIN
- 8" SANITARY SEWER
- 8" CULINARY WATER
- 8" SECONDARY WATER
- CONTOUR MAJOR
- CONTOUR MINOR
- EXIST. STORM DRAIN
- EXIST. SANITARY SEWER
- EXIST. CULINARY WATER
- EXIST. FENCE
- EXIST. CONTOUR MAJOR
- EXIST. CONTOUR MINOR
- SIGN
- STREET LIGHT
- SD MH, INLET, AND COMBO
- SEWER MANHOLE
- CULINARY VALVE, TEE & BEND
- SECONDARY VALVE, TEE & BEND
- WATER BLOW-OFF
- FIRE HYDRANT
- STREET MONUMENT (TO BE SET)
- EXIST. STREET MONUMENT
- EXIST. SD INLET & MH
- EXIST. SEWER MH
- EXIST. VALVE, TEE, & BEND
- EXIST. FIRE HYDRANT
- SPOT ELEVATION

GRAPHIC SCALE

(IN FEET)
1 inch = 10 ft.

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MIDVALE, UTAH 84047 PH: (801) 352-0075
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FOR REVIEW ONLY

TALEGA VILLAGE
ADA COUNTY, IDAHO
LOCATE WITHIN THE SE 1/4 OF SECTION 9, T4N, R1W, B.M.
RANGE 1 WEST., B.M. ADA COUNTY, IDAHO.
PRELIMINARY PLAT

REVISION BLOCK

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PRELIMINARY PLAT

Scale: 1"=100' | Drawn: MJT
Date: 5/25/2023 | Job #: 21-0488
Sheet: C2

ENGINEER
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SURVEYOR
JOHN GLETNE
5099 S VALLEY ST, BOISE, ID 83709
PHONE: (208) 261-2226
EMAIL:JOHN@VALLEYLANDSURVEYING.COM

DEVELOPER
DERK PARDOE
3454 STONE MOUNTAIN LANE, SANDY, UT 84092.
EMAIL:DERKPARDOE@GMAIL.COM

OWNERS OF RECORD
CIG ENTERPRISES, LLC
2255 E SUNNYSIDE AVE.
SALT LAKE CITY, UTAH 84158.

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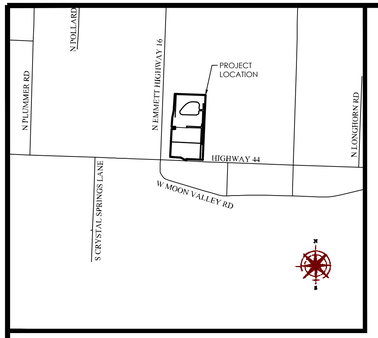
I:\2021\21-0488 Talega Village\design 21-0488 v3\wg\sheets preliminary subdivision\21-0488 C2 Preliminary Plat.dwg

PRELIMINARY PLAT

TALEGA VILLAGE

ADA COUNTY, IDAHO

LOCATE WITHIN THE SE 1/4 OF SECTION 9, TOWNSHIP 4 NORTH., RANGE 1 WEST.,
B.M. ADA COUNTY, IDAHO.



LEGEND

- BOUNDARY
- ROW
- CENTERLINE
- LOT LINE
- EASEMENT
- 15" STORM DRAIN
- 8" SANITARY SEWER
- 8" CULINARY WATER
- 8" SECONDARY WATER
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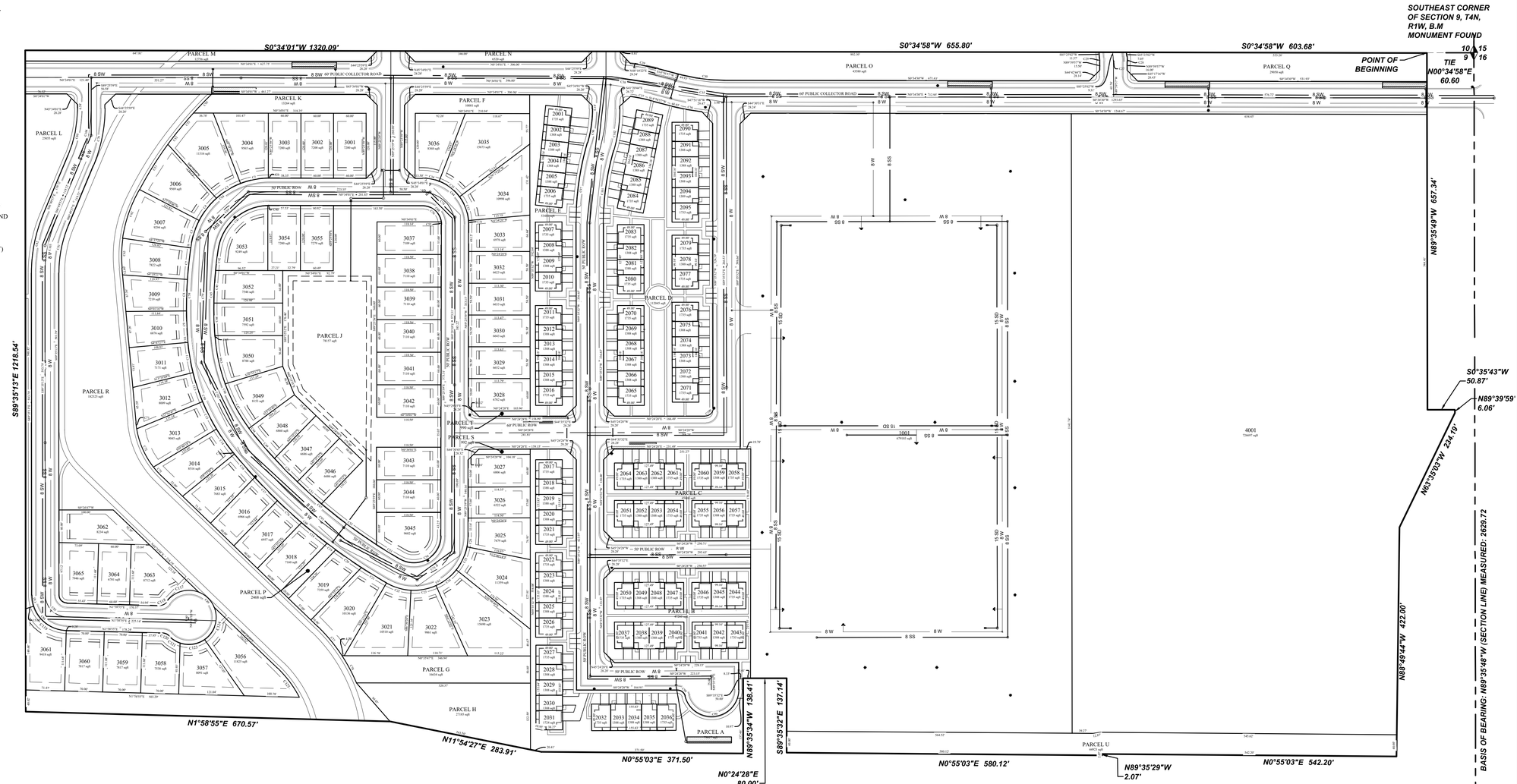
- EXIST. SEWER MH
- EXIST. VALVE, TEE, & BEND
- EXIST. FIRE HYDRANT
- XXXX.XX SPOT ELEVATION



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FOR REVIEW ONLY

TALEGA VILLAGE
ADA COUNTY, IDAHO
LOCATE WITHIN THE SE 1/4 OF SECTION 9, TOWNSHIP 4 NORTH.,
RANGE 1 WEST., B.M. ADA COUNTY, IDAHO.
PRELIMINARY PLAT

REVISION BLOCK

#	DATE	DESCRIPTION
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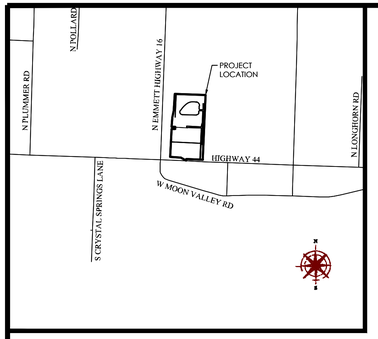
PRELIMINARY PLAT

Scale: 1"=100'	Drawn: MJT
Date: 5/25/2023	Job #: 21-0488
Sheet: C2.1	

Know what's below. Call 811 before you dig.



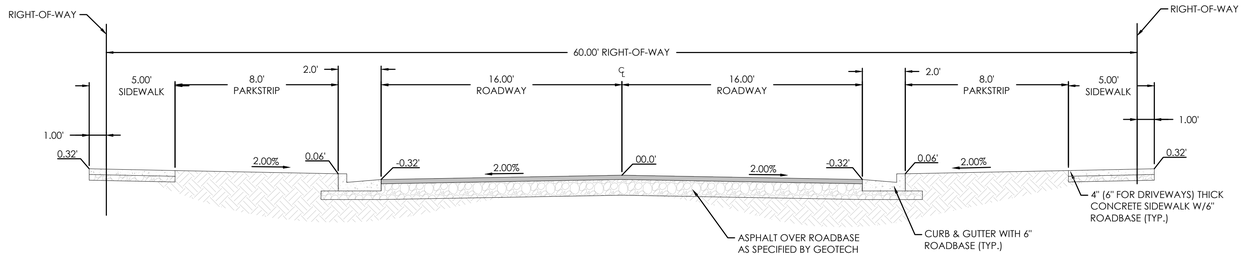
BOUNDARY LINE
SECTION LINE
EXIST. EASEMENT LINE
EXIST. PROPERTY LINE
EXIST. RIGHT-OF-WAY LINE
EXIST. CONTOUR MAJOR
EXIST. CONTOUR MINOR
EXIST. STORM DRAIN
EXIST. SANITARY SEWER
EXIST. CULINARY WATER
EXIST. SECONDARY WATER
EXIST. IRRIGATION
EXIST. NATURAL GAS
EXIST. COMMUNICATIONS
EXIST. OVERHEAD POWER
EXIST. UNDERGROUND POWER
EXIST. FENCE
EXIST. IRRIGATION DITCH FLOWLINE
EXIST. CONCRETE, CURB & GUTTER
EXIST. EDGE OF ASPHALT
PROPOSED CURB & GUTTER
SECTION MONUMENT (FOUND)
SECTION MONUMENT (NOT FOUND)
BOUNDARY MARKER
EXIST. SD INLET, MANHOLE & COMBO BOX
EXIST. SEWER MANHOLE
EXIST. WATER VALVE & WATER METER
EXIST. FIRE HYDRANT
EXIST. IRRIGATION BOX
EXIST. GAS VALVE & GAS METER
EXIST. STREET LIGHT
EXIST. POWER POLE
EXIST. ELECTRICAL BOX
EXIST. COMMUNICATIONS BOX

PRELIMINARY PLAT

TALEGA VILLAGE

ADA COUNTY, IDAHO

LOCATE WITHIN THE SE 1/4 OF SECTION 9, TOWNSHIP 4 NORTH., RANGE 1 WEST.,
B.M. ADA COUNTY, IDAHO.



60' RESIDENTIAL ROAD
N.T.S.

GENERAL NOTES:

1. ALL PUBLIC UTILITY EASEMENTS PLATTED HEREON ARE IN PERPETUITY FOR INSTALLATION, MAINTENANCE, REPAIR AND REPLACEMENT OF PUBLIC UTILITIES, SIDEWALKS AND APPURTENANT PARTS THEREOF AND THE RIGHT TO REASONABLE ACCESS TO GRANTOR'S PROPERTY FOR THE ABOVE DESCRIBED PURPOSES. THE EASEMENT SHALL RUN WITH THE REAL PROPERTY AND SHALL BE BINDING UPON THE GRANTOR AND THE GRANTOR'S SUCCESSORS, HEIRS, AND ASSIGNS.

2. ALL COMMON AREAS AND STREETS OR DRIVES TO SERVE AS PUBLIC UTILITY EASEMENTS.

3. ALL AREAS ARE COMMON AREAS AND FACILITIES EXCEPT AS OTHERWISE SPECIFICALLY DESIGNATED.

4. THE INSTALLATION OF IMPROVEMENTS SHALL CONFORM TO ALL CITY STANDARDS, RESOLUTIONS AND ORDINANCES.

5. BUILDING PERMITS WILL NOT BE ISSUED UNTIL ALL IMPROVEMENTS HAVE BEEN INSTALLED AND ACCEPTED BY THE CITY IN WRITING OR BONDED FOR.

6. THIS AREA IS SUBJECT TO THE NORMAL, EVERYDAY SOUNDS, ODORS, SIGHTS, EQUIPMENT, FACILITIES, AND ANY OTHER ASPECTS ASSOCIATED WITH AGRICULTURAL LIFESTYLES. FUTURE RESIDENTS SHOULD ALSO RECOGNIZE THE RISK INHERENT WITH LIVESTOCK.

7. SANITARY SEWER AND DOMESTIC WATER SERVICE TO BE PROVIDED BY STAR SEWER AND WATER DISTRICT.

8. SUBJECT PROPERTY DOES NOT FALL WITHIN FEMA FLOOD HAZARD ZONES A AND X. SEE FIRM PANEL

9. ALL LOTS ARE HEREBY DESIGNATED AS HAVING A PERMANENT EASEMENT FOR PUBLIC UTILITIES, IRRIGATION AND LOT DRAINAGE OVER THE TEN (10) FEET ADJACENT TO ANY PUBLIC STREET. THIS EASEMENT SHALL NOT PRECLUDE THE CONSTRUCTION OF HARD-SURFACED DRIVEWAYS AND WALKWAYS TO EACH LOT.

10. UNLESS OTHERWISE SHOWN AND DIMENSIONED, ALL LOT ARE HEREBY DESIGNATED AS HAVING A PERMANENT EASEMENT FOR PUBLIC UTILITIES, IRRIGATION AND LOT DRAINAGE OVER THE FIVE (5) FEET ADJACENT TO ANY INTERIOR SIDE LOT LINE, AND OVER THE TWELVE (12) FEET ADJACENT TO ANY REAR LOT LINE OR SUBDIVISION BOUNDARY.

11. THIS SUBDIVISION WILL BE SUBJECT TO THE TERMS OF A DEVELOPMENT AGREEMENT WITH THE CITY OF STAR.

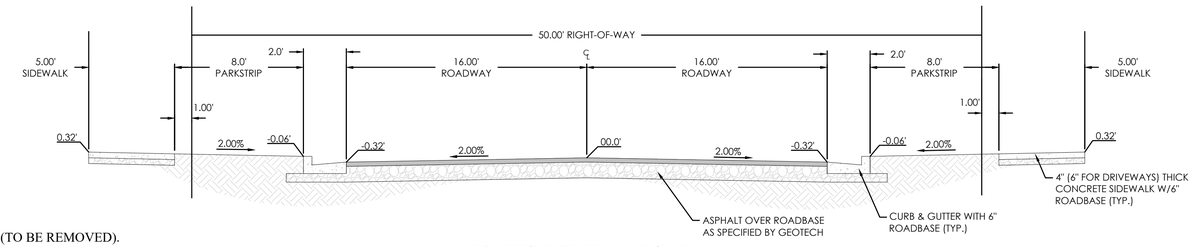
12. IRRIGATION WATER SHALL BE PROVIDED FROM THE GROUNDWATER RIGHTS WITH IDWR (63-2957) IN COMPLIANCE WITH IDAHO CODE 31-3805(B). LOTS WITHIN THE SUBDIVISION SHALL BE ENTITLED TO IRRIGATION WATER RIGHTS, AND THE INDIVIDUAL LOTS SHALL BE SUBJECT TO IRRIGATION WATER ASSESSMENTS.

13. BUILDING SETBACKS AND DIMENSIONAL STANDARDS IN THIS SUBDIVISION SHALL BE IN COMPLIANCE WITH THE APPLICABLE ZONING REGULATIONS OF THE CITY OF STAR OR AS APPROVED UNDER THE DEVELOPMENT AGREEMENT.

14. DIRECT LOT ACCESS TO STATE HIGHWAY 16 AND 44 IS PROHIBITED. (EXCEPT EMERGENCY VEHICLE ACCESS)

EASEMENTS NOTES:

1. DRY CREEK CANAL EASEMENT 25' FROM TOP OF BANK ON EACH SIDE.
2. ACCESS EASEMENT INST. NO. 2017-121572
3. DRY CREEK CANAL EASEMENT 25' FROM TOP OF BANK
4. ACHD SIDEWALK EASEMENT INST. NO. 2019-046199.
5. MIDDLETON MILL CANAL EASEMENT 25' FROM TOP OF BANK.
6. DRAINAGE DISTRICT 2 EASEMENT 25' FROM TOP OF BANK.
7. DRAINAGE DISTRICT 2 EASEMENT 25' FROM TOP OF BANK.
8. 20' TELECOMMUNICATIONS EASEMENT, INST. NO. 9001613 & 9129096.
9. ITD PERMANENT DRAINAGE AND IRRIGATION EASEMENT, INST NO. 111101448.
10. ITD PERMANENT DRAINAGE AND IRRIGATION EASEMENT, INST NO. 111101448.
11. TELECOMMUNICATIONS EASEMENT, INST. NO. 8961467.
12. ITD PERMANENT DRAINAGE AND IRRIGATION EASEMENT, INST NO. 111101448.
13. ITD PERMANENT DRAINAGE AND IRRIGATION EASEMENT, INST. NO 111092656.
14. ITD PERMANENT DRAINAGE AND IRRIGATION EASEMENT, INST NO. 112005782. (TO BE REMOVED).
15. ITD PERMANENT DRAINAGE AND IRRIGATION EASEMENT, INST NO. 112005783. (TO BE REMOVED).
16. ITD PERMANENT DRAINAGE AND IRRIGATION EASEMENT, INST NO. 111092656. (TO BE REMOVED).



50' RESIDENTIAL ROAD
N.T.S.

PRELIMINARY PLAT DEVELOPMENT DATA

TOTAL ACRES (ENTIRE DEVELOPMENT)	74.60 AC
SINGLE-FAMILY LOTS	(16.9%) 12.6 AC
TOWNHOME UNITS	(4.6%) 3.4 AC
PUBLIC RIGHT-OF-WAY	(14.9%) 11.1 AC
TOTAL OPEN SPACE	(63.7%) 47.5 AC
TOTAL USABLE OPEN SPACE	(58.6%) 43.7 AC
TOTAL LOTS	
SINGLE-FAMILY RESIDENTIAL	65
TOWNHOMES RESIDENTIAL	95
MULTI-FAMILY LOT	1
COMMON LOTS/PARCELS	5
COMMERCIAL LOT	1
OPEN SPACE	14
TOTAL LOTS	181
LOT AREA DATA	
SMALLEST LOT SIZE (SINGLE-FAMILY)	6,686 SQ. FT.
SMALLEST LOT SIZE (TOWNHOMES)	4,859 SQ. FT.
AVERAGE LOT SIZE (SINGLE FAMILY)	8,400 SQ. FT.
AVERAGE LOT SIZE (TOWNHOMES)	6,974 SQ. FT.
RESIDENTIAL DENSITY	
OVERALL DENSITY	2.39 DU/AC
RESIDENTIAL GROSS DENSITY	8.7 UNITS/AC
ZONING	
EXISTING:	RUT, R-1 & C-2
PROPOSED:	R-10 & C-2

ENGINEER
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FOR REVIEW ONLY

TALEGA VILLAGE
ADA COUNTY, IDAHO
LOCATE WITHIN THE SE 1/4 OF SECTION 9, TOWNSHIP 4 NORTH.,
RANGE 1 WEST., B.M. ADA COUNTY, IDAHO.
PRELIMINARY PLAT

REVISION BLOCK

#	DATE	DESCRIPTION
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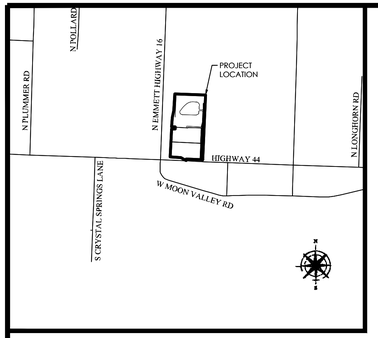
PRELIMINARY PLAT

Scale: N.T.S. | Drawn: MJT
Date: 5/25/2023 | Job #: 21-0488
Sheet: C2.2

G:\21\21-0488 talega Village\design 21-0488\dwg\sheet\ preliminary subdivision\21-0488 C2.2 Preliminary Plat.dwg



PRELIMINARY PLAT

TALEGA VILLAGE

ADA COUNTY, IDAHO

LOCATE WITHIN THE SE 1/4 OF SECTION 9, TOWNSHIP 4 NORTH., RANGE 1 WEST.,
B.M. ADA COUNTY, IDAHO.

Curve Table					
CURVE	RADIUS	DELTA	LENGTH	CHORD DIRECTION	CHORD LENGTH
C1	145.00	0°39'11"	1.65	S00°14'25"W	1.65
C2	145.00	20°36'39"	52.16	S10°23'30"E	51.88
C3	145.00	20°40'02"	52.30	S31°01'50"E	52.02
C4	145.00	20°40'02"	52.30	S51°41'52"E	52.02
C5	145.00	18°59'23"	48.06	S71°31'35"E	47.84
C6	775.00	0°21'18"	4.80	S81°11'56"E	4.80
C7	775.00	4°18'04"	58.18	S83°31'37"E	58.17
C8	775.00	4°18'04"	58.18	S87°49'42"E	58.17
C9	775.00	3°47'27"	51.27	N88°07'33"E	51.27
C10	375.00	1°01'17"	6.68	N85°43'11"E	6.68
C11	375.00	8°37'37"	56.46	N80°53'44"E	56.41
C12	375.00	8°37'37"	56.46	N72°16'07"E	56.41
C13	375.00	8°37'37"	56.46	N63°38'30"E	56.41
C14	375.00	7°58'43"	52.22	N55°20'20"E	52.18
C15	1025.00	0°14'49"	4.42	N51°13'35"E	4.42
C16	1025.00	3°11'33"	57.11	N49°30'24"E	57.10
C17	1025.00	3°21'22"	60.04	N46°13'56"E	60.03
C18	1025.00	3°22'00"	60.23	N39°30'55"E	60.22
C19	1025.00	1°07'36"	20.16	N37°16'07"E	20.16
C20	1025.00	3°13'45"	57.77	N35°05'26"E	57.76

Curve Table					
CURVE	RADIUS	DELTA	LENGTH	CHORD DIRECTION	CHORD LENGTH
C21	1025.00	3°00'30"	53.82	N31°58'19"E	53.81
C22	100.00	27°07'29"	47.34	N16°54'19"E	46.90
C23	100.00	27°07'29"	47.34	N10°13'11"W	46.90
C24	100.00	27°06'25"	47.31	N37°20'08"W	46.87
C25	100.00	27°06'25"	47.31	N64°26'33"W	46.87
C26	100.00	11°26'13"	19.96	S83°42'52"E	19.93
C27	100.00	4°35'01"	8.00	S87°42'32"W	8.00
C28	125.00	4°35'01"	10.00	N87°42'32"E	10.00
C29	75.00	4°35'01"	6.00	N87°42'32"E	6.00
C30	315.00	14°22'27"	79.03	S07°45'43"W	78.82
C31	85.00	5°08'21"	7.62	S87°59'51"W	7.62
C32	85.00	31°55'19"	47.36	S69°28'00"W	46.75
C33	85.00	31°55'19"	47.36	S37°32'41"W	46.75
C34	85.00	21°01'01"	31.18	S11°04'32"W	31.00
C35	345.00	14°22'27"	86.55	S07°45'43"W	86.33
C36	375.00	8°07'07"	53.14	S10°53'23"W	53.09
C37	325.00	6°26'38"	36.55	N11°43'38"E	36.53
C38	355.00	14°22'56"	89.11	N07°45'29"E	88.88
C39	385.00	7°40'56"	51.62	N11°06'29"E	51.58
C40	95.00	1°29'34"	2.47	N00°10'46"W	2.47

Curve Table					
CURVE	RADIUS	DELTA	LENGTH	CHORD DIRECTION	CHORD LENGTH
C41	95.00	80°05'45"	132.80	N40°58'25"W	122.25
C42	725.00	3°05'48"	39.18	N82°34'11"W	39.18
C43	725.00	4°44'58"	60.10	N86°29'33"W	60.08
C44	725.00	4°44'44"	60.05	S88°45'36"W	60.03
C45	725.00	0°09'25"	1.98	S86°18'32"W	1.98
C46	325.00	15°47'14"	89.55	S78°20'13"W	89.27
C47	325.00	16°26'44"	93.28	S62°13'14"W	92.96
C48	325.00	2°38'53"	15.02	S52°40'26"W	15.02
C49	975.00	3°24'03"	57.87	S49°38'57"W	57.86
C50	975.00	3°31'41"	60.04	S46°11'05"W	60.03
C51	975.00	3°31'41"	60.04	S42°39'24"W	60.03
C52	671.49	2°47'49"	32.78	N51°58'25"W	32.78
C52	975.00	7°25'28"	126.34	S37°10'49"W	126.26
C53	755.00	3°07'23"	41.15	N49°00'49"W	41.15
C53	975.00	3°00'01"	51.06	S31°58'04"W	51.05
C54	50.00	119°54'02"	104.63	S29°28'58"E	86.56
C55	35.00	8°12'48"	5.02	N86°27'37"E	5.01
C56	35.00	81°47'12"	49.96	N41°27'37"E	45.83
C57	671.49	8°26'20"	98.90	N57°35'30"W	98.81
C58	775.00	12°44'53"	172.44	N87°23'44"W	172.08

Curve Table					
CURVE	RADIUS	DELTA	LENGTH	CHORD DIRECTION	CHORD LENGTH
C59	375.00	34°52'51"	228.29	S68°47'24"W	224.78
C60	1025.00	20°52'55"	373.57	S40°54'31"W	371.51
C61	100.00	119°54'02"	209.27	S29°28'58"E	173.12
C62	254.66	21°26'03"	95.27	N70°17'55"W	94.71
C63	237.50	13°21'26"	55.37	N88°04'59"W	55.24
C64	85.00	90°00'00"	133.52	N45°34'01"E	120.21
C65	725.00	12°44'53"	161.31	N87°23'44"W	160.98
C66	325.00	34°52'51"	197.85	S68°47'24"W	194.81
C67	975.00	20°52'55"	355.35	S40°54'31"W	353.38
C68	35.00	90°00'00"	54.98	N45°34'01"E	49.50
C69	120.00	81°35'18"	170.88	N40°13'38"W	156.80
C70	750.00	12°44'53"	166.87	N87°23'44"W	166.53
C71	157.50	4°12'15"	11.56	S83°08'11"W	11.55
C72	157.50	28°09'13"	77.39	S66°57'27"W	76.61
C73	75.00	119°54'02"	156.95	S29°28'58"E	129.84
C74	60.00	90°00'00"	94.25	N45°34'01"E	84.85
C75	157.50	8°28'03"	23.28	S48°38'50"W	23.26
C76	1025.00	3°21'20"	60.03	N42°52'35"E	60.02
C77	312.50	12°50'39"	70.05	S50°50'07"W	69.91
C78	312.50	10°24'36"	56.78	S62°27'45"W	56.70

Curve Table					
CURVE	RADIUS	DELTA	LENGTH	CHORD DIRECTION	CHORD LENGTH
C79	275.00	22°36'21"	108.50	S78°07'48"E	107.80
C80	225.00	22°36'21"	88.77	S78°07'48"E	88.20
C81	225.00	22°45'36"	89.38	N78°12'25"W	88.79
C82	275.00	22°45'36"	109.24	N78°12'25"W	108.52
C83	65.00	18°11'43"	20.64	S81°18'55"W	20.56
C84	65.00	88°25'52"	100.32	S46°11'51"W	90.66
C85	40.00	88°25'52"	61.74	S46°11'51"W	55.79
C89	50.00	283°36'29"	247.49	N86°21'54"E	61.84
C91	15.00	57°25'16"	15.03	S26°43'43"E	14.41
C93	1000.00	20°52'55"	364.46	S40°54'31"W	362.45
C94	145.00	81°35'18"	206.48	N40°13'38"W	189.47
C95	755.00	3°41'01"	48.54	S45°36'43"E	48.53
C96	225.00	16°07'34"	63.33	S81°22'12"E	63.12
C97	525.00	16°17'08"	149.22	N81°26'58"W	148.72
C98	15.00	76°39'27"	20.07	N38°44'12"E	18.61
C99	50.00	166°39'27"	145.44	S06°15'48"E	99.32
C100	15.00	90°00'00"	23.56	S44°35'32"E	21.21
C101	475.00	16°17'08"	135.01	N81°26'58"W	134.56
C102	275.00	16°07'34"	77.40	S81°22'12"E	77.15
C103	350.00	34°52'51"	213.07	S68°47'24"W	209.80

Curve Table					
CURVE	RADIUS	DELTA	LENGTH	CHORD DIRECTION	CHORD LENGTH
C104	250.00	22°36'21"	98.64	S78°07'48"E	98.00
C105	250.00	22°45'36"	99.31	N78°12'25"W	98.66
C117	50.00	76°46'42"	67.00	S17°02'59"E	62.10
C118	15.00	57°25'16"	15.03	S26°43'43"E	14.41
C119	65.00	70°14'08"	79.68	N37°05'59"E	74.78
C120	15.00	46°11'13"	12.09	N25°04'32"E	11.77
C121	50.00	28°54'03"	25.22	N33°43'07"E	24.95
C123	50.00	54°08'09"	47.24	N07°48'00"W	45.50
C124	50.00	77°38'42"	67.76	N73°41'25"W	62.69
C125	206.00	18°45'05"	67.42	N53°47'20"E	67.12

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TALEGA VILLAGE
ADA COUNTY, IDAHO
LOCATE WITHIN THE SE 1/4 OF SECTION 9, TOWNSHIP 4 NORTH.,
RANGE 1 WEST., B.M. ADA COUNTY, IDAHO.
PRELIMINARY PLAT

REVISION BLOCK

#	DATE	DESCRIPTION
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PRELIMINARY PLAT

Scale: N.T.S. Drawn: MJT
Date: 5/25/2023 Job #: 21-0488
Sheet: C2.3

Know what's below. Call 811 before you dig.

I:\2021\21-0488 Talega Village\design 21-0488\dwg\sheet\ preliminary subdivision\21-0488 C2.3 Preliminary Plat.dwg

N

S

GRAPHIC SCALE

100 0 50 100 200 400

(IN FEET)
1 inch = 100 ft.

LEGEND

- BOUNDARY
- ROW
- CENTERLINE
- LOT LINE
- EASEMENT
- 15" STORM DRAIN
- 8" SANITARY SEWER
- 8" CULINARY WATER
- 8" SECONDARY WATER
- CONTOUR MAJOR
- CONTOUR MINOR
- EXIST. STORM DRAIN
- EXIST. SANITARY SEWER
- EXIST. CULINARY WATER
- EXIST. FENCE
- EXIST. CONTOUR MAJOR
- EXIST. CONTOUR MINOR
- SIGN
- STREET LIGHT
- SD MH, INLET, AND COMBO
- SEWER MANHOLE
- CULINARY VALVE, TEE & BEND
- SECONDARY VALVE, TEE & BEND
- WATER BLOW-OFF
- FIRE HYDRANT
- STREET MONUMENT (TO BE SET)
- EXIST. STREET MONUMENT
- EXIST. SD INLET & MH
- EXIST. SEWER MH
- EXIST. VALVE, TEE, & BEND
- EXIST. FIRE HYDRANT
- o XXXX.XX SPOT ELEVATION

STREET LIGHT #107 W/ XPJ-1 MAST ARM & DSS20 HEAD OR EQUIVALENT

STREET LIGHT #106 W/ XPJ-1 MAST ARM & DSS20 HEAD OR EQUIVALENT

STREET LIGHT #105 W/ XPJ-1 MAST ARM & DSS20 HEAD OR EQUIVALENT

8" WATER (TYP)

8" SEWER (TYP)

8" PRESSURE IRRIGATION (TYP)

STREET LIGHT #104 W/ XPJ-1 MAST ARM & DSS20 HEAD OR EQUIVALENT

STREET LIGHT #103 W/ XPJ-1 MAST ARM & DSS20 HEAD OR EQUIVALENT

STREET LIGHT #102 W/ XPJ-1 MAST ARM & DSS20 HEAD OR EQUIVALENT

STREET LIGHT #121 W/ XPJ-1 MAST ARM & DSS20 HEAD OR EQUIVALENT

STREET LIGHT #132 W/ XPJ-1 MAST ARM & DSS20 HEAD OR EQUIVALENT

STREET LIGHT #131 W/ XPJ-1 MAST ARM & DSS20 HEAD OR EQUIVALENT

STREET LIGHT #108 W/ XPJ-1 MAST ARM & DSS20 HEAD OR EQUIVALENT

STREET LIGHT #109 W/ XPJ-1 MAST ARM & DSS20 HEAD OR EQUIVALENT

STREET LIGHT #115 W/ XPJ-1 MAST ARM & DSS20 HEAD OR EQUIVALENT

STREET LIGHT #116 W/ XPJ-1 MAST ARM & DSS20 HEAD OR EQUIVALENT

231.66 ft

236 ft

STREET LIGHT #120 W/ XPJ-1 MAST ARM & DSS20 HEAD OR EQUIVALENT

STREET LIGHT #129 W/ XPJ-1 MAST ARM & DSS20 HEAD OR EQUIVALENT

STREET LIGHT #130 W/ XPJ-1 MAST ARM & DSS20 HEAD OR EQUIVALENT

STREET LIGHT #112 W/ XPJ-1 MAST ARM & DSS20 HEAD OR EQUIVALENT

STREET LIGHT #114 W/ XPJ-1 MAST ARM & DSS20 HEAD OR EQUIVALENT

STREET LIGHT #133 W/ XPJ-1 MAST ARM & DSS20 HEAD OR EQUIVALENT

STREET LIGHT #113 W/ XPJ-1 MAST ARM & DSS20 HEAD OR EQUIVALENT

CLUSTER MAILBOX UNIT IN PARK STRIP BETWEEN SIGLE FAMILY AND TOWNHOMES

STREET LIGHT #134 W/ XPJ-1 MAST ARM & DSS20 HEAD OR EQUIVALENT

STREET LIGHT #111 W/ XPJ-1 MAST ARM & DSS20 HEAD OR EQUIVALENT

STREET LIGHT #122 W/ XPJ-1 MAST ARM & DSS20 HEAD OR EQUIVALENT

229.66 ft

STREET LIGHT #128 W/ XPJ-1 MAST ARM & DSS20 HEAD OR EQUIVALENT

STREET LIGHT #110 W/ XPJ-1 MAST ARM & DSS20 HEAD OR EQUIVALENT

STREET LIGHT #119 W/ XPJ-1 MAST ARM & DSS20 HEAD OR EQUIVALENT

STREET LIGHT #117 W/ XPJ-1 MAST ARM & DSS20 HEAD OR EQUIVALENT

208.10 ft

1,140.77 ft

STREET LIGHT #127 W/ XPJ-1 MAST ARM & DSS20 HEAD OR EQUIVALENT

STREET LIGHT #126 W/ XPJ-1 MAST ARM & DSS20 HEAD OR EQUIVALENT

40' BUFFER SPACE (TYP.)

STREET LIGHT #123 W/ XPJ-1 MAST ARM & DSS20 HEAD OR EQUIVALENT

STREET LIGHT #125 W/ XPJ-1 MAST ARM & DSS20 HEAD OR EQUIVALENT

STREET LIGHT #124 W/ XPJ-1 MAST ARM & DSS20 HEAD OR EQUIVALENT

STREET LIGHT #101 W/ XPJ-1 MAST ARM & DSS20 HEAD OR EQUIVALENT

40' BUFFER SPACE (TYP.)

STREET LIGHT #118 W/ XPJ-1 MAST ARM & DSS20 HEAD OR EQUIVALENT

40' BUFFER SPACE (TYP.)

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TALEGA VILLAGE
STAR, IDAHO
PRELIMINARY SITE PLAN

REVISION BLOCK

#	DATE	DESCRIPTION
1	----	----
2	----	----
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PRELIMINARY SITE PLAN

Scale:	1"=100'	Drawn:	DCJ
Date:	11/28/2023	Job #:	21-0488
Sheet:	C3		

Know what's below. Call 811 before you dig.

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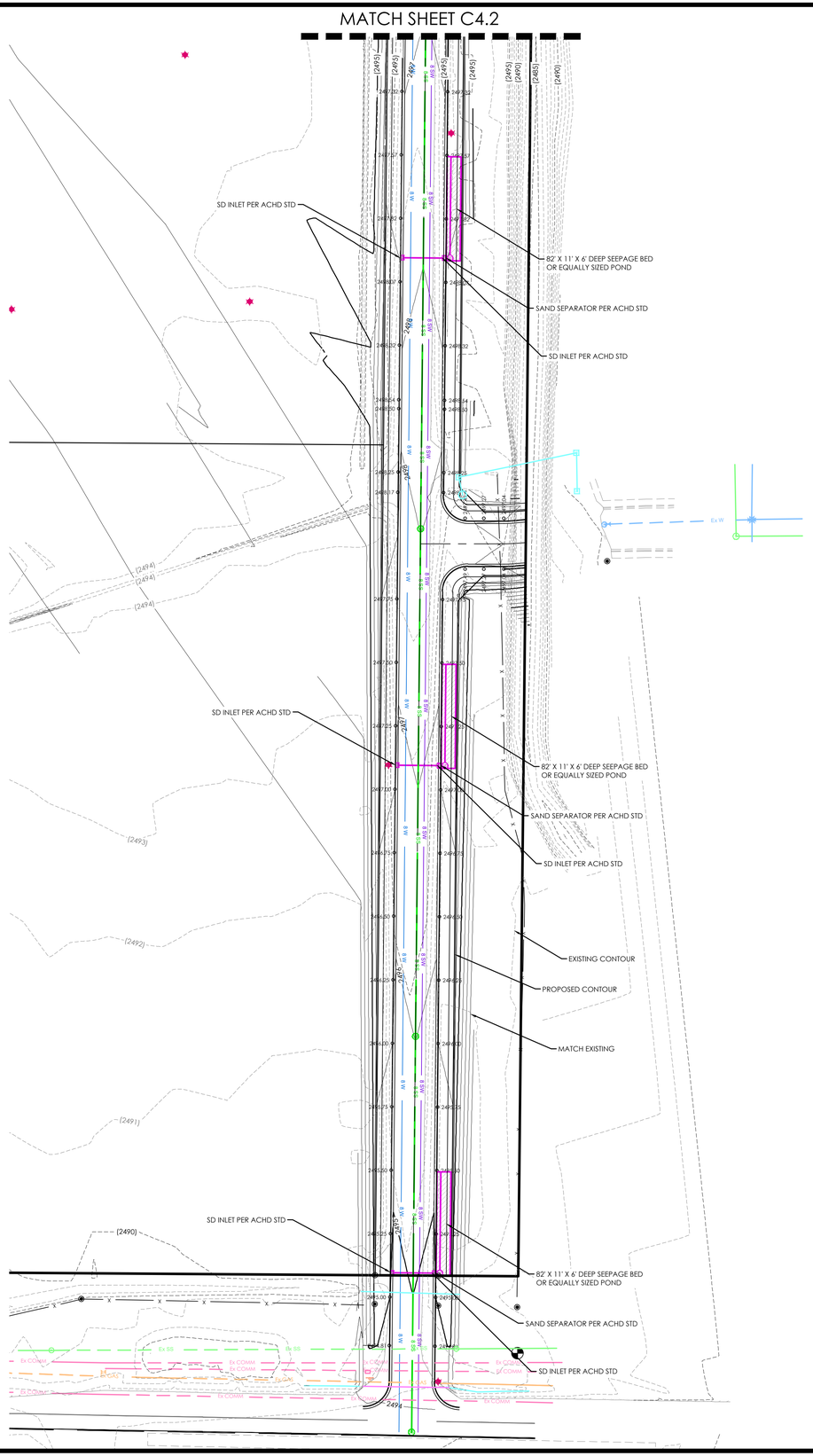

LEGEND

- BOUNDARY
- ROW
- CENTERLINE
- LOT LINE
- EASEMENT
- 15" STORM DRAIN
- 8" SANITARY SEWER
- 8" CULINARY WATER
- 8" SECONDARY WATER
- CONTOUR MAJOR
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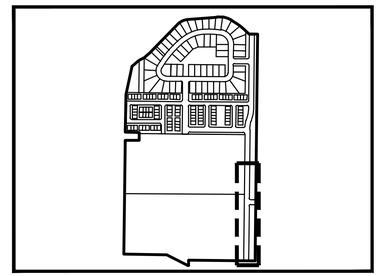
- EXIST. FIRE HYDRANT
- o XXXX.XX — SPOT ELEVATION



KEY MAP
N.T.S

N

S

GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)
1 inch = 50 ft.

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STAR, IDAHO
GRADING & DRAINAGE PLAN

REVISION BLOCK

#	DATE	DESCRIPTION
1	----	----
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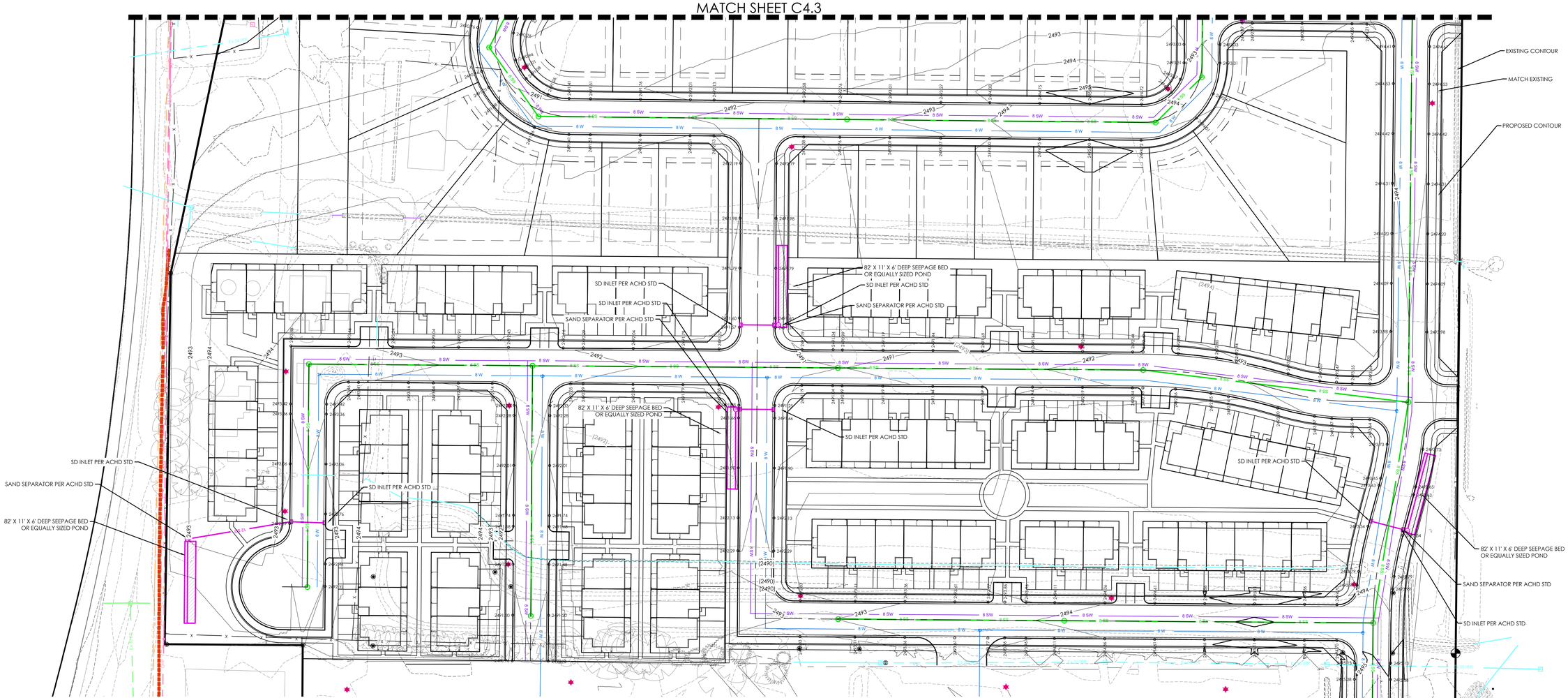
GRADING & DRAINAGE PLAN

Scale:	1"=50'	Drawn:	DCJ
Date:	11/28/2023	Job #:	21-0488
Sheet:	C4.1		

P:\2021\21-0488 Talega Village\design 21-0488\dwg\sheets preliminary subdivision\21-0488 C4.1 Preliminary Grading and Drainage.dwg

MATCH SHEET C4.3



MATCH SHEET C4.1

LEGEND

- BOUNDARY
- ROW
- CENTERLINE
- LOT LINE
- EASEMENT
- 15" STORM DRAIN
- 8" SANITARY SEWER
- 8" CULINARY WATER
- 8" SECONDARY WATER
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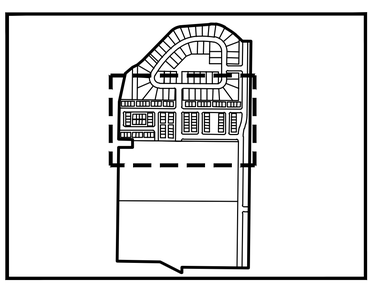

KEY MAP
N.T.S

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GRADING & DRAINAGE PLAN

REVISION BLOCK

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GRADING & DRAINAGE PLAN

Scale: 1"=50'	Drawn: DCJ
Date: 11/28/2023	Job #: 21-0488
Sheet: C4.2	

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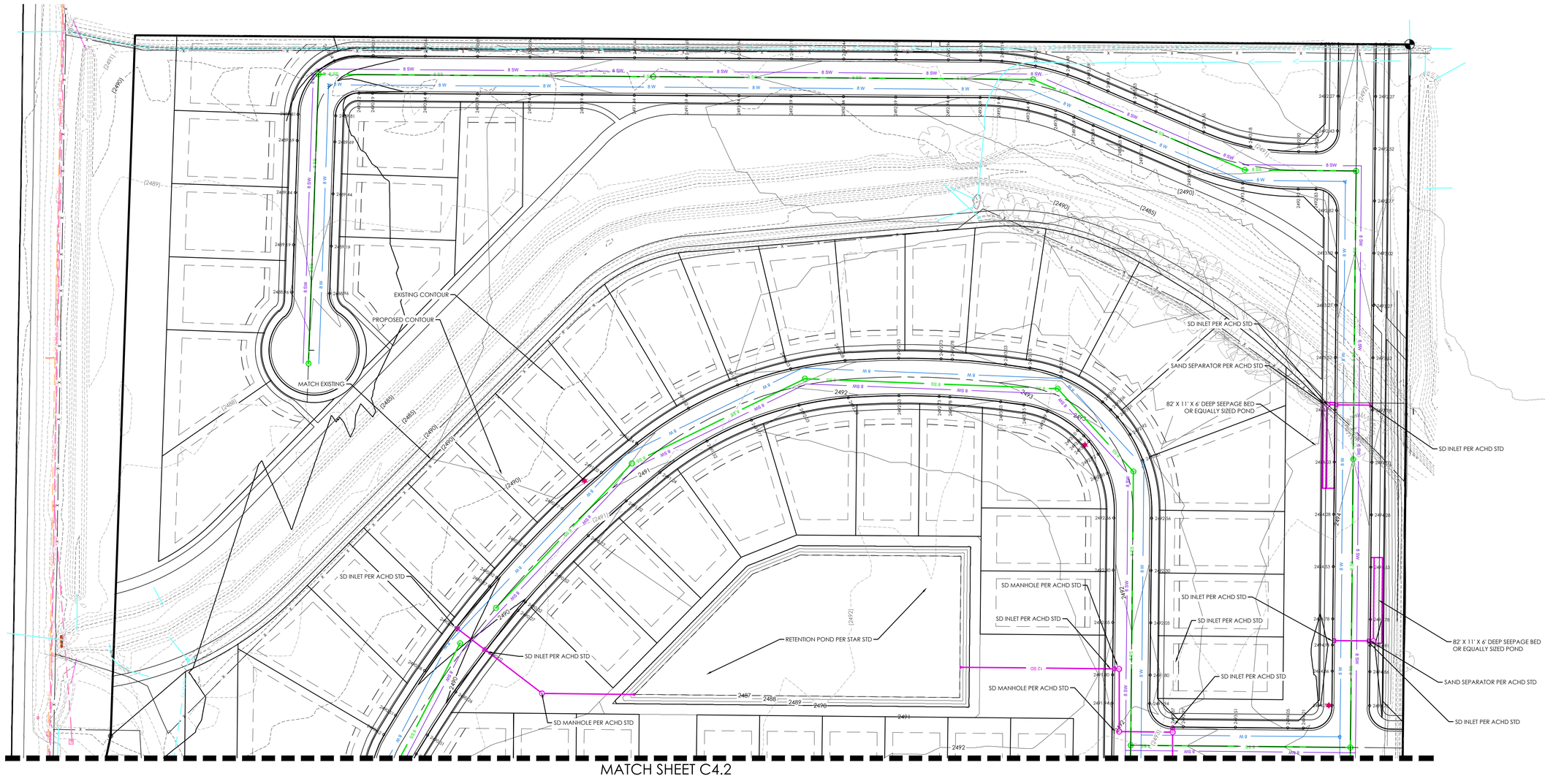

LEGEND

- BOUNDARY
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- LOT LINE
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- 15" STORM DRAIN
- 8" SANITARY SEWER
- 8" CULINARY WATER
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- SPOT ELEVATION

N

S

GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)
1 inch = 50 ft.

KEY MAP
N.T.S

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GRADING & DRAINAGE PLAN

REVISION BLOCK

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GRADING & DRAINAGE PLAN

Scale:	1"=50'	Drawn:	DCJ
Date:	11/28/2023	Job #:	21-0488
Sheet:	C4.3		

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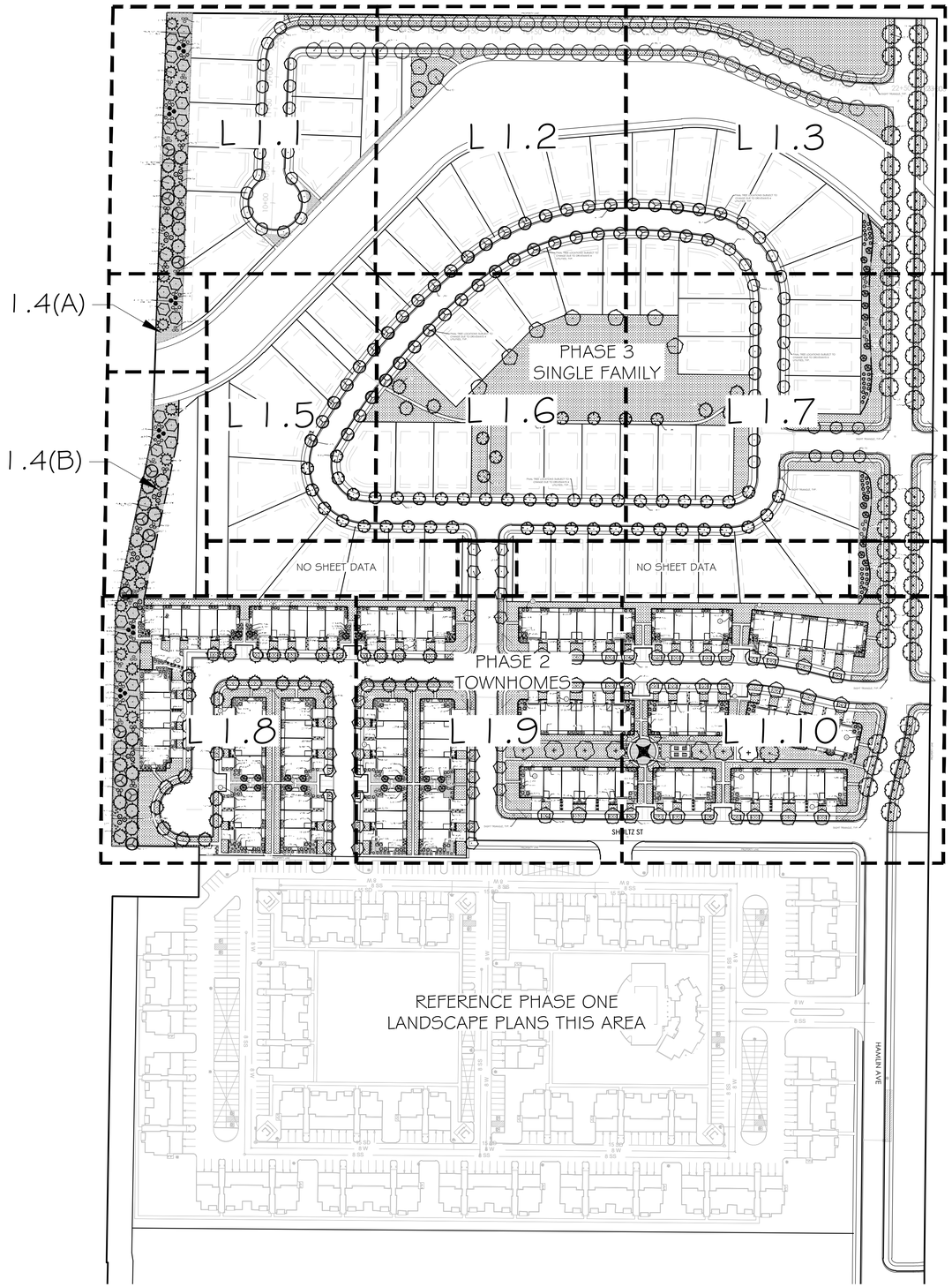

OVERALL PHASES 2-3 PLANT SCHEDULE

	CODE	BOTANICAL NAME	COMMON NAME	SIZE	QTY
TREES					
	AP	Acer platanoides	Norway Maple	2" Cal.	56
	AX	Acer x freemanii	Freeman Maple	2" Cal.	65
	SB	Amelanchier x grandiflora	Serviceberry	2" Cal.	45
	CC	Cercis canadensis	Eastern Redbud	2" Cal.	46
	CF	Cornus florida	Flowering Dogwood	2" Cal.	13
	GY	Ginkgo biloba 'JN9' TM	Sky Tower Ginkgo	2" Cal.	35
	JW	Juniperus scopulorum 'Wichita Blue'	Wichita Blue Juniper	6` Ht.	18
	MS	Malus x `Spring Snow`	Spring Snow Crabapple	2" Cal.	51
	PF	Pinus aristata 'Formal Form'	Formal Form Bristlecone Pine	6` Ht.	21
	PV	Prunus virginiana `Canada Red`	Canada Red Chokecherry	2" Cal.	57
	PJ	Pyrus calleryana 'Jaczam' TM	Jack Callery Pear	2" Cal.	59
	QR	Quercus robur	English Oak	2" Cal.	7
	UA	Ulmus x `Accolade`	Accolade Elm	2" Cal.	52
SHRUBS					
	AMG	Aronia melanocarpa `UCONNAMO12` TM	Ground Hug Black Chokeberry	2 gal.	76
	BTC	Berberis thunbergii `Concorde`	Concorde Japanese Barberry	5 gal.	34
	BG	Berberis thunbergii 'Goruzam' TM	Golden Ruby Japanese Barberry	5 gal.	85
	BDH	Buddleja davidii `Buzz Hot Raspberry`	Hot Raspberry Butterfly Bush	2 gal.	78
	BGM	Buxus x `Green Mountain`	Green Mountain Boxwood	5 gal.	22
	CAB	Cornus alba `Bailhalo` TM	Ivory Halo Dogwood	5 gal.	92
	CSK	Cornus sencea `Kelseyi`	Kelsey`s Dwarf Red Twig Dogwood	2 gal.	108
	EAC	Euonymus alatus 'Grove Compactus'	Grove Compact Burning Bush	5 gal.	54
	POL	Physocarpus opulifolius `Donna May` TM	Little Devil Ninebark	5 gal.	121
	PMM	Pinus mugo var. pumilio	Dwarf Mugo Pine	5 gal.	40
	PLC	Prunus laurocerasus `Chestnut Hill`	Chestnut Hill English Laurel	5 gal.	61
	SSS	Sorbaria sorbifolia `Sem`	Sem Ash Leaf Spirea	5 gal.	61
	SJD	Spiraea japonica `Double Play Doozie`	Doozie Spirea	2 gal.	33
	SBL	Syringa x `SMSJBP7` `Bloomerang`	Bloomerang Dark Purple Lilac	5 gal.	47
	VCS	Viburnum carlesii 'SMVCB' TM	Spice Baby Koreanspice Viburnum	5 gal.	105
ORNAMENTAL GRASSES					
	CAK	Calamagrostis x acutiflora `Karl Foerster`	Karl Foerster Feather Reed Grass	1 gal.	133
	HSS	Helictotrichon sempervirens `Sapphire`	Sapphire Blue Oat Grass	1 gal.	86
	MSG	Miscanthus sinensis `Gold Bar`	Gold Bar Eulalia Grass	1 gal.	72
	PAH	Pennisetum alopecuroides `Hameln`	Hameln Fountain Grass	1 gal.	72
PERENNIALS					
	HSO	Hemerocallis x `Stella de Oro`	Stella de Oro Daylily	1 gal.	36
	PAL	Perovskia atriplicifolia `Little Spire`	Little Spire Russian Sage	1 gal.	26
SYMBOL	**CODE**	**BOTANICAL NAME**	**COMMON NAME**	**SIZE**	**QTY**
GROUND COVERS					
	KB	Poa pratensis	Kentucky Bluegrass	sod	235,183 sf

OVERALL PHASES 2-3 REFERENCE NOTES SCHEDULE

SYMBOL	DESCRIPTION	QTY	DETAIL
1	RIVER ROCK, SIZE 2"	93,774 sf	
2	PLAYGROUND WOOD MULCH, 14" DEPTH	1,385 sf	
3	STEEL EDGING, TBD.	5,216 lf	
4	PICNIC SHELTER, T.B.D.	1	
5	PLAYGROUND STRUCTURE, T.B.D.	1	
6	BENCH, TBD.	4	

LANDSCAPE NOTES

1. LAWN AREAS WILL BE SODDED WITH KENTUCKY BLUEGRASS BLEND OVER 4 INCHES GOOD GRADE TOPSOIL.
2. TOP DRESS ALL SHRUB BED AREAS AND OTHER AREAS LABELED RIVER ROCK OR CRUSHED GRAVEL WITH A 4" DEPTH OF MULCH BY TYPE AND PLAN LOCATION AS SPECIFIED IN THE REFERENCE NOTE SCHEDULE. PLACE ROCK MULCH OVER DEWITT PRO-5 WEED BARRIER FABRIC. FABRIC SHALL BE INSTALLED AFTER PRE-EMERGENT HAS BEEN APPLIED.
3. INSTALL STEEL EDGING FOR MOW STRIPS BETWEEN LAWN AREAS AND PLANTING BEDS.
4. CONTRACTOR TO CONDUCT THEIR OWN QUANTITY TAKE-OFFS IN THE PLAN AND VERIFY ANY DISCREPANCIES WITH THE LANDSCAPE ARCHITECT.

NOTE:
REFERENCE SHEET L1.10 FOR DETAILS AND SEPARATE LANDSCAPE TABULATION CHARTS & SCHEDULES FOR PHASES 2&3.

N

S

GRAPHIC SCALE

100 0 50 100 200 400

(IN FEET)
1 inch = 100ft.

OWNER/APPLICANT
DERK PARDOE
3454 STONE MOUNTAIN LN.
SANDY, UT 84092
801-808-2357

OWNER/APPLICANT
JASON RAMSEY
RAMSEY CONSTRUCTION
7950 HORSESHOE BEND RD. STE. 106
BOISE, ID 83714
208-941-1711

SURVEYOR
JOHN GLETNE
VALLEY LAND SURVEYING
5099 S VALLEY ST.
BOISE, ID 83709
208-261-2226

PLANNER
CHAD GARNER
FOCUS ENGINEERING & SURVEYING
6949 S HIGH TECH DR. STE. 200
MIDVALE, UT 84047
801-352-0075

ENGINEER
JACOB HOLMES
FOCUS ENGINEERING & SURVEYING
1001 N ROSARIO ST. STE. 100
MERIDIAN, ID
801-352-0075

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TALEGA VILLAGE PHASE 2 & 3
STAR CITY, IDAHO
OVERALL LANDSCAPE PLAN

REVISION BLOCK

#	DATE	DESCRIPTION
1	----	----
2	----	----
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OVERALL LANDSCAPE PLAN

Scale:	1"=100'	Drawn:	BW
Date:	11/29/2023	Job #:	21-0488
Sheet:	L1.0		

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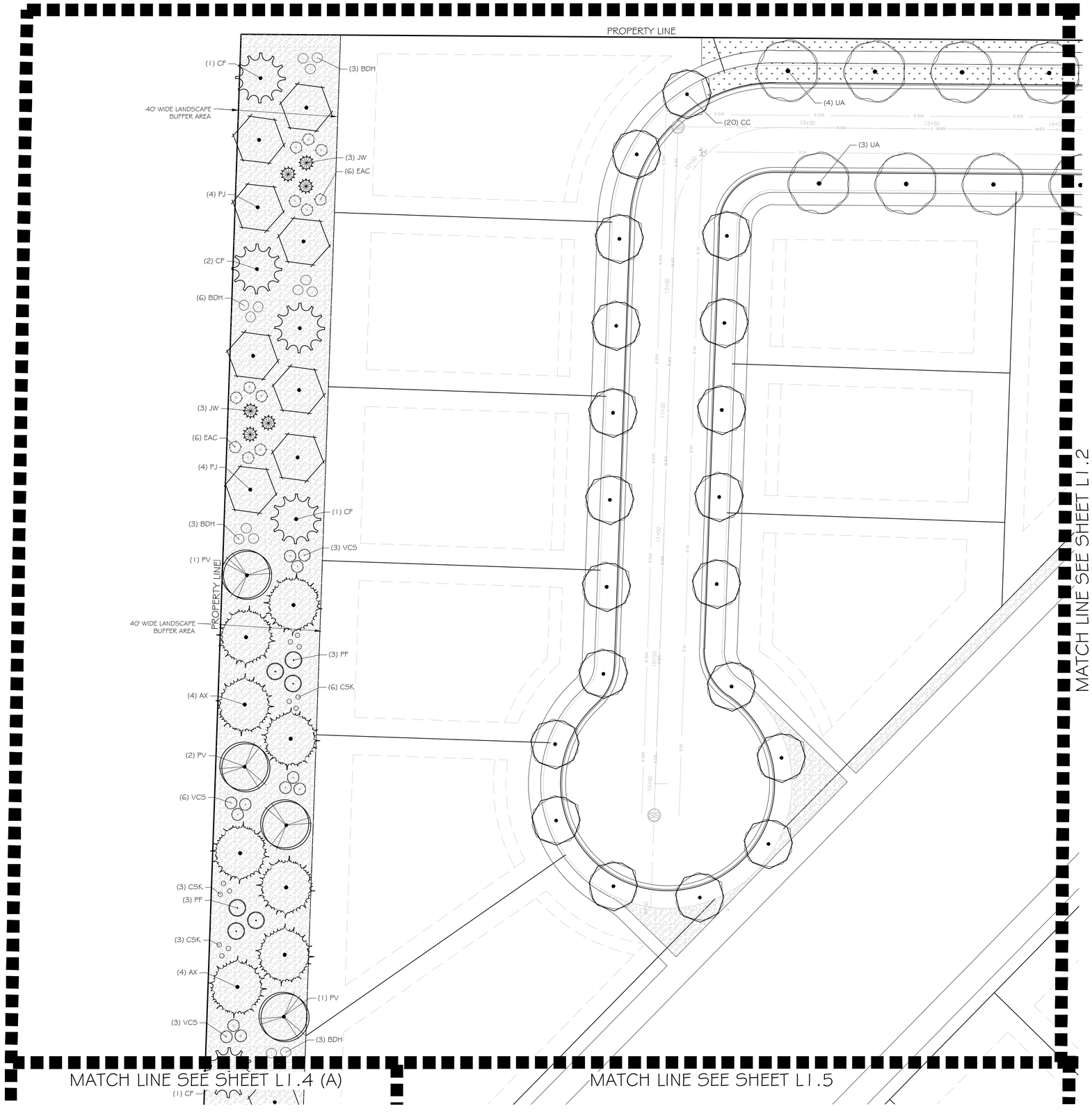

OVERALL PHASES 2-3 PLANT SCHEDULE

	CODE	BOTANICAL NAME	COMMON NAME
TREES			
	AP	Acer platanoides	Norway Maple
	AX	Acer x freemanii	Freeman Maple
	SB	Amelanchier x grandiflora	Serviceberry
	CC	Cercis canadensis	Eastern Redbud
	CF	Cornus florida	Flowering Dogwood
	GY	Ginkgo biloba 'JN9' TM	Sky Tower Ginkgo
	JW	Juniperus scopulorum 'Wichita Blue'	Wichita Blue Juniper
	MS	Malus x `Spring Snow`	Spring Snow Crabapple
	PF	Pinus aristata 'Formal Form'	Formal Form Bristlecone Pine
	PV	Prunus virginiana `Canada Red`	Canada Red Chokecherry
	PJ	Pyrus calleryana 'Jaczam' TM	Jack Gallery Pear
	QR	Quercus robur	English Oak
	UA	Ulmus x `Accolade`	Accolade Elm
SHRUBS			
	AMG	Aronia melanocarpa `UCONNAM012` TM	Ground Hug Black Chokeberry
	BTC	Berberis thunbergii `Concorde`	Concorde Japanese Barberry
	BG	Berberis thunbergii 'Gorvzam' TM	Golden Ruby Japanese Barberry
	BDH	Buddleja davidii `Buzz Hot Raspberry`	Hot Raspberry Butterfly Bush
	BGM	Buxus x `Green Mountain`	Green Mountain Boxwood
	CAB	Cornus alba `Bailhalo` TM	Ivory Halo Dogwood
	CSK	Cornus sericea `Kelseyi`	Kelsey's Dwarf Red Twig Dogwood
	EAC	Euonymus alatus 'Grove Compactus'	Grove Compact Burning Bush
	POL	Physocarpus opulifolius `Donna May` TM	Little Devil Ninebark
	PMM	Pinus mugo var. pumilio	Dwarf Mugo Pine
	PLC	Prunus laurocerasus `Chestnut Hill`	Chestnut Hill English Laurel
	SSS	Sorbaria sorbifolia `Sem`	Sem Ash Leaf Spirea
	SJD	Spiraea japonica `Double Play Doozie`	Doozie Spirea
	SBL	Syringa x `SMSJBP7` `Bloomerang`	Bloomerang Dark Purple Lilac
	VCS	Viburnum carlesii 'SMVCB' TM	Spice Baby Koreanspice Viburnum
ORNAMENTAL GRASSES			
	CAK	Calamagrostis x acutiflora `Karl Foerster`	Karl Foerster Feather Reed Grass
	HSS	Helictotrichon sempervirens `Sapphire`	Sapphire Blue Oat Grass
	MSG	Miscanthus sinensis `Gold Bar`	Gold Bar Eulalia Grass
	PAH	Pennisetum alopecuroides `Hameln`	Hameln Fountain Grass
PERENNIALS			
	HSO	Hemerocallis x `Stella de Oro`	Stella de Oro Daylily
	PAL	Perovskia atriplicifolia `Little Spire`	Little Spire Russian Sage
SYMBOL	**CODE**	**BOTANICAL NAME**	**COMMON NAME**
GROUND COVERS			
	KB	Poa pratensis	Kentucky Bluegrass

OVERALL PHASES 2-3 REFERENCE NOTES SCHEDULE

SYMBOL	DESCRIPTION
1	RIVER ROCK, SIZE 2"
2	PLAYGROUND WOOD MULCH, 14" DEPTH
3	STEEL EDGING, TBD.
4	PICNIC SHELTER, T.B.D.
5	PLAYGROUND STRUCTURE, T.B.D.
6	BENCH, TBD.

NOTE:
REFERENCE SHEET L1.11 FOR DETAILS AND SEPARATE LANDSCAPE TABULATION CHARTS & SCHEDULES FOR PHASES 2&3.

N

S

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

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TALEGA VILLAGE PHASE 3
STAR CITY, IDAHO
LANDSCAPE PLAN

REVISION BLOCK

#	DATE	DESCRIPTION
1	----	----
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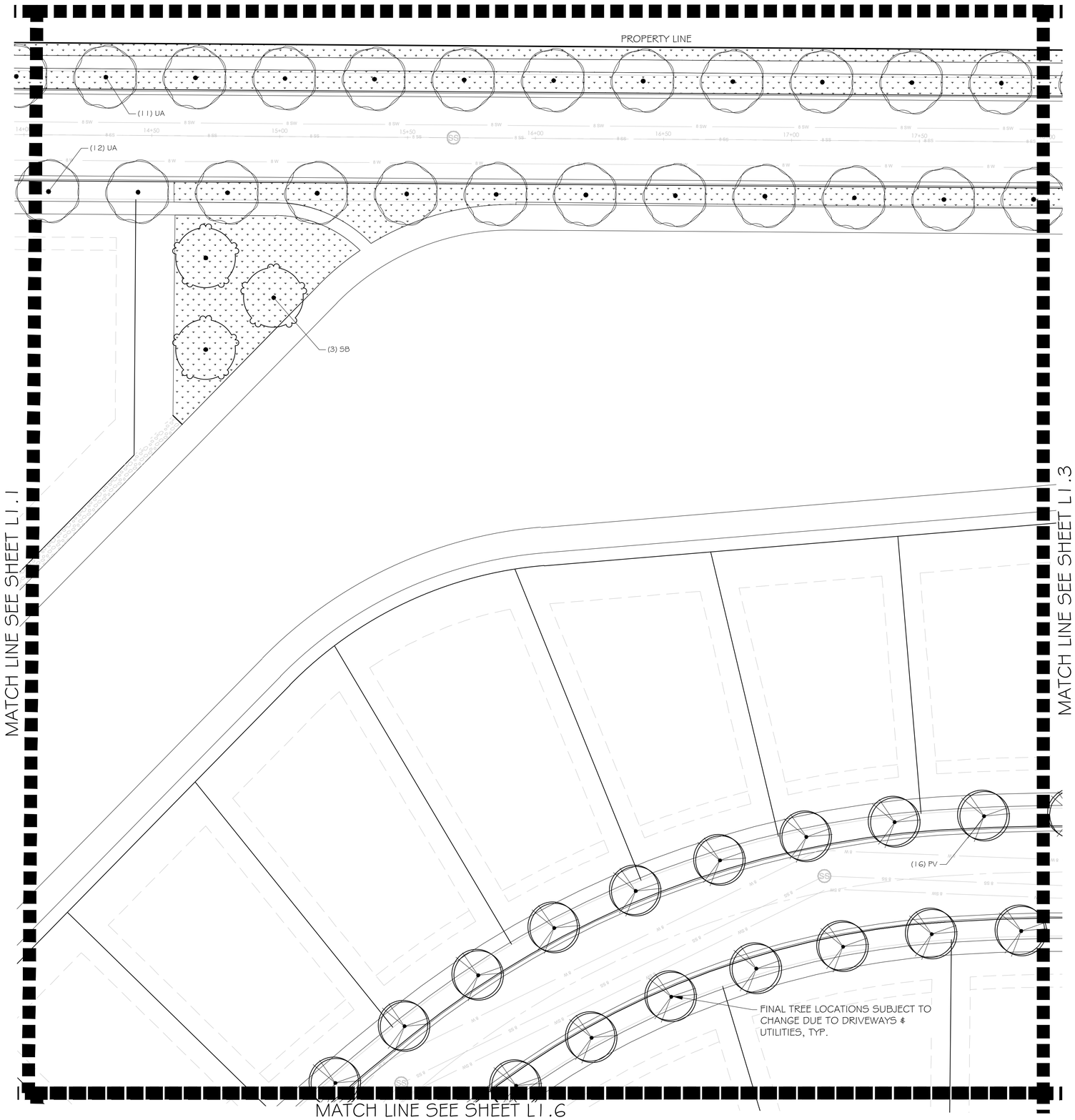
LANDSCAPE PLAN

Scale:	1"=20'	Drawn:	BW
Date:	11/29/2023	Job #:	21-0488
Sheet:	L1.1		



OVERALL PHASES 2-3 PLANT SCHEDULE

	CODE	BOTANICAL NAME	COMMON NAME
TREES			
	AP	Acer platanoides	Norway Maple
	AX	Acer x freemanii	Freeman Maple
	SB	Amelanchier x grandiflora	Serviceberry
	CC	Cercis canadensis	Eastern Redbud
	CF	Cornus florida	Flowering Dogwood
	GY	Ginkgo biloba 'JN9' TM	Sky Tower Ginkgo
	JW	Juniperus scopulorum 'Wichita Blue'	Wichita Blue Juniper
	MS	Malus x `Spring Snow`	Spring Snow Crabapple
	PF	Pinus anstata 'Formal Form'	Formal Form Bristlecone Pine
	PV	Prunus virginiana `Canada Red`	Canada Red Chokecherry
	PJ	Pyrus calleryana 'Jaczam' TM	Jack Gallery Pear
	QR	Quercus robur	English Oak
	UA	Ulmus x `Accolade`	Accolade Elm
SHRUBS			
	AMG	Aronia melanocarpa `UCONNAM012` TM	Ground Hug Black Chokeberry
	BTC	Berberis thunbergii `Concorde`	Concorde Japanese Barberry
	BG	Berberis thunbergii 'Goruzam' TM	Golden Ruby Japanese Barberry
	BDH	Buddleja davidii `Buzz Hot Raspberry`	Hot Raspberry Butterfly Bush
	BGM	Buxus x `Green Mountain`	Green Mountain Boxwood
	CAB	Cornus alba `Bailhalo` TM	Ivory Halo Dogwood
	CSK	Cornus sericea `Kelseyi`	Kelsey`s Dwarf Red Twig Dogwood
	EAC	Euonymus alatus 'Grove Compactus'	Grove Compact Burning Bush
	POL	Physocarpus opulifolius `Donna May` TM	Little Devil Ninebark
	PMM	Pinus mugo var. pumilio	Dwarf Mugo Pine
	PLC	Prunus laurocerasus `Chestnut Hill`	Chestnut Hill English Laurel
	SSS	Sorbaria sorbifolia `Sem`	Sem Ash Leaf Spirea
	SJD	Spiraea japonica `Double Play Doozie`	Doozie Spirea
	SBL	Syringa x `SMSJBP7` `Bloomerang`	Bloomerang Dark Purple Lilac
	VCS	Viburnum carlesii 'SMVCB' TM	Spice Baby Koreanspice Viburnum
ORNAMENTAL GRASSES			
	CAK	Calamagrostis x acutiflora `Karl Foerster`	Karl Foerster Feather Reed Grass
	HSS	Helictotrichon sempervirens `Sapphire`	Sapphire Blue Oat Grass
	MSG	Miscanthus sinensis `Gold Bar`	Gold Bar Eulalia Grass
	PAH	Pennisetum alopecuroides `Hameln`	Hameln Fountain Grass
PERENNIALS			
	HSO	Hemerocallis x `Stella de Oro`	Stella de Oro Daylily
	PAL	Perovskia atriplicifolia `Little Spire`	Little Spire Russian Sage
SYMBOL	**CODE**	**BOTANICAL NAME**	**COMMON NAME**
GROUND COVERS			
	KB	Poa pratensis	Kentucky Bluegrass

OVERALL PHASES 2-3 REFERENCE NOTES SCHEDULE

SYMBOL	DESCRIPTION
1	RIVER ROCK, SIZE 2"
2	PLAYGROUND WOOD MULCH, 14" DEPTH
3	STEEL EDGING, TBD.
4	PICNIC SHELTER, T.B.D.
5	PLAYGROUND STRUCTURE, T.B.D.
6	BENCH, TBD.

NOTE:
REFERENCE SHEET L1.11 FOR DETAILS AND SEPARATE LANDSCAPE TABULATION CHARTS & SCHEDULES FOR PHASES 2&3.

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GRAPHIC SCALE

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(IN FEET)
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TALEGA VILLAGE PHASE 3
STAR CITY, IDAHO
LANDSCAPE PLAN

REVISION BLOCK

#	DATE	DESCRIPTION
1	----	----
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LANDSCAPE PLAN

Scale:	1"=20'	Drawn:	BW
Date:	11/29/2023	Job #:	21-0488
Sheet:	L1.2		

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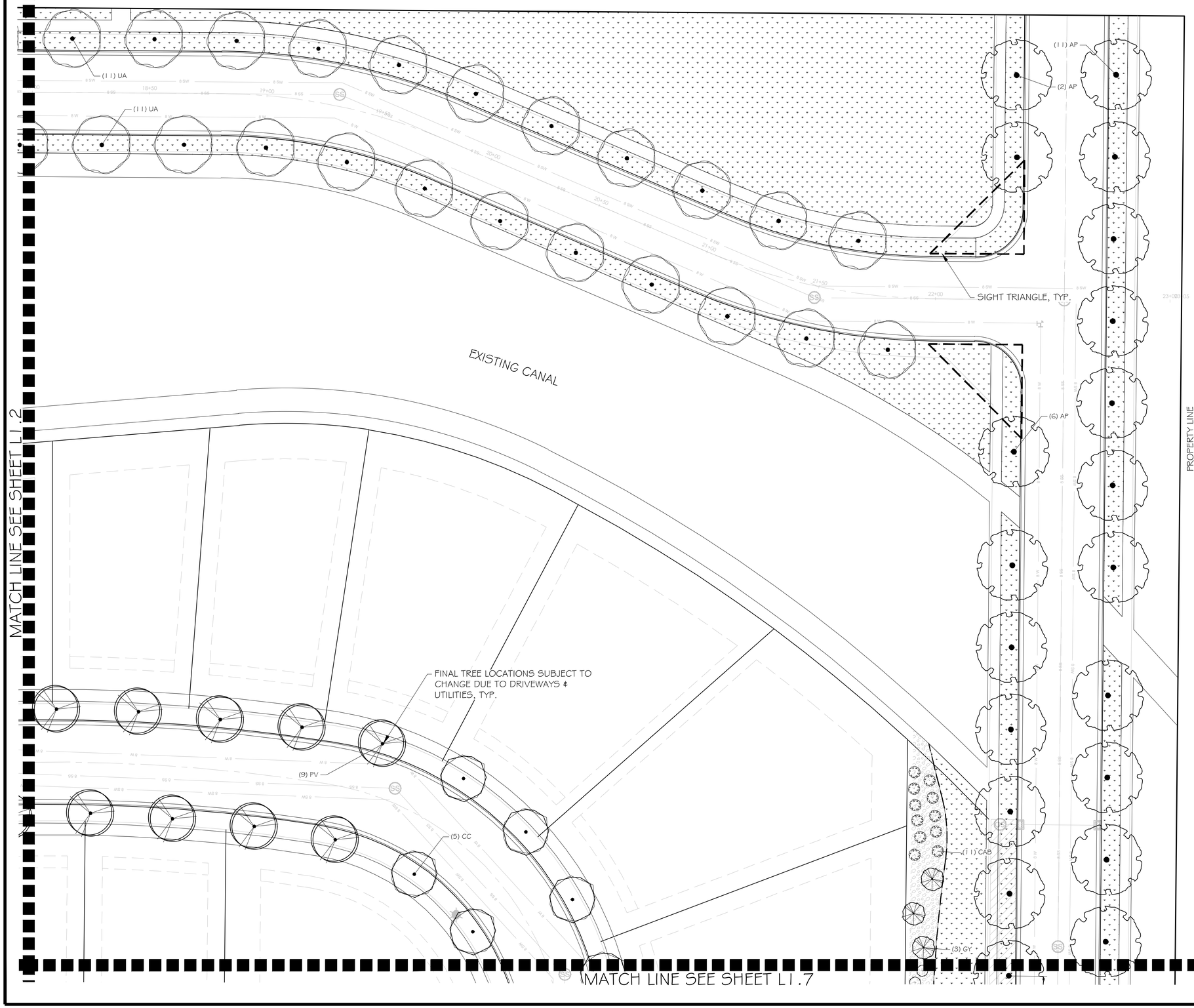

OVERALL PHASES 2-3 PLANT SCHEDULE

	CODE	BOTANICAL NAME	COMMON NAME
TREES			
	AP	Acer platanoides	Norway Maple
	AX	Acer x freemanii	Freeman Maple
	SB	Amelanchier x grandiflora	Serviceberry
	CC	Cercis canadensis	Eastern Redbud
	CF	Cornus florida	Flowering Dogwood
	GY	Ginkgo biloba 'JN9' TM	Sky Tower Ginkgo
	JW	Juniperus scopulorum 'Wichita Blue'	Wichita Blue Juniper
	MS	Malus x 'Spring Snow'	Spring Snow Crabapple
	PF	Pinus aristata 'Formal Form'	Formal Form Bristlecone Pine
	PV	Prunus virginiana 'Canada Red'	Canada Red Chokecherry
	PJ	Pyrus calleryana 'Jaczam' TM	Jack Callery Pear
	QR	Quercus robur	English Oak
	UA	Ulmus x 'Accolade'	Accolade Elm
SHRUBS			
	AMG	Aronia melanocarpa 'UCONNAM012' TM	Ground Hug Black Chokeberry
	BTC	Berberis thunbergii 'Concorde'	Concorde Japanese Barberry
	BG	Berberis thunbergii 'Gonzam' TM	Golden Ruby Japanese Barberry
	BDH	Buddleja davidii 'Buzz Hot Raspberry'	Hot Raspberry Butterfly Bush
	BGM	Buxus x 'Green Mountain'	Green Mountain Boxwood
	CAB	Cornus alba 'Bailhalo' TM	Ivory Halo Dogwood
	CSK	Cornus sericea 'Kelseyi'	Kelsey's Dwarf Red Twig Dogw
	EAC	Euonymus alatus 'Grove Compactus'	Grove Compact Burning Bush
	POL	Physocarpus opulifolius 'Donna May' TM	Little Devil Ninebark
	PMM	Pinus mugo var. pumilio	Dwarf Mugo Pine
	PLC	Prunus laurocerasus 'Chestnut Hill'	Chestnut Hill English Laurel
	SSS	Sorbaria sorbifolia 'Sem'	Sem Ash Leaf Spirea
	SJD	Spiraea japonica 'Double Play Doozie'	Doozie Spirea
	SBL	Syringa x 'SMSJBP7' 'Bloomerang'	Bloomerang Dark Purple Lilac
	VCS	Viburnum carlesii 'SMVCB' TM	Spice Baby Koreanspice Viburn
ORNAMENTAL GRASSES			
	CAK	Calamagrostis x acutiflora 'Karl Foerster'	Karl Foerster Feather Reed Gra
	HSS	Helictotrichon sempervirens 'Sapphire'	Sapphire Blue Oat Grass
	MSG	Miscanthus sinensis 'Gold Bar'	Gold Bar Eulalia Grass
	PAH	Pennisetum alopecuroides 'Hameln'	Hameln Fountain Grass
PERENNIALS			
	HSO	Hemerocallis x 'Stella de Oro'	Stella de Oro Daylily
	PAL	Perovskia atriplicifolia 'Little Spire'	Little Spire Russian Sage
SYMBOL	**CODE**	**BOTANICAL NAME**	**COMMON NAME**
GROUND COVERS			
	KB	Poa pratensis	Kentucky Bluegrass

OVERALL PHASES 2-3 REFERENCE NOTES

SYMBOL	DESCRIPTION
1	RIVER ROCK, SIZE 2"
2	PLAYGROUND WOOD MULCH, 14" DEPTH
3	STEEL EDGING, TBD.
4	PICNIC SHELTER, T.B.D.
5	PLAYGROUND STRUCTURE, T.B.D.
6	BENCH, TBD.

NOTE:
REFERENCE SHEET L1.11 FOR DETAILS AND SEPARATE LANDSCAPE TABULATION CHARTS & SCHEDULES FOR PHASES 2&3.

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GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
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TALEGA VILLAGE PHASE 3
STAR CITY, IDAHO
LANDSCAPE PLAN

REVISION BLOCK

#	DATE	DESCRIPTION
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LANDSCAPE PLAN

Scale:	1"=20'	Drawn:	BW
Date:	11/29/2023	Job #:	21-0488
Sheet:	L1.3		

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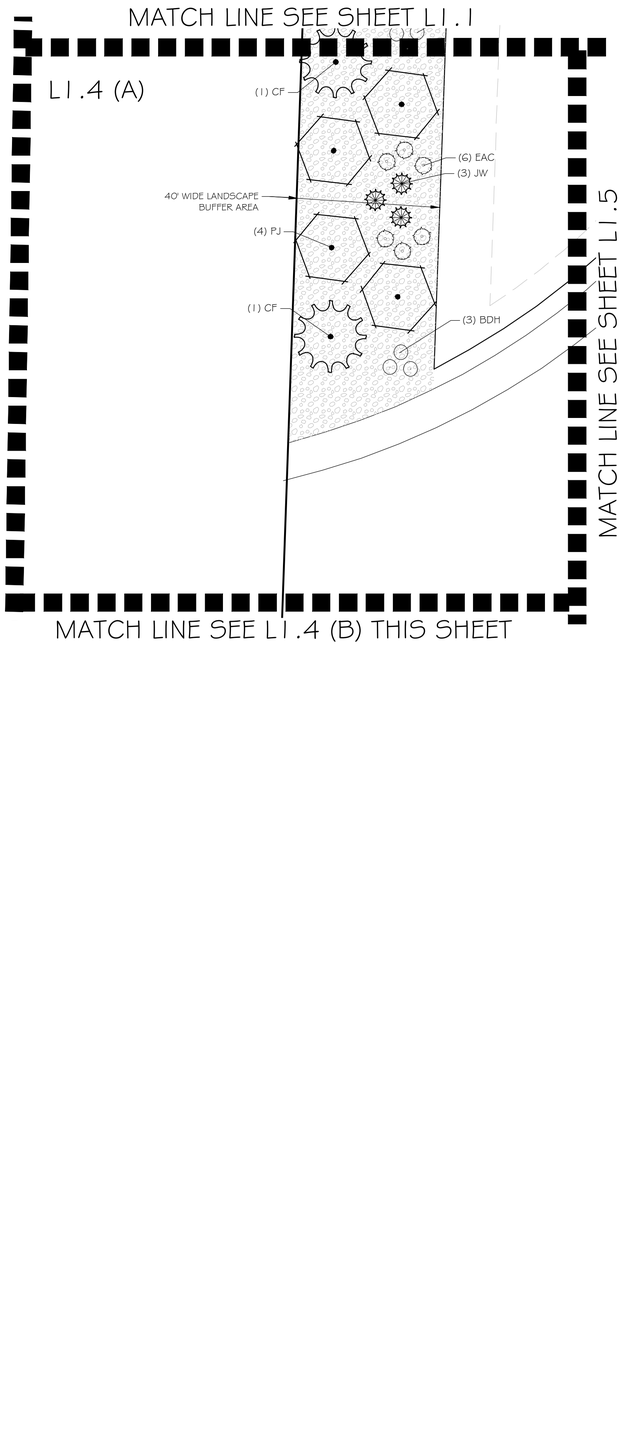

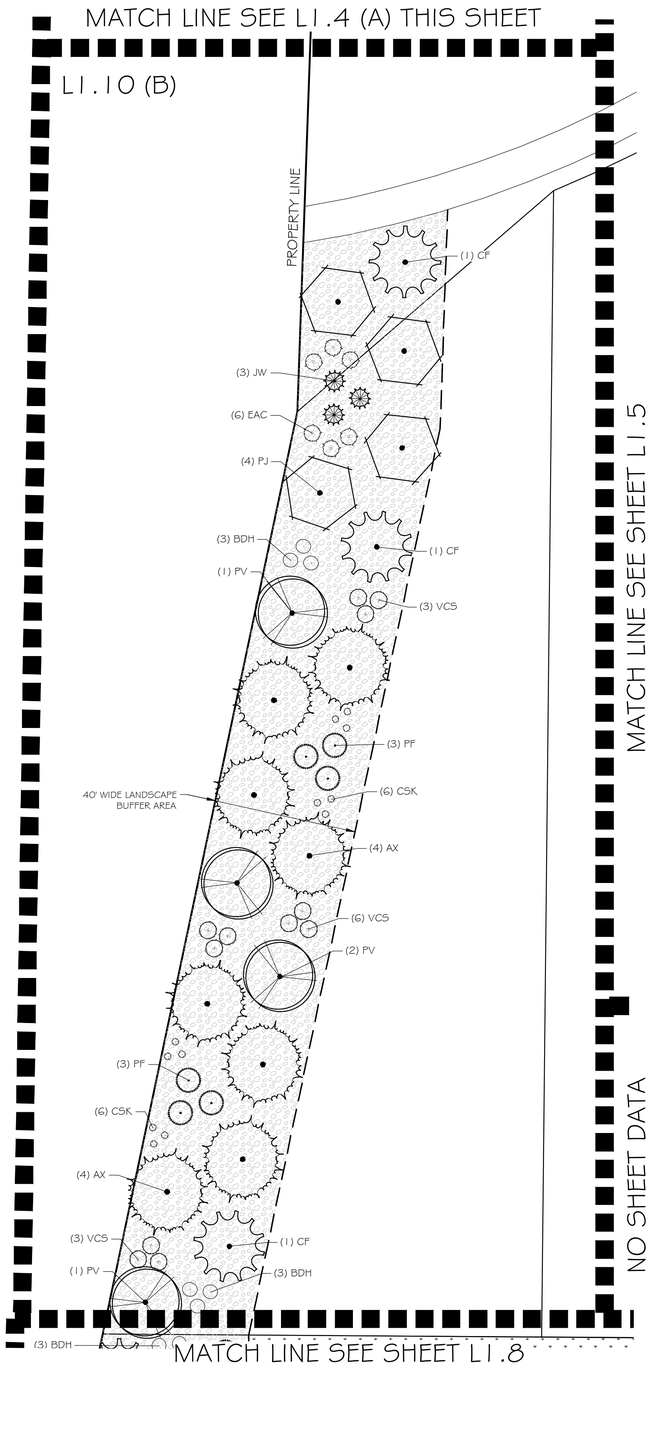

OVERALL PHASES 2-3 PLANT SCHEDULE

	CODE	BOTANICAL NAME	COMMON NAME
TREES			
	AP	Acer platanoides	Norway Maple
	AX	Acer x freemanii	Freeman Maple
	SB	Amelanchier x grandiflora	Serviceberry
	CC	Cercis canadensis	Eastern Redbud
	CF	Cornus florida	Flowering Dogwood
	GY	Ginkgo biloba 'JN9' TM	Sky Tower Ginkgo
	JW	Juniperus scopulorum 'Wichita Blue'	Wichita Blue Juniper
	MS	Malus x `Spring Snow`	Spring Snow Crabapple
	PF	Pinus aristata 'Formal Form'	Formal Form Bristlecone Pine
	PV	Prunus virginiana `Canada Red`	Canada Red Chokecherry
	PJ	Pyrus calleryana 'Jaczam' TM	Jack Callery Pear
	QR	Quercus robur	English Oak
	UA	Ulmus x `Accolade`	Accolade Elm
SHRUBS			
	AMG	Aronia melanocarpa `UCONNAMO12` TM	Ground Hug Black Chokeberry
	BTC	Berberis thunbergii `Concorde`	Concorde Japanese Barberry
	BG	Berberis thunbergii 'Goruzam' TM	Golden Ruby Japanese Barberry
	BDH	Buddleja davidii `Buzz Hot Raspberry`	Hot Raspberry Butterfly Bush
	BGM	Buxus x `Green Mountain`	Green Mountain Boxwood
	CAB	Cornus alba `Bailhalo` TM	Ivory Halo Dogwood
	CSK	Cornus sericea `Kelseyi`	Kelsey's Dwarf Red Twig Dogwood
	EAC	Euonymus alatus 'Grove Compactus'	Grove Compact Burning Bush
	POL	Physocarpus opulifolius `Donna May` TM	Little Devil Ninebark
	PMM	Pinus mugo var. pumilio	Dwarf Mugo Pine
	PLC	Prunus laurocerasus `Chestnut Hill`	Chestnut Hill English Laurel
	SSS	Sorbaria sorbifolia `Sem`	Sem Ash Leaf Spirea
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	SBL	Syringa x `SMSJBP7` `Bloomerang`	Bloomerang Dark Purple Lilac
	VCS	Viburnum carlesii 'SMVCB' TM	Spice Baby Koreanspice Viburnum
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PERENNIALS			
	HSO	Hemerocallis x `Stella de Oro`	Stella de Oro Daylily
	PAL	Perovskia atriplicifolia `Little Spire`	Little Spire Russian Sage

SYMBOL	CODE	BOTANICAL NAME	COMMON NAME
GROUND COVERS			
	KB	Poa pratensis	Kentucky Bluegrass

OVERALL PHASES 2-3 REFERENCE NOTES SCHEDULE

SYMBOL	DESCRIPTION
1	RIVER ROCK, SIZE 2"
2	PLAYGROUND WOOD MULCH, 14" DEPTH
3	STEEL EDGING, TBD.
4	PICNIC SHELTER, T.B.D.
5	PLAYGROUND STRUCTURE, T.B.D.
6	BENCH, TBD.

NOTE:
REFERENCE SHEET L1.11 FOR DETAILS AND SEPARATE LANDSCAPE TABULATION CHARTS & SCHEDULES FOR PHASES 2&3.

N

S

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

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TALEGA VILLAGE PHASE 3
STAR CITY, IDAHO
LANDSCAPE PLAN

REVISION BLOCK

#	DATE	DESCRIPTION
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LANDSCAPE PLAN

Scale:	1"=20'	Drawn:	BW
Date:	11/29/2023	Job #:	21-0488
Sheet:	L1.4		

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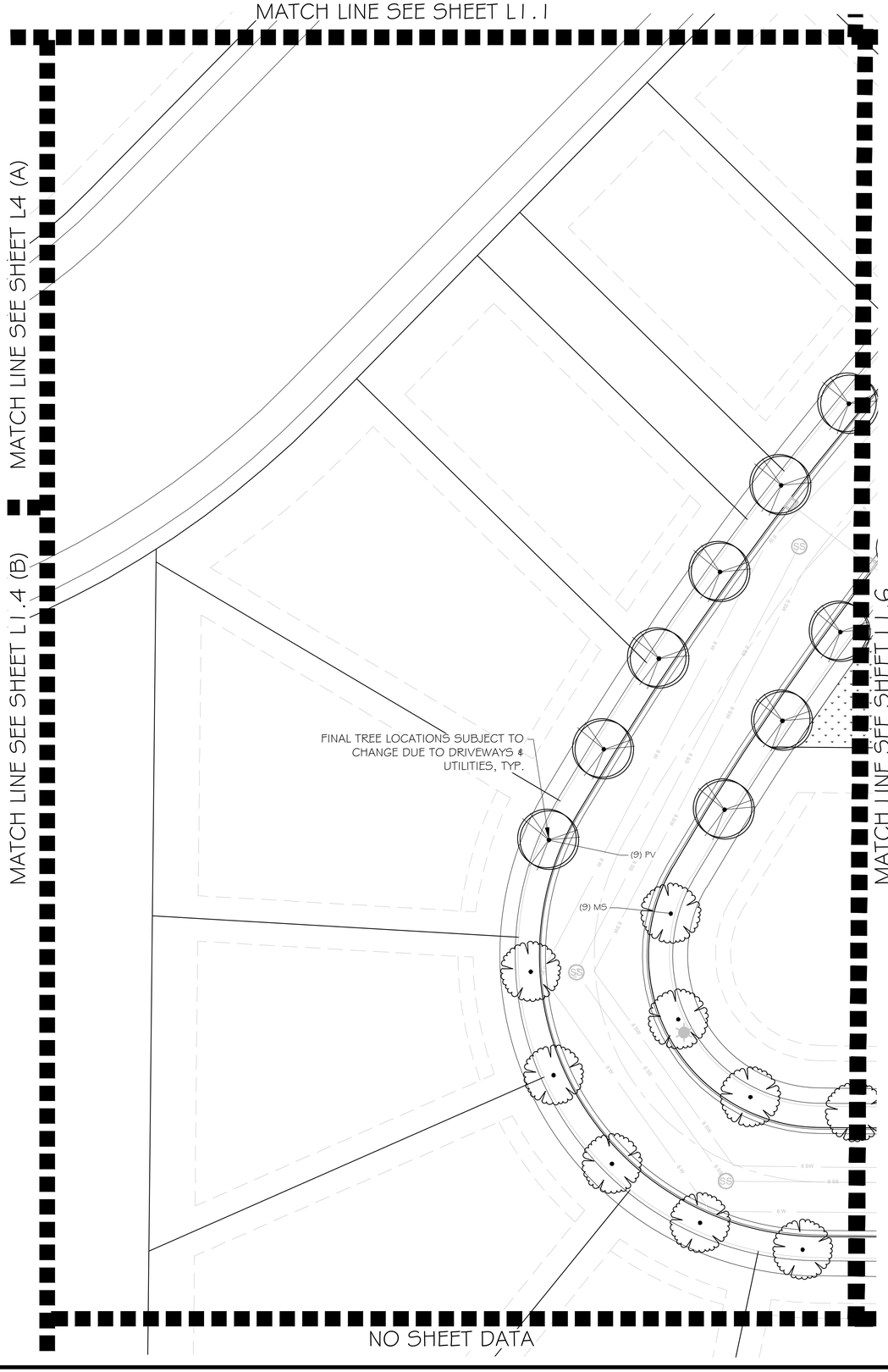

OVERALL PHASES 2-3 PLANT SCHEDULE

	CODE	BOTANICAL NAME	COMMON NAME
TREES			
	AP	Acer platanoides	Norway Maple
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	BG	Berberis thunbergii 'Goruzam' TM	Golden Ruby Japanese Barberry
	BDH	Buddleja davidii `Buzz Hot Raspberry`	Hot Raspberry Butterfly Bush
	BGM	Buxus x `Green Mountain`	Green Mountain Boxwood
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	POL	Physocarpus opulifolius `Donna May` TM	Little Devil Ninebark
	PMM	Pinus mugo var. pumilio	Dwarf Mugo Pine
	PLC	Prunus laurocerasus `Chestnut Hill`	Chestnut Hill English Laurel
	SSS	Sorbaria sorbifolia `Sem`	Sem Ash Leaf Spirea
	SJD	Spiraea japonica `Double Play Doozie`	Doozie Spirea
	SBL	Syringa x `SMSJBP7` `Bloomerang`	Bloomerang Dark Purple Lilac
	VCS	Viburnum carlesii 'SMVCB' TM	Spice Baby Koreanspice Viburnum
ORNAMENTAL GRASSES			
	CAK	Calamagrostis x acutiflora `Karl Foerster`	Karl Foerster Feather Reed Grass
	HSS	Helictotrichon sempervirens `Sapphire`	Sapphire Blue Oat Grass
	MSG	Miscanthus sinensis `Gold Bar`	Gold Bar Eulalia Grass
	PAH	Pennisetum alopecuroides `Hameln`	Hameln Fountain Grass
PERENNIALS			
	HSO	Hemerocallis x `Stella de Oro`	Stella de Oro Daylily
	PAL	Perovskia atriplicifolia `Little Spire`	Little Spire Russian Sage

SYMBOL	CODE	BOTANICAL NAME	COMMON NAME
GROUND COVERS			
	KB	Poa pratensis	Kentucky Bluegrass

OVERALL PHASES 2-3 REFERENCE NOTES SCHEDULE

SYMBOL	DESCRIPTION
1	RIVER ROCK, SIZE 2"
2	PLAYGROUND WOOD MULCH, 14" DEPTH
3	STEEL EDGING, TBD.
4	PICNIC SHELTER, T.B.D.
5	PLAYGROUND STRUCTURE, T.B.D.
6	BENCH, TBD.

NOTE:
REFERENCE SHEET L1.11 FOR DETAILS AND SEPARATE LANDSCAPE TABULATION CHARTS & SCHEDULES FOR PHASES 2&3.

N

S

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
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TALEGA VILLAGE PHASE 3
STAR CITY, IDAHO
LANDSCAPE PLAN

REVISION BLOCK

#	DATE	DESCRIPTION
1	----	----
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LANDSCAPE PLAN

Scale:	1"=20'	Drawn:	BW
Date:	11/29/2023	Job #:	21-0488
Sheet:	L1.5		

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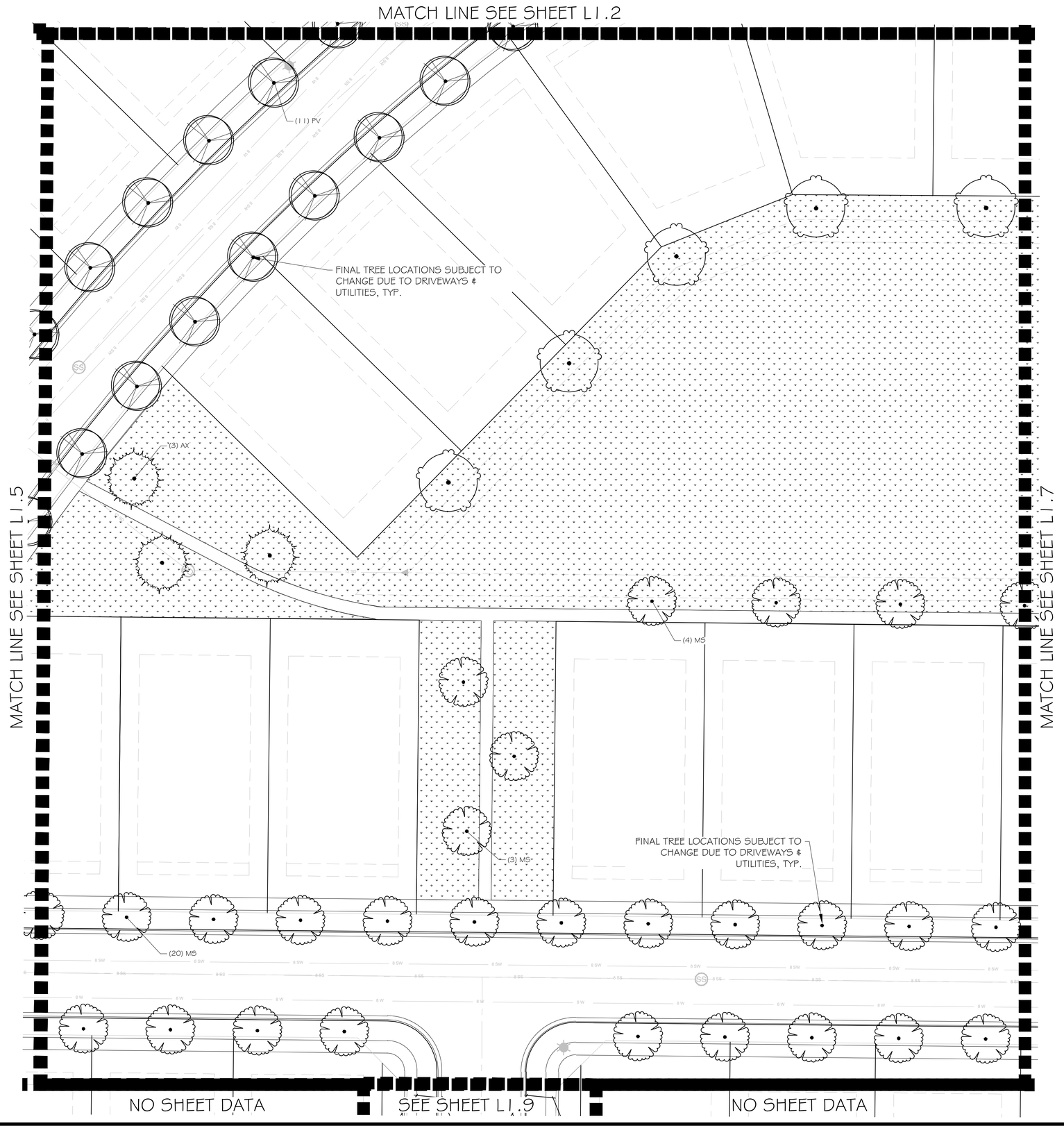

OVERALL PHASES 2-3 PLANT SCHEDULE

	CODE	BOTANICAL NAME	COMMON NAME
TREES			
	AP	Acer platanoides	Norway Maple
	AX	Acer x freemanii	Freeman Maple
	SB	Amelanchier x grandiflora	Serviceberry
	CC	Cercis canadensis	Eastern Redbud
	CF	Cornus florida	Flowering Dogwood
	GY	Ginkgo biloba 'JN9' TM	Sky Tower Ginkgo
	JW	Juniperus scopulorum 'Wichita Blue'	Wichita Blue Juniper
	MS	Malus x `Spring Snow`	Spring Snow Crabapple
	PF	Pinus aristata 'Formal Form'	Formal Form Bristlecone Pine
	PV	Prunus virginiana `Canada Red`	Canada Red Chokecherry
	PJ	Pyrus calleryana 'Jaczam' TM	Jack Gallery Pear
	QR	Quercus robur	English Oak
	UA	Ulmus x `Accolade`	Accolade Elm
SHRUBS			
	AMG	Aronia melanocarpa `UCONNAM012` TM	Ground Hug Black Chokeberry
	BTC	Berberis thunbergii `Concorde`	Concorde Japanese Barberry
	BG	Berberis thunbergii 'Goruzam' TM	Golden Ruby Japanese Barberry
	BDH	Buddleja davidii `Buzz Hot Raspberry`	Hot Raspberry Butterfly Bush
	BGM	Buxus x `Green Mountain`	Green Mountain Boxwood
	CAB	Cornus alba `Bailhalo` TM	Ivory Halo Dogwood
	CSK	Cornus sericea `Kelseyi`	Kelsey's Dwarf Red Twig Dogwood
	EAC	Euonymus alatus 'Grove Compactus'	Grove Compact Burning Bush
	POL	Physocarpus opulifolius `Donna May` TM	Little Devil Ninebark
	PMM	Pinus mugo var. pumilio	Dwarf Mugo Pine
	PLC	Prunus laurocerasus `Chestnut Hill`	Chestnut Hill English Laurel
	SSS	Sorbaria sorbifolia `Sem`	Sem Ash Leaf Spirea
	SJD	Spiraea japonica `Double Play Doozie`	Doozie Spirea
	SBL	Syringa x `SMSJBP7` `Bloomerang`	Bloomerang Dark Purple Lilac
	VCS	Viburnum carlesii 'SMVCB' TM	Spice Baby Koreanspice Viburnum
ORNAMENTAL GRASSES			
	CAK	Calamagrostis x acutiflora `Karl Foerster`	Karl Foerster Feather Reed Grass
	HSS	Helictotrichon sempervirens `Sapphire`	Sapphire Blue Oat Grass
	MSG	Miscanthus sinensis `Gold Bar`	Gold Bar Eulalia Grass
	PAH	Pennisetum alopecuroides `Hameln`	Hameln Fountain Grass
PERENNIALS			
	HSO	Hemerocallis x `Stella de Oro`	Stella de Oro Daylily
	PAL	Perovskia atriplicifolia `Little Spire`	Little Spire Russian Sage

SYMBOL	CODE	BOTANICAL NAME	COMMON NAME
GROUND COVERS			
	KB	Poa pratensis	Kentucky Bluegrass

OVERALL PHASES 2-3 REFERENCE NOTES SCHEDULE

SYMBOL	DESCRIPTION
1	RIVER ROCK, SIZE 2"
2	PLAYGROUND WOOD MULCH, 14" DEPTH
3	STEEL EDGING, TBD.
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5	PLAYGROUND STRUCTURE, T.B.D.
6	BENCH, TBD.

NOTE:
REFERENCE SHEET L1.11 FOR DETAILS AND SEPARATE LANDSCAPE TABULATION CHARTS & SCHEDULES FOR PHASES 2&3.

N

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GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
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TALEGA VILLAGE PHASE 3
STAR CITY, IDAHO
LANDSCAPE PLAN

REVISION BLOCK

#	DATE	DESCRIPTION
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LANDSCAPE PLAN

Scale:	1"=20'	Drawn:	BW
Date:	11/29/2023	Job #:	21-0488
Sheet:	L1.6		

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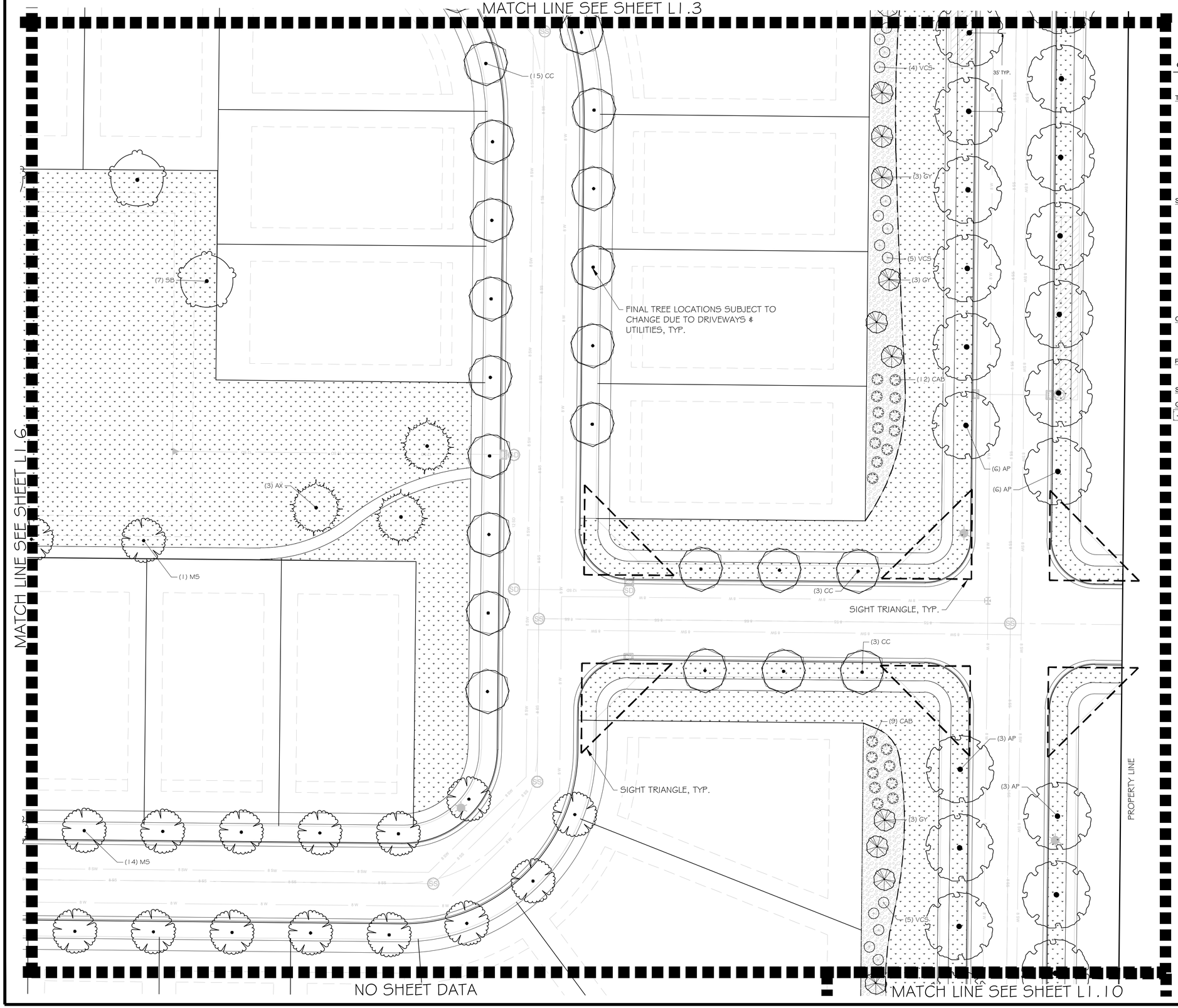

OVERALL PHASES 2-3 PLANT SCHEDULE

	CODE	BOTANICAL NAME	COMMON NAME
TREES			
	AP	Acer platanoides	Norway Maple
	AX	Acer x freemanii	Freeman Maple
	SB	Amelanchier x grandiflora	Servicеberry
	CC	Cercis canadensis	Eastern Redbud
	CF	Cornus florida	Flowering Dogwood
	GY	Ginkgo biloba 'UNP' TM	Sky Tower Ginkgo
	JW	Juniperus scopulorum 'Wichita Blue'	Wichita Blue Juniper
	MS	Malus x 'Spring Snow'	Spring Snow Crabapple
	PF	Pinus aristata 'Formal Form'	Formal Form Bristlecone Pine
	PV	Prunus virginiana 'Canada Red'	Canada Red Chokecherry
	PJ	Pyrus calleryana 'Jaczam' TM	Jack Callery Pear
	QR	Quercus robur	English Oak
	UA	Ulmus x 'Accolade'	Accolade Elm
SHRUBS			
	AMG	Aronia melanocarpa 'UCONNAM012' TM	Ground Hug Black Chokeberry
	BTC	Berberis thunbergii 'Concorde'	Concorde Japanese Barberry
	BG	Berberis thunbergii 'Gonzam' TM	Golden Ruby Japanese Barberry
	BDH	Buddleja davidii 'Buzz Hot Raspberry'	Hot Raspberry Butterfly Bush
	BGM	Buxus x 'Green Mountain'	Green Mountain Boxwood
	CAB	Cornus alba 'Bailhalo' TM	Ivory Halo Dogwood
	CSK	Cornus sericea 'Kelseys'	Kelsey's Dwarf Red Twig Dogwoo
	EAC	Euonymus alatus 'Grove Compactus'	Grove Compact Burning Bush
	POL	Physocarpus opulifolius 'Donna May' TM	Little Devil Ninebark
	PMM	Pinus mugo var. pumilio	Dwarf Mugo Pine
	PLC	Prunus laurocerasus 'Chestnut Hill'	Chestnut Hill English Laurel
	SSS	Sorbaria sorbifolia 'Sem'	Sem Ash Leaf Spirea
	SJD	Spiraea japonica 'Double Play Dooze'	Dooze Spirea
	SBL	Syringa x 'SMSJBP7' 'Bloomerang'	Bloomerang Dark Purple Lilac
	VCS	Viburnum carlesii 'SMVCB' TM	Spice Baby Koreanspice Viburnum
ORNAMENTAL GRASSES			
	CAK	Calamagrostis x acutiflora 'Karl Foerster'	Karl Foerster Feather Reed Grass
	HSS	Helictotrichon sempervirens 'Sapphire'	Sapphire Blue Oat Grass
	MSG	Miscanthus sinensis 'Gold Bar'	Gold Bar Eulalia Grass
	PAH	Pennisetum alopecuroides 'Hameln'	Hameln Fountain Grass
PERENNIALS			
	HSO	Hemerocallis x 'Stella de Oro'	Stella de Oro Daylily
	PAL	Perovskia atriplicifolia 'Little Spire'	Little Spire Russian Sage
SYMBOL	**CODE**	**BOTANICAL NAME**	**COMMON NAME**
GROUND COVERS			
	KB	Poa pratensis	Kentucky Bluegrass

OVERALL PHASES 2-3 REFERENCE NOTES

SYMBOL	DESCRIPTION
1	RIVER ROCK, SIZE 2"
2	PLAYGROUND WOOD MULCH, 14" DEPTH
3	STEEL EDGING, TBD.
4	PICNIC SHELTER, T.B.D.
5	PLAYGROUND STRUCTURE, T.B.D.
6	BENCH, TBD.

NOTE:
REFERENCE SHEET L1.11 FOR DETAILS AND SEPARATE LANDSCAPE TABULATION CHARTS & SCHEDULES FOR PHASES 2&3.

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GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
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TALEGA VILLAGE PHASE 3
STAR CITY, IDAHO
LANDSCAPE PLAN

REVISION BLOCK		
#	DATE	DESCRIPTION
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LANDSCAPE PLAN

Scale:	1"=20'	Drawn:	BW
Date:	11/29/2023	Job #:	21-0488
Sheet:	L1.7		

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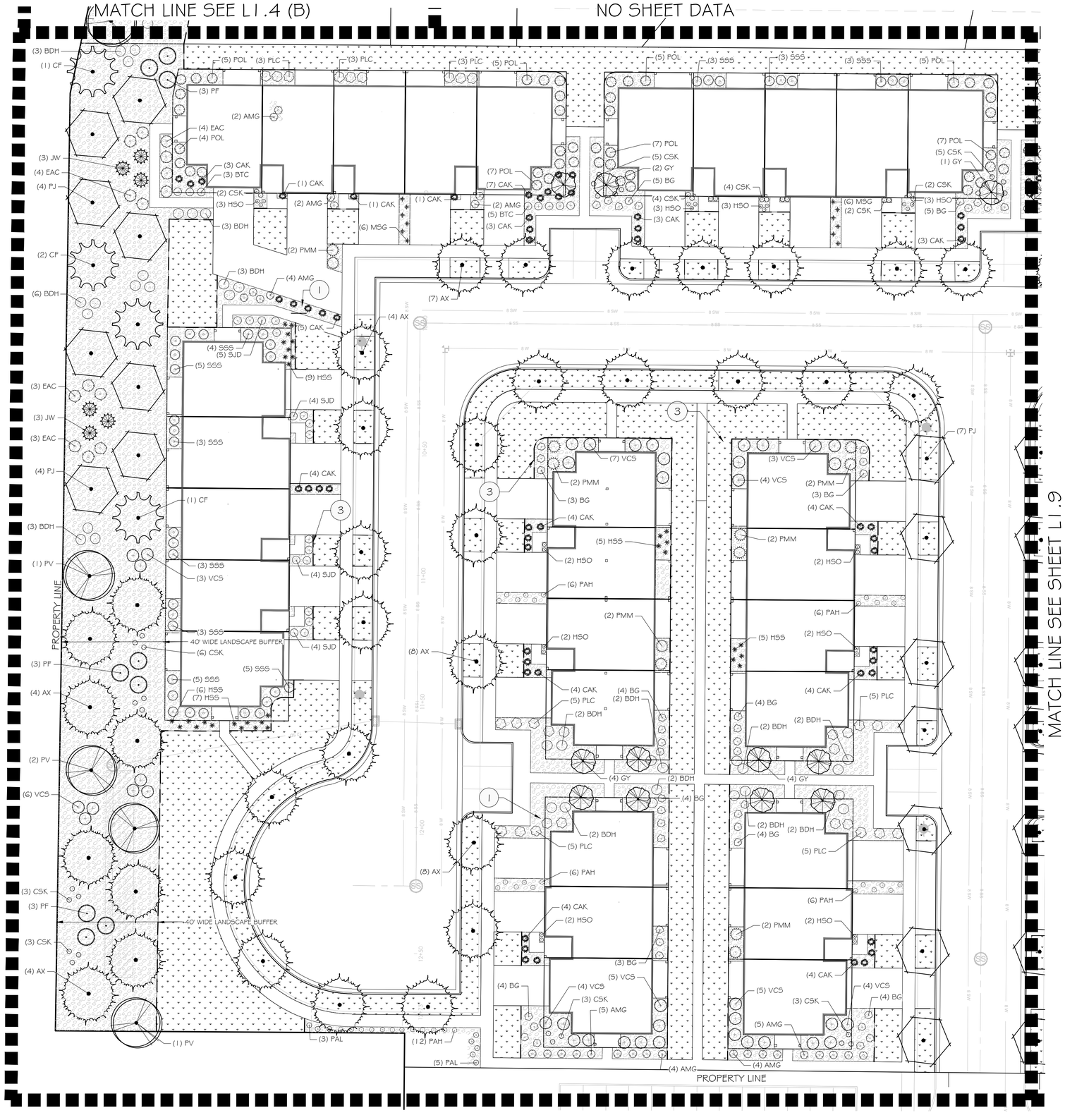

OVERALL PHASES 2-3 PLANT SCHEDULE

	CODE	BOTANICAL NAME	COMMON NAME
TREES			
	AP	Acer platanoides	Norway Maple
	AX	Acer x freemanii	Freeman Maple
	SB	Amelanchier x grandiflora	Serviceberry
	CC	Cercis canadensis	Eastern Redbud
	CF	Cornus florida	Flowering Dogwood
	GY	Ginkgo biloba 'JN9' TM	Sky Tower Ginkgo
	JW	Juniperus scopulorum 'Wichita Blue'	Wichita Blue Juniper
	MS	Malus x `Spring Snow`	Spring Snow Crabapple
	PF	Pinus anstata 'Formal Form'	Formal Form Bristlecone Pine
	PV	Prunus virginiana `Canada Red`	Canada Red Chokecherry
	PJ	Pyrus calleryana 'Jaczam' TM	Jack Gallery Pear
	QR	Quercus robur	English Oak
	UA	Ulmus x `Accolade`	Accolade Elm
SHRUBS			
	AMG	Aronia melanocarpa `UCONNAMO12` TM	Ground Hug Black Chokeberry
	BTC	Berberis thunbergii `Concorde`	Concorde Japanese Barberry
	BG	Berberis thunbergii 'Goruzam' TM	Golden Ruby Japanese Barberry
	BDH	Buddleja davidii `Buzz Hot Raspberry`	Hot Raspberry Butterfly Bush
	BGM	Buxus x `Green Mountain`	Green Mountain Boxwood
	CAB	Cornus alba `Bailhalo` TM	Ivory Halo Dogwood
	CSK	Cornus sericea `Kelseyi`	Kelsey's Dwarf Red Twig Dogwood
	EAC	Euonymus alatus 'Grove Compactus'	Grove Compact Burning Bush
	POL	Physocarpus opulifolius `Donna May` TM	Little Devil Ninebark
	PMM	Pinus mugo var. pumilio	Dwarf Mugo Pine
	PLC	Prunus laurocerasus `Chestnut Hill`	Chestnut Hill English Laurel
	SSS	Sorbaria sorbifolia `Sem`	Sem Ash Leaf Spirea
	SJD	Spiraea japonica `Double Play Doozie`	Doozie Spirea
	SBL	Syringa x `SMSJBP7` `Bloomerang`	Bloomerang Dark Purple Lilac
	VCS	Viburnum carlesii 'SMVCB' TM	Spice Baby Koreanspice Viburnum
ORNAMENTAL GRASSES			
	CAK	Calamagrostis x acutiflora `Karl Foerster`	Karl Foerster Feather Reed Grass
	HSS	Helictotrichon sempervirens `Sapphire`	Sapphire Blue Oat Grass
	MSG	Miscanthus sinensis `Gold Bar`	Gold Bar Eulalia Grass
	PAH	Pennisetum alopecuroides `Hameln`	Hameln Fountain Grass
PERENNIALS			
	HSO	Hemerocallis x `Stella de Oro`	Stella de Oro Daylily
	PAL	Perovskia atriplicifolia `Little Spire`	Little Spire Russian Sage

SYMBOL	CODE	BOTANICAL NAME	COMMON NAME
GROUND COVERS			
	KB	Poa pratensis	Kentucky Bluegrass

OVERALL PHASES 2-3 REFERENCE NOTES SCHEDULE

SYMBOL	DESCRIPTION
1	RIVER ROCK, SIZE 2"
2	PLAYGROUND WOOD MULCH, 14" DEPTH
3	STEEL EDGING, TBD.
4	PICNIC SHELTER, T.B.D.
5	PLAYGROUND STRUCTURE, T.B.D.
6	BENCH, TBD.

NOTE:
REFERENCE SHEET L1.11 FOR DETAILS AND SEPARATE LANDSCAPE TABULATION CHARTS & SCHEDULES FOR PHASES 2&3.

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GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
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TALEGA VILLAGE PHASE 2
STAR CITY, IDAHO
LANDSCAPE PLAN

REVISION BLOCK

#	DATE	DESCRIPTION
1	----	----
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LANDSCAPE PLAN

Scale:	1"=20'	Drawn:	BW
Date:	11/29/2023	Job #:	21-0488
Sheet:	L1.8		

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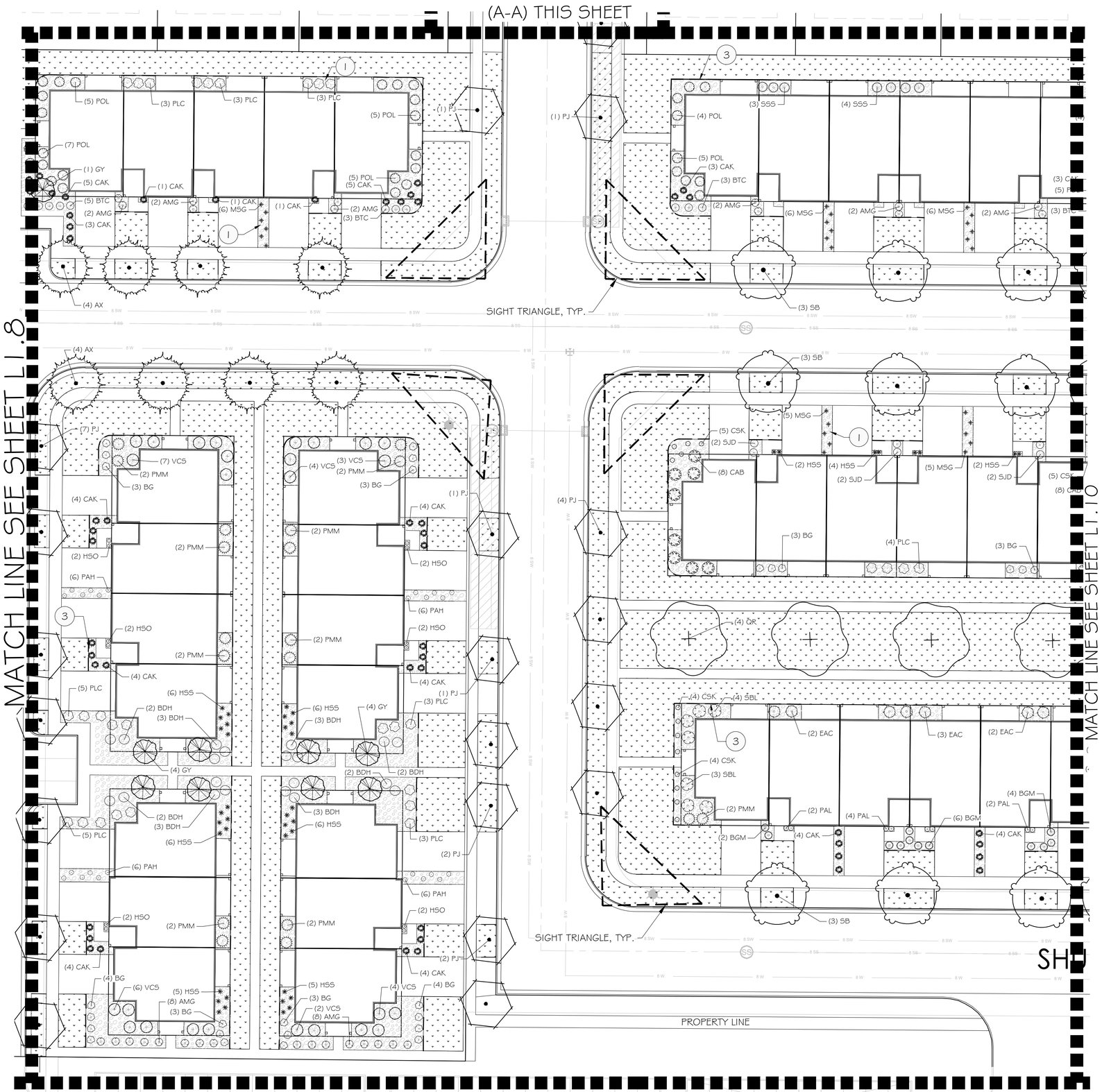

OVERALL PHASES 2-3 PLANT SCHEDULE

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	GY	Ginkgo biloba 'JN9' TM	Sky Tower Ginkgo
	JW	Juniperus scopulorum 'Wichita Blue'	Wichita Blue Juniper
	MS	Malus x `Spring Snow`	Spring Snow Crabapple
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	BG	Berberis thunbergii 'Goruzam' TM	Golden Ruby Japanese Barberry
	BDH	Buddleja davidii `Buzz Hot Raspberry`	Hot Raspberry Butterfly Bush
	BGM	Buxus x `Green Mountain`	Green Mountain Boxwood
	CAB	Cornus alba `Bailhalo` TM	Ivory Halo Dogwood
	CSK	Cornus sencea `Kelseyi`	Kelsey`s Dwarf Red Twig Dogwood
	EAC	Euonymus alatus 'Grove Compactus'	Grove Compact Burning Bush
	POL	Physocarpus opulifolius `Donna May` TM	Little Devil Ninebark
	PMM	Pinus mugo var. pumilio	Dwarf Mugo Pine
	PLC	Prunus laurocerasus `Chestnut Hill`	Chestnut Hill English Laurel
	SSS	Sorbaria sorbifolia `Sem`	Sem Ash Leaf Spirea
	SJD	Spiraea japonica `Double Play Doozie`	Doozie Spirea
	SBL	Syringa x `SMSJBP7` `Bloomerang`	Bloomerang Dark Purple Lilac
	VCS	Viburnum carlesii 'SMVCB' TM	Spice Baby Koreanspice Viburnum
ORNAMENTAL GRASSES			
	CAK	Calamagrostis x acutiflora `Karl Foerster`	Karl Foerster Feather Reed Grass
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PERENNIALS			
	HSO	Hemerocallis x `Stella de Oro`	Stella de Oro Daylily
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SYMBOL	CODE	BOTANICAL NAME	COMMON NAME
GROUND COVERS			
	KB	Poa pratensis	Kentucky Bluegrass

OVERALL PHASES 2-3 REFERENCE NOTES SCHEDULE

SYMBOL	DESCRIPTION
1	RIVER ROCK, SIZE 2"
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NOTE:
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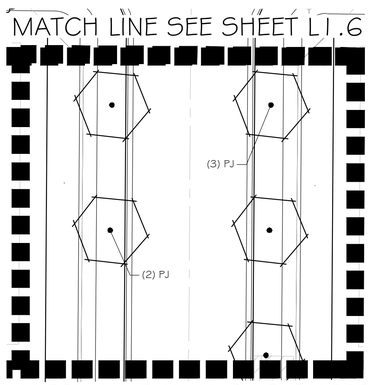

GRAPHIC SCALE

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TALEGA VILLAGE PHASE 2
STAR CITY, IDAHO
LANDSCAPE PLAN

REVISION BLOCK

	DATE	DESCRIPTION
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LANDSCAPE PLAN

Scale:	1"=20'	Drawn:	BW
Date:	11/29/2023	Job #:	21-0488
Sheet:	L1.9		

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SEE (A-A) THIS SHEET

SIGHT TRIANGLE, TYP.

SIGHT TRIANGLE, TYP.

MATCH LINE SEE SHEET L1.9

HOLTZ ST

PROPERTY LINE

PROPERTY LINE

MATCH LINE SEE L1.7

SEE MATCH LINE (A-A) THIS SHEET

811 Know what's below. Call 811 before you dig.

OVERALL PHASES 2-3 PLANT SCHEDULE

	CODE	BOTANICAL NAME	COMMON NAME
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	POL	Physocarpus opulifolius `Donna May` TM	Little Devil Ninebark
	PMM	Pinus mugo var. pumilio	Dwarf Mugo Pine
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	SBL	Syringa x `SMSJBP7` `Bloomerang`	Bloomerang Dark Purple Lilac
	VCS	Viburnum carlesii 'SMVCB' TM	Spice Baby Koreanspice Viburnum
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	CAK	Calamagrostis x acutiflora `Karl Foerster`	Karl Foerster Feather Reed Grass
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	HSO	Hemerocallis x `Stella de Oro`	Stella de Oro Daylily
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SYMBOL	**CODE**	**BOTANICAL NAME**	**COMMON NAME**
GROUND COVERS			
	KB	Poa pratensis	Kentucky Bluegrass

OVERALL PHASES 2-3 REFERENCE NOTES

SYMBOL	DESCRIPTION
1	RIVER ROCK, SIZE 2"
2	PLAYGROUND WOOD MULCH, 14" DEPTH
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(IN FEET)
1 inch = 20 ft.

N

S

FOCUS ENGINEERING AND SURVEYING, LLC
6949 S. HIGH TECH DRIVE SUITE 200
MIDVALE, UTAH 84047 PH: (801) 352-0075
www.focusutah.com

FOR REVIEW ONLY

TALEGA VILLAGE PHASE 2
STAR CITY, IDAHO
LANDSCAPE PLAN

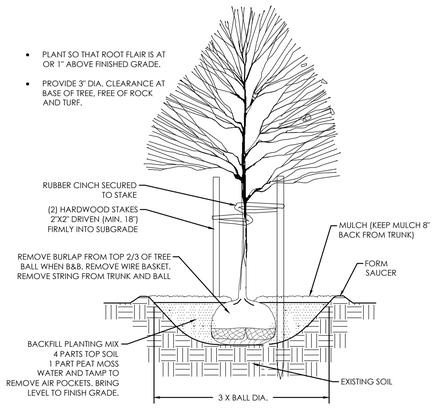
REVISION BLOCK

#	DATE	DESCRIPTION
1	----	----
2	----	----
3	----	----
4	----	----
5	----	----
6	----	----

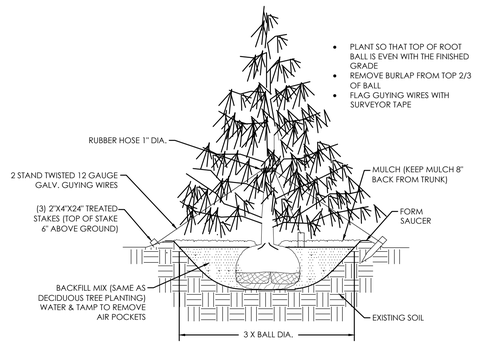
LANDSCAPE PLAN

Scale: 1"=20' | Drawn: BW
Date: 11/28/2023 | Job #: 21-0488
Sheet: L1.10

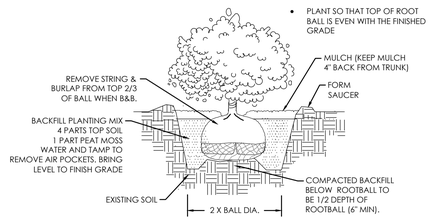
J:\2021\21-0488 talega village\design\21-0488.dwg\sheets apartments CUP\L1.0 - L1.2 LANDSCAPE PLAN TOWNS.dwg



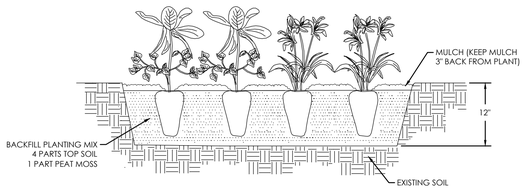
A TREE PLANTING & STAKING
NOT TO SCALE



B EVERGREEN PLANTING & GUYING
NOT TO SCALE



C SHRUB PLANTING
NOT TO SCALE



D PERENNIAL PLANTING
NOT TO SCALE

Star Idaho Landscape City Requirements - Townhomes Phase 2

Mandatory Provisions	
Existing Site Trees	Existing trees identified by species and size
Site Trees	1 Tree per 4,000 sf of overall landscape area
Perimeter Landscape Buffer Strip	When a commercial or indusrial use abuts a residential use, a 10 foor wide by 6 foot high landscaped buffer i.e. plants, berms, fences, or walls
Street Trees	A minimum of one street tree shall be plated for every 35 linear feet of street frontage
Parking Lot Trees	A terminal island for a single row of parking spaces shall be landscaped with at least one tree and shurbs, ground cover, or grass. A terminal island for a double row of parking spaces shall contain not less than two tree and shrubs, ground cover, or grass.
Dumpster Screen	To conceal outdoor storage areas or trash receptacles when adjacent to or in view from a residential activity or public street right of way, a three foot wide by six foot high landscaped buffer is required.
Internal Parking Landscape	Any lot with 51 or more parking spaces shall provide a minimum of 8% interior landscaping of the total overall lot area.

Site Trees				Required	Provided	Comments
Overall Landscape Area: 153,094 sf (3.5 ac.)	153,094 sf /4,000=	38.27	Trees	39	**39**	See parking lot tree quanities below.
Use-able Landscape Area:	63,326 sf open space					
Parking Lot Trees				**Required**	**Provided**	**Comments**
One canopy tree placed in landscape islands at the terminus of each parking row. A termial island for a double row of parking spaces shall contain not less than two trees.				N/A	**N/A**	
Landscape Internal Parking				**Required**	**Provided**	**Comments**
6 ft height masonry wall provided on South property line				N/A	**N/A**	Not applicable. No residential adj. exists
Street Trees				**Required**	**Provided**	**Comments**
All public & private streets to receive one street tree for every 35' linear feet of frontage				102	**102**	
Buffer Area				**Required**	**Provided**	**Comments**
40' wide landscape buffer on western property line. Per each 100 linear feet of frontage provide 4 shade trees, 3 evergreen trees, 2 ornamental trees, and 12 shrubs				Yes	Yes	16 Canopy Trees, 8 Ornamental Trees, 15 Evergreen Trees, and 43 Shrubs
Internal Parking Landscape				**Required**	**Provided**	**Comments**

Star Idaho Landscape City Requirements - Single-Family Phase 3

Mandatory Provisions	
Existing Site Trees	Existing trees identified by species and size
Site Trees	1 Tree per 4,000 sf of overall landscape area
Perimeter Landscape Buffer Strip	When a commercial or indusrial use abuts a residential use, a 10 foor wide by 6 foot high landscaped buffer i.e. plants, berms, fences, or walls
Street Trees	A minimum of one street tree shall be plated for every 35 linear feet of street frontage
Parking Lot Trees	A terminal island for a single row of parking spaces shall be landscaped with at least one tree and shurbs, ground cover, or grass. A terminal island for a double row of parking spaces shall contain not less than two tree and shrubs, ground cover, or grass.
Dumpster Screen	To conceal outdoor storage areas or trash receptacles when adjacent to or in view from a residential activity or public street right of way, a three foot wide by six foot high landscaped buffer is required.
Internal Parking Landscape	Any lot with 51 or more parking spaces shall provide a minimum of 8% interior landscaping of the total overall lot area.

Site Trees				Required	Provided	Comments
Total Landscape Area: 152,910 sf (3.51 ac.)	152,910 sf /4,000=	38.23	Trees	39	**39**	See parking lot tree quanities below.
Use-able Landscape Area:	96,240 sf open space					
Parking Lot Trees				**Required**	**Provided**	**Comments**
One canopy tree placed in landscape islands at the terminus of each parking row. A termial island for a double row of parking spaces shall contain not less than two trees.				N/A	**N/A**	
Landscape Internal Parking				**Required**	**Provided**	**Comments**
6 ft height masonry wall provided on South property line				N/A	**N/A**	Not applicable. No residential adj. exists
Street Trees				**Required**	**Provided**	**Comments**
All public & private streets to receive one street tree for every 35' linear feet of frontage				236	**236**	
Buffer Area				**Required**	**Provided**	**Comments**
40' wide landscape buffer on western property line. Per each 100 linear feet of frontage provide 4 shade trees, 3 evergreen trees, 2 ornamental trees, and 12 shrubs				Yes	Yes	32 Canopy Trees, 17 Ornamental Trees, 24 Evergreen Trees, and 96 Shrubs
Internal Parking Landscape				**Required**	**Provided**	**Comments**
Parking Lot Landscape: None Provided				N/A	**N/A**	Single family residential, no parking lot.

PLANT SCHEDULE TOWNHOMES PH.2

	CODE	BOTANICAL NAME	COMMON NAME	SIZE	QTY
TREES					
	AP	Acer platanoides	Norway Maple	2" Cal.	14
	AX	Acer x freemanii	Freeman Maple	2" Cal.	43
	SB	Amelanchier x grandiflora	Serviceberry	2" Cal.	35
	CF	Cornus florida	Flowering Dogwood	2" Cal.	4
	GY	Ginkgo biloba 'JN9' TM	Sky Tower Ginkgo	2" Cal.	20
	JW	Juniperus scopulorum 'Wichita Blue'	Wichita Blue Juniper	6` Ht.	6
	PF	Pinus anstata 'Formal Form'	Formal Form Bristlecone Pine	6` Ht.	9
	PV	Prunus virginiana `Canada Red`	Canada Red Chokecherry	2" Cal.	4
	PJ	Pyrus calleryana 'Jaczam' TM	Jack Callery Pear	2" Cal.	38
	QR	Quercus robur	English Oak	2" Cal.	7
SHRUBS					
	AMG	Aronia melanocarpa `UCONNAMO12` TM	Ground Hug Black Chokeberry	2 gal.	76
	BTC	Berberis thunbergii `Concorde`	Concorde Japanese Barberry	5 gal.	34
	BG	Berberis thunbergii 'Goruzam' TM	Golden Ruby Japanese Barberry	5 gal.	85
	BDH	Buddleja davidii `Buzz Hot Raspberry`	Hot Raspberry Butterfly Bush	2 gal.	54
	BGM	Buxus x `Green Mountain`	Green Mountain Boxwood	5 gal.	22
	CAB	Cornus alba `Bailhalo` TM	Ivory Halo Dogwood	5 gal.	48
	CSK	Cornus sencea `Kelseyi`	Kelsey`s Dwarf Red Twig Dogwood	2 gal.	84
	EAC	Euonymus alatus 'Grove Compactus'	Grove Compact Burning Bush	5 gal.	30
	POL	Physocarpus opulifolius `Donna May` TM	Little Devil Ninebark	5 gal.	121
	PMM	Pinus mugo var. pumilio	Dwarf Mugo Pine	5 gal.	40
	PLC	Prunus laurocerasus `Chestnut Hill`	Chestnut Hill English Laurel	5 gal.	61
	SSS	Sorbaria sorbifolia `Sem`	Sem Ash Leaf Spirea	5 gal.	61
	SJD	Spiraea japonica `Double Play Doozie`	Doozie Spirea	2 gal.	33
	SBL	Syringa x `SMSJBP7` `Bloomerang`	Bloomerang Dark Purple Lilac	5 gal.	47
	VCS	Viburnum carlesii 'SMVCB' TM	Spice Baby Koreanspice Viburnum	5 gal.	67
ORNAMENTAL GRASSES					
	CAK	Calamagrostis x acutiflora `Karl Foerster`	Karl Foerster Feather Reed Grass	1 gal.	133
	HSS	Helictotrichon sempervirens `Sapphire`	Sapphire Blue Oat Grass	1 gal.	86
	MSG	Miscanthus sinensis `Gold Bar`	Gold Bar Eulalia Grass	1 gal.	72
	PAH	Pennisetum alopecuroides `Hameln`	Hameln Fountain Grass	1 gal.	72
PERENNIALS					
	HSO	Hemerocallis x `Stella de Oro`	Stella de Oro Daylily	1 gal.	36
	PAL	Perovskia atriplicifolia `Little Spire`	Little Spire Russian Sage	1 gal.	26
SYMBOL	CODE	BOTANICAL NAME	COMMON NAME	SIZE	QTY
GROUND COVERS					
	KB	Poa pratensis	Kentucky Bluegrass	sod	100,104 sf

REFERENCE NOTES TOWNHOMES PH.2

SYMBOL	DESCRIPTION	QTY	DETAIL
1	RIVER ROCK, SIZE 2"	51,153 sf	
2	PLAYGROUND WOOD MULCH, 14" DEPTH	1,385 sf	
3	STEEL EDGING, TBD.	4,041 lf	
4	PICNIC SHELTER, T.B.D.	1	
5	PLAYGROUND STRUCTURE, T.B.D.	1	
6	BENCH, TBD.	4	

PLANT SCHEDULE SINGLE FAMILY PH.3

	CODE	BOTANICAL NAME	COMMON NAME	SIZE	QTY
TREES					
	AP	Acer platanoides	Norway Maple	2" Cal.	42
	AX	Acer x freemanii	Freeman Maple	2" Cal.	22
	SB	Amelanchier x grandiflora	Serviceberry	2" Cal.	10
	CC	Cercis canadensis	Eastern Redbud	2" Cal.	46
	CF	Cornus florida	Flowering Dogwood	2" Cal.	9
	GY	Ginkgo biloba 'JN9' TM	Sky Tower Ginkgo	2" Cal.	15
	JW	Juniperus scopulorum 'Wichita Blue'	Wichita Blue Juniper	6` Ht.	12
	MS	Malus x `Spring Snow`	Spring Snow Crabapple	2" Cal.	51
	PF	Pinus anstata 'Formal Form'	Formal Form Bristlecone Pine	6` Ht.	12
	PV	Prunus virginiana `Canada Red`	Canada Red Chokecherry	2" Cal.	53
	PJ	Pyrus calleryana 'Jaczam' TM	Jack Callery Pear	2" Cal.	21
	UA	Ulmus x `Accolade`	Accolade Elm	2" Cal.	52
SHRUBS					
	BDH	Buddleja davidii `Buzz Hot Raspberry`	Hot Raspberry Butterfly Bush	2 gal.	24
	CAB	Cornus alba `Bailhalo` TM	Ivory Halo Dogwood	5 gal.	44
	CSK	Cornus sencea `Kelseyi`	Kelsey`s Dwarf Red Twig Dogwood	2 gal.	24
	EAC	Euonymus alatus 'Grove Compactus'	Grove Compact Burning Bush	5 gal.	24
	VCS	Viburnum carlesii 'SMVCB' TM	Spice Baby Koreanspice Viburnum	5 gal.	38
SYMBOL	CODE	BOTANICAL NAME	COMMON NAME	SIZE	QTY
GROUND COVERS					
	KB	Poa pratensis	Kentucky Bluegrass	sod	137,439 sf

REFERENCE NOTES- SINGLE FAMILY PH.3

SYMBOL	DESCRIPTION	QTY	DETAIL
1	RIVER ROCK, SIZE 2"	42,621 sf	
3	STEEL EDGING, TBD.	1,175 lf	

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FOR REVIEW ONLY

TALEGA VILLAGE PHASE 2 & 3
STAR CITY, IDAHO
LANDSCAPE DETAILS

REVISION BLOCK		
#	DATE	DESCRIPTION
1	----	----
2	----	----
3	----	----
4	----	----
5	----	----
6	----	----

LANDSCAPE DETAILS

Scale:		Drawn:	BW
Date:	11/29/2023	Job #:	21-0488
Sheet:	L1.11		

2021\21-0488 Talega Village\Design 21-0488.dwg\sheets apartments CUP\L1.0 - L1.2 LANDSCAPE PLAN TOWNS.dwg

SINGLE FAMILY ELEVATIONS

TOWNHOME ELEVATIONS

APARTMENT ELEVATIONS

TALEGA VILLAGE home plan elevations exhibit

STAR CITY, ADA COUNTY
5/17/2023
21-0488

Note: This plan is for illustrative purposes. Boundaries may be based on information obtained through public data and we can't confirm it's accuracy. It is recommended that a boundary survey be performed to determine actual boundary size and dimensions as well as other potential boundary conflicts.

FOCUS ENGINEERING AND SURVEYING, LLC

Z:_2021\21-0488 Talega Village\design\21-0488 (dwg) exhibits\Home Plan Elevations Exhibit.dwg

ACHD
Committed to Service

Project/File: **Talega Village/ SPP22-0006/ AZ-22-11/ RZ-22-03/ DA-22-12/ CU-22-05/ PP-22-17/ PR-22-08**
This is an annexation, a rezone, a conditional use permit, a private street and a preliminary plat application to allow for the development of a 181-lot mixed use subdivision on 66-acres. The site is located at the northwest corner of SH-44 and SH-16.

Lead Agency: City of Star

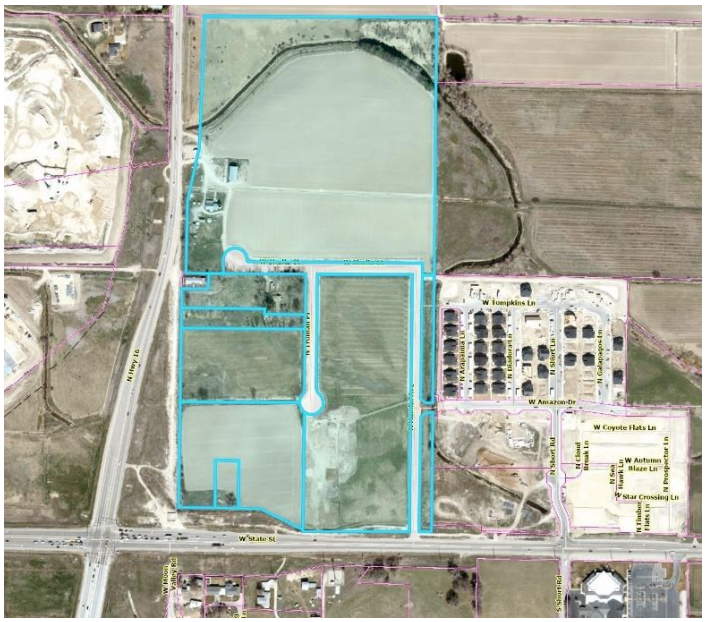
Site address: 58 N. Truman Place

Staff Approval: September 26, 2023

Applicant: Derk Pardoe
3454 Stone Mountain Lane
Sandy, UT 84092

Representative: Chad Garner
Focus Engineering & Surveying
6949 High Tech Drive Suite 200
Midvale, UT 84047

Staff Contact: Dawn Battles, Senior Planner
Phone: 387-6218
E-mail: dbattles@achdidaho.org



A. Findings of Fact

1. **Description of Application:** The applicant is requesting approval of an annexation with rezone from RUT (Rural-Urban Transition), R1 (Estate Residential) and C-2 (Commercial) to R-10-DA (Residential), a conditional use permit, a private street and a preliminary plat application to allow for the development of a 181 lot mixed-use development consisting of 1 commercial lot, 1 multi-family lot, 65 single family residential lots, 95 townhome lots, 5 common lots and 14 open space lots which will include 340 apartment units on 66-acres. The application includes a development agreement with the City of Star. The applicant's rezone proposal is consistent with the City of Star's future land use map which designates this area as commercial, high density residential, neighborhood residential and compact residential.

2. **Description of Adjacent Surrounding Area:**

Direction	Land Use	Zoning
North	Rural-Urban Transition (Ada County)	RUT
South	Rural-Urban Transition (Ada County), Residential, Commercial	RUT, R-1, C-1
East	Rural-Urban Transition (Ada County), Residential, Commercial	RUT, R-5-DA, C-2
West	Rural-Urban Transition (Ada County), Mixed Use, Light Industrial	RUT, MU, LI-DA

3. **Site History:** ACHD staff previously reviewed a portion of this site for an annexation with rezone and a comprehensive plan map amendment (STAR18-0004) in January 2018. The requirements of this staff report have been updated to reflect the current proposed site plan.

4. **Adjacent Development:** The following developments are pending or underway in the vicinity of the site:

   - Everton, a 241 lot mixed use development consisting of 212 single-family residential lots, 11 commercial lots and 18 common lots on 77-acres is located southeast of the site at the northeast corner of Palmer Lane and SH-44 and was approved by ACHD in August 2023.
   - Cascade Springs, a 470 lot residential subdivision consisting of 400 residential lots and 70 common lots is located directly adjacent to the north of the site and was approved by ACHD in March 2023.
   - Junction Crossing 2, a 9 lot mixed-use subdivision consisting of 3 mixed use lots, 3 commercial lots and 3 buildable lots which will comprise of 32 multi-family units, 80,000 square feet of commercial/office, an amphitheater, common areas and a park is located adjacent to the east of the site at the northeast corner of SH-44 and Hamlin Avenue and was approved in October 2022.
   - Junction Crossing, a 4 lot commercial subdivision consisting of 2 commercial lots and 2 common lots is located east of the site at the northeast corner of SH-44 and Short Road and was approved by ACHD in January 2022.
   - Fountain Park, a 278 residential lot subdivision consisting of 251 residential lots and 27 common lots on 60-acres is located directly adjacent to the east and was approved in August 2021.

5. **Transit:** Transit services are not available to serve this site.

6. **Pathway Crossings:** United States Access Board R304.5.1.2 Shared Use Paths. In shared use paths, the width of curb ramps runs and blended transitions shall be equal to the width of the shared use path.

   AASHTO's Guidelines for the Development of Bicycle Facilities 5.3.5 Other Intersection Treatments: The opening of a shared use path at the roadway should be at least the same width as the shared use path itself. If a curb ramp is provided, the ramp should be the full width of the path, not including any flared sides if utilized. . . . Detectable warnings should be placed across the full width of the ramp.

   FHWA's "Designing Sidewalks and Trails for Access" (1999) reflected common ADA-related concepts: Chapter 6, Page 16-6: The width of the ramp should be at least as wide as the average width of the trail to improve safety for users who will be traveling at various speeds. In addition, the overall width of the trail should be increased, so the curb ramp can be slightly offset to the side. The increased width reduces conflict at the intersection by providing more space for users at the bottom of the ramp.

7. **New Center Lane Miles:** The proposed development includes 1.06 centerline miles of new public road.

8. **Impact Fees:** There will be an impact fee that is assessed and due prior to issuance of any building permits. The assessed impact fee will be based on the impact fee ordinance that is in effect at that time. The impact fee assessment will not be released until the civil plans are approved by ACHD.

9. **Capital Improvements Plan (CIP)/ Integrated Five Year Work Plan (IFYWP):**

   There are no roadways, bridges or intersections in the general vicinity of the project that are in the Integrated Five Year Work Plan (IFYWP) or the District's Capital Improvement Plan (CIP).

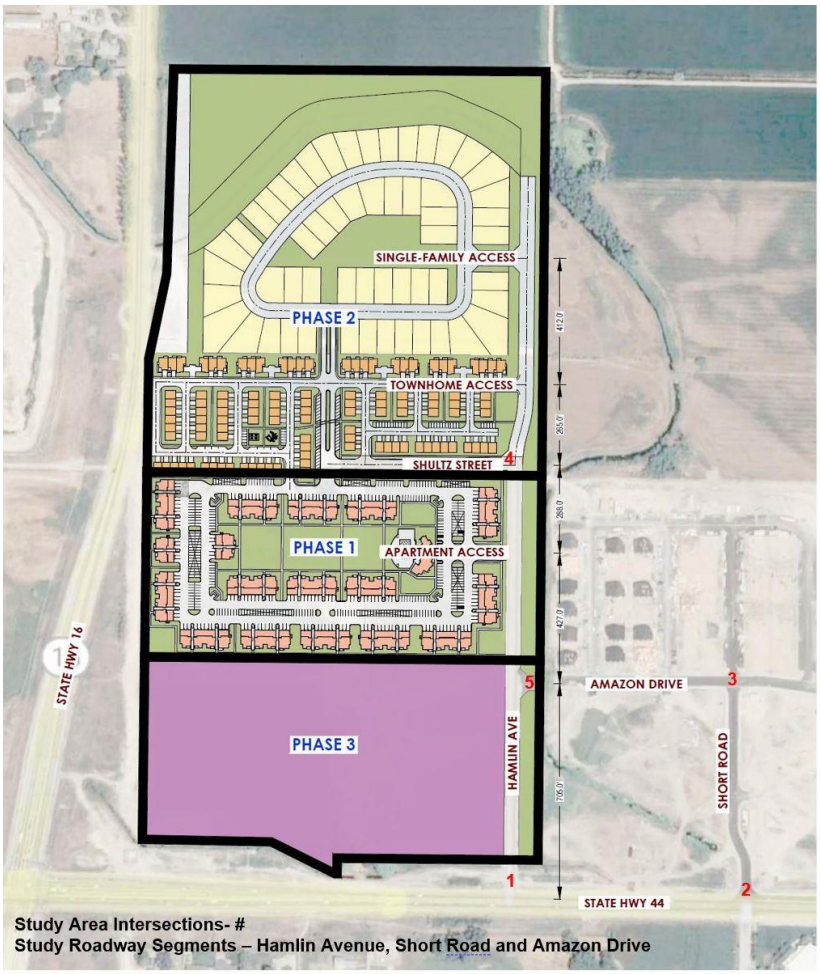
10. **Roadways to Bikeways Master Plan:** ACHD's Roadways to Bikeways Master Plan (BMP) was adopted by the ACHD Commission in May of 2009 and was update in 2018. The plan seeks to implement the Planned Bicycle Network to support bicycling as a viable transportation option for Ada County residents with a wide range of ages and abilities, maintain bicycle routes in a state of good repair in order to ensure they are consistently available for use, promote awareness of existing bicycle routes and features and support encouragement programs and to facilitate coordination and cooperation among local jurisdictions in implementing the Roadways to Bikeways Plan recommendations.

    The BMP identifies Palmer Lane located east of the site as Level 2 facilities that will be constructed as part of a future ACHD project. The BMP does not identify bike facilities on Hamlin Avenue, Short Road, Schultz Street or Amazon Drive.

B. Traffic Findings for Consideration

1. **Trip Generation:** This development is estimated to generate 4,529 vehicle trips per day; 417 vehicle trips per hour in the PM peak hour, based on the traffic impact study.

2. **Traffic Impact Study**
    Focus Engineering and Surveying, Inc. prepared a traffic impact study for the proposed Talega Village development. The executive summary of the findings **as presented by Focus Engineering and Surveying, Inc.** can be found as Attachment 3. The following executive summary is **not the opinion of ACHD staff**. ACHD has reviewed the submitted traffic impact study for consistency with ACHD policies and practices and may have additional requirements beyond what is noted in the summary. ACHD Staff comments on the submitted traffic impact study can be found below under staff comments.



a. Policy:

Mitigation Proposals: Mitigation recommendations shall be provided within the report. At a minimum, for each roadway segment and intersection that does not meet the minimum acceptable level of service planning threshold or v/c ratio, the report must discuss feasible measures to avoid or reduce the impact to the system. To be considered adequate, measures should be specific and feasible. Mitigation may also include:

- Revision to the Phasing Plan to coincide with the District's planning Capital Projects.
- Reducing the scope and/or scale of the project.

Alternative Mitigation Measures: 7106.7.3 states that if traditional mitigation measures such as roadway widening and intersection improvements are infeasible as determined by ACHD, the TIS may recommend alternative mitigation measures. Alternative mitigation measures shall demonstrate that impacts from the project will be offset.

- If the impacted roadway segments and/or intersections are programmed as funded in the Integrated Five Year Work Plan (IFYWP) or the Capital Improvements Plan (CIP); no alternative mitigation is required.
- If the impacted roadway segments and/or intersections are not programmed in either the IFYWP or the CIP; the applicant may (i) analyze the shoulder hour and (ii) provide a safety analysis to determine alternative mitigation requirements.
    - If the impacted roadway segments and intersections meet the minimum acceptable level of service planning thresholds in the shoulder hour the applicant may suggest feasible alternative mitigation such as: sidewalks, bike facilities, connectivity, safety improvements, etc. within 1.5 miles of the proposed development.
    - If the shoulder hour planning thresholds are exceeded the applicant may request to enter into a Development Agreement and pay into the Priority Corridor Fund an amount determined by the ACHD to offset impacts from the project.
- Alternative Mitigation may also include:
    - Revision to the Phasing Plan to coincide with the District's future Capital Projects.
    - Reducing the scope and/or scale of the project.

Level of Service Planning Thresholds: District Policy 7206.4.1 states that, Level of Service Planning Thresholds have been established for principal arterials and minor arterials within ACHD's Capital Improvement Plan and are also listed in section 7106. Unless otherwise required to provide a Traffic Impact Study under section 7106, a proposed development with site traffic less than 10% of the existing downstream roadway or intersection peak hour traffic shall not be required to provide mitigation for a roadway or intersection that currently exceeds the minimum acceptable level of service planning threshold or V/C ratio.

b. TIS Findings: Staff have reviewed the submitted traffic impact study (TIS) and generally agree with the findings and recommendations. The TIS analyzed phases which included 2023 Plus Phase 1 total traffic, 2024 Plus Phase 2 total traffic, and 2030 Plus Phase 3 total traffic.

The study found the following intersection deficiencies described below, coupled with the percentage site traffic contributions relative to the PM peak hour total traffic, followed with their recommendations for improvements.

Intersections:

- Short Road/ SH-44 (8%)
    - The northbound and southbound left-turn lane exceeds ACHD's acceptable Level of Service Planning Thresholds in the AM and PM peak hours under 2030 background and 2030 total traffic conditions. In 2022, ITD widened SH-44 to five lanes between SH-16 and Linder Road. The TIS recommended the following capacity improvements under 2023 Plus Phase 1 total traffic, 2024 Plus Phase 2 total traffic and 2030 total traffic conditions:
        - Restrict to right-in/right-out/left-in
            - If restricted, then the eastbound left-turn lane exceeds ACHD's acceptable Level of Service Planning Thresholds in the PM peak hour under 2030 total traffic conditions.
        - Signal Warrant analysis indicated that the intersection meets warrants under 2030 total traffic conditions.
        - ITD did not submit comments regarding the TIS.
            - No additional improvements are recommended at this intersection on the ACHD roadways, as the proposed site traffic at this intersection will be less than 10% of the 2030 total traffic conditions. Therefore, consistent with District policy 7205.3.1 Level of Service Planning Threshold, which states, a proposed development with site traffic less than 10% of the existing downstream roadway or intersection peak hour traffic shall not be required to provide mitigation.
            - The applicant should coordinate with ITD and the City of Star to determine if any additional improvements or right-of-way are required on SH-44 at the intersection with Short Road.
- Hamlin Avenue and SH-44 (8%)
    - The southbound right-turn lane exceeds ACHD's acceptable Level of Service Planning Thresholds in the PM peak hours under 2030 total traffic if the Short Road/SH-44 intersection is restricted to right-in/right-out/left-in only as intended in the State Street Corridor Study.
        - ITD did not submit comments regarding the TIS.
            - No additional improvements are recommended at this intersection on the ACHD roadways, as the proposed site traffic at this intersection will be less than 10% of the 2030 total traffic conditions. Therefore, consistent with District policy 7205.3.1 Level of Service Planning Threshold, which states, a proposed development with site traffic less than 10% of the existing downstream roadway or intersection peak hour traffic shall not be required to provide mitigation.
            - The applicant should coordinate with ITD and the City of Star to determine if any additional improvements or right-of-way are required on SH-44 at the intersection with Hamlin Avenue.

Turn Lanes:
The applicant's TIS included turn lane warrant analysis at all off-site and site access study area intersections with the exception of the proposed local street access located at the site's north property line (See Findings #7), as the site plan was updated after the completion of the TIS. The following turn lanes are warranted based on the findings in the TIS:

- Short Road/SH-44
    - Extend the northbound approach an additional 140-feet
        - No site generated traffic is anticipated to impact this movement. Therefore, this improvement is not required.

c. Staff Comments/Recommendations: Based on the findings of the TIS, no additional improvements are recommended at the above listed intersections on the ACHD roadways, as the proposed site traffic at these intersections will be less than 10% of the 2030 total traffic conditions.

The applicant should coordinate with ITD and the City of Star to determine if any additional improvements or right-of-way are required on SH-44 at the intersection with Short Road and Hamlin Avenue.

3. Condition of Area Roadways
Traffic Count is based on Vehicles per hour (VPH)

Roadway	Frontage	Functional Classification	PM Peak Hour Traffic Count	PM Peak Hour Level of Service
**State Highway 44 State Street	1,085-feet	Principal Arterial	1,187	N/A
Hamlin Avenue	2,240-feet	Collector	6	Better than "D"
Short Road	None	Collector	13	Better than "D"
***Amazon Drive	88-feet	Commercial	N/A	N/A

* Acceptable level of service for a two-lane collector is "D" (425 VPH).
* Acceptable level of service for a three-lane collector is "D" (530 VPH).
** ACHD does not set level of service thresholds for State Highways.
*** ACHD does not set level of service planning thresholds for local roads.

4. Average Daily Traffic Count (VDT)
Average daily traffic counts are based on ACHD's most current traffic counts.

- The average daily traffic count for Hamlin Avenue north of SH-44 was estimated to be 28.
- The average daily traffic count on Amazon Drive west of Short Lane was estimated to be 774.
- The average daily traffic count on Short Road north of SH-44 was estimated to be 1,347.

C. Findings for Consideration

1. Public Streets vs. Private Streets

The applicant has proposed to improve a portion of an existing local public street, Shultz Street, abutting the site and is proposing to incorporate a portion of the existing local public streets, Shultz Street/Shultz Court and Truman Place into the site and to construct the internal local streets as public roadways. However, staff recommends the construction of private streets as there is no connectivity to the adjacent parcel to the north as it was approved to have lots constructed at the

site's north property line providing no public benefit and there is a proposed local street at the site's north property line that will provide access to only 10 single family lots. Furthermore, the internal street layout does not meet ACHD's policies as there is a local street proposed to dead end into a parking lot, there are roadways that exceed 750-feet in length and there are several perpendicular parking stalls proposed within the public right-of-way.

The following findings will provide three different scenarios which include the ACHD requirements if the roadways are to be constructed as private, the requirements for the existing public roadway, Hamlin Avenue, and if the roadways are to be constructed as public.

If Private Roads are constructed within the site, then the following conditions apply.

2. Private Roads

a. Policy:

Private Road Policy: District policy 7212.1 states that the lead land use agencies in Ada County establish the requirements for private streets. The District retains authority and will review the proposed intersection of a private and public street for compliance with District intersection policies and standards. The private road should have the following requirements:

- Designed to discourage through traffic between two public streets,
- Graded to drain away from public street intersection, and
- If a private road is gated, the gate or keypad (if applicable) shall be located a minimum of 50-feet from the near edge of the intersection and a turnaround shall be provided.

b. Staff Comments/Recommendations: As noted above, staff recommends the existing streets within the site, Shultz Street, Shultz Court, Truman Place be vacated or vacated/exchanged (See Findings for Consideration 3) and the internal roadways be constructed as private roadways. See image below for location of recommended private streets.

Additionally, if private roads are to be constructed, then the applicant should be required to vacate/exchange all of Shultz Street abutting the site.

If the City of Star approves private roads, the applicant shall be required to pave the private roadways their full widths and at least 30-feet into the site beyond the edge of pavement of all public streets and install pavement tapers with 15-foot curb radii abutting the existing roadway edge. If private roads are not approved by the City of Eagle, the applicant will be required to revise and resubmit the preliminary plat to provide public standard local streets in these locations.

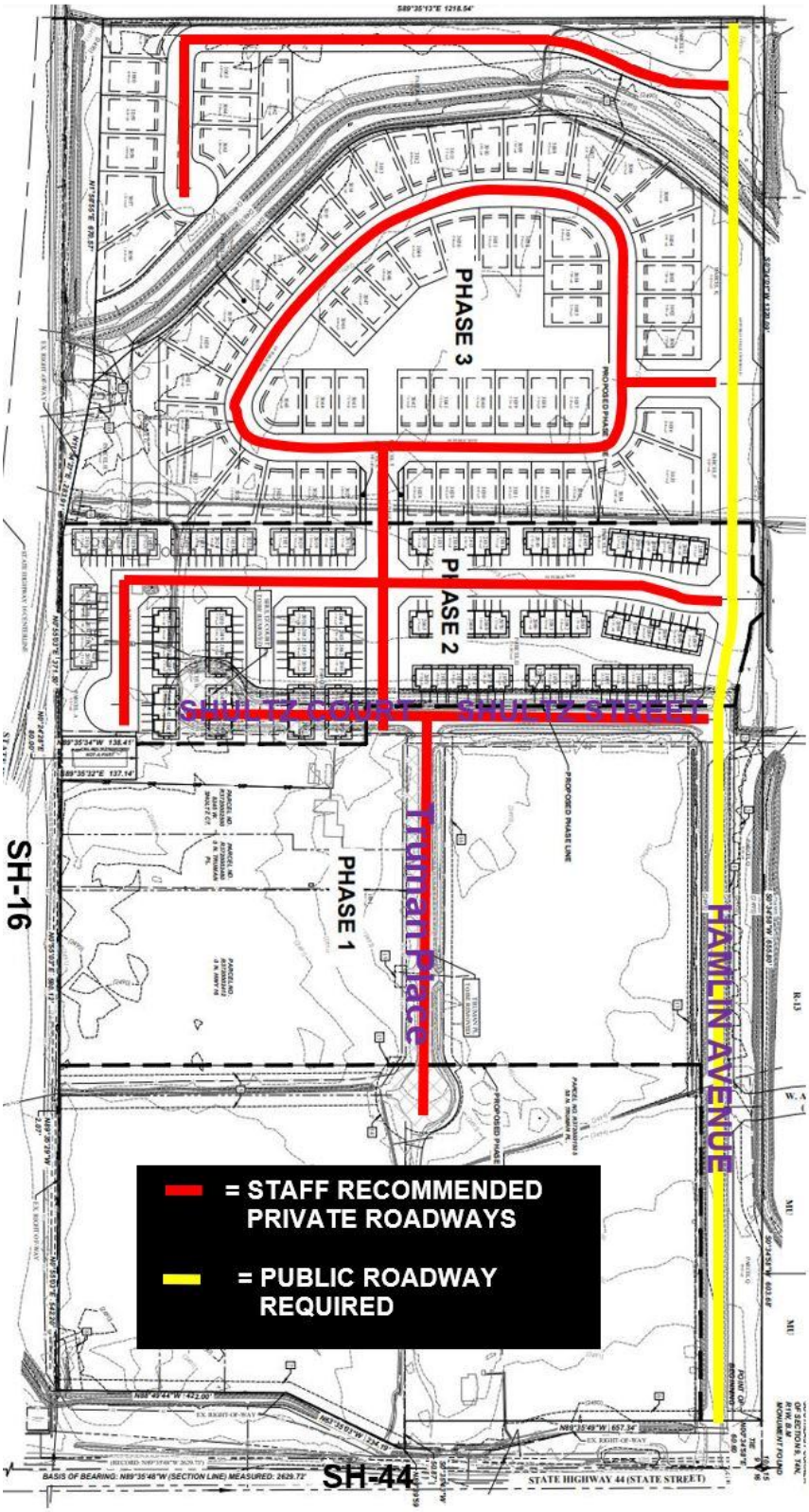
Street name and stop signs are required for the private road. The signs may be ordered through the District. Verification of the correct, approved name of the road is required.

ACHD does not make any assurances that the private road, which is a part of this application, will be accepted as a public road if such a request is made in the future. Substantial redesign and reconstruction costs may be necessary in order to qualify this road for public ownership and maintenance.

The following requirements must be met if the applicant wishes to dedicate the roadway to ACHD:

- Dedicate a minimum of 50-feet of right-of-way for the road.
- Construct the roadway to the minimum ACHD requirements.
- Construct a stub street to the surrounding parcels.

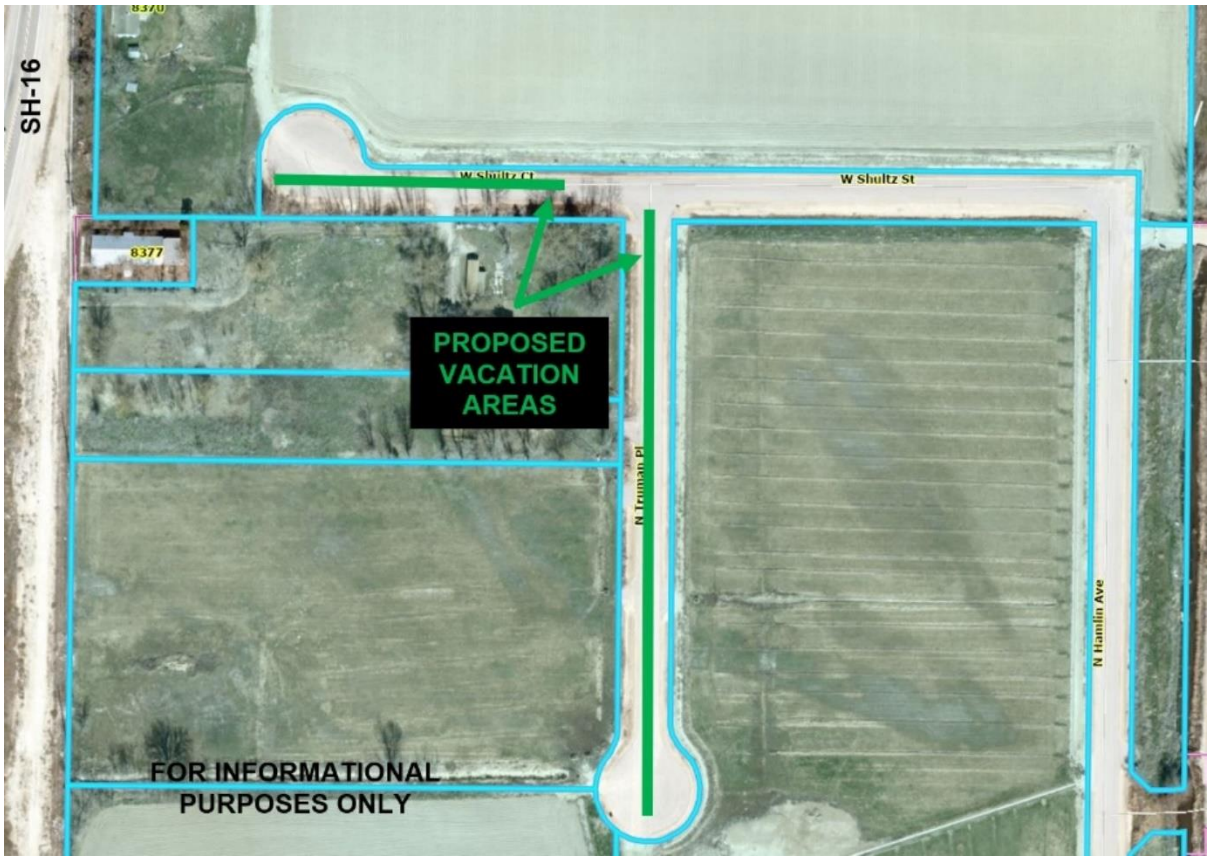
If the City of Star does not approve private roadways, then the applicant should be required to modify the site plan to meet District policies for ACHD to accept public streets.



The following conditions apply whether or not the internal roadways are public or private.

3. Vacation of Right-of-Way

a. Applicant's Proposal: The applicant is proposing to vacate a portion of the existing local streets, Shultz Street/Shultz Court and is proposing to vacate all of Truman Place within the site and incorporate those areas into the site as part of their development.



b. Staff Comments/Recommendations: At the time of this application, a vacation or vacation/exchange has not been completed. If the right-of-way is proposed to be vacated, then the applicant should apply to vacate/exchange a portion of Shultz Street/Shultz Court and Truman Place within the site by submitting an application to the Right-of-Way department prior to plan submittal. A right-of-way vacation or vacation/exchange is a separate application with its own public hearing process. Until the right-of-way of Shultz Street/Shultz Court and Truman Place have been vacated it is public right-of-way under the jurisdiction of ACHD. See Findings for Consideration #7 for the requirements of the roadways if they remain public right-of-way. If Shultz Street is not redesigned to meet District policy, then the applicant should apply to vacate/exchange the entire segment of Shultz Street abutting the site.

4. State Highway SH-44 / State Street

SH-44 is under the jurisdiction of the Idaho Transportation Department (ITD). The applicant, City of Star, and ITD should work together to determine if additional right-of-way or improvements are necessary on SH-44.

5. Maximum Traffic on One Access-Hamlin Avenue

a. Policy:

Maximum Traffic on One Access: District Policy 7206.3.3 states that if a proposed development only has one access to a public street that is a collector street, or if it proposes to

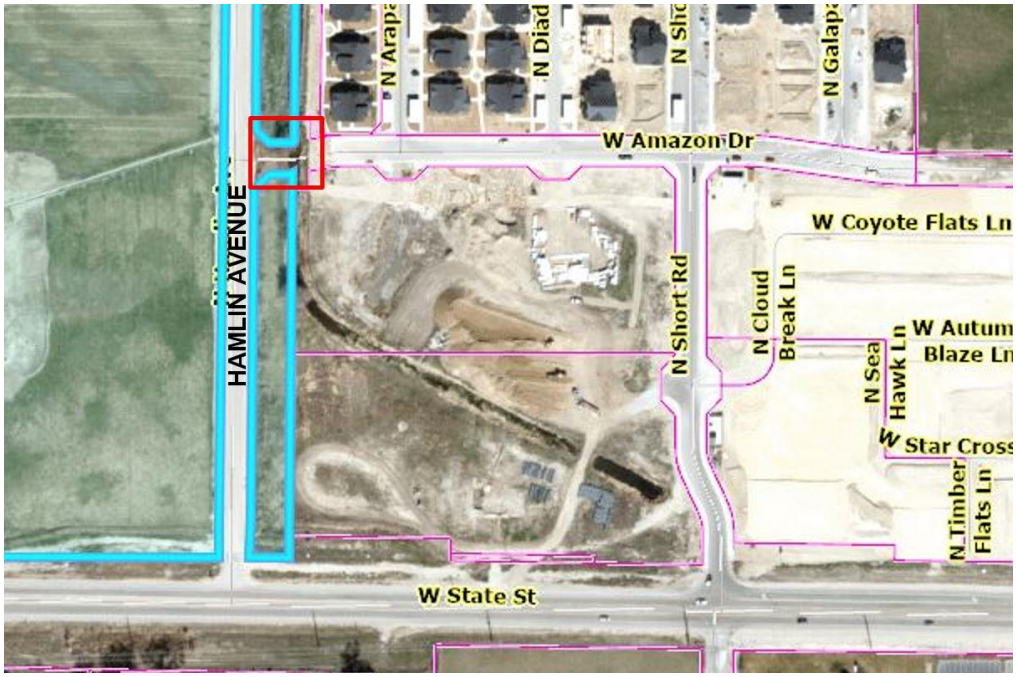
extend public streets from existing development with only collector street access to the public street system, the maximum forecast ADT (Average Daily Trips) to be allowed at any point on the collector street is 3,000. This volume may be reduced or increased based on information received from the lead land use agency, the applicable fire department, and/or emergency services. The District will also take into consideration the following items when determining whether or not to reduce or increase the maximum allowable ADT: railroad crossings, canal crossings, and topography.

Off-site Streets: District Policy 7208.2.3 states that if the proposed development is not served by a paved public street, the developer shall pave the street or widen the existing pavement to provide a 30-foot wide (minimum) paved street with 3-foot gravel shoulders from the proposed development to the public street specified by the District. Wider street widths may be required depending on the magnitude of the development and other factors, including the potential for bicycle, bus and pedestrian traffic.

b. Staff Comments/Recommendations: Amazon Drive on the east side of Hamlin Avenue across from the site was constructed as part of the first phase of the Amazon Falls development, with Amazon Drive stubbing to the Amazon Falls development's west property line. Originally, a spite strip restricted Amazon Drive from being constructed to connect to Hamlin Avenue; however, this issue has been resolved and the right-of-way for Amazon Drive to connect to Hamlin Avenue has been dedicated.

As part of ACHD's action on Junction Crossing 1, the applicant was required to construct Amazon Drive to intersect Hamlin Avenue prior to ACHD's approval of the first final plat for that development. The construction plans for the completion of Amazon Drive are currently under review by ACHD.

Until Amazon Drive can be constructed to intersect Hamlin Avenue, Hamlin Avenue will serve as the only public access for the site from SH-44. District Policy restricts the daily traffic to 3,000 trips per day for a collector road that serves as the sole access to a development. The study shows that the projected daily traffic on Hamlin Avenue will exceed 4,800 if Amazon Drive is not extended to connect to Hamlin Avenue. This development proposal is expected to generate approximately 4,529 daily trips which would cause the daily traffic on Hamlin Avenue to exceed 3,000 trips. Therefore, staff recommends that the applicant be required to construct Amazon Drive to intersect Hamlin Avenue with a minimum 30-feet of pavement and 3-foot wide gravel shoulders within the existing 50-feet of right-of-way prior to plan approval and ACHD's signature on the first final plat for this development. The applicant may also choose to fully construct Amazon Drive to connect to Hamlin Avenue as a 36-foot wide commercial street section with vertical curb, gutter and 5-foot wide attached concrete sidewalk



to match the existing Amazon Drive. All irrigation facilities are required to be relocated outside of the right-of-way.

6. Hamlin Avenue

a. Existing Conditions: Hamlin Avenue is an existing roadway abutting a portion of the site, intersects SH-44 at the site's south property line and extends 1,375-feet north to the intersection with Shultz Street and is improved with 2-travel lanes, 26-feet of pavement and no curb, gutter or sidewalk abutting the site. There is 50-feet of right-of-way for Hamlin Avenue (25-feet from centerline).

As part of ACHD's approval of Cascade Springs, Hamlin Avenue, proposed to stub to the site's north property line.

b. Policy:

Collector Street Policy: District policy 7206.2.1 states that the developer is responsible for improving all collector frontages adjacent to the site or internal to the development as required below, regardless of whether access is taken to all of the adjacent streets.

Master Street Map and Typologies Policy: District policy 7206.5 states that if the collector street is designated with a typology on the Master Street Map, that typology shall be considered for the required street improvements. If there is no typology listed in the Master Street Map, then standard street sections shall serve as the default.

Street Section and Right-of-Way Policy: District policy 7206.5.2 states that the standard right-of-way width for collector streets shall typically be 50 to 70-feet, depending on the location and width of the sidewalk and the location and use of the roadway. The right-of-way width may be reduced, with District approval, if the sidewalk is located within an easement; in which case the District will require a minimum right-of-way width that extends 2-feet behind the back-of-curb on each side.

The standard street section shall be 46-feet (back-of-curb to back-of-curb). This width typically accommodates a single travel lane in each direction, a continuous center left-turn lane, and bike lanes.

Residential Collector Policy: District policy 7206.5.2 states that the standard street section for a collector in a residential area shall be 36-feet (back-of-curb to back-of-curb). The District will consider a 33-foot or 29-foot street section with written fire department approval and taking into consideration the needs of the adjacent land use, the projected volumes, the need for bicycle lanes, and on-street parking.

Continuation of Streets Policy: District Policy 7206.2.4 states that an existing street, or a street in an approved preliminary plat, which ends at a boundary of a proposed development shall be extended in that development. The extension shall include provisions for continuation of storm drainage facilities. Benefits of connectivity include but are not limited to the following:

- Reduces vehicle miles traveled.
- Increases pedestrian and bicycle connectivity.
- Increases access for emergency services.
- Reduces need for additional access points to the arterial street system.
- Promotes the efficient delivery of services including trash, mail and deliveries.
- Promotes appropriate intra-neighborhood traffic circulation to schools, parks, neighborhood commercial centers, transit stops, etc.
- Promotes orderly development.

Sidewalk Policy: District policy 7206.5.6 requires a concrete sidewalk at least 5-feet wide to be constructed on both sides of all collector streets. A parkway strip at least 6-feet wide between the back-of-curb and street edge of the sidewalk is required to provide increased safety and protection of pedestrians. Consult the District's planter width policy if trees are to be placed within the parkway strip. Sidewalks constructed next to the back-of-curb shall be a minimum of 7-feet wide.

Detached sidewalks are encouraged and should be parallel to the adjacent roadway. Meandering sidewalks are discouraged.

A permanent right-of-way easement shall be provided if public sidewalks are placed outside of the dedicated right-of-way. The easement shall encompass the entire area between the right-of-way line and 2-feet behind the back edge of the sidewalk. Sidewalks shall either be located wholly within the public right-of-way or wholly within an easement.

ACHD Master Street Map: ACHD Policy Section 3111.1 requires the Master Street Map (MSM) guide the right-of-way acquisition, collector street requirements, and specific roadway features required through development. This segment of Hamlin Avenue is designated in the MSM as a Commercial Collector with 2-lanes and on-street bike lanes, a 36-foot street section within 54 to 70-feet of right-of-way.

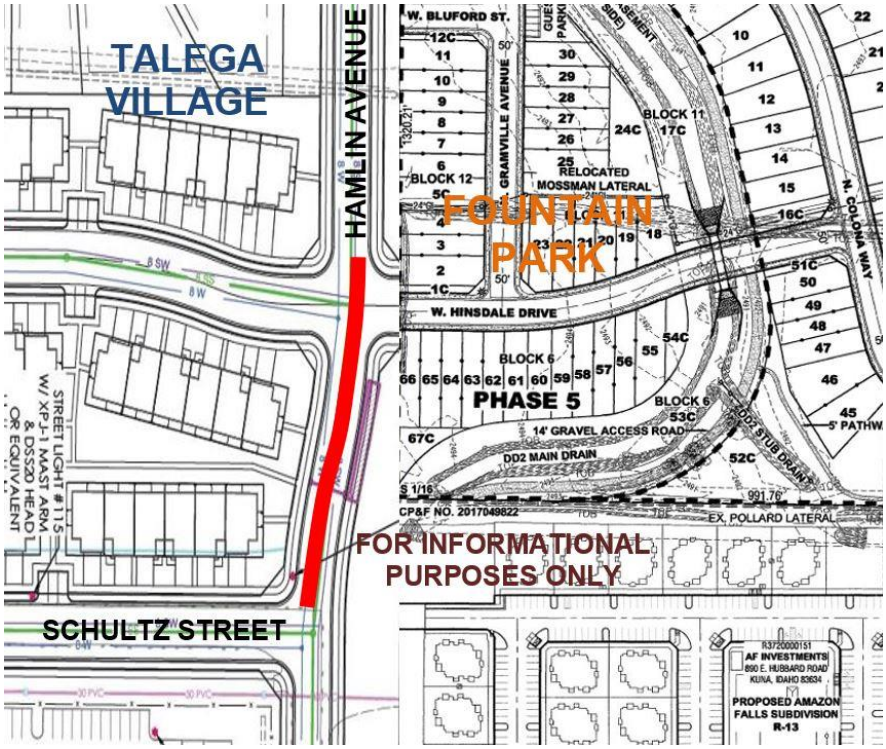
c. Applicant Proposal: The applicant is proposing to complete the existing segment of Hamlin Avenue from SH-44 north 1,375-feet to the intersection of Shultz Street as a complete 36-foot wide collector street section with vertical curb, gutter, a 6-foot wide planter strip and 5-foot wide detached concrete sidewalk on both sides of the roadway within 60-feet of right of way.

The applicant is proposing to extend Hamlin Avenue into the site from the intersection with Shultz Street north to stub to the site's north property line and in alignment with the stub street location approved as part of Cascade Springs located north of the site as a 36-foot wide collector street section with vertical curb, gutter, a 6-foot wide planter strip and 5-foot wide detached concrete sidewalk within 60-feet of right-of-way.

d. Staff Comments/Recommendations: The applicant's proposal to complete the existing segment of Hamlin Avenue from SH-44 north to the intersection with Shultz Street as a 36-foot wide collector street section with vertical curb, gutter, a 6-foot wide planter strip and 5-foot wide detached concrete sidewalk on both sides of the roadway meets District policy, as the applicant has control of both sides of the roadway and should be approved.

The applicant's proposal to extend Hamlin Avenue into the site from the intersection with Shultz Street north to stub to the site's north property line and in alignment with the stub street location approved as part of Cascade Springs located north of the site as a 36-foot wide collector street section with vertical curb, gutter, a 6-foot wide planter strip and 5-foot wide detached concrete sidewalk meets District policy and should be approved, as proposed.

As part of the approval of the Fountain Park subdivision located on the east side of Hamlin Avenue across from the site, the applicant was required to construct Hamlin Avenue from the intersection with Schultz Street north to the proposed local street, Hinsdale Drive, with a minimum 30-feet of pavement and 3-foot wide gravel shoulders or 24-feet of pavement, 3-foot gravel shoulders and a minimum 6-foot wide detached asphalt/concrete pedestrian facilities, or as a complete 36-foot wide collector street section with vertical curb, gutter and 5-foot wide attached or 7-foot wide detached concrete sidewalk (shown in red).



If Hamlin Avenue has been constructed from the intersection with Shultz Street north to the proposed local street, Hinsdale Drive as part of the Fountain Park subdivision, then the applicant should be required to construct this segment of Hamlin Avenue as ½ of a 36-foot wide collector street section with vertical curb, gutter, a 6-foot wide planter strip and 5-foot wide detached concrete sidewalk. Or, if Hamlin Avenue has been constructed as a complete 36-foot wide collector street section with vertical curb, gutter and 5-foot wide attached or 7-foot wide detached concrete sidewalk, then the applicant should have no additional requirements for the segment of Hamlin Avenue shown in red.

The applicant should be required to provide an 8-foot wide planter strip abutting Hamlin Avenue if street trees are desired.

The applicant should dedicate right-of-way for Hamlin Avenue to 2-feet behind back of sidewalk, or for detached sidewalk the applicant may reduce the right-of-way to 2-feet behind back of curb and provide a permanent right-of-way easement from the right-of-way line to extend to 2-feet behind back of sidewalk abutting the site on both sides of the roadway. Sidewalk should be located wholly within the right-of-way of wholly within an easement.

7. Stub Streets

a. Existing Conditions: As part of ACHD's approval of Cascade Springs one collector Street, Hamlin Avenue, is proposed to stub to the site's north property line.

b. Policy:

Stub Street Policy: District policy 7206.2.4.3 states that stub streets will be required to provide circulation or to provide access to adjoining properties. Stub streets will conform with the requirements described in Section 7206.2.4, except a temporary cul-de-sac will not be required if the stub street has a length no greater than 150-feet. A sign shall be installed at the terminus of the stub street stating that, "THIS IS A DESIGNATED COLLECTOR ROADWAY. THIS STREET WILL BE EXTENDED AND WIDENDED IN THE FUTURE."

In addition, stub streets must meet the following conditions:

- A stub street shall be designed to slope towards the nearest street intersection within the proposed development and drain surface water towards that intersection; unless an alternative storm drain system is approved by the District.
- The District may require appropriate covenants guaranteeing that the stub street will remain free of obstructions.

Temporary Dead End Streets Policy: District policy 7206.2.4.4 requires that the design and construction for cul-de-sac streets shall apply to temporary dead end streets. The temporary cul-de-sac shall be paved and shall be the dimensional requirements of a standard cul-de-sac. The developer shall grant a temporary turnaround easement to the District for those portions of the cul-de-sac which extend beyond the dedicated street right-of-way. In the instance where a temporary easement extends onto a buildable lot, the entire lot shall be encumbered by the easement and identified on the plat as a non-buildable lot until the street is extended.

c. Applicant's Proposal: The applicant is proposing to construct a collector stub street to the north, Hamlin Avenue, in alignment with the approved stub street to the site's north property line as part of ACHD's approval of Cascade Springs.

d. Staff Comments/Recommendations: The applicant's proposal meets District policy and should be approved, as proposed.

If Hamlin Avenue has not been constructed as a stub street to the site's north property line, as part of Cascade Springs, then the applicant should be required to install a sign at the terminus of the stub street stating, "THIS IS A DESIGNATED COLLECTOR ROADWAY. THIS STREET WILL BE EXTENDED AND WIDENDED IN THE FUTURE." A temporary turnaround is not required at the terminus of this stub street as it does not extend greater than 150-feet.

8. Driveways

8.1 Hamlin Avenue

a. Existing Conditions: There is an existing unimproved driveway from the site onto the east side of Hamlin Avenue located 670-feet north of Amazon Drive (measured centerline-to-centerline).

b. Policy:

Access Policy: District Policy 7205.4.1 states that all access points associated with development applications shall be determined in accordance with the policies in this section and Section 7202. Access points shall be reviewed only for a development application that is being considered by the lead land use agency. Approved access points may be relocated and/or restricted in the future if the land use intensifies, changes, or the property redevelops.

District Policy 7206.1 states that the primary function of a collector is to intercept traffic from the local street system and carry that traffic to the nearest arterial. A secondary function is to service adjacent property. Access will be limited or controlled. Collectors may also be designated at bicycle and bus routes.

Driveway Location Policy (Stop Controlled Intersection): District policy 7206.4.4 requires driveways located on collector roadways near a STOP controlled intersection to be located outside of the area of influence; OR a minimum of 150-feet from the intersection, whichever is greater. Dimensions shall be measured from the centerline of the intersection to the centerline of the driveway.

Successive Driveways: District policy 7206.4.5 Table 1, requires driveways located on collector roadways with a speed limit of 25 MPH or less and daily traffic volumes greater than 100 VTD to align or offset a minimum of 245-feet from any existing or proposed driveway.

Driveway Width Policy: District policy 7206.4.6 restricts high-volume driveways (100 VTD or more) to a maximum width of 36-feet and low-volume driveways (less than 100 VTD) to a maximum width of 30-feet. Curb return type driveways with 30-foot radii will be required for high-volume driveways with 100 VTD or more. Curb return type driveways with 15-foot radii will be required for low-volume driveways with less than 100 VTD.

Driveway Paving Policy: Graveled driveways abutting public streets create maintenance problems due to gravel being tracked onto the roadway. In accordance with District policy, 7206.4.6, the applicant should be required to pave the driveway its full width and at least 30-feet into the site beyond the edge of pavement of the roadway and install pavement tapers in accordance with Table 2 under District Policy 7206.4.6.

c. Applicant's Proposal: The applicant is proposing to close the existing unimproved driveway onto the east side of Hamlin Avenue located 672-feet north of Amazon Drive with vertical curb, gutter, a 6-foot wide planter strip and 5-foot wide detached concrete sidewalk.

The applicant is proposing to construct a curb return type driveway/private road onto Hamlin Avenue located 285-feet south of Shultz Street with two 20-foot wide travel lanes and two 10-foot wide center landscape islands.

d. Staff Comments/Recommendations: The applicant's proposal to close the existing driveway on the east side of Hamlin Avenue meets District policy and should be approved, as proposed.

The applicant's proposal to construct a curb return type driveway onto Hamlin Avenue located 285-feet south of Shultz Street with two 20-foot wide travel lanes and two 10-foot wide center landscape islands meet District policy and should be approved. The applicant should be required to construct the driveway to a maximum width of 36-feet within the right-of-way. Once outside of the right-of-way the driveway/private road may be widened. The center landscape islands should be located outside of the right-of-way.

The following conditions apply if the City of Star does not approve private roads and public streets are constructed within the site.

9. Shultz Street/Shultz Court & Truman Place

a. Existing Conditions: Shultz Street is improved with 2-travel lanes, 26-feet of pavement and no curb, gutter and sidewalk abutting the site. Shultz Street changes to Shultz Court and is improved as a temporary turnaround with 96-feet of pavement and no curb, gutter, or sidewalk abutting the site. There is 60-feet of right-of-way for Shultz Street with an additional 130-feet of right-of-way for the temporary turnaround.

Truman Place is improved with 2-travel lanes, 26-feet of pavement and no curb, gutter and sidewalk and terminates into a temporary turnaround that is improved with 98-feet of pavement and no curb, gutter and sidewalk abutting the site. There is 60-feet of right-of-way for Truman Place with an additional 116-feet of right-of-way for the cul-de-sac turnaround.

b. Policy:

Local Roadway Policy: District Policy 7207.2.1 states that the developer is responsible for improving all local street frontages adjacent to the site regardless of whether or not access is taken to all of the adjacent streets.

Street Section and Right-of-Way Policy: District Policy 7207.5 states that right-of-way widths for all local streets shall generally not be less than 47-feet wide and that the standard street section shall be 33-feet (back-of-curb to back-of-curb).

Standard Urban Local Street—33-foot Street Section and Right-of-way Policy: District Policy 7207.5.2 states that the standard street section shall be 33-feet (back-of-curb to back-of-curb) for developments with any buildable lot that is less than 1 acre in size. This street section

shall include curb, gutter, and minimum 5-foot wide concrete sidewalks on both sides and shall typically be constructed within 47-feet of right-of-way.

For the City of Kuna and City of Star: Unless otherwise approved by Kuna or Star, the standard street section shall be 36-feet (back-of-curb to back-of-curb) for developments with any buildable lot that is less than 1 acre in size. This street section shall include curb, gutter, and minimum 5-foot wide concrete sidewalks on both sides and shall typically be constructed within 50-feet of right-of-way.

Sidewalk Policy: District Policy 7207.5.7 states that five-foot wide concrete sidewalk is required on both sides of all local street, except those in rural developments with net densities of one dwelling unit per 1.0 acre or less, or in hillside conditions where there is no direct lot frontage, in which case a sidewalk shall be constructed along one side of the street. Some local jurisdictions may require wider sidewalks.

The sidewalk may be placed next to the back-of-curb. Where feasible, a parkway strip at least 8-feet wide between the back-of-curb and the street edge of the sidewalk is recommended to provide increased safety and protection of pedestrians and to allow for the planting of trees in accordance with the District's Tree Planting Policy. If no trees are to be planted in the parkway strip, the applicant may submit a request to the District, with justification, to reduce the width of the parkway strip.

Detached sidewalks are encouraged and should be parallel to the adjacent roadway. Meandering sidewalks are discouraged.

A permanent right-of-way easement shall be provided if public sidewalks are placed outside of the dedicated right-of-way. The easement shall encompass the entire area between the right-of-way line and 2-feet behind the back edge of the sidewalk. Sidewalks shall either be located wholly within the public right-of-way or wholly within an easement.

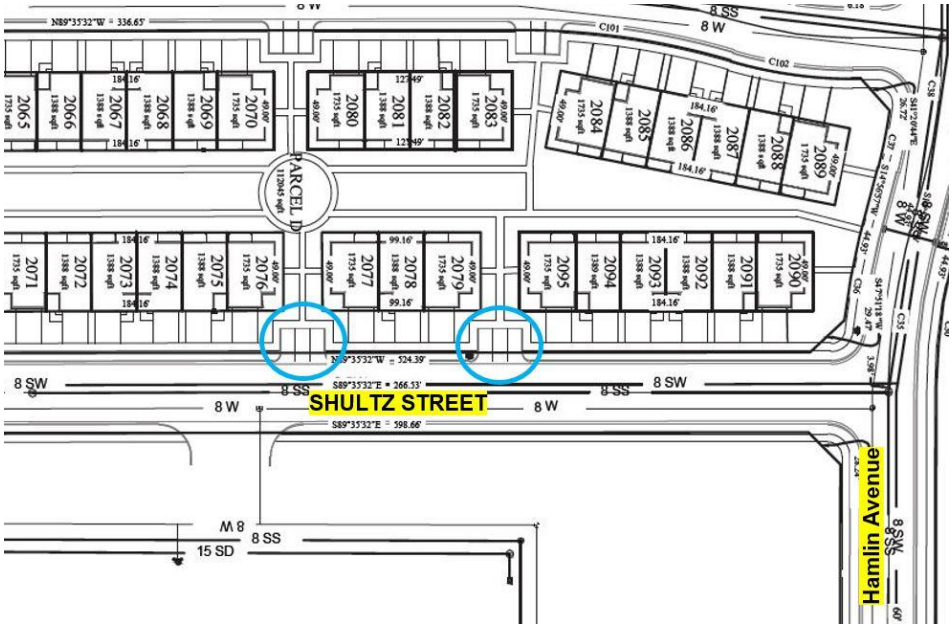
Cul-de-sac Streets Policy: District policy 7207.5.8 requires cul-de-sacs to be constructed to provide a minimum turning radius of 50-feet; in rural areas or for temporary cul-de-sacs the emergency service providers may require a greater radius. Landscape and parking islands may be constructed in turnarounds if a minimum 29-foot street section is constructed around the island. The pavement width shall be sufficient to allow the turning around of a standard AASHTO SU design vehicle without backing. The developer shall provide written approval from the appropriate fire department for this design element.

The District will consider alternatives to the standard cul-de-sac turnaround on a case-by-case basis. This will be based on turning area, drainage, maintenance considerations and the written approval of the agency providing emergency fire service for the area where the development is located.

c. Applicant's Proposal: The applicant is proposing to construct Shultz Street from the intersection with Hamlin Avenue approximately 615-feet to the west as a 40-foot wide street section with vertical curb, gutter, a 6-foot wide planter strip and 5-foot wide detached concrete sidewalk.

As noted above, the applicant is proposing to vacate a portion of the existing local streets, Shultz Street/Shultz Court and is proposing to vacate all of Truman Place (see image-page 9) abutting the site and incorporate those areas into the site as part of their development.

The applicant is proposing to construct 6 perpendicular parking stalls within a portion of the right-of-way of Shultz Street.



d. Staff Comments/Recommendations: The applicant's proposal to construct Shultz Street from the intersection with Hamlin Avenue approximately 615-feet to the west as a 40-foot wide street section exceeds District policy which requires the construction of a 36-foot wide local street section (measured back-of-curb to back-of-curb) and should not be approved as proposed. The applicant should be required to construct Shultz Street as a 36-foot wide local street section with curb, gutter, a 6-foot wide planter strip and 5-foot wide detached concrete sidewalk abutting the site.

The applicant's proposal to incorporate a portion of Shultz Street/Shultz Court and Truman Place into the site as part of their development does not meet District policy as those roadways are public right-of-way and should not be approved, as proposed. The applicant should be required to either improve or vacate the right-of-way (See Findings 3 above) for Shultz Street/Shultz Court and Truman Place.

If the right-of-way is improved then, complete Shultz Street/Shultz Court and Truman Place as 36-foot wide local street sections with curb, gutter and 5-foot wide concrete sidewalk abutting the site. The cul-de-sac turnarounds at the terminus of Shultz Court and Truman Place should be constructed with curb, gutter and 5-foot wide concrete sidewalk and a minimum turning radius of 50-feet.

The applicant's proposal to construct 6 perpendicular parking stalls within a portion of the right-of-way of Shultz Street is not approved, as ACHD does not allow parking stalls within the right-of-way and does not allow backing out onto a public street. If additional parking is needed to serve the site, then the applicant should redesign the site to add additional parking to the parking lots proposed to serve the site. If Shultz Street is not redesigned to meet District policy, then the applicant should apply to vacate/exchange the entire segment of Shultz Street abutting the site.

10. Internal Local Streets

a. Existing Conditions: There are no local streets within the site.

a. Policy:

Local Roadway Policy: District Policy 7207.2.1 states that the developer is responsible for improving all local street frontages adjacent to the site regardless of whether or not access is taken to all of the adjacent streets.

Street Section and Right-of-Way Policy: District Policy 7207.5 states that right-of-way widths for all local streets shall generally not be less than 47-feet wide and that the standard street section shall be 33-feet (back-of-curb to back-of-curb).

Standard Urban Local Street—33-foot Street Section and Right-of-way Policy: District Policy 7207.5.2 states that the standard street section shall be 33-feet (back-of-curb to back-of-curb) for developments with any buildable lot that is less than 1 acre in size. This street section shall include curb, gutter, and minimum 5-foot wide concrete sidewalks on both sides and shall typically be constructed within 47-feet of right-of-way.

For the City of Kuna and City of Star: Unless otherwise approved by Kuna or Star, the standard street section shall be 36-feet (back-of-curb to back-of-curb) for developments with any buildable lot that is less than 1 acre in size. This street section shall include curb, gutter, and minimum 5-foot wide concrete sidewalks on both sides and shall typically be constructed within 50-feet of right-of-way.

Sidewalk Policy: District Policy 7207.5.7 states that five-foot wide concrete sidewalk is required on both sides of all local street, except those in rural developments with net densities of one dwelling unit per 1.0 acre or less, or in hillside conditions where there is no direct lot frontage, in which case a sidewalk shall be constructed along one side of the street. Some local jurisdictions may require wider sidewalks.

The sidewalk may be placed next to the back-of-curb. Where feasible, a parkway strip at least 8-feet wide between the back-of-curb and the street edge of the sidewalk is recommended to provide increased safety and protection of pedestrians and to allow for the planting of trees in accordance with the District's Tree Planting Policy. If no trees are to be planted in the parkway strip, the applicant may submit a request to the District, with justification, to reduce the width of the parkway strip.

Detached sidewalks are encouraged and should be parallel to the adjacent roadway. Meandering sidewalks are discouraged.

A permanent right-of-way easement shall be provided if public sidewalks are placed outside of the dedicated right-of-way. The easement shall encompass the entire area between the right-of-way line and 2-feet behind the back edge of the sidewalk. Sidewalks shall either be located wholly within the public right-of-way or wholly within an easement.

Landscape Medians Policy: District policy 7207.5.16 states that landscape medians are permissible where adequate pavement width is provided on each side of the median to accommodate the travel lanes and where the following is provided:

- The median is platted as right-of-way owned by ACHD.
- The width of an island near an intersection is 12-feet maximum for a minimum distance of 150-feet. Beyond the 150-feet, the island may increase to a maximum width of 30-feet.
- At an intersection that is signalized or is to be signalized in the future, the median width shall be reduced to accommodate the necessary turn lane storage and tapers.
- The Developer or Homeowners Association shall apply for a license agreement if landscaping is to be placed within these medians.
- The license agreement shall contain the District's requirements of the developer including, but not limited to, a "hold harmless" clause; requirements for maintenance by the developer; liability insurance requirements; and restrictions.
- Vertical curbs are required around the perimeter of any raised median. Gutters shall slope away from the curb preventing ponding.

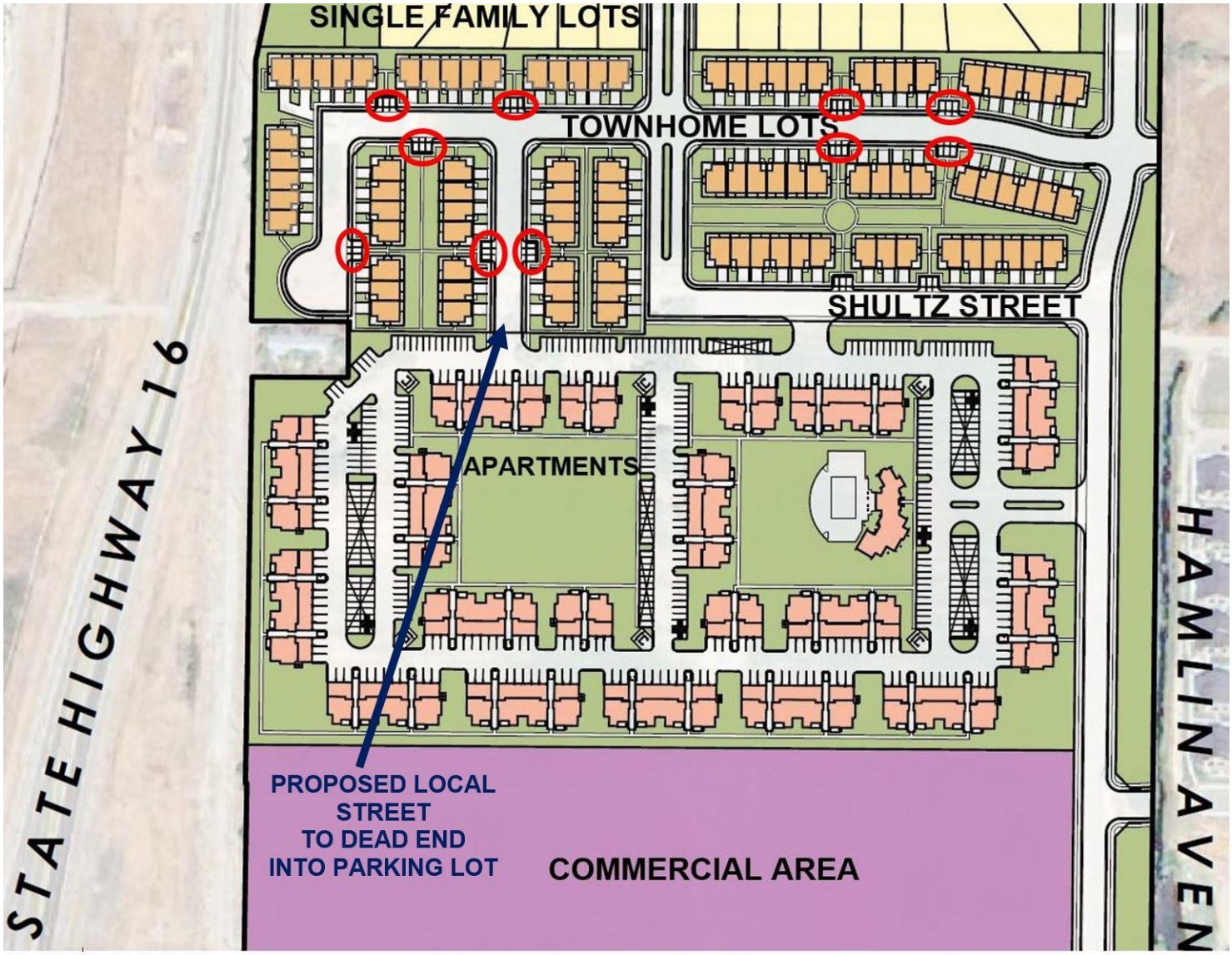
b. Applicant's Proposal: The applicant is proposing to construct a new local street that runs north/south from Shultz Street located 613-feet west of Hamlin Avenue (measured centerline-to-centerline) for approximately 485-feet with two 20-foot wide travel lanes, two 10-foot wide center landscape islands, vertical curb, gutter, a 6-foot wide planter strip within 60-feet of right-of-way and 5-foot wide detached concrete sidewalk located outside of the right-of-way.

The applicant is proposing to construct the other internal local streets as 40-foot wide street sections with vertical curb, gutter, a 6-foot wide planter strip within 50-feet of right-of-way and 5-foot wide detached concrete sidewalk located outside of the right-of-way.

The applicant is proposing to construct two cul-de-sac turnarounds within the site.

The applicant is proposing to construct a local street that dead-ends into a parking lot located 614-feet west of Hamlin Avenue to the apartment portion of the site shown below.

The applicant is proposing 30 perpendicular parking stalls within a portion of the right-of-way of the internal local streets. (See Findings 4 above regarding the parking stalls on Shultz Street.) The locations are shown below:



c. Staff Comments/Recommendations: As noted above, staff recommends the construction of private streets internal to the site. If the City of Star does not approve the private roads, then the applicant should construct the roadways to meet District policy.

The applicant's proposal to construct a new local street that runs north/south from Shultz Street located 613-feet west of Hamlin Avenue (measured centerline-to-centerline) for approximately 485-feet with two 20-foot wide travel lanes, two 10-foot wide center landscape islands, vertical curb, gutter, a 6-foot wide planter strip and 5-foot wide detached concrete sidewalk meets District policy and should be approved, as proposed.

The applicant's proposal to construct the other internal local streets as 40-foot wide local street sections with vertical curb, exceeds District policy which requires the construction of a 36-foot wide street section with rolled curb (measured back-of-curb to back-of-curb) and should not be approved, as proposed. The applicant should be required to construct the internal local streets as 36-foot wide street sections with rolled curb, gutter, a 6-foot wide planter strip and 5-foot wide detached concrete sidewalk.

The applicant should be required to dedicate right-of-way to 2-feet behind back of sidewalk, or for detached sidewalk, the applicant may reduce the right-of-way to total 2-feet behind the back of curb and provide a permanent right-of-way easement that extends from the right-of-way line to 2-feet behind back of sidewalk. Sidewalk shall be located wholly within right-of-way or wholly within an easement.

The applicant should be required to construct both cul-de-sacs turnarounds with a minimum turning radius of 50-feet.

The applicant's proposal to construct a local street that dead-ends into a parking lot located 614-feet west of Hamlin Avenue to the apartment portion of the site does not meet District policy which does not allow dead end roadways. The applicant should be required to construct a permanent cul-de-sac turnaround with a minimum turning radius of 50-feet at the terminus of the proposed local street that dead ends into the apartment portion of the site.

The applicant's proposal to construct 30 perpendicular parking stalls within a portion of the right-of-way of the internal local streets is not approved, as ACHD does not allow parking stalls within the right-of-way and does not allow backing out onto a public street. If additional parking is needed to serve the site, then the applicant should redesign the site to add additional parking to the parking lots proposed to serve the site.

11. Roadway Offsets

a. Existing Conditions: There are no existing roadways within the site.

b. Policy:

Collector Offset Policy: District policy 7206.4.5, states that the preferred spacing for a new local street intersecting a collector roadway to align or offset a minimum of 330-feet from any other street (measured centerline to centerline).

Local Offset Policy: District policy 7207.4.2, requires local roadways to align or provide a minimum offset of 125-feet from any other street (measured centerline to centerline).

c. Applicant's Proposal: The applicant is proposing to construct three new local streets to intersect Hamlin Avenue, a collector roadway, located as follows:

- 245-feet north of Shultz Street and in alignment with Hinsdale Drive, a proposed local street approved as part of Fountain Park subdivision located on the east side of Hamlin Avenue across from the site

- 629-feet north of Shultz Street and in alignment with Bluford Street, a proposed local street approved as part of Fountain Park subdivision located on the east side of Hamlin Avenue across from the site
- 1,254-feet north of Shultz Street and 179-feet south of Whetstone Street, a proposed local street approved as part of Cascade Springs located north of the site.

The applicant is proposing to construct all other internal local streets to align or offset by a minimum of 125-feet.

d. Staff Comments/Recommendations: The applicant's proposal to construct the two following local streets meets District policy and should be approved:

- 245-feet north of Shultz Street and in alignment with Hinsdale Drive, a proposed local street approved as part of Fountain Park subdivision located on the east side of Hamlin Avenue across from the site
- 629-feet north of Shultz Street and in alignment with Bluford Street, a proposed local street approved as part of Fountain Park subdivision located on the east side of Hamlin Avenue across from the site

The applicant's proposal to construct a local street onto Hamlin Avenue located 1,254-feet north of Shultz Street and 179-feet south of Whetstone Street, does not meet District Collector Offset policy which requires a new local street intersecting a collector roadway to align or offset a minimum of 330-feet from any other street and should not be approved as proposed. As noted above, staff recommend this roadway be constructed as a private street, as it only provides access to 10 single family lots or be constructed to intersect Hamlin Avenue with a minimum offset of 330-feet from any other street.

12. Driveways

12.1 Shultz Court and Truman Place

a. Existing Conditions: There are two existing unimproved driveways from the site onto Shultz Court located as follows (measured centerline-to-centerline):

- 22-foot wide driveway located 238-feet west of Truman Place
- 18-foot wide driveway located at the terminus of the temporary turnaround

There are five existing unimproved driveways from the site onto Truman Place located as follows:

- 13-foot wide driveway located 50-feet south of Shultz Street
- 22-foot wide driveway located 285-feet south of Shultz Street
- 22-foot wide driveway located 358-feet south of Shultz Street
- 18-foot wide driveway located 476-feet south of Shultz Street
- 24-foot wide driveway located 484-feet south of Shultz Street

b. Policy:

Driveway Location Policy: District policy 7208.4.1 requires driveways near intersections to be located a minimum of 75-feet (measured centerline-to-centerline) from the nearest local street intersection, and 150-feet from the nearest collector/arterial or arterial street intersection.

Successive Driveways: District Policy 7208.4.1 states that successive driveways away from an intersection shall have no minimum spacing requirements for access points along a local street, but the District does encourage shared access points where appropriate.

Driveway Width Policy: District policy 7208.4.3 restricts commercial driveways to a maximum width of 40-feet. Most commercial driveways will be constructed as curb-cut type facilities.

Driveway Paving Policy: Graveled driveways abutting public streets create maintenance problems due to gravel being tracked onto the roadway. In accordance with District policy, 7208.4.3, the applicant should be required to pave the driveway its full width and at least 30-feet into the site beyond the edge of pavement of the roadway.

Driveway Design Requirements: District policy 7208.4.3 states if an access point is to be gated, the gate or keypad (whichever is closer) shall be located a minimum of 50-feet from the near edge of the intersection and a turnaround shall be provided.

c. Applicant's Proposal: The applicant is proposing to close the two existing driveways onto Shultz Court and the five existing driveways onto Truman Place by incorporating the roadways into the site as part of the development.

The applicant is proposing to construct a 48-foot wide curb return type driveway onto Shultz Street located 410-feet west of Hamlin Avenue.

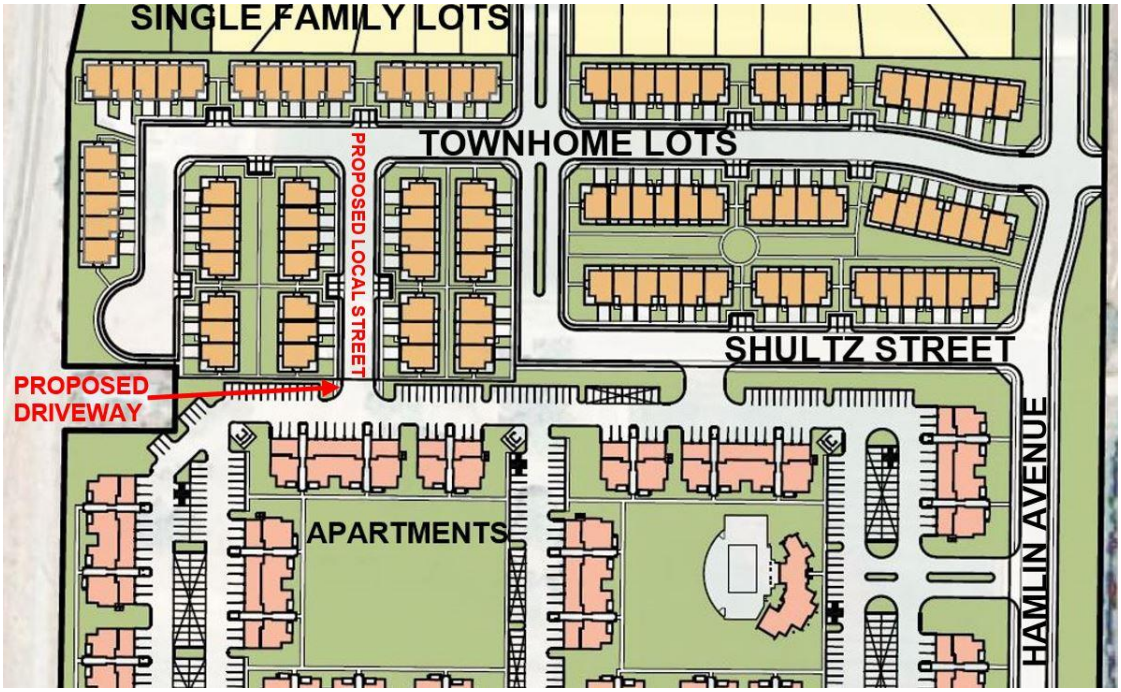
The applicant is proposing to construct a 38-foot wide driveway in alignment with the proposed local street located 613-feet west of Hamlin Avenue to provide access to the apartment area of the site.

d. Staff Comments/Recommendations: The applicant's proposal to close the two existing driveways onto Shultz Court and the five existing driveways onto Truman Place by incorporating the roadways into the site as part of the development does not meet District policy as the roadways are public right-of-way and under the jurisdiction of ACHD. See Findings C3b above regarding the vacation requirements for Shultz Street/Shultz Court and Truman Place.

If Shultz Street/Shultz Court and Truman Place are not vacated and are improved the applicant should be required to close the two existing driveways onto Shultz Court and the five existing driveways onto Truman Place with curb, gutter and 5-foot wide concrete sidewalk.

The applicant's proposal to construct a curb return type driveway onto Shultz Street located 410-feet west of Hamlin Avenue meets District policy and should be approved. The driveway will be restricted to a maximum width of 36-feet.

The applicant's proposal to construct a driveway in alignment with the proposed local street located 613-feet west of Hamlin Avenue meets District policy; however, the driveway should be constructed as a curb return type driveway approach and be designed to look like a driveway and not an extension of the proposed local street. The driveway will be restricted to a maximum width of 36-feet.



13. Traffic Calming

a. Policy:

Speed Control and Traffic Calming Policy: District policy 7207.3.7 states that the design of local street systems should discourage excessive speeds by using passive design elements. If the design or layout of a development is anticipated to necessitate future traffic calming implementation by the District, then the District will require changes to the layout and/or the addition of passive design elements such as horizontal curves, bulb-outs, chokers, etc. The District will also consider texture changes to the roadway surface (i.e. stamped concrete) as a passive design element. These alternative methods may require maintenance and/or license agreement.

b. Staff Comments/Recommendations: The applicant is proposing to construct two roadways, a local street located at the site's north property line and a local street located 236-feet north of Shults Street which are greater in length than 750-feet and should be required to be redesigned to reduce the length or include passive design elements and submit a revised preliminary plat showing the redesigned roadway for review and approval prior to ACHD's signature on the first final plat.

Stop signs, speed humps/bumps and valley gutters will not be accepted as traffic calming.

14. Bridge for Lateral 12 and Middleton Mill Canal Crossing

The District will require that the applicant have ACHD approved plans for the crossing of the Lateral 12 (Amazon Drive) and the Middleton Mill (Hamlin Avenue) canal crossing prior to the pre-construction meeting and final plat approval. Note: Timing of project plan submittals should take into account review times, lead time for precast members and potential roadway closures. To ensure construction prior to irrigation season, approval of the project plans must be attained by January 15th. The District retains the right to modify road closure approvals on any project based on the needs of the District. Construction of projects approved after January 15th may be postponed until after irrigation season is over in October. It is recommended that bridge submittals be submitted before the end of the current irrigation season to ensure the best time frame for

construction is attained. Submittals will need to include the street section extending over the bridge to ensure the requirements of the roadway are met.

15. Tree Planters

Tree Planter Policy: Tree Planter Policy: The District's Tree Planter Policy prohibits all trees in planters less than 8-feet in width without the installation of root barriers. Class II trees may be allowed in planters with a minimum width of 8-feet, and Class I and Class III trees may be allowed in planters with a minimum width of 10-feet.

16. Landscaping

Landscaping Policy: A license agreement is required for all landscaping proposed within ACHD right-of-way or easement areas. Trees shall be located no closer than 10-feet from all public storm drain facilities. Landscaping should be designed to eliminate site obstructions in the vision triangle at intersections. District Policy 5104.3.1 requires a 40-foot vision triangle and a 3-foot height restriction on all landscaping located at an uncontrolled intersection and a 50-foot offset from stop signs. Landscape plans are required with the submittal of civil plans and must meet all District requirements prior to signature of the final plat and/or approval of the civil plans.

17. Other Access

Hamlin Avenue is classified as a collector roadway. Other than the access specifically approved with this application, direct lot access is prohibited to this roadway and should be noted on the final plat.

D. Site Specific Conditions of Approval

If Private Roads are constructed within the site, then the following conditions apply.

1. If the City of Star approves private roads, then construct the internal streets as private. See image on page 8 for location of recommended private streets and apply to vacate/exchange Shultz Street/Shultz Court and Truman Place abutting the site by submitting an application to the Right-of-Way department. A right-of-way vacation is a separate application with its own public hearing process. Until the right-of-way of Shultz Street/Shultz Court and Truman Place have been vacated it is public right-of-way under the jurisdiction of ACHD.

2. If the City of Star approves private roads, the applicant shall be required to pave the private roadways their full widths and at least 30-feet into the site beyond the edge of pavement.

3. Install street name and stop signs for the private road/drive aisle. The signs may be ordered through the District. Verification of the correct, approved name of the road is required.

The following conditions apply whether or not the internal roadways are public or private.

4. Construct Amazon Drive to intersect Hamlin Avenue with a minimum of 30-feet of pavement and 3-foot wide gravel shoulders within the existing 50-feet of right-of-way. The applicant may also fully construct Amazon Drive as a 36-foot wide commercial street section with vertical curb, gutter and 5-foot wide attached concrete sidewalk to match the existing Amazon Drive prior to ACHD's signature on the first final plat. Relocate irrigation facilities outside of the right-of-way.

5. Complete the existing segment of Hamlin Avenue from SH-44 north to the intersection with Shultz Street as a 36-foot wide collector street section with vertical curb, gutter, a 6-foot wide planter strip and 5-foot wide detached concrete sidewalk on both sides of the roadway, as proposed.

6. Extend Hamlin Avenue into the site from the intersection with Shultz Street north to stub to the site's north property line and in alignment with the stub street location approved as part of Cascade Springs located north of the site as a 36-foot wide collector street section with vertical curb, gutter, a 6-foot wide planter strip and 5-foot wide detached concrete sidewalk, as proposed.

7. If Hamlin Avenue has been constructed from the intersection with Shultz Street north to the proposed local street, Hinsdale Drive, as part of the Cascade Springs development (see image on page 10) with a minimum 30-feet of pavement and 3-foot wide gravel shoulders or 24-feet of pavement, 3-foot gravel shoulders and a minimum 6-foot wide detached asphalt/concrete pedestrian facilities as part of the Fountain Park subdivision, then construct this segment of Hamlin Avenue as ½ of a 36-foot wide collector street section with vertical curb, gutter, a 6-foot wide planter strip and 5-foot wide detached concrete sidewalk.

8. Dedicate right-of-way for Hamlin Avenue to 2-feet behind back of sidewalk, or for detached sidewalk the applicant may reduce the right-of-way to 2-feet behind back of curb and provide a permanent right-of-way easement from the right-of-way line to extend to 2-feet behind back of sidewalk abutting the site on both sides of the roadway. Sidewalk should be located wholly within the right-of-way of wholly within an easement. Provide an 8-foot wide planter strip if street trees are desired.

9. Construct a collector stub street to the north, Hamlin Avenue, located in alignment with the approved stub street to the site's north property line, as proposed. If Hamlin Avenue has not been constructed to the site's north property line, then install a sign at the terminus of the stub street stating, "THIS IS A DESIGNATED COLLECTOR ROADWAY. THIS STREET WILL BE EXTENDED AND WIDENDED IN THE FUTURE."

10. Close the existing unimproved driveway onto the east side of Hamlin Avenue located 672-feet north of Amazon Drive with vertical curb, gutter, a planter strip and concrete sidewalk, as proposed.

11. Construct a 36-foot wide curb return type driveway onto Hamlin Avenue located 285-feet south of Shultz Street with two 20-foot wide travel lanes and two 10-foot wide center landscape. Once outside of the right-of-way the driveway/private road may be widened to two 20-foot wide travel lanes and two 10-foot wide center landscape islands. The center landscape islands should be located outside of the right-of-way.

12. Provide ACHD approved plans for the crossing of the Lateral 12 (Amazon Drive) and the Middleton Mill (Hamlin Avenue) canal crossing prior to the pre-construction meeting and final plat approval. Note: Timing of project plan submittals should take into account review times, lead time for precast members and potential roadway closures. To ensure construction prior to irrigation season, approval of the project plans must be attained by January 15th. The District retains the right to modify road closure approvals on any project based on the needs of the District. Construction of projects approved after January 15th may be postponed until after irrigation season is over in October. It is recommended that bridge submittals be submitted before the end of the current irrigation season to ensure the best time frame for construction is attained. Submittals will need to include the street section extending over the bridge to ensure the requirements of the roadway are met.

The following conditions apply if the City of Star does not approve private roads and public streets are constructed within the site.

13. Construct Shultz Street as a 36-foot wide local street section with curb, gutter, a 6-foot wide planter strip and 5-foot wide detached concrete sidewalk abutting the site.

14. Complete Shultz Street/Shultz Court and Truman Place as 36-foot wide local street sections with curb, gutter and 5-foot wide concrete sidewalk abutting the site. Construct the cul-de-sac turnarounds at the terminus of Shultz Court and Truman Place with curb, gutter and 5-foot wide concrete sidewalk and a minimum turning radius of 50-feet.

15. Revise the preliminary plat to remove the parking stalls on Shultz Street prior to ACHD's plan approval of the first final plat.

16. Construct the internal local streets as 36-foot wide street sections with curb, gutter, a 6-foot wide planter strip and 5-foot wide detached concrete sidewalk.

17. Construct the proposed local street onto Hamlin Avenue located 1,254-feet north of Shultz Street and 179-feet south of Whetstone Street as a private road/driveway or construct the roadway to intersect Hamlin Avenue with a minimum offset of 330-feet from Whetstone Street.

18. Construct a new local street that runs north/south from Shultz Street located 613-feet west of Hamlin Avenue (measured centerline-to-centerline) for approximately 485-feet with two 20-foot wide travel lanes, two 10-foot wide center landscape islands, vertical curb, gutter, a 6-foot wide planter strip and 5-foot wide detached concrete sidewalk.

19. Construct a permanent cul-de-sac turnaround with a minimum turning radius of 50-feet at the terminus of the proposed local street located 614-feet west of Hamlin Avenue that dead ends into the apartment portion of the site.

20. Construct both proposed cul-de-sacs within the site with a minimum turning radius of 50-feet.

21. Revise the site plan prior to ACHD's plan approval of the first final plat to remove the parking stalls on the internal local streets.

22. Dedicate right-of-way to 2-feet behind back of sidewalk, or for detached sidewalk, the applicant may reduce the right-of-way to total 2-feet behind the back of curb and provide a permanent right-of-way easement that extends from the right-of-way line to 2-feet behind back of sidewalk. Sidewalk shall be located wholly within right-of-way or wholly within an easement. Provide an 8-foot wide planter strip if street trees are desired.

23. Construct the two proposed local streets in the following locations:

- 245-feet north of Shultz Street and in alignment with Hinsdale Drive, a proposed local street approved as part of Fountain Park subdivision located on the east side of Hamlin Avenue across from the site
- 629-feet north of Shultz Street and in alignment with Bluford Street, a proposed local street approved as part of Fountain Park subdivision located on the east side of Hamlin Avenue across from the site

24. Close the two existing driveways onto Shultz Court and the five existing driveways onto Truman Place with curb, gutter and 5-foot wide concrete sidewalk.

25. Construct a 36-foot wide curb return type driveway onto Shultz Street located 410-feet west of Hamlin Avenue.

26. Construct a 36-foot wide curb return type driveway in alignment with the proposed local street located 613-feet west of Hamlin Avenue designed to look like a driveway and not an extension of the proposed local street (see image on page 16).

27. Redesign the proposed roadway located at the site's north property line and the local street located 236-feet north of Shultz Street to reduce the length or include passive design elements and submit a revised preliminary plat showing the redesigned roadway for review and approval prior to ACHD's signature on the first final plat.

Stop signs, speed humps/bumps and valley gutters will not be accepted as traffic calming.

28. Other than the access specifically approved with this application, direct lot access is prohibited to Hamlin Avenue and should be noted on the final plat.

29. Submit civil plans to ACHD Development Services for review and approval. The impact fee assessment will not be released until the civil plans are approved by ACHD.

30. Payment of impact fees is due prior to issuance of a building permit.

31. Comply with all Standard Conditions of Approval.

E. Standard Conditions of Approval

1. All proposed irrigation facilities shall be located outside of the ACHD right-of-way (including all easements). Any existing irrigation facilities shall be relocated outside of the ACHD right-of-way (including all easements).

2. Private Utilities including sewer or water systems are prohibited from being located within the ACHD right-of-way.

3. In accordance with District policy, 7203.3, the applicant may be required to update any existing non-compliant pedestrian improvements abutting the site to meet current Americans with Disabilities Act (ADA) requirements. The applicant's engineer should provide documentation of ADA compliance to District Development Review staff for review.

4. Replace any existing damaged curb, gutter and sidewalk and any that may be damaged during the construction of the proposed development. Contact Construction Services at 387-6280 (with file number) for details.

5. A license agreement and compliance with the District's Tree Planter policy is required for all landscaping proposed within ACHD right-of-way or easement areas.

6. All utility relocation costs associated with improving street frontages abutting the site shall be borne by the developer.

7. It is the responsibility of the applicant to verify all existing utilities within the right-of-way. The applicant at no cost to ACHD shall repair existing utilities damaged by the applicant. The applicant shall be required to call DIGLINE (1-811-342-1585) at least two full business days prior to breaking ground within ACHD right-of-way. The applicant shall contact ACHD Traffic Operations 387-6190 in the event any ACHD conduits (spare or filled) are compromised during any phase of construction.

8. Utility street cuts in pavement less than five years old are not allowed unless approved in writing by the District. Contact the District's Utility Coordinator at 387-6258 (with file numbers) for details.

9. All design and construction shall be in accordance with the ACHD Policy Manual, ISPWC Standards and approved supplements, Construction Services procedures and all applicable ACHD Standards unless specifically waived herein. An engineer registered in the State of Idaho shall prepare and certify all improvement plans.

10. Construction, use and property development shall be in conformance with all applicable requirements of ACHD prior to District approval for occupancy.

11. No change in the terms and conditions of this approval shall be valid unless they are in writing and signed by the applicant or the applicant's authorized representative and an authorized representative of ACHD. The burden shall be upon the applicant to obtain written confirmation of any change from ACHD.

12. If the site plan or use should change in the future, ACHD Planning Review will review the site plan and may require additional improvements to the transportation system at that time. Any change in the planned use of the property which is the subject of this application, shall require the applicant to comply with ACHD Policy and Standard Conditions of Approval in place at that time unless a waiver/variance of the requirements or other legal relief is granted by the ACHD Commission.

F. Conclusions of Law

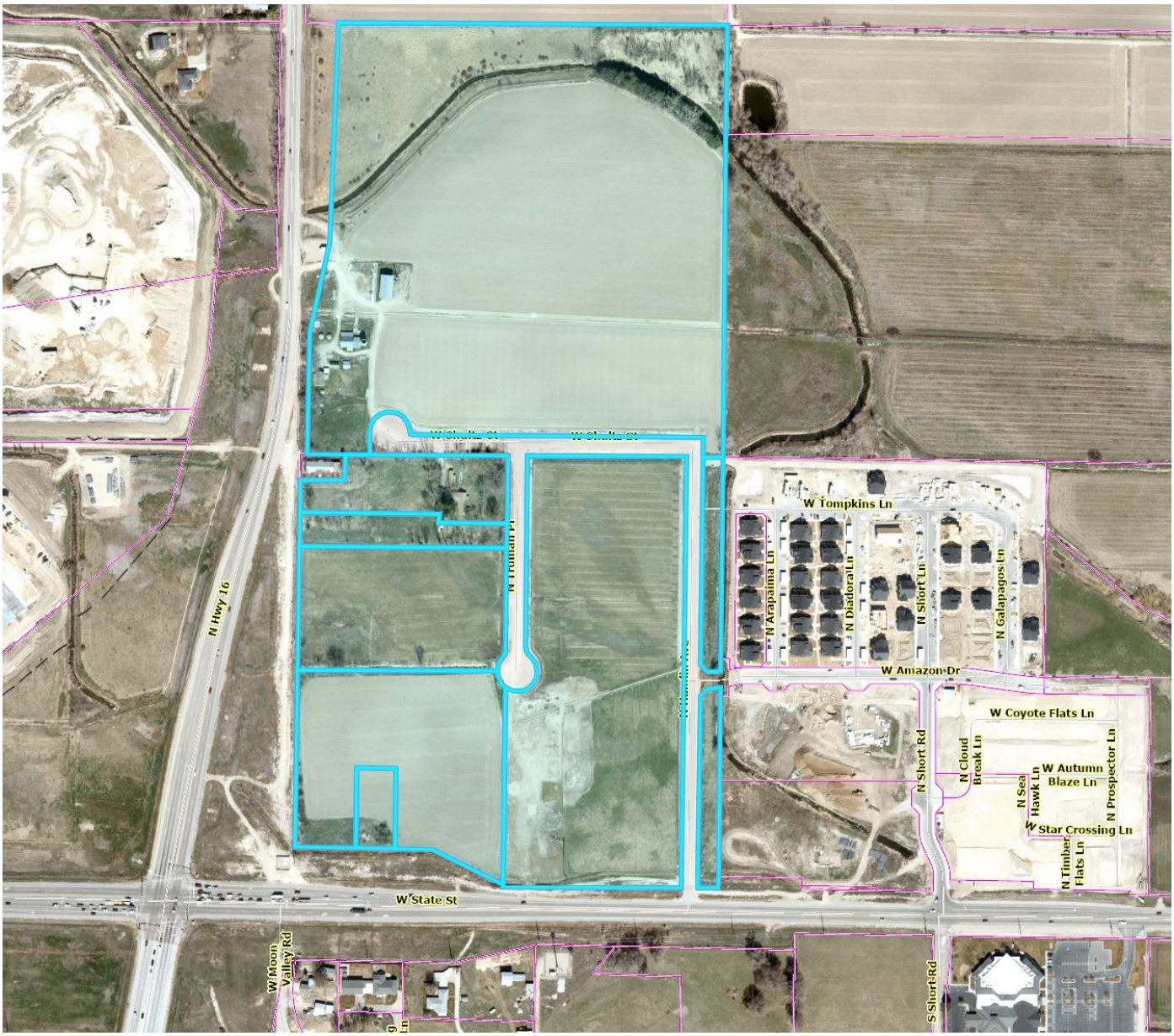
1. The proposed site plan is approved, if all of the Site Specific and Standard Conditions of Approval are satisfied.

2. ACHD requirements are intended to assure that the proposed use/development will not place an undue burden on the existing vehicular transportation system within the vicinity impacted by the proposed development.

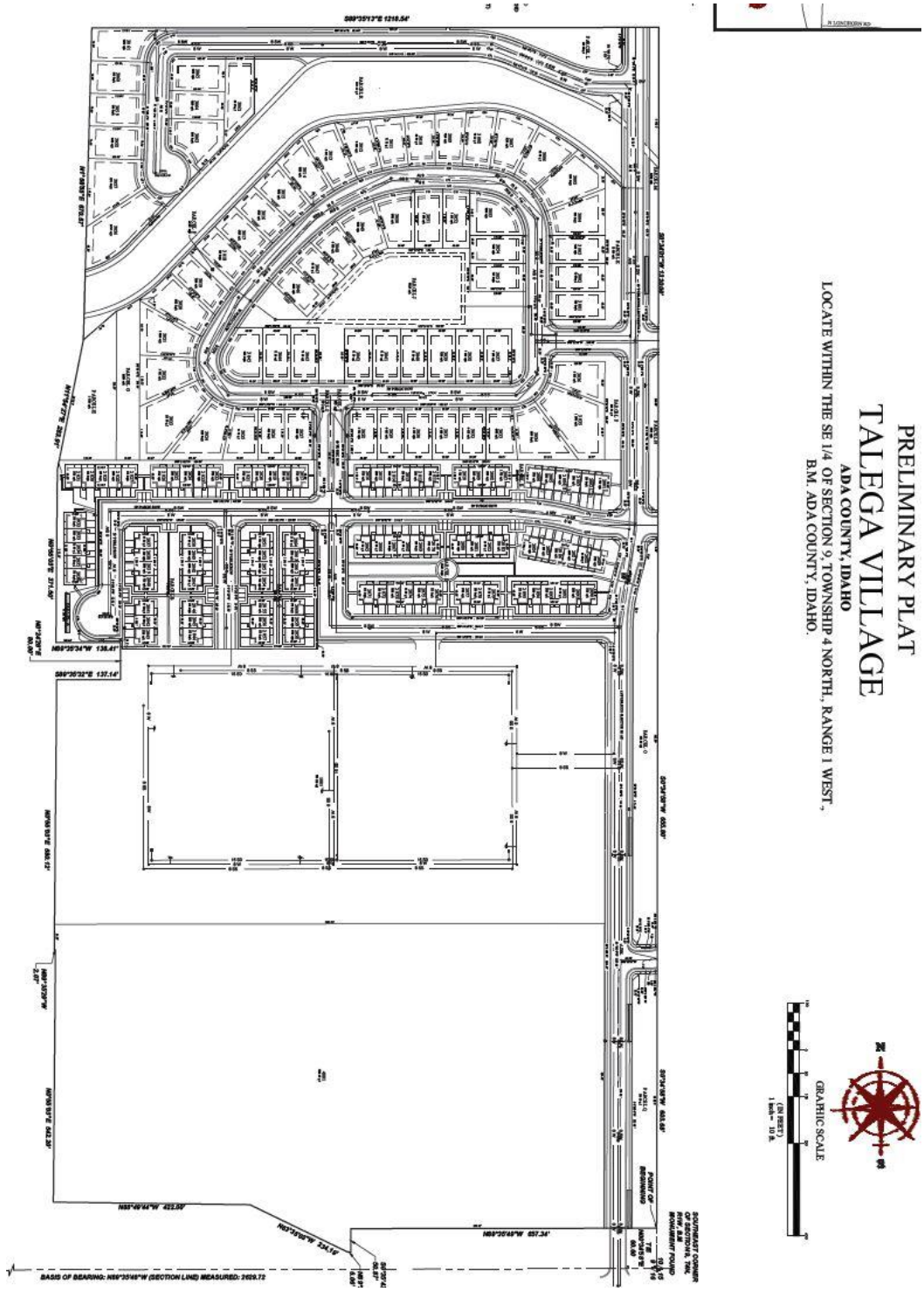
G. Attachments

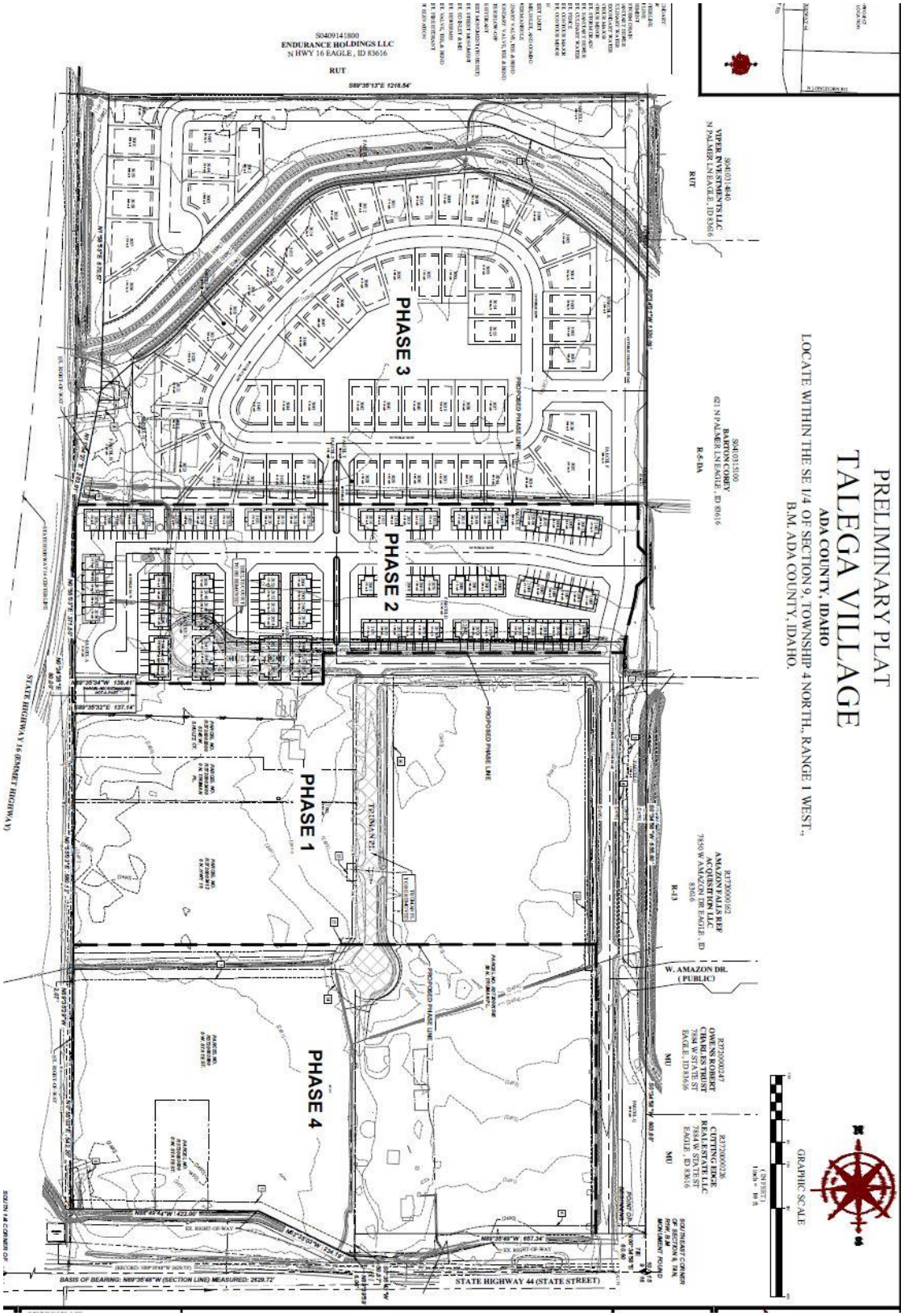
1. Vicinity Map
2. Site Plan
3. TIS Executive Summary
4. Utility Coordinating Council
5. Development Process Checklist
6. Appeal Guidelines

VICINITY MAP



SITE PLANS


PRELIMINARY PLAT
TALEGA VILLAGE
ADA COUNTY, IDAHO
LOCATE WITHIN THE SE 1/4 OF SECTION 9, TOWNSHIP 4 NORTH, RANGE 1 WEST,
B.M. ADA COUNTY, IDAHO.
GRAPHIC SCALE
BASIS OF BEARING: N89°35'45"W (SECTION LINE) MEASURED: 2629.72
POINT OF BEGINNING


PRELIMINARY PLAT
TALEGA VILLAGE
ADA COUNTY, IDAHO
LOCATE WITHIN THE SE 1/4 OF SECTION 9, TOWNSHIP 4 NORTH, RANGE 1 WEST,
B.M. ADA COUNTY, IDAHO.
PHASE 1
PHASE 2
PHASE 3
PHASE 4
PROPOSED PHASE LINE
W. AMAZON DR. (PUBLIC)
STATE HIGHWAY 44 (STATE STREET)
STATE HIGHWAY 16 (EMMET HIGHWAY)
GRAPHIC SCALE

1.0 Executive Summary

1.1 DESCRIPTION OF PROJECT

This report presents the results of a traffic impact analysis for the Northern Star Development, located in Star, Idaho. The project site is located north of State Highway (SH) 44, east of State Highway 16 and west of Hamlin Avenue. Currently the proposed parcel of land consists of farmland with a few residential homes. Figure 1 illustrates the Vicinity Map and the location of this development related to the adjacent roadway network.

This proposed Northern Star Development will consist of:

- 55 single-family dwelling units
- 110 townhome units
- 310 apartment units
- 18 acres of commercial/office

Refer to Figure 2 for the site plan of this development and the location of the proposed accesses onto the surrounding roadways.

Coordinating with Ada County (ACHD) and Idaho Transportation Department (ITD), it was determined the study area for this traffic impact study would include the following intersections:

- Hamlin Avenue/SH 44 (existing)
- Short Road/SH 44 (existing)
- Amazon Drive/Short Lane (existing)
- Shultz Street/Hamlin Avenue (existing)
- Amazon Drive/Hamlin Avenue (future)

It is anticipated, at full build-out, the Northern Star Development will generate 4,529 average daily trips with 379 AM peak hour trips and 417 PM peak hour trips. With a mix of residential and commercial/office within the same development, it is anticipated there will be some internal trips between the two land uses. It is not anticipated a large reduction in trips due to internal capture, but using the ITE Trip Generation reduction, roughly 6 vehicles in the AM peak hour and 14 in the PM peak hour are anticipated to be shared between land uses.

It is anticipated the Northern Star Development will be constructed in three main phases. The first phase is planned for the 310 apartment units and will be fully occupied by the end of 2023. The second phase will consist of the 55 single-family units and the 110 townhomes and be constructed by the end of 2024. The third and final phase will consist of the 18 acres of commercial/office and is planned to be constructed by 2030. Therefore, the study years for this development are 2022 existing, 2023 background, 2024 background and 2030 background.

As part of the analysis for the Northern Star Development, projected future traffic volumes from surrounding developments were included in the Background traffic volumes. Currently the Amazon Falls Phase 1 development is under construction and is planned for full build-out by the end of this year. Therefore the 2023 Background traffic volumes include the full build-out traffic from the Amazon Falls Phase 1 development. The Amazon Falls Phase 2 development and the Fountain Park development are also planned developments in this area; however, they are planned for full build-out by 2025, therefore their projected traffic volumes are included in the 2030 Background traffic scenario. Recommendations from the traffic impact studies from these surrounding developments were implemented in the analysis for this Northern Star Development. Recommended improvements included:

- By 2023, SH 44 be widened to two lanes in each direction with separate right turn lanes at the Short Road intersection
- By 2025, the SH 44 and Short Road intersection be restricted to right-in/right-out with left turn (RIROLI) in movements only.

1.2 PRINCIPAL FINDINGS & RECOMMENDATIONS

The following is a summary of the principal findings and recommendations for the addition of the Northern Star Development.

2022 Existing Conditions

State Highway 44 and Hamlin Avenue

- Under the 2022 existing traffic conditions, each traffic movement at the SH 44 and Hamlin Avenue intersection currently functions at a Level of Service (LOS) "C" or better in the AM and PM peak hours. This intersection was recently constructed to only allow right-in and right-out movements. No additional improvements are needed.

Short Road and SH 44

- The northbound and southbound approaches of the SH 44 and Short Road, currently function at a LOS "F" on both the AM and PM peak hours. However, the volume to capacity ratio is acceptable, not higher than 1.0 for ACHD guidelines or 0.90 for ITD guidelines.

Amazon Drive and Short Road

- The Amazon Drive and Short Road intersection was recently constructed and currently functions with a LOS "A". Traffic volumes are fairly light at this intersection as the development in this area are under construction. No improvements are needed.

Shultz Court and Hamlin Avenue

- The Shultz Court and Hamlin Avenue currently consists of a northbound left turn and an eastbound right turn that accesses the residential home and farmland. This intersection functions with acceptable levels of service with very minimal traffic.

Roadway Segment LOS

Under the 2022 Existing conditions, Hamlin Avenue, Short Road and Amazon Drive all meet the planning level of service threshold for roadway segments within the study area.

2023 Background Traffic Conditions

Growth in traffic was applied using growth rates provided by COMPASS and also using the future build-out traffic volumes from the Amazon Phase 1 development to generate the 2023 Background traffic volumes. As outlined in the Idaho Transportation Invest Program (ITIP), SH 44 is planned to be widened to two lanes in each direction by 2023. Therefore, the 2023 Background traffic conditions illustrate SH 44 as two lanes in each direction at each of the study area intersections.

SH 44 and Hamlin Avenue

- With this intersection functioning and continuing to function as a right in/right out intersection, it is anticipated this intersection will continue to function at a LOS "C" or better under the background scenarios and no improvements are needed.

Short Road and SH 44

- With the proposed widening of SH 44, this intersection will continue to function with a LOS "F" in the northbound and southbound movements, and the v/c ratio will continue to function below the recommended threshold.

Amazon Drive and Short Road

- The traffic volumes for a fully built-out Amazon Falls 1 development were applied to this intersection to generate the 2023 Background traffic volumes. This intersection will continue to function with a LOS "A" in all movements and stop controlled movements along Short Road and free-flowing traffic along Amazon Drive.

Shultz Court and Hamlin Avenue

- In the 2023 Background conditions, this intersection will continue to function with minimal traffic that only accesses the single residents in this area and functions with acceptable levels of service.

Roadway Segment LOS

Under the 2023 Background conditions, Hamlin Avenue, Short Road and Amazon Drive all meet the planning level of service threshold for roadway segments within the study area.

2023 Background with Project Traffic Conditions

By 2023, it is planned the Phase 1 of the Northern Star development will be at full buildout. This phase will consist of the 310 apartment units.

SH44 and Hamlin Avenue

- With the addition of the Northern Star Development's first phase, this intersection will continue to function with an acceptable LOS "C" or better and will continue to function as right-in/right-out.

Short Road and SH 44

- With the addition of the Northern Star Development's first phase, the Short Road and SH 44 intersection will continue to experience similar levels of service as it experiences without the proposed development. The northbound and southbound traffic movements will still experience a LOS "F". The v/c ratio for the southbound left turning movements will fall above the minimum required of 1.0 per Ada County standards.

- As has been proposed in the Amazon Falls Phase 2 traffic study, signalizing this intersection will improve the LOS and v/c ratio, however, this location does not meet the signal spacing per Idaho Department of Transportation.

Short Road and Amazon Drive

- This intersection will continue to function with LOS "A" at each traffic movement with the addition of the Northern Star Development. No additional improvements are needed.

Hamlin Avenue and Shultz Court

- With the addition of Phase 1, the Shultz Court and Hamlin Avenue intersection will continue to function with acceptable levels of service.
- It is recommended Hamlin Avenue be constructed with one lane in each direction as a Collector Road, to provide access into the proposed development.

Hamlin Avenue and Amazon Drive

- With the addition of Phase 1, the Hamlin Avenue and Amazon Drive intersection will function with acceptable levels of service.
- Under the 2023 Background with Project scenario, the turning volumes at this intersection do not warrant separate left or right turn lanes. Therefore, each leg of the intersection should be constructed with one lane in each direction.

Hamlin Avenue and the Apartment Access

- This intersection will function with acceptable levels of service under the 2023 Background with Project scenario.
- It is recommended this intersection be constructed with one lane in each direction as the traffic volumes do not meet the warrants for separate left and right turn lanes.

Roadway Segment LOS

Under the 2023 Background with Project conditions, Hamlin Avenue, Short Road and Amazon Drive all meet the planning level of service threshold for roadway segments within the study area.

2024 Background Traffic Conditions

Hamlin Avenue and SH 44

- This intersection will continue to function with acceptable levels of service "C" or better under the 2024 Background traffic conditions. This intersection is proposed to continue to function as right-in/right-out. It is recommended SH 44 be widened to two lanes in each direction with a separate westbound right turn lane as planned with ITD.

Short Road and SH 44

- Under the 2024 Background traffic conditions, it is assumed the Amazon Falls Phase 1 development will be built-out. The traffic at this intersection will continue to function with a LOS "F" in the northbound and southbound directions.

- Amazon Falls 2 development is not planned for full build-out until 2025, however, this study does recommend this intersection follow the recommended access management strategies identified in the SH 44 corridor study. It was also recommended this intersection be restricted to a right-in/right-out with left-in.

- As outlined in the Amazon Falls Phase 2 traffic study, this intersection is planned to restrict left turn movements onto SH 44 as a right-in-right-out with left turn in movements. With this modification, the intersection will function with acceptable levels of service and also acceptable v/c ratios. It should be noted, by restricting turning movements at this intersection, it would be assumed vehicles from the Northern Star Development will not use this intersection to exit onto SH 44. With restrictions to left turn movements so vehicles can only exit to the west, most vehicles will just use the existing SH 44 and Hamlin Avenue intersection as it functions with the same controlled movements. With re-distribution of the traffic

from Phase 1, all intersections will function with acceptable levels of service and acceptable v/c ratios.

- It should also be noted if the Palmer Lane and SH 44 is signalized, which is planned, additional gaps in traffic along SH 44 may be present to reduce the average vehicle delay on Short Road which is not measured with the Synchro software.

Short Road and Amazon Drive

- In the 2024 Background scenario, the Short Road and Amazon Drive intersection will function with LOS "A" at each movement and v/c ratio's that are below 1.0.

Hamlin Avenue and Shultz Court

- This intersection will continue to function with minimal traffic under the 2024 Background scenario and the LOS and v/c ratios will be acceptable.

Roadway Segment LOS

Under the 2024 Background conditions, Hamlin Avenue, Short Road and Amazon Drive all meet the planning level of service threshold for roadway segments within the study area.

2024 Background with Project Traffic Conditions

It is planned by 2024, Phase 2 of the Northern Star development will be constructed. This phase will consist of the townhomes and single-family homes located on the north end of the proposed project.

Hamlin Avenue and SH 44

- With the addition of phase 2 of the Northern Star development, the Hamlin Avenue and SH 44 will continue to function with right-in and right-out movements. SH 44 is planned to be widened to two lanes in the eastbound and westbound directions with a separate westbound right turn lane.

- This intersection will continue to function with acceptable LOS "C" or better and acceptable v/c ratios for each movement.

Short Road and SH 44

- Similar operations will continue to occur at the Short Road and SH 44 intersection. It is planned SH 44 will be widened to two lanes in each direction with separate right turn lanes in the eastbound and westbound directions. It is also planned the southbound approach of this intersection will consist of separate right/through and left turn lanes.

- With the addition of the phase 2 traffic from the Northern Star development, and the above-mentioned recommendations in the Background scenarios, this intersection will continue to function with LOS "F" in the southbound and northbound approaches and the southbound approach.

- If the Short Road and SH 44 intersection is modified to RIROLI movements, it is also assumed traffic from the Northern Star development will use Hamlin Avenue to access SH 44 and little to no traffic will use Short Road. With this assumption, all intersections will continue to function with acceptable levels of service and acceptable v/c ratios.

Short Road and Amazon Drive

- This intersection will continue to function with acceptable levels of service "A" and v/c ratios during both the AM and PM peak hours.

- This intersection will continue to function as a two-way stop-controlled intersection with the stop-control along Amazon Drive.

Hamlin Avenue and Shultz Court

- With the addition of Phase 2, this intersection will continue to function with one lane in each direction as turn lanes are not warranted with the projected traffic volumes.

- This intersection will function with acceptable LOS "A" and v/c ratios for all vehicular movements.

Hamlin Avenue and Amazon Drive

- This intersection also continues to function with acceptable LOS "A" and v/c ratios for all vehicular movements under the 2024 Background with Project traffic conditions.

Hamlin Avenue and Apartment Access

- This access to apartments will continue to function with a LOS "A" and v/c ratios for all traffic movements with the addition of phase 2.

Hamlin Avenue and Single-Family Housing Access

- This access will function with acceptable LOS "A" and v/c ratios for all traffic movements with the addition of Phase 2.

- It is recommended this intersection be constructed with one lane in each direction to service the development. Projected traffic volumes do not warrant the need for separate left or right turn lanes.

Roadway Segment LOS

Under the 2024 Background with Project conditions, Hamlin Avenue, Short Road and Amazon Drive all meet the planning level of service threshold for roadway segments within the study area.

2030 Background Traffic Conditions

Under the 2030 Background traffic conditions, it is planned multiple developments surrounding the proposed Northern Star Development will be fully built out and occupied. These developments include Amazon Falls Phase 2 (planned for full build-out by 2025), Fountain Park Subdivision (planned for full build-out by 2025).

Hamlin Avenue and SH 44

- This intersection will continue to function with acceptable LOS "D" or better under the AM and PM peak hours. This intersection is planned to continue to function with a right-in/right-out turning movements.

Short Road and SH 44

- This intersection will continue to function with unacceptable LOS and v/c ratios during the AM and PM peak hours for the northbound and southbound left turn movements. All other traffic movements will continue to function with acceptable LOS.

- If the recommendations from the Amazon Falls Phase 2 traffic study are implemented, this intersection would become a right-in/right-out with left in only movements. With these improvements, this intersection will function with acceptable LOS in all traffic movements. The v/c ratio will also be acceptable for each traffic movement. It should be noted, with future development that may occur to the east, Amazon Drive would extend to Palmer Lane and provide another access/connection of the roadways. It would be assumed with a connection along Amazon Drive to Palmer Lane, a large majority of the traffic making left turn movements at the Short Road and SH 44 intersection would use the Amazon Drive route to travel eastbound. However, since this connection of Amazon Drive will be driven by future developments, these developments are not planned so therefore this connection was not used in this study.

Short Road and Amazon Drive

- The Short Road and Amazon Drive intersection will continue to function with acceptable LOS "A" and v/c ratios during the AM and PM peak hour for each traffic movement.

Hamlin Avenue and Shultz Court

- It is assumed this intersection will continue to service the existing residents in this area under the 2030 Background conditions and will function with minimal delays, a LOS "A" and v/c ratios that all meet minimal requirements.

Roadway Segment LOS

Under the 2030 Background conditions, Hamlin Avenue, Short Road and Amazon Drive all meet the planning level of service threshold for roadway segments within the study area.

2030 Background with Project Traffic Conditions

In 2030, it is planned the final Phase 3 will be constructed and fully built. This phase of the Northern Star Development will consist of roughly 18 acres of commercial/office space. For purposes of this study, 20% of the overall 18 acreage was determined to be occupied by the building and the land use for Office Space was used to calculate the project generated traffic for this phase.

Hamlin Avenue and SH 44

- The Hamlin Avenue and SH 44 intersection is planned to continue to function with right-in/right-out traffic movements.
- Under the AM peak hour this intersection is planned to continue to function with acceptable LOS "C" or better for each traffic movements and an acceptable v/c ratio.
- Under the PM peak hour, this intersection may function with a LOS "F", however the v/c ratio of 0.93 is acceptable per county guidelines but fall below the ITD guidelines of 0.90. However, since this intersection will not be signalized, and already functions with a right-in and right-out movements, no other improvements can be made.

Short Road and SH 44

- Similar to previous study years, this intersection will continue to function with unacceptable levels of service and v/c ratio for the northbound and southbound left turn movements. If this intersection is modified to RIROLI movements, the intersection will function with acceptable LOS and v/c ratios in the AM peak hour, however will fall below the threshold in the PM peak hour.

- If this intersection cannot be signalized, the connection of Amazon Drive to Palmer Lane will help provide an additional route for traffic to exit the development and travel eastbound along SH 44.

Short Road and Amazon Drive

- This intersection will continue to function with acceptable LOS "A" and v/c ratios under both the AM and PM peak hours. It is recommended this intersection be designed and constructed to meet city standards. It is also recommended adequate sight distance be accounted for in the design at this intersection with no obstructions within the required line of sight.

Hamlin Avenue and Amazon Drive

- With the addition of the Northern Star Phase 3, the west leg of this intersection will be added to this intersection. This intersection is recommended to be constructed with one lane in each direction as turn lane warrants are not met with the projected traffic volumes. This intersection will also continue to function with acceptable LOS "A" and v/c ratios for each traffic movements under the AM and PM peak hours.

Hamlin Avenue and Shultz Court

- Each turning movement at the Hamlin Avenue and Shultz Court intersection will continue to function with acceptable LOS "B" or better under the 2030

Background with Project traffic conditions and continue with acceptable v/c ratios.

Hamlin Avenue and Apartment Access

- Each traffic movement at this intersection will also continue to function with acceptable LOS and v/c ratio.

Hamlin Avenue and Single-Family Housing Access

- This intersection will also continue to function with acceptable LOS "A" and acceptable v/c ratio for each traffic movements.

Roadway Segment LOS

Under the 2030 Background with Project conditions, Hamlin Avenue, Short Road and Amazon Drive all meet the planning level of service threshold for roadway segments within the study area.

Ada County Utility Coordinating Council

Developer/Local Improvement District
Right of Way Improvements Guideline Request

Purpose: To develop the necessary avenue for proper notification to utilities of local highway and road improvements, to help the utilities in budgeting and to clarify the already existing process.

1) **Notification:** Within five (5) working days upon notification of required right of way improvements by Highway entities, developers shall provide written notification to the affected utility owners and the Ada County Utility Coordinating Council (UCC). Notification shall include but not be limited to, project limits, scope of roadway improvements/project, anticipated construction dates, and any portions critical to the right of way improvements and coordination of utilities.

2) **Plan Review:** The developer shall provide the highway entities and all utility owners with preliminary project plans and schedule a plan review conference. Depending on the scale of utility improvements, a plan review conference may not be necessary, as determined by the utility owners. Conference notification shall also be sent to the UCC. During the review meeting the developer shall notify utilities of the status of right of way/easement acquisition necessary for their project. At the plan review conference each company shall have the right to appeal, adjust and/or negotiate with the developer on its own behalf. Each utility shall provide the developer with a letter of review indicating the costs and time required for relocation of its facilities. Said letter of review is to be provided within thirty calendar days after the date of the plan review conference.

3) **Revisions:** The developer is responsible to provide utilities with any revisions to preliminary plans. Utilities may request an updated plan review meeting if revisions are made in the preliminary plans which affect the utility relocation requirements. Utilities shall have thirty days after receiving the revisions to review and comment thereon.

4) **Final Notification:** The developer will provide highway entities, utility owners and the UCC with final notification of its intent to proceed with right of way improvements and include the anticipated date work will commence. This notification shall indicate that the work to be performed shall be pursuant to final approved plans by the highway entity. The developer shall schedule a preconstruction meeting prior to right of way improvements. Utility relocation activity shall be completed within the times established during the preconstruction meeting, unless otherwise agreed upon.

Notification to the Ada County UCC can be sent to: 50 S. Cole Rd. Boise 83707, or Visit iducc.com for e-mail notification information.

Development Process Checklist

Items Completed to Date:

☒Submit a development application to a City or to Ada County

☒The City or the County will transmit the development application to ACHD

☒The ACHD **Planning Review Section** will receive the development application to review

☒The **Planning Review Section** will do one of the following:

☐Send a **"No Review"** letter to the applicant stating that there are no site specific conditions of approval at this time.

☒Write a **Staff Level** report analyzing the impacts of the development on the transportation system and evaluating the proposal for its conformance to District Policy.

☒Write a **Commission Level** report analyzing the impacts of the development on the transportation system and evaluating the proposal for its conformance to District Policy.

Items to be completed by Applicant:

☐For **ALL** development applications, including those receiving a **"No Review"** letter:

- The applicant should submit one set of engineered plans directly to ACHD for review by the **Development Review Section** for plan review and assessment of impact fees. (Note: if there are no site improvements required by ACHD, then architectural plans may be submitted for purposes of impact fee assessment.)
- The applicant is required to get a permit from Construction Services (ACHD) for ANY work in the right-of-way, including, but not limited to, driveway approaches, street improvements and utility cuts.

☐Pay Impact Fees prior to issuance of building permit. Impact fees cannot be paid prior to plan review approval.

DID YOU REMEMBER:
Construction (Non-Subdivisions)
☐ **Driveway or Property Approach(s)**

- Submit a "Driveway Approach Request" form to ACHD Construction (for approval by Development Services & Traffic Services). There is a one week turnaround for this approval.

☐ **Working in the ACHD Right-of-Way**

- Four business days prior to starting work have a bonded contractor submit a "Temporary Highway Use Permit Application" to ACHD Construction – Permits along with:
  a) Traffic Control Plan
  b) An Erosion & Sediment Control Narrative & Plat, done by a Certified Plan Designer, if trench is >50' or you are placing >600 sf of concrete or asphalt.

Construction (Subdivisions)
☐ **Sediment & Erosion Submittal**

- At least one week prior to setting up a Pre-Construction Meeting an Erosion & Sediment Control Narrative & Plan, done by a Certified Plan Designer, must be turned into ACHD Construction to be reviewed and approved by the ACHD Stormwater Section.

☐ **Idaho Power Company**

- Vic Steelman at Idaho Power must have his IPCO approved set of subdivision utility plans prior to Pre-Con being scheduled.

☐ **Final Approval from Development Services is required** prior to scheduling a Pre-Con.

Request for Appeal of Staff Decision

1. **Appeal of Staff Decision:** The Commission shall hear and decide appeals by an applicant of the final decision made by the Development Services Manager when it is alleged that the Development Services Manager did not properly apply this section 7101.6, did not consider all of the relevant facts presented, made an error of fact or law, abused discretion or acted arbitrarily and capriciously in the interpretation or enforcement of the ACHD Policy Manual.

    a. Filing Fee: The Commission may, from time to time, set reasonable fees to be charged the applicant for the processing of appeals, to cover administrative costs.

    b. Initiation: An appeal is initiated by the filing of a written notice of appeal with the Secretary and Clerk of the District, which must be filed within ten (10) working days from the date of the decision that is the subject of the appeal. The notice of appeal shall refer to the decision being appealed, identify the appellant by name, address and telephone number and state the grounds for the appeal. The grounds shall include a written summary of the provisions of the policy relevant to the appeal and/or the facts and law relied upon and shall include a written argument in support of the appeal. The Commission shall not consider a notice of appeal that does not comply with the provisions of this subsection.

    c. Time to Reply: The Development Services Manager shall have ten (10) working days from the date of the filing of the notice of appeal to reply to the notice of the appeal, and may during such time meet with the appellant to discuss the matter, and may also consider and/or modify the decision that is being appealed. A copy of the reply and any modifications to the decision being appealed will be provided to the appellant prior to the Commission hearing on the appeal.

    d. Notice of Hearing: Unless otherwise agreed to by the appellant, the hearing of the appeal will be noticed and scheduled on the Commission agenda at a regular meeting to be held within thirty (30) days following the delivery to the appellant of the Development Services Manager's reply to the notice of appeal. A copy of the decision being appealed, the notice of appeal and the reply shall be delivered to the Commission at least one (1) week prior to the hearing.

    e. Action by Commission: Following the hearing, the Commission shall either affirm or reverse, in whole or part, or otherwise modify, amend or supplement the decision being appealed, as such action is adequately supported by the law and evidence presented at the hearing.

ADA COUNTY DEVELOPMENT SERVICES

200 W. FRONT STREET, BOISE, IDAHO 83702-7300
https://adacounty.id.gov/developmentservices

PHONE (208) 287-7900
FAX (208) 287-7909

BUILDING • COMMUNITY PLANNING • ENGINEERING & SURVEYING • PERMITTING

February 27, 2023

Shawn Nickel
City of Star Planning & Zoning
10769 W State St
Star, ID 83669

RE: AZ-22-11 / Northeast Corner of SH-16 and SH-44 / Talega Village Subdivision

Shawn,

The City of Star has requested feedback regarding the proposed annexation and preliminary plat for the Talega Village Subdivision, which will consist of 55 single-family homes, 98 Townhome units, 340 multi-family units, and 1 commercial lot on 65.7 acres located on the northeast corner of SH-16 and SH-44/ State Street (Parcels: R3720002880, R3720003030, R3720002500, R3720002480, R3720001505, R3720002412, & S0409417201). Ada County supports the application due to its compatibility with the Star Comprehensive Plan, as adopted by Ada County, which designates the site as a mixture of *Multiple Use 1*, and *Commercial*.

The proposal to include single-family and multi-family housing within the development is supported by *Multiple Use Policy 2*, which encourages diverse housing types and densities, and the proposed mix of residential and commercial development is compatible with *Multiple Use Policy 6* which encourages residential uses near commercial uses. The proposal to set aside over 34% (16.4 acres) as common area, which will include playgrounds, dog parks, and pedestrian pathways, is also compatible with *Residential Policy 3* of the Star Comprehensive Plan which encourages neighborhood parks and open spaces to be provided within residential areas.

It is suggested that a pedestrian pathway be considered along the Dry Creek Canal as encouraged by *Goal 1.2d* of the Ada County Comprehensive Plan, which supports the enhancement of manmade drainage ways as valuable resources for recreational pathways and potential pedestrian and bicycle routes.

Thank you for this opportunity to provide feedback.

Sincerely,

Stacey Yarrington

Stacey Yarrington
Community & Regional Planner
Ada County Development Services

Communities in Motion (CIM) Development Review Checklist

Development Name:	Talega Village
CIM Vision Category:	Future Neighborhood
Consistent with CIM Vision?	YES
New Households:	493
New Jobs:	±220

Safety

How safe and comfortable is the nearest major road (minor arterial or above) for bicyclists and pedestrians? Analysis is limited to existing roadway conditions.

State Highway 44 (West State Street)

Pedestrian level of stress	✗
Bicycle level of stress	✗

Economic Vitality

To what extent does the project enable people, government, and businesses to prosper?

Economic Activity Center Access	✓
Impact on Existing Surrounding Farmland	✓
Net Fiscal Impact	✓

Convenience

What services are available within 0.5 miles (green) or 1 mile (yellow) of the project?

Nearest bus stop	✗
Nearest public school	✗
Nearest public park	✗

Quality of Life

Checked boxes indicate that additional information is attached.

Active Transportation	
Automobile Transportation	
Public Transportation	✓
Roadway Projects	✓

✓ **Improves performance** — **Does not improve or reduce performance** — ✗ **Reduces performance**

Comments:
When developing the site plan for Phase 4 consider including a public multiuse pathway along the southern boundary, as shown in the City of Star's *Pathways Master Plan*. To support future transit along State Street consider installing sidewalks that are wide enough to allow for passenger and wheelchair loading and unloading (72-84 inches).

Who we are: *The Community Planning Association of Southwest Idaho (COMPASS) is the metropolitan planning organization for Ada and Canyon Counties. This review evaluates whether land developments are consistent with Communities in Motion, the regional long-range transportation plan for Ada and Canyon Counties. This checklist is not intended to be prescriptive, but rather a guidance document. Past checklists are available online. See the* ***Development Review User Guide*** for more information on the red, yellow, and green checklist thresholds.

Sent: 3/13/23

www.compassidaho.org
info@compassidaho.org
COMPASS COMMUNITY PLANNING ASSOCIATION of Southwest Idaho

Complete Network Appendix

Checkmarks (✓) below indicate suggested changes to a site plan, based on the COMPASS Complete Network Policy (No. 2022-01). Both the Complete Network Policy and site-specific suggestions are intended to better align land use with identified transportation uses in the corridor. Please see the Complete Network map for primary and secondary uses for roadways (minor arterial and above) in Ada and Canyon Counties.

Corridor Name:	State Highway 44 (West State Street)
Primary Use:	Public Transportation
Secondary Use:	Freight

Land Use to Support Public Transportation

✓ Orient buildings toward potential transit corridors, with parking on the back side rather than the street side

The COMPASS-compiled catalog of Transit Oriented Developments in the *Communities in Motion Implementation Guidebook* provides examples of how higher-density development can integrate in existing neighborhoods.

Public Transportation Infrastructure

✓ Provide sidewalks and/or bike paths designed to meet the needs of all users (including elderly, children, and individuals with disabilities) to connect development to transit stops

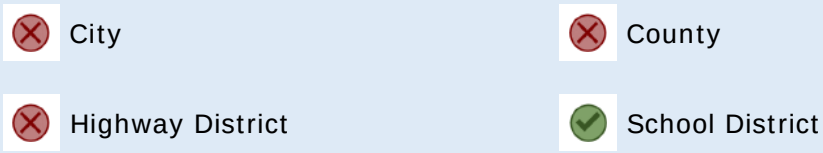
✓ Include doors with 32 inches of clear passage space, and at least one zero-step entrance and accessible bathroom on the main floor to support those with limited mobility

Fiscal Impact Analysis

Below are the expected revenues and costs to local governments from this project. The purpose of this analysis is to help the public, stakeholders, and the decision-makers better manage growth.

Capital and operating expenditures are determined based on service and infrastructure needs, including persons per household, student generation rates, lot sizes, street frontages, vehicle trip and trip adjustment factors, average trip lengths, construction values, income, discretionary spending, and employment densities.

Net Fiscal Impact by Agency



Breakeven point across all agencies: 16 years

Additional Information:

- City of Star fiscal impact is estimated to be positive prior to phase 4.
- The largest estimated expense to City of Star is law enforcement (50% of total expenses).
- Highway District fiscal impact is estimated to be positive in stabilization year (on-going impact), however capital costs to state highway system result in breakeven point beyond 20 years.

Disclaimer*: This tool only looks out 20 years and does not include replacement costs for infrastructure, public utilities, or unfunded transportation needs in the project area. More information about the COMPASS Fiscal Impact Tool is available at:* *www.compassidaho.org/prodserv/fiscalimpact.htm*

Long-Term Funded and Unfunded Capital Projects

CIM Priority Corridor: State Highway 44 (West State Street)

Widening State Highway 44 (West State Street) is a short-term funded project in *Communities in Motion 2050* (Key# 20266 in the FY23-29 Transportation Improvement Program).

More information on transportation needs and projects based on forecasted future growth is available at: https://compassidaho.maps.arcgis.com/apps/instant/portfolio/index.html?appid=6c1eebca233d49c4935825136f338fac

Short-Term Funded Capital Projects

SH-44 (State Street), SH-16 to Linder Road, Ada County

Regionally Significant: ☑ ☑ **Inflated**

Key # : 20266

Requesting Agency: ITD

Project Year: 2023

Total Previous Allocations: $654

Total Programmed Budget: $7,017

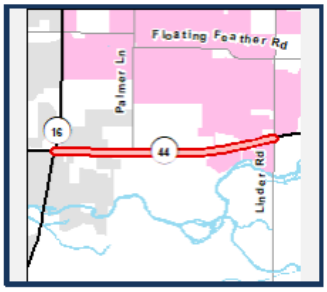
Total Cost (Prev. + Prog.): $7,671

TIP Achievement:

System Performance

NHS-LOTTR

Safety



Project Description

Add an additional westbound and eastbound lane to improve congestion and reduce crashes along State Highway 44 (State Street), from State Highway 16 to Linder Road near the City of Eagle.

Funding Source HB132 and HB312 **Program** State Hwy - Safety & Capacity (Capacity) **Local Match** 100.00%

Cost Year*	Preliminary Engineering	Preliminary Engineering Consulting	Right-of-Way	Utilities	Construction Engineering	Construction	Total	Federal Share	Local Share
2023	0	0	0	0	1,145	5,872	7,017	0	7,017
Fund Totals:	$0	$0	$0	$0	$1,145	$5,872	$7,017	$0	$7,017

Study, SH-16, SH-44 to Junction SH-52, Environmental Reevaluation

Regionally Significant: ☑ ☐ **Inflated**

Key # : 23175

Requesting Agency: ITD

Project Year: 2023

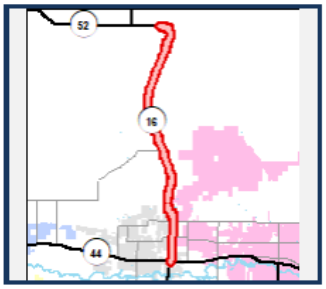
Total Previous Allocations: $0

Total Programmed Budget: $3,000

Total Cost (Prev. + Prog.): $3,000

TIP Achievement:

Support



Project Description

Reevaluate the environmental assessment regarding proposed improvements to State Highway 16 from State Highway 44 in Ada County to the junction of State Highway 52 in the City of Emmett to reaffirm the Idaho Transportation Department's proposed improvements on the corridor.

Funding Source STBG-State **Program** State Hwy - Early Development **Local Match** 7.34%

Cost Year*	Preliminary Engineering	Preliminary Engineering Consulting	Right-of-Way	Utilities	Construction Engineering	Construction	Total	Federal Share	Local Share
2023	50	2,950	0	0	0	0	3,000	2,780	220
Fund Totals:	$50	$2,950	$0	$0	$0	$0	$3,000	$2,780	$220

Source: *The* COMPASS Transportation Improvement Program (TIP). *The TIP is a short-range (seven-year) budget of transportation projects for which federal funds are anticipated, along with non-federally funded projects that are regionally significant and is available at:* https://www.compassidaho.org/documents/prodserv/trans/FY22/FY23_29TIPdoc.pdf

West Ada SCHOOL DISTRICT

March 29, 2023

RE: Talega Village Subdivision
PP-22-17, CU-22-05

Dear Planners:

West Ada School District has experienced sustained growth in student enrollment during the last ten years. Based on current enrollment data specific to new development (within the last 5 years) in proximity to this proposed development, we estimate this development consisting of 55 single-family lots, 98 townhomes and 340 multifamily units could house approximately **109 school aged children.** Approval of this application will affect enrollments at the following schools in West Ada School District based on attendance areas for the 2022-23 school year. For your information, included in this data is the number of approved lots and multi-family units approved by this and other agencies.

	Enrollment	Capacity	Approved lots per attendance area	Approved MF units per attendance area	Projected Students from Approved Dev.
Eagle Elementary	**342**	**500**	**2841**	**60**	**259**
Star Middle School	**906**	**1000**	**9938**	**622**	**913**
Eagle High School	**1787**	**1800**	**6499**	**357**	**859**
School of Choice Options					
Galileo STEM Academy	**744**	**775**	**N/A**	**N/A**	

West Ada School District supports economic growth. Based on future enrollment forecasts, the middle and high schools are projected to be operating above building capacity upon the completion of the previously approved lots. Future developments will continue to have an impact on the district's capacity.

To meet the need for additional school capacity in this area one or more of the following may need to be accomplished:

- Transporting students to an alternate school with available classrooms.
- Attendance area adjustments if there is availability in a nearby school.
- Portable classrooms placed on the property.
- Passage of a bond or plant facilities levy to build new schools to fit the enrollment needs.

Please encourage the developer to provide safe walkways, bike paths and pedestrian access for our students.

Sincerely,

Marci Horner
Planning and Development Administrator

Your Safety • Your Mobility
Your Economic Opportunity

IDAHO TRANSPORTATION DEPARTMENT
P.O. Box 8028 • Boise, ID 83707-2028
(208) 334-8300 • itd.idaho.gov

March 21, 2023

City of Star
Shawn Nickels, P&Z Administrator
10769 W State St
Star, ID 83669
snickel@staridaho.org

Re: Talega Village Subdivision, File #s: AZ-22-11, RZ-22-03, DA-22-12, CU-22-05, PP-22-17, PR-22-08

Dear Mr. Nickels,

Idaho Transportation Department (ITD) appreciates this opportunity to provide comments regarding Talega Village Subdivision located near milepost 100.2, on the east side of SH-16 and north of SH-44, Star, Idaho. Please see the below comments:

1. This project abuts State Highway 16 (SH-16).
2. No direct access to the State Highway system has been requested with this application and none is approved.
3. N Hamlin Avenue is currently designed as a right-in right-out. It is possible that Hamlin will eventually be a right-in only. The location of N Hamlin Avenue and SH-44 is the beginning of the taper for the widening of Chinden to three (3) more lanes to its west. The development to the east of Hamlin is supposed to eventually have its interior road connected to Hamlin at which point a right-out can happen there.
4. Traffic generation numbers were not provided with this application. ITD needs more information on the trip generations to determine what mitigations if any, the applicant may be required to construct on the State Highway system. If the new development generates 100 or more new trips in the peak hour or 1,000 new trips in a day, a Traffic Impact Study (TIS) is required. Mitigations identified by the Traffic Impact Study shall be the responsibility of the applicant to install.
5. Idaho Code 40-1910 does not allow advertising within the right-of-way of any State highway.
6. The Idaho Administrative Procedures Act (IDAPA) 39.03.60 governs advertising along the State highway system. The applicant may contact Justin Pond, Program Manager for ITD's Headquarters Right-of-Way Section at (208) 334-8832 for more information.

The City is reminded the SH-20/26 corridor is already congested. This project will increase the number of vehicle trips in the corridor. As the City continues to add additional trips to the corridor through development, the congestion will worsen until the roadway system is ultimately overloaded and fails.

ITD reserves the right to make further comments upon review of the submitted TIS and any other documentation.

Sincerely,

Wendy I. Howell, Development Services Coordinator

CENTRAL DISTRICT HEALTH

Ada County Transmittal

Division of Community and Environmental Health

Return to:
- ☐ ACZ
- ☐ Boise
- ☐ Eagle
- ☐ Garden City
- ☐ Meridian
- ☐ Kuna
- ☒ Star

Rezone/OTD # _____

Conditional/Accessory Use # _____

Preliminary / Final / Short Plat PP-22-17

Development Name/Section Talega Village

☐ 1. We have No Objections to this Proposal.

☐ 2. We recommend Denial of this Proposal.

☐ 3. Specific knowledge as to the exact type of use must be provided before we can comment on this Proposal.

☐ 4. Before we can comment concerning individual sewage disposal, we will require more data concerning the depth of:
☐ high seasonal ground water ☐ waste flow characteristics
☐ bedrock from original grade ☐ other _____

☐ 5. This office may require a study to assess the impact of nutrients and pathogens to receiving ground waters and surface waters.

☒ 6. After written approvals from appropriate entities are submitted, we can approve this proposal for:
☒ central sewage ☐ community sewage system ☐ community water well
☐ interim sewage ☒ central water
☐ individual sewage ☐ individual water

☒ 7. The following plan(s) must be submitted to and approved by the Idaho Department of Environmental Quality:
☒ central sewage ☐ community sewage system ☐ community water
☐ sewage dry lines ☒ central water

☒ 8. Infiltration beds for storm water disposal are considered shallow injection wells. If they are not in the City of Boise or ACHD right-of-way, an application and fee per well, vicinity map and construction plans must be submitted to CDH.

☐ 9. If restroom or plumbing facilities are to be installed, then a sewage system MUST be installed to meet Idaho State Sewage Regulations.

☐ 10. An accessory use application, fee, detailed site plan and floor plans must be submitted to CDH for review.

☐ 11. Land development application, fee per lot, test holes and full engineering report is required.

☐ 12. CDH makes no guarantee a septic permit will be issued on the split off lot. A speculative site evaluation is recommended.

☐ 13. We will require plans be submitted for a plan review for any:
☐ food establishment ☐ swimming pools or spas ☐ child care center
☐ beverage establishment ☐ grocery store

☐ 14. _____

_____

_____

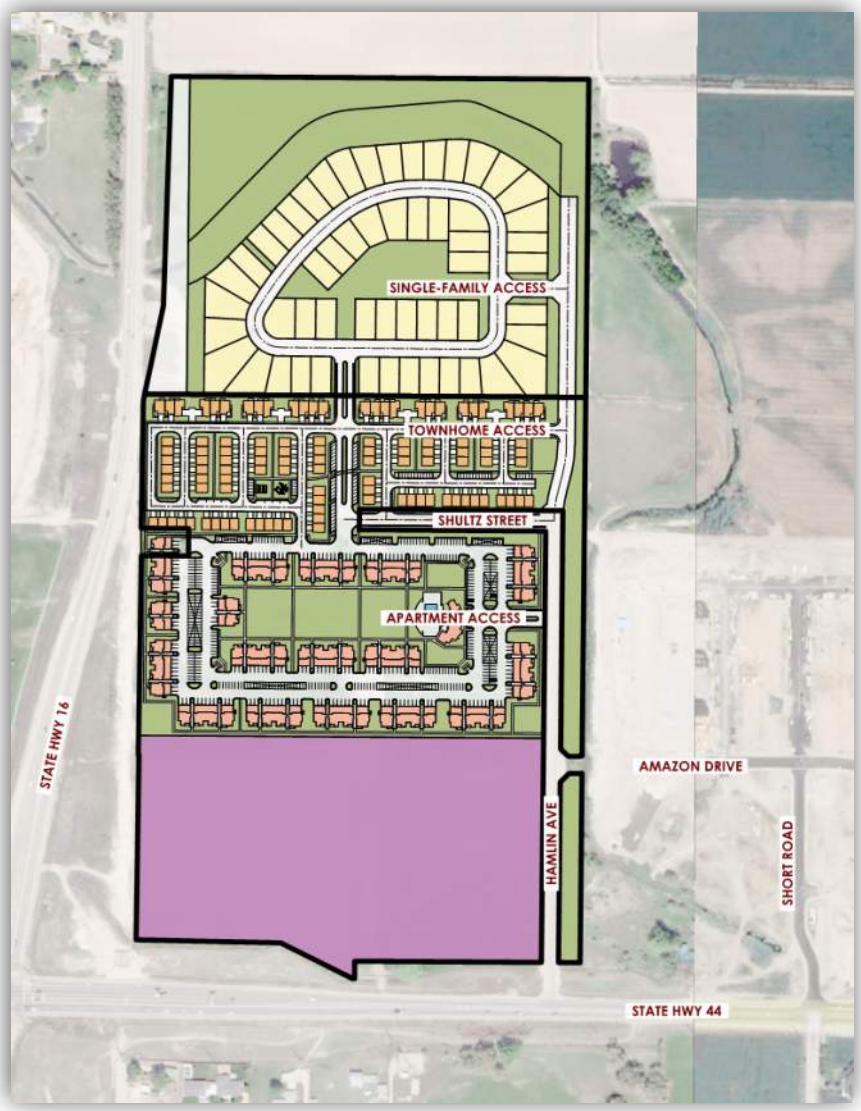
Reviewed By: _____ Date: 3/3/23

3/22 lb

NORTHERN STAR DEVELOPMENT

TRAFFIC IMPACT STUDY

STAR, IDAHO



FOCUS
ENGINEERING & SURVEYING, LLC

August, 2022

6949 South High Tech Drive, Suite 200, Midvale, Utah 84047 p 801.352.0075

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1.0 Executive Summary

1.1 DESCRIPTION OF PROJECT

This report presents the results of a traffic impact analysis for the Northern Star Development, located in Star, Idaho. The project site is located north of State Highway (SH) 44, east of State Highway 16 and west of Hamlin Avenue. Currently the proposed parcel of land consists of farmland with a few residential homes. Figure 1 illustrates the Vicinity Map and the location of this development related to the adjacent roadway network.

This proposed Northern Star Development will consist of:

- 55 single-family dwelling units
- 110 townhome units
- 310 apartment units
- 18 acres of commercial/office

Refer to Figure 2 for the site plan of this development and the location of the proposed accesses onto the surrounding roadways.

Coordinating with Ada County (ACHD) and Idaho Transportation Department (ITD), it was determined the study area for this traffic impact study would include the following intersections:

- Hamlin Avenue/SH 44 (existing)
- Short Road/SH 44 (existing)
- Amazon Drive/Short Lane (existing)
- Shultz Street/Hamlin Avenue (existing)
- Amazon Drive/Hamlin Avenue (future)

It is anticipated, at full build-out, the Northern Star Development will generate 4,529 average daily trips with 379 AM peak hour trips and 417 PM peak hour trips. With a mix of residential and commercial/office within the same development, it is anticipated there will be some internal trips between the two land uses. It is not anticipated a large reduction in trips due to internal capture, but using the ITE Trip Generation reduction, roughly 6 vehicles in the AM peak hour and 14 in the PM peak hour are anticipated to be shared between land uses.

It is anticipated the Northern Star Development will be constructed in three main phases. The first phase is planned for the 310 apartment units and will be fully occupied by the end of 2023. The second phase will consist of the 55 single-family units and the 110 townhomes and be constructed by the end of 2024. The third and final phase will consist of the 18 acres of commercial/office and is planned to be constructed by 2030. Therefore, the study years for this development are 2022 existing, 2023 background, 2024 background and 2030 background.

As part of the analysis for the Northern Star Development, projected future traffic volumes from surrounding developments were included in the Background traffic volumes. Currently the Amazon Falls Phase 1 development is under construction and is planned for full build-out by the end of this year. Therefore the 2023 Background traffic volumes include the full build-out traffic from the Amazon Falls Phase 1 development. The Amazon Falls Phase 2 development and the Fountain Park development are also planned developments in this area; however, they are planned for full build-out by 2025, therefore their projected traffic volumes are included in the 2030 Background traffic scenario. Recommendations from the traffic impact studies from these surrounding developments were implemented in the analysis for this Northern Star Development. Recommended improvements included:

- By 2023, SH 44 be widened to two lanes in each direction with separate right turn lanes at the Short Road intersection
- By 2025, the SH 44 and Short Road intersection be restricted to right-in/right-out with left turn (RIROLI) in movements only.

1.2 PRINCIPAL FINDINGS & RECOMMENDATIONS

The following is a summary of the principal findings and recommendations for the addition of the Northern Star Development.

2022 Existing Conditions

State Highway 44 and Hamlin Avenue

- Under the 2022 existing traffic conditions, each traffic movement at the SH 44 and Hamlin Avenue intersection currently functions at a Level of Service (LOS) "C" or better in the AM and PM peak hours. This intersection was recently constructed to only allow right-in and right-out movements. No additional improvements are needed.

Short Road and SH 44

- The northbound and southbound approaches of the SH 44 and Short Road, currently function at a LOS "F" on both the AM and PM peak hours. However, the volume to capacity ratio is acceptable, not higher than 1.0 for ACHD guidelines or 0.90 for ITD guidelines.

Amazon Drive and Short Road

- The Amazon Drive and Short Road intersection was recently constructed and currently functions with a LOS "A". Traffic volumes are fairly light at this intersection as the development in this area are under construction. No improvements are needed.

Shultz Court and Hamlin Avenue

- The Shultz Court and Hamlin Avenue currently consists of a northbound left turn and an eastbound right turn that accesses the residential home and farmland. This intersection functions with acceptable levels of service with very minimal traffic.

Roadway Segment LOS

Under the 2022 Existing conditions, Hamlin Avenue, Short Road and Amazon Drive all meet the planning level of service threshold for roadway segments within the study area.

2023 Background Traffic Conditions

Growth in traffic was applied using growth rates provided by COMPASS and also using the future build-out traffic volumes from the Amazon Phase 1 development to generate the 2023 Background traffic volumes. As outlined in the Idaho Transportation Invest Program (ITIP), SH 44 is planned to be widened to two lanes in each direction by 2023. Therefore, the 2023 Background traffic conditions illustrate SH 44 as two lanes in each direction at each of the study area intersections.

SH 44 and Hamlin Avenue

- With this intersection functioning and continuing to function as a right in/right out intersection, it is anticipated this intersection will continue to function at a LOS "C" or better under the background scenarios and no improvements are needed.

Short Road and SH 44

- With the proposed widening of SH 44, this intersection will continue to function with a LOS "F" in the northbound and southbound movements, and the v/c ratio will continue to function below the recommended threshold.

Amazon Drive and Short Road

- The traffic volumes for a fully built-out Amazon Falls 1 development were applied to this intersection to generate the 2023 Background traffic volumes. This intersection will continue to function with a LOS "A" in all movements and stop controlled movements along Short Road and free-flowing traffic along Amazon Drive.

Shultz Court and Hamlin Avenue

- In the 2023 Background conditions, this intersection will continue to function with minimal traffic that only accesses the single residents in this area and functions with acceptable levels of service.

Roadway Segment LOS

Under the 2023 Background conditions, Hamlin Avenue, Short Road and Amazon Drive all meet the planning level of service threshold for roadway segments within the study area.

2023 Background with Project Traffic Conditions

By 2023, it is planned the Phase 1 of the Northern Star development will be at full buildout. This phase will consist of the 310 apartment units.

SH44 and Hamlin Avenue

- With the addition of the Northern Star Development's first phase, this intersection will continue to function with an acceptable LOS "C" or better and will continue to function as right-in/right-out.

Short Road and SH 44

- With the addition of the Northern Star Development's first phase, the Short Road and SH 44 intersection will continue to experience similar levels of service as it experiences without the proposed development. The northbound and southbound traffic movements will still experience a LOS "F". The v/c ratio for the southbound left turning movements will fall above the minimum required of 1.0 per Ada County standards.

- As has been proposed in the Amazon Falls Phase 2 traffic study, signalizing this intersection will improve the LOS and v/c ratio, however, this location does not meet the signal spacing per Idaho Department of Transportation.

Short Road and Amazon Drive

- This intersection will continue to function with LOS "A" at each traffic movement with the addition of the Northern Star Development. No additional improvements are needed.

Hamlin Avenue and Shultz Court

- With the addition of Phase 1, the Shultz Court and Hamlin Avenue intersection will continue to function with acceptable levels of service.
- It is recommended Hamlin Avenue be constructed with one lane in each direction as a Collector Road, to provide access into the proposed development.

Hamlin Avenue and Amazon Drive

- With the addition of Phase 1, the Hamlin Avenue and Amazon Drive intersection will function with acceptable levels of service.
- Under the 2023 Background with Project scenario, the turning volumes at this intersection do not warrant separate left or right turn lanes. Therefore, each leg of the intersection should be constructed with one lane in each direction.

Hamlin Avenue and the Apartment Access

- This intersection will function with acceptable levels of service under the 2023 Background with Project scenario.
- It is recommended this intersection be constructed with one lane in each direction as the traffic volumes do not meet the warrants for separate left and right turn lanes.

Roadway Segment LOS

Under the 2023 Background with Project conditions, Hamlin Avenue, Short Road and Amazon Drive all meet the planning level of service threshold for roadway segments within the study area.

2024 Background Traffic Conditions

Hamlin Avenue and SH 44

- This intersection will continue to function with acceptable levels of service "C" or better under the 2024 Background traffic conditions. This intersection is proposed to continue to function as right-in/right-out. It is recommended SH 44 be widened to two lanes in each direction with a separate westbound right turn lane as planned with ITD.

Short Road and SH 44

- Under the 2024 Background traffic conditions, it is assumed the Amazon Falls Phase 1 development will be built-out. The traffic at this intersection will continue to function with a LOS "F" in the northbound and southbound directions.

- Amazon Falls 2 development is not planned for full build-out until 2025, however, this study does recommend this intersection follow the recommended access management strategies identified in the SH 44 corridor study. It was also recommended this intersection be restricted to a right-in/right-out with left-in.

- As outlined in the Amazon Falls Phase 2 traffic study, this intersection is planned to restrict left turn movements onto SH 44 as a right-in-right-out with left turn in movements. With this modification, the intersection will function with acceptable levels of service and also acceptable v/c ratios. It should be noted, by restricting turning movements at this intersection, it would be assumed vehicles from the Northern Star Development will not use this intersection to exit onto SH 44. With restrictions to left turn movements so vehicles can only exit to the west, most vehicles will just use the existing SH 44 and Hamlin Avenue intersection as it functions with the same controlled movements. With re-distribution of the traffic

from Phase 1, all intersections will function with acceptable levels of service and acceptable v/c ratios.

- It should also be noted if the Palmer Lane and SH 44 is signalized, which is planned, additional gaps in traffic along SH 44 may be present to reduce the average vehicle delay on Short Road which is not measured with the Synchro software.

Short Road and Amazon Drive

- In the 2024 Background scenario, the Short Road and Amazon Drive intersection will function with LOS "A" at each movement and v/c ratio's that are below 1.0.

Hamlin Avenue and Shultz Court

- This intersection will continue to function with minimal traffic under the 2024 Background scenario and the LOS and v/c ratios will be acceptable.

Roadway Segment LOS

Under the 2024 Background conditions, Hamlin Avenue, Short Road and Amazon Drive all meet the planning level of service threshold for roadway segments within the study area.

2024 Background with Project Traffic Conditions

It is planned by 2024, Phase 2 of the Northern Star development will be constructed. This phase will consist of the townhomes and single-family homes located on the north end of the proposed project.

Hamlin Avenue and SH 44

- With the addition of phase 2 of the Northern Star development, the Hamlin Avenue and SH 44 will continue to function with right-in and right-out movements. SH 44 is planned to be widened to two lanes in the eastbound and westbound directions with a separate westbound right turn lane.

- This intersection will continue to function with acceptable LOS "C" or better and acceptable v/c ratios for each movement.

Short Road and SH 44

- Similar operations will continue to occur at the Short Road and SH 44 intersection. It is planned SH 44 will be widened to two lanes in each direction with separate right turn lanes in the eastbound and westbound directions. It is also planned the southbound approach of this intersection will consist of separate right/through and left turn lanes.

- With the addition of the phase 2 traffic from the Northern Star development, and the above-mentioned recommendations in the Background scenarios, this intersection will continue to function with LOS "F" in the southbound and northbound approaches and the southbound approach.

- If the Short Road and SH 44 intersection is modified to RIROLI movements, it is also assumed traffic from the Northern Star development will use Hamlin Avenue to access SH 44 and little to no traffic will use Short Road. With this assumption, all intersections will continue to function with acceptable levels of service and acceptable v/c ratios.

Short Road and Amazon Drive

- This intersection will continue to function with acceptable levels of service "A" and v/c ratios during both the AM and PM peak hours.

- This intersection will continue to function as a two-way stop-controlled intersection with the stop-control along Amazon Drive.

Hamlin Avenue and Shultz Court

- With the addition of Phase 2, this intersection will continue to function with one lane in each direction as turn lanes are not warranted with the projected traffic volumes.

- This intersection will function with acceptable LOS "A" and v/c ratios for all vehicular movements.

Hamlin Avenue and Amazon Drive

- This intersection also continues to function with acceptable LOS "A" and v/c ratios for all vehicular movements under the 2024 Background with Project traffic conditions.

Hamlin Avenue and Apartment Access

- This access to apartments will continue to function with a LOS "A" and v/c ratios for all traffic movements with the addition of phase 2.

Hamlin Avenue and Single-Family Housing Access

- This access will function with acceptable LOS "A" and v/c ratios for all traffic movements with the addition of Phase 2.

- It is recommended this intersection be constructed with one lane in each direction to service the development. Projected traffic volumes do not warrant the need for separate left or right turn lanes.

Roadway Segment LOS

Under the 2024 Background with Project conditions, Hamlin Avenue, Short Road and Amazon Drive all meet the planning level of service threshold for roadway segments within the study area.

2030 Background Traffic Conditions

Under the 2030 Background traffic conditions, it is planned multiple developments surrounding the proposed Northern Star Development will be fully built out and occupied. These developments include Amazon Falls Phase 2 (planned for full build-out by 2025), Fountain Park Subdivision (planned for full build-out by 2025).

Hamlin Avenue and SH 44

- This intersection will continue to function with acceptable LOS "D" or better under the AM and PM peak hours. This intersection is planned to continue to function with a right-in/right-out turning movements.

Short Road and SH 44

- This intersection will continue to function with unacceptable LOS and v/c ratios during the AM and PM peak hours for the northbound and southbound left turn movements. All other traffic movements will continue to function with acceptable LOS.

- If the recommendations from the Amazon Falls Phase 2 traffic study are implemented, this intersection would become a right-in/right-out with left in only movements. With these improvements, this intersection will function with acceptable LOS in all traffic movements. The v/c ratio will also be acceptable for each traffic movement. It should be noted, with future development that may occur to the east, Amazon Drive would extend to Palmer Lane and provide another access/connection of the roadways. It would be assumed with a connection along Amazon Drive to Palmer Lane, a large majority of the traffic making left turn movements at the Short Road and SH 44 intersection would use the Amazon Drive route to travel eastbound. However, since this connection of Amazon Drive will be driven by future developments, these developments are not planned so therefore this connection was not used in this study.

Short Road and Amazon Drive

- The Short Road and Amazon Drive intersection will continue to function with acceptable LOS "A" and v/c ratios during the AM and PM peak hour for each traffic movement.

Hamlin Avenue and Shultz Court

- It is assumed this intersection will continue to service the existing residents in this area under the 2030 Background conditions and will function with minimal delays, a LOS "A" and v/c ratios that all meet minimal requirements.

Roadway Segment LOS

Under the 2030 Background conditions, Hamlin Avenue, Short Road and Amazon Drive all meet the planning level of service threshold for roadway segments within the study area.

2030 Background with Project Traffic Conditions

In 2030, it is planned the final Phase 3 will be constructed and fully built. This phase of the Northern Star Development will consist of roughly 18 acres of commercial/office space. For purposes of this study, 20% of the overall 18 acreage was determined to be occupied by the building and the land use for Office Space was used to calculate the project generated traffic for this phase.

Hamlin Avenue and SH 44

- The Hamlin Avenue and SH 44 intersection is planned to continue to function with right-in/right-out traffic movements.
- Under the AM peak hour this intersection is planned to continue to function with acceptable LOS "C" or better for each traffic movements and an acceptable v/c ratio.
- Under the PM peak hour, this intersection may function with a LOS "F", however the v/c ratio of 0.93 is acceptable per county guidelines but fall below the ITD guidelines of 0.90. However, since this intersection will not be signalized, and already functions with a right-in and right-out movements, no other improvements can be made.

Short Road and SH 44

- Similar to previous study years, this intersection will continue to function with unacceptable levels of service and v/c ratio for the northbound and southbound left turn movements. If this intersection is modified to RIROLI movements, the intersection will function with acceptable LOS and v/c ratios in the AM peak hour, however will fall below the threshold in the PM peak hour.

- If this intersection cannot be signalized, the connection of Amazon Drive to Palmer Lane will help provide an additional route for traffic to exit the development and travel eastbound along SH 44.

Short Road and Amazon Drive

- This intersection will continue to function with acceptable LOS "A" and v/c ratios under both the AM and PM peak hours. It is recommended this intersection be designed and constructed to meet city standards. It is also recommended adequate sight distance be accounted for in the design at this intersection with no obstructions within the required line of sight.

Hamlin Avenue and Amazon Drive

- With the addition of the Northern Star Phase 3, the west leg of this intersection will be added to this intersection. This intersection is recommended to be constructed with one lane in each direction as turn lane warrants are not met with the projected traffic volumes. This intersection will also continue to function with acceptable LOS "A" and v/c ratios for each traffic movements under the AM and PM peak hours.

Hamlin Avenue and Shultz Court

- Each turning movement at the Hamlin Avenue and Shultz Court intersection will continue to function with acceptable LOS "B" or better under the 2030

Background with Project traffic conditions and continue with acceptable v/c ratios.

Hamlin Avenue and Apartment Access

- Each traffic movement at this intersection will also continue to function with acceptable LOS and v/c ratio.

Hamlin Avenue and Single-Family Housing Access

- This intersection will also continue to function with acceptable LOS "A" and acceptable v/c ratio for each traffic movements.

Roadway Segment LOS

Under the 2030 Background with Project conditions, Hamlin Avenue, Short Road and Amazon Drive all meet the planning level of service threshold for roadway segments within the study area.

2.0 Introduction

2.1 DEVELOPMENT DESCRIPTION

The proposed Northern Star Development is situated on roughly 63 acres of vacant land within the City of Star. Refer to the Vicinity Map and Site Plan in Figures 1 and 2, respectively. The proposed site will consist of:

- 55 single-family dwelling units
- 110 townhome units
- 310 apartment units
- 18 acres of commercial

Full build-out of this development is anticipated for 2030. Phase 1 will consist of the apartments units and is planned to be constructed by 2023. The second phase will consist of the single-family and townhome units and is planned to be constructed by 2024. The third phase will finish with the commercial/office parcel by 2030.

The proposed development is surrounded by SH 16 to the west, SH 44 to the south and Hamlin Avenue to the east. To the north is farmland.

Northern Star is anticipated to generate 4,529 average daily trips with 379 AM peak hour trips and 417 PM peak hour trips.

NORTHERN STAR DEVELOPMENT

FIGURE 1 - VICINITY MAP

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Z:_2021\21-0488 CIG Star Idaho Development\transportation\traffic\figures\FIGURE 1 - VICINITY MAP.dwg

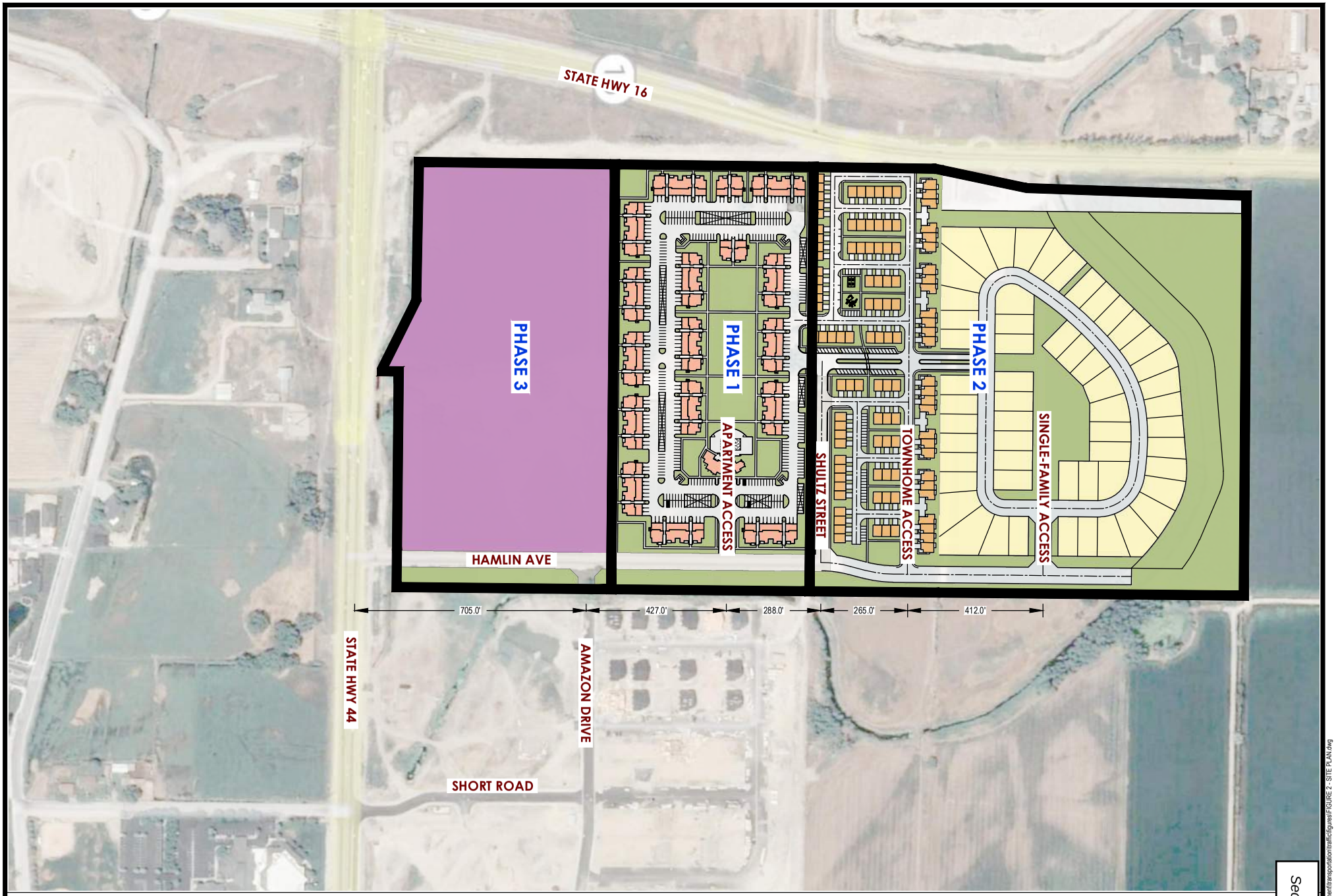

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FIGURE 2 - SITE PLAN

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Section 6, Item A.

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3.0 Existing Conditions

3.1 ROADWAYS

State Highway 44 is a major roadway through this study area and extends east and west through Star's city limits. SH 44 currently consists of one lane in each direction with a center two-way left turn lane. SH 44 is planned to be widened and will consist of two lanes in each direction with the center two-way left turn lane by the end of 2023. Future improvements of SH 44 and SH 16 will consist of a full freeway interchange. The posted speed limit is 55 mph.

Short Road is a two-lane roadway that connects SH 44 and Moon Valley Road. Recently Short Road was constructed to the north of SH 44 to provide access to the Amazon Falls Phase 1 development. Phase 2 of Amazon Fallis is also planned and will access off Short Road. Short Road consists of one lane in each direction with separate left and right turn lanes at the intersection with SH 44. The posted speed limit along Short Road is 25 mph.

Hamlin Avenue is a two-lane roadway that runs between SH 44 and Shultz Court. Hamlin Ave primarily serves the existing homes on the proposed property. Hamlin will be improved to add a two-way left turn lane to provide safe turning movements onto the cross streets. The Hamlin Avenue and SH 44 intersection was recently improved to only allow right turn movements on and off Hamlin Avenue. The posted speed limit is 25 mph.

Amazon Drive is planned as a Collector roadway that currently runs within the Amazon Falls development. Amazon Drive consists of one lane in each direction. Currently Amazon Drive terminates prior to Hamlin Avenue and just east of Short Road. With the addition of the Northern Star Development, Amazon Drive will connect to Hamlin Avenue. As future developments occur in this area, Amazon Drive will extend east, eventually tying into Palmer Lane. However, the timeframe for this connection is unknown and will be based on future development in this area and therefore was not anticipated for the analysis and traffic distribution in this study.

3.2 EXISTING TRAFFIC VOLUMES

Coordinating with Ada County and ITD at the beginning of this traffic study, it was determined the following intersections would be analyzed within the study area:

- Hamlin Avenue/SH-44 (existing)
- Short Road/SH-44 (existing)
- Amazon Drive/Short Road (existing)

Existing traffic counts were collected on January 20, 2022 at the study area intersection. Existing AM and PM peak hour traffic volumes were collected between the peak hours of 7 AM to 9 AM and 4 PM to 6 PM. From the existing counts that were collected, it was determined the peak hours at the study area intersections are from 7:15 AM to 8:15 AM and from 4:45 PM to 5:45 PM. These volumes are illustrated in Figure 3.

3.3 ROADWAY SEGMENT PLANNING LEVEL OF SERVICE

Roadway segments within the study area consisting of Hamlin Avenue, Amazon Drive and Short Lane were analyzed using the guidelines outlined with ACHD for planning level of service. Using the existing lane configuration, traffic volumes and projected ADT volumes from the Amazon 1 traffic study, the following table illustrates that each roadway segment meets the level of service planning threshold.

Table 1 – Roadway Segment LOS – 2022 Existing Traffic

Roadway	Segment	ADT	Functional Classification (No. of Lanes)	Left-Turn Lane Type	ACHD Planning Threshold (vph)	Peak Hour Directional Volumes (vph)*		Meets LOS Planning Threshold?
						AM Peak	PM Peak	
Hamlin Avenue	Shultz Ct. to SH 44	28	Local Road (2)	None	N/A	6(SB)	4(SB)	Yes ADT < 1,000
Amazon Drive	Hamlin Ave to Short Ln	774	Collector (2)	None	425	8(WB)	5(WB)	Yes
Short Road	Amazon Dr to SH 44	1347	Collector (2)	None	425	13(NB)	8(NB)	Yes

* = Direction of higher volume shown in ()

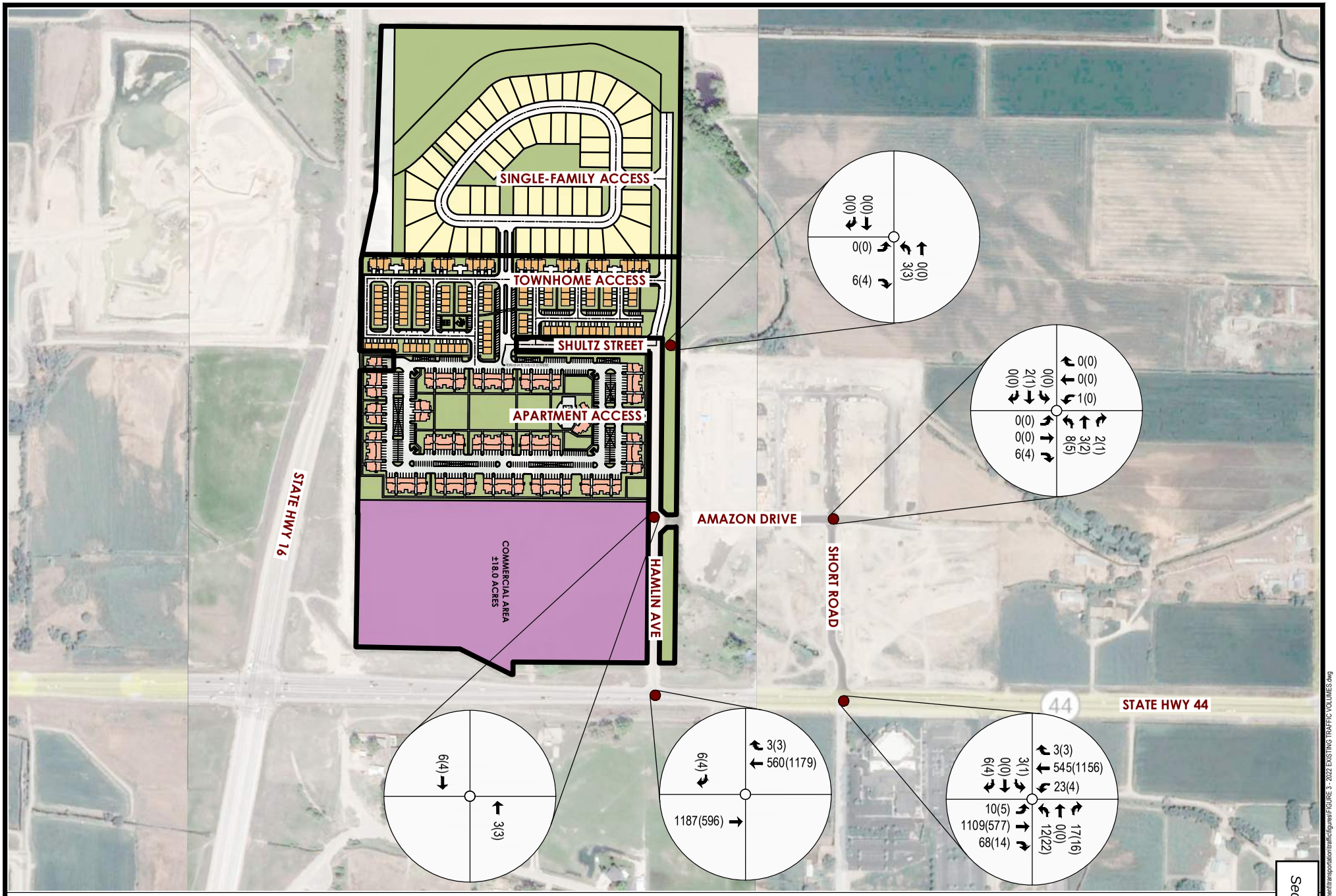

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FIGURE 3 - 2022 EXISTING TRAFFIC VOLUMES

XX(XX) = AM(PM) PEAK HOUR TRAFFIC VOLUMES

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Z:_2021\21-0488 CIG Star Idaho Development\transportation\traffic\figures\FIGURE 3 - 2022 EXISTING TRAFFIC VOLUMES.dwg

4.0 Background Year Traffic Volumes

In coordinating with Ada County, COMPASS and ITD, it was determined the Background Year and build-out of the Northern Star development phases would be 2023, 2024, and 2030. Population projections along SH 44 were provided by COMPASS and were used to project the future traffic volumes within this study. A projected growth in traffic of 9.9% along SH 44 is planned until 2025. After 2025 the growth rate is anticipated to adjust to 4.9%. These growth rates were applied to the existing traffic volumes to establish the 2023, 2024 and 2030 Background traffic scenarios.

It should also be noted, surrounding developments are planned in this area. To the east are the Amazon Falls Phase 1 and 2 developments. Phase 1 is currently under construction and is planned for full build-out by this year, 2022. Therefore, the projected traffic volumes from the Amazon Falls Phase 1 traffic impact study were incorporated into the 2023 Background traffic volumes and are illustrated in Figure 4.

The 2024 Background Year traffic volumes are illustrated in Figure 5 and represent growth in traffic along SH 44, however very minor growth, if any, will occur along Short Road and Hamlin Avenue due to no new development occurring by the year 2024.

The 2030 Background traffic volumes are illustrated in Figure 6, and include the projected traffic volumes from the Amazon Falls Phase 2 development and also the Fountain Park development. Both these proposed developments are planned to be constructed and full build-out by 2025 and were therefore included in the 2030 Background traffic conditions.

All these volumes are the anticipated traffic volumes on the existing roadway network whether the proposed Northern Star development is constructed or not.

4.1 ROADWAY SEGMENT PLANNING LEVEL OF SERVICE

Using the 2023 Background, 2024 Background and 2030 Background traffic volumes, the roadway segments within the study area were analyzed for level of service following the

guidelines outline by ACHD. The following tables outline the levels of service and if the roadways meet the thresholds. As can be seen, under the background scenarios, all roadways will meet the planning level thresholds for roadway classifications.

Table 2 – Roadway Segment LOS – 2023 Background Traffic

Roadway	Segment	ADT	Functional Classification (No. of Lanes)	Left-Turn Lane Type	ACHD Planning Threshold (vph)	Peak Hour Directional Volumes (vph)*		Meets LOS Planning Threshold?
						AM Peak	PM Peak	
Hamlin Avenue	Shultz Ct. to SH 44	28	Local Road (2)	None	N/A	7(SB)	4(SB)	Yes ADT < 1,000
Amazon Drive	Hamlin Ave to Short Ln	774	Collector (2)	None	425	33(EB)	33(WB)	Yes
Short Lane	Amazon Dr to SH 44	1347	Collector (2)	None	425	67(SB)	67(NB)	Yes

* = Direction of higher volume shown in ()

The Average Daily Traffic (ADT) volumes were taken from the Amazon Falls 1 traffic impact study, which by 2023 will be the only development fully built out in this study area and is represented by the traffic volumes in Figure 4.

Table 3 – Roadway Segment LOS – 2024 Background Traffic

Roadway	Segment	ADT	Functional Classification (No. of Lanes)	Left-Turn Lane Type	ACHD Planning Threshold (vph)	Peak Hour Directional Volumes (vph)*		Meets LOS Planning Threshold?
						AM Peak	PM Peak	
Hamlin Avenue	Shultz Ct. to SH 44	28	Local Road (2)	None	N/A	7(SB)	5(SB)	Yes ADT < 1,000
Amazon Drive	Hamlin Ave to Short Ln	774	Collector (2)	None	425	33(EB)	33(WB)	Yes
Short Lane	Amazon Dr to SH 44	1347	Collector (2)	None	425	67(SB)	67(NB)	Yes

* = Direction of higher volume shown in ()

As outlined in the Amazon Falls 1 and Amazon Falls 2 traffic impact studies, by 2024, the Amazon Falls 1 development will be fully built out. Therefore, the ADT represented in Table 3 illustrates the traffic from that development, similar to the traffic volumes in Figure 5.

Table 4 – Roadway Segment LOS – 2030 Background Traffic

Roadway	Segment	ADT	Functional Classification (No. of Lanes)	Left-Turn Lane Type	ACHD Planning Threshold (vph)	Peak Hour Directional Volumes (vph)*		Meets LOS Planning Threshold?
						AM Peak	PM Peak	
Hamlin Avenue	Shultz Ct. to SH 44	311	Local Road (2)	None	N/A	42(SB)	27(SB)	Yes ADT < 1,000
Amazon Drive	Hamlin Ave to Short Ln	774	Collector (2)	None	425	39(EB)	33(WB)	Yes
Short Lane	Amazon Dr to SH 44	7467	Collector (2)	None	425	189(SB)	297(NB)	Yes

* = Direction of higher volume shown in ()

As outlined in the Amazon Falls 2 and the Fountain Park traffic impact studies, by 2030, this development will be built out and generate the traffic within this study area. Therefore, the ADT represented in Table 4 illustrates the traffic from these development along these roadways, similar to the traffic volumes in Figure 6.

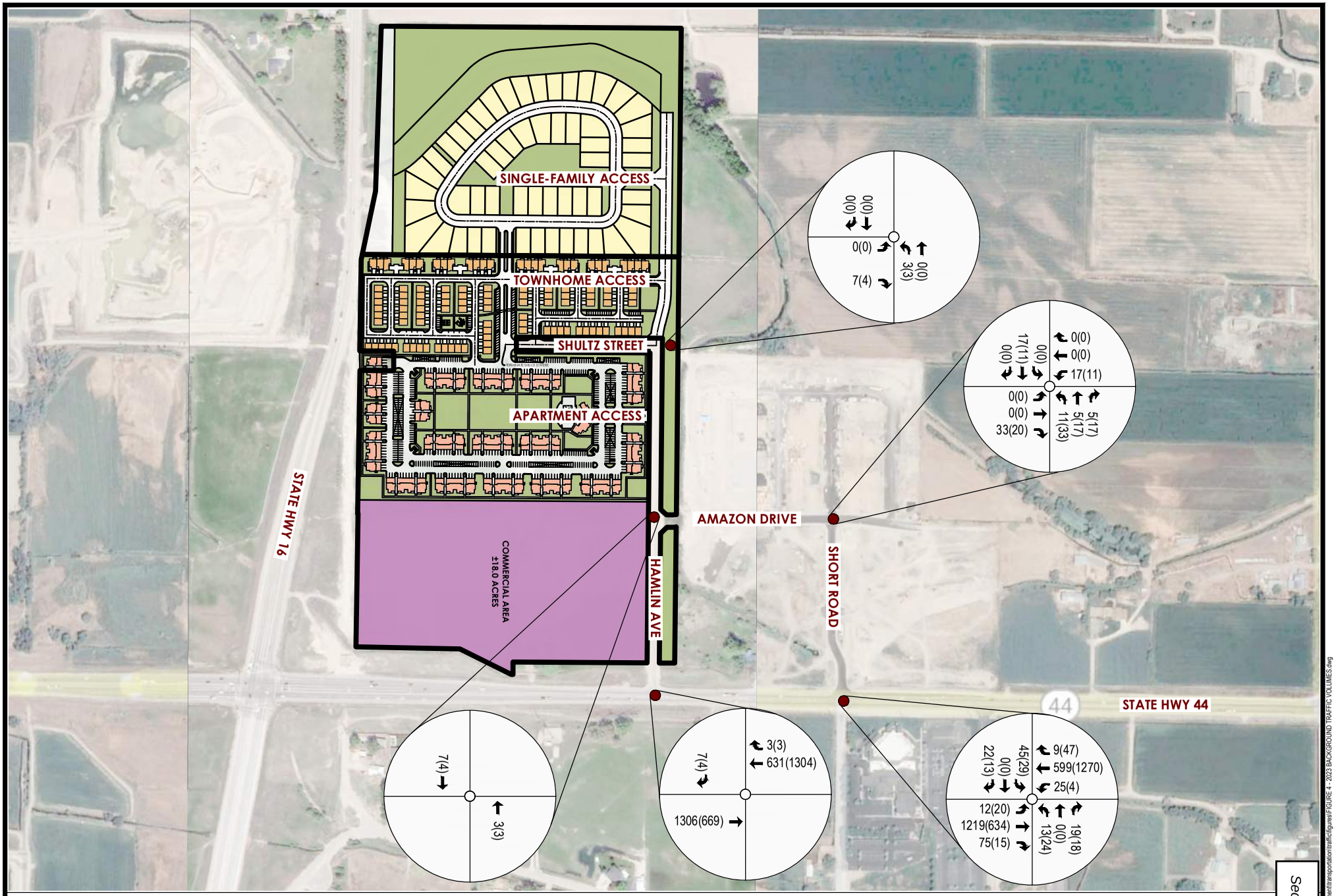

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FIGURE 4 - 2023 BACKGROUND TRAFFIC VOLUMES

XX(XX) = AM(PM) PEAK HOUR TRAFFIC VOLUMES

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Z:_2021\21-0488 CIG Star Idaho Development\transportation\traffic\figures\FIGURE 4 - 2023 BACKGROUND TRAFFIC VOLUMES.dwg

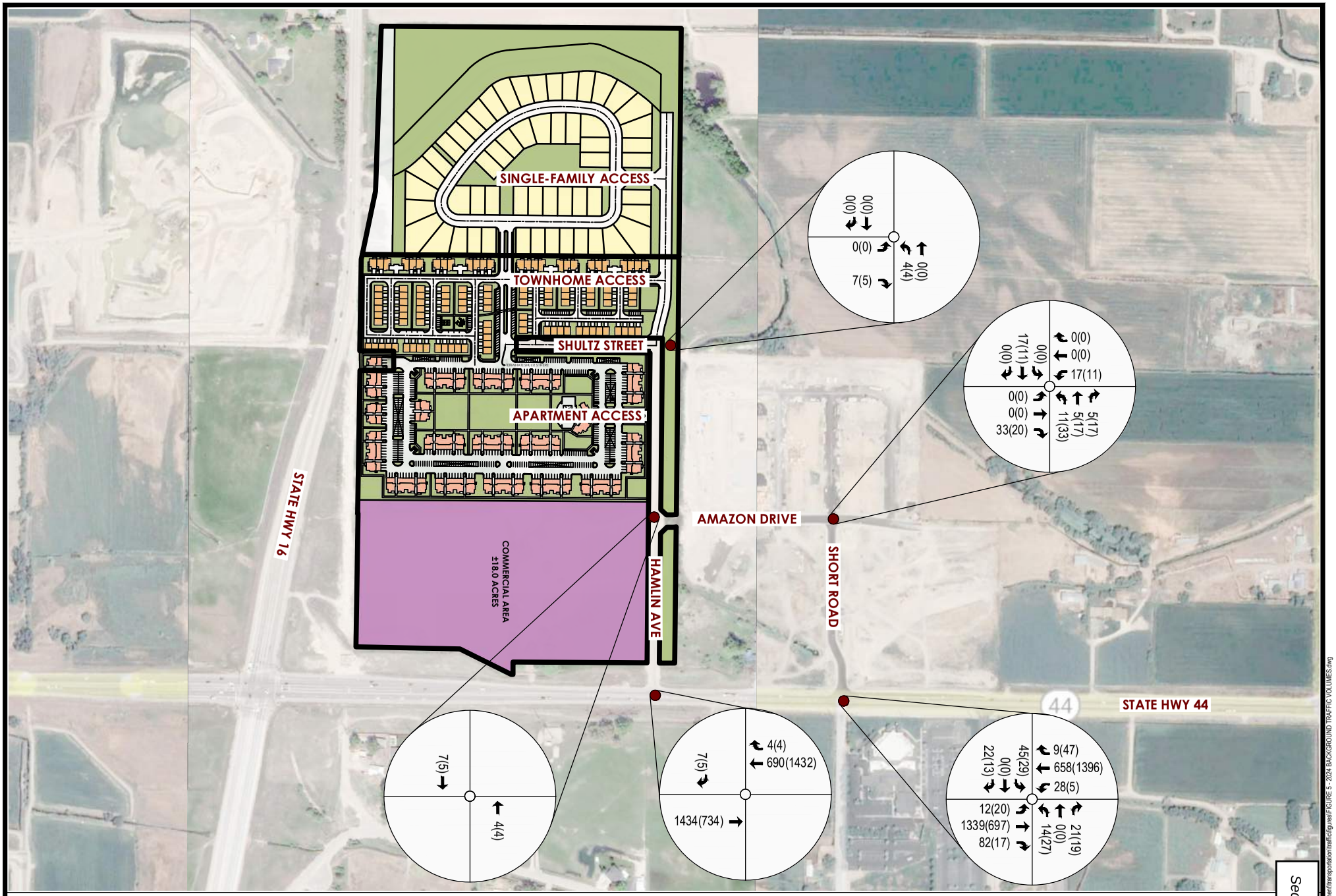

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FIGURE 5 - 2024 BACKGROUND TRAFFIC VOLUMES

XX(XX) = AM(PM) PEAK HOUR TRAFFIC VOLUMES

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Z:_2021\21-0488 CIG Star Idaho Development\transportation\traffic\figures\FIGURE 5 - 2024 BACKGROUND TRAFFIC VOLUMES.dwg

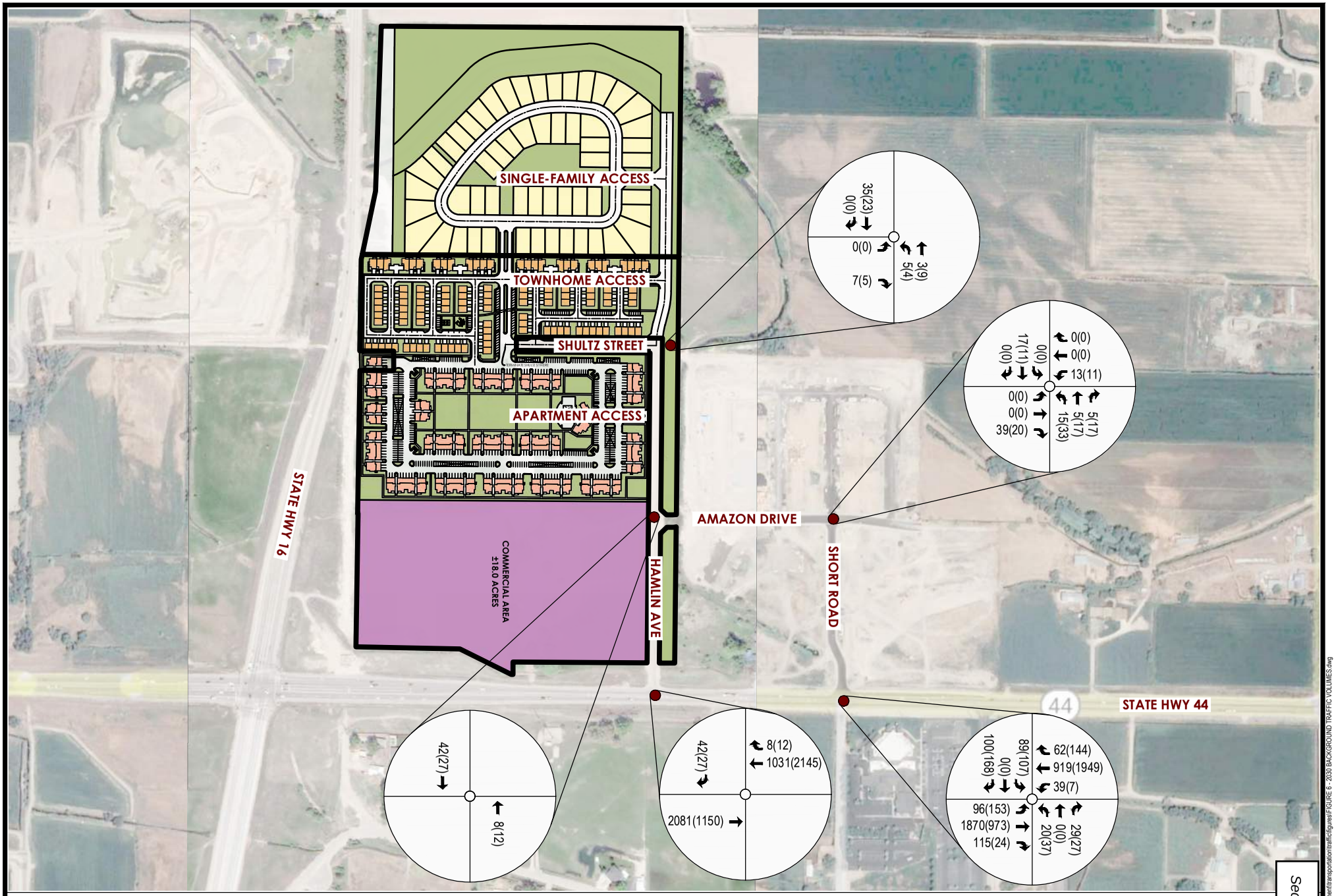

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FIGURE 6 - 2030 BACKGROUND TRAFFIC VOLUMES

XX(XX) = AM(PM) PEAK HOUR TRAFFIC VOLUMES

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Z:_2021\21-0488 CIG Star Idaho Development\transportation\traffic\figures\FIGURE 6 - 2030 BACKGROUND TRAFFIC VOLUMES.dwg

5.0 Trip Generation and Trip Distribution

5.1 TRIP GENERATION

For purposes of this study, the trip generation was performed for each phase of the development. It is planned the first phase will consist of the 310 apartment units in 2023. In 2024, the second phase will be constructed that will consist of the 110 townhomes and the 55 single-family homes. The third phase will be constructed by 2030 and will consist of the 18 acres of the commercial/office space. The third phase is still undetermined with the specific land use, but is planned for office buildings. To generate the anticipated number of vehicles entering and exiting the proposed site during a typical weekday a.m. and p.m. peak hour, the *Institute of Transportation Engineer's (ITE) Trip Generation Manual* is used. For single-family residential lots, the land use codes 210 – Single-Family Detached Housing, 220 – Multifamily Housing (Low-Rise), and 221 – Multifamily Housing (Mid-Rise) were used to generate the number of trips entering and exiting the development. The Mid-Rise land use was used for the apartments as they are planned for three story apartment buildings. Since the specific land use for the 18 acres of commercial is unknown at this time, land use code 710 for General Office Building was used. It was assumed 20% of the overall acreage would be used as the actual building size. Using these assumptions, roughly 156,000 square foot office building was used to calculate the trip generation.

Trips generated by the proposed development, which will occur during the peak hours of the proposed development, were used for the analysis. For purposes of this study, the Peak Hour of Adjacent Street Traffic rates are used to generate the AM and PM Peak Hour Volumes. The trips generated from the proposed development are presented in Table 1.

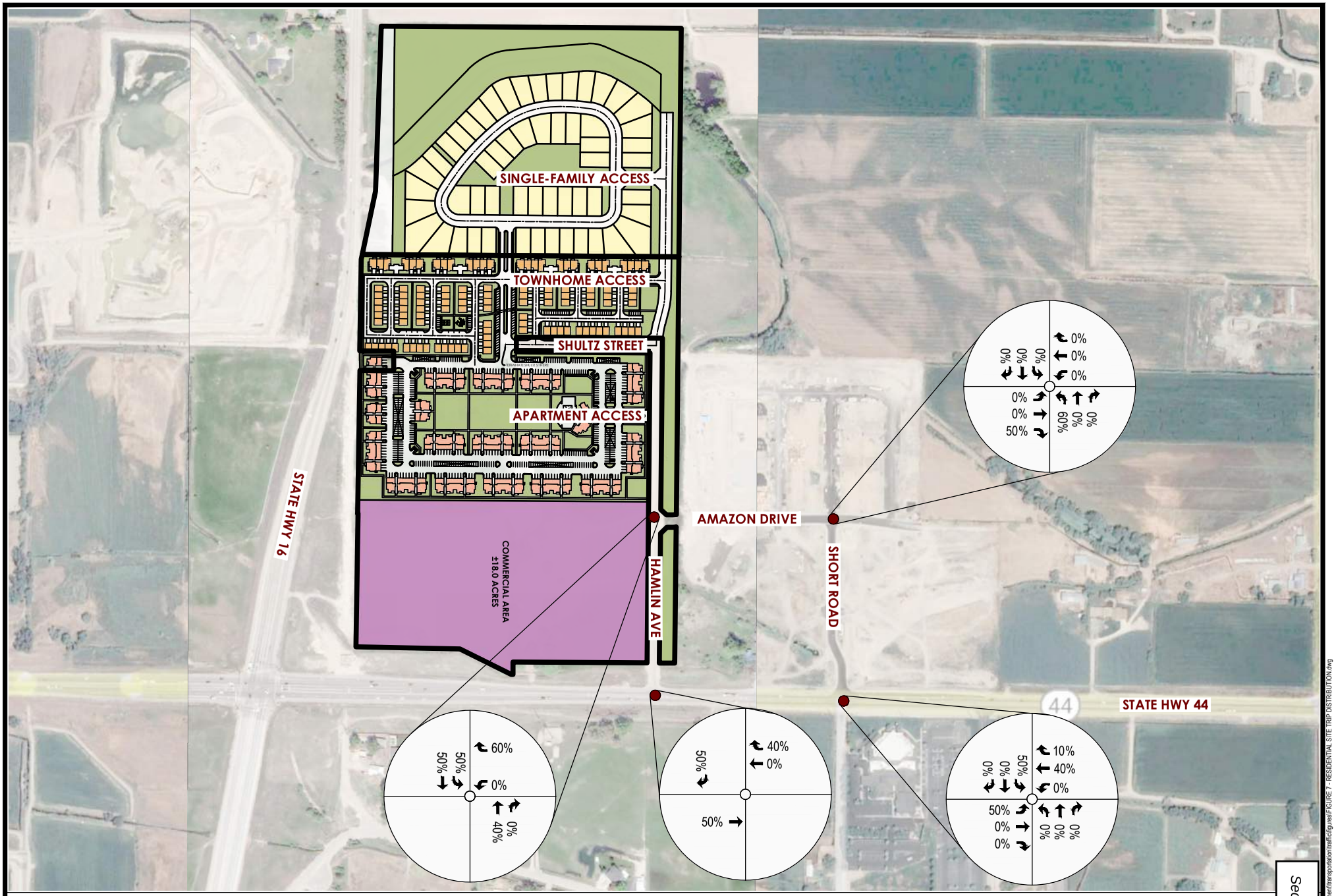
Table 5 - Trip Generation – Average Weekday Driveway Volumes

ITE Land Use Code	Land Use Description	Size	Daily (AADT)	Trip Generation (AM)		Trip Generation (PM)	
				Enter	Exit	Enter	Exit
210	Single-Family	55 DU	519	10	31	34	20
220	Low-Rise	110 DU	805	12	39	39	23
221	Mid-Rise	310 DU	1686	29	83	83	53
710	Gen Office	156 TGFA	1519	156	25	29	150

As can be seen in Table 1, the Northern Star Development will generate approximately 4,529 daily trips, with 385 trips occurring in the AM peak hour (207 entering, 178 exiting) and 431 trips occurring in the PM peak hour (185 entering, 246 exiting). It is assumed with the combination of residential and office within the development, there is potential for internal capture trips. With the internal capture trips, this development will generate 379 total AM peak hour trips (204 entering, 175 exiting) and 417 PM peak hour trips (178 entering, 239 exiting).

5.2 SITE TRAFFIC DISTRIBUTION & GENERATION

The project trip distribution onto the existing and proposed roadways at each project site access is based on the area of impact model runs by COMPASS, review of the roadway system by ACHD and ITD, as well as knowledge of travel patterns in this study area. Based on the land use types for this development, the distribution will vary between residential and office space. In order to illustrate this, Figure 7 illustrates the trip distribution for the residential portions of this development. Figure 8 illustrates the proposed distribution percentages for the commercial/office land use. Using these distribution percentages combined with the trip generation volumes from Table 1, the project generated traffic volumes for the apartments are illustrated in Figure 9. Figure 10 illustrates the traffic volumes generated by the apartments combined with the townhomes and single-family units. Figure 11 illustrates the project generated traffic volumes for the full build-out of all phases of the Northern Star development and their distribution onto the surrounding roadways within the study area.


SINGLE-FAMILY ACCESS
TOWNHOME ACCESS
SHULTZ STREET
APARTMENT ACCESS
COMMERCIAL AREA
±18.0 ACRES
HAMLIN AVE
STATE HWY 16
AMAZON DRIVE
SHORT ROAD
STATE HWY 44
44
0%
0%
0%

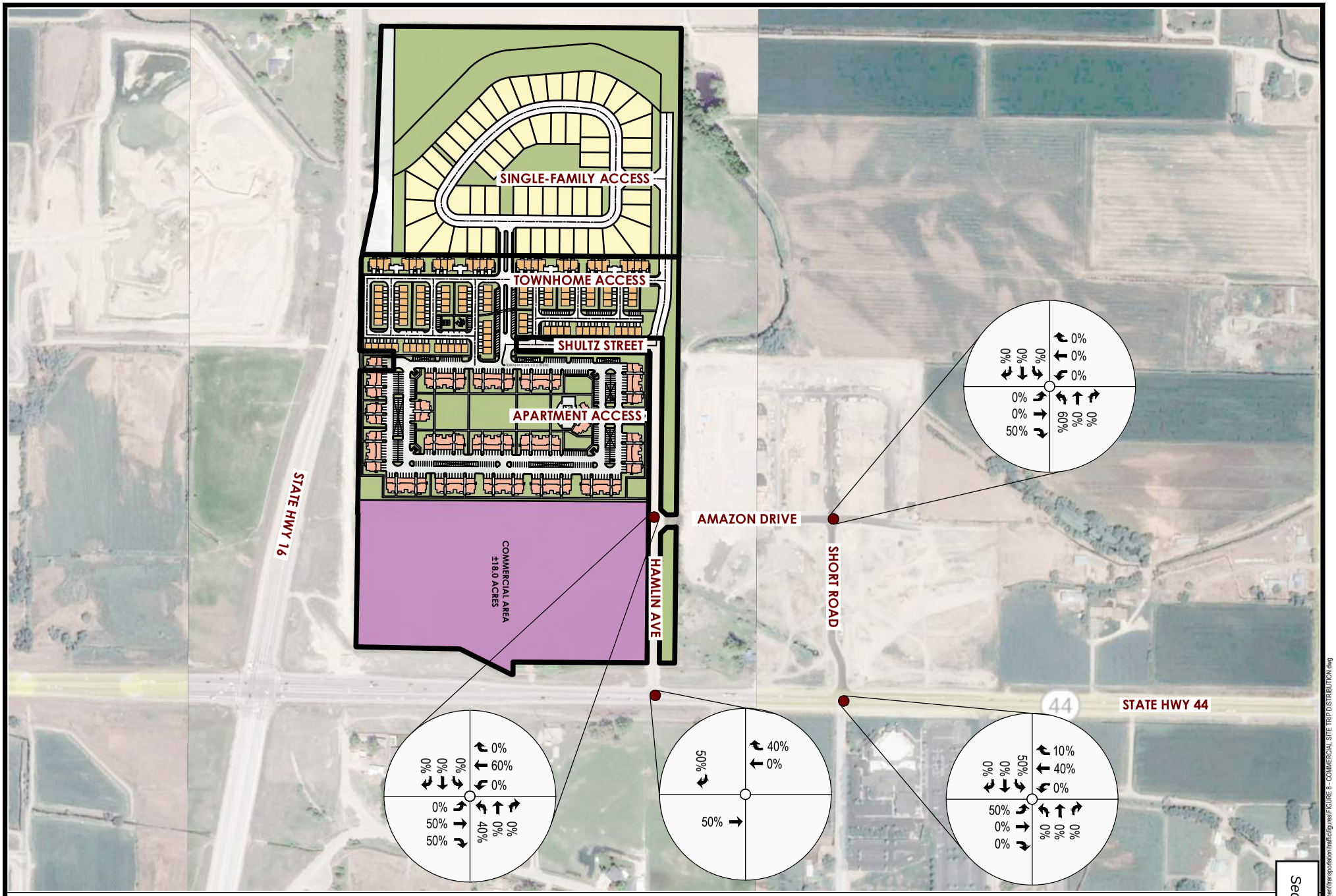


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FIGURE 8 - COMMERCIAL/OFFICE TRIP DISTRIBUTION PERCENTAGES

XX% = DISTRIBUTION PERCENTAGES

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Z:_2021\21-0488 CIG Star Idaho Development\transportation\traffic\figures\FIGURE 8 - COMMERCIAL SITE TRIP DISTRIBUTION.dwg

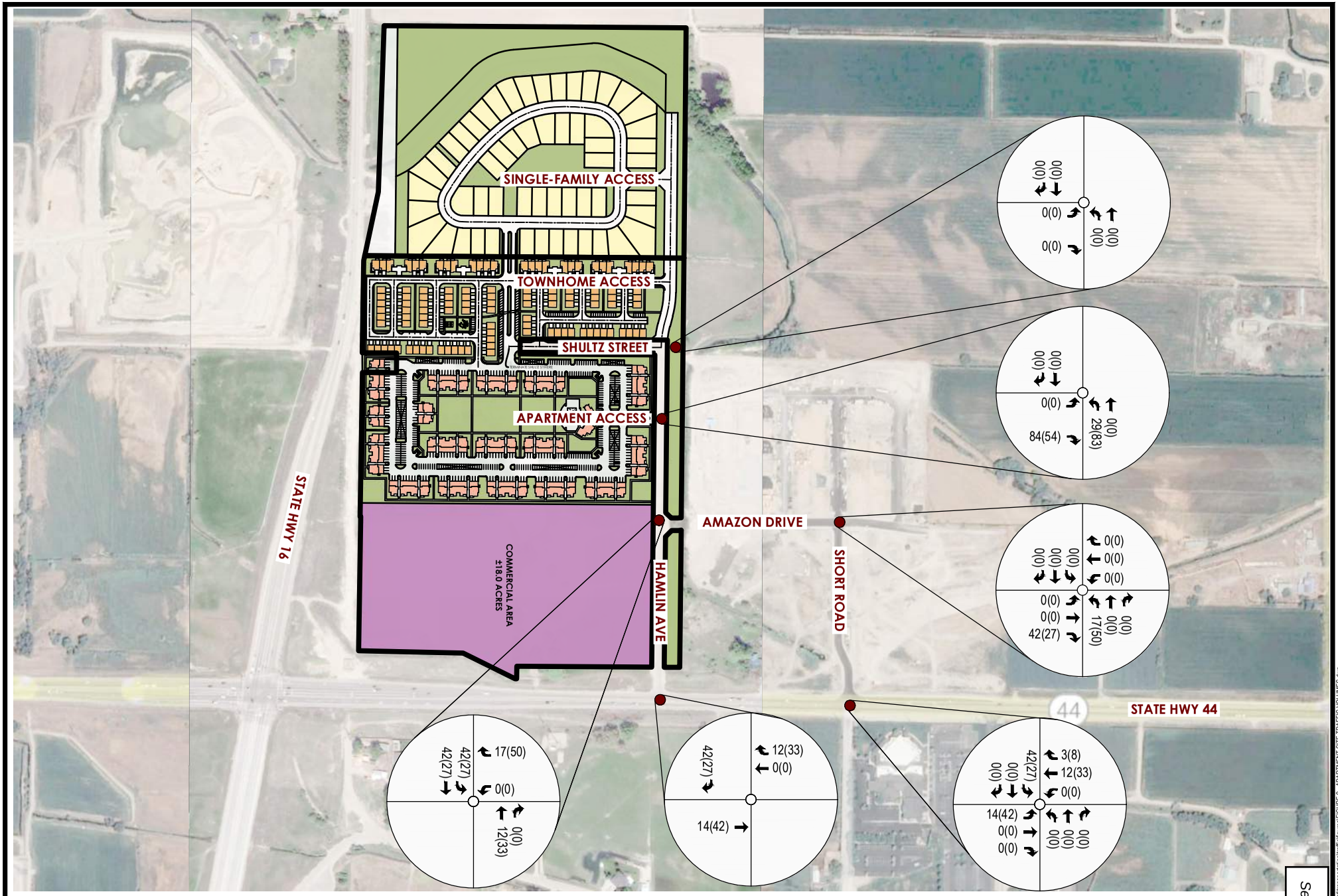

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FIGURE 9 - 2023 PROJECT GENERATED TRAFFIC VOLUMES

XX(XX) = AM(PM) PEAK HOUR TRAFFIC VOLUMES

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Z:_2021\21-0488 CIG Star Idaho Development\transportation\traffic\figures\FIGURE 9 - APARTMENT SITE TRAFFIC VOLUMES.dwg

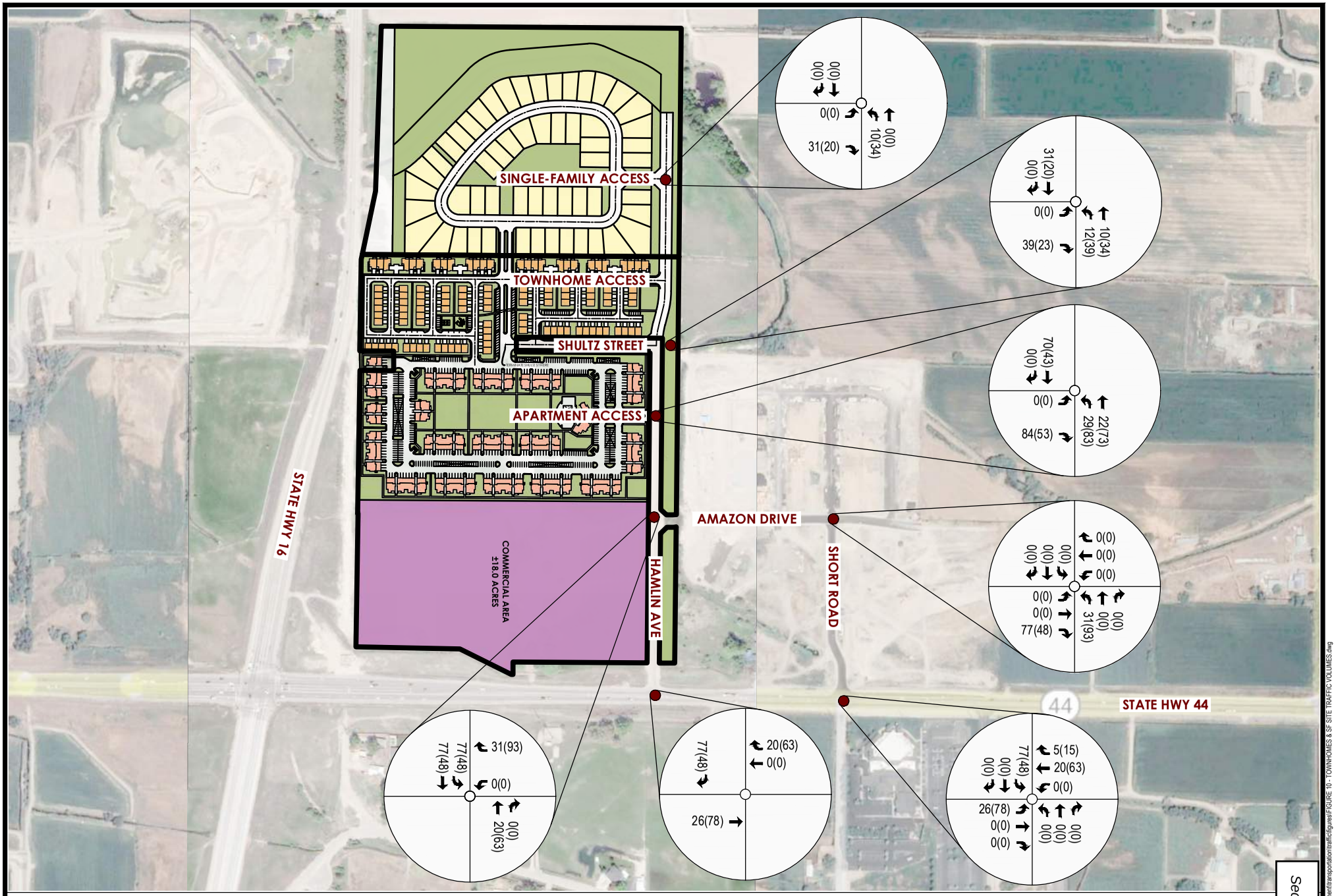

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FIGURE 10 - 2024 PROJECT GENERATED TRAFFIC VOLUMES

XX(XX) = AM(PM) PEAK HOUR TRAFFIC VOLUMES

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Z:_2021\21-0488 CIG Star Idaho Development\transportation\traffic\figures\FIGURE 10 - TOWNHOMES & SF SITE TRAFFIC VOLUMES.dwg

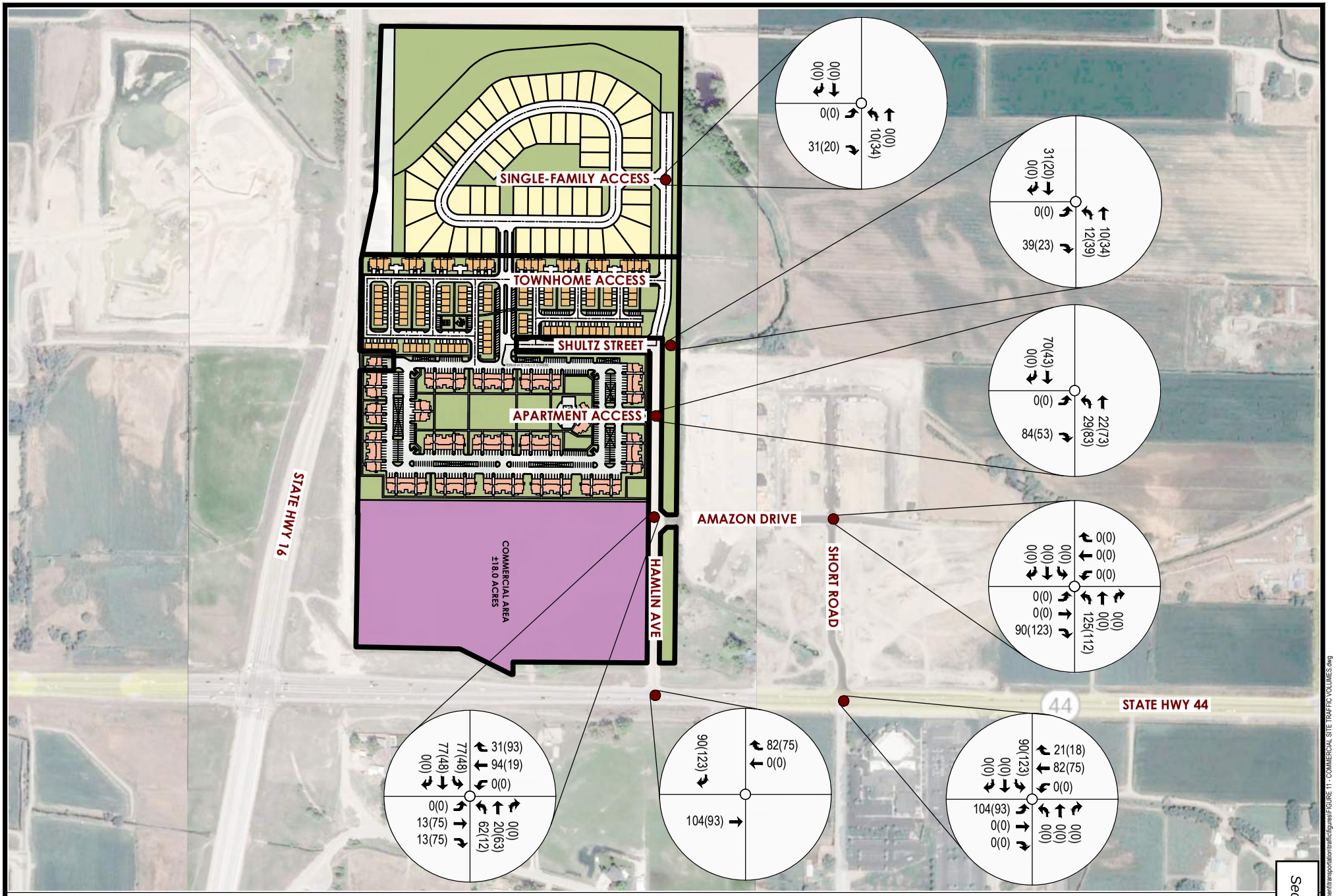

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FIGURE 11 - 2030 PROJECT GENERATED TRAFFIC VOLUMES

XX(XX) = AM(PM) PEAK HOUR TRAFFIC VOLUMES

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Z:_2021\21-0488 CIG Star Idaho Development\transportation\traffic\figures\FIGURE 11 - COMMERCIAL SITE TRAFFIC VOLUMES.dwg

6.0 Background Year with Project Traffic Conditions

The Background Year with Project traffic volumes represent the traffic that will be added to the study area with the addition of the proposed Northern Star development. Using the 2023 Background Year traffic volumes (Figure 4) and the site generated traffic volumes (Figure 9), the 2023 Background Year with Project traffic volumes are generated. Per the developer's schedule, it is anticipated Phase 1 will be built out in 2023. The 2023 Background Year with Project traffic volumes, which illustrate the full build-out of Phase 1, are illustrated in Figure 12. Combining the 2024 Background Year traffic volumes (Figure 5) and the site generated traffic volumes (Figure 9), Figure 13 represents the 2024 Background Year with Project traffic volumes. The 2030 Background Year with Project traffic volumes, which combine the 2030 Background Year traffic volumes (Figure 6) with the full build-out project generated traffic volumes (Figure 11), are illustrated in Figure 14.

6.1 ROADWAY SEGMENT PLANNING LEVEL OF SERVICE

With the addition of the Northern Star development, the roadway segments within the study area were analyzed for roadway classification. Using the traffic volumes in the 2023 Background with Project, 2024 Background with Project and 2030 Background with Project scenarios, the roadway segments within the study area were analyzed for level of service following the guidelines outlined by ACHD. The following tables outline the roadway segment planning levels of service and if the roadways meet the thresholds. With the addition of the Northern Star development, it is planned Hamlin Avenue will become a Collector Roadway with two lanes and no left turn lanes. As can be seen, under the background scenarios, all roadways will meet the planning level thresholds for roadway classifications.

I this table the Average Daily Traffic volumes are also illustrated. These ADT volumes are generated from taking the trip generation ADT volumes for the different phases of this development and combining them with the ADT volumes from the Background conditions found in Section 4 of this report.

Table 6 – Roadway Segment LOS – 2023 Background w/ Project Traffic

Roadway	Segment	ADT	Functional Classification (No. of Lanes)	Left-Turn Lane Type	ACHD Planning Threshold (vph)	Peak Hour Directional Volumes (vph)*		Meets LOS Planning Threshold?
						AM Peak	PM Peak	
Hamlin Avenue	Shultz Ct. to SH 44	788	Collector (2)	None	425	49(SB)	36(NB)	Yes
Amazon Drive	Hamlin Ave to Short Ln	1702	Collector (2)	None	425	75(EB)	83(WB)	Yes
Short Lane	Amazon Dr to SH 44	2275	Collector (2)	None	425	109(SB)	117(NB)	Yes

* = Direction of higher volume shown in ()

Table 7 – Roadway Segment LOS – 2024 Background w/ Project Traffic

Roadway	Segment	ADT	Functional Classification (No. of Lanes)	Left-Turn Lane Type	ACHD Planning Threshold (vph)	Peak Hour Directional Volumes (vph)*		Meets LOS Planning Threshold?
						AM Peak	PM Peak	
Hamlin Avenue	Shultz Ct. to SH 44	1384	Collector (2)	None	425	77(SB)	63(NB)	Yes
Amazon Drive	Hamlin Ave to Short Ln	2430	Collector (2)	None	425	110(EB)	126(WB)	Yes
Short Lane	Amazon Dr to SH 44	3003	Collector (2)	None	425	144(SB)	160(NB)	Yes

* = Direction of higher volume shown in ()

Table 8 – Roadway Segment LOS – 2030 Background w/ Project Traffic

Roadway	Segment	ADT	Functional Classification (No. of Lanes)	Left-Turn Lane Type	ACHD Planning Threshold (vph)	Peak Hour Directional Volumes (vph)*		Meets LOS Planning Threshold?
						AM Peak	PM Peak	
Hamlin Avenue	Shultz Ct. to SH 44	2351	Collector (2)	None	425	125(SB)	146(SB)	Yes
Amazon Drive	Hamlin Ave to Short Ln	3266	Collector (2)	None	425	140(WB)	145(WB)	Yes
Short Lane	Amazon Dr to SH 44	9959	Collector (2)	None	425	283(NB)	408(NB)	Yes

* = Direction of higher volume shown in ()

6.2 SITE TRAFFIC CONTRIBUTION PERCENTAGE

The following tables illustrate the site traffic contribution as a percentage of the 2023 Background with Project total traffic, 2024 Background with Project total traffic, and the 2030 Background with Project total traffic volumes entering the intersection.

Table 9 – Site Traffic Percentage of 2023 Total Traffic

Intersection		% Site Traffic of 2023 Total Traffic		
		AM Peak	PM Peak	Average
1	Hamlin Ave & SH 44	3.4%	4.9%	4.2%
2	Short Rd & SH 44	3.4%	5.0%	4.2%

Table 10 – Site Traffic Percentage of 2024 Total Traffic

Intersection		% Site Traffic of 2024 Total Traffic		
		AM Peak	PM Peak	Average
1	Hamlin Ave & SH 44	5.5%	8.0%	6.8%
2	Short Rd & SH 44	5.4%	8.3%	6.9%

Table 11 – Site Traffic Percentage of 2030 Total Traffic

Intersection		% Site Traffic of 2030 Total Traffic		
		AM Peak	PM Peak	Average
1	Hamlin Ave & SH 44	8.0%	8.0%	8.0%
2	Short Rd & SH 44	8.2%	7.9%	8.1%

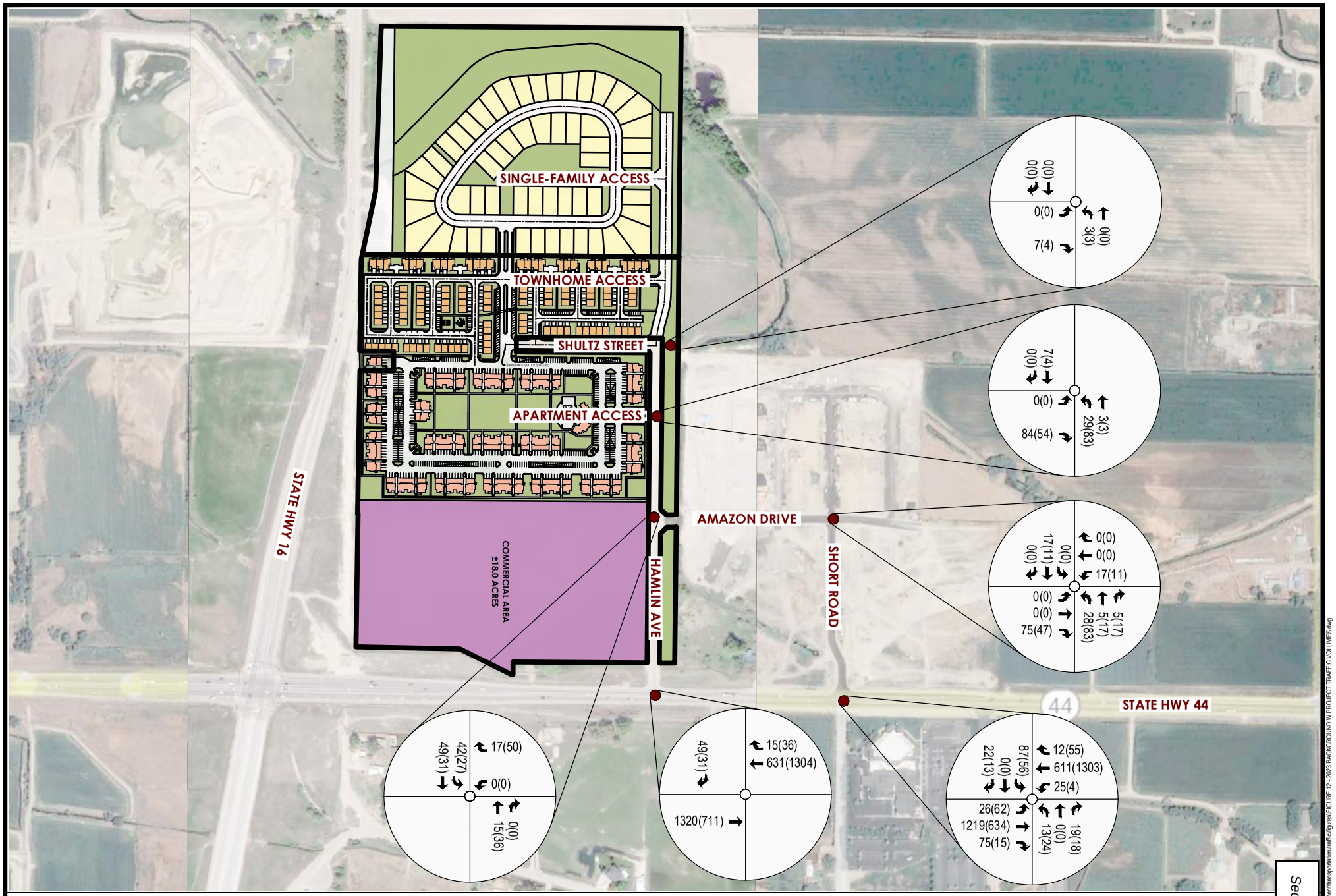

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FIGURE 12 - 2023 BACKGROUND W/ PROJECT TRAFFIC VOLUMES

XX(XX) = AM(PM) PEAK HOUR TRAFFIC VOLUMES

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Z:_2021\21-0488 CIG Star Idaho Development\transportation\traffic\figures\FIGURE 12 - 2023 BACKGROUND W PROJECT TRAFFIC VOLUMES.dwg

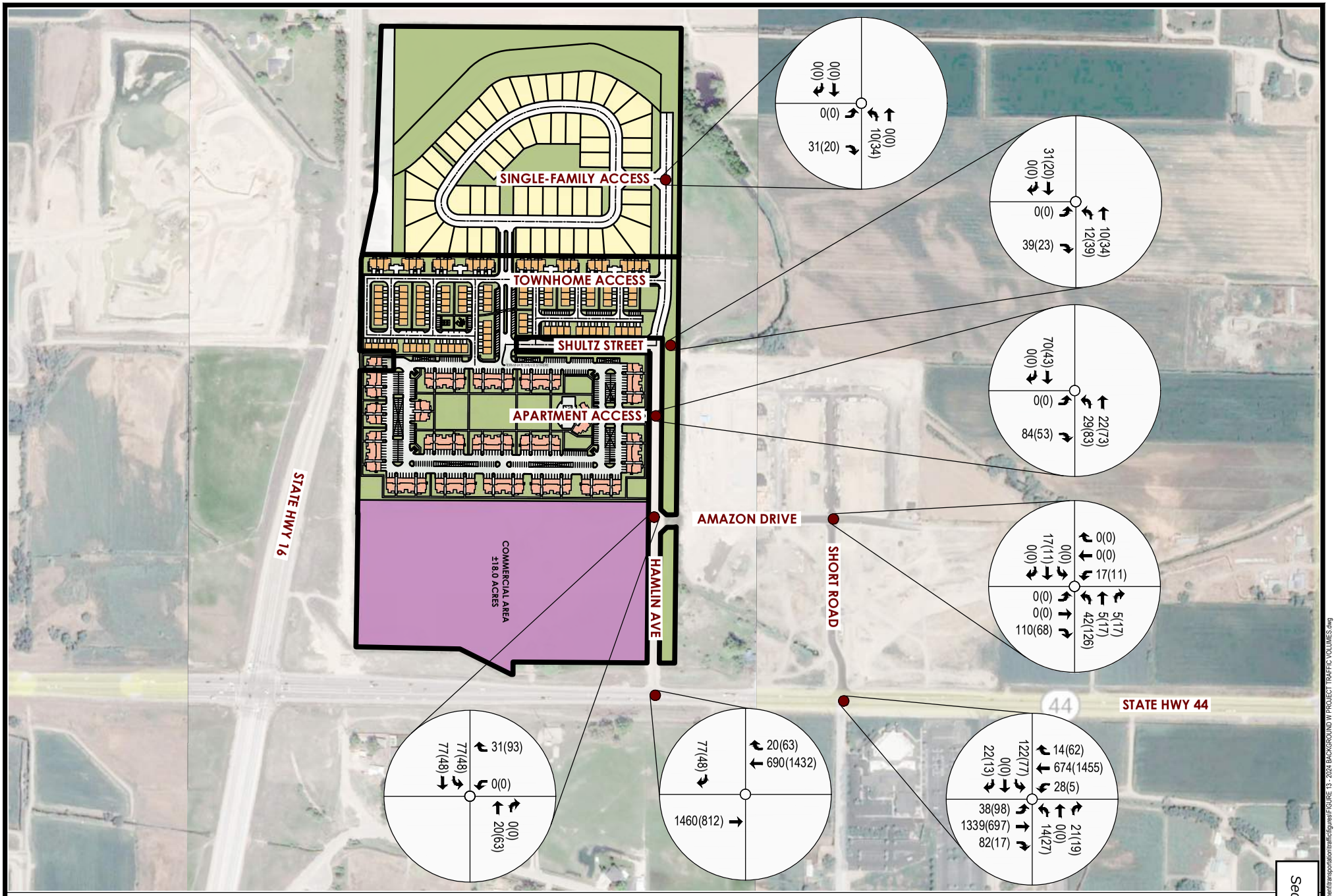

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FIGURE 13 - 2024 BACKGROUND W/ PROJECT TRAFFIC VOLUMES

XX(XX) = AM(PM) PEAK HOUR TRAFFIC VOLUMES

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Z:_2021\21-0488 CIG Star Idaho Development\transportation\traffic\figures\FIGURE 13 - 2024 BACKGROUND W PROJECT TRAFFIC VOLUMES.dwg

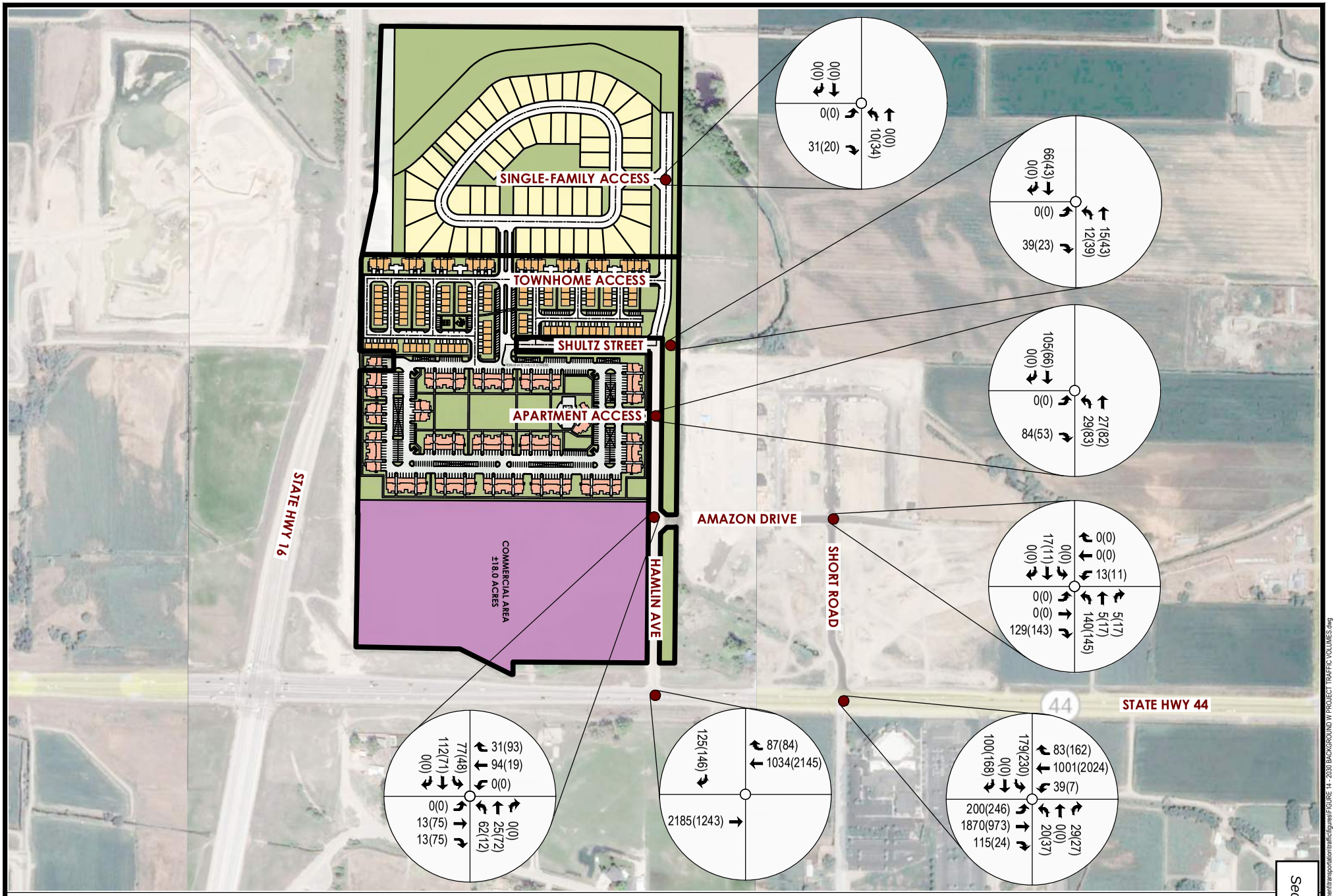

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FIGURE 14 - 2030 BACKGROUND W/ PROJECT TRAFFIC VOLUMES

XX(XX) = AM(PM) PEAK HOUR TRAFFIC VOLUMES

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Z:_2021\21-0488 CIG Star Idaho Development\transportation\traffic\figures\FIGURE 14 - 2030 BACKGROUND W PROJECT TRAFFIC VOLUMES.dwg

7.0 Capacity Analysis

Intersection capacity analysis was performed at the study area intersections. Synchro© Version 11 was used to analyze the study intersection for the proposed trip conditions according to methods put forth by the Transportation Research Board's *Highway Capacity Manual (HCM) 6th Edition.*

The Level of Service (LOS) of an intersection range from A to F where LOS A has a low vehicular delay indicating smooth free-flowing traffic. LOS F has a high vehicular delay and indicates the worst-case scenario with high congestion and a complete breakdown of traffic flow. Although LOS A through C are the desired levels, LOS D is considered acceptable in urban conditions. Traffic conditions with LOS of E or F are generally deemed unacceptable and represent significant travel delay, increased accident potential, and inefficient motor vehicle operation. Table 2 shows the relation between LOS and vehicular delay for signalized and unsignalized intersections.

Table 12 - Signalized and Unsignalized intersection LOS and Delay Parameters

Level of Service (LOS)	Vehicular Delay (seconds/vehicle)	
	Signalized Intersection	Stop Controlled Approach
A	0.0 ≤10.0	0.0 < 10.0
B	>10.0 ≤ 20.0	> 10.0 < 15.0
C	> 20.0 ≤ 35.0	> 15.0 < 25.0
D	> 35.0 ≤ 55.0	> 25.0 < 35.0
E	> 55.0 ≤ 80.0	> 35.0 < 50.0
F	> 80.0	> 50.0

Using guidelines for operational threshold from both ACHD and ITD, each of the study area intersections were analyzed on both the level of service and also the volume to capacity ratio. ACHD minimum threshold for level of service is D with a v/c ratio of 0.90 for overall intersection and 1.00 for lane movement. ITD minimum threshold is level of service D with a v/c ratio of 0.90 for overall intersection and lane movements.

The 2022 Existing, 2023 Background Year, 2024 Background Year, and 2030 Background Year traffic volumes at each of the study area intersections were input into the Synchro Software. The levels of service and v/c ratio at each of the turning movements can be seen in the following tables.

Table 13 – 2022 Existing Level of Service

Intersection		Lane Group	AM Peak Hour			PM Peak Hour		
			LOS	Delay (s/veh)	v/c ratio	LOS	Delay (s/veh)	v/c ratio
1	Hamlin Ave & SH 44	EBT	-	-	-	-	-	-
		WBTR	-	-	-	-	-	-
		SBR	B	12.5	0.03	C	22.1	0.06
2	Short Rd & SH 44	NBL	**F**	**116.7**	0.37	**F**	**174.2**	0.70
		NBTR	C	23.8	0.12	B	13.3	0.06
		EBL	A	8.7	0.01	B	11.2	0.01
		EBTR	-	-	-	-	-	-
		WBL	B	11.9	0.05	A	8.9	<0.01
		WBT	-	-	-	-	-	-
		WBR	-	-	-	-	-	-
		SBL	**F**	**101.3**	0.18	**F**	**81.9**	0.07
		SBTR	B	12.3	0.03	C	21.7	0.06
3	Short Rd & Amazon Dr	NB	-	-	-	A	8.7	0.01
		EB	A	0	-	A	0	-
		WB	A	7.2	<0.01	A	0	-
		SB	-	-	-	A	9.1	<0.01
4	Hamlin Ave & Shultz Ct	NB	A	8.6	<0.01	A	8.5	<0.01
		EB	A	0	-	A	0	-
		SB	-	-	-	-	-	-

Under the 2022 Existing conditions, all movements at the SH 44 and Hamlin Ave intersection currently function with acceptable LOS and v/c ratio. The Short Road and Amazon Drive intersection also functions with acceptable LOS and v/c ratio. Hamlin Avenue and Shultz Court intersection also functions with acceptable LOS and v/c ratios. All traffic movements at the Short Road and SH 44 intersection function with acceptable levels of service and v/c ratios except the northbound and southbound left turning

movements. The northbound and southbound left turn movements functions with an unacceptable LOS, but the v/c ratio is acceptable.

Table 14 – 2023 Background Year Level of Service

Intersection		Lane Group	AM Peak Hour			PM Peak Hour		
			LOS	Delay (s/veh)	v/c ratio	LOS	Delay (s/veh)	v/c ratio
1	Hamlin Ave & SH 44	EBT	-	-	-	-	-	-
		WBTR	-	-	-	-	-	-
		SBR	B	10.7	0.01	B	14.9	0.01
2	Short Rd & SH 44	NBL	**F**	**109.5**	0.30	**F**	**67.7**	0.32
		NBTR	B	14.2	0.05	B	10.8	0.03
		EBL	A	9	0.01	B	13.3	0.05
		EBT	-	-	-	-	-	-
		EBR	-	-	-	-	-	-
		WBL	B	13.2	0.06	A	9.1	<0.01
		WBT	-	-	-	-	-	-
		WBR	-	-	-	-	-	-
		SBL	**F**	**93.5**	0.58	**F**	**186.8**	0.70
		SBTR	B	10.6	0.04	B	14.9	0.04
3	Short Rd & Amazon Dr	NB	-	-	-	-	-	-
		EB	A	0	-	A	0	-
		WB	A	7.3	0.01	A	7.3	0.01
		SB	-	-	-	-	-	-
4	Hamlin Ave & Shultz Ct	NB	A	8.6	<0.01	A	8.5	<0.01
		EB	A	0	-	A	0	-
		SB	-	-	-	-	-	-

All intersections and movements will continue to function with acceptable levels of service and v/c ratios at the Hamlin Ave and SH44 intersection, Short Rd and Amazon Dr intersection and the Hamlin Ave and Shultz Ct intersection. With the proposed widening and improvements to SH 44 to 5-lanes by 2023, the v/c ratios at the Short Rd and SH 44 intersection will continue to be acceptable levels, however the LOS will still remain an "F" for the northbound and southbound left turn movements.

Table 15 – 2024 Background Year Level of Service

Intersection		Lane Group	AM Peak Hour			PM Peak Hour		
			LOS	Delay (s/veh)	v/c ratio	LOS	Delay (s/veh)	v/c ratio
1	Hamlin Ave & SH 44	EBT	-	-	-	-	-	-
		WBTR	-	-	-	-	-	-
		SBR	B	11.0	0.01	C	16.1	0.02
2	Short Rd & SH 44	NBL	**F**	**173.1**	0.44	**F**	**103.4**	0.47
		NBTR	C	15.8	0.07	B	11.1	0.04
		EBL	A	9.2	0.02	B	14.4	0.06
		EBT	-	-	-	-	-	-
		EBR	-	-	-	-	-	-
		WBL	B	14.4	0.08	A	9.3	0.01
		WBT	-	-	-	-	-	-
		WBR	-	-	-	-	-	-
		SBL	**F**	**151.9**	0.76	**F**	**327.8**	**0.98**
		SBTR	B	10.9	0.04	C	16.1	0.04
3	Short Rd & Amazon Dr	NB	-	-	-	-	-	-
		EB	A	0	-	A	0	-
		WB	A	7.3	0.01	A	7.3	0.01
		SB	-	-	-	-	-	-
4	Hamlin Ave & Shultz Ct	NB	A	8.6	<0.01	A	8.6	<0.01
		EB	A	0	-	A	0	-
		SB	-	-	-	-	-	-

Under the 2024 Background Year conditions all movements at the SH 44 and Hamlin Ave, Short Rd and Amazon Dr intersection, as well as the Hamlin Ave and Shultz Ct intersection will continue to function at an acceptable LOS "C" or better. SH 44 and Short Road will continue to function with an unacceptable LOS "F" for the northbound and southbound movements, and the v/c ration for the southbound left turn movement will fall to an unacceptable lever by ITD requirements.

Table 16 – 2030 Background Year Level of Service

Intersection		Lane Group	AM Peak Hour			PM Peak Hour		
			LOS	Delay (s/veh)	v/c ratio	LOS	Delay (s/veh)	v/c ratio
1	Hamlin Ave & SH 44	EBT	-	-	-	-	-	-
		WBTR	-	-	-	-	-	-
		SBR	B	13.7	0.1	D	29.3	0.17
2	Short Rd & SH 44	NBL	**F**	**$**	**5.56**	**F**	**$**	**41.11**
		NBTR	C	23.5	0.14	B	12.9	0.06
		EBL	B	11.8	0.17	**F**	**69.2**	0.81
		EBT	-	-	-	-	-	-
		EBR	-	-	-	-	-	-
		WBL	C	23.8	0.18	B	10.8	0.01
		WBT	-	-	-	-	-	-
		WBR	-	-	-	-	-	-
		SBL	**F**	**$**	**8.24**	**F**	**$**	**59.44**
		SBTR	B	14.1	0.22	**F**	**80.3**	0.88
3	Short Rd & Amazon Dr	NB	-	-	-	-	-	-
		EB	A	0	-	A	0	-
		WB	A	7.3	0.01	A	7.3	0.01
		SB	-	-	-	-	-	-
4	Hamlin Ave & Shultz Ct	NB	A	7.3	<0.01	A	7.3	<0.01
		EB	A	8.5	0.01	A	8.4	<0.01
		SB	-	-	-	-	-	-

Under the 2030 Background Year conditions all movements at the SH 44 and Hamlin Ave intersection, the Short Rd and Amazon DR intersection and the Hamlin Ave and Shultz Ct intersection will continue to function at an acceptable LOS "C" or better and acceptable v/c ratios. SH 44 and Short Road will continue to function with an unacceptable LOS "F" and experience a significant increase in delay time for the northbound and southbound movements. The v/c ratios in both the northbound and southbound directions will fall to unacceptable levels under these conditions.

With the addition of the Northern Star Development, the following tables illustrate the anticipated levels of service and v/c ratios at each of the study area intersections.

Table 17 – 2023 Background Year w/ Project Level of Service

Intersection		Lane Group	AM Peak Hour			PM Peak Hour		
			LOS	Delay (s/veh)	v/c ratio	LOS	Delay (s/veh)	v/c ratio
1	Hamlin Ave & SH 44	EBT	-	-	-	-	-	-
		WBTR	-	-	-	-	-	-
		SBR	B	11.2	0.09	C	16.2	0.1
2	Short Rd & SH 44	NBL	**F**	**122.6**	0.33	**F**	**101.2**	0.43
		NBTR	B	14.6	0.05	B	10.8	0.03
		EBL	A	9.1	0.03	B	14.7	0.16
		EBT	-	-	-	-	-	-
		EBR	-	-	-	-	-	-
		WBL	B	13.2	0.06	A	9.1	<0.01
		WBT	-	-	-	-	-	-
		WBR	-	-	-	-	-	-
		SBL	**F**	**274.2**	**1.24**	**F**	**677.0**	**1.89**
		SB	B	10.7	0.04	B	15.2	0.04
3	Short Rd & Amazon Dr	NB	-	-	-	-	-	-
		EB	A	0	-	A	0	-
		WB	A	7.4	0.01	A	7.3	0.01
		SB	-	-	-	-	-	-
4	Hamlin Ave & Shultz Ct	NB	A	8.6	<0.01	A	8.5	<0.01
		EB	A	0	-	A	0	-
		SB	-	-	-	-	-	-
5	Hamlin Ave & Amazon Dr	NB	-	-	-	-	-	-
		WBL	A	0	-	A	0	-
		WBR	A	8.5	0.02	A	8.7	0.05
		SB	A	7.3	0.03	A	7.3	0.02
6	Hamlin Ave & Apartment Access	NBL	A	7.3	0.02	A	7.4	0.06
		NBT	A	0	-	-	-	-
		EB	A	8.7	0.09	A	8.5	0.05
		SB	-	-	-	-	-	-

Under the 2023 Background Year with Project conditions, all movements at the study area intersection will continue with acceptable LOS and v/c ratios, except for the northbound LOS and the southbound LOS and v/c at SH 44 and Short Road.

With the proposed mitigations as outlined in the Amazon Falls 2 traffic impact study to restrict Short Road to right-in right-out movements, the following table illustrates the levels of service and v/c ratios at the Hamlin Ave and Short Road intersections with SH 44.

Table 18 – 2023 Background Year w/ Project w/ Mitigations Level of Service

Intersection		Lane Group	AM Peak Hour			PM Peak Hour		
			LOS	Delay (s/veh)	v/c ratio	LOS	Delay (s/veh)	v/c ratio
1	Hamlin Ave & SH 44	EBT	-	-	-	-	-	-
		WBTR	-	-	-	-	-	-
		SBR	B	11.9	0.16	C	17.4	0.18
2	Short Rd & SH 44	NBR	C	15.0	0.09	B	11.0	0.07
		EBL	A	9.1	0.03	B	14.7	0.16
		EBT	-	-	-	-	-	-
		EBR	-	-	-	-	-	-
		WBL	B	13.2	0.06	A	9.1	<0.01
		WBT	-	-	-	-	-	-
		WBR	-	-	-	-	-	-
		SBR	B	11.2	0.11	C	16.2	0.13

The Hamlin Ave and SH 44 intersection will continue to function with acceptable LOS and v/c ratios. The Short Road and SH 44 intersection will improve to acceptable LOS "C" or better and v/c ratios at each turning movements with right and left turning movements in along SH 44 and right-out movements along Short Road.

Table 19 – 2024 Background Year w/ Project Level of Service

Intersection		Lane Group	AM Peak Hour			PM Peak Hour		
			LOS	Delay (s/veh)	v/c ratio	LOS	Delay (s/veh)	v/c ratio
1	Hamlin Ave & SH 44	EBT	-	-	-	-	-	-
		WBTR	-	-	-	-	-	-
		SBR	B	11.9	0.14	C	18.8	0.17
2	Short Rd & SH 44	NBL	**F**	**206.0**	0.50	**F**	**264.7**	0.83
		NBTR	C	15.8	0.07	B	11.1	0.04
		EBL	A	9.5	0.05	C	18.5	0.29
		EBT	-	-	-	-	-	-
		EBR	-	-	-	-	-	-
		WBL	B	14.4	0.08	A	9.4	0.01
		WBT	-	-	-	-	-	-
		WBR	-	-	-	-	-	-
		SBL	**F**	**803.9**	**2.42**	**F**	**$**	**5.03**
		SB	B	11.0	0.04	C	16.7	0.05
3	Short Rd & Amazon Dr	NB	-	-	-	-	-	-
		EB	A	0	-	A	0	-
		WB	A	7.5	0.01	A	7.4	0.01
		SB	-	-	-	-	-	-
4	Hamlin Ave & Shultz Ct	NB	A	7.3	0.01	A	7.3	0.03
		EB	A	8.6	0.04	A	8.5	0.02
		SB	A	0	-	A	0	-
5	Hamlin Ave & Amazon Dr	NB	-	-	-	-	-	-
		WBL	A	0	-	A	0	-
		WBR	A	8.5	0.03	A	9	0.10
		SB	A	7.4	0.05	A	7.4	0.04
6	Hamlin Ave & Apartment Access	NBL	A	7.4	0.02	A	7.5	0.06
		NBT	-	-	-	-	-	-
		EB	A	9.0	0.1	A	8.7	0.06
		SB	-	-	-	-	-	-
7	Hamlin Ave & SF Housing Access	NBL	A	7.2	0.01	A	7.3	0.02
		NBT	-	-	-	-	-	-
		EB	A	8.4	0.03	A	8.4	0.02
		SB	-	-	-	-	-	-

Under the 2024 Background Year with Project conditions, and assuming Short Rd and Hamlin Ave are full traffic movements, all movements will continue to function with acceptable LOS and v/c ratios except the northbound and southbound left turn movements at Short Road and SH 44. The northbound left turn will have acceptable v/c ratios, but the level of service will fail.

With the proposed improvements as outlined in the Amazon Falls 2 traffic impact study to restrict left turning movements out of Short Road onto SH 44, the following table illustrates the LOS and v/c ratios at the Hamlin Ave and Short Road intersections with SH 44 as traffic would be redistributed to all use the Hamlin Ave connection.

Table 20 – 2024 Background Year w/ Project w/ Mitigations Level of Service

Intersection		Lane Group	AM Peak Hour			PM Peak Hour		
			LOS	Delay (s/veh)	v/c ratio	LOS	Delay (s/veh)	v/c ratio
1	Hamlin Ave & SH 44	EBT	-	-	-	-	-	-
		WBTR	-	-	-	-	-	-
		SBR	B	13.6	0.29	C	22.4	0.34
2	Short Rd & SH 44	NBR	C	16.3	0.11	B	11.4	0.08
		EBL	A	9.5	0.05	C	18.5	0.29
		EBT	-	-	-	-	-	-
		EBR	-	-	-	-	-	-
		WBL	B	14.4	0.08	A	9.4	<0.01
		WBT	-	-	-	-	-	-
		WBR	-	-	-	-	-	-
		SBR	B	11.6	0.12	C	18.0	0.14

With the recommended improvements under the Amazon Falls 2 traffic impact study, these two intersections will continue to function with acceptable LOS and v/c ratios.

Table 21 – 2030 Background Year w/ Project Level of Service

Intersection		Lane Group	AM Peak Hour			PM Peak Hour		
			LOS	Delay (s/veh)	v/c ratio	LOS	Delay (s/veh)	v/c ratio
1	Hamlin Ave & SH 44	EBT	-	-	-	-	-	-
		WBTR	-	-	-	-	-	-
		SBR	C	17.4	0.32	**F**	**117.4**	**0.97**
2	Short Rd & SH 44	NBL	**F**	**$**	**11.11**	**F**	**$**	**$**
		NBTR	C	23.5	0.14	B	12.9	0.06
		EBL	C	15.2	0.39	**F**	**264.3**	**1.42**
		EBT	-	-	-	-	-	-
		EBR	-	-	-	-	-	-
		WBL	C	23.8	0.18	B	10.8	0.01
		WBT	-	-	-	-	-	-
		WBR	-	-	-	-	-	-
		SBL	**F**	**$**	**33.15**	**F**	**$**	**$**
		SB	B	14.9	0.23	**F**	**97.6**	**0.94**
3	Short Rd & Amazon Dr	NB	-	-	-	-	-	-
		EB	A	0	-	A	0	-
		WB	A	7.5	0.01	A	7.6	0.01
		SB	-	-	-	-	-	-
4	Hamlin Ave & Shultz Ct	NB	A	7.4	0.01	A	7.4	0.03
		EB	A	8.8	0.04	A	8.6	0.03
		SB	-	-	-	A	0	-
5	Hamlin Ave & Amazon Dr	NBL	A	7.6	0.05	A	7.4	0.01
		NBTR	-	-	-	-	-	-
		EBL	A	0	-	A	0	-
		EBTR	B	11.3	0.05	B	11.3	0.23
		WBL	A	0	-	A	0	-
		WBTR	B	14.4	0.27	A	9.8	0.14
		SBL	A	7.4	0.05	A	7.5	0.04
		SBTR	-	-	-	-	-	-
6	Hamlin Ave & Apartment Access	NBL	A	7.5	0.02	A	7.5	0.06
		NBT	-	-	-	-	-	-
		EB	A	9.3	0.1	A	8.9	0.06
		SB	-	-	-	-	-	-

7	Hamlin Ave & SF Housing Access	NBL	A	7.2	0.01	A	7.3	0.02
		NBT	-	-	-	-	-	-
		EB	A	8.4	0.03	A	8.4	0.02
		SB	-	-	-	-	-	-

$ = values from analysis exceed capacity

Under the 2030 Background Year with Project conditions, all movements at the Amazon Dr and Short Road intersection, the Hamlin Dr and Shultz Ct intersection and the Amazon Dr and Hamlin Ave intersection will continue to function at an acceptable LOS "B" or better. The Hamlin Ave and access to the apartments will also continue to function with acceptable levels of service. The Hamlin Ave and access to the single-family housing will continue to function at acceptable levels of service. The northbound and southbound movements at the SH 44 and Hamlin Avenue intersection will function with a LOS "F", and the v/c ratio will be unacceptable.

With the improvements as outlined in the Amazon Falls 2 traffic impact study to make the intersection of Short Road and SH 44 a right-in, left-in and right-out, the following table outlines the projected LOS and v/c ratios as the traffic patterns will change.

Table 22 – 2030 Background Year w/ Project w/ Mitigations Level of Service

Intersection		Lane Group	AM Peak Hour			PM Peak Hour		
			LOS	Delay (s/veh)	v/c ratio	LOS	Delay (s/veh)	v/c ratio
1	Hamlin Ave & SH 44	EBT	-	-	-	-	-	-
		WBTR	-	-	-	-	-	-
		SBR	D	30.0	0.64	F	532.1	2.02
2	Short Rd & SH 44	NBR	D	25.8	0.24	B	13.7	0.15
		EBL	C	15.2	0.39	**F**	**264.3**	**1.42**
		EBT	-	-	-	-	-	-
		EBR	-	-	-	-	-	-
		WBL	C	23.8	0.18	B	10.8	0.01
		WBT	-	-	-	-	-	-
		WBR	-	-	-	-	-	-
		SBR	C	18.4	0.44	**F**	**307.9**	**1.54**

8.0 Traffic Signal Warrant Analysis

As part of the traffic impact study, the SH 44 and Short Road intersection will experience some heavy delays in the northbound direction with the increase of traffic along SH 44 and the level of service will drop to an unacceptable level. In order to improve the intersection, we analyzed the need for a traffic signal at the intersection. In order to analyze the need for a traffic signal, the 2009 Edition of the *Manual on Traffic Control Devices (MUTCD)*, Part 4 is used. As per the *MUTCD* there are nine signal warrants and even if one warrant is met, a signal may be installed at the study intersection. The warrants are:

Warrant 1 - Eight Hour Vehicular Volume

Warrant 2 - Four Hour Vehicular Volume

Warrant 3 - Peak Hour

Warrant 4 - Pedestrian Volume

Warrant 5 - School Crossing

Warrant 6 - Coordinated Signal System

Warrant 7 - Crash Experience

Warrant 8 - Roadway Network

Warrant 9 - Intersection near a Grade Crossing

Based on the study location, traffic patterns and information we have available at this time, only Warrant 3 - Peak Hour was able to be analyzed with the projected peak hour traffic volumes under the 2023 Background, 2024 Background and 2030 Background Years. The following paragraphs provide the details of the signal warrant analysis. It should be noted that this Peak Hour Warrant Analysis was performed using the projected traffic volumes. It is strongly recommended the intersection be monitored when actual traffic volumes are present and the signal warrant analysis be performed.

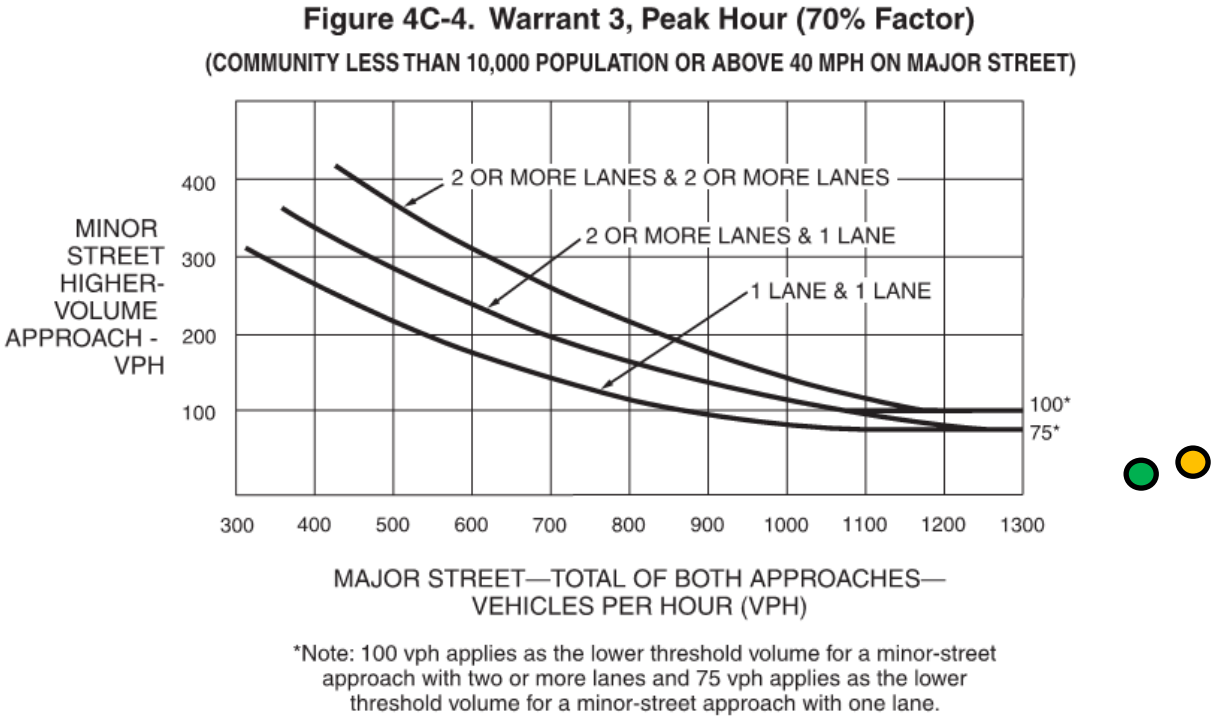
Note that in all scenarios that were analyzed for a traffic signal warrant, the Major Street totals for both directions does not include the vehicles making a right turn from the Major Street. Right turning vehicles when in a separate right turn lane from the Major Streets are not often counted in a Traffic Signal Warrant Analysis as they do not impede the Minor Street traffic from making their appropriate movement.

Warrant 3 (Peak Hour)

This traffic signal warrant analysis was performed at the SH 44 and Short Road intersection. The graph from the MUTCD that is used to analyze the need for a signal. SH 44 is considered the Major Street for this analysis with Short Road as the Minor Street. It is anticipated that for the future years used in this analysis, SH 44 will be two lanes in each direction with separate left turn lanes and right turn lanes at the intersections. Short Road is only one lane in each direction. The speed limit along the Major Street (SH 44) is above 40 mph, therefore the 70% Factor graph is used in this analysis per the MUTCD.

Figure 15 illustrates the signal warrant analysis for the AM and PM peak hour traffic volumes under the 2023 Background Year scenario. The Major Street (SH 44) will see 1,854 vph in the AM peak hour, and 1,923 vph in the PM peak hour. The Minor Street (Short Road) will have 32 vph in the AM peak hour and 42 vph in the PM peak hour.

Figure 15 – SH 44 and Short Road 2023 Background Signal Warrant



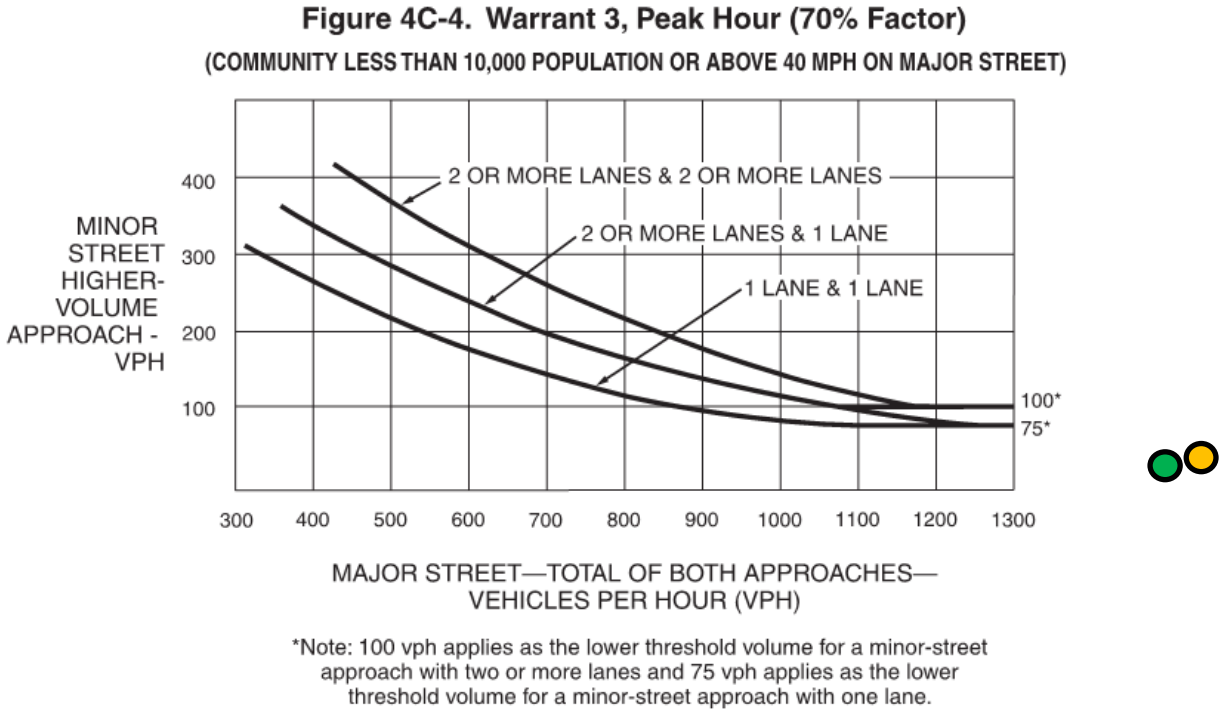
= 2023 Background Year Traffic Volumes. (AM Peak Hour)

= 2023 Background Year Traffic Volumes. (PM Peak Hour)

As seen in Figure 15, the plotted points of these volumes fall well below the applicable curve and therefore do not warrant a traffic signal at this time. Since the projected traffic volumes do not warrant a traffic signal under the 2023 Background scenario, it is recommended the city monitor this intersection for when actual traffic volumes are present since the intersection experience an unacceptable level of service.

Figure 16 illustrates the signal warrant analysis for the AM and PM peak hour traffic volumes under the 2024 Background Year scenario. The Major Street (SH 44) will see 2,037 vph in the AM peak hour, and 2,104 vph in the PM peak hour. The Minor Street (Short Road) will have 35 vph in the AM peak hour and 46 vph in the PM peak hour.

Figure 16 – SH 44 and Short Road 2024 Background Signal Warrant



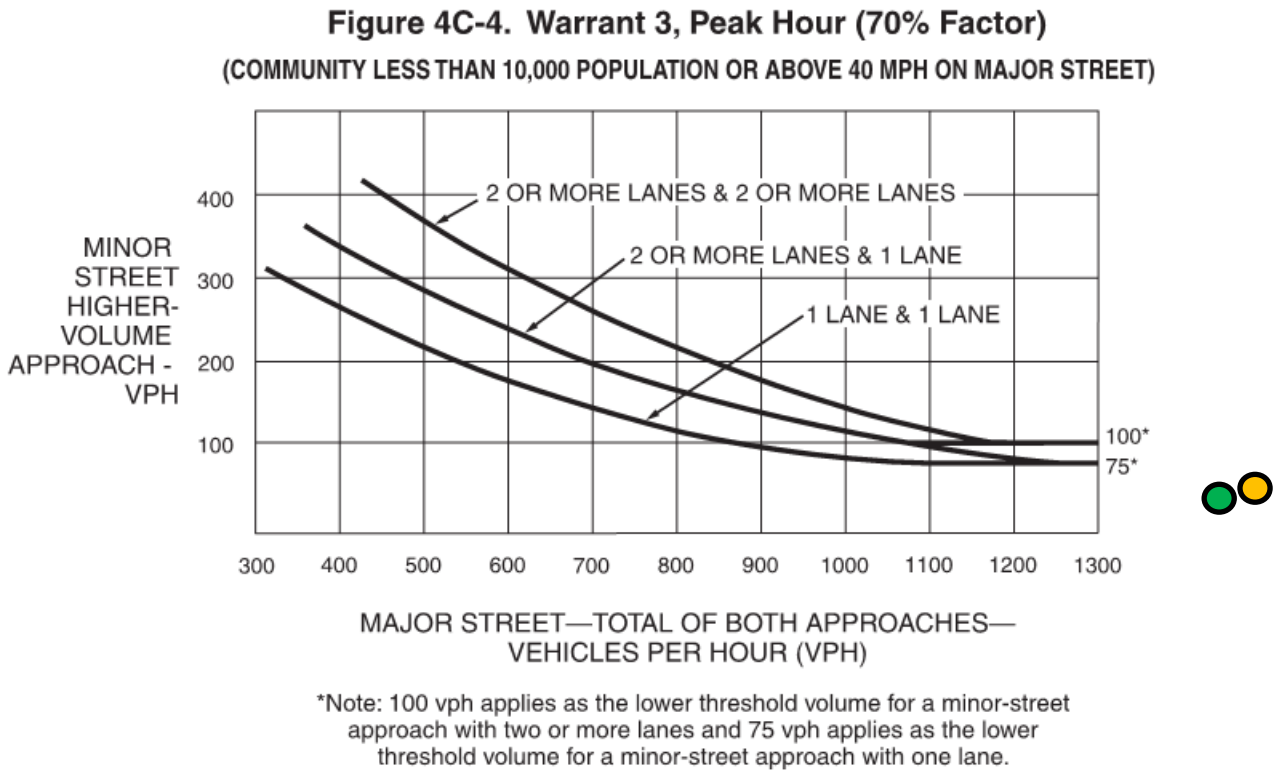
= 2024 Background Year Traffic Volumes. (AM Peak Hour)

= 2024 Background Year Traffic Volumes. (PM Peak Hour)

As seen in Figure 16, the plotted points of these volumes fall well below the applicable curve and therefore do not warrant a traffic signal at this time. It is recommended the city monitor this intersection for when actual traffic volumes are present.

Figure 17 illustrates the signal warrant analysis for the AM and PM peak hour traffic volumes under the 2030 Background Year scenario. The Major Street (SH 44) will see 2,845 vph in the AM peak hour, and 2,937 vph in the PM peak hour. The Minor Street (Short Road) will have 49 vph in the AM peak hour and 64 vph in the PM peak hour.

Figure 17 – SH 44 and Short Road 2030 Background Signal Warrant



= 2030 Background Year Traffic Volumes. (AM Peak Hour)

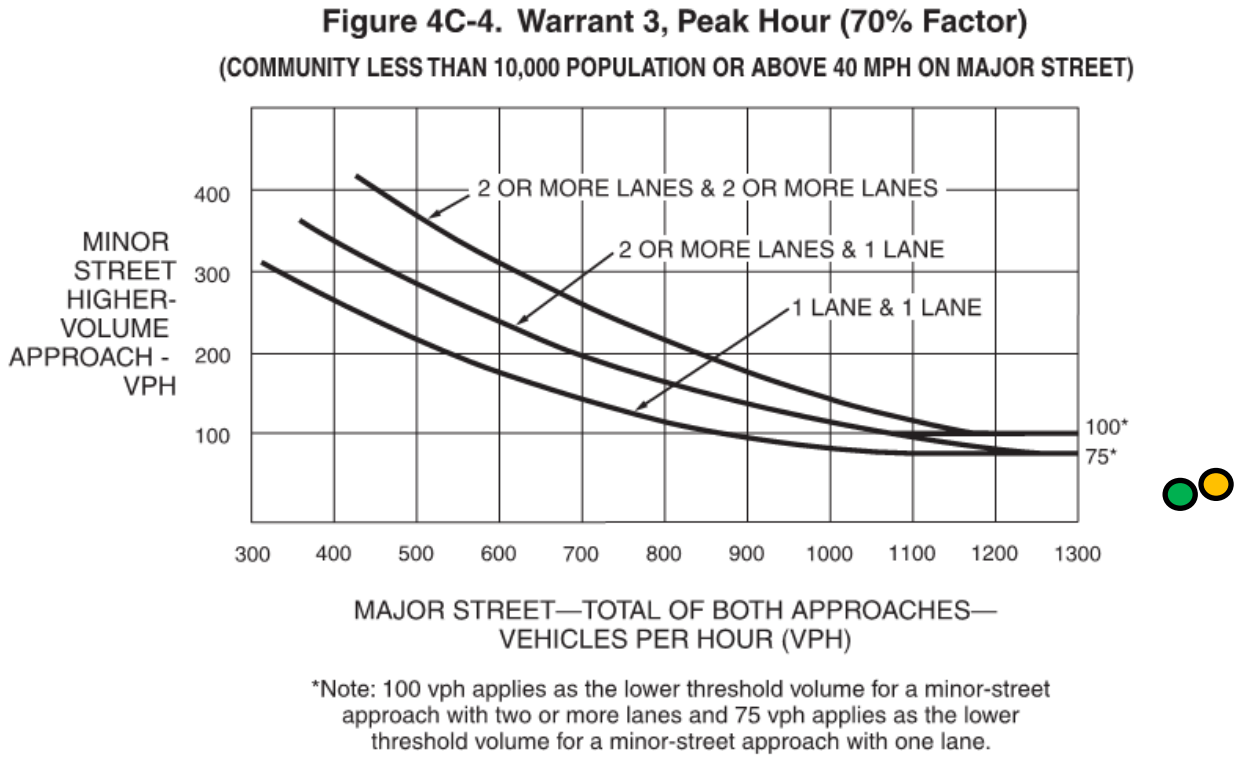
= 2030 Background Year Traffic Volumes. (PM Peak Hour)

As seen in Figure 17, the plotted points of these volumes fall well below the applicable curve and therefore do not warrant a traffic signal at this time. It is recommended the city monitor this intersection for when actual traffic volumes are present.

With the addition of the Northern Start Development, we also analyzed the SH 44 and Short Road intersection for a traffic signal warrant. Figure 18 illustrates the signal warrant analysis for the AM and PM peak hour traffic volumes under the 2023 Background Year with Project scenario. The Major Street (SH 44) will see 1,880 vph in the AM peak hour, and

1,988 vph in the PM peak hour. The Minor Street (Short Road) will have 52 vph in the AM peak hour and 42 vph in the PM peak hour.

Figure 18 – SH 44 and Short Road 2023 Background w/ Project Signal Warrant



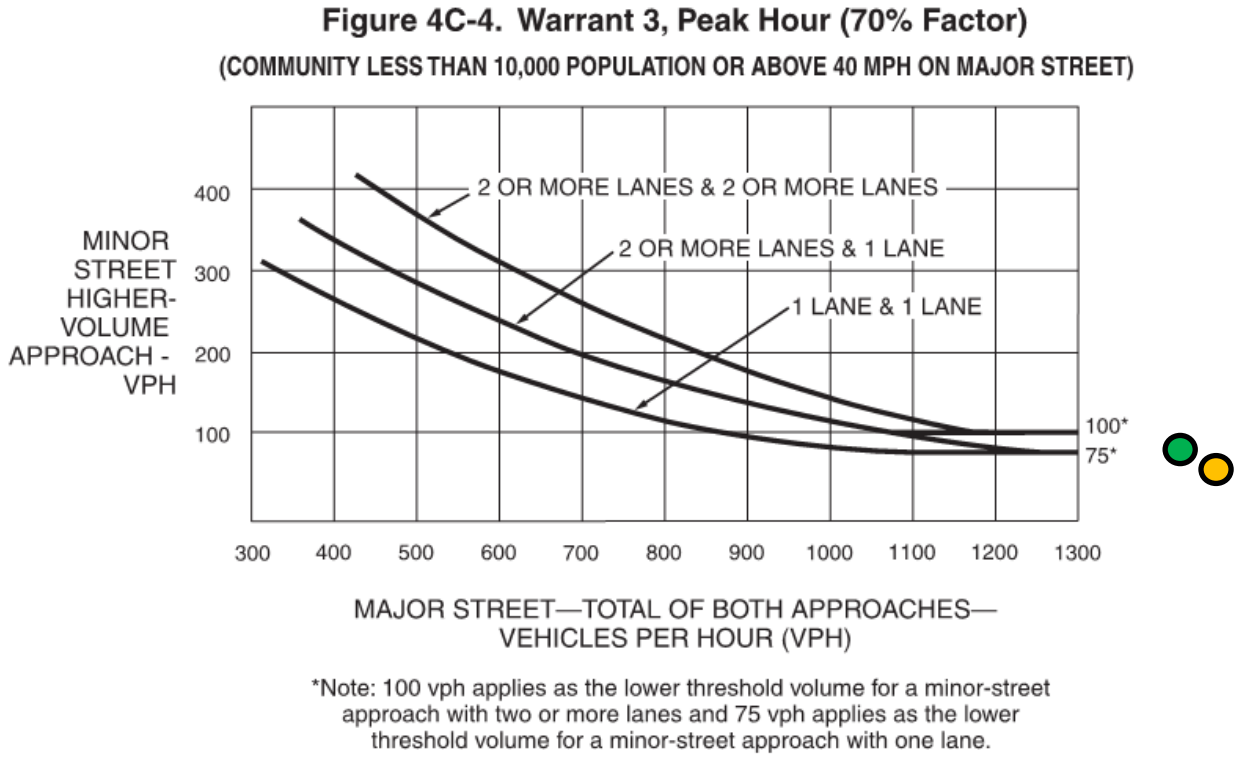
= 2023 Background Year with Project Traffic Volumes. (AM Peak Hour)

= 2023 Background Year with Project Traffic Volumes. (PM Peak Hour)

As seen in Figure 18, the plotted points of these volumes fall below the applicable curve and therefore do not warrant a traffic signal at this time.

Figure 19 illustrates the signal warrant analysis for the AM and PM peak hour traffic volumes under the 2024 Background Year with Project scenario. The Major Street (SH 44) will see 2,083 vph in the AM peak hour, and 2,245 vph in the PM peak hour. The Minor Street (Short Road) will run with 88 vph in the AM peak hour and 46 vph in the PM peak hour.

Figure 19 – SH 44 and Short Road 2024 Background w/ Project Signal Warrant



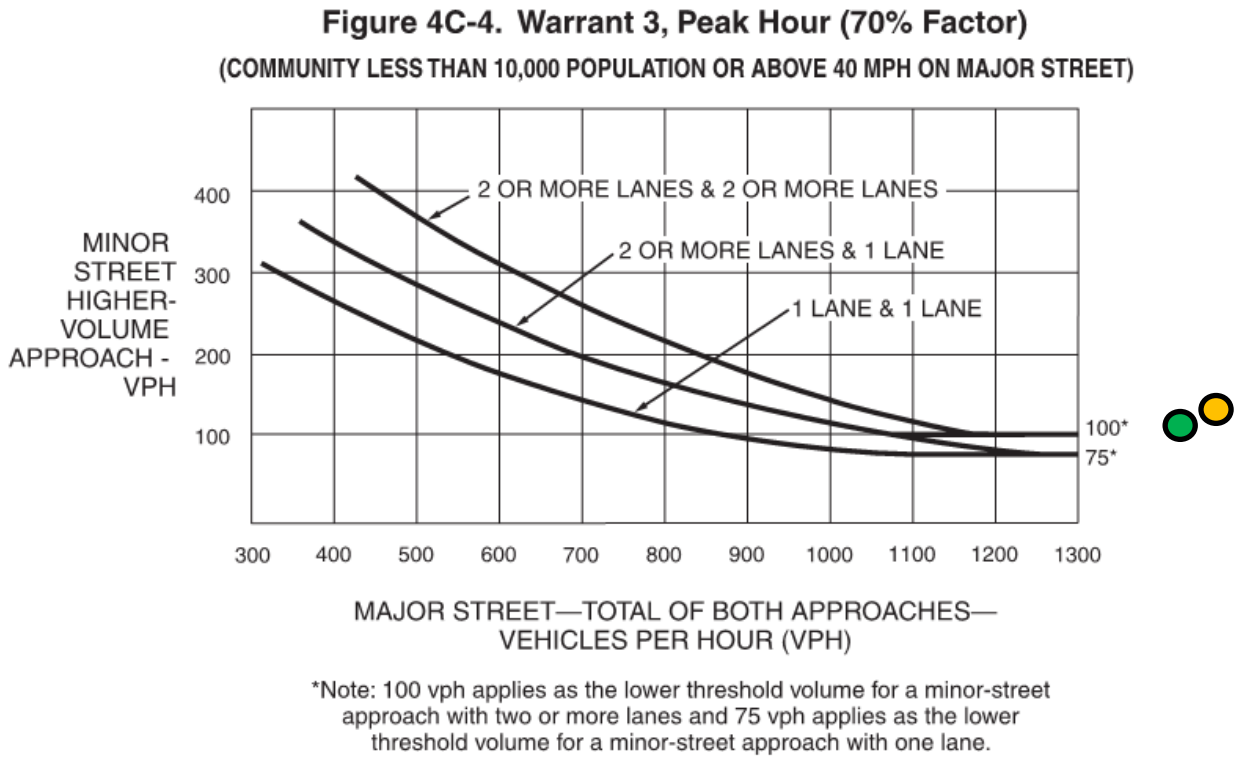
= 2024 Background Year with Project Traffic Volumes. (AM Peak Hour)

= 2024 Background Year with Project Traffic Volumes. (PM Peak Hour)

As seen in Figure 19, the plotted points of these volumes fall below the applicable curve and therefore do not warrant a traffic signal at this time.

Figure 20 illustrates the signal warrant analysis for the AM and PM peak hour traffic volumes under the 2030 Background Year with Project scenario. The Major Street (SH 44) will see 3,031 vph in the AM peak hour, and 3,105 vph in the PM peak hour. The Minor Street (Short Road) will run with 105 vph in the AM peak hour and 132 vph in the PM peak hour.

Figure 20 – SH 44 and Short Road 2030 Background w/ Project Signal Warrant



= 2030 Background Year with Project Traffic Volumes. (AM Peak Hour)

= 2030 Background Year with Project Traffic Volumes. (PM Peak Hour)

As seen in Figure 20, the plotted points of these volumes will warrant a traffic signal as the plotted points fall above the applicable curve. It is recommended since these traffic volumes are projected volumes for the 2030 year, and this intersection will function with unacceptable levels of service well before 2030, this intersection continue to be monitored.

9.0 Turn Lane Warrant Analysis

Following the District Policy as outlined in 7106.4.4, the proposed intersections along Hamlin Avenue with the addition of the Northern Star Development were analyzed for turn lane warrants. For major roads at an intersection, District Policy per NCHRP Reports 279 and 457 were used applying Figure 1 for Left-Turn Guidelines for Two-Lane Roads less than or equal to 40 mph. For minor roads, the evaluation of a second lane per NCHRP Report 457 was followed. Within this study area, Hamlin Ave would follow the major roadway analysis, where the site accesses would fall under the minor roadway analysis. The following Advancing Volumes and Opposing Volumes under the different scenarios were used. Refer to the appendix of this report for the graphs from the NCHRP Reports and District Policy.

Hamlin Avenue and Amazon Drive:

2030 Background with Project Northbound Left Turn Lane: **Does Not Warrant**

AM Northbound Advancing Volume = 87 vph (71% left turns)

AM Southbound Opposing Volumes = 112 vph

PM Northbound Advancing Volumes = 84 vph (15% left turns)

PM Southbound Opposing Volumes = 71 vph

2030 Background with Project Southbound Left Turn Lane: **Does Not Warrant**

AM Southbound Advancing Volumes = 189 vph (41% left turns)

AM Northbound Opposing Volumes = 25 vph

PM Southbound Advancing Volumes = 119 vph (40% left turns)

PM Northbound Opposing Volumes = 72 vph

2030 Background with Project Westbound Left Turn Lane: **Does Not Warrant as "0" vehicles are planned to make this movement**

2030 Background with Project Eastbound Left Turn Lane: **Does Not Warrant as "0" vehicles are proposed to make this turning moment.**

2030 Background with Project Northbound Right Turn Lane: **Does Not Warrant as "0" vehicles are proposed to make this turning moment.**

2030 Background with Project Southbound Right Turn Lane: **Does Not Warrant as "0" vehicles are proposed to make this turning moment.**

The following analysis was performed using the NCHRP Report 457 for evaluation of a second lane for minor roads.

2030 Background Eastbound Right Turn Lane: **Does Not Warrant**

AM Eastbound Minor Road Volume = 26 vph

AM Major Road Volume = 276 vph

PM Eastbound Minor Road Volume = 150 vph

PM Major Road Volume = 203 vph

2030 Background Westbound Right Turn Lane: **Does Not Warrant**

AM Westbound Minor Road Volumes = 125 vph

AM Major Road Volumes = 276 vph

PM Westbound Right Turn Volumes = 112 vph

PM Major Road Volumes = 203 vph

Hamlin Avenue and Apartment Access:

2030 Background with Project Northbound Left Turn Lane: **Does Not Warrant**

AM Northbound Advancing Volume = 56 vph (52% left turns)

AM Southbound Opposing Volumes = 105 vph

PM Northbound Advancing Volumes = 165 vph (50% left turns)

PM Southbound Opposing Volumes = 66 vph

2030 Background with Project Westbound Left Turn Lane: **Does Not Warrant as "0" vehicles are planned to make this movement**

2030 Background with Project Southbound Right Turn Lane: **Does Not Warrant as "0" vehicles are proposed to make this turning moment.**

The following analysis was performed using the NCHRP Report 457 for evaluation of a second lane for minor roads.

2030 Background Eastbound Right Turn Lane: **Does Not Warrant**

AM Eastbound Minor Road Volume = 84 vph

AM Major Road Volume = 161 vph

PM Eastbound Minor Road Volume = 53 vph

PM Major Road Volume = 231 vph

Hamlin Avenue and Shultz Court:

2030 Background with Project Northbound Left Turn Lane: **Does Not Warrant**

AM Northbound Advancing Volume = 27 vph (44% left turns)

AM Southbound Opposing Volumes = 66 vph

PM Northbound Advancing Volumes = 82 vph (48% left turns)

PM Southbound Opposing Volumes = 43 vph

2030 Background with Project Westbound Left Turn Lane: **Does Not Warrant as "0" vehicles are planned to make this movement**

2030 Background with Project Southbound Right Turn Lane: **Does Not Warrant as "0" vehicles are proposed to make this turning moment.**

The following analysis was performed using the NCHRP Report 457 for evaluation of a second lane for minor roads.

2030 Background Eastbound Right Turn Lane: **Does Not Warrant**

AM Eastbound Minor Road Volume = 39 vph

AM Major Road Volume = 93 vph

PM Eastbound Minor Road Volume = 23 vph

PM Major Road Volume = 125 vph

Hamlin Avenue and Single-Family Access:

2030 Background with Project Northbound Left Turn Lane: **Does Not Warrant**

AM Northbound Advancing Volume = 10 vph (100% left turns)

AM Southbound Opposing Volumes = 0 vph

PM Northbound Advancing Volumes = 34 vph (100% left turns)

PM Southbound Opposing Volumes = 0 vph

2030 Background with Project Westbound Left Turn Lane: **Does Not Warrant as "0" vehicles are planned to make this movement**

2030 Background with Project Southbound Right Turn Lane: **Does Not Warrant as "0" vehicles are proposed to make this turning moment.**

The following analysis was performed using the NCHRP Report 457 for evaluation of a second lane for minor roads.

2030 Background Eastbound Right Turn Lane: **Does Not Warrant**

AM Eastbound Minor Road Volume = 31 vph

AM Major Road Volume = 10 vph

PM Eastbound Minor Road Volume = 20 vph

PM Major Road Volume = 34 vph

Based on the above analysis for the needs of right and left turn lanes along Hamlin Avenue and the roadway intersecting from the Northern Star Development, no turn lanes are warranted.

10.0 Queuing Analysis

Sim Traffic Queueing Analysis

Using the 95th percentile queue lengths from Sim Traffic for the study scenarios, the following table illustrates the existing measured queue lengths, the calculated queue length from Sim Traffic and the rounded recommended queue lengths at the study area intersections. Note the queue lengths for proposed intersections along Hamlin Ave are not recorded as no separate left or right turn lanes are necessary under the turn lane warrant analysis.

Table 23 – 2023 Background w Project Sim Traffic Queuing Analysis Summary

Intersection		Lane Group	AM Peak Hour			PM Peak Hour	
			Existing Storage Length	Sim Traffic 95th % Queue	Rec Queue	Sim Traffic 95th % Queue	Rec Queue
1	Hamlin Ave & SH 44	SBR	Single Lane	50	100	50	100
2	Short Rd & SH 44	EBL	TWLTL - 750	34	100	54	100
		EBR	150	6	100	-	-
		WBL	TWLTL - 1920	34	100	12	100
		WBR	375			8	100
		NBL	100	33	100	53	100
		SBL	Single Lane	125	125	118	120

Table 24 – 2024 Background w Project Sim Traffic Queuing Analysis Summary

Intersection		Lane Group	AM Peak Hour			PM Peak Hour	
			Existing Storage Length	Sim Traffic 95th % Queue	Rec Queue	Sim Traffic 95th % Queue	Rec Queue
1	Hamlin Ave & SH 44	SBR	Single Lane	55	100	54	100
2	Short Rd & SH 44	EBL	TWLTL - 750	37	100	80	100
		EBR	150	5	100	3	-
		WBL	TWLTL - 1920	40	100	15	100
		WBR	375			9	100
		NBL	100	33	100	112	115
		SBL	Single Lane	251	255	241	245

Table 25 – 2030 Background w Project Sim Traffic Queuing Analysis Summary

Intersection		Lane Group	AM Peak Hour			PM Peak Hour	
			Existing Storage Length	Sim Traffic 95th % Queue	Rec Queue	Sim Traffic 95th % Queue	Rec Queue
1	Hamlin Ave & SH 44	SBR	Single Lane	85	100	120	120
2	Short Rd & SH 44	EBL	TWLTL - 750	107	150	266	270
		EBR	150	14	100	-	-
		WBL	TWLTL - 1920	70	150	16	150
		WBR	375	16	100	15	100
		NBL	100	237	240	232	240
		SBL	Single Lane	205	205	195	200

The following table illustrates the queue lengths under the 2030 Background with Project scenario with the proposed mitigations as outlined above to make the northbound and southbound movements along Short Road a RIROLI intersection.

Table 26 – 2030 Background w Project -Mit Sim Traffic Queuing Analysis Summary

Intersection		Lane Group	AM Peak Hour			PM Peak Hour	
			Existing Storage Length	Sim Traffic 95th % Queue	Rec Queue	Sim Traffic 95th % Queue	Rec Queue
1	Hamlin Ave & SH 44	SBR	Single Lane	75	100	273	275
2	Short Rd & SH 44	EBL	TWLTL - 750	100	150	209	210
		EBR	150	9	100	3	100
		WBL	TWLTL - 1920	72	150	21	100
		WBR	375	11	100	23	100
		NBR	-	56	100	61	100
		SBR	-	119	120	515	515
		EB		55	100	49	100
		SB		-	-	-	-

In the above table, at the Hamlin Ave and SH 44 intersection, the southbound leg of this intersection is a right turn only. This lane is a single lane that extends north to the next

intersection which is 700 feet. Therefore, there is plenty of distance between SH 44 and Amazon Drive to hold the queuing distance for the southbound right turn movement.

The Short Road and SH 44 eastbound leg is planned for a two way left turn lane. Therefore, there is roughly 750 feet between Short Road and Hamlin Ave to the west, which provides adequate queuing for the eastbound left and right turn lanes. The westbound approach is similar as there is planned to be constructed a two way left turn lane and there is over 1900 feet to Palmer Lane, which is the next intersection to the east. Therefore, there is adequate distance for the westbound left and right turn lane at this intersection. The northbound approach is currently striped with roughly 100 feet of storage. This leg of the intersection does not consist of a two way left turn lane. Therefore, this storage length would need to be lengthened to 240 feet in order to meet the demands of the future growth in this area. Since there are no trips associated to this turning movements from the Northern Star Development, this storage length would need to be extended even without this development and is recommended to occur under the 2030 Background Year conditions. The southbound left turn movement at this intersection at the time of this study, was not striped. However, it has been required that a southbound left turn lane be constructed according to the Amazon Falls 2 requirements from ACHD. This storage length is planned to be constructed with a two way left turn lane that will extend to the next intersection to the north, which is over 300 feet. Therefore, the recommended storage length from this report of 205 feet should be adequate.

Synchro Queuing Analysis

Using the 95th percentile queue lengths provided in the Synchro Reports in the appendix of this study, the following tables reflect the queue lengths per Synchro under the different study scenarios. Note, Synchro provides a 95th percentile queue in number of vehicles. In order to convert this value to a queuing distance, the value was multiplied by 25 ft which represents the average length of a vehicle.

Note, since left and right turn lanes along Hamlin Avenue and at the proposed project accesses are not warranted, these intersections were not included in these tables.

Table 27 – 2023 Background w/ Project Synchro Queuing Analysis Summary

Intersection		Lane Group	Exist Storage Length	AM Peak Hour			PM Peak Hour		
				Synchro 95th % Queue (VEH)	Calc Queue	Rec Queue	Synchro 95th % Queue (VEH)	Calc Queue	Rec Queue
1	Hamlin Ave & SH 44	SBR	Single Lane	0.3	7.5	100	0.3	7.5	100
2	Short Rd & SH 44	EBL	TWLTL - 750	0.1	2.5	100	0.6	15	100
		EBR	150	0	0	150	0	0	150
		WBL	TWLTL - 1920	0.2	5	100	0	0	100
		WBR	375	0	0	375	0	0	375
		NBL	100	1.1	27.5	100	1.6	40	100
		SBL	Single Lane	7.3	182.5	185	7	175	175

Table 28 – 2024 Background w/ Project Synchro Queuing Analysis Summary

Intersection		Lane Group	Exist Storage Length	AM Peak Hour			PM Peak Hour		
				Synchro 95th % Queue (VEH)	Calc Queue	Rec Queue	Synchro 95th % Queue (VEH)	Calc Queue	Rec Queue
1	Hamlin Ave & SH 44	SBR	Single Lane	0.5	12.5	100	0.6	15	100
2	Short Rd & SH 44	EBL	TWLTL - 750	0.2	5	100	1.2	30	100
		EBR	150	0	0	150	0	0	150
		WBL	TWLTL - 1920	0.2	5	100	0	0	100
		WBR	375	0	0	375	0	0	375
		NBL	100	1.6	40	100	3	75	100
		SBL	Single Lane	13.7	342.5	345	11.4	285	285

Table 29 – 2030 Background w/ Project Synchro Queuing Analysis Summary

Intersection		Lane Group		AM Peak Hour			PM Peak Hour		
			Exist Storage Length	Synchro 95th % Queue (VEH)	Calc Queue	Rec Queue	Synchro 95th % Queue (VEH)	Calc Queue	Rec Queue
1	Hamlin Ave & SH 44	SBR	Single Lane	1.4	35	100	7.5	187.5	190
2	Short Rd & SH 44	EBL	TWLTL - 750	1.8	45	100	16.4	410	410
		EBR	150	0	0	150	0	0	150
		WBL	TWLTL - 1920	0.7	17.5	100	0	0	100
		WBR	375	0	0	375	0	0	375
		NBL	100	4.4	110	110	0	0	100
		SBL	Single Lane	26.9	672.5	675	0	0	100

The following table illustrates the Synchro queuing recommendations with the proposed mitigations.

Table 30 – 2030 Background w/ Project - Mit Synchro Queuing Analysis Summary

Intersection		Lane Group		AM Peak Hour			PM Peak Hour		
			Exist Storage Length	Synchro 95th % Queue (VEH)	Calc Queue	Rec Queue	Synchro 95th % Queue (VEH)	Calc Queue	Rec Queue
1	Hamlin Ave & SH 44	SBR	Single Lane	4.2	105	105	23.6	590	590
2	Short Rd & SH 44	EBL	TWLTL - 750	1.8	45	100	16.4	410	410
		EBR	150	0	0	150	0	0	150
		WBL	TWLTL - 1920	0.7	17.5	100	0	0	100
		WBR	375	0	0	375	0	0	375
		NBR	100	0.9	22.5	100	0.5	12.5	100
		SBR	Single Lane	2.2	55	100	19.3	482.5	485

All lane configurations with no recommended queue length are proposed to share left, through and right turn lanes and therefore no additional queuing analysis was performed on the intersections presented in these tables.

Comparing the two different methods, the Sim Traffic calculations illustrate less queuing is likely to occur at the intersections. In particular the southbound left turning lane at Short Road and SH 44. This is likely caused because Sim Traffic runs different simulations of the traffic and the average over those runs is used in this analysis. We ran 5 different simulations to compile the average. The Synchro analysis is based on a specific number. Using the Sim Traffic method, the intersection of Short Road and SH 44 illustrates no significant queuing will occur if the intersection were to remain with full left and right turning movements and the need to convert this intersection to a RIROLI would not be necessary. Converting this intersection to RIROLI, the southbound queuing under the 2030 Background with Project scenario will experience heavy queuing in the PM peak hour. The queuing reports for both Synchro and Sim Traffic can be found in the appendix of this report.

11.0 Recommendations

Based on the information and findings presented in this report, the following recommendations are to improve the overall flow of traffic.

- The Hamlin Avenue and SH 44 intersection will remain a right in/right out intersection as per Idaho Department of Transportation. With the addition of a full interchange at SH 16 and SH 44, the close proximity of Hamlin Ave will require this roadway to remain right in and right out.

- SH 44 is planned to be widened to two lanes in each direction and a center two-way left turn lane by the end of 2023.

- As outlined in the Amazon Phase 2 traffic impact study, the recommendations to reconstruct the Short Road and SH 44 intersection to a right-in/right-out with left-in movements is planned to occur by 2025.

- The intersection of Short Road and SH 44 does not meet the intersection spacing for a traffic signal as outlined in the ITIP. However, a signal at this intersection would sufficiently improve the flow of traffic and allow vehicles entering and exiting onto SH 44 from the multiple developments planned for this area a safe connection.

- It should also be noted that as future developments occur to the east, there should be planned connections to allow vehicles to access Palmer and other surrounding roadways a way to travel east along SH 44.

- With the addition of the Northern Star Development, the intersection of Hamlin Avenue and Amazon Drive will be constructed. It is recommended this intersection be constructed with to meet city standards with one lane in each direction. Adequate sight distance at this intersection will be required as per District Policy 5104.3. It is recommended at a speed limit of 35 mph; 390 feet of sight distance should be accounted for in the design of this intersection. No

obstructions within the sight distance triangles as outlined in Figure 2 of the District Policy 5104.3.

- It is recommended Hamlin Avenue be widened to meet the city standards for a Collector roadway with one lane in each direction at each access to the Northern Star Development.

- Shultz Street and Hamlin Ave should also be constructed to meet city standards. If Shultz Street is planned to remain as a city owned and maintained roadway. The roadway will need to terminate with a cul-de-sac prior to connecting to a private road. Shultz Street should be constructed with one lane in each direction as the projected volumes do not warrant the need for additional turn lanes. Shultz Street will be stop controlled with free-flowing traffic along Hamlin Ave.

- The single-family access and Hamlin Ave intersection should be constructed with one lane in each direction as the projected traffic volumes do not meet the turn lane warrants. The single-family access will be stop controlled with free-flowing traffic along Hamlin Ave.

- The townhomes access and Hamlin Ave intersection should be constructed with one lane in each direction as the projected traffic volumes do not meet the turn lane warrants. The townhomes access will be stop controlled with free-flowing traffic along Hamlin Ave.

- The apartment access and Hamlin Ave intersection should be constructed with one lane in each direction as the projected traffic volumes do not meet the turn lane warrants. The apartment access will be stop controlled with free-flowing traffic along Hamlin Ave.

- Hamlin Avenue and Amazon Drive should be constructed with one lane in each direction and stop controlled along Amazon Drive.

12.0 Appendix

Scoping Memo

6949 South High Tech Drive
Midvale, UT 84047
801.352.0075

MEMORANDUM - REVISED

Date:	January 20, 2022
To:	Paige Bankhead – Ada County Highway District (ACHD)
From:	Jason Watson, PE, PTOE
Project:	Northern Star Development – Star City, Idaho
Subject:	Proposed Scope of Work for the Transportation Impact Analysis

FOCUS Engineering and Surveying, LLC (FOCUS) has been retained to complete a Traffic Impact Study for the proposed Northern Star Development. This memorandum summarizes the assumptions and discussions that have been held between FOCUS, ACHD, Community Planning Association (COMPASS) and Idaho Transportation Department (ITD) to determine the overall scope for this study. The Northern Star Development is located north of SH 44 and east of SH 16 within Star City. Figure 1 illustrates the vicinity map and project area.

Conversations that were held with ACHD, COMPASS and ITD staff, along with the project Developer and Star City staff developed the outline for this project and the needs for the traffic impact study. This memorandum addresses the following items:

- Project Description
- Estimated Trip Generation and Distribution
- Analysis Scenarios and Study Assumptions
- Analysis Tools

PROJECT DESCRIPTION

The Northern Star Development is located along SH 44, between SH 16 and Hamlin Avenue. The proposed site is currently vacant land used for agricultural purposes. The proposed development will consist of 55 single-family lots, 110 townhome lots, 310 apartment units and roughly 18 acres of commercial land that could consist of office space, retail shops, etc. Figure 2 illustrates the proposed Northern Star Development site plan.

Access to the Northern Star Development will be provided from the following intersections:

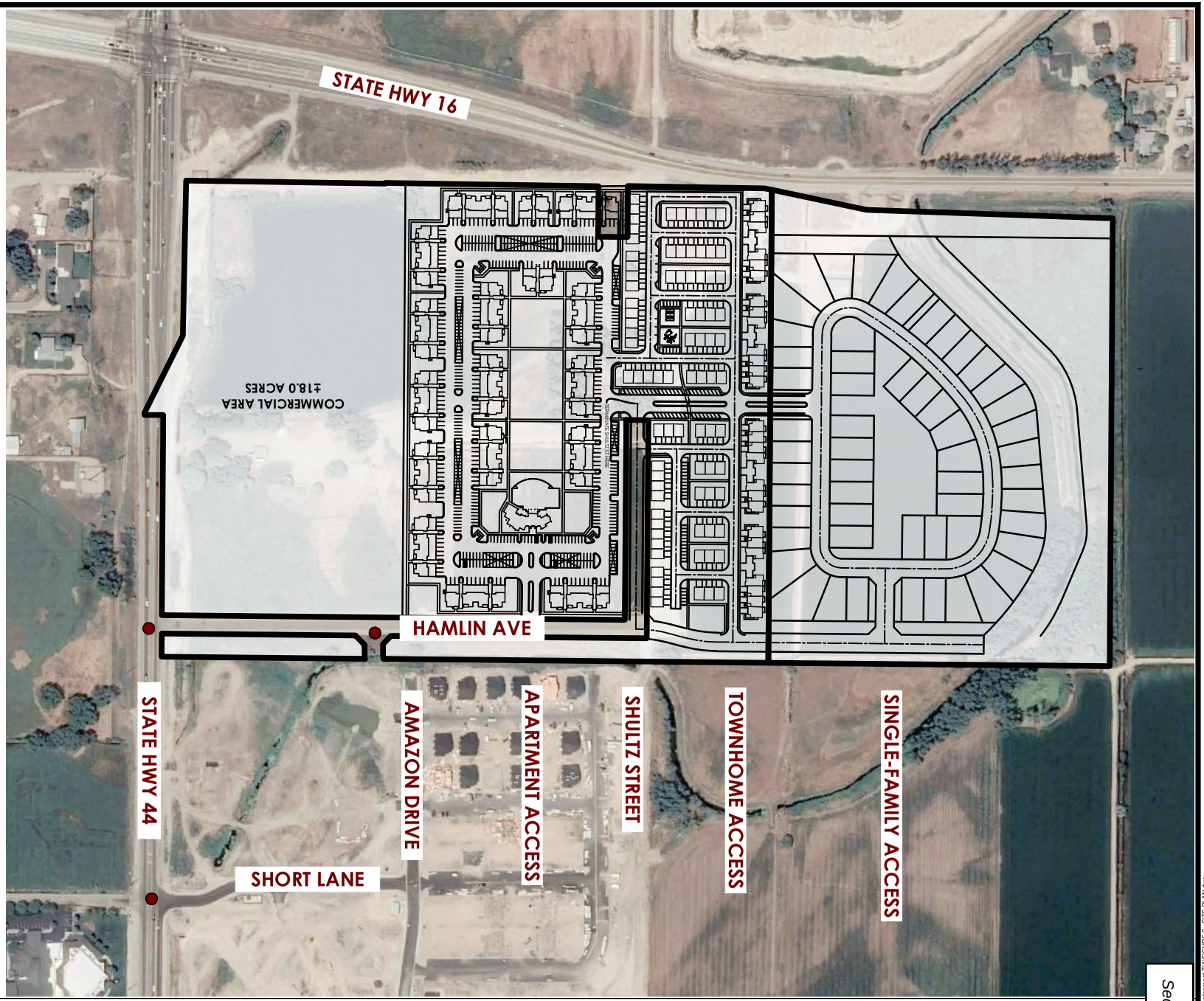
- State Highway 44 & Hamlin Avenue – Right-in & Right-out
  - Existing Access
- Hamlin Avenue & Amazon Drive
  - Approximately 725 feet from SH 44
- Hamlin Avenue & Apartment Access
  - Approximately 250 north of Amazon Drive
- Hamlin Avenue & Shultz Street
  - Approximately 525 feet north of Amazon Drive
- Hamlin Avenue & Private Road Access to Townhomes
  - Approximately 300 feet north of Shultz
- Hamlin Avenue & Single-Family Access
  - Approximately 300 feet north of Townhomes Access

NORTHERN STAR DEVELOPMENT

FIGURE 1 - VICINITY MAP

FOCUS
ENGINEERING AND SURVEYING, LLC
9 S. HIGH TECH DRIVE SUITE 200
ALE, UTAH 84047 PH: (801) 352-0075
www.focusutah.com

C:\Users\jwatson\Desktop\Northern Star Development TIA\FIGURE 1 - VICINITY MAP.dwg



NORTHERN STAR DEVELOPMENT

FIGURE 2 - SITE PLAN

FOCUS©
ENGINEERING AND SURVEYING, LLC
9 S. HIGH TECH DRIVE SUITE 200
ALE, UTAH 84047 PH: (801) 352-0075
www.focusutah.com

C:\Users\jwatson\Desktop\Northern Star Development TIA\FIGURE 2 - SITE PLAN.dwg

ESTIMATED TRIP GENERATION AND DISTRIBUTION

Trip Generation

To generate the anticipated number of vehicles entering and exiting the proposed site during a typical weekday a.m. and p.m. peak hour, the *Institute of Transportation Engineer's (ITE) Trip Generation Manual* is used. For single-family residential lots, the land use codes 210 – Single-Family Detached Housing, 220 – Multifamily Housing (Low-Rise), and 221 – Multifamily Housing (Mid-Rise) were used to generate the number of trips entering and exiting the development. The Mid-Rise land use was used for the apartments as they are planned for three story apartment buildings. Since the specific land use for the 18 acres of commercial is unknown at this time, land use code 710 for General Office Building was used. It was assumed 20% of the overall acreage would be used as the actual building size. Using these assumptions, roughly 156,000 square foot office building was used to calculate the trip generation. Table 1 illustrates the number of trips the Northern Star Development is anticipated to generate based on the adjacent street traffic.

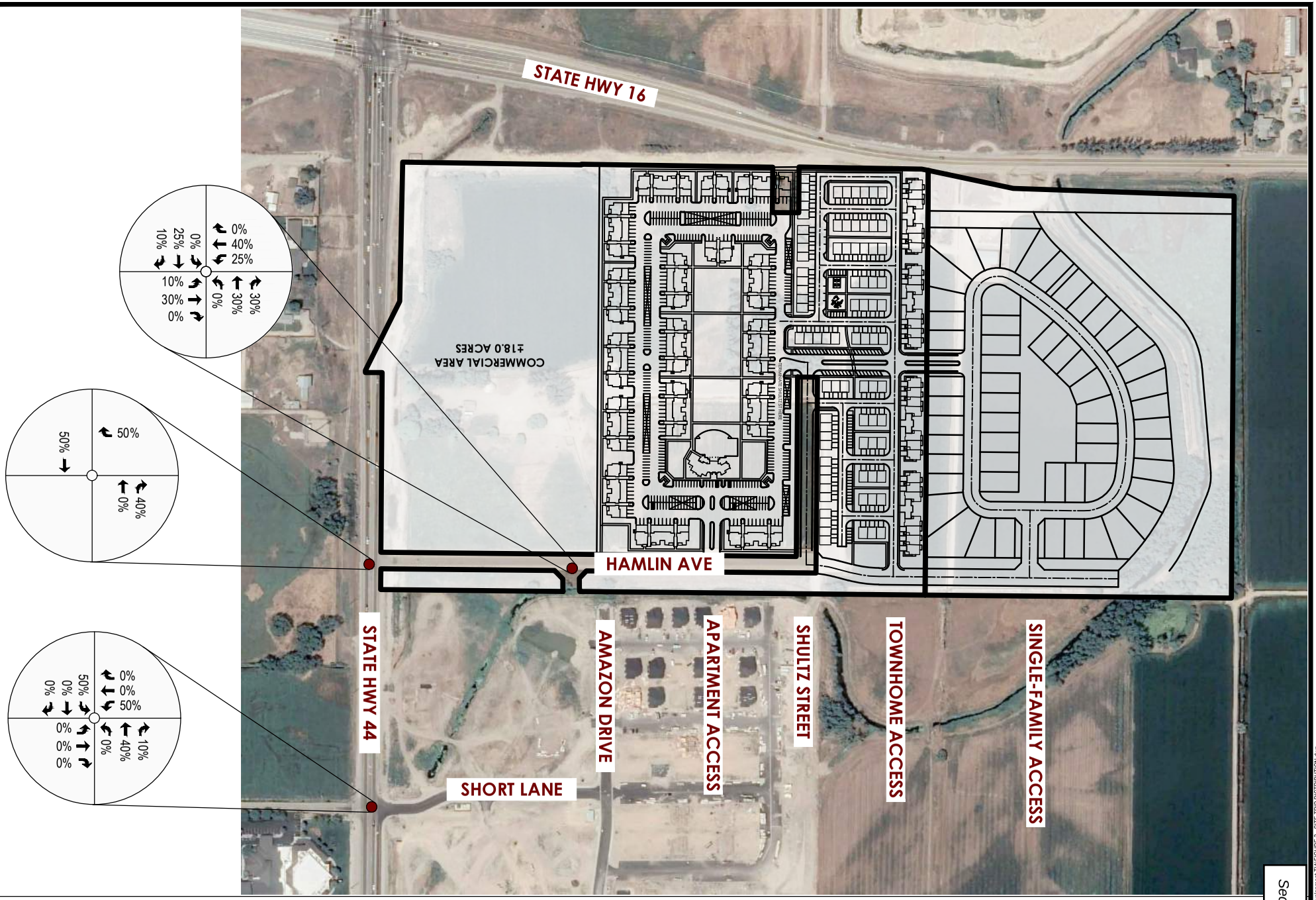
Table 1 – Trip Generation for Northern Star

ITE Land Use Code	Land Use Description	Size	Daily (AADT)	Trip Generation (AM)		Trip Generation (PM)	
				Enter	Exit	Enter	Exit
210	Single-Family	55 DU	519	10	31	34	20
220	Low-Rise	110 DU	805	12	39	39	23
221	Mid-Rise	310 DU	1686	29	83	83	53
710	Gen Office	1,000 GFA	1519	156	25	29	150

As can be seen in Table 1, the Northern Star Development will generate approximately 4,529 daily trips, with 385 trips occurring in the AM peak hour (207 entering, 178 exiting) and 431 trips occurring in the PM peak hour (185 entering, 246 exiting). It is assumed with the combination of residential and office within the development, there is potential for internal capture trips. With the internal capture trips, this development will generate 379 total AM peak hour trips (204 entering, 175 exiting) and 417 PM peak hour trips (178 entering, 239 exiting).

Trip Distribution

The project trip distribution onto the existing and proposed roadways at each project site access is based on the area of impact model runs by COMPASS, review of the roadway system by ACHD and ITD, as well as knowledge of travel patterns in this study area. The proposed distribution percentages are illustrated in Figure 3.



NORTHERN STAR DEVELOPMENT

FIGURE 3 - PROJECT TRIP DISTRIBUTION PERCENTAGES

XX% = DISTRIBUTION PERCENTAGES

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ALE, UTAH 84047 PH: (801) 352-0075
www.focusutah.com

C:\Users\watson\Desktop\Northern Star Development TIA\FIGURE 3 - SITE TRIP DISTRIBUTION.dwg

ANALYSIS SCENARIOS & STUDY ASSUMPTIONS

The proposed traffic impact analysis assumptions are as follows:

- Study Years:
  - Existing traffic conditions (2022)
  - Buildout year background traffic conditions (2023). Includes growth and in-process developments without the proposed Northern Star Development.
  - Buildout year total traffic conditions (2023). Included background traffic plus the build-out of the first phase (310 apartment units).
  - Buildout year background traffic conditions (2024). Includes growth and in-process developments without the remaining phases of the proposed development.
  - Buildout year total traffic conditions (2024). Includes background traffic plus the build-out of the second phase (110 townhome units and 55 single-family units).
  - Buildout year background traffic conditions (2030). Includes growth and in-process developments without the remaining phases of the proposed development.
  - Buildout year total traffic conditions (2030). Includes background traffic plus the build-out of the third phase (commercial).
- Time Periods:
  - Weekday AM peak hour (7-9 AM)
  - Weekday PM peak hour (4-6 PM)
- Study Intersections:
  - Amazon Drive/Hamlin Avenue
  - Amazon Drive/Short Lane
  - Shultz Street/Hamlin Avenue
  - Hamlin Avenue/SH-44
  - Short Lane/SH-44
- Roadway Segments:
  - Hamlin Avenue – from Schultz Street to SH-44
  - Amazon Drive – from Hamlin Avenue to Short Lane
  - Short Lane
- Data Collection:
  - Turning movement counts will be collected during the typical midweek (Tuesday -Thursday) AM peak period (7:00 AM to 9:00 AM) and also the PM peak period (4:00 PM to 6:00 PM).
- Background Growth Rate and In-Process Developments:
  - Growth rates obtained from COMPASS illustrate a 9.9% growth along SH 44 until 2025. After 2025 the growth rate is anticipated to adjust to 4.9%.

- Trip Assignment from recently approved development within this study are will also be included in the background scenarios of this study. We will work with ACHD to obtain the studies on these developments. These developments include:
  - Amazon Falls 2
  - Fountain Park

- Access Spacing & Needs:
  - Access locations will be evaluated with respect to ACHD policy and spacing requirements.
  - The need for traffic control and turn lanes will also be evaluated at each site access.
- Planned Transportation Improvements:
  - Planned widening of SH 44 between SH 16 and Linder Road from 3 lanes to 5 lanes by 2023.
  - Planned future improvements to SH 44 and Palmer Lane call for a signalized intersection by FY 2027.
  - Hamlin Avenue is also planned to extend north to connect Floating Feather Road and SH 44.
  - All of these planned improvements are based on future developments to construct these improvements. The analysis shown in this study will account for these improvements to be completed in the background years of this study.

ANALYSIS TOOLS AND OPERATING STANDARDS

The study area intersections operational analysis will be evaluated using the *Highway Capacity Manual (HCM) 6th Edition* analysis procedures. The intersections will be evaluated with the appropriate calculation of level of service using Synchro 11 and SimTraffic software. Signalized intersections within the study area will be evaluated using the HCM 6th Edition procedure as provided in the Synchro Software to provide the overall intersection control delay and level of service along with each individual approaches delay in seconds per vehicle and level of service. Unsignalized intersections will be evaluated using the HCM 6th Edition procedures and will provide the individual approach delay in seconds per vehicle as well as approach level of service.

Traffic Impact Analysis will be performed in accordance with methodologies outlined in Section 7106.6 of the *ACHD Policy Manual*. Queue lengths, needs for left and right turn lanes will be included in the analysis. Intersection and roadway segments analysis will be determined using the ACHD thresholds outlined in the Policy Manual.

ACHD requires signalized intersections operate at a minimum LOS E for Principal Arterials and Minor Arterials and a LOS D for Collectors. All unsignalized intersections that have a projected LOS D or worse, shall perform a traffic signal warrant analysis or roundabout analysis. The acceptable volume -to-capacity ratio for signalized intersection is 0.90 for the overall intersection and 1.00 for each lane group. The acceptable volume-to-capacity ratio is 0.90 for the critical lane group at unsignalized intersections.

NEXT STEPS

FOCUS asks ACHD to review this scope of work for the traffic impact analysis for the Northern Start Development. We ask for any comments or response to the assumptions we have made in this scoping document so we may move forward with the traffic impact study. Please feel free to reach out to Jason Watson (801) 352-0075 or email at jwatson@focusutah.com with any questions or comments on the information we have presented in this scoping document.

Existing Traffic Counts

L2 Data Collection

L2DataCollection.com
Idaho (208) 860-7554 Utah (801) 413-2993

Study: FOCU0006
Intersection: Short Rd / SH-44
City, State: Canyon County, Idaho
Control: Stop Sign

File Name : SH-44 (State St) & Short Rd - revised
Site Code : 00000000
Start Date : 1/20/2022
Page No : 1

Groups Printed- General Traffic

	Short Road From North					SH-44 From East					Short Road From South					SH-44 From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
07:00 AM	0	0	1	0	1	0	113	6	0	119	2	0	3	0	5	10	268	1	0	279	404
07:15 AM	1	0	2	0	3	0	134	2	0	136	8	0	2	0	10	17	289	2	0	308	457
07:30 AM	5	0	1	0	6	0	148	5	0	153	3	0	1	0	4	13	256	4	0	273	436
07:45 AM	0	0	0	0	0	3	133	7	0	143	4	0	7	0	11	22	296	1	0	319	473
Total	6	0	4	0	10	3	528	20	0	551	17	0	13	0	30	62	1109	8	0	1179	1770
08:00 AM	0	0	0	0	0	0	130	9	0	139	2	0	2	0	4	16	268	3	0	287	430
08:15 AM	0	0	1	0	1	1	144	9	0	154	4	0	3	0	7	18	263	4	0	285	447
08:30 AM	1	0	2	0	3	0	105	6	0	111	6	0	5	0	11	8	297	3	0	308	433
08:45 AM	2	0	6	0	8	2	119	4	0	125	2	0	3	0	5	11	251	1	0	263	401
Total	3	0	9	0	12	3	498	28	0	529	14	0	13	0	27	53	1079	11	0	1143	1711

04:00 PM	1	0	2	0	3	0	243	2	0	245	10	0	5	0	15	5	187	0	0	192	455
04:15 PM	0	0	1	0	1	1	258	0	0	259	4	0	6	0	10	2	120	1	0	123	393
04:30 PM	1	0	0	0	1	2	255	4	0	261	4	0	7	0	11	4	134	1	0	139	412
04:45 PM	4	0	0	0	4	0	293	0	0	293	7	0	2	0	9	4	142	0	0	146	452
Total	6	0	3	0	9	3	1049	6	0	1058	25	0	20	0	45	15	583	2	0	600	1712
05:00 PM	0	0	1	0	1	1	279	1	0	281	1	0	7	0	8	5	132	3	0	140	430
05:15 PM	0	0	0	0	0	0	289	1	0	290	5	0	10	0	15	2	136	2	0	140	445
05:30 PM	0	0	0	0	0	2	295	2	0	299	3	0	3	0	6	3	167	0	0	170	475
05:45 PM	1	0	1	0	2	1	233	0	0	234	5	0	1	0	6	5	134	2	0	141	383
Total	1	0	2	0	3	4	1096	4	0	1104	14	0	21	0	35	15	569	7	0	591	1733
Grand Total	16	0	18	0	34	13	3171	58	0	3242	70	0	67	0	137	145	3340	28	0	3513	6926
Apprch %	47.1	0	52.9	0		0.4	97.8	1.8	0		51.1	0	48.9	0		4.1	95.1	0.8	0		
Total %	0.2	0	0.3	0	0.5	0.2	45.8	0.8	0	46.8	1	0	1	0	2	2.1	48.2	0.4	0	50.7	

L2 Data Collection

L2DataCollection.com
Idaho (208) 860-7554 Utah (801) 413-2993

Study: FOCU0006
Intersection: Short Rd / SH-44
City, State: Canyon County, Idaho
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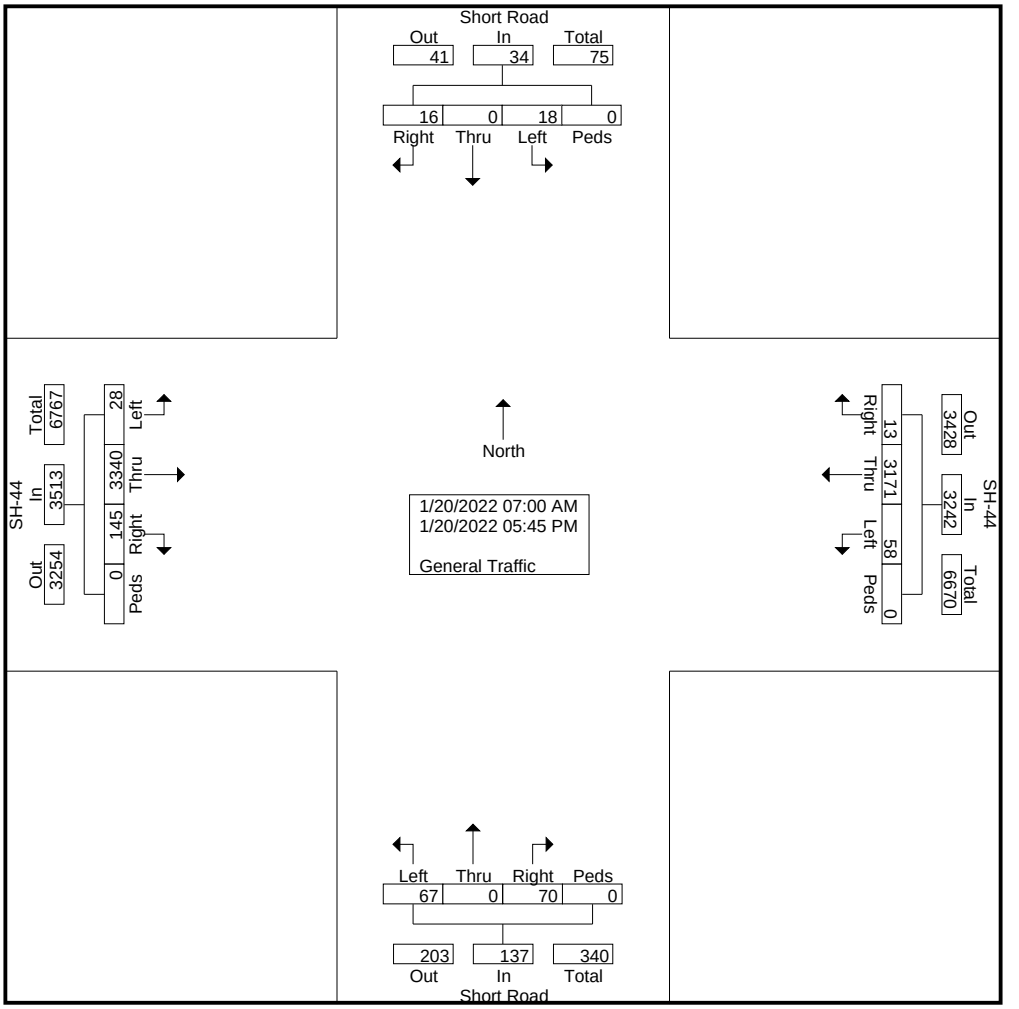
File Name : SH-44 (State St) & Short Rd - revised
Site Code : 00000000
Start Date : 1/20/2022
Page No : 2



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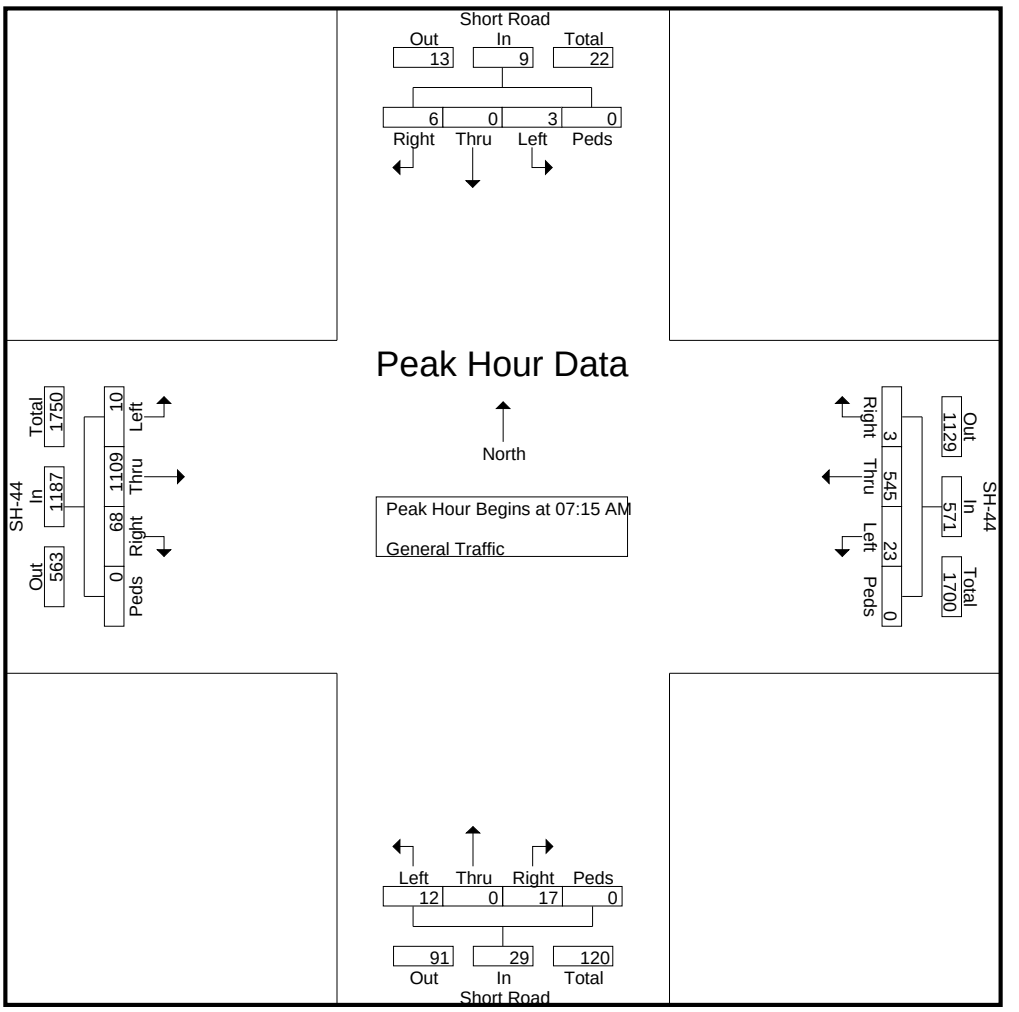
Page No : 3

	Short Road From North					SH-44 From East					Short Road From South					SH-44 From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:15 AM																					
07:15 AM	1	0	**2**	0	3	0	134	2	0	136	**8**	0	2	0	10	17	289	2	0	308	457
07:30 AM	**5**	0	1	0	**6**	0	**148**	5	0	**153**	3	0	1	0	4	13	256	**4**	0	273	436
07:45 AM	0	0	0	0	0	**3**	133	7	0	143	4	0	**7**	0	**11**	**22**	**296**	1	0	**319**	**473**
08:00 AM	0	0	0	0	0	0	130	**9**	0	139	2	0	2	0	4	16	268	3	0	287	430
Total Volume	6	0	3	0	9	3	545	23	0	571	17	0	12	0	29	68	1109	10	0	1187	1796
% App. Total	66.7	0	33.3	0		0.5	95.4	4	0		58.6	0	41.4	0		5.7	93.4	0.8	0		
PHF	.300	.000	.375	.000	.375	.250	.921	.639	.000	.933	.531	.000	.429	.000	.659	.773	.937	.625	.000	.930	.949



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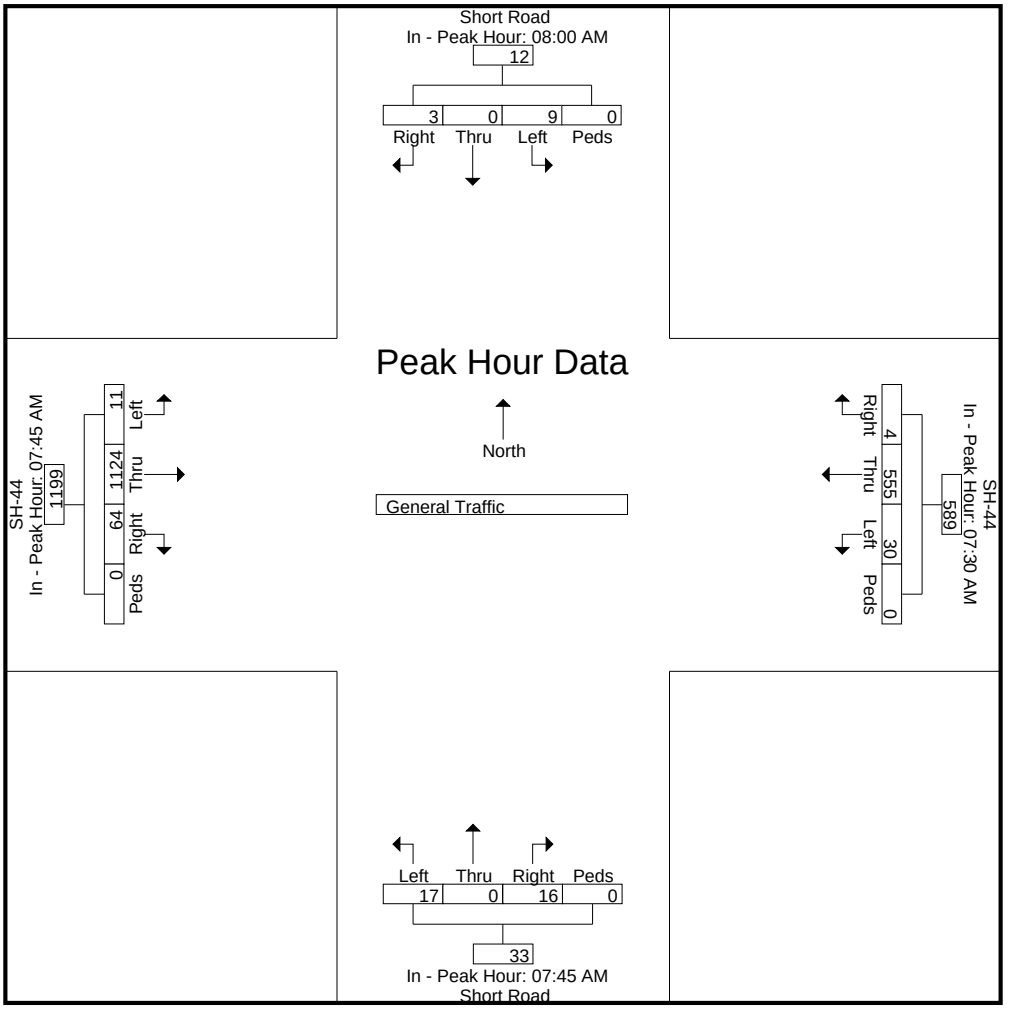
Study: FOCU0006
Intersection: Short Rd / SH-44
City, State: Canyon County, Idaho
Control: Stop Sign

File Name : SH-44 (State St) & Short Rd - revised
Site Code : 00000000
Start Date : 1/20/2022
Page No : 4

	Short Road From North					SH-44 From East					Short Road From South					SH-44 From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1																					
Peak Hour for Each Approach Begins at:																					
	08:00 AM					07:30 AM					07:45 AM					07:45 AM					
+0 mins.	0	0	0	0	0	0	**148**	5	0	153	4	0	**7**	0	**11**	**22**	296	1	0	**319**	
+15 mins.	0	0	1	0	1	**3**	133	7	0	143	2	0	2	0	4	16	268	3	0	287	
+30 mins.	1	0	2	0	3	0	130	**9**	0	139	4	0	3	0	7	18	263	**4**	0	285	
+45 mins.	**2**	0	**6**	0	**8**	1	144	9	0	**154**	**6**	0	5	0	11	8	**297**	3	0	308	
Total Volume	3	0	9	0	12	4	555	30	0	589	16	0	17	0	33	64	1124	11	0	1199	
% App. Total	25	0	75	0		0.7	94.2	5.1	0		48.5	0	51.5	0		5.3	93.7	0.9	0		
PHF	.375	.000	.375	.000	.375	.333	.938	.833	.000	.956	.667	.000	.607	.000	.750	.727	.946	.688	.000	.940	



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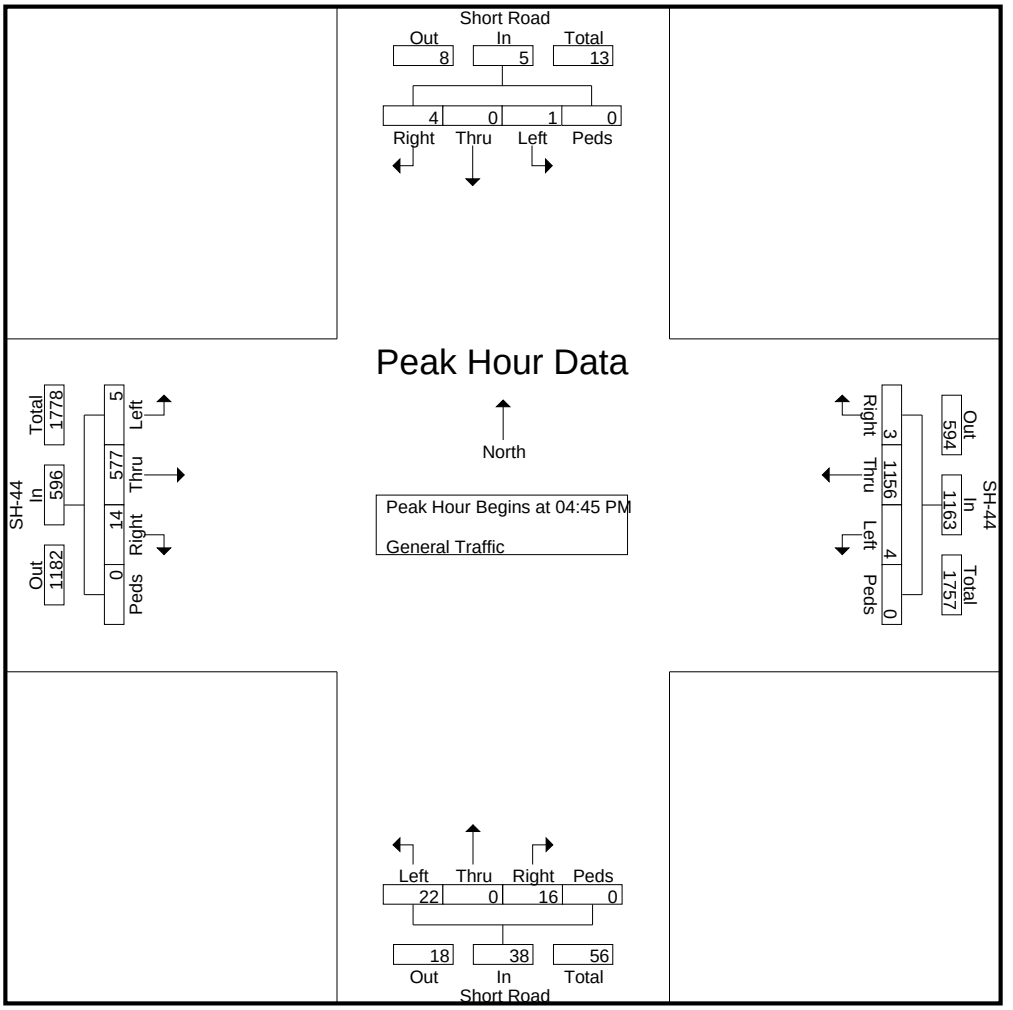
Study: FOCU0006
Intersection: Short Rd / SH-44
City, State: Canyon County, Idaho
Control: Stop Sign

File Name : SH-44 (State St) & Short Rd - revised
Site Code : 00000000
Start Date : 1/20/2022
Page No : 5

	Short Road From North					SH-44 From East					Short Road From South					SH-44 From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:45 PM																					
04:45 PM	**4**	0	0	0	**4**	0	293	0	0	293	**7**	0	2	0	9	4	142	0	0	146	452
05:00 PM	0	0	**1**	0	1	1	279	1	0	281	1	0	7	0	8	**5**	132	**3**	0	140	430
05:15 PM	0	0	0	0	0	0	289	1	0	290	5	0	**10**	0	**15**	2	136	2	0	140	445
05:30 PM	0	0	0	0	0	**2**	**295**	**2**	0	**299**	3	0	3	0	6	3	**167**	0	0	**170**	**475**
Total Volume	4	0	1	0	5	3	1156	4	0	1163	16	0	22	0	38	14	577	5	0	596	1802
% App. Total	80	0	20	0		0.3	99.4	0.3	0		42.1	0	57.9	0		2.3	96.8	0.8	0		
PHF	.250	.000	.250	.000	.313	.375	.980	.500	.000	.972	.571	.000	.550	.000	.633	.700	.864	.417	.000	.876	.948



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City, State: Canyon County, Idaho
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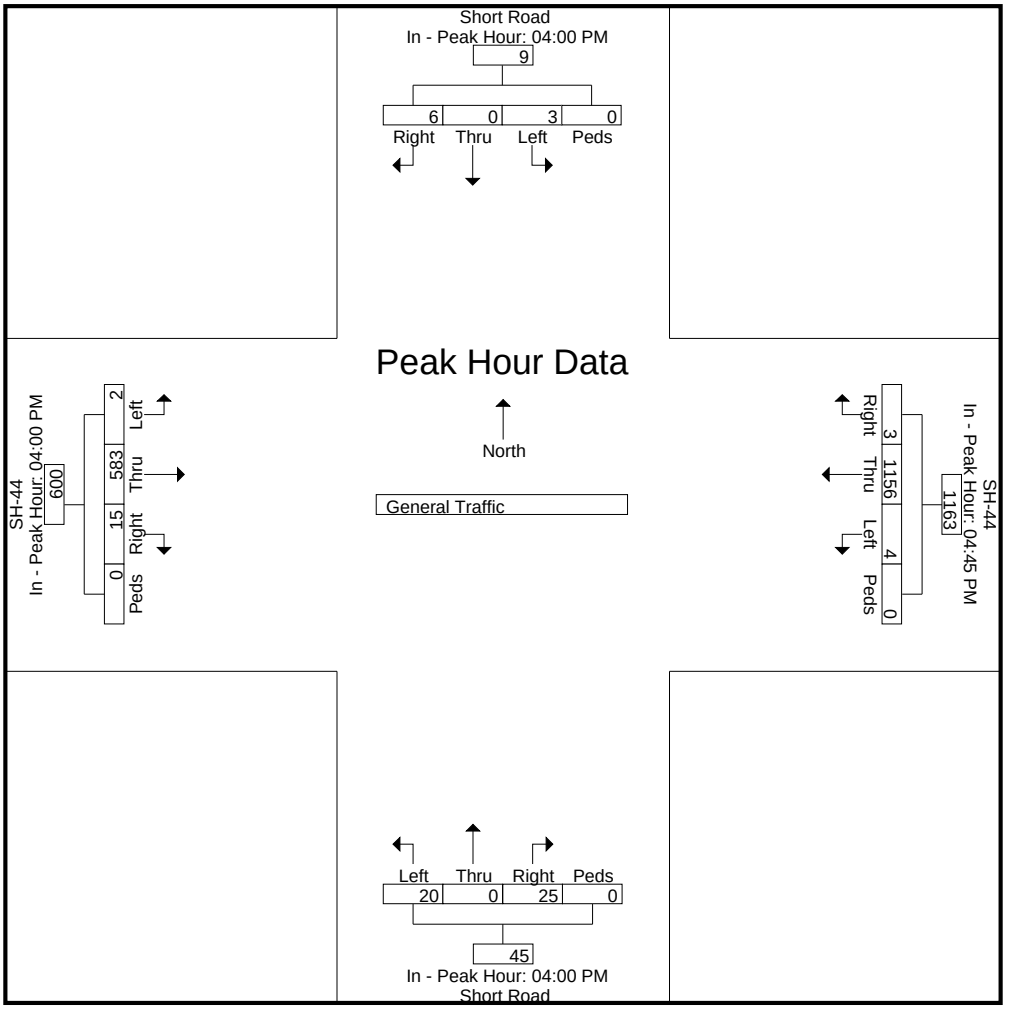
File Name : SH-44 (State St) & Short Rd - revised
Site Code : 00000000
Start Date : 1/20/2022
Page No : 6

	Short Road From North					SH-44 From East					Short Road From South					SH-44 From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Each Approach Begins at:																					
	04:00 PM					04:45 PM					04:00 PM					04:00 PM					
+0 mins.	1	0	**2**	0	3	0	293	0	0	293	**10**	0	5	0	**15**	**5**	**187**	0	0	**192**	
+15 mins.	0	0	1	0	1	1	279	1	0	281	4	0	6	0	10	2	120	**1**	0	123	
+30 mins.	1	0	0	0	1	0	289	1	0	290	4	0	**7**	0	11	4	134	1	0	139	
+45 mins.	**4**	0	0	0	**4**	**2**	**295**	**2**	0	**299**	7	0	2	0	9	4	142	0	0	146	
Total Volume	6	0	3	0	9	3	1156	4	0	1163	25	0	20	0	45	15	583	2	0	600	
% App. Total	66.7	0	33.3	0		0.3	99.4	0.3	0		55.6	0	44.4	0		2.5	97.2	0.3	0		
PHF	.375	.000	.375	.000	.563	.375	.980	.500	.000	.972	.625	.000	.714	.000	.750	.750	.779	.500	.000	.781	



L2 Data Collection

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Study: FOCU0006
Intersection: Short Rd / SH-44
City, State: Canyon County, Idaho
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File Name : SH-44 (State St) & Short Rd - revised
Site Code : 00000000
Start Date : 1/20/2022
Page No : 7

Image 1

L2 Data Collection

L2DataCollection.com
Idaho (208) 860-7554 Utah (801) 413-2993

Study: FOCU0006
Intersection: SH-44 / Hamblin Road
City, State: Canyon, County, Idaho
Control: Stop Sign

File Name : SH-44 (State St) & Hamblin Rd
Site Code : TURNS
Start Date : 1/20/2022
Page No : 1

Groups Printed- General Traffic

	Hamblin Road From North				SH-44 (State Street) From East				SH-44 (State Street) From West				
Start Time	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	Int. Total
07:00 AM	0	1	0	1	0	113	0	113	268	1	0	269	383
07:15 AM	1	2	0	3	0	134	0	134	289	2	0	291	428
07:30 AM	5	1	0	6	0	148	0	148	256	4	0	260	414
07:45 AM	0	0	0	0	3	133	0	136	296	1	0	297	433
Total	6	4	0	10	3	528	0	531	1109	8	0	1117	1658
08:00 AM	0	0	0	0	0	130	0	130	268	3	0	271	401
08:15 AM	0	1	0	1	1	144	0	145	263	4	0	267	413
08:30 AM	1	2	0	3	0	105	0	105	297	3	0	300	408
08:45 AM	2	6	0	8	2	119	0	121	251	1	0	252	381
Total	3	9	0	12	3	498	0	501	1079	11	0	1090	1603

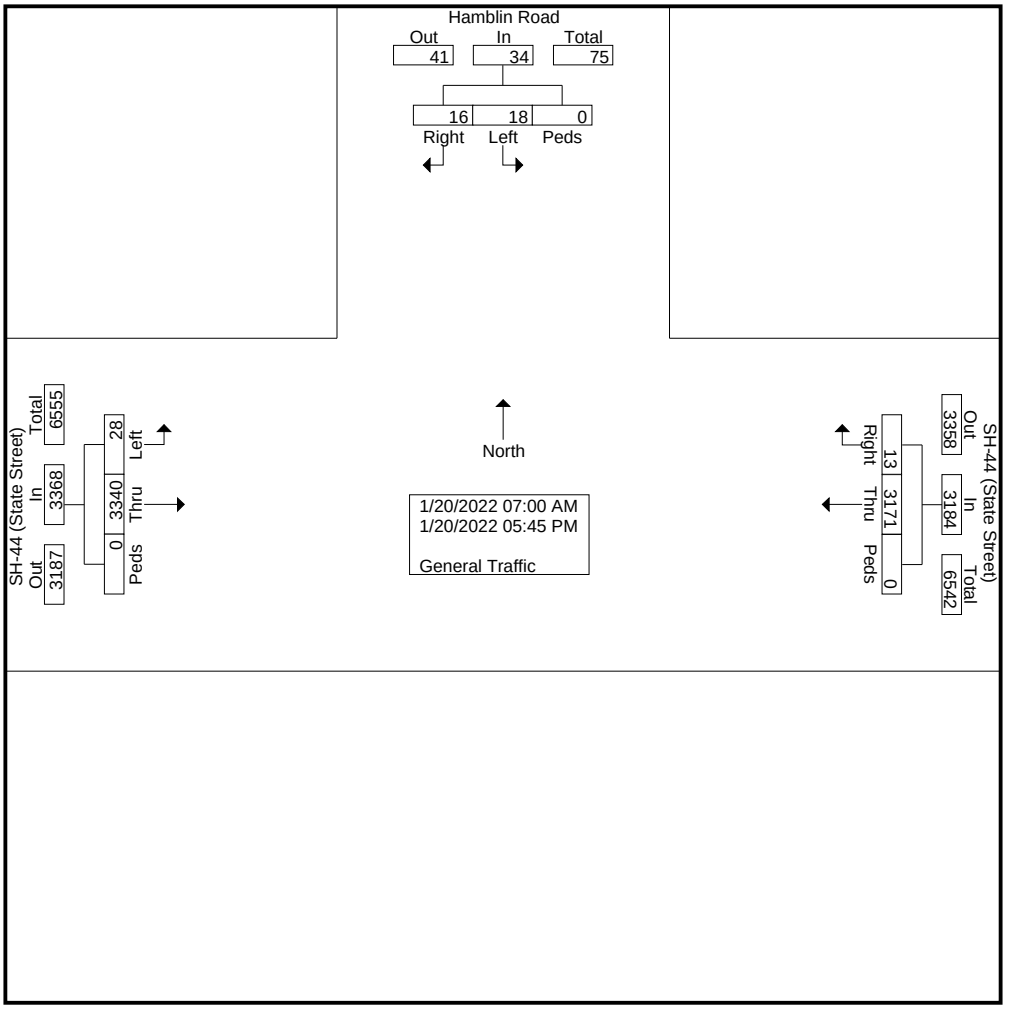
04:00 PM	1	2	0	3	0	243	0	243	187	0	0	187	433
04:15 PM	0	1	0	1	1	258	0	259	120	1	0	121	381
04:30 PM	1	0	0	1	2	255	0	257	134	1	0	135	393
04:45 PM	4	0	0	4	0	293	0	293	142	0	0	142	439
Total	6	3	0	9	3	1049	0	1052	583	2	0	585	1646
05:00 PM	0	1	0	1	1	279	0	280	132	3	0	135	416
05:15 PM	0	0	0	0	0	289	0	289	136	2	0	138	427
05:30 PM	0	0	0	0	2	295	0	297	167	0	0	167	464
05:45 PM	1	1	0	2	1	233	0	234	134	2	0	136	372
Total	1	2	0	3	4	1096	0	1100	569	7	0	576	1679
Grand Total	16	18	0	34	13	3171	0	3184	3340	28	0	3368	6586
Apprch %	47.1	52.9	0		0.4	99.6	0		99.2	0.8	0		
Total %	0.2	0.3	0	0.5	0.2	48.1	0	48.3	50.7	0.4	0	51.1	

L2 Data Collection

L2DataCollection.com
Idaho (208) 860-7554 Utah (801) 413-2993

Study: FOCU0006
Intersection: SH-44 / Hamblin Road
City, State: Canyon, County, Idaho
Control: Stop Sign

File Name : SH-44 (State St) & Hamblin Rd
Site Code : TURNS
Start Date : 1/20/2022
Page No : 2



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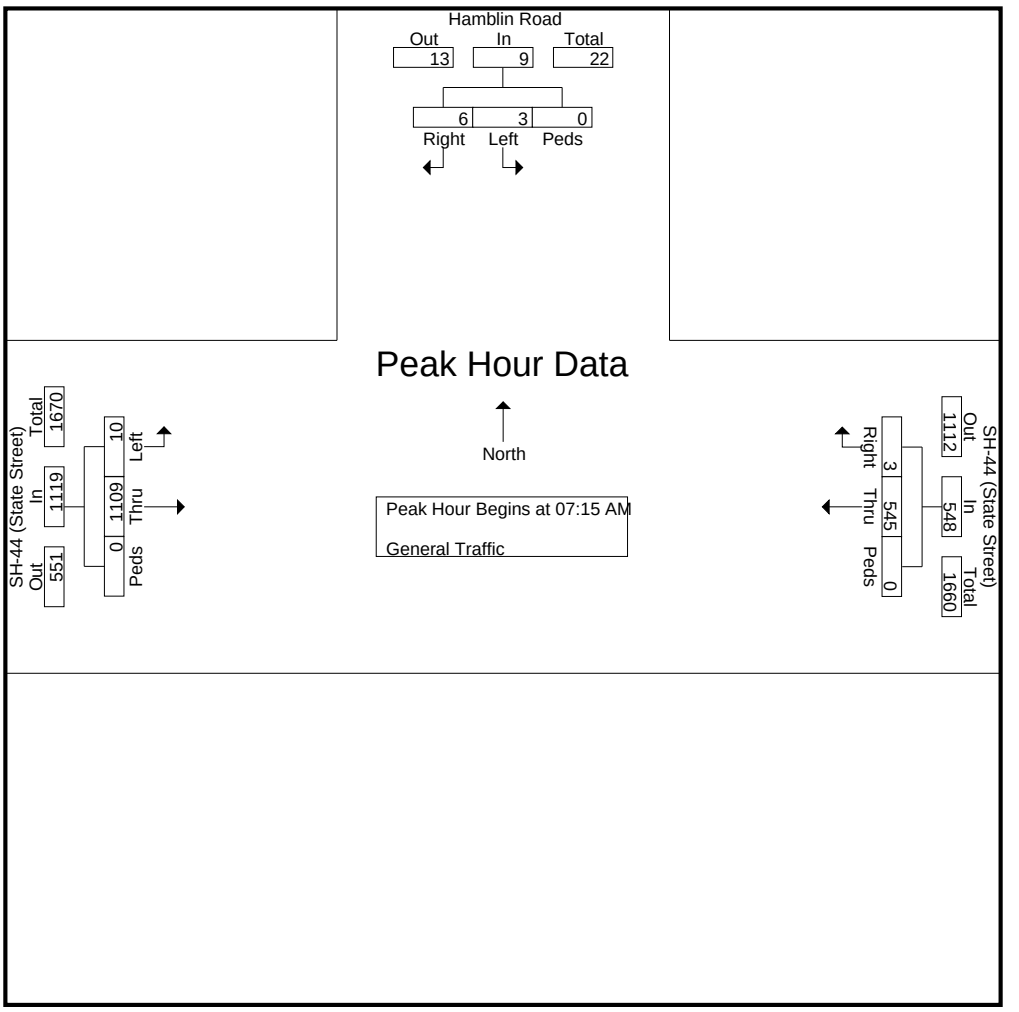
Study: FOCU0006
Intersection: SH-44 / Hamblin Road
City, State: Canyon, County, Idaho
Control: Stop Sign

File Name : SH-44 (State St) & Hamblin Rd
Site Code : TURNS
Start Date : 1/20/2022
Page No : 3

	Hamblin Road From North				SH-44 (State Street) From East				SH-44 (State Street) From West				
Start Time	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 07:15 AM													
07:15 AM	1	**2**	0	3	0	134	0	134	289	2	0	291	428
07:30 AM	**5**	1	0	**6**	0	**148**	0	**148**	256	**4**	0	260	414
07:45 AM	0	0	0	0	**3**	133	0	136	**296**	1	0	**297**	**433**
08:00 AM	0	0	0	0	0	130	0	130	268	3	0	271	401
Total Volume	6	3	0	9	3	545	0	548	1109	10	0	1119	1676
% App. Total	66.7	33.3	0		0.5	99.5	0		99.1	0.9	0		
PHF	.300	.375	.000	.375	.250	.921	.000	.926	.937	.625	.000	.942	.968



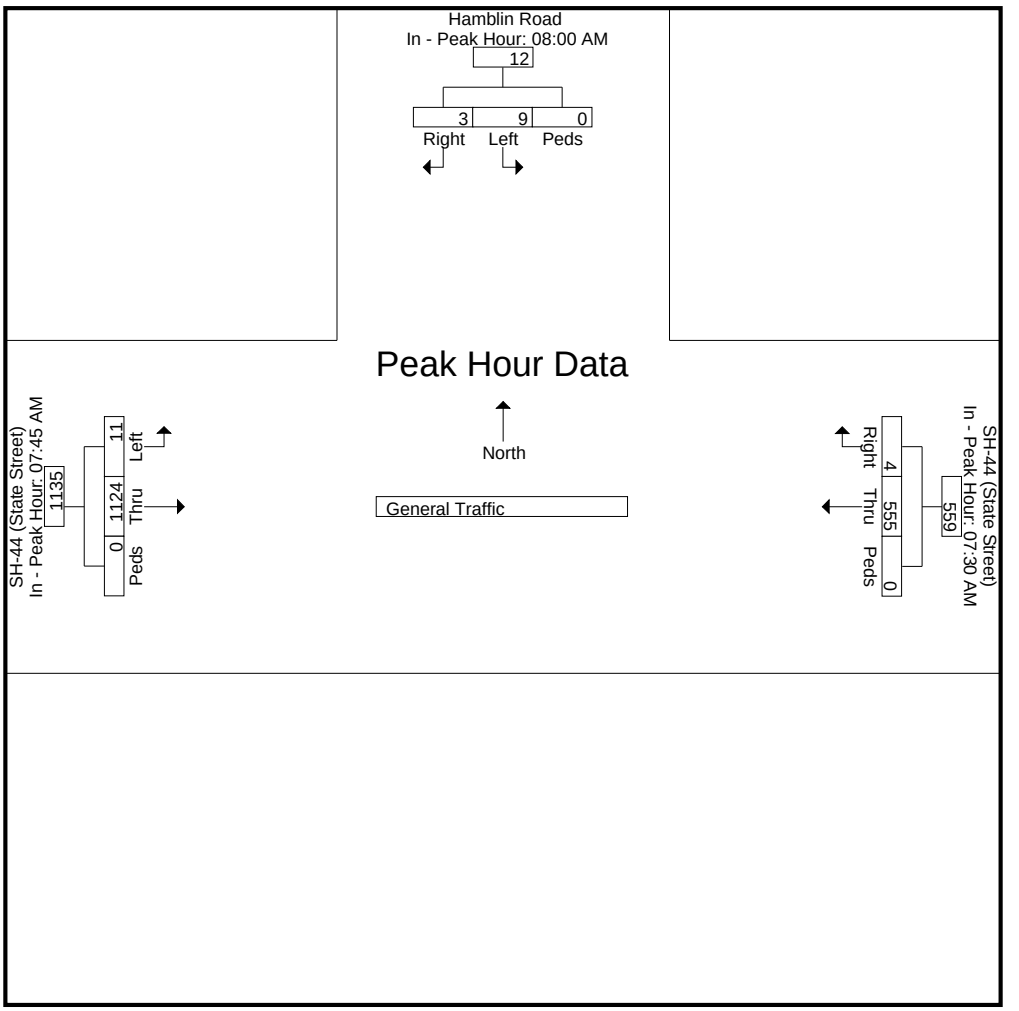
L2 Data Collection

L2DataCollection.com
Idaho (208) 860-7554 Utah (801) 413-2993

Study: FOCU0006
Intersection: SH-44 / Hamblin Road
City, State: Canyon, County, Idaho
Control: Stop Sign

File Name : SH-44 (State St) & Hamblin Rd
Site Code : TURNS
Start Date : 1/20/2022
Page No : 4

	Hamblin Road From North				SH-44 (State Street) From East				SH-44 (State Street) From West				
Start Time	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1													
Peak Hour for Each Approach Begins at:													
	08:00 AM				07:30 AM				07:45 AM				
+0 mins.	0	0	0	0	0	**148**	0	**148**	296	1	0	297	
+15 mins.	0	1	0	1	**3**	133	0	136	268	3	0	271	
+30 mins.	1	2	0	3	0	130	0	130	263	**4**	0	267	
+45 mins.	**2**	**6**	0	**8**	1	144	0	145	**297**	3	0	**300**	
Total Volume	3	9	0	12	4	555	0	559	1124	11	0	1135	
% App. Total	25	75	0		0.7	99.3	0		99	1	0		
PHF	.375	.375	.000	.375	.333	.938	.000	.944	.946	.688	.000	.946	



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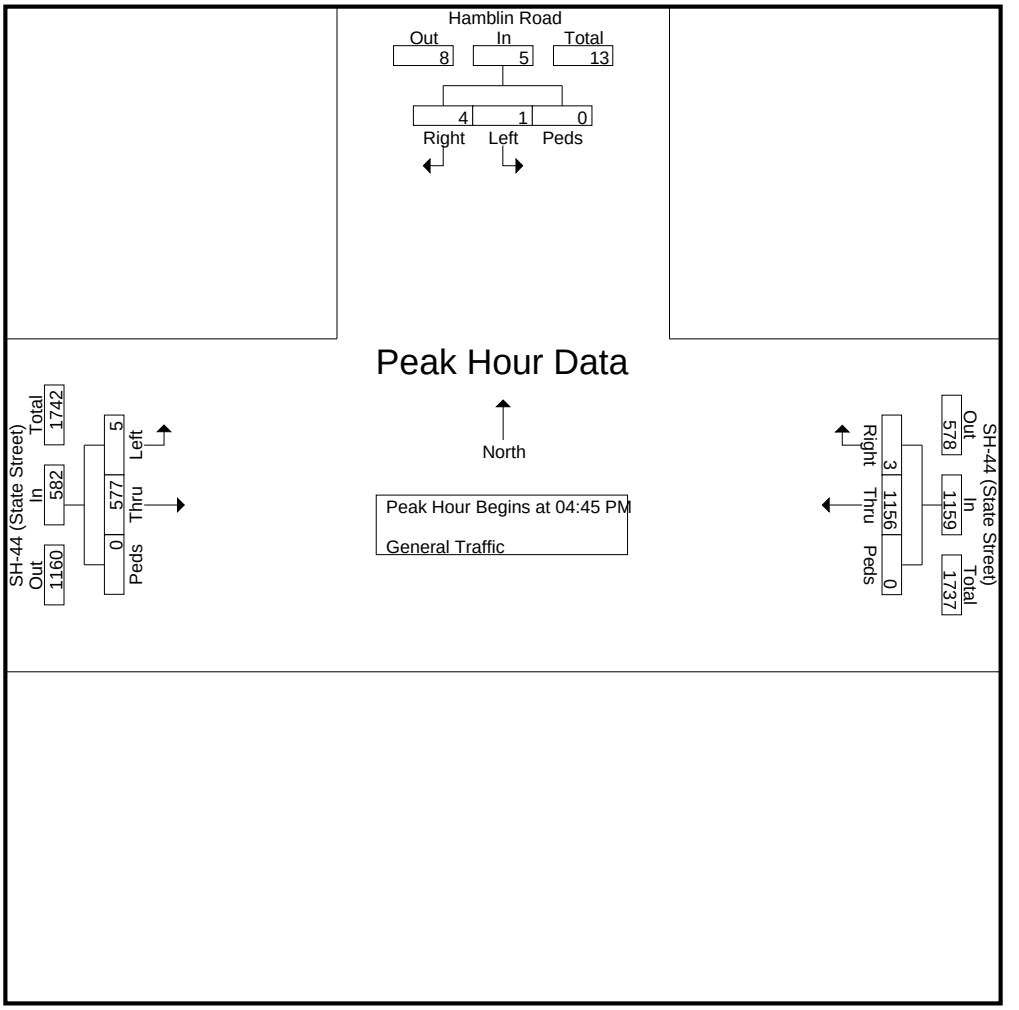
Study: FOCU0006
Intersection: SH-44 / Hamblin Road
City, State: Canyon, County, Idaho
Control: Stop Sign

File Name : SH-44 (State St) & Hamblin Rd
Site Code : TURNS
Start Date : 1/20/2022
Page No : 5

	Hamblin Road From North				SH-44 (State Street) From East				SH-44 (State Street) From West				
Start Time	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 04:45 PM													
04:45 PM	**4**	0	0	**4**	0	293	0	293	142	0	0	142	439
05:00 PM	0	**1**	0	1	1	279	0	280	132	**3**	0	135	416
05:15 PM	0	0	0	0	0	289	0	289	136	2	0	138	427
05:30 PM	0	0	0	0	**2**	**295**	0	**297**	**167**	0	0	**167**	**464**
Total Volume	4	1	0	5	3	1156	0	1159	577	5	0	582	1746
% App. Total	80	20	0		0.3	99.7	0		99.1	0.9	0		
PHF	.250	.250	.000	.313	.375	.980	.000	.976	.864	.417	.000	.871	.941



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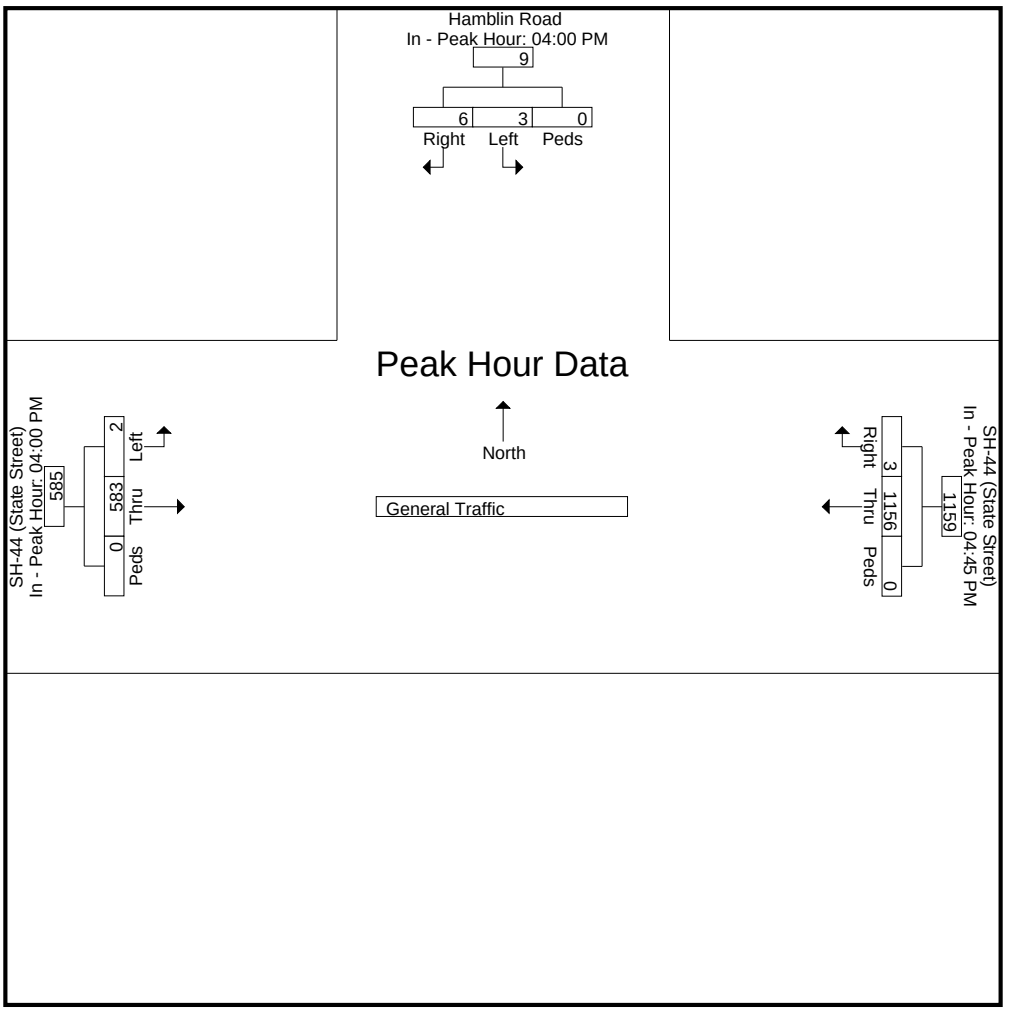
L2DataCollection.com
Idaho (208) 860-7554 Utah (801) 413-2993

Study: FOCU0006
Intersection: SH-44 / Hamblin Road
City, State: Canyon, County, Idaho
Control: Stop Sign

File Name : SH-44 (State St) & Hamblin Rd
Site Code : TURNS
Start Date : 1/20/2022
Page No : 6

	Hamblin Road From North				SH-44 (State Street) From East				SH-44 (State Street) From West				
Start Time	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Each Approach Begins at:													
	04:00 PM				04:45 PM				04:00 PM				
+0 mins.	1	**2**	0	3	0	293	0	293	**187**	0	0	**187**	
+15 mins.	0	1	0	1	1	279	0	280	120	**1**	0	121	
+30 mins.	1	0	0	1	0	289	0	289	134	1	0	135	
+45 mins.	**4**	0	0	**4**	**2**	**295**	0	**297**	142	0	0	142	
Total Volume	6	3	0	9	3	1156	0	1159	583	2	0	585	
% App. Total	66.7	33.3	0		0.3	99.7	0		99.7	0.3	0		
PHF	.375	.375	.000	.563	.375	.980	.000	.976	.779	.500	.000	.782	



L2 Data Collection

L2DataCollection.com
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Study: FOCU0006
Intersection: SH-44 / Hamblin Road
City, State: Canyon, County, Idaho
Control: Stop Sign

File Name : SH-44 (State St) & Hamblin Rd
Site Code : TURNS
Start Date : 1/20/2022
Page No : 7

Image 1

Trip Generation Report

Trip Generation Summary

Alternative: Alternative 1
Phase:
Project: Northern Star

Open Date: 1/14/2022
Analysis Date: 1/14/2022

ITE	Land Use		Weekday Average Daily Trips *	Enter	Exit	Total	Weekday AM Peak Hour of Adjacent Street Traffic *	Enter	Exit	Total	Weekday PM Peak Hour of Adjacent Street Traffic *	Enter	Exit	Total
210	SFHOUSE 1			260	259	519		10	31	41		34	20	54
	55	Dwelling Units												
220	LOW-RISE 1			403	402	805		12	39	51		39	23	62
	110	Dwelling Units												
221	MID-RISE 1			843	843	1686		29	83	112		83	53	136
	310	Dwelling Units												
710	OFFICEGENERAL 1			760	759	1519		156	25	181		29	150	179
	156	1000 Sq. Ft. GFA												
Unadjusted Volume				2266	2263	4529		207	178	385		185	246	431
Internal Capture Trips				0	0	0		3	3	6		7	7	14
Pass-By Trips				0	0	0		0	0	0		0	0	0
Volume Added to Adjacent Streets				2266	2263	4529		204	175	379		178	239	417

Total Weekday Average Daily Trips Internal Capture = 0 Percent
Total Weekday AM Peak Hour of Adjacent Street Traffic Internal Capture = 2 Percent
Total Weekday PM Peak Hour of Adjacent Street Traffic Internal Capture = 3 Percent

* - Custom rate used for selected time period.

Source: Institute of Transportation Engineers, Trip Generation Manual 10th Edition
TRIP GENERATION 10, TRAFFICWARE, LLC

Build-out Year Traffic Volumes from Surrounding Developments

Figure 5 – Site Traffic Distribution Patterns

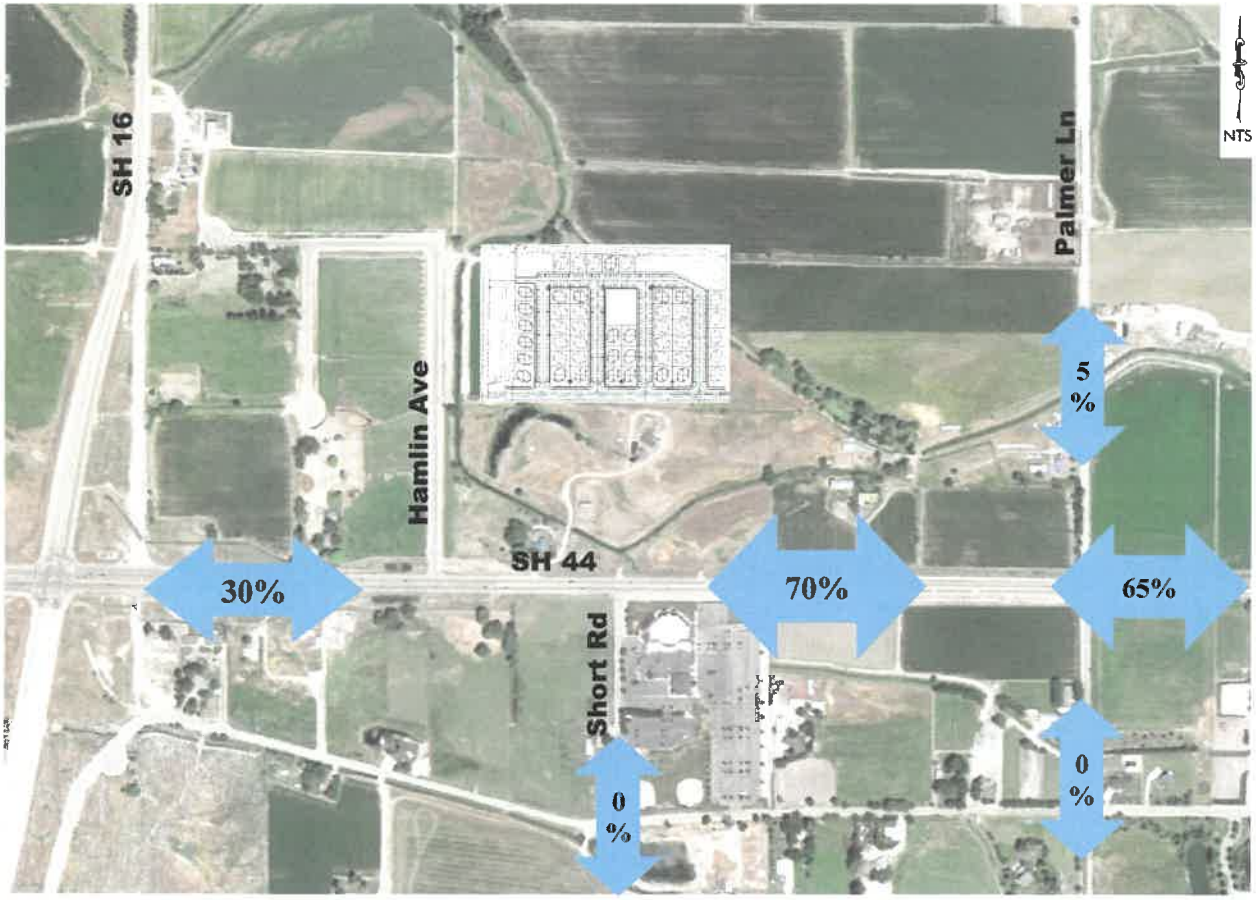


Figure 6 – AM Peak Hour Site Traffic

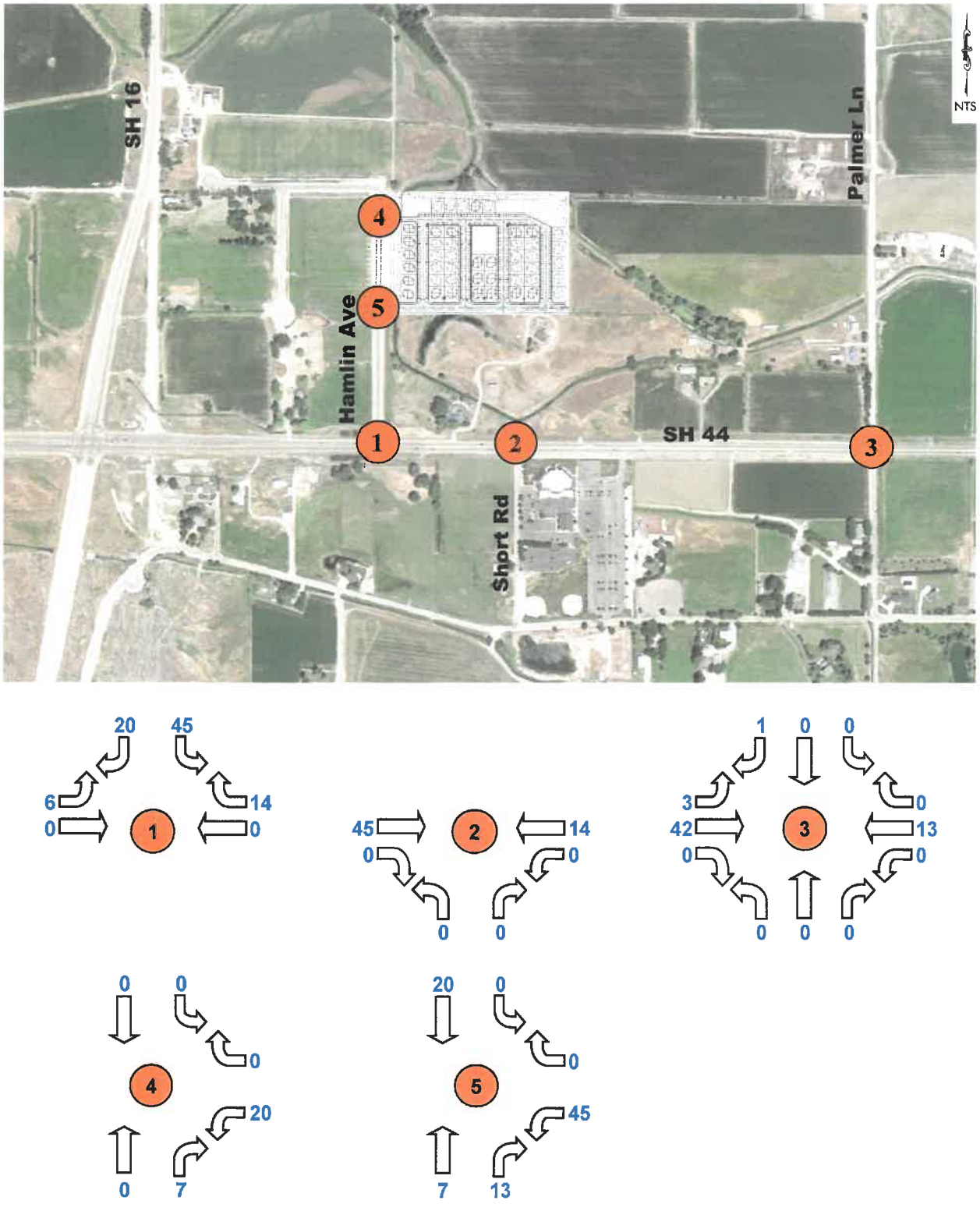
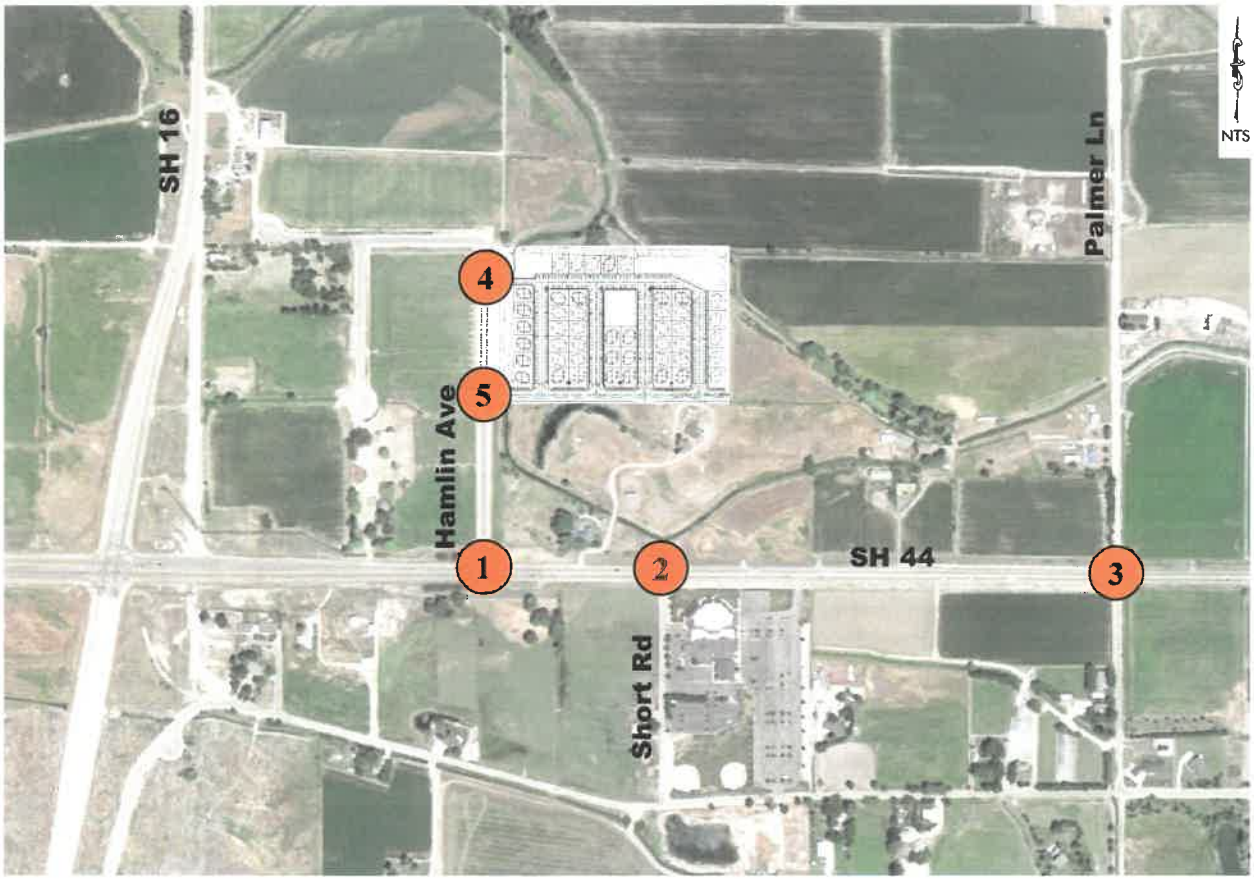


Figure 7 – PM Peak Hour Site Traffic



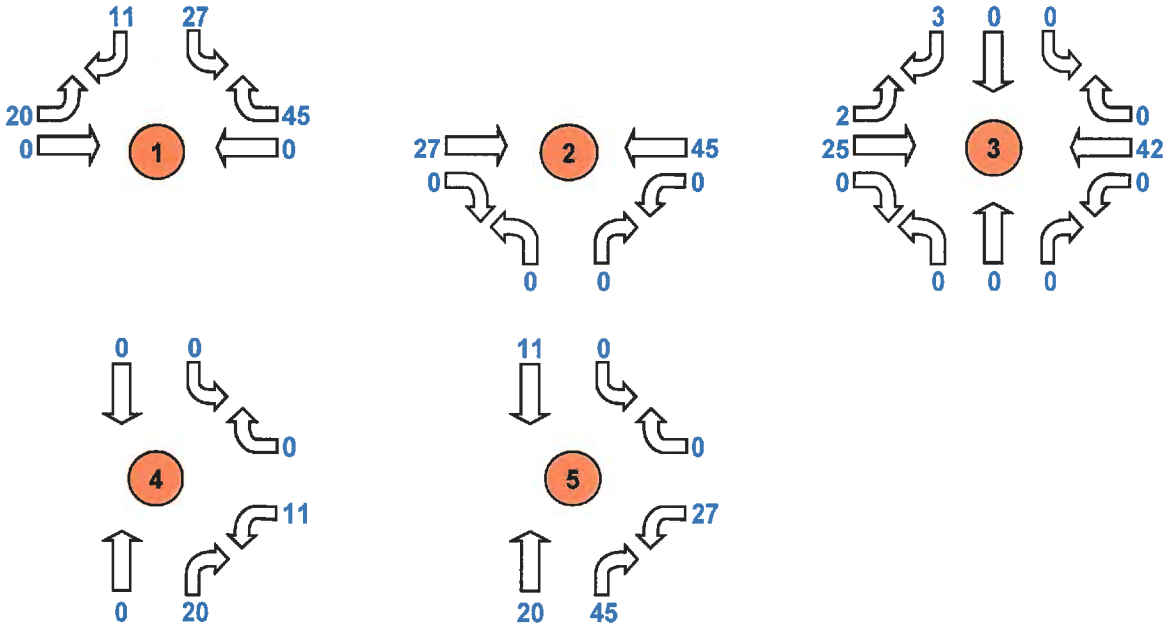


Figure 8 – 2022 AM Peak Hour Total Traffic

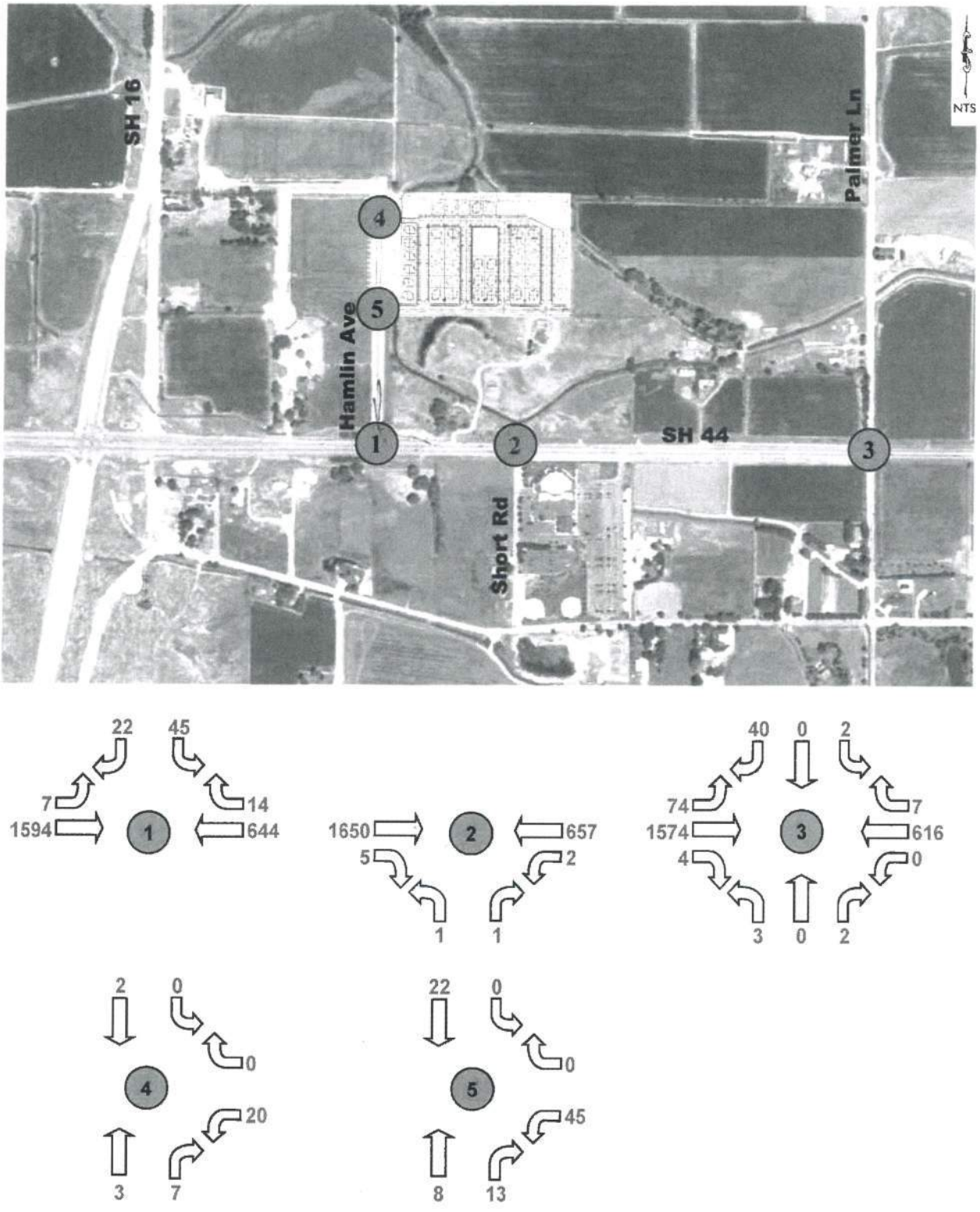
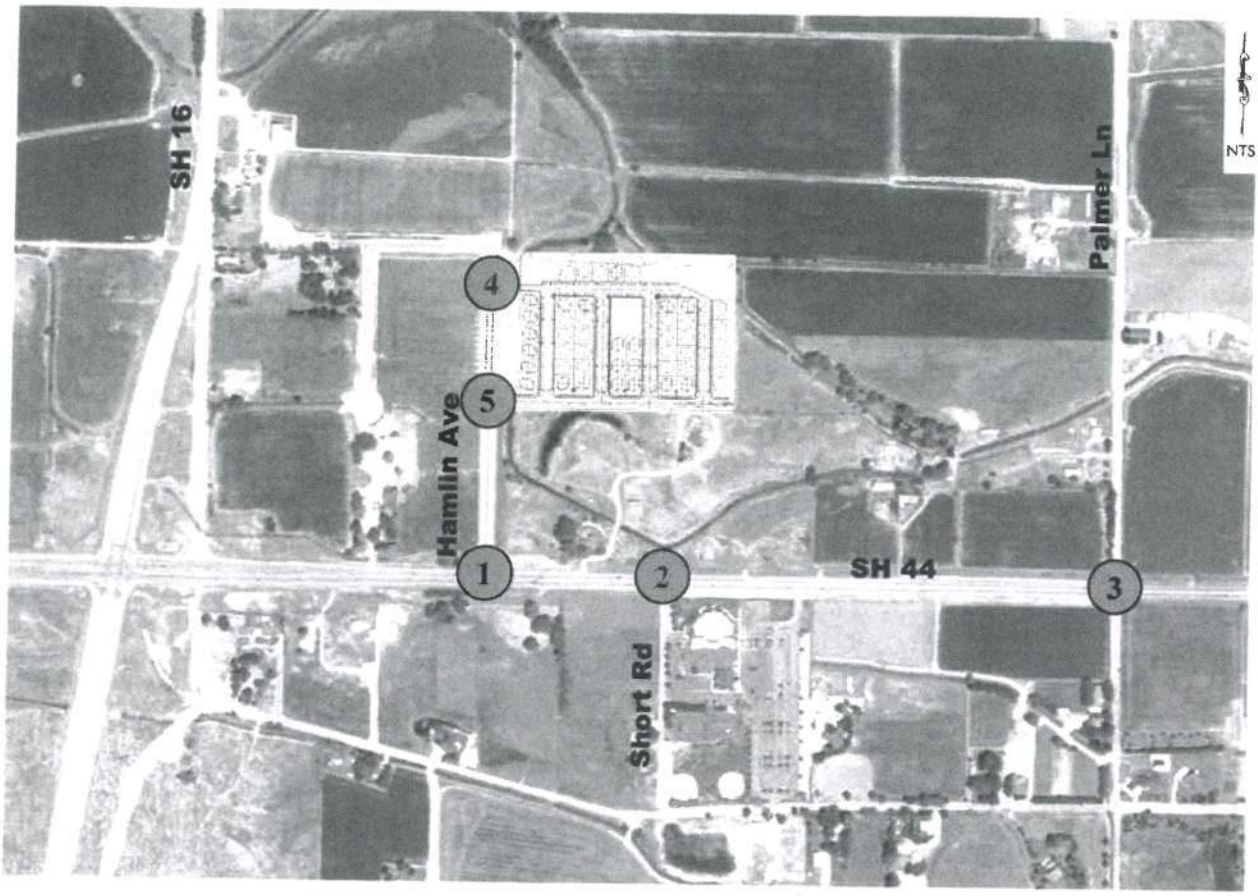


Figure 9 – 2022 PM Peak Hour Total Traffic



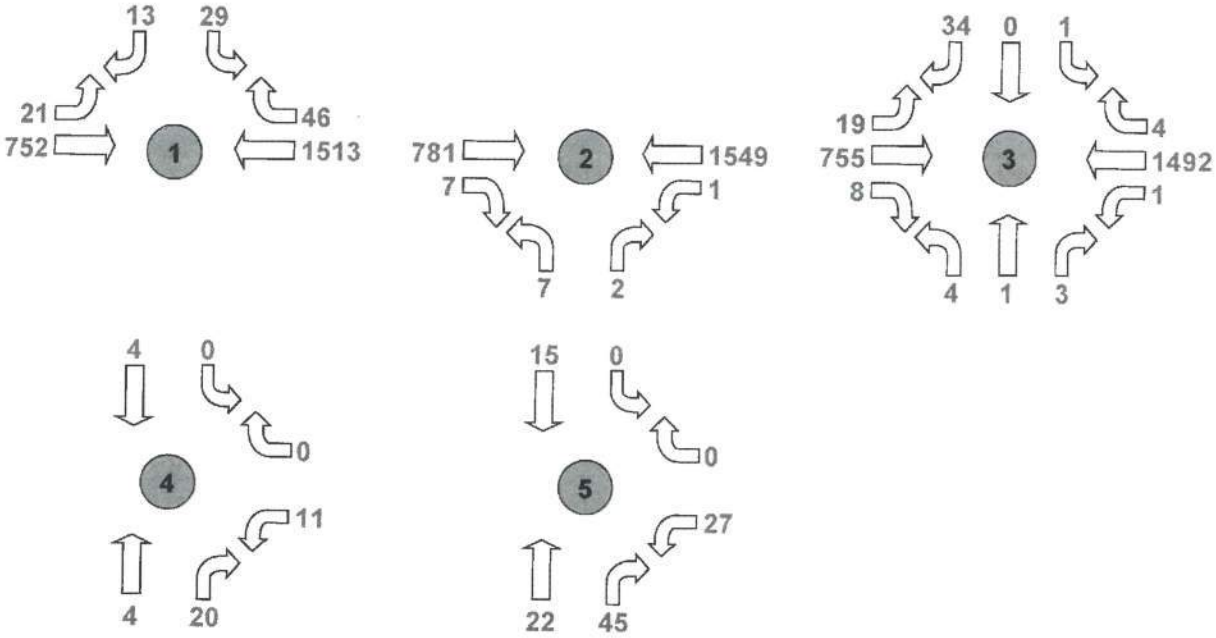


Figure 4.1 – Estimated Site Traffic Distribution Patterns

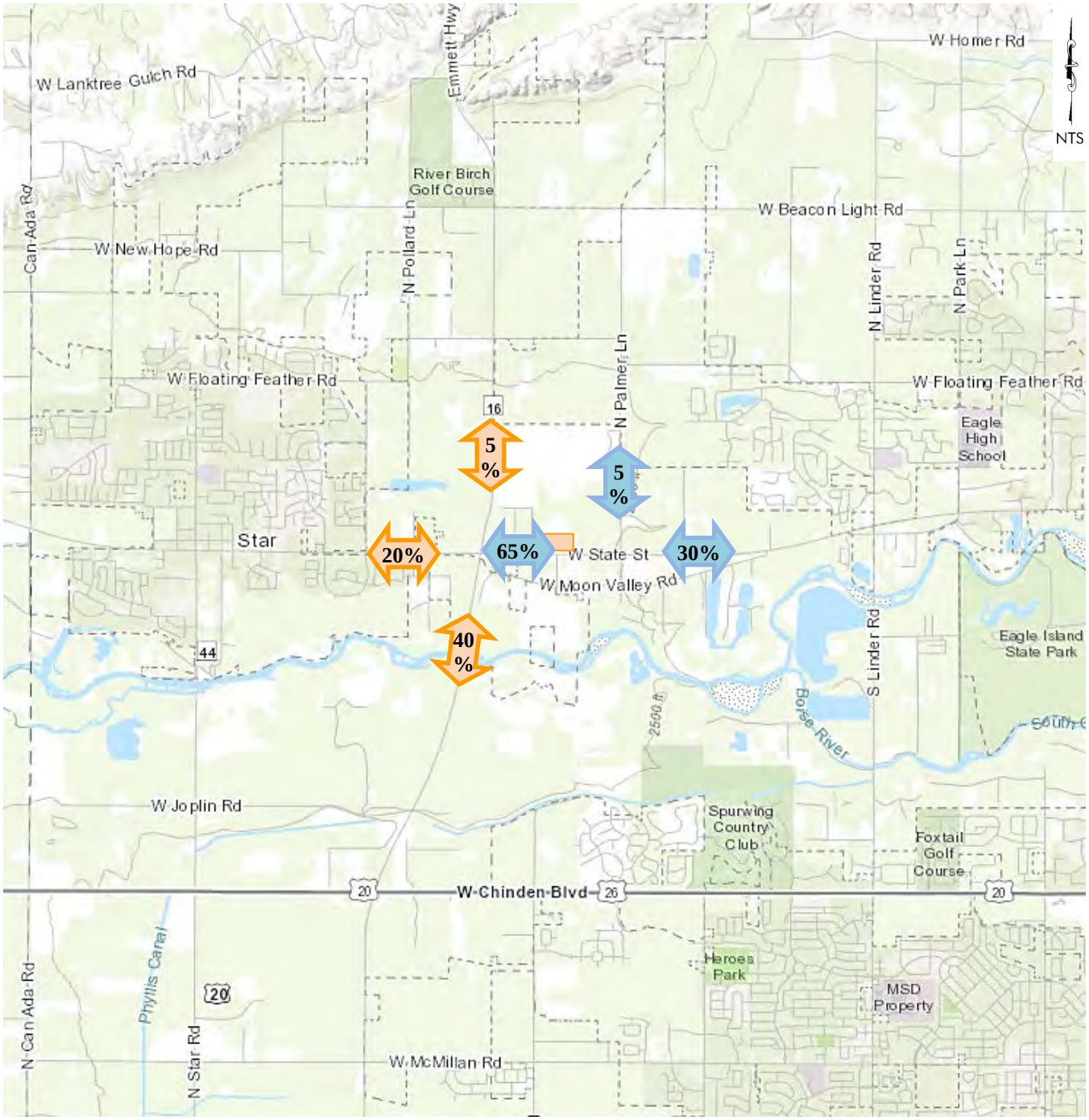
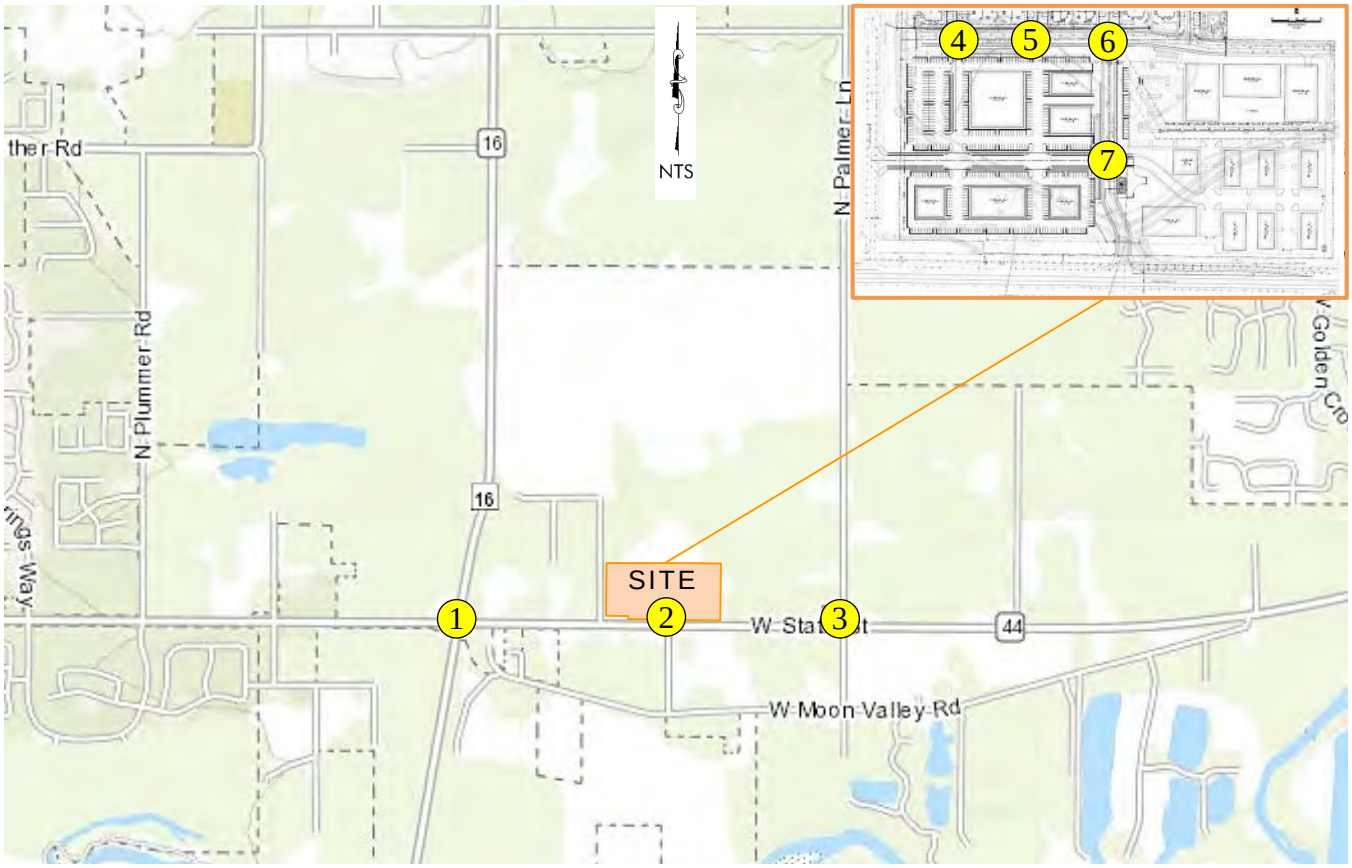
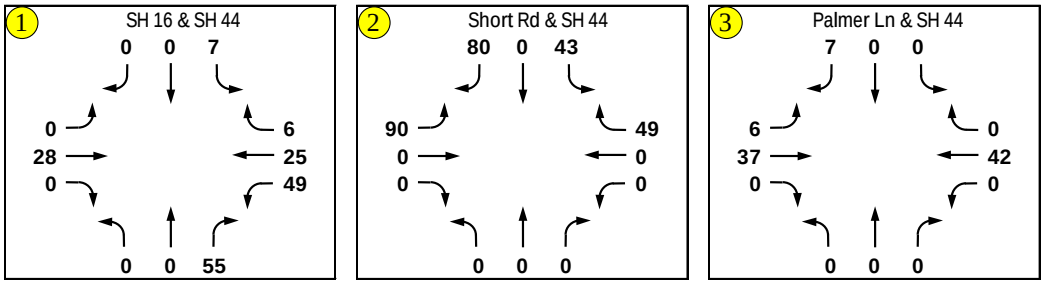


Figure 4.2 – Build-Out Year AM Peak Hour Site Traffic





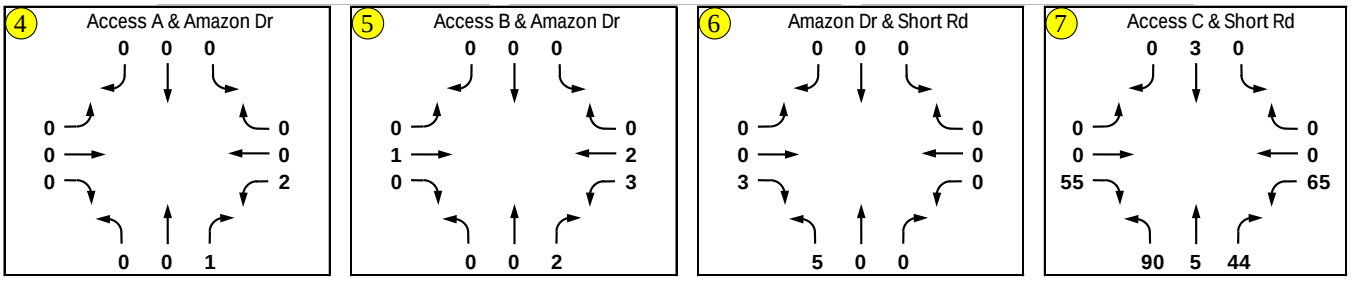
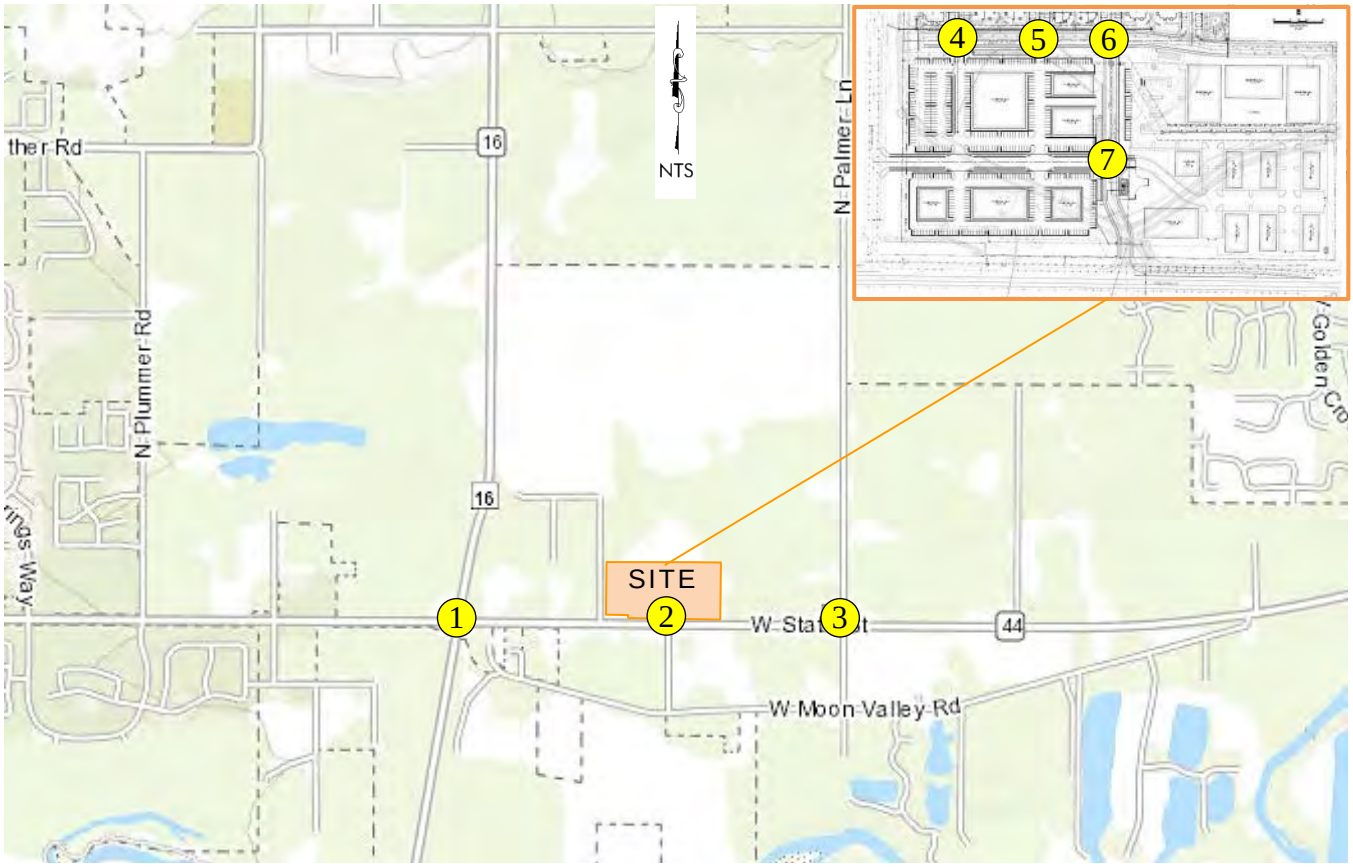
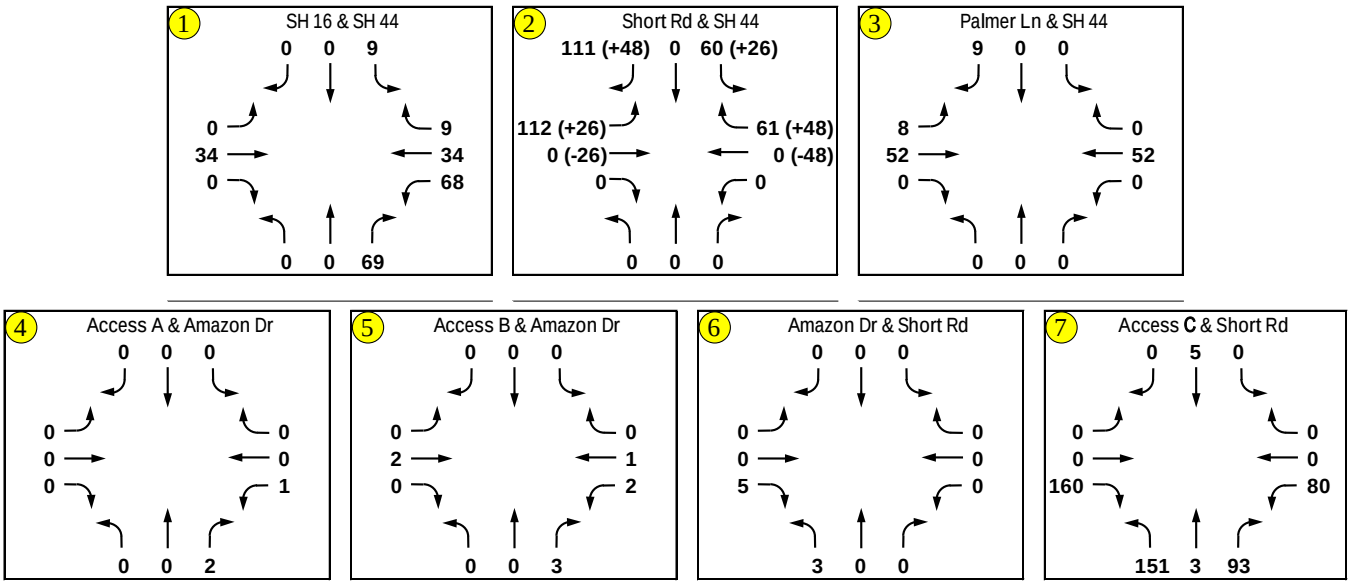


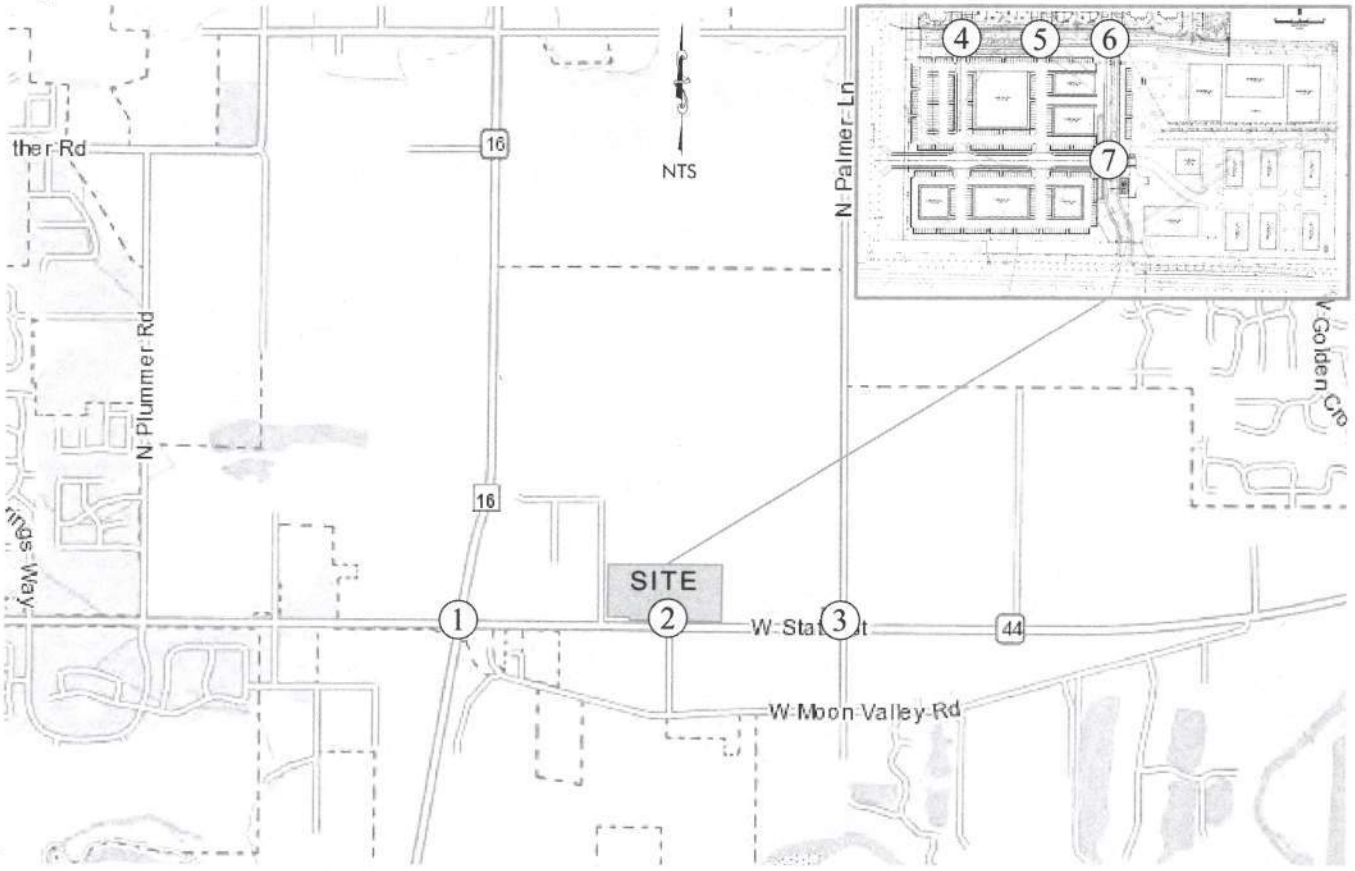
Figure 4.3 – Build-Out Year PM Peak Hour Site Traffic

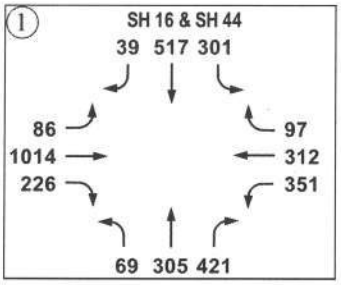


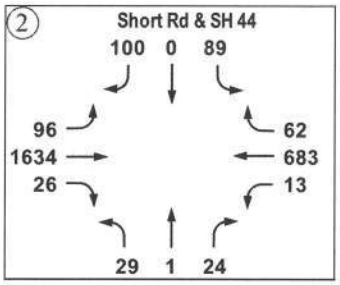


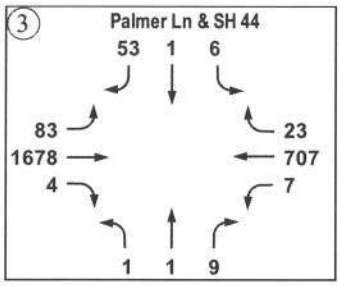
Note: Numbers in parentheses are pass-by trips

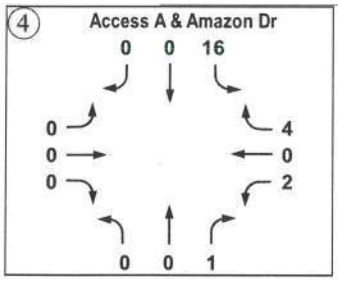
Figure 4.4 – 2025 Build-Out Year AM Peak Hour Total Traffic

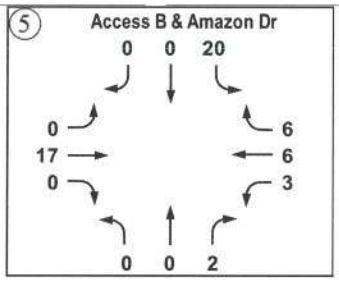


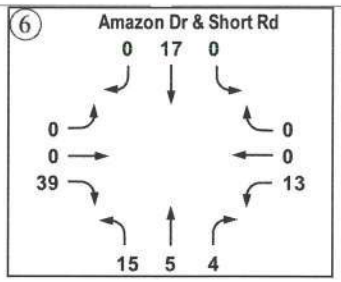












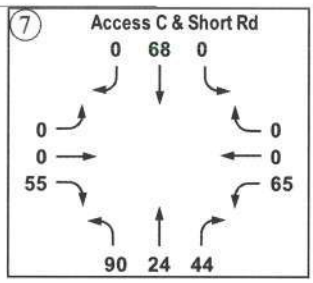
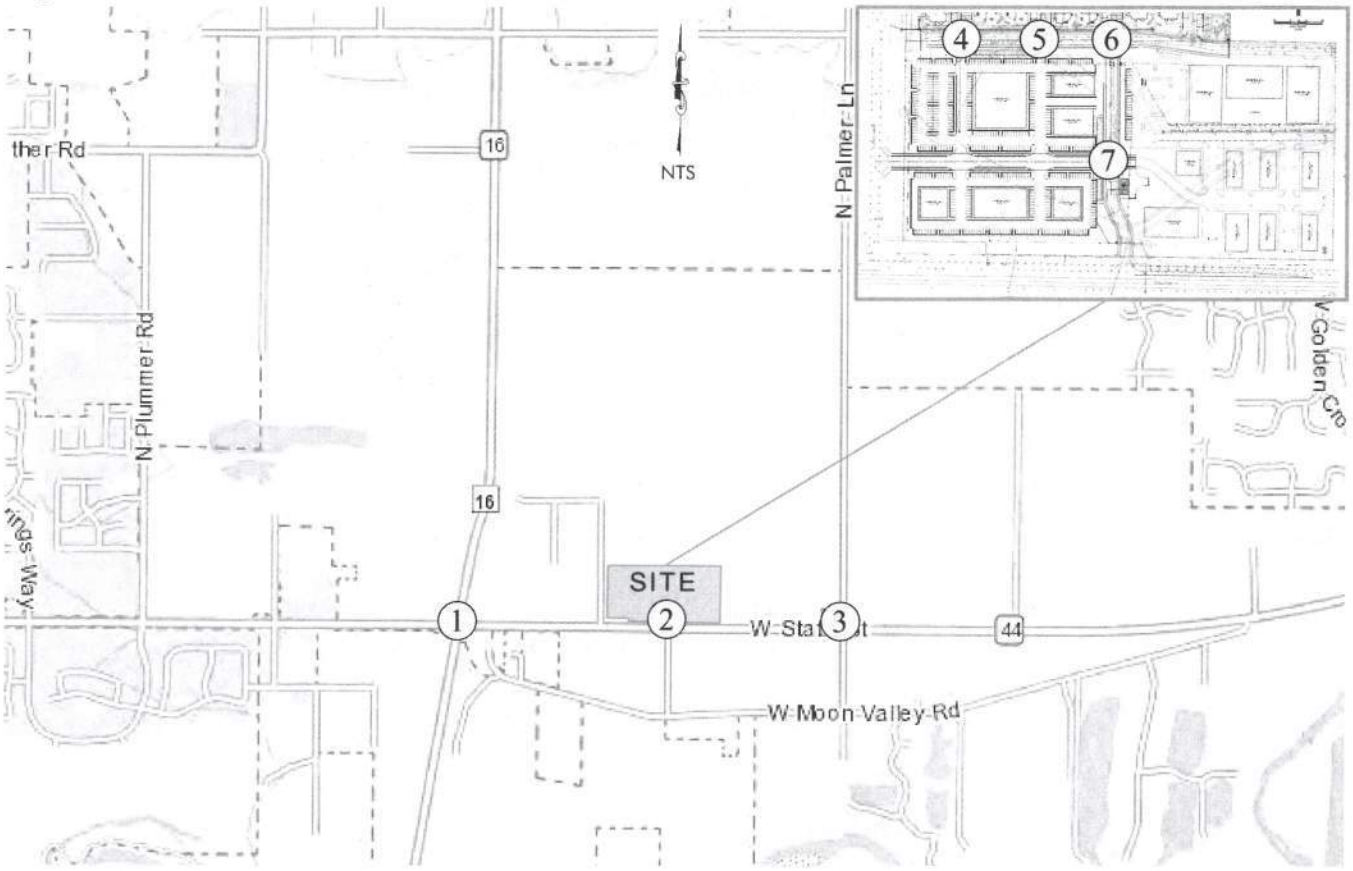
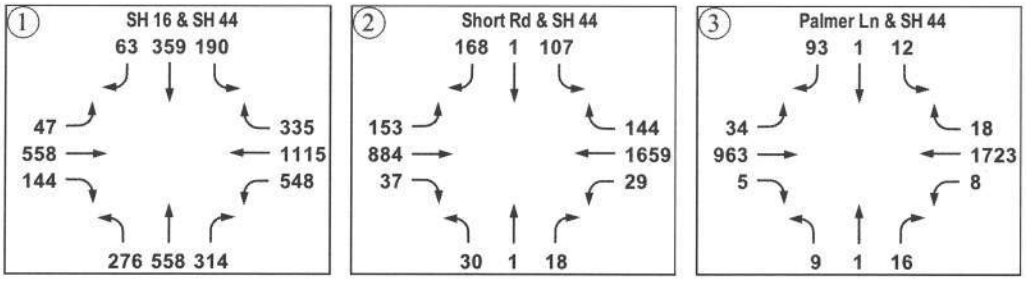


Figure 4.5 – 2025 Build-Out Year PM Peak Hour Total Traffic





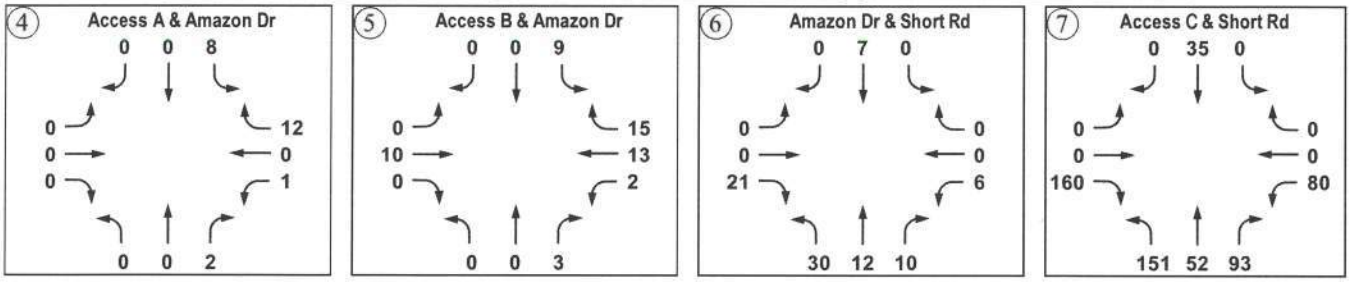


Figure 4.1 – Estimated Site Traffic Distribution Patterns

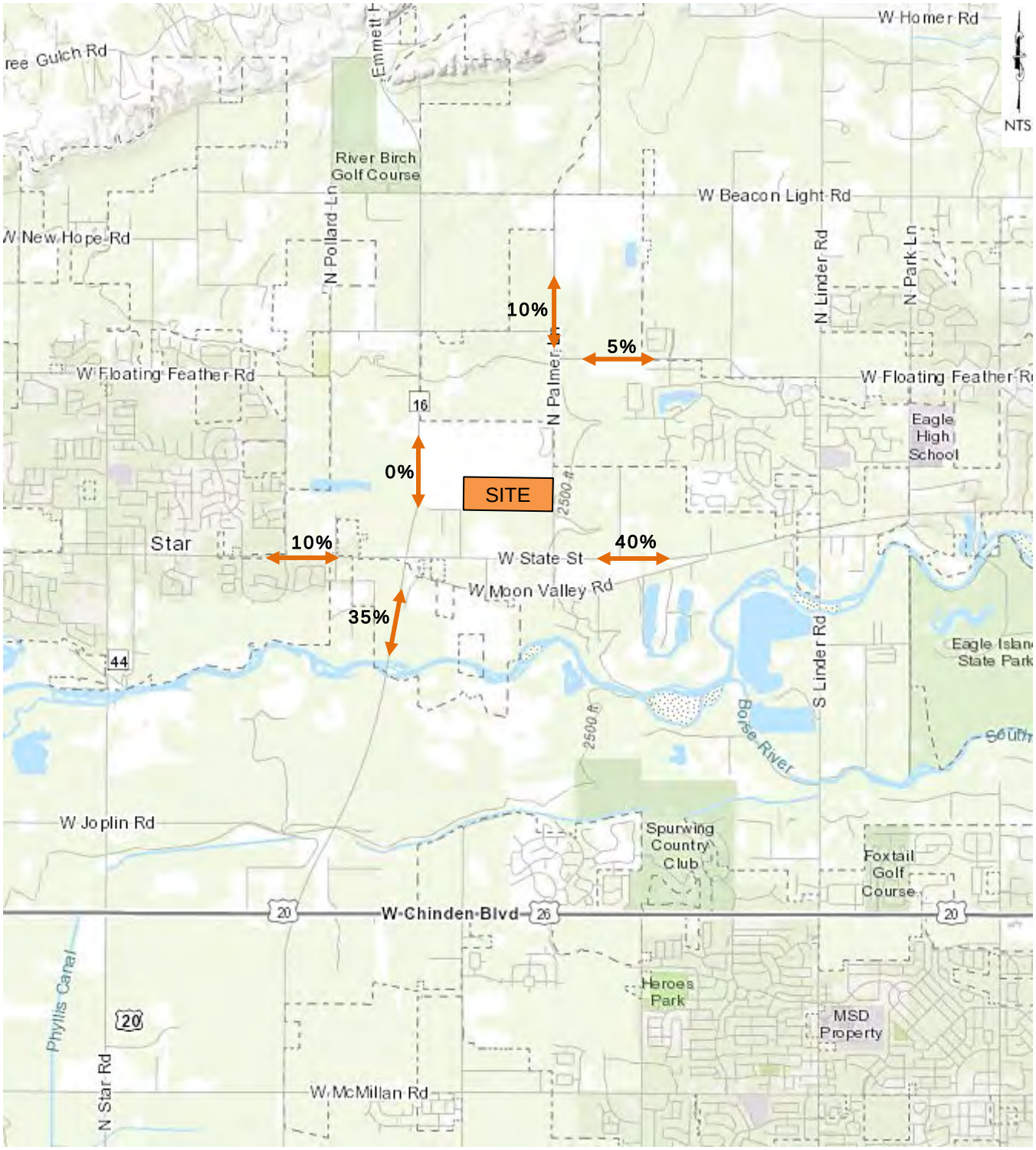
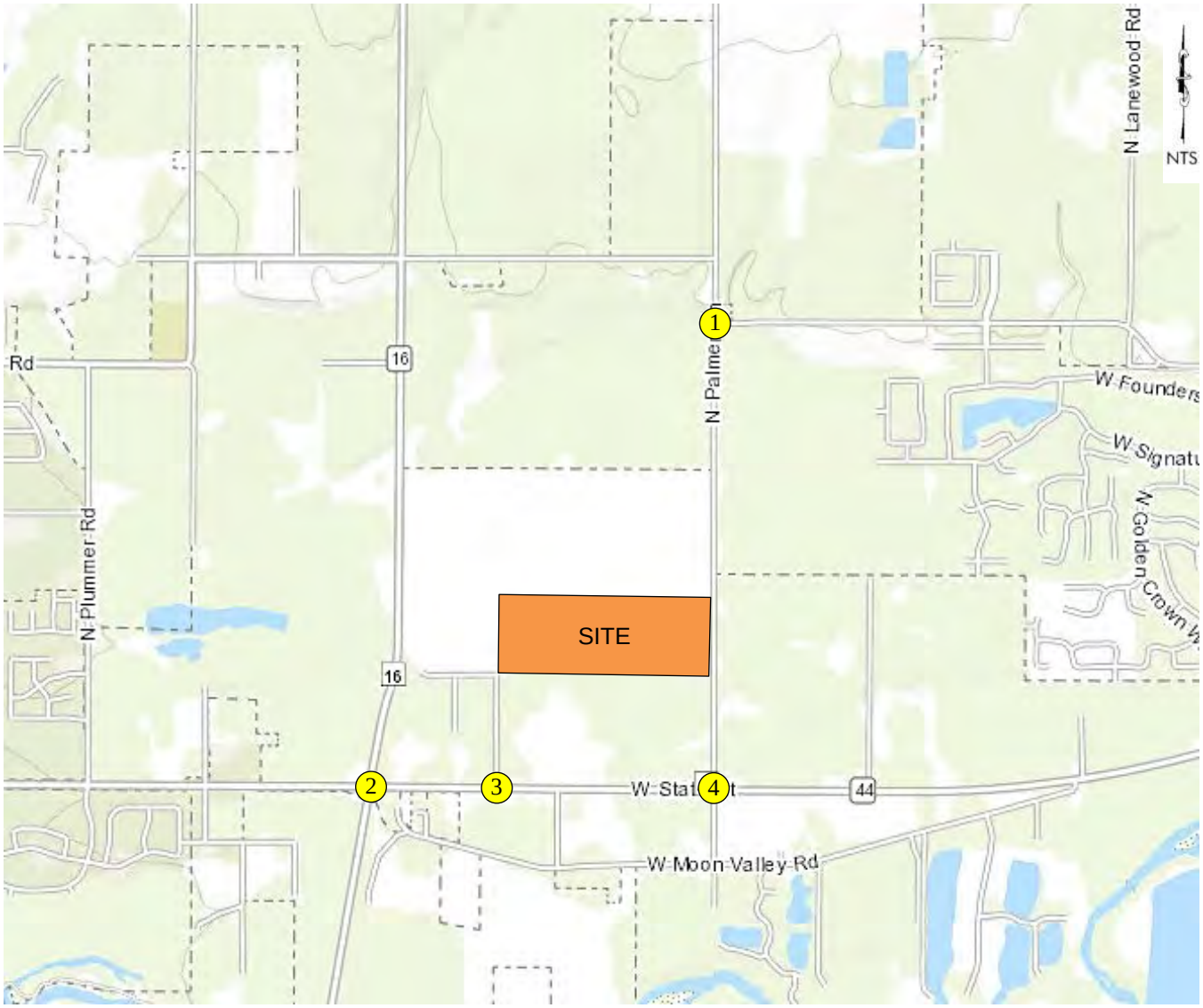


Figure 4.2 – Build-Out Year AM Peak Hour Site Traffic



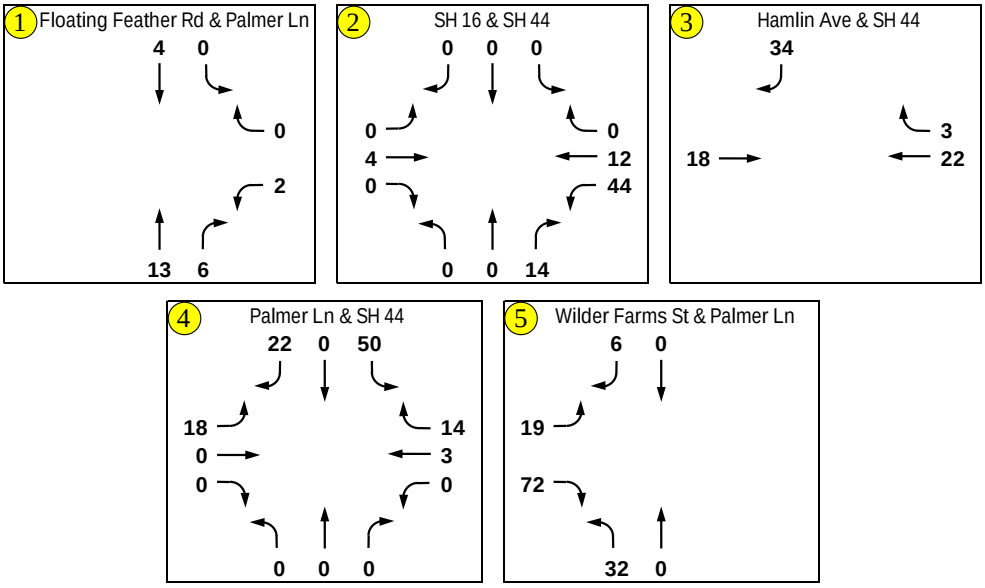
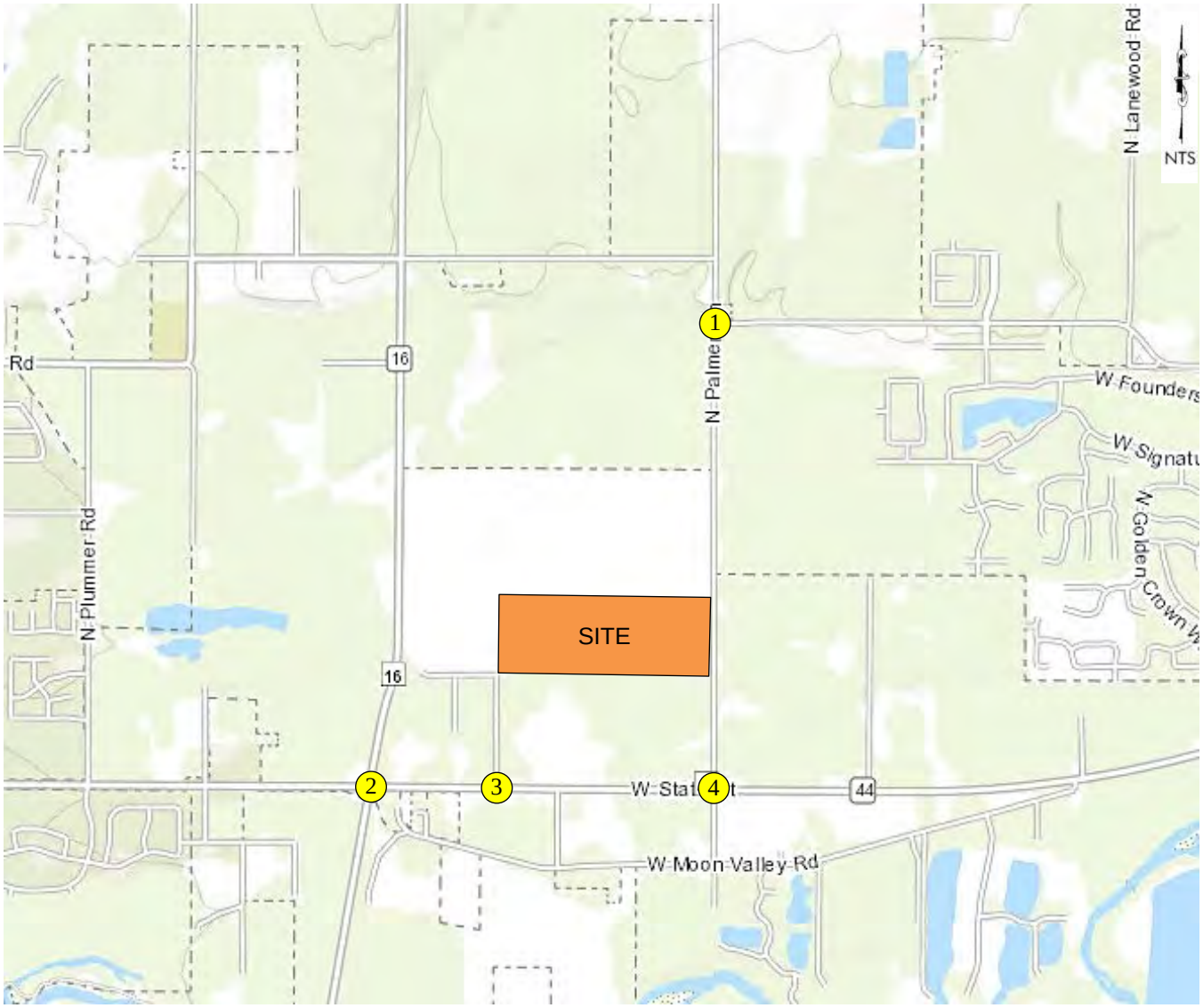


Figure 4.3 – Build-Out Year PM Peak Hour Site Traffic



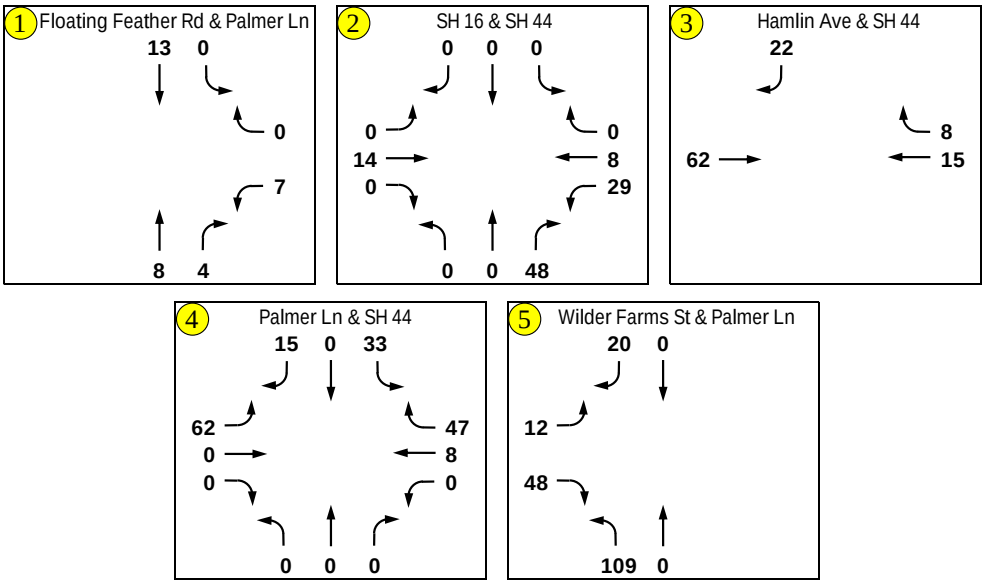


Figure 4.4 – 2025 Build-Out Year AM Peak Hour Total Traffic

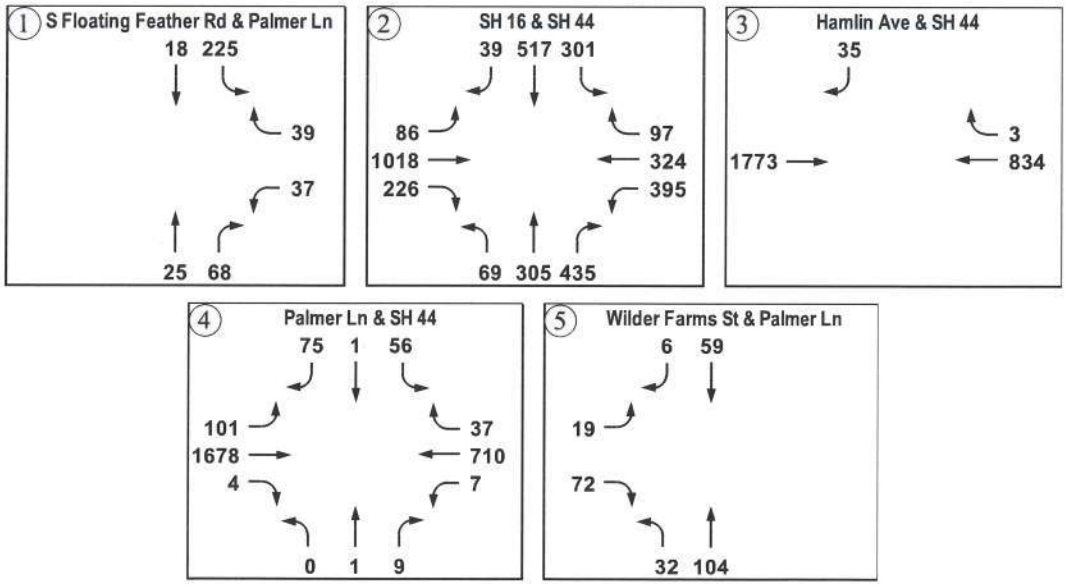
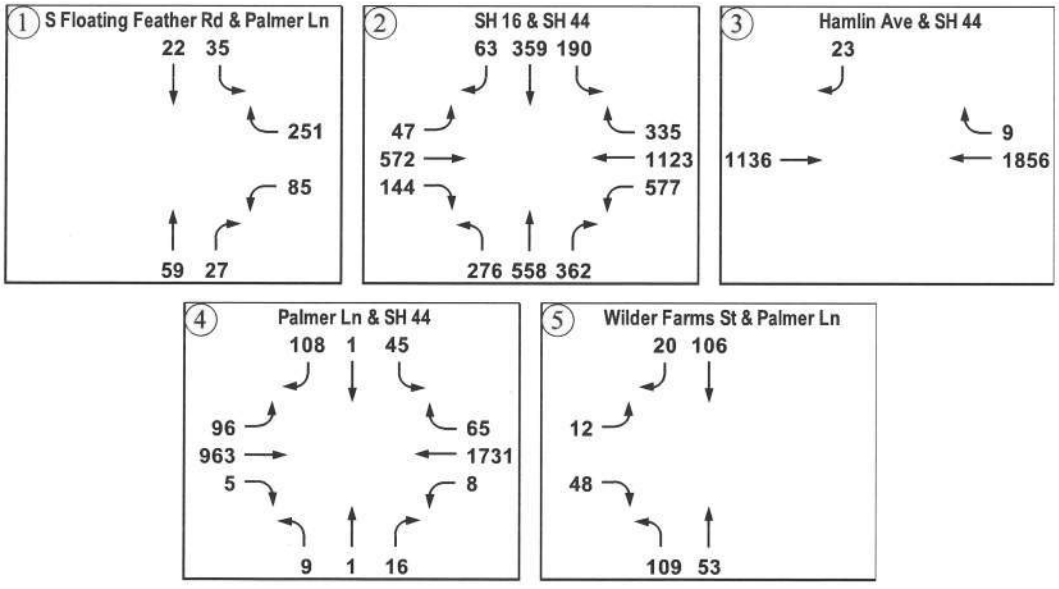


Figure 4.5 – 2025 Build-Out Year PM Peak Hour Total Traffic



COMPASS Population Growth Rates

Northern Star Proposed Development

The following summarizes the results of an area of influence model run for a proposed development located northeast of SH-16 and SH-44. The proposed development shown in Figure 1 will consist of 55 single family units, 81 townhomes, 320 apartment units, and 10.34 acres for possible commercial use with an anticipated build out by 2024. Year 2025 was used for this analysis.

Figure 1

Table 1 provides the existing demographics for TAZs 875 and 876 and the proposed development's demographics used for the area of influence model run. Temporary TAZs were used to isolate the impact of this development.

Table 1

	2021		2025 (Proposed)		2050	
	HH	Jobs	HH	Jobs	HH	Jobs
TAZs 875 and 876	*6*	70	*98*	337	417	1,175
Temp TAZs 1552,1553 and 1554	*0*	*0*	*456*	*185*	*0*	*0*
Surrounding TAZs	185	207	319	606	1,018	1,270
Total	191	277	873	1,128	1,435	2,445

Figure 2: Area of Influence (percent contribution to the total peak hour demand)
Figure 3: Peak Hour Demand with Proposed Development
Figure 4: Peak Hour Demand without Proposed Development
Figure 5: Surrounding Area TAZs
Figure 6, Figure 7, Figure 8, Figure 9, Figure 10, and Figure 11: Compounded Annual Growth Rates

Note to Reviewers: *The primary purpose of this report is to help agencies determine the scope of a Traffic Impact Study (TIS) and to assist TIS preparers in establishing trip distributions. New demand forecasted by the regional model for a proposed development may not match ITE Trip Generation estimates and they are not intended to replace the trip generation process of the TIS.*

Disclaimer Regarding Updated Model: *The results documented in this report are based on the latest regional model, maintained by COMPASS, released in October of 2021, and based on the COMPASS 2050 Vision adopted in August 2021. Due to changes in demographics, TAZs, model network and model parameters, results should not be compared to those provided prior to October of 2021.*

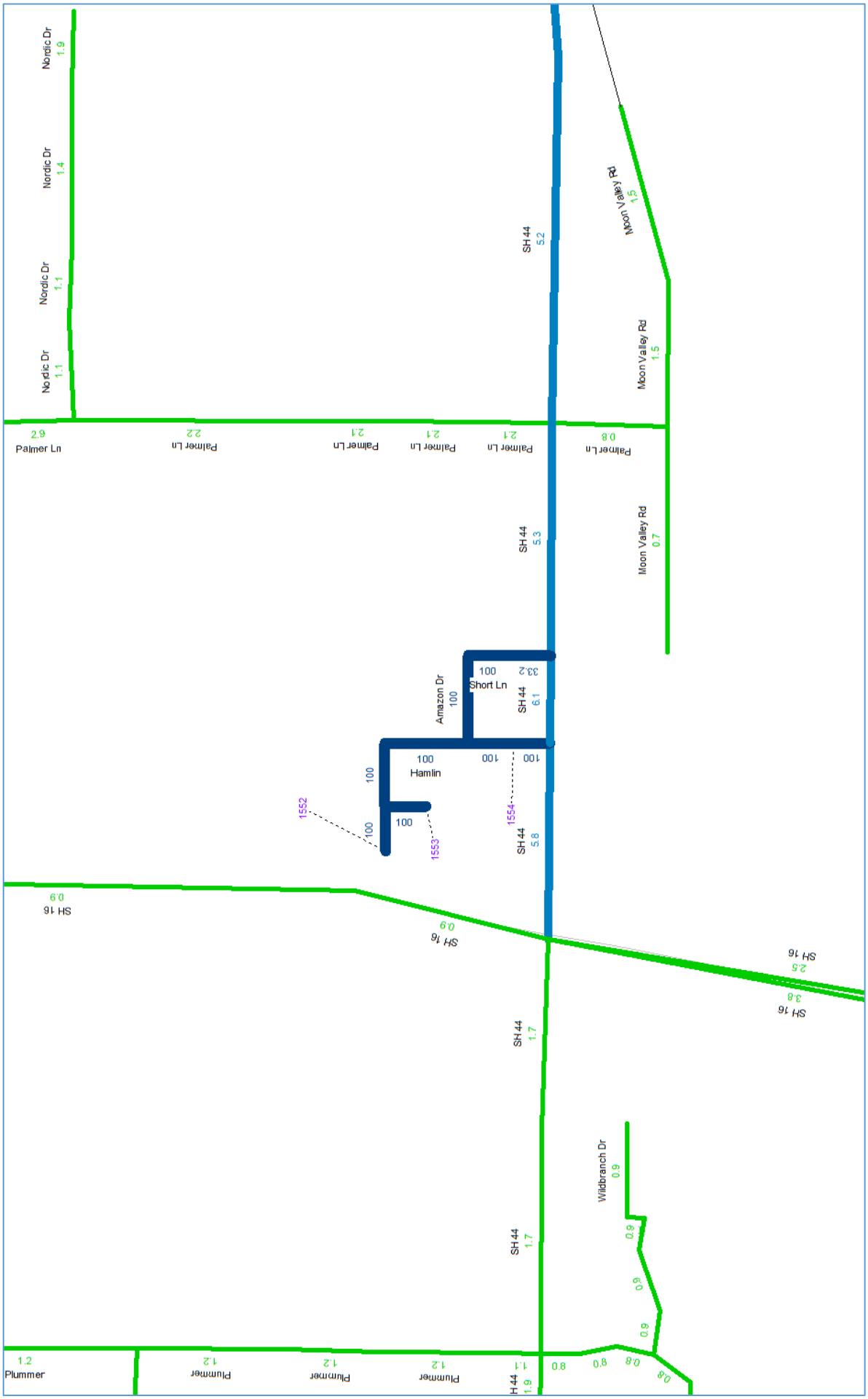


Figure 2: Area of Influence (percent contribution to the total peak hour demand)

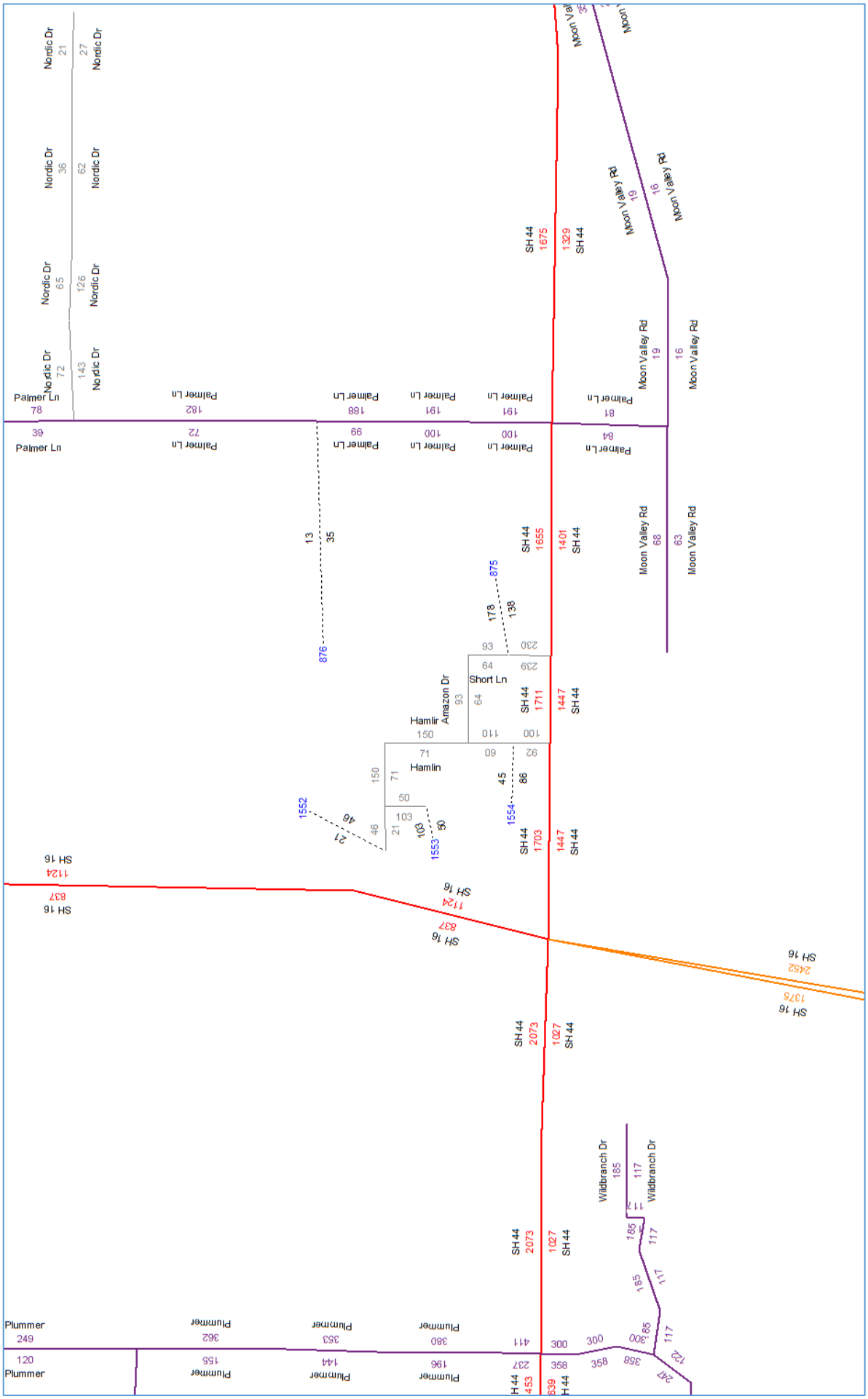


Figure 3: Peak Hour Demand with Proposed Development (Hamlin RI/RO)

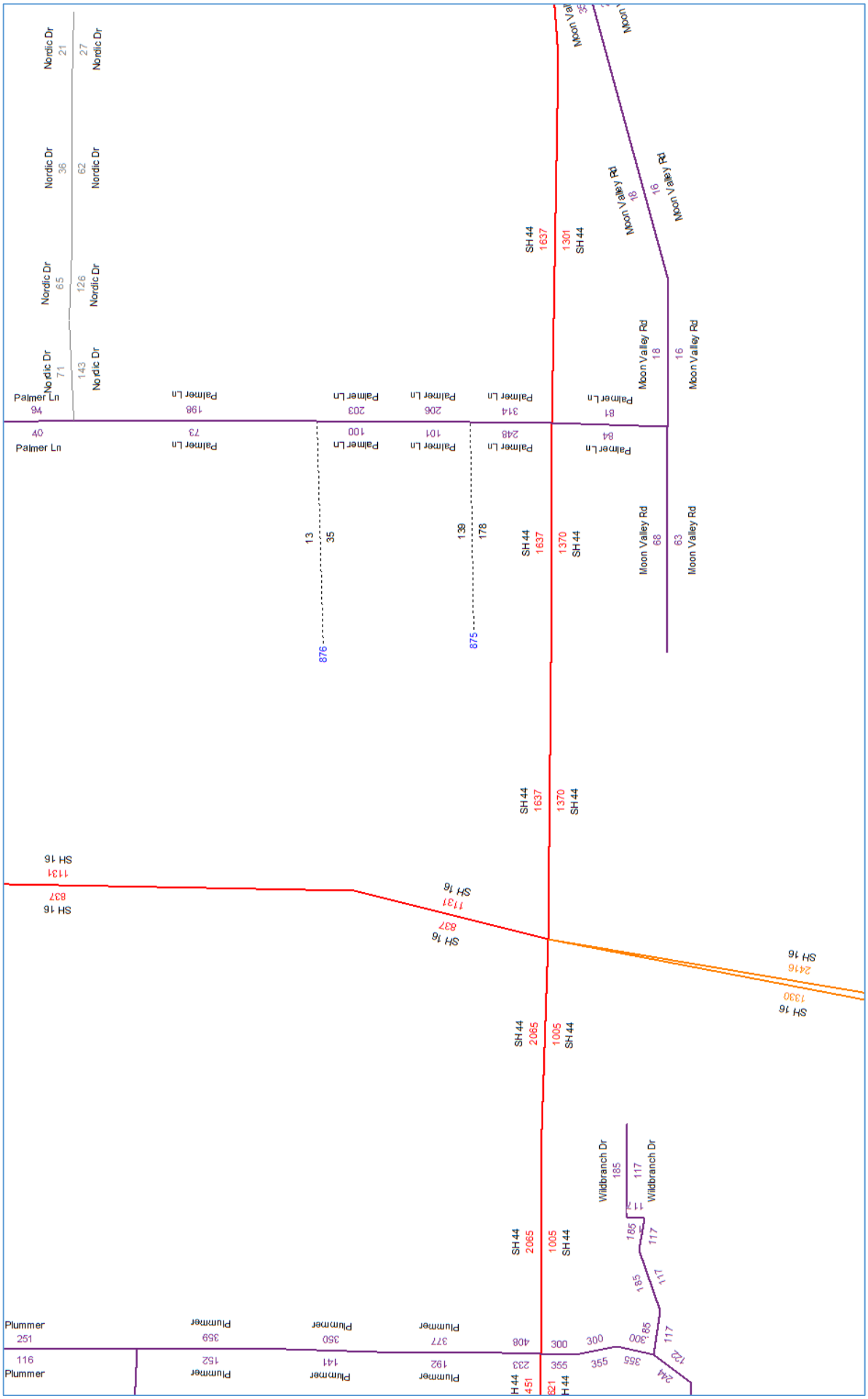
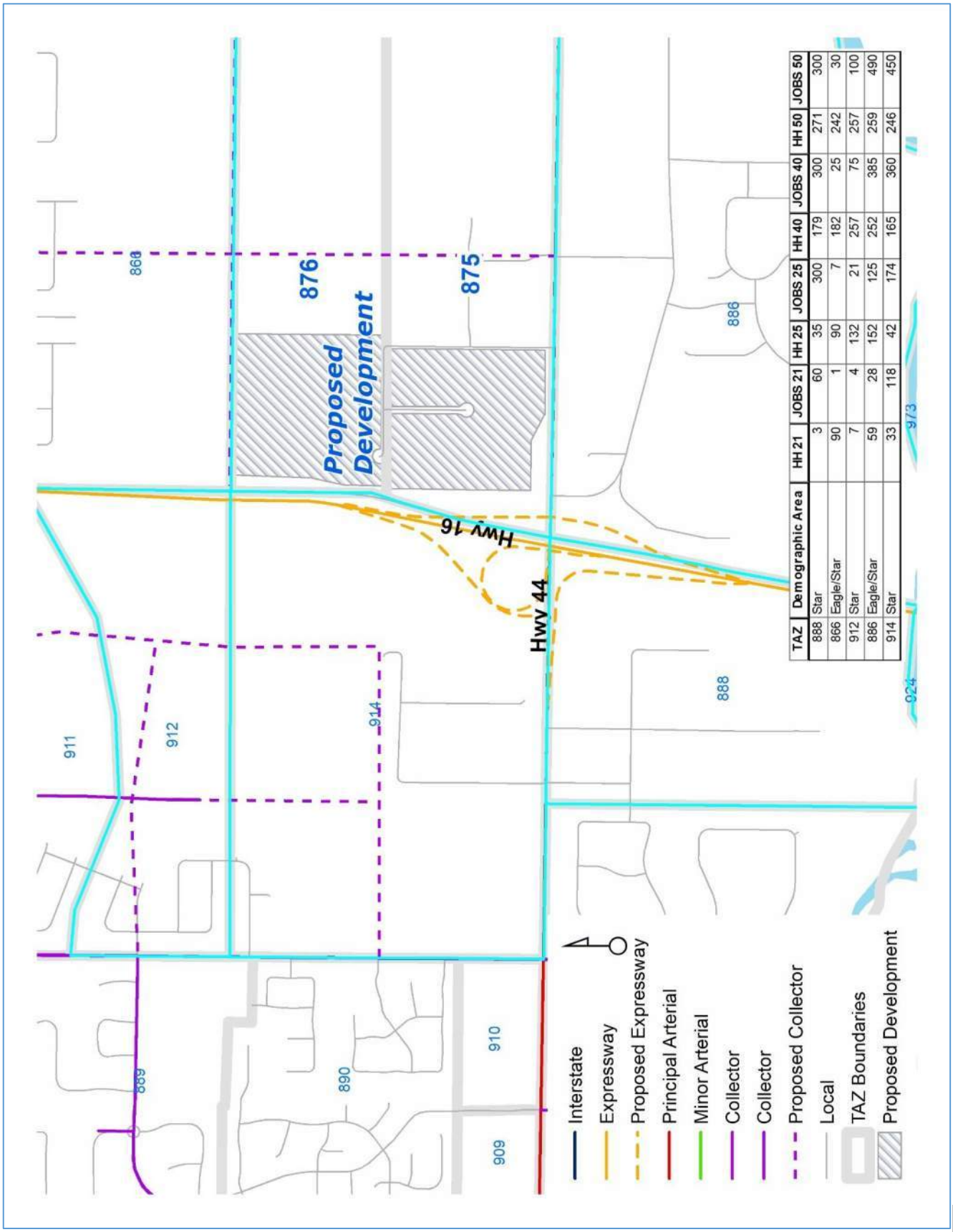


Figure 4: Peak Hour Demand without Proposed Development



TAZ	Demographic Area	HH 21	JOBS 21	HH 25	JOBS 25	HH 40	JOBS 40	HH 50	JOBS 50
888	Star	3	60	35	300	179	300	271	300
866	Eagle/Star	90	1	90	7	182	25	242	30
912	Star	7	4	132	21	257	75	257	100
886	Eagle/Star	59	28	152	125	252	385	259	490
914	Star	33	118	42	174	165	360	246	450

Figure 5: Surrounding Area TAZs

Figure 6: 2021 to 2025 Compounded Annual Growth Rates

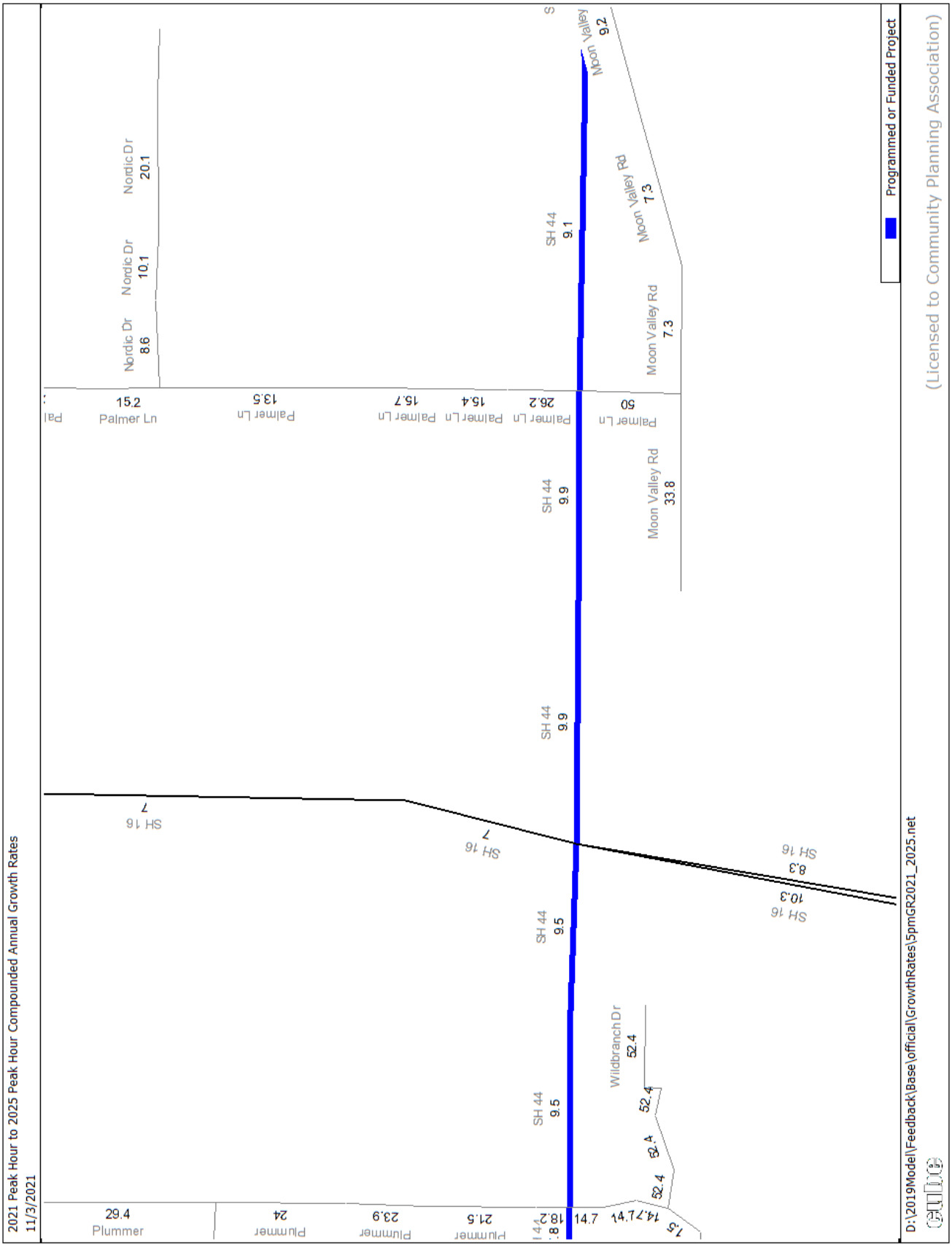


Figure 7: 2025 to 2030 Compounded Annual Growth Rates

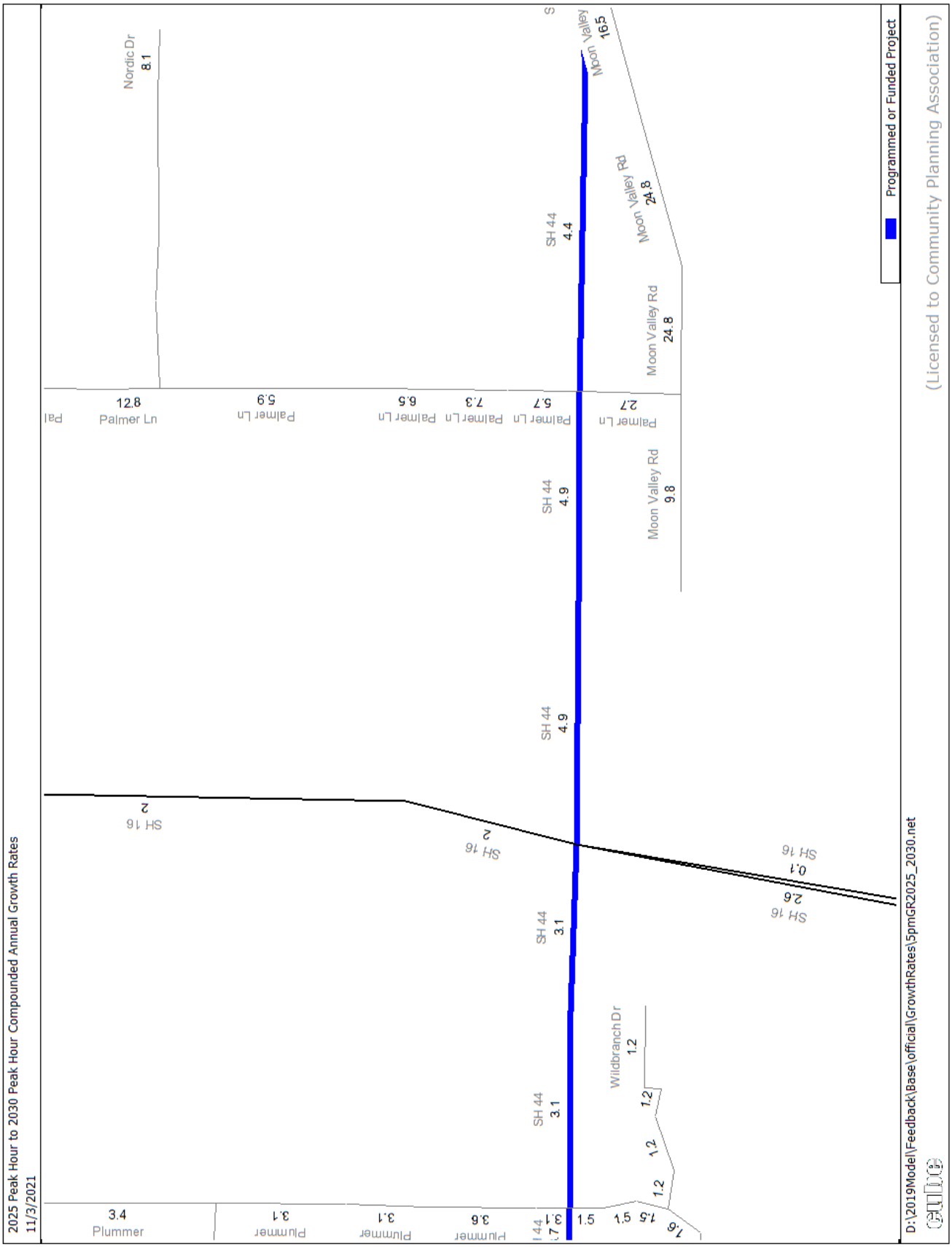


Figure 8: 2030 to 2035 Compounded Annual Growth Rates

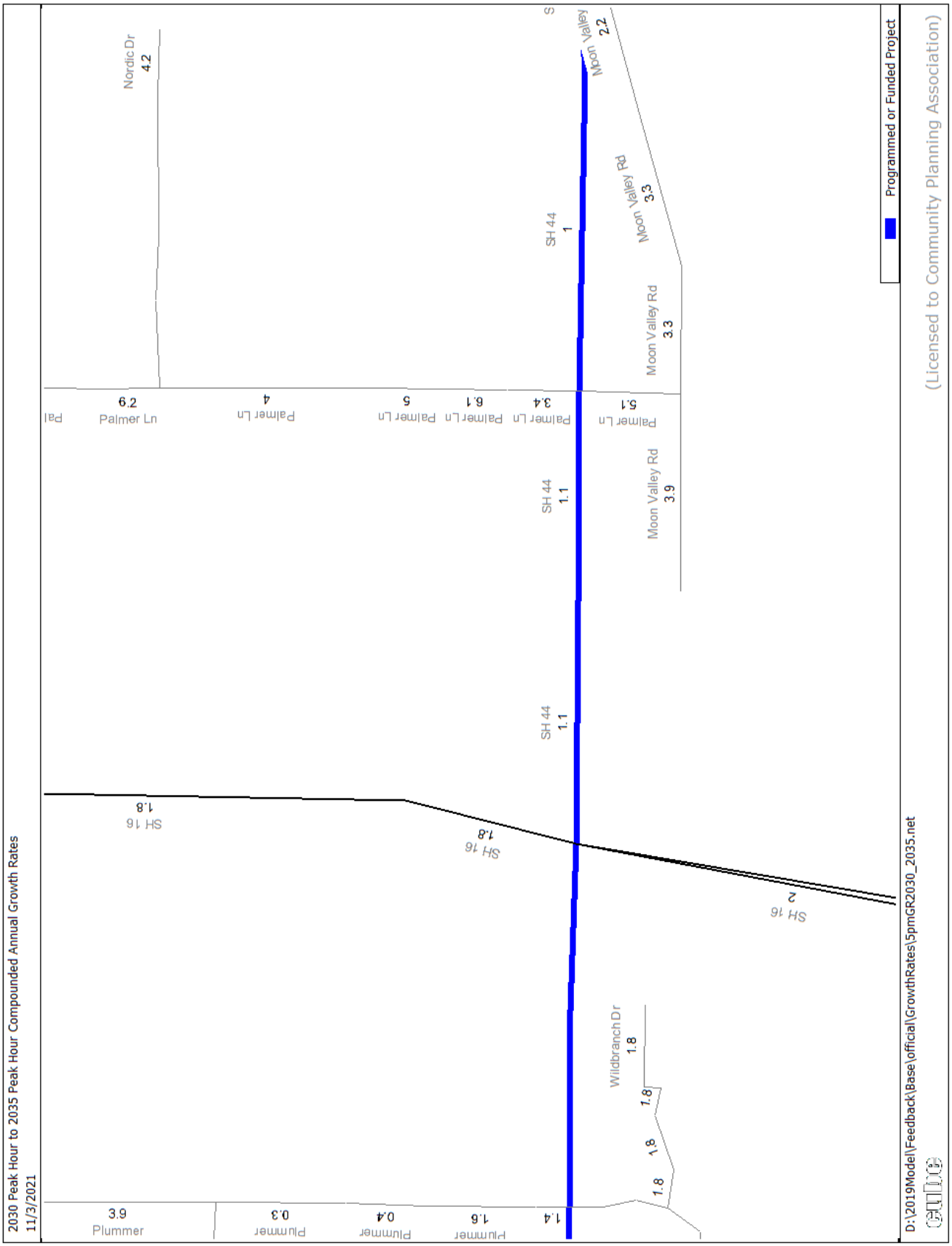


Figure 9: 2035 to 2040 Compounded Annual Growth Rates

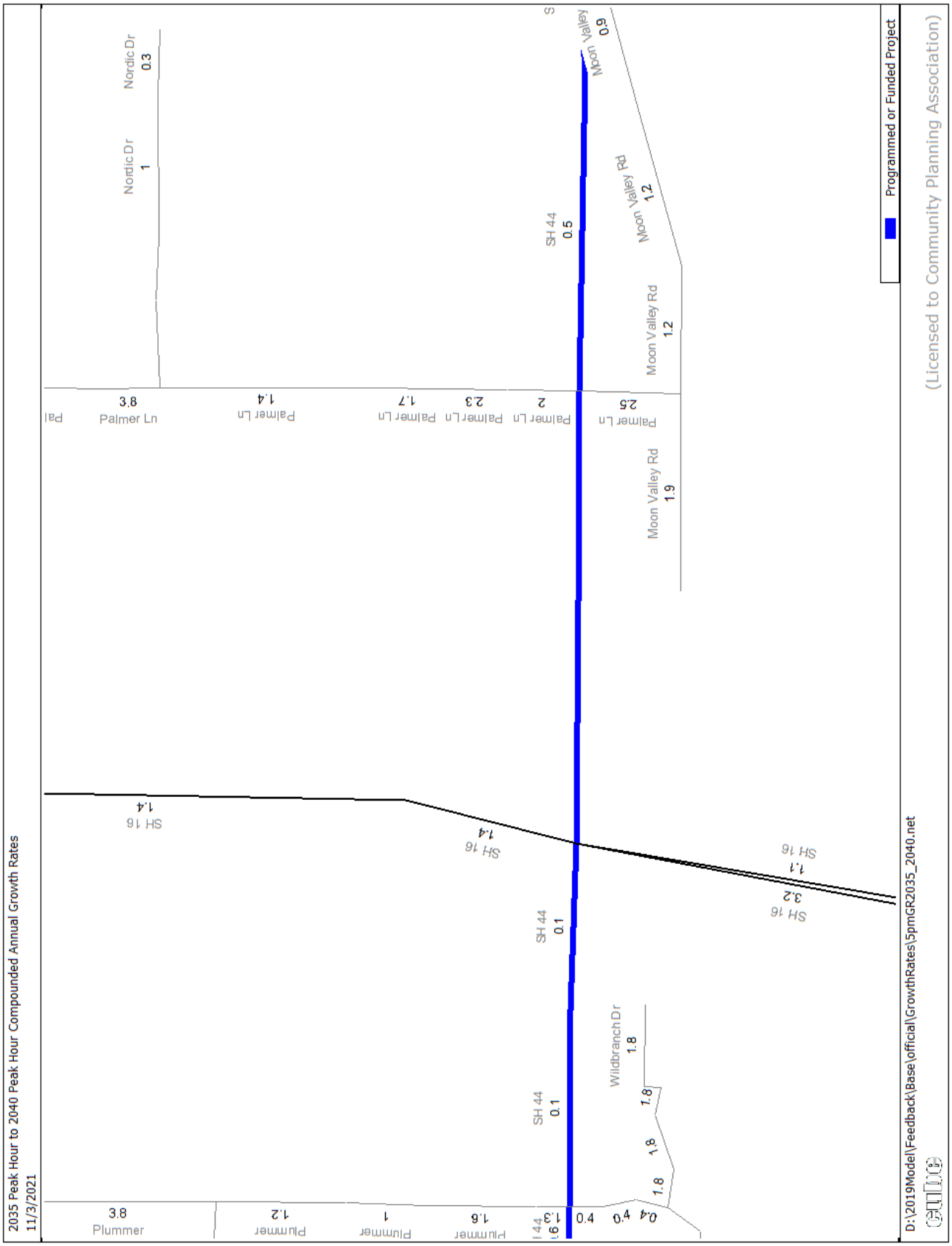


Figure 10: 2040 to 2045 Compounded Annual Growth Rates

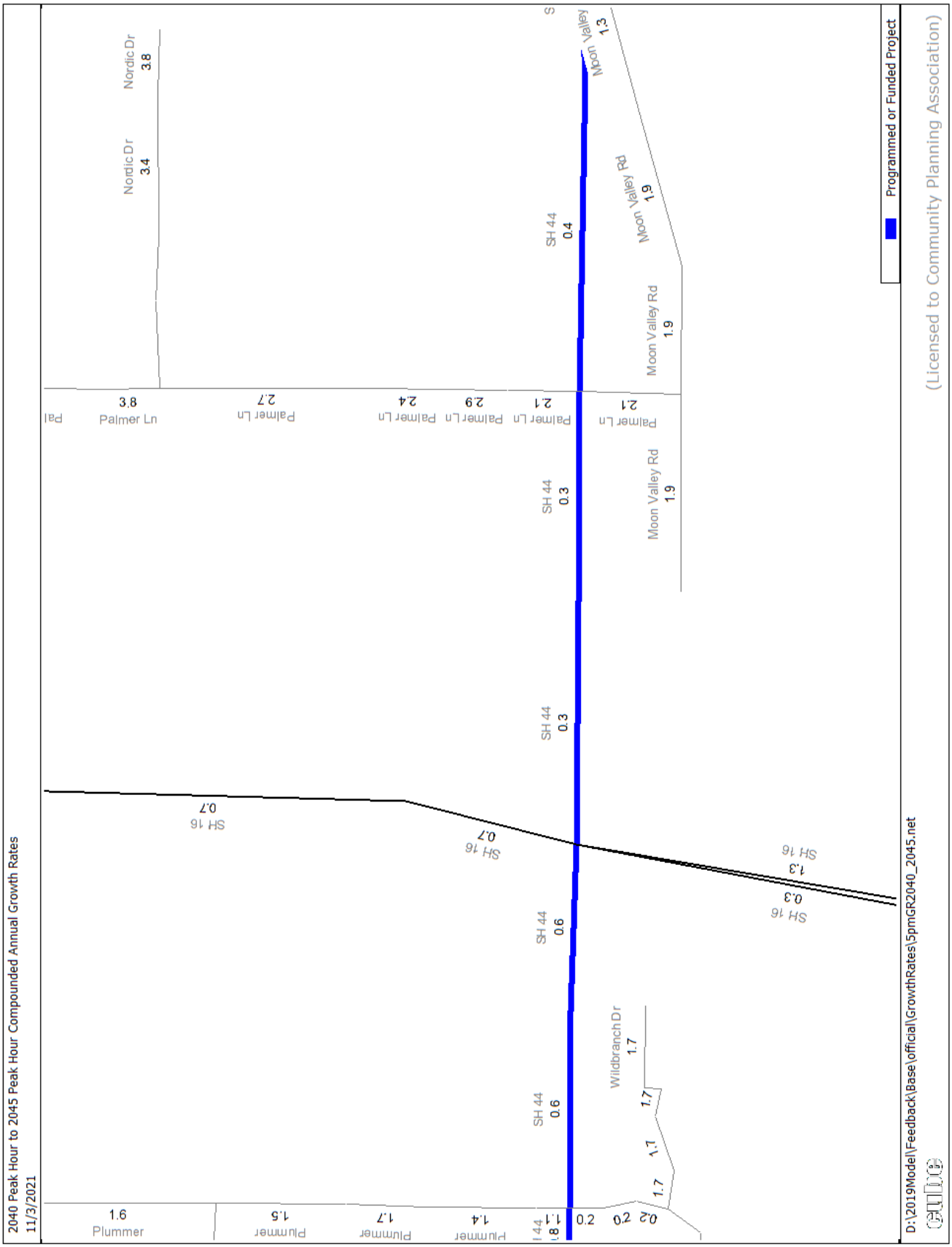
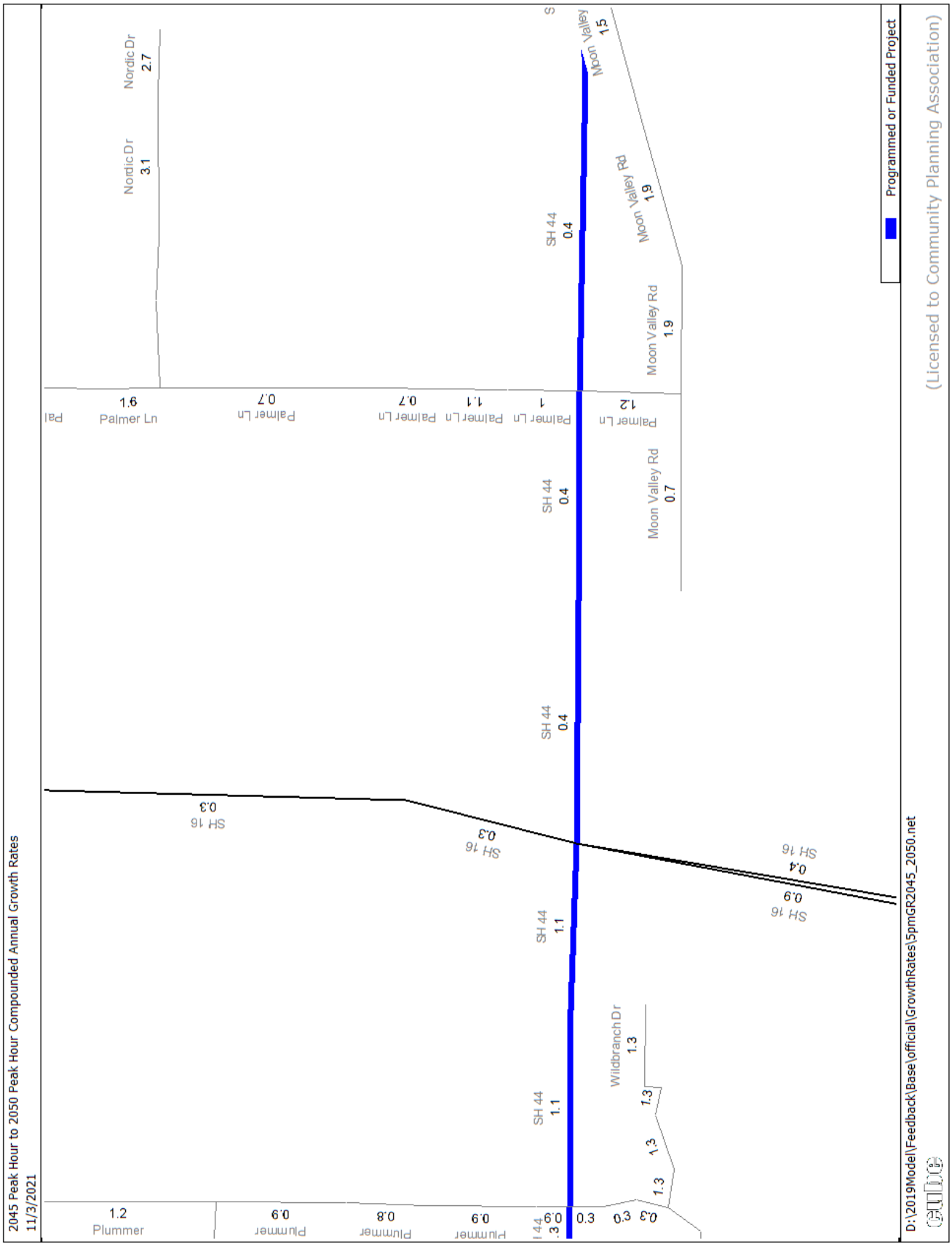


Figure 11: 2045 to 2050 Compounded Annual Growth Rates



Traffic Analysis Reports

2022 Existing Traffic Analysis

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↱			↗
Traffic Vol, veh/h	0	1187	560	3	0	6
Future Vol, veh/h	0	1187	560	3	0	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	94	94	93	93	38	38
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	1263	602	3	0	16

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	604
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.318
Pot Cap-1 Maneuver	0	-	-	-	0	498
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	498
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	12.5
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	498
HCM Lane V/C Ratio	-	-	-	0.032
HCM Control Delay (s)	-	-	-	12.5
HCM Lane LOS	-	-	-	B
HCM 95th %tile Q(veh)	-	-	-	0.1

Intersection	
Int Delay, s/veh	2.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	10	1109	68	23	545	3	12	0	17	3	0	6
Future Vol, veh/h	10	1109	68	23	545	3	12	0	17	3	0	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	100	-	375	100	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	66	66	66	38	38	38
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	11	1192	73	25	586	3	18	0	26	8	0	16

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	589	0	0	1265	0	0	1897	1890	1229	1900	1923	586
Stage 1	-	-	-	-	-	-	1251	1251	-	636	636	-
Stage 2	-	-	-	-	-	-	646	639	-	1264	1287	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	986	-	-	549	-	-	53	70	217	53	67	510
Stage 1	-	-	-	-	-	-	211	244	-	466	472	-
Stage 2	-	-	-	-	-	-	460	470	-	208	235	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	986	-	-	549	-	-	49	66	217	45	63	510
Mov Cap-2 Maneuver	-	-	-	-	-	-	49	66	-	45	63	-
Stage 1	-	-	-	-	-	-	209	241	-	461	450	-
Stage 2	-	-	-	-	-	-	425	448	-	181	232	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.5	62.2	42
HCM LOS			F	E

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	49	217	986	-	-	549	-	-	45	510
HCM Lane V/C Ratio	0.371	0.119	0.011	-	-	0.045	-	-	0.175	0.031
HCM Control Delay (s)	116.7	23.8	8.7	-	-	11.9	-	-	101.3	12.3
HCM Lane LOS	F	C	A	-	-	B	-	-	F	B
HCM 95th %tile Q(veh)	1.3	0.4	0	-	-	0.1	-	-	0.6	0.1

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	6	1	0	0	8	3	2	0	2	0
Future Vol, veh/h	0	0	6	1	0	0	8	3	2	0	2	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	7	1	0	0	9	3	2	0	2	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	0	0	0	7	0	0	7	6	4	8	9	0
Stage 1	-	-	-	-	-	-	4	4	-	2	2	-
Stage 2	-	-	-	-	-	-	3	2	-	6	7	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	-	-	-	1614	-	-	1013	889	1080	1011	886	-
Stage 1	-	-	-	-	-	-	1018	892	-	1021	894	-
Stage 2	-	-	-	-	-	-	1020	894	-	1016	890	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	1614	-	-	-	888	1080	1005	885	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	888	-	1005	885	-
Stage 1	-	-	-	-	-	-	1018	892	-	1021	893	-
Stage 2	-	-	-	-	-	-	1016	893	-	1010	890	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	7.2		
HCM LOS			-	-

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	-	1614	-	-	-
HCM Lane V/C Ratio	-	-	-	-	0.001	-	-	-
HCM Control Delay (s)	-	0	-	-	7.2	0	-	-
HCM Lane LOS	-	A	-	-	A	A	-	-
HCM 95th %tile Q(veh)	-	-	-	-	0	-	-	-

Intersection	
Int Delay, s/veh	2.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	0	6	0	0	3	0
Future Vol, veh/h	0	6	0	0	3	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	7	0	0	3	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	7	0	5	4
Stage 1	-	-	-	-	4	-
Stage 2	-	-	-	-	1	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1614	-	1017	1080
Stage 1	-	-	-	-	1019	-
Stage 2	-	-	-	-	1022	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1614	-	1017	1080
Mov Cap-2 Maneuver	-	-	-	-	1017	-
Stage 1	-	-	-	-	1019	-
Stage 2	-	-	-	-	1022	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	8.6
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1017	-	-	1614	-
HCM Lane V/C Ratio	0.003	-	-	-	-
HCM Control Delay (s)	8.6	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	596	1179	3	0	4
Future Vol, veh/h	0	596	1179	3	0	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	87	87	98	98	31	31
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	685	1203	3	0	13

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	1205
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.318
Pot Cap-1 Maneuver	0	-	-	-	0	224
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	224
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	22.1
HCM LOS			C

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	224
HCM Lane V/C Ratio	-	-	-	0.058
HCM Control Delay (s)	-	-	-	22.1
HCM Lane LOS	-	-	-	C
HCM 95th %tile Q(veh)	-	-	-	0.2

Intersection	
Int Delay, s/veh	3.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	577	14	4	1156	3	22	0	16	1	0	4
Future Vol, veh/h	5	577	14	4	1156	3	22	0	16	1	0	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	100	-	375	100	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	97	97	97	63	63	63	31	31	31
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	6	656	16	4	1192	3	35	0	25	3	0	13

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1195	0	0	672	0	0	1884	1879	664	1889	1884	1192
Stage 1	-	-	-	-	-	-	676	676	-	1200	1200	-
Stage 2	-	-	-	-	-	-	1208	1203	-	689	684	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	584	-	-	919	-	-	54	71	461	53	71	228
Stage 1	-	-	-	-	-	-	443	453	-	226	258	-
Stage 2	-	-	-	-	-	-	224	257	-	436	449	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	584	-	-	919	-	-	50	70	461	50	70	228
Mov Cap-2 Maneuver	-	-	-	-	-	-	50	70	-	50	70	-
Stage 1	-	-	-	-	-	-	439	448	-	224	257	-
Stage 2	-	-	-	-	-	-	210	256	-	408	445	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0	106.5	33.7
HCM LOS			F	D

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	50	461	584	-	-	919	-	-	50	228
HCM Lane V/C Ratio	0.698	0.055	0.01	-	-	0.004	-	-	0.065	0.057
HCM Control Delay (s)	174.2	13.3	11.2	-	-	8.9	-	-	81.9	21.7
HCM Lane LOS	F	B	B	-	-	A	-	-	F	C
HCM 95th %tile Q(veh)	2.8	0.2	0	-	-	0	-	-	0.2	0.2

Intersection	
Int Delay, s/veh	5.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	4	0	0	0	5	2	1	0	1	0
Future Vol, veh/h	0	0	4	0	0	0	5	2	1	0	1	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	4	0	0	0	5	2	1	0	1	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1	0	0	4	0	0	4	3	2	5	5	1
Stage 1	-	-	-	-	-	-	2	2	-	1	1	-
Stage 2	-	-	-	-	-	-	2	1	-	4	4	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1622	-	-	1618	-	-	1017	893	1082	1016	890	1084
Stage 1	-	-	-	-	-	-	1021	894	-	1022	895	-
Stage 2	-	-	-	-	-	-	1021	895	-	1018	892	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1622	-	-	1618	-	-	1016	893	1082	1013	890	1084
Mov Cap-2 Maneuver	-	-	-	-	-	-	1016	893	-	1013	890	-
Stage 1	-	-	-	-	-	-	1021	894	-	1022	895	-
Stage 2	-	-	-	-	-	-	1020	895	-	1015	892	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	8.7	9.1
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	989	1622	-	-	1618	-	-	890
HCM Lane V/C Ratio	0.009	-	-	-	-	-	-	0.001
HCM Control Delay (s)	8.7	0	-	-	0	-	-	9.1
HCM Lane LOS	A	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0

Intersection	
Int Delay, s/veh	3.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	0	4	0	0	3	0
Future Vol, veh/h	0	4	0	0	3	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	4	0	0	3	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	4	0	3	2
Stage 1	-	-	-	-	2	-
Stage 2	-	-	-	-	1	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1618	-	1019	1082
Stage 1	-	-	-	-	1021	-
Stage 2	-	-	-	-	1022	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1618	-	1019	1082
Mov Cap-2 Maneuver	-	-	-	-	1019	-
Stage 1	-	-	-	-	1021	-
Stage 2	-	-	-	-	1022	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	8.5
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1019	-	-	1618	-
HCM Lane V/C Ratio	0.003	-	-	-	-
HCM Control Delay (s)	8.5	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

2023 Background Year Traffic Analysis

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	1306	631	3	0	7
Future Vol, veh/h	0	1306	631	3	0	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	1451	701	3	0	8

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	352
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	-	0	644
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	644
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	10.7
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	644
HCM Lane V/C Ratio	-	-	-	0.012
HCM Control Delay (s)	-	-	-	10.7
HCM Lane LOS	-	-	-	B
HCM 95th %tile Q(veh)	-	-	-	0

Intersection	
Int Delay, s/veh	3.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	12	1219	75	25	599	9	13	0	19	45	0	22
Future Vol, veh/h	12	1219	75	25	599	9	13	0	19	45	0	22
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	100	100	-	375	100	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	13	1354	83	28	666	10	14	0	21	50	0	24

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	676	0	0	1437	0	0	1769	2112	677	1425	2185	333
Stage 1	-	-	-	-	-	-	1380	1380	-	722	722	-
Stage 2	-	-	-	-	-	-	389	732	-	703	1463	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	911	-	-	468	-	-	53	50	395	96	45	663
Stage 1	-	-	-	-	-	-	152	210	-	384	429	-
Stage 2	-	-	-	-	-	-	606	425	-	394	191	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	911	-	-	468	-	-	48	46	395	86	42	663
Mov Cap-2 Maneuver	-	-	-	-	-	-	48	46	-	86	42	-
Stage 1	-	-	-	-	-	-	150	207	-	379	403	-
Stage 2	-	-	-	-	-	-	549	400	-	368	188	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.5	53.2	66.3
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	48	395	911	-	-	468	-	-	86	663
HCM Lane V/C Ratio	0.301	0.053	0.015	-	-	0.059	-	-	0.581	0.037
HCM Control Delay (s)	109.5	14.6	9	-	-	13.2	-	-	93.5	10.6
HCM Lane LOS	F	B	A	-	-	B	-	-	F	B
HCM 95th %tile Q(veh)	1	0.2	0	-	-	0.2	-	-	2.6	0.1

Intersection	
Int Delay, s/veh	1.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	33	17	0	0	11	5	5	0	17	0
Future Vol, veh/h	0	0	33	17	0	0	11	5	5	0	17	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	37	19	0	0	12	6	6	0	19	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	0	0	0	37	0	0	67	57	19	63	75	0
Stage 1	-	-	-	-	-	-	19	19	-	38	38	-
Stage 2	-	-	-	-	-	-	48	38	-	25	37	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	-	-	-	1574	-	-	926	834	1059	932	815	-
Stage 1	-	-	-	-	-	-	1000	880	-	977	863	-
Stage 2	-	-	-	-	-	-	965	863	-	993	864	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	1574	-	-	-	824	1059	914	805	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	824	-	914	805	-
Stage 1	-	-	-	-	-	-	1000	880	-	977	853	-
Stage 2	-	-	-	-	-	-	932	853	-	982	864	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	7.3		
HCM LOS			-	-

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	-	1574	-	-	-
HCM Lane V/C Ratio	-	-	-	-	0.012	-	-	-
HCM Control Delay (s)	-	0	-	-	7.3	0	-	-
HCM Lane LOS	-	A	-	-	A	A	-	-
HCM 95th %tile Q(veh)	-	-	-	-	0	-	-	-

Intersection	
Int Delay, s/veh	2.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	0	7	0	0	3	0
Future Vol, veh/h	0	7	0	0	3	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	8	0	0	3	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	8	0	5	4
Stage 1	-	-	-	-	4	-
Stage 2	-	-	-	-	1	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1612	-	1017	1080
Stage 1	-	-	-	-	1019	-
Stage 2	-	-	-	-	1022	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1612	-	1017	1080
Mov Cap-2 Maneuver	-	-	-	-	1017	-
Stage 1	-	-	-	-	1019	-
Stage 2	-	-	-	-	1022	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	8.6
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1017	-	-	1612	-
HCM Lane V/C Ratio	0.003	-	-	-	-
HCM Control Delay (s)	8.6	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑			↱
Traffic Vol, veh/h	0	669	1304	3	0	4
Future Vol, veh/h	0	669	1304	3	0	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	743	1449	3	0	4

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	726
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	-	0	367
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	367
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	14.9
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	367
HCM Lane V/C Ratio	-	-	-	0.012
HCM Control Delay (s)	-	-	-	14.9
HCM Lane LOS	-	-	-	B
HCM 95th %tile Q(veh)	-	-	-	0

Intersection	
Int Delay, s/veh	3.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	20	634	15	4	1270	47	24	0	18	29	0	13
Future Vol, veh/h	20	634	15	4	1270	47	24	0	18	29	0	13
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	100	100	-	375	100	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	22	704	17	4	1411	52	27	0	20	32	0	14

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1463	0	0	721	0	0	1462	2219	352	1815	2184	706
Stage 1	-	-	-	-	-	-	748	748	-	1419	1419	-
Stage 2	-	-	-	-	-	-	714	1471	-	396	765	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	458	-	-	877	-	-	90	43	644	49	45	378
Stage 1	-	-	-	-	-	-	371	418	-	144	201	-
Stage 2	-	-	-	-	-	-	388	190	-	601	410	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	458	-	-	877	-	-	83	41	644	46	43	378
Mov Cap-2 Maneuver	-	-	-	-	-	-	83	41	-	46	43	-
Stage 1	-	-	-	-	-	-	353	398	-	137	200	-
Stage 2	-	-	-	-	-	-	371	189	-	554	390	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.4	0	43.3	133.6
HCM LOS			E	F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	83	644	458	-	-	877	-	-	46	378
HCM Lane V/C Ratio	0.321	0.031	0.049	-	-	0.005	-	-	0.7	0.038
HCM Control Delay (s)	67.7	10.8	13.3	-	-	9.1	-	-	186.8	14.9
HCM Lane LOS	F	B	B	-	-	A	-	-	F	B
HCM 95th %tile Q(veh)	1.2	0.1	0.2	-	-	0	-	-	2.7	0.1

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	20	11	0	0	33	17	17	0	11	0
Future Vol, veh/h	0	0	20	11	0	0	33	17	17	0	11	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	22	12	0	0	37	19	19	0	12	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	0	0	0	22	0	0	41	35	11	54	46	0
Stage 1	-	-	-	-	-	-	11	11	-	24	24	-
Stage 2	-	-	-	-	-	-	30	24	-	30	22	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	-	-	-	1593	-	-	963	857	1070	944	846	-
Stage 1	-	-	-	-	-	-	1010	886	-	994	875	-
Stage 2	-	-	-	-	-	-	987	875	-	987	877	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	1593	-	-	-	850	1070	906	839	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	850	-	906	839	-
Stage 1	-	-	-	-	-	-	1010	886	-	994	868	-
Stage 2	-	-	-	-	-	-	965	868	-	949	877	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	7.3		
HCM LOS			-	-

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	-	1593	-	-	-
HCM Lane V/C Ratio	-	-	-	-	0.008	-	-	-
HCM Control Delay (s)	-	0	-	-	7.3	0	-	-
HCM Lane LOS	-	A	-	-	A	A	-	-
HCM 95th %tile Q(veh)	-	-	-	-	0	-	-	-

Intersection	
Int Delay, s/veh	3.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	0	4	0	0	3	0
Future Vol, veh/h	0	4	0	0	3	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	4	0	0	3	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	4	0	3	2
Stage 1	-	-	-	-	2	-
Stage 2	-	-	-	-	1	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1618	-	1019	1082
Stage 1	-	-	-	-	1021	-
Stage 2	-	-	-	-	1022	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1618	-	1019	1082
Mov Cap-2 Maneuver	-	-	-	-	1019	-
Stage 1	-	-	-	-	1021	-
Stage 2	-	-	-	-	1022	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	8.5
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1019	-	-	1618	-
HCM Lane V/C Ratio	0.003	-	-	-	-
HCM Control Delay (s)	8.5	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

2024 Background Year Traffic Analysis

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	1434	690	4	0	7
Future Vol, veh/h	0	1434	690	4	0	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	1593	767	4	0	8

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	386
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	-	0	612
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	612
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	11
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	612
HCM Lane V/C Ratio	-	-	-	0.013
HCM Control Delay (s)	-	-	-	11
HCM Lane LOS	-	-	-	B
HCM 95th %tile Q(veh)	-	-	-	0

Intersection	
Int Delay, s/veh	4.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	12	1339	82	28	658	9	14	0	21	45	0	22
Future Vol, veh/h	12	1339	82	28	658	9	14	0	21	45	0	22
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	100	100	-	375	100	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	13	1488	91	31	731	10	16	0	23	50	0	24

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	741	0	0	1579	0	0	1942	2317	744	1563	2398	366
Stage 1	-	-	-	-	-	-	1514	1514	-	793	793	-
Stage 2	-	-	-	-	-	-	428	803	-	770	1605	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	862	-	-	413	-	-	39	37	357	76	33	631
Stage 1	-	-	-	-	-	-	125	181	-	348	398	-
Stage 2	-	-	-	-	-	-	575	394	-	359	163	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	862	-	-	413	-	-	35	34	357	66	30	631
Mov Cap-2 Maneuver	-	-	-	-	-	-	35	34	-	66	30	-
Stage 1	-	-	-	-	-	-	123	178	-	343	368	-
Stage 2	-	-	-	-	-	-	511	364	-	330	161	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.6	78.7	105.6
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	35	357	862	-	-	413	-	-	66	631
HCM Lane V/C Ratio	0.444	0.065	0.015	-	-	0.075	-	-	0.758	0.039
HCM Control Delay (s)	173.1	15.8	9.2	-	-	14.4	-	-	151.9	10.9
HCM Lane LOS	F	C	A	-	-	B	-	-	F	B
HCM 95th %tile Q(veh)	1.5	0.2	0	-	-	0.2	-	-	3.4	0.1

Intersection	
Int Delay, s/veh	1.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	33	17	0	0	11	5	5	0	17	0
Future Vol, veh/h	0	0	33	17	0	0	11	5	5	0	17	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	37	19	0	0	12	6	6	0	19	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	0	0	0	37	0	0	67	57	19	63	75	0
Stage 1	-	-	-	-	-	-	19	19	-	38	38	-
Stage 2	-	-	-	-	-	-	48	38	-	25	37	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	-	-	-	1574	-	-	926	834	1059	932	815	-
Stage 1	-	-	-	-	-	-	1000	880	-	977	863	-
Stage 2	-	-	-	-	-	-	965	863	-	993	864	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	1574	-	-	-	824	1059	914	805	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	824	-	914	805	-
Stage 1	-	-	-	-	-	-	1000	880	-	977	853	-
Stage 2	-	-	-	-	-	-	932	853	-	982	864	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	7.3		
HCM LOS			-	-

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	-	1574	-	-	-
HCM Lane V/C Ratio	-	-	-	-	0.012	-	-	-
HCM Control Delay (s)	-	0	-	-	7.3	0	-	-
HCM Lane LOS	-	A	-	-	A	A	-	-
HCM 95th %tile Q(veh)	-	-	-	-	0	-	-	-

Intersection	
Int Delay, s/veh	2.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	0	7	0	0	4	0
Future Vol, veh/h	0	7	0	0	4	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	8	0	0	4	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	8	0	5	4
Stage 1	-	-	-	-	4	-
Stage 2	-	-	-	-	1	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1612	-	1017	1080
Stage 1	-	-	-	-	1019	-
Stage 2	-	-	-	-	1022	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1612	-	1017	1080
Mov Cap-2 Maneuver	-	-	-	-	1017	-
Stage 1	-	-	-	-	1019	-
Stage 2	-	-	-	-	1022	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	8.6
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1017	-	-	1612	-
HCM Lane V/C Ratio	0.004	-	-	-	-
HCM Control Delay (s)	8.6	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	734	1432	4	0	5
Future Vol, veh/h	0	734	1432	4	0	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	816	1591	4	0	6

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	798
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	-	0	329
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	329
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	16.1
HCM LOS			C

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	329
HCM Lane V/C Ratio	-	-	-	0.017
HCM Control Delay (s)	-	-	-	16.1
HCM Lane LOS	-	-	-	C
HCM 95th %tile Q(veh)	-	-	-	0.1

Intersection	
Int Delay, s/veh	5.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	20	697	17	5	1396	47	27	0	19	29	0	13
Future Vol, veh/h	20	697	17	5	1396	47	27	0	19	29	0	13
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	100	100	-	375	100	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	22	774	19	6	1551	52	30	0	21	32	0	14

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1603	0	0	793	0	0	1606	2433	387	1994	2400	776
Stage 1	-	-	-	-	-	-	818	818	-	1563	1563	-
Stage 2	-	-	-	-	-	-	788	1615	-	431	837	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	404	-	-	824	-	-	70	31	611	36	33	340
Stage 1	-	-	-	-	-	-	336	388	-	117	171	-
Stage 2	-	-	-	-	-	-	350	161	-	573	380	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	404	-	-	824	-	-	64	29	611	33	31	340
Mov Cap-2 Maneuver	-	-	-	-	-	-	64	29	-	33	31	-
Stage 1	-	-	-	-	-	-	318	367	-	111	170	-
Stage 2	-	-	-	-	-	-	333	160	-	523	359	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.4	0	65.3	231.3
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	64	611	404	-	-	824	-	-	33	340
HCM Lane V/C Ratio	0.469	0.035	0.055	-	-	0.007	-	-	0.976	0.042
HCM Control Delay (s)	103.4	11.1	14.4	-	-	9.4	-	-	$ 327.8	16.1
HCM Lane LOS	F	B	B	-	-	A	-	-	F	C
HCM 95th %tile Q(veh)	1.8	0.1	0.2	-	-	0	-	-	3.4	0.1

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	20	11	0	0	33	17	17	0	11	0
Future Vol, veh/h	0	0	20	11	0	0	33	17	17	0	11	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	22	12	0	0	37	19	19	0	12	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	0	0	0	22	0	0	41	35	11	54	46	0
Stage 1	-	-	-	-	-	-	11	11	-	24	24	-
Stage 2	-	-	-	-	-	-	30	24	-	30	22	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	-	-	-	1593	-	-	963	857	1070	944	846	-
Stage 1	-	-	-	-	-	-	1010	886	-	994	875	-
Stage 2	-	-	-	-	-	-	987	875	-	987	877	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	1593	-	-	-	850	1070	906	839	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	850	-	906	839	-
Stage 1	-	-	-	-	-	-	1010	886	-	994	868	-
Stage 2	-	-	-	-	-	-	965	868	-	949	877	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	7.3		
HCM LOS			-	-

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	-	1593	-	-	-
HCM Lane V/C Ratio	-	-	-	-	0.008	-	-	-
HCM Control Delay (s)	-	0	-	-	7.3	0	-	-
HCM Lane LOS	-	A	-	-	A	A	-	-
HCM 95th %tile Q(veh)	-	-	-	-	0	-	-	-

Intersection	
Int Delay, s/veh	3.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	0	5	0	0	4	0
Future Vol, veh/h	0	5	0	0	4	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	6	0	0	4	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	6	0	4	3
Stage 1	-	-	-	-	3	-
Stage 2	-	-	-	-	1	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1615	-	1018	1081
Stage 1	-	-	-	-	1020	-
Stage 2	-	-	-	-	1022	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1615	-	1018	1081
Mov Cap-2 Maneuver	-	-	-	-	1018	-
Stage 1	-	-	-	-	1020	-
Stage 2	-	-	-	-	1022	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	8.6
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1018	-	-	1615	-
HCM Lane V/C Ratio	0.004	-	-	-	-
HCM Control Delay (s)	8.6	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

2030 Background Year Traffic Analysis

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	2081	1031	8	0	42
Future Vol, veh/h	0	2081	1031	8	0	42
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	2312	1146	9	0	47

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	578
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	-	0	459
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	459
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	13.7
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	459
HCM Lane V/C Ratio	-	-	-	0.102
HCM Control Delay (s)	-	-	-	13.7
HCM Lane LOS	-	-	-	B
HCM 95th %tile Q(veh)	-	-	-	0.3

Intersection	
Int Delay, s/veh	126.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	96	1870	115	39	919	62	20	0	29	89	0	100
Future Vol, veh/h	96	1870	115	39	919	62	20	0	29	89	0	100
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	100	100	-	375	100	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	107	2078	128	43	1021	69	22	0	32	99	0	111

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1090	0	0	2206	0	0	2889	3468	1039	2360	3527	511
Stage 1	-	-	-	-	-	-	2292	2292	-	1107	1107	-
Stage 2	-	-	-	-	-	-	597	1176	-	1253	2420	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	636	-	-	235	-	-	~ 7	7	227	~ 19	6	508
Stage 1	-	-	-	-	-	-	40	73	-	224	284	-
Stage 2	-	-	-	-	-	-	456	263	-	182	63	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	636	-	-	235	-	-	~ 4	5	227	~ 12	4	508
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 4	5	-	~ 12	4	-
Stage 1	-	-	-	-	-	-	33	61	-	186	232	-
Stage 2	-	-	-	-	-	-	291	215	-	130	52	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.5	0.9	$ 1543.2	$ 1832.2
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	4	227	636	-	-	235	-	-	12	508
HCM Lane V/C Ratio	5.556	0.142	0.168	-	-	0.184	-	-	8.241	0.219
HCM Control Delay (s)	$ 3746.8	23.5	11.8	-	-	23.8	-	-	$ 3875	14.1
HCM Lane LOS	F	C	B	-	-	C	-	-	F	B
HCM 95th %tile Q(veh)	4.2	0.5	0.6	-	-	0.7	-	-	13.6	0.8

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	39	13	0	0	15	5	5	0	17	0
Future Vol, veh/h	0	0	39	13	0	0	15	5	5	0	17	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	43	14	0	0	17	6	6	0	19	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	0	0	0	43	0	0	60	50	22	56	71	0
Stage 1	-	-	-	-	-	-	22	22	-	28	28	-
Stage 2	-	-	-	-	-	-	38	28	-	28	43	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	-	-	-	1566	-	-	936	841	1055	941	819	-
Stage 1	-	-	-	-	-	-	996	877	-	989	872	-
Stage 2	-	-	-	-	-	-	977	872	-	989	859	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	1566	-	-	-	833	1055	925	812	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	833	-	925	812	-
Stage 1	-	-	-	-	-	-	996	877	-	989	864	-
Stage 2	-	-	-	-	-	-	947	864	-	978	859	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	7.3		
HCM LOS			-	-

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	-	1566	-	-	-
HCM Lane V/C Ratio	-	-	-	-	0.009	-	-	-
HCM Control Delay (s)	-	0	-	-	7.3	0	-	-
HCM Lane LOS	-	A	-	-	A	A	-	-
HCM 95th %tile Q(veh)	-	-	-	-	0	-	-	-

Intersection	
Int Delay, s/veh	1.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	7	5	3	35	0
Future Vol, veh/h	0	7	5	3	35	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	100	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	8	6	3	39	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	54	39	39	0	-	0
Stage 1	39	-	-	-	-	-
Stage 2	15	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	954	1033	1571	-	-	-
Stage 1	983	-	-	-	-	-
Stage 2	1008	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	950	1033	1571	-	-	-
Mov Cap-2 Maneuver	885	-	-	-	-	-
Stage 1	979	-	-	-	-	-
Stage 2	1008	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.5	4.6	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1571	-	1033	-	-
HCM Lane V/C Ratio	0.004	-	0.008	-	-
HCM Control Delay (s)	7.3	-	8.5	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↱			↱
Traffic Vol, veh/h	0	1150	2145	12	0	27
Future Vol, veh/h	0	1150	2145	12	0	27
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	1278	2383	13	0	30

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	1198
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	-	0	178
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	178
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	29.3
HCM LOS			D

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	178
HCM Lane V/C Ratio	-	-	-	0.169
HCM Control Delay (s)	-	-	-	29.3
HCM Lane LOS	-	-	-	D
HCM 95th %tile Q(veh)	-	-	-	0.6

Intersection	
Int Delay, s/veh	1151.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	153	973	24	7	1949	144	37	0	27	107	0	168
Future Vol, veh/h	153	973	24	7	1949	144	37	0	27	107	0	168
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	100	100	-	375	100	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	170	1081	27	8	2166	160	41	0	30	119	0	187

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	2326	0	0	1108	0	0	2520	3763	541	3063	3630	1083
Stage 1	-	-	-	-	-	-	1421	1421	-	2182	2182	-
Stage 2	-	-	-	-	-	-	1099	2342	-	881	1448	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	210	-	-	626	-	-	~ 14	4	485	~ 5	5	213
Stage 1	-	-	-	-	-	-	143	201	-	~ 47	83	-
Stage 2	-	-	-	-	-	-	227	69	-	308	195	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	210	-	-	626	-	-	~ 1	1	485	~ 2	1	213
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 1	1	-	~ 2	1	-
Stage 1	-	-	-	-	-	-	~ 27	38	-	~ 9	82	-
Stage 2	-	-	-	-	-	-	~ 28	68	-	~ 55	37	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.2	0	$ 14341.6	$ 11653.1
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1	485	210	-	-	626	-	-	2	213
HCM Lane V/C Ratio	41.111	0.062	0.81	-	-	0.012	-	-	59.444	0.876
HCM Control Delay (s)	$ 24797.6	12.9	69.2	-	-	10.8	-	-	$ 29823.5	80.3
HCM Lane LOS	F	B	F	-	-	B	-	-	F	F
HCM 95th %tile Q(veh)	7.2	0.2	5.9	-	-	0	-	-	17.2	6.9

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	20	11	0	0	33	17	17	0	11	0
Future Vol, veh/h	0	0	20	11	0	0	33	17	17	0	11	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	22	12	0	0	37	19	19	0	12	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	0	0	0	22	0	0	41	35	11	54	46	0
Stage 1	-	-	-	-	-	-	11	11	-	24	24	-
Stage 2	-	-	-	-	-	-	30	24	-	30	22	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	-	-	-	1593	-	-	963	857	1070	944	846	-
Stage 1	-	-	-	-	-	-	1010	886	-	994	875	-
Stage 2	-	-	-	-	-	-	987	875	-	987	877	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	1593	-	-	-	850	1070	906	839	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	850	-	906	839	-
Stage 1	-	-	-	-	-	-	1010	886	-	994	868	-
Stage 2	-	-	-	-	-	-	965	868	-	949	877	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	7.3		
HCM LOS			-	-

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	-	1593	-	-	-
HCM Lane V/C Ratio	-	-	-	-	0.008	-	-	-
HCM Control Delay (s)	-	0	-	-	7.3	0	-	-
HCM Lane LOS	-	A	-	-	A	A	-	-
HCM 95th %tile Q(veh)	-	-	-	-	0	-	-	-

Intersection	
Int Delay, s/veh	1.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	4	3	9	23	0
Future Vol, veh/h	0	4	3	9	23	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	100	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	4	3	10	26	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	42	26	26	0	-	0
Stage 1	26	-	-	-	-	-
Stage 2	16	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	969	1050	1588	-	-	-
Stage 1	997	-	-	-	-	-
Stage 2	1007	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	967	1050	1588	-	-	-
Mov Cap-2 Maneuver	898	-	-	-	-	-
Stage 1	995	-	-	-	-	-
Stage 2	1007	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.4	1.8	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1588	-	1050	-	-
HCM Lane V/C Ratio	0.002	-	0.004	-	-
HCM Control Delay (s)	7.3	-	8.4	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

2030 Background Year Traffic Analysis - Mitigations

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	2081	1100	8	0	42
Future Vol, veh/h	0	2081	1100	8	0	42
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	2312	1222	9	0	47

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	616
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	-	0	433
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	433
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	14.3
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	433
HCM Lane V/C Ratio	-	-	-	0.108
HCM Control Delay (s)	-	-	-	14.3
HCM Lane LOS	-	-	-	B
HCM 95th %tile Q(veh)	-	-	-	0.4

Intersection	
Int Delay, s/veh	1.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	96	1870	115	39	919	62	0	0	49	0	0	189
Future Vol, veh/h	96	1870	115	39	919	62	0	0	49	0	0	189
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	100	100	-	375	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	107	2078	128	43	1021	69	0	0	54	0	0	210

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1090	0	0	2206	0	0	-	-	1039	-	-	511
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	4.14	-	-	4.14	-	-	-	-	6.94	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	-	-	3.32	-	-	3.32
Pot Cap-1 Maneuver	636	-	-	235	-	-	0	0	227	0	0	508
Stage 1	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	636	-	-	235	-	-	-	-	227	-	-	508
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.5	0.9	25.8	17
HCM LOS			D	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	227	636	-	-	235	-	-	508
HCM Lane V/C Ratio	0.24	0.168	-	-	0.184	-	-	0.413
HCM Control Delay (s)	25.8	11.8	-	-	23.8	-	-	17
HCM Lane LOS	D	B	-	-	C	-	-	C
HCM 95th %tile Q(veh)	0.9	0.6	-	-	0.7	-	-	2

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	39	13	0	0	15	5	5	0	17	0
Future Vol, veh/h	0	0	39	13	0	0	15	5	5	0	17	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	43	14	0	0	17	6	6	0	19	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	0	0	0	43	0	0	60	50	22	56	71	0
Stage 1	-	-	-	-	-	-	22	22	-	28	28	-
Stage 2	-	-	-	-	-	-	38	28	-	28	43	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	-	-	-	1566	-	-	936	841	1055	941	819	-
Stage 1	-	-	-	-	-	-	996	877	-	989	872	-
Stage 2	-	-	-	-	-	-	977	872	-	989	859	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	1566	-	-	-	833	1055	925	812	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	833	-	925	812	-
Stage 1	-	-	-	-	-	-	996	877	-	989	864	-
Stage 2	-	-	-	-	-	-	947	864	-	978	859	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	7.3		
HCM LOS			-	-

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	-	1566	-	-	-
HCM Lane V/C Ratio	-	-	-	-	0.009	-	-	-
HCM Control Delay (s)	-	0	-	-	7.3	0	-	-
HCM Lane LOS	-	A	-	-	A	A	-	-
HCM 95th %tile Q(veh)	-	-	-	-	0	-	-	-

Intersection	
Int Delay, s/veh	1.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	7	5	3	35	0
Future Vol, veh/h	0	7	5	3	35	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	100	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	8	6	3	39	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	54	39	39	0	-	0
Stage 1	39	-	-	-	-	-
Stage 2	15	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	954	1033	1571	-	-	-
Stage 1	983	-	-	-	-	-
Stage 2	1008	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	950	1033	1571	-	-	-
Mov Cap-2 Maneuver	885	-	-	-	-	-
Stage 1	979	-	-	-	-	-
Stage 2	1008	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.5	4.6	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1571	-	1033	-	-
HCM Lane V/C Ratio	0.004	-	0.008	-	-
HCM Control Delay (s)	7.3	-	8.5	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	1150	2212	12	0	27
Future Vol, veh/h	0	1150	2212	12	0	27
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	1278	2458	13	0	30

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	1236
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	-	0	168
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	168
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	31
HCM LOS			D

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	168
HCM Lane V/C Ratio	-	-	-	0.179
HCM Control Delay (s)	-	-	-	31
HCM Lane LOS	-	-	-	D
HCM 95th %tile Q(veh)	-	-	-	0.6

Intersection	
Int Delay, s/veh	23.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	153	973	24	7	1949	144	0	0	64	0	0	275
Future Vol, veh/h	153	973	24	7	1949	144	0	0	64	0	0	275
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	100	100	-	375	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	170	1081	27	8	2166	160	0	0	71	0	0	306

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	2326	0	0	1108	0	0	-	-	541	-	-	1083
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	4.14	-	-	4.14	-	-	-	-	6.94	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	-	-	3.32	-	-	3.32
Pot Cap-1 Maneuver	210	-	-	626	-	-	0	0	485	0	0	~ 213
Stage 1	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	210	-	-	626	-	-	-	-	485	-	-	~ 213
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.2	0	13.7	262.7
HCM LOS			B	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	485	210	-	-	626	-	-	213
HCM Lane V/C Ratio	0.147	0.81	-	-	0.012	-	-	1.435
HCM Control Delay (s)	13.7	69.2	-	-	10.8	-	-	262.7
HCM Lane LOS	B	F	-	-	B	-	-	F
HCM 95th %tile Q(veh)	0.5	5.9	-	-	0	-	-	18

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	20	11	0	0	33	17	17	0	11	0
Future Vol, veh/h	0	0	20	11	0	0	33	17	17	0	11	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	22	12	0	0	37	19	19	0	12	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	0	0	0	22	0	0	41	35	11	54	46	0
Stage 1	-	-	-	-	-	-	11	11	-	24	24	-
Stage 2	-	-	-	-	-	-	30	24	-	30	22	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	-	-	-	1593	-	-	963	857	1070	944	846	-
Stage 1	-	-	-	-	-	-	1010	886	-	994	875	-
Stage 2	-	-	-	-	-	-	987	875	-	987	877	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	1593	-	-	-	850	1070	906	839	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	850	-	906	839	-
Stage 1	-	-	-	-	-	-	1010	886	-	994	868	-
Stage 2	-	-	-	-	-	-	965	868	-	949	877	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	7.3		
HCM LOS			-	-

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	-	1593	-	-	-
HCM Lane V/C Ratio	-	-	-	-	0.008	-	-	-
HCM Control Delay (s)	-	0	-	-	7.3	0	-	-
HCM Lane LOS	-	A	-	-	A	A	-	-
HCM 95th %tile Q(veh)	-	-	-	-	0	-	-	-

Intersection	
Int Delay, s/veh	1.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	4	3	9	23	0
Future Vol, veh/h	0	4	3	9	23	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	100	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	4	3	10	26	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	42	26	26	0	-	0
Stage 1	26	-	-	-	-	-
Stage 2	16	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	969	1050	1588	-	-	-
Stage 1	997	-	-	-	-	-
Stage 2	1007	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	967	1050	1588	-	-	-
Mov Cap-2 Maneuver	898	-	-	-	-	-
Stage 1	995	-	-	-	-	-
Stage 2	1007	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.4	1.8	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1588	-	1050	-	-
HCM Lane V/C Ratio	0.002	-	0.004	-	-
HCM Control Delay (s)	7.3	-	8.4	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

2023 Background Year with Project Traffic Analysis

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑			↱
Traffic Vol, veh/h	0	1320	631	15	0	49
Future Vol, veh/h	0	1320	631	15	0	49
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	1467	701	17	0	54

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	359
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	-	0	638
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	638
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	11.2
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	638
HCM Lane V/C Ratio	-	-	-	0.085
HCM Control Delay (s)	-	-	-	11.2
HCM Lane LOS	-	-	-	B
HCM 95th %tile Q(veh)	-	-	-	0.3

Intersection	
Int Delay, s/veh	12.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	26	1219	75	25	611	12	13	0	19	87	0	22
Future Vol, veh/h	26	1219	75	25	611	12	13	0	19	87	0	22
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	100	100	-	375	100	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	29	1354	83	28	679	13	14	0	21	97	0	24

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	692	0	0	1437	0	0	1808	2160	677	1470	2230	340
Stage 1	-	-	-	-	-	-	1412	1412	-	735	735	-
Stage 2	-	-	-	-	-	-	396	748	-	735	1495	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	899	-	-	468	-	-	49	47	395	~ 89	42	656
Stage 1	-	-	-	-	-	-	145	203	-	377	424	-
Stage 2	-	-	-	-	-	-	601	418	-	377	185	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	899	-	-	468	-	-	44	43	395	~ 78	38	656
Mov Cap-2 Maneuver	-	-	-	-	-	-	44	43	-	~ 78	38	-
Stage 1	-	-	-	-	-	-	140	197	-	365	399	-
Stage 2	-	-	-	-	-	-	544	393	-	345	179	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	0.5	58.5	221
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	44	395	899	-	-	468	-	-	78	656
HCM Lane V/C Ratio	0.328	0.053	0.032	-	-	0.059	-	-	1.239	0.037
HCM Control Delay (s)	122.6	14.6	9.1	-	-	13.2	-	-	274.2	10.7
HCM Lane LOS	F	B	A	-	-	B	-	-	F	B
HCM 95th %tile Q(veh)	1.1	0.2	0.1	-	-	0.2	-	-	7.3	0.1

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	75	17	0	0	28	5	5	0	17	0
Future Vol, veh/h	0	0	75	17	0	0	28	5	5	0	17	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	83	19	0	0	31	6	6	0	19	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	0	0	0	83	0	0	90	80	42	86	121	0
Stage 1	-	-	-	-	-	-	42	42	-	38	38	-
Stage 2	-	-	-	-	-	-	48	38	-	48	83	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	-	-	-	1514	-	-	895	810	1029	900	769	-
Stage 1	-	-	-	-	-	-	972	860	-	977	863	-
Stage 2	-	-	-	-	-	-	965	863	-	965	826	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	1514	-	-	-	799	1029	882	759	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	799	-	882	759	-
Stage 1	-	-	-	-	-	-	972	860	-	977	852	-
Stage 2	-	-	-	-	-	-	931	852	-	954	826	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	7.4		
HCM LOS			-	-

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	-	1514	-	-	-
HCM Lane V/C Ratio	-	-	-	-	0.012	-	-	-
HCM Control Delay (s)	-	0	-	-	7.4	0	-	-
HCM Lane LOS	-	A	-	-	A	A	-	-
HCM 95th %tile Q(veh)	-	-	-	-	0	-	-	-

Intersection	
Int Delay, s/veh	2.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	0	7	0	0	3	0
Future Vol, veh/h	0	7	0	0	3	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	8	0	0	3	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	8	0	5	4
Stage 1	-	-	-	-	4	-
Stage 2	-	-	-	-	1	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1612	-	1017	1080
Stage 1	-	-	-	-	1019	-
Stage 2	-	-	-	-	1022	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1612	-	1017	1080
Mov Cap-2 Maneuver	-	-	-	-	1017	-
Stage 1	-	-	-	-	1019	-
Stage 2	-	-	-	-	1022	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	8.6
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1017	-	-	1612	-
HCM Lane V/C Ratio	0.003	-	-	-	-
HCM Control Delay (s)	8.6	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection	
Int Delay, s/veh	3.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	17	15	0	42	49
Future Vol, veh/h	0	17	15	0	42	49
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	19	17	0	47	54

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	165	17	0	0	17	0
Stage 1	17	-	-	-	-	-
Stage 2	148	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	826	1062	-	-	1600	-
Stage 1	1006	-	-	-	-	-
Stage 2	880	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	801	1062	-	-	1600	-
Mov Cap-2 Maneuver	801	-	-	-	-	-
Stage 1	1006	-	-	-	-	-
Stage 2	854	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.5	0	3.4
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	1062	1600	-
HCM Lane V/C Ratio	-	-	0.018	0.029	-
HCM Control Delay (s)	-	-	8.5	7.3	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0.1	-

Intersection	
Int Delay, s/veh	7.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	84	29	3	7	0
Future Vol, veh/h	0	84	29	3	7	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	93	32	3	8	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	75	8	8	0	-	0
Stage 1	8	-	-	-	-	-
Stage 2	67	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	928	1074	1612	-	-	-
Stage 1	1015	-	-	-	-	-
Stage 2	956	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	909	1074	1612	-	-	-
Mov Cap-2 Maneuver	909	-	-	-	-	-
Stage 1	995	-	-	-	-	-
Stage 2	956	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.7	6.6	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1612	-	1074	-	-
HCM Lane V/C Ratio	0.02	-	0.087	-	-
HCM Control Delay (s)	7.3	0	8.7	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.3	-	-

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	711	1304	36	0	31
Future Vol, veh/h	0	711	1304	36	0	31
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	790	1449	40	0	34

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	745
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	-	0	357
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	357
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	16.2
HCM LOS			C

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	357
HCM Lane V/C Ratio	-	-	-	0.096
HCM Control Delay (s)	-	-	-	16.2
HCM Lane LOS	-	-	-	C
HCM 95th %tile Q(veh)	-	-	-	0.3

Intersection	
Int Delay, s/veh	19.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	62	634	15	4	1303	55	24	0	18	56	0	13
Future Vol, veh/h	62	634	15	4	1303	55	24	0	18	56	0	13
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	100	100	-	375	100	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	69	704	17	4	1448	61	27	0	20	62	0	14

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1509	0	0	721	0	0	1574	2359	352	1946	2315	724
Stage 1	-	-	-	-	-	-	842	842	-	1456	1456	-
Stage 2	-	-	-	-	-	-	732	1517	-	490	859	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	439	-	-	877	-	-	74	35	644	~ 39	37	368
Stage 1	-	-	-	-	-	-	325	378	-	136	193	-
Stage 2	-	-	-	-	-	-	379	180	-	529	371	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	439	-	-	877	-	-	62	29	644	~ 33	31	368
Mov Cap-2 Maneuver	-	-	-	-	-	-	62	29	-	~ 33	31	-
Stage 1	-	-	-	-	-	-	274	319	-	115	192	-
Stage 2	-	-	-	-	-	-	362	179	-	432	313	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.3	0	62.5	$ 552.3
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	62	644	439	-	-	877	-	-	33	368
HCM Lane V/C Ratio	0.43	0.031	0.157	-	-	0.005	-	-	1.886	0.039
HCM Control Delay (s)	101.2	10.8	14.7	-	-	9.1	-	-	$ 677	15.2
HCM Lane LOS	F	B	B	-	-	A	-	-	F	C
HCM 95th %tile Q(veh)	1.6	0.1	0.6	-	-	0	-	-	7	0.1

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	47	11	0	0	83	17	17	0	11	0
Future Vol, veh/h	0	0	47	11	0	0	83	17	17	0	11	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	52	12	0	0	92	19	19	0	12	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	0	0	0	52	0	0	56	50	26	69	76	0
Stage 1	-	-	-	-	-	-	26	26	-	24	24	-
Stage 2	-	-	-	-	-	-	30	24	-	45	52	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	-	-	-	1554	-	-	941	841	1050	923	814	-
Stage 1	-	-	-	-	-	-	992	874	-	994	875	-
Stage 2	-	-	-	-	-	-	987	875	-	969	852	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	1554	-	-	-	834	1050	885	807	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	834	-	885	807	-
Stage 1	-	-	-	-	-	-	992	874	-	994	868	-
Stage 2	-	-	-	-	-	-	965	868	-	931	852	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	7.3		
HCM LOS			-	-

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	-	1554	-	-	-
HCM Lane V/C Ratio	-	-	-	-	0.008	-	-	-
HCM Control Delay (s)	-	0	-	-	7.3	0	-	-
HCM Lane LOS	-	A	-	-	A	A	-	-
HCM 95th %tile Q(veh)	-	-	-	-	0	-	-	-

Intersection	
Int Delay, s/veh	3.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	0	4	0	0	3	0
Future Vol, veh/h	0	4	0	0	3	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	4	0	0	3	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	4	0	3	2
Stage 1	-	-	-	-	2	-
Stage 2	-	-	-	-	1	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1618	-	1019	1082
Stage 1	-	-	-	-	1021	-
Stage 2	-	-	-	-	1022	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1618	-	1019	1082
Mov Cap-2 Maneuver	-	-	-	-	1019	-
Stage 1	-	-	-	-	1021	-
Stage 2	-	-	-	-	1022	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	8.5
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1019	-	-	1618	-
HCM Lane V/C Ratio	0.003	-	-	-	-
HCM Control Delay (s)	8.5	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection	
Int Delay, s/veh	4.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	50	36	0	27	31
Future Vol, veh/h	0	50	36	0	27	31
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	56	40	0	30	34

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	134	40	0	0	40	0
Stage 1	40	-	-	-	-	-
Stage 2	94	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	860	1031	-	-	1570	-
Stage 1	982	-	-	-	-	-
Stage 2	930	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	844	1031	-	-	1570	-
Mov Cap-2 Maneuver	844	-	-	-	-	-
Stage 1	982	-	-	-	-	-
Stage 2	912	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.7	0	3.4
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	1031	1570	-
HCM Lane V/C Ratio	-	-	0.054	0.019	-
HCM Control Delay (s)	-	-	8.7	7.3	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0.1	-

Intersection	
Int Delay, s/veh	7.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	54	83	3	4	0
Future Vol, veh/h	0	54	83	3	4	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	60	92	3	4	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	191	4	4	0	-	0
Stage 1	4	-	-	-	-	-
Stage 2	187	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	798	1080	1618	-	-	-
Stage 1	1019	-	-	-	-	-
Stage 2	845	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	753	1080	1618	-	-	-
Mov Cap-2 Maneuver	753	-	-	-	-	-
Stage 1	961	-	-	-	-	-
Stage 2	845	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.5	7.1	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1618	-	1080	-	-
HCM Lane V/C Ratio	0.057	-	0.056	-	-
HCM Control Delay (s)	7.4	0	8.5	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.2	-	0.2	-	-

2023 Background Year with Project Traffic Analysis - Mitigations

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	1320	663	15	0	91
Future Vol, veh/h	0	1320	663	15	0	91
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	1467	737	17	0	101

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	377
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	-	0	621
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	621
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	11.9
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	621
HCM Lane V/C Ratio	-	-	-	0.163
HCM Control Delay (s)	-	-	-	11.9
HCM Lane LOS	-	-	-	B
HCM 95th %tile Q(veh)	-	-	-	0.6

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	26	1219	75	25	611	12	0	0	32	0	0	67
Future Vol, veh/h	26	1219	75	25	611	12	0	0	32	0	0	67
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	100	100	-	375	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	29	1354	83	28	679	13	0	0	36	0	0	74

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	692	0	0	1437	0	0	-	-	677	-	-	340
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	4.14	-	-	4.14	-	-	-	-	6.94	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	-	-	3.32	-	-	3.32
Pot Cap-1 Maneuver	899	-	-	468	-	-	0	0	395	0	0	656
Stage 1	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	899	-	-	468	-	-	-	-	395	-	-	656
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	0.5	15	11.2
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	395	899	-	-	468	-	-	656
HCM Lane V/C Ratio	0.09	0.032	-	-	0.059	-	-	0.113
HCM Control Delay (s)	15	9.1	-	-	13.2	-	-	11.2
HCM Lane LOS	C	A	-	-	B	-	-	B
HCM 95th %tile Q(veh)	0.3	0.1	-	-	0.2	-	-	0.4

Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	33	17	0	0	28	5	5	0	17	0
Future Vol, veh/h	0	0	33	17	0	0	28	5	5	0	17	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	37	19	0	0	31	6	6	0	19	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	0	0	0	37	0	0	67	57	19	63	75	0
Stage 1	-	-	-	-	-	-	19	19	-	38	38	-
Stage 2	-	-	-	-	-	-	48	38	-	25	37	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	-	-	-	1574	-	-	926	834	1059	932	815	-
Stage 1	-	-	-	-	-	-	1000	880	-	977	863	-
Stage 2	-	-	-	-	-	-	965	863	-	993	864	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	1574	-	-	-	824	1059	914	805	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	824	-	914	805	-
Stage 1	-	-	-	-	-	-	1000	880	-	977	853	-
Stage 2	-	-	-	-	-	-	932	853	-	982	864	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	7.3		
HCM LOS			-	-

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	-	1574	-	-	-
HCM Lane V/C Ratio	-	-	-	-	0.012	-	-	-
HCM Control Delay (s)	-	0	-	-	7.3	0	-	-
HCM Lane LOS	-	A	-	-	A	A	-	-
HCM 95th %tile Q(veh)	-	-	-	-	0	-	-	-

Intersection	
Int Delay, s/veh	2.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	0	7	0	0	3	0
Future Vol, veh/h	0	7	0	0	3	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	8	0	0	3	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	8	0	5	4
Stage 1	-	-	-	-	4	-
Stage 2	-	-	-	-	1	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1612	-	1017	1080
Stage 1	-	-	-	-	1019	-
Stage 2	-	-	-	-	1022	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1612	-	1017	1080
Mov Cap-2 Maneuver	-	-	-	-	1017	-
Stage 1	-	-	-	-	1019	-
Stage 2	-	-	-	-	1022	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	8.6
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1017	-	-	1612	-
HCM Lane V/C Ratio	0.003	-	-	-	-
HCM Control Delay (s)	8.6	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection	
Int Delay, s/veh	1.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	17	15	0	0	91
Future Vol, veh/h	0	17	15	0	0	91
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	19	17	0	0	101

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	118	17	0	0	17	0
Stage 1	17	-	-	-	-	-
Stage 2	101	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	878	1062	-	-	1600	-
Stage 1	1006	-	-	-	-	-
Stage 2	923	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	878	1062	-	-	1600	-
Mov Cap-2 Maneuver	878	-	-	-	-	-
Stage 1	1006	-	-	-	-	-
Stage 2	923	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.5	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	1062	1600	-
HCM Lane V/C Ratio	-	-	0.018	-	-
HCM Control Delay (s)	-	-	8.5	0	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Intersection	
Int Delay, s/veh	7.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	84	29	3	7	0
Future Vol, veh/h	0	84	29	3	7	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	93	32	3	8	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	75	8	8	0	-	0
Stage 1	8	-	-	-	-	-
Stage 2	67	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	928	1074	1612	-	-	-
Stage 1	1015	-	-	-	-	-
Stage 2	956	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	909	1074	1612	-	-	-
Mov Cap-2 Maneuver	909	-	-	-	-	-
Stage 1	995	-	-	-	-	-
Stage 2	956	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.7	6.6	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1612	-	1074	-	-
HCM Lane V/C Ratio	0.02	-	0.087	-	-
HCM Control Delay (s)	7.3	0	8.7	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.3	-	-

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	711	1309	36	0	58
Future Vol, veh/h	0	711	1309	36	0	58
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	790	1454	40	0	64

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	747
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	-	0	355
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	355
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	17.4
HCM LOS			C

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	355
HCM Lane V/C Ratio	-	-	-	0.182
HCM Control Delay (s)	-	-	-	17.4
HCM Lane LOS	-	-	-	C
HCM 95th %tile Q(veh)	-	-	-	0.7

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	62	634	15	4	1303	55	0	0	42	0	0	42
Future Vol, veh/h	62	634	15	4	1303	55	0	0	42	0	0	42
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	100	100	-	375	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	69	704	17	4	1448	61	0	0	47	0	0	47

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1509	0	0	721	0	0	-	-	352	-	-	724
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	4.14	-	-	4.14	-	-	-	-	6.94	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	-	-	3.32	-	-	3.32
Pot Cap-1 Maneuver	439	-	-	877	-	-	0	0	644	0	0	368
Stage 1	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	439	-	-	877	-	-	-	-	644	-	-	368
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.3	0	11	16.2
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	644	439	-	-	877	-	-	368
HCM Lane V/C Ratio	0.072	0.157	-	-	0.005	-	-	0.127
HCM Control Delay (s)	11	14.7	-	-	9.1	-	-	16.2
HCM Lane LOS	B	B	-	-	A	-	-	C
HCM 95th %tile Q(veh)	0.2	0.6	-	-	0	-	-	0.4

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	0	0	20	11	0	0	83	17	17	0	11	0
Future Vol, veh/h	0	0	20	11	0	0	83	17	17	0	11	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	22	12	0	0	92	19	19	0	12	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	0	0	0	22	0	0	41	35	11	54	46	0
Stage 1	-	-	-	-	-	-	11	11	-	24	24	-
Stage 2	-	-	-	-	-	-	30	24	-	30	22	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	-	-	-	1593	-	-	963	857	1070	944	846	-
Stage 1	-	-	-	-	-	-	1010	886	-	994	875	-
Stage 2	-	-	-	-	-	-	987	875	-	987	877	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	1593	-	-	-	850	1070	906	839	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	850	-	906	839	-
Stage 1	-	-	-	-	-	-	1010	886	-	994	868	-
Stage 2	-	-	-	-	-	-	965	868	-	949	877	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	7.3		
HCM LOS			-	-

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	-	1593	-	-	-
HCM Lane V/C Ratio	-	-	-	-	0.008	-	-	-
HCM Control Delay (s)	-	0	-	-	7.3	0	-	-
HCM Lane LOS	-	A	-	-	A	A	-	-
HCM 95th %tile Q(veh)	-	-	-	-	0	-	-	-

Intersection	
Int Delay, s/veh	3.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	0	4	0	0	3	0
Future Vol, veh/h	0	4	0	0	3	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	4	0	0	3	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	4	0	3	2
Stage 1	-	-	-	-	2	-
Stage 2	-	-	-	-	1	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1618	-	1019	1082
Stage 1	-	-	-	-	1021	-
Stage 2	-	-	-	-	1022	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1618	-	1019	1082
Mov Cap-2 Maneuver	-	-	-	-	1019	-
Stage 1	-	-	-	-	1021	-
Stage 2	-	-	-	-	1022	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	8.5
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1019	-	-	1618	-
HCM Lane V/C Ratio	0.003	-	-	-	-
HCM Control Delay (s)	8.5	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection	
Int Delay, s/veh	3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	50	36	0	0	58
Future Vol, veh/h	0	50	36	0	0	58
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	56	40	0	0	64

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	104	40	0	0	40	0
Stage 1	40	-	-	-	-	-
Stage 2	64	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	894	1031	-	-	1570	-
Stage 1	982	-	-	-	-	-
Stage 2	959	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	894	1031	-	-	1570	-
Mov Cap-2 Maneuver	894	-	-	-	-	-
Stage 1	982	-	-	-	-	-
Stage 2	959	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.7	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	1031	1570	-
HCM Lane V/C Ratio	-	-	0.054	-	-
HCM Control Delay (s)	-	-	8.7	0	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	0.2	0	-

Intersection	
Int Delay, s/veh	7.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	54	83	3	4	0
Future Vol, veh/h	0	54	83	3	4	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	60	92	3	4	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	191	4	4	0	-	0
Stage 1	4	-	-	-	-	-
Stage 2	187	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	798	1080	1618	-	-	-
Stage 1	1019	-	-	-	-	-
Stage 2	845	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	753	1080	1618	-	-	-
Mov Cap-2 Maneuver	753	-	-	-	-	-
Stage 1	961	-	-	-	-	-
Stage 2	845	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.5	7.1	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1618	-	1080	-	-
HCM Lane V/C Ratio	0.057	-	0.056	-	-
HCM Control Delay (s)	7.4	0	8.5	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.2	-	0.2	-	-

2024 Background Year with Project Traffic Analysis

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	1460	690	20	0	77
Future Vol, veh/h	0	1460	690	20	0	77
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	1622	767	22	0	86

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	395
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	-	0	604
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	604
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	11.9
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	604
HCM Lane V/C Ratio	-	-	-	0.142
HCM Control Delay (s)	-	-	-	11.9
HCM Lane LOS	-	-	-	B
HCM 95th %tile Q(veh)	-	-	-	0.5

Intersection	
Int Delay, s/veh	43.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	38	1339	82	28	674	14	14	0	21	122	0	22
Future Vol, veh/h	38	1339	82	28	674	14	14	0	21	122	0	22
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	100	100	-	375	100	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	42	1488	91	31	749	16	16	0	23	136	0	24

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	765	0	0	1579	0	0	2009	2399	744	1639	2474	375
Stage 1	-	-	-	-	-	-	1572	1572	-	811	811	-
Stage 2	-	-	-	-	-	-	437	827	-	828	1663	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	844	-	-	413	-	-	35	33	357	~ 66	29	623
Stage 1	-	-	-	-	-	-	115	169	-	339	391	-
Stage 2	-	-	-	-	-	-	568	384	-	332	152	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	844	-	-	413	-	-	31	29	357	~ 56	25	623
Mov Cap-2 Maneuver	-	-	-	-	-	-	31	29	-	~ 56	25	-
Stage 1	-	-	-	-	-	-	109	161	-	322	362	-
Stage 2	-	-	-	-	-	-	505	355	-	295	144	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	0.6	91.9	$ 682.8
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	31	357	844	-	-	413	-	-	56	623
HCM Lane V/C Ratio	0.502	0.065	0.05	-	-	0.075	-	-	2.421	0.039
HCM Control Delay (s)	206	15.8	9.5	-	-	14.4	-	-	$ 803.9	11
HCM Lane LOS	F	C	A	-	-	B	-	-	F	B
HCM 95th %tile Q(veh)	1.6	0.2	0.2	-	-	0.2	-	-	13.7	0.1

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	110	17	0	0	42	5	5	0	17	0
Future Vol, veh/h	0	0	110	17	0	0	42	5	5	0	17	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	122	19	0	0	47	6	6	0	19	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	0	0	0	122	0	0	109	99	61	105	160	0
Stage 1	-	-	-	-	-	-	61	61	-	38	38	-
Stage 2	-	-	-	-	-	-	48	38	-	67	122	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	-	-	-	1465	-	-	870	791	1004	875	732	-
Stage 1	-	-	-	-	-	-	950	844	-	977	863	-
Stage 2	-	-	-	-	-	-	965	863	-	943	795	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	1465	-	-	-	781	1004	857	722	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	781	-	857	722	-
Stage 1	-	-	-	-	-	-	950	844	-	977	852	-
Stage 2	-	-	-	-	-	-	931	852	-	932	795	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	7.5		
HCM LOS			-	-

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	-	1465	-	-	-
HCM Lane V/C Ratio	-	-	-	-	0.013	-	-	-
HCM Control Delay (s)	-	0	-	-	7.5	0	-	-
HCM Lane LOS	-	A	-	-	A	A	-	-
HCM 95th %tile Q(veh)	-	-	-	-	0	-	-	-

Intersection	
Int Delay, s/veh	4.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	39	12	10	31	0
Future Vol, veh/h	0	39	12	10	31	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	43	13	11	34	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	71	34	34	0	-	0
Stage 1	34	-	-	-	-	-
Stage 2	37	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	933	1039	1578	-	-	-
Stage 1	988	-	-	-	-	-
Stage 2	985	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	926	1039	1578	-	-	-
Mov Cap-2 Maneuver	926	-	-	-	-	-
Stage 1	980	-	-	-	-	-
Stage 2	985	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.6	4	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1578	-	1039	-	-
HCM Lane V/C Ratio	0.008	-	0.042	-	-
HCM Control Delay (s)	7.3	0	8.6	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection	
Int Delay, s/veh	4.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	31	20	0	77	77
Future Vol, veh/h	0	31	20	0	77	77
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	34	22	0	86	86

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	280	22	0	0	22	0
Stage 1	22	-	-	-	-	-
Stage 2	258	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	710	1055	-	-	1593	-
Stage 1	1001	-	-	-	-	-
Stage 2	785	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	670	1055	-	-	1593	-
Mov Cap-2 Maneuver	670	-	-	-	-	-
Stage 1	1001	-	-	-	-	-
Stage 2	740	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.5	0	3.7
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	1055	1593	-
HCM Lane V/C Ratio	-	-	0.033	0.054	-
HCM Control Delay (s)	-	-	8.5	7.4	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0.2	-

Intersection	
Int Delay, s/veh	4.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	84	29	22	70	0
Future Vol, veh/h	0	84	29	22	70	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	93	32	24	78	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	166	78	78	0	-	0
Stage 1	78	-	-	-	-	-
Stage 2	88	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	824	983	1520	-	-	-
Stage 1	945	-	-	-	-	-
Stage 2	935	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	807	983	1520	-	-	-
Mov Cap-2 Maneuver	807	-	-	-	-	-
Stage 1	925	-	-	-	-	-
Stage 2	935	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9	4.2	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1520	-	983	-	-
HCM Lane V/C Ratio	0.021	-	0.095	-	-
HCM Control Delay (s)	7.4	0	9	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.3	-	-

Intersection	
Int Delay, s/veh	7.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	31	10	0	0	0
Future Vol, veh/h	0	31	10	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	34	11	0	0	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	23	1	1	0	-	0
Stage 1	1	-	-	-	-	-
Stage 2	22	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	993	1084	1622	-	-	-
Stage 1	1022	-	-	-	-	-
Stage 2	1001	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	986	1084	1622	-	-	-
Mov Cap-2 Maneuver	986	-	-	-	-	-
Stage 1	1015	-	-	-	-	-
Stage 2	1001	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.4	7.2	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1622	-	1084	-	-
HCM Lane V/C Ratio	0.007	-	0.032	-	-
HCM Control Delay (s)	7.2	0	8.4	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	812	1432	63	0	48
Future Vol, veh/h	0	812	1432	63	0	48
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	902	1591	70	0	53

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	831
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	-	0	313
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	313
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	18.8
HCM LOS			C

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	313
HCM Lane V/C Ratio	-	-	-	0.17
HCM Control Delay (s)	-	-	-	18.8
HCM Lane LOS	-	-	-	C
HCM 95th %tile Q(veh)	-	-	-	0.6

Intersection	
Int Delay, s/veh	74.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	98	697	17	5	1455	62	27	0	19	77	0	13
Future Vol, veh/h	98	697	17	5	1455	62	27	0	19	77	0	13
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	100	100	-	375	100	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	109	774	19	6	1617	69	30	0	21	86	0	14

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1686	0	0	793	0	0	1813	2690	387	2234	2640	809
Stage 1	-	-	-	-	-	-	992	992	-	1629	1629	-
Stage 2	-	-	-	-	-	-	821	1698	-	605	1011	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	375	-	-	824	-	-	49	21	611	~ 23	23	323
Stage 1	-	-	-	-	-	-	264	322	-	106	159	-
Stage 2	-	-	-	-	-	-	335	146	-	451	315	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	375	-	-	824	-	-	36	15	611	~ 17	16	323
Mov Cap-2 Maneuver	-	-	-	-	-	-	36	15	-	~ 17	16	-
Stage 1	-	-	-	-	-	-	187	228	-	~ 75	158	-
Stage 2	-	-	-	-	-	-	318	145	-	309	223	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	2.2	0	160	$ 1940.8
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	36	611	375	-	-	824	-	-	17	323
HCM Lane V/C Ratio	0.833	0.035	0.29	-	-	0.007	-	-	5.033	0.045
HCM Control Delay (s)	264.7	11.1	18.5	-	-	9.4	-	-	$ 2265.6	16.7
HCM Lane LOS	F	B	C	-	-	A	-	-	F	C
HCM 95th %tile Q(veh)	3	0.1	1.2	-	-	0	-	-	11.4	0.1

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	68	11	0	0	126	17	17	0	11	0
Future Vol, veh/h	0	0	68	11	0	0	126	17	17	0	11	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	76	12	0	0	140	19	19	0	12	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	0	0	0	76	0	0	68	62	38	81	100	0
Stage 1	-	-	-	-	-	-	38	38	-	24	24	-
Stage 2	-	-	-	-	-	-	30	24	-	57	76	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	-	-	-	1523	-	-	925	829	1034	907	790	-
Stage 1	-	-	-	-	-	-	977	863	-	994	875	-
Stage 2	-	-	-	-	-	-	987	875	-	955	832	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	1523	-	-	-	822	1034	870	784	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	822	-	870	784	-
Stage 1	-	-	-	-	-	-	977	863	-	994	868	-
Stage 2	-	-	-	-	-	-	965	868	-	917	832	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	7.4		
HCM LOS			-	-

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	-	1523	-	-	-
HCM Lane V/C Ratio	-	-	-	-	0.008	-	-	-
HCM Control Delay (s)	-	0	-	-	7.4	0	-	-
HCM Lane LOS	-	A	-	-	A	A	-	-
HCM 95th %tile Q(veh)	-	-	-	-	0	-	-	-

Intersection	
Int Delay, s/veh	4.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	23	39	34	20	0
Future Vol, veh/h	0	23	39	34	20	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	26	43	38	22	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	146	22	22	0	-	0
Stage 1	22	-	-	-	-	-
Stage 2	124	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	846	1055	1593	-	-	-
Stage 1	1001	-	-	-	-	-
Stage 2	902	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	822	1055	1593	-	-	-
Mov Cap-2 Maneuver	822	-	-	-	-	-
Stage 1	973	-	-	-	-	-
Stage 2	902	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.5	3.9	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1593	-	1055	-	-
HCM Lane V/C Ratio	0.027	-	0.024	-	-
HCM Control Delay (s)	7.3	0	8.5	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.1	-	-

Intersection	
Int Delay, s/veh	4.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	93	63	0	48	48
Future Vol, veh/h	0	93	63	0	48	48
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	103	70	0	53	53

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	229	70	0	0	70	0
Stage 1	70	-	-	-	-	-
Stage 2	159	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	759	993	-	-	1531	-
Stage 1	953	-	-	-	-	-
Stage 2	870	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	732	993	-	-	1531	-
Mov Cap-2 Maneuver	732	-	-	-	-	-
Stage 1	953	-	-	-	-	-
Stage 2	839	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9	0	3.7
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	993	1531	-
HCM Lane V/C Ratio	-	-	0.104	0.035	-
HCM Control Delay (s)	-	-	9	7.4	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.3	0.1	-

Intersection	
Int Delay, s/veh	4.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	53	83	73	43	0
Future Vol, veh/h	0	53	83	73	43	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	59	92	81	48	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	313	48	48	0	-	0
Stage 1	48	-	-	-	-	-
Stage 2	265	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	680	1021	1559	-	-	-
Stage 1	974	-	-	-	-	-
Stage 2	779	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	638	1021	1559	-	-	-
Mov Cap-2 Maneuver	638	-	-	-	-	-
Stage 1	914	-	-	-	-	-
Stage 2	779	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.7	4	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1559	-	1021	-	-
HCM Lane V/C Ratio	0.059	-	0.058	-	-
HCM Control Delay (s)	7.5	0	8.7	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.2	-	0.2	-	-

Intersection	
Int Delay, s/veh	7.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	20	34	0	0	0
Future Vol, veh/h	0	20	34	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	22	38	0	0	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	77	1	1	0	-	0
Stage 1	1	-	-	-	-	-
Stage 2	76	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	926	1084	1622	-	-	-
Stage 1	1022	-	-	-	-	-
Stage 2	947	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	905	1084	1622	-	-	-
Mov Cap-2 Maneuver	905	-	-	-	-	-
Stage 1	998	-	-	-	-	-
Stage 2	947	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.4	7.3	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1622	-	1084	-	-
HCM Lane V/C Ratio	0.023	-	0.021	-	-
HCM Control Delay (s)	7.3	0	8.4	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.1	-	-

2024 Background Year with Project Traffic Analysis - Mitigations

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	1460	721	20	0	154
Future Vol, veh/h	0	1460	721	20	0	154
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	1622	801	22	0	171

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	412
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	-	0	589
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	589
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	13.6
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	589
HCM Lane V/C Ratio	-	-	-	0.291
HCM Control Delay (s)	-	-	-	13.6
HCM Lane LOS	-	-	-	B
HCM 95th %tile Q(veh)	-	-	-	1.2

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	38	1339	82	28	674	14	0	0	35	0	0	67
Future Vol, veh/h	38	1339	82	28	674	14	0	0	35	0	0	67
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	100	100	-	375	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	42	1488	91	31	749	16	0	0	39	0	0	74

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	765	0	0	1579	0	0	-	-	744	-	-	375
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	4.14	-	-	4.14	-	-	-	-	6.94	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	-	-	3.32	-	-	3.32
Pot Cap-1 Maneuver	844	-	-	413	-	-	0	0	357	0	0	623
Stage 1	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	844	-	-	413	-	-	-	-	357	-	-	623
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	0.6	16.3	11.6
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	357	844	-	-	413	-	-	623
HCM Lane V/C Ratio	0.109	0.05	-	-	0.075	-	-	0.119
HCM Control Delay (s)	16.3	9.5	-	-	14.4	-	-	11.6
HCM Lane LOS	C	A	-	-	B	-	-	B
HCM 95th %tile Q(veh)	0.4	0.2	-	-	0.2	-	-	0.4

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	33	17	0	0	42	5	5	0	17	0
Future Vol, veh/h	0	0	33	17	0	0	42	5	5	0	17	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	37	19	0	0	47	6	6	0	19	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	0	0	0	37	0	0	67	57	19	63	75	0
Stage 1	-	-	-	-	-	-	19	19	-	38	38	-
Stage 2	-	-	-	-	-	-	48	38	-	25	37	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	-	-	-	1574	-	-	926	834	1059	932	815	-
Stage 1	-	-	-	-	-	-	1000	880	-	977	863	-
Stage 2	-	-	-	-	-	-	965	863	-	993	864	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	1574	-	-	-	824	1059	914	805	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	824	-	914	805	-
Stage 1	-	-	-	-	-	-	1000	880	-	977	853	-
Stage 2	-	-	-	-	-	-	932	853	-	982	864	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	7.3		
HCM LOS			-	-

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	-	1574	-	-	-
HCM Lane V/C Ratio	-	-	-	-	0.012	-	-	-
HCM Control Delay (s)	-	0	-	-	7.3	0	-	-
HCM Lane LOS	-	A	-	-	A	A	-	-
HCM 95th %tile Q(veh)	-	-	-	-	0	-	-	-

Intersection	
Int Delay, s/veh	4.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	39	12	10	31	0
Future Vol, veh/h	0	39	12	10	31	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	43	13	11	34	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	71	34	34	0	-	0
Stage 1	34	-	-	-	-	-
Stage 2	37	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	933	1039	1578	-	-	-
Stage 1	988	-	-	-	-	-
Stage 2	985	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	926	1039	1578	-	-	-
Mov Cap-2 Maneuver	926	-	-	-	-	-
Stage 1	980	-	-	-	-	-
Stage 2	985	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.6	4	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1578	-	1039	-	-
HCM Lane V/C Ratio	0.008	-	0.042	-	-
HCM Control Delay (s)	7.3	0	8.6	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection	
Int Delay, s/veh	1.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	31	20	0	0	154
Future Vol, veh/h	0	31	20	0	0	154
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	34	22	0	0	171

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	193	22	0	0	22	0
Stage 1	22	-	-	-	-	-
Stage 2	171	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	796	1055	-	-	1593	-
Stage 1	1001	-	-	-	-	-
Stage 2	859	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	796	1055	-	-	1593	-
Mov Cap-2 Maneuver	796	-	-	-	-	-
Stage 1	1001	-	-	-	-	-
Stage 2	859	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.5	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	1055	1593	-
HCM Lane V/C Ratio	-	-	0.033	-	-
HCM Control Delay (s)	-	-	8.5	0	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Intersection	
Int Delay, s/veh	4.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	84	29	22	70	0
Future Vol, veh/h	0	84	29	22	70	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	93	32	24	78	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	166	78	78	0	-	0
Stage 1	78	-	-	-	-	-
Stage 2	88	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	824	983	1520	-	-	-
Stage 1	945	-	-	-	-	-
Stage 2	935	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	807	983	1520	-	-	-
Mov Cap-2 Maneuver	807	-	-	-	-	-
Stage 1	925	-	-	-	-	-
Stage 2	935	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9	4.2	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1520	-	983	-	-
HCM Lane V/C Ratio	0.021	-	0.095	-	-
HCM Control Delay (s)	7.4	0	9	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.3	-	-

Intersection	
Int Delay, s/veh	7.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	31	10	0	0	0
Future Vol, veh/h	0	31	10	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	34	11	0	0	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	23	1	1	0	-	0
Stage 1	1	-	-	-	-	-
Stage 2	22	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	993	1084	1622	-	-	-
Stage 1	1022	-	-	-	-	-
Stage 2	1001	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	986	1084	1622	-	-	-
Mov Cap-2 Maneuver	986	-	-	-	-	-
Stage 1	1015	-	-	-	-	-
Stage 2	1001	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.4	7.2	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1622	-	1084	-	-
HCM Lane V/C Ratio	0.007	-	0.032	-	-
HCM Control Delay (s)	7.2	0	8.4	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	812	1434	63	0	96
Future Vol, veh/h	0	812	1434	63	0	96
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	902	1593	70	0	107

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	832
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	-	0	312
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	312
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	22.4
HCM LOS			C

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	312
HCM Lane V/C Ratio	-	-	-	0.342
HCM Control Delay (s)	-	-	-	22.4
HCM Lane LOS	-	-	-	C
HCM 95th %tile Q(veh)	-	-	-	1.5

Intersection	
Int Delay, s/veh	1.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	98	697	17	5	1455	62	0	0	46	0	0	42
Future Vol, veh/h	98	697	17	5	1455	62	0	0	46	0	0	42
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	100	100	-	375	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	109	774	19	6	1617	69	0	0	51	0	0	47

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1686	0	0	793	0	0	-	-	387	-	-	809
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	4.14	-	-	4.14	-	-	-	-	6.94	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	-	-	3.32	-	-	3.32
Pot Cap-1 Maneuver	375	-	-	824	-	-	0	0	611	0	0	323
Stage 1	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	375	-	-	824	-	-	-	-	611	-	-	323
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	2.2	0	11.4	18
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	611	375	-	-	824	-	-	323
HCM Lane V/C Ratio	0.084	0.29	-	-	0.007	-	-	0.144
HCM Control Delay (s)	11.4	18.5	-	-	9.4	-	-	18
HCM Lane LOS	B	C	-	-	A	-	-	C
HCM 95th %tile Q(veh)	0.3	1.2	-	-	0	-	-	0.5

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	20	11	0	0	126	17	17	0	11	0
Future Vol, veh/h	0	0	20	11	0	0	126	17	17	0	11	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	22	12	0	0	140	19	19	0	12	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	0	0	0	22	0	0	41	35	11	54	46	0
Stage 1	-	-	-	-	-	-	11	11	-	24	24	-
Stage 2	-	-	-	-	-	-	30	24	-	30	22	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	-	-	-	1593	-	-	963	857	1070	944	846	-
Stage 1	-	-	-	-	-	-	1010	886	-	994	875	-
Stage 2	-	-	-	-	-	-	987	875	-	987	877	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	1593	-	-	-	850	1070	906	839	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	850	-	906	839	-
Stage 1	-	-	-	-	-	-	1010	886	-	994	868	-
Stage 2	-	-	-	-	-	-	965	868	-	949	877	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	7.3		
HCM LOS			-	-

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	-	1593	-	-	-
HCM Lane V/C Ratio	-	-	-	-	0.008	-	-	-
HCM Control Delay (s)	-	0	-	-	7.3	0	-	-
HCM Lane LOS	-	A	-	-	A	A	-	-
HCM 95th %tile Q(veh)	-	-	-	-	0	-	-	-

Intersection	
Int Delay, s/veh	4.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	23	39	34	20	0
Future Vol, veh/h	0	23	39	34	20	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	26	43	38	22	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	146	22	22	0	-	0
Stage 1	22	-	-	-	-	-
Stage 2	124	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	846	1055	1593	-	-	-
Stage 1	1001	-	-	-	-	-
Stage 2	902	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	822	1055	1593	-	-	-
Mov Cap-2 Maneuver	798	-	-	-	-	-
Stage 1	973	-	-	-	-	-
Stage 2	902	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.5	3.9	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1593	-	1055	-	-
HCM Lane V/C Ratio	0.027	-	0.024	-	-
HCM Control Delay (s)	7.3	0	8.5	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.1	-	-

Intersection	
Int Delay, s/veh	3.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	93	63	0	0	96
Future Vol, veh/h	0	93	63	0	0	96
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	103	70	0	0	107

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	177	70	0	0	70	0
Stage 1	70	-	-	-	-	-
Stage 2	107	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	813	993	-	-	1531	-
Stage 1	953	-	-	-	-	-
Stage 2	917	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	813	993	-	-	1531	-
Mov Cap-2 Maneuver	813	-	-	-	-	-
Stage 1	953	-	-	-	-	-
Stage 2	917	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	993	1531	-
HCM Lane V/C Ratio	-	-	0.104	-	-
HCM Control Delay (s)	-	-	9	0	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	0.3	0	-

Intersection	
Int Delay, s/veh	4.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	53	83	73	43	0
Future Vol, veh/h	0	53	83	73	43	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	59	92	81	48	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	313	48	48	0	-	0
Stage 1	48	-	-	-	-	-
Stage 2	265	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	680	1021	1559	-	-	-
Stage 1	974	-	-	-	-	-
Stage 2	779	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	638	1021	1559	-	-	-
Mov Cap-2 Maneuver	638	-	-	-	-	-
Stage 1	914	-	-	-	-	-
Stage 2	779	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.7	4	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1559	-	1021	-	-
HCM Lane V/C Ratio	0.059	-	0.058	-	-
HCM Control Delay (s)	7.5	0	8.7	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.2	-	0.2	-	-

Intersection	
Int Delay, s/veh	7.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	20	34	0	0	0
Future Vol, veh/h	0	20	34	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	22	38	0	0	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	77	1	1	0	-	0
Stage 1	1	-	-	-	-	-
Stage 2	76	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	926	1084	1622	-	-	-
Stage 1	1022	-	-	-	-	-
Stage 2	947	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	905	1084	1622	-	-	-
Mov Cap-2 Maneuver	852	-	-	-	-	-
Stage 1	998	-	-	-	-	-
Stage 2	947	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.4	7.3	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1622	-	1084	-	-
HCM Lane V/C Ratio	0.023	-	0.021	-	-
HCM Control Delay (s)	7.3	0	8.4	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.1	-	-

2030 Background Year with Project Traffic Analysis

Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	2185	1034	87	0	125
Future Vol, veh/h	0	2185	1034	87	0	125
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	2428	1149	97	0	139

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	623
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	-	0	429
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	429
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	17.4
HCM LOS			C

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	429
HCM Lane V/C Ratio	-	-	-	0.324
HCM Control Delay (s)	-	-	-	17.4
HCM Lane LOS	-	-	-	C
HCM 95th %tile Q(veh)	-	-	-	1.4

Intersection	
Int Delay, s/veh	816.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	200	1870	115	39	1001	83	20	0	29	179	0	100
Future Vol, veh/h	200	1870	115	39	1001	83	20	0	29	179	0	100
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	100	100	-	375	100	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	222	2078	128	43	1112	92	22	0	32	199	0	111

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1204	0	0	2206	0	0	3164	3812	1039	2681	3848	556
Stage 1	-	-	-	-	-	-	2522	2522	-	1198	1198	-
Stage 2	-	-	-	-	-	-	642	1290	-	1483	2650	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	575	-	-	235	-	-	~ 4	4	227	~ 11	4	475
Stage 1	-	-	-	-	-	-	28	55	-	~ 197	257	-
Stage 2	-	-	-	-	-	-	429	232	-	~ 131	47	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	575	-	-	235	-	-	~ 2	2	227	~ 6	2	475
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 2	2	-	~ 6	2	-
Stage 1	-	-	-	-	-	-	~ 17	34	-	~ 121	210	-
Stage 2	-	-	-	-	-	-	269	190	-	~ 69	29	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.4	0.8	$ 3216	$ 10056.2
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	2	227	575	-	-	235	-	-	6	475
HCM Lane V/C Ratio	11.111	0.142	0.386	-	-	0.184	-	-	33.148	0.234
HCM Control Delay (s)	$ 7845.1	23.5	15.2	-	-	23.8	-	-	$ 15665.9	14.9
HCM Lane LOS	F	C	C	-	-	C	-	-	F	B
HCM 95th %tile Q(veh)	4.4	0.5	1.8	-	-	0.7	-	-	26.9	0.9

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	0	0	129	13	0	0	140	5	5	0	17	0
Future Vol, veh/h	0	0	129	13	0	0	140	5	5	0	17	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	143	14	0	0	156	6	6	0	19	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	0	0	0	143	0	0	110	100	72	106	171	0
Stage 1	-	-	-	-	-	-	72	72	-	28	28	-
Stage 2	-	-	-	-	-	-	38	28	-	78	143	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	-	-	-	1440	-	-	868	790	990	873	722	-
Stage 1	-	-	-	-	-	-	938	835	-	989	872	-
Stage 2	-	-	-	-	-	-	977	872	-	931	779	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	1440	-	-	-	782	990	856	715	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	782	-	856	715	-
Stage 1	-	-	-	-	-	-	938	835	-	989	863	-
Stage 2	-	-	-	-	-	-	946	863	-	920	779	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	7.5		
HCM LOS			-	-

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	-	1440	-	-	-
HCM Lane V/C Ratio	-	-	-	-	0.01	-	-	-
HCM Control Delay (s)	-	0	-	-	7.5	0	-	-
HCM Lane LOS	-	A	-	-	A	A	-	-
HCM 95th %tile Q(veh)	-	-	-	-	0	-	-	-

Intersection	
Int Delay, s/veh	3.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	39	12	15	66	0
Future Vol, veh/h	0	39	12	15	66	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	43	13	17	73	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	116	73	73	0	-	0
Stage 1	73	-	-	-	-	-
Stage 2	43	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	880	989	1527	-	-	-
Stage 1	950	-	-	-	-	-
Stage 2	979	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	872	989	1527	-	-	-
Mov Cap-2 Maneuver	872	-	-	-	-	-
Stage 1	941	-	-	-	-	-
Stage 2	979	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.8	3.3	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1527	-	989	-	-
HCM Lane V/C Ratio	0.009	-	0.044	-	-
HCM Control Delay (s)	7.4	0	8.8	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection	
Int Delay, s/veh	7.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	0	13	13	0	94	31	62	25	0	77	112	0
Future Vol, veh/h	0	13	13	0	94	31	62	25	0	77	112	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	14	14	0	104	34	69	28	0	86	124	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	531	462	124	476	462	28	124	0	0	28	0	0
Stage 1	296	296	-	166	166	-	-	-	-	-	-	-
Stage 2	235	166	-	310	296	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	459	497	927	499	497	1047	1463	-	-	1585	-	-
Stage 1	712	668	-	836	761	-	-	-	-	-	-	-
Stage 2	768	761	-	700	668	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	336	446	927	442	446	1047	1463	-	-	1585	-	-
Mov Cap-2 Maneuver	336	446	-	442	446	-	-	-	-	-	-	-
Stage 1	678	629	-	796	724	-	-	-	-	-	-	-
Stage 2	605	724	-	634	629	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.3	14.4	5.4	3
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1463	-	-	602	520	1585	-	-
HCM Lane V/C Ratio	0.047	-	-	0.048	0.267	0.054	-	-
HCM Control Delay (s)	7.6	0	-	11.3	14.4	7.4	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.2	1.1	0.2	-	-

Intersection	
Int Delay, s/veh	4.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	84	29	27	105	0
Future Vol, veh/h	0	84	29	27	105	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	93	32	30	117	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	211	117	117	0	-	0
Stage 1	117	-	-	-	-	-
Stage 2	94	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	777	935	1471	-	-	-
Stage 1	908	-	-	-	-	-
Stage 2	930	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	760	935	1471	-	-	-
Mov Cap-2 Maneuver	760	-	-	-	-	-
Stage 1	888	-	-	-	-	-
Stage 2	930	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.3	3.9	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1471	-	935	-	-
HCM Lane V/C Ratio	0.022	-	0.1	-	-
HCM Control Delay (s)	7.5	0	9.3	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.3	-	-

Intersection	
Int Delay, s/veh	7.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	31	10	0	0	0
Future Vol, veh/h	0	31	10	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	34	11	0	0	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	23	1	1	0	-	0
Stage 1	1	-	-	-	-	-
Stage 2	22	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	993	1084	1622	-	-	-
Stage 1	1022	-	-	-	-	-
Stage 2	1001	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	986	1084	1622	-	-	-
Mov Cap-2 Maneuver	986	-	-	-	-	-
Stage 1	1015	-	-	-	-	-
Stage 2	1001	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.4	7.2	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1622	-	1084	-	-
HCM Lane V/C Ratio	0.007	-	0.032	-	-
HCM Control Delay (s)	7.2	0	8.4	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection	
Int Delay, s/veh	4.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	1243	2145	84	0	146
Future Vol, veh/h	0	1243	2145	84	0	146
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	1381	2383	93	0	162

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	1238
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	-	0	167
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	167
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	117.4
HCM LOS			F

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	167
HCM Lane V/C Ratio	-	-	-	0.971
HCM Control Delay (s)	-	-	-	117.4
HCM Lane LOS	-	-	-	F
HCM 95th %tile Q(veh)	-	-	-	7.5

Intersection	
Int Delay, s/veh	16.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	246	973	24	7	2024	162	37	0	27	230	0	168
Future Vol, veh/h	246	973	24	7	2024	162	37	0	27	230	0	168
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	100	100	-	375	100	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	273	1081	27	8	2249	180	41	0	30	256	0	187

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	2429	0	0	1108	0	0	2768	4072	541	3352	3919	1125
Stage 1	-	-	-	-	-	-	1627	1627	-	2265	2265	-
Stage 2	-	-	-	-	-	-	1141	2445	-	1087	1654	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	~ 192	-	-	626	-	-	~ 9	3	485	~ 3	3	199
Stage 1	-	-	-	-	-	-	106	159	-	~ 42	75	-
Stage 2	-	-	-	-	-	-	214	61	-	~ 231	154	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	~ 192	-	-	626	-	-	-	0	485	-	0	199
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	0	-	-	0	-
Stage 1	-	-	-	-	-	-	106	0	-	~ 42	74	-
Stage 2	-	-	-	-	-	-	~ 13	60	-	-	0	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	52.3	0		
HCM LOS			-	-

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	-	485	~ 192	-	-	626	-	-	-	199
HCM Lane V/C Ratio	-	0.062	1.424	-	-	0.012	-	-	-	0.938
HCM Control Delay (s)	-	12.9	264.3	-	-	10.8	-	-	-	97.6
HCM Lane LOS	-	B	F	-	-	B	-	-	-	F
HCM 95th %tile Q(veh)	-	0.2	16.4	-	-	0	-	-	-	7.6

Notes
~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	143	11	0	0	145	17	17	0	11	0
Future Vol, veh/h	0	0	143	11	0	0	145	17	17	0	11	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	159	12	0	0	161	19	19	0	12	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	0	0	0	159	0	0	110	104	80	123	183	0
Stage 1	-	-	-	-	-	-	80	80	-	24	24	-
Stage 2	-	-	-	-	-	-	30	24	-	99	159	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	-	-	-	1420	-	-	868	786	980	852	711	-
Stage 1	-	-	-	-	-	-	929	828	-	994	875	-
Stage 2	-	-	-	-	-	-	987	875	-	907	766	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	1420	-	-	-	780	980	815	705	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	780	-	815	705	-
Stage 1	-	-	-	-	-	-	929	828	-	994	868	-
Stage 2	-	-	-	-	-	-	965	868	-	869	766	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	7.6		
HCM LOS			-	-

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	-	1420	-	-	-
HCM Lane V/C Ratio	-	-	-	-	0.009	-	-	-
HCM Control Delay (s)	-	0	-	-	7.6	0	-	-
HCM Lane LOS	-	A	-	-	A	A	-	-
HCM 95th %tile Q(veh)	-	-	-	-	0	-	-	-

Intersection	
Int Delay, s/veh	3.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	23	39	43	43	0
Future Vol, veh/h	0	23	39	43	43	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	26	43	48	48	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	182	48	48	0	-	0
Stage 1	48	-	-	-	-	-
Stage 2	134	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	807	1021	1559	-	-	-
Stage 1	974	-	-	-	-	-
Stage 2	892	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	784	1021	1559	-	-	-
Mov Cap-2 Maneuver	784	-	-	-	-	-
Stage 1	947	-	-	-	-	-
Stage 2	892	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.6	3.5	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1559	-	1021	-	-
HCM Lane V/C Ratio	0.028	-	0.025	-	-
HCM Control Delay (s)	7.4	0	8.6	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.1	-	-

Intersection	
Int Delay, s/veh	7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	0	75	75	0	19	93	12	72	0	48	71	0
Future Vol, veh/h	0	75	75	0	19	93	12	72	0	48	71	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	83	83	0	21	103	13	80	0	53	79	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	353	291	79	374	291	80	79	0	0	80	0	0
Stage 1	185	185	-	106	106	-	-	-	-	-	-	-
Stage 2	168	106	-	268	185	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	602	619	981	583	619	980	1519	-	-	1518	-	-
Stage 1	817	747	-	900	807	-	-	-	-	-	-	-
Stage 2	834	807	-	738	747	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	506	591	981	459	591	980	1519	-	-	1518	-	-
Mov Cap-2 Maneuver	506	591	-	459	591	-	-	-	-	-	-	-
Stage 1	810	719	-	892	800	-	-	-	-	-	-	-
Stage 2	720	800	-	575	719	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.3	9.8	1.1	3
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1519	-	-	738	882	1518	-	-
HCM Lane V/C Ratio	0.009	-	-	0.226	0.141	0.035	-	-
HCM Control Delay (s)	7.4	0	-	11.3	9.8	7.5	0	-
HCM Lane LOS	A	A	-	B	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.9	0.5	0.1	-	-

Intersection	
Int Delay, s/veh	3.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	53	83	82	66	0
Future Vol, veh/h	0	53	83	82	66	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	59	92	91	73	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	348	73	73	0	-	0
Stage 1	73	-	-	-	-	-
Stage 2	275	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	649	989	1527	-	-	-
Stage 1	950	-	-	-	-	-
Stage 2	771	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	608	989	1527	-	-	-
Mov Cap-2 Maneuver	608	-	-	-	-	-
Stage 1	890	-	-	-	-	-
Stage 2	771	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.9	3.8	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1527	-	989	-	-
HCM Lane V/C Ratio	0.06	-	0.06	-	-
HCM Control Delay (s)	7.5	0	8.9	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.2	-	0.2	-	-

Intersection	
Int Delay, s/veh	7.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	20	34	0	0	0
Future Vol, veh/h	0	20	34	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	22	38	0	0	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	77	1	1	0	-	0
Stage 1	1	-	-	-	-	-
Stage 2	76	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	926	1084	1622	-	-	-
Stage 1	1022	-	-	-	-	-
Stage 2	947	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	905	1084	1622	-	-	-
Mov Cap-2 Maneuver	905	-	-	-	-	-
Stage 1	998	-	-	-	-	-
Stage 2	947	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.4	7.3	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1622	-	1084	-	-
HCM Lane V/C Ratio	0.023	-	0.021	-	-
HCM Control Delay (s)	7.3	0	8.4	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.1	-	-

2030 Background Year with Project Traffic Analysis - Mitigations

Intersection	
Int Delay, s/veh	1.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	2185	1193	87	0	215
Future Vol, veh/h	0	2185	1193	87	0	215
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	2428	1326	97	0	239

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	712
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	-	0	375
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	375
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	30
HCM LOS			D

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	375
HCM Lane V/C Ratio	-	-	-	0.637
HCM Control Delay (s)	-	-	-	30
HCM Lane LOS	-	-	-	D
HCM 95th %tile Q(veh)	-	-	-	4.2

Intersection	
Int Delay, s/veh	2.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	200	1870	115	39	1001	83	0	0	49	0	0	189
Future Vol, veh/h	200	1870	115	39	1001	83	0	0	49	0	0	189
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	100	100	-	375	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	222	2078	128	43	1112	92	0	0	54	0	0	210

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1204	0	0	2206	0	0	-	-	1039	-	-	556
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	4.14	-	-	4.14	-	-	-	-	6.94	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	-	-	3.32	-	-	3.32
Pot Cap-1 Maneuver	575	-	-	235	-	-	0	0	227	0	0	475
Stage 1	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	575	-	-	235	-	-	-	-	227	-	-	475
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.4	0.8	25.8	18.4
HCM LOS			D	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	227	575	-	-	235	-	-	475
HCM Lane V/C Ratio	0.24	0.386	-	-	0.184	-	-	0.442
HCM Control Delay (s)	25.8	15.2	-	-	23.8	-	-	18.4
HCM Lane LOS	D	C	-	-	C	-	-	C
HCM 95th %tile Q(veh)	0.9	1.8	-	-	0.7	-	-	2.2

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	0	0	129	13	0	0	140	5	5	0	17	0
Future Vol, veh/h	0	0	129	13	0	0	140	5	5	0	17	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	143	14	0	0	156	6	6	0	19	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	0	0	0	143	0	0	110	100	72	106	171	0
Stage 1	-	-	-	-	-	-	72	72	-	28	28	-
Stage 2	-	-	-	-	-	-	38	28	-	78	143	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	-	-	-	1440	-	-	868	790	990	873	722	-
Stage 1	-	-	-	-	-	-	938	835	-	989	872	-
Stage 2	-	-	-	-	-	-	977	872	-	931	779	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	1440	-	-	-	782	990	856	715	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	782	-	856	715	-
Stage 1	-	-	-	-	-	-	938	835	-	989	863	-
Stage 2	-	-	-	-	-	-	946	863	-	920	779	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	7.5		
HCM LOS			-	-

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	-	1440	-	-	-
HCM Lane V/C Ratio	-	-	-	-	0.01	-	-	-
HCM Control Delay (s)	-	0	-	-	7.5	0	-	-
HCM Lane LOS	-	A	-	-	A	A	-	-
HCM 95th %tile Q(veh)	-	-	-	-	0	-	-	-

Intersection	
Int Delay, s/veh	3.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	39	12	15	66	0
Future Vol, veh/h	0	39	12	15	66	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	43	13	17	73	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	116	73	73	0	-	0
Stage 1	73	-	-	-	-	-
Stage 2	43	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	880	989	1527	-	-	-
Stage 1	950	-	-	-	-	-
Stage 2	979	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	872	989	1527	-	-	-
Mov Cap-2 Maneuver	872	-	-	-	-	-
Stage 1	941	-	-	-	-	-
Stage 2	979	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.8	3.3	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1527	-	989	-	-
HCM Lane V/C Ratio	0.009	-	0.044	-	-
HCM Control Delay (s)	7.4	0	8.8	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection	
Int Delay, s/veh	7.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	13	13	0	94	31	62	25	0	77	112	0
Future Vol, veh/h	0	13	13	0	94	31	62	25	0	77	112	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	14	14	0	104	34	69	28	0	86	124	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	531	462	124	476	462	28	124	0	0	28	0	0
Stage 1	296	296	-	166	166	-	-	-	-	-	-	-
Stage 2	235	166	-	310	296	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	459	497	927	499	497	1047	1463	-	-	1585	-	-
Stage 1	712	668	-	836	761	-	-	-	-	-	-	-
Stage 2	768	761	-	700	668	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	336	446	927	442	446	1047	1463	-	-	1585	-	-
Mov Cap-2 Maneuver	336	446	-	442	446	-	-	-	-	-	-	-
Stage 1	678	629	-	796	724	-	-	-	-	-	-	-
Stage 2	605	724	-	634	629	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.3	14.4	5.4	3
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1463	-	-	602	520	1585	-	-
HCM Lane V/C Ratio	0.047	-	-	0.048	0.267	0.054	-	-
HCM Control Delay (s)	7.6	0	-	11.3	14.4	7.4	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.2	1.1	0.2	-	-

Intersection	
Int Delay, s/veh	4.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	84	29	27	105	0
Future Vol, veh/h	0	84	29	27	105	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	93	32	30	117	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	211	117	117	0	-	0
Stage 1	117	-	-	-	-	-
Stage 2	94	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	777	935	1471	-	-	-
Stage 1	908	-	-	-	-	-
Stage 2	930	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	760	935	1471	-	-	-
Mov Cap-2 Maneuver	760	-	-	-	-	-
Stage 1	888	-	-	-	-	-
Stage 2	930	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.3	3.9	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1471	-	935	-	-
HCM Lane V/C Ratio	0.022	-	0.1	-	-
HCM Control Delay (s)	7.5	0	9.3	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.3	-	-

Intersection	
Int Delay, s/veh	7.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	31	10	0	0	0
Future Vol, veh/h	0	31	10	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	34	11	0	0	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	23	1	1	0	-	0
Stage 1	1	-	-	-	-	-
Stage 2	22	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	993	1084	1622	-	-	-
Stage 1	1022	-	-	-	-	-
Stage 2	1001	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	986	1084	1622	-	-	-
Mov Cap-2 Maneuver	986	-	-	-	-	-
Stage 1	1015	-	-	-	-	-
Stage 2	1001	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.4	7.2	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1622	-	1084	-	-
HCM Lane V/C Ratio	0.007	-	0.032	-	-
HCM Control Delay (s)	7.2	0	8.4	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection	
Int Delay, s/veh	36.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	1243	2288	84	0	269
Future Vol, veh/h	0	1243	2288	84	0	269
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	1381	2542	93	0	299

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	1318
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	-	0	~ 148
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	~ 148
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	$ 532.1
HCM LOS			F

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	148
HCM Lane V/C Ratio	-	-	-	2.02
HCM Control Delay (s)	-	-	-	$ 532.1
HCM Lane LOS	-	-	-	F
HCM 95th %tile Q(veh)	-	-	-	23.6

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	39.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	246	973	24	7	2024	162	0	0	64	0	0	275
Future Vol, veh/h	246	973	24	7	2024	162	0	0	64	0	0	275
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	100	100	-	375	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	273	1081	27	8	2249	180	0	0	71	0	0	306

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	2429	0	0	1108	0	0	-	-	541	-	-	1125
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	4.14	-	-	4.14	-	-	-	-	6.94	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	-	-	3.32	-	-	3.32
Pot Cap-1 Maneuver	~ 192	-	-	626	-	-	0	0	485	0	0	~ 199
Stage 1	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	~ 192	-	-	626	-	-	-	-	485	-	-	~ 199
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	52.3	0	13.7	$ 307.9
HCM LOS			B	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	485	~ 192	-	-	626	-	-	199
HCM Lane V/C Ratio	0.147	1.424	-	-	0.012	-	-	1.535
HCM Control Delay (s)	13.7	264.3	-	-	10.8	-	-	$ 307.9
HCM Lane LOS	B	F	-	-	B	-	-	F
HCM 95th %tile Q(veh)	0.5	16.4	-	-	0	-	-	19.3

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	0	0	93	11	0	0	145	17	17	0	11	0
Future Vol, veh/h	0	0	93	11	0	0	145	17	17	0	11	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	103	12	0	0	161	19	19	0	12	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	0	0	0	103	0	0	82	76	52	95	127	0
Stage 1	-	-	-	-	-	-	52	52	-	24	24	-
Stage 2	-	-	-	-	-	-	30	24	-	71	103	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	-	-	-	1489	-	-	905	814	1016	888	764	-
Stage 1	-	-	-	-	-	-	961	852	-	994	875	-
Stage 2	-	-	-	-	-	-	987	875	-	939	810	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	1489	-	-	-	807	1016	851	758	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	807	-	851	758	-
Stage 1	-	-	-	-	-	-	961	852	-	994	868	-
Stage 2	-	-	-	-	-	-	965	868	-	901	810	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	7.4		
HCM LOS			-	-

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	-	1489	-	-	-
HCM Lane V/C Ratio	-	-	-	-	0.008	-	-	-
HCM Control Delay (s)	-	0	-	-	7.4	0	-	-
HCM Lane LOS	-	A	-	-	A	A	-	-
HCM 95th %tile Q(veh)	-	-	-	-	0	-	-	-

Intersection	
Int Delay, s/veh	3.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	23	39	43	43	0
Future Vol, veh/h	0	23	39	43	43	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	26	43	48	48	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	182	48	48	0	-	0
Stage 1	48	-	-	-	-	-
Stage 2	134	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	807	1021	1559	-	-	-
Stage 1	974	-	-	-	-	-
Stage 2	892	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	784	1021	1559	-	-	-
Mov Cap-2 Maneuver	784	-	-	-	-	-
Stage 1	947	-	-	-	-	-
Stage 2	892	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.6	3.5	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1559	-	1021	-	-
HCM Lane V/C Ratio	0.028	-	0.025	-	-
HCM Control Delay (s)	7.4	0	8.6	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.1	-	-

Intersection	
Int Delay, s/veh	6.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	25	125	0	19	93	12	72	0	48	71	0
Future Vol, veh/h	0	25	125	0	19	93	12	72	0	48	71	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	28	139	0	21	103	13	80	0	53	79	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	353	291	79	375	291	80	79	0	0	80	0	0
Stage 1	185	185	-	106	106	-	-	-	-	-	-	-
Stage 2	168	106	-	269	185	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	602	619	981	582	619	980	1519	-	-	1518	-	-
Stage 1	817	747	-	900	807	-	-	-	-	-	-	-
Stage 2	834	807	-	737	747	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	506	591	981	465	591	980	1519	-	-	1518	-	-
Mov Cap-2 Maneuver	506	591	-	465	591	-	-	-	-	-	-	-
Stage 1	810	719	-	892	800	-	-	-	-	-	-	-
Stage 2	720	800	-	586	719	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10	9.8	1.1	3
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1519	-	-	884	882	1518	-	-
HCM Lane V/C Ratio	0.009	-	-	0.189	0.141	0.035	-	-
HCM Control Delay (s)	7.4	0	-	10	9.8	7.5	0	-
HCM Lane LOS	A	A	-	B	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.7	0.5	0.1	-	-

Intersection	
Int Delay, s/veh	3.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	53	83	82	66	0
Future Vol, veh/h	0	53	83	82	66	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	59	92	91	73	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	348	73	73	0	-	0
Stage 1	73	-	-	-	-	-
Stage 2	275	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	649	989	1527	-	-	-
Stage 1	950	-	-	-	-	-
Stage 2	771	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	608	989	1527	-	-	-
Mov Cap-2 Maneuver	608	-	-	-	-	-
Stage 1	890	-	-	-	-	-
Stage 2	771	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.9	3.8	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1527	-	989	-	-
HCM Lane V/C Ratio	0.06	-	0.06	-	-
HCM Control Delay (s)	7.5	0	8.9	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.2	-	0.2	-	-

Intersection	
Int Delay, s/veh	7.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	20	34	0	0	0
Future Vol, veh/h	0	20	34	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	22	38	0	0	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	77	1	1	0	-	0
Stage 1	1	-	-	-	-	-
Stage 2	76	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	926	1084	1622	-	-	-
Stage 1	1022	-	-	-	-	-
Stage 2	947	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	905	1084	1622	-	-	-
Mov Cap-2 Maneuver	905	-	-	-	-	-
Stage 1	998	-	-	-	-	-
Stage 2	947	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.4	7.3	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1622	-	1084	-	-
HCM Lane V/C Ratio	0.023	-	0.021	-	-
HCM Control Delay (s)	7.3	0	8.4	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.1	-	-

Queuing Analysis

Intersection: 1: SH 44 & Hamlin Ave

Movement	SB
Directions Served	R
Maximum Queue (ft)	61
Average Queue (ft)	28
95th Queue (ft)	50
Link Distance (ft)	650
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 2: Short Road & SH 44

Movement	EB	EB	WB	NB	NB	SB	SB
Directions Served	L	R	L	L	TR	L	TR
Maximum Queue (ft)	45	11	42	38	34	152	82
Average Queue (ft)	11	0	11	12	10	61	13
95th Queue (ft)	34	6	34	33	28	125	51
Link Distance (ft)					784		648
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)	100	100	100	100		100	
Storage Blk Time (%)						8	0
Queuing Penalty (veh)						2	0

Intersection: 3: Short Road & Amazon Dr

Movement	WB	NB	SB
Directions Served	LTR	LTR	LTR
Maximum Queue (ft)	18	50	36
Average Queue (ft)	2	24	12
95th Queue (ft)	12	48	37
Link Distance (ft)	271	648	276
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 4: Hamlin Ave & Schultz Ct

Movement	NB
Directions Served	LR
Maximum Queue (ft)	31
Average Queue (ft)	4
95th Queue (ft)	20
Link Distance (ft)	295
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 5: Hamlin Ave & Amazon Dr

Movement	WB	SB
Directions Served	LR	LT
Maximum Queue (ft)	31	19
Average Queue (ft)	13	1
95th Queue (ft)	37	12
Link Distance (ft)	714	296
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 6: Hamlin Ave & Apartment Access

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	58	6
Average Queue (ft)	32	0
95th Queue (ft)	50	4
Link Distance (ft)	270	296
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

Network wide Queuing Penalty: 2

Queuing and Blocking Report
2023 Background w/ Project PM

08/01/2022

Intersection: 1: SH 44 & Hamlin Ave

Movement	WB	SB
Directions Served	TR	R
Maximum Queue (ft)	8	67
Average Queue (ft)	0	22
95th Queue (ft)	6	50
Link Distance (ft)	711	640
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 2: Short Road & SH 44

Movement	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	L	R	L	TR	L	TR
Maximum Queue (ft)	61	18	25	11	72	30	125	86
Average Queue (ft)	25	1	2	0	22	11	55	14
95th Queue (ft)	54	13	12	8	53	29	118	70
Link Distance (ft)		711				784		642
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	100		100	375	100		100	
Storage Blk Time (%)		0			0		9	0
Queuing Penalty (veh)		0			0		1	0

Intersection: 3: Short Road & Amazon Dr

Movement	WB	NB	SB
Directions Served	LTR	LTR	LTR
Maximum Queue (ft)	18	57	31
Average Queue (ft)	1	32	10
95th Queue (ft)	10	49	33
Link Distance (ft)	251	642	281
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 4: Hamlin Ave & Schultz Ct

Movement	NB
Directions Served	LR
Maximum Queue (ft)	31
Average Queue (ft)	3
95th Queue (ft)	18
Link Distance (ft)	277
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 5: Hamlin Ave & Amazon Dr

Movement	WB	SB
Directions Served	LR	LT
Maximum Queue (ft)	40	25
Average Queue (ft)	24	1
95th Queue (ft)	45	11
Link Distance (ft)	707	326
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 6: Hamlin Ave & Apartment Access

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	65	6
Average Queue (ft)	28	0
95th Queue (ft)	54	6
Link Distance (ft)	170	326
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

Network wide Queuing Penalty: 1

Queuing and Blocking Report
2023 Background w/ Project AM - Mitigations

08/01/2022

Intersection: 1: SH 44 & Hamlin Ave

Movement	SB
Directions Served	R
Maximum Queue (ft)	56
Average Queue (ft)	33
95th Queue (ft)	50
Link Distance (ft)	650
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 2: Short Road & SH 44

Movement	EB	EB	WB	NB	SB
Directions Served	L	R	L	R	R
Maximum Queue (ft)	40	9	46	44	46
Average Queue (ft)	9	0	10	15	21
95th Queue (ft)	31	4	33	35	39
Link Distance (ft)				783	647
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)	100	100	100		
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 3: Short Road & Amazon Dr

Movement	WB	NB	SB
Directions Served	LTR	LTR	LTR
Maximum Queue (ft)	18	48	31
Average Queue (ft)	1	21	15
95th Queue (ft)	8	47	40
Link Distance (ft)	277	647	276
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 4: Hamlin Ave & Schultz Ct

Movement	NB
Directions Served	LR
Maximum Queue (ft)	31
Average Queue (ft)	2
95th Queue (ft)	16
Link Distance (ft)	295
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 5: Hamlin Ave & Amazon Dr

Movement	WB
Directions Served	LR
Maximum Queue (ft)	31
Average Queue (ft)	12
95th Queue (ft)	36
Link Distance (ft)	720
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 6: Hamlin Ave & Apartment Access

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	58	6
Average Queue (ft)	31	0
95th Queue (ft)	50	4
Link Distance (ft)	270	296
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

Network wide Queuing Penalty: 0

Queuing and Blocking Report
2023 Background w/ Project PM - Mitigations

08/01/2022

Intersection: 1: SH 44 & Hamlin Ave

Movement	SB
Directions Served	R
Maximum Queue (ft)	66
Average Queue (ft)	30
95th Queue (ft)	55
Link Distance (ft)	640
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 2: Short Road & SH 44

Movement	EB	WB	WB	NB	SB
Directions Served	L	L	R	R	R
Maximum Queue (ft)	61	15	4	44	49
Average Queue (ft)	24	1	0	18	19
95th Queue (ft)	52	9	3	35	39
Link Distance (ft)				783	642
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)	100	100	375		
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 3: Short Road & Amazon Dr

Movement	WB	NB	SB
Directions Served	LTR	LTR	LTR
Maximum Queue (ft)	18	57	31
Average Queue (ft)	1	32	9
95th Queue (ft)	8	47	32
Link Distance (ft)	257	642	281
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 4: Hamlin Ave & Schultz Ct

Movement	NB
Directions Served	LR
Maximum Queue (ft)	31
Average Queue (ft)	3
95th Queue (ft)	17
Link Distance (ft)	277
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 5: Hamlin Ave & Amazon Dr

Movement	WB
Directions Served	LR
Maximum Queue (ft)	42
Average Queue (ft)	24
95th Queue (ft)	46
Link Distance (ft)	713
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 6: Hamlin Ave & Apartment Access

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	53	6
Average Queue (ft)	28	0
95th Queue (ft)	49	4
Link Distance (ft)	170	326
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

Network wide Queuing Penalty: 0

Queuing and Blocking Report
2024 Background w/ Project AM

08/01/2022

Intersection: 1: SH 44 & Hamlin Ave

Movement	SB
Directions Served	R
Maximum Queue (ft)	64
Average Queue (ft)	33
95th Queue (ft)	55
Link Distance (ft)	650
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 2: Short Road & SH 44

Movement	EB	EB	WB	NB	NB	SB	SB
Directions Served	L	R	L	L	TR	L	TR
Maximum Queue (ft)	49	12	48	42	40	200	554
Average Queue (ft)	13	0	14	10	11	166	318
95th Queue (ft)	37	5	40	33	30	251	748
Link Distance (ft)					784		648
Upstream Blk Time (%)							15
Queuing Penalty (veh)							21
Storage Bay Dist (ft)	100	100	100	100		100	
Storage Blk Time (%)						77	
Queuing Penalty (veh)						17	

Intersection: 3: Short Road & Amazon Dr

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	84	44	52	61
Average Queue (ft)	23	6	26	19
95th Queue (ft)	119	32	48	59
Link Distance (ft)	707	237	648	276
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 4: Hamlin Ave & Schultz Ct

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	46	12
Average Queue (ft)	24	0
95th Queue (ft)	47	6
Link Distance (ft)	496	316
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 5: Hamlin Ave & Amazon Dr

Movement	WB	SB
Directions Served	LR	LT
Maximum Queue (ft)	46	36
Average Queue (ft)	21	2
95th Queue (ft)	45	16
Link Distance (ft)	707	296
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 6: Hamlin Ave & Apartment Access

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	76	29
Average Queue (ft)	33	2
95th Queue (ft)	61	17
Link Distance (ft)	219	296
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Queuing and Blocking Report
2024 Background w/ Project AM

08/01/2022

Intersection: 7: Hamlin Ave & SF Housing Access

Movement	EB
Directions Served	LR
Maximum Queue (ft)	67
Average Queue (ft)	22
95th Queue (ft)	51
Link Distance (ft)	254
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Network Summary

Network wide Queuing Penalty: 38

Queuing and Blocking Report
2024 Background w/ Project PM

08/01/2022

Intersection: 1: SH 44 & Hamlin Ave

Movement	SB
Directions Served	R
Maximum Queue (ft)	64
Average Queue (ft)	28
95th Queue (ft)	54
Link Distance (ft)	640
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 2: Short Road & SH 44

Movement	EB	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	R	L	R	L	TR	L	TR
Maximum Queue (ft)	105	33	4	27	18	130	28	200	592
Average Queue (ft)	42	2	0	3	1	49	11	174	358
95th Queue (ft)	80	21	3	15	9	112	29	241	793
Link Distance (ft)		711					784		644
Upstream Blk Time (%)									24
Queuing Penalty (veh)									22
Storage Bay Dist (ft)	100		100	100	375	100		100	
Storage Blk Time (%)	1	0				13		87	
Queuing Penalty (veh)	2	0				2		11	

Intersection: 3: Short Road & Amazon Dr

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	225	76	66	66
Average Queue (ft)	56	16	38	20
95th Queue (ft)	244	70	57	65
Link Distance (ft)	706	237	644	279
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 4: Hamlin Ave & Schultz Ct

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	31	26
Average Queue (ft)	15	1
95th Queue (ft)	39	12
Link Distance (ft)	414	292
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 5: Hamlin Ave & Amazon Dr

Movement	WB	SB
Directions Served	LR	LT
Maximum Queue (ft)	61	31
Average Queue (ft)	31	2
95th Queue (ft)	47	16
Link Distance (ft)	706	324
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 6: Hamlin Ave & Apartment Access

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	54	35
Average Queue (ft)	27	4
95th Queue (ft)	47	20
Link Distance (ft)	219	324
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 7: Hamlin Ave & SF Housing Access

Movement	EB
Directions Served	LR
Maximum Queue (ft)	40
Average Queue (ft)	15
95th Queue (ft)	41
Link Distance (ft)	170
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Network Summary

Network wide Queuing Penalty: 38

Queuing and Blocking Report
2024 Background w/ Project AM - Mitigations

08/01/2022

Intersection: 1: SH 44 & Hamlin Ave

Movement	SB
Directions Served	R
Maximum Queue (ft)	72
Average Queue (ft)	40
95th Queue (ft)	63
Link Distance (ft)	650
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 2: Short Road & SH 44

Movement	EB	WB	NB	SB
Directions Served	L	L	R	R
Maximum Queue (ft)	42	52	62	59
Average Queue (ft)	13	15	17	22
95th Queue (ft)	37	40	44	42
Link Distance (ft)			783	647
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	100	100		
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 3: Short Road & Amazon Dr

Movement	EB	NB	SB
Directions Served	LTR	LTR	LTR
Maximum Queue (ft)	4	48	36
Average Queue (ft)	0	24	14
95th Queue (ft)	3	47	39
Link Distance (ft)		647	276
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 4: Hamlin Ave & Schultz Ct

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	44	6
Average Queue (ft)	21	0
95th Queue (ft)	45	4
Link Distance (ft)	496	316
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 5: Hamlin Ave & Amazon Dr

Movement	WB
Directions Served	LR
Maximum Queue (ft)	35
Average Queue (ft)	18
95th Queue (ft)	42
Link Distance (ft)	713
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 6: Hamlin Ave & Apartment Access

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	57	18
Average Queue (ft)	32	1
95th Queue (ft)	53	10
Link Distance (ft)	219	296
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 7: Hamlin Ave & SF Housing Access

Movement	EB
Directions Served	LR
Maximum Queue (ft)	48
Average Queue (ft)	20
95th Queue (ft)	45
Link Distance (ft)	254
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Network Summary

Network wide Queuing Penalty: 0

Queuing and Blocking Report
2024 Background w/ Project PM - Mitigations

Intersection: 1: SH 44 & Hamlin Ave

Movement	SB
Directions Served	R
Maximum Queue (ft)	80
Average Queue (ft)	41
95th Queue (ft)	68
Link Distance (ft)	640
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 2: Short Road & SH 44

Movement	EB	EB	WB	WB	WB	NB	SB
Directions Served	L	T	L	T	R	R	R
Maximum Queue (ft)	96	27	20	4	17	48	56
Average Queue (ft)	42	1	1	0	1	18	19
95th Queue (ft)	84	14	11	3	9	39	43
Link Distance (ft)		717		2639		783	644
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)	100		100		375		
Storage Blk Time (%)	1	0					
Queuing Penalty (veh)	2	0					

Intersection: 3: Short Road & Amazon Dr

Movement	WB	NB	SB
Directions Served	LTR	LTR	LTR
Maximum Queue (ft)	6	71	31
Average Queue (ft)	0	39	11
95th Queue (ft)	4	59	35
Link Distance (ft)	243	644	279
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 4: Hamlin Ave & Schultz Ct

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	31	19
Average Queue (ft)	18	1
95th Queue (ft)	42	9
Link Distance (ft)	414	292
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 5: Hamlin Ave & Amazon Dr

Movement	WB
Directions Served	LR
Maximum Queue (ft)	62
Average Queue (ft)	32
95th Queue (ft)	47
Link Distance (ft)	712
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 6: Hamlin Ave & Apartment Access

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	59	42
Average Queue (ft)	28	5
95th Queue (ft)	50	26
Link Distance (ft)	219	324
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Queuing and Blocking Report
2024 Background w/ Project PM - Mitigations

Intersection: 7: Hamlin Ave & SF Housing Access

Movement	EB
Directions Served	LR
Maximum Queue (ft)	30
Average Queue (ft)	16
95th Queue (ft)	41
Link Distance (ft)	170
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Network Summary

Network wide Queuing Penalty: 2

Intersection: 1: SH 44 & Hamlin Ave

Movement	SB
Directions Served	R
Maximum Queue (ft)	120
Average Queue (ft)	29
95th Queue (ft)	85
Link Distance (ft)	656
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 2: Short Road & SH 44

Movement	EB	EB	EB	WB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	R	L	T	T	R	L	TR	L	TR
Maximum Queue (ft)	143	103	30	96	45	6	34	194	465	200	658
Average Queue (ft)	60	3	2	30	1	0	3	133	159	188	617
95th Queue (ft)	107	40	14	70	21	4	16	237	490	205	792
Link Distance (ft)		711			2633	2633			784		650
Upstream Blk Time (%)											84
Queuing Penalty (veh)											134
Storage Bay Dist (ft)	100		100	100			375	100		100	
Storage Blk Time (%)	2	0		1	0			71	1	99	
Queuing Penalty (veh)	18	0		3	0			21	0	99	

Intersection: 3: Short Road & Amazon Dr

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	720	184	72	264
Average Queue (ft)	501	80	38	115
95th Queue (ft)	953	204	59	265
Link Distance (ft)	714	257	650	274
Upstream Blk Time (%)	50	1		9
Queuing Penalty (veh)	45	0		0
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 4: Hamlin Ave & Schultz Ct

Movement	EB	NB	SB
Directions Served	LR	LT	TR
Maximum Queue (ft)	197	6	286
Average Queue (ft)	48	1	47
95th Queue (ft)	143	8	202
Link Distance (ft)	507	322	365
Upstream Blk Time (%)			1
Queuing Penalty (veh)			0
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 5: Hamlin Ave & Amazon Dr

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	250	71	38	273
Average Queue (ft)	77	36	4	127
95th Queue (ft)	220	56	21	342
Link Distance (ft)	399	714	656	270
Upstream Blk Time (%)	0			41
Queuing Penalty (veh)	0			78
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 6: Hamlin Ave & Apartment Acess

Movement	EB	NB	SB
Directions Served	LR	LT	TR
Maximum Queue (ft)	209	24	330
Average Queue (ft)	93	1	112
95th Queue (ft)	222	12	350
Link Distance (ft)	198	270	322
Upstream Blk Time (%)	31		25
Queuing Penalty (veh)	0		27
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 7: Hamlin Ave & SF Housing Access

Movement	EB
Directions Served	LR
Maximum Queue (ft)	52
Average Queue (ft)	20
95th Queue (ft)	47
Link Distance (ft)	291
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Network Summary

Network wide Queuing Penalty: 424

Intersection: 1: SH 44 & Hamlin Ave

Movement	EB	EB	SB
Directions Served	T	T	R
Maximum Queue (ft)	2921	2917	181
Average Queue (ft)	1352	1336	34
95th Queue (ft)	3297	3287	120
Link Distance (ft)	2944	2944	649
Upstream Blk Time (%)	26	23	
Queuing Penalty (veh)	0	0	
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 2: Short Road & SH 44

Movement	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	T	L	T	R	L	TR	L	TR
Maximum Queue (ft)	250	726	716	22	8	27	183	790	189	650
Average Queue (ft)	246	665	138	3	0	2	162	471	188	625
95th Queue (ft)	266	913	563	16	4	15	232	992	195	732
Link Distance (ft)		711	711		2633			784		642
Upstream Blk Time (%)		69	0					36		88
Queuing Penalty (veh)		429	2					0		146
Storage Bay Dist (ft)	150			100		375	100		100	
Storage Blk Time (%)	98	0					89		100	1
Queuing Penalty (veh)	477	0					24		168	1

Intersection: 3: Short Road & Amazon Dr

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	724	171	65	226
Average Queue (ft)	565	71	35	104
95th Queue (ft)	987	176	55	233
Link Distance (ft)	714	247	642	282
Upstream Blk Time (%)	65			4
Queuing Penalty (veh)	79			0
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 4: Hamlin Ave & Schultz Ct

Movement	EB	NB	SB
Directions Served	LR	LT	TR
Maximum Queue (ft)	186	19	236
Average Queue (ft)	39	1	56
95th Queue (ft)	132	8	203
Link Distance (ft)	419	364	344
Upstream Blk Time (%)			0
Queuing Penalty (veh)			0
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 5: Hamlin Ave & Amazon Dr

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	314	57	13	247
Average Queue (ft)	202	29	1	151
95th Queue (ft)	410	49	8	342
Link Distance (ft)	309	714	649	247
Upstream Blk Time (%)	56			55
Queuing Penalty (veh)	0			66
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 6: Hamlin Ave & Apartment Access

Movement	EB	NB	SB
Directions Served	LR	LT	TR
Maximum Queue (ft)	224	40	369
Average Queue (ft)	114	2	168
95th Queue (ft)	260	17	445
Link Distance (ft)	214	247	364
Upstream Blk Time (%)	37		35
Queuing Penalty (veh)	0		23
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 7: Hamlin Ave & SF Housing Access

Movement	EB
Directions Served	LR
Maximum Queue (ft)	31
Average Queue (ft)	14
95th Queue (ft)	39
Link Distance (ft)	308
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Network Summary

Network wide Queuing Penalty: 1415

Intersection: 1: SH 44 & Hamlin Ave

Movement	SB
Directions Served	R
Maximum Queue (ft)	89
Average Queue (ft)	44
95th Queue (ft)	75
Link Distance (ft)	656
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 2: Short Road & SH 44

Movement	EB	EB	EB	WB	WB	WB	WB	NB	SB
Directions Served	L	T	R	L	T	T	R	R	R
Maximum Queue (ft)	121	38	13	93	58	4	20	73	147
Average Queue (ft)	58	1	1	28	2	0	1	24	69
95th Queue (ft)	100	19	9	72	25	3	11	56	119
Link Distance (ft)		717			2639	2639		783	649
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)	100		100	100			375		
Storage Blk Time (%)	1	0		2	0				
Queuing Penalty (veh)	13	0		9	0				

Intersection: 3: Short Road & Amazon Dr

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	8	31	68	31
Average Queue (ft)	0	3	38	12
95th Queue (ft)	4	17	57	36
Link Distance (ft)	720	263	649	274
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 4: Hamlin Ave & Schultz Ct

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	49	25
Average Queue (ft)	22	1
95th Queue (ft)	47	9
Link Distance (ft)	507	322
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 5: Hamlin Ave & Amazon Dr

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	35	73	39	25
Average Queue (ft)	17	36	7	2
95th Queue (ft)	42	55	28	16
Link Distance (ft)	399	720	656	270
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 6: Hamlin Ave & Apartment Acess

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	64	39
Average Queue (ft)	34	5
95th Queue (ft)	55	24
Link Distance (ft)	198	270
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 7: Hamlin Ave & SF Housing Access

Movement	EB
Directions Served	LR
Maximum Queue (ft)	50
Average Queue (ft)	19
95th Queue (ft)	45
Link Distance (ft)	291
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Network Summary

Network wide Queuing Penalty: 22

Intersection: 1: SH 44 & Hamlin Ave

Movement	EB	EB	SB
Directions Served	T	T	R
Maximum Queue (ft)	2981	2981	300
Average Queue (ft)	1443	1420	144
95th Queue (ft)	3325	3308	273
Link Distance (ft)	2944	2944	649
Upstream Blk Time (%)	23	22	
Queuing Penalty (veh)	0	0	
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 2: Short Road & SH 44

Movement	EB	EB	EB	EB	WB	WB	WB	NB	SB
Directions Served	L	T	T	R	L	T	R	R	R
Maximum Queue (ft)	200	730	722	4	34	18	54	87	536
Average Queue (ft)	197	685	134	0	4	1	4	26	402
95th Queue (ft)	209	878	568	3	21	13	23	61	515
Link Distance (ft)		717	717			2639		783	641
Upstream Blk Time (%)		73	0						
Queuing Penalty (veh)		451	2						
Storage Bay Dist (ft)	100			100	100		375		
Storage Blk Time (%)	99					0			
Queuing Penalty (veh)	481					0			

Intersection: 3: Short Road & Amazon Dr

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	4	25	63	31
Average Queue (ft)	0	1	35	8
95th Queue (ft)	3	10	53	29
Link Distance (ft)	720	253	641	282
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 4: Hamlin Ave & Schultz Ct

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	36	12
Average Queue (ft)	16	1
95th Queue (ft)	41	10
Link Distance (ft)	419	364
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 5: Hamlin Ave & Amazon Dr

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	75	55	19	36
Average Queue (ft)	38	31	1	5
95th Queue (ft)	60	45	10	24
Link Distance (ft)	309	720	649	247
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 6: Hamlin Ave & Apartment Access

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	52	31
Average Queue (ft)	29	3
95th Queue (ft)	49	18
Link Distance (ft)	214	247
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 7: Hamlin Ave & SF Housing Access

Movement	EB
Directions Served	LR
Maximum Queue (ft)	31
Average Queue (ft)	16
95th Queue (ft)	40
Link Distance (ft)	308
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Network Summary

Network wide Queuing Penalty: 934

Turn Lane Analysis Worksheets

Turn Lane Warrant Analysis

Following the District Policy as outlined in 7106.4.4, the proposed intersections along Hamlin Avenue with the addition of the Northern Star Development were analyzed for turn lane warrants. For major roads at an intersection, District Policy per NCHRP Reports 279 and 457 were used applying Figure 1 for Left-Turn Guidelines for Two-Lane Roads less than or equal to 40 mph. For minor roads, the evaluation of a second lane per NCHRP Report 457 was followed. Within this study area, Hamlin Ave would follow the major roadway analysis, where the site accesses would fall under the minor roadway analysis. The following Advancing Volumes and Opposing Volumes under the different scenarios were used. **Red AM**, **Blue PM**

Hamlin Avenue and Amazon Drive:

2030 Background with Project Northbound Left Turn Lane: **Does Not Warrant**

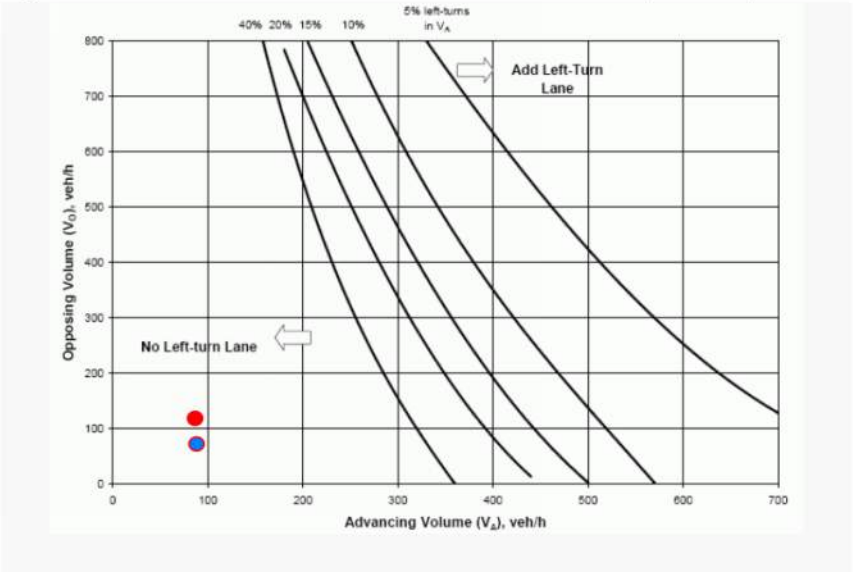
AM Northbound Advancing Volume = 87 vph (71% left turns)

AM Southbound Opposing Volumes = 112 vph

PM Northbound Advancing Volumes = 84 vph (15% left turns)

PM Southbound Opposing Volumes = 71 vph

Figure 1 – Left-Turn Lane Guidelines for Two-Lane Roads less than or equal to 40 mph



2030 Background with Project Southbound Left Turn Lane: **Does Not Warrant**

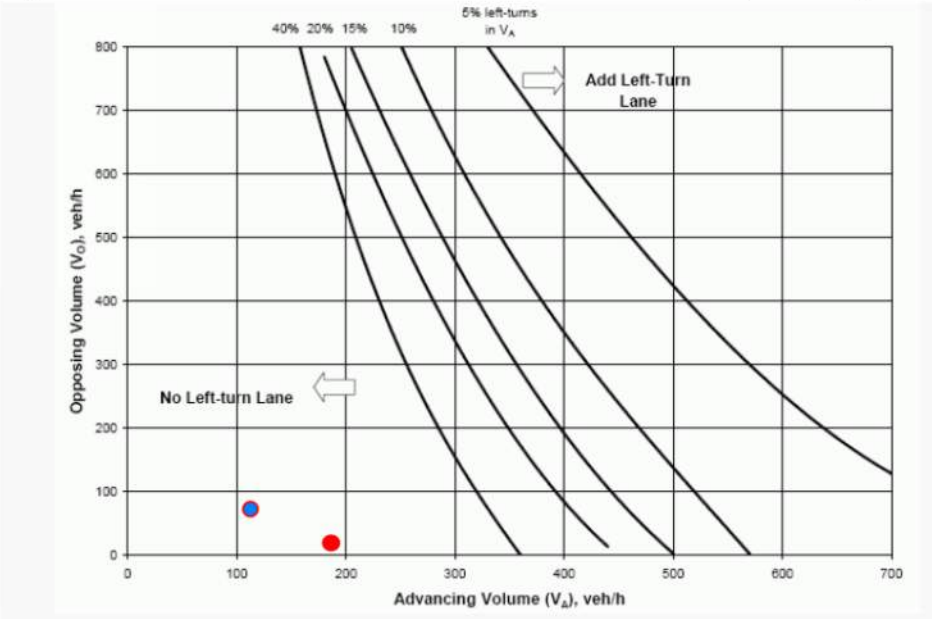
AM Southbound Advancing Volumes = 189 vph (41% left turns)

AM Northbound Opposing Volumes = 25 vph

PM Southbound Advancing Volumes = 119 vph (40% left turns)

PM Northbound Opposing Volumes = 72 vph

Figure 1 – Left-Turn Lane Guidelines for Two-Lane Roads less than or equal to 40 mph



2030 Background with Project Westbound Left Turn Lane: **Does Not Warrant as "0" vehicles are planned to make this movement**

2030 Background with Project Eastbound Left Turn Lane: **Does Not Warrant as "0" vehicles are proposed to make this turning moment.**

2030 Background with Project Northbound Right Turn Lane: **Does Not Warrant as "0" vehicles are proposed to make this turning moment.**

2030 Background with Project Southbound Right Turn Lane: **Does Not Warrant as "0" vehicles are proposed to make this turning moment.**

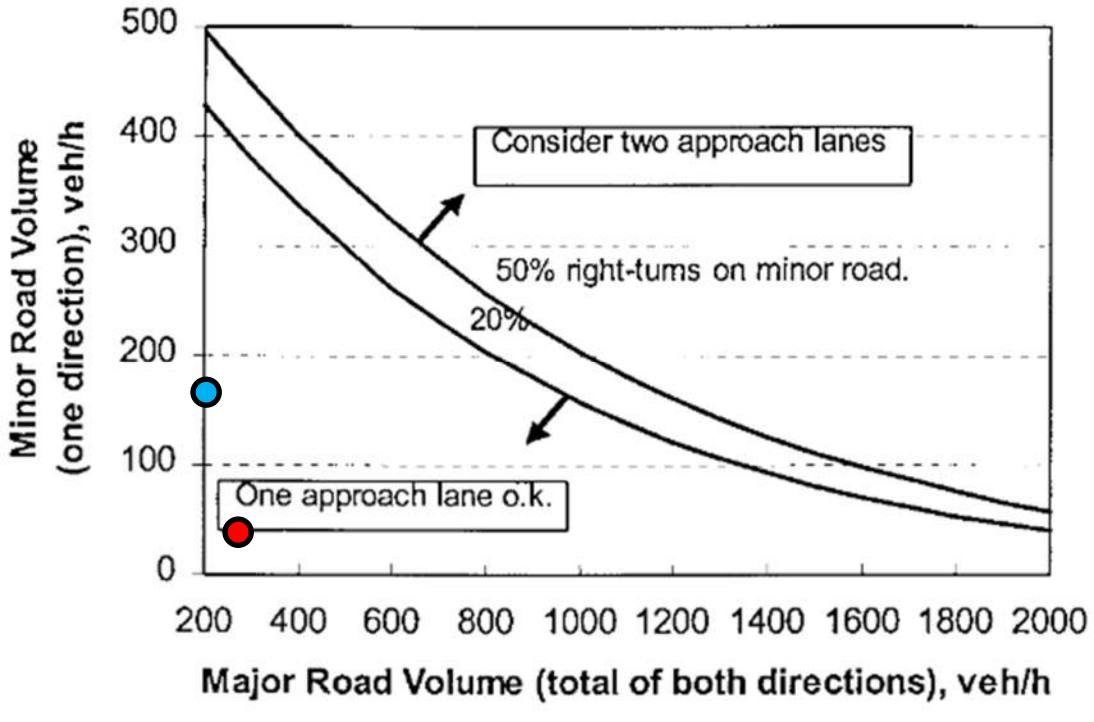
2030 Background Eastbound Right Turn Lane: **Does Not Warrant**

AM Eastbound Minor Road Volume = 26 vph

AM Major Road Volume = 276 vph

PM Eastbound Minor Road Volume = 150 vph

PM Major Road Volume = 203 vph



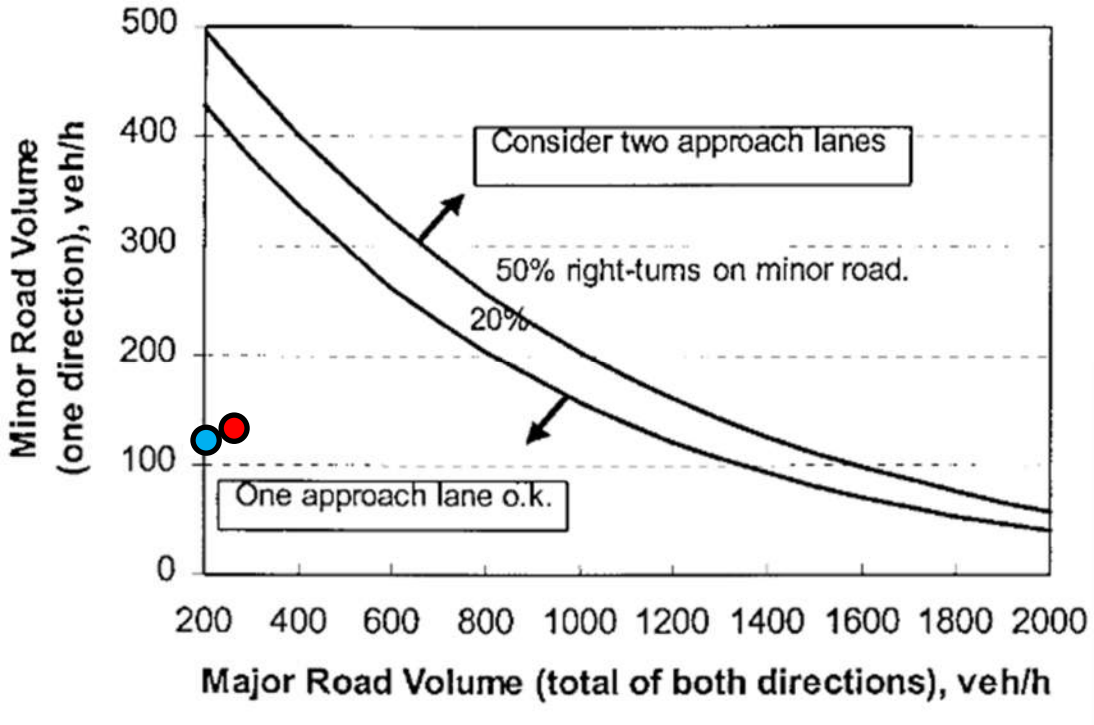
2030 Background Westbound Right Turn Lane: **Does Not Warrant**

AM Westbound Minor Road Volumes = 125 vph

AM Major Road Volumes = 276 vph

PM Westbound Right Turn Volumes = 112 vph

PM Major Road Volumes = 203 vph



Hamlin Avenue and Apartment Access:

2030 Background with Project Northbound Left Turn Lane: **Does Not Warrant**

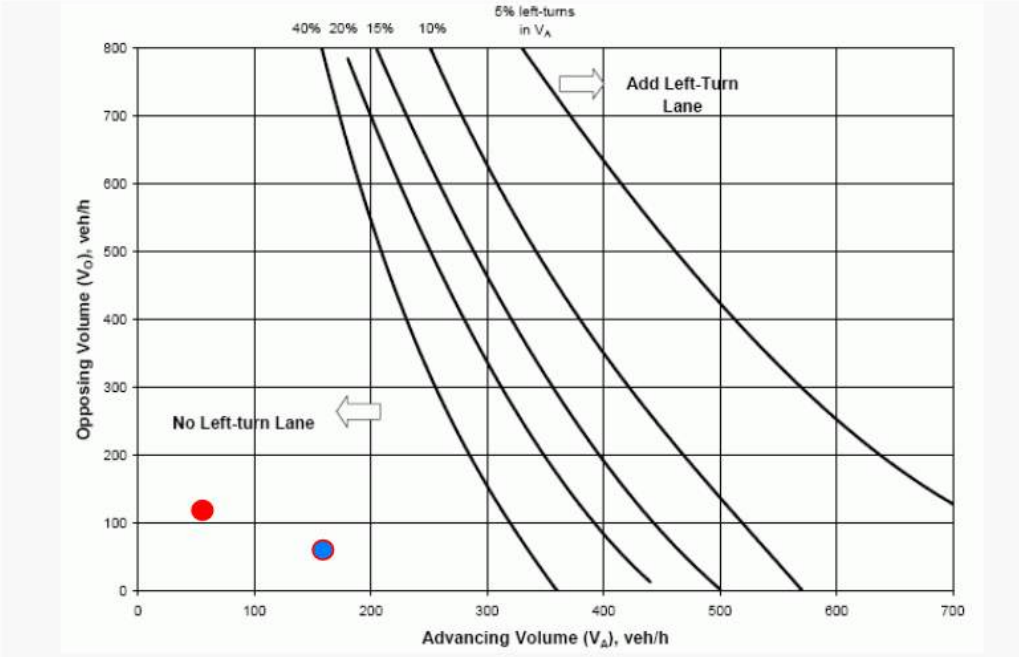
AM Northbound Advancing Volume = 56 vph (52% left turns)

AM Southbound Opposing Volumes = 105 vph

PM Northbound Advancing Volumes = 165 vph (50% left turns)

PM Southbound Opposing Volumes = 66 vph

Figure 1 – Left-Turn Lane Guidelines for Two-Lane Roads less than or equal to 40 mph



2030 Background with Project Westbound Left Turn Lane: **Does Not Warrant as "0" vehicles are planned to make this movement**

2030 Background with Project Southbound Right Turn Lane: **Does Not Warrant as "0" vehicles are proposed to make this turning moment.**

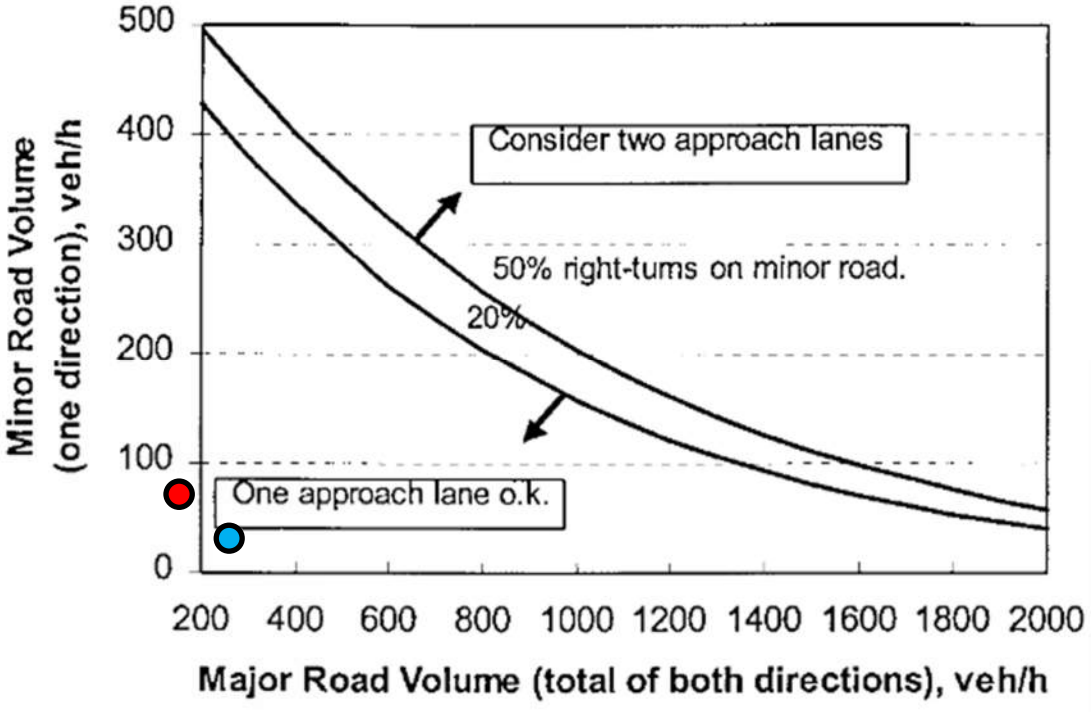
2030 Background Eastbound Right Turn Lane: **Does Not Warrant**

AM Eastbound Minor Road Volume = 84 vph

AM Major Road Volume = 161 vph

PM Eastbound Minor Road Volume = 53 vph

PM Major Road Volume = 231 vph



Hamlin Avenue and Schultz Court:

2030 Background with Project Northbound Left Turn Lane: **Does Not Warrant**

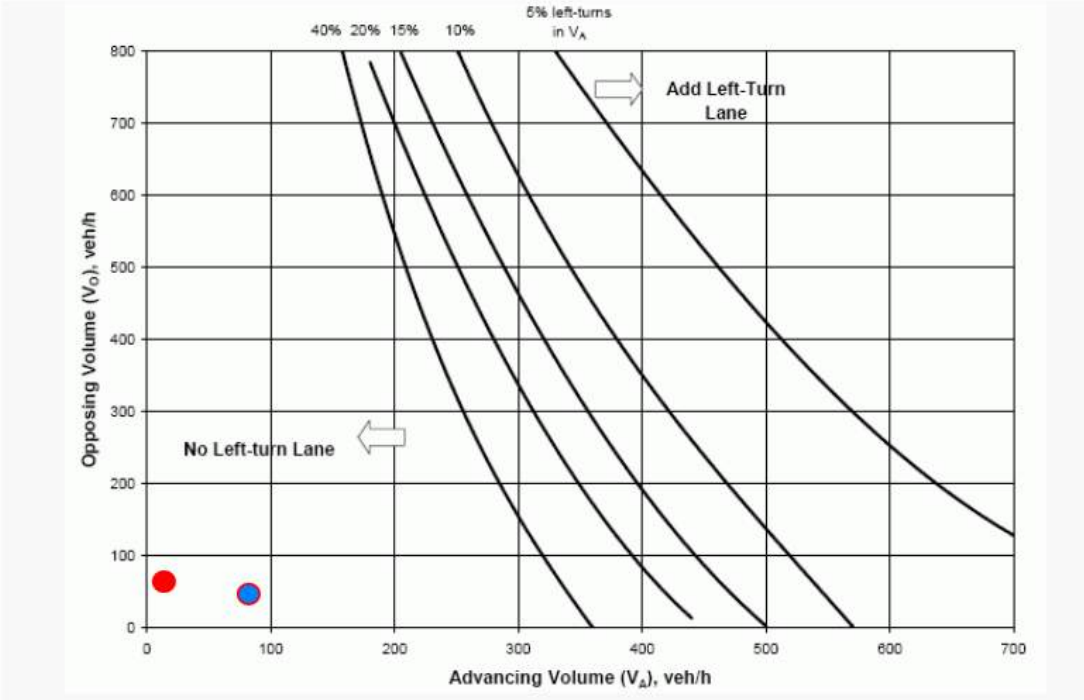
AM Northbound Advancing Volume = 27 vph (44% left turns)

AM Southbound Opposing Volumes = 66 vph

PM Northbound Advancing Volumes = 82 vph (48% left turns)

PM Southbound Opposing Volumes = 43 vph

Figure 1 – Left-Turn Lane Guidelines for Two-Lane Roads less than or equal to 40 mph



2030 Background with Project Westbound Left Turn Lane: **Does Not Warrant as "0" vehicles are planned to make this movement**

2030 Background with Project Southbound Right Turn Lane: **Does Not Warrant as "0" vehicles are proposed to make this turning moment.**

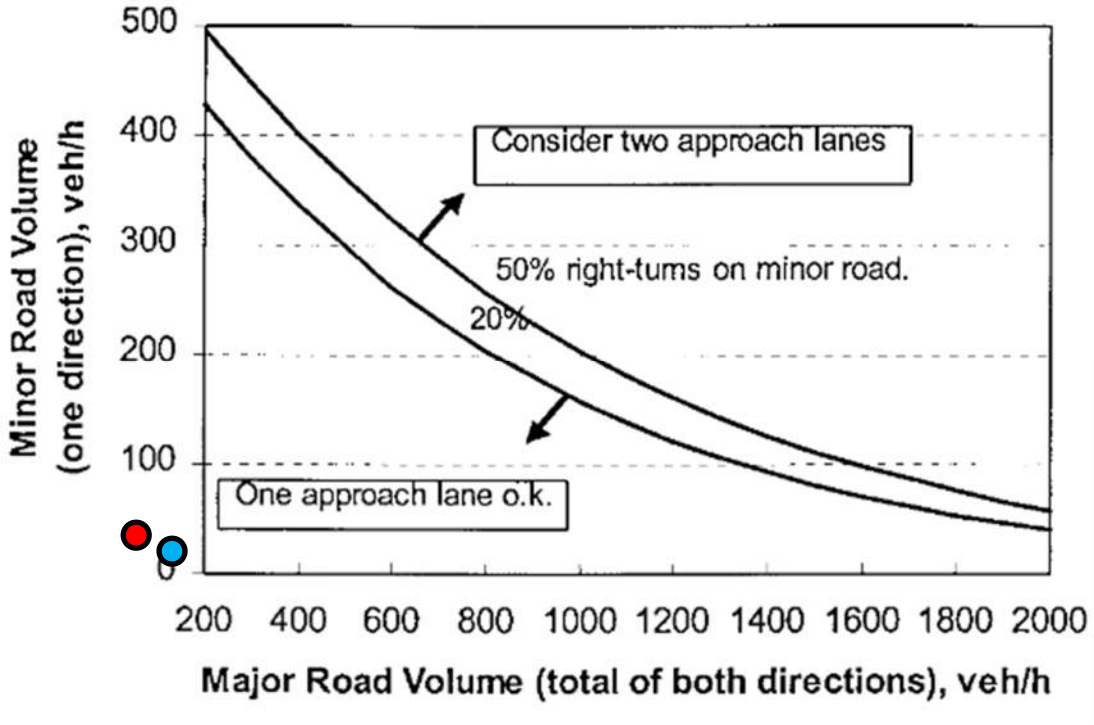
2030 Background Eastbound Right Turn Lane: **Does Not Warrant**

AM Eastbound Minor Road Volume = 39 vph

AM Major Road Volume = 93 vph

PM Eastbound Minor Road Volume = 23 vph

PM Major Road Volume = 125 vph



Hamlin Avenue and Single-Family Access:

2030 Background with Project Northbound Left Turn Lane: **Does Not Warrant**

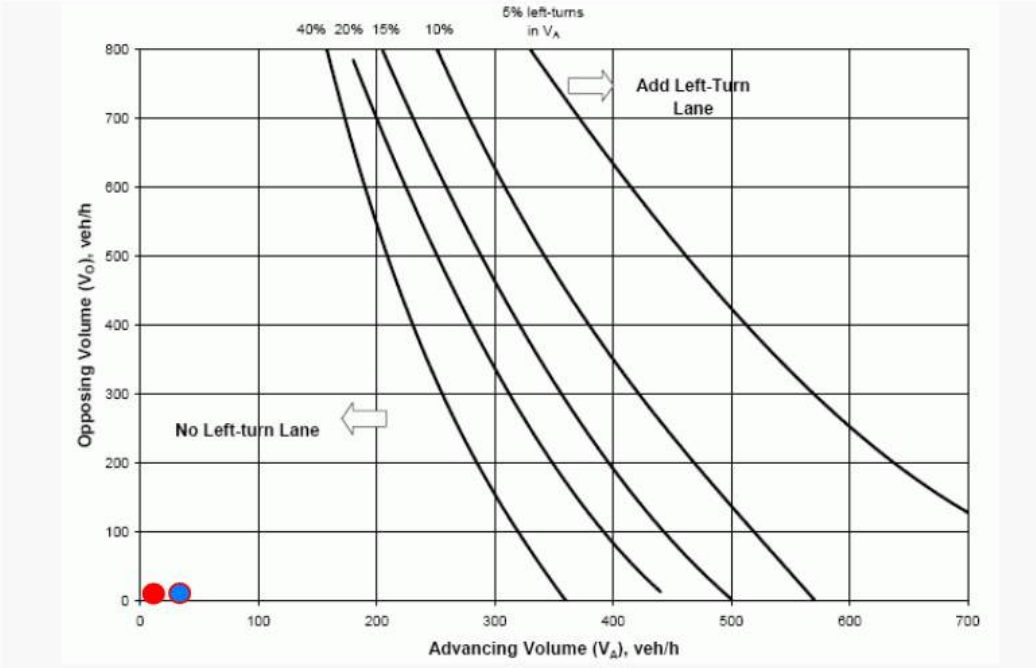
AM Northbound Advancing Volume = 10 vph (100% left turns)

AM Southbound Opposing Volumes = 0 vph

PM Northbound Advancing Volumes = 34 vph (100% left turns)

PM Southbound Opposing Volumes = 0 vph

Figure 1 – Left-Turn Lane Guidelines for Two-Lane Roads less than or equal to 40 mph



2030 Background with Project Westbound Left Turn Lane: **Does Not Warrant as "0" vehicles are planned to make this movement**

2030 Background with Project Southbound Right Turn Lane: **Does Not Warrant as "0" vehicles are proposed to make this turning moment.**

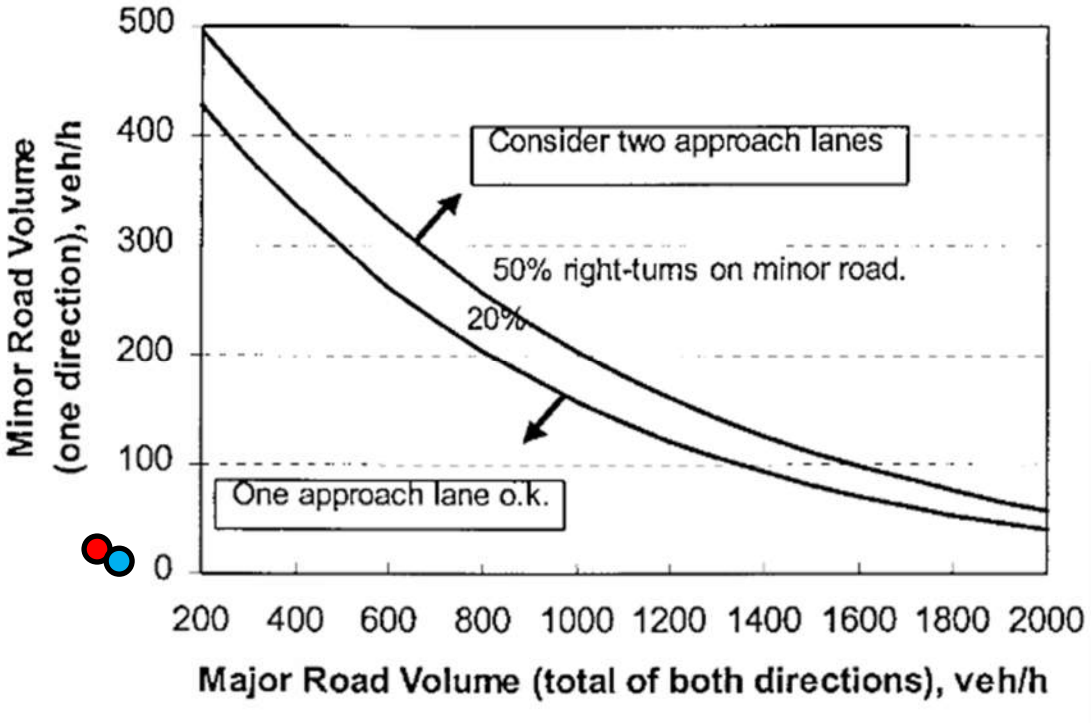
2030 Background Eastbound Right Turn Lane: **Does Not Warrant**

AM Eastbound Minor Road Volume = 31 vph

AM Major Road Volume = 10 vph

PM Eastbound Minor Road Volume = 20 vph

PM Major Road Volume = 34 vph



Based on the above analysis for the needs of right and left turn lanes along Hamlin Avenue and the roadway intersecting from the Northern Star development, no turn lanes are warranted.

Hamlin Avenue & SH 44

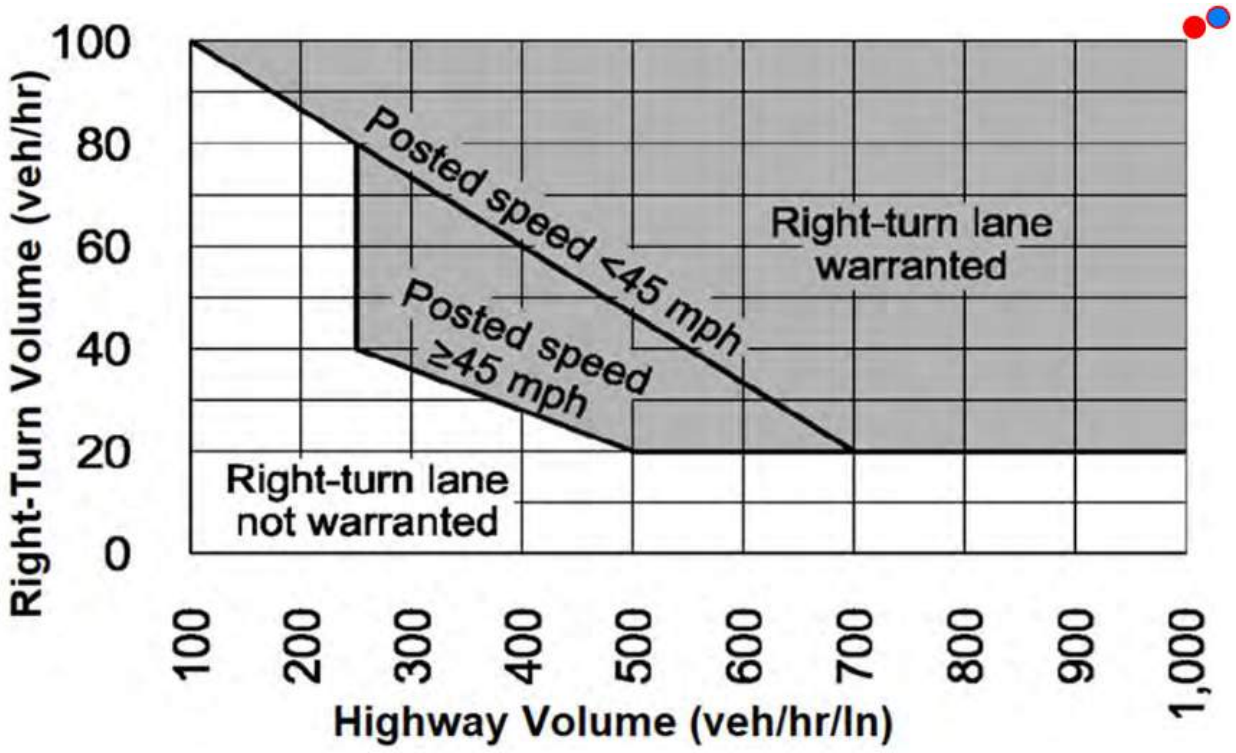
2030 Background Southbound Right Turn Lane: **Warrant**

AM Southbound Right Turn Volume = 125 vph

AM Westbound Major Roadway Volume = 1034 vph

PM Southbound Right Turn Volume = 146 vph

PM Westbound Major Roadway Volume = 2145 vph



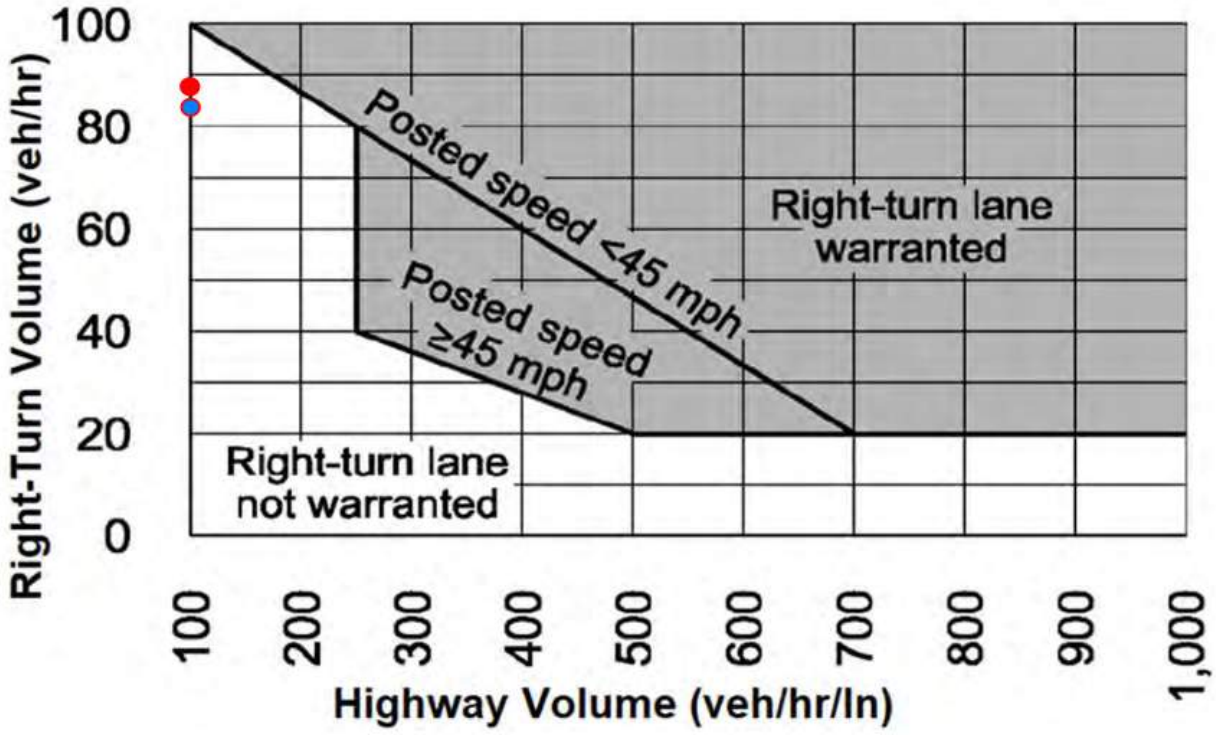
2030 Background Westbound Right Turn Lane: **Does Not Warrant**

AM Westbound Right Turn Volume = 87 vph

AM Northbound Major Roadway Volume = 0 vph

PM Westbound Right Turn Volume = 84 vph

PM Northbound Major Roadway Volume = 0 vph



MIDDLETON STAR FIRE DISTRICTS

Fire District Headquaters
11665 W. State St., Suite B
Star, Idaho 83669

Tel. No.: (208) 286-7772
Web: www.midstarfire.org
Email: permits@starfirerescue.org

DATE: November 29, 2023

TO: City of Star – Planning and Zoning

FROM: Victor Islas, Deputy Chief

SUBJECT: Fire District Review

PROJECT NAME: Talega Village Subdivision
Files: AZ-22-11, RZ-22-03, DA-22-12, CU-22-05, PP-22-17, PR-22-08

Fire District Summary Report:

1. **Overview** This development can be serviced by the Star Fire Protection District. This development shall comply with the 2018 International Fire Code (IFC) and any codes set forth by the City of Star, Idaho.

2. **Fire Response Time:**

    a. This development will be served by the Star Fire Protection District Station 51, located at 11665 W. State St., Star, Idaho 83669. Station 51 is 2.3 miles from the entrance of the development off Hamlin Ave.
    b. *The preliminary plat does not provide for cross access or connection to the north. The future station on Floating Feather will be the primary response station as presented crews will have no access from the north to the development for quicker response times.*

3. **Setbacks:** Side Setback as per City Code with no modification to decrease without Fire District approval.

4. **Accessibility:** Roadway Access, Traffic, Radio Coverage
    a. Access roads shall be provided and maintained following Appendix D and Section 503 of the IFC. Access shall include adequate roadway widths, signage, turnarounds, and turning radius for fire apparatus.
    b. Access road design shall be designed and constructed to allow for evacuation simultaneously with emergency response operations.
        i. *The preliminary plat provided poses a risk to emergency service response. The development currently has no direct access east bound off State Street. In the event of an emergency incident resources would have to make a U-turn on State Street at the intersection of Short Lane to make access onto Hamlin Ave.*
        ii. *Cross access shall be required to be constructed prior to building permits being issued.*

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c. *One- or two-family dwelling residential developments: Developments of one- or two-family dwellings where the number of dwelling units exceeds 30 shall provide with at least two separate and approved fire apparatus access roads. Each phase shall be held to this requirement and adequate access will be required.*
d. All Roads width to be constructed per city code public road standards with no modifications.
e. It shall be the responsibility of the developer and or HOA to maintain clearance of access roads all year around. This shall include but not limited to snow removal and vehicles.
f. All access roads in this development shall remain clear and unobstructed during construction of the development. Additional parking restrictions may be required as to always maintain access for emergency vehicles. Hydrants shall always remain unobstructed per city code.
g. Traffic calming devices will require approval by the Fire District
h. An unobstructed vertical clearance of no less than 13 feet 6 inches shall be always maintained.
i. All residential, commercial, and industrial buildings within the City shall have approved address numbers, building numbers, or approved building identification placed in a position that is plainly legible and visible from the street or road fronting the property. These numbers shall contrast with their background. When required by the fire code official, address numbers shall be provided in additional approved locations to facilitate emergency response.
j. Upon commencement of initial construction of a new structure, a clear visible freestanding sign or post hall be erected and maintained in place until the permanent address numerals are attached or otherwise displaced upon the premises at completion.

5. **Water Supply:** Water supply requirements will be followed as described in Appendix B of the 2018 International Fire Code unless agreed upon by the Fire District.
   a. Fire Flow: One- and two-family dwellings not exceeding 3,600 square feet require a fire-flow of 1,000 gallons per minute for a duration of 1 hours to service the entire project. One- and two-family dwellings in excess of 3,600 square feet require a minimum fire flow as specified in Appendix B of the International Fire Code
   b. All multi-family building will be equipped with Fire Sprinklers and Alarms.
   c. A Fire hydrant will be placed within 100 feet of the FDC.
   d. Water Supply: Acceptance of the water supply for fire protection will be by the Fire District and water quality by Star Sewer & Water for bacteria testing.
   e. Water Supply: Final Approval of the fire hydrant locations shall be by the Star Fire Protection District or their designee in accordance with International Fire Code Section (IFC) 508.5.4 as follows:
      i. Fire hydrants shall have a locking Storz LDH connection in place of the 4 ½" outlet. The Storz connection may be integrated into the hydrant, or an approved adapter may be used on the 4 1/2" outlet.
      ii. Fire hydrants shall have the Storz outlet face the main street or parking lot drive aisle.
      iii. Fire hydrants shall be placed on corners when spacing permits.
      iv. Fire hydrants shall not have any vertical obstructions to outlets within 10'.

MIDDLETON STAR FIRE DISTRICTS

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v. Fire hydrants shall be placed 18" above finished grade to the center of the Storz outlet.
vi. Fire hydrants shall be provided to meet the requirements of Star Sewer & Water Standards.
vii. Show all proposed or existing hydrants for all new construction or additions to existing buildings within 1,000 feet of the project.
viii. Fire hydrant relocations to be approved by the Fire District & Star Sewer and Water.
ix. Hydrants are to always remain clear and unobstructed.
x. Hydrants to be marked with temporary fencing creating a 3 ft clearance around the hydrant and shall remain in place until approved by fire district.
xi. Developer to review landscape plans to ensure landscaping will not obstruct hydrants.

6. **Inspections:** Final inspection by the Fire District of the above listed including hydrant flow must be completed before building permits are issued.

7. **Additional Comments:**
   a. Additional review for building code compliance to occur during the building permit phase of the development. It shall be the responsibility of the applicant to provide the fire district with the appropriate applications and review documents.
   b. The use of common driveway at for 2030 and 2032 is not approved.

8. *It is the recommendation to the council that this development be tabled until further work can be completed on the traffic and access plan. As stated above in this document the current plans provided by the application DO NOT provide for adequate access for response from emergency services.*

MIDDLETON STAR FIRE DISTRICTS

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Star, Idaho 83669

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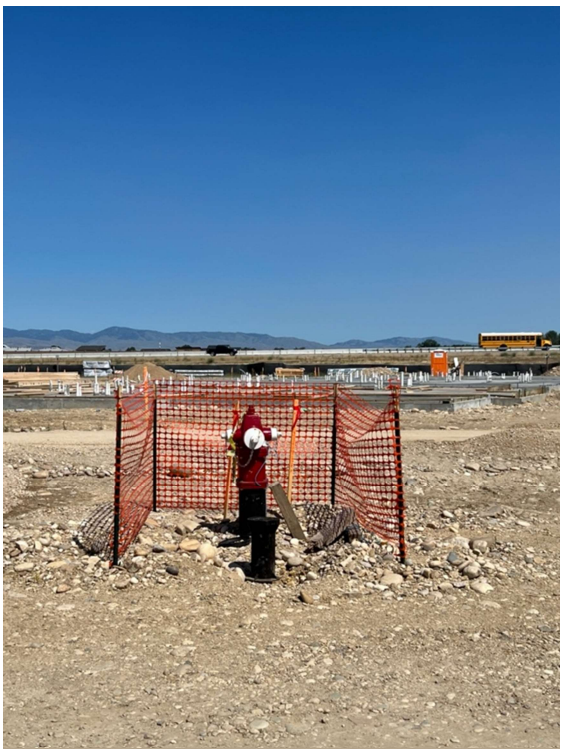
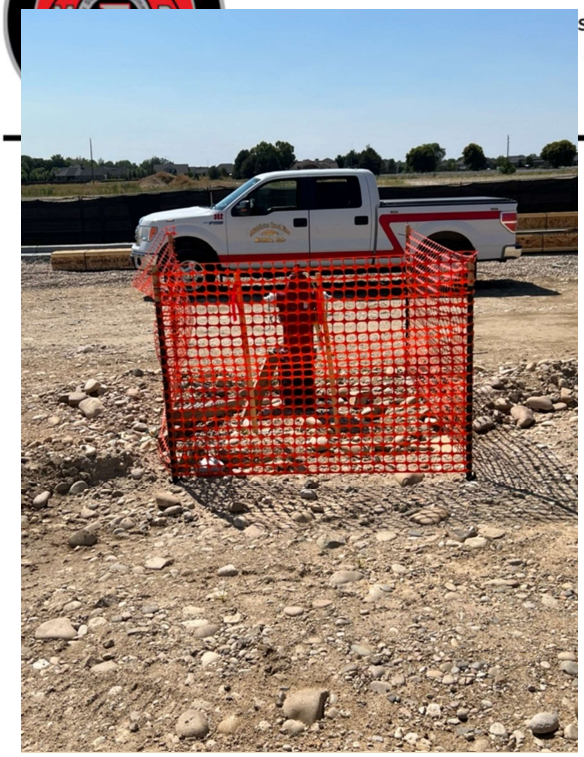
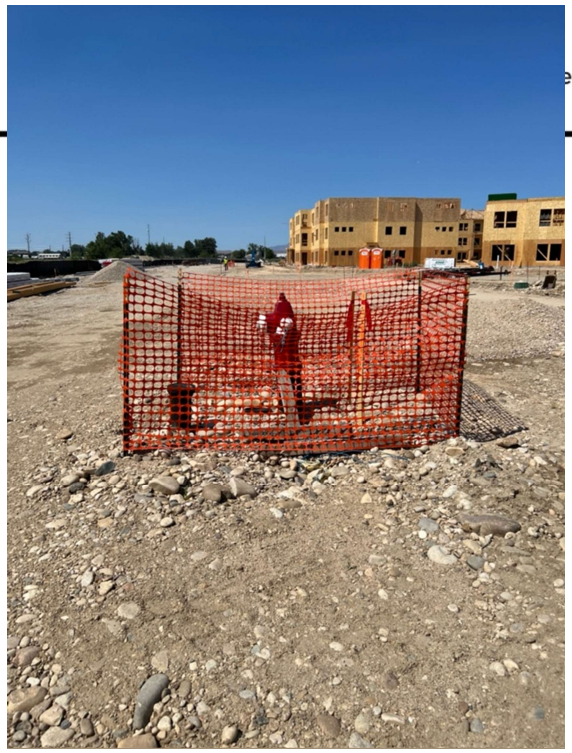
Exabit 1







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IDAHO TRANSPORTATION DEPARTMENT
P.O. Box 8028 • Boise, ID 83707-2028
(208) 334-8300 • itd.idaho.gov

December 4, 2023

Shawn Nickel
Planning Director and Zoning Administrator
City of Star
10769 West State Street
Star, Idaho 83669

VIA EMAIL

Development Application	AZ-22-11, RZ-22-03, DA-22-12, CU-22-05, PP-22-17, PR-22-08
Project Name	Talega Village Subdivision (previously North Star Development)
Project Location	NEC of SH-16 and SH-44 @ approximate MP 12.5 (58 N Truman Place, Star, Idaho) at the northeast corner of SH-16 and SH-44.
Project Description	Proposed multifamily residential use (340 units), Proposed residential and commercial uses consisting of 155 lots (1 commercial lot, 1 multi-family lot, 55 single-family residential lots, 98 townhome lots, multiple common lots), and private streets
Applicant	Chad Garner, Focus Engineering & Surveying

The Idaho Transportation Department (ITD) appreciates the opportunity to provide comments regarding the planned Talega Village Subdivision at the northeast corner of State Highway 44 and State Highway 16, Star, Idaho. Please see the below comments:

1. This project abuts the State Highway system (SH-16/SH-44).
2. No direct access to the State Highway system has been requested with this application and none is approved.
3. Due to the type and proximity of this facility, impacts to the State Highway system may be anticipated. Based on IDAPA 39.03.42 Section 400.03.f, table 2 (100 or more residential dwelling units at build out), a Traffic Impact Study (TIS) is required.
    a. Any necessary mitigation for traffic impacts identified by the TIS shall be the responsibility of the applicant to install.
4. Due to the size of this development and the impacts this project will have on multiple accesses along SH-44 (State Street), ITD highly recommends constructing this development in a phased approach. ITD requests to have the TIS revised to show each phase of the development along with impacts that each phase will create.
5. N Hamlin Avenue is currently designed as a right-in right-out (RIRO).
    a. Keep in mind that it is possible that N Hamlin Ave will eventually be a right-in only. The location of N Hamlin Ave and SH-44 is the beginning of the taper for the widening of W State St to three (3) more lanes to its west. The development to the east of N Hamlin Ave is planned to eventually have its interior road connected to N Hamlin Ave at which point may restrict it to a right-out only.

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6. Only planting of forage plants, grasses, flowers, and shrubs with a mature height not to exceed three (3) feet will be allowed within the clear zone of the state highway right-of-way. Type and size of grasses, flowers, and shrubs will be determined by the Department.
    a. No trees shall be allowed within the clear zone of the state highway right-of-way.
    b. Irrigation systems shall be no closer than five (5) feet from the pavement edge and shall be adjusted so water does not cover any portion of the highway pavement.

ITD reserves the right to make further comments upon review of any submitted documentation. If you have any questions, you may contact me at (208) 334-8337.

Sincerely,

Niki Benyakhlef

Niki Benyakhlef
Development Services Coordinator
Niki.Benyakhlef@itd.idaho.gov

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Pocatello,ID 83204
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12/19/23	19333

1 STAR, CITY OF
P.O. BOX 130
STAR, ID 83669

AD #	DESCRIPTION	START	STOP	TIMES	AMOUNT
460861	PH 1/16/24 - CALVARY	12/20/23	12/20/23	2	$93.69

Payments:

Date	Method	Card Type	Last 4 Digits	Check	Amount

Discount: **$0.00**
Surcharge: **$0.00**
Credits: **$0.00**

Gross:**$93.69**
Paid Amount:**$0.00**

Amount Due:**$93.69**

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460861

LEGAL NOTICE

PUBLIC HEARING

Notice is hereby given that the Star City Council will hold a Public Hearing on January 16, 2024 at the Star City Hall, 10769 W. State Street, Star, Idaho at 7:00 pm, or as soon thereafter as the matter may be heard.

Application: Calvary Chapel Star
Files # CU-23-08
Representative: James Marsh-CSHQA
200 Broad Street, Boise Idaho

Owner: Toll Southwest LLC
3103 W. Sheryl Drive, Suite,
Meridian, Idaho 83642

Action: The Applicant is requesting approval of a Conditional Use Permit for a Church Facility that includes retail space and a drive-thru restaurant. The property is located at the Northwest Corner of Hwy16 and Floating Feather Road in Star, Idaho, and consists of 17.21 acres.

Property Location: The subject property is generally located between N. Hwy 16 and N. Worsley Ave. Ada County Parcel No: S0404438620

Information/Comments: A complete copy of the applications are available at City Hall for public review. The City invites all interested parties to attend the meeting and provide public testimony. Written comments will be accepted by the City up to 2 days prior to the date of the public hearing.

Services for persons with disabilities may be made available if notice is received in advance of the meeting by calling Star City Hall at (208) 286-7247.

Shawn L. Nickel
Planning Director and Zoning Administrator
snickel@staridaho.org

December 20, 2023 460861

CITY OF STAR

LAND USE STAFF REPORT

TO: Mayor & Council

FROM: City of Star Planning Department

MEETING DATE: **January 16, 2024 – PUBLIC HEARING**
FILE(S) #: CU-23-08– Conditional Use Permit – Calvary Chapel

OWNER/APPLICANT/REPRESENTATIVE

Applicant:
Calvary Chapel Star
P.O. Box 604
Star, Idaho 83669

Owner:
Toll Southwest, LLC
3103 W. Sheryl Drive, Ste. 100
Meridian, Idaho 83642

Representative:
James Marsh
CSHQA
200 Broad Street
Boise, Idaho 83702

REQUEST

Request: The Applicant is requesting approval of a Conditional Use Permit for a Church Facility that includes retail space and a drive through restaurant. The property is located at the northwest corner of Hwy 16 and Floating Feather Road in Star, Idaho and consists of 17.21 acres.

PROPERTY INFORMATION

Property Location: The subject property is generally located between Hwy 16 and N. Pollard Lane, north of W. Floating Feather Road in Star, Idaho. Ada County Parcel Number S0404438620.

Existing Site Characteristics: The property is currently bare ground.

Irrigation/Drainage District(s): - Middleton Irrigation Assoc/Middleton Mill Ditch Company
P.O. Box 848
Middleton, Idaho 83644

Flood Zone: This property is not located in a Special Flood Hazard Area.
FEMA FIRM Panel Number: 16001C0130J
Effective Date: 06/19/2020
Flood Zone: X

Special On-Site Features:

- ✪ Areas of Critical Environmental Concern – No known areas.
- ✪ Evidence of Erosion – No known areas.
- ✪ Fish Habitat – No known areas.
- ✪ Mature Trees – None.
- ✪ Riparian Vegetation – None.
- ✪ Steep Slopes – None.
- ✪ Stream/Creek – No.
- ✪ Unique Animal Life – No unique animal life has been identified.
- ✪ Unique Plant Life – No unique plant life has been identified.
- ✪ Unstable Soils – No known issues.
- ✪ Wildlife Habitat – No wildlife habitat has been developed or will be destroyed.
- ✪ Historical Assets – No historical assets have been observed.

APPLICATION REQUIREMENTS

Pre-Application Meeting Held	November 16, 2023
Neighborhood Meeting Held	November 27, 2023
Application Submitted & Fees Paid	December 14, 2023
Application Accepted	December 18, 2023
Residents within 300' Notified	December 18, 2023
Agencies Notified	December 18, 2023
Legal Notice Published	December 20, 2023
Property Posted	January 4, 2024

HISTORY

June 16, 2020	Council approved the Annexation and Zoning (AZ-20-03), Preliminary Plat and Planned Unit Development (PUD-20-02) and Development Agreement (DA-20-12) for the Rosti Farms Subdivision, being marketed as Heirloom Ridge Subdivision.

SURROUNDING ZONING/COMPREHENSIVE PLAN MAP/LAND USE DESIGNATIONS

	Zoning Designation	Comp Plan Designation	Land Use
Existing	Residential (R-3-PUD-DA)	Estate Urban Residential/Commercial	Vacant Land
Proposed	Residential (R-3-PUD-DA)	Estate Urban Residential/Commercial	Church/Coffee Shop
North of site	Residential (R-1PUD-DA) Mixed Use (MUPUD-DA)	Low Density Residential/Mixed Use	Magnolia Subdivision/Josh Kinney Mixed Use
South of site	Residential (R-3-PUD-DA)	Estate Urban Residential	Rosti Farms Subdivision
East of site	Residential (R-1)	City of Eagle	Hwy 16/City of Eagle
West of site	Residential (R-3-PUD-DA)	Estate Urban Residential	Rosti Farms Subdivision

ZONING ORDINANCE STANDARDS / COMPREHENSIVE PLAN

UNIFIED DEVELOPMENT CODE:

8-3A-1: ZONING DISTRICTS AND PURPOSE ESTABLISHED:

The following zoning districts are hereby established for the interpretation of this title, the zoning districts have been formulated to realize the general purposes as set forth in this title. In addition, the specific purpose of each zoning district shall be as follows:

ESTATE URBAN RESIDENTIAL: Suitable primarily for single family residential use. Densities in this land use area are a maximum of 3 dwelling units per acre. Densities not exceeding 1 to 2 units per acre are to be encouraged in areas of the floodplain, ridgeline developable areas, hillside developable areas, and where new residential lots are proposed immediately adjacent to existing residential lots of greater than one acre where those existing larger lots are not likely to be subdivided in the future. Clustering is allowed to preserve open space.

COMMERCIAL: Suitable primarily for the development of a wide range of commercial activities including offices, retail, and service establishments. Rezoning to this designation should not be allowed unless adequate ingress/egress to major transportation corridors are assured. Light industrial uses may be considered at the discretion of the City Council without amending this plan.

8-3A-3: USES WITHIN ZONING DISTRICTS

The following table lists principal permitted (P), accessory uses (A), conditional (C), or prohibited (N) uses.

ZONING DISTRICT USES	R
Church or place of religious worship	C

8-3A-4: ZONING DISTRICT DIMENSIONAL STANDARDS:

Zoning District	Maximum Height Note Conditions	Minimum Yard Setbacks Note Conditions			
		Front (1)	Rear	Interior Side	Street Side
R-3	35'	15' to living area/side load garage 20' to garage face	15'	7.5' (2)	20'

Notes:

1. Front yard setback shall be measured from the face of the garage to the face of the sidewalk, allowing for 20' of parking on the driveway without overhang onto the sidewalk.
2. Zero-Lot-Line and reduced front and rear setback waivers may be requested through the Development Agreement process. All other side yard setback requests for detached structures shall not be granted waivers, unless as part of a Planned Unit Development.
3. All setbacks in the CBD, C-1. C-2, LO, IL, PS, RC and M-U zone shall maintain a minimum 15' when adjacent to a residential use or zone.
4. As approved by the Fire District.

8-1B-4: CONDITIONAL USES:

A. Purpose: The purpose of this section is to establish procedures that allow for a particular use on a particular property subject to specific terms and conditions of approval.

B. Applicability: The provisions of this section apply to all uses identified as conditional use in chapter 3, "District Regulations", of this title, and as otherwise required by specific development standards in chapter 5, "Specific Use Standards", of this title.

C. Process:

1. The applicant shall complete a preapplication conference with the administrator prior to submittal of an application for a conditional use.

2. An application and appropriate application fees, in accord with article A, "General Provisions", of this chapter, shall be submitted to the administrator on forms provided by the planning department.

3. The administrator may require additional information concerning the social, economic, fiscal or environmental effects of the proposed conditional use, prior to the scheduling of a public hearing.

D. Standards: In approving any conditional use, the city council may prescribe appropriate conditions, bonds and safeguards in conformity with this title that:

1. Minimize adverse impact of the use on other property.

2. Control the sequence and timing of the use.

3. Control the duration of the use.

4. Assure that the use and the property in which the use is located is maintained properly.

5. Designate the exact location and nature of the use and the property development.

6. Require the provision for on site or off-site public facilities or services.

7. Require more restrictive standards than those generally required in this title.

8. Require mitigation of adverse impacts of the proposed development upon service delivery by any political subdivision, including school districts, that provides services within the city.

8-1B-4E. FINDINGS: The council shall base its determination on the conditional use permit request upon the following:

1. That the site is large enough to accommodate the proposed use and meet all the dimensional and development regulations in the district in which the use is located.

2. That the proposed use will be harmonious with the Star comprehensive plan and in accord with the requirements of this title.

3. That the design, construction, operation and maintenance will be compatible with other uses in the general neighborhood and with the existing or intended character of the general vicinity and that such use will not adversely change the essential character of the same area.

4. That the proposed use, if it complies with all conditions of the approval imposed, will not adversely affect other property in the vicinity.

5. That the proposed use will be served adequately by essential public facilities and services such as highways, streets, schools, parks, police and fire protection, drainage structures, refuse disposal, water, and sewer.

6. That the proposed use will not create excessive additional costs for public facilities and services and will not be detrimental to the economic welfare of the community.

7. That the proposed use will not involve activities or processes, materials, equipment and conditions of operation that will be detrimental to any persons, property or the general welfare by reason of excessive production of traffic, noise, smoke, fumes, glare or odors.

8. That the proposed use will not result in the destruction, loss or damage of a natural, scenic or historic feature considered to be of major importance.

8-5-11: CHURCH OR PLACE OF RELIGIOUS WORSHIP:

Uses that are accessory to churches or other places of religious worship, such as schools, child daycare services, meeting facilities for clubs and organizations, and other similar uses not operated primarily for the purpose of religious instruction, worship, government of the church, or the fellowship of its congregation may be permitted to the extent the activity is otherwise permitted in the district.

Churches conducting activities outside the normal church events are required to complete a temporary use permit stating when and where the activity will take place and who will be in charge of the activity.

COMPREHENSIVE PLAN:

8.2.3 Land Use Map Designations:

Estate Urban Residential

Suitable primarily for single family residential use. Densities in this land use area are a maximum of 3 dwelling units per acre. Densities not exceeding 1 to 2 units per acre are to be encouraged

in areas of the floodplain, ridgeline developable areas, hillside developable areas, and where new residential lots are proposed immediately adjacent to existing residential lots of greater than one acre where those existing larger lots are not likely to be subdivided in the future. Clustering is allowed to preserve open space.

8.3 Goal:

Encourage the development of a diverse community that provides a mix of land uses, housing types, and a variety of employment options, social and recreational opportunities, and where possible, an assortment of amenities within walking distance of residential development.

8.4 Objectives:

- Implement the Land Use Map and associated policies as the official guide for development.
- Work to create a vibrant Central Business District.
- Manage urban sprawl in order to minimize costs of urban services and to protect rural areas.
- Encourage land uses that are in harmony with existing resources, scenic areas, natural wildlife areas, and surrounding land uses.
- Encourage commercial development that is consistent with a family friendly feel, not overburdening the community with big box and franchise uses and discourage the development of strip commercial areas.

8.5.3 Policies Related Mostly to the Urban Residential Planning Areas:

A. The Estate and Neighborhood Residential Land Use is to encourage urban style development densities to limit urban sprawl.
B. Low densities within the Estate and Neighborhood Residential Land Use are to be designed within the floodplain, ridgeline developable areas, hillside developable areas and where new residential lots are proposed adjacent to existing residential lots of one acre and larger where those existing larger lots are not likely to be subdivided in the future.
C. Site layout adjacent to and within the Special Transition Overlay Area shall provide for a transition in density and lot sizing.
D. High Density residential uses should be located in close proximity to commercial centers located near highway corridors and on upper floors within the Central Business District land use area. High Density residential uses otherwise should not be dispersed throughout the community and should not be located along the Boise River.

E. High Density residential may be limited to ensure compatibility and transition between uses adjacent to the site.
F. High Density residential design specifications may include increased setbacks for multi-story buildings and increased landscape buffers.

8.5.9 Additional Land Use Component Policies:

- Encourage flexibility in site design and innovative land uses.
- Encourage landscaping to enhance the appearance of subdivisions, structures, and parking areas.
- Require more open space and trees in subdivisions.
- Work with Ada County Highway District (ACHD), Canyon Highway District #4 (CHD4), and Idaho Department of Transportation (ITD) for better coordination of roadway and access needs.
- Support well-planned, pedestrian-friendly developments.
- Dark sky provision should be adopted within the code to assure down style lighting in all developments and Star should consider joining the International Dark Sky Association.
- The City should utilize the 2018 Treasure Valley Tree Selection Guide when requiring trees within developments.

PROJECT OVERVIEW

CONDITIONAL USE PERMIT:

The Applicant is requesting approval of a Conditional Use Permit to construct a church campus at the northwest corner of Highway 16 and Floating Feather Road. The Applicant is proposing to build out the campus in phases with the first phase consisting of a worship facility, a church office building and a church run coffee shop with a drive through. When demand requires additional facilities, a new Sanctuary and children's ministry building would be constructed. When that takes place the phase 1 worship facility would become a fellowship hall.
Access to the site is proposed via existing access of N. Worsley Avenue to the west of the property. This is an existing roadway connecting to Floating Feather Road. The Applicant is currently working with ACHD on additional access points. An emergency access would be on the northwest corner of the property through the adjacent neighborhood via W. Virginia City Drive. This access is proposed to have bollards or gates, as approved, to restrict non-emergency access.

The Applicant is proposing the following building sizes and uses which will each have unique parking requirements. The Phase one church building has the capacity for 1800 seats. Section 8-

4B-3 of the Unified Development Code calls for 1 parking space for every 5 seats. Phase one church building will require 360 parking stalls.

The retail coffee shop is proposed to be approximately 5,500 square feet. The UDC calls for one parking space for every 200 square feet of gross floor area. The coffee shop will require 27.5 parking stalls. The drive-through requires queue space for five cars. The proposed concept site plan appears to provide five or more car lengths in the drive through lane.

The proposed office building is approximately 5,200 square feet in size. The code calls for one parking space for every 250 square feet of gross floor area. This building will require 20.8 parking stalls.

The proposed storage building is approximately 7,500 square feet in size. The code calls for one parking space for every 1,000 square feet of gross floor area. The storage building will require 7.5 stalls.

The total parking requirement for the project is 427 parking stalls, 9 of which should be ADA. The Applicant is proposing 493 parking stalls, 12 of which are ADA. This satisfies the parking requirements in the Unified Development Code. The site plan shows the parking stalls as 9 feet wide and 20 feet long, which complies with code requirements. The site plan also shows the drive aisles to be a minimum of 24 feet wide. Section 8-4B-3 states that "all drive aisles adjacent to a building shall be a minimum of 25 feet unless the building is 30 feet in height or greater, at which point the drive aisle shall be 26 feet or as otherwise approved by the Fire District." The Applicant will need to provide 25 feet in front of the storage building and the two retail buildings as they currently show as 24 feet. The drive aisle along the main church buildings are proposed at 30 feet, satisfying the code requirements.

The Applicant is proposing the building be a modern farmhouse style with exterior finishes to include board and batten siding, cedar wood accents, EIFS/Stucco and manufactured stone. The proposed building's maximum height is 35 feet. The Applicant has provided color renderings showing each elevation. This design will require approval through a Certificate of Zoning Compliance to include a review from the Design Review Committee.

The applicant has not asked for any setback waivers and the site plan is compliant with the required Residential (R-3) setbacks.

As required by the Unified Development Code, Chapter 8, Section 8-8C-2-M (2) Street Trees; A minimum of one street tree shall be planted for every thirty-five (35) linear feet of street frontage. The applicant shall use "Treasure Valley Tree Selection Guide", as adopted by the Unified Development Code. The Applicant has provided a landscape plan that appears to meet these requirements. The Applicant is also proposing three open spaces and a walking path along

the perimeter of the property. The Applicant is also proposing a solid privacy fence along the property. The proposed landscape plan appears to satisfy the requirements of the UDC.

One area of the property that will need consideration is the piece that has been set aside as right of way for the highway district. Staff advised the Applicant to plan on that area being used for future roadway access, which they did. If that land is not used in the future and goes back to the Applicant, the landscape plan will need to be adjusted to include this piece.

The Applicant has not provided a lighting plan for the site or building. This will be required prior to issuing a building permit, for review and approval by Staff. All lighting shall be downward facing and Dark Sky like compliant to avoid any fugitive light to the neighboring properties.

AGENCY RESPONSES

Central District Health	December 15, 2023
ACHD	Pending
ITD	January 8, 2024

PUBLIC RESPONSES

No public comments have been received for this application.

STAFF ANALYSIS & RECOMMENDATIONS

Based upon the information provided to staff in the applications and agency comments received to date, staff finds that the proposed conditional use permit meets the requirements, standards and intent for development as they relate to the Unified Development Code and Comprehensive Plan.

The Council should consider the entire record and testimony presented at their scheduled public hearing prior to rendering its decision on the matter. Should the Council vote to approve the applications, either as presented or with added or revised conditions of approval, Council shall direct staff to draft findings of fact and conclusions of law for the Council to consider at a future date.

FINDINGS

The Council may **approve**, **conditionally approve**, **deny** or **table** this request. In order to approve these applications, the Unified Development Code requires that Council must find the following:

Findings for Conditional Use Permits (UDC §8-6B-6):

1. That the site is large enough to accommodate the proposed use and meet all the dimensional and development regulations in the district in which the use is located.

The Council must find that the site of the proposed use would be large enough to accommodate the proposed use or meet all of the dimensional and development regulations in the district in which the use would be located.

2. That the proposed use will be harmonious with the Star comprehensive plan and in accord with the requirements of this title.

The Council must find that the proposed use request is harmonious with the Star Comprehensive Plan and is in accord with the requirements of this Title. The proposed development should meet the intent or purpose of the Mixed-Use District.

3. That the design, construction, operation and maintenance will be compatible with other uses in the general neighborhood and with the existing or intended character of the general vicinity and that such use will not adversely change the essential character of the same area.

The Council must find that the operation of the proposed use would be compatible with the other uses in the general area.

4. That the proposed use, if it complies with all conditions of the approval imposed, will not adversely affect other property in the vicinity.

The Council must find that the proposed use, with imposed conditions of approval, would not adversely affect other property in the vicinity.

5. That the proposed use will be served adequately by essential public facilities and services such as highways, streets, schools, parks, police and fire protection, drainage structures, refuse disposal, water, and sewer.

The Council must find that the proposed use be adequately served by essential public facilities and services.

6. That the proposed use will not create excessive additional costs for public facilities and services and will not be detrimental to the economic welfare of the community.

The Council must find that the proposed use would not create excessive additional costs for public facilities and would not be detrimental to the economic welfare of the community.

7. That the proposed use will not involve activities or processes, materials, equipment and conditions of operation that will be detrimental to any persons, property or the general welfare by reason of excessive production of traffic, noise, smoke, fumes, glare or odors.

The Council must find that the proposed use would involve activities that would not be detrimental to any person, property or the general welfare by reason of excessive production of traffic, noise, smoke, fumes, glare or odors.

8. That the proposed use will not result in the destruction, loss or damage of a natural, scenic or historic feature considered to be of major importance.

The Council must find that the proposed use would not result in the destruction, loss or damage of natural, scenic or historic feature of major importance since none are apparent on this site.

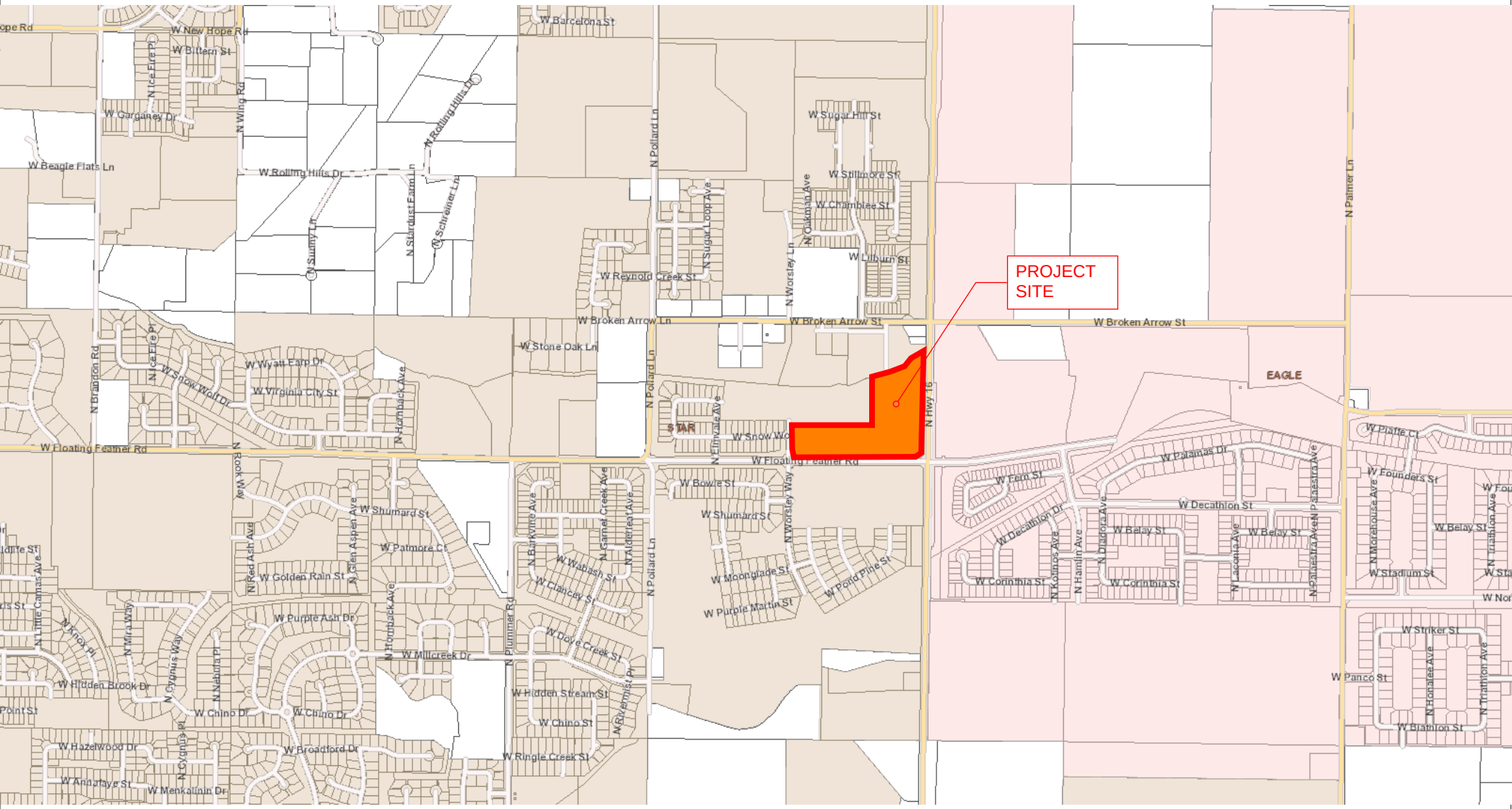
CONDITIONS OF APPROVAL

1. The approved Conditional Use shall comply with all statutory requirements of applicable agencies and districts having jurisdiction in the City of Star.
2. Streetlights/Parking Lot lights shall comply with the Star City Code. Design shall follow Code with requirements for light trespass and "Dark Skies" lighting. **Applicant/Owner shall work with staff and submit a lighting plan and design that meets city standards prior to Building Permit being issued.**
3. **A Certificate of Zoning Compliance will be required prior to the start of construction**, **to include review and approval of the structures by the Design Review Committee.**
4. **The Applicant shall meet all the requirements for the Ada County Highway District (ACHD) prior to certificate of occupancy.**
5. **The Applicant shall provide a letter from the Star Postmaster approving the location of the mailboxes for the new buildings, prior to signing the final plat.**
6. The property shall be satisfactorily weed abated, preventing a public nuisance, per Star City Code.
7. A plat note supporting the "Right to Farm Act" as per Idaho Code Title 22, Chapter 45, shall be shown on the Final Plat.
8. Pressurized irrigation systems shall comply with the Irrigation District(s) and the City of Star Codes. Plans for pressurized irrigation systems shall be submitted to, and approved by the City of Star Engineer, prior to installation.
9. A form signed by the Star Sewer & Water District shall be submitted to the City prior to issuance of building permit stating that all conditions of the District have been met, including annexation into the District.
10. The applicant shall provide a sign, to be located at all construction entrances, indicating the rules for all contractors that will be working on the property starting at grading and running through occupancy that addresses items including but not limited to dust, music, dogs, starting/stopping hours for contractors (7a.m. start time). **Sign shall be approved by the City prior to start of any construction.**
11. The applicant shall obtain all the proper building permits from the City Building Department prior to occupancy of the unit.
12. The Conditional Use Permit may be revoked or modified by the City Council for any violation of any Condition of Approval.
13. The applicant shall obtain a sign permit prior to any signage being placed on the site or building.

14. Any additional Condition of Approval as required by Staff and City Council.
15. Any Conditions of Approval as required by Star Fire Protection District.

COUNCIL DECISION

The Star City Council _____ File Number CU-23-08, for Calvary Chapel on _____ _____, 2024.


PROJECT SITE
W Broken Arrow Ln
W Broken Arrow St
W Floating Feather Rd
N Hwy 16
N Pollard Ln
N Palmer Ln
EAGLE
STAR
W Barcelona St
W New Hope Rd
W Bittern St
W Garganey Dr
W Beagle Flats Ln
W Rolling Hills Dr
W Sugar Hill St
W Stillmore St
W Chamblee St
W Lilburn St
W Reynold Creek St
W Stone Oak Ln
W Wyatt Earp Dr
W Virginia City St
W Snow Wolf Dr
W Shumard St
W Patmore Ct
W Golden Rain St
W Purple Ash Dr
W Millcreek Dr
W Hidden Brook Dr
W Chino Dr
W Hazelwood Dr
W Broadford Dr
W Annafaye St
W Menkalinin Dr
W Hidden Stream St
W Ringle Creek St
W Dove Creek St
W Moonglade St
W Purple Martin St
W Pond Pine St
W Bowie St
W Fern St
W Decathlon St
W Decathlon Dr
W Belay St
W Corinthia St
W Palamas Dr
W Platte Ct
W Founders St
W Stadium St
W Striker St
W Panco St
W Blathlon St
N Brandon Rd
N Ice Fire Pl
N Wing Rd
N Rolling Hills Dr
N Stardust Farm Ln
N Schreiner Ln
N Sunny Ln
N Sugar Loop Ave
N Oakman Ave
N Worsley Ln
N Hornback Ave
N Rook Way
N Red Ash Ave
N Glen Aspen Ave
N Barkvine Ave
N Garnet Creek Ave
N Alderleaf Ave
N Plummer Rd
N Elmvale Ave
N Worsley Way
N Kotinos Ave
N Hamlin Ave
N Diadora Ave
N Laconia Ave
N Palaestra Ave
N Morehouse Ave
N Triathlon Ave
N Honalee Ave
N Little Camas Ave
N Knox Pl
N Mira Way
N Cygnus Way
N Nebula Pl
N Cygnus Pl
N Riverminst Pl

CSHQA

200 Broad St • Boise, ID 83702 | 208.343.4635 | cshqa.com

December 15, 2023

City of Star
Planning and Zoning Department
10769 W State St
Star, ID 83669

Re: Cavalry Chapel Star
PO Box 604
Star, Idaho
Project No. 23310
Conditional Use Application

To Whom It May Concern:

On behalf of our client, Calvary Chapel Star, and in accordance with submittal requirements for a Conditional Use Application, please accept this letter of explanation describing our proposed development.

This application is a request to construct a Church Campus at the northwest corner of Highway 16 and Floating Feather Road. The site is a vacant prepared 17.21 Acre Lot that has previously been designated as a commercial use. The proposed development consists of a Phase One Church, a Church Office building, and a Church-run coffee shop with drive through. As the need increases, a New Sanctuary and Childrens ministry building are proposed for future development. At that time the Phase One Church use would change to a Fellowship Hall. On the west side of the project near the entry off N Worsley Avenue, a future storage building is proposed to support the needs of the campus.

Access to the site is proposed via an existing access off N Worsley Avenue to the west and a new proposed access off Floating Feather on the south. On the northwest corner of the site, removable bollards are proposed to allow required fire department access for the adjacent neighborhood via W Virginia City Dr, while restricting public access during normal operation.

There are 493 total proposed parking stalls while 427 are required, which leaves space for 66 stalls above the minimum required amount. At full buildout, the Fellowship Hall and the Main Sanctuary would not be utilized concurrently, so only the larger Main Sanctuary parking requirements were used for determining the required parking.

The building concept design utilizes a modern farmhouse style with exterior finishes including board and batten siding, cedar wood accents, EIFS/stucco and manufactured stone that provide a modern finish palette with traditional elements that were used to create an older barn house. Roof slopes create visual intrigue as well as continuity with the adjacent residential neighborhood.

With a maximum height of 35’-0” the building blends with the surrounding environment allowing for views to the surroundings, while still providing the campus good visibility from Highway 16. The building’s design has a modern feel with façade elements that are simple in form yet highlight the materiality of the form.

The location near a residential community provides the opportunity for Star residents to bike and walk to the campus in a safe area. The site plan provides multiple paths to gain access to the campus from the north, west and east. Entry plazas, green open spaces and ample walking paths are provided throughout the site to provide a pleasing atmosphere to the development.

We believe our submittal meets the criteria and submittal requirements for Conditional Use approval and look forward to presenting the application before the Board. If you have any questions, please do not hesitate to call.

Sincerely,

CSHQA

James A. Marsh, AIA

City of Star
P.O. Box 130
Star, Idaho 83669
P: 208-286-7247

CONDITIONAL USE PERMIT APPLICATION

***All applicable information must be filled out to be processed.*

FILE NO.: CU-23-08
Date Application Received: 12-14-2023 Fee Paid: $1660.00
Processed by: City: Barbara Norgrove

Applicant Information:

PRIMARY CONTACT IS: Applicant ___ Owner ___ Representative ___

Applicant Name: Calvary Chapel Star
Applicant Address: PO Box 604 Star, Idaho Zip: 83669
Phone: _____ Email: david@calvarystar.org

Owner Name: TOLL SOUTHWEST LLC
Owner Address: 3103 W. SHERYL DRIVE, SUITE 100 MERIDIAN ID Zip: 83642
Phone: 208-424-0020 Email: _____

Representative (e.g., architect, engineer, developer):
Contact: James Marsh Firm Name: CSHQA
Address: 200 Broad Street, Boise Idaho 83702 Zip: 83709
Phone: 208-429-4049 Email: james.marsh@cshqa.com

Property Information:

Site Address: NWC HWY 16 and Floating Feather Parcel Number: S0404438620
Requested Condition(s) for Conditional Use: Proposed Church campus buildings with a with a drive through retail / coffee shop and storage building.

	Zoning Designation	Comp Plan Designation
Existing	R-3PUD-DA	ESTATE URBAN RESIDENTIAL/ COMMERCIAL
Proposed	R-3PUD-DA	ESTATE URBAN RESIDENTIAL/ COMMERCIAL
North of site	R-1PUD-DA & MUPUD-DA	MIXED USE
South of site	R-3PUD-DA	ESTATE URBAN RESIDENTIAL/ COMMERCIAL
East of site	R-2-DA-P	CITY OF EAGLE
West of site	R-3PUD-DA	ESTATE URBAN RESIDENTIAL/ COMMERCIAL

Site Data:

Total Acreage of Site: 17.21 acres
Proposed Percentage of Site Devoted to Bldg Coverage: R-3PUD-DA
Proposed Percentage of Site Devoted to Landscaping: 23.4%
Number of Parking spaces: Proposed 493 Required 427 ~~23.4%~~
Requested Front Setback: 40' Requested Rear Setback: 20'
Requested Side Setback: 30' (along floating Feather) Requested Side Setback: 30'
Requested Side Setback: 20'
Existing Site Characteristics: Vacant parcel

Number and Uses of Proposed Buildings: Three church buildings and one drive thru retail / coffee shop, and a storage building.
Location of Buildings: Church buildings on the east side of the site, drive through retail on the south and storage on the we
Gross Floor Area of Proposed Buildings: All buildings: 84,200 s.f. +/-
Describe Proposed On and Off-Site Traffic Circulation: Access is off existing approved point along Floating Feather.

Proposed Signs – number, type, location: One along Hwy 16
(include draft drawing)
Public Services (state what services are available and what agency is providing the service):
Potable Water - STAR SEWER AND WATER DISTRICT
Irrigation Water - ROSTI FARMS HOA
Sanitary Sewer - STAR SEWER AND WATER DISTRICT
Schools - STAR
Fire Protection - STAR FIRE PROTECTION DISTRICT
Roads - ADA COUNTY HIGHWAY DISTRICT

Flood Zone Data (This Info Must Be Filled Out Completely Prior to Acceptance):

Subdivision/Project Name: Rosti Farms Subdivision Phase: #10
Special Flood Hazard Area: total acreage _____ number of homes/structures

a. A note must be provided on the site plan documenting the current flood zone in which the property or properties are located. The boundary line must be drawn on the plan in situations where two or more flood zones intersect over the property or properties being surveyed.

b. FEMA FIRM panel(s): #160xxxxxxC, 160xxxxxxE, etc.: _____
FIRM effective date(s): mm/dd/year _____
Flood Zone(s): Zone X, Zone A, Zone AE, Zone AH, etc.: _____
Base Flood Elevation(s): AE____.0 ft., etc.: _____

c. Flood Zones are subject to change by FEMA and all land within a floodplain is regulated by Chapter 10 of the Star City Code.

Application Requirements:

(Applications are required to contain one copy of the following unless otherwise noted.)

Applicant (√)	Description	Staff (√)
	Pre-application meeting with Planning Department required prior to neighborhood meeting.	BN
	Copy of neighborhood meeting notice sent to property owners within 300 feet and meeting sign-in sheet. **(Please contact the City for addresses & labels)** (Applicants are required to hold a neighborhood meeting to provide an opportunity for public review of the proposed project prior to the submittal of an application.)	BN
	Completed and signed Conditional Use Application	BN
	Fee: Please contact the City for current fee. Fees may be paid in person with check or electronically with credit card. Please call City for electronic payment. Additional service fee will apply to all electronic payments.	BN
	Narrative fully describing the existing use, and the proposed project. (must be signed by applicant)	BN
	Legal description of the property (word.doc and electronic version with engineer's seal):	BN
	Copy of recorded warranty deed.	BN
	If the signature on this application is not the owner of the property, an **original** notarized statement (affidavit of legal interest) from the owner stating the applicant is authorized to submit this application.	BN
	One (1) copy of names and addresses printed on address labels, of property owners within three hundred feet (300') of the external boundaries of the property being considered as shown on record in the County Assessor's office. Please contact the City to request addresses and labels.	BN
	List of names(s) and address(es) of all canal or irrigation ditches within or contiguous to the proposed development.	
	Vicinity map showing the location of the subject property	BN
	One (1) full-size copy and One (1) 11"x 17" reduction of the Site Plan	
	One (1) full-size copy and One (1) 11"x 17" reduction of the landscape plan (if applicable)	
	Building elevations showing construction materials	BN
	Two (2) copies electronic versions of submitted application including signed application, narrative, legal description, warranty deed, vicinity map, site plan, landscape plan, building elevations, shall be submitted in original pdf format (no scans) on a thumb drive only (no discs) with the files named with project name and plan type. We encourage you to also submit at least one (1) color version for presentation purposes.	BN
	Signed Certification of Posting with pictures. (see attached posting requirements and certification form) – To be completed by application after acceptance of application. Staff will notify applicant of hearing and posting date.	

Site Plan (If applicable):

	The following items must be included on the site plan:	
	• Date, scale, north arrow, and project name	BN
	• Names, addresses, and phone number of owner(s), applicant, and engineer, surveyor or planner who prepared the site plan	BN
	• Existing boundaries, property lines, and dimensions of the lot	
	• Relationship to adjacent properties, streets, and private lanes	
	• Easements and right-of-way lines on or adjacent to the lot	
	• Existing and proposed zoning of the lot, and the zoning and land use of all adjacent properties	BN
	• Building locations(s) (including dimensions to property lines)	BN
	• Parking and loading areas (dimensioned)	BN
	• Traffic access drives and traffic circulation (dimensioned)	BN

	• Open/common spaces	BN
	• Refuse and service areas	
	• Utilities plan, including the following: Sewer, water, irrigation, and storm drainage (existing & proposed)	
	• All on-site lighting proposed – Must Meet City "Dark Sky" Ordinances	BN

Landscape Plan (If applicable):

	The following items must be included on the landscape plan:	
	• Date, scale, north arrow, and project name	BN
	• Names, addresses, and phone numbers of the developer and the person and/or firm preparing the plan	BN
	• Existing natural features such as canals, creeks, drains, ponds, wetlands, floodplains, high groundwater areas, and rock outcroppings	BN
	• Location, size, and species of all existing trees on site with trunks 4 inches or greater in diameter, measured 6 inches above the ground. Indicate whether the tree will be retained or removed.	BN
	• Existing buildings, structures, planting areas, light poles, power poles, walls, fences, berms, parking and loading areas, vehicular drives, trash areas, sidewalks, pathways, storm water detention areas, signs, street furniture, and other man-made elements	BN
	• Existing and proposed contours for all areas steeper than 20% slope. Berms shall be shown with one-foot contours	
	• Sight Triangles as defined in 8-4 A-7 of this Ordinance	BN
	• Location and labels for all proposed plants, including trees, shrubs, and groundcovers (trees must not be planted in City water or sewer easements). Scale shown for plant materials shall reflect approximate mature size	BN
	• Proposed screening structures	
	• Design drawings(s) of all fencing proposed	
	• Calculations of project components to demonstrate compliance with requirements of this ordinance, including: ➢ Number of street trees and lineal feet of street frontage ➢ Width of street buffers (exclusive of right-of-way) ➢ Width of parking lot perimeter landscape strip ➢ Buffer width between different land uses ➢ Number of parking stalls and percent of parking area with internal landscaping ➢ Total number of trees and tree species mix ➢ Mitigation for removal of existing trees, including number of caliper inches being removed	

SIGNS (If applicable):

All signs will require separate submittal of a sign application.

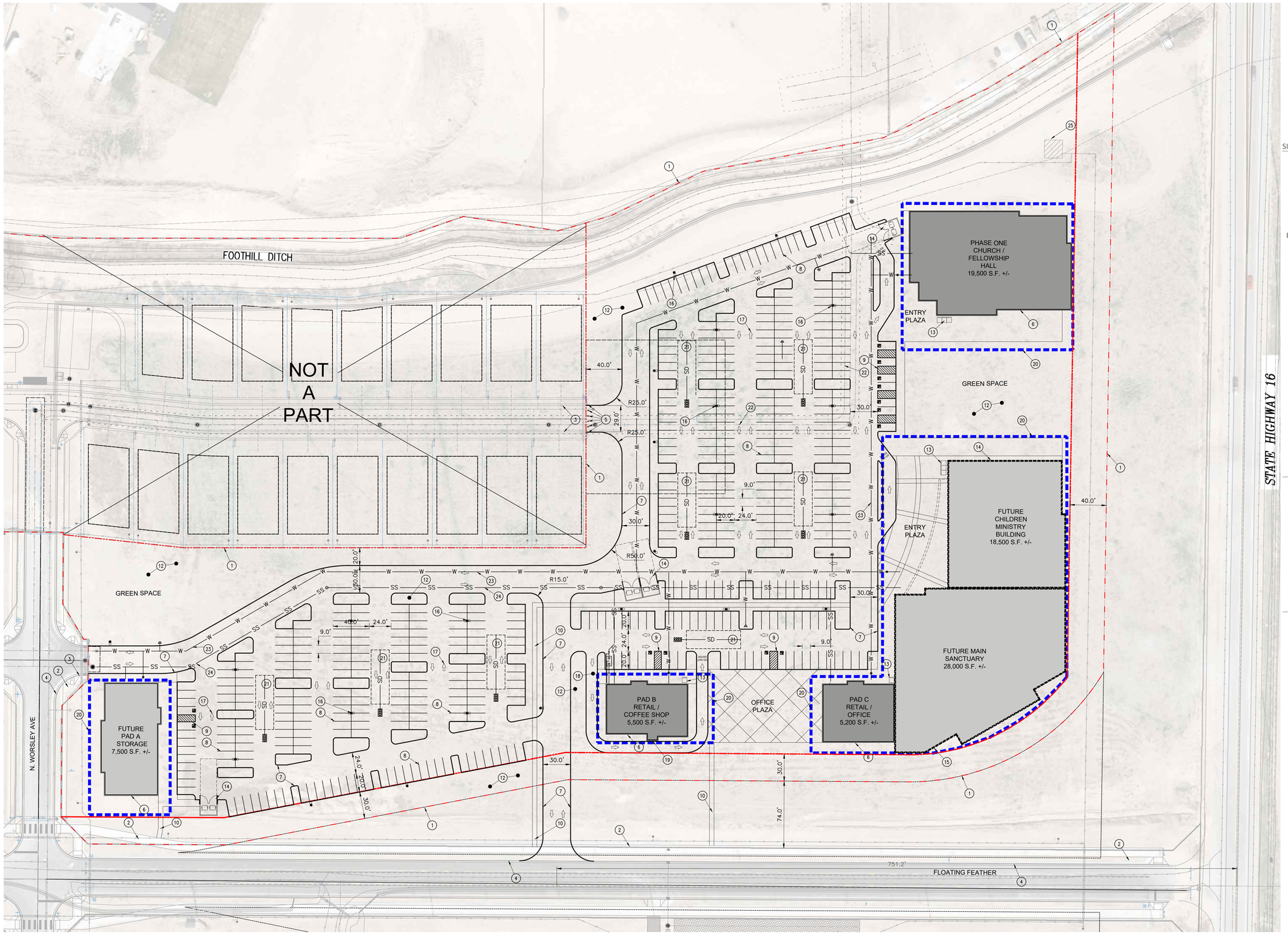
FEE REQUIREMENT:

** *I have read and understand the above requirements. I further understand fees will be collected at the time of filing an application.* ***I understand that there may be other fees associated with this application incurred by the City in obtaining reviews or referrals by architect, engineering, or other professionals necessary to enable the City to expedite this application. I understand that I, as the applicant, am responsible for all payments to the City of Star.***

12/14/2023

CSHQA

CALVARY CHAPEL STAR | HWY 16 & FLOATING FEATHER | 12/15/2023



CONTACT INFORMATION:

APPLICATNT: CALVARY CHAPEL STAR
PO BOX 604
STAR , IDAHO 83669
CONTACT: DAVID AX
DAVID@CALVARYSTAR.ORG

ARCHITECT: CSHQA, INC
200 BROAD STREET
BOISE, ID 83702
CONTACT: JAMES MARSH
PHONE: 208-429-4049
JAMES.MARSH@CSHQA.COM

SITE PLAN INFORMATION

PROJECT ADDRESS:
NWC FLOATING FEATHER AND HWY 16
STAR, ID 83616

PARCEL: S0404438620
ZONE CODE: R-3PUD-DA
LOT SIZE: 17.21 ACRES
SUBDIVISION: ROSTI FARMS SUBDIVISION PHASE 10

PARKING REQUIREMENTS - SECTION 11-3C-6-B.1:

CHURCH ONE PARKING SPACE REQUIRED FOR EVERY 5 SEATS
1800 SEATS/ 5 = 360 PARKING STALLS REQUIRED

CHILDCARE / NURSERY SCHOOLS - 3 REQUIRED FOR EACH CLASSROOM
16 CLASSROOMS/3 = 5.3 (9 MINIMUM) = 9 PARKING STALLS REQUIRED

RETAIL / OFFICE - ONE PARKING SPACE REQUIRED FOR EVERY 250 SQ. FT. OF GROSS FLOOR AREA
5,200 SF/ 250 = 20.8 = 21 PARKING STALLS REQUIRED

DRIVE THROUGH RESTAURANT - ONE PARKING SPACE REQUIRED FOR EVERY 200 SQ. FT. OF GROSS FLOOR AREA
5,500 SF/ 200 = 27.5 = 28 PARKING STALLS REQUIRED

STORAGE - ONE PARKING SPACE PER 1,000 SQ. FT. OF GROSS FLOOR AREA
7,500 SF/1000 = 7.5 = 8 PARKING STALLS REQUIRED.

PARKING STALLS REQUIRED - 427 PROVIDED STALLS PROVIDED - 493
ACCESSIBLE STALLS REQUIRED - 9 ACCESSIBLE STALLS PROVIDED - 12

LEGEND:

- STORM DRAIN
- WATER
- SANITARY SEWER
- BUILDING LIMIT BOUNDARY
- PROPERTY LINE

SHEET NOTES:

1. PROPERTY LINE.
2. EXISTING SIDEWALK.
3. EXISTING DRIVE AISLE TO REMAIN.
4. EXISTING CONCRETE CURB.
5. NEW REMOVABLE BOLLARDS FOR FIRE DEPT ACCESS
6. NEW BUILDING FOOTPRINT.
7. NEW CONCRETE CURB AND GUTTER.
8. NEW PARKING LOT STRIPING.
9. NEW ADA PARKING AND SIGNAGE.
10. NEW CONCRETE SIDEWALK.
12. NEW LANDSCAPE AREA, RE: LANDSCAPE PLANS.
13. NEW BIKE PARKING (5 SPACES).
14. NEW TRASH ENCLOSURE.
15. FUTURE BUILDING PAD.
16. PROPOSED SITE LIGHT,
17. PAINTED DIRECTIONAL SIGNAGE.
18. PROPOSED TENANT DRIVE THRU LANE.
19. TENANT DRIVE THRU WINDOW.
20. MAXIMUM BUILDABLE ENVELOP
21. UNDERGROUND STORM WATER SEEPAGE BED
22. EXISTING SEWER MAIN TO REMAIN
23. NEW DOMESTIC WATER MAIN LOOP
24. NEW SANITARY SEWER LINE
25. EXISTING SEWER PUMP HOUSE

Scale: 1" = 50'-0"

23310

CONCEPT SITE PLAN

Design Package | pg. 1

CITY OF STAR LANDSCAPE REQUIREMENTS			
Street Landscape Buffers			
Major Arterial			
40' wide landscape buffer with 4 shade trees, 3 evergreens, 2 flowering trees, and 12 shrubs for every 100'			
Calculations	**Total Length**	**Required**	**Provided**
	684 feet	28 shade trees, 21 evergreens, 14 flowering trees, and 84 shrubs	28 shade trees, 21 evergreens, 14 flowering trees, and 84 shrubs
Minor Arterial			
30' wide landscape buffer with 3 shade trees, 3 evergreens, and 8 shrubs for every 100'			
Calculations	**Total Length**	**Required**	**Provided**
	1114 feet	33 shade trees, 33 evergreens and 88 shrubs	33 shade trees, 33 evergreens, and 96 shrubs
Collector			
20' wide landscape buffer with 2 shade trees and 2 evergreens for every 100'			
Calculations	**Total Length**	**Required**	**Provided**
	342 feet	3 shade trees and 3 evergreens	7 shade trees and 6 evergreens
Residential Landscape Buffers			
Requirement			
15' wide landscape buffer with (1) one shade tree every 35 feet			
Calculations	**Total Length**	**Required**	**Provided**
	1531 feet	44 shade trees	44 trees
Parking Lot Landscaping			
Calculation			
Total Number of Parking Stalls	491		
Parking Lot & Drive Aisle Size	221,585 SF		
Interior Landscaping Size	25,867 SF	(11.7%)	
Proposed			
Total Number of Parking Lot Trees	84		
Additional Calculations			
Tree Species			
Total Number Trees	351		
Total Number of Species	10		
Total Landscaping			
Total Landscaped Areas	193,920 SF	(4.45 acres)	

MATERIAL LEGEND

LAWN - 39,820 SF
KENTUCKY BLUE/RYEGRASS

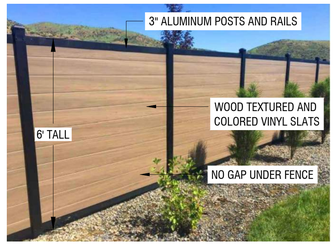
NATIVE AREAS - 85,570 SF
CREEPING RED FESCUE HYDROSEED

RIGHT OF WAY - 161,640 SF
SCOTTISH LINKS HYDROSEED

PLANTER BEDS - 48,140 SF @ 2" DEPTH (350 YARDS)
MEDIUM BLACK AND TAN

ASPHALT PARKING LOT & ENTRY DRIVES - 221,590 SF
ASPHALT

PAVER PATIO - 11,828 SF
BELGARD PAVER



A / L-1 **PRIVACY FENCE DETAIL**
NOT TO SCALE

N

0' 25' 50' 150'

SCALE: 1' = 50'-0"

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NOTE: THE LOCATION OF PLANT MATERIAL AND LANDSCAPE ELEMENTS IS APPROXIMATE. THE CONTRACTOR WILL DETERMINE THE OPTIMAL LAYOUT OF THE PLANTER BEDS AND PLACEMENT OF PLANT MATERIAL. PLANT SUBSTITUTES MAY BE REQUIRED IF THE PLANT SELECTION IS UNAVAILABLE.

STATE OF IDAHO · BRIAN J. BENTLER · LICENSED LANDSCAPE ARCHITECT · LA-16878
12/15/23

CALVARY CHAPEL STAR

IDAHO 811
CONTACT DIGLINE
48 HOURS
BEFORE DIGGING
1-800-342-1585 (or 811)

REVISIONS:

NO.	DATE:	DESCRIPTION:

BOISE LANDSCAPE DESIGN
7633 W PRINCE ST
BOISE, ID 83714
(425) 466-1937
BLD

CALVARY CHAPEL STAR

CONCEPTUAL LANDSCAPE MASTER PLAN

NOT FOR CONSTRUCTION

FLOATING FEATHER & HWY 16
STAR, IDAHO

SCALE:	1" = 50'-0"
DRAWN BY:	B. BENTLER
CHECKED BY:	B. BENTLER
DATE:	12/15/23
DATE OF PRINT:	12/15/23

SHEET NUMBER: L-1

PLANT LEGEND

Qty	Symbol	Common Name	Botanical Name	Mature Size	Sun Exposure	Size
		Trees				
76	AF	Autumn Blaze Maple	Acer x freemanii 'Jeffsred'	50' tall x 40' wide	Full Sun	2" caliper
15	BN	Clump River Birch	Betula nigra	40'-60' tall x 40'-50' wide	Full Sun	2" caliper
64	FA	Autumn Purple Ash	Fraxinus americana 'Autumn Purple'	45-60' tall x 35-50' wide	Full Sun	2" caliper
34	GT	Shademaster Honeylocust	Gleditsia triacanthos var. inermis 'Shademaste	50-75' tall x 25-40' wide	Full Sun to Partial Shade	2" caliper
6	LS	Slender Silhouette Sweetgum	Liquidambar styraciflua 'Slender Silhouette'	50' tall x 3'-6' wide	Full Sun	2" caliper
8	PA	Cupressina Spruce	Picea abies 'Cupressina'	20'-30' tall x 4'-5' wide	Full Sun	7'-8' tall
28	PO	Riverside Serbian Spruce	Picea omorika 'Riverside'	18' tall x 5' wide	Partial Shade to Full Sun	7'-8' tall
18	PP	Colorado Spruce	Picea pungens	30'-35' tall x 10'-20' wide	Partial Sun to Full Sun	7'-8' tall
23	PF	Vanderwolf Pine	Pinus flexilis 'Vanderwolf's Pyramid'	20'-30' tall x 10'-15' wide	Full Sun	7'-8' tall
79	PC	Chanticleer Pear	Pyrus calleryana 'Glen's Form'	30-35' tall x 15' wide	Full Sun	2" caliper
		Shrubs				
77	CB	Ivory Halo Dogwood	Cornus alba 'Bailhalo'	5-6' tall and wide	Partial to Full Sun	5 gallon
65	EA	Dwarf Burning Bush	Euonymus alatus 'Compactus'	5'-7' tall x 6'-8' wide	Full Sun	5 gallon
116	HP	Limelight Hydrangea	Hydrangea paniculata 'Limelight'	6-8' tall and wide	Filtered to Full Sun	5 gallon
26	JC	Blue Arrow Juniper	Juniperus scopulorum 'Blue Arrow'	12'-15' tall x 2' wide	Full Sun	5 gallon
37	PM	Dwarf Mugo Pine	Pinus mugo var. pumilio	3'-5' tall x 5'-7' wide	Full Sun	5 gallon
5	RR	Double Red Knock Out Rose	Rosa x 'Radtko'	3-4' tall and wide	Full Sun	2 gallon
		Perennials				
432	CA	Karl Foerster Feather Reed Grass	Calamagrostis x acutiflora 'Karl Foerster'	3'-4' tall x 1.5'-3' wide	Full Sun	1 gallon
399	HS	Stella De Oro Daylily	Hemerocallis x 'Stella de Oro'	2'-3' tall and wide	Partial Sun to Full Sun	1 gallon
17	HE	Earth Angel Hosta	Hosta x 'Earth Angel'	2' tall x 4' wide	Full Shade to Filtered Sun	1 gallon
31	HH	Hadspen Blue Hosta	Hosta x 'Hadspen Blue'	12" tall x 20" wide	Full to Partial Shade	1 gallon
370	LA	Martha Roderick Lavender	Lavandula angustifolia 'Martha Roderick'	1.5' tall x 2.5' wide	Full Sun	1 gallon
26	MS	Maiden Grass	Miscanthus sinensis 'Gracillimus'	6'-8' tall x 3'-5' wide	Full Sun	1 gallon
29	PL	Little Bunny Grass	Pennisetum alopecuroides 'Little Bunny'	1'-2' tall and wide	Full Sun	1 gallon

MATERIAL LEGEND

LAWN - 39,820 SF
KENTUCKY BLUE/RYEGRASS

NATIVE AREAS - 85,570 SF
CREEPING RED FESCUE HYDROSEED

RIGHT OF WAY - 161,640 SF
SCOTTISH LINKS HYDROSEED

PLANTER BEDS - 48,140 SF @ 2" DEPTH (350 YARDS)
MEDIUM BLACK AND TAN

ASPHALT PARKING LOT & ENTRY DRIVES - 221,590 SF
ASPHALT

PAVER PATIO - 11,828 SF
BELGARD PAVER

CITY OF STAR LANDSCAPE REQUIREMENTS			
Street Landscape Buffers			
Major Arterial			
40' wide landscape buffer with 4 shade trees, 3 evergreens, 2 flowering trees, and 12 shrubs for every 100'			
Calculations	**Total Length**	**Required**	**Provided**
	684 feet	28 shade trees, 21 evergreens, 14 flowering trees, and 84 shrubs	28 shade trees, 21 evergreens, 14 flowering trees, and 84 shrubs
Minor Arterial			
30' wide landscape buffer with 3 shade trees, 3 evergreens, and 8 shrubs for every 100'			
Calculations	**Total Length**	**Required**	**Provided**
	1114 feet	33 shade trees, 33 evergreens and 88 shrubs	33 shade trees, 33 evergreens, and 96 shrubs
Collector			
20' wide landscape buffer with 2 shade trees and 2 evergreens for every 100'			
Calculations	**Total Length**	**Required**	**Provided**
	342 feet	3 shade trees and 3 evergreens	7 shade trees and 6 evergreens
Residential Landscape Buffers			
Requirement			
15' wide landscape buffer with (1) one shade tree every 35 feet			
Calculations	**Total Length**	**Required**	**Provided**
	1531 feet	44 shade trees	44 trees
Parking Lot Landscaping			
Calculation			
Total Number of Parking Stalls	491		
Parking Lot & Drive Aisle Size	221,585 SF		
Interior Landscaping Size	25,867 SF	(11.7%)	
Proposed			
Total Number of Parking Lot Trees	84		
Additional Calculations			
Tree Species			
Total Number Trees	351		
Total Number of Species	10		
Total Landscaping			
Total Landscaped Areas	193,920 SF	(4.45 acres)	

0' 15' 30' 120'
SCALE: 1' = 30'-0"

NOTE: THE LOCATION OF PLANT MATERIAL AND LANDSCAPE ELEMENTS IS APPROXIMATE. THE CONTRACTOR WILL DETERMINE THE OPTIMAL LAYOUT OF THE PLANTER BEDS AND PLACEMENT OF PLANT MATERIAL. PLANT SUBSTITUTES MAY BE REQUIRED IF THE PLANT SELECTION IS UNAVAILABLE.

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STATE OF IDAHO
BRIAN J. BENTLER
LA-16878
LICENSED LANDSCAPE ARCHITECT
12/15/23

CALVARY CHAPEL STAR

IDAHO 811
CONTACT DIGLINE
48 HOURS
BEFORE DIGGING
1-800-342-1585 (or 811)

REVISIONS:

NO.	DATE:	DESCRIPTION:

BOISE LANDSCAPE DESIGN
7633 W PRINCE ST
BOISE, ID 83714
(425) 466-1937
BLD

CALVARY CHAPEL STAR

CONCEPTUAL LANDSCAPE PLAN

NOT FOR CONSTRUCTION

FLOATING FEATHER & HWY 16
STAR, IDAHO

SCALE:	1" = 30'-0"
DRAWN BY:	B. BENTLER
CHECKED BY:	B. BENTLER
DATE:	12/15/23
DATE OF PRINT:	12/15/23

SHEET NUMBER: L-2

PLANT LEGEND

Qty	Symbol	Common Name	Botanical Name	Mature Size	Sun Exposure	Size
		Trees				
76	AF	Autumn Blaze Maple	Acer x freemanii 'Jeffsred'	50' tall x 40' wide	Full Sun	2" caliper
15	BN	Clump River Birch	Betula nigra	40'-60' tall x 40'-50' wide	Full Sun	2" caliper
64	FA	Autumn Purple Ash	Fraxinus americana 'Autumn Purple'	45-60' tall x 35-50' wide	Full Sun	2" caliper
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29	PL	Little Bunny Grass	Pennisetum alopecuroides 'Little Bunny'	1'-2' tall and wide	Full Sun	1 gallon

MATERIAL LEGEND

LAWN - 39,820 SF
KENTUCKY BLUE/RYEGRASS

NATIVE AREAS - 85,570 SF
CREEPING RED FESCUE HYDROSEED

RIGHT OF WAY - 161,640 SF
SCOTTISH LINKS HYDROSEED

PLANTER BEDS - 48,140 SF @ 2" DEPTH (350 YARDS)
MEDIUM BLACK AND TAN

ASPHALT PARKING LOT & ENTRY DRIVES - 221,590 SF
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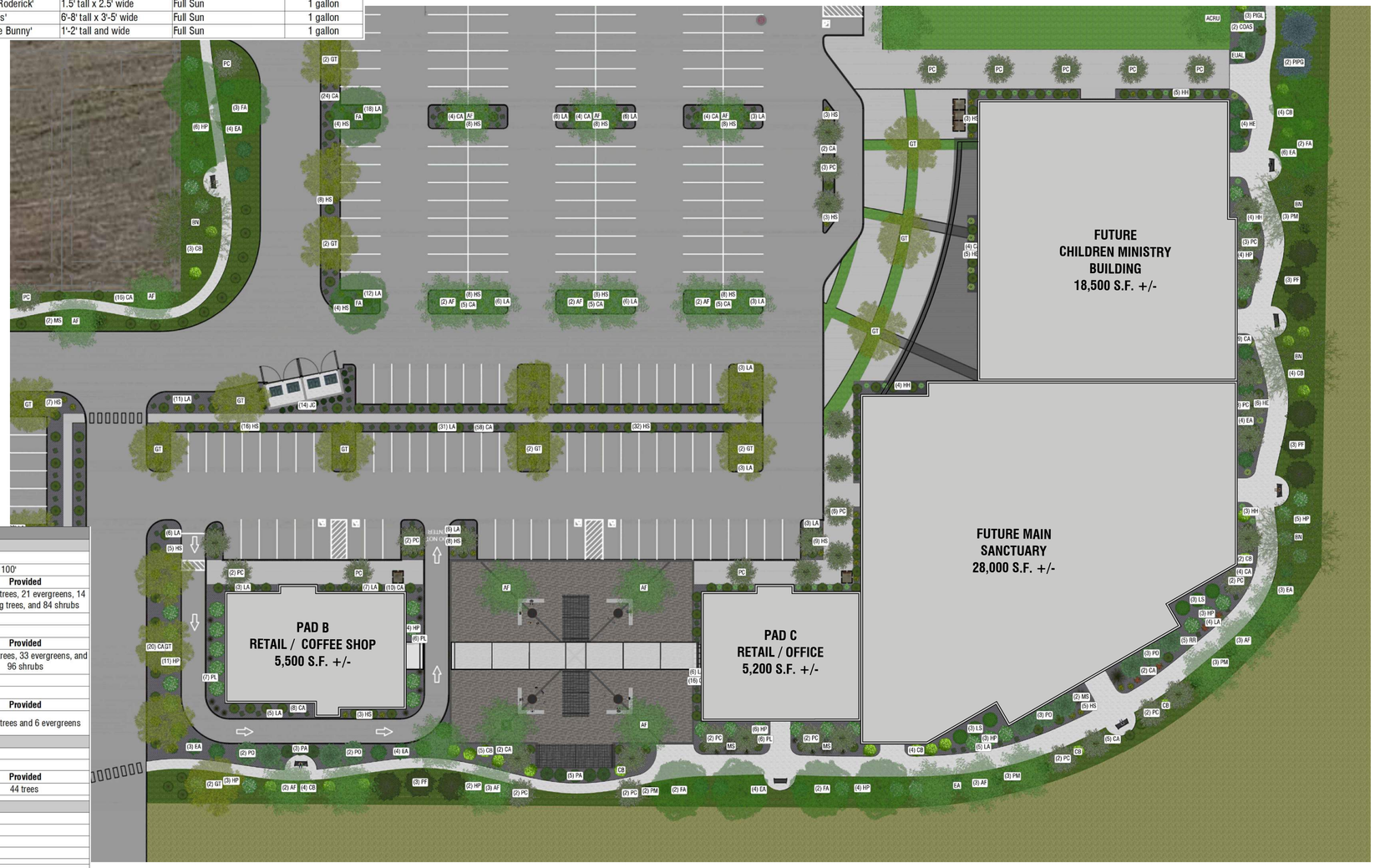
BELGARD PAVER



CITY OF STAR LANDSCAPE REQUIREMENTS

Street Landscape Buffers

Major Arterial

40' wide landscape buffer with 4 shade trees, 3 evergreens, 2 flowering trees, and 12 shrubs for every 100'

	Total Length	Required	Provided
Calculations	684 feet	28 shade trees, 21 evergreens, 14 flowering trees, and 84 shrubs	28 shade trees, 21 evergreens, 14 flowering trees, and 84 shrubs

Minor Arterial

30' wide landscape buffer with 3 shade trees, 3 evergreens, and 8 shrubs for every 100'

	Total Length	Required	Provided
Calculations	1114 feet	33 shade trees, 33 evergreens and 88 shrubs	33 shade trees, 33 evergreens, and 96 shrubs

Collector

20' wide landscape buffer with 2 shade trees and 2 evergreens for every 100'

	Total Length	Required	Provided
Calculations	342 feet	3 shade trees and 3 evergreens	7 shade trees and 6 evergreens

Residential Landscape Buffers

Requirement

15' wide landscape buffer with (1) one shade tree every 35 feet

	Total Length	Required	Provided
Calculations	1531 feet	44 shade trees	44 trees

Parking Lot Landscaping

Calculation		
Total Number of Parking Stalls	491	
Parking Lot & Drive Aisle Size	221,585 SF	
Interior Landscaping Size	25,867 SF	(11.7%)
Proposed		
Total Number of Parking Lot Trees	84	

Additional Calculations

Tree Species		
Total Number Trees	351	
Total Number of Species	10	
Total Landscaping		
Total Landscaped Areas	193,920 SF	(4.45 acres)

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N

0' 15' 30' 120'

SCALE: 1' = 30'-0"

STATE OF IDAHO
BRIAN J. BENTLER
LA-16878
LICENSED LANDSCAPE ARCHITECT
12/15/23

CALVARY CHAPEL STAR

IDAHO 811
CONTACT DIGLINE
48 HOURS
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1-800-342-1585 (or 811)

REVISIONS:

NO.	DATE:	DESCRIPTION:

BOISE LANDSCAPE DESIGN
7633 W PRINCE ST
BOISE, ID 83714
(425) 466-1937
BLD

CALVARY CHAPEL STAR

CONCEPTUAL LANDSCAPE PLAN

NOT FOR CONSTRUCTION

FLOATING FEATHER & HWY 16
STAR, IDAHO

SCALE:	1" = 30'-0"
DRAWN BY:	B. BENTLER
CHECKED BY:	B. BENTLER
DATE:	12/15/23
DATE OF PRINT:	12/15/23

SHEET NUMBER: L-3

PLANT LEGEND

Qty	Symbol	Common Name	Botanical Name	Mature Size	Sun Exposure	Size
		Trees				
76	AF	Autumn Blaze Maple	Acer x freemanii 'Jeffsred'	50' tall x 40' wide	Full Sun	2" caliper
15	BN	Clump River Birch	Betula nigra	40'-60' tall x 40'-50' wide	Full Sun	2" caliper
64	FA	Autumn Purple Ash	Fraxinus americana 'Autumn Purple'	45-60' tall x 35-50' wide	Full Sun	2" caliper
34	GT	Shademaster Honeylocust	Gleditsia triacanthos var. inermis 'Shademaste	50-75' tall x 25-40' wide	Full Sun to Partial Shade	2" caliper
6	LS	Slender Silhouette Sweetgum	Liquidambar styraciflua 'Slender Silhouette'	50' tall x 3'-6' wide	Full Sun	2" caliper
8	PA	Cupressina Spruce	Picea abies 'Cupressina'	20'-30' tall x 4'-5' wide	Full Sun	7'-8' tall
28	PO	Riverside Serbian Spruce	Picea omorika 'Riverside'	18' tall x 5' wide	Partial Shade to Full Sun	7'-8' tall
18	PP	Colorado Spruce	Picea pungens	30'-35' tall x 10'-20' wide	Partial Sun to Full Sun	7'-8' tall
23	PF	Vanderwolf Pine	Pinus flexilis 'Vanderwolf's Pyramid'	20'-30' tall x 10'-15' wide	Full Sun	7'-8' tall
79	PC	Chanticleer Pear	Pyrus calleryana 'Glen's Form'	30-35' tall x 15' wide	Full Sun	2" caliper
		Shrubs				
77	CB	Ivory Halo Dogwood	Cornus alba 'Bailhalo'	5-6' tall and wide	Partial to Full Sun	5 gallon
65	EA	Dwarf Burning Bush	Euonymus alatus 'Compactus'	5'-7' tall x 6'-8' wide	Full Sun	5 gallon
116	HP	Limelight Hydrangea	Hydrangea paniculata 'Limelight'	6-8' tall and wide	Filtered to Full Sun	5 gallon
26	JC	Blue Arrow Juniper	Juniperus scopulorum 'Blue Arrow'	12'-15' tall x 2' wide	Full Sun	5 gallon
37	PM	Dwarf Mugo Pine	Pinus mugo var. pumilio	3'-5' tall x 5'-7' wide	Full Sun	5 gallon
5	RR	Double Red Knock Out Rose	Rosa x 'Radtko'	3-4' tall and wide	Full Sun	2 gallon
		Perennials				
432	CA	Karl Foerster Feather Reed Grass	Calamagrostis x acutiflora 'Karl Foerster'	3'-4' tall x 1.5'-3' wide	Full Sun	1 gallon
399	HS	Stella De Oro Daylily	Hemerocallis x 'Stella de Oro'	2'-3' tall and wide	Partial Sun to Full Sun	1 gallon
17	HE	Earth Angel Hosta	Hosta x 'Earth Angel'	2' tall x 4' wide	Full Shade to Filtered Sun	1 gallon
31	HH	Hadspen Blue Hosta	Hosta x 'Hadspen Blue'	12" tall x 20" wide	Full to Partial Shade	1 gallon
370	LA	Martha Roderick Lavender	Lavandula angustifolia 'Martha Roderick'	1.5' tall x 2.5' wide	Full Sun	1 gallon
26	MS	Maiden Grass	Miscanthus sinensis 'Gracillimus'	6'-8' tall x 3'-5' wide	Full Sun	1 gallon
29	PL	Little Bunny Grass	Pennisetum alopecuroides 'Little Bunny'	1'-2' tall and wide	Full Sun	1 gallon

MATERIAL LEGEND

LAWN - 39,820 SF
KENTUCKY BLUE/RYEGRASS

NATIVE AREAS - 85,570 SF
CREEPING RED FESCUE HYDROSEED

RIGHT OF WAY - 161,640 SF
SCOTTISH LINKS HYDROSEED

PLANTER BEDS - 48,140 SF @ 2" DEPTH (350 YARDS)
MEDIUM BLACK AND TAN

ASPHALT PARKING LOT & ENTRY DRIVES - 221,590 SF
ASPHALT

PAVER PATIO - 11,828 SF
BELGARD PAVER

CITY OF STAR LANDSCAPE REQUIREMENTS

Street Landscape Buffers

Major Arterial

40' wide landscape buffer with 4 shade trees, 3 evergreens, 2 flowering trees, and 12 shrubs for every 100'

	Total Length	Required	Provided
Calculations	684 feet	28 shade trees, 21 evergreens, 14 flowering trees, and 84 shrubs	28 shade trees, 21 evergreens, 14 flowering trees, and 84 shrubs

Minor Arterial

30' wide landscape buffer with 3 shade trees, 3 evergreens, and 8 shrubs for every 100'

	Total Length	Required	Provided
Calculations	1114 feet	33 shade trees, 33 evergreens and 88 shrubs	33 shade trees, 33 evergreens, and 96 shrubs

Collector

20' wide landscape buffer with 2 shade trees and 2 evergreens for every 100'

	Total Length	Required	Provided
Calculations	342 feet	3 shade trees and 3 evergreens	7 shade trees and 6 evergreens

Residential Landscape Buffers

Requirement

15' wide landscape buffer with (1) one shade tree every 35 feet

	Total Length	Required	Provided
Calculations	1531 feet	44 shade trees	44 trees

Parking Lot Landscaping

Calculation		
Total Number of Parking Stalls	491	
Parking Lot & Drive Aisle Size	221,585 SF	
Interior Landscaping Size	25,867 SF	(11.7%)
Proposed		
Total Number of Parking Lot Trees	84	

Additional Calculations

Tree Species		
Total Number Trees	351	
Total Number of Species	10	
Total Landscaping		
Total Landscaped Areas	193,920 SF	(4.45 acres)

All graphics and designs on this sheet are property of Boise Landscape Design. This design shall not be copied in any way without permission of Boise Landscape Design.

NOTE: THE LOCATION OF PLANT MATERIAL AND LANDSCAPE ELEMENTS IS APPROXIMATE. THE CONTRACTOR WILL DETERMINE THE OPTIMAL LAYOUT OF THE PLANTER BEDS AND PLACEMENT OF PLANT MATERIAL. PLANT SUBSTITUTES MAY BE REQUIRED IF THE PLANT SELECTION IS UNAVAILABLE.

N

0' 15' 30' 120'

SCALE: 1" = 30'-0"

STATE OF IDAHO
BRIAN J. BENTLER
LA-16878
LICENSED LANDSCAPE ARCHITECT
12/15/23

CALVARY CHAPEL STAR

IDAHO 811
CONTACT DIGLINE
48 HOURS
BEFORE DIGGING
1-800-342-1585 (or 811)

REVISIONS:

NO.	DATE:	DESCRIPTION:

BOISE LANDSCAPE DESIGN
7633 W PRINCE ST
BOISE, ID 83714
(425) 466-1937
BLD

CALVARY CHAPEL STAR

CONCEPTUAL LANDSCAPE PLAN

NOT FOR CONSTRUCTION

FLOATING FEATHER & HWY 16
STAR, IDAHO

SCALE:	1" = 30'-0"
DRAWN BY:	B. BENTLER
CHECKED BY:	B. BENTLER
DATE:	12/15/23
DATE OF PRINT:	12/15/23

SHEET NUMBER: L-4

SOUTHWEST CORNER - MAIN ENTRY

NORTHWEST CORNER

WEST FACADE

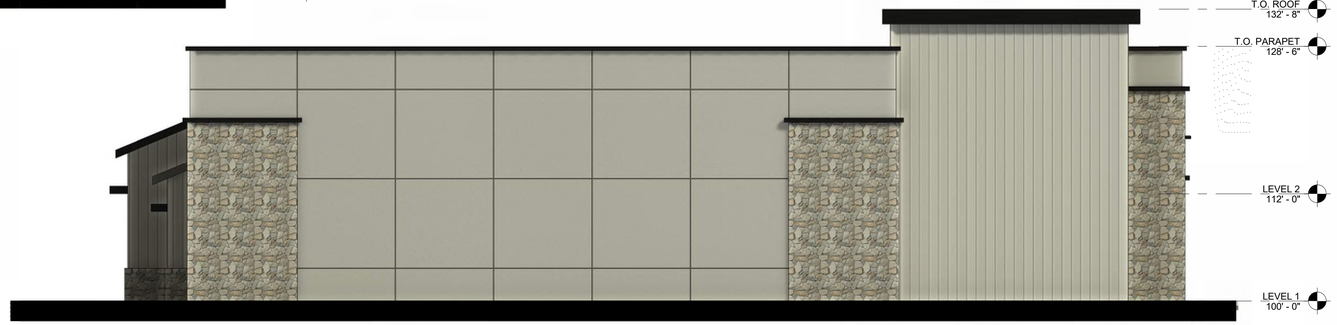
ENTRY CORNER PLAZA

SOUTH FACADE ALONG SIDEWALK TO PLAZA ENTRY

CSHQA

1 FRONT ELEVATION
1/8" = 1'-0"

2 LEFT ELEVATION
1/8" = 1'-0"



3 RIGHT ELEVATION
1/8" = 1'-0"

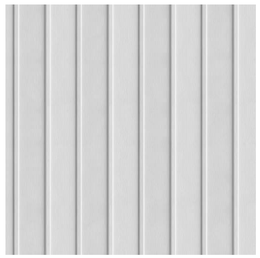
4 REAR ELEVATION
1/8" = 1'-0"

Scale: 1/8" = 1'-0"

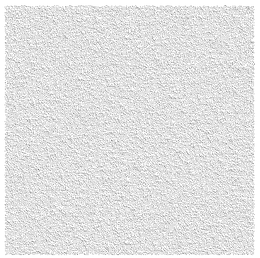
23310

EXTERIOR ELEVATIONS

METAL
ANODIZED ALUMINUM
FINISH: BLACK OR DARK BRONZE



SIDING
BOARD AND BATTEN
FINISH: WHITE



SIDING
STUCCO
FINISH: WHITE, MEDIUM SAND

SOFFIT
WESTERN RED CEDAR
FINISH: CLEAR SEALER

STONE
DRESSED FIELDSTONE
COLOR: ECHO RIDGE

CENTRAL DISTRICT HEALTH

Ada County Transmittal

Division of Community and Environmental Health

Return to:

- ☐ ACZ
- ☐ Boise
- ☐ Eagle
- ☐ Garden City
- ☐ Meridian
- ☐ Kuna
- ☑ Star

Rezone/OTD # RZ-23-04 / DA-23-06

Conditional/Accessory Use # CU-23-07

Preliminary / Final / Short Plat _____

Development Name/Section City of Star CDH File # _____

☐ 1. We have No Objections to this Proposal.

☐ 2. We recommend Denial of this Proposal.

☐ 3. Specific knowledge as to the exact type of use must be provided before we can comment on this Proposal.

☐ 4. Before we can comment concerning individual sewage disposal, we will require more data concerning the depth of:
☐ high seasonal ground water ☐ waste flow characteristics
☐ bedrock from original grade ☐ other _____

☐ 5. This office may require a study to assess the impact of nutrients and pathogens to receiving ground waters and surface waters.

☑ 6. After written approvals from appropriate entities are submitted, we can approve this proposal for:
☑ central sewage ☐ community sewage system ☐ community water well
☐ interim sewage ☑ central water
☐ individual sewage ☐ individual water

☑ 7. The following plan(s) must be submitted to and approved by the Idaho Department of Environmental Quality:
☑ central sewage ☐ community sewage system ☐ community water
☐ sewage dry lines ☑ central water

☑ 8. Infiltration beds for storm water disposal are considered shallow injection wells. If they are not in the City of Boise or ACHD right-of-way, an application and fee per well, vicinity map and construction plans must be submitted to CDH.

☐ 9. If restroom or plumbing facilities are to be installed, then a sewage system MUST be installed to meet Idaho State Sewage Regulations.

☐ 10. An accessory use application, fee, detailed site plan and floor plans must be submitted to CDH for review.

☐ 11. Land development application, fee per lot, test holes and full engineering report is required.

☐ 12. CDH makes no guarantee a septic permit will be issued on the split off lot. A speculative site evaluation is recommended.

☐ 13. We will require plans be submitted for a plan review for any:
☐ food establishment ☐ swimming pools or spas ☐ child care center
☐ beverage establishment ☐ grocery store

☐ 14. _____

_____

_____

_____ Reviewed By: _____ Date: 12/15/23

Your Safety • Your Mobility
Your Economic Opportunity

IDAHO TRANSPORTATION DEPARTMENT
P.O. Box 8028 • Boise, ID 83707-2028
(208) 334-8300 • itd.idaho.gov

January 8, 2024

Shawn Nickel
Planning Director and Zoning Administrator
City of Star
10769 West State Street
Star, Idaho 83669

VIA EMAIL

Development Application	**CU-23-08**
Project Name	**Calvary Chapel Star**
Project Location	West side of SH-16 at approx. MP 101.02
Project Description	Total of 84,200 sf of retail to include Church Facilities, Storage Facility, Office Space and Coffee Shop.
Applicant	James Marsh

The Idaho Transportation Department (ITD) reviewed the referenced application(s) and has the following comments:

1. This project abuts the State Highway system.
2. The site plan provided with the referenced application indicates a Storage Facility, Retail/Coffee Shop and Retail/Office Space is planned. Due to the traffic volume that these commercial facilities generate, impacts to the State Highway system may be anticipated. Based on IDAPA 39.03.42 section 400.03.f, if new volume of trips equal or exceed 100 trips during peak hours, a Traffic Impact Study (TIS) is warranted.
3. Please provide a TIS and ensure the TIS demonstrates each phase of the development and the impacts that each phase will cause.

If you have any questions, you may contact me at (208)334-8337.

Sincerely,

Niki Benyakhlef

Niki Benyakhlef
Development Services Coordinator
Niki.Benyakhlef@itd.idaho.gov

LEGAL NOTICE

PUBLIC HEARING

Notice is hereby given that the Star City Council will hold a Public Hearing on January 16, 2024 at the Star City Hall, 10769 W. State Street, Star, Idaho at 7:00 pm, or as soon thereafter as the matter may be heard.

Application:	Keely Rezone - Live/Work
Files #'s	RZ-23-04 Rezone
	DA-23-06 Development Agreement
	CU-23-07 Conditional Use Permit
Representative:	Clint Keely
Owner:	Clint & Jill Keely

Action: The Applicant is requesting approval of a Rezone from Residential (R-1) to Central Business District (CBD-DA), Development Agreement, and a Conditional Use Permit for two 4700 sq. ft. Live/Work units. The property is located at 856 Star Road in Star, Idaho, and consists of .909 acres.

Property Location: The subject property is located at 856 Star Road. Ada County Parcel No. R1842701822.

Information/Comments: A complete copy of the applications are available at City Hall for public review. The City invites all interested parties to attend the meeting and provide public testimony. Written comments will be accepted by the City up to 2 days prior to the date of the public hearing.

Services for persons with disabilities may be made available if notice is received in advance of the meeting by calling Star City Hall at (208) 286-7247.

Shawn L. Nickel
Planning Director and Zoning Administrator
snickel@staridaho.org

December 20, 2023 460863

CITY OF STAR

LAND USE STAFF REPORT MEMO

TO: Mayor & Council

FROM: City of Star Planning Department
MEETING DATE: **January 16, 2024 – PUBLIC HEARING**
FILE(S) #: RZ-23-04 – Rezone
DA-23-06 – Development Agreement
CU-23-07 – Conditional Use Permit – Keely

OWNER/APPLICANT/REPRESENTATIVE

Applicant/Owner
Clint and Jill Keely
518 S. Star Roady
Star, Idaho 83669

REQUEST

Request: The Applicant is requesting approval of a Rezone (R-1 to CBD), a Development Agreement and Conditional Use Permit for two, 4700 square foot Live/Work units. The property is located at 856 S. Star Road, Star, Idaho and consists of .909 acres.

SUMMARY

This application is being tabled to February 6, 2024 to allow additional time for ACHD to provide an updated review letter.

LEGAL NOTICE
PUBLIC HEARING

Notice is hereby given that the Star City Council will hold a Public Hearing on **October 3, 2023** at the Star City Hall, 10769 W. State Street, Star, Idaho at 7:00 pm, or as soon thereafter as the matter may be heard.

Application: Starpointe Subdivision Phase Two
Files #'s AZ-23-03 Annexation/Zoning
DA-21-09 (MOD) Development Agreement Modification
PP-23-02 Preliminary Plat
PR-23-02 Private Street
PP-21-10 (Amended) Amended Preliminary Plat Starpointe Subdivision

Representative: Teller Bard, Kimley-Horn

Owner/Applicant: W. West Development LLC & GHW Holdings, LLC/Criterion Land Management, LLC

Action: The Applicant is requesting approval of an Annexation and Zoning (R-4), a Development Agreement Modification, a Preliminary Plat for a proposed residential subdivision consisting of 12 residential lots and 2 common lots, a private street and an amendment to the original Starpointe Subdivision Preliminary Plat. The property is located at 6777 and 6825 N. Star Road in Star, Idaho, and consists of 3.08 acres with a proposed density of 3.08 dwelling units per acre.

Property Location: The subject property is generally located on the west side of N. Star Road between Hwy 20/26 (Chinden Blvd) and W. Joplin Road. Ada County Parcel No's. S0419449020 & S0419417750.

Information/Comments: A complete copy of the applications are available at City Hall for public review. The City invites all interested parties to attend the meeting and provide public testimony. Written comments will be accepted by the City up to 2 days prior to the date of the public hearing.

Services for persons with disabilities may be made available if notice is received in advance of the meeting by calling Star City Hall at (208) 286-7247.

Shawn L. Nickel
Planning Director and Zoning Administrator
snickel@staridaho.org

CITY OF STAR

STAFF MEMO

TO: Mayor & Council

FROM: Shawn L. Nickel, Planning Director and Zoning Administrator

MEETING DATE: **January 16, 2024 – PUBLIC HEARING (tabled from December 5, 2023)**

FILE(S) #: AZ-23-03 Annexation/Zoning
DA-21-09 (MOD) Development Agreement Modification
PP-23-02 Preliminary Plat for **Starpointe Subdivision Phase Two**
PR-23-02 Private Street
PP-21-10 (Amended) Amended Preliminary Plat Starpointe Subdivision

OWNER/APPLICANT/REPRESENTATIVE

Property Owner/Applicant
W. West Development, LLC
Criterion Land Management, LLC
7629 E. Pinnacle Peak Road, Ste. 110
Scottsdale, AZ 85255

Representative:
Teller Bard
Kimley-Horn & Associates
950 W. Bannock Street, Ste. 1100
Boise, ID 83702

REQUEST

Request: The Applicant is requesting approval of an Annexation and Zoning (R-4), a Development Agreement Modification, a Preliminary Plat for a proposed residential subdivision consisting of 12 residential lots and 2 common lots, a private street and an amendment to the original Starpointe Subdivision Preliminary Plat. The property is located at 6777 and 6825 N. Star Road in Star, Idaho, and consists of 3.08 acres with a proposed density of 3.89 dwelling units per acre.

STAFF DISCUSSION

The applicant has requested a postponement of this application until February 20, 2024 in order to continue to work with ACHD on roadway issues.

CITY OF STAR

ENGINEER DEPAPTMENT MEMO

TO: Mayor Chadwick & City Clerk Jacob Qualls
FROM: Tim Clark, P.E., Assistant City Engineer
RE: **Pavilion Park Bathroom Utilities, Pad, and Connections Cost $99,947.48**

ACTION

The City of Star purchased a prefabricated bathroom from CXT on September 21, 2023. This will provide a complete bathroom for the Pavilion Park. In preparation to receive the bathroom, scheduled to be delivered in mid to late March, the site must be prepared with utility connections (sewer, water, and electrical) and a pad must be constructed on which the bathroom will sit. In addition, the City needs to hire a contractor to make the necessary connections to the bathroom when it is delivered.

In accordance with state statues, we reached out to the following contractors to solicit quotes for this work.

- Titan Excavation and Construction (TEC)
- Schmidt Construction
- Superior Construction
- Treasure Valley Excavation
- Bivan's Construction

Of these five companies, we only received a quote from TEC. TEC provided a quote of **$99,947.48**. Treasure Valley Excavation and Bivan's Construction were unable to complete the work due to the depth of the connection to the sewer mainline. Schmidt Construction and Superior Construction were unwilling to bid this project due to it's relatively small size. Attached is the quote from TEC to complete this work.

We are seeking the Council's approval to hire TEC to complete this utility and site preparation work for the bathroom.

Tim Clark, P.E.
1/8/2024

2789 S Liberty St.
Boise, ID 83709
O: 208.362.1991
www.TECidaho.com

PROPOSAL

REVISION: 1

ADDENDUMS REVIEWED: 0

This proposal for work to be performed defined within scope of work is valid for **30 days** from date issued to recipient.

CONTRACTOR INFORMATION		SUBCONTRACTOR INFORMATION
Contractor:	**City of Star**	**Titan Excavation & Construction, Inc.**
Project Name:	**Pavilion Park Restroom**	**Public Work License # 026207-A-4**
Project Address:	**11380 W Hidden Brook Dr, Star, ID**	**Contractor License # RCE-35625**
	tclark@staridaho.org	info@tecidaho.com

Scope of Work: ***Proposal Based off of the "Updated Site Plan" provided by Tim Clark on 10.04.23. Geo-Tech Report not available.***
NOTE - FRAC Tank not included. All dewatering will be discharged into the open field.
NOTE - Procurement and setting of the CXT restroom - by others.
NOTE - Material & Fuel surcharges may apply.

GCs			***Quantities***	**$**	**9,903.92**	
Mobilzation	up to:	1	EA			
Road Closure/Traffic Control	up to:	3	DAYS			
Permits & Inspections	up to:	1	EA			
SITE DEMO			***Quantities***	**$**	**2,756.54**	
Sawcut	up to:	1	LS			
Demo Asphalt	up to:	75	SF			
Demo Concrete Curb & Gutter	up to:	10	LF			
Demo Concrete	up to:	50	SF			
Clear & Grub	up to:	250	SF			
UTILITIES			***Quantities***	**$**	**88,958.20**	
WATER				$	9,688.11	$ 50.20 /LF
1.5" Water Line w/ Permit & Inspection	up to:	193	LF			
Tie-ins/Taps 1.5"	up to:	1	EA			
Bedding Sand	up to:	21	CY			
Tie-in to CXT Restroom	up to:	1	EA			
SEWER				$	60,880.24	$ 195.76 /LF
4" Sewer Line	up to:	241	LF			
4" Clean Out	up to:	4	EA			
6" Sewer	up to:	70	LF			
6" Clean Out	up to:	1	EA			
Bedding Materials	up to:	69	CY			
Tie-in to Existing Sewer Line	up to:	1	EA	16-foot Deep		
Tie-in to CXT Restroom	up to:	1	EA			
ELECTRICAL / COMM - EXC & BF				$	18,389.85	$ 12.39 /LF
Electrical	up to:	115	LF			
Bedding Materials	up to:	13	CY			
Fiber	up to:	740	LF	Fiber Optic cable NOT INCLUDED		
ROYAL ELECTRIC Hired by the City of Star directly		1	LS	$	(7,800.00)	

Initials _____

SITE PREP		***Quantities***	**$**	**5,378.56**
Concrete Sidewalk Prep	up to:	50 SF		
3/4" Road Mix (4" Thick)	up to:	1 CY		
Curb & Gutter Prep	up to:	10 LF		
3/4" Road Mix (6" thick)	up to:	1 CY		
Concrete Pour	up to:	1 LS		
Heavy Asphalt Prep (3" thick)	up to:	75 SF		
3/4" Road Mix (4" thick)	up to:	1 CY		
Import Fill (18" thick)	up to:	4 CY		
Haul-Off	up to:	6 CY		
Asphalt Patch Back (3" thick)	up to:	1 LS		
Landscape Repair	up to:	1 LS		
STRUCTURAL EXC & BACKFILL		***Quantities***	**$**	**750.26**
Slab Prep	up to:	467 SF		
3/4" Road Mix (4" thick)	up to:	10 CY		
		Base Bid Value:	**$**	**99,947.48**

Owner/Contractor is responsible for verifying quantities.

Exclusions from Titan Excavation's Scope of Work:

City of Star is responsible for but not limited to the following items:

Private utility locates, Winterization, Construction Entrance, Road Plates, Tree Protection, Tree root removal, Precast concrete, Trash Enclosures, Parking lot prep, Repair cracked/chipped concrete, Damage to stemwalls, Utility trenching and backfill outside of scope, Utility installation outside of scope, Excavation at utility crossings, Disconnection/relocation of utilities, Damage to utilities not marked or known by Idaho Digline, Hazardous material, Additional haul-off, Hardrock Excavation, Supply and/or install of: Foundation Coatings/Waterproofing, Foundation Insulation, Vapor barrier, Fabric/Geo-grid for soil stabilization, Additional/Engineered Fill.

Company Proposal

Titan Excavation & Construction, Inc. submits this Base Bid for the amount of **$ 99,947.48**
(Ninety-NineThousand, Nine Hundred Forty-Seven Dollars and 48/100)

**All credit card payments will result in a 4.75% service charge fee for processing.*

Titan Excavation and Construction, Inc.

By:	**Abel Viramontes, Jr.**		**Project Manager**	**11.28.23**
	Name	Signature	Title	Date

Contractor Acceptance

By:

	Name	Signature	Title	Date