



Town Council Meeting

March 25, 2024 at 6:00 PM
Howey-in the-Hills Town Hall
101 N. Palm Ave.,
Howey-in-the-Hills, FL 34737

Join Zoom Meeting:

<https://us06web.zoom.us/j/83623171459?pwd=ZRFKj0afi4yOWFyf1ANJYD8CLgDBXB.1>

Meeting ID: 836 2317 1459 | Passcode: 472613

AGENDA

Call the Town Council Meeting to order
Pledge of Allegiance to the Flag
Invocation by Councilor Reneé Lannamañ

ROLL CALL

Acknowledgement of Quorum

AGENDA APPROVAL/REVIEW

CONSENT AGENDA

Routine items are placed on the Consent Agenda to expedite the meeting. If Town Council/Staff wish to discuss any item, the procedure is as follows: (1) Pull the item(s) from the Consent Agenda; (2) Vote on the remaining item(s); and (3) Discuss each pulled item and vote.

1. The approval of the minutes and ratification and confirmation of all Town Council actions at the February 21, 2024 Town Council Workshop.
2. The approval of the minutes and ratification and confirmation of all Town Council actions at the February 26, 2024 Town Council Meeting.
3. The approval of the minutes and ratification and confirmation of all Town Council actions at the February 27, 2024 Town Council Workshop.
4. The approval of the minutes and ratification and confirmation of all Town Council actions at the March 12, 2024 Town Council Workshop.

PUBLIC HEARING

5. Consideration and Approval: (second reading) **Ordinance 2024-001 Mission Rise PUD Rezoning**

AN ORDINANCE OF THE TOWN OF HOWEY-IN-THE-HILLS, FLORIDA, PERTAINING TO LAND USE; REZONING FOUR PARCELS OF LAND LOCATED GENERALLY IN THE SOUTHWEST PART OF THE TOWN AND COMPRISING THE PROPOSED PLANNED UNIT DEVELOPMENT TO BE KNOWN AS "MISSION RISE" ON AN L-SHAPED AGGREGATE OF

ABOUT 243.3 ACRES WEST AND SOUTH OF THE DEVELOPMENT KNOWN AS “THE RESERVE AT HOWEY-IN-THE-HILLS” (NOW ALSO KNOWN AS “HILLSIDE GROVES”), WITH PART OF THE LANDS BEING SOUTH OF NUMBER TWO ROAD AND EAST OF SILVERWOOD LANE AND OTHER PARTS OF THE LAND BEING WEST OF STATE ROAD 19 AND SOUTH OF REVELS ROAD, THE FOUR PARCELS BEING IDENTIFIED WITH LAKE COUNTY PROPERTY APPRAISER ALTERNATE KEY NUMBERS 1780616, 1780811, 1030421, AND 3835991; AMENDING THE TOWN’S ZONING MAP TO APPROVE PLANNED-UNIT-DEVELOPMENT (PUD) ZONING FOR THE PARCELS; PROVIDING FINDINGS OF THE TOWN COUNCIL; APPROVING PUD ZONING FOR THE PARCELS, WITH DEVELOPMENT TO BE GOVERNED BY A DEVELOPMENT AGREEMENT AND A REVISED CONCEPTUAL LAND USE PLAN AND BY THE TOWN’S LAND DEVELOPMENT CODE AND OTHER TOWN ORDINANCES GOVERNING THE DEVELOPMENT OF LAND; REPEALING PRIOR ORDINANCES AND SUPERSEDING CONFLICTING ORDINANCES; PROVIDING FOR SEVERABILITY, CODIFICATION AND AN EFFECTIVE DATE.

- Mayor MacFarlane will read the Ordinance title
- Town Planner will explain Ordinance 2024-001
- Mayor MacFarlane will open Public Comment for this item only.
- Mayor MacFarlane will close Public Comment.
- Motion to approve Ordinance
- Council Discussion
- Roll Call Vote

OLD BUSINESS

NEW BUSINESS

6. Consideration and Approval: (First Reading) Ordinance 2024-004 Fireworks Regulations

AN ORDINANCE OF THE TOWN OF HOWEY-IN-THE-HILLS, FLORIDA, PERTAINING TO FIREWORKS; CREATING CHAPTER 93 OF THE TOWN’S CODE OF ORDINANCES, ENTITLED “FIREWORKS”; DECLARING FINDINGS OF THE TOWN COUNCIL; PROVIDING DEFINITIONS; SPECIFYING UNLAWFUL ACTS AND MEANS OF ENFORCEMENT; SPECIFYING THE CONDITIONS AND REQUIREMENTS UNDER WHICH THE TOWN MAY GRANT A PERMIT FOR A PUBLIC DISPLAY OF FIREWORKS; PROVIDING FOR SEVERABILITY, CONFLICTS AMONG ORDINANCES, CODIFICATION, AND AN EFFECTIVE DATE.

- Mayor MacFarlane will read the Ordinance title
- Town Administrator will explain Ordinance 2024-004
- Mayor MacFarlane will open Public Comment and Questions for this item only.
- Mayor MacFarlane will close Public Comment.
- Motion to approve Ordinance 2024-004
- Council Discussion
- Roll Call Vote

7. Discussion: Number Two Road Letter

DEPARTMENT REPORTS

8. Town Manager

COUNCIL MEMBER REPORTS

9. Mayor Pro Tem Gallelli

- 10. Councilor Lehning
- 11. Councilor Miles
- 12. Councilor Lannamañ
- 13. Mayor MacFarlane

PUBLIC COMMENTS

Any person wishing to address the Mayor and Town Council and who is not on the agenda is asked to speak their name and address. Three (3) minutes is allocated per speaker.

ADJOURNMENT

To Comply with Title II of the Americans with Disabilities Act (ADA):

Qualified individuals may get assistance through the Florida Relay Service by dialing 7-1-1. Florida Relay is a service provided to residents in the State of Florida who are Deaf, Hard of Hearing, Deaf/Blind, or Speech Disabled that connects them to standard (voice) telephone users. They utilize a wide array of technologies, such as Text Telephone (TTYs) and ASCII, Voice Carry-Over (VCO), Speech to Speech (STS), Relay Conference Captioning (RCC), CapTel, Voice, Hearing Carry-Over (HCO), Video Assisted Speech to Speech (VA-STTS) and Enhanced Speech to Speech.

Howey Town Hall is inviting you to a scheduled Zoom meeting.

Topic: **Town Council Meeting**

Time: **Mar 25, 2024 06:00 PM Eastern Time (US and Canada)**

Join Zoom Meeting

<https://us06web.zoom.us/j/83623171459?pwd=ZRFKj0afi4yOWFyf1ANJYD8CLgDBXB.1>

Meeting ID: 836 2317 1459

Passcode: 472613

Dial by your location

+1 646 558 8656 US (New York)

+1 346 248 7799 US (Houston)

Meeting ID: 836 2317 1459

Passcode: 472613

Find your local number: <https://us06web.zoom.us/j/kupDPUOzx>

Please Note: In accordance with F.S. 286.0105: Any person who desires to appeal any decision or recommendation at this meeting will need a record of the proceedings, and that for such purposes may need to ensure that a verbatim record of the proceedings is made, which includes the testimony and evidence upon which the appeal is based. The Town of Howey-in-the-Hills does not prepare or provide this verbatim record. Note: In accordance with the F.S. 286.26: Persons with disabilities needing assistance to participate in any of these proceedings should contact Town Hall, 101 N. Palm Avenue, Howey-in-the-Hills, FL 34737, (352) 324-2290 at least 48 business hours in advance of the meeting.



Town Council Workshop
February 21, 2024 at 3:00 PM
Howey-in the-Hills Town Hall
101 N. Palm Ave.,
Howey-in-the-Hills, FL 34737

MINUTES

Mayor MacFarlane called the Town Council Meeting to order at 3:02 p.m. Mayor MacFarlane led the attendees in the Pledge of Allegiance to the Flag. Councilor Reneé Lannamañ delivered an invocation.

ROLL CALL

Acknowledgement of Quorum

MEMBERS PRESENT:

Councilor Reneé Lannamañ | Councilor David Miles | Councilor George Lehning | Mayor Pro Tem Marie V. Gallelli | Mayor Martha MacFarlane

STAFF PRESENT:

Sean O’Keefe, Town Manager | Tom Wilkes, Town Attorney | John Brock, Town Clerk

NEW BUSINESS

1. Discussion: **Land Development Code (LDC) Amendment**

Town Attorney, Tom Wilkes, led a lengthy discussion on amending the Town’s Land Development Code. The Town Council reviewed LDC Policy 1.00.00 through Policy 2.02.14.

The Town Council selected Tuesday February 27, 2024, from 2:00p.m. to 4:00 p.m. for their next workshop date.

PUBLIC COMMENTS

Any person wishing to address the Mayor and Town Council and who is not on the agenda is asked to speak their name and address. Three (3) minutes is allocated per speaker.

Tim Everline, 1012 N Lakeshore Blvd. – Mr. Everline emphasized that questions related to the Lake Hills development were very important as that development was coming before the Planning and Zoning Board later that week.

ADJOURNMENT

There being no further business to discuss, a motion was made by Councilor Lehning to adjourn the meeting; Councilor Lannamañ seconded the motion. Motion was approved unanimously by voice vote.

The Meeting adjourned at 5:05 p.m. | **Attendees: 11**

Mayor Martha MacFarlane

ATTEST:

John Brock, Town Clerk

DRAFT



Town Council Meeting
February 26, 2024 at 6:00 PM
Howey-in the-Hills Town Hall 101
N. Palm Ave., Howey-in-the-Hills,
FL 34737

MINUTES

Mayor MacFarlane called the Town Council Meeting to order at 6:00 p.m. Mayor MacFarlane led the attendees in the Pledge of Allegiance to the Flag. Councilor Reneé Lannamañ delivered an invocation.

ROLL CALL

Acknowledgement of Quorum

MEMBERS PRESENT:

Councilor Reneé Lannamañ | Councilor David Miles | Councilor George Lehning | Mayor Pro Tem Marie V. Gallelli | Mayor Martha MacFarlane

STAFF PRESENT:

Sean O’Keefe, Town Manager | Tom Harowski, Town Planner (via Zoom) | Tom Wilkes, Town Attorney | Morgan Cates, Public Works Director | John Brock, Town Clerk

AGENDA APPROVAL/REVIEW

Motion made by Councilor Miles to remove item #6 (Consideration and Approval: Removal of Board Member Ellen Yarckin from the Planning and Zoning Board) from the meeting’s agenda. There was no second for this motion.

Motion made by Mayor Pro Tem Gallelli to approve the meeting’s agenda and to move item #6 (Consideration and Approval: Removal of Board Member Ellen Yarckin from the Planning and Zoning Board) to appear directly after the Consent Agenda; seconded by Councilor Lehning. Motion approved by voice vote.

Voting

Yea: Councilor Lannamañ, Councilor Lehning, Mayor Pro Tem Gallelli, Mayor MacFarlane

Nay: Councilor Miles

CONSENT AGENDA

Routine items are placed on the Consent Agenda to expedite the meeting. If Town Council/Staff wish to discuss any item, the procedure is as follows: (1) Pull the item(s) from the Consent Agenda; (2) Vote on the remaining item(s); and (3) Discuss each pulled item and vote.

1. The approval of the minutes and ratification and confirmation of all Town Council actions at the January 22, 2024 Town Council Meeting.
2. The approval of the minutes and ratification and confirmation of all Town Council actions at the January 22, 2024 Town Council Workshop Meeting.

Motion made by Councilor Miles to approve the Consent Agenda; seconded by Mayor Pro Tem Gallelli. Motion approved unanimously by voice vote.

Voting

Yea: Councilor Lannamañ, Councilor Miles, Councilor Lehning, Mayor Pro Tem Gallelli, Mayor MacFarlane

Nay: None

NEW BUSINESS *(Item #6 moved to directly after the Consent Agenda during Agenda Approval)*

6. Consideration and Approval: **Removal of Board Member Ellen Yarckin from the Planning and Zoning Board**

Mayor MacFarlane introduced and explained this agenda item. Mayor MacFarlane stated that this item was added to the meeting's agenda due to several complaints from town residents about the way Ms. Yarckin acted during the previous (2/12/2024) Town Council meeting. Mayor MacFarlane stated that, during the Asma Parcel agenda item, Ms. Yarckin was disruptive, yelling from the back of the Town Council chamber, defaming the Town Planner, getting in the faces of the developers, and calling the developers and the Town Planner "liars". Mayor MacFarlane stated that acting in this manner was in direct violation of the Town's Code of Core Values and Civility. Mayor MacFarlane stated that this type of behavior was not appropriate and did not reflect well on the Town.

Mayor Pro Tem Gallelli stated that the behavior was inappropriate and out of place. Mayor Pro Tem Gallelli asked Ms. Yarckin to speak and possibly apologize for her behavior during the previous meeting.

Ms. Yarckin apologized for being out of line. Ms. Yarckin stated that she did not believe that the Town's meeting followed Robert's Rules of Order and that she was under a lot of stress in her life. Ms. Yarckin stated that she wants stricter rules in the meetings.

Mayor MacFarlane opened Public Comment for this item only.

Carol Roque, 505 Mission Ln. – Mrs. Roque stated that she was at the meeting and that Tom Harowski's (the Town Planner) behavior was reprehensible. Mrs. Roque stated that Mr. Harowski intimidated and glared at Ms. Yarckin after she called him a liar and thought that Mr. Harowski should apologize publicly.

Peter Tuite, 300 E Croton Way – Mr. Tuite spoke on this issue.

Allan Hayes, 111 Island Dr. – Mr. Hayes stated that he was embarrassed for both Ms. Yarckin and Mr. Harowski.

Andi Everline, 1012 N. Lakeshore Blvd. – Mrs. Everline read out loud a letter from Suong Miles in support of Ellen Yarckin.

Frances O'Keefe Wagler, 409 W Central Ave. – Mrs. Wagler stated that she thought everyone would like to scream out loud at Tom Harowski because he said he could not remember what the exact count of the vote was at the September Planning and Zoning Meeting. Mrs. Wagler also thinks that Mr. Harowski should change the order of items that he writes in his staff report. Mrs. Wagler stated that she

wants Mr. Harowski to state what the Planning and Zoning recommendation is at the top of his staff reports.

PUBLIC HEARING

3. Consideration and Approval: (transmittal hearing) **Ordinance 2023-013 - Comprehensive Plan Amendment - Future Land Use Element**

Mayor MacFarlane read Ordinance 2023-013 out loud by title only:

AN ORDINANCE OF THE TOWN OF HOWEY-IN-THE-HILLS, FLORIDA, PERTAINING TO COMPREHENSIVE PLANNING; AMENDING THE FUTURE LAND USE ELEMENT (FLUE) OF THE TOWN'S ADOPTED COMPREHENSIVE PLAN PURSUANT TO SECTION 163.3184 OF FLORIDA STATUTES; DESCRIBING THE ANALYSIS AND REEVALUATION UNDERTAKEN BY TOWN COUNCIL REGARDING RESIDENTIAL DENSITIES AND LOT SIZES IN POST-2010 RESIDENTIAL DEVELOPMENT IN THE TOWN; AMENDING CERTAIN FLUE POLICIES TO MODIFY THE REQUIREMENTS IN THE "VILLAGE TOWN CENTER" AND "MEDIUM DENSITY RESIDENTIAL" LAND-USE DESIGNATIONS REGARDING DWELLING UNITS PER ACRE, LOT SIZES, AND OPEN SPACE; AMENDING OTHER RELATED REQUIREMENTS FOR THE TWO LAND-USE DESIGNATIONS; AMENDING POLICY 1.2.6 OF THE FUTURE LAND USE ELEMENT TO SPECIFY AREAS WHERE THE TOWN MAY ALLOW LOTS SMALLER THAN ONE-FOURTH ACRE (10,890 SQ. FT.); PROVIDING FOR CODIFICATION, SEVERABILITY, AND AN EFFECTIVE DATE.

Mayor MacFarlane asked the Town Attorney, Tom Wilkes, to introduce and explain this item. Mr. Wilkes reviewed many of the recommended changes in the proposed amended Comprehensive Plan. Mr. Wilkes stated that he believed that the Councilors had come to a consensus that they wanted a maximum building height of 35' (while removing any height reference to stories) and that he would make those changes uniformly throughout the proposed Comprehensive Plan. Mr. Wilkes stated he would also ensure that references to ¼ of an acre requirements would consistently list 10,890 square feet instead of 10,800 square feet.

Mr. Wilkes reviewed recommendations for changing the Village Mixed Use (VMU) requirements for Open Space and Parks and Recreation Areas. The minimum acreage of open space that could count as park space was set to 1/2 acre.

Mr. Wilkes referenced Policy 1.2.6 in which he recommends that this policy only applies to the sale of 10 lots or more. Town Planner, Tom Harowski, suggested that, in Policy 1.2.6, Section (i), rather than referencing the Town Center Commercial District, it should reference the Town Center Overlay District.

Mr. Wilkes explained that the proposed amendments to the Comprehensive Plan do not create any entitlements for landowners; they create restrictions on what future Town Councils can allow.

Mayor MacFarlane opened Public Comment for this item only.

Frances O'Keefe Wagler, 409 W Central Ave. – Mrs. Wagler had questions about the maps included in the Comprehensive Plan.

Eric Gunesch, 448 Avila Pl. – Mr. Gunesch had questions about the proposal.

Peter Tuite, 300 E Croton Way – Mr. Tuite would like to see the packet and agenda for the Town Council meetings to be sent out at least a week or so before the meetings.

Tim Everline, 1012 N Lakeshore Blvd. – Mr. Everline had questions about Policy 1.1.2.

Mayor MacFarlane closed Public Comment.

Motion made by Councilor Miles to approve the transmittal of Ordinance 2023-013 with the amendments that Tom Wilkes provided and change of the word of “Commercial” to “Overlay” on page I-39; seconded by Mayor Pro Tem Gallelli. Motion approved unanimously by roll-call vote.

Voting

Yea: Councilor Lannamañ, Councilor Miles, Councilor Lehning, Mayor Pro Tem Gallelli, Mayor MacFarlane

Nay: None

4. Discussion: (second reading) **Ordinance 2024-001 Mission Rise PUD Rezoning**

AN ORDINANCE OF THE TOWN OF HOWEY-IN-THE-HILLS, FLORIDA, PERTAINING TO LAND USE; REZONING FOUR PARCELS OF LAND LOCATED GENERALLY IN THE SOUTHWEST PART OF THE TOWN AND COMPRISING THE PROPOSED PLANNED UNIT DEVELOPMENT TO BE KNOWN AS “MISSION RISE” ON AN L-SHAPED AGGREGATE OF ABOUT 243.3 ACRES WEST AND SOUTH OF THE DEVELOPMENT KNOWN AS “THE RESERVE AT HOWEY-IN-THE-HILLS” (NOW ALSO KNOWN AS “HILLSIDE GROVES”), WITH PART OF THE LANDS BEING SOUTH OF NUMBER TWO ROAD AND EAST OF SILVERWOOD LANE AND OTHER PARTS OF THE LAND BEING WEST OF STATE ROAD 19 AND SOUTH OF REVELS ROAD, THE FOUR PARCELS BEING IDENTIFIED WITH LAKE COUNTY PROPERTY APPRAISER ALTERNATE KEY NUMBERS 1780616, 1780811, 1030421, AND 3835991; AMENDING THE TOWN’S ZONING MAP TO APPROVE PLANNED-UNIT-DEVELOPMENT (PUD) ZONING FOR THE PARCELS; PROVIDING FINDINGS OF THE TOWN COUNCIL; APPROVING PUD ZONING FOR THE PARCELS, WITH DEVELOPMENT TO BE GOVERNED BY A DEVELOPMENT AGREEMENT AND A REVISED CONCEPTUAL LAND USE PLAN AND BY THE TOWN’S LAND DEVELOPMENT CODE AND OTHER TOWN ORDINANCES GOVERNING THE DEVELOPMENT OF LAND; REPEALING PRIOR ORDINANCES AND SUPERSEDING CONFLICTING ORDINANCES; PROVIDING FOR SEVERABILITY, CODIFICATION AND AN EFFECTIVE DATE.

Town Manager, Sean O’Keefe, stated that the applicant for this development had asked for a continuance of this item to the March 11, 2024, Town Council meeting.

Mayor MacFarlane opened Public Comment for this item only. Seeing no public comment, Mayor MacFarlane closed Public Comments.

Motion made by Councilor Lannamañ to continue this item to the March 11, 2024, Town Council meeting; seconded by Councilor Miles. Motion approved unanimously by voice vote.

Voting

Yea: Councilor Lannamañ, Councilor Miles, Councilor Lehning, Mayor Pro Tem Gallelli, Mayor MacFarlane

Nay: None

OLD BUSINESS

5. Consideration and Approval: **Hillside Groves Intersection Roundabout Requirement**

Town Engineer, Don Griffey, spoke about the history of the request for a roundabout on SR 19 in front of the proposed Hillside Groves neighborhood. Mr. Griffey stated that, when he had recommended requiring the developer to construct a roundabout at the SR 19 entrance to Hillside Groves, he was operating off of the assumptions that the cost and time commitment would be equal to or less than the intersection that the developer had already gotten approved by the Florida Department of Transportation (FDOT). Mr. Griffey explained that he was incorrect on both the cost and the time assumptions and that, due to this, he was recommending the Town allow the developer to construct their original FDOT-approved intersection.

Mr. Griffey stated that, when the commercial component of this development moves forward, it will require a re-evaluation of the intersection and FDOT may require a roundabout at that time.

Councilor Miles asked, when the commercial component for the development does move forward, who would have to pay for the improvements to the intersection. Mr. Griffey stated that any required changes to the intersection that the commercial component triggers, the commercial developer would have to cover the cost at that time.

Ayman As-Saidi with Traffic Mobility Consultants, the traffic engineer for the developer, was allowed to speak. Mr. As-Saidi stated that the traffic study that was completed for this project shows that even when the commercial development component of the project comes in, there will still not be enough traffic to require a roundabout or a signal at the intersection.

Town Planner, Tom Harowski, stated that, when the commercial component of this project moves forward, they will be required to complete a new traffic study.

Councilor Miles stated that he had questions about the trips per day each lot in the development was creating in the traffic study, and he stated that he disagreed with the traffic study.

Mayor MacFarlane opened Public Comment for this item only.

Tim Everline, 1012 N. Lakeshore Blvd. – Mr. Everline stated that the Town will need to keep an eye on this and require the future developers to commit to the roundabout earlier in the process.

Eric Gunesch, 448 Avila Pl. – Mr. Gunesch thinks that this development will create a massive amount of traffic on S. Florida Ave.

Frances O’Keefe Wagler, 409 W Central Ave. – Mrs. Wagler stated that the Police Chief had told the Howey Garden and Civic Club years ago, that there were 8,000 cars a day traveling through the town. Mrs. Wagler wants a roundabout construction at the intersection of Palm Ave and Central Ave.

Mayor MacFarlane closed Public Comment for this item.

Councilor Miles made a motion to have the Town Manager negotiate a new traffic fair share agreement with the developer of Hillside Groves to cover future improvements at the proposed intersection. There was no second for this motion.

Motion made by Mayor Pro Tem Gallelli to approve the original FDOT-approved intersection at the SR19 intersection to Hillside Groves, while requiring the Town staff to require the future commercial developer to install a roundabout when their portion of the project comes forward; seconded by Councilor Lannamañ. Motion approved by roll-call vote.

Voting

Yea: Councilor Lannamañ, Councilor Lehning, Mayor Pro Tem Gallelli, Mayor MacFarlane

Nay: Councilor Miles

NEW BUSINESS

6. Consideration and Approval: **Removal of Board Member Ellen Yarckin from the Planning and Zoning Board**

(THIS ITEM WAS MOVED TO DIRECTLY AFTER THE MEETING'S CONSENT AGENDA)

7. Consideration and Approval: **Sara Maude Mason Boardwalk Revitalization Contract**

Public Works Director, Morgan Cates, reviewed the Request for Proposals (RFP) that had been completed to revitalize the Sara Maude Mason Nature Preserve Boardwalk that had been closed since Hurricane Ian. Mr. Cates stated that the Town had received proposals that ranged from \$290,000 to \$1.44 million.

Mr. Cates stated that the staff recommendation was for Dock Pro LLC, who had submitted a bid of \$379,000 (which had included composite decking instead of wood). Mr. Cates stated that the Town currently had only roughly \$300,000 in available Parks Impact Fees.

Councilor Miles stated that, many times when this happens, a purchasing officer will reject all bids and re-bid out the project to try to get better bids. Councilor Miles suggested that the Town might have greater needs than completing this project.

Councilor Miles stated that he thought that the Parks Impact fees would be better spent creating Peak Park.

Councilor Miles made a motion to reject all bids and rebid the project with a smaller scale; Councilor Lehning seconded this motion.

Mayor MacFarlane opened Public Comment for this item only.

Frances O'Keefe Wagler, 409 W Central Ave. – Mrs. Wagler wanted any money set aside for Peak Park to be moved to this project and move forward with this project.

Tim Everline, 1012 N Lakeshore Blvd. – Mr. Everline stated that he knew a lot of people that utilized the Sara Maude Mason Nature preserve boardwalk. Mr. Everline said that he thought the Town should rebuild the entire boardwalk and not just part of it.

Eric Gunesch, 448 Avile Pl. – Mr. Gunesch stated that he did not know the boardwalk existed and he wants it reopened.

Joshua Husemann, 671 Avila Pl. – Mr. Husemann recommended that more members of the public attend the Town's Parks and Recreation Board meetings. Mr. Husemann stated that the Sara Maude Mason Nature Preserve was the only park that wasn't just for children and thinks that the Town should find a way to redo the entire boardwalk.

Mayor MacFarlane closed Public Comment for this item.

Mayor MacFarlane asked about the feasibility of the Town getting a loan to complete the entire project.

Councilor Miles withdrew his original motion.

Councilor Miles stated that he wanted the Town staff to look into borrowing \$225,000, so that the Town could complete the entire boardwalk project.

Motion made by Councilor Miles to have the staff investigate acquiring a loan for \$225,000, with a 5-year term, so that the Town could use future Parks Impact Fees to complete this project now; seconded by Mayor MacFarlane. Motion approved unanimously by roll-call vote.

Voting

Yea: Councilor Lannamañ, Councilor Miles, Councilor Lehning, Mayor Pro Tem Gallelli, Mayor MacFarlane

Nay: None

DEPARTMENT REPORTS

8. Town Manager

Town Manager, Sean O'Keefe, gave an update on the water quality tests that had been completed on the two new wells. The water quality tests that had been completed so far were only preliminary tests. The official samples to be tested will be pulled sometime in March after the test pumping of the well.

Mr. O'Keefe announced that the Town staff had received a grant for \$3.185 million (to be used on wastewater projects) from the Florida Department of Environmental Protection. This will allow the Town to complete a Clean Water Study, and planning, design, and construction for future wastewater projects.

COUNCIL MEMBER REPORTS

9. Mayor Pro Tem Gallelli

Mayor Pro Tem Gallelli stated that she does not want any more money spent on the proposed Peak Park.

Mayor Pro Tem Gallelli stated that she believed that the Events Committee needs a new Chair and she did not want that person to be the Town Manager. Mayor Pro Tem Gallelli also stated that she was not in favor of the Town spending any money on a DJ or live music for the Town's Founders Day Event and would rather see the events money spent on restoring the Town's antique firetruck or retired water tower.

Mayor Pro Tem Gallelli stated that she was not happy with the meeting packets being released on Fridays before meetings and would like to see them released sooner.

10. Councilor Lehning

Councilor Lehning stated that the next Lake-Sumter MPO meeting was to be held on February 28, 2024. Councilor Lehning stated that he would ask about the bypass study request that the Town had submitted.

11. Councilor Miles

Councilor Miles stated that the Town Attorney, Town Manager, and himself were having discussions with the Central Lake CDD about procuring additional wastewater capacity for the Town.

Councilor Miles stated that there was nothing adverse in the coring survey that had been completed at Peak Park and thinks the Town should move forward with constructing a park at that location.

Councilor Miles wants to pursue donation of land from Mr. & Mrs. Lynch, who, for the donation of land, would like to have a park like Peak Park named after them.

12. Councilor Lannamañ

Councilor Lannamañ discussed the cost to restore/paint the Town's retired water tower and its cost associated with that task. Councilor Lannamañ mentioned that it will cost between \$120,000 and \$150,000 to paint the water tower.

13. Mayor MacFarlane

Mayor MacFarlane asked the Town Manager, Sean O'Keefe, if he had approached the juice plant about sponsoring the painting of the water tower. Mr. O'Keefe explained that he had and that they were currently not interested.

Mayor MacFarlane stated that the Town would need to start looking for an SRF loan to complete the construction of the new Water Treatment Plant. Mayor MacFarlane stated that the Town of Mascotte's new water treatment plant had cost them roughly \$7 million to construct.

PUBLIC COMMENTS

Any person wishing to address the Mayor and Town Council and who is not on the agenda is asked to speak their name and address. Three (3) minutes is allocated per speaker.

Frances O'Keefe Wagler, 409 W Central Ave. – Mrs. Wagler wants the Town to re-letter the town's name on its retired water tower. Mrs. Wagler offered to run a fundraiser for the Town, to support this effort.

Mrs. Wagler stated that she would like the town's staff and elected officials to use less acronyms in their meetings.

Mrs. Wagler stated that she would like to know where the money that was raised to fix the Town's old firetruck was.

Mrs. Wagler thought there were too many chiefs at the Events Committee meetings, and that too much money was being spent on events in the town.

Tim Everline, 1012 N. Lakeshore Blvd. – Mr. Everline stated that allowing the Hillside Groves developer to construct the original intersection made it too easy on them. Mr. Everline stated that making future commercial developers construct a roundabout may keep commercial from coming into the Town.

Eric Gunesch, 448 Avila Pl. – Mr. Gunesch had questions about public notices that the Town had sent out and wants a public notice section on the Town's website.

James Southall, Public Utilities Supervisor – Mr. Southall said there was an osprey nest on the Town's water tower and that work on the tower could only occur at certain times of the year.

Banks Helfrich, 9100 Sams Lake Rd., Clermont – Mr. Helfrich spoke about the theme of supporting farmers.

ADJOURNMENT

There being no further business to discuss, a motion was made by Councilor Lannamañ to adjourn the meeting; Councilor Miles seconded the motion. Motion was approved unanimously by voice vote.

The Meeting adjourned at 9:41 p.m. | **Attendees: 53**

Mayor Martha MacFarlane

ATTEST:

John Brock, Town Clerk

DRAFT



Town Council Meeting
February 26, 2024 at 6:00 PM
Howey-in the-Hills Town Hall 101
N. Palm Ave., Howey-in-the-Hills,
FL 34737

MINUTES

Mayor MacFarlane called the Town Council Meeting to order at 6:00 p.m. Mayor MacFarlane led the attendees in the Pledge of Allegiance to the Flag. Councilor Reneé Lannamañ delivered an invocation.

ROLL CALL

Acknowledgement of Quorum

MEMBERS PRESENT:

Councilor Reneé Lannamañ | Councilor David Miles | Councilor George Lehning | Mayor Pro Tem Marie V. Gallelli | Mayor Martha MacFarlane

STAFF PRESENT:

Sean O’Keefe, Town Manager | Tom Harowski, Town Planner (via Zoom) | Tom Wilkes, Town Attorney | Morgan Cates, Public Works Director | John Brock, Town Clerk

AGENDA APPROVAL/REVIEW

Motion made by Councilor Miles to remove item #6 (Consideration and Approval: Removal of Board Member Ellen Yarckin from the Planning and Zoning Board) from the meeting’s agenda. There was no second for this motion.

Motion made by Mayor Pro Tem Gallelli to approve the meeting’s agenda and to move item #6 (Consideration and Approval: Removal of Board Member Ellen Yarckin from the Planning and Zoning Board) to appear directly after the Consent Agenda; seconded by Councilor Lehning. Motion approved by voice vote.

Voting

Yea: Councilor Lannamañ, Councilor Lehning, Mayor Pro Tem Gallelli, Mayor MacFarlane

Nay: Councilor Miles

CONSENT AGENDA

Routine items are placed on the Consent Agenda to expedite the meeting. If Town Council/Staff wish to discuss any item, the procedure is as follows: (1) Pull the item(s) from the Consent Agenda; (2) Vote on the remaining item(s); and (3) Discuss each pulled item and vote.

1. The approval of the minutes and ratification and confirmation of all Town Council actions at the January 22, 2024 Town Council Meeting.
2. The approval of the minutes and ratification and confirmation of all Town Council actions at the January 22, 2024 Town Council Workshop Meeting.

Motion made by Councilor Miles to approve the Consent Agenda; seconded by Mayor Pro Tem Gallelli. Motion approved unanimously by voice vote.

Voting

Yea: Councilor Lannamañ, Councilor Miles, Councilor Lehning, Mayor Pro Tem Gallelli, Mayor MacFarlane

Nay: None

NEW BUSINESS (*Item #6 moved to directly after the Consent Agenda during Agenda Approval*)

6. Consideration and Approval: **Removal of Board Member Ellen Yarckin from the Planning and Zoning Board**

Mayor MacFarlane introduced and explained this agenda item. Mayor MacFarlane stated that this item was added to the meeting's agenda due to several complaints from town residents about the way Ms. Yarckin acted during the previous (2/12/2024) Town Council meeting. Mayor MacFarlane stated that, during the Asma Parcel agenda item, Ms. Yarckin was disruptive, yelling from the back of the Town Council chamber, defaming the Town Planner, getting in the faces of the developers, and calling the developers and the Town Planner "liars". Mayor MacFarlane stated that acting in this manner was in direct violation of the Town's Code of Core Values and Civility. Mayor MacFarlane stated that this type of behavior was not appropriate and did not reflect well on the Town.

Mayor Pro Tem Gallelli stated that the behavior was inappropriate and out of place. Mayor Pro Tem Gallelli asked Ms. Yarckin to speak and possibly apologize for her behavior during the previous meeting.

Councilor Miles objected vigorously to the practice of certain members of the Council chastising residents of Howey who they (the Councilors) objected to their words or actions. Acknowledging that a resident spoke out of turn, Councilor Miles stated the person had a personal emotional interest in the agenda item, as the property was adjacent to hers. Councilor Miles noted at the previous meeting other Councilors had spoken harshly to and about an employee at Howey Mansion due to the conduct of a guest firing fireworks off on an adjacent property during a wedding at the Mansion. Councilor Miles asked the other Councilors to cease reprimanding residents of the Town at meetings.

Ms. Yarckin apologized for being out of line. Ms. Yarckin stated that she did not believe that the Town's meeting followed Robert's Rules of Order and that she was under a lot of stress in her life. Ms. Yarckin stated that she wants stricter rules in the meetings.

Mayor MacFarlane opened Public Comment for this item only.

Carol Roque, 505 Mission Ln. – Mrs. Roque stated that she was at the meeting and that Tom Harowski's (the Town Planner) behavior was reprehensible. Mrs. Roque stated that Mr. Harowski intimidated and glared at Ms. Yarckin after she called him a liar and thought that Mr. Harowski should apologize publicly.

Peter Tuite, 300 E Croton Way – Mr. Tuite spoke on this issue.

Allan Hayes, 111 Island Dr. – Mr. Hayes stated that he was embarrassed for both Ms. Yarckin and Mr. Harowski.

Andi Everline, 1012 N. Lakeshore Blvd. – Mrs. Everline read out loud a letter from Suong Miles in support of Ellen Yarckin.

Frances O’Keefe Wagler, 409 W Central Ave. – Mrs. Wagler stated that she thought everyone would like to scream out loud at Tom Harowski because he said he could not remember what the exact count of the vote was at the September Planning and Zoning Meeting. Mrs. Wagler also thinks that Mr. Harowski should change the order of items that he writes in his staff report. Mrs. Wagler stated that she wants Mr. Harowski to state what the Planning and Zoning recommendation is at the top of his staff reports.

PUBLIC HEARING

3. Consideration and Approval: (transmittal hearing) **Ordinance 2023-013 - Comprehensive Plan Amendment - Future Land Use Element**

Mayor MacFarlane read Ordinance 2023-013 out loud by title only:

AN ORDINANCE OF THE TOWN OF HOWEY-IN-THE-HILLS, FLORIDA, PERTAINING TO COMPREHENSIVE PLANNING; AMENDING THE FUTURE LAND USE ELEMENT (FLUE) OF THE TOWN’S ADOPTED COMPREHENSIVE PLAN PURSUANT TO SECTION 163.3184 OF FLORIDA STATUTES; DESCRIBING THE ANALYSIS AND REEVALUATION UNDERTAKEN BY TOWN COUNCIL REGARDING RESIDENTIAL DENSITIES AND LOT SIZES IN POST-2010 RESIDENTIAL DEVELOPMENT IN THE TOWN; AMENDING CERTAIN FLUE POLICIES TO MODIFY THE REQUIREMENTS IN THE “VILLAGE TOWN CENTER” AND “MEDIUM DENSITY RESIDENTIAL” LAND-USE DESIGNATIONS REGARDING DWELLING UNITS PER ACRE, LOT SIZES, AND OPEN SPACE; AMENDING OTHER RELATED REQUIREMENTS FOR THE TWO LAND-USE DESIGNATIONS; AMENDING POLICY 1.2.6 OF THE FUTURE LAND USE ELEMENT TO SPECIFY AREAS WHERE THE TOWN MAY ALLOW LOTS SMALLER THAN ONE-FOURTH ACRE (10,890 SQ. FT.); PROVIDING FOR CODIFICATION, SEVERABILITY, AND AN EFFECTIVE DATE.

Mayor MacFarlane asked the Town Attorney, Tom Wilkes, to introduce and explain this item. Mr. Wilkes reviewed many of the recommended changes in the proposed amended Comprehensive Plan. Mr. Wilkes stated that he believed that the Councilors had come to a consensus that they wanted a maximum building height of 35’ (while removing any height reference to stories) and that he would make those changes uniformly throughout the proposed Comprehensive Plan. Mr. Wilkes stated he would also ensure that references to ¼ of an acre requirements would consistently list 10,890 square feet instead of 10,800 square feet.

Mr. Wilkes reviewed recommendations for changing the Village Mixed Use (VMU) requirements for Open Space and Parks and Recreation Areas. The minimum acreage of open space that could count as park space was set to 1/2 acre.

Mr. Wilkes referenced Policy 1.2.6 in which he recommends that this policy only applies to the sale of 10 lots or more. Town Planner, Tom Harowski, suggested that, in Policy 1.2.6, Section (i), rather than referencing the Town Center Commercial District, it should reference the Town Center Overlay District.

Mr. Wilkes explained that the proposed amendments to the Comprehensive Plan do not create any entitlements for landowners; they create restrictions on what future Town Councils can allow.

Mayor MacFarlane opened Public Comment for this item only.

Frances O’Keefe Wagler, 409 W Central Ave. – Mrs. Wagler had questions about the maps included in the Comprehensive Plan.

Eric Gunesch, 448 Avila Pl. – Mr. Gunesch had questions about the proposal.

Peter Tuite, 300 E Croton Way – Mr. Tuite would like to see the packet and agenda for the Town Council meetings to be sent out at least a week or so before the meetings.

Tim Everline, 1012 N Lakeshore Blvd. – Mr. Everline had questions about Policy 1.1.2.

Mayor MacFarlane closed Public Comment.

Motion made by Councilor Miles to approve the transmittal of Ordinance 2023-013 with the amendments that Tom Wilkes provided and change of the word of “Commercial” to “Overlay” on page I-39; seconded by Mayor Pro Tem Gallelli. Motion approved unanimously by roll-call vote.

Voting

Yea: Councilor Lannamañ, Councilor Miles, Councilor Lehning, Mayor Pro Tem Gallelli, Mayor MacFarlane

Nay: None

4. Discussion: (second reading) **Ordinance 2024-001 Mission Rise PUD Rezoning**

AN ORDINANCE OF THE TOWN OF HOWEY-IN-THE-HILLS, FLORIDA, PERTAINING TO LAND USE; REZONING FOUR PARCELS OF LAND LOCATED GENERALLY IN THE SOUTHWEST PART OF THE TOWN AND COMPRISING THE PROPOSED PLANNED UNIT DEVELOPMENT TO BE KNOWN AS “MISSION RISE” ON AN L-SHAPED AGGREGATE OF ABOUT 243.3 ACRES WEST AND SOUTH OF THE DEVELOPMENT KNOWN AS “THE RESERVE AT HOWEY-IN-THE-HILLS” (NOW ALSO KNOWN AS “HILLSIDE GROVES”), WITH PART OF THE LANDS BEING SOUTH OF NUMBER TWO ROAD AND EAST OF SILVERWOOD LANE AND OTHER PARTS OF THE LAND BEING WEST OF STATE ROAD 19 AND SOUTH OF REVELS ROAD, THE FOUR PARCELS BEING IDENTIFIED WITH LAKE COUNTY PROPERTY APPRAISER ALTERNATE KEY NUMBERS 1780616, 1780811, 1030421, AND 3835991; AMENDING THE TOWN’S ZONING MAP TO APPROVE PLANNED-UNIT-DEVELOPMENT (PUD) ZONING FOR THE PARCELS; PROVIDING FINDINGS OF THE TOWN COUNCIL; APPROVING PUD ZONING FOR THE PARCELS, WITH DEVELOPMENT TO BE GOVERNED BY A DEVELOPMENT AGREEMENT AND A REVISED CONCEPTUAL LAND USE PLAN AND BY THE TOWN’S LAND DEVELOPMENT CODE AND OTHER TOWN ORDINANCES GOVERNING THE DEVELOPMENT OF LAND; REPEALING PRIOR ORDINANCES AND SUPERSEDING CONFLICTING ORDINANCES; PROVIDING FOR SEVERABILITY, CODIFICATION AND AN EFFECTIVE DATE.

Town Manager, Sean O’Keefe, stated that the applicant for this development had asked for a continuance of this item to the March 11, 2024, Town Council meeting.

Mayor MacFarlane opened Public Comment for this item only. Seeing no public comment, Mayor MacFarlane closed Public Comments.

Motion made by Councilor Lannamañ to continue this item to the March 11, 2024, Town Council meeting; seconded by Councilor Miles. Motion approved unanimously by voice vote.

Voting

Yea: Councilor Lannamañ, Councilor Miles, Councilor Lehning, Mayor Pro Tem Gallelli, Mayor

MacFarlane
 Nay: None

OLD BUSINESS

5. Consideration and Approval: **Hillside Groves Intersection Roundabout Requirement**

Town Engineer, Don Griffey, spoke about the history of the request for a roundabout on SR 19 in front of the proposed Hillside Groves neighborhood. Mr. Griffey stated that, when he had recommended requiring the developer to construct a roundabout at the SR 19 entrance to Hillside Groves, he was operating off of the assumptions that the cost and time commitment would be equal to or less than the intersection that the developer had already gotten approved by the Florida Department of Transportation (FDOT). Mr. Griffey explained that he was incorrect on both the cost and the time assumptions and that, due to this, he was recommending the Town allow the developer to construct their original FDOT-approved intersection.

Mr. Griffey stated that, when the commercial component of this development moves forward, it will require a re-evaluation of the intersection and FDOT may require a roundabout at that time.

Councilor Miles asked, when the commercial component for the development does move forward, who would have to pay for the improvements to the intersection. Mr. Griffey stated that any required changes to the intersection that the commercial component triggers, the commercial developer would have to cover the cost at that time.

Ayman As-Saidi with Traffic Mobility Consultants, the traffic engineer for the developer, was allowed to speak. Mr. As-Saidi stated that the traffic study that was completed for this project shows that even when the commercial development component of the project comes in, there will still not be enough traffic to require a roundabout or a signal at the intersection.

Town Planner, Tom Harowski, stated that, when the commercial component of this project moves forward, they will be required to complete a new traffic study.

Councilor Miles stated that he had questions about the trips per day each lot in the development was creating in the traffic study, and he stated that he disagreed with the traffic study.

Mayor MacFarlane opened Public Comment for this item only.

Tim Everline, 1012 N. Lakeshore Blvd. – Mr. Everline stated that the Town will need to keep an eye on this and require the future developers to commit to the roundabout earlier in the process.

Eric Gunesch, 448 Avila Pl. – Mr. Gunesch thinks that this development will create a massive amount of traffic on S. Florida Ave.

Frances O’Keefe Wagler, 409 W Central Ave. – Mrs. Wagler stated that the Police Chief had told the Howey Garden and Civic Club years ago, that there were 8,000 cars a day traveling through the town. Mrs. Wagler wants a roundabout construction at the intersection of Palm Ave and Central Ave.

Mayor MacFarlane closed Public Comment for this item.

Councilor Miles made a motion to have the Town Manager negotiate a new traffic fair share agreement with the developer of Hillside Groves to cover future improvements at the proposed intersection. There was no second for this motion.

Motion made by Mayor Pro Tem Gallelli to approve the original FDOT-approved intersection at the SR19 intersection to Hillside Groves, while requiring the Town staff to require the future commercial developer to install a roundabout when their portion of the project comes forward; seconded by Councilor Lannamañ. Motion approved by roll-call vote.

Voting

Yea: Councilor Lannamañ, Councilor Lehning, Mayor Pro Tem Gallelli, Mayor MacFarlane

Nay: Councilor Miles

NEW BUSINESS

6. Consideration and Approval: **Removal of Board Member Ellen Yarckin from the Planning and Zoning Board**

(THIS ITEM WAS MOVED TO DIRECTLY AFTER THE MEETING'S CONSENT AGENDA)

7. Consideration and Approval: **Sara Maude Mason Boardwalk Revitalization Contract**

Public Works Director, Morgan Cates, reviewed the Request for Proposals (RFP) that had been completed to revitalize the Sara Maude Mason Nature Preserve Boardwalk that had been closed since Hurricane Ian. Mr. Cates stated that the Town had received proposals that ranged from \$290,000 to \$1.44 million.

Mr. Cates stated that the staff recommendation was for Dock Pro LLC, who had submitted a bid of \$379,000 (which had included composite decking instead of wood). Mr. Cates stated that the Town currently had only roughly \$300,000 in available Parks Impact Fees.

Councilor Miles stated that, many times when this happens, a purchasing officer will reject all bids and re-bid out the project to try to get better bids. Councilor Miles suggested that the Town might have greater needs than completing this project.

Councilor Miles stated that he thought that the Parks Impact fees would be better spent creating Peak Park.

Councilor Miles made a motion to reject all bids and rebid the project with a smaller scale; Councilor Lehning seconded this motion.

Mayor MacFarlane opened Public Comment for this item only.

Frances O'Keefe Wagler, 409 W Central Ave. – Mrs. Wagler wanted any money set aside for Peak Park to be moved to this project and move forward with this project.

Tim Everline, 1012 N Lakeshore Blvd. – Mr. Everline stated that he knew a lot of people that utilized the Sara Maude Mason Nature preserve boardwalk. Mr. Everline said that he thought the Town should rebuild the entire boardwalk and not just part of it.

Eric Gunesch, 448 Avile Pl. – Mr. Gunesch stated that he did not know the boardwalk existed and he wants it reopened.

Joshua Husemann, 671 Avila Pl. – Mr. Husemann recommended that more members of the public attend the Town's Parks and Recreation Board meetings. Mr. Husemann stated that the Sara Maude Mason Nature Preserve was the only park that wasn't just for children and thinks that the Town should find a way to redo the entire boardwalk.

Mayor MacFarlane closed Public Comment for this item.

Mayor MacFarlane asked about the feasibility of the Town getting a loan to complete the entire project.

Councilor Miles withdrew his original motion.

Councilor Miles stated that he wanted the Town staff to look into borrowing \$225,000, so that the Town could complete the entire boardwalk project.

Motion made by Councilor Miles to have the staff investigate acquiring a loan for \$225,000, with a 5-year term, so that the Town could use future Parks Impact Fees to complete this project now; seconded by Mayor MacFarlane. Motion approved unanimously by roll-call vote.

Voting

Yea: Councilor Lannamañ, Councilor Miles, Councilor Lehning, Mayor Pro Tem Gallelli, Mayor MacFarlane

Nay: None

DEPARTMENT REPORTS

8. Town Manager

Town Manager, Sean O'Keefe, gave an update on the water quality tests that had been completed on the two new wells. The water quality tests that had been completed so far were only preliminary tests. The official samples to be tested will be pulled sometime in March after the test pumping of the well.

Mr. O'Keefe announced that the Town staff had received a grant for \$3.185 million (to be used on wastewater projects) from the Florida Department of Environmental Protection. This will allow the Town to complete a Clean Water Study, and planning, design, and construction for future wastewater projects.

COUNCIL MEMBER REPORTS

9. Mayor Pro Tem Gallelli

Mayor Pro Tem Gallelli stated that she does not want any more money spent on the proposed Peak Park.

Mayor Pro Tem Gallelli stated that she believed that the Events Committee needs a new Chair and she did not want that person to be the Town Manager. Mayor Pro Tem Gallelli also stated that she was not in favor of the Town spending any money on a DJ or live music for the Town's Founders Day Event and would rather see the events money spent on restoring the Town's antique firetruck or retired water tower.

Mayor Pro Tem Gallelli stated that she was not happy with the meeting packets being released on Fridays before meetings and would like to see them released sooner.

10. Councilor Lehning

Councilor Lehning stated that the next Lake-Sumter MPO meeting was to be held on February 28, 2024. Councilor Lehning stated that he would ask about the bypass study request that the Town had submitted.

11. Councilor Miles

Councilor Miles stated that the Town Attorney, Town Manager, and himself were having discussions with the Central Lake CDD about procuring additional wastewater capacity for the Town.

Councilor Miles stated that there was nothing adverse in the coring survey that had been completed at Peak Park and thinks the Town should move forward with constructing a park at that location.

Councilor Miles wants to pursue donation of land from Mr. & Mrs. Lynch, who, for the donation of land, would like to have a park like Peak Park named after them.

12. Councilor Lannamañ

Councilor Lannamañ discussed the cost to restore/paint the Town's retired water tower and its cost associated with that task. Councilor Lannamañ mentioned that it will cost between \$120,000 and \$150,000 to paint the water tower.

13. Mayor MacFarlane

Mayor MacFarlane asked the Town Manager, Sean O'Keefe, if he had approached the juice plant about sponsoring the painting of the water tower. Mr. O'Keefe explained that he had and that they were currently not interested.

Mayor MacFarlane stated that the Town would need to start looking for an SRF loan to complete the construction of the new Water Treatment Plant. Mayor MacFarlane stated that the Town of Mascotte's new water treatment plant had cost them roughly \$7 million to construct.

PUBLIC COMMENTS

Any person wishing to address the Mayor and Town Council and who is not on the agenda is asked to speak their name and address. Three (3) minutes is allocated per speaker.

Frances O'Keefe Wagler, 409 W Central Ave. – Mrs. Wagler wants the Town to re-letter the town's name on its retired water tower. Mrs. Wagler offered to run a fundraiser for the Town, to support this effort.

Mrs. Wagler stated that she would like the town's staff and elected officials to use less acronyms in their meetings.

Mrs. Wagler stated that she would like to know where the money that was raised to fix the Town's old firetruck was.

Mrs. Wagler thought there were too many chiefs at the Events Committee meetings, and that too much money was being spent on events in the town.

Tim Everline, 1012 N. Lakeshore Blvd. – Mr. Everline stated that allowing the Hillside Groves developer to construct the original intersection made it too easy on them. Mr. Everline stated that making future commercial developers construct a roundabout may keep commercial from coming into the Town.

Eric Gunesch, 448 Avila Pl. – Mr. Gunesch had questions about public notices that the Town had sent out and wants a public notice section on the Town's website.

James Southall, Public Utilities Supervisor – Mr. Southall said there was an osprey nest on the Town's water tower and that work on the tower could only occur at certain times of the year.

Banks Helfrich, 9100 Sams Lake Rd., Clermont – Mr. Helfrich spoke about the theme of supporting farmers.

ADJOURNMENT

There being no further business to discuss, a motion was made by Councilor Lannamañ to adjourn the meeting; Councilor Miles seconded the motion. Motion was approved unanimously by voice vote.

The Meeting adjourned at 9:41 p.m. | **Attendees: 53**

Mayor Martha MacFarlane

ATTEST:

John Brock, Town Clerk

DRAFT



Town Council Workshop

February 27, 2024 at 2:00 PM

Howey-in the-Hills Town Hall
101 N. Palm Ave.,
Howey-in-the-Hills, FL 34737

MINUTES

Mayor MacFarlane called the Town Council Meeting to order at 2:12 p.m. Mayor MacFarlane led the attendees in the Pledge of Allegiance to the Flag. Councilor Reneé Lannamañ delivered an invocation.

ROLL CALL

Acknowledgement of Quorum

MEMBERS PRESENT:

Councilor Reneé Lannamañ | Councilor David Miles | Councilor George Lehning | Mayor Pro Tem Marie V. Gallelli | Mayor Martha MacFarlane

STAFF PRESENT:

Sean O’Keefe, Town Manager | Tom Wilkes, Town Attorney | Tom Harowski (Zoom) | John Brock, Town Clerk

OLD BUSINESS

1. Discussion: **Land Development Code (LDC) Amendment**

Town Attorney, Tom Wilkes, led a lengthy discussion on amending the Town’s Land Development Code. The Town Council reviewed LDC Policy 02.02.04 through Policy 4.03.09.

The Town Council selected Tuesday March 12, 2024, from 2:00p.m. to 4:00 p.m. for their next workshop date.

PUBLIC COMMENTS

Any person wishing to address the Mayor and Town Council and who is not on the agenda is asked to speak their name and address. Three (3) minutes is allocated per speaker.

None

ADJOURNMENT

There being no further business to discuss, Mayor MacFarlane adjourned the meeting.

The Meeting adjourned at 4:05 p.m. | **Attendees: 13**

Mayor Martha MacFarlane

ATTEST:

John Brock, Town Clerk

DRAFT



Town Council Workshop

March 12, 2024 at 2:00 PM

Howey-in the-Hills Town Hall 101
N. Palm Ave., Howey-in-the-Hills,
FL 34737

MINUTES

Mayor MacFarlane called the Town Council Meeting to order at 2:04 p.m.
Mayor MacFarlane led the attendees in the Pledge of Allegiance to the Flag.
Councilor Reneé Lannamañ delivered an invocation.

ROLL CALL

Acknowledgement of Quorum

MEMBERS PRESENT:

Councilor Reneé Lannamañ | Councilor David Miles | Councilor George Lehning | Mayor Pro Tem Marie V. Gallelli | Mayor Martha MacFarlane

STAFF PRESENT:

Sean O'Keefe, Town Manager | Tom Wilkes, Town Attorney | Tom Harowski (Zoom) | John Brock, Town Clerk

OLD BUSINESS

1. Discussion: **Land Development Code (LDC) Amendment**

Town Attorney, Tom Wilkes, led a lengthy discussion on amending the Town's Land Development Code. The Town Council reviewed LDC Policy 4.03.15 through Policy 7.06.02.

The Town Council selected Tuesday March 26, 2024, from 2:00p.m. to 4:00 p.m. for their next workshop date.

PUBLIC COMMENTS

Any person wishing to address the Mayor and Town Council and who is not on the agenda is asked to speak their name and address. Three (3) minutes is allocated per speaker.

None

ADJOURNMENT

There being no further business to discuss, a motion was made by Mayor Pro Tem Gallelli to adjourn the meeting; Councilor Lehning seconded the motion. Motion was approved unanimously by voice vote.

The Meeting adjourned at 4:09 p.m. | **Attendees: 13**

Mayor Martha MacFarlane

ATTEST:

John Brock, Town Clerk

DRAFT



TMHConsulting@cfl.rr.com
97 N. Saint Andrews Dr.
Ormond Beach, FL 32174
PH: 386.316.8426

MEMORANDUM

TO: Howey-in-the-Hills Town Council
CC: J. Brock, Town Clerk
FROM: Thomas Harowski, AICP, Planning Consultant
SUBJECT: Mission Rise February 2024 Resubmittal
DATE: March 6, 2024

Following the public hearing before the planning board and discussion of the project by Town Council at the first reading of the proposed development agreement on January 22, 2024, the Mission Rise applicants submitted a revised conceptual development plan and development agreement. This report addresses the changes proposed in the revised plan and development agreement as an update to the original staff report. The changes are summarized as follows:

- The revised plan increases the minimum lot widths for both types of proposed lots from 55 feet to 60 feet and from 75 feet to 80 feet minimum lot width. This change moves the project design in the direction of larger lots but still remains below the one-quarter acre minimum lot size that has been proposed in the pending LDC amendments.
- The total number of lots has been reduced from 499 to 438, a reduction of 61 lots. The reduction in the overall number of lots is about 12% for the project and brings the project density, based on net buildable land area, to 2.86 units per acre. This reduction achieves the Town's stated goal of maximizing single-family development below three units per acre.
- The project phasing is revised based on the reduced number of total units, but the distribution between the smaller and larger lots remains about the same.

Original Proposed Development Phasing			
Phase	55-foot lots	75-foot lots	Total
Phase 1	150	41	191
Phase 2	100	13	113
Phase 3	166	29	195
Total	416	83	499

New Proposed Development Phasing			
Phase	60-foot lots	80-foot lots	Total
Phase 1	122	40	162
Phase 2	85	8	93
Phase 3	155	28	183
Total	362	76	438

- Side yard setbacks have been increased to 10-feet which means that the actual space between adjacent units is 20 feet. This change again moves the proposed project in the direction the Town Council has expressed of having more space between adjacent units.
- The phasing plan follows the original submittal requiring building permits be issued in one phase before a subsequent phase can be initiated. As noted in the original staff report, the extension of the central collector from SR-19 to Number Two Road will be done by phase with the eventual connection to Number Two Road resulting in the upgrade of Number Two Road to Lake County standards for the length of the project frontage.
- The applicants are proposing widened travel lanes for the proposed alleys.
- The project retains the tiered termination provisions as set forth in the original proposal.
- The reduction in total units will result in a reduction in total traffic volume. The reduction of 61 units will yield a total trip reduction of 585 daily trips. An update of the traffic study would be required to determine if the reduction in total trips would result in a reduction of any specific traffic impacts. The change would not result in an increase in traffic impacts.

Planning Board Recommendation

The planning board recommended a conditional approval of the project. The following comments address how the revisions to the plan address the conditions recommended by the board.

The Planning Board found that the project as presented did not adequately support Future Land Use Policy 1.1.2, but could support the policy with specific changes. The Planning Board recommended a conditional approval of the project including the following conditions:

1. Eighty percent of the single-family lots meet a minimum lot size of 10,840 square feet.

The revisions, while including larger lots, do not meet this condition.

2. Up to 20% of the residential lots may have lot widths of 75 feet as proposed by the applicant.

The revised plan does meet this condition as the plan has 15.5% of the lots with lot widths at or in excess of 75 feet.

3. Access connection to Number 2 Road cannot be opened until after Phase 1 and Phase 2 have been completed, but should be opened when 50% of the units in Phase 3 have received a certificate of occupancy.

The proposed plan does include extension of the central collector to Number Two Road by phases, with the actual connection not occurring until Phase 3. The phasing program requires building permits to be issued for the current phase before a subsequent phase can be initiated, but the proposal does not require all units in a phase to be completed before advancing to the next phase.

4. The open space area between Phase 2 and Phase 3 shall be redesigned to eliminate stormwater retention ponds from this area.

The stormwater plan has been redesigned to substantially reduce the storage pond area between phases two and three, and the shape of the pond has been changed as well. The result of these revisions has been to keep a wider connection between the two wetland areas to support wildlife and other natural processes. This is a substantial compliance with the noted condition.

Summary

The applicant has made revisions to the proposed plan and development agreement that move the proposed project in the direction supporting many of the issues of concern to the Council. The question is whether the proposed changes are sufficient to find the project in compliance with Future Land Use Policy 1.1.2. As it relates to Policy 1.1.2 for Village Mixed Use Development, the policy reads as follows:

POLICY 1.1.2: *Land Use Categories.* The land use categories, as depicted on the Town's 2035 Future Land Use Map (FLUM) shall permit the following uses and activities.

Village Mixed Use – Primarily intended to create sustainability and maintain the unique charm of the Town, including the provisions of reducing the dependability on the automobile, protecting more open land, and providing quality of life by allowing people to live, work, socialize, and recreate in close proximity. Elementary, middle, and high schools are also permitted in this category

The Town Council options remain as noted below. The other information presented in the initial staff report remains current.

- Whether to approve the project based on the conditions proposed by the Planning Board;
- Approve the project with other conditions either in place of or supplementary to the Planning Board recommendation;
- Approve the project as submitted; or
- Deny project.

An action to deny the project needs to be accompanied by a statement as to why the project fails to meet the conditions for approval either through the comprehensive plan goals, objectives, and policies or through the failure to comply with other elements of the land development regulations.



TMHConsulting@cfl.rr.com
 97 N. Saint Andrews Dr.
 Ormond Beach, FL 32174
 PH: 386.316.8426

MEMORANDUM

TO: Howey-in-the-Hills Town Council
CC: J. Brock, Town Clerk
FROM: Thomas Harowski, AICP, Planning Consultant
SUBJECT: Mission Rise Planned Development Proposal
DATE: January 12, 2024

The Town has received an application for approval of a planned unit development agreement for the Mission Rise parcel which lies south of and west of The Reserve (Hilltop Groves) development. The request is a zoning action which requires the Town Council to consider a proposed development agreement that will govern development of the parcel. The applicant has submitted a conceptual development plan and draft development agreement along with a traffic study and required application forms. The project has been reviewed by the Development Review Committee (DRC) on several occasions. While not all of the comments offered by the DRC have been adopted, the project has reached the stage where it needs to move to the policy decision stage.

Project Description

The project is requesting approval for 499 single-family homes with lots measuring 55 x 120 and 75 x 120. The larger lots are located at the perimeter of the project and the smaller lots are located toward the interior of the project site. The project will access from SR-19 via Revels Road on the eastern side and access from Number Two Road on the north side. There is also a minor connection to Orange Blossom Road on the south. The site design provides for connections to the Hilltop Groves portion of The Reserve on the east and to Silverwood Lane on the west.

The residential portion of the project proposes three phases as shown on the graphic submitted with the application. The units by phase are as follows:

Proposed Development Phasing			
Phase	55-foot lots	75-foot lots	Total
Phase 1	150	41	191
Phase 2	100	13	113
Phase 3	166	29	195
Total	416	83	499

The project contains about 60 acres of wetlands with half of the total being credited to the required project open space and the balance identified as additional open space. The proposed plan will impact 0.3 acres which is for a road and utility crossing. The site includes an active eagles nest location, and the plan identifies 330 foot and 660 foot protection zones. No development activity is permitted within the 330 foot protection zone, but some development is proposed within the 660 foot protection zone. The development outside the 330 foot protection zone but within the 660 foot protection zone consists of single-family homes and roads. Some development within the outer protection zone is allowed.

Community facilities and parks are provided. Phase 1 and Phase 3 each include an amenity center including a cabana and pool. The project includes a multi-use trail along the central collector road to join with the Town's overall trail system, including a trail head adjacent to the Phase 1 amenity center. Phase 2 and Phase 3 each include smaller active miniparks, and Phase 2 includes a larger and more passive neighborhood park area. The neighborhood park area includes walking trails that connect to the multi-use trail.

Village Mixed Use Policy Assessment

The project is required to meet the village mixed use land use criteria as presented in Policy 1.1.1 of the future land use element. As a threshold requirement the project must comply with these criteria.

Maximum density is four units per net acre:

The net land area is identified as 153.1 acres which would allow a maximum of 612 units. The proposed project size is 499 units.

Residential land use maximum is 85%

Maximum allowable residential acreage is 130 acres and the proposed project will apply 129.3 acres to residential use.

Non-Residential land use minimum is 15%

Non-Residential land use will occupy 23.1 acres including the amenity centers, park areas, and multi-use trail area outside the right-of-way. The application includes a graphic identifying the non-residential land assignments.

Five percent of the non-residential land is to be applied to public/civic uses

Public and civic land use minimum is 1.16 acres. The two amenity centers will occupy 2.6 acres as civic land uses.

Public recreational uses must be at least 10% of the usable open space

Ten percent of the usable open space is 3.0 acres. Passive and active park areas are reported as 16.9 acres.

Total open space is 25% of the gross project area.

Total open space required is 60.8 acres which may include up to 50% of wetlands on the site. Total wetlands are reported as 60.1 acres, and when applied to the open space calculation the total site open space comes to 90.2 acres. Note that 0.3 acres of wetland will be impact by road construction.

Comprehensive Plan Assessment

The proposed project has been reviewed in comparison to the applicable comprehensive plan policies. The applicant has submitted a project narrative that offers their view on compliance with the goals, objectives and policies laid out in the comprehensive plan. The primary policy relating to Village Mixed Use development is Policy 1.1.1 of the Future Land Use Element. This policy lays out the minimum standards that a village mixed use project must meet including the percentage of land allocated to various uses, including open space, and associated activities such as civic activities and recreation. As noted in the preceding section, the application meets these basic requirements. Additionally, the applicant cites compliance with Policy 1.11.2 encouraging cluster development.

The applicant also cites compliance with Policy 1.3.1 regarding wetlands protection. The plan as proposed does include wetland areas in the designated open space areas. There is a minor wetland impact in the central area of the project where there is some disturbance, about 0.3 acres for a road and utility crossing. This type of limited wetland impact has been approved in other developments. The open space preservation areas also include the flood prone areas in Zone AE. The project will be required to provide the 25-foot wetland buffer and 50 foot setback from wetlands to upland structures as part of the Preliminary Subdivision Plan should the zoning package be approved. This action is required by Conservation Element Policy 1.2.3 as well as Future Land Use Policy 1.3.1.

Policy 1.2.6 encourages the allocation of more dense residential development along the major road corridors and in areas that support the Central Avenue commercial area. The proposed central collector is part of the recommended traffic network and could support some increased density. Serving as a parallel facility to SR-19 it can help direct traffic to the Central Avenue commercial area as that portion of the Town develops. Compliance with the policy might benefit from a reduced density and/or larger lot sizes at the western and southern perimeter of the project.

For evaluation of the proposed project design, Policy 1.1.2 as it relates to Village Mixed Use areas may be the key determinant. The effective portions of the policy read as follows:

POLICY 1.1.2: *Land Use Categories.* The land use categories, as depicted on the Town's 2035 *Future Land Use Map (FLUM)* shall permit the following uses and activities.

Village Mixed Use – Primarily intended to create sustainability and maintain the unique charm of the Town, including the provisions of reducing the dependability on the automobile, protecting more open land, and providing quality of life by allowing people to live, work, socialize, and recreate in close proximity. Elementary, middle, and high schools are also permitted in this category.

The applicant has submitted a statement with the project narrative offering their position on how the plan complies with the policy. The Town is deep into a process of assessing how other village mixed use projects have performed relative to the policy. The recent summary of this village mixed use evaluation is captured in the draft amendments to the comprehensive plan that have emerged from the recent series of workshops and public discussions. The Town Attorney framed the findings from this process as follows:

7. 2023 Analysis and Reevaluation of Residential Densities and Lot Sizes

In 2023 the Town Council and the Town’s Planning and Zoning Board analyzed and reevaluated post-2010 residential development in the Town. Residential development under the Village Mixed Use designation resulted after 2010 in substantially increased housing densities and substantially smaller residential lots than were prevalent in the Town’s historical development.

The evaluation and analysis was accompanied by robust public participation. Public sentiment agreed overwhelmingly with Town Council: the increased densities and downsized lots after 2010 were inconsistent with the character, appearance, and ambiance of the Town’s historical neighborhoods. Contrary to FLUE Policy 1.1.2, development in Village Mixed Use had failed to “maintain the unique charm of the Town.”

Consequently, the Town Council determined that amendments to this Future Land Use Element to redirect future residential densities and lot sizes were warranted and desirable.

As the Town Council is well aware, the discussion about consistency of character, appearance and ambiance has focused on lot sizes. Newer developments have represented current housing markets as demanding smaller and narrower lots than is typical for the older neighborhoods in Howey. The Reserve located adjacent to the subject property on the east includes the Hilltop Groves residential development that includes single-family lots with 50-foot widths and groupings of townhouse units. This project was approved in the 2006 time frame and amended in 2018 including a redesign that stressed a higher percentage of owner-occupied units. The first phase final plat has recently been approved by the Town, and the Town will be able to assess the design impacts and contributions once construction begins.

The Venezia and Talichet developments are the most recent large scale developments including lot sizes ranging from 60-foot wide lots to 75-foot and 85-foot wide lots. Reaction to these developments has been mixed with the primary concern being the visual massing of large houses on smaller lots and lesser setbacks than the

Town's traditional neighborhoods. These projects have also been called out as lacking some public recreation elements. The proposed Mission Rise project includes a fairly robust recreation and civic facility support. The Watermark development has been approved with somewhat larger lots as a minimum of 50% of the 225 lots required to be 80-foot wide and the balance are allowed at 70-feet.

During the Development Review Committee phase of the Mission Rise project review, the applicants were clearly advised of the ongoing community debate regarding lot sizes and dimensions so these factors could be considered in their development proposal. The town Council now has the task of assessing the current application in comparison to Policy 1.1.2 as addressed by the applicant and as considered within the context of the ongoing policy review.

Conceptual Development Plan Review

The conceptual development plan includes a series of graphics and a written development agreement. The conceptual plan has done a good job of identifying wetland and flood prone areas and including them in the open space areas of the project. The residential development areas clearly break out into three sub-areas that form the three project phases, and each phase is supported by recreation and/or civic facilities and an integrated bicycle and pedestrian network. The bicycle network will tie into the bicycle facilities in the adjacent Hilltop Groves development to provide a loop system connecting cyclists from both projects and offering a high quality cycling opportunity for Howey citizens generally.

The project design includes connected open space areas between Phase 1 and Phase 2 and again between Phase 2 and Phase 3. The staff has requested the applicant eliminate the stormwater retention area in the open space area between Phase 2 and Phase 3 in order to preserve more trees in this upland area and to maximize the open space connectivity. The staff believes that the stormwater retention is a residential support activity and should be located in the residential portions of the project. The applicants have been responsive to a number of other design suggestions, but have chosen to keep the stormwater retention area in the open space corridor.

The conceptual development plan package includes layouts for both the proposed 55-foot and 75-foot wide lots showing a minimum of 20 feet from the front property line to the garage and rear setbacks for the principal structure of 25-feet. The Town has been asking for these setbacks to provide for adequate off-street parking and to allow for accessory structures like swimming pools while meeting the setbacks for accessory structures.

Concurrency Considerations

Concurrency issues relate to the provision of necessary public services to support new developments. There are two concurrency issues related to the Mission Rise project, sanitary sewer service and traffic.

Sanitary Sewer: The project does not currently have an agreement with the Central Lake Community Development District, which is the current provider for the Town. The CLCDD reports that they do not have currently available capacity. The applicants will need to reach an agreement with the CLCDD on service or arrange for service from an alternate provider. The Town is currently reviewing options for alternative treatment sources to provide options to the CLCDD.

The applicant has addressed the sewage treatment issue in the development agreement by linking the project approval to the acquisition of treatment service. Section 10 of the development agreement provides a two year window from the date of approval of the agreement for the applicants to obtain a commitment for sewage treatment. If the commitment is obtained, the project may move forward to submit plans for construction. If a commitment is not obtained within the prescribed time period, the Town Council may vacate the agreement.

Traffic Considerations: The applicants prepared a traffic analysis which projected traffic based on current conditions, anticipated traffic from the proposed development, and anticipated traffic from other projects which have been approved, but not yet constructed. Planned traffic improvements were considered, and given the concerns related to Number 2 Road, the capacity for Number 2 Road was reduced by 25%. The study reported two roadway links and three intersections that will have capacity concerns. The affected links are on SR -19. The first is from Lane Park Road to Central Avenue, and the second is from CR 455 to CR 478. Both of these segments will have capacity issues without the Mission Rise project, and both may be affected by re-classification of the roadway capacities to more accurately reflect current conditions.

The affected intersections are also on SR 19 and include the intersections at CR 48, Central Avenue and Revels Road. Typically the project is required to contribute a "fair share" amount to the improvements at each intersection. The applicant has proposed an alternative of paying for the full upgrade of the SR 19 and Revels road intersection. The upgrade may be a traffic signal if warranted or a roundabout. After discussion with the town's traffic engineer, this alternative is preferred as it will result in an actual physical improvement addressing one of the potential impact sites. The standard approach would likely result in a fair share payment sitting idle until sufficient funding is found to complete an improvement.

On Number 2 Road the project will provide additional right-of-way to help bring the right-of-way up to standard. The project will also provide turn lanes and bring the current lane width up to standard for the length of the project frontage. Combined with the approved upgrades from Hilltop Groves, the combined project will bring the road close to standard from the western terminus of the project to approximately Mare Avenue. Based on the timing for the proposed development as stated in the termination provisions, it may be up to four years before units in Phase 1 appear and another three years before Phase 2 units begin construction. The proposal for the collector road is to build the road with each residential phase, the actual connection to Number 2 Road could be five to ten years in the future.

The project design includes a connection to the Hilltop Groves project in Phase 2 of Mission Rise. The model predicts this connection will draw up to 10% of the project traffic primarily as a link to the commercial area in The Reserve development. This link also offers an indirect connection to SR-19. Lake County is discouraging use of the southerly connection to Orange Blossom Road due to the poor condition of that roadway.

Summary of Findings

The list of findings presented below is offered to summarize for the Town Council the most salient points from the discussion to this point.

- The applicants have presented a conceptual plan that meets the minimum Village Mixed Use requirements as presented in Future Land Use Policy 1.1.1.
- The development agreement includes setbacks that address the issues related to onsite parking and adequate area to accommodate accessory structures.
- The conceptual plan includes recreation and civic components that have been issues for other VMU projects.
- The development agreement includes minimum and maximum dwelling unit sizes in an effort to address the building mass concerns from other VMU projects.
- The conceptual development provides some larger lots at the project periphery, but the project is dominated by 50 x 120 lots.
- Compliance with Future Land Use Policy 1.1.2 relating to community character is an open discussion item.
- The project development agreement provides a tiered termination clause so that the project has specific sunset action points.
- The project needs to obtain sanitary sewer service sufficient to serve the project.
- The project traffic will impact three intersections on SR 19, and the applicant has proposed full improvement of the SR-19 and Revels Road intersection as a “fair share” contribution.
- While the traffic study shows that Number 2 Road and most segments on SR-19 will operate within the designated level of service, there will be additional traffic added to each facility.
- The project will provide limited improvements to Number 2 Road.
- Based on the timing for phased development the actual connection of the central collector road to Number 2 Road is expected to occur between five and ten years from the project start.

Planning Board Analysis and Recommendation

The Town's planning board considered the application at their December 21, 2023 regular meeting. The Board review the planning staff report and heard an extensive presentation from the applicant. Public testimony was also considered. The Planning Board found that the project as presented did not adequately support Future Land Use Policy 1.1.2, but could support the policy with specific changes. The Planning Board recommended a conditional approval of the project including the following conditions:

1. Eighty percent of the single-family lots meet a minimum lot size of 10,840 square feet.
2. Up to 20% of the residential lots may have lot widths of 75 feet as proposed by the applicant.
3. Access connection to Number 2 Road cannot be opened until after Phase 1 and Phase 2 have been completed, but should be opened when 50% of the units in Phase 3 have received a certificate of occupancy.
4. The open space area between Phase 2 and Phase 3 shall be redesigned to eliminate stormwater retention ponds from this area.

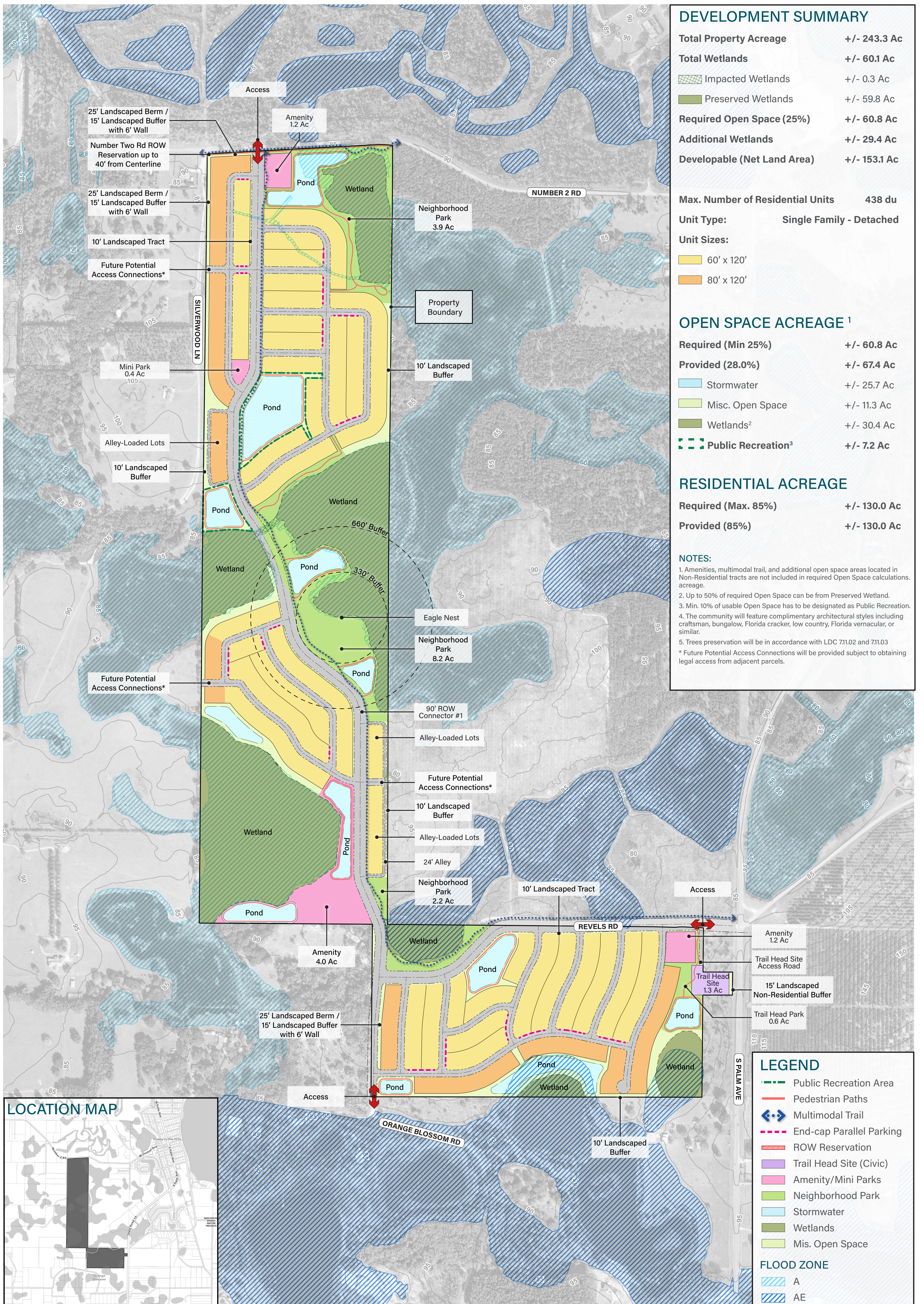
Action Options

The Town Council has received the recommendation from the Planning Board and has the opportunity to consider:

- Whether to approve the project based on the conditions proposed by the Planning Board;
- Approve the project with other conditions either in place of or supplementary to the Planning Board recommendation;
- Approve the project as submitted; or
- Deny project.

An action to deny the project needs to be accompanied by a statement as to why the project fails to meet the conditions for approval either through the comprehensive plan goals, objectives, and policies or through the failure to comply with other elements of the land development regulations.

If the Town Council takes an action including conditions recommended by the Planning Board or other conditions that will result in changes to the lot patterns proposed in the development, the project will need to undergo a revision to the conceptual development plan that conforms to these conditions. If the applicant elects to redesign the project in line with the Planning Board recommendations or meeting other conditions that the Town Council may apply, some work will need to be done to clarify the conditions to be certain about how and when they would be satisfied.



DEVELOPMENT SUMMARY

Total Property Acreage	+/- 243.3 Ac
Total Wetlands	+/- 60.1 Ac
Impacted Wetlands	+/- 0.3 Ac
Preserved Wetlands	+/- 59.8 Ac
Required Open Space (25%)	+/- 60.8 Ac
Additional Wetlands	+/- 29.4 Ac
Developable (Net Land Area)	+/- 153.1 Ac

Max. Number of Residential Units **438 du**

Unit Type: **Single Family - Detached**

Unit Sizes:

60' x 120'

80' x 120'

OPEN SPACE ACREAGE¹

Required (Min 25%)	+/- 60.8 Ac
Provided (28.0%)	+/- 67.4 Ac
Stormwater	+/- 25.7 Ac
Misc. Open Space	+/- 11.3 Ac
Wetlands ²	+/- 30.4 Ac
Public Recreation ³	+/- 7.2 Ac

RESIDENTIAL ACREAGE

Required (Max. 85%)	+/- 130.0 Ac
Provided (85%)	+/- 130.0 Ac

NOTES:

- Amenities, multimodal trail, and additional open space areas located in Non-Residential tracts are not included in required Open Space calculations.
 - Up to 50% of required Open Space can be from Preserved Wetland.
 - Min. 10% of usable Open Space has to be designated as Public Recreation.
 - The community will feature complimentary architectural styles including craftsman, bungalow, Florida cracker, low country, Florida vernacular, or similar.
 - Trees preservation will be in accordance with LDC 711.02 and 711.03
- * Future Potential Access Connections will be provided subject to obtaining legal access from adjacent parcels.

LOCATION MAP



LEGEND

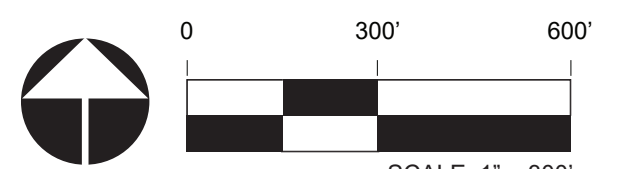
- Public Recreation Area
 - Pedestrian Paths
 - Multimodal Trail
 - End-cap Parallel Parking
 - ROW Reservation
 - Trail Head Site (Civic)
 - Amenity/Mini Parks
 - Neighborhood Park
 - Stormwater
 - Wetlands
 - Mis. Open Space
- #### FLOOD ZONE
- A
 - AE

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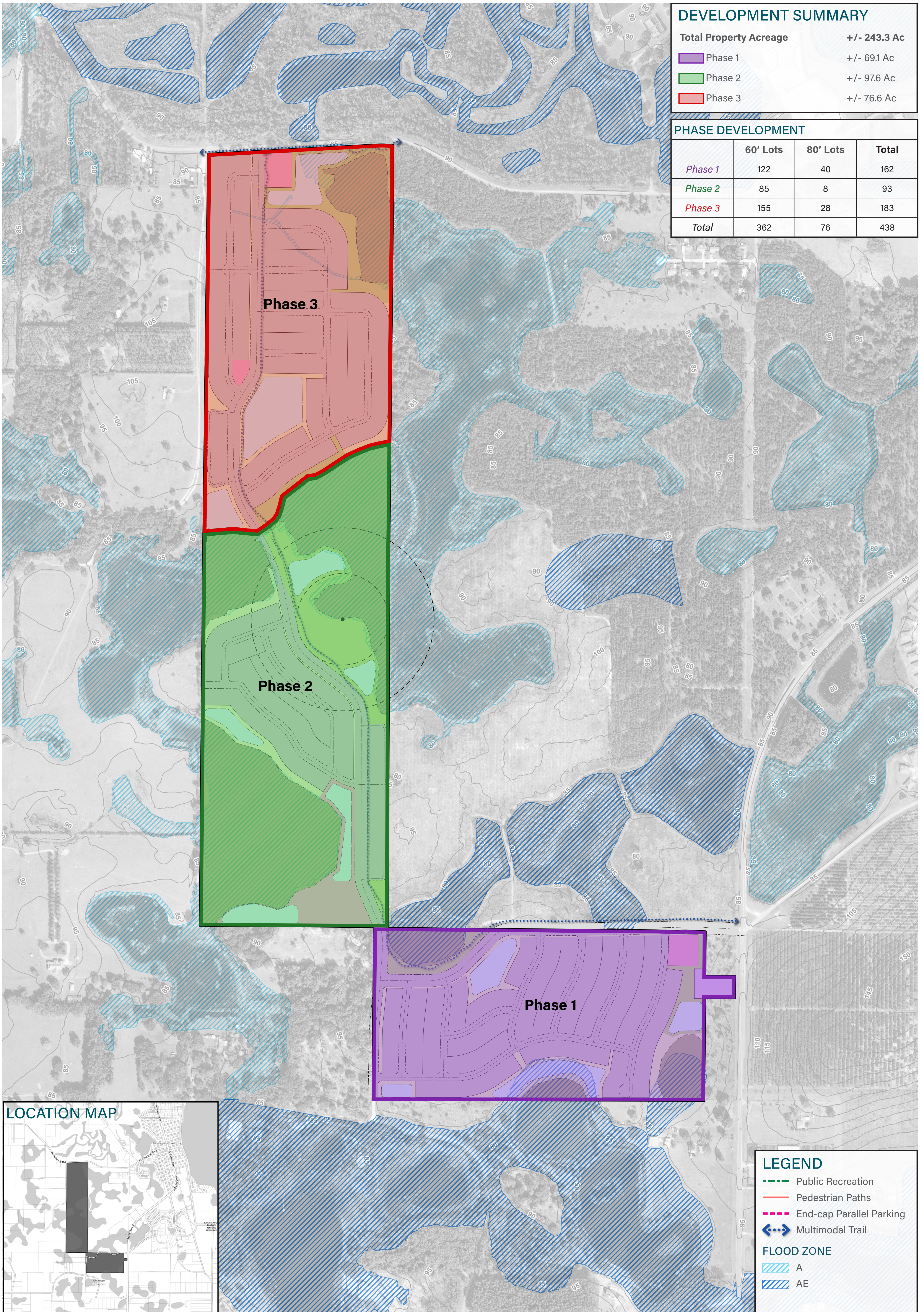


MISSION RISE • CONCEPTUAL PLAN

Town of Howey Hills, FL
 February 14, 2024
 # 22003786
 Turnstone Group / ASF TAP FL I LLC.



The plan is conceptual in nature. Final details, layout, development parameters, calculations, and site conditions may change upon further development of the Preliminary and/or Master Site Plans, and upon evaluation of topographic survey, water management and existing historic and specimen trees to remain.

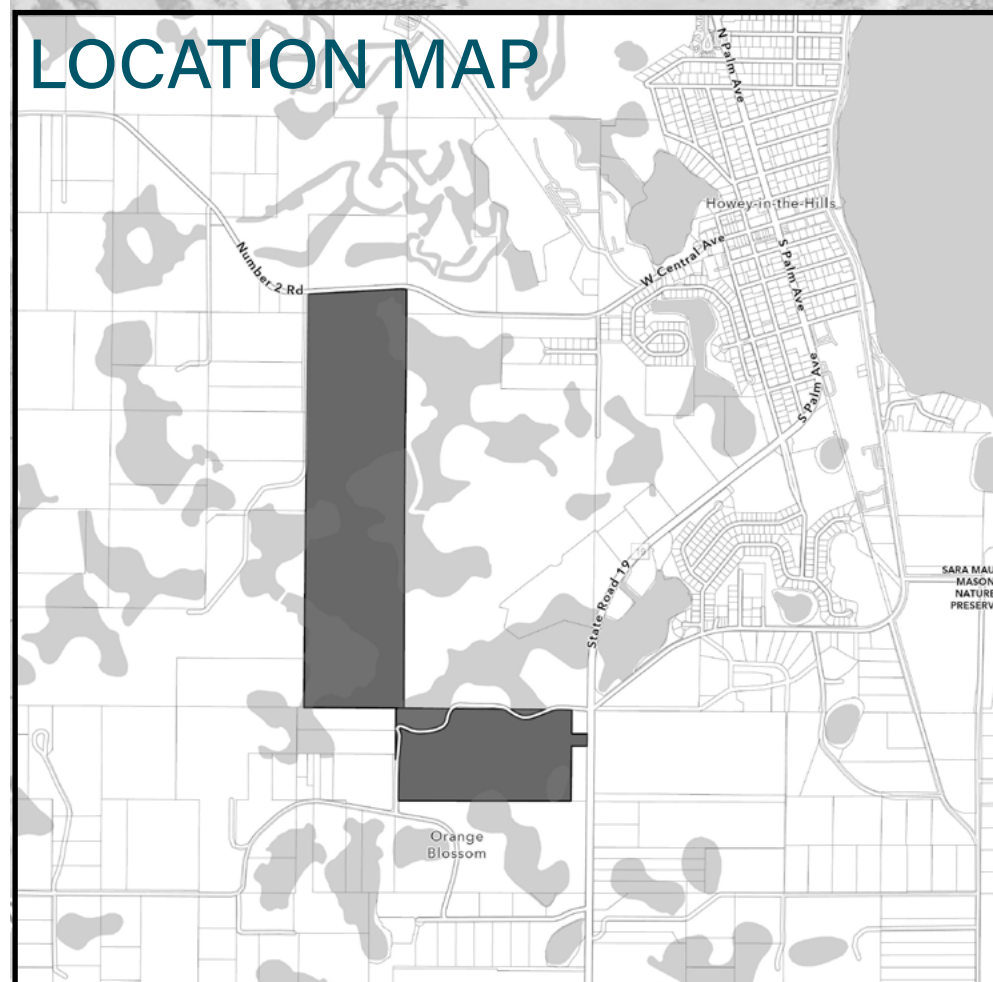


DEVELOPMENT SUMMARY

Total Property Acreage	+/- 243.3 Ac
Phase 1	+/- 69.1 Ac
Phase 2	+/- 97.6 Ac
Phase 3	+/- 76.6 Ac

PHASE DEVELOPMENT

	60' Lots	80' Lots	Total
Phase 1	122	40	162
Phase 2	85	8	93
Phase 3	155	28	183
Total	362	76	438



LEGEND

- Public Recreation
- Pedestrian Paths
- End-cap Parallel Parking
- Multimodal Trail

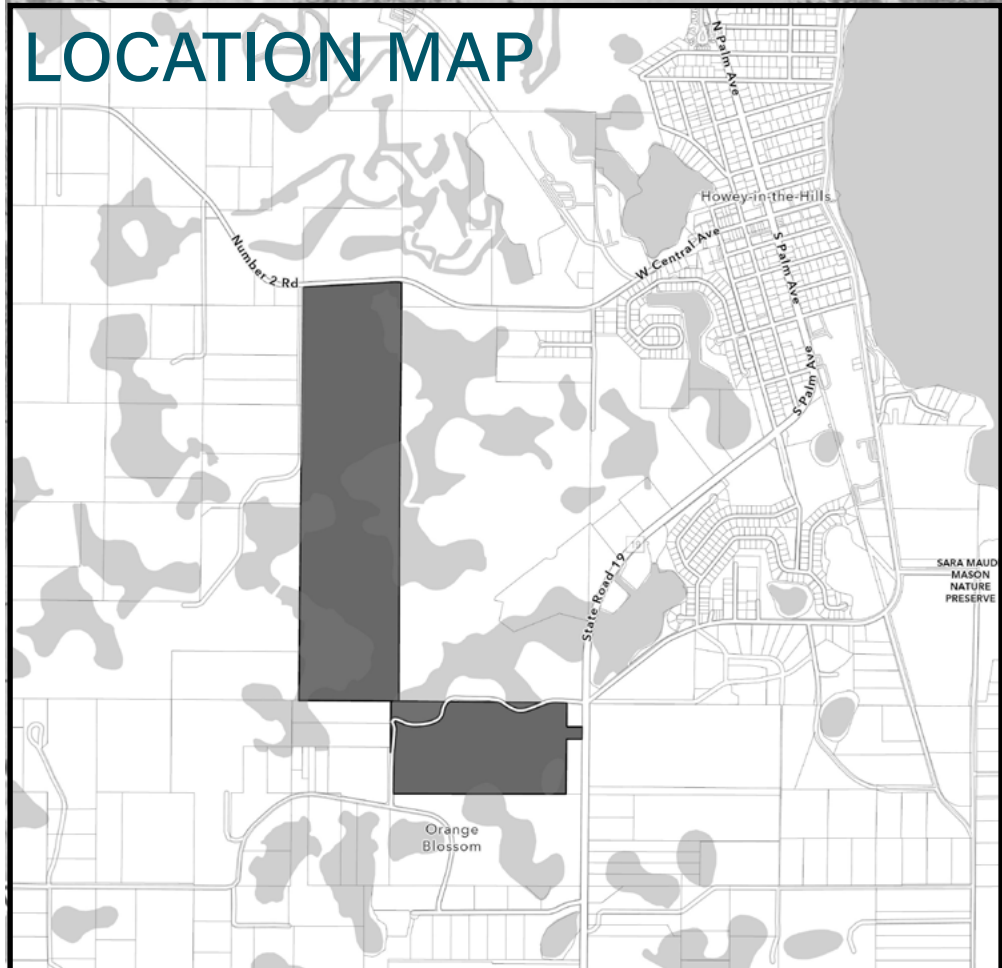
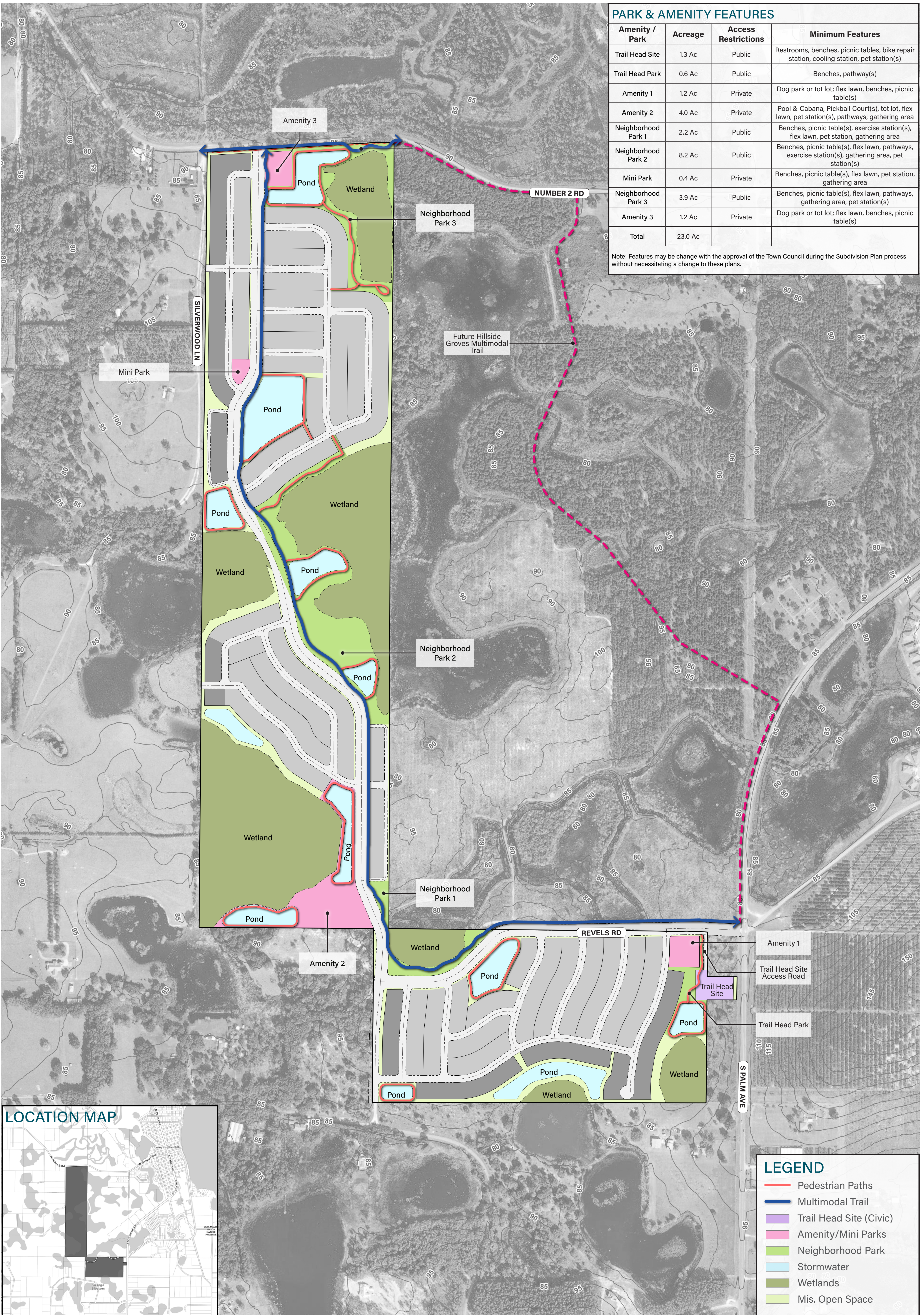
FLOOD ZONE

- A
- AE

PARK & AMENITY FEATURES

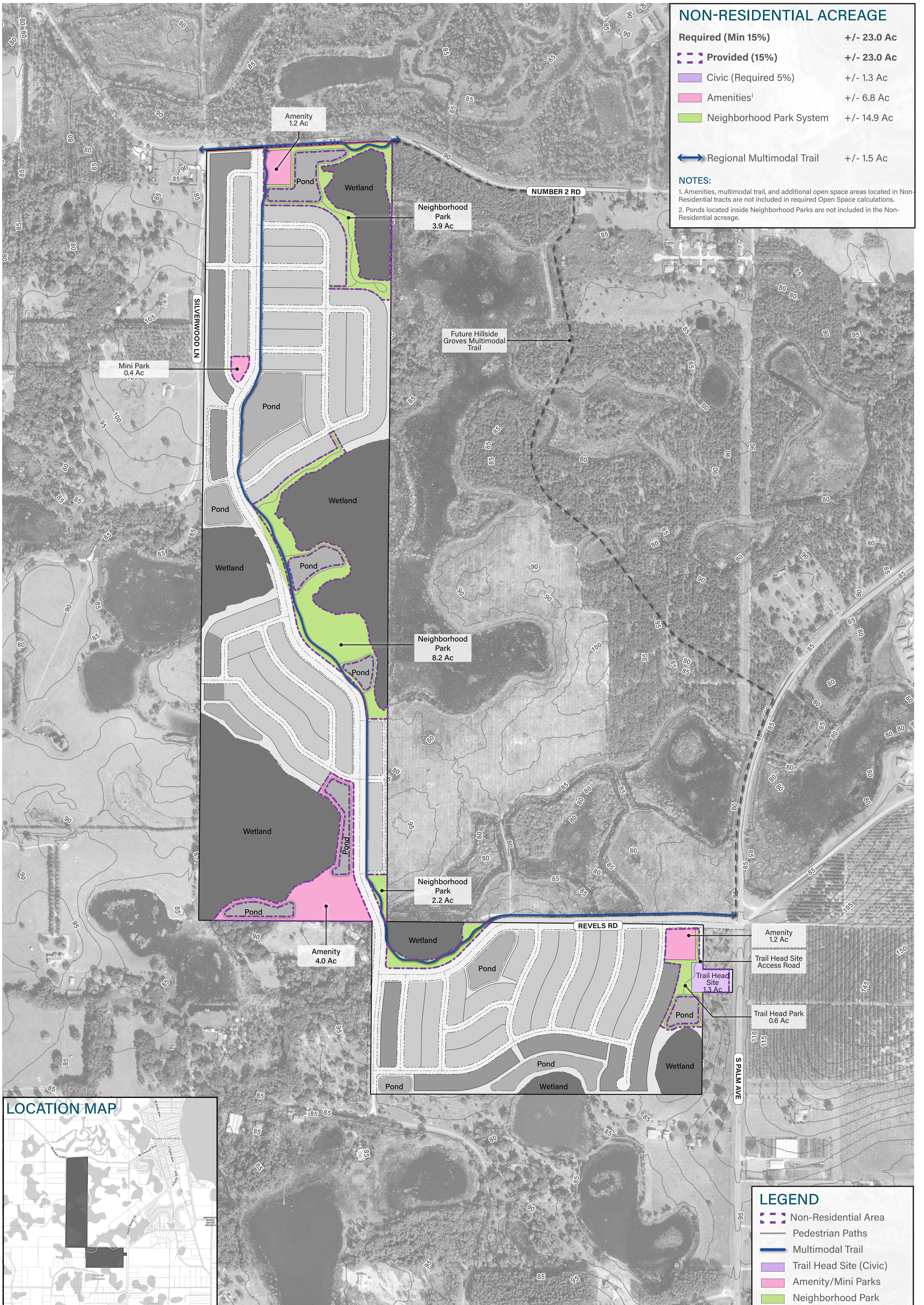
Amenity / Park	Acreage	Access Restrictions	Minimum Features
Trail Head Site	1.3 Ac	Public	Restrooms, benches, picnic tables, bike repair station, cooling station, pet station(s)
Trail Head Park	0.6 Ac	Public	Benches, pathway(s)
Amenity 1	1.2 Ac	Private	Dog park or tot lot; flex lawn, benches, picnic table(s)
Amenity 2	4.0 Ac	Private	Pool & Cabana, Pickball Court(s), tot lot, flex lawn, pet station(s), pathways, gathering area
Neighborhood Park 1	2.2 Ac	Public	Benches, picnic table(s), exercise station(s), flex lawn, pet station, gathering area
Neighborhood Park 2	8.2 Ac	Public	Benches, picnic table(s), flex lawn, pathways, exercise station(s), gathering area, pet station(s)
Mini Park	0.4 Ac	Private	Benches, picnic table(s), flex lawn, pet station, gathering area
Neighborhood Park 3	3.9 Ac	Public	Benches, picnic table(s), flex lawn, pathways, gathering area, pet station(s)
Amenity 3	1.2 Ac	Private	Dog park or tot lot; flex lawn, benches, picnic table(s)
Total	23.0 Ac		

Note: Features may be change with the approval of the Town Council during the Subdivision Plan process without necessitating a change to these plans.



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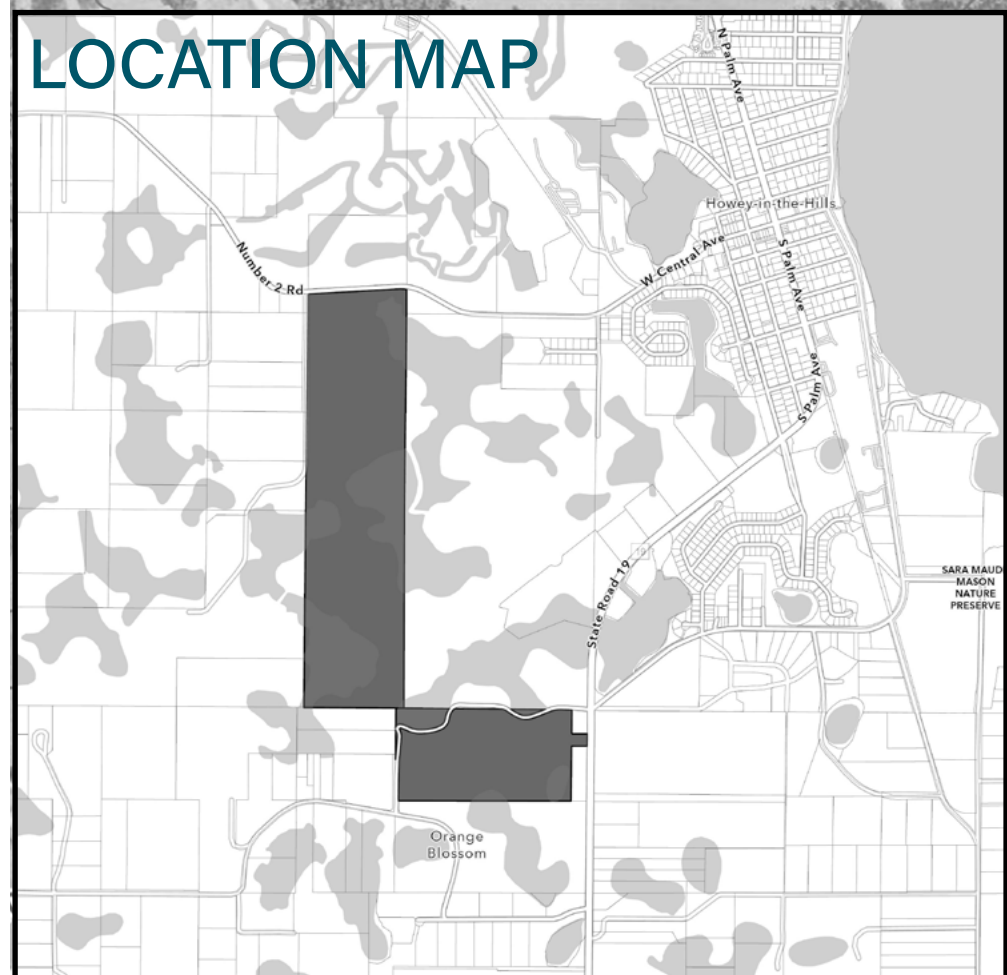
- Pedestrian Paths
- Multimodal Trail
- Trail Head Site (Civic)
- Amenity/Mini Parks
- Neighborhood Park
- Stormwater
- Wetlands
- Mis. Open Space



NON-RESIDENTIAL ACREAGE

Required (Min 15%)	+/- 23.0 Ac
Provided (15%)	+/- 23.0 Ac
Civic (Required 5%)	+/- 1.3 Ac
Amenities ¹	+/- 6.8 Ac
Neighborhood Park System	+/- 14.9 Ac
Regional Multimodal Trail	+/- 1.5 Ac

NOTES:
 1. Amenities, multimodal trail, and additional open space areas located in Non-Residential tracts are not included in required Open Space calculations.
 2. Ponds located inside Neighborhood Parks are not included in the Non-Residential acreage.



LEGEND

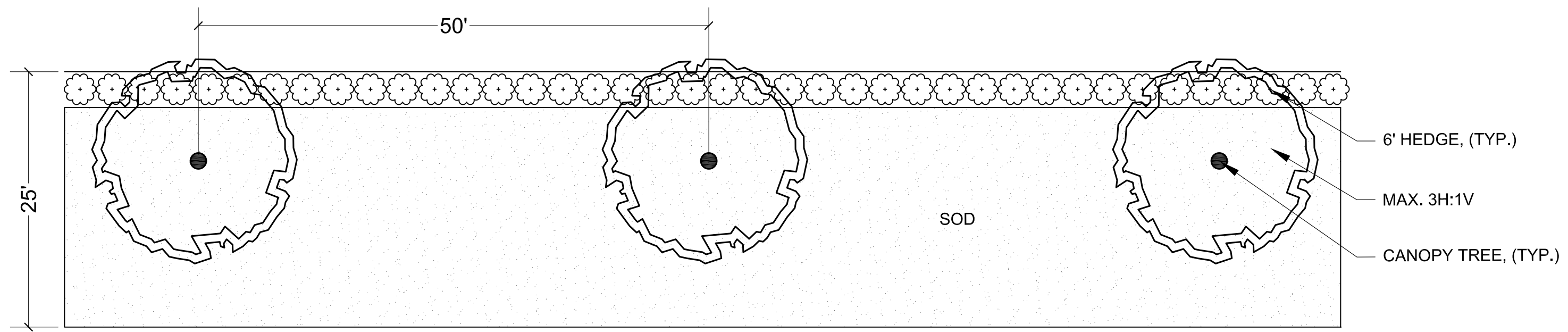
- Non-Residential Area
- Pedestrian Paths
- Multimodal Trail
- Trail Head Site (Civic)
- Amenity/Mini Parks
- Neighborhood Park

RESIDENTIAL BUFFERS

25' LANDSCAPE BUFFER, TYPICAL

A landscaped berm with a total depth of at least 25 feet and no steeper than 3H:1V. The berm shall be at least three feet (3') in height and the berm together with the landscaping, shall comprise a continuous screen of at least 5 and one half feet (5.5') at time of planting and six feet (6') within one year of planting. Canopy trees shall also be planted every 50 feet along the berm.

For single family subdivisions, these buffers shall be on common property and dedicated to the homeowners' association for ownership and maintenance responsibilities.

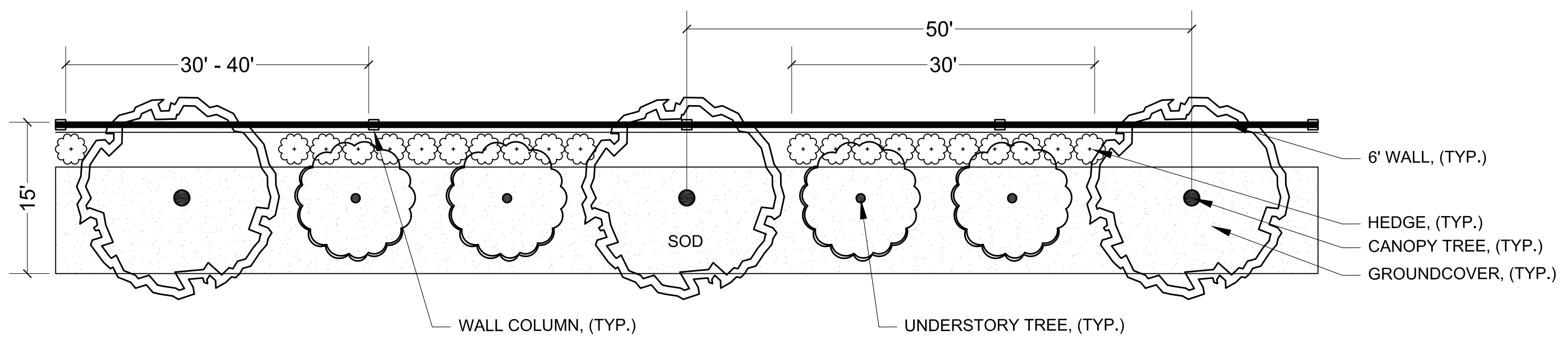


15' LANDSCAPE BUFFER, TYPICAL

A landscaped wall buffer with a minimum depth of 15 feet. The wall shall maintain a height of six feet (6') from grade on highest side and all walls shall have a decorative exterior (no exposed block). Acceptable materials for wall faces are brick, stucco or stone or a combination of those materials. Wall columns shall have a maximum spacing of thirty feet (30') on walls up to two hundred feet (200') in length and forty feet (40') on walls more than two hundred feet (200') in length. Wall columns may extend up to two feet (2') above the height of the wall.

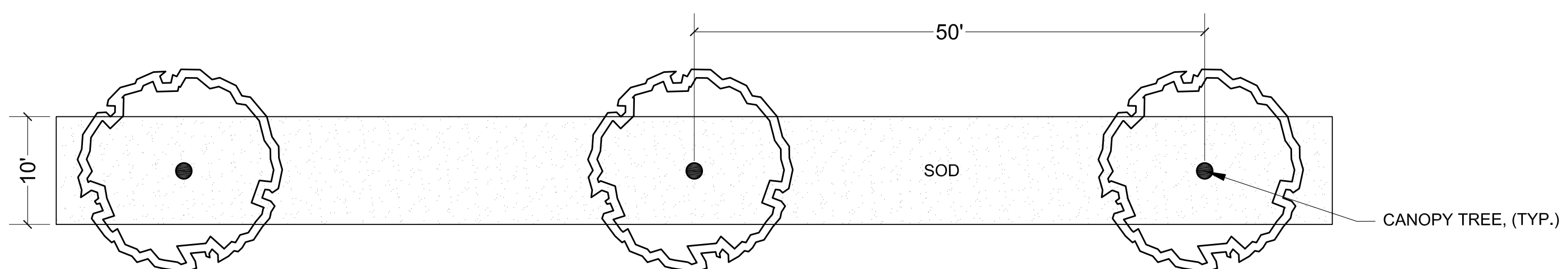
Within each fifty-foot (50') increment along the wall, two (2) canopy trees, two (2) understory trees, and 30 linear feet of shrubs shall be planted. The trees shall not be closer than five feet (5') to a walk or wall. The shrubs shall be at least 30" in height at time of planting.

For single family subdivisions, these buffers shall be on common property and dedicated to the homeowners' association for ownership and maintenance responsibilities.



10' LANDSCAPE BUFFER, TYPICAL

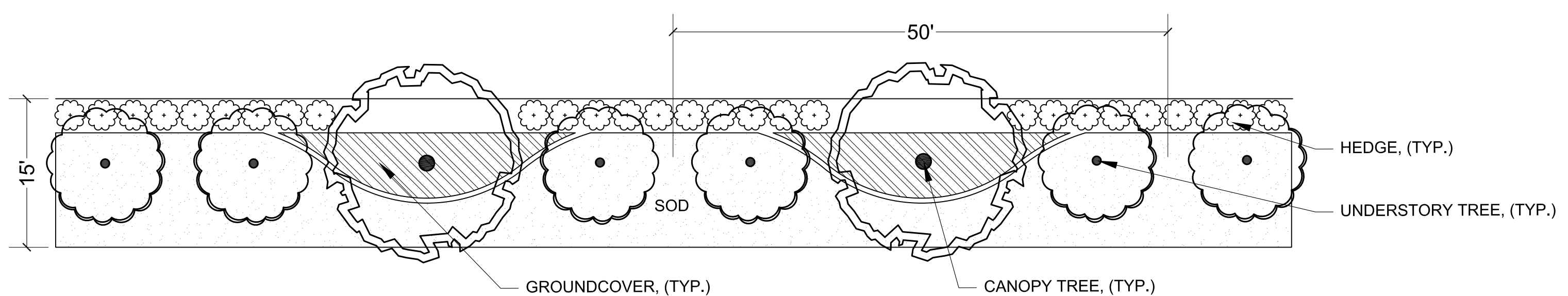
Ten-foot-wide (10') landscaped buffer with trees spaced no more than 50 feet on center.



NON-RESIDENTIAL BUFFERS

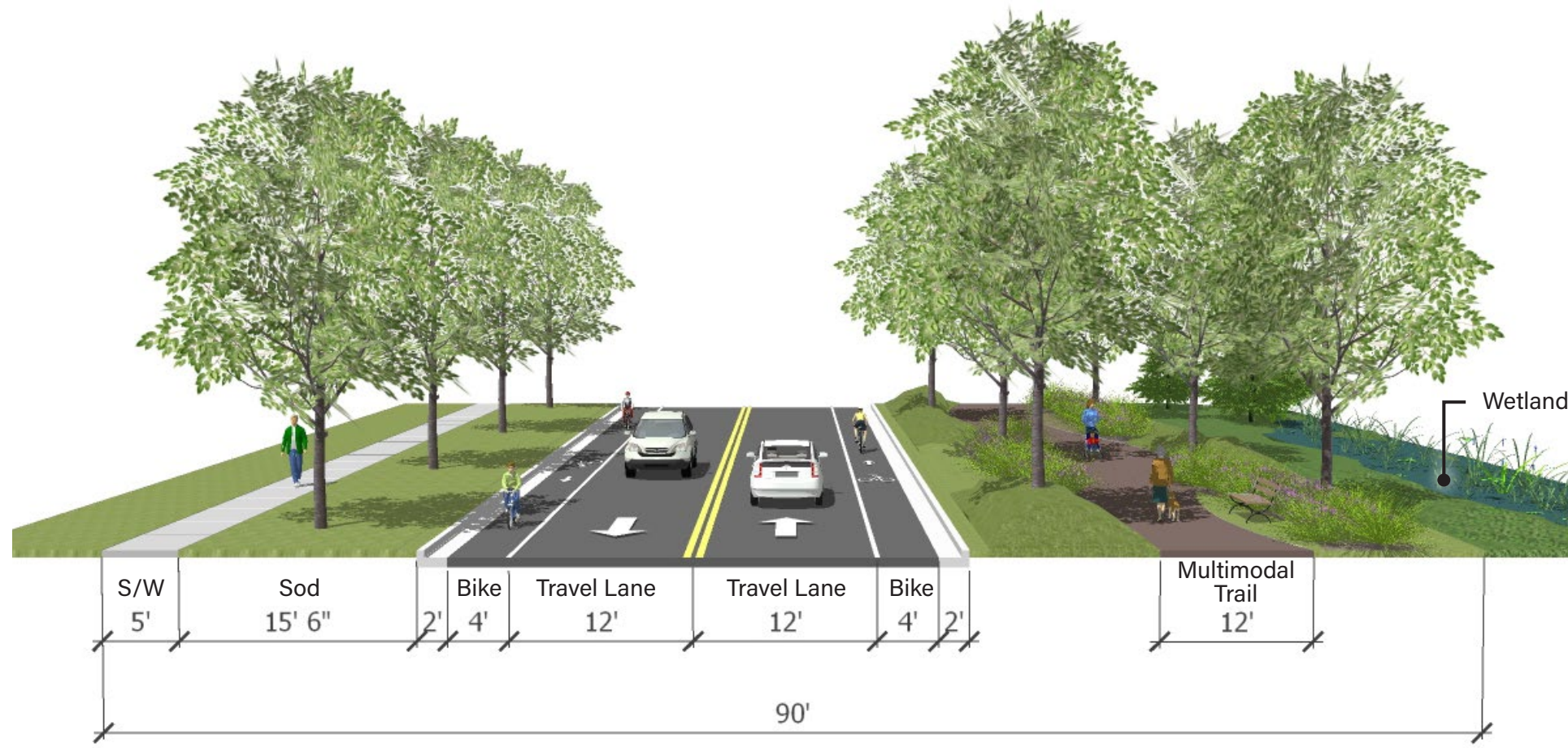
15' LANDSCAPE BUFFER, TYPICAL

The landscaped buffer shall contain at least one (1) canopy tree, two understory trees and 30 linear feet of shrubs and ground cover for each 50 linear feet of buffer. Canopy trees shall be located no less than five feet (5') and no more than eight feet (8') from sidewalks and other walkways in order to provide shade while minimizing conflicts between tree roots and sidewalks. Similarly, canopy trees shall be used to shade parking areas that adjoin buffers. Understory trees may be planted in groupings and palms may be planted in place of understory trees when clustered in groupings of three or more trees.



SPINE ROAD

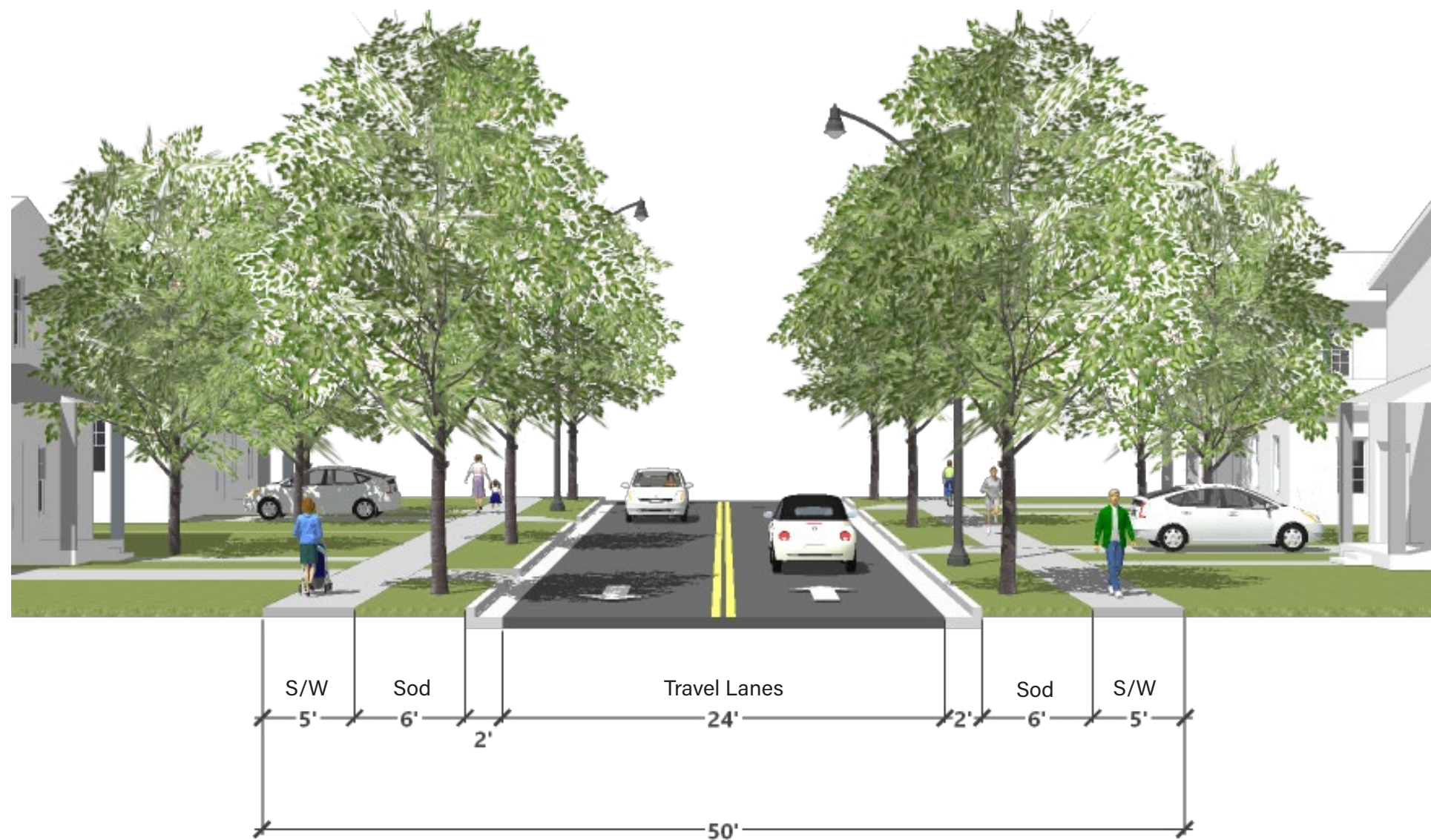
90' ROW WITH BIKE LANE & 12' MULTIMODAL TRAIL



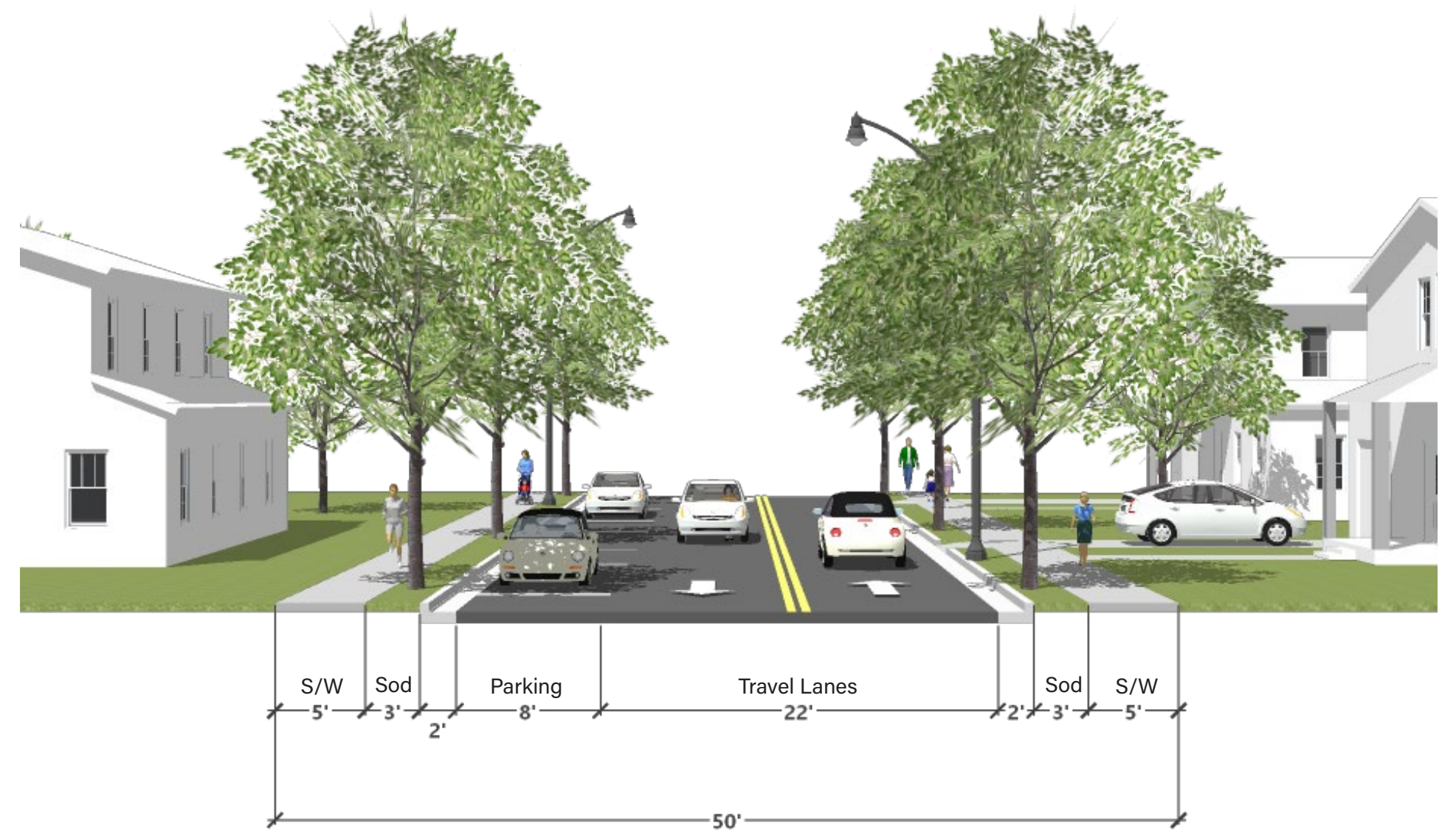
NOTE:

Multimodal Trail is intended to meander in and out of the proposed ROW. Final location may vary based on grading, utilities & final engineering.

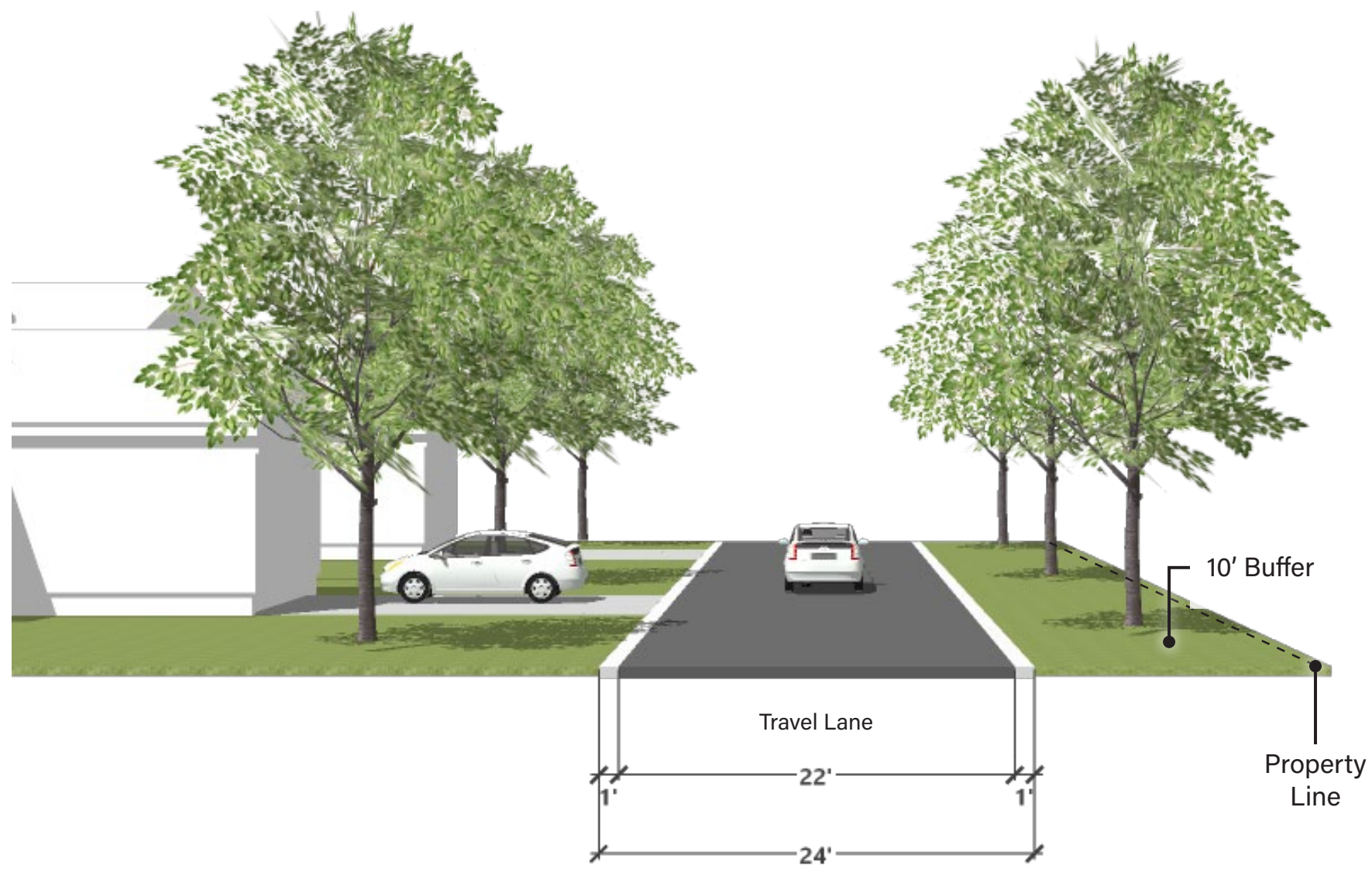
NEIGHBORHOOD ROAD OPTION 1 - 50' ROW



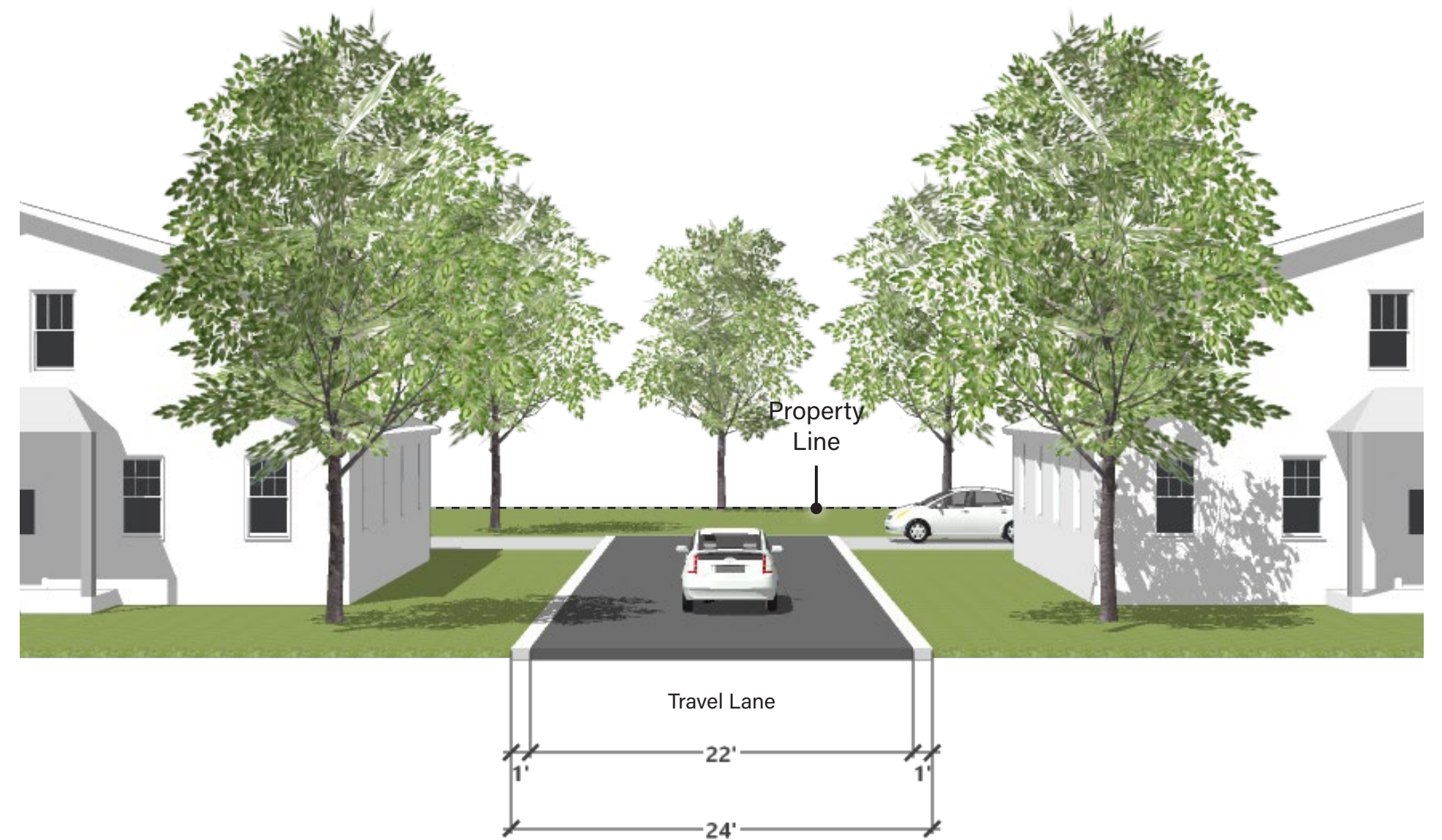
OPTION 2 - 50' ROW WITH PARKING ON ONE SIDE



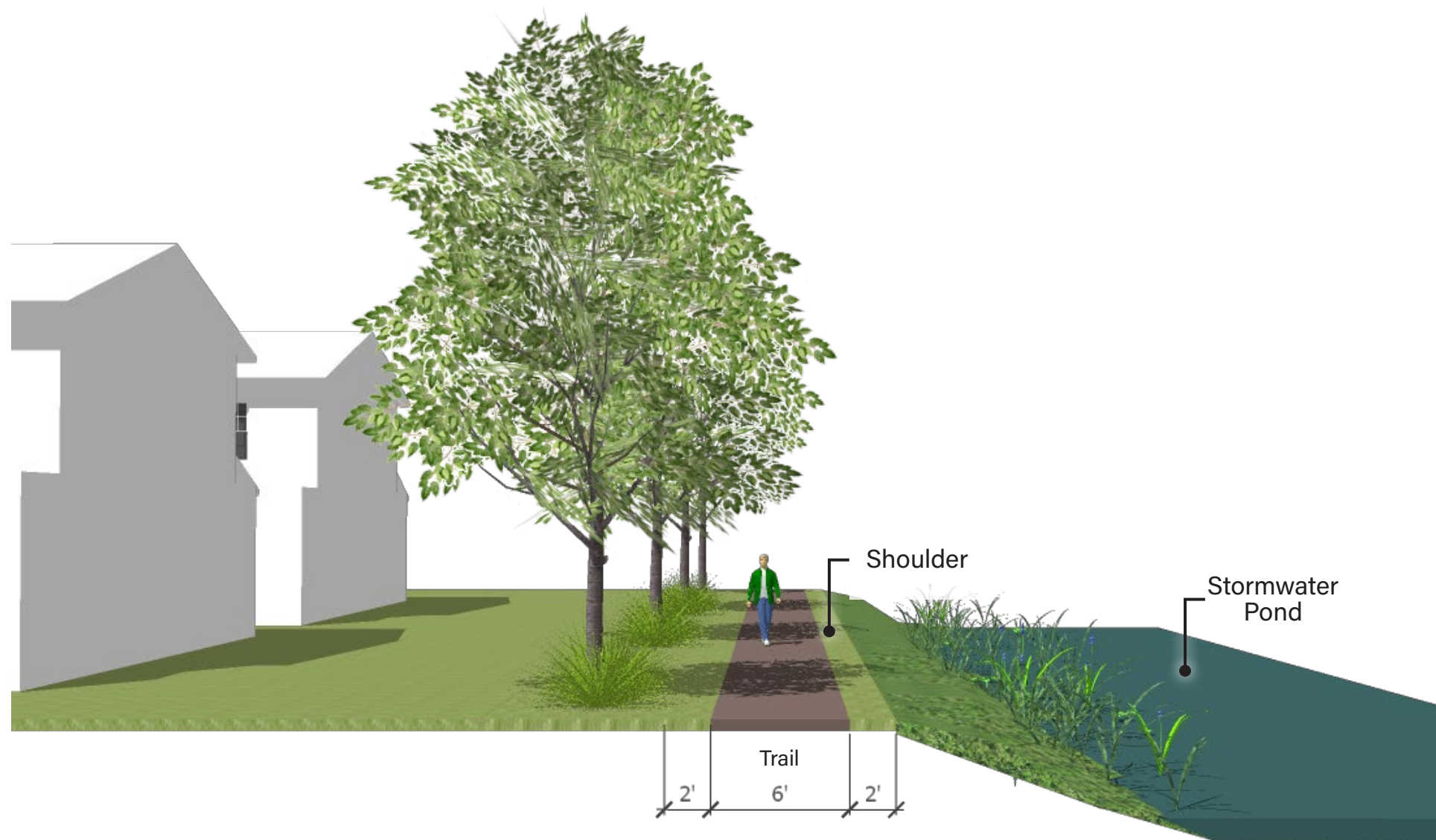
ALLEY ROAD OPTION 1 - PARALLEL 24' ROW



OPTION 2 - PAIRED 24' ROW

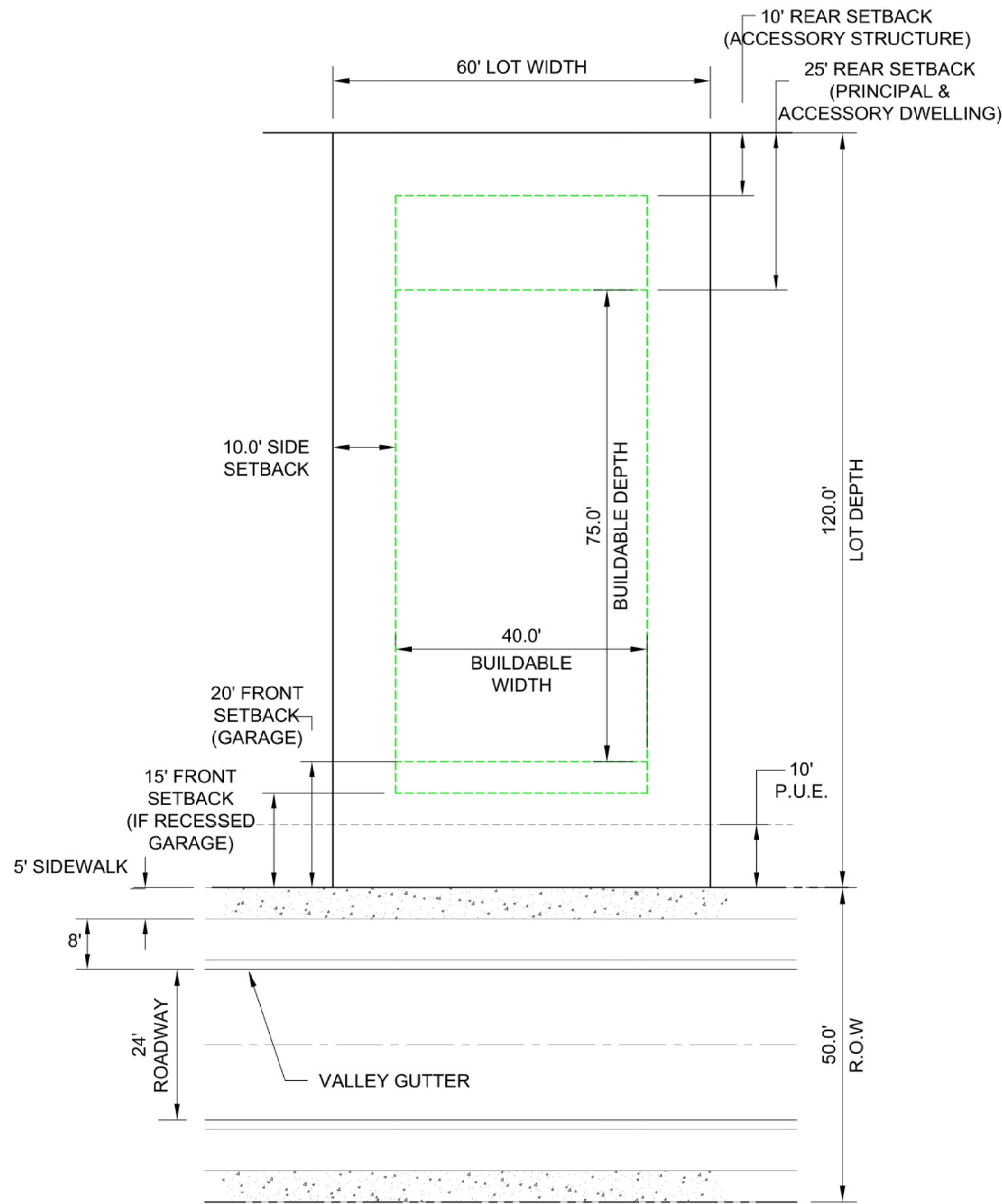


PEDESTRIAN PATH 6' TRAIL

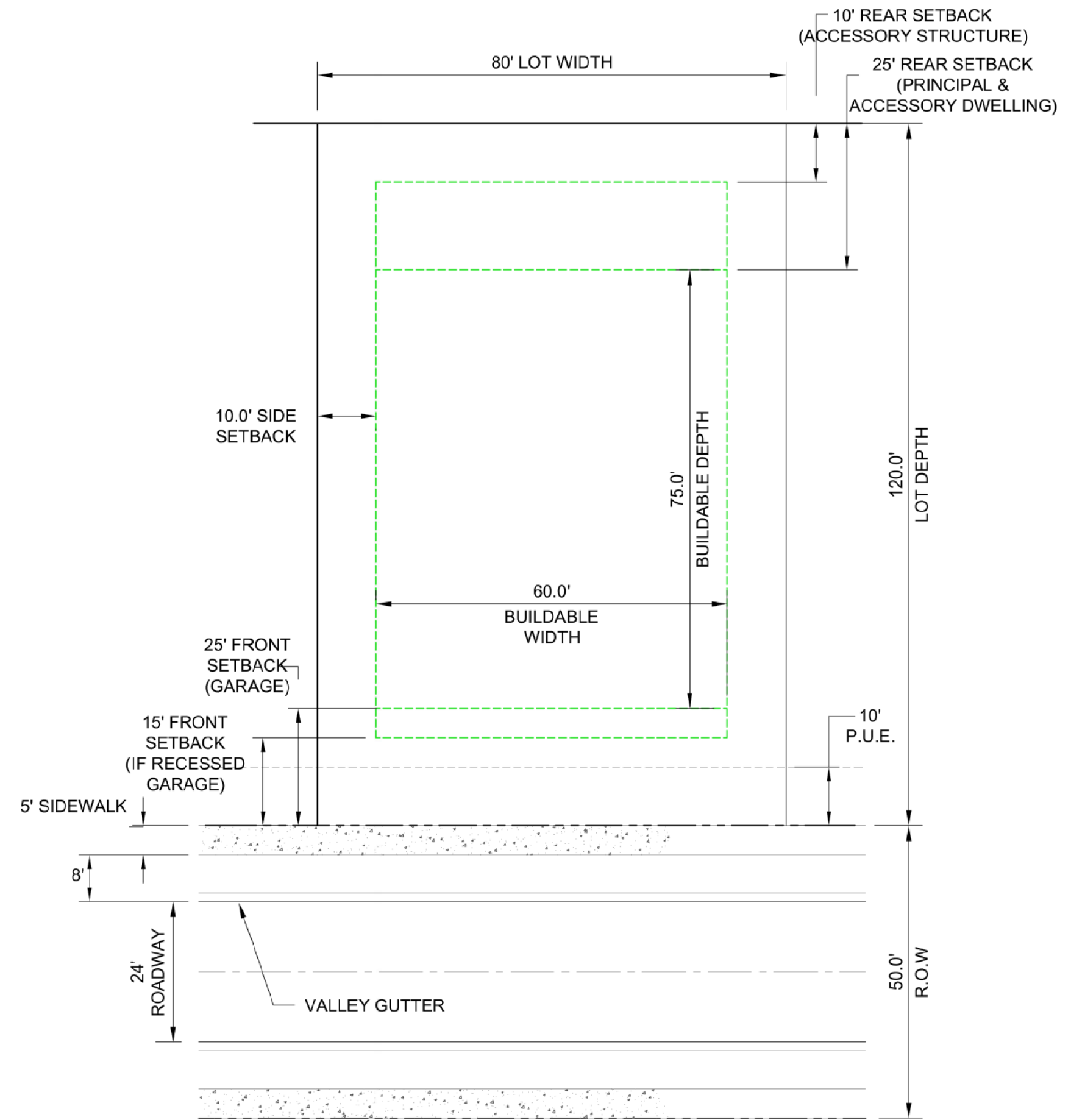


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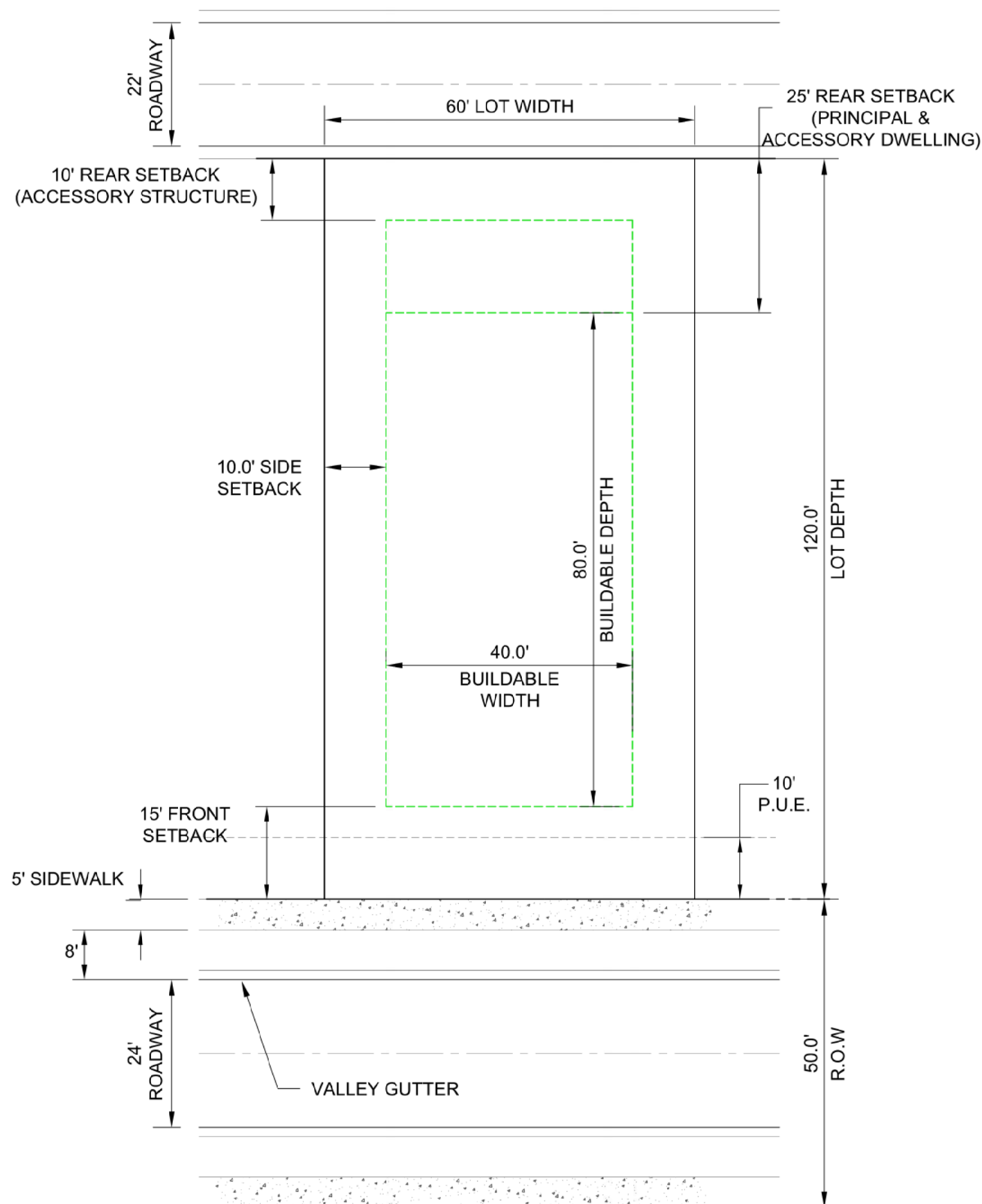
60' LOT FRONT LOAD GARAGE



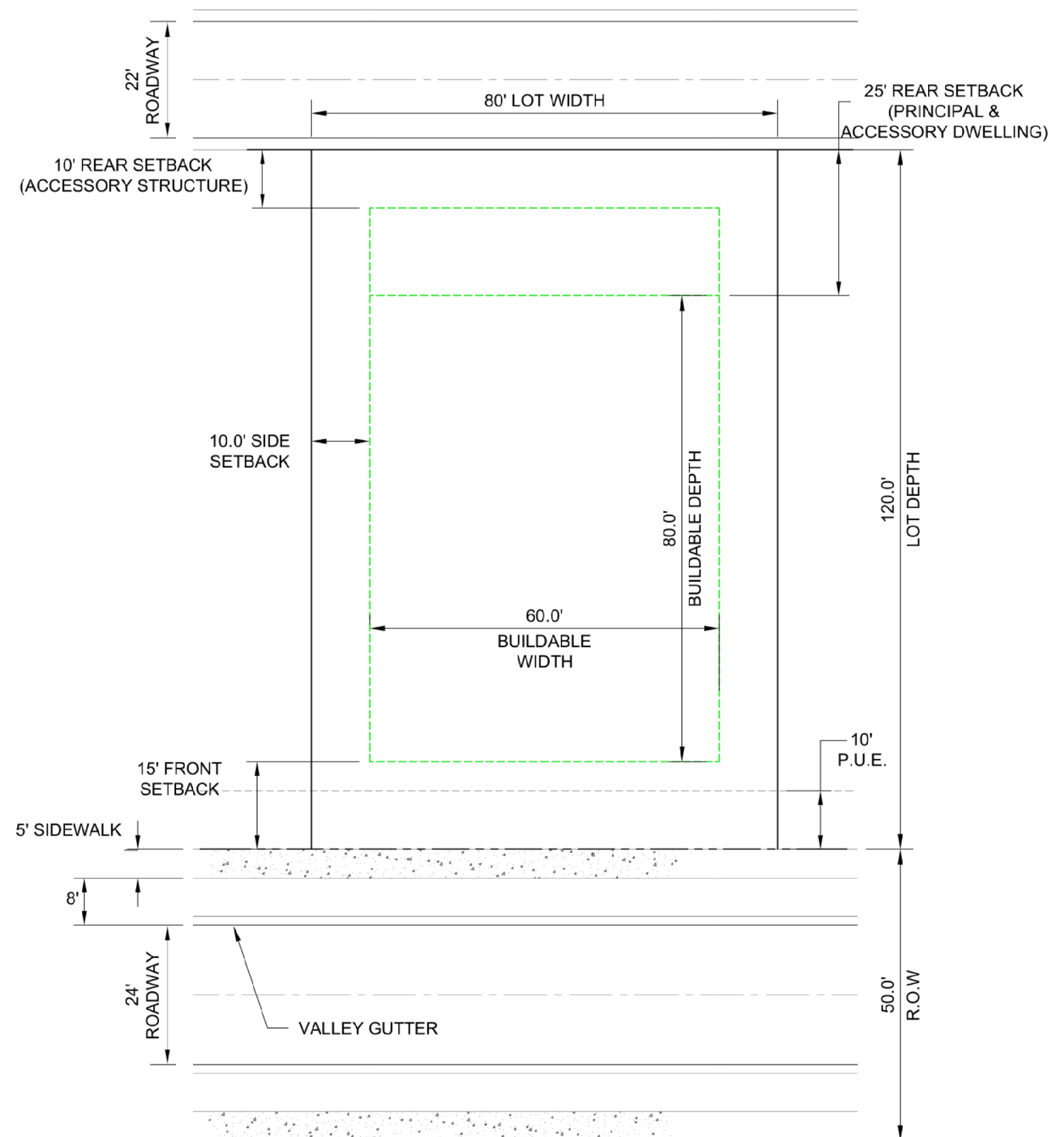
80' LOT FRONT LOAD GARAGE



60' LOT REAR LOAD GARAGE



80' LOT REAR LOAD GARAGE



This instrument prepared by and should be returned to:
 Thomas J. Wilkes
 GrayRobinson
 301 East Pine Street, Suite 1400
 Orlando, Florida 32801

MISSION RISE PUD DEVELOPMENT AGREEMENT

This **MISSION RISE PUD DEVELOPMENT AGREEMENT** (“Agreement”) is made as of the _____ day of _____, 2024 (“Effective Date”), between the **Town of Howey-in-the-Hills**, Florida, a Florida municipal corporation (the “Town”), and **ASF TAP FL I, LLC**, a Delaware limited liability company (the “Owner”).

RECITALS

A. The Owner owns approximately 243 acres of property more particularly described in Attachment A to this Agreement (“the Property”).

B. The Property is within the corporate limits of the Town. The Town has assigned the Property a future-land-use designation of Village Mixed Use. To be developed the Property must be zoned PUD - Planned Unit Development.

C. The Property was zoned PUD in or about 2010, but the PUD zoning and its related development agreement expired.

D. The Owner intends to develop and use the Property as a mixed-use planned development consisting of single-family residential, civic and public uses more specifically set forth herein (“the Project”), to be known as the “Mission Rise PUD.”

E. In connection with the Owner’s request for Village Mixed Use PUD zoning, the Town and the Owner now enter into this Agreement to set forth the terms and conditions of approval negotiated between them for the development and use of the Property as the Mission Rise PUD.

NOW, THEREFORE, the Town and the Owner agree as follows:

Section 1. Land development and uses. Development and use of the Property is subject to the following conditions, requirements, restrictions, and terms:

(a) **General.** Development of the Project and use of the Property shall be governed by this Agreement, the Town’s Comprehensive Plan, the Town’s Land Development Code (“LDC”) and Code of Ordinances (“Town Code”), and all other applicable state laws and regulations and Town ordinances and rules.

Unless otherwise noted, the definition of terms in this Agreement shall be the same as the definitions set forth in the LDC. Where in conflict, the terms of this Agreement shall supersede and prevail over the LDC and Town Code, but only to the extent of the conflict.

The Conceptual Land Use Plan, or Conceptual Plan, is contained in Attachment B to this Agreement and consists of seven pages of the following graphics:

- i. Conceptual Plan;
- ii. Phasing Plan;
- iii. Parks, Trails & Open Space Plan;
- iv. Non-Residential Areas;
- v. Buffer Typical;
- vi. Street Cross Sections; and
- vii. Lot Fit.

In the Conceptual Land Use Plan for the Project the term “conceptual” means the location of land uses on the site, including areas for residential development, open space, stormwater management, parks, and roads in relation to the site area and other uses on the site. Subsequent plan development may refine the details based on detailed engineering design. “Conceptual” does not mean or contemplate the modification of proposed housing types or the relocation of land uses and roads other than minor adjustments dictated by engineering needs and best practices.

(b) **Phasing.** The Project will be developed in three phases, as shown on the Conceptual Land Use Plan or “Conceptual Plan” in Attachment B to this Agreement. Each phase must be designed and built to operate independently with all necessary public services and utilities infrastructure, including roads, multimodal trails, and master stormwater systems, consistent with Conceptual Land Use Plan. Building permits for residential units in Phase 2 will not be issued until permits for residential units have been issued for Phase 1. Building permits for residential units in Phase 3 will not be issued until permits for residential units have been issued for Phase 2. Revisions to the phasing schedule shall be considered as minor amendments to this Agreement that may be approved by Town Council with no formal amendment to this Agreement required.

- (c) **Purpose.** The purpose of the Mission Rise PUD is to:
1. Create an attractive and high-quality single-family housing development compatible with the scale and character of existing residential development and land uses in the Town;
 2. Develop a residential area that is safe, comfortable and attractive for and to pedestrians;

3. Create a community with direct visual and physical access to open land, with a strong community identity, and with amenities in the form of community open space;
4. Provide a network of open space for future homeowners; and
5. Provide a variety of lot sizes and housing choices for diverse age and income groups and residential preferences.

(d) **Land uses.** The Conceptual Land Use Plan for the Project in Attachment B is an integral part of the approval of the Project. Elements in the Concept Plan include single-family detached homes, civic uses, multimodal trails and approximately 90 acres of open space and preserved wetlands. No manufactured or modular homes are allowed. Uses that would be prohibited under the LDC for SFR, MDR-1, or MDR-2 zoning are likewise prohibited in residential areas of the Project.

(e) **Development standards.**

Lot Size

A range of lot sizes shall be provided in order to create variety and offer opportunity for different income households. Minimum lot size will be 60' x 120'. The Project may consist of up to 438 total single-family residential detached lots of 60' x 120' and 80' x 120'.

Setbacks

The setbacks for single family residential lots shall be as follows:

Front:	20 feet / 15 feet (w/ recessed garage)
Rear:	25 feet
Side:	10 feet
Corner:	12.5 feet
Pool / Accessory	10 feet

Dwelling Size

The minimum dwelling size for all single-family residences shall be 1,400 square feet of heated/air-conditioned space under roof plus a two-car garage with a minimum of 400 square feet. Maximum dwelling size shall be 4,600 square feet of heated/air-conditioned space under roof.

Lot Width

The minimum lot width at building line shall be 60 feet for 60-foot wide lots and 80 feet for 80-foot wide lots, with a minimum street frontage for all lots of 30 feet.

Lot Coverage

Lots may have a maximum lot coverage of 60%, to include principal dwelling, all paved areas, and swimming pools.

Height of Structures

No residential structure may exceed 35 feet in height.

Building Design

If and to the extent not inconsistent with Florida law, building design shall be in accordance with the Architectural Requirements of the Town’s LDC and will comply specifically with the design requirements of LDC Sections 4.06.02 and 4.06.03.

The following principles seek to promote a high-quality development that will create a sense of place and community through the development of the site.

- If and to the extent not inconsistent with Florida law, housing styles, shapes and materials shall meet the Towns Land Development Regulations.
- The different housing types shall be integrated architecturally in order to give the development a harmonious appearance.
- The creation of visual richness shall be considered when choosing materials and details. Local characteristics are encouraged.
- Side entrances for garages are encouraged.
- A variety of roof heights, pitches and materials are encouraged.
- Landscaping shall be incorporated into the overall design as a means of linking the development areas with the open spaces.
- Each exterior wall for a single-family home must be a minimum of two materials and a minimum of two colors. Primary facades must have one base color and a complementary wall material may be used to meet the second color requirement.
- Block face restrictions may be reduced to 300 linear feet. The same house model may not be used more than three times within a single block face. For purposes of this requirement, a different house model is a different floor plan, not the same floor plan flipped in a different direction and not the same floor plan with a different exterior treatment.

(f) **Wetlands.** Impacts to wetlands, if any, and wetland buffering shall be subject to the Town’s Land Development Regulations, as well as St. Johns River Water Management District regulations.

(g) **Potable water, wastewater, and reclaimed water.** For potable water and wastewater service, well and septic systems are not allowed. The Project must be connected to and served by the Town’s potable-water and wastewater systems prior to a certificate of occupancy being issued for a structure in the Project (except temporary construction uses).

Except as may be set forth otherwise in this Agreement, the Owner must install all on-site potable-water, wastewater, and reclaimed-water infrastructure and connect to central water and wastewater systems, and to the Town’s reclaimed-water system when available at the Property boundary, all at no cost to the Town. The Owner must pay potable-water, wastewater, and reclaimed-water capital and connection charges, impact fees, and other Town rates, fees, and charges, either applicable currently or in the future.

1. *Potable Water.* The Town will provide potable water, and may in the future provide reclaimed water, to the Project in accordance with its applicable ordinances,

resolutions, operating regulations, policies and procedures. The Town will provide potable water to the Property in sufficient quantities for development of the Project as contemplated herein, subject to the limitations and requirements of permits issued to the Town from time to time by the St. John’s River Water Management District in connection with water consumption.

The Owner shall construct, at no expense to the Town, all off-site potable-water-system facilities, lines, pumps, valves, control structures, and appurtenances (other than water-treatment plants) necessary to serve the Project. The construction and route of off-site lines and other structures shall be done according to engineering plans prepared by the Owner and approved by the Town Manager. Potable water shall not be used for irrigation.

2. *Wastewater.* The Town will provide wastewater-collection and transmission service to the Project, transmitting Project wastewater either to the Central Lake Community Development District (“CDD”) or to another wastewater utility service provider of the Town’s choosing with available capacity to treat and dispose the Project’s wastewater (“Wastewater Utility”). The Owner must obtain from the CDD or Wastewater Utility a contract right for the Project to receive treatment and disposal of its wastewater at such provider’s treatment and disposal facilities.

The Owner shall construct, at no expense to the Town, all off-site wastewater-system transmission and disposal facilities, lines, lift stations, pumps, valves, control structures, and appurtenances (other than wastewater-treatment plants) necessary to serve the Project. The construction and route of off-site lines, lift stations, pumps, and other structures shall be done according to engineering plans prepared by the Owner and approved by the Town Manager.

3. *Town Option to Oversize Water and Wastewater Lines.* In its review and processing of the preliminary subdivision plans for each phase of the Project, the Town may elect to oversize the off-site lines, pumps, improvements, or other facilities or appurtenances for the Town’s water or wastewater system, or for both, necessary to serve such phase. If the Town elects to oversize one or both systems, it must inform the Owner in writing of the specifications for the oversizing(s) prior to or as part of the Town’s first round of review comments on the preliminary subdivision plan application. The Town shall reimburse the Owner for the difference in the increase in cost of design, materials and construction to oversize the improvements based on plans and cost estimates provided by the Owner to the Town and approved by the Town Manager, which approval shall not be unreasonably withheld, conditioned or delayed. The Town shall reimburse the Owners for the difference in the costs within 60 days following (i) completion of the improvements and (ii) receipt by the Town of documentation reasonably demonstrating that the Owner has completed the work and has incurred the costs attributable to the over-sizing, all in keeping with the plans and cost estimate previously approved by the Town Manager.

4. *Permit-Induced Costs, Restrictions, Requirements, and Risks.* Under state and federal laws and regulations, the Town may provide its potable-water and wastewater services to the Property and the Owner and its successors only if the Town first has been issued certain required permits. The Owner acknowledges that the permits are inevitably conditioned with requirements and restrictions that typically impose costs and risks. The Owner further acknowledges that, for the Town to operate its potable-water and wastewater systems in an

orderly, dependable, and cost-effective manner, the Town must have the ability legally to spread the costs and risks among customers and property owners benefiting from the services. The Owner acknowledges, therefore, that (i) from time to time the Town may impose rates, fees, and charges and may issue potable-water system and wastewater-system regulations and policies that impose restrictions and requirements on its customers and benefiting property owners, such as the Owner and its successors, and (ii) so long as the Owner or successors are required to pay only their fair share for such rates, fees, and charges, then the imposition of such rates, fees, and charges and the issuance of such system regulations are not prohibited by or otherwise a breach of this Agreement.

5. *Reclaimed Water.* The Owner must install reclaimed water lines, both on-site and off-site as directed by the Town and as required by the Town's Code of Ordinances. Until such time as reclaimed water is available to the Property the Owner and its successors shall use the reclaimed water lines to irrigate properties within the Project boundaries, but only with stormwater from on-site stormwater-retention ponds or with sources other than potable water as may be approved by the Town and St. John's River Water Management District. Except for installation of reclaimed lines at the time of development as noted above, connection to reclaimed water after the development of the Project may not result in additional costs to the Owner or developer.

(h) **Solid Waste.** Solid Waste collection shall be pursuant to Town regulations.

(i) **Drainage.** The maintenance, repair, and replacement of the drainage system shall be the responsibility of the homeowners association(s).

(j) **Transportation**

1. Roadways

- A. The Project must have a connected street system that serves vehicles, pedestrians and bicycles and that connects to recreation facilities and adjacent residential/community areas.
- B. There must be ingress and egress points at Revels Road, County Number Two Road and Orange Blossom Road in the approximate location shown on the Conceptual Land Use Plan.
- C. The access at County Road Number Two must be a full intersection, with dedication of right-of-way sufficient for both (i) construction of turn lanes and (ii) reconstruction of No. 2 Road lanes along the Project frontage with 12-foot travel lanes, 4-foot curb lanes, and 2-foot curb and gutter. Otherwise, design of the No. 2 Road improvements are subject to review and approval by Lake County.
- D. Ingress and egress points at the western and eastern boundaries of the Property must also be provided, as shown on the Conceptual Land Use Plan. On the west the Project internal roads must connect to Silverwood Lane. On the east the internal roads must connect to Road DD shown on the Master

Site Plan for The Reserve at Howey-in-the-Hills PUD that is to be stubbed to the boundary of the Property. If for whatever reason the internal roads cannot be connected by the Owner to Silverwood Lane on the west or to Road DD in The Reserve on the east, the Owner must stub the Project roads to the Property boundary for future connection.

- E. Revels Road and the north-south Spine Road must be constructed in phases consistent with the phasing plan shown on the Conceptual Land Use Plan. Revels Road and the Spine Road must be public, dedicated to and maintained by the Town. Revels Road and the Spine Road must have a minimum 90-foot right-of-way, 2-foot curb and gutter, and a minimum 32-foot-wide pavement with minimum 12-foot travel lanes and 4-foot curb lanes.
- F. All other internal neighborhood roads must have a minimum 50-foot right-of-way, curb and gutter, and a minimum 24-foot-wide pavement with minimum 12-foot travel lanes, which may be reduced to 11-foot travel lanes when adjacent to on-street parking. All alley roads must have a minimum 24-foot right-of-way, curb and gutter, and a minimum 22-foot-wide pavement. Provision must be made in the rights-of-way for underground utilities.

2. Sidewalks and trails.

All portions of the development must be accessible by a direct, convenient, attractive, safe, and comfortable system of pedestrian facilities. The development must provide appropriate pedestrian amenities. A multimodal trail with minimum width of twelve feet must be constructed within each phase of the Project consistent with Conceptual Land Use Plan and the Town's bicycle/pedestrian plan. The multimodal trail and all sidewalks within rights-of-way must be dedicated to and will be maintained by the Town.

2. Intersection Improvements in Lieu of Proportionate Fair Share Mitigation

The Owner has offered, and the Town accepts the Owner's offer, (i) to undertake and complete at no cost to the Town the reconstruction of the intersection at Revels Road and State Road 19 as a roundabout facility, in return for (ii) the Town waiving its customary transportation-concurrency review and a proportionate fair-share payment by the Owner. The intersection and its design are subject to required approval and permits from the Florida Department of Transportation (FDOT).

The intersection construction must be complete before the issuance of the 51st residential building permit in Phase 2 of the Project.

If the Owner cannot obtain required state permits for an intersection roundabout, the Owner shall undertake and complete construction of the intersection with a traffic signal if allowed by FDOT. For either intersection type both Revels Road and State Road 19 must be constructed in the intersection as four-lane roads.

If the Owner obtains the required state permits for the roundabout intersection or, alternatively, the signalized intersection, the Town will be deemed to have waived its transportation-concurrency review. If the Owner cannot obtain required state permits for reconstruction of the intersection in either configuration, the Project must undergo transportation-concurrency review. The Owner must complete and submit for review prior to final development order a traffic-impact analysis.

If the results of the traffic-impact analysis require any mitigation for traffic generation, the Town and the Owner will work together and with any other applicable jurisdiction as required by applicable law to address such mitigation requirements through Owner's funding of its proportionate fair share of traffic improvements. Payment of the Owner's fair share must be made in pro-rata amounts upon the issuance of each building permit.

(k) **Schools.** The Project must apply for concurrency review at Lake County Public Schools. The school district has a specific application process. The Project must be shown to have appropriate school concurrency before building permits are issued.

(l) **Landscaping Requirements.** All landscaping and buffer requirements shall be in accordance with the LDC and as illustrated on the Conceptual Land Use Plan with the exception of the following:

1. All buffer, street, and canopy trees planted at the Project will be a minimum of a 2" caliper;
2. the Owner shall require homebuilders to plant at least one canopy tree for each single-family lot of at least 3" DBH; and
3. the developer will replace the equivalent of 30% of total tree-inches removed.

All trees planted at the Project shall adhere to the current guidelines established by the Florida Grades and Standards for nursery-grown trees and must be Florida grade #1 or better.

Developer must install street trees along each roadway where a common area abuts the road as required by the LDC.

(m) **Tree Protection.** Under no circumstances may any tree, regardless of size or species, be removed from any designated wetland or conservation easement. Trees proposed to be maintained on-site must comply with LDC requirements. No construction activity, equipment or material is permitted inside a tree protection barrier.

(n) **Lighting.** Decorative street lighting (Sanibel fixture, a Duke Energy standard fixture) must be installed (i) at every intersection, (ii) at the end of each cul-de-sac, and (iii) at intervals of 300 feet or as approved otherwise by the Town Manager. Street lighting must be installed by the Owner. All lighting must be directional, shielded lighting designed to minimize light pollution. All lighting must be maintained by the HOA.

(o) **Utilities.** All utilities must be underground.

(p) **Signage.** Entrance signs and informational signage may be located in buffers, setbacks/and or signage easements as approved by the Planning and Zoning Board. Unless stated

otherwise in this Agreement all signage must comply with requirements and restrictions in the LDC. The Owner shall present a sign plan for review and approval by the Planning and Zoning Board with the final site plan for each phase of the Project.

The Owner and/or builder(s) may erect temporary vertical marketing flags, also known as feather banners, with the following stipulations:

1. Feather banners must be placed no less than 200 feet apart.
2. A maximum of 10 feather banners, in total.
3. Feather banners cannot be placed within the right of way.
4. Feather banners cannot be located offsite of PUD property.
5. Feather banners cannot exceed 12 feet in height.
6. Feather banners must be replaced or removed if they become faded, torn, or tattered.
7. Feather banners must be removed when 90% of the homes in the development have received building permit approval.

Billboards and pole signs are prohibited. Unless defined differently in the LDC, a pole sign is a permanent sign supported by at least one upright pole, pylon, or post secured to the ground, with the bottom of the sign face four feet or higher above the finished grade.

(q) **Maintenance of Common Areas.** Maintenance of each common area within the Project is the responsibility of the homeowners' association(s) for the affected subdivision.

(r) **Parks, Trails, and Open Spaces.** Each phase of the Project must include (i) the recreation and civic facilities for the phase and (ii) an integrated bicycle network that ties into the bicycle facilities in The Reserve PUD so as to loop the system to connect cyclists from both developments. Structures, facilities, and other improvements to be constructed and installed at the sites designated on the Conceptual Land Use Plan as parks, trails and open spaces must be included for review and approval as part of the final site plan approval for each phase or subdivision of each phase. Plans submitted must be in sufficient detail to provide reasonable understanding and certainty of the improvements, facilities, and uses to be made at each such site..

Section 2. Amendments. Amendments to the Conceptual Land Use Plan that occur after the effective date of this Agreement shall take effect only if and when approved by the Town Council or Town staff as applicable. Major amendments include material changes such as:

- changes to the location of individual land uses;
- any increase in the total number of residential units; and
- relocation and realignment of roads and routes for pedestrian and bicycle facilities.

Major amendments take effect only if approved by the Town Council in the manner required by law or otherwise as determined by Town Council, which may include public notice(s) and hearing(s).

Minor amendments shall include lesser changes such as:

- minor adjustments of roads, trails and pedestrian ways based on more detailed site-specific data;
- modifications to the phasing schedule;
- adjustments to utility locations based on more detailed engineering data; or
- adjustments to parks and open space based on more detailed subdivision design.

Minor amendments may be approved by the Town Manager without referral to the Planning and Zoning Board or Town Council. Whether a proposed amendment is major or minor will be determined by the Town Manager. Minor amendments to the Conceptual Land Use Plan shall be deemed incorporated into this Agreement and shall modify or replace the Conceptual Land Use Plan in Attachment B to the extent of such amendment to the Conceptual Land Use Plan, without the necessity for an amendment to this Agreement.

Section 3. Notices. All notices or payments required to be made hereunder shall be made at the following addresses:

To Town:

Sean O’Keefe, Town Manager
Town of Howey-in-the-Hills
101 North Palm Avenue
Howey-in-the-Hills, FL 34737
sokeefe@howey.org

With copies to:

John Brock, CMC, Town Clerk
Town of Howey-in-the-Hills
101 North Palm Avenue
Howey-in-the-Hills, FL 34737
jbrock@howey.org

Thomas J. Wilkes, Town Attorney
Gray Robinson, P.A.
301 East Pine Street, Suite 1400
Orlando, FL 32801
twilkes@gray-robinson.com

To Owner:

Jason Humm
1170 Peachtree Street NE, Suite 1150
Atlanta, GA 30309
jhumm@turnstonegroup.com

With copies to:

Rhea Lopes, AICP
RVI Planning + Landscape Architecture
10150 Highland Manor Dr, Suite 450
Tampa FL 33610
rlopes@rviplanning.com

Mike Ripley
Land Advisors
399 Carolina Ave, Suite 200
Winter Park, Florida 32789
MRipley@landadvisors.com

Jonathan Huels
Lowndes
215 North Eola Drive
Orlando, Florida 32801
Jonathan.huels@lowndes-law.com

Section 4. Severability. If any provision or portion of this Agreement is declared by a court of competent jurisdiction to be void, unconstitutional, or unenforceable, then all remaining provisions and portions of this Agreement shall remain in full force and effect. To that end, this Agreement is declared to be severable.

Section 5. Binding Effect. This Agreement runs with the land and is binding on and enforceable by and against the parties hereto and all their successors in interest. However, no Lot Owner shall have the obligations imposed on the Owner as the developer of the Project under this Agreement. For that purpose, a “Lot Owner” means an end-user of a lot created within the Property with a completed residential unit constructed thereon, for which a certificate of occupancy has been issued. Each party covenants to each other party that this Agreement is a legal, valid, and binding agreement, enforceable against the party in accordance with its terms.

Section 6. Negotiated Agreement. The land uses, densities, intensities, and other conditions of approval of the Project have been negotiated and agreed to by the Owner and the Town. The Conceptual Land Use Plan and this Agreement together constitute an agreement between the parties with the knowledge that the Owner’s successors in title, the future homeowners, and other landowners within the Property, as well as the Town and its affected property owners and residents, all will rely justifiably on the agreed-to land uses, densities, and intensities authorized hereby for the Property. For that reason, the Owner and the Owner’s successors in interest have the contract right to develop the PUD with the uses, densities, and intensities approved by the Town, subject to the restrictions and requirements in the conditions of approval set forth in this Agreement. Neither the Owner (and its successors in interest) nor the Town shall have the right in the future to rezone or downzone the property, or otherwise alter the uses, densities and intensities, or delete, waive or amend any conditions of approval except through an amendment to the Plan negotiated and approved by the Town Council and the owner or owners of the then-

subject parcel or parcels. This section shall survive the termination and expiration of this Agreement.

Section 7. Homeowners' Association(s).

(a) **Association Responsibilities.** A homeowner's association and/or a property owner's association ("HOA") must be created by the Owner. Membership in the HOA shall be mandatory for all property owners within the Project. The HOA, not the Town, must maintain, repair, and replace all parks, open-space and buffer areas, streetlights, stormwater-management areas and drainage systems, entrance features, boundary walls and/or fences, access tracts, and landscaped tracts within the Project. The Town may opt, however, to undertake any such project of maintenance, repair, and replacement of those structures, facilities and systems. If the Town exercises its option, it may charge or assess either the HOA or its homeowners and property owners to recover the cost of the project.

(b) **Requirement for Plat Recording.** Before a plat may be recorded for the Property and the Project, the Owner shall furnish to the Town copies of the pertinent documents for the homeowners' or property owners' association or associations, which documents must contain the covenants, conditions and restrictions for the Property and must set forth the requirements and restrictions imposed on the HOA and its homeowners and property owners as enumerated in this section 7 and other applicable parts of this Agreement.

Section 8. Additional Requirements.

(a) **Letter of credit.** Construction and dedication to the Town of the public facilities and improvements required under this Agreement and the LDC for each phase of the Project is a condition precedent to final plat approval for such phase. In lieu of construction and dedication, however, the Owner may post a letter of credit or performance bond with the Town for 125% of the cost of such improvements not completed at the time of plat, in which event this condition precedent to final plat approval (but not the requirement to complete construction and to dedicate the public facilities and improvements required under this Agreement and the LDC) will be deemed satisfied.

(b) **Conveyances to the Town.** Property dedicated or otherwise conveyed to the Town under this Agreement must be free and clear of encumbrances unless and to the extent an encumbrance is acceptable to the Town. Encumbrances discovered after the Effective Date of this Agreement must be removed or resolved by the Owner or its successor developer prior to dedication or conveyance of the affected property to the Town.

(c) **Changes in status of land.** Until completion of the Project, the Owner or its successor developer of the Project has a continuing duty (i) to disclose promptly to the Town all changes in ownership, encumbrances, and other matters of record affecting the Property and (ii) to resolve all issues, title or otherwise, that may be identified by the Town as a result of such changes. Failure to disclose such changes or to resolve resulting issues may result in delay in issuance of building and other development permits.

(d) **Developer representations binding.** If at Town Council hearings on the approval of the Project the Owner makes a written or oral promise or representation, and if the

promise or representation was relied upon by Town Council in approving the Project or otherwise acted to induce or materially influence Town Council in its vote to approve the Project, the promise or representation is a condition of approval of the Project. The promise or representation is binding on the Owner and its successors and enforceable by the Town against the Owner and its successors as if set forth fully in this Agreement.

Section 9. Governing Law. This Agreement shall be governed by the laws of the State of Florida. Venue for any judicial proceeding pertaining to the Agreement shall be in the Fifth Judicial Circuit of Florida, in Lake County, Florida.

Section 10. Effective Date; Termination.

(a) **Effective Date.** This Agreement shall take effect upon the Effective Date above, or on the date when it has been executed by both the Town Council and the Owner, whichever is later.

(b) **Termination.** This Agreement shall remain in effect unless and until terminated under one of the following conditions:

1. If as of the second anniversary of the Effective Date of this Agreement an Owner's contract right to treatment and disposal services by the CDD or Wastewater Utility, as required under Section 1(g) above, has not taken effect, the Town may terminate this Agreement by vote of its Town Council. The vote must occur no later than (i) the third anniversary of the Effective Date or (ii) the CDD or Wastewater Utility Contract Date, whichever occurs first. The "Contract Date" is the date on which the Owner's contract right to treatment and disposal services by the CDD or Wastewater Utility takes effect.

2. If as of the second anniversary of the Contract Date no building permit for a residential unit in the Project has been issued, the Town may terminate this Agreement by vote of its Town Council. The vote must occur no later than (i) the third anniversary of the Contract Date or (ii) the date a building permit is issued, whichever occurs first.

3. If as of the fifth anniversary of the Contract Date no building permit for a residential unit in the second phase of the Project has been issued, the Town may terminate this Agreement by vote of its Town Council, but only as it applies to development of the second phase. The vote must occur no later than (i) the sixth anniversary of the Contract Date or (ii) the date a building permit is issued for a residential unit in the second phase, whichever occurs first. Termination of the Agreement for this reason will not act to preclude the Owner or its successor from completing the first phase of the Project.

4. If as of the tenth anniversary of the Contract Date no building permit for a residential unit in the third phase of the Project has been issued, the Town may terminate this Agreement by vote of its Town Council, but only as it applies to development of the third phase. The vote must occur no later than (i) the eleventh anniversary of the Contract Date or (ii) the date a building permit is issued for a residential unit in the third phase, whichever occurs first. Termination of the Agreement for this reason will not act to preclude the Owner or its successor from completing the first or second phase of the Project.

Termination of this Agreement, in whole or in part, under this section shall be without prejudice to the Owner or its successor to apply for Town approvals to undertake or continue development of the Property in light of the circumstances and subject to the land-development regulations then existing in the Town.

Section 11. Recording. This Agreement shall be recorded by the Town, at the Owner’s expense, in the Public Records of Lake County, Florida, and shall constitute a covenant running with the land.

Section 12. Authority. This Agreement is entered into by the Town under the home-rule powers granted to it by the Florida constitution (including specifically Article VIII, Section 2(b) thereof), the home-rule powers granted municipalities by statute (including specifically Chapter 166, Florida Statutes), and the Town’s Charter. This Agreement does not constitute a “development agreement” under the Florida Local Government Development Agreement Act.

Section 13. Entire Agreement. This Agreement constitutes the entire agreement of the parties with respect to the transactions contemplated herein. It supersedes all prior understandings or agreements between the parties relating to the Property and the Project. No amendment to the terms of this Agreement shall be effective unless in writing signed by all parties hereto. Amendments to this Agreement will take effect and will be binding against the Town only if approved by a vote of the Town Council.

Section 14. Waiver. The failure of a party hereto to insist upon or enforce any right or privilege granted hereunder shall not constitute or operate as a waiver thereof and nothing shall constitute a waiver of any party’s right to insist upon strict compliance with the terms hereof. However, any party may waive in writing the benefit of any provision or condition for its benefit which is contained herein. Waivers of material provisions of either this Agreement or the Town’s LDC will be valid and binding against the Town only if approved by a vote of the Town Council.

[Signature pages follow]

IN WITNESS WHEREOF, the parties are signing this Agreement as of the Effective Date or, if later, the date by which both parties have fully executed this Agreement.

**TOWN OF HOWEY-IN-THE-HILLS,
FLORIDA**

By: its Town Council

By: _____
Hon. Martha McFarlane, Mayor

Attest:

By: _____
John Brock, CMC, Town Clerk

Approved as to form and legality:
(for the use and reliance of the Town only)

Thomas J. Wilkes, Town Attorney

STATE OF FLORIDA
COUNTY OF LAKE

The foregoing instrument was executed, sworn to and acknowledged before me this ____ day of _____, 2024, by Martha McFarlane, personally known to me to be the Mayor of the Town of Howey in the Hills.

(SEAL)

Signature of Notary

Name of Notary Public
(Typed, Printed or stamped)

Signed, sealed and delivered
in the presence of:

WITNESSES

“OWNER”

Printed Name: _____

ASF TAP FL I, LLC, a Delaware limited liability company

By: _____
Printed Name: _____
As its: _____

Printed Name: _____

STATE OF FLORIDA
COUNTY OF _____

The foregoing instrument was executed, sworn to and acknowledged before me by means of ____ physical presence or _____ online notarization, this _____ day of _____, 2024, by _____, as _____ of **ASF TAP FL I, LLC.**, a Delaware limited liability company, on its behalf.

(SEAL)

Signature of Notary Public

Name of Notary Public
(Typed, Printed or stamped)

Personally Known ____ **OR** Produced Identification _____
(Type of Identification Produced)

**Attachment A
To
MISSION RISE PUD DEVELOPMENT AGREEMENT**

LEGAL DESCRIPTION

**Attachment B
To
MISSION RISE PUD DEVELOPMENT AGREEMENT**

CONCEPTUAL LAND USE PLAN

Including the following graphics:

1. Conceptual Plan;
2. Phasing Plan;
3. Parks, Trails & Open Space Plan;
4. Non-Residential Areas;
5. Buffer Typical;
6. Street Cross Sections; and
7. Lot Fit.

[insert Conceptual Land Use Plan]

#52338764 v3

ORDINANCE NO. 2024 - 001

AN ORDINANCE OF THE TOWN OF HOWEY-IN-THE-HILLS, FLORIDA, PERTAINING TO LAND USE; REZONING FOUR PARCELS OF LAND LOCATED GENERALLY IN THE SOUTHWEST PART OF THE TOWN AND COMPRISING THE PROPOSED PLANNED UNIT DEVELOPMENT TO BE KNOWN AS “MISSION RISE” ON AN L-SHAPED AGGREGATE OF ABOUT 243.3 ACRES WEST AND SOUTH OF THE DEVELOPMENT KNOWN AS “THE RESERVE AT HOWEY-IN-THE-HILLS” (NOW ALSO KNOWN AS “HILLSIDE GROVES”), WITH PART OF THE LANDS BEING SOUTH OF NUMBER TWO ROAD AND EAST OF SILVERWOOD LANE AND OTHER PARTS OF THE LAND BEING WEST OF STATE ROAD 19 AND SOUTH OF REVELS ROAD, THE FOUR PARCELS BEING IDENTIFIED WITH LAKE COUNTY PROPERTY APPRAISER ALTERNATE KEY NUMBERS 1780616, 1780811, 1030421, AND 3835991; AMENDING THE TOWN’S ZONING MAP TO APPROVE PLANNED-UNIT-DEVELOPMENT (PUD) ZONING FOR THE PARCELS; PROVIDING FINDINGS OF THE TOWN COUNCIL; APPROVING PUD ZONING FOR THE PARCELS, WITH DEVELOPMENT TO BE GOVERNED BY A DEVELOPMENT AGREEMENT AND A REVISED CONCEPTUAL LAND USE PLAN AND BY THE TOWN’S LAND DEVELOPMENT CODE AND OTHER TOWN ORDINANCES GOVERNING THE DEVELOPMENT OF LAND; REPEALING PRIOR ORDINANCES AND SUPERSEDING CONFLICTING ORDINANCES; PROVIDING FOR SEVERABILITY, CODIFICATION AND AN EFFECTIVE DATE.

BE IT ORDAINED BY THE TOWN COUNCIL OF THE TOWN OF HOWEY-IN-THE-HILLS, FLORIDA:

Section 1. Findings. In enacting this ordinance, the Town Council of the Town of Howey-in-the-Hills, Florida declares the following findings, purposes, and intent:

- A. Approximately 243.3 acres of land more specifically described in **Attachment A** and generally located in southwest Howey-in-the-Hills on an L-shaped group of lands west and south of the land development known as “The Reserve at Howey-in-the-Hills (now also known as “Hillside Groves”), with part of the subject lands being south of No. 2 Road and east of Silverwood Lane and other parts of the

subject lands being west of State Road 19 and south of Revels Road (**Property**), are currently designated on the Future Land Use Map of the Town’s Comprehensive land for Village Mixed Use. Planned Unit Development (**PUD**) zoning is required to develop land designated for Village Mixed Use.

- B. The current PUD zoning was approved by Town Council through the enactment of Ordinances 2005-353, 2005-354, 2005-355, 2005-356, and 2005-357 and by that certain Mission Rise Developer’s Agreement between the Town and the then-owners, Richard H. Langley and Roxbury Ventures, LLC, dated February 6, 2007. No development occurred on the Property under those 2005 ordinances and the 2007 development agreement. The current PUD zoning and the 2007 development agreement have both expired under the terms of the development agreement.
- C. The owners of the Property have applied for PUD zoning to develop the Property with a mix of single-family residential, institutional, and recreational land uses in a Planned Unit Development to be known as “Mission Rise.” The Owners have requested Town Council approval of the PUD zoning subject to a new Development Agreement in the form in **Attachment B**, including its conceptual land use plan for the Property.
- D. The Town Council has determined that approval of the PUD zoning on the Property as requested by the owners and subject to the requirements and restrictions of the Development Agreement would be consistent with the Town’s Comprehensive Plan and the Town’s Land Development Code (**LDC**) and will not adversely affect the public health, safety, and welfare of the Town.

Section 2. Amendment of the Official Zoning Map. The Town Council hereby approves the PUD – planned unit development zoning for the Property. Development and use of the Property under its PUD zoning is subject to the conditions, requirements, restrictions, and other terms of the following:

- A. This Ordinance 2024-001. Ordinances 2005-353, 2005-354, 2005-355, 2005-356, and 2005-357 are repealed.
- B. The Development Agreement for Mission Rise PUD between the Town and ASF TAP FL I, LLC (**Owner**). The Development Agreement is approved for execution and delivery by the Mayor and Town Clerk in the form and substance contained in Attachment B, subject to such changes, if any, approved by Town Council. The Mission Rise Developer’s Agreement dated February 6, 2007, is

rescinded and superseded in its entirety by the Development Agreement approved hereby.

- C. The Town’s Land Development Code.
- D. All other Town ordinances governing the development of land.

Section 3. Severability. If any part of this ordinance is declared by a court of competent jurisdiction to be void, unconstitutional, or unenforceable, the remaining parts of this ordinance shall remain in full effect. To that end, this ordinance is declared to be severable.

Section 4. Conflicts. In a conflict between this ordinance and other existing ordinances, this ordinance shall control and supersede.

Section 5. Codification. The PUD zoning for the Property, as approved in Section 2, may be codified and made part of the Town’s Official Zoning Map.

Section 6. Effective Date. This ordinance shall take effect upon the later of (i) its enactment by the Town Council or (ii) the date on which the Development Agreement in Attachment B takes effect.

ORDAINED AND ENACTED this ____ day of _____, 2024, by the Town Council of the Town of Howey-in-the-Hills, Florida.

**TOWN OF HOWEY-IN-THE-HILLS,
FLORIDA
By: its Town Council**

By: _____
Hon. Martha MacFarlane, Mayor

ATTEST:

APPROVED AS TO FORM AND LEGALITY:
(for the use and reliance of the Town only)

John Brock, Town Clerk

Thomas J. Wilkes, Town Attorney

Planning and Zoning hearing held _____, **2023**
First Reading held _____, **2024**
Second Reading and hearing held _____, **2024**
Advertised _____, **202**__

ATTACHMENT A

Legal Description of the Property

**Lake County Property Appraiser
Alternate Key No.'s:**

1780616, 1780811, 1030421, and 3835991

CONTAINING 243.3± ACRES

[insert legal description]

ATTACHMENT B

**Mission Rise PUD
Development Agreement**

[insert form of development agreement]

#52366265 v2

MISSION RISE
Project № 23017.1, v1.3
October 2023

**TRAFFIC IMPACT ANALYSIS
TOWN OF HOWEY-IN-THE HILLS
FLORIDA**

Prepared by:



Traffic & Mobility Consultants
3101 Maguire Boulevard, Suite 265
Orlando, Florida 32803
www.trafficmobility.com
(407) 531-5332

Prepared for:

ASF TAP Florida I, LLC
1170 Peachtree Street Northeast, Suite 1150
Atlanta, Georgia 30309

EXECUTIVE SUMMARY

Project Information

Name: Mission Rise

Location: West of SR 19 (South Palm Avenue), east of Silverwood Lane, and south of Number 2 Road in the Town of Howey-in-the-Hills, Lake County, Florida

Description: 499 Single Family Residential Units

Access Plan: One (1) full access at the intersection of Number 2 Road and Spine Road
One (1) full access at the intersection of SR 19 and Revels Road
One (1) full access at the intersection of Revels Road and Orange Blossom Road (expected to carry limited traffic)

Findings

Trip Generation: 4,428 Daily Trips / 322 AM Peak Hour Trips / 451 PM Peak Hour Trips

Roadway Capacity: The segments of SR 19, from Lane Park Road to Central Avenue and from CR 455 to CR 478 are projected to operate over their capacities at the project buildout.

Intersection Capacity: The intersections of SR 19 and CR 48, SR 19 and Central Avenue, SR 19 and Revels Road, and SR 19 and CR 455 are projected to experience delays in the buildout condition. The project does not have a significant impact on the intersections.

Recommendations

Intersection Improvements: Retime the signal or construct a roundabout at the intersections of SR 19 and CR 48 to maintain LOS standards.

Provide traffic signals on SR 19 at Central Avenue, Revels Road, and CR 455 to maintain LOS standards. A signal warrant analysis is recommended and should be provided in separate reports.

Construct a 430-foot northbound left turn lane and a 405-foot southbound right turn lane at the intersection of SR 19 and Revels Road.

Construct a 655-foot westbound left turn lane and a 420-foot eastbound right turn lane at the intersection of Number 2 Road and Spine Road.

PROFESSIONAL ENGINEERING CERTIFICATION

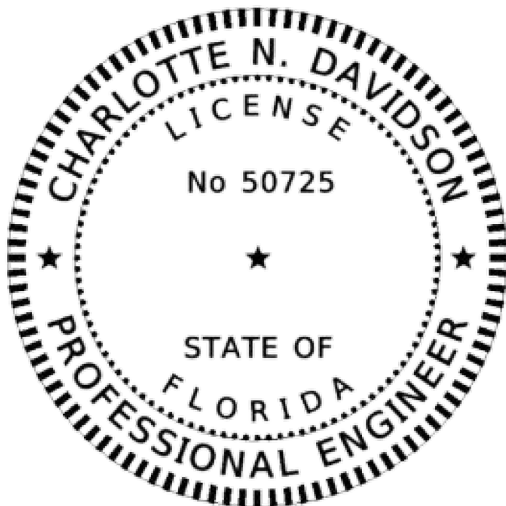
I hereby certify that I am a Professional Engineer properly registered in the State of Florida practicing with Traffic & Mobility Consultants LLC, a corporation authorized to operate as an engineering business, CA-30024, by the State of Florida Department of Professional Regulation, Board of Professional Engineers, and that I have prepared or approved the evaluations, findings, opinions, conclusions, or technical advice attached hereto for:

PROJECT: Mission Rise

LOCATION: Town of Howey-in-the-Hills, Florida

CLIENT: ASF TAP Florida, LLC

I hereby acknowledge that the procedures and references used to develop the results contained in these computations are standard to the professional practice of Transportation Engineering as applied through professional judgment and experience.



THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY

Charlotte N Davidson
Digitally signed by Charlotte N Davidson
Date: 2023.10.18 13:47:46 -04'00'

ON THE DATE ADJACENT TO THE SEAL

PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

TRAFFIC & MOBILITY CONSULTANTS LLC
3101 MAGUIRE BOULEVARD, SUITE 265
ORLANDO, FLORIDA 32803
CERTIFICATE OF AUTHORIZATION CA-30024
CHARLOTTE N. DAVIDSON, P.E. NO 50725

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APPENDICES

- Appendix A Study Methodology and Response to Comments Letter
- Appendix B Preliminary Development Plan
- Appendix C Lake County CMP Database and 2023 FDOT Q/LOS
- Appendix D Turning Movement Counts and Seasonal Factor Data
- Appendix E HCM Analysis Worksheets - Existing Conditions
- Appendix F ITE Trip Generation Sheets
- Appendix G CFRPM Model Output
- Appendix H *LSMPO TIP* and *LSMPO LOPP*
- Appendix I Vested Trips Data
- Appendix J AADT Model Plot
- Appendix K HCM Worksheets - Projected Conditions
- Appendix L Intersection Volume Projections
- Appendix M Background Conditions / Buildout Conditions with Mitigation
- Appendix N *Lake County Land Development Code (LDC)*
- Appendix O FDOT Design Manual Exhibit 212-1

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1.0 INTRODUCTION

This Traffic Impact Analysis (TIA) was conducted to assess the impact of the proposed Mission Rise development in the town of Howey-in-the-Hills, Florida. The proposed development consists of 499 single-family units with an anticipated buildout year of 2033. This study conforms to the Tier 2 TIA requirements of the Town of Howey-in-the-Hills and Lake County. The analysis was prepared in accordance with the approved methodology. The study has been updated to incorporate comments received from the Town of Howey-in-the-Hills. The methodology and the response to comments letter are included in **Appendix A**.

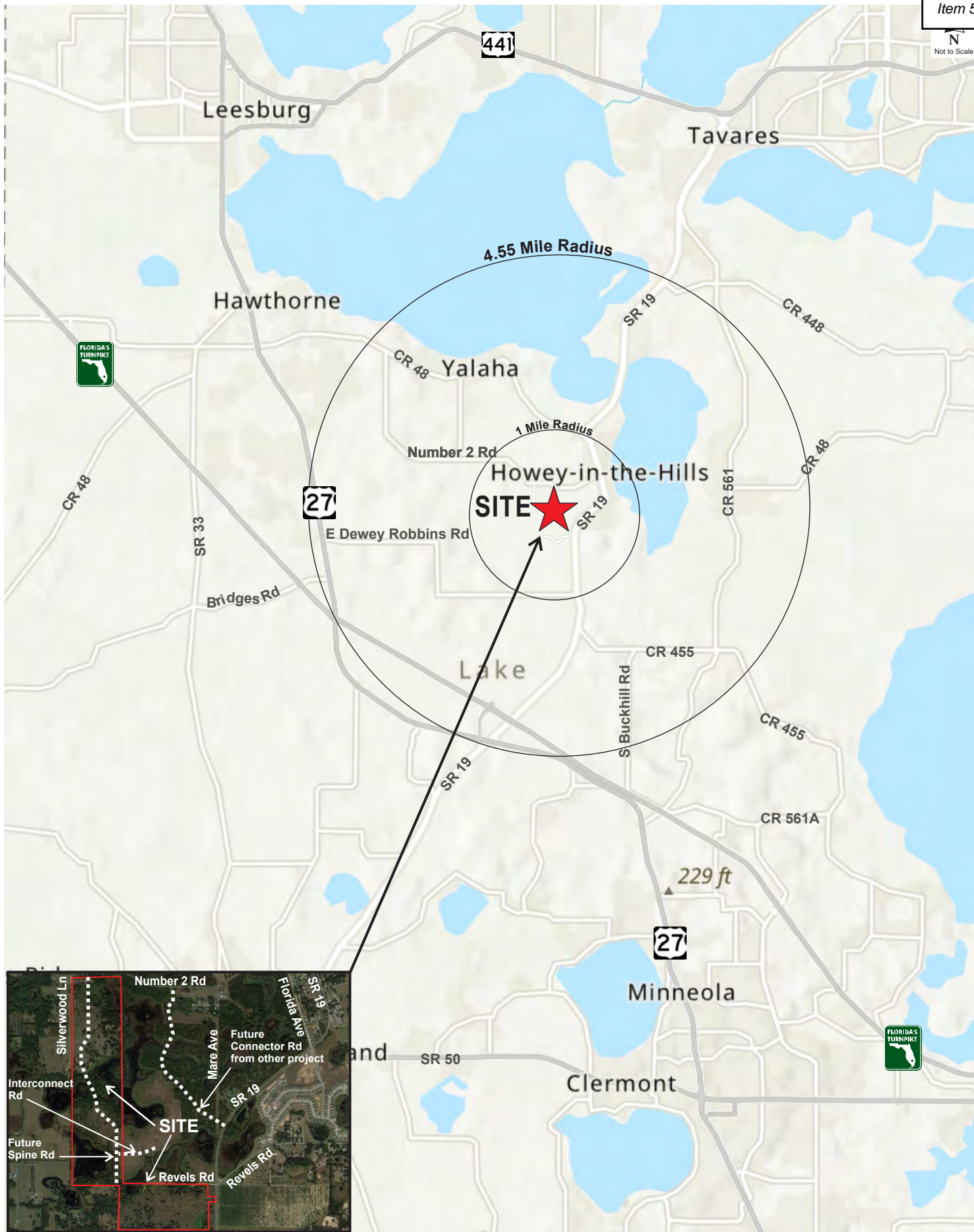
The site is located east of Silverwood Lane, west of SR 19 (South Palm Avenue), and south of Number 2 Road. **Figure 1** depicts the site location and the surrounding transportation network.

The development will be accessed via the intersections of Number 2 Road and Spine Road (future road), SR 19 and Revels Road, and Revels Road and Orange Blossom Road. The preliminary development site plan is provided in **Appendix B**.

Data used in the analysis consisted of site plan/development information provided by the project engineers, AM and PM peak hour intersection traffic counts obtained by Traffic & Mobility Consultants LLC, FDOT's *2023 Multimodal Quality/Level of Service (MQ/LOS) Handbook* and roadway capacities obtained from the *2022 Lake County Congestion Management Process (CMP) Database*.

1.1 Study Area

The project study area was established based on the standard requirements of the Lake Sumter Metropolitan Planning Organization (LSMPO) methodology and the Town of Howey-in-the-Hills *Land Development Code (LDC)*. In accordance with the requirements of Tier 2 TIA methodology, the impact area includes roadway segments and intersections within a 4.55-mile radius of the site in addition to roadways where the development traffic is expected to consume 5% or more of their adopted Level of Service (LOS) capacities. The roadway segments characteristics were obtained from the *2022 Lake County Congestion Management Process (CMP) Database* and *2023 FDOT Multimodal Quality/Level of Service (Q/LOS) Handbook Appendix B*, included in **Appendix C**. The project study area determination is provided in **Table 1**, as determined in the approved methodology.



**Table 1
Study Area**

Roadway Segment	SEG ID	No Lns	Area Type	Median Type	Speed Limit	LOS Std	Pk Dir Cap	Dir	Project		Within 1-Mile? **	% Cap	In Study?
									Dist	Trips			
CR 455													
SR 19 to CR 561	950	2	R	Undivided	45	C	740	EB WB	10%	17 28	NO	2.3% 3.8%	NO
CR 561 to CR 561A	960	2	R	Undivided	25	C	410	EB WB	5%	8 14	NO	2.0% 3.4%	NO
CR 48													
US 27 to Lime Ave	1240	2	U	Undivided	40	D	1,080	EB WB	15%	43 25	NO	4.0% 2.3%	NO
Lime Ave to SR 19	1250	2	U	Undivided	40	D	1,080	EB WB	2%	6 3	NO	0.6% 0.3%	NO
CR 561 to Ranch Rd	1260	2	U	Undivided	40	D	840	EB WB	3%	5 9	NO	0.6% 1.1%	NO
Ranch Rd to CR 448A	1270	2	R	Undivided	40	C	410	EB WB	3%	5 9	NO	1.2% 2.2%	NO
CR 561													
CR 448 to CR 48	1410	2	U	Undivided	50	D	1,080	NB SB	0%	0 0	NO	0.0% 0.0%	NO
CR 48 to South Astatula City Limit	1420	2	U	Undivided	40	D	620	NB SB	3%	9 5	NO	1.5% 0.8%	NO
South Astatula City Limit to CR 455	1430	2	U	Undivided	40	D	1,080	NB SB	3%	9 5	NO	0.8% 0.5%	NO
CR 455 to Howey Cross Rd	1440	2	R	Undivided	35	C	470	NB SB	2%	6 3	NO	1.3% 0.6%	NO
Howey Cross Rd to Turnpike Rd / CR 561A	1450	2	R	Undivided	40	C	640	NB SB	2%	6 3	NO	0.9% 0.5%	NO
SR 19													
Lane Park Rd to CR 48	3040	2	U	Undivided	55	D	920	NB SB	23%	38 65	NO	4.1% 7.1%	YES
CR 48 to Central Ave	3050	2	U	Undivided	40	D	700	NB SB	25%	42 71	NO	6.0% 10.1%	YES
Central Ave to CR 455	3060	2	U	Undivided	35	D	1,200	NB SB	50%	142 84	YES	11.8% 7.0%	YES
CR 455 to US 27 / SR 25	3070	2	R	Undivided	55	C	450	NB SB	35%	99 58	NO	22.0% 12.9%	YES
US 27 / SR 25 to CR 478	3080	2	R	Undivided	55	C	450	NB SB	20%	57 33	NO	12.7% 7.3%	YES
SR 91 (Florida Turnpike)													
US 27/SR 25 to US 27/SR 25/SR 19 Interchange	3566	4	U	Freeway	70	B	2,230	EB WB	10%	17 28	NO	0.8% 1.3%	NO
US 27/SR 25													
SR 19 to CR 561	3830	4	U	Divided	55	D	3,280	EB WB	15%	25 43	NO	0.8% 1.3%	NO
Central Ave													
SR 19 to Mare Ave	N/A	2	U	Undivided	30	D	770 *	EB WB	10%	17 28	YES	2.2% 3.6%	YES
Number 2 Rd													
Mare Ave to Silverwood Ln	N/A	2	U	Undivided	30	D	730 *	EB WB	35%	58 99	YES	7.9% 13.6%	YES
Silverwood Ln to CR 48	N/A	2	U	Undivided	45	D	730 *	EB WB	15%	25 43	YES	3.4% 5.9%	YES

Source: 2022 Lake County CMP Database

*2023 FDOT Multimodal Quality/Level of Service Handbook, Appendix B: Florida's Generalized Service Volume Tables

Bold numbers represent capacity equal or higher than 5%.

Based on the study area analysis presented in **Table 1**, the following roadway segments were analyzed for the PM peak hour:

- SR 19
 - Lane Park Road to CR 48
 - CR 48 to Central Avenue
 - Central Avenue to CR 455
 - CR 455 to US 27 / SR 25
 - US 27 / SR 25 to CR 478
- Central Avenue
 - SR 19 to Mare Avenue
- Number 2 Road
 - Mare Avenue to Silverwood Lane
 - Silverwood Lane to CR 48

The following intersections were analyzed for the AM and PM peak hours:

- SR 19 and CR 48 (Signalized)
- SR 19 and Central Avenue (Unsignalized)
- Central Avenue and South Florida Avenue (Unsignalized)
- SR 19 and Revels Road (Unsignalized) (East Project Access)
- SR 19 and CR 455 (Unsignalized)
- Spine Road and Interconnect Road (Proposed)
- Number 2 Road and Spine Road (North Project Access) (Proposed)
- Revels Road and Spine Road (Proposed)
- Revels Road and Orange Blossom Road (South Project Access)

2.0 EXISTING CONDITIONS ANALYSIS

Existing conditions in the vicinity of the site were analyzed to establish a baseline for the traffic conditions prevailing in the vicinity of the proposed development. The analysis included a review of existing roadway segment capacity and analysis of the intersection operations at the study intersections.

2.1 Roadway Segment Capacity

Existing roadway conditions were analyzed by comparing the existing traffic volumes within the study area and the adopted level of service (LOS) standards for the roadway segments. **Table 2** summarizes the roadway segment capacity analysis.

Table 2
Existing Roadway Segment Capacity Analysis

Roadway Segment	Seg ID	No Lns	LOS Std	Pk Dir Cap	Dir	Existing Vol	LOS	V/C	Deficient?
*Central Ave									
SR 19 to Mare Ave	N/A	2	D	530	EB	57	C	0.11	NO
					WB	59	C	0.11	NO
SR 19									
Lane Park Rd to CR 48	3040	2	D	920	NB	610	C	0.66	NO
					SB	656	C	0.71	NO
CR 48 to Central Ave	3050	2	D	700	NB	433	C	0.62	NO
					SB	372	C	0.53	NO
Central Ave to CR 455	3060	2	D	1,200	NB	433	B	0.36	NO
					SB	372	B	0.31	NO
CR 455 to US 27 / SR 25	3070	2	C	450	NB	507	D	1.13	YES
					SB	435	C	0.97	NO
US 27 / SR 25 to CR 478	3080	2	C	450	NB	466	D	1.04	YES
					SB	519	D	1.15	YES
Number 2 Rd									
Mare Avenue to Silverwood Ln	N/A	2	D	400	EB	57	C	0.14	NO
					WB	59	C	0.15	NO
Silverwood Ln to CR 48	N/A	2	D	400	EB	57	C	0.14	NO
					WB	59	C	0.15	NO

Source: 2022 Lake County CMP Database

* Counts were obtained from PM Peak Turning Movement Counts

**A reduction of 25% was applied to the Peak Hour Directional Capacity of 530, as Number 2 Road is a substandard road

The analysis indicates that all study roadway segments currently operate adequately within their capacities except the segments of SR 19 from CR 455 to CR 478 which currently operate over capacity.

2.2 Intersection Capacity

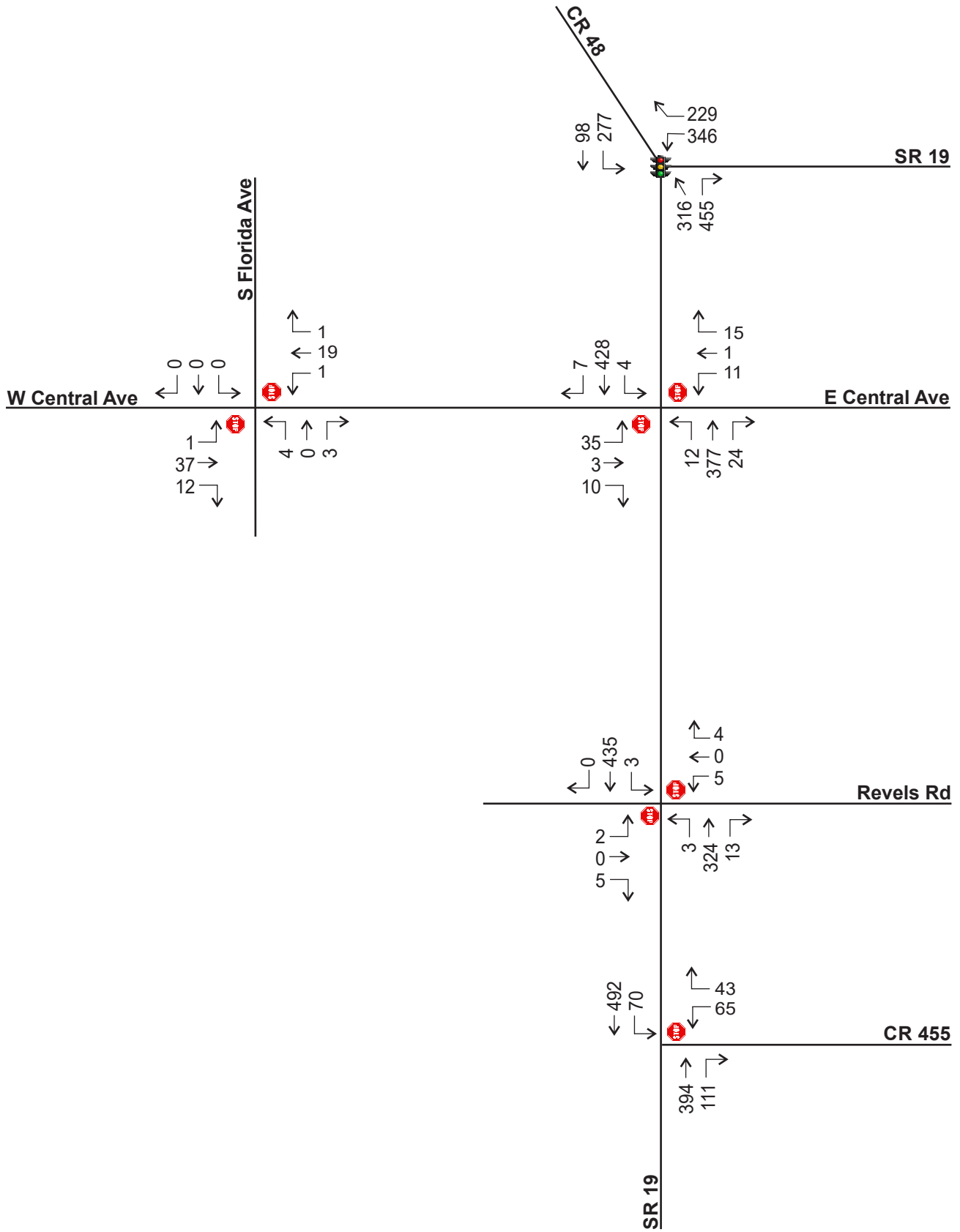
The intersection capacity analysis was performed for the AM and PM peak hour periods. The capacity analysis was performed using *Synchro* and the methods of the *Highway Capacity Manual (HCM)*. Turning movement volumes obtained during the AM and PM peak hour are displayed in **Figure 2** and **Figure 3**, respectively. The counts at SR 19 and CR 455 were collected on January 24, 2023, which coincides with a seasonal factor of 1.0. The remaining intersection turning movement counts were collected on July 19, 2023, during the off-peak season; therefore, a seasonal factor of 1.06 was applied to these counts. The turning movement counts and the seasonal factor report are included in **Appendix D**.

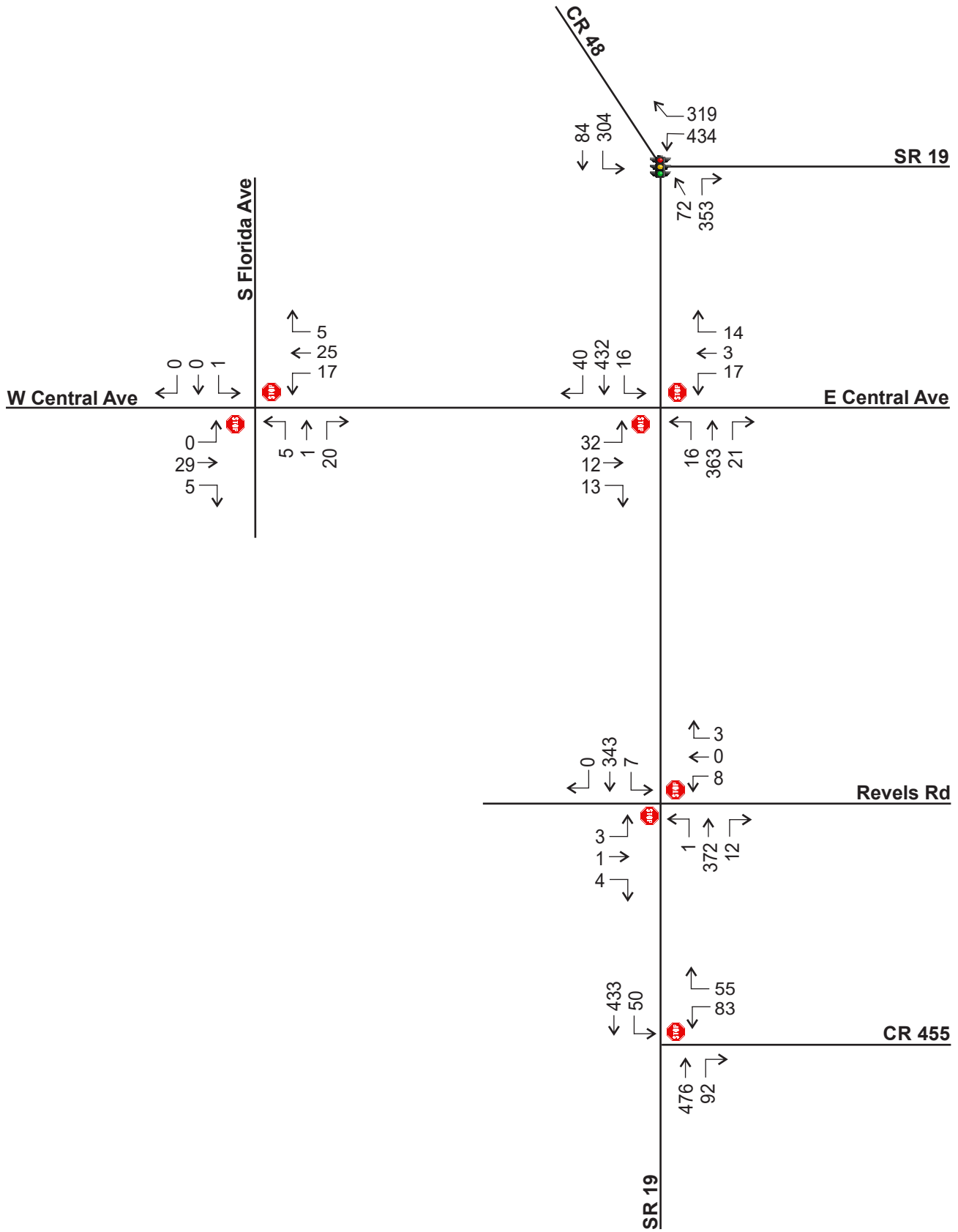
The results of the intersection capacity analysis, summarized in **Table 3**, reveal that all study intersections are currently operating at adequate LOS. Detailed *HCM* analysis worksheets are included in **Appendix E**.

Table 3
Existing Intersection Capacity Analysis

Intersection	Traffic Control	Time Period	EB		WB		NB		SB		Overall	
			Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
SR 19 & CR 48	Signal	AM	--	--	50.7	D	20.3	C	11.2	B	29.5	C
		PM	--	--	87.5	F	17.1	B	10.7	B	55.7	E
SR 19 & Central Ave	TWSC	AM	20.7	C	15.1	C	8.9	A	8.8	A	--	--
		PM	22.6	C	17.9	C	9.0	A	8.8	A	--	--
W Central Ave & S Florida Ave	TWSC	AM	7.3	A	7.3	A	8.8	A	0.0	A	--	--
		PM	0.0	A	7.3	A	8.8	A	9.4	A	--	--
SR 19 & Revels Rd	TWSC	AM	13.3	B	15.0	C	8.3	A	8.0	A	--	--
		PM	14.0	B	16.1	C	8.1	A	8.2	A	--	--
SR 19 & CR 455	TWSC	AM	--	--	25.1	D	--	--	8.9	A	--	--
		PM	--	--	26.7	D	--	--	9.0	A	--	--

Average delay is in seconds





3.0 PROJECT TRAFFIC

3.1 Trip Generation

The Trip Generation Analysis was conducted using the Institute of Transportation Engineers (ITE) *Trip Generation Manual, 11th Edition*. The ITE Information sheets are included in **Appendix F**. **Table 4** summarizes the resulting trip generation analysis.

Table 4
Trip Generation Analysis

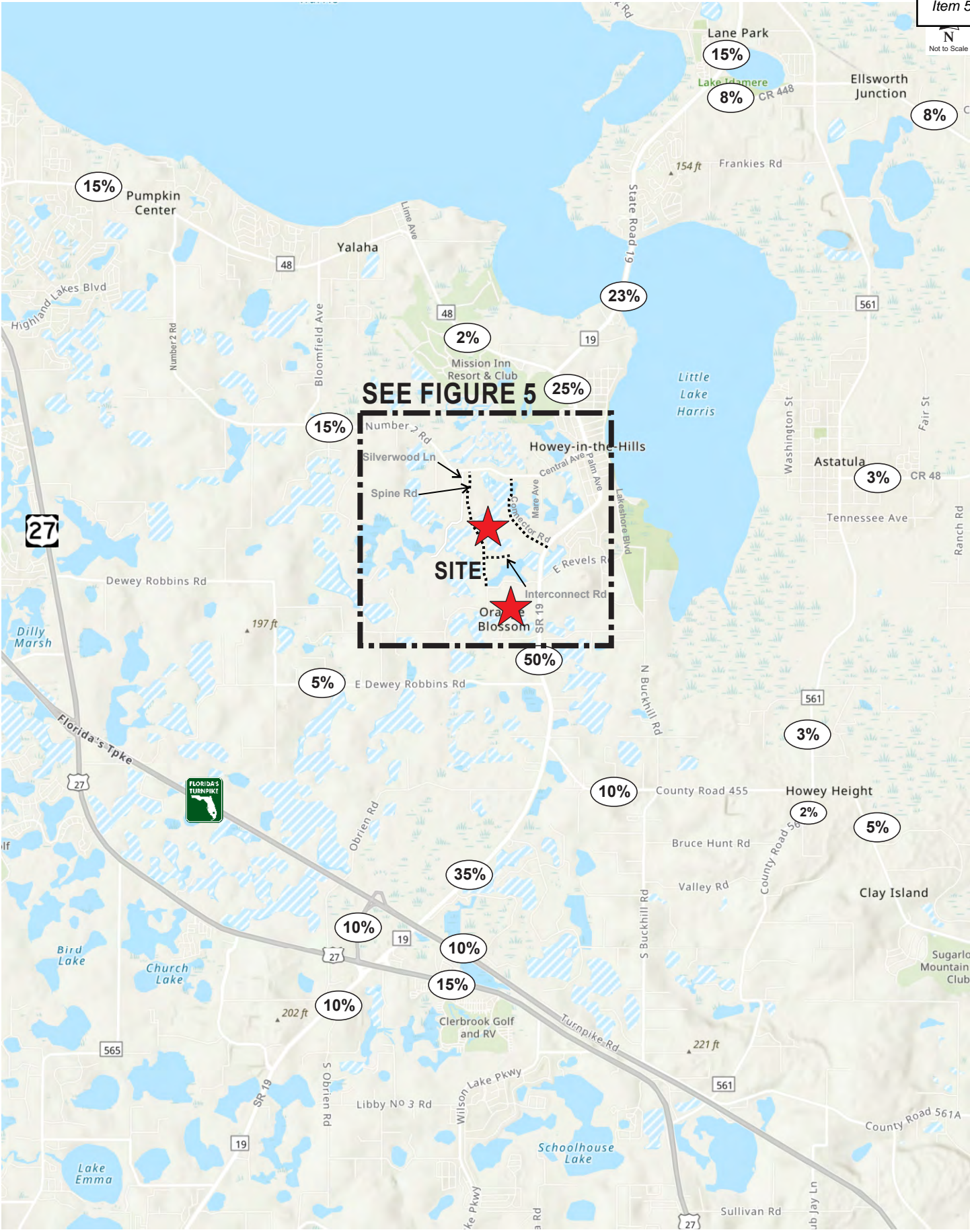
ITE Code	Land Use	Size	Daily		AM Peak Hour				PM Peak Hour			
			Rate	Trips	Rate	Total	Enter	Exit	Rate	Total	Enter	Exit
210	Single Family Residential (Detached)	499 DU	8.87	4,428	0.64	322	81	241	0.90	451	284	167

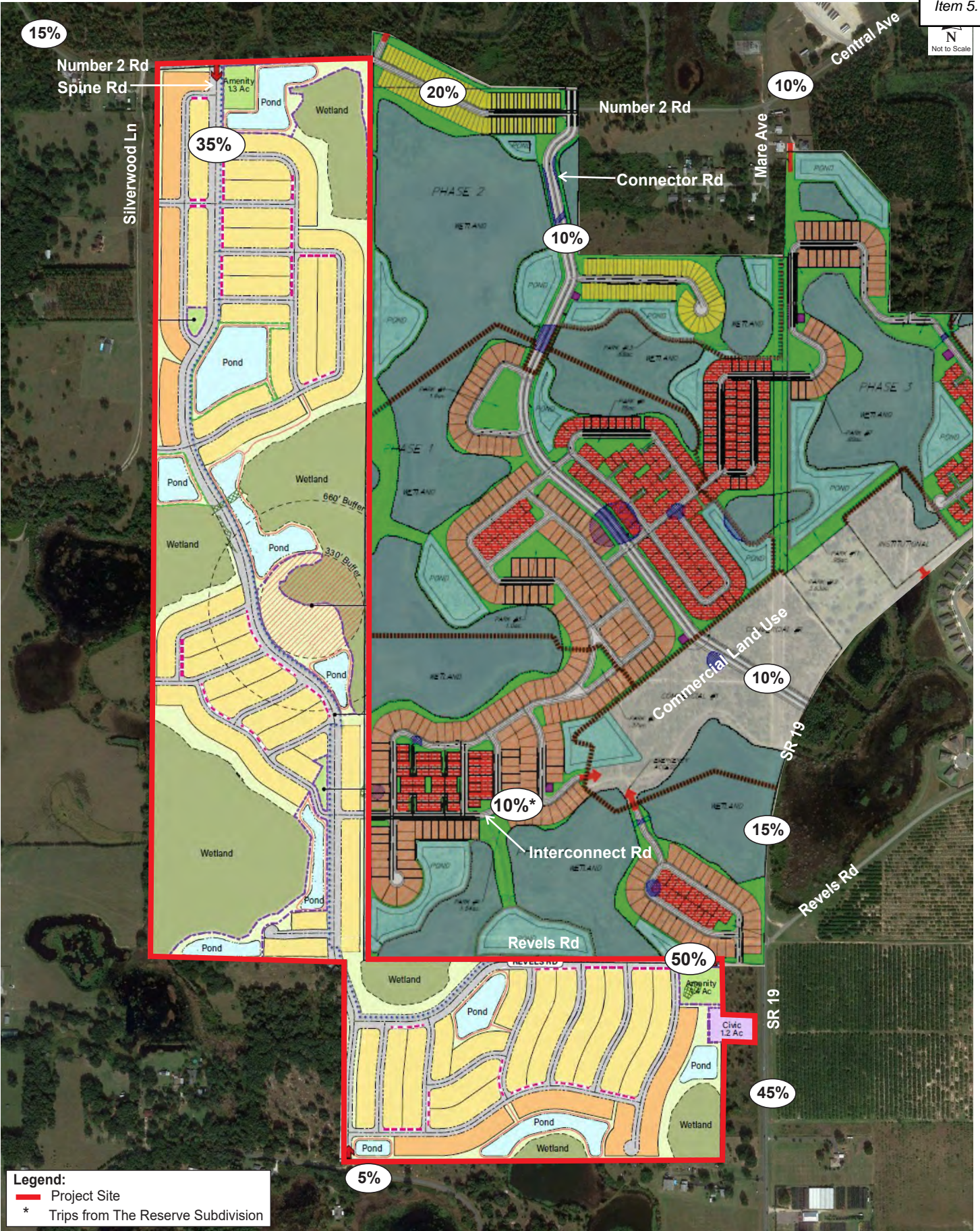
Trip Generation analysis based on ITE Trip Generation Manual, 11th Edition.

The proposed development is projected to generate 4,428 new daily trips, of which 322 trips occur during the AM peak hour and 451 trips occur during the PM peak hour.

3.2 Trip Distribution

A trip distribution pattern was developed using the *Central Florida Regional Planning Model (CFRPMv7)*. The model distribution was slightly adjusted based on local knowledge, professional engineering judgement, and the location of the development with respect to the study area attractions and activity centers to reflect the prevailing travel patterns in the study area and the surrounding transportation network. The raw model plots are provided in **Appendix G**, and the project trip distribution pattern is shown in **Figure 4**. Detailed trip distribution near the project site is shown in **Figure 5**.





4.0 PROJECTED CONDITIONS ANALYSIS

An analysis of projected conditions was conducted to determine the impact of the proposed development on the roadway segments capacity, as well as the proposed access connections and intersections to the site. The project buildout year for the analysis is 2033.

4.1 Planned and Programmed Improvements

The *Lake-Sumter Metropolitan Planning Organization (LSMPO) 2023-2027 Transportation Improvement Program (TIP)*, as well as *LSMPO 2022 List of Priority Projects (LOPP)* were reviewed to identify any planned or programmed improvements to the transportation facilities in this area. The improvements are listed in **Table 5**. Construction is not planned to be completed within the next three (3) years for either improvement. Excerpts from the *LSMPO TIP* and *LSMPO LOPP* are provided in **Appendix H**.

**Table 5
Planned and Programmed Improvements**

FM #	Project Name	From	To	Proposed Phase	Proposed Phase FY	Description of Improvement
2383191	SR 19 *	CR 48	CR 561	PDE-PE-ENV	2023	Add Lanes & Reconstruct
238319-1	SR 19 **	Howey Bridge	CR 561	-	-	Road Widening

* LSMPO TIP Fiscal Year 2023-2027

** LSMPO 2022 LOPP Tier 2 project

4.2 Background Traffic Projection

Projected traffic includes background traffic volumes, the project trips, and committed trips. Projected background traffic for the buildout year of 2033 was estimated by applying the growth rates obtained from *2022 Lake County CMP Database* to the existing traffic volumes. A minimum of 2% annual growth rate was applied to existing traffic volumes for which published annual growth rates are below 2%. The committed trips for the following approved developments within the study area are included in **Appendix I**:

- Whispering Hills
- Talichet Phase 1 and Phase 2
- The Reserve at Howey in the Hills
- Lake Hills (Four Seasons). Trips were estimated based on the trip generation analysis and the trip distribution obtained from the methodology.
- Watermark (Simpson)

4.3 Roadway Segment Capacity

Projected roadway conditions were analyzed by comparing the projected traffic volumes on the study segments to their service volumes and adopted LOS standards. The total projected traffic volume is composed of background traffic, vested trips and project trips. **Table 6** summarizes the roadway segment capacity analysis, which reveals the following:

- SR 19 from Lane Park Road to Central Avenue and from CR 455 to CR 478 are projected to operate over their capacities due to background traffic.
- All remaining roadway segments are projected to continue to operate adequately at project buildout.

Roadway Segment Capacity Analysis with Recommended Mitigation

Number 2 Road is a substandard road with reduced capacity. It is projected to operate at an acceptable LOS; however, operational safety is a concern due to its narrow width. Lake County would need to improve it in the future to achieve safety.

SR 19 from CR 48 to CR 561 is programmed in the *TIP* to be widened to four (4) lanes. The roadway segment capacity analysis reveals that the widening of SR 19 to 4-lanes is projected to improve the capacity of the segment from Lane Park Road to CR 48. The segments of SR 19 from CR 48 to Central Avenue and from CR 455 to CR 478 would need to be widened to 4-lanes to achieve acceptable LOS conditions at project buildout, as summarized in **Table 7**.

**Table 6
Projected Roadway Segment Capacity Analysis**

Roadway Segment	No Lns	LOS Std	PH Dir Capacity	Dir	Exist Vol	Growth Rate	2033 Backg'd	Vested Trips	Total Backg'd Volume	Backg'd LOS	Backg'd V/C	Trip Distr	Proj Dir	Project Volume	Total Volume	Final LOS	Final V/C
*Central Ave																	
SR 19 to Mare Ave	2	D	530	NB/EB SB/WB	57 59	2.00%	70 72	53 85	123 157	C C	0.23 0.30	10%	OUT IN	17 28	140 185	C C	0.26 0.35
SR 19																	
Lane Park Rd to CR 48	2	D	920	NB/EB SB/WB	610 656	2.00%	744 800	125 264	869 1,064	C F	0.94 1.16	23%	OUT IN	38 65	907 1,129	D F	0.99 1.23
CR 48 to Central Ave	2	D	700	NB/EB SB/WB	433 372	2.00%	528 454	266 355	794 809	F F	1.13 1.16	25%	OUT IN	42 71	836 880	F F	1.19 1.26
Central Ave to CR 455	2	D	1,200	NB/EB SB/WB	433 372	2.00%	528 454	437 272	965 726	D C	0.80 0.61	50%	IN OUT	142 84	1,107 810	D C	0.92 0.68
CR 455 to US 27/ SR 25	2	C	450	NB/EB SB/WB	507 435	2.00%	619 531	286 178	905 709	E D	2.01 1.58	35%	IN OUT	99 58	1,004 767	E E	2.23 1.70
US 27/ SR 25 to CR 478	2	C	450	NB/EB SB/WB	466 519	2.00%	569 633	286 178	855 811	E E	1.90 1.80	10%	IN OUT	28 17	883 828	E E	1.96 1.84
**Number 2 Rd																	
Mare Ave to Silverwood Ln	2	D	400	NB/EB SB/WB	57 59	2.00%	70 72	53 53	123 125	C C	0.31 0.31	35%	OUT IN	58 99	181 224	C D	0.45 0.56
Silverwood Ln to CR 48	2	D	400	NB/EB SB/WB	57 59	2.00%	70 72	53 53	123 125	C C	0.31 0.31	15%	IN OUT	43 25	166 150	C C	0.42 0.38

Source: 2022 Lake County Annual Traffic Counts

*Exiting Counts were obtained from PM Peak Turning Movement Counts

**A reduction of 25% was applied to the Peak Hour Directional Capacity of 530, as Number 2 Road is a substandard road

**Table 7
Projected Roadway Segment Capacity Analysis with Mitigation**

Roadway Segment	No Lns	LOS Std	PH Dir Capacity	Dir	Exist Vol	Growth Rate	2033 Backg'd	Vested Trips	Total Backg'd Volume	Backg'd LOS	Backg'd V/C	Trip Distr	Proj Dir	Project Volume	Total Volume	Final LOS	Final V/C	Project Responsible ?
SR 19																		
Lane Park Rd to CR 48	4	D	1,480	NB/EB SB/WB	610 656	2.00%	744 800	125 264	869 1,064	C D	0.59 0.72	23%	OUT IN	38 65	907 1,129	D D	0.61 0.76	NO NO
CR 48 to Central Ave	4	D	1,480	NB/EB SB/WB	433 372	2.00%	528 454	266 355	794 809	D D	0.54 0.55	25%	OUT IN	42 71	836 880	D D	0.56 0.59	NO NO
CR 455 to US 27/ SR 25	4	C	1,360	NB/EB SB/WB	507 435	2.00%	619 531	286 178	905 709	C C	0.67 0.52	35%	IN OUT	99 58	1,004 767	C C	0.74 0.56	NO NO
US 27/ SR 25 to CR 478	4	C	1,360	NB/EB SB/WB	466 519	2.00%	569 633	286 178	855 811	C C	0.63 0.60	10%	IN OUT	28 17	883 828	C C	0.65 0.61	NO NO
**Number 2 Rd																		
Mare Ave to Silverwood Ln	2	D	530	NB/EB SB/WB	57 59	2.00%	70 72	53 53	123 125	C C	0.23 0.24	35%	OUT IN	58 99	181 224	C D	0.34 0.42	NO NO
Silverwood Ln to CR 48	2	D	530	NB/EB SB/WB	57 59	2.00%	70 72	53 53	123 125	C C	0.23 0.24	15%	IN OUT	43 25	166 150	C C	0.31 0.28	NO NO

Source: 2022 Lake County Annual Traffic Counts

*Exiting Counts were obtained from PM Peak Turning Movement Counts

**A reduction of 25% was applied to the Peak Hour Directional Capacity of 530, as Number 2 Road is a substandard road

Note: Roadway mitigations are necessitated by background traffic. Number 2 Road is an existing substandard facility.

The development is not responsible for these improvements, per Florida Statutes.

4.4 Intersection Capacity Analysis

The projected volumes for the intersection capacity and operations analysis were calculated by assigning the project trips to the project driveways and adding those volumes to the background volumes and vested trips at the study intersections. Projected background traffic was estimated as discussed in the previous section. Projected background traffic on the proposed Spine Road and Revels Road were estimated based on the *CFRPMv7* model daily volumes. The AADT model plots are included in **Appendix J**.

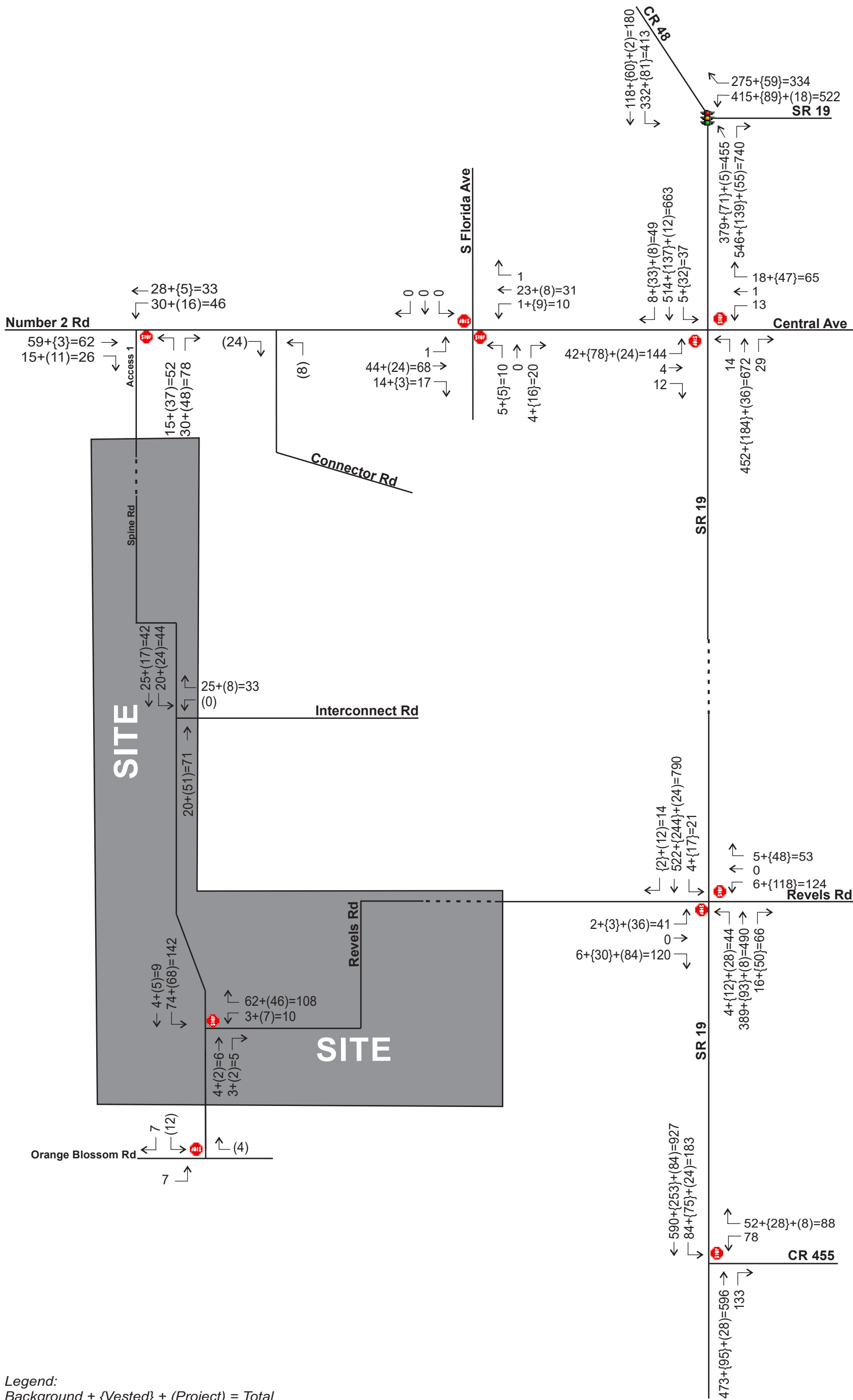
Intersection Capacity Analysis

The projected AM and PM peak hour volumes are illustrated in **Figure 6** and **Figure 7**, respectively. The analysis includes right and left turn lanes on SR 19, and a right turn lane on Revels Road at the intersection of SR 19 and Revels Road. It also includes right and left turn lanes on Number 2 Road at the intersection of Spine Road and Number 2 Road. The results of the analysis are summarized in **Table 8**, and the analysis worksheets are included in **Appendix K**. The intersection volume projection sheets are included in **Appendix L**.

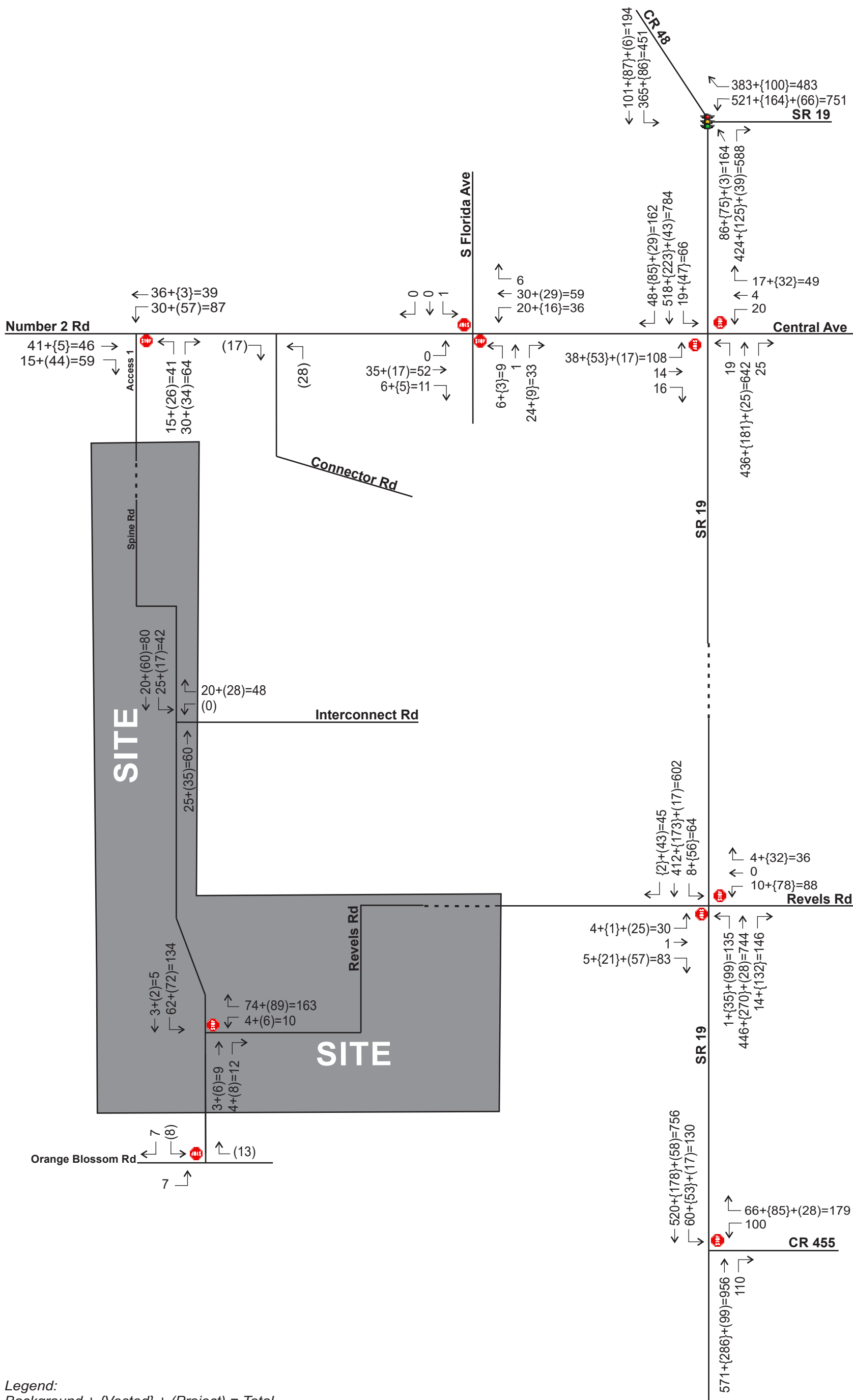
Table 8
Projected Intersection Capacity Analysis

Intersection	Traffic Control	Time Period	EB		WB		NB		SB		Overall	
			Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
SR 19 & CR 48	Signal	AM	--	--	177.1	F	29.7	C	22.1	C	87.2	F
		PM	--	--	>300	F	21.5	B	12.1	B	234.3	F
SR 19 & Central Ave	TWSC	AM	>300	F	26.5	D	10.1	B	10.3	B	--	--
		PM	>300	F	89.7	F	11.4	B	10.3	B	--	--
W Central Ave & S Florida Ave	TWSC	AM	7.3	A	7.4	A	9.2	A	0.0	A	--	--
		PM	0.0	A	7.4	A	9.3	A	10.6	B	--	--
SR 19 & Revels Rd / Project Entrance	TWSC	AM	51.2	F	>300	F	10.1	B	8.8	A	--	--
		PM	135.1	F	>300	F	9.9	A	10.7	B	--	--
SR 19 & CR 455	TWSC	AM	--	--	>300	F	--	--	10.7	B	--	--
		PM	--	--	>300	F	--	--	12.7	B	--	--
Spine Rd & Interconnect Rd / Proposed	TWSC	AM	--	--	8.8	A	--	--	7.4	A	--	--
		PM	--	--	8.8	A	--	--	7.4	A	--	--
Number 2 Rd and Spine Rd / Project Entrance	TWSC	AM	--	--	7.5	A	9.8	A	--	--	--	--
		PM	--	--	7.6	A	9.9	A	--	--	--	--
Spine Rd & Revels Rd	TWSC	AM	--	--	9.1	A	--	--	7.5	A	--	--
		PM	--	--	9.3	A	--	--	7.5	A	--	--
Revels Rd & Orange Blossom Rd / Project Entrance	TWSC	AM	7.2	A	--	--	--	--	8.6	A	--	--
		PM	7.3	A	--	--	--	--	8.6	A	--	--

Average delay is in seconds



Legend:
Background + {Vested} + (Project) = Total



Legend:
Background + {Vested} + (Project) = Total

The analysis reveals the following:

- The intersection of SR 19 and CR 48 is projected to operate with delay during the AM and the PM peak hour. Further review is needed.
- The intersection of SR 19 and Central Avenue is projected to operate with delay in the eastbound and westbound directions. The westbound movement does not carry any project traffic and it is projected to operate at volume to capacity ratio less than 1.0. Further review is needed.
- The intersection of SR 19 and Revels Road is projected to operate with delay in the eastbound and westbound directions. The westbound movement does not carry any project traffic. Further review is needed.
- The intersection of SR 19 and CR 455 is projected to operate with delay for the westbound left movement. Project trips contribute no traffic to the movement. Further review is needed.

The remaining study intersections are projected to operate adequately at the project buildout.

Intersection Capacity Analysis with Recommended Mitigation

The proposed project does not significantly impact study area intersections. Four (4) intersections have been reviewed further. The intersections are determined to need the following improvements to achieve acceptable LOS conditions at project buildout:

- Retiming the signal is recommended at the intersection of SR 19 and CR 48 OR constructing a 2-lane roundabout at the intersection of SR 19 and CR 48.
- Installing a signal is recommended at the intersection of SR 19 and Central Avenue.
- Installing a signal is recommended at the intersection of SR 19 and Revels Road.
- Installing a signal is recommended at the intersection of SR 19 and CR 455.

The traffic operations for the mitigated intersections are projected to have acceptable LOS, as detailed in **Table 9**. The background conditions and the buildout conditions with the mitigation analysis worksheets are included in **Appendix M**.

**Table 9
Projected Intersection Capacity Analysis with Mitigation**

Intersection	Traffic Control	Peak Period	Scenario	EB		WB		NB		SB		Overall	
				Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
SR 19 & CR 48	Option 1: Retiming Signal	AM	Background	--	--	161.9	F	29.5	C	21.8	C	80.1	F
			Buildout	--	--	177.1	F	29.7	C	22.1	C	87.2	F
			Mitigation	--	--	59.4	E	72.4	E	54.1	D	60.9	D
		PM	Background	--	--	>300	F	21.5	C	12.1	B	187.5	F
			Buildout	--	--	>300	F	21.5	C	12.1	B	233.7	F
			Mitigation	--	--	48.7	D	56.5	E	58.2	E	52.6	D
SR 19 & CR 48	Option 2: Roundabout	AM	Background	--	--	161.9	F	29.5	C	21.8	C	80.1	F
			Buildout	--	--	177.1	F	29.7	C	22.1	C	87.2	F
			Mitigation	--	--	14.2	B	23.0	C	11.9	B	17.7	C
		PM	Background	--	--	>300	F	21.5	C	12.1	B	187.5	F
			Buildout	--	--	>300	F	21.5	C	12.1	B	233.7	F
			Mitigation	--	--	12.6	B	15.7	C	23.4	C	16.1	C
SR 19 & Central Ave	Signal	AM	Background	>300	F	24.5	C	9.9	A	10.1	A	--	--
			Buildout	>300	F	26.5	D	10.1	B	10.3	B	--	--
			Mitigation	21.0	C	18.3	B	8.2	A	8.2	A	9.9	A
		PM	Background	>300	F	65.2	E	11.0	B	10.2	B	--	--
			Buildout	>300	F	89.7	F	11.4	B	10.3	A	--	--
			Mitigation	13.3	B	12.0	B	6.8	A	24.7	C	16.9	B
SR 19 & Revels Road	Signal	AM	Background	22.5	C	>300	F	9.7	A	8.8	A	--	--
			Buildout	51.2	F	>300	F	10.1	B	8.8	A	--	--
			Mitigation	18.2	B	16.0	B	5.0	A	6.2	A	7.3	A
		PM	Background	30.0	D	>300	F	9.0	A	10.6	B	--	--
			Buildout	135.1	F	>300	F	9.9	A	10.7	B	--	--
			Mitigation	30.0	C	26.7	C	6.5	A	3.8	A	7.3	A
SR 19 & CR 455	Signal	AM	Background	--	--	>300	F	--	--	10.3	B	--	--
			Buildout	--	--	>300	F	--	--	10.7	B	--	--
			Mitigation	--	--	78.2	E	2.3	A	30.8	C	24.3	C
		PM	Background	--	--	>300	F	--	--	11.6	B	--	--
			Buildout	--	--	>300	F	--	--	12.7	B	--	--
			Mitigation	--	--	130.1	F	6.4	A	62.3	E	44.1	D

Average delay is in seconds

The analysis reveals the following:

- The intersection of SR 19 and CR 48 is projected to operate at an acceptable overall LOS by optimizing the signal timing or by constructing a 2-lane roundabout. Since the intersection can operate adequately by retiming the traffic signal; the project is not responsible to add a roundabout.
- The intersection of SR 19 and Central Avenue is projected to operate adequately at buildout with a signal. The westbound movement does not carry any project traffic. Project contribute 5.9% of the total traffic.
- The intersection of SR 19 and Revels Road is projected to operate adequately at buildout with a signal. The westbound movement does not carry any project traffic. Project contributes 13.6% of the total traffic.
- The intersection of SR 19 and CR 455 is projected to operate adequately at buildout with a signal. The westbound movement does not carry any project traffic. Project contribute 9.0% of the total traffic.

In lieu of contributing a proportionate share to the three (3) intersections needing new traffic signals, the developer is recommending to construct the new traffic signal at SR 19 and Revels Road, which serves as the main access to the project.

5.0 ACCESS REVIEW

The development will be accessed via the intersections of Number 2 Road and Spine Road (future road), SR 19 and Revels Road, and Revels Road and Orange Blossom Road. SR 19 is a 2-lane undivided facility with a posted speed limit of 55 miles per hour (mph) near the project entrance. Number 2 Road is a 2-lane undivided facility with a posted speed limit of 30 mph in the east direction and 45 mph in the west direction near the project entrance. Orange Blossom Road is a 2-lane undivided facility with a posted speed limit of 30 mph near the project entrance.

5.1 Turn Lane Review

A review of the need for turn lanes at the project entrance intersections was conducted based on the Lake County *Land Development Code (LDC)* guidelines, which are provided in **Appendix N**. In accordance with the *LDC* guidelines, right and left turn lanes are warranted at the intersections of SR 19 and Revels Road, and at Number 2 Road and Spine Road. The intersection of Orange Blossom Road and Revels Road is expected to carry limited traffic; therefore, exclusive turn lanes are not recommended.

The recommended lengths of the turn lanes on SR 19 were calculated based on the requirements of the *FDOT Design Manual Exhibit 212-1*, provided in **Appendix O**, and the recommended lengths of the turn lanes on Number 2 Road were calculated based on the Lake County *LDC* guidelines. Per Lake County requirement for turn lane widening on Number 2 Road, the length of tapers will need to be twice the standard length. The calculations are provided as follows:

SR 19 and Revels Road

Left Turn Lane Length = Deceleration Distance + Queue Length

Deceleration at 60 mph (design speed) = 405 feet

95th Percentile Queue Length = 1 x 25 = 25 feet

Northbound Left Turn Lane = 405 feet + 25 feet = 430 feet (including a 50-foot taper)

Right Turn Lane Length = Deceleration Distance

Deceleration at 60 mph (design speed) = 405 feet

Southbound Right Turn Lane = 405 feet

Number 2 Road and Spine Road

Left Turn Lane Length = Taper Length + Storage Length

Taper Length at 50 mph (design speed) = 230 feet x 2 = 460 feet

Storage Length at 50 mph (design speed) = 195 feet

Westbound Left Turn Lane = 460 feet + 195 feet = 655 feet

Right Turn Lane Length = Taper Length + Storage Length

Taper Length at 35 mph (design speed) = 170 feet x 2 = 340 feet

Storage Length at 35 mph (design speed) = 80 feet

Eastbound Right Turn Lane = 340 feet + 80 feet = 420 feet

6.0 STUDY CONCLUSIONS

This traffic analysis was conducted to assess the impact of the proposed Mission Rise development in the Town of Howey-in-the-Hills, Florida. The project will include 499 single family residential units. The analysis included a determination of project trip generation, a review of existing and projected roadway and intersection capacity.

The results of the traffic analysis are summarized as follows:

- The proposed development is projected to generate 4,428 trips per day, of which 322 trips occur during the AM peak hour and 451 trips occur during the PM peak hour.
- SR 19 SR 19 from Lane Park Road to Central Avenue and from CR 455 to CR 478 are projected to operate over their capacities due to background traffic. The development is not responsible for mitigating background deficiencies, per Florida's Statutes.
- SR 19 from CR 48 to CR 561 is programmed in the *TIP* to be widened to 4 lanes.
- All remaining roadway segments are projected to continue to operate adequately at project buildout.
- The intersection of SR 19 and CR 48 is projected to operate with delay during the AM and the PM peak hour. It is recommended to retime the signal or implement a 2-lane roundabout to maintain LOS standards. The development is not responsible to implement a roundabout.
- The intersection of SR 19 and Central Avenue is projected to operate with delay in the eastbound and the westbound movement. The westbound movement does not carry any project traffic.
- The intersection of SR 19 and Revels Road is projected to operate with delay in the eastbound and westbound directions. The westbound movement does not carry any project traffic.

- The intersection of SR 19 and CR 455 is projected to operate with delay for the westbound left movement. Project trips contribute no traffic to the movement.
- In lieu of contributing a proportional share to the three (3) intersections where traffic signals are projected to be needed, the developer is recommending to construct the traffic signal at the intersection of SR 19 and Revels Road.
- A traffic signal at SR 19 and Revels Road traffic signal needs to be warranted based on a signal warrant study of the in-field traffic volumes. An Intersection Control Evaluation (ICE) study will also need to be coordinated with FDOT.
- All remaining study intersections are projected to operate adequately at project buildout.
- The turn lane recommendations are as follows:
 - Construct a 430-foot northbound left turn lane and a 405-foot southbound right turn lane at the intersection of SR 19 and Revels Road.
 - Construct a 655-foot westbound left turn lane and a 420-foot eastbound right turn lane at the intersection of Number 2 Road and Spine Road.

APPENDICES

Appendix A
Study Methodology and Response to Comments Letter



MEMORANDUM

May 23, 2023

Re: Mission Rise
Traffic Impact Analysis Methodology, v1.1
Town of Howey-In-The-Hills, Florida
Project № 23017.1

This methodology outlines the proposed Traffic Impact Analysis (TIA) for the above referenced project. This methodology was prepared in accordance with the requirements of the Town of Howey-In-The-Hills and the Lake~Sumter Metropolitan Planning Organization (LSMPO) TIA guidelines for a Tier 2 TIA. This methodology has been revised in accordance with the comments provided by the Town of Howey-In-The-Hills. The comments and response to comments letter are included in the **Attachments**.

Project Description

The ±243.3-acre site is a single-family residential development consisting of 592 dwelling units. The project site consists of parcels 34-20-25-0001-000-00100, 34-20-25-0004-000-01003, 02-21-25-0002-000-04800, and 27-20-25-0004-000-01200. The anticipated buildout year is 2033. A preliminary site plan is included in the **Attachments**.

Project Location

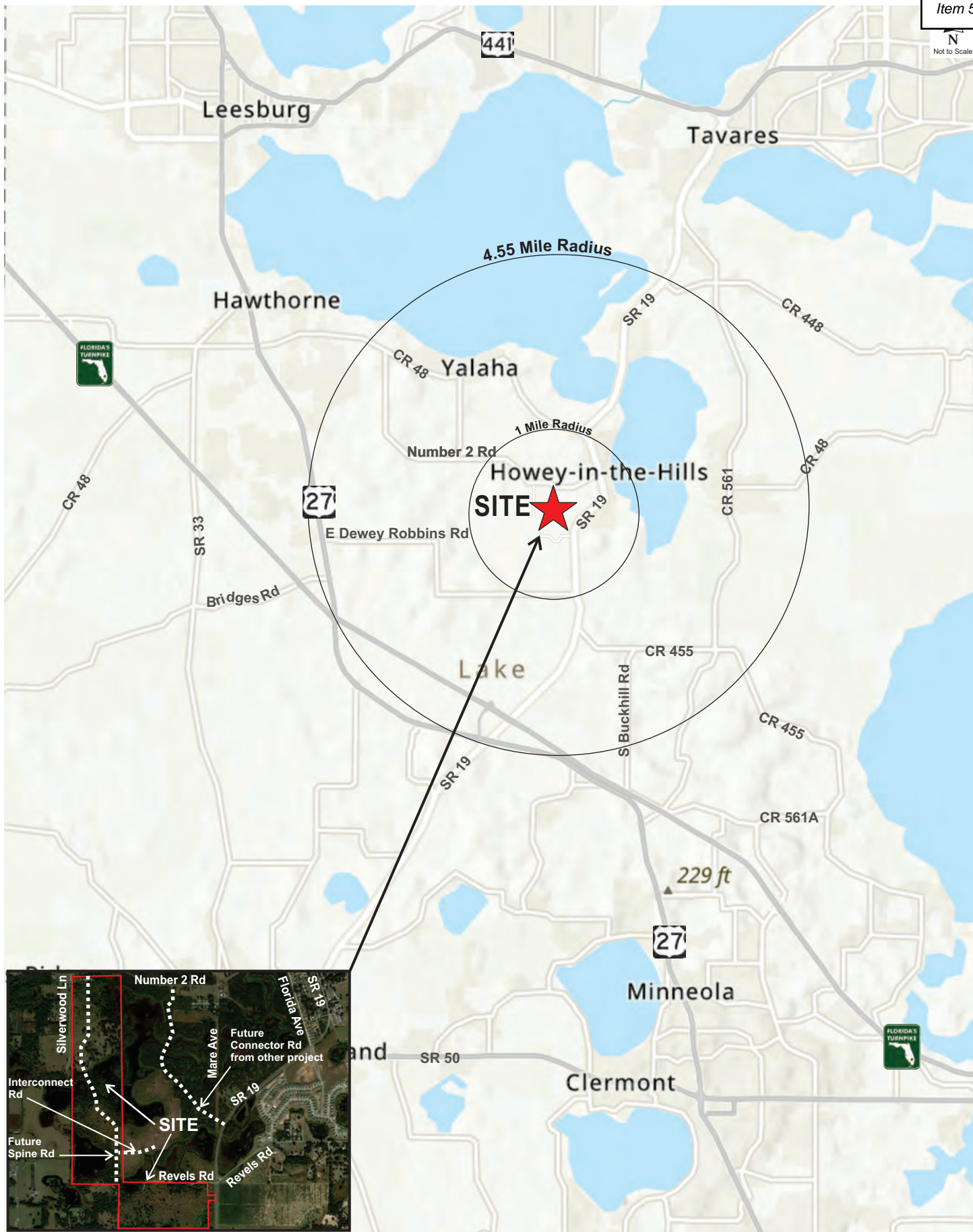
The site is located east of Silverwood Lane, west of SR 19 (South Palm Avenue), and south of Number 2 Road in the Town of Howey-in-the-Hills, Florida. The site will be crossed from north to south by a future two-lane spine road that will connect Number 2 Roadway with Revels Road, as shown in **Figure 1**.

Project Access

The project has access to the external network via one (1) full access driveway on Number 2 Road and one (1) full access driveway on SR 19. In addition, there is an emergency access to the south via Orange Blossom Road. The access configuration is depicted in the preliminary site plan included in the **Attachments**.

Trip Generation

A trip generation analysis was performed for the development using the trip generation information from the Institute of Transportation Engineers (ITE) *Trip Generation Manual, 11th Edition*. The ITE information sheets are included in the **Attachments**. The trip generation of the proposed development is summarized in **Table 1**.



Mission Rise

Traffic Impact Analysis Methodology, v1.1

Project № 23017.1

May 23, 2023

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Table 1
Trip Generation Analysis

ITE Code	Land Use	Size	Daily		AM Peak Hour			PM Peak Hour				
			Eqvlt Rate	Trips	Eqvlt Rate	Total	Enter	Exit	Eqvlt Rate	Total	Enter	Exit
210	Single Family Residential (Detached)	592 DU	8.75	5,181	0.63	376	94	282	0.89	529	333	196

Trip Generation analysis based on ITE Trip Generation Manual, 11th Edition.

The proposed development at project buildout is projected to generate 5,181 new daily trips of which 376 trips occur during the AM peak hour, and 529 trips occur during the PM peak hour.

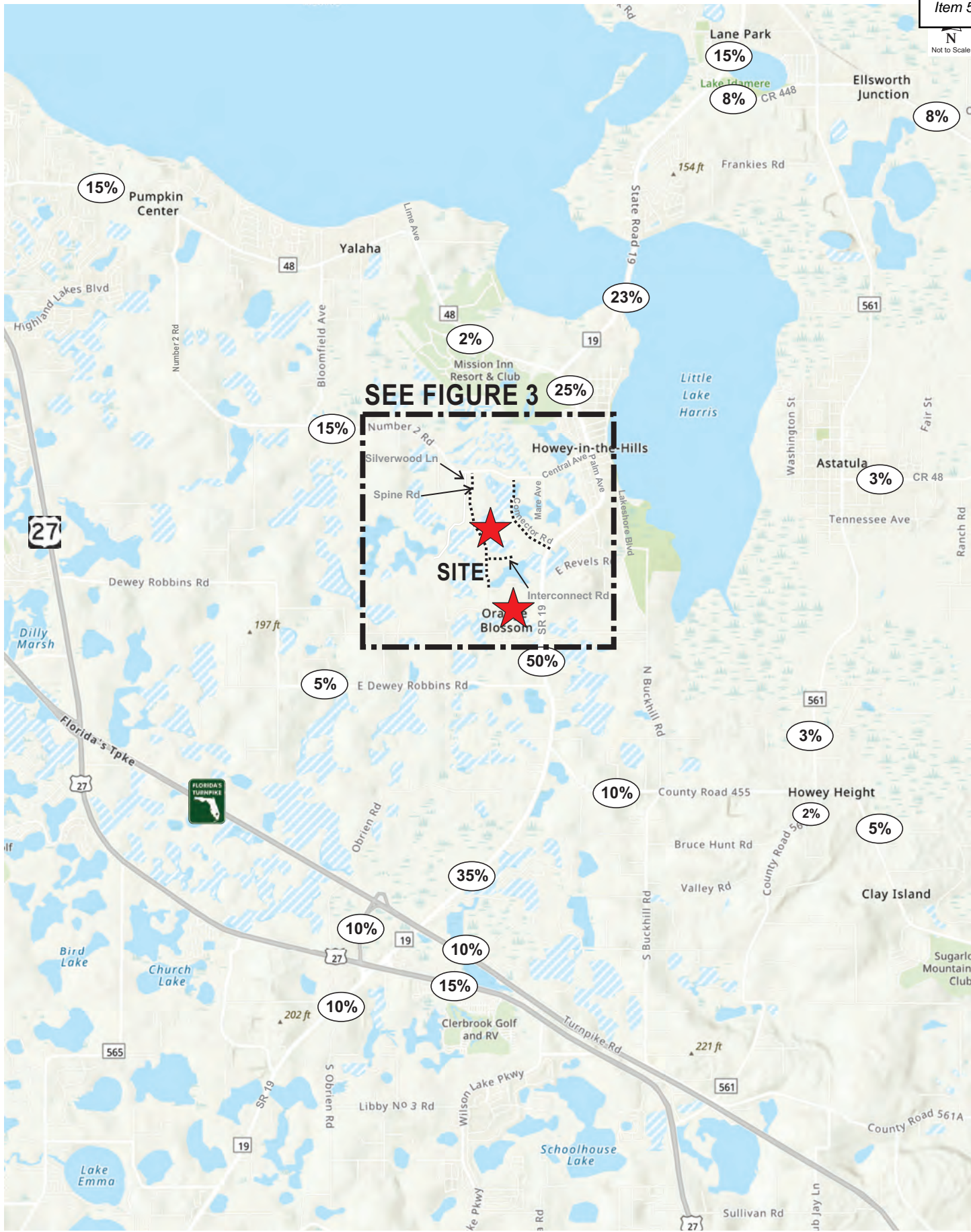
Trip Distribution

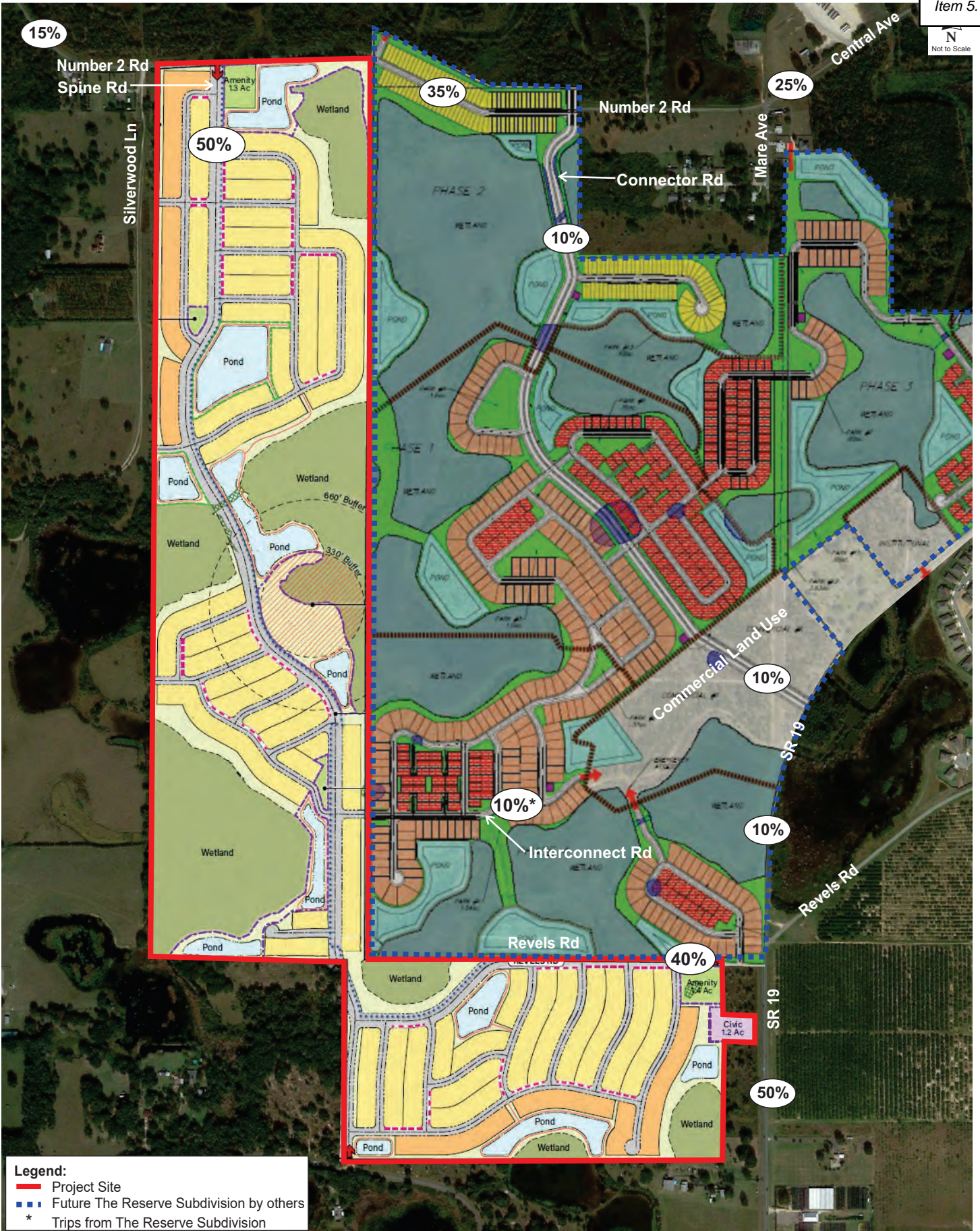
A trip distribution pattern in the general vicinity of the project site was initially determined based on the *Central Florida Regional Planning Model (CFRPM v7)*. Two (2) future connections (Spine Road and Connector Road) from SR 19 to Number 2 Road were included in the model for this project. The model distribution was modified to reflect the local network and prevailing traffic patterns. The proposed trip distribution pattern is provided in **Figure 2**. Detailed trip distribution near the project site is shown in **Figure 3**. The model distribution plots are included in the **Attachments**.

Study Area

In accordance with the LSMPO requirements for a Tier 2 TIA methodology, the study area will include a minimum 1-mile radius plus all roadway segments within a 4.55-mile radius in addition to roadways where the development is projected to consume 5% or more of their adopted Level of Service (LOS), unless otherwise specified by the City/LSMPO.

The extent of the study impact area shall be determined by the area of influence of the project. The area of influence shall be established as one-half ($\frac{1}{2}$) the total trip length associated with the land use of the proposed development, based upon the *2021 Lake County Transportation Impact Fee Update Study Final Report*. The total trip length for single-family is 9.1-miles. Accordingly, the area of influence will encompass all roadway segments within 4.55-mile radius. Excerpts of the *2022 Lake County Congestion Management Process (CMP) Database*, the *2021 Lake County Transportation Impact Fee Update Study Final Report*, and the *2023 FDOT Multimodal Quality/Level of Service (Q/LOS) Handbook Appendix B* are included in the **Attachments**. **Table 2** lists all roadway segments within the area of influence along with their capacities and percentages consumed by the project trips.





Legend:
 ■ Project Site
 ■■■ Future The Reserve Subdivision by others
 * Trips from The Reserve Subdivision

Mission Rise

Traffic Impact Analysis Methodology, v1.1

Project № 23017.1

May 23, 2023

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**Table 2
Study Area**

Roadway Segment	SEG ID	No Lns	Area Type	Median Type	Speed Limit	LOS Std	Pk Dir Cap	Dir	Project		Within 1-Mile? **	% Cap	In Study?
									Dist	Trips			
CR 455													
SR 19 to CR 561	950	2	R	Undivided	45	C	740	EB WB	10%	20 33	NO	2.7% 4.5%	NO
CR 561 to CR 561A	960	2	R	Undivided	25	C	410	EB WB	5%	10 17	NO	2.4% 4.1%	NO
CR 48													
US 27 to Lime Ave	1240	2	U	Undivided	40	D	1,080	EB WB	15%	50 29	NO	4.6% 2.7%	NO
Lime Ave to SR 19	1250	2	U	Undivided	40	D	1,080	EB WB	2%	7 4	NO	0.6% 0.4%	NO
CR 561 to Ranch Rd	1260	2	U	Undivided	40	D	840	EB WB	3%	6 10	NO	0.7% 1.2%	NO
Ranch Rd to CR 448A	1270	2	R	Undivided	40	C	410	EB WB	3%	6 10	NO	1.5% 2.4%	NO
CR 561													
CR 448 to CR 48	1410	2	U	Undivided	50	D	1,080	NB SB	0%	0 0	NO	0.0% 0.0%	NO
CR 48 to South Astatula City Limit	1420	2	U	Undivided	40	D	620	NB SB	3%	10 6	NO	1.6% 1.0%	NO
South Astatula City Limit to CR 455	1430	2	U	Undivided	40	D	1,080	NB SB	3%	10 6	NO	0.9% 0.6%	NO
CR 455 to Howey Cross Rd	1440	2	R	Undivided	35	C	470	NB SB	2%	7 4	NO	1.5% 0.9%	NO
Howey CRoss Rd to Turnpike Rd / CR 561A	1450	2	R	Undivided	40	C	640	NB SB	2%	7 4	NO	1.1% 0.6%	NO
SR 19													
Lane Park Rd to CR 48	3040	2	U	Undivided	55	D	920	NB SB	23%	45 77	NO	4.9% 8.4%	YES
CR 48 to Central Ave	3050	2	U	Undivided	40	D	700	NB SB	25%	49 83	NO	7.0% 11.9%	YES
Central Ave to CR 455	3060	2	U	Undivided	35	D	1,200	NB SB	50%	167 98	YES	13.9% 8.2%	YES
CR 455 to US 27 / SR 25	3070	2	R	Undivided	55	C	450	NB SB	35%	117 69	NO	26.0% 15.3%	YES
US 27 / SR 25 to CR 478	3080	2	R	Undivided	55	C	450	NB SB	20%	67 39	NO	14.9% 8.7%	YES
SR 91 (Florida Turnpike)													
US 27/SR 25 to US 27/SR 25/SR 19 Interchange	3566	4	U	Freeway	70	B	2,230	EB WB	10%	20 33	NO	0.9% 1.5%	NO
US 27/SR 25													
SR 19 to CR 561	3830	4	U	Divided	55	D	3,280	EB WB	15%	29 50	NO	0.9% 1.5%	NO
Central Ave													
SR 19 to Mare Ave	N/A	2	U	Undivided	30	D	770 *	EB WB	25%	49 83	YES	6.4% 10.8%	YES
Number 2 Rd													
Mare Ave to Silverwood Ln	N/A	2	U	Undivided	30	D	730 *	EB WB	35%	69 117	YES	9.5% 16.0%	YES
Silverwood Ln to CR 48	N/A	2	U	Undivided	45	D	730 *	EB WB	15%	29 50	YES	4.0% 6.8%	YES

Source: 2022 Lake County CMP Database

* 2023 FDOT Multimodal Quality/Level of Service Handbook, Appendix B: Florida's Generalized Service Volume Tables

Bold numbers represent capacity equal or higher than 5%.

Mission Rise

Traffic Impact Analysis Methodology, v1.1

Project № 23017.1

May 23, 2023

Page 7 of 9

Based on the study area analysis, the following roadway segments will be analyzed for the PM peak hour:

- SR 19
 - Lane Park Road to CR 48
 - CR 48 to Central Avenue
 - Central Avenue to CR 455
 - CR 455 to US 27 / SR 25
 - US 27 / SR 25 to CR 478
- Central Avenue
 - SR 19 to Mare Avenue
- Number 2 Road
 - Mare Avenue to Silverwood Lane
 - Silverwood Lane to CR 48

The following intersections will be analyzed for the AM and PM peak hours:

- SR 19 and CR 48 (Signalized)
- SR 19 and Central Avenue (Unsignalized)
- SR 19 and South Florida Avenue (Unsignalized)
- SR 19 and Revels Road (Unsignalized)
- SR 19 and CR 455 (Unsignalized)
- Spine Road and Interconnect Road (Proposed)
- Number 2 Road and Spine Road (North Project Access) (Proposed)
- Revels Road and Spine Road (South Project Access) (Proposed)

Mission Rise

Traffic Impact Analysis Methodology, v1.1
 Project № 23017.1
 May 23, 2023
 Page 8 of 9

Projected Traffic

Projected traffic includes background traffic volumes, the project trips, and committed trips. Projected background traffic will be calculated using the historical growth rates obtained from the *Lake County CMP* database and *FDOT Florida Traffic Online* web-based database. A 2%, minimum growth rate will be applied if the calculated growth rates are lower than 2%. The committed trips for the following approved developments within the study area will be added to the background traffic:

- The Reserve (traffic study obtained)
- Talichet Phase 2 (traffic study obtained)
- Whispering Hills (traffic study obtained)
- Lake Hills (City to provide traffic study)
- Watermark (City to provide traffic study)

Planned and Programmed Improvements

The *Lake-Sumter Metropolitan Planning Organization (LSMPO) 2023-2027 Transportation Improvement Program (TIP)*, as well as *LSMPO 2022 List of Priority Projects (LOPP)* were reviewed to identify any planned or programmed improvements to the transportation facilities in this area. As shown in **Table 3**, construction is not planned to be completed within the next three (3) years for either improvement. Excerpts from the *LSMPO TIP* and *LSMPO LOPP* are provided in the **Attachments**.

Table 3
Planned and Programmed Improvements

FM #	Project Name	From	To	Proposed Phase	Proposed Phase FY	Description of Improvement
2383191	SR 19 *	CR 48	CR 561	PDE-PE-ENV	2023	Add Lanes & Reconstruct
238319-1	SR 19 **	Howey Bridge	CR 561	-	-	Road Widening

* LSMPO TIP Fiscal Year 2023-2027

** LSMPO 2022 LOPP Tier 2 project

Capacity Analysis

The traffic study will include existing and 2033 buildout conditions for the roadway segment and intersection capacity analyses. A capacity analysis of the study roadway segments will be conducted for the PM peak hour under existing and projected conditions. The capacity analysis will be based on service volumes, capacities, and existing volumes, as documented in *2022 Lake County CMP Database* and the *FDOT's 2023 Multimodal Quality/Level of Service (MQ/LOS) Handbook*, included in the **Attachments**.

Mission Rise

Traffic Impact Analysis Methodology, v1.1
Project № 23017.1
May 23, 2023
Page 9 of 9

The intersection turning movement counts will be seasonally adjusted, if needed, using the 2022 *FDOT Peak Season Factor Category Report* obtained from the *Florida Traffic Online (FTO)* website.

Right and left turn lane warrant reviews will be performed at the Spine Road accesses on Number 2 Road and at SR 19 and Revels Road in accordance with the Lake County requirements for turn lanes.

In cases where projected conditions require mitigation as a result of the proposed development, an analysis including the recommended mitigation will be conducted.

Alternative Mode Analysis

A review of transit, pedestrian, and bicycle facilities will be conducted in accordance with the LSMPO requirements.

Report

A TIA report detailing the methods and findings of the study, including all associated graphics, tables, calculations, and supporting information will be prepared for submittal to the Town of Howey-In-The-Hills.

ATTACHMENTS



May 23, 2023

Mr. John Brock
Town Clerk
PO Box 125
Howey-In-The-Hills, Florida 34737
jbrock@howey.org

Re: Mission Rise
Response to Methodology Comments
TMC Project № 23017.1
Town Howey-In-The-Hills, Florida

Dear Mr. Brock,

Please find below our responses to the review comments prepared on behalf of The Town of Howey-In-The-Hills by TMH Consulting Inc dated May 8, 2023, regarding the above referenced Methodology dated April 28, 2023. The comments are listed in **bold** typeface and the TMC responses follow in *italic* typeface. Additionally, a revised Methodology is provided under cover reflecting the changes resulting from these comments.

- 1. The Revels Road access to the south cannot be limited to emergency access as this is a public road now. Since we have received comments from residents to the south, it will be very useful to get some type of prediction about how many trips are likely to use this access point as opposed to SR 19 and Number 2 Road.**

TMC Response: The emergency access on Orange Blossom Road will be restricted to emergency vehicles only; therefore, no trips were assigned to that access.

- 2. There is an interconnect between the Mission Rise parcel and The Reserve parcel. Is the model sensitive enough to determine if this interconnect will impact trip assignments? The Reserve has an approved connecting road which is discussed in the TMC methodology. The Reserve also includes a future commercial development area that might be an attractor.**

TMC Response: Noted. The Reserve Subdivision includes a future commercial development, therefore, 10% of the trips are assumed to originate from The Reserve's commercial development and use the interconnect road to access the project site.

- 3. The study needs to include those projects that have some level of approval. TMC has done the traffic studies for several of these and been provided with traffic studies from others. The projects that need to be included are:**

- **The Reserve**
- **Watermark**
- **Talichet Phase 2 (Phase 1 is mostly in the background traffic by now.)**
- **Whispering Heights**
- **Lake Hills**

TMC Response: Noted. The vested trips from The Reserve, Watermark, Talichet Phase 2, Whispering Heights [Whispering Hills], and Lake Hills will be included in the traffic study as indicated in the revised methodology (attached).

- 4. The study needs to include CFRPM distributions that show the percentages of future background through traffic that will use the new roads in Mission Rise and The Reserve that link No 2 Road to SR 19. Use that data to project future background traffic volumes on those links.**

TMC Response: Noted. As reflected in Figure 2, the future Spine Road, which transverses the project site from north to south and connects Number 2 Road with Revels Road, and the future Connector Road, which connects SR 19 and Number 2 Road are included in the project trip distribution Figure 2 in the revised methodology (attached).

- 5. The project trip distribution map is basically unreadable. They need to provide a graphic that someone can review and understand.**

TMC Response: Noted. The distribution map has been revised to show an inset with the detail project distribution within the project site. See Figure 2 in the revised methodology (attached).

- 6. SR 19 at Central Avenue is listed as signalized, but it is only a flashing light. The analysis cannot assume it is a true signal.**

TMC Response: Noted. SR 19 at Central Avenue intersection is listed as an unsignalized intersection in the revised methodology (attached).

- 7. The ITE land use, code 210, shows traffic generation as 9.43 trips per unit with 0.70% for the AM Peak and 0.94% for the PM Peak. Why did they use 8.75, 0.63 and 0.89 respectively for the project traffic generation?**

TMC Response: Per the Trip Generation Handbook, 3rd Edition Figure 4.2 (Process for selecting average rate or equation in trip generation manual data) linear curve equations should be used for the weekday, AM, and PM peak period trip generation calculation. The linear curve equations have an R^2 equal to 0.75 or greater, therefore, the fitted curve equations were used instead of average rate.

The linear curve equations used for the 592 dwelling residential units corresponding to the weekday, AM, and PM trips are as follows:

*Weekday: $\ln(T)=0.92 \ln(X)+2.68$ which is equivalent to an average rate of 8.75 (5,181/592).
AM: $\ln(T)=0.91 \ln(X)+0.12$ which is equivalent to an average rate of 0.63 (376/592).
PM: $\ln(T)=0.94 \ln(X)+0.27$ which is equivalent to an average rate of 0.89 (529/592).*

Mr. John Brock
Mission Rise
Response to Methodology Comments
TMC Project № 23017.1
May 23, 2023
Page 3 of 3

END OF COMMENTS

We trust these responses and the revised Methodology adequately address the review comments. We remain available to discuss this matter further or to answer any questions you may have.

Kind regards,

TRAFFIC & MOBILITY CONSULTANTS LLC



Charlotte N. Davidson, PE
Senior Transportation Engineer



October 17, 2023

Mr. J. Brock
Town Clerk
Howey-in-the-Hills/Development Review Committee
101 North Palm Avenue
Howey-in-the-Hills, FL 34737
jbrock@howey.prg

Re: Mission Rise
Response to Traffic Impact Analysis Comments
TMC Project № 23017.1
Howey-in-the-Hills, Florida

Dear Mr. Brock,

Please find below our responses to the review comments prepared by Griffey Engineering Inc. on behalf of The Town of Howey-in-the-Hills, dated October 9, 2023, regarding the above referenced Traffic Impact Analysis dated August 2023. The comments are listed in **bold** typeface and the TMC responses follow in *italic* typeface. Additionally, a revised Traffic Impact Analysis is provided under cover reflecting the changes resulting from these comments.

Traffic Study

- 1. Figures in the report are missing. They need to be included.**

TMC Response: Figures have been included in the report.

- 2. For the future condition analysis of the intersection of SR 19 & CR 48, evaluate for a roundabout as well as signal timing adjustment.**

TMC Response: A roundabout at the intersection of SR19 & CR 48 has been evaluated and the results of the analysis have been included in the TIA v1.3 report.

Mr. J. Brock
Mission Rise
Response to Traffic Impact Analysis Comments
TMC Project № 23017.1
October 17, 2023
Page 2 of 2

Recommended Improvements

- 3. The traffic study identifies three intersections along SR 19 that will need to be signalized in the future (SR 19 & Central Ave., SR 19 & Revels Rd., and SR 19 & CR 455). The Development Agreement has a section that addresses proportionate share payment for off-site impacts. In the study's mitigation analysis it states: "In lieu of contributing a proportionate share to the three (3) intersections needing new traffic signals, the developer is recommending to construct the new traffic signal at SR 19 and Revels Road, which serves as the main access to the project." This is a reasonable mitigation alternative provided that there is a binding commitment for the developer to construct (or fund) the signal when it is deemed warranted by FDOT. This would be in addition to the turn lanes that the development will need to install at the intersection (right & left on SR 19, and right & through/left on EB Revels).**

TMC Response: Acknowledged.

END OF COMMENTS

We trust these responses and the revised Traffic Impact Analysis adequately address the review comments. We remain available to discuss this matter further or to answer any questions you may have.

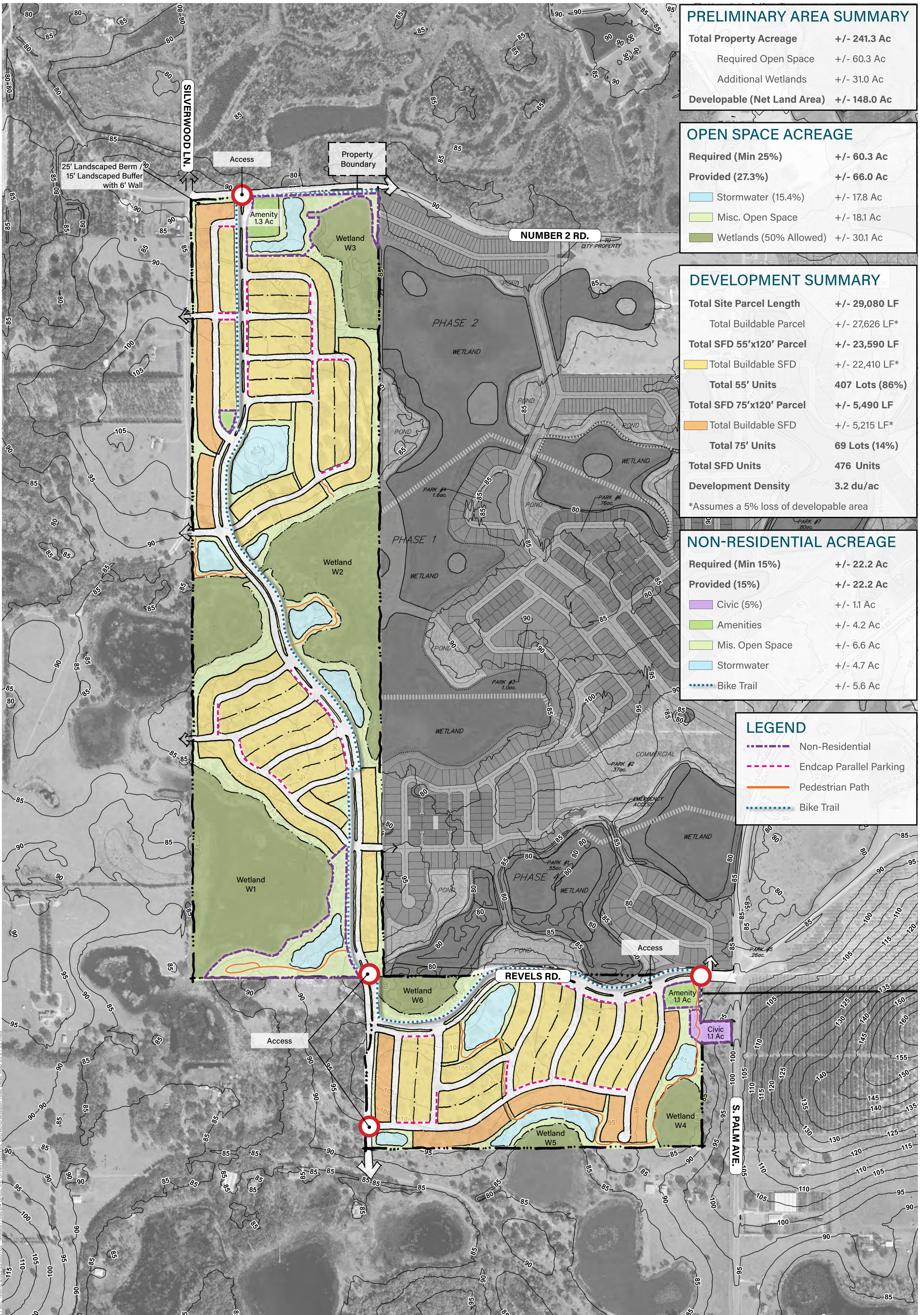
Kind regards,

TRAFFIC & MOBILITY CONSULTANTS LLC



Charlotte N. Davidson, PE
Senior Transportation Engineer

Appendix B
Preliminary Development Plan



PRELIMINARY AREA SUMMARY

Total Property Acreage	+/- 241.3 Ac
Required Open Space	+/- 60.3 Ac
Additional Wetlands	+/- 31.0 Ac
Developable (Net Land Area)	+/- 148.0 Ac

OPEN SPACE ACREAGE

Required (Min 25%)	+/- 60.3 Ac
Provided (27.3%)	+/- 66.0 Ac
Stormwater (15.4%)	+/- 17.8 Ac
Misc. Open Space	+/- 18.1 Ac
Wetlands (50% Allowed)	+/- 30.1 Ac

DEVELOPMENT SUMMARY

Total Site Parcel Length	+/- 29,080 LF
Total Buildable Parcel	+/- 27,626 LF*
Total SFD 55'x120' Parcel	+/- 23,590 LF
Total Buildable SFD	+/- 22,410 LF*
Total 55' Units	407 Lots (86%)
Total SFD 75'x120' Parcel	+/- 5,490 LF
Total Buildable SFD	+/- 5,215 LF*
Total 75' Units	69 Lots (14%)
Total SFD Units	476 Units
Development Density	3.2 du/ac

*Assumes a 5% loss of developable area

NON-RESIDENTIAL ACREAGE

Required (Min 15%)	+/- 22.2 Ac
Provided (15%)	+/- 22.2 Ac
Civic (5%)	+/- 1.1 Ac
Amenities	+/- 4.2 Ac
Mis. Open Space	+/- 6.6 Ac
Stormwater	+/- 4.7 Ac
Bike Trail	+/- 5.6 Ac

LEGEND

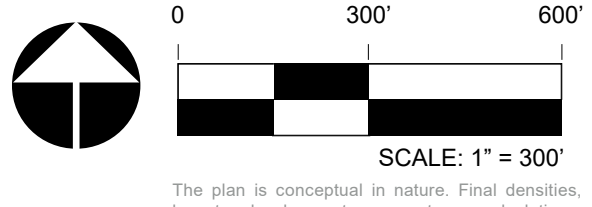
- Non-Residential
- Endcap Parallel Parking
- Pedestrian Path
- Bike Trail

Copyright RVI



MISSION RISE • CONCEPTUAL PLAN

Town of Howey Hills, FL
 December 22, 2022
 # 22003786
 Turnstone Group



The plan is conceptual in nature. Final contours, layout, development parameters, calculations, and site conditions may change upon further development of the Preliminary and/or Master Site Plan, and upon evaluation of topographic survey, water management and existing historic and specimen trees to remain.

Appendix C
Lake County CMP Database and 2023 FDOT Q/LOS

C3C & C3R

Motor Vehicle Arterial Generalized Service Volume Tables

Peak Hour Directional

Peak Hour Two-Way

AADT



(C3C-Suburban Commercial)

	B	C	D	E
1 Lane	*	760	1,070	**
2 Lane	*	1,520	1,810	**
3 Lane	*	2,360	2,680	**
4 Lane	*	3,170	3,180	**

	B	C	D	E
2 Lane	*	1,380	1,950	**
4 Lane	*	2,760	3,290	**
6 Lane	*	4,290	4,870	**
8 Lane	*	5,760	5,780	**

	B	C	D	E
2 Lane	*	15,300	21,700	**
4 Lane	*	30,700	36,600	**
6 Lane	*	47,700	54,100	**
8 Lane	*	64,000	64,200	**



(C3R-Suburban Residential)

	B	C	D	E
1 Lane	*	970	1,110	**
2 Lane	*	1,700	1,850	**
3 Lane	*	2,620	2,730	**

	B	C	D	E
2 Lane	*	1,760	2,020	**
4 Lane	*	3,090	3,360	**
6 Lane	*	4,760	4,960	**

	B	C	D	E
2 Lane	*	19,600	22,400	**
4 Lane	*	34,300	37,300	**
6 Lane	*	52,900	55,100	**

Adjustment Factors

The peak hour directional service volumes should be adjusted by multiplying by 1.2 for one-way facilities
 The AADT service volumes should be adjusted by multiplying 0.6 for one way facilities 2 Lane Divided Roadway with an Exclusive Left Turn Lane(s): Multiply by 1.05

2 lane Undivided Roadway with No Exclusive Left Turn Lane(s): Multiply by 0.80

Exclusive right turn lane(s): Multiply by 1.05

Multilane Undivided Roadway with an Exclusive Left Turn Lane(s): Multiply by 0.95

Multilane Roadway with No Exclusive Left Turn Lane(s): Multiply by 0.75

Non-State Signalized Roadway: Multiply by 0.90

This table does not constitute a standard and should be used only for general planning applications. The table should not be used for corridor or intersection design, where more refined techniques exist.

* Cannot be achieved using table input value defaults.

** Not applicable for that level of service letter grade. For the automobile mode, volumes greater than level of service D become F because intersection capacities have been reached.

C1 & C2

Motor Vehicle Highway Generalized Service Volume Tables



(C1-Natural & C2-Rural)

Peak Hour Directional

	B	C	D	E
1 Lane	240	430	730	1,490
2 Lane	1,670	2,390	2,910	3,340
3 Lane	2,510	3,570	4,370	5,010

Peak Hour Two-Way

	B	C	D	E
2 Lane	440	780	1,330	2,710
4 Lane	3,040	4,350	5,290	6,070
6 Lane	4,560	6,490	7,950	9,110

AADT

	B	C	D	E
2 Lane	4,600	8,200	14,000	28,500
4 Lane	32,000	45,800	55,700	63,900
6 Lane	48,000	68,300	83,700	95,900

Adjustment Factors

- 2 Lane Divided Roadway with Exclusive Left Turn Adjustment: Multiply by 1.05
- Multilane Undivided Highway with Exclusive Left Turn Adjustment: Multiply by 0.95
- Multilane Undivided Highway without Exclusive Left Turn Adjustment: Multiply by 0.75

This table does not constitute a standard and should be used only for general planning applications. The table should not be used for corridor or intersection design, where more refined techniques exist.

Appendix D
Turning Movement Counts and Seasonal Factor Data

**TURNING MOVEMENT COUNT ANALYSIS
AUTOS & TRUCKS**

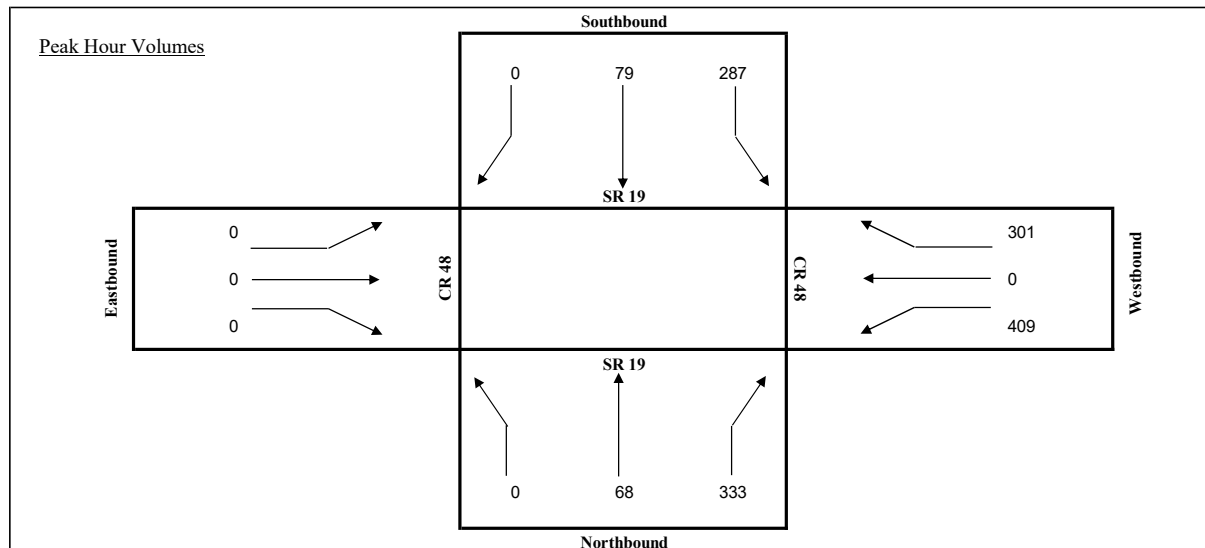
Intersection (N/S): SR 19

Intersection (E/W): CR 48

Date: 7/19/2023

Start	End	SR 19 NB			SR 19 SB			CR 48 EB			CR 48 WB			TOTAL
		L	T	R	L	T	R	L	T	R	L	T	R	
4:00 PM	4:15 PM	0	19	82	68	13	0	0	0	0	84	0	65	331
4:15 PM	4:30 PM	0	24	91	71	13	0	0	0	0	83	0	79	361
4:30 PM	4:45 PM	0	18	72	68	17	0	0	0	0	93	0	76	344
4:45 PM	5:00 PM	0	23	90	85	15	0	0	0	0	92	0	61	366
5:00 PM	5:15 PM	0	18	71	73	23	0	0	0	0	88	0	73	346
5:15 PM	5:30 PM	0	15	80	71	19	0	0	0	0	114	0	80	379
5:30 PM	5:45 PM	0	12	92	58	22	0	0	0	0	115	0	87	386
5:45 PM	6:00 PM	0	16	70	54	14	0	0	0	0	94	0	72	320

Total for:	4:00 PM	5:00 PM	0	84	335	292	58	0	0	0	0	352	0	281	1402
Total for:	5:00 PM	6:00 PM	0	61	313	256	78	0	0	0	0	411	0	312	1431
Tota Peak Hour:	4:45 PM	5:45 PM	0	68	333	287	79	0	0	0	0	409	0	301	1477
Overall PHF:			0.96												

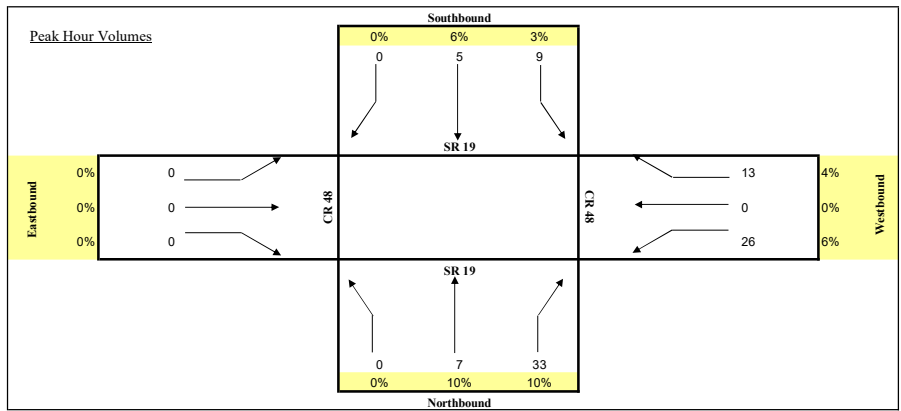


TURNING MOVEMENT COUNT ANALYSIS
TRUCKS

Intersection (N/S): SR 19
Intersection (E/W): CR 48
Date: 7/19/2023

Start	End	SR 19			SR 19			CR 48			CR 48			TOTAL
		R	T	L	R	T	L	R	T	L	R	T	L	
4:00 PM	4:15 PM	0	3	10	5	0	0	0	0	0	4	0	6	28
4:15 PM	4:30 PM	0	4	11	1	3	0	0	0	0	8	0	2	29
4:30 PM	4:45 PM	0	0	8	2	1	0	0	0	0	7	0	4	22
4:45 PM	5:00 PM	0	0	4	1	1	0	0	0	0	7	0	1	14
5:00 PM	5:15 PM	0	1	7	2	2	0	0	0	0	6	0	0	18
5:15 PM	5:30 PM	0	0	7	2	0	0	0	0	0	6	0	0	15
5:30 PM	5:45 PM	0	0	2	0	0	0	0	0	0	2	0	1	5
5:45 PM	6:00 PM	0	2	4	2	1	0	0	0	0	5	0	1	15

Total for:	4:00 PM	5:00 PM	0	7	33	9	5	0	0	0	0	0	26	0	13	93
Total for:	5:00 PM	6:00 PM	0	3	20	6	3	0	0	0	0	0	19	0	2	53
Total Peak Hour:	4:00 PM	5:00 PM	0	7	33	9	5	0	0	0	0	0	26	0	13	93
Overall PHF:	0.80															

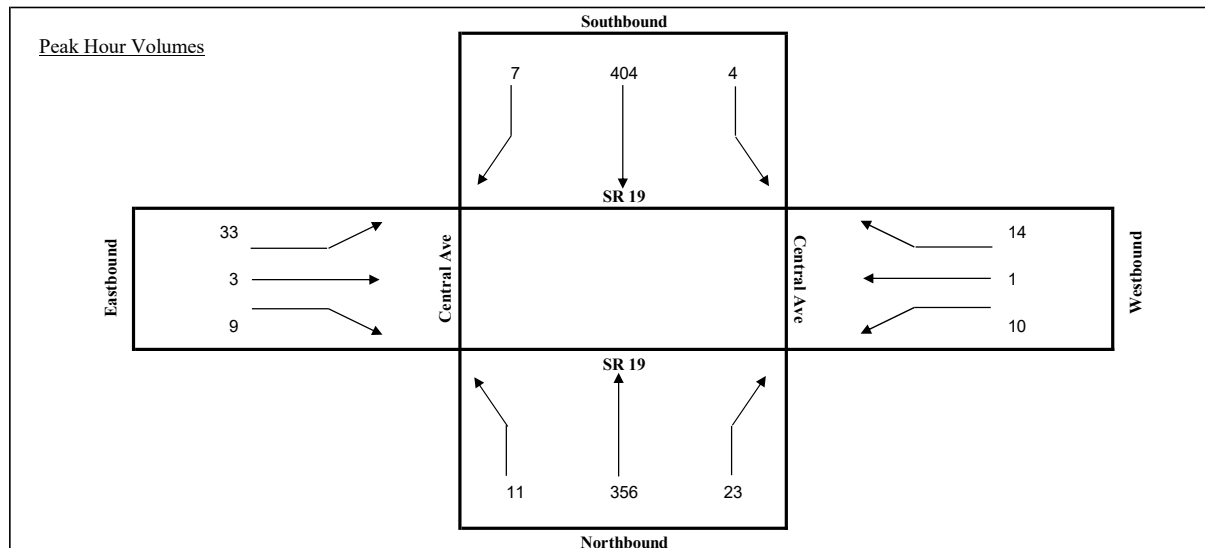


TURNING MOVEMENT COUNT ANALYSIS
AUTOS & TRUCKS

Intersection (N/S): SR 19
Intersection (E/W): Central Ave
Date: 7/19/2023

Start	End	SR 19 NB			SR 19 SB			Central Ave EB			Central Ave WB			TOTAL
		L	T	R	L	T	R	L	T	R	L	T	R	
7:00 AM	7:15 AM	7	76	6	1	88	3	5	0	4	3	1	3	197
7:15 AM	7:30 AM	3	92	4	1	101	0	15	1	1	1	0	2	221
7:30 AM	7:45 AM	1	96	4	1	106	2	9	0	1	2	0	4	226
7:45 AM	8:00 AM	5	85	4	2	93	2	4	1	4	4	0	3	207
8:00 AM	8:15 AM	2	83	11	0	104	3	5	1	3	3	1	5	221
8:15 AM	8:30 AM	8	70	1	1	91	5	7	2	0	0	0	4	189
8:30 AM	8:45 AM	3	96	5	1	101	5	5	2	6	2	0	1	227
8:45 AM	9:00 AM	3	77	10	4	68	2	13	0	1	2	0	4	184

Total for:	7:00 AM	8:00 AM	16	349	18	5	388	7	33	2	10	10	1	12	851
Total for:	8:00 AM	9:00 AM	16	326	27	6	364	15	30	5	10	7	1	14	821
Tota Peak Hour:	7:15 AM	8:15 AM	11	356	23	4	404	7	33	3	9	10	1	14	875
Overall PHF:	0.97														



**TURNING MOVEMENT COUNT ANALYSIS
TRUCKS**

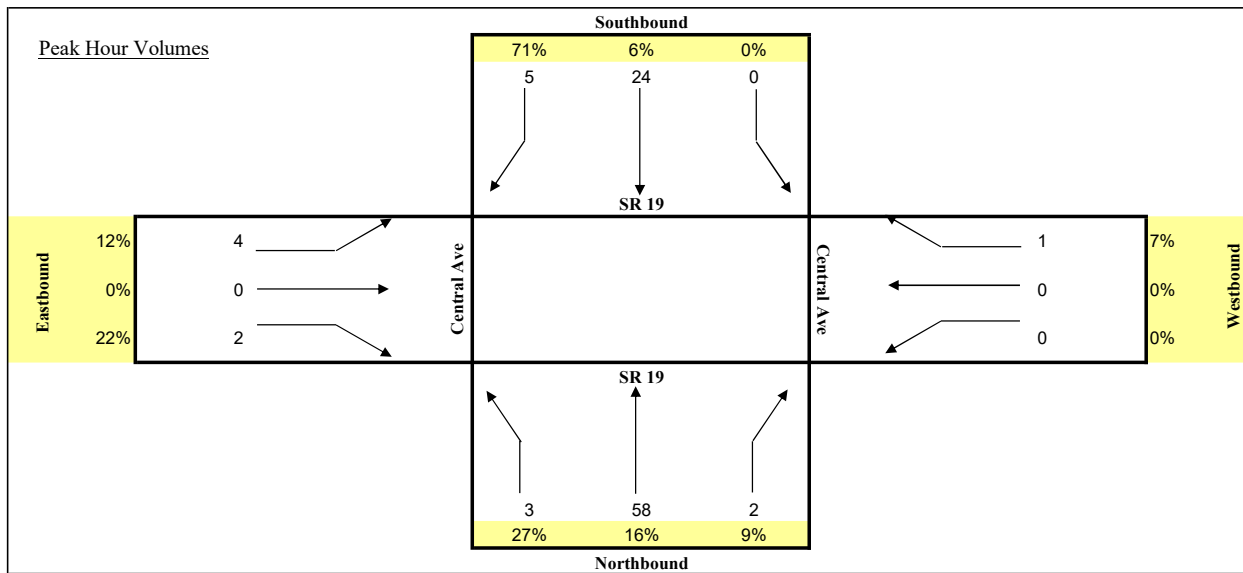
Intersection (N/S): SR 19

Intersection (E/W): Central Ave

Date: 7/19/2023

Start	End	SR 19			SR 19			Central Ave			Central Ave			TOTAL	
		NB			SB			EB			WB				
		R	T	L	R	T	L	R	T	L	R	T	L		
7:00 AM	7:15 AM	1	13	0	0	10	0	1	0	0	0	0	0	0	25
7:15 AM	7:30 AM	1	15	1	1	13	0	1	0	0	0	0	0	0	32
7:30 AM	7:45 AM	0	9	0	0	7	0	0	0	0	0	0	0	2	18
7:45 AM	8:00 AM	1	12	1	0	2	0	0	0	0	1	0	0	0	17
8:00 AM	8:15 AM	0	14	1	0	5	0	0	0	0	0	0	1	0	21
8:15 AM	8:30 AM	2	7	1	0	8	1	2	0	0	0	0	0	0	21
8:30 AM	8:45 AM	1	19	0	0	6	2	0	0	2	0	0	0	0	30
8:45 AM	9:00 AM	0	18	0	0	5	2	2	0	0	0	0	0	0	27

Total for:	7:00 AM	8:00 AM	3	49	2	1	32	0	2	0	0	1	0	2	92
Total for:	8:00 AM	9:00 AM	3	58	2	0	24	5	4	0	2	0	0	1	99
Tota Peak Hour:	8:00 AM	9:00 AM	3	58	2	0	24	5	4	0	2	0	0	1	99
Overall PHF:	0.83														

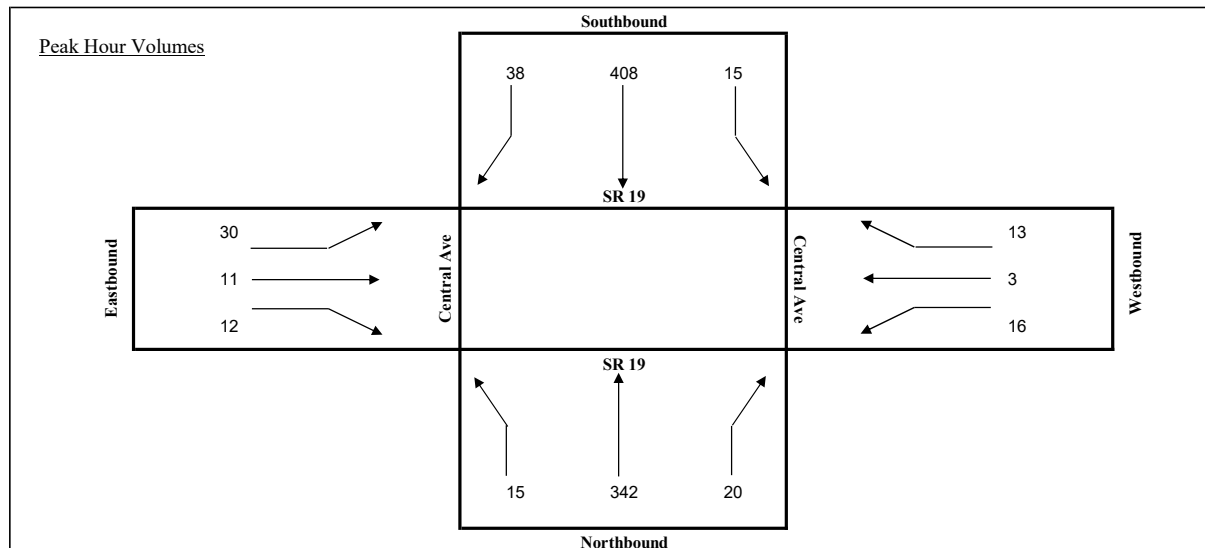


**TURNING MOVEMENT COUNT ANALYSIS
AUTOS & TRUCKS**

Intersection (N/S): SR 19
 Intersection (E/W): Central Ave
 Date: 7/19/2023

Start	End	SR 19 NB			SR 19 SB			Central Ave EB			Central Ave WB			TOTAL
		L	T	R	L	T	R	L	T	R	L	T	R	
4:00 PM	4:15 PM	2	88	5	3	81	10	7	1	2	1	0	4	204
4:15 PM	4:30 PM	2	98	3	1	79	9	12	0	4	1	3	3	215
4:30 PM	4:45 PM	2	75	7	6	89	10	11	3	4	4	1	1	213
4:45 PM	5:00 PM	2	102	7	4	90	6	6	1	3	1	0	2	224
5:00 PM	5:15 PM	5	66	5	0	96	10	12	5	5	5	0	6	215
5:15 PM	5:30 PM	4	84	4	3	113	8	5	1	1	6	3	2	234
5:30 PM	5:45 PM	4	90	4	8	109	14	7	4	3	4	0	3	250
5:45 PM	6:00 PM	1	71	6	1	86	9	7	1	1	0	2	3	188

Total for:	4:00 PM	5:00 PM	8	363	22	14	339	35	36	5	13	7	4	10	856
Total for:	5:00 PM	6:00 PM	14	311	19	12	404	41	31	11	10	15	5	14	887
Tota Peak Hour:	4:45 PM	5:45 PM	15	342	20	15	408	38	30	11	12	16	3	13	923
Overall PHF:	0.92														

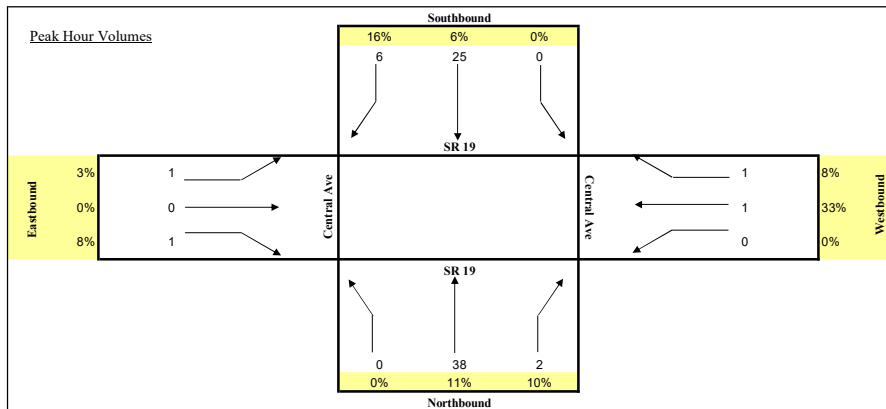


TURNING MOVEMENT COUNT ANALYSIS
TRUCKS

Intersection (N/S): SR 19
Intersection (E/W): Central Ave
Date: 7/19/2023

Start	End	SR 19 NB			SR 19 SB			Central Ave EB			Central Ave WB			TOTAL
		R	T	L	R	T	L	R	T	L	R	T	L	
4:00 PM	4:15 PM	0	13	2	0	2	2	0	0	0	0	0	0	19
4:15 PM	4:30 PM	0	14	0	0	9	2	0	0	0	0	1	1	27
4:30 PM	4:45 PM	0	8	0	0	8	0	0	0	0	0	0	0	16
4:45 PM	5:00 PM	0	3	0	0	6	2	1	0	1	0	0	0	13
5:00 PM	5:15 PM	1	7	0	0	8	0	1	0	0	0	0	0	17
5:15 PM	5:30 PM	0	7	0	0	6	0	0	0	1	0	0	0	14
5:30 PM	5:45 PM	1	2	0	1	0	1	0	0	1	1	0	0	7
5:45 PM	6:00 PM	0	6	0	0	6	0	0	0	0	0	1	0	13

Total for:	4:00 PM	5:00 PM	0	38	2	0	25	6	1	0	1	0	1	1	75
Total for:	5:00 PM	6:00 PM	2	22	0	1	20	1	1	0	2	1	1	0	51
Total Peak Hour:	4:00 PM	5:00 PM	0	38	2	0	25	6	1	0	1	0	1	1	75
Overall PHF:	0.69														

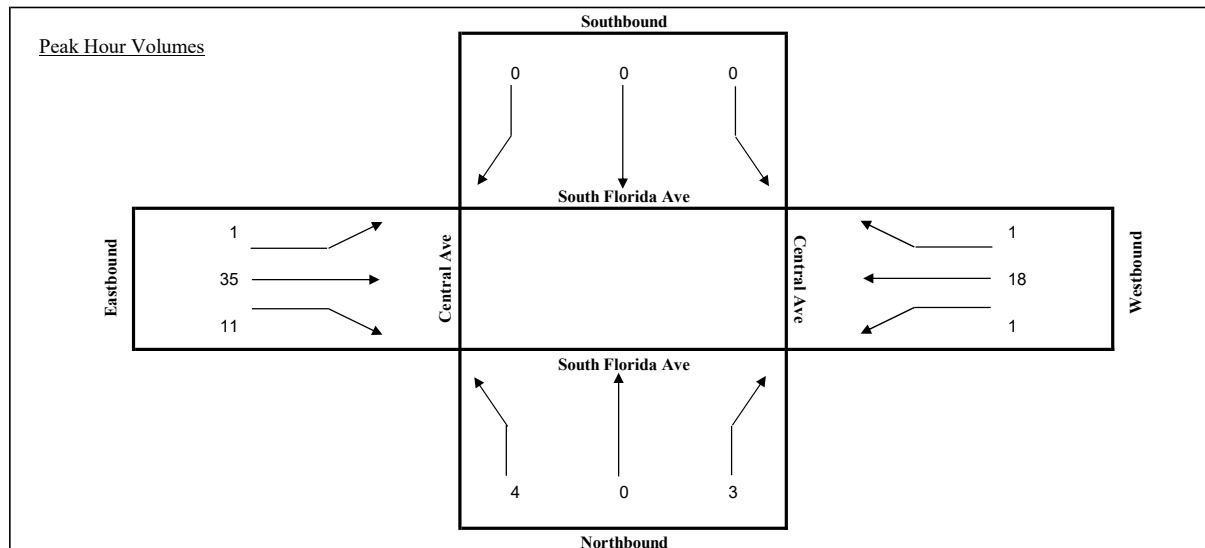


**TURNING MOVEMENT COUNT ANALYSIS
AUTOS & TRUCKS**

Intersection (N/S): South Florida Ave
 Intersection (E/W): Central Ave
 Date: 7/19/2023

Start	End	South Florida Ave			South Florida Ave			Central Ave			Central Ave			TOTAL
		L	T	R	L	T	R	L	T	R	L	T	R	
7:00 AM	7:15 AM	0	0	0	0	0	0	0	6	4	0	8	1	19
7:15 AM	7:30 AM	2	0	1	0	0	0	1	13	2	0	4	0	23
7:30 AM	7:45 AM	2	0	1	0	0	0	0	9	4	1	1	0	18
7:45 AM	8:00 AM	0	0	1	0	0	0	0	7	1	0	5	0	14
8:00 AM	8:15 AM	0	0	2	0	0	0	0	5	0	2	5	0	14
8:15 AM	8:30 AM	0	0	3	0	0	0	0	8	2	1	3	2	19
8:30 AM	8:45 AM	0	0	1	1	0	1	0	3	1	3	7	0	17
8:45 AM	9:00 AM	1	0	2	0	0	0	0	7	2	1	6	1	20

Total for:	7:00 AM	8:00 AM	4	0	3	0	0	0	1	35	11	1	18	1	74
Total for:	8:00 AM	9:00 AM	1	0	8	1	0	1	0	23	5	7	21	3	70
Tota Peak Hour:	7:00 AM	8:00 AM	4	0	3	0	0	0	1	35	11	1	18	1	74
Overall PHF:			0.80												

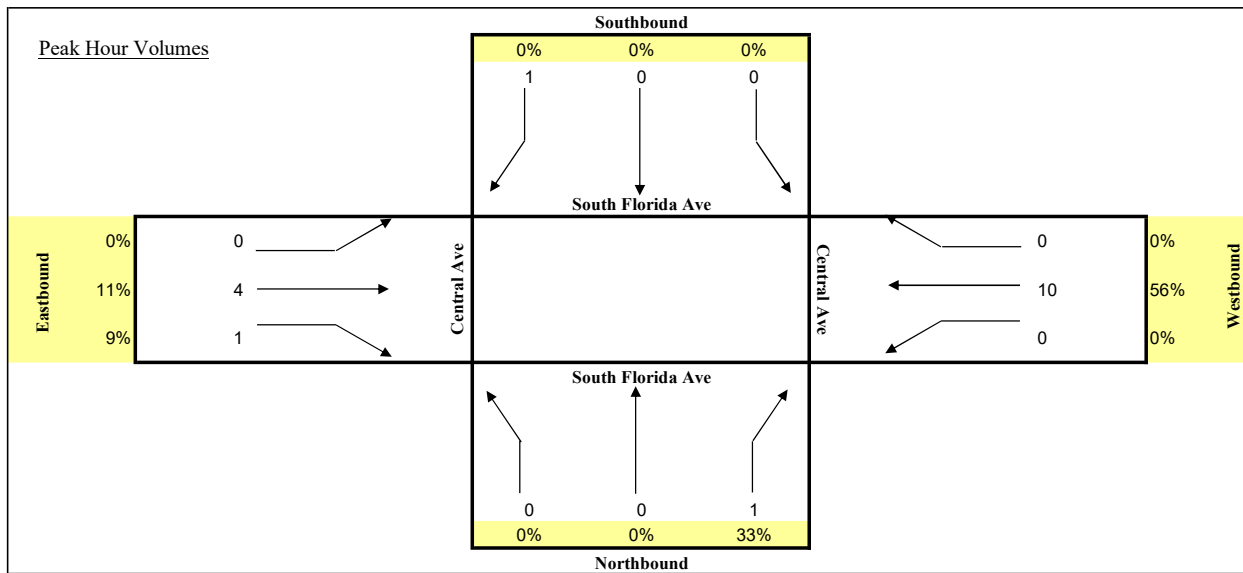


**TURNING MOVEMENT COUNT ANALYSIS
TRUCKS**

Intersection (N/S): South Florida Ave
 Intersection (E/W): Central Ave
 Date: 7/19/2023

		South Florida Ave			South Florida Ave			Central Ave			Central Ave			TOTAL
Start	End	NB			SB			EB			WB			
		R	T	L	R	T	L	R	T	L	R	T	L	
7:00 AM	7:15 AM	0	0	0	0	0	0	0	1	0	0	1	0	2
7:15 AM	7:30 AM	0	0	0	0	0	0	0	1	0	0	1	0	2
7:30 AM	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	8:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	1
8:00 AM	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	8:30 AM	0	0	1	0	0	0	0	2	0	0	2	0	5
8:30 AM	8:45 AM	0	0	0	0	0	1	0	1	0	0	3	0	5
8:45 AM	9:00 AM	0	0	0	0	0	0	0	1	1	0	5	0	7

Total for:	7:00 AM	8:00 AM	0	0	0	0	0	0	2	0	0	3	0	5	
Total for:	8:00 AM	9:00 AM	0	0	1	0	0	1	4	1	0	10	0	17	
Tota Peak Hour:	8:00 AM	9:00 AM	0	0	1	0	0	1	4	1	0	10	0	17	
Overall PHF:	0.61														

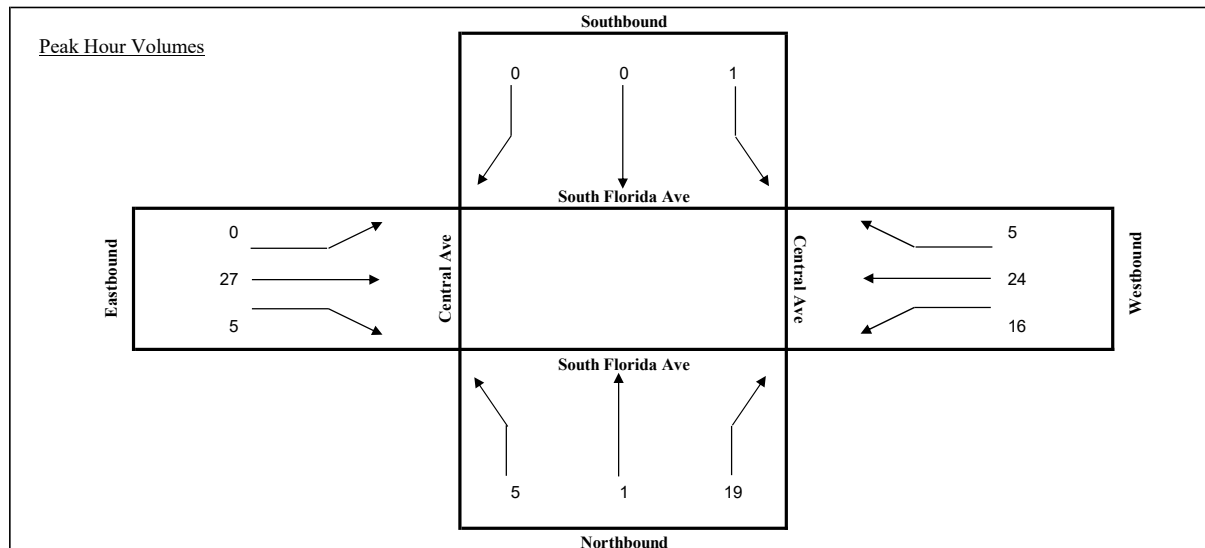


TURNING MOVEMENT COUNT ANALYSIS
AUTOS & TRUCKS

Intersection (N/S): South Florida Ave
Intersection (E/W): Central Ave
Date: 7/19/2023

Start	End	South Florida Ave			South Florida Ave			Central Ave			Central Ave			TOTAL
		L	T	R	L	T	R	L	T	R	L	T	R	
4:00 PM	4:15 PM	3	0	3	0	0	0	0	3	0	4	5	0	18
4:15 PM	4:30 PM	3	0	5	0	0	0	0	6	2	4	8	0	28
4:30 PM	4:45 PM	2	0	6	0	0	0	0	2	3	3	7	0	23
4:45 PM	5:00 PM	1	0	4	0	0	0	0	5	1	1	4	0	16
5:00 PM	5:15 PM	1	1	7	0	0	0	0	10	2	5	6	0	32
5:15 PM	5:30 PM	1	0	4	0	0	0	0	5	1	0	4	4	19
5:30 PM	5:45 PM	1	0	4	1	0	0	0	6	2	5	9	0	28
5:45 PM	6:00 PM	2	0	4	0	0	0	0	6	0	6	5	1	24

Total for:	4:00 PM	5:00 PM	9	0	18	0	0	0	0	16	6	12	24	0	85
Total for:	5:00 PM	6:00 PM	5	1	19	1	0	0	0	27	5	16	24	5	103
Tota Peak Hour:	5:00 PM	6:00 PM	5	1	19	1	0	0	0	27	5	16	24	5	103
Overall PHF:	0.80														

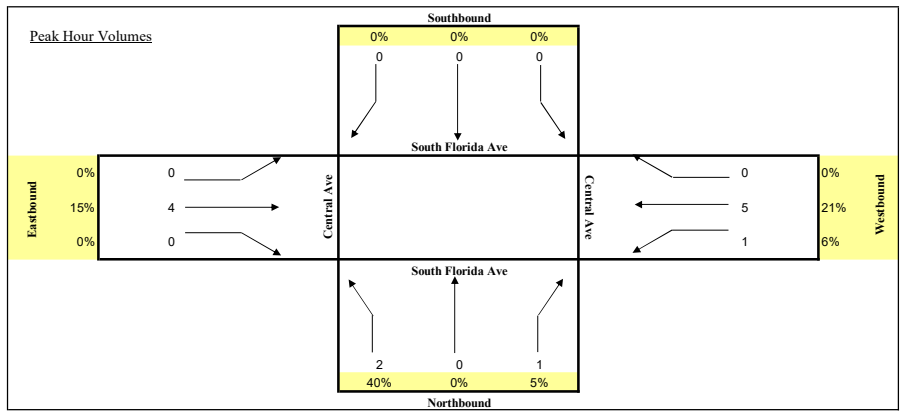


TURNING MOVEMENT COUNT ANALYSIS
TRUCKS

Intersection (N/S): South Florida Ave
Intersection (E/W): Central Ave
Date: 7/19/2023

Start	End	South Florida Ave			South Florida Ave			Central Ave			Central Ave			TOTAL
		R	T	L	R	T	L	R	T	L	R	T	L	
4:00 PM	4:15 PM	0	0	0	0	0	0	0	0	0	1	1	0	2
4:15 PM	4:30 PM	1	0	0	0	0	0	0	0	0	1	2	0	4
4:30 PM	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	5:00 PM	1	0	0	0	0	0	0	2	0	1	1	0	5
5:00 PM	5:15 PM	0	0	1	0	0	0	0	0	0	0	1	0	2
5:15 PM	5:30 PM	1	0	0	0	0	0	0	2	0	0	1	0	4
5:30 PM	5:45 PM	0	0	0	0	0	0	0	0	0	0	2	0	2
5:45 PM	6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0

Total for:	4:00 PM	5:00 PM	2	0	0	0	0	0	0	2	0	3	4	0	11
Total for:	5:00 PM	6:00 PM	1	0	1	0	0	0	0	2	0	0	4	0	8
Total Peak Hour:	4:45 PM	5:45 PM	2	0	1	0	0	0	0	4	0	1	5	0	13
Overall PHF:	0.65														

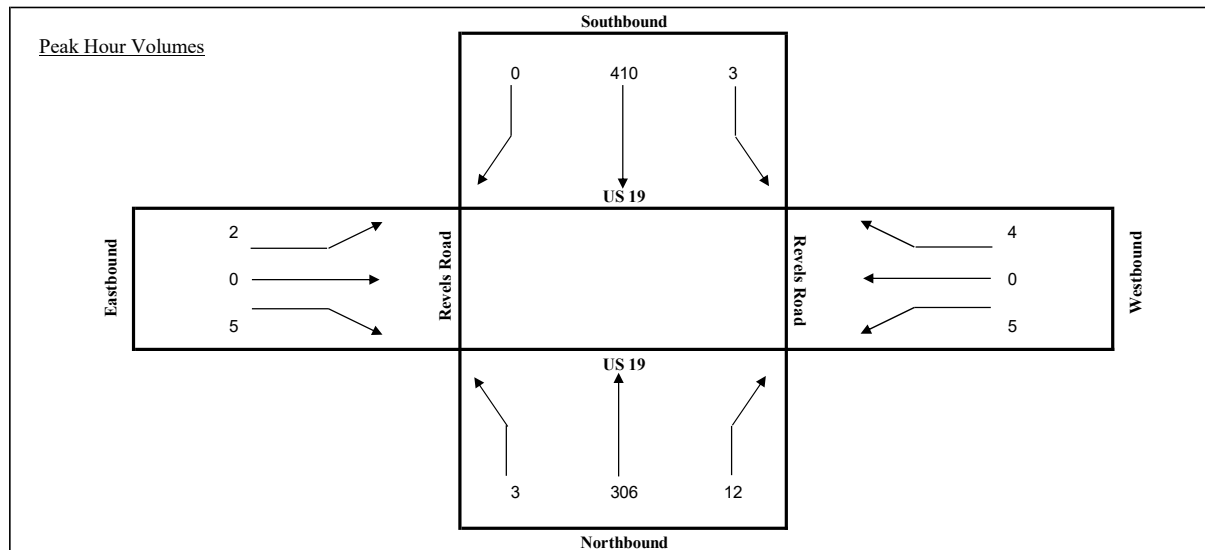


**TURNING MOVEMENT COUNT ANALYSIS
AUTOS & TRUCKS**

Intersection (N/S): US 19
 Intersection (E/W): Revels Road
 Date: 7/19/2023

Start	End	US 19 NB			US 19 SB			Revels Road EB			Revels Road WB			TOTAL
		L	T	R	L	T	R	L	T	R	L	T	R	
7:00 AM	7:15 AM	3	80	1	0	74	2	0	0	0	3	0	2	165
7:15 AM	7:30 AM	2	60	1	1	94	1	1	0	0	0	1	0	161
7:30 AM	7:45 AM	1	72	0	1	107	0	0	0	2	1	0	1	185
7:45 AM	8:00 AM	1	97	5	0	100	0	0	0	2	2	0	1	208
8:00 AM	8:15 AM	0	71	2	2	110	0	2	0	0	2	0	2	191
8:15 AM	8:30 AM	1	66	5	0	93	0	0	0	1	0	0	0	166
8:30 AM	8:45 AM	0	58	1	0	60	1	1	0	2	4	0	2	129
8:45 AM	9:00 AM	0	57	3	1	63	2	0	0	1	1	0	2	130

Total for:	7:00 AM	8:00 AM	7	309	7	2	375	3	1	0	4	6	1	4	719
Total for:	8:00 AM	9:00 AM	1	252	11	3	326	3	3	0	4	7	0	6	616
Tota Peak Hour:	7:30 AM	8:30 AM	3	306	12	3	410	0	2	0	5	5	0	4	750
Overall PHF:	0.90														

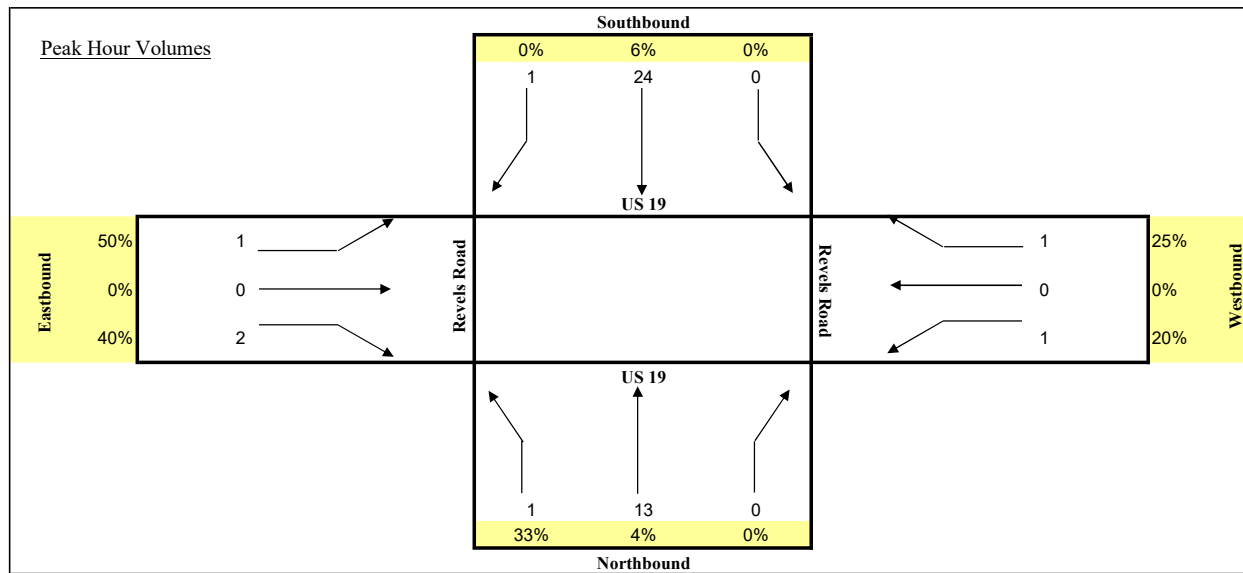


**TURNING MOVEMENT COUNT ANALYSIS
TRUCKS**

Intersection (N/S): US 19
 Intersection (E/W): Revels Road
 Date: 7/19/2023

Start	End	US 19			US 19			Revels Road			Revels Road			TOTAL
		NB			SB			EB			WB			
		R	T	L	R	T	L	R	T	L	R	T	L	
7:00 AM	7:15 AM	1	3	0	0	5	0	0	0	0	0	0	0	9
7:15 AM	7:30 AM	0	1	0	0	6	0	0	0	0	0	0	0	7
7:30 AM	7:45 AM	0	2	0	0	5	0	0	0	0	0	0	0	7
7:45 AM	8:00 AM	1	6	0	0	3	0	0	0	0	0	0	1	11
8:00 AM	8:15 AM	0	1	0	0	8	0	0	0	0	0	0	0	9
8:15 AM	8:30 AM	0	3	0	0	6	0	0	0	1	0	0	0	10
8:30 AM	8:45 AM	0	3	0	0	7	1	1	0	1	1	0	0	14
8:45 AM	9:00 AM	0	1	0	0	3	1	0	0	0	0	0	0	5

Total for:	7:00 AM	8:00 AM	2	12	0	0	19	0	0	0	0	0	1	34
Total for:	8:00 AM	9:00 AM	0	8	0	0	24	2	1	0	2	1	0	38
Tota Peak Hour:	7:45 AM	8:45 AM	1	13	0	0	24	1	1	0	2	1	0	44
Overall PHF:	0.79													

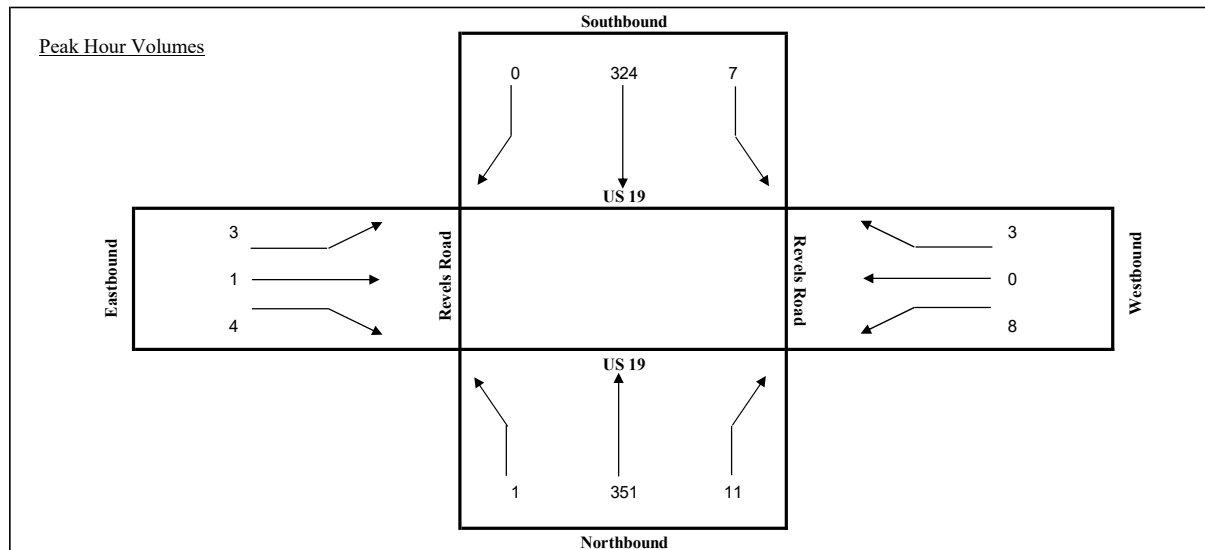


TURNING MOVEMENT COUNT ANALYSIS
AUTOS & TRUCKS

Intersection (N/S): US 19
 Intersection (E/W): Revels Road
 Date: 7/19/2023

Start	End	US 19 NB			US 19 SB			Revels Road EB			Revels Road WB			TOTAL
		L	T	R	L	T	R	L	T	R	L	T	R	
4:00 PM	4:15 PM	2	89	6	5	61	3	1	0	0	1	1	2	171
4:15 PM	4:30 PM	0	76	3	0	74	1	1	0	1	3	0	1	160
4:30 PM	4:45 PM	1	78	1	2	88	0	0	0	1	2	0	0	173
4:45 PM	5:00 PM	0	93	6	1	91	0	0	0	0	2	0	2	195
5:00 PM	5:15 PM	0	88	3	2	70	0	1	0	2	2	0	0	168
5:15 PM	5:30 PM	0	92	1	2	75	0	2	1	1	2	0	1	177
5:30 PM	5:45 PM	0	92	2	1	70	0	0	0	1	0	0	0	166
5:45 PM	6:00 PM	0	86	3	0	72	0	1	0	0	2	0	1	165

Total for:	4:00 PM	5:00 PM	3	336	16	8	314	4	2	0	2	8	1	5	699
Total for:	5:00 PM	6:00 PM	0	358	9	5	287	0	4	1	4	6	0	2	676
Tota Peak Hour:	4:30 PM	5:30 PM	1	351	11	7	324	0	3	1	4	8	0	3	713
Overall PHF:	0.91														

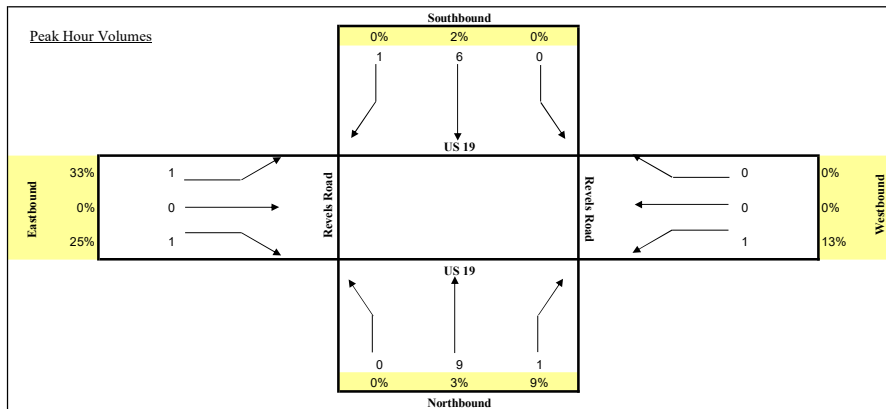


TURNING MOVEMENT COUNT ANALYSIS
TRUCKS

Intersection (N/S): US 19
Intersection (E/W): Revels Road
Date: 7/19/2023

Start	End	US 19 NB			US 19 SB			Revels Road EB			Revels Road WB			TOTAL	
		R	T	L	R	T	L	R	T	L	R	T	L		
4:00 PM	4:15 PM	0	1	0	0	1	1	0	0	0	0	0	0	0	3
4:15 PM	4:30 PM	0	4	1	0	2	0	1	0	0	0	0	0	0	8
4:30 PM	4:45 PM	0	1	0	0	0	0	0	0	1	1	0	0	0	3
4:45 PM	5:00 PM	0	3	0	0	3	0	0	0	0	0	0	0	0	6
5:00 PM	5:15 PM	0	2	0	0	1	0	0	0	0	0	0	0	0	3
5:15 PM	5:30 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	2
5:30 PM	5:45 PM	0	5	0	0	2	0	0	0	0	0	0	0	0	7
5:45 PM	6:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	1

Total for:	4:00 PM	5:00 PM	0	9	1	0	6	1	1	0	1	1	0	0	20
Total for:	5:00 PM	6:00 PM	0	9	0	0	4	0	0	0	0	0	0	0	13
Total Peak Hour:	4:00 PM	5:00 PM	0	9	1	0	6	1	1	0	1	1	0	0	20
Overall PHF:	0.63														

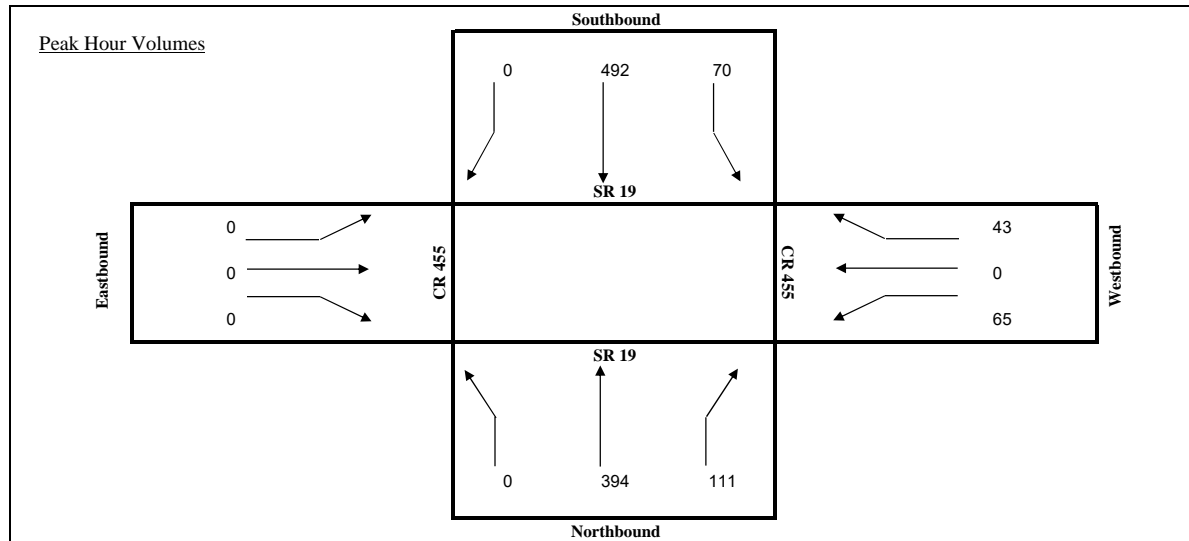


TURNING MOVEMENT COUNT ANALYSIS
AUTOS & TRUCKS

Intersection (N/S): SR 19
 Intersection (E/W): CR 455
 Date: 1/24/2023

Start	End	SR 19 NB			SR 19 SB			CR 455 EB			CR 455 WB			TOTAL
		L	T	R	L	T	R	L	T	R	L	T	R	
7:00 AM	7:15 AM	0	92	15	11	131	0	0	0	0	7	0	4	260
7:15 AM	7:30 AM	0	93	23	16	144	0	0	0	0	9	0	6	291
7:30 AM	7:45 AM	0	111	27	21	105	0	0	0	0	13	0	11	288
7:45 AM	8:00 AM	0	91	26	20	124	0	0	0	0	17	0	12	290
8:00 AM	8:15 AM	0	99	35	13	119	0	0	0	0	26	0	14	306
8:15 AM	8:30 AM	0	93	29	18	98	0	0	0	0	22	0	11	271
8:30 AM	8:45 AM	0	74	27	11	94	0	0	0	0	22	0	12	240
8:45 AM	9:00 AM	0	81	22	9	94	0	0	0	0	17	0	9	232

Total for:	7:00 AM	8:00 AM	0	387	91	68	504	0	0	0	0	46	0	33	1129
Total for:	8:00 AM	9:00 AM	0	347	113	51	405	0	0	0	0	87	0	46	1049
Tota Peak Hour:	7:15 AM	8:15 AM	0	394	111	70	492	0	0	0	0	65	0	43	1175
Overall PHF:	0.96														

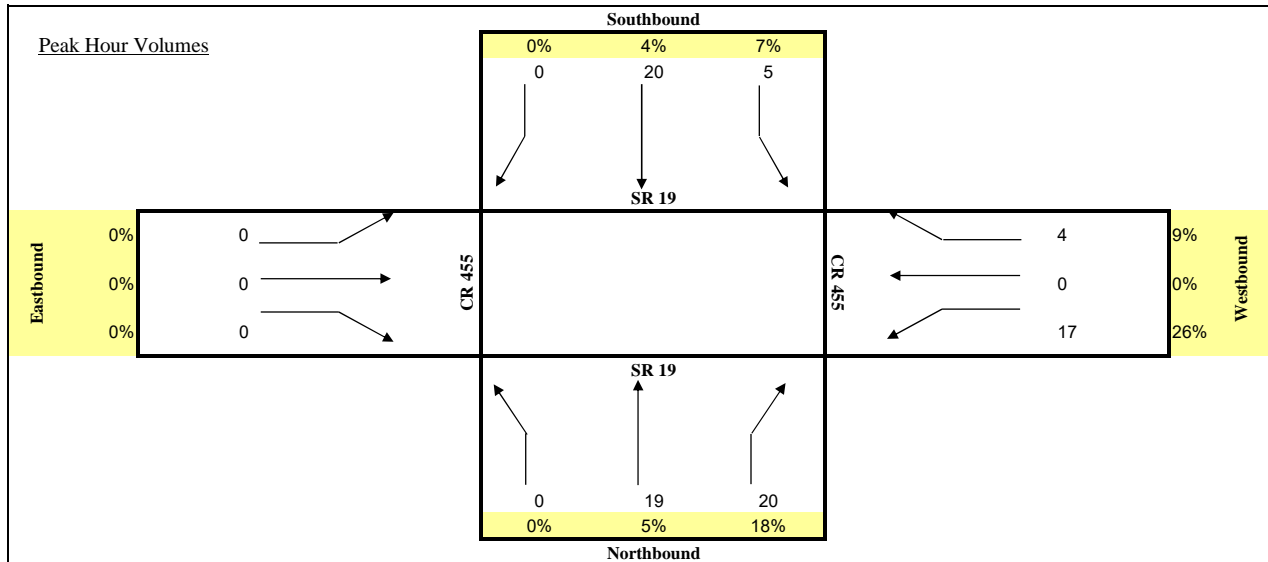


**TURNING MOVEMENT COUNT ANALYSIS
TRUCKS**

Intersection (N/S): SR 19
 Intersection (E/W): CR 455
 Date: 1/24/2023

Start	End	SR 19			SR 19			CR 455			CR 455			TOTAL
		NB			SB			EB			WB			
		R	T	L	R	T	L	R	T	L	R	T	L	
7:00 AM	7:15 AM	0	3	3	0	7	0	0	0	0	2	0	1	16
7:15 AM	7:30 AM	0	6	1	1	8	0	0	0	0	2	0	0	18
7:30 AM	7:45 AM	0	7	7	3	5	0	0	0	0	3	0	2	27
7:45 AM	8:00 AM	0	3	2	1	3	0	0	0	0	1	0	0	10
8:00 AM	8:15 AM	0	6	5	0	5	0	0	0	0	5	0	1	22
8:15 AM	8:30 AM	0	3	6	3	6	0	0	0	0	3	0	2	23
8:30 AM	8:45 AM	0	3	6	1	5	0	0	0	0	6	0	0	21
8:45 AM	9:00 AM	0	7	3	1	4	0	0	0	0	3	0	1	19

Total for:	7:00 AM	8:00 AM	0	19	13	5	23	0	0	0	0	8	0	3	71
Total for:	8:00 AM	9:00 AM	0	19	20	5	20	0	0	0	0	17	0	4	85
Tota Peak Hour:	8:00 AM	9:00 AM	0	19	20	5	20	0	0	0	0	17	0	4	85
Overall PHF:	0.92														

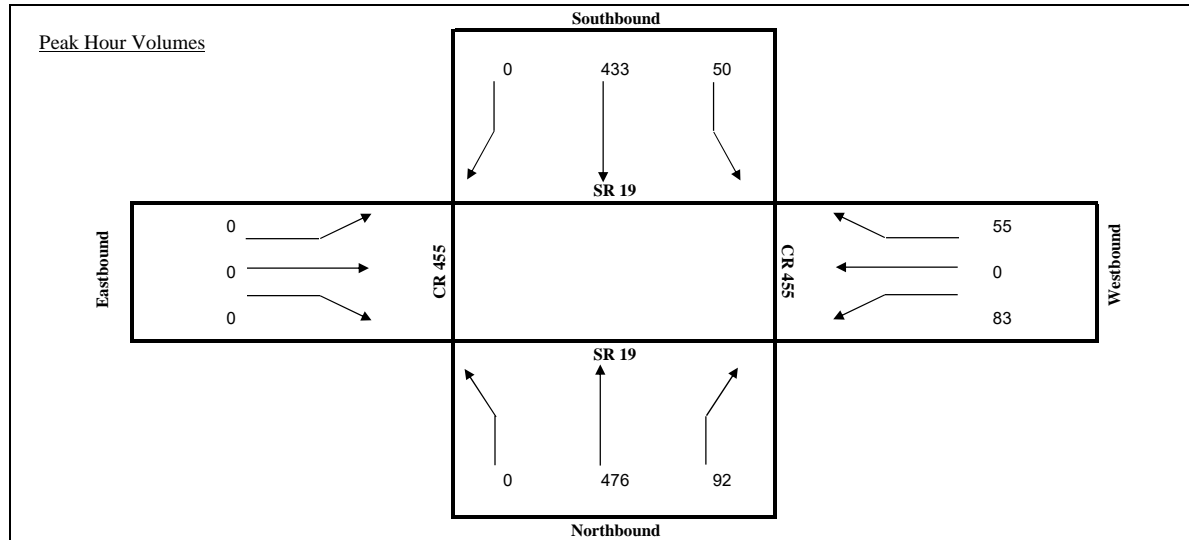


TURNING MOVEMENT COUNT ANALYSIS
AUTOS & TRUCKS

Intersection (N/S): SR 19
 Intersection (E/W): CR 455
 Date: 1/24/2023

Start	End	SR 19 NB			SR 19 SB			CR 455 EB			CR 455 WB			TOTAL
		L	T	R	L	T	R	L	T	R	L	T	R	
4:00 PM	4:15 PM	0	97	20	6	117	0	0	0	0	18	0	14	272
4:15 PM	4:30 PM	0	111	22	9	109	0	0	0	0	22	0	11	284
4:30 PM	4:45 PM	0	114	25	13	108	0	0	0	0	19	0	16	295
4:45 PM	5:00 PM	0	118	22	9	108	0	0	0	0	25	0	13	295
5:00 PM	5:15 PM	0	131	21	14	104	0	0	0	0	18	0	10	298
5:15 PM	5:30 PM	0	113	24	14	113	0	0	0	0	21	0	16	301
5:30 PM	5:45 PM	0	96	28	17	94	0	0	0	0	17	0	19	271
5:45 PM	6:00 PM	0	87	21	10	102	0	0	0	0	21	0	12	253

Total for:	4:00 PM	5:00 PM	0	440	89	37	442	0	0	0	0	84	0	54	1146
Total for:	5:00 PM	6:00 PM	0	427	94	55	413	0	0	0	0	77	0	57	1123
Tota Peak Hour:	4:30 PM	5:30 PM	0	476	92	50	433	0	0	0	0	83	0	55	1189
Overall PHF:	0.99														

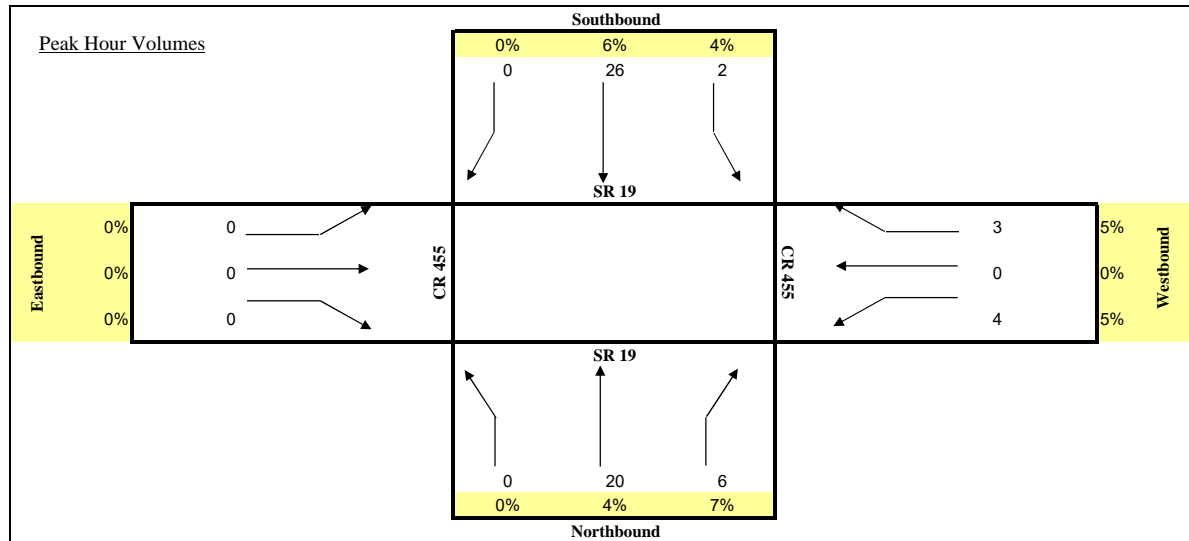


TURNING MOVEMENT COUNT ANALYSIS
TRUCKS

Intersection (N/S): SR 19
Intersection (E/W): CR 455
Date: 1/24/2023

Start	End	SR 19 NB			SR 19 SB			CR 455 EB			CR 455 WB			TOTAL
		R	T	L	R	T	L	R	T	L	R	T	L	
4:00 PM	4:15 PM	0	6	3	0	7	0	0	0	0	1	0	1	18
4:15 PM	4:30 PM	0	5	0	1	7	0	0	0	0	1	0	1	15
4:30 PM	4:45 PM	0	7	2	1	4	0	0	0	0	0	0	0	14
4:45 PM	5:00 PM	0	2	1	0	8	0	0	0	0	2	0	1	14
5:00 PM	5:15 PM	0	4	3	1	2	0	0	0	0	0	0	0	10
5:15 PM	5:30 PM	0	3	1	0	7	0	0	0	0	1	0	0	12
5:30 PM	5:45 PM	0	0	4	1	1	0	0	0	0	0	0	2	8
5:45 PM	6:00 PM	0	0	1	0	5	0	0	0	0	1	0	1	8

Total for:	4:00 PM	5:00 PM	0	20	6	2	26	0	0	0	0	4	0	3	61
Total for:	5:00 PM	6:00 PM	0	7	9	2	15	0	0	0	0	2	0	3	38
Tota Peak Hour:	4:00 PM	5:00 PM	0	20	6	2	26	0	0	0	0	4	0	3	61
Overall PHF:	0.85														



2022 PEAK SEASON FACTOR CATEGORY REPORT - REPORT TYPE: ALL
 CATEGORY: 1100 LAKE COUNTYWIDE

Item 5.

WEEK	DATES	SF	MOCF: 0.95 PSCF
1	01/01/2022 - 01/01/2022	0.99	1.04
2	01/02/2022 - 01/08/2022	1.01	1.06
3	01/09/2022 - 01/15/2022	1.03	1.08
4	01/16/2022 - 01/22/2022	1.02	1.07
5	01/23/2022 - 01/29/2022	1.00	1.05
* 6	01/30/2022 - 02/05/2022	0.98	1.03
* 7	02/06/2022 - 02/12/2022	0.97	1.02
* 8	02/13/2022 - 02/19/2022	0.95	1.00
* 9	02/20/2022 - 02/26/2022	0.95	1.00
*10	02/27/2022 - 03/05/2022	0.94	0.99
*11	03/06/2022 - 03/12/2022	0.94	0.99
*12	03/13/2022 - 03/19/2022	0.93	0.98
*13	03/20/2022 - 03/26/2022	0.94	0.99
*14	03/27/2022 - 04/02/2022	0.95	1.00
*15	04/03/2022 - 04/09/2022	0.95	1.00
*16	04/10/2022 - 04/16/2022	0.96	1.01
*17	04/17/2022 - 04/23/2022	0.97	1.02
*18	04/24/2022 - 04/30/2022	0.98	1.03
19	05/01/2022 - 05/07/2022	0.99	1.04
20	05/08/2022 - 05/14/2022	0.99	1.04
21	05/15/2022 - 05/21/2022	1.00	1.05
22	05/22/2022 - 05/28/2022	1.01	1.06
23	05/29/2022 - 06/04/2022	1.02	1.07
24	06/05/2022 - 06/11/2022	1.03	1.08
25	06/12/2022 - 06/18/2022	1.04	1.09
26	06/19/2022 - 06/25/2022	1.05	1.11
27	06/26/2022 - 07/02/2022	1.05	1.11
28	07/03/2022 - 07/09/2022	1.06	1.12
29	07/10/2022 - 07/16/2022	1.06	1.12
30	07/17/2022 - 07/23/2022	1.06	1.12
31	07/24/2022 - 07/30/2022	1.05	1.11
32	07/31/2022 - 08/06/2022	1.05	1.11
33	08/07/2022 - 08/13/2022	1.04	1.09
34	08/14/2022 - 08/20/2022	1.04	1.09
35	08/21/2022 - 08/27/2022	1.05	1.11
36	08/28/2022 - 09/03/2022	1.06	1.12
37	09/04/2022 - 09/10/2022	1.07	1.13
38	09/11/2022 - 09/17/2022	1.08	1.14
39	09/18/2022 - 09/24/2022	1.05	1.11
40	09/25/2022 - 10/01/2022	1.02	1.07
41	10/02/2022 - 10/08/2022	1.00	1.05
42	10/09/2022 - 10/15/2022	0.97	1.02
43	10/16/2022 - 10/22/2022	0.98	1.03
44	10/23/2022 - 10/29/2022	0.99	1.04
45	10/30/2022 - 11/05/2022	0.99	1.04
46	11/06/2022 - 11/12/2022	1.00	1.05
47	11/13/2022 - 11/19/2022	1.01	1.06
48	11/20/2022 - 11/26/2022	1.00	1.05
49	11/27/2022 - 12/03/2022	1.00	1.05
50	12/04/2022 - 12/10/2022	0.99	1.04
51	12/11/2022 - 12/17/2022	0.99	1.04
52	12/18/2022 - 12/24/2022	1.01	1.06
53	12/25/2022 - 12/31/2022	1.03	1.08

* PEAK SEASON

23-FEB-2023 09:11:22













830UPD

5_1100_PKSEASON.TXT

Appendix E
HCM Analysis Worksheets - Existing Conditions













HCM 6th Signalized Intersection Summary

1: SR 19 & CR 48

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	346	229	316	455	277	98
Future Volume (veh/h)	346	229	316	455	277	98
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1752	1589	1767	1811	1737	1811
Adj Flow Rate, veh/h	357	117	326	0	286	101
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	10	21	9	6	11	6
Cap, veh/h	390	315	751		564	1114
Arrive On Green	0.23	0.23	0.42	0.00	0.12	0.62
Sat Flow, veh/h	1668	1346	1767	1535	1654	1811
Grp Volume(v), veh/h	357	117	326	0	286	101
Grp Sat Flow(s),veh/h/ln	1668	1346	1767	1535	1654	1811
Q Serve(g_s), s	18.9	6.6	11.8	0.0	8.2	2.1
Cycle Q Clear(g_c), s	18.9	6.6	11.8	0.0	8.2	2.1
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	390	315	751		564	1114
V/C Ratio(X)	0.91	0.37	0.43		0.51	0.09
Avail Cap(c_a), veh/h	417	336	751		705	1114
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	33.9	29.2	18.4	0.0	11.8	7.1
Incr Delay (d2), s/veh	23.6	0.7	1.8	0.0	0.7	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	14.8	3.7	8.6	0.0	5.1	1.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	57.5	29.9	20.3	0.0	12.6	7.3
LnGrp LOS	E	C	C		B	A
Approach Vol, veh/h	474		326	A		387
Approach Delay, s/veh	50.7		20.3			11.2
Approach LOS	D		C			B
Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	17.3	45.0		28.6		62.3
Change Period (Y+Rc), s	6.5	6.4		7.3		6.4
Max Green Setting (Gmax), s	18.5	38.6		22.7		38.6
Max Q Clear Time (g_c+I1), s	10.2	13.8		20.9		4.1
Green Ext Time (p_c), s	0.5	1.9		0.3		0.5
Intersection Summary						
HCM 6th Ctrl Delay			29.5			
HCM 6th LOS			C			
Notes						
Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.						

HCM 6th Signalized Intersection Summary

1: SR 19 & CR 48

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	434	319	72	353	304	84
Future Volume (veh/h)	434	319	72	353	304	84
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1752	1589	1767	1811	1737	1811
Adj Flow Rate, veh/h	447	210	74	0	313	87
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	10	21	9	6	11	6
Cap, veh/h	405	327	729		767	1107
Arrive On Green	0.24	0.24	0.41	0.00	0.13	0.61
Sat Flow, veh/h	1668	1346	1767	1535	1654	1811
Grp Volume(v), veh/h	447	210	74	0	313	87
Grp Sat Flow(s),veh/h/ln	1668	1346	1767	1535	1654	1811
Q Serve(g_s), s	22.7	13.1	2.4	0.0	9.5	1.8
Cycle Q Clear(g_c), s	22.7	13.1	2.4	0.0	9.5	1.8
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	405	327	729		767	1107
V/C Ratio(X)	1.10	0.64	0.10		0.41	0.08
Avail Cap(c_a), veh/h	405	327	729		880	1107
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	35.4	31.8	16.9	0.0	11.2	7.4
Incr Delay (d2), s/veh	76.1	4.3	0.3	0.0	0.3	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	25.4	7.8	1.8	0.0	5.8	1.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	111.6	36.1	17.1	0.0	11.5	7.6
LnGrp LOS	F	D	B		B	A
Approach Vol, veh/h	657		74	A		400
Approach Delay, s/veh	87.5		17.1			10.7
Approach LOS	F		B			B
Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	18.6	45.0		30.0		63.6
Change Period (Y+Rc), s	6.5	6.4		7.3		6.4
Max Green Setting (Gmax), s	18.5	38.6		22.7		38.6
Max Q Clear Time (g_c+I1), s	11.5	4.4		24.7		3.8
Green Ext Time (p_c), s	0.6	0.4		0.0		0.4
Intersection Summary						
HCM 6th Ctrl Delay			55.7			
HCM 6th LOS			E			
Notes						
Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.						

HCM 6th TWSC

2: SR 19 & W Central Ave/E Central Ave

Intersection												
Int Delay, s/veh	1.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	35	3	10	11	1	15	12	377	24	4	428	7
Future Vol, veh/h	35	3	10	11	1	15	12	377	24	4	428	7
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	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	12	33	2	2	2	2	38	10	2	42	2	11
Mvmt Flow	36	3	10	11	1	15	12	389	25	4	441	7

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	887	891	445	885	882	402	448	0	0	414	0	0
Stage 1	453	453	-	426	426	-	-	-	-	-	-	-
Stage 2	434	438	-	459	456	-	-	-	-	-	-	-
Critical Hdwy	7.22	6.83	6.22	7.12	6.52	6.22	4.48	-	-	4.52	-	-
Critical Hdwy Stg 1	6.22	5.83	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.22	5.83	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.608	4.297	3.318	3.518	4.018	3.318	2.542	-	-	2.578	-	-
Pot Cap-1 Maneuver	254	251	613	266	285	648	946	-	-	960	-	-
Stage 1	568	521	-	606	586	-	-	-	-	-	-	-
Stage 2	581	529	-	582	568	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	243	245	613	255	278	648	946	-	-	960	-	-
Mov Cap-2 Maneuver	243	245	-	255	278	-	-	-	-	-	-	-
Stage 1	558	518	-	596	576	-	-	-	-	-	-	-
Stage 2	556	520	-	565	565	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	20.7		15.1		0.3		0.1	
HCM LOS	C		C					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	946	-	-	278	386	960	-	-
HCM Lane V/C Ratio	0.013	-	-	0.178	0.072	0.004	-	-
HCM Control Delay (s)	8.9	0	-	20.7	15.1	8.8	0	-
HCM Lane LOS	A	A	-	C	C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.6	0.2	0	-	-

HCM 6th TWSC

2: SR 19 & W Central Ave/E Central Ave

Intersection												
Int Delay, s/veh	2.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	32	12	13	17	3	14	16	363	21	16	432	40
Future Vol, veh/h	32	12	13	17	3	14	16	363	21	16	432	40
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	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	12	33	2	2	2	2	38	10	2	42	2	11
Mvmt Flow	33	12	13	18	3	14	16	374	22	16	445	41

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	924	926	466	927	935	385	486	0	0	396	0	0
Stage 1	498	498	-	417	417	-	-	-	-	-	-	-
Stage 2	426	428	-	510	518	-	-	-	-	-	-	-
Critical Hdwy	7.22	6.83	6.22	7.12	6.52	6.22	4.48	-	-	4.52	-	-
Critical Hdwy Stg 1	6.22	5.83	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.22	5.83	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.608	4.297	3.318	3.518	4.018	3.318	2.542	-	-	2.578	-	-
Pot Cap-1 Maneuver	240	239	597	249	265	663	914	-	-	975	-	-
Stage 1	536	496	-	613	591	-	-	-	-	-	-	-
Stage 2	587	535	-	546	533	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	225	228	597	225	253	663	914	-	-	975	-	-
Mov Cap-2 Maneuver	225	228	-	225	253	-	-	-	-	-	-	-
Stage 1	524	485	-	599	577	-	-	-	-	-	-	-
Stage 2	558	523	-	508	521	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	22.6		17.9		0.4		0.3	
HCM LOS	C		C					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	914	-	-	263	313	975	-	-
HCM Lane V/C Ratio	0.018	-	-	0.223	0.112	0.017	-	-
HCM Control Delay (s)	9	0	-	22.6	17.9	8.8	0	-
HCM Lane LOS	A	A	-	C	C	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.8	0.4	0.1	-	-

HCM 6th TWSC

3: S Florida Ave & W Central Ave

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	1	37	12	1	19	1	4	0	3	0	0	0
Future Vol, veh/h	1	37	12	1	19	1	4	0	3	0	0	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	80	80	80	80	80	80	80	80	80	80	80	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	46	15	1	24	1	5	0	4	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	25	0	0	61	0	0	83	83	54	85	90	25
Stage 1	-	-	-	-	-	-	56	56	-	27	27	-
Stage 2	-	-	-	-	-	-	27	27	-	58	63	-
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	1589	-	-	1542	-	-	904	807	1013	901	800	1051
Stage 1	-	-	-	-	-	-	956	848	-	990	873	-
Stage 2	-	-	-	-	-	-	990	873	-	954	842	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1589	-	-	1542	-	-	902	805	1013	896	798	1051
Mov Cap-2 Maneuver	-	-	-	-	-	-	902	805	-	896	798	-
Stage 1	-	-	-	-	-	-	955	847	-	989	872	-
Stage 2	-	-	-	-	-	-	989	872	-	950	841	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.1			0.3			8.8			0		
HCM LOS							A			A		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	946	1589	-	-	1542	-	-	-
HCM Lane V/C Ratio	0.009	0.001	-	-	0.001	-	-	-
HCM Control Delay (s)	8.8	7.3	0	-	7.3	0	-	0
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	-

HCM 6th TWSC

3: S Florida Ave & W Central Ave

Intersection												
Int Delay, s/veh	3.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	29	5	17	25	5	5	1	20	1	0	0
Future Vol, veh/h	0	29	5	17	25	5	5	1	20	1	0	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	80	80	80	80	80	80	80	80	80	80	80	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	36	6	21	31	6	6	1	25	1	0	0

Major/Minor	Major1		Major2		Minor1		Minor2					
Conflicting Flow All	37	0	0	42	0	0	115	118	39	128	118	34
Stage 1	-	-	-	-	-	-	39	39	-	76	76	-
Stage 2	-	-	-	-	-	-	76	79	-	52	42	-
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	-	-	1567	-	-	862	772	1033	845	772	1039
Stage 1	-	-	-	-	-	-	976	862	-	933	832	-
Stage 2	-	-	-	-	-	-	933	829	-	961	860	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1574	-	-	1567	-	-	853	761	1033	815	761	1039
Mov Cap-2 Maneuver	-	-	-	-	-	-	853	761	-	815	761	-
Stage 1	-	-	-	-	-	-	976	862	-	933	820	-
Stage 2	-	-	-	-	-	-	920	817	-	936	860	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	2.7	8.8	9.4
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	980	1574	-	-	1567	-	-	815
HCM Lane V/C Ratio	0.033	-	-	-	0.014	-	-	0.002
HCM Control Delay (s)	8.8	0	-	-	7.3	0	-	9.4
HCM Lane LOS	A	A	-	-	A	A	-	A
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0

HCM 6th TWSC

4: SR 19 & Revels Rd

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	2	0	5	5	0	4	3	324	13	3	435	0
Future Vol, veh/h	2	0	5	5	0	4	3	324	13	3	435	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	8	12	2	10	2
Mvmt Flow	2	0	6	6	0	4	3	360	14	3	483	0

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	864	869	483	865	862	367	483	0	0	374	0	0
Stage 1	489	489	-	373	373	-	-	-	-	-	-	-
Stage 2	375	380	-	492	489	-	-	-	-	-	-	-
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	274	290	584	274	293	678	1080	-	-	1184	-	0
Stage 1	561	549	-	648	618	-	-	-	-	-	-	0
Stage 2	646	614	-	558	549	-	-	-	-	-	-	0
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	271	288	584	270	291	678	1080	-	-	1184	-	-
Mov Cap-2 Maneuver	271	288	-	270	291	-	-	-	-	-	-	-
Stage 1	559	547	-	645	616	-	-	-	-	-	-	-
Stage 2	639	612	-	551	547	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	13.3		15		0.1		0.1	
HCM LOS	B		C					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT
Capacity (veh/h)	1080	-	-	439	369	1184	-
HCM Lane V/C Ratio	0.003	-	-	0.018	0.027	0.003	-
HCM Control Delay (s)	8.3	-	-	13.3	15	8	0
HCM Lane LOS	A	-	-	B	C	A	A
HCM 95th %tile Q(veh)	0	-	-	0.1	0.1	0	-

HCM 6th TWSC

4: SR 19 & Revels Rd

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	3	1	4	8	0	3	1	372	12	7	343	0
Future Vol, veh/h	3	1	4	8	0	3	1	372	12	7	343	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	8	12	2	10	2
Mvmt Flow	3	1	4	9	0	3	1	413	13	8	381	0

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	820	825	381	822	819	420	381	0	0	426	0	0
Stage 1	397	397	-	422	422	-	-	-	-	-	-	-
Stage 2	423	428	-	400	397	-	-	-	-	-	-	-
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	294	308	666	293	310	633	1177	-	-	1133	-	0
Stage 1	629	603	-	609	588	-	-	-	-	-	-	0
Stage 2	609	585	-	626	603	-	-	-	-	-	-	0
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	290	305	666	288	307	633	1177	-	-	1133	-	-
Mov Cap-2 Maneuver	290	305	-	288	307	-	-	-	-	-	-	-
Stage 1	628	598	-	608	587	-	-	-	-	-	-	-
Stage 2	605	584	-	615	598	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	14		16.1		0		0.2	
HCM LOS	B		C					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT
Capacity (veh/h)	1177	-	-	408	338	1133	-
HCM Lane V/C Ratio	0.001	-	-	0.022	0.036	0.007	-
HCM Control Delay (s)	8.1	-	-	14	16.1	8.2	0
HCM Lane LOS	A	-	-	B	C	A	A
HCM 95th %tile Q(veh)	0	-	-	0.1	0.1	0	-

HCM 6th TWSC
5: SR 19 & CR 455

Intersection						
Int Delay, s/veh	2.8					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	65	43	394	111	70	492
Future Vol, veh/h	65	43	394	111	70	492
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	0	-	590	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	38	15	8	22	9	5
Mvmt Flow	68	45	410	116	73	513

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	1069	410	0	0	526
Stage 1	410	-	-	-	-
Stage 2	659	-	-	-	-
Critical Hdwy	6.78	6.35	-	-	4.19
Critical Hdwy Stg 1	5.78	-	-	-	-
Critical Hdwy Stg 2	5.78	-	-	-	-
Follow-up Hdwy	3.842	3.435	-	-	2.281
Pot Cap-1 Maneuver	210	614	-	-	1006
Stage 1	599	-	-	-	-
Stage 2	453	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	189	614	-	-	1006
Mov Cap-2 Maneuver	189	-	-	-	-
Stage 1	599	-	-	-	-
Stage 2	407	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	25.1	0	1.1
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	189	614	1006
HCM Lane V/C Ratio	-	-	0.358	0.073	0.072
HCM Control Delay (s)	-	-	34.3	11.3	8.9
HCM Lane LOS	-	-	D	B	A
HCM 95th %tile Q(veh)	-	-	1.5	0.2	0.2

HCM 6th TWSC

5: SR 19 & CR 455

Intersection						
Int Delay, s/veh	3.5					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	83	55	476	92	50	433
Future Vol, veh/h	83	55	476	92	50	433
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	0	-	590	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	38	15	8	22	9	5
Mvmt Flow	86	57	496	96	52	451

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	1051	496	0	0	592
Stage 1	496	-	-	-	-
Stage 2	555	-	-	-	-
Critical Hdwy	6.78	6.35	-	-	4.19
Critical Hdwy Stg 1	5.78	-	-	-	-
Critical Hdwy Stg 2	5.78	-	-	-	-
Follow-up Hdwy	3.842	3.435	-	-	2.281
Pot Cap-1 Maneuver	215	548	-	-	950
Stage 1	544	-	-	-	-
Stage 2	509	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	199	548	-	-	950
Mov Cap-2 Maneuver	199	-	-	-	-
Stage 1	544	-	-	-	-
Stage 2	472	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	26.7	0	0.9
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	199	548	950
HCM Lane V/C Ratio	-	-	0.434	0.105	0.055
HCM Control Delay (s)	-	-	36.3	12.3	9
HCM Lane LOS	-	-	E	B	A
HCM 95th %tile Q(veh)	-	-	2	0.3	0.2

Appendix F
ITE Trip Generation Sheets

Single-Family Detached Housing (210)

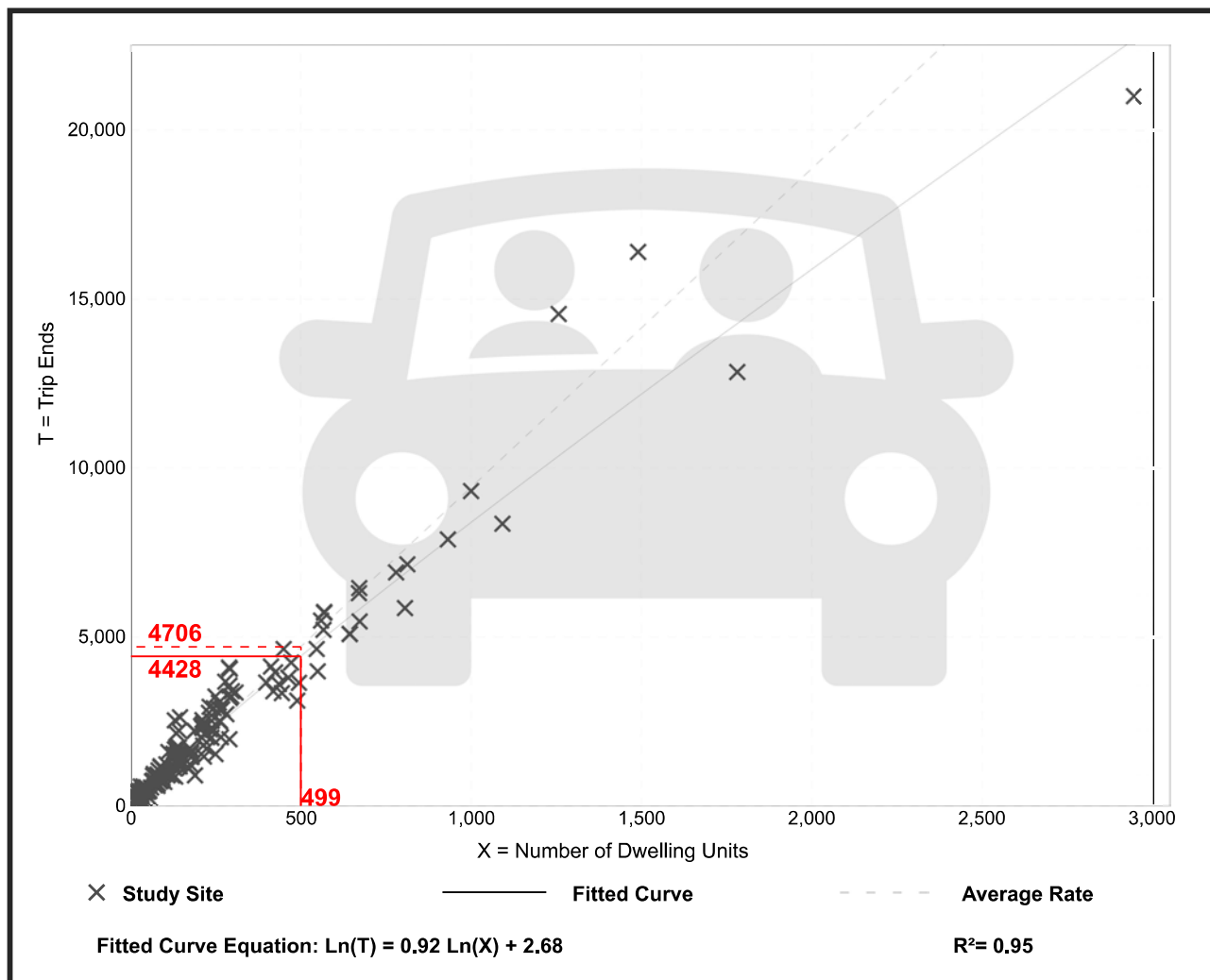
Vehicle Trip Ends vs: Dwelling Units
On a: Weekday

Setting/Location: General Urban/Suburban
Number of Studies: 174
Avg. Num. of Dwelling Units: 246
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
9.43	4.45 - 22.61	2.13

Data Plot and Equation



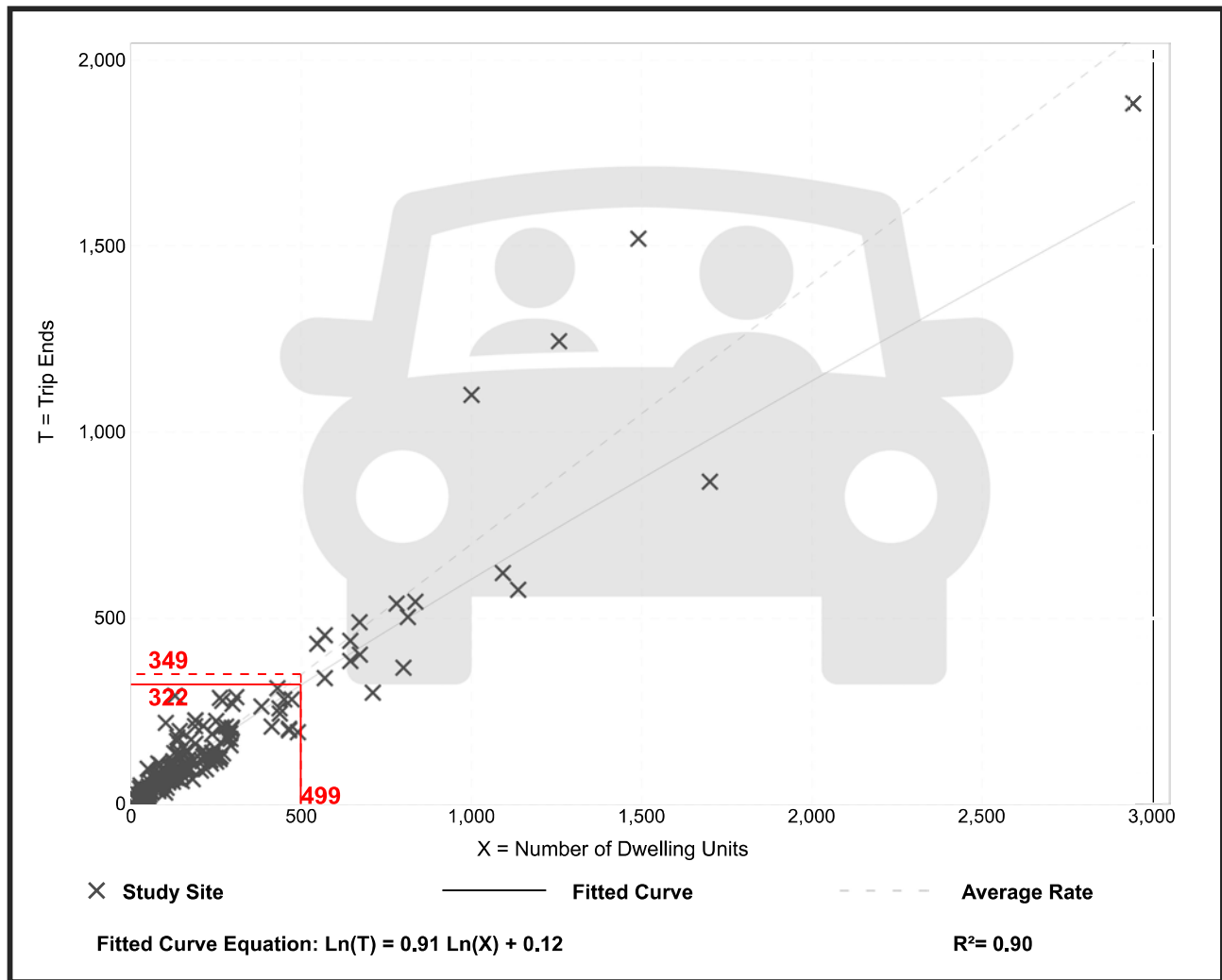
Single-Family Detached Housing (210)

Vehicle Trip Ends vs: Dwelling Units
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.
Setting/Location: General Urban/Suburban
 Number of Studies: 192
 Avg. Num. of Dwelling Units: 226
 Directional Distribution: 25% entering, 75% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.70	0.27 - 2.27	0.24

Data Plot and Equation



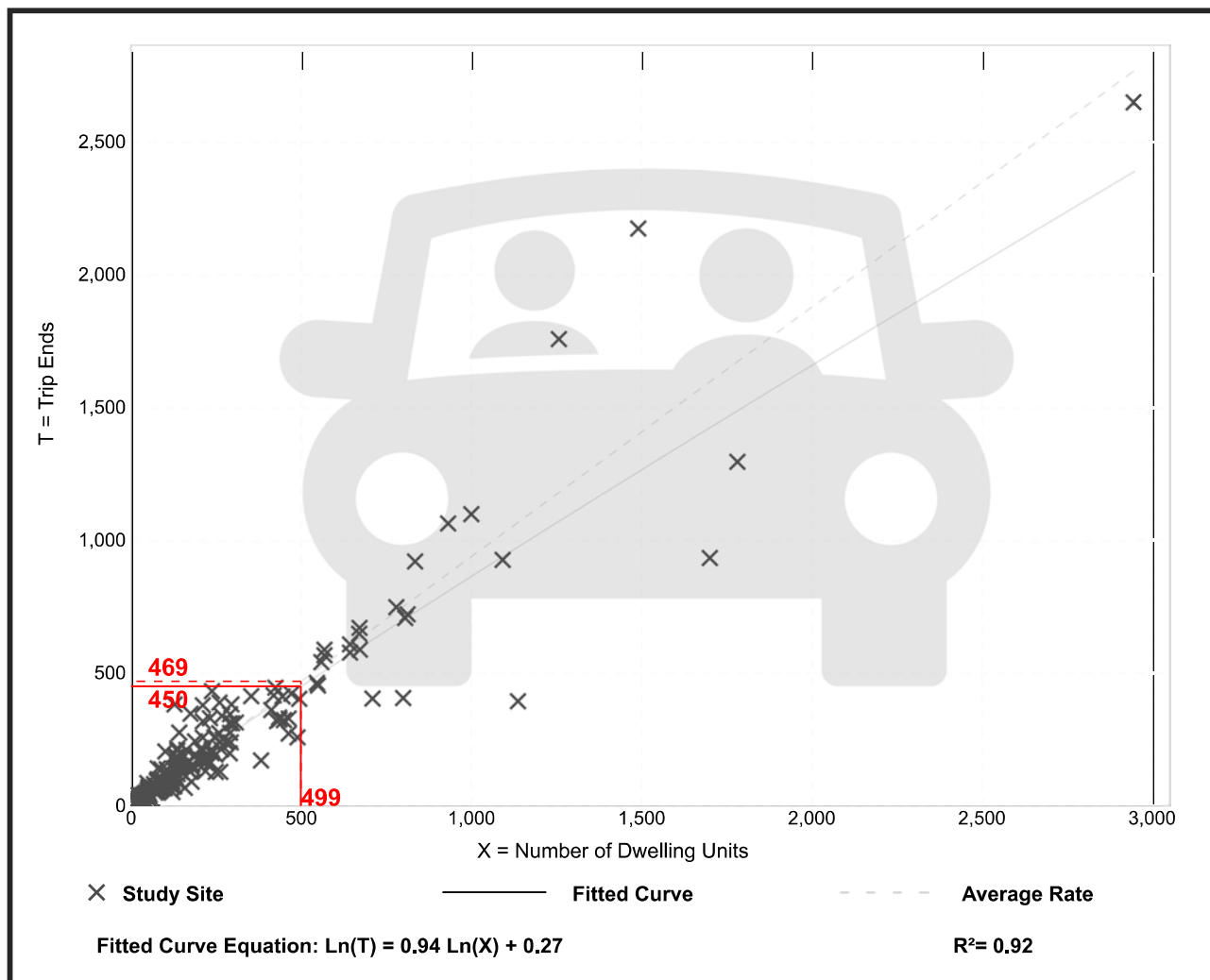
Single-Family Detached Housing (210)

Vehicle Trip Ends vs: Dwelling Units
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: General Urban/Suburban
 Number of Studies: 208
 Avg. Num. of Dwelling Units: 248
 Directional Distribution: 63% entering, 37% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.94	0.35 - 2.98	0.31

Data Plot and Equation



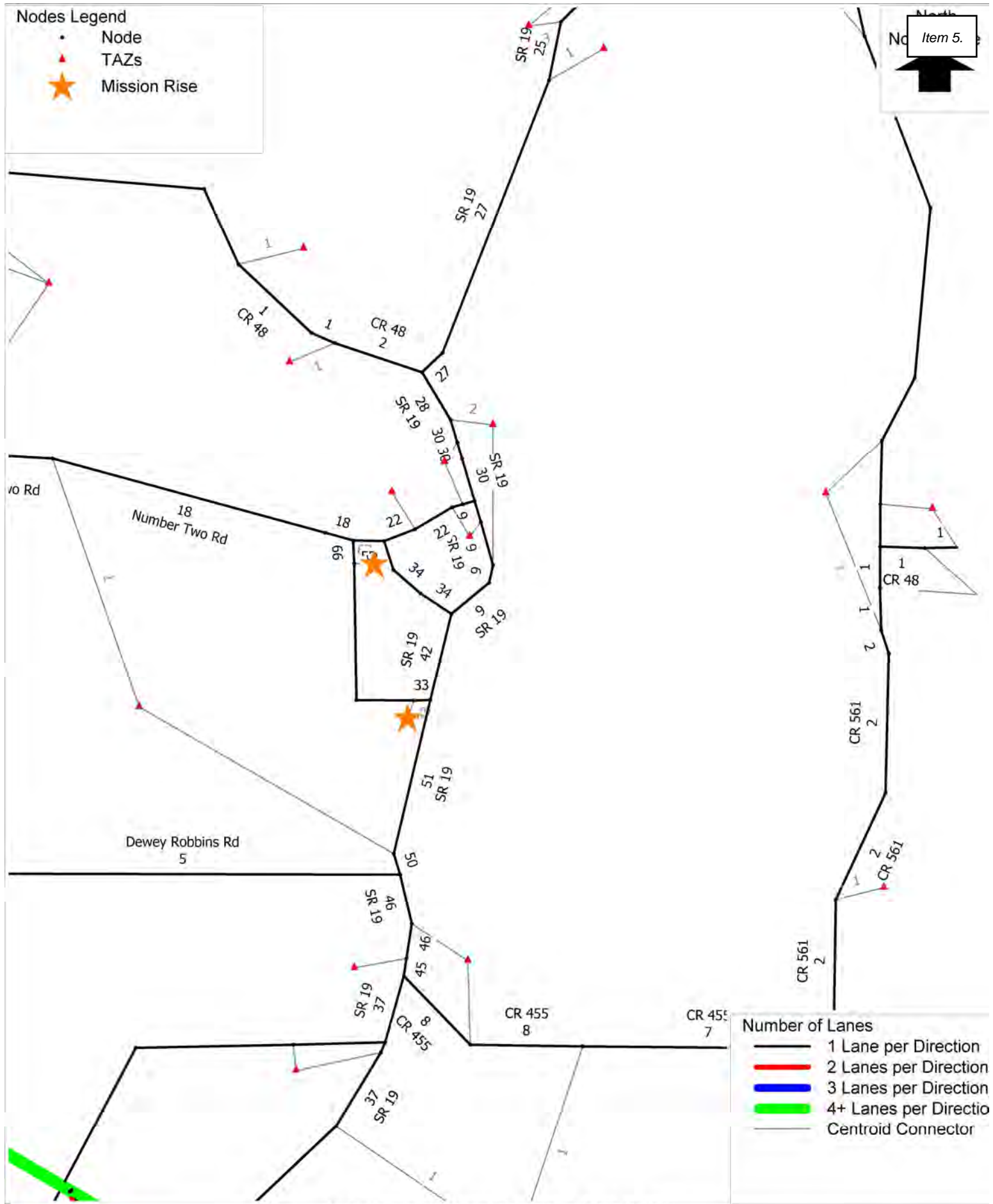
Appendix G
CFRPM Model Output

Nodes Legend

- Node
- ▲ TAZs
- ★ Mission Rise

North

Item 5.



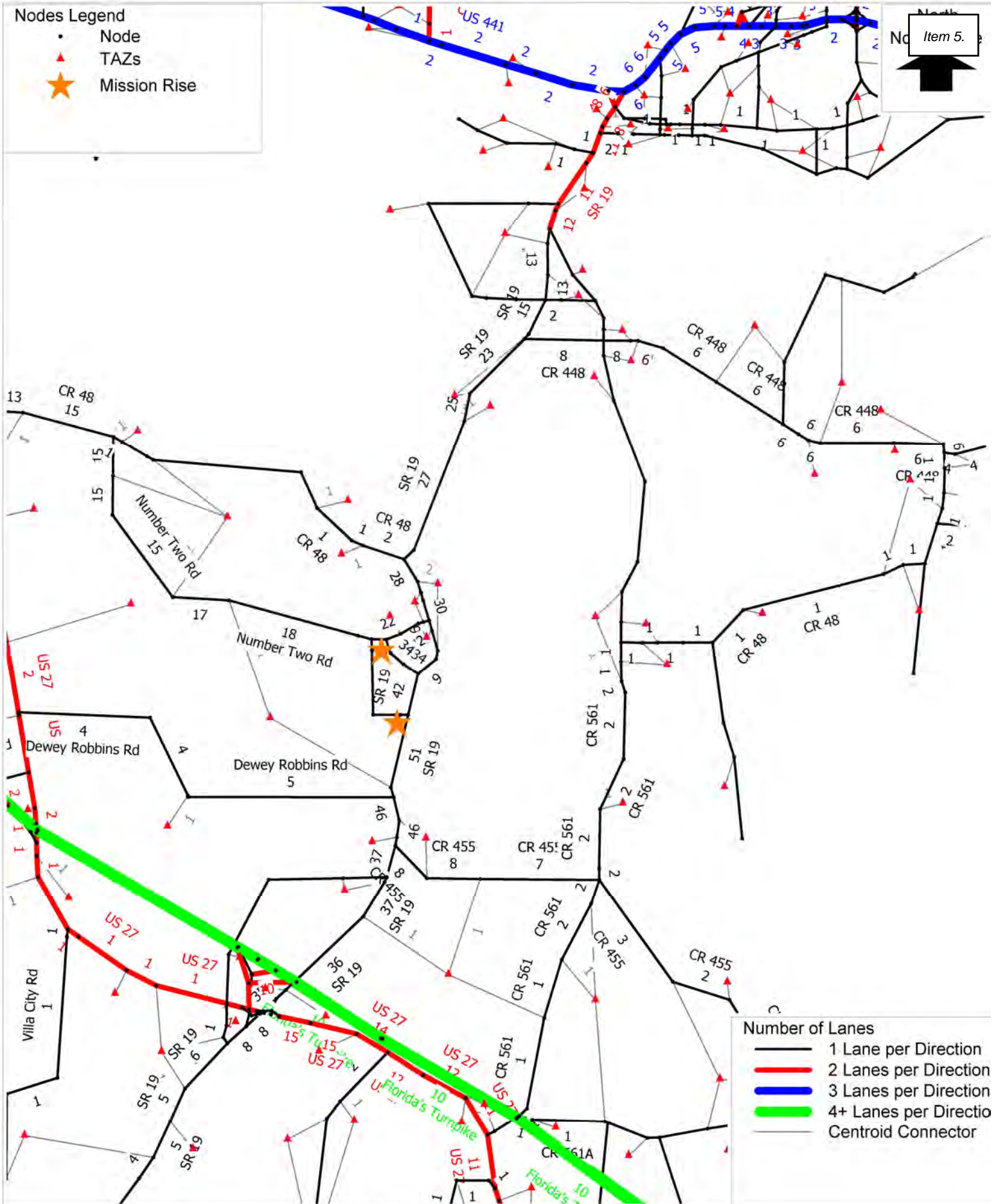
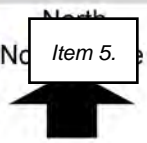
Number of Lanes

- 1 Lane per Direction
- 2 Lanes per Direction
- 3 Lanes per Direction
- 4+ Lanes per Direction
- Centroid Connector

23017 Mission Rise - Osceola County, FL TAZ 7676, 7677
 Project Distribution

C:\FSUTMS\D5\CFRPM7\Base\CF_2030\P23017\OUTPUT\HWYLOAD_SL_AllDay_A30.NET

- Nodes Legend**
- Node
 - ▲ TAZs
 - ★ Mission Rise



- Number of Lanes**
- 1 Lane per Direction
 - 2 Lanes per Direction
 - 3 Lanes per Direction
 - 4+ Lanes per Direction
 - Centroid Connector

23017 Mission Rise - Osceola County, FL TAZ 7676, 7677






Project Distribution

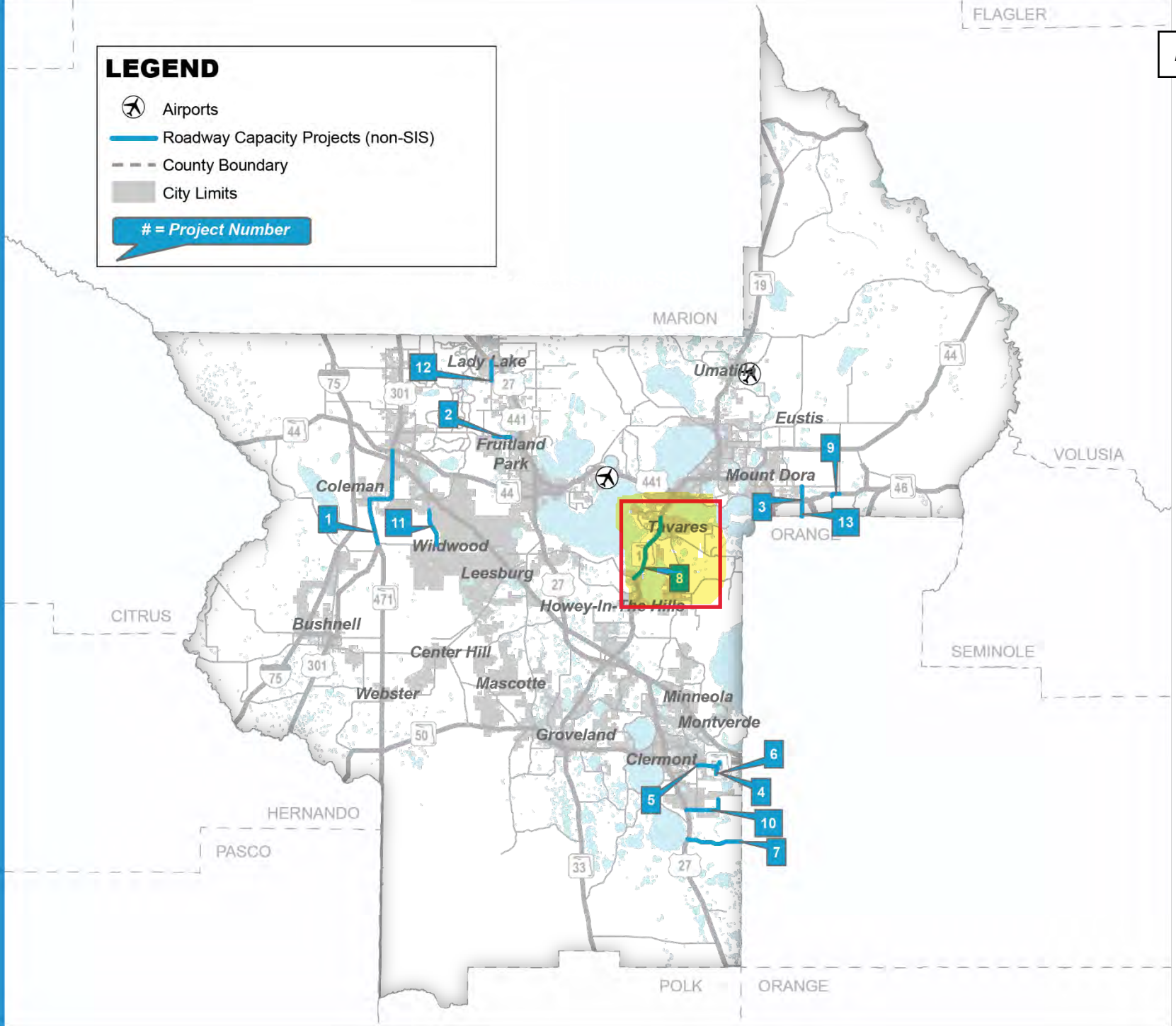
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Appendix H
LSMPO TIP and LSMPO LOPP

ROADWAY CAPACITY PROJECTS (NON-SIS)

LEGEND

-  Airports
-  Roadway Capacity Projects (non-SIS)
-  County Boundary
-  City Limits
-  # = Project Number



Item 5.

7

Project Description: WELLNESS WAY FROM US-27 TO THE LAKE/ORANGE COUNTY LINE

FM#

Funding

Local and State

4487331

Source(s):

Work Description: NEW ROAD CONSTRUCTION

LRTP Page:

PG. 4-12

Phase	<2023	2023	2024	2025	2026	2027	>2027	Amount Funded
PDE	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
PE	\$ -	\$ -	\$ 3,000,000	\$ -	\$ -	\$ -	\$ -	\$ 3,000,000
ENV	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
ROW	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
LAR	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
RRU	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
CST	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total	\$ -	\$ -	\$ 3,000,000	\$ -	\$ -	\$ -	\$ -	\$ 3,000,000
Responsible Agency: RESPONSIBLE AGENCY NOT AVAILABLE			County: LAKE			Total Project Cost: \$ 3,000,000		

8

Project Description: SR 19 FROM CR 48 TO CR 561

FM#

Funding

State and Federal

2383191

Source(s):

Work Description: ADD LANES & RECONSTRUCT

LRTP Page:

PG. 4-12

Phase	<2023	2023	2024	2025	2026	2027	>2027	Amount Funded
PDE	\$ 1,161,015	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,161,015
PE	\$ 4,141,718	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 4,141,718
ENV	\$ 492,196	\$ 200,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 692,196
ROW	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
LAR	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
RRU	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
CST	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total	\$ 5,794,929	\$ 200,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 5,994,929
Responsible Agency: FDOT			County: LAKE			Total Project Cost: \$ 5,994,929		



2022 List of Priority Projects

Lake~Sumter Metropolitan Planning Organization

Adopted June 22, 2022

Table 3 – Roadway Capacity (Non-SIS) Project Priorities

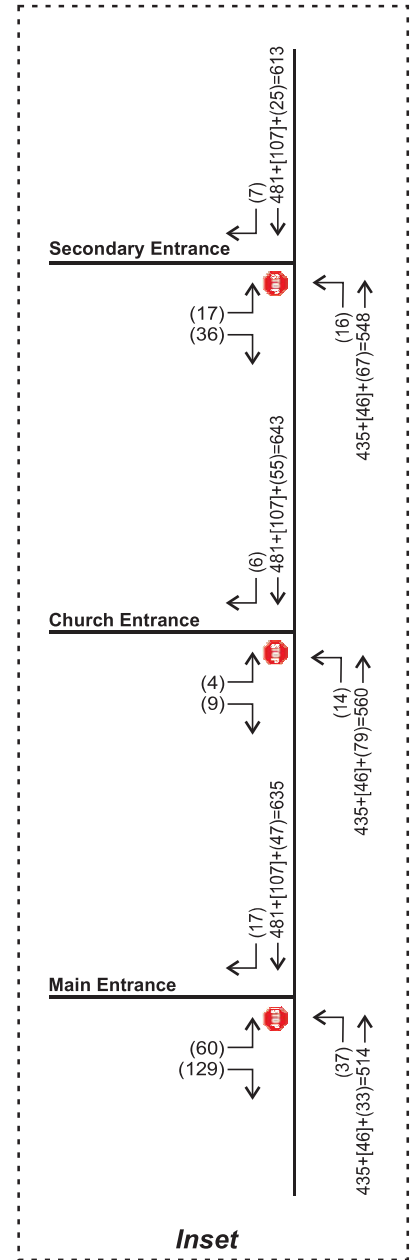
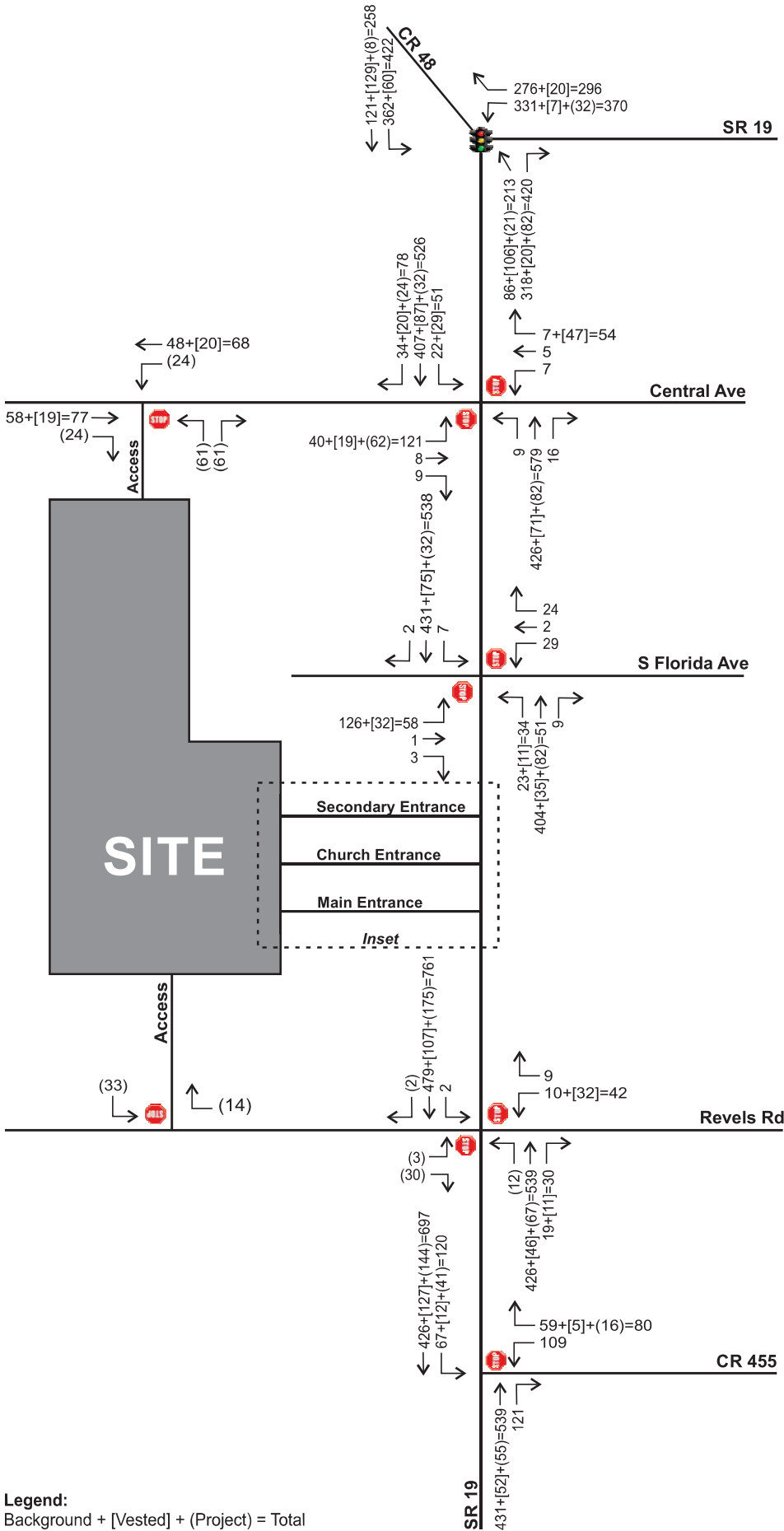
Capacity Rank	Sponsor/ Location	FM #	Project Name	From	To	Description	Performance Measure(s)	Proposed Phase	Proposed Phase FY	Proposed Phase Cost	Programmed Phase(s)	Programmed Phase FY	CMP Congested Corridors 2021 Analysis (for informational purposes)
1	FDOT/ Sumter County	430132-1	SR 35 (US 301)	SR 44	CR 470	Road Widening	System Performance	ROW	2026/27	\$27,000,000	Design	2022/23 2025/26	Extremely Congested (2021)
2	FDOT/ Lake County	409870-1	SR 44 (CR44B)	US 441	SR44	Road Widening	System Performance; Safety	CST	2024/25	\$23,701,500	ROW		Extremely Congested (2021)
3	Sumter County	447931-1	Marsh Bend Trail (CR 501)	Corbin Trail	Central Parkway	Roadway Improvements	System Performance	CST	2023/24	\$1,275,400	CST	2022/23	Operating at Acceptable Level of Service
4	FDOT/ Lake County	238394-3	SR 500 (US 441)	Perkins Street	SR 44	Road Widening	System Performance	CST	2023/24	\$13,794,537			Congested (2026)
5	FDOT/ Lake County	429356-1	SR 500 (US 441)	SR 44	N of SR 46	Road Widening	System Performance	CST	2023/24	\$22,233,040	ROW	2021/22	Not Congested
6	Lake County/ Lady Lake	439665-1	Rolling Acres Road	West Lady Lake Ave.	Griffin Ave	Road Widening	System Performance	Design	2026/27	\$2,000,000	PD&E	2025/26	Extremely Congested (2026)
7	Lake County	441710-1	Round Lake Road	Wolfbranch Rd	North of SR 44	New Roadway/ Alignment	System Performance	CST	2024/25	\$30,000,000	Design		Operating at Acceptable Level of Service
8	Lake County	441779-1	CR 455 (Hartle Rd)	Lost Lake Rd.	Hartwood Marsh Rd.	Roadway Extension/ Widening	System Performance	CST	2024/25	\$19,800,000	ROW	2022/23	New Roadway, Not on CMP Network
9	Lake County	-	CR 455 (Hartle Rd)	Hartwood Marsh Rd	CFX Lake-Orange Connector	Road Extension	System Performance	Design	2023/24	\$3,000,000	PDE		New Roadway, Not on CMP Network

Capacity Rank	Sponsor/ Location	FM #	Project Name	From	To	Description	Performance Measure(s)	Proposed Phase	Proposed Phase FY	Proposed Phase Cost	Programmed Phase(s)	Programmed Phase FY	CMP Congested Corridors 2021 Analysis (for informational purposes)
10	Lake County	-	Citrus Grove Phase II	West of Scrub Jay Lane	Grassy Lake Rd	New Alignment/Widening	System Performance	CST	2024/25	\$10,000,000	ROW		New Roadway, Not on CMP Network
11	Lake County	-	Citrus Grove Phase V	Turnpike	Blackstill Lake Dr	New Roadway/Alignment	System Performance	CST	2024/25	\$5,000,000	Design		New Roadway, Not on CMP Network
12	Lake County	441393-1	CR 437 Realignment	Oak Tree Dr	SR 46	New Alignment/Widening	System Performance	CST	2024/25	\$4,000,000	Design		New Roadway, Not on CMP Network
13	Lake County	-	Hartwood Marsh	Regency Hills Dr	Innovation Lane	Road Widening	System Performance	Design	2023/24	\$750,000	PDE		Approaching Congestion
14	Lake County	-	CR 455 Paved Shoulder	CR 561	CR 561A	Paved Shoulder	System Performance	Design	2023/24	\$700,000			Operating at Acceptable Level of Service
15	FDOT/Lake County	-	CR 470/CR 48	Meggison Road at The Villages	US 27	Road Widening	System Performance	Design	2023/24	\$4,000,000			Congested (2026)
16	Lake County/ Mount Dora	-	Vista Ridge Drive/Wolf Branch Innovation Boulevard	Niles Rd	Round Lake Road	New Roadway	System Performance	Design	2023/24	\$1,000,000	Study		New Roadway, Not on CMP Network
17	Lake County	-	CR 561A	CR 561	CR 455	Realignment	System Performance; Safety	PDE	2023/24	\$750,000	Study		Operating at Acceptable Level of Service
18	FDOT/ Lake County	-	SR 44	Orange Ave	CR 46A	Road Widening	System Performance	PDE	2023/24	\$TBD			Congested (2021)
19	FDOT	-	SR 19	SR 50	CR 455	Road Widening	System Performance	PDE	2023/24	\$TBD			Congested (2021)

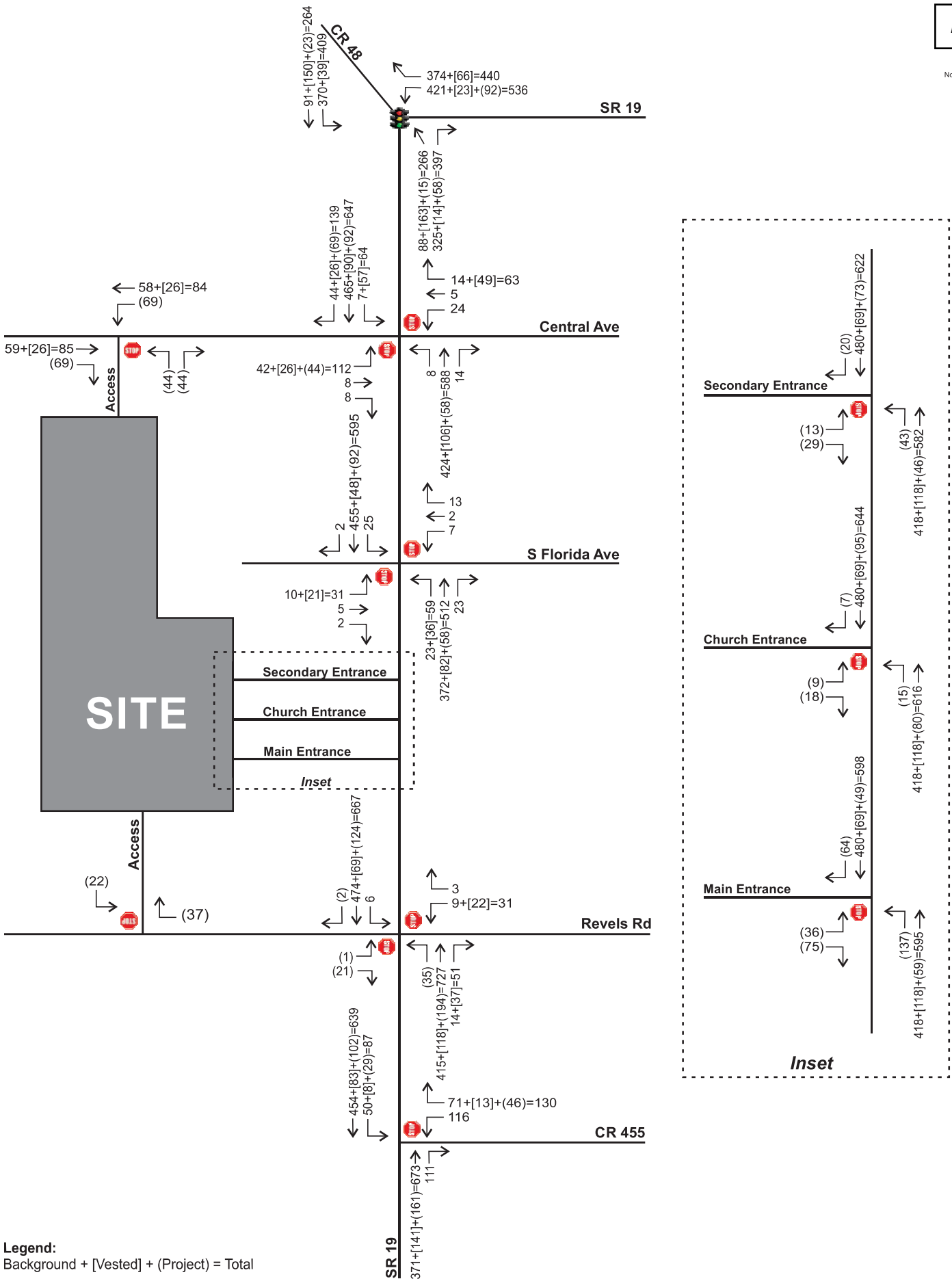
Capacity Rank	Sponsor/ Location	FM #	Project Name	From	To	Description	Performance Measure(s)	Proposed Phase	Proposed Phase FY	Proposed Phase Cost	Programmed Phase(s)	Programmed Phase FY	CMP Congested Corridors 2021 Analysis (for informational purposes)
20	Lake County	-	Woodlea Road	SR 19	End	Road Widening	System Performance	Design Update/ ROW	2023/24	\$3,000,000			Operating at Acceptable Level of Service
21	FDOT/ Lake County	238319-1	SR 19	Howey Bridge	CR 561	Road Widening	System Performance	CST	2023/24	\$35,000,000			Extremely Congested (2021)
22	Lake County	-	Hancock Road	Hartwood Marsh Rd	Wellness Way	New Road	System Performance	CST	2025/26	\$20,000,000			New Roadway, Not on CMP Network
23	Lake County	-	SR 46A	SR 44	SR 46	Road Widening	System Performance	CST	2023/24	\$TBD	Design		Congested (2021)

Top 20 Project

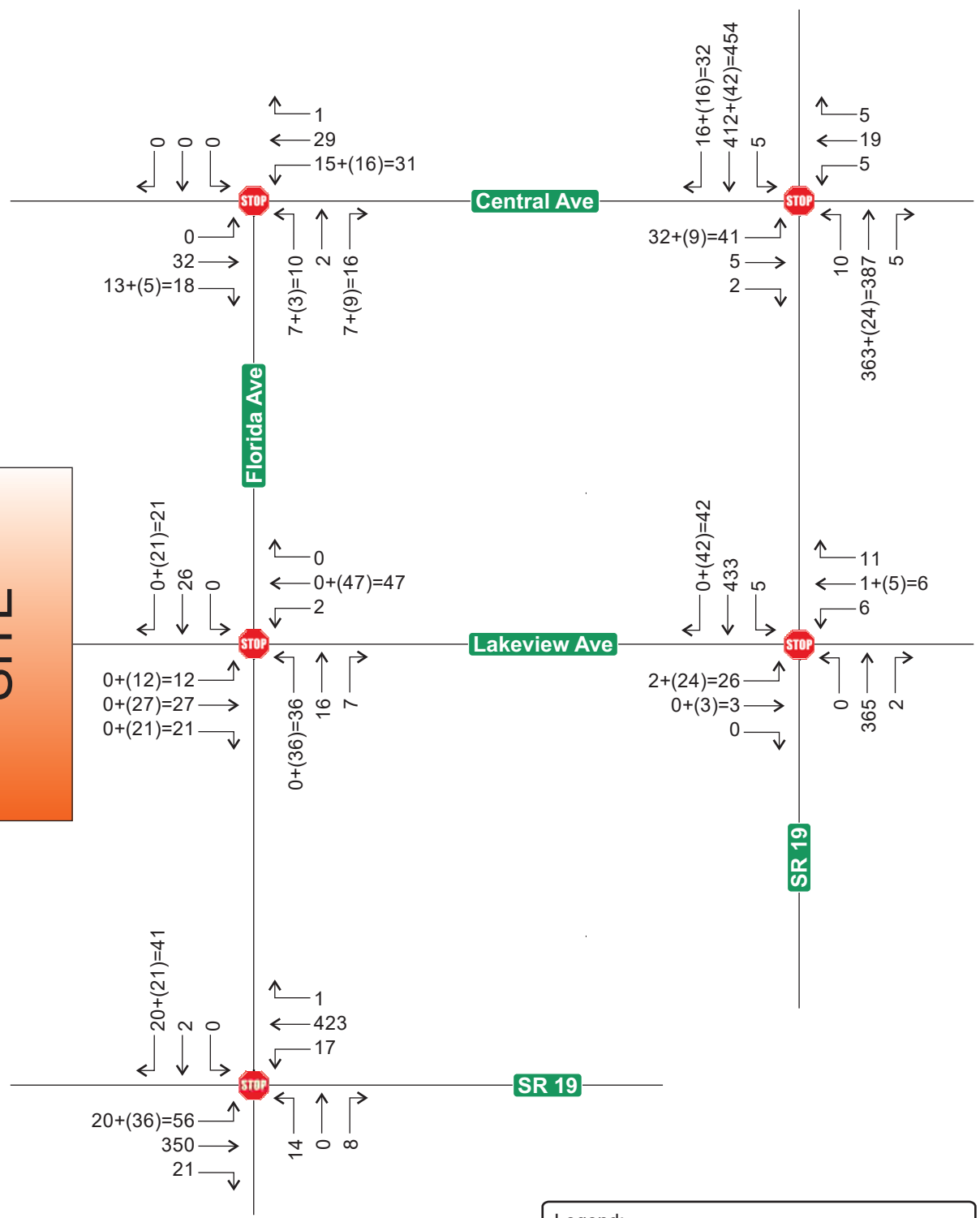
Appendix I
Vested Trips Data



Legend:
 Background + [Vested] + (Project) = Total

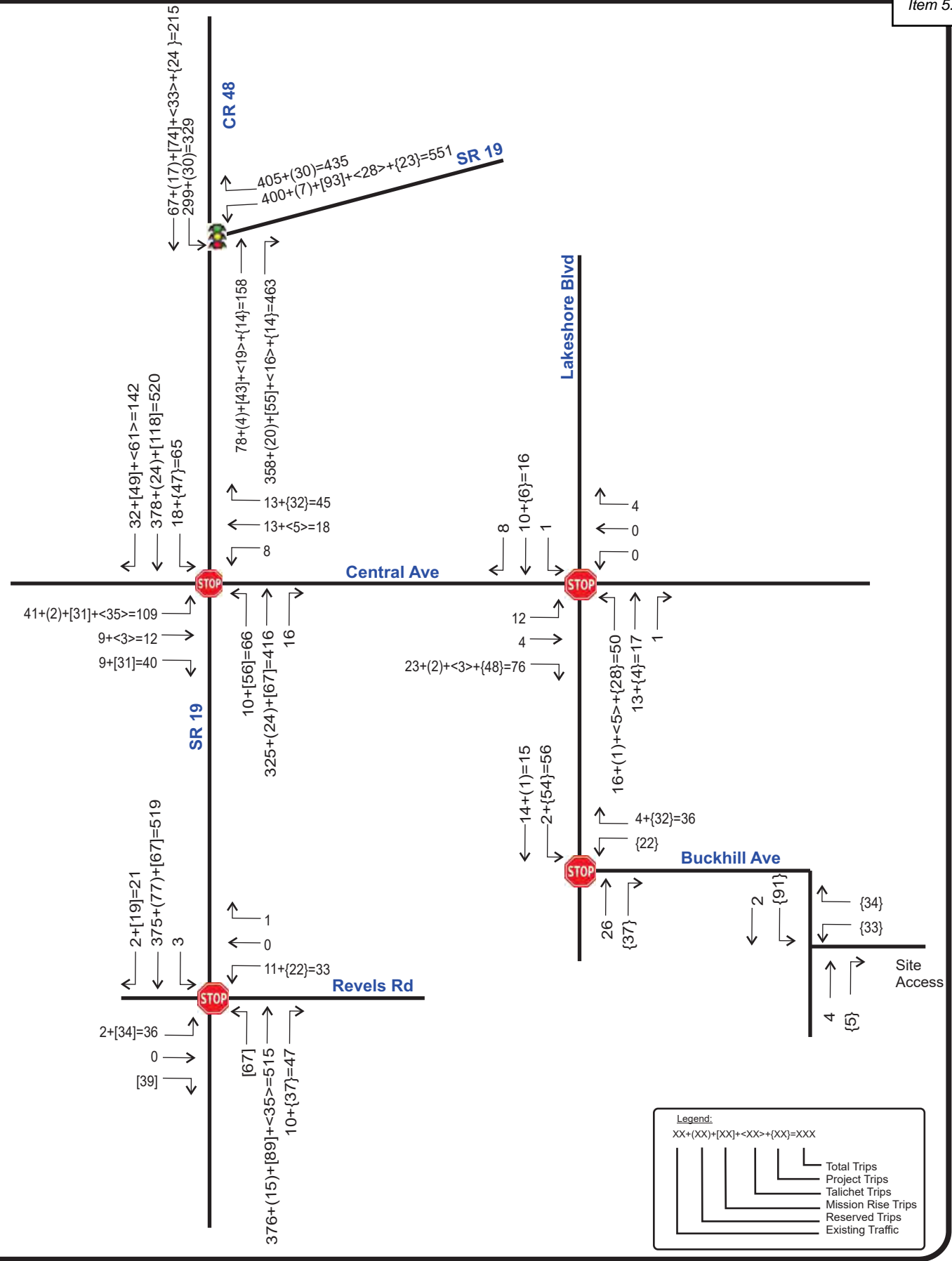


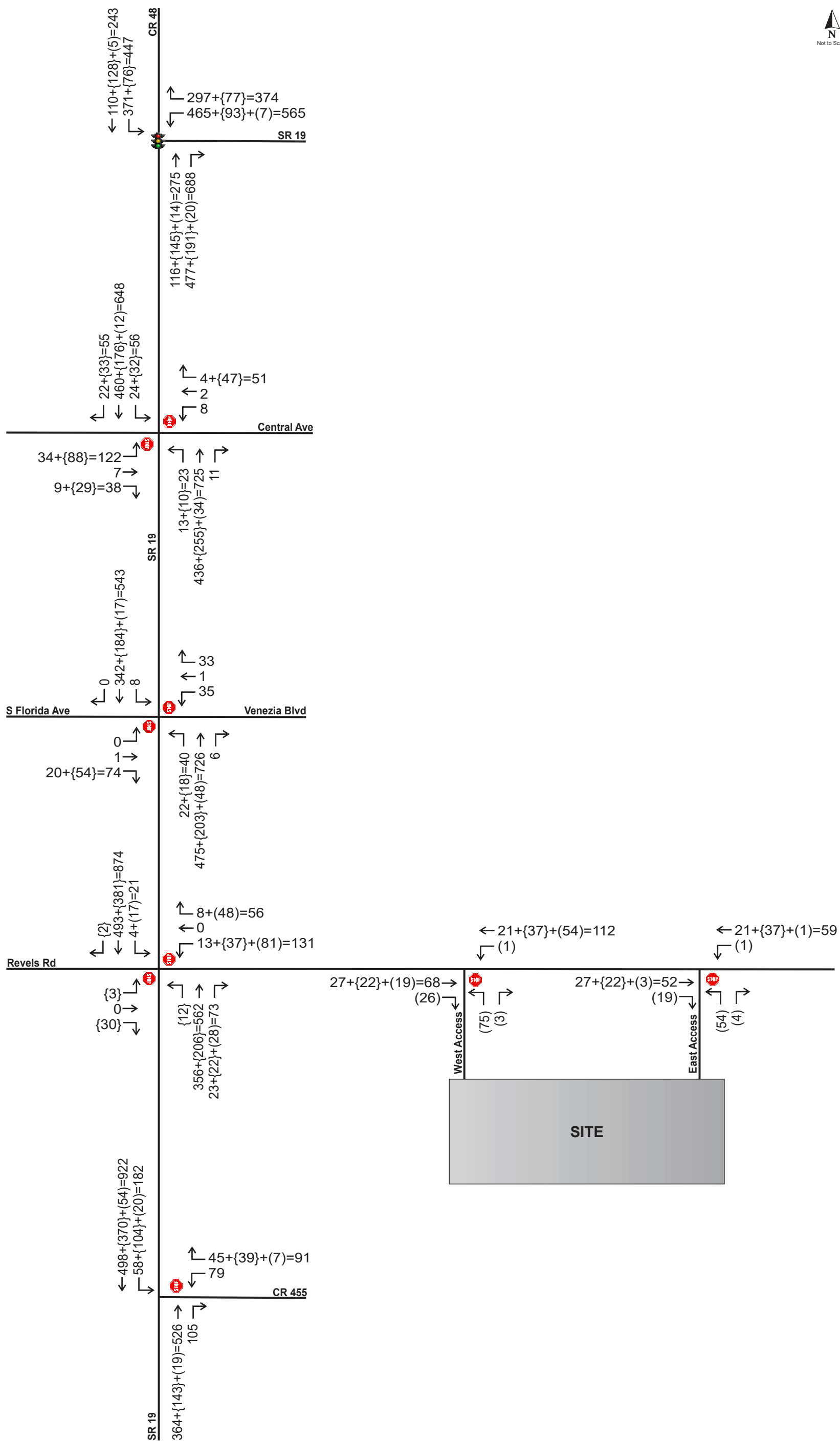
SITE



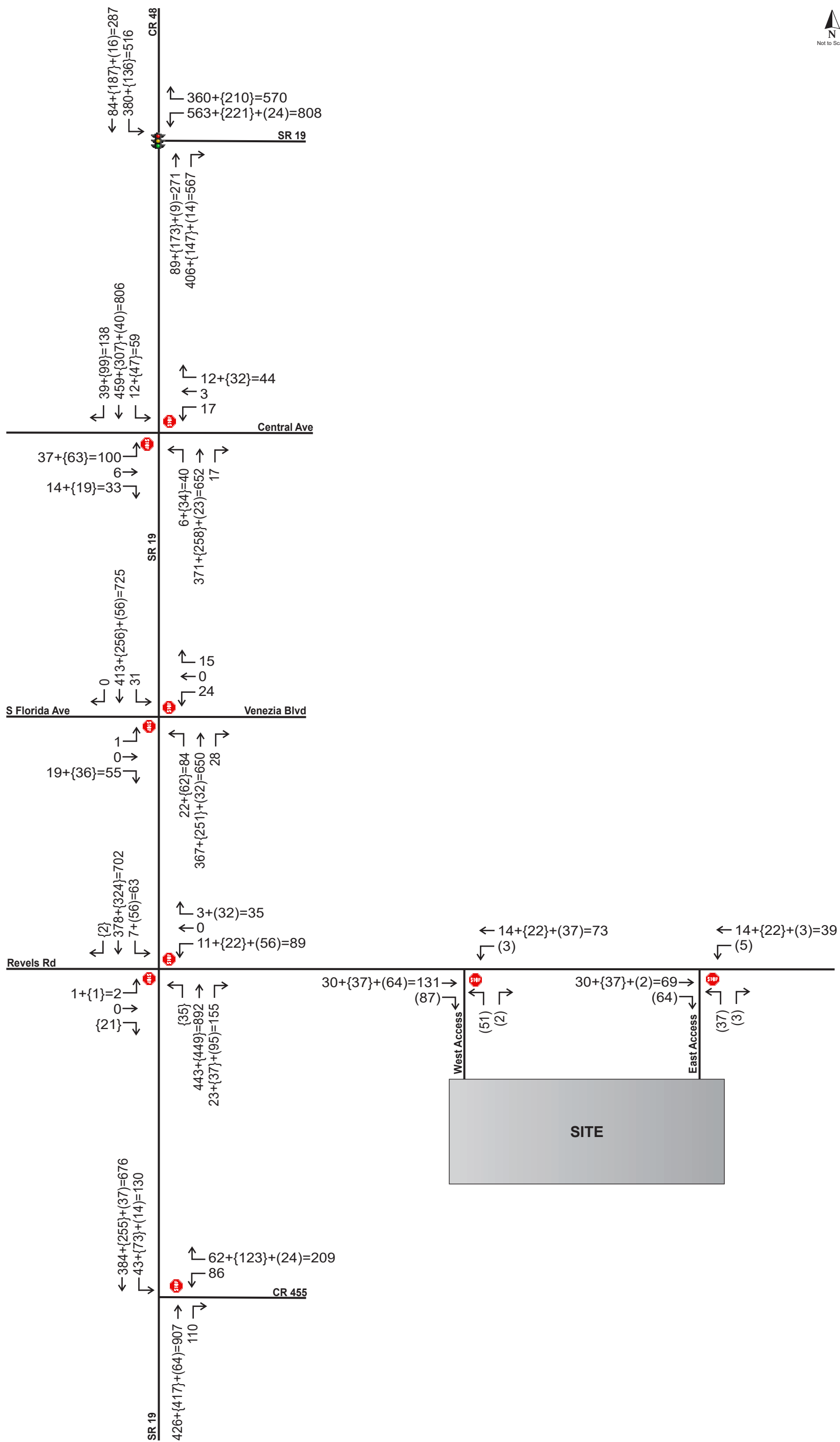
Legend:
 XX+(XX)=XXX
 ——— Total Traffic
 ——— Project Trips
 ——— Background Traffic

*Schematic drawing. Not to scale.
 ** Any +/- 1 project trip discrepancy is due to rounding





Legend:
Background + {Committed} + (Project) = Total



Legend:
Background + {Committed} + (Project) = Total

Table 1
Trip Generation Calculations – Phase 1 (2026)

ITE Code	Land Use	Size	Daily		AM Peak Hour			PM Peak Hour				
			Rate	Trips	Rate	Total	Enter	Exit	Rate	Total	Enter	Exit
210	Single-Family Detached	184 DU	9.61	1,768	0.71	131	34	97	0.96	177	112	65
215	Single-Family Attached	146 DU	7.27	1,061	0.48	70	22	48	0.57	83	47	36
Total Trip Generation (Phase 1)				2,829		201	56	145		260	159	101

Source: ITE Trip Generation Manual, 11th Edition

ITE equations were used as R² were greater than 0.75 and with more than 20 studies

Phase 1 of the proposed development is projected to generate 2,829 new daily trips of which 201 trips occur during the AM peak hour, and 260 trips occur during the PM peak hour.

Table 2
Trip Generation Calculations – Phase 1 and Phase 2 (2030)

ITE Code	Land Use	Size	Daily		AM Peak Hour			PM Peak Hour				
			Rate	Trips	Rate	Total	Enter	Exit	Rate	Total	Enter	Exit
210	Single-Family Detached	358 DU	9.11	3,261	0.66	236	61	175	0.92	329	207	122
215	Single-Family Attached	292 DU	7.45	2,175	0.50	146	45	101	0.59	172	98	74
Total Trip Generation Buildout (Phase 1 + Phase 2)				5,436		382	106	276		501	305	196

Source: ITE Trip Generation Manual, 11th Edition

ITE equations were used as R² were greater than 0.75 and with more than 20 studies

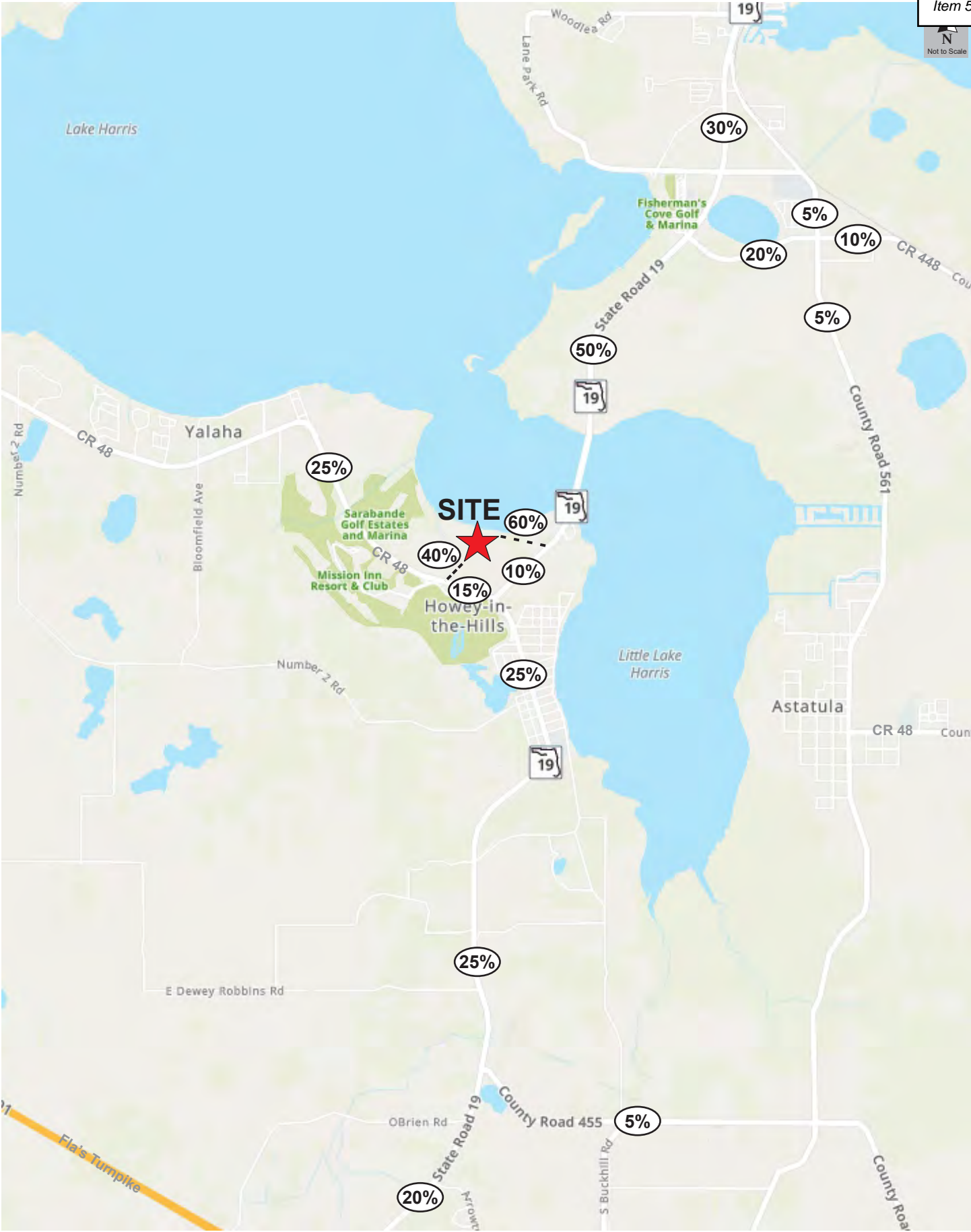
The proposed development at project buildout is projected to generate 5,436 new daily trips of which 382 trips occur during the AM peak hour, and 501 trips occur during the PM peak hour.

Trip Distribution

A trip distribution pattern was estimated using the *Central Florida Regional Planning Model, version 7 (CFRPM V7)*. The model distribution was adjusted based on local knowledge, professional engineering judgement, and the location of the development with respect to the study area attractions and activity centers to reflect prevailing travel patterns in the vicinity of the site and the surrounding transportation network. The raw model plots are provided in the **Attachments**, and the adjusted trip distribution is shown in **Figure 2**.

Study Area

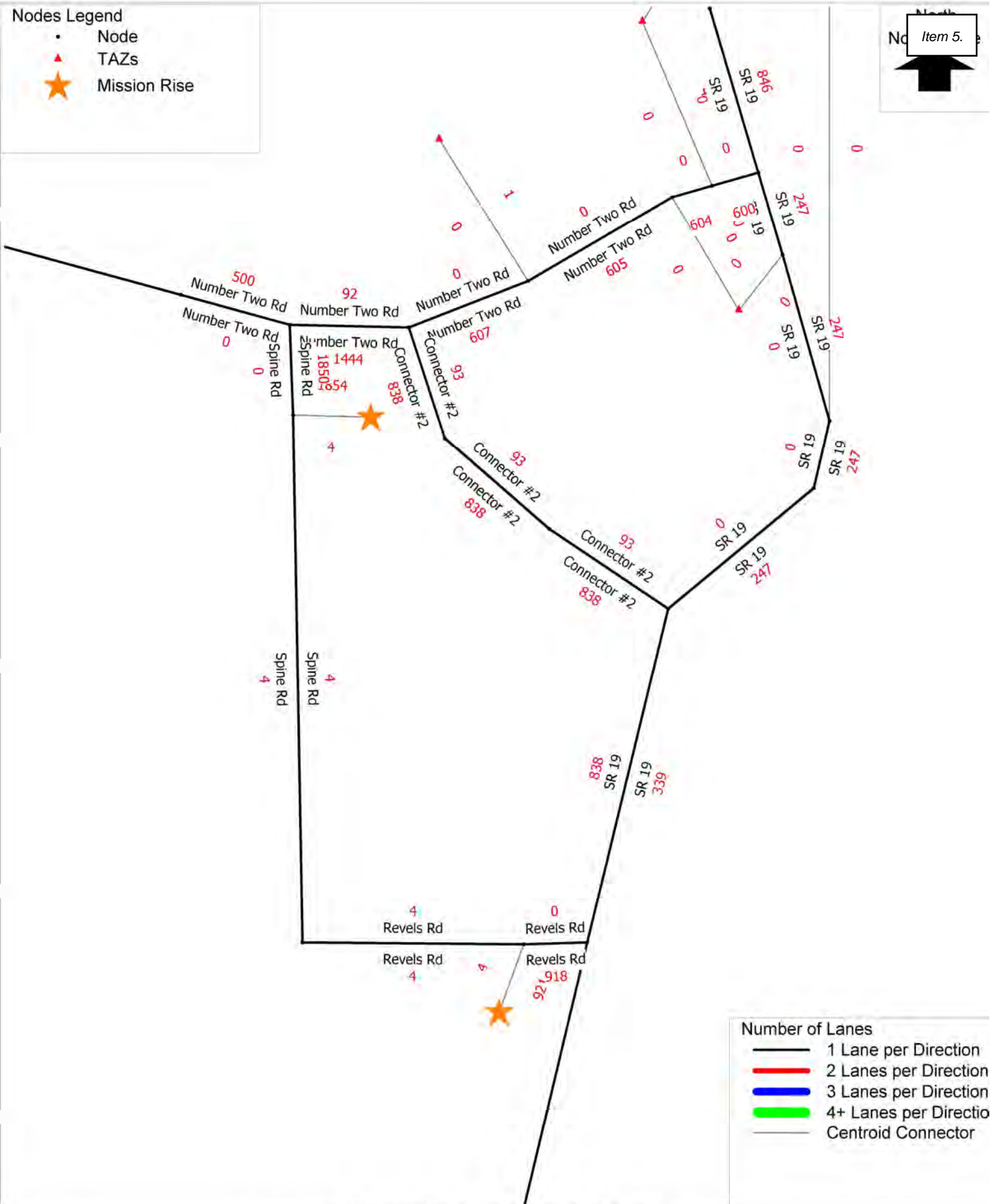
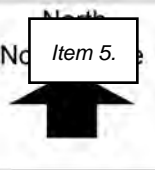
In accordance with the LSMPO requirements for a Tier 2 TIA methodology and the Town of Howey-In-The-Hills Land Development Code, the study area will encompass roadway segments and intersections within a 1-mile radius at minimum. The study will also include segments and intersections within a 4.55-mile radius, (½ the trip length for residential land use), where the project's peak hour trips consume five percent (5%) or more of a roadway's two-way peak hour generalized service volume, based on the adopted LOS and committed number of lanes. The total trip length was obtained from the *Lake County Transportation Impact Fee Schedule Table 9-1* (dated 12/21/2001), included in the **Attachments**. The roadway segments identified by the significance test will be analyzed in the Tier 2 TIA. Excerpts from the *2020 Lake County Congestion Management Plan (CMP) Database* are included in the **Attachments**. The study area significance analysis is summarized in **Table 3**.



Appendix J
AADT Model Plot

Nodes Legend

- Node
- ▲ TAZs
- ★ Mission Rise



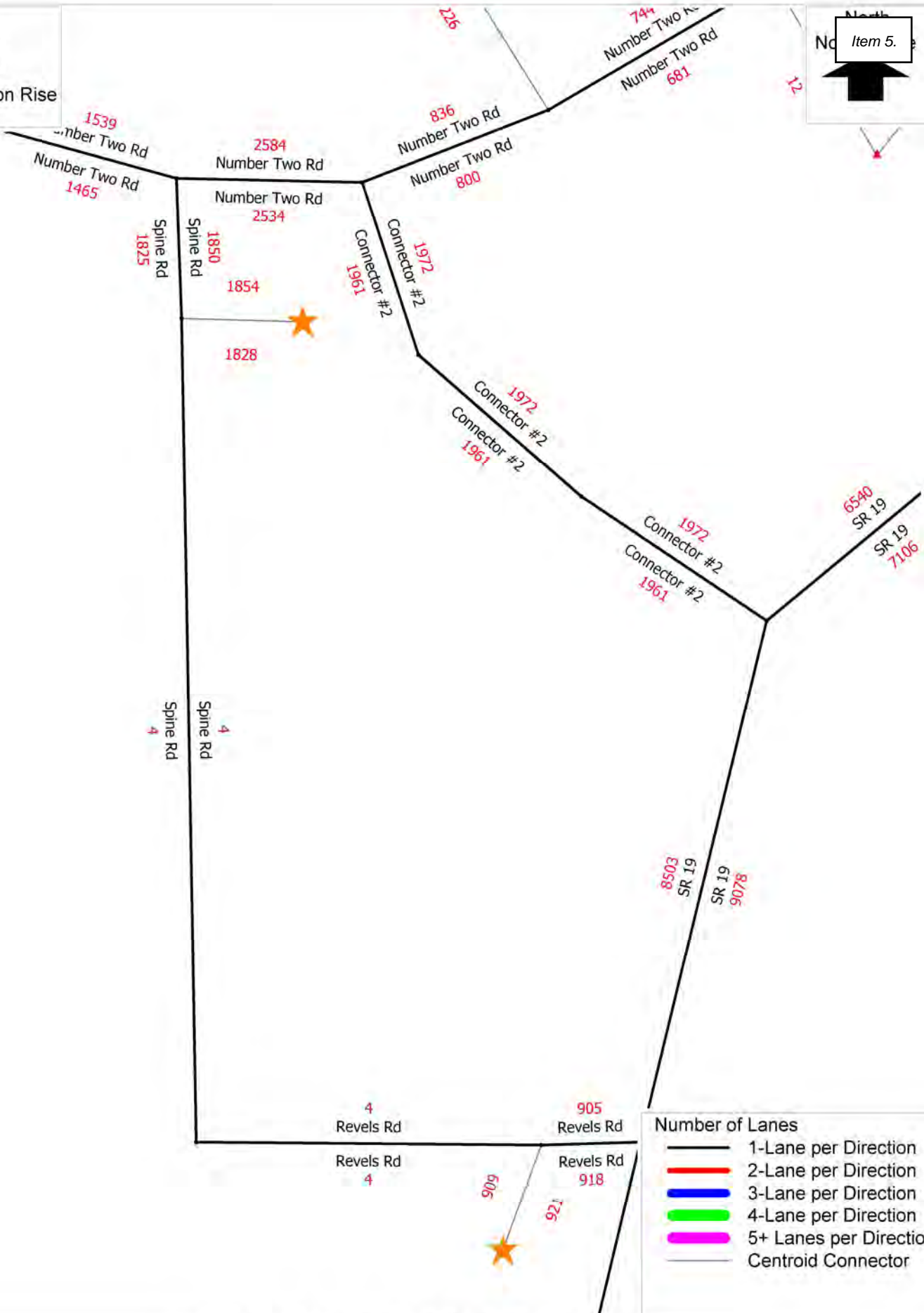
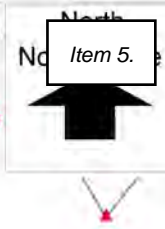
- Number of Lanes
- 1 Lane per Direction
 - 2 Lanes per Direction
 - 3 Lanes per Direction
 - 4+ Lanes per Direction
 - Centroid Connector

23017 Mission Rise - Lake County, FL TAZ 7676, 7677
 Future AADT

C:\FSUTMS\D5\CFRPM7\Base\CF_2030\P23017\OUTPUT\HWYLOAD_SL_AllDay_A30.NET

Nodes Legend

- Node
- ▲ TAZs
- ★ Mission Rise



Number of Lanes













- 1-Lane per Direction
- 2-Lane per Direction
- 3-Lane per Direction
- 4-Lane per Direction
- 5+ Lanes per Direction
- Centroid Connector

23017.1 Mission Rise - Lake County, FL TAZ 7676, 7677
 Future AADT
 C:\FSUTMS\D5\CFRPM7

Appendix K
HCM Worksheets - Projected Conditions

HCM 6th Signalized Intersection Summary

1: SR 19 & CR 48













						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	522	334	455	740	413	180
Future Volume (veh/h)	522	334	455	740	413	180
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1752	1589	1767	1811	1737	1811
Adj Flow Rate, veh/h	538	205	469	0	426	186
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	10	21	9	6	11	6
Cap, veh/h	386	312	695		502	1139
Arrive On Green	0.23	0.23	0.39	0.00	0.17	0.63
Sat Flow, veh/h	1668	1346	1767	1535	1654	1811
Grp Volume(v), veh/h	538	205	469	0	426	186
Grp Sat Flow(s),veh/h/ln	1668	1346	1767	1535	1654	1811
Q Serve(g_s), s	22.7	13.5	21.5	0.0	14.2	4.2
Cycle Q Clear(g_c), s	22.7	13.5	21.5	0.0	14.2	4.2
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	386	312	695		502	1139
V/C Ratio(X)	1.39	0.66	0.67		0.85	0.16
Avail Cap(c_a), veh/h	386	312	695		535	1139
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	37.7	34.2	24.5	0.0	16.9	7.5
Incr Delay (d2), s/veh	192.0	5.0	5.2	0.0	11.6	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	44.9	8.2	14.6	0.0	10.5	2.8
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	229.7	39.1	29.7	0.0	28.5	7.8
LnGrp LOS	F	D	C		C	A
Approach Vol, veh/h	743		469	A		612
Approach Delay, s/veh	177.1		29.7			22.2
Approach LOS	F		C			C
Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	23.0	45.0		30.0		68.0
Change Period (Y+Rc), s	6.5	6.4		7.3		6.4
Max Green Setting (Gmax), s	18.5	38.6		22.7		38.6
Max Q Clear Time (g_c+I1), s	16.2	23.5		24.7		6.2
Green Ext Time (p_c), s	0.4	2.5		0.0		1.0
Intersection Summary						
HCM 6th Ctrl Delay			87.2			
HCM 6th LOS			F			

Notes

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary

1: SR 19 & CR 48

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	751	483	164	588	451	194
Future Volume (veh/h)	751	483	164	588	451	194
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1752	1589	1767	1811	1737	1811
Adj Flow Rate, veh/h	774	359	169	0	465	200
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	10	21	9	6	11	6
Cap, veh/h	380	307	685		737	1149
Arrive On Green	0.23	0.23	0.39	0.00	0.18	0.63
Sat Flow, veh/h	1668	1346	1767	1535	1654	1811
Grp Volume(v), veh/h	774	359	169	0	465	200
Grp Sat Flow(s),veh/h/ln	1668	1346	1767	1535	1654	1811
Q Serve(g_s), s	22.7	22.7	6.5	0.0	16.0	4.5
Cycle Q Clear(g_c), s	22.7	22.7	6.5	0.0	16.0	4.5
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	380	307	685		737	1149
V/C Ratio(X)	2.04	1.17	0.25		0.63	0.17
Avail Cap(c_a), veh/h	380	307	685		744	1149
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	38.4	38.4	20.7	0.0	12.3	7.5
Incr Delay (d2), s/veh	475.1	105.6	0.9	0.0	1.7	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	92.9	24.6	4.9	0.0	9.5	3.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	513.5	144.1	21.5	0.0	14.0	7.8
LnGrp LOS	F	F	C		B	A
Approach Vol, veh/h	1133		169	A		665
Approach Delay, s/veh	396.4		21.5			12.1
Approach LOS	F		C			B
Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	24.6	45.0		30.0		69.6
Change Period (Y+Rc), s	6.5	6.4		7.3		6.4
Max Green Setting (Gmax), s	18.5	38.6		22.7		38.6
Max Q Clear Time (g_c+I1), s	18.0	8.5		24.7		6.5
Green Ext Time (p_c), s	0.1	0.9		0.0		1.1
Intersection Summary						
HCM 6th Ctrl Delay			234.3			
HCM 6th LOS			F			

Notes

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th TWSC

2: SR 19 & W Central Ave

Intersection												
Int Delay, s/veh	70.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	144	4	12	13	1	65	14	672	29	37	663	49
Future Vol, veh/h	144	4	12	13	1	65	14	672	29	37	663	49
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	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	12	33	2	2	2	2	38	10	2	42	2	11
Mvmt Flow	148	4	12	13	1	67	14	693	30	38	684	51

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1556	1537	710	1530	1547	708	735	0	0	723	0	0
Stage 1	786	786	-	736	736	-	-	-	-	-	-	-
Stage 2	770	751	-	794	811	-	-	-	-	-	-	-
Critical Hdwy	7.22	6.83	6.22	7.12	6.52	6.22	4.48	-	-	4.52	-	-
Critical Hdwy Stg 1	6.22	5.83	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.22	5.83	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.608	4.297	3.318	3.518	4.018	3.318	2.542	-	-	2.578	-	-
Pot Cap-1 Maneuver	~ 87	99	434	96	114	435	727	-	-	722	-	-
Stage 1	371	362	-	411	425	-	-	-	-	-	-	-
Stage 2	379	376	-	381	393	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	~ 66	87	434	82	100	435	727	-	-	722	-	-
Mov Cap-2 Maneuver	~ 66	87	-	82	100	-	-	-	-	-	-	-
Stage 1	359	329	-	398	411	-	-	-	-	-	-	-
Stage 2	310	364	-	333	358	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	\$ 729.8		26.5		0.2		0.5	
HCM LOS	F		D					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	727	-	-	71	248	722	-	-
HCM Lane V/C Ratio	0.02	-	-	2.323	0.328	0.053	-	-
HCM Control Delay (s)	10.1	0	-	\$ 729.8	26.5	10.3	0	-
HCM Lane LOS	B	A	-	F	D	B	A	-
HCM 95th %tile Q(veh)	0.1	-	-	15.7	1.4	0.2	-	-

Notes			
~: Volume exceeds capacity	\$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

HCM 6th TWSC

2: SR 19 & W Central Ave

Intersection												
Int Delay, s/veh	83.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	108	14	16	20	4	49	19	642	25	66	784	162
Future Vol, veh/h	108	14	16	20	4	49	19	642	25	66	784	162
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	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	12	33	2	2	2	2	38	10	2	42	2	11
Mvmt Flow	111	14	16	21	4	51	20	662	26	68	808	167

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1771	1756	892	1758	1826	675	975	0	0	688	0	0
Stage 1	1028	1028	-	715	715	-	-	-	-	-	-	-
Stage 2	743	728	-	1043	1111	-	-	-	-	-	-	-
Critical Hdwy	7.22	6.83	6.22	7.12	6.52	6.22	4.48	-	-	4.52	-	-
Critical Hdwy Stg 1	6.22	5.83	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.22	5.83	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.608	4.297	3.318	3.518	4.018	3.318	2.542	-	-	2.578	-	-
Pot Cap-1 Maneuver	~ 61	72	341	66	77	454	582	-	-	746	-	-
Stage 1	271	275	-	422	434	-	-	-	-	-	-	-
Stage 2	392	386	-	277	285	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	~ 41	54	341	41	58	454	582	-	-	746	-	-
Mov Cap-2 Maneuver	~ 41	54	-	41	58	-	-	-	-	-	-	-
Stage 1	256	218	-	398	410	-	-	-	-	-	-	-
Stage 2	326	364	-	195	226	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, \$	1096.5		89.7		0.3		0.7	
HCM LOS	F		F					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	582	-	-	47	110	746	-	-
HCM Lane V/C Ratio	0.034	-	-	3.027	0.684	0.091	-	-
HCM Control Delay (s)	11.4	0		\$ 1096.5	89.7	10.3	0	-
HCM Lane LOS	B	A	-	F	F	B	A	-
HCM 95th %tile Q(veh)	0.1	-	-	15.4	3.6	0.3	-	-

Notes			
~: Volume exceeds capacity	\$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

HCM 6th TWSC
3: S Florida Ave & W Central Ave

Intersection												
Int Delay, s/veh	2.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	68	17	10	31	1	10	0	20	0	0	0
Future Vol, veh/h	1	68	17	10	31	1	10	0	20	0	0	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	80	80	80	80	80	80	80	80	80	80	80	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	85	21	13	39	1	13	0	25	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	40	0	0	106	0	0	164	164	96	176	174	40
Stage 1	-	-	-	-	-	-	98	98	-	66	66	-
Stage 2	-	-	-	-	-	-	66	66	-	110	108	-
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	1570	-	-	1485	-	-	801	729	960	786	719	1031
Stage 1	-	-	-	-	-	-	908	814	-	945	840	-
Stage 2	-	-	-	-	-	-	945	840	-	895	806	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1570	-	-	1485	-	-	795	722	960	760	712	1031
Mov Cap-2 Maneuver	-	-	-	-	-	-	795	722	-	760	712	-
Stage 1	-	-	-	-	-	-	907	813	-	944	832	-
Stage 2	-	-	-	-	-	-	936	832	-	871	805	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.1			1.8			9.2			0		
HCM LOS							A			A		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	898	1570	-	-	1485	-	-	-
HCM Lane V/C Ratio	0.042	0.001	-	-	0.008	-	-	-
HCM Control Delay (s)	9.2	7.3	0	-	7.4	0	-	0
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	-

HCM 6th TWSC

3: S Florida Ave & W Central Ave

Intersection												
Int Delay, s/veh	3.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	52	11	36	59	6	9	1	33	1	0	0
Future Vol, veh/h	0	52	11	36	59	6	9	1	33	1	0	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	80	80	80	80	80	80	80	80	80	80	80	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	65	14	45	74	8	11	1	41	1	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	82	0	0	79	0	0	240	244	72	261	247	78
Stage 1	-	-	-	-	-	-	72	72	-	168	168	-
Stage 2	-	-	-	-	-	-	168	172	-	93	79	-
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	1515	-	-	1519	-	-	714	658	990	692	655	983
Stage 1	-	-	-	-	-	-	938	835	-	834	759	-
Stage 2	-	-	-	-	-	-	834	756	-	914	829	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1515	-	-	1519	-	-	697	638	990	646	635	983
Mov Cap-2 Maneuver	-	-	-	-	-	-	697	638	-	646	635	-
Stage 1	-	-	-	-	-	-	938	835	-	834	735	-
Stage 2	-	-	-	-	-	-	808	733	-	875	829	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			2.7			9.3			10.6		
HCM LOS							A			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	899	1515	-	-	1519	-	-	646
HCM Lane V/C Ratio	0.06	-	-	-	0.03	-	-	0.002
HCM Control Delay (s)	9.3	0	-	-	7.4	0	-	10.6
HCM Lane LOS	A	A	-	-	A	A	-	B
HCM 95th %tile Q(veh)	0.2	0	-	-	0.1	-	-	0

HCM 6th TWSC

4: SR 19 & Revels Rd/Revels Rd

Intersection												
Int Delay, s/veh	128											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↖	↗		↕		↖	↗		↖	↗	
Traffic Vol, veh/h	41	0	120	124	0	53	44	490	66	21	790	14
Future Vol, veh/h	41	0	120	124	0	53	44	490	66	21	790	14
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	-	-	0	-	-	-	430	-	-	-	-	405
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	8	12	2	10	2
Mvmt Flow	46	0	133	138	0	59	49	544	73	23	878	16

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1632	1639	878	1678	1619	581	894	0	0	617	0	0
Stage 1	924	924	-	679	679	-	-	-	-	-	-	-
Stage 2	708	715	-	999	940	-	-	-	-	-	-	-
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	81	100	347	~ 75	103	514	759	-	-	963	-	-
Stage 1	323	348	-	441	451	-	-	-	-	-	-	-
Stage 2	426	434	-	293	342	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	66	89	347	~ 42	92	514	759	-	-	963	-	-
Mov Cap-2 Maneuver	66	89	-	~ 42	92	-	-	-	-	-	-	-
Stage 1	302	331	-	412	422	-	-	-	-	-	-	-
Stage 2	353	406	-	172	326	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	51.2	\$ 1224.7	0.7	0.2
HCM LOS	F	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	759	-	-	66	347	58	963	-	-
HCM Lane V/C Ratio	0.064	-	-	0.69	0.384	3.391	0.024	-	-
HCM Control Delay (s)	10.1	-	-	137.5	21.5	\$ 1224.7	8.8	0	-
HCM Lane LOS	B	-	-	F	C	F	A	A	-
HCM 95th %tile Q(veh)	0.2	-	-	3	1.8	20.9	0.1	-	-

Notes			
~: Volume exceeds capacity	\$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

HCM 6th TWSC
4: SR 19 & Revels Rd/Revels Rd

Intersection												
Int Delay, s/veh	127.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↖	↗		↕		↖	↗			↖	↗
Traffic Vol, veh/h	30	1	83	88	0	36	135	744	146	64	602	45
Future Vol, veh/h	30	1	83	88	0	36	135	744	146	64	602	45
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	-	-	0	-	-	-	430	-	-	-	-	405
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	8	12	2	10	2
Mvmt Flow	33	1	92	98	0	40	150	827	162	71	669	50

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	2039	2100	669	2091	2069	908	719	0	0	989	0	0
Stage 1	811	811	-	1208	1208	-	-	-	-	-	-	-
Stage 2	1228	1289	-	883	861	-	-	-	-	-	-	-
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	42	52	458	~38	54	334	882	-	-	699	-	-
Stage 1	373	393	-	224	256	-	-	-	-	-	-	-
Stage 2	218	234	-	340	372	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	~28	36	458	~22	37	334	882	-	-	699	-	-
Mov Cap-2 Maneuver	~28	36	-	~22	37	-	-	-	-	-	-	-
Stage 1	310	326	-	186	212	-	-	-	-	-	-	-
Stage 2	159	194	-	224	308	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	135.1	\$ 1882.8	1.3	1
HCM LOS	F	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	882	-	-	28	458	30	699	-	-
HCM Lane V/C Ratio	0.17	-	-	1.23	0.201	4.593	0.102	-	-
HCM Control Delay (s)	9.9	-	-	\$ 457.1	14.8	\$ 1882.8	10.7	0	-
HCM Lane LOS	A	-	-	F	B	F	B	A	-
HCM 95th %tile Q(veh)	0.6	-	-	4	0.7	16.6	0.3	-	-

Notes
 ~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

HCM 6th TWSC

5: SR 19 & CR 455

Intersection						
Int Delay, s/veh	48.7					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	78	88	596	133	183	927
Future Vol, veh/h	78	88	596	133	183	927
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	0	-	590	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	38	15	8	22	9	5
Mvmt Flow	81	92	621	139	191	966

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	1969	621	0	0	760
Stage 1	621	-	-	-	-
Stage 2	1348	-	-	-	-
Critical Hdwy	6.78	6.35	-	-	4.19
Critical Hdwy Stg 1	5.78	-	-	-	-
Critical Hdwy Stg 2	5.78	-	-	-	-
Follow-up Hdwy	3.842	3.435	-	-	2.281
Pot Cap-1 Maneuver	~ 55	465	-	-	821
Stage 1	473	-	-	-	-
Stage 2	203	-	-	-	-
Platoon blocked, %					
Mov Cap-1 Maneuver	~ 27	465	-	-	821
Mov Cap-2 Maneuver	~ 27	-	-	-	-
Stage 1	473	-	-	-	-
Stage 2	101	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	576.7	0	1.8
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	27	465	821	-
HCM Lane V/C Ratio	-	-	3.009	0.197	0.232	-
HCM Control Delay (s)	-	\$	1210.8	14.6	10.7	0
HCM Lane LOS	-	-	F	B	B	A
HCM 95th %tile Q(veh)	-	-	9.9	0.7	0.9	-

Notes			
~: Volume exceeds capacity	\$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

HCM 6th TWSC

5: SR 19 & CR 455

Intersection						
Int Delay, s/veh	68.9					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	100	179	956	110	130	756
Future Vol, veh/h	100	179	956	110	130	756
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	0	-	590	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	38	15	8	22	9	5
Mvmt Flow	104	186	996	115	135	788

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	2054	996	0	0	1111
Stage 1	996	-	-	-	-
Stage 2	1058	-	-	-	-
Critical Hdwy	6.78	6.35	-	-	4.19
Critical Hdwy Stg 1	5.78	-	-	-	-
Critical Hdwy Stg 2	5.78	-	-	-	-
Follow-up Hdwy	3.842	3.435	-	-	2.281
Pot Cap-1 Maneuver	~ 48	280	-	-	603
Stage 1	307	-	-	-	-
Stage 2	286	-	-	-	-
Platoon blocked, %					
Mov Cap-1 Maneuver	~ 29	280	-	-	603
Mov Cap-2 Maneuver	~ 29	-	-	-	-
Stage 1	307	-	-	-	-
Stage 2	172	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	544.7	0	1.9
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	29	280	603	-
HCM Lane V/C Ratio	-	-	3.592	0.666	0.225	-
HCM Control Delay (s)	-	\$	1447.7	40.2	12.7	0
HCM Lane LOS	-	-	F	E	B	A
HCM 95th %tile Q(veh)	-	-	12.5	4.4	0.9	-

Notes			
~: Volume exceeds capacity	\$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

HCM 6th TWSC

6: Spine Road & Interconnect Road

Intersection						
Int Delay, s/veh	3.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	33	71	0	44	42
Future Vol, veh/h	0	33	71	0	44	42
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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	36	77	0	48	46




Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	219	77	0	0	77
Stage 1	77	-	-	-	-
Stage 2	142	-	-	-	-
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	769	984	-	-	1522
Stage 1	946	-	-	-	-
Stage 2	885	-	-	-	-
Platoon blocked, %					
Mov Cap-1 Maneuver	744	984	-	-	1522
Mov Cap-2 Maneuver	744	-	-	-	-
Stage 1	946	-	-	-	-
Stage 2	857	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.8	0	3.8
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	984	1522
HCM Lane V/C Ratio	-	-	0.036	0.031
HCM Control Delay (s)	-	-	8.8	7.4
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0.1

HCM 6th TWSC

6: Spine Road & Interconnect Road

Intersection						
Int Delay, s/veh	3.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	48	60	0	42	80
Future Vol, veh/h	0	48	60	0	42	80
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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	52	65	0	46	87

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	244	65	0	0	65
Stage 1	65	-	-	-	-
Stage 2	179	-	-	-	-
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	744	999	-	-	1537
Stage 1	958	-	-	-	-
Stage 2	852	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	721	999	-	-	1537
Mov Cap-2 Maneuver	721	-	-	-	-
Stage 1	958	-	-	-	-
Stage 2	826	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.8	0	2.6
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	999	1537
HCM Lane V/C Ratio	-	-	0.052	0.03
HCM Control Delay (s)	-	-	8.8	7.4
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0.1

HCM 6th TWSC

7: Spine Road & Number 2 Road

Intersection						
Int Delay, s/veh	5.5					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↘	↑	↘	↗
Traffic Vol, veh/h	62	26	46	33	52	78
Future Vol, veh/h	62	26	46	33	52	78
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	420	655	-	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	67	28	50	36	57	85
Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	95	0	203	67
Stage 1	-	-	-	-	67	-
Stage 2	-	-	-	-	136	-
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	-	-	1499	-	786	997
Stage 1	-	-	-	-	956	-
Stage 2	-	-	-	-	890	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1499	-	760	997
Mov Cap-2 Maneuver	-	-	-	-	760	-
Stage 1	-	-	-	-	956	-
Stage 2	-	-	-	-	861	-
Approach	EB	WB	NB			
HCM Control Delay, s	0	4.4	9.8			
HCM LOS			A			
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	886	-	-	1499	-	
HCM Lane V/C Ratio	0.159	-	-	0.033	-	
HCM Control Delay (s)	9.8	-	-	7.5	-	
HCM Lane LOS	A	-	-	A	-	
HCM 95th %tile Q(veh)	0.6	-	-	0.1	-	

HCM 6th TWSC

7: Spine Road & Number 2 Road

Intersection						
Int Delay, s/veh	5.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↘	↑	↘	↗
Traffic Vol, veh/h	46	59	87	39	41	64
Future Vol, veh/h	46	59	87	39	41	64
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	420	655	-	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	50	64	95	42	45	70
Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	114	0	282	50
Stage 1	-	-	-	-	50	-
Stage 2	-	-	-	-	232	-
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	-	-	1475	-	708	1018
Stage 1	-	-	-	-	972	-
Stage 2	-	-	-	-	807	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1475	-	663	1018
Mov Cap-2 Maneuver	-	-	-	-	663	-
Stage 1	-	-	-	-	972	-
Stage 2	-	-	-	-	755	-
Approach	EB	WB	NB			
HCM Control Delay, s	0	5.3	9.9			
HCM LOS			A			
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	842	-	-	1475	-	
HCM Lane V/C Ratio	0.136	-	-	0.064	-	
HCM Control Delay (s)	9.9	-	-	7.6	-	
HCM Lane LOS	A	-	-	A	-	
HCM 95th %tile Q(veh)	0.5	-	-	0.2	-	

HCM 6th TWSC

8: Revels Road & Spine Road

Intersection						
Int Delay, s/veh	7.6					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	10	108	6	5	142	9
Future Vol, veh/h	10	108	6	5	142	9
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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	11	117	7	5	154	10




Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	328	10	0	0	12	0
Stage 1	10	-	-	-	-	-
Stage 2	318	-	-	-	-	-
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	666	1071	-	-	1607	-
Stage 1	1013	-	-	-	-	-
Stage 2	738	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	602	1071	-	-	1607	-
Mov Cap-2 Maneuver	602	-	-	-	-	-
Stage 1	1013	-	-	-	-	-
Stage 2	667	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.1	0	7
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	1005	1607
HCM Lane V/C Ratio	-	-	0.128	0.096
HCM Control Delay (s)	-	-	9.1	7.5
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.4	0.3

HCM 6th TWSC

8: Revels Road & Spine Road

Intersection						
Int Delay, s/veh	7.8					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	10	163	9	12	134	5
Future Vol, veh/h	10	163	9	12	134	5
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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	11	177	10	13	146	5

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	314	17	0	0	23
Stage 1	17	-	-	-	-
Stage 2	297	-	-	-	-
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	679	1062	-	-	1592
Stage 1	1006	-	-	-	-
Stage 2	754	-	-	-	-
Platoon blocked, %					
Mov Cap-1 Maneuver	617	1062	-	-	1592
Mov Cap-2 Maneuver	617	-	-	-	-
Stage 1	1006	-	-	-	-
Stage 2	685	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.3	0	7.2
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	1019	1592
HCM Lane V/C Ratio	-	-	0.185	0.091
HCM Control Delay (s)	-	-	9.3	7.5
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.7	0.3

HCM 6th TWSC

9: Orange Blossom Road & Revels Road

Intersection						
Int Delay, s/veh	7.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	7	0	0	4	12	7
Future Vol, veh/h	7	0	0	4	12	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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	8	0	0	4	13	8

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	4	0	-	0	18
Stage 1	-	-	-	-	2
Stage 2	-	-	-	-	16
Critical Hdwy	4.12	-	-	-	6.42
Critical Hdwy Stg 1	-	-	-	-	5.42
Critical Hdwy Stg 2	-	-	-	-	5.42
Follow-up Hdwy	2.218	-	-	-	3.518
Pot Cap-1 Maneuver	1618	-	-	-	1000
Stage 1	-	-	-	-	1021
Stage 2	-	-	-	-	1007
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	1618	-	-	-	995
Mov Cap-2 Maneuver	-	-	-	-	995
Stage 1	-	-	-	-	1016
Stage 2	-	-	-	-	1007

Approach	EB	WB	SB
HCM Control Delay, s	7.2	0	8.6
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1618	-	-	-	1025
HCM Lane V/C Ratio	0.005	-	-	-	0.02
HCM Control Delay (s)	7.2	0	-	-	8.6
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1

HCM 6th TWSC

9: Orange Blossom Road & Revels Road

Intersection						
Int Delay, s/veh	5.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	7	0	0	13	8	7
Future Vol, veh/h	7	0	0	13	8	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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	8	0	0	14	9	8
Major/Minor	Major1	Major2	Minor2			
Conflicting Flow All	14	0	-	0	23	7
Stage 1	-	-	-	-	7	-
Stage 2	-	-	-	-	16	-
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	1604	-	-	-	993	1075
Stage 1	-	-	-	-	1016	-
Stage 2	-	-	-	-	1007	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	1604	-	-	-	988	1075
Mov Cap-2 Maneuver	-	-	-	-	988	-
Stage 1	-	-	-	-	1011	-
Stage 2	-	-	-	-	1007	-
Approach	EB	WB	SB			
HCM Control Delay, s	7.3	0	8.6			
HCM LOS			A			
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1604	-	-	-	1027	
HCM Lane V/C Ratio	0.005	-	-	-	0.016	
HCM Control Delay (s)	7.3	0	-	-	8.6	
HCM Lane LOS	A	A	-	-	A	
HCM 95th %tile Q(veh)	0	-	-	-	0	

Appendix L
Intersection Volume Projections

Intersection= Interconnect Rd & Spine Rd (Proposed) 6																			
Approach	Mvmt	Raw	SF	Adjusted	GR	Redirect	Adj Bg'd	The Reserve	Whisp. Hills	Talichet	Lake Hills	Watermark	Vested	%Proj Ent	%Proj Ext	Project	Total	Formula	
EB	L						0										0	0	
	T						0										0	0	
	R						0										0	0	
WB	L						0										0	0	
	T						0										0	0	
	R						20							10%			28	48	20 + (28) = 48
NB	L						0										0	0	
	T						25										36	61	25 + (36) = 61
	R						0										0	0	
SB	L						25										17	42	25 + (17) = 42
	T						20								10%		61	81	20 + (61) = 81
	R						0										0	0	

Intersection= Number 2 Rd & Spine Road / North Access 7																			
Approach	Mvmt	Raw	SF	Adjusted	GR	Redirect	Adj Bg'd	The Reserve	Whisp. Hills	Talichet	Lake Hills	Watermark	Vested	%Proj Ent	%Proj Ext	Project	Total	Formula	
EB	L						0										0	0	
	T						41							5			0	46	41 + (5) = 46
	R						15								15%		44	59	15 + (44) = 59
WB	L						30								20%		57	87	30 + (57) = 87
	T						36							3			0	39	36 + (3) = 39
	R						0										0	0	
NB	L						15									15%	26	41	15 + (26) = 41
	T						0										0	0	
	R						30								20%		34	64	30 + (34) = 64
SB	L						0										0	0	
	T						0										0	0	
	R						0										0	0	













Intersection= Revels Rd & Spine Rd / Proposed 8																			
Approach	Mvmt	Raw	SF	Adjusted	GR	Redirect	Adj Bg'd	The Reserve	Whisp. Hills	Talichet	Lake Hills	Watermark	Vested	%Proj Ent	%Proj Ext	Project	Total	Formula	
EB	L						0										0	0	
	T						0										0	0	
	R						0										0	0	
WB	L						4									3%	6	10	4 + (6) = 10
	T						0										0	0	
	R						74								25%		89	163	74 + (89) = 163
NB	L						0										0	0	
	T						3								2%		6	9	3 + (6) = 9
	R						4								3%		8	12	4 + (8) = 12
SB	L						62									25%	72	134	62 + (72) = 134
	T						3								2%		2	5	3 + (2) = 5
	R						0										0	0	

Intersection= Revels Rd & Orange Blossom Rd / South Access 9																			
Approach	Mvmt	Raw	SF	Adjusted	GR	Redirect	Adj Bg'd	The Reserve	Whisp. Hills	Talichet	Lake Hills	Watermark	Vested	%Proj Ent	%Proj Ext	Project	Total	Formula	
EB	L						7										0	7	7
	T						0										0	0	
	R						0										0	0	
WB	L						0										0	0	
	T						0										0	0	
	R						0							5%			13	13	(13)
NB	L						0										0	0	
	T						0										0	0	
	R						0										0	0	
SB	L						0									5%	8	8	(8)
	T						0										0	0	
	R						7										0	7	7

Appendix M
Background Conditions / Buildout Conditions with Mitigation

HCM 6th Signalized Intersection Summary

1: SR 19 & CR 48













						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	504	334	450	685	413	178
Future Volume (veh/h)	504	334	450	685	413	178
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1752	1589	1767	1811	1737	1811
Adj Flow Rate, veh/h	520	203	464	0	426	184
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	10	21	9	6	11	6
Cap, veh/h	386	312	695		506	1139
Arrive On Green	0.23	0.23	0.39	0.00	0.17	0.63
Sat Flow, veh/h	1668	1346	1767	1535	1654	1811
Grp Volume(v), veh/h	520	203	464	0	426	184
Grp Sat Flow(s),veh/h/ln	1668	1346	1767	1535	1654	1811
Q Serve(g_s), s	22.7	13.4	21.2	0.0	14.2	4.1
Cycle Q Clear(g_c), s	22.7	13.4	21.2	0.0	14.2	4.1
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	386	312	695		506	1139
V/C Ratio(X)	1.35	0.65	0.67		0.84	0.16
Avail Cap(c_a), veh/h	386	312	695		539	1139
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	37.7	34.1	24.4	0.0	16.8	7.5
Incr Delay (d2), s/veh	172.2	4.7	5.0	0.0	11.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	41.4	8.1	14.4	0.0	10.4	2.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	209.9	38.8	29.5	0.0	27.8	7.8
LnGrp LOS	F	D	C		C	A
Approach Vol, veh/h	723		464	A		610
Approach Delay, s/veh	161.9		29.5			21.8
Approach LOS	F		C			C
Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	23.0	45.0		30.0		68.0
Change Period (Y+Rc), s	6.5	6.4		7.3		6.4
Max Green Setting (Gmax), s	18.5	38.6		22.7		38.6
Max Q Clear Time (g_c+I1), s	16.2	23.2		24.7		6.1
Green Ext Time (p_c), s	0.4	2.5		0.0		1.0
Intersection Summary						
HCM 6th Ctrl Delay			80.1			
HCM 6th LOS			F			

Notes

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary

1: SR 19 & CR 48

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	685	483	161	549	451	188
Future Volume (veh/h)	685	483	161	549	451	188
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1752	1589	1767	1811	1737	1811
Adj Flow Rate, veh/h	706	302	166	0	465	194
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	10	21	9	6	11	6
Cap, veh/h	380	307	685		740	1149
Arrive On Green	0.23	0.23	0.39	0.00	0.18	0.63
Sat Flow, veh/h	1668	1346	1767	1535	1654	1811
Grp Volume(v), veh/h	706	302	166	0	465	194
Grp Sat Flow(s),veh/h/ln	1668	1346	1767	1535	1654	1811
Q Serve(g_s), s	22.7	22.2	6.3	0.0	16.0	4.4
Cycle Q Clear(g_c), s	22.7	22.2	6.3	0.0	16.0	4.4
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	380	307	685		740	1149
V/C Ratio(X)	1.86	0.98	0.24		0.63	0.17
Avail Cap(c_a), veh/h	380	307	685		747	1149
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	38.4	38.3	20.6	0.0	12.3	7.4
Incr Delay (d2), s/veh	395.5	46.9	0.8	0.0	1.7	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	79.4	16.3	4.8	0.0	9.5	2.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	433.9	85.1	21.5	0.0	13.9	7.8
LnGrp LOS	F	F	C		B	A
Approach Vol, veh/h	1008		166	A		659
Approach Delay, s/veh	329.4		21.5			12.1
Approach LOS	F		C			B
Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	24.6	45.0		30.0		69.6
Change Period (Y+Rc), s	6.5	6.4		7.3		6.4
Max Green Setting (Gmax), s	18.5	38.6		22.7		38.6
Max Q Clear Time (g_c+I1), s	18.0	8.3		24.7		6.4
Green Ext Time (p_c), s	0.1	0.9		0.0		1.1
Intersection Summary						
HCM 6th Ctrl Delay			187.5			
HCM 6th LOS			F			

Notes

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th TWSC
2: SR 19 & W Central Ave/E Central Ave

Intersection												
Int Delay, s/veh	41.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	120	4	12	13	1	65	14	636	29	37	651	41
Future Vol, veh/h	120	4	12	13	1	65	14	636	29	37	651	41
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	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	12	33	2	2	2	2	38	10	2	42	2	11
Mvmt Flow	124	4	12	13	1	67	14	656	30	38	671	42

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1501	1482	692	1475	1488	671	713	0	0	686	0	0
Stage 1	768	768	-	699	699	-	-	-	-	-	-	-
Stage 2	733	714	-	776	789	-	-	-	-	-	-	-
Critical Hdwy	7.22	6.83	6.22	7.12	6.52	6.22	4.48	-	-	4.52	-	-
Critical Hdwy Stg 1	6.22	5.83	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.22	5.83	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.608	4.297	3.318	3.518	4.018	3.318	2.542	-	-	2.578	-	-
Pot Cap-1 Maneuver	~ 95	107	444	104	124	456	742	-	-	747	-	-
Stage 1	380	369	-	430	442	-	-	-	-	-	-	-
Stage 2	397	392	-	390	402	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	~ 74	95	444	89	110	456	742	-	-	747	-	-
Mov Cap-2 Maneuver	~ 74	95	-	89	110	-	-	-	-	-	-	-
Stage 1	368	338	-	417	428	-	-	-	-	-	-	-
Stage 2	327	380	-	343	368	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	472.6	24.5	0.2	0.5
HCM LOS	F	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	742	-	-	80	265	747	-	-
HCM Lane V/C Ratio	0.019	-	-	1.753	0.307	0.051	-	-
HCM Control Delay (s)	9.9	0	-	472.6	24.5	10.1	0	-
HCM Lane LOS	A	A	-	F	C	B	A	-
HCM 95th %tile Q(veh)	0.1	-	-	11.9	1.3	0.2	-	-

Notes
 ~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

HCM 6th TWSC
2: SR 19 & W Central Ave/E Central Ave

Intersection												
Int Delay, s/veh	50.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	91	14	16	20	4	49	19	617	25	66	741	133
Future Vol, veh/h	91	14	16	20	4	49	19	617	25	66	741	133
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	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	12	33	2	2	2	2	38	10	2	42	2	11
Mvmt Flow	94	14	16	21	4	51	20	636	26	68	764	137

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1686	1671	833	1673	1726	649	901	0	0	662	0	0
Stage 1	969	969	-	689	689	-	-	-	-	-	-	-
Stage 2	717	702	-	984	1037	-	-	-	-	-	-	-
Critical Hdwy	7.22	6.83	6.22	7.12	6.52	6.22	4.48	-	-	4.52	-	-
Critical Hdwy Stg 1	6.22	5.83	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.22	5.83	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.608	4.297	3.318	3.518	4.018	3.318	2.542	-	-	2.578	-	-
Pot Cap-1 Maneuver	~ 70	81	369	76	89	470	624	-	-	764	-	-
Stage 1	292	294	-	436	446	-	-	-	-	-	-	-
Stage 2	405	397	-	299	308	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	~ 49	63	369	50	69	470	624	-	-	764	-	-
Mov Cap-2 Maneuver	~ 49	63	-	50	69	-	-	-	-	-	-	-
Stage 1	277	240	-	414	423	-	-	-	-	-	-	-
Stage 2	340	377	-	219	251	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	701.2		65.2		0.3		0.7	
HCM LOS	F		F					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	624	-	-	57	130	764	-	-
HCM Lane V/C Ratio	0.031	-	-	2.188	0.579	0.089	-	-
HCM Control Delay (s)	11	0	-	701.2	65.2	10.2	0	-
HCM Lane LOS	B	A	-	F	F	B	A	-
HCM 95th %tile Q(veh)	0.1	-	-	12.3	2.9	0.3	-	-

Notes
 ~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

HCM 6th TWSC

3: S Florida Ave & W Central Ave

Intersection												
Int Delay, s/veh	2.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	44	17	10	23	1	10	0	20	0	0	0
Future Vol, veh/h	1	44	17	10	23	1	10	0	20	0	0	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	80	80	80	80	80	80	80	80	80	80	80	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	55	21	13	29	1	13	0	25	0	0	0

Major/Minor	Major1		Major2		Minor1		Minor2					
Conflicting Flow All	30	0	0	76	0	0	124	124	66	136	134	30
Stage 1	-	-	-	-	-	-	68	68	-	56	56	-
Stage 2	-	-	-	-	-	-	56	56	-	80	78	-
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	1583	-	-	1523	-	-	850	766	998	835	757	1044
Stage 1	-	-	-	-	-	-	942	838	-	956	848	-
Stage 2	-	-	-	-	-	-	956	848	-	929	830	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1583	-	-	1523	-	-	843	758	998	808	749	1044
Mov Cap-2 Maneuver	-	-	-	-	-	-	843	758	-	808	749	-
Stage 1	-	-	-	-	-	-	941	837	-	955	840	-
Stage 2	-	-	-	-	-	-	947	840	-	905	829	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	0.1		2.2		9		0	
HCM LOS					A		A	

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	940	1583	-	-	1523	-	-	-
HCM Lane V/C Ratio	0.04	0.001	-	-	0.008	-	-	-
HCM Control Delay (s)	9	7.3	0	-	7.4	0	-	0
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	-

HCM 6th TWSC

3: S Florida Ave & W Central Ave

Intersection												
Int Delay, s/veh	4.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	35	11	36	30	6	9	1	33	1	0	0
Future Vol, veh/h	0	35	11	36	30	6	9	1	33	1	0	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	80	80	80	80	80	80	80	80	80	80	80	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	44	14	45	38	8	11	1	41	1	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	46	0	0	58	0	0	183	187	51	204	190	42
Stage 1	-	-	-	-	-	-	51	51	-	132	132	-
Stage 2	-	-	-	-	-	-	132	136	-	72	58	-
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	1562	-	-	1546	-	-	778	708	1017	754	705	1029
Stage 1	-	-	-	-	-	-	962	852	-	871	787	-
Stage 2	-	-	-	-	-	-	871	784	-	938	847	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1562	-	-	1546	-	-	760	687	1017	706	684	1029
Mov Cap-2 Maneuver	-	-	-	-	-	-	760	687	-	706	684	-
Stage 1	-	-	-	-	-	-	962	852	-	871	763	-
Stage 2	-	-	-	-	-	-	845	760	-	899	847	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			3.7			9.1			10.1		
HCM LOS							A			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	940	1562	-	-	1546	-	-	706
HCM Lane V/C Ratio	0.057	-	-	-	0.029	-	-	0.002
HCM Control Delay (s)	9.1	0	-	-	7.4	0	-	10.1
HCM Lane LOS	A	A	-	-	A	A	-	B
HCM 95th %tile Q(veh)	0.2	0	-	-	0.1	-	-	0

HCM 6th TWSC
4: SR 19 & Revels Rd

Intersection												
Int Delay, s/veh	54.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↔			↕	
Traffic Vol, veh/h	5	0	36	124	0	53	16	482	66	21	766	2
Future Vol, veh/h	5	0	36	124	0	53	16	482	66	21	766	2
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	8	12	2	10	2
Mvmt Flow	6	0	40	138	0	59	18	536	73	23	851	2

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1536	1543	852	1527	1508	573	853	0	0	609	0	0
Stage 1	898	898	-	609	609	-	-	-	-	-	-	-
Stage 2	638	645	-	918	899	-	-	-	-	-	-	-
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	95	115	359	~96	121	519	786	-	-	970	-	-
Stage 1	334	358	-	482	485	-	-	-	-	-	-	-
Stage 2	465	467	-	326	358	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	79	106	359	~80	112	519	786	-	-	970	-	-
Mov Cap-2 Maneuver	79	106	-	~80	112	-	-	-	-	-	-	-
Stage 1	322	342	-	465	468	-	-	-	-	-	-	-
Stage 2	398	451	-	277	342	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	22.5	\$ 478.9	0.3	0.2
HCM LOS	C	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	786	-	-	251 107	970	-	-
HCM Lane V/C Ratio	0.023	-	-	0.181 1.838	0.024	-	-
HCM Control Delay (s)	9.7	-	-	22.5\$ 478.9	8.8	0	-
HCM Lane LOS	A	-	-	C F	A A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.6 15.9	0.1	-	-

Notes
 ~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

HCM 6th TWSC
4: SR 19 & Revels Rd

Intersection												
Int Delay, s/veh	48.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↔			↕	
Traffic Vol, veh/h	5	1	26	88	0	36	36	716	146	64	585	2
Future Vol, veh/h	5	1	26	88	0	36	36	716	146	64	585	2
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	8	12	2	10	2
Mvmt Flow	6	1	29	98	0	40	40	796	162	71	650	2

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	1770	1831	651	1765	1751	877	652	0	0	958	0	0
Stage 1	793	793	-	957	957	-	-	-	-	-	-	-
Stage 2	977	1038	-	808	794	-	-	-	-	-	-	-
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	65	76	469	~ 65	86	348	935	-	-	718	-	-
Stage 1	382	400	-	310	336	-	-	-	-	-	-	-
Stage 2	302	308	-	375	400	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	47	58	469	~ 49	66	348	935	-	-	718	-	-
Mov Cap-2 Maneuver	47	58	-	~ 49	66	-	-	-	-	-	-	-
Stage 1	346	338	-	281	304	-	-	-	-	-	-	-
Stage 2	242	279	-	296	338	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	30	\$ 653.3	0.4	1
HCM LOS	D	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	935	-	-	179	65	718	-	-
HCM Lane V/C Ratio	0.043	-	-	0.199	2.12	0.099	-	-
HCM Control Delay (s)	9	-	-	30	\$ 653.3	10.6	0	-
HCM Lane LOS	A	-	-	D	F	B	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.7	13.1	0.3	-	-

Notes
 ~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

HCM 6th TWSC

5: SR 19 & CR 455

Intersection						
Int Delay, s/veh	26.6					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	78	80	568	133	159	843
Future Vol, veh/h	78	80	568	133	159	843
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	0	-	590	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	38	15	8	22	9	5
Mvmt Flow	81	83	592	139	166	878

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	1802	592	0	0	731
Stage 1	592	-	-	-	-
Stage 2	1210	-	-	-	-
Critical Hdwy	6.78	6.35	-	-	4.19
Critical Hdwy Stg 1	5.78	-	-	-	-
Critical Hdwy Stg 2	5.78	-	-	-	-
Follow-up Hdwy	3.842	3.435	-	-	2.281
Pot Cap-1 Maneuver	~ 71	483	-	-	842
Stage 1	489	-	-	-	-
Stage 2	239	-	-	-	-
Platoon blocked, %					
Mov Cap-1 Maneuver	~ 44	483	-	-	842
Mov Cap-2 Maneuver	~ 44	-	-	-	-
Stage 1	489	-	-	-	-
Stage 2	147	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	303.4	0	1.6
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	44	483	842	-
HCM Lane V/C Ratio	-	-	1.847	0.173	0.197	-
HCM Control Delay (s)	-	-	\$ 600.2	14	10.3	0
HCM Lane LOS	-	-	F	B	B	A
HCM 95th %tile Q(veh)	-	-	8.3	0.6	0.7	-

Notes			
~: Volume exceeds capacity	\$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

HCM 6th TWSC

5: SR 19 & CR 455

Intersection						
Int Delay, s/veh	40.5					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	100	151	857	110	113	698
Future Vol, veh/h	100	151	857	110	113	698
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	0	-	590	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	38	15	8	22	9	5
Mvmt Flow	104	157	893	115	118	727

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	1856	893	0	0	1008
Stage 1	893	-	-	-	-
Stage 2	963	-	-	-	-
Critical Hdwy	6.78	6.35	-	-	4.19
Critical Hdwy Stg 1	5.78	-	-	-	-
Critical Hdwy Stg 2	5.78	-	-	-	-
Follow-up Hdwy	3.842	3.435	-	-	2.281
Pot Cap-1 Maneuver	~ 65	322	-	-	661
Stage 1	347	-	-	-	-
Stage 2	320	-	-	-	-
Platoon blocked, %					
Mov Cap-1 Maneuver	~ 46	322	-	-	661
Mov Cap-2 Maneuver	~ 46	-	-	-	-
Stage 1	347	-	-	-	-
Stage 2	224	-	-	-	-













Approach	WB	NB	SB
HCM Control Delay, s	322.1	0	1.6
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	46	322	661	-
HCM Lane V/C Ratio	-	-	2.264	0.488	0.178	-
HCM Control Delay (s)	-	-	\$ 768.6	26.4	11.6	0
HCM Lane LOS	-	-	F	D	B	A
HCM 95th %tile Q(veh)	-	-	10.9	2.5	0.6	-

Notes			
~: Volume exceeds capacity	\$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

HCM 6th Signalized Intersection Summary

1: SR 19 & CR 48

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	522	334	454	740	413	180
Future Volume (veh/h)	522	334	454	740	413	180
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1752	1589	1767	1811	1737	1811
Adj Flow Rate, veh/h	538	205	468	0	426	186
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	10	21	9	6	11	6
Cap, veh/h	548	442	485		430	991
Arrive On Green	0.33	0.33	0.27	0.00	0.21	0.55
Sat Flow, veh/h	1668	1346	1767	1535	1654	1811
Grp Volume(v), veh/h	538	205	468	0	426	186
Grp Sat Flow(s),veh/h/ln	1668	1346	1767	1535	1654	1811
Q Serve(g_s), s	35.2	13.3	28.8	0.0	23.1	5.7
Cycle Q Clear(g_c), s	35.2	13.3	28.8	0.0	23.1	5.7
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	548	442	485		430	991
V/C Ratio(X)	0.98	0.46	0.96		0.99	0.19
Avail Cap(c_a), veh/h	548	442	485		430	991
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	36.6	29.3	39.4	0.0	31.2	12.6
Incr Delay (d2), s/veh	33.9	0.8	33.0	0.0	40.8	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	25.7	7.5	23.3	0.0	22.6	4.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	70.5	30.0	72.4	0.0	72.0	13.0
LnGrp LOS	E	C	E		E	B
Approach Vol, veh/h	743		468	A		612
Approach Delay, s/veh	59.4		72.4			54.1
Approach LOS	E		E			D
Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	30.0	36.6		43.4		66.6
Change Period (Y+Rc), s	6.5	6.4		7.3		6.4
Max Green Setting (Gmax), s	23.5	30.2		36.1		60.2
Max Q Clear Time (g_c+I1), s	25.1	30.8		37.2		7.7
Green Ext Time (p_c), s	0.0	0.0		0.0		1.1
Intersection Summary						
HCM 6th Ctrl Delay			60.9			
HCM 6th LOS			E			

Notes













Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Roundabout 1: SR 19 & CR 48

Intersection							
Intersection Delay, s/veh	17.7						
Intersection LOS	C						
Approach	WB		NB		SB		
Entry Lanes	2		2		2		
Conflicting Circle Lanes	1		1		1		
Adj Approach Flow, veh/h	882		1231		612		
Demand Flow Rate, veh/h	1008		1319		670		
Vehicles Circulating, veh/h	510		473		592		
Vehicles Exiting, veh/h	1282		789		926		
Ped Vol Crossing Leg, #/h	0		0		0		
Ped Cap Adj	1.000		1.000		1.000		
Approach Delay, s/veh	14.2		23.0		11.9		
Approach LOS	B		C		B		
Lane	Left	Right	Left	Right	Left	Right	
Designated Moves	L	TR	LT	R	L	TR	
Assumed Moves	L	TR	LT	R	L	TR	
RT Channelized							
Lane Util	0.587	0.413	0.387	0.613	0.706	0.294	
Follow-Up Headway, s	2.535	2.535	2.535	2.535	2.535	2.535	
Critical Headway, s	4.544	4.544	4.544	4.544	4.544	4.544	
Entry Flow, veh/h	592	416	510	809	473	197	
Cap Entry Lane, veh/h	893	893	923	923	829	829	
Entry HV Adj Factor	0.909	0.827	0.917	0.943	0.901	0.943	
Flow Entry, veh/h	538	344	468	763	426	186	
Cap Entry, veh/h	811	738	847	871	746	782	
V/C Ratio	0.663	0.466	0.552	0.876	0.571	0.238	
Control Delay, s/veh	16.0	11.4	12.1	29.7	13.9	7.2	
LOS	C	B	B	D	B	A	
95th %tile Queue, veh	5	2	3	11	4	1	

HCM 6th Signalized Intersection Summary

1: SR 19 & CR 48

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	751	483	164	587	451	194
Future Volume (veh/h)	751	483	164	587	451	194
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1752	1589	1767	1811	1737	1811
Adj Flow Rate, veh/h	774	359	169	0	465	200
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	10	21	9	6	11	6
Cap, veh/h	777	627	259		467	743
Arrive On Green	0.47	0.47	0.15	0.00	0.20	0.41
Sat Flow, veh/h	1668	1346	1767	1535	1654	1811
Grp Volume(v), veh/h	774	359	169	0	465	200
Grp Sat Flow(s),veh/h/ln	1668	1346	1767	1535	1654	1811
Q Serve(g_s), s	50.9	21.4	9.9	0.0	22.5	8.1
Cycle Q Clear(g_c), s	50.9	21.4	9.9	0.0	22.5	8.1
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	777	627	259		467	743
V/C Ratio(X)	1.00	0.57	0.65		1.00	0.27
Avail Cap(c_a), veh/h	777	627	259		467	743
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	29.3	21.4	44.3	0.0	33.2	21.5
Incr Delay (d2), s/veh	31.4	1.3	12.2	0.0	40.4	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	33.4	10.6	8.9	0.0	12.2	6.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	60.7	22.7	56.5	0.0	73.6	22.4
LnGrp LOS	E	C	E		E	C
Approach Vol, veh/h	1133		169	A		665
Approach Delay, s/veh	48.7		56.5			58.2
Approach LOS	D		E			E
Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	29.0	22.5		58.5		51.5
Change Period (Y+Rc), s	6.5	6.4		7.3		6.4
Max Green Setting (Gmax), s	22.5	16.1		51.2		45.1
Max Q Clear Time (g_c+I1), s	24.5	11.9		52.9		10.1
Green Ext Time (p_c), s	0.0	0.3		0.0		1.1
Intersection Summary						
HCM 6th Ctrl Delay			52.6			
HCM 6th LOS			D			

Notes

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Roundabout

1: SR 19 & CR 48

Intersection							
Intersection Delay, s/veh	16.1						
Intersection LOS	C						
Approach	WB		NB		SB		
Entry Lanes	2		2		2		
Conflicting Circle Lanes	1		1		1		
Adj Approach Flow, veh/h	1272		774		665		
Demand Flow Rate, veh/h	1454		825		728		
Vehicles Circulating, veh/h	184		516		851		
Vehicles Exiting, veh/h	1157		1063		787		
Ped Vol Crossing Leg, #/h	0		0		0		
Ped Cap Adj	1.000		1.000		1.000		
Approach Delay, s/veh	12.6		15.7		23.4		
Approach LOS	B		C		C		
Lane	Left		Right		Left		Right
Designated Moves	L	TR	LT	R	L	TR	
Assumed Moves	L	TR	LT	R	L	TR	
RT Channelized							
Lane Util	0.585	0.415	0.223	0.777	0.709	0.291	
Follow-Up Headway, s	2.535	2.535	2.535	2.535	2.535	2.535	
Critical Headway, s	4.544	4.544	4.544	4.544	4.544	4.544	
Entry Flow, veh/h	851	603	184	641	516	212	
Cap Entry Lane, veh/h	1201	1201	888	888	655	655	
Entry HV Adj Factor	0.910	0.826	0.917	0.944	0.901	0.943	
Flow Entry, veh/h	774	498	169	605	465	200	
Cap Entry, veh/h	1092	992	815	838	590	618	
V/C Ratio	0.708	0.502	0.207	0.722	0.788	0.324	
Control Delay, s/veh	14.4	9.7	6.6	18.2	29.0	10.2	
LOS	B	A	A	C	D	B	
95th %tile Queue, veh	6	3	1	6	8	1	

HCM 6th Signalized Intersection Summary 2: SR 19 & W Central Ave






















Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (veh/h)	144	4	12	13	1	65	14	672	29	37	663	49
Future Volume (veh/h)	144	4	12	13	1	65	14	672	29	37	663	49
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1722	1411	1870	1870	1870	1870	1337	1752	1870	1278	1870	1737
Adj Flow Rate, veh/h	148	4	12	13	1	67	14	693	30	38	684	51
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	12	33	2	2	2	2	38	10	2	42	2	11
Cap, veh/h	310	10	15	105	29	252	78	1054	45	101	1041	75
Arrive On Green	0.18	0.18	0.18	0.18	0.18	0.18	0.64	0.64	0.64	0.64	0.64	0.64
Sat Flow, veh/h	965	56	81	128	159	1375	11	1642	70	43	1623	118
Grp Volume(v), veh/h	164	0	0	81	0	0	737	0	0	773	0	0
Grp Sat Flow(s),veh/h/ln	1102	0	0	1663	0	0	1722	0	0	1783	0	0
Q Serve(g_s), s	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	7.2	0.0	0.0	2.2	0.0	0.0	13.5	0.0	0.0	13.2	0.0	0.0
Prop In Lane	0.90		0.07	0.16		0.83	0.02		0.04	0.05		0.07
Lane Grp Cap(c), veh/h	335	0	0	386	0	0	1177	0	0	1218	0	0
V/C Ratio(X)	0.49	0.00	0.00	0.21	0.00	0.00	0.63	0.00	0.00	0.63	0.00	0.00
Avail Cap(c_a), veh/h	506	0	0	645	0	0	1177	0	0	1218	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	19.9	0.0	0.0	18.1	0.0	0.0	5.7	0.0	0.0	5.7	0.0	0.0
Incr Delay (d2), s/veh	1.1	0.0	0.0	0.3	0.0	0.0	2.5	0.0	0.0	2.5	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	3.2	0.0	0.0	1.4	0.0	0.0	6.1	0.0	0.0	6.4	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	21.0	0.0	0.0	18.3	0.0	0.0	8.2	0.0	0.0	8.2	0.0	0.0
LnGrp LOS	C	A	A	B	A	A	A	A	A	A	A	A
Approach Vol, veh/h		164			81			737			773	
Approach Delay, s/veh		21.0			18.3			8.2			8.2	
Approach LOS		C			B			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		37.5		13.9		37.5		13.9				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		33.0		18.0		33.0		18.0				
Max Q Clear Time (g_c+I1), s		15.5		9.2		15.2		4.2				
Green Ext Time (p_c), s		5.0		0.5		5.4		0.3				
Intersection Summary												
HCM 6th Ctrl Delay		9.9										
HCM 6th LOS		A										

HCM 6th Signalized Intersection Summary 2: SR 19 & W Central Ave






















Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (veh/h)	108	14	16	20	4	49	19	642	25	66	784	161
Future Volume (veh/h)	108	14	16	20	4	49	19	642	25	66	784	161
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1722	1411	1870	1870	1870	1870	1337	1752	1870	1278	1870	1737
Adj Flow Rate, veh/h	111	14	16	21	4	51	20	662	26	68	808	166
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	12	33	2	2	2	2	38	10	2	42	2	11
Cap, veh/h	338	28	21	191	43	187	124	917	35	154	784	155
Arrive On Green	0.17	0.17	0.17	0.17	0.17	0.17	0.56	0.56	0.56	0.56	0.56	0.56
Sat Flow, veh/h	839	169	129	296	258	1130	18	1650	64	64	1410	279
Grp Volume(v), veh/h	141	0	0	76	0	0	708	0	0	1042	0	0
Grp Sat Flow(s),veh/h/ln	136	0	0	1684	0	0	1731	0	0	1753	0	0
Q Serve(g_s), s	2.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.1	0.0	0.0
Cycle Q Clear(g_c), s	3.7	0.0	0.0	1.3	0.0	0.0	9.9	0.0	0.0	18.0	0.0	0.0
Prop In Lane	0.79		0.11	0.28		0.67	0.03		0.04	0.07		0.16
Lane Grp Cap(c), veh/h	387	0	0	421	0	0	1077	0	0	1094	0	0
V/C Ratio(X)	0.36	0.00	0.00	0.18	0.00	0.00	0.66	0.00	0.00	0.95	0.00	0.00
Avail Cap(c_a), veh/h	803	0	0	1020	0	0	1077	0	0	1094	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	12.7	0.0	0.0	11.8	0.0	0.0	5.4	0.0	0.0	7.6	0.0	0.0
Incr Delay (d2), s/veh	0.6	0.0	0.0	0.2	0.0	0.0	1.5	0.0	0.0	17.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.4	0.0	0.0	0.7	0.0	0.0	2.7	0.0	0.0	11.8	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	13.3	0.0	0.0	12.0	0.0	0.0	6.8	0.0	0.0	24.7	0.0	0.0
LnGrp LOS	B	A	A	B	A	A	A	A	A	C	A	A
Approach Vol, veh/h		141			76			708			1042	
Approach Delay, s/veh		13.3			12.0			6.8			24.7	
Approach LOS		B			B			A			C	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		22.5		9.9		22.5		9.9				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		18.0		18.0		18.0		18.0				
Max Q Clear Time (g_c+I1), s		11.9		5.7		20.0		3.3				
Green Ext Time (p_c), s		2.5		0.6		0.0		0.3				
Intersection Summary												
HCM 6th Ctrl Delay				16.9								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary 4: SR 19 & Revels Rd/Revels Rd

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	41	0	120	124	0	53	44	490	66	21	790	14
Future Volume (veh/h)	41	0	120	124	0	53	44	490	66	21	790	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1781	1722	1870	1752	1870
Adj Flow Rate, veh/h	46	0	133	138	0	59	49	544	73	23	878	16
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	8	12	2	10	2
Cap, veh/h	377	0	210	0	0	210	342	980	131	104	1093	1010
Arrive On Green	0.13	0.00	0.13	0.00	0.00	0.13	0.64	0.64	0.64	0.64	0.64	0.64
Sat Flow, veh/h	1455	0	1585	0	0	1585	622	1538	206	16	1716	1585
Grp Volume(v), veh/h	46	0	133	0	0	59	49	0	617	901	0	16
Grp Sat Flow(s),veh/h/ln	1455	0	1585	0	0	1585	622	0	1744	1731	0	1585
Q Serve(g_s), s	0.0	0.0	3.1	0.0	0.0	1.3	2.5	0.0	7.8	0.0	0.0	0.1
Cycle Q Clear(g_c), s	0.9	0.0	3.1	0.0	0.0	1.3	17.5	0.0	7.8	15.0	0.0	0.1
Prop In Lane	1.00		1.00	0.00		1.00	1.00		0.12	0.03		1.00
Lane Grp Cap(c), veh/h	377	0	210	0	0	210	342	0	1111	1197	0	1010
V/C Ratio(X)	0.12	0.00	0.63	0.00	0.00	0.28	0.14	0.00	0.56	0.75	0.00	0.02
Avail Cap(c_a), veh/h	819	0	731	0	0	731	630	0	1921	1984	0	1745
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	1.00	0.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	15.1	0.0	16.0	0.0	0.0	15.3	11.8	0.0	4.0	5.3	0.0	2.6
Incr Delay (d2), s/veh	0.1	0.0	3.1	0.0	0.0	0.7	0.2	0.0	0.4	1.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.6	0.0	2.0	0.0	0.0	0.8	0.5	0.0	1.7	3.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	15.2	0.0	19.2	0.0	0.0	16.0	12.0	0.0	4.4	6.3	0.0	2.6
LnGrp LOS	B	A	B	A	A	B	B	A	A	A	A	A
Approach Vol, veh/h		179			59			666				917
Approach Delay, s/veh		18.2			16.0			5.0				6.2
Approach LOS		B			B			A				A
Timer - Assigned Phs		2	3	4		6		8				
Phs Duration (G+Y+Rc), s		29.4	0.0	9.7		29.4		9.7				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5		4.5				
Max Green Setting (Gmax), s		43.0	5.0	18.0		43.0		18.0				
Max Q Clear Time (g_c+I1), s		19.5	0.0	5.1		17.0		3.3				
Green Ext Time (p_c), s		4.8	0.0	0.5		7.9		0.2				
Intersection Summary												
HCM 6th Ctrl Delay			7.3									
HCM 6th LOS			A									

HCM 6th Signalized Intersection Summary 4: SR 19 & Revels Rd/Revels Rd

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	30	1	83	88	0	36	135	744	146	64	602	45
Future Volume (veh/h)	30	1	83	88	0	36	135	744	146	64	602	45
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1781	1722	1870	1752	1870
Adj Flow Rate, veh/h	33	1	92	98	0	40	150	827	162	71	669	50
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	8	12	2	10	2
Cap, veh/h	244	6	140	0	0	140	388	1102	216	126	1006	1207
Arrive On Green	0.09	0.09	0.09	0.00	0.00	0.09	0.76	0.76	0.76	0.76	0.76	0.76
Sat Flow, veh/h	1422	65	1585	0	0	1585	733	1447	283	80	1321	1585
Grp Volume(v), veh/h	34	0	92	0	0	40	150	0	989	740	0	50
Grp Sat Flow(s),veh/h/ln	1486	0	1585	0	0	1585	733	0	1730	1401	0	1585
Q Serve(g_s), s	0.0	0.0	3.4	0.0	0.0	1.4	9.8	0.0	19.1	4.7	0.0	0.5
Cycle Q Clear(g_c), s	1.1	0.0	3.4	0.0	0.0	1.4	33.6	0.0	19.1	24.0	0.0	0.5
Prop In Lane	0.97		1.00	0.00		1.00	1.00		0.16	0.10		1.00
Lane Grp Cap(c), veh/h	249	0	140	0	0	140	388	0	1318	1133	0	1207
V/C Ratio(X)	0.14	0.00	0.66	0.00	0.00	0.29	0.39	0.00	0.75	0.65	0.00	0.04
Avail Cap(c_a), veh/h	542	0	476	0	0	476	600	0	1818	1548	0	1666
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	25.4	0.0	26.5	0.0	0.0	25.6	15.2	0.0	4.0	3.3	0.0	1.8
Incr Delay (d2), s/veh	0.2	0.0	5.2	0.0	0.0	1.1	0.6	0.0	1.2	0.6	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.8	0.0	2.5	0.0	0.0	1.0	2.7	0.0	4.3	2.3	0.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.6	0.0	31.6	0.0	0.0	26.7	15.8	0.0	5.1	3.9	0.0	1.8
LnGrp LOS	C	A	C	A	A	C	B	A	A	A	A	A
Approach Vol, veh/h		126			40			1139			790	
Approach Delay, s/veh		30.0			26.7			6.5			3.8	
Approach LOS		C			C			A			A	
Timer - Assigned Phs		2	3	4		6		8				
Phs Duration (G+Y+Rc), s		50.5	0.0	9.8		50.5		9.8				
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5		4.5				
Max Green Setting (Gmax), s		63.0	5.0	18.0		63.0		18.0				
Max Q Clear Time (g_c+I1), s		35.6	0.0	5.4		26.0		3.4				
Green Ext Time (p_c), s		10.8	0.0	0.3		7.2		0.1				
Intersection Summary												
HCM 6th Ctrl Delay			7.3									
HCM 6th LOS			A									

HCM 6th Signalized Intersection Summary

5: SR 19 & CR 455



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	78	88	596	133	183	927
Future Volume (veh/h)	78	88	596	133	183	927
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No		No	
Adj Sat Flow, veh/h/ln	1337	1678	1781	1574	1767	1826
Adj Flow Rate, veh/h	81	92	621	139	191	966
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	38	15	8	22	9	5
Cap, veh/h	101	113	1527	1143	214	983
Arrive On Green	0.08	0.08	0.86	0.86	0.86	0.86
Sat Flow, veh/h	1273	1422	1781	1334	216	1146
Grp Volume(v), veh/h	81	92	621	139	1157	0
Grp Sat Flow(s),veh/h/ln	1273	1422	1781	1334	1362	0
Q Serve(g_s), s	8.9	9.1	10.9	2.4	105.7	0.0
Cycle Q Clear(g_c), s	8.9	9.1	10.9	2.4	116.6	0.0
Prop In Lane	1.00	1.00		1.00	0.17	
Lane Grp Cap(c), veh/h	101	113	1527	1143	1197	0
V/C Ratio(X)	0.80	0.81	0.41	0.12	0.97	0.00
Avail Cap(c_a), veh/h	161	180	1540	1153	1208	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	64.4	64.4	2.2	1.6	12.5	0.0
Incr Delay (d2), s/veh	13.6	13.9	0.2	0.0	18.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/lr	5.9	6.7	4.5	0.8	40.9	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	78.0	78.4	2.4	1.7	30.8	0.0
LnGrp LOS	E	E	A	A	C	A
Approach Vol, veh/h	173		760			1157
Approach Delay, s/veh	78.2		2.3			30.8
Approach LOS	E		A			C
Timer - Assigned Phs		2			6	8
Phs Duration (G+Y+Rc), s		126.5			126.5	15.8
Change Period (Y+Rc), s		4.5			4.5	4.5
Max Green Setting (Gmax), s		123.0			123.0	18.0
Max Q Clear Time (g_c+I1), s		12.9			118.6	11.1
Green Ext Time (p_c), s		5.3			3.4	0.3
Intersection Summary						
HCM 6th Ctrl Delay			24.3			
HCM 6th LOS			C			

HCM 6th Signalized Intersection Summary

5: SR 19 & CR 455



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	100	179	956	110	130	756
Future Volume (veh/h)	100	179	956	110	130	756
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No		No	
Adj Sat Flow, veh/h/ln	1337	1678	1781	1574	1767	1826
Adj Flow Rate, veh/h	104	186	996	115	135	788
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	38	15	8	22	9	5
Cap, veh/h	153	171	1461	1094	141	755
Arrive On Green	0.12	0.12	0.82	0.82	0.82	0.82
Sat Flow, veh/h	1273	1422	1781	1334	138	921
Grp Volume(v), veh/h	104	186	996	115	923	0
Grp Sat Flow(s),veh/h/ln	1273	1422	1781	1334	1059	0
Q Serve(g_s), s	11.7	18.0	34.2	2.5	88.8	0.0
Cycle Q Clear(g_c), s	11.7	18.0	34.2	2.5	123.0	0.0
Prop In Lane	1.00	1.00		1.00	0.15	
Lane Grp Cap(c), veh/h	153	171	1461	1094	896	0
V/C Ratio(X)	0.68	1.09	0.68	0.11	1.03	0.00
Avail Cap(c_a), veh/h	153	171	1461	1094	896	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	63.2	66.0	5.5	2.7	24.2	0.0
Incr Delay (d2), s/veh	11.6	95.0	1.3	0.0	38.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	7.7	17.1	15.7	1.1	52.3	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	74.9	161.0	6.8	2.7	62.3	0.0
LnGrp LOS	E	F	A	A	F	A
Approach Vol, veh/h	290		1111			923
Approach Delay, s/veh	130.1		6.4			62.3
Approach LOS	F		A			E
Timer - Assigned Phs		2			6	8
Phs Duration (G+Y+Rc), s		127.5			127.5	22.5
Change Period (Y+Rc), s		4.5			4.5	4.5
Max Green Setting (Gmax), s		123.0			123.0	18.0
Max Q Clear Time (g_c+I1), s		36.2			125.0	20.0
Green Ext Time (p_c), s		11.8			0.0	0.0
Intersection Summary						
HCM 6th Ctrl Delay			44.1			
HCM 6th LOS			D			

Appendix N
Lake County Land Development Code (LDC)

2. Turn Lanes

Turn lanes consist of left-turn lanes and right-turn lanes (deceleration lanes). Turn lanes shall be installed on the road which is being accessed at the proposed entrance(s) to the development, as deemed necessary by the County Manager or Designee. The County Manager or Designee may also require turn lanes at adjacent or nearby intersections in lieu of, or in addition to, turn lanes at the development entrances.

Conditions which are to be considered in determining the need for turn lanes include the following:

- a) If the property accessing the road is projected to generate 500 or more vehicle trips per day, or 50 or more vehicle trips in any hour;
- b) If a traffic analysis indicates that turn lanes would be necessary to maintain capacity on fronting roads and/or on adjacent or nearby intersections.
- c) If entrances are proposed at locations where grade, topography, site distance, traffic, or other unusual conditions indicate that turn lanes would be needed for traffic safety. The need for turn lanes to accommodate right turn movements and left turn movements shall be based upon anticipated traffic distribution and projected turning movement volumes among other considerations, including traffic safety.

C. Traffic Analysis

1. Transportation Concurrency Management System

Transportation Concurrency Management System is administered by the Lake-Sumter Metropolitan Planning Organization (LSMPO). All information regarding traffic study could be found on LSPMO website www.lakesumtermo.com/concurrency/index.aspx

D. Road Classification

1. Arterial Roads

An arterial road is a route providing service which is relatively continuous and of relatively high traffic volume, long average trip length, high operating speed and of high mobility importance.

Arterial roads are grouped into the following sub-categories:

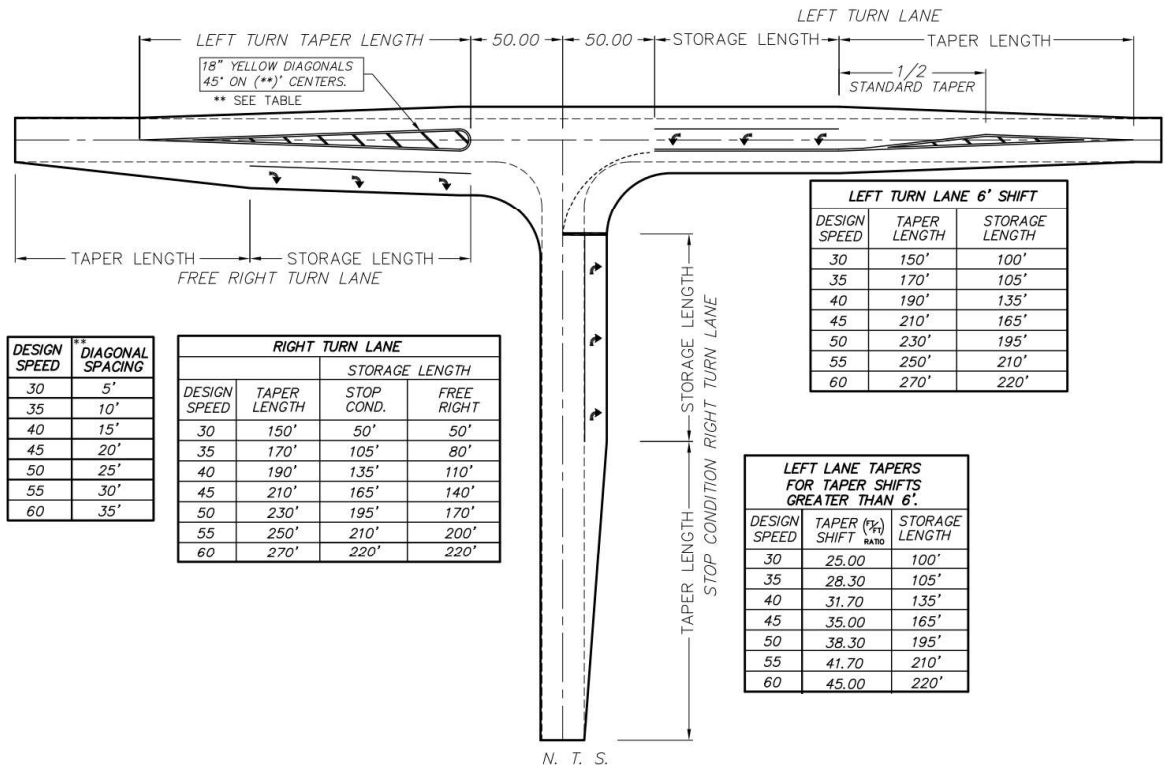
- a) Principal Arterial
- b) Minor Arterial

The classification of roads as arterials shall be based upon criteria established by the Florida Department of Transportation utilizing their most recent, adopted functional classification system.

2. Collector Roads

A collector road is a route providing services which is of relatively moderate traffic volume, moderate trip length and moderate operating speed. Collector roads collect and distribute the traffic between local roads and arterial roads and serves as a linkage between land access and mobility needs.

LAKE COUNTY STANDARD TURN LANES



DESIGN SPEED	** DIAGONAL SPACING
30	5'
35	10'
40	15'
45	20'
50	25'
55	30'
60	35'

RIGHT TURN LANE			
DESIGN SPEED	TAPER LENGTH	STORAGE LENGTH	
		STOP COND.	FREE RIGHT
30	150'	50'	50'
35	170'	105'	80'
40	190'	135'	110'
45	210'	165'	140'
50	230'	195'	170'
55	250'	210'	200'
60	270'	220'	220'

LEFT TURN LANE 6' SHIFT		
DESIGN SPEED	TAPER LENGTH	STORAGE LENGTH
30	150'	100'
35	170'	105'
40	190'	135'
45	210'	165'
50	230'	195'
55	250'	210'
60	270'	220'

LEFT LANE TAPERS FOR TAPER SHIFTS GREATER THAN 6'		
DESIGN SPEED	TAPER SHIFT (1/2) RATIO	STORAGE LENGTH
30	25.00	100'
35	28.30	105'
40	31.70	135'
45	35.00	165'
50	38.30	195'
55	41.70	210'
60	45.00	220'

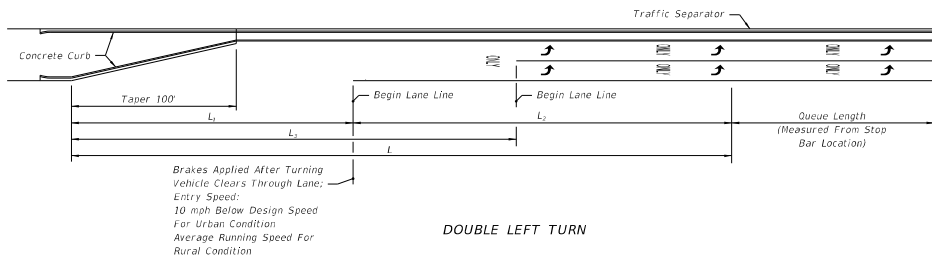
Typical Details

0: _CAD STANDARDS\DWG\Turn LanesR1.dwg (02/06/2007)

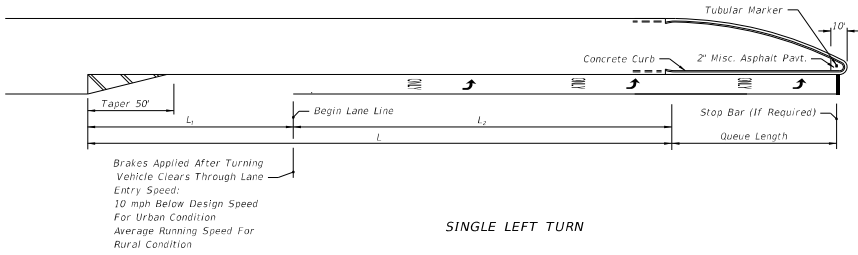
THIS SHOULD BE USED AS A GUIDE LINE ONLY.
ALL DESIGNS SHALL BE SUBMITTED FOR REVIEW.

Appendix O
FDOT Design Manual Exhibit 212-1

MEDIAN TURN LANES MINIMUM DECELERATION LENGTHS



DOUBLE LEFT TURN



SINGLE LEFT TURN

		MEDIAN TURN LANES						
Design Speed (mph)	Entry Speed (mph)	Clearance Distance L ₁ (ft.)	URBAN CONDITIONS			RURAL CONDITIONS		
			Brake To Stop Distance L ₁ (ft.)	Total Decel. Distance L (ft.)	Clearance Distance L ₂ (ft.)	Brake To Stop Distance L ₁ (ft.)	Total Decel. Distance L (ft.)	Clearance Distance L ₂ (ft.)
35	25	70	75	145	110	—	—	—
40	30	80	75	155	120	—	—	—
45	35	85	100	185	135	—	—	—
50	40/44	105	135	240	160	185	290	160
55	48	125	—	—	—	225	350	195
60	52	145	—	—	—	260	405	230
65	55	170	—	—	—	290	460	270

NOT TO SCALE

EXHIBIT 212-1
01/01/2022

Appendix B
Preliminary Development Plan

Appendix C
Lake County CMP Database and 2023 FDOT Q/LOS

Appendix D
Turning Movement Counts and Seasonal Factor Data

Appendix E
HCM Analysis Worksheets - Existing Conditions

Appendix F
ITE Trip Generation Sheets

Appendix G
CFRPM Model Output

Appendix H
LSMPO TIP and LSMPO LOPP

Appendix I
Vested Trips Data

Appendix J
AADT Model Plot

Appendix K
HCM Worksheets - Projected Conditions

Appendix L
Intersection Volume Projections

Appendix M
Background Conditions / Buildout Conditions with Mitigation

Appendix N
Lake County Land Development Code (LDC)

Appendix O
FDOT Design Manual Exhibit 212-1

**MISSION RISE
PUD REZONE
PROJECT NARRATIVE, COMPREHENSIVE PLAN & REZONE CRITERIA COMPLIANCE
Revised July 2023**

I. PROJECT OVERVIEW

On behalf of the Property Owner, ASF TAP FL I, LLC. (“Applicant”), enclosed please find a Rezone Application to amend the Planned Unit Development (“PUD”) zoning of the Mission Rise Property (“Property”). The Property consists of 243+/- acres including 4 parcels, PIDs: 02-21-25-0002-000-04800; 34-20-25-0004-000-01003; 34-20-25-0001-000-00100; 27-20-25-0004-000-01200. It is generally located south of Number Two Road, west of SR 19, and east of Silverwood Lane in the southwestern portion of the Town of Howey-in-the-Hills (see Aerial Map, included in the application materials).

The Property is designated as Village Mixed Use (VMU) and Conservation (CON) based on the Town of Howey-in-the-Hills Future Land Use Map. In 2005, the Property was rezoned to PUD per Ordinance 2005-357, with a binding conceptual development plan allowing for development of 400 dwelling units. The Developer’s Agreement related to the Rezone was approved in 2007 and expired 10 years later in February 2017. The Property is currently vacant, consisting of pasturelands and wetlands. The Property can be accessed from Number 2 Road and Revels Road.

The purpose of this petition is to rezone the Property from PUD to PUD with a new Conceptual Land Use Plan and Developer’s Agreement, to allow for a maximum of **499 dwelling units**, along with supportive amenities and infrastructure. A multi-use trail and parks system as well as a trailhead site is also included as the non-residential use within the PUD.

II. SURROUNDING USES

While a majority of land surrounding the Property is predominantly vacant currently, many properties are entitled for development.

The surrounding lands to the north, south, and west of the Property consist of vacant agricultural lands, groves, or pastures along with a few dispersed single-family residential dwellings. The Reserve (Hillside Grove) PUD was approved to the east in November 2021 (Ordinance 2021-010), allowing for 284 single-family homes, 291-single-family cluster homes, and 153 townhouse units, along with up to 300,000 square feet of commercial uses and 100,000 square feet of institutional uses. Lands to the east of SR 19, known as the Simpson Parcels, was also rezoned to PUD as the Watermark PUD (Ordinance 2022-016). The PUD was approved for 275 single-family dwelling units. Table 1 below provides a comprehensive inventory of the surrounding land use pattern.

TABLE 1: INVENTORY OF SURROUNDING USES

	Future Land Use	Zoning	Existing Land Use
North	Village Mixed Use (VMU), Conservation	AR (Lake County), PUD (The Reserve, Ordinance 2021-010)	ROW (Number 2 Road) Agriculture/Pasture

	(CON), Urban Low Density (Lake County)		
South	Rural Transition (Lake County)	A (Lake County)	Single-family residential
East	Village Mixed Use (VMU), Conservation (CON), Medium Density Residential (MDR)	PUD (The Reserve, Ordinance 2021-010 & Watermark PUD, Ordinance 2022-016), LI	Future Residential (The Reserve (Lennar) PUD/Agriculture (Orange Grove)/Pasture
West	Village Mixed Use (VMU), Conservation (CON)	AG, A (Lake County), R-3 (Lake County)	Agriculture/Pasture/Single-family/Manufactured Home

Based on the development of the adjacent Reserve PUD and Watermark PUD, the surrounding area will be transitioning into denser residential or mixed-use neighborhoods.

III. HISTORY

Following annexation into the Town limits in 2005, the Property was rezoned to PUD per Ordinance 2005-037. The conceptual development plan, approved by the Town Council, authorizes the development of 400 single-family residential units. The Mission Rise Developer’s Agreement was approved in February 2007, to establish mutually agreed upon terms regarding the development of the Property. This agreement expired 10 years following the effective date. In 2018, Hanover Properties attempted to secure zoning entitlements through a PUD rezone for 629 single-family residential units with associated amenities and infrastructure on the Property. However, this rezone request was denied by the Town Council.

IV. REZONE REQUEST

The Applicant is requesting to rezone the Property from PUD to PUD with a new Binding Development Plan and Developer’s Agreement, to allow for a maximum of 499 dwelling units, along with supportive amenities and infrastructure. A regional multi-use trail and park system and a civic tract is planned as the non-residential component of this PUD, consistent with the requirements of the VMU future land use district.

The proposed density of 499 dwelling units is within the limitations of the base density permitted per the Town’s Comprehensive Plan. The proposed density calculations are as follows:

$$\text{Net Land Area} = \text{Total acreage} - \text{Waterbodies acreage}^1 - \text{Required open space}^2 - \text{Remaining Wetlands acreage}^3$$

¹ Only pre-existing water bodies are to be included in the calculation.

² 25% of gross land area has to be reserved as open space. Per Policy 1.2.2 of the Future Land Use Element of the Town’s Comprehensive Plan, no more than 50% of the open space requirement can be met with wetlands. Landscaped buffers and stormwater facilities may be counted towards open space if designed in a park-like setting with pedestrian facilities and free-form ponds. Up to

10% of open space may be impervious.

³ Wetlands not counted towards the open space requirement.

Net Land Area = 243.3 – 0 – 60.8 – 29.4
= 153.1 acres

Total Yield = 153.1 x 4
= **612 dwelling units**

Max. Potential Units per FLU = 612 dwelling units.

Max. Units Requested = 499 dwelling units.

Only single-family detached residential units are proposed within the PUD, including a mix of 75-foot-wide and 55-foot-wide lots. The smaller lots are strategically located in the interior of the Property, with larger lots proposed along the boundaries. Compatibility with the adjacent properties will be addressed via sensitive site design that addresses the placement of buffers, open space/preserve areas, and proposed residential development tracts. The proposed density and lot sizes is consistent with the recent approval for the Reserve PUD to the immediate east.

Access to the project will be via Number 2 and Revels Road, as shown on the proposed Conceptual Land Use Plan. The N-S spine roadway (Connector #1) passing through the Property, connecting Number Two Road and SR 19 through Revels Road, will be designed as a two-lane Collector roadway with a 90’ right-of-way. This roadway will traverse through the proposed development providing interconnectivity. Additional future potential access points connecting to the Reserve PUD to the east and to the west are also proposed. A full access point is proposed to the south, connecting to Orange Blossom Road.

Connector #1 is designed with a continuous multimodal trail of min. 12’ that will provide for pedestrian and bicycle connectivity across the project. The multimodal trail will be designed to capture natural viewsheds along the preserved wetlands, serving as an amenity for the project’s residents as well as the Town as a whole. Additional pedestrian paths are planned along stormwater ponds throughout the development forming a system of parks adjacent to the N-S Spine Roadway. The system of multi-use trails and parks are designed to take advantage of the natural features of the site.

Over 25% of open space is provided within the project, consistent with the requirements of the Comprehensive Plan. On-site wetlands have been preserved along with upland buffers to the greatest extent possible, with minimal planned impacts.

V. INFRASTRUCTURE

Transportation:

Traffic & Mobility Consultants have prepared a Transportation Impact Analysis for this project, which is included in the application materials. Please see the report for additional details on the impacts of the proposed development.

Utilities:

Potable water will be provided through the Town’s public water supply system. Sanitary sewer service will be secured through the Mission Inn Wastewater Treatment Plant, which is operated by the Central Lakes Community Development District (CDD). The Applicant is working with the Town and CDD to establish

available capacity to serve the project.

Fire and EMS:

Fire and EMS services will be provided by the Lake County Fire District.

Schools:

Lake County School District has reviewed this project (application reviewed for 592 dwelling units, as initially proposed) and provided an Adequate Public Facilities Determination Letter.

VI. ENVIRONMENTAL

An Environmental Assessment for the Property was prepared by Bio-Tech Consulting Inc., which contains information related to soils, land use types, listed and protected flora and fauna species, wetland delineation, and other environmental constraints.

Only 0.3 +/- acres of impacts to the 60.1 +/- acres of on-site wetlands is proposed, as reflected on the proposed Conceptual Land Use Plan. Consistent with Section 3.02.03 of the Land Development Code (LDC), no development is proposed within 25' of a wetland and no building or impervious surface area with the exception of stormwater ponds is planned within 50' of a wetland.

Any impacts to protected/listed species or wetlands will be permitted in accordance with relevant State and Federal guidelines as further described in the Environmental Assessment. Required buffers are maintained from the identified bald eagle's nest.

The project is in the X, A and AE flood zones. The proposed development is designed to have a majority of development, outside of areas prone to flooding per FEMA.

VII. STORMWATER MANAGEMENT

The project will provide adequate stormwater management facilities to ensure water quality and attenuation in accordance with all applicable local, state and federal regulations. It is understood that the Applicant will obtain an Environmental Resource Permit (ERP) from the St. John's River Water Management District (SJRWMD) and any required Section 404 permits from the Florida Department of Environmental Protection (FDEP) prior to construction.

Stormwater runoff from the developed portions of the project will be conveyed to stormwater management ponds. Approximately 26.8 +/- acres of the Property are planned as stormwater ponds. The ponds will treat and attenuate the stormwater runoff in accordance with SJRWMD and Town's requirements prior to discharging off site. Stormwater will be detained within the ponds where chemical and physical processes within the ponds will improve water quality. The ponds will attenuate the project's runoff rate by holding back water, reducing the discharge rate.

Information related to proposed impervious surfaces will not be available until detailed design, which will be provided during at later stages of the Town's permitting process. Management of stormwater run-off, considering changes in existing and proposed impervious surfaces, will comply with SJRWMD and the Town of Howey-in-the-Hills requirements.

VIII. FUTURE LAND USE/COMPREHENSIVE PLAN COMPLIANCE

The proposed amendment is consistent with the Goals, Objectives and Policies of the Howey-in-the-Hills County Comprehensive Plan as follows:

Policy 1.1.1: Land Use Designations, Village Mixed Use (VMU)

- *Minimum of 25 acres to apply for this land use. Maximum density of 4 dwelling units per acre, which may be increased to 6 dwelling units per acre if the development includes 20% usable public open space (no wetlands).*

RESPONSE: The Property is 243 +/- acres in size, meeting the minimum threshold to be developed under the VMU future land use designation. The PUD is proposed for a maximum of 499 dwelling units, that is under the maximum base density of 4 dwelling units per acre, as demonstrated by the calculations included earlier in this narrative.

- *Residential areas shall comprise a minimum of 70% of the net land area and a maximum of 85% of the net land area.*
- *Commercial/non-residential areas shall comprise a minimum of 15% of the net land area and a maximum of 30% of the net land area. This includes community facilities and schools.*

RESPONSE: 15.2 % of the net land area or 23.2 acres is planned as non-residential areas within the project. This includes a mix of community recreational areas and the system of multi-use trails and parks, with trailhead site. The remainder of the net land area is proposed for residential uses.

- *For developments with more than 100 acres, 5% of the non-residential land shall be dedicated for public/civic buildings.*

RESPONSE: A 1.2 +/- acre site (5% of non-residential area) along SR 19 is designated as a civil tract which is planned to be developed with a trailhead to support the proposed trail and park system.

- *Commercial/non-residential may be 2 stories with 50% coverage as long as parking and other support facilities (stormwater) are met. The maximum building height is 35 feet.*

RESPONSE: The project will comply with this requirement.

- *Public recreational uses must occupy a minimum of 10% of the useable open space (no wetlands).*

RESPONSE: Over 10% of usable open space or 6.8 +/- acres is planned as public recreation areas.

- *A minimum of 25% open space is required.*

RESPONSE: 28.5% or 69.4 +/- acres is planned as open space within the project. Please note that any areas accredited towards non-residential area requirements are not included in this open space calculation.

- *The maximum building size is 30,000 sq. ft.; unless a special exception is granted to the developer*

by the Town Council.

RESPONSE: The project will comply with the maximum building size requirement of 30,000 SF. No special exception is being requested.

Policy 1.1.2: Village Mixed Use – Primarily intended to create sustainability and maintain the unique charm of the Town, including the provisions of reducing the dependability on the automobile, protecting more open land, and providing quality of life by allowing people to live, work, socialize, and recreate in close proximity. Elementary, middle, and high schools are also permitted in this category.

RESPONSE: The project meets the required mix of residential and non-residential areas for the VMU future land use designation. Non-residential areas are planned as the multi-use trail and park system that will be compatible with the residential development and maximize the natural features of the site. Special emphasis has been paid to multimodal connectivity across the project, especially connecting to the non-residential areas, consistent with the intent of this category.

Policy 1.3.1: Limiting Development in Wetland Areas. The Town shall limit development within all wetland areas to land uses supporting conservation facilities and water-related passive recreation activities, as defined in the Recreation and Open Space Element. Wetlands shall be identified on the Future Land Use Map Series as Conservation lands. No development shall be permitted in wetlands except for conservation or passive recreation uses as defined within policies cited herein.

RESPONSE: On-site wetlands are preserved to the greatest extent feasible with only 0.3 +/- acres of impacts proposed. This impact area is to accommodate the north-south Connector #1, consistent with the Town's 2035 Future Transportation Map.

Policy 1.11.2 Use of Cluster Developments. To promote the conservation of permeable surface area and maintain the Town's rural character, cluster developments shall be promoted by the Town during the development review process. Developers of Mixed Use/Planned Unit Developments and residential subdivisions shall be encouraged to cluster development in order to preserve open space.

RESPONSE: As seen on the proposed Conceptual Land Use Plan, the development is clustered consistent with this policy to allow for maximum preservation of on-site natural wetlands and native habitat. Approximately 25% of the site is wetland habitat, almost all of which is proposed to be preserved along with required upland buffers. 28.5% of open space has been provided within the project, only including 50% of on-site wetlands within the open space calculation. Thus, the development will help conserve permeable surface area and maintain the Town's rural character.

Based on the above analysis, the proposed rezone petition is in substantial compliance with the Goals, Objectives and Policies of the Town's Comprehensive Plan.

IX. REZONING CRITERIA COMPLIANCE

1. Is the rezoning request consistent with the Town's comprehensive plan?

Yes, the rezoning request is consistent with the Town's Comprehensive Plan, as further detailed in Section VIII above.

2. Describe any changes in circumstances of conditions affecting the property and the surrounding area that support a change in the current zoning.

The Property is currently zoned PUD. This request does not seek to change the zoning designation of the subject property. Instead, it seeks approval of a new Conceptual Land Use Plan and Developer's Agreement for the Property, as the prior Conceptual Land Use Plan and Developer's Agreement expired in February 2017.

The proposed density is consistent with the maximum permitted per the underlying future land use of VMU. The proposed development will meet all requirements of the VMU category. Further, at current, development in the surrounding including the Reserve PUD and Watermark PUD is supportive of the requested density. The proposed lot sizes within the project are consistent with the lot sizes approved in the Reserve PUD that is immediately to the east of the Property. It uses clustering principles to allow for wetland preservation and open space enhancement to maximize the natural features of the Property.

Overall, the proposed rezoning will be consistent with the underlying future land use and mimics the nature of development seen in the surrounding area.

3. Will the proposed rezoning have any negative effects on adjacent properties?

No, the proposed rezoning will not have a negative effect on adjacent properties. The site has been sensitively designed such that preserved wetlands, stormwater ponds, and open space form a natural buffer adjacent to a majority of the Property's boundaries. Where residential use is proposed adjacent to single-family development to the west, larger 75'-wide-lots are planned. Smaller lots are strategically located in the interior of the Property and adjacent to the Reserve PUD, where similar lot sizes are approved. In terms of connectivity, the Conceptual Land Use Plan depicts the north-south Connector #1. This 90' ROW will connect Number Two Road to SR 19, improving connectivity in the area. Thus, the proposed development will not have any negative effects on adjacent properties and instead serve as a continuation of the existing development pattern with enhanced connectivity.

4. Will the proposed rezoning have any impacts upon natural resources?

No, the proposed rezoning will not have any impacts upon natural resources. Please see the attached Environmental Assessment by Bio-Tech Consulting Inc. which provides detailed information of natural resources on site.

On-site wetlands have been preserved to the greatest extent feasible, along with upland buffers as required by the Town's Comprehensive Plan. Any impacts to listed species and their habitat will be permitted through relevant State and Federal agencies. Required buffers have been maintained from the identified bald eagle's nest on site, in accordance with the U.S Fish and Wildlife Service's management plans.

5. Will the proposed rezoning have any impacts upon adjacent properties?

The proposed rezoning is a continuance of development seen in the adjacent area in recent years with approval of the Reserve PUD and Watermark PUD. Consistent with the intent of

PUDs, the proposed Conceptual Land Use Plan proposes a clustered development with greater extent of environmental protection, open space, and public recreational areas. The proposed development meets all requirements of the VMU future land use designation, as described in Section VIII of this narrative. Further, the project will help interconnectivity within the area through the inclusion of the north-south Connector #1. This roadway is to be designed as a two-lane roadway with dedicated continuous min. 12' multimodal trail to ensure both vehicular and pedestrian connectivity from Number Two Road down to Revels Road and SR 19.

6. Will the rezoning create any impacts on services including schools, transportation, utilities, stormwater management and solid waste disposal?

- **Schools - An Adequate School Facilities Determination Letter has been provided by the Lake County School District.**
- **Transportation –Transportation & Mobility Consultants, Inc. has prepared a Traffic Impact Analysis based on a methodology approved by the Town.**
- **Utilities – Potable water will be provided through the Town’s public water supply system; the Town has indicated adequate capacity to serve the project. Sanitary sewer service will be secured through the Mission Inn Wastewater Treatment Plant, which is operated by the Central Lakes Community Development District (CDD). The Applicant is working with the CDD to establish available capacity to serve the project.**
- **Stormwater Management – Please see Section VII of this narrative. Stormwater systems will be designed to manage stormwater on-site and receive applicable permits from the SJRWMD and the Town, prior to construction.**
- **Solid Waste – Solid waste service will be provided through the Town.**

7. Are there any mistakes in the assignment of the current zoning classification?

No, the proposed rezoning is not to change the current zoning classification of PUD, but instead to seek approval of a new Conceptual Land Use Plan and Developer’s Agreement for the Mission Rise Property.

X. CONCLUSION

The proposed petition seeks approval of a new Conceptual Land Use Plan and Developer’s Agreement for the Mission Rise site. The proposed development will continue to meet all requirements of the VMU future land use designation, be consistent with the requirements of the LDC and uphold the Goals, Objectives and Policies of the Town of Howey-in-the-Hills’ Comprehensive Plan. For these reasons, the Applicant respectfully requests approval of rezoning and reserves the right to modify this application through the review process.



September 28, 2023

Thomas A. Harowski, AICP
 Town of Howey-in-the-Hills
 101 N. Palm Ave., P.O. Box 128,
 Howey-In-The-Hills, Florida 34737

RE: Mission Rise PUD

Dear: Mr. Harowski

Enclosed please find responses to Staff's comments below in bold. The following items are resubmitted in response to Staff's comments:

1. Revised Conceptual Land Use Plan
2. Revised Development Agreement
3. Revised Traffic Impact Analysis

PLANNING REVIEW COMMENTS:
CONCEPT PLAN:

1. The project still fails to meet the 15% non-residential land area requirements of the Village Mixed Use land use classification. The stormwater areas allocated to the non-residential use calculation are in fact engineering elements of other land uses. The civic land use, the amenity centers and the park areas can count toward the non-residential land use as proposed. Staff is willing to include the major trail area that falls outside the central collector road right-of-way (so long as this area is not already counted as park area).

RESPONSE: Please see page 4 of the Conceptual Land Use Plan, which provides distinct details of the non-residential land area proposed within the development. Stormwater areas have been excluded from the calculation. An additional park area is proposed in the southern part of Phase 2.

2. The proposed recreational facilities have been better detailed, but the "regional" park still fails to meet the definition included in the comprehensive plan. Perhaps revising the name to a neighborhood facility is more appropriate given that the park is unlikely to draw significant interest from residents outside the neighborhood.

RESPONSE: The "regional" park has been renamed to "neighborhood" parks. In turn, the previous "neighborhood parks" have been renamed to "mini" parks. The mini parks are planned as recreational space for the use of the residents of the community. The neighborhood parks are intended to serve the larger community and facilitate access and use of the multiuse trail system.

3. The area in the center designated as regional park is a bonafide park area. The highlighted areas in Phase 3 and at the south end of Phase 2 are just open space and should not be

counted as park area.

RESPONSE: The proposed park areas have been detailed, in terms of the proposed features/amenities on page 3 of the Conceptual Land Use Plan.

4. The applicant has elected to retain stormwater retention areas within the central core area which staff recommended for tree preservation and green space. As noted in our comments last time, the retention ponds are part of the residential land use and should be located there. Be advised this item will be a comment in the staff report.

RESPONSE: Acknowledged.

5. The park area developments have been detailed but outside of the amenity centers are essentially passive designs. As an additional item, the applicant could consider including some court activities as part of the overall program. We renew our suggestions for repurposing the small residential development at the southeast corner of Phase 2 as a central community facility.

RESPONSE: Active recreational amenities may be provided in the park area in the southern part of Phase 2. The planned facilities/amenities and design of the park areas are intended to be further detailed at the subdivision/site plan process.

6. The applicant needs to address how the double-frontage lots located in Phase 2 and Phase 3 will be addressed. These lots have access from a parallel street so that the rear yards of these properties will front on the central collector road. Perhaps some sort of buffer such as a landscaped berm or wall is appropriate.

RESPONSE: The double-frontage lots will have a 10' landscaped buffer along the Collector Road to protect views from this roadway.

7. For the 55-foot-wide lots where no alley access is proposed, what design options are suggested to reduce the impact of a garage-dominate streetscape.

RESPONSE: In accordance with LDC Section 4.06.02.A.3., at least 25% of the lots in the development will have to provide recessed garages. Further, side-loaded garages are encouraged, as stated in the proposed Development Agreement.

8. The unit totals provided for the phase allocations do not add correctly on the table provided.

RESPONSE: The unit totals have been revised on the Phase Development Table. Please see page 2 of the Conceptual Land Use Plan.

9. The note to the table needs to be removed. Movement of units between phases will be considered a major amendment of the development agreement. As an alternative the applicant could propose language in the development agreement allowing for a specific level of shifting units between phases for Town Council consideration.

RESPONSE: Acknowledged. The note has been removed and language related to movement of units between phases will be added to the Development Agreement.

10. At the last DRC meeting the applicant was requested to provide a timing proposal for construction of the central collector road. The agreement needs to include a proposed timing.

RESPONSE: Please see the revised Development Agreement.

11. Map 2 seems to be unclear. Phase lines are similar to the symbols for pathways, parking, non-residential areas etc. Perhaps the information can be divided into more maps that will present a clearer summary.

RESPONSE: Please see page 2 of the Conceptual Land Use Plan where the phase line type has been updated for better readability.

PUD/DEVELOPMENT AGREEMENT:

1. On page two the development agreement states the project is 592 units while the concept plan has 499. These documents need to be in agreement.

RESPONSE: Please see the revised Development Agreement.

2. On page three the minimum lot width at the building line needs to be 75 feet for the 75 x 120 lot size.

RESPONSE: Please see the revised Development Agreement.

3. On page three the wetland buffer needs to reflect the town requirements in Sec. 3.02.03C as well as the water management district and DEP requirements. The Town's requirements vary in some respects from the state requirements.

RESPONSE: Please see the revised Development Agreement.

4. On page four, the language setting the timing for the Town to ask for utility upgrades is still not satisfactory. The proposed 270 days from approval of the plan is still not what we need. The timing should be triggered by the application for final subdivision approval for the phase of the project proposed. The final subdivision approval gives authorization to construct subdivision improvements. The Town should be required to make its needs and commitments at this point. If final subdivision approval is sought by phase, then the Town's opportunity to seek utility line upgrades should attach to each phase.

RESPONSE: Please see the revised Development Agreement.

5. On page 6, the Town is not requiring all roads to be public. The applicant has the choice to use gated access for the project or for sub-areas within the project. While the collector road should remain with full public access, the applicant may wish to revise the proposed language to preserve the option for gated areas.

RESPONSE: Please see the revised Development Agreement.

6. On page eleven, the termination language related to sewer service acquisition should be modified to include other options than the CLCDD.

RESPONSE: Please see the revised Development Agreement.

TRAFFIC IMPACT ASSESSMENT:

1. Defer to the Town engineer comments

RESPONSE: Acknowledged.

**ENGINEERING REVIEW COMMENTS:
TRAFFIC STUDY:**

1. The conceptual land use plan states the maximum number of lots is 499. The traffic study and the development agreement states 592 lots. All three need to be the same.

RESPONSE: The Traffic Impact Analysis and Development Agreement have been revised to state a maximum of 499 units.

2. The methodology states that Lake Hills & Watermark are to be included in the background traffic projection. The submitted study left these developments out.

RESPONSE: Please see the revised Traffic Impact Analysis.

3. For the future condition intersection analysis for SR 19 & Revels Rd. include right & left turn lanes on SR 19 and a right turn lane on revels.

RESPONSE: Please see the revised Traffic Impact Analysis.

4. For the future condition intersection analysis for the Spine Rd. and Number 2 Rd., include right & left turn lanes on Number 2 Rd.

RESPONSE: Please see the revised Traffic Impact Analysis.

5. Per the MPO TIS Guidelines the study needs to include a section for Mitigation Strategies. This needs to address the road segments and intersections with deficiencies. For unsignalized intersections, side streets with deficient delays need to be evaluated for mitigation. Also, the narrow width of Number 2 Road needs to be addressed in this section. While capacity is not an issue, operational safety is.

RESPONSE: Please see the revised Traffic Impact Analysis.

6. There is no proposed widening of SR 19 at Central Avenue as stated in the study.

RESPONSE: Please see the revised Traffic Impact Analysis.

7. Based on Lake County's requirement for turn lane widening on Number 2 Road (all on the south side) the length of tapers will need to be twice the standard length.

RESPONSE: Please see the revised Traffic Impact Analysis.

CONCEPT PLAN:

1. The main N-S spine road and realigned Revels Road should not have driveway connections or on-street parking. They should have full pedestrian accommodation including the multi-use trail and raised crosswalks/speed tables at key points along its length connecting the trail and sidewalks to amenity, open space, and park areas.

RESPONSE: On-street parking/driveway connections along the Collector Road have been removed from the plan. All lots abutting the Collector Road will have access from another local street or alley.

2. The curb & gutter for the neighborhood roads should 2' wide Type F or Drop Curb.

RESPONSE: Please see page 6 of the Conceptual Land Use Plan, where the curb and gutter has been updated to 2' width.

Development Agreement

1. Section 1. (f) Wetlands: Wetland impacts and buffering shall also be subject to the Town's land development regulations as well as the St Johns River Water Management District.

RESPONSE: Please see the revised Development Agreement.

2. Section 1. (j) Transportation, Streets and Sidewalks: Revels Road and the Spine Road must have a minimum 90-foot right-of-way, 2' curb and gutter, and a minimum 32-foot-wide pavement with 12-foot travel lanes and 4' curb lanes.

RESPONSE: Please see the revised Development Agreement.

Thank you in advance for your consideration of the above information. If you require further information, please do not hesitate to contact me at 607.216.2390 or rlopes@rviplanning.com

Sincerely,

RVi Planning + Landscape Architecture

Rhea Lopes, AICP
Project Manager

Enclosures

cc: Alexis Crespo, RVi Planning + Landscape Architecture
Jason Humm, ASF TAP FL I LLC
Jonathan Huels, Lowndes Law Group



Planning & Zoning Board Meeting

December 21, 2023 at 6:00 PM
 Howey-in the-Hills Town Hall
 101 N. Palm Ave.,
 Howey-in-the-Hills, FL 34737

MINUTES

CALL TO ORDER ROLL CALL

BOARD MEMBERS PRESENT:

Board Member Alan Hayes | Board Member Richard Mulvany | Board Member Ellen Yarckin | Board Member Shawn Johnson | Board Member Frances Wagler | Vice-Chair Ron Francis III | Chair Tina St. Clair

STAFF PRESENT:

Sean O'Keefe, Town Manager | John Brock, Town Clerk | Tom Harowski, Town Planner | Tom Wilkes, Town Attorney

CONSENT AGENDA

Routine items are placed on the Consent Agenda to expedite the meeting. If a Planning & Zoning Board Member wishes to discuss any item, the procedure is as follows: (1) Pull the item(s) from the Consent Agenda; (2) Vote on the remaining item(s); and (3) Discuss each pulled item and vote.

1. Consideration and Approval of the November 16, 2023, Planning and Zoning Board Meeting minutes.

Motion made by Board Member Johnson to approve the Consent Agenda; seconded by Board Member Mulvany. Motion approved unanimously by voice-vote.

Voting

Yea: Board Member Hayes, Board Member Mulvany, Board Member Yarckin, Board Member Johnson, Board Member Wagler, Vice-Chair Francis III, Chair St. Clair

Nay: None

PUBLIC HEARING

2. Consideration and Recommendation: **Mission Rise Development PUD Rezoning Submittal**

Town Planner, Tom Harowski, introduced and explained this item. Mr. Harowski reviewed his staff report with the Board. Mr. Harowski explained that the project included 499 single-family homes with lots measuring 55' x 120' and 75' x 120'.

Mr. Harowski summarized that the applicants have presented a conceptual plan that meets the minimum Village Mixed Use requirements as presented in Future Land Use Policy 1.1.1 and that the proposed development agreement includes setbacks that address the issues related to onsite parking and adequate area to accommodate accessory structures.

Mr. Harowski explained to the Board that there were three options before the Board. Those options included: recommending approval of the proposed development as submitted; recommending denial of the proposed application (based on a failure to comply with Policy 1.1.2 regarding community character, the addition of traffic to road segments that are projected to fall below the level of service standard [even though the road segments will still fail without the project], failure to comply with Policy 1.2.6 on the allocation of residential density in the community, and/or other findings that the Planning Board may determine); or recommending a conditional approval providing the project make some changes.

Chair St. Clair asked the applicant to introduce themselves and give their presentation to the Board. Jonathan Huels (Attorney for the applicant) introduced himself and the group of applicant representatives. They included Jason Humm (Owner Representative), Jacqueline St. Juste (Engineer), Charlotte Davidson (Transportation Planner), Mark Ausley (Biologist), Jack Caldwell (Landscape Architect), and Alexis Crespo (Planner). Ms. Crespo gave the applicant's presentation to the Board.

Board Member Yarckin quoted proposed changes to the Town's Comprehensive Plan that would require developers to have at least 50% of all Single-Family Residences to have a minimum area of 10,800 square feet and the applicant's biggest lots were only 9,000 square feet. Mr. Huels stated that this is a policy under consideration and has not yet been adopted and the applicant has been working with the existing regulations.

Chair St. Clair open Public Comment for this item only.

Eric Gunesch, 448 Avila Place – Mr. Gunesch stated that he wanted a recommendation of denial until the applicant comes back with a site plan that follows the Town's MDR-2 zoning requirements.

Greg Kiffer, 11348 Valley View Dr., Howey-in-the-Hills (unincorporated Lake County) – Mr. Kiffer had questions about school concurrency. Mr. Kiffer was concerned about the traffic getting worse in the area.

Frank Martinez, 10400 Woodland Hills Ct., Howey-in-the-Hills (unincorporated Lake County) – Mr. Martinez stated that he appreciated the applicant's consideration as it relates to the connection to Orange Blossom on the south side of the project but does not think it is enough. Mr. Martinez stated that he wanted a recommendation for denial.

Nathaniel White, Owner of Contours Landscaping Solutions – Mr. White was concerned about the flow of traffic around his business and wanted an access to the neighborhood through the south side of his property.

Janice McLain, 109 S Lakeshore Blvd. – Ms. McLain stated that she thought her 65' wide lot that she lives on is too small and that she wanted the Board to make a recommendation of denial.

Tim Everline, 1012 N Lakeshore Blvd. – Mr. Everline stated that Florida is no longer a paradise due to growth. Mr. Everline stated that he believed the lots were too small and that Number Two Rd. may not be fixed in 10 years. Mr. Everline stated that he wanted a recommendation for denial.

Ken Dunsmoor, 9950 Orange Blossom Rd., Howey-in-the-Hills (unincorporated Lake County) – Mr. Dunsmoor stated that he did not think they could stop people from exiting out onto Orange Blossom Rd. and he was not in favor of this proposed development.

David Miles (Town Councilor), 500 E Camelia Way – Councilor Miles stated that he thinks 100% of all future lots should be at least 10,800 square feet and reminded the audience that he had stated this in a recent Town Council Meeting. Councilor Miles stated that he thought the Town’s staff was dragging their feet on getting the Town’s Comprehensive Plan amended.

Councilor Miles stated that he will make a motion in a future Town Council meeting to put a moratorium on building within the Town if they cannot come get this developer to change their path.

Councilor Miles asked the Planning and Zoning Board to reject this proposal. Councilor Miles stated that this proposal would not get his vote and that it would not get several other Councilors’ votes.

Sandy Russ, 6813 Lakeview Dr. Yalaha, FL. – Mrs. Russ stated that she did not think Number Two Road could handle more traffic. Mrs. Russ wanted to know what employment opportunities this development would bring. Mrs. Russ stated that the board should not recommend approval.

Chair St. Clair closed Public Comment for this item.

Mr. Huels addressed several points from the public’s comments.

Board Member Wagler stated that Number Two Rd was a major concern and was dangerous. Board Member Wagler stated the Planning and Zoning Board and Town Council were in favor of restoring larger lot sizes for the Town.

Board Member Mulvany said that the Town Planner has told developers to look at lot sizes and to look at keeping traffic off of Number Two Rd. and developers have yet to come back with larger lots. Board Member Mulvany stated that 55’ x 120’ was an unacceptable size for a lot.

Vice-Chair Francis stated that his 1/4-acre lot was too small and 55’ x 120’ lot was also too small.

Mr. Wilkes explained that the property that the Board was reviewing was currently zoned as PUD and without an active Development Agreement the owners could not develop their land. Mr. Wilkes explained that there had to be a negotiated agreement between the Town and the landowner. Mr. Wilkes explained that the Town cannot refuse to give the landowners a Development Agreement, and that there needed to be a reasonable negotiation. The Planning and Zoning Board was tasked with making a recommendation to the Town Council.

Board Member Wagler asked if the applicant had secured wastewater rights yet. Mr. Huels stated that they had not yet, but that the Development Agreement would have a time frame to allow for them to secure the rights.

Board Member Yarckin stated that she liked the clubhouse and the trail head, but she only wanted to allow them to have 250 homes in the development.

Board Member Wagler made a motion that was seconded by Board Member Yarckin. Board Member Wagler moved that the Planning and Zoning Board recommend approval of Ordinance 2024-001 and the Village Mixed Use PUD for Mission Rise only if the proposed Development Agreement is modified to include:

- 1) 80% of the residential lots can be no smaller than 1/4 acre in size (10,890 sq feet) – the remainder of the lots can be 75' lots as proposed by the applicant.
- 2) Access to Number Two Rd can be constructed but cannot be open to access until Phases 1 and 2 have been completed and access to Number Two Rd shall be constructed and ready to open before a certificate of occupancy is issued for 50% of the lots in Phase 3.

3) The open space area between Phase 2 and Phase 3 shall be redesigned to eliminate the drainage ponds (as recommended in the Town Planner's staff report).

Board Member Hayes made a motion to amend the current motion to require 100% of all the residential lots to be 1/4 acre lots. There was no second to his motion to amend the standing motion, so the motion to amend died.

Motion made by Board Member Wagler; seconded by Board Member Yarckin. Board Member Wagler moved that the Planning and Zoning Board recommend approval of Ordinance 2024-001 and the Village Mixed Use PUD for Mission Rise only if the proposed Development Agreement is modified to include:

- 1) 80% of the residential lots can be no smaller than 1/4 acre in size (10,890 sq feet) – the remainder of the lots can be 75' lots as proposed by the applicant.**
- 2) Access to Number Two Rd can be constructed but cannot be open to access until Phases 1 and 2 have been completed and access to Number Two Rd shall be constructed and ready to open before a certificate of occupancy is issued for 50% of the lots in Phase 3.**
- 3) The open space area between Phase 2 and Phase 3 shall be redesigned to eliminate the drainage ponds (as recommended in the Town Planner's staff report).**

Motion was approved by roll call vote.

Voting

Yea: Board Member Mulvany, Board Member Yarckin, Board Member Johnson, Board Member Wagler, Vice-Chair Francis III, Chair St. Clair

Nay: Board Member Hayes

3. Consideration and Recommendation: Ordinance 2023-013 Comprehensive Plan Amendment - Future Land Use Element

Town Planner, Tom Harowski, introduced and explained this item. Mr. Harowski reviewed his staff report with the Board. Town Attorney, Tom Wilkes, explained that this Ordinance would amend the Town Comprehensive Plan and would create limitations on future Town Councils.

Mr. Harowski said that, if you limit the lot size too much, the developers would not be able to create amenities to their developments.

Board Member Yarckin stated that she wanted a moratorium on all development within the Town until after the Town changes its Comprehensive Plan and LDC.

Chair St. Clair open Public Comment for this item only.

David Miles (Town Councilor), 500 E Camelia Way – Councilor Miles stated that three developers had already taken advantage of the Town. Those three developments were filled with affordable housing due to the small lot sizes. Councilor Miles stated that he had provided 12 pages of recommendations for amendments to the Comprehensive Plan and LDC. Councilor Miles submitted those recommendations in June of 2023. Councilor Miles had stated that many of the recommendations were designed to create larger setbacks.

Councilor Miles reminded everyone that the Talichet neighborhood had no amenities and narrow streets. Councilor Miles also stated that he wanted to get rid of PUDs in the Town.

Tim Everline, 1012 N. Lakeshore Blvd. – Mr. Everline stated that Mission Inn was not what it was, people do not like the small lots in Las Colinas and people cannot get tee times on the golf course because there are too many people living there. Mr. Everline stated he had met with a Talichet resident that told him that they didn't like cars parked on the street in their neighborhood.

David Miles (Town Councilor), 500 E Camelia Way – Councilor Miles stated he wanted a High Density Residential (HDR)-1 and a HDR-2 zoning category to be created. Councilor Miles wanted to know if the Planning and Zoning Board had received all of the Comprehensive Plan and Land Development Code (LDC) comments that the Town Councilors had created and submitted to Mr. Harowski. Many of the Planning and Zoning Board members stated that they had not and would like a copy of them.

Joshua Husemann, 671 Avila Pl. – Mr. Husemann suggested that the Town should create rules that only allow parking on one side of the road to make it easier for emergency vehicles to travel through the Town. Mr. Husemann was also concerned that, if the Town did not allow PUDs in the future, it would remove potential for new parks.

Greg Kiffer, 11348 Valley View Dr., Howey-in-the-Hills (unincorporated Lake County) – Mr. Kiffer stated that, with the size of homes these days, 1/4 of an acre lot may not be big enough.

Chair St. Clair closed Public Comment for this item.

Board Member Wagler reviewed Policy 1.2.6 and recommended striking the current version and rewriting it. After discussion by the Board, it was decided Policy 1.2.6 should be changed to the following:

Reorientation of Residential Densities. The Town may allow lot sizes smaller than one-fourth acre (10,890 sq. ft.) only in the following locations: areas in or adjacent to the Town center (e.g., the Town central commercial district) and areas abutting major arterial road corridors such as state roads and county roads, not neighborhood roads with higher traffic counts and areas abutting commercial or industrial land uses. The Town shall require single family residential lots in all other areas to be one-fourth of an acre (10,890 sq. ft.) or larger.

Motion made by Board Member Wagler to strike through the original Policy 1.2.6 and amend it to the above listed policy; seconded by Board Member Hayes. Motion approved unanimously by roll call vote.

Voting

Yea: Board Member Hayes, Board Member Mulvany, Board Member Yarckin, Board Member Johnson, Board Member Wagler, Vice-Chair Francis III, Chair St. Clair

Nay: None

Motion made by Board Member Hayes recommend approval of the amended Ordinance 2023-013; seconded by Board Member Johnson. Motion approved unanimously by roll call vote.

Voting

Yea: Board Member Hayes, Board Member Mulvany, Board Member Yarckin, Board Member Johnson, Board Member Wagler, Vice-Chair Francis III, Chair St. Clair

Nay: None

OLD BUSINESS

None

NEW BUSINESS

None

PUBLIC COMMENTS

Any person wishing to address the Planning and Zoning Board and who is not on the agenda is asked to speak their name and address. Three (3) minutes is allocated per speaker.

David Miles (Town Councilor), 500 E Camelia Way – Councilor Miles thanked the Planning and Zoning Board for their hard work.

Janice McLain, 109 S Lakeshore Blvd - Mrs. McLain stated that there was a stop sign and a Do Not Enter sign posted before an alleyway in front of her house. Mrs. McLain stated that no one pays attention to the signs, and she wanted them removed. Sean O’Keefe, Town Manager, said that he would speak with Mrs. McLain after the meeting.

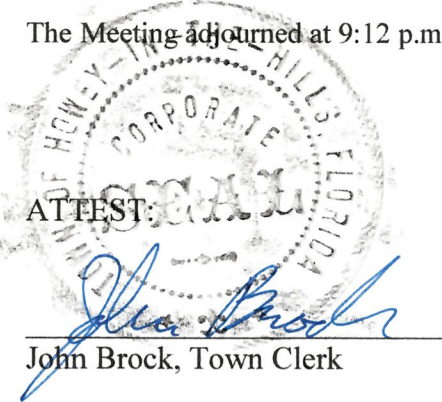
BOARD COMMENTS

Board Member Mulvany stated that he wanted the Board to discuss a letter that the Town had received from Lake County in reference to Number Two Road and he wanted it added to the next Board Meeting’s agenda.

ADJOURNMENT

There being no further business to discuss, a motion was made by Board Member Yarckin to adjourn the meeting; Vice-Chair Francis III seconded the motion. Motion was approved unanimously by voice vote.

The Meeting adjourned at 9:12 p.m. | **Attendees: 38**



Tina St. Clair

Tina St. Clair Chairperson



MISSION RISE PUD REZONE

Town of Howey-in-the-Hills Town Council

March 11, 2024

- ❖ Jason Humm, ASF TAP FL I LLC
- ❖ Jonathan Huels, Lowndes
- ❖ Mike Ripley, Land Advisors
- ❖ Jacqueline St. Juste, Atwell
- ❖ Charlotte Davidson, Traffic Mobility Consultants
- ❖ Mark Ausley, Bio-Tech Consulting
- ❖ Jack Caldwell, Alexis Crespo & Rhea Lopes, RVi Planning + Landscape Architecture

PROJECT TEAM

MISSION RISE PUD

REQUEST SUMMARY

Rezone 243 acres from PUD to PUD to allow for a maximum of 438 single-family dwelling units, public and private recreational amenities, 90+/- acres of combined open space and wetland preservation areas, and substantial public benefits via binding Developers Agreement

PROJECT TIMELINE



VMU FUTURE LAND USE

Future Land Use	Maximum Density/Intensity	Description	
Village Mixed Use (VMU)	Must have a minimum of 25 acres for this land use. 4 dwelling units per acre; may be increased to 6 dwelling units per acre if the development includes 20% usable public open space (no wetlands).	A mix of uses is permitted and required in this category in order to promote sustainable development, including the provisions of	2.86 DU/NA
	Residential areas shall comprise a minimum of 70% of the Net Land Area and a max. of 85% of the Net Land Area.	the automobile, protecting	84.5%
	Commercial/non-residential areas shall comprise a minimum of 15% of the Net Land Area and a maximum of 30% of the Net Land Area. This includes community facilities and schools.	more open land, and providing quality of life by allowing people to live, work, socialize, and recreate in	15.5%
	For developments with more than 100 acres, 5% of the non-res. land shall be dedicated for public/civic buildings.	close proximity. Elementary, middle, and high schools are also permitted in this category.	5.7%
	Commercial/non-residential may be 2 stories with 50% coverage as long as parking and other support facilities (stormwater) are met.		
	Public recreational uses must occupy a minimum of 10% of the useable open space (no wetlands).		17.4%
	A minimum of 25% open space is required.		28.5%

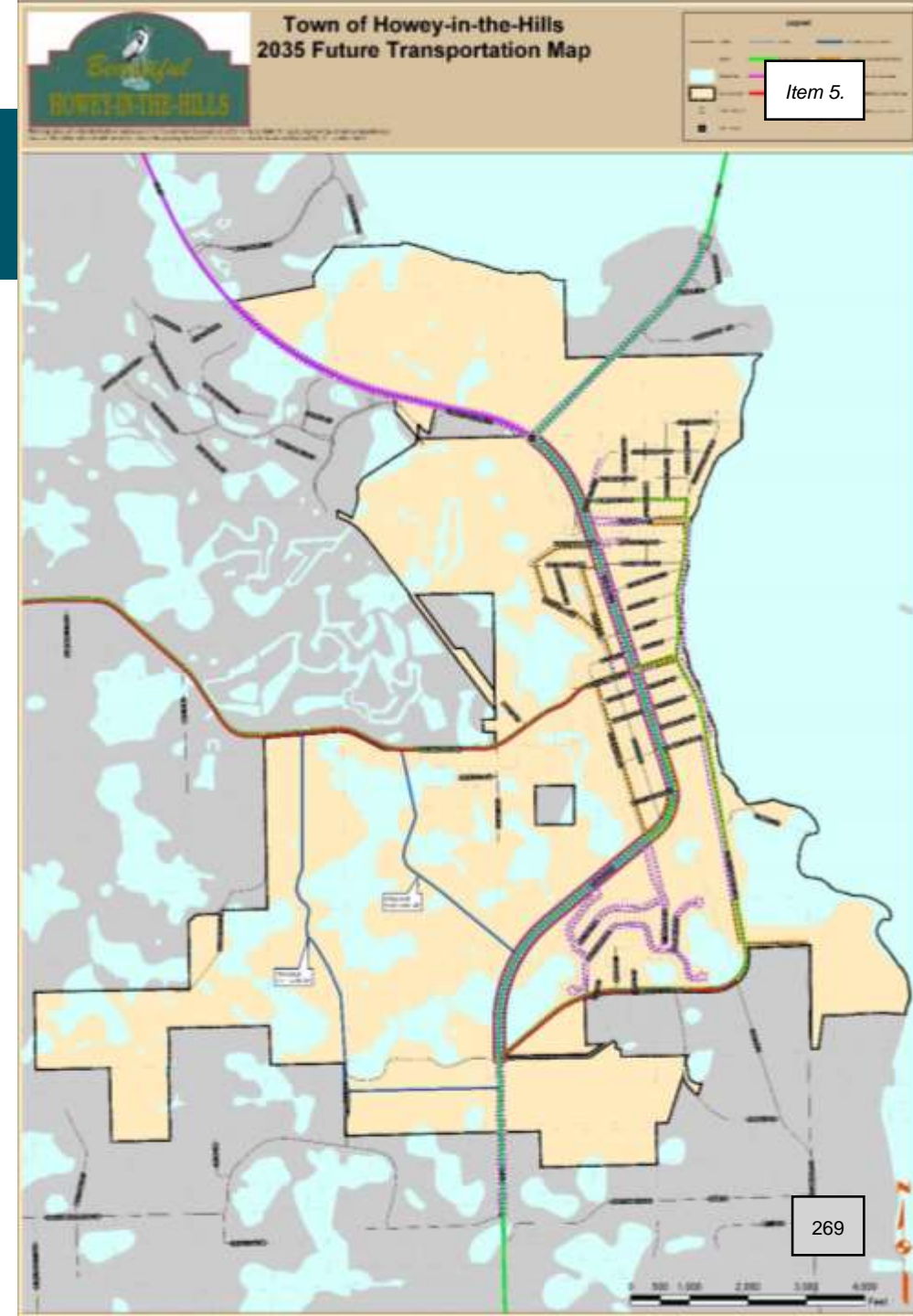
TRANSPORTATION

- 90' Collector Roadway

7. Deficiencies in Town

Currently, there are no LOS deficiencies for roads in Town. Most of the roads have additional capacity to support growth. The primary transportation issue in Howey-in-the-Hills in the future will be SR 19. Although most of the traffic on SR 19 is through traffic that does not originate nor end in Howey-in-the-Hills, the Town understands the need to address this issue.

The Town has also addressed the issue of SR 19 with regards to new growth in the development review process. Two large planned unit developments that lie between SR 19 and County Road No. 2 were required to include collector roads within their developments that would connect SR 19 with County Road No. 2. These future roadways will allow for better distribution of traffic and prevent all trips from having to use SR 19 through the downtown area. As future growth is proposed in Howey-in-the-Hills, the Town will continue to ensure that the road network provides for the most efficient system and that alternative modes of transportation are encouraged. The Town's emphasis on mixed use developments and the redevelopment of the Town Center to a live-work environment will also help to alleviate traffic on SR 19 and the road network overall.



AREAS OF CONCERN

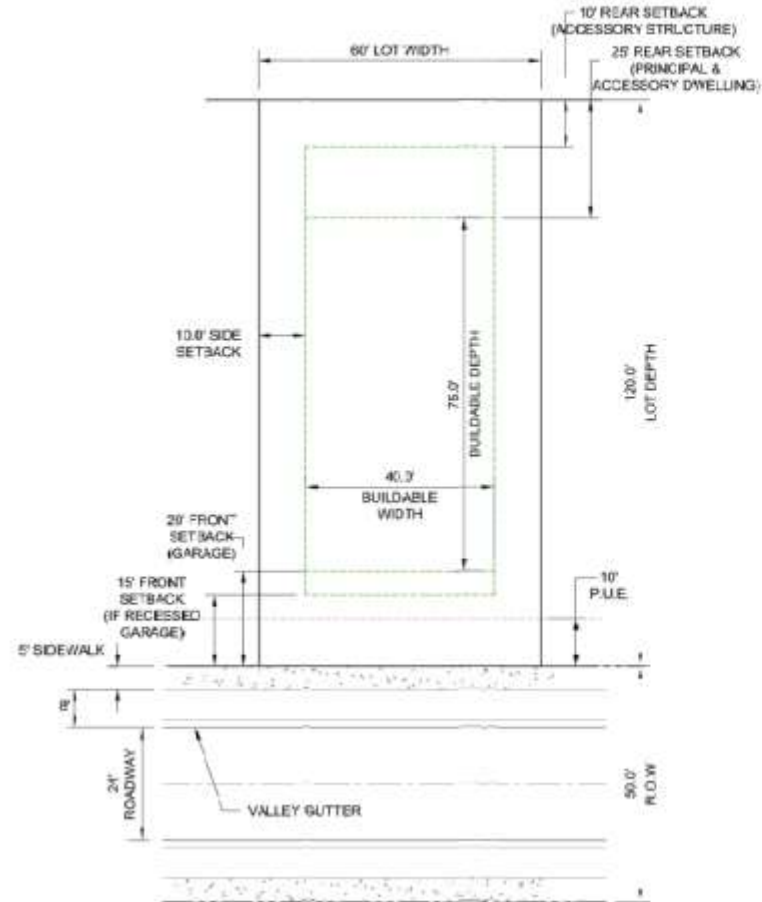
1. Lot Sizes
2. Project Density
3. Amenities/Park Commitments
4. Stormwater Areas Between Phase 2/3
5. Alley Width



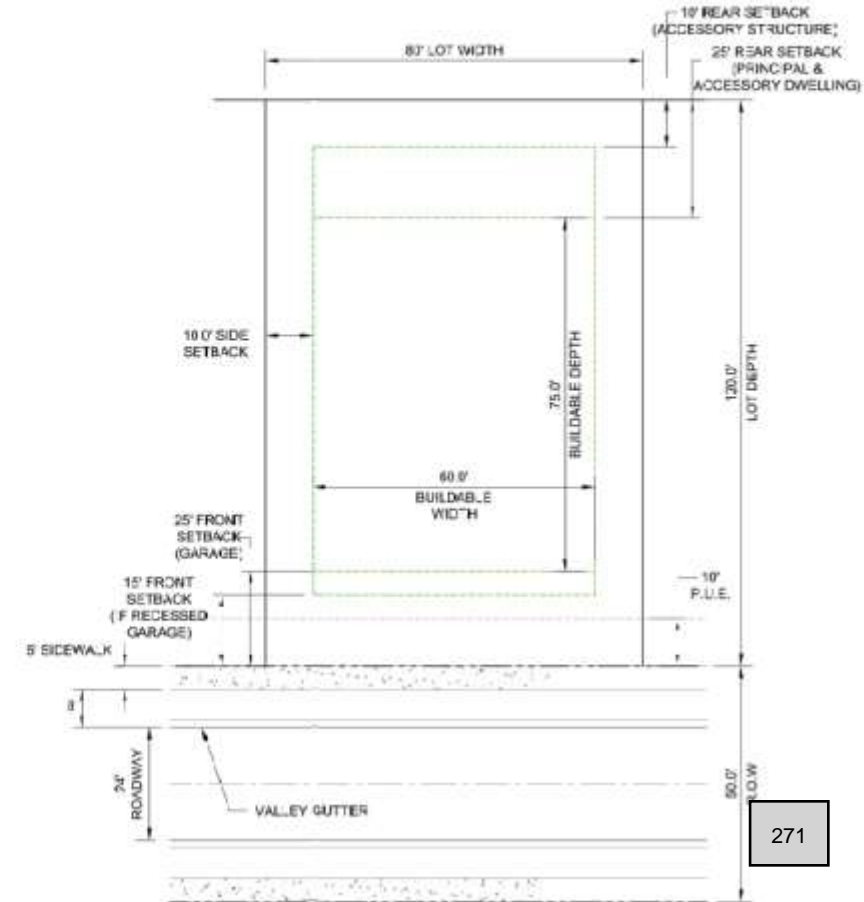
1 – LOT SIZES

- 55' → 60'
- 75' → 80'
- 10' side setbacks

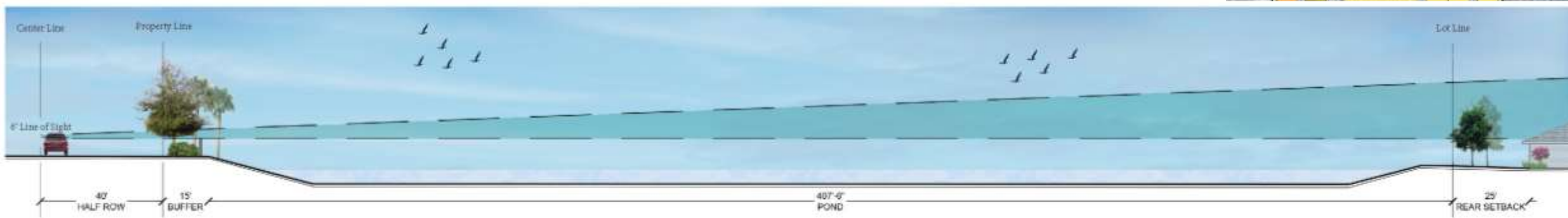
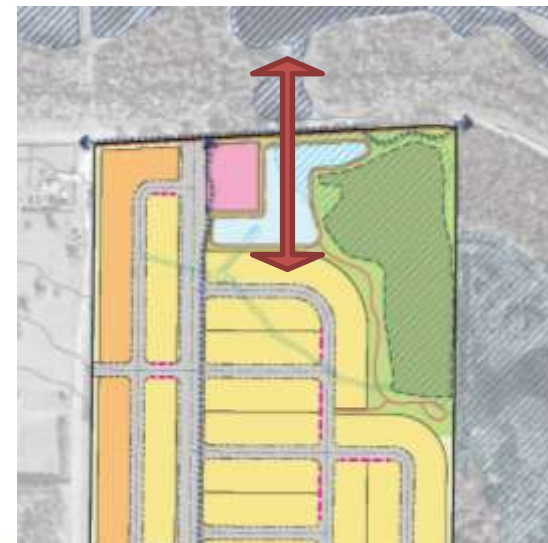
60' LOT FRONT LOAD GARAGE



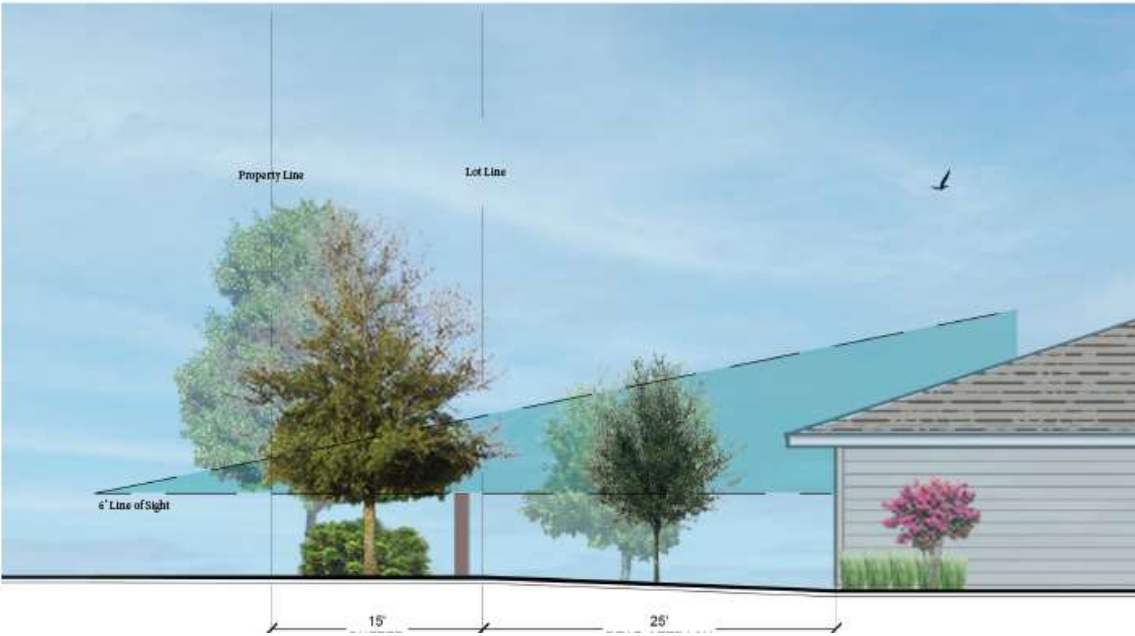
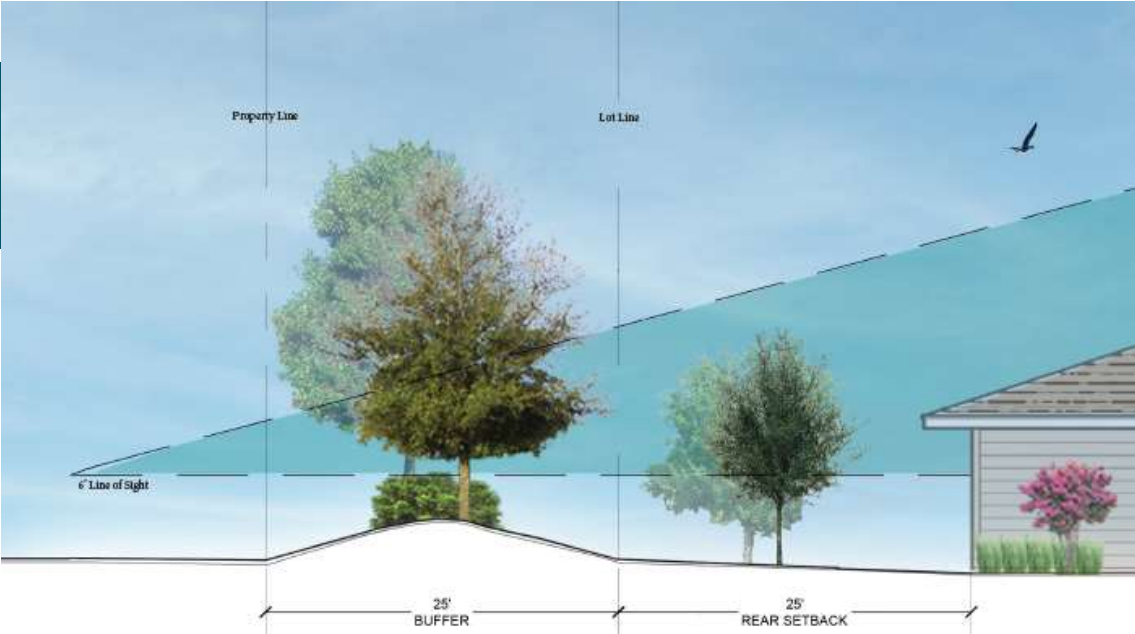
80' LOT FRONT LOAD GARAGE



COMPATIBILITY – SITE LAYOUT



COMPATIBILITY - BUFFERS



COMPATIBILITY - DESIGN



2 – PROJECT DENSITY

- Reduced Density from 499 to 438 units
- 2.86 DU/NA (Net Acreage: 153 AC)

POLICY 1.1.4:

Interpretation of Open Space and Density Designations. Open space is figured on the Gross Land Area. Up to 50% of the open space requirement may be met with wetlands. Open space may include landscaped buffers and stormwater facilities if they are designed to be a park-like setting with pedestrian amenities and free form ponds. Open space may be passive or active. Open space may include public recreational components of developments. The majority of the open space shall be permeable; however, up to 10% may be impervious (plazas, recreational facilities, etc.). Wet ponds are not counted as part of that 10%.

Densities would be determined by the Net Land Area. The Net Land Area is figured by taking the Gross Land Area (total property less any lakes or water bodies), then subtracting from that any open space requirements, then subtracting from that any remaining unbuildable acreage (remaining wetlands).



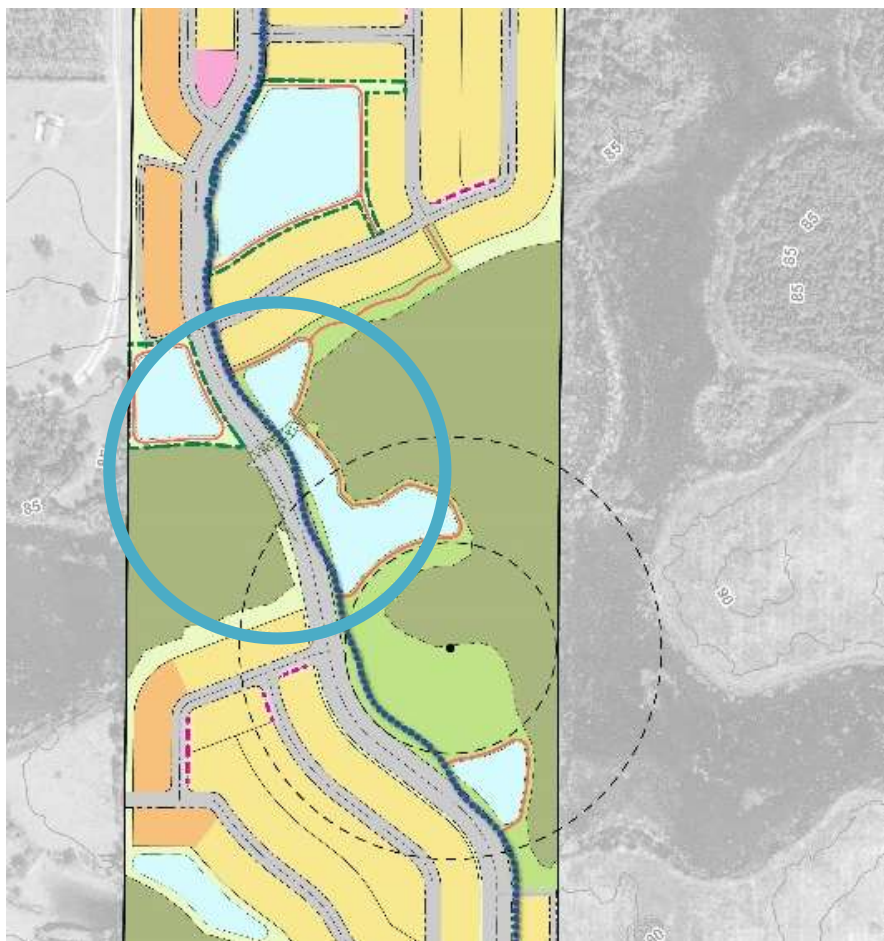
3 – AMENITIES/PARK COMMITMENTS

PARK & AMENITY FEATURES			
Amenity / Park	Acreeage	Access Restrictions	Minimum Features
Trail Head Site	1.3 Ac	Public	Restrooms, benches, picnic tables, bike repair station, cooling station, pet station(s)
Trail Head Park	0.6 Ac	Public	Benches, pathway(s)
Amenity 1	1.2 Ac	Private	Dog park or tot lot; flex lawn, benches, picnic table(s)
Amenity 2	4.0 Ac	Private	Pool & Cabana, Pickball Court(s), tot lot, flex lawn, pet station(s), pathways, gathering area
Neighborhood Park 1	2.2 Ac	Public	Benches, picnic table(s), exercise station(s), flex lawn, pet station, gathering area
Neighborhood Park 2	8.2 Ac	Public	Benches, picnic table(s), flex lawn, pathways, exercise station(s), gathering area, pet station(s)
Mini Park	0.4 Ac	Private	Benches, picnic table(s), flex lawn, pet station, gathering area
Neighborhood Park 3	3.9 Ac	Public	Benches, picnic table(s), flex lawn, pathways, gathering area, pet station(s)
Amenity 3	1.2 Ac	Private	Dog park or tot lot; flex lawn, benches, picnic table(s)
Total	23.0 Ac		

Note: Features may be change with the approval of the Town Council during the Subdivision Plan process without necessitating a change to these plans.



4 – STORMWATER AREAS



MARCH 11, 2024



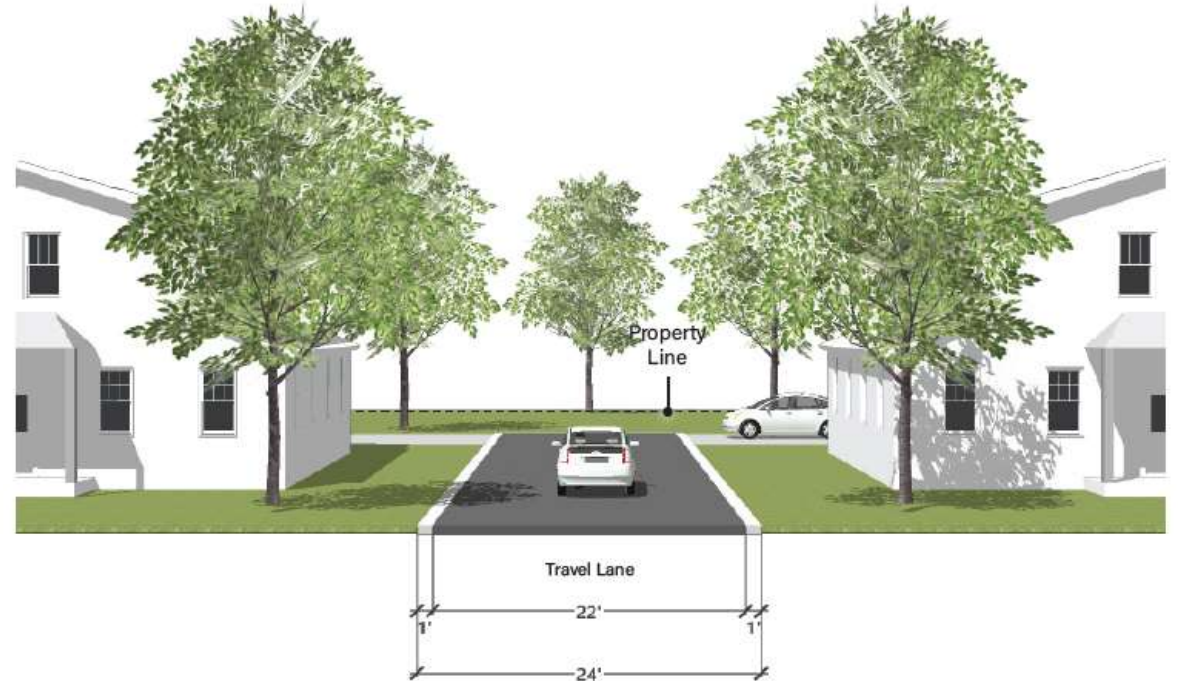
MISSION RISE PUD

5 – ALLEY WIDTH

ALLEY ROAD
OPTION 1 - PARALLEL 24' ROW



OPTION 2 - PAIRED 24' ROW



PUBLIC BENEFITS OF PROJECT

- Open Space: 69.4 AC (28.5%)
- 99% Wetland Preservation (\pm 60.1 AC) & Eagle's Nest Buffer
- \pm 23.0 AC of Parks/Amenity Areas
- On-site Active Recreational Amenities
- 12' Wide Multiuse Trail & Trail Head Site
- 90' Wide Collector Roadway
- Intersection Improvements at SR 19 & Revels Road



- CONSISTENT with the Comprehensive Plan & LDC
- CONTEXT-SENSITIVE Site Design
- ENVIRONMENTAL Preservation
- SUBSTANTIAL PUBLIC BENEFITS via roadway improvements, public parks & multi-use trail system

CONCLUSION

MISSION RISE PUD

THANK YOU!

QUESTIONS?

ORDINANCE NO. 2024 - 004

AN ORDINANCE OF THE TOWN OF HOWEY-IN-THE-HILLS, FLORIDA, PERTAINING TO FIREWORKS; CREATING CHAPTER 93 OF THE TOWN’S CODE OF ORDINANCES, ENTITLED “FIREWORKS”; DECLARING FINDINGS OF THE TOWN COUNCIL; PROVIDING DEFINITIONS; SPECIFYING UNLAWFUL ACTS AND MEANS OF ENFORCEMENT; SPECIFYING THE CONDITIONS AND REQUIREMENTS UNDER WHICH THE TOWN MAY GRANT A PERMIT FOR A PUBLIC DISPLAY OF FIREWORKS; PROVIDING FOR SEVERABILITY, CONFLICTS AMONG ORDINANCES, CODIFICATION, AND AN EFFECTIVE DATE.

Be It Ordained by the Town Council of the Town of Howey-in-the-Hills, Florida:

Section 1. The title of Chapter 93 of the Code of Ordinances for the Town of Howey-in-the-Hills, Florida, is revised to read “Fireworks.” Reference to Article I of Chapter 93 is deleted.

Section 2. Sections 93-1, 93-2, and 93-3 of the town code are created to read:

Sec. 93-1. General.

A. Town Council findings. The Town Council finds that the Town of Howey-in-the-Hills is predominately a residential town, with few nonresidential properties. The detonation and explosion of fireworks within the Town’s boundaries, whether by untrained individuals or by persons trained in the Code of Fireworks Display approved by the American National Standards Institute, can impose material risks to public safety and property. For that reason the detonation of fireworks is subject to the prohibitions and restrictions of this chapter.

B. Definitions. In this chapter “fireworks” and other terms have the meanings ascribed to them in Chapter 791 of Florida Statutes. “Pyrotechnics” means

1 “fireworks.” The phrase “public display of managed pyrotechnics” has the
2 same meaning as the phrase in Chapter 791 “public display of fireworks”.
3

4 **Sec. 93-2. Unlawful acts; violations.**

5 A. It is unlawful to use, detonate, or explode fireworks within the boundaries of
6 the town at any time other than the following:
7

- 8 1. New Year’s Eve, December 31, between 5:00 P.M. and 12:30
9 A.M.;
- 10 2. New Year’s Day, January 1, between 4:00 P.M. and 10:00 P.M.;
- 11 and
- 12 3. Independence Day, July 4, between 4:00 P.M. and 10:00 P.M.
13

14 B. Violation of subsection A and other provisions of this chapter will be subject
15 to prosecution of a first-degree misdemeanor as provided in section 791.06
16 of Florida Statutes or enforced through town code-enforcement proceedings
17 under Chapters 162 and 166, Florida Statutes.

18 **Sec. 93-3. Public displays of managed pyrotechnics.** A permit for the privilege
19 of conducting within the boundaries of the town a supervised public display of
20 managed pyrotechnics may be granted, but only under the following conditions:

21 A. By written resolution or by motion and vote the Town Council has
22 authorized conducting public displays of managed pyrotechnics and has not
23 rescinded its authorization; and
24

25 B. The public display will occur only on one of the three dates, and only during
26 the times, specified in section 93-2. Notwithstanding the foregoing, a public
27 display of managed pyrotechnics may be conducted on a different date or at
28 a different time upon its approval either by written resolution or by express
29 motion and vote by the Town Council; and
30

31 C. As contemplated under section 791.012 of Florida Statutes, the public
32 display of managed pyrotechnics will be governed by and conducted in full
33 and strict compliance with the requirements of the National Fire Protection

1 Association (NFPA) 1123, Code for Fireworks Display, 1995 Edition,
2 approved by the American National Standards Institute; and
3

4 D. As contemplated under section 791.02 of Florida Statutes, both the town’s
5 police chief and the county fire chief determine that the operator is
6 competent to conduct the managed pyrotechnics display; and
7

8 E. As contemplated under section 791.02 of Florida Statutes, the county fire
9 chief determines that the managed pyrotechnics display is of such a nature
10 and will be so located, discharged, and fired as, in the fire chief’s opinion
11 after proper inspection, will not be hazardous to property and will not
12 endanger persons; and
13

14 F. The operator of the public display of managed pyrotechnics complies with
15 all conditions, requirements, and safety precautions imposed by both the
16 police chief and the county fire chief; and
17

18 G. The operator of the public display of managed pyrotechnics pays to the
19 town, before the display occurs, all costs incurred or estimated to be incurred
20 by the town and the county in connection with the public display; and
21

22 H. The town clerk issues the permit for the public display, but only after
23 confirmation from the police chief and the fire chief that the requirements of
24 C, D, E, and F have been fulfilled and the operator of the public display has
25 paid in full all actual and expected costs as required under G.

26 **Section 3. Severability.** If any part of this ordinance is declared by a court of
27 competent jurisdiction to be void, unconstitutional, or unenforceable, the
28 remaining parts of the ordinance shall remain in full effect. To that end, this
29 ordinance is declared severable.

30 **Section 4. Conflicts.** In a conflict between this ordinance and other existing
31 ordinances, this ordinance shall control and supersede.

32 **Section 5. Codification.** The provisions of sections 1 and 2 of this ordinance are
33 to be codified in Chapter 93 of the Code of Ordinances for the Town of Howey-in-
34 the-Hills, Florida. No other sections are to be codified.

1 **Section 6. Effective Date.** This ordinance shall take effect upon its enactment.

2

3 **ORDAINED AND ENACTED** this ____ day of _____, 2024, by the
4 Town Council of the Town of Howey-in-the-Hills, Florida.

5

6 **TOWN OF HOWEY-IN-THE-HILLS,**
7 **FLORIDA**

8 **By:** its Town Council

9 By: _____
10 Hon. Martha MacFarlane, Mayor

11
12 **ATTEST:**

APPROVED AS TO FORM AND LEGALITY:
(for the use and reliance of the Town only)

14

15 _____
16 John Brock, Town Clerk

Thomas J. Wilkes, Town Attorney

17

18

19 First Reading held March 11, **2024**

20 Second Reading and hearing held _____, **2024**

21 Public hearing advertised _____, **2024**

1

2 #52947081 v5



Commissioner Kirby Smith
Commissioner, District 3

March 12, 2024

Mayor Martha MacFarlane
Town of Howey-in-the-Hills
101 North Palm Avenue
Howey-in-the-Hills, FL 34737

RE: The Reserve at Howey-in-the-Hills & Mission Rise

Dear Mayor MacFarlane:

On behalf of the Board of County Commissioners, I am reaching out to you regarding concerns associated with the preliminary concept plan for The Reserve at Howey-in-the-Hills and Mission Rise subdivisions. The Reserve project consists of approximately 378 acres and the Mission Rise project consists of approximately 243 acres of property, both generally located north of Revels Road and South Palm Avenue, south of Number Two Road and straddling South Mare Avenue.

The Reserve already has zoning approval from the Town and contemplates approximately 740 single-family units, comprised of both detached and townhomes, 300,000 square feet of Retail/Office Commercial and up to 100,000 square feet of Institutional uses. Mission Rise is in the approval process and proposes to add an additional 499 single family units to this geographic area. It is the County's understanding that these two projects will be interconnected.

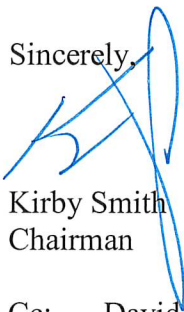
Number Two Road is classified as a Rural Minor Collector and is 6 miles in length from SR 19 to CR 48. It has been in place for at least 100 years and was first paved around 1970. It was constructed as primarily a farm to market road and has low traffic volumes. The required lane width for a Rural Minor Collector is 12-foot for a 24-foot width road; however, some portions of Number Two Road do not even meet the most minimum standards of 9-foot lane width. Increasing the traffic along Number Two Road with large developments such as The Reserve at Howey-in-the-Hills and Mission Rise will cause increased deterioration of the pavement edge and shoulders, and will result in a significant increase in maintenance and repair costs to the County.

Based on the size and mixed-use components of these projects, and the existing road conditions of Number Two Road, the Board of County Commissioners is requesting that the Town limit access to Number Two Road for emergency vehicles only, to include the installation of a gate equipped with an approved public safety access opening system.

This would allow for the provision of emergency services from a secondary access point to the residents of The Reserve and Mission Rise, while limiting the degradation of Number Two Road from high vehicular traffic that should otherwise be directed to SR 19. Alternatively, the Board requests that the Town require the access point from the development to Number Two Road to be designed and constructed as “right-turn” exit only, so that residential traffic is directed back to SR 19. This alternative would also help to alleviate the increased traffic by preventing new residents from using Number Two Road as a bypass to CR 48.

I look forward to working with the Town of Howey-in-the-Hills to make Lake County the best it can be. Please let me know if you have any questions or need any additional information.

Sincerely,



Kirby Smith
Chairman

Cc: David Miles, (via email only)
Dr. Renee Lannaman, (via email only)
George Lehning, (via email only)
Marie V. Gallelli, (via email only)