



CITY OF BELLE ISLE, FL

CITY COUNCIL MEETING - UPDATED

Held in City Hall Chambers 1600 Nela Avenue Belle Isle FL

Held the 1st and 3rd Tuesday of Every Month

Tuesday, April 18, 2023 * 6:30 PM

AGENDA

City Council Commissioners

Nicholas Fouraker, Mayor

Vice-Mayor – Jim Partin, District 7

District 1 Commissioner – Ed Gold | District 2 Commissioner – Anthony Carugno | District 3 Commissioner – Karl Shuck | District 4 Commissioner – Randy Holihan | District 5 Commissioner – Beth Lowell | District 6 Commissioner – Stan Smith

Welcome

Welcome to the City of Belle Isle City Council meeting. Agendas and all backup material supporting each agenda item are available in the City Clerk's office or website at www.belleislefl.gov. If you are not on the agenda, please complete the yellow "Request to Speak" form to be handed to the City Clerk. The Council is pleased to hear relevant comments and has set a three-minute limit. Rosenberg's Rules of Order guide the conduct of the meeting. Order and decorum will be preserved at all meetings. Personal, impertinent, or slanderous remarks are not permitted. Please silence all technology during the session. Thank you for participating in your City Government.

1. Call to Order and Confirmation of Quorum

2. Invocation and Pledge to Flag - Comm Gold, District 1

3. Consent Items - These items are considered routine and previously discussed by the Council. One motion will adopt them unless a Council member requests before the vote on the motion to have an item removed from the consent agenda and considered separately.

[a.](#) Approval of City Council Meeting Minutes - April 4, 2023

4. Citizen's Comments - Persons desiring to address the Council must complete and provide the City Clerk a yellow "Request to Speak" form. When the Mayor recognizes you, state your name and address and direct all remarks to the Council as a body, not individual council members, staff, or audience. Citizen comments and each section of the agenda where public comment is allowed are limited to three (3) minutes. Questions will be referred to staff and answered within a reasonable period following the meeting date.

5. Unfinished Business

[a.](#) Discuss the Wallace Park Use Agreement (Comm Carugno)

6. New Business

[a.](#) Ordinance 23-02 First Reading and Consideration - AN ORDINANCE OF THE CITY OF BELLE ISLE, FLORIDA REZONING THOSE CERTAIN PROPERTIES OWNED BY THE CITY OF BELLE ISLE LOCATED AT 5903 RANDOLPH AVENUE, 906 WALTHAM AVENUE, 6300 HANSEL AVENUE, "SUB OF HARNEY HOMESTEAD C/53 LOT 9 (LESS W 224.28 FT OF LOT 9 & LESS E 228.47 FT OF SAID LOT 9 & LESS R/W ON N & S)", AND 6049 RANDOLPH AVENUE, ALSO KNOWN AS ORANGE COUNTY TAX PARCELS # 24-23-29-3400-00-073, 24-23-29-3400-00-092, 24-23-29-3400-00-094, 24-23-29-3400-00-095, AND 24-23-29-3400-00-114, FROM C-1, C-2, R-1A, AND R-2 ZONING DISTRICTS TO PLANNED DEVELOPMENT DISTRICT (PD); REZONING THAT CERTAIN PROPERTY OWNED BY CORNERSTONE CHARTER ACADEMY, INC. LOCATED AT 5929 HANSEL AVENUE, ALSO KNOWN AS ORANGE COUNTY TAX PARCEL #24-23-29-8820-00-050, FROM C-1 ZONING DISTRICT TO PLANNED DEVELOPMENT DISTRICT (PD); REZONING THAT CERTAIN PROPERTY OWNED BY PINE CASTLE METHODIST CHURCH, INC. LOCATED AT 942 FAIRLANE AVENUE, ALSO KNOWN AS ORANGE COUNTY TAX PARCEL #24-23-29-3400-00-093, FROM C-1 ZONING DISTRICT TO PLANNED DEVELOPMENT DISTRICT (PD); PROVIDING FOR CERTAIN PERMITTED, PROHIBITED AND SPECIAL EXCEPTION USES AND DEVELOPMENT STANDARDS AND REQUIREMENTS WITHIN THE PLANNED DEVELOPMENT; DESCRIBING THE PLANNED DEVELOPMENT INCLUDING ALL THE AFORESAID PROPERTIES AS THE CORNERSTONE CHARTER ACADEMY PD; PROVIDING FOR SEVERABILITY AND AN EFFECTIVE DATE.

[b.](#) Travel Reimbursement for Howard Brown

[c.](#) Approval of Bing Grant for Winward on the Lake

[d.](#) Adopt BIPD Pay Plan Amendment and Approve Interim City Manager, Acting Chief, and Acting Deputy Chief Stipend

[e.](#) Discussion on Reinstating Council Work Sessions

7. Attorney's Report

"If a person decides to appeal any decision made by the Council with respect to any matter considered at such meeting or hearing, he/she will need a record of the proceedings, and that, for such purpose, he/she may need to ensure that a verbatim record of the proceedings is made, which record includes the testimony and evidence upon which the appeal is to be based."(F. S. 286.0105). "Persons with disabilities needing assistance to participate in any of these proceedings should contact the City Clerk's Office (407-851-7730) at least 48 hours in advance of the meeting." –Page 1 of 2

- 8. City Manager's Report**
 - a. Acting Chief Report
 - b. Public Works Report
- 9. Mayor's Report**
- 10. Items from Council**
- 11. Adjournment**
 - [a.](#) Cornerstone Charter Academy Expansion Documents



**CITY OF BELLE ISLE, FL
CITY COUNCIL MEETING**

Tuesday, April 04, 2023, * 6:30 pm
MINUTES

Present was:

- District 1 Commissioner – Ed Gold
- District 2 Commissioner – Anthony Carugno
- District 3 Commissioner – Karl Shuck
- District 4 Commissioner – Randy Holihan
- District 5 Commissioner – Beth Lowell
- District 7 Commissioner – Jim Partin

Absent was:

- Nicholas Fouraker, Mayor
- District 6 Commissioner – Stan Smith

1. City Council Swear-In District 1 and District 7

Interim City Manager Grimm administered Oath of Office for Comm Gold, District 1, and Comm Partin, District 7.

2. Call to Order and Confirmation of Quorum

Vice Mayor Partin called the meeting to order at 6:30 pm, and the City Clerk confirmed the quorum. Also present were Interim City Manager Grimm, Attorney Chumley, Acting Chief Millis, Public Works Director Phil Price, and City Clerk Yolanda Quiceno.

3. Invocation and Pledge to Flag

Vice Mayor Partin gave the invocation and led the pledge to the flag.

4. Presentations

- a. Introduction of Code Enforcement and Community Service Officer Julie Wilk
- b. Swear-In of Officer Britzzy Diaz
- c. Promotion of Corporal Lugo to Sergeant and Officer Gargano to Corporal

Acting Chief Millis swore in Officer Diaz and presented Sgt Lug and Corporal Gargano with their promotions. Acting Chief Millis welcomed and introduced Service Officer Wilk.

Vice Mayor Partin called for a motion to excuse Mayor Fouraker and Comm Smith from the meeting.

**Comm Holihan moved to excuse Mayor Fouraker and Comm Smith.
Comm Gold seconded the motion, which passed unanimously 6:0.**

5. Consent Items

- a. Approval of the City Council Meeting Minutes - March 20, 2023
- b. Approval of the City Council Meeting Minutes - March 21, 2023
- c. Approval of the City Council Special Called Session - March 27, 2023
- d. Proclamation Declaring May Neurofibromatosis Awareness Month

**Comm Holihan moved to approve the consent items as presented.
Comm Lowell seconded the motion, which passed unanimously 6:0.
Vice Mayor Partin read the Proclamation for the record.**

6. Citizen's Comments

Vice Mayor Partin called for citizen comments.

Mark Cronkite residing at 1925 Hoffner Avenue, opposed allowing RV parking on residential properties.

Jeanine Hollingsworth asked why a Code Enforcement Officer can't serve citations without having a resident report the citation and not suffer the consequences. In addition, why are we discussing RVs in residential districts? She said it had been discussed in detail at a previous meeting. She shared her concern and asked for clarification on placement, use, and front yard size.

7. Unfinished Business

a. Discuss Criteria for RV Parking and Survey Monkey Circulation

Interim City Manager Grimm said the City Council directed staff to look at the language that would allow for a waiver or special exception to allow recreational equipment to park in the front yard. Comm Carugno said he addressed the issue because some constituents requested clarification under Section 30-133(4). He opposes RVs in the front yard. However, several properties are 300-500 deep and may accommodate the use. He requested approval to add language to allow exceptions for RVs if screened from the street on a residential property.

Comm Carugno moved to direct the staff to draft an ordinance to change the RV parking code that would allow exceptions to RV parking on residential property to include "if lots that can store an RV in the back or front of the residents only if there is a home directly in front that would screen the RV from the street."

Comm Shuck seconded the motion.

Comm Lowell asked if the change to the Code would be easy for the Code Enforcement Officer to determine and if the homeowner is aware since this is a rental.

Interim City Manager Grimm said approval should be done in an open forum and asked if the special exception could come before the Council for approval.

Mr. Cronkite said he called the City on an RV parked on his neighbor's rental property for two years. The RV is obstructing his view and is allowed by the City. A few days later, Mr. Francis gave the resident a permit to allow temporary parking with the intention that the owner registers the RV and moves it to the south of the property; neither happened. This is his home, not a rental property, and he would like the City's help and follow the Code.

Comm Gold said this could cause an unsightly view and create a disservice to another resident.

The motion failed 3:3.

b. Discuss Change to the Municipal Code for Fences and Survey Monkey Circulation

Interim City Manager Grimm said the City Council requested discussion on possible changes to the Code on fencing to provide an overlay on Hoffner Avenue. Attorney Geller said general applications such as this do not provide a pecuniary interest, and a commissioner is allowed to vote. Comm Carugno said he would like to recommend a slight change in the code to allow for the repair and replacement of an existing front yard fence which will mirror the existing configuration without applying for a variance. Any other deviation will require variance approval.

Comm Lowell said she has a constituent with a similar situation and would like to include existing front yard fences that do not meet the current standards.

Comm Gold said a repair might not need a permit if repaired in stages. Attorney Chumley said he would have to review the code; it becomes a de facto matter at a certain point.

Vice Mayor Partin opened for public comment.

Holly Bobrowski residing at 2400 Hoffner Avenue, said she has a similar situation; however, to replace the dilapidated fence, she must undergo a variance process. She recommends Council provide specific information on allowable material.

There being no further comment, Vice Mayor Partin closed public comment.

The Council consensus was to move this to the Planning & Zoning Commission for further review and recommendation.

Comm Carugno asked for a 5-minute recess. Vice Mayor Partin called for a five-minute recess at 7:30 pm. The meeting resumed at 7:40 pm.

Vice Mayor Partin asked for Council approval to reopen public comment to allow for two comments. The Council agreed.

Susan Collins, District 3-OC Soil and Water Conservation (OCSWC) District said that the City was recognized for its affiliation as a Tree City and for being environmentally conscience. She also said the OCSWC would sponsor the poster contest at the Arbor Day event.

Betty Butler residing at 5231 Hawford Circle, spoke on removing a non-permitted large Oak Tree in her neighborhood. She said her husband researched a process that would save the tree while working around repairing the sidewalk. She urged Council for a moratorium on removing trees to allow for staff to review the information her husband provided.

8. New Business

a. At-Large Appointment of Planning & Zoning Member District 3 (Per Section 42-32)B)(3)

Interim City Manager Grimm said the P&Z seat for District 3 has been vacant for more than six months, and Comm Shuck, with every effort, has been unable to find anyone in his district interested in filling the vacancy per Section 42-32(b)(3). Staff is recommending posting an At-Large appointment for the vacancy for the term May 2023-2026.

Comm Lowell moved to direct the staff to post the vacancy At-Large for Council consideration at the April 18 Council meeting.

Comm Gold seconded the motion, which passed unanimously 6:0.

b. Approval of BING Grant for Conway Lakes HOA, Inc.

Interim City Manager Grimm presented a BING Grant for Conway Lakes HOA for landscaping and irrigation repairs on Judge Road and Conway Lake Drive totaling \$12,824.67. Comm Smith has approved 50% of the total cost and would like to grant the request.

Comm Gold moved to approve the BING Grant for Conway Lakes HOA for \$6,412.33, District 6.

Comm Lowell seconded the motion, which passed unanimously 6:0.

c. Approve Extension of Albert Moore's Contract Agreement

Interim City Manager Grimm presented a two-year extension agreement of Albert Moore's Tree Service Contract to provide tree removal services to the City. Staff recommends approval for the two-year extension with the same terms to allow services to continue.

Comm Shuck moved to approve Albert Moore's tree Service contract with the same services for two years.

Comm Carugno seconded the motion.

Comm Carugno asked who is responsible for maintaining the Tree City guidelines of removing and replacing trees on a City right-of-way if the City is the applicant. Council discussion was that it might fall under the Public Works Department to follow up. He would like the staff to report that there is a process for tracking, replacing, and removing trees.

Comm Gold said he wants to ensure the City gets the best value. Interim City Manager Grimm noted that with the past hurricanes, we were the first clean City in Orange County because of their service. The trees that have been removed are to prevent dangers during storms.

Comm Lowell asked if there is a formal policy for tree removals. Mr. Grimm said the staff could inform Council about emergency removals. Attorney Chumley said the State had curtailed the City regulating tree removals about two years ago.

After discussion, the motion passed unanimously at 6:0.

d. Approval of Surplus Miscellaneous Office Equipment

Interim City Manager Grimm requested approval for a surplus of a LaserJet Pro and picture frames to donate to the Russell Home.

Comm Gold moved to approve the surplus items as presented.
Comm Lowell seconded the motion, which passed unanimously 6:0.

9. Attorney's Report - na

10. City Manager's Report

Interim City Manager Grimm said the temporary transition has been moving in the right direction. Colin Baenziger has reported that they are finalizing the salary assessment and have met with all Council members. They said they would have a final brochure for approval shortly.

a. Chief's Report

Acting Chief Millis reported the following,

- Lake Take Over went well – 37 citations were issued, and a few calls for noise were received. Council briefly discussed some concerns and partnering continued partnerships with Orange County.
- A 6-foot alligator was found on someone's doorstep – FWC was notified.
- 1615 Idaho caught fire over the weekend and is officially condemned. Attorney Chumley said this home has a pending lien for the sewer replacement. The City has filed a motion of default.
- Acting Chief Millis reported 27 reports, 761 Red Light Camera violations, and YTD 633 citations on Hoffner.

b. Public Works Report

Mr. Price said the City had received the Dump Trailer. He provides a sample of the PW Project update that will go out to the residents to notify them of upcoming projects.

11. Mayor's Report - na

12. Items from Council

- Council thanked the Police Officers and their families.
- Comm Carugno spoke briefly on finding new facilities for the Belle Isle Police Department. Comm Carugno motioned to cancel the Wallace Field Use Agreement with CCA to build a Police Department. Comm Carugno restated his motion to add the discussion to the next Council agenda.
- Comm Carugno summarized the last meeting. He added that the next ANAC Meeting would be held on April 21, 2023.
- Comm Gold said he would like to add, to the next agenda, a discussion on compensation for the Interim City Manager.

- Holly Bobrowski invited everyone to the Easter Egg Hunt/Arbor Day Event at 10 am on Saturday, April 8, 2023.

13. Adjournment

There being no further business, Vice Mayor Partin called for a motion to adjourn.
The motion passed unanimously at 8:35 pm.

CITY OF BELLE ISLE, FLORIDA
CITY COUNCIL AGENDA ITEM COVER SHEET

Meeting Date: April 18, 2023
To: Honorable Mayor and City Council Members
From: T. Grimm, Interim City Manager
Subject: Ordinance 23-02 CCA Zoning Change from C1 to PD

Background: The City Council read Ordinance 21-12 for the first time at the October 5 Council meeting and reviewed the CCA Lease Agreement. The agreement, since then, had a few small changes for grammar and language necessary to proceed with an FDFC bond but nothing that would significantly change the agreement. City and CCA Attorneys reviewed the request and amendment, and changes were made to the original amendment.

On April 11, 2023, the CCA Board presented Ordinance 23-1 to the Planning & Zoning Board (P&Z) to change FROM C-1 ZONING DISTRICT TO PLANNED DEVELOPMENT DISTRICT (PD); PROVIDING FOR CERTAIN PERMITTED, PROHIBITED AND SPECIAL EXCEPTION USES AND DEVELOPMENT STANDARDS AND REQUIREMENTS WITHIN THE PLANNED DEVELOPMENT; DESCRIBING THE PLANNED DEVELOPMENT INCLUDING ALL THE AFORESAID PROPERTIES AS THE CORNERSTONE CHARTER ACADEMY PD.

The P&Z Board recommended approval 4:1 with the following conditions,

1. Randolph Avenue be closed only during the pick-up and drop-off hours of the school and shall include appropriate pedestrian safety measures.
2. Eliminate the "Required and "Allowable" columns on the site plan and reflect the floor area ratio, impervious surface ratio, and building setbacks standard.
3. The "Site Notes" on page 9 of the concept plans reference the final plans shall be at Final Construction Plan. Under sec. 54-77 (e) (5), the code requires the next phase of the PD process to govern "the use of land and the construction, modifications, or alterations of any buildings, structures or other improvements" on the property. The Site Note must be modified to reference the Development Plan, not the Final Construction Plans.
4. The Title of the Plan Set needs to be Cornerstone Charter School CONCEPT Plan, not Development Plan. Consistency with Code verbiage is important to eliminate any confusion in the future.

Please note that the correct Ordinance number should be read as 23-02 and the following corrections have been agreed upon and made to the ordinance to reflect the following,

- G. *Intensity.* There shall be a maximum of floor area ratio of **0.45**; provided however, the building square footage developed on the Property shall be consistent with the Concept Plan.
- H. *Maximum Impervious Surface.* The maximum impervious surface area shall **be 0.7**.

Staff Recommendation: Approve the amendment as recommended by the P&Z Board.

Suggested Motion: I move that we read Ordinance 23-02 for the first time and post for Second Reading and Adoption on May 2, 2023.

Alternatives: Do not approve.
Fiscal Impact: None
Attachments: Ordinance

ORDINANCE 23-01-02

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AN ORDINANCE OF THE CITY OF BELLE ISLE, FLORIDA REZONING THOSE CERTAIN PROPERTIES OWNED BY THE CITY OF BELLE ISLE LOCATED AT 5903 RANDOLPH AVENUE, 906 WALTHAM AVENUE, 6300 HANSEL AVENUE, "SUB OF HARNEY HOMESTEAD C/53 LOT 9 (LESS W 224.28 FT OF LOT 9 & LESS E 228.47 FT OF SAID LOT 9 & LESS R/W ON N & S)", AND 6049 RANDOLPH AVENUE, ALSO KNOWN AS ORANGE COUNTY TAX PARCELS # 24-23-29-3400-00-073, 24-23-29-3400-00-092, 24-23-29-3400-00-094, 24-23-29-3400-00-095, AND 24-23-29-3400-00-114, FROM C-1, C-2, R-1A, AND R-2 ZONING DISTRICTS TO PLANNED DEVELOPMENT DISTRICT (PD); REZONING THAT CERTAIN PROPERTY OWNED BY CORNERSTONE CHARTER ACADEMY, INC. LOCATED AT 5929 HANSEL AVENUE, ALSO KNOWN AS ORANGE COUNTY TAX PARCEL #24-23-29-8820-00-050, FROM C-1 ZONING DISTRICT TO PLANNED DEVELOPMENT DISTRICT (PD); REZONING THAT CERTAIN PROPERTY OWNED BY PINE CASTLE METHODIST CHURCH, INC. LOCATED AT 942 FAIRLANE AVENUE, ALSO KNOWN AS ORANGE COUNTY TAX PARCEL #24-23-29-3400-00-093, FROM C-1 ZONING DISTRICT TO PLANNED DEVELOPMENT DISTRICT (PD); PROVIDING FOR CERTAIN PERMITTED, PROHIBITED AND SPECIAL EXCEPTION USES AND DEVELOPMENT STANDARDS AND REQUIREMENTS WITHIN THE PLANNED DEVELOPMENT; DESCRIBING THE PLANNED DEVELOPMENT INCLUDING ALL THE AFORESAID PROPERTIES AS THE CORNERSTONE CHARTER ACADEMY PD; PROVIDING FOR SEVERABILITY AND AN EFFECTIVE DATE.

WHEREAS, Cornerstone Charter Academy, Inc. (hereinafter "Developer") with the consent of the City of Belle Isle and Pine Castle Methodist Church, Inc. has made application for the rezoning of (i) those certain properties owned by the City of Belle Isle located at 5903 Randolph Avenue, 906 Waltham Avenue, 6300 Hansel Avenue, and 6049 Randolph Avenue, also known as Orange County Tax Parcels # 24-23-29-3400-00-073, 24-23-29-3400-00-092, 24-23-29-3400-00-094, 24-23-29-3400-00-095, and 24-23-29-3400-00-114, from C-1, C-2, R-1A, and R-2 zoning districts to Planned Development District (PD); (ii) that certain property owned by Cornerstone Charter Academy, Inc. located at 5929 Hansel Avenue, also known as

1 Orange County Tax Parcel #24-23-29-8820-00-050, from C-1 zoning district to Planned
2 Development District (PD); and (iii) that certain property owned by Pine Castle Methodist
3 Church, Inc. located at 942 Fairlane Avenue, also known as Orange County Tax Parcel #24-
4 23-29-3400-00-093, from C-1 zoning district to Planned Development District (PD) and legally
5 described in the boundary survey attached hereto as **Exhibit "A"** (hereinafter "the Property");

6 and

7 **WHEREAS**, the Property has Low-Density Residential and Commercial Future Land
8 Use Map designations; and

9 **WHEREAS**, the Planning and Zoning Board of the City of Belle Isle has reviewed the
10 Developer's request at a public hearing and has made a recommendation to the City Council;
11 and

12 **WHEREAS**, after public notice and due consideration of public comment, the City
13 Council of the City of Belle hereby finds and declares the adoption of this Ordinance and the
14 proposed development of the Property is consistent with the City of Belle Isle Comprehensive
15 Plan and the land development regulations set forth in the City of Belle Isle Code of
16 Ordinances; and

17 **WHEREAS**, based on competent substantial evidence in the record, the requested
18 rezoning and preliminary concept plan set forth in this Ordinance meets all applicable criteria
19 specified in the City of Belle Isle Comprehensive Plan and the land development regulations
20 set forth in the Code of Ordinances; and

21 **WHEREAS**, this Ordinance and the Whereas clauses herein shall constitute the written
22 findings of fact in support of issuing this rezoning development order pursuant to general law.
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1 **NOW, THEREFORE, BE IT ORDAINED** by the City Council of the City of Belle Isle,
2 Florida as follows:

3 **SECTION 1.** The Property described above and in **Exhibit “A”** attached hereto is hereby
4 rezoned from Retail Commercial District (C-1), General Commercial District (C-2), Single-
5 Family Dwelling District (R-1A), and Multiple-Family Dwelling (R-2) zoning districts to Planned
6 Development (PD) subject to the following conditions and restrictions:

7 A. *Concept Plan.* The Cornerstone Charter Academy Preliminary Concept Plan attached
8 hereto as **Exhibit “B”** (“Concept Plan”) is hereby approved. All development of the
9 Property must conform to Concept Plan, including the development standards and
10 requirements identified on the Concept Plan. Should any conflict be found between this
11 Ordinance and the Concept Plan then the standards and conditions established by this
12 Ordinance shall control.

13 B. *Code Provisions.* Unless specifically noted elsewhere in the Concept Plan attached
14 hereto, or expressly provided for herein, all development on the Property must comply with
15 the general zoning requirements of the Planned Development zoning district. Such
16 requirements include any approval or amendment procedures pertaining to the Planned
17 Development zoning district. The Land Development Code of the Belle Isle Code of
18 Ordinances, as amended, shall govern the development of the Property with respect to
19 any matter not addressed by this Ordinance or its attached exhibits.

20 C. *Permitted Uses.* The permitted uses for the Property are as follows: (i) Elementary School,
21 (ii) Middle School, (iii) High School, (iv) Other Community or Educational Meeting Space
22 and Facilities, (v) Active and Passive Recreational and Sports Fields, Gymnasiums and
23 Other Facilities, (vi) Open Space and Parks, (vii) Stormwater Ponds and Facilities, (viii)
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1 Preservation of Historic Home (not for residential use) shown on the Concept Plan and
2 use thereof for meeting or educational purposes; and (viii) the customary accessory uses
3 and structures associated with the foregoing permitted uses. All uses that are not
4 permitted uses or special exception uses as set forth in this Ordinance are prohibited.

5 D. *Special Exception Uses.* The special exception uses for the Property are as follows: (i)
6 Municipal and Governmental Facilities; (ii) uses that are substantially similar and
7 compatible with the permitted uses of this Ordinance and that are not incompatible with
8 surrounding area as determined by the City Council; and (iii) the customary accessory
9 uses and structures associated with the foregoing special exception uses. If a special
10 exception use is approved based on a finding by the City Council that such meets the
11 applicable criteria set forth in the City Code, the approval may be conditioned and
12 restricted.

13 E. *Maximum Building Height.* The maximum height of structures shall be four stories and no
14 more than 57 feet; provided however, each building constructed shall be consistent with
15 the heights shown on the Concept Plan.

16 F. *Setbacks.* The setbacks shall be consistent with those depicted on the Concept Plan.

17 G. *Intensity.* There shall be a maximum of floor area ratio of 0.45; provided however, the
18 building square footage developed on the Property shall be consistent with the Concept
19 Plan.
20

21 H. *Maximum Impervious Surface.* The maximum impervious surface area shall be 0.7.

22 I. *Architectural Features.* The Property shall be developed consistent with the architectural
23 elevations and concepts set forth in the Concept Plans.
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- J. *Vehicular Parking/Ingress/Egress.* The vehicular parking and ingress and egress to and from the Property shall be developed and maintained consistent with the Concept Plans.
- K. *Lighting.* Lighting on the Property shall be development consistent with the lighting plan set forth in the Concept Plans.
- L. *Landscaping, Landscaping Buffers, Recreation and Open Space.* The Property shall be developed and maintained to preserve recreational area, open space, landscaping and landscaping buffers as depicted on the Concept Plan.
- M. *Planned Development Name.* The Planned Development adopted by this Ordinance governing the development of the Property will be known as the “Cornerstone Charter Academy PD.”
- N. *Development Plan/PD Expiration.* Developer shall submit a development plan for review and approval pursuant to the provisions of Chapter 54, Section 54-77 (e) (4) of the Land Development Code of the Belle Isle Code of Ordinances. If Developer fails to obtain final approval of said development plan within one year of the Effective Date of this Ordinance, the entitlements under this Ordinance shall become null and void and the zoning classification of the Property shall revert to its previous zoning designations or other appropriate zoning designations as determined by the City Council in accordance with the provisions of Section 54-77 (e) (4), Land Development Code of the Belle Isle Code of Ordinances.
- O. *Violation.* A violation of this Ordinance or any of its Exhibits is considered a violation of the Land Development Code of the Belle Isle Code of Ordinances and zoning of the Property.

SECTION 2. Zoning Map. The City Manager is hereby authorized and directed to amend the Official City of Belle Isle Zoning Map consistent with the provisions of this Ordinance.

SECTION 3. Severability. If any word, phrase, sentence, clause or other portion of this Ordinance is determined to be invalid, void or unconstitutional, the remainder of this Ordinance shall remain in effect.

SECTION 4. Effective date. This Ordinance shall take effect immediately upon adoption.

First Reading was held this 18th day of April 2023

Second Reading held this 2nd day of May 2023

	YES	NO	ABSENT
Ed Gold	_____	_____	_____
Anthony Carugno	_____	_____	_____
Karl Shuck	_____	_____	_____
Randy Holihan	_____	_____	_____
Beth Lowell	_____	_____	_____
Stanley Smith	_____	_____	_____
Jim Partin	_____	_____	_____

CITY OF BELLE ISLE

NICHOLAS FOURAKER, MAYOR

ATTEST: _____
Yolanda Quiceno, CMC-City Clerk

1 **STATE OF FLORIDA**

2 **COUNTY OF ORANGE**

3 **I, Yolanda Quiceno, CITY CLERK** of the City of Belle Isle, do hereby certify that the above and
4 foregoing document ORDINANCE 23-04 02 was duly and legally passed by the Belle Isle City Council,
5 in session assembled on the _____ day of _____ 2023. At this session, a quorum of its members
6 was present.

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Yolanda Quiceno, CMC-City Clerk

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CITY OF BELLE ISLE, FLORIDA
CITY COUNCIL AGENDA ITEM COVER SHEET

b.

Meeting Date: April 18, 2023
To: Honorable Mayor and City Council Members
From: T. Grimm, Interim City Manager
Subject: Reimbursement of Travel Fees for Candidate Howard Brown

Background: On March 20, 2023, the City Council scheduled a Special Called meeting for candidates who applied for the Interim City Manager position. The top 4 selected candidates were called at this meeting and confirmed their availability. At the March 7, 2023, City Council meeting, the Council motioned that Reasonable expenses may be allowed.

On April 11, 2023, the staff received a request from Howard Brown requesting reimbursement of \$232.93 (per 2023 IRS-millage and tolls) as follows,

- Palm Beach Garden to City of Belle Isle – 320 miles (209.60)
- Sun Pass Tolls (23.23)

Staff Recommendation: The staff recommendation is to discuss the request and decide if the requests of Mr. Brown are reasonable. The City Attorney will also give an opinion on this matter.

Suggested Motion: I move that we reimburse Howard Brown for his mileage and tolls of \$232.93.

Alternatives: Do not pay them or pay some of the request.

Fiscal Impact: \$232.93

Attachments: Request and receipts dated April 5, 2023

Howard W. Brown, Jr.

11875 Dunbar Court
Palm Beach Gardens, FL 33412
(305) 788-9647
howardwbrownjr@gmail.com

April 5, 2023

City of Belle Isle
Attn: Interim City Manager
1600 Nela Avenue
Belle Isle, FL 32809

RE: Request for Reimbursement for Interim City Manager Interview on March 20, 2023 OF \$232.93

Dear Mr. Interim Manager:

It was a pleasure to meet the City Council at the interview. While I was not chosen, I am sure the City Council will be in excellent hands. I did enjoy seeing the beautiful City of Belle Isle.

I am respectfully requesting **\$232.93** reimbursement for (2023 IRS) mileage and tolls:

- Palm Beach Gardens to City of Belle Isle – 320 miles (\$209.60)
- Sunpass Tolls (\$23.33)

Should you have any questions, please do not hesitate to contact me directly.

Respectfully submitted,

Howard W. Brown, Jr.
Applicant

C: City Clerk

/Enclosure – sunpass print out and mapquest directions

11875 Dunbar Ct
to Belle Isle City Hall (City of Belle Isle Florida)

b.

2 hr 28 min

160.3 miles

IRS reimbursement:

\$93.75

 Head toward Marlamoor Ln on Dunbar Ct. Go for 509 ft.

Then 0.10 miles

 Turn left onto Marlamoor Ln. Go for 0.3 mi.

Then 0.34 miles

 Turn left onto Bay Hill Dr. Go for 0.2 mi.

Then 0.15 miles

 Turn right onto Northlake Blvd (CR-809A). Go for 4.2 mi.

Then 4.25 miles

 Turn right onto Beeline Hwy (SR-710). Go for 1.2 mi.

Then 1.20 miles

 Turn left onto N Jog Rd toward Florida's Turnpike-TOLL. Go for 0.2 mi.

Then 0.23 miles

 Turn right toward Florida's Turnpike-TOLL. Go for 0.2 mi.

Then 0.19 miles

18



Keep left toward Florida's Turnpike North. Go for 0.1 mi.

b.

Then 0.14 miles



Turn left and take ramp onto Florida's Tpke. Go for 148 mi.

Then 148.18 miles



Take exit 254 onto US-17 N/US-92 E/US-441 N (S Orange Blossom Trl). Go for 1.0 mi.

Then 0.96 miles



Turn right onto W Landstreet Rd (CR-527A) toward SR-528-TOLL E. Go for 2.3 mi.

Then 2.26 miles



Turn left onto S Orange Ave (CR-527). Go for 1.8 mi.

Then 1.83 miles



Turn right onto Nela Ave. Go for 0.3 mi.

Then 0.31 miles



Keep left onto Nela Ave. Go for 0.1 mi.

Then 0.10 miles



Turn right. Go for 56 ft.

Then 0.01 miles



Posted Date	Transaction Date	Transaction Time	Transponder/ License Plate	Description	Debit (-)	Credit (+)	Balance
03/20/2023	03/20/2023	11:55:36 PM		PAYMENT & ADJUSTMENTS		\$25.00	\$33.87 View Receipt
03/20/2023	03/20/2023	09:25:48 PM	028837170110	SR91 BECKER RD MAIN SB MP138	\$0.40		\$8.87 View Receipt
03/20/2023	03/20/2023	09:22:51 PM	028837170110	SR91 PT ST LUCIE MAIN SB MP141	\$0.32		\$9.27 View Receipt
03/20/2023	03/20/2023	09:29:44 PM	028837170110	SR91 STUART MAIN SB MP133	\$1.36		\$9.59 View Receipt
03/20/2023	03/20/2023	09:16:21 PM	028837170110	SR91 MIDWAY RD MAIN SB MP150	\$0.80		\$10.95 View Receipt
03/20/2023	03/20/2023	09:12:56 PM	028837170110	SR91 FT PIERCE MAIN SB MP154	\$3.27		\$11.75 View Receipt
03/20/2023	03/20/2023	08:04:47 PM	028837170110	SR91 THREE LAKES MAIN SB MP236	\$3.82		\$15.02 View Receipt
03/20/2023	03/20/2023	07:43:30 PM	028837170110	SR91 KISSIMMEE/ST CLOUD MP244	\$1.34		\$18.84 View Receipt
03/20/2023	03/20/2023	04:15:17 PM	028837170110	SR528 BCHLINE WEST MAIN EB MP6	\$2.03		\$20.18 View Receipt
03/20/2023	03/20/2023	03:37:24 PM	028837170110	SR91 THREE LAKES MAIN NB MP236	\$3.82		\$22.21 View Receipt
03/20/2023	03/20/2023	02:31:50 PM	028837170110	SR91 FT PIERCE MAIN NB MP154	\$3.27		\$26.03 View Receipt
03/20/2023	03/20/2023	02:28:03 PM	028837170110	SR91 MIDWAY RD MAIN NB MP150	\$0.80		\$29.30 View Receipt
03/20/2023	03/20/2023	02:17:54 PM	028837170110	SR91 BECKER RD MAIN NB MP138	\$0.40		\$30.10 View Receipt
03/20/2023	03/20/2023	02:21:04 PM	028837170110	SR91 PT ST LUCIE MAIN NB MP141	\$0.32		\$30.50 View Receipt
03/20/2023	03/20/2023	02:12:57 PM	028837170110	SR91 STUART MAIN NB MP133	\$1.36		\$30.82 View Receipt
03/20/2023	03/20/2023	01:56:47 PM	028837170110	SR91 JUPITER MAIN NB	\$0.56		\$32.18 View Receipt

b.

22

Posted Date	Transaction Date	Transaction Time	Transponder/License Plate	Description	Debit (-)	Credit (+)	Balance
03/20/2023	03/20/2023	01:53:02 PM	028837170110	MP113 SR91 PGA BLVD MAIN NB MP108	\$0.25		\$32.74 View Receipt
03/20/2023	03/20/2023	12:15:10 PM	028837170110	SR91 45TH STREET MAIN NB MP104	\$0.64		\$32.99 View Receipt
03/20/2023	03/20/2023	12:07:46 PM	028837170110	SR91 FOREST H BLV MAIN NB MP96	\$0.32		\$33.63 View Receipt
03/20/2023	03/20/2023	12:10:02 PM	028837170110	SR91 BELVEDERE RD MAIN NB MP98	\$0.25		\$33.95 View Receipt
03/20/2023	03/20/2023	11:57:47 AM	028837170110	SR91 LANTANA MAIN NB MP88	\$0.56		\$34.20 View Receipt
03/20/2023	03/20/2023	11:33:47 AM	028837170110	SR91 POMPANO BCH MAIN NB MP65	\$1.07		\$34.76 View Receipt
03/20/2023	03/20/2023	11:17:13 AM	028837170110	SR91 DOLPHIN CENTER NB ON MP2	\$0.80		\$35.83 View Receipt
03/20/2023	03/20/2023	06:40:54 AM	028837170110	SR91 DOLPHIN CENTER SB OFF MP2	\$0.80		\$36.63 View Receipt
03/20/2023	03/20/2023	06:25:04 AM	028837170110	SR91 POMPANO BCH MAIN SB MP65	\$1.07		\$37.43 View Receipt

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Receipt

- **Account Number:** 8688142
- **Transaction Date/Time:** 03/20/2023 11:55:36 PM
- **Transaction Amount:** \$25.00
- **Payment Reference Number :** 2486544538
- **Payment Type:** VISA
- **Account ending with :** 0025
- **Balance:** \$33.87

Description	Amount
VISA REPLENISHMENT	\$25.00

[Print](#)



Receipt

- **Account Number:** 8688142
- **Posted Date:** 03/20/2023
- **Transponder Number/License Plate:** 028837170110
- Agency Name : Florida Turnpike Enterprise
- **Axle:** 2
- **Location:** SR91 BECKER RD MAIN SB MP138
- **Date:** 03/20/2023
- **Time:** 09:25:48 PM
- **Transaction Amount:** (\$0.40)
- **Transaction Reference Number :** 37724251277
- **Transaction Type :** Transponder Toll
- **Balance:** \$8.87

[Print](#)



Receipt

- **Account Number:** 8688142
- **Posted Date:** 03/20/2023
- **Transponder Number/License Plate:** 028837170110
- Agency Name : Florida Turnpike Enterprise
- **Axle:** 2
- **Location:** SR91 PT ST LUCIE MAIN SB MP141
- **Date:** 03/20/2023
- **Time:** 09:22:51 PM
- **Transaction Amount:** (\$0.32)
- **Transaction Reference Number :** 37724243062
- **Transaction Type :** Transponder Toll
- **Balance:** \$9.27

[Print](#) 

Receipt

- **Account Number:** 8688142
- **Posted Date:** 03/20/2023
- **Transponder Number/License Plate:** 028837170110
- Agency Name : Florida Turnpike Enterprise
- **Axle:** 2

- **Location:** SR91 STUART MAIN SB MP133
- **Date:** 03/20/2023
- **Time:** 09:29:44 PM

- **Transaction Amount:** (\$1.36)
- **Transaction Reference Number :** 37724224122
- **Transaction Type :** Transponder Toll

- **Balance:** \$9.59

[Print](#) 

Receipt

- **Account Number:** 8688142
- **Posted Date:** 03/20/2023
- **Transponder Number/License Plate:** 028837170110
- Agency Name : Florida Turnpike Enterprise
- **Axle:** 2

- **Location:** SR91 MIDWAY RD MAIN SB MP150
- **Date:** 03/20/2023
- **Time:** 09:16:21 PM

- **Transaction Amount:** (\$0.80)
- **Transaction Reference Number :** 37724202696
- **Transaction Type :** Transponder Toll

- **Balance:** \$10.95

[Print](#)

b.



Receipt

- **Account Number:** 8688142
- **Posted Date:** 03/20/2023
- **Transponder Number/License Plate:** 028837170110
- Agency Name : Florida Turnpike Enterprise
- **Axle:** 2

- **Location:** SR91 FT PIERCE MAIN SB MP154
- **Date:** 03/20/2023
- **Time:** 09:12:56 PM

- **Transaction Amount:** (\$3.27)
- **Transaction Reference Number :** 37724179227
- **Transaction Type :** Transponder Toll

- **Balance:** \$11.75

[Print](#)



Receipt

- **Account Number:** 8688142
- **Posted Date:** 03/20/2023
- **Transponder Number/License Plate:** 028837170110
- Agency Name : Florida Turnpike Enterprise
- **Axle:** 2

- **Location:** SR91 THREE LAKES MAIN SB MP236
- **Date:** 03/20/2023
- **Time:** 08:04:47 PM

- **Transaction Amount:** (\$3.82)
- **Transaction Reference Number :** 37724038727
- **Transaction Type :** Transponder Toll

- **Balance:** \$15.02

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Receipt

- **Account Number:** 8688142
- **Posted Date:** 03/20/2023
- **Transponder Number/License Plate:** 028837170110
- Agency Name : Florida Turnpike Enterprise
- **Axle:** 2

- **Location:** SR91 KISSIMMEE/ST CLOUD MP244
- **Date:** 03/20/2023
- **Time:** 07:43:30 PM

- **Transaction Amount:** (\$1.34)
- **Transaction Reference Number :** 37723964251
- **Transaction Type :** Transponder Toll

- **Balance:** \$18.84

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Receipt

- **Account Number:** 8688142
- **Posted Date:** 03/20/2023
- **Transponder Number/License Plate:** 028837170110
- Agency Name : Florida Turnpike Enterprise
- **Axle:** 2

- **Location:** SR528 BCHLINE WEST MAIN EB MP6
- **Date:** 03/20/2023
- **Time:** 04:15:17 PM

- **Transaction Amount:** (\$2.03)
- **Transaction Reference Number :** 37721509141
- **Transaction Type :** Transponder Toll

- **Balance:** \$20.18

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Receipt

- **Account Number:** 8688142
- **Posted Date:** 03/20/2023
- **Transponder Number/License Plate:** 028837170110
- Agency Name : Florida Turnpike Enterprise
- **Axle:** 2

- **Location:** SR91 THREE LAKES MAIN NB MP236
- **Date:** 03/20/2023
- **Time:** 03:37:24 PM

- **Transaction Amount:** (\$3.82)
- **Transaction Reference Number :** 37721280887
- **Transaction Type :** Transponder Toll

- **Balance:** \$22.21

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Receipt

- **Account Number:** 8688142
- **Posted Date:** 03/20/2023
- **Transponder Number/License Plate:** 028837170110
- Agency Name : Florida Turnpike Enterprise
- **Axle:** 2

- **Location:** SR91 FT PIERCE MAIN NB MP154
- **Date:** 03/20/2023
- **Time:** 02:31:50 PM

- **Transaction Amount:** (\$3.27)
- **Transaction Reference Number :** 37720780370
- **Transaction Type :** Transponder Toll

- **Balance:** \$26.03

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Receipt

- **Account Number:** 8688142
- **Posted Date:** 03/20/2023
- **Transponder Number/License Plate:** 028837170110
- Agency Name : Florida Turnpike Enterprise
- **Axle:** 2

- **Location:** SR91 MIDWAY RD MAIN NB MP150
- **Date:** 03/20/2023
- **Time:** 02:28:03 PM

- **Transaction Amount:** (\$0.80)
- **Transaction Reference Number :** 37720720781
- **Transaction Type :** Transponder Toll

- **Balance:** \$29.30

[Print](#)



Receipt

- **Account Number:** 8688142
- **Posted Date:** 03/20/2023
- **Transponder Number/License Plate:** 028837170110
- Agency Name : Florida Turnpike Enterprise
- **Axle:** 2

- **Location:** SR91 BECKER RD MAIN NB MP138
- **Date:** 03/20/2023
- **Time:** 02:17:54 PM

- **Transaction Amount:** (\$0.40)
- **Transaction Reference Number :** 37720691145
- **Transaction Type :** Transponder Toll

- **Balance:** \$30.10

[Print](#)





Receipt

- **Account Number:** 8688142
- **Posted Date:** 03/20/2023
- **Transponder Number/License Plate:** 028837170110
- Agency Name : Florida Turnpike Enterprise
- **Axle:** 2

- **Location:** SR91 PT ST LUCIE MAIN NB MP141
- **Date:** 03/20/2023
- **Time:** 02:21:04 PM

- **Transaction Amount:** (\$0.32)
- **Transaction Reference Number :** 37720689033
- **Transaction Type :** Transponder Toll

- **Balance:** \$30.50

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Receipt

- **Account Number:** 8688142
- **Posted Date:** 03/20/2023
- **Transponder Number/License Plate:** 028837170110
- Agency Name : Florida Turnpike Enterprise
- **Axle:** 2

- **Location:** SR91 STUART MAIN NB MP133
- **Date:** 03/20/2023
- **Time:** 02:12:57 PM

- **Transaction Amount:** (\$1.36)
- **Transaction Reference Number :** 37720678658
- **Transaction Type :** Transponder Toll

- **Balance:** \$30.82

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Receipt

- **Account Number:** 8688142
- **Posted Date:** 03/20/2023
- **Transponder Number/License Plate:** 028837170110
- Agency Name : Florida Turnpike Enterprise
- **Axle:** 2

- **Location:** SR91 JUPITER MAIN NB MP113
- **Date:** 03/20/2023
- **Time:** 01:56:47 PM

- **Transaction Amount:** (\$0.56)
- **Transaction Reference Number :** 37720545144
- **Transaction Type :** Transponder Toll

- **Balance:** \$32.18

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Receipt

- **Account Number:** 8688142
- **Posted Date:** 03/20/2023
- **Transponder Number/License Plate:** 028837170110
- Agency Name : Florida Turnpike Enterprise
- **Axle:** 2

- **Location:** SR91 PGA BLVD MAIN NB MP108
- **Date:** 03/20/2023
- **Time:** 01:53:02 PM

- **Transaction Amount:** (\$0.25)
- **Transaction Reference Number :** 37720524797
- **Transaction Type :** Transponder Toll

- **Balance:** \$32.74

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Receipt

- **Account Number:** 8688142
- **Posted Date:** 03/20/2023
- **Transponder Number/License Plate:** 028837170110
- Agency Name : Florida Turnpike Enterprise
- **Axle:** 2

- **Location:** SR91 45TH STREET MAIN NB MP104
- **Date:** 03/20/2023
- **Time:** 12:15:10 PM

- **Transaction Amount:** (\$0.64)
- **Transaction Reference Number :** 37720036883
- **Transaction Type :** Transponder Toll

- **Balance:** \$32.99

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Receipt

- **Account Number:** 8688142
- **Posted Date:** 03/20/2023
- **Transponder Number/License Plate:** 028837170110
- Agency Name : Florida Turnpike Enterprise
- **Axle:** 2

- **Location:** SR91 FOREST H BLV MAIN NB MP96
- **Date:** 03/20/2023
- **Time:** 12:07:46 PM

- **Transaction Amount:** (\$0.32)
- **Transaction Reference Number :** 37719927608
- **Transaction Type :** Transponder Toll

- **Balance:** \$33.63

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Receipt

- **Account Number:** 8688142
- **Posted Date:** 03/20/2023
- **Transponder Number/License Plate:** 028837170110
- Agency Name : Florida Turnpike Enterprise
- **Axle:** 2

- **Location:** SR91 BELVEDERE RD MAIN NB MP98
- **Date:** 03/20/2023
- **Time:** 12:10:02 PM

- **Transaction Amount:** (\$0.25)
- **Transaction Reference Number :** 37719882582
- **Transaction Type :** Transponder Toll

- **Balance:** \$33.95

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Receipt

- **Account Number:** 8688142
- **Posted Date:** 03/20/2023
- **Transponder Number/License Plate:** 028837170110
- Agency Name : Florida Turnpike Enterprise
- **Axle:** 2

- **Location:** SR91 LANTANA MAIN NB MP88
- **Date:** 03/20/2023
- **Time:** 11:57:47 AM

- **Transaction Amount:** (\$0.56)
- **Transaction Reference Number :** 37719861168
- **Transaction Type :** Transponder Toll

- **Balance:** \$34.20

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Activity

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ACCOUNT # 8688142

b.

- [Overview](#)
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Activity

Account activity can be accessed for a period of up to 90 days, and may be viewed or downloaded for the past 36 months.

Note: When viewing or downloading large volumes of transactions, it is advised that the search parameters be limited to the shortest time period necessary.

Filter By ▼

All

Date Type ▼

Posted Date

Start Date

03/20/2023

End Date

03/20/2023

Transponder Number

Plate Number

Agency Name ▼

All

Location ▼

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Note: Transponder Number and License Plate Number are optional. If left blank all transactions on your account for the date range selected will be returned.

CITY OF BELLE SLE, FLORIDA
CITY COUNCIL AGENDA ITEM COVER SHEET

Meeting Date: April 18, 2023
To: Honorable Mayor and City Council Members
From: T. Grimm, Interim City Manager
Subject: BING Grant

Background: The Winward on Lake Conway (District 5) is applying for a BING Grant for surveillance cameras. The proposal has been developed with the Belle Isle Police Department coordination. The proposed project will work similarly to the surveillance cameras installed at Belle Isles' own LPR network and will enhance the safety of all residents. The project is \$15,227, with a grant request of \$7,000. The grant meets the criteria, and District 5 has \$7,000 in grant funds. To fund the entire grant amount, other Commissioners may contribute funds to this project.

Staff Recommendation: Approve the grant and determine if it will be funded in full (\$15,227) or partially (\$7,000) if other Commissioners do not provide funding.

Suggested Motion:

- a. I move to approve the BING Grant for The Windward on Lake Conway for the surveillance cameras project in the grant amount of \$7,000.

Alternatives: Do not approve.
Fiscal Impact: \$7,000
Attachments: Grant application



THE WINDWARD

ON LAKE CONWAY

c.

April 13, 2023

Belle Isle City Council
1600 Nela Avenue
Belle Isle, FL 32809

Dear Council Members,

Windward on Lake Conway is a condominium development located on the southeast corner of the south lake of the Lake Conway chain. The community was established through its Declaration and construction in 2008, with occupancy starting in 2012.

Windward includes 29 three-bedroom individually owned units, spread across four resident buildings. Each of these four buildings has a set of garages, with additional resident or guest parking. There is a pool cabana with restrooms available to all residents.

One the lake front, Windward has its own boat launch, which has been used by Orange County Fire and Rescue to support an emergency unrelated to our community. The community has two docks with 9 boat slips.

Attached find a package seeking council approval for a BING grant to support purchase of surveillance cameras at Windward. This proposal has been developed with Belle Isle Police Department coordination. As always, content generated from Windward's own surveillance cameras will be available to BIPD upon request.

The Windward surveillance camera BING request is presented as a complement to Belle Isle's own LPR camera network. Windward would be pleased to be a test case for the use of LPR surveillance at private community entrances in Belle Isle.

Together – Windward's own surveillance camera installation and Belle Isle's own LPR network – we will work for enhanced safety of all residents in Belle Isle.

Thank you for this opportunity to work with the City of Belle Isle.

With Regards,

Dennis Tierney
Project Manager – Surveillance Cameras
Windward on Lake Conway Condominiums

Cc: Windward Board



CITY OF BELLE ISLE NEIGHBORHOOD PRIDE GRANTS

Grant Application

Submit the original application along with any attachments to The City of Belle Isle, 1600 Nela Avenue, Belle Isle FL 32809. Grants will be awarded on a first come, first served basis by district. (PLEASE PRINT)

Applicant Contact Information

Applicant Organization Name: **WINDWARD ON LAKE CONWAY** _____

Project Contact Name: **DENNIS TIERNEY / WINDWARD BOARD** _____

Mailing Address: **7836 HOLIDAY ISLE CIRCLE, UNIT 301** _____

BELLE ISLE, FL _____ **32812** _____
 City, State Zip

Daytime Phone: **917 288 7032** _____ Evening Phone: **917 288 7032**

Email: **TIERNEDA@miamioh.edu** _____

ALTERNATIVE CONTACT INFORMATION

Alternate Contact Name:	SHERRY KENNEDY	STAN KACZMAREK	RALPH ROCHEFORD
Daytime Phone:	407 808 2877	407 694 5824	941 232 8309
Email:	SHERRYAKENNEDY@YAHOO.COM	STANKZ@AOL.COM	r99venice@verizon.net

GRANT INFORMATION

Type of Project — please select all that apply:

- | | | |
|---|--|--|
| <input type="radio"/> Landscaping | <input type="radio"/> Reader Board | <input type="radio"/> Fountains |
| <input type="radio"/> Sign | <input type="radio"/> Ground Lighting | <input checked="" type="radio"/> Other SURVEILLANCE CAMERA INSTALLATION |
| <input type="radio"/> Wall/Fence pressure washing and or painting | <input type="radio"/> Irrigation "Repairs" | Project Street Address or Nearest Intersection:
7818 HOLIDAY ISLE CIRCLE, BELLE (NEAR DAETWYLER/TRENTWOOD) _____ |

- o Total amount of project: **\$15,227*** _____
- o Grant amount requested: **\$7,000** _____
- o Neighborhood participation amount (remainder of invoice)
\$8,227 _____

* The Windward community has a quote from SecurityPro for 10 cameras at \$15,227. We are in late discussion with one additional vendor and would accept a bid which is equal (or better) in coverage and lower (or equal) in cost. In any case, the community seeks BING grants of 50% funding for this initiative – capped as necessary at the \$7,000 shown above.

PROJECT INFORMATION

Please provide the answers to the following questions.

1. **Description of the Project.** - This summary should provide an overview of the entire project; include what improvements will be constructed, installed, or applied. Remember to demonstrate the need for the project.
The Daetwyler Road area of Belle Isle has been subjected to burglary incidents. Cars parked at Windward Condominiums were broken into in early 2022. Current surveillance – using uncoordinated and unreliable DIY solutions – have been inadequate to either deter the crime or assist with investigating crimes.
The association will purchase a professionally installed series of 10 standard cameras. These will augment Belle Isle’s LPR (License Plate Reader) camera network (see WINDWARD BING 2).
All of Windward’s cameras will be focused on the parking/driveway area of the property or the fenced security perimeter to the north and south.
BIPD will be provided access to content from surveillance cameras upon request for their own investigations.
2. **State the location and land ownership of the proposed project** - Is the project on public property? (Right-of-way use agreement/permit will be required.) Please state the exact location of the project, including an address or cross streets.
The project is located on private property, though some camera views will capture activity outside of the gates of the condominium community. The community is located at 7818 Holiday Isle Drive, just north of the intersection of Daetwyler Drive and Trentwood Dr. There are 29 units with 29 separate owners at Windward Condominiums.
3. **Attach 2-5 photos, and include a brief description of each photo. Please also provide the original color photos.**
4. **Project Maintenance:** Describe how the property has been maintained in the past, and how the project will be maintained and by whom after it is completed.
The property has used home-wired Nest cameras for limited surveillance, which has been unreliable in service and unsatisfactory in quality.

5. **Describe why this project is important to the community.** Provide a brief summary of how the project will enhance the quality of life in the community. How will this project empower your organization to work together to accomplish common goals and objectives? (i.e., to improve neighborhood communication and participation).
The project will provide owners and residents with greater security, preventing criminal activity because of the surveillance presence. This BING request (“Windward BING 1”) is part 1 of a two-part package of funding, where Windward will install its own surveillance camera network plus, (in separate request “Windward BING 2”) support BIPD installation of LPR cameras at Windward Condominiums as part of its overall Belle Isle LPR network. Together, this enhanced surveillance will support the greater Belle Isle community with deterrence and support for BIPD investigations. Potential notification of bad actors entering the Windward Condominium compound will help law enforcement across our Belle Isle community.

BING TEAM ROSTER

Each organization is required to have at least a 3 to 5 member team who will help plan and implement your community project. Team members will be required to sign the team member roster as a part of the grant application. Each team member must indicate his or her role/responsibility on the team.

PRINT NAME & SIGNATURE	ADDRESS/PHONE/EMAIL	ROLE/RESPONSIBILITY
Print Dennis Tierney Signature		Project Manager Application Writer
Print Sherry Kennedy Signature		Board Member (President)
Print Ralph Rocheford Signature		Asst Project Manager Board Member (Secretary/Treasurer)
Print Stan Kaczmarek Signature		Board Member (Vice President)
Print Trapper Martin Signature		Board President Emeritus

TEAM ROLES: **PROJECT MANAGER** — Team Captain. Responsible for leading project, getting a group consensus on which project the group wants to pursue. **ASST PROJECT MANAGER** — Co-Captain. Will work in concert with the project manager and assist obtaining quote(s) once the project idea has been decided upon. This position can also serve as the "Fund Watcher" monitoring project expenses. **APPLICATION WRITER** — will work with project manager in organizing and developing BING application and submitting final report and pictures upon completion of project.

BELLE ISLE NEIGHBORHOOD GRANTS (BING)

BUDGET AND GRANT REQUEST		
NAME OF BUSINESS	TOTAL COST	DESCRIPTION OF SERVICES
SecurityPro Florida	\$15,227	Provide equipment: 1 network video recorder/controller; 10 fixed lens turret camera; Installation: establish communication links between controller and cameras, install electric access as needed, install controller and 10 cameras, cameras housed in Nema enclosure License Plate Recognition (LPR) camera(s), by separate application, augment this request.

TOTAL AMOUNT OF PROJECT	\$15,227
GRANT AMOUNT REQUESTED	\$ 7,613
NEIGHBORHOOD PARTICIPATION AMOUNT (REMAINDER OF INVOICE)	\$ 7,614



Location of security cameras



Installation includes:

- Three cameras on a north tower (photo, left) pointing east and west along property perimeter, and south across community parking and drive
- Three cameras on a south tower (photo, right) pointing east and west along property perimeter including boat ramp, and north across community parking and drive; in the lower-cost option, this tower is replaced by a camera on the poolside building focused on the south perimeter
- Three cameras across from entrance gate (photo, top) pointing north and south across community/visitor parking and east at the exit gate
- One BIPD-controlled LPR camera is shown with green arrow installed on entrance security pillar, and one near the poolside building capturing the exit gate (separate BING request)
- Buildings A, B, C and D are resident buildings, with 9, 6, 9 and 5 units respectively. Each resident building has a corresponding adjacent garage structure
- The equipment controller will be housed in the pool equipment room, located in the southeast corner of the pool cabana (to the right in photo, or south, of the pool itself)



The majority of cameras planned for Windward on Lake Conway's surveillance needs are the LTS®CMHT1752WE-28F 5 Megapixel HD fixed lens, matrix IR camera.

CITY OF BELLE SLE, FLORIDA
CITY COUNCIL AGENDA ITEM COVER SHEET

d.

Meeting Date: April 18, 2023

To: Honorable Mayor and City Council Members

From: T. Grimm, Interim City Manager

Subject: Adopted BIPD Pay Plan
Stipend for Interim City Manager, Acting Chief, and Deputy Chief

Background: At the April 04, 2023, City Council meeting, Commissioner Gold asked the Council to consider compensation for out-of-classification work for the Interim City Manager, Acting Chief, and Acting Deputy Chief.

Staff is asking the Council to adopt an updated Belle Isle Police Department (BIPD) Pay Plan and remove the Deputy Chief position from the BIPD Pay Plan based on the recent changes in the department—the staff request approval for the entry-level Deputy Chief of \$96,194.80. The DC position may receive those cost-of-living salary adjustments and other benefit increases which may be granted to other employees.

On April 04, 2023, the Interim City Manager assigned Deputy Chief Millis to Acting Chief of Police. During this time of the transaction, I am asking for a ten percent salary increase for this position until he is reassigned to Deputy Chief.

On April 05, 2023, Sgt. McCormick was appointed Acting Deputy Chief, per the BIPD Pay Plan. Sgt. McCormick will receive the entry level of Deputy Chief until he is reassigned to the position of Sgt.

Staff Recommendation: Adopt the updated PD Play Plan and approve a temporary stipend for Acting Chief and Acting Deputy Chief and Council to determine temporary compensation for the Interim City Manager.

Suggested Motion:

I move to adopt the Belle Isle Police Department Pay Plan effective April 4, 2023, as follows,

- Approve a 10% Salary Increase for the Acting Chief
- Approve the Interim City Manager Stipend as agreed upon by Council.

Alternatives: Disapprove.

Attachments: Updated BIPD Pay Plan

Belle Isle Police Department Salary Adjustment and Agreement

March 31, 2020 (Revised ~~July-April 18-13, 2023~~22)

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Officers from the Belle Isle Police Department officers are committed to protecting the Belle Isle community. The Department has faced some challenges over the past several years in attracting and keeping police officers. The pool of qualified candidates who want to become police officers has dwindled, partly due to negativity towards police. Larger agencies attract quality candidates with higher pay, more opportunities for advancement, and a wide array of specialized units. The competition to fill vacancies often boils down to agency salaries. Most qualified police applicants are given offers by several agencies.

The Belle Isle City Council recognized the need to provide better benefits and salaries in order to keep the highly trained and professional officers here. In doing so, over the past four years, the Council provided an increase in salaries and benefits to the officers. However, even with these increases, the Belle Isle Police Department remains one of the lowest-paid departments in Central Florida. The Belle Isle Police Department lost six valued officers over the past three years to larger agencies. These agencies offer better pay and benefits. The cost to train a new police officer is approximately

\$32,000. When an officer leaves the Belle Isle Police Department, other communities get the benefit of the cost of this training.

An extensive study of salary step plans of other law enforcement agencies revealed that retention is significantly increased when an agency has a guaranteed salary and benefits plan. This plan only applies to certified police officers, hereafter referred to as "employees". Employees will be placed in the grade they would have obtained based on their original date of hire or date of rank for Sergeant and above.

ARTICLE 1

PENSION PLAN

- 1. The City, as the annual budget allows, will contribute 17.5% of the employee's salary to a 401(a) held by the Florida League of Cities up to 19%.
- 2. Employees may also opt to contribute to a personal 457(b) account managed by the Florida League of Cities but the City does not contribute to this plan.

ARTICLE 2

WORKING OUT OF CLASSIFICATION

An employee who is specifically assigned by the Chief or his/her designee to temporarily accept the responsibilities and duties incident to a position senior to that of his/her regular grade and who is expected to exercise the authority and responsibility of the position shall be paid at the rate of such higher position from that date onward as long as such duties and responsibilities are carried out.

ARTICLE 3

WORKWEEK & WORK SHIFT

1. The payroll workweek shall begin at 0001 hours, Thursday, and end at 2400 hours, Wednesday. The work cycle shall be a twenty-eight (28) day work period, under the FLSA 7(K) exemption. Employees assigned to ten and a half (10.5) hour shifts shall be scheduled to work forty (42) hours per seven (7) day week. Officers assigned to work twelve (12) hour shifts shall be scheduled to work eighty-four (84) hours, per a fourteen (14) day pay period.
2. Employees are permitted a 15-minute paid rest break for each four-hour work period. Breaks are not permitted at either the beginning or end of the workday to offset arrival and departure times. Employees who voluntarily work through their rest breaks will not be paid additional compensation.
3. Employees who work eight or more hours in a day may take a paid meal break of 30 minutes. Meal breaks are counted toward hours worked. Employees are not completely relieved from duty during their meal break.

Article 4

OVERTIME

1. Employees working in excess of 86 hours in a pay period shall be paid at the overtime rate of 1.5 times their regular hourly rate. Paid Time Off (PTO) will not be counted in the 86 hours worked.

Article 5

EXTRA TIME PROVISIONS

- 1. Employees will be paid a minimum of three (3) hours "Call Back" time when asked to return to work outside a regular shift. Time of work begins upon notice to report.
- 2. Employees who are required to attend department business outside of their normal shift hours will be compensated for their actual time but no less than two (2) hours of straight pay. Business immediately appended to the employee's normal shift shall not be subject to the two (2) hour minimum.
- 3. An employee ordered to attend any meeting that occurs outside of regular working hours shall be compensated for actual hours worked.
- 4. If a paid holiday falls on an employee's regularly scheduled day off, the employee will be compensated for an additional shift at regular straight-time pay. If an employee must work on a holiday (other than Floating Holidays), the employee will be paid for hours worked plus an additional shift at regular straight time. The number of hours for the additional shift of pay will be determined by the employee's normally scheduled shift, i.e., 8-hour, 10-hour, 12-hour shift.

Article 6

COURT TIME

1. Officers required to appear in court during their off duty hours, on behalf of the City and as a result of exercising their lawful authority, will receive the equivalent of no less than three (3) hours of straight pay. The three (3) hour minimum shall not apply when the court appearance is scheduled to begin within one hour of the start or end of the employee's shift. In such circumstances, the employee's shift will be extended, and the employee will be paid for hours actually worked. If an employee is required to appear in court two or more times on the same date, an employee may only receive one "three-hour minimum" if the proceedings are conducted within the same three-hour period. If the court appearances begin within the same three-hour period, the employee will be granted pay for those hours, or portions thereof, that exceed the original three-hour allocation. Only when the court appearances are scheduled to begin outside the "three-hour minimum" time periods may employees receive an additional three-hour minimum pay.
2. Employees shall be permitted to keep any subpoena fees legally due to them.

ARTICLE 7

EDUCATIONAL REIMBURSEMENT

1. Employees are encouraged to attend institutions of higher learning. Employees who are attending college may be allowed to attend classes while in a paid status by using PTO or adjust work hours, workload permitting, and with a supervisor's approval.
2. Reimbursement for educational expenses will be in accordance with all provisions of the City's Policy and Procedures. The maximum reimbursement shall be one thousand eight hundred (\$1,800.00) dollars per person per year.

3. Employees seeking educational reimbursement must be enrolled in courses related to law enforcement.

4. Reimbursement will be only be granted based on the following scale:

- 80-100% – 100%
- 70-79% (Pass/Fail Grade is considered 70%)– 75%
- Below 70%(or Incomplete) – 0%

ARTICLE 8

PAY PLAN

The Belle Isle Police Department shall define "good standing" as,

A. No evaluation grade of "below standards" on any dimension on the annual Performance Appraisal.

B. No more than two (2) separate Internal Investigations leading to sustained disciplinary findings, or any demotion, within the past twelve months.

Officer

1. From the effective date of this Agreement, Officers in good standing will advance within Grades 1-11 as set forth in the chart below on their date of hire. Officers hired with previous experience will start at the following grades: two (2) to five (5) years of experience - Grade 2; six (6) to ten plus (10) years of experience - Grade 3. Experienced Officers starting salary within Grades two (2) or three (3) will advance within Grades as set forth in the chart below on their date of hire.

Annual PayScale Effective 10/01/2020	
Grade	Salary
1	\$ 44,124.29
2	\$ 47,212.99
3	\$ 50,423.47
4	\$ 52,389.99
5	\$ 54,485.59
6	\$ 56,665.01
7	\$ 58,931.61
8	\$ 61,288.88
9	\$ 63,740.43
10	\$ 66,290.05
11	\$ 68,941.65

Corporal

2. From the effective date of this Agreement, Corporals in good standing will advance within Grades 1-11 as set forth in the chart below on their date of hire.

Annual PayScale Effective 10/01/2020	
Grade	Salary
1	\$ 45,889.26
2	\$ 49,101.51
3	\$ 52,440.41

4	\$ 54,485.59
5	\$ 56,665.01
6	\$ 58,931.61
7	\$ 61,288.88
8	\$ 63,740.43
9	\$ 66,290.05
10	\$ 68,941.65
11	\$ 71,699.32

Sergeant

3. From the effective date of this Agreement, Sergeants in good standing will advance within Grades 12-16 as set forth in the chart below on their date of rank.

Annual PayScale Effective 10/01/2020	
Grade	Salary
12	\$ 69,633.56
13	\$ 72,418.90
14	\$ 75,315.66
15	\$ 78,328.28
16	\$ 81,461.42

Lieutenant

4. From the effective date of this Agreement, Lieutenant in good standing will advance within Grades 17-21 as set forth in the chart below on their date of rank.

Annual PayScale Effective 01/04/2022	
Grade	Salary
17	\$ 86,443.98
18	\$ 89,901.74
19	\$ 93,497.81
20	\$ 97,237.72
21	\$ 101,127.23

** If promoted to Deputy Chief the salary will hold until next step above current salary is achieved**

Deputy Chief

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5. From the effective date of this Agreement, Deputy Chief in good standing will advance within Grades 22-26 as set forth in the chart below on their date of rank.

Annual PayScale Effective 10/01/2020	
Grade	Salary
22	\$ 87,910.13
23	\$ 91,426.54
24	\$ 95,083.60
25	\$ 98,886.94

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26	\$ 102,842.42
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- 5. Field Training Officers (FTO) shall be compensated at the rate of thirty-six dollars (\$36.00) per day for each day they perform the duties of a Field Training Officer.
- 6. It is agreed that the Criminal Justice Standards Training Center educational incentive monies shall be paid monthly in one (1) biweekly payment and shall be received on or before the first of each month.
- 7. Officers and Sergeants permanently assigned to Special Operations (Criminal Investigations, Traffic/Marine, and SRO) will receive \$25.00 bi-weekly, and Sergeants shall receive \$30.00 bi-weekly.
- 8. Date of rank or date of hire adjustments that fall within the first seven (7) days of the pay period will be effective from the beginning of that pay period. If the date falls within the 8th to 14th day, the adjustment will become effective at the beginning of the next pay period.
- 9. Employees who meet approved Bi-lingual Certification standards will be compensated at the rate of \$25.00 bi-weekly.

ARTICLE 9

LONGEVITY

- 1. Employees with five or more years of service will be paid longevity pay based on years of service. Longevity pay will be distributed annually on the first pay period in October of each year. Effective October 1, 2020, the following longevity schedule will be used.

Years of Service	Amount Per Year
5 to less than 10 years	\$500.00
10 to less than 15 years	\$750.00
15 to less than 20 years	\$1,000.00
20 to less than 22 years	\$1,250.00
22 years or more	\$1,500.00

ARTICLE 10

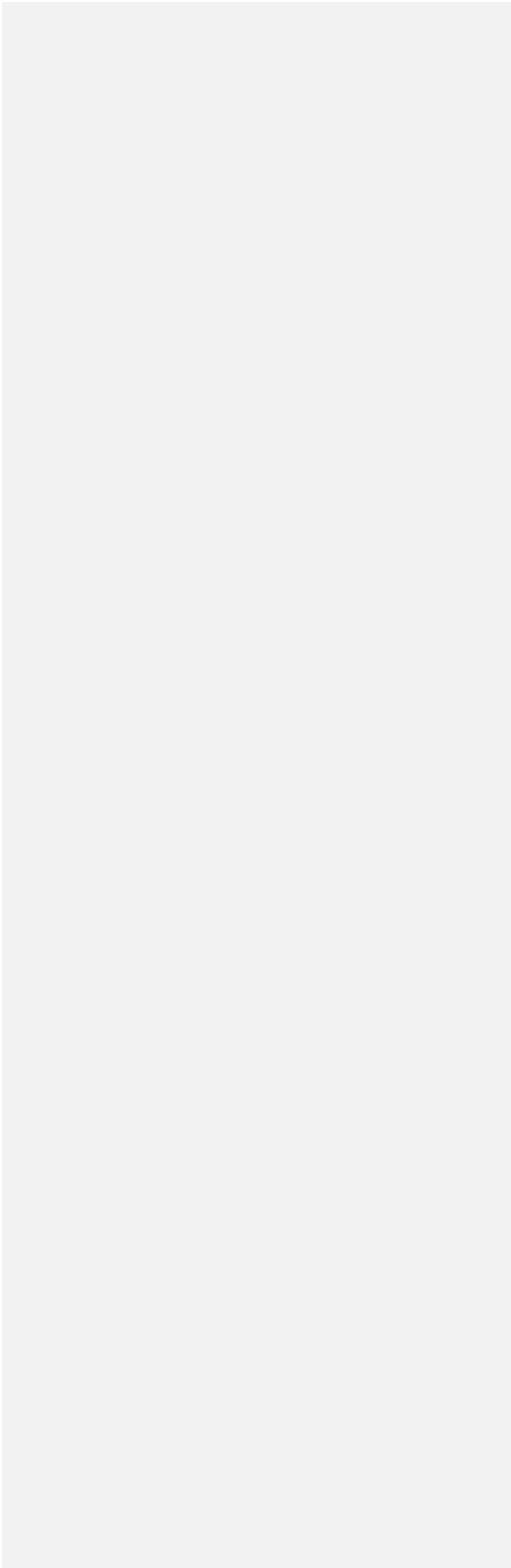
DURATION

Upon approval by the Belle Isle City Council, this Agreement shall take effect on October 1, 2020, and shall continue in full force and effect until September 30, 2023. At that time, the City Manager and the Police Department will review the pay plan for the appropriate Cost of Living adjustments.

ARTICLE 11

RULES

All employees covered by this Agreement shall also be covered by the terms of the City of Belle Isle Personnel Policy, as amended from time to time. It is specifically agreed and understood that this Agreement shall supersede all inconsistent provisions of the City of Belle Isle Personnel Policy



CITY OF BELLE ISLE, FLORIDA
CITY COUNCIL AGENDA ITEM COVER SHEET

Meeting Date: April 18, 2023
To: Honorable Mayor and City Council Members
From: T. Grimm, Interim City Manager
Subject: Reinstate Council Workshops

Background: During the Strategic Planning Session and at a few City Council meetings, Council suggested going back to holding Council Workshops. Workshops, or Work Sessions, are allowed under the BI Municipal Code, Section 2-53. The purpose of a City Council workshop is to provide an open forum for City Council and City staff members to discuss and share ideas on various subjects related to City operations, projects, and planning. Citizens are welcome to attend; however, since the City Council does not take official action during workshop sessions, citizen comments on workshop items are made only at the request of the Mayor or Council Members.

Staff Recommendation: Workshops can provide productive dialogue and open discussions between Council members less structured than regular meetings, which can lead to a positive direction for staff. The main problem encountered in the past has been to hold the workshop, provide direction, and then when it comes to the regular meeting agenda, the same discussions occur at the regular meeting done in the workshops.

If the Council wishes to go back to workshops, then issues discussed at the workshop should have limited discussion when placed on the regular meeting agenda for formal action. We can hold the same schedule. However, the first Tuesday meeting will be held for Action Items, and the third Tuesday can be for a Work Session.

Suggested Motion: I move that, starting in May 2023, the Council meeting in a workshop on the third Tuesday of the month starting at 6:30 PM.

Alternatives: Do not hold workshops and continue with two regular meetings every month.
Fiscal Impact: N/A
Attachments: None

CORNERSTONE CHARTER ACADEMY

City Belle Isle, Florida
City Council Meeting
4/18/23



CONCEPT PLAN

Ordinance 23-02



Co-Applicants:
Cornerstone Charter Academy
Pine Castle United Methodist Church
City of Belle Isle

Project Team
FEG Engineering
CIVICA Architecture
TPD Engineering



Cornerstone Charter School CONCEPT Plan Ordinance 23-02

Co-Applicants

*Cornerstone Charter Academy
City of Belle Isle, Florida*

Pine Castle United Methodist Church

Project Team

FEG Engineering

CIVICA Architecture

TPD Engineering



CCA Class of 2023 Accomplishments

- 8 students graduating with **AA degrees** in 2023
- 5 students graduating as **certified Bio-Medical Technicians** (25 over the past 5 years)
- National Hispanic recognition award from **College Board**
- 2022 school **winner for the Heisman High School Scholarship**
- One of the 100 chosen (out of thousands nationally) for **Disney Dreamer and Doers** with his name in Times Square and on Good Morning America
- Two of our **student athletes** have signed with colleges **to play at the collegiate level**
- Winner of the **Mayors MLK Humanitarian Award for community service**
- 5 out of the top 10 graduates this year are **Legacy Students**
- 60% of our graduates earned the **Scholar Diploma Designation**

CCA Past Accomplishments

- Last year's Valedictorian attended **West Point**
- 2019 CCA graduate is graduating from the **Naval Academy** this year with an appointment to become a **Marine pilot**
- **2 National Merit Scholarship winners** and multiple finalists
- 25%-30% of our graduates qualify for **Bright Futures** every year with **over \$1 million in additional scholarships** each year
- **5 Eagle Scouts** have completed their service projects in and around CCA and Belle Isle
- Football team won their first ever **SSAC State Title** this year
- Over 250 students have taken **dual enrollment** since 2020
- Thriving theatre department that has **won multiple Dr. Phillips Applause Awards**
- **Service Learning Club** has raised tens of thousands of dollars for **Childrens Miracle Network** each year



CORNERSTONE CHARTER ACADEMY

PROPOSED MASTER PLAN

03.28.2023

CIVICA
Architecture

Traffic Assessment



Background

- Existing Shifts:

- **Grades K-5:**

- Drop-off 7:15 AM
 - Pick-up 2:35 PM

- **Grades 6-12:**

- Drop-off 7:30 AM
 - Pick-up 2:45 PM



Background

- **Comprehensive Traffic Analysis**
 - Traffic data collection
 - Traffic observation
 - Existing traffic analysis
 - Trip generation analysis
 - Buildout traffic analysis with suggested improvements
 - Queueing analysis
- **Purpose of the analysis is to provide recommendations for traffic circulation**



Proposed Improvements

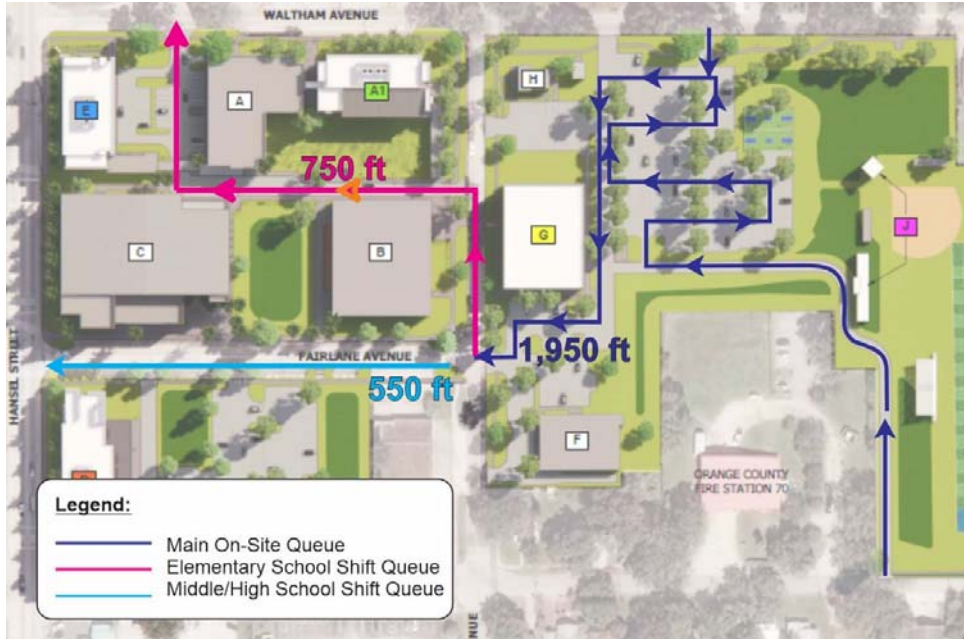
- Drop-off / Dismissal will operate in three (3) shifts - minimum of ½-hour apart
- Site will have on-site queueing for all 3 shifts
- New entrance on Wallace Street to enhance on-site queueing.
- Site will have on-site queueing for all 3 shifts within the parking lot on the property east of Randolph Ave



Proposed Improvements

	Existing On-Site Queue Length Provided (Estimated from Traffic Observations)	Proposed On-Site Queue Length (Provided Within Site)***
Elementary School	750 ft *	2,700 ft
Middle/High School	770 ft **	2,500 ft

* 795 ft additional queue backs up on Waltham Ave, Randolph Ave and Wilks Ave
** 1,580 ft additional queue backs up on Wallace St and Randolph Ave south of Wallace St
*** Total stacking provided within the site



Proposed Conditions Traffic Simulation – Elementary School Shift



Proposed Conditions Traffic Simulation – High School Shift



Recommendations

- **Three (3) shifts** for Elementary, Middle and High School, approximately **30-minutes apart**.
- **On-site vehicle stacking** within the parking lot on the property east of Randolph Avenue.
- At the City's request, **Randolph Avenue** will be closed to traffic from the north on Waltham Avenue and the south on Wallace Street during Arrival and Dismissal.
- **Fairlane Avenue** to become 1-Way only westbound, and vehicles to exit right-only on Hansel Avenue.
- **Police/traffic attendant guidance** at the intersections of Hansel Avenue/Waltham Avenue and Hoffner Avenue/Randolph Avenue.
- Station **staff members / traffic attendants** within the site and at the entry driveways to **guide traffic** into the school site queue and ensure proper circulation.
- **Traffic study** considered 100% student vehicle drop-off/pick-up as a **conservative analysis**.
 - Large portion of **pedestrians** and **“golf-cart”** pick-up locations,
 - The school expansion will also **expand the after-school programs** which will account for a percentage of students staying on campus after dismissal times and will **reduce the number of vehicles** arriving to the site at drop-off/d dismissal.

Response to P&Z Meeting Comments

1. What policy does the Traffic Study comply with?

- City of Belle Isle MuniCode Sec 46-62
- Orange County “Traffic Operational Analysis Methodology for Schools”

2. Projected conditions of roadway segments within 1-mile operating at deficient Levels of Service

- Traffic report findings (modified):
 - 1 segment is operating at deficient Level of Service under existing conditions
 - 1 segment is projected to operate at deficient Levels of Service at buildout conditions
- Using SCHOOL PEAK HOUR (2:00-4:00 P.M. Peak Hour) for existing traffic volumes, there will be no capacity deficiency on the Hansel Avenue segment.

Hansel Avenue Segment 176 - Roadway Capacity Analysis

Roadway Capacity	Existing Volumes		Committed Trips	School Trips	Total	Capacity Exceeded?
2,440	4:00 - 6:00 P.M.	2,337	1	214	2,552	Yes
	2:00 - 4:00 P.M.	1,730	1	214	1,945	No

Response to P&Z Meeting Comments

3. Project Impact on Hoffner Avenue is too significant

- Trips Generated by SCHOOL EXPANSION

Trip Generation Comparison

	No. of Students	A.M. Peak Hour			P.M. Peak Hour		
		Total	Enter	Exit	Total	Enter	Exit
Existing Highest Shift Traffic	905	751	383	368	600	300	300
Proposed Highest Shift Traffic	1,100	913	466	447	779	390	389
Net New Trips		162	83	79	179	90	89

- Impact of EXPANSION TRIPS on Hoffner Avenue is only 4.00% of Capacity

Roadway Capacity	% of Trips	# of Trips Added due to Expansion	% of Capacity
800	35%	32	4.00%

Response to P&Z Meeting Comments

4. Why were the intersections of Hansel Avenue/Oakridge Road and Orange Avenue/Oakridge Road excluded from analysis?

- Based upon our preliminary assessment of trip generation/ trip distribution, we determined that Oak Ridge Road would not be significantly impacted.
- Data was collected for further analysis and results show that these intersections will operate at acceptable Levels of Service at buildout.

Intersection	Control	Time Period	EB		WB		NB		SB		Overall	
			Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
Oak Ridge Rd & Hansel Ave	Signal	A.M.	0.0	A	--	--	17.8	B	--	--	17.8	B
		P.M.	0.0	A	--	--	20.1	C	--	--	20.1	C
Oak Ridge Rd & Orange Ave	Signal	A.M.	19.7	B	18.3	B	--	--	8.4	A	11.9	B
		P.M.	20.9	C	19.2	B	--	--	9.4	A	13.5	B
Hoffner Ave & Marinell Dr	Stop	A.M.	0.0	A	3.7	B	29.6	D	--	--	4.0	A
		P.M.	0.0	A	2.3	A	28.7	D	--	--	3.2	A

Response to P&Z Meeting Comments

5. The roadway segments operating at deficient Levels of Service should follow Orange County's Concurrency requirements for mitigating deficient Levels of Service.

- All public schools are exempt from Orange County's concurrency requirements.

6. The stop-controlled intersection of Waltham Avenue/Hansel Avenue was not analyzed under police officer control during drop-off/pick-up

- This intersection was analyzed under stop-control and under signal control in the traffic report. The signal control mimics the operation under police officer traffic guidance.
 - The intersection will operate at satisfactory Levels of Service under signal (police officer) control.
-



VIEW LOOKING NORTH EAST



CORNERSTONE CHARTER ACADEMY

AERIAL VIEWS





03.28.2023

CIVICA
Architecture

NEW ELEMENTARY CLASSROOM WING (3-STORY)

at the current location of the "Villages"

- THREE-STORY, ±29,600 SF BUILDING
- COVERED CONNECTION TO EXISTING ELEMENTARY CLASSROOM BUILDING
- CAFETERIA
- CLASSROOMS FOR GRADES K-1
- CLASSROOMS FOR GRADES 2-5
- ART ROOM
- "PROJECT LEAD THE WAY" (PLTW) ROOM
- MUSIC ROOM
- EXCEPTIONAL STUDENT EDUCATION (ESE) ROOM

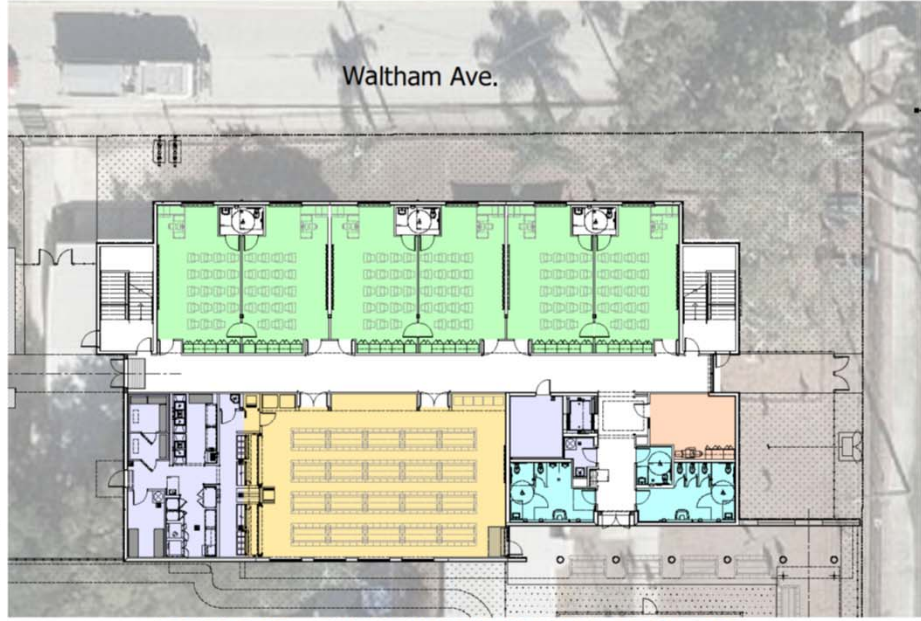
	CLASSROOMS & OTHER EDUCATIONAL SPACES		CAFETERIA
	ADMINISTRATION		SUPPORT



3RD FLOOR - ELEMENTARY SCHOOL ADDITION



2ND FLOOR - ELEMENTARY SCHOOL ADDITION



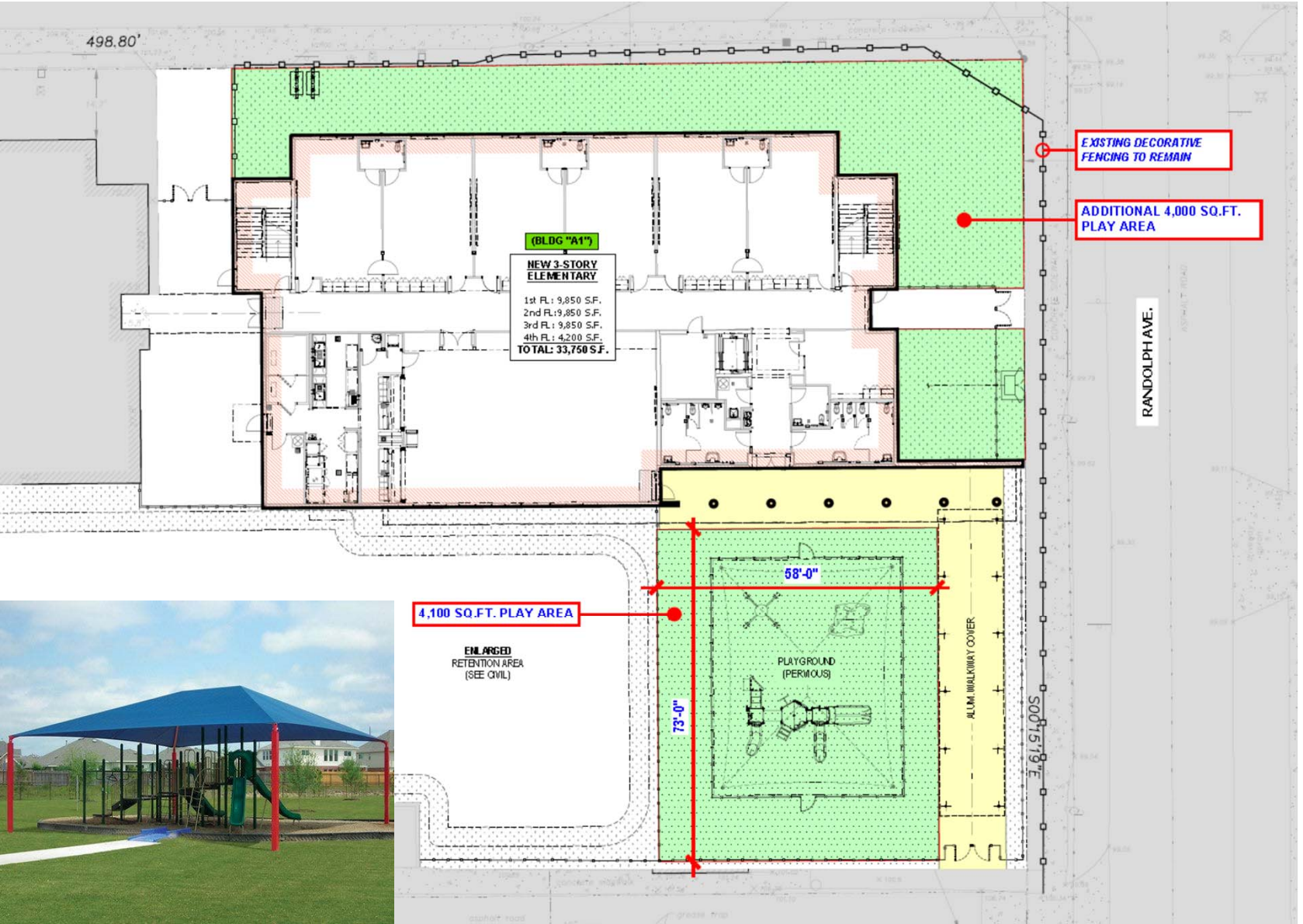
1ST FLOOR - ELEMENTARY SCHOOL ADDITION



CORNERSTONE CHARTER ACADEMY

NEW BUILDING A1 - ELEMENTARY SCHOOL ADDITION - FLOOR PLANS

03.28.2023
CIVICA
 Architecture



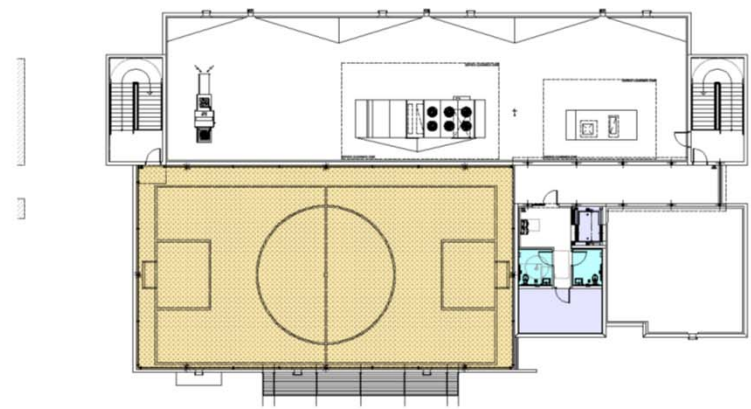
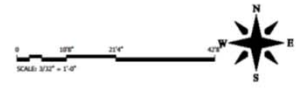
Elementary School

Ground Level Play Areas for K-2



NEW ELEMENTARY CLASSROOM WING (3-STORY) at the current location of the "Villages"

- THREE-STORY, ±29,600 SF BUILDING
- COVERED CONNECTION TO EXISTING ELEMENTARY CLASSROOM BUILDING
- CAFETERIA
- CLASSROOMS FOR GRADES K-1
- CLASSROOMS FOR GRADES 2-5
- ART ROOM
- "PROJECT LEAD THE WAY" (PLTW) ROOM
- MUSIC ROOM
- EXCEPTIONAL STUDENT EDUCATION (ESE) ROOM



Elementary School Upper-Level Play Areas for 3-5

Fully Compliant with FBC, FFPC, FAC





NORTH ELEVATION



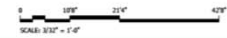
WEST ELEVATION



SOUTH ELEVATION



EAST ELEVATION



CORNERSTONE CHARTER ACADEMY

NEW BUILDING A1 - ELEMENTARY SCHOOL ADDITION - ELEVATIONS

03.28.2023

CIVICA
Architecture

NEW BUILDING "D" - HIGH SCHOOL CLASSROOM WING at the old Bank of America parcel

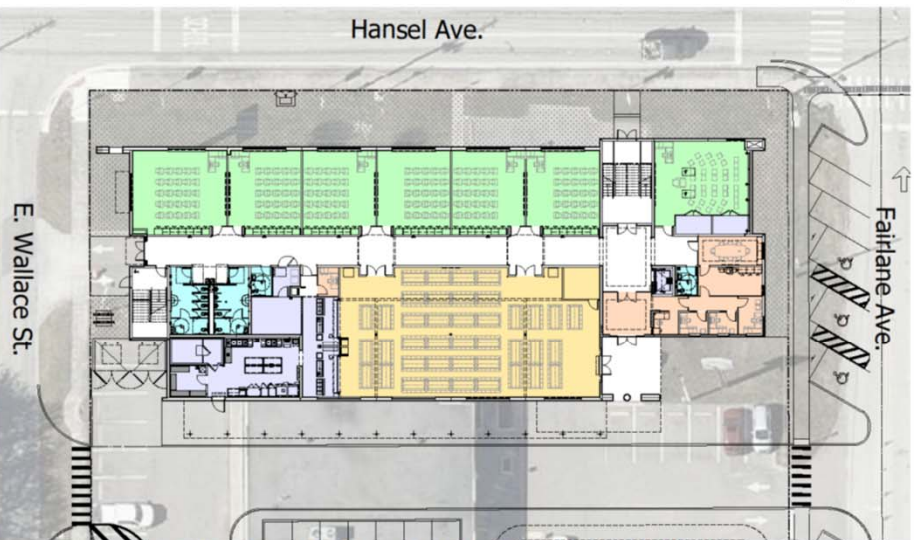
- THREE-STORY, ±50,400 SF BUILDING
- HIGH SCHOOL ADMINISTRATION OFFICE
- CAFETERIA
- GENERAL EDUCATION CLASSROOMS FOR GRADES 9-12
- ART ROOMS
- CHORUS ROOM
- MUSIC ROOM
- SEMINAR ROOM
- SCIENCE CLASSROOMS - LIFE, EARTH AND SPACE & PHYSICS






3RD FLOOR - HIGH SCHOOL CLASSROOM WING



2ND FLOOR - HIGH SCHOOL CLASSROOM WING



1ST FLOOR - HIGH SCHOOL CLASSROOM WING

 CLASSROOMS & OTHER EDUCATIONAL SPACES	 CAFETERIA
 ADMINISTRATION	 SUPPORT



CORNERSTONE CHARTER ACADEMY

NEW BUILDING D - HIGH SCHOOL CLASSROOM WING - FLOOR PLANS

03.28.2023

CIVICA
Architecture



WEST ELEVATION



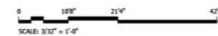
NORTH ELEVATION



EAST ELEVATION



SOUTH ELEVATION



CORNERSTONE CHARTER ACADEMY

NEW BUILDING D - HIGH SCHOOL CLASSROOM WING - ELEVATIONS

03.28.2023

CIVICA
Architecture



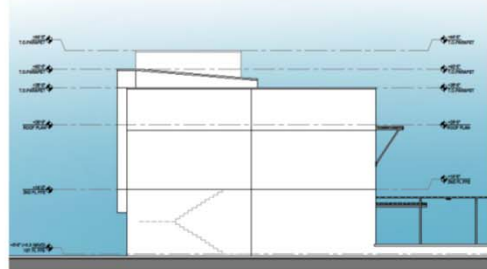
WEST ELEVATION



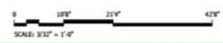
NORTH ELEVATION



EAST ELEVATION



SOUTH ELEVATION



CORNERSTONE CHARTER ACADEMY

NEW BUILDING E - STUDENT SERVICES - ELEVATIONS

03.28.2023
CIVICA
Architecture

NEW BUILDING "J" - FIELD CONCESSIONS & RESTROOMS

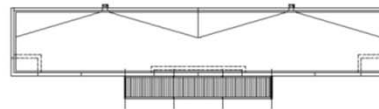
- TWO-STORY, ±1,740 SF BUILDING
- CONCESSIONS
- RESTROOMS
- COACH OFFICE
- BASEBALL/SOFTBALL SCORER'S BOX



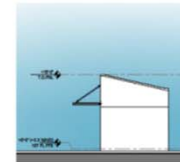
ELEVATION - SCORER'S BOX



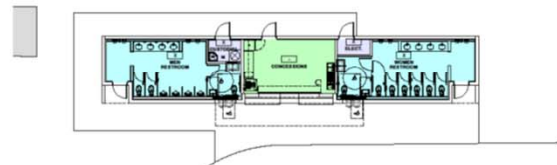
2ND FLOOR - SCORER'S BOX



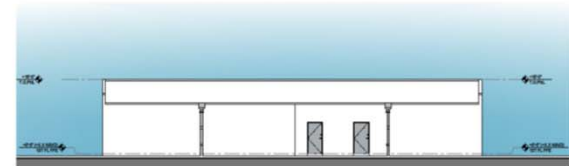
ROOF PLAN - CONCESSION + RESTROOM



1ST FLOOR - SCORER'S BOX



1ST FLOOR - CONCESSION + RESTROOM



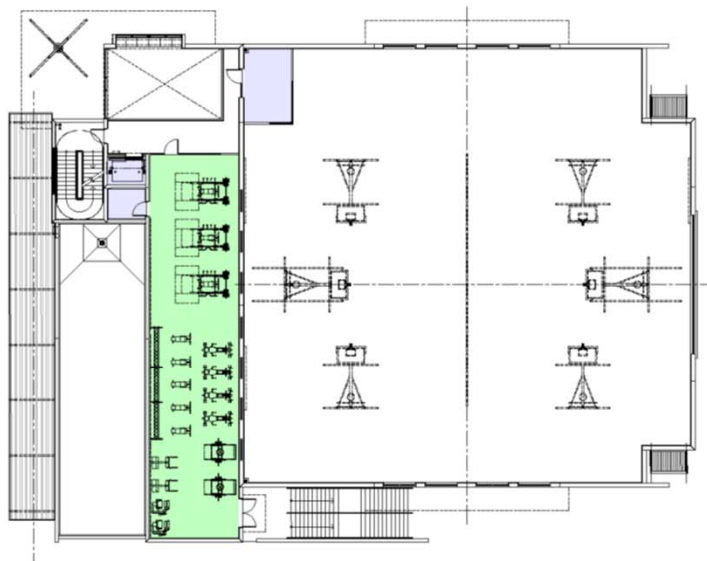
ELEVATIONS - CONCESSION + RESTROOM



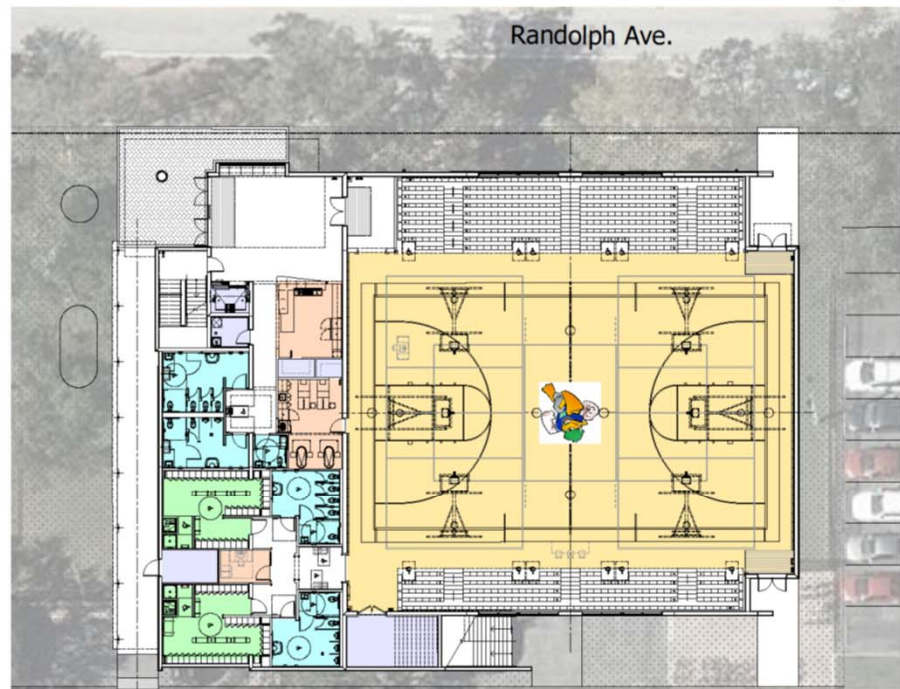
NEW BUILDING "G" - GYMNASIUM / AUDITORIUM

- TWO-STORY, ±17,100 SF BUILDING
- GYMNASIUM / AUDITORIUM WITH BLEACHERS
- REGULATION BASKETBALL / VOLLEYBALL COURT
- A/V SYSTEM CONTROL ROOM
- CONCESSION STAND
- LOCKER ROOMS
- WEIGHT ROOM

 LOCKERS & WEIGHT ROOMS	 GYMNASIUM / AUDITORIUM
 OFFICES	 SUPPORT



2ND FLOOR - GYMNASIUM / AUDITORIUM



1ST FLOOR - GYMNASIUM / AUDITORIUM

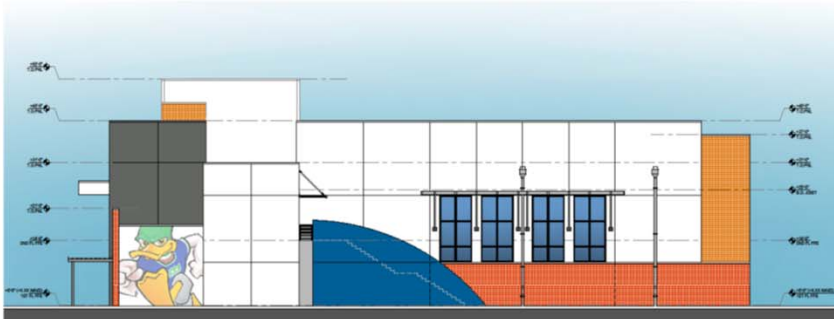


CORNERSTONE CHARTER ACADEMY

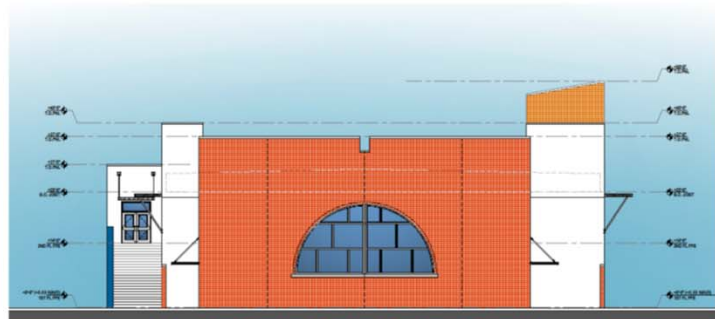
NEW BUILDING G - GYMNASIUM/AUDITORIUM FLOOR PLANS

03.28.2023

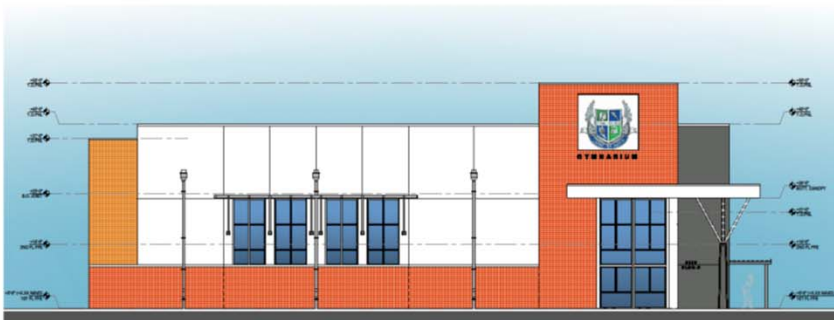
CIVICA
Architecture



EAST ELEVATION



NORTH ELEVATION



WEST ELEVATION



SOUTH ELEVATION



CORNERSTONE CHARTER ACADEMY

NEW BUILDING G - GYMNASIUM/AUDITORIUM ELEVATIONS

03.28.2023

CIVICA
Architecture

CORNERSTONE CHARTER ACADEMY

City Belle Isle, Florida

GYMNASIUM



STAFF REPORT

- **Approval of the requested REZONING per Ordinance 23-02 and per Belle Isle staff’s recommendation of APPROVAL**

- “The proposed Planned Development rezoning is to create consistency in the zoning use of the entire campus where the school is and will be in operation.”

- **STAFF RECOMMENDATION:**

- “Staff has no objection to the proposed concept plan.”
- “Staff recommends approval of the preliminary concept plan and PD district.”

- **Approval of the following per Ordinance 23-02**

- Concept Plan
- Code Provisions
- Permitted Uses
- Special Exception Uses
- Maximum Building Height
 - 4 stories / 57 feet
- Setbacks consistent with the Concept Plan
- Intensity
 - 0.45 Floor Area Ratio
- Maximum Impervious Surface
 - .70
- Architectural Features consistent with the Concept Plan
- Vehicular Parking / Ingress / Egress
- Lighting
- Landscaping, Landscaping Buffers, Recreation, Open Space
- Planned Development Name
 - Cornerstone Charter Academy PD
- Development Plan / PD Expiration
- Violation

Planning & Zoning recommended **APPROVAL** of Ordinance 23-02 w/ the following **Conditions of Approval**:

1. Randolph Ave to be closed **ONLY** during the Pick-up and Drop-off hours of the school and shall include appropriate safety measures.
2. Eliminate “Required” and “Allowable” columns on the site plan and reflect the floor area ratio, impervious surface ratio, and building setbacks standards.
3. Under sec.54-77(e) (5), the code requires the next phase of the PD process to govern “the use of land and the construction, modifications, or alterations of any buildings, structures or other improvements” on the property. The Site Note must be modified to reference the Development Plan, not the Final Construction Plans.
4. The Title of the Plan Set needs to be **Cornerstone Charter School CONCEPT Plan**, not Development Plan. Consistency with Code verbiage is important to eliminate any confusion in the future.

Staff Recommendation

Approve the amendment recommended by the P&Z Board on 4/11/23

REQUEST

Read Ordinance 23-02 for the first time and post for Second Reading and Adoption on May 2, 2023

February 9, 2023

Mr. Bob Francis
City Manager
City of Belle Isle
1600 Nela Avenue
Belle Isle, FL 32809

Subject: **Cornerstone Charter Academy**
906 Waltham Avenue
Belle Isle, FL 32809
Project Description
FEG Project No. 22-010

Dear Bob;

The purpose of this request is to rezone the parcels associated with the Cornerstone Charter Academy campus to Planned Development (PD) to have a consistent entitlements standards throughout the school site. The proposed project is located north of Wallace Street, East of Hansel Avenue and south of Waltham Avenue in the City of Belle Isle. The project consists of a combination of seven parcels with a total land area of approximately 14.9 acres as shown in the enclosed Parcel Map exhibit attached to this letter.

There are three separate entities that own these parcels where the City of Belle Isle being the largest landowner and the other two owners are Pine Castle Methodist Church and Cornerstone Charter Academy Inc. The project will consist of expanding the existing K-12 charter school to accommodate 2,420 Students from approximately 1,479 students under current conditions.

Zoning and Future Landuse:

The Cornerstone Charter Academy has been in operation for over a decade under the current different zoning districts and future land use designations. The existing zoning entails R-1A, R-2 and C-1 as detailed on the PD Master plan with Future Land use of Low Density Residential and Commercial Designations. As such, our request is to have a unified zoning designation along the entire school site with consistent entitlements standards.

Planned Development:

The enclosed PD Master Plan depicts the location of the new and existing buildings within the project site. It also provides the square footage per building. The new buildings will consist of three-story High School Annex Building located at the existing Bank of America site, a two-story Student Services Building at the old Texaco station, a four-story Elementary Classroom Building east of the existing elementary school building, a new Gymnasium on the east side of Randolph Avenue a Press Box Building and a Concession Building near the football field. The areas for each new building are shown on the PD master plan and on the accompanying architectural plans.

Moreover, setbacks, landscape buffers and open space are also defined as part of this PD request. A landscape plan also accompanies this submittal.

Stormwater and Utilities:

The proposed improvements will be served with additional stormwater ponds to be built as shown on the PD master plan to meet the water quality and flood control per the City of Belle Isle and the St. Johns River Water Management District (SJRWMD) requirements.

The proposed sewer system will connect to the exiting sewer system onsite. A lift station will be added near the new gymnasium to receive the sewer discharge from the Gymnasium building, the new Concession building and the existing Field House building. Orange County provides the sewer services in this area so the design will be in compliance with Orange County Utilities requirements. OUC will provide the water service to this project. .

Traffic:

As requested by the City, a full Traffic Impact Assessment (TIA) Study was performed to assess the effect of the existing and proposed school expansion on the surrounding roadway network and on the local streets in the immediate vicinity of the school site. A copy of the full traffic impact assessment report is enclosed with this submittal.

As part of the traffic study, an analysis was conducted to ensure that the proposed site can accommodate parent vehicles during drop-off/pick up times. As a result of this analysis, it was recommended that three shifts be implemented 30 minutes apart to ensure queue clearance for the next shift and minimize queue spill on adjacent streets. New traffic patterns for queuing per shift was also recommended to ensure compliance with the traffic study recommendations.

Architectural Plans:

Colored building elevations and floor plans for each new building are also enclosed with this submittal as part of the PD package.

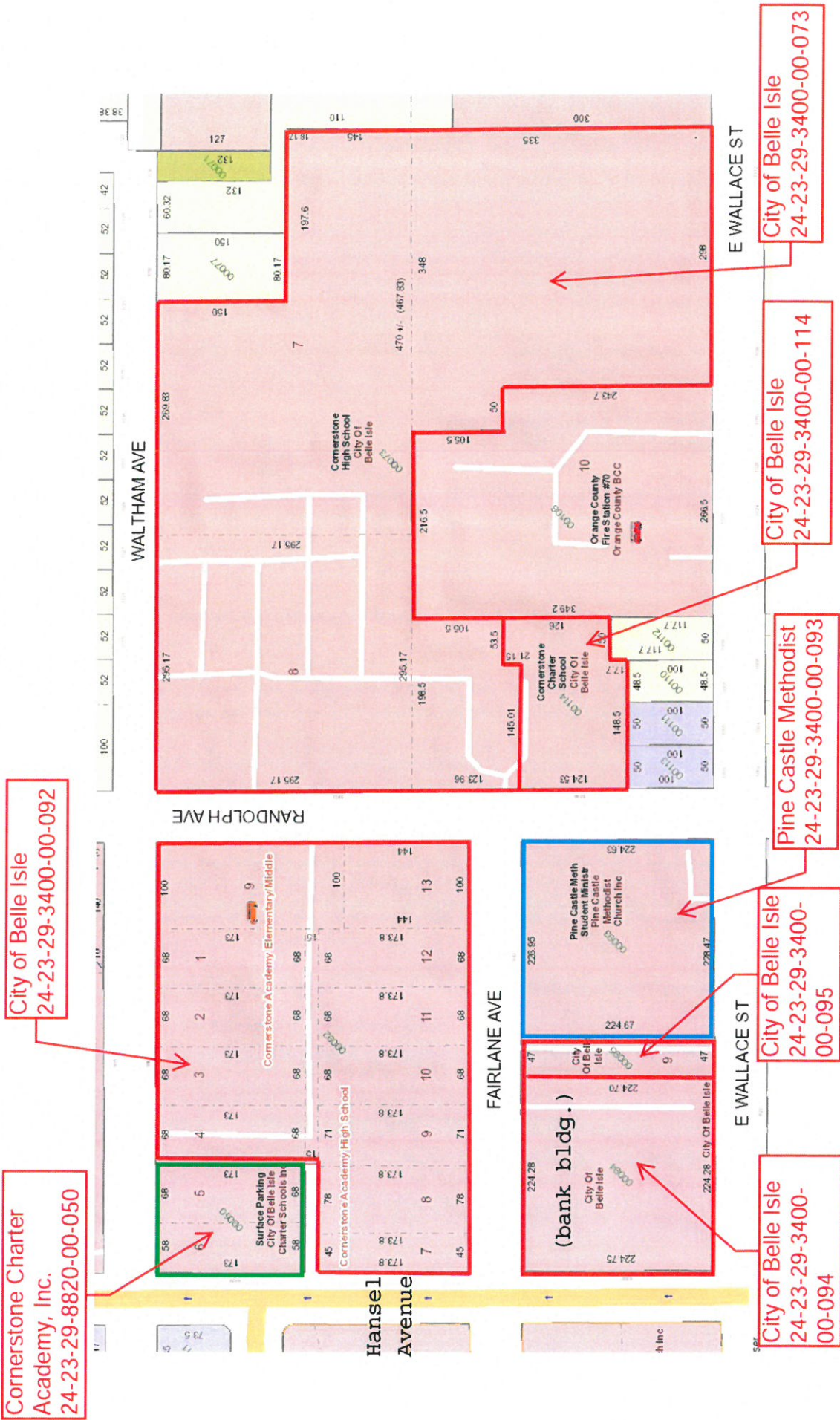
I trust this letter and the attached documents provide you with the necessary information to review and approve our PD zoning request. Should you have any questions or concerns, please do not hesitate to contact me at 407-895-0324 or, by email, at JAbiaoun@feg-inc.us.

Sincerely,
Florida Engineering Group, Inc.



Jean M. Abi-Aoun, P.E.
Vice-President

**CORNERSTONE CHARTER SCHOOL
PARCEL MAP**



**FLORIDA
ENGINEERING
GROUP**

5127 S. Orange Avenue, Suite
200 Orlando, FL 32809
Phone: 407-895-0324
Fax: 407-895-0325



CORNERSTONE CHARTER ACADEMY PLANNED DEVELOPMENT PLAN CITY OF BELLE ISLE, FLORIDA

APPLICANT: CORNERSTONE CHARTER ACADEMY, INC.
906 WALTHAM AVE.
CITY OF BELLE ISLE, FL 32809
407-608-7171

OWNERS: CORNERSTONE CHARTER ACADEMY, INC.
906 WALTHAM AVE.
CITY OF BELLE ISLE, FL 32809
407-608-7171

GEOTECHNICAL ENGINEER: ECS FLORIDA, LLC
2815 DIRECTORS ROW #500,
ORLANDO, FL 32809
PHONE: (407) 859-8378

ARCHITECT: CIVICA ARCHITECTURE & URBAN DESIGN
8323 NW 12th St. SUITE 106
DORAL, FL 33126
PHONE: (305) 593-9959

TRAFFIC: TRAFFIC PLANNING & DESIGN, INC.
535 VERSAILLES DR. SUITE #200
MAITLAND, FL 32751
PHONE: (305) 923-7103

SURVEYOR: BISHMAN SURVEYING & MAPPING, INC.
32 W. PLANT STREET
WINTER GARDEN, FL 34787
PHONE: (407) 905-8877
FAX: (407) 905-8875

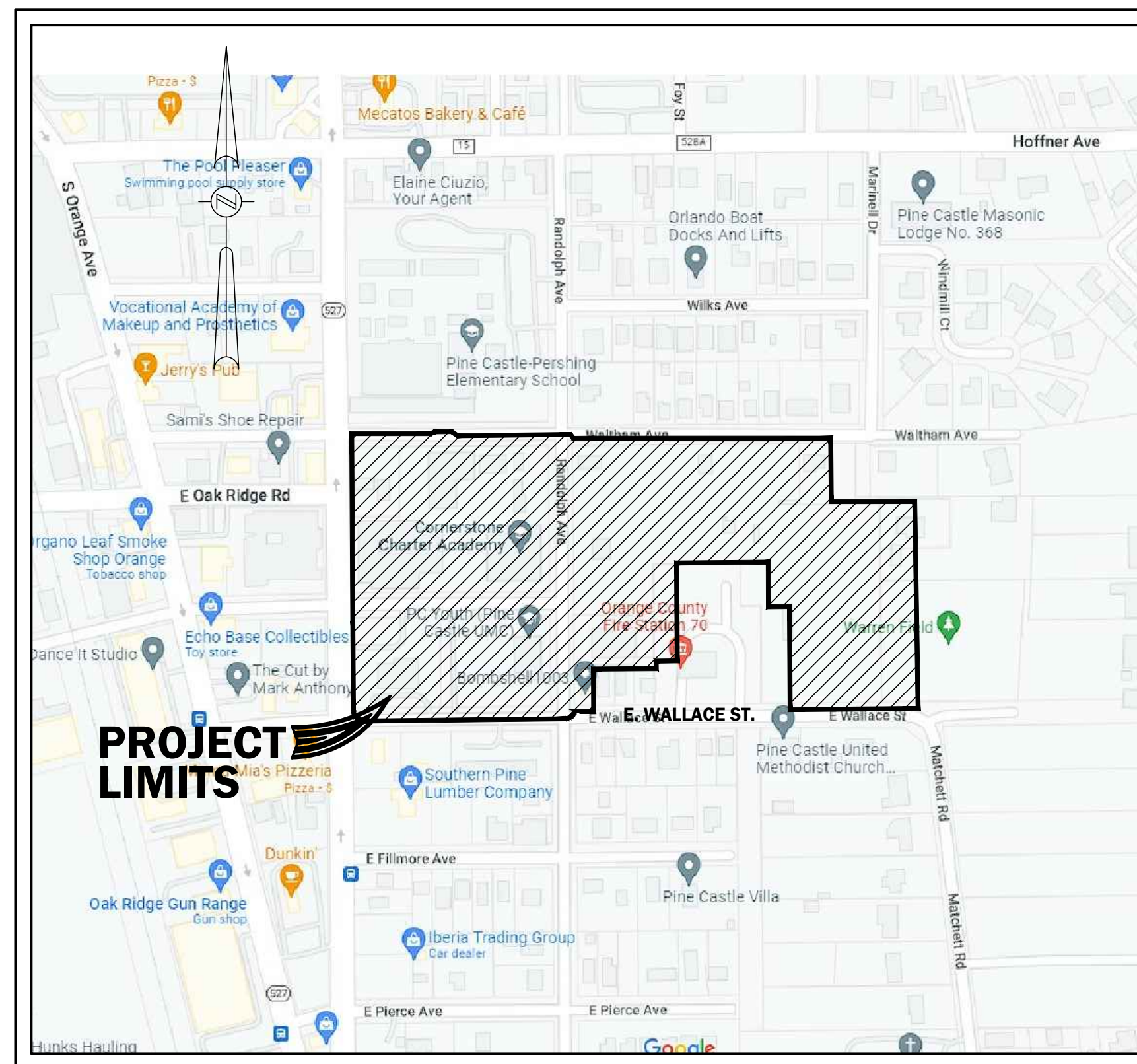
PERMITTING AGENCIES
S.J.R.W.M.D.: ENVIRONMENTAL RESOURCE PERMIT
F.D.E.P.: WATER AND WASTEWATER SYSTEM PERMITS
CITY OF BELLE ISLE: SITE PLAN APPROVAL
ORANGE COUNTY UTILITIES
FLORIDA DEPARTMENT OF TRANSPORTATION

UTILITY COMPANIES

WATER: (407)-423-9018
SEWER: (407)-254-9764
ELECTRIC: (877)-372-8477
TELEPHONE: (800)-288-2020
CABLE: (855)-317-1263

ORLANDO UTILITIES COMMISSION
ORANGE COUNTY UTILITIES
DUKE ENERGY
AT&T
CHARTER SPECTRUM

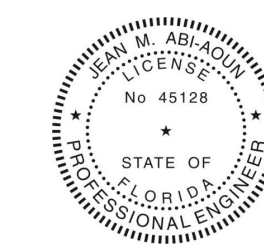
SITE VICINITY MAP



NOT TO SCALE

PLAN INDEX

- C-1 COVER SHEET**
- C-2 - C-7 BOUNDARY AND TOPOGRAPHIC SURVEY (6)**
- C-8 BOUNDARY AND TOPOGRAPHIC SURVEY - BANK OF AMERICA**
- C-9 OVERALL MASTER SITE PLAN**
- L-1 - L-3 LANDSCAPE PLAN (3)**



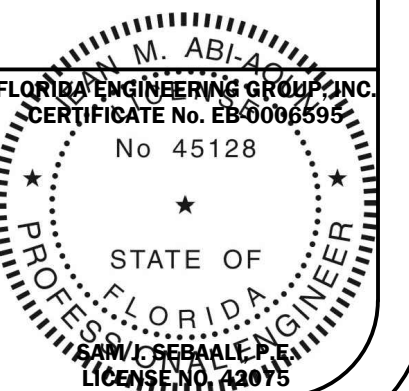
THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY
JEAN M. ABI-AOUN
No. 45128
STATE OF FLORIDA
PROFESSIONAL ENGINEER

Digitally signed by JEAN M ABI-AOUN
DN: c=US, o=FLORIDA ENGINEERING GROUP INC.,
ou=A01410D00000172C87078BF0000F7AE,
cn=JEAN M ABI-AOUN
Date: 2023.02.09 10:23:00 -05'00'



5127 S. Orange Avenue, Suite 200
Orlando, FL 32809
Phone: 407-895-0324
Fax: 407-895-0325

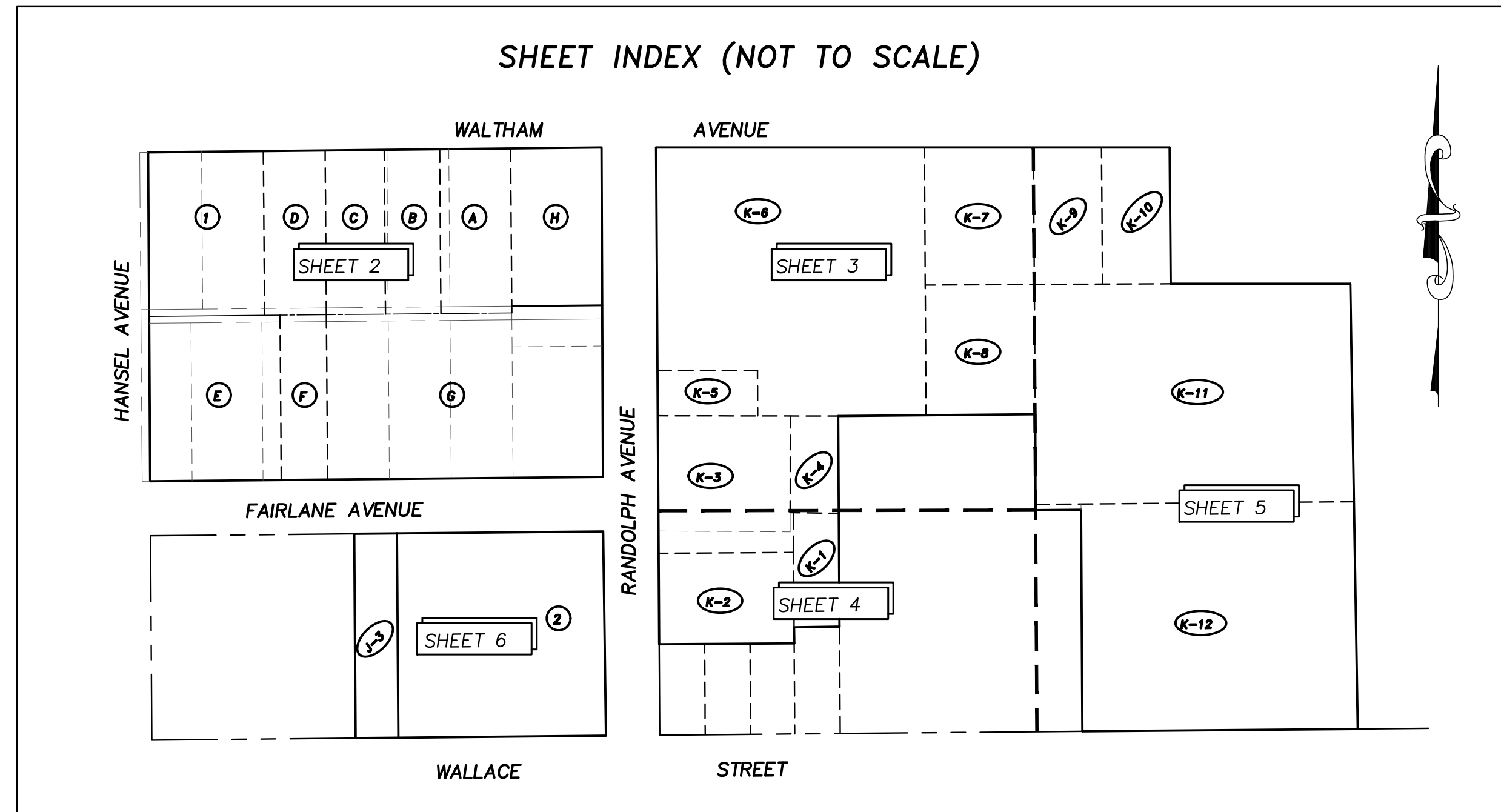
www.feg-inc.us



BOUNDARY AND TOPOGRAPHIC SURVEY

CORNERSTONE CHARTER ACADEMY

SHEET INDEX (NOT TO SCALE)



SURVEYORS' NOTES:

1. NOT VALID WITHOUT THE SIGNATURE AND THE ORIGINAL RAISED SEAL, OR DIGITAL SIGNATURE AND SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER. PRINTED COPIES OF A DIGITAL SIGNED AND SEALED SURVEY ARE NOT VALID.
2. LANDS SHOWN HEREON WERE NOT ABSTRACTED FOR RIGHTS OF WAY, EASEMENTS, OWNERSHIP, OR OTHER INSTRUMENTS OF RECORD, BY THIS FIRM.
3. REVISIONS DO NOT CONSTITUTE A RE-CERTIFICATION OF THE EXISTING FIELD CONDITIONS OF THIS SURVEY.
4. BEARINGS SHOWN HEREON ARE BASED ON THE NNORTH RIGHT-OF-WAY LINE OF FAIRLANE AVENUE AS BEING S89°27'20"W (ASSUMED).
5. THE DESCRIPTION SHOWN HEREON WAS SUPPLIED BY THE CLIENT.
6. UNDERGROUND IMPROVEMENTS AND INSTALLATIONS HAVE NOT BEEN LOCATED.
7. THE LANDS SHOWN HEREON LIE ENTIRELY WITHIN ZONE X (AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOOD) ACCORDING TO "FIRM" MAP NO. 12095C0430 F, COMMUNITY NO. 120179, DATED SEPTEMBER 25, 2009.
8. THE ELEVATIONS SHOWN HEREON ARE BASED ON ORANGE COUNTY DATUM PER BENCH MARK NUMBER 51316-035 BEING A BOX CUT ON TOP OF CURB INLET, ELEVATION = 101.52 (NAVD 1988).
9. SITE BENCHMARKS ARE SHOWN HEREON
10. THE ELECTRONIC FILE FOR THIS PROJECT IS THE PROPERTY OF BISHMAN SURVEYING AND MAPPING, INC. AND IS NOT THE PROPERTY OF THE CLIENT.

LEGEND/ABBREVIATIONS:
NOT ALL SYMBOLS AND ABBREVIATIONS SHOWN HEREON MAY BE USED

<p>R RADIUS Δ CENTRAL ANGLE L LENGTH CH CHORD OB CHORD BEARING T.B. TANGENT BEARING (M) MEASURED (P) PLAT (C) CALCULATED (D) DESCRIPTION POB POINT OF BEGINNING POC POINT OF COMMENCEMENT O.R. OFFICIAL RECORDS BOOK P.L. PAGE TYP. TYPICAL P.T. POINT OF TANGENCY P.C. POINT OF CURVATURE ● IRON ROD & CAP ● NAL & DISC □ 4"x4" CONCRETE MONUMENT ○ IRON PIPE --- BARBED WIRE FENCE --- METAL FENCE --- CHAIN LINK FENCE L CENTERLINE LB LICENSED BUSINESS PSM PROFESSIONAL SURVEYOR & MAPPER</p>	<p>⊕ WELL ⊖ ELECTRICAL OUTLET ⊖ TELEPHONE RISER ⊖ FIRE HYDRANT ⊖ MASTER WATER ASSEMBLY (M) MEASURED (P) PLAT (C) CALCULATED (D) DESCRIPTION POB POINT OF BEGINNING POC POINT OF COMMENCEMENT O.R. OFFICIAL RECORDS BOOK P.L. PAGE TYP. TYPICAL P.T. POINT OF TANGENCY P.C. POINT OF CURVATURE ● IRON ROD & CAP ● NAL & DISC □ 4"x4" CONCRETE MONUMENT ○ IRON PIPE --- BARBED WIRE FENCE --- METAL FENCE --- CHAIN LINK FENCE L CENTERLINE LB LICENSED BUSINESS PSM PROFESSIONAL SURVEYOR & MAPPER</p>	<p>PLS PROFESSIONAL LAND SURVEYOR PVC POLYVINYL CHLORIDE PIPE RCP REINFORCED CONCRETE PIPE CMP CORRUGATED METAL PIPE DIP DUCTILE IRON PIPE VSP VITRIOUS GLASS PIPE CPP CORRUGATED PLASTIC PIPE --- OHW --- OVERHEAD UTILITY WIRES --- UGP --- UNDERGROUND POWER LINE --- UGL --- UNDERGROUND GAS LINE --- UTL --- UNDERGROUND TELEPHONE LINE --- UGCT --- UNDERGROUND CABLE TELEVISION --- FOC --- FIBER OPTIC CABLE ○ WOODEN UTILITY POLE ○ CONCRETE UTILITY POLE ○ GUY POLE ○ GUY ANCHOR + INV+89.73 INVERT ELEVATION + 68.51 EXISTING GROUND ELEVATION --- 60 --- EXISTING GROUND CONTOUR --- SINGLE POST SIGN --- DOUBLE POST SIGN --- HANDICAPPED PARKING SPACE (H/C) ● SITE BENCH MARK (AS INDICATED)</p>
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DESCRIPTION:

PARCEL A
Lot 1 and the East 100 feet of Lot 2 of J.G. TYNER'S SUBDIVISION, according to the Plat thereof, as recorded in Plat Book F, Page 44, of the Public Records of Orange County, Florida.
TOGETHER WITH North Half of vacated alley way as described in Resolution recorded in Official Records Book 3723, Pages 2582 through 2584, Public Records of Orange County, Florida.
AND
PARCEL B
The West 58 feet of Lot 2 and the East 3 feet of Lot 3, of J.G. TYNER'S SUBDIVISION, of a part of the North 391.8 feet of Lot 9, HARNEY'S HOMESTEAD, according to the Plat thereof, filed for record August 19, 1992, in Plat Book F, Page 44, Public Records of Orange County, Florida.
TOGETHER WITH The North Half of vacated alleyway as described in Resolution recorded in Official Records Book 3723, Pages 2582 through 2584, Public Records of Orange County, Florida.
AND
PARCEL C
Lot 3, LESS the East 3 feet thereof, of J.G. TYNER'S SUBDIVISION of a part of the North 391.8 feet of Lot 9, HARNEY'S HOMESTEAD, according to the Plat thereof, filed for record August 19, 1992, in Plat Book F, Page 44, Public Records of Orange County, Florida.
TOGETHER WITH The North Half of vacated alley way as described in Resolution recorded in Official Records Book 3723, Pages 2582 through 2584, Public Records of Orange County, Florida.
AND
PARCEL D
Lot 4 of J.G. TYNER'S SUBDIVISION of a part of North 391.8 feet of Lot 9, of HARNEY'S HOMESTEAD, according to the Plat thereof, as recorded in Plat Book F, Page 44, Public Records of Orange County, Florida.
TOGETHER WITH The North Half of vacated alley way as described in Resolution recorded in Official Records Book 3723, Pages 2582 through 2584, Public Records of Orange County, Florida.
AND
PARCEL E
Lots Seven(7) and Eight(8) and the West Twenty Feet(20) of Lot Nine (9) of J.G. TYNER'S SUBDIVISION, according to the Plat thereof, as recorded in Plat Book F, Page 44, Public Records of Orange County, Florida.
TOGETHER WITH South Half of vacated alley way lying North of said Lots 7 and 8 and the South Half of vacated alley way lying North of said West 20 feet of said Lot 9 as described in Resolution recorded in Official Records Book 3723, Pages 2582 through 2584, Public Records of Orange County, Florida.
AND
PARCEL F
Lot 9 (LESS the West 20 feet), J.G. TYNER'S SUBDIVISION, according to the Plat thereof, as recorded in Plat Book F, Page 44, Public Records of Orange County, Florida.
TOGETHER WITH South Half of vacated alley way as described in Resolution recorded in Official Records Book 3723, Pages 2582 through 2584, Public Records of Orange County, Florida.
AND
PARCEL G
Lots 10, 11, 12 and 13, of J.G. TYNER'S SUBDIVISION of a part of North 391.8 feet of Lot 9, HARNEY'S HOMESTEAD, according to the Map or Plat of said HARNEY'S HOMESTEAD, as recorded in Plat Book F, Page 44, Public Records of Orange County, Florida.
ALSO, beginning at the Northwest corner of Lot 13, of J.G. TYNER'S SUBDIVISION, of a part of the North 391.8 feet of Lot 9, of HARNEY'S HOMESTEAD, according to the Map or Plat of said HARNEY'S HOMESTEAD on record, run North 29.8 feet; thence run East 100 feet; thence run South 29.8 feet; thence run West 100 feet to the POINT OF BEGINNING. Said land being located in Section 24, Township 23 South, Range 29 East, Orange County, Florida.
TOGETHER WITH The South Half of vacated alley way as described in Resolution recorded in Official Records Book 3723, Pages 2582 through 2584, Public Records of Orange County, Florida.
AND
Extension of said 15 foot alley Easterly through a portion of Lot 9 of HARNEY'S HOMESTEAD, more particularly described as follows:
The North 15 feet of the South 44.8 feet of the North 217.8 feet of the East 100 feet of said Lot 9, together with any other interest of party of the first part in and to that part of said Lot 9, lying North of Lot 13, of J.G. TYNER'S SUBDIVISION, Plat Book F, Page 44, recorded in Plat Book C, Page 53, Public Records of Orange County, Florida.

DESCRIPTION: (CONTINUED)

PARCEL H
The North 173 feet of the East 100 feet of Lot 9 of HARNEY'S HOMESTEAD, according to the Plat thereof, as recorded in Plat Book C, Page 53, Public Records of Orange County, Florida. ALSO DESCRIBED AS:
Begin at a stone at the Northeast corner of land formerly belonging to C.J. SWEET AT PINE CASTLE, FLORIDA, situated in Section 24, Township 23 South, Range 29 East, run South 173 feet; thence West 100 feet; thence North 173 feet; thence East 100 feet to the POINT OF BEGINNING.
AND
PARCEL J-3
Lot 9 of the HARNEY'S HOMESTEAD, as recorded in Plat "C", Page 53, of the Public Records of Orange County, Florida, LESS the Easterly 228.47 feet AND LESS the North 391.8 feet AND LESS the West 224.28 feet thereof;
AND LESS the road right-of-way on the South and being more particularly described as follows:
Commence at the Southwest corner of Lot 9 of the HARNEY'S HOMESTEAD, as recorded in Plat Book "C", Page 53, of the Public Records of Orange County, Florida, thence run North 89 degrees 57 minutes 29 seconds East along the North right-of-way line of Wallace Street as shown and depicted on the plat of KEEN-CASTLE, as recorded in Plat Book "P", Page 1, of said public records, a distance of 224.28 feet to the POINT OF BEGINNING; thence North 00 degrees 04 minutes 18 seconds East along the East line of the West 224.28 feet of said Lot 9, a distance of 224.70 feet to a point on the South right-of-way line of Fairlane Avenue; thence along said South line North 89 degrees 58 minutes 20 seconds East, a distance of 47.00 feet; thence leaving said South line South 00 degrees 16 minutes 56 seconds East, a distance of 224.67 feet to a point on the North right-of-way line of Wallace Street; thence along said North line South 89 degrees 57 minutes 29 seconds West, a distance of 47.00 feet to the POINT OF BEGINNING.
AND
PARCEL K-1:
North 126 feet of the South 243.7 feet of East 50 feet of West 198.5 feet of Lot 10, Subdivision of the HARNEY'S HOMESTEAD, according to the Plat thereof, as recorded in Plat Book C, Page 53, of the Public Records of Orange County, Florida.
AND
PARCEL K-2:
The North 100 feet of the South 200 feet of the West 148.5 feet of Lot 10, SUBDIVISION OF THE HARNEY'S HOMESTEAD, according to the Plat thereof, as recorded in Plat Book C, Page 53, Public Records of Orange County, Florida.
AND

DESCRIPTION: (CONTINUED)

PARCEL K-3:
Begin at the Northwest corner of Lot 10, run East 145.0 feet along the North line of Lot 10, thence run South 00 degrees 07 minutes 04 seconds East 105.5 feet, thence run South 89 degrees 59 minutes 34 seconds East 3.5 feet more or less, to the Northwest corner of the above described Parcel K-1, thence South 00 degrees 07 minutes 04 seconds East 43.5 feet more or less, to the Northeast corner of the above described Parcel K-2, thence run North 89 degrees 59 minutes 34 seconds West along the North line of Parcel K-2, 148.5 feet more or less, to the Northwest corner of Parcel K-2, thence North 00 degrees 07 minutes 04 seconds West 145.0 feet more or less, to the POINT OF BEGINNING, all within the SUBDIVISION OF THE HARNEY'S HOMESTEAD, according to the Plat thereof, as recorded in Plat Book C, Page 53, Public Records of Orange County, Florida.
AND
From the Northwest corner of Lot 10, run East 145.0 feet along the North line of Lot 10; thence run South 00 degrees 02 minutes 36 seconds West 105.5 feet to the POINT OF BEGINNING; thence run East 3.5 feet to the Northwest corner of the above described Parcel K-1, thence South 00 degrees 02 minutes 36 seconds West 43.5 feet to the Northeast corner of the above described Parcel K-2, thence run West along the North line of Parcel K-2, 148.5 feet to the Northwest corner of Parcel K-2, thence North 00 degrees 02 minutes 36 seconds East 243.7 feet; thence South 89 degrees 13 minutes 04 seconds East 145.01 feet; thence North 00 degrees 02 minutes 36 seconds East 21.15 feet to the POINT OF BEGINNING, all within the SUBDIVISION OF HARNEY'S HOMESTEAD, according to the Plat thereof, as recorded in Plat Book C, Page 53, Public Records of Orange County, Florida.
AND
PARCEL K-4:
A portion of Lot 10, SUBDIVISION OF HARNEY'S HOMESTEAD, as recorded in Plat Book C, Page 53, of the Public Records of Orange County, Florida, being more particularly described as follows:
Commence at the Northwest corner of said Lot 10, thence due East 145.00 feet along the North line of said Lot 10 for a POINT OF BEGINNING; thence continue along said North line, due East 53.50 feet to the intersection of said North line and the Northerly prolongation of the East line of the North 126 feet of the South 243.7 feet of the East 50.00 feet of the West 198.50 feet of said Lot 10; thence along said east line, South 00 degrees 08 minutes 50 seconds West 105.50 feet to the Northeast corner of the North 126 feet of the South 243.7 feet of the East 50.00 feet of the West 198.50 feet of said Lot 10; thence from said point, due West 53.50 feet; thence North 00 degrees 08 minutes 50 seconds East 105.50 feet to the POINT OF BEGINNING.
AND
PARCEL K-5:
The West 110 feet of South 50 feet of Lot 8, SUBDIVISION OF THE HARNEY'S HOMESTEAD, according to the Plat thereof, as recorded in Plat Book C, Page 53, Public Records of Orange County, Florida.
AND
PARCEL K-6:
Lot 8, LESS the West 110 feet of South 50 feet of Lot 8, SUBDIVISION OF THE HARNEY'S HOMESTEAD, according to the Plat thereof, as recorded in Plat Book C, Page 53, Public Records of Orange County, Florida.
AND
PARCEL K-7:
The West 119.83 feet of the North 150 feet of Lot 7, SUBDIVISION OF THE HARNEY'S HOMESTEAD, according to the Plat thereof, as recorded in Plat Book C, Page 53, Public Records of Orange County, Florida.
AND
PARCEL K-8:
The West 120 feet of the South 145 feet of Lot 7, SUBDIVISION OF THE HARNEY'S HOMESTEAD, according to the Plat thereof, as recorded in Plat Book C, Page 53, Public Records of Orange County, Florida.
AND
PARCEL K-9:
The East 75 feet of the West 194.83 feet of the North 150 feet of Lot 7, HARNEY'S HOMESTEAD, according to the Map or Plat thereof, as recorded in Plat Book C, Page 53, Public Records of Orange County, Florida.
AND
PARCEL K-10:
The East 75 feet of the West 269.83 feet of the North 150 feet of Lot 7, HARNEY'S HOMESTEAD, according to the Map or Plat thereof, as recorded in Plat Book C, Page 53, Public Records of Orange County, Florida.
AND
PARCEL K-11:
Begin 763 feet East and 250 feet North of the South west corner of Lot 10, HARNEY'S HOMESTEAD, as per Plat thereof, recorded in Plat Book C, Page 53, Public Records of Orange County, Florida, run North 221.51 feet, West 348 feet, South 221.5 feet, East 348 feet to POINT OF BEGINNING.
Less and except there from, that portion thereof conveyed by Pine Castle Methodist Church, Inc., a Florida corporation, to Charles E. Maul, Jr., and June L. Maul, by Quit Claim Deed recorded August 21, 2003 in Official Records Book 7061, Page 4692, Public Records of Orange County, Florida, more particularly described as follows:
A portion of Lot 7, Subdivision of HARNEY'S HOMESTEAD, Plat Book "C", page 53, Public Records of Orange County, Florida, being more particularly described as follows:
Begin at the Southeast corner of the East 75 feet of the West 269.83 feet of the North 150 feet of said Lot 7; thence East 197.48 feet along the South line of the North 150 feet of said Lot 7 to a point on the East line of lands described in Official Records Book 6233, Page 6532, Public Records of Orange County, Florida; thence South 00 degrees 28 minutes 01 seconds East 11.10 feet along said East line; thence North 89 degrees 42 minutes 36 seconds West 197.60 feet to a point on a southerly projection of the East line of the East 75 feet of the West 269.83 feet of the North 150 feet of said Lot 7; thence North 00 degrees 08 minutes 50 seconds East 10.10 feet along said southerly projection to the POINT OF BEGINNING.
AND
PARCEL K-12:
Beginning 465 feet East of the Southwest corner of Lot 10, HARNEY'S HOMESTEAD, in Section 24, Township 23 South, Range 29 East, as per Plat thereof, as recorded in Plat Book C, Page 53, Public Records of Orange County, Florida, run East 298 feet, North 250 feet, West 298 feet, and South 250 feet to the POINT OF BEGINNING.
AND
PARCEL 1:
Lots 5 and 6, less the West 10 feet of lot 6 for road right-of-way, J.G. TYNER'S SUBDIVISION, according to the Map or Plat thereof recorded among the Public Records of Orange County, Florida in Plat Book F, Page 44.
AND
PARCEL 2:
The East 100 feet of Lot 9, (less the North 391.8 feet thereof), HARNEY'S HOMESTEAD, Plat Book C, Page 53, Public Records of Orange County, Florida.

SHEET 1 OF 6
SECTION 24
TOWNSHIP 23 SOUTH
RANGE 29 EAST

CERTIFICATE OF AUTHORIZATION LB 7274
32 W. PLANT STREET Phone No. 407.905.8877
WINTER GARDEN, FL 34787 Fax No. 407.905.8875

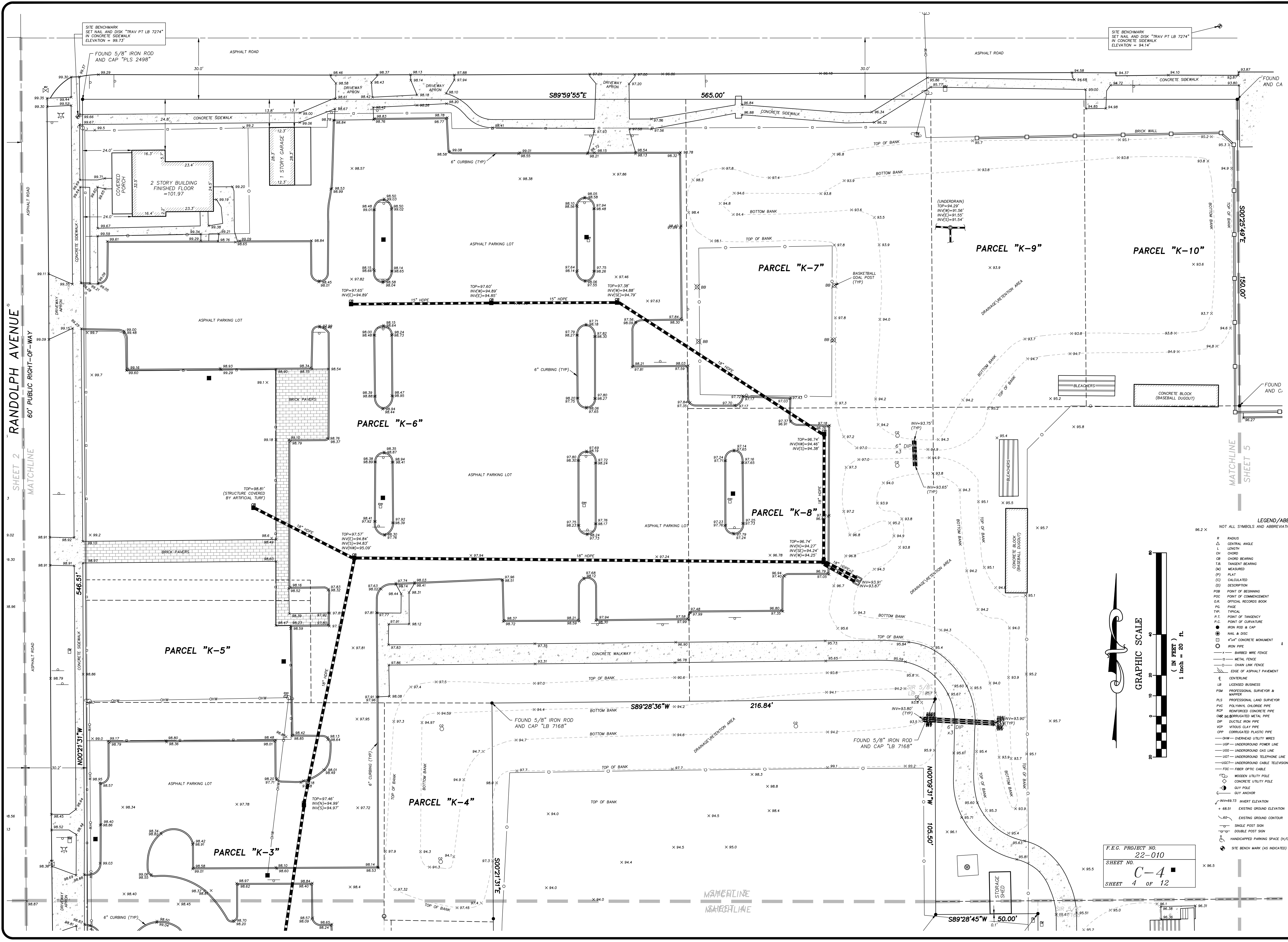
FLORIDA REGISTRATION NO. 5668
AFON D. BISHMAN, P.S.M.

REVISIONS:

JOB NUMBER: 14090
SURVEY DATE: 8-24-2021
FIELD BY: T. CONARD
FIELD BOOK: 2002
PAGES: 34-39, 73-76
FIELD FILE: 14090-3.MAF
DRAWING FILE: 14090-4.DWG

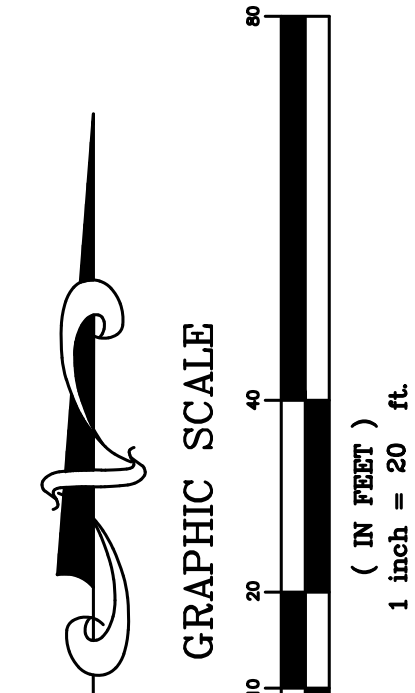
F.E.G. PROJECT NO.
22-010
SHEET NO.
C-2
SHEET 2 OF 12

CERTIFICATE OF AUTHORIZATION LB 7274
32 W. PLANT STREET Phone No. 407.905.8877
WINTER GARDEN, FL 34787 Fax No. 407.905.8875



LEGEND/ABBREVIATIONS:
NOT ALL SYMBOLS AND ABBREVIATIONS SHOWN HEREON MAY BE USED

R	RADIUS	W	WELL
Δ	CENTRAL ANGLE	⊗	ELECTRICAL OUTLET
L	LENGTH	⊕	TELEPHONE RISER
CH	CHORD	⊕	FIRE HYDRANT
CB	CHORD BEARING	⊕	MASTER WATER ASSEMBLY
T.B.	TANGENT BEARING	⊕	SEWER VALVE
(M)	MEASURED	⊕	WATER VALVE
(P)	PLAT	⊕	RECLAIMED WATER VALVE
(C)	CALCULATED	⊕	IRRIGATION VALVE
(D)	DECOMPOSITION	⊕	GAS VALVE
POB	POINT OF BEGINNING	⊕	SANITARY MANHOLE
POC	POINT OF COMMENCEMENT	⊕	DRAINAGE MANHOLE
O.R.	OFFICIAL RECORDS BOOK	⊕	TELEPHONE MANHOLE
P.G.	PAGE	⊕	GREASE TRAP MANHOLE
TYP.	TYPICAL	⊕	POWER MANHOLE
P.T.C.	POINT OF TANGENCY	⊕	WATER SHUT-OFF VALVE
P.C.	POINT OF CURVATURE	⊕	POWER TRANSFORMER
●	IRON ROD & CAP	⊕	WATER METER
⊕	NAIL & DISC	⊕	GAS METER
⊕	4"x4" CONCRETE MONUMENT	⊕	POWER METER
⊕	IRON PIPE	⊕	WATER BLOW-OFF VALVE
⊕	BARRIED WIRE FENCE	⊕	CLEAN-OUT
⊕	METAL FENCE	⊕	FIRE DEPARTMENT CONTROL VALVE
⊕	CHAIN LINK FENCE	⊕	ELECTRIC HAND HOLE
⊕	EDGE OF ASPHALT PAVEMENT	⊕	CABLE TELEVISION RISER
⊕	CONCRETE	⊕	TELEPHONE ACCESS CABINET
⊕	LB LICENSED BUSINESS	⊕	CATCH BASIN
⊕	PSM PROFESSIONAL SURVEYOR & MAPPER	⊕	DRAIN
⊕	PLS PROFESSIONAL LAND SURVEYOR	⊕	CURB INLET
⊕	PVC POLYVINYL CHLORIDE PIPE	⊕	CURB INLET WITHOUT MANHOLE
⊕	RCR REINFORCED CONCRETE PIPE	⊕	MITERED END SECTION
⊕	CMR CORRUGATED METAL PIPE	⊕	VALVE
⊕	DP DUCTILE IRON PIPE	⊕	AIR CONDITIONER
⊕	VCP VITRIFIED CLAY PIPE	⊕	POWER BOX
⊕	CPF CORRUGATED PLASTIC PIPE	⊕	MONITORING WELL
⊕	SOY SOY	⊕	LIGHT POLE
⊕	OWH OVERHEAD UTILITY WIRES	⊕	WALKWAY LIGHT
⊕	UGP UNDERGROUND POWER LINE	⊕	TRAFFIC SIGNAL BOX
⊕	UGG UNDERGROUND GAS LINE	⊕	BOLLARD
⊕	UGT UNDERGROUND TELEPHONE LINE	⊕	FLAG POLE
⊕	UCG UNDERGROUND CABLE TELEVISION	⊕	PARKING METER
⊕	FOC FIBER OPTIC CABLE	⊕	TRAFFIC FLOW ARROW
⊕	WU WOODEN UTILITY POLE	⊕	SOL BORING
⊕	CU CONCRETE UTILITY POLE		
⊕	GP GUY POLE		
⊕	SOY SOY		
⊕	INVERT ELEVATION		
+	68.51 EXISTING GROUND ELEVATION		
---	EXISTING GROUND CONTOUR		
⊕	SINGLE POST SIGN		
⊕	DOUBLE POST SIGN		
⊕	HANDICAPPED PARKING SPACE (H/C)		
⊕	SITE BENCHMARK (AS INDICATED)		

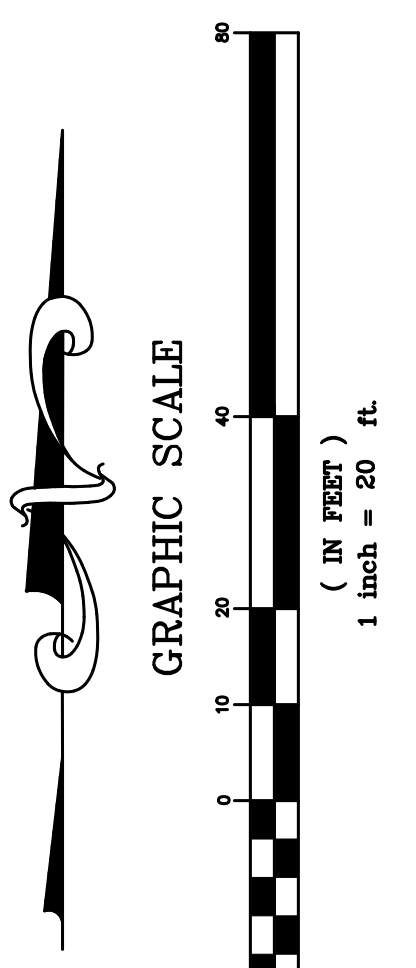
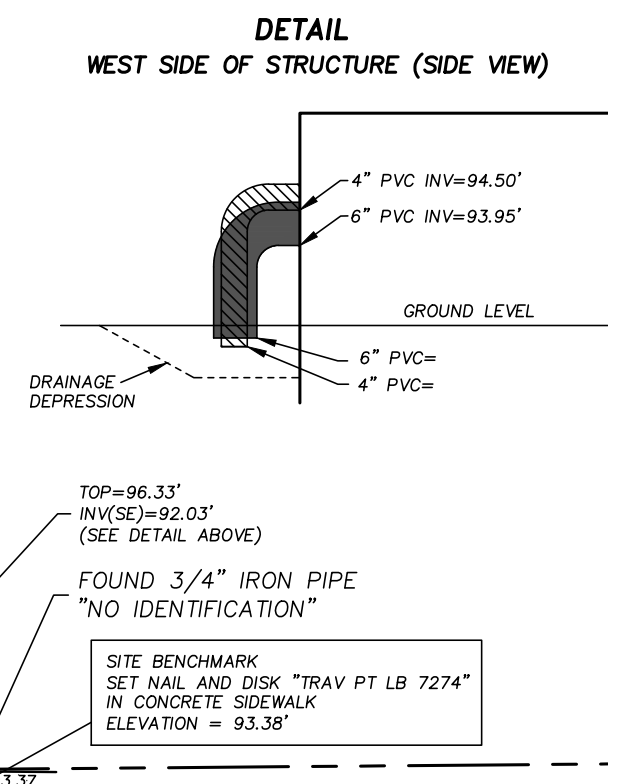
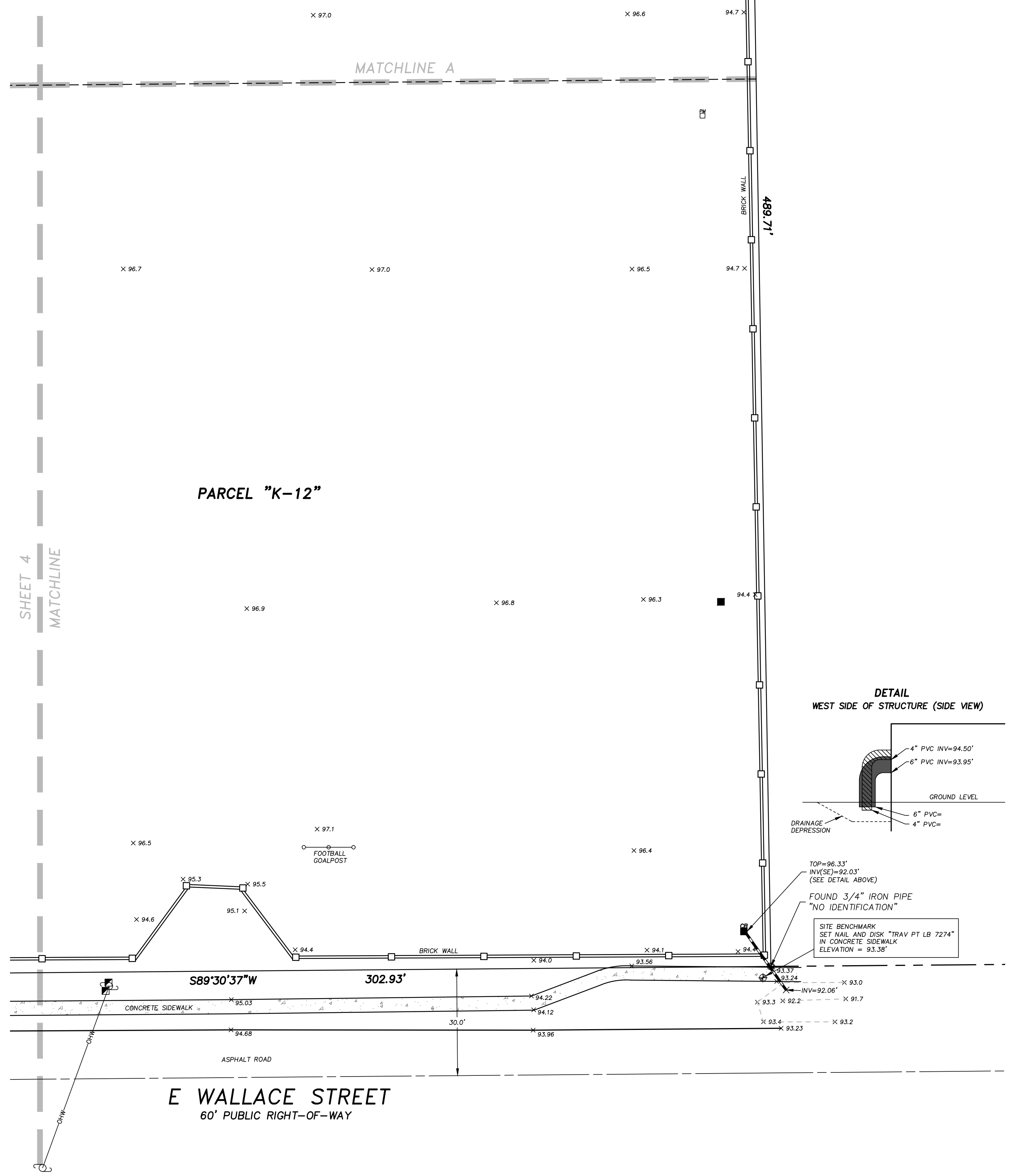
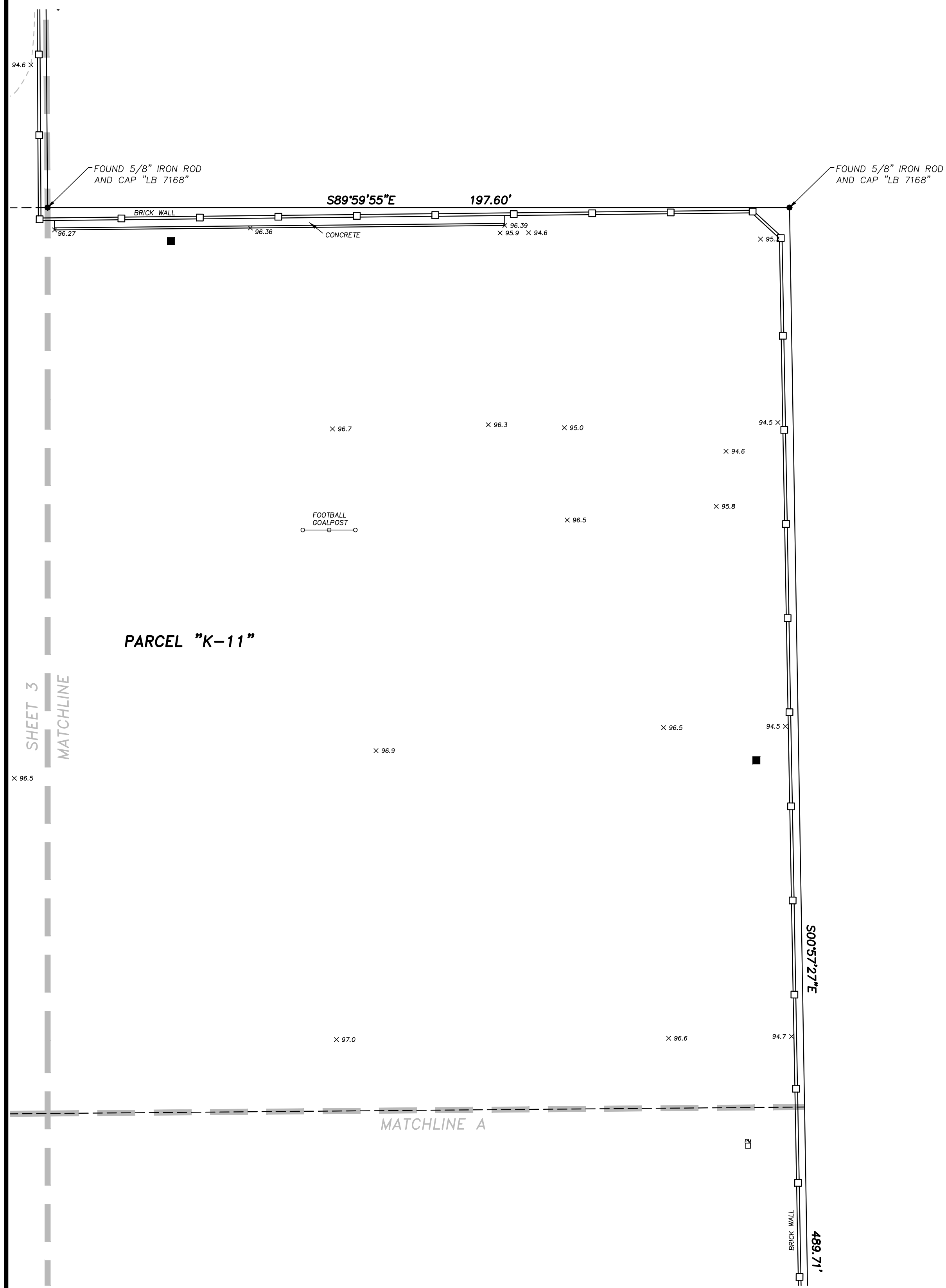


F.E.C. PROJECT NO. 22-010
SHEET NO. C-4
SHEET 4 OF 12

SHEET 2 RANDOLPH AVENUE
60' PUBLIC RIGHT-OF-WAY
MATCHLINE

MATCHLINE
SHEET 5

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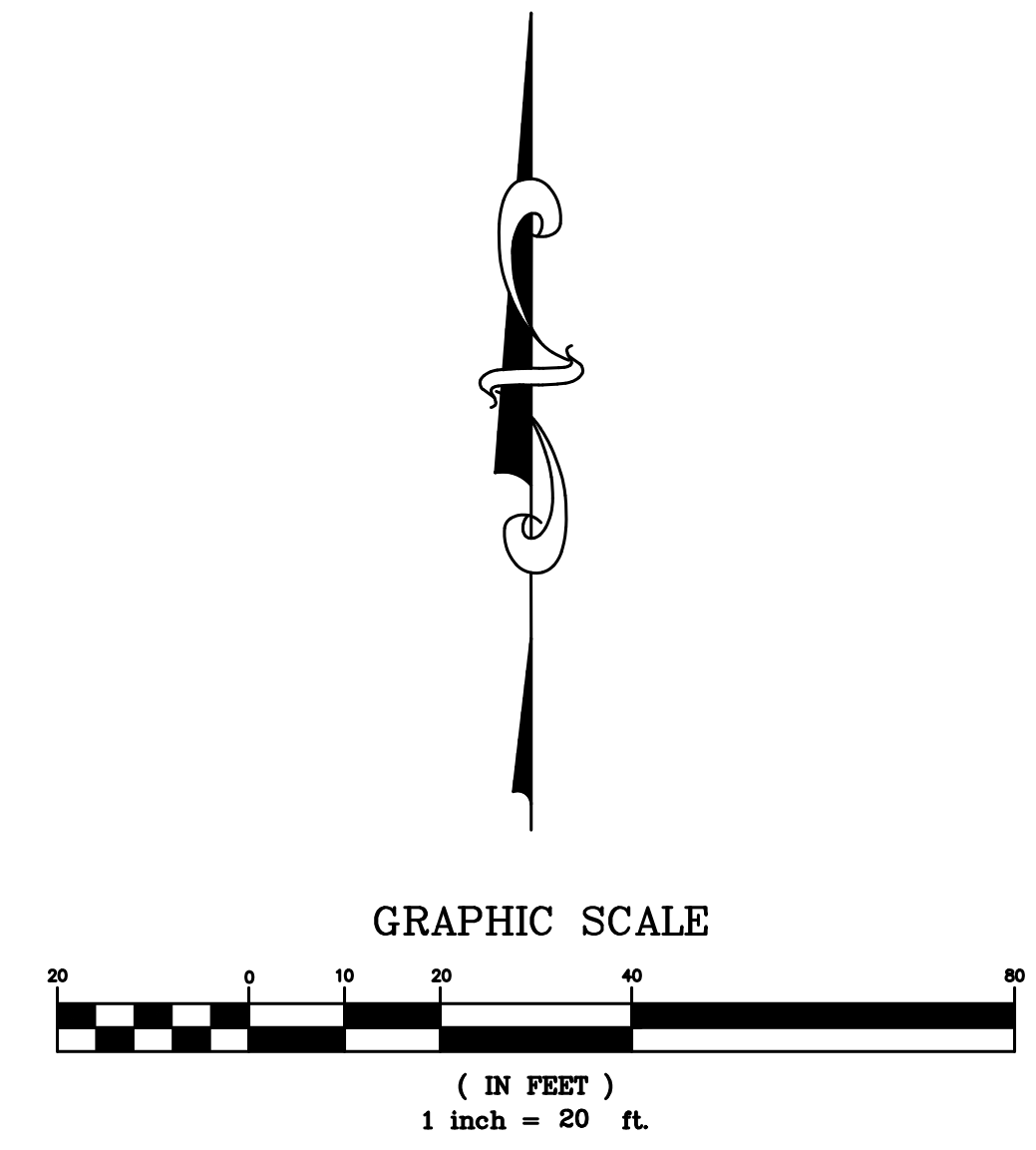
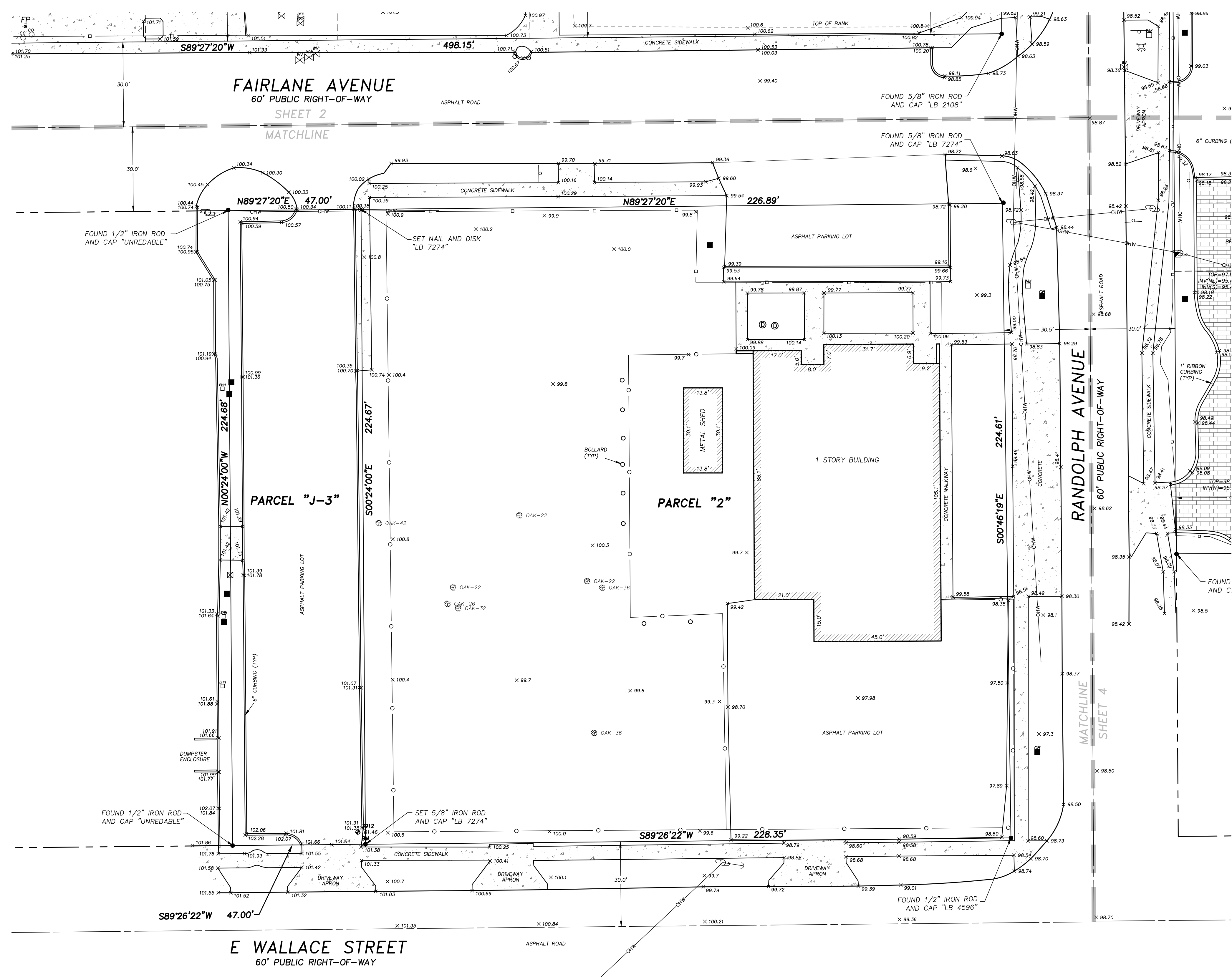


LEGEND/ABBREVIATIONS:
NOT ALL SYMBOLS AND ABBREVIATIONS SHOWN HEREON MAY BE USED

R	RADIUS	⊙	WELL
Δ	CENTRAL ANGLE	⊞	ELECTRICAL OUTLET
L	LENGTH	⊞	TELEPHONE RISER
CH	CHORD	⊞	FIRE HYDRANT
OB	CHORD BEARING	⊞	MASTER WATER ASSEMBLY
T.B.	TANGENT BEARING	⊞	SEWER VALVE
(M)	MEASURED	⊞	WATER VALVE
(P)	PLAT	⊞	RECLAIMED WATER VALVE
(C)	CALCULATED	⊞	IRRIGATION VALVE
(D)	DESCRIPTION	⊞	GAS VALVE
POB	POINT OF BEGINNING	⊞	SAUNTRY MANHOLE
POC	POINT OF COMMENCEMENT	⊞	DRAINAGE MANHOLE
O.R.	OFFICIAL RECORDS BOOK	⊞	TELEPHONE MANHOLE
P.C.	PAGE	⊞	GREASE TRAP MANHOLE
T.P.	TYPICAL	⊞	POWER MANHOLE
P.T.	POINT OF TANGENCY	⊞	WATER SHUT-OFF VALVE
P.C.	POINT OF CURVATURE	⊞	POWER TRANSFORMER
●	IRON ROD & CAP	⊞	WATER METER
⊙	NAIL & DISC	⊞	GAS METER
⊞	4\"/>		

F.E.G. PROJECT NO. 22-010
SHEET NO. C-6
SHEET 6 OF 12

CERTIFICATE OF AUTHORIZATION LB 7274
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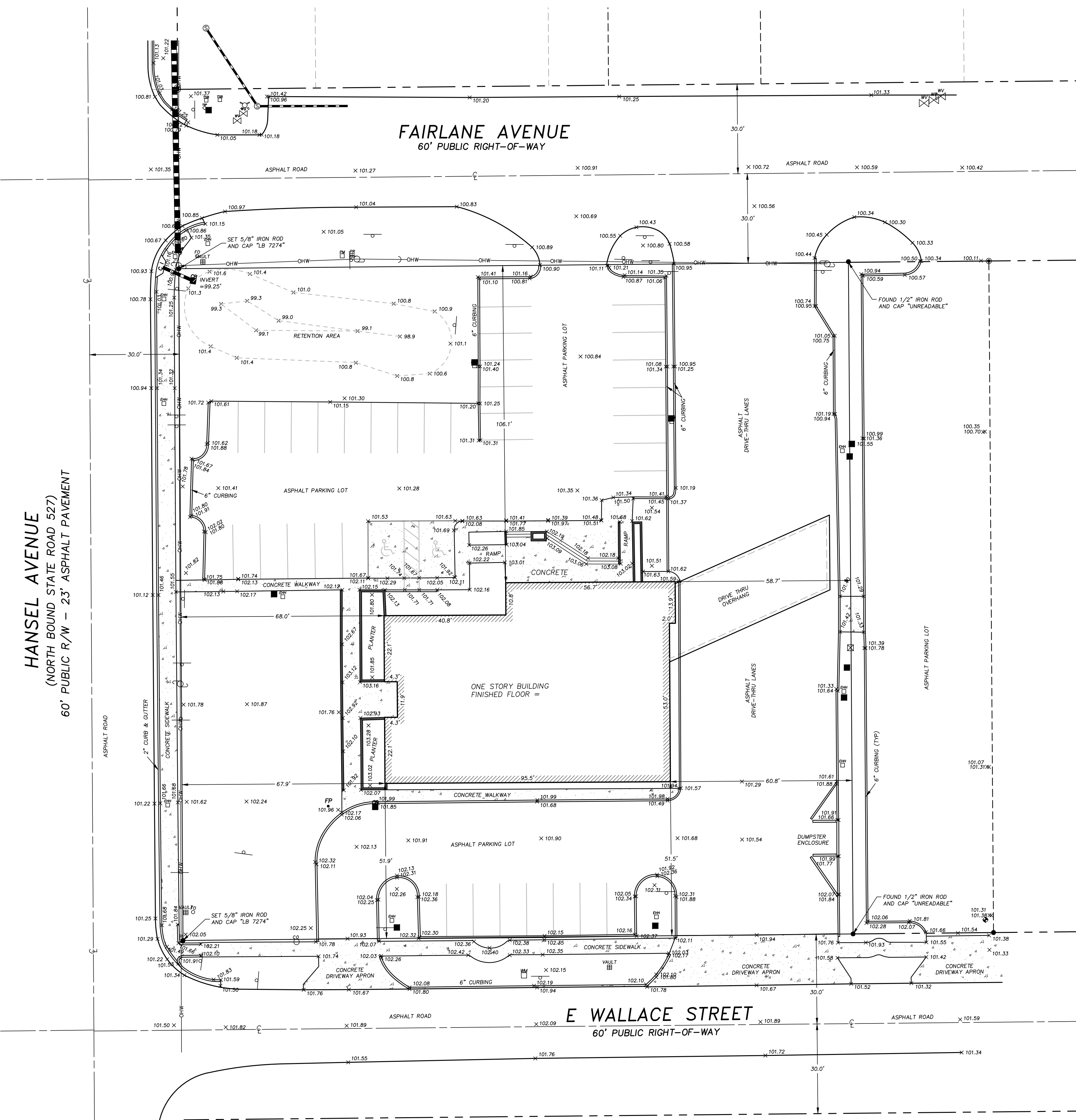


LEGEND/ABBREVIATIONS:
NOT ALL SYMBOLS AND ABBREVIATIONS SHOWN HEREON MAY BE USED

R	RADIUS	⊙	WELL
Δ	CENTRAL ANGLE	⊖	ELECTRICAL OUTLET
L	LENGTH	⊕	TELEPHONE RISER
CH	CHORD	⊗	FIRE HYDRANT
OB	CHORD BEARING	⊗	MASTER WATER ASSEMBLY
T.B.	TANGENT BEARING	⊗	SEWER VALVE
(M)	MEASURED	⊗	WATER VALVE
(P)	PLAT	⊗	RECLAIMED WATER VALVE
(C)	CALCULATED	⊗	IRRIGATION VALVE
(D)	DESCRIPTION	⊗	GAS VALVE
P.O.B.	POINT OF BEGINNING	⊗	SANITARY MANHOLE
P.O.C.	POINT OF COMMENCEMENT	⊗	DRAINAGE MANHOLE
O.R.	OFFICIAL RECORDS BOOK	⊗	TELEPHONE MANHOLE
P.G.	PAGE	⊗	GREASE TRAP MANHOLE
T.P.	TRICAL	⊗	POWER MANHOLE
P.T.	POINT OF TANGENCY	⊗	WATER SHUT-OFF VALVE
P.C.	POINT OF CURVATURE	⊗	POWER TRANSFORMER
●	IRON ROD & CAP	⊗	WATER METER
⊙	NAIL & DISC	⊗	GAS METER
⊙	4"x4" CONCRETE MONUMENT	⊗	POWER METER
○	IRON PIPE	⊗	WATER BLOW-OFF VALVE
—	BARBED WIRE FENCE	⊗	CLEAN-OUT
—	METAL FENCE	⊗	FIRE DEPARTMENT CONTROL VALVE
—	CHAIN LINK FENCE	⊗	ELECTRIC HAND HOLE
—	EDGE OF ASPHALT PAVEMENT	⊗	CABLE TELEVISION RISER
⊔	CENTERLINE	⊗	TELEPHONE ACCESS CABINET
LB	LICENSED BUSINESS	⊗	CATCH BASIN
PSM	PROFESSIONAL SURVEYOR & MAPPER	⊗	DRAIN
PLS	PROFESSIONAL LAND SURVEYOR	⊗	CURB INLET
PVC	POLYVINYL CHLORIDE PIPE	⊗	CURB INLET WITHOUT MANHOLE
RCP	REINFORCED CONCRETE PIPE	⊗	INTERED END SECTION
CMP	CORRUGATED METAL PIPE	⊗	UTILITY VAULT
DP	DUCTILE IRON PIPE	⊗	AIR CONDITIONER
VCP	VITRIFIED CLAY PIPE	⊗	POWER BOX
OP	CORRUGATED PLASTIC PIPE	⊗	MONITORING WELL
OWH	OVERHEAD UTILITY WIRES	⊗	LIGHT POLE
UGP	UNDERGROUND POWER LINE	⊗	WALKWAY LIGHT
UGG	UNDERGROUND GAS LINE	⊗	TRAFFIC SIGNAL BOX
UGT	UNDERGROUND TELEPHONE LINE	⊗	FLAG POLE
UGC	UNDERGROUND CABLE TELEVISION	⊗	PARKING METER
FOC	FIBER OPTIC CABLE	⊗	TRAFFIC FLOW ARROW
WUP	WOODEN UTILITY POLE	⊗	SOL BORING
CU	CONCRETE UTILITY POLE	⊗	
GP	GRIP POLE	⊗	
GP	GRIP ANCHOR	⊗	
±	INVERT ELEVATION	⊗	
+ 68.51	EXISTING GROUND ELEVATION	⊗	
⊕	EXISTING GROUND CONTOUR	⊗	
⊕	SINGLE POST SIGN	⊗	
⊕	DOUBLE POST SIGN	⊗	
⊕	HANDICAPPED PARKING SPACE (H/C)	⊗	
⊕	SITE BENCH MARK (AS INDICATED)	⊗	

F.E.G. PROJECT NO.
22-010
SHEET NO.
C-7
SHEET 7 OF 12

BOUNDARY AND TOPOGRAPHIC SURVEY



DESCRIPTION:
LOT 9 OF HARNEY HOMESTEAD, AS RECORDED IN PLAT BOOK C, PAGE 53, OF THE PUBLIC RECORDS OF ORANGE COUNTY, FLORIDA, LESS THE EAST 100 FEET THEREOF; LESS THE NORTH 391.8 FEET THEREOF; LESS PORTIONS OF ROAD RIGHT-OF-WAY ON THE NORTH, BOUNDED BY FAIRLANE AVENUE, AND ON THE SOUTH, BOUNDED BY EAST WALLACE STREET, AS THE SAME MAY HAVE BEEN CONVEYED TO OR TAKEN BY THE CITY OF BELLE ISLE OF ORANGE COUNTY, FLORIDA FOR ROAD WIDENING PURPOSES.

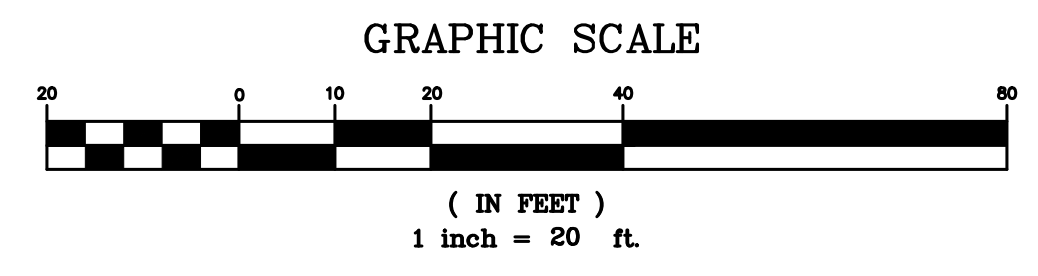
LESS AND EXCEPT:
THAT PART OF LOT 9 CONVEYED TO THE STATE OF FLORIDA BY SPECIAL WARRANTY DEED RECORDED IN OFFICIAL RECORDS BOOK 779, PAGE 14, OF THE OFFICIAL RECORDS OF ORANGE COUNTY, FLORIDA, BEING DESCRIBED AS FOLLOWS:
THAT PART OF LOT 9, HARNEY HOMESTEAD SUBDIVISION, AS SHOWN IN PLAT BOOK "C", PAGE 53, SAID PUBLIC RECORDS, LESS THE NORTH 391.8 FEET OF SAID LOT 9; LYING WITHIN 30 FEET EASTERLY OF THE SURVEY LINE OF STATE ROAD 527, SECTION 75040, SAID SURVEY LINE BEING DESCRIBED AS FOLLOWS:
BEGIN AT THE EASTERLY EXTENSION OF THE NORTH LINE OF LOT 18, JOHN KEEN'S SUBDIVISION, PLAT BOOK "H", PAGE 11, PUBLIC RECORDS, ORANGE COUNTY, FLORIDA, AT A POINT 31.16 FEET EAST OF THE NORTHEAST CORNER OF SAID LOT 18, AND RUN THENCE NORTH 00°15'17" WEST, 579.36 FEET TO THE CENTER OF SECTION 24, TOWNSHIP 23 SOUTH, RANGE 29 EAST;
ALSO, THE EAST 30 FEET OF THE WEST 60 FEET OF THE SOUTH 30 FEET OF THE NORTH 421.8 FEET OF SAID LOT 9, HARNEY HOMESTEAD;
ALSO, THAT PART OF SAID LOT 9, HARNEY HOMESTEAD, LYING WITHIN 30 FEET NORTHERLY OF A LINE DESCRIBED AS FOLLOWS:
COMMENCE ON THE EASTERLY EXTENSION OF THE NORTH LINE OF LOT 18, JOHN KEEN'S SUBDIVISION, PLAT BOOK "H", PAGE 11, PUBLIC RECORDS, ORANGE COUNTY, FLORIDA, AT A POINT 31.16 FEET EAST OF THE NORTHEAST CORNER OF SAID LOT 18, AND RUN THENCE NORTH 00°15'47" WEST, 33.70 FEET FOR A POINT OF BEGINNING; FROM SAID POINT OF BEGINNING RUN SOUTH 89°42'47" EAST, 60 FEET.

FURTHER LESS AND EXCEPT:
THAT PART CONVEYED TO PINE CASTLE METHODIST CHURCH, INC. BY SPECIAL WARRANTY DEED RECORDED IN OFFICIAL RECORDS BOOK 8382, PAGE 274, OF THE OFFICIAL RECORDS OF ORANGE COUNTY, FLORIDA, BEING DESCRIBED AS FOLLOWS:
COMMENCE AT THE SOUTHWEST CORNER OF LOT 9 OF THE HARNEY HOMESTEAD, AS RECORDED IN PLAT BOOK "C", PAGE 53, OF THE PUBLIC RECORDS OF ORANGE COUNTY, FLORIDA, THENCE RUN NORTH 89°57'29" EAST ALONG THE NORTH RIGHT-OF-WAY LINE OF WALLACE STREET AS SHOWN AND DEPICTED ON THE PLAT OF KEEN-CASTLE, AS RECORDED IN PLAT BOOK "H", PAGE "1", OF SAID PUBLIC RECORDS, A DISTANCE OF 224.28 FEET TO THE POINT OF BEGINNING; THENCE NORTH 00°4'16" EAST ALONG THE EAST LINE OF THE WEST 224.28 FEET OF SAID LOT 9, A DISTANCE OF 224.70 FEET TO A POINT ON THE SOUTH RIGHT-OF-WAY LINE OF FAIRLANE AVENUE; THENCE ALONG SAID SOUTH LINE SOUTH 00°15'56" EAST ALONG THE WEST LINE OF THE EAST 100.00 FEET OF SAID LOT 9, A DISTANCE OF 224.65 FEET TO A POINT ON THE NORTH RIGHT-OF-WAY LINE OF WALLACE STREET; THENCE ALONG SAID NORTH LINE SOUTH 89°57'29" WEST, A DISTANCE OF 175.47 FEET TO THE POINT OF BEGINNING.
THE ABOVE DESCRIBED PARCEL CONTAINS A TOTAL OF 1.156 ACRES, MORE OR LESS.

- SURVEYORS NOTES:**
- NOT VALID WITHOUT THE ORIGINAL SIGNATURE AND SEAL, OR DIGITAL SIGNATURE AND SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER. PRINTED COPIES OF A DIGITAL SIGNED AND SEALED SURVEY ARE NOT VALID.
 - LANDS SHOWN HEREON WERE NOT ABSTRACTED FOR RIGHTS OF WAY, EASEMENTS, OWNERSHIP, OR OTHER INSTRUMENTS OF RECORD, BY THIS FIRM.
 - REVISIONS DO NOT CONSTITUTE A RE-CERTIFICATION OF THE EXISTING FIELD CONDITIONS OF THIS SURVEY.
 - BEARINGS SHOWN HEREON ARE BASED ON THE NORTH RIGHT-OF-WAY LINE OF E WALLACE STREET (ASSUMED).
 - THE DESCRIPTION SHOWN HEREON WAS SUPPLIED BY THE CLIENT.
 - UNDERGROUND IMPROVEMENTS AND INSTALLATIONS HAVE NOT BEEN LOCATED.
 - THE LANDS SHOWN HEREON LIE ENTIRELY WITHIN ZONE X (AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOOD) ACCORDING TO "FIRM" MAP NO. 12095C0430F, DATED SEPTEMBER 25, 2009.
 - THE ELEVATIONS SHOWN HEREON ARE BASED ON ORANGE COUNTY DATUM PER BENCH MARK NUMBER 51316-035 BEING A BOX CUT ON TOP OF CURB INLET, ELEVATION = 101.52 (NAVD 1988).
 - SITE BENCHMARK IS SHOWN HEREON.
 - THIS SURVEY WAS PERFORMED IN ACCORDANCE WITH THE STANDARDS OF PRACTICE SET FORTH IN RULE 5J-17.052 ADOPTED BY THE FLORIDA BOARD OF SURVEYORS AND MAPPERS, PURSUANT TO FLORIDA STATUTES 472.027.

LEGEND/ABBREVIATIONS:
NOT ALL SYMBOLS AND ABBREVIATIONS SHOWN HEREON MAY BE USED

R	RADIUS	⊙	WELL
Δ	CENTRAL ANGLE	⊖	ELECTRICAL OUTLET
L	LENGTH	⊕	TELEPHONE RISER
CH	CHORD	⊕	FIRE HYDRANT
CB	CHORD BEARING	⊕	MASTER WATER ASSEMBLY
T.B.	TANGENT BEARING	⊕	SEWER VALVE
(M)	MEASURED	⊕	WATER VALVE
(C)	CALCULATED	⊕	RECLAIMED WATER VALVE
(D)	DESCRIPTION	⊕	IRRIGATION VALVE
POB	POINT OF BEGINNING	⊕	GAS VALVE
POC	POINT OF COMMENCEMENT	⊕	SANITARY MANHOLE
O.R.	OFFICIAL RECORDS BOOK	⊕	DRAINAGE MANHOLE
P.G.	PAGE	⊕	TELEPHONE MANHOLE
TYP.	TYPICAL	⊕	GREASE TRAP MANHOLE
P.T.	POINT OF TANGENCY	⊕	POWER MANHOLE
P.C.	POINT OF CURVATURE	⊕	WATER SHUT-OFF VALVE
●	IRON ROD & CAP	⊕	POWER TRANSFORMER
⊕	NAIL & DISC	⊕	WATER METER
⊕	4"x4" CONCRETE MONUMENT	⊕	GAS METER
⊕	IRON PIPE	⊕	POWER METER
—	BARBED WIRE FENCE	⊕	WATER BLOW-OFF VALVE
—	WOOD FENCE	⊕	CLEAN-OUT
—	CHAIN LINK FENCE	⊕	FIRE DEPARTMENT CONTROL VALVE
—	EDGE OF ASPHALT PAVEMENT	⊕	ELECTRIC HAND HOLE
⊕	CENTERLINE	⊕	CABLE TELEVISION RISER
LB	LICENSED BUSINESS	⊕	TELEPHONE ACCESS CABINET
PSM	PROFESSIONAL SURVEYOR & MAPPER	⊕	CATCH BASIN
PLS	PROFESSIONAL LAND SURVEYOR	⊕	DRAIN
PVC	POLYVINYL CHLORIDE PIPE	⊕	CURB INLET
RPC	REINFORCED CONCRETE PIPE	⊕	CURB INLET WITHOUT MANHOLE
OMP	CORRUGATED METAL PIPE	⊕	MITERED END SECTION
DIP	DUCTILE IRON PIPE	⊕	UTILITY VAULT
VSP	VITIOUS CLAY PIPE	⊕	AIR CONDITIONER
OPP	CORRUGATED PLASTIC PIPE	⊕	WOODEN UTILITY POLE
—	OVERHEAD UTILITY WIRES	⊕	CONCRETE UTILITY POLE
—	UNDERGROUND POWER LINE	⊕	GYI POLE
—	UNDERGROUND GAS LINE	⊕	GYI ANCHOR
—	UNDERGROUND TELEPHONE LINE	⊕	INVERT ELEVATION
—	UNDERGROUND CABLE TELEVISION	⊕	+ 68.51 EXISTING GROUND ELEVATION
—	FIBER OPTIC CABLE	⊕	60' EXISTING GROUND CONTOUR
⊕	WOODEN UTILITY POLE	⊕	SINGLE POST SIGN
⊕	CONCRETE UTILITY POLE	⊕	DOUBLE POST SIGN
⊕	GYI POLE	⊕	HANDICAPPED PARKING SPACE (H/C)
⊕	GYI ANCHOR	⊕	SB
⊕	INVERT ELEVATION	⊕	SOIL BORING
+ 68.51	EXISTING GROUND ELEVATION		
60'	EXISTING GROUND CONTOUR		
⊕	SINGLE POST SIGN		
⊕	DOUBLE POST SIGN		
⊕	HANDICAPPED PARKING SPACE (H/C)		
⊕	SB		
⊕	SITE BENCH MARK (AS INDICATED)		



REVISIONS:

JOB NUMBER: 22029.000

SURVEY DATE:	3-15-2022
FIELD BY:	T. CONWARD
FIELD BOOK:	2201
PAGES:	46-47
FIELD FILE:	14090-3.MUF
DRAWING FILE:	22029.DWG

F.E.C. PROJECT NO.	22-010
SHEET NO.	C-8
SHEET	8 OF 12

SITE DATA

PROPERTY LOCATION: 5903 RANDOLPH AVE., BELLE ISLE, FL 32809

TOTAL PROJECT AREA 14.84± ACRES * (ROADWAY NOT INCLUDED)

PARCEL ID:	EXISTING USE	EXISTING ZONING	FUTURE LAND USE
PARCEL ID: 24-23-29-8820-00-050	EXISTING SCHOOL	C-1	LOW-MEDIUM DENSITY
PARCEL ID: 24-23-29-3400-00-073	EXISTING SCHOOL	C-2, R-1A, R2	LOW-MEDIUM DENSITY
PARCEL ID: 24-23-29-3400-00-092	EXISTING SCHOOL	C-1, R-2	LOW-MEDIUM DENSITY
PARCEL ID: 24-23-29-3400-00-093	EXISTING CHURCH	C-1	COMMERCIAL
PARCEL ID: 24-23-29-3400-00-094	EXISTING BANK	C-1	COMMERCIAL
PARCEL ID: 24-23-29-3400-00-095	EXISTING BANK	C-1	COMMERCIAL
PARCEL ID: 24-23-29-3400-00-114	EXISTING SCHOOL	C-2	COMMERCIAL
PARCEL ID:	PROPOSED USE:	PROPOSED ZONING	FUTURE LAND USE
PARCEL ID: 24-23-29-8820-00-050	SCHOOL	PD	LOW-MEDIUM DENSITY
PARCEL ID: 24-23-29-3400-00-073	SCHOOL	PD	LOW-MEDIUM DENSITY
PARCEL ID: 24-23-29-3400-00-092	SCHOOL	PD	LOW-MEDIUM DENSITY
PARCEL ID: 24-23-29-3400-00-093	SCHOOL	PD	COMMERCIAL
PARCEL ID: 24-23-29-3400-00-094	SCHOOL	PD	COMMERCIAL
PARCEL ID: 24-23-29-3400-00-095	SCHOOL	PD	COMMERCIAL
PARCEL ID: 24-23-29-3400-00-114	SCHOOL	PD	COMMERCIAL

EXISTING BUILDINGS AREA:

BUILDINGS AREA:	AREA (SF)
BUILDING A (EX. ELEMENTARY SCHOOL):	39,288 SF.
BUILDING B (EX. MIDDLE SCHOOL):	36,720 SF.
BUILDING C (EX. MIDDLE/HIGH SCHOOL):	60,500 SF.
BUILDING F (EX. FIELD HOUSE):	6,172 SF.
BUILDING H (EX. HOUSE):	1,100 SF.
BUILDING I (EX. OASIS BUILDING):	6,462 SF.
TOTAL BUILDINGS AREA:	150,242 SF.

NEW BUILDING HEIGHT:

BUILDING HEIGHT (ALLOWABLE):	HEIGHT
BUILDING HEIGHT (PROPOSED)	57'
BUILDING A1:	56'
BUILDING D:	54'
BUILDING E:	44'
BUILDING G:	50'
BUILDING J:	16'

PROPOSED BUILDINGS AREA:

BUILDINGS AREA:	AREA (SF)
BUILDING A1 (PROPOSED ELEMENTARY-4 STORY):	33,750 SF.
BUILDING D (PROPOSED HIGH SCHOOL-3 STORY):	44,500 SF.
BUILDING E (STUDENT SERVICE-2 STORY):	14,100 SF.
BUILDING G (PROPOSED GYMNASIUM -2 STORY):	16,100 SF.
BUILDING J (CONCESSION, RESTROOM & PRESS BOX):	1,740 SF.
TOTAL BUILDINGS AREA:	110,190 SF.

FLOOR AREA RATIO (ALLOWABLE): 0.50
 FLOOR AREA RATIO (PROPOSED AND EXISTING): (5.98 AC/ 14.84 AC) 0.40

PARKING

STUDENTS	2,420 STUDENTS/13 GRADES = (186/ GRADE * 2) * 10% (*)	37 SPACES
STAFF	2,420 * 1/15 * (1 SPACE PER STAFF)	161 SPACES
VISITOR	2,420/100 (1 SPACE PER 100 STUDENTS)	24 SPACES
TOTAL PARKING REQUIRED		222 SPACES
SPACES REQUIRED TO BE RESERVED FOR HANDICAP (*) HIGH SCHOOL STUDENTS		7 SPACES
PARKING PROVIDED		219 SPACES
EXISTING PARKING SPACES		-67 SPACES
EXISTING PARKING SPACES TO BE REMOVED		134 SPACES
NEW PARKING SPACES		5 SPACES
HANDICAP PARKING		291 SPACES
TOTAL PARKING PROVIDED		291 SPACES

SITE AREA CALCULATIONS (EXISTING)

BUILDINGS FOOTPRINT	AREA (±S.F.)	%
EXISTING BUILDINGS	75,729 ±S.F.	
TOTAL EXISTING CONCRETE, SIDEWALK & ASPHALT (*)	187,460 ±S.F.	
TOTAL IMPERVIOUS AREA	263,189 ±S.F.	6.04 ±AC. 40.70 %
EXISTING IMPERVIOUS TO BE REMOVED (OLD TEXACO SITE & OTHERS) (-)41,222 ±S.F.		
EXISTING IMPERVIOUS TO BE REMOVED (OLD BANK OF AMER. SITE) (-)35,340 ±S.F.		
POND AREAS	55,222 ±S.F.	1.27 ±AC. 8.56 %
PERVIOUS AREA	327,891 ±S.F.	7.53 ±AC. 50.74 %
TOTAL SITE AREA	646,302 ±S.F.	14.84 ±AC. 100.00 %

SITE AREA CALCULATIONS (PROPOSED & EXISTING)

BUILDINGS FOOTPRINT	AREA (±S.F.)	%
EXISTING BUILDINGS	75,729 ±S.F.	
PROPOSED BUILDINGS	47,450 ±S.F.	
PROPOSED & EXISTING CONCRETE, SIDEWALK & ASPHALT (*)	166,775 ±S.F.	
IMPERVIOUS AREA	289,954 ±S.F.	6.66 ±AC. 44.88 %
POND AREAS	71,185 ±S.F.	1.63 ±AC. 10.98 %
PERVIOUS AREA	292,163 ±S.F.	6.95 ±AC. 44.14 %
TOTAL SITE AREA	646,302 ±S.F.	14.84 ±AC. 100.00 %

MAXIMUM IMPERVIOUS REQUIREMENTS

CITY OF BELLE ISLE	ALLOWABLE IMPERVIOUS SURFACE RATIO - ISR	PROPOSED IMPERVIOUS SURFACE RATIO - ISR
	0.80	0.45

BUILDING SETBACKS

STREET	BUILDINGS	REQUIRED	PROPOSED
HANSEL AVENUE	(BUILDINGS D & E)	15'	15.5'
WALTHAM AVENUE	(BUILDINGS A1 & E)	14'	14.6'
FAIRLANE AVENUE	(BUILDINGS B, C & D)	7'	7.5'
E. WALLACE STREET	(BUILDING D)	4'	4.3' (*)
RANDOLPH AVENUE	(BUILDING G)	5'	5'

(*) DUMPSTER WALL: ZERO SETBACK

LANDSCAPE BUFFERS (REQUIRED)

STREET	REQUIRED	PROPOSED
HANSEL AVENUE	15'	15'
WALTHAM AVENUE	14'	14'
FAIRLANE AVENUE	7'	7'
E. WALLACE STREET	4'	4'
RANDOLPH AVENUE	5'	5'

OPEN SPACE CALCULATIONS

OPEN SPACE PROVIDED: 44%

RECREATION AREA:

SPORT FIELD AREA: 2.66 AC

LIGHTING NOTE:

LIGHTING SHALL MEET CITY OF BELLE ISLE REQUIREMENTS.

STORMWATER NOTE:

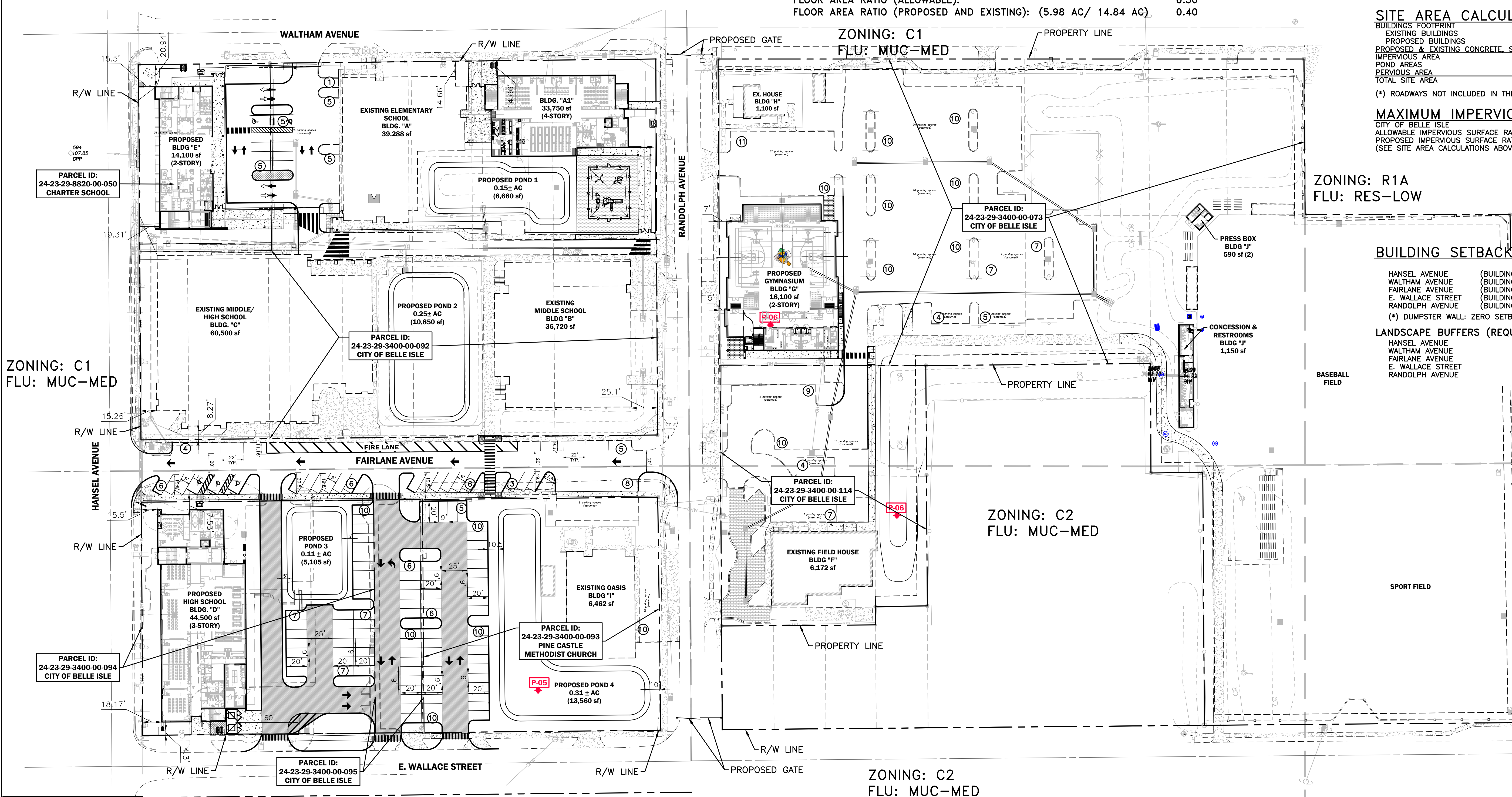
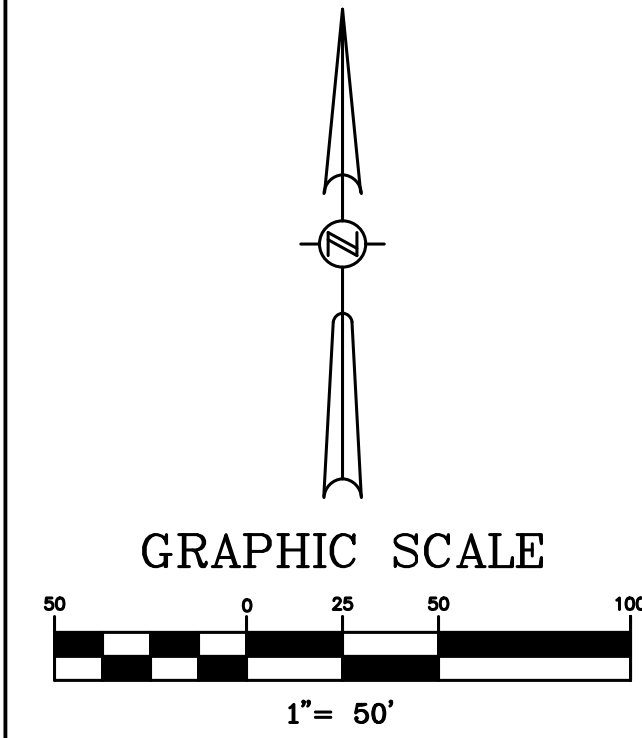
THE PROPOSED STORMWATER SYSTEM WILL BE DESIGNED TO MEET THE CITY OF BELLE ISLE AND SJRWMD REQUIREMENTS.

UTILITIES NOTE:

THE PROPOSED WATER AND SEWER DESIGN WILL BE DESIGNED TO MEET ORANGE COUNTY UTILITIES AND ORLANDO UTILITIES COMMISSION REQUIREMENTS.

SITE NOTE:

ALL CONSTRUCTION DETAILS ARE CONCEPTUAL AND SUBJECT TO REVIEW AND MODIFICATION DURING THE APPROVAL OF FINAL CONSTRUCTION PLANS.



DATE	REVISIONS	BY	CHECKED

CORNERSTONE CHARTER ACADEMY
MASTER PLAN
CITY OF BELLE ISLE, FLORIDA



5127 S. Orange Avenue, Suite 200
 Orlando, FL 32809
 Phone: 407-895-0324
 Fax: 407-895-0325
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OVERALL MASTER SITE PLAN

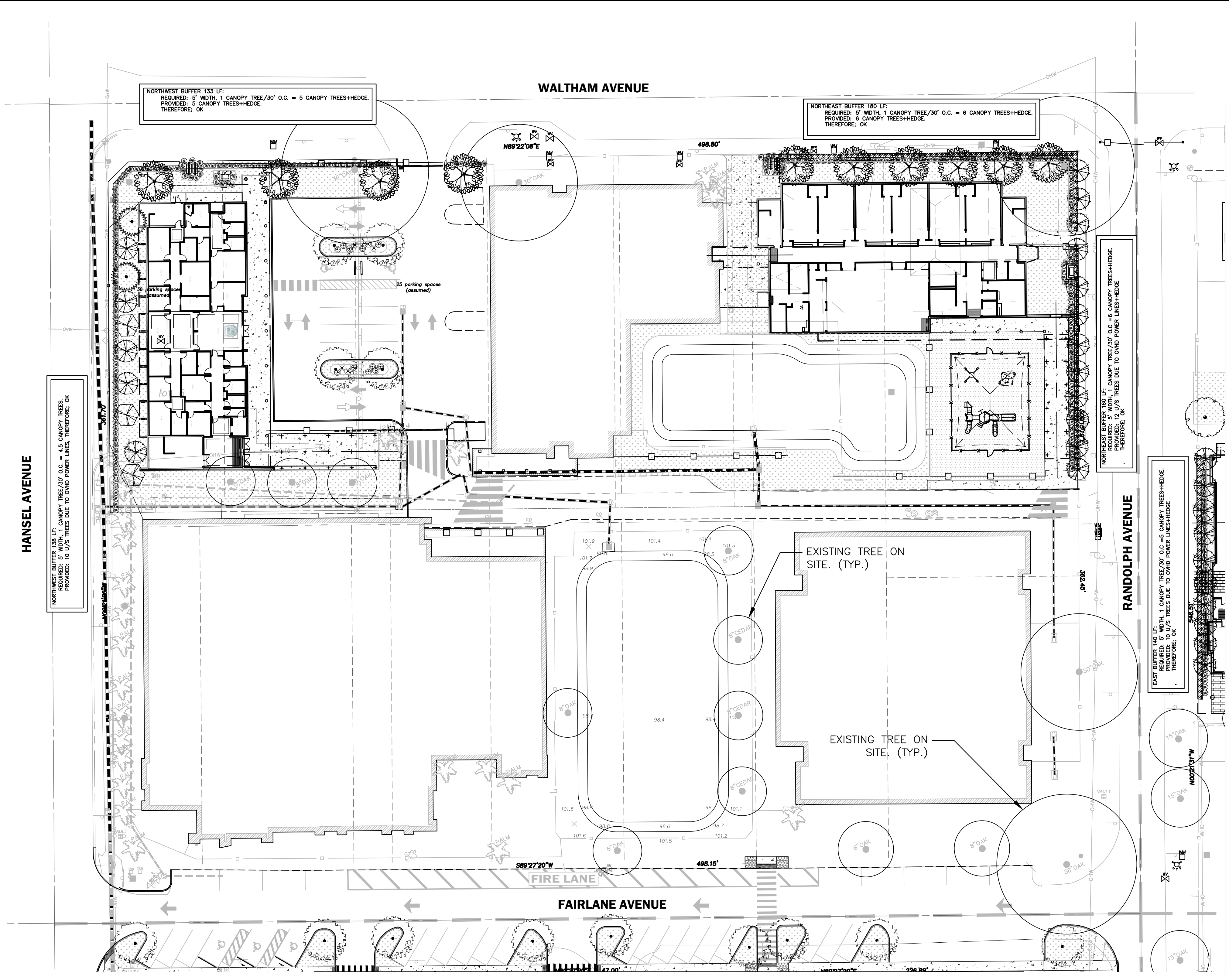
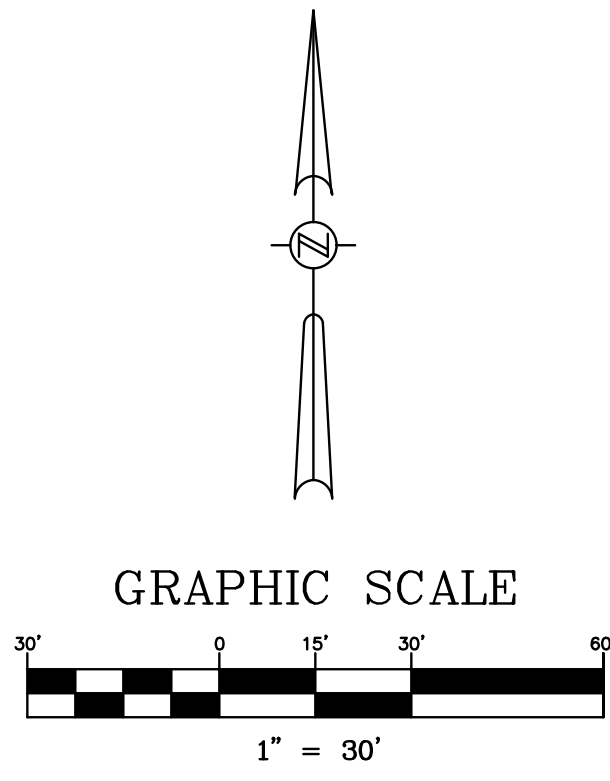
DESIGNED BY	DRAWN BY	CHECKED BY	APPROVED BY
JAA	VP	JAA	JAA

PROJECT NO. 22-010
 SCALE 1" = 50'
 DATE FEBRUARY 9, 2023
 SHEET NO. C-9
 SHEET 9 OF 12

Digitally signed by JEAN M. ABLI-AOUN
 DN: c=US, o=FLORIDA ENGINEERING GROUP INC, ou=A01410D00000172C87078BF0000F7AE, cn=JEAN M ABLI-AOUN
 Date: 2023.02.09 10:24:38 -0500

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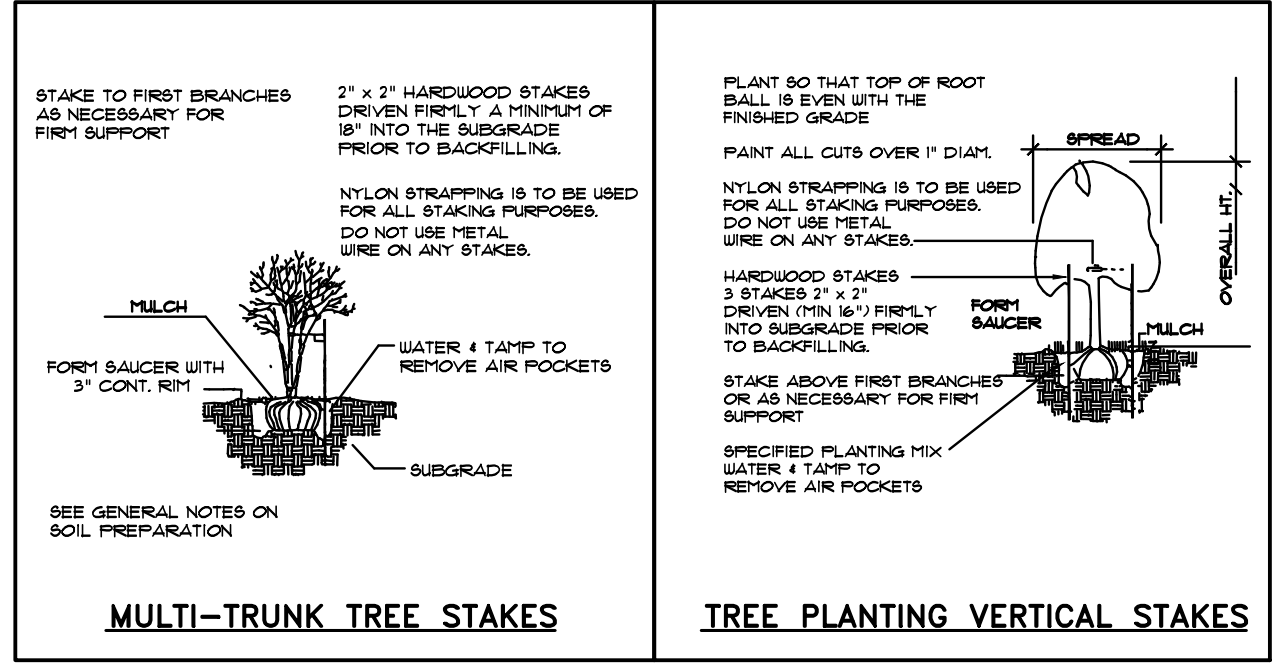
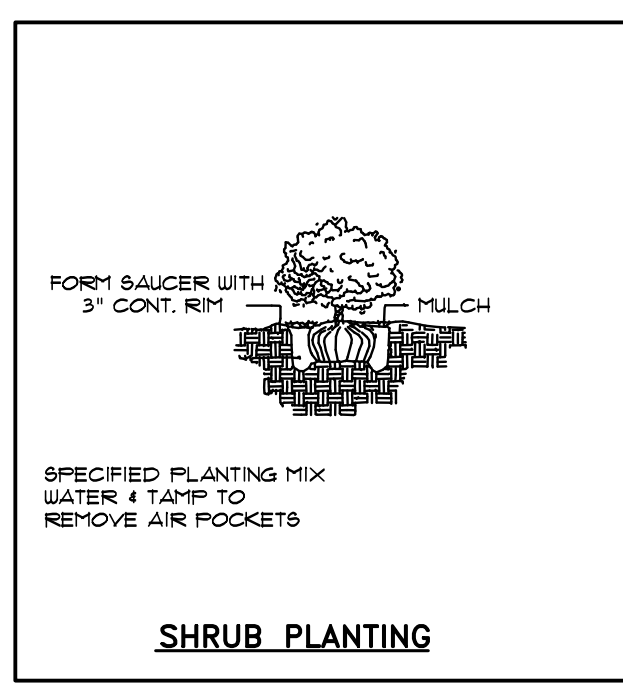
22-010_MasterPlan.dwg



FLORIDA NATIVE LANDSCAPE SCHEDULE						
SYMBOL	ABR.	BOTANICAL NAME	COMMON NAME	CANOPY TREES		
				MINIMUM SIZE	QUANTITY	REMARKS
	QV	QUERCUS VIRGINICA 'HIGH RISE'	HIGH RISE LIVE OAK	12' HT. 4" CAL.	41	SPECIMEN Y
	AR	ACER RUBRUM	RED MAPLE	10'-12' HT. 3" CAL.	1	SPECIMEN Y
	UA	ULMUS ALATA	WINGED ELM	10'-12' HT. 3" CAL.	10	SINGLE STRAIGHT TRUNK Y
	LL	LIGUSTRUM LUCIDUM	TREE LIGUSTRUM	10'- HT.	10	Y
	IA	ILEX ATTENUATA 'EAGLESTON'	EAGLESTON HOLLY	6'-8" HT. 3" CAL.	35	Y
	LI	LAGERSTROEMIA INDICA 'NATCHEZ'	NATCHEZ CRAPE MYRTLE	10' HT	7	Y
SHRUBS						
	VB	VIBURNUM ODORATISSIMUM	VIBURNUM	30" HT. 36" O.C.	X	Y
	PA	PLUMBAGO AURICULATA	PLUMBAGO	3 GAL. 24" HT. 36" O.C.	X	Y
	TA	DWARF ASIATIC JASMINE	TRACHELOSPERMUM ASIATICUM	1 GAL. 12" O.C.	X	Y
SOD/MISC.						
	SOD	BAHIA HYBRID	QTY. BY CONTRACTOR			

LANDSCAPE NOTES

- IN THE EVENT OF A DISCREPANCY BETWEEN THE PLANT LIST AND THE ACTUAL NUMBER OF PLANTS SHOWN ON THE PLAN, THE PLAN SHALL CONTROL. THE LANDSCAPE CONTRACTOR SHALL NOTIFY FEG OF ANY DISCREPANCY PRIOR TO ISSUANCE OF BIDS.
- ALL NEW PLANTINGS MUST COMPLY WITH THE SIZES AND QUANTITIES SHOWN IN THE PLANT LIST. ALL PLANTS MUST COMPLY WITH THE APPLICABLE JURISDICTIONAL CODE. PER THE FLORIDA GUIDES AND STANDARDS MANUAL ALL NEW TREES SHALL HAVE THEIR CALIPER MEASURED AT 6" ABOVE GRADE FOR ALL TREES UP TO AND INCLUDING 4" CALIPER TREES AND 12" ABOVE GRADE FOR ALL LARGER TREES.
- ALL PLANTING BEDS AND TREE SAUCERS TO HAVE ORGANIC MULCH TO A DEPTH OF 2" MINIMUM. AREAS WITH SLOPES GREATER THAN 4:1 SHALL HAVE MULCH RINGS OR TERRACED IN LONGER BEDS DESIGNED TO CAPTURE WATER AND REDUCE EROSION. TOPS OF MULCH RINGS OR TERRACES ARE TO BE LEVEL WITH RESPECT TO GRADE AND MULCH ON THE HIGH SIDE OF THE PLANTS.
- A TWELVE MONTH WARRANTY IS TO BE PROVIDED FOR ALL NEW PLANT MATERIALS STARTING FROM THE DATE OF FINAL CERTIFICATE OF OCCUPANCY OR ACCEPTANCE BY THE OWNER. WARRANTY CAN EXCLUDE PLANTS LOST DUE TO ACTS OF GOD OR VANDALISM. REPLACEMENT OF DEAD OR UNHEALTHY PLANT MATERIALS SHALL BE THE RESPONSIBILITY OF THE LANDSCAPE CONTRACTOR WITHIN 30 DAYS OF NOTIFICATION IN CONFORMANCE WITH THE APPROVED LANDSCAPE PLAN.
- ALL DISTURBED AREAS WITHIN THE PROJECT LIMITS SHALL BE FULLY SODDED ASIDE FROM DEFINED PLANTING BEDS. SOD SHALL BE FREE OF WEEDS AND NOXIOUS PESTS OR DISEASES. DISTURBED AREAS OUTSIDE OF PROJECT LIMITS SHALL BE SEEDED AND MULCHED UNLESS STEEPER THAN 5:1. PROVIDE SOD ON SLOPES STEEPER THAN 5:1. ALL DRY PONDS CAN BE SEEDED AND MULCHED ON THE BOTTOMS AND SIDE SLOPES. WET PONDS ARE TO BE SODDED DOWN TO THE BOTTOM OF DESIGNED 5:1 OR 4:1 SIDE SLOPES.
- LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE OCCURRING ON SITE OR ADJACENT AREAS, INCLUDING, BUT NOT LIMITED TO BUILDINGS, PAVING, UTILITIES, ETC., WHICH IS CAUSED BY PREPARING OR INSTALLING ANY AND ALL PLANT MATERIAL.
- GRADE, DRESS AND SOD OR SEED AREAS THAT HAVE BEEN DISTURBED AS SOON AS POSSIBLE TO PREVENT EROSION.
- ALL PLANT MATERIAL SHALL BE SET BACK FROM THE BACK OF CURBS OR PAVEMENT. SET TREES 3 FEET BACK FROM CURBS.
- GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING IF THERE ARE ANY INVASIVE OR EXOTIC TREES LOCATED ON THE SITE AND IS REQUIRED TO REMOVE ALL INVASIVE SPECIES PER THE LOCAL JURISDICTION'S INVASIVE SPECIES LIST LOCATED IN THEIR CODE OF ORDINANCES. GENERAL CONTRACTOR TO CONFIRM WITH THE LANDSCAPE INSTALLER THAT NO INVASIVE OR EXOTIC PLANT MATERIALS EXIST ON SITE. INFORM LANDSCAPE ARCHITECT IF ANY OF THESE PLANTS EXIST.
- ANY PRUNING OF EXISTING TREES OR VEGETATION TO REMAIN AS A LANDSCAPE ELEMENT MUST BE CONDUCTED BY A CERTIFIED ARBORIST HOLDING A CURRENT CREDENTIAL WITH THE INTERNATIONAL SOCIETY OF ARBORICULTURE (ISA). ALL PRUNING SHALL CONFORM TO THE ANSI A300 STANDARDS, PART 1; PRUNING. THE SPECIFICATIONS FOR PRUNING SHALL BE DETERMINED BY THE CERTIFIED ARBORIST OR A PERSON QUALIFIED TO CREATE PRUNING SPECIFICATIONS ACCORDING TO THE ANSI STANDARD. THE GREATEST EMPHASIS IN PRUNING SHALL BE THE SAFETY, HEALTH AND WELFARE OF THE TRAVELING OR PEDESTRIAN TRAFFIC ESPECIALLY AS IT RELATES TO PEOPLE OR PROPERTY WITHIN THE FAILURE FOOTPRINT OF THE TREE OR VEGETATION TO BE PRUNED. WHEN THERE ARE EXISTING TREES OR VEGETATION TO REMAIN, CONTRACTOR SHALL EMPLOY A CERTIFIED TREE SURGEON TO SELECTIVELY PRUNE AND TRIM ALL EXISTING PLANT MATERIALS TO PROVIDE A BALANCED APPEARANCE WHILE ALSO ELIMINATING ANY INTERFERENCE WITH THE NEW CONSTRUCTION OR SAFETY, VISIBILITY CORRIDORS.
- IRRIGATION (100% COVERAGE) SHALL BE PROVIDED IN ALL NEWLY PROPOSED PLANTING AREAS IN ACCORDANCE WITH THE JURISDICTIONAL LAND DEVELOPMENT CODE. SEE SHEET L-2, IRRIGATION PLAN FOR SPECIFICS.



DATE	REVISIONS	BY	CHECKED

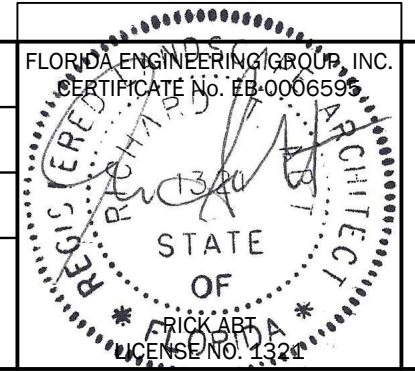
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MASTER PLAN
CITY OF BELLE ISLE, FLORIDA**



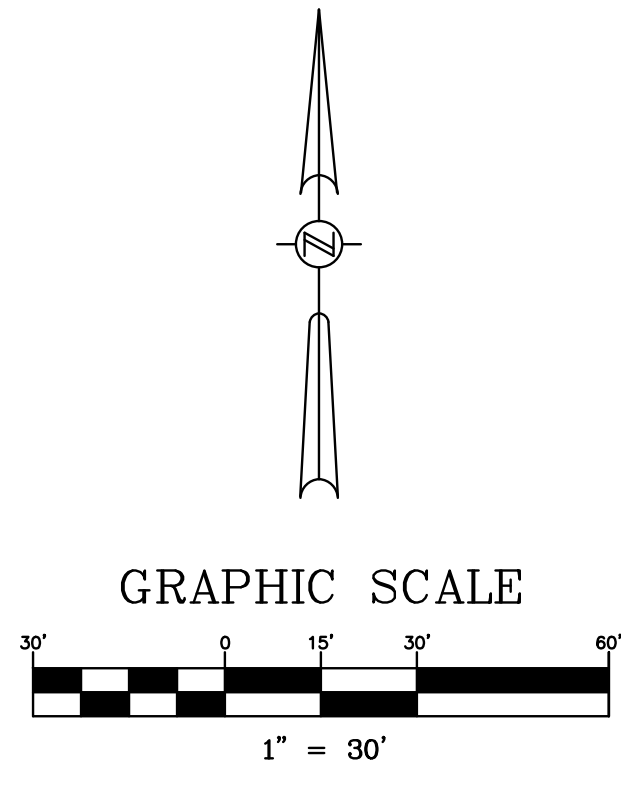
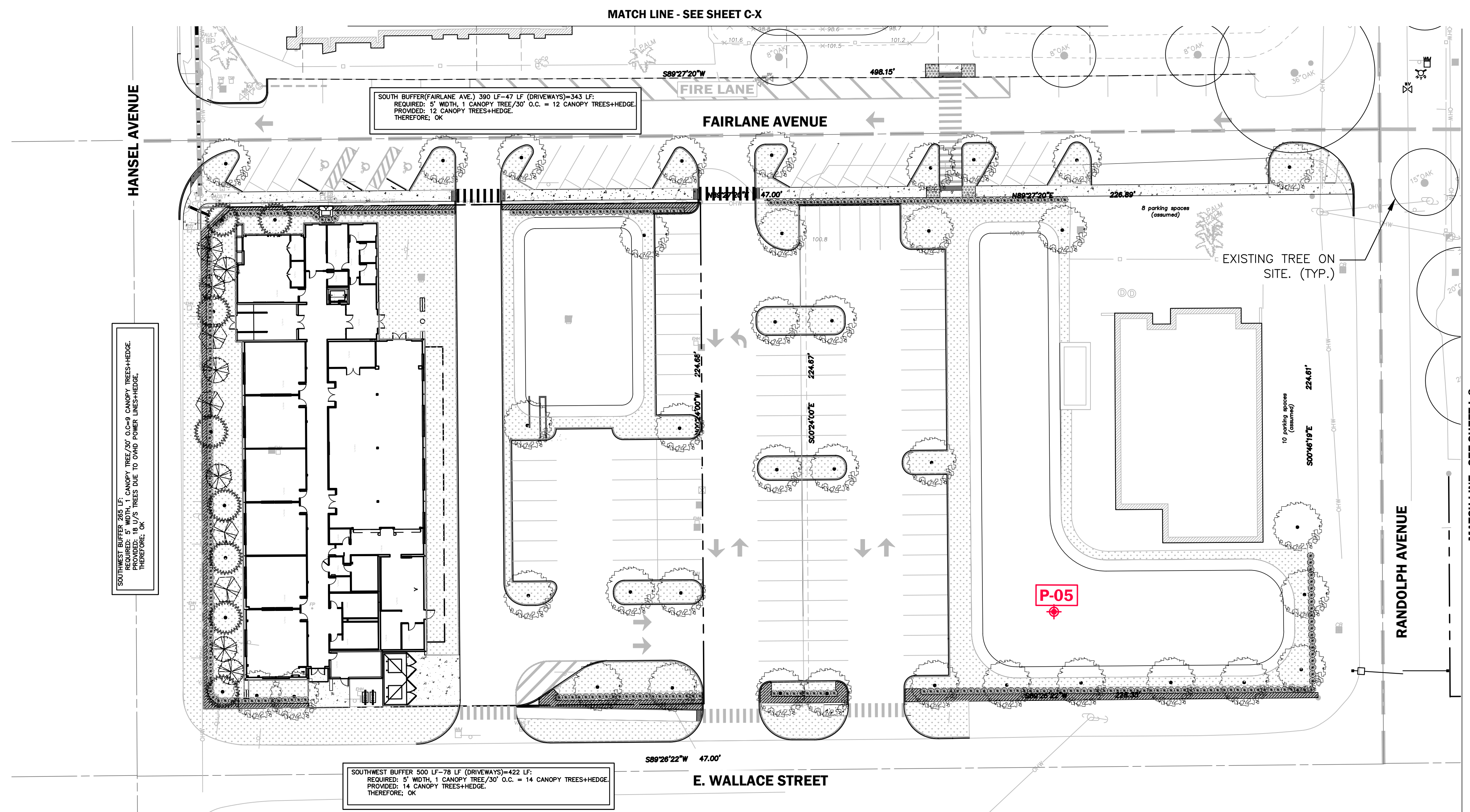
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Orlando, FL 32809
Phone: 407-895-0324
Fax: 407-895-0325
www.feg-inc.us

SITE LANDSCAPE PLAN (1 OF 3)			
DESIGNED BY	DRAWN BY	CHECKED BY	APPROVED BY
RTA	RTA	RTA	RTA

PROJECT NO.	22-010
SCALE	1" = 30'
DATE	FEBRUARY 9, 2023
SHEET NO.	L-1
SHEET	10 OF 12



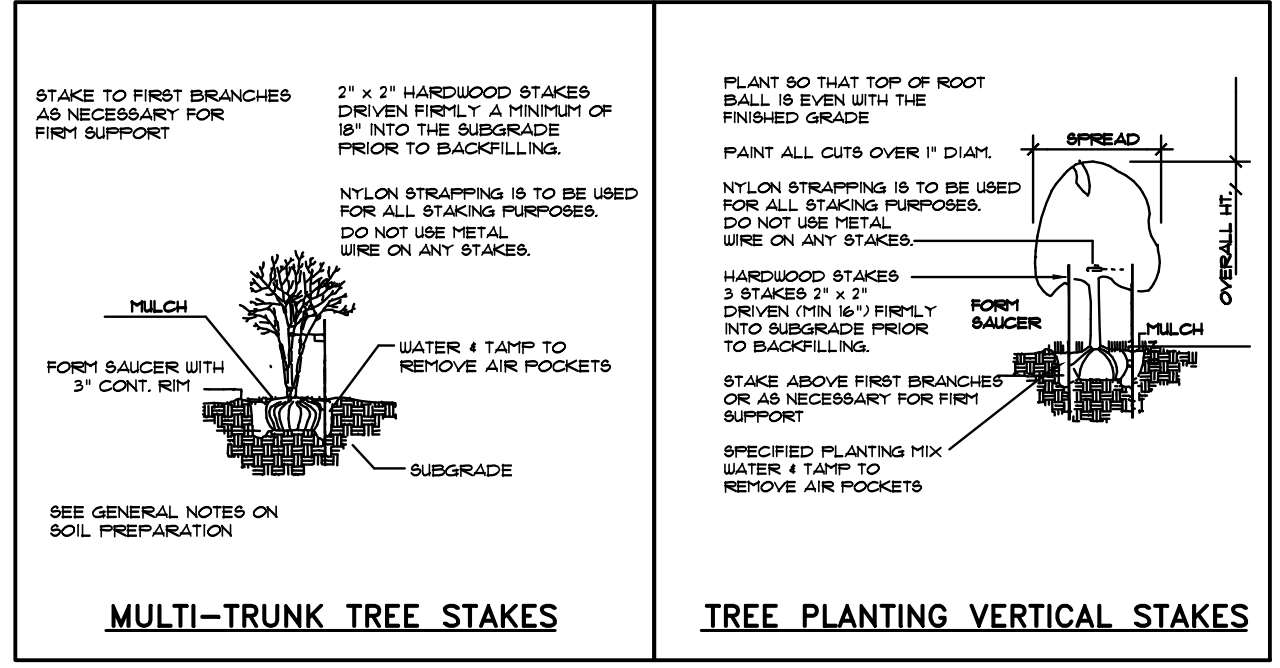
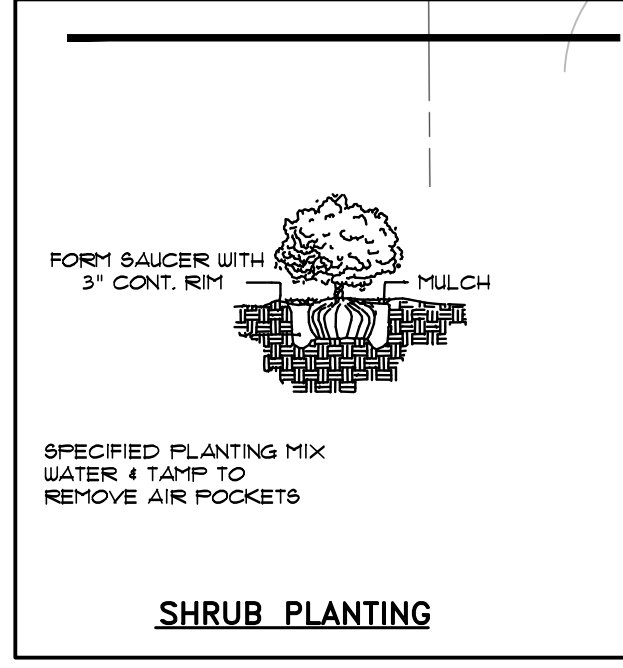
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SOUTHWEST BUFFER 250 LF (DRIVEWAYS)=343 LF
 REQUIRED: 5' WIDTH, 1 CANOPY TREE/30' O.C. = 12 CANOPY TREES+HEDGE.
 PROVIDED: 12 CANOPY TREES+HEDGE.
 THEREFORE, OK

SOUTH BUFFER (FAIRLANE AVE.) 300 LF=47 LF (DRIVEWAYS)=343 LF
 REQUIRED: 5' WIDTH, 1 CANOPY TREE/30' O.C. = 12 CANOPY TREES+HEDGE.
 PROVIDED: 12 CANOPY TREES+HEDGE.
 THEREFORE, OK

SOUTHWEST BUFFER 500 LF=78 LF (DRIVEWAYS)=422 LF
 REQUIRED: 5' WIDTH, 1 CANOPY TREE/30' O.C. = 14 CANOPY TREES+HEDGE.
 PROVIDED: 14 CANOPY TREES+HEDGE.
 THEREFORE, OK



DATE	REVISIONS	BY	CHECKED

CORNERSTONE CHARTER ACADEMY
 MASTER PLAN
 CITY OF BELLE ISLE, FLORIDA

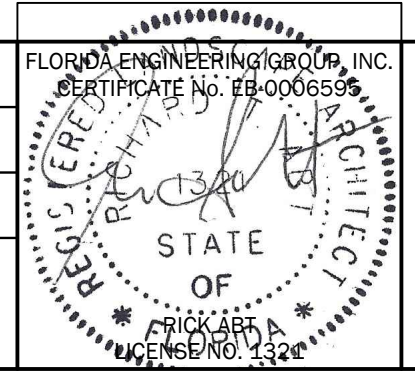


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SITE LANDSCAPE PLAN (2 OF 3)

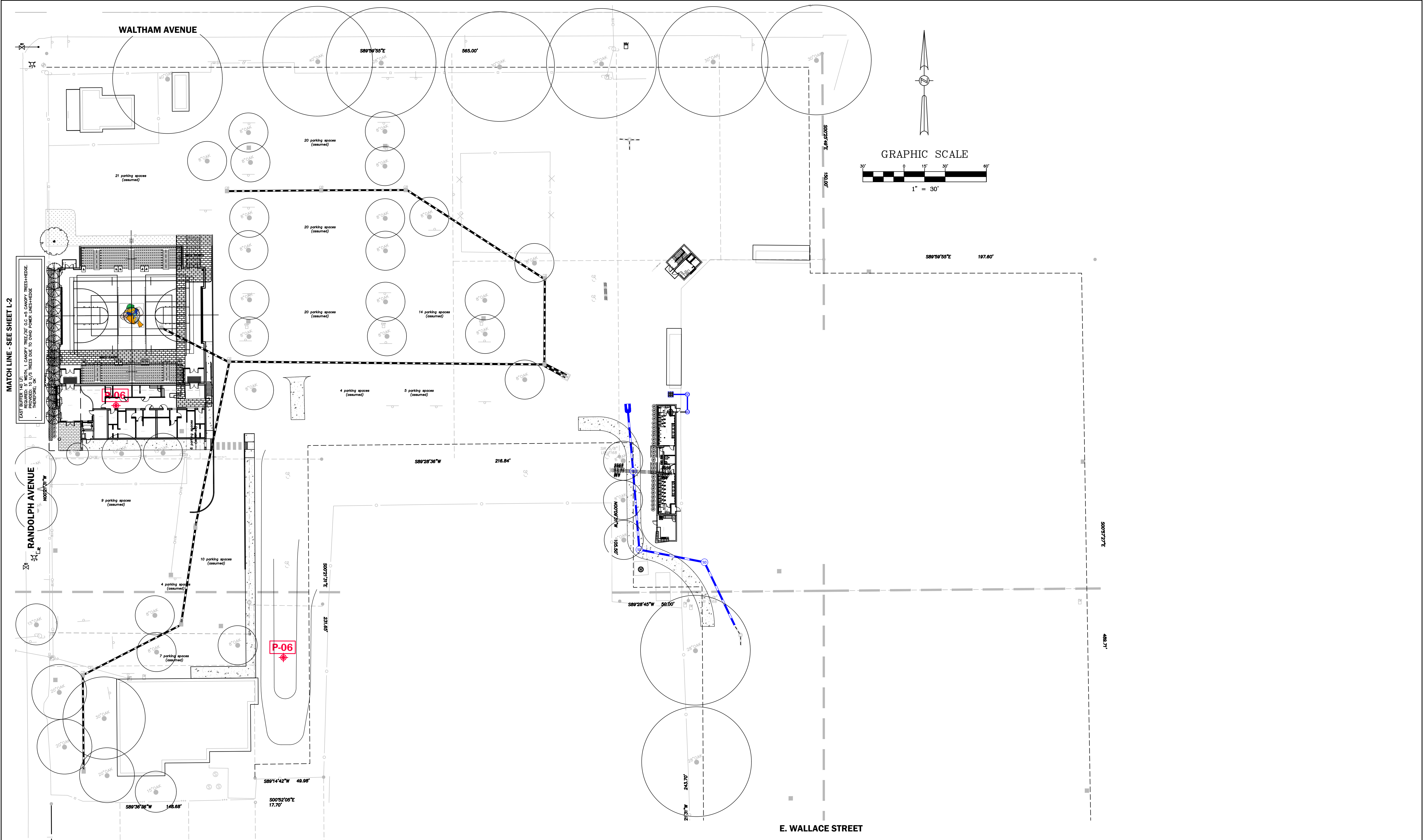
DESIGNED BY	DRAWN BY	CHECKED BY	APPROVED BY
RTA	RTA	RTA	RTA

PROJECT NO.	22-010
SCALE	1" = 30'
DATE	FEBRUARY 9, 2023
SHEET NO.	L-2
SHEET	11 OF 12



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MATCH LINE - SEE SHEET L-2

EAST BUFFER TAG OF 1/2" MIN. 1 CANOPY TREE (2" O.S. - 4 CANOPY TREE-HEDGE PROVIDED. 10 1/2" TREES DUE TO GRID POWER LANE-HEDGE THEREFORE, OK

RANDOLPH AVENUE

WALTHAM AVENUE

E. WALLACE STREET

DATE	REVISIONS	BY	CHECKED

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 MASTER PLAN
 CITY OF BELLE ISLE, FLORIDA

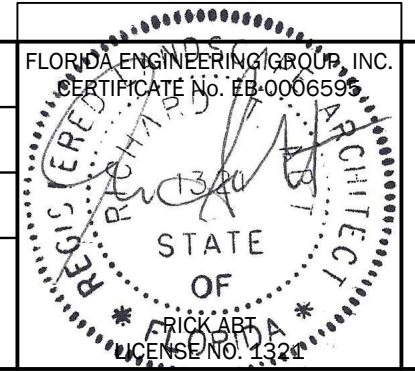


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SITE LANDSCAPE PLAN (3 OF 3)

DESIGNED BY RTA	DRAWN BY RTA	CHECKED BY RTA	APPROVED BY RTA
--------------------	-----------------	-------------------	--------------------

PROJECT NO.	22-010
SCALE	1" = 30'
DATE	FEBRUARY 9, 2023
SHEET NO.	L-3
SHEET	12 OF 12



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Cornerstone Charter Academy Master Plan Community Meeting Summary

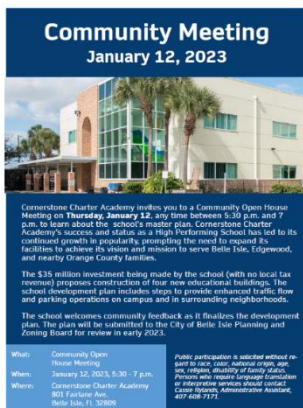
Meeting Date: January 12, 2023, 5:30 p.m. to 7 p.m.
Location: Cornerstone Charter Academy Auditorium
Attendees: More than 100 community members, CCA families, neighboring residents

Cornerstone Charter Academy held a community meeting regarding its master plan on Thursday, January 12, 2023. The open house format gave school families and the surrounding community an opportunity to learn about the master plan, including building and traffic plans from school leaders and the school’s planning and design consultants. More than 100 people attended the meeting.



Meeting Format: The meeting was an open house to which people were invited to attend anytime between 5:30 p.m. and 7 p.m. to view project displays and speak with project team members.

Attendees were asked to sign in at a table set up outside the main auditorium. Each attendee was given a fact sheet and comment form and invited to view the displays set up around the auditorium. The displays included renderings of planned new buildings and the campus map, as well as the three proposed traffic plans for each of the three staggered lower, middle, and high school drop-off and dismissal times. Copies of the fact sheet, comment form and exhibits are attached.



Community Notification: The school prepared a Save the Date notification that was sent in advance of the meeting to the City of Belle Isle and to school families. A meeting invitation flyer was then developed with additional information and distributed electronically by the school via email newsletter, social media and was shared with the City of Belle Isle staff as well, who then also distributed it to their contacts. Copies of the flyer were also hand-delivered by project team members to homes in the surrounding neighborhoods.

During the distribution, the project team was able to speak with several of the homeowners to encourage their attendance at the meeting. Many

said they appreciated the opportunity. Copies of the “save the date” and invitation flyer are attached.

Feedback: A total of 21 comment forms were received. A few individuals also submitted comments by email. Of the comments received, 12 expressed support for the project and four were opposed. The remaining comments contained questions or suggestions without expressing an opinion on the plan directly. The CCA Master Plan areas mentioned in the comments included:

- Questions about how drop-off and dismissal will work when a parent has children in different grades.
- Golf cart accommodation
- How traffic increase will be handled
- Questions re: school bus transportation
- Project schedule
- Requests for specific facilities, such as elementary school recess areas/playground
- Safety & security during construction.





SAVE THE DATE!
Community Open House
Cornerstone Charter Academy Master Plan
January 12, 2023, 5:30 - 7 p.m.
925 Fairlane Ave., Belle Isle, FL 32809

Community Meeting

January 12, 2023



Cornerstone Charter Academy invites you to a Community Open House Meeting on **Thursday, January 12**, any time between 5:30 p.m. and 7 p.m. to learn about the school’s master plan. Cornerstone Charter Academy’s success and status as a High Performing School has led to its continued growth in popularity, prompting the need to expand its facilities to achieve its vision and mission to serve Belle Isle, Edgewood, and nearby Orange County families.

The \$35 million investment being made by the school (with no local tax revenue) proposes construction of four new educational buildings. The school development plan includes steps to provide enhanced traffic flow and parking operations on campus and in surrounding neighborhoods.

The school welcomes community feedback as it finalizes the development plan. The plan will be submitted to the City of Belle Isle Planning and Zoning Board for review in early 2023.

- What: Community Open House Meeting
- When: January 12, 2023, 5:30 - 7 p.m.
- Where: Cornerstone Charter Academy
801 Fairlane Ave.
Belle Isle, FL 32809

Public participation is solicited without regard to race, color, national origin, age, sex, religion, disability of family status. Persons who require language translation or interpretive services should contact Cassie Rylands, Administrative Assistant, 407-608-7171.

Cornerstone Charter Academy



Cornerstone Charter Academy opened in 2010 to serve students from kindergarten through 12th grade. The Academy's mission is to provide a college preparatory educational environment with a curricular emphasis on biotechnology and life sciences that furthers the philosophy of respect and high expectations for all, enabling students to become confident, self-directed, and responsible life-long learners.

By the second year of operation, the Academy achieved Orange County's only A+ rating as a K-12 charter school system with a 97% graduation rate.

Cornerstone Charter Academy's success and status as a High Performing School has led to its continued growth in popularity, with enrollment growing from 645 in its first year to nearly 1,500 students today. There is a waitlist of more than 1,700 prospective students.

To achieve its vision and mission to serve students and families in Belle Isle, Edgewood, and nearby Orange County communities, Cornerstone Charter Academy has developed the Master Plan Project. The \$35 million investment being made by the school (with no local tax revenue) proposes construction of four new educational buildings. The school development plan includes steps to provide enhanced traffic flow and parking operations on campus and in surrounding neighborhoods.

Cornerstone Charter Academy will seek approval of its master plan from the City of Belle Isle with a goal of beginning construction in summer 2023. Construction is expected to take place over two years.

Master Plan Project **FAQs**

What is the Master Plan Project?

The Project involves the construction, renovation, expansion and equipping school facilities, including the construction of four new educational buildings. The Project also includes the renovation and expansion of the campus parking and stormwater retention system.

Who is paying for the Project?

The \$35 million Project will be funded through bonds and will not use any public taxpayer funds.

How many students will the improvements accommodate?

The new educational facilities will allow Cornerstone to serve up to 2,500 students in grades K-12.

How will Cornerstone manage traffic in the morning and afternoon?

Currently, Cornerstone Charter Academy has two different start times and dismissal times. The Project includes changes to the traffic patterns and higher queue lane capacity on property to better accommodate traffic flow.

Additionally, the school will have three dismissal times, 30 minutes apart.

When is construction starting and how long will it take?

The goal is to begin construction by summer 2023. The next step seeking approval of the building plan from the City of Belle Isle. Construction will be completed in two years.





Cornerstone Charter Academy Master Plan

Fulfilling a Mission & Vision



The Cornerstone Mission

To provide a college preparatory educational environment with a curricular emphasis on biotechnology and life sciences that furthers the philosophy of respect and high expectations for all, enabling students to become confident, self-directed, and responsible life-long learners.





a.



a.

Master Plan Overview

- *Four new educational buildings*
- *Improved traffic patterns and vehicle capacity on property to improve traffic flow*
- *Three dismissal times, 30 minutes apart*
- *Not funded by local taxpayer dollars*
- *The expansion is needed to serve the growing student demand*



















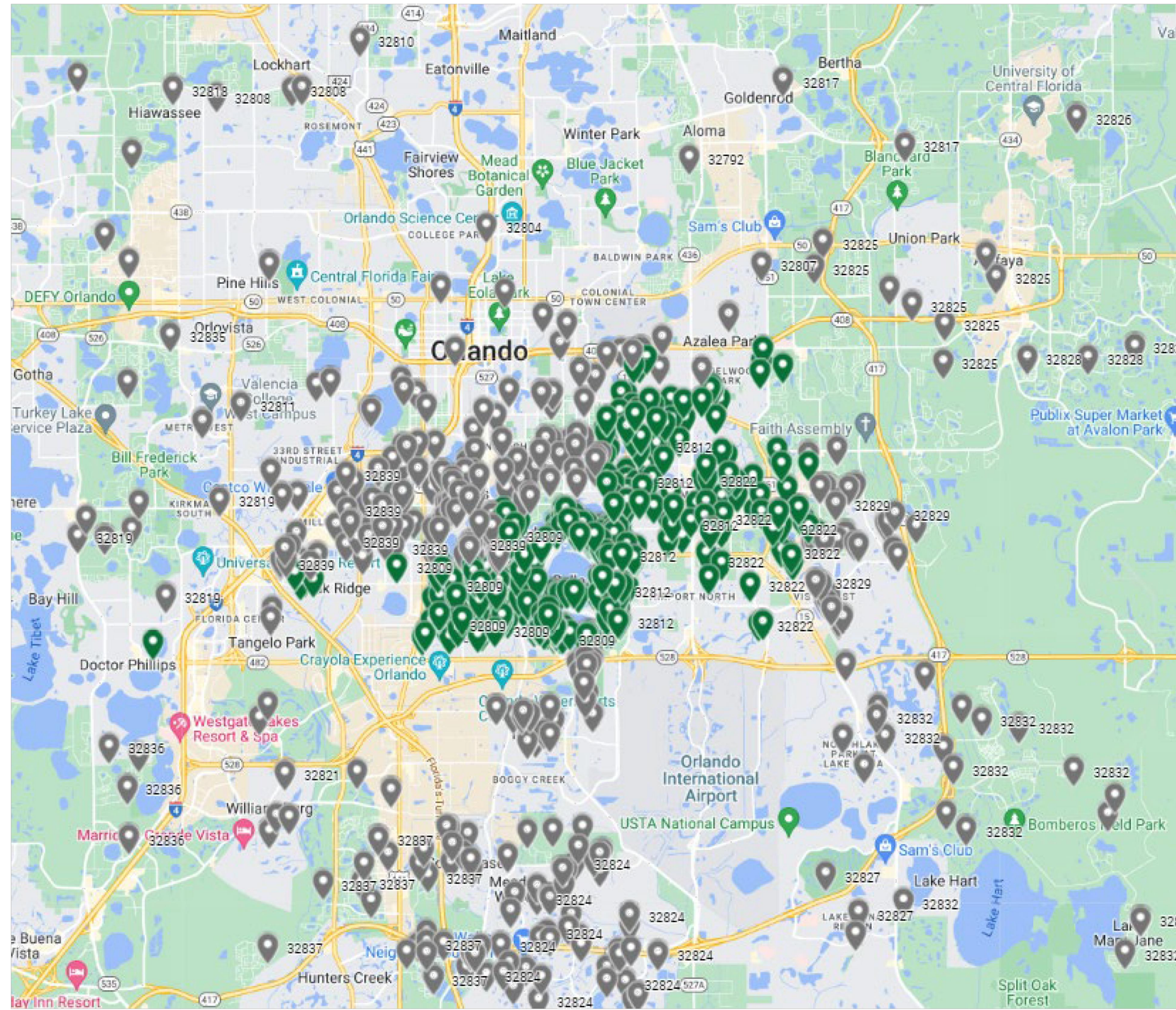


The Cornerstone Vision

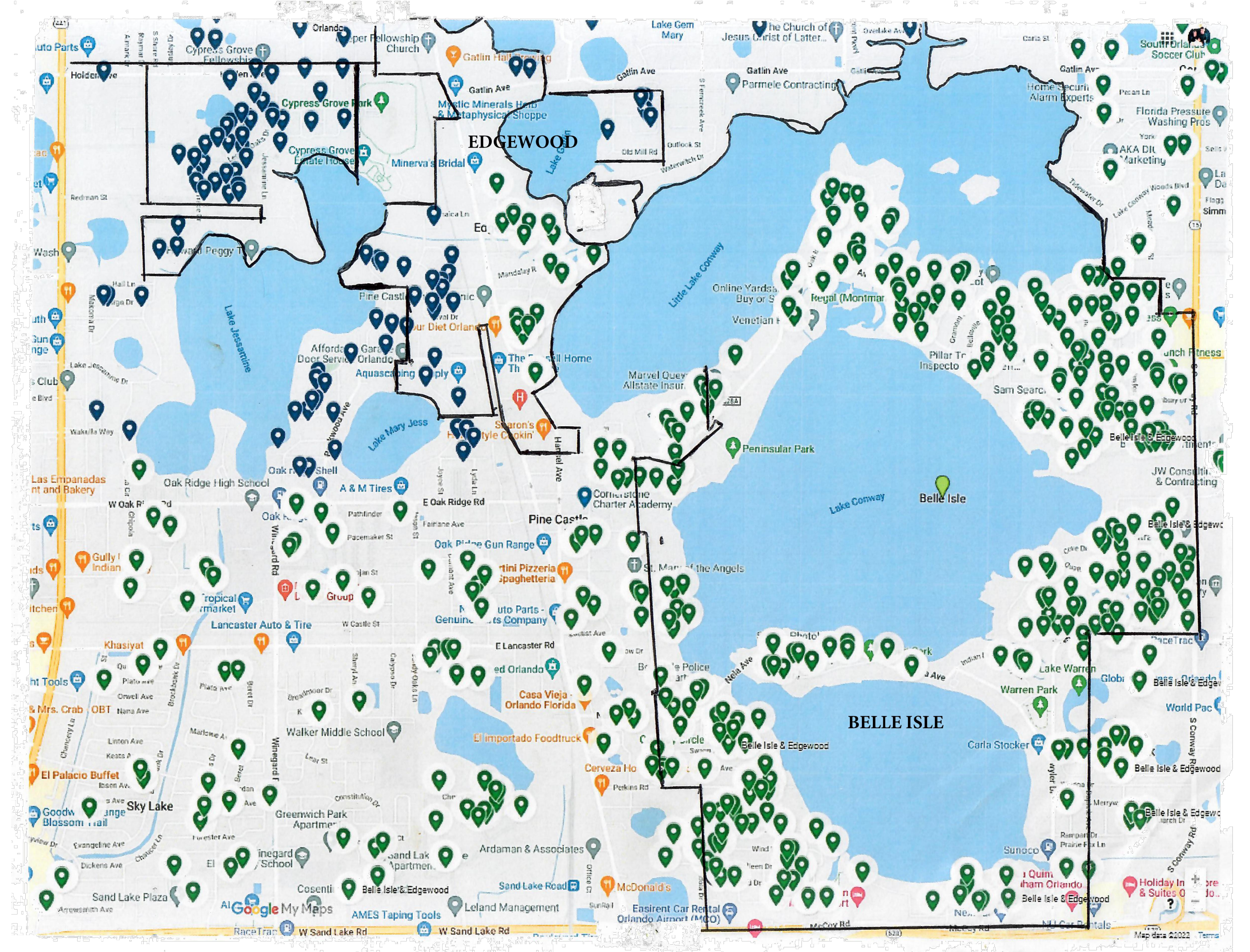
To provide a top shelf, innovative, public education opportunity of choice in a safe, sound environment which:

- Has as its foundation a solid, core academic curriculum;*
- Offers curricular emphasis on life sciences and biotechnology;*
- Attracts families to live in the community;*
- Employs talented and passionate teachers and administrators.*
- Utilizes technology tools conducive to advanced learning;*
- Substantially involves parents, community and corporate partners;*
- Provides a full spectrum of extracurricular activities;*
- Instills a sense of community service and pride; and*
- Prepares the students for college and a fulfilling, meaningful career.*





ALL STUDENTS



CITY LIMITS - BELLE ISLE & EDGEWATER



CORNERSTONE CHARTER ACADEMY

STUDENT ENROLLMENT - HEAT MAPS

01.12.2023

CIVICA
Architecture



KEY PLAN	
A	ELEMENTARY SCHOOL - EXISTING
A1	ELEMENTARY SCHOOL - NEW 3-STORY BLDG.
B	MIDDLE SCHOOL & GYM - EXISTING
C	HIGH SCHOOL & AUDITORIUM - EXISTING
D	HIGH SCHOOL - NEW 3-STORY BLDG.
E	STUDENT SERVICES - NEW 2-STORY BLDG.
F	FIELD HOUSE - EXISTING
G	GYMNASIUM - NEW 2-STORY BLDG.
H	HOUSE - EXISTING
J	PRESS BOX, CONCESSIONS & RESTROOMS



CORNERSTONE CHARTER ACADEMY

PROPOSED MASTER PLAN

01.12.2023

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Architecture



VIEW LOOKING NORTH EAST



CORNERSTONE CHARTER ACADEMY

AERIAL VIEWS

01.12.2023

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VIEW LOOKING NORTH WEST



CORNERSTONE CHARTER ACADEMY

AERIAL VIEWS

01.12.2023

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VIEW LOOKING SOUTH EAST



CORNERSTONE CHARTER ACADEMY

AERIAL VIEWS

01.12.2023

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VIEW LOOKING SOUTH WEST

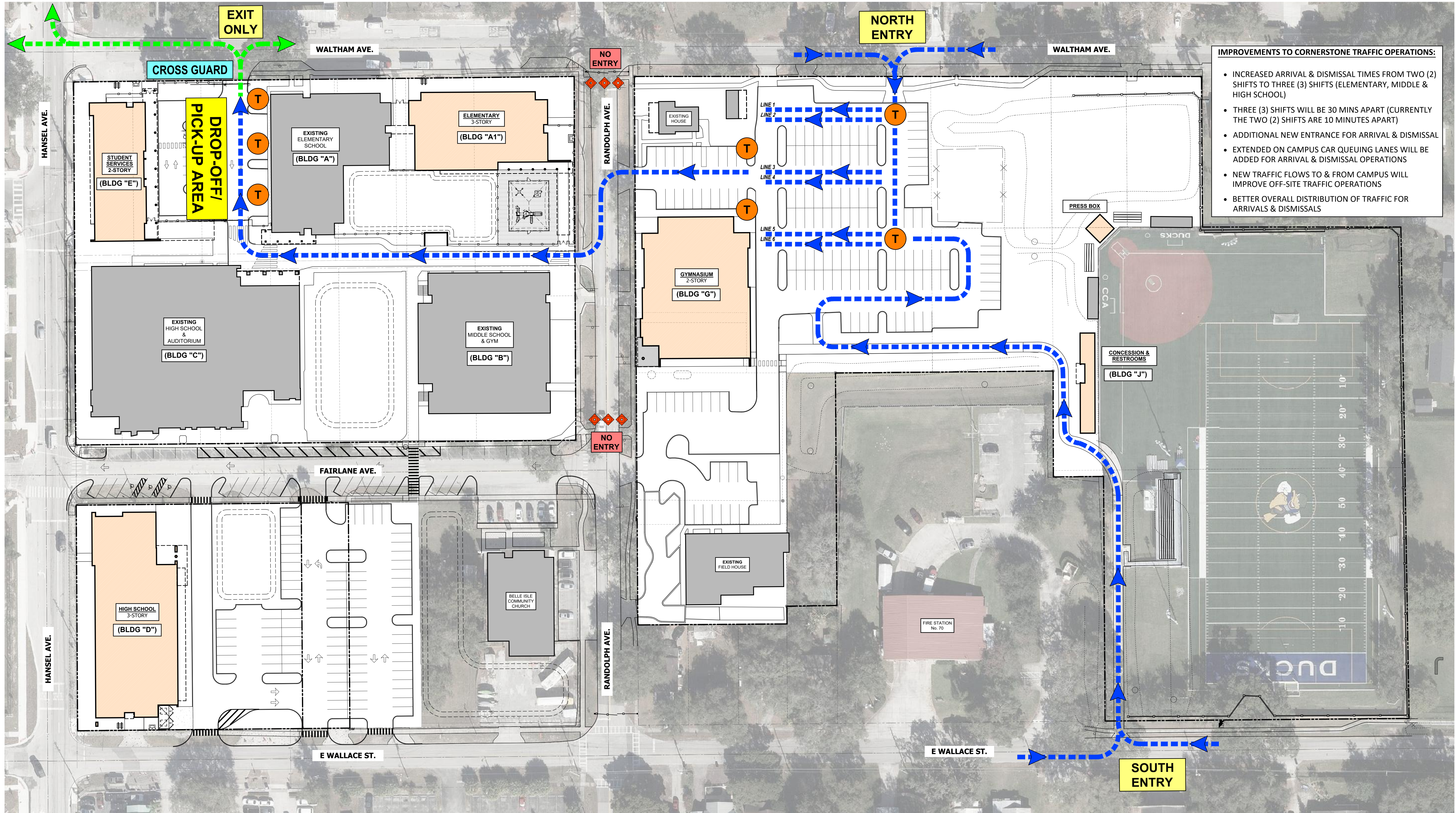


CORNERSTONE CHARTER ACADEMY

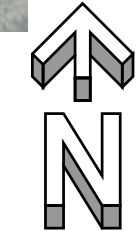
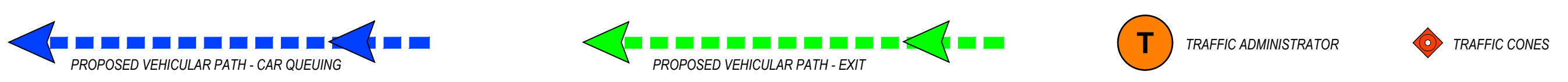
AERIAL VIEWS

01.12.2023

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- IMPROVEMENTS TO CORNERSTONE TRAFFIC OPERATIONS:**
- INCREASED ARRIVAL & DISMISSAL TIMES FROM TWO (2) SHIFTS TO THREE (3) SHIFTS (ELEMENTARY, MIDDLE & HIGH SCHOOL)
 - THREE (3) SHIFTS WILL BE 30 MINS APART (CURRENTLY THE TWO (2) SHIFTS ARE 10 MINUTES APART)
 - ADDITIONAL NEW ENTRANCE FOR ARRIVAL & DISMISSAL
 - EXTENDED ON CAMPUS CAR QUEUING LANES WILL BE ADDED FOR ARRIVAL & DISMISSAL OPERATIONS
 - NEW TRAFFIC FLOWS TO & FROM CAMPUS WILL IMPROVE OFF-SITE TRAFFIC OPERATIONS
 - BETTER OVERALL DISTRIBUTION OF TRAFFIC FOR ARRIVALS & DISMISSALS

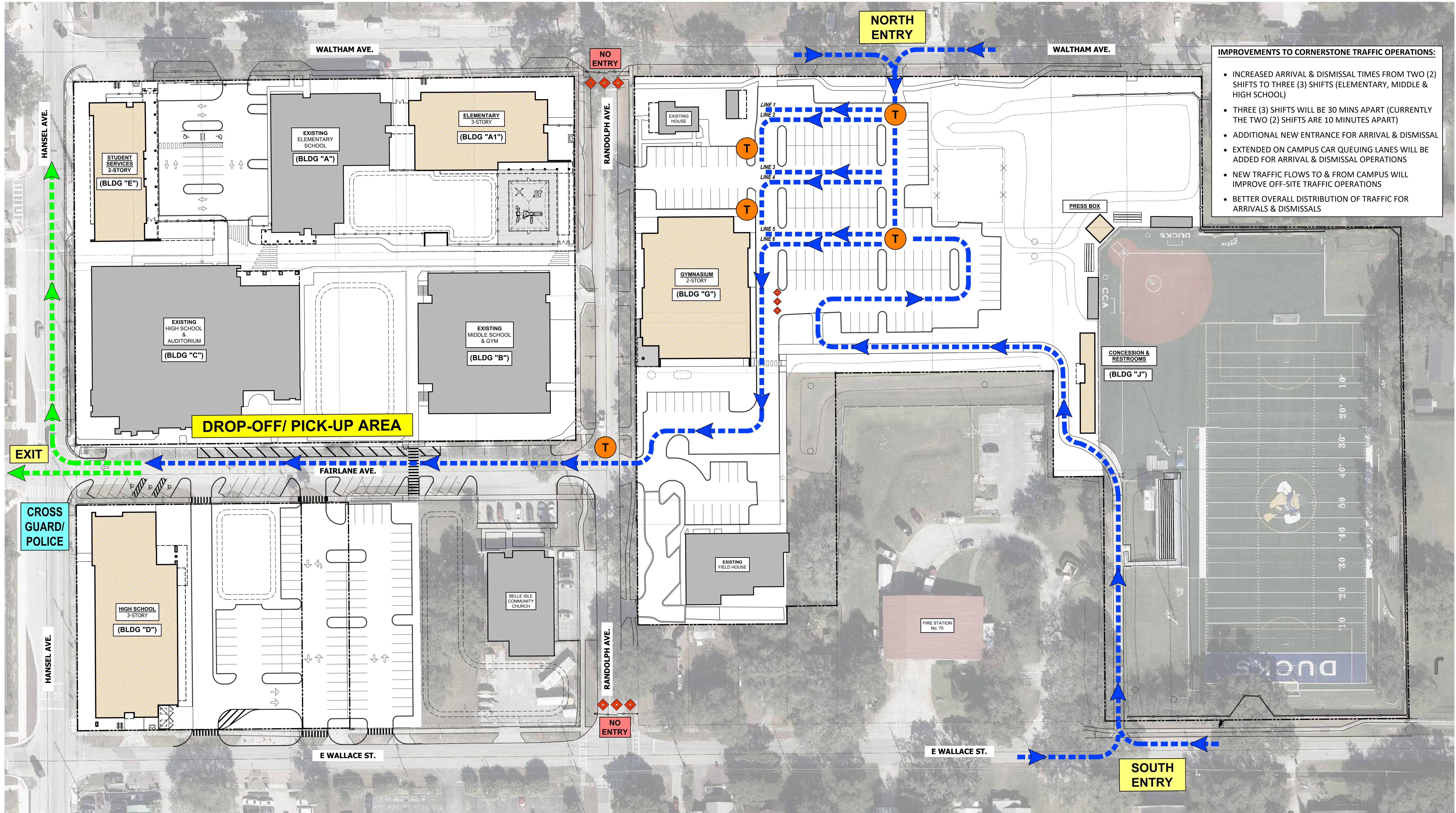


CORNERSTONE CHARTER ACADEMY

PROPOSED TRAFFIC MANAGEMENT PLAN - ELEMENTARY SCHOOL DROP-OFF & PICK-UP SHIFT

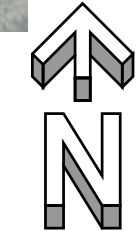
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- IMPROVEMENTS TO CORNERSTONE TRAFFIC OPERATIONS:**
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PROPOSED VEHICULAR PATH - CAR QUEUING
 PROPOSED VEHICULAR PATH - EXIT
 TRAFFIC ADMINISTRATOR
 TRAFFIC CONES

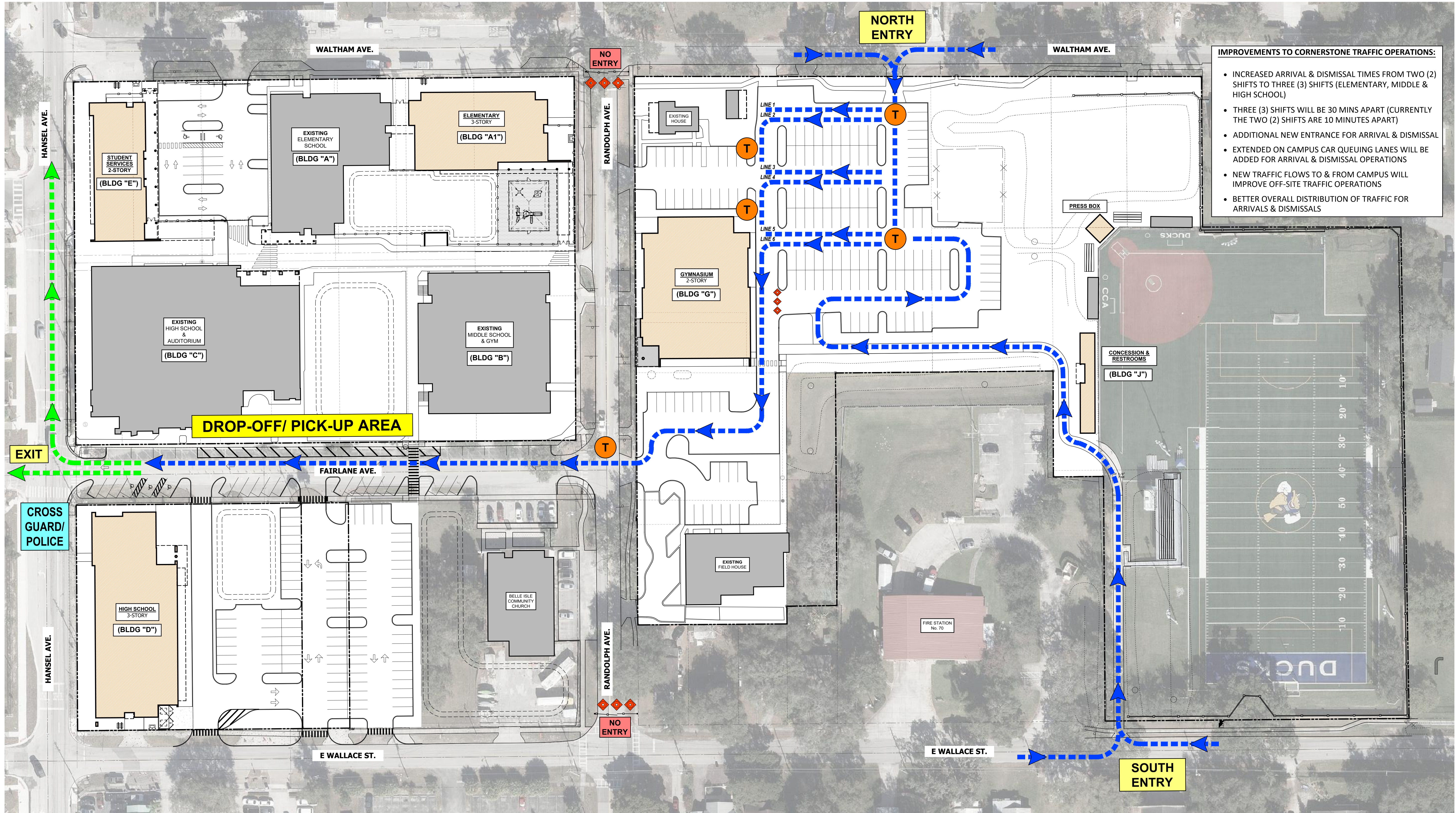


CORNERSTONE CHARTER ACADEMY

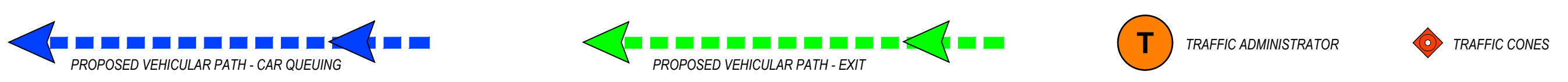
PROPOSED TRAFFIC MANAGEMENT PLAN - MIDDLE SCHOOL DROP-OFF & PICK-UP SHIFT

01.12.2023

CIVICA
Architecture



- IMPROVEMENTS TO CORNERSTONE TRAFFIC OPERATIONS:**
- INCREASED ARRIVAL & DISMISSAL TIMES FROM TWO (2) SHIFTS TO THREE (3) SHIFTS (ELEMENTARY, MIDDLE & HIGH SCHOOL)
 - THREE (3) SHIFTS WILL BE 30 MINS APART (CURRENTLY THE TWO (2) SHIFTS ARE 10 MINUTES APART)
 - ADDITIONAL NEW ENTRANCE FOR ARRIVAL & DISMISSAL
 - EXTENDED ON CAMPUS CAR QUEUING LANES WILL BE ADDED FOR ARRIVAL & DISMISSAL OPERATIONS
 - NEW TRAFFIC FLOWS TO & FROM CAMPUS WILL IMPROVE OFF-SITE TRAFFIC OPERATIONS
 - BETTER OVERALL DISTRIBUTION OF TRAFFIC FOR ARRIVALS & DISMISSALS

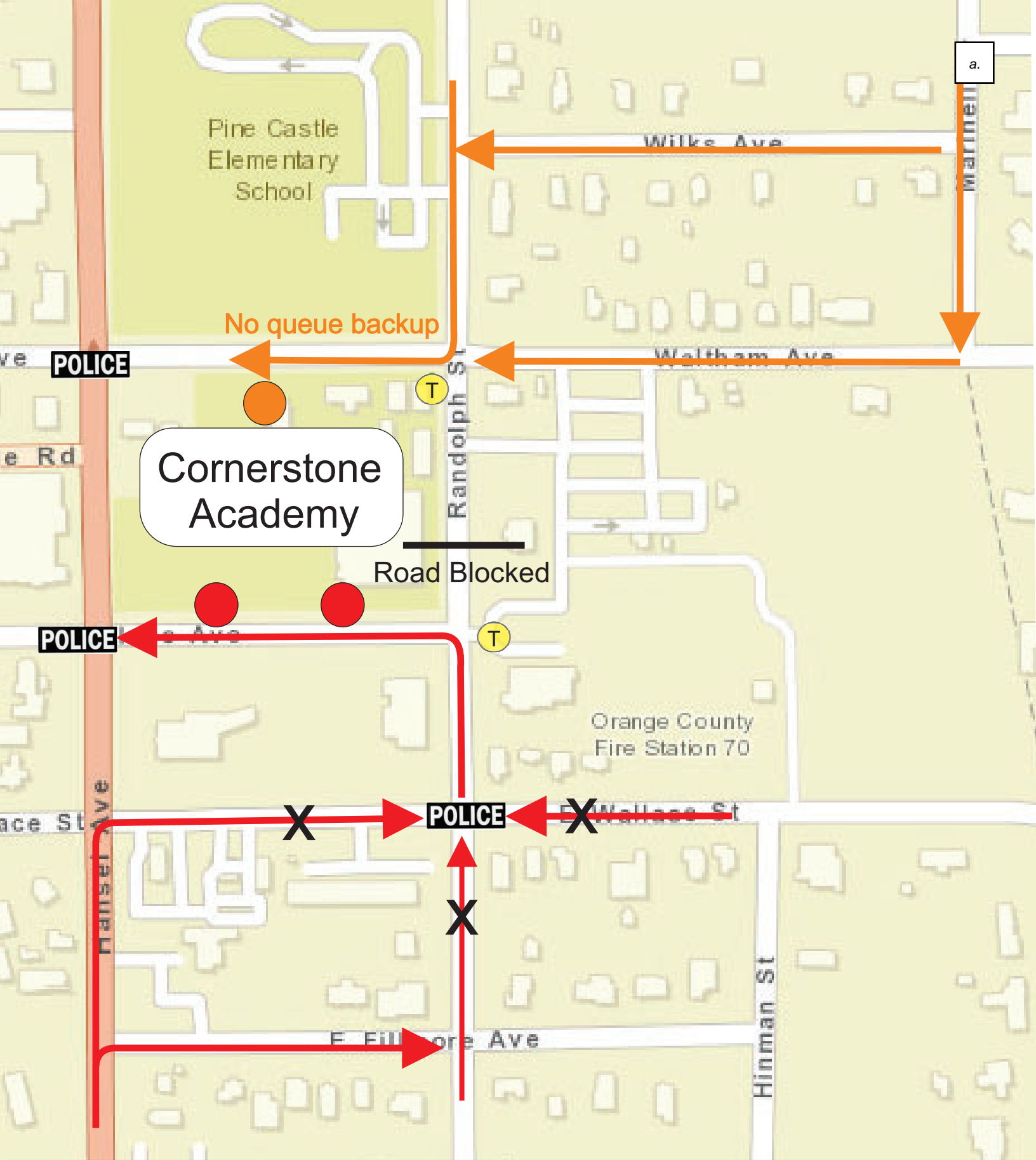


CORNERSTONE CHARTER ACADEMY

PROPOSED TRAFFIC MANAGEMENT PLAN - HIGH SCHOOL DROP-OFF & PICK-UP SHIFT

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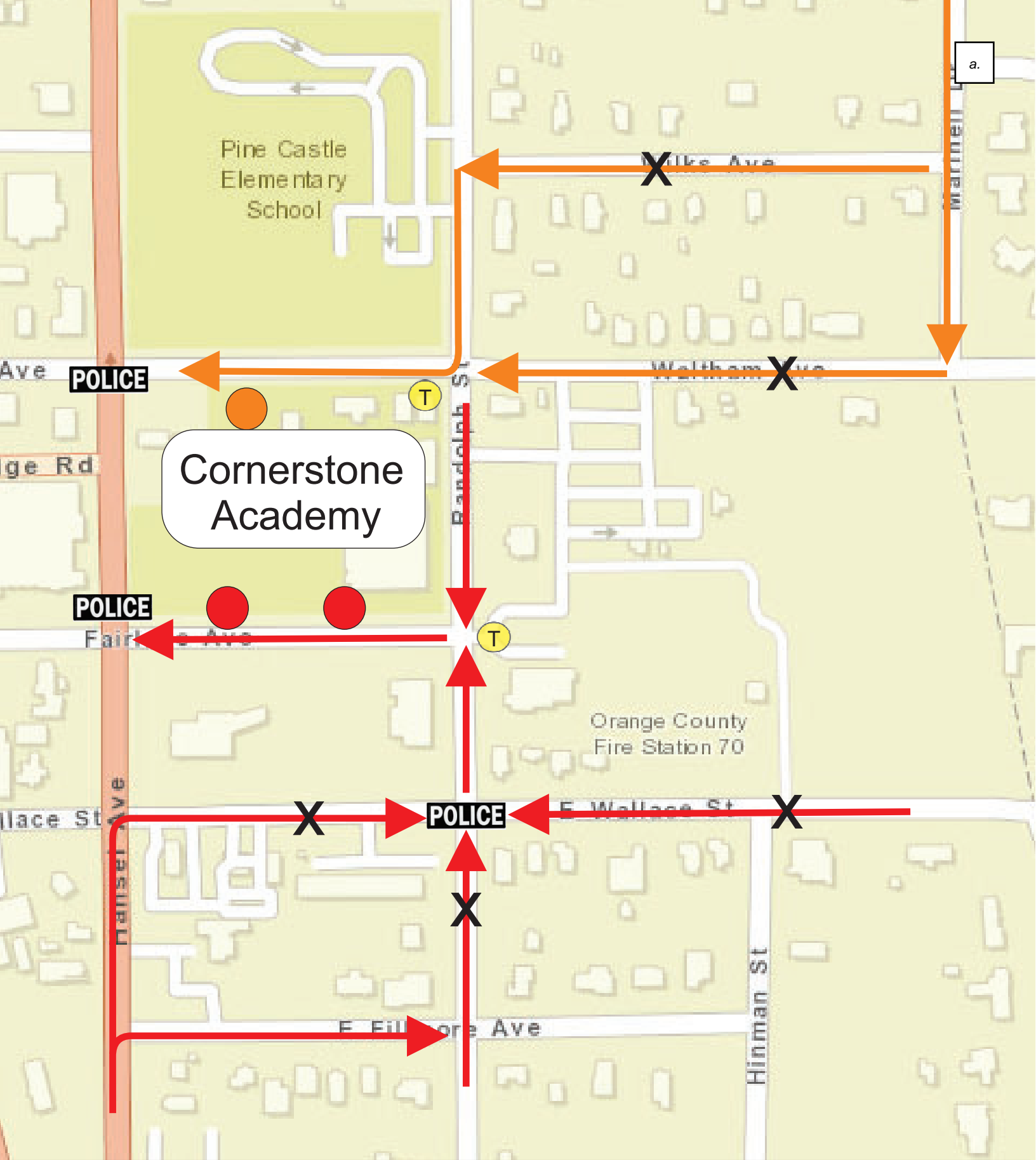


Cornerstone Academy Charter School

Existing Traffic Observations

Morning Drop-off

- Legend:**
- Elementary School Drop-off/Pick-up
 - Upper School Drop-off/Pick-up
 - Elementary School Traffic Pattern
 - Upper School Traffic Pattern
 - X** Maximum Observed Queue Back
 - POLICE** Police Directing Traffic
 - T** Traffic Administrator



Cornerstone Academy Charter School

Existing Traffic Observations

Afternoon Dismissal

Legend:

- Elementary School Drop-off/Pick-up
- Upper School Drop-off/Pick-up
- Elementary School Traffic Pattern
- Upper School Traffic Pattern
- X** Maximum Observed Queue Back
- POLICE** Police Directing Traffic
- T** Traffic Administrator

TRAFFIC OPERATIONS ANALYSIS STUDY

CORNERSTONE CHARTER ACADEMY
CITY OF BELLE ISLE, FLORIDA



Prepared for:

Florida Engineering Group
5127 S. Orange Avenue, Suite 200
Orlando, Florida 32809

Prepared by:

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535 Versailles Drive
Maitland, Florida 32751
407-628-9955

February 2023

TPD № 5725

PROFESSIONAL ENGINEERING CERTIFICATION

I hereby certify that I am a Professional Engineer properly registered in the State of Florida practicing with Traffic Planning & Design, Inc., a corporation authorized to operate as an engineering business, EB-3702, 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: Cornerstone Charter Academy

LOCATION: City of Belle Isle, Florida

CLIENT: Florida Engineering Group

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.

NAME: Turgut Dervish
P.E. No.: 20400
DATE: February 2nd, 2023
SIGNATURE: _____



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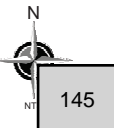
INTRODUCTION

Cornerstone Charter Academy is a charter school located along the east side of Hansel Avenue, south of Waltham Avenue in the City of Belle Isle, Florida. **Figure 1** depicts the site location and surrounding roadways.

This traffic analysis study was performed to evaluate the proposed expansion in terms of traffic operations and related queueing and evaluate the ability of adjacent roadways to accommodate the additional traffic volumes, and to recommend transportation improvements, including traffic circulation and transportation improvements to mitigate congestion resulting from additional site traffic. The primary purpose of this traffic study is to ensure on-site vehicular and pedestrian facilities and circulation are adequately provided to protect public safety and maintain traffic flow efficiency for all users accessing the campus before, during and after school construction.

The existing school enrollment consists of 574 students (K-5) students, and 905 (grades 6-12) students with a total of 1,479 students operating in two drop-off/pick-up shifts. With the proposed expansion, the school will have a total enrollment of 2,420 students (750 k-5 students, 570 grades 5-8 students and 1,100 grades 9-12 students) operating in 3 shifts. The expansion will be on the existing school site in addition to the property on the south side of Fairlane Avenue that is currently occupied by a bank. **Figure 2** depicts the proposed site plan of the school expansion.







a.

Proposed Site Plan

Cornerstone Charter Academy
 Project № 5725
 Figure 2



INVENTORY OF TRAFFIC CONDITIONS

The following section provides an overview of the data collected in support of the traffic analysis for the proposed school.

Study Area

The following roadways were identified from Orange County’s CMS database to be included in the project’s one-mile area:

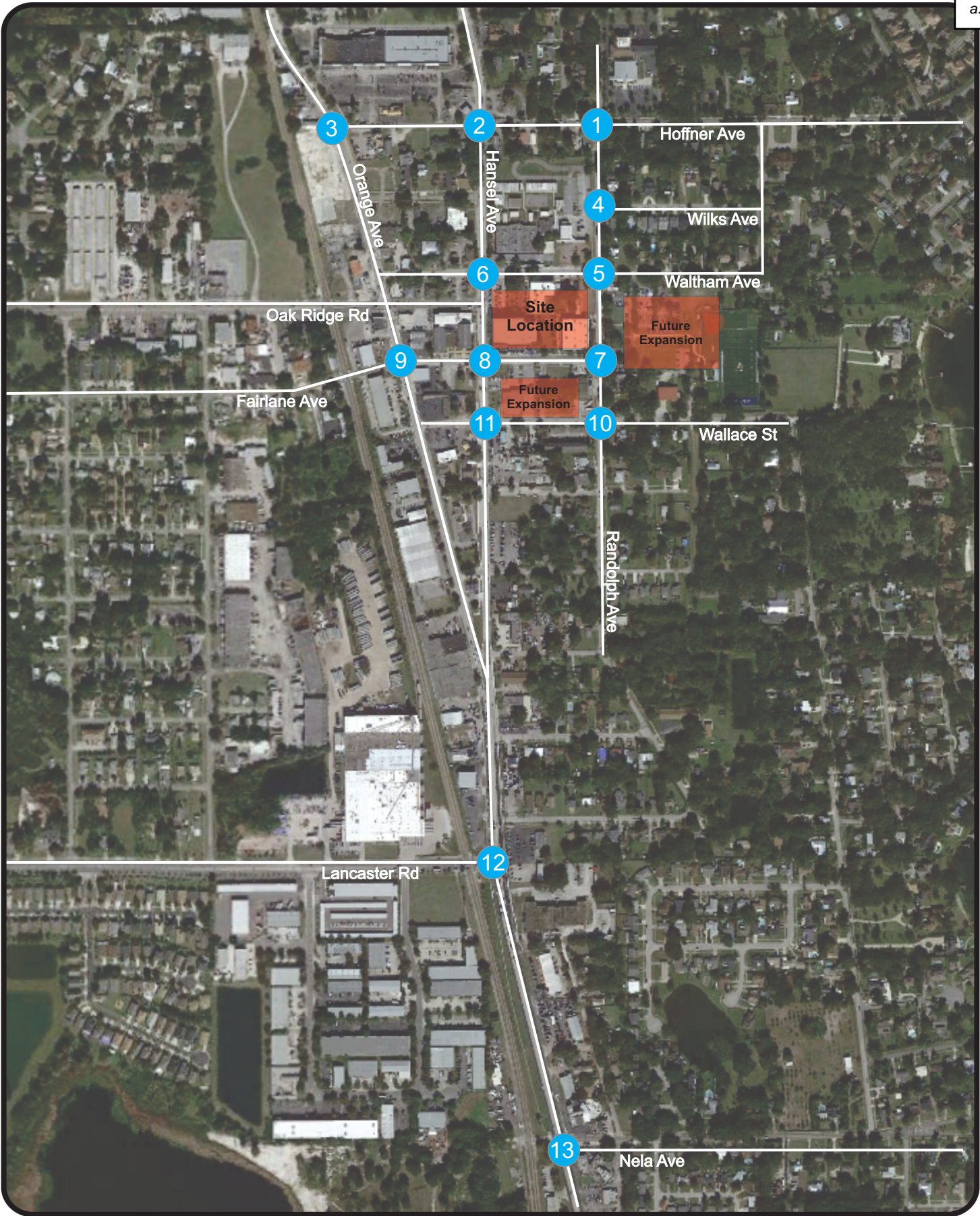
- Hoffner Avenue, Orange Avenue to Oak Island Road
- Lancaster Road, Winegard Road to Orange Avenue
- Nela Avenue, Orange Avenue to Indian Drive
- Oak Ridge Road, Orange Blossom Trail to Orange Avenue
- Orange Avenue, Sand Lake Road to Hansel Avenue (S)
 - Hansel Avenue (S) to Hansel Avenue (N)
 - Hansel Avenue (N) to Holden Avenue
- Orange Avenue/Hansel Avenue, Orange Avenue to Orange Avenue

Additionally, the following intersections were included in the study area:

- Hansel Avenue & Hoffner Avenue
- Hansel Avenue & Waltham Avenue
- Hansel Avenue & Fairlane Avenue
- Hansel Avenue & Wallace Street
- Randolph Avenue & Hoffner Avenue
- Randolph Avenue & Wilks Avenue
- Randolph Avenue & Waltham Avenue
- Randolph Avenue & Fairlane Avenue
- Randolph Avenue & Wallace Street
- Orange Avenue & Hoffner Avenue
- Orange Avenue & Fairlane Avenue
- Orange Avenue & Lancaster Road
- Orange Avenue & Nela Avenue

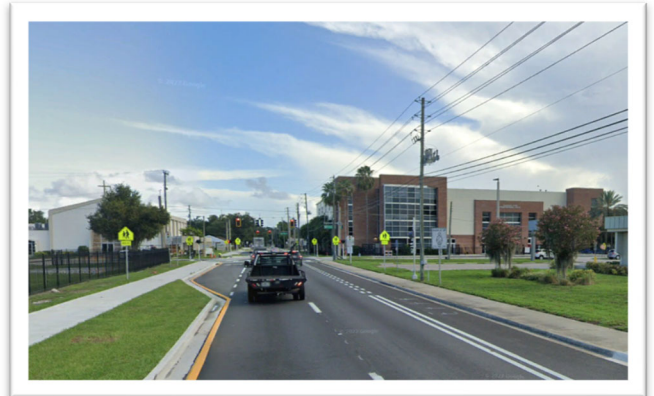
Figure 3 provides a diagram of the study intersection locations in the study area.



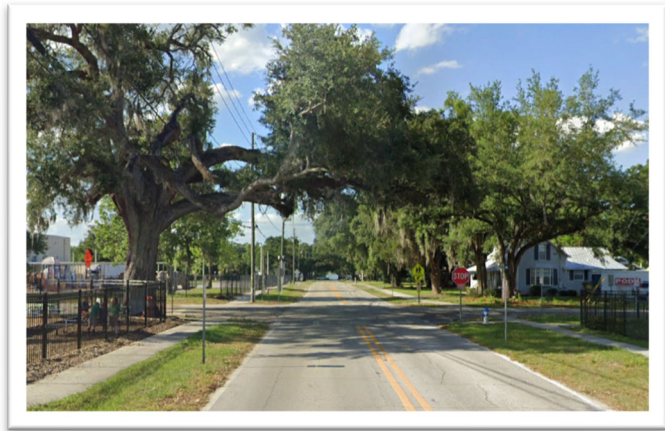


Existing Conditions

Hansel Avenue is one-way state roadway running two-lanes northbound connecting to Orange Avenue from the south at Prince Street to the north at Mandalay Road. The posted speed limit along the school’s site is 40 mile per hour (mph) and is provided with sidewalks on both sides in the vicinity of the school site.



Hansel Ave South of Fairlane Ave



Randolph Ave South of Waltham Ave

Randolph Avenue is a two-lane undivided local roadway running north-south from Locust Avenue to Hoffner Avenue with a speed limit of 25 mph. The street has sidewalks on both sides along the vicinity of the school site.

Fairlane Avenue is a two-lane undivided local roadway running east-west from Randolph Avenue on the east and terminates at Jason Street to the west of Orange Avenue. The street gives direct access to Cornerstone Academy and is signalized at Hansel Avenue. The speed limit in the vicinity of the school is 25 mph. There is on-street parking on the north side of the roadway adjacent to the school site.



Fairlane Ave East of Hansel Ave

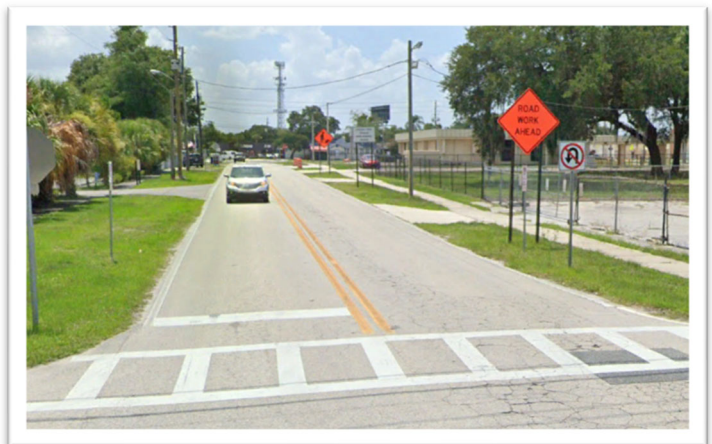




Waltham Ave East of Hansel Ave

Waltham Avenue is a two-lane undivided facility running east-west from Marinell Drive to the east and terminates at Orange Avenue to the west with a speed limit of 25 mph. The street is used for Elementary School drop-off/pick-up during school opening and dismissal times.

Wallace Street is a two-lane undivided facility running east-west from Matchett Road to the east and terminates at Orange Avenue to the west with a speed limit of 25 mph. The street provides access to vehicles arriving to the site from the south to Randolph Avenue and Fairlane Avenue.



Wallace St East of Hansel Ave

Existing Traffic Patterns and Queueing

Traffic counts were collected at the study intersections and traffic patterns and queueing were observed.

The school currently operates in two shifts, one for lower school grades (Elementary K-5th) with drop-off at 7:15 AM and dismissal at 2:35 PM, and another for upper school grades (6th-12th) with drop-off at 7:30 AM and pick-up at 2:45 PM.

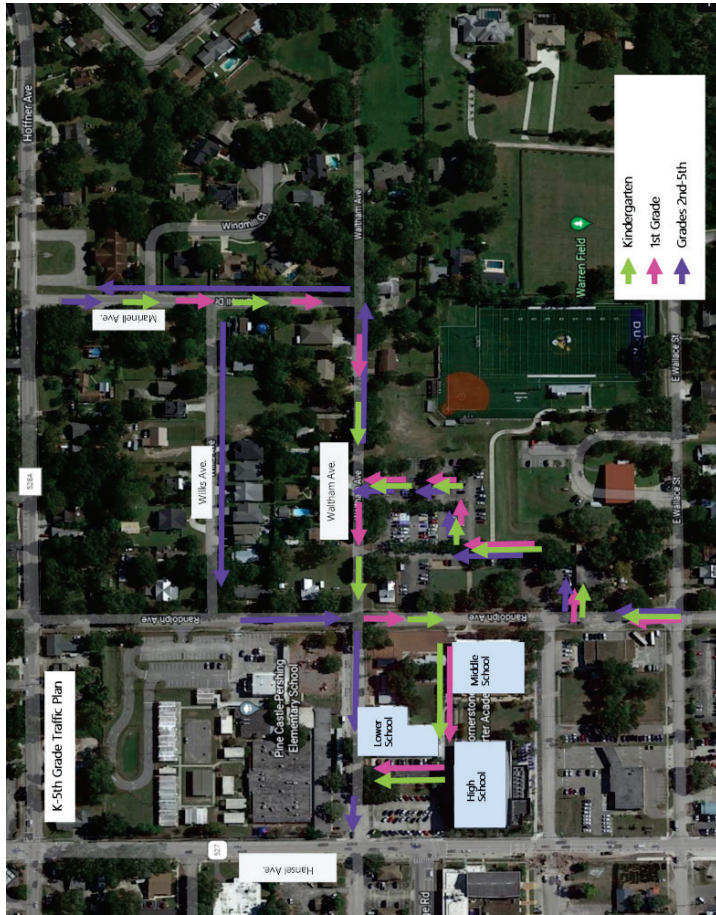
The school currently has two traffic circulation patterns. Elementary school students are picked up on the north side of the property. Kindergarten and 1st grade students are picked up inside the school campus with vehicles entering on Randolph Avenue and exiting on Waltham Avenue. The 2nd to 5th grade students drop-off/pick-up location is on Waltham Avenue. Middle and high school students drop-off and pick-up location is on Fairlane Avenue. Existing traffic circulation patterns are illustrated in **Figure 4**.

The observation during the morning and afternoon queueing showed significant queues forming on the adjacent roadways during drop-off/pickup.

Planned and Programmed Improvements

Based on Orange County’s 2030 Long Range Transportation plan, there are no roadway improvements planned in the vicinity of the project area.





Elementary School
Traffic Pattern

Middle/High School
Traffic Pattern

EXISTING OPERATIONAL ANALYSIS

Roadway Segment Analysis

The study roadway segments, obtained from Orange County’s CMS database and supplemented with counts obtained by Traffic Planning and Design (TPD), were analyzed by comparing the existing P.M. peak hour directional volume for each roadway segment with the corresponding peak hour directional capacity at the adopted Level of Service (LOS) E standard. A summary of the existing roadway capacity analysis is presented in **Table 1**, which shows all the roadway segments are currently operating within their adopted LOS standard except for Hoffner Avenue from Orange Avenue to Oak Island Road, and Orange Avenue from Hansel Avenue (S) to Hansel Avenue (N), and from Hansel Avenue (N) to Holden Avenue. These segments are operating below their Level of Service standards in the existing conditions. The County’s CMS Database is included in **Appendix A**.

Intersection Analysis

A capacity analysis was conducted for each intersection using the latest version of *Synchro Software* in accordance with the procedures of the latest *Highway Capacity Manual (HCM)*. The capacity analysis was performed using the existing intersection geometry and traffic volumes during the A.M. and P.M. peak hours. Turning movement counts were collected by TPD during the A.M. and P.M. peak hours to properly evaluate peak hour conditions. The counts were obtained on December 6, 2022 and on January 19, 2023 when the Florida Department of Transportation seasonal factor was 0.99 and 1.08, respectively. The counts were adjusted for the intersections with a seasonal factor higher than 1.00. The peak hour volumes at the study intersections are displayed in **Figures 5(a)** through **5(d)**, and the raw turning movement counts along with signal timings and SF reports are included in **Appendix B**.

The intersection capacity analysis as summarized in **Table 2** indicates that the study intersections currently operate at satisfactory Level is Service except for the following:

- Waltham Avenue & Hansel Avenue (EB and WB approaches) - A.M. and P.M.
- Fairlane Avenue & Orange Avenue (WB approach) – A.M. and P.M.
- Orange Avenue & Nela Avenue (WB Approach) – A.M. only

Some of these deficient Levels of Service, as shown in Table 2, have V/C ratio less than 1.0, which indicates that the Level of Service is caused by delay, not a capacity deficiency. Detailed *Synchro* analysis worksheets are included in **Appendix C**.



Table 1: Existing Roadway Capacity Analysis

Roadway Segment	Num	Seg Length	# of Lns	LOS Std	Total Cap	PM Pk	Peak Dir	Available Cap	LOS Met?
Hoffner Avenue									
Orange Ave to Oak Island Rd	185	1.33	2	E	800	998	EB	0	N
Lancaster Road									
Winegard Rd to Orange Ave	248	1.01	4	E	2,000	706	EB	1,294	Y
Nela Avenue									
Orange Ave to Indian Dr	293	1.46	2	E	800	151	EB	649	Y
Oak Ridge Road									
Orange Blossom Tr to Orange Ave	298	1.67	4	E	1,700	1,518	EB	182	Y
Orange Avenue									
Sand Lake Rd to Hansel Ave (S)	330	1.14	5	E	2,510	2,102	NB	408	Y
Hansel Ave (S) to Hansel Ave (N)	331	1.22	2 (One-Way)	E	2,040	2,324	NB	0	N
Hansel Ave (N) to Holden Ave	332	0.75	5	E	2,510	2,867	NB	0	N
Orange Avenue / Hansel Avenue									
Orange Ave to Orange Ave	176	1.23	2 (One-Way)	E	2,400	2,337	SB	63	Y



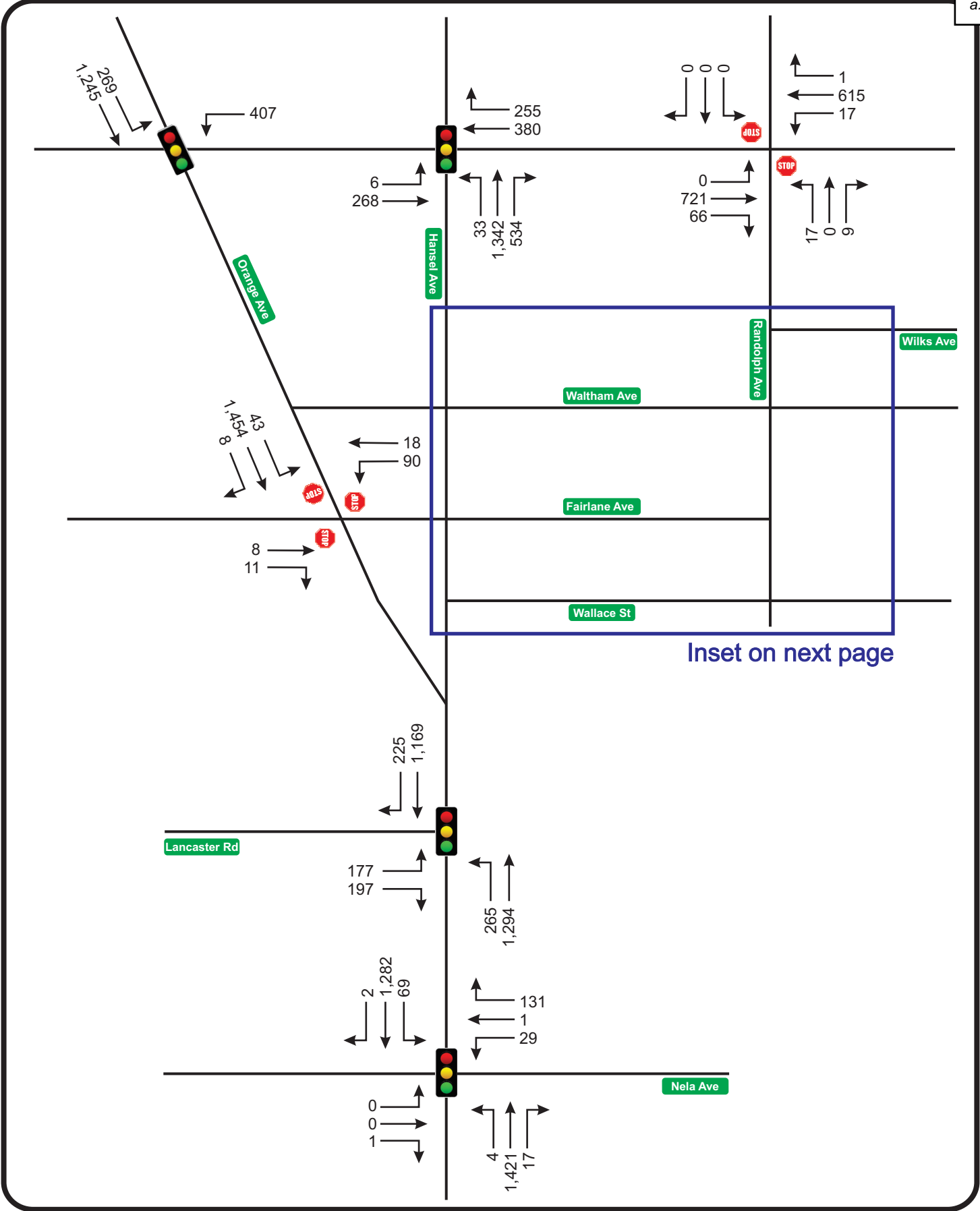
Table 2: Existing Intersection Capacity Analysis

Int	Intersection	Control	Time Period	EB		WB		NB		SB		Overall	
				Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
1	Hoffner Ave & Randolph Ave	Stop	A.M.	0.0	A	0.3	A	41.2	E	0.0	A	0.9	A
			P.M.	0.0	A	0.3	A	31.0	D	40.8	E	1.3	A
2	Hoffner Ave & Hansel Ave	Signal	A.M.	46.3	D	51.2	D	14.2	B	--	--	25.7	C
			P.M.	64.3	E	59.5	E	12.7	B	--	--	27.0	C
3	Hoffner Ave & Orange Ave	Signal	A.M.	--	--	--	--	--	--	0.5	A	0.5	A
			P.M.	--	--	--	--	--	--	0.6	A	0.6	A
4	Randolph Ave & Wilks Ave	Stop	A.M.	--	--	10.6	B	0.0	A	0.0	A	6.8	A
			P.M.	--	--	9.7	A	0.0	A	0.0	A	5.8	A
5	Waltham Ave & Randolph Ave	AWSC	A.M.	7.8	A	11.2	B	8.8	A	9.7	A	10.4	B
			P.M.	7.7	A	8.5	A	7.8	A	7.7	A	8.0	A
6	Waltham Ave & Hansel Ave	Stop	A.M.	--	--	398.5	F	0.0	A	--	--	75.5	F
			P.M.	133.6	F*	238.3	F	0.0	A	--	--	37.1	E
7	Fairlane Ave Randolph Ave	AWSC	A.M.	7.5	A	--	--	10.4	B	7.3	A	9.7	A
			P.M.	7.3	A	--	--	8.1	A	7.3	A	7.7	A
8	Fairlane Ave & Hansel Ave	Signal	A.M.	51.5	D	57.9	E	11.5	B	--	--	21.0	C
			P.M.	66.3	E	79.9	E	4.5	A	--	--	10.7	B
9	Fairlane Ave & Orange Ave	Stop	A.M.	39.6	E	127.2	F*	--	--	0.0	A	8.9	A
			P.M.	30.7	D	100.3	F*	--	--	0.0	A	5.2	A
10	Wallace St & Randolph Ave	AWSC	A.M.	9.4	A	9.8	A	9.6	A	8.6	A	9.6	A
			P.M.	8.0	A	7.7	A	7.8	A	7.9	A	7.8	A
11	Wallace St & Hansel Ave	Stop	A.M.	30.2	D	20.1	C	0.0	A	--	--	1.5	A
			P.M.	48.7	E	25.4	D	0.0	A	--	--	2.9	A
12	Orange Ave & Lancaster Rd	Signal	A.M.	39.9	D	--	--	9.6	A	15.7	B	15.6	B
			P.M.	54.6	D	--	--	14.9	B	33.9	C	28.1	C
13	Orange Ave & Nela Ave	Signal	A.M.	52.4	D	83.1	F*	12.3	B	5.5	A	13.1	B
			P.M.	66.1	E	79.5	E	8.4	A	1.1	A	7.2	A

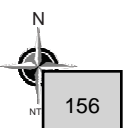
* V/C ratio is less than 1.0



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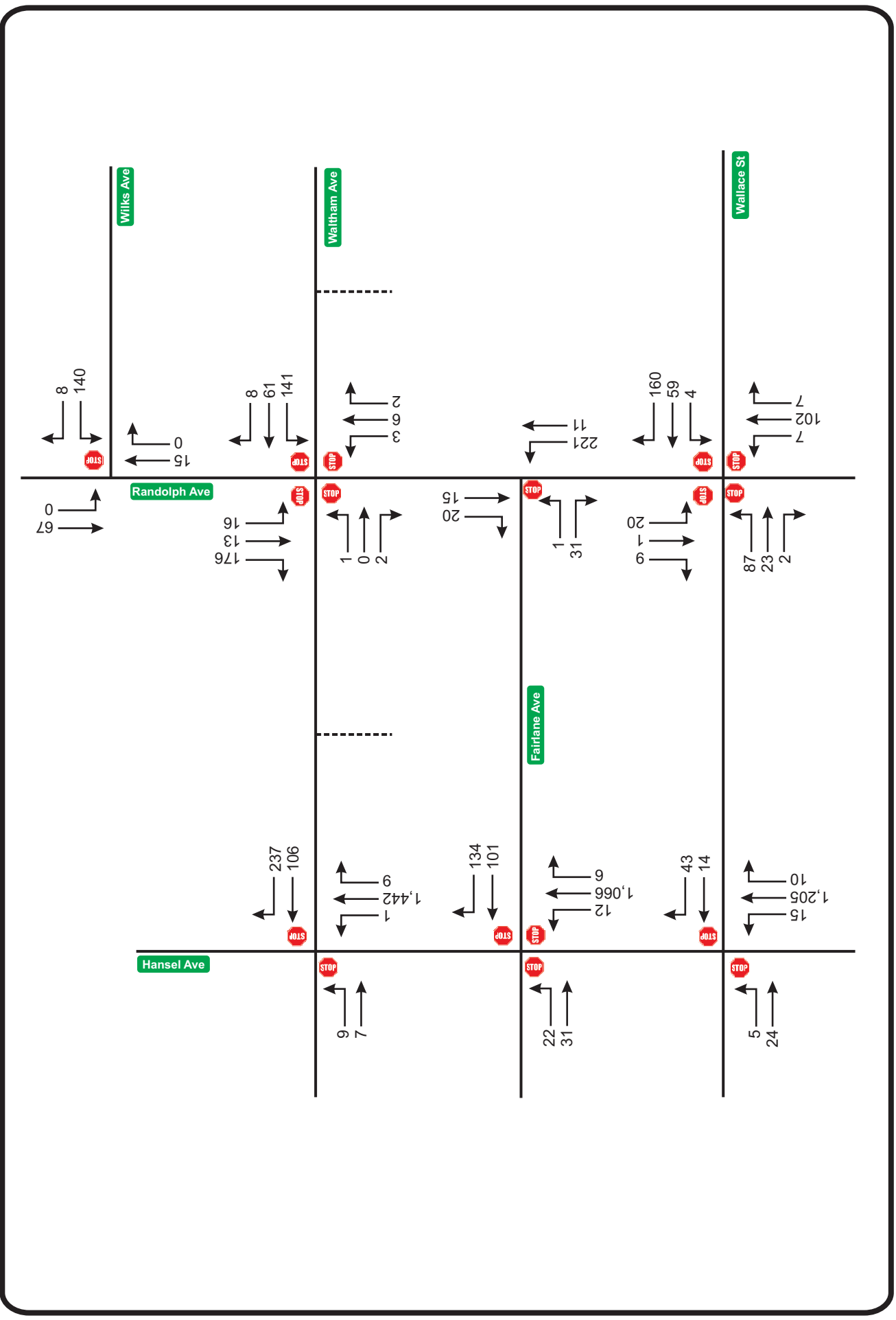
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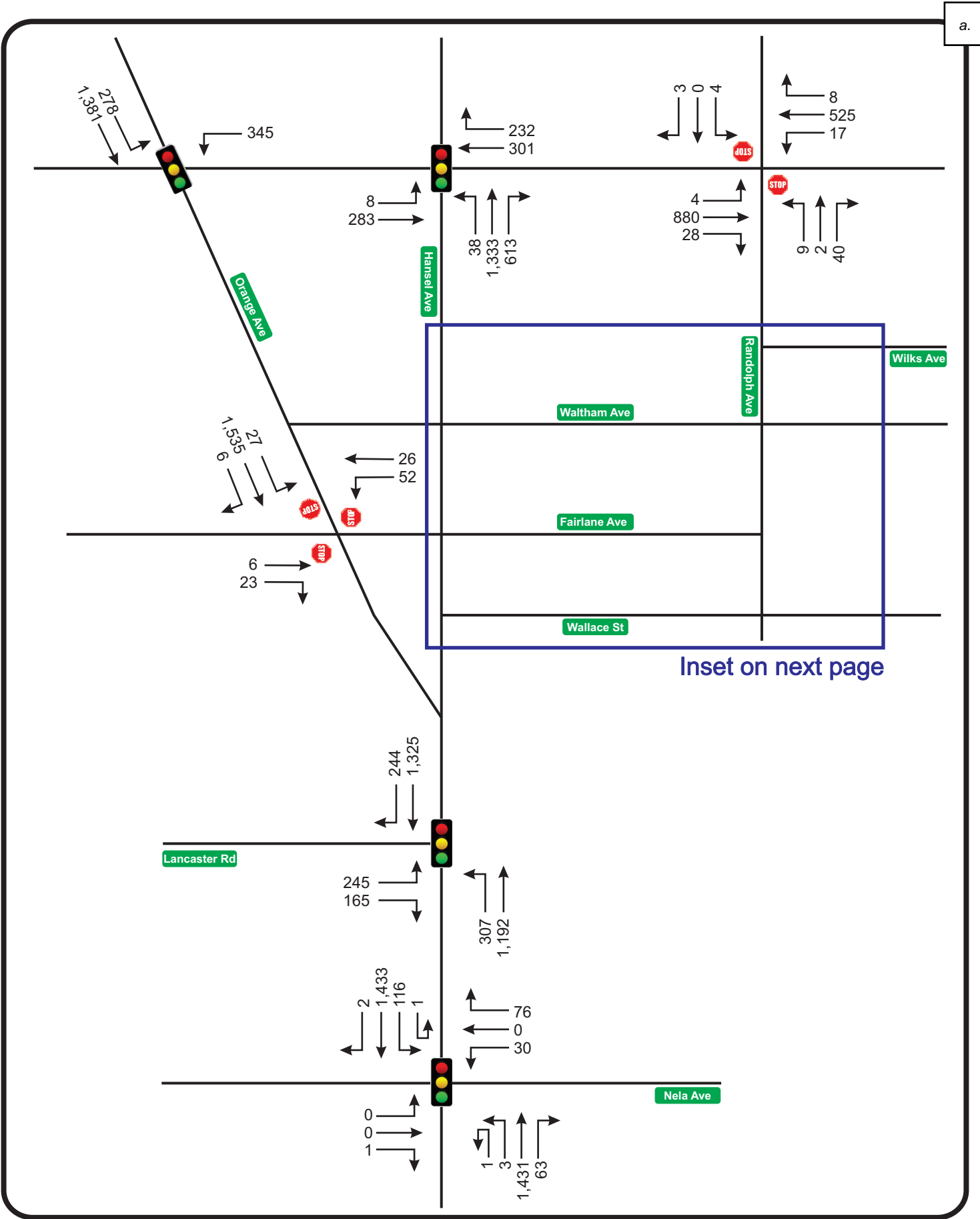




Existing A.M. Peak Hour Volumes

Cornerstone Charter Academy
 Project № 5725
 Figure 5(b)

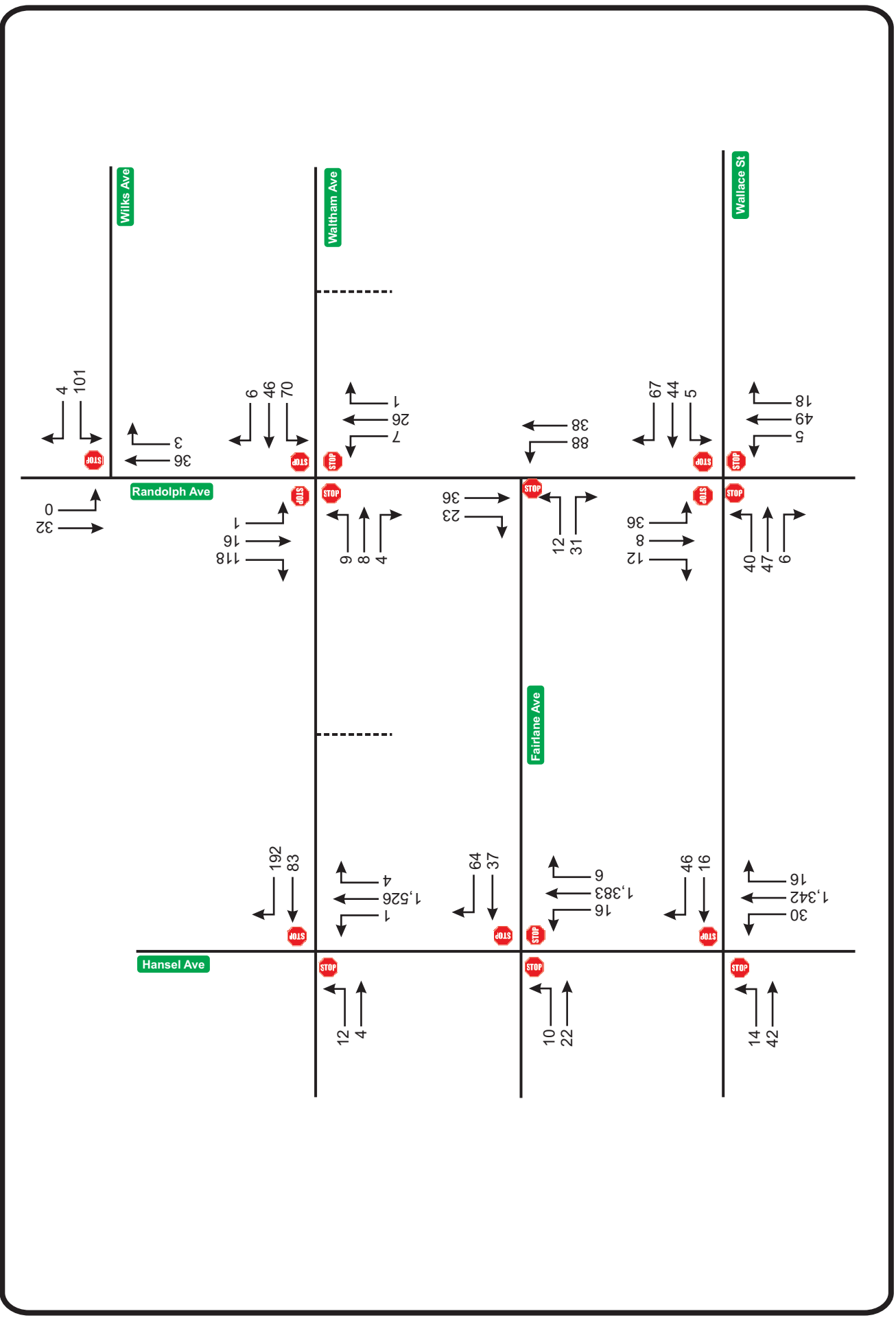






Existing P.M. Peak Hour Volumes

Cornerstone Charter Academy
 Project № 5725
 Figure 5(d)



TRIP GENERATION AND ASSIGNMENT

Trip Generation

The charter school currently has a total enrollment of 1,479 students (574 students grades K-5 students and 905 grades 6-12 students). The drop-off/pick up is currently operating in two shifts. The proposed expansion of the school will increase the total student enrollment to 2,420 (750 grades K-5 students, 570 grades 5-8 students and 1,100 grades 9-12 students) operating in 3 shifts. The shifts will occur in 30 minute increments.

Trip generation is performed utilizing data obtained from the Institute of Transportation Engineers (ITE) *Trip Generation Manual, 11th Edition*. A summary of the trip generation of the proposed school is shown in **Table 3**. The trip generation was calculated per shift for the existing conditions and proposed expansion as the resultant vehicular trip generation will not occur at the same time. Moreover, the drop-off/pick-up location and traffic pattern is different for lower school (grades K-5) than the upper school (grades 6-12). As shown in Table 3, the school expansion is expected to increase the trips by 782 A.M. peak hour trip and 633 P.M. peak hour trips. Relevant ITE trip generation sheets are included in **Appendix D**. It should be noted that the school currently has a large number of students that walk to school from neighboring residential areas, and that a portion of the high school students will drive and park at the designated parking area. Therefore, the vehicular traffic is expected to be less than the results given by ITE. Nonetheless, ITE rates were used in the traffic analysis to provide a conservative estimate.

Trip Distribution

The distribution of the project trips onto the study area roadways was determined using the Central Florida Regional Planning Model (CFRPM). The trip distribution was adjusted based on enrollment maps provided by the school and utilizing engineering judgement and knowledge of travel patterns in the area. This adjusted trip distribution pattern is illustrated in **Figure 6**. This distribution pattern was utilized to assign school trips to the area roadways. The model distribution plots and enrollment maps are included in **Appendix E**.



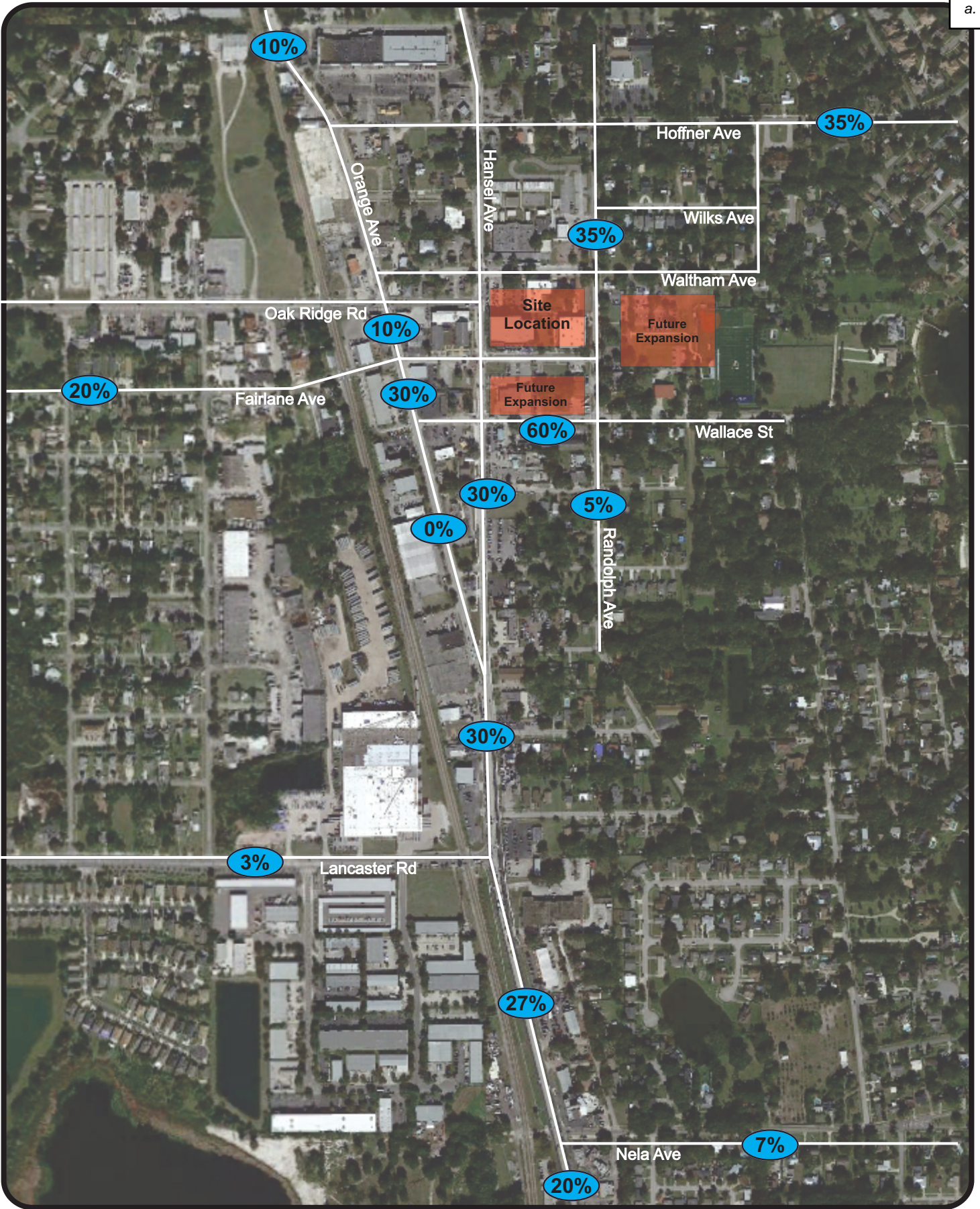
Table 3
Trip Generation Summary

ITE Code	Land Use	Size (Students)	A.M. Peak Hour			P.M. Peak Hour			Total
			Rate	Enter	Exit	Rate	Enter	Exit	
Existing									
Shift 1									
538	Charter School (K-12) – Elementary School	574	0.83	243	233	0.51	148	147	295
Shift 2									
538	Charter School (K-12) – Middle & High School	905	0.83	383	368	0.66	300	300	600
Total Existing Traffic				626	601		448	447	895
Proposed									
Shift 1									
538	Charter School (K-12) – Elementary School	750	0.83	317	306	0.61	229	228	457
Shift 2									
538	Charter School (K-12) – Middle School	570	0.83	241	232	0.51	146	146	292
Shift 3									
538	Charter School (K-12) – High School	1,100	0.83	466	447	0.71	390	389	779
Total Projected Traffic				1,024	985		765	763	1,528
Trip Increase Due to Expansion				398	384		317	316	633

Notes:

1. Daily trip generation is not available for this ITE Land Use Code
2. ITE's peak hour of adjacent street traffic was used for A.M. peak hour
3. ITE's peak hour of generator was used for P.M. peak hour
4. Equations were used where R² exceeded 0.75





PROJECTED OPERATIONAL ANALYSIS

Traffic conditions were analyzed for the study roadways/intersections for the school’s anticipated expansion completion in 2024. Projected traffic volumes used in the roadway analysis consisted of existing traffic combined with committed trips and site generated traffic.

For the intersection analysis, background traffic was determined by expanding the traffic using an annual growth factor of 1% to existing traffic volumes. A trends analysis of the historical traffic volumes on the area roadways in the vicinity of the project revealed annual growth trends averaging 1.07%. Therefore, an average of 1.00% annual growth rate was used to develop background traffic. Trends analysis worksheets are included in **Appendix F**. Project trips were added to the background traffic estimation to obtain the total projected traffic volumes.

It should be noted that the school drop-off/dismissal is proposed to take place in three (3) shifts. Therefore, project trips from the most critical (highest trip generation) shift was used for the development of projected traffic volumes.

Roadway Segment Analysis

The projected roadway segment analysis was performed by comparing the projected traffic volume of each segment with the capacity at the adopted LOS E standard. The analysis as summarized in **Table 4** revealed that all the roadway segments are projected to operate satisfactorily within their adopted Levels of Service except for the following four segments;

- Hoffner Avenue from Orange Avenue to Oak Island Road
- Orange Avenue from Hansel Avenue (S) to Hansel Avenue (N)
- Orange Avenue from Hansel Avenue (N) to Holden Avenue
- Hansel Avenue from Orange Avenue (S) to Orange Avenue (N)

The first three segments operate below their Level of Service capacity in the existing conditions. The last segment fails as a result of adding committed and project trips. It should be noted that the school afternoon peak period (2-4 P.M.) is significantly earlier than the typical P.M. peak hour used by Orange County (4-6 P.M.). Nonetheless, the volumes were used to provide a conservative estimate.



Table 4: Projected Roadway Capacity Analysis

Roadway Segment	Num	Seg Length	# of Lns	LOS Std	Total Cap	PM Pk	Peak Dir	Com Trips	Trip Dist*	Project Trips	Total Trips	Available Cap	LOS Met?
Hoffner Avenue													
Orange Ave to Oak Island Rd	185	1.33	2	E	800	998	EB	0	35%	136	1,134	0	N
Lancaster Road													
Winegard Rd to Orange Ave	248	1.01	4	E	2,000	706	EB	9	5%	20	735	1,265	Y
Nela Avenue													
Orange Ave to Indian Dr	293	1.46	2	E	800	151	EB	10	4%	16	177	623	Y
Oak Ridge Road													
Orange Blossom Tr to Orange Ave	298	1.67	4	E	1,700	1,518	EB	5	20%	78	1,601	99	Y
Orange Avenue													
Sand Lake Rd to Hansel Ave (S)	330	1.14	5	E	2,510	2,102	NB	19	32%	125	2,246	264	Y
Hansel Ave (S) to Hansel Ave (N)	331	1.22	2 (One-Way)	E	2,040	2,324	NB	1	45%	175	2,500	0	N
Hansel Ave (N) to Holden Ave	332	0.75	5	E	2,510	2,867	NB	4	10%	39	2,910	0	N
Orange Avenue / Hansel Avenue													
Orange Ave to Orange Ave	176	1.23	2 (One-Way)	E	2,400	2,337	SB	1	55%	214	2,552	0	N

*Highest Percentage on Segment

Intersection Analysis

A capacity analysis was conducted at the study intersections utilizing projected traffic volumes as shown in **Figures 7(a)** through **7(d)**. This was accomplished in accordance with the procedures of the latest version of the Highway Capacity Manual by utilizing *Synchro Software*. The results of this analysis are summarized in **Table 5** and indicate satisfactory traffic operating conditions at all intersections except for the following intersections that are projected to operate at deficient Levels of Service, similar to existing conditions:

- Waltham Avenue & Hansel Avenue - EB and WB approaches (AM and PM)
- Fairlane Avenue & Orange Avenue - WB approach (AM and PM), EB approach (PM only)
- Orange Avenue & Nela Avenue - WB approach (AM)

Additionally, the following intersections are projected to operate at deficient Levels of Service due to the addition of background traffic and/or project trips:

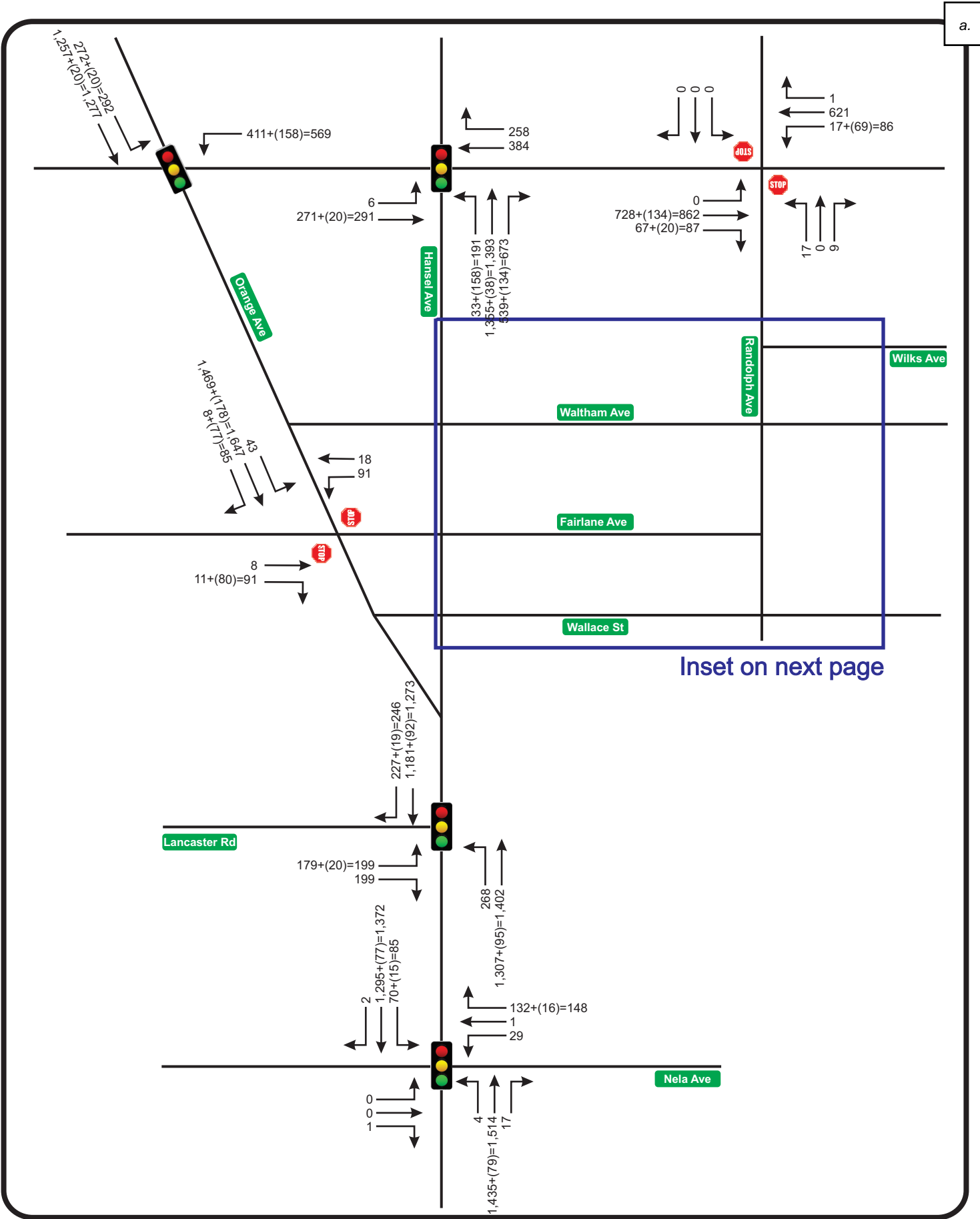
- Hoffner Avenue & Randolph Avenue- NB approach (AM and PM), SB approach (PM only)
- Wallace Street & Hansel Avenue - EB approach (AM only), WB approach (PM only)
- Orange Avenue & Nela Avenue - WB approach (PM)

Some of these deficient Levels of Service as indicated in Table 5 have V/C ratio less than 1.0, which indicates that the Level of Service is caused by delay, not a capacity deficiency. It should be noted that with the proposed traffic plan, the project is not adding any trips to the stop-controlled intersection of Orange Avenue and Fairlane Avenue failing EB/WB approaches or to the intersection of Wallace Street and Hansel Avenue WB approach.

The intersection of Hansel Avenue and Waltham Avenue is a stop-controlled intersection. However, during pick-up and dismissal, this intersection is controlled by the City’s police and/or traffic attendant that regulate the traffic in a pattern that resembles a signal. Reanalyzing this intersection as signalized for pick-up/drop-off times yields a satisfactory Level of Service, as shown in Table 5. Detailed *Synchro* intersection analysis worksheets are included in **Appendix G**.



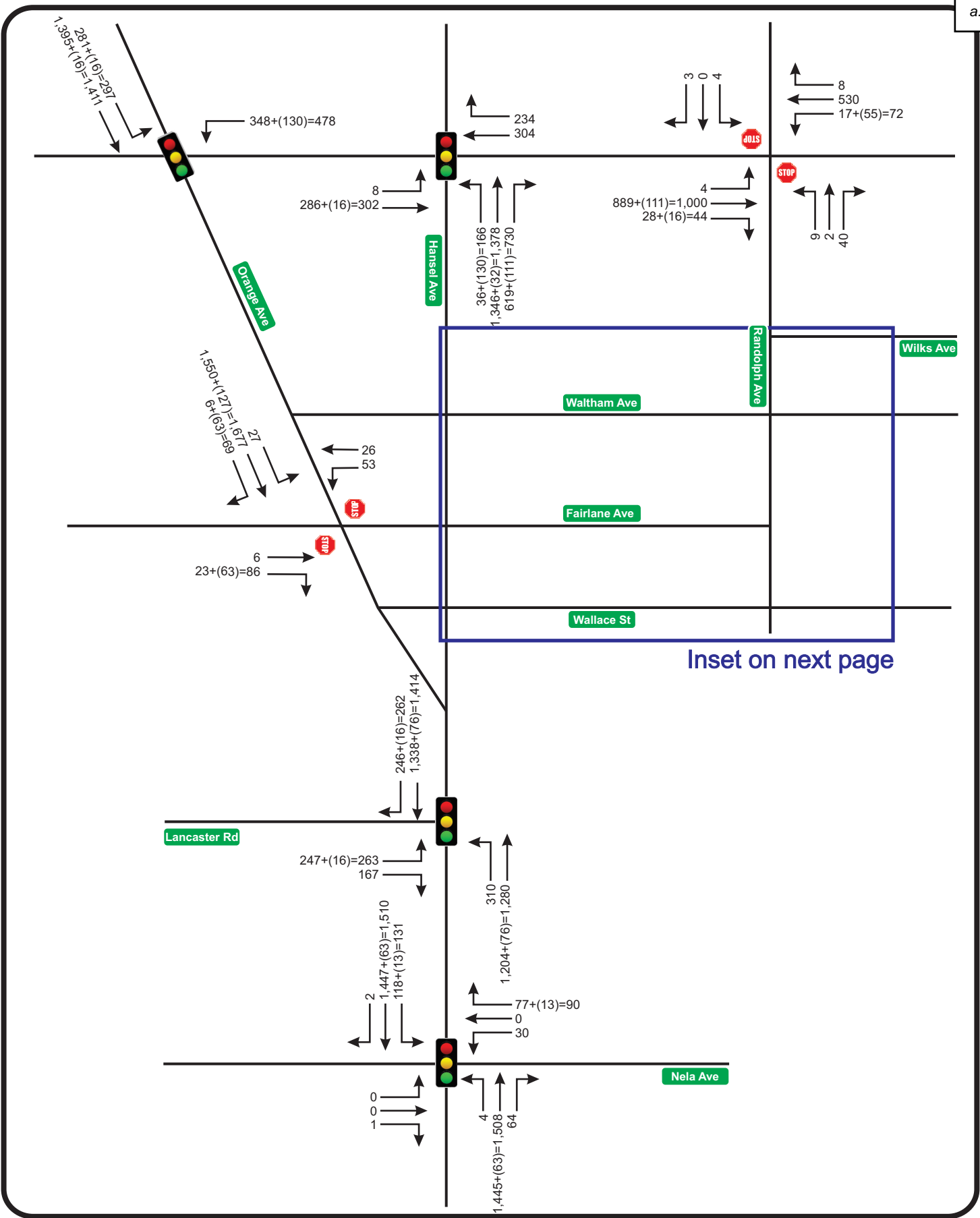
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Projected P.M. Peak Hour Volumes

Cornerstone Charter Academy
 Project № 5725
 Figure 7(d)

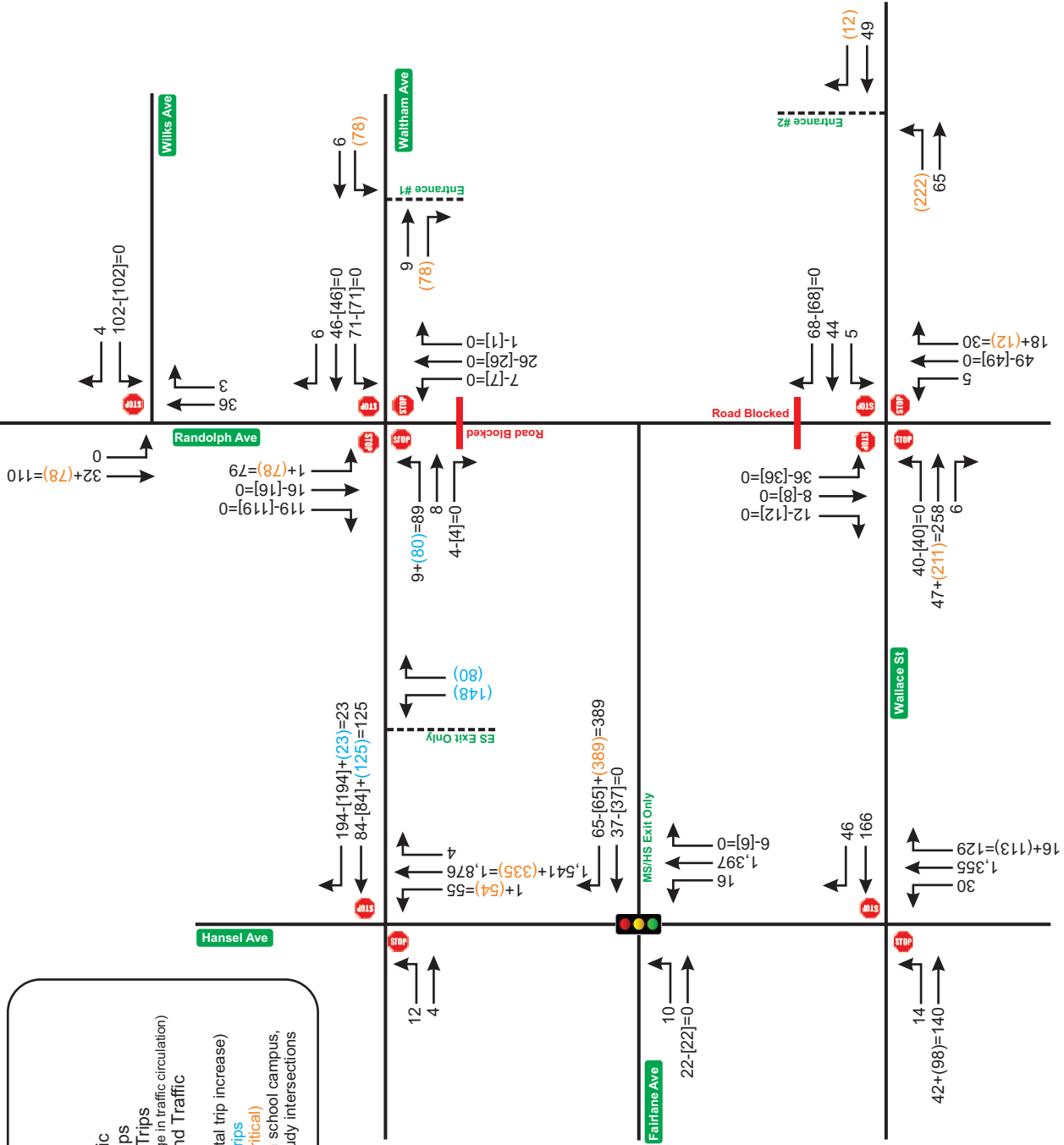


Table 5
Projected Traffic Intersection Capacity Analysis

Int	Intersection	Control	Time Period	EB		WB		NB		SB		Overall	
				Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
1	Hoffner Ave & Randolph Ave	Stop	A.M.	0.0	A	2.4	A	171.9	F*	0.0	A	3.6	A
			P.M.	0.0	A	2.5	A	74.8	F*	103.2	F*	3.5	A
2	Hoffner Ave & Hansel Ave	Signal	A.M.	47.4	D	51.2	D	17.3	B	--	--	26.9	C
			P.M.	64.9	E	58.4	E	15.4	B	--	--	27.7	C
3	Hoffner Ave & Orange Ave	Signal	A.M.	--	--	0.0	A	--	--	0.6	A	0.6	A
			P.M.	--	--	0.0	A	--	--	0.6	A	0.6	A
4	Randolph Ave & Wilks Ave	Stop	A.M.	--	--	8.4	A	0.0	A	0.0	A	0.3	A
			P.M.	--	--	8.5	A	0.0	A	0.0	A	0.1	A
5	Waltham Ave & Randolph Ave	AWSC	A.M.	9.3	A	7.3	A	0.0	A	10.4	B	9.9	A
			P.M.	8.4	A	7.0	A	0.0	A	8.8	A	8.6	A
6	Waltham Ave & Hansel Ave	Stop	A.M.	--	--	1447.0	F	0.0	A	--	--	139.6	F
			P.M.	--	--	769.3	F	0.0	A	--	--	54.2	F
7	Fairlane Ave & Randolph Ave (Closed)	Signal	A.M.	67.0	E	55.4	E	55.5	E	--	--	55.6	E
			P.M.	76.8	E	49.5	D	26.9	C	--	--	28.9	C
8	Fairlane Ave & Hansel Ave	AWSC	A.M.	--	--	--	--	--	--	--	--	--	--
			P.M.	--	--	--	--	--	--	--	--	--	--
8	Fairlane Ave & Hansel Ave	Signal	A.M.	71.5	E	77.1	E	16.9	B	--	--	34.9	C
			P.M.	72.1	E	72.3	E	18.5	B	--	--	30.4	C

* V/C ratio is less than 1.0



Table 5
Projected Traffic Intersection Capacity Analysis (Cont'd)

Int	Intersection	Control	Time Period	EB		WB		NB		SB		Overall	
				Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
9	Fairlane Ave & Orange Ave	Stop	A.M.	63.5	F *	637.2	F	--	--	0.0	A	38.2	E
			P.M.	47.3	E	303.0	F	--	--	0.0	A	14.6	B
10	Wallace St & Randolph Ave	AWSC	A.M.	10.4	B	8.0	A	7.8	A	0.0	A	9.8	A
			P.M.	9.1	A	7.6	A	7.4	A	0.0	A	8.7	A
11	Wallace St & Hansel Ave	Stop	A.M.	195.3	F	22.5	C	0.0	A	--	--	18.7	C
			P.M.	--	--	437.0	F	0.0	A	--	--	49.3	E
12	Orange Ave & Lancaster Rd	Signal	A.M.	41.3	D	--	--	11.9	B	18.5	B	18.0	B
			P.M.	54.6	D	--	--	17.4	B	39.9	D	31.9	C
13	Orange Ave & Nela Ave	Signal	A.M.	51.8	D	98.0	F *	9.6	A	3.8	A	11.9	B
			P.M.	64.8	E	84.9	F *	9.6	A	1.3	A	8.2	A

* V/C ratio is less than 1.0



ON-SITE QUEUING ANALYSIS

Existing Queues

A preliminary analysis was conducted in order to ensure that the proposed site can accommodate parent vehicles during drop-off/pick-up times. This preliminary analysis was conducted using queuing data collecting in the field during drop-off and pick-up times. The longest queues is recorded in **Table 6**, and the queue data collection is included in **Appendix H**. The longest queue was observed for the High/Middle School afternoon pick-up, on the south side of Randolph Avenue extending east and west on Wallace Street, and on Randolph Avenue south of Wallace Street.

**Table 6
Observed Queue Length Summary**

	Elementary School		Middle/High School	
	Queue (veh)	Queue (ft)*	Queue (veh)	Queue (ft)*
Drop-off	10	250	26	650
Pick-up	19	475	34	850

* veh X 25 ft/veh

The following is a summary of observations of queues and site circulation:

- The pick-up/drop-off for Elementary School and Middle/High School shifts happen ten (10) minutes apart.
- Elementary School pick-up and drop-off currently occurs on Waltham Avenue at designated stops. Kindergarten and 1st grade students are picked up inside the school campus with vehicles entering on Randolph Avenue and exiting on Waltham Avenue. The 2nd to 5th grade students drop-off/pick-up location is on Waltham Avenue. No significant queues were observed during the morning drop-off. However, vehicles start queuing and stop on the adjacent streets prior to dismissal, and queues are observed on Waltham Avenue, Wilks Avenue and Randolph Avenue.
- Traffic attendants and police are present at the intersection of Hansel Avenue and Waltham Avenue, and at the intersection of Waltham Avenue and Randolph Avenue, to direct exiting traffic onto Hansel Avenue.



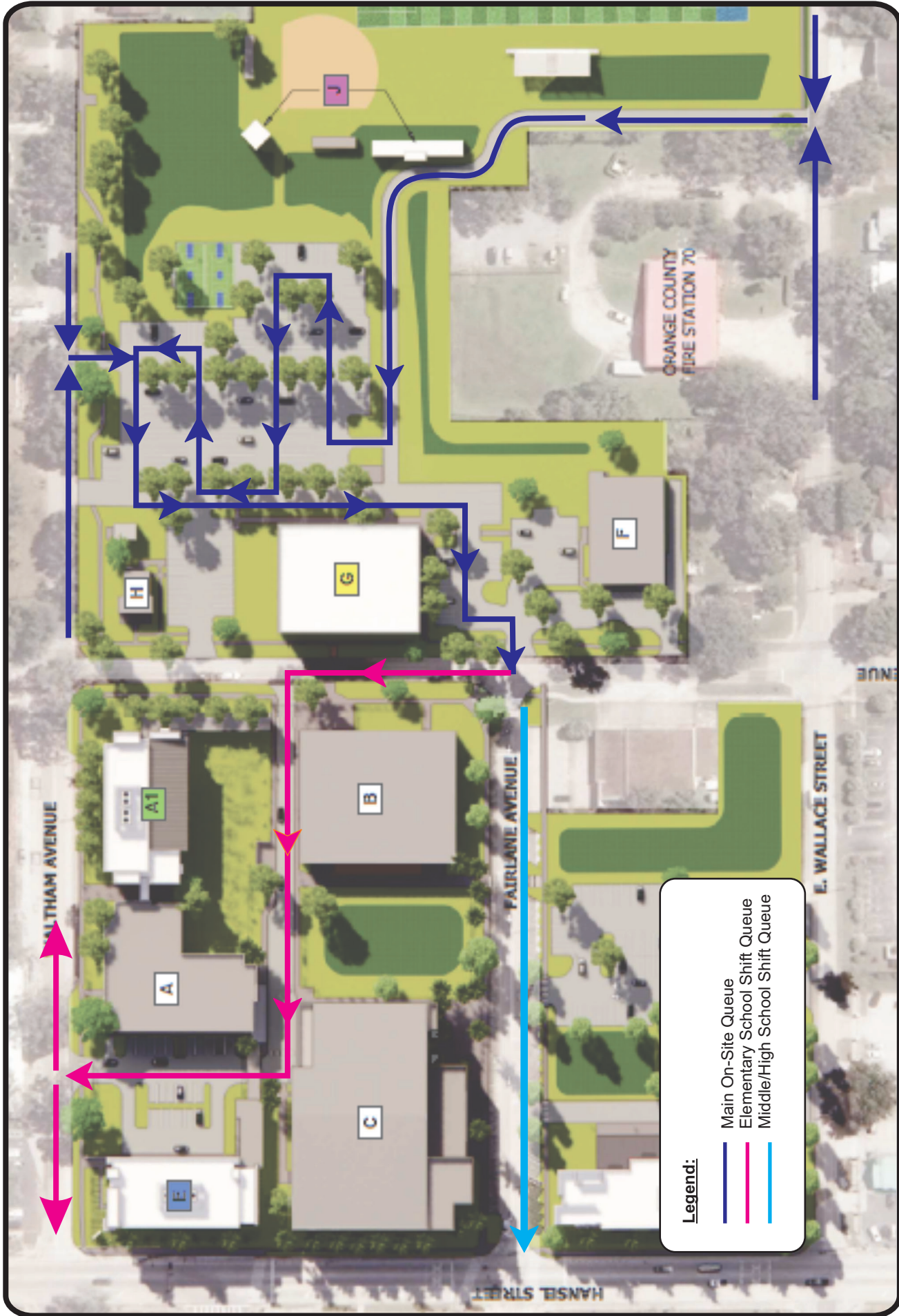
- Middle and high school students drop-off and pick-up location is on Fairlane Avenue. Queues are observed in the morning and afternoon with higher queues in the afternoon extending east and west of Randolph Avenue on Wallace Street, and on Randolph Avenue south of Wallace Street. Police directs the exiting traffic from Fairlane Avenue onto Hansel Avenue. Exiting traffic yields to large numbers of pedestrians crossing Hansel Avenue to and from the school.

Proposed Site Circulation

The proposed school expansion will include changes to traffic pattern in efforts to accommodate all incoming morning and afternoon traffic within the school site. This can be achieved by creating on-site queueing on the property east of Randolph Avenue. It is proposed that traffic for all three shifts have two entry points, one on Wallace Street east of Randolph Avenue, and the other on Waltham Avenue east of Randolph Avenue. Traffic from the north and the south entry points will merge with the assistance of traffic attendants, and will be routed to the drop-off/pick up area through Randolph Avenue. Traffic will then be allowed to exit on Waltham Avenue for Elementary School shift, and on Fairlane Avenue for Middle/High School shifts. Randolph Avenue will be blocked during these times from both the north on Waltham Avenue and from the south on Wallace Street. Fairlane Avenue will become a one-way westbound street utilized for exiting traffic on Hansel Avenue.

On-site queueing is proposed via two methods, the first method is a conga line configuration with one-lane traffic circulating the existing parking lot, the second is a parallel line configuration that will utilize two parallel lanes in each parking lane. The two methods are displayed in **Figure 8(a)** and **Figure 8(b)**, respectively. The conga line method is estimated to provide 2,700 ft for Elementary School queueing, and 2,500 ft for Middle/High School queueing. The parallel line method is estimated to provide 2,450 ft for Elementary School queueing, and 2,200 ft for Middle/High School queueing.





Legend:

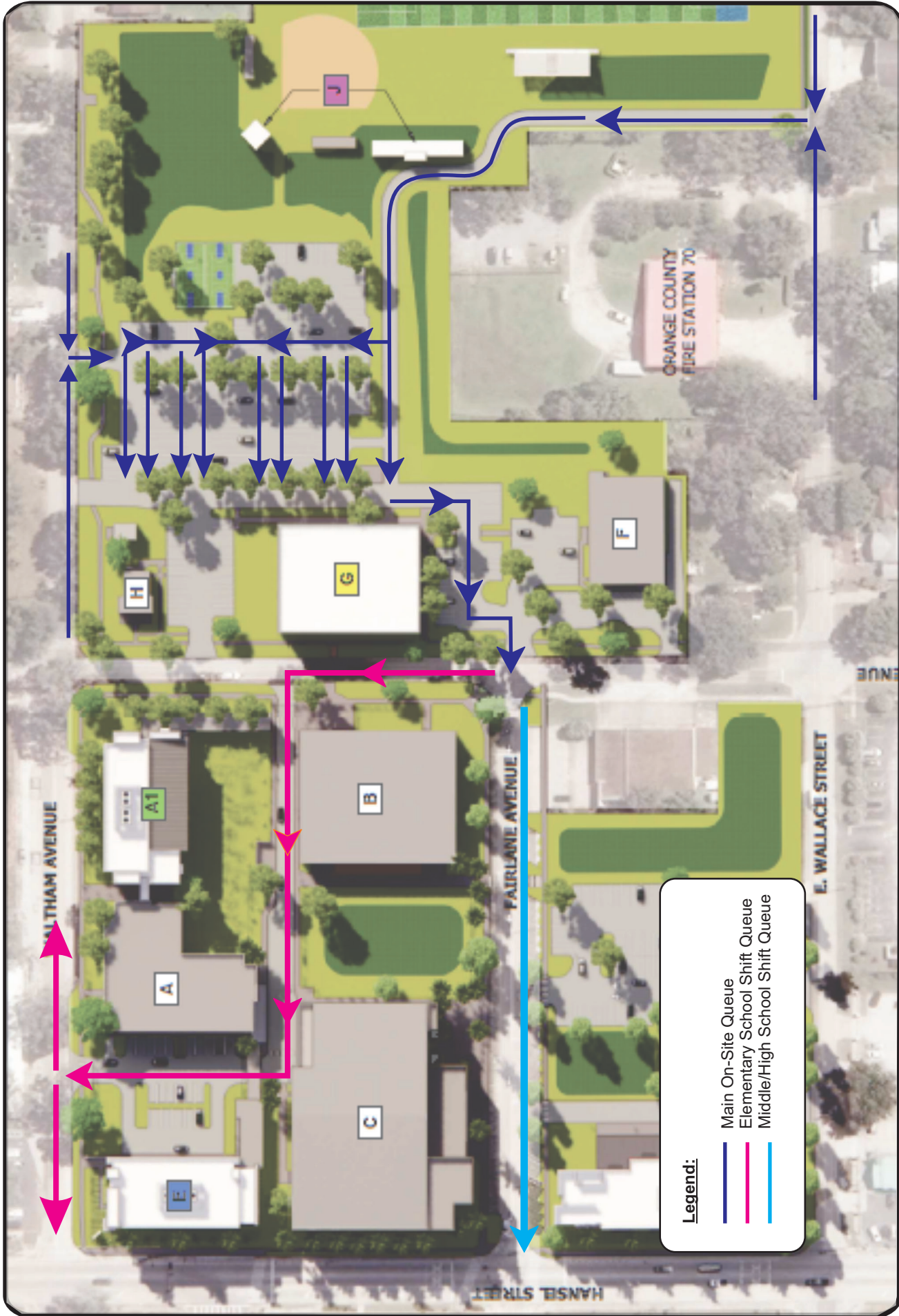
- Main On-Site Queue
- Elementary School Shift Queue
- Middle/High School Shift Queue

a.

Proposed Traffic Circulation (Conga Line)

Cornerstone Charter Academy
 Project № 5725
Figure 8(a)





a.

Proposed Traffic Circulation (Parallel Lines)

Cornerstone Charter Academy
 Project № 5725
Figure 8(b)



Microsimulation Analysis

A microsimulation analysis was conducted for the A.M. and P.M. peak hours in order to determine if the proposed on-site queuing and traffic circulation will be sufficient to accommodate the increase in traffic during the drop-off/pick-up times and to determine the impact on the adjacent roadway segments. This was accomplished using the latest version of Synchro/SimTraffic software and utilizing a preliminary site plan and the proposed traffic circulation. Since the proposed site circulation with Conga Line configuration provides slightly more on-site queuing distance, this method was utilized in the analysis to more accurately depict traffic flow within the site. The queuing reports are included in **Appendix I** and are summarized in **Table 7**. As shown in the table, with implementing the proposed changes, the proposed on-site queuing distance is expected to accommodate the projected traffic during the highest shift without significantly impacting the adjacent roadways.

**Table 7
Microsimulation On-Site Queueing Summary**

School Shift	Time Period	SimTraffic Queue (ft)	Available Length (ft)	Deficiency (ft)
Elementary	A.M.	3,115	2,700	Yes
	P.M.	2,857	2,700	Yes
Middle/High	A.M.	2,238	2,500	No
	P.M.	2,253	2,500	No

Based on the SimTraffic microsimulation analysis, the highest queues occurred for Elementary School morning drop-off. Some back-up is expected on adjacent roadways, however, most of the queue will be contained within the site and spill-out occurred for a short period of time and dissipated quickly. Elementary school queue backup on adjacent roadways also occurred at afternoon pick-up, but was less significant than the morning queue. No queue spill-out occurred for Middle/High School morning drop-off or afternoon pick-up with the proposed changes.



FINDINGS AND RECOMMENDATIONS

This traffic analysis study was performed per the request of the City of Belle Isle to (a) evaluate the proposed expansion in terms of traffic operations and related queueing, (b) to evaluate the ability of adjacent roadways to accommodate the additional traffic volumes, and (c) to recommend transportation improvements, including traffic circulation and transportation improvements to mitigate congestion resulting from additional site traffic. The primary purpose of this traffic study is to ensure on-site vehicular and pedestrian facilities and circulation are adequately provided to protect public safety and maintain traffic flow efficiency for all users accessing the campus before, during and after school construction.

Cornerstone Charter Academy is a charter school located along the east side of Hansel Avenue, south of Waltham Avenue in the City of Belle Isle, Florida. The existing school enrollment consists of 574 students (K-5) students, and 905 (grades 6-12) students with a total of 1,479 students operating in two drop-off/pick-up shifts. With the proposed expansion, the school will have a total enrollment of 2,420 students (750 k-5 students, 570 grades 5-8 students and 1,100 grades 9-12 students) operating in 3 shifts. The expansion will be on the existing school site in addition to the property on the south side of Fairlane Avenue that is currently occupied by a bank

The following recommendation were developed as part of the Study:

Roadway and Intersection Findings and Recommendations

- The roadway segments are currently operating within their adopted LOS standard except for Hoffner Avenue from Orange Avenue to Oak Island Road, and Orange Avenue from Hansel Avenue (S) to Hansel Avenue (N), and from Hansel Avenue (N) to Holden Avenue. These segments are operating below their Level of Service standards in the existing conditions and will continue to do so with the addition of school-generated trips. Additionally, the segment of Hansel Avenue from Orange Avenue (S) to Orange Avenue (N) is expected to fail in the projected conditions as a result of adding background growth/committed trips and project trips.



- The study intersections included in this comprehensive traffic analysis currently operate at satisfactory Levels of Service under existing conditions except for the following intersections/approaches:
 - Waltham Avenue & Hansel Avenue - EB and WB approaches (AM and PM)
 - Fairlane Avenue & Orange Avenue - WB approach (AM and PM), $v/c < 1.0$
 - Orange Avenue & Nela Avenue - WB Approach (A.M. only), $v/c < 1.0$

As indicated, some of these deficient Levels of Service have V/C ratio less than 1.0, which indicates that the Level of Service is caused by delay, not a capacity deficiency. These intersections will continue to operate at deficient Levels of Service upon the addition of school generated trips.

- In addition to intersections operating at LOS “F” under existing conditions, the following intersections are projected to operate at deficient Levels of Service due to the addition of background traffic growth and/or project trips:
 - Hoffner Avenue & Randolph Avenue - NB approach (AM and PM), SB approach (PM only), $v/c < 1.0$
 - Fairlane Avenue & Orange Avenue – EB approach ((PM Only), $v/c < 1.0$
 - Wallace Street & Hansel Avenue - EB approach (AM only), WB approach (PM only)
 - Orange Avenue & Nela Avenue - WB approach (PM), $v/c < 1.0$

As indicated, some of these deficient Levels of Service have V/C ratio less than 1.0, which indicates that the Level of Service is caused by delay, not a capacity deficiency. It should be noted that with the proposed traffic plan, the project is not adding any trips to the stop-controlled intersection of Orange Avenue and Fairlane Avenue failing EB/WB approaches or to the intersection of Wallace Street and Hansel Avenue WB approach. The intersection of Hansel Avenue and Waltham Avenue is a stop-controlled intersection. However, during pick-up and dismissal, this intersection is controlled by the City’s police and/or traffic attendant that regulate the traffic in a pattern that resembles a signal. Reanalyzing this intersection as signalized for pick-up/drop-off times yields a satisfactory Level of Service



Proposed School Site Findings and Recommendations

The following is a summary of observations of queues and site circulation under existing conditions:

- The pick-up/drop-off for Elementary School and Middle/High School shifts happen ten (10) minutes apart.
- Elementary School pick-up and drop-off currently occurs on Waltham Avenue at designated stops. Kindergarten and 1st grade students are picked up inside the school campus with vehicles entering on Randolph Avenue and exiting on Waltham Avenue. The 2nd to 5th grade students drop-off/pick-up location is on Waltham Avenue. No significant queues were observed during the morning drop-off. However, vehicles start queueing and stop on the adjacent streets prior to dismissal, and queues are observed on Waltham Avenue, Wilks Avenue and Randolph Avenue.
- Traffic attendants and police are present at the intersection of Hansel Avenue and Waltham Avenue, and at the intersection of Waltham Avenue and Randolph Avenue. To direct exiting traffic onto Hansel Avenue.
- Middle and high school students drop-off and pick-up location is on Fairlane Avenue. Queues are observed in the morning and afternoon with higher queues in the afternoon extending east and west of Randolph Avenue on Wallace Street, and on Randolph Avenue south of Wallace Street. Police directs the exiting traffic from Fairlane Avenue onto Hansel Avenue. Exiting traffic yields to large numbers of pedestrians crossing Hansel Avenue to and from the school.

The following improvements should be considered based on review of site plan and analysis of internal circulation:

- Under buildout conditions, the school is proposed to have three shifts for Elementary, Middle and High School. These shifts are recommended to be 30-45 minutes apart in order to ensure queue clearance for the next shift and prevent queue spill back on adjacent streets.



- Upon review of the proposed site plan, the parking lot on the property east of Randolph Avenue is recommended to be utilized to provide on-site queueing for incoming traffic. Providing on site-queueing within the school property will encourage drivers arriving early to wait within the school campus and will provide stacking for incoming vehicles. The proposed site circulation plan considers two entry points, one on Waltham Avenue for vehicles coming from the north via Randolph Avenue and Marinell Drive, and one from Wallace Street for vehicles coming from the south. The south entrance will utilize the existing pedestrian pathway which is recommended to be paved for vehicle use and stacking.

- On-site traffic circulation is suggested via two methods illustrated within the study where vehicles stack via a conga line or parallel lines within the parking lot east of Randolph Avenue and exit on Waltham Avenue for Elementary School shift, and on Fairlane Avenue for Middle School and High School shifts. This traffic circulation provides maximum utilization of the school property for on-site stacking. However, the efficient operation during pick-up and dismissal, with the help of traffic attendants and police similar to existing conditions, is a crucial part in managing the queues efficiently and preventing queue spill out on the adjacent streets. This includes the following:
 - Randolph Avenue road should be closed to traffic from both the north on Waltham Avenue and from the south on Wallace Street. This street can be used for overflow vehicles in two lanes if necessary.
 - Vehicles on Fairlane Avenue will be directed to *exit right only* on Hansel Avenue. Vehicles travelling to the south will utilize upstream intersections to turn left and travel south on Orange Avenue. This will prevent westbound queueing at the stop-controlled intersection of Orange Avenue and Fairlane Avenue. This operation during drop-off/dismissal can be achieved with the help of proper signage and police/traffic attendant guidance.
 - Signal changes to the intersection of Hansel Avenue and Fairlane Avenue with split side streets and retiming of the sufficient green time for exiting vehicles on Fairlane Avenue while maintaining coordination timing on Hansel Avenue corridor.



- Change in pedestrian crossing location on Hansel Avenue to prevent vehicles turning right from Fairlane Avenue onto Hansel Avenue to yield to large numbers of pedestrian and create queueing on both the major and minor streets.
- Similar to existing conditions, police/traffic attendant guidance is needed at the intersection of Hansel Avenue and Waltham Avenue during Elementary School shift to create a signal-like operation at the stoop-controlled intersection and provide sufficient time for exiting vehicles from Waltham Avenue to Hansel Avenue.
- Station staff members / traffic attendants within the site and at the entry driveways to guide traffic into the school site queue and ensure proper circulation.

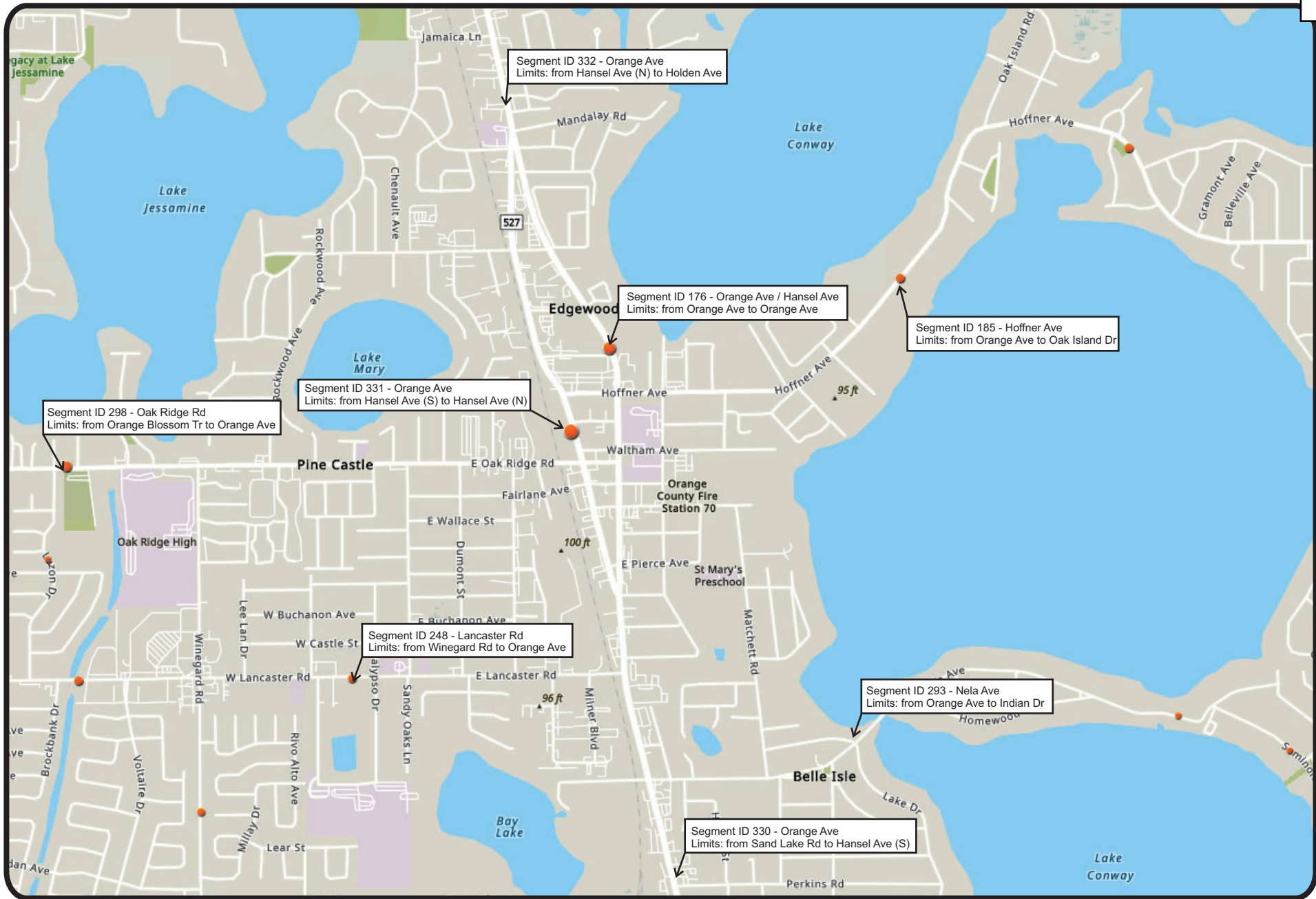
It should be noted that this study was analyzed for 100% student drop-off/pick-up as a conservative analysis. The school currently has a large portion of pedestrians and “golf-cart” pick-up locations, and will continue to facilitate and encourage other modes of transportation to mitigate additional traffic generated by the school expansion. Additionally, the school expansion will also expand the after-school programs which will account for a percentage of students staying on campus after dismissal times, and will reduce the number of vehicles arriving to the site at drop-off/dismissal.



APPENDICES

APPENDIX A

Orange County's CMS Database





Orange County, Florida Traffic Concurrency Management Program Concurrency Link Information

Application Number:

ID	From	To	Lgth	Maint Agency	Capacity Group	Ln LOS	Total Cap	AADT	PmPk	PkDir	Comm Trips	Avail Cap*	LOS
Hoffner Ave													
185	Orange Ave	Oak Island Rd	1.33	Cnty	Urban - Class II	2 E	800	19,626	998	EB	0	0	F
Lancaster Rd													
248	Winegard Rd	Orange Ave	1.01	Cnty	Urban - Class I	4 E	2000	14,009	706	EB	9	1,285	C
Nela Ave													
293	Orange Ave	Indian Dr	1.46	Belle Isle	Urban - Class II	2 E	800	2,963	151	EB	10	639	C
Oak Ridge Rd													
298	Orange Blossom Tr	Orange Ave	1.67	Cnty	Urban - Class II	4 E	1700	31,833	1,518	EB	5	177	D
Orange Ave													
330	Sand Lake Rd	Hansel Ave (S)	1.14	ST	Urban - Class I	5 E	2510	45,787	2,102	NB	19	389	C
331	Hansel Ave (S)	Hansel Ave (N)	1.22	ST	Urban - Class II	2 E	2040	25,821	2,324	NB	1	0	F
(1-way)													
332	Hansel Ave (N)	Holden Ave	0.75	ST	Urban - Class I	5 E	2510	56,887	2,867	NB	4	0	F
Orange Ave / Hansel Ave													
176	Orange Ave	Orange Ave	1.23	ST	Urban - Class I	2 E	2400	48,989	2,337	SB	1	62	D
(1-way)													

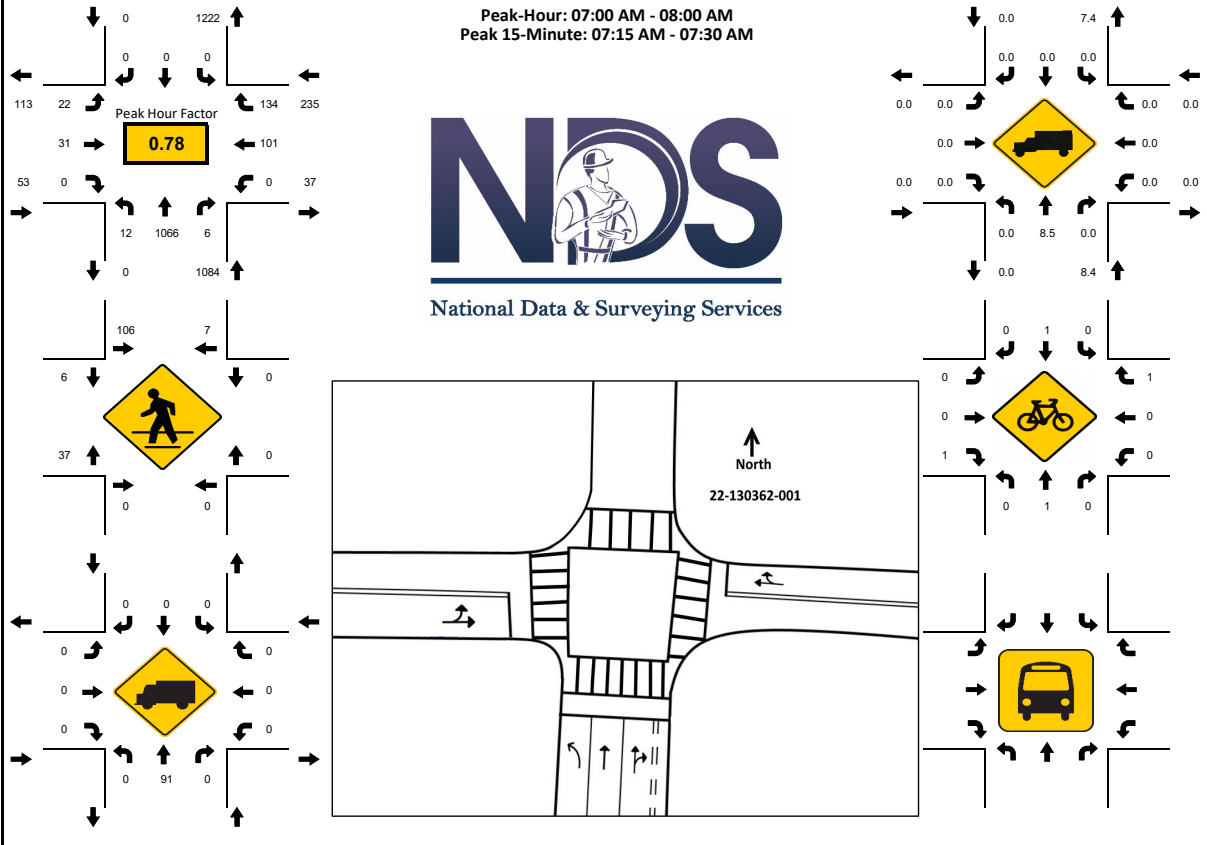
* It should be noted that the capacities indicated on this information sheet are a snapshot at this specific date and time. Available capacities are subject to change at any time.

APPENDIX B

Intersection Turning Movement Counts, Signal Timings
and FDOT's Seasonal Reports

LOCATION: SR 527/Hansel Ave & Fairlane Ave
CITY/STATE: Orlando, FL

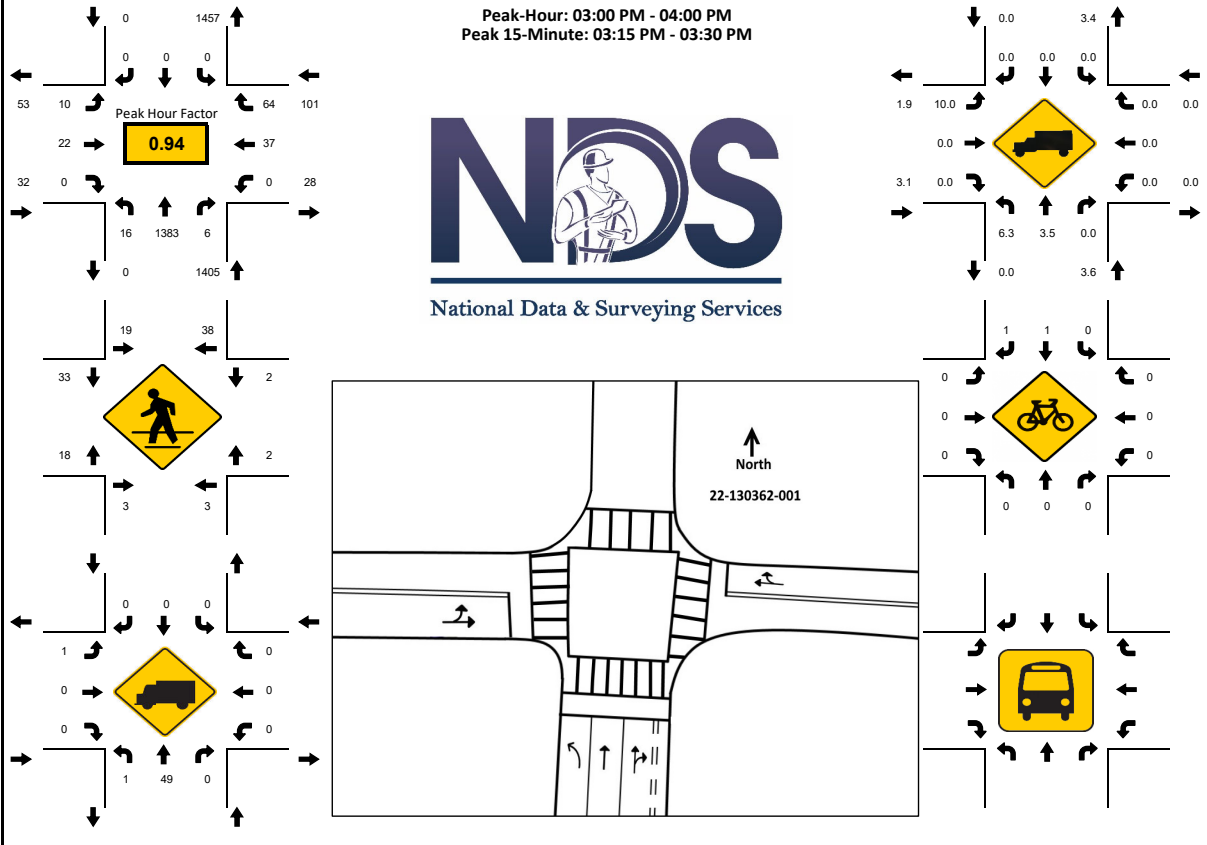
PROJECT ID: 22-130362-001
DATE: Tue, Dec 06, 2022



15-Min Count Period Beginning At	SR 527/Hansel Ave Northbound					SR 527/Hansel Ave Southbound					Fairlane Ave Eastbound					Fairlane Ave Westbound					Total	Hourly Total
	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*		
07:00 AM	1	347	1	0		0	0	0	0		0	4	0	0		0	6	15	0		374	1372
07:15 AM	6	324	4	0		0	0	0	0		7	10	0	0		0	47	41	0		439	1333
07:30 AM	3	246	1	0		0	0	0	0		12	12	0	0		0	39	53	0		366	1208
07:45 AM	2	149	0	0		0	0	0	0		3	5	0	0		0	9	25	0		193	1148
08:00 AM	3	318	2	0		0	0	0	0		3	2	0	0		0	1	6	0		335	1280
08:15 AM	2	305	1	0		0	0	0	0		0	1	0	0		0	3	2	0		314	945
08:30 AM	3	300	0	0		0	0	0	0		0	0	0	0		0	2	1	0		306	631
08:45 AM	2	319	0	0		0	0	0	0		1	1	0	0		0	1	1	0		325	325
Peak 15-Min Flowrates	Northbound					Southbound					Eastbound					Westbound					Total	
All Vehicles	24	1388	16	0		0	0	0	0		48	48	0	0		0	188	212	0		1924	
Heavy Trucks	0	132	0	0		0	0	0	0		0	0	0	0		0	0	0	0		132	
Pedestrians	0						292					100					0				392	
Bicycles	0	4	0	0		0	4	0	0		0	0	4	0		0	0	4	0		16	
Buses																						
Stopped Buses																						

LOCATION: SR 527/Hansel Ave & Fairlane Ave
CITY/STATE: Orlando, FL

PROJECT ID: 22-130362-001
DATE: Tue, Dec 06, 2022



15-Min Count Period Beginning At	SR 527/Hansel Ave Northbound					SR 527/Hansel Ave Southbound					Fairlane Ave Eastbound					Fairlane Ave Westbound					Total	Hourly Total
	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*		
02:00 PM	6	299	1	0		0	0	0	0		0	1	0	0		0	0	2	0		309	1217
02:15 PM	5	338	0	0		0	0	0	0		4	5	0	0		0	1	3	0		356	1286
02:30 PM	8	250	3	0		0	0	0	0		4	3	0	0		0	3	4	0		275	1341
02:45 PM	3	220	0	0		0	0	0	0		8	4	0	0		0	14	28	0		277	1426
03:00 PM	4	319	0	0		0	0	0	0		4	6	0	0		0	20	25	0		378	1538
03:15 PM	5	361	2	0		0	0	0	0		3	9	0	0		0	8	23	0		411	1160
03:30 PM	4	337	3	0		0	0	0	0		1	5	0	0		0	4	6	0		360	749
03:45 PM	3	366	1	0		0	0	0	0		2	2	0	0		0	5	10	0		389	389
Peak 15-Min Flowrates	Northbound					Southbound					Eastbound					Westbound					Total	
All Vehicles	20	1464	12	0		0	0	0	0		16	36	0	0		0	80	100	0		1728	
Heavy Trucks	4	64	0	0		0	0	0	0		4	0	0	0		0	0	0	0		72	
Pedestrians		12					108					96					8				224	
Bicycles	0	0	0	0		0	4	4	0		0	0	0	0		0	0	0	0		8	
Buses																						
Stopped Buses																						



National Data & Surveying Services



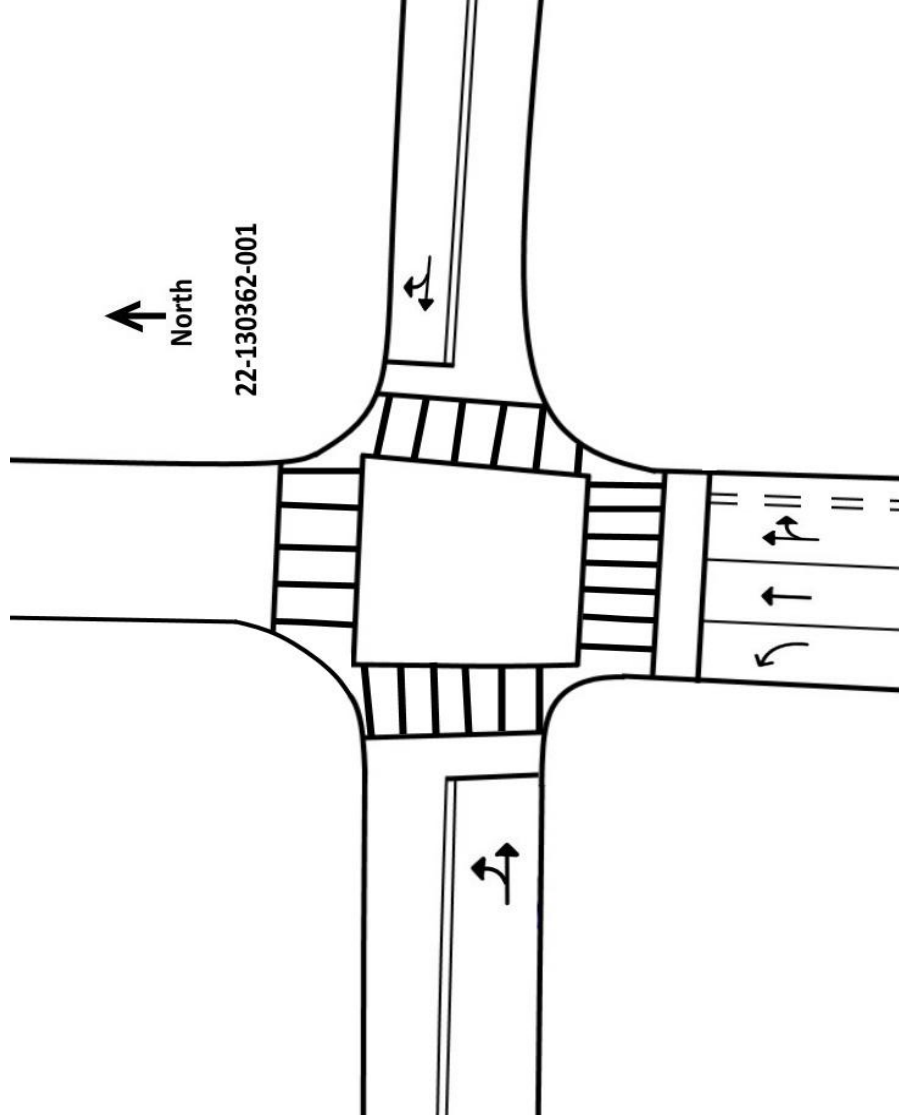
N/S Street: **SR 527/Hansel Ave**

Speed: **40 MPH**

E/W Street: **Fairlane Ave**

Speed: **25 MPH**

a.



Site Code: **22-130362-001**

Date: **12/06/2022**

Weather: **Sunny**

City: **Orlando**

County: **Orange**

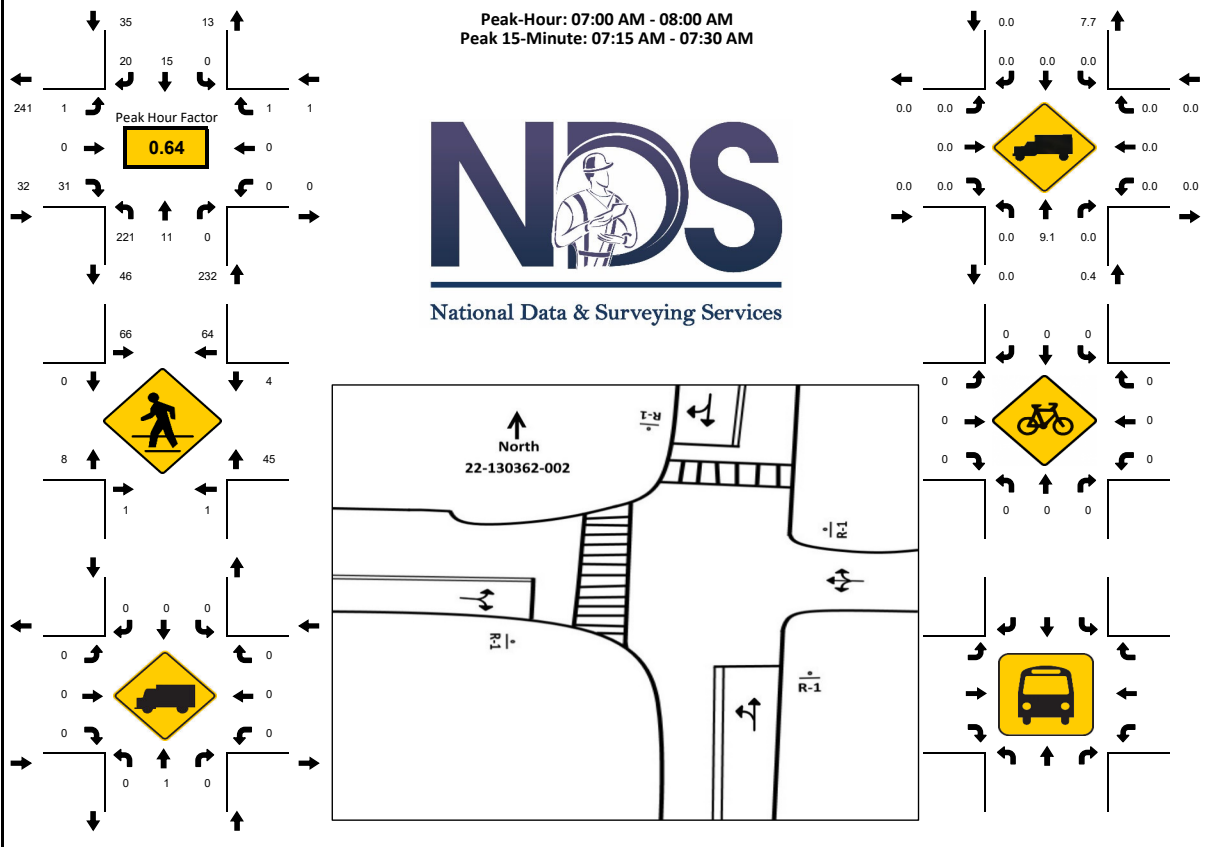
Count Times: **07:00 - 09:00**

14:00 - 16:00

Control: **Signalized**

SIGNAL TIMING

PHASES	1	2	3
NL/NT	01:18	01:21	01:30
ET/WT	01:23	00:58	00:59

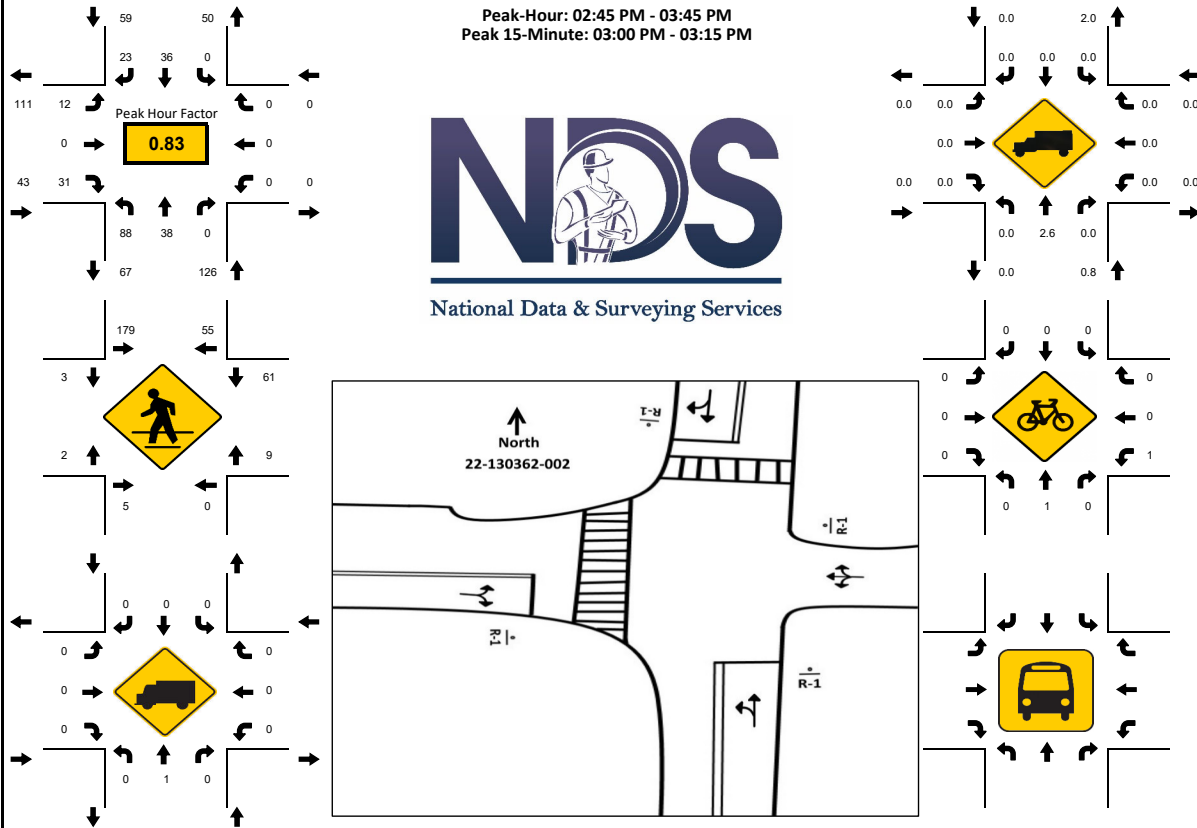
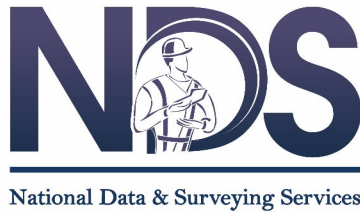


15-Min Count Period Beginning At	Randolph Ave Northbound					Randolph Ave Southbound					Fairlane Ave Eastbound					Fairlane Ave Westbound					Total	Hourly Total
	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*		
07:00 AM	17	2	0	0	0	0	5	11	0	0	1	0	4	0	0	0	0	0	0	0	40	300
07:15 AM	81	8	0	0	0	0	10	8	0	0	0	0	10	0	0	0	0	0	0	0	117	296
07:30 AM	99	0	0	0	0	0	0	0	0	0	0	0	13	0	0	0	0	0	0	0	112	195
07:45 AM	24	1	0	0	0	0	0	1	0	0	0	0	4	0	0	0	0	1	0	0	31	96
08:00 AM	8	15	0	0	0	0	4	1	0	0	4	0	3	0	0	0	1	0	0	0	36	81
08:15 AM	4	4	0	0	0	0	3	2	0	0	1	0	2	0	0	0	0	0	0	0	16	45
08:30 AM	3	7	0	0	0	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	13	29
08:45 AM	0	5	0	0	0	0	9	2	0	0	0	0	0	0	0	0	0	0	0	0	16	16
Peak 15-Min Flowrates	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Total	
All Vehicles	396	32	0	0	0	0	40	44	0	0	4	0	52	0	0	0	0	0	4	0	572	
Heavy Trucks	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	
Pedestrians		4					292					12					112				420	
Bicycles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Buses																						
Stopped Buses																						

LOCATION: Randolph Ave & Fairlane Ave
CITY/STATE: Orlando, FL

PROJECT ID: 22-130362-002
DATE: Tue, Dec 06, 2022

Peak-Hour: 02:45 PM - 03:45 PM
Peak 15-Minute: 03:00 PM - 03:15 PM



15-Min Count Period Beginning At	Randolph Ave Northbound					Randolph Ave Southbound					Fairlane Ave Eastbound					Fairlane Ave Westbound					Total	Hourly Total
	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*		
02:00 PM	2	7	0	0	0	0	6	4	0	0	0	0	1	0	0	0	0	0	0	0	20	117
02:15 PM	9	6	0	0	0	0	5	1	0	0	0	0	4	0	0	0	1	0	0	0	26	166
02:30 PM	11	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0	0	0	0	0	18	205
02:45 PM	43	0	0	0	0	0	0	0	0	0	0	0	10	0	0	0	0	0	0	0	53	228
03:00 PM	35	12	0	0	0	0	9	3	0	0	1	0	9	0	0	0	0	0	0	0	69	223
03:15 PM	8	17	0	0	0	0	15	13	0	0	4	0	8	0	0	0	0	0	0	0	65	154
03:30 PM	2	9	0	0	0	0	12	7	0	0	7	0	4	0	0	0	0	0	0	0	41	89
03:45 PM	7	13	0	0	0	0	14	9	0	0	3	0	2	0	0	0	0	0	0	0	48	48
Peak 15-Min Flowrates	Northbound					Southbound					Eastbound					Westbound					Total	
All Vehicles	172	68	0	0	0	0	60	52	0	0	28	0	40	0	0	0	0	0	0	0	420	
Heavy Trucks	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	
Pedestrians		8					632					8					240				888	
Bicycles	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	8	
Buses																						
Stopped Buses																						



National Data & Surveying Services

Site Code: 22-130362-002

Date: 12/06/2022

Weather: Sunny

City: Orlando

County: Orange

Count Times: 07:00 - 09:00

14:00 - 16:00

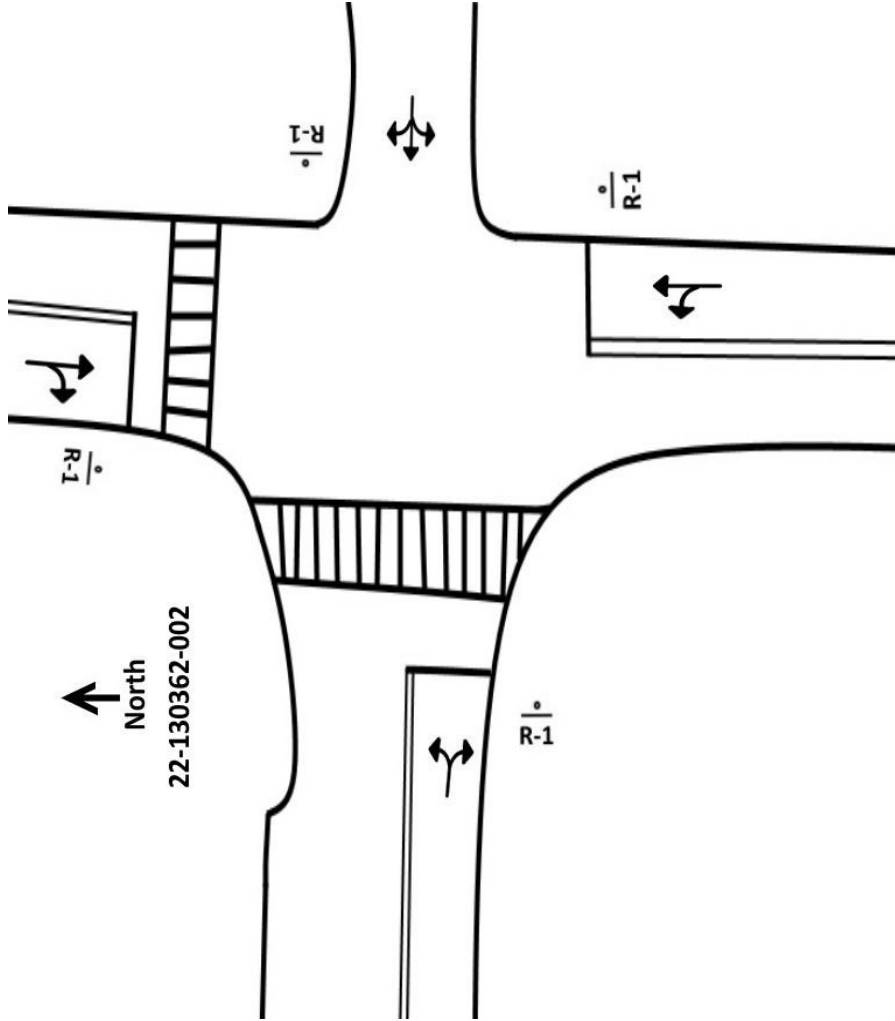
Control: 4-Way Stop



N/S Street: **Randolph Ave**

Speed: **25 MPH**

E/W Street: **Fairlane Ave** Speed: **25 MPH**

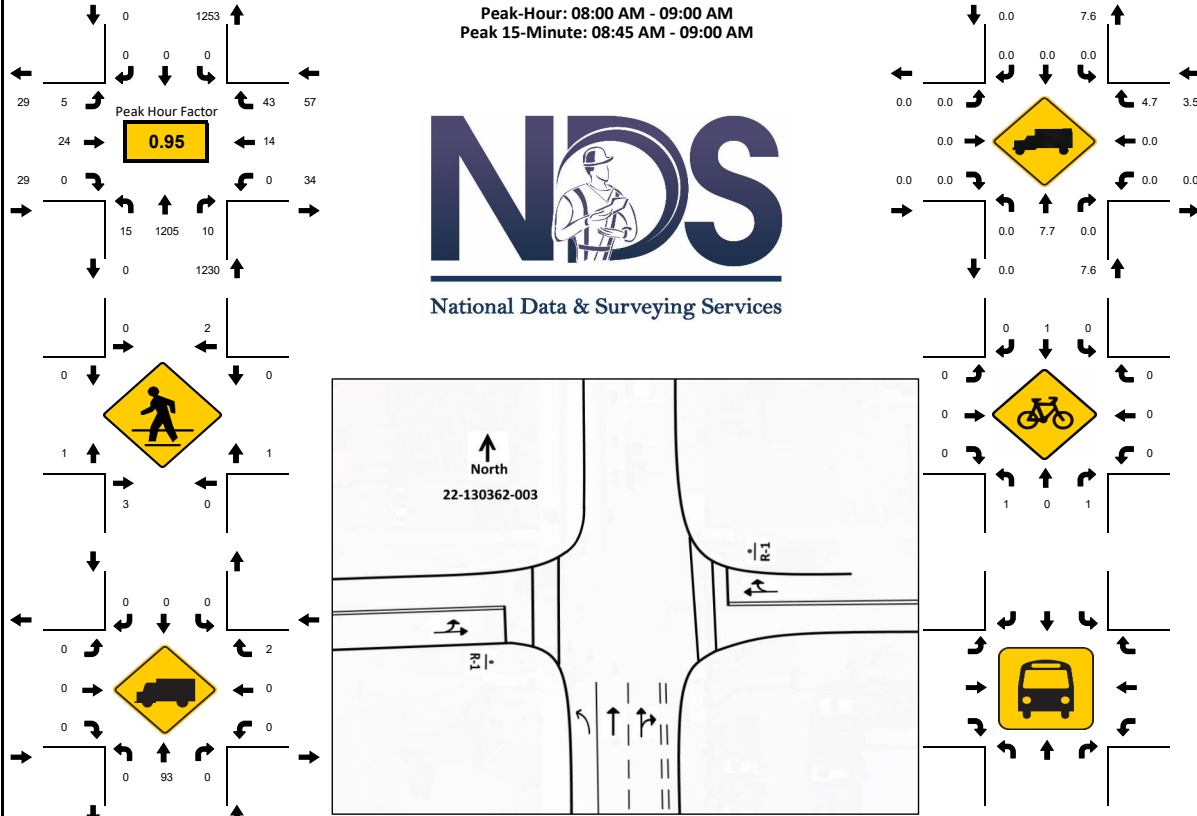
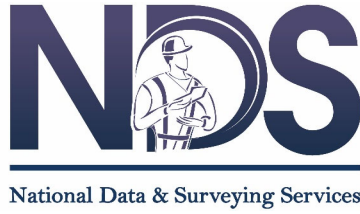


a.

LOCATION: SR 527/Hansel Ave & E Wallace St
 CITY/STATE: Orlando, FL

PROJECT ID: 22-130362-003
 DATE: Tue, Dec 06, 2022

Peak-Hour: 08:00 AM - 09:00 AM
 Peak 15-Minute: 08:45 AM - 09:00 AM



15-Min Count Period Beginning At	SR 527/Hansel Ave Northbound					SR 527/Hansel Ave Southbound					E Wallace St Eastbound					E Wallace St Westbound					Total	Hourly Total
	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*		
07:00 AM	4	336	13	0		0	0	0	0		2	8	0	0		0	2	9	0		374	1242
07:15 AM	5	326	25	0		0	0	0	0		3	29	0	0		0	4	7	0		399	1200
07:30 AM	3	233	21	0		0	0	0	0		2	26	0	0		0	6	13	0		304	1121
07:45 AM	3	139	0	0		0	0	0	0		2	7	0	0		0	1	13	0		165	1133
08:00 AM	2	305	1	0		0	0	0	0		3	5	0	0		0	3	13	0		332	1316
08:15 AM	2	298	0	0		0	0	0	0		1	6	0	0		0	3	10	0		320	984
08:30 AM	5	291	3	0		0	0	0	0		1	3	0	0		0	4	9	0		316	664
08:45 AM	6	311	6	0		0	0	0	0		0	10	0	0		0	4	11	0		348	348
Peak 15-Min Flowrates	Northbound					Southbound					Eastbound					Westbound					Total	
All Vehicles	24	1244	24	0		0	0	0	0		12	40	0	0		0	16	52	0		1412	
Heavy Trucks	0	116	0	0		0	0	0	0		0	0	0	0		0	0	8	0		124	
Pedestrians		8					8					4					4				24	
Bicycles	4	0	4	0		0	4	0	0		0	0	0	0		0	0	0	0		12	
Buses																						
Stopped Buses																						

LOCATION: SR 527/Hansel Ave & E Wallace St
CITY/STATE: Orlando, FL

PROJECT ID: 22-130362-003
DATE: Tue, Dec 06, 2022



15-Min Count Period Beginning At	SR 527/Hansel Ave Northbound					SR 527/Hansel Ave Southbound					E Wallace St Eastbound					E Wallace St Westbound					Total	Hourly Total
	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*		
02:00 PM	4	295	8	0		0	0	0	0		9	5	0	0		0	1	8	0		330	1245
02:15 PM	7	322	4	0		0	0	0	0		6	9	0	0		0	4	9	0		361	1271
02:30 PM	6	253	3	0		0	0	0	0		6	24	0	0		0	1	8	0		301	1299
02:45 PM	6	203	2	0		0	0	0	0		8	23	0	0		0	2	9	0		253	1364
03:00 PM	9	298	3	0		0	0	0	0		4	18	0	0		0	6	18	0		356	1506
03:15 PM	4	356	4	0		0	0	0	0		3	7	0	0		0	4	11	0		389	1150
03:30 PM	10	330	3	0		0	0	0	0		4	6	0	0		0	3	10	0		366	761
03:45 PM	7	358	6	0		0	0	0	0		3	11	0	0		0	3	7	0		395	395
Peak 15-Min Flowrates	Northbound					Southbound					Eastbound					Westbound					Total	
All Vehicles	40	1432	24	0		0	0	0	0		16	72	0	0		0	24	72	0		1680	
Heavy Trucks	8	60	4	0		0	0	0	0		4	0	0	0		0	4	4	0		84	
Pedestrians		4					0					84					4				92	
Bicycles	0	0	0	0		0	4	0	0		0	0	0	0		0	0	0	0		4	
Buses																						
Stopped Buses																						



National Data & Surveying Services

Site Code: 22-130362-003

Date: 12/06/2022

Weather: Sunny

City: Orlando

County: Orange

Count Times: 07:00 - 09:00

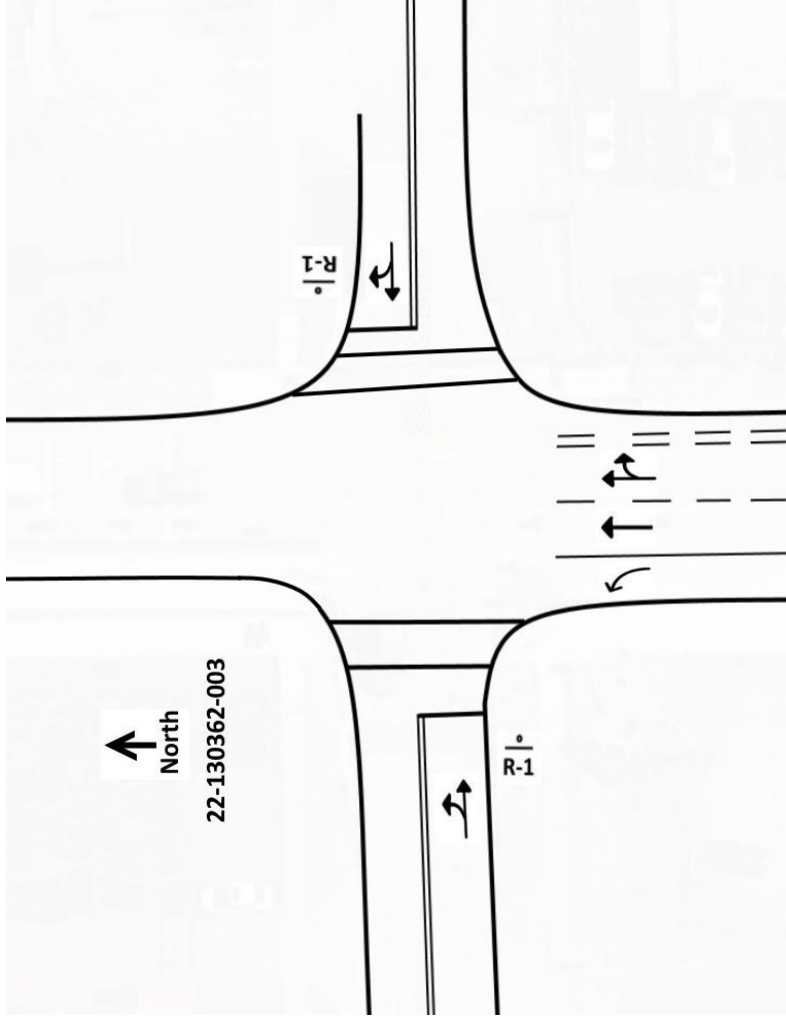
14:00 - 16:00

Control: 2-Way Stop(EB/WB)



N/S Street: SR 527/Hansel Ave

Speed: 40 MPH



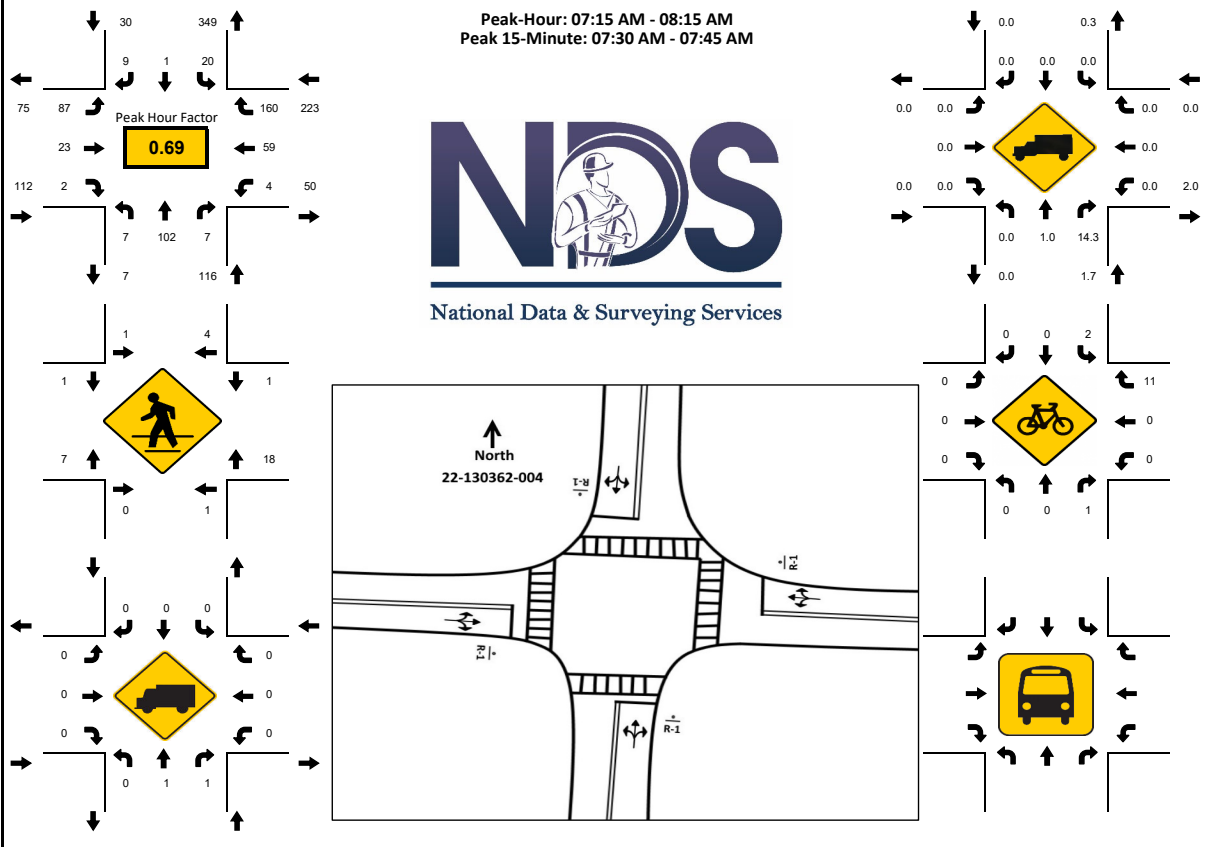
E/W Street: E Wallace St

Speed: N/A

a.

LOCATION: Randolph Ave & E Wallace St
 CITY/STATE: Orlando, FL

PROJECT ID: 22-130362-004
 DATE: Tue, Dec 06, 2022

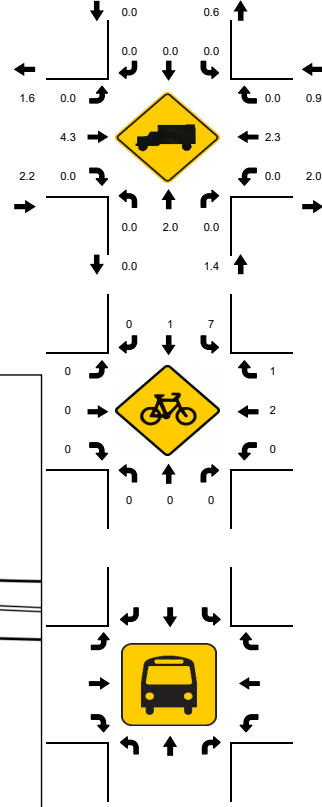
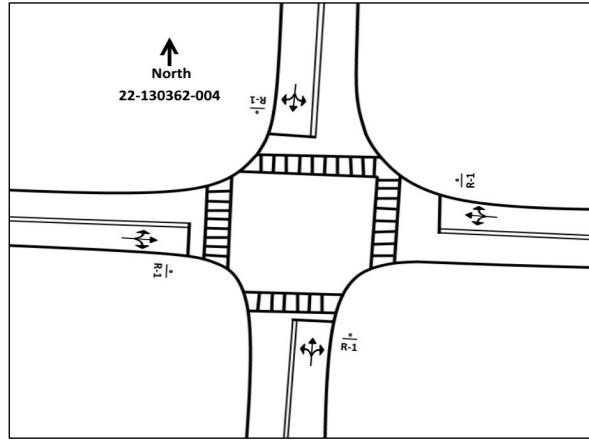
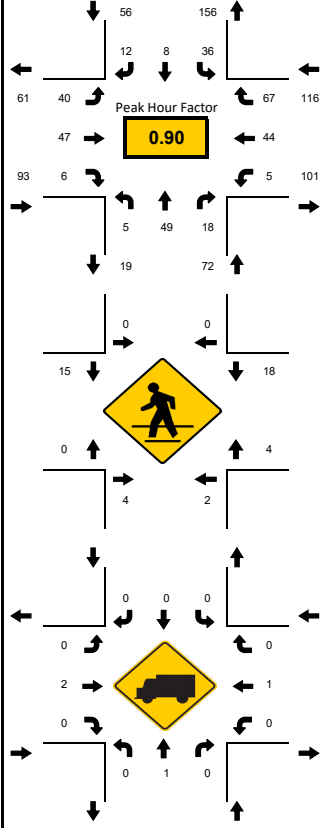
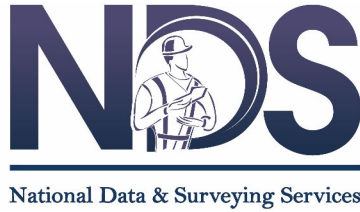


15-Min Count Period Beginning At	Randolph Ave Northbound					Randolph Ave Southbound					E Wallace St Eastbound					E Wallace St Westbound					Total	Hourly Total
	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*		
07:00 AM	2	1	0	0		4	1	0	0		16	2	0	0		1	11	14	0		52	476
07:15 AM	0	27	0	0		8	0	4	0		43	7	0	0		0	14	62	0		165	481
07:30 AM	2	51	4	1		7	0	2	0		40	4	0	0		3	20	41	0		175	350
07:45 AM	4	15	1	0		2	0	1	0		4	3	0	0		0	11	43	0		84	200
08:00 AM	0	9	2	0		3	1	2	0		0	9	2	0		1	14	14	0		57	157
08:15 AM	0	0	0	0		5	0	1	0		0	6	0	0		0	14	8	0		34	100
08:30 AM	1	0	0	0		1	0	1	0		2	3	0	0		1	9	7	0		25	66
08:45 AM	0	0	0	0		2	4	3	0		1	13	1	0		1	12	4	0		41	41
Peak 15-Min Flowrates	Northbound					Southbound					Eastbound					Westbound					Total	
All Vehicles	16	204	16	4		32	4	16	0		172	36	8	0		12	80	248	0		848	
Heavy Trucks	0	4	4	0		0	0	0	0		0	0	0	0		0	0	0	0		8	
Pedestrians		4					8					16					64				92	
Bicycles	0	0	4	0		8	0	0	0		0	0	0	0		0	0	24	0		36	
Buses																						
Stopped Buses																						

LOCATION: Randolph Ave & E Wallace St
 CITY/STATE: Orlando, FL

PROJECT ID: 22-130362-004
 DATE: Tue, Dec 06, 2022

Peak-Hour: 02:30 PM - 03:30 PM
 Peak 15-Minute: 03:00 PM - 03:15 PM



15-Min Count Period Beginning At	Randolph Ave Northbound					Randolph Ave Southbound					E Wallace St Eastbound					E Wallace St Westbound					Total	Hourly Total
	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*		
02:00 PM	0	3	1	0		3	2	2	0		5	5	2	0		1	10	6	0		40	280
02:15 PM	1	5	0	0		3	1	3	0		7	5	1	0		2	13	14	0		55	334
02:30 PM	1	6	6	0		4	0	0	0		8	23	4	0		3	17	21	0		93	337
02:45 PM	0	20	9	0		8	2	3	0		14	7	1	0		0	8	20	0		92	287
03:00 PM	4	21	3	0		10	1	6	0		13	10	1	0		2	12	11	0		94	256
03:15 PM	0	2	0	0		14	5	3	0		5	7	0	0		0	7	15	0		58	162
03:30 PM	0	6	0	0		9	4	2	0		1	10	0	0		0	5	6	0		43	104
03:45 PM	0	1	0	0		10	2	2	0		4	13	0	0		0	9	20	0		61	61
Peak 15-Min Flowrates	Northbound					Southbound					Eastbound					Westbound					Total	
All Vehicles	16	84	36	0		56	20	24	0		56	92	16	0		12	68	84	0		564	
Heavy Trucks	0	4	0	0		0	0	0	0		0	4	0	0		0	4	0	0		12	
Pedestrians		20					0					52					60				132	
Bicycles	0	0	0	0		16	4	0	0		0	0	0	0		0	4	4	0		28	
Buses																						
Stopped Buses																						



National Data & Surveying Services

Site Code: 22-130362-004

Date: 12/06/2022

Weather: Sunny

City: Orlando

County: Orange

Count Times: 07:00 - 09:00

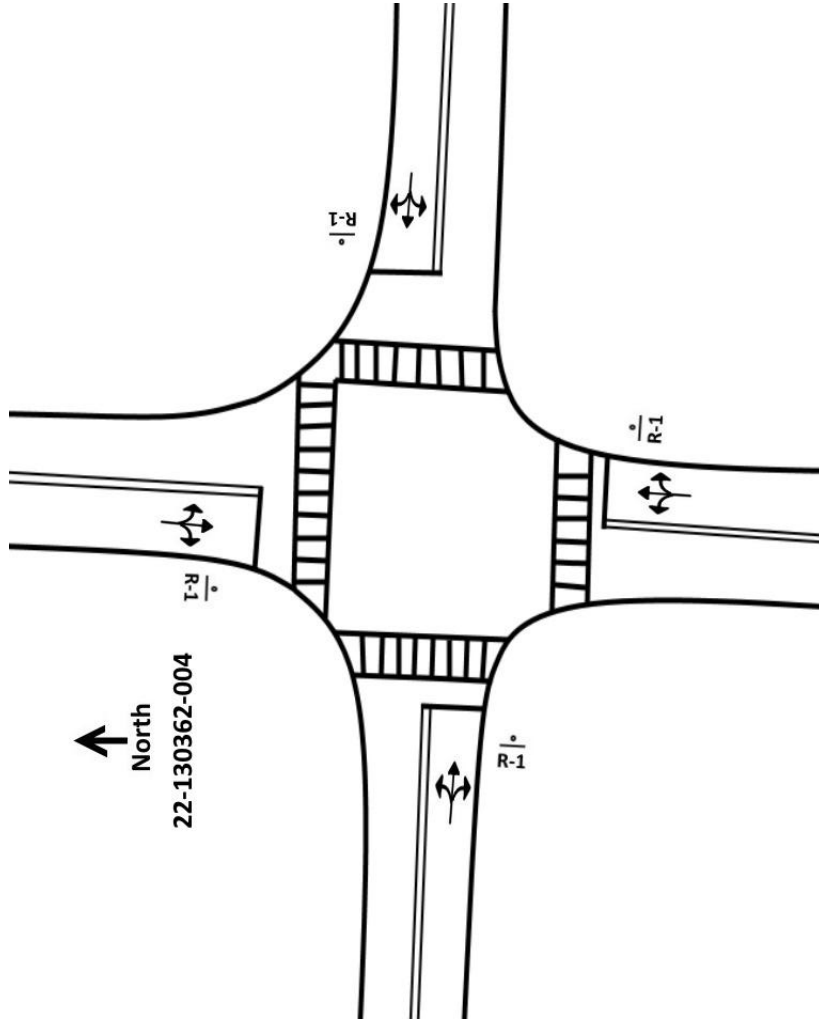
14:00 - 16:00

Control: 4-Way Stop



N/S Street: **Randolph Ave**

Speed: **25 MPH**



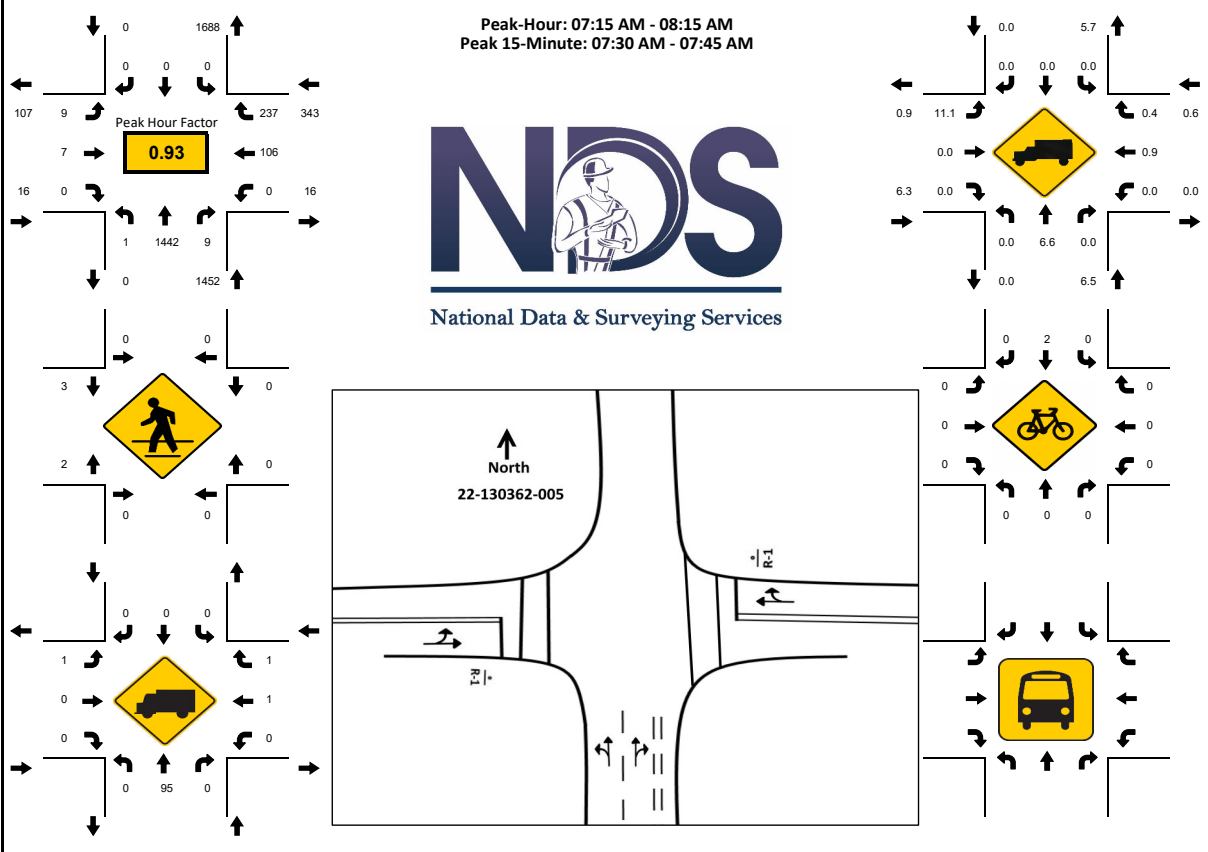
E/W Street: **E Wallace St**

Speed: **N/A**

a.

LOCATION: SR 527/Hansel Ave & Waltham Ave
CITY/STATE: Orlando, FL

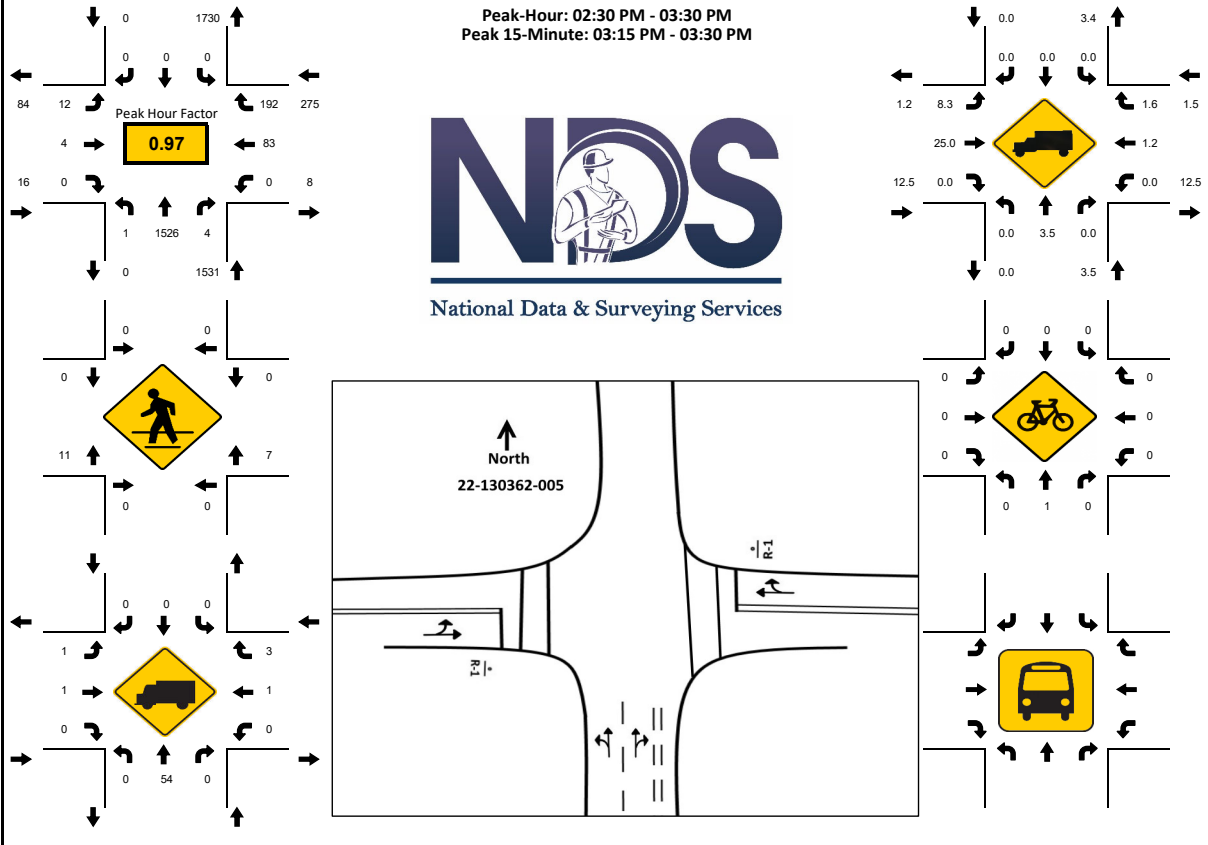
PROJECT ID: 22-130362-005
DATE: Tue, Dec 06, 2022



15-Min Count Period Beginning At	SR 527/Hansel Ave Northbound					SR 527/Hansel Ave Southbound					Waltham Ave Eastbound					Waltham Ave Westbound					Total	Hourly Total
	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*		
07:00 AM	0	377	6	0		0	0	0	0		0	5	0	0		0	5	5	0		398	1781
07:15 AM	0	404	8	0		0	0	0	0		2	7	0	0		0	13	16	0		450	1811
07:30 AM	1	386	0	0		0	0	0	0		3	0	0	0		0	33	65	0		488	1731
07:45 AM	0	265	0	0		0	0	0	0		2	0	0	0		0	47	131	0		445	1603
08:00 AM	0	387	1	0		0	0	0	0		2	0	0	0		0	13	25	0		428	1523
08:15 AM	1	353	2	0		0	0	0	0		4	0	0	0		0	3	7	0		370	1095
08:30 AM	3	350	0	0		0	0	0	0		1	0	0	0		0	3	3	0		360	725
08:45 AM	0	357	3	0		0	0	0	0		1	2	0	0		0	2	0	0		365	365
Peak 15-Min Flowrates	Northbound					Southbound					Eastbound					Westbound					Total	
All Vehicles	4	1616	32	0		0	0	0	0		12	28	0	0		0	188	524	0		2404	
Heavy Trucks	0	124	0	0		0	0	0	0		4	0	0	0		0	4	4	0		136	
Pedestrians	0	0	0	0		0	0	0	0		12	0	0	0		0	0	0	0		12	
Bicycles	0	0	0	0		0	4	0	0		0	0	0	0		0	0	0	0		4	
Buses																						
Stopped Buses																						

LOCATION: SR 527/Hansel Ave & Waltham Ave
 CITY/STATE: Orlando, FL

PROJECT ID: 22-130362-005
 DATE: Tue, Dec 06, 2022



15-Min Count Period Beginning At	SR 527/Hansel Ave Northbound					SR 527/Hansel Ave Southbound					Waltham Ave Eastbound					Waltham Ave Westbound					Total	Hourly Total
	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*		
02:00 PM	1	363	2	0		0	0	0	0		2	0	0	0		0	1	3	0		372	1672
02:15 PM	2	404	3	0		0	0	0	0		1	2	0	0		0	1	2	0		415	1767
02:30 PM	0	337	0	0		0	0	0	0		2	0	0	0		0	28	71	0		438	1822
02:45 PM	0	331	0	0		0	0	0	0		5	0	0	0		0	35	76	0		447	1799
03:00 PM	0	415	2	0		0	0	0	0		4	1	0	0		0	15	30	0		467	1790
03:15 PM	1	443	2	0		0	0	0	0		1	3	0	0		0	5	15	0		470	1323
03:30 PM	0	388	5	0		0	0	0	0		2	1	0	0		0	4	15	0		415	853
03:45 PM	1	414	3	0		0	0	0	0		2	4	0	0		0	3	11	0		438	438
Peak 15-Min Flowrates	Northbound					Southbound					Eastbound					Westbound					Total	
All Vehicles	4	1772	8	0		0	0	0	0		20	12	0	0		0	140	304	0		2260	
Heavy Trucks	0	68	0	0		0	0	0	0		4	4	0	0		0	4	8	0		88	
Pedestrians	0	0	0	0		0	0	0	0		0	24	0	0		0	20	0	0		44	
Bicycles	0	4	0	0		0	0	0	0		0	0	0	0		0	0	0	0		4	
Buses																						
Stopped Buses																						



National Data & Surveying Services

Site Code: 22-130362-005

Date: 12/06/2022

Weather: Sunny

City: Orlando

County: Orange

Count Times: 07:00 - 09:00

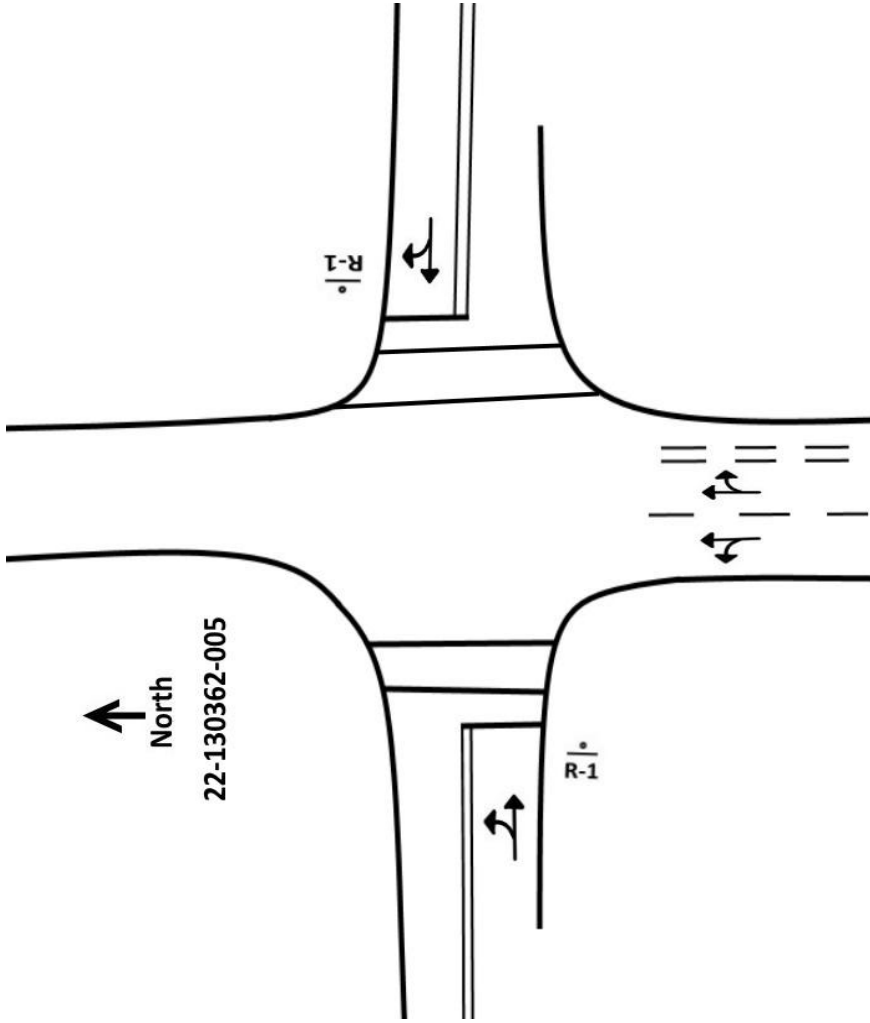
14:00 - 16:00

Control: 2-Way Stop(EB/WB)



N/S Street: SR 527/Hansel Ave

Speed: 40 MPH



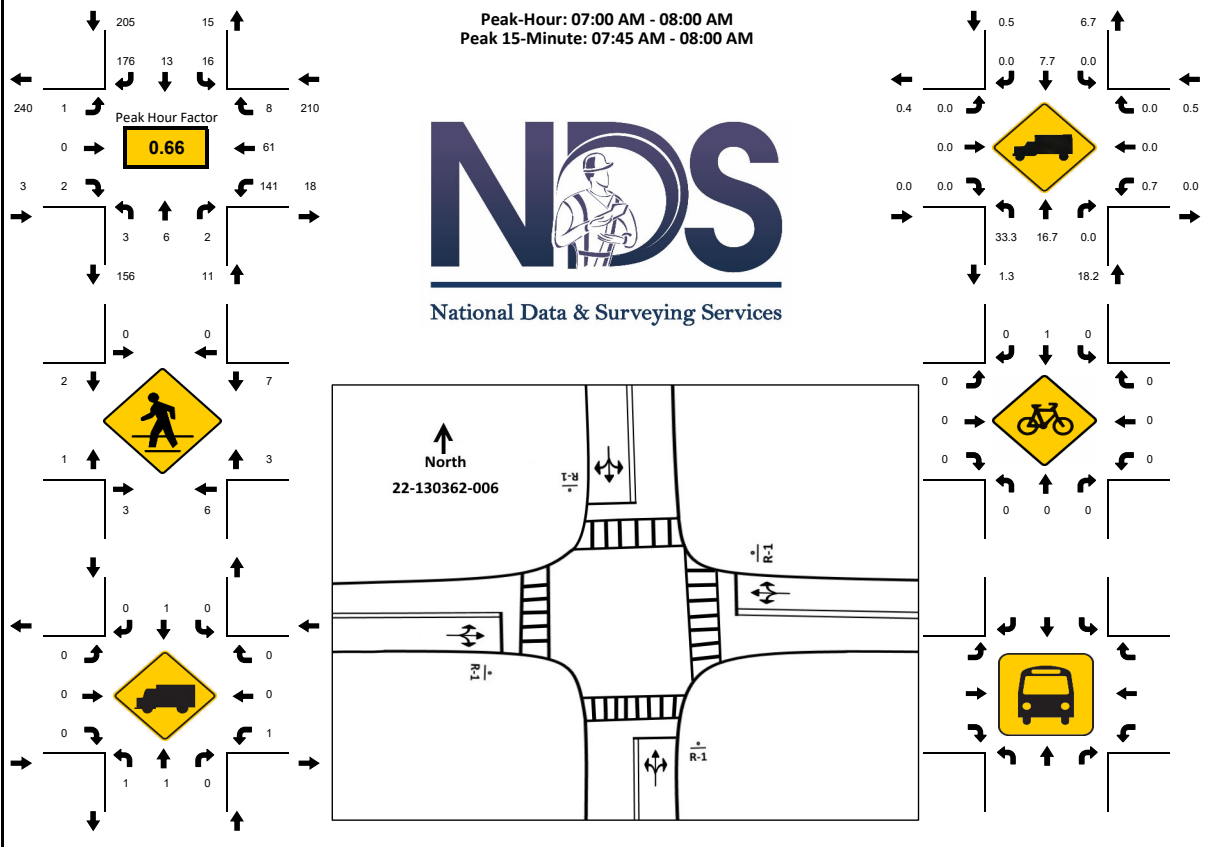
E/W Street: Waltham Ave

Speed: 25 MPH

a.

LOCATION: Randolph Ave & Waltham Ave
 CITY/STATE: Orlando, FL

PROJECT ID: 22-130362-006
 DATE: Tue, Dec 06, 2022

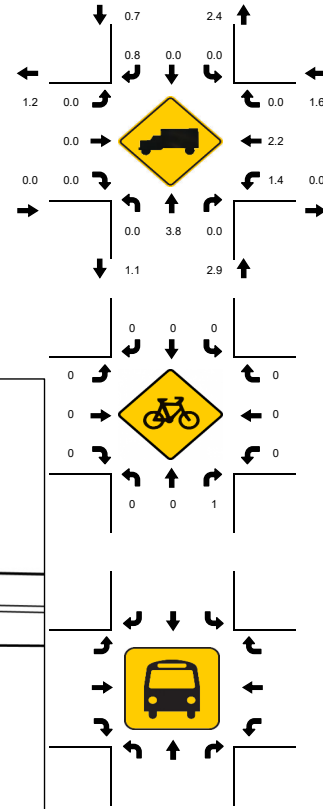
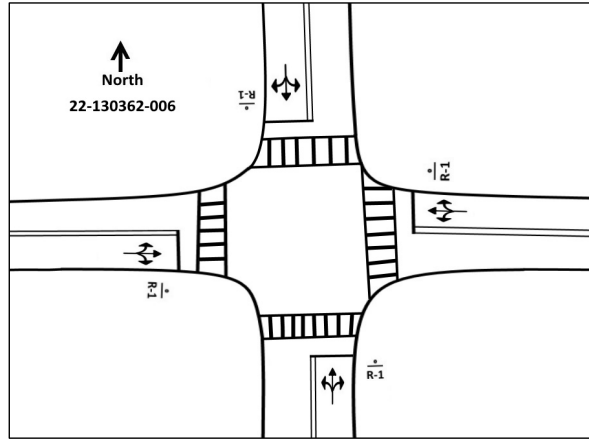
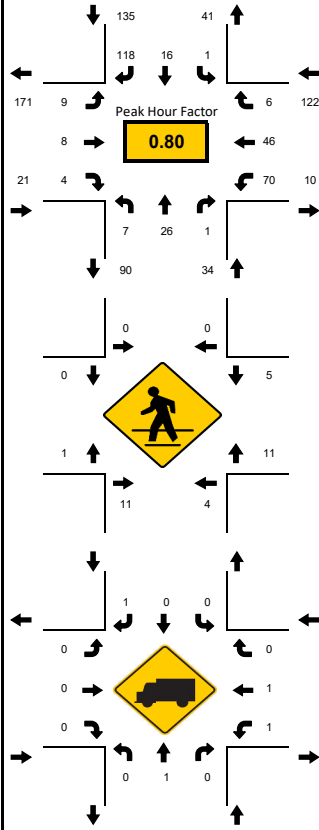
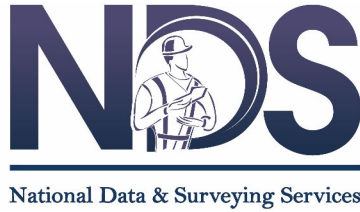


15-Min Count Period Beginning At	Randolph Ave Northbound					Randolph Ave Southbound					Waltham Ave Eastbound					Waltham Ave Westbound					Total	Hourly Total
	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*		
07:00 AM	1	1	0	0		4	9	10	0		0	0	2	0		9	12	0	0		48	429
07:15 AM	1	5	2	0		7	2	25	0		1	0	0	0		13	25	1	0		82	418
07:30 AM	0	0	0	0		4	0	59	0		0	0	0	0		49	19	5	0		136	354
07:45 AM	1	0	0	0		1	2	82	0		0	0	0	0		70	5	2	0		163	232
08:00 AM	7	9	1	0		0	5	6	0		0	2	1	0		3	3	0	0		37	93
08:15 AM	4	2	0	0		0	4	2	0		0	1	2	0		0	3	0	0		18	56
08:30 AM	1	5	0	0		0	3	3	0		0	0	0	0		0	2	0	0		14	38
08:45 AM	0	4	1	0		0	6	2	0		3	1	1	0		6	0	0	0		24	24
Peak 15-Min Flowrates	Northbound					Southbound					Eastbound					Westbound					Total	
All Vehicles	4	20	8	0		28	36	328	0		4	0	8	0		280	100	20	0		836	
Heavy Trucks	4	4	0	0		0	4	0	0		0	0	0	0		4	0	0	0		16	
Pedestrians		20					0					12					28				60	
Bicycles	0	0	0	0		0	4	0	0		0	0	0	0		0	0	0	0		4	
Buses																						
Stopped Buses																						

LOCATION: Randolph Ave & Waltham Ave
 CITY/STATE: Orlando, FL

PROJECT ID: 22-130362-006
 DATE: Tue, Dec 06, 2022

Peak-Hour: 02:30 PM - 03:30 PM
 Peak 15-Minute: 02:45 PM - 03:00 PM



15-Min Count Period Beginning At	Randolph Ave Northbound					Randolph Ave Southbound					Waltham Ave Eastbound					Waltham Ave Westbound					Total	Hourly Total
	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*		
02:00 PM	0	6	3	0		0	6	12	0		1	0	1	0		3	4	1	0		37	270
02:15 PM	1	3	1	0		0	3	6	0		2	3	0	0		31	0	0	0		50	282
02:30 PM	0	0	0	0		0	0	50	0		0	0	0	0		32	3	0	0		85	312
02:45 PM	0	0	0	0		0	0	54	0		0	0	0	0		23	17	4	0		98	286
03:00 PM	0	8	0	0		0	4	6	0		2	2	1	0		4	20	2	0		49	246
03:15 PM	7	18	1	0		1	12	8	0		7	6	3	0		11	6	0	0		80	197
03:30 PM	9	4	4	0		2	13	4	0		3	9	3	0		2	6	0	0		59	117
03:45 PM	5	8	4	0		2	15	5	0		0	6	3	0		5	5	0	0		58	58
Peak 15-Min Flowrates	Northbound					Southbound					Eastbound					Westbound					Total	
All Vehicles	28	72	4	0		4	48	216	0		28	24	12	0		128	80	16	0		660	
Heavy Trucks	0	4	0	0		0	0	4	0		0	0	0	0		4	4	0	0		16	
Pedestrians		28					0					4					32				64	
Bicycles	0	0	4	0		0	0	0	0		0	0	0	0		0	0	0	0		4	
Buses																						
Stopped Buses																						



National Data & Surveying Services

Site Code: 22-130362-006

Date: 12/06/2022

Weather: Sunny

City: Orlando

County: Orange

Count Times: 07:00 - 09:00

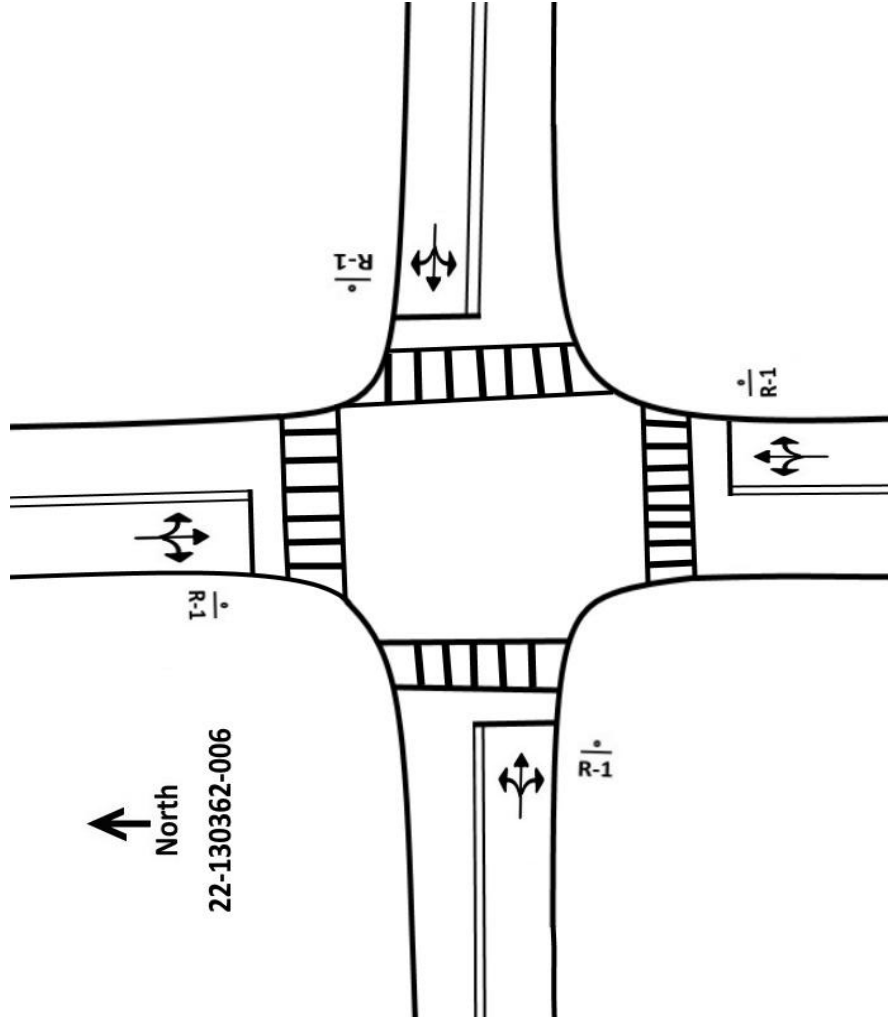
14:00 - 16:00

Control: 4-Way Stop



N/S Street: **Randolph Ave**

Speed: **25 MPH**



E/W Street: **Waltham Ave**

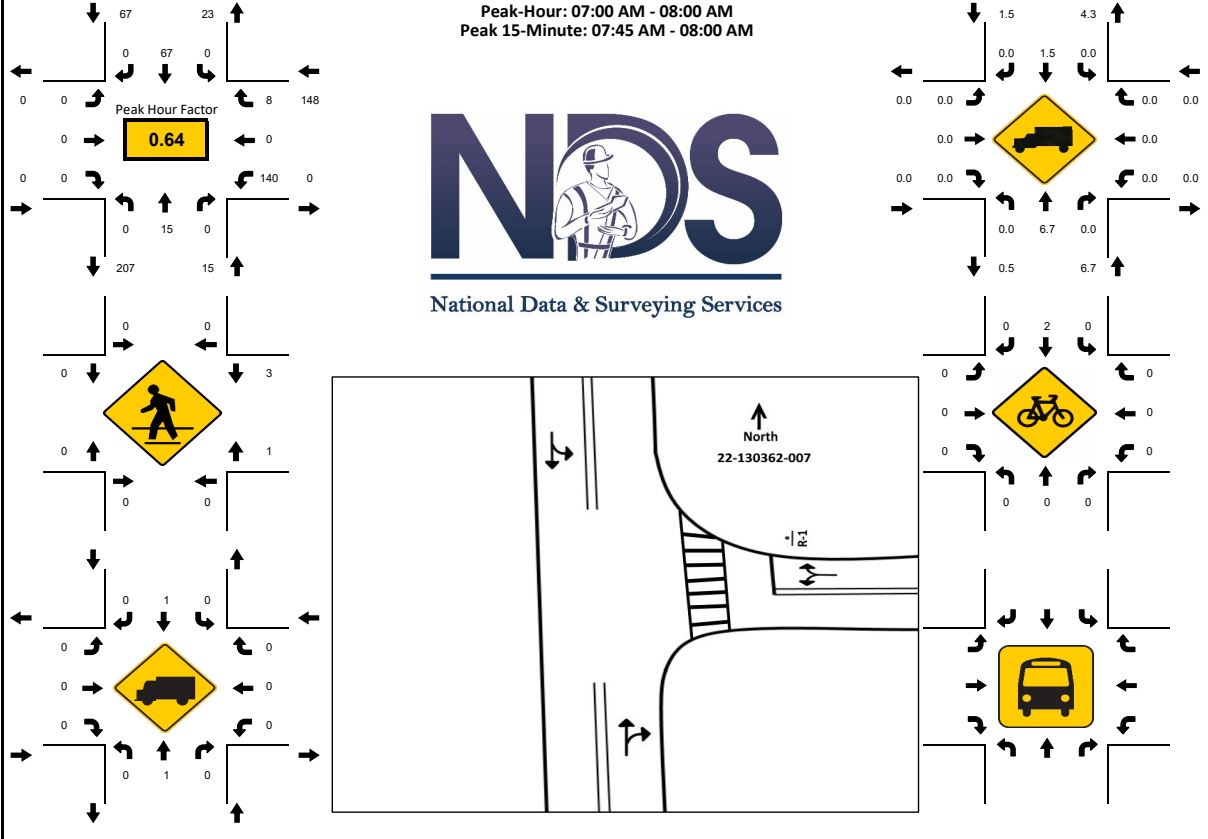
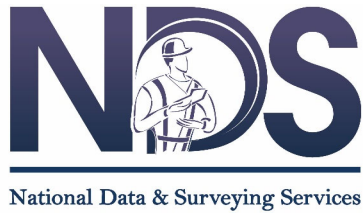
Speed: **25 MPH**

a.

LOCATION: Randolph Ave & Wilks Ave
 CITY/STATE: Orlando, FL

PROJECT ID: 22-130362-007
 DATE: Tue, Dec 06, 2022

Peak-Hour: 07:00 AM - 08:00 AM
 Peak 15-Minute: 07:45 AM - 08:00 AM

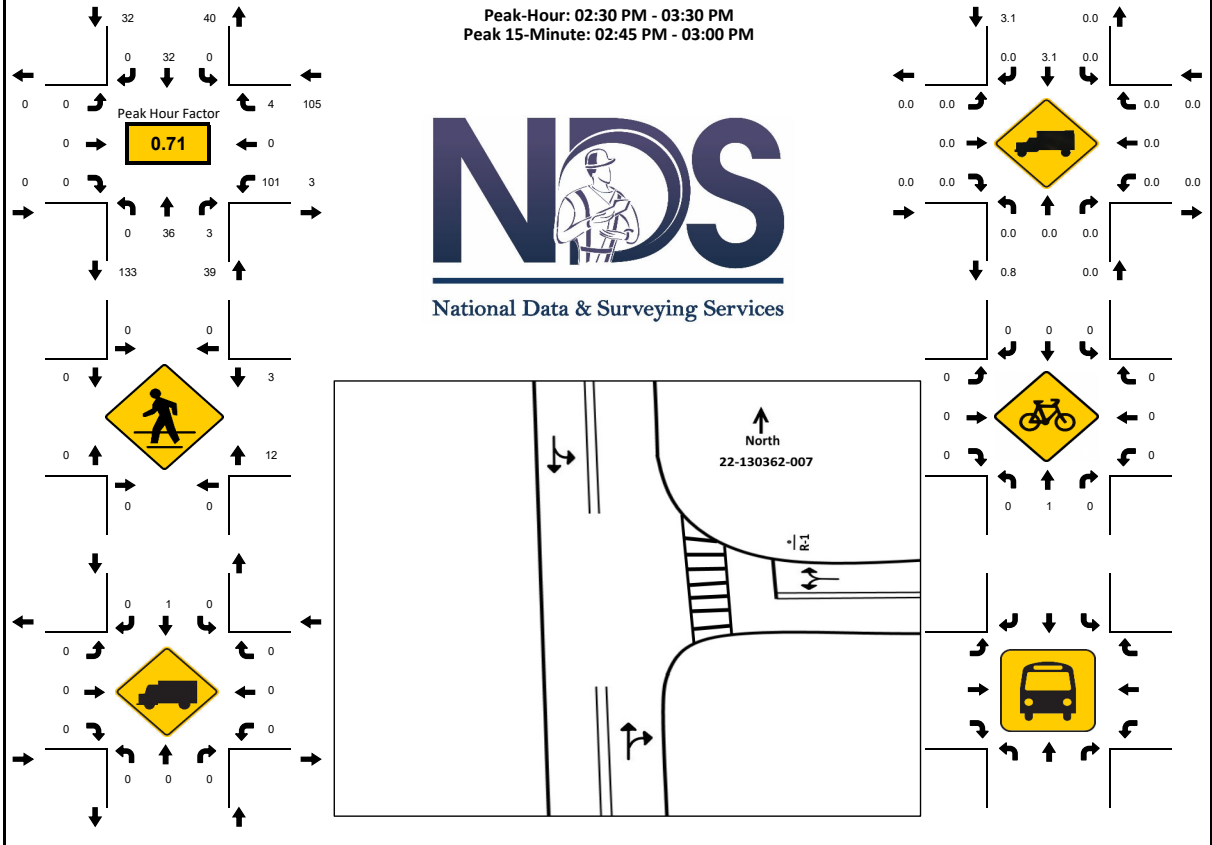


15-Min Count Period Beginning At	Randolph Ave Northbound					Randolph Ave Southbound					Wilks Ave Eastbound					Wilks Ave Westbound					Total	Hourly Total
	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*		
07:00 AM	0	1	0	0	0	0	23	0	0	0	0	0	0	0	0	1	0	1	0	0	26	230
07:15 AM	0	7	0	0	0	0	18	0	0	0	0	0	0	0	0	19	0	2	0	0	46	224
07:30 AM	0	4	0	0	0	0	12	0	0	0	0	0	0	0	0	48	0	4	0	0	68	186
07:45 AM	0	3	0	0	0	0	14	0	0	0	0	0	0	0	0	72	0	1	0	0	90	128
08:00 AM	0	9	0	0	0	0	8	0	0	0	0	0	0	0	0	2	0	1	0	0	20	54
08:15 AM	0	2	0	0	0	0	5	0	0	0	0	0	0	0	0	1	0	0	0	0	8	34
08:30 AM	0	4	0	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	10	26
08:45 AM	0	8	0	0	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	16	16
Peak 15-Min Flowrates	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Total	
All Vehicles	0	28	0	0	0	0	92	0	0	0	0	0	0	0	0	288	0	16	0	0	424	
Heavy Trucks	0	4	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	8	
Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16	0	0	0	16	
Bicycles	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	4	
Buses																						
Stopped Buses																						

LOCATION: Randolph Ave & Wilks Ave
 CITY/STATE: Orlando, FL

PROJECT ID: 22-130362-007
 DATE: Tue, Dec 06, 2022

Peak-Hour: 02:30 PM - 03:30 PM
 Peak 15-Minute: 02:45 PM - 03:00 PM



15-Min Count Period Beginning At	Randolph Ave Northbound					Randolph Ave Southbound					Wilks Ave Eastbound					Wilks Ave Westbound					Total	Hourly Total
	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*		
02:00 PM	0	6	1	0		0	11	0	0		0	0	0	0		6	0	0	0		24	153
02:15 PM	0	5	0	1		0	10	0	0		0	0	0	0		2	0	1	0		19	147
02:30 PM	0	0	0	0		0	0	0	0		0	0	0	0		46	0	2	0		48	176
02:45 PM	0	4	0	0		0	2	0	0		0	0	0	0		54	0	2	0		62	154
03:00 PM	0	9	1	0		0	7	0	0		0	0	0	0		1	0	0	0		18	124
03:15 PM	0	23	2	0		0	23	0	0		0	0	0	0		0	0	0	0		48	106
03:30 PM	0	8	0	0		0	17	0	0		0	0	0	0		0	0	1	0		26	58
03:45 PM	0	8	0	0		0	22	0	0		0	0	0	0		2	0	0	0		32	32
Peak 15-Min Flowrates	Northbound					Southbound					Eastbound					Westbound					Total	
All Vehicles	0	92	8	0		0	92	0	0		0	0	0	0		216	0	8	0		416	
Heavy Trucks	0	0	0	0		0	4	0	0		0	0	0	0		0	0	0	0		4	
Pedestrians	0					0	0				0					24					24	
Bicycles	0	4	0	0		0	0	0	0		0	0	0	0		0	0	0	0		4	
Buses																						
Stopped Buses																						



National Data & Surveying Services

Site Code: 22-130362-007

Date: 12/06/2022

Weather: Sunny

City: Orlando

County: Orange

Count Times: 07:00 - 09:00

14:00 - 16:00

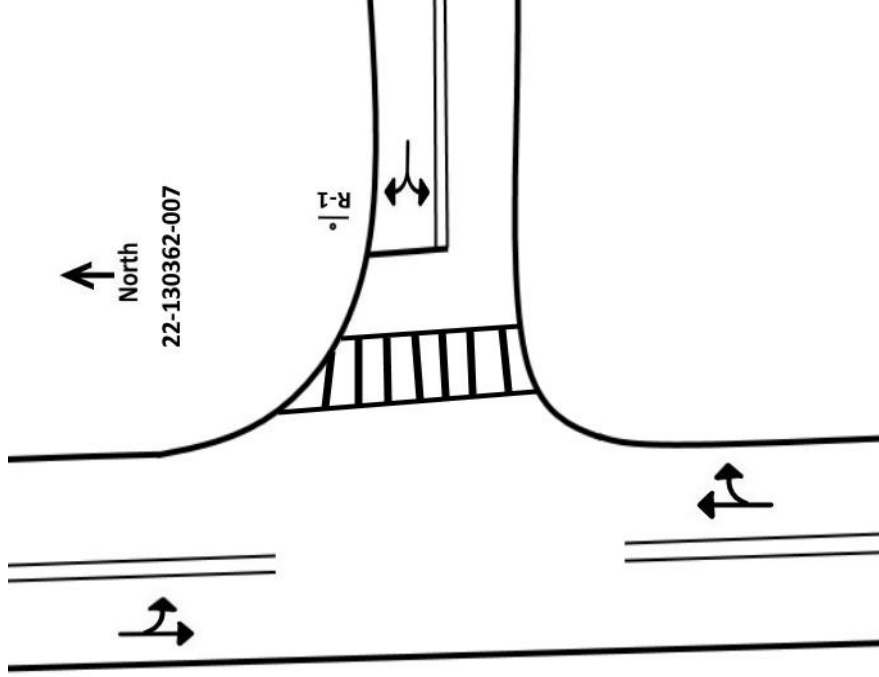
Control: 1-Way Stop(WB)



N/S Street: **Randolph Ave**

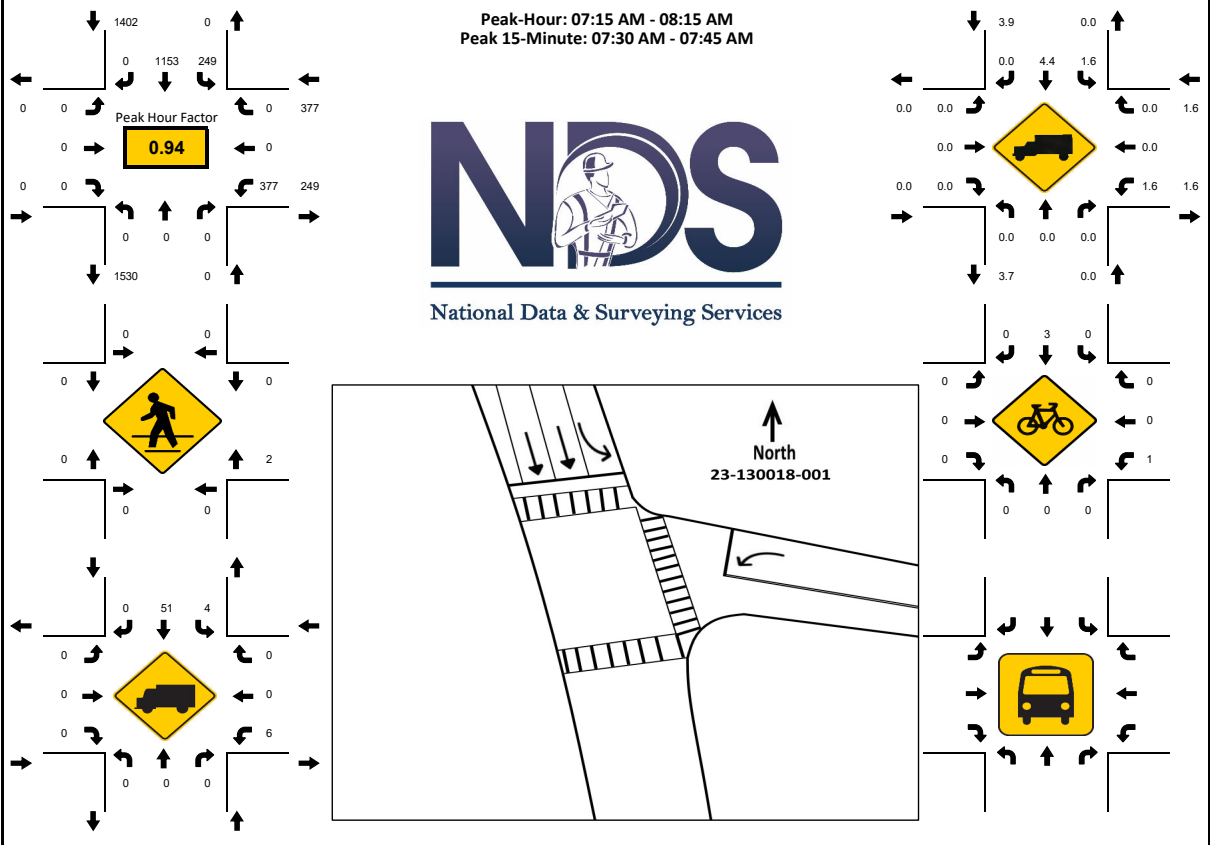
Speed: **25 MPH**

E/W Street: **Wilks Ave** Speed: **N/A**



a.

LOCATION: S Orange Ave & Hoffner Ave
 CITY/STATE: Orlando, FL
 PROJECT ID: 23-130018-001
 DATE: Thu, Jan 19, 2023

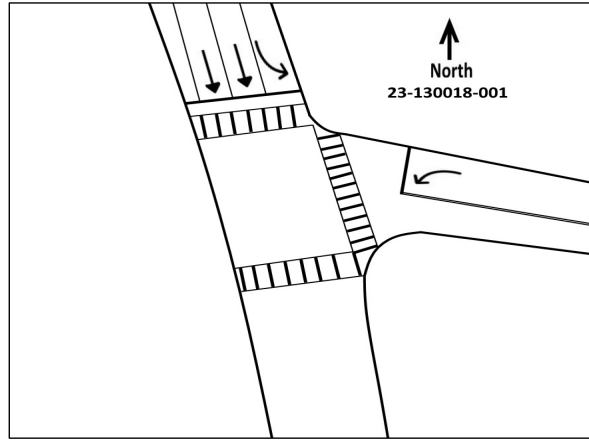
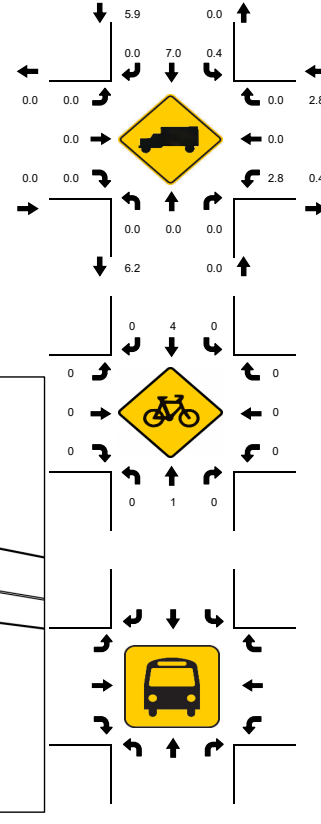
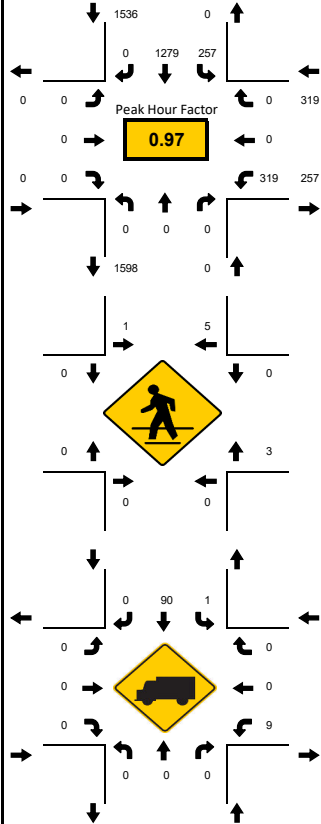
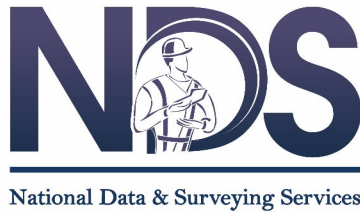


15-Min Count Period Beginning At	S Orange Ave Northbound					S Orange Ave Southbound					Hoffner Ave Eastbound					Hoffner Ave Westbound					Total	Hourly Total
	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*		
7:00 AM	0	0	0	0	0	39	220	0	0	0	0	0	0	0	0	83	0	0	0	0	342	1697
7:15 AM	0	0	0	0	0	58	322	0	0	0	0	0	0	0	0	85	0	0	0	0	465	1779
7:30 AM	0	0	0	0	0	79	304	0	0	0	0	0	0	0	0	88	0	0	0	0	471	1683
7:45 AM	0	0	0	0	0	66	257	0	0	0	0	0	0	0	0	96	0	0	0	0	419	1615
8:00 AM	0	0	0	0	0	46	270	0	0	0	0	0	0	0	0	108	0	0	0	0	424	1606
8:15 AM	0	0	0	0	0	48	238	0	0	0	0	0	0	0	0	83	0	0	0	0	369	1182
8:30 AM	0	0	0	0	0	44	261	0	0	0	0	0	0	0	0	98	0	0	0	0	403	813
8:45 AM	0	0	0	0	0	47	274	0	0	0	0	0	0	0	0	89	0	0	0	0	410	410
Peak 15-Min Flowrates	Northbound					Southbound					Eastbound					Westbound					Total	
All Vehicles	0	0	0	0	0	316	1288	0	0	0	0	0	0	0	0	432	0	0	0	0	2036	
Heavy Trucks	0	0	0	0	0	8	64	0	0	0	0	0	0	0	0	12	0	0	0	0	84	
Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	8	
Bicycles	0	0	0	0	0	0	8	0	0	0	0	0	0	0	0	4	0	0	0	0	12	
Buses																						
Stopped Buses																						

LOCATION: S Orange Ave & Hoffner Ave
CITY/STATE: Orlando, FL

PROJECT ID: 23-130018-001
DATE: Thu, Jan 19, 2023

Peak-Hour: 02:30 PM - 03:30 PM
Peak 15-Minute: 02:30 PM - 02:45 PM



15-Min Count Period Beginning At	S Orange Ave Northbound					S Orange Ave Southbound					Hoffner Ave Eastbound					Hoffner Ave Westbound					Total	Hourly Total
	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*		
2:00 PM	0	0	0	0	0	55	278	0	0	0	0	0	0	0	0	72	0	0	0	0	405	1756
2:15 PM	0	0	0	0	0	58	261	0	0	0	0	0	0	0	0	85	0	0	0	0	404	1793
2:30 PM	0	0	0	0	0	62	327	0	0	0	0	0	0	0	0	89	0	0	0	0	478	1855
2:45 PM	0	0	0	0	0	66	305	0	0	0	0	0	0	0	0	98	0	0	0	0	469	1827
3:00 PM	0	0	0	0	0	58	315	0	0	0	0	0	0	0	0	69	0	0	0	0	442	1805
3:15 PM	0	0	0	0	0	71	332	0	0	0	0	0	0	0	0	63	0	0	0	0	466	1363
3:30 PM	0	0	0	0	0	70	302	0	0	0	0	0	0	0	0	78	0	0	0	0	450	897
3:45 PM	0	0	0	0	0	63	294	0	0	0	0	0	0	0	0	90	0	0	0	0	447	447
Peak 15-Min Flowrates	Northbound					Southbound					Eastbound					Westbound					Total	
All Vehicles	0	0	0	0	0	284	1328	0	0	0	0	0	0	0	0	392	0	0	0	0	2004	
Heavy Trucks	0	0	0	0	0	4	124	0	0	0	0	0	0	0	0	12	0	0	0	0	140	
Pedestrians	0	0	0	0	0	0	16	0	0	0	0	0	0	0	0	8	0	0	0	0	24	
Bicycles	0	4	0	0	0	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	16	
Buses																						
Stopped Buses																						



National Data & Surveying Services

Site Code: **23-130018-001**

Date: **01/19/2023**

Weather: **Sunny**

City: **Orlando**

County: **Orange**

Count Times: **07:00 - 09:00**

14:00 - 16:00

Control: **Signalized**

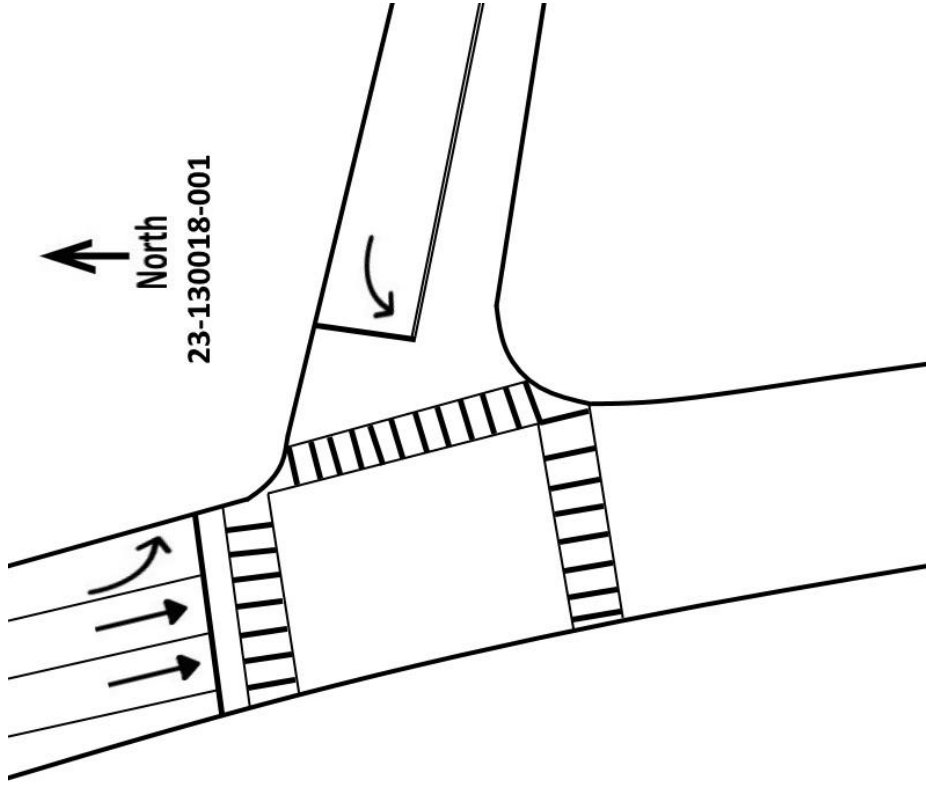
SIGNAL TIMING

PHASES	1	2	3
SL/ST	00:55	00:55	00:59
WL	00:35	00:20	00:32



N/S Street: **S Orange Ave**

Speed: **35 MPH**



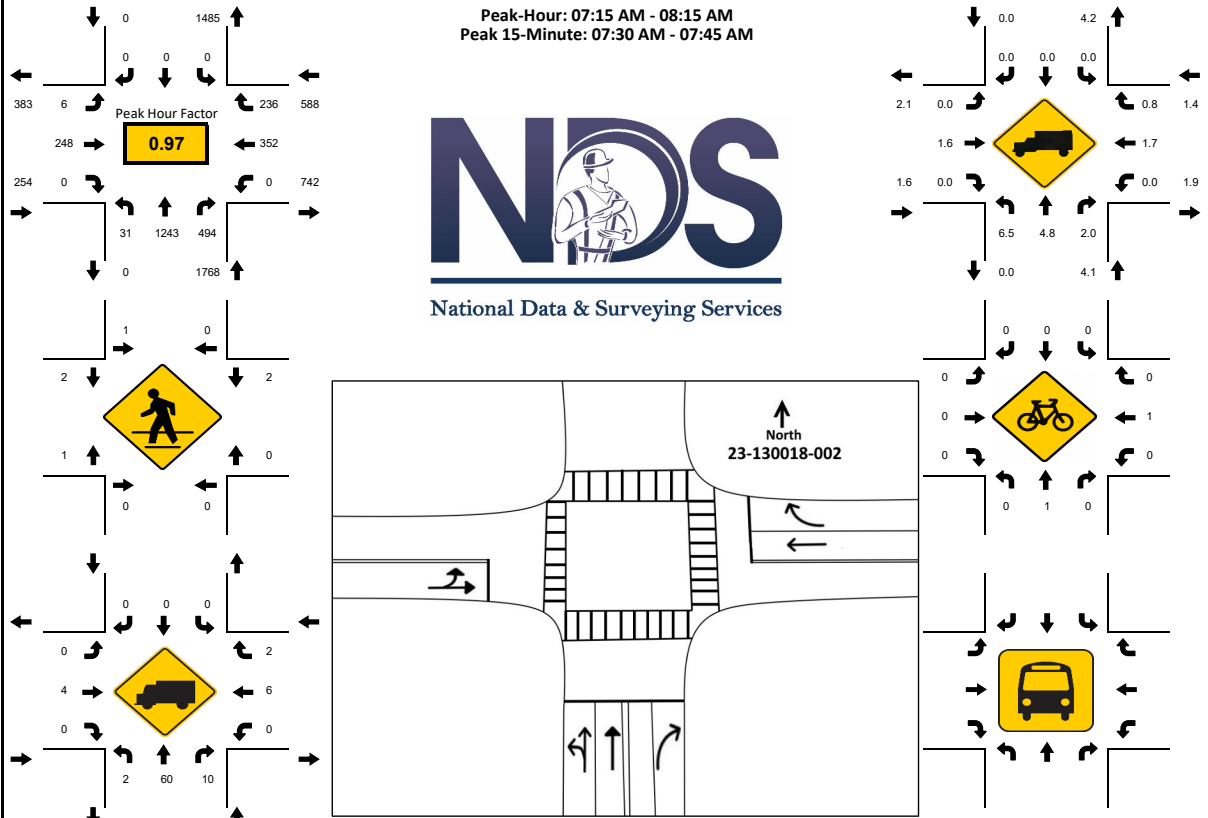
E/W Street: **Hoffner Ave**

Speed: **30 MPH**

a.

LOCATION: Hansel Ave & Hoffner Ave
 CITY/STATE: Orlando, FL

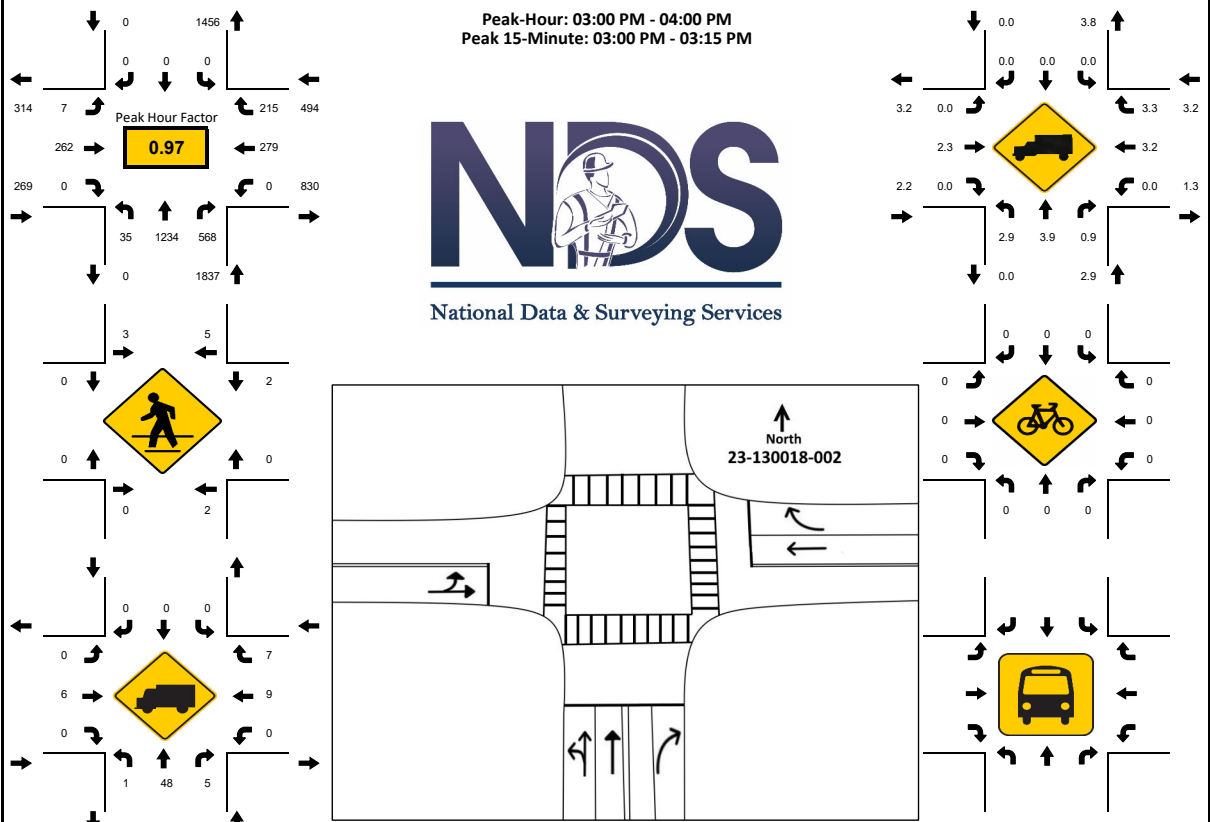
PROJECT ID: 23-130018-002
 DATE: Thu, Jan 19, 2023



15-Min Count Period Beginning At	Hansel Ave Northbound					Hansel Ave Southbound					Hoffner Ave Eastbound					Hoffner Ave Westbound					Total	Hourly Total
	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*		
7:00 AM	1	309	74	0		0	0	0	0		1	38	0	0		0	85	67	0		575	2541
7:15 AM	3	327	101	0		0	0	0	0		0	63	0	0		0	89	57	0		640	2610
7:30 AM	8	309	151	0		0	0	0	0		2	81	0	0		0	78	45	0		674	2540
7:45 AM	13	286	148	0		0	0	0	0		1	63	0	0		0	84	57	0		652	2392
8:00 AM	7	321	94	0		0	0	0	0		3	41	0	0		0	101	77	0		644	2271
8:15 AM	7	293	70	0		0	0	0	0		1	42	0	0		0	83	74	0		570	1627
8:30 AM	3	246	77	0		0	0	0	0		2	38	0	0		0	100	60	0		526	1057
8:45 AM	4	263	69	0		0	0	0	0		0	45	0	0		0	79	71	0		531	531
Peak 15-Min Flowrates	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Total	
All Vehicles	52	1308	604	0		0	0	0	0		12	324	0	0		0	404	308	0		3012	
Heavy Trucks	8	92	16	0		0	0	0	0		0	8	0	0		0	8	4	0		136	
Pedestrians	0	0	0	0		0	0	4	0		0	8	0	0		0	8	0	0		20	
Bicycles	0	4	0	0		0	0	0	0		0	0	0	0		0	4	0	0		8	
Buses																						
Stopped Buses																						

LOCATION: Hansel Ave & Hoffner Ave
 CITY/STATE: Orlando, FL

PROJECT ID: 23-130018-002
 DATE: Thu, Jan 19, 2023



15-Min Count Period Beginning At	Hansel Ave Northbound					Hansel Ave Southbound					Hoffner Ave Eastbound					Hoffner Ave Westbound					Total	Hourly Total
	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*		
2:00 PM	9	254	87	0		0	0	0	0		1	54	0	0		0	68	47	0		520	2359
2:15 PM	4	272	116	0		0	0	0	0		2	61	0	0		0	80	48	0		583	2506
2:30 PM	10	253	170	0		0	0	0	0		2	50	0	0		0	77	57	0		619	2544
2:45 PM	7	259	156	0		0	0	0	0		1	81	0	0		0	82	51	0		637	2583
3:00 PM	13	312	159	0		0	0	0	0		3	54	0	0		0	67	59	0		667	2600
3:15 PM	6	302	106	0		0	0	0	0		1	81	0	0		0	61	64	0		621	1933
3:30 PM	11	317	152	0		0	0	0	0		2	64	0	0		0	72	40	0		658	1312
3:45 PM	5	303	151	0		0	0	0	0		1	63	0	0		0	79	52	0		654	654
Peak 15-Min Flowrates	Northbound					Southbound					Eastbound					Westbound					Total	
All Vehicles	52	1268	636	0		0	0	0	0		12	324	0	0		0	316	256	0		2864	2864
Heavy Trucks	4	64	12	0		0	0	0	0		0	16	0	0		0	20	16	0		132	132
Pedestrians		8					12					0					8				28	28
Bicycles	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0		0	0
Buses																						
Stopped Buses																						



National Data & Surveying Services

Site Code: **23-130018-002**

Date: **01/19/2023**

Weather: **Sunny**

City: **Orlando**

County: **Orange**

Count Times: **07:00 - 09:00**

14:00 - 16:00

Control: **Signalized**

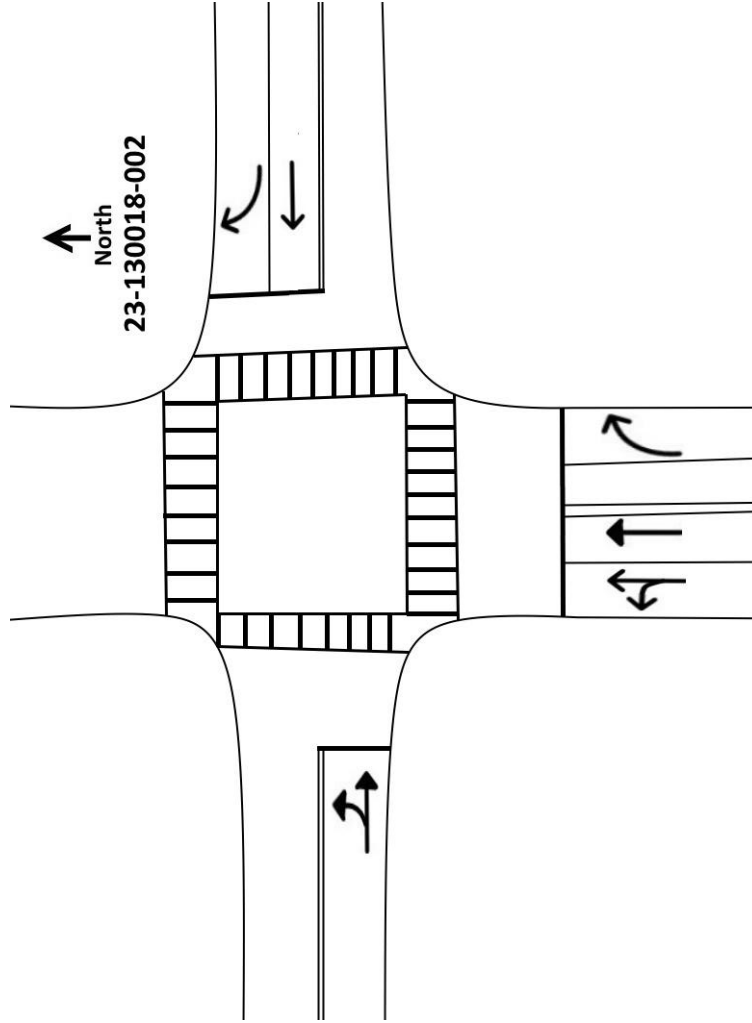
SIGNAL TIMING

PHASES	1	2	3
NL/NT	01:32	01:17	01:21
ET/WT	00:53	00:52	00:52



N/S Street: **Hansel Ave**

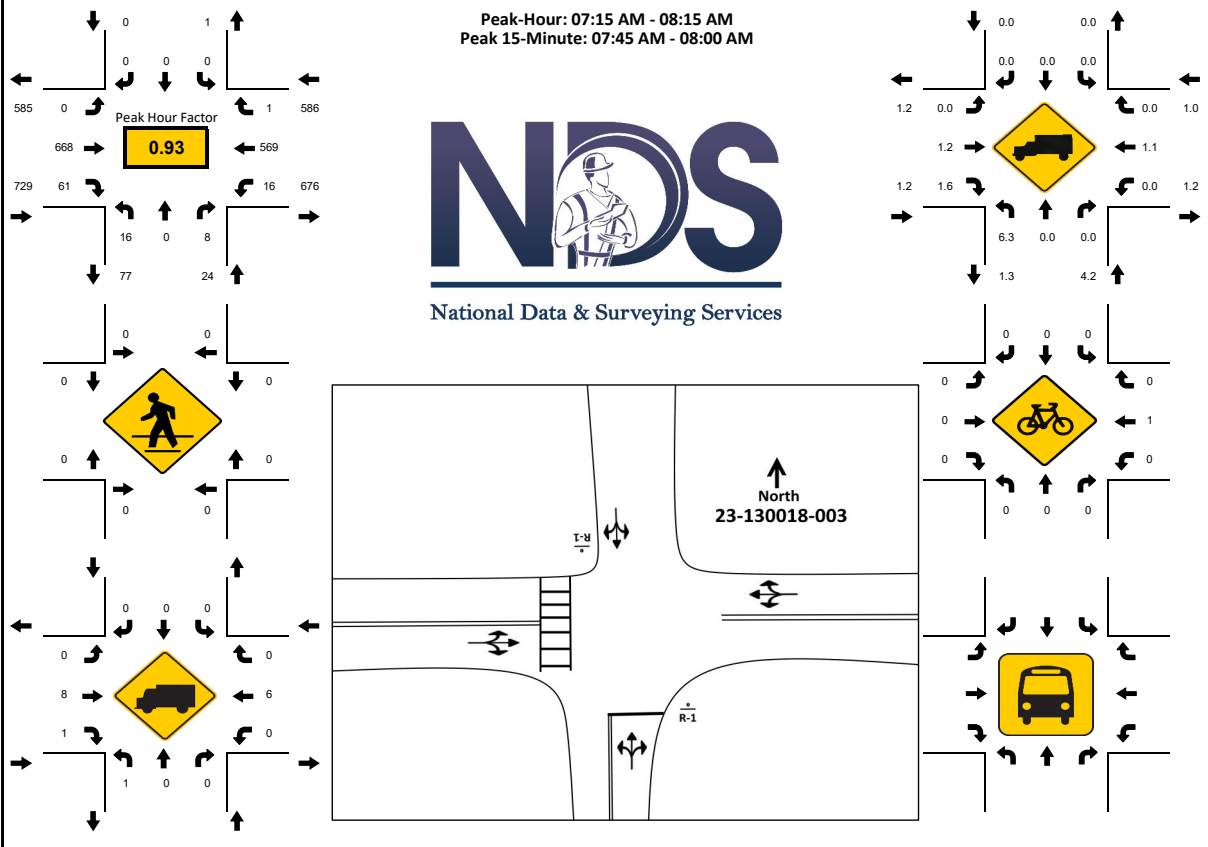
Speed: **40 MPH**



E/W Street: **Hoffner Ave**

Speed: **30 MPH**

a.

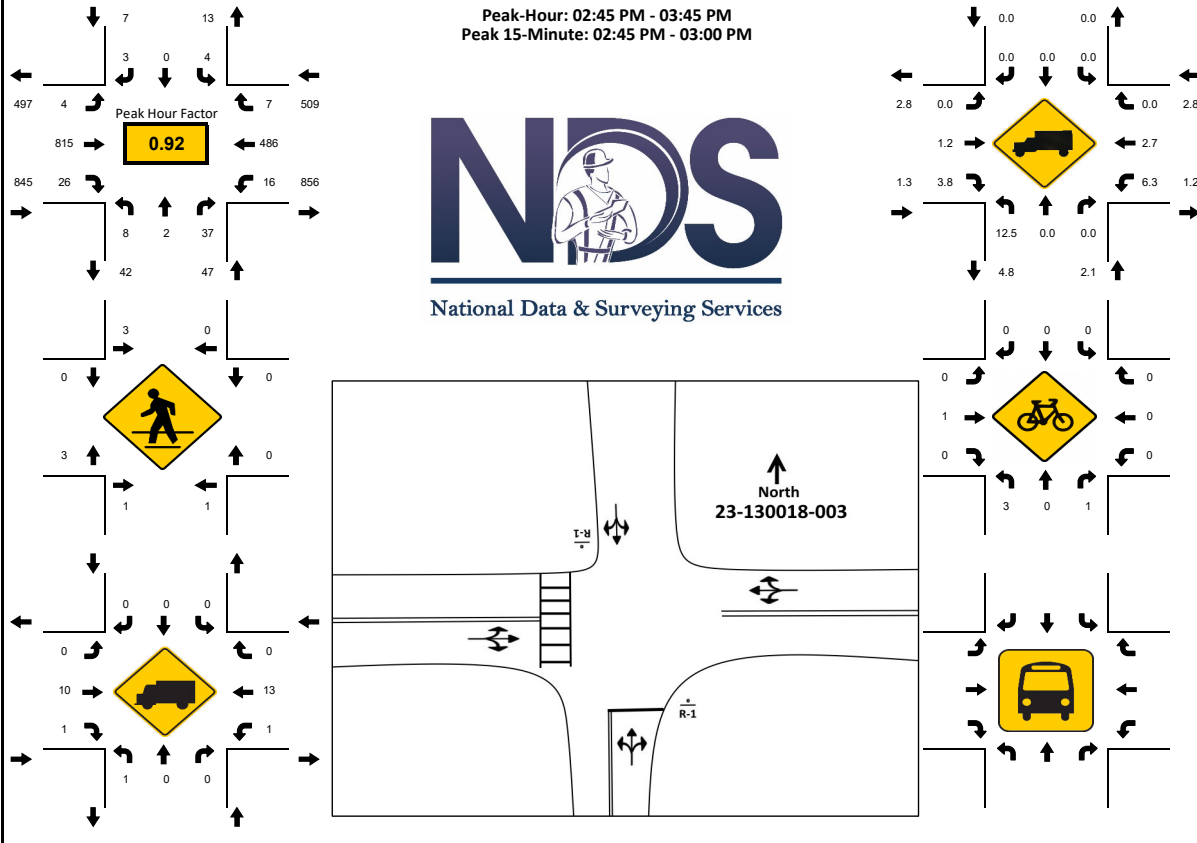
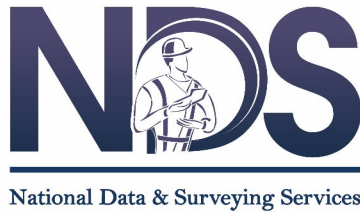


15-Min Count Period Beginning At	Randolph Ave Northbound					Randolph Ave Southbound					Hoffner Ave Eastbound				Hoffner Ave Westbound					Total	Hourly Total	
	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U			R*
7:00 AM	0	0	2	0		0	0	0	0		0	97	10	0		3	155	1	0		268	1305
7:15 AM	3	0	2	0		0	0	0	0		0	141	22	0		5	150	0	0		323	1339
7:30 AM	7	0	2	0		0	0	0	0		0	208	24	0		3	111	0	0		355	1298
7:45 AM	5	0	1	0		0	0	0	0		0	197	11	0		4	140	1	0		359	1222
8:00 AM	1	0	3	0		0	0	0	0		0	122	4	0		4	168	0	0		302	1155
8:15 AM	0	0	5	0		0	0	1	0		0	115	2	0		6	152	1	0		282	853
8:30 AM	0	0	2	0		0	0	0	0		0	115	5	0		4	153	0	0		279	571
8:45 AM	1	0	8	0		0	0	0	0		0	116	1	0		8	158	0	0		292	292
Peak 15-Min Flowrates	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Total	
All Vehicles	28	0	12	0		0	0	0	0		0	832	96	0		20	672	4	0		1664	
Heavy Trucks	4	0	0	0		0	0	0	0		0	24	4	0		0	16	0	0		48	
Pedestrians	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0		0	
Bicycles	0	0	0	0		0	0	0	0		0	0	0	0		0	4	0	0		4	
Buses																						
Stopped Buses																						

LOCATION: Randolph Ave & Hoffner Ave
CITY/STATE: Orlando, FL

PROJECT ID: 23-130018-003
DATE: Thu, Jan 19, 2023

Peak-Hour: 02:45 PM - 03:45 PM
Peak 15-Minute: 02:45 PM - 03:00 PM



15-Min Count Period Beginning At	Randolph Ave Northbound					Randolph Ave Southbound					Hoffner Ave Eastbound					Hoffner Ave Westbound					Total	Hourly Total
	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*		
2:00 PM	1	0	4	0		0	0	0	0		2	128	6	0		7	117	2	0		267	1320
2:15 PM	2	0	4	1		0	0	3	0		5	165	6	0		2	132	0	0		320	1404
2:30 PM	2	0	2	0		0	0	1	0		1	214	1	0		1	128	0	0		350	1404
2:45 PM	3	0	3	0		1	0	2	0		1	244	2	0		0	126	1	0		383	1408
3:00 PM	1	2	16	0		0	0	0	0		2	205	3	0		1	118	3	0		351	1390
3:15 PM	1	0	9	0		1	0	0	0		0	169	10	0		6	123	1	0		320	1039
3:30 PM	3	0	9	0		2	0	1	0		1	197	11	0		9	119	2	0		354	719
3:45 PM	1	1	14	0		0	0	1	0		2	214	5	0		6	119	2	0		365	365
Peak 15-Min Flowrates	Northbound					Southbound					Eastbound					Westbound					Total	
All Vehicles	12	8	64	0		8	0	8	0		8	976	44	0		36	504	12	0		1680	
Heavy Trucks	4	0	0	0		0	0	0	0		0	12	4	0		4	16	0	0		40	
Pedestrians		8						8				8					0				24	
Bicycles	12	0	4	0		0	0	0	0		0	4	0	0		0	0	0	0		20	
Buses																						
Stopped Buses																						



National Data & Surveying Services

Site Code: 23-130018-003

Date: 01/19/2023

Weather: Sunny

City: Orlando

County: Orange

Count Times: 07:00 - 09:00

14:00 - 16:00

Control: 2-Way Stop(NB/SB)



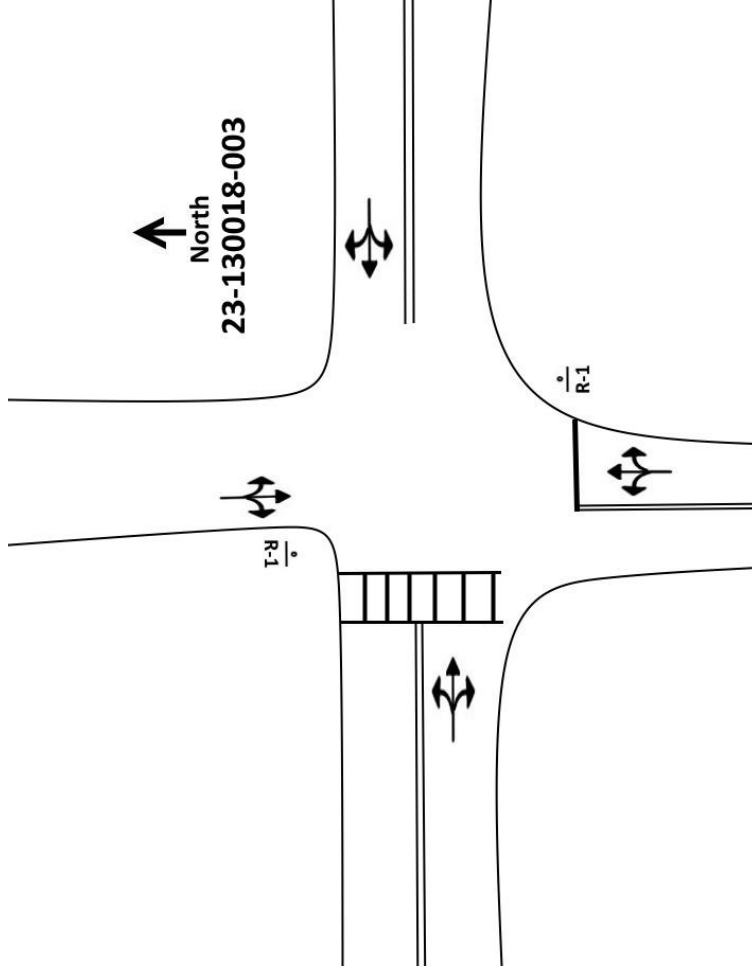
N/S Street: **Randolph Ave**

Speed: **25 MPH**

E/W Street: **Hoffner Ave**

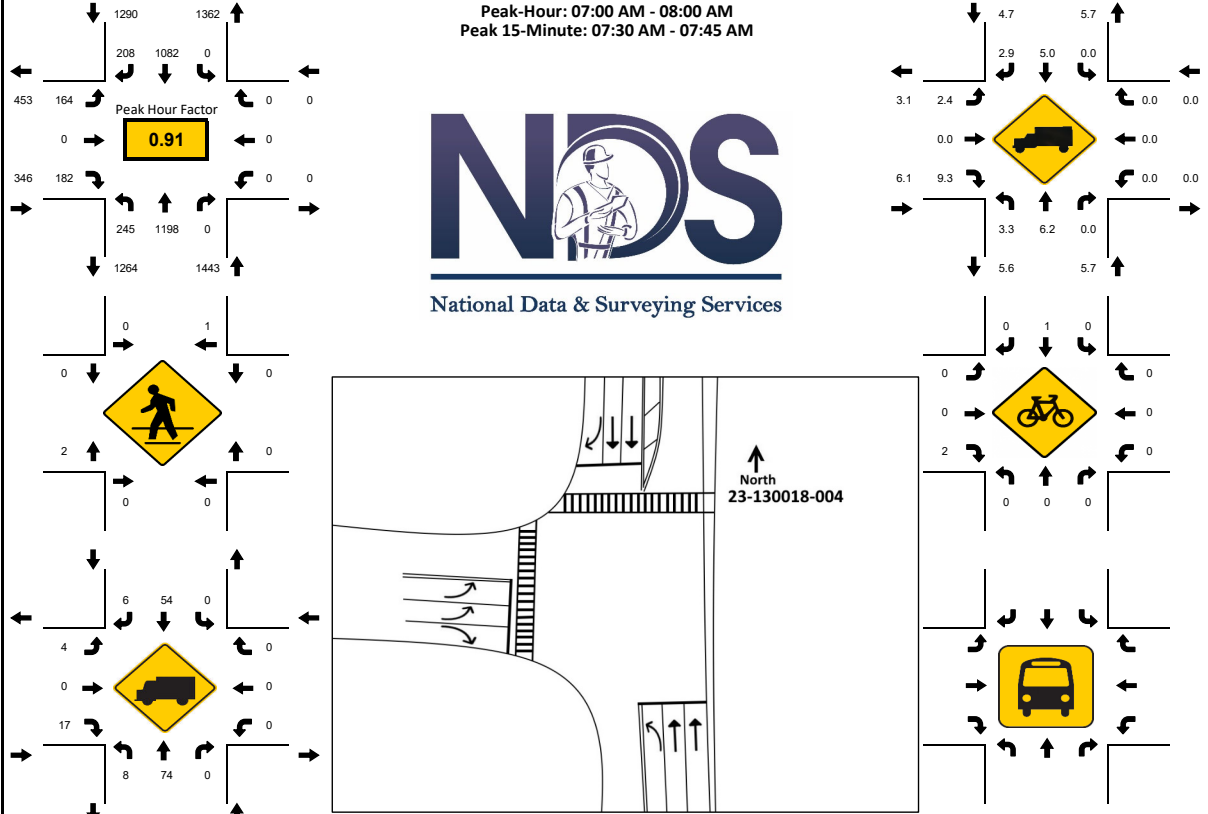
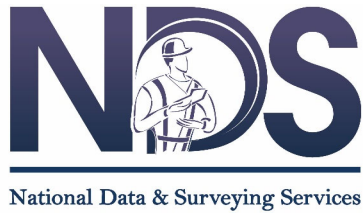
Speed: **35 MPH**

a.



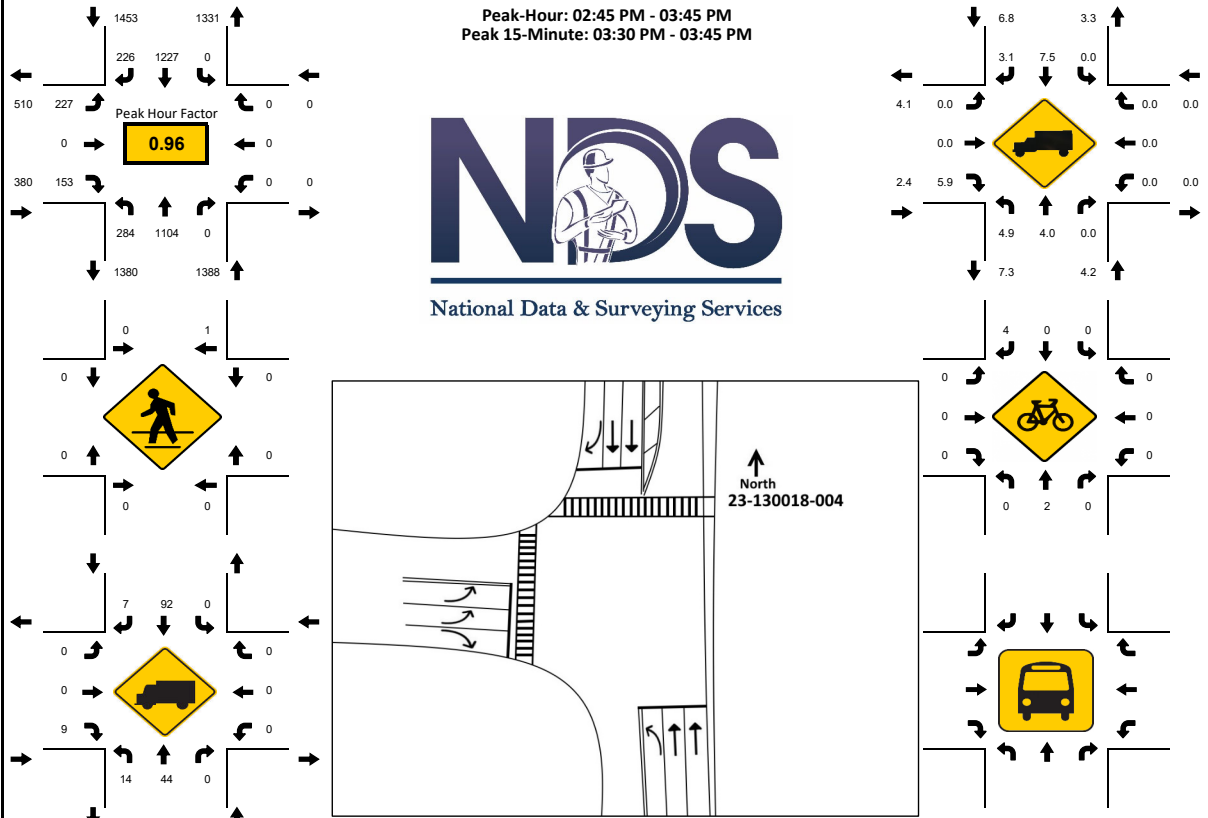
LOCATION: S Orange Ave & E Lancaster Rd
 CITY/STATE: Orlando, FL
 PROJECT ID: 23-130018-004
 DATE: Thu, Jan 19, 2023

Peak-Hour: 07:00 AM - 08:00 AM
 Peak 15-Minute: 07:30 AM - 07:45 AM



15-Min Count Period Beginning At	S Orange Ave Northbound					S Orange Ave Southbound					E Lancaster Rd Eastbound					E Lancaster Rd Westbound					Total	Hourly Total
	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*		
7:00 AM	41	317	0	0		0	212	36	0		52	0	39	0		0	0	0	0		697	3079
7:15 AM	64	365	0	0		0	250	51	0		52	0	39	0		0	0	0	0		821	3067
7:30 AM	53	304	0	0		0	339	61	0		38	0	52	0		0	0	0	0		847	2960
7:45 AM	87	212	0	0		0	281	60	0		22	0	52	0		0	0	0	0		714	2765
8:00 AM	73	219	0	0		0	254	66	0		29	0	44	0		0	0	0	0		685	2817
8:15 AM	70	259	0	0		0	253	49	0		31	0	52	0		0	0	0	0		714	2132
8:30 AM	51	240	0	0		0	234	43	0		43	0	41	0		0	0	0	0		652	1418
8:45 AM	93	305	0	0		0	266	43	0		26	0	33	0		0	0	0	0		766	766
Peak 15-Min Flowrates	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Total	
All Vehicles	348	1460	0	0		0	1356	244	0		208	0	208	0		0	0	0	0		3824	
Heavy Trucks	12	96	0	0		0	76	12	0		12	0	28	0		0	0	0	0		236	
Pedestrians	0	0	0	0		0	4	0	0		8	0	0	0		0	0	0	0		12	
Bicycles	0	0	0	0		0	4	0	0		0	0	4	0		0	0	0	0		8	
Buses																						
Stopped Buses																						

LOCATION: S Orange Ave & E Lancaster Rd
 CITY/STATE: Orlando, FL
 PROJECT ID: 23-130018-004
 DATE: Thu, Jan 19, 2023



15-Min Count Period Beginning At	S Orange Ave Northbound					S Orange Ave Southbound					E Lancaster Rd Eastbound					E Lancaster Rd Westbound					Total	Hourly Total
	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*		
2:00 PM	55	253	0	0		0	247	34	0		49	0	35	0		0	0	0	0		673	2975
2:15 PM	58	296	0	0		0	280	34	0		47	0	38	0		0	0	0	0		753	3128
2:30 PM	47	279	0	0		0	302	52	0		45	0	34	0		0	0	0	0		759	3138
2:45 PM	83	229	0	0		0	302	70	0		52	0	54	0		0	0	0	0		790	3221
3:00 PM	85	267	0	0		0	313	64	0		55	0	42	0		0	0	0	0		826	3213
3:15 PM	68	265	0	0		0	298	42	0		61	0	29	0		0	0	0	0		763	2387
3:30 PM	48	343	0	0		0	314	50	0		59	0	28	0		0	0	0	0		842	1624
3:45 PM	66	313	0	0		0	257	40	0		66	0	40	0		0	0	0	0		782	782
Peak 15-Min Flowrates	Northbound					Southbound					Eastbound					Westbound					Total	
All Vehicles	340	1372	0	0		0	1256	280	0		244	0	216	0		0	0	0	0		3708	
Heavy Trucks	16	60	0	0		0	120	8	0		0	0	16	0		0	0	0	0		220	
Pedestrians	0	0	0	0		0	4	0	0		0	0	0	0		0	0	0	0		4	
Bicycles	0	4	0	0		0	0	8	0		0	0	0	0		0	0	0	0		12	
Buses																						
Stopped Buses																						



National Data & Surveying Services

Site Code: **23-130018-004**

Date: **01/19/2023**

Weather: **Sunny**

City: **Orlando**

County: **Orange**

Count Times: **07:00 - 09:00**

14:00 - 16:00

Control: **Signalized**

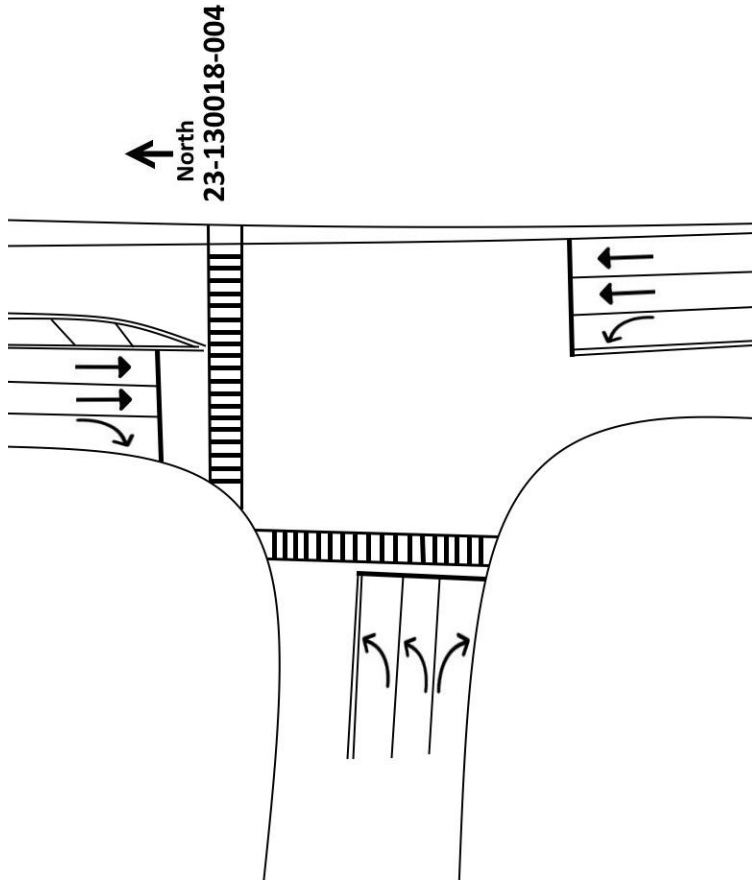
SIGNAL TIMING

PHASES	1	2	3
NL/NT	-	00:21	-
NT/ST	01:48	01:25	01:48
EL	00:24	00:22	00:24



N/S Street: **S Orange Ave**

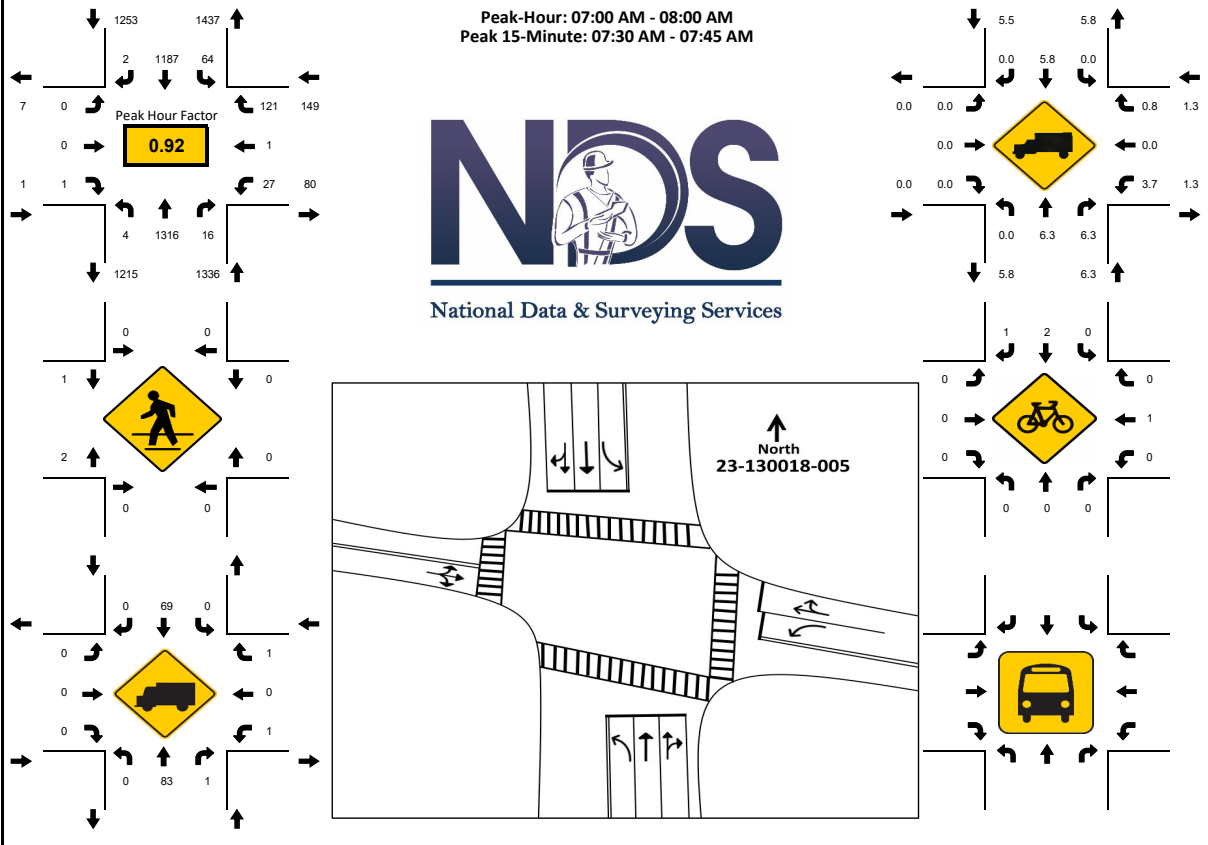
Speed: **45 MPH**



E/W Street: **E Lancaster Rd**

Speed: **40 MPH**

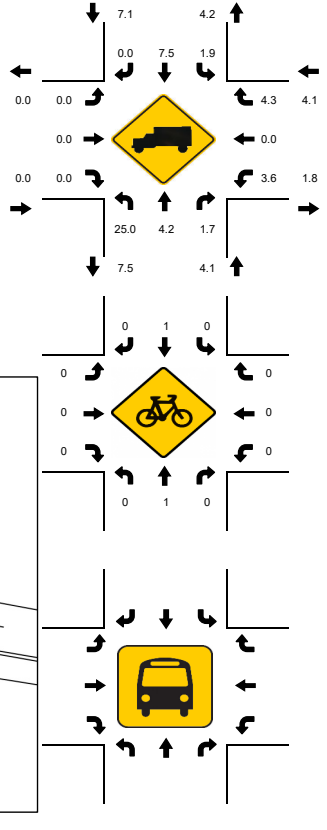
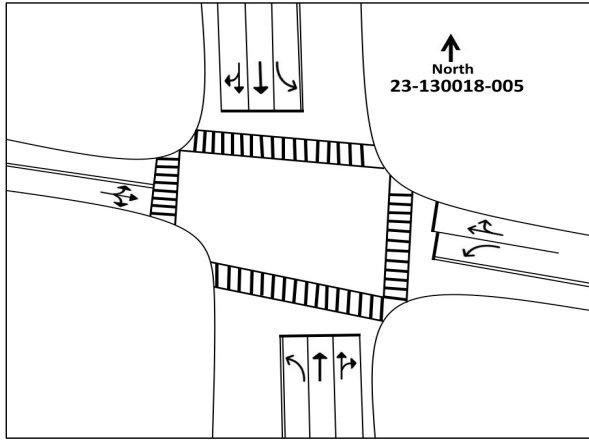
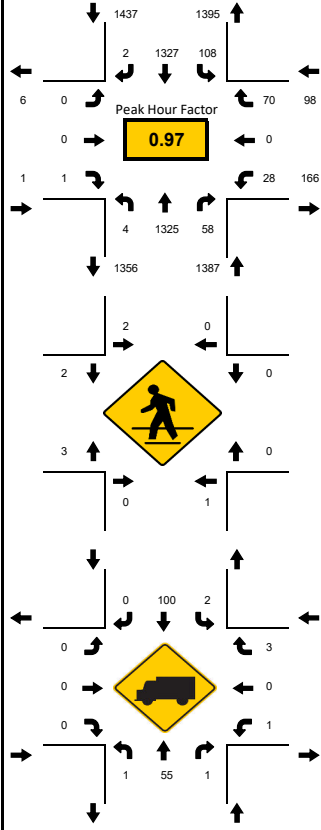
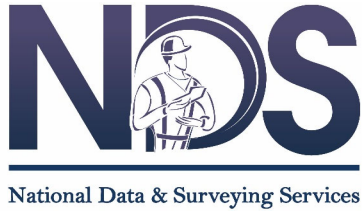
a.



15-Min Count Period Beginning At	S Orange Ave Northbound					S Orange Ave Southbound					Nela Ave Eastbound					Nela Ave Westbound					Total	Hourly Total
	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*		
7:00 AM	0	334	3	0		9	233	0	0		0	0	0	0		7	0	20	0		606	2739
7:15 AM	1	396	3	0		15	280	1	0		0	0	0	0		1	0	39	0		736	2733
7:30 AM	1	315	3	0		18	357	0	0		0	0	1	0		10	0	36	0		741	2637
7:45 AM	2	271	7	0		22	317	1	0		0	0	0	0		9	1	26	0		656	2491
8:00 AM	1	253	7	0		14	278	0	0		2	0	0	0		10	0	35	0		600	2538
8:15 AM	1	300	2	0		13	294	1	0		1	0	2	0		8	1	17	0		640	1938
8:30 AM	9	281	3	0		15	255	0	0		0	0	3	0		11	0	18	0		595	1298
8:45 AM	1	363	3	0		11	288	1	0		0	0	1	0		11	0	24	0		703	703
Peak 15-Min Flowrates	Northbound					Southbound					Eastbound					Westbound					Total	
All Vehicles	8	1584	28	0		88	1428	4	0		0	0	4	0		40	4	156	0			3344
Heavy Trucks	0	104	4	0		0	84	0	0		0	0	0	0		4	0	4	0			200
Pedestrians	0	0	0	0		0	0	0	0		8	0	0	0		0	0	0	0			8
Bicycles	0	0	0	0		0	4	4	0		0	0	0	0		0	4	0	0			12
Buses																						
Stopped Buses																						

LOCATION: S Orange Ave & Nela Ave
 CITY/STATE: Orlando, FL
 PROJECT ID: 23-130018-005
 DATE: Thu, Jan 19, 2023

Peak-Hour: 02:45 PM - 03:45 PM
 Peak 15-Minute: 03:30 PM - 03:45 PM



15-Min Count Period Beginning At	S Orange Ave Northbound					S Orange Ave Southbound					Nela Ave Eastbound					Nela Ave Westbound					Total	Hourly Total
	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*		
2:00 PM	0	294	6	1		18	264	0	0		0	0	0	0		5	0	24	0		612	2706
2:15 PM	0	307	9	0		21	304	0	0		0	0	0	0		10	0	25	0		676	2810
2:30 PM	0	287	11	1		25	314	0	0		0	0	0	0		11	0	25	0		674	2842
2:45 PM	1	321	6	0		37	343	0	0		0	0	0	0		11	0	25	0		744	2923
3:00 PM	1	299	23	0		29	344	0	0		0	0	1	0		5	0	14	0		716	2907
3:15 PM	0	330	11	0		18	326	1	1		0	0	0	0		9	0	12	0		708	2191
3:30 PM	1	375	18	1		23	314	1	0		0	0	0	0		3	0	19	0		755	1483
3:45 PM	1	356	12	0		27	304	0	0		0	0	0	0		8	0	20	0		728	728
Peak 15-Min Flowrates	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Total	
All Vehicles	4	1500	92	4		148	1376	4	4		0	0	4	0		44	0	100	0			3280
Heavy Trucks	0	76	4	4		4	128	0	0		0	0	0	0		4	0	8	0			224
Pedestrians		4					4					8					0					16
Bicycles	0	4	0	0		0	4	0	0		0	0	0	0		0	0	0	0			8
Buses																						
Stopped Buses																						



National Data & Surveying Services

Site Code: **23-130018-005**

Date: **01/19/2023**

Weather: **Sunny**

City: **Orlando**

County: **Orange**

Count Times: **07:00 - 09:00**

14:00 - 16:00

Control: **Signalized**

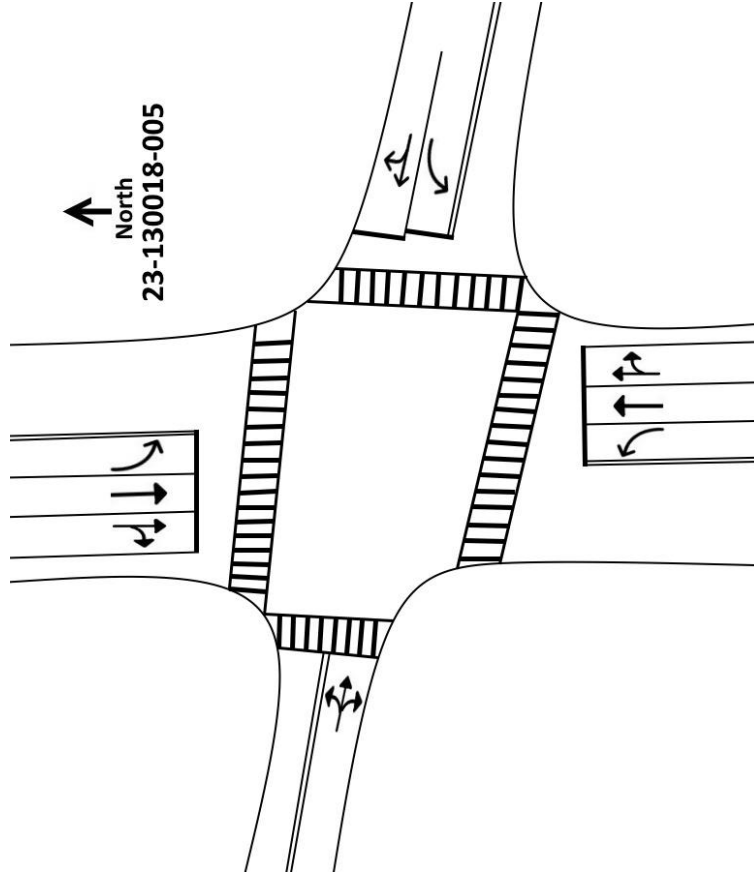
SIGNAL TIMING

PHASES	1	2	3
SL/ST	-	00:16	00:15
NT/ST	01:38	01:21	01:37
ET/WT	00:32	00:19	00:16



N/S Street: **S Orange Ave**

Speed: **45 MPH**



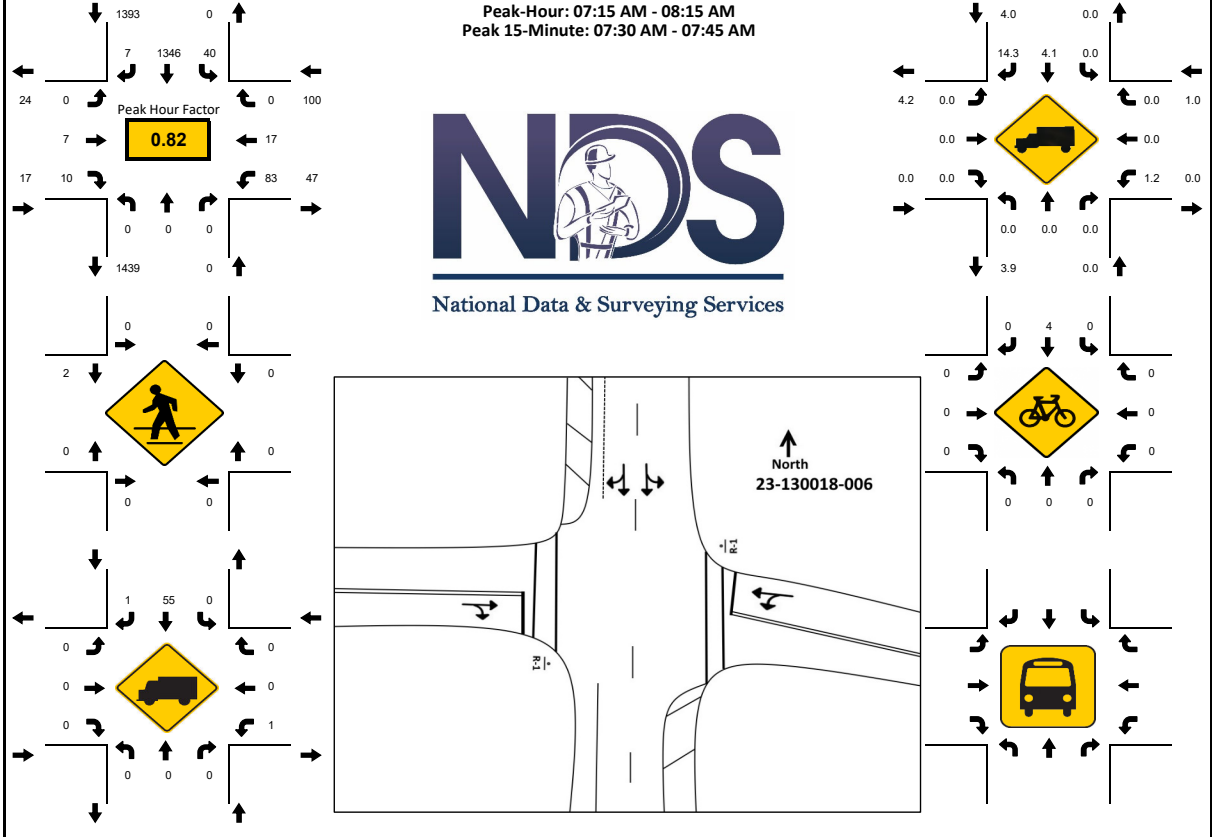
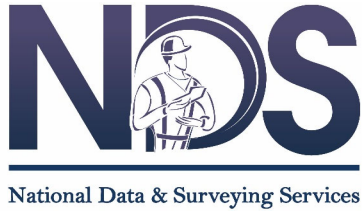
E/W Street: **Nela Ave**

Speed: **35 MPH**

a.

LOCATION: S Orange Ave & Fairlane Ave
 CITY/STATE: Orlando, FL
 PROJECT ID: 23-130018-006
 DATE: Thu, Jan 19, 2023

Peak-Hour: 07:15 AM - 08:15 AM
 Peak 15-Minute: 07:30 AM - 07:45 AM

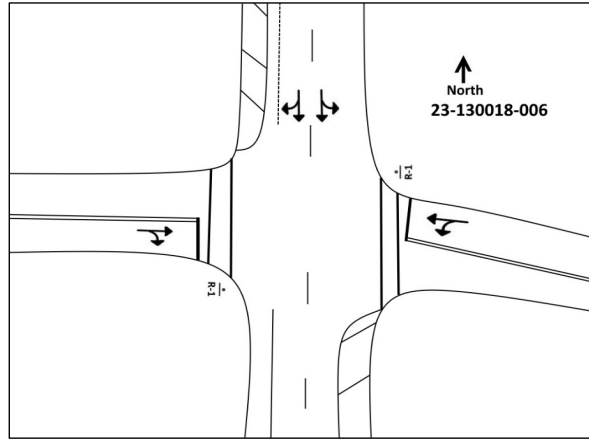
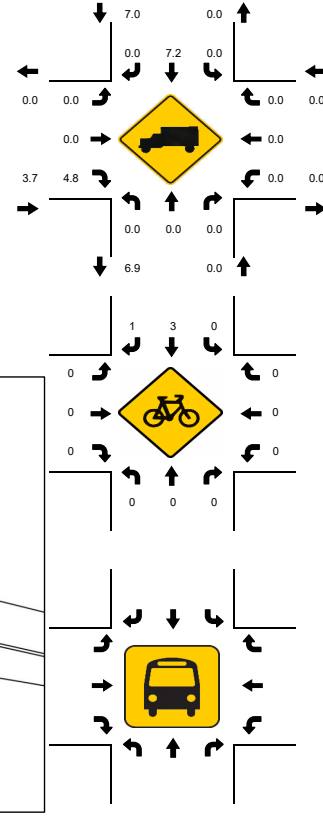
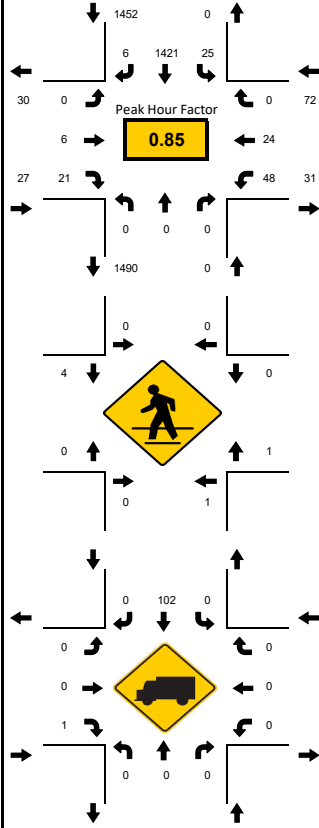
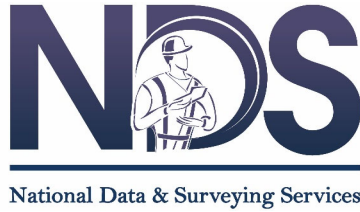


15-Min Count Period Beginning At	S Orange Ave Northbound					S Orange Ave Southbound					Fairlane Ave Eastbound					Fairlane Ave Westbound					Total	Hourly Total
	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*		
7:00 AM	0	0	0	0	0	3	248	2	0	0	0	0	0	0	0	10	3	0	0	0	266	1436
7:15 AM	0	0	0	0	0	18	325	1	0	0	0	2	1	0	0	25	5	0	0	0	377	1510
7:30 AM	0	0	0	0	0	17	374	1	0	0	0	2	3	0	0	53	8	0	0	0	458	1430
7:45 AM	0	0	0	0	0	2	320	3	0	0	0	2	3	0	0	2	3	0	0	0	335	1280
8:00 AM	0	0	0	0	0	3	327	2	0	0	0	1	3	0	0	3	1	0	0	0	340	1260
8:15 AM	0	0	0	0	0	2	289	1	0	0	0	1	1	0	0	1	2	0	0	0	297	920
8:30 AM	0	0	0	0	0	1	293	2	0	0	0	4	2	0	0	5	1	0	0	0	308	623
8:45 AM	0	0	0	0	0	2	308	1	0	0	0	0	2	0	0	1	1	0	0	0	315	315
Peak 15-Min Flowrates	Northbound					Southbound					Eastbound					Westbound					Total	
All Vehicles	0	0	0	0	0	72	1496	12	0	0	0	8	12	0	0	212	32	0	0	0	1844	
Heavy Trucks	0	0	0	0	0	0	68	4	0	0	0	0	0	0	0	4	0	0	0	0	76	
Pedestrians	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	4	
Bicycles	0	0	0	0	0	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	12	
Buses																						
Stopped Buses																						

LOCATION: S Orange Ave & Fairlane Ave
CITY/STATE: Orlando, FL

PROJECT ID: 23-130018-006
DATE: Thu, Jan 19, 2023

Peak-Hour: 02:45 PM - 03:45 PM
Peak 15-Minute: 02:45 PM - 03:00 PM



15-Min Count Period Beginning At	S Orange Ave Northbound					S Orange Ave Southbound					Fairlane Ave Eastbound					Fairlane Ave Westbound					Total	Hourly Total
	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*		
2:00 PM	0	0	0	0	0	1	296	4	0	0	1	2	5	0	0	1	2	0	0	0	312	1446
2:15 PM	0	0	0	0	0	7	293	3	0	0	0	4	4	0	0	0	3	0	0	0	314	1497
2:30 PM	0	0	0	0	0	8	337	2	0	0	0	1	8	0	0	5	3	0	0	0	364	1549
2:45 PM	0	0	0	0	0	9	404	2	0	0	0	2	7	0	0	23	9	0	0	0	456	1551
3:00 PM	0	0	0	0	0	4	335	4	0	0	0	1	4	0	0	11	4	0	0	0	363	1450
3:15 PM	0	0	0	0	0	5	342	0	0	0	0	2	5	0	0	5	7	0	0	0	366	1087
3:30 PM	0	0	0	0	0	7	340	0	0	0	0	1	5	0	0	9	4	0	0	0	366	721
3:45 PM	0	0	0	0	0	1	334	3	0	0	0	3	4	0	0	9	1	0	0	0	355	355
Peak 15-Min Flowrates	Northbound					Southbound					Eastbound					Westbound					Total	
All Vehicles	0	0	0	0	0	36	1616	16	0	0	0	8	28	0	0	92	36	0	0	0	1832	
Heavy Trucks	0	0	0	0	0	0	136	0	0	0	0	0	4	0	0	0	0	0	0	0	140	
Pedestrians	0	4	0	0	0	0	0	0	0	0	0	8	0	0	0	0	4	0	0	0	16	
Bicycles	0	0	0	0	0	0	4	4	0	0	0	0	0	0	0	0	0	0	0	0	8	
Buses																						
Stopped Buses																						



National Data & Surveying Services

Site Code: 23-130018-006

Date: 01/19/2023

Weather: Sunny

City: Orlando

County: Orange

Count Times: 07:00 - 09:00

14:00 - 16:00

Control: 2-Way Stop(EB/WB)



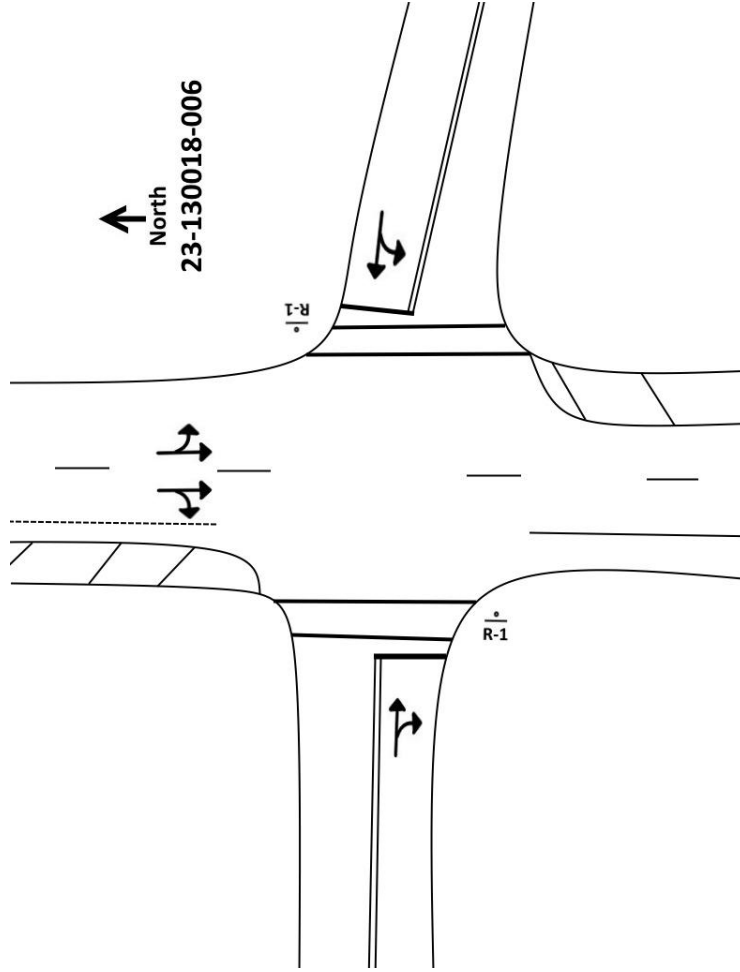
N/S Street: S Orange Ave

Speed: 35 MPH

E/W Street: Fairlane Ave

Speed: 30 MPH

a.



2021 PEAK SEASON FACTOR CATEGORY REPORT - REPORT TYPE: ALL
 CATEGORY: 7500 ORANGE COUNTYWIDE

a.

WEEK	DATES	SF	MOCF: 0.99 PSCF
1	01/01/2021 - 01/02/2021	0.99	1.00
2	01/03/2021 - 01/09/2021	1.04	1.05
3	01/10/2021 - 01/16/2021	1.09	1.10
4	01/17/2021 - 01/23/2021	1.08	1.09
5	01/24/2021 - 01/30/2021	1.07	1.08
6	01/31/2021 - 02/06/2021	1.06	1.07
7	02/07/2021 - 02/13/2021	1.05	1.06
8	02/14/2021 - 02/20/2021	1.04	1.05
9	02/21/2021 - 02/27/2021	1.03	1.04
10	02/28/2021 - 03/06/2021	1.02	1.03
11	03/07/2021 - 03/13/2021	1.01	1.02
12	03/14/2021 - 03/20/2021	1.00	1.01
13	03/21/2021 - 03/27/2021	1.00	1.01
14	03/28/2021 - 04/03/2021	1.00	1.01
15	04/04/2021 - 04/10/2021	1.00	1.01
16	04/11/2021 - 04/17/2021	1.00	1.01
17	04/18/2021 - 04/24/2021	0.99	1.00
18	04/25/2021 - 05/01/2021	0.99	1.00
19	05/02/2021 - 05/08/2021	0.98	0.99
20	05/09/2021 - 05/15/2021	0.98	0.99
21	05/16/2021 - 05/22/2021	0.98	0.99
22	05/23/2021 - 05/29/2021	0.99	1.00
23	05/30/2021 - 06/05/2021	0.99	1.00
24	06/06/2021 - 06/12/2021	0.99	1.00
25	06/13/2021 - 06/19/2021	1.00	1.01
26	06/20/2021 - 06/26/2021	1.00	1.01
27	06/27/2021 - 07/03/2021	1.00	1.01
28	07/04/2021 - 07/10/2021	1.00	1.01
29	07/11/2021 - 07/17/2021	1.00	1.01
30	07/18/2021 - 07/24/2021	1.00	1.01
31	07/25/2021 - 07/31/2021	1.00	1.01
32	08/01/2021 - 08/07/2021	1.00	1.01
33	08/08/2021 - 08/14/2021	0.99	1.00
34	08/15/2021 - 08/21/2021	0.99	1.00
35	08/22/2021 - 08/28/2021	0.99	1.00
36	08/29/2021 - 09/04/2021	0.99	1.00
37	09/05/2021 - 09/11/2021	0.99	1.00
38	09/12/2021 - 09/18/2021	0.99	1.00
*39	09/19/2021 - 09/25/2021	0.99	1.00
*40	09/26/2021 - 10/02/2021	0.98	0.99
*41	10/03/2021 - 10/09/2021	0.98	0.99
*42	10/10/2021 - 10/16/2021	0.97	0.98
*43	10/17/2021 - 10/23/2021	0.98	0.99
*44	10/24/2021 - 10/30/2021	0.98	0.99
*45	10/31/2021 - 11/06/2021	0.99	1.00
*46	11/07/2021 - 11/13/2021	0.99	1.00
*47	11/14/2021 - 11/20/2021	0.99	1.00
*48	11/21/2021 - 11/27/2021	0.99	1.00
*49	11/28/2021 - 12/04/2021	0.99	1.00
*50	12/05/2021 - 12/11/2021	0.99	1.00
*51	12/12/2021 - 12/18/2021	0.99	1.00
52	12/19/2021 - 12/25/2021	1.04	1.05
53	12/26/2021 - 12/31/2021	1.09	1.10

* PEAK SEASON

08-MAR-2022 12:36:27

830UPD

5_7500_PKSEASON.TXT

Traffic

	Program			Pattern			Ph Func																
	Day	Hour	Min	Dial	Split	Offset	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
1	1	0	1	0	0	4																	
2	1	10	0	2	1	1																	
3	1	19	30	0	0	4																	
4	2	0	1	0	0	4																	
5	2	6	0	1	1	1																	
6	2	9	0	2	1	1																	
7	2	14	0	3	1	1																	
8	2	18	30	2	1	1																	
9	2	20	30	0	0	4																	
10	7	0	1	0	0	4																	
11	7	9	0	2	1	1																	
12	7	19	45	0	0	4																	

a.

Vehicle Basic Timing

Phase Bank 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Min. Green	0	15	0	5	0	15	0	5	0	0	0	0	0	0	0	0
Passage	0	3	0	3.3	0	3	0	4	0	0	0	0	0	0	0	0
Maximum 1	0	45	0	20	0	45	0	20	0	0	0	0	0	0	0	0
Maximum 2	0	45	0	20	0	45	0	20	0	0	0	0	0	0	0	0
Yellow Change	4	4.4	4	3.4	4	4.5	4	3.7	4	4	4	4	4	4	4	4
Red Clearance	0	2	0	2	0	2	0	2	0	0	0	0	0	0	0	0
Green Delay	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Yellow Delay	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bike Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bike Passage	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Phase Bank 2

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Min. Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Passage	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Maximum 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Maximum 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Yellow Change	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Red Clearance	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Green Delay	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Yellow Delay	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bike Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bike Passage	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Phase Bank 3

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Min. Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Passage	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Maximum 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Maximum 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Yellow Change	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Red Clearance	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Green Delay	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Yellow Delay	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bike Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bike Passage	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Phase Bank 4

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Min. Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Passage	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Maximum 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Dial 1/Split 1

Cycle Length 130

Phase	1	2	3	4	5	6	7	8
Time	0	78	0	52	0	78	0	52
Mode	0 - AP	1 - CP	0 - AP	0 - AP	0 - AP	1 - CP	0 - AP	0 - AP
Min Veh Time		Bnk1=23 Bnk2=5 Bnk3=5 Bnk4=5		Bnk1=12 Bnk2=5 Bnk3=5 Bnk4=5		Bnk1=23 Bnk2=5 Bnk3=5 Bnk4=5		Bnk1=12 Bnk2=5 Bnk3=5 Bnk4=5
Min Ped Time		Bnk1=19 Bnk2=0 Bnk3=0 Bnk4=0		Bnk1=30 Bnk2=0 Bnk3=0 Bnk4=0		Bnk1=25 Bnk2=0 Bnk3=0 Bnk4=0		Bnk1=27 Bnk2=0 Bnk3=0 Bnk4=0
Phase Reduction	0	0	0	0	0	0	0	0
Phase Extension	0	0	0	0	0	0	0	0

Phase	9	10	11	12	13	14	15	16
Time	0	0	0	0	0	0	0	0
Mode	0 - AP	0 - AP	0 - AP	0 - AP	0 - AP	0 - AP	0 - AP	0 - AP
Min Veh Time								
Min Ped Time								
Phase Reduction	0	0	0	0	0	0	0	0
Phase Extension	0	0	0	0	0	0	0	0

Offset	1	2	3
Time	101	0	0
Mode	0 - Normal	0 - Normal	0 - Normal
Alt Sequence	0	0	0
Correction	0 - Normal	0 - Normal	0 - Normal
Special Function	0	0	0
Maximum Mode	0 - None	0 - None	0 - None
Ring 2 Lag Time	6	0	0
Ring 3 Lag Time	0	0	0
Ring 4 Lag Time	0	0	0

a.

Dial 3/Split 1

Cycle Length 150

Phase	1	2	3	4	5	6	7	8
Time	0	95	0	55	0	95	0	55
Mode	0 - AP	1 - CP	0 - AP	0 - AP	0 - AP	1 - CP	0 - AP	0 - AP
Min Veh Time		Bnk1=23 Bnk2=5 Bnk3=5 Bnk4=5		Bnk1=12 Bnk2=5 Bnk3=5 Bnk4=5		Bnk1=23 Bnk2=5 Bnk3=5 Bnk4=5		Bnk1=12 Bnk2=5 Bnk3=5 Bnk4=5
Min Ped Time		Bnk1=19 Bnk2=0 Bnk3=0 Bnk4=0		Bnk1=30 Bnk2=0 Bnk3=0 Bnk4=0		Bnk1=25 Bnk2=0 Bnk3=0 Bnk4=0		Bnk1=27 Bnk2=0 Bnk3=0 Bnk4=0
Phase Reduction	0	0	0	0	0	0	0	0
Phase Extension	0	0	0	0	0	0	0	0

Phase	9	10	11	12	13	14	15	16
Time	0	0	0	0	0	0	0	0
Mode	0 - AP	0 - AP	0 - AP	0 - AP	0 - AP	0 - AP	0 - AP	0 - AP
Min Veh Time								
Min Ped Time								
Phase Reduction	0	0	0	0	0	0	0	0
Phase Extension	0	0	0	0	0	0	0	0

Offset	1	2	3
Time	11	0	0
Mode	0 - Normal	0 - Normal	0 - Normal
Alt Sequence	0	0	0
Correction	0 - Normal	0 - Normal	0 - Normal
Special Function	0	0	0
Maximum Mode	0 - None	0 - None	0 - None
Ring 2 Lag Time	6	0	0
Ring 3 Lag Time	0	0	0
Ring 4 Lag Time	0	0	0

ORANGE COUNTY TRAFFIC SIGNAL TIMING								Hazem El-Assar, P.E.	
Location: Hansel Ave (SR 527) at Hoffner Road					Node: 129				
Equipment: Eagle			CDI: 2/10/2021		CDO:		Date: 2/11/21		
BASIC TIMING									
Phase	1	2	3	4	5	6	7	8	
Direction		NB		EB/WB					
Min Green (sec)		15		5					
Vehicle Gap (sec)		3.0		3.0					
Max Green 1 (sec)		40		30					
Max Green 2 (sec)		40		30					
Yellow (sec)		4.5		3.9					
All-Red (sec)		2.0		2.0					
Walk (sec)		7		7					
Flash Don't Walk (sec)		15		16					
Recall/Memory		SF/LK		NL					
Delay (sec)									
Detector Switching									
Dual Entry									
Overlap									
Flash		Y		R					
Speed (mph)		40		30					
Vehicle Distance (ft)		69		81					
Crossing Distance (ft)		46.0		52.0					
Ped Clearance (sec)		13		15					
COORDINATION PLANS									
Coordination Pattern	1/1/1	2/1/1	3/1/1			Day	Time	Pattern	
Cycle	130	110	150			1	0:01	FREE	
Split 1	0	0	0			1	10:00	2/1/1	
Split 2	75	78	100			1	19:30	FREE	
Split 3	0	0	0			2	0:01	FREE	
Split 4	55	32	50			2	6:00	1/1/1	
Split 5	0	0	0			2	9:00	2/1/1	
Split 6	0	0	0			2	14:00	3/1/1	
Split 7	0	0	0			2	18:30	2/1/1	
Split 8	0	0	0			2	20:30	FREE	
Offset	111	76	72			7	0:01	FREE	
Lagging Phases	0/0/0/0	0/0/0/0	0/0/0/0			7	9:00	2/1/1	
Source Day	Equate 1	Equate 2	Equate 3	Equate 4	Equate 5	7	19:45	FREE	
	2	3	4	5	6				
Notes:									
1. Offset referenced to start of mainstreet green									
2. Use Plan Force-offs									
3. Use Max Inhibit during coordination									

Consultant Timing

a.

APR 04 2018

ORANGE COUNTY TRAFFIC SIGNAL TIMING SHEET								
Intersection: Orange Ave (SR 527 SB) at Hoffner Ave				Int. # 11		Node 350		
Equipment: Siemens Eagle				Date: 7/13/2018		Address:		
BASIC TIMING								
Phase	1	2	3	4	5	6	7	8
Direction		SB		WB				
Min Green (sec)		15		5				
Vehicle Gap (sec)		3.0		5.0				
Max Green 1 (sec)		50		25				
Max Green 2 (sec)		50		25				
Yellow Change Interval (sec)		4.1		3.8				
Red Clearance Interval (sec)		2.0		2.0				
Walk (sec)		7		7				
Flash Don't Walk (sec)		15		14				
Min Split (sec)		29		27				
Recall/Memory		SF/LK		NL				
Detector Delay (sec)				CD 10				
Detector Switching								
Dual Entry								
Overlap								
Flash		Y		R				
Speed (mph)		35		30				
Approach Grades (%)		-0.5%		-1.9%				
Veh Traversed Distance (ft)		70		53				
Ped Crossing Distance (ft)		52		46				
Ped Clearance (sec)		15		14				
Ped-button to curb (ft)		12		12				
Ped-button to far curb (ft)		64		58				
Ped Clearance to far curb (sec)		22		20				
COORDINATION PLANS								
Coordination Pattern	1/1/1	2/1/1	3/1/1			Day	Time	Pattern
Cycle	130	110	150			1	0:01	FREE
Split 1	0	0	0			1	10:00	2/1/1
Split 2	77	78	104			1	19:30	FREE
Split 3	0	0	0			2	0:01	FREE
Split 4	53	32	46			2	6:00	1/1/1
Split 5	0	0	0			2	9:00	2/1/1
Split 6	0	0	0			2	14:00	3/1/1
Split 7	0	0	0			2	18:30	2/1/1
Split 8	0	0	0			2	20:30	FREE
Offset	109	90	131			7	0:01	FREE
Lagging Phases	0/0/0/0	0/0/0/0	0/0/0/0			7	9:00	2/1/1
Source Day	Equate 1	Equate 2	Equate 3	Equate 4	Equate 5	7	19:45	FREE
(Sunday) 1								
(Monday) 2	3	4	5	6				
(Saturday) 7								
Notes:						All Patterns		
1. Offset referenced to start of mainstreet green						2 4		
2. Use Plan Force-offs								
3. Use Max Inhibit during coordination								

Consultant Timing

a.

APR 04 2018

ORANGE COUNTY TRAFFIC SIGNAL TIMING SHEET

Intersection: Orange Ave (SR 527) at Lancaster Rd	Int. #	3	Node	168
Equipment: Eagle ATC	Date:	7/13/2018	Address:	

BASIC TIMING

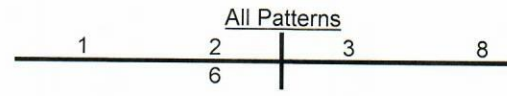
Phase	1	2	3	4	5	6	7	8
Direction	NBL	SB	EBL			NB		WB Ped
Min Green (sec)	5	15	5			15		0
Vehicle Gap (sec)	3.0	3.0	3.0			3.0		1.0
Max Green 1 (sec)	25	60	30			60		10
Max Green 2 (sec)	25	60	30			60		10
Yellow Change Interval (sec)	4.8	4.8	4.5			4.8		4.5
Red Clearance Interval (sec)	2.3	2.0	2.3			2.0		2.3
Walk (sec)		7						7
Flash Don't Walk (sec)		21						25
Min Split (sec)	13	35	12			22		39
Recall/Memory	NL	MIN/LK	NL			MIN/LK		NL
Detector Delay (sec)	CD 10							
Detector Switching								
Dual Entry								
Overlap	CD		D					CD
Flash		Y	R			Y		
Speed (mph)	45	45	40			45		
Approach Grades (%)	-0.3%	0.5%	-0.7%			-0.3%		
Veh Traversed Distance (ft)	99	119	98			101		
Ped Crossing Distance (ft)		72						86
Ped Clearance (sec)		21						25
Ped-button to curb (ft)		11						12
Ped-button to far curb (ft)		83						98
Ped Clearance to far curb (sec)		28						33

COORDINATION PLANS

Coordination Pattern	1/1/1	2/1/1	3/1/1			Day	Time	Pattern
Cycle	130	110	150			1	0:01	FREE
Split 1	24	18	25			1	10:00	2/1/1
Split 2	66	60	75			1	19:30	FREE
Split 3	20	20	26			2	0:01	FREE
Split 4	0	0	0			2	6:00	1/1/1
Split 5	0	0	0			2	9:00	2/1/1
Split 6	90	78	100			2	14:00	3/1/1
Split 7	0	0	0			2	18:30	2/1/1
Split 8	20	12	24			2	20:30	FREE
Offset	35	29	142			7	0:01	FREE
Lagging Phases	0/0/0/0	0/0/0/0	0/0/0/0			7	9:00	2/1/1
Source Day	Equate 1	Equate 2	Equate 3	Equate 4	Equate 5	7	19:45	FREE
(Sunday) 1								
(Monday) 2	3	4	5	6				
(Saturday) 7								

Notes:

1. Offset referenced to start of mainstreet green
2. Use Plan Force-offs
3. Use Max Inhibit during coordination
4. Pre-empt #1 = Railroad
6. OL C = NBL, OL D = EBR



APPENDIX C

Existing Capacity Analysis Worksheet

Intersection												
Int Delay, s/veh	0.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	721	66	17	615	1	17	0	9	0	0	0
Future Vol, veh/h	0	721	66	17	615	1	17	0	9	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	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	1	2	0	1	0	6	0	0	0	0	0
Mvmt Flow	0	775	71	18	661	1	18	0	10	0	0	0

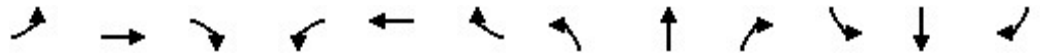
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	662	0	0	846	0	0	1509	1509	811	1514	1544	662
Stage 1	-	-	-	-	-	-	811	811	-	698	698	-
Stage 2	-	-	-	-	-	-	698	698	-	816	846	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.16	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.16	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.16	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.554	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	936	-	-	800	-	-	97	122	383	99	116	465
Stage 1	-	-	-	-	-	-	367	396	-	434	445	-
Stage 2	-	-	-	-	-	-	425	445	-	374	381	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	936	-	-	800	-	-	94	118	383	94	112	465
Mov Cap-2 Maneuver	-	-	-	-	-	-	94	118	-	94	112	-
Stage 1	-	-	-	-	-	-	367	396	-	434	429	-
Stage 2	-	-	-	-	-	-	410	429	-	365	381	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			0.3			41.2			0		
HCM LOS							E			A		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	127	936	-	-	800	-	-	-
HCM Lane V/C Ratio	0.22	-	-	-	0.023	-	-	-
HCM Control Delay (s)	41.2	0	-	-	9.6	0	-	0
HCM Lane LOS	E	A	-	-	A	A	-	A
HCM 95th %tile Q(veh)	0.8	0	-	-	0.1	-	-	-

HCM 6th Signalized Intersection Summary
 2: Hansel Ave & Hoffner Ave

Existing Traffic Volumes
 A.M. Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↑	↗		↕	↗			
Traffic Volume (veh/h)	6	268	0	0	380	255	33	1342	534	0	0	0
Future Volume (veh/h)	6	268	0	0	380	255	33	1342	534	0	0	0
Initial Q (Qb), veh	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			
Parking Bus, Adj	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				
Adj Sat Flow, veh/h/ln	1900	1870	0	0	1870	1885	1811	1826	1870			
Adj Flow Rate, veh/h	6	276	0	0	392	263	34	1384	551			
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97			
Percent Heavy Veh, %	0	2	0	0	2	1	6	5	2			
Cap, veh/h	30	370	0	0	453	387	54	2302	1050			
Arrive On Green	0.24	0.24	0.00	0.00	0.24	0.24	0.66	0.66	0.66			
Sat Flow, veh/h	7	1529	0	0	1870	1598	81	3475	1585			
Grp Volume(v), veh/h	282	0	0	0	392	263	761	657	551			
Grp Sat Flow(s),veh/h/ln	1536	0	0	0	1870	1598	1822	1735	1585			
Q Serve(g_s), s	1.0	0.0	0.0	0.0	26.1	19.4	31.4	26.8	23.4			
Cycle Q Clear(g_c), s	27.1	0.0	0.0	0.0	26.1	19.4	31.4	26.8	23.4			
Prop In Lane	0.02		0.00	0.00		1.00	0.04		1.00			
Lane Grp Cap(c), veh/h	400	0	0	0	453	387	1207	1149	1050			
V/C Ratio(X)	0.71	0.00	0.00	0.00	0.87	0.68	0.63	0.57	0.52			
Avail Cap(c_a), veh/h	646	0	0	0	706	603	1207	1149	1050			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(l)	0.97	0.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh	44.1	0.0	0.0	0.0	47.2	44.7	12.7	11.9	11.3			
Incr Delay (d2), s/veh	2.2	0.0	0.0	0.0	7.0	2.1	2.5	2.1	1.9			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(95%),veh/ln	13.1	0.0	0.0	0.0	18.9	12.6	18.2	15.2	12.7			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.3	0.0	0.0	0.0	54.2	46.8	15.2	14.0	13.2			
LnGrp LOS	D	A	A	A	D	D	B	B	B			
Approach Vol, veh/h		282			655			1969				
Approach Delay, s/veh		46.3			51.2			14.2				
Approach LOS		D			D			B				
Timer - Assigned Phs		2		4				8				
Phs Duration (G+Y+Rc), s		92.6		37.4				37.4				
Change Period (Y+Rc), s		6.5		5.9				5.9				
Max Green Setting (Gmax), s		68.5		49.1				49.1				
Max Q Clear Time (g_c+I1), s		33.4		28.1				29.1				
Green Ext Time (p_c), s		16.0		3.3				1.6				
Intersection Summary												
HCM 6th Ctrl Delay				25.7								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary
 3: Hoffner Ave & Orange Ave

Existing Traffic Volumes
 A.M. Peak Hour

a.



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	407	0	0	0	269	1245
Future Volume (veh/h)	407	0	0	0	269	1245
Initial Q (Qb), veh	0	0			0	0
Ped-Bike Adj(A_pbT)	1.00	1.00			1.00	
Parking Bus, Adj	1.00	1.00			1.00	1.00
Work Zone On Approach	No				No	No
Adj Sat Flow, veh/h/ln	1870	0			1870	1841
Adj Flow Rate, veh/h	433	0			286	1324
Peak Hour Factor	0.94	0.94			0.94	0.94
Percent Heavy Veh, %	2	0			2	4
Cap, veh/h	0	0			1753	3333
Arrive On Green	0.00	0.00			0.95	0.95
Sat Flow, veh/h	0				1781	3589
Grp Volume(v), veh/h	0.0				286	1324
Grp Sat Flow(s),veh/h/ln					1781	1749
Q Serve(g_s), s					1.2	3.7
Cycle Q Clear(g_c), s					1.2	3.7
Prop In Lane					1.00	
Lane Grp Cap(c), veh/h					1753	3333
V/C Ratio(X)					0.16	0.40
Avail Cap(c_a), veh/h					1753	3333
HCM Platoon Ratio					1.00	1.00
Upstream Filter(l)					1.00	1.00
Uniform Delay (d), s/veh					0.2	0.2
Incr Delay (d2), s/veh					0.2	0.4
Initial Q Delay(d3),s/veh					0.0	0.0
%ile BackOfQ(95%),veh/ln					0.2	0.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh					0.4	0.6
LnGrp LOS					A	A
Approach Vol, veh/h						1610
Approach Delay, s/veh						0.5
Approach LOS						A
Timer - Assigned Phs		2				
Phs Duration (G+Y+Rc), s		130.0				
Change Period (Y+Rc), s		6.1				
Max Green Setting (Gmax), s		70.9				
Max Q Clear Time (g_c+I1), s		5.7				
Green Ext Time (p_c), s		16.2				
Intersection Summary						
HCM 6th Ctrl Delay			0.5			
HCM 6th LOS			A			

HCM 6th TWSC
4: Randolph Ave & Wilks Ave

Existing Traffic Volumes
A.M. Peak Hour

a.

Intersection						
Int Delay, s/veh	6.8					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	WT		BT			BT
Traffic Vol, veh/h	140	8	15	0	0	67
Future Vol, veh/h	140	8	15	0	0	67
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	64	64	64	64	64	64
Heavy Vehicles, %	0	0	7	0	0	1
Mvmt Flow	219	13	23	0	0	105

Major/Minor	Minor1	Major1	Major2	Major3	Major4	Major5
Conflicting Flow All	128	23	0	0	23	0
Stage 1	23	-	-	-	-	-
Stage 2	105	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	871	1060	-	-	1605	-
Stage 1	1005	-	-	-	-	-
Stage 2	924	-	-	-	-	-
Platoon blocked, %						
Mov Cap-1 Maneuver	871	1060	-	-	1605	-
Mov Cap-2 Maneuver	871	-	-	-	-	-
Stage 1	1005	-	-	-	-	-
Stage 2	924	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.6	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	879	1605	-
HCM Lane V/C Ratio	-	-	0.263	-	-
HCM Control Delay (s)	-	-	10.6	0	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	1.1	0	-

Intersection	
Intersection Delay, s/veh	10.4
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	0	2	141	61	8	3	6	2	16	13	176
Future Vol, veh/h	1	0	2	141	61	8	3	6	2	16	13	176
Peak Hour Factor	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66
Heavy Vehicles, %	0	0	0	1	0	0	33	17	0	0	8	0
Mvmt Flow	2	0	3	214	92	12	5	9	3	24	20	267
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0
Approach	EB			WB			NB			SB		
Opposing Approach	WB			EB			SB			NB		
Opposing Lanes	1			1			1			1		
Conflicting Approach Left	SB			NB			EB			WB		
Conflicting Lanes Left	1			1			1			1		
Conflicting Approach Right	NB			SB			WB			EB		
Conflicting Lanes Right	1			1			1			1		
HCM Control Delay	7.8			11.2			8.8			9.7		
HCM LOS	A			B			A			A		

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	27%	33%	67%	8%
Vol Thru, %	55%	0%	29%	6%
Vol Right, %	18%	67%	4%	86%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	11	3	210	205
LT Vol	3	1	141	16
Through Vol	6	0	61	13
RT Vol	2	2	8	176
Lane Flow Rate	17	5	318	311
Geometry Grp	1	1	1	1
Degree of Util (X)	0.026	0.006	0.42	0.365
Departure Headway (Hd)	5.568	4.684	4.749	4.229
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	641	758	754	851
Service Time	3.618	2.748	2.795	2.256
HCM Lane V/C Ratio	0.027	0.007	0.422	0.365
HCM Control Delay	8.8	7.8	11.2	9.7
HCM Lane LOS	A	A	B	A
HCM 95th-tile Q	0.1	0	2.1	1.7

Intersection												
Int Delay, s/veh	75.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕↕				
Traffic Vol, veh/h	9	7	0	0	106	237	1	1442	9	0	0	0
Future Vol, veh/h	9	7	0	0	106	237	1	1442	9	0	0	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	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	1081749504	-	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	11	0	0	0	1	0	0	7	0	0	0	0
Mvmt Flow	10	8	0	0	114	255	1	1551	10	0	0	0

Major/Minor	Minor2		Minor1		Major1				
Conflicting Flow All	835	1563	-	-	1558	781	0	0	0
Stage 1	0	0	-	-	1558	-	-	-	-
Stage 2	835	1563	-	-	0	-	-	-	-
Critical Hdwy	7.72	6.5	-	-	6.52	6.9	4.1	-	-
Critical Hdwy Stg 1	-	-	-	-	5.52	-	-	-	-
Critical Hdwy Stg 2	6.72	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.61	4	-	-	4.01	3.3	2.2	-	-
Pot Cap-1 Maneuver	246	113	0	0	~ 113	342	-	-	-
Stage 1	-	-	0	0	174	-	-	-	-
Stage 2	310	174	0	0	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	113	-	-	~ 113	342	-	-	-
Mov Cap-2 Maneuver	-	113	-	-	~ 113	-	-	-	-
Stage 1	-	-	-	-	174	-	-	-	-
Stage 2	27	174	-	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s		\$ 398.5	
HCM LOS	-	F	

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1
Capacity (veh/h)	-	-	-	-	210
HCM Lane V/C Ratio	-	-	-	-	1.756
HCM Control Delay (s)	-	-	-	-	\$ 398.5
HCM Lane LOS	-	-	-	-	F
HCM 95th %tile Q(veh)	-	-	-	-	25.3

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

Intersection	
Intersection Delay, s/veh	9.7
Intersection LOS	A

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W			↑	↓	
Traffic Vol, veh/h	1	31	221	11	15	20
Future Vol, veh/h	1	31	221	11	15	20
Peak Hour Factor	0.64	0.64	0.64	0.64	0.64	0.64
Heavy Vehicles, %	0	0	0	9	0	0
Mvmt Flow	2	48	345	17	23	31
Number of Lanes	1	0	0	1	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	1	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	1	0	1
HCM Control Delay	7.5	10.4	7.3
HCM LOS	A	B	A

Lane	NBLn1	EBLn1	SBLn1
Vol Left, %	95%	3%	0%
Vol Thru, %	5%	0%	43%
Vol Right, %	0%	97%	57%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	232	32	35
LT Vol	221	1	0
Through Vol	11	0	15
RT Vol	0	31	20
Lane Flow Rate	362	50	55
Geometry Grp	1	1	1
Degree of Util (X)	0.425	0.059	0.061
Departure Headway (Hd)	4.219	4.25	4.03
Convergence, Y/N	Yes	Yes	Yes
Cap	852	848	893
Service Time	2.26	2.252	2.036
HCM Lane V/C Ratio	0.425	0.059	0.062
HCM Control Delay	10.4	7.5	7.3
HCM Lane LOS	B	A	A
HCM 95th-tile Q	2.1	0.2	0.2

HCM 6th Signalized Intersection Summary
 8: Hansel Ave & Fairlane Ave

Existing Traffic Volumes
 A.M. Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	22	31	0	0	101	134	12	1066	6	0	0	0
Future Volume (veh/h)	22	31	0	0	101	134	12	1066	6	0	0	0
Initial Q (Qb), veh	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			
Parking Bus, Adj	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				
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1767	1900			
Adj Flow Rate, veh/h	28	40	0	0	129	172	15	1367	8			
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78			
Percent Heavy Veh, %	0	0	0	0	0	0	0	9	0			
Cap, veh/h	61	73	0	0	151	202	1270	2402	14			
Arrive On Green	0.20	0.20	0.00	0.00	0.20	0.20	0.70	0.70	0.70			
Sat Flow, veh/h	107	356	0	0	738	984	1810	3421	20			
Grp Volume(v), veh/h	68	0	0	0	0	301	15	670	705			
Grp Sat Flow(s),veh/h/ln	463	0	0	0	0	1723	1810	1678	1763			
Q Serve(g_s), s	2.2	0.0	0.0	0.0	0.0	21.9	0.3	25.8	25.8			
Cycle Q Clear(g_c), s	24.1	0.0	0.0	0.0	0.0	21.9	0.3	25.8	25.8			
Prop In Lane	0.41		0.00	0.00		0.57	1.00		0.01			
Lane Grp Cap(c), veh/h	134	0	0	0	0	353	1270	1178	1238			
V/C Ratio(X)	0.51	0.00	0.00	0.00	0.00	0.85	0.01	0.57	0.57			
Avail Cap(c_a), veh/h	358	0	0	0	0	614	1270	1178	1238			
HCM Platoon Ratio	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	0.00	0.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh	48.2	0.0	0.0	0.0	0.0	49.8	5.8	9.6	9.6			
Incr Delay (d2), s/veh	3.3	0.0	0.0	0.0	0.0	8.1	0.0	2.0	1.9			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(95%),veh/ln	4.2	0.0	0.0	0.0	0.0	15.6	0.2	13.8	14.4			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	51.5	0.0	0.0	0.0	0.0	57.9	5.8	11.6	11.5			
LnGrp LOS	D	A	A	A	A	E	A	B	B			
Approach Vol, veh/h		68			301			1390				
Approach Delay, s/veh		51.5			57.9			11.5				
Approach LOS		D			E			B				
Timer - Assigned Phs		2		4				8				
Phs Duration (G+Y+Rc), s		97.7		32.3				32.3				
Change Period (Y+Rc), s		6.4		* 5.7				* 5.7				
Max Green Setting (Gmax), s		71.6		* 47				* 46				
Max Q Clear Time (g_c+I1), s		27.8		26.1				23.9				
Green Ext Time (p_c), s		12.4		0.3				2.7				
Intersection Summary												
HCM 6th Ctrl Delay				21.0								
HCM 6th LOS				C								
Notes												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												

Intersection												
Int Delay, s/veh	8.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕						↕↕	
Traffic Vol, veh/h	0	8	11	90	18	0	0	0	0	43	1454	8
Future Vol, veh/h	0	8	11	90	18	0	0	0	0	43	1454	8
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	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	82	82	82	82	82	82	82	82	82	82	82	82
Heavy Vehicles, %	0	0	0	1	0	0	0	0	0	0	4	14
Mvmt Flow	0	10	13	110	22	0	0	0	0	52	1773	10

Major/Minor	Minor2			Minor1			Major2			
Conflicting Flow All	-	1882	892	996	1887	-	-	0	0	0
Stage 1	-	1882	-	0	0	-	-	-	-	-
Stage 2	-	0	-	996	1887	-	-	-	-	-
Critical Hdwy	-	6.5	6.9	7.52	6.5	-	-	4.1	-	-
Critical Hdwy Stg 1	-	5.5	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	6.52	5.5	-	-	-	-	-
Follow-up Hdwy	-	4	3.3	3.51	4	-	-	2.2	-	-
Pot Cap-1 Maneuver	0	72	289	200	71	0	-	-	-	-
Stage 1	0	121	-	-	-	0	-	-	-	-
Stage 2	0	-	-	264	120	0	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	72	289	171	71	-	-	-	-	-
Mov Cap-2 Maneuver	-	72	-	171	71	-	-	-	-	-
Stage 1	-	121	-	-	-	-	-	-	-	-
Stage 2	-	-	-	231	120	-	-	-	-	-

Approach	EB		WB		SB	
HCM Control Delay, s	39.6		127.2			
HCM LOS	E		F			

Minor Lane/Major Mvmt	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	127	138	-	-	-
HCM Lane V/C Ratio	0.182	0.954	-	-	-
HCM Control Delay (s)	39.6	127.2	-	-	-
HCM Lane LOS	E	F	-	-	-
HCM 95th %tile Q(veh)	0.6	6.6	-	-	-

Intersection	
Intersection Delay, s/veh	9.6
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	87	23	2	4	59	160	7	102	7	20	1	9
Future Vol, veh/h	87	23	2	4	59	160	7	102	7	20	1	9
Peak Hour Factor	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69
Heavy Vehicles, %	0	0	0	0	0	0	0	1	14	0	0	0
Mvmt Flow	126	33	3	6	86	232	10	148	10	29	1	13
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	9.4	9.8	9.6	8.6
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	6%	78%	2%	67%
Vol Thru, %	88%	21%	26%	3%
Vol Right, %	6%	2%	72%	30%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	116	112	223	30
LT Vol	7	87	4	20
Through Vol	102	23	59	1
RT Vol	7	2	160	9
Lane Flow Rate	168	162	323	43
Geometry Grp	1	1	1	1
Degree of Util (X)	0.234	0.222	0.378	0.062
Departure Headway (Hd)	5.002	4.928	4.212	5.167
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	713	724	850	687
Service Time	3.066	2.985	2.257	3.246
HCM Lane V/C Ratio	0.236	0.224	0.38	0.063
HCM Control Delay	9.6	9.4	9.8	8.6
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.9	0.8	1.8	0.2

Intersection												
Int Delay, s/veh	1.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕				
Traffic Vol, veh/h	5	24	0	0	14	43	15	1205	10	0	0	0
Future Vol, veh/h	5	24	0	0	14	43	15	1205	10	0	0	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	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	120	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	5	0	8	0	0	0	0
Mvmt Flow	5	25	0	0	15	45	16	1268	11	0	0	0

Major/Minor	Minor2		Minor1		Major1				
Conflicting Flow All	674	1311	-	-	1306	640	0	0	0
Stage 1	0	0	-	-	1306	-	-	-	-
Stage 2	674	1311	-	-	0	-	-	-	-
Critical Hdwy	7.5	6.5	-	-	6.5	7	4.1	-	-
Critical Hdwy Stg 1	-	-	-	-	5.5	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	-	-	4	3.35	2.2	-	-
Pot Cap-1 Maneuver	344	160	0	0	161	411	-	-	-
Stage 1	-	-	0	0	232	-	-	-	-
Stage 2	415	231	0	0	-	-	-	-	-
Platoon blocked, %									
Mov Cap-1 Maneuver	285	160	-	-	161	411	-	-	-
Mov Cap-2 Maneuver	285	160	-	-	161	-	-	-	-
Stage 1	-	-	-	-	232	-	-	-	-
Stage 2	346	231	-	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	30.2	20.1	
HCM LOS	D	C	

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1
Capacity (veh/h)	-	-	-	173	298
HCM Lane V/C Ratio	-	-	-	0.176	0.201
HCM Control Delay (s)	-	-	-	30.2	20.1
HCM Lane LOS	-	-	-	D	C
HCM 95th %tile Q(veh)	-	-	-	0.6	0.7

Lanes, Volumes, Timings
12: Orange Ave & Lancaster Rd

Existing Traffic Volumes
A.M. Peak Hour

a.

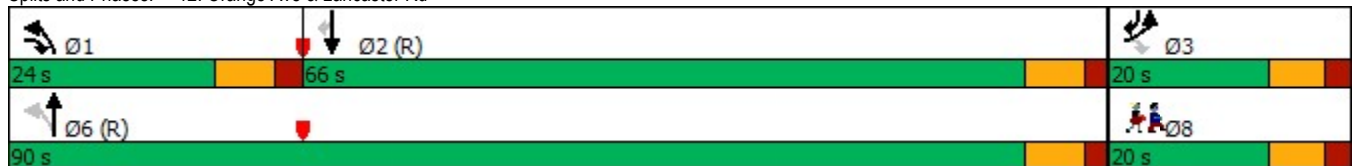


Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	Ø8
Lane Configurations							
Traffic Volume (vph)	177	197	265	1294	1169	225	
Future Volume (vph)	177	197	265	1294	1169	225	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Storage Length (ft)	225	0	300			350	
Storage Lanes	1	1	1			1	
Taper Length (ft)	25		25				
Satd. Flow (prot)	3433	1482	1752	3406	3312	1568	
Flt Permitted	0.950		0.132				
Satd. Flow (perm)	3433	1482	243	3406	3312	1568	
Right Turn on Red		Yes				Yes	
Satd. Flow (RTOR)		44				218	
Link Speed (mph)	40			45	45		
Link Distance (ft)	1228			1363	902		
Travel Time (s)	20.9			20.7	13.7		
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	
Heavy Vehicles (%)	2%	9%	3%	6%	9%	3%	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	195	216	291	1422	1285	247	
Turn Type	Prot	pm+ov	pm+pt	NA	NA	pm+ov	
Protected Phases	3	1	1	6	2	3	8
Permitted Phases		3	6			2	
Total Split (s)	20.0	24.0	24.0	90.0	66.0	20.0	20.0
Total Lost Time (s)	6.8	7.1	7.1	6.8	6.8	6.8	
Act Effct Green (s)	11.2	31.7	84.9	85.2	64.4	82.5	
Actuated g/C Ratio	0.10	0.29	0.77	0.77	0.59	0.75	
v/c Ratio	0.56	0.47	0.78	0.54	0.66	0.20	
Control Delay	53.1	27.9	27.8	5.9	18.5	1.3	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	53.1	27.9	27.8	5.9	18.5	1.3	
LOS	D	C	C	A	B	A	
Approach Delay	39.9			9.6	15.7		
Approach LOS	D			A	B		
Queue Length 50th (ft)	68	97	75	170	314	5	
Queue Length 95th (ft)	104	161	176	230	427	26	
Internal Link Dist (ft)	1148			1283	822		
Turn Bay Length (ft)	225		300			350	
Base Capacity (vph)	411	501	420	2637	1940	1254	
Starvation Cap Reductn	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	
Reduced v/c Ratio	0.47	0.43	0.69	0.54	0.66	0.20	

Intersection Summary

Area Type: Other
 Cycle Length: 110
 Actuated Cycle Length: 110
 Offset: 35 (32%), Referenced to phase 2:SBT and 6:NBT, Start of Green
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.78
 Intersection Signal Delay: 15.6
 Intersection Capacity Utilization 69.3%
 Analysis Period (min) 15
 Intersection LOS: B
 ICU Level of Service C

Splits and Phases: 12: Orange Ave & Lancaster Rd



HCM 6th Signalized Intersection Summary
13: Orange Ave & Nela Ave

Existing Traffic Volumes
A.M. Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	1	29	1	131	4	1421	17	69	1282	2
Future Volume (veh/h)	0	0	1	29	1	131	4	1421	17	69	1282	2
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	1900	1900	1900	1841	1900	1885	1900	1811	1811	1900	1811	1900
Adj Flow Rate, veh/h	0	0	1	32	1	142	4	1545	18	75	1393	2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	4	0	1	0	6	6	0	6	0
Cap, veh/h	0	0	166	198	1	165	317	2469	29	280	2810	4
Arrive On Green	0.00	0.00	0.10	0.10	0.10	0.10	0.71	0.71	0.71	0.04	0.80	0.80
Sat Flow, veh/h	0	0	1610	1394	11	1601	393	3484	41	1810	3526	5
Grp Volume(v), veh/h	0	0	1	32	0	143	4	762	801	75	680	715
Grp Sat Flow(s),veh/h/ln	0	0	1610	1394	0	1612	393	1721	1804	1810	1721	1810
Q Serve(g_s), s	0.0	0.0	0.1	2.7	0.0	11.4	0.4	30.1	30.2	1.3	17.2	17.2
Cycle Q Clear(g_c), s	0.0	0.0	0.1	2.8	0.0	11.4	6.2	30.1	30.2	1.3	17.2	17.2
Prop In Lane	0.00		1.00	1.00		0.99	1.00		0.02	1.00		0.00
Lane Grp Cap(c), veh/h	0	0	166	198	0	166	317	1220	1279	280	1371	1443
V/C Ratio(X)	0.00	0.00	0.01	0.16	0.00	0.86	0.01	0.63	0.63	0.27	0.50	0.50
Avail Cap(c_a), veh/h	0	0	171	205	0	174	317	1220	1279	371	1371	1443
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)	0.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.73	0.73	0.73
Uniform Delay (d), s/veh	0.0	0.0	52.3	53.6	0.0	57.4	7.4	9.9	9.9	9.0	4.4	4.4
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.4	0.0	32.3	0.1	2.4	2.3	0.4	0.9	0.9
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	0.0	0.0	0.1	1.8	0.0	10.1	0.1	15.6	16.3	1.0	7.6	7.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	52.4	54.0	0.0	89.7	7.5	12.3	12.2	9.4	5.4	5.3
LnGrp LOS	A	A	D	D	A	F	A	B	B	A	A	A
Approach Vol, veh/h		1			175			1567			1470	
Approach Delay, s/veh		52.4			83.1			12.3			5.5	
Approach LOS		D			F			B			A	
Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	11.5	99.0		19.6		110.4		19.6				
Change Period (Y+Rc), s	6.8	6.8		* 6.2		6.8		* 6.2				
Max Green Setting (Gmax), s	11.2	85.2		* 14		103.2		* 14				
Max Q Clear Time (g_c+I1), s	3.3	32.2		2.1		19.2		13.4				
Green Ext Time (p_c), s	0.1	15.5		0.0		12.7		0.1				

Intersection Summary												
HCM 6th Ctrl Delay	13.1											
HCM 6th LOS	B											

Notes
User approved pedestrian interval to be less than phase max green.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection												
Int Delay, s/veh	1.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	4	880	28	17	525	8	9	2	40	4	0	3
Future Vol, veh/h	4	880	28	17	525	8	9	2	40	4	0	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	1	4	6	3	0	13	0	0	0	0	0
Mvmt Flow	4	957	30	18	571	9	10	2	43	4	0	3

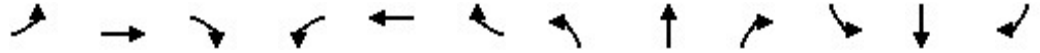
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	580	0	0	987	0	0	1593	1596	972	1615	1607	576
Stage 1	-	-	-	-	-	-	980	980	-	612	612	-
Stage 2	-	-	-	-	-	-	613	616	-	1003	995	-
Critical Hdwy	4.1	-	-	4.16	-	-	7.23	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.23	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.23	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.254	-	-	3.617	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1004	-	-	684	-	-	81	108	309	84	106	521
Stage 1	-	-	-	-	-	-	287	331	-	484	487	-
Stage 2	-	-	-	-	-	-	461	485	-	294	325	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1004	-	-	684	-	-	78	103	309	68	101	521
Mov Cap-2 Maneuver	-	-	-	-	-	-	78	103	-	68	101	-
Stage 1	-	-	-	-	-	-	284	328	-	480	468	-
Stage 2	-	-	-	-	-	-	440	466	-	249	322	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.3	31	40.8
HCM LOS			D	E

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	193	1004	-	-	684	-	-	108
HCM Lane V/C Ratio	0.287	0.004	-	-	0.027	-	-	0.07
HCM Control Delay (s)	31	8.6	0	-	10.4	0	-	40.8
HCM Lane LOS	D	A	A	-	B	A	-	E
HCM 95th %tile Q(veh)	1.1	0	-	-	0.1	-	-	0.2

HCM 6th Signalized Intersection Summary
 2: Hansel Ave & Hoffner Ave

Existing Traffic Volumes
 P.M. Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↑	↗		↕	↗			
Traffic Volume (veh/h)	8	283	0	0	301	232	38	1333	613	0	0	0
Future Volume (veh/h)	8	283	0	0	301	232	38	1333	613	0	0	0
Initial Q (Qb), veh	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			
Parking Bus, Adj	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				
Adj Sat Flow, veh/h/ln	1900	1870	0	0	1856	1856	1856	1841	1885			
Adj Flow Rate, veh/h	8	292	0	0	310	239	39	1374	632			
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97			
Percent Heavy Veh, %	0	2	0	0	3	3	3	4	1			
Cap, veh/h	27	332	0	0	396	335	67	2457	1125			
Arrive On Green	0.21	0.21	0.00	0.00	0.21	0.21	0.70	0.70	0.70			
Sat Flow, veh/h	13	1557	0	0	1856	1572	94	3490	1598			
Grp Volume(v), veh/h	300	0	0	0	310	239	758	655	632			
Grp Sat Flow(s),veh/h/ln	1570	0	0	0	1856	1572	1836	1749	1598			
Q Serve(g_s), s	4.9	0.0	0.0	0.0	23.7	21.2	31.2	26.6	29.0			
Cycle Q Clear(g_c), s	28.5	0.0	0.0	0.0	23.7	21.2	31.2	26.6	29.0			
Prop In Lane	0.03		0.00	0.00		1.00	0.05		1.00			
Lane Grp Cap(c), veh/h	359	0	0	0	396	335	1293	1231	1125			
V/C Ratio(X)	0.83	0.00	0.00	0.00	0.78	0.71	0.59	0.53	0.56			
Avail Cap(c_a), veh/h	506	0	0	0	546	462	1293	1231	1125			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.98	0.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh	56.2	0.0	0.0	0.0	55.7	54.7	11.2	10.5	10.9			
Incr Delay (d2), s/veh	8.1	0.0	0.0	0.0	5.1	3.2	2.0	1.6	2.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(95%),veh/ln	17.6	0.0	0.0	0.0	17.3	13.6	18.1	15.2	15.2			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	64.3	0.0	0.0	0.0	60.8	57.9	13.1	12.2	12.9			
LnGrp LOS	E	A	A	A	E	E	B	B	B			
Approach Vol, veh/h		300			549			2045				
Approach Delay, s/veh		64.3			59.5			12.7				
Approach LOS		E			E			B				
Timer - Assigned Phs		2		4				8				
Phs Duration (G+Y+Rc), s		112.1		37.9				37.9				
Change Period (Y+Rc), s		6.5		5.9				5.9				
Max Green Setting (Gmax), s		93.5		44.1				44.1				
Max Q Clear Time (g_c+I1), s		33.2		25.7				30.5				
Green Ext Time (p_c), s		19.9		2.6				1.4				
Intersection Summary												
HCM 6th Ctrl Delay				27.0								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary
 3: Hoffner Ave & Orange Ave

Existing Traffic Volumes
 P.M. Peak Hour

a.



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	345	0	0	0	278	1381
Future Volume (veh/h)	345	0	0	0	278	1381
Initial Q (Qb), veh	0	0			0	0
Ped-Bike Adj(A_pbT)	1.00	1.00			1.00	
Parking Bus, Adj	1.00	1.00			1.00	1.00
Work Zone On Approach	No				No	No
Adj Sat Flow, veh/h/ln	1856	0			1900	1796
Adj Flow Rate, veh/h	356	0			287	1424
Peak Hour Factor	0.97	0.97			0.97	0.97
Percent Heavy Veh, %	3	0			0	7
Cap, veh/h	0	0			1784	3274
Arrive On Green	0.00	0.00			0.96	0.96
Sat Flow, veh/h	0				1810	3503
Grp Volume(v), veh/h	0.0				287	1424
Grp Sat Flow(s),veh/h/ln					1810	1706
Q Serve(g_s), s					1.1	4.4
Cycle Q Clear(g_c), s					1.1	4.4
Prop In Lane					1.00	
Lane Grp Cap(c), veh/h					1784	3274
V/C Ratio(X)					0.16	0.43
Avail Cap(c_a), veh/h					1784	3274
HCM Platoon Ratio					1.00	1.00
Upstream Filter(l)					1.00	1.00
Uniform Delay (d), s/veh					0.1	0.2
Incr Delay (d2), s/veh					0.2	0.4
Initial Q Delay(d3),s/veh					0.0	0.0
%ile BackOfQ(95%),veh/ln					0.2	0.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh					0.3	0.6
LnGrp LOS					A	A
Approach Vol, veh/h						1711
Approach Delay, s/veh						0.6
Approach LOS						A
Timer - Assigned Phs		2				
Phs Duration (G+Y+Rc), s		150.0				
Change Period (Y+Rc), s		6.1				
Max Green Setting (Gmax), s		97.9				
Max Q Clear Time (g_c+I1), s		6.4				
Green Ext Time (p_c), s		19.4				
Intersection Summary						
HCM 6th Ctrl Delay			0.6			
HCM 6th LOS			A			

Intersection						
Int Delay, s/veh	5.8					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W	W	T	T	T	T
Traffic Vol, veh/h	101	4	36	3	0	32
Future Vol, veh/h	101	4	36	3	0	32
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	71	71	71	71	71	71
Heavy Vehicles, %	0	0	0	0	0	3
Mvmt Flow	142	6	51	4	0	45

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	98	53	0	0	55	0
Stage 1	53	-	-	-	-	-
Stage 2	45	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	906	1020	-	-	1563	-
Stage 1	975	-	-	-	-	-
Stage 2	983	-	-	-	-	-
Platoon blocked, %			-	-	-	-
Mov Cap-1 Maneuver	906	1020	-	-	1563	-
Mov Cap-2 Maneuver	906	-	-	-	-	-
Stage 1	975	-	-	-	-	-
Stage 2	983	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.7	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	910	1563	-
HCM Lane V/C Ratio	-	-	0.163	-	-
HCM Control Delay (s)	-	-	9.7	0	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	0.6	0	-

Intersection	
Intersection Delay, s/veh	8
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	9	8	4	70	46	6	7	26	1	1	16	118
Future Vol, veh/h	9	8	4	70	46	6	7	26	1	1	16	118
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Heavy Vehicles, %	0	0	0	1	2	0	0	4	0	0	0	1
Mvmt Flow	11	10	5	88	58	8	9	33	1	1	20	148
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0
Approach	EB			WB			NB			SB		
Opposing Approach	WB			EB			SB			NB		
Opposing Lanes	1			1			1			1		
Conflicting Approach Left	SB			NB			EB			WB		
Conflicting Lanes Left	1			1			1			1		
Conflicting Approach Right	NB			SB			WB			EB		
Conflicting Lanes Right	1			1			1			1		
HCM Control Delay	7.7			8.5			7.8			7.7		
HCM LOS	A			A			A			A		

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	21%	43%	57%	1%
Vol Thru, %	76%	38%	38%	12%
Vol Right, %	3%	19%	5%	87%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	34	21	122	135
LT Vol	7	9	70	1
Through Vol	26	8	46	16
RT Vol	1	4	6	118
Lane Flow Rate	42	26	152	169
Geometry Grp	1	1	1	1
Degree of Util (X)	0.053	0.033	0.186	0.18
Departure Headway (Hd)	4.509	4.483	4.388	3.846
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	798	801	805	938
Service Time	2.517	2.497	2.484	1.849
HCM Lane V/C Ratio	0.053	0.032	0.189	0.18
HCM Control Delay	7.8	7.7	8.5	7.7
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.2	0.1	0.7	0.7

Intersection												
Int Delay, s/veh	37.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕↕				
Traffic Vol, veh/h	12	4	0	0	83	192	1	1526	4	0	0	0
Future Vol, veh/h	12	4	0	0	83	192	1	1526	4	0	0	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	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	1081749504	-	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	8	25	0	0	1	2	0	4	0	0	0	0
Mvmt Flow	12	4	0	0	86	198	1	1573	4	0	0	0

Major/Minor	Minor2		Minor1		Major1				
Conflicting Flow All	832	1579	-	-	1577	789	0	0	0
Stage 1	0	0	-	-	1577	-	-	-	-
Stage 2	832	1579	-	-	0	-	-	-	-
Critical Hdwy	7.66	7	-	-	6.52	6.94	4.1	-	-
Critical Hdwy Stg 1	-	-	-	-	5.52	-	-	-	-
Critical Hdwy Stg 2	6.66	6	-	-	-	-	-	-	-
Follow-up Hdwy	3.58	4.25	-	-	4.01	3.32	2.2	-	-
Pot Cap-1 Maneuver	252	87	0	0	110	333	-	-	-
Stage 1	-	-	0	0	170	-	-	-	-
Stage 2	317	134	0	0	-	-	-	-	-
Platoon blocked, %									
Mov Cap-1 Maneuver	37	87	-	-	110	333	-	-	-
Mov Cap-2 Maneuver	37	87	-	-	110	-	-	-	-
Stage 1	-	-	-	-	170	-	-	-	-
Stage 2	64	134	-	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	133.6	238.3	
HCM LOS	F	F	

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1
Capacity (veh/h)	-	-	-	43	207
HCM Lane V/C Ratio	-	-	-	0.384	1.37
HCM Control Delay (s)	-	-	-	133.6	238.3
HCM Lane LOS	-	-	-	F	F
HCM 95th %tile Q(veh)	-	-	-	1.3	16.1

Intersection	
Intersection Delay, s/veh	7.7
Intersection LOS	A

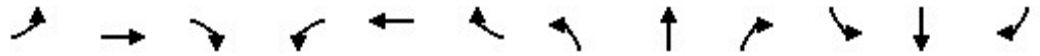
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W			↑	↓	
Traffic Vol, veh/h	12	31	88	38	36	23
Future Vol, veh/h	12	31	88	38	36	23
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83
Heavy Vehicles, %	0	0	0	3	0	0
Mvmt Flow	14	37	106	46	43	28
Number of Lanes	1	0	0	1	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	1	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	1	0	1
HCM Control Delay	7.3	8.1	7.3
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	SBLn1
Vol Left, %	70%	28%	0%
Vol Thru, %	30%	0%	61%
Vol Right, %	0%	72%	39%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	126	43	59
LT Vol	88	12	0
Through Vol	38	0	36
RT Vol	0	31	23
Lane Flow Rate	152	52	71
Geometry Grp	1	1	1
Degree of Util (X)	0.176	0.058	0.076
Departure Headway (Hd)	4.184	4.005	3.871
Convergence, Y/N	Yes	Yes	Yes
Cap	856	900	917
Service Time	2.219	2.005	1.931
HCM Lane V/C Ratio	0.178	0.058	0.077
HCM Control Delay	8.1	7.3	7.3
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.6	0.2	0.2

HCM 6th Signalized Intersection Summary
8: Hansel Ave & Fairlane Ave

Existing Traffic Volumes
P.M. Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕↕				
Traffic Volume (veh/h)	10	22	0	0	37	64	16	1383	6	0	0	0
Future Volume (veh/h)	10	22	0	0	37	64	16	1383	6	0	0	0
Initial Q (Qb), veh	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			
Parking Bus, Adj	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				
Adj Sat Flow, veh/h/ln	1752	1900	0	0	1900	1900	1811	1841	1900			
Adj Flow Rate, veh/h	11	23	0	0	39	68	17	1471	6			
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94			
Percent Heavy Veh, %	10	0	0	0	0	0	6	4	0			
Cap, veh/h	42	70	0	0	50	88	1446	2995	12			
Arrive On Green	0.08	0.08	0.00	0.00	0.08	0.08	0.84	0.84	0.84			
Sat Flow, veh/h	129	863	0	0	621	1084	1725	3572	15			
Grp Volume(v), veh/h	34	0	0	0	0	107	17	720	757			
Grp Sat Flow(s),veh/h/ln	992	0	0	0	0	1705	1725	1749	1838			
Q Serve(g_s), s	0.1	0.0	0.0	0.0	0.0	9.2	0.2	17.0	17.0			
Cycle Q Clear(g_c), s	9.3	0.0	0.0	0.0	0.0	9.2	0.2	17.0	17.0			
Prop In Lane	0.32		0.00	0.00		0.64	1.00		0.01			
Lane Grp Cap(c), veh/h	112	0	0	0	0	138	1446	1466	1541			
V/C Ratio(X)	0.30	0.00	0.00	0.00	0.00	0.77	0.01	0.49	0.49			
Avail Cap(c_a), veh/h	526	0	0	0	0	560	1446	1466	1541			
HCM Platoon Ratio	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	0.00	0.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh	64.6	0.0	0.0	0.0	0.0	67.6	2.0	3.3	3.3			
Incr Delay (d2), s/veh	1.7	0.0	0.0	0.0	0.0	12.3	0.0	1.2	1.1			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(95%),veh/ln	2.3	0.0	0.0	0.0	0.0	8.0	0.1	8.2	8.5			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	66.3	0.0	0.0	0.0	0.0	79.9	2.0	4.5	4.5			
LnGrp LOS	E	A	A	A	A	E	A	A	A			
Approach Vol, veh/h		34			107			1494				
Approach Delay, s/veh		66.3			79.9			4.5				
Approach LOS		E			E			A				
Timer - Assigned Phs		2		4				8				
Phs Duration (G+Y+Rc), s		132.1		17.9				17.9				
Change Period (Y+Rc), s		6.4		* 5.7				* 5.7				
Max Green Setting (Gmax), s		88.6		* 50				* 49				
Max Q Clear Time (g_c+I1), s		19.0		11.3				11.2				
Green Ext Time (p_c), s		15.1		0.2				1.0				

Intersection Summary												
HCM 6th Ctrl Delay				10.7								
HCM 6th LOS				B								

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection												
Int Delay, s/veh	5.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔						↔↔	
Traffic Vol, veh/h	0	6	23	52	26	0	0	0	0	27	1535	6
Future Vol, veh/h	0	6	23	52	26	0	0	0	0	27	1535	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	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	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	0	0	5	0	0	0	0	0	0	0	7	0
Mvmt Flow	0	7	27	61	31	0	0	0	0	32	1806	7

Major/Minor	Minor2			Minor1			Major2				
Conflicting Flow All	-	1874	907	971	1877	-	-	-	0	0	0
Stage 1	-	1874	-	0	0	-	-	-	-	-	-
Stage 2	-	0	-	971	1877	-	-	-	-	-	-
Critical Hdwy	-	6.5	7	7.5	6.5	-	-	-	4.1	-	-
Critical Hdwy Stg 1	-	5.5	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	6.5	5.5	-	-	-	-	-	-
Follow-up Hdwy	-	4	3.35	3.5	4	-	-	-	2.2	-	-
Pot Cap-1 Maneuver	0	73	273	210	72	0	-	-	-	-	-
Stage 1	0	122	-	-	-	0	-	-	-	-	-
Stage 2	0	-	-	275	122	0	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	73	273	175	72	-	-	-	-	-	-
Mov Cap-2 Maneuver	-	73	-	175	72	-	-	-	-	-	-
Stage 1	-	122	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	233	122	-	-	-	-	-	-

Approach	EB		WB		SB	
HCM Control Delay, s	30.7		100.3			
HCM LOS	D		F			

Minor Lane/Major Mvmt	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	174	118	-	-	-
HCM Lane V/C Ratio	0.196	0.778	-	-	-
HCM Control Delay (s)	30.7	100.3	-	-	-
HCM Lane LOS	D	F	-	-	-
HCM 95th %tile Q(veh)	0.7	4.5	-	-	-

Intersection	
Intersection Delay, s/veh	7.8
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	40	47	6	5	44	67	5	49	18	36	8	12
Future Vol, veh/h	40	47	6	5	44	67	5	49	18	36	8	12
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
Heavy Vehicles, %	0	4	0	0	2	0	0	2	0	0	0	0
Mvmt Flow	44	52	7	6	49	74	6	54	20	40	9	13
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8	7.7	7.8	7.9
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	7%	43%	4%	64%
Vol Thru, %	68%	51%	38%	14%
Vol Right, %	25%	6%	58%	21%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	72	93	116	56
LT Vol	5	40	5	36
Through Vol	49	47	44	8
RT Vol	18	6	67	12
Lane Flow Rate	80	103	129	62
Geometry Grp	1	1	1	1
Degree of Util (X)	0.096	0.126	0.143	0.078
Departure Headway (Hd)	4.337	4.401	3.999	4.492
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	828	817	900	800
Service Time	2.353	2.414	2.012	2.508
HCM Lane V/C Ratio	0.097	0.126	0.143	0.077
HCM Control Delay	7.8	8	7.7	7.9
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.3	0.4	0.5	0.3

Intersection												
Int Delay, s/veh	2.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕				
Traffic Vol, veh/h	14	42	0	0	16	46	30	1342	16	0	0	0
Future Vol, veh/h	14	42	0	0	16	46	30	1342	16	0	0	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	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	120	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	7	0	0	0	6	2	13	4	6	0	0	0
Mvmt Flow	15	44	0	0	17	48	32	1413	17	0	0	0

Major/Minor	Minor2		Minor1		Major1				
Conflicting Flow All	779	1494	-	-	1486	715	0	0	0
Stage 1	0	0	-	-	1486	-	-	-	-
Stage 2	779	1494	-	-	0	-	-	-	-
Critical Hdwy	7.64	6.5	-	-	6.62	6.94	4.36	-	-
Critical Hdwy Stg 1	-	-	-	-	5.62	-	-	-	-
Critical Hdwy Stg 2	6.64	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.57	4	-	-	4.06	3.32	2.33	-	-
Pot Cap-1 Maneuver	277	124	0	0	119	373	-	-	-
Stage 1	-	-	0	0	180	-	-	-	-
Stage 2	344	188	0	0	-	-	-	-	-
Platoon blocked, %									
Mov Cap-1 Maneuver	215	124	-	-	119	373	-	-	-
Mov Cap-2 Maneuver	215	124	-	-	119	-	-	-	-
Stage 1	-	-	-	-	180	-	-	-	-
Stage 2	271	188	-	-	-	-	-	-	-

Approach	EB		WB		NB	
HCM Control Delay, s	48.7		25.4			
HCM LOS	E		D			

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1
Capacity (veh/h)	-	-	-	139	241
HCM Lane V/C Ratio	-	-	-	0.424	0.271
HCM Control Delay (s)	-	-	-	48.7	25.4
HCM Lane LOS	-	-	-	E	D
HCM 95th %tile Q(veh)	-	-	-	1.9	1.1

Lanes, Volumes, Timings
12: Orange Ave & Lancaster Rd

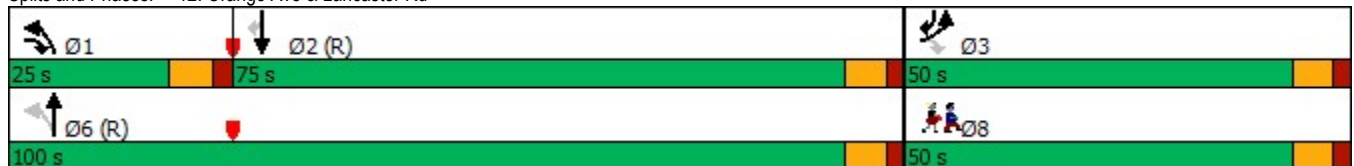
Existing Traffic Volumes
P.M. Peak Hour



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	Ø8
Lane Configurations							
Traffic Volume (vph)	245	165	307	1192	1325	244	
Future Volume (vph)	245	165	307	1192	1325	244	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Storage Length (ft)	225	0	300			350	
Storage Lanes	1	1	1			1	
Taper Length (ft)	25		25				
Satd. Flow (prot)	3502	1524	1719	3471	3343	1568	
Flt Permitted	0.950		0.070				
Satd. Flow (perm)	3502	1524	127	3471	3343	1568	
Right Turn on Red		Yes				Yes	
Satd. Flow (RTOR)		17				71	
Link Speed (mph)	40			45	45		
Link Distance (ft)	1228			1363	902		
Travel Time (s)	20.9			20.7	13.7		
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	
Heavy Vehicles (%)	0%	6%	5%	4%	8%	3%	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	255	172	320	1242	1380	254	
Turn Type	Prot	pm+ov	pm+pt	NA	NA	pm+ov	
Protected Phases	3	1	1	6	2	3	8
Permitted Phases		3	6			2	
Total Split (s)	50.0	25.0	25.0	100.0	75.0	50.0	50.0
Total Lost Time (s)	6.8	7.1	7.1	6.8	6.8	6.8	
Act Effct Green (s)	16.3	62.3	119.8	120.1	73.8	96.9	
Actuated g/C Ratio	0.11	0.42	0.80	0.80	0.49	0.65	
v/c Ratio	0.67	0.27	0.62	0.45	0.84	0.24	
Control Delay	72.9	27.5	29.4	11.1	38.7	8.0	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	72.9	27.5	29.4	11.1	38.7	8.0	
LOS	E	C	C	B	D	A	
Approach Delay	54.6			14.9	33.9		
Approach LOS	D			B	C		
Queue Length 50th (ft)	125	102	204	287	574	63	
Queue Length 95th (ft)	169	154	320	504	723	104	
Internal Link Dist (ft)	1148			1283	822		
Turn Bay Length (ft)	225		300			350	
Base Capacity (vph)	1008	642	517	2778	1644	1306	
Starvation Cap Reductn	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	
Reduced v/c Ratio	0.25	0.27	0.62	0.45	0.84	0.19	

Intersection Summary
 Area Type: Other
 Cycle Length: 150
 Actuated Cycle Length: 150
 Offset: 16 (11%), Referenced to phase 2:SBT and 6:NBTL, Start of Green
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.84
 Intersection Signal Delay: 28.1
 Intersection Capacity Utilization 77.9%
 Analysis Period (min) 15
 Intersection LOS: C
 ICU Level of Service D

Splits and Phases: 12: Orange Ave & Lancaster Rd



HCM 6th Signalized Intersection Summary
13: Orange Ave & Nela Ave

Existing Traffic Volumes
P.M. Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	1	30	0	76	4	1431	63	117	1433	2
Future Volume (veh/h)	0	0	1	30	0	76	4	1431	63	117	1433	2
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	1900	1900	1900	1841	1900	1841	1530	1841	1870	1870	1781	1900
Adj Flow Rate, veh/h	0	0	1	31	0	78	4	1475	65	121	1477	2
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, %	0	0	0	4	0	4	25	4	2	2	8	0
Cap, veh/h	0	0	99	133	0	99	274	2639	116	309	2954	4
Arrive On Green	0.00	0.00	0.06	0.06	0.00	0.06	0.77	0.77	0.77	0.04	1.00	1.00
Sat Flow, veh/h	0	0	1610	1394	0	1610	292	3412	150	1781	3468	5
Grp Volume(v), veh/h	0	0	1	31	0	78	4	754	786	121	721	758
Grp Sat Flow(s),veh/h/ln	0	0	1610	1394	0	1610	292	1749	1814	1781	1692	1781
Q Serve(g_s), s	0.0	0.0	0.1	3.2	0.0	7.2	0.5	25.8	26.0	2.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.1	3.3	0.0	7.2	0.5	25.8	26.0	2.0	0.0	0.0
Prop In Lane	0.00		1.00	1.00		1.00	1.00	1.00	0.08	1.00		0.00
Lane Grp Cap(c), veh/h	0	0	99	133	0	99	274	1352	1403	309	1442	1517
V/C Ratio(X)	0.00	0.00	0.01	0.23	0.00	0.79	0.01	0.56	0.56	0.39	0.50	0.50
Avail Cap(c_a), veh/h	0	0	148	177	0	150	274	1352	1403	490	1442	1517
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33
Upstream Filter(I)	0.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.54	0.54	0.54
Uniform Delay (d), s/veh	0.0	0.0	66.1	67.6	0.0	69.4	3.9	6.8	6.8	6.6	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.9	0.0	14.4	0.1	1.7	1.6	0.4	0.7	0.6
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	0.0	0.0	0.1	2.1	0.0	6.0	0.1	13.1	13.7	1.5	0.5	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	66.1	68.5	0.0	83.8	4.0	8.4	8.4	7.0	0.7	0.6
LnGrp LOS	A	A	E	E	A	F	A	A	A	A	A	A
Approach Vol, veh/h		1			109			1544			1600	
Approach Delay, s/veh		66.1			79.5			8.4			1.1	
Approach LOS		E			E			A			A	
Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	11.8	122.8		15.4		134.6		15.4				
Change Period (Y+Rc), s	6.8	6.8		* 6.2		6.8		* 6.2				
Max Green Setting (Gmax), s	20.2	96.2		* 14		123.2		* 14				
Max Q Clear Time (g_c+I1), s	4.0	28.0		2.1		2.0		9.2				
Green Ext Time (p_c), s	0.2	15.7		0.0		14.5		0.2				

Intersection Summary												
HCM 6th Ctrl Delay	7.2											
HCM 6th LOS	A											

Notes
User approved pedestrian interval to be less than phase max green.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

APPENDIX D

ITE Trip Generation Worksheets

Charter School (K-12) (538)

Vehicle Trip Ends vs: Students

On a: Weekday,

AM Peak Hour of Generator

Setting/Location: General Urban/Suburban

Number of Studies: 4

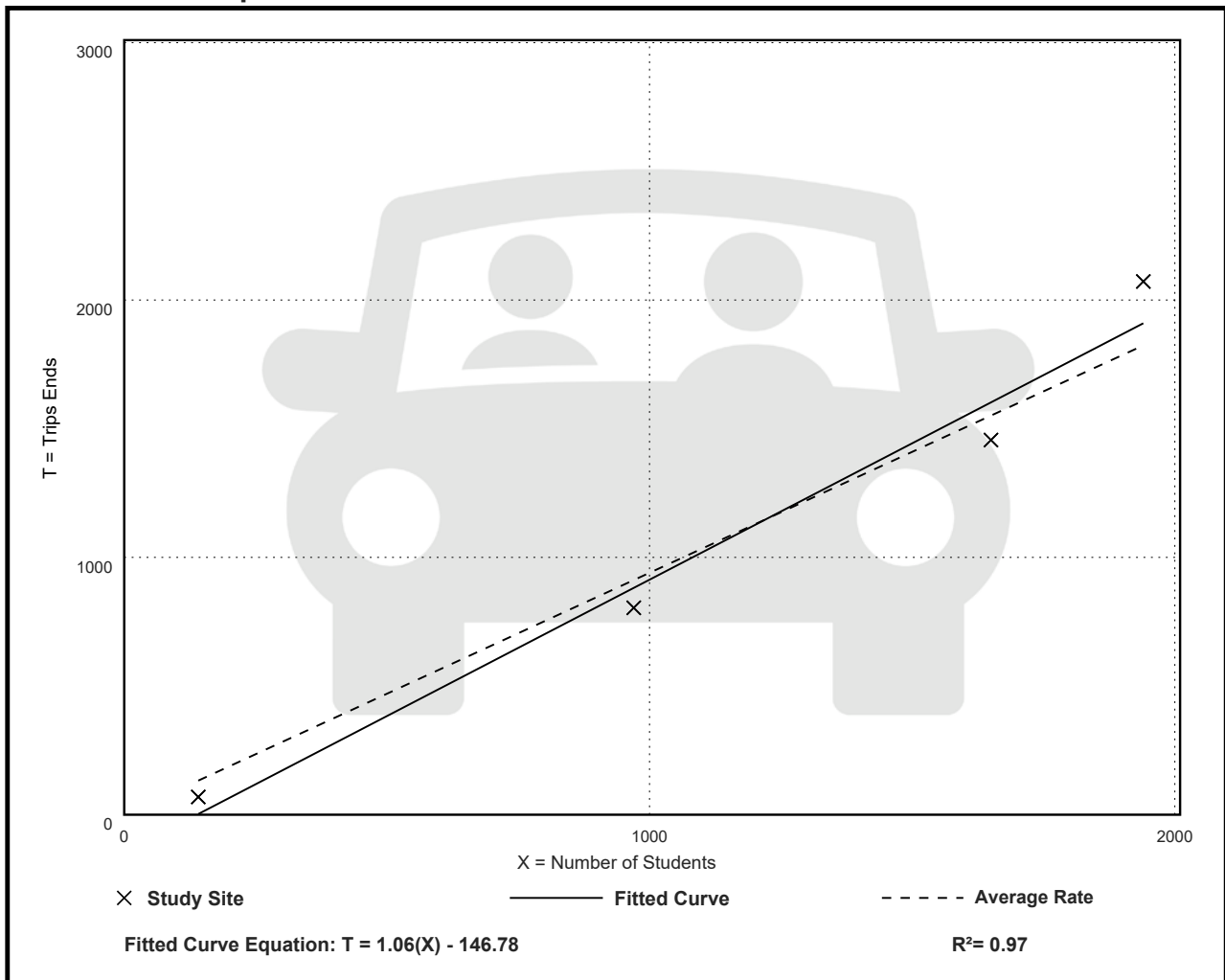
Avg. Num. of Students: 1175

Directional Distribution: 53% entering, 47% exiting

Vehicle Trip Generation per Student

Average Rate	Range of Rates	Standard Deviation
0.94	0.49 - 1.07	0.15

Data Plot and Equation



Charter School (K-12) (538)

Vehicle Trip Ends vs: Students

On a: **Weekday,**

PM Peak Hour of Generator

Setting/Location: General Urban/Suburban

Number of Studies: 4

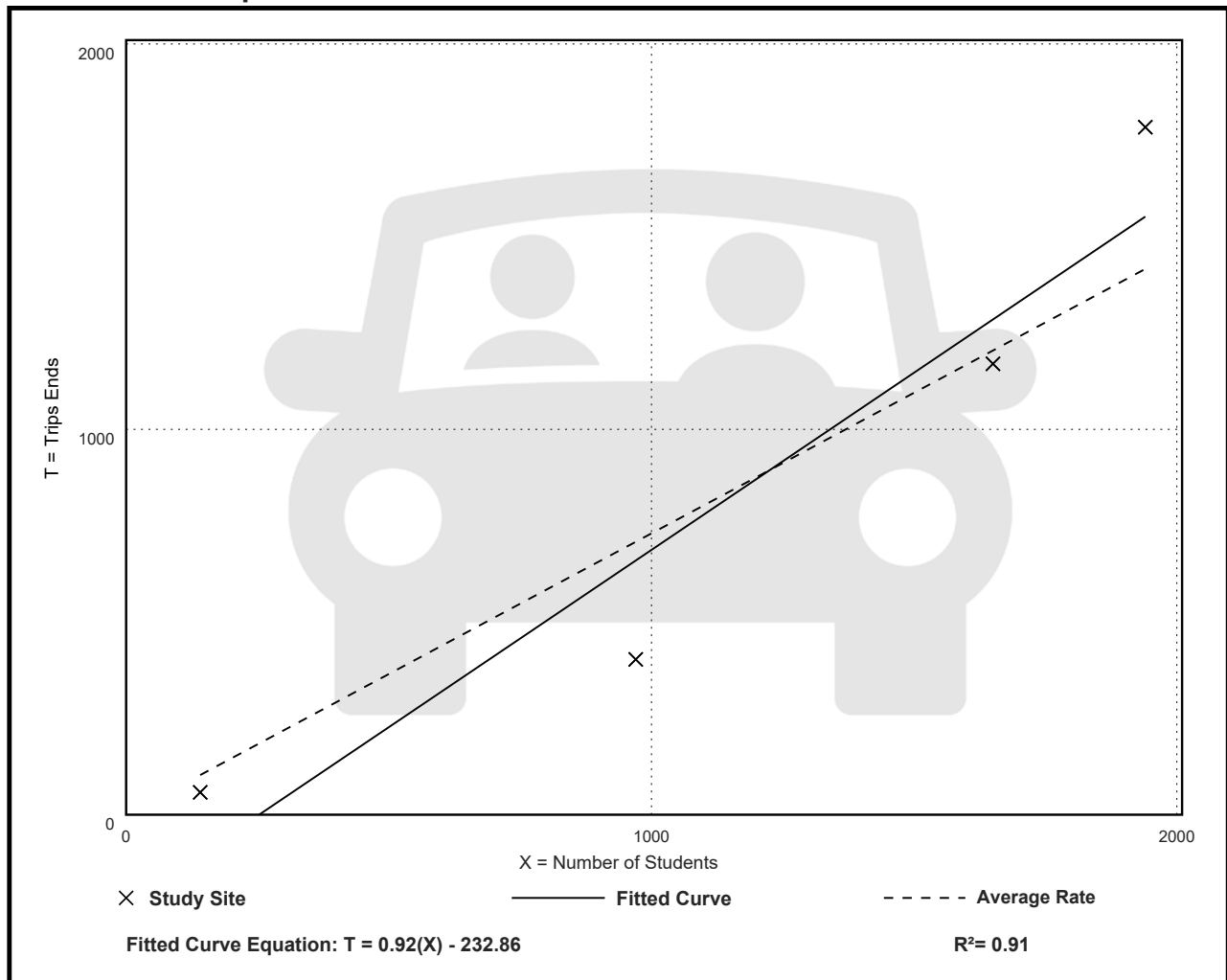
Avg. Num. of Students: 1175

Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Student

Average Rate	Range of Rates	Standard Deviation
0.73	0.41 - 0.92	0.23

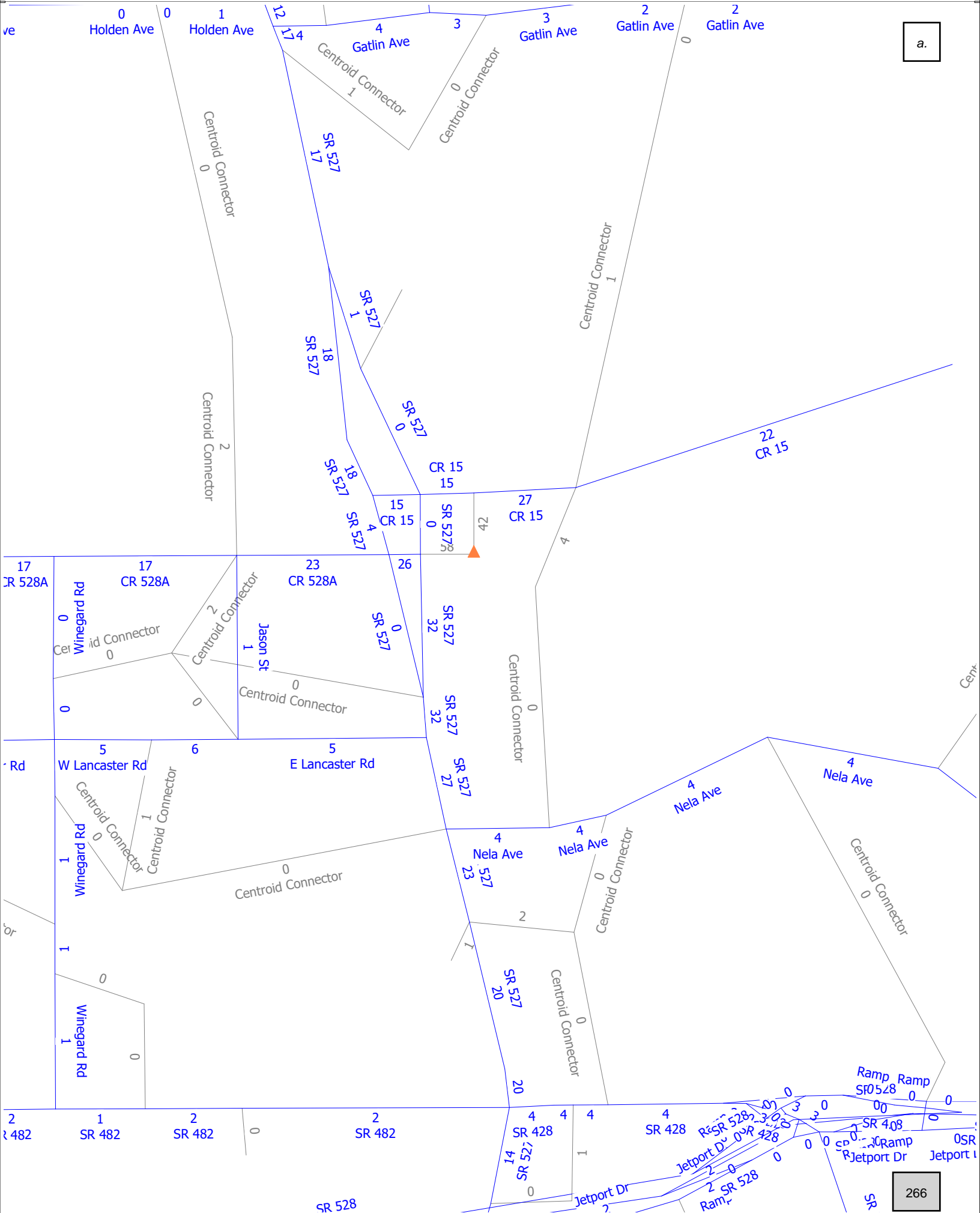
Data Plot and Equation



APPENDIX E

Model Distribution Output

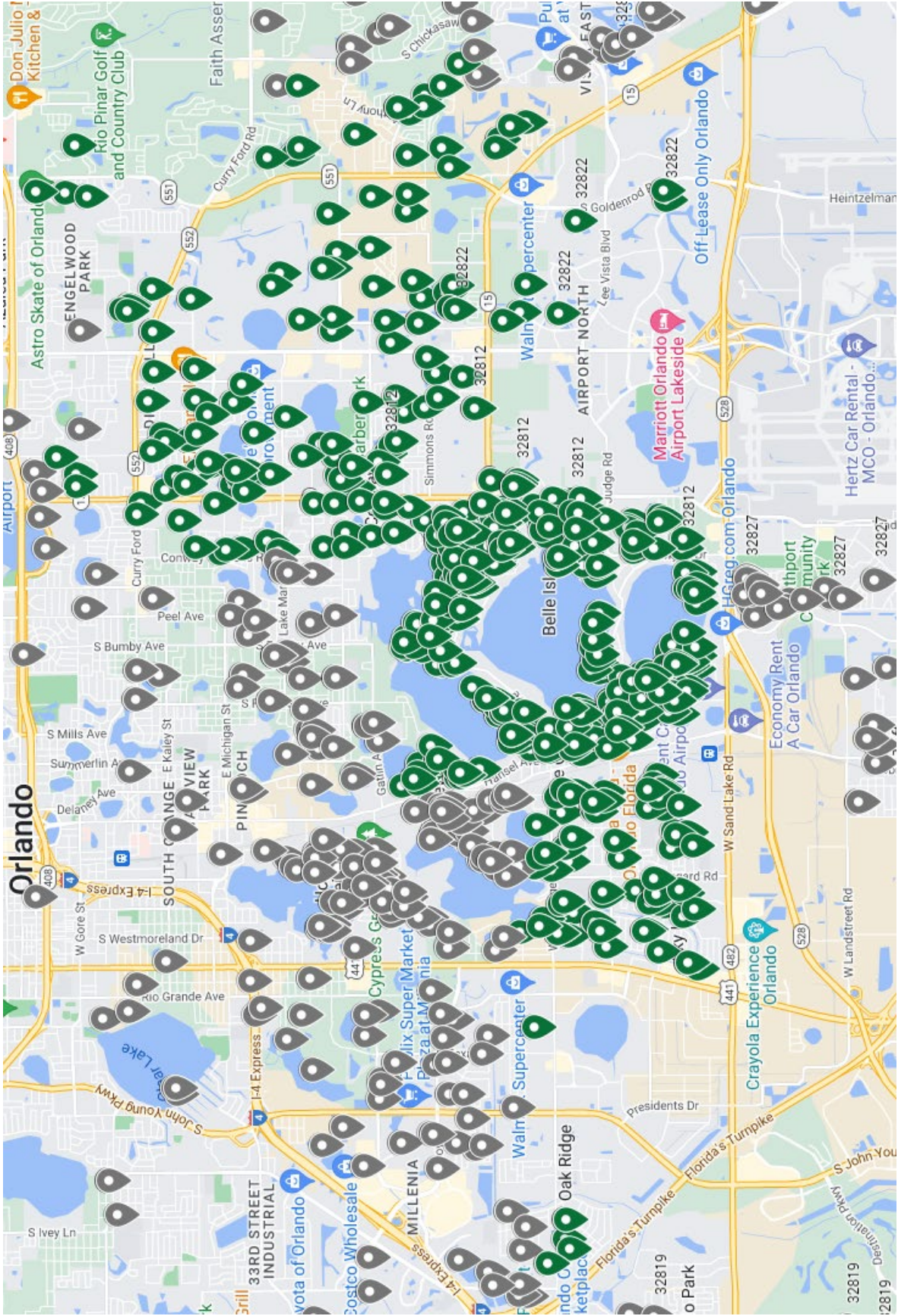
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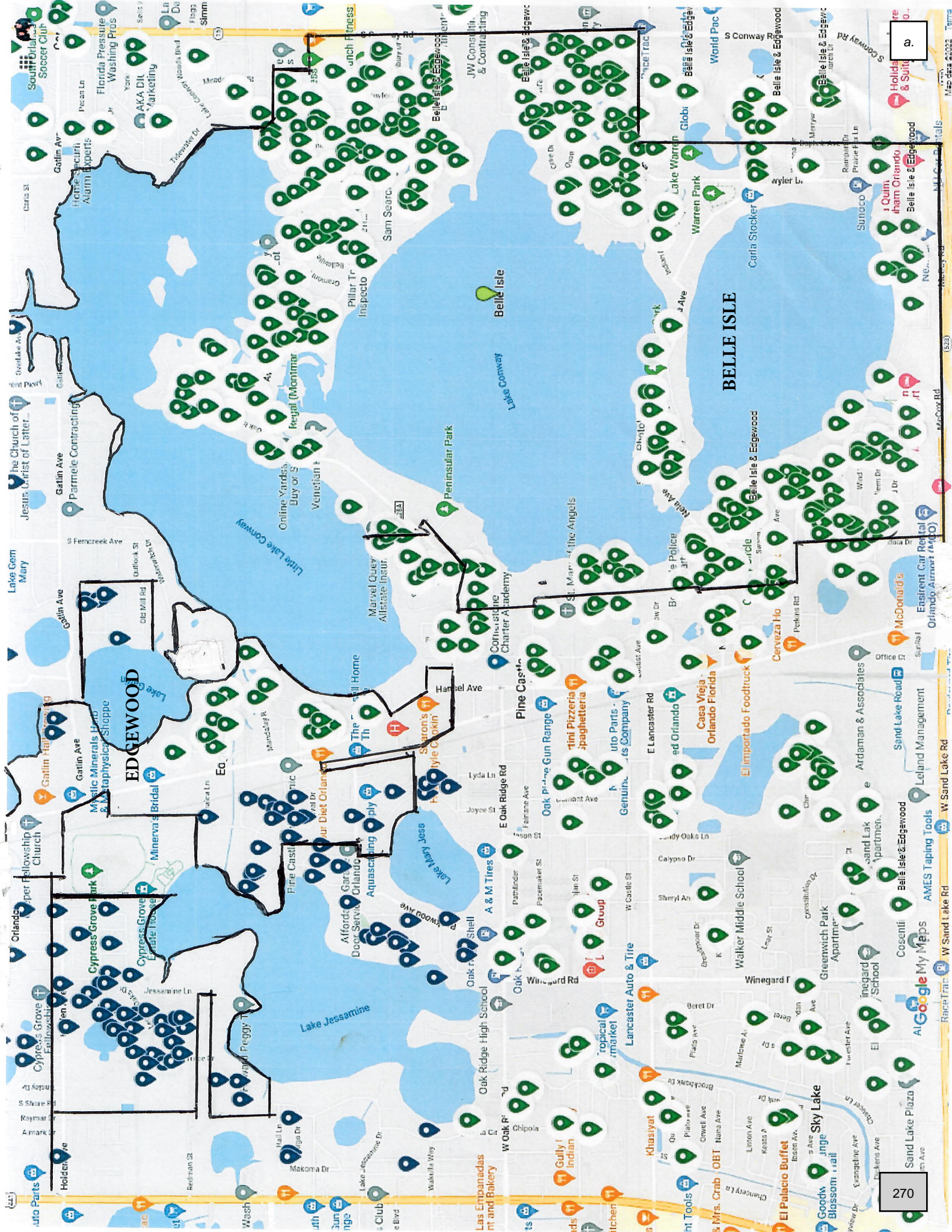


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Cornerstone Charter Academy Heatmaps December 2022

32809-32812-32809 Green - Zoomed in





a.

270

APPENDIX F

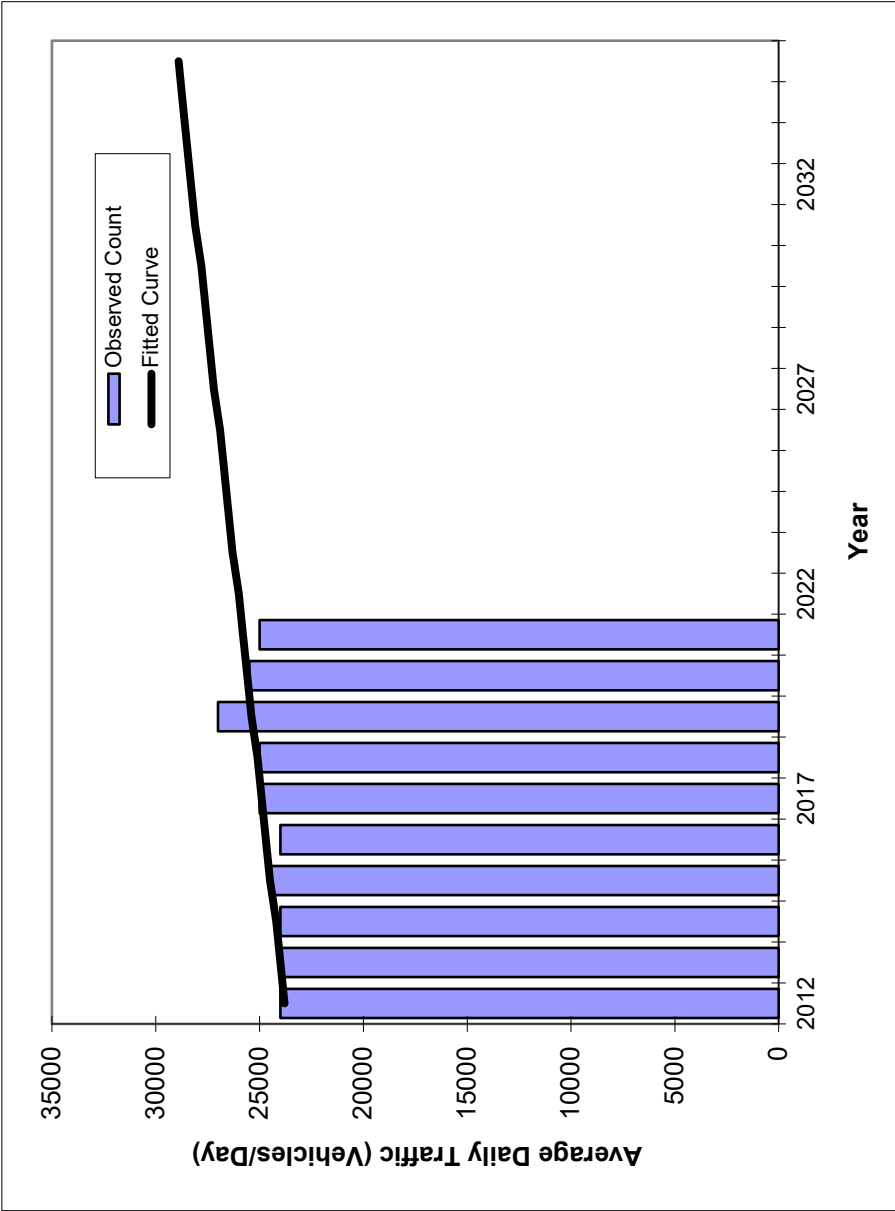
Trends Analysis Worksheets

Traffic Trends - V03.a

HANSEL AV --

FIN#	1234
Location	1

County:	Orange (75)
Station #:	0051
Highway:	HANSEL AV



** Annual Trend Increase:	224
Trend R-squared:	51.22%
Trend Annual Historic Growth Rate:	0.93%
Trend Growth Rate (2021 to Design Year):	0.90%
Printed:	25-Jan-23
Straight Line Growth Option	

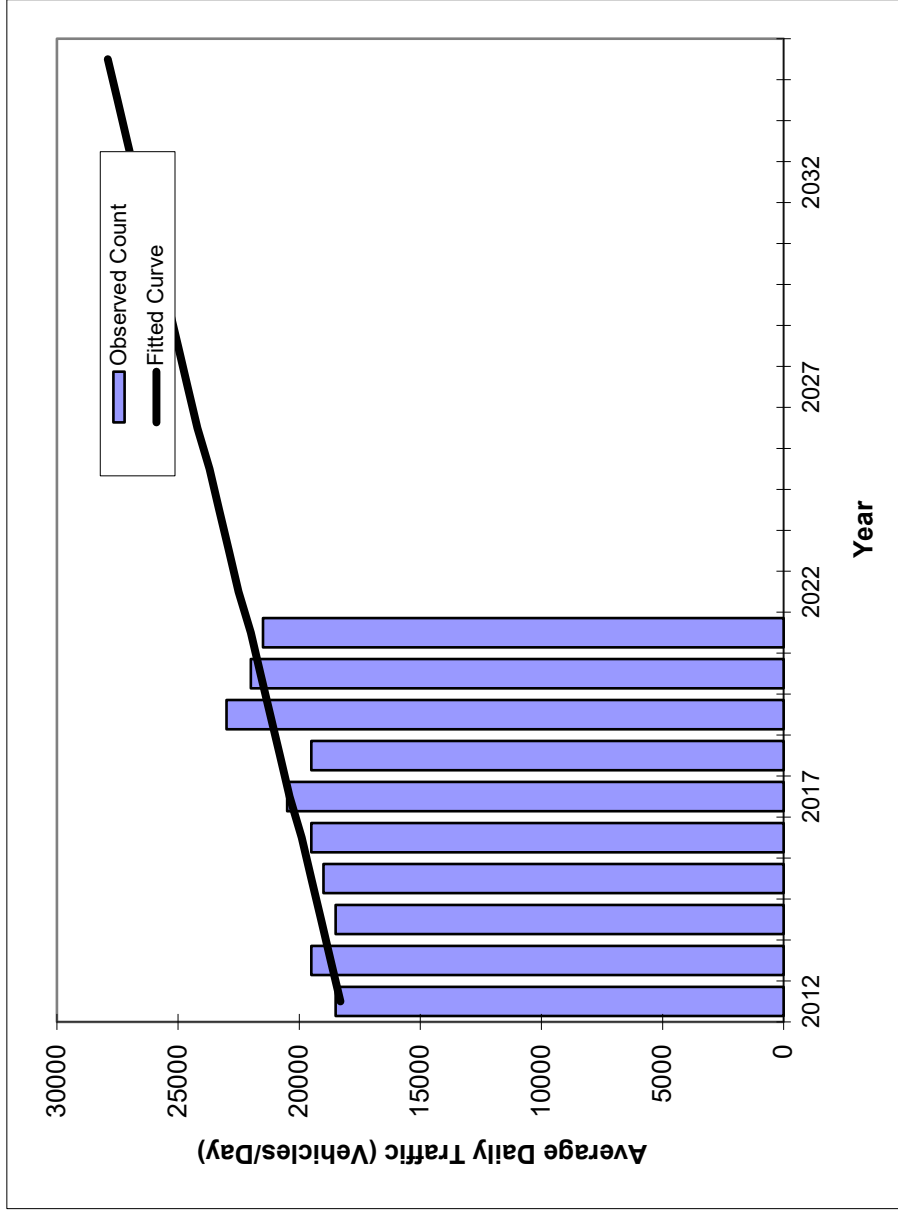
Year	Traffic (ADT/AADT)	
	Count*	Trend**
2012	24000	23800
2013	24000	24000
2014	24000	24200
2015	24500	24500
2016	24000	24700
2017	25000	24900
2018	25000	25100
2019	27000	25400
2020	25500	25600
2021	25000	25800
2022	-	-
2023	-	-
2024	-	-
2025	-	-
2026	-	-
2027	-	-
2028	-	-
2029	-	-
2030	-	-
2031	-	-
2032	-	-

*Axle-Adjusted

Traffic Trends - V03.a ORANGE AV --

FIN#	1234
Location	1

County:	Orange (75)
Station #:	5204
Highway:	ORANGE AV



Year	Traffic (ADT/AADT)	
	Count*	Trend**
2012	18500	18300
2013	19500	18700
2014	18500	19100
2015	19000	19500
2016	19500	19900
2017	20500	20400
2018	19500	20800
2019	23000	21200
2020	22000	21600
2021	21500	22000
2023 Opening Year Trend		
2023	N/A	22900
2025 Mid-Year Trend		
2025	N/A	23700
2027 Design Year Trend		
2027	N/A	24600
TRANPLAN Forecasts/Trends		

** Annual Trend Increase:	421
Trend R-squared:	68.00%
Trend Annual Historic Growth Rate:	2.25%
Trend Growth Rate (2021 to Design Year):	1.97%
Printed:	25-Jan-23
Straight Line Growth Option	

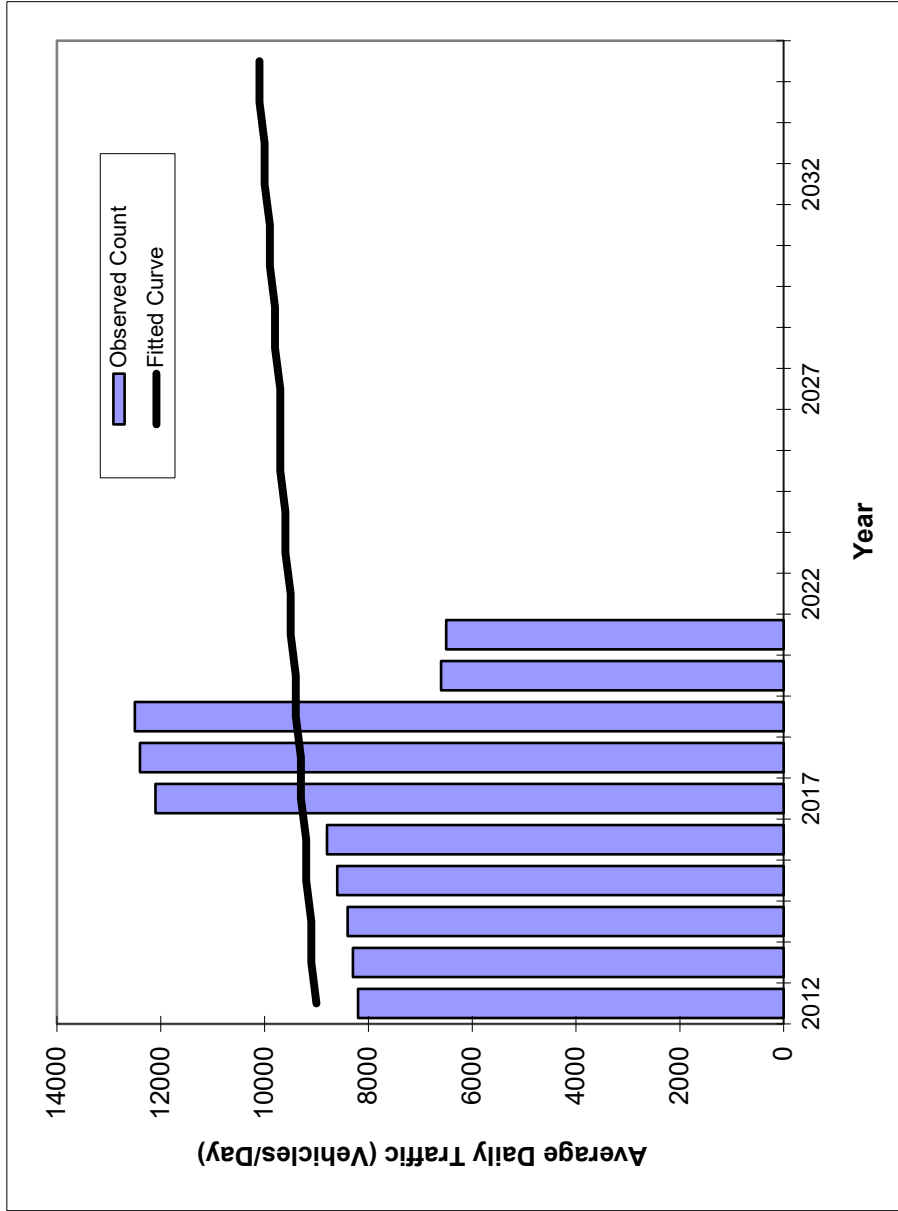
*Axle-Adjusted

Traffic Trends - V03.a

HOFFNER RD --

FIN#	1234
Location	1

County:	Orange (75)
Station #:	8301
Highway:	HOFFNER RD



Year	Traffic (ADT/AADT)	
	Count*	Trend**
2012	8200	9000
2013	8300	9100
2014	8400	9100
2015	8600	9200
2016	8800	9200
2017	12100	9300
2018	12400	9300
2019	12500	9400
2020	6600	9400
2021	6500	9500
2023 Opening Year Trend		
2023	N/A	9600
2025 Mid-Year Trend		
2025	N/A	9700
2027 Design Year Trend		
2027	N/A	9700
TRANPLAN Forecasts/Trends		

** Annual Trend Increase:	48
Trend R-squared:	0.42%
Trend Annual Historic Growth Rate:	0.62%
Trend Growth Rate (2021 to Design Year):	0.35%
Printed:	25-Jan-23
Straight Line Growth Option	

*Axle-Adjusted

APPENDIX G

Projected Capacity Analysis Worksheets

Intersection												
Int Delay, s/veh	3.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	862	87	156	621	1	17	0	9	0	0	0
Future Vol, veh/h	0	862	87	156	621	1	17	0	9	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	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	1	2	0	1	0	6	0	0	0	0	0
Mvmt Flow	0	927	94	168	668	1	18	0	10	0	0	0

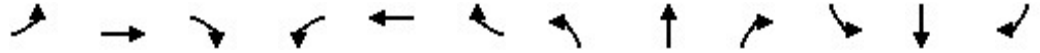
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	669	0	0	1021	0	0	1979	1979	974	1984	2026	669
Stage 1	-	-	-	-	-	-	974	974	-	1005	1005	-
Stage 2	-	-	-	-	-	-	1005	1005	-	979	1021	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.16	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.16	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.16	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.554	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	931	-	-	688	-	-	45	62	308	46	58	461
Stage 1	-	-	-	-	-	-	298	333	-	294	322	-
Stage 2	-	-	-	-	-	-	286	322	-	304	316	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	931	-	-	688	-	-	31	38	308	31	35	461
Mov Cap-2 Maneuver	-	-	-	-	-	-	31	38	-	31	35	-
Stage 1	-	-	-	-	-	-	298	333	-	294	197	-
Stage 2	-	-	-	-	-	-	175	197	-	294	316	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	2.4	171.9	0
HCM LOS			F	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	45	931	-	-	688	-	-	-
HCM Lane V/C Ratio	0.621	-	-	-	0.244	-	-	-
HCM Control Delay (s)	171.9	0	-	-	11.9	0	-	0
HCM Lane LOS	F	A	-	-	B	A	-	A
HCM 95th %tile Q(veh)	2.3	0	-	-	1	-	-	-

HCM 6th Signalized Intersection Summary
2: Hansel Ave & Hoffner Ave

Projected AM
A.M. Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕	↗		↕	↗			
Traffic Volume (veh/h)	6	291	0	0	384	258	191	1393	673	0	0	0
Future Volume (veh/h)	6	291	0	0	384	258	191	1393	673	0	0	0
Initial Q (Qb), veh	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			
Parking Bus, Adj	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				
Adj Sat Flow, veh/h/ln	1900	1870	0	0	1870	1885	1811	1826	1870			
Adj Flow Rate, veh/h	6	300	0	0	396	266	197	1436	694			
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97			
Percent Heavy Veh, %	0	2	0	0	2	1	6	5	2			
Cap, veh/h	30	374	0	0	457	390	268	2070	1047			
Arrive On Green	0.24	0.24	0.00	0.00	0.24	0.24	0.66	0.66	0.66			
Sat Flow, veh/h	6	1530	0	0	1870	1598	406	3134	1585			
Grp Volume(v), veh/h	306	0	0	0	396	266	876	757	694			
Grp Sat Flow(s),veh/h/ln	1536	0	0	0	1870	1598	1806	1735	1585			
Q Serve(g_s), s	1.1	0.0	0.0	0.0	26.4	19.6	41.6	34.2	34.4			
Cycle Q Clear(g_c), s	27.5	0.0	0.0	0.0	26.4	19.6	41.6	34.2	34.4			
Prop In Lane	0.02		0.00	0.00		1.00	0.22		1.00			
Lane Grp Cap(c), veh/h	404	0	0	0	457	390	1192	1145	1047			
V/C Ratio(X)	0.76	0.00	0.00	0.00	0.87	0.68	0.73	0.66	0.66			
Avail Cap(c_a), veh/h	646	0	0	0	706	603	1192	1145	1047			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.96	0.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh	44.5	0.0	0.0	0.0	47.1	44.5	14.6	13.3	13.3			
Incr Delay (d2), s/veh	2.8	0.0	0.0	0.0	7.1	2.1	4.0	3.0	3.3			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(95%),veh/ln	14.1	0.0	0.0	0.0	19.1	12.7	23.2	18.9	17.6			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.4	0.0	0.0	0.0	54.2	46.6	18.6	16.3	16.7			
LnGrp LOS	D	A	A	A	D	D	B	B	B			
Approach Vol, veh/h		306			662			2327				
Approach Delay, s/veh		47.4			51.2			17.3				
Approach LOS		D			D			B				
Timer - Assigned Phs		2		4				8				
Phs Duration (G+Y+Rc), s		92.3		37.7				37.7				
Change Period (Y+Rc), s		6.5		5.9				5.9				
Max Green Setting (Gmax), s		68.5		49.1				49.1				
Max Q Clear Time (g_c+I1), s		43.6		28.4				29.5				
Green Ext Time (p_c), s		16.6		3.4				1.7				
Intersection Summary												
HCM 6th Ctrl Delay				26.9								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary
 3: Hoffner Ave & Orange Ave

Projected AM
 A.M. Peak Hour

a.



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	569	0	0	0	292	1277
Future Volume (veh/h)	569	0	0	0	292	1277
Initial Q (Qb), veh	0	0			0	0
Ped-Bike Adj(A_pbT)	1.00	1.00			1.00	
Parking Bus, Adj	1.00	1.00			1.00	1.00
Work Zone On Approach	No				No	No
Adj Sat Flow, veh/h/ln	1870	0			1870	1841
Adj Flow Rate, veh/h	605	0			311	1359
Peak Hour Factor	0.94	0.94			0.94	0.94
Percent Heavy Veh, %	2	0			2	4
Cap, veh/h	0	0			1753	3333
Arrive On Green	0.00	0.00			0.95	0.95
Sat Flow, veh/h	0				1781	3589
Grp Volume(v), veh/h	0.0				311	1359
Grp Sat Flow(s),veh/h/ln					1781	1749
Q Serve(g_s), s					1.3	3.9
Cycle Q Clear(g_c), s					1.3	3.9
Prop In Lane					1.00	
Lane Grp Cap(c), veh/h					1753	3333
V/C Ratio(X)					0.18	0.41
Avail Cap(c_a), veh/h					1753	3333
HCM Platoon Ratio					1.00	1.00
Upstream Filter(l)					1.00	1.00
Uniform Delay (d), s/veh					0.2	0.2
Incr Delay (d2), s/veh					0.2	0.4
Initial Q Delay(d3),s/veh					0.0	0.0
%ile BackOfQ(95%),veh/ln					0.2	0.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh					0.4	0.6
LnGrp LOS					A	A
Approach Vol, veh/h						1670
Approach Delay, s/veh						0.6
Approach LOS						A
Timer - Assigned Phs		2				
Phs Duration (G+Y+Rc), s		130.0				
Change Period (Y+Rc), s		6.1				
Max Green Setting (Gmax), s		70.9				
Max Q Clear Time (g_c+I1), s		5.9				
Green Ext Time (p_c), s		17.2				
Intersection Summary						
HCM 6th Ctrl Delay			0.6			
HCM 6th LOS			A			

Intersection						
Int Delay, s/veh	0.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W	W	T	T	T	T
Traffic Vol, veh/h	0	8	15	0	0	227
Future Vol, veh/h	0	8	15	0	0	227
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	64	64	64	64	64	64
Heavy Vehicles, %	0	0	7	0	0	1
Mvmt Flow	0	13	23	0	0	355

Major/Minor	Minor1	Major1	Major2	Major2	Major2	Major2
Conflicting Flow All	378	23	0	0	23	0
Stage 1	23	-	-	-	-	-
Stage 2	355	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	628	1060	-	-	1605	-
Stage 1	1005	-	-	-	-	-
Stage 2	714	-	-	-	-	-
Platoon blocked, %			-	-	-	-
Mov Cap-1 Maneuver	628	1060	-	-	1605	-
Mov Cap-2 Maneuver	628	-	-	-	-	-
Stage 1	1005	-	-	-	-	-
Stage 2	714	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.4	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	1060	1605	-
HCM Lane V/C Ratio	-	-	0.012	-	-
HCM Control Delay (s)	-	-	8.4	0	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	0	0	-

Intersection	
Intersection Delay, s/veh	9.9
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	112	0	0	0	0	8	0	0	0	202	0	0
Future Vol, veh/h	112	0	0	0	0	8	0	0	0	202	0	0
Peak Hour Factor	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66
Heavy Vehicles, %	0	0	0	1	0	0	33	17	0	0	8	0
Mvmt Flow	170	0	0	0	0	12	0	0	0	306	0	0
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	9.3	7.3	0	10.4
HCM LOS	A	A	-	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	100%	0%	100%
Vol Thru, %	100%	0%	0%	0%
Vol Right, %	0%	0%	100%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	0	112	8	202
LT Vol	0	112	0	202
Through Vol	0	0	0	0
RT Vol	0	0	8	0
Lane Flow Rate	0	170	12	306
Geometry Grp	1	1	1	1
Degree of Util (X)	0	0.229	0.014	0.387
Departure Headway (Hd)	4.995	4.854	4.251	4.552
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	0	740	840	793
Service Time	3.03	2.879	2.286	2.573
HCM Lane V/C Ratio	0	0.23	0.014	0.386
HCM Control Delay	8	9.3	7.3	10.4
HCM Lane LOS	N	A	A	B
HCM 95th-tile Q	0	0.9	0	1.8

Intersection												
Int Delay, s/veh	139.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕↕				
Traffic Vol, veh/h	9	7	0	0	174	32	62	1842	9	0	0	0
Future Vol, veh/h	9	7	0	0	174	32	62	1842	9	0	0	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	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	-	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	11	0	0	0	1	0	0	7	0	0	0	0
Mvmt Flow	10	8	0	0	187	34	67	1981	10	0	0	0

Major/Minor	Minor2		Minor1		Major1				
Conflicting Flow All	1218	2125	-	-	2120	996	0	0	0
Stage 1	0	0	-	-	2120	-	-	-	-
Stage 2	1218	2125	-	-	0	-	-	-	-
Critical Hdwy	7.72	6.5	-	-	6.52	6.9	4.1	-	-
Critical Hdwy Stg 1	-	-	-	-	5.52	-	-	-	-
Critical Hdwy Stg 2	6.72	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.61	4	-	-	4.01	3.3	2.2	-	-
Pot Cap-1 Maneuver	127	51	0	0	~ 50	247	-	-	-
Stage 1	-	-	0	0	~ 91	-	-	-	-
Stage 2	178	91	0	0	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	51	-	-	~ 50	247	-	-	-
Mov Cap-2 Maneuver	-	51	-	-	~ 50	-	-	-	-
Stage 1	-	-	-	-	~ 91	-	-	-	-
Stage 2	-	91	-	-	-	-	-	-	-

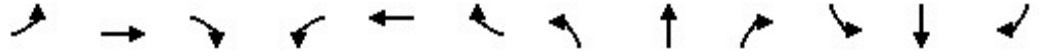
Approach	EB	WB	NB
HCM Control Delay, s		\$ 1447	
HCM LOS	-	F	

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1
Capacity (veh/h)	-	-	-	-	57
HCM Lane V/C Ratio	-	-	-	-	3.886
HCM Control Delay (s)	-	-	-	-	\$ 1447
HCM Lane LOS	-	-	-	-	F
HCM 95th %tile Q(veh)	-	-	-	-	24

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

HCM 6th Signalized Intersection Summary
6: Hansel Ave & Waltham Ave

Projected AM
A.M. Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕↕				
Traffic Volume (veh/h)	9	7	0	0	174	32	62	1842	9	0	0	0
Future Volume (veh/h)	9	7	0	0	174	32	62	1842	9	0	0	0
Initial Q (Qb), veh	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			
Parking Bus, Adj	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				
Adj Sat Flow, veh/h/ln	1737	1900	0	0	1885	1900	1900	1796	1900			
Adj Flow Rate, veh/h	10	8	0	0	187	34	67	1981	10			
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93			
Percent Heavy Veh, %	11	0	0	0	1	0	0	7	0			
Cap, veh/h	43	35	0	0	304	55	73	2272	12			
Arrive On Green	0.04	0.04	0.00	0.00	0.20	0.20	0.22	0.22	0.22			
Sat Flow, veh/h	1027	822	0	0	1552	282	111	3454	18			
Grp Volume(v), veh/h	18	0	0	0	0	221	1077	0	981			
Grp Sat Flow(s),veh/h/ln	1849	0	0	0	0	1834	1791	0	1793			
Q Serve(g_s), s	1.2	0.0	0.0	0.0	0.0	14.3	76.4	0.0	67.9			
Cycle Q Clear(g_c), s	1.2	0.0	0.0	0.0	0.0	14.3	76.4	0.0	67.9			
Prop In Lane	0.56		0.00	0.00		0.15	0.06		0.01			
Lane Grp Cap(c), veh/h	78	0	0	0	0	360	1178	0	1179			
V/C Ratio(X)	0.23	0.00	0.00	0.00	0.00	0.61	0.91	0.00	0.83			
Avail Cap(c_a), veh/h	78	0	0	0	0	360	1178	0	1179			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33			
Upstream Filter(I)	1.00	0.00	0.00	0.00	0.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	60.2	0.0	0.0	0.0	0.0	47.8	47.3	0.0	44.0			
Incr Delay (d2), s/veh	6.7	0.0	0.0	0.0	0.0	7.6	12.4	0.0	6.9			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(95%),veh/ln	1.3	0.0	0.0	0.0	0.0	11.8	51.0	0.0	44.4			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	67.0	0.0	0.0	0.0	0.0	55.4	59.7	0.0	50.9			
LnGrp LOS	E	A	A	A	A	E	E	A	D			
Approach Vol, veh/h		18			221			2058				
Approach Delay, s/veh		67.0			55.4			55.5				
Approach LOS		E			E			E				
Timer - Assigned Phs		2		4				8				
Phs Duration (G+Y+Rc), s		90.0		10.0				30.0				
Change Period (Y+Rc), s		4.5		4.5				4.5				
Max Green Setting (Gmax), s		85.5		5.5				25.5				
Max Q Clear Time (g_c+I1), s		78.4		3.2				16.3				
Green Ext Time (p_c), s		6.2		0.0				0.8				
Intersection Summary												
HCM 6th Ctrl Delay				55.6								
HCM 6th LOS				E								

Intersection	
Intersection Delay, s/veh	0
Intersection LOS	-

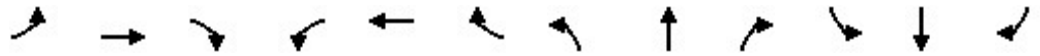
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W			↑	↑	
Traffic Vol, veh/h	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0
Peak Hour Factor	0.64	0.64	0.64	0.64	0.64	0.64
Heavy Vehicles, %	0	0	0	9	0	0
Mvmt Flow	0	0	0	0	0	0
Number of Lanes	1	0	0	1	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	1	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	1	0	1
HCM Control Delay	0	0	0
HCM LOS	-	-	-

Lane	NBLn1	EBLn1	SBLn1
Vol Left, %	0%	0%	0%
Vol Thru, %	100%	100%	100%
Vol Right, %	0%	0%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	0	0	0
LT Vol	0	0	0
Through Vol	0	0	0
RT Vol	0	0	0
Lane Flow Rate	0	0	0
Geometry Grp	1	1	1
Degree of Util (X)	0	0	0
Departure Headway (Hd)	4.053	3.9	3.9
Convergence, Y/N	Yes	Yes	Yes
Cap	0	0	0
Service Time	2.053	1.9	1.9
HCM Lane V/C Ratio	0	0	0
HCM Control Delay	7.1	6.9	6.9
HCM Lane LOS	N	N	N
HCM 95th-tile Q	0	0	0

HCM 6th Signalized Intersection Summary
8: Hansel Ave & Fairlane Ave

Projected AM
A.M. Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕↕				
Traffic Volume (veh/h)	22	0	0	0	0	447	12	1077	0	0	0	0
Future Volume (veh/h)	22	0	0	0	0	447	12	1077	0	0	0	0
Initial Q (Qb), veh	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			
Parking Bus, Adj	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				
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1767	1900			
Adj Flow Rate, veh/h	28	0	0	0	0	573	15	1381	0			
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78			
Percent Heavy Veh, %	0	0	0	0	0	0	0	9	0			
Cap, veh/h	59	0	0	0	0	577	1134	2104	0			
Arrive On Green	0.36	0.00	0.00	0.00	0.00	0.36	0.63	0.63	0.00			
Sat Flow, veh/h	10	0	0	0	0	1610	1810	3445	0			
Grp Volume(v), veh/h	28	0	0	0	0	573	15	1381	0			
Grp Sat Flow(s),veh/h/ln	10	0	0	0	0	1610	1810	1678	0			
Q Serve(g_s), s	0.5	0.0	0.0	0.0	0.0	46.1	0.4	33.9	0.0			
Cycle Q Clear(g_c), s	46.6	0.0	0.0	0.0	0.0	46.1	0.4	33.9	0.0			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		0.00			
Lane Grp Cap(c), veh/h	59	0	0	0	0	577	1134	2104	0			
V/C Ratio(X)	0.48	0.00	0.00	0.00	0.00	0.99	0.01	0.66	0.00			
Avail Cap(c_a), veh/h	59	0	0	0	0	577	1134	2104	0			
HCM Platoon Ratio	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	0.00	0.00	1.00	1.00	1.00	0.00			
Uniform Delay (d), s/veh	65.0	0.0	0.0	0.0	0.0	41.5	9.1	15.4	0.0			
Incr Delay (d2), s/veh	6.6	0.0	0.0	0.0	0.0	35.5	0.0	1.6	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			
%ile BackOfQ(95%),veh/ln	1.9	0.0	0.0	0.0	0.0	32.0	0.3	18.1	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	71.5	0.0	0.0	0.0	0.0	77.1	9.1	17.0	0.0			
LnGrp LOS	E	A	A	A	A	E	A	B	A			
Approach Vol, veh/h		28			573			1396				
Approach Delay, s/veh		71.5			77.1			16.9				
Approach LOS		E			E			B				
Timer - Assigned Phs		2		4				8				
Phs Duration (G+Y+Rc), s		88.2		52.3				52.3				
Change Period (Y+Rc), s		6.4		* 5.7				* 5.7				
Max Green Setting (Gmax), s		71.6		* 47				* 46				
Max Q Clear Time (g_c+I1), s		35.9		48.6				48.1				
Green Ext Time (p_c), s		13.1		0.0				0.0				

Intersection Summary												
HCM 6th Ctrl Delay												34.9
HCM 6th LOS												C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection												
Int Delay, s/veh	38.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕						↕↕	
Traffic Vol, veh/h	0	8	91	91	18	0	0	0	0	43	1647	85
Future Vol, veh/h	0	8	91	91	18	0	0	0	0	43	1647	85
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	-	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	82	82	82	82	82	82	82	82	82
Heavy Vehicles, %	0	0	0	1	0	0	0	0	0	0	4	14
Mvmt Flow	0	10	111	111	22	0	0	0	0	52	2009	104

Major/Minor	Minor2		Minor1			Major2			
Conflicting Flow All	-	2165	1057	1114	2217	-	0	0	0
Stage 1	-	2165	-	0	0	-	-	-	-
Stage 2	-	0	-	1114	2217	-	-	-	-
Critical Hdwy	-	6.5	6.9	7.52	6.5	-	4.1	-	-
Critical Hdwy Stg 1	-	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	6.52	5.5	-	-	-	-
Follow-up Hdwy	-	4	3.3	3.51	4	-	2.2	-	-
Pot Cap-1 Maneuver	0	48	225	164	44	0	-	-	-
Stage 1	0	87	-	-	-	0	-	-	-
Stage 2	0	-	-	224	82	0	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	48	225	~ 70	44	-	-	-	-
Mov Cap-2 Maneuver	-	48	-	~ 70	44	-	-	-	-
Stage 1	-	87	-	-	-	-	-	-	-
Stage 2	-	-	-	~ 101	82	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	63.5	\$ 637.2	
HCM LOS	F	F	

Minor Lane/Major Mvmt	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	173	64	-	-	-
HCM Lane V/C Ratio	0.698	2.077	-	-	-
HCM Control Delay (s)	63.5	\$ 637.2	-	-	-
HCM Lane LOS	F	F	-	-	-
HCM 95th %tile Q(veh)	4.2	12.6	-	-	-

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

Intersection	
Intersection Delay, s/veh	9.8
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	274	2	4	60	0	7	0	22	0	0	0
Future Vol, veh/h	0	274	2	4	60	0	7	0	22	0	0	0
Peak Hour Factor	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69
Heavy Vehicles, %	0	0	0	0	0	0	0	1	14	0	0	0
Mvmt Flow	0	397	3	6	87	0	10	0	32	0	0	0
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0
Approach	EB		WB			NB			SB			
Opposing Approach	WB		EB			SB			NB			
Opposing Lanes	1		1			1			1			
Conflicting Approach Left	SB		NB			EB			WB			
Conflicting Lanes Left	1		1			1			1			
Conflicting Approach Right	NB		SB			WB			EB			
Conflicting Lanes Right	1		1			1			1			
HCM Control Delay	10.4		8			7.8			0			
HCM LOS	B		A			A			-			

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	24%	0%	6%	0%
Vol Thru, %	0%	99%	94%	100%
Vol Right, %	76%	1%	0%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	29	276	64	0
LT Vol	7	0	4	0
Through Vol	0	274	60	0
RT Vol	22	2	0	0
Lane Flow Rate	42	400	93	0
Geometry Grp	1	1	1	1
Degree of Util (X)	0.053	0.449	0.113	0
Departure Headway (Hd)	4.548	4.038	4.397	5.019
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	791	884	819	0
Service Time	2.552	2.097	2.401	3.026
HCM Lane V/C Ratio	0.053	0.452	0.114	0
HCM Control Delay	7.8	10.4	8	8
HCM Lane LOS	A	B	A	N
HCM 95th-tile Q	0.2	2.4	0.4	0

Intersection												
Int Delay, s/veh	18.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕				
Traffic Vol, veh/h	5	140	0	0	14	43	15	1217	145	0	0	0
Future Vol, veh/h	5	140	0	0	14	43	15	1217	145	0	0	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	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	120	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	-	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	5	0	8	0	0	0	0
Mvmt Flow	5	147	0	0	15	45	16	1281	153	0	0	0

Major/Minor	Minor2		Minor1		Major1				
Conflicting Flow All	680	1466	-	-	1390	717	0	0	0
Stage 1	0	0	-	-	1390	-	-	-	-
Stage 2	680	1466	-	-	0	-	-	-	-
Critical Hdwy	7.5	6.5	-	-	6.5	7	4.1	-	-
Critical Hdwy Stg 1	-	-	-	-	5.5	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	-	-	4	3.35	2.2	-	-
Pot Cap-1 Maneuver	341	~ 129	0	0	144	365	-	-	-
Stage 1	-	-	0	0	211	-	-	-	-
Stage 2	412	194	0	0	-	-	-	-	-
Platoon blocked, %									
Mov Cap-1 Maneuver	275	~ 129	-	-	144	365	-	-	-
Mov Cap-2 Maneuver	275	~ 129	-	-	144	-	-	-	-
Stage 1	-	-	-	-	211	-	-	-	-
Stage 2	336	194	-	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	195.3	22.5	
HCM LOS	F	C	

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1
Capacity (veh/h)	-	-	-	131	265
HCM Lane V/C Ratio	-	-	-	1.165	0.226
HCM Control Delay (s)	-	-	-	195.3	22.5
HCM Lane LOS	-	-	-	F	C
HCM 95th %tile Q(veh)	-	-	-	9	0.8

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

Lanes, Volumes, Timings
12: Orange Ave & Lancaster Rd

Projected AM
A.M. Peak Hour

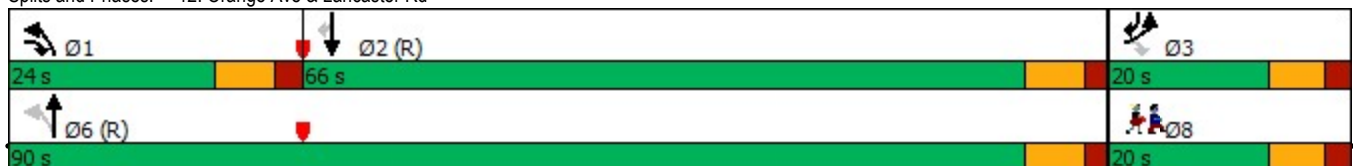


Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	Ø8
Lane Configurations							
Traffic Volume (vph)	199	199	268	1402	1273	246	
Future Volume (vph)	199	199	268	1402	1273	246	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Storage Length (ft)	225	0	300			350	
Storage Lanes	1	1	1			1	
Taper Length (ft)	25		25				
Satd. Flow (prot)	3433	1482	1752	3406	3312	1568	
Flt Permitted	0.950		0.101				
Satd. Flow (perm)	3433	1482	186	3406	3312	1568	
Right Turn on Red		Yes				Yes	
Satd. Flow (RTOR)		33				183	
Link Speed (mph)	40			45	45		
Link Distance (ft)	1228			1363	902		
Travel Time (s)	20.9			20.7	13.7		
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	
Heavy Vehicles (%)	2%	9%	3%	6%	9%	3%	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	219	219	295	1541	1399	270	
Turn Type	Prot	pm+ov	pm+pt	NA	NA	pm+ov	
Protected Phases	3	1	1	6	2	3	8
Permitted Phases		3	6			2	
Total Split (s)	20.0	24.0	24.0	90.0	66.0	20.0	20.0
Total Lost Time (s)	6.8	7.1	7.1	6.8	6.8	6.8	
Act Effct Green (s)	11.7	33.5	84.4	84.7	62.6	81.1	
Actuated g/C Ratio	0.11	0.30	0.77	0.77	0.57	0.74	
v/c Ratio	0.60	0.46	0.83	0.59	0.74	0.22	
Control Delay	53.9	28.6	39.9	6.6	21.6	2.1	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	53.9	28.6	39.9	6.6	21.6	2.1	
LOS	D	C	D	A	C	A	
Approach Delay	41.3			11.9	18.5		
Approach LOS	D			B	B		
Queue Length 50th (ft)	76	100	110	205	396	16	
Queue Length 95th (ft)	115	170	#241	264	492	40	
Internal Link Dist (ft)	1148			1283	822		
Turn Bay Length (ft)	225		300			350	
Base Capacity (vph)	411	501	385	2622	1884	1223	
Starvation Cap Reductn	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	
Reduced v/c Ratio	0.53	0.44	0.77	0.59	0.74	0.22	

Intersection Summary

Area Type: Other
 Cycle Length: 110
 Actuated Cycle Length: 110
 Offset: 35 (32%), Referenced to phase 2:SBT and 6:NBTL, Start of Green
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.83
 Intersection Signal Delay: 18.0
 Intersection Capacity Utilization 73.0%
 Intersection LOS: B
 ICU Level of Service C
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 12: Orange Ave & Lancaster Rd



HCM 6th Signalized Intersection Summary
13: Orange Ave & Nela Ave

Projected AM
A.M. Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	1	29	1	148	4	1514	17	85	1372	2
Future Volume (veh/h)	0	0	1	29	1	148	4	1514	17	85	1372	2
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	1900	1900	1900	1841	1900	1885	1900	1811	1811	1900	1811	1900
Adj Flow Rate, veh/h	0	0	1	32	1	161	4	1646	18	92	1491	2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	4	0	1	0	6	6	0	6	0
Cap, veh/h	0	0	173	205	1	172	316	2633	29	284	2978	4
Arrive On Green	0.00	0.00	0.11	0.11	0.11	0.11	0.76	0.76	0.76	0.04	0.84	0.84
Sat Flow, veh/h	0	0	1610	1394	10	1602	358	3487	38	1810	3526	5
Grp Volume(v), veh/h	0	0	1	32	0	162	4	811	853	92	727	766
Grp Sat Flow(s),veh/h/ln	0	0	1610	1394	0	1612	358	1721	1804	1810	1721	1810
Q Serve(g_s), s	0.0	0.0	0.1	2.7	0.0	13.0	0.4	28.4	28.5	1.3	14.8	14.8
Cycle Q Clear(g_c), s	0.0	0.0	0.1	2.8	0.0	13.0	4.1	28.4	28.5	1.3	14.8	14.8
Prop In Lane	0.00		1.00	1.00		0.99	1.00		0.02	1.00		0.00
Lane Grp Cap(c), veh/h	0	0	173	205	0	174	316	1299	1363	284	1453	1529
V/C Ratio(X)	0.00	0.00	0.01	0.16	0.00	0.93	0.01	0.62	0.63	0.32	0.50	0.50
Avail Cap(c_a), veh/h	0	0	173	205	0	174	316	1299	1363	373	1453	1529
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)	0.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.64	0.64	0.64
Uniform Delay (d), s/veh	0.0	0.0	51.8	53.0	0.0	57.5	4.9	7.4	7.4	7.9	2.7	2.7
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.4	0.0	49.2	0.1	2.3	2.2	0.4	0.8	0.8
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	0.0	0.0	0.1	1.8	0.0	12.1	0.1	13.9	14.4	1.3	5.1	5.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	51.8	53.4	0.0	106.8	5.0	9.6	9.6	8.3	3.5	3.5
LnGrp LOS	A	A	D	D	A	F	A	A	A	A	A	A
Approach Vol, veh/h		1			194			1668			1585	
Approach Delay, s/veh		51.8			98.0			9.6			3.8	
Approach LOS		D			F			A			A	
Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	11.6	105.2		20.2		116.8		20.2				
Change Period (Y+Rc), s	6.8	6.8		* 6.2		6.8		* 6.2				
Max Green Setting (Gmax), s	11.2	85.2		* 14		103.2		* 14				
Max Q Clear Time (g_c+I1), s	3.3	30.5		2.1		16.8		15.0				
Green Ext Time (p_c), s	0.1	17.8		0.0		14.7		0.0				

Intersection Summary												
HCM 6th Ctrl Delay				11.9								
HCM 6th LOS				B								

Notes
User approved pedestrian interval to be less than phase max green.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection												
Int Delay, s/veh	3.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	4	1000	44	128	530	8	9	2	40	4	0	3
Future Vol, veh/h	4	1000	44	128	530	8	9	2	40	4	0	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	1	4	6	3	0	13	0	0	0	0	0
Mvmt Flow	4	1087	48	139	576	9	10	2	43	4	0	3

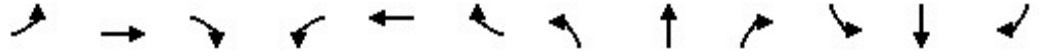
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	585	0	0	1135	0	0	1979	1982	1111	2001	2002	581
Stage 1	-	-	-	-	-	-	1119	1119	-	859	859	-
Stage 2	-	-	-	-	-	-	860	863	-	1142	1143	-
Critical Hdwy	4.1	-	-	4.16	-	-	7.23	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.23	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.23	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.254	-	-	3.617	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1000	-	-	601	-	-	43	62	257	45	60	517
Stage 1	-	-	-	-	-	-	239	285	-	354	376	-
Stage 2	-	-	-	-	-	-	336	374	-	246	277	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1000	-	-	601	-	-	31	40	257	26	39	517
Mov Cap-2 Maneuver	-	-	-	-	-	-	31	40	-	26	39	-
Stage 1	-	-	-	-	-	-	236	282	-	350	247	-
Stage 2	-	-	-	-	-	-	219	246	-	201	274	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	2.5	74.8	103.2
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	103	1000	-	-	601	-	-	44
HCM Lane V/C Ratio	0.538	0.004	-	-	0.231	-	-	0.173
HCM Control Delay (s)	74.8	8.6	0	-	12.8	0	-	103.2
HCM Lane LOS	F	A	A	-	B	A	-	F
HCM 95th %tile Q(veh)	2.5	0	-	-	0.9	-	-	0.6

HCM 6th Signalized Intersection Summary
 2: Hansel Ave & Hoffner Ave

Projected PM
 P.M. Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↑	↗		↕	↗			
Traffic Volume (veh/h)	8	302	0	0	304	234	166	1378	730	0	0	0
Future Volume (veh/h)	8	302	0	0	304	234	166	1378	730	0	0	0
Initial Q (Qb), veh	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			
Parking Bus, Adj	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				
Adj Sat Flow, veh/h/ln	1900	1870	0	0	1856	1856	1856	1841	1885			
Adj Flow Rate, veh/h	8	311	0	0	313	241	171	1421	753			
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97			
Percent Heavy Veh, %	0	2	0	0	3	3	3	4	1			
Cap, veh/h	27	351	0	0	408	346	255	2236	1114			
Arrive On Green	0.22	0.22	0.00	0.00	0.22	0.22	0.70	0.70	0.70			
Sat Flow, veh/h	13	1598	0	0	1856	1572	365	3206	1598			
Grp Volume(v), veh/h	319	0	0	0	313	241	854	738	753			
Grp Sat Flow(s),veh/h/ln	1610	0	0	0	1856	1572	1822	1749	1598			
Q Serve(g_s), s	5.7	0.0	0.0	0.0	23.7	21.2	40.0	33.1	40.5			
Cycle Q Clear(g_c), s	29.5	0.0	0.0	0.0	23.7	21.2	40.0	33.1	40.5			
Prop In Lane	0.03		0.00	0.00		1.00	0.20		1.00			
Lane Grp Cap(c), veh/h	379	0	0	0	408	346	1271	1220	1114			
V/C Ratio(X)	0.84	0.00	0.00	0.00	0.77	0.70	0.67	0.61	0.68			
Avail Cap(c_a), veh/h	513	0	0	0	546	462	1271	1220	1114			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.98	0.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh	55.9	0.0	0.0	0.0	54.9	53.9	12.9	11.9	13.0			
Incr Delay (d2), s/veh	9.0	0.0	0.0	0.0	4.6	2.9	2.8	2.2	3.3			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(95%),veh/ln	18.6	0.0	0.0	0.0	17.3	13.6	22.4	18.4	20.4			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	64.9	0.0	0.0	0.0	59.5	56.8	15.8	14.1	16.3			
LnGrp LOS	E	A	A	A	E	E	B	B	B			
Approach Vol, veh/h		319			554			2345				
Approach Delay, s/veh		64.9			58.4			15.4				
Approach LOS		E			E			B				
Timer - Assigned Phs		2		4				8				
Phs Duration (G+Y+Rc), s		111.1		38.9				38.9				
Change Period (Y+Rc), s		6.5		5.9				5.9				
Max Green Setting (Gmax), s		93.5		44.1				44.1				
Max Q Clear Time (g_c+I1), s		42.5		25.7				31.5				
Green Ext Time (p_c), s		24.8		2.6				1.5				
Intersection Summary												
HCM 6th Ctrl Delay				27.7								
HCM 6th LOS				C								

HCM 6th Signalized Intersection Summary
 3: Hoffner Ave & Orange Ave

Projected PM
 P.M. Peak Hour

a.



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	478	0	0	0	297	1411
Future Volume (veh/h)	478	0	0	0	297	1411
Initial Q (Qb), veh	0	0			0	0
Ped-Bike Adj(A_pbT)	1.00	1.00			1.00	
Parking Bus, Adj	1.00	1.00			1.00	1.00
Work Zone On Approach	No				No	No
Adj Sat Flow, veh/h/ln	1856	0			1900	1796
Adj Flow Rate, veh/h	493	0			306	1455
Peak Hour Factor	0.97	0.97			0.97	0.97
Percent Heavy Veh, %	3	0			0	7
Cap, veh/h	0	0			1784	3274
Arrive On Green	0.00	0.00			0.96	0.96
Sat Flow, veh/h	0				1810	3503
Grp Volume(v), veh/h	0.0				306	1455
Grp Sat Flow(s),veh/h/ln					1810	1706
Q Serve(g_s), s					1.2	4.5
Cycle Q Clear(g_c), s					1.2	4.5
Prop In Lane					1.00	
Lane Grp Cap(c), veh/h					1784	3274
V/C Ratio(X)					0.17	0.44
Avail Cap(c_a), veh/h					1784	3274
HCM Platoon Ratio					1.00	1.00
Upstream Filter(l)					1.00	1.00
Uniform Delay (d), s/veh					0.1	0.2
Incr Delay (d2), s/veh					0.2	0.4
Initial Q Delay(d3),s/veh					0.0	0.0
%ile BackOfQ(95%),veh/ln					0.2	0.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh					0.4	0.7
LnGrp LOS					A	A
Approach Vol, veh/h						1761
Approach Delay, s/veh						0.6
Approach LOS						A
Timer - Assigned Phs		2				
Phs Duration (G+Y+Rc), s		150.0				
Change Period (Y+Rc), s		6.1				
Max Green Setting (Gmax), s		97.9				
Max Q Clear Time (g_c+I1), s		6.5				
Green Ext Time (p_c), s		20.4				
Intersection Summary						
HCM 6th Ctrl Delay			0.6			
HCM 6th LOS			A			

Intersection						
Int Delay, s/veh	0.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W	W	T	T	T	T
Traffic Vol, veh/h	0	4	36	3	0	188
Future Vol, veh/h	0	4	36	3	0	188
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	71	71	71	71	71	71
Heavy Vehicles, %	0	0	0	0	0	3
Mvmt Flow	0	6	51	4	0	265

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	318	53	0	0	55	0
Stage 1	53	-	-	-	-	-
Stage 2	265	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	679	1020	-	-	1563	-
Stage 1	975	-	-	-	-	-
Stage 2	784	-	-	-	-	-
Platoon blocked, %						
Mov Cap-1 Maneuver	679	1020	-	-	1563	-
Mov Cap-2 Maneuver	679	-	-	-	-	-
Stage 1	975	-	-	-	-	-
Stage 2	784	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.5	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	1020	1563	-
HCM Lane V/C Ratio	-	-	0.006	-	-
HCM Control Delay (s)	-	-	8.5	0	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	0	0	-

Intersection	
Intersection Delay, s/veh	8.6
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	89	8	0	0	0	6	0	0	0	157	0	0
Future Vol, veh/h	89	8	0	0	0	6	0	0	0	157	0	0
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Heavy Vehicles, %	0	0	0	1	2	0	0	4	0	0	0	1
Mvmt Flow	111	10	0	0	0	8	0	0	0	196	0	0
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0
Approach	EB				WB			NB		SB		
Opposing Approach	WB				EB			SB		NB		
Opposing Lanes	1				1			1		1		
Conflicting Approach Left	SB				NB			EB		WB		
Conflicting Lanes Left	1				1			1		1		
Conflicting Approach Right	NB				SB			WB		EB		
Conflicting Lanes Right	1				1			1		1		
HCM Control Delay	8.4				7			0		8.8		
HCM LOS	A				A			-		A		

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	92%	0%	100%
Vol Thru, %	100%	8%	0%	0%
Vol Right, %	0%	0%	100%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	0	97	6	157
LT Vol	0	89	0	157
Through Vol	0	8	0	0
RT Vol	0	0	6	0
Lane Flow Rate	0	121	8	196
Geometry Grp	1	1	1	1
Degree of Util (X)	0	0.153	0.008	0.236
Departure Headway (Hd)	4.488	4.557	3.935	4.324
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	0	792	914	818
Service Time	2.496	2.557	1.939	2.414
HCM Lane V/C Ratio	0	0.153	0.009	0.24
HCM Control Delay	7.5	8.4	7	8.8
HCM Lane LOS	N	A	A	A
HCM 95th-tile Q	0	0.5	0	0.9

Intersection												
Int Delay, s/veh	54.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕↕				
Traffic Vol, veh/h	12	4	0	0	125	23	55	1876	4	0	0	0
Future Vol, veh/h	12	4	0	0	125	23	55	1876	4	0	0	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	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	1081749504	-	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	8	25	0	0	1	2	0	4	0	0	0	0
Mvmt Flow	12	4	0	0	129	24	57	1934	4	0	0	0

Major/Minor	Minor2		Minor1		Major1				
Conflicting Flow All	1146	2052	-	-	2050	969	0	0	0
Stage 1	0	0	-	-	2050	-	-	-	-
Stage 2	1146	2052	-	-	0	-	-	-	-
Critical Hdwy	7.66	7	-	-	6.52	6.94	4.1	-	-
Critical Hdwy Stg 1	-	-	-	-	5.52	-	-	-	-
Critical Hdwy Stg 2	6.66	6	-	-	-	-	-	-	-
Follow-up Hdwy	3.58	4.25	-	-	4.01	3.32	2.2	-	-
Pot Cap-1 Maneuver	147	42	0	0	~56	253	-	-	-
Stage 1	-	-	0	0	~98	-	-	-	-
Stage 2	202	74	0	0	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	42	-	-	~56	253	-	-	-
Mov Cap-2 Maneuver	-	42	-	-	~56	-	-	-	-
Stage 1	-	-	-	-	~98	-	-	-	-
Stage 2	-	74	-	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s		\$ 769.3	
HCM LOS	-	F	

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1
Capacity (veh/h)	-	-	-	-	64
HCM Lane V/C Ratio	-	-	-	-	2.384
HCM Control Delay (s)	-	-	-	-	\$ 769.3
HCM Lane LOS	-	-	-	-	F
HCM 95th %tile Q(veh)	-	-	-	-	14.9

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

HCM 6th Signalized Intersection Summary
6: Hansel Ave & Waltham Ave

Projected PM
P.M. Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕				
Traffic Volume (veh/h)	12	4	0	0	125	23	55	1876	4	0	0	0
Future Volume (veh/h)	12	4	0	0	125	23	55	1876	4	0	0	0
Initial Q (Qb), veh	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			
Parking Bus, Adj	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				
Adj Sat Flow, veh/h/ln	1781	1530	0	0	1885	1870	1900	1841	1900			
Adj Flow Rate, veh/h	12	4	0	0	129	24	57	1934	4			
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97			
Percent Heavy Veh, %	8	25	0	0	1	2	0	4	0			
Cap, veh/h	43	14	0	0	337	63	65	2306	5			
Arrive On Green	0.04	0.04	0.00	0.00	0.22	0.22	0.65	0.65	0.65			
Sat Flow, veh/h	1106	369	0	0	1546	288	100	3567	8			
Grp Volume(v), veh/h	16	0	0	0	0	153	1045	0	950			
Grp Sat Flow(s),veh/h/ln	1474	0	0	0	0	1833	1836	0	1839			
Q Serve(g_s), s	1.5	0.0	0.0	0.0	0.0	10.0	65.3	0.0	52.9			
Cycle Q Clear(g_c), s	1.5	0.0	0.0	0.0	0.0	10.0	65.3	0.0	52.9			
Prop In Lane	0.75		0.00	0.00		0.16	0.05		0.00			
Lane Grp Cap(c), veh/h	58	0	0	0	0	399	1187	0	1189			
V/C Ratio(X)	0.28	0.00	0.00	0.00	0.00	0.38	0.88	0.00	0.80			
Avail Cap(c_a), veh/h	58	0	0	0	0	399	1187	0	1189			
HCM Platoon Ratio	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	0.00	0.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	65.3	0.0	0.0	0.0	0.0	46.7	20.3	0.0	18.1			
Incr Delay (d2), s/veh	11.5	0.0	0.0	0.0	0.0	2.8	9.5	0.0	5.7			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(95%),veh/ln	1.3	0.0	0.0	0.0	0.0	8.6	37.1	0.0	30.1			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	76.8	0.0	0.0	0.0	0.0	49.5	29.8	0.0	23.8			
LnGrp LOS	E	A	A	A	A	D	C	A	C			
Approach Vol, veh/h		16			153			1995				
Approach Delay, s/veh		76.8			49.5			26.9				
Approach LOS		E			D			C				
Timer - Assigned Phs		2		4				8				
Phs Duration (G+Y+Rc), s		95.0		10.0				35.0				
Change Period (Y+Rc), s		4.5		4.5				4.5				
Max Green Setting (Gmax), s		90.5		5.5				30.5				
Max Q Clear Time (g_c+I1), s		67.3		3.5				12.0				
Green Ext Time (p_c), s		16.3		0.0				0.8				
Intersection Summary												
HCM 6th Ctrl Delay				28.9								
HCM 6th LOS				C								

Intersection	
Intersection Delay, s/veh	0
Intersection LOS	-

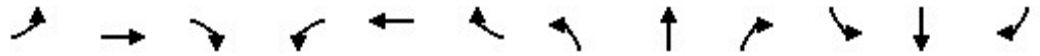
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W			↑	↓	
Traffic Vol, veh/h	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83
Heavy Vehicles, %	0	0	0	3	0	0
Mvmt Flow	0	0	0	0	0	0
Number of Lanes	1	0	0	1	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	1	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	1	0	1
HCM Control Delay	0	0	0
HCM LOS	-	-	-

Lane	NBLn1	EBLn1	SBLn1
Vol Left, %	0%	0%	0%
Vol Thru, %	100%	100%	100%
Vol Right, %	0%	0%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	0	0	0
LT Vol	0	0	0
Through Vol	0	0	0
RT Vol	0	0	0
Lane Flow Rate	0	0	0
Geometry Grp	1	1	1
Degree of Util (X)	0	0	0
Departure Headway (Hd)	3.951	3.9	3.9
Convergence, Y/N	Yes	Yes	Yes
Cap	0	0	0
Service Time	1.951	1.9	1.9
HCM Lane V/C Ratio	0	0	0
HCM Control Delay	7	6.9	6.9
HCM Lane LOS	N	N	N
HCM 95th-tile Q	0	0	0

HCM 6th Signalized Intersection Summary
 8: Hansel Ave & Fairlane Ave

Projected PM
 P.M. Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕↕				
Traffic Volume (veh/h)	10	0	0	0	0	389	16	1397	0	0	0	0
Future Volume (veh/h)	10	0	0	0	0	389	16	1397	0	0	0	0
Initial Q (Qb), veh	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			
Parking Bus, Adj	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				
Adj Sat Flow, veh/h/ln	1752	1900	0	0	1900	1900	1811	1841	1900			
Adj Flow Rate, veh/h	11	0	0	0	0	414	17	1486	0			
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94			
Percent Heavy Veh, %	10	0	0	0	0	0	6	4	0			
Cap, veh/h	79	0	0	0	0	451	1102	2235	0			
Arrive On Green	0.28	0.00	0.00	0.00	0.00	0.28	0.64	0.64	0.00			
Sat Flow, veh/h	110	0	0	0	0	1610	1725	3589	0			
Grp Volume(v), veh/h	11	0	0	0	0	414	17	1486	0			
Grp Sat Flow(s),veh/h/ln	110	0	0	0	0	1610	1725	1749	0			
Q Serve(g_s), s	1.6	0.0	0.0	0.0	0.0	37.4	0.5	40.0	0.0			
Cycle Q Clear(g_c), s	39.0	0.0	0.0	0.0	0.0	37.4	0.5	40.0	0.0			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		0.00			
Lane Grp Cap(c), veh/h	79	0	0	0	0	451	1102	2235	0			
V/C Ratio(X)	0.14	0.00	0.00	0.00	0.00	0.92	0.02	0.66	0.00			
Avail Cap(c_a), veh/h	129	0	0	0	0	529	1102	2235	0			
HCM Platoon Ratio	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	0.00	0.00	1.00	1.00	1.00	0.00			
Uniform Delay (d), s/veh	71.2	0.0	0.0	0.0	0.0	52.3	9.9	17.0	0.0			
Incr Delay (d2), s/veh	0.9	0.0	0.0	0.0	0.0	20.1	0.0	1.6	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			
%ile BackOfQ(95%),veh/ln	0.8	0.0	0.0	0.0	0.0	24.6	0.4	22.1	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	72.1	0.0	0.0	0.0	0.0	72.3	9.9	18.6	0.0			
LnGrp LOS	E	A	A	A	A	E	A	B	A			
Approach Vol, veh/h		11			414			1503				
Approach Delay, s/veh		72.1			72.3			18.5				
Approach LOS		E			E			B				
Timer - Assigned Phs		2		4				8				
Phs Duration (G+Y+Rc), s		102.2		47.8				47.8				
Change Period (Y+Rc), s		6.4		* 5.7				* 5.7				
Max Green Setting (Gmax), s		88.6		* 50				* 49				
Max Q Clear Time (g_c+I1), s		42.0		41.0				39.4				
Green Ext Time (p_c), s		15.9		0.0				2.7				

Intersection Summary												
HCM 6th Ctrl Delay				30.4								
HCM 6th LOS				C								

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection												
Int Delay, s/veh	14.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔						↔↔	
Traffic Vol, veh/h	0	6	86	53	26	0	0	0	0	27	1677	69
Future Vol, veh/h	0	6	86	53	26	0	0	0	0	27	1677	69
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	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	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	0	0	5	0	0	0	0	0	0	0	7	0
Mvmt Flow	0	7	101	62	31	0	0	0	0	32	1973	81

Major/Minor	Minor2		Minor1			Major2		
Conflicting Flow All	-	2078	1027	1054	2118	-	-	0
Stage 1	-	2078	-	0	0	-	-	-
Stage 2	-	0	-	1054	2118	-	-	-
Critical Hdwy	-	6.5	7	7.5	6.5	-	-	4.1
Critical Hdwy Stg 1	-	5.5	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	6.5	5.5	-	-	-
Follow-up Hdwy	-	4	3.35	3.5	4	-	-	2.2
Pot Cap-1 Maneuver	0	54	227	183	51	0	-	-
Stage 1	0	96	-	-	-	0	-	-
Stage 2	0	-	-	245	92	0	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	54	227	91	51	-	-	-
Mov Cap-2 Maneuver	-	54	-	91	51	-	-	-
Stage 1	-	96	-	-	-	-	-	-
Stage 2	-	-	-	126	92	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	47.3	\$ 303	
HCM LOS	E	F	

Minor Lane/Major Mvmt	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	188	72	-	-	-
HCM Lane V/C Ratio	0.576	1.291	-	-	-
HCM Control Delay (s)	47.3	\$ 303	-	-	-
HCM Lane LOS	E	F	-	-	-
HCM 95th %tile Q(veh)	3.1	7.4	-	-	-

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

Intersection	
Intersection Delay, s/veh	8.7
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	258	6	5	44	0	5	0	30	0	0	0
Future Vol, veh/h	0	258	6	5	44	0	5	0	30	0	0	0
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
Heavy Vehicles, %	0	4	0	0	2	0	0	2	0	0	0	0
Mvmt Flow	0	287	7	6	49	0	6	0	33	0	0	0
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	9.1	7.6	7.4	0
HCM LOS	A	A	A	-

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	14%	0%	10%	0%
Vol Thru, %	0%	98%	90%	100%
Vol Right, %	86%	2%	0%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	35	264	49	0
LT Vol	5	0	5	0
Through Vol	0	258	44	0
RT Vol	30	6	0	0
Lane Flow Rate	39	293	54	0
Geometry Grp	1	1	1	1
Degree of Util (X)	0.045	0.331	0.064	0
Departure Headway (Hd)	4.168	4.064	4.211	4.704
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	865	883	840	0
Service Time	2.168	2.098	2.291	2.706
HCM Lane V/C Ratio	0.045	0.332	0.064	0
HCM Control Delay	7.4	9.1	7.6	7.7
HCM Lane LOS	A	A	A	N
HCM 95th-tile Q	0.1	1.5	0.2	0

Intersection												
Int Delay, s/veh	49.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕				
Traffic Vol, veh/h	14	140	0	0	166	46	30	1355	129	0	0	0
Future Vol, veh/h	14	140	0	0	166	46	30	1355	129	0	0	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	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	120	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	7	0	0	0	6	2	13	4	6	0	0	0
Mvmt Flow	15	147	0	0	175	48	32	1426	136	0	0	0

Major/Minor	Minor2		Minor1		Major1				
Conflicting Flow All	865	1626	-	-	1558	781	0	0	0
Stage 1	0	0	-	-	1558	-	-	-	-
Stage 2	865	1626	-	-	0	-	-	-	-
Critical Hdwy	7.64	6.5	-	-	6.62	6.94	4.36	-	-
Critical Hdwy Stg 1	-	-	-	-	5.62	-	-	-	-
Critical Hdwy Stg 2	6.64	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.57	4	-	-	4.06	3.32	2.33	-	-
Pot Cap-1 Maneuver	240	~ 103	0	0	~ 107	338	-	-	-
Stage 1	-	-	0	0	~ 165	-	-	-	-
Stage 2	305	162	0	0	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	~ 103	-	-	~ 107	338	-	-	-
Mov Cap-2 Maneuver	-	~ 103	-	-	~ 107	-	-	-	-
Stage 1	-	-	-	-	~ 165	-	-	-	-
Stage 2	-	162	-	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s		\$ 437	
HCM LOS	-	F	

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1
Capacity (veh/h)	-	-	-	-	126
HCM Lane V/C Ratio	-	-	-	-	1.771
HCM Control Delay (s)	-	-	-	-	\$ 437
HCM Lane LOS	-	-	-	-	F
HCM 95th %tile Q(veh)	-	-	-	-	17.1

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

Lanes, Volumes, Timings
12: Orange Ave & Lancaster Rd

Projected PM
P.M. Peak Hour

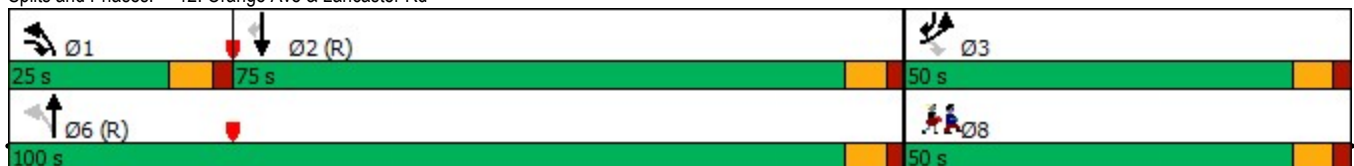


Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	Ø8
Lane Configurations							
Traffic Volume (vph)	263	167	310	1280	1414	262	
Future Volume (vph)	263	167	310	1280	1414	262	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Storage Length (ft)	225	0	300			350	
Storage Lanes	1	1	1			1	
Taper Length (ft)	25		25				
Satd. Flow (prot)	3502	1524	1719	3471	3343	1568	
Flt Permitted	0.950		0.050				
Satd. Flow (perm)	3502	1524	90	3471	3343	1568	
Right Turn on Red		Yes				Yes	
Satd. Flow (RTOR)		13				56	
Link Speed (mph)	40			45	45		
Link Distance (ft)	1228			1363	902		
Travel Time (s)	20.9			20.7	13.7		
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	
Heavy Vehicles (%)	0%	6%	5%	4%	8%	3%	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	274	174	323	1333	1473	273	
Turn Type	Prot	pm+ov	pm+pt	NA	NA	pm+ov	
Protected Phases	3	1	1	6	2	3	8
Permitted Phases		3	6			2	
Total Split (s)	50.0	25.0	25.0	100.0	75.0	50.0	50.0
Total Lost Time (s)	6.8	7.1	7.1	6.8	6.8	6.8	
Act Effct Green (s)	17.3	63.7	118.8	119.1	72.4	96.5	
Actuated g/C Ratio	0.12	0.42	0.79	0.79	0.48	0.64	
v/c Ratio	0.68	0.27	0.64	0.48	0.91	0.27	
Control Delay	72.0	27.2	34.0	13.4	45.5	9.3	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	72.0	27.2	34.0	13.4	45.5	9.3	
LOS	E	C	C	B	D	A	
Approach Delay	54.6			17.4	39.9		
Approach LOS	D			B	D		
Queue Length 50th (ft)	135	105	234	342	656	78	
Queue Length 95th (ft)	177	153	350	638	#889	124	
Internal Link Dist (ft)	1148			1283	822		
Turn Bay Length (ft)	225		300			350	
Base Capacity (vph)	1008	654	501	2755	1612	1289	
Starvation Cap Reductn	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	
Reduced v/c Ratio	0.27	0.27	0.64	0.48	0.91	0.21	

Intersection Summary

Area Type: Other
 Cycle Length: 150
 Actuated Cycle Length: 150
 Offset: 16 (11%), Referenced to phase 2:SBT and 6:NBTL, Start of Green
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.91
 Intersection Signal Delay: 31.9
 Intersection Capacity Utilization 81.0%
 Intersection LOS: C
 ICU Level of Service D
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

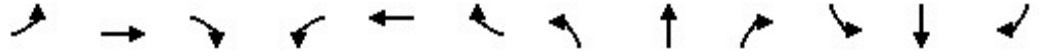
Splits and Phases: 12: Orange Ave & Lancaster Rd



HCM 6th Signalized Intersection Summary
13: Orange Ave & Nela Ave

Projected PM
P.M. Peak Hour

a.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	1	30	0	90	4	1508	64	131	1510	2
Future Volume (veh/h)	0	0	1	30	0	90	4	1508	64	131	1510	2
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	1900	1900	1900	1841	1900	1841	1530	1841	1870	1870	1781	1900
Adj Flow Rate, veh/h	0	0	1	31	0	93	4	1555	66	135	1557	2
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, %	0	0	0	4	0	4	25	4	2	2	8	0
Cap, veh/h	0	0	114	146	0	114	255	2612	110	283	2922	4
Arrive On Green	0.00	0.00	0.07	0.07	0.00	0.07	0.76	0.76	0.76	0.04	1.00	1.00
Sat Flow, veh/h	0	0	1610	1394	0	1610	270	3419	145	1781	3469	4
Grp Volume(v), veh/h	0	0	1	31	0	93	4	793	828	135	760	799
Grp Sat Flow(s),veh/h/ln	0	0	1610	1394	0	1610	270	1749	1815	1781	1692	1781
Q Serve(g_s), s	0.0	0.0	0.1	3.2	0.0	8.5	0.5	29.4	29.7	2.4	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.1	3.3	0.0	8.5	0.5	29.4	29.7	2.4	0.0	0.0
Prop In Lane	0.00		1.00	1.00		1.00	1.00		0.08	1.00		0.00
Lane Grp Cap(c), veh/h	0	0	114	146	0	114	255	1336	1386	283	1426	1500
V/C Ratio(X)	0.00	0.00	0.01	0.21	0.00	0.82	0.02	0.59	0.60	0.48	0.53	0.53
Avail Cap(c_a), veh/h	0	0	148	177	0	150	255	1336	1386	464	1426	1500
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33
Upstream Filter(I)	0.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.42	0.42	0.42
Uniform Delay (d), s/veh	0.0	0.0	64.8	66.3	0.0	68.7	4.2	7.6	7.7	8.7	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.7	0.0	22.1	0.1	1.9	1.9	0.5	0.6	0.6
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	0.0	0.0	0.1	2.1	0.0	7.6	0.1	15.0	15.6	2.3	0.4	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	64.8	67.0	0.0	90.8	4.4	9.6	9.6	9.2	0.6	0.6
LnGrp LOS	A	A	E	E	A	F	A	A	A	A	A	A
Approach Vol, veh/h		1			124			1625			1694	
Approach Delay, s/veh		64.8			84.9			9.6			1.3	
Approach LOS		E			F			A			A	
Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	11.8	121.4		16.8		133.2		16.8				
Change Period (Y+Rc), s	6.8	6.8		* 6.2		6.8		* 6.2				
Max Green Setting (Gmax), s	20.2	96.2		* 14		123.2		* 14				
Max Q Clear Time (g_c+I1), s	4.4	31.7		2.1		2.0		10.5				
Green Ext Time (p_c), s	0.3	17.5		0.0		16.4		0.1				

Intersection Summary												
HCM 6th Ctrl Delay				8.2								
HCM 6th LOS				A								

Notes
User approved pedestrian interval to be less than phase max green.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

APPENDIX H

Queueing Data Collection

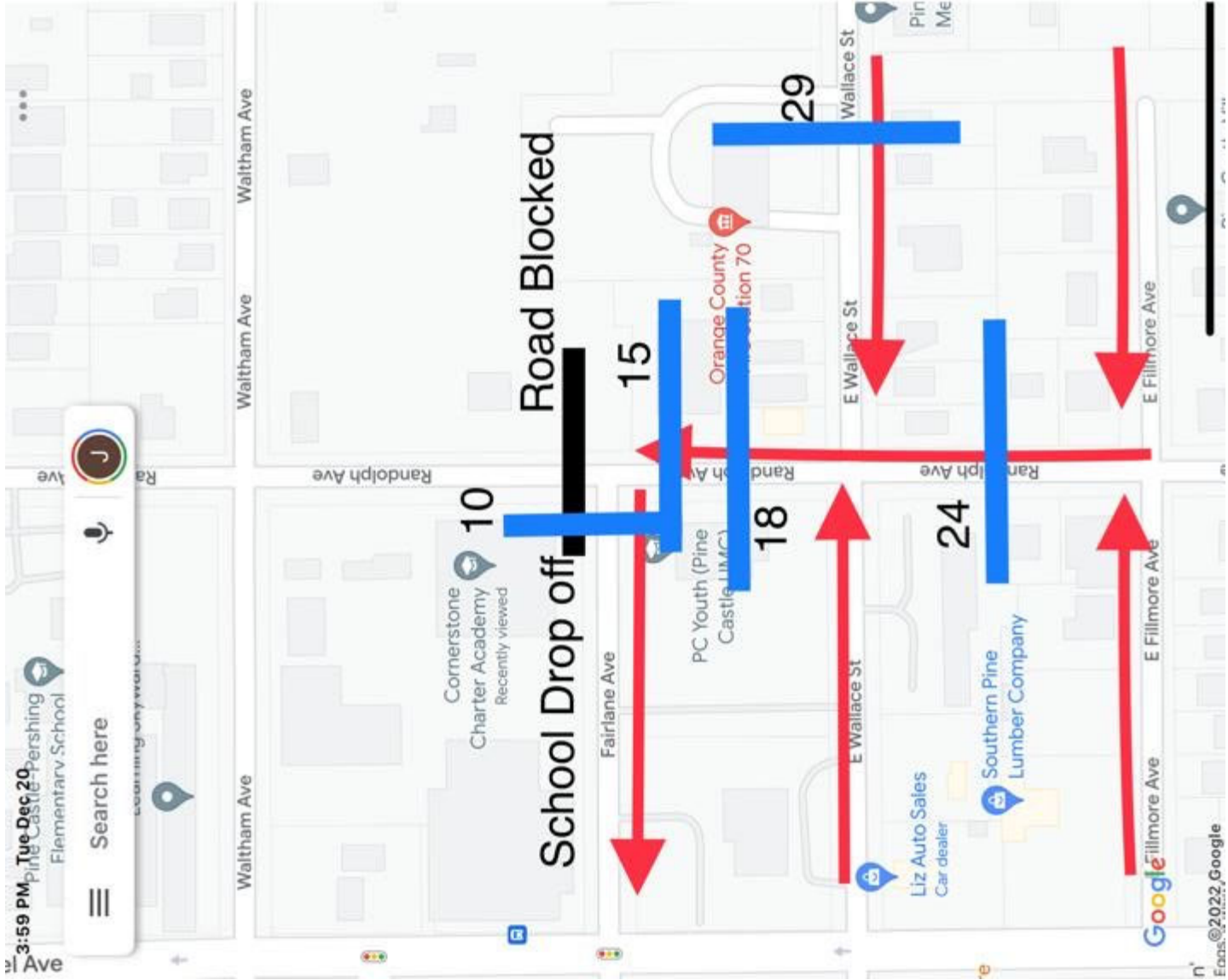
Max Queue Study

Location: Cornerstone Charter Academy , 5903 Randolph Ave
 City: Belle Isle, FL

Date: 12/6/2022
 Day: Tuesday

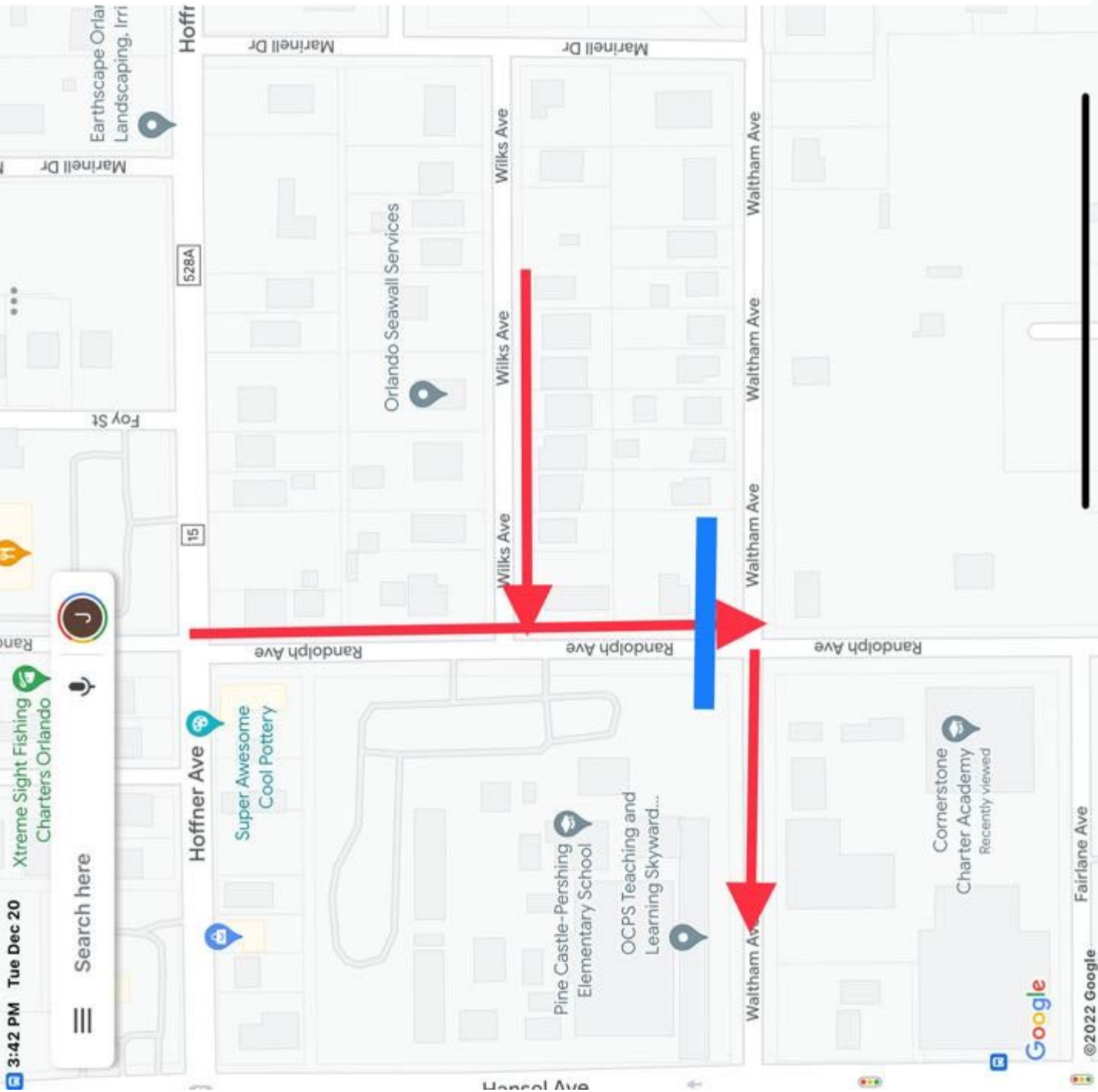
Time	Drop-off Max Queue Length (# of Cars)	
	High School	Lower School K-5
7:00 AM	2	2
7:05 AM	3	1
7:10 AM	6	3
7:15 AM	4	7
7:20 AM	16	9
7:25 AM	17	10
7:30 AM	17	4
7:35 AM	26	0
7:40 AM	24	5
7:45 AM	17	3
7:50 AM	2	7
7:55 AM	1	8
8:00 AM	0	0
8:05 AM	0	0
8:10 AM	0	4
8:15 AM	0	2
8:20 AM	0	0
8:25 AM	0	0
Totals	135	65

Time	Pick-up Max Queue Length (# of Cars)	
	High School	Lower School K-5
2:00 PM	0	7
2:05 PM	0	10
2:10 PM	8	14
2:15 PM	8	17
2:20 PM	8	19
2:25 PM	10	19
2:30 PM	10	15
2:35 PM	10	16
2:40 PM	11	5
2:45 PM	18	15
2:50 PM	24	19
2:55 PM	29	16
3:00 PM	34	1
3:05 PM	15	3
3:10 PM	5	5
3:15 PM	7	3
3:20 PM	6	5
3:25 PM	0	0
Totals	203	189



High School PM 2-3:30

- 2pm-2:25 No Line
- 2:25 10 Cars
- 2:30 10 Cars
- 2:35 10 Cars
- 2:40 11 Cars
- 2:45 18 Cars
- 2:50 24 Cars
- 2:55 29 Cars
- 3:00 34 Cars
- 3:05 15 Cars
- 3:10-3:30 No Line



Lower K-5 AM 7-830

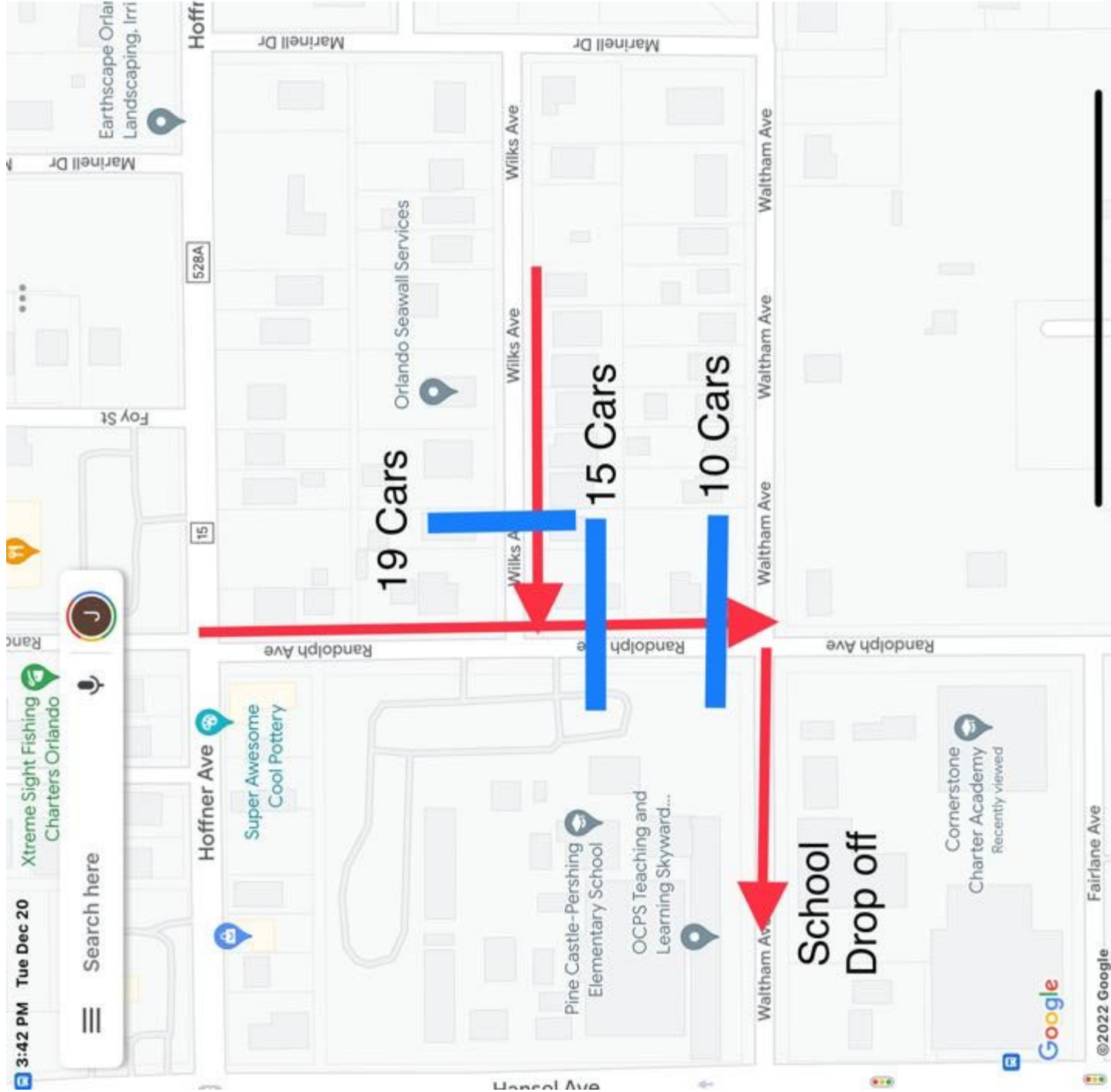
7:00-7:20 = No line

7:25 = 10 cars
Blue Line

7:30-8:30 = No line

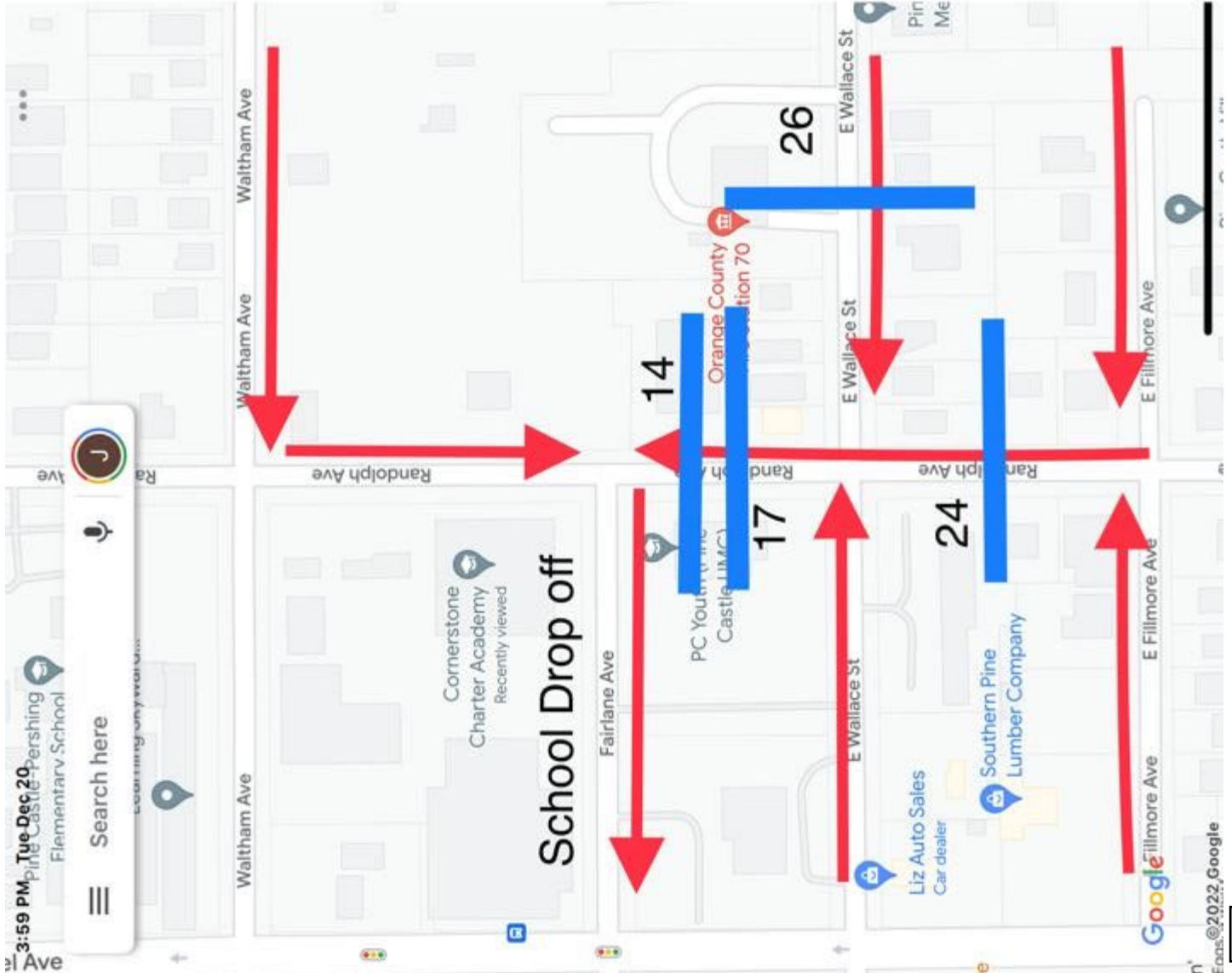
Lower K-5 PM 2-3:30

- 2:00 No Line
- 2:05 10 Cars
- 2:10 14 Cars
- 2:15 17 Cars
- 2:20 19 Cars
- 2:25 19 Cars
- 2:30 15 Cars
- 2:35 16 Cars
- 2:40 No Line
- 2:45 15 Cars
- 2:50 19 Cars
- 2:55 16 Cars
- 3-3:30 No Line



High School AM 7-8:30

- 7-7:15 No Line
- 7:20 16 Cars
- 7:25 17 Cars
- 7:30 17 Cars
- 7:35 26 Cars
- 7:40 24 Cars
- 7:45 17 Cars
- 7:50-8:30 No Line



APPENDIX I

SimTraffic Microsimulation Output

Intersection: 1: Randolph Ave & Hoffner Ave

Movement	EB	WB	NB
Directions Served	LTR	LTR	LTR
Maximum Queue (ft)	271	708	212
Average Queue (ft)	45	460	91
95th Queue (ft)	267	831	255
Link Distance (ft)	502	698	358
Upstream Blk Time (%)	4	13	4
Queuing Penalty (veh)	35	100	2
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 2: Hansel Ave & Hoffner Ave

Movement	EB	WB	WB	NB	NB	NB
Directions Served	LT	T	R	LT	T	R
Maximum Queue (ft)	532	492	250	577	585	345
Average Queue (ft)	269	246	144	408	426	326
95th Queue (ft)	461	491	297	540	573	408
Link Distance (ft)	642	502		653	653	
Upstream Blk Time (%)	1	1		0	2	
Queuing Penalty (veh)	5	8		1	22	
Storage Bay Dist (ft)			225			320
Storage Blk Time (%)		12	1		17	10
Queuing Penalty (veh)		33	3		121	75

Intersection: 3: Hoffner Ave & Orange Ave

Movement	WB	SB	SB	SB
Directions Served	L	L	T	T
Maximum Queue (ft)	648	364	470	490
Average Queue (ft)	382	128	275	263
95th Queue (ft)	676	250	427	422
Link Distance (ft)	642		554	554
Upstream Blk Time (%)	1		0	0
Queuing Penalty (veh)	5		0	0
Storage Bay Dist (ft)		460		
Storage Blk Time (%)		0	0	
Queuing Penalty (veh)		1	1	

Intersection: 4: Randolph Ave & Wilks Ave

Movement	WB	NB	SB
Directions Served	LR	TR	LT
Maximum Queue (ft)	53	30	228
Average Queue (ft)	14	8	58
95th Queue (ft)	53	74	258
Link Distance (ft)	482	249	358
Upstream Blk Time (%)		2	7
Queuing Penalty (veh)		4	17
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 5: Randolph Ave & Waltham Ave

Movement	EB	WB	SB
Directions Served	LTR	LTR	LTR
Maximum Queue (ft)	87	33	199
Average Queue (ft)	41	9	94
95th Queue (ft)	107	32	247
Link Distance (ft)	337	236	249
Upstream Blk Time (%)	1		17
Queuing Penalty (veh)	1		43
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 6: Hansel Ave & Waltham Ave

Movement	EB	WB	NB	NB
Directions Served	LT	TR	LT	TR
Maximum Queue (ft)	76	118	399	384
Average Queue (ft)	24	93	366	369
95th Queue (ft)	62	131	404	393
Link Distance (ft)		115	362	362
Upstream Blk Time (%)		6	6	9
Queuing Penalty (veh)		13	63	86
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 8: Hansel Ave & Fairlane Ave

Movement	EB	WB	NB	NB	NB
Directions Served	LT	TR	L	T	TR
Maximum Queue (ft)	106	307	174	284	291
Average Queue (ft)	32	298	28	249	249
95th Queue (ft)	91	348	129	281	281
Link Distance (ft)	339	292		241	241
Upstream Blk Time (%)		48		34	35
Queuing Penalty (veh)		0		229	236
Storage Bay Dist (ft)			150		
Storage Blk Time (%)				56	
Queuing Penalty (veh)				8	

Intersection: 9: Fairlane Ave & Orange Ave

Movement	EB	WB	SB	SB
Directions Served	TR	LT	LT	TR
Maximum Queue (ft)	248	236	81	74
Average Queue (ft)	114	182	8	6
95th Queue (ft)	275	241	70	59
Link Distance (ft)	413	339		
Upstream Blk Time (%)	3			
Queuing Penalty (veh)	0			
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 10: Randolph Ave & Wallace St

Movement	EB	WB	NB
Directions Served	LTR	LTR	LTR
Maximum Queue (ft)	300	146	91
Average Queue (ft)	114	49	33
95th Queue (ft)	338	143	73
Link Distance (ft)	471	478	1060
Upstream Blk Time (%)	5		
Queuing Penalty (veh)	14		
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 11: Wallace St & Hansel Ave

Movement	EB	WB	NB	NB	NB
Directions Served	LT	TR	L	T	TR
Maximum Queue (ft)	242	450	144	627	636
Average Queue (ft)	105	201	12	429	435
95th Queue (ft)	215	467	77	772	793
Link Distance (ft)	254	471			
Upstream Blk Time (%)	4	10			
Queuing Penalty (veh)	6	10			
Storage Bay Dist (ft)			120		
Storage Blk Time (%)				47	
Queuing Penalty (veh)				8	

Intersection: 12: Orange Ave & Lancaster Rd

Movement	EB	EB	EB	NB	NB	NB	SB	SB	SB
Directions Served	L	L	R	L	T	T	T	T	R
Maximum Queue (ft)	145	186	186	291	300	294	450	430	216
Average Queue (ft)	57	102	81	157	134	132	349	259	56
95th Queue (ft)	136	170	159	257	247	247	491	406	166
Link Distance (ft)		1166	1166		1285	1285			
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)	225			300					350
Storage Blk Time (%)		0		1	0			1	0
Queuing Penalty (veh)		0		6	0			3	0

Intersection: 13: Orange Ave & Nela Ave

Movement	EB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LTR	L	TR	L	T	TR	L	T	TR
Maximum Queue (ft)	11	112	169	17	304	308	149	230	240
Average Queue (ft)	0	29	67	1	148	121	51	71	83
95th Queue (ft)	5	75	132	10	277	256	109	185	198
Link Distance (ft)	446		1119		1312	1312		1285	1285
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)		145		200			185		
Storage Blk Time (%)			1		3			0	
Queuing Penalty (veh)			0		0			0	

Intersection: 19: Entrance #1

Movement	NB	SB
Directions Served	L	R
Maximum Queue (ft)	62	71
Average Queue (ft)	34	51
95th Queue (ft)	48	70
Link Distance (ft)	19	4
Upstream Blk Time (%)	76	70
Queuing Penalty (veh)	158	98
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 20:

Movement	EB	B21	B22	B23	B24	B25	B26
Directions Served	L	T	T	T	T	T	T
Maximum Queue (ft)	169	78	230	93	219	71	319
Average Queue (ft)	135	48	159	51	125	29	151
95th Queue (ft)	185	87	300	108	278	74	391
Link Distance (ft)		9	158	23	150	2	251
Upstream Blk Time (%)	83	42	70	66	56	5	45
Queuing Penalty (veh)	0	87	145	136	116	11	92
Storage Bay Dist (ft)							
Storage Blk Time (%)							
Queuing Penalty (veh)							

Intersection: 28: Wallace St & Entrance #2

Movement	EB	WB
Directions Served	LT	TR
Maximum Queue (ft)	410	80
Average Queue (ft)	129	34
95th Queue (ft)	409	62
Link Distance (ft)	478	328
Upstream Blk Time (%)	11	
Queuing Penalty (veh)	46	
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 29: Entrance #1 & Waltham Ave

Movement	EB	WB	B15
Directions Served	TR	LT	T
Maximum Queue (ft)	230	258	23
Average Queue (ft)	136	123	5
95th Queue (ft)	291	325	57
Link Distance (ft)	236	456	681
Upstream Blk Time (%)	31	5	
Queuing Penalty (veh)	38	4	
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 31: E.S. Exit & Waltham Ave

Movement	NB
Directions Served	LR
Maximum Queue (ft)	78
Average Queue (ft)	34
95th Queue (ft)	52
Link Distance (ft)	13
Upstream Blk Time (%)	16
Queuing Penalty (veh)	54
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 34: Orange Ave

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 38:

Movement	WB	SB	SB
Directions Served	L	LT	T
Maximum Queue (ft)	78	116	114
Average Queue (ft)	20	14	11
95th Queue (ft)	55	107	99
Link Distance (ft)	254	261	261
Upstream Blk Time (%)		1	0
Queuing Penalty (veh)		14	3
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 40: Orange Ave & Waltham Ave

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 53: E.S. Exit

Movement	NB	B30	B14	B16	B51	B47	B17
Directions Served	T	T	T	T	T	T	T
Maximum Queue (ft)	166	410	272	97	93	138	360
Average Queue (ft)	135	374	229	61	57	96	298
95th Queue (ft)	150	422	310	90	87	143	456
Link Distance (ft)	82	326	188	13	10	52	280
Upstream Blk Time (%)	100	95	93	46	33	91	87
Queuing Penalty (veh)	345	329	320	160	113	313	300
Storage Bay Dist (ft)							
Storage Blk Time (%)							
Queuing Penalty (veh)							

Intersection: 55: Hoffner Ave

Movement	EB	WB
Directions Served	TR	LT
Maximum Queue (ft)	153	308
Average Queue (ft)	13	135
95th Queue (ft)	174	324
Link Distance (ft)	698	282
Upstream Blk Time (%)		17
Queuing Penalty (veh)		0
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

Network wide Queuing Penalty: 4039

Intersection: 1: Randolph Ave & Hoffner Ave

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	248	676	227	43
Average Queue (ft)	20	320	84	10
95th Queue (ft)	136	700	226	37
Link Distance (ft)	498	701	341	302
Upstream Blk Time (%)	0	3	2	
Queuing Penalty (veh)	1	21	1	
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 2: Hansel Ave & Hoffner Ave

Movement	EB	WB	WB	NB	NB	NB
Directions Served	LT	T	R	LT	T	R
Maximum Queue (ft)	447	497	250	670	664	345
Average Queue (ft)	217	302	166	378	390	269
95th Queue (ft)	378	550	310	693	730	442
Link Distance (ft)	647	498		652	652	
Upstream Blk Time (%)	0	6		1	1	
Queuing Penalty (veh)	0	36		6	7	
Storage Bay Dist (ft)			225			320
Storage Blk Time (%)		20	2		8	6
Queuing Penalty (veh)		48	6		62	44

Intersection: 3: Hoffner Ave & Orange Ave

Movement	WB	SB	SB	SB
Directions Served	L	L	T	T
Maximum Queue (ft)	659	258	444	462
Average Queue (ft)	529	105	258	250
95th Queue (ft)	737	205	396	390
Link Distance (ft)	647		553	553
Upstream Blk Time (%)	14		0	0
Queuing Penalty (veh)	67		0	0
Storage Bay Dist (ft)		460		
Storage Blk Time (%)			0	
Queuing Penalty (veh)			1	

Intersection: 4: Randolph Ave & Wilks Ave

Movement	WB	NB	SB
Directions Served	LR	TR	LT
Maximum Queue (ft)	33	29	76
Average Queue (ft)	5	2	12
95th Queue (ft)	25	20	94
Link Distance (ft)	481	263	341
Upstream Blk Time (%)			0
Queuing Penalty (veh)			0
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 5: Randolph Ave & Waltham Ave

Movement	EB	WB	SB
Directions Served	LTR	LTR	LTR
Maximum Queue (ft)	83	30	126
Average Queue (ft)	35	6	63
95th Queue (ft)	69	26	180
Link Distance (ft)	350	221	263
Upstream Blk Time (%)			5
Queuing Penalty (veh)			7
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 6: Hansel Ave & Waltham Ave

Movement	EB	WB	NB	NB
Directions Served	LT	TR	LT	TR
Maximum Queue (ft)	69	87	384	391
Average Queue (ft)	16	53	349	364
95th Queue (ft)	52	86	422	412
Link Distance (ft)		115	363	363
Upstream Blk Time (%)		0	9	13
Queuing Penalty (veh)		0	88	129
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 8: Hansel Ave & Fairlane Ave

Movement	EB	WB	NB	NB	NB
Directions Served	LT	TR	L	T	TR
Maximum Queue (ft)	56	322	148	260	259
Average Queue (ft)	13	289	16	232	233
95th Queue (ft)	42	380	93	282	285
Link Distance (ft)	334	307		230	230
Upstream Blk Time (%)		40		26	26
Queuing Penalty (veh)		0		191	194
Storage Bay Dist (ft)			150		
Storage Blk Time (%)			0	40	
Queuing Penalty (veh)			0	7	

Intersection: 9: Fairlane Ave & Orange Ave

Movement	EB	WB	SB
Directions Served	TR	LT	TR
Maximum Queue (ft)	179	197	15
Average Queue (ft)	69	119	1
95th Queue (ft)	140	219	9
Link Distance (ft)	407	334	
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 10: Randolph Ave & Wallace St

Movement	EB	WB	NB
Directions Served	LTR	LTR	LTR
Maximum Queue (ft)	232	104	64
Average Queue (ft)	66	34	25
95th Queue (ft)	192	92	54
Link Distance (ft)	477	482	1060
Upstream Blk Time (%)	1		
Queuing Penalty (veh)	3		
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 11: Wallace St & Hansel Ave

Movement	EB	WB	NB	NB	NB
Directions Served	LT	TR	L	T	TR
Maximum Queue (ft)	152	439	144	626	631
Average Queue (ft)	134	323	14	298	314
95th Queue (ft)	151	442	86	667	689
Link Distance (ft)		477			
Upstream Blk Time (%)		8			
Queuing Penalty (veh)		4			
Storage Bay Dist (ft)			120		
Storage Blk Time (%)			0	25	
Queuing Penalty (veh)			0	8	

Intersection: 12: Orange Ave & Lancaster Rd

Movement	EB	EB	EB	NB	NB	NB	SB	SB	SB
Directions Served	L	L	R	L	T	T	T	T	R
Maximum Queue (ft)	184	221	206	324	450	455	457	452	375
Average Queue (ft)	101	137	75	217	213	216	412	375	149
95th Queue (ft)	174	196	165	332	370	368	501	513	407
Link Distance (ft)		1166	1166		1285	1285			
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)	225			300					350
Storage Blk Time (%)	0	0		3	1			15	0
Queuing Penalty (veh)	0	0		19	3			41	0

Intersection: 13: Orange Ave & Nela Ave

Movement	EB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LTR	L	TR	L	T	TR	L	T	TR
Maximum Queue (ft)	11	85	114	49	319	290	179	192	193
Average Queue (ft)	1	27	40	3	127	98	87	22	29
95th Queue (ft)	6	66	84	27	274	240	159	109	110
Link Distance (ft)	446		1119		1312	1312		1285	1285
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)		145		200			185		
Storage Blk Time (%)			0		3		1	0	
Queuing Penalty (veh)			0		0		7	0	

Intersection: 14: ES Exit & Waltham Ave

Movement	NB
Directions Served	LR
Maximum Queue (ft)	55
Average Queue (ft)	32
95th Queue (ft)	42
Link Distance (ft)	15
Upstream Blk Time (%)	8
Queuing Penalty (veh)	19
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 17: Hoffner Ave

Movement	EB	WB
Directions Served	TR	LT
Maximum Queue (ft)	2	417
Average Queue (ft)	0	128
95th Queue (ft)	2	367
Link Distance (ft)	701	550
Upstream Blk Time (%)		4
Queuing Penalty (veh)		0
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 19: Entance #1

Movement	NB	SB
Directions Served	L	R
Maximum Queue (ft)	67	70
Average Queue (ft)	34	48
95th Queue (ft)	52	69
Link Distance (ft)	9	5
Upstream Blk Time (%)	84	71
Queuing Penalty (veh)	214	71
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 20:

Movement	EB	B21	B22	B23	B24	B25	B26
Directions Served	L	T	T	T	T	T	T
Maximum Queue (ft)	148	86	200	83	205	61	266
Average Queue (ft)	117	50	126	42	106	23	97
95th Queue (ft)	160	95	267	103	276	69	317
Link Distance (ft)		17	145	23	170	10	257
Upstream Blk Time (%)	84	16	59	54	43	22	26
Queuing Penalty (veh)	0	24	88	81	64	33	38
Storage Bay Dist (ft)							
Storage Blk Time (%)							
Queuing Penalty (veh)							

Intersection: 28: Wallace St & Entrance #2

Movement	EB	WB
Directions Served	LT	TR
Maximum Queue (ft)	336	87
Average Queue (ft)	79	31
95th Queue (ft)	290	66
Link Distance (ft)	482	328
Upstream Blk Time (%)	6	
Queuing Penalty (veh)	18	
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 29: Entance #1 & Waltham Ave

Movement	EB	WB
Directions Served	TR	LT
Maximum Queue (ft)	208	173
Average Queue (ft)	105	77
95th Queue (ft)	237	186
Link Distance (ft)	221	438
Upstream Blk Time (%)	18	
Queuing Penalty (veh)	20	
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 34: Orange Ave

Movement

- Directions Served
- Maximum Queue (ft)
- Average Queue (ft)
- 95th Queue (ft)
- Link Distance (ft)
- Upstream Blk Time (%)
- Queuing Penalty (veh)
- Storage Bay Dist (ft)
- Storage Blk Time (%)
- Queuing Penalty (veh)

Intersection: 38:

Movement

- Directions Served
- Maximum Queue (ft)
- Average Queue (ft)
- 95th Queue (ft)
- Link Distance (ft)
- Upstream Blk Time (%)
- Queuing Penalty (veh)
- Storage Bay Dist (ft)
- Storage Blk Time (%)
- Queuing Penalty (veh)

Intersection: 40: Orange Ave & Waltham Ave

Movement

- Directions Served
- Maximum Queue (ft)
- Average Queue (ft)
- 95th Queue (ft)
- Link Distance (ft)
- Upstream Blk Time (%)
- Queuing Penalty (veh)
- Storage Bay Dist (ft)
- Storage Blk Time (%)
- Queuing Penalty (veh)

Intersection: 53: ES Exit & ES Drop off

Movement	NB	B30	B31	B16	B51	B54	B55
Directions Served	T	T	T	T	T	T	T
Maximum Queue (ft)	169	413	240	90	95	110	314
Average Queue (ft)	139	385	210	64	68	81	269
95th Queue (ft)	153	406	268	91	97	118	395
Link Distance (ft)	86	334	165	13	17	34	240
Upstream Blk Time (%)	96	97	95	67	69	92	89
Queuing Penalty (veh)	408	411	401	283	291	389	378
Storage Bay Dist (ft)							
Storage Blk Time (%)							
Queuing Penalty (veh)							

Network Summary

Network wide Queuing Penalty: 4231

Intersection: 1: Randolph Ave & Hoffner Ave

Movement	EB	WB	NB
Directions Served	LTR	LTR	LTR
Maximum Queue (ft)	22	501	119
Average Queue (ft)	1	192	43
95th Queue (ft)	10	427	108
Link Distance (ft)	504	696	357
Upstream Blk Time (%)		0	
Queuing Penalty (veh)		1	
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 2: Hansel Ave & Hoffner Ave

Movement	EB	WB	WB	NB	NB	NB
Directions Served	LT	T	R	LT	T	R
Maximum Queue (ft)	414	515	250	596	627	345
Average Queue (ft)	238	296	180	379	375	272
95th Queue (ft)	368	525	313	579	615	425
Link Distance (ft)	664	504		659	659	
Upstream Blk Time (%)		3		0	0	
Queuing Penalty (veh)		18		2	3	
Storage Bay Dist (ft)			225			320
Storage Blk Time (%)		19	1		10	3
Queuing Penalty (veh)		49	3		68	24

Intersection: 3: Orange Ave & Hoffner Ave

Movement	WB	SB	SB	SB
Directions Served	L	L	T	T
Maximum Queue (ft)	675	265	441	452
Average Queue (ft)	467	123	263	250
95th Queue (ft)	751	231	406	395
Link Distance (ft)	664		558	558
Upstream Blk Time (%)	1		0	0
Queuing Penalty (veh)	8		0	0
Storage Bay Dist (ft)		460		
Storage Blk Time (%)			0	
Queuing Penalty (veh)			0	

Intersection: 4: Randolph Ave & Wilks Ave

Movement	WB
Directions Served	LR
Maximum Queue (ft)	34
Average Queue (ft)	8
95th Queue (ft)	31
Link Distance (ft)	544
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 5: Randolph Ave & Waltham Ave

Movement	EB	WB	SB
Directions Served	LTR	LTR	LTR
Maximum Queue (ft)	58	31	52
Average Queue (ft)	35	7	32
95th Queue (ft)	55	27	45
Link Distance (ft)	509	222	257
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 6: Hansel Ave & Waltham Ave

Movement	EB	WB	NB	NB
Directions Served	LT	TR	LT	TR
Maximum Queue (ft)	114	276	136	149
Average Queue (ft)	37	263	15	17
95th Queue (ft)	104	283	99	106
Link Distance (ft)			357	357
Upstream Blk Time (%)			0	0
Queuing Penalty (veh)			0	0
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 7: Orange Ave

Movement	WB	SB
Directions Served	L	L
Maximum Queue (ft)	70	6
Average Queue (ft)	25	0
95th Queue (ft)	64	4
Link Distance (ft)	260	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		290
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 8: Hansel Ave & Fairlane Ave

Movement	EB	WB	B14	B16	B17	B18	NB	NB	NB
Directions Served	L	TR	T	T	T	T	L	T	T
Maximum Queue (ft)	118	583	196	109	258	98	102	256	259
Average Queue (ft)	32	461	88	38	89	29	9	216	196
95th Queue (ft)	108	676	222	107	278	102	57	285	280
Link Distance (ft)	341	482	111	6	197	87		239	239
Upstream Blk Time (%)	0	41	34	6	20	5		5	3
Queuing Penalty (veh)	0	190	158	29	92	23		34	20
Storage Bay Dist (ft)							150		
Storage Blk Time (%)								17	
Queuing Penalty (veh)								2	

Intersection: 9: Orange Ave & Fairlane Ave

Movement	EB	WB	SB	SB
Directions Served	TR	LT	LT	TR
Maximum Queue (ft)	127	189	16	10
Average Queue (ft)	50	90	1	0
95th Queue (ft)	99	173	14	6
Link Distance (ft)	595	341		
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 10: Randolph Ave & Wallace St

Movement	EB	WB	NB
Directions Served	LTR	LTR	LTR
Maximum Queue (ft)	55	58	66
Average Queue (ft)	36	30	23
95th Queue (ft)	52	50	55
Link Distance (ft)	476		1059
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 11: Hansel Ave & Wallace St

Movement	EB	WB	NB	NB	NB
Directions Served	LT	TR	L	T	TR
Maximum Queue (ft)	222	98	32	264	244
Average Queue (ft)	115	37	1	53	42
95th Queue (ft)	207	75	21	171	155
Link Distance (ft)	260	476			
Upstream Blk Time (%)	0				
Queuing Penalty (veh)	0				
Storage Bay Dist (ft)			120		
Storage Blk Time (%)				2	
Queuing Penalty (veh)				0	

Intersection: 12: Orange Ave & Lancaster Rd

Movement	EB	EB	EB	NB	NB	NB	SB	SB	SB
Directions Served	L	L	R	L	T	T	T	T	R
Maximum Queue (ft)	143	167	166	285	249	273	394	403	347
Average Queue (ft)	50	97	65	145	114	116	238	251	63
95th Queue (ft)	124	155	135	242	211	225	349	361	179
Link Distance (ft)		1220	1220		1281	1281	901	901	
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)	245			350					350
Storage Blk Time (%)				0				1	0
Queuing Penalty (veh)				0				2	0

Intersection: 13: Orange Ave & Nela Ave

Movement	EB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LTR	L	TR	L	T	TR	L	T	TR
Maximum Queue (ft)	10	81	153	40	301	274	114	200	239
Average Queue (ft)	1	26	61	2	122	85	44	59	76
95th Queue (ft)	6	65	119	25	254	209	92	161	188
Link Distance (ft)	477		1265		937	937		1281	1281
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)		145		200			185		
Storage Blk Time (%)			0		2		0	0	
Queuing Penalty (veh)			0		0		0	0	

Intersection: 19:

Movement	NB	SB
Directions Served	L	R
Maximum Queue (ft)	97	89
Average Queue (ft)	39	49
95th Queue (ft)	66	74
Link Distance (ft)	1	5
Upstream Blk Time (%)	40	11
Queuing Penalty (veh)	113	21
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 20:

Movement	EB	B21	B22
Directions Served	L	T	T
Maximum Queue (ft)	126	39	23
Average Queue (ft)	88	3	1
95th Queue (ft)	123	23	19
Link Distance (ft)		18	145
Upstream Blk Time (%)	21	1	0
Queuing Penalty (veh)	0	2	0
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 28: Wallace St

Movement	EB	WB
Directions Served	LT	TR
Maximum Queue (ft)	84	31
Average Queue (ft)	38	11
95th Queue (ft)	60	35
Link Distance (ft)	468	346
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 29: Waltham Ave

Movement	EB	WB
Directions Served	TR	LT
Maximum Queue (ft)	74	74
Average Queue (ft)	35	37
95th Queue (ft)	58	61
Link Distance (ft)	222	450
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 30: Orange Ave/Hansel Ave

Movement	SE	SE
Directions Served	R	R
Maximum Queue (ft)	19	54
Average Queue (ft)	1	3
95th Queue (ft)	14	23
Link Distance (ft)	1109	1109
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 37: Hoffner Ave

Movement	EB	WB
Directions Served	TR	LT
Maximum Queue (ft)	2	256
Average Queue (ft)	0	67
95th Queue (ft)	2	178
Link Distance (ft)	696	526
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 38: Orange Ave & Waltham Ave

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Network Summary

Network wide Queuing Penalty: 862

Intersection: 4: Randolph Ave & Hoffner Ave

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	359	722	316	48
Average Queue (ft)	28	407	142	10
95th Queue (ft)	188	850	338	35
Link Distance (ft)	494	710	351	355
Upstream Blk Time (%)	1	10	13	
Queuing Penalty (veh)	5	65	8	
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 5: Hansel Ave & Wallace St

Movement	EB	WB	NB	NB	NB
Directions Served	LT	TR	L	T	TR
Maximum Queue (ft)	268	387	51	514	559
Average Queue (ft)	186	303	2	154	180
95th Queue (ft)	267	382	30	368	414
Link Distance (ft)	262	497			
Upstream Blk Time (%)	5				
Queuing Penalty (veh)	4				
Storage Bay Dist (ft)			120		
Storage Blk Time (%)				10	
Queuing Penalty (veh)				3	

Intersection: 6: Randolph Ave & Wallace St

Movement	EB	WB	NB
Directions Served	LTR	LTR	LTR
Maximum Queue (ft)	88	44	42
Average Queue (ft)	46	27	22
95th Queue (ft)	71	46	46
Link Distance (ft)	497	453	1059
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 7: Hoffner Ave

Movement	WB
Directions Served	LT
Maximum Queue (ft)	426
Average Queue (ft)	181
95th Queue (ft)	442
Link Distance (ft)	410
Upstream Blk Time (%)	14
Queuing Penalty (veh)	0
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 9: Hansel Ave & Waltham Ave

Movement	EB	WB	NB	NB
Directions Served	LT	TR	LT	TR
Maximum Queue (ft)	139	279	318	324
Average Queue (ft)	57	252	75	85
95th Queue (ft)	150	319	266	279
Link Distance (ft)			356	356
Upstream Blk Time (%)			0	1
Queuing Penalty (veh)			4	5
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 10: Randolph Ave & Waltham Ave

Movement	EB	WB	SB
Directions Served	LTR	LTR	LTR
Maximum Queue (ft)	126	39	57
Average Queue (ft)	45	9	32
95th Queue (ft)	121	34	48
Link Distance (ft)	509	222	257
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 12: Orange Ave & Waltham Ave

Movement	WB
Directions Served	L
Maximum Queue (ft)	46
Average Queue (ft)	22
95th Queue (ft)	40
Link Distance (ft)	438
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 13: Hansel Ave & Fairlane Ave

Movement	EB	WB	B14	B16	B17	B18	NB	NB	NB
Directions Served	L	TR	T	T	T	T	L	T	T
Maximum Queue (ft)	70	593	162	199	158	93	174	270	276
Average Queue (ft)	14	496	78	80	46	21	16	244	244
95th Queue (ft)	48	688	193	222	158	85	86	289	296
Link Distance (ft)	328	499	90	109	104	86		246	246
Upstream Blk Time (%)		39	32	24	15	4		15	16
Queuing Penalty (veh)		167	136	103	62	19		111	121
Storage Bay Dist (ft)							150		
Storage Blk Time (%)							0	30	
Queuing Penalty (veh)							0	5	

Intersection: 15: Orange Ave & Fairlane Ave

Movement	EB	WB	SB	SB
Directions Served	TR	LT	LT	TR
Maximum Queue (ft)	155	188	5	12
Average Queue (ft)	72	115	0	0
95th Queue (ft)	136	212	5	6
Link Distance (ft)	595	328	382	382
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 19:

Movement	NB	SB
Directions Served	L	R
Maximum Queue (ft)	91	86
Average Queue (ft)	39	48
95th Queue (ft)	66	74
Link Distance (ft)	10	5
Upstream Blk Time (%)	37	10
Queuing Penalty (veh)	93	17
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 20:

Movement	EB	B21	B22
Directions Served	L	T	T
Maximum Queue (ft)	128	36	23
Average Queue (ft)	84	4	1
95th Queue (ft)	123	26	21
Link Distance (ft)		17	145
Upstream Blk Time (%)	15	1	0
Queuing Penalty (veh)	0	2	0
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 28: Wallace St

Movement	EB	WB
Directions Served	LT	TR
Maximum Queue (ft)	70	60
Average Queue (ft)	39	29
95th Queue (ft)	59	50
Link Distance (ft)	453	347
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 29: Waltham Ave

Movement	EB	WB
Directions Served	TR	LT
Maximum Queue (ft)	80	75
Average Queue (ft)	35	35
95th Queue (ft)	62	61
Link Distance (ft)	222	445
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 30: Hansel Ave & Hoffner Ave

Movement	EB	WB	WB	NB	NB	NB
Directions Served	LT	T	R	LT	T	R
Maximum Queue (ft)	456	508	250	679	679	345
Average Queue (ft)	231	331	171	499	516	307
95th Queue (ft)	422	605	322	781	812	436
Link Distance (ft)	637	494		659	659	
Upstream Blk Time (%)	1	11		3	3	
Queuing Penalty (veh)	2	66		25	31	
Storage Bay Dist (ft)			225			320
Storage Blk Time (%)		30	3		17	10
Queuing Penalty (veh)		72	8		127	70

Intersection: 31: Orange Ave & Hoffner Ave

Movement	WB	SB	SB	SB
Directions Served	L	L	T	T
Maximum Queue (ft)	650	322	483	467
Average Queue (ft)	540	106	266	250
95th Queue (ft)	759	223	414	405
Link Distance (ft)	637		558	558
Upstream Blk Time (%)	20		0	0
Queuing Penalty (veh)	99		0	0
Storage Bay Dist (ft)		460		
Storage Blk Time (%)			0	
Queuing Penalty (veh)			1	

Intersection: 37: Orange Ave & Hansel Ave

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 38: Orange Ave & Lancaster Rd

Movement	EB	EB	EB	NB	NB	NB	SB	SB	SB
Directions Served	L	L	R	L	T	T	T	T	R
Maximum Queue (ft)	196	213	158	324	448	430	410	404	373
Average Queue (ft)	100	137	74	223	226	228	365	340	187
95th Queue (ft)	187	202	149	344	391	381	434	455	443
Link Distance (ft)			1223		1281	1281			
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)	225	225		300					350
Storage Blk Time (%)	0	0	0	5	1			15	0
Queuing Penalty (veh)	0	0	0	31	4			41	3

Intersection: 39: Orange Ave & Nela Ave

Movement	EB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LTR	L	TR	L	T	TR	L	T	TR
Maximum Queue (ft)	11	97	128	24	373	333	195	212	190
Average Queue (ft)	1	30	41	2	135	99	87	25	34
95th Queue (ft)	7	72	93	12	294	238	165	117	116
Link Distance (ft)	477		1265		937	937		1281	1281
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)		145		200			185		
Storage Blk Time (%)			0		3		2	0	
Queuing Penalty (veh)			0		0		13	0	

Intersection: 44: Randolph Ave & Wilks Ave

Movement	WB	NB
Directions Served	LR	TR
Maximum Queue (ft)	38	130
Average Queue (ft)	6	24
95th Queue (ft)	28	137
Link Distance (ft)	544	257
Upstream Blk Time (%)		5
Queuing Penalty (veh)		6
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 48: Orange Ave

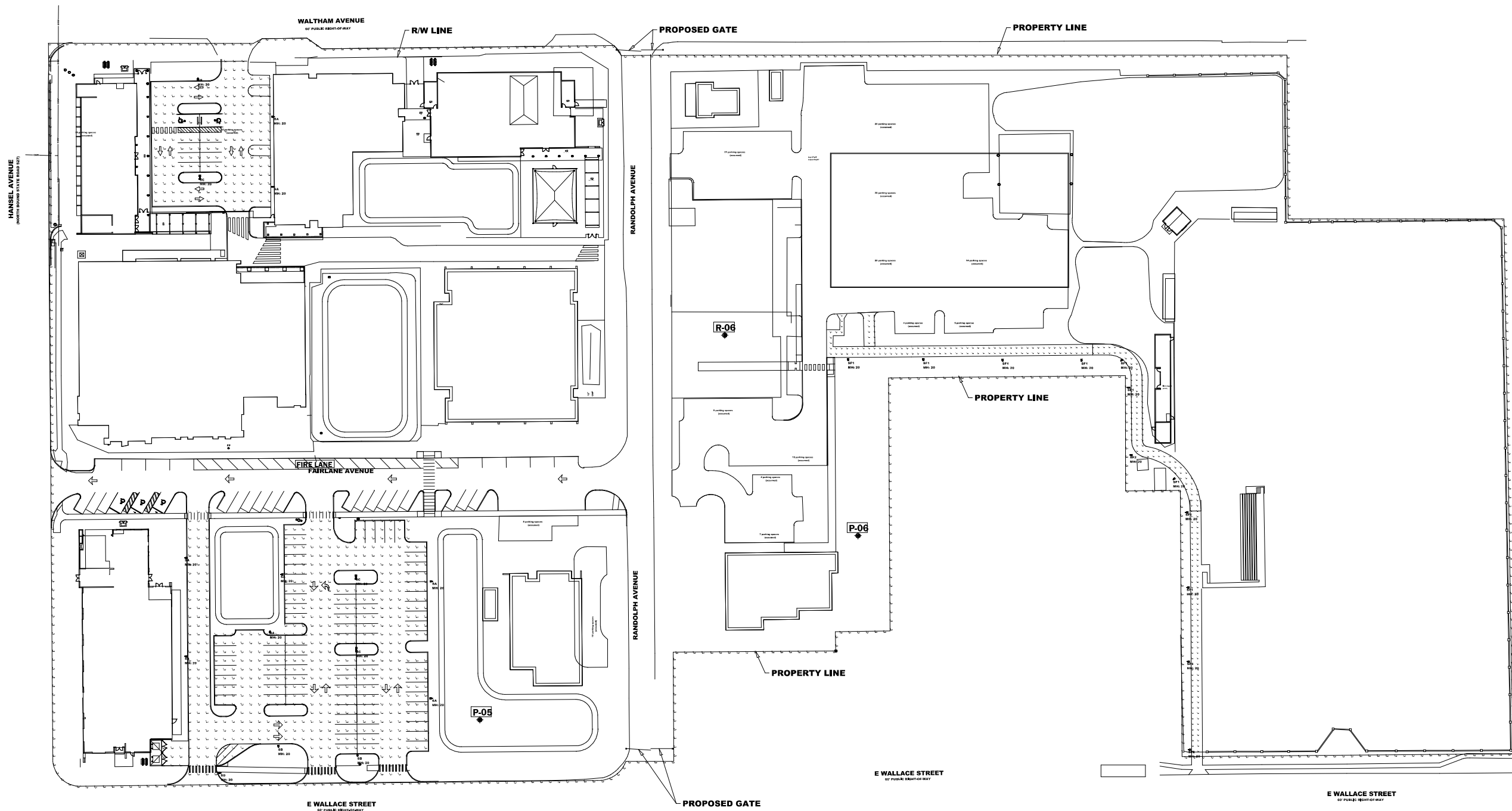
Movement	SB	SB
Directions Served	L	T
Maximum Queue (ft)	56	20
Average Queue (ft)	4	1
95th Queue (ft)	38	27
Link Distance (ft)		248
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)	220	
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

Network wide Queuing Penalty: 1531

SYMBOL	QTY	LABEL	ARRANGEMENT	MANUFACTURER	CATALOG NUMBER	ROOM/NO	EMERGENCY	LLF	LUMENS/LUMENS	LUMENS/WATT	ARRANGEMENT WATTS
	5	BA	Single	Lithonia Lighting	0935 LED P7 40K T808 T808 H8	POLE MOUNTED 20' A/C/L	NA	0.900	17730	1752/1	1752/1
	3	BB	Single	Lithonia Lighting	0935 LED P7 40K T808 T808 H8	POLE MOUNTED 20' A/C/L	NA	0.900	18410	1752/1	1752/1
	3	BC	Multi-Row	Lithonia Lighting	0935 LED P7 40K T808 T808 H8	POLE MOUNTED 20' A/C/L	NA	0.900	21014	1752/1	345/3
	1	BD	Single	Lithonia Lighting	0935 LED P7 40K T808 L800	POLE MOUNTED 20' A/C/L	NA	0.900	14814	1752/1	1752/1
	14	BF1	Single	Lithonia Lighting	0935 LED P4 40K T808 BLCC	POLE MOUNTED 20' A/C/L	NA	0.900	8054	82/4	82/4
	2	BF2	Single	Lithonia Lighting	0935 LED P4 40K T808 R800	POLE MOUNTED 20' A/C/L	NA	0.900	8170	82/4	82/4

CALCULATION SUMMARY										
LABEL	SCALE TYPE	INETS	SPACING L4 (FT)	SPACING T4 (FT)	HEIGHT (FT)	AVG	MAX	MIN	AVG/INCH	MAX/INCH
OUTSIDE LANE	Recessed	P4	0	0	0	5.07	6.3	3.7	0.20	0.30
SP1 - H8	Recessed	P4	0	0	0	4.27	6.3	3.4	0.20	0.30
SP1 - 20'	Recessed	P4	0	0	0	4.00	6.3	3.0	0.14	0.24
INFL	Recessed	P4	0	N/A	N/A	5.07	6.3	3.0	N/A	N/A



Scale: 1 inch= 48 Ft.

DESCRIPTION:
SITE
NORMAL POWER
DATE:
1/30/2023

PROJECT:
Cornerstone Charter Academy - Belle Isle

REV# 0

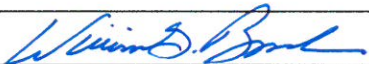





City of Belle Isle
1600 Nela Avenue, Belle Isle, Florida 32809 * Tel 407-851-7730 * Fax 407-240-2222

APPLICATION FOR CHANGE IN ZONING CLASSIFICATION

**** Per LDC, Chap. 42, Art. III, Sec. 42-61, a \$165.00 filing fee must be attached with EACH application ****
****A COMPLETE SURVEY MUST ACCOMPANY ALL REZONING APPLICATIONS****

Date: January 30, 2023	Case #
Address or location of subdivision 5929 Hansel Avenue 24-23-29-8820-00-050	Owner name Cornerstone Charter Academy, Inc.
	Owner phone 407 895-0324 (Jean Abi-Aoun)
	Owner address 5903 Randolph Ave, Orlando, FL 32809
Applicants Name Cornerstone Charter Academy, Inc.	Applicant Consultant Name Jean Abi-Aoun, PE Florida Engr. Group, Inc.
Applicants Address 906 Waltham Avenue	Applicant Consultant Phone 407 895-0324 JAbiaoun@feg-inc.us
Applicants City, State, Zip Orlando, FL 32809	Surveyor (Informal Subdivision)
Applicants Phone 407 895-0324 (Jean Abi-Aoun)	Zoning of property Square footage of property C-1 21,798 SF
Applicants Email JAbiaoun@feg-inc.us	
Request is hereby made for a change in Zoning Classification from C-1 to PD	
Current Use is: Parking Lot	Previous Use was: _____
Reason for request and proposed use (required): Cornerstone Charter School - Rezoning entire area where the school will be in operation to PD zoning for consistency of use.	
If Owner owns any adjacent parcels, please list Parcel ID #s:	
Applicant Signature Wm.G.Brooks 	Owner Signature Wm.G.Brooks 

FOR OFFICE USE ONLY:		
Application Recd On _____	Application Recd By _____	\$165.00 Check #/Cash _____
P&Z Case # _____	P&Z Hearing Date _____	P&Z Board Approved or Denied Application? (circle one)
Appealed to City Council: <input type="checkbox"/> Yes <input type="checkbox"/> No Council Action: _____		

Sec. 42-65. - Zoning changes.

The council may from time to time amend or supplement the regulations and districts fixed by any code adopted pursuant to this article.

(1) Changes to the Land Development Code.

- a. Proposed changes may be suggested by the council, by the board, or by the mayor.
- b. All proposed changes to the Land Development Code shall be in form of ordinances, and shall follow the notice requirement set forth by the Florida Statutes on adopting ordinances.
- c. The board shall review all proposed changes to the Land Development Code, and prepare a recommendation to the council on the proposed changes.
- d. The council shall hold two readings on all ordinances. The council shall adopt changes to the Land Development Code only after holding at least one advertised public hearing in accordance with Florida Statutes.

(2) Changes to the official zoning map (rezoning of property).

- a. Proposed changes to the official zoning map, hereinafter referred to as rezonings, may be suggested by the council, by the board, by the mayor or by the owner, or agent for the owner, of the property subject to the changes proposed. In the latter case, the owner or agent for the owner, hereinafter referred to as the petitioner, shall be required to assume the cost of public notice and other costs incidental to hearings in accordance with section 42-61.
- b. The petitioner shall make application for a rezoning by submitting a completed application, a legal description of the property (complete survey), and a statement of purpose explaining the reason for changing the zoning district classification.
- c. The board and the council shall make such investigation as it may determine and shall hold a public hearing or hearings, with due public notice and in accordance with Florida Statutes, on all rezoning requests.
- d. The city shall notify the applicable water supplier upon submittal of any rezoning request that would increase water and wastewater demand in order to effectively coordinate water supply planning and ensure capacity and availability.



City of Belle Isle

1600 Nela Avenue, Belle Isle, Florida 32809 * Tel 407-851-7730 * Fax 407-240-2222

APPLICATION FOR CHANGE IN ZONING CLASSIFICATION

** Per LDC, Chap. 42, Art. III, Sec. 42-61, a \$165.00 filing fee must be attached with EACH application **
A COMPLETE SURVEY MUST ACCOMPANY ALL REZONING APPLICATIONS

Form with fields for Date (January 30, 2023), Address (942 Fairlane Avenue), Applicant Name (Cornerstone Charter Academy, Inc.), and Zoning Change (C-1 to PD).

FOR OFFICE USE ONLY: Application Recd On, P&Z Case #, and Council Action fields.

Sec. 42-65. - Zoning changes.

The council may from time to time amend or supplement the regulations and districts fixed by any code adopted pursuant to this article.

(1) Changes to the Land Development Code.

- a. Proposed changes may be suggested by the council, by the board, or by the mayor.
b. All proposed changes to the Land Development Code shall be in form of ordinances...
c. The board shall review all proposed changes to the Land Development Code...
d. The council shall hold two readings on all ordinances.

(2) Changes to the official zoning map (rezoning of property).

- a. Proposed changes to the official zoning map, hereinafter referred to as rezonings, may be suggested by the council, by the board, by the mayor or by the owner...
b. The petitioner shall make application for a rezoning by submitting a completed application...
c. The board and the council shall make such investigation as it may determine...
d. The city shall notify the applicable water supplier upon submittal of any rezoning request...

PROJECT:
**CORNERSTONE
CHARTER ACADEMY
MASTER PLAN**



906 WALTHAM AVE.
BELLE ISLE, FL 32809

PARCEL No:
24-23-29-3400-00-092
24-23-29-3400-00-093
24-23-29-8820-00-050
24-23-29-3400-00-073
24-23-29-3400-00-094
24-23-29-3400-00-095
24-23-29-3400-00-114

APPLICANT:
CORNERSTONE
CHARTER ACADEMY
906 WALTHAM AVE.
BELLE ISLE, FL 32809

ISSUED FOR:
ZONING SUBMITTAL

CIVICA PROJECT No :
220208

CONSULTANTS:
FEG FLORIDA ENGINEERING GROUP
1571 S. Orange Avenue, Suite 200
Orlando, FL 32809
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Engineering the Future

No.	DATE	ISSUED FOR	BY
	02/09/23	SUBMITTAL	

DRAWN BY: TM
APPROVED BY: JGI/RL
DATE: 02/09/2023
SCALE: AS SHOWN

KEY PLAN

1st FL FFE: XX.XX' NAVD (1988)
SEAL/SIGNATURE

ROLANDO LLANES
AR - 0013160

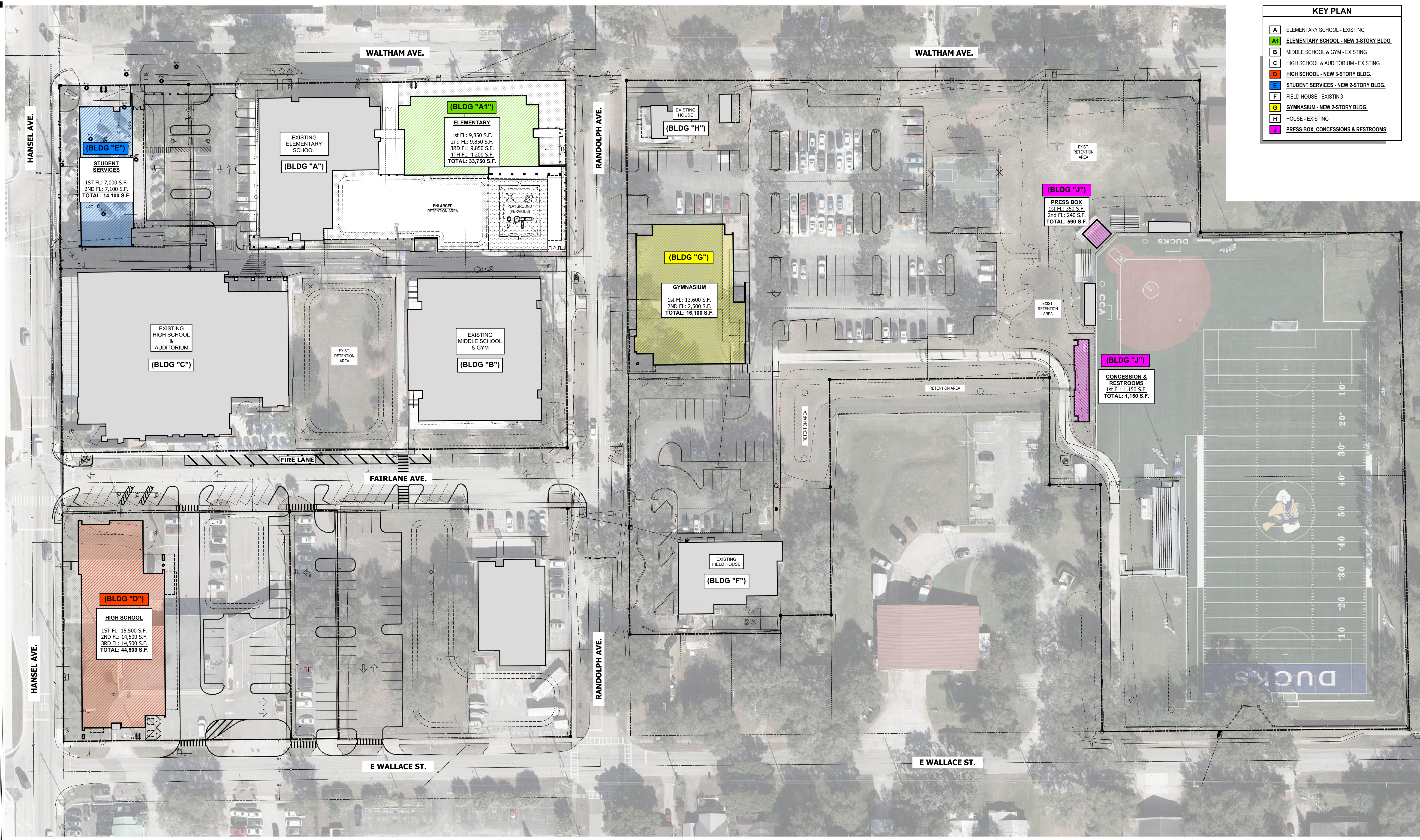
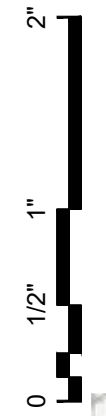
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SHEET TITLE

**OVERALL
SITE PLAN
(AS REFERENCE)**

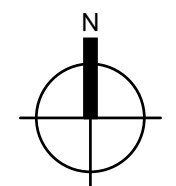
SHEET NUMBER

A100



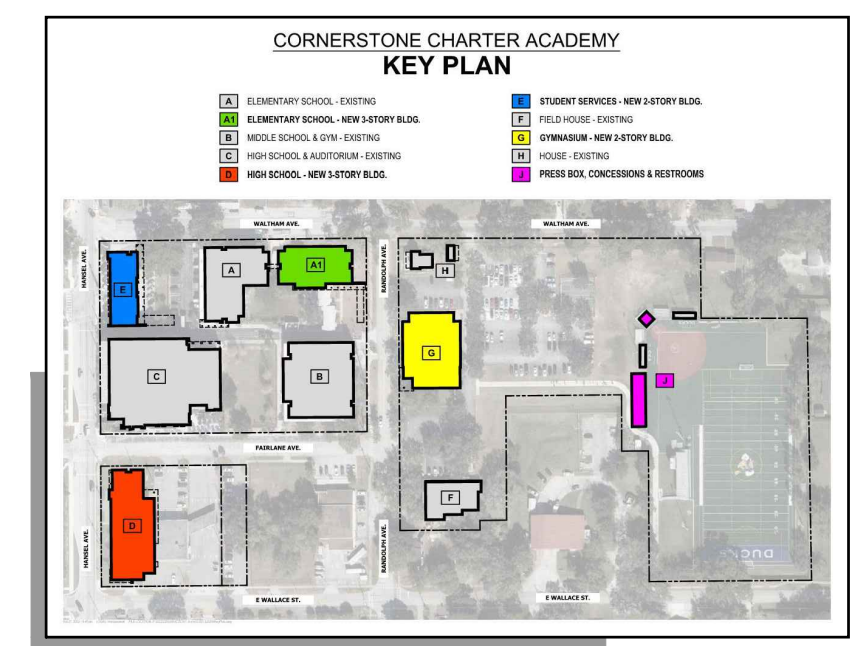
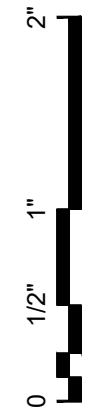
KEY PLAN

A	ELEMENTARY SCHOOL - EXISTING
A1	ELEMENTARY SCHOOL - NEW 3-STORY BLDG.
B	MIDDLE SCHOOL & GYM - EXISTING
C	HIGH SCHOOL & AUDITORIUM - EXISTING
D	HIGH SCHOOL - NEW 3-STORY BLDG.
E	STUDENT SERVICES - NEW 2-STORY BLDG.
F	FIELD HOUSE - EXISTING
G	GYMNASIUM - NEW 2-STORY BLDG.
H	HOUSE - EXISTING
J	PRESS BOX, CONCESSIONS & RESTROOMS



SITE PLAN (OVERALL)
SCALE: N.T.S. 1/A100

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**BLDG-A1
PROPOSED PROGRAM**

**BLDG-A1
NEW ELEMENTARY CLASSROOM WING**
(At the current location of the "Villages")

- 3-STORY, 430,150 SF BUILDING
- 4th STORY ROOF PLAY AREA: 43,600 SF.
- COVERED CONNECTION TO EXIST. ELEMENTARY BUILDING
- CAFETERIA, FOOD PREP & SERVING
- GROUND FLOOR COVER PLAYGROUND
- CLASSROOMS FOR GRADES K-1st
- CLASSROOMS FOR GRADES 2nd-5th
- ART ROOM
- PROJECT LEAD THE WAY™ (PLTW)
- MUSIC ROOM
- EXCEPTIONAL STUDENT EDUCATION (ESE) ROOM

CIVICA
ARCHITECTURE

8323 NW 12th St. Suite 106
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tel: 305.593.9959
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info@civicagroup.com

PROJECT:
**CORNERSTONE
CHARTER ACADEMY
MASTER PLAN**



906 WALTHAM AVE.
BELLE ISLE, FL 32809

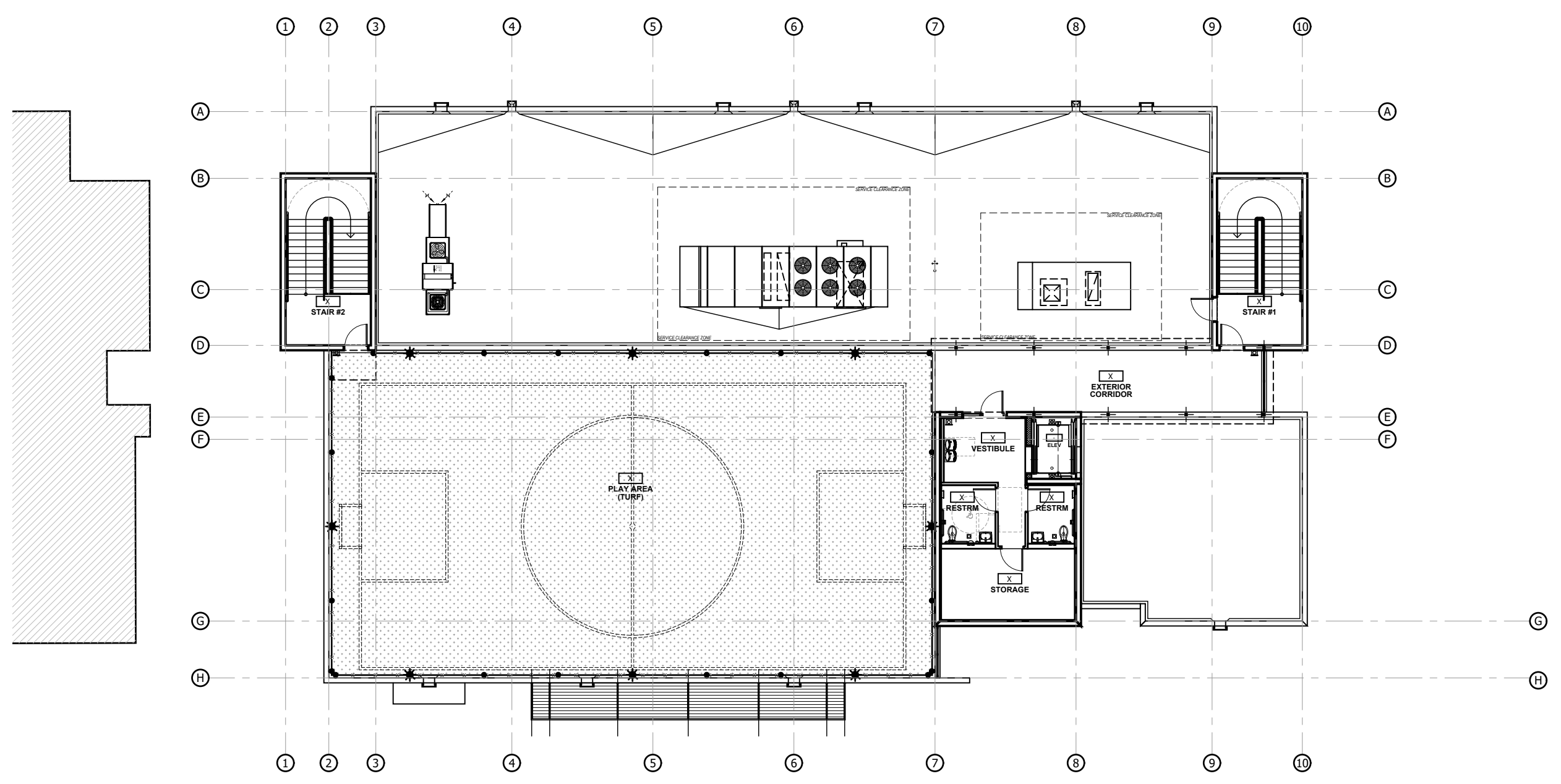
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24-23-29-3400-00-073
24-23-29-3400-00-094
24-23-29-3400-00-095
24-23-29-3400-00-114

APPLICANT:
CORNERSTONE
CHARTER ACADEMY
906 WALTHAM AVE.
BELLE ISLE, FL 32809

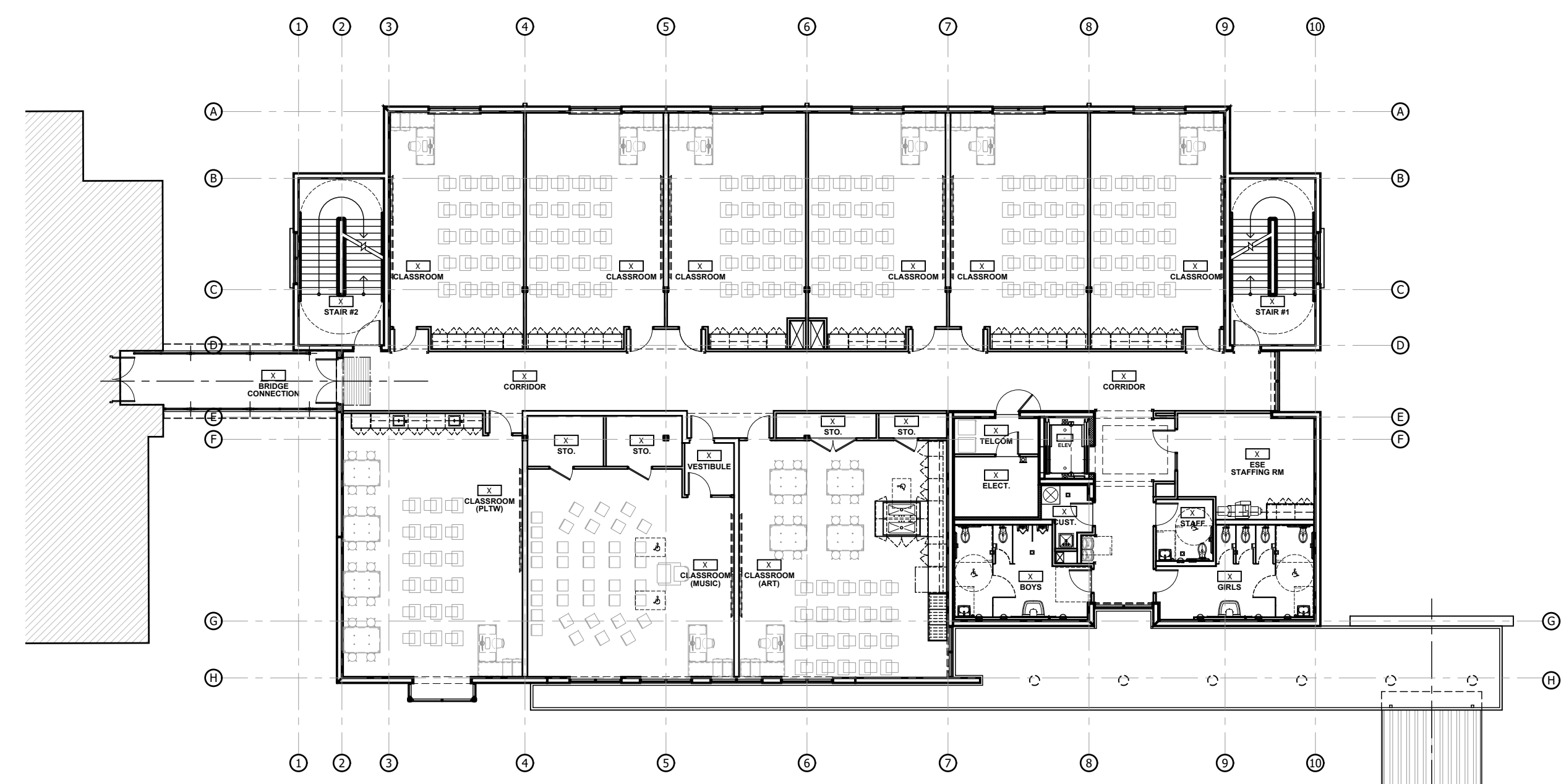
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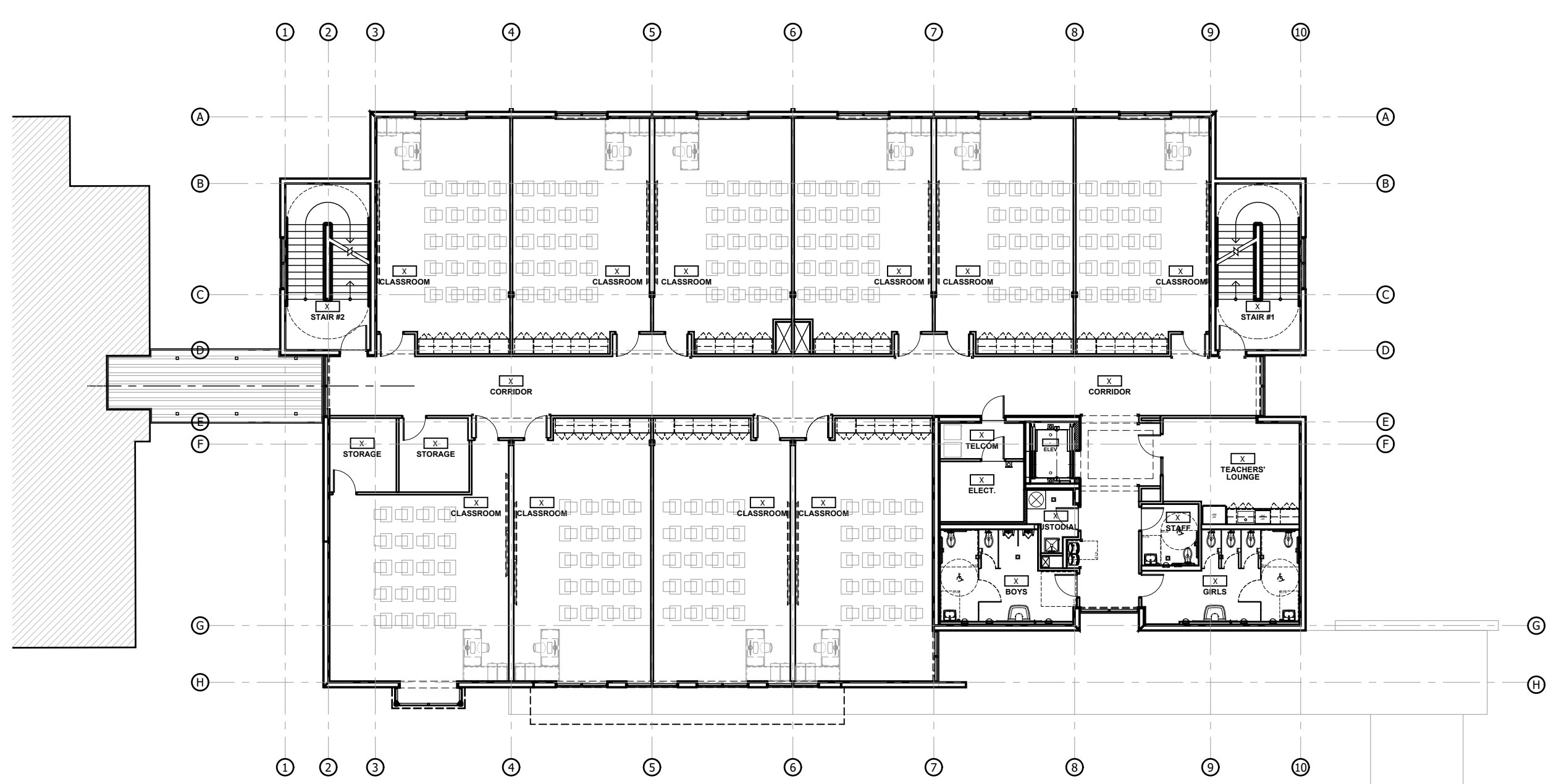
CONSULTANTS:
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1527 S. Orange Avenue, Suite 201
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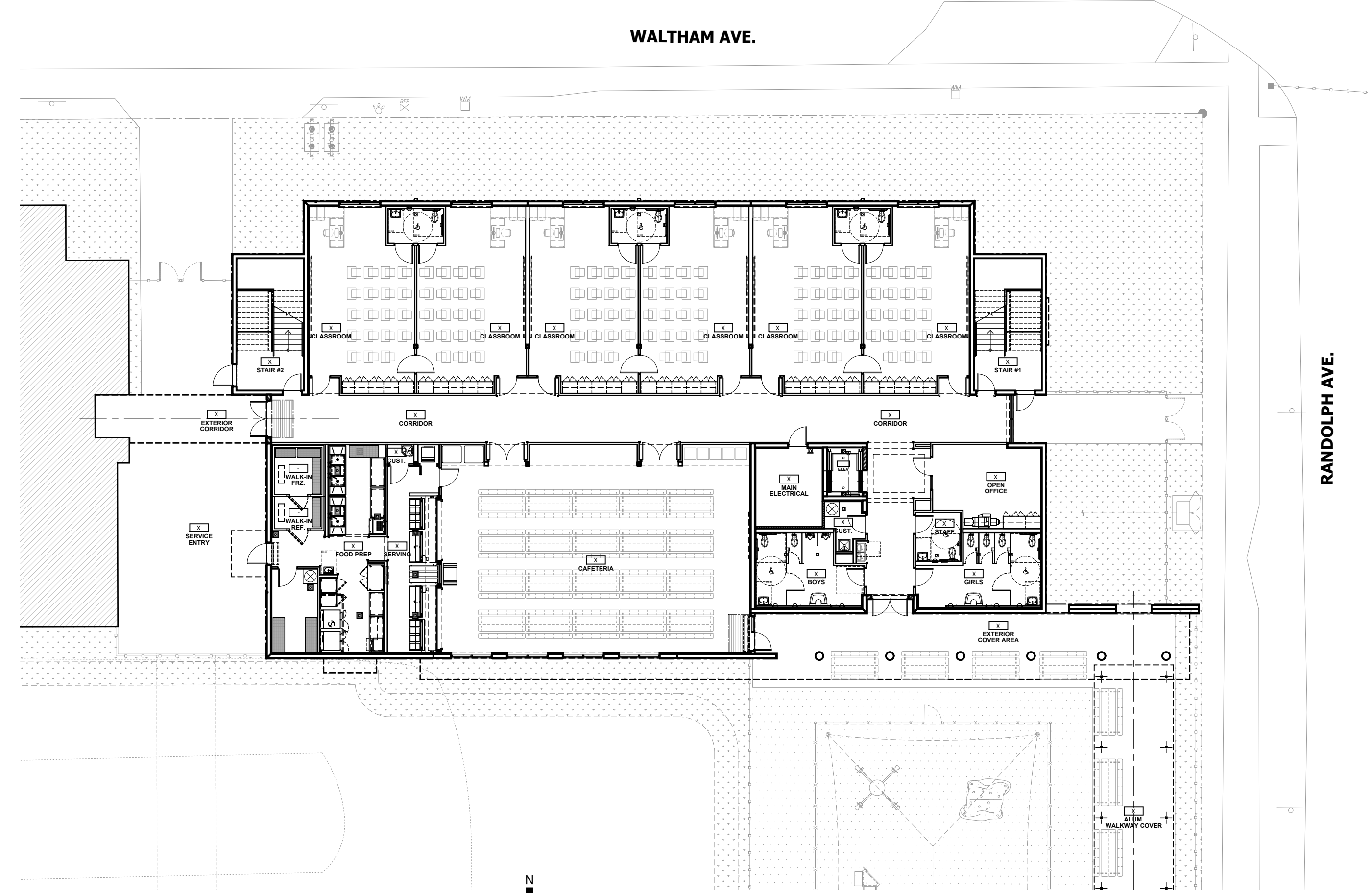
ROOF PLAY AREA PLAN 4
SCALE: 1/16" = 1'-0"
A101



2nd FLOOR PLAN 2
SCALE: 1/16" = 1'-0"
A101



3rd FLOOR PLAN 3
SCALE: 1/16" = 1'-0"
A101



1st FLOOR PLAN 1
SCALE: 1/16" = 1'-0"
A101

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APPROVED BY: JGJ/RL
DATE: 02/09/2023
SCALE: AS SHOWN

KEY PLAN

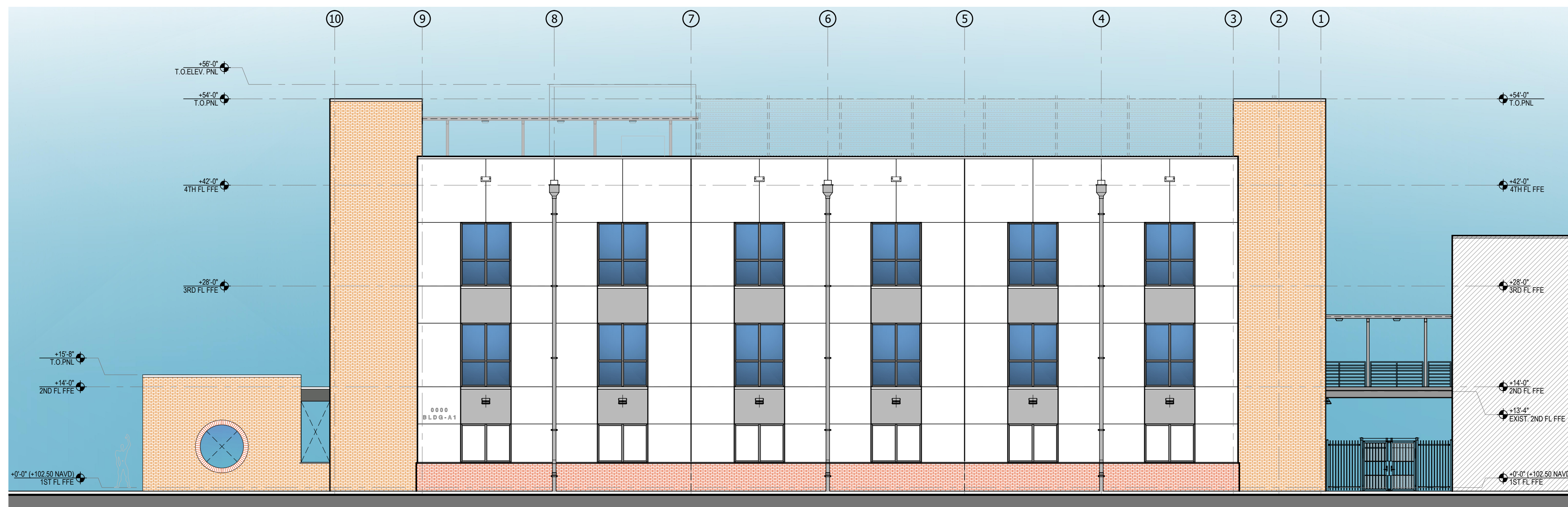
1st FL FFE: XX.XX' NAVD (1988)
SEAL/SIGNATURE

ROLANDO LLANES
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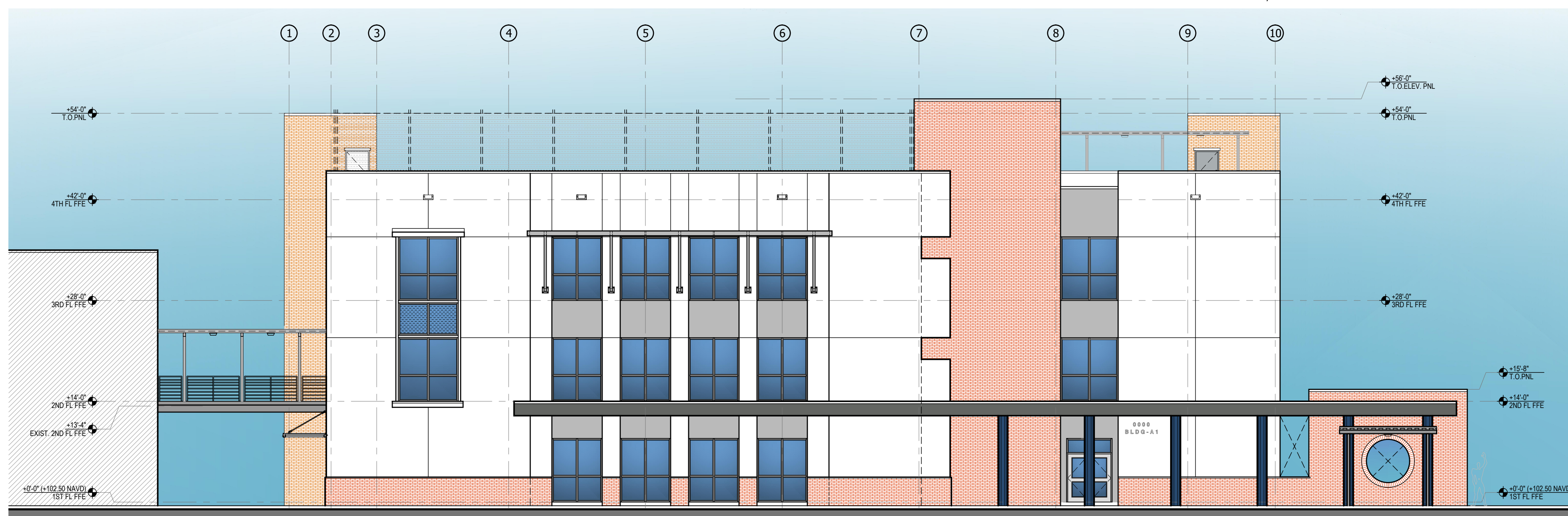
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**BLDG-A1
FLOOR PLANS**

SHEET NUMBER
A101



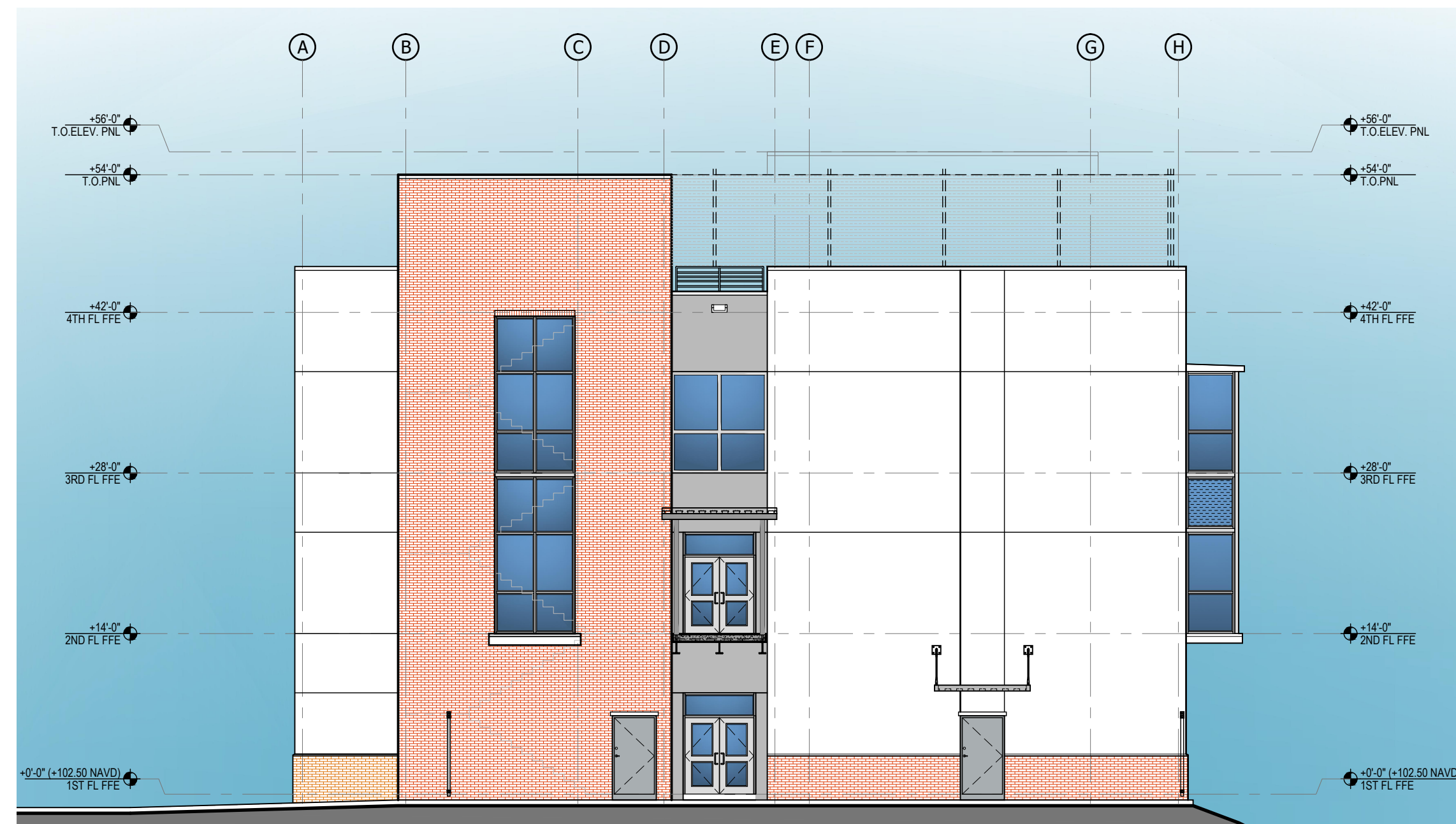
NORTH ELEVATION 3

46'-8" 23'-4" 11'-8" 0
SCALE: 3/32" = 1'-0" A102



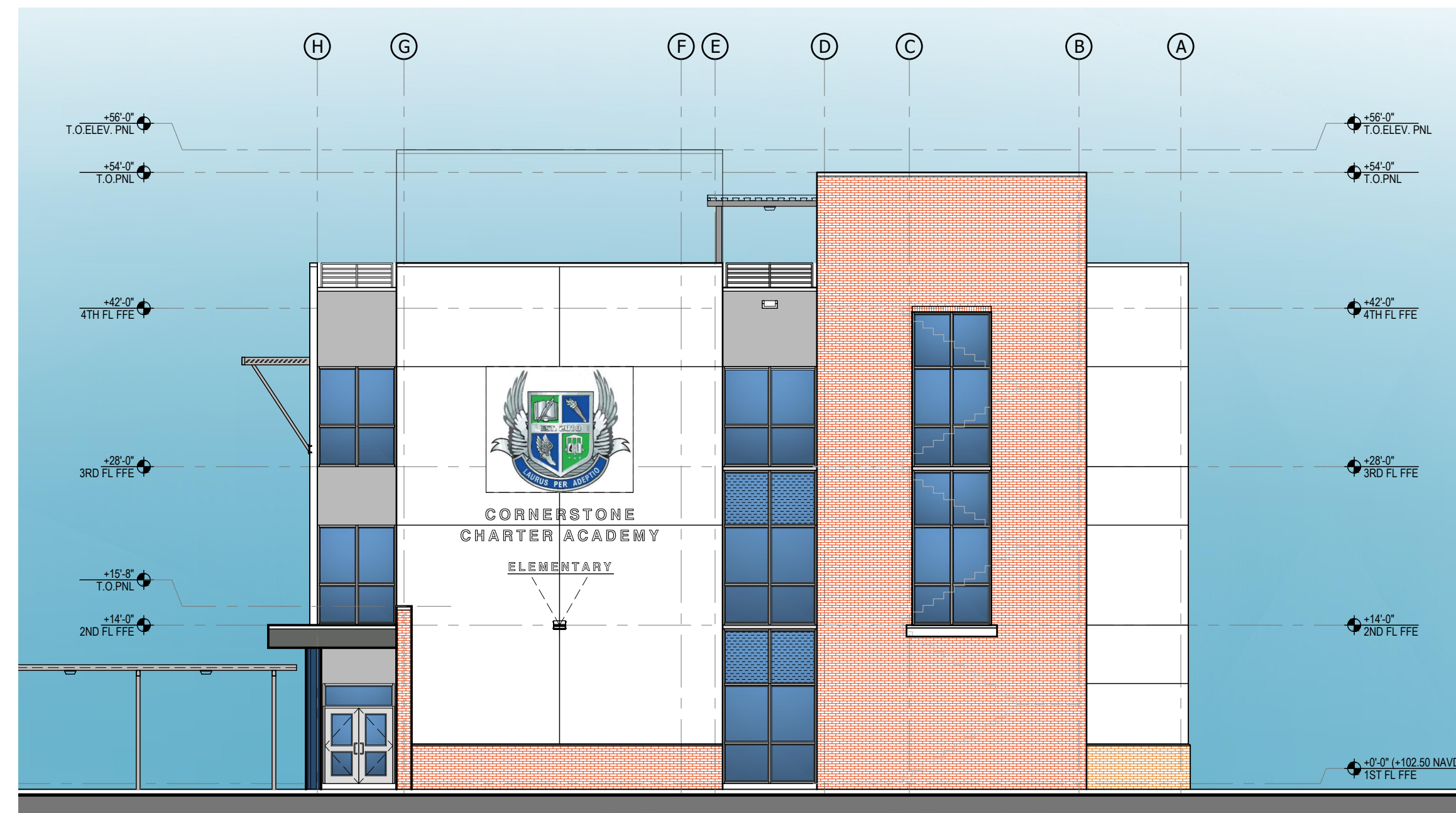
SOUTH ELEVATION 2

46'-8" 23'-4" 11'-8" 0
SCALE: 3/32" = 1'-0" A102



WEST ELEVATION 4

46'-8" 23'-4" 11'-8" 0
SCALE: 3/32" = 1'-0" A102



EAST ELEVATION 1

46'-8" 23'-4" 11'-8" 0
SCALE: 3/32" = 1'-0" A102

PROPOSED MATERIALS & COLOR SELECTION

- COLOR SELECTION BASED ON SHERWIN WILLIAMS COLOR PALETTE:
- HM DOORS/ FRAMES (INTERIOR & EXTERIOR) - P-2
 - METAL STAIRS/ GUARDRAIL/ RAILING & EXPOSED STEEL MEMBERS - SW7069 "IRON ORE" (MATCH EXIST.)
 - WALKWAY COVER, CANOPIES & SUNSHADES - ANODIZED ALUM.
 - STOREFRONTS & WINDOWS - ANODIZED ALUM.
 - GLASS - SOLAR-E PLUS GREY (SPANDREL GLASS TO MATCH)

EXTERIOR BUILDING COLORS:

- | | |
|------------------------------|--|
| P-1
Soothing White | P-1
MAIN BODY |
| P-2
Morning Fog | P-4
HM DOORS + RECESS |
| P-3
Grizzle Gray | P-4
BLDG. BASE + ACCENT |
| P-4
Iron Ore | P-4
MTL. COLUMNS, BEAMS, GRILLES, GATES & RAILINGS |
| P-5
Direct Green | P-4
SCHOOL COLOR #1 (INTERIOR) |
| P-6
Hyper Blue | P-4
SCHOOL COLOR #2 (INTERIOR) |

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info@civicagroup.com

PROJECT:
CORNERSTONE CHARTER ACADEMY MASTER PLAN



906 WALTHAM AVE.
BELLE ISLE, FL 32809

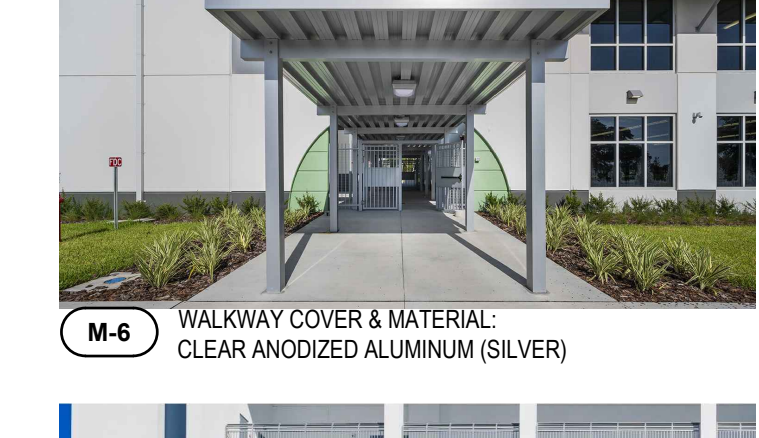
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24-23-29-3400-00-093
24-23-29-8820-00-050
24-23-29-3400-00-073
24-23-29-3400-00-094
24-23-29-3400-00-095
24-23-29-3400-00-114

APPLICANT:
CORNERSTONE CHARTER ACADEMY
906 WALTHAM AVE.
BELLE ISLE, FL 32809

ISSUED FOR:
ZONING SUBMITTAL

CIVICA PROJECT No :
220208

CONSULTANTS:
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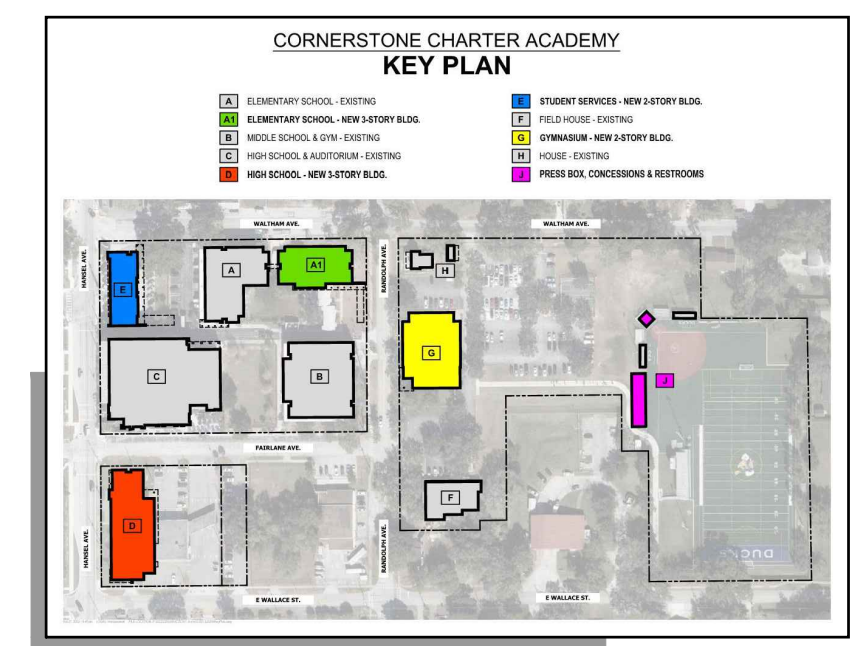
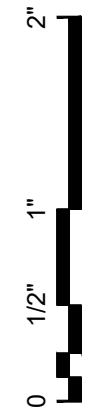
DRAWN BY: TM
APPROVED BY: JGI RL
DATE: 02/09/2023
SCALE: AS SHOWN

KEY PLAN
1st FL FFE: XX.XX' NAVD (1988)
SEAL/SIGNATURE

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SHEET TITLE
BLDG-A1 ELEVATIONS

SHEET NUMBER
A102



**BLDG-D
PROPOSED PROGRAM**

**BLDG-D
NEW HIGH SCHOOL CLASSROOM WING**
(At old Bank of America parcel)

- 3-STORY, 444,500 SF BUILDING
- HIGH SCHOOL ADMIN. OFFICE
- CAFETERIA, FOOD PREP & SERVING
- GENERAL EDUCATION CLASSROOMS FOR GRADES 9th-12th
- ART ROOMS
- CHORUS ROOM
- MUSIC ROOM
- BAND ROOM
- SEMINAR ROOM
- SCIENCE CLASSROOM SUITES - LIFE, EARTH AND SPACE & PHYSICS

CIVICA
ARCHITECTURE

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info@civicagroup.com

PROJECT:
**CORNERSTONE
CHARTER ACADEMY
MASTER PLAN**



906 WALTHAM AVE.
BELLE ISLE, FL 32809

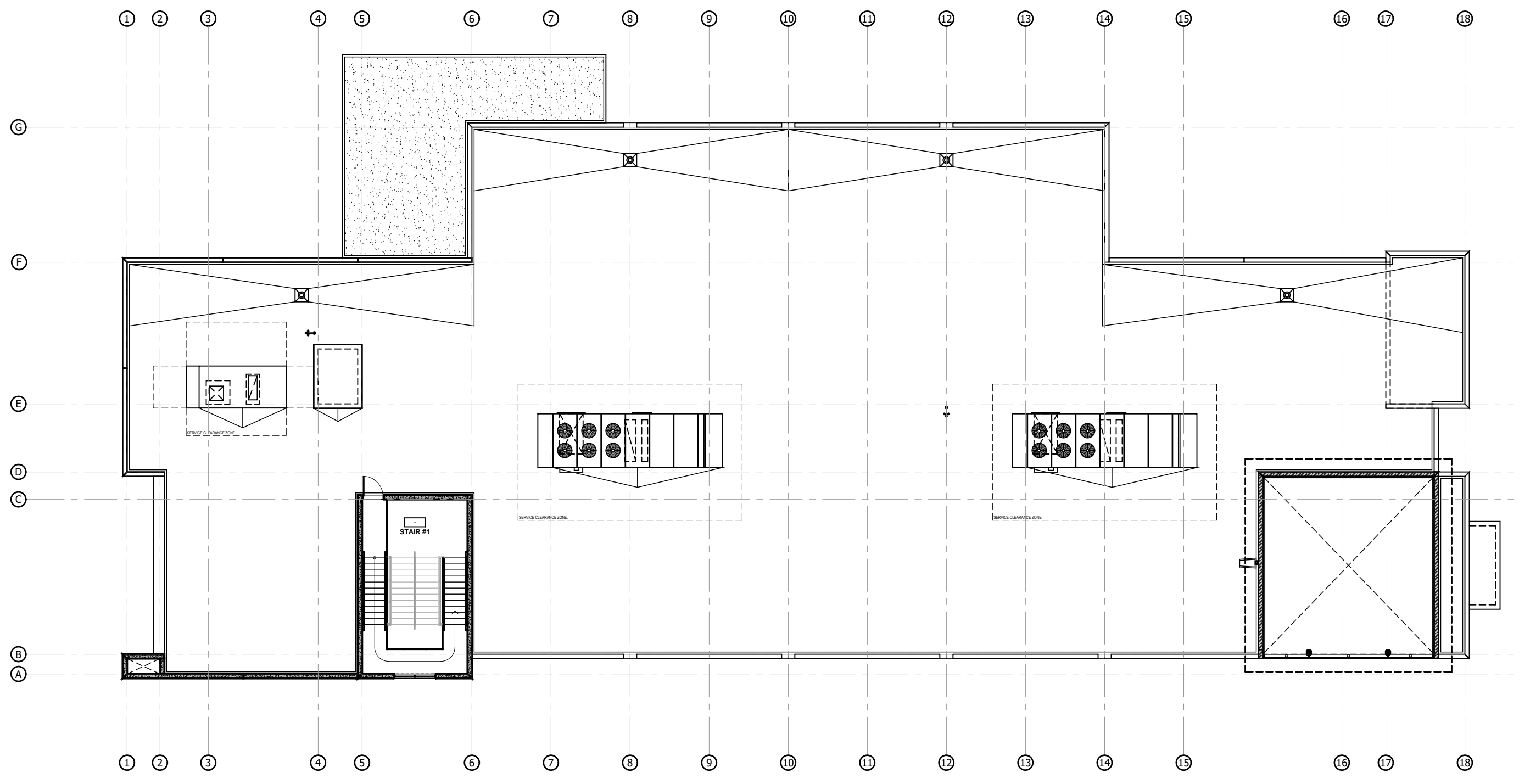
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24-23-29-3400-00-095
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APPLICANT:
CORNERSTONE
CHARTER ACADEMY
906 WALTHAM AVE.
BELLE ISLE, FL 32809

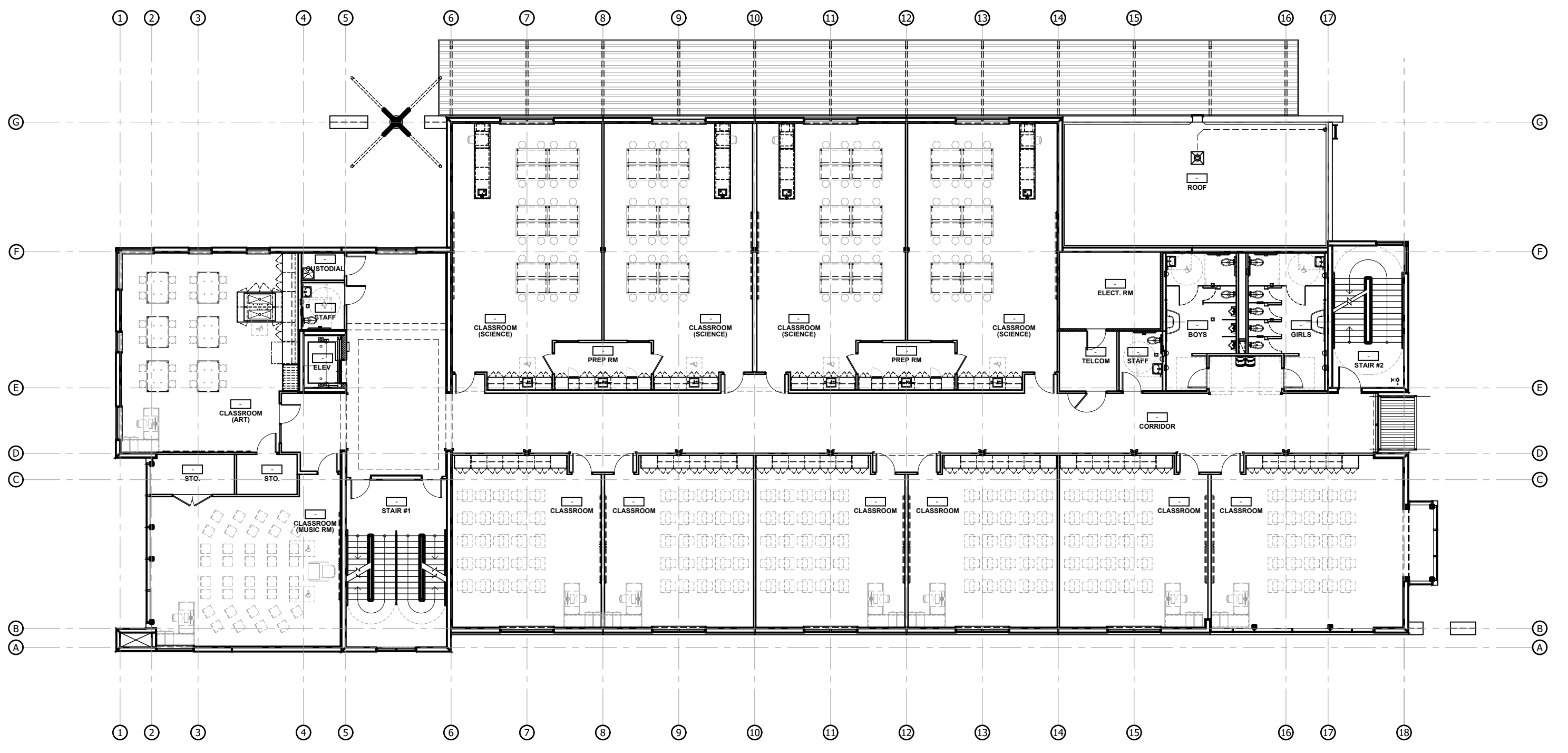
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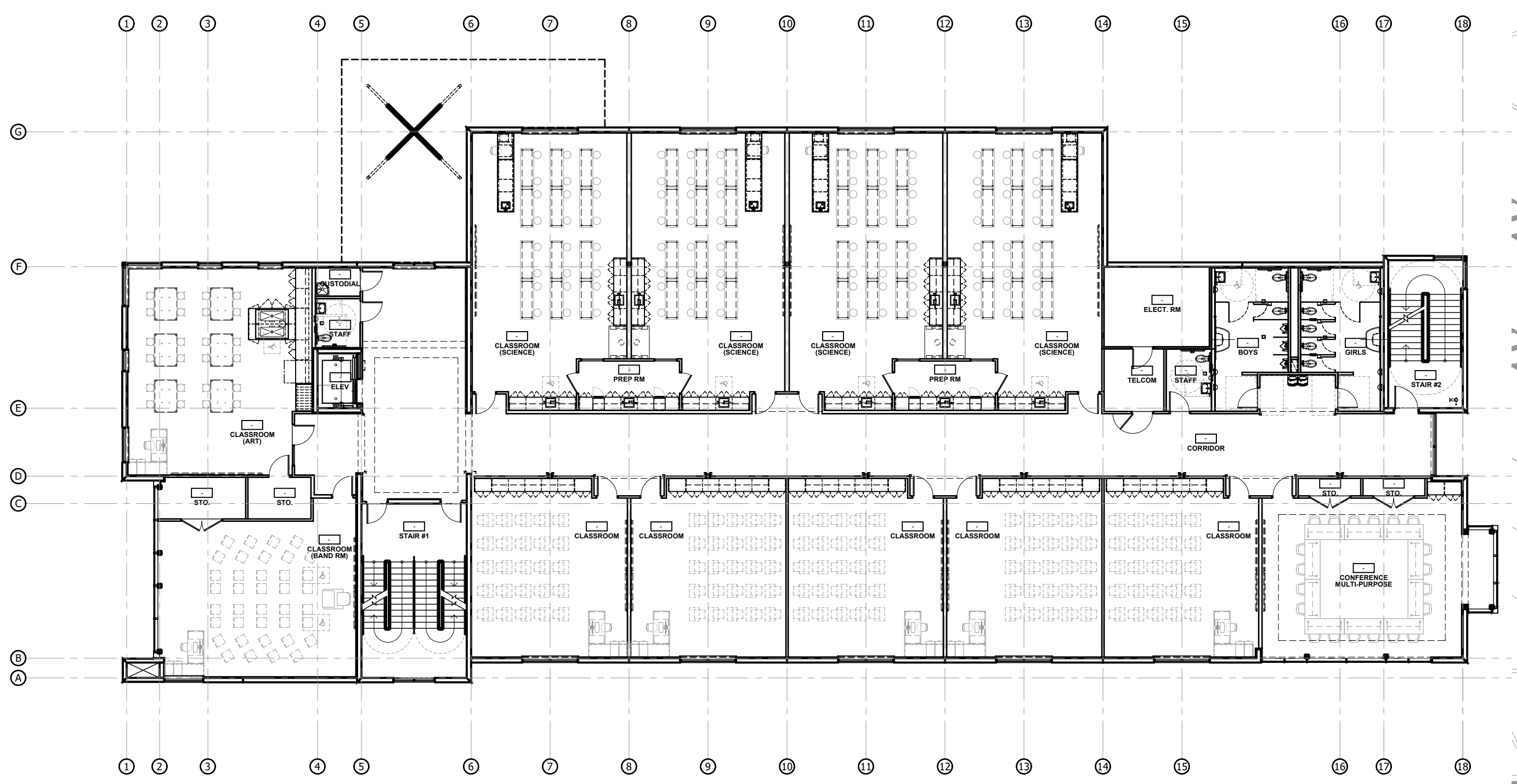
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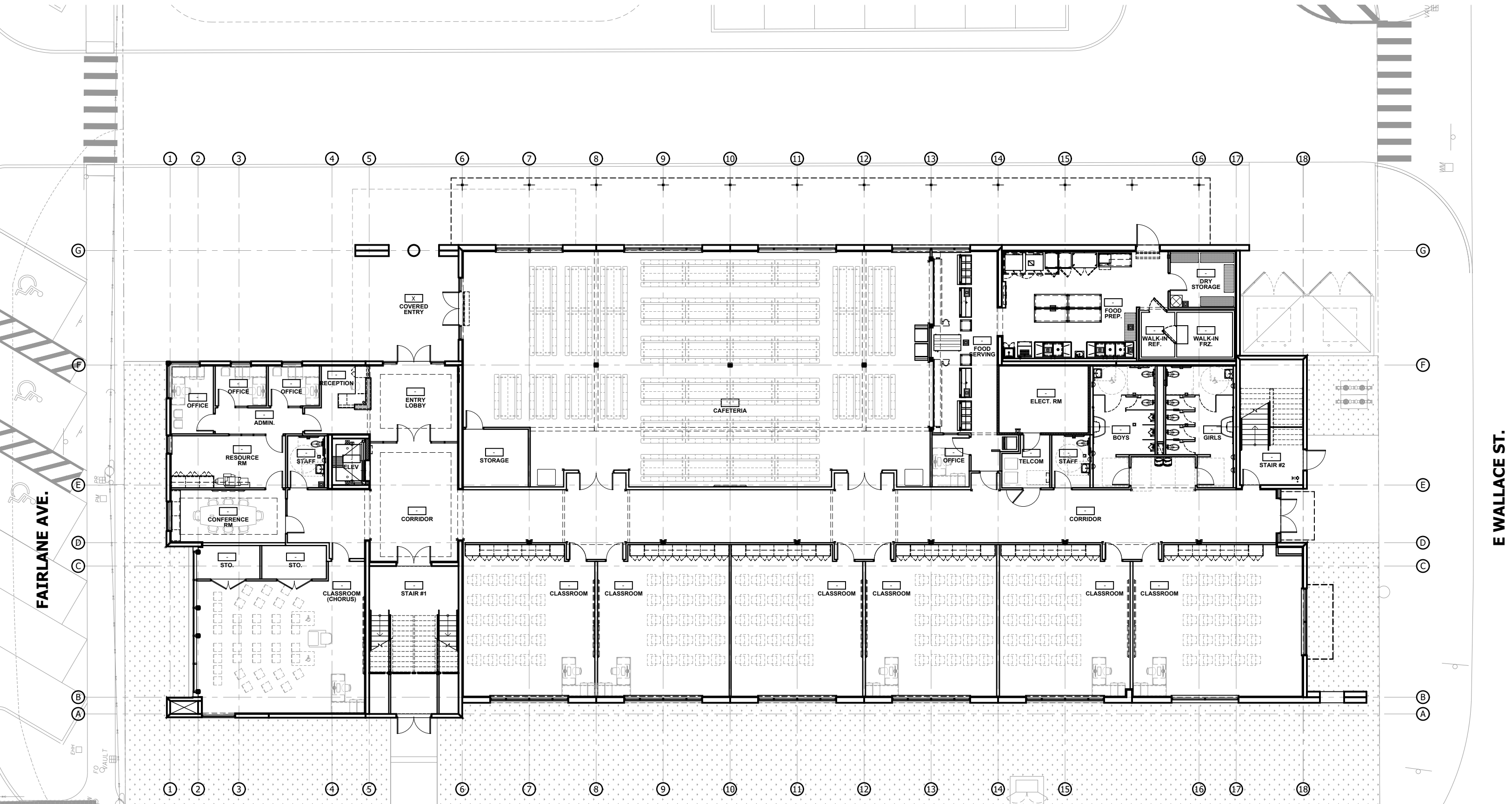
ROOF PLAN 4
SCALE: 1/16" = 1'-0"



2nd FLOOR PLAN 2
SCALE: 1/16" = 1'-0"



3rd FLOOR PLAN 3
SCALE: 1/16" = 1'-0"



1st FLOOR PLAN 1
SCALE: 1/16" = 1'-0"

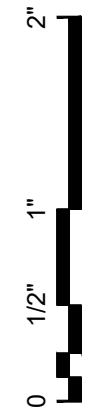
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APPROVED BY: JGJ/RL
DATE: 02/09/2023
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KEY PLAN

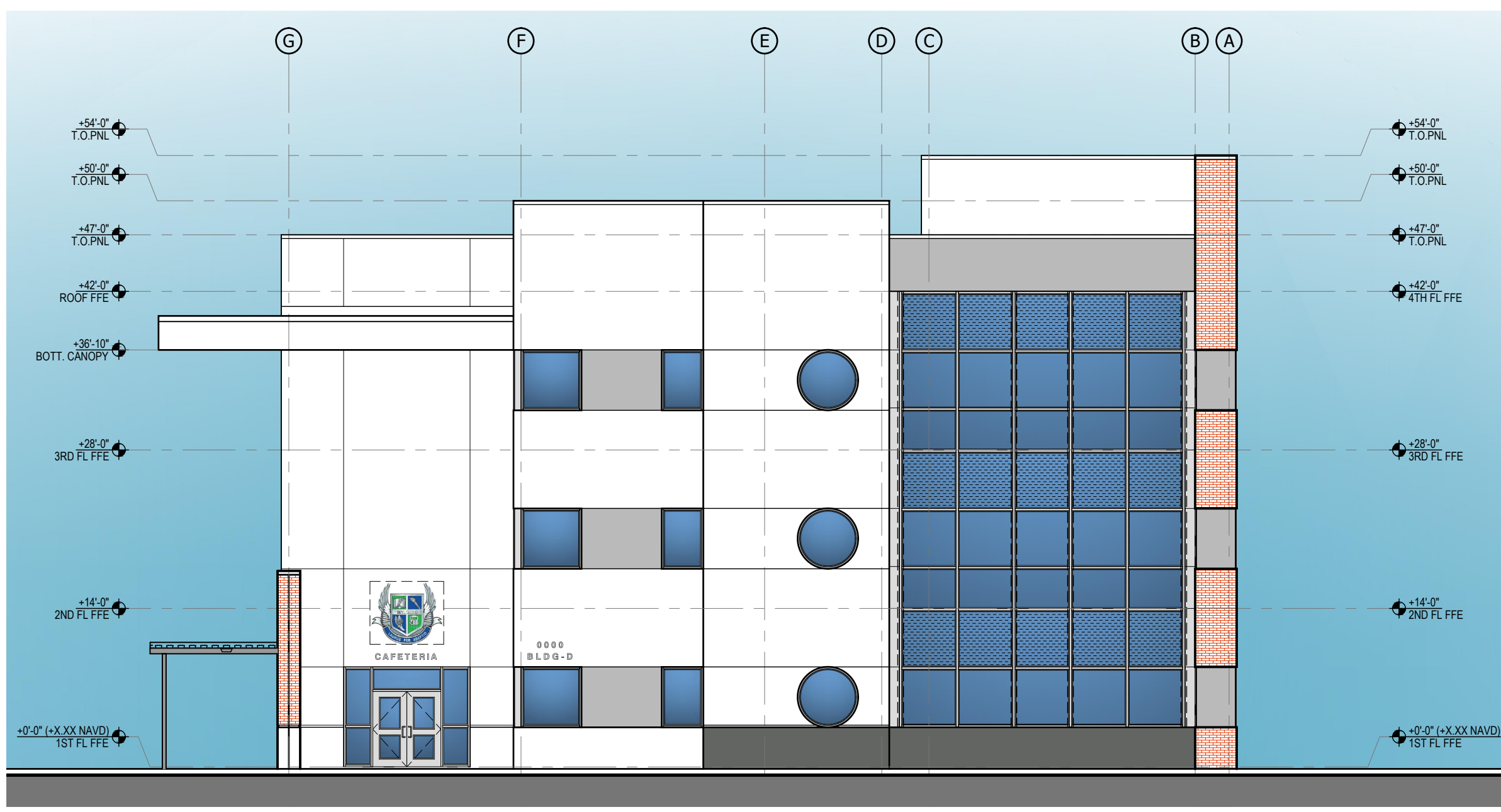
1st FL FFE: XX.XX' NAVD (1988)
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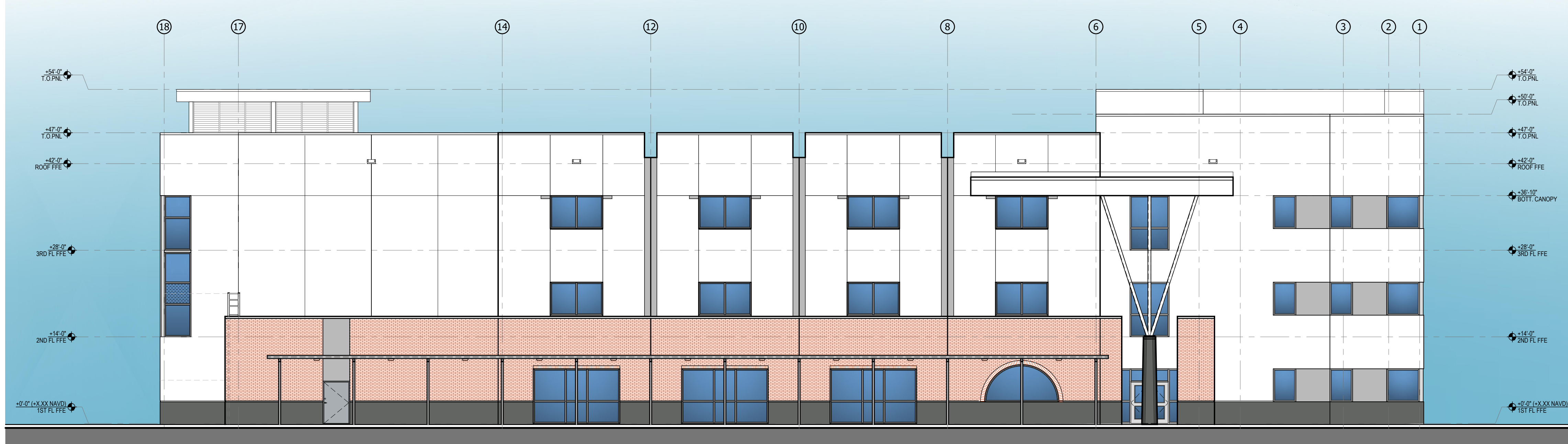
SHEET TITLE
**BLDG-D
FLOOR PLANS**
SHEET NUMBER
A103



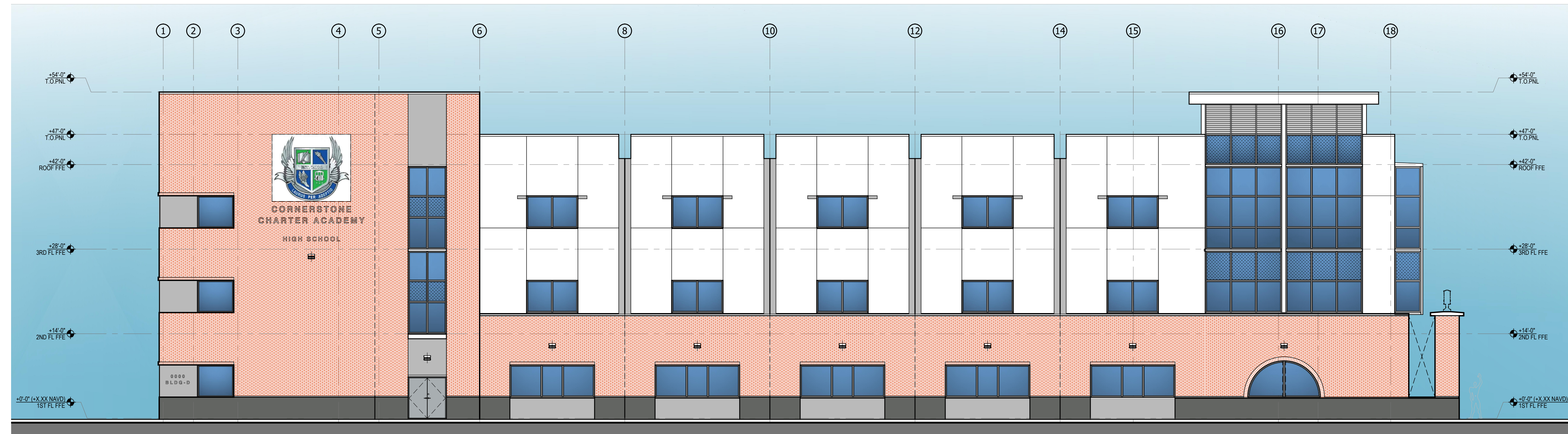
WEST ELEVATION 4
 SCALE: 3/32" = 1'-0"



NORTH ELEVATION 3
 SCALE: 3/32" = 1'-0"



SOUTH ELEVATION 2
 SCALE: 3/32" = 1'-0"



EAST ELEVATION 1
 SCALE: 3/32" = 1'-0"

PROPOSED MATERIALS & COLOR SELECTION

- COLOR SELECTION BASED ON SHERWIN WILLIAMS COLOR PALETTE:
- HM DOORS/ FRAMES (INTERIOR & EXTERIOR) - P-2
 - SW7069 "IRON ORE" (MATCH EXIST.)
 - WALKWAY COVER, CANOPIES & SUNSHADES - ANODIZED ALUM.
 - STOREFRONTS & WINDOWS - ANODIZED ALUM.
 - GLASS - SOLAR-E PLUS GREY (SPANDREL GLASS TO MATCH)

EXTERIOR BUILDING COLORS:

- | | |
|------------------------------|--|
| P-1
Soothing White | P-1
MAIN BODY |
| P-2
Morning Fog | P-4
HM DOORS + RECESS |
| P-3
Grizzle Gray | P-4
BLDG. BASE + ACCENT |
| P-4
Iron Ore | P-4
MTL. COLUMNS, BEAMS, GRILLES, GATES & RAILINGS |
| P-5
Direct Green | P-4
SCHOOL COLOR #1 (INTERIOR) |
| P-6
Hyper Blue | P-4
SCHOOL COLOR #2 (INTERIOR) |

PROJECT:
CORNERSTONE CHARTER ACADEMY MASTER PLAN



906 WALTHAM AVE.
 BELLE ISLE, FL 32809
 PARCEL No:
 24-23-29-3400-00-092
 24-23-29-3400-00-093
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 24-23-29-3400-00-095
 24-23-29-3400-00-114

APPLICANT:
 CORNERSTONE CHARTER ACADEMY
 906 WALTHAM AVE.
 BELLE ISLE, FL 32809

ISSUED FOR:
ZONING SUBMITTAL
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220208

CONSULTANTS:
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 Orange, FL 32839
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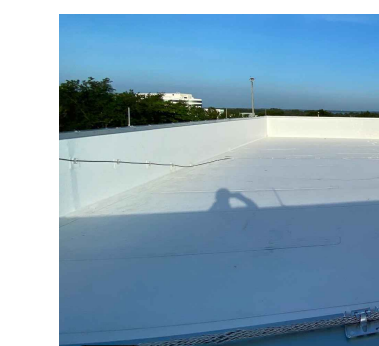
M-1 THIN-BRICK (OLDCASTLE) COLOR TO MATCH EXISTING



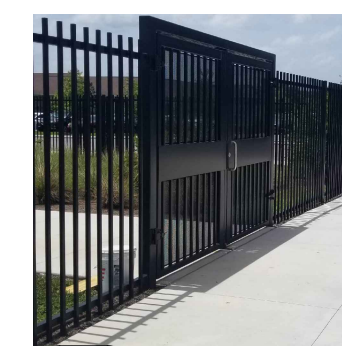
EXISTING BRICK



M-2 ALUM. STOREFRONTS, DOORS & WINDOWS: ANODIZED ALUMINUM W/ SOLAR-E PLUS GREY GLASS



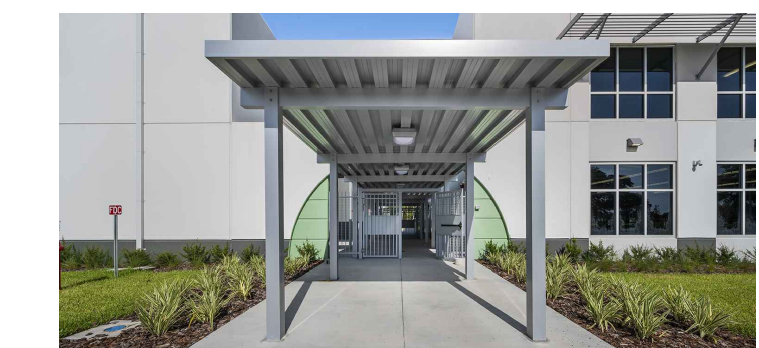
M-3 ROOF COLOR/ MATERIAL: LOW SLOPE (WHITE) T.P.O.



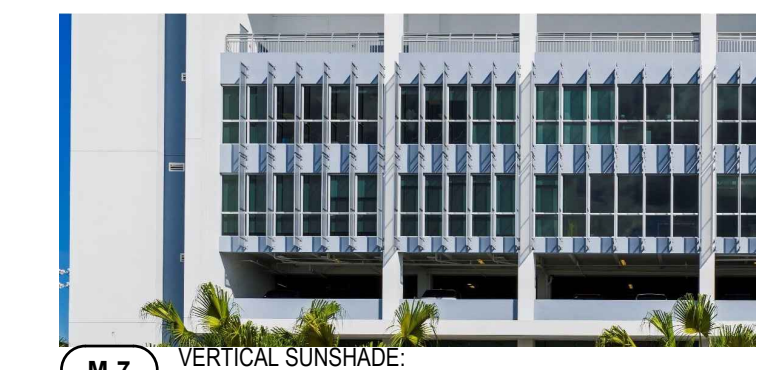
M-4 GATES & DECORATIVE PICKET FENCE



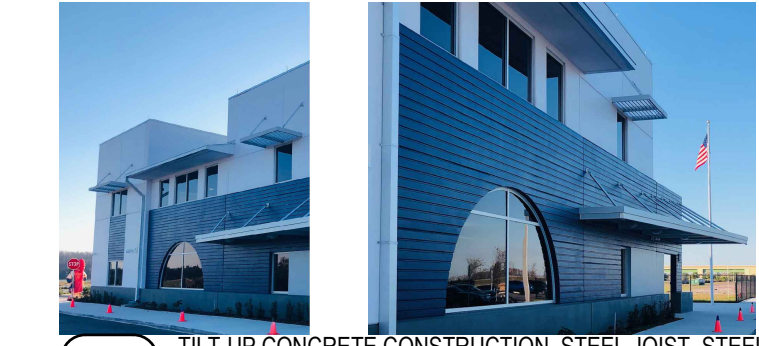
M-5 HORIZONTAL SUNSHADE BRACKET & MATERIAL: CLEAR ANODIZED ALUMINUM (SILVER)



M-6 WALKWAY COVER & MATERIAL: CLEAR ANODIZED ALUMINUM (SILVER)



M-7 VERTICAL SUNSHADE: CLEAR ANODIZED ALUMINUM (SILVER)



M-8 TILT-UP CONCRETE CONSTRUCTION, STEEL JOIST, STEEL BEAMS, STEEL COLUMNS & CONCRETE OVER CORRUGATED DECK

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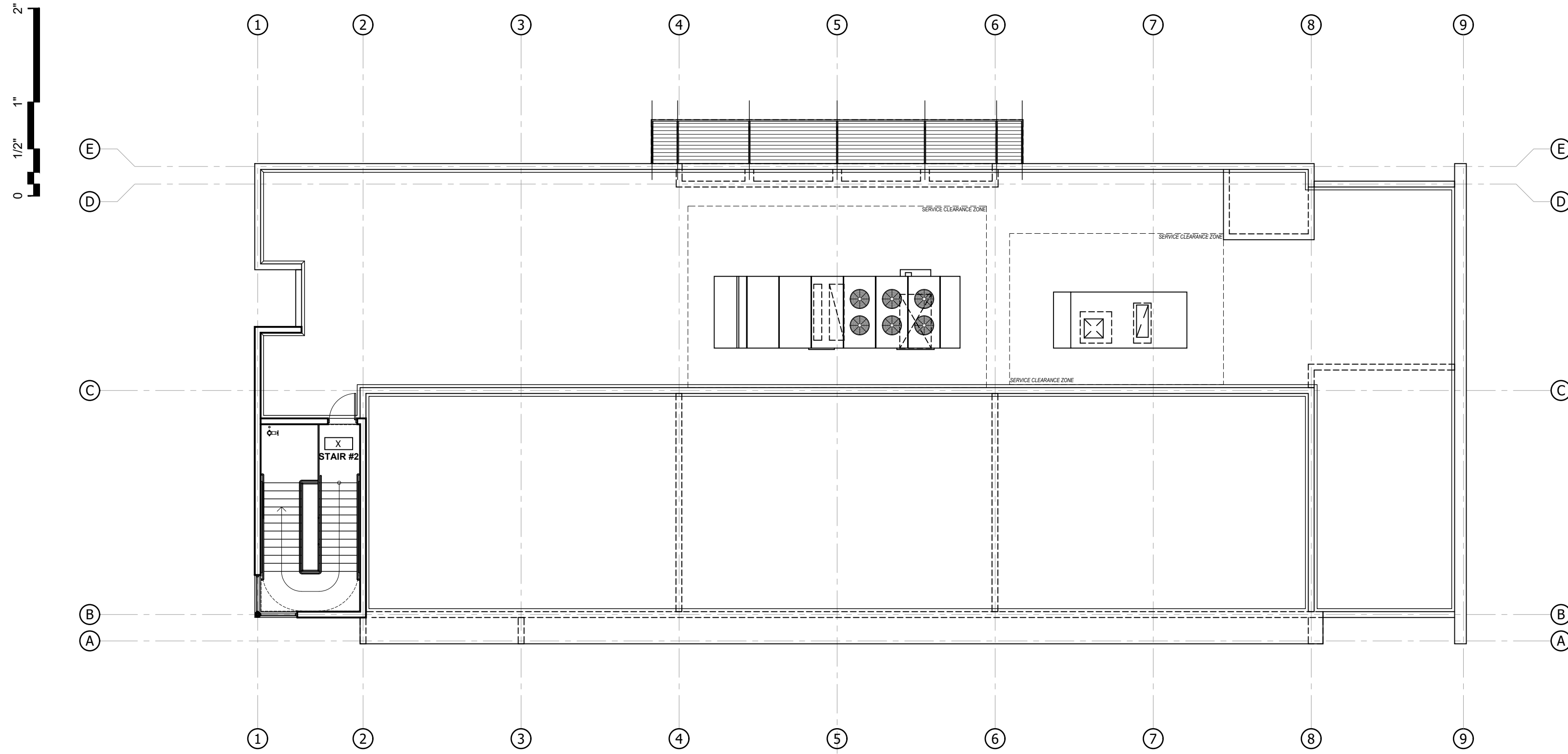
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 APPROVED BY: JGI RL
 DATE: 02/09/2023
 SCALE: AS SHOWN

KEY PLAN
 1st FL FFE: XX.XX' NAVD (1988)
 SEAL/SIGNATURE

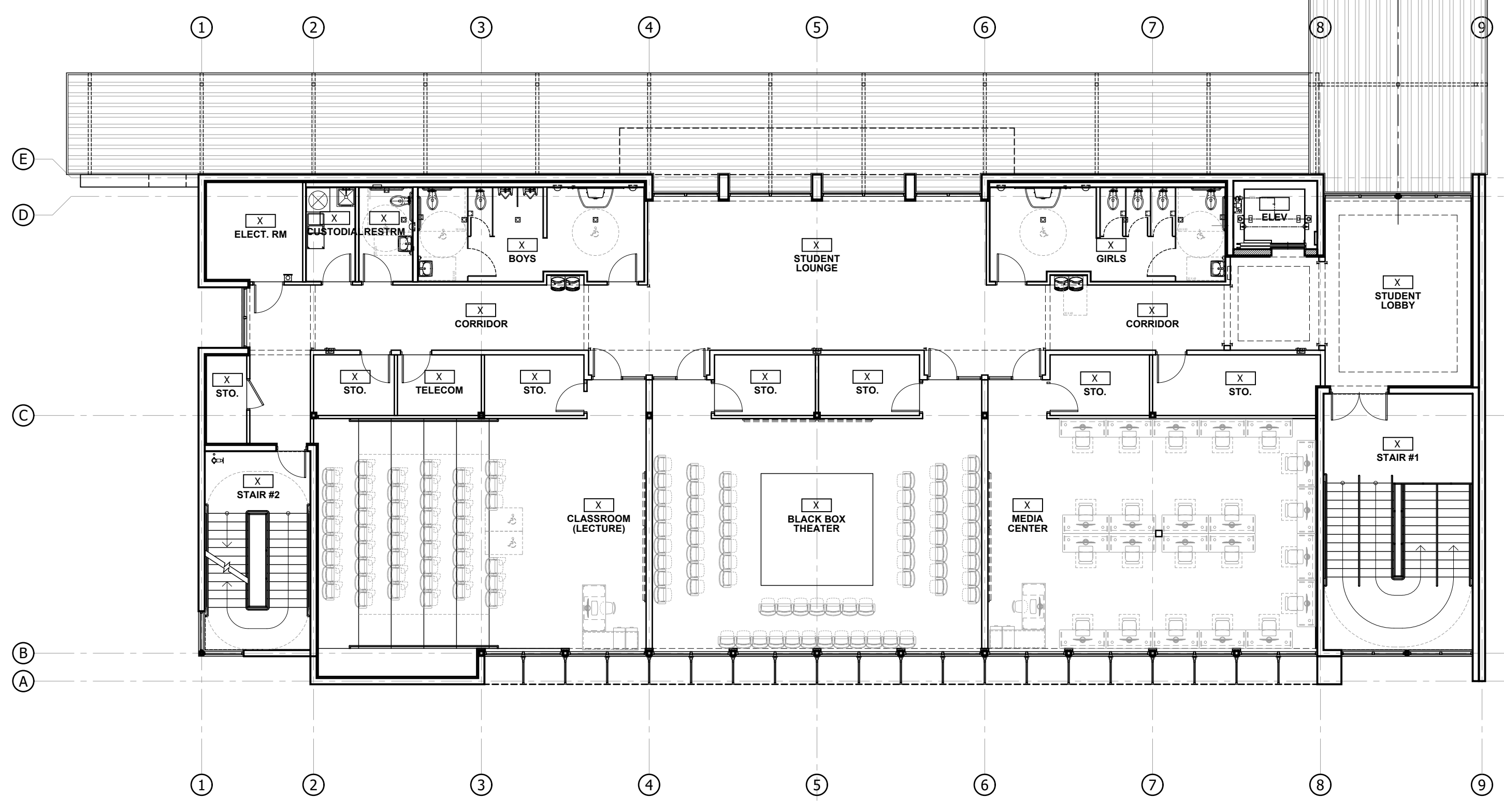
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SHEET TITLE
BLDG-D ELEVATIONS

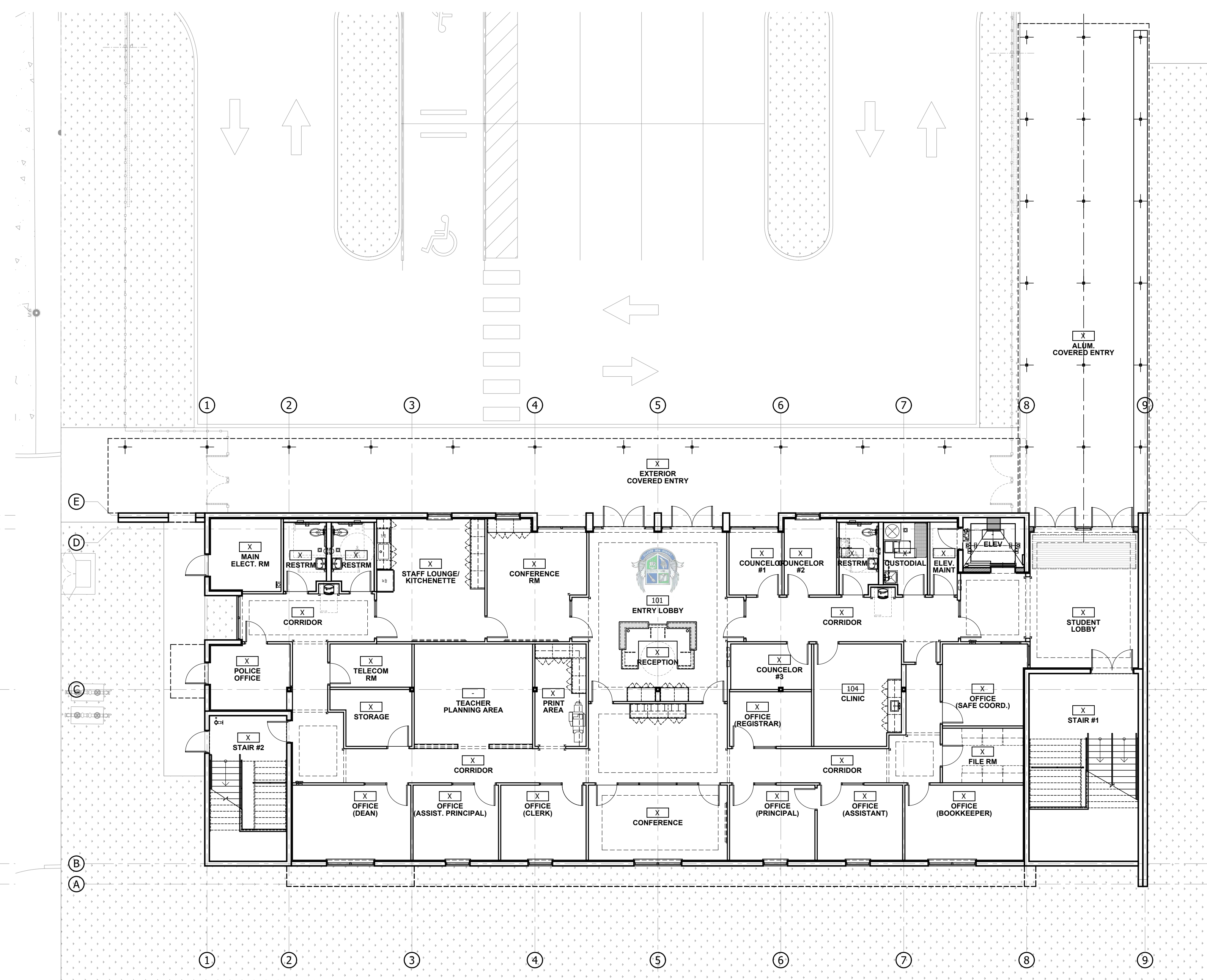
SHEET NUMBER
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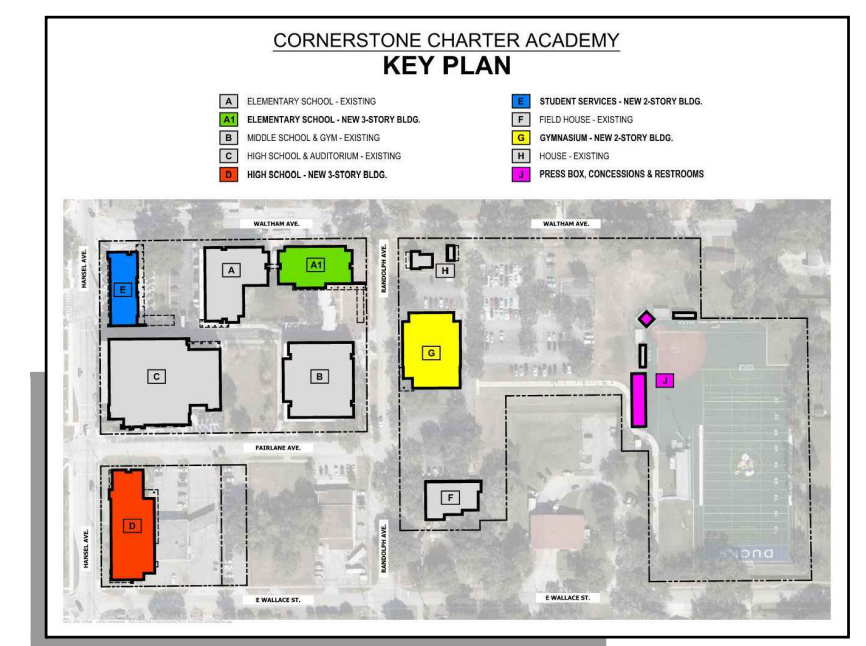
ROOF PLAN 3
 SCALE: 3/32" = 1'-0"
 A105



2nd FLOOR PLAN 2
 SCALE: 3/32" = 1'-0"
 A105



1st FLOOR PLAN 1
 SCALE: 3/32" = 1'-0"
 A105



BLDG-E PROPOSED PROGRAM

BLDG-E NEW STUDENT SERVICES
 (At previous Texaco Station)

- 2-STORY, ±14,100 SF BUILDING
- SCHOOL ADMINISTRATION OFFICES
- ENTRY LOBBY & RECEPTION DESK
- CONFERENCE ROOMS
- POLICE DEPT. SUB STATION
- BLACK BOX THEATER
- LECTURE HALL
- MEDIA CENTER
- STUDENT LOUNGE AREA

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PROJECT:
CORNERSTONE CHARTER ACADEMY MASTER PLAN



906 WALTHAM AVE.
 BELLE ISLE, FL 32809

PARCEL No:
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 24-23-29-3400-00-095
 24-23-29-3400-00-114

APPLICANT:
 CORNERSTONE CHARTER ACADEMY
 906 WALTHAM AVE.
 BELLE ISLE, FL 32809

ISSUED FOR:
ZONING SUBMITTAL

CIVICA PROJECT No :
220208

CONSULTANTS:
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 8727 S. Orange Avenue, Suite 210
 Orange, FL 32826
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DRAWN BY: TM
 APPROVED BY: JGJ/RL
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KEY PLAN

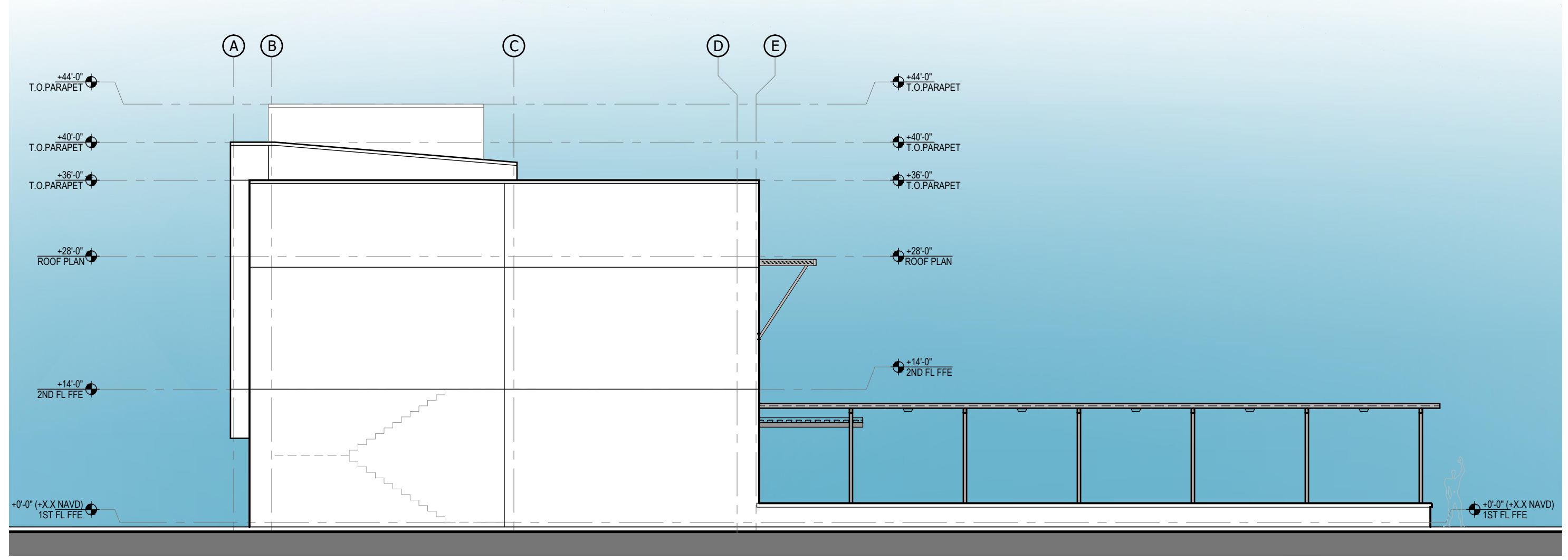
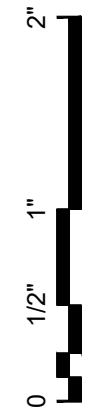
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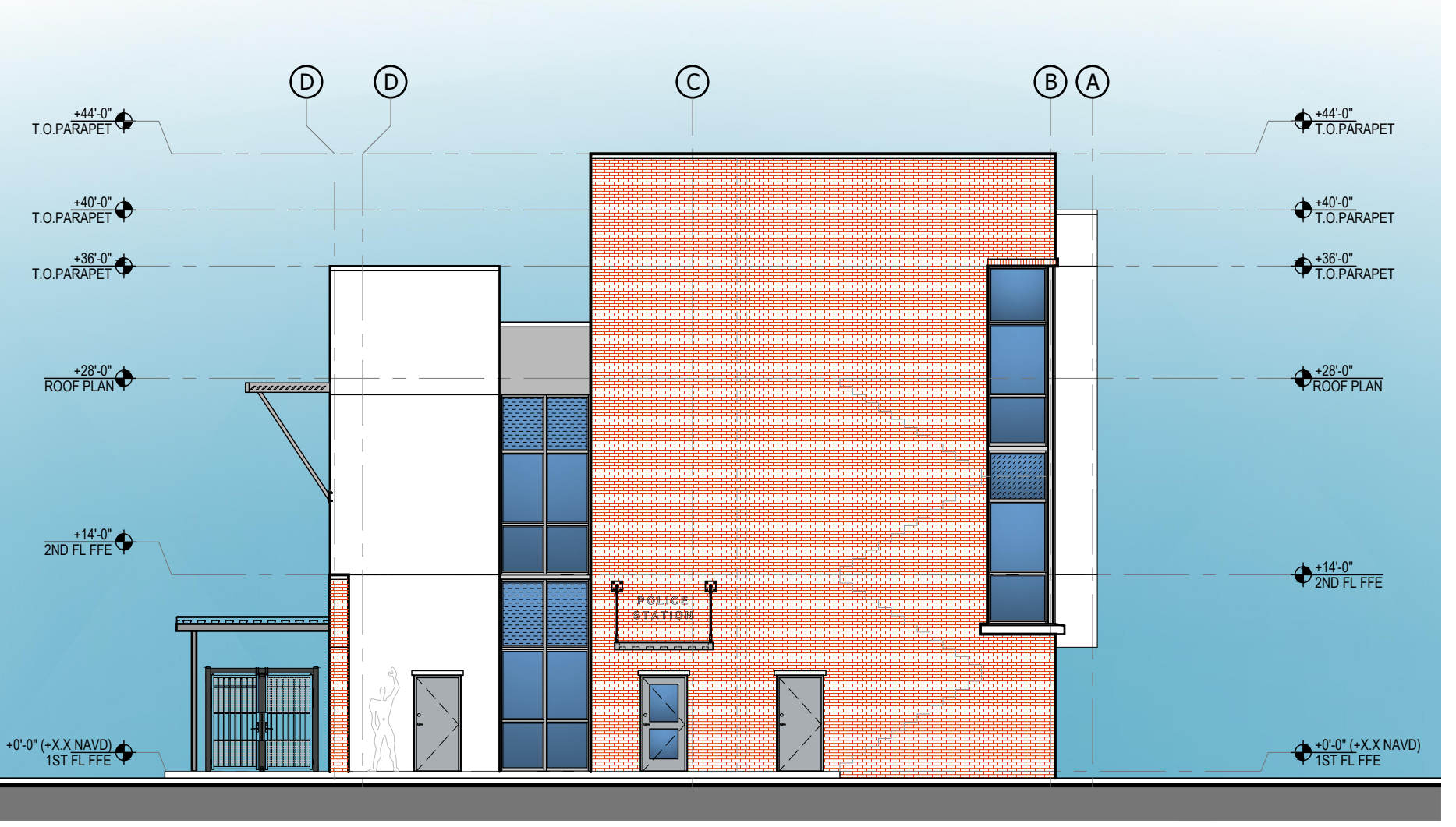
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SHEET TITLE
BLDG-E FLOOR PLANS

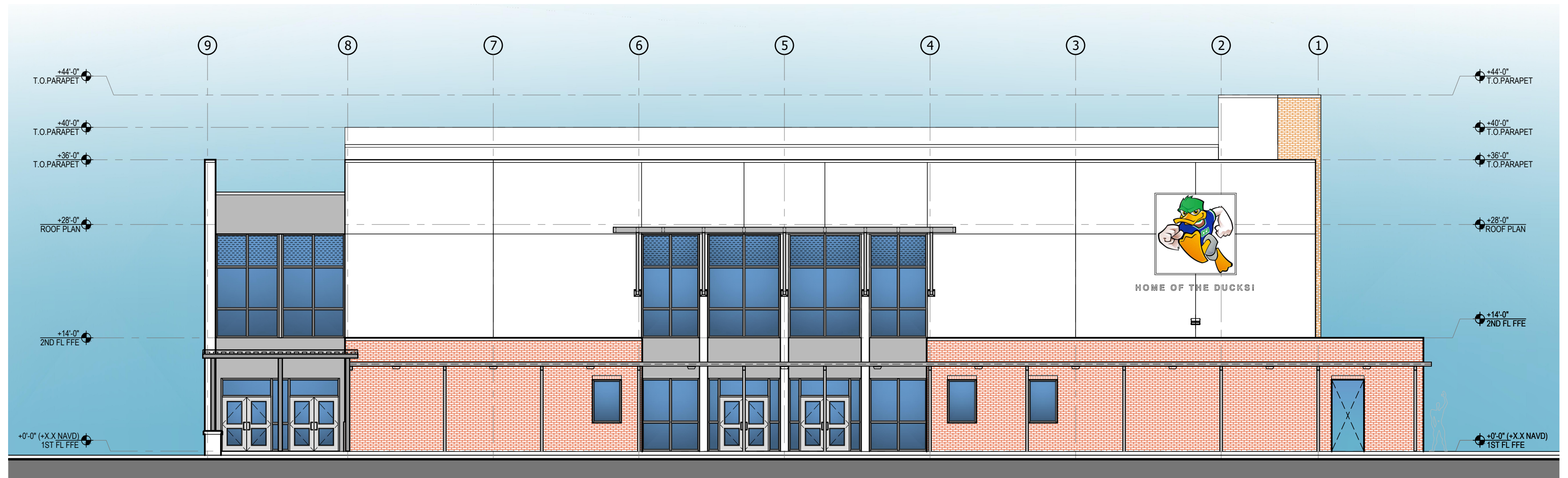
SHEET NUMBER
A105



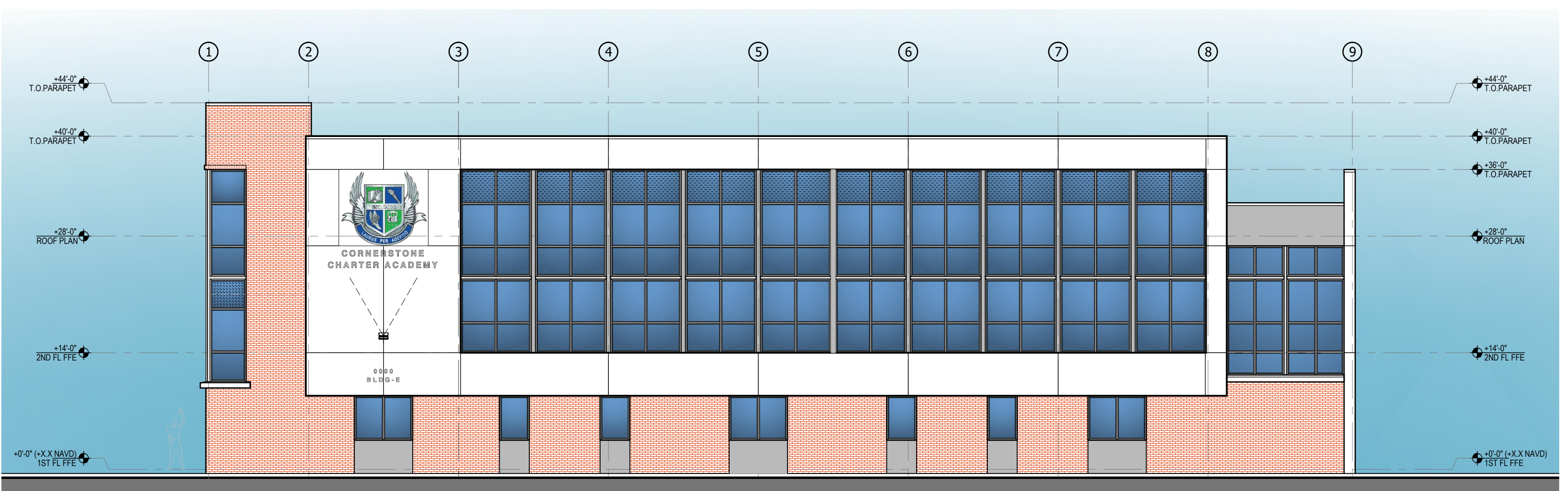
SOUTH ELEVATION 4
 46'-8" 23'-4" 11'-8" 0
 SCALE: 3/32" = 1'-0"



NORTH ELEVATION 3
 46'-8" 23'-4" 11'-8" 0
 SCALE: 3/32" = 1'-0"



EAST ELEVATION 2
 46'-8" 23'-4" 11'-8" 0
 SCALE: 3/32" = 1'-0"



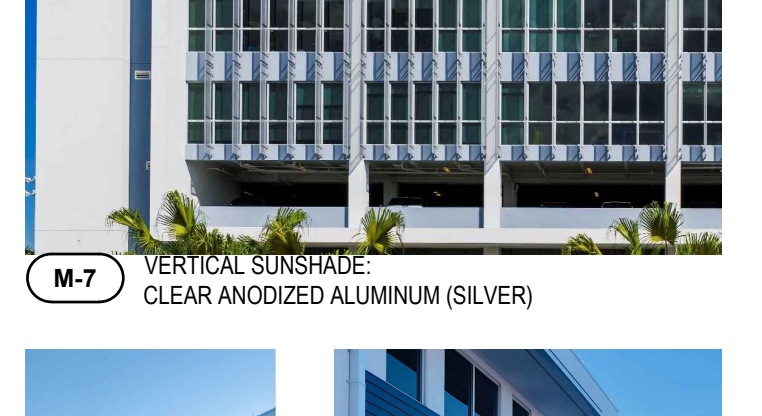
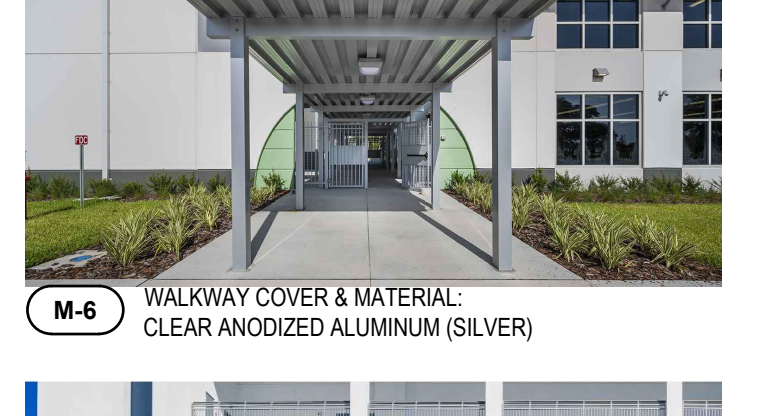
WEST ELEVATION (MAIN) 1
 46'-8" 23'-4" 11'-8" 0
 SCALE: 3/32" = 1'-0"

PROPOSED MATERIALS & COLOR SELECTION

- COLOR SELECTION BASED ON SHERWIN WILLIAMS COLOR PALETTE:
- HM DOORS/ FRAMES (INTERIOR & EXTERIOR) - P-2
 - METAL STAIRS/ GUARDRAIL/ RAILING & EXPOSED STEEL MEMBERS - SW7069 'IRON ORE' (MATCH EXIST.)
 - WALKWAY COVER, CANOPIES & SUNSHADES - ANODIZED ALUM.
 - STOREFRONTS & WINDOWS - ANODIZED ALUM.
 - GLASS - SOLAR-E PLUS GREY (SPANDREL GLASS TO MATCH)

EXTERIOR BUILDING COLORS:

- | | |
|------------------------------|---|
| P-1
Soothing White | P-1
MAIN BODY |
| P-2
Morning Fog | P-4
HM DOORS + RECESS |
| P-3
Grizzle Gray | P-4
BLDG. BASE + ACCENT |
| P-4
Iron Ore | P-4
MTL COLUMNS, BEAMS, GRILLES, GATES & RAILINGS |
| P-5
Direct Green | P-4
SCHOOL COLOR #1 (INTERIOR) |
| P-6
Hyper Blue | P-4
SCHOOL COLOR #2 (INTERIOR) |



PROJECT:
CORNERSTONE CHARTER ACADEMY MASTER PLAN



906 WALTHAM AVE.
 BELLE ISLE, FL 32809

PARCEL No:
 24-23-29-3400-00-092
 24-23-29-3400-00-093
 24-23-29-8820-00-050
 24-23-29-3400-00-073
 24-23-29-3400-00-094
 24-23-29-3400-00-095
 24-23-29-3400-00-114

APPLICANT:
 CORNERSTONE CHARTER ACADEMY
 906 WALTHAM AVE.
 BELLE ISLE, FL 32809

ISSUED FOR:
ZONING SUBMITTAL

CIVICA PROJECT No :
220208

CONSULTANTS:
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 Fax: 407-280-0204
 www.feginc.com
 Engineering the Future

No.	DATE	ISSUED FOR	BY
	02/09/23	SUBMITTAL	

DRAWN BY: TM
 APPROVED BY: JGI/RL
 DATE: 02/09/2023
 SCALE: AS SHOWN

KEY PLAN

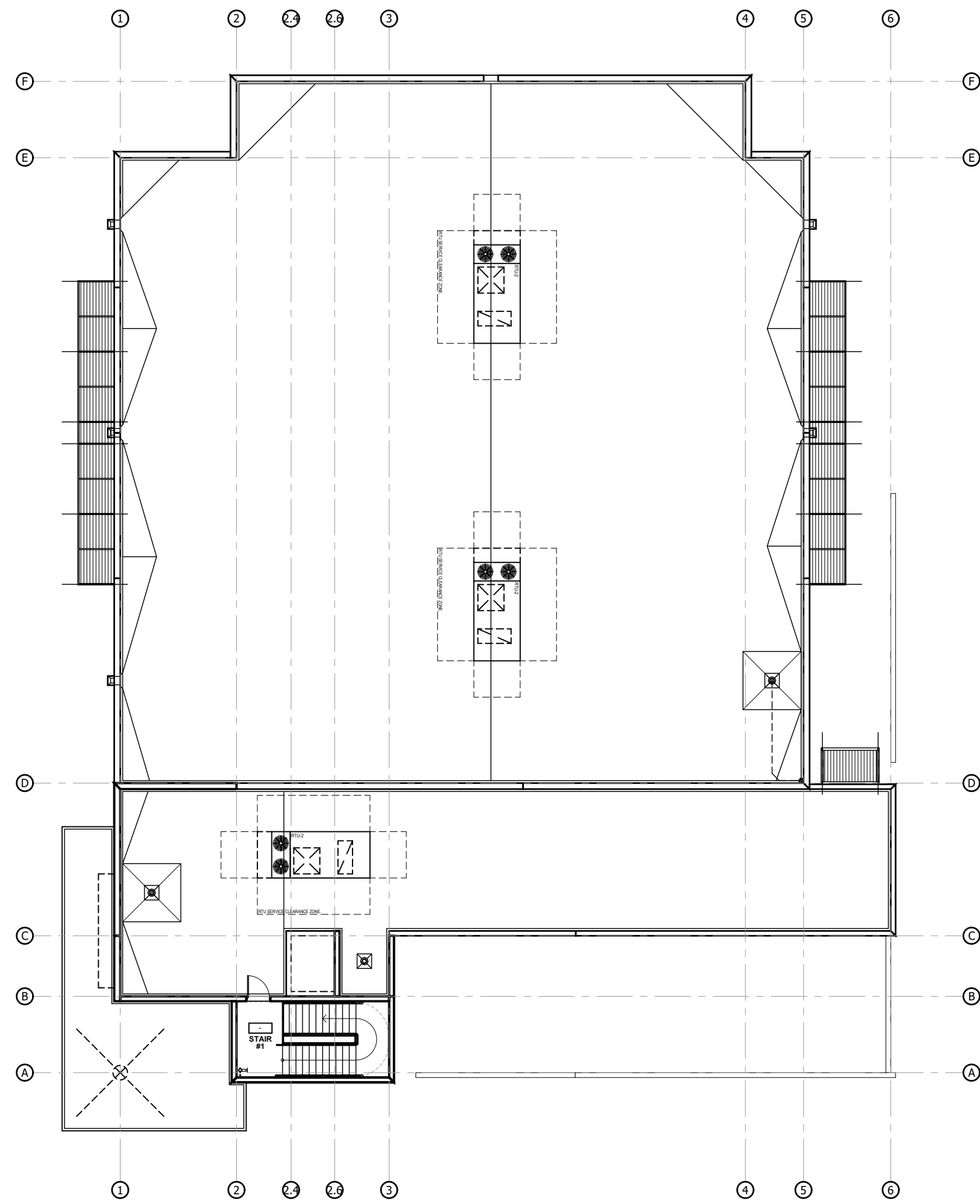
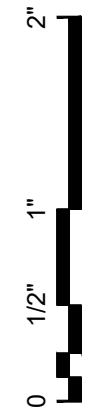
1st FL FFE: XX.XX' NAVD (1988)
 SEAL/SIGNATURE

ROLANDO LLANES
 AR - 0013160

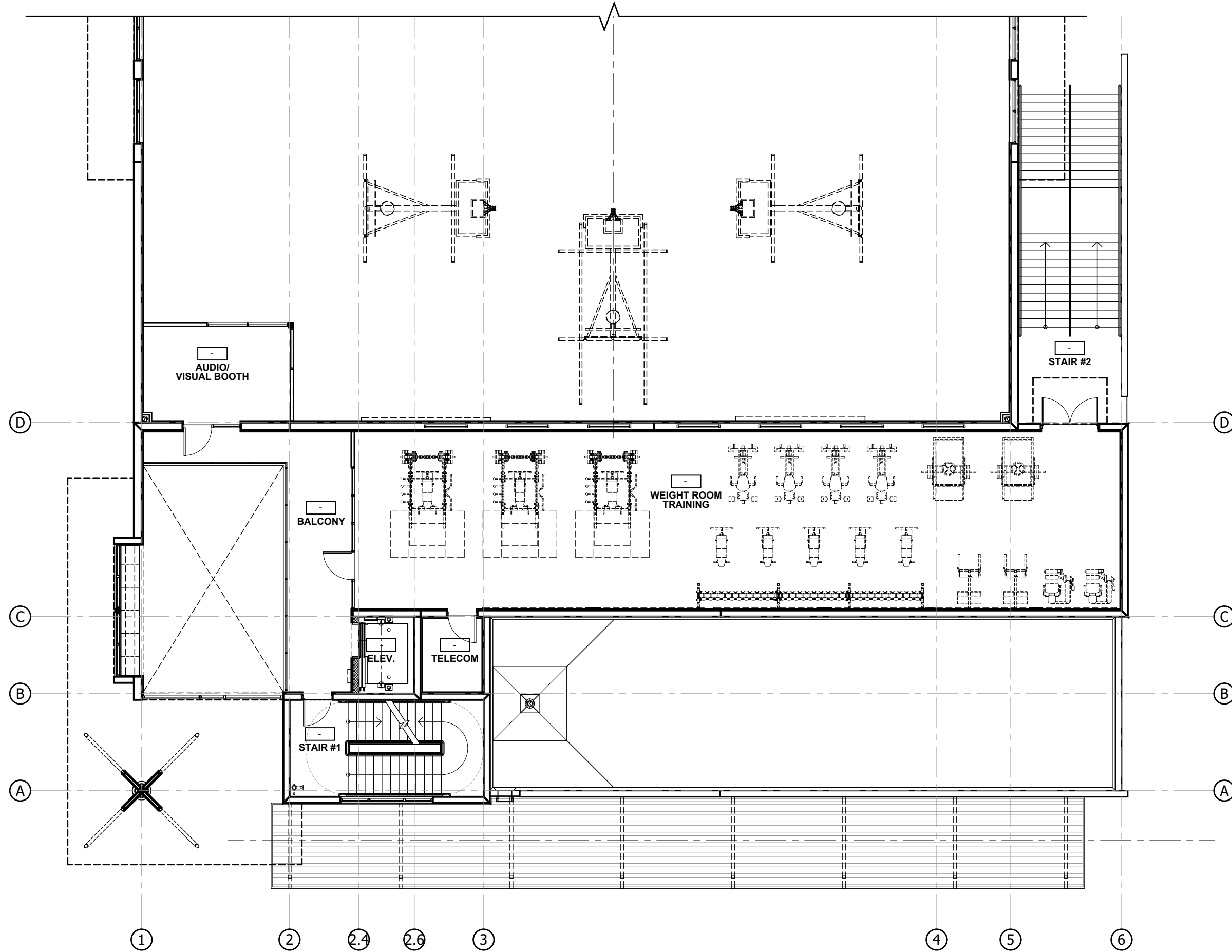
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SHEET TITLE
BLDG-E ELEVATIONS

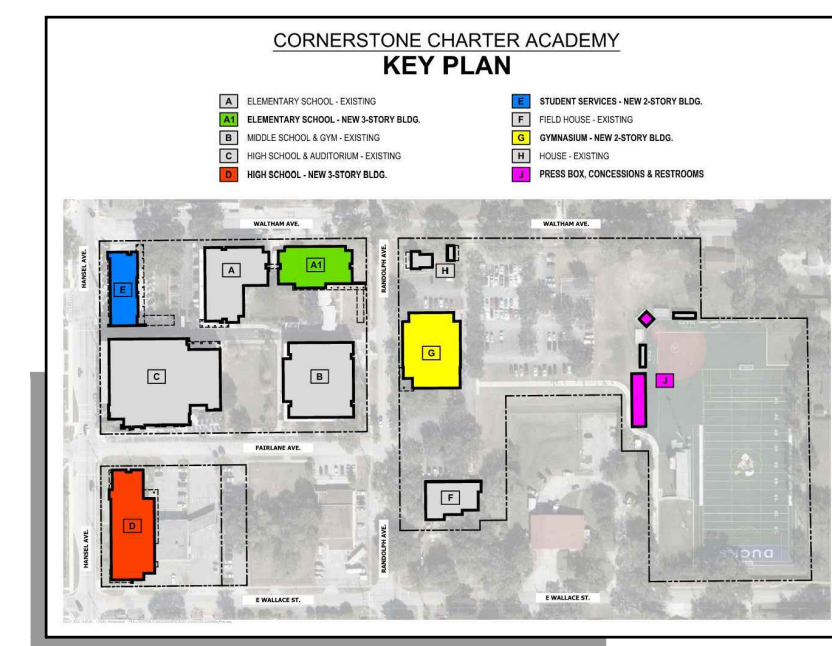
SHEET NUMBER
A106



ROOF PLAN
SCALE: 1/16" = 1'-0"



2nd FLOOR PLAN
SCALE: 3/32" = 1'-0"



- BLDG-G PROPOSED PROGRAM**
- BLDG-G NEW GYMNASIUM / MULTI-PURPOSE**
(At the current location of "Turf Play Areas")
- 2-STORY, ±16,100 SF BUILDING
 - GYMNASIUM / MULTI-PURPOSE SPACE WITH RETRACTABLE BLEACHERS
 - REGULATION BASKETBALL / VOLLEYBALL COURT
 - A/V SYSTEM CONTROL ROOM
 - CONCESSION STAND
 - GIRLS & BOYS LOCKER ROOMS
 - WEIGHT TRAINING CLASSROOM
 - TRAINER W/ HYDROTHERAPY WHIRLPOOL TUBS
 - COACH OFFICE
 - SPORTS EQPMT. STORAGE

CIVICA ARCHITECTURE
8323 NW 12th St. Suite 106
Doral, FL 33126
tel: 305.593.9959
AA #26001093
www.civicagroup.com
info@civicagroup.com

PROJECT:
CORNERSTONE CHARTER ACADEMY MASTER PLAN



906 WALTHAM AVE.
BELLE ISLE, FL 32809

PARCEL No:
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24-23-29-3400-00-095
24-23-29-3400-00-114

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906 WALTHAM AVE.
BELLE ISLE, FL 32809

ISSUED FOR:
ZONING SUBMITTAL

CIVICA PROJECT No :
220208

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Engineering the Future

No.	DATE	ISSUED FOR	BY
	02/09/23	SUBMITTAL	

DRAWN BY: TM
APPROVED BY: JGI RL

DATE: 02/09/2023
SCALE: AS SHOWN

KEY PLAN

1st FL FFE: XX.XX' NAVD (1988)
SEAL/SIGNATURE

ROLANDO LLANES
AR - 0013160

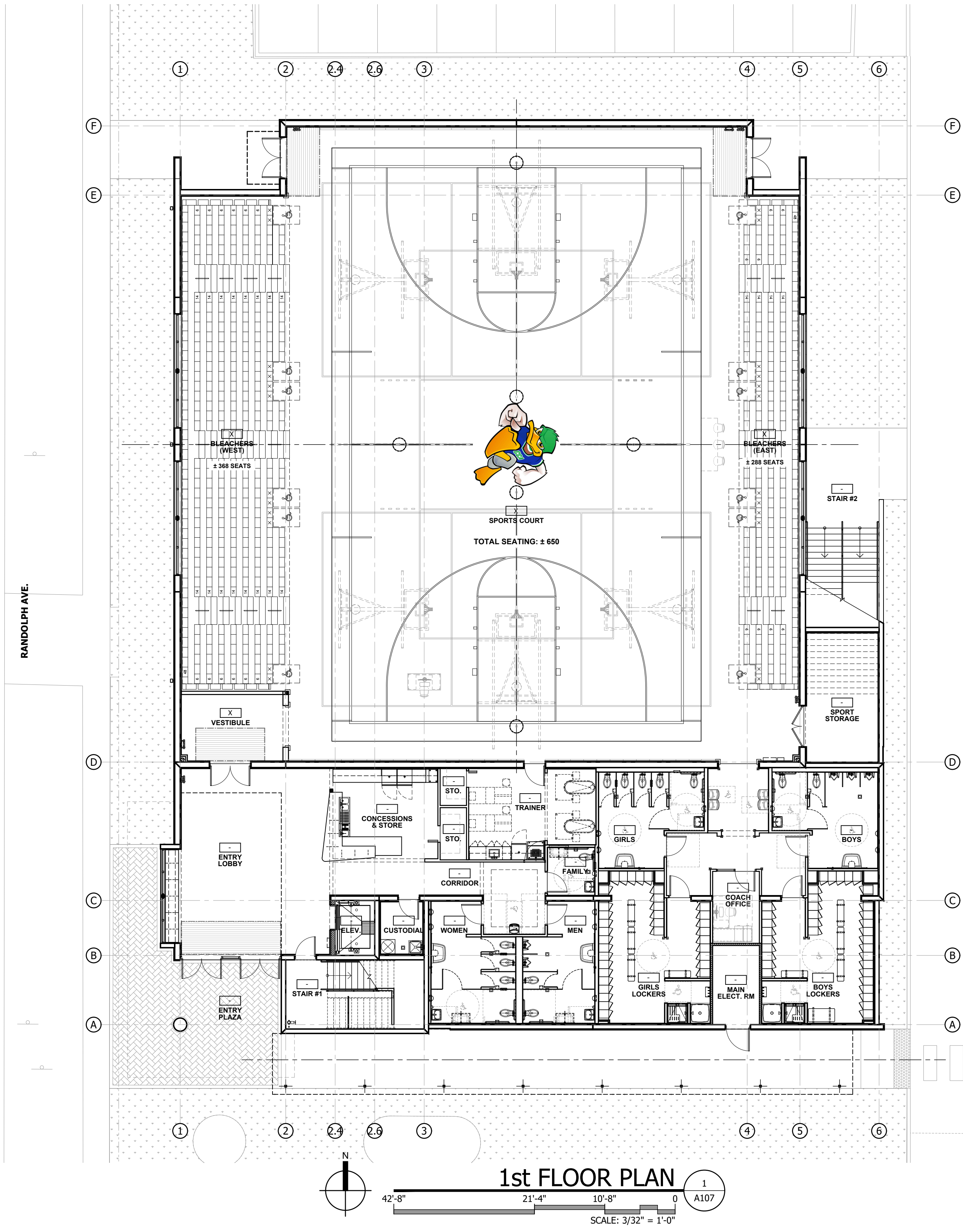
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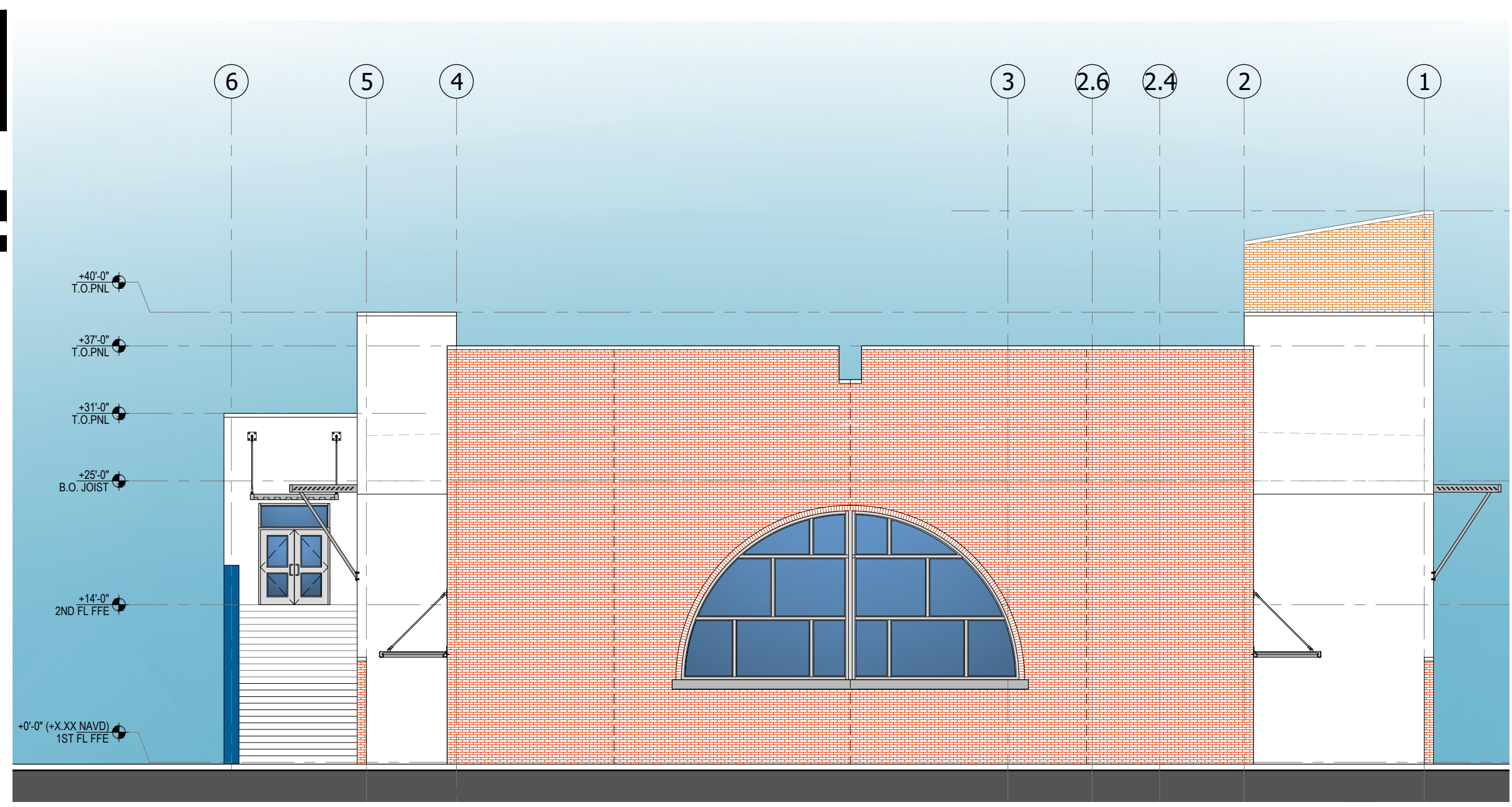
SHEET TITLE

BLDG-G FLOOR PLANS

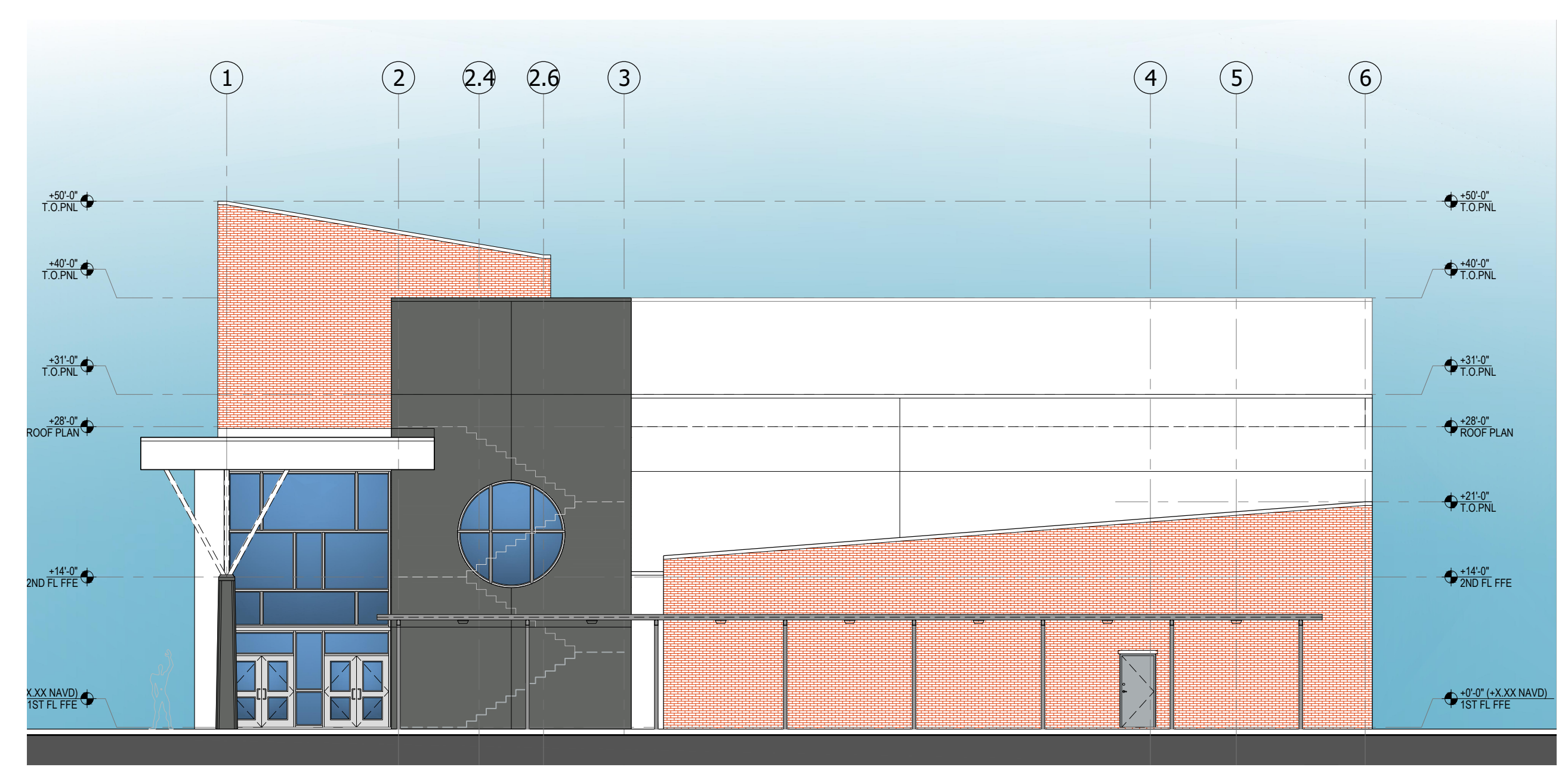
SHEET NUMBER
A107



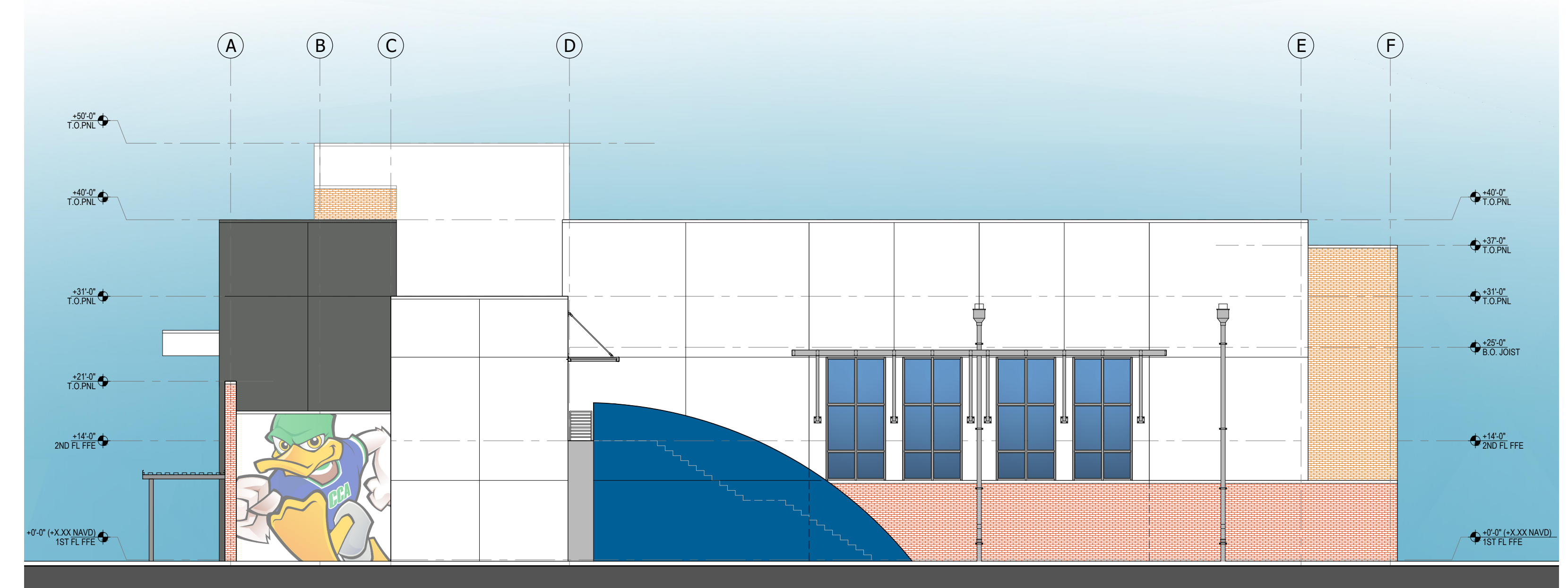
1st FLOOR PLAN
SCALE: 3/32" = 1'-0"



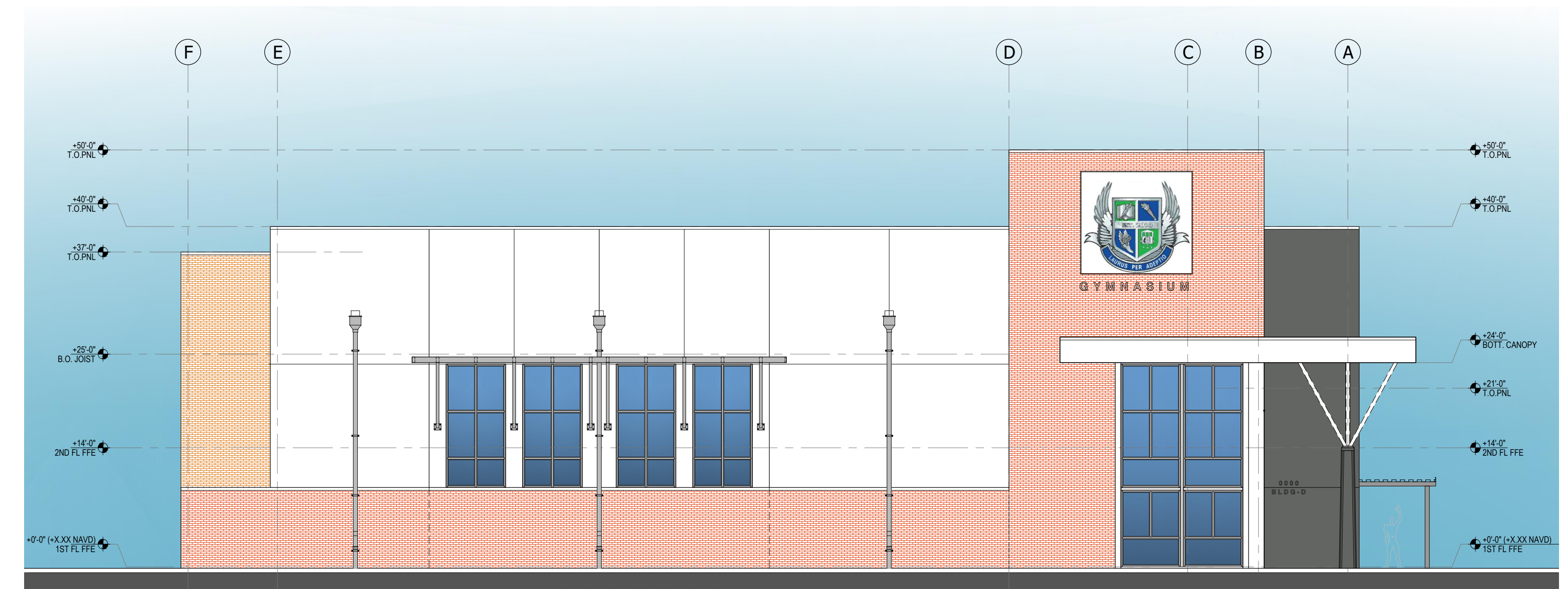
NORTH ELEVATION 4
 SCALE: 3/32" = 1'-0"
 A108



SOUTH ELEVATION 3
 SCALE: 3/32" = 1'-0"
 A108



EAST ELEVATION 2
 SCALE: 3/32" = 1'-0"
 A108

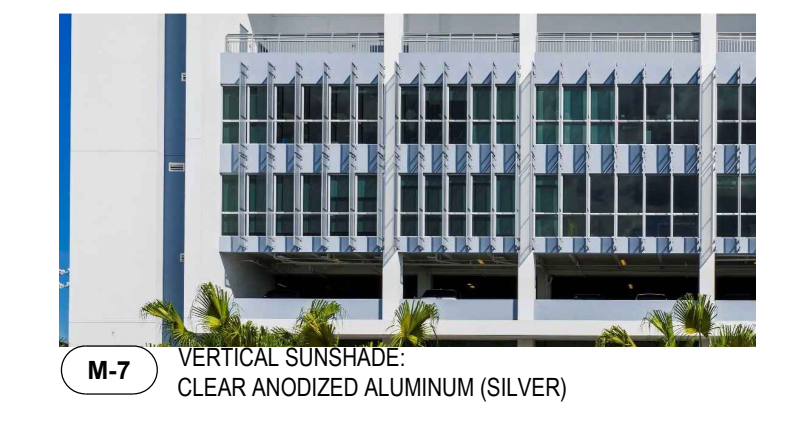
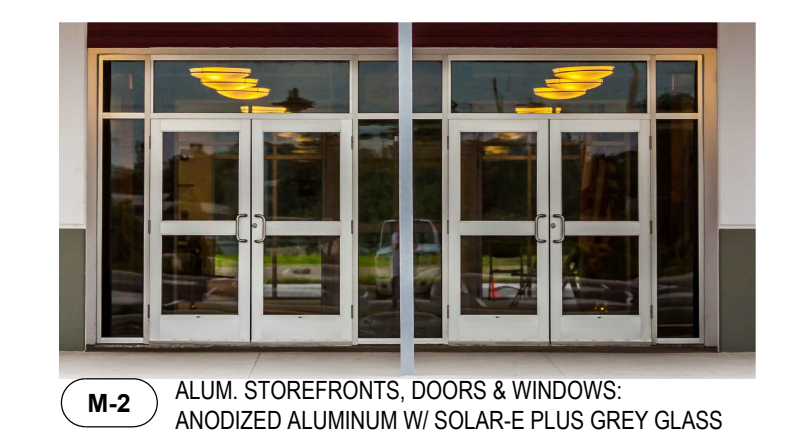
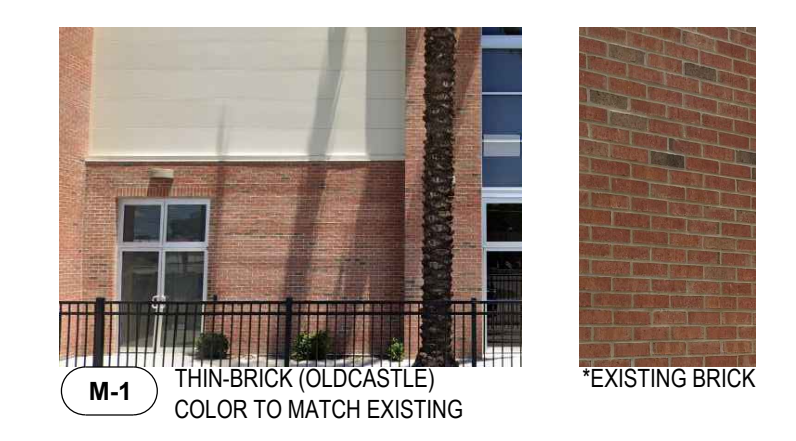


WEST ELEVATION (MAIN) 1
 SCALE: 3/32" = 1'-0"
 A108

PROPOSED MATERIALS & COLOR SELECTION

- COLOR SELECTION BASED ON SHERWIN WILLIAMS COLOR PALETTE:
- HM DOORS/ FRAMES (INTERIOR & EXTERIOR) - P-2
 - METAL STAIRS/ GUARDRAIL/ RAILING & EXPOSED STEEL MEMBERS - SW7069 "IRON ORE" (MATCH EXIST.)
 - WALKWAY COVER, CANOPIES & SUNSHADES - ANODIZED ALUM.
 - STOREFRONTS & WINDOWS - ANODIZED ALUM.
 - GLASS - SOLAR-E PLUS GREY (SPANDREL GLASS TO MATCH)

- EXTERIOR BUILDING COLORS:
- | | | | |
|---|---|--|---|
| P-1
Soothing White
MAIN BODY | P-4
Morning Fog
HM DOORS + RECESS | P-4
Grizzle Gray
BLDG. BASE + ACCENT | P-4
Iron Ore
MTL. COLUMNS, BEAMS, GRILLES, GATES & RAILINGS |
| P-5
Direct Green
SCHOOL COLOR #1 (INTERIOR) | P-4
Hyper Blue
SCHOOL COLOR #2 (INTERIOR) | | |



PROJECT:
CORNERSTONE CHARTER ACADEMY MASTER PLAN



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 24-23-29-3400-00-095
 24-23-29-3400-00-114

APPLICANT:
 CORNERSTONE CHARTER ACADEMY
 906 WALTHAM AVE.
 BELLE ISLE, FL 32809

ISSUED FOR:
ZONING SUBMITTAL

CIVICA PROJECT No :
220208

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DRAWN BY: TM
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 DATE: 02/09/2023
 SCALE: AS SHOWN

KEY PLAN

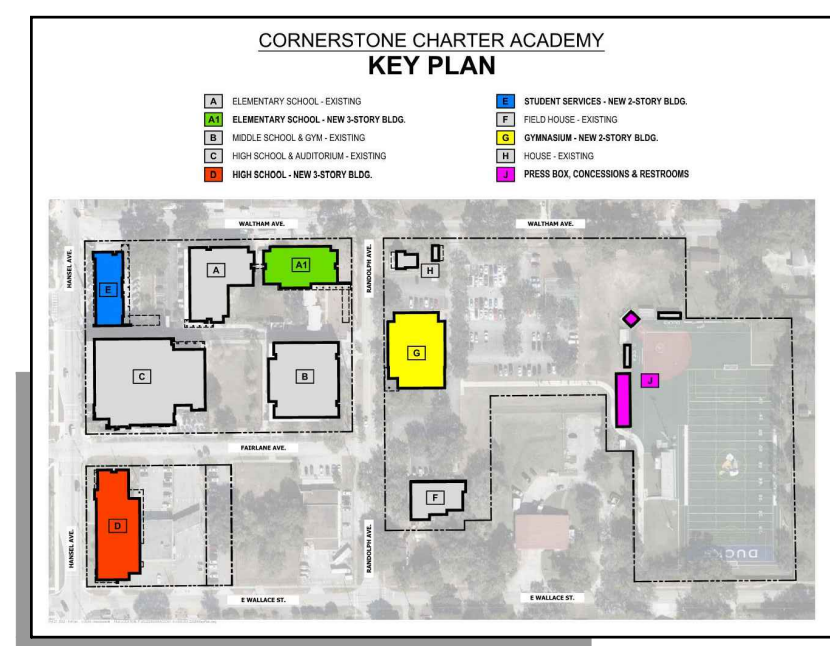
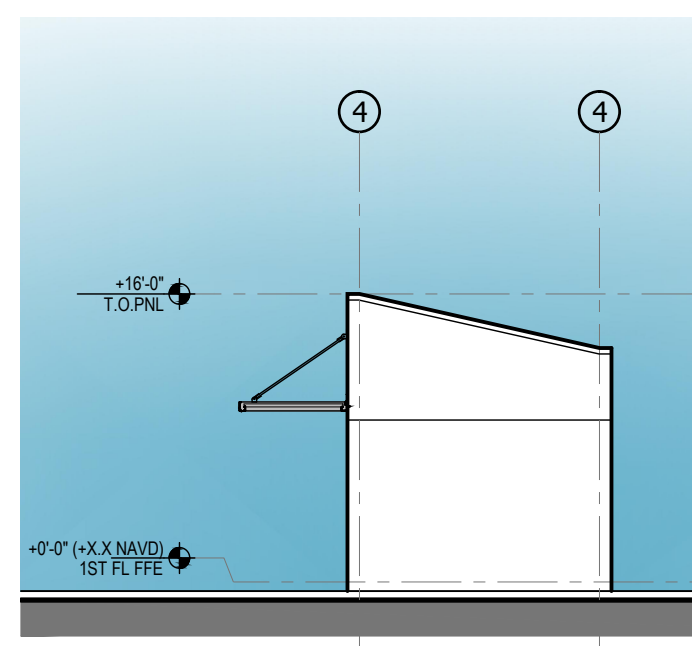
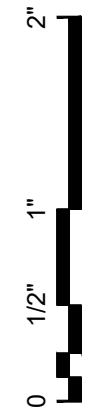
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ROLANDO LLANES
 AR - 0013160

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SHEET TITLE
BLDG-G ELEVATIONS

SHEET NUMBER
A108



BLDG-J PROPOSED PROGRAM

BLDG-J NEW FIELD CONCESSIONS & RESTROOMS
(Near current location for "Sports Fields")

- 2-STORY, ±1,740 SF BUILDING
- CONCESSIONS
- RESTROOMS
- COACH OFFICE
- BASEBALL/ SOFTBALL PRESS BOX

PROPOSED MATERIALS & COLOR SELECTION

- COLOR SELECTION BASED ON SHERWIN WILLIAMS COLOR PALETTE:
1. HM DOORS/ FRAMES (INTERIOR & EXTERIOR) - P-2
 2. METAL STAIRS/ GUARDRAIL/ RAILING & EXPOSED STEEL MEMBERS - SW7069 "IRON ORE" (MATCH EXIST.)
 3. WALKWAY COVER, CANOPIES & SUNSHADES - ANODIZED ALUM.
 4. STOREFRONTS & WINDOWS - ANODIZED ALUM.
 5. GLASS - SOLAR-E PLUS GREY (SPANDREL GLASS TO MATCH)

EXTERIOR BUILDING COLORS:

P-1 Soothing White	P-1 MAIN BODY
P-2 Morning Fog	P-4 HM DOORS + RECESS
P-3 Grizzle Gray	P-4 BLDG. BASE + ACCENT
P-4 Iron Ore	P-4 MTL COLUMNS, BEAMS, GRILLES, GATES & RAILINGS
P-5 Direct Green	P-4 SCHOOL COLOR #1 (INTERIOR)
P-6 Hyper Blue	P-4 SCHOOL COLOR #2 (INTERIOR)

PROJECT: CORNERSTONE CHARTER ACADEMY MASTER PLAN



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BELLE ISLE, FL 32809

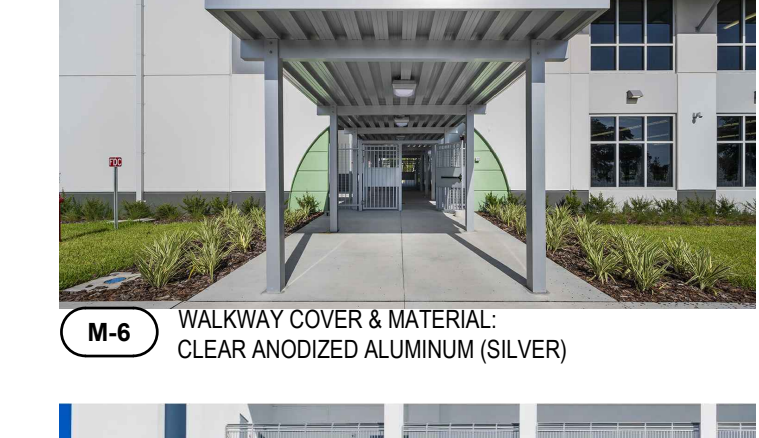
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906 WALTHAM AVE.
BELLE ISLE, FL 32809

ISSUED FOR:
ZONING SUBMITTAL

CIVICA PROJECT No :
220208

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Engineering the Future



No.	DATE	ISSUED FOR	BY
	02/09/23	SUBMITTAL	

DRAWN BY: TM
APPROVED BY: JGI/RL
DATE: 02/09/2023
SCALE: AS SHOWN

KEY PLAN

1st FL FFE: XX.XX' NAVD (1988)
SEAL/SIGNATURE

ROLANDO LLANES
AR - 0013160

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SHEET TITLE
BLDG-J FLOOR PLANS & ELEVATIONS

SHEET NUMBER
A109

