

# ZONING MAP AMENDMENT APPLICATION

Amended 5/2/2023

**Planning & Zoning**  
 2635 Talley Street  
 Decatur, GA 30030  
 Phone 404-377-6198  
 Fax 404-378-5054



If there is more than one owner besides the applicant, please list on a separate page. If the applicant is not the current property owner, please provide a notarized authorization for this application from the current property owner. Refer to the submittal checklist for submittal requirements.

Address(es) of property 465 Clairemont Avenue Decatur, GA 30030

Existing zoning I- Institutional (enrollment cap 148 students) Proposed zoning I-Institutional (cap 300 students)

Existing use of property Daycare Proposed use of property Daycare

Name of applicant Smarties Academy / Bogumila Kabat Phone 770 633 0770

Address 465 Clairemont Avenue City/state/ZIP /Decatur GA 30030

Email bogna@smartiesacademy.com

Name of property owner MerVic Group/ Bogumila Kabat Phone 770 633 0770

Address 465 Clairemont Avenue City/state/ZIP /Decatur GA 30030

.....

Within the two years immediately preceding the filing of this application, have you, the applicant, made campaign contributions aggregating \$250 or more, or made gifts having an aggregate value of \$250 or more to a local government official of the City of Decatur who will consider this application?  Yes  No

If you answered yes to the above question, you must file a disclosure report with the Planning & Zoning Department showing the following. The report must be filed within ten days of filing the application.

1. The name of the local government official to whom the campaign contribution or gift was made.
2. The dollar amount of each campaign contribution made by the applicant to the local government official during the two years immediately preceding the filing of the application and the date of each contribution.
3. An enumeration and description of each gift having a value of \$250 or more made by the applicant to the local government official during the two years immediately preceding the filing of the application.

.....

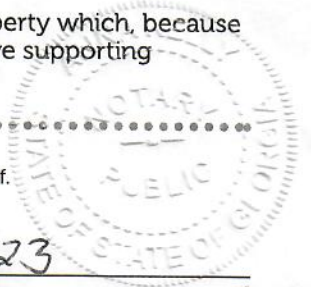
Please answer all of the following questions on a separate sheet.

1. How would the uses permitted under the proposed land use category be suitable in view of the use and development of adjacent and nearby property?
2. What adverse affects does the proposed amendment have on the existing use or usability of adjacent or nearby property?
3. To what extent will the proposed amendment result in uses which will or could cause an excessive or burdensome use of existing streets, transportation facilities, utilities or schools?
4. Are there other existing or changing conditions affecting the use and development of the property which, because of their impact on the public health, safety, morality and general welfare of the community, give supporting grounds for either approval or disapproval of the proposed amendment?

.....

I hereby certify that the above and attached statements and documents are true to the best of my knowledge and belief.

Applicant signature Bogumila Kabat Date 1/06/2023



*Handwritten signature*

**LETTER OF REQUEST AND SUMMARY**

**City of Decatur**

- 1. Conditional Use Permit Application**
- 2. Zoning Map Amendment Application**

**Applicant:**

Smarties Child Care, LLC d/b/a Smarties Academy  
Bogumila Kabat  
[bogna@smartiesacademy.com](mailto:bogna@smartiesacademy.com)  
7706330770

**Property:**

465 Clairemont Avenue  
Decatur, Georgia 30030

**Parcel ID Nos.:**

18 006 03 105  
18 006 03 106

## I. INTRODUCTION

The subject property is approximately 2.55 acres located at the corner of Clairemont Avenue and Erie Avenue in the City of Decatur, (DeKalb County Parcel Nos. 18 006 03 105 & 18 006 03 106, previously described as 465 Clairmont Avenue and 119 Erie Avenue, hereafter the “Property”). On October 29, 2021, the City of Decatur approved the combination of the Property’s two parcels into one parcel retaining the address of 465 Clairemont Avenue.

The Property is zoned “I” Institutional with condition to cap the enrollment at 148 students. Approved on March 21 2022.

The Applicant, Smarties Academy (“Applicant”), owns and operates a day care and early childhood education center on the Property. Based on the zoning of the Property, this application seeks to continue Smarties Academy’s use and expend the enrollment to 300 students. Beginning as an at-home childcare in 2008, Smarties Academy began operating at the Property in April 2012. For the last ten years, the Academy and its founder Bogumila Kabat have grown the day care into a valued member of the community providing high-quality childcare and early education for children and families in Decatur and the surrounding areas. Due to high demand, and high-quality program, Smarties Academy outgrew its space and it is looking in to expending.


Due to condition to cap the enrollment at 148, Smarties Academy is not able to accept all siblings, children of the employees and new families. The Applicant desire is to increase the enrollment cap to 300 students with building addition and parking expansion.

### REQUEST SUMMARY

Applicant requests approval of

1. Conditional Use Permit which will allow to increase enrollment up to 300 students  
And
2. Zoning Map Amendment which will modify the school site with a building addition and parking expansion

### Submitted Requests

1. *Conditional Use Permit* (—request to allow expansion and cap the enrollment at 300 students
2. *Zoning Map Amendment*  —request to allow building addition and parking expansion

Smarties Academy  
465 Clairemont Avenue  
Decatur, GA 30030

### **Project Summary – Expansion and Renovation**

The existing buildings on the property are connected and contain one-story and two-story portions. The two story portion contains a floor at the level of the parking lot at the rear of the site, and a level down, open to the front of the site where grade is lower. The existing building is 13,592 sf.

The proposed addition and renovation would include a new two story structure, with a ground floor at the level of the parking lot and a second floor above. The addition would include a connection stair and elevator to the lower level of the existing building, making a portion of the addition three stories. The proposed project will include the renovation of 6,727 sf of the existing building, removal of 1,583 sf of the existing structure, and new construction of 17,052 sf.

The existing building at its highest point is about 33 feet from grade. The proposed new structure will be approximately 38' in height above grade at the highest point.

The proposed use for the building will remain a daycare facility. The proposed plan includes a total number of 20 classrooms.

The existing site contains 47 parking spaces. The proposed new site plan contains 74 total spaces.

## **2. Zoning Map Amendment Application**

The Applicant satisfies all the criteria for rezoning as set forth in the Decatur UDO, Section 11.2.2 and the Decatur Land Use Plan Amendment Application Form.

### **1. Does the proposed amendment permit use that are suitable in view of the use and development of adjacent and nearby property?**

Yes, Applicant's request creates a consistent land use plan designation for the entire Property. This request allows consistent use of the Property as a day care compatible with the residential and institutional uses on surrounding properties.

### **2. Does the proposed amendment adversely affect the existing use or usability of adjacent or nearby property?**

Applicant's requested zoning map amendment will have no adverse impacts on the surrounding properties. The requested amendment will allow continuation and expansion of a beneficial day care use.

### **3. Will the proposed amendment result in uses which will or could cause an excessive or burdensome use of existing streets, transportation facilities, utilities or schools?**

The requested amendment will provide a consistent land use designation for the entire Property and allow the continuation of a high-quality day care operation.

### **4. Are there other existing or changing conditions affecting the use and development of the property which, because of their impact on the public health, safety, morality and general welfare of the community, give supporting grounds for either approval or disapproval of the proposed amendment?**

Applicant established a day care on the Property in 2012 and has been continuously benefiting the community. Approval of these requests will allow the Applicant's continued use of the Property and expansion. The day care will provide a sustained benefit and positive impact on the public health and general welfare of the surrounding community.

#### **IV.CONCLUSION**

For the foregoing reasons, the Applicant respectfully requests that the Decatur City Commission approve these applications. In summary, the requests seek to continue and expand Smarties Academy's decade long history of serving Decatur families. We look forward to working with the City and are available to discuss these applications and any questions.

TITLE INFORMATION

This Title Description and Schedule B items are part of the GUARANTY COMPANY, INC. ...

TITLE LEGAL DESCRIPTIONS

THE SOUTHWEST CORNER OF THE SOUTHWEST CORNER OF THE ...

TITLE EXCEPTIONS:

Schedule B, Part II contains information contained within the title commitment for ...

- 1. Easement from Lutheran Church of the Mission to Georgia Power Company, dated April 6, 1956, ...

SITE ACCESS NOTE:

THIS PROPERTY HAS DIRECT ACCESS TO THE PUBLIC RIGHT OF WAYS OF ...

SITE ADDRESS:

465 CLAIREMONT AVENUE COMBINED PER LETTER BY CITY OF DECATUR DATED: 10-29-2021 ...

ALTA/NSPS LAND TITLE SURVEY FOR: The Southeast Synod of the Evangelical Church in America, Inc., MerVic Group, LLC, First-Citizens Bank & Trust Company, U.S. Small Business Administration c/o Small Business Access Partners, Inc., Stewart Title Guaranty Company & William E. Porter, P.C.

465 CLAIREMONT AVENUE

CITY OF DECATUR, DEKALB COUNTY, GEORGIA LAND LOT 6, DIST 18 DATE: MARCH 27, 2018, AUGUST 19, 2021 (ADDED 119 ERIE AVENUE); ...

ALTA/NSPS Land Title Survey

AS-SURVEYED DESCRIPTION

ALL THAT TRACT OR PARCEL OF LAND lying and being in Land Lot 6 of the 18th District, City of Decatur, DeKalb County, Georgia, and being more particularly described as follows:

BEGINNING at an iron pin set located at the intersection of the westerly right of way of Erie Avenue (60' R/W) with the northerly right of way of Deatonwood Avenue (60' R/W) ...

Said tract or parcel of land contains 2.56 acres (111,069 sq. ft.) according to that certain plat of land ...

ZONING INFORMATION

Zoning Information: (CITY OF DECATUR) ZONED: "I-INSTITUTIONAL REZONED TO "I" BY CITY OF DECATUR MARCH 21, 2022



Planning, Zoning and Inspections ... 465 Clairmont Avenue - Parcel P# 18 006-01 185

465 CLAIREMONT AVENUE SINGLE PARCEL PER G.I.S.

SHEET INDEX

SHEET ONE OF TWO ALTA/NSPS NOTES SHEET TWO OF TWO ALTA/NSPS SURVEY

GENERAL NOTES:

- 1. This Plat has been prepared for the benefit of a current title report. Easements or encumbrances may exist that are not shown on this plat.

REFERENCES:

RECORDS: B 5239 98 506 4270 15 47 4270 15 47 4270 15 47 4270 15 47

FIELD DATA NOTES:

MARKER DATA: (TOP) CORNER OF PARAPET (CONC) (TOP) CORNER OF WALL (CONC) (TOP) CORNER OF WALL (CONC) ...

SITE AREA NOTE:

465 CLAIREMONT AVENUE TOTAL AREA: 111,069 SQ.FT. 2.55 AC

PARKING SPACES NOTE:

REGULATED SPACES - 45 HANDICAP SPACES - 0 TOTAL - 45 SPACES

ENCROACHMENT NOTES:

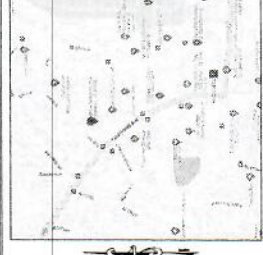
NONE FOUND AT TIME OF SURVEY

GAP/GORE NOTE:

The surveyed property is the same property conveyed on 188 deeds and is to be surveyed as one parcel with no gaps or gores between the properties.

FLOOD NOTE:

FLOOD HAZARD NOTE: THIS PROPERTY IS NOT LOCATED IN A FLOOD HAZARD AREA AS DEFINED BY FEMA'S FLOOD INSURANCE RATE MAP (FIRM) NUMBER 13095C0269K EFFECTIVE DATE AUGUST 15, 2019



VICINITY MAP Not to Scale

BASIS OF BEARINGS

BEARINGS BASED ON NAD 83 COORDINATES TO THE POINT OF BEGINNING



LEGEND

- (TOP) CORNER OF PARAPET (CONC) (TOP) CORNER OF WALL (CONC) (TOP) CORNER OF WALL (CONC) ...

SURVEYORS NOTE:

This survey was actually made on the ground, shows field measurement and the record description of the land and connects the corners of the land and other improvements situated on the land.

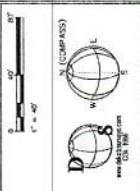


The Southeast Synod of the Evangelical Church in America, Inc., MerVic Group, LLC, First-Citizens Bank & Trust Company, U.S. Small Business Administration c/o Small Business Access Partners, Inc., Stewart Title Guaranty Company & William E. Porter, P.C.

Date: 04-11-2022 Georgia Reg. Land Surveyor No. 3324

# ALTA/NSPS Land Title Survey

SHEET INDEX  
 SHEET ONE OF TWO  
 ALTA/NSPS NOTES  
 SHEET TWO OF TWO  
 ALTA/NSPS SURVEY



**BASIS OF BEARINGS**  
 TRUE NORTH  
 MAGNETIC NORTH  
 ANGLE SINDS, EITHER SHOWN ASSUMED FROM  
 DEKALB COUNTY GC



**SITE ACCESS NOTE:**  
 THIS PROPERTY HAS DIRECT ACCESS  
 TO THE PUBLIC RIGHT OF WAYS OF  
 ERIE AVENUE (60' RW) AND  
 CLAIREMONT AVENUE (60' RW)

**REFERENCE:** DB 55/8 PG 605  
 DB 42/5 PG 41  
 SURVEY FOR RICHARD HERGOLD BY  
 JOSEPH C. MCGUIRE DATED 3-27-2004

**SURVEY DATA:**  
 TYPE OF SURVEY: SUBSTANTIAL  
 SOURCE OF TITLE DESCRIPTION FOR SUBJECT PROPERTY:  
 DB 55/8 PG 605 (65' CLAIREMONT AVENUE)  
 DB 42/5 PG 41 (19' ERIE AVENUE)  
 PROPERTY OWNER AT TIME OF SURVEY:  
 PARCEL NUMBER 18-008-01-05-05 (65' CLAIREMONT AVENUE)  
 18-008-01-06 (19' ERIE AVENUE)  
 BEARING BASES IS SINGLE COMPASS BEARINGS &  
 ANGLES TURNED; VERTICAL DATUM ASSUMED FROM  
 DEKALB COUNTY GC

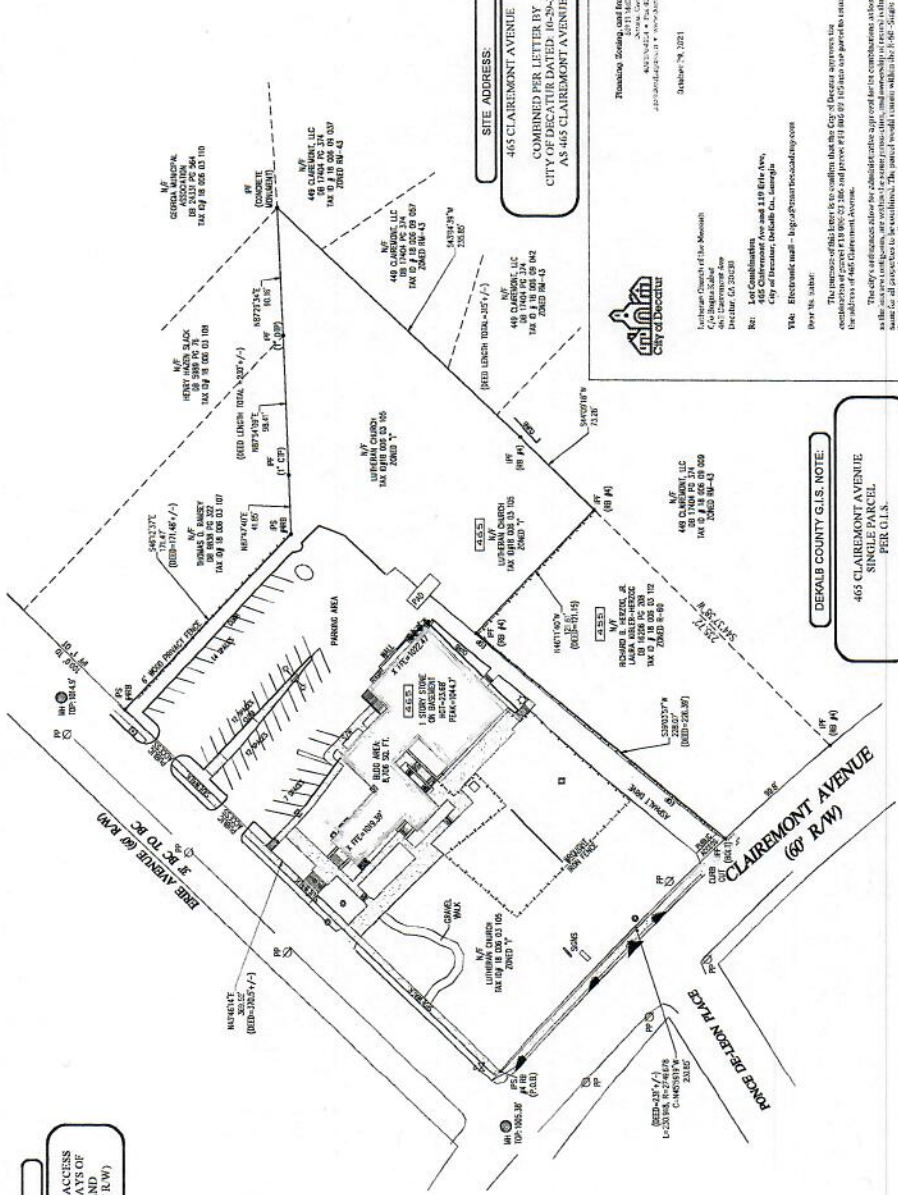
465 CLAIREMONT AVENUE  
 TOTAL AREA: 111,660 SQ FT, 2.55 AC  
 CALCULATED PLAT CLOSURE: 1:44,265

**FIELD DATA:**  
 DATE OF FIELD SURVEY: 11-28-2007, 3-20-2008,  
 4-4-2008, 4-13-2008, 8-11-2011, 1-25-2022,  
 04-01-2022

THE CALCULATED POSITIONAL TOLERANCE BASED ON  
 REDUNDANT LINEAR MEASUREMENTS OF OBSERVED  
 POSITIONS WAS FOUND TO BE 0.02 FEET.

**EQUIPMENT:**  
 ELECTRONIC TOTAL STATION  
 FLOOD HAZARD NOTE: THIS PROPERTY IS NOT LOCATED IN A  
 FLOOD HAZARD AREA AS DEFINED BY FEMA MAP OF DEKALB  
 COUNTY, GEORGIA 1399630066K EFFECTIVE DATE AUGUST 15, 2019

| NO. | DESCRIPTION                   | DATE |
|-----|-------------------------------|------|
| 1   | 465 CLAIREMONT AVENUE         |      |
| 2   | 60' ERIE AVENUE               |      |
| 3   | 60' CLAIREMONT AVENUE         |      |
| 4   | 60' FORCE DELEN AVENUE        |      |
| 5   | 60' DEKALB COUNTY G.I.S. NOTE |      |
| 6   | 60' PARKING SPACES            |      |
| 7   | 60' SITE AREA NOTE            |      |
| 8   | 60' DERALB COUNTY G.I.S. NOTE |      |
| 9   | 60' SINGLE PARCEL PER G.I.S.  |      |
| 10  | 60' REGULAR SPACES - 45       |      |
| 11  | 60' HANDICAPPED SPACES - 0    |      |
| 12  | 60' TOTAL - 45 SPACES         |      |



**SITE ADDRESS:**  
 465 CLAIREMONT AVENUE  
 COMBINED PER LETTER BY  
 CITY OF DECATUR DATED 10-28-2021  
 AS 465 CLAIREMONT AVENUE

**Thinking, Soaring, and Inspiring**  
 Evangelical Church in America  
 465 CLAIREMONT AVENUE  
 DECATUR, GEORGIA 30030  
 (770) 306-1313  
 www.evangelicalchurchinamerica.org

**City of Decatur**  
 City of Decatur, Georgia  
 465 Clairmont Ave and 119 Erie Ave,  
 City of Decatur, Georgia  
 Re: Lot Combinations  
 City of Decatur - Inquiries@decaturga.gov

**DERALB COUNTY G.I.S. NOTE:**  
 465 CLAIREMONT AVENUE  
 SINGLE PARCEL  
 PER G.I.S.

**PARKING SPACES NOTE:**  
 REGULAR SPACES - 45  
 HANDICAPPED SPACES - 0  
 TOTAL - 45 SPACES

**SITE AREA NOTE:**  
 465 CLAIREMONT AVENUE -  
 TOTAL AREA: 111,660 SQ FT, 2.55 AC

**DERALB COUNTY G.I.S. NOTE:**  
 465 CLAIREMONT AVENUE  
 SINGLE PARCEL  
 PER G.I.S.

ALTA/NSPS LAND TITLE SURVEY FOR:  
 The Southeast Synod of the Evangelical Church in America, Inc., MerVic  
 Group, LLC, First-Citizens Bank & Trust Company, U.S.  
 Small Business Administration c/o Small Business Access Partners, Inc.,  
 Stewart Title Guaranty Company & William E. Porter, P.C.

465 CLAIREMONT AVENUE  
 CITY OF DECATUR, DEKALB COUNTY, GEORGIA  
 LAND LOT 5, DIST 18  
 DB 55/8 PG 605 (19' ERIE AVENUE) 19 ERIE AVENUE  
 DB 42/5 PG 41 (65' CLAIREMONT AVENUE) 65' CLAIREMONT AVENUE  
 APRIL 11, 2022 (COMBINED LOTS ALTA)





JUN-17-2024

GENERAL NOTES:

- 1: This Plat has been prepared without the benefit of a current title report. Easements or encumbrances may exist that are not shown on this plat.
- 2: This plat is subject to any restrictions, easements, covenants or restrictions that may exist either written or unwritten.
- 3: Underground utilities not shown hereon may exist. The Surveyor does not take responsibility for absence or presence of any such utilities.
- 4: No Geodetic monuments were found within 500 feet of this site
- 5: This Plat has been prepared for the exclusive use of the person(s) or entities named hereon.

REFERENCE: DB 5578 PG 605  
DB 4215 PG 41  
SURVEY FOR RICHARD HERZOG BY  
JOSEPH C. KING DATED 5-27-2004

SURVEY DATA:

TYPE OF SURVEY: RETRACEMENT  
SOURCE OF TITLE DESCRIPTION FOR SUBJECT PROPERTY:  
DB 5578 PG 605 (465 CLAIREMONT AVENUE)  
DB 4215 PG 41 (119 ERIE AVENUE)  
PROPERTY OWNER AT TIME OF SURVEY:  
LUTHERAN CHURCH OF THE MESSIAH  
PARCEL NUMBER: 18-006-03-105 (465 CLAIREMONT AVENUE)  
18-006-03-106 (119 ERIE AVENUE)

BEARING BASIC IS SINGLE COMPASS BEARING &  
ANGLES TURNED; VERTICAL DATUM ASSUMED FROM  
DEKALB COUNTY GDS

465 CLAIREMONT AVENUE

TOTAL AREA: 9,206 SQ FT, 0.21 AC

CALCULATED PLAT CLOSURE: 1:140,964

119 ERIE AVENUE

TOTAL AREA: 101,854 SQ FT, 2.34 AC

CALCULATED PLAT CLOSURE: 1:100,854

FIELD DATA:

DATE OF FIELD SURVEY: 11-28-2017, 3-20-2018,  
4-4-2018, 4-13-2018, 8-11-21, 1-26-2022

THE CALCULATED PROPORTIONAL TOLERANCE BASED ON  
REDUCTION OF MEASUREMENT ERRORS OBSERVED  
POSITIONS WAS FOUND TO BE 0.002 FEET.

EQUIPMENT:

ELECTRONIC TOTAL STATION  
FLUKE HAZARD AREA AS DETIRED BY FIRM MAP OF DEKALB  
COUNTY, GEORGIA 1308SC008R6K EFFECTIVE DATE AUGUST 15, 2019

|   |              |
|---|--------------|
| 319 ERIE AVENUE & 465 CLAIREMONT AVENUE |              |
| ZONING:                                 | RS-1         |
| MARK BUILDING:                          | 8,785 S.F.   |
| ASPHALT DRIVE/STEPS/WALKS:              | 8,425 S.F.   |
| CONC. WALKS/STEPS/WALKS:                | 8,425 S.F.   |
| GRAVEL WALK:                            | 688 S.F.     |
| IMPERVIOUS TOTAL:                       | 44,597 S.F.  |
| LOT AREA:                               | 111,000 S.F. |
| LOT COVERAGE (%) :                      | 40.2         |

BOUNDARY & TOPOGRAPHIC SURVEY FOR:  
BOGNA KABAT  
465 CLAIREMONT AVENUE &  
119 ERIE AVENUE

CITY OF DECATUR, DEKALB COUNTY, GEORGIA  
LAND LOT 6, DIST 18  
DATE: MARCH 21, 2018; AUGUST 19, 2021 (ADDED 119 ERIE AVENUE);  
SEPTEMBER 3, 2021 (IFS); JANUARY 28, 2022 (ADD TREE/TOPO)

This plat is a retracement of an existing parcel or parcels of land and does not subdivide or create a new parcel or make any changes to any real property boundaries. The recording information of the documents, maps, plats, or other instruments which created the parcel or parcels are stated herein.

RECORDATION OF THIS PLAT DOES NOT IMPLY APPROVAL OF ANY LOCAL JURISDICTION, AUTHORITY, OR AGENCY. THE USER OF THIS PLAT FOR PURPOSES OF THE LAND. Furthermore, the undersigned land surveyor certifies that this plat complies with the minimum technical standards for property surveys in Georgia as set forth in the rules and regulations of the Georgia Board of Registration for Professional Engineers and Land Surveyors and as set forth in O.C.G.A. Section 15-6-67.

ZONING NOTE:  
BEFORE DEVELOPMENT OF THIS PROPERTY, DEVELOPER AND ARCHITECT TO CONFIRM ZONING PER CITY OF COUNTY ZONING DEPARTMENT.

N/F  
GEORGIA MUNICIPAL  
ASSOCIATION  
125 2889 PG 78  
TAX ID # 18 006 03 110

N/F  
HENRY HAVEN SLAZEK  
125 2889 PG 78  
TAX ID # 18 006 03 108

N/F  
465 CLAIREMONT, LLC  
125 2889 PG 78  
TAX ID # 18 006 03 137

N/F  
465 CLAIREMONT, LLC  
125 2889 PG 78  
TAX ID # 18 006 03 137

N/F  
465 CLAIREMONT, LLC  
125 2889 PG 78  
TAX ID # 18 006 03 137

N/F  
465 CLAIREMONT, LLC  
125 2889 PG 78  
TAX ID # 18 006 03 137

N/F  
465 CLAIREMONT, LLC  
125 2889 PG 78  
TAX ID # 18 006 03 137

N/F  
465 CLAIREMONT, LLC  
125 2889 PG 78  
TAX ID # 18 006 03 137

N/F  
465 CLAIREMONT, LLC  
125 2889 PG 78  
TAX ID # 18 006 03 137

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TAX ID # 18 006 03 137

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125 2889 PG 78  
TAX ID # 18 006 03 137

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465 CLAIREMONT, LLC  
125 2889 PG 78  
TAX ID # 18 006 03 137

N/F  
465 CLAIREMONT, LLC  
125 2889 PG 78  
TAX ID # 18 006 03 137

N/F  
465 CLAIREMONT, LLC  
125 2889 PG 78  
TAX ID # 18 006 03 137

N/F  
465 CLAIREMONT, LLC  
125 2889 PG 78  
TAX ID # 18 006 03 137

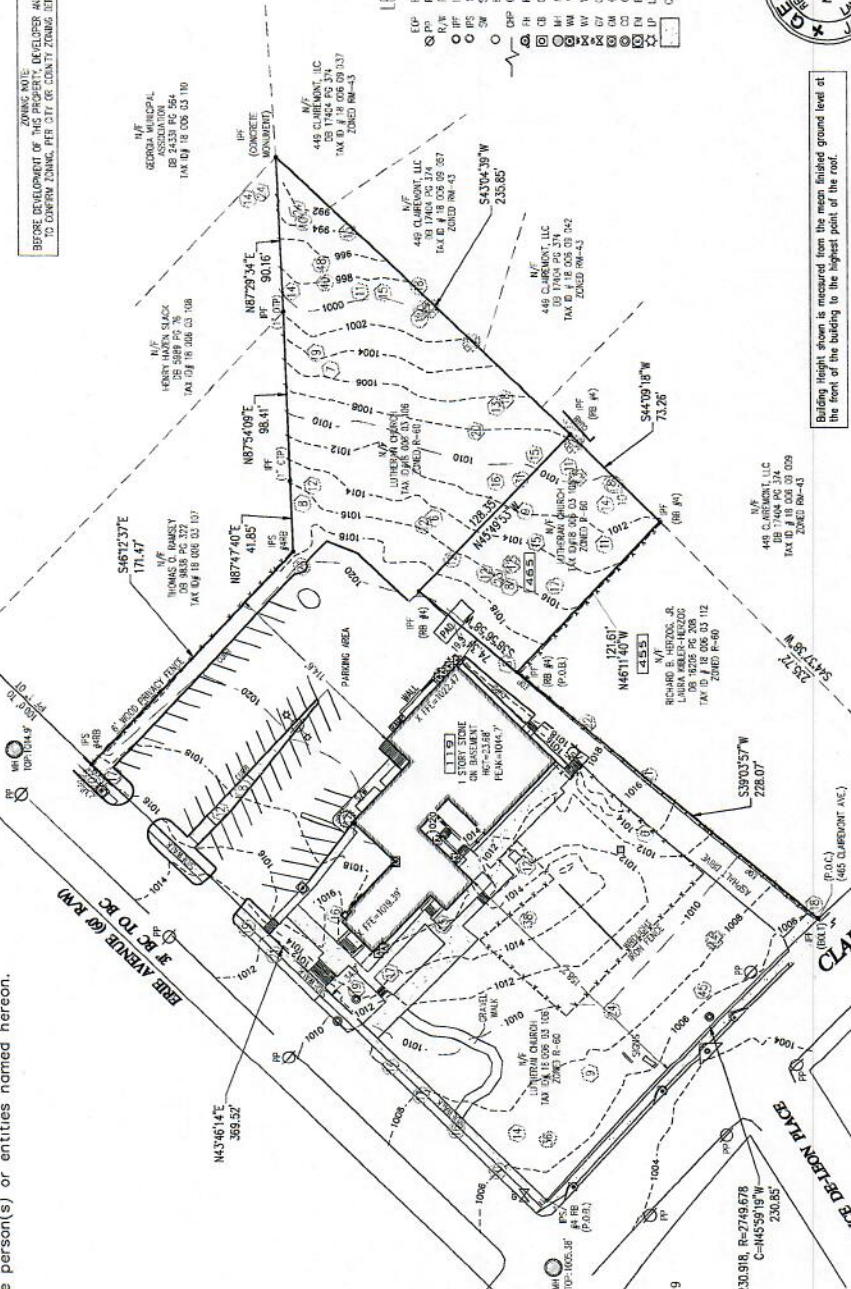
N/F  
465 CLAIREMONT, LLC  
125 2889 PG 78  
TAX ID # 18 006 03 137

N/F  
465 CLAIREMONT, LLC  
125 2889 PG 78  
TAX ID # 18 006 03 137

N/F  
465 CLAIREMONT, LLC  
125 2889 PG 78  
TAX ID # 18 006 03 137



1" = 50'  
N (COMPASS)



LEGEND

- EP EDGE OF PAVEMENT (EOP)
- PP PAVED PAVEMENT
- OP OPEN PAVED
- IF IRON PIPE FOUND
- IF 1/2" DEEP SET
- IF SIDE WALK
- IF BELIEVED
- OP OPEN-AS POWER
- IF FIRE HYDRANT
- IF CATCH BASIN
- IF MANHOLE
- IF WALKED VALUE
- IF GAS VALVE
- IF GAS METER
- IF CLEANOUT
- IF ELECTRIC METER
- IF LIGHT POLE
- IF CONCRETE PAD



FOR  
DEKALB SURVEYS, INC  
403 W. PONCE DE LEON  
SUITE 06  
DECATUR, GEORGIA 30030  
404.373.9903



COPY RIGHT 2018-2022 THIS 17 X 22  
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WRITTEN CONSENT OF DEKALB SURVEYS,  
INC. DRAWN IN THE U.S.A.

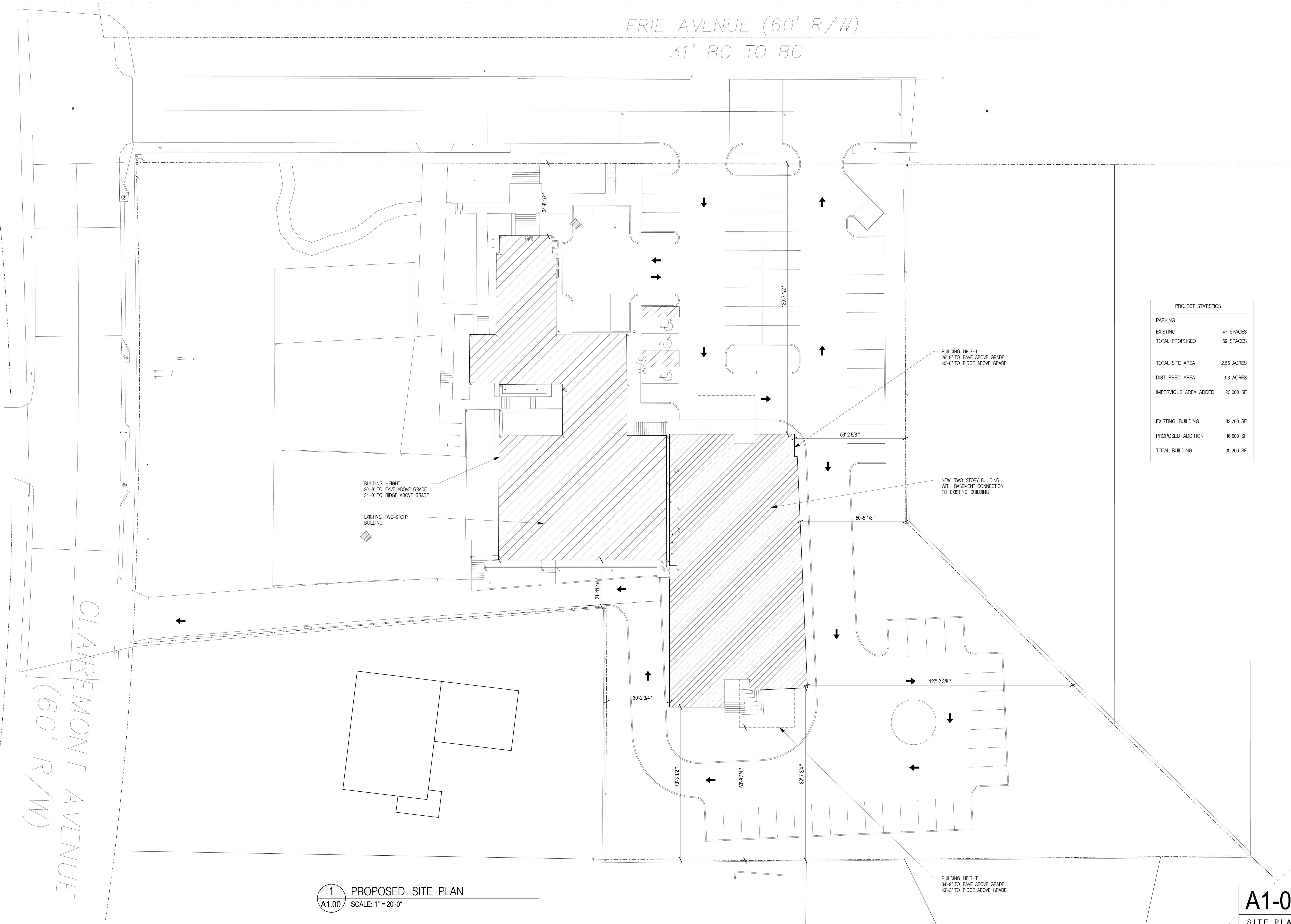
www.dekalbsurveys.com

Building height shown is measured from the mean finished ground level at the front of the building to the highest point of the roof.

- TREE SYMBOLS  
X = DIAMETER IN INCHES
- OAK
  - HAWKWOOD
  - MAGNOLIA
  - DOGWOOD
  - OTHER WHIRLE

THIS PLAT WAS PREPARED TO SHOW THE APPROXIMATE LOCATION OF THE IMPROVEMENTS AND IS NOT RECORDABLE. FRAMES SHOULD NOT BE PLACED USING SIZE DIMENSIONS FROM HOUSE. ALL MATTERS OF TITLE ARE EQUIPPED. THIS PLAT IS SUBJECT TO ALL LOCAL ORDINANCES AND APPLICABLE STATE AND FEDERAL LAWS.

ERIE AVENUE (60' R/W)  
31' BC TO BC



| PROJECT STATISTICS    |            |
|-----------------------|------------|
| PARKING               |            |
| EXISTING              | 47 SPACES  |
| TOTAL PROPOSED        | 69 SPACES  |
| TOTAL SITE AREA       |            |
|                       | 2.55 ACRES |
| DISTURBED AREA        |            |
|                       | 93 ACRES   |
| IMPERVIOUS AREA ADDED |            |
|                       | 23,000 SF  |
| EXISTING BUILDING     |            |
|                       | 13,700 SF  |
| PROPOSED ADDITION     |            |
|                       | 16,500 SF  |
| TOTAL BUILDING        |            |
|                       | 30,200 SF  |

1 PROPOSED SITE PLAN  
A1.00 SCALE: 1" = 20'-0"

A1-00  
SITE PLAN  
1" = 20'-0"

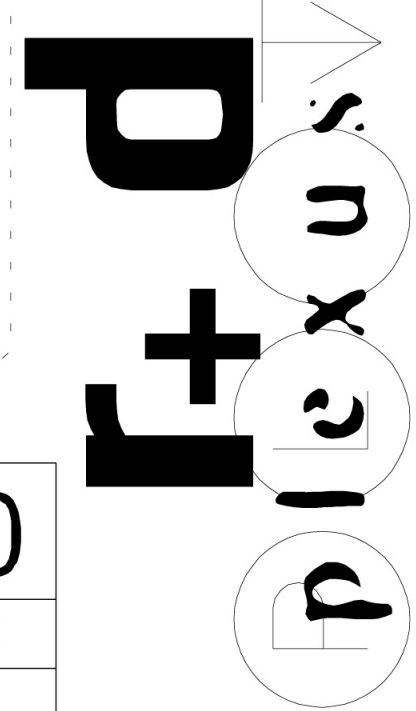
| ISSUES   |             |
|----------|-------------|
| 04.25.23 | Preliminary |
|          |             |
|          |             |
|          |             |

**Smarties Academy Addition and Renovation**  
465 Clairmont Avenue  
Decatur, GA 30030  
Project Number: 792.00

**STRUCTURAL**  
Kelly Albright  
PEC Structural Engineering  
130 Krog Street, Suite Z  
Atlanta, Georgia 30307  
404.660.6022

**M.E.P. & F.P.**  
Westside Engineering  
5525 Innesdale North Parkway  
Suite 200  
Atlanta, GA 30328  
Phone: 404-242-6240

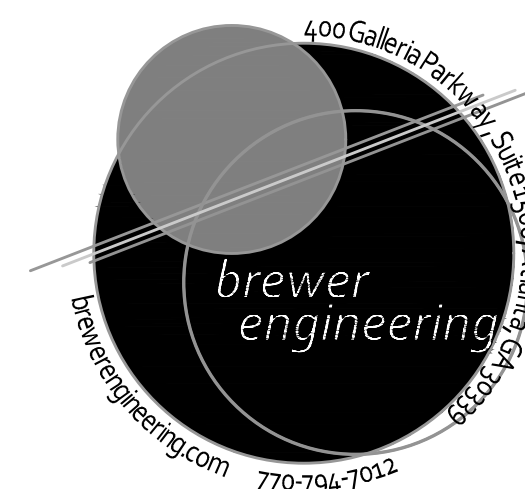
**CIVIL**



plexus r + d, Inc.  
914 Howell Mill Road - Suite 400 - Atlanta, Georgia 30318  
404.515.7288 Phone

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**REVISIONS**

| NO. | DATE | DESCRIPTION |
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Owner/Developer  
**Smarties Academy**  
 465 Clairmont Ave.  
 Decatur, Ga 30030

**Smarties Academy**  
 Addition + Renovation  
 465 Clairmont Ave.  
 Decatur, Ga 30030

NOT ISSUED FOR CONSTRUCTION

PROJECT NO.: 22071

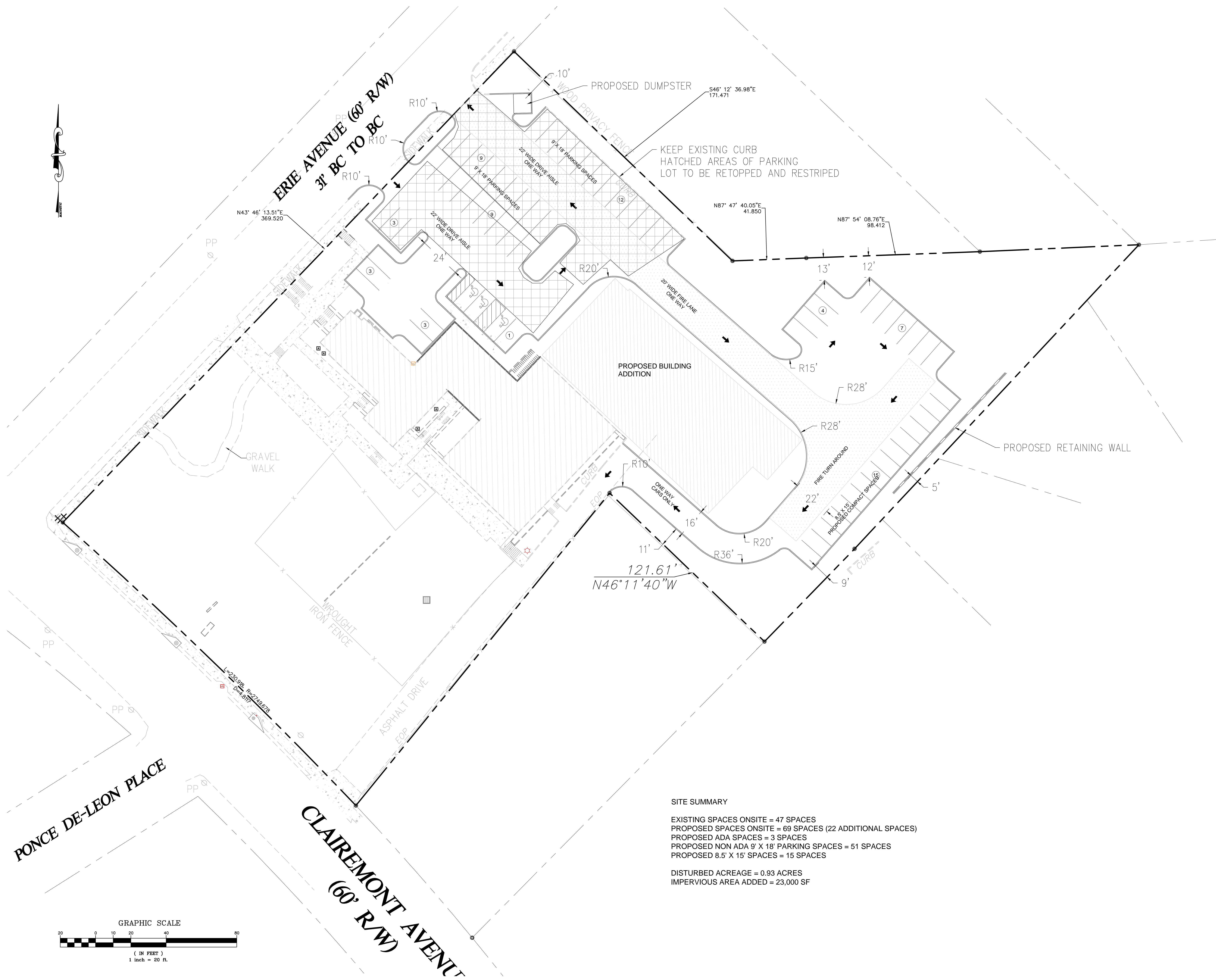
DATE: 1-6-23

SHEET TITLE:

SITE PLAN

SHEET NO.:

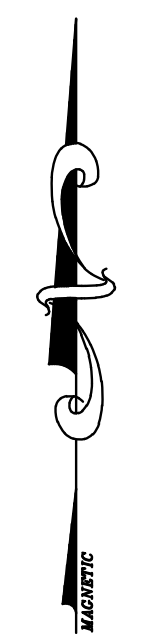
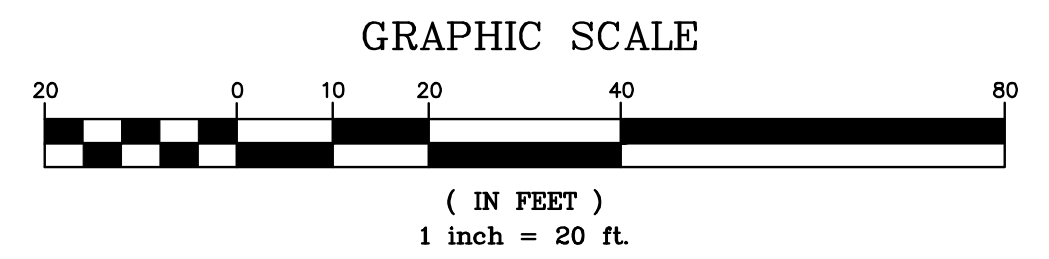
C-3.0



**SITE SUMMARY**

EXISTING SPACES ONSITE = 47 SPACES  
 PROPOSED SPACES ONSITE = 69 SPACES (22 ADDITIONAL SPACES)  
 PROPOSED ADA SPACES = 3 SPACES  
 PROPOSED NON ADA 9' X 18' PARKING SPACES = 51 SPACES  
 PROPOSED 8.5' X 15' SPACES = 15 SPACES

DISTURBED ACREAGE = 0.93 ACRES  
 IMPERVIOUS AREA ADDED = 23,000 SF



**REVISIONS**

| NO. | DATE | DESCRIPTION |
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PROJECT NO.: 22071

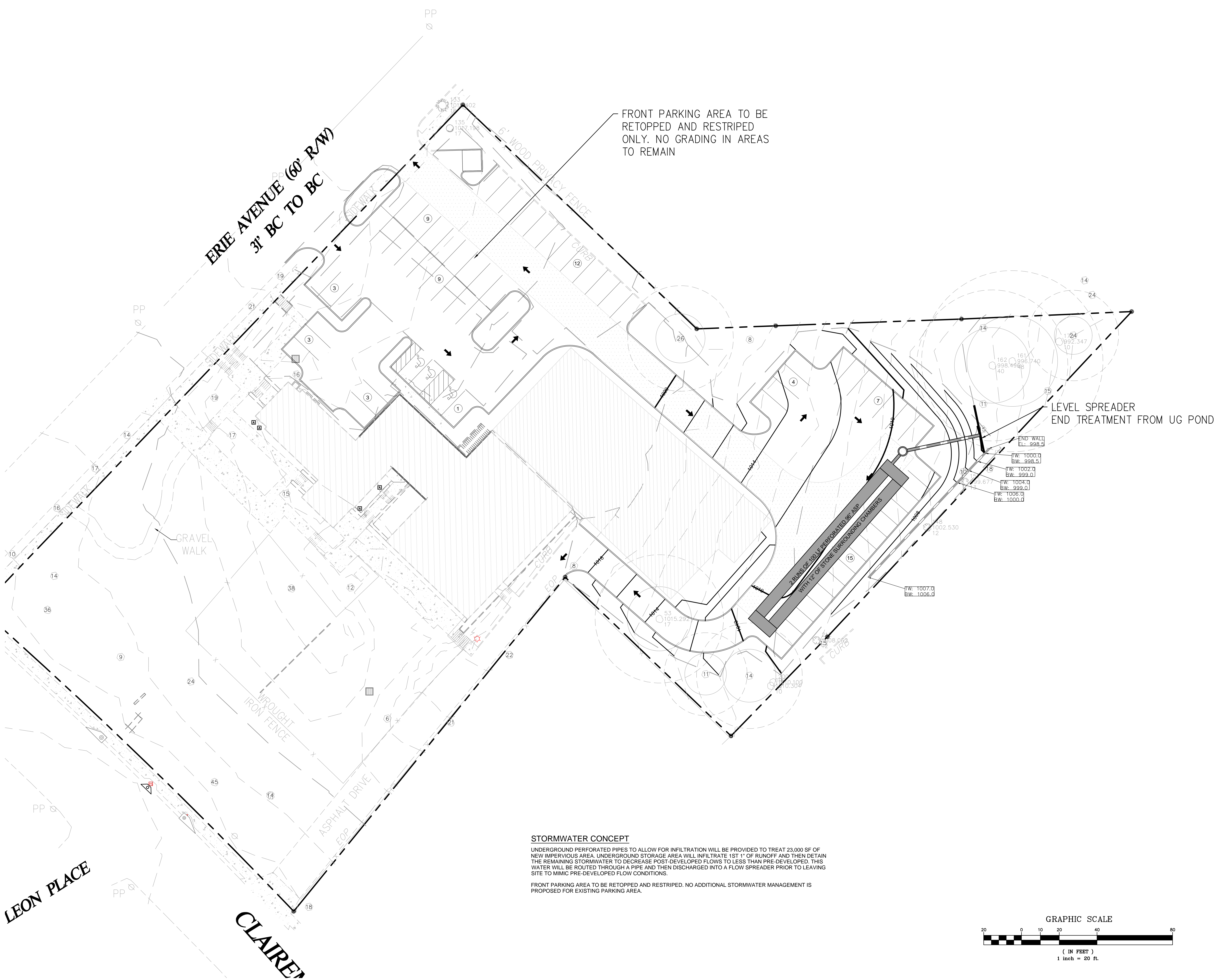
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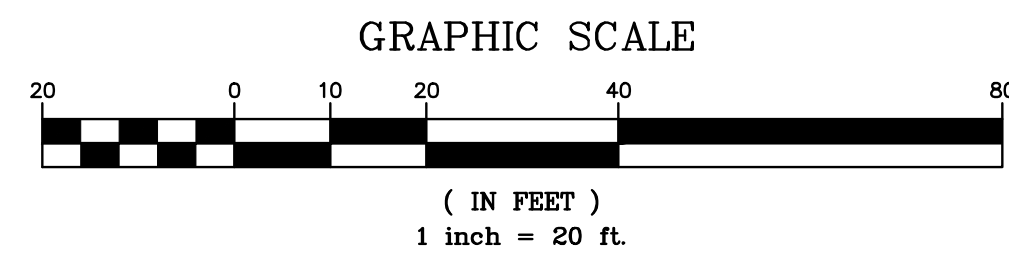
**GRADING PLAN**

SHEET NO.:

**C-4.0**



**STORMWATER CONCEPT**  
 UNDERGROUND PERFORATED PIPES TO ALLOW FOR INFILTRATION WILL BE PROVIDED TO TREAT 23,000 SF OF NEW IMPERVIOUS AREA. UNDERGROUND STORAGE AREA WILL INFILTRATE 1ST 1" OF RUNOFF AND THEN DETAIN THE REMAINING STORMWATER TO DECREASE POST-DEVELOPED FLOWS TO LESS THAN PRE-DEVELOPED. THIS WATER WILL BE ROUTED THROUGH A PIPE AND THEN DISCHARGED INTO A FLOW SPREADER PRIOR TO LEAVING SITE TO MIMIC PRE-DEVELOPED FLOW CONDITIONS.  
 FRONT PARKING AREA TO BE RETOPPED AND RESTRIPE. NO ADDITIONAL STORMWATER MANAGEMENT IS PROPOSED FOR EXISTING PARKING AREA.



| Grading Legend |  |
|----------------|--|
| SYMBOL         | DESCRIPTION  |
|                | BENCHMARK WITH TOPOGRAPHIC DATUM   |
|                | FINISHED SPOT ELEVATION  |
|                | STRUCTURE IDENTIFICATION<br>THE FIRST TWO LETTERS ABBREVIATE THE STRUCTURE TYPE THE NUMBER IDENTIFIES THE STRUCTURE. SEE PROFILE SHT. FOR DETAILS. |
|                | FINISHED CONTOUR ELEVATION   |
|                | EXISTING CONTOUR ELEVATION   |
|                | SURFACE DRAINAGE DIRECTION   |
| ASCMP          | ALUMINIZED STEEL CORRUGATED PIPE TYPE 2  |
| BCMP           | ASPHALT COATED METAL PIPE  |
| BC             | BACK OF CURB   |
| BW             | BOTTOM OF WALL AT FINISH GRADE   |
| CB             | CATCH BASIN  |
| CR             | CROWN  |
| DIP            | DUCTILE IRON PIPE  |
| DI             | DRAIN INLET  |
| EP             | EDGE OF PAVEMENT   |
| FC             | FACE OF CURB   |
| FD             | FOUNDATION DRAIN   |
| FF             | FINISHED FLOOR   |
| FG             | FINISHED GRADE ELEVATION   |
| FL             | FLOW LINE OF CURB OR DITCH   |
| INVERT         | INVERT   |
| HP             | HIGH POINT   |
| HW             | HEADWALL   |
| JB             | JUNCTION BOX   |
| LP             | LOW POINT OR LIGHT POLE  |
| MH             | MANHOLE  |
| RCP            | REINFORCED CONCRETE PIPE   |
| SSMH           | SANITARY SEWER MANHOLE   |
| TC             | TOP OF CURB  |
| TD             | TOP OF TRENCH DRAIN GRATE  |
| TF             | TOP OF FOOTING   |
| TW             | TOP OF WALL  |
| WV             | WATER VALVE  |

**LEON PLACE**  
**CLAIRET**

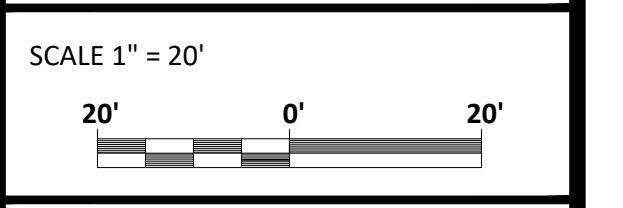
PROJECT:  
**SMARTIES ACADEMY  
 ADDITION REZONING  
 PLAN**

LOCATION:  
 465 CLAREMONT AVE.  
 LAND LOT  
 LAND DISTRICT  
 DEKALB COUNTY  
 DECATUR, GA 30030

OWNER/DEVELOPER:  
**BOGNA KABAT**  
 770- 633-0770

BREWER ENGINEERING  
 JENNI OLIVO, PE  
 400 GALLERIA PARKWAY, SUITE 1500  
 ATLANTA, GA. 30339  
 404-426-3559

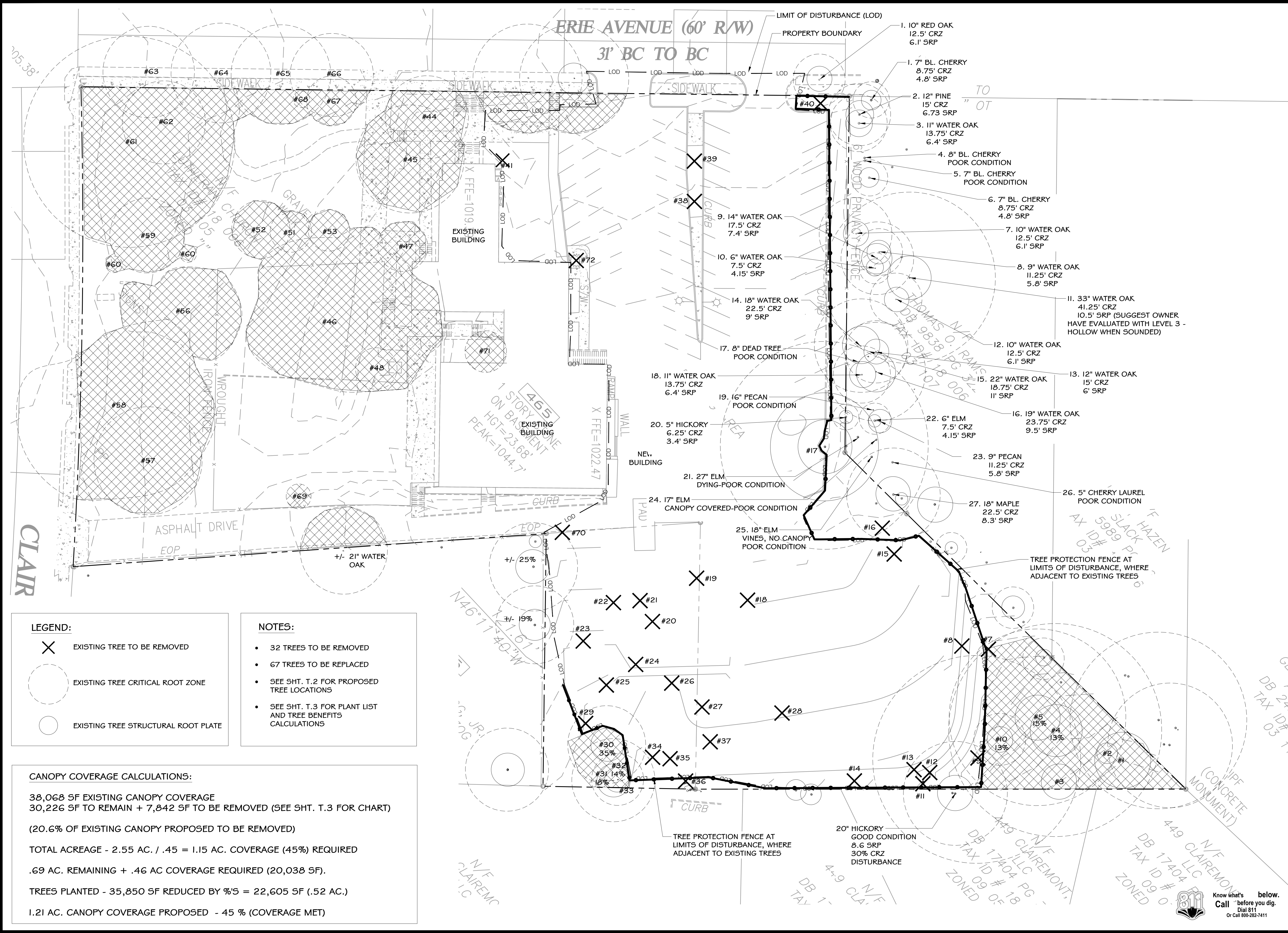
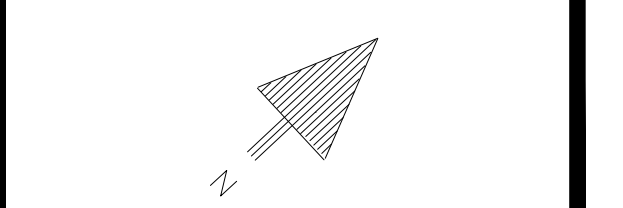
CONSULTANT:  
  
**TJ SCHELL, LLC**  
 Landscape Architect • Consulting Arborist  
 770.361.2319  
 teresa@tjschell.com  
 2985 Gordy Pkwy., Ste. 422, Marietta, GA 30066



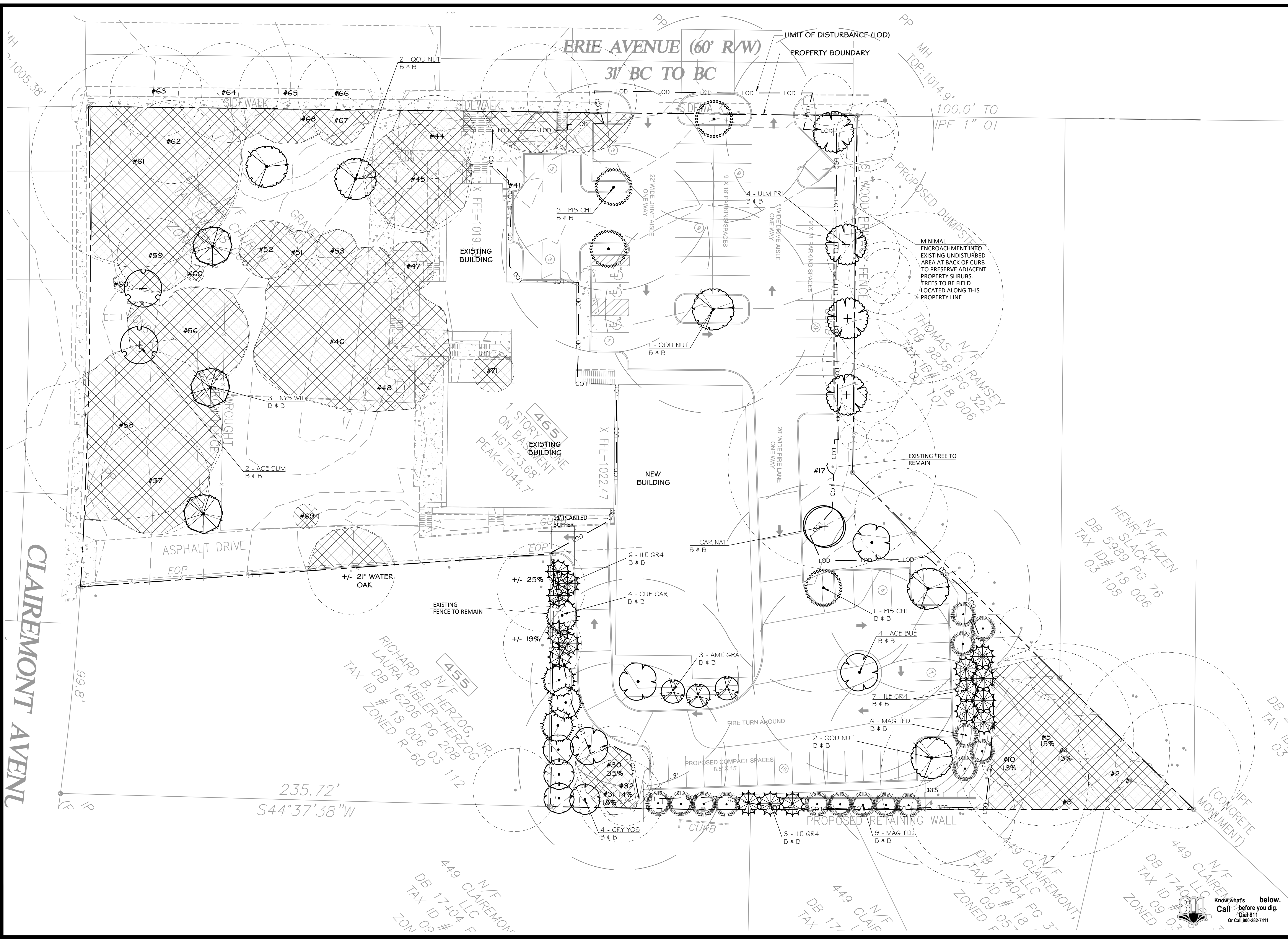
| REVISIONS | DATE |
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DRAWN BY:  
 JURISDICTION:  
 DATE:  
 SHEET TITLE:  
**EXISTING  
 CONDITIONS - TREE  
 CANOPY**

SHEET NUMBER:  
**T.1**



Know what's below.  
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PROJECT:  
**SMARTIES ACADEMY  
 ADDITION REZONING  
 PLAN**

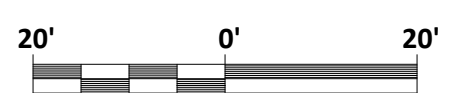
LOCATION:  
 465 CLAIREMONT AVE.  
 LAND LOT  
 LAND DISTRICT  
 DEKALB COUNTY  
 DECATUR, GA 30030

OWNER/DEVELOPER:  
**BOGNA KABAT**  
 770-633-0770

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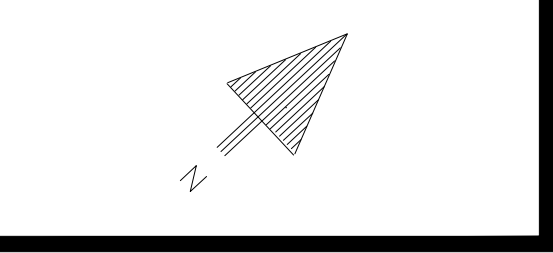
SEAL:  
  
**TERESA H. ELDRIDGE**  
 ISA - SO-5442A

SCALE 1" = 20'  


| REVISIONS | DATE |
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 JURISDICTION:  
 DATE:  
 SHEET TITLE:  
**TREE CANOPY  
 COVERAGE AND  
 PROTECTION PLAN**

SHEET NUMBER: **T.2**



CLAIREMONT AVENUE

MH 1005.38'

100.0' TO  
 PF 1" OT

HENRY N/F  
 SLACK PG 76  
 TAX ID# 18 006  
 03 108

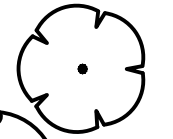
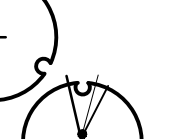
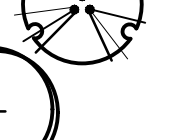
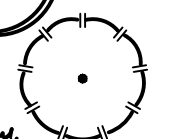
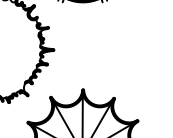


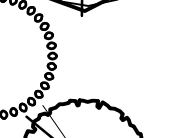
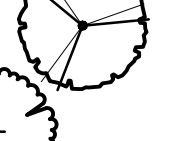

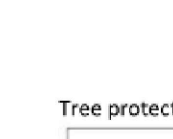
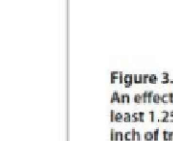
RICHARD B. HERZOG, JR.  
 LAURA KIBLER-HERZOG  
 DB 16206 PG 208  
 TAX ID # 18 006 03 112  
 ZONED R-60

449 N/F  
 CLAIREMONT, LLC  
 DB 17404 PG 3  
 TAX ID # 18 057  
 ZONED F

449 N/F  
 CLAIREMONT, LLC  
 DB 17404 PG 3  
 TAX ID # 18 057  
 ZONED F

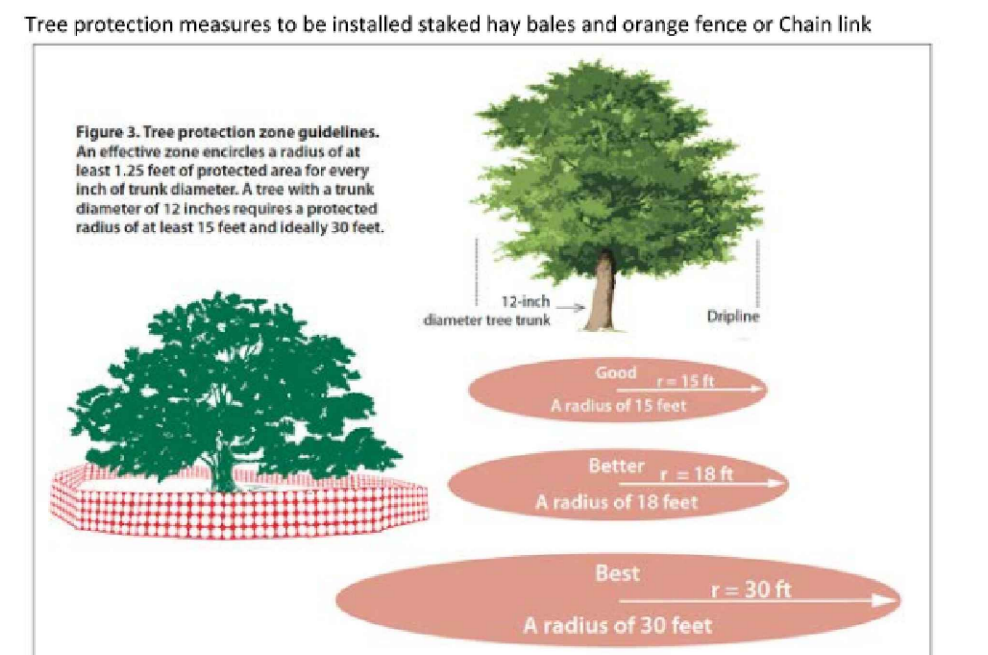
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**PLANT SCHEDULE**

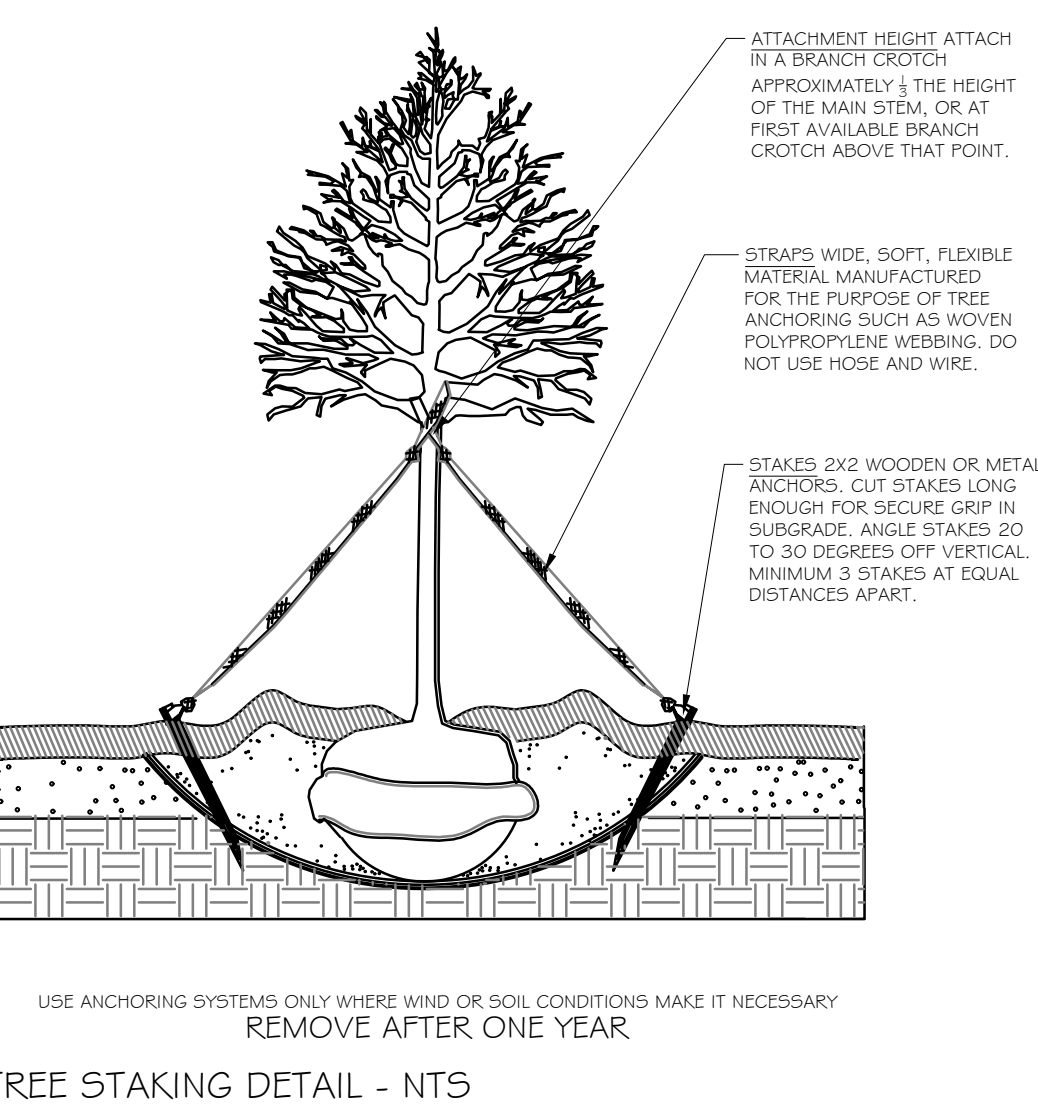
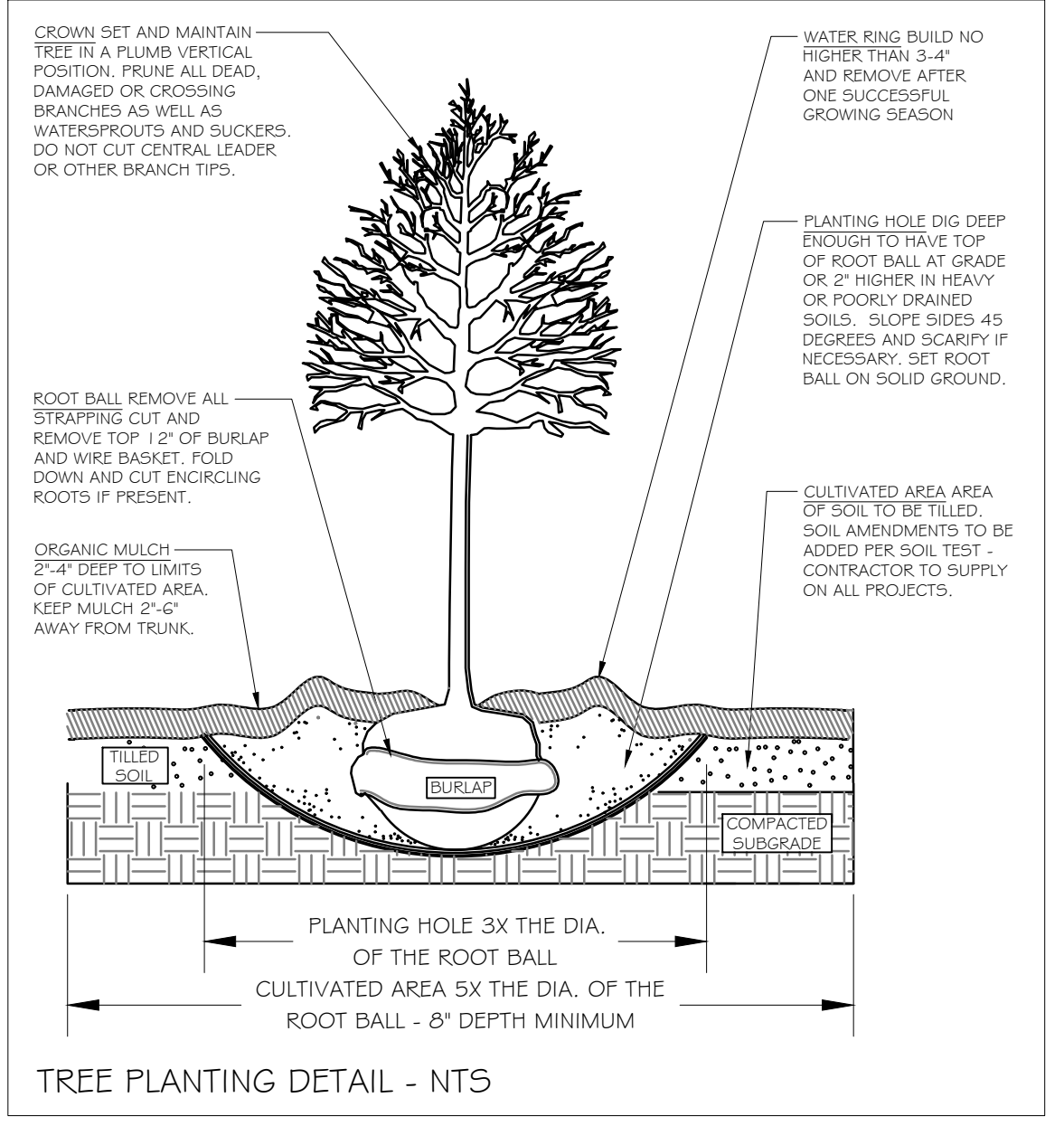
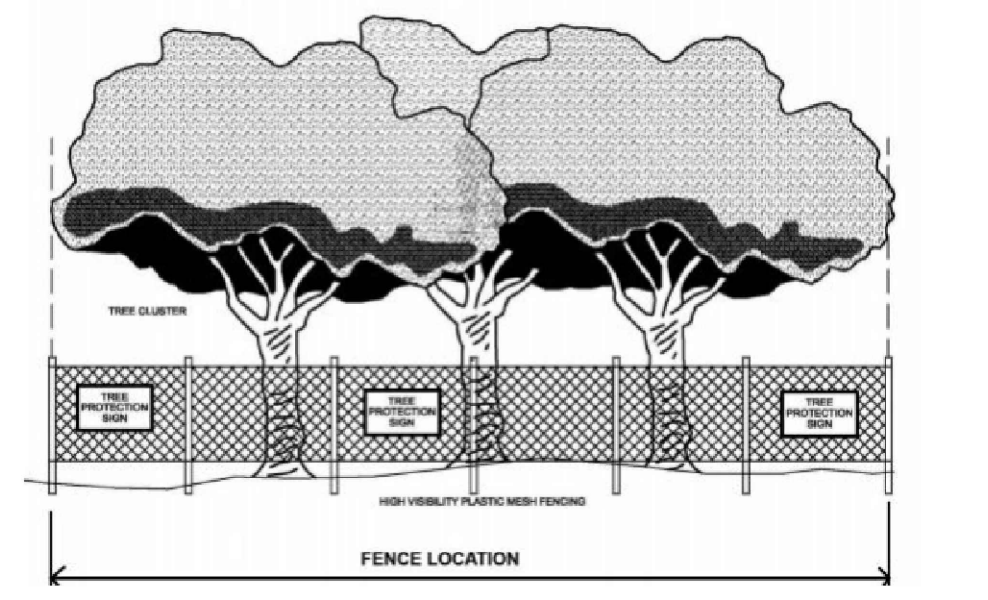
| TREES   | CODE    | QTY | BOTANICAL / COMMON NAME  | CONT  | CAL      | SIZE       | REMARKS                                     | SF - TOTAL               | %               |
|---|---------|-----|--|-------|----------|------------|---|--------------------------|-----------------|
|  | ACE BUE | 4   | Acer buergerianum / Trident Maple  | B & B | 3"cal.   | 10-12' Ht. | Single, straight leader, Good Form, Healthy | 900 / 3,600x.65 = 2,340  | 6               |
|  | ACE SUM | 2   | Acer rubrum 'Summer Red' / Summer Red Maple  | B & B | 3"       | 10-12' Ht. | Single Straight Leader, Good Form, Healthy  | 900 / 1,800x.65 = 1,170  | 3               |
|  | AME GRA | 3   | Amelanchier x grandiflora 'Autumn Brilliance' / Autumn Brilliance Apple Serviceberry | B & B | 2"cal.   | 6-8' Ht.   | 3 equal trunks, Good Form, Healthy          | 150 / 450x.8 = 360       | 4.5             |
|  | CAR NAT | 1   | Carpinus caroliniana 'Native Flame' / Native Flame Hornbeam                          | B & B | 3"       | 10-12' Ht. | Single Straight Leader, Good Form, Healthy  | 900 / 900x.8 = 720       | 1               |
|  | CRY YOS | 4   | Cryptomeria japonica 'Yoshino' / Yoshino Japanese Cedar                              | B & B | 2"cal.   | 6'         | Full to Ground, Good Form, Healthy          | 400 / 2,000x.8 = 1,600   | 7               |
|  | CUP CAR | 4   | Cupressus arizonica 'Carolina Sapphire' / Carolina Sapphire Cypress                  | B & B | 2"cal.   | 6'         | Full to Ground, Good Form, Healthy          | 400 / 1,600x.8 = 1,280   | 6               |
|  | ILE GR4 | 16  | Ilex opaca 'Greenleaf' / Greenleaf American Holly                                    | B & B | 2.5"cal. | 6'         | Full to Ground, Good Form, Healthy          | 150 / 2,400x.8 = 1,920   | 23.5            |
|  | MAG TED | 15  | Magnolia grandiflora 'Teddy Bear' / Teddy Bear Magnolia                              | B & B | 2"       | 6'         | Full to Ground, Good Form, Healthy          | 150 / 2,400x.8 = 1,920   | 23.5            |
|  | NYS WIL | 3   | Nyssa sylvatica 'Wildfire' / Black Gum   | B & B | 3"       | 10-12' Ht. | Single straight Leader, Healthy, Good Form  | 900 / 2,700x.65 = 1,755  | 4.5             |
|  | PIS CHI | 4   | Pistacia chinensis / Chinese Pistache  | B & B | 3"cal.   | 10-12' Ht. | Single, Straight leader, Good Form, Healthy | 900 / 3,600x.65 = 2,340  | 6               |
|  | QOU NUT | 5   | Quercus nuttallii / Nuttall Oak  | B & B | 3"       | 10-12' Ht. | Single Straight Leader, Healthy, Good Form  | 1,600 / 8,000x.5 = 4,000 | 9               |
|  | ULM PRI | 4   | Ulmus americana 'Princeton' / American Elm   | B & B | 3"       | 10-12' Ht. | Single Straight Leader, Healthy, Good Form  | 1,600 / 6,400x.5 = 3,200 | 6               |
| 67 TREES  |         |     |  |       |          |            |   | 37,450 SF /              | 22,605 SF / 100 |

**YEARLY BENEFITS CHART FOR TREES TO BE REMOVED**

| TREE # | SPECIES        | DBH           | CANOPY SF       | RATING | AMOUNT                         |
|--------|----------------|---------------|-----------------|--------|--------------------------------|
| 7      | ELM            | 9             | 16 X 10 = 160sf | FAIR   | 61                             |
| 8      | HICKORY        | 27            | 24 X 20 = 480sf | FAIR   | 193                            |
| 9      | ELM            | 15            | 18 X 14 = 252sf | GOOD   | 104                            |
| 11     | MAGNOLIA       | 11            | 12 X 12 = 144sf | GOOD   | 49                             |
| 12     | POPLAR         | 13            | NA              | POOR   | 0                              |
| 13     | POPLAR         | 15            | 25 X 18 = 450sf | GOOD   | 127                            |
| 14     | BLACK CHERRY   | 15            | 10 X 12 = 120sf | FAIR   | 107                            |
| 15     | BOX ELDER      | 14            | 20 X 15 = 300sf | FAIR   | 87                             |
| 16     | WHITE OAK      | 9             | 20 X 14 = 280sf | GOOD   | 48                             |
| 18     | ELM            | 13            | 25 X 20 = 500sf | GOOD   | 92                             |
| 19     | POST OAK       | 13            | 16 X 14 = 224sf | GOOD   | 89                             |
| 20     | ELM            | 13            | 24 X 12 = 288sf | FAIR   | 92                             |
| 21     | BOX ELDER      | 10, 11, 6     | NA              | POOR   | 0                              |
| 22     | ELM            | 10            | 14 X 8 = 112sf  | GOOD   | 68                             |
| 23     | ASH            | 18            | NA              | POOR   | 0                              |
| 24     | MAGNOLIA       | 13            | 12 X 12 = 144sf | GOOD   | 52                             |
| 25     | ELM            | 14            | 22 X 12 = 264sf | FAIR   | 99                             |
| 26     | ELM            | 17            | 22 X 20 = 440sf | FAIR   | 119                            |
| 27     | RED OAK        | 33            | 32 X 24 = 768sf | GOOD   | 233                            |
| 28     | RED OAK        | 20            | 16 X 16 = 256sf | GOOD   | 165                            |
| 29     | AMERICAN HOLLY | 13            | 20 X 18 = 360sf | GOOD   | 29                             |
| 33     | WATER OAK      | 10            | 16 X 8 = 128sf  | GOOD   | 61                             |
| 34     | MAGNOLIA       | 13            | 20 X 18 = 360sf | GOOD   | 52                             |
| 35     | HICKORY        | 12            | 16 X 12 = 192sf | FAIR   | 84                             |
| 36     | MAGNOLIA       | 11            | 18 X 18 = 324sf | GOOD   | 49                             |
| 37     | HICKORY        | 15            | 18 X 12 = 216sf | FAIR   | 107                            |
| 38     | DOGWOOD        | 7             | NA              | POOR   | 0                              |
| 39     | DOGWOOD        | 6, 6, 6, 6    | 16 X 16 = 256sf | GOOD   | 57                             |
| 40     | PINE           | 17            | 20 X 16 = 320sf | GOOD   | 79                             |
| 41     | AMERICAN HOLLY | 17 B5         | 16 X 14 = 224sf | GOOD   | 48                             |
| 70     | WATER OAK      | 9             | 18 X 12 = 216sf | GOOD   | 52                             |
| 72     | CRAPE MYRTLE   | 3, 3, 4, 3, 4 | 8 X 8 = 64sf    | FAIR   | 49                             |
|        |                |               | <b>7,642 sf</b> |        | <b>2,452 x 5 = \$12,260.00</b> |



Tree Protection signage is required stating **Tree Save Area Keep Out, Zona De Protección De Árboles**



- NOTES:**
- CONTACT THE CITY OF DECATUR FOR A SITE INSPECTION UPON COMPLETION OF LANDSCAPE INSTALLATION PRIOR TO C.O.
  - ALL TREES AND LANDSCAPING SHALL BE INSTALLED IN A SOUND WORKMANLIKE MANNER AND ACCORDING TO ACCEPTED PLANTING PROCEDURES WITH QUALITY MATERIALS AS PROVIDED IN THE TREE CANOPY CONSERVATION ORDINANCE ADMINISTRATIVE STANDARDS. ALL LANDSCAPING SHALL BE PLANTED AFTER OCTOBER 15TH AND BEFORE MARCH 15TH.
  - THE OWNER, OCCUPANT, TENANT OR AGENT, SHALL BE JOINTLY RESPONSIBLE FOR THE MAINTENANCE OF ALL LANDSCAPING. LANDSCAPING SHALL BE MAINTAINED IN A GOOD CONDITION SO AS TO PRESENT A HEALTHY, NEAT AND ORDERLY APPEARANCE FOR A PERIOD OF 3 YEARS.
  - TREE PROTECTION FENCES MUST BE LOCATED AT THE EDGE OF CRZ. A TREE PROTECTION FENCE CAN BE A 4' ORANGE CONSTRUCTION FENCE AND AND STAKED HAY BALES.
  - SIGNS IN ENGLISH AND SPANISH STATING "KEEP OUT - TREE PROTECTION AREA"
  - ALL TREE PROTECTION MEASURES SHALL BE INSTALLED PRIOR TO LAND DISTURBANCE AND SHALL BE MAINTAINED UNTIL AFTER FINAL INSPECTION. THE CITY ARBORIST OR THEIR DESIGNATED REPRESENTATIVE SHALL BE CONTACTED FOR AN ON-SITE INSPECTION AFTER TREE PROTECTION MEASURES ARE INSTALLED AND PRIOR TO FINAL LANDSCAPE INSTALLATION.
  - IF THE CITY ARBORIST DETERMINES THAT A TREE IS IRREPARABLY DAMAGED DUE TO LAND DISTURBANCE ACTIVITIES, THE CITY ARBORIST MAY REQUIRE THAT THE TREE BE REMOVED.

- GENERAL NOTES:**
- STAKING MATERIALS SHOULD BE REMOVED WITHIN ONE YEAR OF PLANTING.
  - BURLAP AND ALL OTHER MATERIALS MUST BE REMOVED FROM AT LEAST THE TOP 12" OF THE ROOTBALL AND THE TREE SHOULD BE PLANTED SO THAT THE TRUNK FLARE IS VISIBLE ABOVE THE GROUND.
  - PLANTED TREES SHOULD BE IMMEDIATELY MULCHED AFTER PLANTING. MULCH IS NOT ALLOWED CLOSER THAN 4" TO THE TRUNK FLARE OF NEWLY PLANTED TREES.
  - CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE CODES AND ORDINANCES REGARDING LANDSCAPING.
  - IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO INSTALL HEALTHY SOD AND/OR ESTABLISH A HEALTHY STAND OF GRASS ON ALL SEEDED AREAS.
  - ALL PLANTING BEDS AND MULCH: CONTRACTOR SHALL APPLY PRE-EMERGENT TO PREVENT WEED GROWTH.
  - CONTRACTOR SHALL BE RESPONSIBLE FOR THE WATERING AND THE MAINTENANCE OF ALL LANDSCAPED AREAS PER AGREEMENT WITH OWNER.
  - LANDSCAPE CONTRACTOR TO CLEAN ENTIRE SITE OF ALL LANDSCAPING DEBRIS WHEN INSTALLATION IS COMPLETED
  - LANDSCAPE CONTRACTOR TO PROVIDE PLANTS TRUE TO SPECIES AND VARIETY, PER PLANT LIST. ACCEPTANCE OF PLANT MATERIAL SUBJECT TO OWNER'S APPROVAL.

PROJECT:  
**SMARTIES ACADEMY  
ADDITION REZONING  
PLAN**

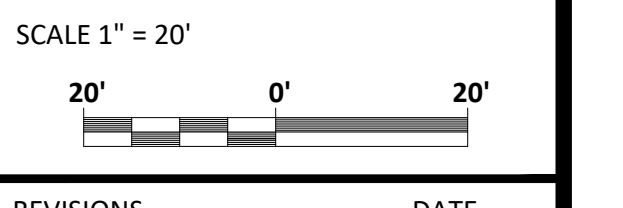
LOCATION:  
**465 CLAIREMONT AVE.  
LAND LOT  
LAND DISTRICT  
DEKALB COUNTY  
DECATUR, GA 30030**

OWNER/DEVELOPER:  
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2985 Gordy Pkwy., Ste. 422, Marietta, GA 30066

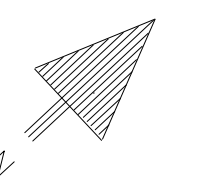
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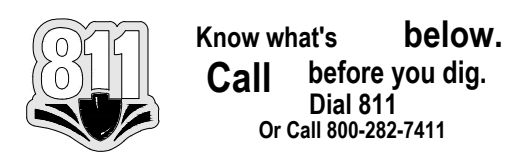


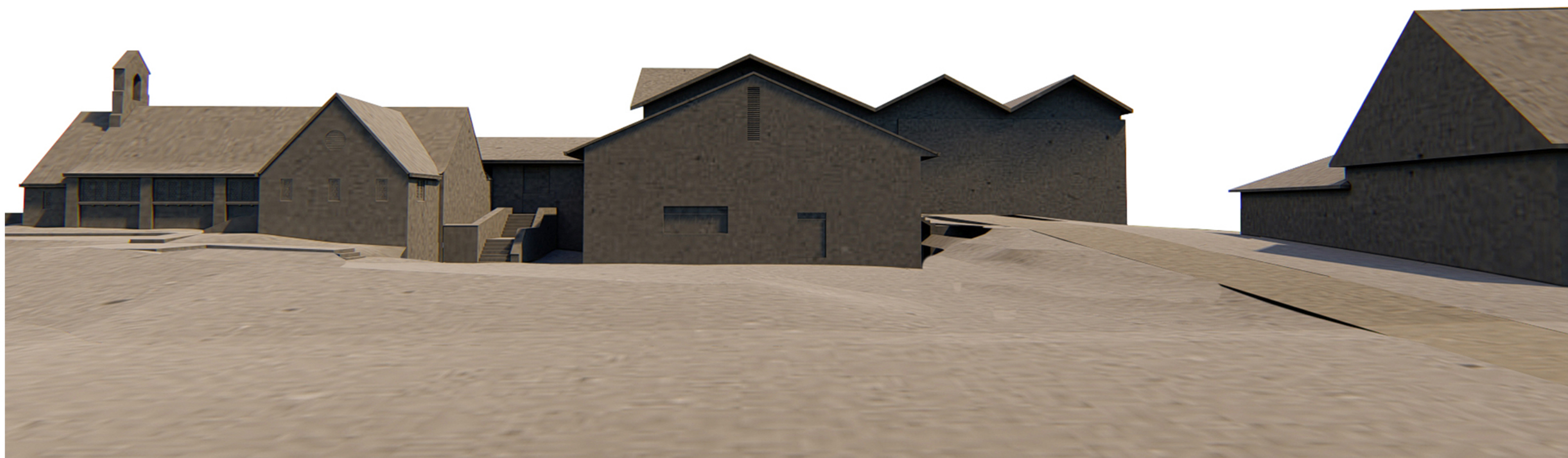
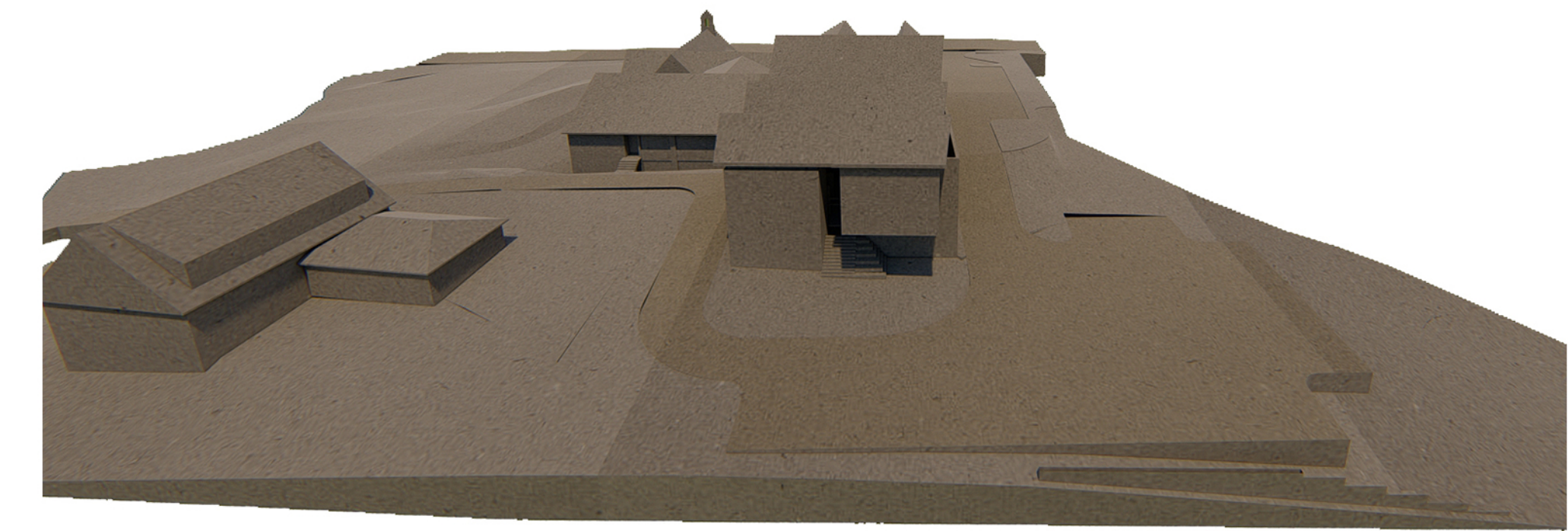
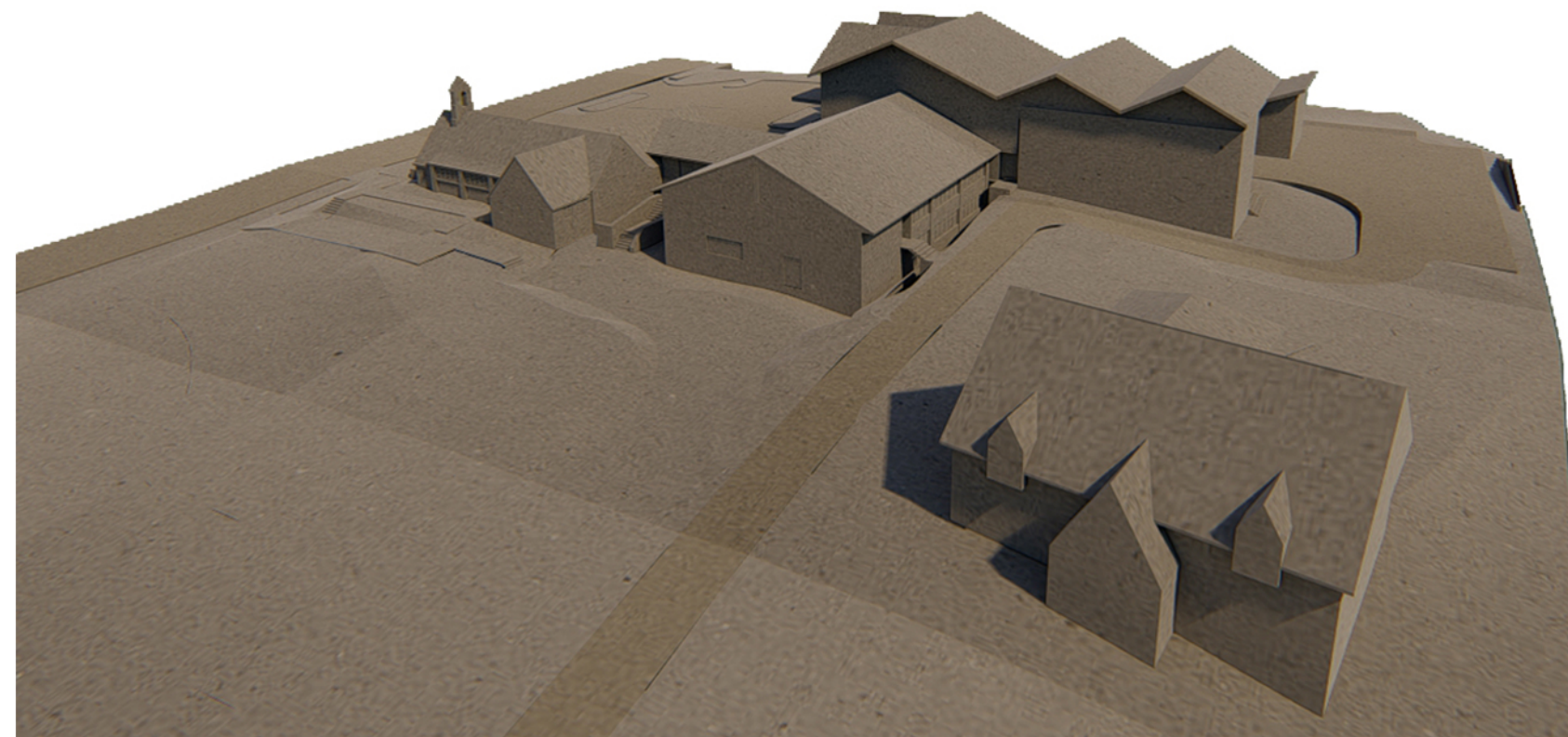
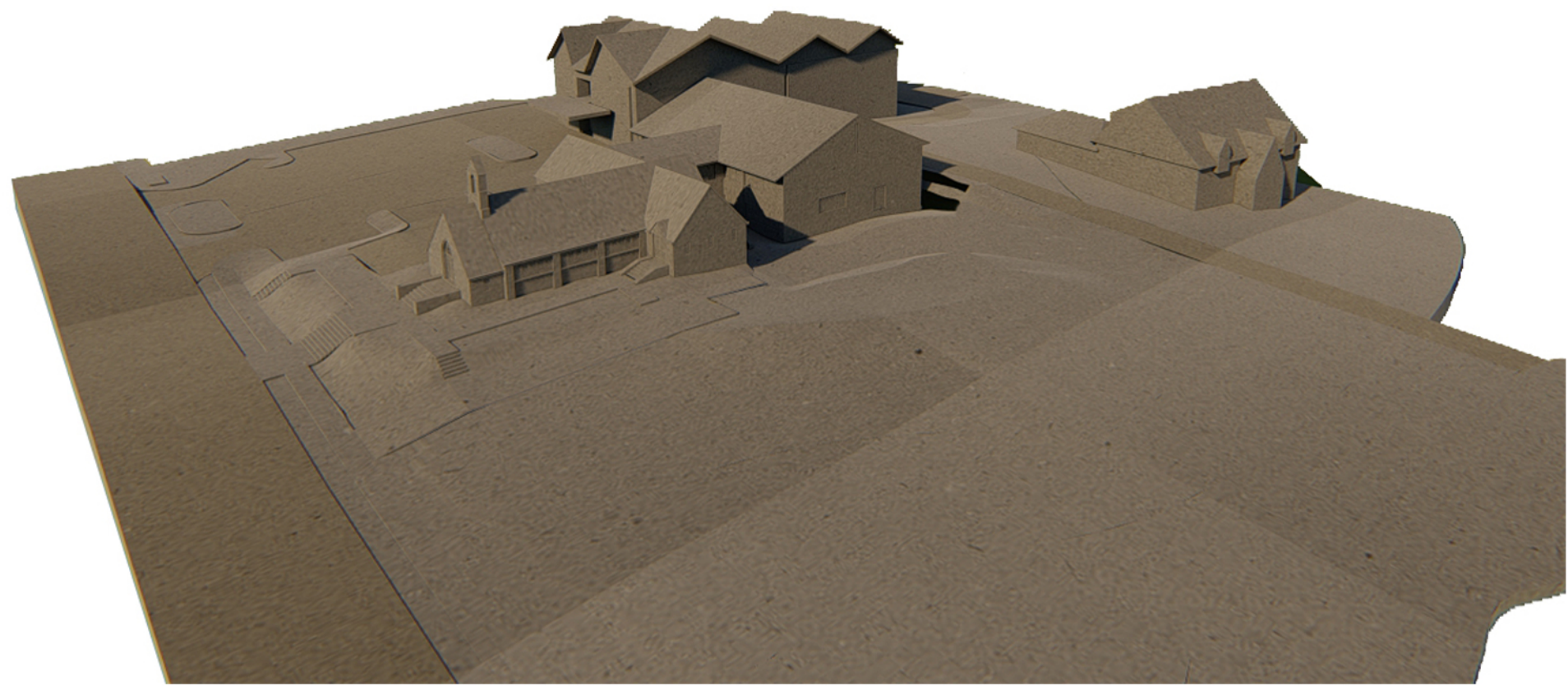
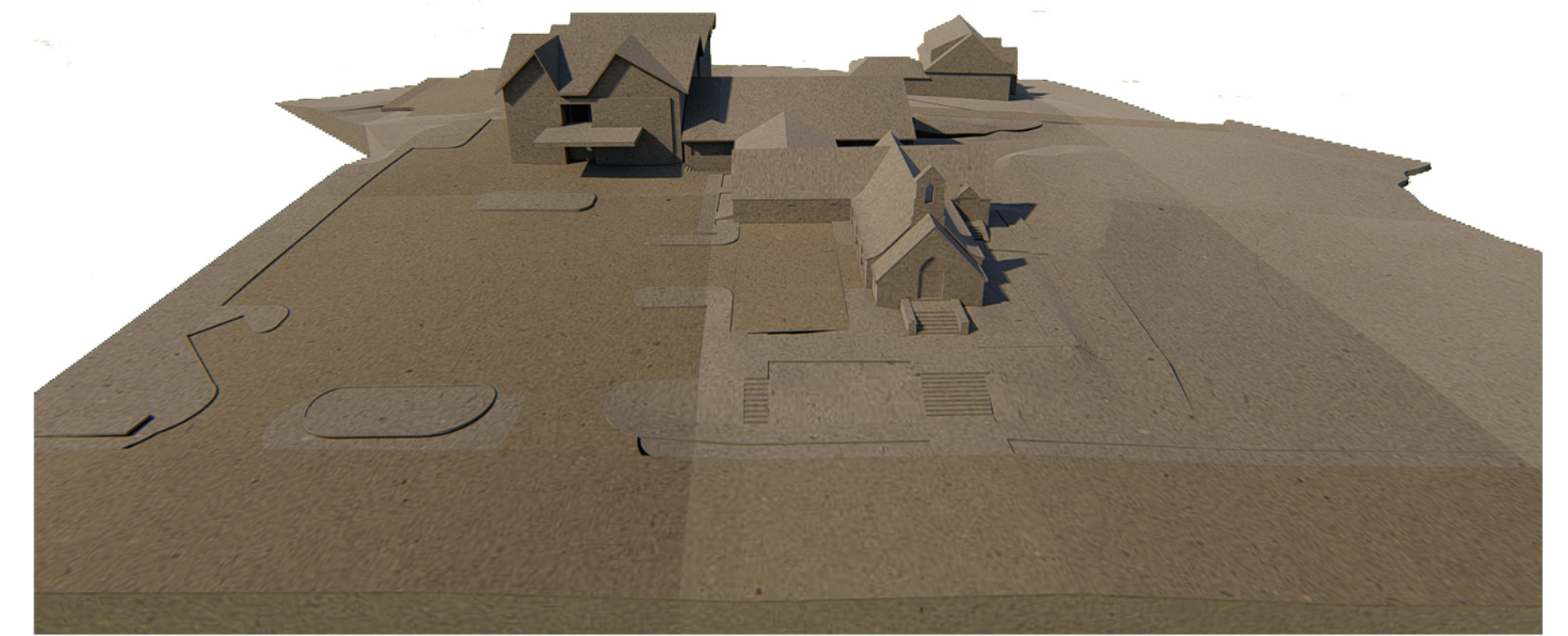
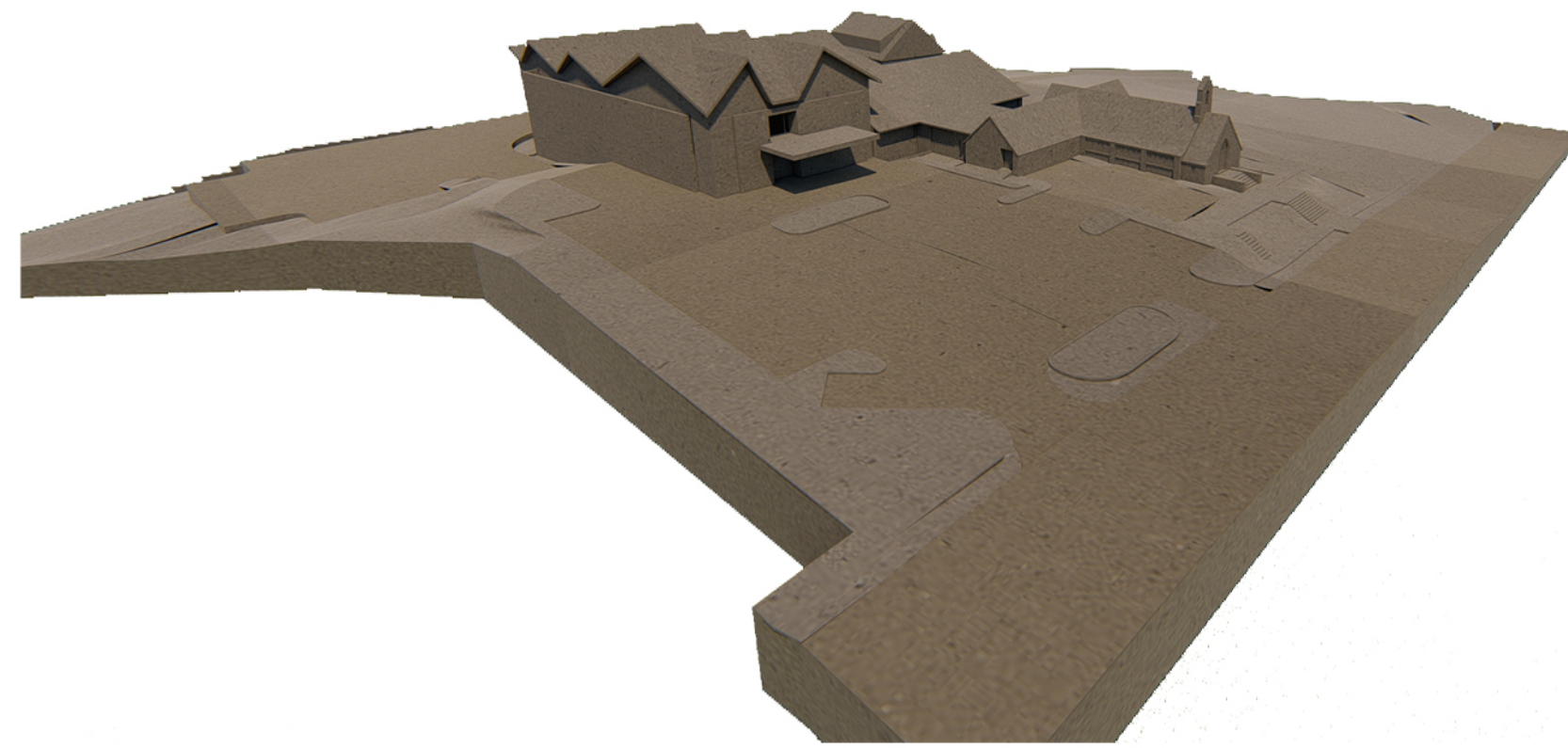
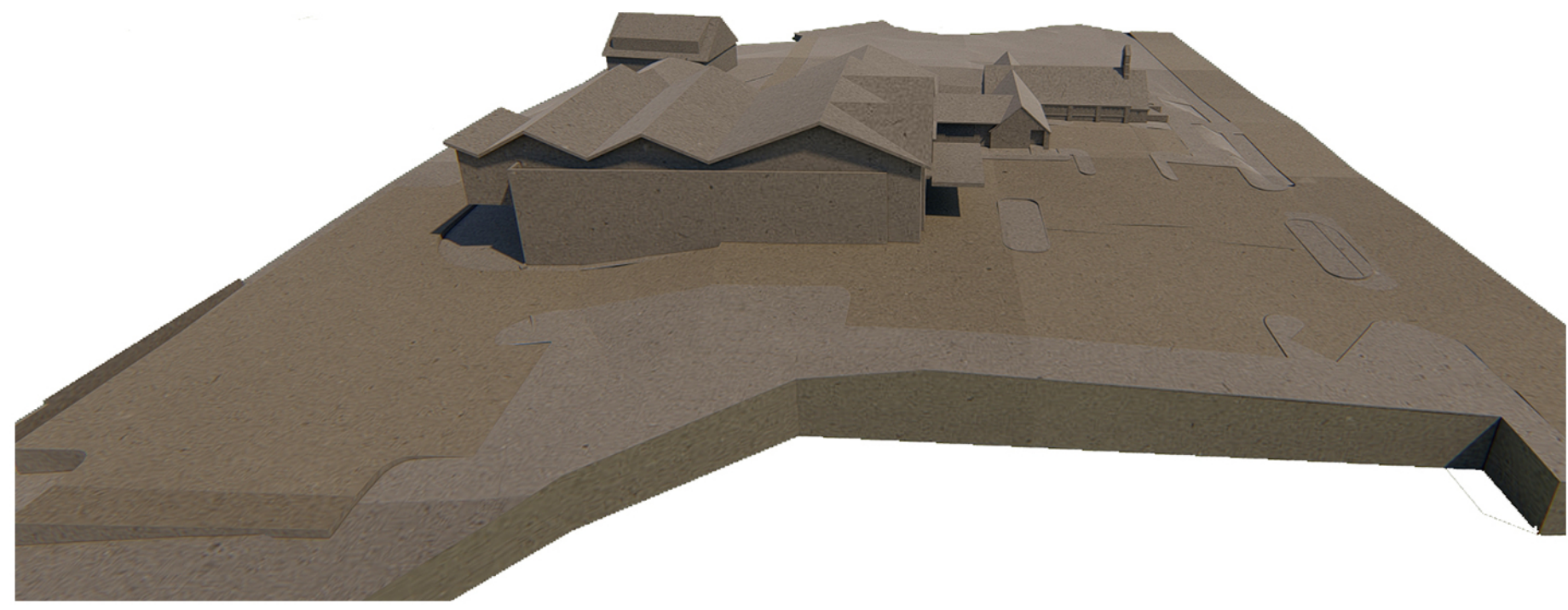
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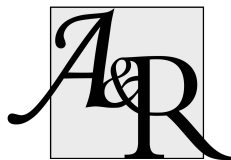
**TRAFFIC IMPACT STUDY  
FOR  
SMARTIES ACADEMY REDEVELOPMENT  
AT 465 CLAIREMONT AVENUE,  
CITY OF DECATUR, GEORGIA**



***Prepared for:***

***Smarties Childcare, LLC  
465 Clairemont Avenue  
Decatur, GA 30030***

***Prepared By:***



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February 17, 2023  
A & R Project # 22-255

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## 1.0 INTRODUCTION

The purpose of this study is to determine the traffic impact from the planned redevelopment of Smarties Academy at 465 Clairemont Avenue in the City of Decatur, Georgia. The traffic analysis evaluates the current operations compared to the future conditions with the traffic generated by the development. The planned Smarties Academy expansion will increase the capacity of the existing day care center from 148 students to 300 students in the future. The project also proposes expanding the existing parking lot and repaving the currently unused exit-only driveway on SR 155 (Clairemont Avenue), which will then be accessible following the site redevelopment.



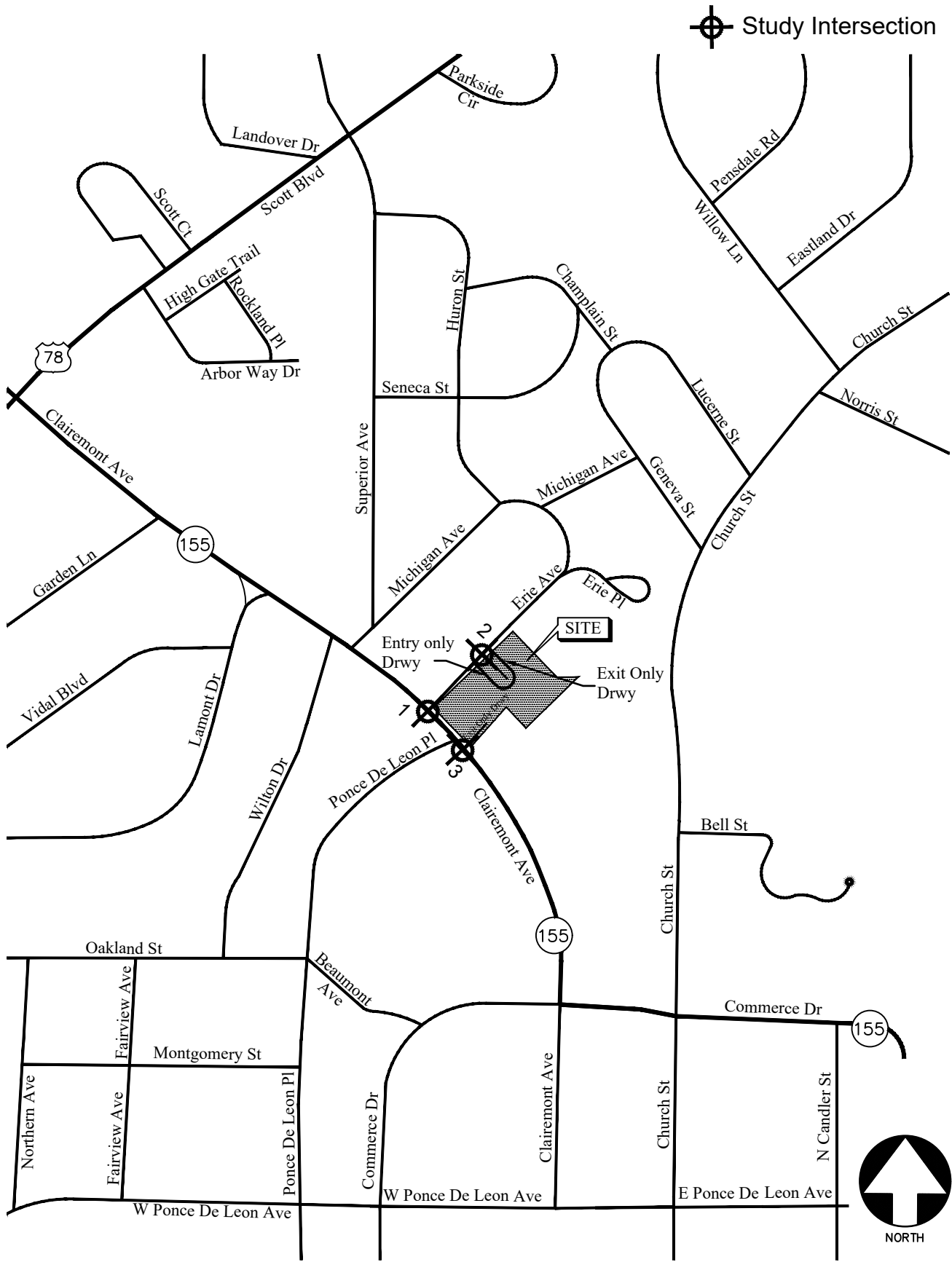
The development proposes access at the following locations:

- Full access site driveway on Erie Avenue
- Exit-only driveway on SR 155 (Clairemont Avenue)

The AM and PM peak hours have been analyzed in this study. In addition to the site access points, this study includes the evaluation of traffic operations at the following intersections:

- SR 155 (Clairemont Avenue) at Erie Avenue
- Erie Avenue at Site Driveway

Recommendations to improve traffic operations have been identified as appropriate and are discussed in detail in the following sections of the report. The location of the development and the surrounding roadway network are shown in Figure 1.



LOCATION MAP

FIGURE 1

A&R Engineering Inc.

## **2.0 EXISTING FACILITIES / CONDITIONS**

### **2.1 Roadway Facilities**

The following is a brief description of each of the roadway facilities located in proximity to the site:

#### **2.1.1 SR 155 (Clairemont Avenue)**

SR 155 (Clairemont Avenue) is an east-west, four-lane undivided roadway with a posted speed limit of 35 mph in the vicinity of the site. GDOT traffic counts (Station ID 089-3229) indicate that the daily traffic volume on Clairemont Avenue in 2021 was 16,300 vehicles per day to the west of Erie Avenue. GDOT classifies Clairemont Avenue as a minor arterial urban roadway.

#### **2.1.2 Erie Avenue**

Erie Avenue is a north-south, two-lane undivided roadway with a posted speed limit of 25 mph in the vicinity of the site.

## 3.0 STUDY METHODOLOGY

In this study, the methodology used for evaluating traffic operations at each of the subject intersections is based on the criteria set forth in the Transportation Research Board’s Highway Capacity Manual, 6th edition (HCM 6). Synchro software, which utilizes the HCM methodology, was used for the analysis. The following is a description of the methodology employed for the analysis of unsignalized and signalized intersections.

### 3.1 Unsignalized Intersections

For unsignalized intersections controlled by a stop sign on minor streets, the level-of-service (LOS) for motor vehicles with controlled movements is determined by the computed control delay according to the thresholds stated in Table 1 below. LOS is determined for each minor street movement (or shared movement), as well as major street left turns. LOS is not defined for the intersection as a whole or for major street approaches. The LOS of any controlled movement which experiences a volume to capacity ratio greater than 1 is designated as “F” regardless of the control delay.

Control delay for unsignalized intersections includes initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. Several factors affect the control delay for unsignalized intersections, such as the availability and distribution of gaps in the conflicting traffic stream, critical gaps, and follow-up time for a vehicle in the queue.

Level-of-service is assigned a letter designation from “A” through “F”. Level-of-service “A” indicates excellent operations with little delay to motorists, while level-of-service “F” exists when there are insufficient gaps of acceptable size to allow vehicles on the side street to cross the main road without experiencing long delays.

| TABLE 1 — LEVEL-OF-SERVICE CRITERIA FOR UNSIGNALIZED INTERSECTIONS |                                  |           |
|--|----------------------------------|-----------|
| Control Delay (sec/vehicle)  | LOS by Volume-to-Capacity Ratio* |           |
|  | v/c ≤ 1.0                        | v/c > 1.0 |
| ≤ 10   | A                                | F         |
| > 10 and ≤ 15  | B                                | F         |
| > 15 and ≤ 25  | C                                | F         |
| > 25 and ≤ 35  | D                                | F         |
| > 35 and ≤ 50  | E                                | F         |
| > 50   | F                                | F         |

\*The LOS criteria apply to each lane on a given approach and to each approach on the minor street. LOS is not calculated for major-street approaches or for the intersection.

Source: Highway Capacity Manual, 6<sup>th</sup> edition, Exhibit 20-2 *LOS Criteria: Motorized Vehicle Mode*

### 3.2 Signalized Intersections

According to HCM procedures, LOS can be calculated for the entire intersection, each intersection approach, and each lane group. HCM uses control delay alone to characterize LOS for the entire intersection or an approach. Control delay per vehicle is composed of initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. Both control delay and volume-to-capacity ratio are used to characterize LOS for a lane group. A volume-to-capacity ratio greater than 1.0 for a lane group indicates failure from capacity perspective. Therefore, such a lane group is assigned LOS F regardless of the amount of control delay.

Table 2 below summarizes the LOS criteria from HCM for motorized vehicles at signalized intersection.

| TABLE 2 – LEVEL-OF-SERVICE CRITERIA FOR SIGNALIZED INTERSECTIONS |   |           |
|--|---|-----------|
| Control Delay (sec/vehicle) *                                    | LOS for Lane Group by Volume-to-Capacity Ratio* |           |
|  | v/c ≤ 1.0                                       | v/c > 1.0 |
| ≤ 10   | A   | F         |
| > 10 and ≤ 20  | B   | F         |
| > 20 and ≤ 35  | C   | F         |
| > 35 and ≤ 55  | D   | F         |
| > 55 and ≤ 80  | E   | F         |
| > 80   | F   | F         |

\*For approach-based and intersection wide assessments, LOS is defined solely by control delay

Source: Highway Capacity Manual, 6<sup>th</sup> edition, Exhibit 19-8 *LOS Criteria: Motorized Vehicle Mode*

LOS A is typically assigned when the volume-to-capacity (v/c) ratio is low and either progression is exceptionally favorable, or the cycle length is very short. LOS B is typically assigned when the v/c ratio is low and either progression is highly favorable, or the cycle length is short. However, more vehicles are stopped than with LOS A. LOS C is typically assigned when progression is favorable, or the cycle length is moderate. Individual *cycle failures* (one or more queued vehicles are not able to depart because of insufficient capacity during the cycle) may begin to appear at this level. Many vehicles still pass through the intersection without stopping, but the number of vehicles stopping is significant. LOS D is typically assigned when the v/c ratio is high and either progression is ineffective, or the cycle length is long. There are many vehicle-stops and individual cycle failures are noticeable. LOS E is typically assigned when the v/c ratio is high, progression is very poor, the cycle length is long, and individual cycle failures are frequent. LOS F is typically assigned when the v/c ratio is very high, progression is very poor, the cycle length is long, and most cycles fail to clear the queue.



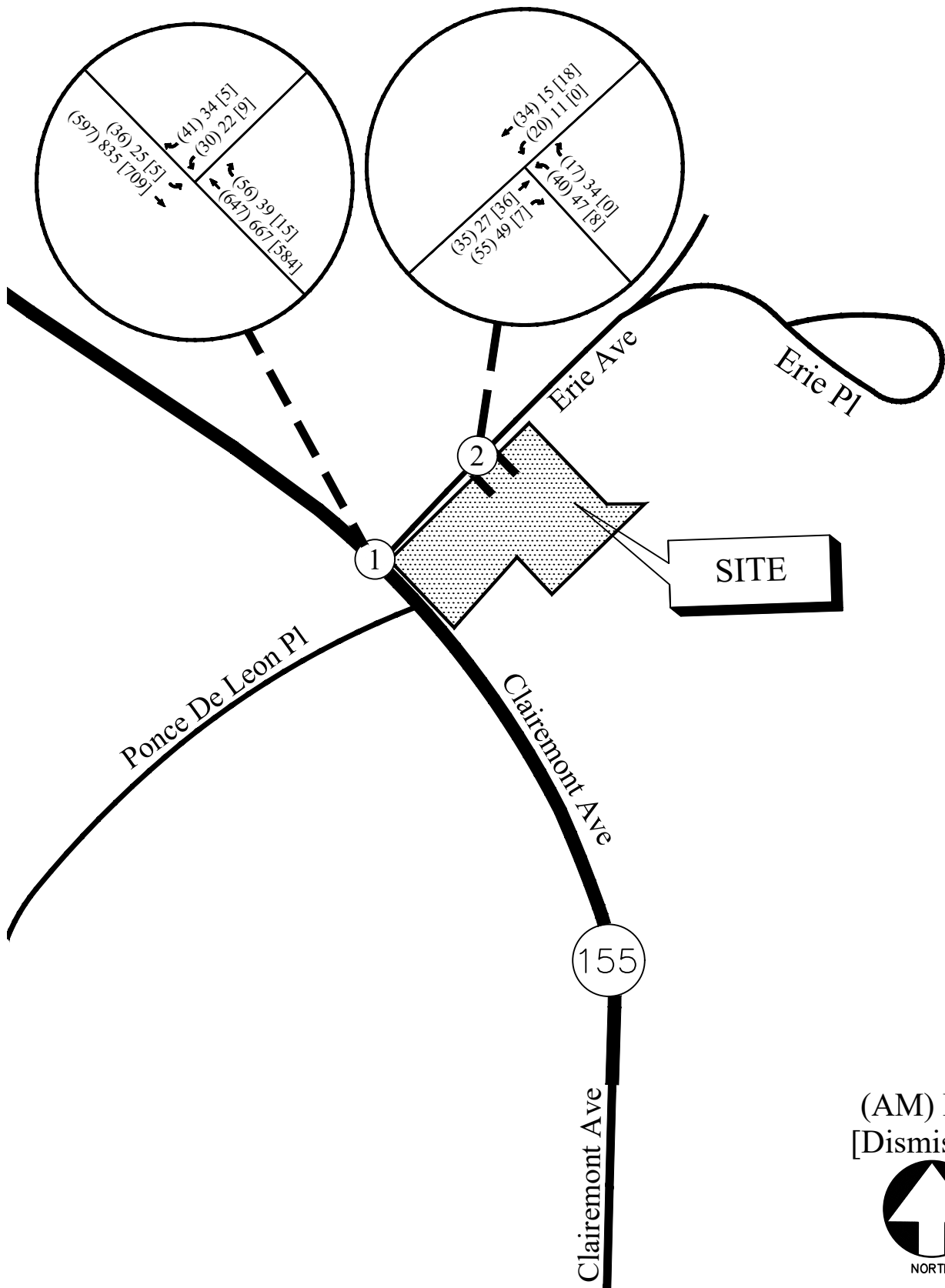
## **4.0 EXISTING 2023 TRAFFIC ANALYSIS**

### **4.1 Existing Traffic Volumes**

Existing traffic counts were obtained at the following study intersections:

- SR 155 (Clairemont Avenue) at Erie Avenue
- Erie Avenue at Smarties Academy Site Driveway




Turning movement counts were collected on Tuesday, January 17, 2023. All turning movement counts were recorded during the AM, local school dismissal, and PM peak hours between 7:00 AM to 9:00 AM, 2:00 PM to 4:00 PM, and 4:00 PM to 6:00 PM, respectively. The four consecutive 15-minute interval volumes that summed to produce the highest volume at the intersections were then determined. These volumes make up the peak hour traffic volumes for the intersections counted and are shown in Figure 2. The existing traffic control and lane geometry for the intersections are shown in Figure 3.

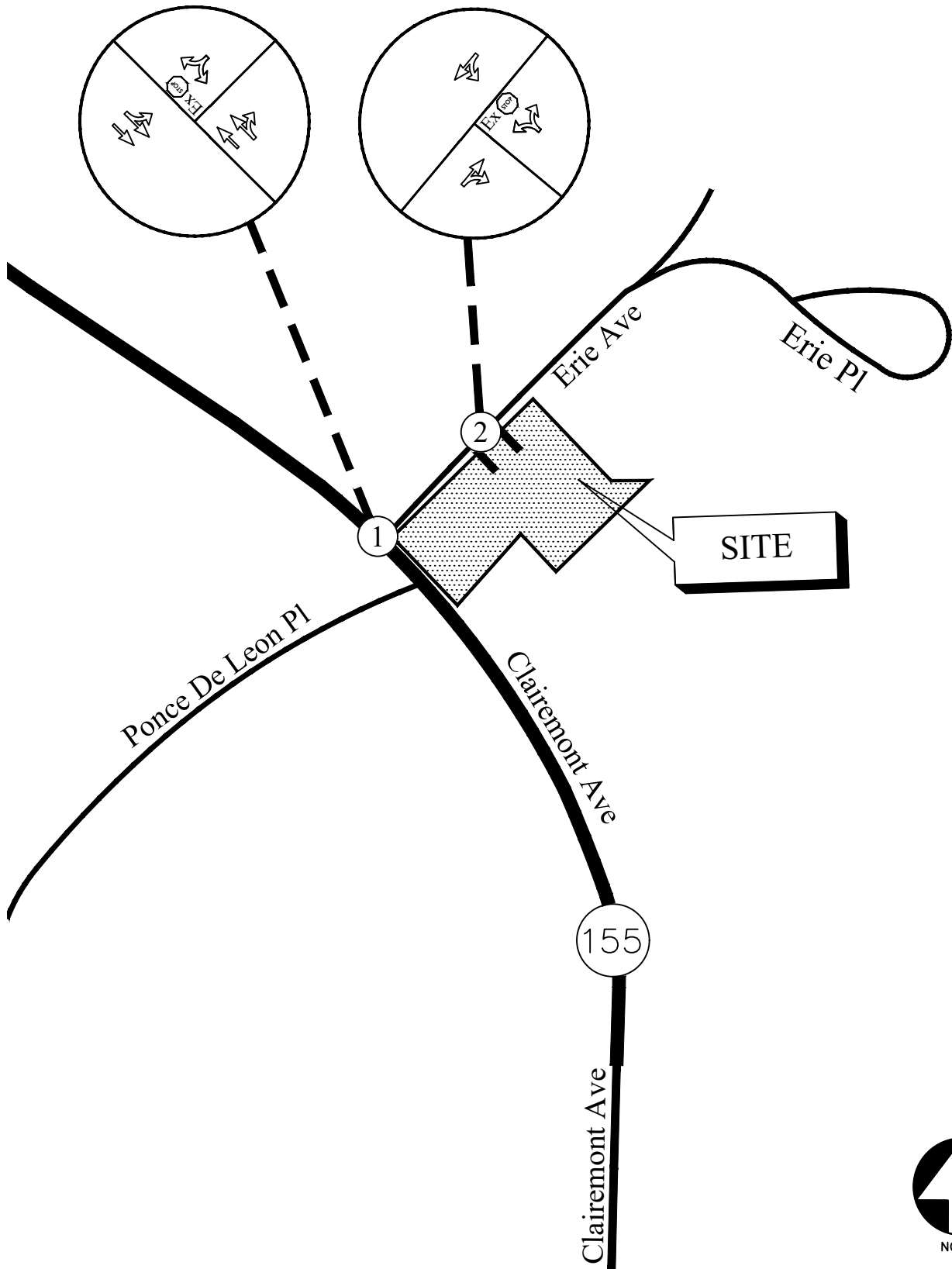


EXISTING WEEKDAY PEAK-HOUR VOLUMES

FIGURE 2  
A&R Engineering Inc.

**LEGEND**

- Ex  Existing Signed Approach
-  Existing Lane Geometry
- Ex  Existing Traffic Signal



EXISTING TRAFFIC CONTROL AND LANE GEOMETRY

FIGURE 3

A&R Engineering Inc.

## 4.2 Existing Traffic Operations

Existing 2023 traffic operations were analyzed at the study intersections in accordance with the HCM methodology. The results of the analysis are shown in Table 3.

| TABLE 3 – EXISTING INTERSECTION OPERATIONS |  |  |             |                  |          |
|--|--|--|-------------|------------------|----------|
| Intersection                               |  | Traffic Control                        | LOS (Delay) |                  |          |
|  |  |  | AM Peak     | School Dismissal | PM Peak  |
| 1  | <b><u>SR 155 (Clairemont Avenue) @ Erie Avenue</u></b> | Stop Controlled on Southbound Approach | A (9.4)     | A (9.0)          | A (9.3)  |
|  | -Eastbound Left<br>-Southbound Approach                |  | C (20.3)    | C (18.9)         | C (19.5) |
| 2  | <b><u>Erie Avenue @ Site Driveway</u></b>              | Stop Controlled on Westbound Approach  | A (9.7)     | A (9.0)          | A (9.2)  |
|  | -Westbound Approach<br>-Southbound Left                |  | A (7.5)     | A (7.3)          | A (7.4)  |

The results of the existing traffic operations analysis indicate that all the approached at the unsignalized study intersections are operating at a level of service “C” or better during the AM, school dismissal and PM peak hours.

## 5.0 PROPOSED DEVELOPMENT

The planned Smarties Academy expansion will increase the capacity of the Day Care Center from 148 students to 300 in the future. The project also proposes expanding the existing parking lot and repaving the currently unused exit-only driveway on SR 155 (Clairemont Avenue), which will then be accessible following the site redevelopment.



The development proposes access at the following locations:

- Full access site driveway on Erie Avenue
- Exit-only driveway on SR 155 (Clairemont Avenue)

A site plan is shown in Figure 4.



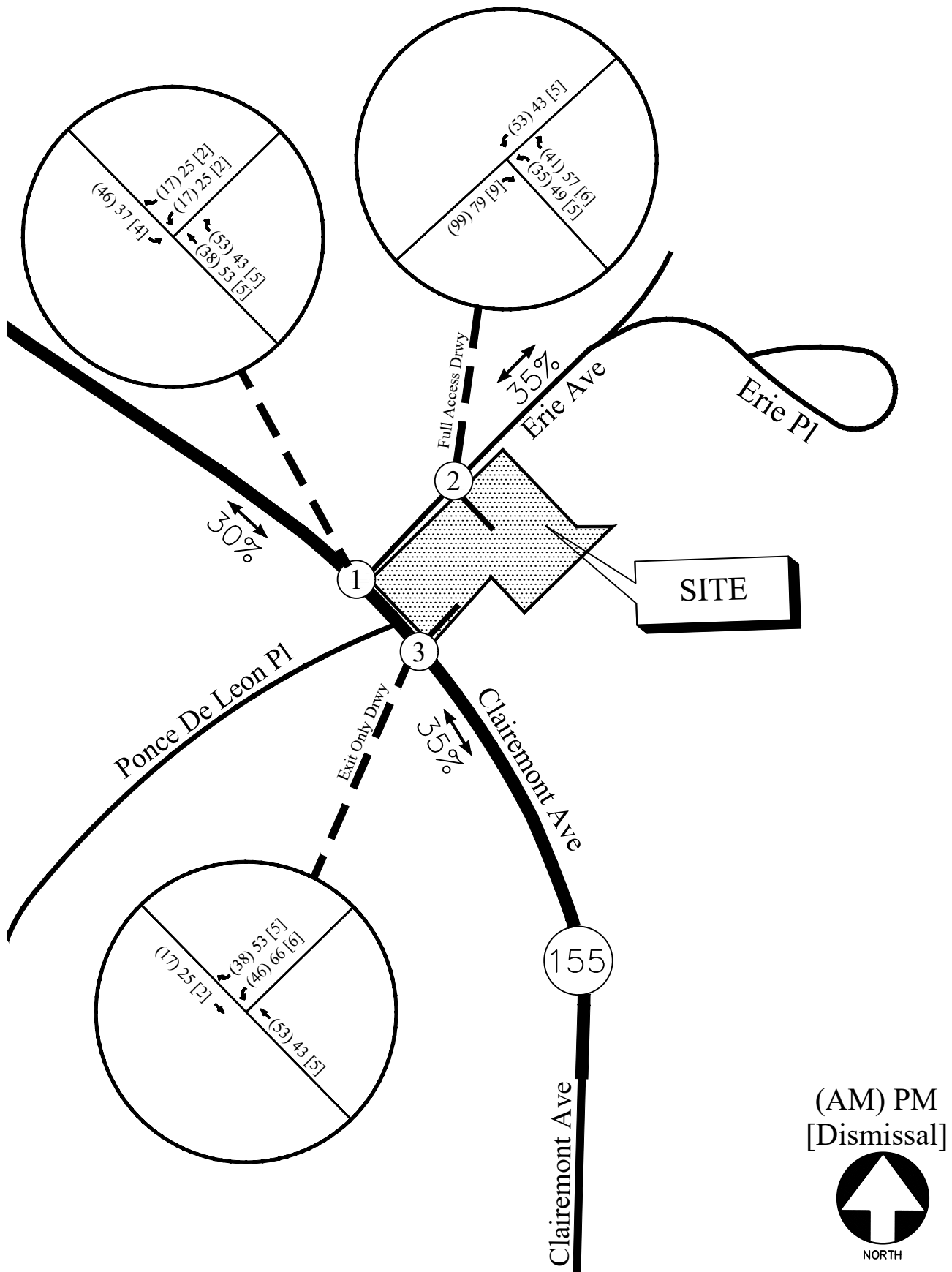
## 5.1 Trip Generation

Smarties Academy is proposing to increase its enrolment to 300 students after its expansion from a 148-student capacity. ITE Trip Generation Manual, 11<sup>th</sup> Edition gives trip generation rates for a maximum of 220 students for the ITE Land Use: *565 – Day Care Center and* recommends that local data should be collected and used to estimate trip generation, if the size of a study site is not within the range of data points presented in the Manual. Since the size of the study is larger than the size of studies reported in the Trip Generation Manual, it was not recommended to use the ITE rates in this case. Instead, the post-redevelopment trip generation (300 students) was estimated by taking the peak hour counts for traffic entering and leaving the existing site, and pro-rating the existing counts by a ratio of 300/148. The estimated ITE 24-Hour 2-way total trip volume for a day care center with 148 students (605 trips) was also pro-rated by the same ratio. The calculated total trip generation for the proposed development is shown in Table 4.

| Land Use                          | Size            | AM Peak Hour |      |       | PM Peak Hour |      |       | School Dismissal Peak Hour |      |       | 24-Hr<br>2-way |
|-----------------------------------|-----------------|--------------|------|-------|--------------|------|-------|----------------------------|------|-------|----------------|
|                                   |                 | Enter        | Exit | Total | Enter        | Exit | Total | Enter                      | Exit | Total |                |
| <i>Existing Day Care Center</i>   | 148<br>Students | 75           | 57   | 132   | 60           | 81   | 141   | 7                          | 8    | 15    | 605            |
| <b>Proposed<br/>Redevelopment</b> | 300<br>Students | 152          | 116  | 268   | 122          | 164  | 286   | 14                         | 16   | 30    | 1,226          |

## 5.2 Trip Distribution

The trip distribution describes how traffic arrives and departs from the site. An overall trip distribution was developed for the site based on a review of the existing travel patterns in the area and the locations of major roadways and highways that will serve the development. The site-generated peak hour traffic volumes, shown in Table 4, were assigned to the study area intersections based on this distribution. The outer-leg distribution and peak hour new traffic generated by the proposed site are shown in Figure 5.



TRIP DISTRIBUTION AND SITE-GENERATED  
WEEKDAY PEAK HOUR VOLUMES

FIGURE 5  
A&R Engineering Inc.



## **6.0 FUTURE 2025 TRAFFIC ANALYSIS**

The future 2025 traffic operations are analyzed for the “Build” and “No-Build” conditions.

### **6.1 Future “No-Build” Conditions**

The “No-Build” (or background) conditions provide an assessment of how traffic will operate in the study horizon year without the study site being developed as proposed, with projected increases in through traffic volumes due to normal annual growth. The Future “No-Build” volumes consist of the existing traffic volumes (Figure 2) plus increases for annual growth of through traffic.

#### **6.1.1 Annual Traffic Growth**

To evaluate future traffic operations in this area, a projection of normal traffic growth was applied to the existing volumes. The Georgia Department of Transportation recorded average daily traffic volumes at several locations in the vicinity of the site. Reviewing the growth over the last three years revealed growth of approximately 2% in the area was used in the analysis. This growth factor was applied to the existing traffic volumes between collector and arterial roadways to estimate the future year traffic volumes prior to the addition of site-generated traffic. The resulting Future “No-Build” volumes on the roadway are shown in Figure 6.

### **6.2 Future “Build” Conditions**

The “Build” or development conditions include the estimated background traffic from the “No-Build” conditions plus the added traffic from the proposed development. To evaluate future traffic operations in this area, the additional traffic volumes from the site (Figure 5) were added to base traffic volumes (Figure 6) to calculate the future traffic volumes after the construction of the development. These total future “Build” traffic volumes are shown in Figure 7.

### 6.3 Auxiliary Lane Analysis

Included below are analyses for left-turn lanes and deceleration lanes for the main site driveway on Erie Avenue per GDOT standards. The analyses below are based off the trip distribution included in Section 5.2. According to the trip distribution, the 24-hour two-way volume entering and exiting of the site are 687 vehicles.

#### 6.3.1 Left Turn Lane Analysis

For two-lane roadways with AADT's under 6,000 vehicles and a posted speed limit of 35 mph or less, the daily site-generated traffic volume threshold to warrant a left turn lane is 300 left-turning vehicles a day. The projected left turn volumes per day for the main site driveway is shown in Table 5.

| TABLE 5 – GDOT REQUIREMENTS FOR LEFT TURN LANES |   |   |  |   |                  |
|---|---|---|--|---|------------------|
| Intersection                                    | Left Turn Traffic<br>(% Total Entering) | Left Turn Volume<br>(vehicles/day)                                  | Roadway<br>Speed / #<br>Lanes /<br>ADT | GDOT<br>Threshold<br>(vehicles/<br>day) | Warrants<br>Met? |
| Erie Avenue @<br>Full Access Site Driveway      | 35%                                     | <b>215</b><br>(Total Trips) ÷ 2 × 0.35 =<br>(1,226) ÷ 2 × 0.2 = 215 | 25 mph /<br>2-Lane /<br>< 6,000        | 300                                     | No               |

A left turn lane is not warranted at the main site driveway.

### 6.3.2 Deceleration Turn Lane Analysis

For two lane roadways with AADT's under 6,000 vehicles and a posted speed limit of 35 mph or less, the daily site generated traffic volume threshold to warrant a deceleration lane is 200 right-turning vehicles a day. The projected right turn volumes per day for the main site driveway is shown in Table 6.

| TABLE 6 – GDOT REQUIREMENTS FOR DECELERATION LANES |                                       |  |                               |                               |               |
|--|---------------------------------------|--|-------------------------------|-------------------------------|---------------|
| Intersection                                       | Right Turn Traffic (% total entering) | Right-turn Volume (vehicles/day)                                     | Roadway Speed / # Lanes / ADT | GDOT Threshold (vehicles/day) | Warrants Met? |
| Erie Avenue @ Full Access Site Driveway            | 80%                                   | <b>398</b><br>(Total Trips) ÷ 2 × 0.65 =<br>(1,226) ÷ 2 × 0.65 = 398 | 25 mph / 2-Lane / < 6,000     | 200                           | Yes           |

The site driveway will meet GDOT warrants for a deceleration lane. However, as GDOT auxiliary lane standards are primarily implemented on state highways with high speed limits, a deceleration lane is not recommended for this driveway with Erie Avenue being a local road with low traffic volumes and a speed limit of only 25 mph. Additionally, the addition of a right turn lane for the site driveway is not considered to be a feasible option due to the lack of available space, as the site frontage along the east side of Erie Avenue is occupied by a sidewalk and mature trees (additional concerns include the grade difference and existing concrete steps leading to the day care building).

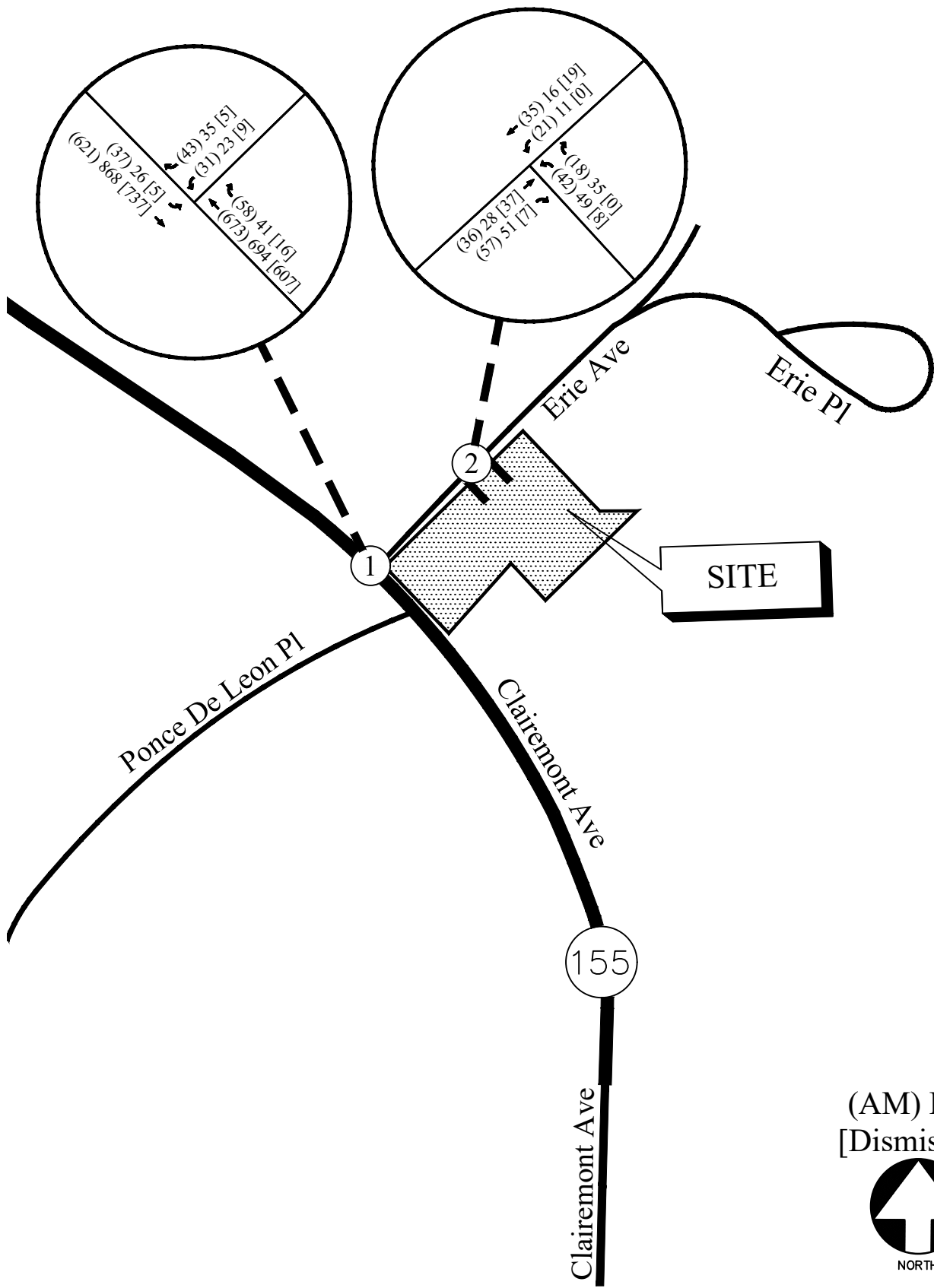


## 6.4 Future Buildout Year 2025 Traffic Operations

The future “No-Build” and “Build” traffic operations were analyzed using the volumes in Figure 6 and Figure 7, respectively. The results of the future traffic operations analysis for the 2025 buildout year are shown below in Table 7.

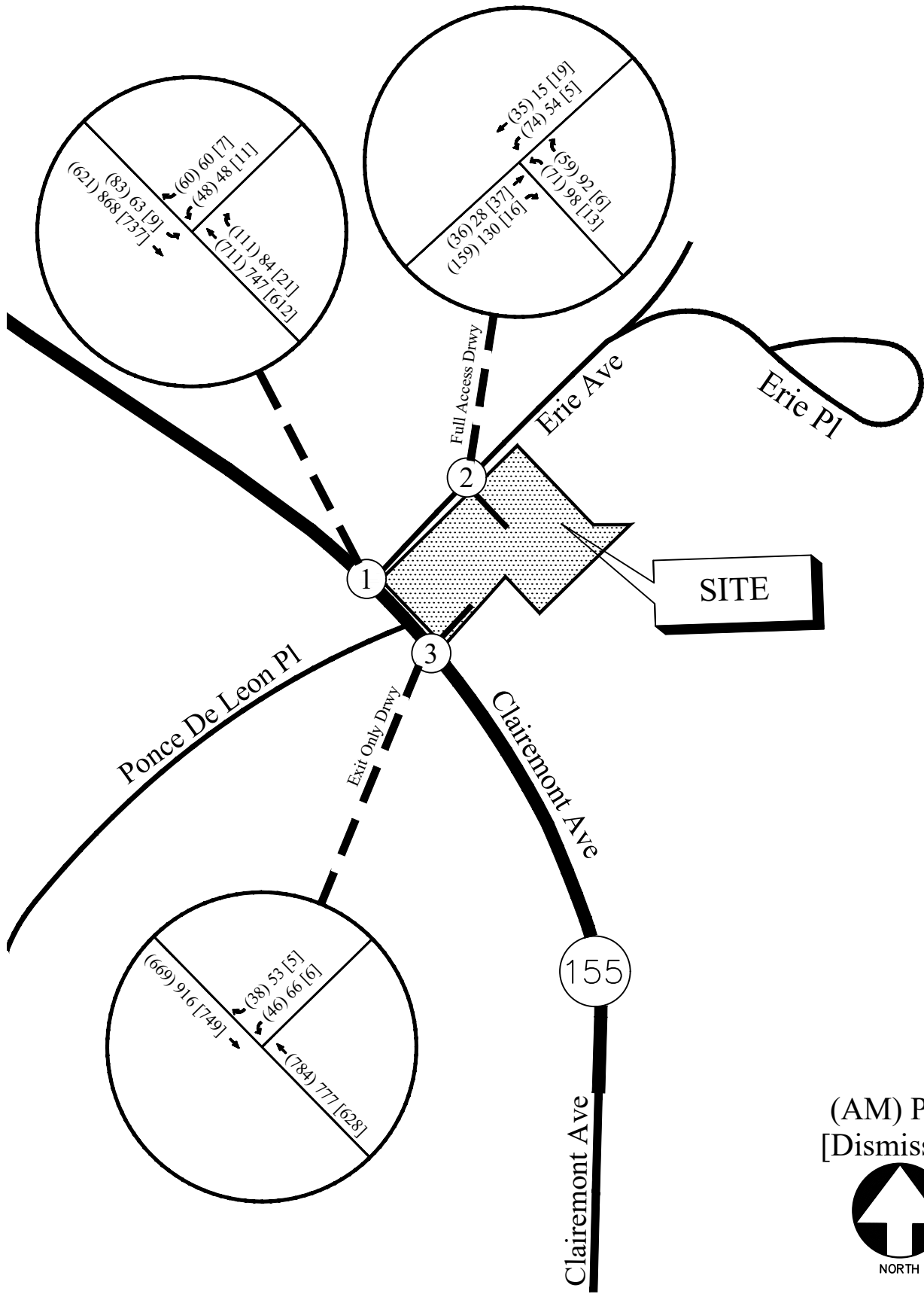
| TABLE 7 – FUTURE INTERSECTION OPERATIONS (BUILDOUT YEAR 2025) |   |                               |                     |                     |                      |                      |                     |
|---|---|-------------------------------|---------------------|---------------------|----------------------|----------------------|---------------------|
| Intersection  |   | Future Condition: LOS (Delay) |                     |                     |                      |                      |                     |
|   |   | NO-BUILD (2025)               |                     |                     | BUILD (2025)         |                      |                     |
|   |   | AM                            | PM                  | Dismissal           | AM                   | PM                   | Dismissal           |
| 1   | <b><u>SR 155 (Clairemont Avenue) @ Erie Avenue</u></b>        |                               |                     |                     |                      |                      |                     |
|   | -Eastbound Left<br>-Southbound Approach                       | A (9.6)<br>C (21.7)           | A (9.4)<br>C (20.9) | A (9.1)<br>C (19.9) | B (10.4)<br>E (41.5) | B (10.0)<br>E (43.1) | A (9.1)<br>C (20.0) |
| 2   | <b><u>Erie Avenue @ Site Driveway</u></b>                     |                               |                     |                     |                      |                      |                     |
|   | -Westbound Approach<br>-Southbound Left                       | A (9.8)<br>A (7.5)            | A (9.2)<br>A (7.4)  | A (9.0)<br>A (0.0)  | B (12.4)<br>A (7.9)  | B (10.8)<br>A (7.7)  | A (9.0)<br>A (7.4)  |
| 3   | <b><u>SR 155 (Clairemont Avenue) @ Exit-Only Driveway</u></b> |                               |                     |                     |                      |                      |                     |
|   | -Southbound Approach  | -                             | -                   | -                   | D (27.1)             | D (44.2)             | C (17.3)            |

The results of the future traffic operations analysis indicate that all the approaches at the unsignalized intersections will operate at a level-of-service “E” or better during the AM, School Dismissal, and PM peak hours.



FUTURE 2025 (NO-BUILD) WEEKDAY PEAK HOUR VOLUMES

FIGURE 6  
A&R Engineering Inc.



FUTURE 2025 (BUILD) WEEKDAY PEAK HOUR  
 VOLUMES

FIGURE 7  
 A&R Engineering Inc.

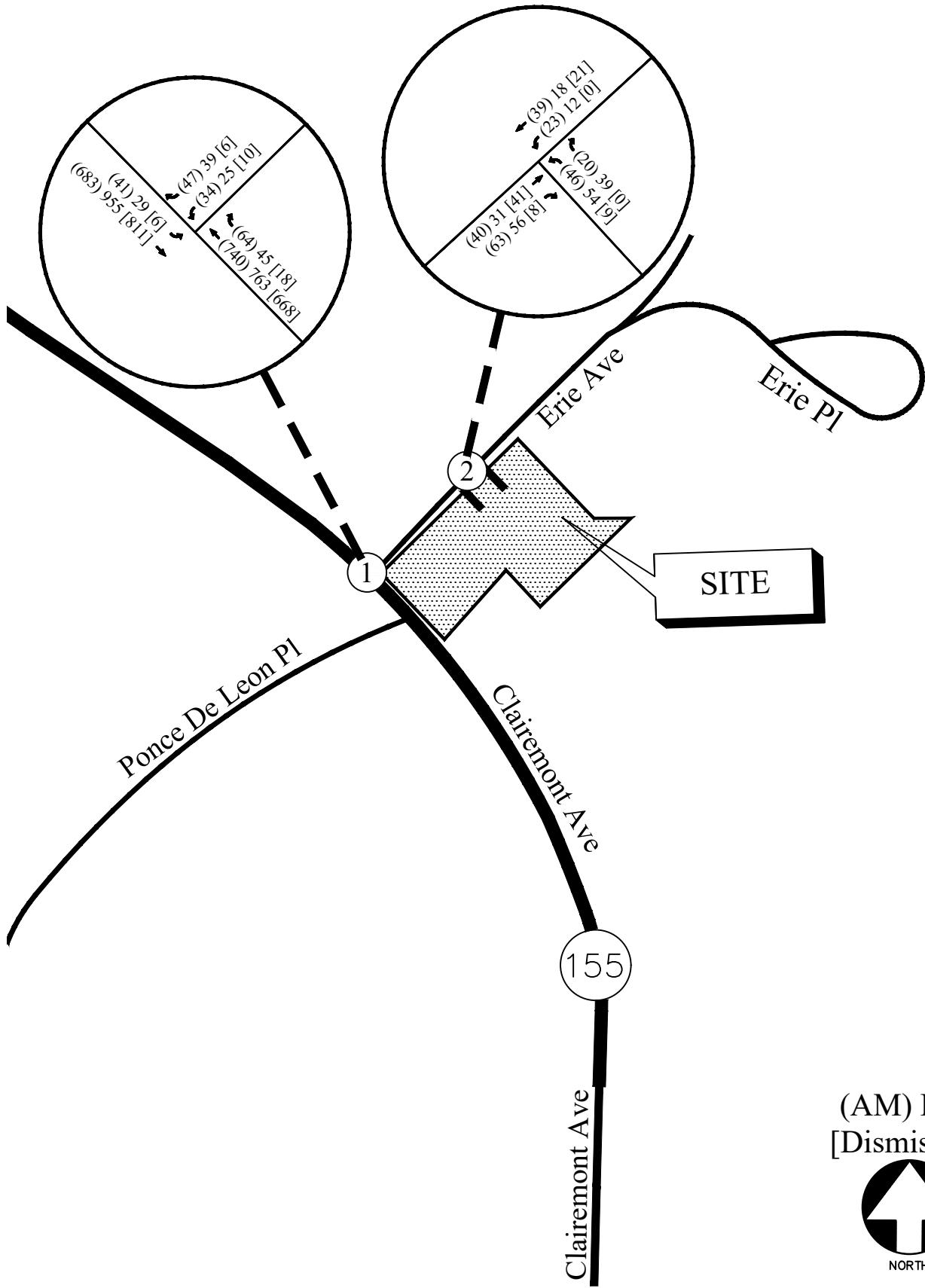
## 6.5 Future Horizon Year 2030 Traffic Operations

The buildout 2025 “No-Build” volumes were grown for five years (from buildout year 2025 to horizon year 2030) to obtain the horizon year 2030 “No-Build” volumes (Figure 9) using the 2% annual traffic growth factor. The additional traffic volumes from the proposed site (Figure 5) added to the horizon year 2030 “No-Build” volumes (Figure 8) to obtain the horizon year 2030 “Build” traffic volumes (Figure 9) after the construction of the development.

The future Horizon 2030 “No-Build” and “Build” traffic operations were analyzed using the volumes in Figure 8 and Figure 9, respectively, and the results are shown in Table 8 below.

| TABLE 8 – FUTURE INTERSECTION OPERATIONS (HORIZON YEAR 2030) |   |                               |                     |                     |                      |                      |                     |
|--|---|-------------------------------|---------------------|---------------------|----------------------|----------------------|---------------------|
| Intersection   |   | Future Condition: LOS (Delay) |                     |                     |                      |                      |                     |
|  |   | NO-BUILD (2030)               |                     |                     | BUILD (2030)         |                      |                     |
|  |   | AM                            | PM                  | Dismissal           | AM                   | PM                   | Dismissal           |
| 1  | <b><u>SR 155 (Clairemont Avenue) @ Erie Avenue</u></b>        |                               |                     |                     |                      |                      |                     |
|  | -Eastbound Left<br>-Southbound Approach                       | A (9.9)<br>D (26.9)           | A (9.7)<br>C (24.9) | A (9.4)<br>C (22.4) | B (10.8)<br>F (65.6) | B (10.4)<br>F (68.0) | A (9.4)<br>C (22.9) |
| 2  | <b><u>Erie Avenue @ Site Driveway</u></b>                     |                               |                     |                     |                      |                      |                     |
|  | -Westbound Approach<br>-Southbound Left                       | B (10.0)<br>A (7.5)           | A (9.3)<br>A (7.4)  | A (9.0)<br>A (0.0)  | B (12.7)<br>A (8.0)  | B (11.0)<br>A (7.7)  | A (9.1)<br>A (7.4)  |
| 3  | <b><u>SR 155 (Clairemont Avenue) @ Exit-Only Driveway</u></b> |                               |                     |                     |                      |                      |                     |
|  | -Southbound Approach  | -                             | -                   | -                   | D (32.9)             | F (63.2)             | C (19.3)            |

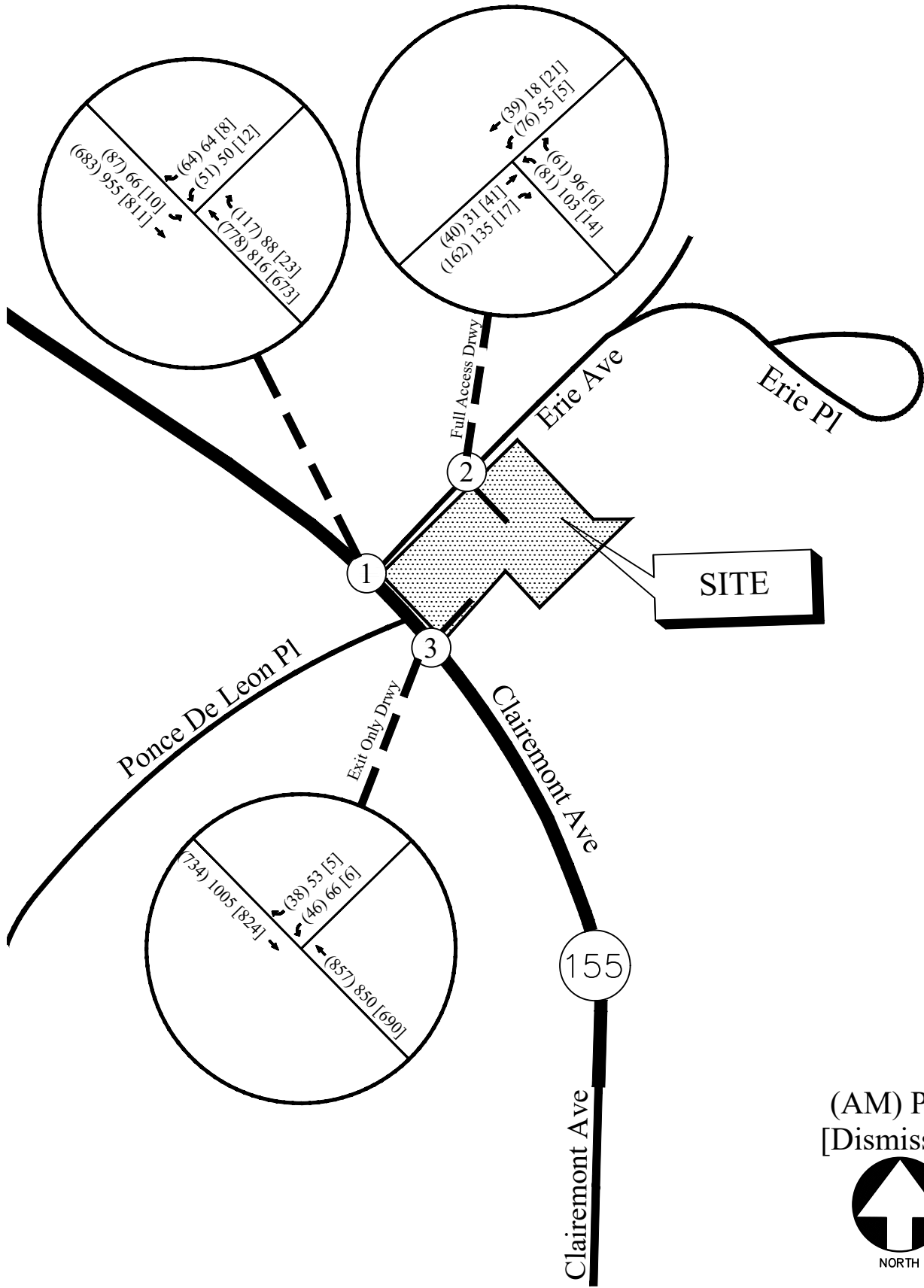
The results of the future 2030 traffic operations analysis indicate that most of the approaches at the unsignalized intersections will operate at a level-of-service “D” or better during the AM, School Dismissal, and PM peak hours. The southbound approach at Intersection 1 (Erie Avenue) is projected to operate at a level-of-service “F” in the “Build” scenario AM and PM peak hours, and the southbound approach at Intersection 3 (Exit-Only Site Driveway) is projected to operate at a level-of-service “F” in the PM peak hour. It is not unusual for minor side streets that are stop sign controlled to experience higher delays due to the time gap required for vehicles to make turning movements on busy roadways. Signal warrants will not be met at any of the study intersections in future “Build” 2030 conditions. Recommendations for future traffic control and lane geometry are shown in Figure 10.



FUTURE 2030 (NO-BUILD) WEEKDAY PEAK HOUR VOLUMES

FIGURE 8  
A&R Engineering Inc.









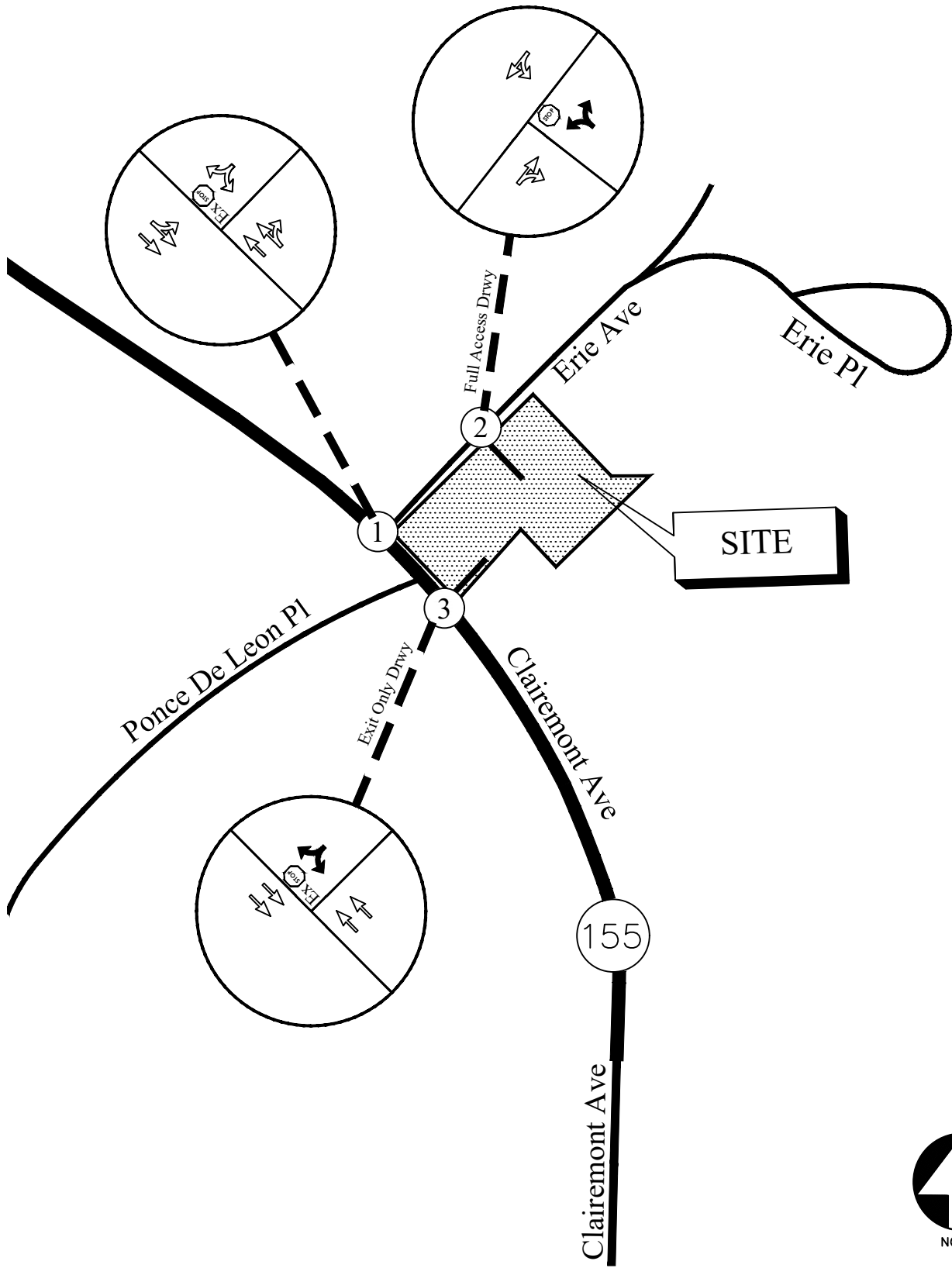


FUTURE 2030 (BUILD) WEEKDAY PEAK HOUR  
 VOLUMES

FIGURE 9  
 A&R Engineering Inc.

**LEGEND**

- |  |                          |   |                          |
|--|--------------------------|---|--------------------------|
| Ex    | Existing Signed Approach |    | Proposed Signed Approach |
| Ex   | Existing Lane Geometry   |   | Proposed Lane Geometry   |
| Ex  | Existing Traffic Signal  |  | Proposed Traffic Signal  |



FUTURE TRAFFIC CONTROL AND LANE GEOMETRY

FIGURE 10

A&R Engineering Inc.

## 7.0 CONCLUSIONS AND RECOMMENDATIONS

Traffic impacts were evaluated for the planned redevelopment of Smarties Academy at 465 Clairemont Avenue in the City of Decatur, Georgia. The planned Smarties Academy expansion will increase the capacity of the Day Care Center from 148 students to 300 in the future. The project also proposes expanding the existing parking lot and repaving the currently unused exit-only driveway on SR 155 (Clairemont Avenue), which will then be accessible following the site redevelopment.

The development proposes access at the following locations:

- Full access site driveway on Erie Avenue
- Exit-only driveway on SR 155 (Clairemont Avenue)

Existing and future operations after completion of the project were analyzed at the intersections of:

- SR 155 (Clairemont Avenue) at Erie Avenue
- Erie Avenue at Full Access Site Driveway
- SR 155 (Clairemont Avenue) at Exit-Only Site Driveway

The analysis included the evaluation of Future operations for “No-Build” and “Build” conditions, both of which account for increases in the annual growth of through traffic. The results of future traffic operations analysis of the buildout year 2025 indicate that most of the approaches at the unsignalized intersections will operate at a level-of-service “D” or better during the AM, School Dismissal, and PM peak hours. The exception is the southbound approach at Intersection 1 (Erie Avenue), which is projected to operate at a level-of-service “E” in the “Build” scenario AM and PM peak hours. The results of the future 2030 traffic operations analysis indicate that most of the approaches at the unsignalized intersections will operate at a level-of-service “D” or better during the AM, School Dismissal, and PM peak hours. The southbound approach at Intersection 1 (Erie Avenue) is projected to operate at a level-of-service “F” in the “Build” scenario AM and PM peak hours, and the southbound approach at Intersection 3 (Exit-Only Site Driveway) is projected to operate at a level-of-service “F” in the PM peak hour. It is not unusual for minor side streets that are stop sign controlled to experience higher delays due to the time gap required for a vehicle to make a turning movement on a busy multilane roadway. Signal warrants will not be met at any of the study intersections in future “Build” 2030 conditions. Based on the analysis, the proposed development will have minimal impact on traffic operations in the study network.

## 7.1 Recommendations for Site Access Configuration

The following access configuration is recommended for the proposed site driveway intersections:

- Full access driveway on Erie Avenue
  - One entering lane and one exiting lane
  - Stop-sign controlled on the driveway approach with Erie Avenue remaining free-flow
  - Provide adequate sight distance per AASHTO standards
  
- Exit-only driveway on SR 155 (Clairemont Avenue)
  - One exiting lane (no entrance access)
  - Stop-sign controlled on the driveway approach with SR 155 remaining free-flow
  - Provide adequate sight distance per AASHTO standards

## **Appendix**

|   |
|---|
| Existing Intersection Traffic Counts .....                        |
| Linear Regression of Daily Traffic.....                           |
| Existing Intersection Analysis.....                               |
| Future “No-Build” Intersection Analysis – Base Year 2025.....     |
| Future “Build” Intersection Analysis – Base Year 2025 .....       |
| Future “No-Build” Intersection Analysis – Horizon Year 2030 ..... |
| Future “Build” Intersection Analysis – Horizon Year 2030 .....    |
| Traffic Volume Worksheets .....                                   |

## **EXISTING INTERSECTION TRAFFIC COUNTS**

# A & R Engineering, Inc.

2160 Kingston Court Suite 'O'  
Marietta, GA 30067

TMC Data  
SR 155 (Clairmont Ave) @ Erie Ave  
7-9 am | 2-4 pm | 4-6 pm

File Name : 20220555  
Site Code : 20220555  
Start Date : 01-17-2023  
Page No : 1

Groups Printed- Cars, Buses & Trucks

| Start Time         | Northbound |          |          |            | Erie Ave Southbound |          |            |            | SR 155 (Clairmont Ave) Eastbound |             |          |             | SR 155 (Clairmont Ave) Westbound |             |            |             | Int. Total  |
|--------------------|------------|----------|----------|------------|---------------------|----------|------------|------------|----------------------------------|-------------|----------|-------------|----------------------------------|-------------|------------|-------------|-------------|
|                    | Left       | Thru     | Right    | App. Total | Left                | Thru     | Right      | App. Total | Left                             | Thru        | Right    | App. Total  | Left                             | Thru        | Right      | App. Total  |             |
| 07:00 AM           | 0          | 0        | 0        | 0          | 0                   | 0        | 1          | 1          | 3                                | 82          | 0        | 85          | 0                                | 166         | 2          | 168         | 254         |
| 07:15 AM           | 0          | 0        | 0        | 0          | 1                   | 0        | 0          | 1          | 2                                | 74          | 0        | 76          | 0                                | 184         | 4          | 188         | 265         |
| 07:30 AM           | 0          | 0        | 0        | 0          | 3                   | 0        | 5          | 8          | 8                                | 94          | 0        | 102         | 0                                | 202         | 5          | 207         | 317         |
| 07:45 AM           | 0          | 0        | 0        | 0          | 5                   | 0        | 8          | 13         | 7                                | 142         | 0        | 149         | 0                                | 181         | 17         | 198         | 360         |
| <b>Total</b>       | <b>0</b>   | <b>0</b> | <b>0</b> | <b>0</b>   | <b>9</b>            | <b>0</b> | <b>14</b>  | <b>23</b>  | <b>20</b>                        | <b>392</b>  | <b>0</b> | <b>412</b>  | <b>0</b>                         | <b>733</b>  | <b>28</b>  | <b>761</b>  | <b>1196</b> |
| 08:00 AM           | 0          | 0        | 0        | 0          | 8                   | 0        | 9          | 17         | 11                               | 142         | 0        | 153         | 0                                | 140         | 16         | 156         | 326         |
| 08:15 AM           | 0          | 0        | 0        | 0          | 12                  | 0        | 15         | 27         | 10                               | 164         | 0        | 174         | 0                                | 157         | 19         | 176         | 377         |
| 08:30 AM           | 0          | 0        | 0        | 0          | 5                   | 0        | 9          | 14         | 8                                | 149         | 0        | 157         | 0                                | 169         | 4          | 173         | 344         |
| 08:45 AM           | 0          | 0        | 0        | 0          | 5                   | 0        | 8          | 13         | 4                                | 132         | 0        | 136         | 0                                | 183         | 5          | 188         | 337         |
| <b>Total</b>       | <b>0</b>   | <b>0</b> | <b>0</b> | <b>0</b>   | <b>30</b>           | <b>0</b> | <b>41</b>  | <b>71</b>  | <b>33</b>                        | <b>587</b>  | <b>0</b> | <b>620</b>  | <b>0</b>                         | <b>649</b>  | <b>44</b>  | <b>693</b>  | <b>1384</b> |
| *** BREAK ***      |            |          |          |            |                     |          |            |            |                                  |             |          |             |                                  |             |            |             |             |
| 02:00 PM           | 0          | 0        | 0        | 0          | 1                   | 0        | 3          | 4          | 2                                | 104         | 0        | 106         | 0                                | 142         | 6          | 148         | 258         |
| 02:15 PM           | 0          | 0        | 0        | 0          | 3                   | 0        | 0          | 3          | 2                                | 131         | 0        | 133         | 0                                | 124         | 6          | 130         | 266         |
| 02:30 PM           | 0          | 0        | 0        | 0          | 1                   | 0        | 0          | 1          | 8                                | 146         | 0        | 154         | 0                                | 128         | 12         | 140         | 295         |
| 02:45 PM           | 0          | 0        | 0        | 0          | 10                  | 0        | 7          | 17         | 1                                | 173         | 0        | 174         | 0                                | 127         | 5          | 132         | 323         |
| <b>Total</b>       | <b>0</b>   | <b>0</b> | <b>0</b> | <b>0</b>   | <b>15</b>           | <b>0</b> | <b>10</b>  | <b>25</b>  | <b>13</b>                        | <b>554</b>  | <b>0</b> | <b>567</b>  | <b>0</b>                         | <b>521</b>  | <b>29</b>  | <b>550</b>  | <b>1142</b> |
| 03:00 PM           | 0          | 0        | 0        | 0          | 0                   | 0        | 1          | 1          | 2                                | 138         | 0        | 140         | 0                                | 131         | 3          | 134         | 275         |
| 03:15 PM           | 0          | 0        | 0        | 0          | 0                   | 0        | 1          | 1          | 0                                | 197         | 0        | 197         | 0                                | 156         | 3          | 159         | 357         |
| 03:30 PM           | 0          | 0        | 0        | 0          | 2                   | 0        | 3          | 5          | 1                                | 165         | 0        | 166         | 0                                | 144         | 3          | 147         | 318         |
| 03:45 PM           | 0          | 0        | 0        | 0          | 7                   | 0        | 0          | 7          | 2                                | 209         | 0        | 211         | 0                                | 153         | 6          | 159         | 377         |
| <b>Total</b>       | <b>0</b>   | <b>0</b> | <b>0</b> | <b>0</b>   | <b>9</b>            | <b>0</b> | <b>5</b>   | <b>14</b>  | <b>5</b>                         | <b>709</b>  | <b>0</b> | <b>714</b>  | <b>0</b>                         | <b>584</b>  | <b>15</b>  | <b>599</b>  | <b>1327</b> |
| 04:00 PM           | 0          | 0        | 0        | 0          | 6                   | 0        | 6          | 12         | 8                                | 208         | 0        | 216         | 0                                | 151         | 9          | 160         | 388         |
| 04:15 PM           | 0          | 0        | 0        | 0          | 2                   | 0        | 5          | 7          | 4                                | 193         | 0        | 197         | 0                                | 157         | 3          | 160         | 364         |
| 04:30 PM           | 0          | 0        | 0        | 0          | 2                   | 0        | 6          | 8          | 2                                | 182         | 0        | 184         | 0                                | 165         | 8          | 173         | 365         |
| 04:45 PM           | 0          | 0        | 0        | 0          | 2                   | 0        | 11         | 13         | 8                                | 222         | 0        | 230         | 0                                | 135         | 15         | 150         | 393         |
| <b>Total</b>       | <b>0</b>   | <b>0</b> | <b>0</b> | <b>0</b>   | <b>12</b>           | <b>0</b> | <b>28</b>  | <b>40</b>  | <b>22</b>                        | <b>805</b>  | <b>0</b> | <b>827</b>  | <b>0</b>                         | <b>608</b>  | <b>35</b>  | <b>643</b>  | <b>1510</b> |
| 05:00 PM           | 0          | 0        | 0        | 0          | 7                   | 0        | 11         | 18         | 5                                | 209         | 0        | 214         | 0                                | 164         | 10         | 174         | 406         |
| 05:15 PM           | 0          | 0        | 0        | 0          | 6                   | 0        | 7          | 13         | 7                                | 201         | 0        | 208         | 0                                | 182         | 15         | 197         | 418         |
| 05:30 PM           | 0          | 0        | 0        | 0          | 6                   | 0        | 13         | 19         | 9                                | 209         | 0        | 218         | 0                                | 146         | 8          | 154         | 391         |
| 05:45 PM           | 0          | 0        | 0        | 0          | 3                   | 0        | 3          | 6          | 4                                | 216         | 0        | 220         | 0                                | 175         | 6          | 181         | 407         |
| <b>Total</b>       | <b>0</b>   | <b>0</b> | <b>0</b> | <b>0</b>   | <b>22</b>           | <b>0</b> | <b>34</b>  | <b>56</b>  | <b>25</b>                        | <b>835</b>  | <b>0</b> | <b>860</b>  | <b>0</b>                         | <b>667</b>  | <b>39</b>  | <b>706</b>  | <b>1622</b> |
| <b>Grand Total</b> | <b>0</b>   | <b>0</b> | <b>0</b> | <b>0</b>   | <b>97</b>           | <b>0</b> | <b>132</b> | <b>229</b> | <b>118</b>                       | <b>3882</b> | <b>0</b> | <b>4000</b> | <b>0</b>                         | <b>3762</b> | <b>190</b> | <b>3952</b> | <b>8181</b> |
| Apprch %           | 0          | 0        | 0        | 0          | 42.4                | 0        | 57.6       |            | 3                                | 97.1        | 0        |             | 0                                | 95.2        | 4.8        |             |             |
| Total %            | 0          | 0        | 0        | 0          | 1.2                 | 0        | 1.6        | 2.8        | 1.4                              | 47.5        | 0        | 48.9        | 0                                | 46          | 2.3        | 48.3        |             |

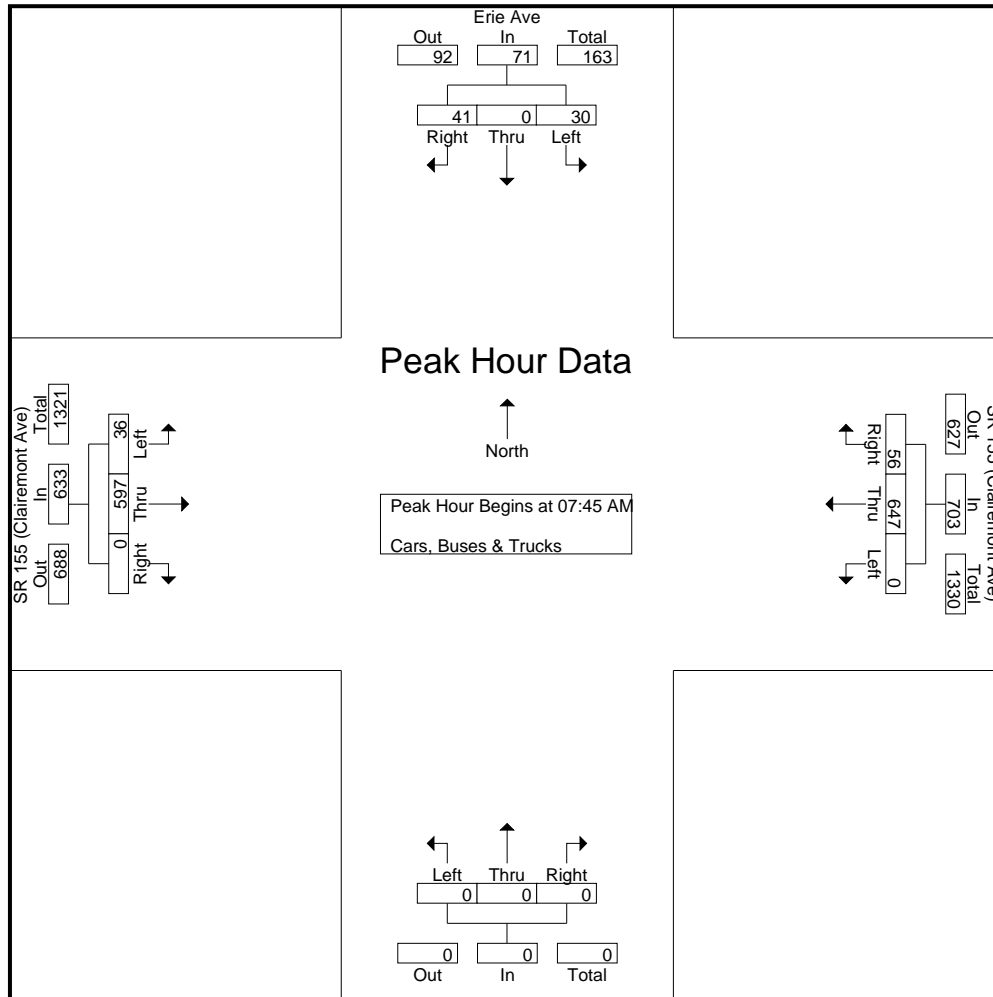
# A & R Engineering, Inc.

2160 Kingston Court Suite 'O'  
Marietta, GA 30067

TMC Data  
SR 155 (Clairmont Ave) @ Erie Ave  
7-9 am | 2-4 pm | 4-6 pm

File Name : 20220555  
Site Code : 20220555  
Start Date : 01-17-2023  
Page No : 2

| Start Time   | Northbound |      |       |            | Erie Ave Southbound |      |       |            | SR 155 (Clairmont Ave) Eastbound |      |       |            | SR 155 (Clairmont Ave) Westbound |      |       |            | Int. Total |
|--|------------|------|-------|------------|---------------------|------|-------|------------|----------------------------------|------|-------|------------|----------------------------------|------|-------|------------|------------|
|  | Left       | Thru | Right | App. Total | Left                | Thru | Right | App. Total | Left                             | Thru | Right | App. Total | Left                             | Thru | Right | App. Total |            |
| Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1 |            |      |       |            |                     |      |       |            |                                  |      |       |            |                                  |      |       |            |            |
| Peak Hour for Entire Intersection Begins at 07:45 AM       |            |      |       |            |                     |      |       |            |                                  |      |       |            |                                  |      |       |            |            |
| 07:45 AM   | 0          | 0    | 0     | 0          | 5                   | 0    | 8     | 13         | 7                                | 142  | 0     | 149        | 0                                | 181  | 17    | 198        | 360        |
| 08:00 AM   | 0          | 0    | 0     | 0          | 8                   | 0    | 9     | 17         | 11                               | 142  | 0     | 153        | 0                                | 140  | 16    | 156        | 326        |
| 08:15 AM   | 0          | 0    | 0     | 0          | 12                  | 0    | 15    | 27         | 10                               | 164  | 0     | 174        | 0                                | 157  | 19    | 176        | 377        |
| 08:30 AM   | 0          | 0    | 0     | 0          | 5                   | 0    | 9     | 14         | 8                                | 149  | 0     | 157        | 0                                | 169  | 4     | 173        | 344        |
| Total Volume   | 0          | 0    | 0     | 0          | 30                  | 0    | 41    | 71         | 36                               | 597  | 0     | 633        | 0                                | 647  | 56    | 703        | 1407       |
| % App. Total   | 0          | 0    | 0     | 0          | 42.3                | 0    | 57.7  | 71         | 5.7                              | 94.3 | 0     | 633        | 0                                | 92   | 8     | 703        | 1407       |
| PHF  | .000       | .000 | .000  | .000       | .625                | .000 | .683  | .657       | .818                             | .910 | .000  | .909       | .000                             | .894 | .737  | .888       | .933       |





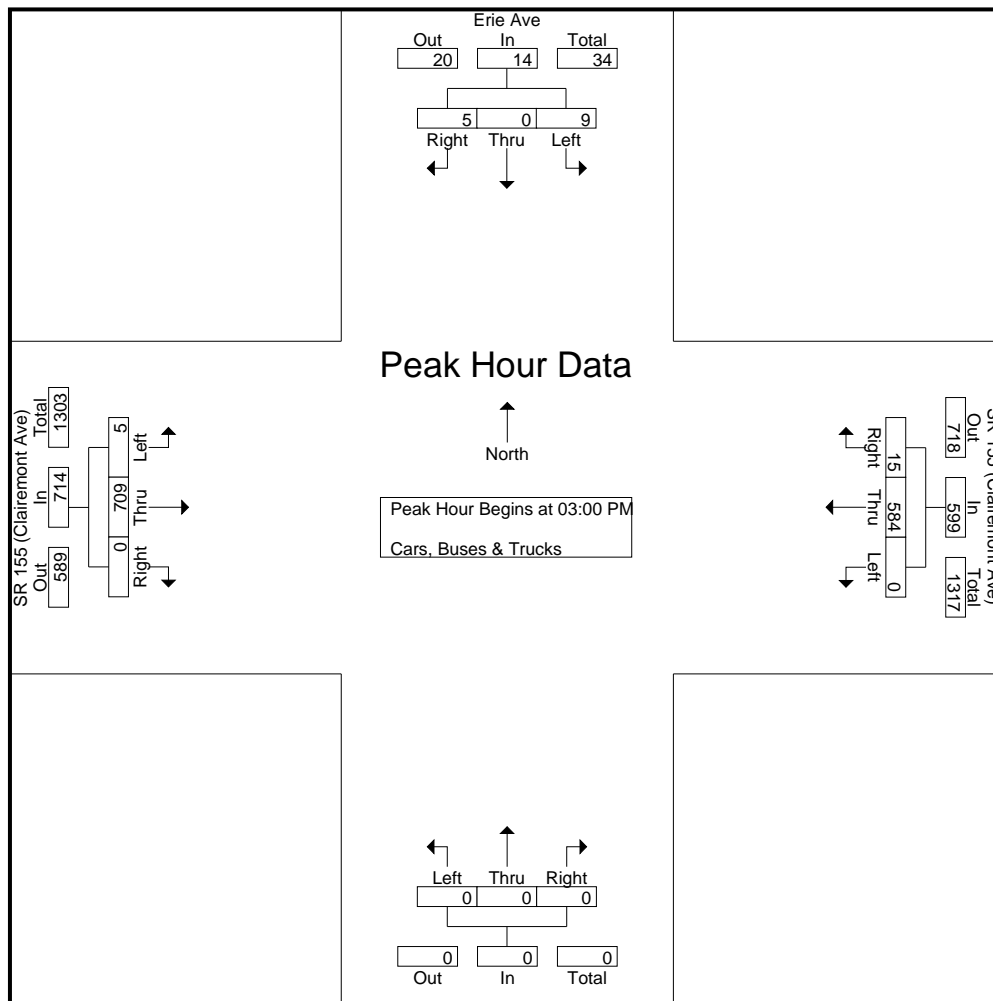
# A & R Engineering, Inc.

2160 Kingston Court Suite 'O'  
Marietta, GA 30067

TMC Data  
SR 155 (Clairmont Ave) @ Erie Ave  
7-9 am | 2-4 pm | 4-6 pm

File Name : 20220555  
Site Code : 20220555  
Start Date : 01-17-2023  
Page No : 3

| Start Time   | Northbound |      |       |            | Erie Ave Southbound |      |          |            | SR 155 (Clairmont Ave) Eastbound |            |       |            | SR 155 (Clairmont Ave) Westbound |            |       |            | Int. Total |
|--|------------|------|-------|------------|---------------------|------|----------|------------|----------------------------------|------------|-------|------------|----------------------------------|------------|-------|------------|------------|
|  | Left       | Thru | Right | App. Total | Left                | Thru | Right    | App. Total | Left                             | Thru       | Right | App. Total | Left                             | Thru       | Right | App. Total |            |
| Peak Hour Analysis From 02:00 PM to 03:45 PM - Peak 1 of 1 |            |      |       |            |                     |      |          |            |                                  |            |       |            |                                  |            |       |            |            |
| Peak Hour for Entire Intersection Begins at 03:00 PM       |            |      |       |            |                     |      |          |            |                                  |            |       |            |                                  |            |       |            |            |
| 03:00 PM   | 0          | 0    | 0     | 0          | 0                   | 0    | 1        | 1          | 2                                | 138        | 0     | 140        | 0                                | 131        | 3     | 134        | 275        |
| 03:15 PM   | 0          | 0    | 0     | 0          | 0                   | 0    | 1        | 1          | 0                                | 197        | 0     | 197        | 0                                | <b>156</b> | 3     | <b>159</b> | 357        |
| 03:30 PM   | 0          | 0    | 0     | 0          | 2                   | 0    | <b>3</b> | 5          | 1                                | 165        | 0     | 166        | 0                                | 144        | 3     | 147        | 318        |
| 03:45 PM   | 0          | 0    | 0     | 0          | 7                   | 0    | 0        | 7          | 2                                | <b>209</b> | 0     | <b>211</b> | 0                                | 153        | 6     | 159        | <b>377</b> |
| Total Volume   | 0          | 0    | 0     | 0          | 9                   | 0    | 5        | 14         | 5                                | 709        | 0     | 714        | 0                                | 584        | 15    | 599        | 1327       |
| % App. Total   | 0          | 0    | 0     | 0          | 64.3                | 0    | 35.7     |            | 0.7                              | 99.3       | 0     |            | 0                                | 97.5       | 2.5   |            |            |
| PHF  | .000       | .000 | .000  | .000       | .321                | .000 | .417     | .500       | .625                             | .848       | .000  | .846       | .000                             | .936       | .625  | .942       | .880       |



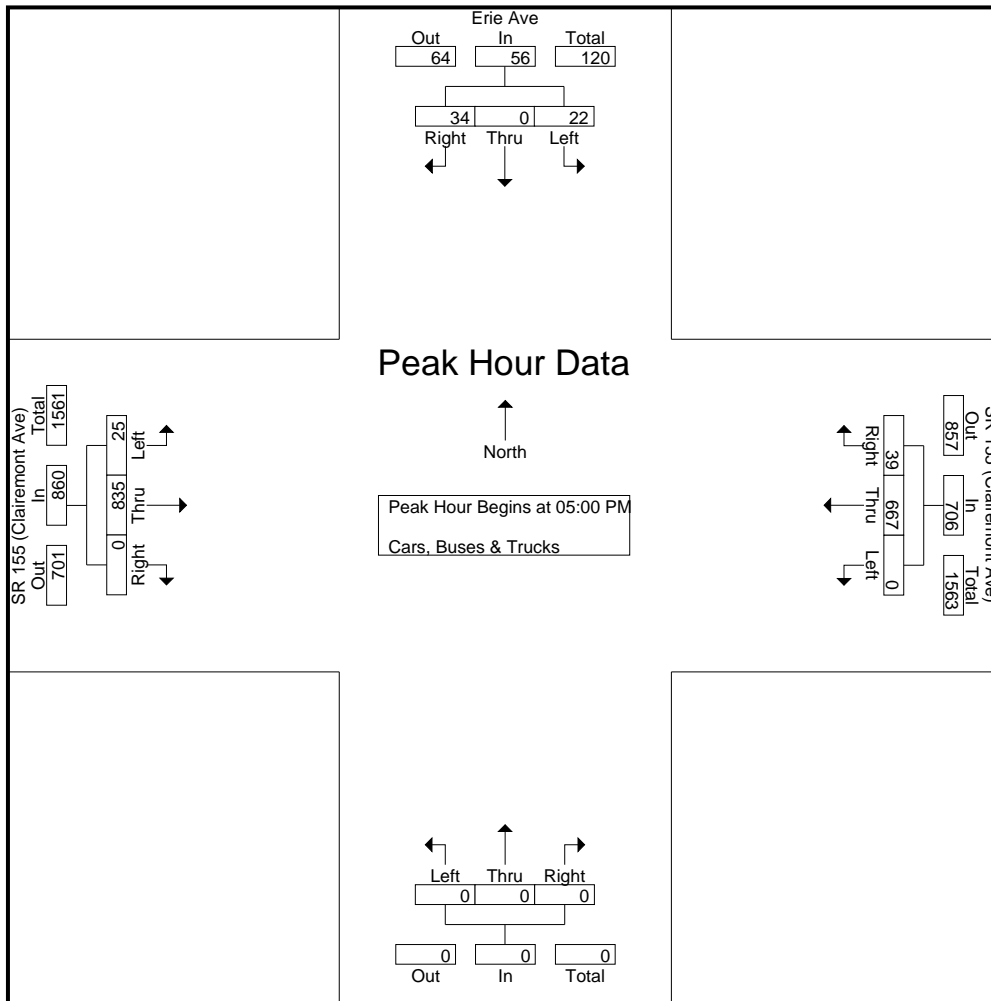
# A & R Engineering, Inc.

2160 Kingston Court Suite 'O'  
Marietta, GA 30067

TMC Data  
SR 155 (Clairmont Ave) @ Erie Ave  
7-9 am | 2-4 pm | 4-6 pm

File Name : 20220555  
Site Code : 20220555  
Start Date : 01-17-2023  
Page No : 4

| Start Time   | Northbound |      |       |            | Erie Ave Southbound |      |       |            | SR 155 (Clairmont Ave) Eastbound |      |       |            | SR 155 (Clairmont Ave) Westbound |      |       |            | Int. Total |
|--|------------|------|-------|------------|---------------------|------|-------|------------|----------------------------------|------|-------|------------|----------------------------------|------|-------|------------|------------|
|  | Left       | Thru | Right | App. Total | Left                | Thru | Right | App. Total | Left                             | Thru | Right | App. Total | Left                             | Thru | Right | App. Total |            |
| Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1 |            |      |       |            |                     |      |       |            |                                  |      |       |            |                                  |      |       |            |            |
| Peak Hour for Entire Intersection Begins at 05:00 PM       |            |      |       |            |                     |      |       |            |                                  |      |       |            |                                  |      |       |            |            |
| 05:00 PM   | 0          | 0    | 0     | 0          | 7                   | 0    | 11    | 18         | 5                                | 209  | 0     | 214        | 0                                | 164  | 10    | 174        | 406        |
| 05:15 PM   | 0          | 0    | 0     | 0          | 6                   | 0    | 7     | 13         | 7                                | 201  | 0     | 208        | 0                                | 182  | 15    | 197        | 418        |
| 05:30 PM   | 0          | 0    | 0     | 0          | 6                   | 0    | 13    | 19         | 9                                | 209  | 0     | 218        | 0                                | 146  | 8     | 154        | 391        |
| 05:45 PM   | 0          | 0    | 0     | 0          | 3                   | 0    | 3     | 6          | 4                                | 216  | 0     | 220        | 0                                | 175  | 6     | 181        | 407        |
| Total Volume   | 0          | 0    | 0     | 0          | 22                  | 0    | 34    | 56         | 25                               | 835  | 0     | 860        | 0                                | 667  | 39    | 706        | 1622       |
| % App. Total   | 0          | 0    | 0     | 0          | 39.3                | 0    | 60.7  |            | 2.9                              | 97.1 | 0     |            | 0                                | 94.5 | 5.5   |            |            |
| PHF  | .000       | .000 | .000  | .000       | .786                | .000 | .654  | .737       | .694                             | .966 | .000  | .977       | .000                             | .916 | .650  | .896       | .970       |



# A & R Engineering, Inc.

2160 Kingston Court Suite 'O'  
Marietta, GA 30067

TMC Data  
Erie Ave @ Site Drwy  
7-9 am | 2-4 pm | 4-6 pm

File Name : 20220556  
Site Code : 20220556  
Start Date : 01-17-2023  
Page No : 1

### Groups Printed- Cars, Buses & Trucks

| Start Time         | Erie Ave Northbound |            |            |            | Erie Ave Southbound |            |          |            | Eastbound |          |          |            | Site Drwy Westbound |          |           |            | Int. Total |
|--------------------|---------------------|------------|------------|------------|---------------------|------------|----------|------------|-----------|----------|----------|------------|---------------------|----------|-----------|------------|------------|
|                    | Left                | Thru       | Right      | App. Total | Left                | Thru       | Right    | App. Total | Left      | Thru     | Right    | App. Total | Left                | Thru     | Right     | App. Total |            |
| 07:00 AM           | 0                   | 2          | 3          | 5          | 0                   | 1          | 0        | 1          | 0         | 0        | 0        | 0          | 0                   | 0        | 1         | 1          | 7          |
| 07:15 AM           | 0                   | 2          | 4          | 6          | 2                   | 2          | 0        | 4          | 0         | 0        | 0        | 0          | 0                   | 0        | 0         | 0          | 10         |
| 07:30 AM           | 0                   | 5          | 10         | 15         | 5                   | 1          | 0        | 6          | 0         | 0        | 0        | 0          | 6                   | 0        | 3         | 9          | 30         |
| 07:45 AM           | 0                   | 13         | 9          | 22         | 4                   | 6          | 0        | 10         | 0         | 0        | 0        | 0          | 7                   | 0        | 3         | 10         | 42         |
| <b>Total</b>       | <b>0</b>            | <b>22</b>  | <b>26</b>  | <b>48</b>  | <b>11</b>           | <b>10</b>  | <b>0</b> | <b>21</b>  | <b>0</b>  | <b>0</b> | <b>0</b> | <b>0</b>   | <b>13</b>           | <b>0</b> | <b>7</b>  | <b>20</b>  | <b>89</b>  |
|                    |                     |            |            |            |                     |            |          |            |           |          |          |            |                     |          |           |            |            |
| 08:00 AM           | 0                   | 10         | 16         | 26         | 5                   | 14         | 0        | 19         | 0         | 0        | 0        | 0          | 6                   | 0        | 6         | 12         | 57         |
| 08:15 AM           | 0                   | 10         | 18         | 28         | 8                   | 11         | 0        | 19         | 0         | 0        | 0        | 0          | 16                  | 0        | 4         | 20         | 67         |
| 08:30 AM           | 0                   | 2          | 12         | 14         | 3                   | 3          | 0        | 6          | 0         | 0        | 0        | 0          | 11                  | 0        | 4         | 15         | 35         |
| 08:45 AM           | 0                   | 5          | 5          | 10         | 5                   | 2          | 0        | 7          | 0         | 0        | 0        | 0          | 12                  | 0        | 3         | 15         | 32         |
| <b>Total</b>       | <b>0</b>            | <b>27</b>  | <b>51</b>  | <b>78</b>  | <b>21</b>           | <b>30</b>  | <b>0</b> | <b>51</b>  | <b>0</b>  | <b>0</b> | <b>0</b> | <b>0</b>   | <b>45</b>           | <b>0</b> | <b>17</b> | <b>62</b>  | <b>191</b> |
|                    |                     |            |            |            |                     |            |          |            |           |          |          |            |                     |          |           |            |            |
| *** BREAK ***      |                     |            |            |            |                     |            |          |            |           |          |          |            |                     |          |           |            |            |
|                    |                     |            |            |            |                     |            |          |            |           |          |          |            |                     |          |           |            |            |
| 02:00 PM           | 0                   | 7          | 0          | 7          | 0                   | 2          | 0        | 2          | 0         | 0        | 0        | 0          | 2                   | 0        | 0         | 2          | 11         |
| 02:15 PM           | 0                   | 5          | 0          | 5          | 0                   | 3          | 0        | 3          | 0         | 0        | 0        | 0          | 0                   | 0        | 0         | 0          | 8          |
| 02:30 PM           | 0                   | 15         | 5          | 20         | 0                   | 4          | 0        | 4          | 0         | 0        | 0        | 0          | 1                   | 0        | 0         | 1          | 25         |
| 02:45 PM           | 0                   | 9          | 2          | 11         | 0                   | 9          | 0        | 9          | 0         | 0        | 0        | 0          | 5                   | 0        | 0         | 5          | 25         |
| <b>Total</b>       | <b>0</b>            | <b>36</b>  | <b>7</b>   | <b>43</b>  | <b>0</b>            | <b>18</b>  | <b>0</b> | <b>18</b>  | <b>0</b>  | <b>0</b> | <b>0</b> | <b>0</b>   | <b>8</b>            | <b>0</b> | <b>0</b>  | <b>8</b>   | <b>69</b>  |
|                    |                     |            |            |            |                     |            |          |            |           |          |          |            |                     |          |           |            |            |
| 03:00 PM           | 0                   | 2          | 3          | 5          | 0                   | 0          | 0        | 0          | 0         | 0        | 0        | 0          | 2                   | 0        | 2         | 4          | 9          |
| 03:15 PM           | 0                   | 3          | 0          | 3          | 0                   | 2          | 0        | 2          | 0         | 0        | 0        | 0          | 0                   | 0        | 0         | 0          | 5          |
| 03:30 PM           | 0                   | 3          | 2          | 5          | 0                   | 5          | 0        | 5          | 0         | 0        | 0        | 0          | 0                   | 0        | 0         | 0          | 10         |
| 03:45 PM           | 0                   | 6          | 1          | 7          | 2                   | 7          | 0        | 9          | 0         | 0        | 0        | 0          | 0                   | 0        | 2         | 2          | 18         |
| <b>Total</b>       | <b>0</b>            | <b>14</b>  | <b>6</b>   | <b>20</b>  | <b>2</b>            | <b>14</b>  | <b>0</b> | <b>16</b>  | <b>0</b>  | <b>0</b> | <b>0</b> | <b>0</b>   | <b>2</b>            | <b>0</b> | <b>4</b>  | <b>6</b>   | <b>42</b>  |
|                    |                     |            |            |            |                     |            |          |            |           |          |          |            |                     |          |           |            |            |
| 04:00 PM           | 0                   | 10         | 7          | 17         | 1                   | 6          | 0        | 7          | 0         | 0        | 0        | 0          | 5                   | 0        | 2         | 7          | 31         |
| 04:15 PM           | 0                   | 4          | 3          | 7          | 4                   | 2          | 0        | 6          | 0         | 0        | 0        | 0          | 4                   | 0        | 3         | 7          | 20         |
| 04:30 PM           | 0                   | 3          | 6          | 9          | 7                   | 2          | 0        | 9          | 0         | 0        | 0        | 0          | 8                   | 0        | 4         | 12         | 30         |
| 04:45 PM           | 0                   | 5          | 16         | 21         | 6                   | 4          | 0        | 10         | 0         | 0        | 0        | 0          | 8                   | 0        | 10        | 18         | 49         |
| <b>Total</b>       | <b>0</b>            | <b>22</b>  | <b>32</b>  | <b>54</b>  | <b>18</b>           | <b>14</b>  | <b>0</b> | <b>32</b>  | <b>0</b>  | <b>0</b> | <b>0</b> | <b>0</b>   | <b>25</b>           | <b>0</b> | <b>19</b> | <b>44</b>  | <b>130</b> |
|                    |                     |            |            |            |                     |            |          |            |           |          |          |            |                     |          |           |            |            |
| 05:00 PM           | 0                   | 5          | 12         | 17         | 2                   | 5          | 0        | 7          | 0         | 0        | 0        | 0          | 12                  | 0        | 7         | 19         | 43         |
| 05:15 PM           | 0                   | 7          | 14         | 21         | 1                   | 5          | 0        | 6          | 0         | 0        | 0        | 0          | 13                  | 0        | 9         | 22         | 49         |
| 05:30 PM           | 0                   | 10         | 7          | 17         | 2                   | 1          | 0        | 3          | 0         | 0        | 0        | 0          | 14                  | 0        | 8         | 22         | 42         |
| 05:45 PM           | 0                   | 9          | 1          | 10         | 1                   | 4          | 0        | 5          | 0         | 0        | 0        | 0          | 2                   | 0        | 3         | 5          | 20         |
| <b>Total</b>       | <b>0</b>            | <b>31</b>  | <b>34</b>  | <b>65</b>  | <b>6</b>            | <b>15</b>  | <b>0</b> | <b>21</b>  | <b>0</b>  | <b>0</b> | <b>0</b> | <b>0</b>   | <b>41</b>           | <b>0</b> | <b>27</b> | <b>68</b>  | <b>154</b> |
|                    |                     |            |            |            |                     |            |          |            |           |          |          |            |                     |          |           |            |            |
| <b>Grand Total</b> | <b>0</b>            | <b>152</b> | <b>156</b> | <b>308</b> | <b>58</b>           | <b>101</b> | <b>0</b> | <b>159</b> | <b>0</b>  | <b>0</b> | <b>0</b> | <b>0</b>   | <b>134</b>          | <b>0</b> | <b>74</b> | <b>208</b> | <b>675</b> |
| Apprch %           | 0                   | 49.4       | 50.6       |            | 36.5                | 63.5       | 0        |            | 0         | 0        | 0        |            | 64.4                | 0        | 35.6      |            |            |
| Total %            | 0                   | 22.5       | 23.1       | 45.6       | 8.6                 | 15         | 0        | 23.6       | 0         | 0        | 0        | 0          | 19.9                | 0        | 11        | 30.8       |            |

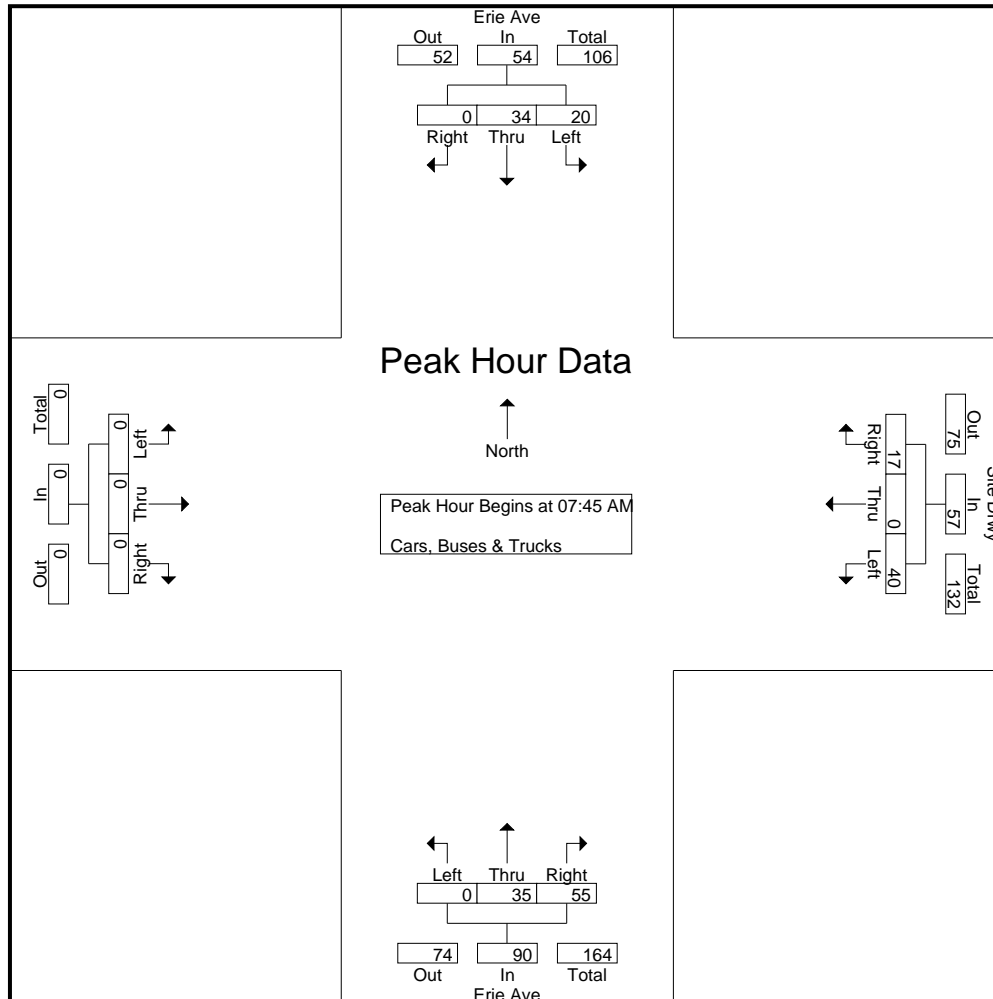
# A & R Engineering, Inc.

2160 Kingston Court Suite 'O'  
Marietta, GA 30067

TMC Data  
Erie Ave @ Site Drwy  
7-9 am | 2-4 pm | 4-6 pm

File Name : 20220556  
Site Code : 20220556  
Start Date : 01-17-2023  
Page No : 2

| Start Time   | Erie Ave Northbound |      |       |            | Erie Ave Southbound |      |       |            | Eastbound |      |       |            | Site Drwy Westbound |      |       |            | Int. Total |
|--|---------------------|------|-------|------------|---------------------|------|-------|------------|-----------|------|-------|------------|---------------------|------|-------|------------|------------|
|  | Left                | Thru | Right | App. Total | Left                | Thru | Right | App. Total | Left      | Thru | Right | App. Total | Left                | Thru | Right | App. Total |            |
| Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1 |                     |      |       |            |                     |      |       |            |           |      |       |            |                     |      |       |            |            |
| Peak Hour for Entire Intersection Begins at 07:45 AM       |                     |      |       |            |                     |      |       |            |           |      |       |            |                     |      |       |            |            |
| 07:45 AM   | 0                   | 13   | 9     | 22         | 4                   | 6    | 0     | 10         | 0         | 0    | 0     | 0          | 7                   | 0    | 3     | 10         | 42         |
| 08:00 AM   | 0                   | 10   | 16    | 26         | 5                   | 14   | 0     | 19         | 0         | 0    | 0     | 0          | 6                   | 0    | 6     | 12         | 57         |
| 08:15 AM   | 0                   | 10   | 18    | 28         | 8                   | 11   | 0     | 19         | 0         | 0    | 0     | 0          | 16                  | 0    | 4     | 20         | 67         |
| 08:30 AM   | 0                   | 2    | 12    | 14         | 3                   | 3    | 0     | 6          | 0         | 0    | 0     | 0          | 11                  | 0    | 4     | 15         | 35         |
| Total Volume   | 0                   | 35   | 55    | 90         | 20                  | 34   | 0     | 54         | 0         | 0    | 0     | 0          | 40                  | 0    | 17    | 57         | 201        |
| % App. Total   | 0                   | 38.9 | 61.1  |            | 37                  | 63   | 0     |            | 0         | 0    | 0     |            | 70.2                | 0    | 29.8  |            |            |
| PHF  | .000                | .673 | .764  | .804       | .625                | .607 | .000  | .711       | .000      | .000 | .000  | .000       | .625                | .000 | .708  | .713       | .750       |



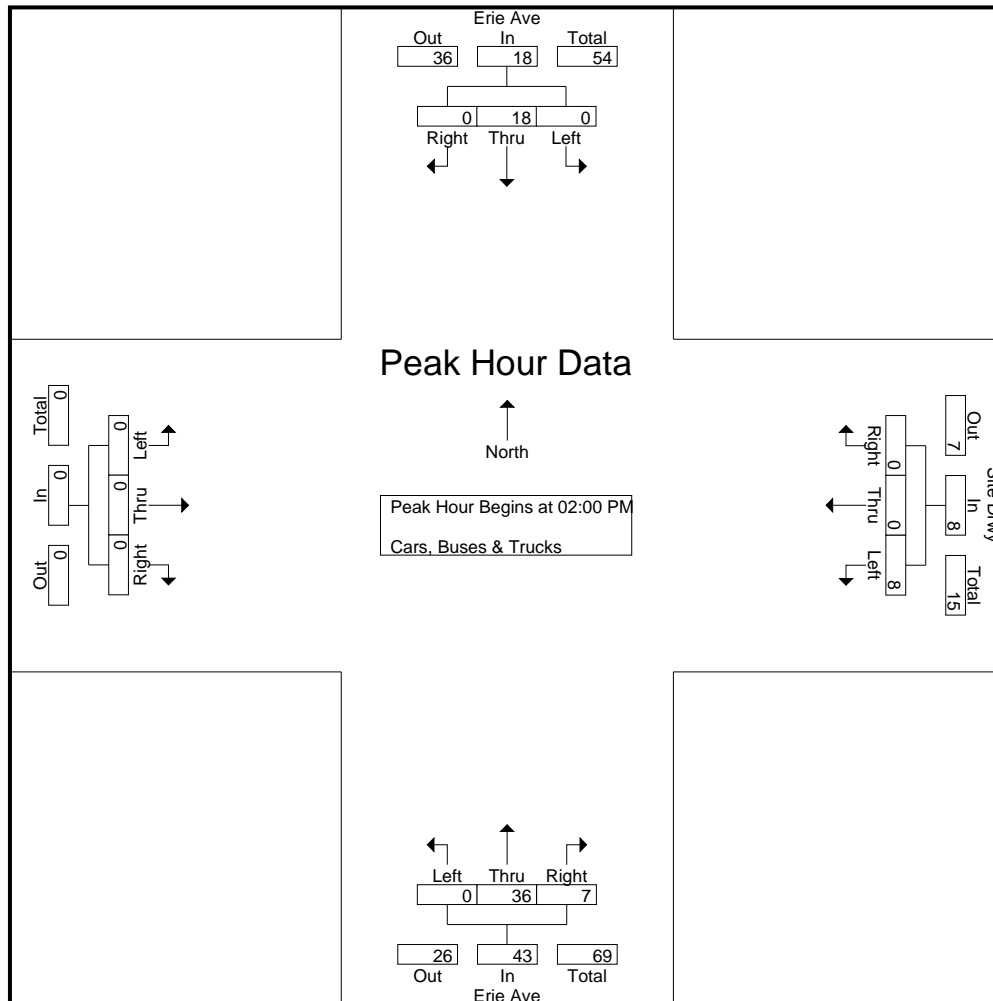
# A & R Engineering, Inc.

2160 Kingston Court Suite 'O'  
Marietta, GA 30067

TMC Data  
Erie Ave @ Site Drwy  
7-9 am | 2-4 pm | 4-6 pm

File Name : 20220556  
Site Code : 20220556  
Start Date : 01-17-2023  
Page No : 3

| Start Time   | Erie Ave Northbound |      |       |            | Erie Ave Southbound |      |       |            | Eastbound |      |       |            | Site Drwy Westbound |      |       |            | Int. Total |
|--|---------------------|------|-------|------------|---------------------|------|-------|------------|-----------|------|-------|------------|---------------------|------|-------|------------|------------|
|  | Left                | Thru | Right | App. Total | Left                | Thru | Right | App. Total | Left      | Thru | Right | App. Total | Left                | Thru | Right | App. Total |            |
| Peak Hour Analysis From 02:00 PM to 03:45 PM - Peak 1 of 1 |                     |      |       |            |                     |      |       |            |           |      |       |            |                     |      |       |            |            |
| Peak Hour for Entire Intersection Begins at 02:00 PM       |                     |      |       |            |                     |      |       |            |           |      |       |            |                     |      |       |            |            |
| 02:00 PM   | 0                   | 7    | 0     | 7          | 0                   | 2    | 0     | 2          | 0         | 0    | 0     | 0          | 2                   | 0    | 0     | 2          | 11         |
| 02:15 PM   | 0                   | 5    | 0     | 5          | 0                   | 3    | 0     | 3          | 0         | 0    | 0     | 0          | 0                   | 0    | 0     | 0          | 8          |
| 02:30 PM   | 0                   | 15   | 5     | 20         | 0                   | 4    | 0     | 4          | 0         | 0    | 0     | 0          | 1                   | 0    | 0     | 1          | 25         |
| 02:45 PM   | 0                   | 9    | 2     | 11         | 0                   | 9    | 0     | 9          | 0         | 0    | 0     | 0          | 5                   | 0    | 0     | 5          | 25         |
| Total Volume   | 0                   | 36   | 7     | 43         | 0                   | 18   | 0     | 18         | 0         | 0    | 0     | 0          | 8                   | 0    | 0     | 8          | 69         |
| % App. Total   | 0                   | 83.7 | 16.3  |            | 0                   | 100  | 0     |            | 0         | 0    | 0     |            | 100                 | 0    | 0     |            |            |
| PHF  | .000                | .600 | .350  | .538       | .000                | .500 | .000  | .500       | .000      | .000 | .000  | .000       | .400                | .000 | .000  | .400       | .690       |



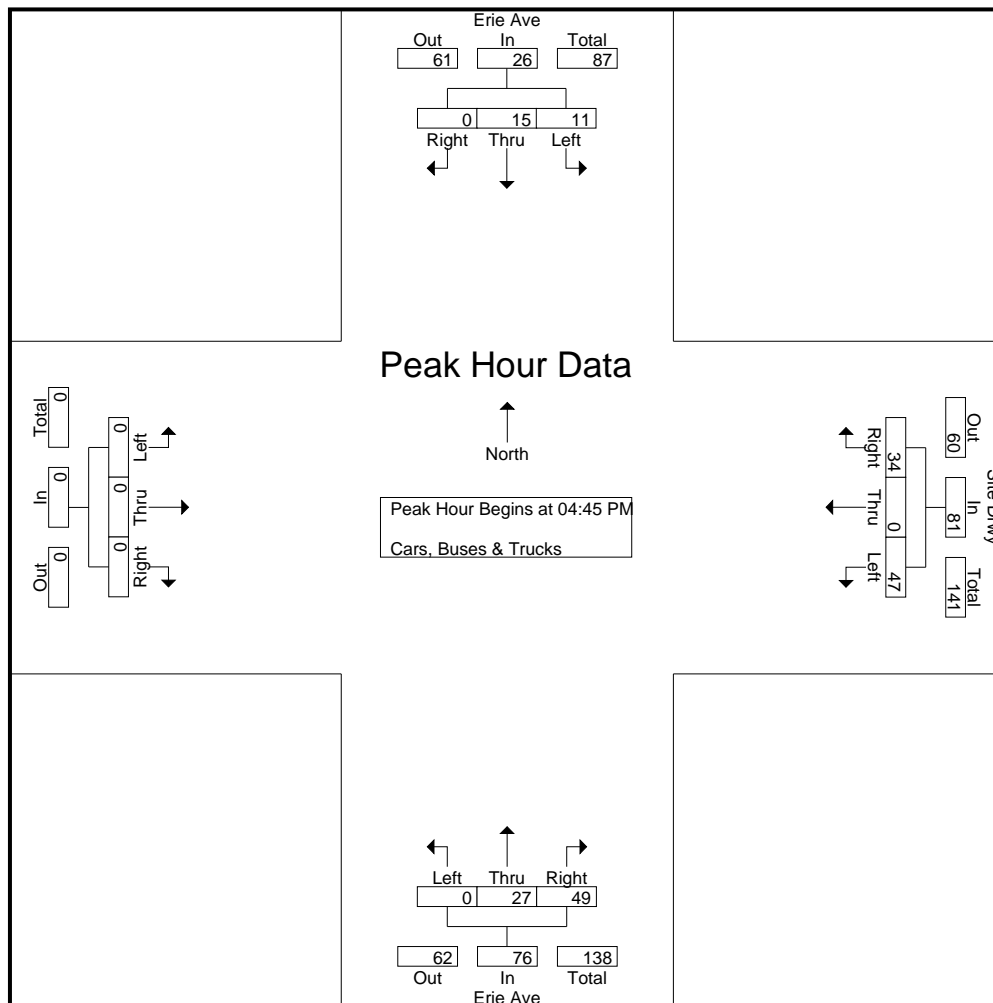
# A & R Engineering, Inc.

2160 Kingston Court Suite 'O'  
Marietta, GA 30067

TMC Data  
Erie Ave @ Site Drwy  
7-9 am | 2-4 pm | 4-6 pm

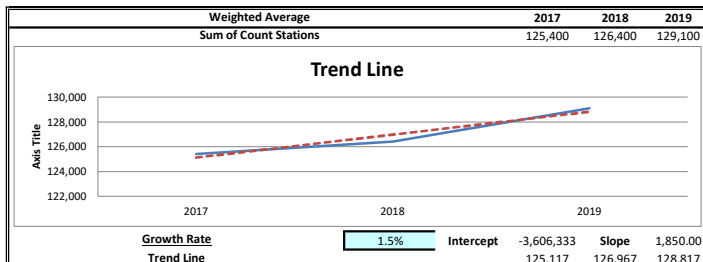
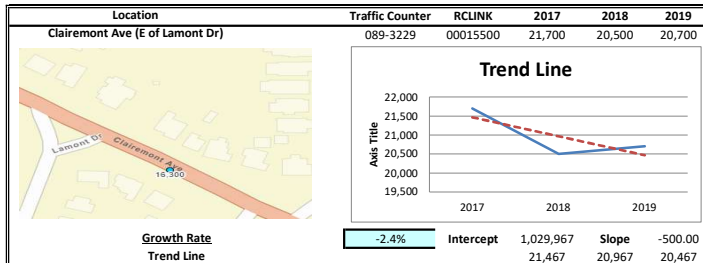
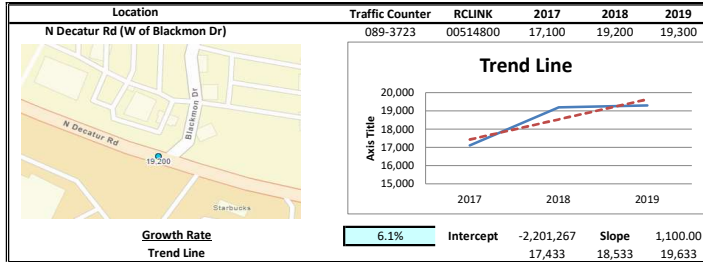
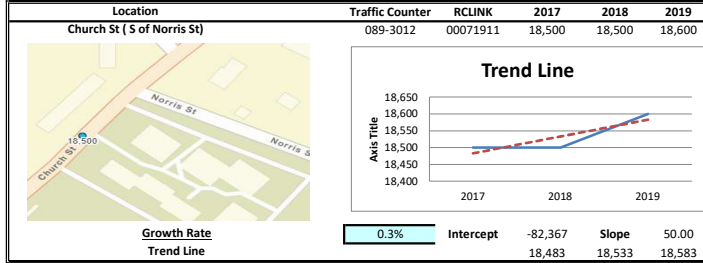
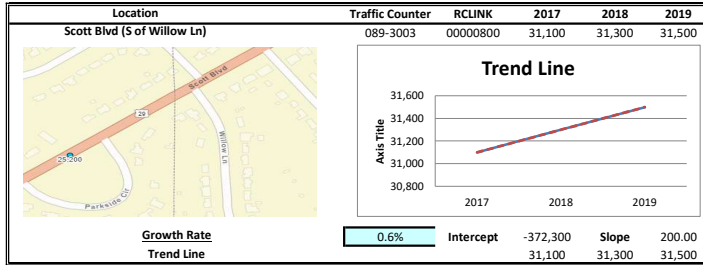
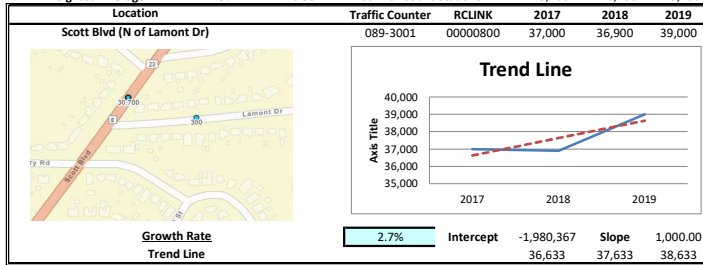
File Name : 20220556  
Site Code : 20220556  
Start Date : 01-17-2023  
Page No : 4

| Start Time   | Erie Ave Northbound |      |       |            | Erie Ave Southbound |      |       |            | Eastbound |      |       |            | Site Drwy Westbound |      |       |            | Int. Total |
|--|---------------------|------|-------|------------|---------------------|------|-------|------------|-----------|------|-------|------------|---------------------|------|-------|------------|------------|
|  | Left                | Thru | Right | App. Total | Left                | Thru | Right | App. Total | Left      | Thru | Right | App. Total | Left                | Thru | Right | App. Total |            |
| Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1 |                     |      |       |            |                     |      |       |            |           |      |       |            |                     |      |       |            |            |
| Peak Hour for Entire Intersection Begins at 04:45 PM       |                     |      |       |            |                     |      |       |            |           |      |       |            |                     |      |       |            |            |
| 04:45 PM   | 0                   | 5    | 16    | 21         | 6                   | 4    | 0     | 10         | 0         | 0    | 0     | 0          | 8                   | 0    | 10    | 18         | 49         |
| 05:00 PM   | 0                   | 5    | 12    | 17         | 2                   | 5    | 0     | 7          | 0         | 0    | 0     | 0          | 12                  | 0    | 7     | 19         | 43         |
| 05:15 PM   | 0                   | 7    | 14    | 21         | 1                   | 5    | 0     | 6          | 0         | 0    | 0     | 0          | 13                  | 0    | 9     | 22         | 49         |
| 05:30 PM   | 0                   | 10   | 7     | 17         | 2                   | 1    | 0     | 3          | 0         | 0    | 0     | 0          | 14                  | 0    | 8     | 22         | 42         |
| Total Volume   | 0                   | 27   | 49    | 76         | 11                  | 15   | 0     | 26         | 0         | 0    | 0     | 0          | 47                  | 0    | 34    | 81         | 183        |
| % App. Total   | 0                   | 35.5 | 64.5  |            | 42.3                | 57.7 | 0     |            | 0         | 0    | 0     |            | 58                  | 0    | 42    |            |            |
| PHF  | .000                | .675 | .766  | .905       | .458                | .750 | .000  | .650       | .000      | .000 | .000  | .000       | .839                | .000 | .850  | .920       | .934       |



# **LINEAR REGRESSION OF DAILY TRAFFIC**

| Location                        | Growth Rate | R Squared   | Station ID                     | Route    | 2017           | 2018           | 2019           |
|---------------------------------|-------------|-------------|--------------------------------|----------|----------------|----------------|----------------|
| Scott Blvd (N of Lamont Dr)     | 2.7%        | 0.71        | 089-3001                       | 00000800 | 37,000         | 36,900         | 39,000         |
| Scott Blvd (S of Willow Ln)     | 0.6%        | 1.00        | 089-3003                       | 00000800 | 31,100         | 31,300         | 31,500         |
| Church St (S of Norris St)      | 0.3%        | 0.75        | 089-3012                       | 00071911 | 18,500         | 18,500         | 18,600         |
| N Decatur Rd (W of Blackmon D)  | 6.1%        | 0.78        | 089-3723                       | 00514800 | 17,100         | 19,200         | 19,300         |
| Clairemont Ave (E of Lamont Dr) | -2.4%       | 0.60        | 089-3229                       | 00015500 | 21,700         | 20,500         | 20,700         |
| <b>Weighted Average</b>         | <b>1.5%</b> | <b>0.93</b> | <b>Sum of Count Stations =</b> |          | <b>125,400</b> | <b>126,400</b> | <b>129,100</b> |





## **EXISTING INTERSECTION ANALYSIS**

**Intersection**

Int Delay, s/veh 1.4

| Movement                 | EBL  | EBT  | WBT  | WBR  | SBL  | SBR  |
|--------------------------|------|------|------|------|------|------|
| Lane Configurations      |      | ↔↑   | ↔↑   |      | ↔    |      |
| Traffic Vol, veh/h       | 36   | 597  | 647  | 56   | 30   | 41   |
| Future Vol, veh/h        | 36   | 597  | 647  | 56   | 30   | 41   |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Stop | Stop |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | -    | -    | -    | -    | 0    | -    |
| Veh in Median Storage, # | -    | 0    | 0    | -    | 0    | -    |
| Grade, %                 | -    | 0    | 0    | -    | 0    | -    |
| Peak Hour Factor         | 93   | 93   | 93   | 93   | 93   | 93   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 39   | 642  | 696  | 60   | 32   | 44   |

**Major/Minor**

|                      | Major1 | Major2 | Minor2 |      |      |
|----------------------|--------|--------|--------|------|------|
| Conflicting Flow All | 756    | 0      | 0      | 1125 | 378  |
| Stage 1              | -      | -      | -      | 726  | -    |
| Stage 2              | -      | -      | -      | 399  | -    |
| Critical Hdwy        | 4.14   | -      | -      | 6.84 | 6.94 |
| Critical Hdwy Stg 1  | -      | -      | -      | 5.84 | -    |
| Critical Hdwy Stg 2  | -      | -      | -      | 5.84 | -    |
| Follow-up Hdwy       | 2.22   | -      | -      | 3.52 | 3.32 |
| Pot Cap-1 Maneuver   | 851    | -      | -      | 199  | 620  |
| Stage 1              | -      | -      | -      | 440  | -    |
| Stage 2              | -      | -      | -      | 647  | -    |
| Platoon blocked, %   |        | -      | -      |      |      |
| Mov Cap-1 Maneuver   | 851    | -      | -      | 185  | 620  |
| Mov Cap-2 Maneuver   | -      | -      | -      | 185  | -    |
| Stage 1              | -      | -      | -      | 409  | -    |
| Stage 2              | -      | -      | -      | 647  | -    |

**Approach**

|                      | EB  | WB | SB   |
|----------------------|-----|----|------|
| HCM Control Delay, s | 0.8 | 0  | 20.3 |
| HCM LOS              |     |    | C    |

**Minor Lane/Major Mvmt**

|                       | EBL   | EBT | WBT | WBR | SBLn1 | SBR   |
|-----------------------|-------|-----|-----|-----|-------|-------|
| Capacity (veh/h)      | 851   | -   | -   | -   | -     | 311   |
| HCM Lane V/C Ratio    | 0.045 | -   | -   | -   | -     | 0.245 |
| HCM Control Delay (s) | 9.4   | 0.3 | -   | -   | -     | 20.3  |
| HCM Lane LOS          | A     | A   | -   | -   | -     | C     |
| HCM 95th %tile Q(veh) | 0.1   | -   | -   | -   | -     | 0.9   |

| Intersection             |        |          |       |        |       |      |
|--------------------------|--------|----------|-------|--------|-------|------|
| Int Delay, s/veh         | 3.5    |          |       |        |       |      |
| Movement                 | WBL    | WBR      | NBT   | NBR    | SBL   | SBT  |
| Lane Configurations      | W      |          | T     |        |       | T    |
| Traffic Vol, veh/h       | 40     | 17       | 35    | 55     | 20    | 34   |
| Future Vol, veh/h        | 40     | 17       | 35    | 55     | 20    | 34   |
| 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         | 75     | 75       | 75    | 75     | 75    | 75   |
| Heavy Vehicles, %        | 2      | 2        | 2     | 2      | 2     | 2    |
| Mvmt Flow                | 53     | 23       | 47    | 73     | 27    | 45   |
| Major/Minor              | Minor1 | Major1   |       | Major2 |       |      |
| Conflicting Flow All     | 183    | 84       | 0     | 0      | 120   | 0    |
| Stage 1                  | 84     | -        | -     | -      | -     | -    |
| Stage 2                  | 99     | -        | -     | -      | -     | -    |
| Critical Hdwy            | 6.42   | 6.22     | -     | -      | 4.12  | -    |
| Critical Hdwy Stg 1      | 5.42   | -        | -     | -      | -     | -    |
| Critical Hdwy Stg 2      | 5.42   | -        | -     | -      | -     | -    |
| Follow-up Hdwy           | 3.518  | 3.318    | -     | -      | 2.218 | -    |
| Pot Cap-1 Maneuver       | 806    | 975      | -     | -      | 1468  | -    |
| Stage 1                  | 939    | -        | -     | -      | -     | -    |
| Stage 2                  | 925    | -        | -     | -      | -     | -    |
| Platoon blocked, %       |        |          | -     | -      |       | -    |
| Mov Cap-1 Maneuver       | 791    | 975      | -     | -      | 1468  | -    |
| Mov Cap-2 Maneuver       | 791    | -        | -     | -      | -     | -    |
| Stage 1                  | 939    | -        | -     | -      | -     | -    |
| Stage 2                  | 907    | -        | -     | -      | -     | -    |
| Approach                 | WB     | NB       |       | SB     |       |      |
| HCM Control Delay, s     | 9.7    | 0        |       | 2.8    |       |      |
| HCM LOS                  | A      |          |       |        |       |      |
| Minor Lane/Major Mvmt    | NBT    | NBRWBLn1 | SBL   | SBT    |       |      |
| Capacity (veh/h)         | -      | -        | 838   | 1468   | -     |      |
| HCM Lane V/C Ratio       | -      | -        | 0.091 | 0.018  | -     |      |
| HCM Control Delay (s)    | -      | -        | 9.7   | 7.5    | 0     |      |
| HCM Lane LOS             | -      | -        | A     | A      | A     |      |
| HCM 95th %tile Q(veh)    | -      | -        | 0.3   | 0.1    | -     |      |

**Intersection**

Int Delay, s/veh 0.9

| Movement                 | EBL  | EBT  | WBT  | WBR  | SBL  | SBR  |
|--------------------------|------|------|------|------|------|------|
| Lane Configurations      |      | ↕↕   | ↕↕   |      | ↕↕   |      |
| Traffic Vol, veh/h       | 25   | 835  | 667  | 39   | 22   | 34   |
| Future Vol, veh/h        | 25   | 835  | 667  | 39   | 22   | 34   |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Stop | Stop |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | -    | -    | -    | -    | 0    | -    |
| Veh in Median Storage, # | -    | 0    | 0    | -    | 0    | -    |
| Grade, %                 | -    | 0    | 0    | -    | 0    | -    |
| Peak Hour Factor         | 97   | 97   | 97   | 97   | 97   | 97   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 26   | 861  | 688  | 40   | 23   | 35   |

**Major/Minor**

|                      | Major1 | Major2 | Minor2 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 728    | 0      | 0      |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Critical Hdwy        | 4.14   | -      | -      |
| Critical Hdwy Stg 1  | -      | -      | -      |
| Critical Hdwy Stg 2  | -      | -      | -      |
| Follow-up Hdwy       | 2.22   | -      | -      |
| Pot Cap-1 Maneuver   | 871    | -      | -      |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Platoon blocked, %   | -      | -      | -      |
| Mov Cap-1 Maneuver   | 871    | -      | -      |
| Mov Cap-2 Maneuver   | -      | -      | -      |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |

**Approach**

|                      | EB  | WB | SB   |
|----------------------|-----|----|------|
| HCM Control Delay, s | 0.5 | 0  | 19.5 |
| HCM LOS              |     |    | C    |

**Minor Lane/Major Mvmt**

|                       | EBL  | EBT | WBT | WBR | SBLn1 |
|-----------------------|------|-----|-----|-----|-------|
| Capacity (veh/h)      | 871  | -   | -   | -   | 306   |
| HCM Lane V/C Ratio    | 0.03 | -   | -   | -   | 0.189 |
| HCM Control Delay (s) | 9.3  | 0.2 | -   | -   | 19.5  |
| HCM Lane LOS          | A    | A   | -   | -   | C     |
| HCM 95th %tile Q(veh) | 0.1  | -   | -   | -   | 0.7   |

| Intersection             |        |          |       |        |       |      |
|--------------------------|--------|----------|-------|--------|-------|------|
| Int Delay, s/veh         | 4.5    |          |       |        |       |      |
| Movement                 | WBL    | WBR      | NBT   | NBR    | SBL   | SBT  |
| Lane Configurations      | Y      |          | T     |        |       | T    |
| Traffic Vol, veh/h       | 47     | 34       | 27    | 49     | 11    | 15   |
| Future Vol, veh/h        | 47     | 34       | 27    | 49     | 11    | 15   |
| 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         | 93     | 93       | 93    | 93     | 93    | 93   |
| Heavy Vehicles, %        | 2      | 2        | 2     | 2      | 2     | 2    |
| Mvmt Flow                | 51     | 37       | 29    | 53     | 12    | 16   |
| Major/Minor              | Minor1 | Major1   |       | Major2 |       |      |
| Conflicting Flow All     | 96     | 56       | 0     | 0      | 82    | 0    |
| Stage 1                  | 56     | -        | -     | -      | -     | -    |
| Stage 2                  | 40     | -        | -     | -      | -     | -    |
| Critical Hdwy            | 6.42   | 6.22     | -     | -      | 4.12  | -    |
| Critical Hdwy Stg 1      | 5.42   | -        | -     | -      | -     | -    |
| Critical Hdwy Stg 2      | 5.42   | -        | -     | -      | -     | -    |
| Follow-up Hdwy           | 3.518  | 3.318    | -     | -      | 2.218 | -    |
| Pot Cap-1 Maneuver       | 903    | 1011     | -     | -      | 1515  | -    |
| Stage 1                  | 967    | -        | -     | -      | -     | -    |
| Stage 2                  | 982    | -        | -     | -      | -     | -    |
| Platoon blocked, %       |        |          | -     | -      |       | -    |
| Mov Cap-1 Maneuver       | 896    | 1011     | -     | -      | 1515  | -    |
| Mov Cap-2 Maneuver       | 896    | -        | -     | -      | -     | -    |
| Stage 1                  | 967    | -        | -     | -      | -     | -    |
| Stage 2                  | 974    | -        | -     | -      | -     | -    |
| Approach                 | WB     | NB       |       | SB     |       |      |
| HCM Control Delay, s     | 9.2    | 0        |       | 3.1    |       |      |
| HCM LOS                  | A      |          |       |        |       |      |
| Minor Lane/Major Mvmt    | NBT    | NBRWBLn1 | SBL   | SBT    |       |      |
| Capacity (veh/h)         | -      | -        | 941   | 1515   | -     |      |
| HCM Lane V/C Ratio       | -      | -        | 0.093 | 0.008  | -     |      |
| HCM Control Delay (s)    | -      | -        | 9.2   | 7.4    | 0     |      |
| HCM Lane LOS             | -      | -        | A     | A      | A     |      |
| HCM 95th %tile Q(veh)    | -      | -        | 0.3   | 0      | -     |      |

**Intersection**

Int Delay, s/veh 0.3

**Movement** EBL EBT WBT WBR SBL SBR

|                          |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Lane Configurations      |      | ↔↑   | ↔↑   |      | ↔↓   |      |
| Traffic Vol, veh/h       | 5    | 709  | 584  | 15   | 9    | 5    |
| Future Vol, veh/h        | 5    | 709  | 584  | 15   | 9    | 5    |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Stop | Stop |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | -    | -    | -    | -    | 0    | -    |
| Veh in Median Storage, # | -    | 0    | 0    | -    | 0    | -    |
| Grade, %                 | -    | 0    | 0    | -    | 0    | -    |
| Peak Hour Factor         | 88   | 88   | 88   | 88   | 88   | 88   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 6    | 806  | 664  | 17   | 10   | 6    |

**Major/Minor** Major1 Major2 Minor2

|                      |      |   |   |   |      |      |
|----------------------|------|---|---|---|------|------|
| Conflicting Flow All | 681  | 0 | - | 0 | 1088 | 341  |
| Stage 1              | -    | - | - | - | 673  | -    |
| Stage 2              | -    | - | - | - | 415  | -    |
| Critical Hdwy        | 4.14 | - | - | - | 6.84 | 6.94 |
| Critical Hdwy Stg 1  | -    | - | - | - | 5.84 | -    |
| Critical Hdwy Stg 2  | -    | - | - | - | 5.84 | -    |
| Follow-up Hdwy       | 2.22 | - | - | - | 3.52 | 3.32 |
| Pot Cap-1 Maneuver   | 907  | - | - | - | 210  | 655  |
| Stage 1              | -    | - | - | - | 468  | -    |
| Stage 2              | -    | - | - | - | 635  | -    |
| Platoon blocked, %   |      | - | - | - |      |      |
| Mov Cap-1 Maneuver   | 907  | - | - | - | 207  | 655  |
| Mov Cap-2 Maneuver   | -    | - | - | - | 207  | -    |
| Stage 1              | -    | - | - | - | 462  | -    |
| Stage 2              | -    | - | - | - | 635  | -    |

**Approach** EB WB SB

|                      |     |   |      |
|----------------------|-----|---|------|
| HCM Control Delay, s | 0.2 | 0 | 18.9 |
| HCM LOS              |     |   | C    |

**Minor Lane/Major Mvmt** EBL EBT WBT WBR SBLn1

|                       |       |     |   |   |       |
|-----------------------|-------|-----|---|---|-------|
| Capacity (veh/h)      | 907   | -   | - | - | 274   |
| HCM Lane V/C Ratio    | 0.006 | -   | - | - | 0.058 |
| HCM Control Delay (s) | 9     | 0.1 | - | - | 18.9  |
| HCM Lane LOS          | A     | A   | - | - | C     |
| HCM 95th %tile Q(veh) | 0     | -   | - | - | 0.2   |

| Intersection             |        |          |        |      |       |      |
|--------------------------|--------|----------|--------|------|-------|------|
| Int Delay, s/veh         | 1      |          |        |      |       |      |
| Movement                 | WBL    | WBR      | NBT    | NBR  | SBL   | SBT  |
| Lane Configurations      | W      |          | T      |      |       | T    |
| Traffic Vol, veh/h       | 8      | 0        | 36     | 7    | 0     | 18   |
| Future Vol, veh/h        | 8      | 0        | 36     | 7    | 0     | 18   |
| 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         | 69     | 69       | 69     | 69   | 69    | 69   |
| Heavy Vehicles, %        | 2      | 2        | 2      | 2    | 2     | 2    |
| Mvmt Flow                | 12     | 0        | 52     | 10   | 0     | 26   |
| Major/Minor              | Minor1 | Major1   | Major2 |      |       |      |
| Conflicting Flow All     | 83     | 57       | 0      | 0    | 62    | 0    |
| Stage 1                  | 57     | -        | -      | -    | -     | -    |
| Stage 2                  | 26     | -        | -      | -    | -     | -    |
| Critical Hdwy            | 6.42   | 6.22     | -      | -    | 4.12  | -    |
| Critical Hdwy Stg 1      | 5.42   | -        | -      | -    | -     | -    |
| Critical Hdwy Stg 2      | 5.42   | -        | -      | -    | -     | -    |
| Follow-up Hdwy           | 3.518  | 3.318    | -      | -    | 2.218 | -    |
| Pot Cap-1 Maneuver       | 919    | 1009     | -      | -    | 1541  | -    |
| Stage 1                  | 966    | -        | -      | -    | -     | -    |
| Stage 2                  | 997    | -        | -      | -    | -     | -    |
| Platoon blocked, %       |        |          | -      | -    | -     | -    |
| Mov Cap-1 Maneuver       | 919    | 1009     | -      | -    | 1541  | -    |
| Mov Cap-2 Maneuver       | 919    | -        | -      | -    | -     | -    |
| Stage 1                  | 966    | -        | -      | -    | -     | -    |
| Stage 2                  | 997    | -        | -      | -    | -     | -    |
| Approach                 | WB     | NB       | SB     |      |       |      |
| HCM Control Delay, s     | 9      | 0        | 0      |      |       |      |
| HCM LOS                  | A      |          |        |      |       |      |
| Minor Lane/Major Mvmt    | NBT    | NBRWBLn1 | SBL    | SBT  |       |      |
| Capacity (veh/h)         | -      | -        | 919    | 1541 | -     |      |
| HCM Lane V/C Ratio       | -      | -        | 0.013  | -    | -     |      |
| HCM Control Delay (s)    | -      | -        | 9      | 0    | -     |      |
| HCM Lane LOS             | -      | -        | A      | A    | -     |      |
| HCM 95th %tile Q(veh)    | -      | -        | 0      | 0    | -     |      |

**FUTURE "NO-BUILD" INTERSECTION  
ANALYSIS – BASE YEAR 2025**



**Intersection**

Int Delay, s/veh 1.5

| Movement                 | EBL  | EBT  | WBT  | WBR  | SBL  | SBR  |
|--------------------------|------|------|------|------|------|------|
| Lane Configurations      |      | ↕↕   | ↕↕   |      | ↕↕   |      |
| Traffic Vol, veh/h       | 37   | 621  | 673  | 58   | 31   | 43   |
| Future Vol, veh/h        | 37   | 621  | 673  | 58   | 31   | 43   |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Stop | Stop |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | -    | -    | -    | -    | 0    | -    |
| Veh in Median Storage, # | -    | 0    | 0    | -    | 0    | -    |
| Grade, %                 | -    | 0    | 0    | -    | 0    | -    |
| Peak Hour Factor         | 93   | 93   | 93   | 93   | 93   | 93   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 40   | 668  | 724  | 62   | 33   | 46   |

**Major/Minor**

|                      | Major1 | Major2 | Minor2 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 786    | 0      | 0      |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Critical Hdwy        | 4.14   | -      | -      |
| Critical Hdwy Stg 1  | -      | -      | -      |
| Critical Hdwy Stg 2  | -      | -      | -      |
| Follow-up Hdwy       | 2.22   | -      | -      |
| Pot Cap-1 Maneuver   | 829    | -      | -      |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Platoon blocked, %   | -      | -      | -      |
| Mov Cap-1 Maneuver   | 829    | -      | -      |
| Mov Cap-2 Maneuver   | -      | -      | -      |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |

**Approach**

|                      | EB  | WB | SB   |
|----------------------|-----|----|------|
| HCM Control Delay, s | 0.8 | 0  | 21.7 |
| HCM LOS              |     |    | C    |

**Minor Lane/Major Mvmt**

|                       | EBL   | EBT | WBT | WBR | SBLn1 |
|-----------------------|-------|-----|-----|-----|-------|
| Capacity (veh/h)      | 829   | -   | -   | -   | 295   |
| HCM Lane V/C Ratio    | 0.048 | -   | -   | -   | 0.27  |
| HCM Control Delay (s) | 9.6   | 0.3 | -   | -   | 21.7  |
| HCM Lane LOS          | A     | A   | -   | -   | C     |
| HCM 95th %tile Q(veh) | 0.2   | -   | -   | -   | 1.1   |

| Intersection             |        |          |       |        |       |      |
|--------------------------|--------|----------|-------|--------|-------|------|
| Int Delay, s/veh         | 3.6    |          |       |        |       |      |
| Movement                 | WBL    | WBR      | NBT   | NBR    | SBL   | SBT  |
| Lane Configurations      | Y      |          | T     |        |       | T    |
| Traffic Vol, veh/h       | 42     | 18       | 36    | 57     | 21    | 35   |
| Future Vol, veh/h        | 42     | 18       | 36    | 57     | 21    | 35   |
| 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         | 75     | 75       | 75    | 75     | 75    | 75   |
| Heavy Vehicles, %        | 2      | 2        | 2     | 2      | 2     | 2    |
| Mvmt Flow                | 56     | 24       | 48    | 76     | 28    | 47   |
| Major/Minor              | Minor1 | Major1   |       | Major2 |       |      |
| Conflicting Flow All     | 189    | 86       | 0     | 0      | 124   | 0    |
| Stage 1                  | 86     | -        | -     | -      | -     | -    |
| Stage 2                  | 103    | -        | -     | -      | -     | -    |
| Critical Hdwy            | 6.42   | 6.22     | -     | -      | 4.12  | -    |
| Critical Hdwy Stg 1      | 5.42   | -        | -     | -      | -     | -    |
| Critical Hdwy Stg 2      | 5.42   | -        | -     | -      | -     | -    |
| Follow-up Hdwy           | 3.518  | 3.318    | -     | -      | 2.218 | -    |
| Pot Cap-1 Maneuver       | 800    | 973      | -     | -      | 1463  | -    |
| Stage 1                  | 937    | -        | -     | -      | -     | -    |
| Stage 2                  | 921    | -        | -     | -      | -     | -    |
| Platoon blocked, %       |        |          | -     | -      |       | -    |
| Mov Cap-1 Maneuver       | 784    | 973      | -     | -      | 1463  | -    |
| Mov Cap-2 Maneuver       | 784    | -        | -     | -      | -     | -    |
| Stage 1                  | 937    | -        | -     | -      | -     | -    |
| Stage 2                  | 903    | -        | -     | -      | -     | -    |
| Approach                 | WB     | NB       |       | SB     |       |      |
| HCM Control Delay, s     | 9.8    | 0        |       | 2.8    |       |      |
| HCM LOS                  | A      |          |       |        |       |      |
| Minor Lane/Major Mvmt    | NBT    | NBRWBLn1 | SBL   | SBT    |       |      |
| Capacity (veh/h)         | -      | -        | 833   | 1463   | -     |      |
| HCM Lane V/C Ratio       | -      | -        | 0.096 | 0.019  | -     |      |
| HCM Control Delay (s)    | -      | -        | 9.8   | 7.5    | 0     |      |
| HCM Lane LOS             | -      | -        | A     | A      | A     |      |
| HCM 95th %tile Q(veh)    | -      | -        | 0.3   | 0.1    | -     |      |

**Intersection**

Int Delay, s/veh 1

| Movement                 | EBL  | EBT  | WBT  | WBR  | SBL  | SBR  |
|--------------------------|------|------|------|------|------|------|
| Lane Configurations      |      | ↕↕   | ↕↕   |      | ↕↕   |      |
| Traffic Vol, veh/h       | 26   | 868  | 694  | 41   | 23   | 35   |
| Future Vol, veh/h        | 26   | 868  | 694  | 41   | 23   | 35   |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Stop | Stop |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | -    | -    | -    | -    | 0    | -    |
| Veh in Median Storage, # | -    | 0    | 0    | -    | 0    | -    |
| Grade, %                 | -    | 0    | 0    | -    | 0    | -    |
| Peak Hour Factor         | 97   | 97   | 97   | 97   | 97   | 97   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 27   | 895  | 715  | 42   | 24   | 36   |

**Major/Minor**

|                      | Major1 | Major2 | Minor2 |      |      |
|----------------------|--------|--------|--------|------|------|
| Conflicting Flow All | 757    | 0      | 0      | 1238 | 379  |
| Stage 1              | -      | -      | -      | 736  | -    |
| Stage 2              | -      | -      | -      | 502  | -    |
| Critical Hdwy        | 4.14   | -      | -      | 6.84 | 6.94 |
| Critical Hdwy Stg 1  | -      | -      | -      | 5.84 | -    |
| Critical Hdwy Stg 2  | -      | -      | -      | 5.84 | -    |
| Follow-up Hdwy       | 2.22   | -      | -      | 3.52 | 3.32 |
| Pot Cap-1 Maneuver   | 850    | -      | -      | 168  | 619  |
| Stage 1              | -      | -      | -      | 435  | -    |
| Stage 2              | -      | -      | -      | 573  | -    |
| Platoon blocked, %   | -      | -      | -      | -    | -    |
| Mov Cap-1 Maneuver   | 850    | -      | -      | 157  | 619  |
| Mov Cap-2 Maneuver   | -      | -      | -      | 157  | -    |
| Stage 1              | -      | -      | -      | 408  | -    |
| Stage 2              | -      | -      | -      | 573  | -    |

**Approach**

|                      | EB  | WB | SB   |
|----------------------|-----|----|------|
| HCM Control Delay, s | 0.6 | 0  | 20.9 |
| HCM LOS              |     |    | C    |

**Minor Lane/Major Mvmt**

|                       | EBL   | EBT | WBT | WBR | SBLn1 |
|-----------------------|-------|-----|-----|-----|-------|
| Capacity (veh/h)      | 850   | -   | -   | -   | 286   |
| HCM Lane V/C Ratio    | 0.032 | -   | -   | -   | 0.209 |
| HCM Control Delay (s) | 9.4   | 0.3 | -   | -   | 20.9  |
| HCM Lane LOS          | A     | A   | -   | -   | C     |
| HCM 95th %tile Q(veh) | 0.1   | -   | -   | -   | 0.8   |

| Intersection             |        |          |        |       |       |      |
|--------------------------|--------|----------|--------|-------|-------|------|
| Int Delay, s/veh         | 4.5    |          |        |       |       |      |
| Movement                 | WBL    | WBR      | NBT    | NBR   | SBL   | SBT  |
| Lane Configurations      | W      |          | T      |       |       | T    |
| Traffic Vol, veh/h       | 49     | 35       | 28     | 51    | 11    | 16   |
| Future Vol, veh/h        | 49     | 35       | 28     | 51    | 11    | 16   |
| 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         | 93     | 93       | 93     | 93    | 93    | 93   |
| Heavy Vehicles, %        | 2      | 2        | 2      | 2     | 2     | 2    |
| Mvmt Flow                | 53     | 38       | 30     | 55    | 12    | 17   |
| Major/Minor              | Minor1 | Major1   | Major2 |       |       |      |
| Conflicting Flow All     | 99     | 58       | 0      | 0     | 85    | 0    |
| Stage 1                  | 58     | -        | -      | -     | -     | -    |
| Stage 2                  | 41     | -        | -      | -     | -     | -    |
| Critical Hdwy            | 6.42   | 6.22     | -      | -     | 4.12  | -    |
| Critical Hdwy Stg 1      | 5.42   | -        | -      | -     | -     | -    |
| Critical Hdwy Stg 2      | 5.42   | -        | -      | -     | -     | -    |
| Follow-up Hdwy           | 3.518  | 3.318    | -      | -     | 2.218 | -    |
| Pot Cap-1 Maneuver       | 900    | 1008     | -      | -     | 1512  | -    |
| Stage 1                  | 965    | -        | -      | -     | -     | -    |
| Stage 2                  | 981    | -        | -      | -     | -     | -    |
| Platoon blocked, %       |        |          | -      | -     | -     | -    |
| Mov Cap-1 Maneuver       | 893    | 1008     | -      | -     | 1512  | -    |
| Mov Cap-2 Maneuver       | 893    | -        | -      | -     | -     | -    |
| Stage 1                  | 965    | -        | -      | -     | -     | -    |
| Stage 2                  | 973    | -        | -      | -     | -     | -    |
| Approach                 | WB     | NB       | SB     |       |       |      |
| HCM Control Delay, s     | 9.2    | 0        | 3      |       |       |      |
| HCM LOS                  | A      |          |        |       |       |      |
| Minor Lane/Major Mvmt    | NBT    | NBRWBLn1 | SBL    | SBT   |       |      |
| Capacity (veh/h)         | -      | -        | 938    | 1512  | -     |      |
| HCM Lane V/C Ratio       | -      | -        | 0.096  | 0.008 | -     |      |
| HCM Control Delay (s)    | -      | -        | 9.2    | 7.4   | 0     |      |
| HCM Lane LOS             | -      | -        | A      | A     | A     |      |
| HCM 95th %tile Q(veh)    | -      | -        | 0.3    | 0     | -     |      |

| Intersection             |        |        |        |      |       |       |
|--------------------------|--------|--------|--------|------|-------|-------|
| Int Delay, s/veh         | 0.3    |        |        |      |       |       |
| Movement                 | EBL    | EBT    | WBT    | WBR  | SBL   | SBR   |
| Lane Configurations      |        | ↔↑     | ↔↑     |      | ↔↓    |       |
| Traffic Vol, veh/h       | 5      | 737    | 607    | 16   | 9     | 5     |
| Future Vol, veh/h        | 5      | 737    | 607    | 16   | 9     | 5     |
| Conflicting Peds, #/hr   | 0      | 0      | 0      | 0    | 0     | 0     |
| Sign Control             | Free   | Free   | Free   | Free | Stop  | Stop  |
| RT Channelized           | -      | None   | -      | None | -     | None  |
| Storage Length           | -      | -      | -      | -    | 0     | -     |
| Veh in Median Storage, # | -      | 0      | 0      | -    | 0     | -     |
| Grade, %                 | -      | 0      | 0      | -    | 0     | -     |
| Peak Hour Factor         | 88     | 88     | 88     | 88   | 88    | 88    |
| Heavy Vehicles, %        | 2      | 2      | 2      | 2    | 2     | 2     |
| Mvmt Flow                | 6      | 838    | 690    | 18   | 10    | 6     |
| Major/Minor              | Major1 | Major2 | Minor2 |      |       |       |
| Conflicting Flow All     | 708    | 0      | -      | 0    | 1130  | 354   |
| Stage 1                  | -      | -      | -      | -    | 699   | -     |
| Stage 2                  | -      | -      | -      | -    | 431   | -     |
| Critical Hdwy            | 4.14   | -      | -      | -    | 6.84  | 6.94  |
| Critical Hdwy Stg 1      | -      | -      | -      | -    | 5.84  | -     |
| Critical Hdwy Stg 2      | -      | -      | -      | -    | 5.84  | -     |
| Follow-up Hdwy           | 2.22   | -      | -      | -    | 3.52  | 3.32  |
| Pot Cap-1 Maneuver       | 887    | -      | -      | -    | 197   | 642   |
| Stage 1                  | -      | -      | -      | -    | 454   | -     |
| Stage 2                  | -      | -      | -      | -    | 623   | -     |
| Platoon blocked, %       |        | -      | -      | -    |       |       |
| Mov Cap-1 Maneuver       | 887    | -      | -      | -    | 194   | 642   |
| Mov Cap-2 Maneuver       | -      | -      | -      | -    | 194   | -     |
| Stage 1                  | -      | -      | -      | -    | 448   | -     |
| Stage 2                  | -      | -      | -      | -    | 623   | -     |
| Approach                 | EB     | WB     |        | SB   |       |       |
| HCM Control Delay, s     | 0.2    | 0      |        | 19.9 |       |       |
| HCM LOS                  |        |        |        | C    |       |       |
| Minor Lane/Major Mvmt    | EBL    | EBT    | WBT    | WBR  | SBLn1 |       |
| Capacity (veh/h)         | 887    | -      | -      | -    | -     | 258   |
| HCM Lane V/C Ratio       | 0.006  | -      | -      | -    | -     | 0.062 |
| HCM Control Delay (s)    | 9.1    | 0.1    | -      | -    | -     | 19.9  |
| HCM Lane LOS             | A      | A      | -      | -    | -     | C     |
| HCM 95th %tile Q(veh)    | 0      | -      | -      | -    | -     | 0.2   |

**Intersection**

Int Delay, s/veh 1.1

| Movement                 | WBL  | WBR  | NBT  | NBR  | SBL  | SBT  |
|--------------------------|------|------|------|------|------|------|
| Lane Configurations      | Y    |      | T    |      |      | T    |
| Traffic Vol, veh/h       | 8    | 0    | 37   | 7    | 0    | 19   |
| Future Vol, veh/h        | 8    | 0    | 37   | 7    | 0    | 19   |
| 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         | 69   | 69   | 69   | 69   | 69   | 92   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 12   | 0    | 54   | 10   | 0    | 21   |

**Major/Minor**

|                      | Minor1 | Major1 | Major2 |   |       |
|----------------------|--------|--------|--------|---|-------|
| Conflicting Flow All | 80     | 59     | 0      | 0 | 64    |
| Stage 1              | 59     | -      | -      | - | -     |
| Stage 2              | 21     | -      | -      | - | -     |
| Critical Hdwy        | 6.42   | 6.22   | -      | - | 4.12  |
| Critical Hdwy Stg 1  | 5.42   | -      | -      | - | -     |
| Critical Hdwy Stg 2  | 5.42   | -      | -      | - | -     |
| Follow-up Hdwy       | 3.518  | 3.318  | -      | - | 2.218 |
| Pot Cap-1 Maneuver   | 922    | 1007   | -      | - | 1538  |
| Stage 1              | 964    | -      | -      | - | -     |
| Stage 2              | 1002   | -      | -      | - | -     |
| Platoon blocked, %   |        |        | -      | - | -     |
| Mov Cap-1 Maneuver   | 922    | 1007   | -      | - | 1538  |
| Mov Cap-2 Maneuver   | 922    | -      | -      | - | -     |
| Stage 1              | 964    | -      | -      | - | -     |
| Stage 2              | 1002   | -      | -      | - | -     |

**Approach**

|                      | WB | NB | SB |
|----------------------|----|----|----|
| HCM Control Delay, s | 9  | 0  | 0  |
| HCM LOS              | A  |    |    |

**Minor Lane/Major Mvmt**

|                       | NBT | NBRWBLn1 | SBL   | SBT  |
|-----------------------|-----|----------|-------|------|
| Capacity (veh/h)      | -   | -        | 922   | 1538 |
| HCM Lane V/C Ratio    | -   | -        | 0.013 | -    |
| HCM Control Delay (s) | -   | -        | 9     | 0    |
| HCM Lane LOS          | -   | -        | A     | A    |
| HCM 95th %tile Q(veh) | -   | -        | 0     | 0    |

**FUTURE "BUILD" INTERSECTION ANALYSIS -  
BASE YEAR 2025**

**Intersection**

Int Delay, s/veh 3.6

| Movement                 | EBL  | EBT  | WBT  | WBR  | SBL  | SBR  |
|--------------------------|------|------|------|------|------|------|
| Lane Configurations      |      | ↔↑   | ↔↑   |      | ↔↓   |      |
| Traffic Vol, veh/h       | 83   | 621  | 711  | 111  | 48   | 60   |
| Future Vol, veh/h        | 83   | 621  | 711  | 111  | 48   | 60   |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Stop | Stop |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | -    | -    | -    | -    | 0    | -    |
| Veh in Median Storage, # | -    | 0    | 0    | -    | 0    | -    |
| Grade, %                 | -    | 0    | 0    | -    | 0    | -    |
| Peak Hour Factor         | 93   | 93   | 93   | 93   | 93   | 93   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 89   | 668  | 765  | 119  | 52   | 65   |

**Major/Minor**

|                      | Major1 | Major2 | Minor2 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 884    | 0      | 0      |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Critical Hdwy        | 4.14   | -      | -      |
| Critical Hdwy Stg 1  | -      | -      | -      |
| Critical Hdwy Stg 2  | -      | -      | -      |
| Follow-up Hdwy       | 2.22   | -      | -      |
| Pot Cap-1 Maneuver   | 761    | -      | -      |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Platoon blocked, %   | -      | -      | -      |
| Mov Cap-1 Maneuver   | 761    | -      | -      |
| Mov Cap-2 Maneuver   | -      | -      | -      |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |

**Approach**

|                      | EB  | WB | SB   |
|----------------------|-----|----|------|
| HCM Control Delay, s | 1.9 | 0  | 41.5 |
| HCM LOS              |     |    | E    |

**Minor Lane/Major Mvmt**

|                       | EBL   | EBT | WBT | WBR | SBLn1 |
|-----------------------|-------|-----|-----|-----|-------|
| Capacity (veh/h)      | 761   | -   | -   | -   | 210   |
| HCM Lane V/C Ratio    | 0.117 | -   | -   | -   | 0.553 |
| HCM Control Delay (s) | 10.4  | 0.8 | -   | -   | 41.5  |
| HCM Lane LOS          | B     | A   | -   | -   | E     |
| HCM 95th %tile Q(veh) | 0.4   | -   | -   | -   | 3     |



| Intersection             |        |          |       |        |       |      |
|--------------------------|--------|----------|-------|--------|-------|------|
| Int Delay, s/veh         | 5.2    |          |       |        |       |      |
| Movement                 | WBL    | WBR      | NBT   | NBR    | SBL   | SBT  |
| Lane Configurations      | Y      |          | T     |        |       | T    |
| Traffic Vol, veh/h       | 77     | 59       | 36    | 156    | 74    | 35   |
| Future Vol, veh/h        | 77     | 59       | 36    | 156    | 74    | 35   |
| 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         | 75     | 75       | 75    | 75     | 75    | 75   |
| Heavy Vehicles, %        | 2      | 2        | 2     | 2      | 2     | 2    |
| Mvmt Flow                | 103    | 79       | 48    | 208    | 99    | 47   |
| Major/Minor              | Minor1 | Major1   |       | Major2 |       |      |
| Conflicting Flow All     | 397    | 152      | 0     | 0      | 256   | 0    |
| Stage 1                  | 152    | -        | -     | -      | -     | -    |
| Stage 2                  | 245    | -        | -     | -      | -     | -    |
| Critical Hdwy            | 6.42   | 6.22     | -     | -      | 4.12  | -    |
| Critical Hdwy Stg 1      | 5.42   | -        | -     | -      | -     | -    |
| Critical Hdwy Stg 2      | 5.42   | -        | -     | -      | -     | -    |
| Follow-up Hdwy           | 3.518  | 3.318    | -     | -      | 2.218 | -    |
| Pot Cap-1 Maneuver       | 608    | 894      | -     | -      | 1309  | -    |
| Stage 1                  | 876    | -        | -     | -      | -     | -    |
| Stage 2                  | 796    | -        | -     | -      | -     | -    |
| Platoon blocked, %       |        |          | -     | -      |       | -    |
| Mov Cap-1 Maneuver       | 561    | 894      | -     | -      | 1309  | -    |
| Mov Cap-2 Maneuver       | 561    | -        | -     | -      | -     | -    |
| Stage 1                  | 876    | -        | -     | -      | -     | -    |
| Stage 2                  | 734    | -        | -     | -      | -     | -    |
| Approach                 | WB     | NB       |       | SB     |       |      |
| HCM Control Delay, s     | 12.4   | 0        |       | 5.4    |       |      |
| HCM LOS                  | B      |          |       |        |       |      |
| Minor Lane/Major Mvmt    | NBT    | NBRWBLn1 | SBL   | SBT    |       |      |
| Capacity (veh/h)         | -      | -        | 669   | 1309   | -     |      |
| HCM Lane V/C Ratio       | -      | -        | 0.271 | 0.075  | -     |      |
| HCM Control Delay (s)    | -      | -        | 12.4  | 8      | 0     |      |
| HCM Lane LOS             | -      | -        | B     | A      | A     |      |
| HCM 95th %tile Q(veh)    | -      | -        | 1.1   | 0.2    | -     |      |

| Intersection             |        |        |        |      |      |      |
|--------------------------|--------|--------|--------|------|------|------|
| Int Delay, s/veh         | 1.5    |        |        |      |      |      |
| Movement                 | EBL    | EBT    | WBT    | WBR  | SBL  | SBR  |
| Lane Configurations      |        | ↑↑     | ↑↑     |      | ∩    |      |
| Traffic Vol, veh/h       | 0      | 669    | 784    | 0    | 46   | 38   |
| Future Vol, veh/h        | 0      | 669    | 784    | 0    | 46   | 38   |
| Conflicting Peds, #/hr   | 0      | 0      | 0      | 0    | 0    | 0    |
| Sign Control             | Free   | Free   | Free   | Free | Stop | Stop |
| RT Channelized           | -      | None   | -      | None | -    | None |
| Storage Length           | -      | -      | -      | -    | 0    | -    |
| Veh in Median Storage, # | -      | 0      | 0      | -    | 0    | -    |
| Grade, %                 | -      | 0      | 0      | -    | 0    | -    |
| Peak Hour Factor         | 92     | 92     | 92     | 92   | 92   | 92   |
| Heavy Vehicles, %        | 2      | 2      | 2      | 2    | 2    | 2    |
| Mvmt Flow                | 0      | 727    | 852    | 0    | 50   | 41   |
| Major/Minor              | Major1 | Major2 | Minor2 |      |      |      |
| Conflicting Flow All     | -      | 0      | -      | 0    | 1216 | 426  |
| Stage 1                  | -      | -      | -      | -    | 852  | -    |
| Stage 2                  | -      | -      | -      | -    | 364  | -    |
| Critical Hdwy            | -      | -      | -      | -    | 6.84 | 6.94 |
| Critical Hdwy Stg 1      | -      | -      | -      | -    | 5.84 | -    |
| Critical Hdwy Stg 2      | -      | -      | -      | -    | 5.84 | -    |
| Follow-up Hdwy           | -      | -      | -      | -    | 3.52 | 3.32 |
| Pot Cap-1 Maneuver       | 0      | -      | -      | 0    | 173  | 577  |
| Stage 1                  | 0      | -      | -      | 0    | 378  | -    |
| Stage 2                  | 0      | -      | -      | 0    | 673  | -    |
| Platoon blocked, %       |        | -      | -      |      |      |      |
| Mov Cap-1 Maneuver       | -      | -      | -      | -    | 173  | 577  |
| Mov Cap-2 Maneuver       | -      | -      | -      | -    | 173  | -    |
| Stage 1                  | -      | -      | -      | -    | 378  | -    |
| Stage 2                  | -      | -      | -      | -    | 673  | -    |
| Approach                 | EB     | WB     |        | SB   |      |      |
| HCM Control Delay, s     | 0      | 0      |        | 27.1 |      |      |
| HCM LOS                  |        |        |        | D    |      |      |
| Minor Lane/Major Mvmt    | EBT    | WBT    | SBLn1  |      |      |      |
| Capacity (veh/h)         | -      | -      | 253    |      |      |      |
| HCM Lane V/C Ratio       | -      | -      | 0.361  |      |      |      |
| HCM Control Delay (s)    | -      | -      | 27.1   |      |      |      |
| HCM Lane LOS             | -      | -      | D      |      |      |      |
| HCM 95th %tile Q(veh)    | -      | -      | 1.6    |      |      |      |

| Intersection             |        |        |        |      |       |      |
|--------------------------|--------|--------|--------|------|-------|------|
| Int Delay, s/veh         | 3.1    |        |        |      |       |      |
| Movement                 | EBL    | EBT    | WBT    | WBR  | SBL   | SBR  |
| Lane Configurations      |        | ↔↑     | ↔↑     |      | ↔↓    |      |
| Traffic Vol, veh/h       | 63     | 868    | 747    | 84   | 48    | 60   |
| Future Vol, veh/h        | 63     | 868    | 747    | 84   | 48    | 60   |
| Conflicting Peds, #/hr   | 0      | 0      | 0      | 0    | 0     | 0    |
| Sign Control             | Free   | Free   | Free   | Free | Stop  | Stop |
| RT Channelized           | -      | None   | -      | None | -     | None |
| Storage Length           | -      | -      | -      | -    | 0     | -    |
| Veh in Median Storage, # | -      | 0      | 0      | -    | 0     | -    |
| Grade, %                 | -      | 0      | 0      | -    | 0     | -    |
| Peak Hour Factor         | 97     | 97     | 97     | 97   | 97    | 97   |
| Heavy Vehicles, %        | 2      | 2      | 2      | 2    | 2     | 2    |
| Mvmt Flow                | 65     | 895    | 770    | 87   | 49    | 62   |
| Major/Minor              | Major1 | Major2 | Minor2 |      |       |      |
| Conflicting Flow All     | 857    | 0      | -      | 0    | 1392  | 429  |
| Stage 1                  | -      | -      | -      | -    | 814   | -    |
| Stage 2                  | -      | -      | -      | -    | 578   | -    |
| Critical Hdwy            | 4.14   | -      | -      | -    | 6.84  | 6.94 |
| Critical Hdwy Stg 1      | -      | -      | -      | -    | 5.84  | -    |
| Critical Hdwy Stg 2      | -      | -      | -      | -    | 5.84  | -    |
| Follow-up Hdwy           | 2.22   | -      | -      | -    | 3.52  | 3.32 |
| Pot Cap-1 Maneuver       | 779    | -      | -      | -    | 133   | 574  |
| Stage 1                  | -      | -      | -      | -    | 396   | -    |
| Stage 2                  | -      | -      | -      | -    | 524   | -    |
| Platoon blocked, %       |        | -      | -      | -    |       |      |
| Mov Cap-1 Maneuver       | 779    | -      | -      | -    | 111   | 574  |
| Mov Cap-2 Maneuver       | -      | -      | -      | -    | 111   | -    |
| Stage 1                  | -      | -      | -      | -    | 330   | -    |
| Stage 2                  | -      | -      | -      | -    | 524   | -    |
| Approach                 | EB     | WB     | SB     |      |       |      |
| HCM Control Delay, s     | 1.3    | 0      | 43.1   |      |       |      |
| HCM LOS                  |        |        | E      |      |       |      |
| Minor Lane/Major Mvmt    | EBL    | EBT    | WBT    | WBR  | SBLn1 |      |
| Capacity (veh/h)         | 779    | -      | -      | -    | 201   |      |
| HCM Lane V/C Ratio       | 0.083  | -      | -      | -    | 0.554 |      |
| HCM Control Delay (s)    | 10     | 0.7    | -      | -    | 43.1  |      |
| HCM Lane LOS             | B      | A      | -      | -    | E     |      |
| HCM 95th %tile Q(veh)    | 0.3    | -      | -      | -    | 2.9   |      |

**Intersection**

Int Delay, s/veh 5.9

| Movement                 | WBL  | WBR  | NBT  | NBR  | SBL  | SBT  |
|--------------------------|------|------|------|------|------|------|
| Lane Configurations      | Y    |      | T    |      |      | T    |
| Traffic Vol, veh/h       | 98   | 92   | 28   | 130  | 54   | 16   |
| Future Vol, veh/h        | 98   | 92   | 28   | 130  | 54   | 16   |
| 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         | 93   | 93   | 93   | 93   | 93   | 92   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 105  | 99   | 30   | 140  | 58   | 17   |

| Major/Minor          | Minor1 | Major1 | Major2 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 233    | 100    | 0      |
| Stage 1              | 100    | -      | -      |
| Stage 2              | 133    | -      | -      |
| Critical Hdwy        | 6.42   | 6.22   | -      |
| Critical Hdwy Stg 1  | 5.42   | -      | -      |
| Critical Hdwy Stg 2  | 5.42   | -      | -      |
| Follow-up Hdwy       | 3.518  | 3.318  | -      |
| Pot Cap-1 Maneuver   | 755    | 956    | -      |
| Stage 1              | 924    | -      | -      |
| Stage 2              | 893    | -      | -      |
| Platoon blocked, %   |        |        |        |
| Mov Cap-1 Maneuver   | 723    | 956    | -      |
| Mov Cap-2 Maneuver   | 723    | -      | -      |
| Stage 1              | 924    | -      | -      |
| Stage 2              | 855    | -      | -      |

| Approach             | WB   | NB | SB  |
|----------------------|------|----|-----|
| HCM Control Delay, s | 10.8 | 0  | 5.9 |
| HCM LOS              | B    |    |     |

| Minor Lane/Major Mvmt | NBT | NBRWBLn1 | SBL   | SBT   |
|-----------------------|-----|----------|-------|-------|
| Capacity (veh/h)      | -   | -        | 820   | 1407  |
| HCM Lane V/C Ratio    | -   | -        | 0.249 | 0.041 |
| HCM Control Delay (s) | -   | -        | 10.8  | 7.7   |
| HCM Lane LOS          | -   | -        | B     | A     |
| HCM 95th %tile Q(veh) | -   | -        | 1     | 0.1   |

**Intersection**

Int Delay, s/veh 2.9

| Movement                 | EBL  | EBT  | WBT  | WBR  | SBL  | SBR  |
|--------------------------|------|------|------|------|------|------|
| Lane Configurations      |      | ↑↑   | ↑↑   |      | ∩∩   |      |
| Traffic Vol, veh/h       | 0    | 916  | 777  | 0    | 66   | 53   |
| Future Vol, veh/h        | 0    | 916  | 777  | 0    | 66   | 53   |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Stop | Stop |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | -    | -    | -    | -    | 0    | -    |
| Veh in Median Storage, # | -    | 0    | 0    | -    | 0    | -    |
| Grade, %                 | -    | 0    | 0    | -    | 0    | -    |
| Peak Hour Factor         | 92   | 92   | 92   | 92   | 92   | 92   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 0    | 996  | 845  | 0    | 72   | 58   |

**Major/Minor**

|                      | Major1 | Major2 | Minor2 |   |           |
|----------------------|--------|--------|--------|---|-----------|
| Conflicting Flow All | -      | 0      | -      | 0 | 1343 423  |
| Stage 1              | -      | -      | -      | - | 845 -     |
| Stage 2              | -      | -      | -      | - | 498 -     |
| Critical Hdwy        | -      | -      | -      | - | 6.84 6.94 |
| Critical Hdwy Stg 1  | -      | -      | -      | - | 5.84 -    |
| Critical Hdwy Stg 2  | -      | -      | -      | - | 5.84 -    |
| Follow-up Hdwy       | -      | -      | -      | - | 3.52 3.32 |
| Pot Cap-1 Maneuver   | 0      | -      | -      | 0 | 143 579   |
| Stage 1              | 0      | -      | -      | 0 | 382 -     |
| Stage 2              | 0      | -      | -      | 0 | 576 -     |
| Platoon blocked, %   | -      | -      | -      | - | -         |
| Mov Cap-1 Maneuver   | -      | -      | -      | - | 143 579   |
| Mov Cap-2 Maneuver   | -      | -      | -      | - | 143 -     |
| Stage 1              | -      | -      | -      | - | 382 -     |
| Stage 2              | -      | -      | -      | - | 576 -     |

**Approach**

|                      | EB | WB | SB   |
|----------------------|----|----|------|
| HCM Control Delay, s | 0  | 0  | 44.2 |
| HCM LOS              |    |    | E    |

**Minor Lane/Major Mvmt**

|                       | EBT | WBT | SBLn1 |
|-----------------------|-----|-----|-------|
| Capacity (veh/h)      | -   | -   | 215   |
| HCM Lane V/C Ratio    | -   | -   | 0.602 |
| HCM Control Delay (s) | -   | -   | 44.2  |
| HCM Lane LOS          | -   | -   | E     |
| HCM 95th %tile Q(veh) | -   | -   | 3.4   |

**Intersection**

Int Delay, s/veh 0.4

| Movement                 | EBL  | EBT  | WBT  | WBR  | SBL  | SBR  |
|--------------------------|------|------|------|------|------|------|
| Lane Configurations      |      | ↔↑   | ↔↑   |      | ↔↓   |      |
| Traffic Vol, veh/h       | 9    | 737  | 612  | 21   | 11   | 7    |
| Future Vol, veh/h        | 9    | 737  | 612  | 21   | 11   | 7    |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Stop | Stop |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | -    | -    | -    | -    | 0    | -    |
| Veh in Median Storage, # | -    | 0    | 0    | -    | 0    | -    |
| Grade, %                 | -    | 0    | 0    | -    | 0    | -    |
| Peak Hour Factor         | 88   | 88   | 88   | 88   | 88   | 88   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 10   | 838  | 695  | 24   | 13   | 8    |

**Major/Minor**

|                      | Major1 | Major2 | Minor2 |   |           |
|----------------------|--------|--------|--------|---|-----------|
| Conflicting Flow All | 719    | 0      | -      | 0 | 1146 360  |
| Stage 1              | -      | -      | -      | - | 707 -     |
| Stage 2              | -      | -      | -      | - | 439 -     |
| Critical Hdwy        | 4.14   | -      | -      | - | 6.84 6.94 |
| Critical Hdwy Stg 1  | -      | -      | -      | - | 5.84 -    |
| Critical Hdwy Stg 2  | -      | -      | -      | - | 5.84 -    |
| Follow-up Hdwy       | 2.22   | -      | -      | - | 3.52 3.32 |
| Pot Cap-1 Maneuver   | 878    | -      | -      | - | 193 637   |
| Stage 1              | -      | -      | -      | - | 450 -     |
| Stage 2              | -      | -      | -      | - | 617 -     |
| Platoon blocked, %   |        | -      | -      | - |           |
| Mov Cap-1 Maneuver   | 878    | -      | -      | - | 189 637   |
| Mov Cap-2 Maneuver   | -      | -      | -      | - | 189 -     |
| Stage 1              | -      | -      | -      | - | 441 -     |
| Stage 2              | -      | -      | -      | - | 617 -     |

**Approach**

|                      | EB  | WB | SB |
|----------------------|-----|----|----|
| HCM Control Delay, s | 0.2 | 0  | 20 |
| HCM LOS              |     |    | C  |

**Minor Lane/Major Mvmt**

|                       | EBL   | EBT | WBT | WBR | SBLn1 |
|-----------------------|-------|-----|-----|-----|-------|
| Capacity (veh/h)      | 878   | -   | -   | -   | 260   |
| HCM Lane V/C Ratio    | 0.012 | -   | -   | -   | 0.079 |
| HCM Control Delay (s) | 9.1   | 0.1 | -   | -   | 20    |
| HCM Lane LOS          | A     | A   | -   | -   | C     |
| HCM 95th %tile Q(veh) | 0     | -   | -   | -   | 0.3   |

| Intersection             |        |          |      |        |       |      |
|--------------------------|--------|----------|------|--------|-------|------|
| Int Delay, s/veh         | 2.3    |          |      |        |       |      |
| Movement                 | WBL    | WBR      | NBT  | NBR    | SBL   | SBT  |
| Lane Configurations      | Y      |          | T    |        |       | T    |
| Traffic Vol, veh/h       | 13     | 6        | 37   | 16     | 5     | 19   |
| Future Vol, veh/h        | 13     | 6        | 37   | 16     | 5     | 19   |
| 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         | 69     | 69       | 69   | 69     | 69    | 92   |
| Heavy Vehicles, %        | 2      | 2        | 2    | 2      | 2     | 2    |
| Mvmt Flow                | 19     | 9        | 54   | 23     | 7     | 21   |
| Major/Minor              | Minor1 | Major1   |      | Major2 |       |      |
| Conflicting Flow All     | 101    | 66       | 0    | 0      | 77    | 0    |
| Stage 1                  | 66     | -        | -    | -      | -     | -    |
| Stage 2                  | 35     | -        | -    | -      | -     | -    |
| Critical Hdwy            | 6.42   | 6.22     | -    | -      | 4.12  | -    |
| Critical Hdwy Stg 1      | 5.42   | -        | -    | -      | -     | -    |
| Critical Hdwy Stg 2      | 5.42   | -        | -    | -      | -     | -    |
| Follow-up Hdwy           | 3.518  | 3.318    | -    | -      | 2.218 | -    |
| Pot Cap-1 Maneuver       | 898    | 998      | -    | -      | 1522  | -    |
| Stage 1                  | 957    | -        | -    | -      | -     | -    |
| Stage 2                  | 987    | -        | -    | -      | -     | -    |
| Platoon blocked, %       |        |          | -    | -      |       | -    |
| Mov Cap-1 Maneuver       | 894    | 998      | -    | -      | 1522  | -    |
| Mov Cap-2 Maneuver       | 894    | -        | -    | -      | -     | -    |
| Stage 1                  | 957    | -        | -    | -      | -     | -    |
| Stage 2                  | 982    | -        | -    | -      | -     | -    |
| Approach                 | WB     | NB       |      | SB     |       |      |
| HCM Control Delay, s     | 9      | 0        |      | 1.9    |       |      |
| HCM LOS                  | A      |          |      |        |       |      |
| Minor Lane/Major Mvmt    | NBT    | NBRWBLn1 | SBL  | SBT    |       |      |
| Capacity (veh/h)         | -      | -        | 924  | 1522   | -     |      |
| HCM Lane V/C Ratio       | -      | -        | 0.03 | 0.005  | -     |      |
| HCM Control Delay (s)    | -      | -        | 9    | 7.4    | 0     |      |
| HCM Lane LOS             | -      | -        | A    | A      | A     |      |
| HCM 95th %tile Q(veh)    | -      | -        | 0.1  | 0      | -     |      |

| Intersection             |        |        |        |      |      |      |
|--------------------------|--------|--------|--------|------|------|------|
| Int Delay, s/veh         | 0.1    |        |        |      |      |      |
| Movement                 | EBL    | EBT    | WBT    | WBR  | SBL  | SBR  |
| Lane Configurations      |        | ↑↑     | ↑↑     |      | ∩    |      |
| Traffic Vol, veh/h       | 0      | 749    | 628    | 0    | 6    | 5    |
| Future Vol, veh/h        | 0      | 749    | 628    | 0    | 6    | 5    |
| Conflicting Peds, #/hr   | 0      | 0      | 0      | 0    | 0    | 0    |
| Sign Control             | Free   | Free   | Free   | Free | Stop | Stop |
| RT Channelized           | -      | None   | -      | None | -    | None |
| Storage Length           | -      | -      | -      | -    | 0    | -    |
| Veh in Median Storage, # | -      | 0      | 0      | -    | 0    | -    |
| Grade, %                 | -      | 0      | 0      | -    | 0    | -    |
| Peak Hour Factor         | 92     | 92     | 92     | 92   | 92   | 92   |
| Heavy Vehicles, %        | 2      | 2      | 2      | 2    | 2    | 2    |
| Mvmt Flow                | 0      | 814    | 683    | 0    | 7    | 5    |
| Major/Minor              | Major1 | Major2 | Minor2 |      |      |      |
| Conflicting Flow All     | -      | 0      | -      | 0    | 1090 | 342  |
| Stage 1                  | -      | -      | -      | -    | 683  | -    |
| Stage 2                  | -      | -      | -      | -    | 407  | -    |
| Critical Hdwy            | -      | -      | -      | -    | 6.84 | 6.94 |
| Critical Hdwy Stg 1      | -      | -      | -      | -    | 5.84 | -    |
| Critical Hdwy Stg 2      | -      | -      | -      | -    | 5.84 | -    |
| Follow-up Hdwy           | -      | -      | -      | -    | 3.52 | 3.32 |
| Pot Cap-1 Maneuver       | 0      | -      | -      | 0    | 210  | 654  |
| Stage 1                  | 0      | -      | -      | 0    | 463  | -    |
| Stage 2                  | 0      | -      | -      | 0    | 641  | -    |
| Platoon blocked, %       |        | -      | -      |      |      |      |
| Mov Cap-1 Maneuver       | -      | -      | -      | -    | 210  | 654  |
| Mov Cap-2 Maneuver       | -      | -      | -      | -    | 210  | -    |
| Stage 1                  | -      | -      | -      | -    | 463  | -    |
| Stage 2                  | -      | -      | -      | -    | 641  | -    |
| Approach                 | EB     | WB     |        | SB   |      |      |
| HCM Control Delay, s     | 0      | 0      |        | 17.3 |      |      |
| HCM LOS                  |        |        |        | C    |      |      |
| Minor Lane/Major Mvmt    | EBT    | WBT    | SBLn1  |      |      |      |
| Capacity (veh/h)         | -      | -      | 304    |      |      |      |
| HCM Lane V/C Ratio       | -      | -      | 0.039  |      |      |      |
| HCM Control Delay (s)    | -      | -      | 17.3   |      |      |      |
| HCM Lane LOS             | -      | -      | C      |      |      |      |
| HCM 95th %tile Q(veh)    | -      | -      | 0.1    |      |      |      |



**FUTURE "NO-BUILD" INTERSECTION  
ANALYSIS - HORIZON YEAR 2030**

**Intersection**

Int Delay, s/veh 1.8

| Movement                 | EBL  | EBT  | WBT  | WBR  | SBL  | SBR  |
|--------------------------|------|------|------|------|------|------|
| Lane Configurations      |      | ↔↑   | ↔↑   |      | ↔↓   |      |
| Traffic Vol, veh/h       | 41   | 683  | 740  | 64   | 34   | 47   |
| Future Vol, veh/h        | 41   | 683  | 740  | 64   | 34   | 47   |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Stop | Stop |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | -    | -    | -    | -    | 0    | -    |
| Veh in Median Storage, # | -    | 0    | 0    | -    | 0    | -    |
| Grade, %                 | -    | 0    | 0    | -    | 0    | -    |
| Peak Hour Factor         | 93   | 93   | 93   | 93   | 93   | 93   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 44   | 734  | 796  | 69   | 37   | 51   |

**Major/Minor**

|                      | Major1 | Major2 | Minor2 |      |      |
|----------------------|--------|--------|--------|------|------|
| Conflicting Flow All | 865    | 0      | 0      | 1286 | 433  |
| Stage 1              | -      | -      | -      | 831  | -    |
| Stage 2              | -      | -      | -      | 455  | -    |
| Critical Hdwy        | 4.14   | -      | -      | 6.84 | 6.94 |
| Critical Hdwy Stg 1  | -      | -      | -      | 5.84 | -    |
| Critical Hdwy Stg 2  | -      | -      | -      | 5.84 | -    |
| Follow-up Hdwy       | 2.22   | -      | -      | 3.52 | 3.32 |
| Pot Cap-1 Maneuver   | 774    | -      | -      | 156  | 571  |
| Stage 1              | -      | -      | -      | 388  | -    |
| Stage 2              | -      | -      | -      | 606  | -    |
| Platoon blocked, %   |        | -      | -      |      |      |
| Mov Cap-1 Maneuver   | 774    | -      | -      | 141  | 571  |
| Mov Cap-2 Maneuver   | -      | -      | -      | 141  | -    |
| Stage 1              | -      | -      | -      | 351  | -    |
| Stage 2              | -      | -      | -      | 606  | -    |

**Approach**

|                      | EB  | WB | SB   |
|----------------------|-----|----|------|
| HCM Control Delay, s | 0.9 | 0  | 26.9 |
| HCM LOS              |     |    | D    |

**Minor Lane/Major Mvmt**

|                       | EBL   | EBT | WBT | WBR | SBLn1 | SBR |
|-----------------------|-------|-----|-----|-----|-------|-----|
| Capacity (veh/h)      | 774   | -   | -   | -   | 250   |     |
| HCM Lane V/C Ratio    | 0.057 | -   | -   | -   | 0.348 |     |
| HCM Control Delay (s) | 9.9   | 0.4 | -   | -   | 26.9  |     |
| HCM Lane LOS          | A     | A   | -   | -   | D     |     |
| HCM 95th %tile Q(veh) | 0.2   | -   | -   | -   | 1.5   |     |

| Intersection             |        |          |       |        |       |      |
|--------------------------|--------|----------|-------|--------|-------|------|
| Int Delay, s/veh         | 3.6    |          |       |        |       |      |
| Movement                 | WBL    | WBR      | NBT   | NBR    | SBL   | SBT  |
| Lane Configurations      | W      |          | T     |        |       | T    |
| Traffic Vol, veh/h       | 46     | 20       | 40    | 63     | 23    | 39   |
| Future Vol, veh/h        | 46     | 20       | 40    | 63     | 23    | 39   |
| 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         | 75     | 75       | 75    | 75     | 75    | 75   |
| Heavy Vehicles, %        | 2      | 2        | 2     | 2      | 2     | 2    |
| Mvmt Flow                | 61     | 27       | 53    | 84     | 31    | 52   |
| Major/Minor              | Minor1 | Major1   |       | Major2 |       |      |
| Conflicting Flow All     | 209    | 95       | 0     | 0      | 137   | 0    |
| Stage 1                  | 95     | -        | -     | -      | -     | -    |
| Stage 2                  | 114    | -        | -     | -      | -     | -    |
| Critical Hdwy            | 6.42   | 6.22     | -     | -      | 4.12  | -    |
| Critical Hdwy Stg 1      | 5.42   | -        | -     | -      | -     | -    |
| Critical Hdwy Stg 2      | 5.42   | -        | -     | -      | -     | -    |
| Follow-up Hdwy           | 3.518  | 3.318    | -     | -      | 2.218 | -    |
| Pot Cap-1 Maneuver       | 779    | 962      | -     | -      | 1447  | -    |
| Stage 1                  | 929    | -        | -     | -      | -     | -    |
| Stage 2                  | 911    | -        | -     | -      | -     | -    |
| Platoon blocked, %       |        |          | -     | -      |       | -    |
| Mov Cap-1 Maneuver       | 762    | 962      | -     | -      | 1447  | -    |
| Mov Cap-2 Maneuver       | 762    | -        | -     | -      | -     | -    |
| Stage 1                  | 929    | -        | -     | -      | -     | -    |
| Stage 2                  | 891    | -        | -     | -      | -     | -    |
| Approach                 | WB     | NB       |       | SB     |       |      |
| HCM Control Delay, s     | 10     | 0        |       | 2.8    |       |      |
| HCM LOS                  | B      |          |       |        |       |      |
| Minor Lane/Major Mvmt    | NBT    | NBRWBLn1 | SBL   | SBT    |       |      |
| Capacity (veh/h)         | -      | -        | 813   | 1447   | -     |      |
| HCM Lane V/C Ratio       | -      | -        | 0.108 | 0.021  | -     |      |
| HCM Control Delay (s)    | -      | -        | 10    | 7.5    | 0     |      |
| HCM Lane LOS             | -      | -        | B     | A      | A     |      |
| HCM 95th %tile Q(veh)    | -      | -        | 0.4   | 0.1    | -     |      |

**Intersection**

Int Delay, s/veh 1.3

| Movement                 | EBL  | EBT  | WBT  | WBR  | SBL  | SBR  |
|--------------------------|------|------|------|------|------|------|
| Lane Configurations      |      | ↕↕   | ↕↕   |      | ↕    | ↕    |
| Traffic Vol, veh/h       | 29   | 955  | 763  | 45   | 25   | 39   |
| Future Vol, veh/h        | 29   | 955  | 763  | 45   | 25   | 39   |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Stop | Stop |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | -    | -    | -    | -    | 0    | -    |
| Veh in Median Storage, # | -    | 0    | 0    | -    | 0    | -    |
| Grade, %                 | -    | 0    | 0    | -    | 0    | -    |
| Peak Hour Factor         | 97   | 97   | 97   | 97   | 97   | 92   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 30   | 985  | 787  | 46   | 26   | 42   |

**Major/Minor**

|                      | Major1 | Major2 | Minor2 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 833    | 0      | 0      |
| Stage 1              | -      | -      | 810    |
| Stage 2              | -      | -      | 553    |
| Critical Hdwy        | 4.14   | -      | 6.84   |
| Critical Hdwy Stg 1  | -      | -      | 5.84   |
| Critical Hdwy Stg 2  | -      | -      | 5.84   |
| Follow-up Hdwy       | 2.22   | -      | 3.52   |
| Pot Cap-1 Maneuver   | 796    | -      | 139    |
| Stage 1              | -      | -      | 398    |
| Stage 2              | -      | -      | 540    |
| Platoon blocked, %   | -      | -      | -      |
| Mov Cap-1 Maneuver   | 796    | -      | 127    |
| Mov Cap-2 Maneuver   | -      | -      | 127    |
| Stage 1              | -      | -      | 365    |
| Stage 2              | -      | -      | 540    |

**Approach**

|                      | EB  | WB | SB   |
|----------------------|-----|----|------|
| HCM Control Delay, s | 0.7 | 0  | 24.9 |
| HCM LOS              |     |    | C    |

**Minor Lane/Major Mvmt**

|                       | EBL   | EBT | WBT | WBR | SBLn1 |
|-----------------------|-------|-----|-----|-----|-------|
| Capacity (veh/h)      | 796   | -   | -   | -   | 248   |
| HCM Lane V/C Ratio    | 0.038 | -   | -   | -   | 0.275 |
| HCM Control Delay (s) | 9.7   | 0.4 | -   | -   | 24.9  |
| HCM Lane LOS          | A     | A   | -   | -   | C     |
| HCM 95th %tile Q(veh) | 0.1   | -   | -   | -   | 1.1   |

| Intersection             |        |          |       |        |       |      |
|--------------------------|--------|----------|-------|--------|-------|------|
| Int Delay, s/veh         | 4.5    |          |       |        |       |      |
| Movement                 | WBL    | WBR      | NBT   | NBR    | SBL   | SBT  |
| Lane Configurations      | Y      |          | T     |        |       | T    |
| Traffic Vol, veh/h       | 54     | 39       | 31    | 56     | 12    | 18   |
| Future Vol, veh/h        | 54     | 39       | 31    | 56     | 12    | 18   |
| 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         | 93     | 93       | 93    | 93     | 93    | 93   |
| Heavy Vehicles, %        | 2      | 2        | 2     | 2      | 2     | 2    |
| Mvmt Flow                | 58     | 42       | 33    | 60     | 13    | 19   |
| Major/Minor              | Minor1 | Major1   |       | Major2 |       |      |
| Conflicting Flow All     | 108    | 63       | 0     | 0      | 93    | 0    |
| Stage 1                  | 63     | -        | -     | -      | -     | -    |
| Stage 2                  | 45     | -        | -     | -      | -     | -    |
| Critical Hdwy            | 6.42   | 6.22     | -     | -      | 4.12  | -    |
| Critical Hdwy Stg 1      | 5.42   | -        | -     | -      | -     | -    |
| Critical Hdwy Stg 2      | 5.42   | -        | -     | -      | -     | -    |
| Follow-up Hdwy           | 3.518  | 3.318    | -     | -      | 2.218 | -    |
| Pot Cap-1 Maneuver       | 889    | 1002     | -     | -      | 1501  | -    |
| Stage 1                  | 960    | -        | -     | -      | -     | -    |
| Stage 2                  | 977    | -        | -     | -      | -     | -    |
| Platoon blocked, %       |        |          | -     | -      |       | -    |
| Mov Cap-1 Maneuver       | 881    | 1002     | -     | -      | 1501  | -    |
| Mov Cap-2 Maneuver       | 881    | -        | -     | -      | -     | -    |
| Stage 1                  | 960    | -        | -     | -      | -     | -    |
| Stage 2                  | 968    | -        | -     | -      | -     | -    |
| Approach                 | WB     | NB       |       | SB     |       |      |
| HCM Control Delay, s     | 9.3    | 0        |       | 3      |       |      |
| HCM LOS                  | A      |          |       |        |       |      |
| Minor Lane/Major Mvmt    | NBT    | NBRWBLn1 | SBL   | SBT    |       |      |
| Capacity (veh/h)         | -      | -        | 928   | 1501   | -     |      |
| HCM Lane V/C Ratio       | -      | -        | 0.108 | 0.009  | -     |      |
| HCM Control Delay (s)    | -      | -        | 9.3   | 7.4    | 0     |      |
| HCM Lane LOS             | -      | -        | A     | A      | A     |      |
| HCM 95th %tile Q(veh)    | -      | -        | 0.4   | 0      | -     |      |

**Intersection**

Int Delay, s/veh 0.3

| Movement                 | EBL  | EBT  | WBT  | WBR  | SBL  | SBR  |
|--------------------------|------|------|------|------|------|------|
| Lane Configurations      |      | ↔↑   | ↔↑   |      | ↔↓   |      |
| Traffic Vol, veh/h       | 6    | 811  | 668  | 18   | 10   | 6    |
| Future Vol, veh/h        | 6    | 811  | 668  | 18   | 10   | 6    |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Stop | Stop |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | -    | -    | -    | -    | 0    | -    |
| Veh in Median Storage, # | -    | 0    | 0    | -    | 0    | -    |
| Grade, %                 | -    | 0    | 0    | -    | 0    | -    |
| Peak Hour Factor         | 88   | 88   | 88   | 88   | 88   | 88   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 7    | 922  | 759  | 20   | 11   | 7    |

**Major/Minor**

|                      | Major1 | Major2 | Minor2 |   |           |
|----------------------|--------|--------|--------|---|-----------|
| Conflicting Flow All | 779    | 0      | -      | 0 | 1244 390  |
| Stage 1              | -      | -      | -      | - | 769 -     |
| Stage 2              | -      | -      | -      | - | 475 -     |
| Critical Hdwy        | 4.14   | -      | -      | - | 6.84 6.94 |
| Critical Hdwy Stg 1  | -      | -      | -      | - | 5.84 -    |
| Critical Hdwy Stg 2  | -      | -      | -      | - | 5.84 -    |
| Follow-up Hdwy       | 2.22   | -      | -      | - | 3.52 3.32 |
| Pot Cap-1 Maneuver   | 834    | -      | -      | - | 166 609   |
| Stage 1              | -      | -      | -      | - | 418 -     |
| Stage 2              | -      | -      | -      | - | 592 -     |
| Platoon blocked, %   |        | -      | -      | - |           |
| Mov Cap-1 Maneuver   | 834    | -      | -      | - | 163 609   |
| Mov Cap-2 Maneuver   | -      | -      | -      | - | 163 -     |
| Stage 1              | -      | -      | -      | - | 411 -     |
| Stage 2              | -      | -      | -      | - | 592 -     |

**Approach**

|                      | EB  | WB | SB   |
|----------------------|-----|----|------|
| HCM Control Delay, s | 0.2 | 0  | 22.4 |
| HCM LOS              |     |    | C    |

**Minor Lane/Major Mvmt**

|                       | EBL   | EBT | WBT | WBR | SBLn1 |
|-----------------------|-------|-----|-----|-----|-------|
| Capacity (veh/h)      | 834   | -   | -   | -   | 225   |
| HCM Lane V/C Ratio    | 0.008 | -   | -   | -   | 0.081 |
| HCM Control Delay (s) | 9.4   | 0.1 | -   | -   | 22.4  |
| HCM Lane LOS          | A     | A   | -   | -   | C     |
| HCM 95th %tile Q(veh) | 0     | -   | -   | -   | 0.3   |

| Intersection             |        |          |       |        |       |      |
|--------------------------|--------|----------|-------|--------|-------|------|
| Int Delay, s/veh         | 1      |          |       |        |       |      |
| Movement                 | WBL    | WBR      | NBT   | NBR    | SBL   | SBT  |
| Lane Configurations      | W      |          | T     |        |       | T    |
| Traffic Vol, veh/h       | 9      | 0        | 41    | 8      | 0     | 21   |
| Future Vol, veh/h        | 9      | 0        | 41    | 8      | 0     | 21   |
| 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         | 69     | 69       | 69    | 69     | 69    | 69   |
| Heavy Vehicles, %        | 2      | 2        | 2     | 2      | 2     | 2    |
| Mvmt Flow                | 13     | 0        | 59    | 12     | 0     | 30   |
| Major/Minor              | Minor1 | Major1   |       | Major2 |       |      |
| Conflicting Flow All     | 95     | 65       | 0     | 0      | 71    | 0    |
| Stage 1                  | 65     | -        | -     | -      | -     | -    |
| Stage 2                  | 30     | -        | -     | -      | -     | -    |
| Critical Hdwy            | 6.42   | 6.22     | -     | -      | 4.12  | -    |
| Critical Hdwy Stg 1      | 5.42   | -        | -     | -      | -     | -    |
| Critical Hdwy Stg 2      | 5.42   | -        | -     | -      | -     | -    |
| Follow-up Hdwy           | 3.518  | 3.318    | -     | -      | 2.218 | -    |
| Pot Cap-1 Maneuver       | 905    | 999      | -     | -      | 1529  | -    |
| Stage 1                  | 958    | -        | -     | -      | -     | -    |
| Stage 2                  | 993    | -        | -     | -      | -     | -    |
| Platoon blocked, %       |        |          | -     | -      |       | -    |
| Mov Cap-1 Maneuver       | 905    | 999      | -     | -      | 1529  | -    |
| Mov Cap-2 Maneuver       | 905    | -        | -     | -      | -     | -    |
| Stage 1                  | 958    | -        | -     | -      | -     | -    |
| Stage 2                  | 993    | -        | -     | -      | -     | -    |
| Approach                 | WB     | NB       |       | SB     |       |      |
| HCM Control Delay, s     | 9      | 0        |       | 0      |       |      |
| HCM LOS                  | A      |          |       |        |       |      |
| Minor Lane/Major Mvmt    | NBT    | NBRWBLn1 | SBL   | SBT    |       |      |
| Capacity (veh/h)         | -      | -        | 905   | 1529   | -     |      |
| HCM Lane V/C Ratio       | -      | -        | 0.014 | -      | -     |      |
| HCM Control Delay (s)    | -      | -        | 9     | 0      | -     |      |
| HCM Lane LOS             | -      | -        | A     | A      | -     |      |
| HCM 95th %tile Q(veh)    | -      | -        | 0     | 0      | -     |      |

**FUTURE "BUILD" INTERSECTION ANALYSIS -  
HORIZON YEAR 2030**



**Intersection**

Int Delay, s/veh 5.1

| Movement                 | EBL  | EBT  | WBT  | WBR  | SBL  | SBR  |
|--------------------------|------|------|------|------|------|------|
| Lane Configurations      |      | ↔↑   | ↔↑   |      | ↔↓   |      |
| Traffic Vol, veh/h       | 87   | 683  | 778  | 117  | 51   | 64   |
| Future Vol, veh/h        | 87   | 683  | 778  | 117  | 51   | 64   |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Stop | Stop |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | -    | -    | -    | -    | 0    | -    |
| Veh in Median Storage, # | -    | 0    | 0    | -    | 0    | -    |
| Grade, %                 | -    | 0    | 0    | -    | 0    | -    |
| Peak Hour Factor         | 93   | 93   | 93   | 93   | 93   | 93   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 94   | 734  | 837  | 126  | 55   | 69   |

**Major/Minor**

|                      | Major1 | Major2 | Minor2 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 963    | 0      | 0      |
| Stage 1              | -      | -      | 900    |
| Stage 2              | -      | -      | 555    |
| Critical Hdwy        | 4.14   | -      | 6.84   |
| Critical Hdwy Stg 1  | -      | -      | 5.84   |
| Critical Hdwy Stg 2  | -      | -      | 5.84   |
| Follow-up Hdwy       | 2.22   | -      | 3.52   |
| Pot Cap-1 Maneuver   | 711    | -      | 121    |
| Stage 1              | -      | -      | 357    |
| Stage 2              | -      | -      | 539    |
| Platoon blocked, %   | -      | -      | -      |
| Mov Cap-1 Maneuver   | 711    | -      | 94     |
| Mov Cap-2 Maneuver   | -      | -      | 94     |
| Stage 1              | -      | -      | 277    |
| Stage 2              | -      | -      | 539    |

**Approach**

|                      | EB  | WB | SB   |
|----------------------|-----|----|------|
| HCM Control Delay, s | 2.1 | 0  | 65.6 |
| HCM LOS              |     |    | F    |

**Minor Lane/Major Mvmt**

|                       | EBL   | EBT | WBT | WBR | SBLn1 |
|-----------------------|-------|-----|-----|-----|-------|
| Capacity (veh/h)      | 711   | -   | -   | -   | 173   |
| HCM Lane V/C Ratio    | 0.132 | -   | -   | -   | 0.715 |
| HCM Control Delay (s) | 10.8  | 1   | -   | -   | 65.6  |
| HCM Lane LOS          | B     | A   | -   | -   | F     |
| HCM 95th %tile Q(veh) | 0.5   | -   | -   | -   | 4.4   |

**Intersection**

Int Delay, s/veh 5.3

| Movement                 | WBL  | WBR  | NBT  | NBR  | SBL  | SBT  |
|--------------------------|------|------|------|------|------|------|
| Lane Configurations      | Y    |      | T    |      |      | T    |
| Traffic Vol, veh/h       | 81   | 61   | 40   | 162  | 76   | 39   |
| Future Vol, veh/h        | 81   | 61   | 40   | 162  | 76   | 39   |
| 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         | 75   | 75   | 75   | 75   | 75   | 75   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 108  | 81   | 53   | 216  | 101  | 52   |

| Major/Minor          | Minor1 | Major1 | Major2 |   |       |
|----------------------|--------|--------|--------|---|-------|
| Conflicting Flow All | 415    | 161    | 0      | 0 | 269   |
| Stage 1              | 161    | -      | -      | - | -     |
| Stage 2              | 254    | -      | -      | - | -     |
| Critical Hdwy        | 6.42   | 6.22   | -      | - | 4.12  |
| Critical Hdwy Stg 1  | 5.42   | -      | -      | - | -     |
| Critical Hdwy Stg 2  | 5.42   | -      | -      | - | -     |
| Follow-up Hdwy       | 3.518  | 3.318  | -      | - | 2.218 |
| Pot Cap-1 Maneuver   | 594    | 884    | -      | - | 1295  |
| Stage 1              | 868    | -      | -      | - | -     |
| Stage 2              | 788    | -      | -      | - | -     |
| Platoon blocked, %   |        |        | -      | - | -     |
| Mov Cap-1 Maneuver   | 546    | 884    | -      | - | 1295  |
| Mov Cap-2 Maneuver   | 546    | -      | -      | - | -     |
| Stage 1              | 868    | -      | -      | - | -     |
| Stage 2              | 725    | -      | -      | - | -     |

| Approach             | WB   | NB | SB  |
|----------------------|------|----|-----|
| HCM Control Delay, s | 12.7 | 0  | 5.3 |
| HCM LOS              | B    |    |     |

| Minor Lane/Major Mvmt | NBT | NBRWBLn1 | SBL  | SBT   |
|-----------------------|-----|----------|------|-------|
| Capacity (veh/h)      | -   | -        | 653  | 1295  |
| HCM Lane V/C Ratio    | -   | -        | 0.29 | 0.078 |
| HCM Control Delay (s) | -   | -        | 12.7 | 8     |
| HCM Lane LOS          | -   | -        | B    | A     |
| HCM 95th %tile Q(veh) | -   | -        | 1.2  | 0.3   |

| Intersection             |        |        |        |      |      |      |
|--------------------------|--------|--------|--------|------|------|------|
| Int Delay, s/veh         | 1.6    |        |        |      |      |      |
| Movement                 | EBL    | EBT    | WBT    | WBR  | SBL  | SBR  |
| Lane Configurations      |        | ↑↑     | ↑↑     |      | ∩    |      |
| Traffic Vol, veh/h       | 0      | 734    | 857    | 0    | 46   | 38   |
| Future Vol, veh/h        | 0      | 734    | 857    | 0    | 46   | 38   |
| Conflicting Peds, #/hr   | 0      | 0      | 0      | 0    | 0    | 0    |
| Sign Control             | Free   | Free   | Free   | Free | Stop | Stop |
| RT Channelized           | -      | None   | -      | None | -    | None |
| Storage Length           | -      | -      | -      | -    | 0    | -    |
| Veh in Median Storage, # | -      | 0      | 0      | -    | 0    | -    |
| Grade, %                 | -      | 0      | 0      | -    | 0    | -    |
| Peak Hour Factor         | 92     | 92     | 92     | 92   | 92   | 92   |
| Heavy Vehicles, %        | 2      | 2      | 2      | 2    | 2    | 2    |
| Mvmt Flow                | 0      | 798    | 932    | 0    | 50   | 41   |
| Major/Minor              | Major1 | Major2 | Minor2 |      |      |      |
| Conflicting Flow All     | -      | 0      | -      | 0    | 1331 | 466  |
| Stage 1                  | -      | -      | -      | -    | 932  | -    |
| Stage 2                  | -      | -      | -      | -    | 399  | -    |
| Critical Hdwy            | -      | -      | -      | -    | 6.84 | 6.94 |
| Critical Hdwy Stg 1      | -      | -      | -      | -    | 5.84 | -    |
| Critical Hdwy Stg 2      | -      | -      | -      | -    | 5.84 | -    |
| Follow-up Hdwy           | -      | -      | -      | -    | 3.52 | 3.32 |
| Pot Cap-1 Maneuver       | 0      | -      | -      | 0    | 146  | 543  |
| Stage 1                  | 0      | -      | -      | 0    | 344  | -    |
| Stage 2                  | 0      | -      | -      | 0    | 647  | -    |
| Platoon blocked, %       |        | -      | -      |      |      |      |
| Mov Cap-1 Maneuver       | -      | -      | -      | -    | 146  | 543  |
| Mov Cap-2 Maneuver       | -      | -      | -      | -    | 146  | -    |
| Stage 1                  | -      | -      | -      | -    | 344  | -    |
| Stage 2                  | -      | -      | -      | -    | 647  | -    |
| Approach                 | EB     | WB     |        | SB   |      |      |
| HCM Control Delay, s     | 0      | 0      |        | 32.9 |      |      |
| HCM LOS                  |        |        |        | D    |      |      |
| Minor Lane/Major Mvmt    | EBT    | WBT    | SBLn1  |      |      |      |
| Capacity (veh/h)         | -      | -      | 218    |      |      |      |
| HCM Lane V/C Ratio       | -      | -      | 0.419  |      |      |      |
| HCM Control Delay (s)    | -      | -      | 32.9   |      |      |      |
| HCM Lane LOS             | -      | -      | D      |      |      |      |
| HCM 95th %tile Q(veh)    | -      | -      | 1.9    |      |      |      |

**Intersection**

Int Delay, s/veh 4.7

| Movement                 | EBL  | EBT  | WBT  | WBR  | SBL  | SBR  |
|--------------------------|------|------|------|------|------|------|
| Lane Configurations      |      | ↔↑   | ↔↑   |      | ↔↓   |      |
| Traffic Vol, veh/h       | 66   | 955  | 816  | 88   | 50   | 64   |
| Future Vol, veh/h        | 66   | 955  | 816  | 88   | 50   | 64   |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Stop | Stop |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | -    | -    | -    | -    | 0    | -    |
| Veh in Median Storage, # | -    | 0    | 0    | -    | 0    | -    |
| Grade, %                 | -    | 0    | 0    | -    | 0    | -    |
| Peak Hour Factor         | 97   | 97   | 97   | 97   | 97   | 92   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 68   | 985  | 841  | 91   | 52   | 70   |

**Major/Minor**

|                      | Major1 | Major2 | Minor2 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 932    | 0      | 0      |
| Stage 1              | -      | -      | 887    |
| Stage 2              | -      | -      | 629    |
| Critical Hdwy        | 4.14   | -      | 6.84   |
| Critical Hdwy Stg 1  | -      | -      | 5.84   |
| Critical Hdwy Stg 2  | -      | -      | 5.84   |
| Follow-up Hdwy       | 2.22   | -      | 3.52   |
| Pot Cap-1 Maneuver   | 730    | -      | 110    |
| Stage 1              | -      | -      | 363    |
| Stage 2              | -      | -      | 494    |
| Platoon blocked, %   | -      | -      | -      |
| Mov Cap-1 Maneuver   | 730    | -      | 87     |
| Mov Cap-2 Maneuver   | -      | -      | 87     |
| Stage 1              | -      | -      | 288    |
| Stage 2              | -      | -      | 494    |

**Approach**

|                      | EB  | WB | SB |
|----------------------|-----|----|----|
| HCM Control Delay, s | 1.5 | 0  | 68 |
| HCM LOS              |     |    | F  |

**Minor Lane/Major Mvmt**

|                       | EBL   | EBT | WBT | WBR | SBLn1 |
|-----------------------|-------|-----|-----|-----|-------|
| Capacity (veh/h)      | 730   | -   | -   | -   | 168   |
| HCM Lane V/C Ratio    | 0.093 | -   | -   | -   | 0.721 |
| HCM Control Delay (s) | 10.4  | 0.9 | -   | -   | 68    |
| HCM Lane LOS          | B     | A   | -   | -   | F     |
| HCM 95th %tile Q(veh) | 0.3   | -   | -   | -   | 4.4   |

**Intersection**

Int Delay, s/veh 6

| Movement                 | WBL  | WBR  | NBT  | NBR  | SBL  | SBT  |
|--------------------------|------|------|------|------|------|------|
| Lane Configurations      | Y    |      | T    |      |      | T    |
| Traffic Vol, veh/h       | 103  | 96   | 31   | 135  | 55   | 18   |
| Future Vol, veh/h        | 103  | 96   | 31   | 135  | 55   | 18   |
| 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         | 93   | 93   | 93   | 93   | 93   | 93   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 111  | 103  | 33   | 145  | 59   | 19   |

| Major/Minor          | Minor1 | Major1 | Major2 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 243    | 106    | 0      |
| Stage 1              | 106    | -      | -      |
| Stage 2              | 137    | -      | -      |
| Critical Hdwy        | 6.42   | 6.22   | -      |
| Critical Hdwy Stg 1  | 5.42   | -      | -      |
| Critical Hdwy Stg 2  | 5.42   | -      | -      |
| Follow-up Hdwy       | 3.518  | 3.318  | -      |
| Pot Cap-1 Maneuver   | 745    | 948    | -      |
| Stage 1              | 918    | -      | -      |
| Stage 2              | 890    | -      | -      |
| Platoon blocked, %   |        |        | -      |
| Mov Cap-1 Maneuver   | 713    | 948    | -      |
| Mov Cap-2 Maneuver   | 713    | -      | -      |
| Stage 1              | 918    | -      | -      |
| Stage 2              | 852    | -      | -      |

| Approach             | WB | NB | SB  |
|----------------------|----|----|-----|
| HCM Control Delay, s | 11 | 0  | 5.8 |
| HCM LOS              | B  |    |     |

| Minor Lane/Major Mvmt | NBT | NBRWBLn1 | SBL   | SBT   |
|-----------------------|-----|----------|-------|-------|
| Capacity (veh/h)      | -   | -        | 810   | 1398  |
| HCM Lane V/C Ratio    | -   | -        | 0.264 | 0.042 |
| HCM Control Delay (s) | -   | -        | 11    | 7.7   |
| HCM Lane LOS          | -   | -        | B     | A     |
| HCM 95th %tile Q(veh) | -   | -        | 1.1   | 0.1   |

**Intersection**

Int Delay, s/veh 3.8

| Movement                 | EBL  | EBT  | WBT  | WBR  | SBL  | SBR  |
|--------------------------|------|------|------|------|------|------|
| Lane Configurations      |      | ↑↑   | ↑↑   |      | ∩∩   |      |
| Traffic Vol, veh/h       | 0    | 1005 | 850  | 0    | 66   | 53   |
| Future Vol, veh/h        | 0    | 1005 | 850  | 0    | 66   | 53   |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Stop | Stop |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | -    | -    | -    | -    | 0    | -    |
| Veh in Median Storage, # | -    | 0    | 0    | -    | 0    | -    |
| Grade, %                 | -    | 0    | 0    | -    | 0    | -    |
| Peak Hour Factor         | 92   | 92   | 92   | 92   | 92   | 92   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 0    | 1092 | 924  | 0    | 72   | 58   |

**Major/Minor**

|                      | Major1 | Major2 | Minor2 |   |           |
|----------------------|--------|--------|--------|---|-----------|
| Conflicting Flow All | -      | 0      | -      | 0 | 1470 462  |
| Stage 1              | -      | -      | -      | - | 924 -     |
| Stage 2              | -      | -      | -      | - | 546 -     |
| Critical Hdwy        | -      | -      | -      | - | 6.84 6.94 |
| Critical Hdwy Stg 1  | -      | -      | -      | - | 5.84 -    |
| Critical Hdwy Stg 2  | -      | -      | -      | - | 5.84 -    |
| Follow-up Hdwy       | -      | -      | -      | - | 3.52 3.32 |
| Pot Cap-1 Maneuver   | 0      | -      | -      | 0 | 118 547   |
| Stage 1              | 0      | -      | -      | 0 | 347 -     |
| Stage 2              | 0      | -      | -      | 0 | 544 -     |
| Platoon blocked, %   |        | -      | -      |   |           |
| Mov Cap-1 Maneuver   | -      | -      | -      | - | 118 547   |
| Mov Cap-2 Maneuver   | -      | -      | -      | - | 118 -     |
| Stage 1              | -      | -      | -      | - | 347 -     |
| Stage 2              | -      | -      | -      | - | 544 -     |

**Approach**

|                      | EB | WB | SB   |
|----------------------|----|----|------|
| HCM Control Delay, s | 0  | 0  | 63.2 |
| HCM LOS              |    |    | F    |

**Minor Lane/Major Mvmt**

|                       | EBT | WBT | SBLn1 |
|-----------------------|-----|-----|-------|
| Capacity (veh/h)      | -   | -   | 181   |
| HCM Lane V/C Ratio    | -   | -   | 0.715 |
| HCM Control Delay (s) | -   | -   | 63.2  |
| HCM Lane LOS          | -   | -   | F     |
| HCM 95th %tile Q(veh) | -   | -   | 4.4   |

**Intersection**

Int Delay, s/veh 0.4

| Movement                 | EBL  | EBT  | WBT  | WBR  | SBL  | SBR  |
|--------------------------|------|------|------|------|------|------|
| Lane Configurations      |      | ↕↕   | ↕↕   |      | ↕    | ↕    |
| Traffic Vol, veh/h       | 10   | 811  | 673  | 23   | 12   | 8    |
| Future Vol, veh/h        | 10   | 811  | 673  | 23   | 12   | 8    |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Stop | Stop |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | -    | -    | -    | -    | 0    | -    |
| Veh in Median Storage, # | -    | 0    | 0    | -    | 0    | -    |
| Grade, %                 | -    | 0    | 0    | -    | 0    | -    |
| Peak Hour Factor         | 88   | 88   | 88   | 88   | 88   | 88   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 11   | 922  | 765  | 26   | 14   | 9    |

**Major/Minor**

|                      | Major1 | Major2 | Minor2 |      |      |
|----------------------|--------|--------|--------|------|------|
| Conflicting Flow All | 791    | 0      | 0      | 1261 | 396  |
| Stage 1              | -      | -      | -      | 778  | -    |
| Stage 2              | -      | -      | -      | 483  | -    |
| Critical Hdwy        | 4.14   | -      | -      | 6.84 | 6.94 |
| Critical Hdwy Stg 1  | -      | -      | -      | 5.84 | -    |
| Critical Hdwy Stg 2  | -      | -      | -      | 5.84 | -    |
| Follow-up Hdwy       | 2.22   | -      | -      | 3.52 | 3.32 |
| Pot Cap-1 Maneuver   | 825    | -      | -      | 162  | 603  |
| Stage 1              | -      | -      | -      | 413  | -    |
| Stage 2              | -      | -      | -      | 586  | -    |
| Platoon blocked, %   | -      | -      | -      | -    | -    |
| Mov Cap-1 Maneuver   | 825    | -      | -      | 158  | 603  |
| Mov Cap-2 Maneuver   | -      | -      | -      | 158  | -    |
| Stage 1              | -      | -      | -      | 402  | -    |
| Stage 2              | -      | -      | -      | 586  | -    |

**Approach**

|                      | EB  | WB | SB   |
|----------------------|-----|----|------|
| HCM Control Delay, s | 0.2 | 0  | 22.9 |
| HCM LOS              |     |    | C    |

**Minor Lane/Major Mvmt**

|                       | EBL   | EBT | WBT | WBR | SBLn1 | SBR |
|-----------------------|-------|-----|-----|-----|-------|-----|
| Capacity (veh/h)      | 825   | -   | -   | -   | 224   | -   |
| HCM Lane V/C Ratio    | 0.014 | -   | -   | -   | 0.101 | -   |
| HCM Control Delay (s) | 9.4   | 0.1 | -   | -   | 22.9  | -   |
| HCM Lane LOS          | A     | A   | -   | -   | C     | -   |
| HCM 95th %tile Q(veh) | 0     | -   | -   | -   | 0.3   | -   |

| Intersection             |        |          |       |        |       |      |
|--------------------------|--------|----------|-------|--------|-------|------|
| Int Delay, s/veh         | 2.1    |          |       |        |       |      |
| Movement                 | WBL    | WBR      | NBT   | NBR    | SBL   | SBT  |
| Lane Configurations      | Y      |          | T     |        |       | T    |
| Traffic Vol, veh/h       | 14     | 6        | 41    | 17     | 5     | 21   |
| Future Vol, veh/h        | 14     | 6        | 41    | 17     | 5     | 21   |
| 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         | 69     | 69       | 69    | 69     | 69    | 69   |
| Heavy Vehicles, %        | 2      | 2        | 2     | 2      | 2     | 2    |
| Mvmt Flow                | 20     | 9        | 59    | 25     | 7     | 30   |
| Major/Minor              | Minor1 | Major1   |       | Major2 |       |      |
| Conflicting Flow All     | 116    | 72       | 0     | 0      | 84    | 0    |
| Stage 1                  | 72     | -        | -     | -      | -     | -    |
| Stage 2                  | 44     | -        | -     | -      | -     | -    |
| Critical Hdwy            | 6.42   | 6.22     | -     | -      | 4.12  | -    |
| Critical Hdwy Stg 1      | 5.42   | -        | -     | -      | -     | -    |
| Critical Hdwy Stg 2      | 5.42   | -        | -     | -      | -     | -    |
| Follow-up Hdwy           | 3.518  | 3.318    | -     | -      | 2.218 | -    |
| Pot Cap-1 Maneuver       | 880    | 990      | -     | -      | 1513  | -    |
| Stage 1                  | 951    | -        | -     | -      | -     | -    |
| Stage 2                  | 978    | -        | -     | -      | -     | -    |
| Platoon blocked, %       |        |          | -     | -      |       | -    |
| Mov Cap-1 Maneuver       | 876    | 990      | -     | -      | 1513  | -    |
| Mov Cap-2 Maneuver       | 876    | -        | -     | -      | -     | -    |
| Stage 1                  | 951    | -        | -     | -      | -     | -    |
| Stage 2                  | 973    | -        | -     | -      | -     | -    |
| Approach                 | WB     | NB       |       | SB     |       |      |
| HCM Control Delay, s     | 9.1    | 0        |       | 1.4    |       |      |
| HCM LOS                  | A      |          |       |        |       |      |
| Minor Lane/Major Mvmt    | NBT    | NBRWBLn1 | SBL   | SBT    |       |      |
| Capacity (veh/h)         | -      | -        | 907   | 1513   | -     |      |
| HCM Lane V/C Ratio       | -      | -        | 0.032 | 0.005  | -     |      |
| HCM Control Delay (s)    | -      | -        | 9.1   | 7.4    | 0     |      |
| HCM Lane LOS             | -      | -        | A     | A      | A     |      |
| HCM 95th %tile Q(veh)    | -      | -        | 0.1   | 0      | -     |      |



**Intersection**

Int Delay, s/veh 0.1

| Movement                 | EBL  | EBT  | WBT  | WBR  | SBL  | SBR  |
|--------------------------|------|------|------|------|------|------|
| Lane Configurations      |      | ↑↑   | ↑↑   |      | ∩    |      |
| Traffic Vol, veh/h       | 0    | 824  | 690  | 0    | 6    | 5    |
| Future Vol, veh/h        | 0    | 824  | 690  | 0    | 6    | 5    |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Stop | Stop |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | -    | -    | -    | -    | 0    | -    |
| Veh in Median Storage, # | -    | 0    | 0    | -    | 0    | -    |
| Grade, %                 | -    | 0    | 0    | -    | 0    | -    |
| Peak Hour Factor         | 92   | 92   | 92   | 92   | 92   | 92   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 0    | 896  | 750  | 0    | 7    | 5    |

**Major/Minor**

|                      | Major1 | Major2 | Minor2 |   |           |
|----------------------|--------|--------|--------|---|-----------|
| Conflicting Flow All | -      | 0      | -      | 0 | 1198 375  |
| Stage 1              | -      | -      | -      | - | 750 -     |
| Stage 2              | -      | -      | -      | - | 448 -     |
| Critical Hdwy        | -      | -      | -      | - | 6.84 6.94 |
| Critical Hdwy Stg 1  | -      | -      | -      | - | 5.84 -    |
| Critical Hdwy Stg 2  | -      | -      | -      | - | 5.84 -    |
| Follow-up Hdwy       | -      | -      | -      | - | 3.52 3.32 |
| Pot Cap-1 Maneuver   | 0      | -      | -      | 0 | 178 623   |
| Stage 1              | 0      | -      | -      | 0 | 427 -     |
| Stage 2              | 0      | -      | -      | 0 | 611 -     |
| Platoon blocked, %   | -      | -      | -      | - | -         |
| Mov Cap-1 Maneuver   | -      | -      | -      | - | 178 623   |
| Mov Cap-2 Maneuver   | -      | -      | -      | - | 178 -     |
| Stage 1              | -      | -      | -      | - | 427 -     |
| Stage 2              | -      | -      | -      | - | 611 -     |

**Approach**

|                      | EB | WB | SB   |
|----------------------|----|----|------|
| HCM Control Delay, s | 0  | 0  | 19.3 |
| HCM LOS              |    |    | C    |

**Minor Lane/Major Mvmt**

|                       | EBT | WBT | SBLn1 |
|-----------------------|-----|-----|-------|
| Capacity (veh/h)      | -   | -   | 264   |
| HCM Lane V/C Ratio    | -   | -   | 0.045 |
| HCM Control Delay (s) | -   | -   | 19.3  |
| HCM Lane LOS          | -   | -   | C     |
| HCM 95th %tile Q(veh) | -   | -   | 0.1   |

# **TRAFFIC VOLUME WORKSHEETS**

**22-255 Smarties Academy at 465 Clairemont Avenue, Decatur - TIS**  
**Traffic Volumes**

**A&R Engineering**  
**February 2023**

**1.Clairemont Ave @ Erie Ave**

**A.M. Peak Hour**

| Condition                               | -          |   |   |     | Erie Avenue |   |    |     | SR 155 (Clairemont Avenue) |     |   |     | SR 155 (Clairemont Avenue) |     |     |     |
|---|------------|---|---|-----|-------------|---|----|-----|----------------------------|-----|---|-----|----------------------------|-----|-----|-----|
|   | Northbound |   |   |     | Southbound  |   |    |     | Eastbound                  |     |   |     | Westbound                  |     |     |     |
|   | L          | T | R | Tot | L           | T | R  | Tot | L                          | T   | R | Tot | L                          | T   | R   | Tot |
| Existing 2023 Traffic Counts:           | 0          | 0 | 0 | 0   | 30          | 0 | 41 | 71  | 36                         | 597 | 0 | 633 | 0                          | 647 | 56  | 703 |
| Growth Factor (%):                      | 2          | 2 | 2 |     | 2           | 2 | 2  |     | 2                          | 2   | 2 |     | 2                          | 2   | 2   |     |
| No-Build 2025 Volumes(Buildout year):   | 0          | 0 | 0 | 0   | 31          | 0 | 43 | 74  | 37                         | 621 | 0 | 658 | 0                          | 673 | 58  | 731 |
| No-Build 2030 Volumes(Horizon Year):    | 0          | 0 | 0 | 0   | 34          | 0 | 47 | 81  | 41                         | 683 | 0 | 724 | 0                          | 740 | 64  | 804 |
| Total New Trips:                        | 0          | 0 | 0 | 0   | 17          | 0 | 17 | 34  | 46                         | 0   | 0 | 46  | 0                          | 38  | 53  | 91  |
| Future 2025 Traffic Vol(Buildout year): | 0          | 0 | 0 | 0   | 48          | 0 | 60 | 108 | 83                         | 621 | 0 | 704 | 0                          | 711 | 111 | 822 |
| Future 2030 Traffic Vol(Horizon Year):  | 0          | 0 | 0 | 0   | 51          | 0 | 64 | 115 | 87                         | 683 | 0 | 770 | 0                          | 778 | 117 | 895 |

**P.M. Peak Hour**

| Condition                               | -          |   |   |     | Erie Avenue |   |    |     | SR 155 (Clairemont Avenue) |     |   |      | SR 155 (Clairemont Avenue) |     |    |     |
|---|------------|---|---|-----|-------------|---|----|-----|----------------------------|-----|---|------|----------------------------|-----|----|-----|
|   | Northbound |   |   |     | Southbound  |   |    |     | Eastbound                  |     |   |      | Westbound                  |     |    |     |
|   | L          | T | R | Tot | L           | T | R  | Tot | L                          | T   | R | Tot  | L                          | T   | R  | Tot |
| Existing 2023 Traffic Counts:           | 0          | 0 | 0 | 0   | 22          | 0 | 34 | 56  | 25                         | 835 | 0 | 860  | 0                          | 667 | 39 | 706 |
| Growth Factor (%):                      | 2          | 2 | 2 |     | 2           | 2 | 2  |     | 2                          | 2   | 2 |      | 2                          | 2   | 2  |     |
| No-Build 2025 Volumes(Buildout year):   | 0          | 0 | 0 | 0   | 23          | 0 | 35 | 58  | 26                         | 868 | 0 | 894  | 0                          | 694 | 41 | 735 |
| No-Build 2030 Volumes(Horizon Year):    | 0          | 0 | 0 | 0   | 25          | 0 | 39 | 64  | 29                         | 955 | 0 | 984  | 0                          | 763 | 45 | 808 |
| Total New Trips:                        | 0          | 0 | 0 | 0   | 25          | 0 | 25 | 50  | 37                         | 0   | 0 | 37   | 0                          | 53  | 43 | 96  |
| Future 2025 Traffic Vol(Buildout year): | 0          | 0 | 0 | 0   | 48          | 0 | 60 | 108 | 63                         | 868 | 0 | 931  | 0                          | 747 | 84 | 831 |
| Future 2030 Traffic Vol(Horizon Year):  | 0          | 0 | 0 | 0   | 50          | 0 | 64 | 114 | 66                         | 955 | 0 | 1021 | 0                          | 816 | 88 | 904 |

**22-255 Smarties Academy at 465 Clairemont Avenue, Decatur - TIS**  
**Traffic Volumes**

**A&R Engineering**  
**February 2023**

**2.Erie Ave @ Site Drwy**

**A.M. Peak Hour**

| Condition                               | Erie Avenue Northbound |    |     |     | Erie Avenue Southbound |    |   |     | - Eastbound |   |   |     | Site Driveway Westbound |   |    |     |
|---|------------------------|----|-----|-----|------------------------|----|---|-----|-------------|---|---|-----|-------------------------|---|----|-----|
|   | L                      | T  | R   | Tot | L                      | T  | R | Tot | L           | T | R | Tot | L                       | T | R  | Tot |
| Existing 2023 Traffic Counts:           | 0                      | 35 | 55  | 90  | 20                     | 34 | 0 | 54  | 0           | 0 | 0 | 0   | 40                      | 0 | 17 | 57  |
| Growth Factor (%):                      | 2                      | 2  | 2   |     | 2                      | 2  | 2 |     | 2           | 2 | 2 |     | 2                       | 2 | 2  |     |
| No-Build 2025 Volumes(Buildout year):   | 0                      | 36 | 57  | 93  | 21                     | 35 | 0 | 56  | 0           | 0 | 0 | 0   | 42                      | 0 | 18 | 60  |
| No-Build 2030 Volumes(Horizon Year):    | 0                      | 40 | 63  | 103 | 23                     | 39 | 0 | 62  | 0           | 0 | 0 | 0   | 46                      | 0 | 20 | 66  |
| Total New Trips:                        | 0                      | 0  | 99  | 99  | 53                     | 0  | 0 | 53  | 0           | 0 | 0 | 0   | 35                      | 0 | 41 | 76  |
| Future 2025 Traffic Vol(Buildout year): | 0                      | 36 | 156 | 192 | 74                     | 35 | 0 | 109 | 0           | 0 | 0 | 0   | 77                      | 0 | 59 | 136 |
| Future 2030 Traffic Vol(Horizon Year):  | 0                      | 40 | 162 | 202 | 76                     | 39 | 0 | 115 | 0           | 0 | 0 | 0   | 81                      | 0 | 61 | 142 |

**P.M. Peak Hour**

| Condition                               | Erie Avenue Northbound |    |     |     | Erie Avenue Southbound |    |   |     | - Eastbound |   |   |     | Site Driveway Westbound |   |    |     |
|---|------------------------|----|-----|-----|------------------------|----|---|-----|-------------|---|---|-----|-------------------------|---|----|-----|
|   | L                      | T  | R   | Tot | L                      | T  | R | Tot | L           | T | R | Tot | L                       | T | R  | Tot |
| Existing 2023 Traffic Counts:           | 0                      | 27 | 49  | 76  | 11                     | 15 | 0 | 26  | 0           | 0 | 0 | 0   | 47                      | 0 | 34 | 81  |
| Growth Factor (%):                      | 2                      | 2  | 2   |     | 2                      | 2  | 2 |     | 2           | 2 | 2 |     | 2                       | 2 | 2  |     |
| No-Build 2025 Volumes(Buildout year):   | 0                      | 28 | 51  | 79  | 11                     | 16 | 0 | 27  | 0           | 0 | 0 | 0   | 49                      | 0 | 35 | 84  |
| No-Build 2030 Volumes(Horizon Year):    | 0                      | 31 | 56  | 87  | 12                     | 18 | 0 | 30  | 0           | 0 | 0 | 0   | 54                      | 0 | 39 | 93  |
| Total New Trips:                        | 0                      | 0  | 79  | 79  | 43                     | 0  | 0 | 43  | 0           | 0 | 0 | 0   | 49                      | 0 | 57 | 106 |
| Future 2025 Traffic Vol(Buildout year): | 0                      | 28 | 130 | 158 | 54                     | 16 | 0 | 70  | 0           | 0 | 0 | 0   | 98                      | 0 | 92 | 190 |
| Future 2030 Traffic Vol(Horizon Year):  | 0                      | 31 | 135 | 166 | 55                     | 18 | 0 | 73  | 0           | 0 | 0 | 0   | 103                     | 0 | 96 | 199 |

**22-255 Smarties Academy at 465 Clairemont Avenue, Decatur - TIS**  
**Traffic Volumes**

**A&R Engineering**  
**February 2023**

**3.Clairemont Ave @ ExitOnlyDrwy**

**A.M. Peak Hour**

| Condition                               | - Northbound |   |   |     | Exit Only Driveway Southbound |   |    |     | SR 155 (Clairemont Avenue) Eastbound |     |   |     | SR 155 (Clairemont Avenue) Westbound |     |   |     |
|---|--------------|---|---|-----|-------------------------------|---|----|-----|--------------------------------------|-----|---|-----|--------------------------------------|-----|---|-----|
|   | L            | T | R | Tot | L                             | T | R  | Tot | L                                    | T   | R | Tot | L                                    | T   | R | Tot |
| Existing 2023 Traffic Counts:           | 0            | 0 | 0 | 0   | 0                             | 0 | 0  | 0   | 0                                    | 627 | 0 | 627 | 0                                    | 703 | 0 | 703 |
| Growth Factor (%):                      | 2            | 2 | 2 |     | 2                             | 2 | 2  |     | 2                                    | 2   | 2 |     | 2                                    | 2   | 2 |     |
| No-Build 2025 Volumes(Buildout year):   | 0            | 0 | 0 | 0   | 0                             | 0 | 0  | 0   | 0                                    | 652 | 0 | 652 | 0                                    | 731 | 0 | 731 |
| No-Build 2030 Volumes(Horizon Year):    | 0            | 0 | 0 | 0   | 0                             | 0 | 0  | 0   | 0                                    | 717 | 0 | 717 | 0                                    | 804 | 0 | 804 |
| Total New Trips:                        | 0            | 0 | 0 | 0   | 46                            | 0 | 38 | 84  | 0                                    | 17  | 0 | 17  | 0                                    | 53  | 0 | 53  |
| Future 2025 Traffic Vol(Buildout year): | 0            | 0 | 0 | 0   | 46                            | 0 | 38 | 84  | 0                                    | 669 | 0 | 669 | 0                                    | 784 | 0 | 784 |
| Future 2030 Traffic Vol(Horizon Year):  | 0            | 0 | 0 | 0   | 46                            | 0 | 38 | 84  | 0                                    | 734 | 0 | 734 | 0                                    | 857 | 0 | 857 |

**P.M. Peak Hour**

| Condition                               | - Northbound |   |   |     | Exit Only Driveway Southbound |   |    |     | SR 155 (Clairemont Avenue) Eastbound |      |   |      | SR 155 (Clairemont Avenue) Westbound |     |   |     |
|---|--------------|---|---|-----|-------------------------------|---|----|-----|--------------------------------------|------|---|------|--------------------------------------|-----|---|-----|
|   | L            | T | R | Tot | L                             | T | R  | Tot | L                                    | T    | R | Tot  | L                                    | T   | R | Tot |
| Existing 2023 Traffic Counts:           | 0            | 0 | 0 | 0   | 0                             | 0 | 0  | 0   | 0                                    | 857  | 0 | 857  | 0                                    | 706 | 0 | 706 |
| Growth Factor (%):                      | 2            | 2 | 2 |     | 2                             | 2 | 2  |     | 2                                    | 2    | 2 |      | 2                                    | 2   | 2 |     |
| No-Build 2025 Volumes(Buildout year):   | 0            | 0 | 0 | 0   | 0                             | 0 | 0  | 0   | 0                                    | 891  | 0 | 891  | 0                                    | 734 | 0 | 734 |
| No-Build 2030 Volumes(Horizon Year):    | 0            | 0 | 0 | 0   | 0                             | 0 | 0  | 0   | 0                                    | 980  | 0 | 980  | 0                                    | 807 | 0 | 807 |
| Total New Trips:                        | 0            | 0 | 0 | 0   | 66                            | 0 | 53 | 119 | 0                                    | 25   | 0 | 25   | 0                                    | 43  | 0 | 43  |
| Future 2025 Traffic Vol(Buildout year): | 0            | 0 | 0 | 0   | 66                            | 0 | 53 | 119 | 0                                    | 916  | 0 | 916  | 0                                    | 777 | 0 | 777 |
| Future 2030 Traffic Vol(Horizon Year):  | 0            | 0 | 0 | 0   | 66                            | 0 | 53 | 119 | 0                                    | 1005 | 0 | 1005 | 0                                    | 850 | 0 | 850 |