Planning and Development Department
Case Information

Case Number: Z26-0054

Meeting Dates: Planning Commission 04-02-2026

Board of Commissioners 05-05-2026

Applicant:
Reed Creek Food Mart, LLC
1176 Sanford Drive, SW
Lilburn, Georgia 30047

Owner:
James William Burson, II
2069 Highway 11
Monroe, Georgia 30656

Current Zoning: The current zonings are A1, A2 and R1.

Request: Rezone 11.50 acres of a 45.98-acre parcel of land from A1/A2/R1 to B1 for a convenience store with gasoline stations, retail & quick service restaurants and a public golf range with a Variance to encroach into the 75' stream buffer.

Address: 2069 Highway 11 and Mountain Creek Church Road, Monroe, Georgia 30656

Map Number/Site Area: C0860040 – 11.50 acres

Character Area: Employment Center

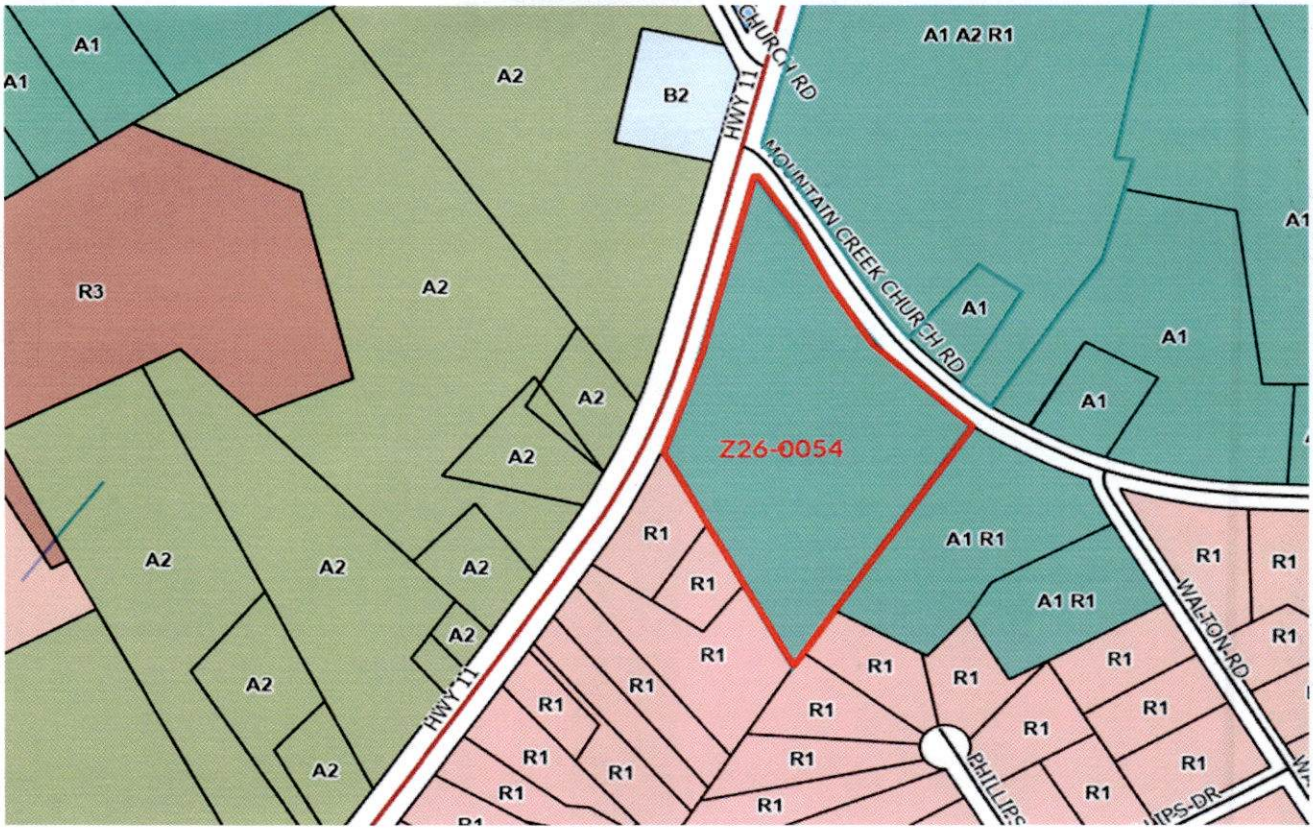
District 6 Commissioner- Kirklyn Dixon Planning Commission–Timothy Kemp

Existing Site Conditions: Property is vacant.


AUTUMN CIRCLE
MOUNTAIN CREEK CHURCH RD
MOUNTAIN CREEK CHURCH RD
ORCHARD CIR
ORCHARD CIR
ORCHARD CIR
HWY 11
Z26-0054
MOUNTAIN CREEK CHURCH RD
SUMMERSET PL
WALTON RD

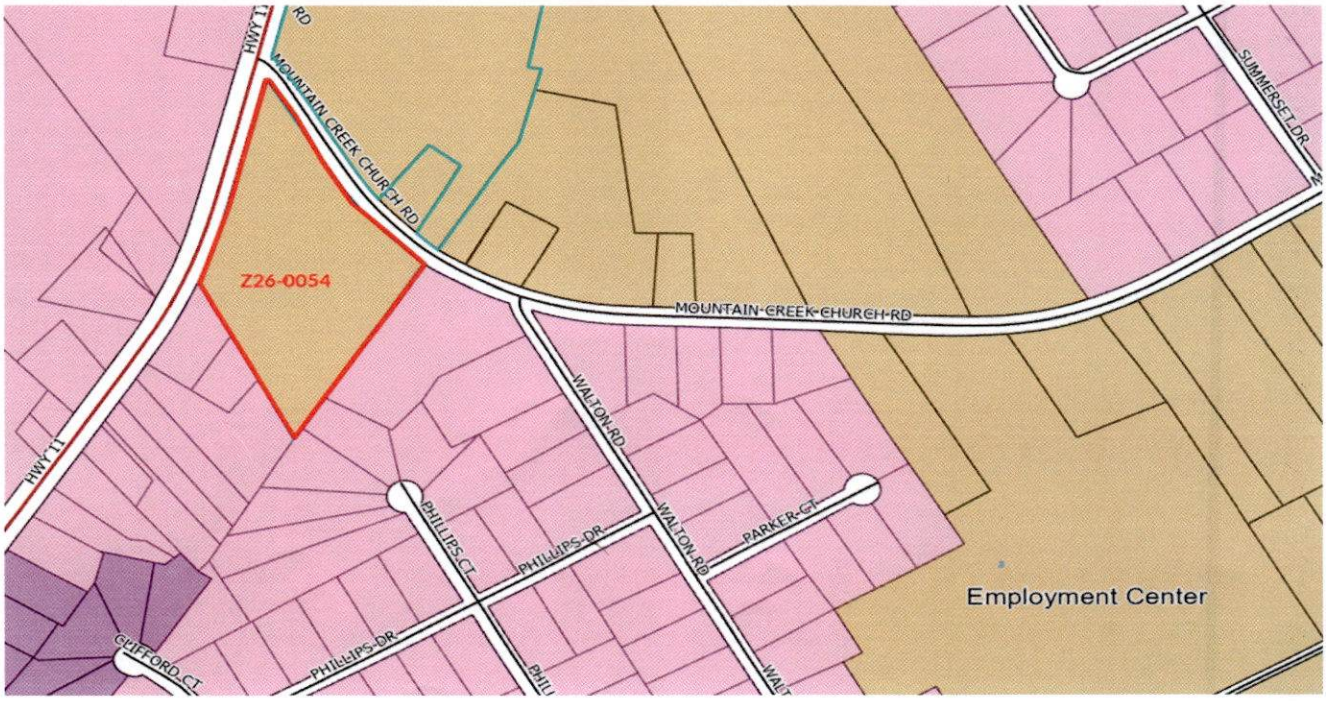

HWY 11
HWY 11
MOUNTAIN CREEK CHURCH RD
Z26-0054

The surrounding properties are zoned A1, A2 and R1.

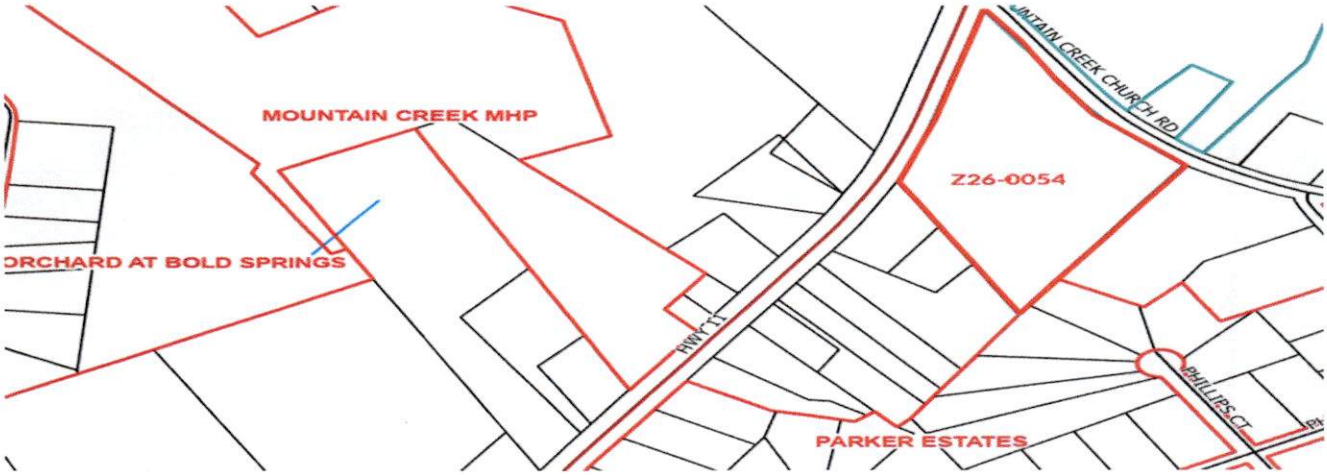


The property is not in a Watershed Protection Area.

The Future Land Use Map for this property is Employment Center.



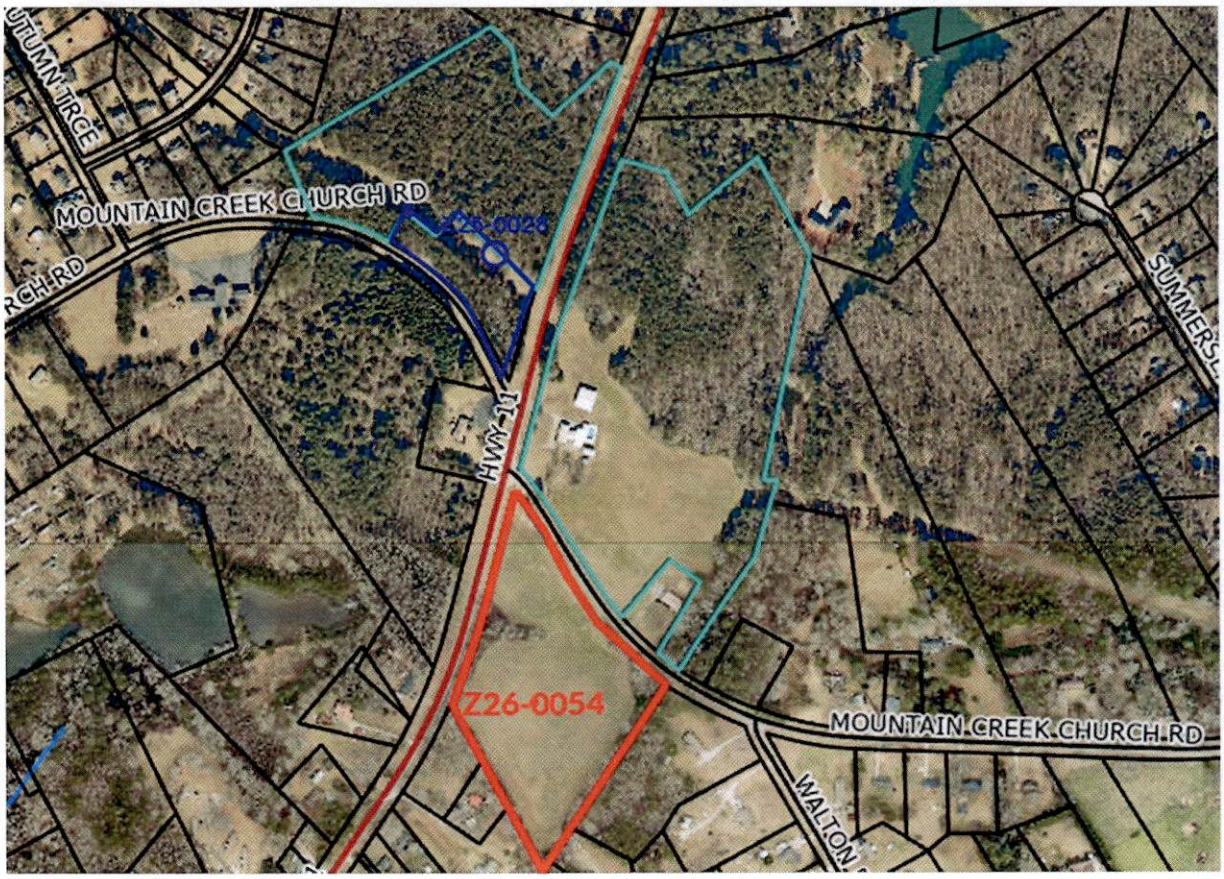
Subdivisions:



History:

Z25-0028 PJ25-0202	Shield Sword LLC	Rezone from A2 to B1 for a martial arts studio	C0860040 2069 Hwy 11 & Mountain Creek Church Road	Approved

****A Rezone was done on this Parcel on 4/1/2025 where 2.60 acres was rezoned from a 48.58 parcel of land from A2 to B1 for a martial arts studio at the below part of the land:**



Staff Comments/Concerns: (See Traffic Study Attached)

Public Works: Public Works recommends that a Traffic Study may need to be conducted to determine the need for a possible center-turn lane on Mountain Creek Church Road.

Sheriff's Department: No comment received.

Water Authority: This property is located within the City of Monroe Service Area

Fire Marshall Review: Project shall comply with all codes set forth by the Office of Commissioner of Insurance State Fire Marshal Rules and Regulations, Walton County Ordinances, Life Safety Code and International Fire Code.

Fire Department Review: Increase in emergency response

Board of Education: This will not affect Transportation.

GDOT: These intersections are going to be severely impacted by this type of development, so we need to ensure that operations and safety are improved. Will need to coordinate with GDOT before permitting.

City of Monroe: No issues or concerns from City of Monroe Utilities on these three cases.

PC Action 4/2/2026:

1. Z26-0054 – Rezone 11.50 acres from A1/A2/R1 to B1 for a convenience store with gasoline stations, retail & quick service restaurants, public golf range and a Variance to encroach into the 75' stream buffer – Applicant: Reed Creek Food Mart, LLC/Owner: James William Burson, II – property located at 2069 Highway 11 and Mountain Creek Church Road – Map/Parcel C0860040 - District 6

Presentation: Marissa Bridges who lives in Canton, Georgia represented the case. She stated they are wanting to rezone the property at 2069 Hwy. 11 from A1/A2/R1 to B1 for a public driving range with a convenience store and retail stores, along with a drive-thru fast-food restaurant. She stated that the driving range would have 5-7 positions and have lights facing towards the field with the hours of operation being 8:00 AM to 10:00 PM. The structures will be of masonry like stone and brick creating a more natural retail element. She is also requesting Variances to encroach into the 75' stream buffer.

On site to the west will be the convenience store and the detention pond which will serve all 3 which are the convenience store/gas station, retail space and quick service restaurant and driving range.

Mark Banks asked if the lighting would be shielded from the neighboring properties and if there would be any types of netting. Ms. Bridges stated they had planned to add an industrial standard netting for the range itself and industry fencing with artificial grass.

Timothy Kemp asked if it would be something like Top Golf and Ms. Bridges stated that it is very much like that, but this would be on ground areas where balls will not be going to neighboring properties.

Chris Alexander asked if the lighting would be on fencing or lights on tall poles shining down on the property and he was advised that they would use night sky lighting.

Timothy Kemp asked if the lighting only be during hours of operation and Ms. Bridges stated they would only be on during hours of operation except for the in-building safety lighting.
Tim Hinton asked about the Mountain Creek Church Road entrance and would it be right in only on Highway 11 and right in and out on Mountain Creek Church Road and Ms. Bridges stated that they had a Traffic Study done and will be working on the entrances with GDOT to see where would be the best place for them.

Tim Hinton stated that knowing the entrance, that it is going to be problematic and maybe GDOT will only make 2 cuts, maybe 1 entry and 1 exit. He has seen lots of accidents at this intersection. Marissa Bridges said that they would like to look at the side entrance located near the convenience store and golf range which is to the west.

Tim Hinton stated we have nothing over GDOT and that we are here to look at the request to see what is allowed for the property, but we do look at safety as well.

Timothy Kemp asked about the driving range and about how many customers and Ms. Bridges stated that they are proposing hours of operation from 8:00 a.m. to 9:00 or 10:00 p.m. and it will be open to the public and they will pay to use this so that is hard to say the amount of customers at the moment.

It was brought up that when the development plans are submitted that GDOT will give their recommendations on where the entrances should be.

Billy Mitchell, who lives on John Deere Road spoke in favor of this rezone. He grew up here and there was once a fruit stand under the tree and they cut hay but now we need to look at what is best for the property.

Speaking: No one

Rebuttal: None

Recommendation: Timothy Kemp made a motion to recommend approval as requested with variances and was seconded by Mark Banks. The Motion carried unanimously.

Allowed in B1, B2, B3, TC and (MUBP - A permitted use that must be within 1200 feet of a State or Federal Highway (P*) and CU in M1 and M2

Section 6-1-250 Convenience Store with Gasoline Station (8)

A. The use shall not exceed a gross leasable floor space of five thousand (5,000) square feet.

B. The place of business shall not be within one hundred (100) yards of any school building, school grounds, or college campus or within one hundred (100) yards of an alcoholic treatment center owned and operated by this state or any county or municipal government therein. *Distances herein shall be measured along a straight line, which describes the shortest distance from the main customer entrance to the main entrance of the entrance of the establishments as listed above.

C. A gasoline service station/convenience store shall have a minimum frontage on the primary street of one hundred twenty (120) feet and a minimum lot area of twenty-five thousand five hundred (25,500) square feet. Canopies and gasoline pump islands shall be set back fifteen (15) feet from all right-of-way lines.

D. Vehicular entrances or exists at a gasoline service station:

1. Shall contain an access width along the edge of the pavement of not more than forty (40) feet as measured parallel to the street at its narrowest point and shall not be located closer than ten (10) feet to the adjoining property.

2. Shall not have any two (2) driveways any closer than twenty (20) feet at both the right-of-way line and the edge of the pavement along a single street.

E. A Conditional Use Permit is required if three (3) or more diesel fuel pumps are provided for a convenience store/ gasoline service station in the B2 or B3 zoning district. A convenience store/gasoline service station with three (3) or more diesel pumps shall be a use by right in the M1 and M2 zoning districts.

F. Other Site Improvements. In addition to the above requirements, the following additional site improvements shall be adhered to:

1. A solid fence or wall six (6) feet in height shall be erected along the property lines which abut residential property.

2. Exterior lighting with cut-off luminaries are required so that light it is directed away from adjacent properties.

G. All flammable products shall be stored in compliance with State EPD regulations.

(2-2-2010)

Article 5 Permitted Uses

Part 1 Permitted and Conditional Uses

Section 100 Table of Permitted and Conditional Uses

A. The Permitted and Conditional Uses listed in the table below shall be permitted in Walton County zoning districts and no structure shall be erected, structurally altered or enlarged unless the use is permitted as:

1. A permitted use (P);

NAICS Code	Principal Uses	Suppl. Reg	A	A1	A2	R1	R2	R3	MHP	OI	B1	B2	B3	TC	MUBP	M1	M2
	ACCOMMODATION & FOOD SERVICES	(19)															
72211	Full-Service Restaurants									P	P	P	P	P	A or P*		
722211	Limited-Service Restaurants *(incl. fast food)*										P	P	P		P*		

Allowed as CU in A, A1 and A2

Permitted in OI, B1, B2 and B3

OUTDOOR RECREATION FACILITIES, COMMERCIAL: Any establishment whose main purpose is to provide the general public with facilities for active, outdoor recreational activities and where tickets are sold or fees are collected for participation in the activity. Outdoor commercial recreation facilities include, but are not limited to: water slides and parks, golf courses and miniature golf courses, driving ranges, baseball batting cages, and tracks for motor sports.

Outdoor Recreation Facility, Commercial (18)

A. Only accessory services and parking related exclusively to the recreational operations shall be allowed.

B. Total floor area of all buildings shall be a maximum of 2,000 square feet. The building[s] shall be located at least 100 feet from all residentially zoned property.

C. The site shall be at least two (2) acres in size.

D. All activities shall take place at least 100 feet from any property line adjacent to a residential zone or use.

E. Outdoor activity areas shall be sufficiently screened and insulated so as to protect adjacent property from noise and other disturbances.

F. No outdoor storage shall be allowed.

G. No outdoor public address system shall be allowed

H. The use of the site adjacent to residentially zoned property after 8:00 p.m. shall be prohibited.

Section 11-10-140 - Applicability

This ordinance shall apply to all land development activity on property containing a stream protection area as defined in [Section 11-10-130] of this Ordinance. These requirements are in addition to, and do not replace or supersede, any other applicable buffer requirements established under state law and approval or exemption from these requirements do not constitute approval or exemption from buffer requirements established under state law or from other applicable local, state or federal regulations.

A. Grandfather Provisions

This ordinance shall not apply to the following activities:

1. Work consisting of the repair or maintenance of any lawful use of land that is zoned and approved for such use on or before the effective date of this Ordinance.
2. Existing development and on-going land disturbance activities including but not limited to existing agriculture, silviculture, landscaping, gardening and lawn maintenance, except that new development or land disturbance activities on such properties will be subject to all applicable buffer requirements.
3. Any land development activity that is under construction, fully approved for development, scheduled for permit approval or has been submitted for approval as of the effective date of this Ordinance.
4. Land development activity that has not been submitted for approval, but that is part of a larger master development plan, such as for an office park or other phased development that has been previously approved within two (2) years of the effective date of this Ordinance.

B. Exemptions

The following specific activities are exempt from this Ordinance. Exemption of these activities does not constitute an exemption for any other activity proposed on a property.

1. Activities for the purpose of building one of the following:
   a. A stream crossing by a driveway, transportation route or utility line;
   b. Public water supply intake or public wastewater outfall structures;
   c. Intrusions necessary to provide access to a property;
   d. Public access facilities that must be on the water including boat ramps, docks, foot trails leading directly to the river, fishing platforms and overlooks;
   e. Unpaved foot trails and paths;
   f. Activities to restore and enhance stream bank stability, vegetation, water quality and/or aquatic habitat, so long as native vegetation and bioengineering techniques are used.

2. Public sewer line easements paralleling the creek, except that all easements (permanent and construction) and land disturbance should be at least twenty-five (25) feet from the top of the bank. This includes such impervious cover as is necessary for the operation and maintenance of the utility, including but not limited to manholes, vents and valve structures. This exemption shall not be construed as allowing the construction of roads, bike paths or other transportation routes in such easements, regardless of paving material, except for access for the uses specifically cited in Subsection B.1, above.
3. Land development activities within a right-of-way existing at the time this Ordinance takes effect or approved under the terms of this Ordinance.
4. Within an easement of any utility existing at the time this Ordinance takes effect or approved under the terms of this Ordinance, land disturbance activities and such impervious cover as is necessary for the operation and maintenance of the utility, including but not limited to manholes, vents and valve structures.
5. Emergency work necessary to preserve life or property. However, when emergency work is performed under this section, the person performing it shall report such work to the Walton County Planning and Development Department on the next business day after commencement of the work. Within ten (10) days thereafter, the person shall apply for a permit and perform such work within such time period as may be determined by the Walton County Planning and Development Department to be reasonably necessary to correct any impairment such emergency work may have caused to the water conveyance capacity, stability or water quality of the protection area.
6. Forestry and silviculture activities on land that is zoned for forestry, silvicultural or agricultural uses and are not incidental to other land development activity. If such activity results in land disturbance in the buffer that would otherwise by prohibited, then no other land disturbing activity other than normal forest management practices will be allowed on the entire property for three (3) years after the end of the activities that intruded on the buffer.

After the effective date of this Ordinance, it shall apply to new subdividing and platting activities.

Any land development activity with a buffer established hereunder or any impervious cover within a setback established hereunder is prohibited unless a variance is granted pursuant to Section 11-10-150 B below.

Rezone Application # Z26-0054
Application to Amend the Official Zoning Map of Walton County, Georgia

Planning Comm. Meeting Date 4-2-2026 at 6:00PM held at **WC Historical Court House, 111 S. Broad St, Monroe, Ga (2nd Floor)**

Board of Comm Meeting Date 5-5-2026 at 6:00PM held at **WC Historical Court House**

You or your agent must be present at both meetings

Map/Parcel C0860040

Applicant Name/Address/Phone #

Reed Creek Food Mart, LLC

1176 Sanford Drive SW

Lilburn, GA 30047

Property Owner Name/Address/Phone

James William Burson II

2069 GA Hwy 11

Monroe, GA 30656

(If more than one owner, attach Exhibit "A")

Location: 2069 GA Hwy 11, land located at the southeast intersection of GA Highway 11 and Mountain Creek Church Rd Requested Zoning B1 Acreage 11.50

Existing Use of Property: Vacant land

Existing Structures: None

The purpose of this rezone is to rezone this tract of land to B1 zoning to allow the proposed use of use convenience stores with gasoline stations, retail and quick service restaurants, and public golf driving range. And a concurrent variance to encroach into the 75' stream buffer.

Property is serviced by the following:

Public Water: No Provider: Walton County Well: No

Public Sewer: No Provider: No Septic Tank: No

The above statements and accompanying materials are complete and accurate. Applicant hereby grants permission for planning and zoning personnel to enter upon and inspect the property for all purposes allowed and required by the Comprehensive Land Development Ordinance.

Signature

02-06-26
Date

$ 1,150.00
Fee Paid

Public Notice sign will be placed and removed by P&D Office

Signs will not be removed until after Board of Commissioners meeting

Office Use Only:

Existing Zoning A1, A2, R1 Surrounding Zoning: North A1 A2 R1 South R1 East A1 R1 West A2 B2

Comprehensive Land Use: Employment Center ***DRI Required?*** Y ____ N ✓

Commission District: 6-Kirklyn Dixon Watershed: ✓ TMP ✓

I hereby withdraw the above application _____ Date _____

Disclosure of Campaign Contributions

In accordance with the Conflict of Interest in Zoning Act, O.C.G.A., Chapter 36-67A, the following questions must be answered:

Have you the applicant made $250 or more in campaign contributions to a local government official within two years immediately preceding the filing of this application?

_____yes ___✓___ no

If the answer is yes, you must file a disclosure report with the governing authority of Walton County showing:

1. The name and official position of the local governing authority in Walton County to whom the campaign contribution was made.
2. The dollar amount and description of each campaign contribution made during the two years immediately preceding the filing of this application and the date of each such contribution was made.

This disclosure must be filed when the application is submitted.

James W. Burson 2-9-26

Signature of Applicant/Date

Check one: Owner ✓ Agent_____

Disclosure of Campaign Contributions

In accordance with the Conflict of Interest in Zoning Act, O.C.G.A., Chapter 36-67A, the following questions must be answered:

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2. The dollar amount and description of each campaign contribution made during the two years immediately preceding the filing of this application and the date of each such contribution was made.

This disclosure must be filed when the application is submitted.

a. Lak

Signature of Applicant/Date

Check one: Owner_____ Agent ✓

AUTHORIZATION
BY PROPERTY OWNER

I swear that I am the property owner of the property which is the subject matter of the attached Petition for Rezoning/Conditional Use Application, as is shown in the records of Walton County, Georgia.

I authorize the named below to act as Applicant in the pursuit of a Petition for Rezoning/Conditional Use Application.

Name of Applicant: Reed Creek Food Mart, LLC

Address: 1176 Sanford Drive SW, Lilburn, GA 30047

Location of Property: 2069 Highway 11 NW, Monroe, GA 30656 (southwest parcel area only)

Map/Parcel Number: C0860040

Current Zoning: A1, A2 and R1 Requested Zoning: B1

James W. Burson
Property Owner Signature

Property Owner Signature

Print Name: James W. Burson

Print Name:

Address: 2069 Hwy 11
Monroe, GA. 30656

Address:

Personally appeared before me and who swears that the information contained in this authorization is true and correct to the best of his/her knowledge.

Robin Bates
Notary Public

2-9-26
Date

ROBIN M BATES
NOTARY
EXPIRES
GEORGIA
MAY 15, 2027
PUBLIC
WALTON COUNTY

Article 4, Part 4, Section 160 Standard Review Questions:

Provide written documentation addressing each of the standards listed below:

1. Existing uses and zoning of nearby property;

   Northern property, PID: C0860041, Zoned: A1 Rural Estate District, Existing Use: Residential.
   Eastern properties, PID: C0860052, Zoned: A1 R1 Rural Estate District & Single-Family Residential District. PIDs: N086B077 & N086B076, Zoned: R1 Single-Family Residential. Existing Use(s): Residential.
   Southern properties, PIDs: C0860053, C0860054, and C0860055, Zoned: R1 Single-Family Residential District.
   Existing Use(s): Residential.
   Western properties, PID: C0860081, Zoned: A2 Rural Estate District, Existing Use: Vacant. PID: C0860081A00, Zoned: B2 Highway Business District, Existing Use: Chiropractor Clinic.

2. The extent to which property values are diminished by the particular zoning restrictions;

   The current zoning of the property is A1, A2 and R1, which is Rural Estate District and Single-Family Residential District. This area in the County does not have public sanitary sewer availability. Zoning A1 & A2 require a minimum lot size of two (2) acres and R1 would require a minimum lot size of one (1) acre and based on soil findings that area would be larger per parcel to accommodate areas with adequate soil for an onsite septic system. The parcel fronts GA Hwy 11 which is a connecting roadway between 316 and 78 and is classified by GDOT as a State Highway Route, a commercial development better service this type of thoroughfare.

3. The extent to which the destruction of property values of the plaintiffs promotes the health, safety, morals or general welfare of the public;

   This tract has never been developed on. Neighboring residential properties to the east and south were developed prior to 1993. This

development will provide a 50-ft zoning buffer along the east and south property lines. Parking will be provided between the building and GA Hwy 11 and all proposed lighting will be shielded from neighboring properties. Significant detriment shall not be imposed on neighboring properties.

4. The relative gain to the public, as compared to the hardship imposed upon the individual property owner;

All access points from either roadway will provide decelerations lanes alleviating turning traffic from the travel lane and contingent on GDOT approval a right turn lane will be provided from GA Hwy 11 turning right going southeast on Mountain Creek Church Road.

5. The suitability of the subject property for the zoned purposes; and

The subject tract of the property is currently zoned A1, A2 and R1, which prohibits the development of convenience stores with gasoline stations, retail and quick service restaurants, and public golf driving range. However, the proposed rezoning to B1 Neighborhood Business District does allow said uses. B1 zoning designation is also consistent with the County Future Land Use Map, listing this parcel as Employment Center.

6. The length of time the property has been vacant as zoned, considered in the context of land development in the area in the vicinity of the property

The subject property and neighboring properties have been developed since prior to 1993, however, the subject tract of land has remained undeveloped.

470.863.1070
www.LJA.com
130 East Main Street, Suite 204, Canton, Georgia 30114

January 28, 2026

Walton County
Planning & Development
126 Court Street
Monroe, GA 30655
Office: (770) 267-1319

Re: Proposed Acorn Express Monroe Station
Rezoning Request
Parcel C0860040

To whom it concerns,

On behalf of Reed Creek Food Mart, LLC. please consider this our Letter of Intent for a proposed 6,000 sf convenience store with fuel sales, retail and drive through restaurant space totaling 8,000 sf and a public golf driving range with a 2,000 sf building. The proposed development will be positioned on a portion of parcel C0860040 with the address of 2069 Hwy 11. The parcel is currently zoned A1, A2 and R1 zoning and we are requesting a rezoning to B1 (Neighborhood Business District). The Future Land Use Map designates this area as Employment Center which is conducive to the proposed development and the B1 zoning designation. We would also like to request a variance to allow encroachment into the 75' Impervious Stream Buffer.

Sincerely,

Terry Boomer PE
LJA Engineering

"NOT FOR RECORDING"

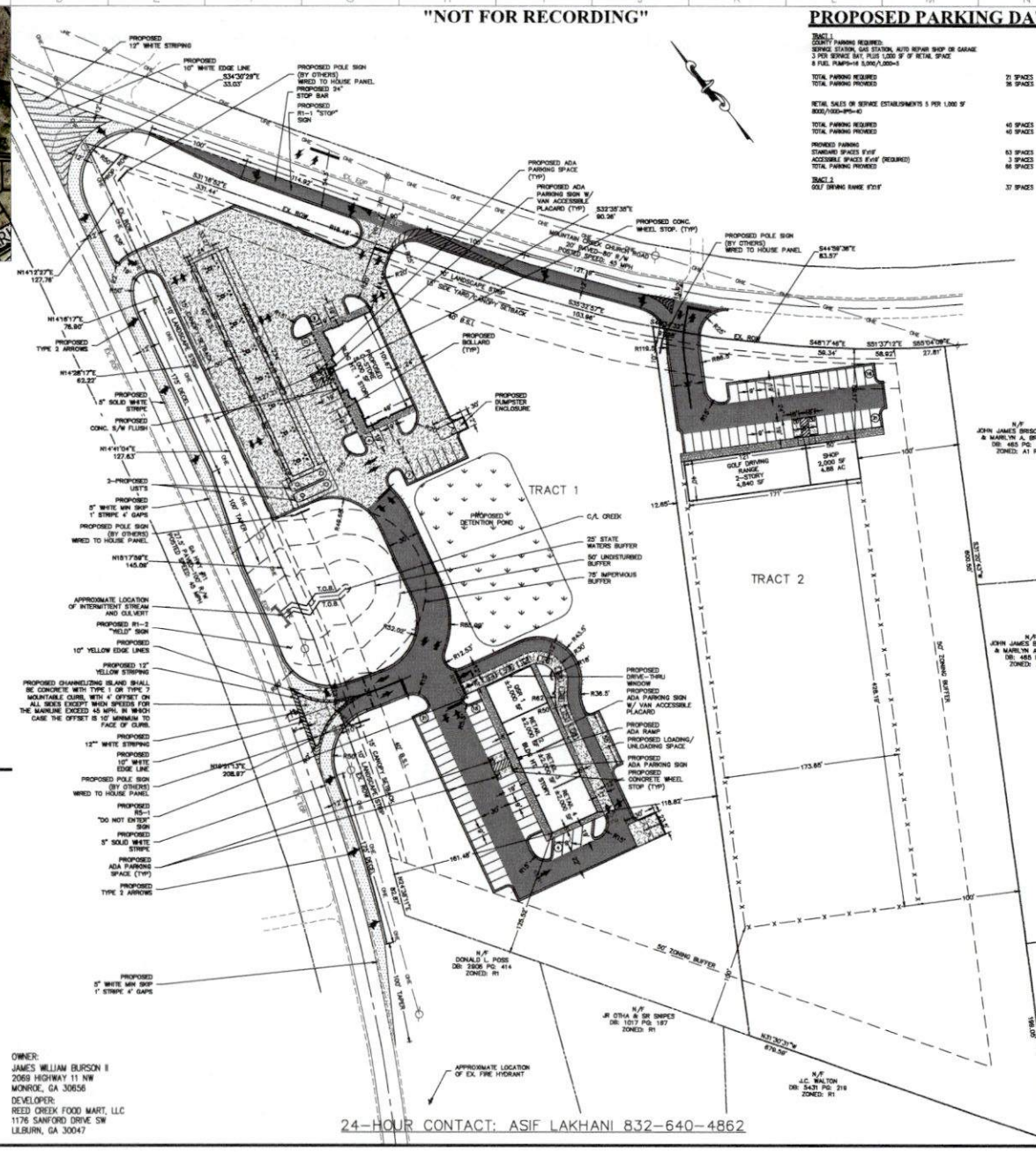
VICINITY MAP

ACCORDING TO THE F.I.R.M. OF WALTON COUNTY, PANEL NUMBER 13297C0130F DATED (DECEMBER 15, 2022), A PORTION OF THIS PROPERTY OR (IS NOT) LOCATED IN A SPECIAL FLOOD HAZARD AREA.

LEGEND PROPOSED

- PROPOSED CONCRETE SIDEWALK
- PROPOSED CONCRETE PAVING
- PROPOSED HEAVY DUTY ASPHALT PAVING
- PROPOSED STANDARD DOT PAVING
- GDOT PAVING
- LANDSCAPE STRIP/SETBACK LINE
- PROPERTY LINE
- CURB & GUTTER
- WATER METER (W)
- TRANSFORMER PAD (T)
- ADA RAMP
- SIGN
- CONCRETE WHEEL STOP
- ADA PARKING SYMBOL
- DIRECTIONAL ARROWS
- 24" STOP BAR
- PROPOSED LIGHT POLE

GEORGIA811 www.Georgia811.com — IT IS THE CLIENT OR CONTRACTOR'S RESPONSIBILITY TO CONTACT UTILITY COMPANIES PRIOR TO ANY CONSTRUCTION AS THE LOCATION OF UTILITIES SHOWN ON THIS PLAT ARE APPROXIMATE AND POSSIBLY INCOMPLETE. THEREFORE CERTIFICATION TO THE LOCATION OF ALL UNDERGROUND UTILITIES ARE WITHHELD.



OWNER:
JAMES WILLIAM BURSON II
2069 HIGHWAY 11 NW
MONROE, GA 30656

DEVELOPER:
REED CREEK FOOD MART, LLC
1176 SANFORD DRIVE SW
LILBURN, GA 30047

24-HOUR CONTACT: ASIF LAKHANI 832-640-4862

PROPOSED PARKING DATA

TRACT 1
COUNTY PARKING REQUIRED:
SERVICE STATION, GAS STATION, AUTO REPAIR SHOP OR GARAGE
3 PER SERVICE BAY, PLUS 1,000 SF OF RETAIL SPACE
6 FUEL PUMPS=16 5,000/1,000=5

TOTAL PARKING REQUIRED	21 SPACES
TOTAL PARKING PROVIDED	38 SPACES

RETAIL SALES OR SERVICE ESTABLISHMENTS 5 PER 1,000 SF
8000/1000=8*5=40

TOTAL PARKING REQUIRED	40 SPACES
TOTAL PARKING PROVIDED	40 SPACES

PROVIDED PARKING

STANDARD SPACES 9'x18'	63 SPACES
ACCESSIBLE SPACES 8'x18' (REQUIRED)	3 SPACES
TOTAL PARKING PROVIDED	66 SPACES

TRACT 2
GOLF DRIVING RANGE 8'x18' — 37 SPACES

SITE AREA CALCULATIONS

	SQUARE FOOTAGE	ACREAGE	PERCENTAGE
TOTAL SITE AREA	500,141	11.50	100.0
EXISTING ONSITE IMPERVIOUS AREA	0	0.00	0.0
EXISTING PERVIOUS AREA	500,141	11.50	100.0
PROPOSED ONSITE IMPERVIOUS AREA	135,175	3.10	27.0
BUILDING(S)	15,000	0.34	3.0
SIDEWALK	6,829	0.16	1.4
PAVEMENT/DRIVEWAYS/GRAVEL	113,346	2.60	22.6
PROPOSED PERVIOUS AREA	365,966	8.40	73.0

SITE DATA

PARCEL ID (REFERENCE):	C086040
EXISTING LAND USE:	VACANT
PROPOSED LAND USE:	CONVENIENCE STORE WITH FUEL SALES
CURRENT ZONING CLASSIFICATION:	A1 AG RURAL ESTATE DISTRICT R1 SINGLE-FAMILY RESIDENTIAL DISTRICT
PROPOSED ZONING CLASSIFICATION:	B1 NEIGHBORHOOD BUSINESS DISTRICT
FUTURE LAND USE:	EMPLOYMENT CENTER
OVERLAY DISTRICT:	N/A
CURRENT LOCAL JURISDICTION:	WALTON COUNTY
FLOOD ZONE CLASSIFICATION:	ZONE X

PROPERTY DEVELOPMENT STANDARDS SECTION 4-1-190

1. MINIMUM LOT FRONTAGE: THE MINIMUM LOT FRONTAGE SHALL BE ONE HUNDRED (100) FEET.
2. MINIMUM SETBACK REQUIREMENTS
   A. FRONT: FORTY (40) FEET WHEN LOCATED ALONG STREETS WHICH FUNCTION AS ARTERIAL AND COLLECTOR STREETS, THIRTY (30) FEET ALONG ALL OTHER STREETS.
   B. SIDE: FIFTEEN (15) FEET.
   C. REAR: FORTY (40) FEET.
3. MINIMUM LOT AREA: FIFTEEN THOUSAND (15,000) SQUARE FEET WHERE BOTH PUBLIC WATER AND PUBLIC SEWER ARE AVAILABLE. OTHER SITUATIONS REQUIRE THIRTY-FIVE THOUSAND FIVE HUNDRED (35,500) SQUARE FEET AND DEPEND ON APPROVAL OF THE HEALTH DEPARTMENT.
4. MINIMUM FLOOR AREA: THE MINIMUM FLOOR AREA OF ANY USE SHALL BE FOUR HUNDRED (400) SQUARE FEET.
5. MAXIMUM IMPERVIOUS SURFACE COVERAGE: THE MAXIMUM IMPERVIOUS SURFACE IS SEVENTY-FIVE PERCENT (75%) OF THE LOT.
6. MAXIMUM HEIGHT: THE MAXIMUM HEIGHT OF BUILDINGS SHALL BE THREE (3) STORIES.
7. PARKING REQUIREMENTS: OFF-STREET PARKING AND LOADING SPACE SHALL BE PROVIDED IN ACCORDANCE WITH ARTICLE 7 OF THIS ORDINANCE.
8. BUFFER: WHERE ABUTTING ANY RESIDENTIAL OR AGRICULTURAL DISTRICT, A BUFFER IS REQUIRED IN CONFORMANCE WITH ARTICLE 12 OF THIS ORDINANCE.
9. THERE SHALL BE NO OUTSIDE STORAGE.

BUILDING DATA

C-STORE BUILDING AREA	13,000 SQ. FT.
RETAIL BUILDING AREA	18,000 SQ. FT.
GOLF SHOP BUILDING AREA	12,000 SQ. FT.
GROSS FLOOR AREA	115,000 SQ. FT.
BUILDING COVERAGE:	± 3.6%
MAX BUILDING HEIGHT (BY CODE):	3 STORES

DIRECTION	REQUIRED SETBACK	PROVIDED SETBACK
FRONT	40 FEET	SEE PLAN
REAR	40 FEET	SEE PLAN
SIDE	15 FEET	SEE PLAN
SIDE	15 FEET	SEE PLAN

SITE NOTES

1. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE PLANS AND SITE WORK SPECIFICATIONS AND SHALL COMPLY APPLICABLE FEDERAL, STATE AND LOCAL CODES.
2. REFERENCE ARCHITECTURAL PLANS FOR BUILDING DIMENSIONS, TRUCK DOCKS, SIDEWALKS, STEPS, TRANSFORMER PADS, ETC.
3. TOPOGRAPHIC BOUNDARY SURVEY, PROPERTY LINES, LEGAL DESCRIPTION, EXISTING UTILITIES, SITE TOPOGRAPHY WITH SPOT ELEVATIONS, OUTSTANDING PHYSICAL FEATURES AND EXISTING STRUCTURE LOCATIONS WAS PROVIDED BY THE FOLLOWING COMPANY: PUBLIC AVAILABLE DATA
4. ALL DIMENSIONS AND RADII ARE TO THE FACE OF CURB, UNLESS OTHERWISE NOTED. ALL DIMENSIONS SHOWN TO BUILDINGS ARE TO OUTSIDE FACE OF BUILDING.
5. ALL HANDICAP ACCESSIBLE PARKING SIGNS AND STRIPING SHALL BE IN ACCORDANCE WITH THE AMERICAN WITH DISABILITY ACT (ADA) REQUIREMENTS AND STATE CODE.
6. ALL TRAFFIC SIGNS SHALL CONFORM TO THE UNIFORM TRAFFIC CONTROL MANUAL AND THE STATE OF GEORGIA.
7. ALL STRIPED OR CURBED RADII SHALL BE 5' UNLESS OTHERWISE NOTED.
8. THE CONTRACTOR IS RESPONSIBLE FOR REPAIR OF ANY DAMAGE TO ANY EXISTING IMPROVEMENTS, ONSITE OR OFF SITE, SUCH AS PAVEMENT, UTILITIES, STORM DRAINAGE, ETC. THE REPAIR MUST BE APPROVED BY THE ENGINEER AND BE EQUAL OR BETTER THAN EXISTING CONDITIONS.
9. SITE LIGHTING SHALL BE INCLUDED IN THE GENERAL CONTRACTOR'S SCOPE OF WORK. ALL PARKING LOT LIGHTING POLES, BASES, FIXTURES WITH LAMPS SHALL BE INSTALLED BY THE GENERAL CONTRACTOR'S ELECTRICAL CONTRACTOR AND SHALL SUPPLY A ONE YEAR WARRANTY CERTIFICATE.
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18. ALL TRAFFIC MARKINGS SHALL BE THERMOPLASTIC AND MEET GEORGIA DEPARTMENT OF TRANSPORTATION SPECIFICATIONS.

LJA
130 E. MAIN STREET
SUITE 204
CANTON, GA 30114
470-863-1070

GEORGIA REGISTERED No. 37830 PROFESSIONAL ENGINEER
2/2/2026
ENGINEER OF RECORD

NO.	DATE	DESCRIPTION	BY	CHK	APV

CONCEPT PLAN
ACORN EXPRESS MONROE STATION
2069 GA-11, MONROE, GA 30656
L.L. 77, 95, 96 - DISTRICT 3, PARCEL # C0860040

REED CREEK FOOD MART, LLC
1176 SANFORD DRIVE SW
LILBURN, GA 30047

0 50' 75' 100'
SCALE: 1"=50'

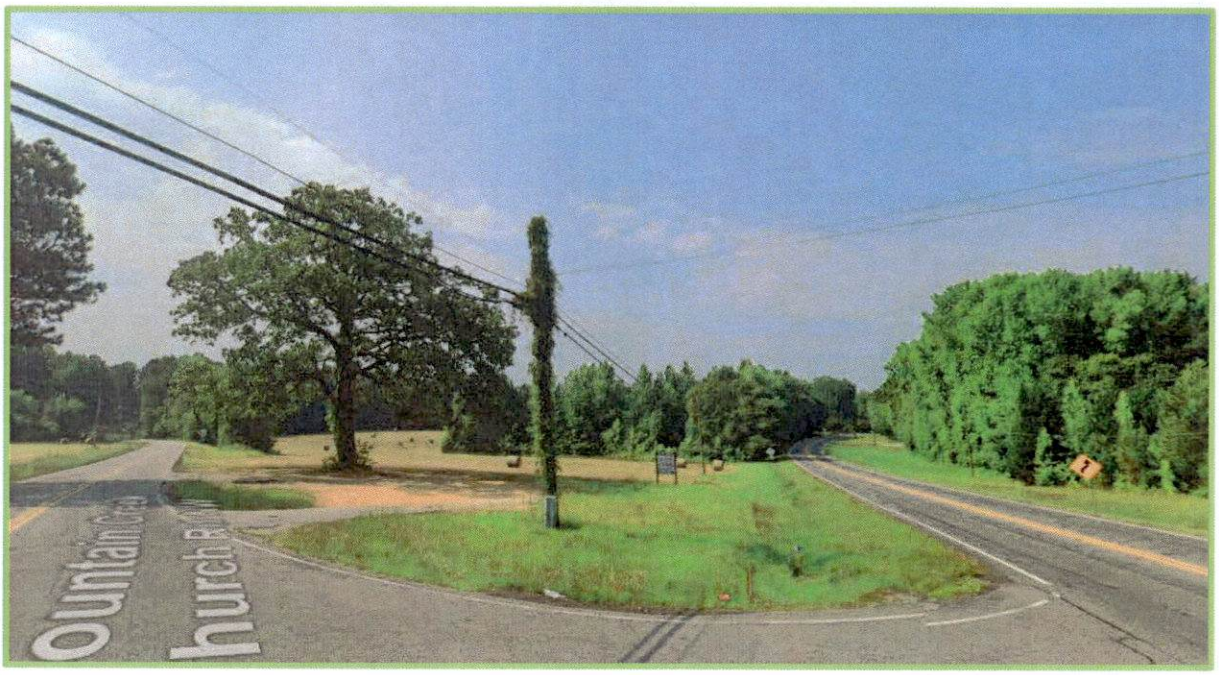
ISSUE DATE: 1/7/2026
PROJECT NUMBER:
DRAWING NAME: CSP16.DWG
SHEET TITLE: REZONING PLAN
SHEET NUMBER: RZ1


TENANT ONE
TENANT TWO
TENANT THREE
TENANT FOUR
TENANT FIVE


TENANT ONE
TENANT TWO
TENANT THREE
TENANT FOUR
TENANT FIVE


TENANT ONE
TENANT TWO
TENANT THREE
TENANT FOUR

A TRAFFIC IMPACT STUDY
for
MIXED-USE DEVELOPMENT
2069 WINDER HIGHWAY (SR 11)
CITY OF MONROE, WALTON COUNTY, GEORGIA



Prepared for

REED CREEK FOOD MART, LLC
1176 Lanford Drive, SW
Lilburn, Georgia 30144

March 20, 2026

Prepared by

TRAFFIC SOLUTIONS, LLC
Solutions Exceeding Expectations

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TRAFFIC SOLUTIONS, LLC
Solutions Exceeding Expectations

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Executive Summary

Reed Creek Food Mart, LLC proposes to develop a mixed-use project at 2069 Winder Highway (State Route 11) north of the City of Monroe in Walton County, Georgia. The proposed development will be situated on approximately 11.50 acres of land and will consist of the following land uses:

- 5,000 sq. ft. convenience store with 16 fueling positions
- 8,000 sq. ft. retail plaza
- 15 bay golf range with 2,000 sq. ft. retail shop

Each land use of the development will be phased in with the convenience store opening in the year of 2027, the retail plaza will open two years later in 2029, followed by the golf range in 2031 to complete the development.

The proposed retail development will be designed to have two (2) fully accessible driveways, one (1) right-in/right-out driveway and one (1) right-in only in accordance with the Walton County Department of Planning and the Georgia Department of Transportation (GDOT) driveway standards, details, and guidelines. The two fully accessible driveways will have access to and from Mountain Creek Church Road. The right-in/right out driveway and the right-in only will provide access to and from SR 11.

The study area and methodology was presented to Jonathan Peevy, PE, GDOT District One Traffic Engineer and Tracie Malcolm, Zoning Specialist for Walton County on January 30, 2026. The study will follow the ITE, GDOT and County policies and guidelines for conducting traffic impact studies.

The study area encompasses:

- State Route 11 at Mountain Creek Church Road (West) - stop sign-controlled
- State Route 11 at Mountain Creek Church Road (East) - stop sign-controlled
- the proposed site's driveways on SR 11 and on Mountain Creek Church Road

The purpose of this report is to document the impact the proposed development will have on the existing operations at the intersections within the study area. The study will be analyzed under three scenarios:

- Existing Conditions
- No Build Conditions
- Build Conditions, per phase

The report will show its findings and have recommendations for any improvements to the intersections in the study area. Recommendations for new and existing intersections will include improvements to achieve at a minimum Level of Service D or better.

Traffic data collected by Traffic Data Services, included 2-hour AM and PM turning movement counts during a weekday and 24-hour volume and class count on SR 11 and Mountain Creek Church Road south.

Historic traffic data was collected from GDOT's Traffic Analysis and Data Application (TADA) website. The data was used to calculate the traffic growth rate in the vicinity of the project site. The data was taken from the count station 297-0089 on SR 11, approximately 1,500 feet north of Mountain Creek Church Road. Over a seven (7) year period from 2016 to 2022, the area experienced an average annual 1.0% traffic growth rate.

The 11th Edition of Trip Generation Manual was utilized to establish weekday and peak hour entering and exiting trips for the proposed development land use. The percentage of site traffic assigned to the proposed driveway was based

upon the recommended distribution provided by current traffic trends and the layout of the site. **Table 1** shows the Total Daily, AM Peak and PM Peak hour trips generated by the proposed development.

TABLE 1. TRIP GENERATION FOR PROPOSED LAND USES

Land Use (ITE Code)	Intensity	Daily		AM Peak			PM Peak		
		IN	OUT	IN	OUT	Total	IN	OUT	Total
Distribution		50%	50%	50%	50%	100%	50%	50%	100%
Convenience Store (4-5.5K) / Gas Station (945)	16 Fueling Positions	2057	2057	216	217	433	182	182	364
Distribution		50%	50%	60%	40%	100%	50%	50%	100%
Strip Retail Plaza (<40KSF) (822)	8,000 sq. ft.	218	218	11	8	19	26	27	53
Distribution		50%	50%	61%	39%	100%	45%	55%	100%
Golf Driving Range (432)	15 Tees	102	103	4	2	6	8	11	19
Total Volume		2,377	2378	231	227	258	216	220	436

Traffic Solutions (TS) conducted capacity analyses for the intersections in the study area with estimated volumes based on the trip generation and existing volumes projected to the opening years of each phase. Synchro highway capacity software was used to analyze the intersections under existing and proposed conditions. **Table 2** shows the Level of Service, Intersection Control Delay, and v/c ratio for each intersection within the study area under the existing conditions, No Build conditions, and Build conditions.

TABLE 2. INTERSECTION CAPACITY ANALYSIS – LEVEL OF SERVICE, DELAY AND V/C RATIO

Intersections		A.M. Peak Hour			P.M. Peak Hour		
	Traffic Control	LOS	Delay (sec.)	Max. v/c ratio	LOS	Delay (sec.)	Max. v/c ratio
Existing							
SR 11 at Mountain Creek Church Rd (east)	Stop Sign	NWL C SBL A	22.4 8.7	0.509 0.106	NWL E SBL B	38.1 10.0	0.655 0.202
SR 11 at Mountain Creek Church Rd (west)	Stop Sign	NBL A SEL C	9.9 18.5	0.114 0.232	NBL B SEL D	10.3 34.3	0.125 0.523
2027 No-Build							
SR 11 at Mountain Creek Church Rd (east)	Stop Sign	NWL C SBL A	23.6 8.7	0.532 0.108	NWL E SBL B	41.6 10.1	0.686 0.208
SR 11 at Mountain Creek Church Rd (west)	Stop Sign	NBL A SEL C	9.9 19.0	0.117 0.241	NBL B SEL E	10.4 37.8	0.130 0.560
2027 Build – Phase I							
SR 11 at Mountain Creek Church Rd (east)	Stop Sign	NWL F SBL A	411.6 9.6	1.80 0.05	NWL F SBL B	828 10.7	2.68 0.315
SR 11 at Mountain Creek Church Rd (west)	Stop Sign	NBL B SEL D	10.6 25.2	0.145 0.345	NBL B SEL F	11.1 69.3	0.155 0.768
SR 11 at Driveway A2	In Only	-	-	-	-	-	-
Mountain Creek Church Rd (east) at Driveway A1	Stop Sign	NBL B NEL D	14.0 30.3	0.08 0.43	NBL A NEL C	8.3 15.1	0.017 0.357
2029 Build – Phase II							
SR 11 at Mountain Creek Church Rd (east)	Stop Sign	NWL F SBL A	504.9 9.3	2.004 0.233	NWL F SBL B	948.3 10.8	2.943 0.324
SR 11 at Mountain Creek Church Rd (west)	Stop Sign	NBL B SEL D	10.8 27.6	0.151 0.378	NBL B SEL F	11.3 88.4	0.164 0.852
SR 11 at Driveway A2	In Only	-	-	-	-	-	-
Mountain Creek Church Rd (east) at Driveway A1	Stop Sign	NBL A NEL C	8.1 15.0	0.021 0.407	NBL A NEL C	8.3 15.9	0.021 0.394
SR 11 at Driveway B	RI/RO	WBR B	10.9	0.007	WBR B	13.2	0.034
2031 Build – Phase III							
SR 11 at Mountain Creek Church Rd (east)	Stop Sign	NWL F SBL A	577.4 9.4	2.164 0.241	NWL F SBL B	1099.3 11.0	3.270 0.335
SR 11 at Mountain Creek Church Rd (west)	Stop Sign	NBL B SEL D	10.9 29.1	0.156 0.399	NBL B SEL F	11.5 114.3	0.172 0.945
SR 11 at Driveway A2	In Only	-	-	-	-	-	-
Mountain Creek Church Rd (east) at Driveway A1	Stop Sign	NBL A NEL C	8.1 15.4	0.022 0.420	NBL A NEL C	8.4 16.3	0.022 0.410
SR 11 at Driveway B	RI/RO	WBR B	10.9	0.007	WBR B	13.4	0.037
Mountain Creek Church Rd (east) at Driveway C	Stop Sign	NWL A NEL B	0.0 10.8	- 0.003	NWL A NEL B	7.9 11.4	0.001 0.021

From the analysis, it was determined that all four of the driveways warrant a right turn deceleration lane. The analysis indicates that Driveway A1 on Mountain Creek Church Road is warranted for a left turn lane.

The minimum required left sight distance is 500 feet. The minimum required right sight distance is 430 feet.

The study area encompasses two (2) existing unsignalized intersections that T's into SR 11 at Mountain Creek Church Road. The proposed site will include two (2) fully accessible driveways Mountain Creek Church Road and one (1) Right-In/Right-Out driveway and one (1) Right-In Only driveway on State Route 11.

Based on the findings from the analysis conducted, the following is recommended:

- SR 11 at Driveway A2 – Right-In
  - Construct the driveway with a minimum 12-foot entry lane. The driveway curbs should have a minimum with 35-foot radii.
  - Install a 175 lin. ft. deceleration lane with a 100 ft. taper per GDOT standard and detail
- SR 11 at Driveway B – Right-In/Right-Out
  - Install driveway in accordance with GDOT driveway standards and details
  - No landscaping within the right-of-way that will impede the sight distance of motorists exiting Driveway B
  - Install a 175 lin. ft. deceleration lane with a 100 ft. taper per GDOT standard and detail
    - Add 2 – Type 2 right turn arrows
  - Install R1-2, 30" Yield sign at the egress
- Mountain Creek Church Road at Driveway A1
  - Install driveway in accordance with GDOT driveway standards and details
  - Install a left turn lane per GDOT minimum requirements of 235 lin. ft. storage area with a 100 ft. taper
  - Install deceleration lane a minimum of 175 lin. ft. with a 100 ft taper
    - Add 2 – Type 2 right turn arrows
  - Install 24" stop line and 5" solid double yellow
  - Install R1-1, 30" Stop sign
  - No landscaping within the right-of-way higher than 3.5 feet in height that will impede the sight distance of motorists exiting Driveway A1.
- Mountain Creek Church Road at Driveway C
  - Install driveway in accordance with GDOT driveway standards and details
  - Install deceleration lane a minimum of 175 lin. ft. with a 100 ft taper
    - Add 2 – Type 2 right turn arrows
  - Install 24" stop line and 5" solid double yellow
  - Install R1-1, 30" Stop sign
  - No landscaping within the right-of-way higher than 3.5 feet in height that will impede the sight distance of motorists exiting Driveway A1.

- SR 11 at Mountain Creek Church Road
  - Traffic analysis show that this intersection will continue to experience increased delays and lower levels of service in the projected years without any future development. It is recommended that GDOT and Walton County program a project to conduct a full engineering transportation investigation study for this intersection.
  - The WB approach at Mountain Creek Church Rd currently has a LOS E, which data shows the approach will get worse in years to come without any build conditions. Short term alternatives may include adding a left turn lane for the WB approach.
  - Long term alternatives may include a roundabout or the installation of a traffic signal including roadway improvements

PROJECT DESCRIPTION

Reed Creek Food Mart, LLC proposes to develop a mixed-use project at 2069 Winder Highway (State Route 11) north of the City of Monroe in Walton County, Georgia. The proposed development will be situated on approximately 11.50 acres of land and will consist of the following land uses:

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Each land use of the development will be phased in with the convenience store opening in the year of 2027, the retail plaza will open two years later in 2029, followed by the golf range in 2031 to complete the development.

The study area, shown in **Figure 1** and methodology, was presented to Jonathan Peevy, PE, GDOT District One Traffic Engineer and Tracie Malcolm, Zoning Specialist for Walton County on January 30, 2026. The study will follow the ITE, GDOT and County policies and guidelines for conducting traffic impact studies.

The proposed retail development will be designed to have two (2) fully accessible driveways, one (1) right-in/right-out driveway and one (1) right-in only in accordance with the Walton County Department of Planning and the Georgia Department of Transportation (GDOT) driveway standards, details, and guidelines. The two fully accessible driveways will have access to and from Mountain Creek Church Road. The right-in/right out driveway and the right-in only will provide access to and from SR 11. See **Figure 2** – Site Plan.

The study area encompasses:

- State Route 11 at Mountain Creek Church Road (West) - stop sign-controlled
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The purpose of this report is to document the impact the proposed development will have on the existing operations at the intersections within the study area. The study will be analyzed under three scenarios:

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- Build Conditions, per phase

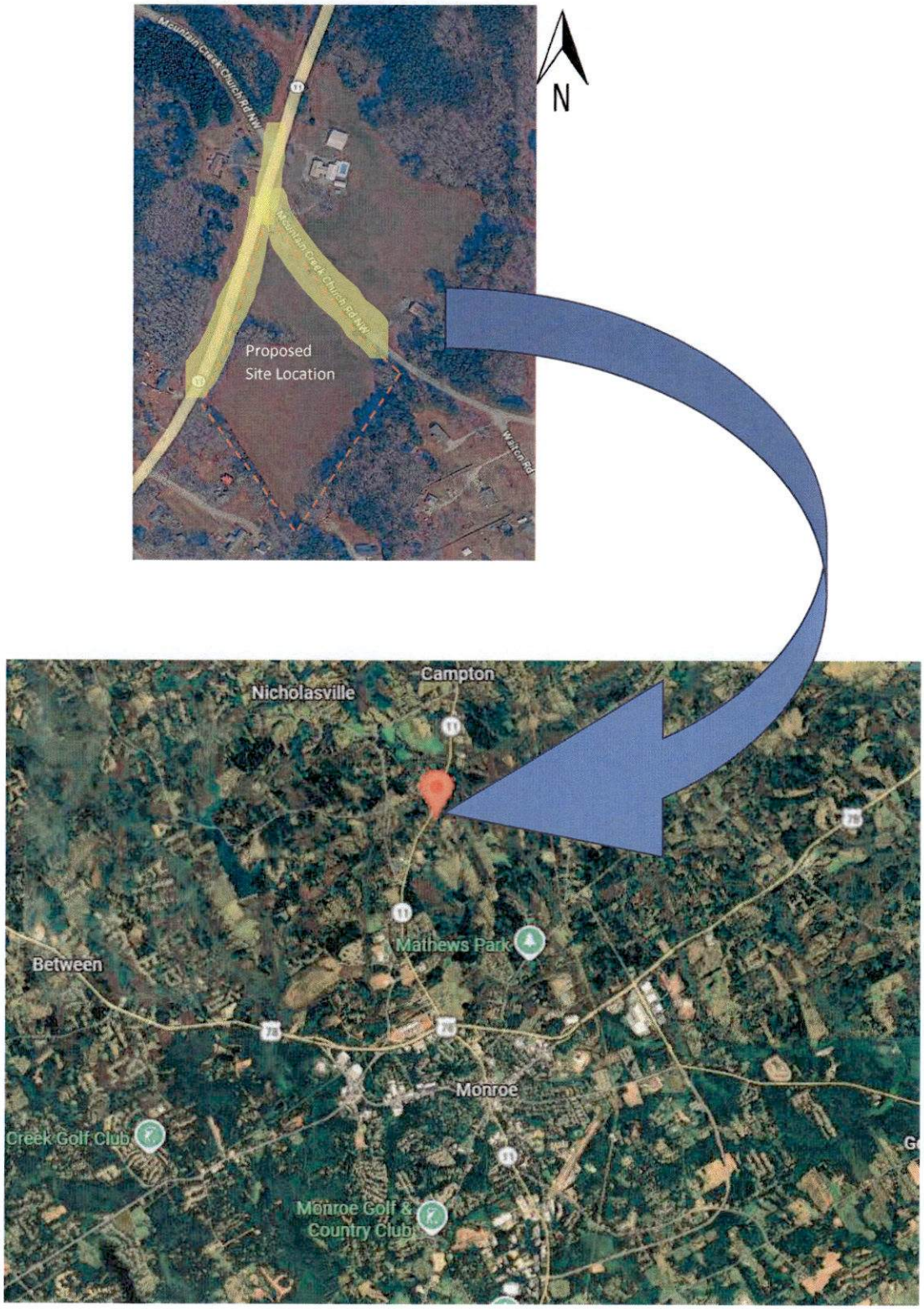
The report will show its findings and have recommendations for any improvements to the intersections in the study area. Recommendations for new and existing intersections will include improvements to maintain or achieve a better level of service.

The traffic impact study will evaluate the intersection operations in both existing and future conditions without and with the proposed land use development. The traffic impact study includes data collections, trip generation, and capacity analyses of all the intersections within the study area.

Capacity analyses were conducted to show the Level of Service LOS, intersection delay and the v/c ratio the proposed development would have on the existing transportation network. These analyses were conducted under the three scenarios. Under these scenarios, we will be able to see the impact the proposed development will have on the existing intersection operations; and, if any improvements will be necessary to mitigate any issues.

All analyses conducted for this study are based on the data collected for the existing condition and information provided by the developer, Walton County and GDOT. Any variations to the existing database and the assumptions made may affect the results of the study.

Figure 1. Site Map and Study Area



VICINITY MAP

ACCORDING TO THE F.I.R.M. OF WALTON COUNTY, PANEL NUMBER 13297C0130F DATED (DECEMBER 15, 2022), A PORTION OF THIS PROPERTY OR (IS NOT) LOCATED IN A SPECIAL FLOOD HAZARD AREA.

LEGEND PROPOSED

- PROPOSED CONCRETE SIDEWALK
- PROPOSED CONCRETE PAVING
- PROPOSED HEAVY DUTY ASPHALT PAVING
- PROPOSED STANDARD DOT PAVING
- GDOT PAVING
- LANDSCAPE STRIP/SETBACK LINE
- PROPERTY LINE
- CURB & GUTTER
- WATER METER
- TRANSFORMER PAD
- ADA RAMP
- SIGN
- CONCRETE WHEEL STOP
- ADA PARKING SYMBOL
- DIRECTIONAL ARROWS
- 24" STOP BAR
- PROPOSED LIGHT POLE

GEORGIA 811 www.Georgia811.com

IT IS THE CLIENT OR CONTRACTOR'S RESPONSIBILITY TO CONTACT UTILITY COMPANIES PRIOR TO ANY CONSTRUCTION AS THE LOCATION OF UTILITIES SHOWN ON THIS PLAT ARE APPROXIMATE AND POSSIBLY INCOMPLETE. THEREFORE CERTIFICATION TO THE LOCATION OF ALL UNDERGROUND UTILITIES ARE WITHHELD.

OWNER:
BURSON JAMES WILLIAM II
2069 HIGHWAY 11 NW
MONROE, GA 30656

DEVELOPER:
REED CREEK FOOD MART, LLC
1176 SANFORD DRIVE SW
LILBURN, GA 30047

24-HOUR CONTACT: ASIF LAKHANI 832-640-4862

PROPOSED PARKING DATA

TRACT 1
COUNTY PARKING REQUIRED:
SERVICE STATION, GAS STATION, AUTO REPAIR SHOP OR GARAGE
3 PER SERVICE BAY, PLUS 1,000 SF OF RETAIL SPACE
8 FUEL PUMPS=8 (1,000/1,000=1

TOTAL PARKING REQUIRED	11 SPACES
TOTAL PARKING PROVIDED	38 SPACES

RETAIL SALES OR SERVICE ESTABLISHMENTS 5 PER 1,000 SF
9000/1000=9*5=45

TOTAL PARKING REQUIRED	45 SPACES
TOTAL PARKING PROVIDED	45 SPACES

PROVIDED PARKING
STANDARD SPACES 9'x18' 88 SPACES
ACCESSIBLE SPACES 9'x18' (REQUIRED) 3 SPACES
TOTAL PARKING PROVIDED 88 SPACES

TRACT 3
GOLF DRIVING RANGE 6'X18' 37 SPACES

SITE AREA CALCULATIONS

	SQUARE FOOTAGE	ACREAGE	PERCENTAGE
TOTAL SITE AREA	501,141	11.50	100.0
EXISTING ONSITE IMPERVIOUS AREA	0	0.00	0.0
EXISTING PERVIOUS AREA	501,141	11.50	100.0
PROPOSED ONSITE IMPERVIOUS AREA	135,175	3.10	27.0
BUILDING(S)	19,840	0.46	4.0
SIDEWALK	6,829	0.16	1.4
PAVEMENT/DRIVEWAYS/GRAVEL	108,506	2.49	21.7
PROPOSED PERVIOUS AREA	365,966	8.40	73.0

SITE DATA

PARCEL ID (REFERENCE):	C0660040
EXISTING LAND USE:	VACANT
PROPOSED LAND USE:	CONVENIENCE STORE WITH FUEL SALES
CURRENT ZONING CLASSIFICATION:	AR AG RURAL ESTATE DISTRICT
PROPOSED ZONING CLASSIFICATION	RI SINGLE-FAMILY RESIDENTIAL DISTRICT
OVERLAY DISTRICT	N/A
CURRENT LEGAL JURISDICTION	WALTON COUNTY
FLOOD ZONE CLASSIFICATION:	ZONE X

PROPERTY DEVELOPMENT STANDARDS

1. MINIMUM LOT FRONTAGE: THE MINIMUM LOT FRONTAGE SHALL BE ONE HUNDRED (100) FEET.
2. MINIMUM SETBACK REQUIREMENTS
   A. FRONT: FORTY (40) FEET WHEN LOCATED ALONG STREETS WHICH FUNCTION AS ARTERIAL AND COLLECTOR STREETS, THIRTY (30) FEET ALONG ALL OTHER STREETS.
   B. SIDE: FIFTEEN (15) FEET.
   C. REAR: FORTY (40) FEET.
3. MINIMUM LOT AREA: FIFTEEN THOUSAND (15,000) SQUARE FEET WHERE BOTH PUBLIC WATER AND PUBLIC SEWER ARE AVAILABLE. OTHER SITUATIONS REQUIRE TWENTY-FIVE THOUSAND FIVE HUNDRED (25,500) SQUARE FEET AND DEPEND ON APPROVAL OF THE HEALTH DEPARTMENT.
4. MINIMUM FLOOR AREA: THE MINIMUM FLOOR AREA OF ANY USE SHALL BE FOUR HUNDRED (400) SQUARE FEET.
5. MAXIMUM IMPERVIOUS SURFACE COVERAGE: THE MAXIMUM IMPERVIOUS SURFACE IS SEVENTY-FIVE PERCENT (75%) OF THE LOT.
6. MAXIMUM HEIGHT: THE MAXIMUM HEIGHT OF BUILDINGS SHALL BE THREE (3) STORIES.
7. PARKING REQUIREMENTS: OFF-STREET PARKING AND LOADING SPACE SHALL BE PROVIDED IN ACCORDANCE WITH ARTICLE 7 OF THIS ORDINANCE.
8. BUFFER: WHERE ABUTTING ANY RESIDENTIAL OR AGRICULTURAL DISTRICT, A BUFFER IS REQUIRED IN CONFORMANCE WITH ARTICLE 12 OF THIS ORDINANCE.
9. THERE SHALL BE NO OUTSIDE STORAGE.

BUILDING DATA

C-STORE BUILDING AREA	±5,000 SQ. FT.
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FIGURE 2. SITE PLAN

LJA
130 E. MAIN STREET
SUITE 204
CANTON, GA 30114
470-863-1070

GEORGIA REGISTERED No. 27020 PROFESSIONAL ENGINEER
1/27/2026
ENGINEER OF RECORD

NO	DATE	DESCRIPTION	BY	CHK	APP

CONCEPT PLAN
ACORN EXPRESS MONROE STATION
2069 GA-11, MONROE, GA 30656
LL 77 95, 96 - DISTRICT 3, PARCEL # C0660040
REED CREEK FOOD MART, LLC
1176 SANFORD DRIVE SW
LILBURN, GA 30047

0 50' 75' 100'
SCALE: 1"=50'

ISSUE DATE: 1/7/2026
PROJECT NUMBER:
DRAWING NAME: CSP12.DWG
SHEET TITLE: REZONING PLAN
SHEET NUMBER: RZ1

EXISTING CONDITIONS

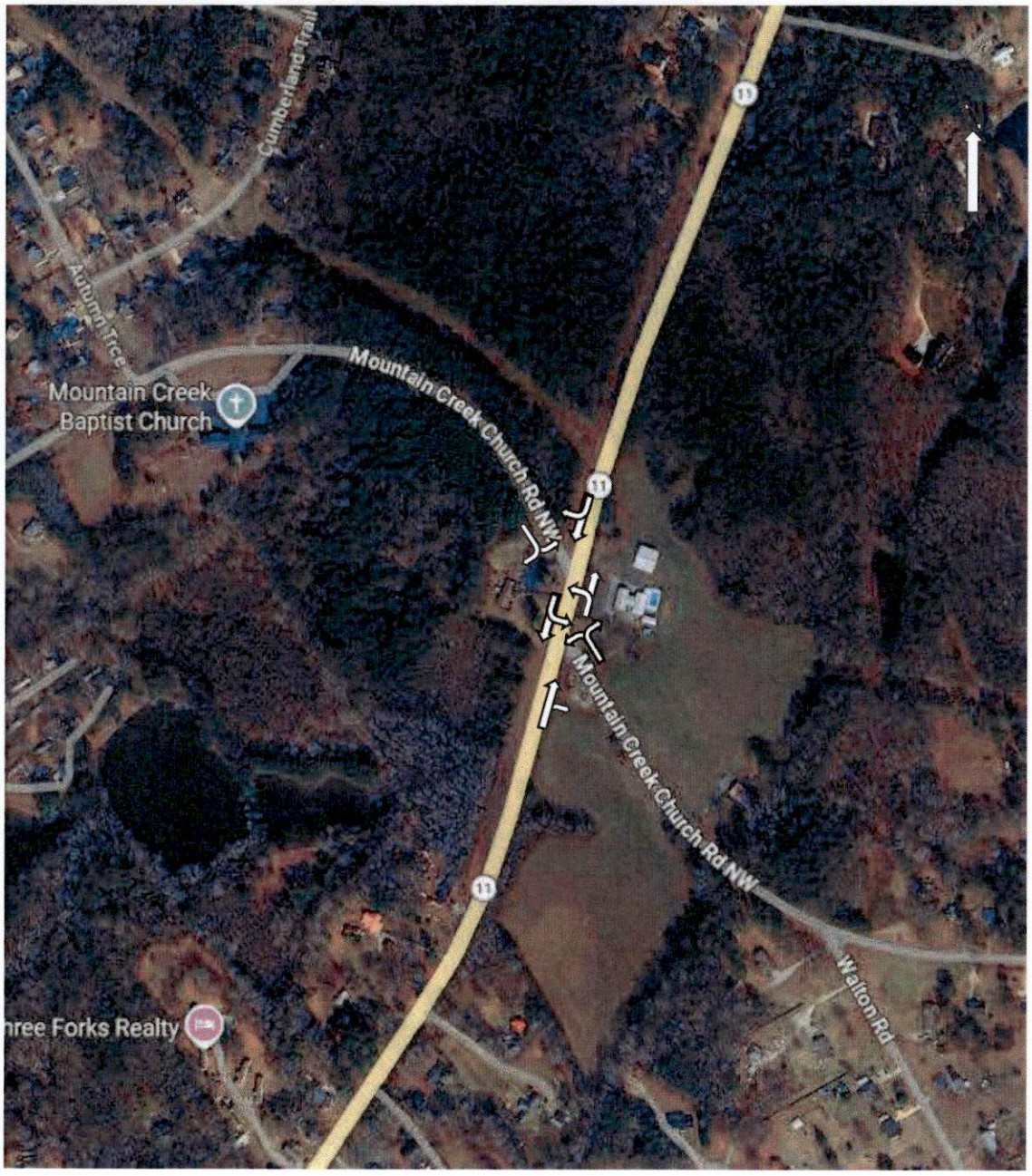
The proposed site will be located in the southeast quadrant of SR 11 and Mountain Creek Church Road. Currently, the proposed site location is a cleared vacant area surrounded by tree line on the west and north side of the site. Its current zoning classification is A1 A2 – Rural Estate District and R1 – Single-Family Residential District. Reed Creek Food Mart, LLC is requesting a zoning classification of B1 – Neighborhood Business District. The project site is approximately 1.80 miles south of the City of Campton and approximately 1.0 mile north of the city limits of Monroe. The nearest signalized intersection is approximately 2.10 miles south of the site at SR 11 and SR 138 (Charlotte Rowell Blvd).

State Route 11 is a two-lane undivided rural roadway with a posted speed limit of 45 mph. The travel lanes measure approximately 12 feet wide each from edgeline to edgeline. There are no sidewalks on either sides of the road. Its functional classification, per GDOT Roadway Classification is Minor Arterial (Rural). SR 11 travels in the north-south directions between the City of Monroe to the south and terminating at US 29/SR 8/53 to the north in Winder, GA.

Mountain Creek Church Road is a two-lane undivided rural roadway with a posted speed limit of 45 mph and grassed shoulders. Its functional classification is a local roadway. Mountain Creek Church Road intersects with SR 11 as a T-intersection on the east side of SR 11 and is offset approximately 220 feet north and continues on the west side of SR 11. Both approaches are controlled by stop signs. Mountain Creek Church Road travels in the east-west direction serving single-family residential land uses. There are no sidewalks on either side of the road and no signs of pedestrian traffic.

Figure 3 shows the existing lane geometry in the study area.

Figure 3. Existing Roadway Lane Geometry



LEGEND

⟹ Roadway Lanes

Existing Traffic Volumes

The study area was established to include both legs of Mountain Creek Church Road approaching SR 11.

Traffic Solutions worked with Traffic Data Services to collect the existing traffic data. Two-hour turning movement counts were collected from 7:00 AM to 9:00 AM and from 4:00 PM to 6:00 PM at both intersections on Thursday, February 12, 2026. The TMCs showed that the peak hour for both intersections occurred in the morning from 7:15 am to 8:15 am and in the evening from 4:15 pm to 5:15 pm.

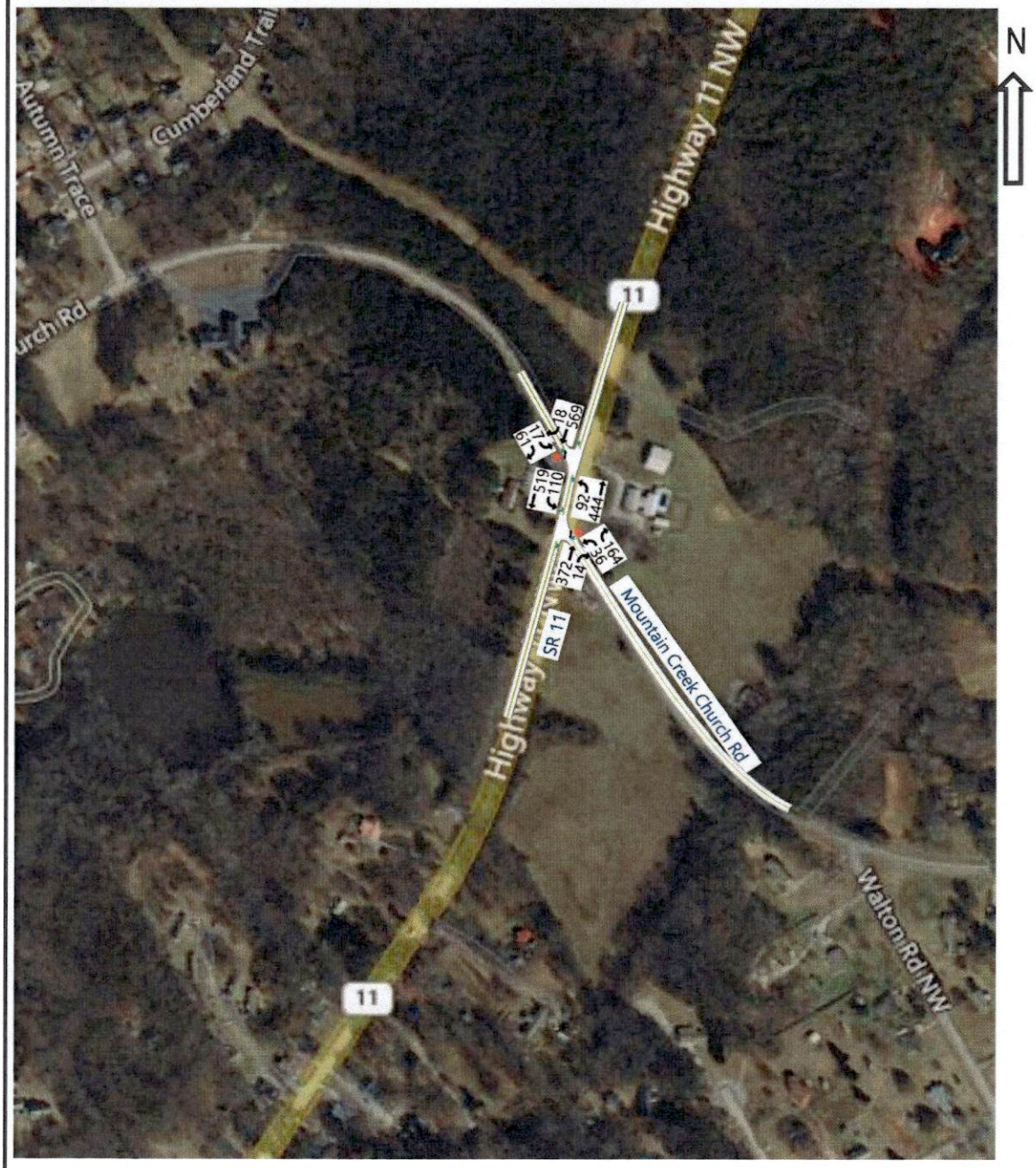
In addition to the TMC, 24-hour classification counts were collected on SR 11 just north of Mountain Creek Church Road (west), and on Mountain Creek Church Road (east) on Thursday, February 12, 2026.

Figure 4a – Existing AM Peak Traffic Volumes 2026. Figure 4b. Existing PM Peak Traffic Volumes 2026

The complete traffic data collection is in Appendix **A,** including the historic traffic counts from GDOT TADA database.

Based on the current traffic patterns at the intersections within the study area, the traffic distribution was calculated for the peak hours as shown in **Figure 5 - Traffic Distribution %.**

Figure 4a. Exiting AM Peak Traffic Volumes - 2026

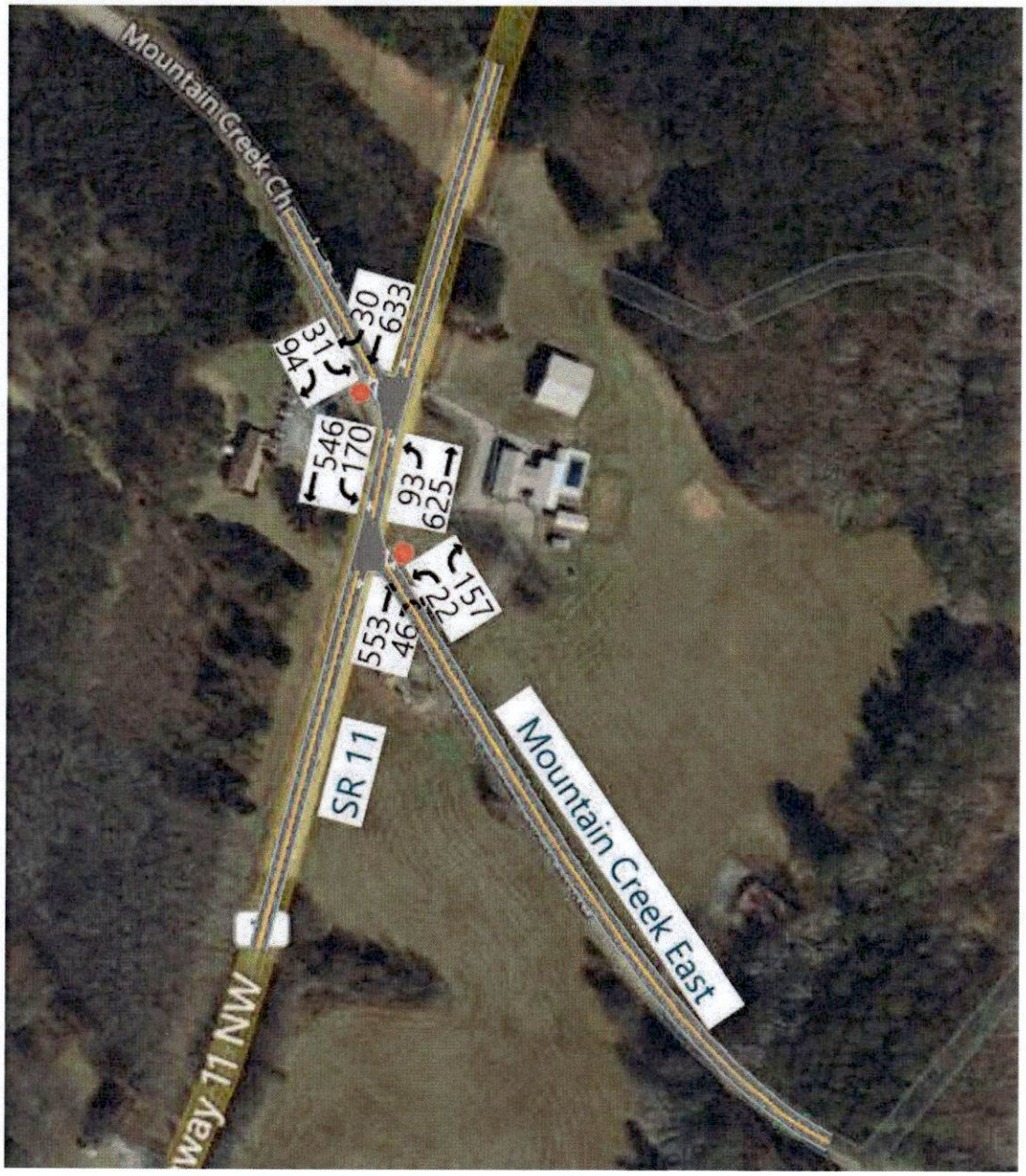


LEGEND

Turning Movements

000 Traffic Volumes

Figure 4b. Exiting PM Peak Traffic Volumes – 2026

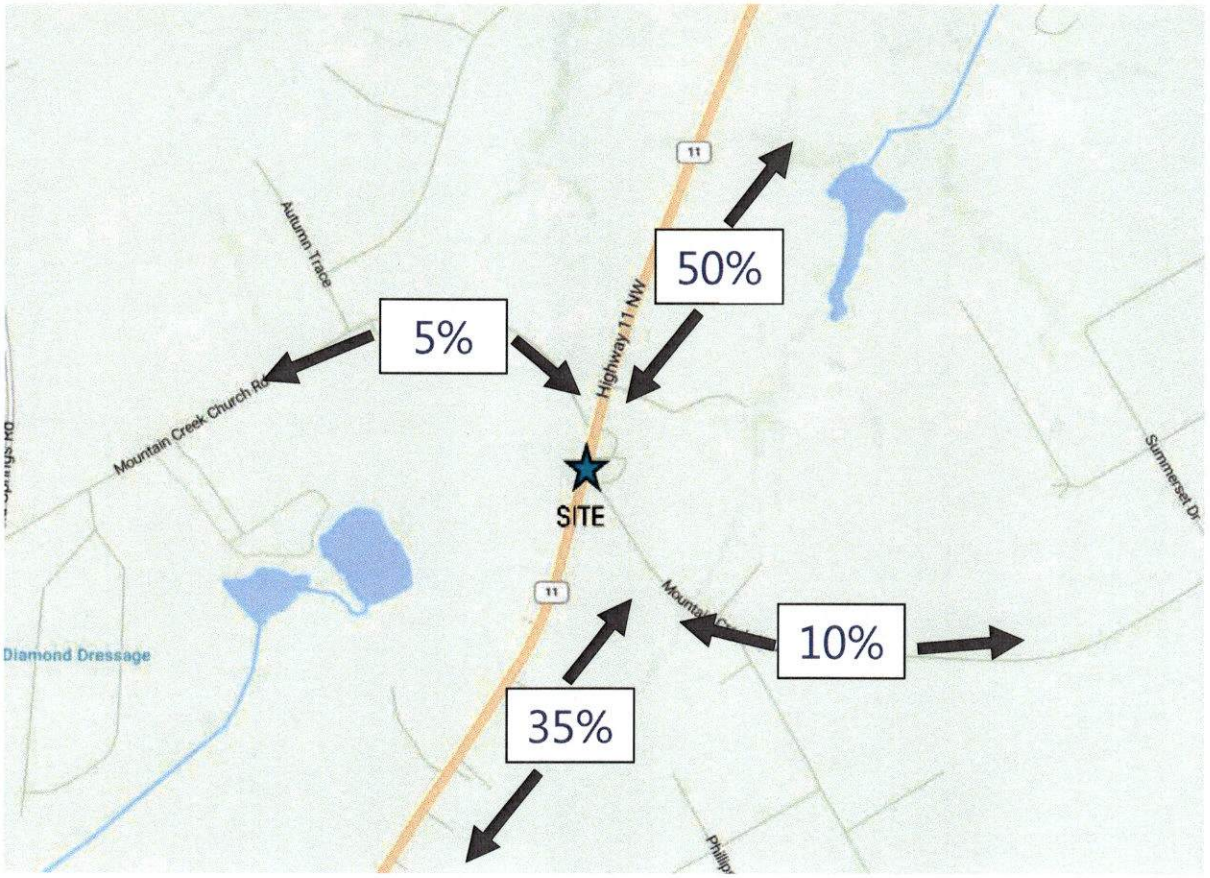


LEGEND

Turning Movements

000 Traffic Volumes

Figure 5. Traffic Distribution - %



LEGEND

Traffic Direction

00% Distribution Percentage

FUTURE BUILD CONDITIONS

Future Traffic Volumes

Traffic Solutions utilized the Georgia Department of Transportation's Traffic Analysis and Data Application (TADA) traffic count database to retrieve historic traffic counts in the vicinity of the proposed project. The closest count station to the project study area is Count Station 297-0089 located on SR 11 approximately 1,830 feet north of the project site. We used the actual counts that were collected in 2016, 2018, 2020 and 2022 to calculate the average annual growth rate for the study area. Over the 7-year period, there was an annual increase of 0.797 %. It was agreed by the GDOT District Traffic office to use a 1.0% traffic growth rate.

Traffic volumes were projected to the developments opening year for each phase in 2027, 2029 and 2031 by a growth rate of 1.01 **Figures 6a and 6b** shows the projected turning traffic volumes, without the proposed development trips (No Build), for 2027 during the AM and PM peak hours, respectively.

The historical data and calculations are shown in the **Appendix A.**

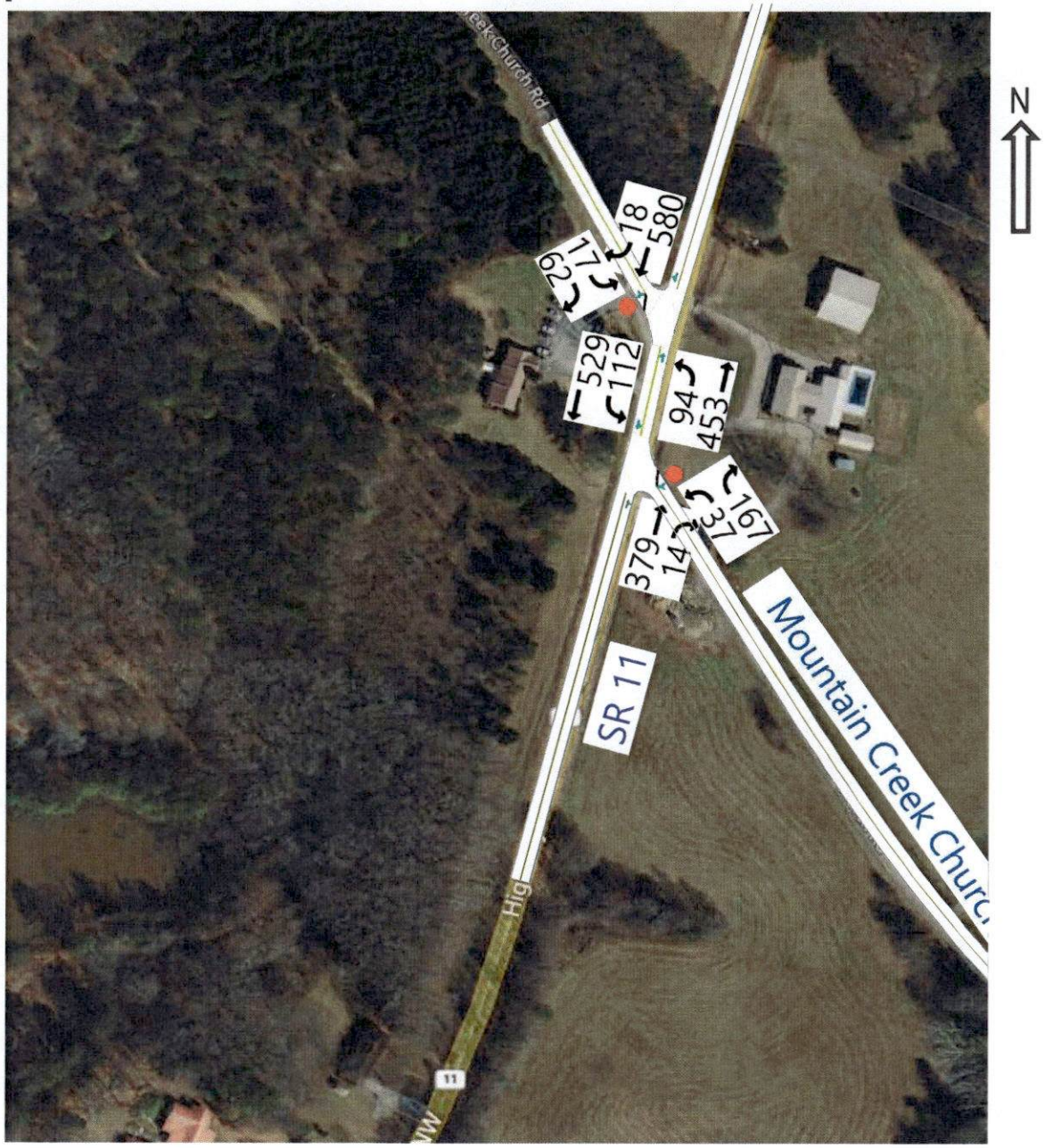
Trip Generation

The trip generation for the proposed mixed use development was determined based on the rates and equations for the appropriate land use code given in the current edition of the Trip Generation Manual published by the Institute of Transportation Engineers. For the proposed development in this project, Land use 945 – Convenience Store with Gas Station, Land Code 822 – Strip Plaza less than 40,000 square feet and Land Use 432 – Golf Driving Range are used to calculate the number of trips that it is estimated to be generated by this site. **Table 3** highlights the expected trip generated for the proposed development. The trip generation analysis sheets are enclosed in **Appendix B**.

TABLE 3. TRIP GENERATION FOR PROPOSED LAND USES

Land Use (ITE Code)	Intensity	Daily		AM Peak			PM Peak		
		IN	OUT	IN	OUT	Total	IN	OUT	Total
Distribution		50%	50%	50%	50%	100%	50%	50%	100%
Convenience Store (4-5.5K) / Gas Station (945)	16 Fueling Positions	2057	2057	216	217	433	182	182	364
Distribution		50%	50%	60%	40%	100%	50%	50%	100%
Strip Retail Plaza (<40KSF) (822)	8,000 sq. ft.	218	218	11	8	19	26	27	53
Distribution		50%	50%	61%	39%	100%	45%	55%	100%
Golf Driving Range (432)	15 Tees	102	103	4	2	6	8	11	19
Total Volume		2,377	2378	231	227	258	216	220	436

Figure 6a. Projected AM Peak Hour Volumes – 2027 No Build

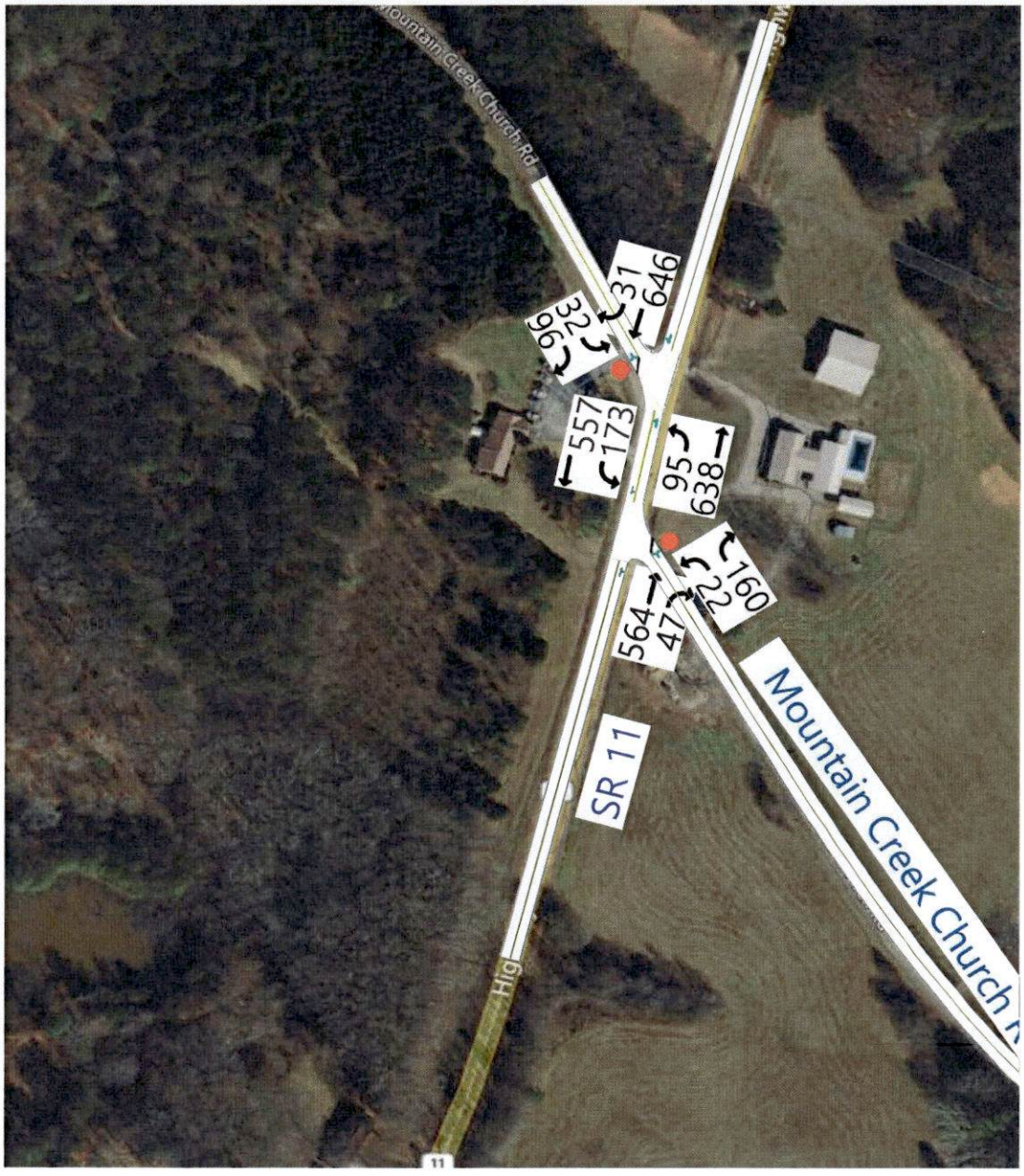


LEGEND

Turning Movements

000 Traffic Volumes

Figure 6b. Projected PM Peak Hour Volumes – 2027 No Build



LEGEND

Turning Movements

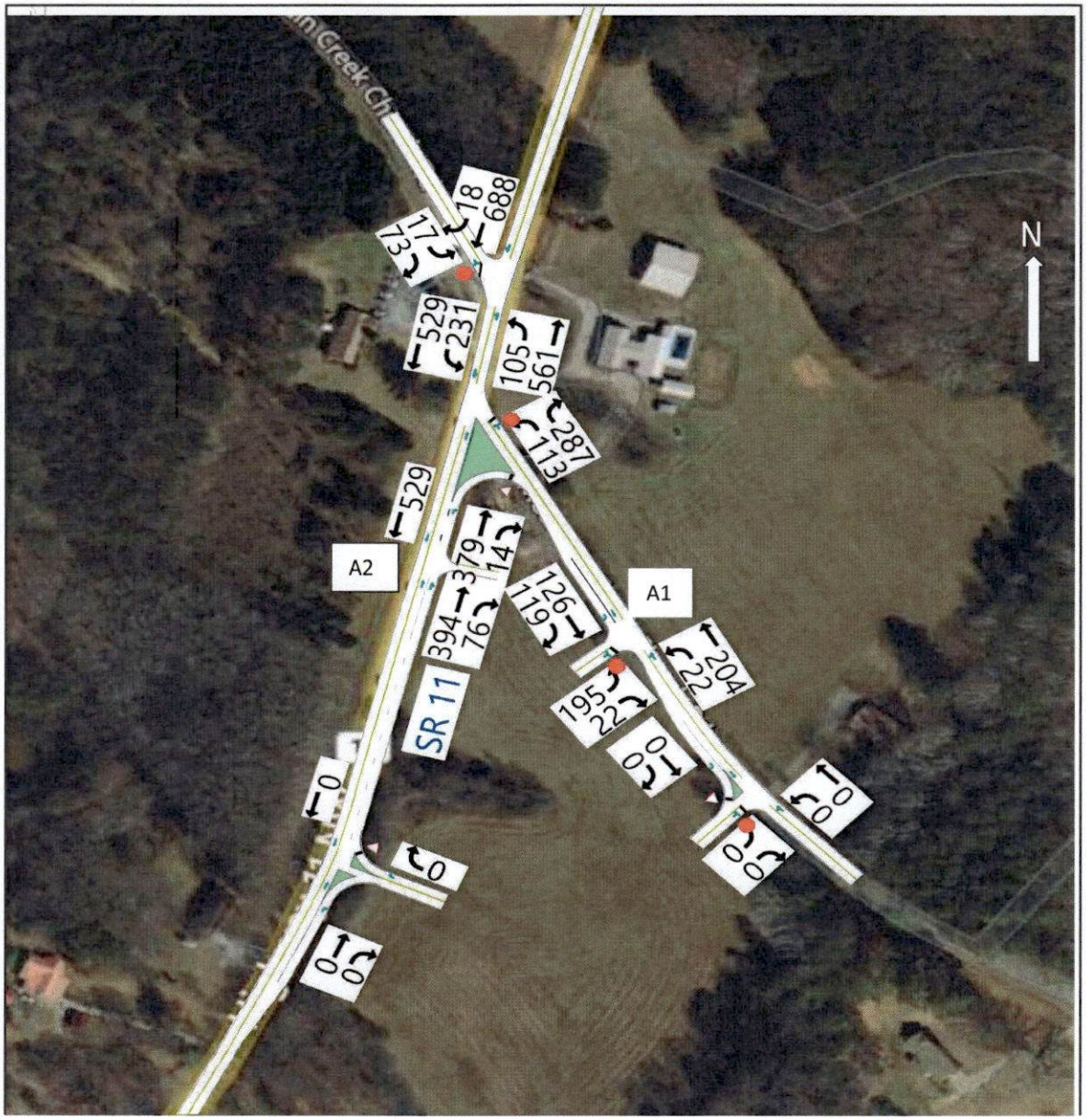
000 Traffic Volumes

As shown in Table 3, the trips generated by this development consist of primary trips and pass-by trips. This is due to the nature of the proposed land uses. Primary trips are new trips on the roadway network. Primary trips typically enter the site and exit in the direction from which they entered or back to its origin. Pass-by trips are trips made as intermediate stops on the way from an origin to a primary destination. Pass-by trips are attracted from traffic passing on an adjacent street that contains direct access to the generator and are not new trips added to the system.

Trip distribution for each land use is calculated using the data provided by ITE Trip Generation. The trip distribution determines the percentage of trips entering and exiting the proposed site. The total trip patterns for the proposed land uses will be consistent with the existing background traffic. Where overall trips are balanced during a normal workday, trips during the A.M. peak will be moderately lower and moderately higher during the P.M. peak hour. After the trips were distributed along the existing roadway network, they were then assigned to the access points of the proposed development with a certain level of reasonableness, based on the location of the driveways and the land use layout. The generated trips for each phase was added to the projected background traffic to show the complete traffic picture per phase as shown in **Figure 7a/b through Figure 9a/b**. Each figure has an (a) and (b) display to illustrate the AM and PM peak hour trips, respectively.

Figure 7a. Convenience Store w/ Gas – AM Peak Volumes (Phase I)

	Enter	Exit
AM	216	217

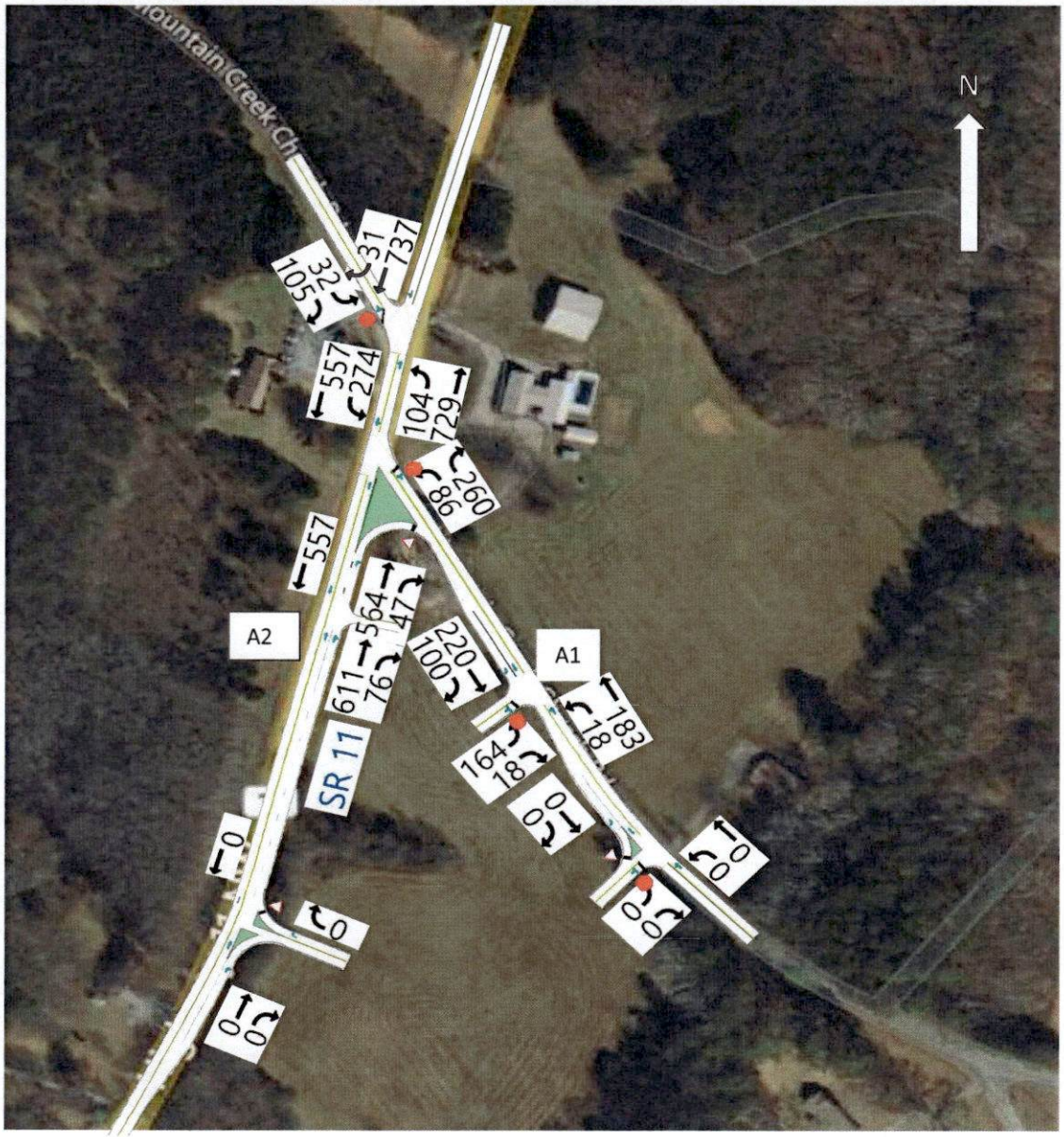


LEGEND

- Turning Movements
- 000 Traffic Volume
- A0 Driveway

Figure 7b. Convenience Store w/ Gas – PM Peak Volumes (Phase I)

	Enter	Exit
PM	182	182

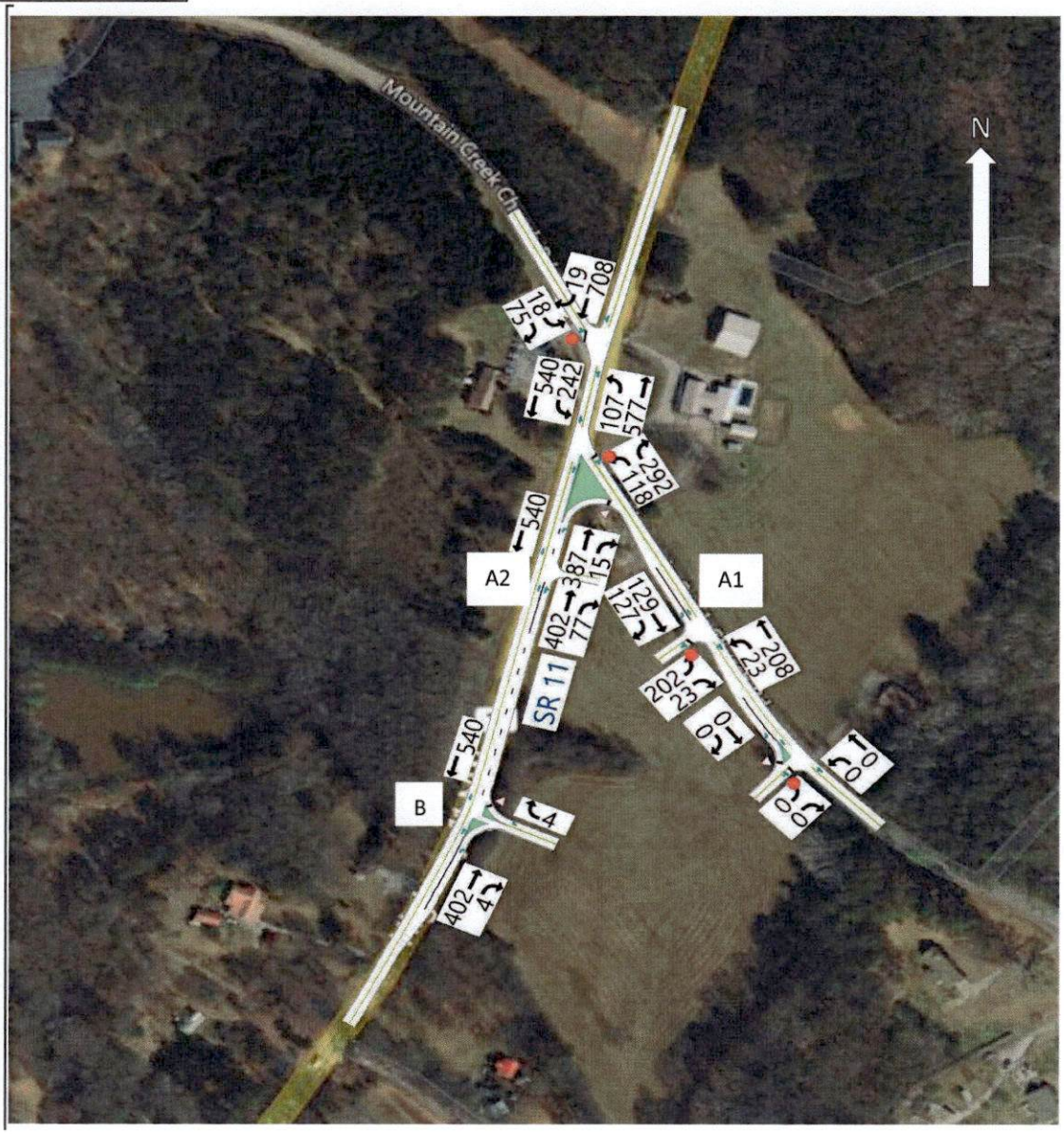


LEGEND

- Turning Movements
- 000 Traffic Volume
- A0 Driveway

Figure 8a. Strip Retail Plaza – AM Peak Volumes (Phase II)

	Enter	Exit
AM	11	8



LEGEND

⬏	Turning Movements
000	Traffic Volume
A0	Driveway

Figure 8b. Strip Retail Plaza – PM Peak Volumes (Phase II)

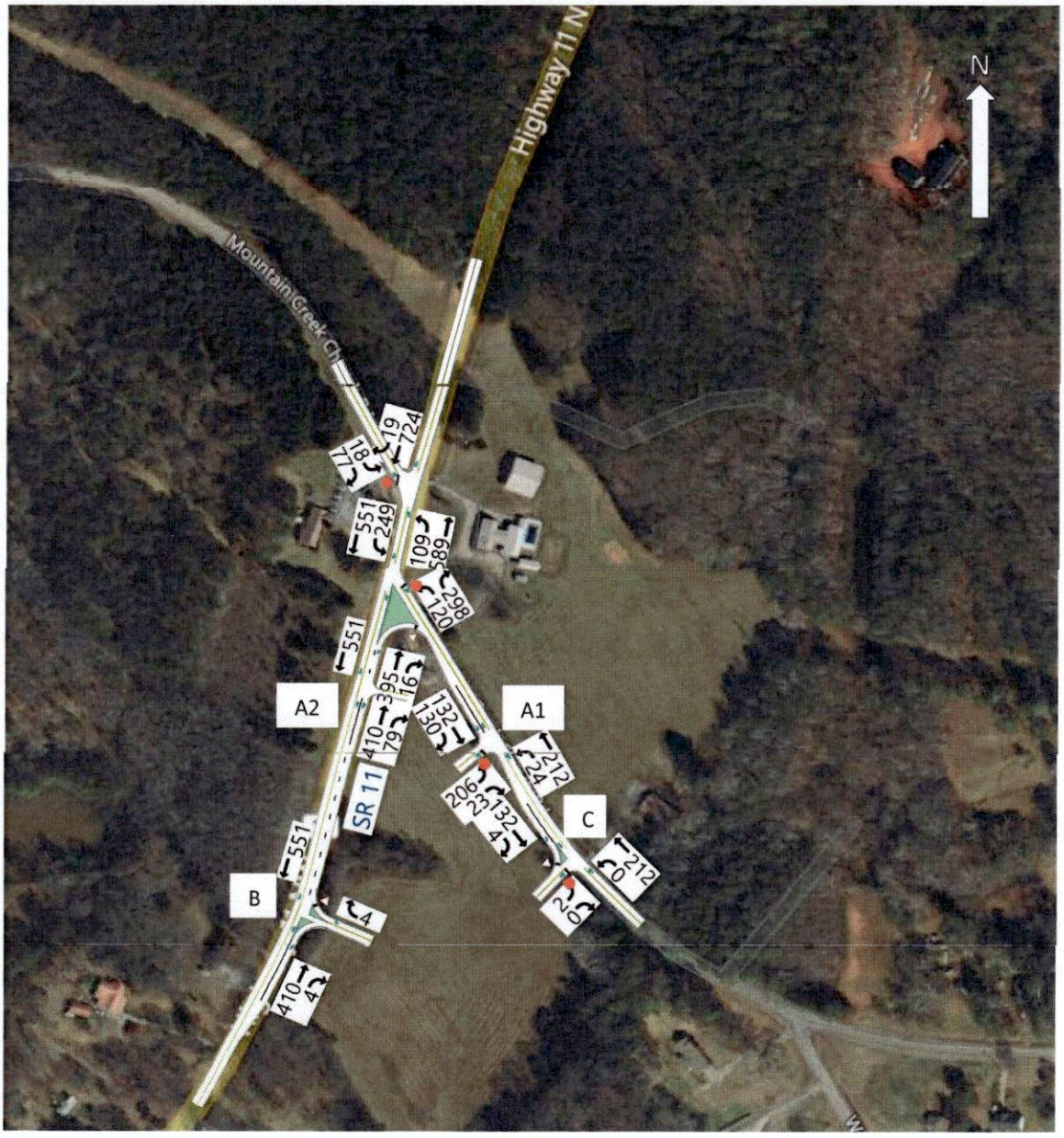
	Enter	Exit
PM	26	27

LEGEND

	Turning Movements
000	Traffic Volume
A0	Driveway

Figure 9a. Golf Driving Range – AM Peak Volumes (Phase III)

	Enter	Exit
AM	4	2

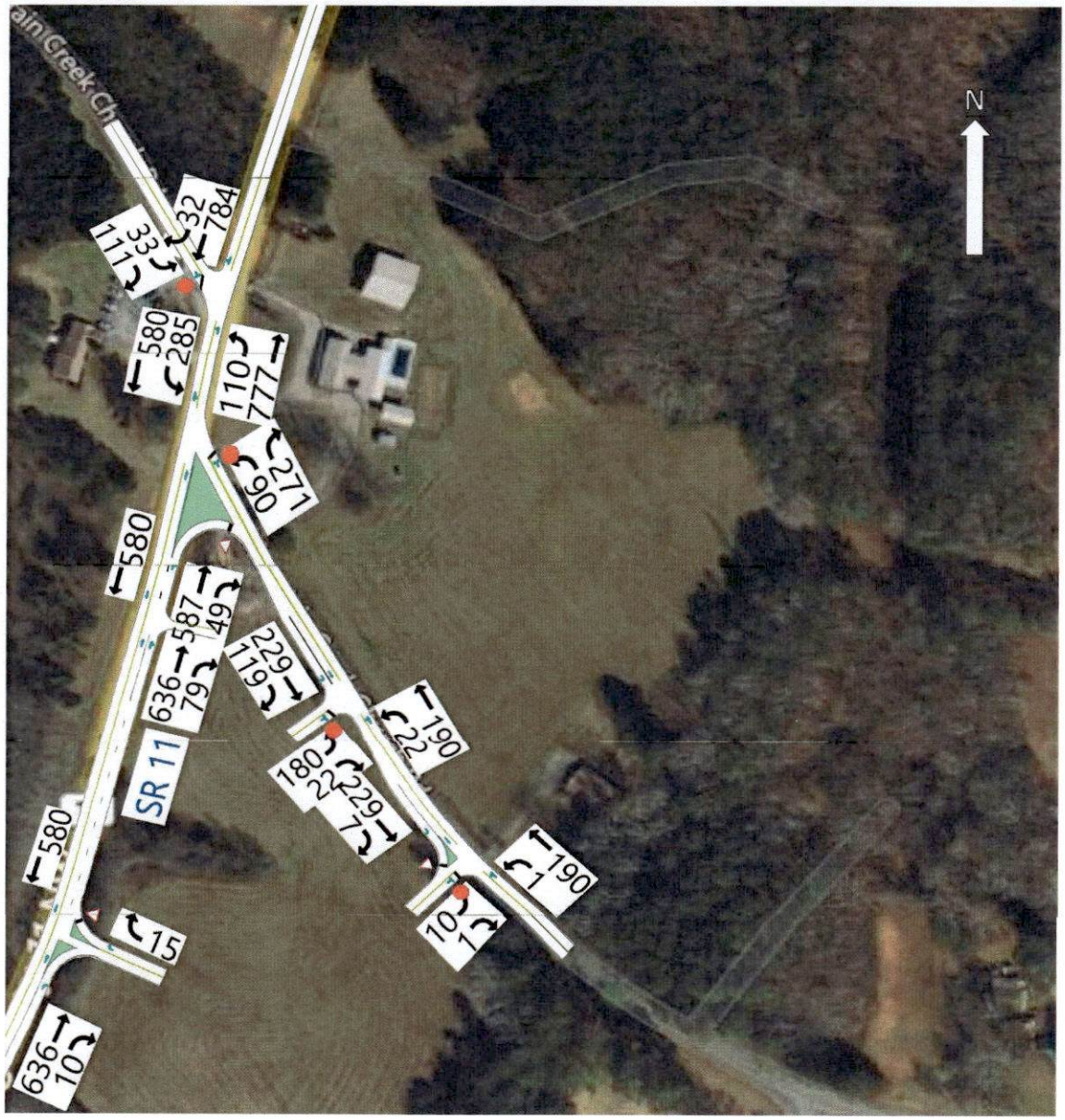


LEGEND

- Turning Movements
- 000 Traffic Volume
- A0 Driveway

Figure 9b. Golf Driving Range – PM Peak Volumes (Phase III)

	Enter	Exit
PM	8	11



LEGEND

- Turning Movements
- 000 Traffic Volume
- A0 Driveway

CAPACITY ANALYSIS

The levels of service of the key intersections analyzed as part of this study were determined with the use of the SYNCHRO 12 computer software which is based on the methodology in the current edition of the Highway Capacity Manual. Level of Service (LOS) is an indication of the operations of an intersection and is designated by the letters A through F. A level of service A represents good traffic flow with little or no delay for motorists, and a level of service F represents poor traffic flow and extreme delays for motorists. An overall level of service of LOS E or better is considered adequate, for urban conditions similar to this proposed study area.

The capacity analyses performed were based on the existing traffic volumes, the lane configurations, roadway grade, type of intersection control, heavy vehicle characteristics and various other parameters of traffic operations at each of the intersections. Once the analysis is completed, the level of service of each intersection is determined.

For signalized intersections, the level of service is based on stopped delay per vehicle and volume to capacity ratio of the approaches to the intersection. **Table 4** contains information obtained from the Highway Capacity Manual, which illustrates the criteria for determining level of service for signalized controlled intersections.

TABLE 4 - LEVEL OF SERVICE CRITERIA FOR SIGNALIZED INTERSECTIONS

Level of Service	Stopped Delay per Vehicle
A	≤ 10.0
B	10.1 to 20.0
C	20.1 to 35.0
D	35.1 to 55.0
E	55.1 to 80.0
F	> 80.0

For unsignalized intersections controlled by stop signs on minor streets, the Level of Service (LOS) for motor vehicles with controlled movements is determined by the computed control delay. **Table 5** illustrates the criteria for determining level of service for unsignalized controlled intersections, based on information in the Highway Capacity Manual. Unlike signalized intersections, the LOS is not defined for the intersection as a whole or for the major street approaches. The LOS is determined for each minor street movement (or shared movement), as well as major street left turn movements.

TABLE 5 - LEVEL OF SERVICE CRITERIA FOR UNSIGNALIZED INTERSECTIONS

Vehicle Control Delay	Level of Service	Expected Delay to Minor Street Traffic
≤10 sec	A	Little or no delay
10 – 15 sec	B	Short traffic delays
15.1 – 25 sec	C	Average traffic delays
25.1 – 35 sec	D	Long traffic delays
35.1 – 50 sec	E	Very long traffic delays
>50 sec	F	*

* When demand volume exceeds the capacity of the lane, extreme delays will be encountered with queuing which may cause severe congestion affecting other traffic movements in the intersection. This condition may warrant intersection improvements.

In addition to the LOS and delay, the v/c ratio (volume to capacity) is used to reflect the traffic situation during the peak hours. Also, referred to as the degree of saturation, it represents the sufficiency of an intersection to accommodate the vehicular demand. A v/c ratio of 1.0 or less means the intersection has sufficient capacity to manage the volume of traffic under consideration. A v/c ratio of 0.85 is used as a threshold to indicate that an intersection is nearing full capacity and will need some sort of mitigation to lower the ratio.

Capacity analyses for the intersections in the study area were conducted using estimated volumes based on trip generation and existing traffic volumes projected one, three and five years into the future. Synchro 12 software was used to analyze both the existing and proposed intersections. The software parameters were calibrated to reflect actual field conditions, including lane widths, crosswalks, posted speed limits, turning-lane lengths and tapers, and traffic control devices.

Capacity analyses were first conducted under existing conditions to establish a baseline Level of Service (LOS). The intersections were then analyzed with projected traffic volumes to determine the LOS and volume-to-capacity (v/c) ratios under No-Build conditions. A subsequent analysis evaluated the projected Build conditions, incorporating the proposed site driveways and development-generated trips. For this project, Build condition analyses were completed for each of the three phases in which the land uses are expected to open. As shown on the site plan, site traffic will enter and exit via driveways on SR 11 and Mountain Creek Church Road.

The results indicate that both existing stop-controlled intersections currently operate at very acceptable LOS with minimal delay for all approaches during the AM peak period. However, during the PM peak hour, the side-street left-turn approaches operate at LOS E and LOS D for the east and west approaches, respectively.

Traffic projections for Phase 1 (2027) show that the intersections will continue to operate at an acceptable LOS during the AM peak hour, with only a slight increase in control delay for left turns exiting Mountain Creek Church Road under No-Build conditions. During the PM peak hour, however, the projected volumes result in the side-street left-turn movements operating at an unacceptable LOS E.

A capacity analysis was also conducted for the existing intersections using projected 2031 traffic volumes under No-Build conditions. The results show continued increases in delay and v/c ratios exceeding the 0.85 threshold during the PM peak hour. Under Build conditions, delays are expected to increase further, with v/c ratios reaching or exceeding oversaturation levels (1.0 or higher) for the left-turn movements from Mountain Creek Church Road onto SR 11.

As shown in the Synchro reports, under Build conditions the existing intersections will experience increased delays during each of the three development phases. The east leg of Mountain Creek Church Road is projected to operate at LOS F during both the AM and PM peak hours. The west leg will perform better, operating at no worse than LOS D during the AM peak hour; however, during the PM peak hour, the west leg is expected to operate at LOS F with high delays and v/c ratios exceeding 1.0.

Under Build conditions, all site driveways are expected to operate with manageable delays, providing LOS D or better for left-turn ingress and egress movements in each development phase.

Table 6 summarizes the LOS, delay, and v/c ratios for each intersection. Detailed Synchro reports are provided in Appendix D.

TABLE 6. INTERSECTION CAPACITY ANALYSIS – LEVEL OF SERVICE, DELAY AND V/C RATIO

Intersections		A.M. Peak Hour			P.M. Peak Hour		
	Traffic Control	LOS	Delay (sec.)	Max. v/c ratio	LOS	Delay (sec.)	Max. v/c ratio
Existing							
SR 11 at Mountain Creek Church Rd (east)	Stop Sign	NWL C SBL A	22.4 8.7	0.509 0.106	NWL E SBL B	38.1 10.0	0.655 0.202
SR 11 at Mountain Creek Church Rd (west)	Stop Sign	NBL A SEL C	9.9 18.5	0.114 0.232	NBL B SEL D	10.3 34.3	0.125 0.523
2027 No-Build							
SR 11 at Mountain Creek Church Rd (east)	Stop Sign	NWL C SBL A	23.6 8.7	0.532 0.108	NWL E SBL B	41.6 10.1	0.686 0.208
SR 11 at Mountain Creek Church Rd (west)	Stop Sign	NBL A SEL C	9.9 19.0	0.117 0.241	NBL B SEL E	10.4 37.8	0.130 0.560
2027 Build – Phase I							
SR 11 at Mountain Creek Church Rd (east)	Stop Sign	NWL F SBL A	411.6 9.6	1.80 0.05	NWL F SBL B	828 10.7	2.68 0.315
SR 11 at Mountain Creek Church Rd (west)	Stop Sign	NBL B SEL D	10.6 25.2	0.145 0.345	NBL B SEL F	11.1 69.3	0.155 0.768
SR 11 at Driveway A2	In Only	-	-	-	-	-	-
Mountain Creek Church Rd (east) at Driveway A1	Stop Sign	NBL B NEL D	14.0 30.3	0.08 0.43	NBL A NEL C	8.3 15.1	0.017 0.357
2029 Build – Phase II							
SR 11 at Mountain Creek Church Rd (east)	Stop Sign	NWL F SBL A	504.9 9.3	2.004 0.233	NWL F SBL B	948.3 10.8	2.943 0.324
SR 11 at Mountain Creek Church Rd (west)	Stop Sign	NBL B SEL D	10.8 27.6	0.151 0.378	NBL B SEL F	11.3 88.4	0.164 0.852
SR 11 at Driveway A2	In Only	-	-	-	-	-	-
Mountain Creek Church Rd (east) at Driveway A1	Stop Sign	NBL A NEL C	8.1 15.0	0.021 0.407	NBL A NEL C	8.3 15.9	0.021 0.394
SR 11 at Driveway B	RI/RO	WBR B	10.9	0.007	WBR B	13.2	0.034
2031 Build – Phase III							
SR 11 at Mountain Creek Church Rd (east)	Stop Sign	NWL F SBL A	577.4 9.4	2.164 0.241	NWL F SBL B	1099.3 11.0	3.270 0.335
SR 11 at Mountain Creek Church Rd (west)	Stop Sign	NBL B SEL D	10.9 29.1	0.156 0.399	NBL B SEL F	11.5 114.3	0.172 0.945
SR 11 at Driveway A2	In Only	-	-	-	-	-	-
Mountain Creek Church Rd (east) at Driveway A1	Stop Sign	NBL A NEL C	8.1 15.4	0.022 0.420	NBL A NEL C	8.4 16.3	0.022 0.410
SR 11 at Driveway B	RI/RO	WBR B	10.9	0.007	WBR B	13.4	0.037
Mountain Creek Church Rd (east) at Driveway C	Stop Sign	NWL A NEL B	0.0 10.8	- 0.003	NWL A NEL B	7.9 11.4	0.001 0.021

TURN LANE ANALYSIS

Over the course of 3- phases within 5-years, the proposed mixed-use land development is estimated to generate a total of 4,755 average daily trips with 2,377 trips entering the site and 2,378 trips exiting the site utilizing 4 access points. Due to the uniqueness of the site layout, each driveway was analyzed per land use. The need for auxiliary lanes on SR 11 and Mountain Creek Church Road east leg was analyzed in accordance with the GDOT Regulations for Driveways and Encroachment Control manual*.

As with the peak hour trip assignments, the daily entering trips were distributed and assigned to the driveways based on the daily traffic patterns of the adjacent street. From the traffic data collected on SR 11 and Mountain Creek Church Rd (MCCR), it shows that daily traffic volumes were as follows:

SR 11	NB	SB
13,511 vpd	6,529 vpd	6,982 vpd
	38%	40%
MCCR	EB	WB
3,865 vpd	1,937 vpd	1,928 vpd
	11%	11%

Included below are analysis for left-turn lanes and deceleration lanes for all site driveways per GDOT standards. The analysis below are based off the distribution included in Table 3 and as mentioned above. The table below shows the minimum requirements to warrant a right (deceleration) turn lane and a left turn lane.

Posted Speed	2 Lane Routes		More than 2 lanes on Main Road	
	AADT		AADT	
	<6,000	>=6,000	<10,000	>=10,000
35 mph or <	200 RTV a day	100 RTV a day	200 RTV a day	100 RTV a day
40 to 50 mph	150 RTV a day	75 RTV a day	150 RTV a day	75 RTV a day
55 to 60 mph	100 RTV a day	50 RTV a day	100 RTV a day	50 RTV a day
>= 65 mph	Always	Always	Always	Always

*Table 4-6 Minimum volumes Requiring Right Turn Lanes

LEFT TURN REQUIREMENTS - FULL CONSTRUCTION				
Posted Speed	2 Lane Routes		More than 2 Lanes on Main Road	
	ADT		ADT	
	< 6,000	>= 6,000	< 10,000	>= 10,000
35 MPH or Less	300 LTV a day	200 LTV a day	400 LTV a day	300 LTV a day
40 to 50 MPH	250 LTV a day	175 LTV a day	325 LTV a day	250 LTV a day
>= 55 MPH	200 LTV a day	150 LTV a day	250 LTV a day	200 LTV a day

*Table 4-7a Minimum Volumes Requiring Left turn Lanes, GDOT Regulations for Driveways & Encroachment Control Manual, Page 4-14, 7/3/2019 Rev. 5.0

For two-lane roadways with AADT's greater than 6,000 vehicles and a posted speed limit of 45 mph, the daily site generated traffic right-turn movements threshold to warrant a deceleration lane is 75 right turning vehicles per day. If the AADT is less than 6,00 at 45 mph the threshold is 150 right-turning vehicles per day. The right-turn volumes per day for each driveway is included in **Table 7.**

For two-lane roadways with AADT's greater than 6,000 vehicles and a posted speed limit of 45 mph, the daily site generated traffic left-turn movements threshold to warrant a left-turn lane is 175 left turning vehicles per day. If the AADT is less than 6,00 at 45 mph the threshold is 250 left-turning vehicles per day. The left-turn volumes per day for each driveway is included in **Table 8.**

TABLE 7. GDOT REQUIREMENTS FOR DECELERATION LANES				
Intersection	Right-turn traffic (% total entering)	Right-turn volume (vpd)	Roadway speed/ # lanes/ADT	GDOT Threshold (vpd)
SR 11 @ Driveway A2	38%	773 (in trips) x 0.38 = 2,057 X 0.38 = 773	45 mph / 2-lane / >=6,000	75
SR 11 @ Driveway B	38%	82 (in trips) x 0.38 = 218 x 0.38 = 82	45 mph / 2-lane / >=6,000	75
MCCR @ Driveway A1	51%	1,168 (in trips) x 0.51 = 2,275 x 0.51 = 1,168	45 mph / 2-lane / <6,000	150
MCCR @ Driveway C	89%	91 (in trips) x 0.89 = 102 x 0.89 = 91	45 mph / 2-lane / <6,000	150

TABLE 8. GDOT REQUIREMENTS FOR LEFT-TURN LANES				
Intersection	Left-turn traffic (% total entering)	Left-turn volume (vpd)	Roadway speed/ # lanes/ADT	GDOT Threshold (vpd)
SR 11 @ Driveway A2	NOT APPLICABLE (RIGHT-IN ONLY DRIVEWAY)			
SR 11 @ Driveway B	NOT APPLICABLE (RIGHT-IN / RIGHT-OUT DRIVEWAY)			
MCCR @ Driveway A1	11%	276 (in trips) x 0.11 = 2,275 x 0.11 = 276	45 mph / 2-lane / <6,000	250
MCCR @ Driveway C	11%	91 (in trips) x 0.89 = 102 x 0.89 = 91	45 mph / 2-lane / <6,000	250

From the analysis, it is determined that all four of the driveways warrant a right turn deceleration lane. The analysis indicates that Driveway A1 on Mountain Creek Church Road is warranted for a left turn lane.

SIGHT DISTANCE

In accordance with AASHTO guidelines for Intersection Sight Distance, departure sight triangles for traffic approaching from either the right or left, should be provided for left turns from the minor road onto the major road for all stop-controlled approaches. The recommended intersection sight distance as shown for Case B1 and Case B2 are calculated using the following equation for left turns and right turns, respectively. The difference in the result is determined by the time gap. Where the time gap for left turning sight distance is 7.5 seconds and for right turning vehicles is 1.0 seconds less. The minimum required sight distance for each driveway is shown in **Table 9**.

$$ISD = 1.47(V_{major})\ t_g \qquad \text{whereas,}$$

ISD is the Intersection Sight Distance (ft)

V_{major} is the design speed of the major roadway (mph)

t_g is the time gap for the design vehicle (sec.)*

ISD(r) = 1.47 (45) 6.5 = 429.96 ft	Design distance 430 ft	Right turn from stop
ISD(l) = 1.47 (45) 7.5 = 496.13 ft	Design distance 500 ft	Left turn from stop

*Adjustment of 1.0 second made for multiple lane crossings (including center turn lane) and where left turns are permitted also.

Table 9. Driveway Sight Distances

Driveways	Sight Distances (lf)	
	Left	Right
A1	500	430
A2	n/a	n/a
B	n/a	430
C	500	430

FINDINGS

Traffic impacts were evaluated for the proposed mixed-use development located in the southeast quadrant of SR 11 and Mountain Creek Church Road, north of the City of Monroe in Walton County, Georgia. The proposed development consists of a 5,000-sf convenience store with 16 fueling positions, an 8,000-sf strip retail plaza, and a 6,840-sf golf driving range with 15 driving bays. The project is planned to be constructed in three phases. Phase 1 includes the convenience store and gas station, Phase 2 includes the strip retail plaza, and Phase 3 includes the golf driving range. The development will have four access points: two full-access driveways on Mountain Creek Church Road, a right-in/right-out driveway on SR 11, and a right-in-only driveway on SR 11.

In addition to the site driveways, the study area encompasses two existing intersections: SR 11 at Mountain Creek Church Road – east and Mountain Creek Church Road – west. These two approaches to SR 11 are offset by approximately 225 feet and form separate T-intersections with SR 11.

Capacity analyses were conducted to evaluate the impacts of the development on the existing transportation system at each project phase. The analysis included existing conditions as well as projected operations under both "No Build" and "Build" scenarios.

The results of the existing conditions analysis show that both left-turn approaches operate at LOS C during the AM peak period. During the PM peak period, the left-turn approaches on Mountain Creek Church Road operate at LOS E (east approach) and LOS D (west approach). Future traffic operations indicate that both intersections will experience unacceptable levels of service with increased delays during both the AM and PM peak hours as traffic volumes grow.

With the addition of site-generated trips, the left-turn movements on the east leg of Mountain Creek Church Road are expected to experience significant delays, with v/c ratios exceeding 1.0, indicating that the two-lane undivided roadway will be over-saturated.

Turn-lane analyses were conducted for each of the site driveways. The results show that all driveways warrant right-turn deceleration lanes. However, only one driveway—Driveway A1 on Mountain Creek Church Road—warrants a left-turn lane.

Intersection sight distance was evaluated for the four driveways. The minimum required sight distance for the right-in/right-out driveway on SR 11 is 430 feet for Sight Distance Left (SDL). For the remaining driveways that permit egress, the required sight distance is 430 feet for right turns and 500 feet for left turns.

RECOMMENDATIONS

The study area encompasses two (2) existing unsignalized intersections that T's into SR 11 at Mountain Creek Church Road. The proposed site will include two (2) fully accessible driveways Mountain Creek Church Road and one (1) Right-In/Right-Out driveway and one (1) Right-In Only driveway on State Route 11.

Based on the findings from the analysis conducted, the following is recommended:

- SR 11 at Driveway A2 – Right-In
  - Construct the driveway with a minimum 12-foot entry lane. The driveway curbs should have a minimum with 35-foot radii.
  - Install a 175 lin. ft. deceleration lane with a 100 ft. taper per GDOT standard and detail
- SR 11 at Driveway B – Right-In/Right-Out
  - Install driveway in accordance with GDOT driveway standards and details
  - No landscaping within the right-of-way that will impede the sight distance of motorists exiting Driveway B
  - Install a 175 lin. ft. deceleration lane with a 100 ft. taper per GDOT standard and detail
    - Add 2 – Type 2 right turn arrows
  - Install R1-2, 30" Yield sign at the egress
- Mountain Creek Church Road at Driveway A1
  - Install driveway in accordance with GDOT driveway standards and details
  - Install a left turn lane per GDOT minimum requirements of 235 lin. ft. storage area with a 100 ft. taper
  - Install deceleration lane a minimum of 175 lin. ft. with a 100 ft taper
    - Add 2 – Type 2 right turn arrows
  - Install 24" stop line and 5" solid double yellow
  - Install R1-1, 30" Stop sign
  - No landscaping within the right-of-way higher than 3.5 feet in height that will impede the sight distance of motorists exiting Driveway A1.
- Mountain Creek Church Road at Driveway C
  - Install driveway in accordance with GDOT driveway standards and details
  - Install deceleration lane a minimum of 175 lin. ft. with a 100 ft taper
    - Add 2 – Type 2 right turn arrows
  - Install 24" stop line and 5" solid double yellow
  - Install R1-1, 30" Stop sign
  - No landscaping within the right-of-way higher than 3.5 feet in height that will impede the sight distance of motorists exiting Driveway A1.

- SR 11 at Mountain Creek Church Road
  - Traffic analysis show that this intersection will continue to experience increased delays and lower levels of service in the projected years without any future development. It is recommended that GDOT and Walton County program a project to conduct a full engineering transportation investigation study for this intersection.
  - The WB approach at Mountain Creek Church Rd currently has a LOS E, which data shows the approach will get worse in years to come without any build conditions. Short term alternatives may include adding a left turn lane for the WB approach.
  - Long term alternatives may include a roundabout or the installation of a traffic signal including roadway improvements

APPENDIX A

AM/PM Peak Hour TMC

ADT Volume Counts

GDOT Historic Traffic Data

Growth Rate Calculations

TRAFFIC DATA SERVICES

Phone: (678) 687-8266 Fax: (404) 294-6122 info@trafficdataservices.com

INTERSECTION CAR/PED/BIKE TRAFFIC COUNT RESULTS SUMMARY

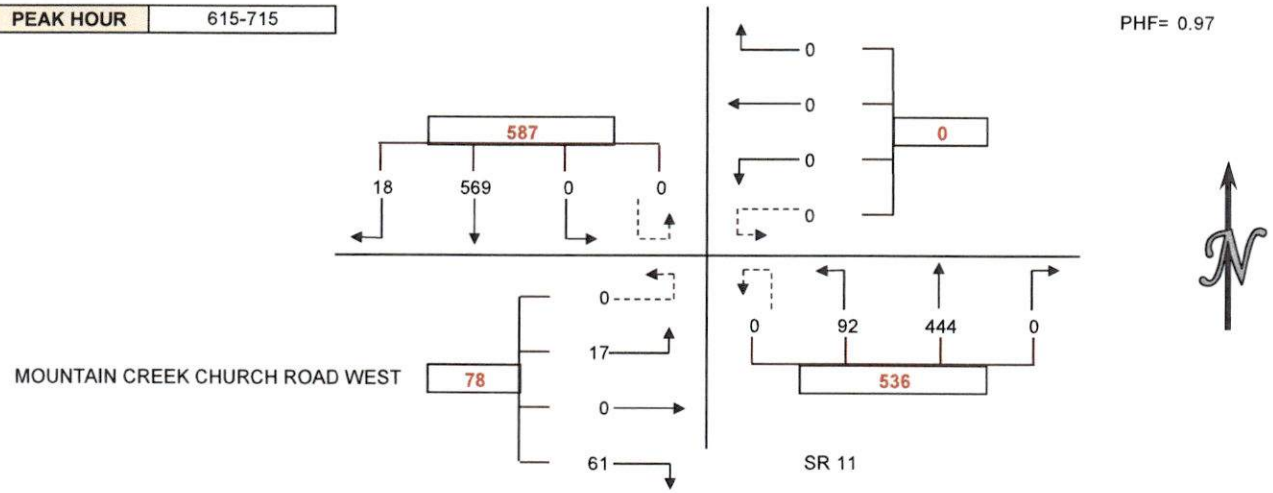
CLIENT: TRAFFIC SOLUTIONS LLC
PROJECT: WALTON COUNTY TRAFFIC STUDY
DATE: THURSDAY, FEBRUARY 12TH 2025
PERIOD: 7:00 AM TO 9:00 AM
INTERSECTION: N/S SR 11
E/W MOUNTAIN CREEK CHURCH ROAD WEST
CITY: MONROE GA

VEHICLE COUNTS

15 MIN COUNTS	1	2	3	4	5	6	7	8	9	10	11	12	
PERIOD	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	TOTAL
600-615	7	125	0	0	0	0	0	100	17	11	0	4	264
615-630	2	133	0	0	0	0	0	121	33	16	0	5	310
630-645	8	146	0	0	0	0	0	118	15	16	0	7	310
645-700	4	163	0	0	0	0	0	102	27	11	0	3	310
700-715	4	127	0	0	0	0	0	103	17	18	0	2	271
715-730	3	147	0	0	0	0	0	95	21	16	0	3	285
730-745	3	126	0	0	0	0	0	116	5	13	0	2	265
745-800	2	117	0	0	0	0	0	86	11	9	0	5	230
HOUR TOTALS	1	2	3	4	5	6	7	8	9	10	11	12	
PERIOD	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	TOTAL
600-700	21	567	0	0	0	0	0	441	92	54	0	19	1194
615-715	18	569	0	0	0	0	0	444	92	61	0	17	1201
630-730	19	583	0	0	0	0	0	418	80	61	0	15	1176
645-745	14	563	0	0	0	0	0	416	70	58	0	10	1131
700-800	12	517	0	0	0	0	0	400	54	56	0	12	1051

PEAK HOUR	615-715

PHF= 0.97



TRAFFIC DATA SERVICES

Phone: (678) 687-8266 Fax: (404) 294-6122 info@trafficdataservices.com

INTERSECTION CAR/PED/BIKE TRAFFIC COUNT RESULTS SUMMARY

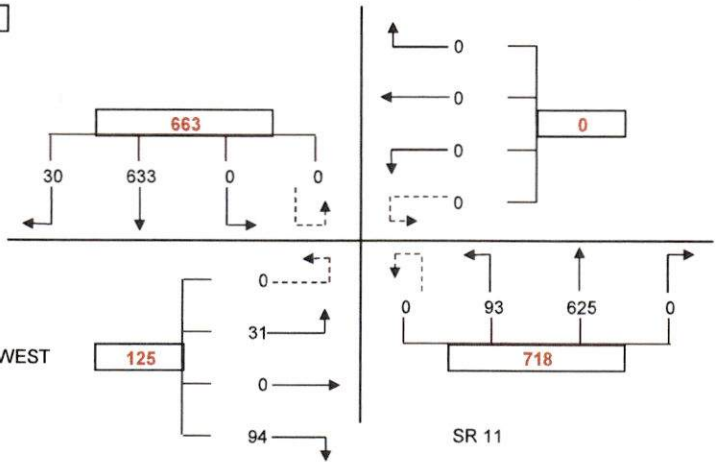
CLIENT:		TRAFFIC SOLUTIONS LLC
PROJECT:		WALTON COUNTY TRAFFIC STUDY
DATE:		THURSDAY, FEBRUARY 12TH 2025
PERIOD:		4:00 PM TO 6:00 PM
INTERSECTION:	N/S	SR 11
	E/W	MOUNTAIN CREEK CHURCH ROAD WEST
CITY:		MONROE GA

VEHICLE COUNTS

15 MIN COUNTS	1	2	3	4	5	6	7	8	9	10	11	12	
PERIOD	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	TOTAL
500-515	6	131	0	0	0	0	0	147	11	18	0	3	316
515-530	7	129	0	0	0	0	0	125	19	29	0	9	318
530-545	1	130	0	0	0	0	0	141	24	18	0	4	318
545-600	8	145	0	0	0	0	0	140	16	28	0	5	342
600-615	3	159	0	0	0	0	0	161	20	16	0	12	371
615-630	9	153	0	0	0	0	0	157	28	38	0	6	391
630-645	9	153	0	0	0	0	0	162	26	24	0	7	381
645-700	9	168	0	0	0	0	0	145	19	16	0	6	363
HOUR TOTALS	1	2	3	4	5	6	7	8	9	10	11	12	
PERIOD	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	TOTAL
500-600	22	535	0	0	0	0	0	553	70	93	0	21	1294
515-615	19	563	0	0	0	0	0	567	79	91	0	30	1349
530-630	21	587	0	0	0	0	0	599	88	100	0	27	1422
545-645	29	610	0	0	0	0	0	620	90	106	0	30	1485
600-700	30	633	0	0	0	0	0	625	93	94	0	31	1506

PEAK HOUR	600-700

PHF= 0.96



TRAFFIC DATA SERVICES

Phone: (678) 687-8266 Fax: (404) 294-6122 info@trafficdataservices.com

INTERSECTION CAR/PED/BIKE TRAFFIC COUNT RESULTS SUMMARY

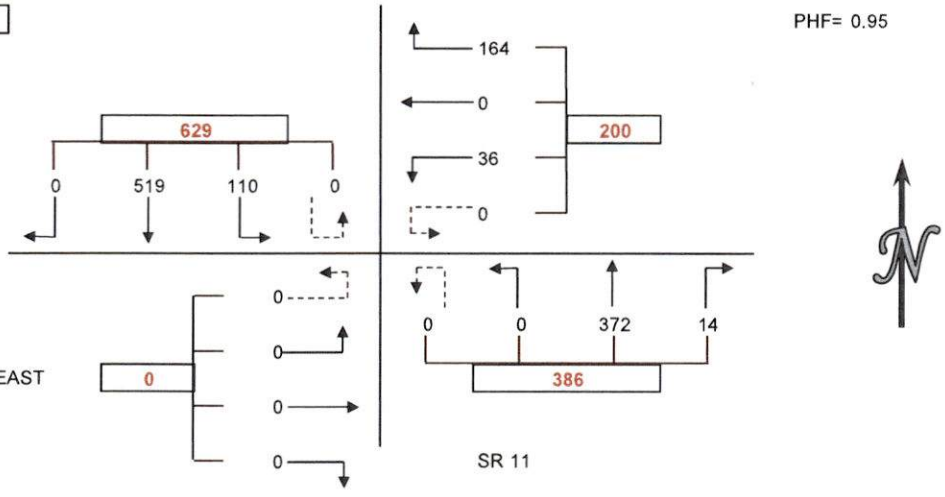
CLIENT:		TRAFFIC SOLUTIONS LLC
PROJECT:		WALTON COUNTY TRAFFIC STUDY
DATE:		THURSDAY, FEBRUARY 12TH 2026
PERIOD:		7:00 AM TO 9:00 AM
INTERSECTION:	N/S	SR 11
	E/W	MOUNTAIN CREEK CHURCH ROAD EAST
CITY:		MONROE GA

VEHICLE COUNTS

15 MIN COUNTS	1	2	3	4	5	6	7	8	9	10	11	12	
PERIOD	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	TOTAL
600-615	0	115	24	33	0	10	2	81	0	0	0	0	265
615-630	0	123	25	46	0	13	4	105	0	0	0	0	316
630-645	0	130	29	41	0	7	1	93	0	0	0	0	301
645-700	0	148	27	45	0	7	3	89	0	0	0	0	319
700-715	0	118	29	32	0	9	6	85	0	0	0	0	279
715-730	0	130	31	30	0	9	6	87	0	0	0	0	293
730-745	0	106	29	14	0	9	7	102	0	0	0	0	267
745-800	0	111	17	18	0	7	5	80	0	0	0	0	238
HOUR TOTALS	1	2	3	4	5	6	7	8	9	10	11	12	
PERIOD	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	TOTAL
600-700	0	516	105	165	0	37	10	368	0	0	0	0	1201
615-715	0	519	110	164	0	36	14	372	0	0	0	0	1215
630-730	0	526	116	148	0	32	16	354	0	0	0	0	1192
645-745	0	502	116	121	0	34	22	363	0	0	0	0	1158
700-800	0	465	106	94	0	34	24	354	0	0	0	0	1077

PEAK HOUR	615-715

PHF= 0.95



TRAFFIC DATA SERVICES

Phone: (678) 687-8266 Fax: (404) 294-6122 info@trafficdataservices.com

INTERSECTION CAR/PED/BIKE TRAFFIC COUNT RESULTS SUMMARY

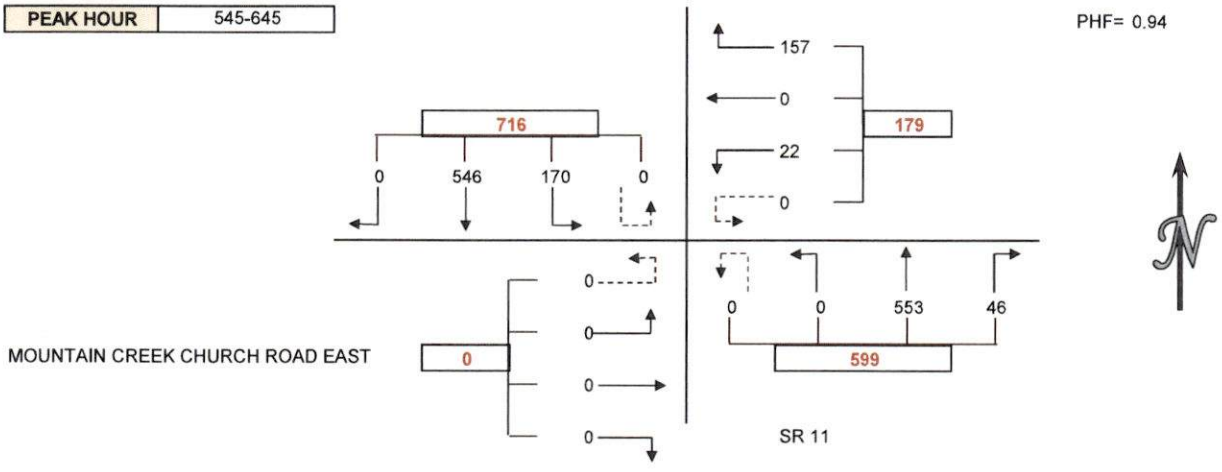
CLIENT:		TRAFFIC SOLUTIONS LLC
PROJECT:		WALTON COUNTY TRAFFIC STUDY
DATE:		THURSDAY, FEBRUARY 12TH 2025
PERIOD:		4:00 PM TO 6:00 PM
INTERSECTION:	N/S	SR 11
	E/W	MOUNTAIN CREEK CHURCH ROAD EAST
CITY:		MONROE GA

VEHICLE COUNTS

15 MIN COUNTS	1	2	3	4	5	6	7	8	9	10	11	12	
PERIOD	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	TOTAL
500-515	0	126	37	27	0	4	10	131	0	0	0	0	335
515-530	0	137	38	30	0	8	11	117	0	0	0	0	341
530-545	0	122	24	28	0	9	7	135	0	0	0	0	325
545-600	0	167	34	28	0	6	10	127	0	0	0	0	372
600-615	0	100	37	39	0	9	16	142	0	0	0	0	343
615-630	0	142	50	43	0	1	10	136	0	0	0	0	382
630-645	0	137	49	47	0	6	10	148	0	0	0	0	397
645-700	0	127	27	25	0	8	6	138	0	0	0	0	331
HOUR TOTALS	1	2	3	4	5	6	7	8	9	10	11	12	
PERIOD	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	TOTAL
500-600	0	552	133	113	0	27	38	510	0	0	0	0	1373
515-615	0	526	133	125	0	32	44	521	0	0	0	0	1381
530-630	0	531	145	138	0	25	43	540	0	0	0	0	1422
545-645	0	546	170	157	0	22	46	553	0	0	0	0	1494
600-700	0	506	163	154	0	24	42	564	0	0	0	0	1453

PEAK HOUR	545-645

PHF= 0.94



TRAFFIC DATA SERVICES
TRAFFIC SOLUTIONS TRAFFIC STUDY
WALTON COUNTY ADT CLASSIFICATION COUNTS

SR 11 South of
Mountain Creek Church Road East

Site: #1
2/12/2026
Thursday

Daily Classification

NB

Interval Start	Total	Motor Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axle Double	5 Axle Double	>6 Axle Double	<6 Axle Multi	6 Axle Multi	>6 Axle Multi
12:00 AM	31	2	8	9	1	7	0	0	0	4	0	0	0	0
1:00 AM	26	0	12	8	0	3	0	0	0	3	0	0	0	0
2:00 AM	23	1	11	3	1	5	0	0	0	2	0	0	0	0
3:00 AM	35	1	13	9	1	2	2	0	0	7	0	0	0	0
4:00 AM	76	1	27	24	2	13	3	0	2	4	0	0	0	0
5:00 AM	223	6	79	51	6	68	7	0	0	6	0	0	0	0
6:00 AM	295	1	109	76	6	86	3	0	6	8	0	0	0	0
7:00 AM	371	7	112	115	15	93	6	0	5	18	0	0	0	0
8:00 AM	354	1	89	102	18	111	9	0	9	15	0	0	0	0
9:00 AM	353	6	92	111	13	88	11	0	10	22	0	0	0	0
10:00 AM	346	5	99	99	16	88	8	0	7	24	0	0	0	0
11:00 AM	328	5	85	103	17	85	6	0	10	17	0	0	0	0
12:00 PM	331	4	112	101	13	72	4	1	6	18	0	0	0	0
1:00 PM	377	5	138	112	9	83	4	0	10	16	0	0	0	0
2:00 PM	385	8	124	124	13	87	5	0	9	14	0	1	0	0
3:00 PM	470	6	151	155	12	119	3	0	9	15	0	0	0	0
4:00 PM	522	7	175	173	4	133	6	0	12	12	0	0	0	0
5:00 PM	595	5	256	164	16	122	6	0	9	15	1	1	0	0
6:00 PM	483	6	219	127	5	107	5	0	10	4	0	0	0	0
7:00 PM	311	3	126	90	1	75	0	0	3	13	0	0	0	0
8:00 PM	242	6	112	67	3	45	1	0	2	6	0	0	0	0
9:00 PM	186	1	86	64	1	32	0	0	2	0	0	0	0	0
10:00 PM	107	1	59	26	1	15	0	0	0	5	0	0	0	0
11:00 PM	59	0	28	17	1	9	1	0	0	3	0	0	0	0
Total	6529	88	2322	1930	175	1548	90	1	121	251	1	2	0	0
%		1.3	35.6	29.6	2.7	23.7	1.4	0.0	1.9	3.8	0.0	0.0	0.0	0.0

TRAFFIC DATA SERVICES
TRAFFIC SOLUTIONS TRAFFIC STUDY
WALTON COUNTY ADT CLASSIFICATION COUNTS

SR 11 South of
Mountain Creek Church Road East

Site: #1
2/12/2026
Thursday

Daily Classification

SB

Interval Start	Total	Motor Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axle Double	5 Axle Double	>6 Axle Double	<6 Axle Multi	6 Axle Multi	>6 Axle Multi
12:00 AM	44	0	32	7	0	1	0	0	2	2	0	0	0	0
1:00 AM	26	0	14	5	0	2	0	0	1	4	0	0	0	0
2:00 AM	42	0	23	5	0	0	1	0	7	6	0	0	0	0
3:00 AM	44	0	28	6	0	3	1	0	4	2	0	0	0	0
4:00 AM	91	0	60	18	0	5	2	0	5	1	0	0	0	0
5:00 AM	232	1	139	62	3	4	2	0	11	10	0	0	0	0
6:00 AM	424	4	248	118	4	23	5	0	9	13	0	0	0	0
7:00 AM	516	1	351	112	7	20	1	0	12	12	0	0	0	0
8:00 AM	474	4	306	104	12	10	3	0	23	11	0	0	1	0
9:00 AM	381	3	238	81	10	18	3	0	17	11	0	0	0	0
10:00 AM	388	3	232	75	13	24	7	0	16	18	0	0	0	0
11:00 AM	384	1	242	73	8	21	6	0	20	13	0	0	0	0
12:00 PM	383	0	245	74	11	17	2	0	23	11	0	0	0	0
1:00 PM	396	2	247	83	11	18	4	0	16	15	0	0	0	0
2:00 PM	393	4	261	77	8	14	4	0	16	8	0	1	0	0
3:00 PM	515	5	347	100	18	19	2	0	13	11	0	0	0	0
4:00 PM	491	9	347	87	10	9	5	0	14	10	0	0	0	0
5:00 PM	492	1	335	108	11	16	2	0	9	10	0	0	0	0
6:00 PM	449	7	304	97	5	18	1	0	10	7	0	0	0	0
7:00 PM	324	1	240	58	4	9	1	0	7	4	0	0	0	0
8:00 PM	199	0	166	25	1	4	0	0	3	0	0	0	0	0
9:00 PM	140	1	109	20	0	3	0	0	5	2	0	0	0	0
10:00 PM	95	1	72	13	1	2	0	0	5	1	0	0	0	0
11:00 PM	59	0	47	8	0	0	0	0	3	1	0	0	0	0
Total	6982	48	4633	1416	137	260	52	0	251	183	0	1	1	0
%		0.7	66.4	20.3	2.0	3.7	0.7	0.0	3.6	2.6	0.0	0.0	0.0	0.0

TRAFFIC DATA SERVICES
TRAFFIC SOLUTIONS TRAFFIC STUDY
WALTON COUNTY ADT CLASSIFICATION COUNTS

Mountain Creek Church Road
East of SR 11

Site: #2
2/12/2026
Thursday

Daily Classification

EB

Interval Start	Total	Motor Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axle Double	5 Axle Double	>6 Axle Double	<6 Axle Multi	6 Axle Multi	>6 Axle Multi
12:00 AM	7	0	3	4	0	0	0	0	0	0	0	0	0	0
1:00 AM	4	0	3	1	0	0	0	0	0	0	0	0	0	0
2:00 AM	4	0	4	0	0	0	0	0	0	0	0	0	0	0
3:00 AM	7	0	5	2	0	0	0	0	0	0	0	0	0	0
4:00 AM	10	0	8	2	0	0	0	0	0	0	0	0	0	0
5:00 AM	25	0	11	7	2	5	0	0	0	0	0	0	0	0
6:00 AM	69	0	44	15	3	7	0	0	0	0	0	0	0	0
7:00 AM	114	0	73	26	1	13	0	0	1	0	0	0	0	0
8:00 AM	133	1	88	26	2	14	0	0	1	1	0	0	0	0
9:00 AM	101	0	64	21	0	13	1	0	2	0	0	0	0	0
10:00 AM	87	0	58	23	0	5	0	0	1	0	0	0	0	0
11:00 AM	93	0	58	18	1	13	1	0	1	1	0	0	0	0
12:00 PM	101	0	70	18	0	11	0	0	2	0	0	0	0	0
1:00 PM	113	0	74	22	0	12	2	0	2	1	0	0	0	0
2:00 PM	127	0	74	34	0	17	0	0	2	0	0	0	0	0
3:00 PM	164	1	114	38	0	7	0	0	3	0	0	1	0	0
4:00 PM	174	0	116	39	3	14	1	0	0	1	0	0	0	0
5:00 PM	206	0	134	49	1	20	1	0	1	0	0	0	0	0
6:00 PM	136	0	93	27	0	15	0	0	1	0	0	0	0	0
7:00 PM	85	0	65	16	0	4	0	0	0	0	0	0	0	0
8:00 PM	66	0	52	8	0	5	0	0	1	0	0	0	0	0
9:00 PM	63	1	49	7	0	5	0	0	1	0	0	0	0	0
10:00 PM	25	0	22	2	0	1	0	0	0	0	0	0	0	0
11:00 PM	23	0	18	5	0	0	0	0	0	0	0	0	0	0
Total	1937	3	1300	410	13	181	6	0	19	4	0	1	0	0
%		0.2	67.1	21.2	0.7	9.3	0.3	0.0	1.0	0.2	0.0	0.1	0.0	0.0

TRAFFIC DATA SERVICES
TRAFFIC SOLUTIONS TRAFFIC STUDY
WALTON COUNTY ADT CLASSIFICATION COUNTS

Mountain Creek Church Road
East of SR 11

Site: #2
2/12/2026
Thursday

Daily Classification

WB

Interval Start	Total	Motor Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axle Double	5 Axle Double	>6 Axle Double	<6 Axle Multi	6 Axle Multi	>6 Axle Multi
12:00 AM	7	0	6	0	0	1	0	0	0	0	0	0	0	0
1:00 AM	4	0	2	2	0	0	0	0	0	0	0	0	0	0
2:00 AM	6	0	3	1	0	2	0	0	0	0	0	0	0	0
3:00 AM	12	0	6	4	0	2	0	0	0	0	0	0	0	0
4:00 AM	24	0	17	5	0	2	0	0	0	0	0	0	0	0
5:00 AM	77	0	48	13	1	15	0	0	0	0	0	0	0	0
6:00 AM	108	0	63	20	0	24	1	0	0	0	0	0	0	0
7:00 AM	195	0	118	44	1	31	0	0	1	0	0	0	0	0
8:00 AM	127	0	87	21	1	17	1	0	0	0	0	0	0	0
9:00 AM	93	0	51	14	2	23	1	0	2	0	0	0	0	0
10:00 AM	85	0	46	16	0	20	1	0	2	0	0	0	0	0
11:00 AM	111	1	60	22	2	24	1	0	1	0	0	0	0	0
12:00 PM	95	0	54	18	1	20	1	0	1	0	0	0	0	0
1:00 PM	109	0	69	21	1	15	1	0	2	0	0	0	0	0
2:00 PM	136	0	94	24	0	17	0	0	1	0	0	0	0	0
3:00 PM	143	1	93	27	2	19	0	0	1	0	0	0	0	0
4:00 PM	138	1	93	25	1	18	0	0	0	0	0	0	0	0
5:00 PM	166	1	99	32	1	31	0	0	2	0	0	0	0	0
6:00 PM	118	0	77	19	2	19	0	0	1	0	0	0	0	0
7:00 PM	53	0	37	11	0	5	0	0	0	0	0	0	0	0
8:00 PM	59	0	45	8	0	6	0	0	0	0	0	0	0	0
9:00 PM	38	0	22	10	0	5	0	0	1	0	0	0	0	0
10:00 PM	16	0	14	0	0	2	0	0	0	0	0	0	0	0
11:00 PM	8	0	7	1	0	0	0	0	0	0	0	0	0	0
Total	1928	4	1211	358	15	318	7	0	15	0	0	0	0	0
%		0.2	62.8	18.6	0.8	16.5	0.4	0.0	0.8	0.0	0.0	0.0	0.0	0.0

Annual Statistics

Data Item	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Statistics type	Estimated	Actual	Estimated	Actual	Estimated	Actual	Estimated	Actual	Estimated	**Estimated**
AADT	8,830	11,300	11,500	11,900	11,900	11,700	12,400	11,500	11,500	**11,600**

GDOT TADA AADT
Historic Count
Count Station 297-0089 SR 11 north of Mountain Creek Church Road

2022	11500	-200	0.01739	-0.870%		
2020	11700	-200	0.01709	-0.855%	-0.431%	0.01724
2018	11900	600	0.05042	2.521%		
2016	11300			1%		0.797%

APPENDIX B

Trip Generation Analysis Reports

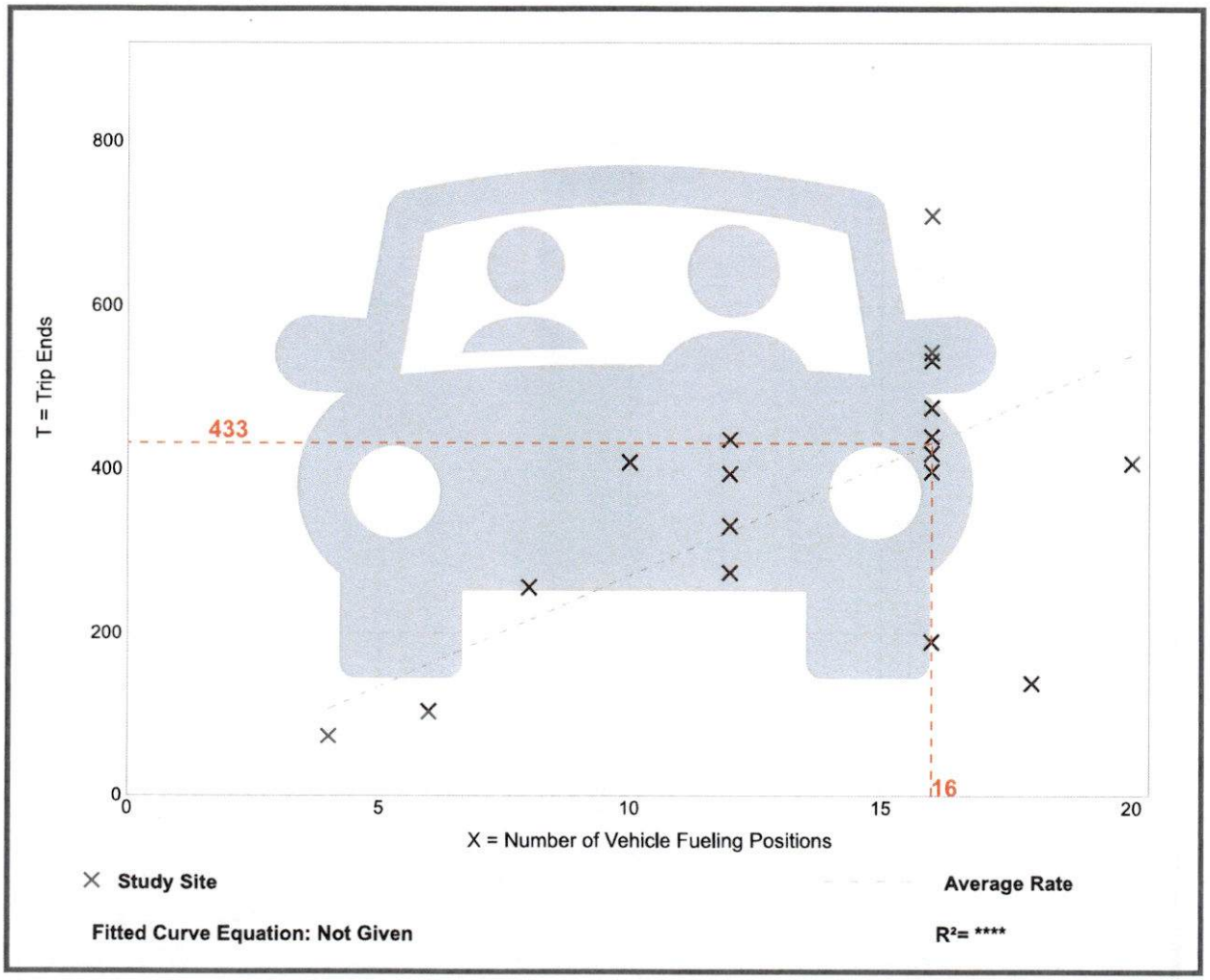
Convenience Store/Gas Station - GFA (4-5.5k)
(945)

Vehicle Trip Ends vs: **Vehicle Fueling Positions**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.
Setting/Location: **General Urban/Suburban**
Number of Studies: 18
Avg. Num. of Vehicle Fueling Positions: 13
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Vehicle Fueling Position

Average Rate	Range of Rates	Standard Deviation
27.04	7.78 - 44.38	9.88

Data Plot and Equation



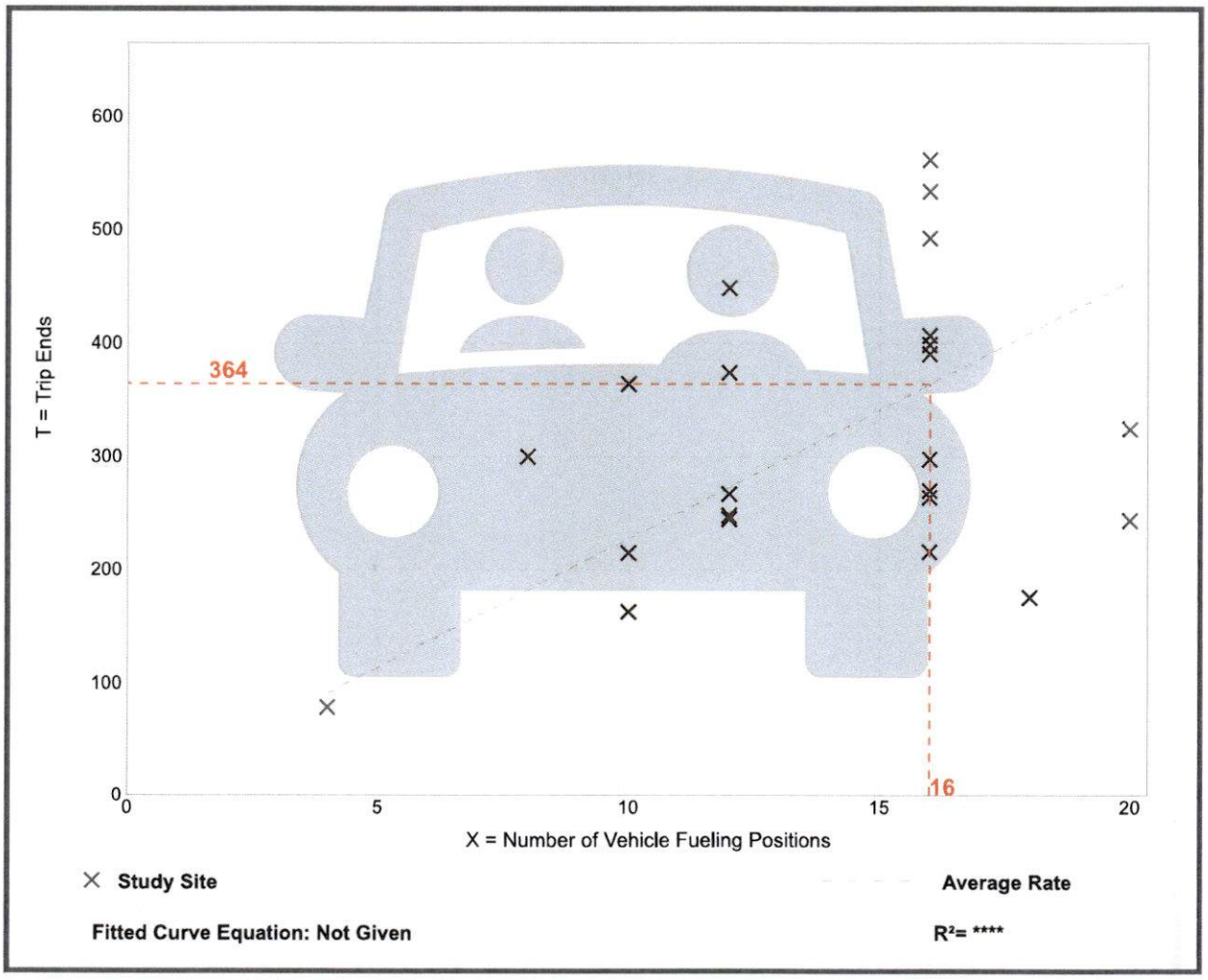
Convenience Store/Gas Station - GFA (4-5.5k)
(945)

Vehicle Trip Ends vs: **Vehicle Fueling Positions**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: **General Urban/Suburban**
Number of Studies: 23
Avg. Num. of Vehicle Fueling Positions: 14
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Vehicle Fueling Position

Average Rate	Range of Rates	Standard Deviation
22.76	9.78 - 37.50	8.49

Data Plot and Equation



Convenience Store/Gas Station - GFA (4-5.5k)
(945)

Vehicle Trip Ends vs: Vehicle Fueling Positions
On a: Weekday

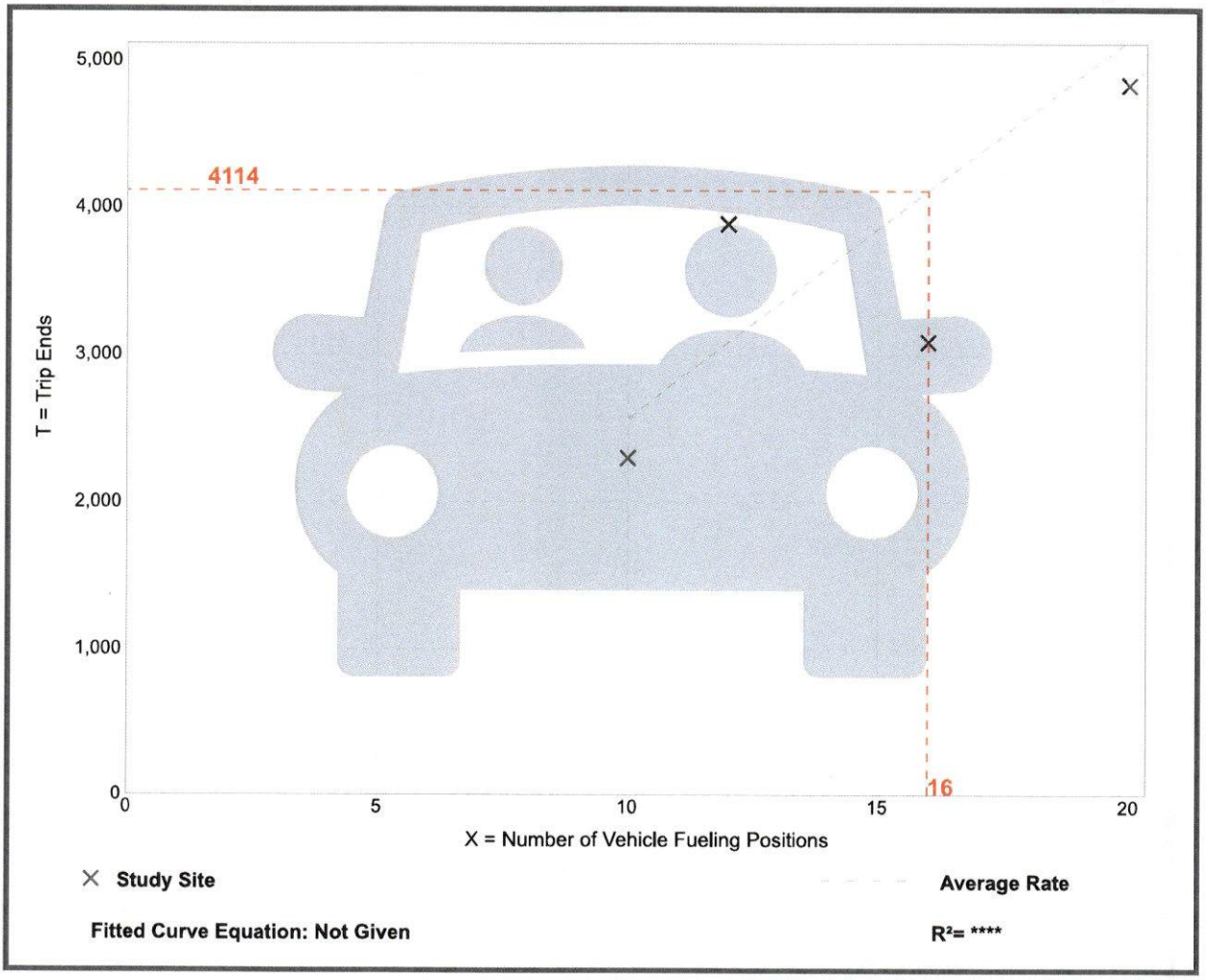
Setting/Location: General Urban/Suburban
Number of Studies: 5
Avg. Num. of Vehicle Fueling Positions: 14
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Vehicle Fueling Position

Average Rate	Range of Rates	Standard Deviation
257.13	193.00 - 324.17	57.53

Data Plot and Equation

Caution – Small Sample Size



Strip Retail Plaza (<40k)
(822)

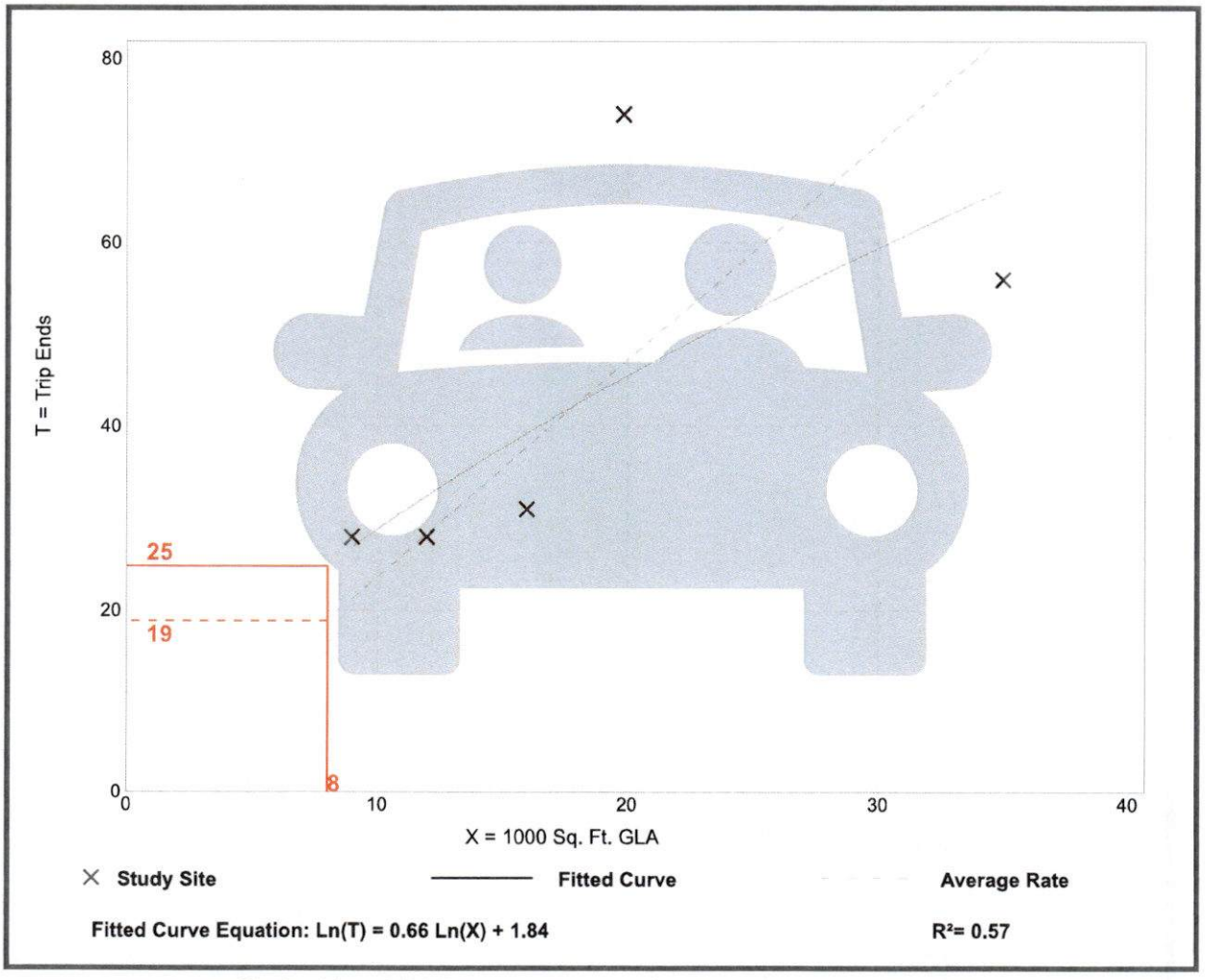
Vehicle Trip Ends vs: **1000 Sq. Ft. GLA**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.
Setting/Location: **General Urban/Suburban**
Number of Studies: 5
Avg. 1000 Sq. Ft. GLA: 18
Directional Distribution: 60% entering, 40% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GLA

Average Rate	Range of Rates	Standard Deviation
2.36	1.60 - 3.73	0.94

Data Plot and Equation

Caution – Small Sample Size



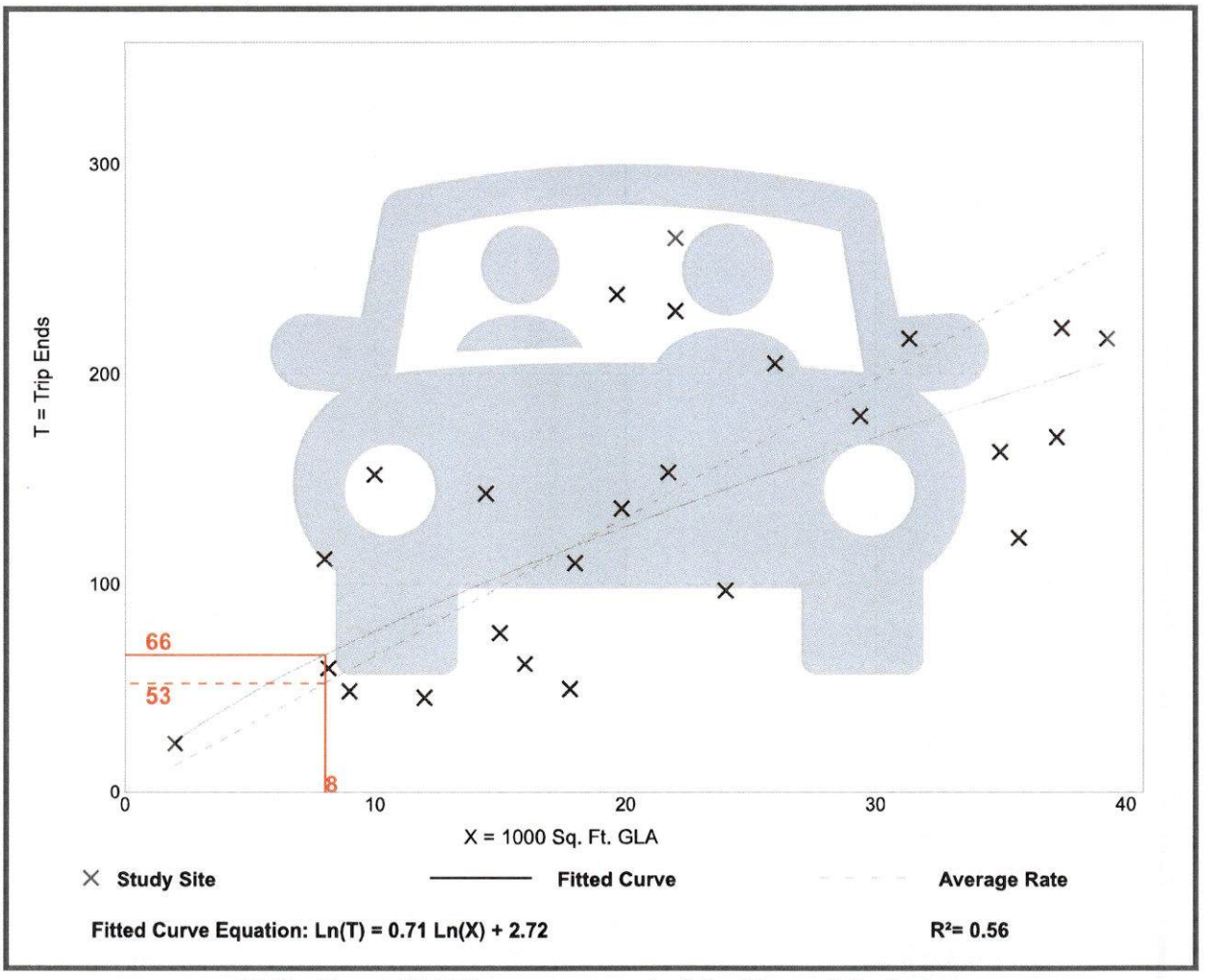
Strip Retail Plaza (<40k)
(822)

Vehicle Trip Ends vs: **1000 Sq. Ft. GLA**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: **General Urban/Suburban**
Number of Studies: 25
Avg. 1000 Sq. Ft. GLA: 21
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GLA

Average Rate	Range of Rates	Standard Deviation
6.59	2.81 - 15.20	2.94

Data Plot and Equation



Strip Retail Plaza (<40k)
(822)

Vehicle Trip Ends vs: **1000 Sq. Ft. GLA**
On a: **Weekday**

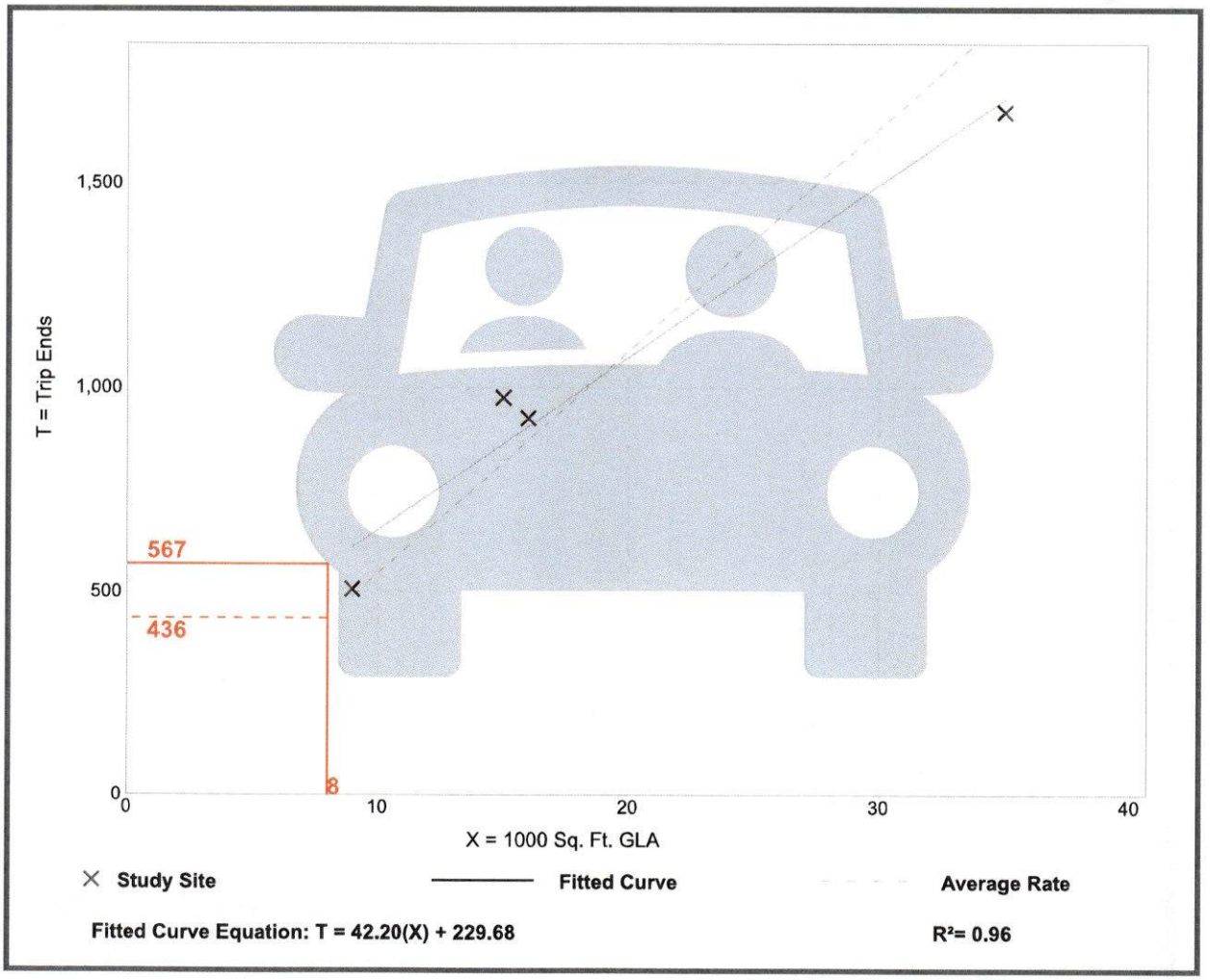
Setting/Location: **General Urban/Suburban**
Number of Studies: 4
Avg. 1000 Sq. Ft. GLA: 19
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GLA

Average Rate	Range of Rates	Standard Deviation
54.45	47.86 - 65.07	7.81

Data Plot and Equation

Caution – Small Sample Size



Fitted Curve Equation: T = 42.20(X) + 229.68

R^2= 0.96

DATA STATISTICS

Land Use:
Golf Driving Range (432) Click for Description and Data Plots

Independent Variable:
Tees/Driving Positions

Time Period:
Weekday
Peak Hour of Adjacent Street Traffic
One Hour Between 7 and 9 a.m.

Setting/Location:
General Urban/Suburban

Trip Type:
Vehicle

Number of Studies:
1

Avg. Num. of Tees/Driving Positions:
57

Average Rate:
0.40

Range of Rates:
0.40 - 0.40

Standard Deviation:
****

Fitted Curve Equation:
Not Given

R^2:
****

Directional Distribution:
61% entering, 39% exiting

Calculated Trip Ends:
Average Rate: 6 (Total), 4 (Entry), 2 (Exit)

DATA STATISTICS

Land Use:
Golf Driving Range (432) Click for Description and Data Plots

Independent Variable:
Tees/Driving Positions

Time Period:
Weekday
Peak Hour of Adjacent Street Traffic
One Hour Between 4 and 6 p.m.

Setting/Location:
General Urban/Suburban

Trip Type:
Vehicle

Number of Studies:
7

Avg. Num. of Tees/Driving Positions:
41

Average Rate:
1.25

Range of Rates:
0.54 - 2.80

Standard Deviation:
0.79

Fitted Curve Equation:
Not Given

R^2:
****

Directional Distribution:
45% entering, 55% exiting

Calculated Trip Ends:
Average Rate: 19 (Total), 8 (Entry), 11 (Exit)

DATA STATISTICS

Land Use:
Golf Driving Range (432) Click for Description and Data Plots

Independent Variable:
Tees/Driving Positions

Time Period:
Weekday

Setting/Location:
General Urban/Suburban

Trip Type:
Vehicle

Number of Studies:
1

Avg. Num. of Tees/Driving Positions:
57

Average Rate:
13.65

Range of Rates:
13.65 - 13.65

Standard Deviation:
****

Fitted Curve Equation:
Not Given

R^2:
****

Directional Distribution:
50% entering, 50% exiting

Calculated Trip Ends:
Average Rate: 205 (Total), 102 (Entry), 103 (Exit)

APPENDIX C

Synchro Capacity Analysis Reports

Existing AM/PM

2027 AM/PM No-Build

2027 AM/PM Build

2029 AM/PM Build

2031 AM/PM Build

Intersection	
Int Delay, s/veh	4.5

Movement	NBT	NBR	SBL	SBT	NWL	NWR
Lane Configurations						
Traffic Vol, veh/h	372	14	110	519	36	164
Future Vol, veh/h	372	14	110	519	36	164
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	95	95	95	95	95	95
Heavy Vehicles, %	34	34	13	13	19	19
Mvmt Flow	392	15	116	546	38	173

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	406	0	1177	399
Stage 1	-	-	-	-	399	-
Stage 2	-	-	-	-	778	-
Critical Hdwy	-	-	4.23	-	6.59	6.39
Critical Hdwy Stg 1	-	-	-	-	5.59	-
Critical Hdwy Stg 2	-	-	-	-	5.59	-
Follow-up Hdwy	-	-	2.317	-	3.671	3.471
Pot Cap-1 Maneuver	-	-	1095	-	195	615
Stage 1	-	-	-	-	642	-
Stage 2	-	-	-	-	424	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1095	-	166	615
Mov Cap-2 Maneuver	-	-	-	-	166	-
Stage 1	-	-	-	-	642	-
Stage 2	-	-	-	-	360	-

Approach	NB	SB	NW
HCM Ctrl Dly, s/v	0	1.52	22.4
HCM LOS			C

Minor Lane/Major Mvmt	NBT	NBR	NWLn1	SBL	SBT
Capacity (veh/h)	-	-	413	315	-
HCM Lane V/C Ratio	-	-	0.509	0.106	-
HCM Ctrl Dly (s/v)	-	-	22.4	8.7	0
HCM Lane LOS	-	-	C	A	A
HCM 95th %tile Q(veh)	-	-	2.8	0.4	-

Intersection	
Int Delay, s/veh	2

Movement	NBL	NBT	SBT	SBR	SEL	SER
Lane Configurations						
Traffic Vol, veh/h	92	444	569	18	17	61
Future Vol, veh/h	92	444	569	18	17	61
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, %	34	34	13	13	2	2
Mvmt Flow	95	458	587	19	18	63

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	605	0	-	0	1243	596
Stage 1	-	-	-	-	596	-
Stage 2	-	-	-	-	647	-
Critical Hdwy	4.44	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.506	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	835	-	-	-	193	504
Stage 1	-	-	-	-	550	-
Stage 2	-	-	-	-	521	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	835	-	-	-	163	504
Mov Cap-2 Maneuver	-	-	-	-	163	-
Stage 1	-	-	-	-	467	-
Stage 2	-	-	-	-	521	-

Approach	NB	SB	SE
HCM Ctrl Dly, s/v	1.69	0	18.52
HCM LOS			C

Minor Lane/Major Mvmt	NBL	NBT	SELn1	SBT	SBR
Capacity (veh/h)	309	-	346	-	-
HCM Lane V/C Ratio	0.114	-	0.232	-	-
HCM Ctrl Dly (s/v)	9.9	0	18.5	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0.4	-	0.9	-	-

Intersection	
Int Delay, s/veh	5.7

Movement	NBT	NBR	SBL	SBT	NWL	NWR
Lane Configurations						
Traffic Vol, veh/h	553	46	170	546	22	157
Future Vol, veh/h	553	46	170	546	22	157
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	34	34	13	13	19	19
Mvmt Flow	588	49	181	581	23	167

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	637	0	1555	613
Stage 1	-	-	-	-	613	-
Stage 2	-	-	-	-	943	-
Critical Hdwy	-	-	4.23	-	6.59	6.39
Critical Hdwy Stg 1	-	-	-	-	5.59	-
Critical Hdwy Stg 2	-	-	-	-	5.59	-
Follow-up Hdwy	-	-	2.317	-	3.671	3.471
Pot Cap-1 Maneuver	-	-	896	-	113	463
Stage 1	-	-	-	-	509	-
Stage 2	-	-	-	-	353	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	896	-	80	463
Mov Cap-2 Maneuver	-	-	-	-	80	-
Stage 1	-	-	-	-	509	-
Stage 2	-	-	-	-	248	-

Approach	NB	SB	NW
HCM Ctrl Dly, s/v	0	2.38	38.09
HCM LOS			E

Minor Lane/Major Mvmt	NBT	NBR	NWLn1	SBL	SBT
Capacity (veh/h)	-	-	291	427	-
HCM Lane V/C Ratio	-	-	0.655	0.202	-
HCM Ctrl Dly (s/v)	-	-	38.1	10	0
HCM Lane LOS	-	-	E	B	A
HCM 95th %tile Q(veh)	-	-	4.2	0.8	-

Intersection	
Int Delay, s/veh	3.5

Movement	NBL	NBT	SBT	SBR	SEL	SER
Lane Configurations		↑	↑		↱	
Traffic Vol, veh/h	93	625	633	30	31	94
Future Vol, veh/h	93	625	633	30	31	94
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	96	96	96	96	96	96
Heavy Vehicles, %	34	34	13	13	2	2
Mvmt Flow	97	651	659	31	32	98

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	691	0	-	0	1520	675
Stage 1	-	-	-	-	675	-
Stage 2	-	-	-	-	845	-
Critical Hdwy	4.44	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.506	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	772	-	-	-	131	454
Stage 1	-	-	-	-	506	-
Stage 2	-	-	-	-	421	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	772	-	-	-	105	454
Mov Cap-2 Maneuver	-	-	-	-	105	-
Stage 1	-	-	-	-	406	-
Stage 2	-	-	-	-	421	-

Approach	NB	SB	SE
HCM Ctrl Dly, s/v	1.34	0	34.31
HCM LOS			D

Minor Lane/Major Mvmt	NBL	NBT	SELn1	SBT	SBR
Capacity (veh/h)	233	-	249	-	-
HCM Lane V/C Ratio	0.125	-	0.523	-	-
HCM Ctrl Dly (s/v)	10.3	0	34.3	-	-
HCM Lane LOS	B	A	D	-	-
HCM 95th %tile Q(veh)	0.4	-	2.8	-	-

Intersection	
Int Delay, s/veh	4.7

Movement	NBT	NBR	SBL	SBT	NWL	NWR
Lane Configurations						
Traffic Vol, veh/h	379	14	112	529	37	167
Future Vol, veh/h	379	14	112	529	37	167
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	95	95	95	95	95	95
Heavy Vehicles, %	34	34	13	13	19	19
Mvmt Flow	399	15	118	557	39	176

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	414	0	1199	406
Stage 1	-	-	-	-	406	-
Stage 2	-	-	-	-	793	-
Critical Hdwy	-	-	4.23	-	6.59	6.39
Critical Hdwy Stg 1	-	-	-	-	5.59	-
Critical Hdwy Stg 2	-	-	-	-	5.59	-
Follow-up Hdwy	-	-	2.317	-	3.671	3.471
Pot Cap-1 Maneuver	-	-	1088	-	189	609
Stage 1	-	-	-	-	637	-
Stage 2	-	-	-	-	418	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1088	-	160	609
Mov Cap-2 Maneuver	-	-	-	-	160	-
Stage 1	-	-	-	-	637	-
Stage 2	-	-	-	-	352	-

Approach	NB	SB	NW
HCM Ctrl Dly, s/v	0	1.52	23.65
HCM LOS			C

Minor Lane/Major Mvmt	NBT	NBR	NWLn1	SBL	SBT
Capacity (veh/h)	-	-	403	315	-
HCM Lane V/C Ratio	-	-	0.532	0.108	-
HCM Ctrl Dly (s/v)	-	-	23.6	8.7	0
HCM Lane LOS	-	-	C	A	A
HCM 95th %tile Q(veh)	-	-	3	0.4	-

Intersection	
Int Delay, s/veh	2

Movement	NBL	NBT	SBT	SBR	SEL	SER
Lane Configurations		↰	↱		⋎	
Traffic Vol, veh/h	94	453	580	18	17	62
Future Vol, veh/h	94	453	580	18	17	62
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, %	34	34	13	13	2	2
Mvmt Flow	97	467	598	19	18	64

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	616	0	-	0	1268	607
Stage 1	-	-	-	-	607	-
Stage 2	-	-	-	-	661	-
Critical Hdwy	4.44	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.506	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	826	-	-	-	186	496
Stage 1	-	-	-	-	544	-
Stage 2	-	-	-	-	514	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	826	-	-	-	157	496
Mov Cap-2 Maneuver	-	-	-	-	157	-
Stage 1	-	-	-	-	458	-
Stage 2	-	-	-	-	514	-

Approach	NB	SB	SE
HCM Ctrl Dly, s/v	1.71	0	18.98
HCM LOS			C

Minor Lane/Major Mvmt	NBL	NBT	SELn1	SBT	SBR
Capacity (veh/h)	309	-	338	-	-
HCM Lane V/C Ratio	0.117	-	0.241	-	-
HCM Ctrl Dly (s/v)	9.9	0	19	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0.4	-	0.9	-	-

Intersection	
Int Delay, s/veh	6.1

Movement	NBT	NBR	SBL	SBT	NWL	NWR
Lane Configurations						
Traffic Vol, veh/h	564	47	173	557	22	160
Future Vol, veh/h	564	47	173	557	22	160
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	34	34	13	13	19	19
Mvmt Flow	600	50	184	593	23	170

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	650	0	1586	625
Stage 1	-	-	-	-	625	-
Stage 2	-	-	-	-	961	-
Critical Hdwy	-	-	4.23	-	6.59	6.39
Critical Hdwy Stg 1	-	-	-	-	5.59	-
Critical Hdwy Stg 2	-	-	-	-	5.59	-
Follow-up Hdwy	-	-	2.317	-	3.671	3.471
Pot Cap-1 Maneuver	-	-	886	-	109	455
Stage 1	-	-	-	-	502	-
Stage 2	-	-	-	-	346	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	886	-	75	455
Mov Cap-2 Maneuver	-	-	-	-	75	-
Stage 1	-	-	-	-	502	-
Stage 2	-	-	-	-	239	-

Approach	NB	SB	NW
HCM Ctrl Dly, s/v	0	2.4	41.61
HCM LOS			E

Minor Lane/Major Mvmt	NBT	NBR	NWLn1	SBL	SBT
Capacity (veh/h)	-	-	282	427	-
HCM Lane V/C Ratio	-	-	0.686	0.208	-
HCM Ctrl Dly (s/v)	-	-	41.6	10.1	0
HCM Lane LOS	-	-	E	B	A
HCM 95th %tile Q(veh)	-	-	4.6	0.8	-

Intersection	
Int Delay, s/veh	3.8

Movement	NBL	NBT	SBT	SBR	SEL	SER
Lane Configurations						
Traffic Vol, veh/h	95	638	646	31	32	96
Future Vol, veh/h	95	638	646	31	32	96
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	34	34	13	13	2	2
Mvmt Flow	99	665	673	32	33	100

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	705	0	-	0	1552	689
Stage 1	-	-	-	-	689	-
Stage 2	-	-	-	-	863	-
Critical Hdwy	4.44	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.506	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	762	-	-	-	125	446
Stage 1	-	-	-	-	498	-
Stage 2	-	-	-	-	413	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	762	-	-	-	99	446
Mov Cap-2 Maneuver	-	-	-	-	99	-
Stage 1	-	-	-	-	396	-
Stage 2	-	-	-	-	413	-

Approach	NB	SB	SE
HCM Ctrl Dly, s/v	1.35	0	37.83
HCM LOS			E

Minor Lane/Major Mvmt	NBL	NBT	SELn1	SBT	SBR
Capacity (veh/h)	233	-	238	-	-
HCM Lane V/C Ratio	0.13	-	0.56	-	-
HCM Ctrl Dly (s/v)	10.4	0	37.8	-	-
HCM Lane LOS	B	A	E	-	-
HCM 95th %tile Q(veh)	0.4	-	3.1	-	-

Intersection	
Int Delay, s/veh	107.4

Movement	NBT	NBR	SBL	SBT	NWL	NWR
Lane Configurations						
Traffic Vol, veh/h	379	14	231	529	113	287
Future Vol, veh/h	379	14	231	529	113	287
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	Yield	-	None	-	None
Storage Length	-	0	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	34	34	13	13	19	19
Mvmt Flow	399	15	243	557	119	302

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	399	0	1442	399
Stage 1	-	-	-	-	399	-
Stage 2	-	-	-	-	1043	-
Critical Hdwy	-	-	4.23	-	6.59	6.39
Critical Hdwy Stg 1	-	-	-	-	5.59	-
Critical Hdwy Stg 2	-	-	-	-	5.59	-
Follow-up Hdwy	-	-	2.317	-	3.671	3.471
Pot Cap-1 Maneuver	-	-	1102	-	134	615
Stage 1	-	-	-	-	642	-
Stage 2	-	-	-	-	315	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1102	-	~ 91	615
Mov Cap-2 Maneuver	-	-	-	-	~ 91	-
Stage 1	-	-	-	-	642	-
Stage 2	-	-	-	-	215	-

Approach	NB	SB	NW
HCM Ctrl Dly, s/v	0	2.79	$ 411.58
HCM LOS			F

Minor Lane/Major Mvmt	NBT	NBR	NWLn1	SBL	SBT
Capacity (veh/h)	-	-	234	547	-
HCM Lane V/C Ratio	-	-	1.799	0.221	-
HCM Ctrl Dly (s/v)	-	-	$ 411.6	9.2	0
HCM Lane LOS	-	-	F	A	A
HCM 95th %tile Q(veh)	-	-	28.8	0.8	-

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

Intersection	
Int Delay, s/veh	2.3

Movement	NBL	NBT	SBT	SBR	SEL	SER
Lane Configurations						
Traffic Vol, veh/h	105	561	688	18	17	73
Future Vol, veh/h	105	561	688	18	17	73
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, %	34	34	13	13	2	2
Mvmt Flow	108	578	709	19	18	75

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	728	0	-	0	1513	719
Stage 1	-	-	-	-	719	-
Stage 2	-	-	-	-	795	-
Critical Hdwy	4.44	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.506	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	746	-	-	-	132	429
Stage 1	-	-	-	-	483	-
Stage 2	-	-	-	-	445	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	746	-	-	-	104	429
Mov Cap-2 Maneuver	-	-	-	-	104	-
Stage 1	-	-	-	-	380	-
Stage 2	-	-	-	-	445	-

Approach	NB	SB	SE
HCM Ctrl Dly, s/v	1.68	0	25.24
HCM LOS			D

Minor Lane/Major Mvmt	NBL	NBT	SELn1	SBT	SBR
Capacity (veh/h)	284	-	269	-	-
HCM Lane V/C Ratio	0.145	-	0.345	-	-
HCM Ctrl Dly (s/v)	10.6	0	25.2	-	-
HCM Lane LOS	B	A	D	-	-
HCM 95th %tile Q(veh)	0.5	-	1.5	-	-

Intersection	
Int Delay, s/veh	4.9

Movement	NBL	NBT	SBT	SBR	NEL	NER
Lane Configurations						
Traffic Vol, veh/h	22	204	126	119	195	22
Future Vol, veh/h	22	204	126	119	195	22
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	115	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	19	19	12	12	2	2
Mvmt Flow	24	222	137	129	212	24

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	266	0	-	0	407	137
Stage 1	-	-	-	-	137	-
Stage 2	-	-	-	-	270	-
Critical Hdwy	4.29	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.371	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1205	-	-	-	601	912
Stage 1	-	-	-	-	890	-
Stage 2	-	-	-	-	776	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1205	-	-	-	587	912
Mov Cap-2 Maneuver	-	-	-	-	587	-
Stage 1	-	-	-	-	869	-
Stage 2	-	-	-	-	776	-

Approach	NB	SB	NE
HCM Ctrl Dly, s/v	0.78	0	14.6
HCM LOS			B

Minor Lane/Major Mvmt	NELn1	NBL	NBT	SBT	SBR
Capacity (veh/h)	609	175	-	-	-
HCM Lane V/C Ratio	0.387	0.02	-	-	-
HCM Ctrl Dly (s/v)	14.6	8	0	-	-
HCM Lane LOS	B	A	A	-	-
HCM 95th %tile Q(veh)	1.8	0.1	-	-	-

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	0	0	394	76	0	529
Future Volume (Veh/h)	0	0	394	76	0	529
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	428	83	0	575
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1003	428			511	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1003	428			511	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	100			100	
cM capacity (veh/h)	268	627			1065	

Direction, Lane #	NB 1	NB 2	SB 1
Volume Total	428	83	575
Volume Left	0	0	0
Volume Right	0	83	0
cSH	1700	1700	1700
Volume to Capacity	0.25	0.05	0.34
Queue Length 95th (ft)	0	0	0
Control Delay (s/veh)	0.0	0.0	0.0
Lane LOS			
Approach Delay (s/veh)	0.0		0.0
Approach LOS			

Intersection Summary			
Average Delay		0.0	
Intersection Capacity Utilization		31.2%	ICU Level of Service
Analysis Period (min)		15	
Description: Drwy A2			

Intersection	
Int Delay, s/veh	162

Movement	NBT	NBR	SBL	SBT	NWL	NWR
Lane Configurations	↑	↱		↰	⋎	
Traffic Vol, veh/h	564	47	274	557	86	260
Future Vol, veh/h	564	47	274	557	86	260
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	Yield	-	None	-	None
Storage Length	-	0	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	34	34	13	13	19	19
Mvmt Flow	600	50	291	593	91	277

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	600	0	1776	600
Stage 1	-	-	-	-	600	-
Stage 2	-	-	-	-	1176	-
Critical Hdwy	-	-	4.23	-	6.59	6.39
Critical Hdwy Stg 1	-	-	-	-	5.59	-
Critical Hdwy Stg 2	-	-	-	-	5.59	-
Follow-up Hdwy	-	-	2.317	-	3.671	3.471
Pot Cap-1 Maneuver	-	-	925	-	~ 82	471
Stage 1	-	-	-	-	516	-
Stage 2	-	-	-	-	271	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	925	-	~ 44	471
Mov Cap-2 Maneuver	-	-	-	-	~ 44	-
Stage 1	-	-	-	-	516	-
Stage 2	-	-	-	-	144	-

Approach	NB	SB	NW
HCM Ctrl Dly, s/v	0	3.52	$ 828.47
HCM LOS			F

Minor Lane/Major Mvmt	NBT	NBR	NWLn1	SBL	SBT
Capacity (veh/h)	-	-	137	594	-
HCM Lane V/C Ratio	-	-	2.683	0.315	-
HCM Ctrl Dly (s/v)	-	-	$ 828.5	10.7	0
HCM Lane LOS	-	-	F	B	A
HCM 95th %tile Q(veh)	-	-	33	1.4	-

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

Intersection	
Int Delay, s/veh	6.1

Movement	NBL	NBT	SBT	SBR	SEL	SER
Lane Configurations						
Traffic Vol, veh/h	104	729	737	31	32	105
Future Vol, veh/h	104	729	737	31	32	105
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	96	96	96	96	96	96
Heavy Vehicles, %	34	34	13	13	2	2
Mvmt Flow	108	759	768	32	33	109

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	800	0	-	0	1760	784
Stage 1	-	-	-	-	784	-
Stage 2	-	-	-	-	976	-
Critical Hdwy	4.44	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.506	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	698	-	-	-	93	393
Stage 1	-	-	-	-	450	-
Stage 2	-	-	-	-	365	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	698	-	-	-	68	393
Mov Cap-2 Maneuver	-	-	-	-	68	-
Stage 1	-	-	-	-	329	-
Stage 2	-	-	-	-	365	-

Approach	NB	SB	SE
HCM Ctrl Dly, s/v	1.39	0	69.29
HCM LOS			F

Minor Lane/Major Mvmt	NBL	NBT	SELn1	SBT	SBR
Capacity (veh/h)	225	-	186	-	-
HCM Lane V/C Ratio	0.155	-	0.768	-	-
HCM Ctrl Dly (s/v)	11.1	0	69.3	-	-
HCM Lane LOS	B	A	F	-	-
HCM 95th %tile Q(veh)	0.5	-	5.1	-	-

Intersection	
Int Delay, s/veh	4.1

Movement	NBL	NBT	SBT	SBR	NEL	NER
Lane Configurations						
Traffic Vol, veh/h	18	183	220	100	164	18
Future Vol, veh/h	18	183	220	100	164	18
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	115	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	19	19	12	12	2	2
Mvmt Flow	20	199	239	109	178	20

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	348	0	-	0	477	239
Stage 1	-	-	-	-	239	-
Stage 2	-	-	-	-	238	-
Critical Hdwy	4.29	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.371	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1122	-	-	-	547	800
Stage 1	-	-	-	-	801	-
Stage 2	-	-	-	-	801	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1122	-	-	-	536	800
Mov Cap-2 Maneuver	-	-	-	-	536	-
Stage 1	-	-	-	-	785	-
Stage 2	-	-	-	-	801	-

Approach	NB	SB	NE
HCM Ctrl Dly, s/v	0.74	0	15.06
HCM LOS			C

Minor Lane/Major Mvmt	NELn1	NBL	NBT	SBT	SBR
Capacity (veh/h)	554	161	-	-	-
HCM Lane V/C Ratio	0.357	0.017	-	-	-
HCM Ctrl Dly (s/v)	15.1	8.3	0	-	-
HCM Lane LOS	C	A	A	-	-
HCM 95th %tile Q(veh)	1.6	0.1	-	-	-

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	0	0	611	76	0	557
Future Volume (Veh/h)	0	0	611	76	0	557
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	664	83	0	605
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1269	664			747	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1269	664			747	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	100			100	
cM capacity (veh/h)	186	461			870	

Direction, Lane #	NB 1	NB 2	SB 1
Volume Total	664	83	605
Volume Left	0	0	0
Volume Right	0	83	0
cSH	1700	1700	1700
Volume to Capacity	0.39	0.05	0.36
Queue Length 95th (ft)	0	0	0
Control Delay (s/veh)	0.0	0.0	0.0
Lane LOS			
Approach Delay (s/veh)	0.0		0.0
Approach LOS			

Intersection Summary			
Average Delay		0.0	
Intersection Capacity Utilization		35.5%	ICU Level of Service A
Analysis Period (min)		15	
Description: Drwy A2			

Intersection	
Int Delay, s/veh	2.5

Movement	NBL	NBT	SBT	SBR	SEL	SER
Lane Configurations						
Traffic Vol, veh/h	107	577	708	19	18	75
Future Vol, veh/h	107	577	708	19	18	75
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, %	34	34	13	13	2	2
Mvmt Flow	110	595	730	20	19	77

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	749	0	-	0	1555	740
Stage 1	-	-	-	-	740	-
Stage 2	-	-	-	-	815	-
Critical Hdwy	4.44	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.506	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	732	-	-	-	124	417
Stage 1	-	-	-	-	472	-
Stage 2	-	-	-	-	435	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	732	-	-	-	96	417
Mov Cap-2 Maneuver	-	-	-	-	96	-
Stage 1	-	-	-	-	366	-
Stage 2	-	-	-	-	435	-

Approach	NB	SB	SE
HCM Ctrl Dly, s/v	1.69	0	27.58
HCM LOS			D

Minor Lane/Major Mvmt	NBL	NBT	SELn1	SBT	SBR
Capacity (veh/h)	282	-	254	-	-
HCM Lane V/C Ratio	0.151	-	0.378	-	-
HCM Ctrl Dly (s/v)	10.8	0	27.6	-	-
HCM Lane LOS	B	A	D	-	-
HCM 95th %tile Q(veh)	0.5	-	1.7	-	-

Intersection	
Int Delay, s/veh	0

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	4	402	4	0	540
Future Vol, veh/h	0	4	402	4	0	540
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	Free	-	None
Storage Length	-	0	-	175	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	34	34	0	13
Mvmt Flow	0	4	437	4	0	587

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	437	0	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.22	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.318	-	-	-	-
Pot Cap-1 Maneuver	0	620	-	0	0	-
Stage 1	0	-	-	0	0	-
Stage 2	0	-	-	0	0	-
Platoon blocked, %			-			-
Mov Cap-1 Maneuver	-	620	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	10.85	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	WBLn1	SBT
Capacity (veh/h)	-	620	-
HCM Lane V/C Ratio	-	0.007	-
HCM Ctrl Dly (s/v)	-	10.9	-
HCM Lane LOS	-	B	-
HCM 95th %tile Q(veh)	-	0	-

Intersection	
Int Delay, s/veh	5

Movement	NBL	NBT	SBT	SBR	NEL	NER
Lane Configurations						
Traffic Vol, veh/h	23	208	129	127	202	23
Future Vol, veh/h	23	208	129	127	202	23
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	115	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	19	19	12	12	2	2
Mvmt Flow	25	226	140	138	220	25

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	278	0	-	0	416	140
Stage 1	-	-	-	-	140	-
Stage 2	-	-	-	-	276	-
Critical Hdwy	4.29	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.371	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1193	-	-	-	593	908
Stage 1	-	-	-	-	887	-
Stage 2	-	-	-	-	770	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1193	-	-	-	579	908
Mov Cap-2 Maneuver	-	-	-	-	579	-
Stage 1	-	-	-	-	865	-
Stage 2	-	-	-	-	770	-

Approach	NB	SB	NE
HCM Ctrl Dly, s/v	0.8	0	15.04
HCM LOS			C

Minor Lane/Major Mvmt	NELn1	NBL	NBT	SBT	SBR
Capacity (veh/h)	601	179	-	-	-
HCM Lane V/C Ratio	0.407	0.021	-	-	-
HCM Ctrl Dly (s/v)	15	8.1	0	-	-
HCM Lane LOS	C	A	A	-	-
HCM 95th %tile Q(veh)	2	0.1	-	-	-

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	0	0	402	77	0	540
Future Volume (Veh/h)	0	0	402	77	0	540
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	437	84	0	587
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1024	437			521	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1024	437			521	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	100			100	
cM capacity (veh/h)	261	620			1056	

Direction, Lane #	NB 1	NB 2	SB 1
Volume Total	437	84	587
Volume Left	0	0	0
Volume Right	0	84	0
cSH	1700	1700	1700
Volume to Capacity	0.26	0.05	0.35
Queue Length 95th (ft)	0	0	0
Control Delay (s/veh)	0.0	0.0	0.0
Lane LOS			
Approach Delay (s/veh)	0.0		0.0
Approach LOS			

Intersection Summary			
Average Delay		0.0	
Intersection Capacity Utilization		31.8%	ICU Level of Service A
Analysis Period (min)		15	

Intersection	
Int Delay, s/veh	185.3

Movement	NBT	NBR	SBL	SBT	NWL	NWR
Lane Configurations	↑	↱		↰	Y	
Traffic Vol, veh/h	575	48	279	568	88	265
Future Vol, veh/h	575	48	279	568	88	265
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	Yield	-	None	-	None
Storage Length	-	0	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	34	34	13	13	19	19
Mvmt Flow	612	51	297	604	94	282

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	612	0	1810	612
Stage 1	-	-	-	-	612	-
Stage 2	-	-	-	-	1198	-
Critical Hdwy	-	-	4.23	-	6.59	6.39
Critical Hdwy Stg 1	-	-	-	-	5.59	-
Critical Hdwy Stg 2	-	-	-	-	5.59	-
Follow-up Hdwy	-	-	2.317	-	3.671	3.471
Pot Cap-1 Maneuver	-	-	916	-	~ 78	464
Stage 1	-	-	-	-	510	-
Stage 2	-	-	-	-	264	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	916	-	~ 40	464
Mov Cap-2 Maneuver	-	-	-	-	~ 40	-
Stage 1	-	-	-	-	510	-
Stage 2	-	-	-	-	135	-

Approach	NB	SB	NW
HCM Ctrl Dly, s/v	0	3.56	$ 948.31
HCM LOS			F

Minor Lane/Major Mvmt	NBT	NBR	NWLn1	SBL	SBT
Capacity (veh/h)	-	-	128	593	-
HCM Lane V/C Ratio	-	-	2.943	0.324	-
HCM Ctrl Dly (s/v)	-	-	$ 948.3	10.8	0
HCM Lane LOS	-	-	F	B	A
HCM 95th %tile Q(veh)	-	-	35	1.4	-

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

Intersection	
Int Delay, s/veh	7.6

Movement	NBL	NBT	SBT	SBR	SEL	SER
Lane Configurations						
Traffic Vol, veh/h	107	756	765	31	32	108
Future Vol, veh/h	107	756	765	31	32	108
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	96	96	96	96	96	96
Heavy Vehicles, %	34	34	13	13	2	2
Mvmt Flow	111	788	797	32	33	113

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	829	0	-	0	1823	813
Stage 1	-	-	-	-	813	-
Stage 2	-	-	-	-	1010	-
Critical Hdwy	4.44	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.506	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	680	-	-	-	85	378
Stage 1	-	-	-	-	436	-
Stage 2	-	-	-	-	352	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	680	-	-	-	60	378
Mov Cap-2 Maneuver	-	-	-	-	60	-
Stage 1	-	-	-	-	309	-
Stage 2	-	-	-	-	352	-

Approach	NB	SB	SE
HCM Ctrl Dly, s/v	1.4	0	88.41
HCM LOS			F

Minor Lane/Major Mvmt	NBL	NBT	SELn1	SBT	SBR
Capacity (veh/h)	223	-	171	-	-
HCM Lane V/C Ratio	0.164	-	0.852	-	-
HCM Ctrl Dly (s/v)	11.3	0	88.4	-	-
HCM Lane LOS	B	A	F	-	-
HCM 95th %tile Q(veh)	0.6	-	6	-	-

Intersection	
Int Delay, s/veh	4.4

Movement	NBL	NBT	SBT	SBR	NEL	NER
Lane Configurations						
Traffic Vol, veh/h	21	186	225	117	176	21
Future Vol, veh/h	21	186	225	117	176	21
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	115	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	19	19	12	12	2	2
Mvmt Flow	23	202	245	127	191	23

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	372	0	-	0	492	245
Stage 1	-	-	-	-	245	-
Stage 2	-	-	-	-	248	-
Critical Hdwy	4.29	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.371	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1099	-	-	-	536	794
Stage 1	-	-	-	-	796	-
Stage 2	-	-	-	-	793	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1099	-	-	-	523	794
Mov Cap-2 Maneuver	-	-	-	-	523	-
Stage 1	-	-	-	-	777	-
Stage 2	-	-	-	-	793	-

Approach	NB	SB	NE
HCM Ctrl Dly, s/v	0.85	0	15.88
HCM LOS			C

Minor Lane/Major Mvmt	NELn1	NBL	NBT	SBT	SBR
Capacity (veh/h)	543	183	-	-	-
HCM Lane V/C Ratio	0.394	0.021	-	-	-
HCM Ctrl Dly (s/v)	15.9	8.3	0	-	-
HCM Lane LOS	C	A	A	-	-
HCM 95th %tile Q(veh)	1.9	0.1	-	-	-

Intersection	
Int Delay, s/veh	0.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	14	623	9	0	568
Future Vol, veh/h	0	14	623	9	0	568
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	Free	-	None
Storage Length	-	0	-	175	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	34	34	0	13
Mvmt Flow	0	15	677	10	0	617

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	677	0	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.22	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.318	-	-	-	-
Pot Cap-1 Maneuver	0	453	-	0	0	-
Stage 1	0	-	-	0	0	-
Stage 2	0	-	-	0	0	-
Platoon blocked, %			-			-
Mov Cap-1 Maneuver	-	453	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	13.23	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	WBLn1	SBT
Capacity (veh/h)	-	453	-
HCM Lane V/C Ratio	-	0.034	-
HCM Ctrl Dly (s/v)	-	13.2	-
HCM Lane LOS	-	B	-
HCM 95th %tile Q(veh)	-	0.1	-

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	0	0	623	77	0	568
Future Volume (Veh/h)	0	0	623	77	0	568
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	677	84	0	617
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1294	677			761	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1294	677			761	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	100			100	
cM capacity (veh/h)	179	453			860	

Direction, Lane #	NB 1	NB 2	SB 1
Volume Total	677	84	617
Volume Left	0	0	0
Volume Right	0	84	0
cSH	1700	1700	1700
Volume to Capacity	0.40	0.05	0.36
Queue Length 95th (ft)	0	0	0
Control Delay (s/veh)	0.0	0.0	0.0
Lane LOS			
Approach Delay (s/veh)	0.0		0.0
Approach LOS			

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	36.1%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	149.6

Movement	NBT	NBR	SBL	SBT	NWL	NWR
Lane Configurations	↑	↱		↰	↰↑	
Traffic Vol, veh/h	395	16	249	551	120	298
Future Vol, veh/h	395	16	249	551	120	298
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	Yield	-	None	-	None
Storage Length	-	0	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	34	34	13	13	19	19
Mvmt Flow	416	17	262	580	126	314

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	416	0	1520	416
Stage 1	-	-	-	-	416	-
Stage 2	-	-	-	-	1104	-
Critical Hdwy	-	-	4.23	-	6.59	6.39
Critical Hdwy Stg 1	-	-	-	-	5.59	-
Critical Hdwy Stg 2	-	-	-	-	5.59	-
Follow-up Hdwy	-	-	2.317	-	3.671	3.471
Pot Cap-1 Maneuver	-	-	1086	-	~ 119	602
Stage 1	-	-	-	-	631	-
Stage 2	-	-	-	-	294	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1086	-	~ 77	602
Mov Cap-2 Maneuver	-	-	-	-	~ 77	-
Stage 1	-	-	-	-	631	-
Stage 2	-	-	-	-	189	-

Approach	NB	SB	NW
HCM Ctrl Dly, s/v	0	2.91	$ 577.39
HCM LOS			F

Minor Lane/Major Mvmt	NBT	NBR	NWLn1	SBL	SBT
Capacity (veh/h)	-	-	203	560	-
HCM Lane V/C Ratio	-	-	2.164	0.241	-
HCM Ctrl Dly (s/v)	-	-	$ 577.4	9.4	0
HCM Lane LOS	-	-	F	A	A
HCM 95th %tile Q(veh)	-	-	34.4	0.9	-

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

Intersection	
Int Delay, s/veh	0.1

Movement	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Traffic Vol, veh/h	132	4	0	212	2	0
Future Vol, veh/h	132	4	0	212	2	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	Yield	-	None	-	None
Storage Length	-	122	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	12	12	19	19	2	2
Mvmt Flow	143	4	0	230	2	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	143	0	374	143
Stage 1	-	-	-	-	143	-
Stage 2	-	-	-	-	230	-
Critical Hdwy	-	-	4.29	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.371	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1341	-	627	904
Stage 1	-	-	-	-	884	-
Stage 2	-	-	-	-	808	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1341	-	627	904
Mov Cap-2 Maneuver	-	-	-	-	627	-
Stage 1	-	-	-	-	884	-
Stage 2	-	-	-	-	808	-

Approach	SE	NW	NE
HCM Ctrl Dly, s/v	0	0	10.76
HCM LOS			B

Minor Lane/Major Mvmt	NELn1	NWL	NWT	SET	SER
Capacity (veh/h)	627	1341	-	-	-
HCM Lane V/C Ratio	0.003	-	-	-	-
HCM Ctrl Dly (s/v)	10.8	0	-	-	-
HCM Lane LOS	B	A	-	-	-
HCM 95th %tile Q(veh)	0	0	-	-	-

Intersection	
Int Delay, s/veh	2.6

Movement	NBL	NBT	SBT	SBR	SEL	SER
Lane Configurations						
Traffic Vol, veh/h	109	589	724	19	18	77
Future Vol, veh/h	109	589	724	19	18	77
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	34	34	13	13	2	2
Mvmt Flow	112	607	746	20	19	79

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	766	0	-	0	1588	756
Stage 1	-	-	-	-	756	-
Stage 2	-	-	-	-	832	-
Critical Hdwy	4.44	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.506	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	721	-	-	-	119	408
Stage 1	-	-	-	-	464	-
Stage 2	-	-	-	-	427	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	721	-	-	-	91	408
Mov Cap-2 Maneuver	-	-	-	-	91	-
Stage 1	-	-	-	-	355	-
Stage 2	-	-	-	-	427	-

Approach	NB	SB	SE
HCM Ctrl Dly, s/v	1.7	0	29.09
HCM LOS			D

Minor Lane/Major Mvmt	NBL	NBT	SELn1	SBT	SBR
Capacity (veh/h)	281	-	245	-	-
HCM Lane V/C Ratio	0.156	-	0.399	-	-
HCM Ctrl Dly (s/v)	10.9	0	29.1	-	-
HCM Lane LOS	B	A	D	-	-
HCM 95th %tile Q(veh)	0.6	-	1.8	-	-

Intersection	
Int Delay, s/veh	5.1

Movement	NBL	NBT	SBT	SBR	NEL	NER
Lane Configurations						
Traffic Vol, veh/h	24	212	132	130	206	23
Future Vol, veh/h	24	212	132	130	206	23
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	115	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	19	19	12	12	2	2
Mvmt Flow	26	230	143	141	224	25

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	285	0	-	0	426	143
Stage 1	-	-	-	-	143	-
Stage 2	-	-	-	-	283	-
Critical Hdwy	4.29	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.371	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1186	-	-	-	585	904
Stage 1	-	-	-	-	884	-
Stage 2	-	-	-	-	765	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1186	-	-	-	570	904
Mov Cap-2 Maneuver	-	-	-	-	570	-
Stage 1	-	-	-	-	861	-
Stage 2	-	-	-	-	765	-

Approach	NB	SB	NE
HCM Ctrl Dly, s/v	0.82	0	15.41
HCM LOS			C

Minor Lane/Major Mvmt	NELn1	NBL	NBT	SBT	SBR
Capacity (veh/h)	592	183	-	-	-
HCM Lane V/C Ratio	0.42	0.022	-	-	-
HCM Ctrl Dly (s/v)	15.4	8.1	0	-	-
HCM Lane LOS	C	A	A	-	-
HCM 95th %tile Q(veh)	2.1	0.1	-	-	-

Intersection	
Int Delay, s/veh	0

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	4	410	4	0	551
Future Vol, veh/h	0	4	410	4	0	551
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	Free	-	None
Storage Length	-	0	-	175	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	34	34	0	13
Mvmt Flow	0	4	446	4	0	599

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	446	0	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.22	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.318	-	-	-	-
Pot Cap-1 Maneuver	0	613	-	0	0	-
Stage 1	0	-	-	0	0	-
Stage 2	0	-	-	0	0	-
Platoon blocked, %			-			-
Mov Cap-1 Maneuver	-	613	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	10.92	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	WBLn1	SBT
Capacity (veh/h)	-	613	-
HCM Lane V/C Ratio	-	0.007	-
HCM Ctrl Dly (s/v)	-	10.9	-
HCM Lane LOS	-	B	-
HCM 95th %tile Q(veh)	-	0	-

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	0	0	410	79	0	551
Future Volume (Veh/h)	0	0	410	79	0	551
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	446	86	0	599
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1045	446			532	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1045	446			532	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	100			100	
cM capacity (veh/h)	253	612			1046	

Direction, Lane #	NB 1	NB 2	SB 1
Volume Total	446	86	599
Volume Left	0	0	0
Volume Right	0	86	0
cSH	1700	1700	1700
Volume to Capacity	0.26	0.05	0.35
Queue Length 95th (ft)	0	0	0
Control Delay (s/veh)	0.0	0.0	0.0
Lane LOS			
Approach Delay (s/veh)	0.0		0.0
Approach LOS			

Intersection Summary			
Average Delay		0.0	
Intersection Capacity Utilization		32.3%	ICU Level of Service
Analysis Period (min)		15	

Intersection	
Int Delay, s/veh	214.8

Movement	NBT	NBR	SBL	SBT	NWL	NWR
Lane Configurations	↑	↱		↰	Y	
Traffic Vol, veh/h	587	49	285	580	90	271
Future Vol, veh/h	587	49	285	580	90	271
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	Yield	-	None	-	None
Storage Length	-	0	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	34	34	13	13	19	19
Mvmt Flow	624	52	303	617	96	288

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	624	0	1848	624
Stage 1	-	-	-	-	624	-
Stage 2	-	-	-	-	1223	-
Critical Hdwy	-	-	4.23	-	6.59	6.39
Critical Hdwy Stg 1	-	-	-	-	5.59	-
Critical Hdwy Stg 2	-	-	-	-	5.59	-
Follow-up Hdwy	-	-	2.317	-	3.671	3.471
Pot Cap-1 Maneuver	-	-	906	-	~ 74	456
Stage 1	-	-	-	-	503	-
Stage 2	-	-	-	-	257	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	906	-	~ 36	456
Mov Cap-2 Maneuver	-	-	-	-	~ 36	-
Stage 1	-	-	-	-	503	-
Stage 2	-	-	-	-	126	-

Approach	NB	SB	NW
HCM Ctrl Dly, s/v	0	3.61	$ 1099.32
HCM LOS			F

Minor Lane/Major Mvmt	NBT	NBR	NWLn1	SBL	SBT
Capacity (veh/h)	-	-	117	593	-
HCM Lane V/C Ratio	-	-	3.27	0.335	-
HCM Ctrl Dly (s/v)	-	-	$ 1099.3	11	0
HCM Lane LOS	-	-	F	B	A
HCM 95th %tile Q(veh)	-	-	37.2	1.5	-

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

Intersection	
Int Delay, s/veh	0.3

Movement	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Traffic Vol, veh/h	229	7	1	190	10	1
Future Vol, veh/h	229	7	1	190	10	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	Yield	-	None	-	None
Storage Length	-	122	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	12	12	19	19	2	2
Mvmt Flow	249	8	1	207	11	1

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	249	0	458	249
Stage 1	-	-	-	-	249	-
Stage 2	-	-	-	-	209	-
Critical Hdwy	-	-	4.29	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.371	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1224	-	561	790
Stage 1	-	-	-	-	793	-
Stage 2	-	-	-	-	826	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1224	-	561	790
Mov Cap-2 Maneuver	-	-	-	-	561	-
Stage 1	-	-	-	-	793	-
Stage 2	-	-	-	-	825	-

Approach	SE	NW	NE
HCM Ctrl Dly, s/v	0	0.04	11.38
HCM LOS			B

Minor Lane/Major Mvmt	NELn1	NWL	NWT	SET	SER
Capacity (veh/h)	576	9	-	-	-
HCM Lane V/C Ratio	0.021	0.001	-	-	-
HCM Ctrl Dly (s/v)	11.4	7.9	0	-	-
HCM Lane LOS	B	A	A	-	-
HCM 95th %tile Q(veh)	0.1	0	-	-	-

Intersection	
Int Delay, s/veh	9.6

Movement	NBL	NBT	SBT	SBR	SEL	SER
Lane Configurations						
Traffic Vol, veh/h	110	777	784	32	33	111
Future Vol, veh/h	110	777	784	32	33	111
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	96	96	96	96	96	96
Heavy Vehicles, %	34	34	13	13	2	2
Mvmt Flow	115	809	817	33	34	116

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	850	0	-	0	1872	833
Stage 1	-	-	-	-	833	-
Stage 2	-	-	-	-	1039	-
Critical Hdwy	4.44	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.506	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	667	-	-	-	79	368
Stage 1	-	-	-	-	427	-
Stage 2	-	-	-	-	341	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	667	-	-	-	54	368
Mov Cap-2 Maneuver	-	-	-	-	54	-
Stage 1	-	-	-	-	293	-
Stage 2	-	-	-	-	341	-

Approach	NB	SB	SE
HCM Ctrl Dly, s/v	1.43	0	114.33
HCM LOS			F

Minor Lane/Major Mvmt	NBL	NBT	SELn1	SBT	SBR
Capacity (veh/h)	223	-	159	-	-
HCM Lane V/C Ratio	0.172	-	0.945	-	-
HCM Ctrl Dly (s/v)	11.5	0	114.3	-	-
HCM Lane LOS	B	A	F	-	-
HCM 95th %tile Q(veh)	0.6	-	7	-	-

Intersection	
Int Delay, s/veh	4.6

Movement	NBL	NBT	SBT	SBR	NEL	NER
Lane Configurations						
Traffic Vol, veh/h	22	190	229	119	180	22
Future Vol, veh/h	22	190	229	119	180	22
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	115	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	19	19	12	12	2	2
Mvmt Flow	24	207	249	129	196	24

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	378	0	-	0	503	249
Stage 1	-	-	-	-	249	-
Stage 2	-	-	-	-	254	-
Critical Hdwy	4.29	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.371	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1093	-	-	-	528	790
Stage 1	-	-	-	-	793	-
Stage 2	-	-	-	-	788	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1093	-	-	-	515	790
Mov Cap-2 Maneuver	-	-	-	-	515	-
Stage 1	-	-	-	-	773	-
Stage 2	-	-	-	-	788	-

Approach	NB	SB	NE
HCM Ctrl Dly, s/v	0.87	0	16.32
HCM LOS			C

Minor Lane/Major Mvmt	NELn1	NBL	NBT	SBT	SBR
Capacity (veh/h)	535	187	-	-	-
HCM Lane V/C Ratio	0.41	0.022	-	-	-
HCM Ctrl Dly (s/v)	16.3	8.4	0	-	-
HCM Lane LOS	C	A	A	-	-
HCM 95th %tile Q(veh)	2	0.1	-	-	-

Intersection	
Int Delay, s/veh	0.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	15	636	10	0	580
Future Vol, veh/h	0	15	636	10	0	580
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	Free	-	None
Storage Length	-	0	-	175	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	34	34	0	13
Mvmt Flow	0	16	691	11	0	630

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	691	0	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.22	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.318	-	-	-	-
Pot Cap-1 Maneuver	0	444	-	0	0	-
Stage 1	0	-	-	0	0	-
Stage 2	0	-	-	0	0	-
Platoon blocked, %			-			-
Mov Cap-1 Maneuver	-	444	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	13.41	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	WBLn1	SBT
Capacity (veh/h)	-	444	-
HCM Lane V/C Ratio	-	0.037	-
HCM Ctrl Dly (s/v)	-	13.4	-
HCM Lane LOS	-	B	-
HCM 95th %tile Q(veh)	-	0.1	-

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	0	0	636	79	0	580
Future Volume (Veh/h)	0	0	636	79	0	580
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	691	86	0	630
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1321	691			777	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1321	691			777	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	100			100	
cM capacity (veh/h)	173	445			848	

Direction, Lane #	NB 1	NB 2	SB 1
Volume Total	691	86	630
Volume Left	0	0	0
Volume Right	0	86	0
cSH	1700	1700	1700
Volume to Capacity	0.41	0.05	0.37
Queue Length 95th (ft)	0	0	0
Control Delay (s/veh)	0.0	0.0	0.0
Lane LOS			
Approach Delay (s/veh)	0.0		0.0
Approach LOS			

Intersection Summary			
Average Delay		0.0	
Intersection Capacity Utilization		36.8%	ICU Level of Service
Analysis Period (min)		15	