Action Requested/Required:

- ☐ Vote/Action Requested
- ☐ Discussion or Presentation Only
- ☑ Public Hearing

Report Date: 9/23/25
Hearing Date: 10/2/25
Voting Date: 11/6/25

Department: Community Development **Presenter(s) & Title:** Steve Green, Zoning Administrator

Agenda Item Title:

MP2508-001 / CUP2508-002 - Request for Master Plan and Conditional Use Permit approval - Longview Street And John T. Petitt Street - Pepe Medina

Summary:

These applications involve a 33.23 acre tract of land that was approved for 124 residential units in 2021. The approved developemnt consists of single family detached homes and duplexes. The property is currently zoned PD-R which requires the submittal of a Master Plan. The proposed plan includes a section of townhomes which requires the submittal of a Conditional Use Permit application. The proposed plan contains 143 living units made up of single family detached units, duplexes and town homes. The applcant is requesting a variance to reduce the minimum land area from 25% to 15% for the single family detached area.

Budget Implications:

Budgeted? ☐ Yes ☑ No ☐ **N/A**

Total Cost of Project: _____ Check if Estimated ☐

Fund Source: General Fund ☐ Water & Sewer ☐ Sales Tax ☐ Other: _____

Staff Recommendations:

The staff recommendation will be presented during the action meeting.

Reviews:

Has this been reviewed by Management and Legal Counsel, if required? ☐ Yes ☐ No

Attachments:

Application
Survey
Current Master Plan, current zoning conditions, proposed Master Plan
Revised Letter of Intent
Traffic study
Staff report

Land Use Petition: MP2508-001 / CUP2508-002
Date of Staff Report Preparation: 9/24/25
Mayor and City Council Public Hearing Date: 10/2/25
Action Meeting Date: 11/6/25

Project Name/Applicant: Pepe Medina

Property Location: Longview and John T. Petitt Streets

Parcel ID: 14N17 22G and 91N14 001

District/Land Lot: 14Th District, LL's 166/195

Acreage: 33.23 acres

Existing Zoning District: PD-R (Planned Development-Residential)

Existing Land Use: Vacant/undeveloped, heavily wooded

Future Development Map Designation: Historic / Traditional Neighborhood Stable

Proposed Development: 143 residential unit subdivision containing a mix house styles

Owner: Gamesa Properties LLC

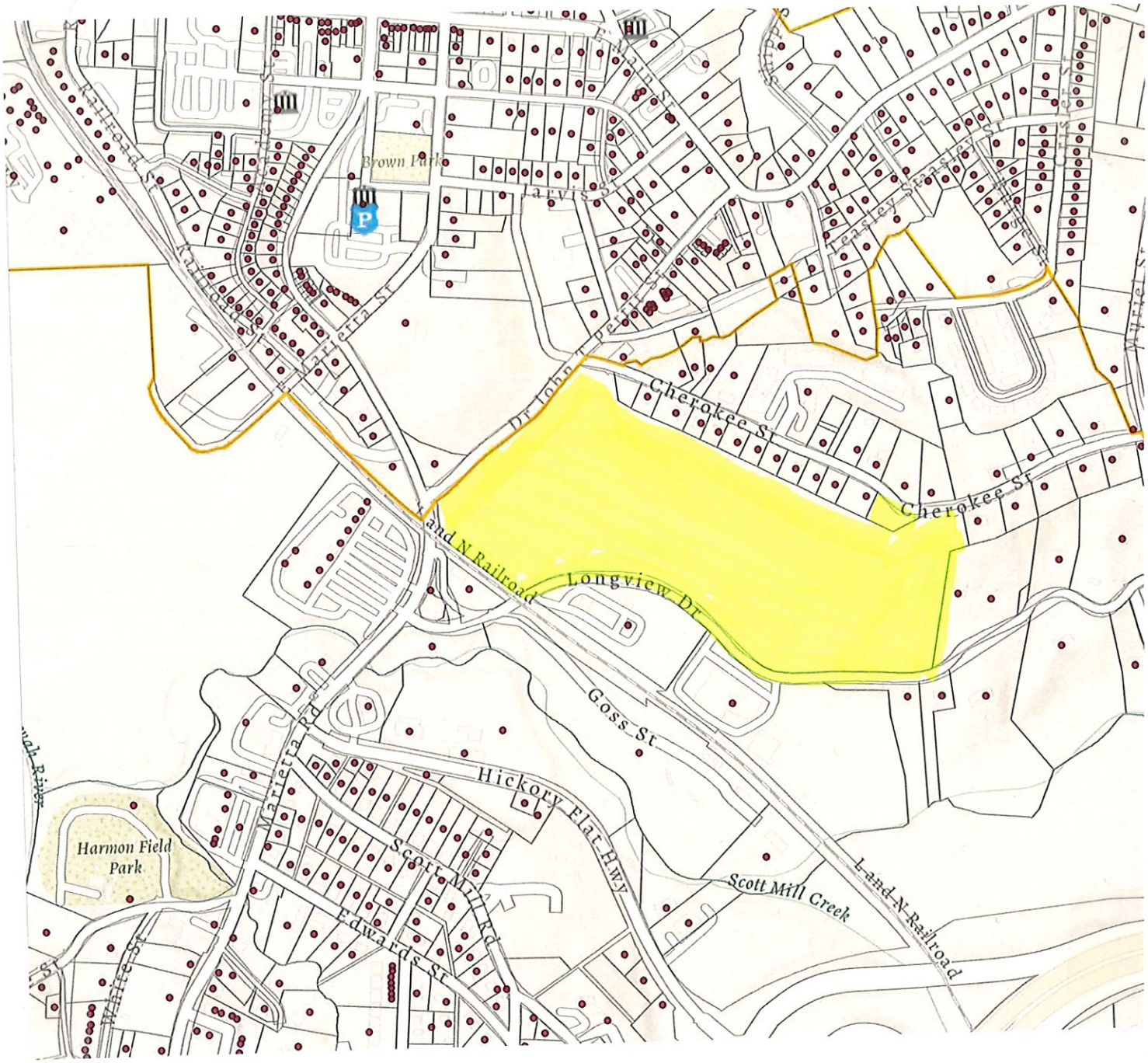
District Standards: Development criteria is proposed in the requested Master Plan

__ Zoning District Standards (Primary Street)			
Impervious Surface (max.)		Front Yard Setback (min.)	
Open Space (min.)		Side Yard Setback (min.)	
Building Height (max.)		Rear Yard Setback (min.)	
Building Height (min.)		Buffer Planting (min.)	
Zoning Buffer		Overlay Zone	

Surrounding Land Uses and Zoning:

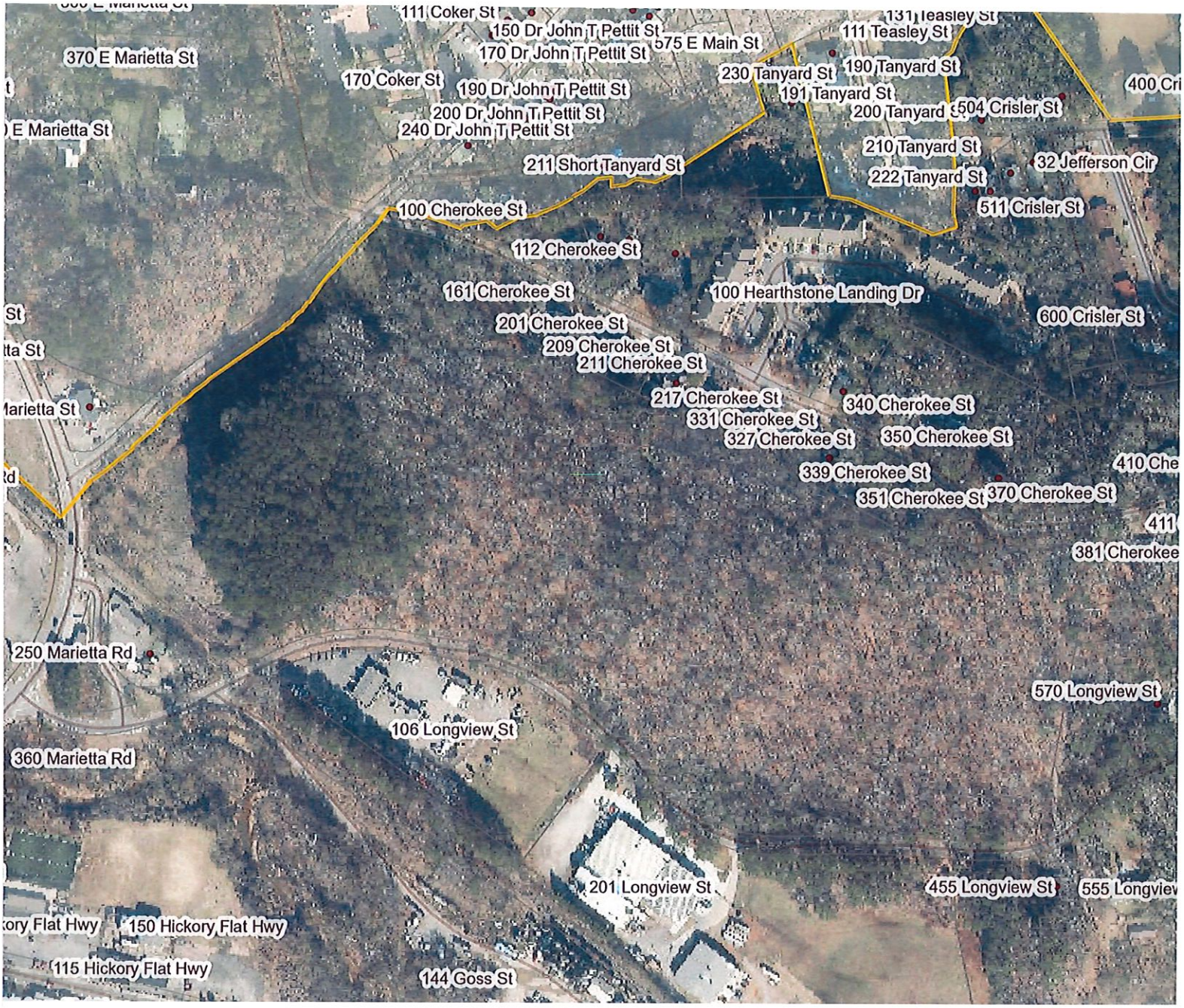
North – Single family homes – R-20
South – Light Industrial - LI
East – Single family homes – R-20 and R-40
West – Businesses – GC

Location Map



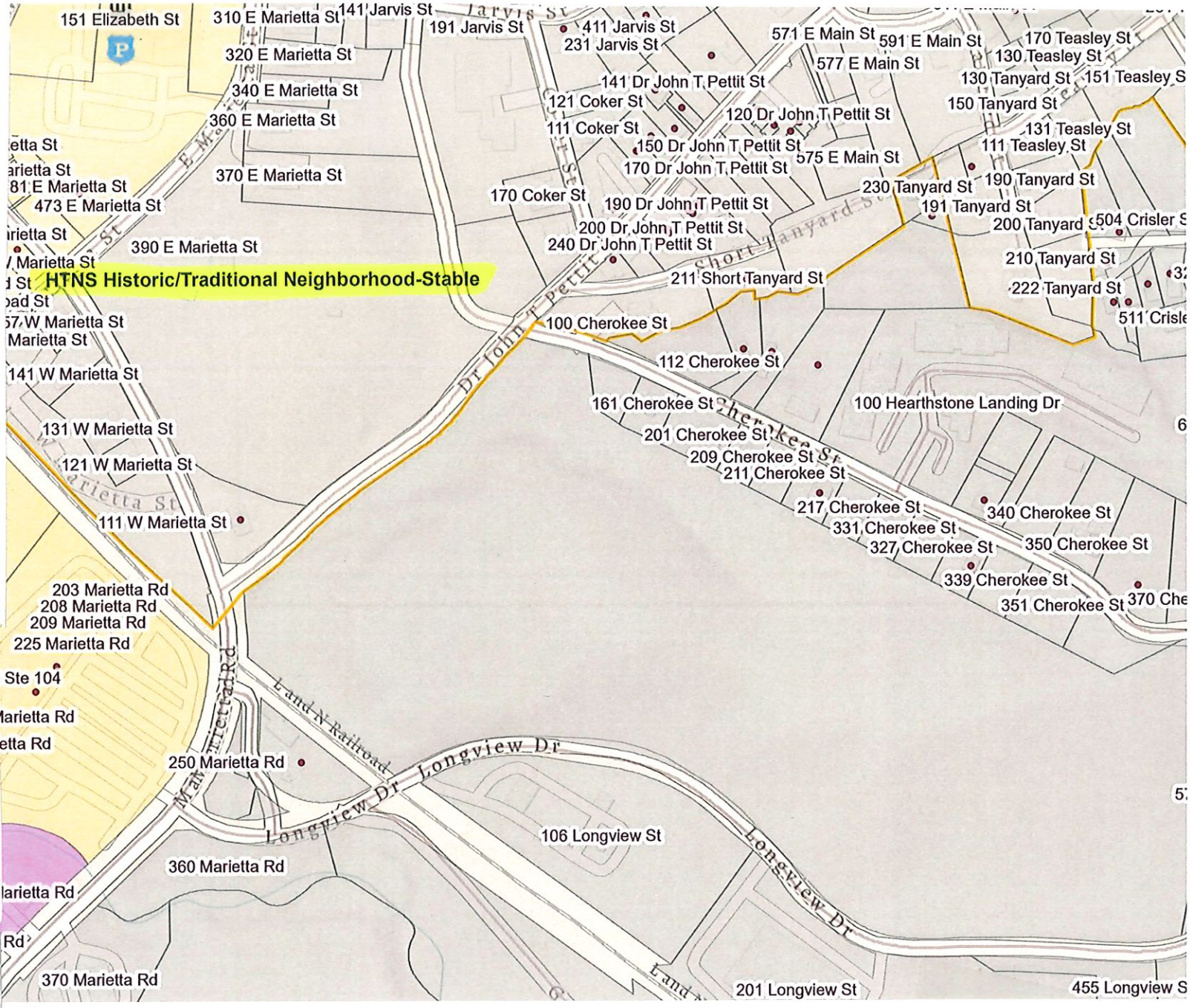
CANTON

Existing Land Use Map



CANTON

Future Development Map



Site Description: The property is currently undeveloped and heavily wooded.

Site History: In 2021 the property was rezoned to PD-R and approved for 124 residential unit development. The approved project consisted of 96 single family detached homes and 28 duplex units (not buildings). The applicant had proposed and was approved for some innovative construction methods. These methods would have to be approved by the City Engineer prior to approving any Land Disturbance Permit.

CRITERIA TO BE APPLIED – LAND USE PETITION (Master Plan)

1. **Whether the zoning proposal will permit a use that is suitable in view of the use and development of adjacent and nearby properties; The properties immediately south of the subject property are used for industrial type businesses. The properties to the north are primarily single family detached homes on large lots.**

2. **Whether the zoning proposal will adversely affect the existing use or usability of adjacent or nearby property; The proposed use of the property could adversely affect the adjacent and nearby properties with in increase in traffic volume.**

3. **Whether the property to be affected by the zoning proposal has a reasonable economic use as currently zoned; The property to be affected has a reasonable economic use as currently zoned.**

4. **Whether the zoning proposal will result in a use which will or could cause an excessive or burdensome use of existing streets, transportation facilities, utilities, or schools; Per the City Engineer traffic does not significantly increase. She also notes that consideration should be given to Longview Street as the effects on Longview were not addressed in the submitted traffic study. There will be no significant impacts on utilities. The Cherokee County School District indicates an estimated 83 additional students will be produced and the need for 4 additional classrooms with an additional capacity cost of $112,706.**

5. **Whether the zoning proposal is in conformity with the policy and intent of the Comprehensive Plan and Future Development Map; The Historic and Traditional Neighborhood Area recommends medium density residential (4-6 du/a) developments as one of the suggested uses. The proposed density is 4. 30 du/a.**

6. Whether there are other existing or changing conditions affecting the use and development of the property which give supporting grounds for either approval or disapproval of the zoning proposal. The intersection of West Marietta Street, John T. Petitt Street and Marietta Street is to be reconfigured into a roundabout in the near future. The existing Canton Village Shopping Center has been purchased by the City and will be redeveloped into a mixed-use development.

7. Whether the zoning proposal will adversely affect historic buildings, sites, districts, or archaeological resources. The zoning proposal will not affect historic buildings, sites or archaeological resources.

8. Whether the aesthetic and architectural design of the site is compatible with the intent and requirements of the Comprehensive Plan, the Character Areas, and any Overlay Districts. The duplex and townhome units will be required to be approved by the Canton Design Review Team for exterior elevations including materials and color.

CRITERIA TO BE APPLIED – CONDITIONAL USE PERMIT

a. Whether the proposed use is consistent with the comprehensive plan and other adopted policies of the City; The Comprehensive Plan recommends medium density (4-6 du/a) residential developments. The overall density of the proposed plan is 4.30 du/a.

b. Whether the proposed use complies with the requirements of this zoning ordinance; The existing zoning of the property (PD-R) requires the submittal of a Master Plan to establish the housing types and development criteria.

c. Whether public services, public facilities and utilities are adequate to serve the proposed use; Public facilities and utilities and adequate to serve the development. The applicant has not met with the school system to discuss mitigation fees.

d. Whether the proposed use will create adverse impacts upon any adjoining land use by reason of:

    1. Noise, smoke, odor, dust or vibration generated by the proposed use; Typical construction nuisances will occur during the development of the site.

2. Hours or manner of operation of the proposed use; The proposed use, residential subdivision, will result in a 24 hour/7 days of the week use of the property with the majority of the activities during normal hours .and

3. Traffic volumes generated by the proposed use; Traffic volumes for John T. Petitt will remain as previously considered in the currently approved project. Longview Street was not addressed in the submitted traffic study and traffic volumes can be expected to increase.

e. Whether the proposed use would result in an over-concentration of the subject use type within the area of the proposed use; The majority of the residential housing types in the immediate area are single family detached. There is a multi-unit women's shelter located on Cherokee Street.

f. Whether the aesthetic and architectural design of the site is compatible with the intent and requirements of the comprehensive plan, the character areas, and all applicable zoning ordinance regulations; One of the recommended uses for the Historic, Stable and Traditional Neighborhood areas is medium family residential (4-6 du/ac). The proposed density is 4. Du/ac. The duplex and town home units will be reviewed by the Canton Design Review Tean regarding exterior materials and colors. and

g. Whether the proposed use is compatible with adjacent properties and land uses, based on consideration of the size, scale and massing of proposed buildings and the overall site design. While the proposed use, residential, is compatible with the surrounding area, with the exception of the industrial uses to the south, the majority of the proposed house styles (duplexes/townhomes) are not consistent with the residences along Longview and John T. Petitt Streets.

DEPARTMENT COMMENTS

BUILDING AND SAFETY SERVICES

- BUILDING SERVICES:

No comment

- SAFETY SERVICES:

- International Building Code, 2018 Edition, with Georgia Amendments (2020), (2022), (2024), (2025)
- International Residential Code, 2018 Edition, with Georgia Amendments (2020), (2024)
- International Fire Code, 2018 Edition (GA 120-3-3 Amendments)
- Life Safety Code, 2018 Edition (GA 120-3-3 Amendments)
- International Plumbing Code, 2018 Edition, with Georgia Amendments (2020), (2022), (2023), (2024)
- International Mechanical Code, 2018 Edition, with Georgia Amendments (2020), (2024)
- International Fuel Gas Code, 2018 Edition, with Georgia Amendments (2020), (2022)
- National Electrical Code, 2023 Edition, No Georgia State Amendments
- International Energy Conservation Code, 2015 Edition, with Georgia Supplements and Amendments (2020), (2022), (2023)
- International Swimming Pool and Spa Code, 2018 Edition, with Georgia Amendments (2020)

The City of Canton has an automatic sprinkler system ordinance. All multi-family residential construction (three family dwellings or more) requires an NFPA 13R automatic sprinkler system. For commercial development, any structure over 3,500 square feet shall require an NFPA 13 automatic sprinkler system.

This project may require two or more entrances based on the number of dwelling units constructed. This requirement is in the City of Canton Unified Development Code (UDC), section 109.03.12 - Development access and the 2018 International Fire Code Appendix "D".

The minimum diameter fire main size is 8". Fire hydrant placement is based on both the City of Canton UDC, section 110.02.02 (f)- Design criteria and appendix B and C of the 2018 International Fire Code which has been adopted as law in the City of Canton.

Mail Kiosks shall meet the 2010 Federal ADA standard and USPS-STD-4C. A van accessible handicap parking space and access aisle is required to serve an accessible route to the mail kiosk.

Specific 2018 IFC requirements for civil plans:

1. The 2018 International Fire Code, appendix "D" requires fire apparatus access roads not exceeding 10% grade and for local Cherokee County fire apparatus requirements, access road cross grades may not exceed 5%.

2. Roads throughout the development must be at a minimum, made of asphalt or concrete capable of supporting the imposed load of fire apparatus weighing up to 75,000 pounds.

3. Turn radiuses for all streets shall be 35' minimum for development entrances and 25' for interior streets. Proof of turning radius compliance shall be demonstrated using software analysis such as "AutoTURN" or other clearance/swept path analysis software. For tire curb clearances, bumper swing clearances or inside crimp angles, contact Cherokee County Fire & Emergency Services.

4. Dead end fire apparatus access roads in excess of 150 feet in length shall be provided with an approved area for turning around fire apparatus.

5. Aerial fire apparatus streets are required where the vertical distance between the grade plane and the highest roof surface exceeds 30'. The required width of an aerial apparatus road shall be 26' minimum and constructed as noted in note #2 above. One or more of the aerial access routes meeting the building height condition shall be located not less than 15' and not greater than 30' from the building and shall be

positioned parallel to one entire side of the building. Overhead utilities and power lines shall not be located over the aerial apparatus road.

6. Where two fire apparatus access roads are required, they shall be placed a distance apart equal to not less than one-half of the length of the maximum overall diagonal dimension of the property or area to be served, measured in a straight line between accesses.

Conditions for Consideration

COMMUNITY DEVELOPMENT

The proposed Master Plan is a new concept from the currently approved Master Plan is approved for 124 residential units, 96 single family detached units and 28 duplex units. The proposed plan seeks 15 single family detached units, 80 townhomes and 48 duplex units.
With the increase in residential units the project will require two means of ingress/egress. The current plan has the entrance/exit off of John T. Petitt. The proposed plan has entrance/exits off of John T. Petitt and Longview Streets. As the City Engineer has noted traffic does not significantly increase from the approved plan, however she also notes that Longview Street was not taken into consideration in the submitted traffic study. Prior to any vote being taken staff would recommend an updated traffic study be submitted that would take into account the effect of the development on Longview Street.
The Community Input Meeting will take place on September 29th at the R.T. Memorial Library. I will forward the report from the meeting as soon as I have it.

Conditions for Consideration

DEVELOPMENT SERVICES

Consideration should be made on the area of the proposed Roundabout.
Traffic does not significantly increase from previously approved Master Plan, however this proposal has an entrance on Longview. Consideration should be made on the effects of Longview Street, which are not addressed in the traffic study. Improvements to Longview Street may be necessary to accommodate additional traffic volumes.
No significant impacts to water and sewer beyond what was previously approved.
Right and Left Turn Lanes may be required.

Conditions for Consideration

POLICE DEPARTMENT

Conditions for Consideration

PUBLIC WORKS

Conditions for Consideration

UTILITY ENGINEER

Conditions for Consideration

CHEROKEE COUNTY SCHOOL SYSTEM

The school system estimates that the project will generate an estimated 83 new students with a need for 4 additional classrooms. The additional capacity cost will be $112,706. The applicant has met with the school board on Thursday, September 25th. I will forward the results from that meeting when I receive them.

Conditions for Consideration

CHEROKEE COUNTY (AS NEEDED)

CHEROKEE COUNTY PLANNING AND ZONING DEPARTMENT

Conditions for Consideration

CHEROKEE COUNTY ENGINEER

Conditions for Consideration

CHEROKEE COUNTY FIRE MARSHAL

Conditions for Consideration

STAFF CONDITIONS FOR CONSIDERATION

August 01, 2025

NOTIFICATION OF PUBLIC HEARING APPLICATION

Dear Property Owner,

This letter is to inform you that Pepe Medina has applied to the City of Canton for Master Plans for the property located at Longview Street, Canton, Ga. 166 & 195 Lots, 14th district, Parcel ID 14N170-22G. You are receiving this notice because you own property within 1,000' of the proposed project or are listed as an Interested Party.

You are invited to attend a Community Information and Input Meeting to learn more about the proposal. The Community Information and Input Meeting will be held on October 2nd, 2025, beginning at 6:00p.m at the Auditorium at Canton City Hall located at 110 Academy Street, Canton, GA 30114. This will be an informal meeting that will allow Pepe Medina to tell you about the proposal and to answer any questions you may have about the project. A copy of the proposed site plan is enclosed with this notice.

There will be a public comment opportunity for this case, anticipated to take place on Thursday, _____, at 6:00pm before the Canton City Council. The Public Hearing will be held in the Auditorium at Canton City Hall, located at 110 Academy Street, Canton, GA 30114. Please note this date is subject to change.

If you are unable to attend the Community Information and Input Meeting and would like additional information, you may contact Pepe Medina at pepecelhay@gmail.com.

Please contact staff at the City of Canton Community Development Department at (770) 704-1500 if any questions about the case should arise.

Sincerely, Pepe Medina

August 01, 2025

Gamesa Properties LLC

Re: Case Longview Street – Master Plan

Dear Property Owner,

Pepe Medina has filed a Master Plan request with the City of Canton on 33.23 acres of land located at Longview Street, Canton, Ga. 166 & 195 Lots, 14th district, Parcel ID 14N170-22G.

Our request is to obtain approval of a Master Plan and Conditional Use Permit in order to build sustainable houses for the residence of the city of Canton.

A Public Hearing will be held before the Canton City Council on October 2nd, 2025, at 6:00p.m. in the Auditorium at Canton City Hall, 110 Academy Street, Canton, GA 30114.

Anyone wishing to speak in opposition must file a disclosure form with the City of Canton on or up to five (5) days prior to the date of the hearing.

The hearing on this matter is open to the public, and the application is on file in the Community Development Department located at Canton City Hall, 110 Academy Street, Canton, GA 30114, and may be viewed Monday through Friday 9:00 a.m. to 4:00 p.m.

Sincerely, Pepe Medina

CANTON

Community Development Department
110 Academy Street, Canton, GA 30114
(770) 704-1500

PUBLIC HEARING APPLICATION

Project #(s):

Longview Street - Master Plan

This Application is for:

- ☐ **A** Annexation
- ☐ **B** Rezoning
- ☒ **C** Master Plans
- ☐ **D** Master Plan Amendment
- ☒ **E** Conditional Use Permit
- ☐ **F** Land Use Modification
- ☐ **G** Zoning Condition Amendment
- ☐ **H** Density Transfer within Master Plan
- ☐ **I** Temporary Use Permit
- ☐ **J** Zoning Ordinance Text Amendment
- ☐ Appeal
- ☐ Adjustment
- ☐ Special Exception

1. *Please check all information supplied on the following pages to ensure that all spaces are filled out completely and accurately before signing this form. State **N/A**, where Not Applicable.*
2. *If you are not paying online, please make your check payable to **"City of Canton."***
3. *If you have questions regarding this form, please contact the Community Development Department by calling (770) 704-1500.*

Applicant Information:

Name: Pepe Medina
Address: 827 GA-400, Suite 105
City: Dawsonville
State: GA ZIP Code: 30534
Telephone: 678-384-9447
Email Address: pepecelhay@gmail.com

Owner Information:

Name: Gamesa Properties
Address: 5025 Deen Road
City: Marietta
State: GA ZIP Code: 30066
Telephone: 678-384-9447
Email Address: pepecelhay@gmail.com

I, Pepe Medina, do solemnly swear and attest, subject to criminal penalties for false swearing, that the information provided in the Application for Public Hearing is true and correct and contains no misleading information. I, Pepe Medina (Applicant), have received and thoroughly read the Public Hearing Procedures.

This 01 day of August, 2025.

Applicant Signature: _____ **Print Name:** _____

Community Development Department
110 Academy Street, Canton, GA 30114
(770) 704-1500

AUTHORIZATION OF OWNER AND APPLICANT

Project #(s):

Longview Street - Master Plan

This form is to be executed under oath. I, Gamesa Properties, do solemnly swear and attest, subject to criminal penalites for false swearing, that I am the owner of the property, which is the subject matter of the attached application, as is shown in the records of Cherokee County, Georgia. I hereby authorize the City of Canton and its representatives to inspect the property, which is the subject of this application, and post any notices required theron.

This _____ **day of** _____, **20**25.

Owner Signature: _____ **Print Name:** _____

I, the above signed legal owner of the subject property, do hereby authorize the following application to be submitted to the City of Canton and do hereby authorize the following person named below to act as Applicant in the pursuit of a request for:

This Application is for:

- ☐ **A** Annexation
- ☐ **B** Rezoning
- ☒ **C** Master Plans
- ☐ **D** Master Plan Amendment
- ☒ **E** Conditional Use Permit
- ☐ **F** Land Use Modification
- ☐ **G** Zoning Condition Amendment
- ☐ **H** Density Transfer within Master Plan
- ☐ **I** Temporary Use Permit
- ☐ **J** Zoning Ordinance Text Amendment
- ☐ Appeal
- ☐ Adjustment
- ☐ Special Exception

Name of Authorized Applicant: Pepe Medina

Signature: _____

Mailing Address: 827 GA-400, Suite 105

City: Dawsonville
State: GA **Zip Code:** 30534
Telephone: 678-384-9447
E-mail: pepecelhay@gmail.com

Applicant Status:

- ☐ **Owner**
- ☐ **Option to Purchase**
- ☐ **Leasee**
- ☐ **Area Resident**
- ☒ **Other (Explain):** Developer

This Authorization of Owner and Applicant Form has been completed and the property owner's signature is
Sworn To and Subscribed Before Me This 1
Day Of August, **20**25.

Notary Signature: _____

LILIANA GARCIA NOTARY PUBLIC FULTON COUNTY GEORGIA EXPIRES 05/13/2029 (Seal)

Community Development Department
110 Academy Street, Canton, GA 30114
(770) 704-1500

DISCLOSURE FORM

Project #(s):

Longview Street - Master Plan

O.C.G.A. § 36-67A-2 / O.C.G.A. § 36-67A-3 requires disclosure of campaign contributions to government officials by an Applicant or opponent of a Public Hearing petition. Applicants must file this form with the Department of Community Development. Please complete a separate form for each authorized Applicant.

Name of Applicant/Opponent: Pepe Medina

Section 1

If the answer to any of the following questions is "Yes," complete Section 2.

A) Are you, or anyone else with a property interest in the subject property, a member of the City of Canton Mayor and City Council?
☐ YES X NO

B) Does an official of such public bodies have any financial interest in any business entity which has a property interest in the subject property?
☐ YES X NO

C) Does a member of the family of such officials have an interest in the subject property as described in (A) and (B)?
☐ YES X NO

D) Within Two (2) years of immediately preceding this application have you made campaign contributions(s) or given gifts to such public officials aggregating $250 or more?
☐ YES X NO

Section 2

1. Name and the official position of the Canton Official to whom the campaign contribution was made ***(Please use a separate form for each official to whom a contribution has been made in the past (2) years):***

_____

2. List the dollar amount/value and description of each campaign contribution made over the past two (2) years by the Applicant/Opponent to the named Canton Official:

	Description
$	_____
$	_____
$	_____

ing structures.

Community Development Department
110 Academy Street, Canton, GA 30114
(770) 704-1500

PROPERTY INFORMATION

Project #(s):

Longview Street - Master Plan

Address: Longview Street, Canton, GA 30114

Land Lot(s): 166 &195 District: 14th Section: _____ Parcel ID(s) 14N170-22G

Existing Zoning Of Property: PD-R ☒ City ☐ County Total Acreage Of Property: 33.23

Proposed Zoning Of Property: N/A Existing Use(s) Of Property Vacant/Forested Coverage

ADJACENT PROPERTY/OWNER INFORMATION:

Please provide the following information for all adjacent properties, including property connected by public rights-of-way. Attach additional sheets as necessary.

	OWNER NAME AND ADDRESS/PARCEL ID	CURRENT ZONING	CURRENT LAND USE
NORTH	PORTILLO RAUL E & / 161 Cherokee Street/ 91N14005A	R-20	
SOUTH	CSL GEORGIA SYSTEM LLC 106 Longview Street/ 91N14011	L-I	
EAST	EDGE REAL ESTATE 3 LLC 570 Longview Street/ 91N26009A	R-40	
WEST	MAGRUDER NELL GALT AS TRUSTEE 390 E Marietta Street/91N16044	R-4	
OTHER			
OTHER	Working on a full list of surrounding property owners	and addresses	
OTHER			

UTILITY INFORMATION:

How is sewage from this development to be managed? PUBLIC GRAVITY SEWER

Proposed managing jurisdiction: City of Canton

How will water be provided to the site? PUBLIC WATER SUPPLY LINES, FIRE SUPPRESSION & FIRE HYDRANTS

Proposed managing jurisdiction: City of Canton Size Limit: _____

Community Development Department
110 Academy Street, Canton, GA 30114
(770) 704-1500

PUBLIC SCHOOL INFORMATION

Project #(s):

Longview Street – Master Plan

PUBLIC SCHOOL POLICY STATEMENT:

"The Mayor and Council of the City of Canton hereby recognize that growth and development can, at times, have an effect on school capacity within the county and therefore recognize the need to share information on developments that have regional impact. In an effort to cooperate with the Cherokee County School [District] and share information on residential rezoning requests, master plan applications, and land use modifications to the comprehensive land use plan, the Mayor and Council hereby encourage open dialogue and meeting between the Applicant and the appropriate school board representative." (105.10.04)

- **Developers whose projects consist of 25 or more residential units shall contact the Cherokee County School District and communicate with a school board representative to discuss their intent.**
- **This communication between the Applicant and the school board should take place, at a minimum, prior to the Informational Item meeting in Month Two** (see Pages iii and iv).
- The Applicant should be prepared to address such communication if requested by the Mayor and Council at the meeting in which final action is to be taken.

The current Cherokee County School District contact regarding any potential mitigation required for this application and proposal is:

Mitch Hamilton
Director of Planning, Facilities, and Compliance
200 Mountain Brook Court
Canton, GA 30115
(770) 721-8429
mitch.hamilton@cherokeek12.net

ZONED SCHOOLS: *(circle one each)*

HIGH:	[CHEROKEE]	CREEKVIEW	ETOWAH	SEQUOYAH
MIDDLE:	CREEKLAND	DEAN RUSK	FREEDOM	[TEASLEY]
ELEMENTARY:	AVERY	BALL GROUND	CLAYTON	[HASTY]
	INDIAN KNOLL	KNOX	R.M. MOORE	SIXES

Community Development Department
110 Academy Street, Canton, GA 30114
(770) 704-1500

REVIEW CRITERIA

Project #(s):

Longview Street – Master Plan

How will this proposal be compatible with surrounding properties?

The proposed development will introduce a mix of townhomes, duplexes, and single-family detached residences, along with stormwater facilities, roadways, and supporting infrastructure to the community. It will follow regulations in the City of Canton.

How will this proposal affect the use and value of surrounding properties?

The site will be developed following Planned Development – Residential (PD-R) zoning district regulations in the City of Canton. The project will enhance surrounding land values by converting an underutilized tract into a well-planned residential community.

Can the property be developed for a reasonable economic use as currently zoned? Please explain why or why not.

The movement of populations from rural to urban areas, has dramatically reshaped the social, economic, and environmental landscapes worldwide. With an increasing number of people migrating to cities for opportunities, cities have become focal points of innovation and economic growth.

What would be the increase to population and traffic if the proposal were approved?

A detailed traffic impact study will be submitted separately to the Planning and Zoning Department in accordance with City requirements. However, the following is a general overview:
Trip Generation: The proposed mix of housing types is anticipated to generate moderate traffic volumes, consistent with other suburban residential developments.
Peak Hour Impacts: Trips will be distributed across multiple access points via Longview Street, Dr. John T. Pettit St., proposed roundabouts and nearby collector roads.
Road Network: The internal road system will meet City design standards and includes provisions for sidewalks and emergency access.
Improvements: If warranted by the finalized traffic study, mitigation measures such as turn lanes, signage, or additional pedestrian enhancements will be proposed.

What would be the impact to schools and utilities if the proposal were approved?

This project can lead to increased tax revenue for schools, enabling improvements in facilities, academic performance, and community engagement. It can also drive necessary upgrades to local utilities and promote the adoption of modern, sustainable practices, creating a positive impact for both the new residents and the broader community.

How is the proposal consistent with the Comprehensive Plan and the Future Land Use Map?

It has been historically vacant and is now being considered for residential development in response to the community's growing housing needs.

How is the proposal consistent with the City of Canton Roadmap of Success?

It aligns with the City's Roadmap for Success by aiming to fulfill tenets. The Roadmap emphasizes developing residential areas that are desirable and functional. The project would be assessed based on its contribution to this goal, including factors like design, greenspace integration, and access to amenities. It will offer a variety of housing options and price points, catering to a diverse population. By incorporating open spaces, trails, or connections to existing parks, a new residential project can align with the Roadmap's focus on connecting citizens to recreational opportunities. Residential development that attracts new residents and contributes to the local economy, through job creation or supporting local businesses. Incorporating environmentally conscious design and development practices in a new residential project, such as utilizing green building techniques or preserving natural features, aligns with the Roadmap's focus on sustainability.

Are there existing or changing conditions which affect the development of the property and support the proposed request?

The subject parcel is a wooded and undeveloped tract of land with no existing structures.

PROJECT INFORMATION:
CURRENTLY, THIS 33.33 ACRE PROPERTY IS FORESTED COVERAGE, WITH GOOD CONDITIONS.

THE PROPOSED DEVELOPMENT WILL CONSIST OF A PROPOSED ROAD, TOWNHOUSES, DUPLEXES, AND SINGLE FAMILY RESIDENTIAL STRUCTURES, WITH STORMWATER MANAGEMENT FACILITIES, UTILITIES, AND AMENITIES, ETC.

PROPERTY/PARCEL INFORMATION:
ADDRESS: LONGVIEW STREET, CANTON, GA 30114
PARCEL NUMBER: 14N17D 220
JURISDICTION: CITY OF CANTON
SITE DISTURBANCE:
TOTAL AREA= 33.33 ACRES
DISTURBED AREA= ----- ± ACRES

BOUNDARY INFORMATION OBTAINED FROM A SURVEY FOR FOUR GROUP COMPLETED BY DAVIS ENGINEERING & SURVEYING, LLC DATED 9/14/2021.

CONTOUR INTERVAL: 2'

UTILITIES SHOWN HEREON ARE FROM EXISTING STRUCTURES AND ABOVEGROUND MARKS FOUND. DAVIS ENGINEERING AND SURVEYING, LLC IS NOT RESPONSIBLE FOR THE LOCATION OF UNDERGROUND UTILITIES.

ACCORDING TO AN INTERPRETATION OF THE FEMA NATIONAL FLOOD HAZARD LAYER, THIS PROPERTY DOES LIE WITHIN A FEDERAL FLOOD HAZARD AREA PER FIRM PANEL NO. 13057C0251E DATED 09/01/2018.

ZONING INFORMATION:
CITY OF CANTON
ZONING: PD-R (PLANNED DEVELOPMENT – RESIDENTIAL)
SINGLE-FAMILY DETACHED
FRONT: 5'
SIDE: 5'
REAR: 30'
BUILDING HEIGHT: 40' (TWO AND ONE-HALF STORIES)
SINGLE-FAMILY ATTACHED & DUPLEXES
FRONT: 10'
SIDE: 0' WITH USE OF APPROVED FIRE-RATED WALLS
REAR: 0'
BUILDING HEIGHT: 40' (TWO AND ONE-HALF STORIES)
TOWNHOUSES
FRONT: 10'
SIDE: 0'
REAR: 0'
BUILDING HEIGHT: 60' (FOUR STORIES)

GENERAL NOTES:
1. ALL CONSTRUCTION WORK, MATERIALS, AND IMPROVEMENTS AT THIS SITE SHALL CONFORM WITH THE CITY OF CANTON, GEORGIA REQUIREMENTS.
2. ALL STRUCTURES WILL BE REQUIRED TO CONFORM TO THE STANDARD BUILDING CODES HORIZONTAL SEPARATION STANDARDS. APPROVAL OF THIS PERMIT WILL NOT JUSTIFY ANY DEVIATION IN HORIZONTAL SEPARATION STANDARDS AS ADOPTED AND AMENDED BY THE GEORGIA DEPARTMENT OF COMMUNITY AFFAIRS.
3. CONTRACTORS SHALL CONDUCT ALL WORK IN ACCORDANCE WITH THE REQUIREMENTS OF APPLICABLE REGULATIONS OF THE OCCUPATIONAL SAFETY & HEALTH ADMINISTRATION (OSHA) AND ALL LOCAL, STATE AND FEDERAL RULES AND REGULATIONS.
4. ALL CONSTRUCTION STAKING ON THIS SITE SHALL BE PERFORMED UNDER THE DIRECT SUPERVISION OF A GEORGIA REGISTERED LAND SURVEYOR.
5. MATTERS OF RECORD NOT SHOWN HEREON ARE EXCEPTED.
6. THE UTILITIES AND STRUCTURES AS SHOWN ON THIS PLAN WERE FOUND PER ABOVE GROUND EXAMINATION OF THIS SITE, BASED ON VISIBLE INDICATIONS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL EXACT LOCATIONS AND ELEVATIONS OF ALL UNDERGROUND UTILITIES AND OTHER STRUCTURES BEFORE THE START OF CONSTRUCTION ON THIS PROJECT.
7. IT SHALL BE THE GENERAL CONTRACTOR'S RESPONSIBILITY TO VERIFY THAT ALL UTILITIES ARE AS NOTED IN THE PLANS. ANY DISCREPANCIES SHALL BE REPORTED TO THE ENGINEER AS SOON AS POSSIBLE.
8. TOILET FACILITIES SHALL BE MADE AVAILABLE TO CONSTRUCTION WORKERS WITHIN 300' OF SITE.
9. NO MATERIAL CAN BE BURIED ONSITE WITHOUT THE APPROVAL OF THE OWNER AND GEOTECHNICAL ENGINEER.
10. CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL OF ALL DEBRIS AS ACCEPTABLE TO THE OWNER.
11. CONTRACTOR IS TO REMOVE ALL ROCK, TOPSOIL, AND UNSUITABLE MATERIALS.
12. MAXIMUM CUT OR FILL SLOPES SHALL BE 2 HORIZONTAL: 1 VERTICAL.
13. THIS SITE DOES NOT CONTAIN WETLANDS.
14. THIS SITE DOES HAVE STATE WATERS REQUIRING UNDISTURBED BUFFERS.
15. EXISTING FEATURES SHOWN BY DASHED LINES OR SHADED. PROPOSED FEATURES SHOWN BY SOLID OR BOLD LINES.
16. CONTRACTOR RESPONSIBLE FOR PROTECTING ADJACENT AREAS AND SHALL BE RESPONSIBLE TO REPAIR ANY DAMAGE TO A CONDITION EQUAL TO OR GREATER THAN THE ORIGINAL CONDITION.
17. ALL PIPE TO CONFORM TO PIPE MANUFACTURER REQUIREMENTS AND GEOTECHNICAL RECOMMENDATIONS.
18. CONTRACTOR SHALL COORDINATE BUILDING CONSTRUCTION WITH ARCHITECTURAL PLANS (BY OTHERS)
19. ALL SIGNAGE AND STRIPING TO BE PROVIDED BY CONTRACTOR ACCORDING TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AND OTHER OTHERWISE MUNICIPAL STANDARDS AND SPECIFICATIONS, LATEST EDITIONS.
20. PRIOR TO CONSTRUCTION, THE CONTRACTOR IS TO VERIFY ALL DIMENSIONS ON THESE DRAWINGS WITH ALL COORDINATING DOCUMENTS AND NOTIFY ENGINEER OF ANY DISCREPANCIES. IF DISCREPANCIES ARE FOUND DURING CONSTRUCTION, THE CONTRACTOR IS TO STOP WORK IMMEDIATELY AND NOTIFY THE ENGINEER.
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23. MUTCD SIGNAGE AND CERTIFIED FLAGGERS SHALL BE EMPLOYED DURING ANY ROAD CLOSURE OR TRAFFIC DISRUPTION.

OWNER
N/F GAMESA PROPERTIES
5025 DEEN ROAD
MARIETTA, GA 30066

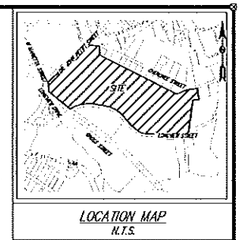
DEVELOPER
PEPE MEDINA
827 GA-400 SUITE 105
DAWSONVILLE, GA 30534
(678) 384-9447

24-HOUR CONTACT
PEPE MEDINA
(678) 384-9447
pepecelhay@gmail.com

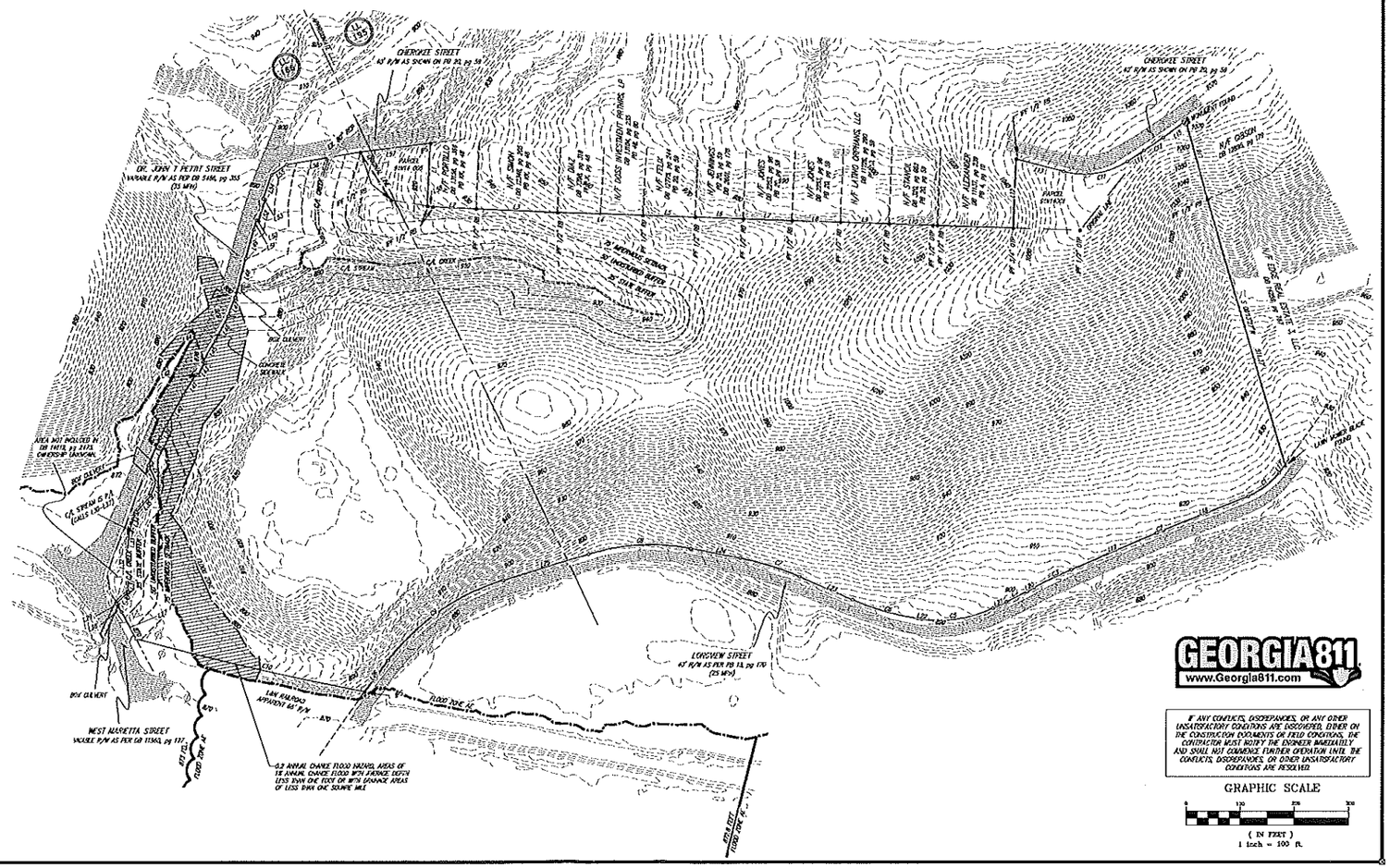
LEGEND

-O-	POWER POLE (PP)	C&G	CURB AND GUTTER
MP	MON POINT	IP	IRON PIN
DI	DROP INLET	P.L.	PROPERTY LINE
JB	JUNCTION BOX	F.E.S.S.	FLARED END SECTION
OCS	OUTLET CONTROL STRUCTURE	PT	POINT OF TANGENT
D.C.B.	DOUBLE THRU CATCH BASIN	PC	POINT OF CURVATURE
HW	HEADWALL	OCS	OUTLET CONTROL STRUCTURE
RCP	REINFORCED CONCRETE PIPE	ELEV.	ELEVATION
CMP	CORRUGATED METAL PIPE	N/F	NOW OR FORMERLY
HDPE	HIGH DENSITY POLYETHYLENE	R/W	RIGHT OF WAY
UGD	UNDERGROUND DETENTION	LL	LAND LOT LINE
TBM	TEMPORARY BENCHMARK	CONC.	CONCRETE
EX.	EXISTING	INV	INVERT
PROP.	PROPOSED	EOP	EDGE OF PAVEMENT
FH	FIRE HYDRANT	TYP.	TYPICAL
BM	BASER MONS	—x—	FENCE
LF	LINEAR FEET	—x—	SILT FENCE
DIP	DUCTILE IRON PIPE	—oh—	OVERHEAD ELECTRIC
PVC	POLYVINYL CHLORIDE		SOILS
R	RADIUS	—ss—	SANITARY SEWER LINE
SF	SQUARE FEET		BUILDING SETBACK LINE
FFE	FINISH FLOOR ELEVATION		VEGETATIVE BUFFER
		—w—	WATERLINE

GRID NORTH (GA WEST ZONE) (PER REF. SURVEY 2)



LOCATION MAP
N.T.S.


CHEROKEE STREET
67' R/W AS SHOWN ON PB 25, PG 58
DR. JOHN T PETTIT STREET
VARIABLE R/W AS PER DB 5484, PG 355
(35 MPH)
N/F DOSS INVESTMENT PARTNERS, LP
DB 11704, PG 235
N/F SIMON
DB 2222, PG 89
N/F ZONES
DB 2222, PG 89
N/F LAMAR OUTDOOR
DB 11704, PG 89
N/F ALEXANDER
DB 1222, PG 89
N/F GIBSON
DB 12690, PG
PAVED ENTRANCE
MARIETTA STREET
N/F GOSS
DB 1222, PG 89
N/F FELL
DB 1222, PG 89
N/F ZONES
DB 2222, PG 89
N/F JENNINGS
DB 2222, PG 89
N/F ZONES
DB 2222, PG 89
N/F ZONES
DB 2222, PG 89
N/F ZONES

2022-0707-01

ORDINANCE #MP2110-002

City of Canton

Applicant: Rob Beecham

An Ordinance approving a requested Master Plan with specific conditions.

ALL THOSE TRACTS OR PARCELS OF LAND known as Parcel 022G, found on Tax Map 14N17, Parcel 005, found on Tax Map Number 91N14 and Parcel 001, found on Tax Map 91N14 being in Land Lots 166 and 195 of the 14th District, 2nd Section of Cherokee County, Georgia. The property being more particularly described the survey prepared by DES, Davis Engineering and Surveying, titled "Survey for: Folia Group", dated August 14, 2021, containing 33.23 acres. Said survey is attached hereto as Exhibit A.

WHEREAS, it is hereby found and determined that a petition to approve a proposed Master Plan was filed with the City of Canton and a public hearing was held on January 6, 2022 in the Canton City Hall at 110 Academy Street, Canton, Georgia.

PROPOSED USE: One hundred twenty four (124) single family homes, detached and attached (duplexes).

WHEREAS, the requested Master Plan was approved on June 16, 2022 subject to the following conditions as amended on July 7, 2022:

1) The development shall be limited to one hundred twenty four single family homes, detached and attached (duplexes).
2) The minimum lot size shall be 3,150 square feet.
3) The development standards received June 8, 2022 from the applicant shall be used provided such standards are approved by the applicants civil engineer and the City Engineer of the City of Canton. Should these proposed development standards not be approved the owner developer shall adhere to the adopted development standards of the City of Canton.
4) The Native Plant Rescue Society shall be allowed access to the property prior to any land disturbance for the purpose of locating and rescuing any endangered plant species.
5) All roadways, storm water systems, trails…etc shall be maintained by the Home Owners Association (HOA). The HOA shall be established and recorded prior to the issuance of the first Certificate of Occupancy.
6) This shall be a gated community. All interior roadways shall be private.
7) The International Fire Code shall be adhered to.
8) The owner/developer shall donate eight hundred dollars ($800) per unit to the City of Canton Affordable Housing Fund.

NOW THEREFORE, be it resolved that the Mayor and City Council of the City of Canton does hereby approve the proposed Master Plan.

Adopted this 16th day of June 2022.

Bill Grant, Mayor

Attest: _____
Annie Fortner, City Clerk

Approved as to Form and Content:

Robert M. Dyer, City Attorney

First Reading: January 6, 2022

Adopted by Council: June 16, 2022

Approved by Mayor: _____

Veto by Mayor: _____

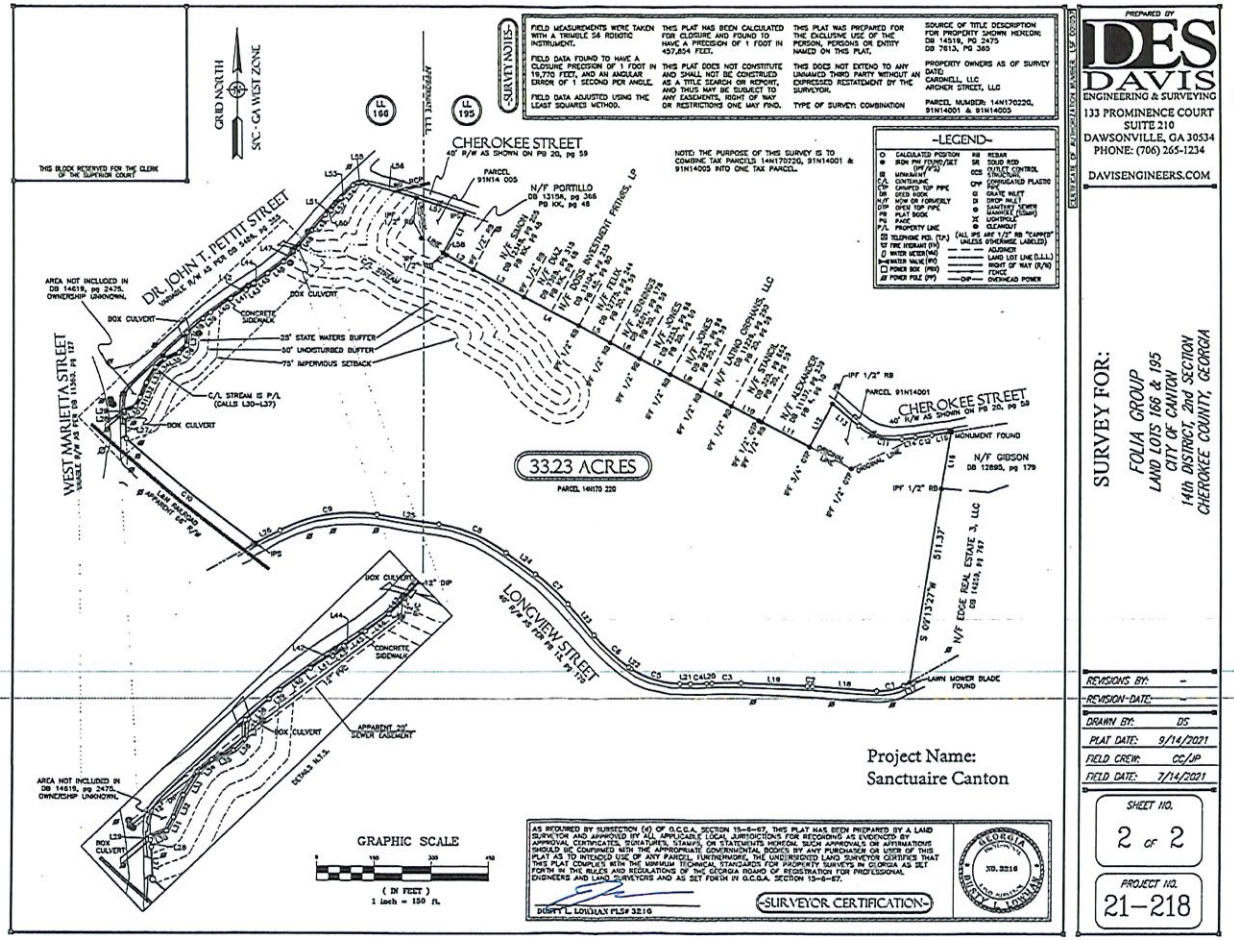
Second vote by Council: _____

Effective Date: _____

Exhibit A

PROPOSED RESIDENTIAL DEVELOPMENT

SANCTU·AIRE



CITY OF CANTON
TIN: 14N17 022 G

AREA: 31.88 ACRES
CURRENT ZONING: R-20 SINGLE-FAMILY RESIDENTIAL

PROPOSED DEVELOPMENT:
PROPOSED ZONING: PD-RESIDENTIAL

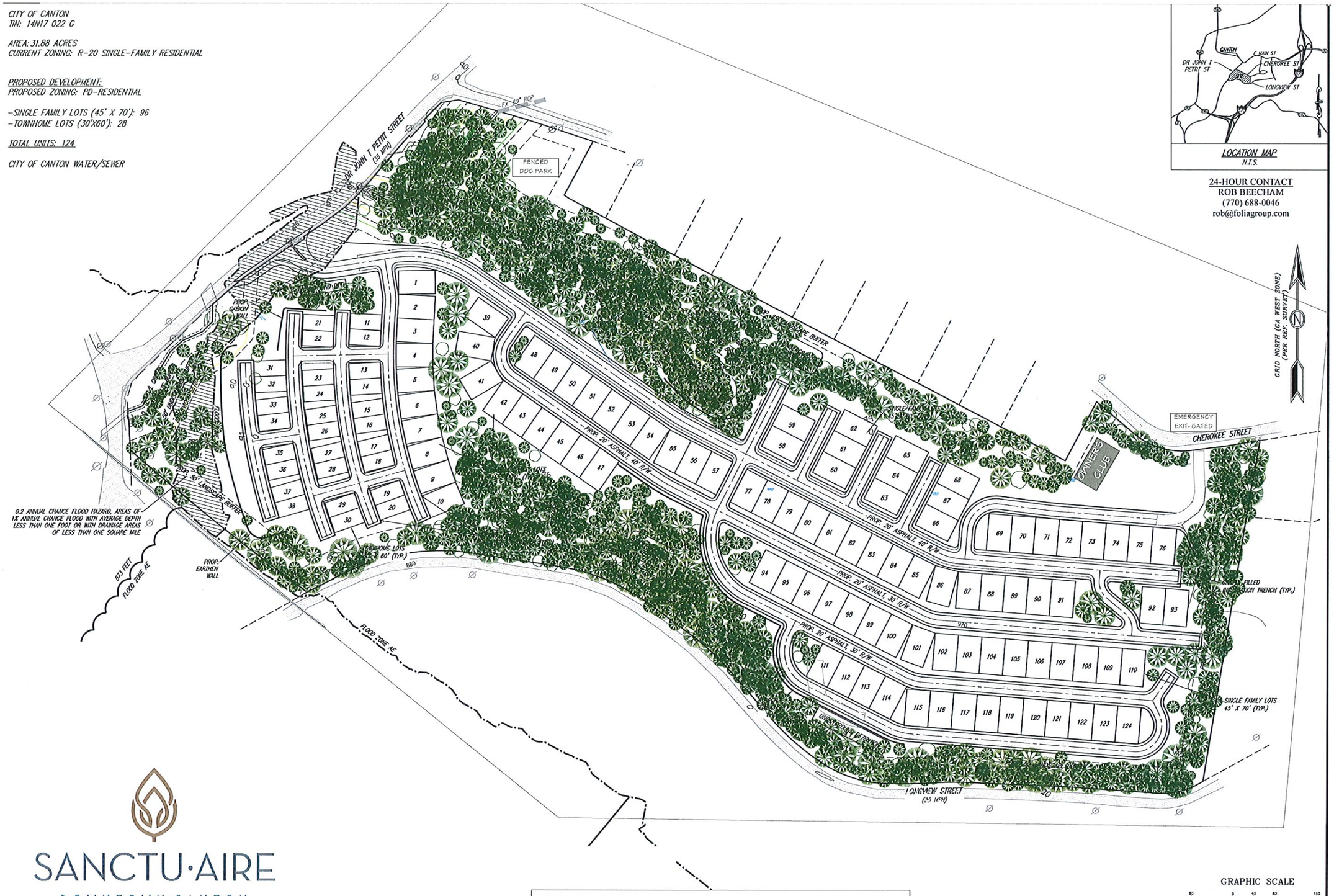
-SINGLE FAMILY LOTS (45' X 70'): 96
-TOWNHOME LOTS (30'X60'): 28

TOTAL UNITS: 124

CITY OF CANTON WATER/SEWER

LOCATION MAP
N.T.S.

24-HOUR CONTACT
ROB BEECHAM
(770) 688-0046
rob@foliagroup.com



SANCTU·AIRE
DOWNTOWN CANTON

PROPOSED MASTER PLAN

GRAPHIC SCALE
80 0 40 80 160
(IN FEET)
1 inch = 80 ft

REVISION TABLE			
NUMBER	DATE	REVISED BY	DESCRIPTION

Sanctu-aire
Proposed Master Plan
Canton, GA 30114

folia group

DATE:
6/1/2022

SCALE:

SHEET:
P-1

PROJECT INFORMATION:

CURRENTLY, THIS 33.23 ACRE PROPERTY IS FORESTED COVERAGE, WITH GOOD CONDITIONS.

THE PROPOSED DEVELOPMENT WILL CONSIST OF A PROPOSED ROAD, TOWNHOUSES, DUPLEXES, AND SINGLE FAMILY RESIDENTIAL STRUCTURES, WITH STORMWATER MANAGEMENT FACILITIES, UTILITIES, AND AMENITIES, ETC.

PROPERTY/PARCEL INFORMATION:
ADDRESS:LONGVIEW STREET, CANTON, GA 30114
PARCEL NUMBER:14N170 226
JURISDICTION:CITY OF CANTON
SITE DISTURBANCE:
TOTAL AREA= 33.32 ACRES
DISTURBED AREA= ---- ± ACRES

BOUNDARY INFORMATION OBTAINED FROM A SURVEY FOR FOLIA GROUP COMPLETED BY DAVIS ENGINEERING & SURVEYING, LLC DATED 9/14/2021.

CONTOUR INTERVAL: 2'

UTILITIES SHOWN HEREON ARE FROM EXISTING STRUCTURES AND ABOVEGROUND MARKS FOUND. DAVIS ENGINEERING AND SURVEYING, LLC IS NOT RESPONSIBLE FOR THE LOCATION OF UNDERGROUND UTILITIES.

ACCORDING TO AN INTERPRETATION OF THE FEMA NATIONAL FLOOD HAZARD LAYER, THIS PROPERTY DOES LIE WITHIN A FEDERAL FLOOD HAZARD AREA PER FIRM PANEL NO. 13057C0251E DATED 06/07/2019.

ZONING INFORMATION:
CITY OF CANTON
ZONING:PD-R (PLANNED DEVELOPMENT – RESIDENTIAL)

SINGLE-FAMILY DETACHED
- FRONT: 5'
- SIDE: 5'
- REAR: 30'
- BUILDING HEIGHT: 40' (TWO AND ONE-HALF STORIES)

SINGLE-FAMILY ATTACHED & DUPLEXES
- FRONT: 10'
- SIDE: 0' WITH USE OF APPROVED FIRE-RATED WALLS
- REAR: 0'
- BUILDING HEIGHT: 40' (TWO AND ONE-HALF STORIES)

TOWNHOUSES
- FRONT: 10'
- SIDE: 0'
- REAR: 0'
- BUILDING HEIGHT: 60' (FOUR STORIES)

GENERAL NOTES:

1. ALL CONSTRUCTION WORK, MATERIALS, AND IMPROVEMENTS AT THIS SITE SHALL CONFORM WITH THE CITY OF CANTON, GEORGIA REQUIREMENTS.
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23. MUTCD SIGNAGE AND CERTIFIED FLAGGERS SHALL BE EMPLOYED DURING ANY ROAD CLOSURE OR TRAFFIC DISRUPTION.

CITY OF CANTON MASTER PLAN LAND USE NOTES:

RESIDENTIAL POD BREAKDOWN:
- SINGLE-FAMILY DETACHED: 15
- TOWNHOUSES: 80
- DUPLEXES: 24 BUILDINGS – 48 UNITS

LAND USE BREAKDOWN BY POD (RESIDENTIAL):
- SINGLE-FAMILY DETACHED ~ 5.26 ACRES / 33.23 ACRES x 100 = 15.83% (MIN – 25%, MAX – NONE)
- DUPLEX/MULTIPLE-FAMILY ~ 2.32 ACRES / 33.23 ACRES x 100 = 6.98% (MAX – 25%)
- TOWNHOUSES ~ 4.90 ACRES / 33.23 ACRES x 100 = 14.75% (MAX – 25%)
- ACRES WITHIN PUBLIC RIGHT-OF-WAY ~ 6.08 ACRES

LOT COVERAGE:

SINGLE-FAMILY DETACHED:
IMPERVIOUS ~ (2,000 SQFT/HOUSE + 200 SQFT/DRIVE) x 15 UNITS
= 33,000 SQFT / 43,560 SQFT = 0.76 ACRES
PERCENT IMPERVIOUS POD COVERAGE = 0.76 ACRES / 5.26 ACRES x 100 = 14.45%
OPEN SPACE COVERAGE = 5.26 ACRES – 0.76 ACRES
= 0.76 ACRES / 5.26 ACRES x 100 =85.55%

DUPLEXES (2 UNITS/DUPLEX BUILDING):
IMPERVIOUS ~ (2,400 SQFT/UNIT + 150 SQFT/DRIVE) x 24 BUILDINGS
= 61,200 SQFT / 43,560 SQFT = 1.40 ACRES
PERCENT IMPERVIOUS POD COVERAGE = 1.40 ACRES / 2.32 ACRES x 100 = 60.34%
OPEN SPACE COVERAGE = 2.32 ACRES – 1.40 ACRES
= 0.92 ACRES / 2.32 ACRES x 100 = 39.66%

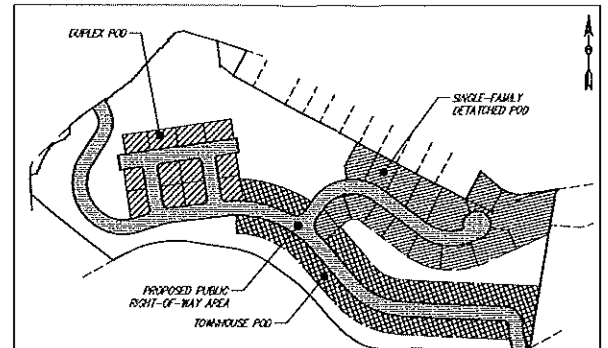
TOWNHOUSES:
IMPERVIOUS ~ (1,000 SQFT/UNIT + 200 SQFT/DRIVE) x 80 UNITS
= 96,000 SQFT / 43560 SQFT = 2.20 ACRES
PERCENT IMPERVIOUS POD COVERAGE = 2.20 ACRES / 4.90 ACRES x 100 = 44.90%
OPEN SPACE COVERAGE = 4.90 ACRES – 2.20 ACRES
= 2.70 ACRES / 4.90 ACRES x 100 = 55.10%

OVERALL OPEN SPACE:
5.26 ACRES SINGLE FAMILY + 2.32 ACRES DUPLEXES + 4.90 ACRES TOWNHOMES + 6.08 ACRES ROW = 18.56 ACRES = 44% OPEN SPACE

RESIDENTIAL DISTRICT PARKING:

MAXIMUM:
ONE OR TWO FAMILY DWELLING ~ 4 SPACES
TOTAL MAXIMUM ALLOWED = 4 SPACES/DWELLING UNIT x 119 UNITS = 476 SPACES

PROVIDED:
TOWNHOUSES ~ 2 SPACES/DWELLING UNIT x 80 UNITS = 160 SPACES
SINGLE-FAMILY DETACHED ~ 2 SPACES/DWELLING UNIT x 15 UNITS = 30 SPACES
DUPLEXES ~ 2 SPACES/DWELLING UNIT x 48 UNITS = 96 SPACES
CLUBHOUSE PARKING ~ 1 HANDICAP SPACE + 13 REGULAR SPACES = 14 SPACES
TOTAL SPACES PROVIDED = 300



POD BREAKDOWN MAP (N.T.S.)

LEGEND

-O-	POWER POLE (PP)	C&G	CURB AND GUTTER
HP	HIGH POINT	IP	IRON PIN
DI	DROP INLET	P/L	PROPERTY LINE
JB	JUNCTION BOX	F.E.S.S.	FLARED END SAFETY SECTION
OCS	OUTLET CONTROL STRUCTURE	PT	POINT OF TANGENT
DWCB	DOUBLE WING CATCH BASIN	PC	POINT OF CURVATURE
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HDPE	HIGH DENSITY POLYETHYLENE	R/W	RIGHT OF WAY
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PVC	POLYVINYL CHLORIDE	▬▬▬	SOILS
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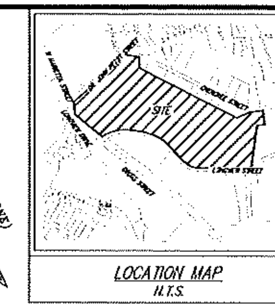

LOCATION MAP
N.T.S.

OWNER
N/F GAMESA PROPERTIES
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MARIETTA, GA 30066

DEVELOPER
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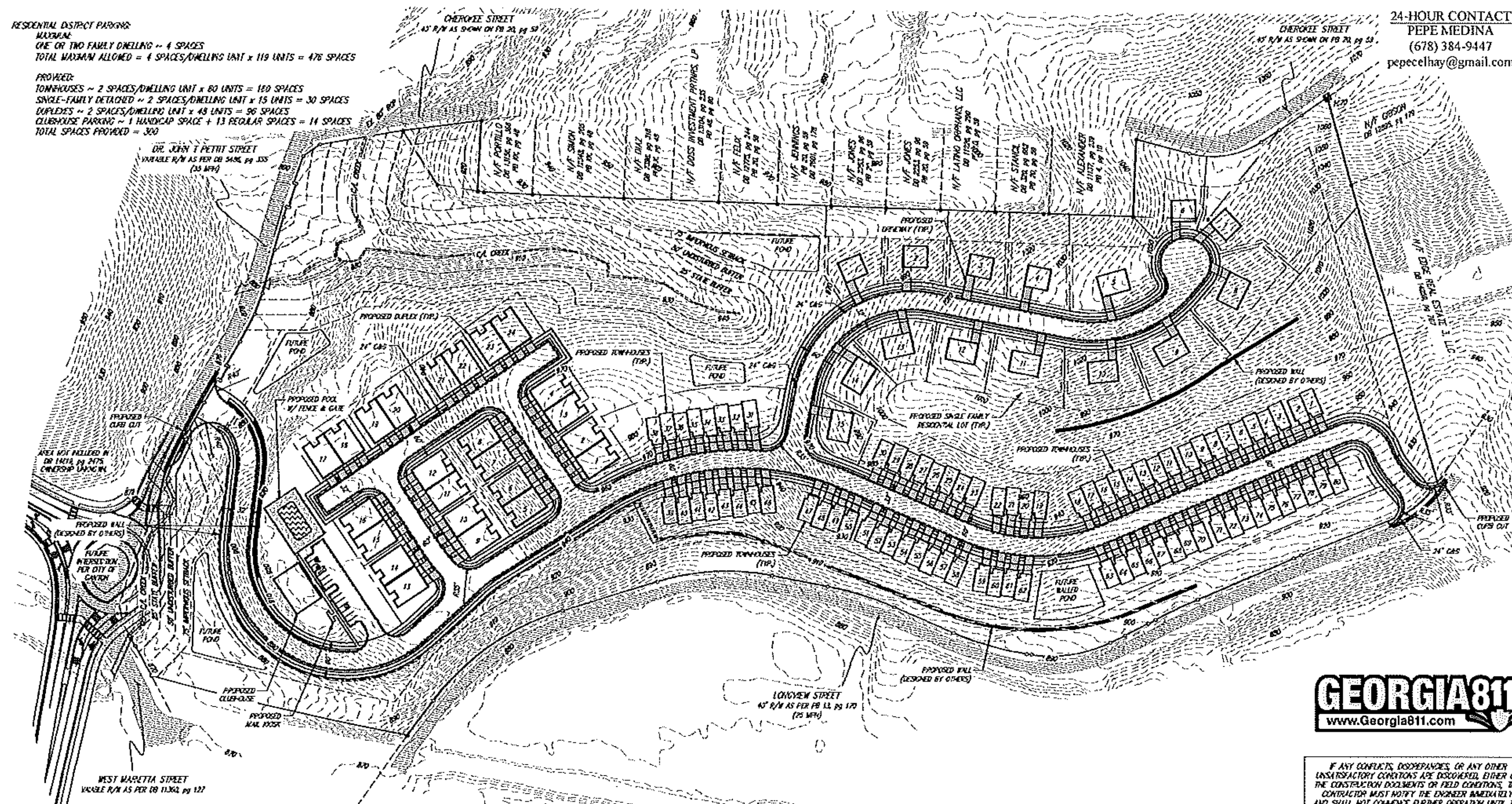

GEORGIA811
www.Georgia811.com

IF ANY CONFLICTS, DISCREPANCIES, OR ANY OTHER UNSATISFACTORY CONDITIONS ARE DISCOVERED, EITHER ON THE CONSTRUCTION DOCUMENTS OR FIELD CONDITIONS, THE CONTRACTOR MUST NOTIFY THE ENGINEER IMMEDIATELY AND SHALL NOT COMMENCE FURTHER OPERATION UNTIL THE CONFLICTS, DISCREPANCIES, OR OTHER UNSATISFACTORY CONDITIONS ARE RESOLVED.

GRAPHIC SCALE
0 100 200 300
(IN FEET)
1 inch = 100 ft.

DES DAVIS
ENGINEERING & SURVEYING
24 DAWSON VILLAGE WAY SOUTH
DAWSONVILLE, GA 30534
PHONE: (706) 265-1234
DAVISENGINEERS.COM

GEORGIA REGISTERED PROFESSIONAL ENGINEER No. PE044582 CHARLES N. HERBERT III
08/07/2025

REVISION	DATE	DESCRIPTION
-	08/01/2025	MASTER PLAN – INITIAL SUBMITTAL
1	08/07/2025	MASTER PLAN – REVISED OPEN SPACE CALCS

MASTER PLAN
LONGVIEW STREET
LAND LOT 166 & 195
14th DISTRICT
CITY OF CANTON
CHEROKEE COUNTY, GEORGIA

DRAWN BY:	CTH
CHECKED BY:	CH
LAND LOT:	166 & 195
DISTRICT:	14th
SECTION:	–
CITY:	CANTON
COUNTY:	CHEROKEE
DATE:	08/01/2025

SHEET NO. 2 OF 2

PROJECT NO. 21-221.1

DES | DAVIS ENGINEERING & SURVEYING
Est. 2009
CIVIL ENGINEERING | LAND SURVEYING | CONSTRUCTION LAYOUT

REVISED 8-27-25

August 27, 2025

City of Canton – Community Development Department
Re: Proposed Development Master Plan – Longview Street, Canton, GA (Parcel 14N170 22G)

To Whom It May Concern:

This Letter of Intent supports the Master Plan submission for a proposed residential development located along Longview Street in the City of Canton. The project encompasses approximately 33.23 acres and is currently under ownership of Gamesa Properties. The applicant and developer is Pepe Medina.

The proposed development will introduce a mix of townhomes, duplexes, and single-family detached residences, along with stormwater facilities, roadways, and supporting infrastructure to the community. The site will be developed following Planned Development – Residential (PD-R) zoning district regulations in the City of Canton. Please note that due to the limited constructability of the site due to extreme topography has reduced the entire buildable area less than required by the City of Canton. This is a formal variance request to reduce the single-family total land area to 15%. Due to the same limitations as shown below the project consists of 44% open and green spaces/buffers which accounts for a large portion of the reduction.

The subject parcel (Cherokee County Parcel ID: 14N170 22G) is a wooded and undeveloped tract of land with no existing structures. It has been historically vacant and is now being considered for residential development in response to the community's growing housing needs. The area lies within the limits of the City of Canton, District 14, Land Lots 166 & 195.

A detailed traffic impact study will be submitted separately to the Planning and Zoning Department in accordance with City requirements. However, the following is a general overview:

- Trip Generation: The proposed mix of housing types is anticipated to generate moderate traffic volumes, consistent with other suburban residential developments.
- Peak Hour Impacts: Trips will be distributed across multiple access points via Longview Street, Dr. John T. Pettit St., proposed roundabouts and nearby collector roads.
- Road Network: The internal road system will meet City design standards and includes provisions for sidewalks and emergency access.
- Improvements: If warranted by the finalized traffic study, mitigation measures such as turn lanes, signage, or additional pedestrian enhancements will be proposed.

The project will enhance surrounding land values by converting an underutilized tract into a well-planned residential community.

The project proposes the following uses:

Pod/Area Type	Use Description	Acreage (Approx.)
Townhomes	4-story attached townhome buildings	4.9 acres
Duplexes	Side-by-side multi-family residences	2.32 acres
Single-Family Detached	Traditional standalone residential lots	5.26 acres
ROW	Public dedicated ROW	6.08 acres
Common Open Space & Buffers	Green spaces, stream buffers, future ponds	14.67 acres

The project may be developed in two primary phases:

- Phase I: Grading, infrastructure, and townhome/duplex units (12–18 months)
- Phase II: Single-family lots, stormwater facilities, and landscape installation (additional 12 months)
- There are no proposed temporary uses during development.

- ✓ Total site area: 33.23 acres
- ✓ Total disturbed area: TBD
- ✓ Gross Density: ~4.3 dwelling units per acre (based on approx. 143 proposed units)
- ✓ Net Density: Varies by area, generally 6–8 units per acre for townhomes/duplexes and 3–4 for single-family
- ✓ Maximum Building Heights:
  - Townhomes: 60' (4 stories)
  - Duplexes & Single-Family: 40' (2.5 stories)
- ✓ Maximum Building Coverage: Approx. 11.6 acres (35%)
- ✓ Impervious Surface: Approx. 30%
- ✓ Open Space: Estimated 14.5 acres (~44%)
- ✓ Minimum Lot Sizes:
  - Townhomes: ~1,800 SF
  - Duplexes: ~3,000 SF
  - Single-Family: ~5,000 SF
- ✓ Setbacks:
  - Townhomes: 10' front, 0' sides, 0' rear;
  - Duplexes: 10' front, 0' sides, 0' rear;
  - Single-Family: 5' front, 5' sides, 30' rear
- ✓ Parking: 2 spaces/unit for all types + guest parking throughout

The development will include significant landscape buffers along property lines (50'), street trees, pocket parks, and stream corridor preservation. All landscaping will comply with the City of Canton's ordinance.

All proposed signage for this development will comply with the City of Canton sign ordinance. No signage is proposed at this time.

This Letter of Intent is respectfully submitted in support of the Master Plan. We look forward to working with the City of Canton and Planning Commission.

Sincerely,

Charles N. Herbert III, P.E.

TRAFFIC IMPACT STUDY
FOR
PROPOSED RESIDENTIAL DEVELOPMENT ON CHEROKEE STREET AT DR. JOHN T. PETTIT STREET

CITY OF CANTON, GEORGIA

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May 13, 2022
A & R Project # 22-068

TABLE OF CONTENTS

LIST OF TABLES

Item **Page No**

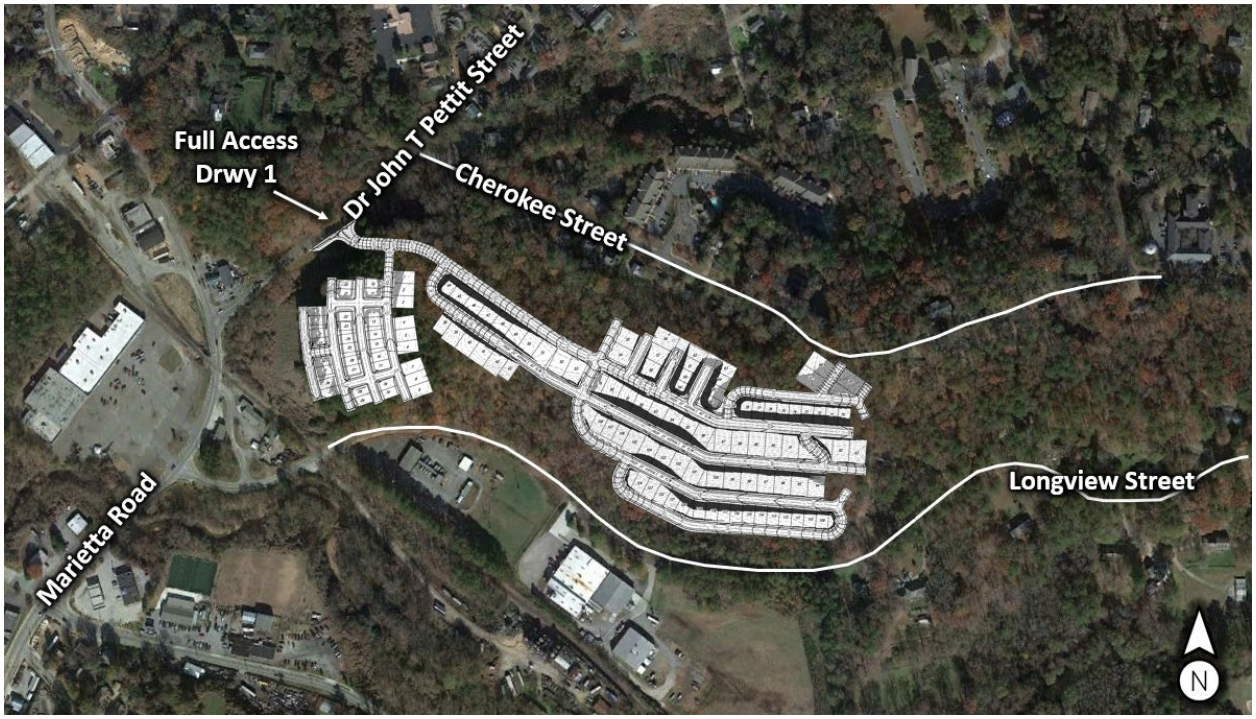
LIST OF FIGURES

Item **Page No**

1.0 INTRODUCTION

The purpose of this study is to determine the traffic impact of the proposed residential development, which is located along Cherokee Street, to the southeast of the intersection Cherokee Street and Dr. John T. Pettit Street in City of Canton, Georgia. The traffic analysis evaluates the current operations and future conditions with the traffic generated by the development. The proposed residential development will consist of:

- Single Family Detached Housing: 93 units
- Single Family Attached Housing: 31 units



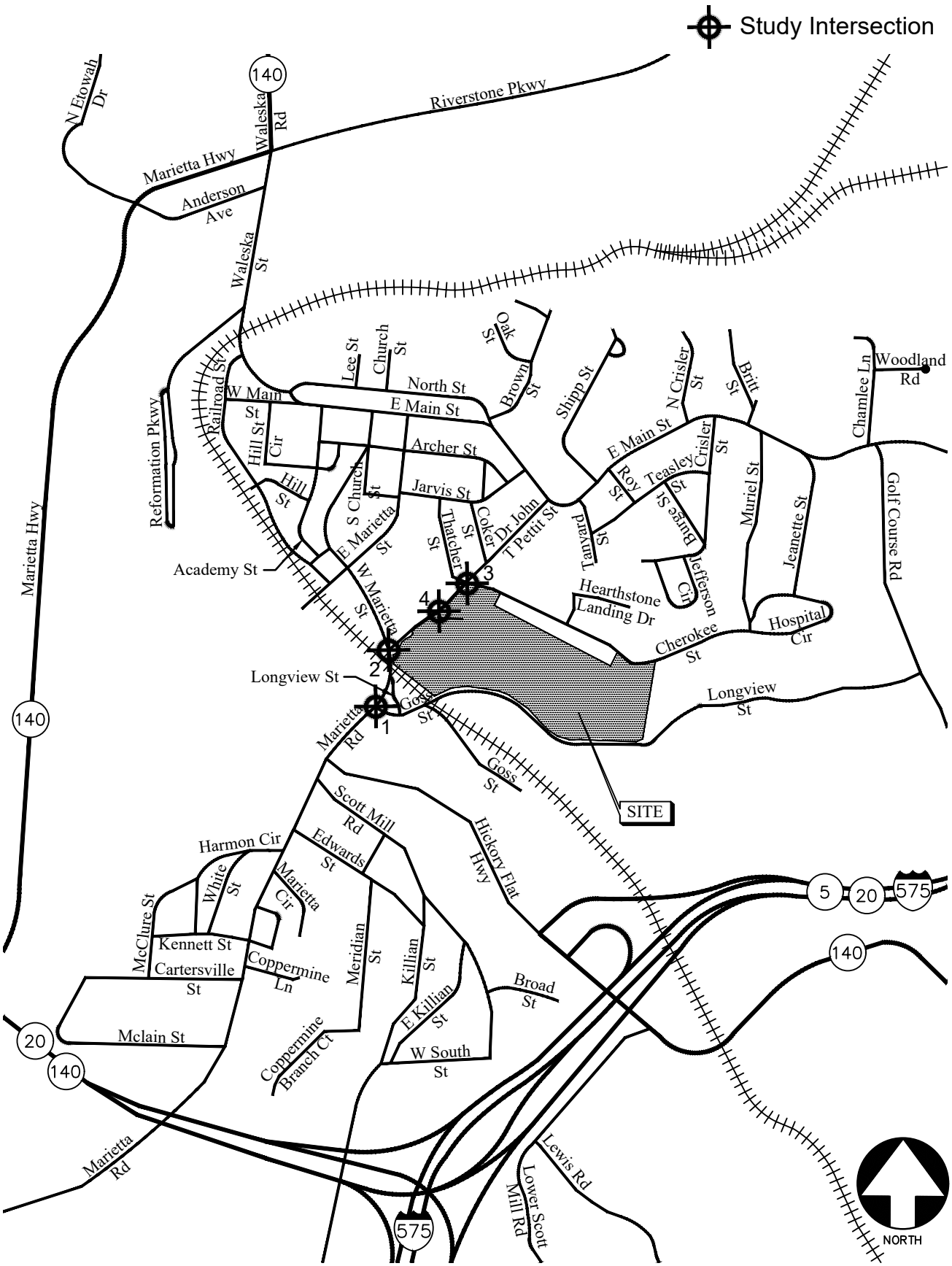
The development proposes access at the following locations:

- Site Driveway 1: Full Access Driveway on Dr. John T. Pettit Street

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

- Marietta Road at Goss Street (Longview Street) / Canton Village Driveway
- Marietta Road / W. Marietta Street at Dr. John T. Pettit Street
- Cherokee Street at Dr. John T. Pettit Street

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



LOCATION MAP FIGURE 1

A&R Engineering Inc.

2.0 EXISTING FACILITIES/CONDITIONS

2.1 Roadway Facilities

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

2.1.1 Cherokee Street

Cherokee Street is an east-west, two-lane, un-divided roadway with a posted speed limit of 25 mph in the vicinity of the site.

2.1.2 Dr. John T. Pettit Street

Dr. John T. Pettit Street is a northeast-southwest, two-lane, un-divided roadway with a posted speed limit of 35 mph in the vicinity of the site. Georgia Department of Transportation (GDOT) traffic counts (Station ID 057-0275) indicate that the daily traffic volume on Dr. John T. Pettit Street in 2019 was 4,160 vehicles per day, south of Cherokee Street. GDOT classifies Dr. John T. Pettit Street as an Urban Minor Arterial roadway.

2.1.3 Marietta Road

Marietta Road is a north-south, two-lane, un-divided roadway with a posted speed limit of 35 mph in the vicinity of the site. Georgia Department of Transportation (GDOT) traffic counts (Station ID 057-0288) indicate that the daily traffic volume on Marietta Road in 2019 was 11,800 vehicles per day, north of Hickory Flat Highway. GDOT classifies Marietta Road as an Urban Minor Arterial roadway.

2.1.4 W. Marietta Street

W. Marietta Street is a north-south, two-lane, un-divided roadway with a posted speed limit of 30 mph in the vicinity of the site. Georgia Department of Transportation (GDOT) traffic counts (Station ID 057-0279) indicate that the daily traffic volume on W. Marietta Street in 2019 was 7,740 vehicles per day, northeast of Dr. John T. Pettit Street. GDOT classifies W. Marietta Street as an Urban Minor Arterial roadway.

2.1.5 Longview Street

Longview Street is an east-west, two-lane, un-divided roadway with a posted speed limit of 25 mph in the vicinity of the site.

2.1.6 Goss Street

Goss Street is an east-west, two-lane, un-divided roadway with a posted speed limit of 25 mph in the vicinity of the site.

3.0 STUDY METHODOLOGY

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

3.1 Unsignalized Intersections

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

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

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

TABLE 1 – LEVEL-OF-SERVICE CRITERIA FOR UNSIGNALIZED INTERSECTIONS

Control Delay (sec/vehicle)	LOS by Volume-to-Capacity Ratio*	
	v/c ≤ 1.0	**v/c ≥ 1.0**
≤ 10	A	F
> 10 and ≤ 15	B	F
> 15 and ≤ 25	C	F
> 25 and ≤ 35	D	F
> 35 and ≤ 50	E	F
> 50	F	F

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

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

3.2 Signalized Intersections

According to HCM procedures, LOS can be calculated for the entire intersection, each intersection approach, and each lane group. HCM uses control delay alone to characterize LOS for the entire intersection or an approach. Control delay per vehicle is composed of initial deceleration delay, queue

move-up time, stopped delay, and final acceleration delay. Both control delay and volume-to-capacity ratio is used to characterize LOS for a lane group. A volume-to-capacity ratio of 1.0 or more for a lane group indicates failure from capacity perspective. Therefore, such a lane group is assigned LOS F regardless of the amount of control delay.

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

TABLE 2 – LEVEL-OF-SERVICE CRITERIA FOR SIGNALIZED INTERSECTIONS

Control Delay (sec/vehicle)*	**LOS for Lane Group by Volume-to-Capacity Ratio***	
	v/c ≤ 1.0	**v/c ≥ 1.0**
≤ 10	A	F
> 10 and ≤ 20	B	F
> 20 and ≤ 35	C	F
> 35 and ≤ 55	D	F
> 55 and ≤ 80	E	F
> 80	F	F

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

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

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

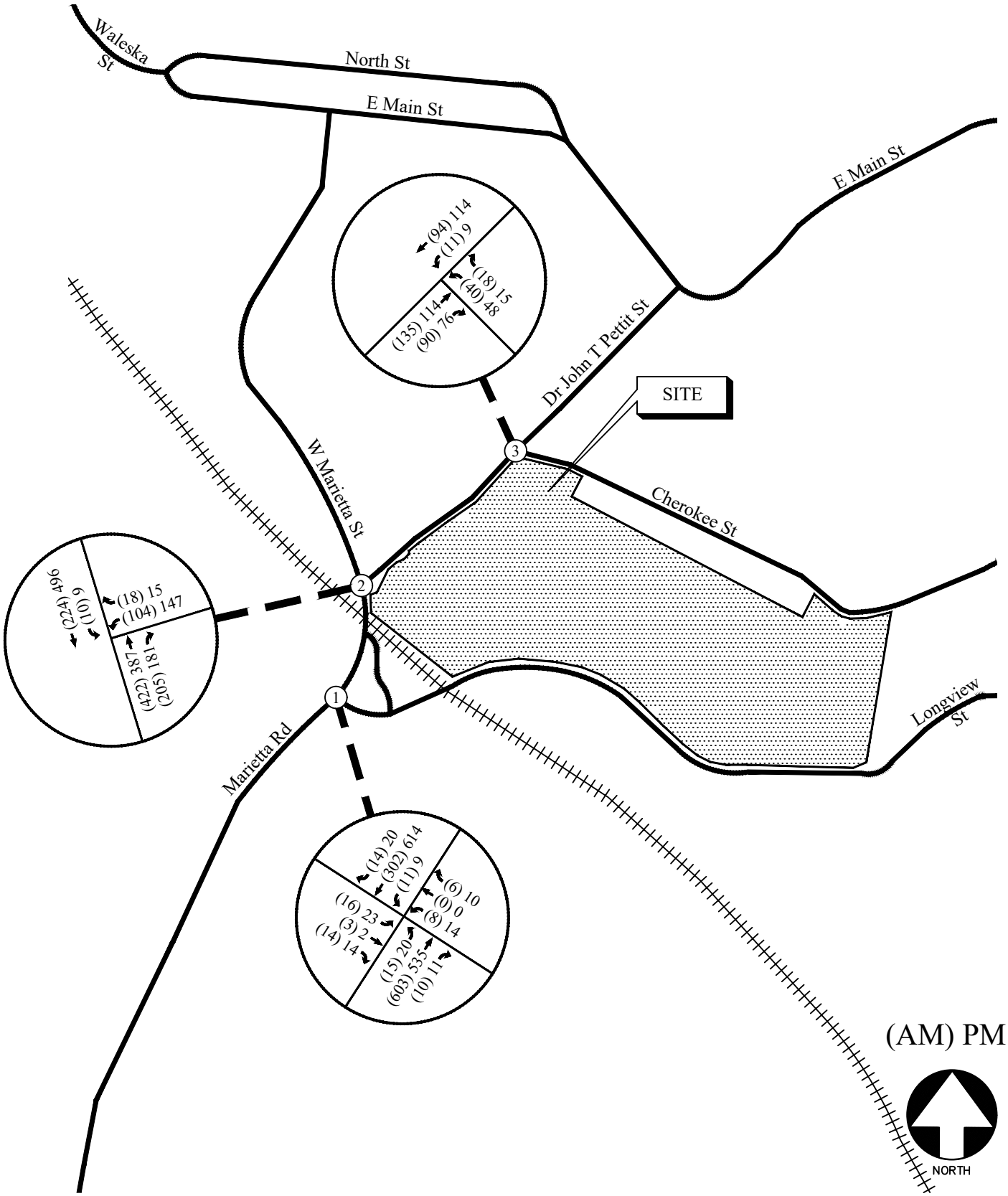
4.0 EXISTING 2022 TRAFFIC ANALYSIS

4.1 Existing Traffic Volumes

Existing traffic counts were obtained at the following study intersections:

- Marietta Road at Goss Street (Longview Street) / Canton Village Driveway
- Marietta Road / W. Marietta Street at Dr. John T. Pettit Street
- Cherokee Street at Dr. John T. Pettit Street

Turning movement counts were collected on Thursday, April 21, 2022. All turning movement counts were recorded during the AM and PM peak hours between 7:00 AM to 9:00 AM and 4:00 PM to 6:00 PM, respectively. The four consecutive 15-minute interval volumes that summed to produce the highest volume at the intersections were then determined. These volumes make up the peak hour traffic volumes for the intersections counted and are shown in Figure 2.



EXISTING WEEKDAY PEAK-HOUR VOLUMES FIGURE 2

A&R Engineering Inc.

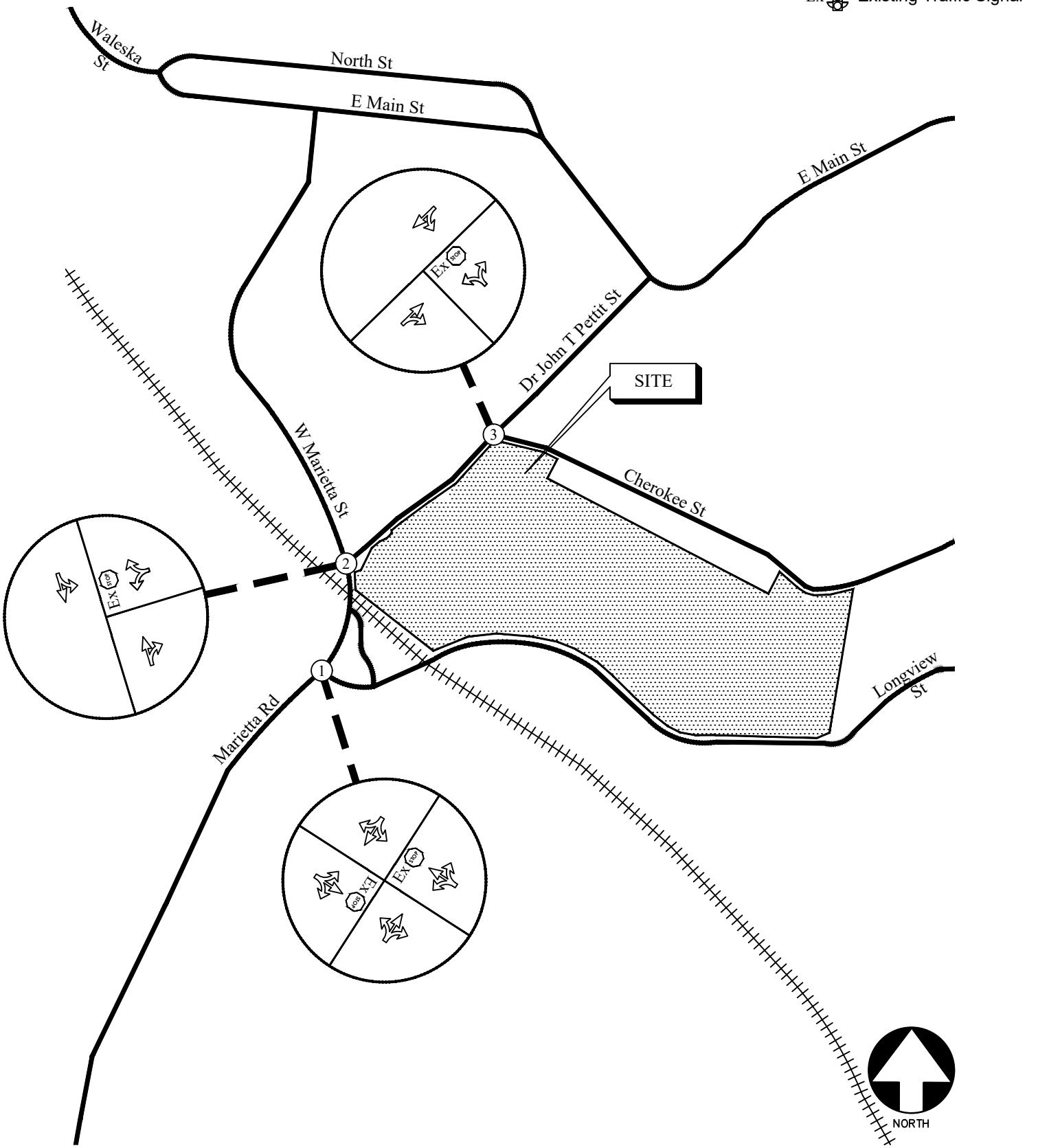
4.2 Existing Traffic Operations

Existing 2022 traffic operations were analyzed at the study intersections in accordance with the HCM methodology. The results of the analysis are shown in Table 3. The existing traffic control and lane geometry for the intersections are shown in Figure 3

TABLE 3 – EXISTING INTERSECTION OPERATIONS

	Intersection	Traffic Control	LOS (Delay)	
			AM Peak Hour	PM Peak Hour
1	**Marietta Road @ Canton Village Driveway/Goss Street** -Eastbound Approach -Westbound Approach -Northbound Left -Southbound Left	Stop Controlled on EB and WB Approaches	 C (19.1) C (16.2) A (8.0) A (8.9)	 D (29.3) D (22.5) A (8.9) A (8.6)
2	**Marietta Road / W. Marietta Street @ Dr. John T. Pettit Street** -Westbound Approach -Southbound Left	Stop Controlled on WB Approach	 C (21.0) A (9.0)	 E (40.2) A (8.7)
3	**Cherokee Street @ Dr. John T. Pettit Street** -Westbound Approach -Southbound Left	Stop Controlled on EB and WB Approaches	 B (10.6) A (7.8)	 B (10.5) A (7.6)

The results of the existing traffic operations analysis indicates that the study intersections are operating at level of service “D” or better in both the AM and PM peak hours, except the intersection at Marietta Road / W. Marietta Street and Dr. John T. Pettit Street westbound approach is operating at level-of-service “E” in the PM peak hour.



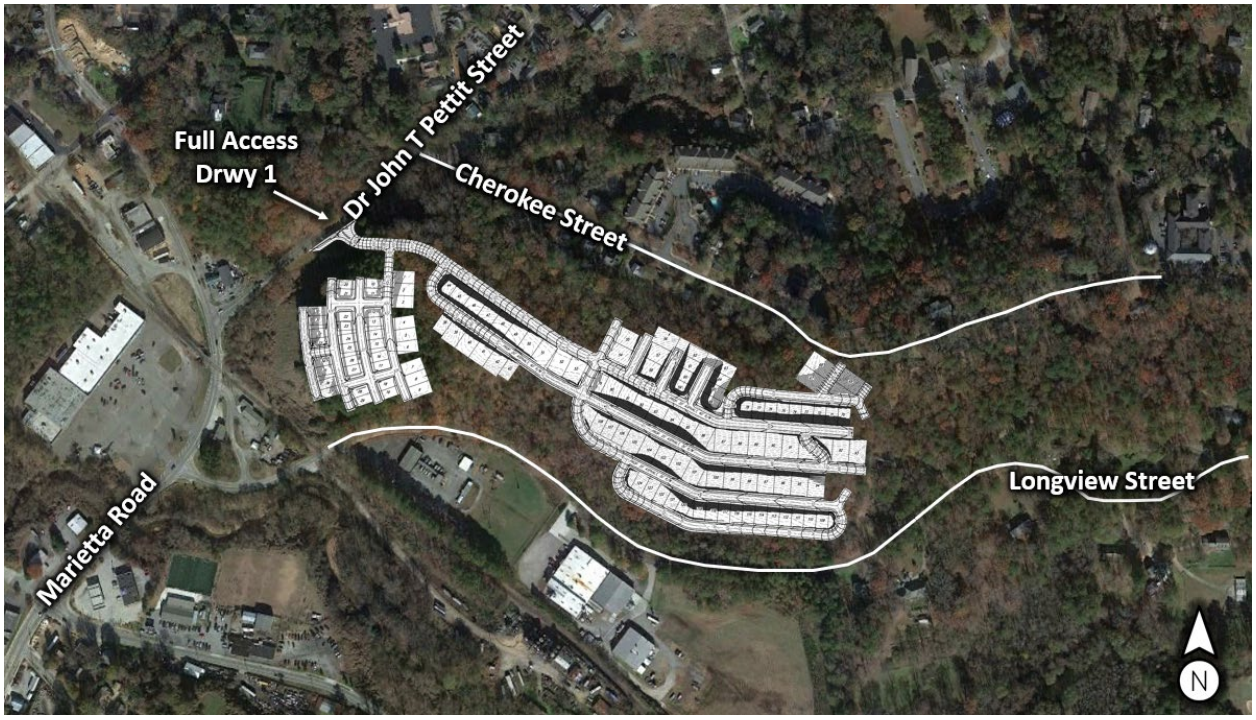
EXISTING TRAFFIC CONTROL AND LANE GEOMETRY FIGURE 3

A&R Engineering Inc.

5.0 PROPOSED DEVELOPMENT

The residential development will consist of:

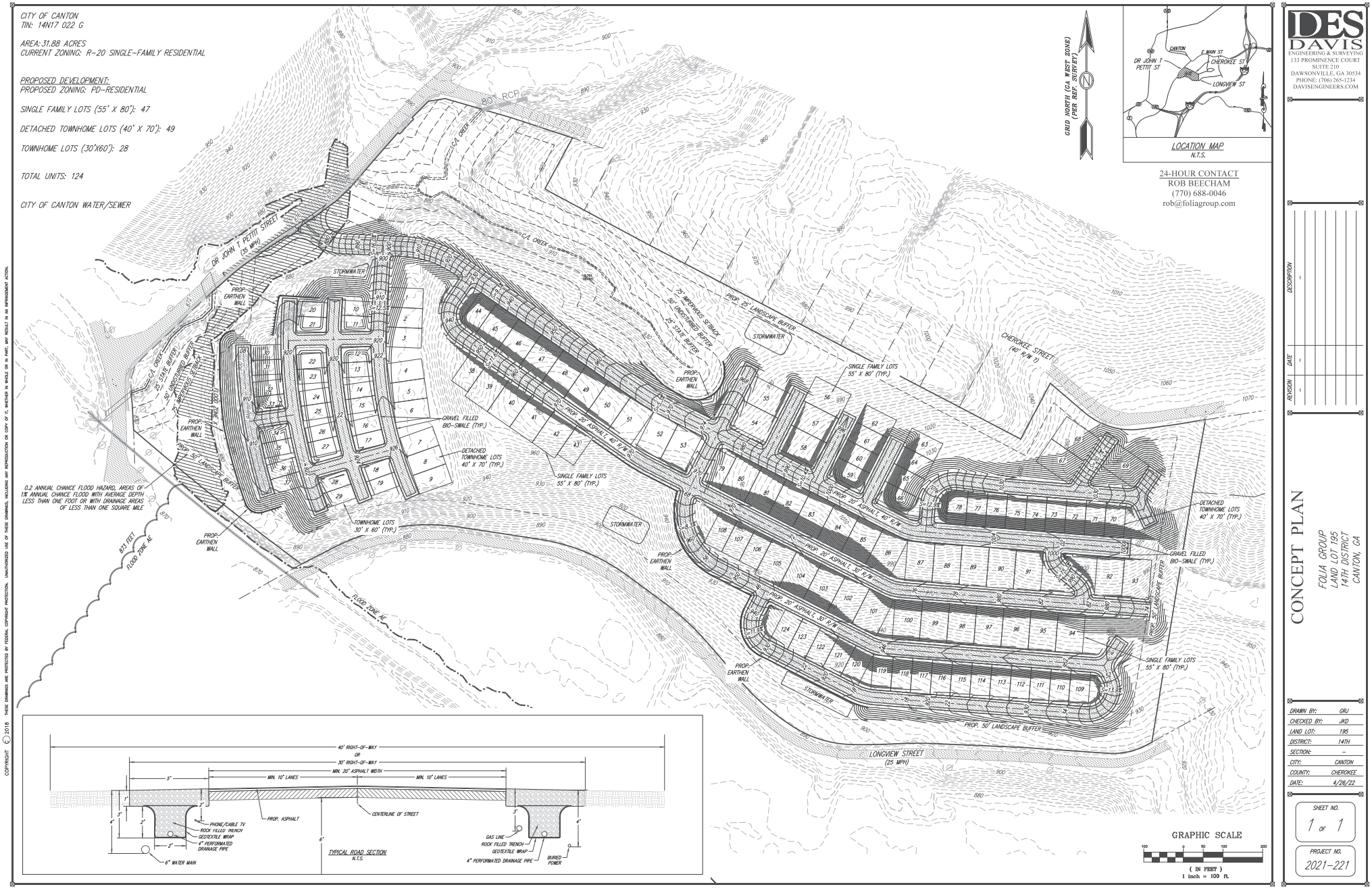
- Single Family Detached Housing: 93 units
- Single Family Attached Housing: 31 units



The development proposes access at the following locations:

- Site Driveway 1: Full Access Driveway on Dr. John T. Pettit Street

A site plan is shown in Figure 4.



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133 PROMINENCE COURT
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REVISION	DATE	DESCRIPTION
-	-	-

CONCEPT PLAN

FOLIA GROUP
LAND LOT 195
14TH DISTRICT
CANTON, GA

DRAWN BY:	GRJ
CHECKED BY:	JKD
LAND LOT:	195
DISTRICT:	14TH
SECTION:	–
CITY:	CANTON
COUNTY:	CHEROKEE
DATE:	4/26/22

SHEET NO. 1 OF 1

PROJECT NO. 2021-221

5.1 Trip Generation

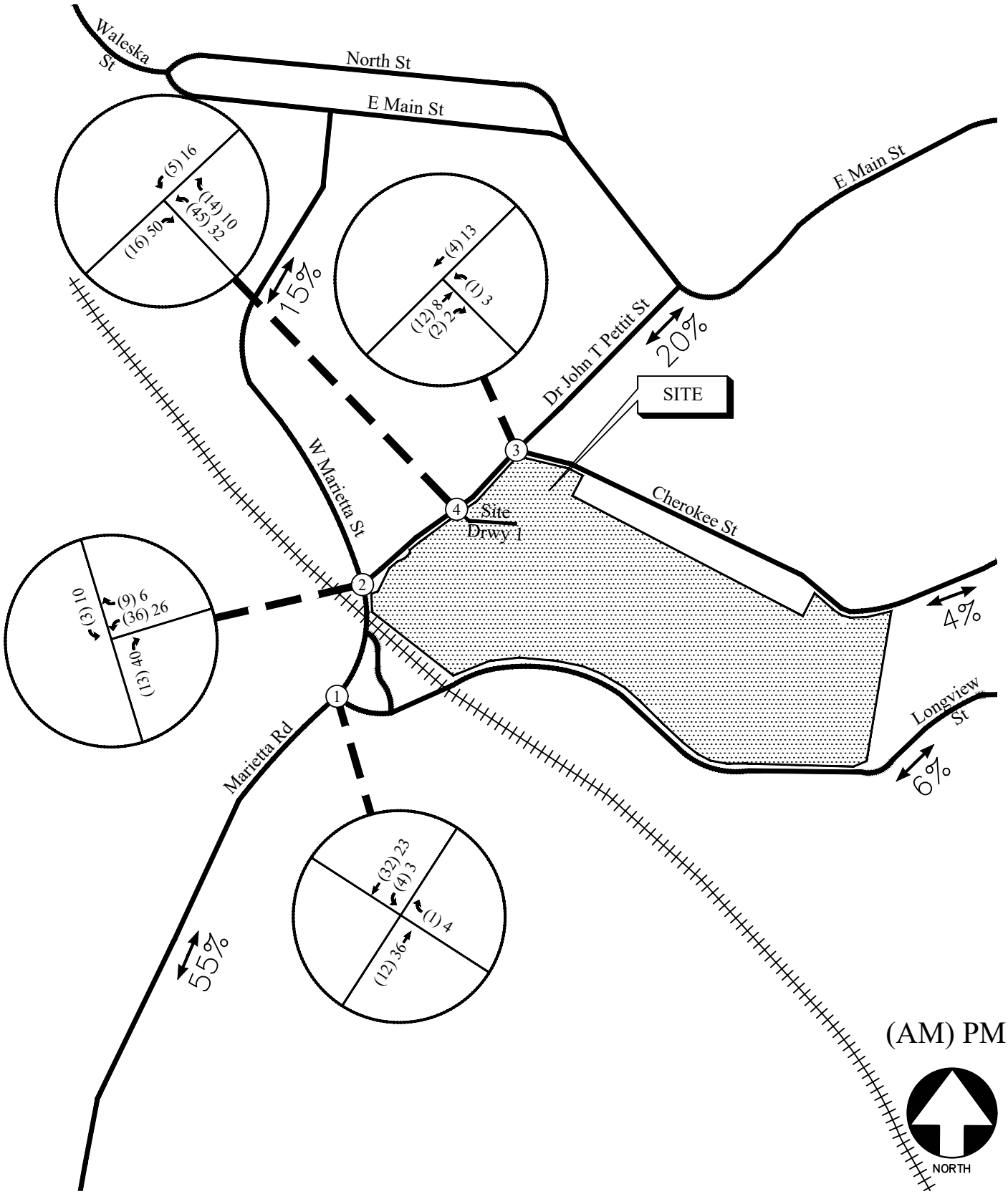
Trip generation estimates for the project were based on the rates and equations published in the 11th edition of the Institute of Transportation Engineers (ITE) Trip Generation report. This reference contains traffic volume count data collected at similar facilities nationwide. The trip generation was based on the following ITE Land Uses: *210 – Single-Family Detached Housing and 215- Single-Family Attached Housing.* The calculated total trip generation for the proposed development is shown in Table 4.

TABLE 4 – TRIP GENERATION

Land Use	Size	AM Peak Hour			PM Peak Hour			24 Hour
		Enter	Exit	Total	Enter	Exit	Total	Two-way
ITE 210 – Single-Family Detached Housing	93 units	18	52	70	58	35	93	944
ITE 215 – Single-Family Attached Housing	31 units	3	7	10	8	7	15	186
Total Trips		**21**	**59**	**80**	**66**	**42**	**108**	**1,130**

5.2 Trip Distribution

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



TRIP DISTRIBUTION AND SITE-GENERATED WEEKDAY PEAK HOUR VOLUMES

FIGURE 5

A&R Engineering Inc.

6.0 FUTURE 2024 TRAFFIC ANALYSIS

The future 2024 traffic operations are analyzed for the "Build" and "No-Build" conditions.

6.1 Future "No-Build" Conditions

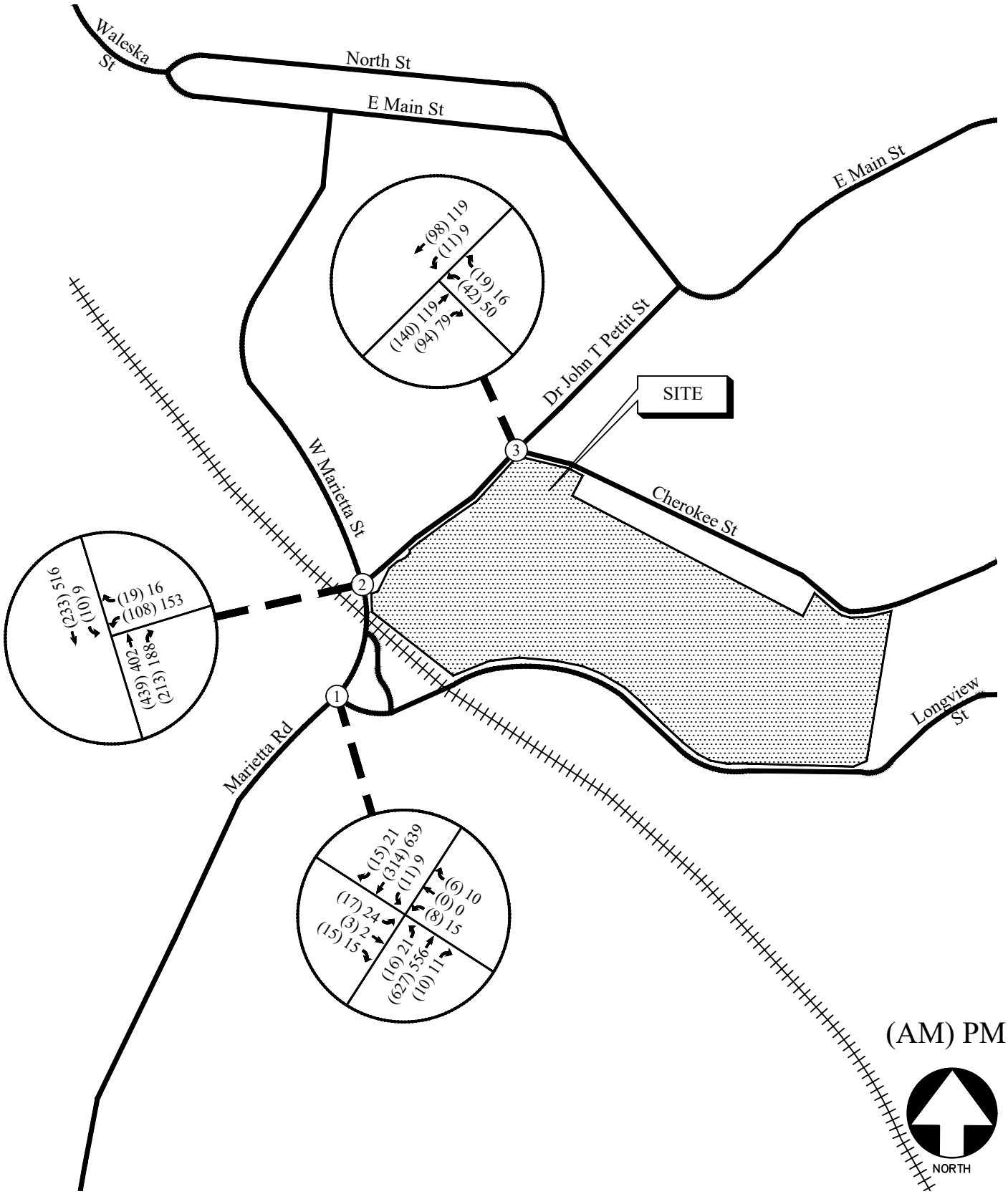
The "No-Build" (or background) conditions provide an assessment of how traffic will operate in the study horizon year without the study site being developed as proposed, with projected increases in through traffic volumes due to normal annual growth. The Future "No-Build" volumes consist of the existing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

6.1.1 Annual Traffic Growth

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

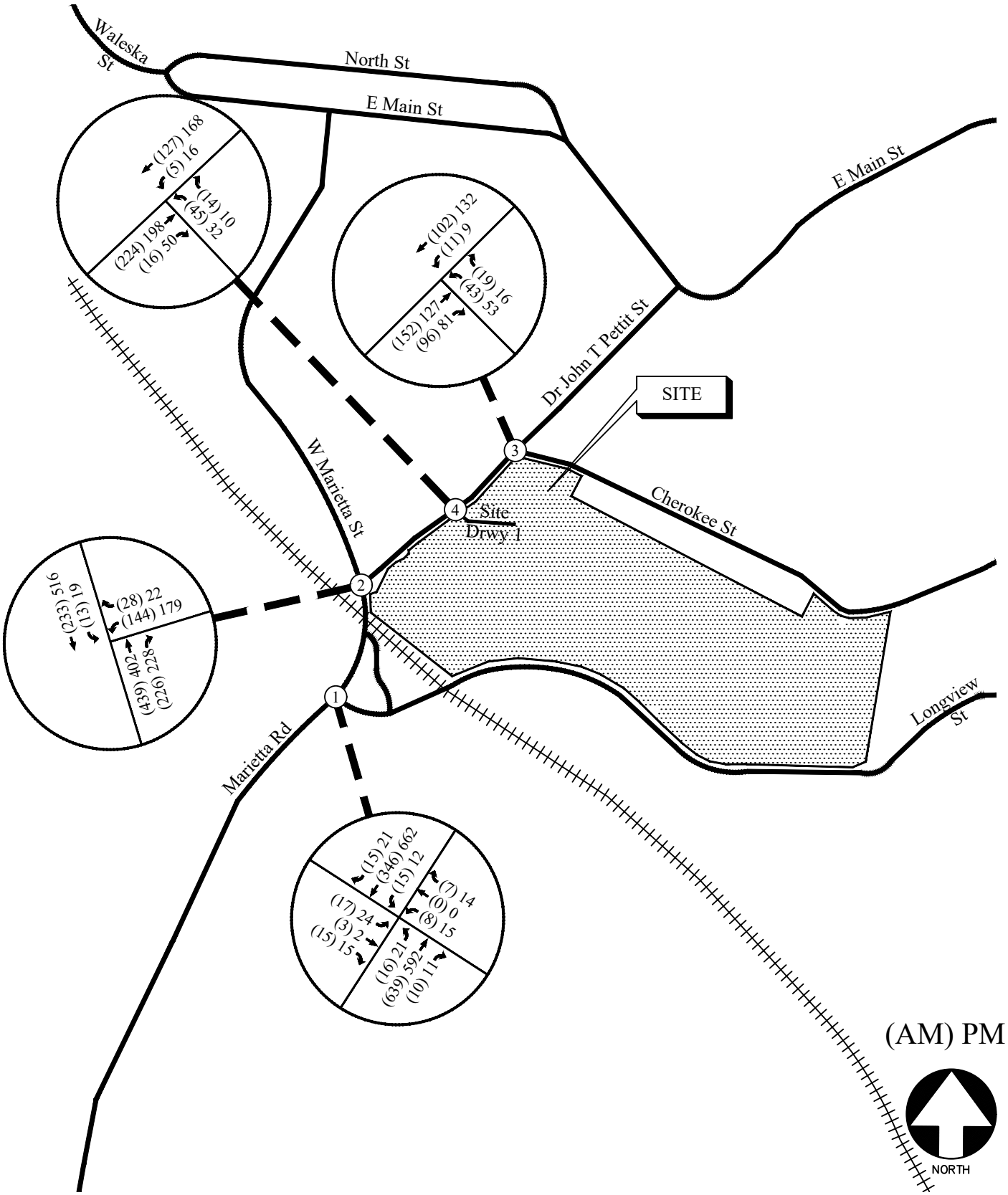
6.2 Future "Build" Conditions

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



FUTURE (NO-BUILD) WEEKDAY PEAK HOUR VOLUMES FIGURE 6

A&R Engineering Inc.



FUTURE (BUILD) WEEKDAY PEAK HOUR VOLUMES FIGURE 7

A&R Engineering Inc.

6.3 Auxiliary Lane Analysis

Included below are analyses for left-turn lanes and deceleration lanes for all site driveways per GDOT standards. The analyses below are based off the trip distribution included in Section 5.2. According to the trip distribution, the 24-hour two-way volume entering and exiting of the site is 1,130 vehicles.

6.3.1 Left Turn Lane Analysis

According to GDOT standards, for a two-lane roadway with AADT's less than 6,000 vehicles, the threshold of daily site generated left-turn volume to warrant a left-turn lane is 300 vehicles for speed limit 25 mph and 35 mph. The projected left-turn volume per day for the proposed driveways is shown in Table 5.

TABLE 5 - GDOT REQUIREMENTS FOR LEFT TURN LANES

Intersection	Left turn traffic (% total entering)	Left turn/ Roadway Direction	Left-turn Volume (vehicle/day)	Roadway Speed/ # lanes/ADT	GDOT Threshold (vehicle/day)	Warrant met?
Dr. John T. Pettit St @ Site Drwy 1	24%	Dr. John T. Pettit St (Southbound)	**136** (Total trips) ÷ 2 × 0.24 = (1,130) ÷ 2 x 0.24 = 136	35 mph/ 2-lane/ < 6,000	300	No

A left turn lane is not warranted at any of the site driveways.

6.3.2 Deceleration Turn Lane Analysis

For two lane roadways with AADT's less than 6,000 vehicles and a posted speed limit of 25 mph and 35 mph, the threshold of daily site generated right-turn volume to warrant a right-turn lane is 200 vehicles. The projected right-turn volume per day for the proposed driveway is shown in Table 6.

TABLE 6 - GDOT REQUIREMENTS FOR DECELERATION LANES

Intersection	Right-turn traffic (% total entering)	Right turn/ Roadway Direction	Right-turn Volume (vehicle/day)	Roadway Speed/ # lanes/ADT	GDOT Threshold (vehicle/day)	Warrant met?
Dr. John T. Pettit St @ Site Drwy 1	76%	Dr. John T. Pettit St (Northbound)	**429** (Total trips) ÷ 2 × 0.76 = (1,130) ÷ 2 x 0.76 = 429	35 mph/ 2-lane/ < 6,000	200	Yes

A deceleration lane is warranted at Site Driveway 1.

6.4 Future Traffic Operations

The future "No-Build" traffic operations were analyzed using the volumes in Figure 6.

6.4.1 Recommendations for System Improvements

A summary of the system improvements, which address deficiencies that are found within the existing road network for the "No-Build" conditions, is provided below. These are recommended for the local municipality to use in planning future transportation projects.

Summary of Recommended System Improvements

- Marietta Road / W. Marietta Street @ Dr. John T. Pettit Street
  - Installation of a traffic signal if warranted

The results of "No-build" with and without system improvements are shown in Table 7.

TABLE 7 – FUTURE INTERSECTION OPERATIONS "NO BUILD"

	Intersection	No Build Condition: LOS (Delay)			
		NO IMPROVEMENTS		SYSTEM IMPROVEMENTS	
		AM Peak	PM Peak	AM Peak	PM Peak
1	**Marietta Road @ Canton Village Driveway/Goss Street**				
	-Eastbound Approach	C (20.2)	D (32.0)	C (20.2)	D (32.0)
	-Westbound Approach	C (17.1)	D (25.1)	C (17.1)	D (25.1)
	-Northbound Left	A (8.0)	A (9.0)	A (8.0)	A (9.0)
	-Southbound Left	A (9.0)	A (8.7)	A (9.0)	A (8.7)
2	**Marietta Road / W. Marietta Street @ Dr. John T. Pettit Street**			**A (7.4)**	**A (7.8)**
	-Westbound Approach	C (22.5)	E (48.0)	B (18.5)	B (16.8)
	-Northbound Approach	-	-	A (6.5)	A (6.9)
	-Southbound Left/Approach	A (9.1)	A (8.8)	A (3.9)	A (5.8)
3	**Cherokee Street @ Dr. John T. Pettit Street**				
	-Westbound Approach	B (10.7)	B (10.6)	B (10.7)	B (10.6)
	-Southbound Left	A (7.8)	A (7.7)	A (7.8)	A (7.7)

The results of future traffic operations analysis under no build condition with no improvements indicate that the stop controlled approaches at the un-signalized intersections will operate at level-of-service "E" or better in both the AM and PM peak hours. With improvements, the results indicate that the stop controlled approaches at the un-signalized intersections will operate at level-of-service "D" or better in both the AM and PM peak hours and the proposed signalized intersection at Marietta Road / W. Marietta Street and Dr. John T. Pettit Street will operate at overall level-of-service "A" in both the AM and PM peak hours.

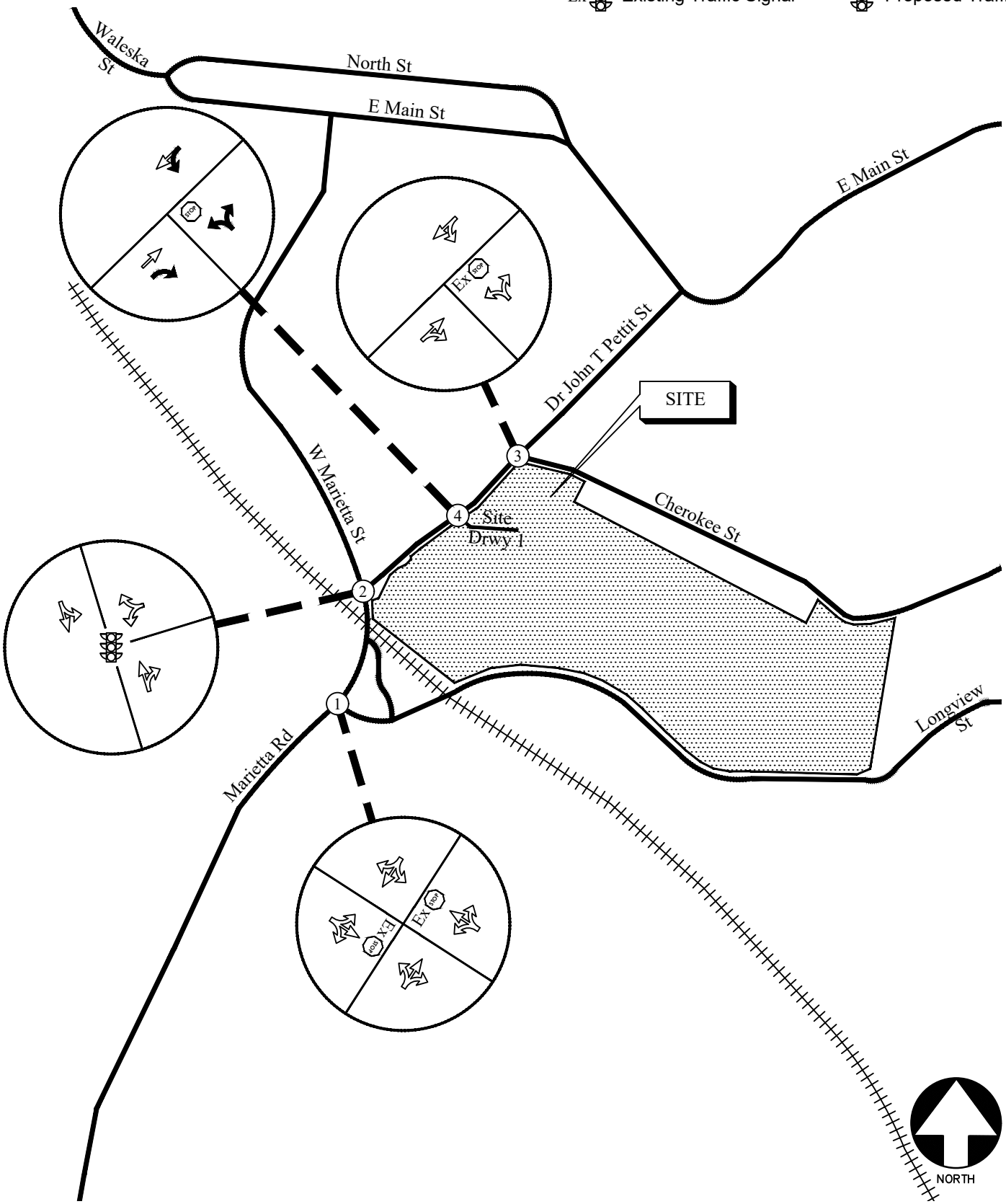
The "Build" conditions are evaluated with added traffic from the proposed development and with system improvements. The future "Build" traffic operations were analyzed using the volumes in Figure 7 and the results are shown in Table 8 below.

TABLE 8 – FUTURE INTERSECTION OPERATIONS "BUILD"					
	Intersection	Future Build Condition: LOS (Delay)			
		NO IMPROVEMENTS		SYSTEM IMPROVEMENTS	
		AM Peak	PM Peak	AM Peak	PM Peak
1	**Marietta Road @ Canton Village Driveway/Goss Street**				
	-Eastbound Approach	C (21.8)	E (36.2)	C (21.8)	E (36.2)
	-Westbound Approach	C (17.3)	C (24.9)	C (17.3)	C (24.9)
	-Northbound Left	A (8.1)	A (9.1)	A (8.1)	A (9.1)
	-Southbound Left	A (9.1)	A (8.8)	A (9.1)	A (8.8)
2	**Marietta Road / W. Marietta Street @ Dr. John T. Pettit Street**			**A (8.5)**	**A (8.5)**
	-Westbound Approach	D (28.1)	F (79.8)	B (18.7)	B (17.3)
	-Northbound Approach	-	-	A (7.4)	A (7.6)
	-Southbound Left/Approach	A (9.1)	A (9.0)	A (4.4)	A (6.2)
3	**Cherokee Street @ Dr. John T. Pettit Street**				
	-Westbound Approach	B (10.9)	B (10.8)	B (10.9)	B (10.8)
	-Southbound Left	A (7.8)	A (7.7)	A (7.8)	A (7.7)
4	**Dr. John T. Pettit Street @ Site Driveway 1**				
	-Westbound Approach	B (11.4)	B (11.3)	B (11.4)	B (11.3)
	-Southbound Left	A (7.8)	A (7.8)	A (7.8)	A (7.8)

The results of future traffic operations analysis with no improvements indicate that the stop controlled approaches at the unsignalized intersections will operate at level-of-service "E" or better in both the AM and PM peak hours except the intersection of Marietta Road/W. Marietta Street at Dr John T. Pettit Street whose stop controlled westbound approach will operate at level-of-service "F" in the PM peak hour.

The results of future traffic operations analysis with system improvements indicate that the stop controlled approaches at the unsignalized intersections will operate at level-of-service "E" or better in both the AM and PM peak hours. With proposed signalized intersection at Marietta Road / W. Marietta Street and Dr. John T. Pettit Street, the results indicates that the intersection will operate at overall level-of-service "A" in both the AM and PM peak hours.

Recommendations for future traffic control and lane geometry is shown in Figure 8.



FUTURE TRAFFIC CONTROL AND LANE GEOMETRY FIGURE 8

A&R Engineering Inc.

7.0 CONCLUSIONS AND RECOMMENDATIONS

Traffic impacts were evaluated for the proposed residential development that will be located along Cherokee Street, to the southeast of the intersection Cherokee Street at Dr. John T. Pettit Street in City of Canton, Georgia. The proposed residential development will consist of:

- Single Family Detached Housing: 93 units
- Single Family Attached Housing: 31 units

The development proposes access at the following locations:

- Site Driveway 1: Full Access Driveway on Dr. John T. Pettit Street

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

- Marietta Road at Goss Street (Longview Street) / Canton Village Southern Driveway
- Marietta Road / W. Marietta Street at Dr. John T. Pettit Street
- Cherokee Street at Dr. John T. Pettit Street
- Dr. John T. Pettit Street at Site Driveway 1

The analysis included the evaluation of future traffic operations for "No-Build" and "Build" conditions with and without improvements, the differences between "No-Build" and "Build" accounts for increases in traffic due to proposed site. The results of future traffic operations analysis indicate that the stop controlled approaches at the unsignalized intersections will operate at level-of-service "E" or better in both the AM and PM peak hours. With proposed signalized intersection at Marietta Road / W. Marietta Street and Dr. John T. Pettit Street, the results indicates that the intersection will operate at level-of-service "A" in both the AM and PM peak hours. Based on the analysis, the proposed development will have minimal impact on traffic operations in the study network.

7.1 Recommendation for Site Access Configuration

Site Driveway 1: Full Access Driveway on Dr. John T. Pettit Street

- One entering and one exiting lane.
- Stop-sign controlled on the driveway approach with Dr. John T. Pettit Street remaining free flow.
- Deceleration lane for entering traffic.
- Provide adequate sight distance per AASHTO standards.

7.2 Summary of Recommended System Improvements

- Marietta Road / W. Marietta Street @ Dr. John T. Pettit Street
  - Installation of a traffic signal if warranted

Appendix

EXISTING INTERSECTION TRAFFIC COUNTS

A & R Engineering, Inc.

2160 Kingston Court, Suite 'O',
Marietta, GA 30067

TMC DATA
Dr. John T Pettit St @ Marietta Rd
7-9 am | 4-6 pm

File Name : 20220179
Site Code : 20220179
Start Date : 4/21/2022
Page No : 1

Groups Printed- Cars,Buses & Trucks

	Marietta Rd Northbound				Marietta St Southbound				Eastbound				Dr. John T Pettit St Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	71	37	108	1	64	0	65	0	0	0	0	33	0	2	35	208
07:15 AM	0	95	40	135	1	57	0	58	0	0	0	0	31	0	3	34	227
07:30 AM	0	102	47	149	2	57	0	59	0	0	0	0	33	0	7	40	248
07:45 AM	0	123	54	177	3	63	0	66	0	0	0	0	16	0	5	21	264
Total	0	391	178	569	7	241	0	248	0	0	0	0	113	0	17	130	947
08:00 AM	0	101	46	147	1	56	0	57	0	0	0	0	28	0	3	31	235
08:15 AM	0	96	58	154	4	48	0	52	0	0	0	0	27	0	3	30	236
08:30 AM	0	92	55	147	3	61	0	64	0	0	0	0	28	0	8	36	247
08:45 AM	0	91	55	146	3	61	0	64	0	0	0	0	28	0	9	37	247
Total	0	380	214	594	11	226	0	237	0	0	0	0	111	0	23	134	965
*** BREAK ***																	
04:00 PM	0	103	44	147	2	104	0	106	0	0	0	0	29	0	2	31	284
04:15 PM	0	99	41	140	1	101	0	102	0	0	0	0	38	0	6	44	286
04:30 PM	0	95	40	135	1	103	0	104	0	0	0	0	43	0	1	44	283
04:45 PM	0	102	38	140	4	111	0	115	0	0	0	0	38	0	3	41	296
Total	0	399	163	562	8	419	0	427	0	0	0	0	148	0	12	160	1149
05:00 PM	0	95	47	142	3	138	0	141	0	0	0	0	35	0	6	41	324
05:15 PM	0	99	50	149	0	126	0	126	0	0	0	0	39	0	2	41	316
05:30 PM	0	91	46	137	2	121	0	123	0	0	0	0	35	0	4	39	299
05:45 PM	0	86	42	128	1	116	0	117	0	0	0	0	29	0	3	32	277
Total	0	371	185	556	6	501	0	507	0	0	0	0	138	0	15	153	1216
Grand Total	0	1541	740	2281	32	1387	0	1419	0	0	0	0	510	0	67	577	4277
Apprch %	0	67.6	32.4		2.3	97.7	0		0	0	0		88.4	0	11.6		
Total %	0	36	17.3	53.3	0.7	32.4	0	33.2	0	0	0	0	11.9	0	1.6	13.5	

A & R Engineering, Inc.

2160 Kingston Court, Suite 'O',
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TMC DATA
Dr. John T Pettit St @ Marietta Rd
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Site Code : 20220179
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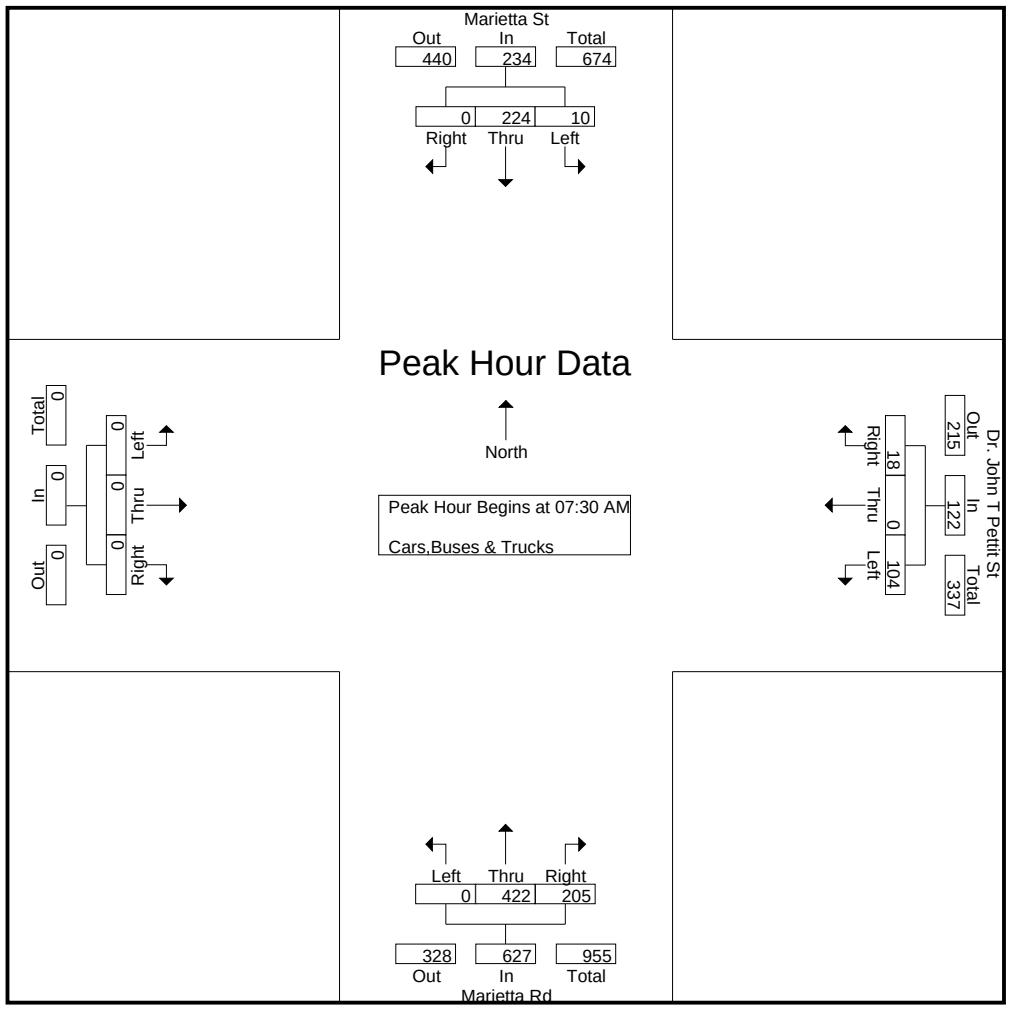
Page No : 2

	Marietta Rd Northbound				Marietta St Southbound				Eastbound				Dr. John T Pettit St Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	0	102	47	149	2	57	0	59	0	0	0	0	**33**	0	**7**	**40**	248
07:45 AM	0	**123**	54	**177**	3	**63**	0	**66**	0	0	0	0	16	0	5	21	**264**
08:00 AM	0	101	46	147	1	56	0	57	0	0	0	0	28	0	3	31	235
08:15 AM	0	96	**58**	154	**4**	48	0	52	0	0	0	0	27	0	3	30	236
Total Volume	0	422	205	627	10	224	0	234	0	0	0	0	104	0	18	122	983
% App. Total	0	67.3	32.7		4.3	95.7	0		0	0	0		85.2	0	14.8		
PHF	.000	.858	.884	.886	.625	.889	.000	.886	.000	.000	.000	.000	.788	.000	.643	.763	.931



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TMC DATA
Dr. John T Pettit St @ Marietta Rd
7-9 am | 4-6 pm

File Name : 20220179
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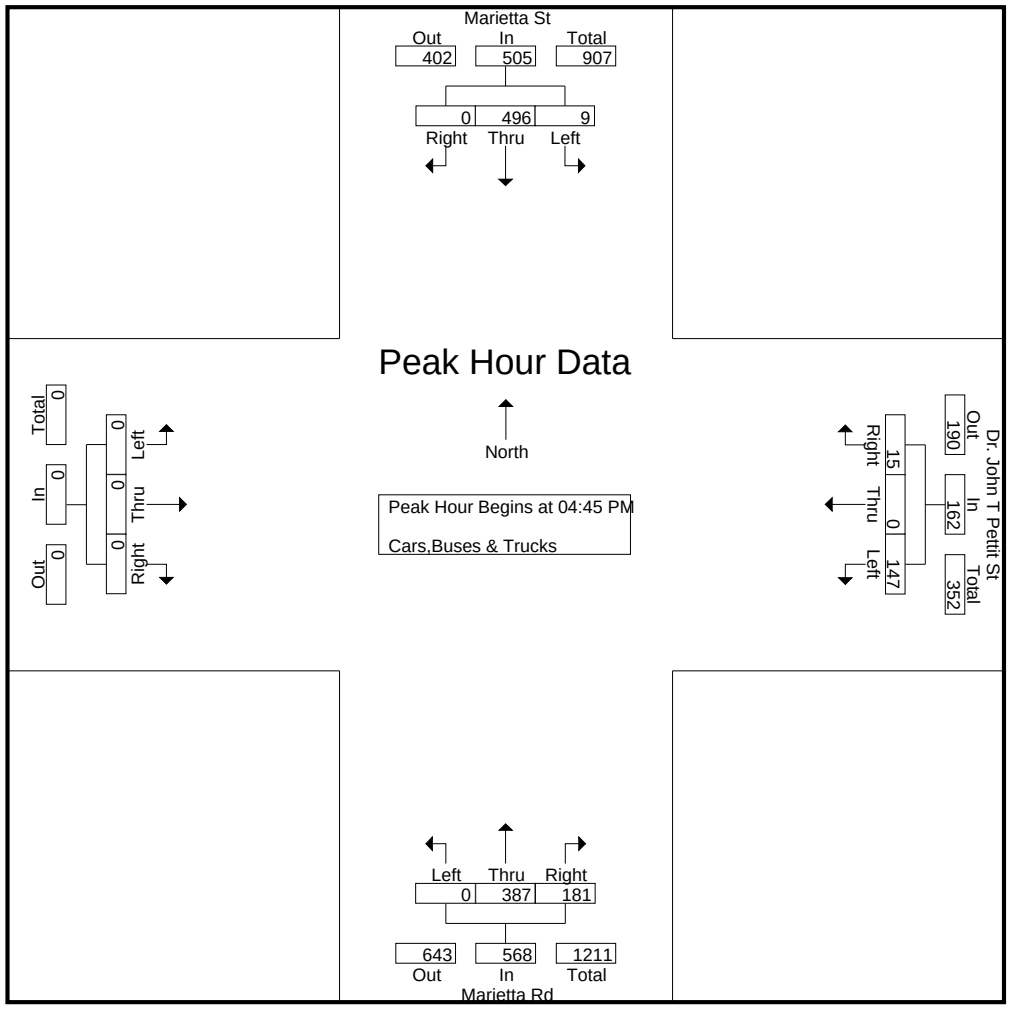
	Marietta Rd Northbound				Marietta St Southbound				Eastbound				Dr. John T Pettit St Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	0	**102**	38	140	**4**	111	0	115	0	0	0	0	38	0	3	**41**	296
05:00 PM	0	95	47	142	3	**138**	0	**141**	0	0	0	0	35	0	**6**	41	**324**
05:15 PM	0	99	**50**	**149**	0	126	0	126	0	0	0	0	**39**	0	2	41	316
05:30 PM	0	91	46	137	2	121	0	123	0	0	0	0	35	0	4	39	299
Total Volume	0	387	181	568	9	496	0	505	0	0	0	0	147	0	15	162	1235
% App. Total	0	68.1	31.9		1.8	98.2	0		0	0	0		90.7	0	9.3		
PHF	.000	.949	.905	.953	.563	.899	.000	.895	.000	.000	.000	.000	.942	.000	.625	.988	.953



A & R Engineering, Inc.

2160 Kingston Court, Suite 'O',
Marietta, GA 30067

TMC DATA
Dr. John T Pettit St @ Cherokee Street
7-9 am | 4-6 pm

File Name : 20220180
Site Code : 20220180
Start Date : 4/21/2022
Page No : 1

Groups Printed- Cars,Buses & Trucks

	Dr. John Pettit Street Northbound				Dr. John Pettit Street Southbound				Eastbound				Cherokee Street Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	23	15	38	1	25	0	26	0	0	0	0	11	0	2	13	77
07:15 AM	0	25	16	41	1	24	0	25	0	0	0	0	10	0	3	13	79
07:30 AM	0	29	20	49	2	28	0	30	0	0	0	0	12	0	4	16	95
07:45 AM	0	34	23	57	3	15	0	18	0	0	0	0	6	0	5	11	86
Total	0	111	74	185	7	92	0	99	0	0	0	0	39	0	14	53	337
08:00 AM	0	28	19	47	1	22	0	23	0	0	0	0	9	0	3	12	82
08:15 AM	0	37	25	62	4	21	0	25	0	0	0	0	9	0	3	12	99
08:30 AM	0	35	23	58	3	25	0	28	0	0	0	0	11	0	3	14	100
08:45 AM	0	35	23	58	3	26	0	29	0	0	0	0	11	0	9	20	107
Total	0	135	90	225	11	94	0	105	0	0	0	0	40	0	18	58	388
*** BREAK ***																	
04:00 PM	0	28	18	46	2	22	0	24	0	0	0	0	9	0	2	11	81
04:15 PM	0	25	17	42	1	31	0	32	0	0	0	0	13	0	6	19	93
04:30 PM	0	25	16	41	1	31	0	32	0	0	0	0	13	0	1	14	87
04:45 PM	0	25	17	42	4	29	0	33	0	0	0	0	12	0	3	15	90
Total	0	103	68	171	8	113	0	121	0	0	0	0	47	0	12	59	351
05:00 PM	0	30	20	50	3	29	0	32	0	0	0	0	12	0	6	18	100
05:15 PM	0	30	20	50	0	29	0	29	0	0	0	0	12	0	2	14	93
05:30 PM	0	29	19	48	2	27	0	29	0	0	0	0	12	0	4	16	93
05:45 PM	0	26	17	43	1	22	0	23	0	0	0	0	10	0	3	13	79
Total	0	115	76	191	6	107	0	113	0	0	0	0	46	0	15	61	365
Grand Total	0	464	308	772	32	406	0	438	0	0	0	0	172	0	59	231	1441
Apprch %	0	60.1	39.9		7.3	92.7	0		0	0	0		74.5	0	25.5		
Total %	0	32.2	21.4	53.6	2.2	28.2	0	30.4	0	0	0	0	11.9	0	4.1	16	

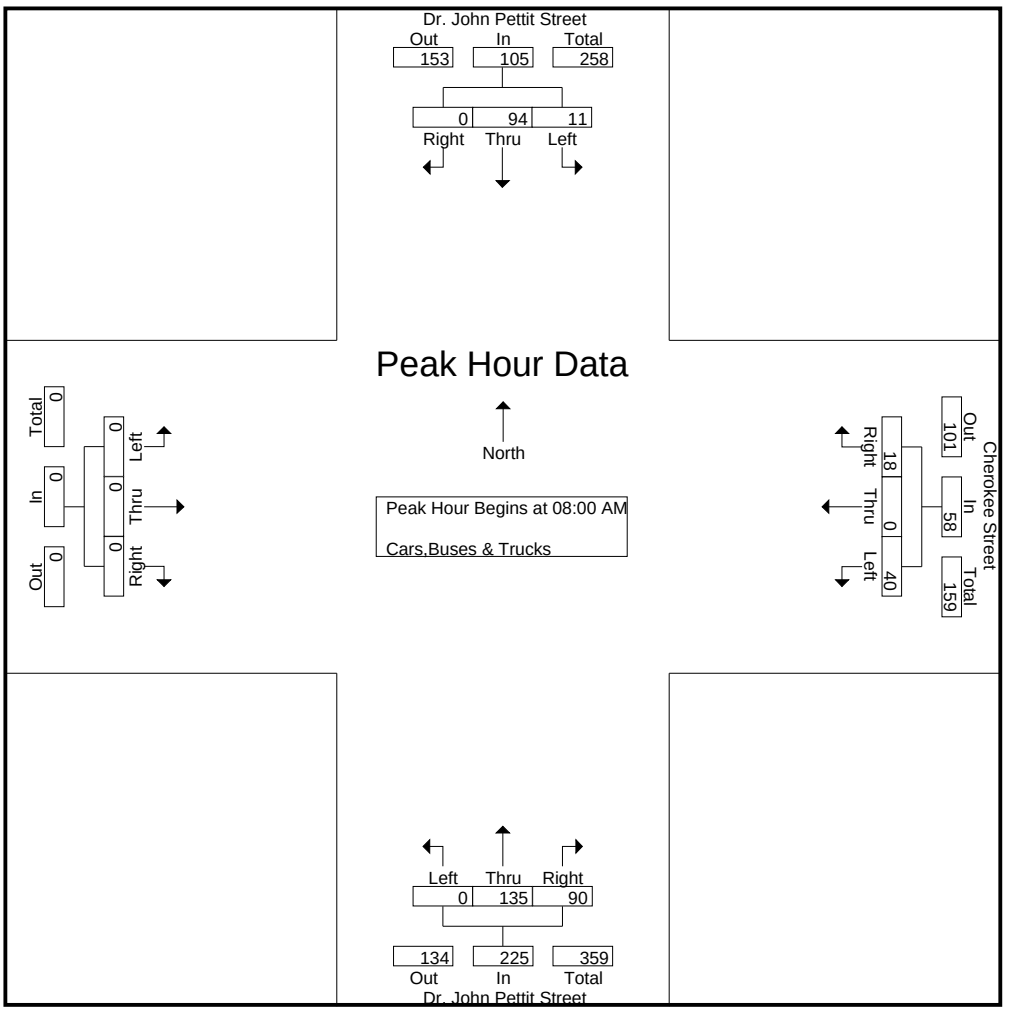
A & R Engineering, Inc.

2160 Kingston Court, Suite 'O',
Marietta, GA 30067

TMC DATA
Dr. John T Pettit St @ Cherokee Street
7-9 am | 4-6 pm

File Name : 20220180
Site Code : 20220180
Start Date : 4/21/2022
Page No : 2

	Dr. John Pettit Street Northbound				Dr. John Pettit Street Southbound				Eastbound				Cherokee Street Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	0	28	19	47	1	22	0	23	0	0	0	0	9	0	3	12	82
08:15 AM	0	**37**	**25**	**62**	**4**	21	0	25	0	0	0	0	9	0	3	12	99
08:30 AM	0	35	23	58	3	25	0	28	0	0	0	0	**11**	0	3	14	100
08:45 AM	0	35	23	58	3	**26**	0	**29**	0	0	0	0	11	0	**9**	**20**	**107**
Total Volume	0	135	90	225	11	94	0	105	0	0	0	0	40	0	18	58	388
% App. Total	0	60	40		10.5	89.5	0		0	0	0		69	0	31		
PHF	.000	.912	.900	.907	.688	.904	.000	.905	.000	.000	.000	.000	.909	.000	.500	.725	.907



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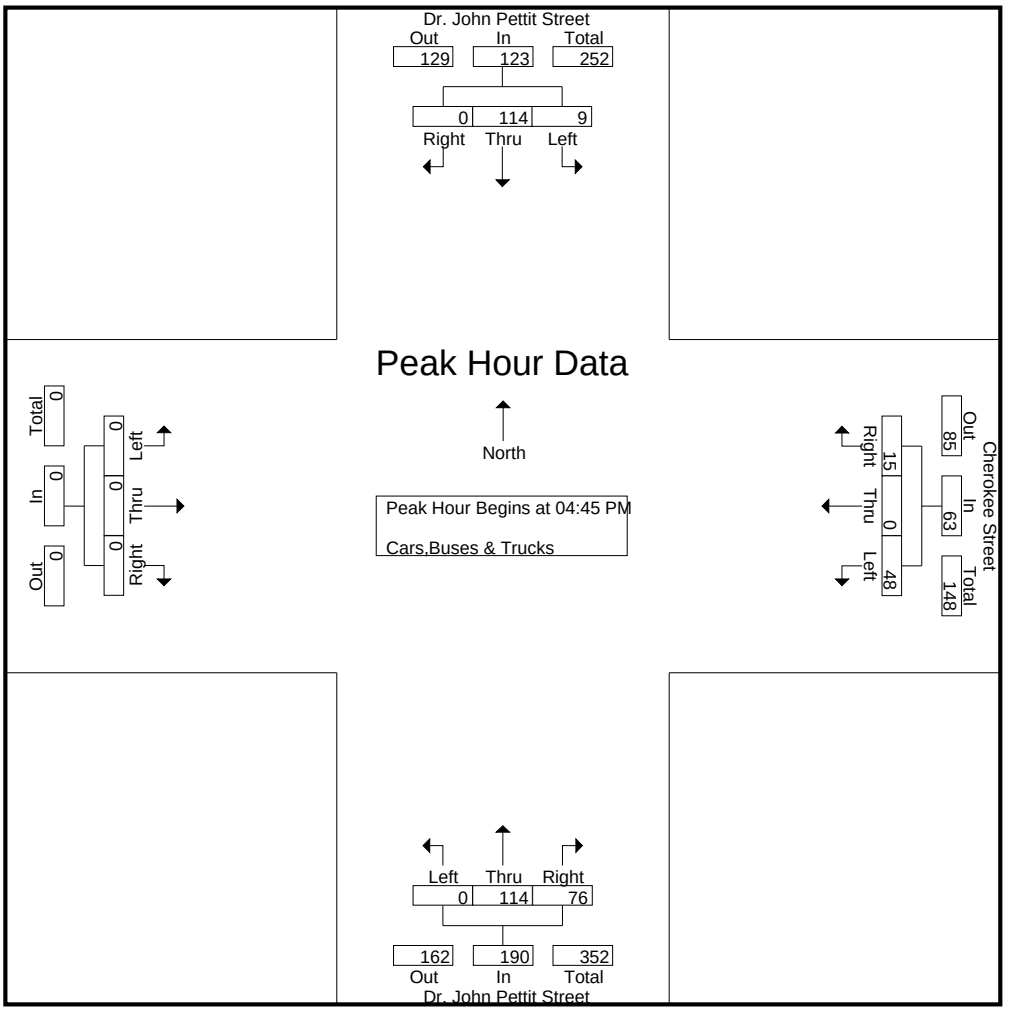
TMC DATA
Dr. John T Pettit St @ Cherokee Street
7-9 am | 4-6 pm

File Name : 20220180
Site Code : 20220180
Start Date : 4/21/2022
Page No : 3

	Dr. John Pettit Street Northbound				Dr. John Pettit Street Southbound				Eastbound				Cherokee Street Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	0	25	17	42	**4**	**29**	0	**33**	0	0	0	0	**12**	0	3	15	90
05:00 PM	0	**30**	**20**	**50**	3	29	0	32	0	0	0	0	12	0	**6**	**18**	**100**
05:15 PM	0	30	20	50	0	29	0	29	0	0	0	0	12	0	2	14	93
05:30 PM	0	29	19	48	2	27	0	29	0	0	0	0	12	0	4	16	93
Total Volume	0	114	76	190	9	114	0	123	0	0	0	0	48	0	15	63	376
% App. Total	0	60	40		7.3	92.7	0		0	0	0		76.2	0	23.8		
PHF	.000	.950	.950	.950	.563	.983	.000	.932	.000	.000	.000	.000	1.00	.000	.625	.875	.940



A & R Engineering, Inc.

2160 Kingston Court, Suite 'O',
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TMC DATA
Marietta Rd @ Goss Street-Canton Village
7-9 am | 4-6 pm

File Name : 20220181
Site Code : 20220181
Start Date : 4/21/2022
Page No : 1

Groups Printed- Cars,Buses & Trucks

	Marietta Rd Northbound				Marietta Rd Southbound				Canton Village Driveway Eastbound				Goss Street Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	3	103	2	108	1	94	2	97	3	1	4	8	3	0	2	5	218
07:15 AM	4	131	3	138	1	84	3	88	2	0	3	5	2	0	2	4	235
07:30 AM	2	143	2	147	2	84	4	90	3	1	3	7	1	0	3	4	248
07:45 AM	5	172	1	178	3	72	4	79	4	1	5	10	2	0	1	3	270
Total	14	549	8	571	7	334	13	354	12	3	15	30	8	0	8	16	971
08:00 AM	3	142	3	148	1	80	3	84	3	0	4	7	2	0	2	4	243
08:15 AM	4	147	2	153	4	68	3	75	5	1	3	9	1	0	2	3	240
08:30 AM	3	142	4	149	3	82	4	89	4	1	2	7	3	0	1	4	249
08:45 AM	2	140	3	145	3	81	2	86	3	1	3	7	2	0	3	5	243
Total	12	571	12	595	11	311	12	334	15	3	12	30	8	0	8	16	975
*** BREAK ***																	
04:00 PM	4	139	2	145	2	127	4	133	5	0	4	9	3	0	3	6	293
04:15 PM	5	133	2	140	1	133	5	139	5	1	5	11	3	0	2	5	295
04:30 PM	4	125	3	132	1	141	4	146	6	0	3	9	4	0	4	8	295
04:45 PM	6	133	4	143	4	141	4	149	5	1	4	10	5	0	2	7	309
Total	19	530	11	560	8	542	17	567	21	2	16	39	15	0	11	26	1192
05:00 PM	5	132	2	139	3	165	5	173	7	0	2	9	4	0	3	7	328
05:15 PM	4	141	3	148	0	159	6	165	6	1	3	10	3	0	2	5	328
05:30 PM	5	129	2	136	2	149	5	156	5	0	5	10	2	0	3	5	307
05:45 PM	3	120	4	127	1	140	4	145	4	1	4	9	3	0	4	7	288
Total	17	522	11	550	6	613	20	639	22	2	14	38	12	0	12	24	1251
Grand Total	62	2172	42	2276	32	1800	62	1894	70	10	57	137	43	0	39	82	4389
Apprch %	2.7	95.4	1.8		1.7	95	3.3		51.1	7.3	41.6		52.4	0	47.6		
Total %	1.4	49.5	1	51.9	0.7	41	1.4	43.2	1.6	0.2	1.3	3.1	1	0	0.9	1.9	

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2160 Kingston Court, Suite 'O',
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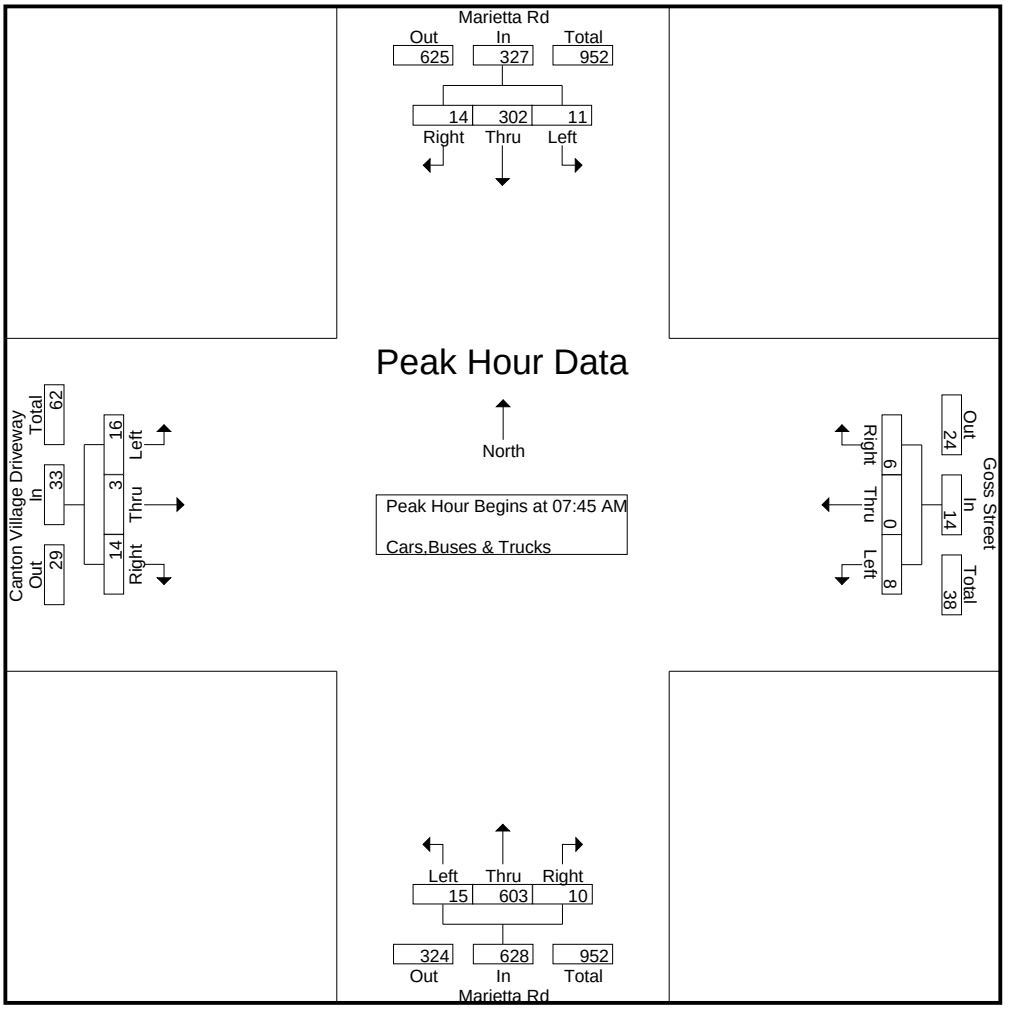
TMC DATA
Marietta Rd @ Goss Street-Canton Village
7-9 am | 4-6 pm

File Name : 20220181
Site Code : 20220181
Start Date : 4/21/2022
Page No : 2

	Marietta Rd Northbound				Marietta Rd Southbound				Canton Village Driveway Eastbound				Goss Street Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	**5**	**172**	1	**178**	3	72	**4**	79	4	**1**	**5**	**10**	2	0	1	3	**270**
08:00 AM	3	142	3	148	1	80	3	84	3	0	4	7	2	0	**2**	**4**	243
08:15 AM	4	147	2	153	**4**	68	3	75	**5**	1	3	9	1	0	2	3	240
08:30 AM	3	142	**4**	149	3	**82**	4	**89**	4	1	2	7	**3**	0	1	4	249
Total Volume	15	603	10	628	11	302	14	327	16	3	14	33	8	0	6	14	1002
% App. Total	2.4	96	1.6		3.4	92.4	4.3		48.5	9.1	42.4		57.1	0	42.9		
PHF	.750	.876	.625	.882	.688	.921	.875	.919	.800	.750	.700	.825	.667	.000	.750	.875	.928



A & R Engineering, Inc.

2160 Kingston Court, Suite 'O',
Marietta, GA 30067

TMC DATA
Marietta Rd @ Goss Street-Canton Village
7-9 am | 4-6 pm

File Name : 20220181
Site Code : 20220181
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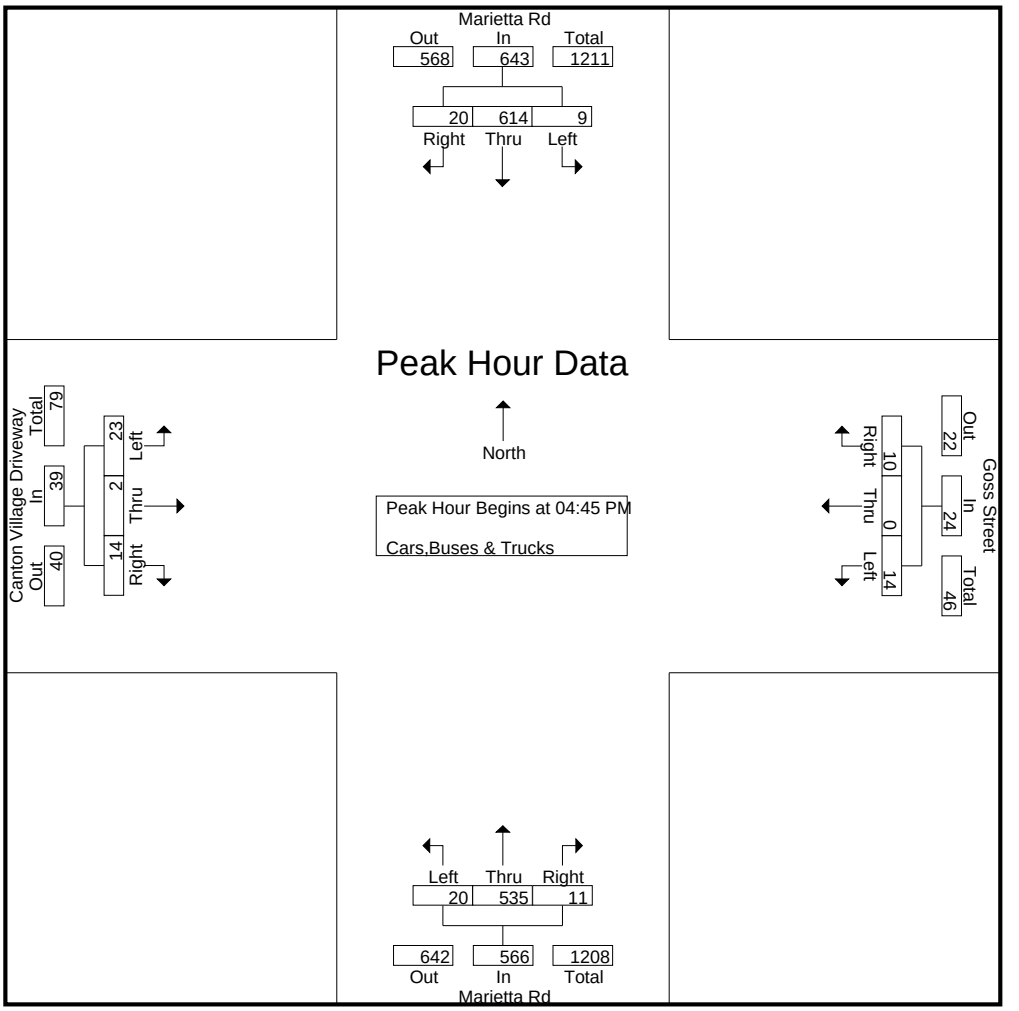
Page No : 3

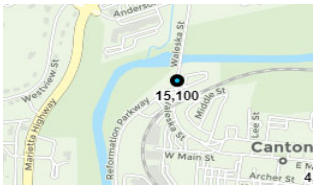
	Marietta Rd Northbound				Marietta Rd Southbound				Canton Village Driveway Eastbound				Goss Street Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	**6**	133	**4**	143	**4**	141	4	149	5	**1**	4	**10**	**5**	0	2	**7**	309
05:00 PM	5	132	2	139	3	**165**	5	**173**	**7**	0	2	9	4	0	**3**	7	**328**
05:15 PM	4	**141**	3	**148**	0	159	**6**	165	6	1	3	10	3	0	2	5	328
05:30 PM	5	129	2	136	2	149	5	156	5	0	**5**	10	2	0	3	5	307
Total Volume	20	535	11	566	9	614	20	643	23	2	14	39	14	0	10	24	1272
% App. Total	3.5	94.5	1.9		1.4	95.5	3.1		59	5.1	35.9		58.3	0	41.7		
PHF	.833	.949	.688	.956	.563	.930	.833	.929	.821	.500	.700	.975	.700	.000	.833	.857	.970

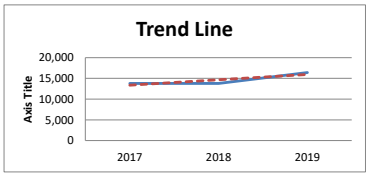


LINEAR REGRESSION OF DAILY TRAFFIC

Location	Growth Rate	R Squared	Station ID	Route	2017	2018	2019
Waleska St (N of Reformation Pkwy)	9.3%	0.75	057-0283	00068403	13800	13800	16400
Marietta Rd (NE of Hickory Flat Hwy)	0.4%	0.75	057-0288	00067803	11700	11700	11800
Hickory Flat Hwy (NW of Philip Landrum	-5.0%	0.70	057-0277	00068103	10200	9160	9230
Dr John T Pettit St (E of Marietta Rd)	-1.5%	0.59	057-0275	00068203	7970	7690	7740
E Main St (E of Breeze Hill Ct)	0.3%	0.60	057-0285	00068403	8330	8320	8380
Weighted Average	**1.5%**	0.29	Sum of Count Stations =		52,000	50,670	53,550

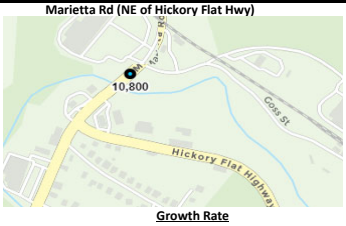
Location	Traffic Counter	RCLINK	2017	2018	2019
Waleska St (N of Reformation Pkwy)	057-0283	00068403	13,800	13,800	16,400

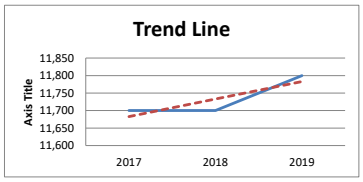




Growth Rate		Intercept	-2,608,733	Slope	1,300.00
Trend Line			13,367	14,667	15,967

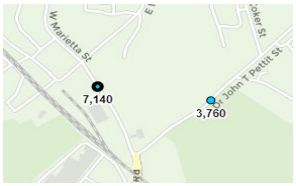
Location	Traffic Counter	RCLINK	2017	2018	2019
Marietta Rd (NE of Hickory Flat Hwy)	057-0288	00067803	11,700	11,700	11,800

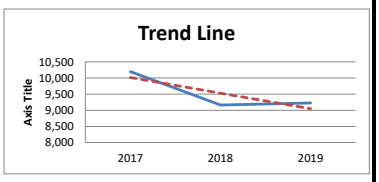




Growth Rate		Intercept	-89,167	Slope	50.00
Trend Line			11,683	11,733	11,783

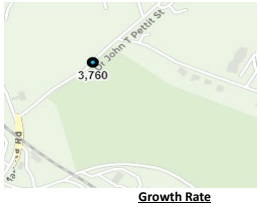
Location	Traffic Counter	RCLINK	2017	2018	2019
ickory Flat Hwy (NW of Philip Landrum Memorial Hwy	057-0277	00068103	10,200	9,160	9,230

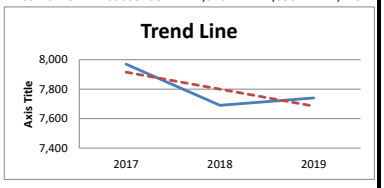




Growth Rate		Intercept	988,260	Slope	-485.00
Trend Line			10,015	9,530	9,045

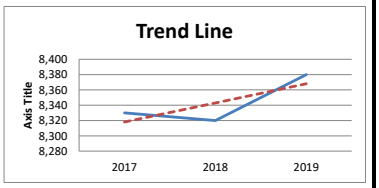
Location	Traffic Counter	RCLINK	2017	2018	2019
Dr John T Pettit St (E of Marietta Rd)	057-0275	00068203	7,970	7,690	7,740





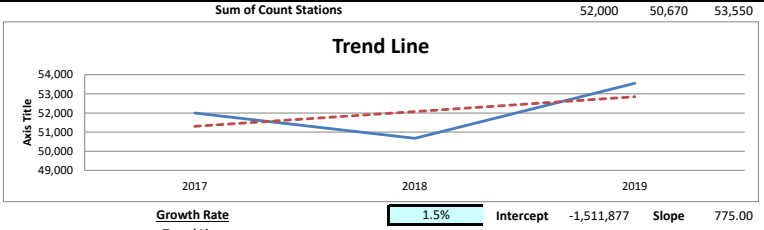
Growth Rate		Intercept	239,870	Slope	-115.00
Trend Line			7,915	7,800	7,685

Location	Traffic Counter	RCLINK	2017	2018	2019
E Main St (E of Breeze Hill Ct)	057-0285	00068403	8,330	8,320	8,380



Growth Rate		Intercept	-42,107	Slope	25.00
Trend Line			8,318	8,343	8,368

Weighted Average	2017	2018	2019
Sum of Count Stations	52,000	50,670	53,550



Growth Rate		Intercept	-1,511,877	Slope	775.00
Trend Line			51,298	52,073	52,848

EXISTING INTERSECTION ANALYSIS

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	16	3	14	8	0	6	15	603	10	11	302	14
Future Vol, veh/h	16	3	14	8	0	6	15	603	10	11	302	14
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	Yield	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	17	3	15	9	0	6	16	648	11	12	325	15

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1043	1048	333	1052	1050	654	340	0	0	659	0	0
Stage 1	357	357	-	686	686	-	-	-	-	-	-	-
Stage 2	686	691	-	366	364	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	207	228	709	204	227	467	1219	-	-	929	-	-
Stage 1	661	628	-	438	448	-	-	-	-	-	-	-
Stage 2	438	446	-	653	624	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	199	220	709	192	219	467	1219	-	-	929	-	-
Mov Cap-2 Maneuver	199	220	-	192	219	-	-	-	-	-	-	-
Stage 1	647	618	-	429	439	-	-	-	-	-	-	-
Stage 2	423	437	-	626	614	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	19.1	16.2	0.2	0.3
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1219	-	-	290	336	929	-	-
HCM Lane V/C Ratio	0.013	-	-	0.122	0.045	0.013	-	-
HCM Control Delay (s)	8	0	-	19.1	16.2	8.9	0	-
HCM Lane LOS	A	A	-	C	C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.4	0.1	0	-	-

Intersection	
Int Delay, s/veh	2.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	104	18	422	205	10	224
Future Vol, veh/h	104	18	422	205	10	224
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	112	19	454	220	11	241

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	827	564	0	0	674	0
Stage 1	564	-	-	-	-	-
Stage 2	263	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	341	525	-	-	917	-
Stage 1	569	-	-	-	-	-
Stage 2	781	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	336	525	-	-	917	-
Mov Cap-2 Maneuver	336	-	-	-	-	-
Stage 1	569	-	-	-	-	-
Stage 2	770	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	21	0	0.4
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	355	917	-
HCM Lane V/C Ratio	-	-	0.37	0.012	-
HCM Control Delay (s)	-	-	21	9	0
HCM Lane LOS	-	-	C	A	A
HCM 95th %tile Q(veh)	-	-	1.7	0	-

Intersection	
Int Delay, s/veh	1.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	40	18	135	90	11	94
Future Vol, veh/h	40	18	135	90	11	94
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	44	20	148	99	12	103

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	325	198	0	0	247	0
Stage 1	198	-	-	-	-	-
Stage 2	127	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	669	843	-	-	1319	-
Stage 1	835	-	-	-	-	-
Stage 2	899	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	662	843	-	-	1319	-
Mov Cap-2 Maneuver	662	-	-	-	-	-
Stage 1	835	-	-	-	-	-
Stage 2	890	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.6	0	0.8
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	709	1319	-
HCM Lane V/C Ratio	-	-	0.09	0.009	-
HCM Control Delay (s)	-	-	10.6	7.8	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.3	0	-

Intersection	
Int Delay, s/veh	1.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	23	2	14	14	0	10	20	535	11	9	614	20
Future Vol, veh/h	23	2	14	14	0	10	20	535	11	9	614	20
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	Yield	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	24	2	14	14	0	10	21	552	11	9	633	21

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1262	1267	644	1270	1272	558	654	0	0	563	0	0
Stage 1	662	662	-	600	600	-	-	-	-	-	-	-
Stage 2	600	605	-	670	672	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	147	169	473	145	168	529	933	-	-	1008	-	-
Stage 1	451	459	-	488	490	-	-	-	-	-	-	-
Stage 2	488	487	-	446	454	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	139	161	473	134	160	529	933	-	-	1008	-	-
Mov Cap-2 Maneuver	139	161	-	134	160	-	-	-	-	-	-	-
Stage 1	436	453	-	472	474	-	-	-	-	-	-	-
Stage 2	463	471	-	424	448	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	29.3	22.5	0.3	0.1
HCM LOS	D	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	933	-	-	188	230	1008	-	-
HCM Lane V/C Ratio	0.022	-	-	0.214	0.108	0.009	-	-
HCM Control Delay (s)	8.9	0	-	29.3	22.5	8.6	0	-
HCM Lane LOS	A	A	-	D	C	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.8	0.4	0	-	-

Intersection	
Int Delay, s/veh	5.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	147	15	387	181	9	496
Future Vol, veh/h	147	15	387	181	9	496
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	155	16	407	191	9	522

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1043	503	0	0	598	0
Stage 1	503	-	-	-	-	-
Stage 2	540	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	254	569	-	-	979	-
Stage 1	607	-	-	-	-	-
Stage 2	584	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	251	569	-	-	979	-
Mov Cap-2 Maneuver	251	-	-	-	-	-
Stage 1	607	-	-	-	-	-
Stage 2	576	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	40.2	0	0.2
HCM LOS	E		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	265	979	-
HCM Lane V/C Ratio	-	-	0.643	0.01	-
HCM Control Delay (s)	-	-	40.2	8.7	0
HCM Lane LOS	-	-	E	A	A
HCM 95th %tile Q(veh)	-	-	4	0	-

Intersection	
Int Delay, s/veh	2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	48	15	114	76	9	114
Future Vol, veh/h	48	15	114	76	9	114
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	51	16	121	81	10	121

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	303	162	0	0	202	0
Stage 1	162	-	-	-	-	-
Stage 2	141	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	689	883	-	-	1370	-
Stage 1	867	-	-	-	-	-
Stage 2	886	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	683	883	-	-	1370	-
Mov Cap-2 Maneuver	683	-	-	-	-	-
Stage 1	867	-	-	-	-	-
Stage 2	879	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.5	0	0.6
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	722	1370	-
HCM Lane V/C Ratio	-	-	0.093	0.007	-
HCM Control Delay (s)	-	-	10.5	7.6	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.3	0	-

FUTURE "NO-BUILD" INTERSECTION ANALYSIS

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	17	3	15	8	0	6	16	627	10	11	314	15
Future Vol, veh/h	17	3	15	8	0	6	16	627	10	11	314	15
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	Yield	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	18	3	16	9	0	6	17	674	11	12	338	16

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1084	1089	346	1094	1092	680	354	0	0	685	0	0
Stage 1	370	370	-	714	714	-	-	-	-	-	-	-
Stage 2	714	719	-	380	378	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	194	215	697	191	215	451	1205	-	-	908	-	-
Stage 1	650	620	-	422	435	-	-	-	-	-	-	-
Stage 2	422	433	-	642	615	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	186	207	697	179	207	451	1205	-	-	908	-	-
Mov Cap-2 Maneuver	186	207	-	179	207	-	-	-	-	-	-	-
Stage 1	635	610	-	412	425	-	-	-	-	-	-	-
Stage 2	406	423	-	614	605	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	20.2	17.1	0.2	0.3
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1205	-	-	275	313	908	-	-
HCM Lane V/C Ratio	0.014	-	-	0.137	0.048	0.013	-	-
HCM Control Delay (s)	8	0	-	20.2	17.1	9	0	-
HCM Lane LOS	A	A	-	C	C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.5	0.2	0	-	-

Intersection	
Int Delay, s/veh	2.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	108	19	439	213	10	233
Future Vol, veh/h	108	19	439	213	10	233
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	116	20	472	229	11	251

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	860	587	0	0	701	0
Stage 1	587	-	-	-	-	-
Stage 2	273	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	326	510	-	-	896	-
Stage 1	556	-	-	-	-	-
Stage 2	773	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	321	510	-	-	896	-
Mov Cap-2 Maneuver	321	-	-	-	-	-
Stage 1	556	-	-	-	-	-
Stage 2	762	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	22.5	0	0.4
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	340	896	-
HCM Lane V/C Ratio	-	-	0.402	0.012	-
HCM Control Delay (s)	-	-	22.5	9.1	0
HCM Lane LOS	-	-	C	A	A
HCM 95th %tile Q(veh)	-	-	1.9	0	-

Intersection	
Int Delay, s/veh	1.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	42	19	140	94	11	98
Future Vol, veh/h	42	19	140	94	11	98
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	46	21	154	103	12	108

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	338	206	0	0	257	0
Stage 1	206	-	-	-	-	-
Stage 2	132	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	658	835	-	-	1308	-
Stage 1	829	-	-	-	-	-
Stage 2	894	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	651	835	-	-	1308	-
Mov Cap-2 Maneuver	651	-	-	-	-	-
Stage 1	829	-	-	-	-	-
Stage 2	885	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.7	0	0.8
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	699	1308	-
HCM Lane V/C Ratio	-	-	0.096	0.009	-
HCM Control Delay (s)	-	-	10.7	7.8	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.3	0	-

Intersection	
Int Delay, s/veh	1.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	24	2	15	15	0	10	21	556	11	9	639	21
Future Vol, veh/h	24	2	15	15	0	10	21	556	11	9	639	21
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	Yield	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	25	2	15	15	0	10	22	573	11	9	659	22

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1311	1316	670	1320	1322	579	681	0	0	584	0	0
Stage 1	688	688	-	623	623	-	-	-	-	-	-	-
Stage 2	623	628	-	697	699	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	136	158	457	134	156	515	912	-	-	991	-	-
Stage 1	436	447	-	474	478	-	-	-	-	-	-	-
Stage 2	474	476	-	431	442	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	128	150	457	123	148	515	912	-	-	991	-	-
Mov Cap-2 Maneuver	128	150	-	123	148	-	-	-	-	-	-	-
Stage 1	420	440	-	457	461	-	-	-	-	-	-	-
Stage 2	448	459	-	408	435	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	32	25.1	0.3	0.1
HCM LOS	D	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	912	-	-	175	205	991	-	-
HCM Lane V/C Ratio	0.024	-	-	0.242	0.126	0.009	-	-
HCM Control Delay (s)	9	0	-	32	25.1	8.7	0	-
HCM Lane LOS	A	A	-	D	D	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.9	0.4	0	-	-

Intersection	
Int Delay, s/veh	6.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	153	16	402	188	9	516
Future Vol, veh/h	153	16	402	188	9	516
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	161	17	423	198	9	543

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1083	522	0	0	621	0
Stage 1	522	-	-	-	-	-
Stage 2	561	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	240	555	-	-	960	-
Stage 1	595	-	-	-	-	-
Stage 2	571	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	237	555	-	-	960	-
Mov Cap-2 Maneuver	237	-	-	-	-	-
Stage 1	595	-	-	-	-	-
Stage 2	564	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	48	0	0.2
HCM LOS	E		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	251	960	-
HCM Lane V/C Ratio	-	-	0.709	0.01	-
HCM Control Delay (s)	-	-	48	8.8	0
HCM Lane LOS	-	-	E	A	A
HCM 95th %tile Q(veh)	-	-	4.8	0	-

Intersection	
Int Delay, s/veh	1.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	50	16	119	79	9	119
Future Vol, veh/h	50	16	119	79	9	119
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	53	17	127	84	10	127

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	316	169	0	0	211	0
Stage 1	169	-	-	-	-	-
Stage 2	147	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	677	875	-	-	1360	-
Stage 1	861	-	-	-	-	-
Stage 2	880	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	672	875	-	-	1360	-
Mov Cap-2 Maneuver	672	-	-	-	-	-
Stage 1	861	-	-	-	-	-
Stage 2	873	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.6	0	0.5
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	712	1360	-
HCM Lane V/C Ratio	-	-	0.099	0.007	-
HCM Control Delay (s)	-	-	10.6	7.7	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.3	0	-

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	17	3	15	8	0	6	16	627	10	11	314	15
Future Vol, veh/h	17	3	15	8	0	6	16	627	10	11	314	15
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	Yield	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	18	3	16	9	0	6	17	674	11	12	338	16

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1084	1089	346	1094	1092	680	354	0	0	685	0	0
Stage 1	370	370	-	714	714	-	-	-	-	-	-	-
Stage 2	714	719	-	380	378	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	194	215	697	191	215	451	1205	-	-	908	-	-
Stage 1	650	620	-	422	435	-	-	-	-	-	-	-
Stage 2	422	433	-	642	615	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	186	207	697	179	207	451	1205	-	-	908	-	-
Mov Cap-2 Maneuver	186	207	-	179	207	-	-	-	-	-	-	-
Stage 1	635	610	-	412	425	-	-	-	-	-	-	-
Stage 2	406	423	-	614	605	-	-	-	-	-	-	-

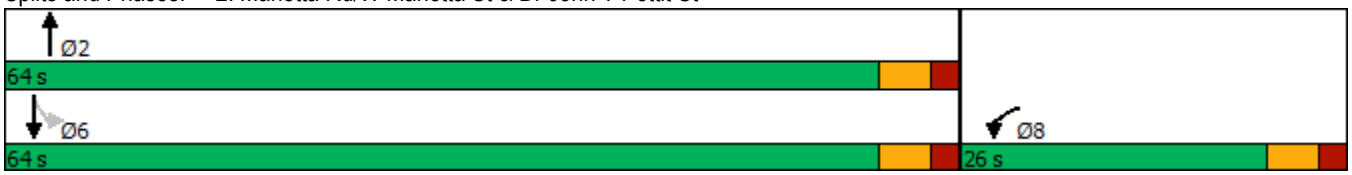
Approach	EB	WB	NB	SB
HCM Control Delay, s	20.2	17.1	0.2	0.3
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1205	-	-	275	313	908	-	-
HCM Lane V/C Ratio	0.014	-	-	0.137	0.048	0.013	-	-
HCM Control Delay (s)	8	0	-	20.2	17.1	9	0	-
HCM Lane LOS	A	A	-	C	C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.5	0.2	0	-	-

Lane Group	WBL	NBT	SBL	SBT
Lane Configurations				
Traffic Volume (vph)	108	439	10	233
Future Volume (vph)	108	439	10	233
Lane Group Flow (vph)	136	701	0	262
Turn Type	Prot	NA	Perm	NA
Protected Phases	8	2		6
Permitted Phases			6	
Detector Phase	8	2	6	6
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	23.5	23.5	23.5	23.5
Total Split (s)	26.0	64.0	64.0	64.0
Total Split (%)	28.9%	71.1%	71.1%	71.1%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0
Total Lost Time (s)	5.5	5.5		5.5
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	None	Min	Min	Min
v/c Ratio	0.40	0.57		0.21
Control Delay	22.1	8.4		5.5
Queue Delay	0.0	0.0		0.0
Total Delay	22.1	8.4		5.5
Queue Length 50th (ft)	33	103		30
Queue Length 95th (ft)	85	232		70
Internal Link Dist (ft)	388	411		672
Turn Bay Length (ft)				
Base Capacity (vph)	762	1759		1788
Starvation Cap Reductn	0	0		0
Spillback Cap Reductn	0	0		0
Storage Cap Reductn	0	0		0
Reduced v/c Ratio	0.18	0.40		0.15

Intersection Summary
Cycle Length: 90
Actuated Cycle Length: 49.6
Natural Cycle: 60
Control Type: Actuated-Uncoordinated

Splits and Phases: 2: Marietta Rd/W Marietta St & Dr John T Pettit St



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	108	19	439	213	10	233
Future Volume (veh/h)	108	19	439	213	10	233
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	116	20	472	229	11	251
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	163	28	649	315	129	991
Arrive On Green	0.11	0.11	0.55	0.55	0.55	0.55
Sat Flow, veh/h	1482	256	1189	577	22	1816
Grp Volume(v), veh/h	137	0	0	701	262	0
Grp Sat Flow(s),veh/h/ln	1750	0	0	1766	1837	0
Q Serve(g_s), s	2.4	0.0	0.0	9.6	0.0	0.0
Cycle Q Clear(g_c), s	2.4	0.0	0.0	9.6	2.4	0.0
Prop In Lane	0.85	0.15		0.33	0.04	
Lane Grp Cap(c), veh/h	193	0	0	964	1121	0
V/C Ratio(X)	0.71	0.00	0.00	0.73	0.23	0.00
Avail Cap(c_a), veh/h	1122	0	0	3231	3378	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	13.7	0.0	0.0	5.5	3.8	0.0
Incr Delay (d2), s/veh	4.8	0.0	0.0	1.1	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.0	0.0	1.4	0.4	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	18.5	0.0	0.0	6.5	3.9	0.0
LnGrp LOS	B	A	A	A	A	A
Approach Vol, veh/h	137		701			262
Approach Delay, s/veh	18.5		6.5			3.9
Approach LOS	B		A			A

Timer - Assigned Phs		2				6	8
Phs Duration (G+Y+Rc), s		23.0				23.0	9.0
Change Period (Y+Rc), s		5.5				5.5	5.5
Max Green Setting (Gmax), s		58.5				58.5	20.5
Max Q Clear Time (g_c+I1), s		11.6				4.4	4.4
Green Ext Time (p_c), s		5.9				1.8	0.3

Intersection Summary	
HCM 6th Ctrl Delay	7.4
HCM 6th LOS	A

Intersection	
Int Delay, s/veh	1.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	42	19	140	94	11	98
Future Vol, veh/h	42	19	140	94	11	98
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	46	21	154	103	12	108

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	338	206	0	0	257	0
Stage 1	206	-	-	-	-	-
Stage 2	132	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	658	835	-	-	1308	-
Stage 1	829	-	-	-	-	-
Stage 2	894	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	651	835	-	-	1308	-
Mov Cap-2 Maneuver	651	-	-	-	-	-
Stage 1	829	-	-	-	-	-
Stage 2	885	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.7	0	0.8
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	699	1308	-
HCM Lane V/C Ratio	-	-	0.096	0.009	-
HCM Control Delay (s)	-	-	10.7	7.8	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.3	0	-

Intersection	
Int Delay, s/veh	1.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	24	2	15	15	0	10	21	556	11	9	639	21
Future Vol, veh/h	24	2	15	15	0	10	21	556	11	9	639	21
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	Yield	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	25	2	15	15	0	10	22	573	11	9	659	22

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1311	1316	670	1320	1322	579	681	0	0	584	0	0
Stage 1	688	688	-	623	623	-	-	-	-	-	-	-
Stage 2	623	628	-	697	699	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	136	158	457	134	156	515	912	-	-	991	-	-
Stage 1	436	447	-	474	478	-	-	-	-	-	-	-
Stage 2	474	476	-	431	442	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	128	150	457	123	148	515	912	-	-	991	-	-
Mov Cap-2 Maneuver	128	150	-	123	148	-	-	-	-	-	-	-
Stage 1	420	440	-	457	461	-	-	-	-	-	-	-
Stage 2	448	459	-	408	435	-	-	-	-	-	-	-

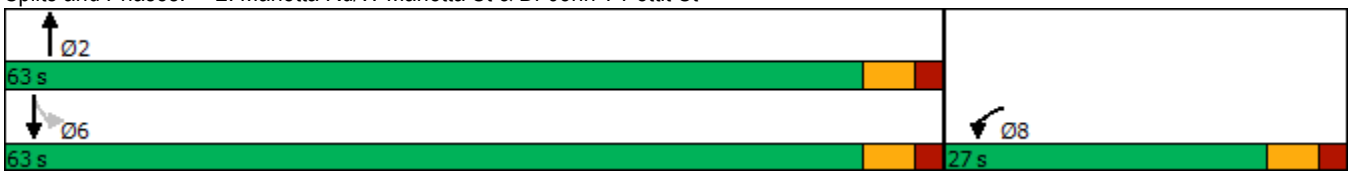
Approach	EB	WB	NB	SB
HCM Control Delay, s	32	25.1	0.3	0.1
HCM LOS	D	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	912	-	-	175	205	991	-	-
HCM Lane V/C Ratio	0.024	-	-	0.242	0.126	0.009	-	-
HCM Control Delay (s)	9	0	-	32	25.1	8.7	0	-
HCM Lane LOS	A	A	-	D	D	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.9	0.4	0	-	-

Lane Group	WBL	NBT	SBL	SBT
Lane Configurations				
Traffic Volume (vph)	153	402	9	516
Future Volume (vph)	153	402	9	516
Lane Group Flow (vph)	178	621	0	552
Turn Type	Prot	NA	Perm	NA
Protected Phases	8	2		6
Permitted Phases			6	
Detector Phase	8	2	6	6
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	23.5	23.5	23.5	23.5
Total Split (s)	27.0	63.0	63.0	63.0
Total Split (%)	30.0%	70.0%	70.0%	70.0%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0
Total Lost Time (s)	5.5	5.5		5.5
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	None	Min	Min	Min
v/c Ratio	0.46	0.62		0.54
Control Delay	20.4	10.3		9.8
Queue Delay	0.0	0.0		0.0
Total Delay	20.4	10.3		9.8
Queue Length 50th (ft)	37	86		81
Queue Length 95th (ft)	100	204		182
Internal Link Dist (ft)	388	411		672
Turn Bay Length (ft)				
Base Capacity (vph)	809	1772		1833
Starvation Cap Reductn	0	0		0
Spillback Cap Reductn	0	0		0
Storage Cap Reductn	0	0		0
Reduced v/c Ratio	0.22	0.35		0.30

Intersection Summary
Cycle Length: 90
Actuated Cycle Length: 47.6
Natural Cycle: 60
Control Type: Actuated-Uncoordinated

Splits and Phases: 2: Marietta Rd/W Marietta St & Dr John T Pettit St



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	153	16	402	188	9	516
Future Volume (veh/h)	153	16	402	188	9	516
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	161	17	423	198	9	543
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	219	23	601	282	125	924
Arrive On Green	0.14	0.14	0.50	0.50	0.50	0.50
Sat Flow, veh/h	1584	167	1205	564	9	1850
Grp Volume(v), veh/h	179	0	0	621	552	0
Grp Sat Flow(s),veh/h/ln	1761	0	0	1769	1859	0
Q Serve(g_s), s	3.0	0.0	0.0	8.2	0.0	0.0
Cycle Q Clear(g_c), s	3.0	0.0	0.0	8.2	6.4	0.0
Prop In Lane	0.90	0.09		0.32	0.02	
Lane Grp Cap(c), veh/h	243	0	0	883	1049	0
V/C Ratio(X)	0.74	0.00	0.00	0.70	0.53	0.00
Avail Cap(c_a), veh/h	1249	0	0	3354	3606	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	12.5	0.0	0.0	5.9	5.4	0.0
Incr Delay (d2), s/veh	4.3	0.0	0.0	1.0	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.0	0.0	1.3	1.2	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	16.8	0.0	0.0	6.9	5.8	0.0
LnGrp LOS	B	A	A	A	A	A
Approach Vol, veh/h	179		621			552
Approach Delay, s/veh	16.8		6.9			5.8
Approach LOS	B		A			A

Timer - Assigned Phs		2			6	8
Phs Duration (G+Y+Rc), s		20.6			20.6	9.7
Change Period (Y+Rc), s		5.5			5.5	5.5
Max Green Setting (Gmax), s		57.5			57.5	21.5
Max Q Clear Time (g_c+I1), s		10.2			8.4	5.0
Green Ext Time (p_c), s		4.9			4.3	0.4

Intersection Summary	
HCM 6th Ctrl Delay	7.8
HCM 6th LOS	A

Intersection	
Int Delay, s/veh	1.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	50	16	119	79	9	119
Future Vol, veh/h	50	16	119	79	9	119
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	53	17	127	84	10	127

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	316	169	0	0	211	0
Stage 1	169	-	-	-	-	-
Stage 2	147	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	677	875	-	-	1360	-
Stage 1	861	-	-	-	-	-
Stage 2	880	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	672	875	-	-	1360	-
Mov Cap-2 Maneuver	672	-	-	-	-	-
Stage 1	861	-	-	-	-	-
Stage 2	873	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.6	0	0.5
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	712	1360	-
HCM Lane V/C Ratio	-	-	0.099	0.007	-
HCM Control Delay (s)	-	-	10.6	7.7	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.3	0	-

FUTURE "BUILD" INTERSECTION ANALYSIS

Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	17	3	15	8	0	7	16	639	10	15	346	15
Future Vol, veh/h	17	3	15	8	0	7	16	639	10	15	346	15
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	Yield	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	18	3	16	9	0	8	17	687	11	16	372	16

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1139	1144	380	1149	1147	693	388	0	0	698	0	0
Stage 1	412	412	-	727	727	-	-	-	-	-	-	-
Stage 2	727	732	-	422	420	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	178	200	667	176	199	443	1170	-	-	898	-	-
Stage 1	617	594	-	415	429	-	-	-	-	-	-	-
Stage 2	415	427	-	609	589	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	169	191	667	164	190	443	1170	-	-	898	-	-
Mov Cap-2 Maneuver	169	191	-	164	190	-	-	-	-	-	-	-
Stage 1	602	580	-	405	419	-	-	-	-	-	-	-
Stage 2	398	417	-	577	575	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	21.8	17.3	0.2	0.4
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1170	-	-	252	308	898	-	-
HCM Lane V/C Ratio	0.015	-	-	0.149	0.052	0.018	-	-
HCM Control Delay (s)	8.1	0	-	21.8	17.3	9.1	0	-
HCM Lane LOS	A	A	-	C	C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.5	0.2	0.1	-	-

Intersection	
Int Delay, s/veh	4.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	144	28	439	226	13	233
Future Vol, veh/h	144	28	439	226	13	233
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	155	30	472	243	14	251

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	873	594	0	0	715	0
Stage 1	594	-	-	-	-	-
Stage 2	279	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	321	505	-	-	885	-
Stage 1	552	-	-	-	-	-
Stage 2	768	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	315	505	-	-	885	-
Mov Cap-2 Maneuver	315	-	-	-	-	-
Stage 1	552	-	-	-	-	-
Stage 2	754	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	28.1	0	0.5
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	336	885	-
HCM Lane V/C Ratio	-	-	0.55	0.016	-
HCM Control Delay (s)	-	-	28.1	9.1	0
HCM Lane LOS	-	-	D	A	A
HCM 95th %tile Q(veh)	-	-	3.1	0	-

Intersection	
Int Delay, s/veh	1.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	43	19	152	96	11	102
Future Vol, veh/h	43	19	152	96	11	102
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	47	21	167	105	12	112

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	356	220	0	0	272	0
Stage 1	220	-	-	-	-	-
Stage 2	136	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	642	820	-	-	1291	-
Stage 1	817	-	-	-	-	-
Stage 2	890	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	636	820	-	-	1291	-
Mov Cap-2 Maneuver	636	-	-	-	-	-
Stage 1	817	-	-	-	-	-
Stage 2	881	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.9	0	0.8
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	683	1291	-
HCM Lane V/C Ratio	-	-	0.1	0.009	-
HCM Control Delay (s)	-	-	10.9	7.8	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.3	0	-

Intersection	
Int Delay, s/veh	1.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	45	14	224	16	5	127
Future Vol, veh/h	45	14	224	16	5	127
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	100	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	87	87	87	87	87	87
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	52	16	257	18	6	146

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	415	257	0	0	275	0
Stage 1	257	-	-	-	-	-
Stage 2	158	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	594	782	-	-	1288	-
Stage 1	786	-	-	-	-	-
Stage 2	871	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	591	782	-	-	1288	-
Mov Cap-2 Maneuver	591	-	-	-	-	-
Stage 1	786	-	-	-	-	-
Stage 2	867	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.4	0	0.3
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	627	1288	-
HCM Lane V/C Ratio	-	-	0.108	0.004	-
HCM Control Delay (s)	-	-	11.4	7.8	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.4	0	-

Intersection	
Int Delay, s/veh	1.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	24	2	15	15	0	14	21	592	11	12	662	21
Future Vol, veh/h	24	2	15	15	0	14	21	592	11	12	662	21
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	Yield	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	25	2	15	15	0	14	22	610	11	12	682	22

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1377	1382	693	1386	1388	616	704	0	0	621	0	0
Stage 1	717	717	-	660	660	-	-	-	-	-	-	-
Stage 2	660	665	-	726	728	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	122	144	443	120	143	491	894	-	-	960	-	-
Stage 1	421	434	-	452	460	-	-	-	-	-	-	-
Stage 2	452	458	-	416	429	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	113	136	443	109	135	491	894	-	-	960	-	-
Mov Cap-2 Maneuver	113	136	-	109	135	-	-	-	-	-	-	-
Stage 1	405	425	-	435	443	-	-	-	-	-	-	-
Stage 2	422	441	-	391	420	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	36.2	24.9	0.3	0.2
HCM LOS	E	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	894	-	-	157	211	960	-	-
HCM Lane V/C Ratio	0.024	-	-	0.269	0.142	0.013	-	-
HCM Control Delay (s)	9.1	0	-	36.2	24.9	8.8	0	-
HCM Lane LOS	A	A	-	E	C	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	1	0.5	0	-	-

Intersection	
Int Delay, s/veh	11.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	179	22	402	228	19	516
Future Vol, veh/h	179	22	402	228	19	516
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	188	23	423	240	20	543

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1126	543	0	0	663	0
Stage 1	543	-	-	-	-	-
Stage 2	583	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	227	540	-	-	926	-
Stage 1	582	-	-	-	-	-
Stage 2	558	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	220	540	-	-	926	-
Mov Cap-2 Maneuver	220	-	-	-	-	-
Stage 1	582	-	-	-	-	-
Stage 2	541	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	79.8	0	0.3
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	235	926	-
HCM Lane V/C Ratio	-	-	0.9	0.022	-
HCM Control Delay (s)	-	-	79.8	9	0
HCM Lane LOS	-	-	F	A	A
HCM 95th %tile Q(veh)	-	-	7.6	0.1	-

Intersection	
Int Delay, s/veh	2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	53	16	127	81	9	132
Future Vol, veh/h	53	16	127	81	9	132
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	56	17	135	86	10	140

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	338	178	0	0	221	0
Stage 1	178	-	-	-	-	-
Stage 2	160	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	658	865	-	-	1348	-
Stage 1	853	-	-	-	-	-
Stage 2	869	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	653	865	-	-	1348	-
Mov Cap-2 Maneuver	653	-	-	-	-	-
Stage 1	853	-	-	-	-	-
Stage 2	862	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.8	0	0.5
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	692	1348	-
HCM Lane V/C Ratio	-	-	0.106	0.007	-
HCM Control Delay (s)	-	-	10.8	7.7	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.4	0	-

Intersection	
Int Delay, s/veh	1.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	32	10	198	50	16	168
Future Vol, veh/h	32	10	198	50	16	168
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	100	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	35	11	215	54	17	183

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	432	215	0	0	269	0
Stage 1	215	-	-	-	-	-
Stage 2	217	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	581	825	-	-	1295	-
Stage 1	821	-	-	-	-	-
Stage 2	819	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	572	825	-	-	1295	-
Mov Cap-2 Maneuver	572	-	-	-	-	-
Stage 1	821	-	-	-	-	-
Stage 2	807	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.3	0	0.7
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	617	1295	-
HCM Lane V/C Ratio	-	-	0.074	0.013	-
HCM Control Delay (s)	-	-	11.3	7.8	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0	-

Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	17	3	15	8	0	7	16	639	10	15	346	15
Future Vol, veh/h	17	3	15	8	0	7	16	639	10	15	346	15
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	Yield	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	18	3	16	9	0	8	17	687	11	16	372	16

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1139	1144	380	1149	1147	693	388	0	0	698	0	0
Stage 1	412	412	-	727	727	-	-	-	-	-	-	-
Stage 2	727	732	-	422	420	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	178	200	667	176	199	443	1170	-	-	898	-	-
Stage 1	617	594	-	415	429	-	-	-	-	-	-	-
Stage 2	415	427	-	609	589	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	169	191	667	164	190	443	1170	-	-	898	-	-
Mov Cap-2 Maneuver	169	191	-	164	190	-	-	-	-	-	-	-
Stage 1	602	580	-	405	419	-	-	-	-	-	-	-
Stage 2	398	417	-	577	575	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	21.8	17.3	0.2	0.4
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1170	-	-	252	308	898	-	-
HCM Lane V/C Ratio	0.015	-	-	0.149	0.052	0.018	-	-
HCM Control Delay (s)	8.1	0	-	21.8	17.3	9.1	0	-
HCM Lane LOS	A	A	-	C	C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.5	0.2	0.1	-	-

Lane Group	WBL	NBT	SBL	SBT
Lane Configurations				
Traffic Volume (vph)	144	439	13	233
Future Volume (vph)	144	439	13	233
Lane Group Flow (vph)	185	715	0	265
Turn Type	Prot	NA	Perm	NA
Protected Phases	8	2		6
Permitted Phases			6	
Detector Phase	8	2	6	6
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	23.5	23.5	23.5	23.5
Total Split (s)	26.0	64.0	64.0	64.0
Total Split (%)	28.9%	71.1%	71.1%	71.1%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0
Total Lost Time (s)	5.5	5.5		5.5
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	None	Min	Min	Min
v/c Ratio	0.50	0.68		0.26
Control Delay	23.4	11.4		6.6
Queue Delay	0.0	0.0		0.0
Total Delay	23.4	11.4		6.6
Queue Length 50th (ft)	43	114		33
Queue Length 95th (ft)	121	268		80
Internal Link Dist (ft)	388	411		672
Turn Bay Length (ft)				
Base Capacity (vph)	705	1720		1728
Starvation Cap Reductn	0	0		0
Spillback Cap Reductn	0	0		0
Storage Cap Reductn	0	0		0
Reduced v/c Ratio	0.26	0.42		0.15

Intersection Summary
Cycle Length: 90
Actuated Cycle Length: 52.6
Natural Cycle: 60
Control Type: Actuated-Uncoordinated

Splits and Phases: 2: Marietta Rd/W Marietta St & Dr John T Pettit St

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	144	28	439	226	13	233
Future Volume (veh/h)	144	28	439	226	13	233
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	155	30	472	243	14	251
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	209	40	632	325	124	975
Arrive On Green	0.14	0.14	0.54	0.54	0.54	0.54
Sat Flow, veh/h	1456	282	1164	599	29	1795
Grp Volume(v), veh/h	186	0	0	715	265	0
Grp Sat Flow(s),veh/h/ln	1747	0	0	1763	1825	0
Q Serve(g_s), s	3.6	0.0	0.0	10.9	0.0	0.0
Cycle Q Clear(g_c), s	3.6	0.0	0.0	10.9	2.6	0.0
Prop In Lane	0.83	0.16		0.34	0.05	
Lane Grp Cap(c), veh/h	250	0	0	957	1099	0
V/C Ratio(X)	0.74	0.00	0.00	0.75	0.24	0.00
Avail Cap(c_a), veh/h	1022	0	0	2942	3046	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	14.4	0.0	0.0	6.2	4.3	0.0
Incr Delay (d2), s/veh	4.3	0.0	0.0	1.2	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	0.0	0.0	1.9	0.5	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	18.7	0.0	0.0	7.4	4.4	0.0
LnGrp LOS	B	A	A	A	A	A
Approach Vol, veh/h	186		715			265
Approach Delay, s/veh	18.7		7.4			4.4
Approach LOS	B		A			A

Timer - Assigned Phs		2			6	8
Phs Duration (G+Y+Rc), s		24.5			24.5	10.5
Change Period (Y+Rc), s		5.5			5.5	5.5
Max Green Setting (Gmax), s		58.5			58.5	20.5
Max Q Clear Time (g_c+I1), s		12.9			4.6	5.6
Green Ext Time (p_c), s		6.1			1.8	0.4

Intersection Summary	
HCM 6th Ctrl Delay	8.5
HCM 6th LOS	A

Notes

User approved volume balancing among the lanes for turning movement.

Intersection	
Int Delay, s/veh	1.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	43	19	152	96	11	102
Future Vol, veh/h	43	19	152	96	11	102
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	47	21	167	105	12	112

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	356	220	0	0	272	0
Stage 1	220	-	-	-	-	-
Stage 2	136	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	642	820	-	-	1291	-
Stage 1	817	-	-	-	-	-
Stage 2	890	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	636	820	-	-	1291	-
Mov Cap-2 Maneuver	636	-	-	-	-	-
Stage 1	817	-	-	-	-	-
Stage 2	881	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.9	0	0.8
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	683	1291	-
HCM Lane V/C Ratio	-	-	0.1	0.009	-
HCM Control Delay (s)	-	-	10.9	7.8	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.3	0	-

Intersection	
Int Delay, s/veh	1.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	45	14	224	16	5	127
Future Vol, veh/h	45	14	224	16	5	127
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	100	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	87	87	87	87	87	87
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	52	16	257	18	6	146

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	415	257	0	0	275	0
Stage 1	257	-	-	-	-	-
Stage 2	158	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	594	782	-	-	1288	-
Stage 1	786	-	-	-	-	-
Stage 2	871	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	591	782	-	-	1288	-
Mov Cap-2 Maneuver	591	-	-	-	-	-
Stage 1	786	-	-	-	-	-
Stage 2	867	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.4	0	0.3
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	627	1288	-
HCM Lane V/C Ratio	-	-	0.108	0.004	-
HCM Control Delay (s)	-	-	11.4	7.8	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.4	0	-

Intersection	
Int Delay, s/veh	1.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	24	2	15	15	0	14	21	592	11	12	662	21
Future Vol, veh/h	24	2	15	15	0	14	21	592	11	12	662	21
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	Yield	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	25	2	15	15	0	14	22	610	11	12	682	22

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1377	1382	693	1386	1388	616	704	0	0	621	0	0
Stage 1	717	717	-	660	660	-	-	-	-	-	-	-
Stage 2	660	665	-	726	728	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	122	144	443	120	143	491	894	-	-	960	-	-
Stage 1	421	434	-	452	460	-	-	-	-	-	-	-
Stage 2	452	458	-	416	429	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	113	136	443	109	135	491	894	-	-	960	-	-
Mov Cap-2 Maneuver	113	136	-	109	135	-	-	-	-	-	-	-
Stage 1	405	425	-	435	443	-	-	-	-	-	-	-
Stage 2	422	441	-	391	420	-	-	-	-	-	-	-

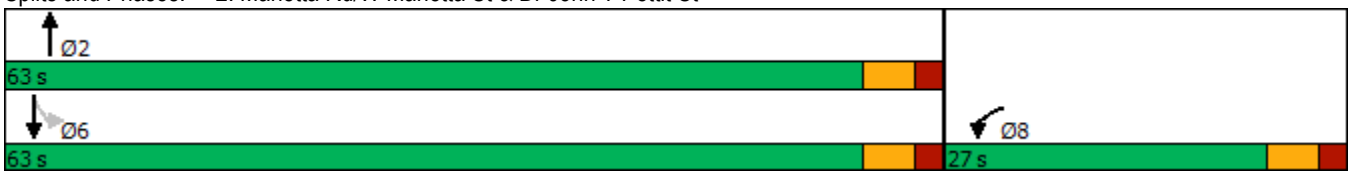
Approach	EB	WB	NB	SB
HCM Control Delay, s	36.2	24.9	0.3	0.2
HCM LOS	E	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	894	-	-	157	211	960	-	-
HCM Lane V/C Ratio	0.024	-	-	0.269	0.142	0.013	-	-
HCM Control Delay (s)	9.1	0	-	36.2	24.9	8.8	0	-
HCM Lane LOS	A	A	-	E	C	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	1	0.5	0	-	-

Lane Group	WBL	NBT	SBL	SBT
Lane Configurations				
Traffic Volume (vph)	179	402	19	516
Future Volume (vph)	179	402	19	516
Lane Group Flow (vph)	211	663	0	563
Turn Type	Prot	NA	Perm	NA
Protected Phases	8	2		6
Permitted Phases			6	
Detector Phase	8	2	6	6
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	23.5	23.5	23.5	23.5
Total Split (s)	27.0	63.0	63.0	63.0
Total Split (%)	30.0%	70.0%	70.0%	70.0%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0
Total Lost Time (s)	5.5	5.5		5.5
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	None	Min	Min	Min
v/c Ratio	0.52	0.66		0.57
Control Delay	22.6	11.5		10.6
Queue Delay	0.0	0.0		0.0
Total Delay	22.6	11.5		10.6
Queue Length 50th (ft)	45	101		89
Queue Length 95th (ft)	132	245		205
Internal Link Dist (ft)	388	411		672
Turn Bay Length (ft)				
Base Capacity (vph)	772	1716		1751
Starvation Cap Reductn	0	0		0
Spillback Cap Reductn	0	0		0
Storage Cap Reductn	0	0		0
Reduced v/c Ratio	0.27	0.39		0.32

Intersection Summary
Cycle Length: 90
Actuated Cycle Length: 50.6
Natural Cycle: 60
Control Type: Actuated-Uncoordinated

Splits and Phases: 2: Marietta Rd/W Marietta St & Dr John T Pettit St



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	179	22	402	228	19	516
Future Volume (veh/h)	179	22	402	228	19	516
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	188	23	423	240	20	543
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	254	31	575	327	122	931
Arrive On Green	0.16	0.16	0.51	0.51	0.51	0.51
Sat Flow, veh/h	1559	191	1120	636	24	1813
Grp Volume(v), veh/h	212	0	0	663	563	0
Grp Sat Flow(s),veh/h/ln	1758	0	0	1756	1837	0
Q Serve(g_s), s	3.9	0.0	0.0	10.0	0.0	0.0
Cycle Q Clear(g_c), s	3.9	0.0	0.0	10.0	7.1	0.0
Prop In Lane	0.89	0.11		0.36	0.04	
Lane Grp Cap(c), veh/h	287	0	0	902	1053	0
V/C Ratio(X)	0.74	0.00	0.00	0.74	0.53	0.00
Avail Cap(c_a), veh/h	1111	0	0	2967	3147	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	13.6	0.0	0.0	6.5	5.8	0.0
Incr Delay (d2), s/veh	3.7	0.0	0.0	1.2	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	0.0	0.0	1.9	1.5	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	17.3	0.0	0.0	7.6	6.2	0.0
LnGrp LOS	B	A	A	A	A	A
Approach Vol, veh/h	212		663			563
Approach Delay, s/veh	17.3		7.6			6.2
Approach LOS	B		A			A

Timer - Assigned Phs		2			6	8
Phs Duration (G+Y+Rc), s		23.0			23.0	11.0
Change Period (Y+Rc), s		5.5			5.5	5.5
Max Green Setting (Gmax), s		57.5			57.5	21.5
Max Q Clear Time (g_c+I1), s		12.0			9.1	5.9
Green Ext Time (p_c), s		5.4			4.5	0.5

Intersection Summary	
HCM 6th Ctrl Delay	8.5
HCM 6th LOS	A

Intersection	
Int Delay, s/veh	2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	53	16	127	81	9	132
Future Vol, veh/h	53	16	127	81	9	132
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	56	17	135	86	10	140

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	338	178	0	0	221	0
Stage 1	178	-	-	-	-	-
Stage 2	160	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	658	865	-	-	1348	-
Stage 1	853	-	-	-	-	-
Stage 2	869	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	653	865	-	-	1348	-
Mov Cap-2 Maneuver	653	-	-	-	-	-
Stage 1	853	-	-	-	-	-
Stage 2	862	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.8	0	0.5
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	692	1348	-
HCM Lane V/C Ratio	-	-	0.106	0.007	-
HCM Control Delay (s)	-	-	10.8	7.7	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.4	0	-

Intersection	
Int Delay, s/veh	1.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	32	10	198	50	16	168
Future Vol, veh/h	32	10	198	50	16	168
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	100	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	35	11	215	54	17	183

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	432	215	0	0	269	0
Stage 1	215	-	-	-	-	-
Stage 2	217	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	581	825	-	-	1295	-
Stage 1	821	-	-	-	-	-
Stage 2	819	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	572	825	-	-	1295	-
Mov Cap-2 Maneuver	572	-	-	-	-	-
Stage 1	821	-	-	-	-	-
Stage 2	807	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.3	0	0.7
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	617	1295	-
HCM Lane V/C Ratio	-	-	0.074	0.013	-
HCM Control Delay (s)	-	-	11.3	7.8	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0	-

TRAFFIC VOLUME WORKSHEETS

22-068 Residential Development on Cherokee Street @ Dr. John T. Pettit Street - Canton, Georgia

Traffic Volumes

A&R Engineering
May 2022

1. Marietta Rd @ Goss St

A.M. Peak Hour

	Marietta Road **Northbound**				Marietta Road **Southbound**				Canton Village Driveway **Eastbound**				Goss Street **Westbound**			
Condition	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Existing 2022 Traffic Counts:	15	603	10	628	11	302	14	327	16	3	14	33	8	0	6	14
Growth Factor (%):	2	2	2		2	2	2		2	2	2		2	2	2	
No-Build 2024 Volumes:	16	627	10	653	11	314	15	340	17	3	15	35	8	0	6	14
Total New Trips:	0	12	0	12	4	32	0	36	0	0	0	0	0	0	1	1
Future 2024 Traffic Volumes:	16	639	10	665	15	346	15	376	17	3	15	35	8	0	7	15

P.M. Peak Hour

	Marietta Road **Northbound**				Marietta Road **Southbound**				Canton Village Driveway **Eastbound**				Goss Street **Westbound**			
Condition	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Existing 2022 Traffic Counts:	20	535	11	566	9	614	20	643	23	2	14	39	14	0	10	24
Growth Factor (%):	2	2	2		2	2	2		2	2	2		2	2	2	
No-Build 2024 Volumes:	21	556	11	588	9	639	21	669	24	2	15	41	15	0	10	25
Total New Trips:	0	36	0	36	3	23	0	26	0	0	0	0	0	0	4	4
Future 2024 Traffic Volumes:	21	592	11	624	12	662	21	695	24	2	15	41	15	0	14	29

22-068 Residential Development on Cherokee Street @ Dr. John T. Pettit Street - Canton, Georgia

Traffic Volumes

A&R Engineering
May 2022

2. W Marietta St @ Dr John St

A.M. Peak Hour

	Marietta Road **Northbound**				W Marietta Street **Southbound**				- **Eastbound**				Dr John T Pettit Street **Westbound**			
Condition	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Existing 2022 Traffic Counts:	0	422	205	627	10	224	0	234	0	0	0	0	104	0	18	122
Growth Factor (%):	2	2	2		2	2	2		2	2	2		2	2	2	
No-Build 2024 Volumes:	0	439	213	652	10	233	0	243	0	0	0	0	108	0	19	127
Total New Trips:	0	0	13	13	3	0	0	3	0	0	0	0	36	0	9	45
Future 2024 Traffic Volumes:	0	439	226	665	13	233	0	246	0	0	0	0	144	0	28	172

P.M. Peak Hour

	Marietta Road **Northbound**				W Marietta Street **Southbound**				- **Eastbound**				Dr John T Pettit Street **Westbound**			
Condition	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Existing 2022 Traffic Counts:	0	387	181	568	9	496	0	505	0	0	0	0	147	0	15	162
Growth Factor (%):	2	2	2		2	2	2		2	2	2		2	2	2	
No-Build 2024 Volumes:	0	402	188	590	9	516	0	525	0	0	0	0	153	0	16	169
Total New Trips:	0	0	40	40	10	0	0	10	0	0	0	0	26	0	6	32
Future 2024 Traffic Volumes:	0	402	228	630	19	516	0	535	0	0	0	0	179	0	22	201

22-068 Residential Development on Cherokee Street @ Dr. John T. Pettit Street - Canton, Georgia

Traffic Volumes

A&R Engineering
May 2022

3. Dr John St @ Cherokee St

A.M. Peak Hour

	Dr John T Pettit Street **Northbound**				Dr John T Pettit Street **Southbound**				- **Eastbound**				Cherokee Street **Westbound**			
Condition	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Existing 2022 Traffic Counts:	0	135	90	225	11	94	0	105	0	0	0	0	40	0	18	58
Growth Factor (%):	2	2	2		2	2	2		2	2	2		2	2	2	
No-Build 2024 Volumes:	0	140	94	234	11	98	0	109	0	0	0	0	42	0	19	61
Total New Trips:	0	12	2	14	0	4	0	4	0	0	0	0	1	0	0	1
Future 2024 Traffic Volumes:	0	152	96	248	11	102	0	113	0	0	0	0	43	0	19	62

P.M. Peak Hour

	Dr John T Pettit Street **Northbound**				Dr John T Pettit Street **Southbound**				- **Eastbound**				Cherokee Street **Westbound**			
Condition	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Existing 2022 Traffic Counts:	0	114	76	190	9	114	0	123	0	0	0	0	48	0	15	63
Growth Factor (%):	2	2	2		2	2	2		2	2	2		2	2	2	
No-Build 2024 Volumes:	0	119	79	198	9	119	0	128	0	0	0	0	50	0	16	66
Total New Trips:	0	8	2	10	0	13	0	13	0	0	0	0	3	0	0	3
Future 2024 Traffic Volumes:	0	127	81	208	9	132	0	141	0	0	0	0	53	0	16	69

22-068 Residential Development on Cherokee Street @ Dr. John T. Pettit Street - Canton, Georgia

Traffic Volumes

A&R Engineering
May 2022

4. Dr John St @ Drwy 1

A.M. Peak Hour

	Dr John T Pettit Street **Northbound**				Dr John T Pettit Street **Southbound**				- **Eastbound**				Site Driveway 1 **Westbound**			
Condition	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Existing 2022 Traffic Counts:	0	215	0	215	0	122	0	122	0	0	0	0	0	0	0	0
Growth Factor (%):	2	2	2		2	2	2		2	2	2		2	2	2	
No-Build 2024 Volumes:	0	224	0	224	0	127	0	127	0	0	0	0	0	0	0	0
Total New Trips:	0	0	16	16	5	0	0	5	0	0	0	0	45	0	14	59
Future 2024 Traffic Volumes:	0	224	16	240	5	127	0	132	0	0	0	0	45	0	14	59

P.M. Peak Hour

	Dr John T Pettit Street **Northbound**				Dr John T Pettit Street **Southbound**				- **Eastbound**				Site Driveway 1 **Westbound**			
Condition	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Existing 2022 Traffic Counts:	0	190	0	190	0	162	0	162	0	0	0	0	0	0	0	0
Growth Factor (%):	2	2	2		2	2	2		2	2	2		2	2	2	
No-Build 2024 Volumes:	0	198	0	198	0	168	0	168	0	0	0	0	0	0	0	0
Total New Trips:	0	0	50	50	16	0	0	16	0	0	0	0	32	0	10	42
Future 2024 Traffic Volumes:	0	198	50	248	16	168	0	184	0	0	0	0	32	0	10	42