



The Arbors at Silver Trail

Traffic Impact Study

Prepared for:

GeoSam Capital US (Georgia), LLC

Prepared by:

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April 2022

KCI Project # 242202113

A stylized blue-toned illustration of a cityscape at the bottom of the page. It features various buildings, a bridge, cars on a road, and trees. The text 'RISE TO THE CHALLENGE' is overlaid on the left side of this illustration.

**RISE TO THE
CHALLENGE**



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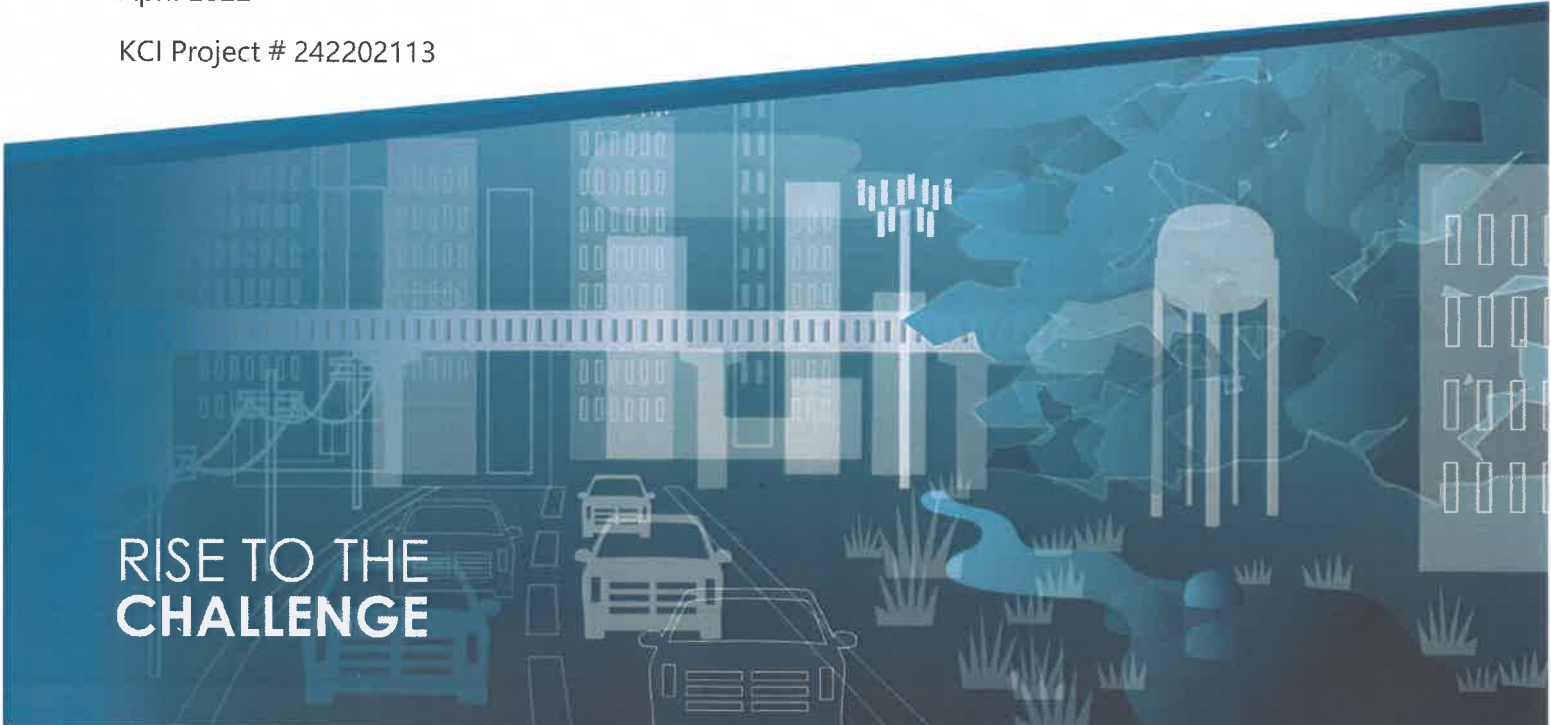
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**RISE TO THE
CHALLENGE**



Executive Summary

The purpose of this study is to evaluate the potential traffic impacts of *The Arbors at Silver Trail* proposed development Pods D, E & F. The site is in Paulding County but will be annexed into the City of Dallas upon rezoning. The development is located along the east side of Cole Lake Road. Based on the concept, the development will include a total of 295 detached single-family homes. The concept plan (see Appendix B) for the development illustrates the conditions in the study area, including the proposed development Pods D, E, & F and the proposed driveway locations. Each Pod is planned to have one driveway and all driveways are located along Cole Lake Road.

For the purposes of the traffic study, the analysis included the expected completion (build-out) of the development by year 2026. This study performed an analysis of existing traffic conditions and future traffic conditions. The future conditions analysis was performed for the year 2026 No-Build Conditions and the year 2026 Build Conditions (with the Arbors at Silver Trail development, Pods D, E, & F).

The traffic impact study network consisted of two intersections and a total of three driveways. The study intersections were Cole Lake Road at Monroe Cole Road (proposed Driveway #1), Cole Lake Road at Happy Valley Church Road / China Ridge, Cole Lake Road at Driveway #2, and Cole Lake Road at Driveway #3.

Capacity Results

The results of the traffic analysis indicates both study intersections are currently operating at acceptable levels of service (LOS A) and are expected to continue to operate acceptably in the future No-Build and Build Conditions (LOS A or B). The average vehicle delay is expected to be low at the study intersections due to the low peak hour traffic volume along Cole Lake Road.

Proposed Project Driveways

Access to each Pod is proposed via one driveway. Based on estimated traffic volumes and the capacity analysis in the year 2026 Build year conditions, the following intersection geometry recommendations are provided:

- Cole Lake Road at Monroe Cole Road / Driveway #1 (Pod D)
 - Construct driveway with one entry lane and one exit lane; with side-street stop-control
 - Provide a northbound right-turn deceleration lane
 - Provide a southbound left-turn lane
 - *Note: Paulding County is expected to require the installation of a northbound left-turn lane along Cole Lake Road (since this is opposite the southbound left-turn lane).*
- Cole Lake Road at Driveway #2 (Pod E)
 - Construct driveway with one entry lane and one exit lane; with side-street stop-control
- Cole Lake Road at Driveway #3 (Pod F)
 - Construct driveway with one entry lane and one exit lane; with side-street stop-control

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1. Existing Conditions

1.1 Site Conditions

The proposed development is located on undeveloped property. **Figure 1** provides a general location map. **Figure 2** is an aerial that shows the site locations (Pods D, E, & F) and the proposed site driveways (Figures included in Appendix A). Access to the property is proposed to be provided at one location per Pod (The concept plan is included in Appendix B). Nearby land uses are residential homes.

1.2 Roadway Conditions

Cole Lake Road is a two-lane roadway with left-turn lanes at newer neighborhoods and with a posted 35 mph posted speed limit. Narrow and soft shoulders is a consistent characteristic for the roadway, with some rollback curb & gutter at access points for newer neighborhoods. Notable horizontal and vertical curvature is common throughout its entire length. Cole Lake Road is north-south oriented roadway. GDOT classifies Cole Lake Road as a local roadway. It's a residential roadway between SR 120 / Buchanan Street, to the north, and SR 120 Connector / Scoggins Road, to the south. Cole Lake Road is designated as Georgia Bike Route 145 from SR 120 Connector to Happy Valley Church Road.

Monroe Cole Road is a two-lane roadway, with a 25 mph posted speed limit. Monroe Cole Road is an east-west oriented roadway. GDOT classifies Monroe Cole Road as a local roadway. The roadway has mostly grassed shoulders on both sides, with curb & gutter spread scarcely throughout its length.

Happy Valley Church Road is a two-lane roadway with a 30 mph posted speed limit. Happy Valley Church Road is an east-west oriented roadway. GDOT classifies Happy Valley Church Road as a local roadway. Grassy shoulders as well as curb & gutter can be found throughout its length. The road connects Cole Lake Road to Old Villa Rica Road. Happy Church Road is designated as Georgia Bike Route 145 from Cole Lake Road to Old Villa Rica Road

Both study intersections, Cole Lake Road at Monroe Cole Road and Cole Lake Road at Happy Valley Church Road, are side-street stop-controlled with a single lane per approach. Cole Lake Road is considered the main roadway within the study area, while Monroe Cole Road and Happy Valley Church Road are considered the side-streets.

1.3 Traffic Volumes

Traffic counts were collected on Tuesday, March 22, 2022, for use in the traffic analysis. Paulding County public schools were in session. The traffic data collected included intersection turning movement counts at the following locations during the 7-9AM and 4-6PM peak periods.

1. Cole Lake Road at Monroe Cole Road
2. Cole Lake Road at Happy Valley Church Road

Historical traffic volume data available from the GDOT TADA source were utilized to inform the annual growth factor. The four locations are indicated in Appendix D. The four locations are:

- GDOT Count Station #223-0218 located on SR 120, north of McMichen Road.
- GDOT Count Station #223-0110 located on US 278, east of Old Villa Rica Road.
- GDOT Count Station #223-0138 located on SR 61, south of Mustang Drive.
- GDOT Count Station #223-0234 located on SR 120 Connector, west of Cole Lake Road.

1.4 Crash Review

Crash history was not reviewed for the purposes of this study.

2. Future Conditions

2.1 Future No-Build Traffic Volumes

Future No-Build traffic volumes were developed by reviewing the historical traffic volumes roadways within the vicinity of the project and historic population growth in the county. Four nearby GDOT count stations were evaluated to determine a growth rate. The annual historic compound growth rate at the GDOT count stations averaged to 4.0% per year. Paulding County's population growth rate was most recently reported as 0.3% per year in 2020. The Governor's Office of Planning and Budget developed population projections which indicates an estimated growth of 2.2% per year by 2026 in Paulding County.

Considering this data, a 2.6% per year growth rate to account for background traffic volume growth was used in the traffic study. For the purposes of this study the proposed development is expected to be completed and opened by 2026. A 2.6% per year growth rate was applied to the 2022 existing volumes to calculate year 2026 No-Build traffic volumes. The 2026 No-Build traffic volumes are indicated in the Intersection Volume Development tables included in the Appendix E.

2.2 Future Roadway Conditions

A review of Georgia DOT and Paulding County planned and programmed transportation projects was performed. No planned roadway projects were located near the development site.

3. Proposed Development Traffic

Project traffic was calculated for the proposed development. Project traffic is defined as the vehicular trips expected to be generated by the development and distributed over the roadway network.

3.1 Trip Generation

The project driveway volumes were calculated based on the Institute of Transportation Engineers' (ITE) Trip Generation Manual, Eleventh Edition. The development proposes a total of 295 detached single-family homes. The most applicable ITE land use (LU) codes is LU 210 (Single-Family Detached). Due to the development type, pass-by reductions and internal capture reductions were not included for the traffic analysis. **Table 1** below summarizes the trips expected daily, during the AM peak hour and during the PM peak hour for the development.

Land Use (ITE Code)	Units	Daily Trips	AM Peak Hour			PM Peak Hour		
		Two-Way Total	Enter	Exit	Total	Enter	Exit	Total
Single-Family Detached (210)	295	2,730	52	147	199	173	102	275

3.2 Trip Distribution and Assignment

The total units were split between Pods D, E, & F per the concept plan; Pod D: 247 homes, Pod E: 13 homes, Pod F: 35 homes. An overall trip distribution and assignment of project trips was based on existing traffic patterns and a review of land uses and the street network in the area. This information was used to apply the project traffic volumes at the study intersections and development driveways.

The directional distribution for the proposed development is estimated to be:

- Residential use:
 - 25% to/from the south along Cole Lake Road
 - 50% to/from the north along Cole Lake Road
 - 10% to/from the west along Monroe Cole Road
 - 15% to/from the east along Happy Valley Church Road

Figure 4 (in Appendix A) illustrates the residential trip distribution in the study area.

3.3 Future Build Traffic Volumes

The 2026 future Build traffic volumes were calculated by adding the proposed development (The Arbors at Silver Trail, Pods D, E, & F) traffic volumes to the projected year 2026 No-Build traffic volumes. **Figure 5** (in Appendix A) illustrates the year 2026 Build traffic volumes.

4. Capacity Analysis

Capacity analysis was performed at the study intersections for the weekday AM and PM peak hours. Intersection Level of Service (LOS) was calculated based on the methodologies contained in the Highway Capacity Manual, 6th Edition. The Synchro Studio software, which utilizes the HCM 6th Edition methodology, was utilized to perform the analyses.

Capacity is defined as the maximum number of vehicles that can pass over a particular road segment or through a particular intersection within a specified period under prevailing roadway, traffic, and control conditions. Level of service (LOS) is used to describe the operating characteristics of a road segment or intersection in relation to its capacity. LOS is defined as a qualitative measure that describes operational conditions and motorist's perceptions. The Highway Capacity Manual defines six levels of service, LOS A through LOS F. Level of service A indicates excellent operations with little delay to motorists, while level of service F indicates extremely long delay.

Level of service for unsignalized intersections is calculated for the average control delay incurred for vehicles on the stop control approach, compared to the average control delay per vehicle for all approaches at a signalized intersection. Control delay for vehicles include initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. **Table 2** below indicates the relationship between delay and LOS for signalized and unsignalized intersections, respectively. Level-of-service "E" is typically considered to be the limit of acceptable delay.

Several factors affect the controlled delay for unsignalized intersections, including the availability of gaps in the cross-street traffic, and acceptable gap time to make the movement from the stop position. For stop-control intersections, LOS E and F exist when there are insufficient gaps in traffic, resulting in long delays. Low level of service for stop-control approaches are not uncommon at major cross-streets.

Table 2: Level of Service Criteria		
Level of Service	Average Control Delay Per Vehicle (sec)	
	Signalized Intersection	Unsignalized Intersection
A	≤10	≤10
B	>10 and ≤20	>10 and ≤15
C	>20 and ≤35	>15 and ≤25
D	>35 and ≤55	>25 and ≤35
E	>55 and ≤80	>35 and ≤50
F	>80	>50

4.1 Existing Conditions Capacity Analysis

Capacity analysis was performed for the year 2022 traffic volumes and the existing roadway conditions. The existing traffic conditions are illustrated in **Figure 3**. **Table 3** summarizes the results of the capacity analysis.

Table 3: Existing Year (2022) Level of Service				
Intersection	Intersection Control	Approach	AM Peak Hour LOS (Delay*)	PM Peak Hour LOS (Delay*)
Cole Lake Road at Monroe Cole Road	Stop-Control	EB	A (9)	A (9)
Cole Lake Road at Happy Valley Church Road / China Ridge	Stop-Control	EB	A (9)	A (10)
		WB	A (9)	A (9)

*Average vehicle delay in seconds

Both study intersections are currently operating at an acceptable level of service during both the AM and PM peak hours.

4.2 Future No-Build Conditions Capacity Analysis

Capacity analysis was performed for the year 2026 Future Conditions and includes the No-Build traffic and the existing roadway conditions. **Table 4** summarizes the results of the capacity analysis for the Future No-Build Conditions.

Table 4: Future Year (2026) No-Build Level of Service				
Intersection	Intersection Control	Approach	AM Peak Hour LOS (Delay*)	PM Peak Hour LOS (Delay*)
Cole Lake Road at Monroe Cole Road	Stop-Control	EB	A (9)	A (9)
Cole Lake Road at Happy Valley Church Road / China Ridge	Stop-Control	EB	A (9)	A (10)
		WB	A (9)	A (9)

*Average vehicle delay in seconds

By the 2026 Future No-Build Conditions, both intersections are expected to continue operating acceptably, similarly to the Existing Conditions.

4.3 Future Build Conditions Capacity Analysis

Capacity analysis was performed for the year 2026 Future Conditions and includes the No-Build traffic volumes plus the Arbors at Silver Trail Pods D, E, & F development volumes. Driveway #1 is for Pod D, Driveway #2 is for Pod E, and Driveway #3 is for Pod F. The Build traffic conditions and volumes are illustrated in **Figure 5**. **Table 5** summarizes the results of the capacity analysis.

Table 5: Future Year (2026) Build Level of Service				
Intersection	Intersection Control	Approach	AM Peak Hour LOS (Delay*)	PM Peak Hour LOS (Delay*)
Cole Lake Road at Monroe Cole Road / Driveway #1	Stop-Control	EB	B (11)	B (12)
		WB	A (10)	B (11)
Cole Lake Road at Happy Valley Church Road / China Ridge	Stop-Control	EB	B (11)	B (11)
		WB	B (11)	B (11)
Cole Lake Road at Driveway #2	Stop-Control	WB	A (9)	A (9)
Cole Lake Road at Driveway #3	Stop-Control	WB	A (9)	A (9)

**Average vehicle delay in seconds*

By the 2026 Future Build Conditions, the study intersections and site driveways are expected to operate at acceptable levels of service during the AM and PM Peak hours; LOS A and LOS B. The average vehicle delay is expected to be low at the study intersections due to the low peak hour traffic volume along Cole Lake Road.

4.4 Turn Lane Analysis at Site Driveways

Paulding County follows Georgia DOT guidelines regarding turn lanes into developments. The Georgia DOT Driveway and Encroachment Control Manual was reviewed for the proposed driveways along Cole Lake. The GDOT driveway manual, Section 4I, Auxiliary Turn Lanes, provides minimum volumes requiring right-turn or left-turn deceleration lanes. The year 2026 Build traffic volumes were compared to the Georgia DOT driveway requirements for right-turn and left-turn deceleration lanes. A total of less than 300 vehicles were counted along Cole Lake Road south of Monroe Cole Road during the 4 hours of traffic data collection. Based on the low peak hour traffic volume, total daily traffic was assumed to be less than 6,000 vehicle trips.

Right-Turn Deceleration Lane Criteria

Based on the 35 mph speed limit, two-lane roadway, and less than 6,000 ADT (Average Daily Traffic) on Cole Lake Road, Table 4-6 indicates a dedicated right-turn lane is required if there are at least 200 vehicles turning right into the site within a day. The estimated daily northbound right-turn volume entering each Pod is the following:

- Pod D: 1365 daily entering trips x 21% distribution = 289 daily right-turning trips
- Pod E: 1365 daily entering trips x 1% distribution = 14 daily right-turning trips
- Pod F: 1365 daily entering trips x 3% distribution = 41 daily right-turning trips

Based on the expected trip distribution and assignment, only Pod D right-turning volume meets the GDOT criteria to install a right-turn deceleration lane at the proposed driveway.

Left-Turn Lane Criteria

Based on the 35 mph speed limit, two-lane roadway, and less than 6,000 ADT on Cole Lake Road, Table 4-7a indicates a dedicated left-turn lane is required if there are at least 300 vehicles turning left into the site within a day. The estimated daily southbound left-turn volume entering each Pod is the following:

- Pod D: 1365 daily entering trips x 55% distribution = 751 daily left-turning trips
- Pod E: 1365 daily entering trips x 3% distribution = 41 daily left-turning trips
- Pod F: 1365 daily entering trips x 9% distribution = 123 daily left-turning trips

Based on the expected trip distribution and assignment, only Pod D left-turning volume meets the GDOT criteria to install a left-turn lane at the proposed driveway.

Right-Hand Passing Lane Criteria

Based on the 35 mph speed limit, two-lane roadway, and less than 4,000 ADT on Cole Lake Road, Table 4-7b indicates a right-hand passing lane may be required if there are at least 200 vehicles turning left into the site within a day. Based on the left-turn lane criteria analysis, neither Pod E nor F meet the required threshold.

5. Recommendations

Recommendations for access for the proposed Pods D, E, & F at the development are based on existing conditions, the proposed development use, and expected traffic volumes. The appropriate traffic control was analyzed. Recommendations included reviewing City of Dallas Code of Ordinances and Paulding County requirements, knowledge of general transportation standards, and engineering judgment.

Access to each pod is proposed via one full-movement driveway. Due to overall low traffic volumes along Cole Lake Road and each intersection, the proposed capacity and lane configuration is expected to be sufficient to accommodate future traffic volumes. The required intersection sight distance will need to be verified at the proposed driveway locations.

5.1 Recommended Driveway Geometry

Access to each Pod is proposed via one driveway. Based on estimated traffic volumes and the capacity analysis in the year 2026 Build year conditions, the following intersection geometry recommendations are provided:

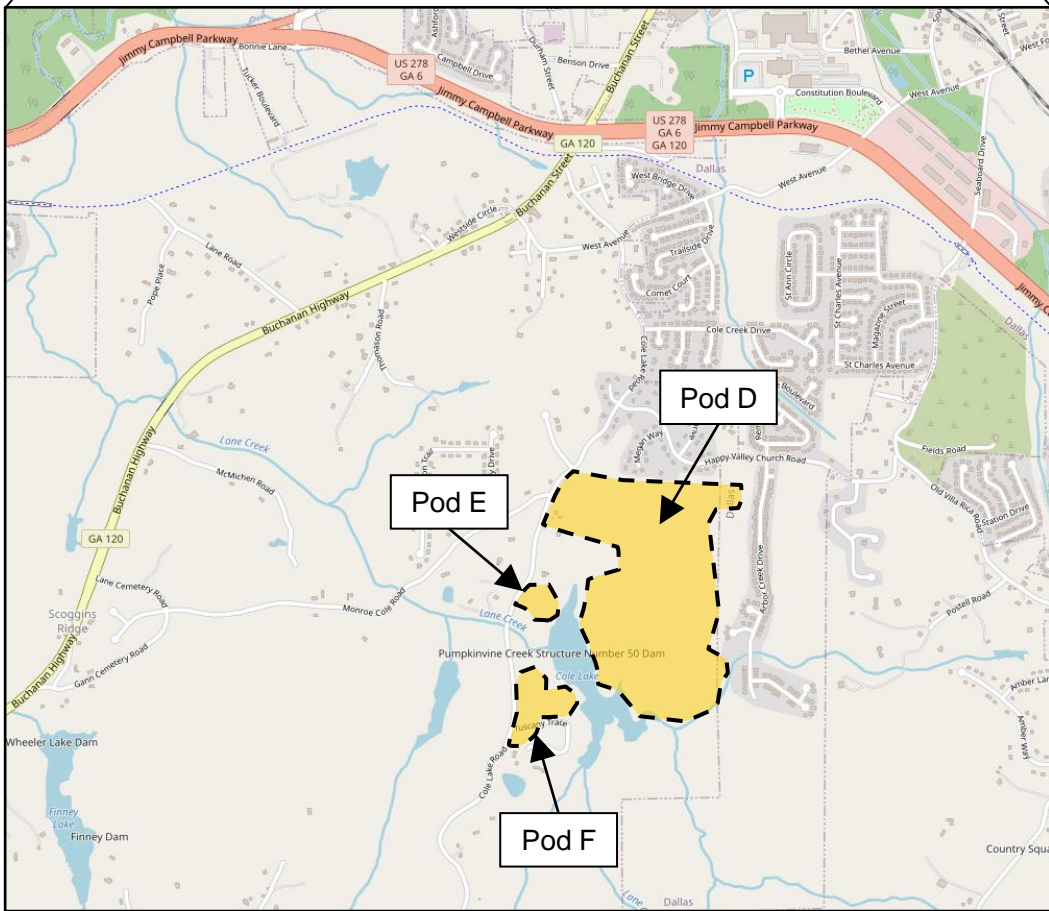
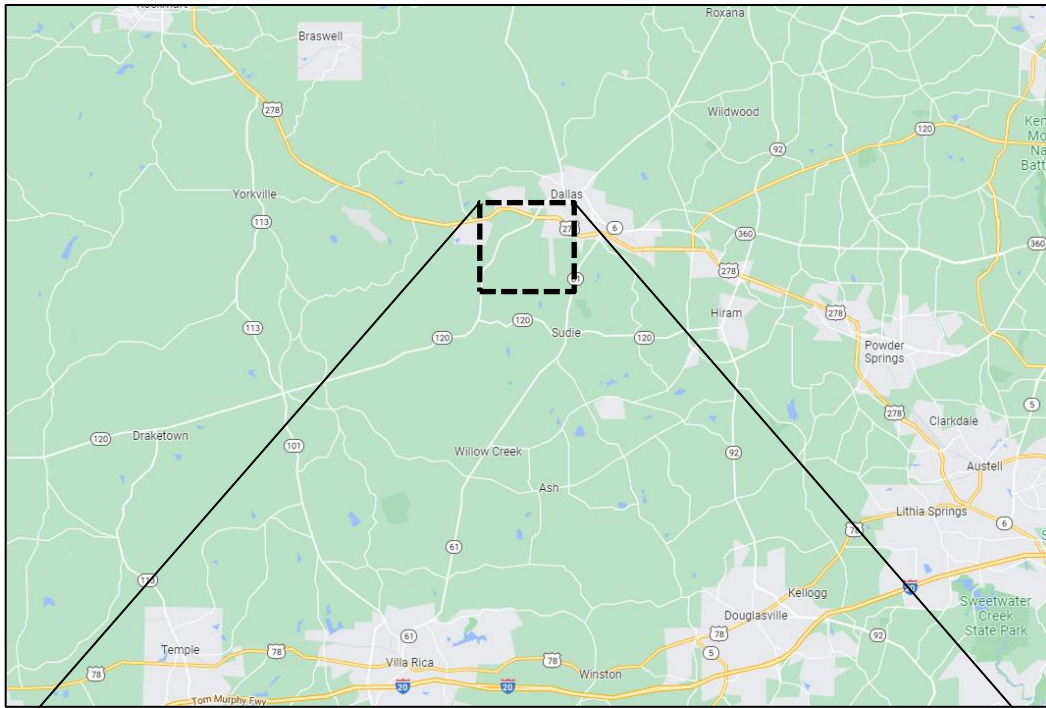
- Cole Lake Road at Monroe Cole Road / Driveway #1 (Pod D)
 - Construct driveway with one entry lane and one exit lane; with side-street stop-control
 - Provide a northbound right-turn deceleration lane
 - Provide a southbound left-turn lane
 - *Note: Paulding County is expected to require the installation of a northbound left-turn lane along Cole Lake Road (since this is opposite the southbound left-turn lane).*
- Cole Lake Road at Driveway #2 (Pod E)
 - Construct driveway with one entry lane and one exit lane; with side-street stop-control
- Cole Lake Road at Driveway #3 (Pod F)
 - Construct driveway with one entry lane and one exit lane; with side-street stop-control

Appendices

- Appendix A
 - Figures
- Appendix B
 - Concept Plan
- Appendix C
 - Traffic Count Data
- Appendix D
 - GDOT Traffic Data
- Appendix E
 - Intersection Volume Development
- Appendix F
 - Capacity Analysis Reports

Appendix A

Figures



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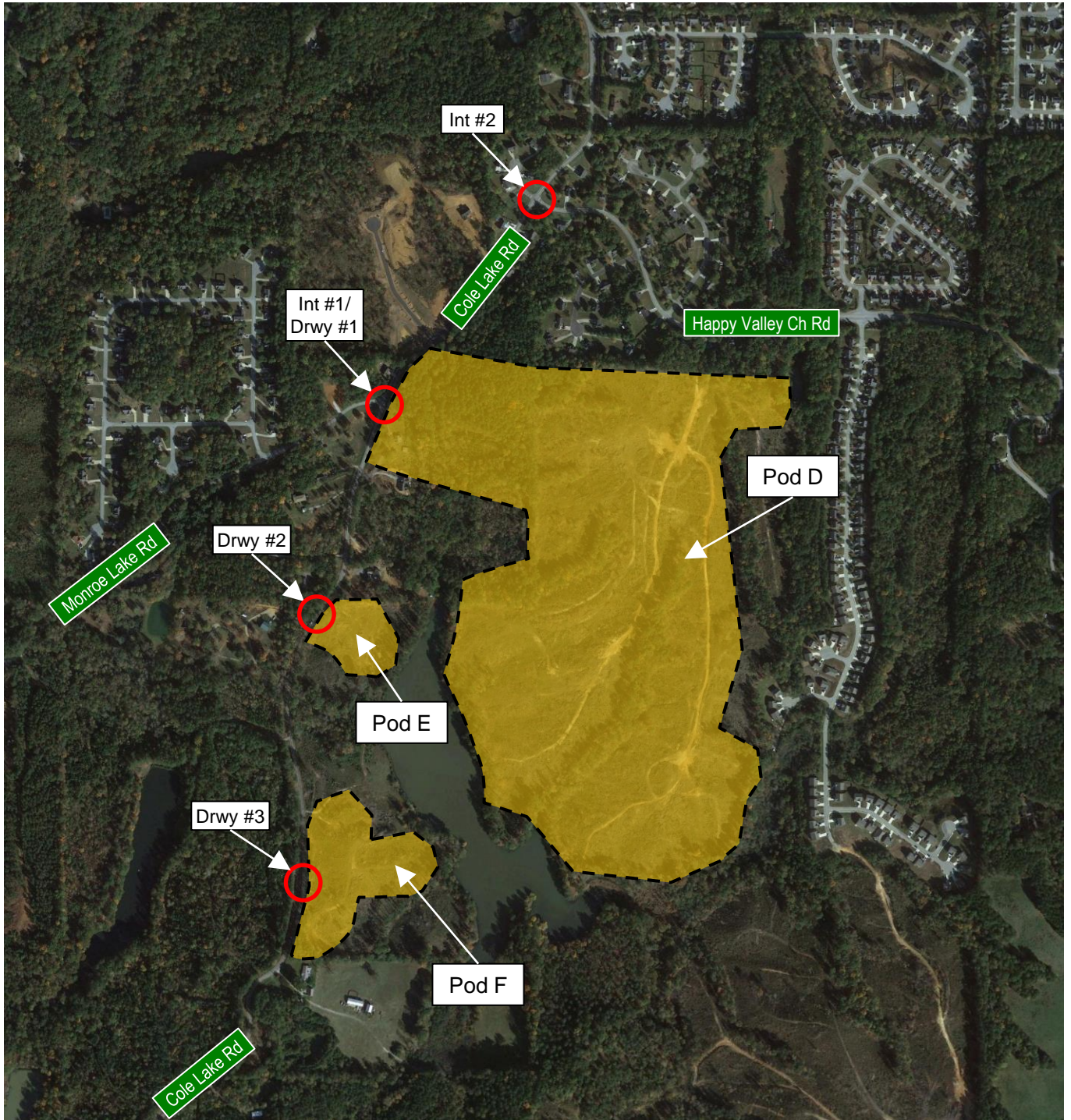
**Traffic Impact Study
The Arbors at Silver Trail
Paulding County, Georgia**

**Location
Map**

**Figure
1**

Legend:

 Study Intersection



Not to Scale



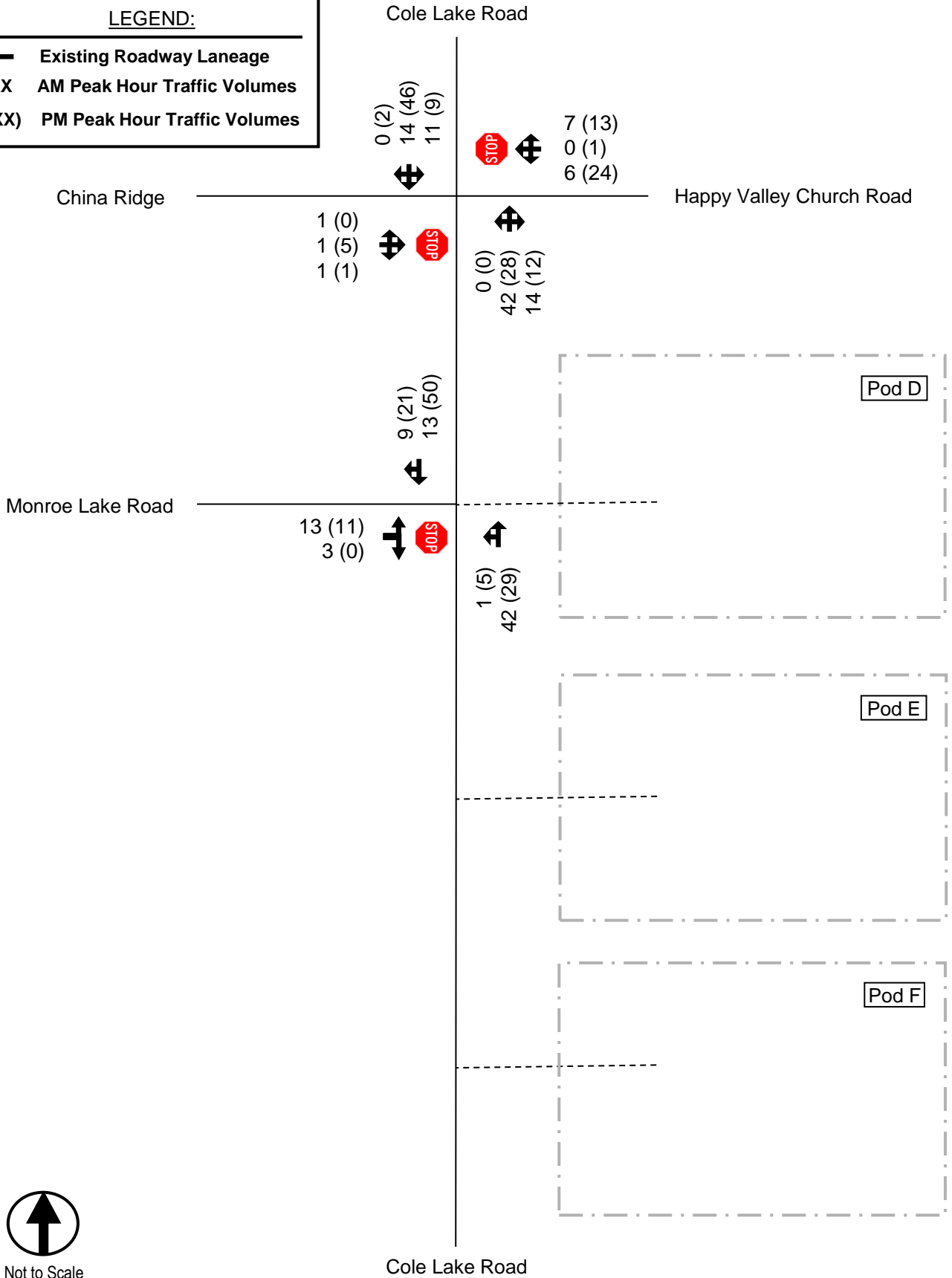
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The Arbors at Silver Trail
Paulding County, Georgia**

**Aerial &
Access
Locations**

**Figure
2**

LEGEND:

- ← Existing Roadway Laneage
- XX AM Peak Hour Traffic Volumes
- (XX) PM Peak Hour Traffic Volumes



Not to Scale

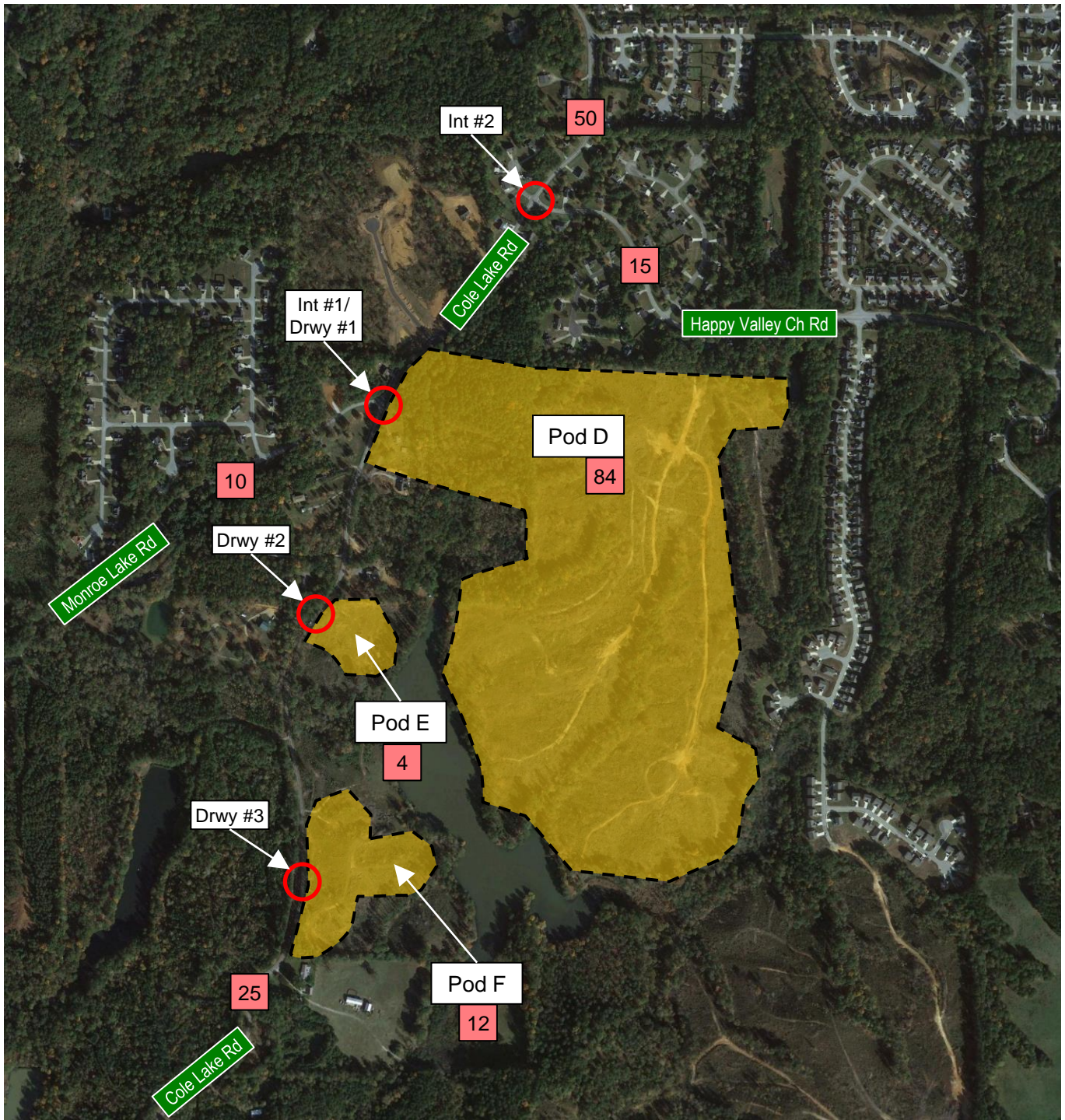


**Traffic Impact Study
The Arbors at Silver Trail
Paulding County, Georgia**

**Existing Traffic
Conditions**

**Figure
3**

Legend:
100 Residential %



Not to Scale



**Traffic Impact Study
 The Arbors at Silver Trail
 Paulding County, Georgia**

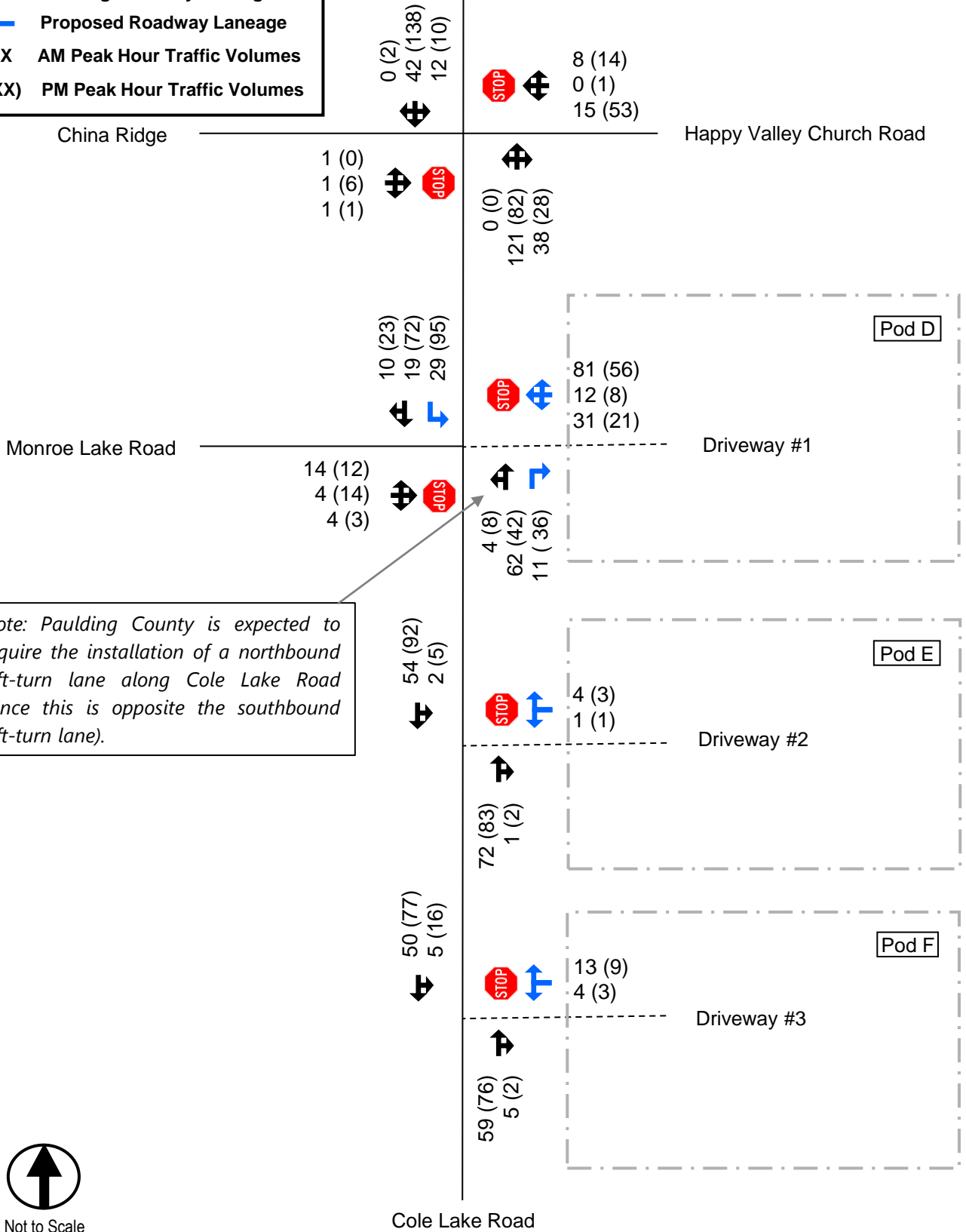
**Project Trip
 Distribution**

**Figure
 4**

LEGEND:

- Existing Roadway Laneage
- Proposed Roadway Laneage
- XX** AM Peak Hour Traffic Volumes
- (XX)** PM Peak Hour Traffic Volumes

Cole Lake Road



Note: Paulding County is expected to require the installation of a northbound left-turn lane along Cole Lake Road (since this is opposite the southbound left-turn lane).



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Cole Lake Road



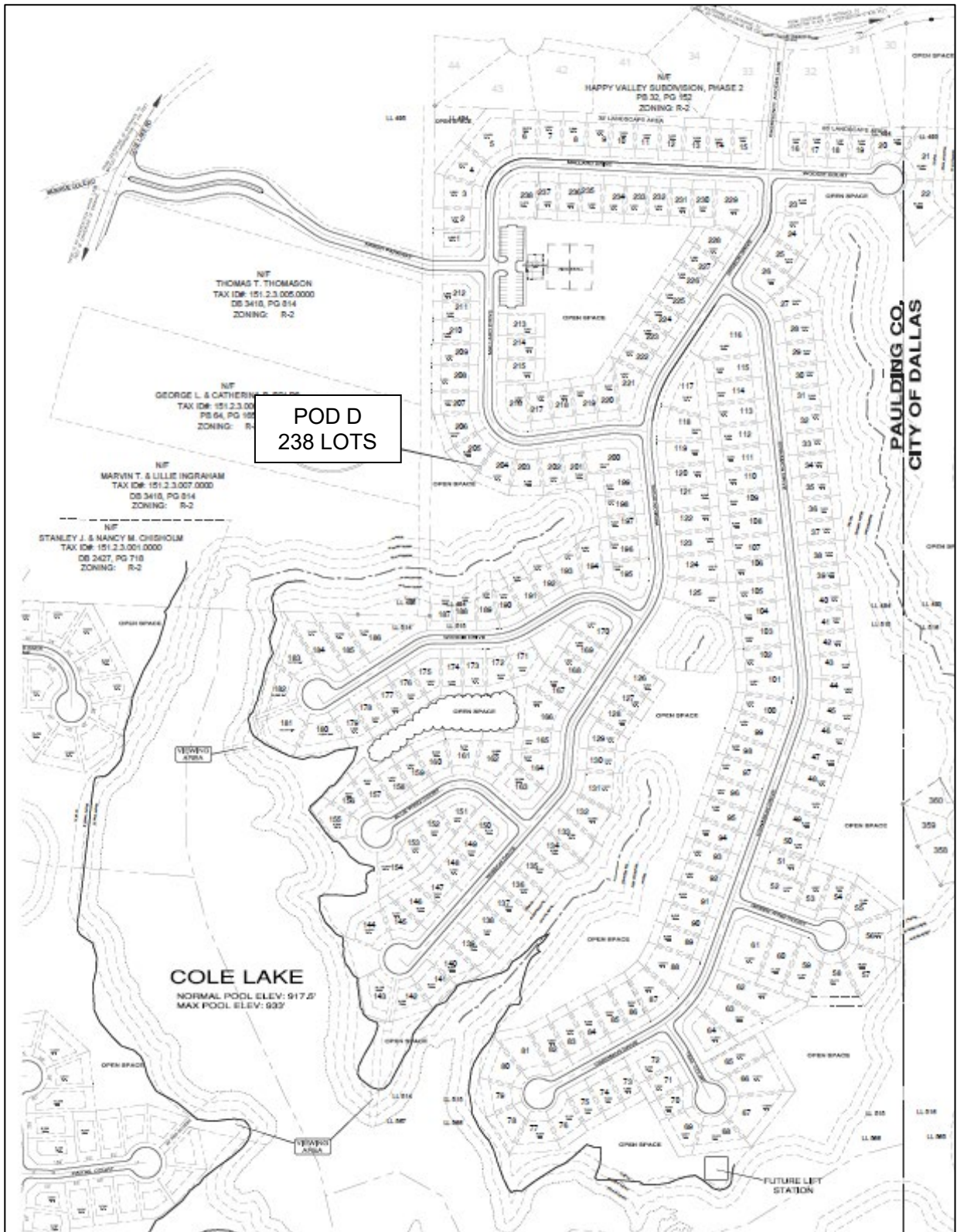
**Traffic Impact Study
The Arbors at Silver Trail
Paulding County, Georgia**

**Future Build
(Year 2026)
Conditions**

**Figure
5**

Appendix B

Concept Plan



Not to Scale



**Traffic Impact Study
The Arbors at Silver Trail
Paulding County, Georgia**

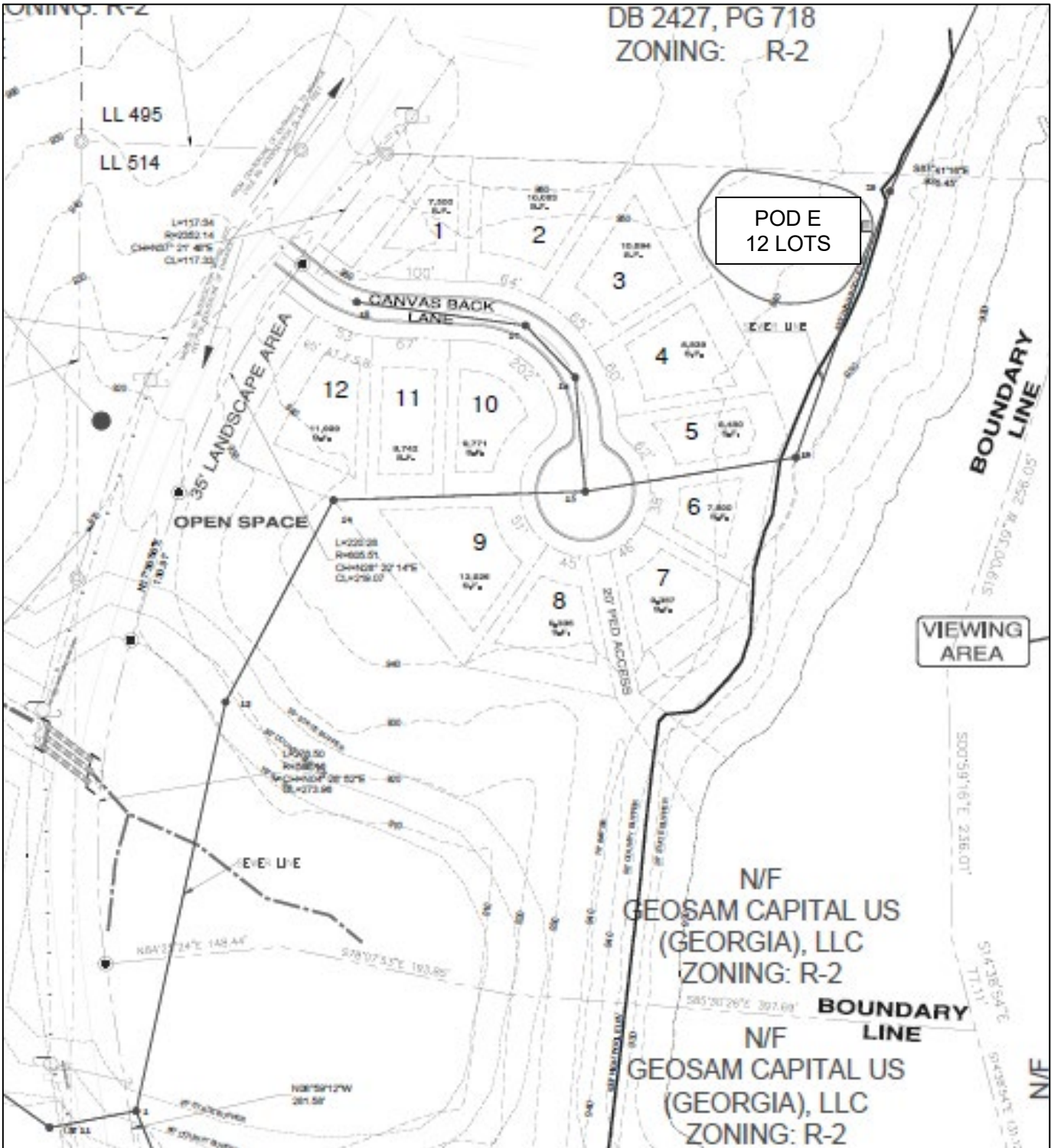
**Concept
Layout
Pod D**

**Exhibit
A**

DB 2427, PG 718
ZONING: R-2

LL 495
LL 514

POD E
12 LOTS



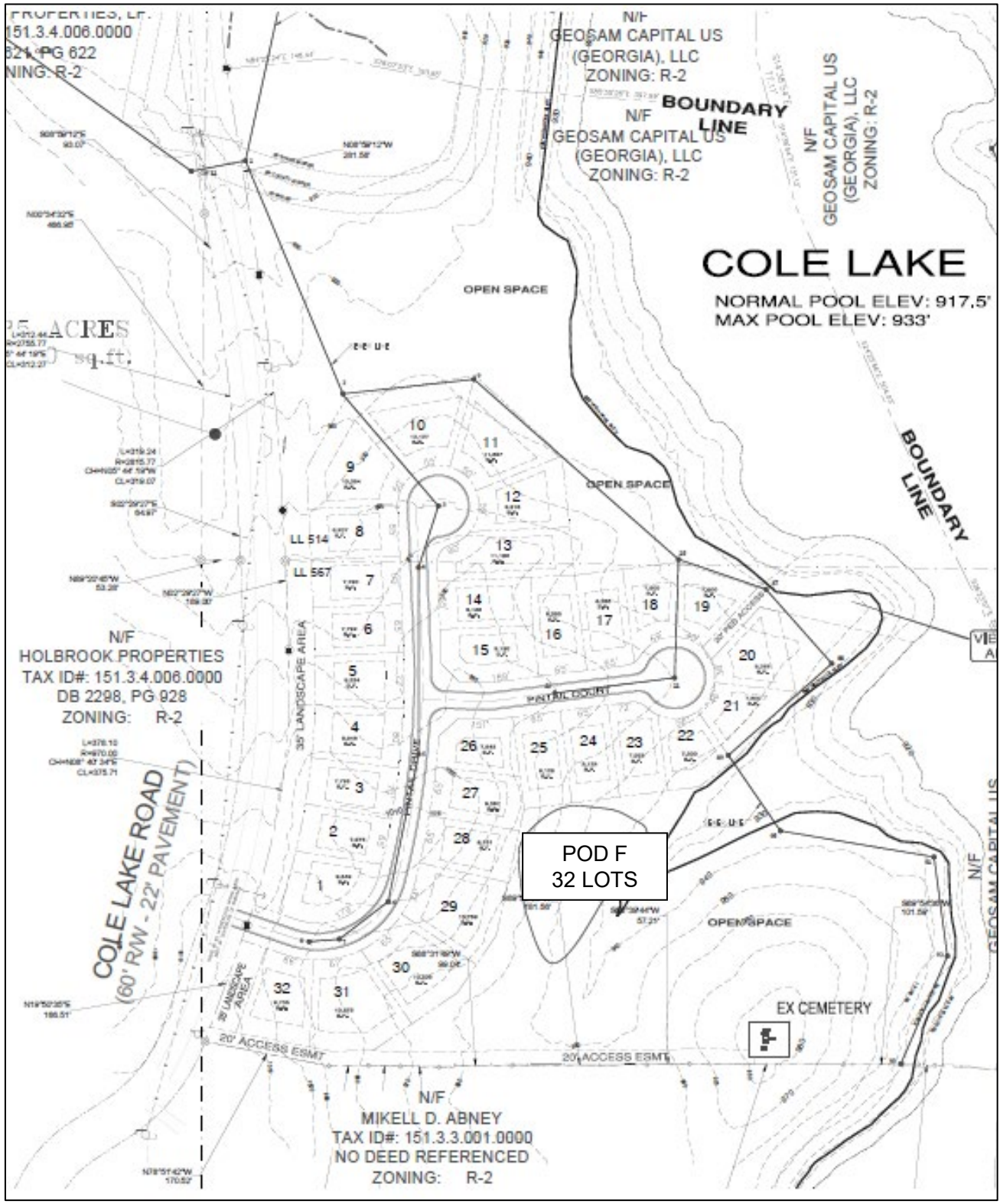
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Traffic Impact Study
The Arbors at Silver Trail
Paulding County, Georgia

Concept
Layout
Pod E

Exhibit
B



Not to Scale

Traffic Impact Study
The Arbors at Silver Trail
Paulding County, Georgia

Concept
Layout
Pod F

Exhibit
C



Appendix C

Traffic Count Data

Project ID: 22-180052-002
 Location: Cole Lake Rd & China Ridge/Happy Valley Church Rd
 City: Dallas

Day: Tuesday
 Date: 3/22/2022

Groups Printed - Cars, PU, Vans - Heavy Trucks

Start Time	Cole Lake Rd Northbound					Cole Lake Rd Southbound					China Ridge/Happy Valley Church Rd Eastbound					China Ridge/Happy Valley Church Rd Westbound					Int. Total				
	Left	Thru	Rgt	Uturn	Peds	App. Total	Left	Thru	Rgt	Uturn	Peds	App. Total	Left	Thru	Rgt	Uturn	Peds	App. Total	Left	Thru		Rgt	Uturn	Peds	App. Total
7:00 AM	0	12	2	0	0	14	3	7	0	0	0	10	0	0	0	0	0	0	0	0	1	0	0	1	25
7:15 AM	0	14	6	0	0	20	6	2	0	0	0	8	0	0	0	0	0	0	0	4	0	3	0	7	35
7:30 AM	0	10	3	0	0	13	2	3	0	0	0	5	1	1	0	0	0	2	2	2	3	0	0	5	25
7:45 AM	0	6	3	0	0	9	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	11
Total	0	42	14	0	0	56	11	14	0	0	0	25	1	1	0	0	0	2	6	0	7	0	0	13	96
8:00 AM	0	6	3	0	0	9	1	2	0	0	0	3	0	0	0	0	0	0	1	0	0	0	0	1	13
8:15 AM	0	4	1	0	0	5	2	5	0	0	0	7	0	0	0	0	0	0	1	0	3	0	0	4	16
8:30 AM	0	3	2	0	0	5	1	5	0	0	0	6	0	0	0	0	0	0	0	0	2	0	0	2	13
8:45 AM	0	4	4	0	0	8	0	3	0	0	0	3	0	0	0	0	0	0	1	0	0	0	0	1	12
Total	0	17	10	0	0	27	4	15	0	0	0	19	0	0	0	0	0	0	3	0	5	0	0	8	54
BREAK																									
4:00 PM	0	8	0	0	0	8	1	12	0	0	0	13	0	0	0	0	0	0	2	1	1	1	0	5	26
4:15 PM	0	7	3	0	0	10	7	8	0	0	0	15	0	0	0	0	0	0	2	3	4	0	0	9	34
4:30 PM	0	10	4	0	0	14	3	14	0	0	0	17	0	0	0	0	0	0	5	0	1	0	0	6	37
4:45 PM	0	6	2	0	0	8	2	9	1	0	0	12	0	3	1	0	0	4	7	1	5	0	0	13	37
Total	0	31	9	0	0	40	13	43	1	0	0	57	0	3	1	0	0	4	16	5	11	1	0	33	134
5:00 PM	0	6	4	0	0	10	2	10	1	0	0	13	0	0	0	0	0	0	3	0	2	0	0	5	28
5:15 PM	0	6	2	0	0	8	2	13	0	0	0	15	0	2	0	0	0	2	9	0	5	0	0	14	39
5:30 PM	0	4	0	0	0	4	3	9	1	0	0	13	1	0	0	0	0	1	2	2	4	0	0	8	26
5:45 PM	0	7	7	0	0	14	4	4	0	0	0	8	0	0	0	0	0	0	2	0	3	0	0	5	27
Total	0	23	13	0	0	36	11	36	2	0	0	49	1	2	0	0	0	3	16	2	14	0	0	32	120
Grand Total	0	113	46	0	0	159	39	108	3	0	0	150	2	6	1	0	0	9	41	7	37	1	0	86	404
Apprch %	0.0	71.1	28.9	0.0	0.0		26.0	72.0	2.0	0.0	0.0		22.2	66.7	11.1	0.0	0.0		47.7	8.1	43.0	1.2	0.0		
Total %	0.0	28.0	11.4	0.0	0.0	39.4	9.7	26.7	0.7	0.0	0.0	37.1	0.5	1.5	0.2	0.0	0.0	2.2	10.1	1.7	9.2	0.2	0.0	21.3	
Cars, PU, Vans	0	113	46	0	0	159	39	108	3	0	0	150	2	6	1	0	0	9	41	7	37	1	0	86	404
% Cars, PU, Vans	0.0	100.0	100.0	0.0	0.0	100.0	100.0	100.0	100.0	0.0	0.0	100.0	100.0	100.0	100.0	0.0	0.0	100.0	100.0	100.0	100.0	100.0	0.0	100.0	100.0

Project ID: 22-180052-002
 Location: Cole Lake Rd & China Ridge/Happy Valley Church F
 City: Dallas

PEAK HOURS

Day: Tuesday
 Date: 3/22/2022

AM

Start Time	Cole Lake Rd Northbound					Cole Lake Rd Southbound					China Ridge/Happy Valley Church Rd Eastbound					China Ridge/Happy Valley Church Rd Westbound					Int. Total				
	Left	Thru	Rgt	Uturn	App. Total	Left	Thru	Rgt	Uturn	App. Total	Left	Thru	Rgt	Uturn	App. Total	Left	Thru	Rgt	Uturn	App. Total					
Peak Hour Analysis from 07:00 AM - 09:00 AM																									
Peak Hour for Entire Intersection Begins at 07:00 AM																									
7:00 AM	0	12	2	0	14	3	7	0	0	10	0	0	0	0	0	0	0	1	0	1	0	0	1	25	
7:15 AM	0	14	6	0	20	6	2	0	0	8	0	0	0	0	0	4	0	3	0	7	35				
7:30 AM	0	10	3	0	13	2	3	0	0	5	1	1	0	0	2	2	0	3	0	5	25				
7:45 AM	0	6	3	0	9	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	11		
Total Volume	0	42	14	0	56	11	14	0	0	25	1	1	0	0	2	6	0	7	0	13	96				
% App. Total	0.0	75.0	25.0	0.0	100	44.0	56.0	0.0	0.0	100	50.0	50.0	0.0	0.0	100	46.2	0.0	53.8	0.0	100					
PHF	0.700					0.625					0.250					0.464					0.686				
Cars, PU, Vans	0	42	14	0	56	11	14	0	0	25	1	1	0	0	2	6	0	7	0	13	96				
% Cars, PU, Vans	0.0	100.0	100.0	0.0	100.0	100.0	100.0	0.0	0.0	100.0	100.0	100.0	0.0	0.0	100.0	100.0	0.0	100.0	0.0	100.0	100.0				

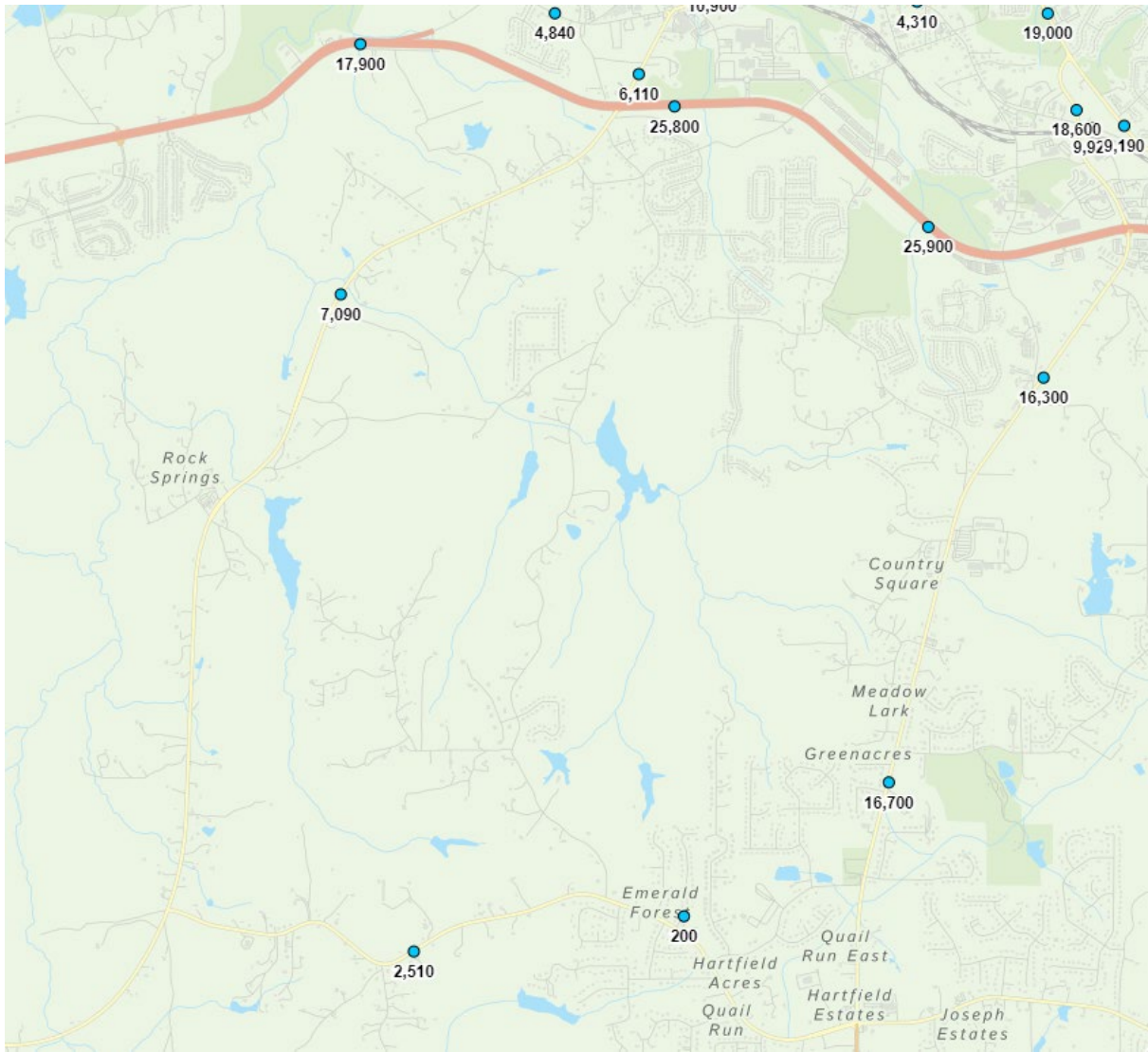
PM

Start Time	Cole Lake Rd Northbound					Cole Lake Rd Southbound					China Ridge/Happy Valley Church Rd Eastbound					China Ridge/Happy Valley Church Rd Westbound					Int. Total				
	Left	Thru	Rgt	Uturn	App. Total	Left	Thru	Rgt	Uturn	App. Total	Left	Thru	Rgt	Uturn	App. Total	Left	Thru	Rgt	Uturn	App. Total					
Peak Hour Analysis from 04:00 PM - 06:00 PM																									
Peak Hour for Entire Intersection Begins at 04:30 PM																									
4:30 PM	0	10	4	0	14	3	14	0	0	17	0	0	0	0	0	5	0	1	0	6	37				
4:45 PM	0	6	2	0	8	2	9	1	0	12	0	3	1	0	4	7	1	5	0	13	37				
5:00 PM	0	6	4	0	10	2	10	1	0	13	0	0	0	0	0	3	0	2	0	5	28				
5:15 PM	0	6	2	0	8	2	13	0	0	15	0	2	0	0	2	9	0	5	0	14	39				
Total Volume	0	28	12	0	40	9	46	2	0	57	0	5	1	0	6	24	1	13	0	38	141				
% App. Total	0.0	70.0	30.0	0.0	100	15.8	80.7	3.5	0.0	100	0.0	83.3	16.7	0.0	100	63.2	2.6	34.2	0.0	100					
PHF	0.714					0.838					0.375					0.679					0.904				
Cars, PU, Vans	0	28	12	0	40	9	46	2	0	57	0	5	1	0	6	24	1	13	0	38	141				
% Cars, PU, Vans	0.0	100.0	100.0	0.0	100.0	100.0	100.0	100.0	0.0	100.0	0.0	100.0	100.0	0.0	100.0	100.0	100.0	100.0	0.0	100.0	100.0				

Appendix D


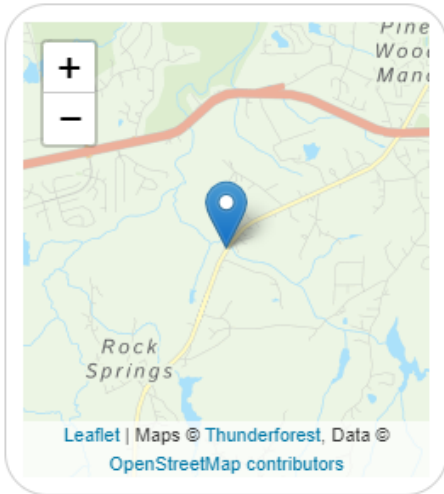
GDOT Traffic Data

Location Map of GDOT Count Stations



0000223_0218 - 223-0218
Description: SRT 0120CO R
County: Paulding
Route number: 00012000
LRS section: 2231012000
Functional class: 4U - Minor Arterial (Urban)
Coordinates: 33.9055507304301, -84.8742882716308

Site Data


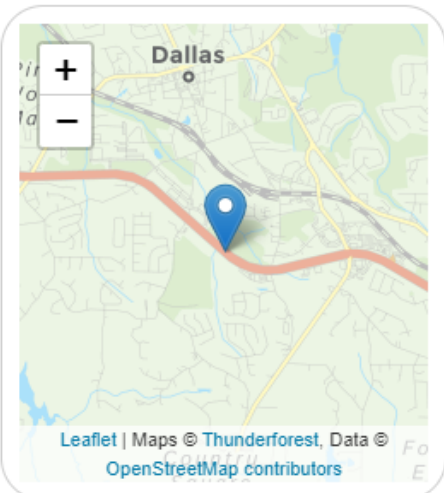



Count History

Year	Month	Count type	Duration	Count
2021	June	Class	48 hours	8428
2019	April	Class	48 hours	8277
2015	August	Class	48 hours	6584
2013	April	Class	48 hours	6334
2011	January	Class	48 hours	6004
2010	April	Volume	48 hours	6192

0000223_0110 - 223-0110
Description: CSX 065503LCS0786R
County: Paulding
Route number: 00000600
LRS section: 2231000600
Functional class: 3U - Principal Arterial - Other (Urban)
Coordinates: 33.9090821821383, -84.8371952599332

Site Data


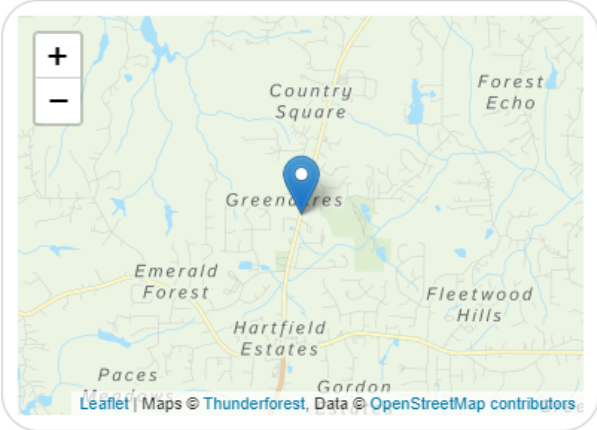



Count History

Year	Month	Count type	Duration	Count
2021	July	Class	48 hours	30540
2019	February	Class	48 hours	29826
2015	August	Class	48 hours	26780
2013	April	Class	48 hours	24914
2011	January	Volume	48 hours	22706
2010	March	Class	48 hours	20321

0000223_0138 - 223-0138
Description: SRX 0120CO
County: Paulding
Route number: 00006100
LRS section: 2231006100
Functional class: 4U - Minor Arterial (Urban)
Coordinates: 33.87998801, -84.83968519

Site Data


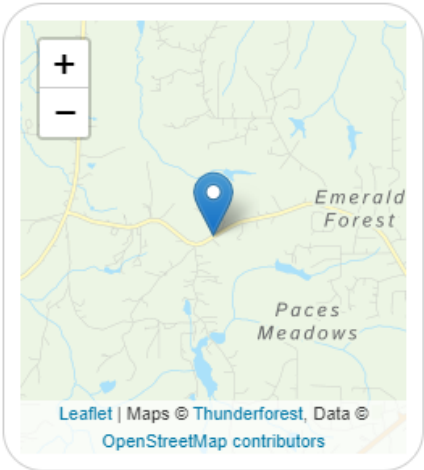



Count History

Year	Month	Count type	Duration	Count
2020	February	Volume	48 hours	19552
2018	March	Volume	48 hours	18953
2016	August	Volume	48 hours	21189
2012	March	Volume	48 hours	19676
2010	March	Class	48 hours	15638

0000223_0234 - 223-0234
Description: SR 012000 BEG AT
County: Paulding
Route number: 000120CO
LRS section: 22310120CO
Functional class: 4U - Minor Arterial (Urban)
Coordinates: 33.8711276968421, -84.8696770259023

Site Data

Count History

Year	Month	Count type	Duration	Count
2021	June	Class	48 hours	2844
2019	March	Volume	48 hours	3048
2015	July	Volume	48 hours	2681
2013	April	Volume	48 hours	2620
2011	January	Class	48 hours	2218
2010	February	Class	48 hours	2620

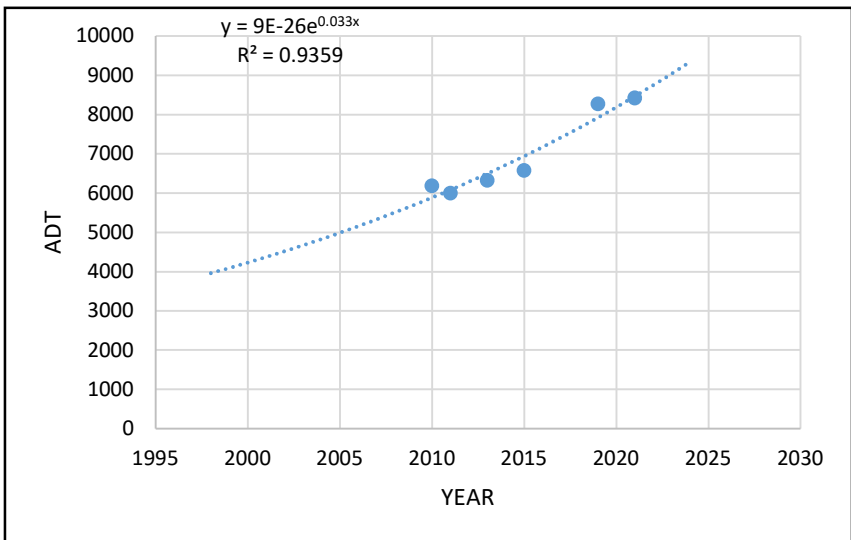
Count Station: GDOT #223-0218
 Street: SR 120
 Location: north of McMichen Rd
 Source: GDOT

YEAR	ADT	TREND
1998		4000
1999		4100
2000		4200
2001		4400
2002		4500
2003		4700
2004		4800
2005		5000
2006		5200
2007		5300
2008		5500
2009		5700
2010	6192	5900
2011	6004	6100
2012		6300
2013	6334	6500
2014		6700
2015	6584	6900
2016		7200
2017		7400
2018		7700
2019	8,277	7900
2020		8200
2021	8428	8500
2022		8700
2023		9000
2024		9300

11-Years of Count Data

Trend Annual Historic Compound Growth Rate

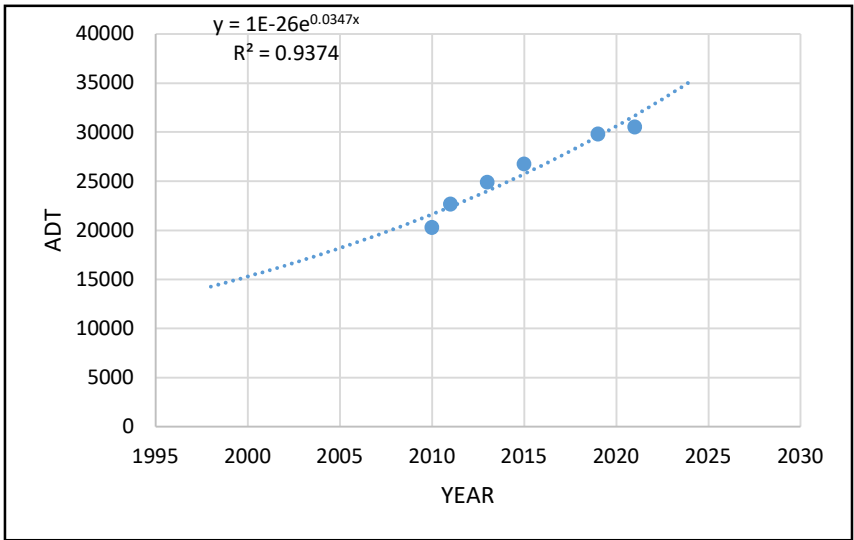
5.84%



Count Station: GDOT #223-0110
 Street: US 278
 Location: east of Old Villa Rica Rd
 Source: GDOT

YEAR	ADT	TREND
1998		14300
1999		14800
2000		15300
2001		15800
2002		16400
2003		17000
2004		17600
2005		18200
2006		18800
2007		19500
2008		20200
2009		20900
2010	20321	21600
2011	22706	22400
2012		23200
2013	24914	24000
2014		24900
2015	26780	25700
2016		26600
2017		27600
2018		28600
2019	29,826	29600
2020		30600
2021	30540	31700
2022		32800
2023		34000
2024		35200

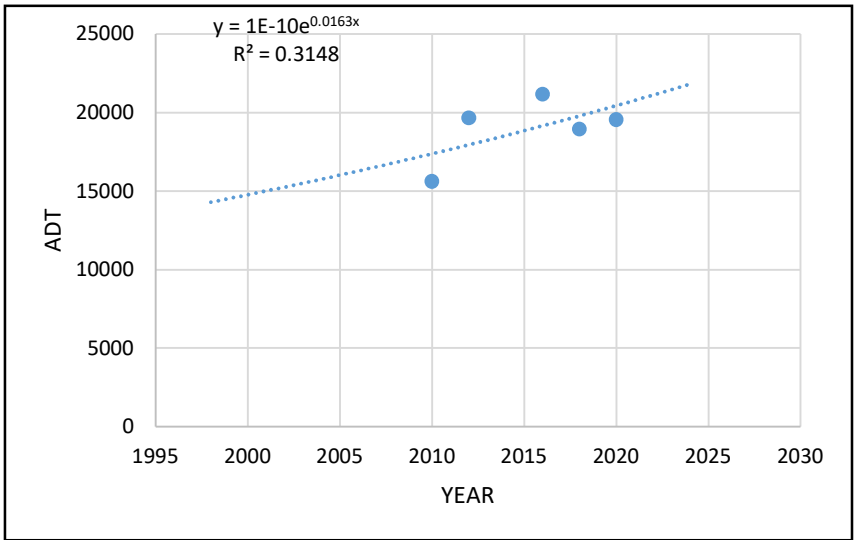
11-Years of Count Data
Trend Annual Historic Compound Growth Rate
 6.00%



Count Station: GDOT #223-0138
 Street: SR 61
 Location: south of Mustang Dr
 Source: GDOT

YEAR	ADT	TREND
1998		14300
1999		14500
2000		14800
2001		15000
2002		15300
2003		15500
2004		15800
2005		16000
2006		16300
2007		16500
2008		16800
2009		17100
2010	15638	17400
2011		17700
2012	19,676	17900
2013		18200
2014		18500
2015		18800
2016	21,189	19200
2017		19500
2018	18953	19800
2019		20100
2020	19552	20400
2021		20800
2022		21100
2023		21500
2024		21800

10-Years of Count Data
Trend Annual Historic Compound Growth Rate
 1.89%



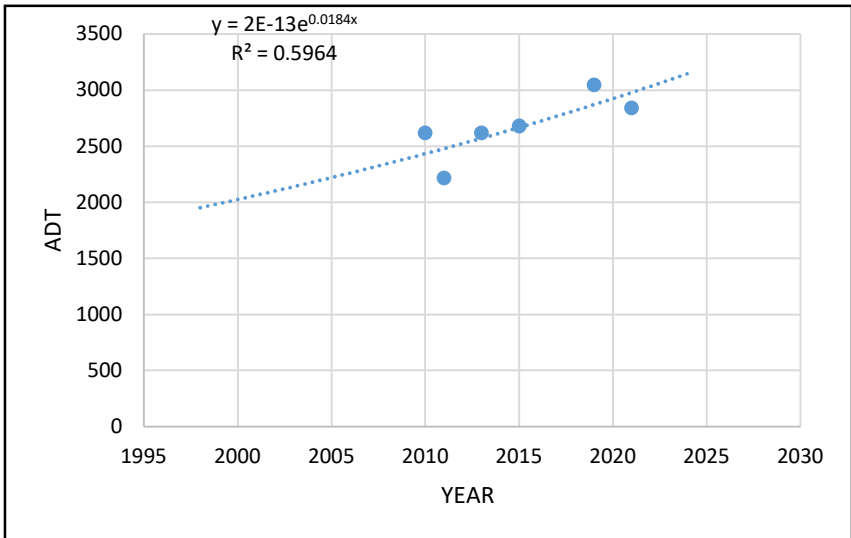
Count Station: GDOT #223-0234
 Street: SR 120 Conn
 Location: west of Cole Lake Rd
 Source: GDOT

YEAR	ADT	TREND
1998		2000
1999		2000
2000		2000
2001		2100
2002		2100
2003		2100
2004		2200
2005		2200
2006		2300
2007		2300
2008		2300
2009		2400
2010	2620	2400
2011	2218	2500
2012		2500
2013	2620	2600
2014		2600
2015	2681	2700
2016		2700
2017		2800
2018		2800
2019	3,048	2900
2020		2900
2021	2844	3000
2022		3000
2023		3100
2024		3100

11-Years of Count Data

Trend Annual Historic Compound Growth Rate

2.15%



Appendix E

Intersection Volume Development

Traffic Impact Study
 Arbors at Silver Trail
 Intersection Traffic Volumes

Intersection: #1 - Cole Lake Rd at Monroe Cole Rd

A.M. PEAK HOUR

Condition	Cole Lake Rd Northbound			Cole Lake Rd Southbound			Monroe Cole Rd Eastbound			Driveway #1 Westbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Existing Volumes (2022)	1	42	0	0	13	9	13	0	3	0	0	0
Annual Growth Rate	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%
Growth Factor	1.108	1.108	1.108	1.108	1.108	1.108	1.108	1.108	1.108	1.108	1.108	1.108
Base Condition (2026)	1	47	0	0	14	10	14	0	3	0	0	0
Project Trips:												
Trip Distribution IN			21%	55%	10%			8%	2%			
Trip Distribution OUT	2%	10%								21%	8%	55%
Residential Trips	3	15	11	29	5	0	0	4	1	31	12	81
Total Project Trips	3	15	11	29	5	0	0	4	1	31	12	81
Buildout Total (2026)	4	62	11	29	19	10	14	4	4	31	12	81

P.M. PEAK HOUR

Condition	Cole Lake Rd Northbound			Cole Lake Rd Southbound			Monroe Cole Rd Eastbound			Driveway #1 Westbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Existing Volumes (2022)	5	29	0	0	50	21	11	0	0	0	0	0
Annual Growth Rate	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%
Growth Factor	1.108	1.108	1.108	1.108	1.108	1.108	1.108	1.108	1.108	1.108	1.108	1.108
Base Condition (2026)	6	32	0	0	55	23	12	0	0	0	0	0
Project Trips:												
Trip Distribution IN			21%	55%	10%			8%	2%			
Trip Distribution OUT	2%	10%								21%	8%	55%
Residential Trips	2	10	36	95	17	0	0	14	3	21	8	56
Total Project Trips	2	10	36	95	17	0	0	14	3	21	8	56
Buildout Total (2026)	8	42	36	95	72	23	12	14	3	21	8	56

Traffic Impact Study
 Arbors at Silver Trail
 Intersection Traffic Volumes

Intersection: #2 - Cole Lake Rd at Monroe Cole Rd

A.M. PEAK HOUR

Condition	Cole Lake Rd Northbound			Cole Lake Rd Southbound			China Ridge Eastbound			Happy Valley Church Rd Westbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Existing Volumes (2022)	0	42	14	11	14	0	1	1	1	6	0	7
Annual Growth Rate	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%
Growth Factor	1.108	1.108	1.108	1.108	1.108	1.108	1.108	1.108	1.108	1.108	1.108	1.108
Base Condition (2026)	0	47	16	12	16	0	1	1	1	7	0	8
Project Trips:												
Trip Distribution IN					50%					15%		
Trip Distribution OUT		50%	15%									
Residential Trips	0	74	22	0	26	0	0	0	0	8	0	0
Total Project Trips	0	74	22	0	26	0	0	0	0	8	0	0
Buildout Total (2026)	0	121	38	12	42	0	1	1	1	15	0	8

P.M. PEAK HOUR

Condition	Cole Lake Rd Northbound			Cole Lake Rd Southbound			China Ridge Eastbound			Happy Valley Church Rd Westbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Existing Volumes (2022)	0	28	12	9	46	2	0	5	1	24	1	13
Annual Growth Rate	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%
Growth Factor	1.108	1.108	1.108	1.108	1.108	1.108	1.108	1.108	1.108	1.108	1.108	1.108
Base Condition (2026)	0	31	13	10	51	2	0	6	1	27	1	14
Project Trips:												
Trip Distribution IN					50%					15%		
Trip Distribution OUT		50%	15%									
Residential Trips	0	51	15	0	87	0	0	0	0	26	0	0
Total Project Trips	0	51	15	0	87	0	0	0	0	26	0	0
Buildout Total (2026)	0	82	28	10	138	2	0	6	1	53	1	14

Traffic Impact Study
 Arbors at Silver Trail
 Intersection Traffic Volumes

Intersection: #3 - Cole Lake Rd at Driveway #2

A.M. PEAK HOUR

Condition	Cole Lake Rd Northbound			Cole Lake Rd Southbound			N/A Eastbound			Driveway #2 Westbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Existing Volumes (2022)		43	0	0	16					0		0
Annual Growth Rate	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%
Growth Factor	1.108	1.108	1.108	1.108	1.108	1.108	1.108	1.108	1.108	1.108	1.108	1.108
Base Condition (2026)	0	48	0	0	18	0	0	0	0	0	0	0
Project Trips:												
Trip Distribution IN		21%	1%	3%	9%							
Trip Distribution OUT		9%			21%					1%		3%
Residential Trips	0	24	1	2	36	0	0	0	0	1	0	4
Total Project Trips	0	24	1	2	36	0	0	0	0	1	0	4
Buildout Total (2026)	0	72	1	2	54	0	0	0	0	1	0	4

P.M. PEAK HOUR

Condition	Cole Lake Rd Northbound			Cole Lake Rd Southbound			N/A Eastbound			Driveway #2 Westbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Existing Volumes (2022)		34	0	0	50					0		0
Annual Growth Rate	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%
Growth Factor	1.108	1.108	1.108	1.108	1.108	1.108	1.108	1.108	1.108	1.108	1.108	1.108
Base Condition (2026)	0	38	0	0	55	0	0	0	0	0	0	0
Project Trips:												
Trip Distribution IN		21%	1%	3%	9%							
Trip Distribution OUT		9%			21%					1%		3%
Residential Trips	0	45	2	5	37	0	0	0	0	1	0	3
Total Project Trips	0	45	2	5	37	0	0	0	0	1	0	3
Buildout Total (2026)	0	83	2	5	92	0	0	0	0	1	0	3

Traffic Impact Study
 Arbors at Silver Trail
 Intersection Traffic Volumes

Intersection: #4 - Cole Lake Rd at Driveway #3

A.M. PEAK HOUR

Condition	Cole Lake Rd Northbound			Cole Lake Rd Southbound			N/A Eastbound			Driveway #3 Westbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Existing Volumes (2022)		43	0	0	16					0		0
Annual Growth Rate	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%
Growth Factor	1.108	1.108	1.108	1.108	1.108	1.108	1.108	1.108	1.108	1.108	1.108	1.108
Base Condition (2026)	0	48	0	0	18	0	0	0	0	0	0	0
Project Trips:												
Trip Distribution IN		22%	3%	9%								
Trip Distribution OUT					22%					3%		9%
Residential Trips	0	11	2	5	32	0	0	0	0	4	0	13
Total Project Trips	0	11	2	5	32	0	0	0	0	4	0	13
Buildout Total (2026)	0	59	2	5	50	0	0	0	0	4	0	13

P.M. PEAK HOUR

Condition	Cole Lake Rd Northbound			Cole Lake Rd Southbound			N/A Eastbound			Driveway #3 Westbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Existing Volumes (2022)		34	0	0	50					0		0
Annual Growth Rate	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%
Growth Factor	1.108	1.108	1.108	1.108	1.108	1.108	1.108	1.108	1.108	1.108	1.108	1.108
Base Condition (2026)	0	38	0	0	55	0	0	0	0	0	0	0
Project Trips:												
Trip Distribution IN		22%	3%	9%								
Trip Distribution OUT					22%					3%		9%
Residential Trips	0	38	5	16	22	0	0	0	0	3	0	9
Total Project Trips	0	38	5	16	22	0	0	0	0	3	0	9
Buildout Total (2026)	0	76	5	16	77	0	0	0	0	3	0	9

Appendix F

Capacity Analysis Reports

Existing Conditions – Year 2022

Intersection						
Int Delay, s/veh	1.9					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	13	3	1	42	13	9
Future Vol, veh/h	13	3	1	42	13	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	75	75	75	75	75	75
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	17	4	1	56	17	12

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	81	23	29	0	0
Stage 1	23	-	-	-	-
Stage 2	58	-	-	-	-
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	921	1054	1584	-	-
Stage 1	1000	-	-	-	-
Stage 2	965	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	920	1054	1584	-	-
Mov Cap-2 Maneuver	920	-	-	-	-
Stage 1	999	-	-	-	-
Stage 2	965	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.9	0.2	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1584	-	942	-	-
HCM Lane V/C Ratio	0.001	-	0.023	-	-
HCM Control Delay (s)	7.3	0	8.9	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

HCM 6th TWSC
 2: Cole Lake Rd & China Ridge/Happy Valley Ch Rd

AM Peak Hour
 Existing 2022

Intersection												
Int Delay, s/veh	2.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	1	1	6	0	7	0	42	14	11	14	0
Future Vol, veh/h	1	1	1	6	0	7	0	42	14	11	14	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	69	69	69	69	69	69	69	69	69	69	69	69
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	1	1	9	0	10	0	61	20	16	20	0

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	128	133	20	124	123	71	20	0	0	81	0	0
Stage 1	52	52	-	71	71	-	-	-	-	-	-	-
Stage 2	76	81	-	53	52	-	-	-	-	-	-	-
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	845	758	1058	850	767	991	1596	-	-	1517	-	-
Stage 1	961	852	-	939	836	-	-	-	-	-	-	-
Stage 2	933	828	-	960	852	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	829	750	1058	841	759	991	1596	-	-	1517	-	-
Mov Cap-2 Maneuver	829	750	-	841	759	-	-	-	-	-	-	-
Stage 1	961	843	-	939	836	-	-	-	-	-	-	-
Stage 2	923	828	-	947	843	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	9.2		9		0		3.3	
HCM LOS	A		A					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1596	-	-	861	916	1517	-	-
HCM Lane V/C Ratio	-	-	-	0.005	0.021	0.011	-	-
HCM Control Delay (s)	0	-	-	9.2	9	7.4	0	-
HCM Lane LOS	A	-	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0.1	0	-	-

Intersection						
Int Delay, s/veh	1.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W			W	W	
Traffic Vol, veh/h	11	0	5	29	50	21
Future Vol, veh/h	11	0	5	29	50	21
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	12	0	5	32	55	23

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	109	67	78	0	0
Stage 1	67	-	-	-	-
Stage 2	42	-	-	-	-
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	888	997	1520	-	-
Stage 1	956	-	-	-	-
Stage 2	980	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	885	997	1520	-	-
Mov Cap-2 Maneuver	885	-	-	-	-
Stage 1	953	-	-	-	-
Stage 2	980	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.1	1.1	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1520	-	885	-	-
HCM Lane V/C Ratio	0.004	-	0.014	-	-
HCM Control Delay (s)	7.4	0	9.1	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

Intersection												
Int Delay, s/veh	3.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	5	1	24	1	13	0	28	12	9	46	2
Future Vol, veh/h	0	5	1	24	1	13	0	28	12	9	46	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	6	1	27	1	14	0	31	13	10	51	2

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	117	116	52	114	111	38	53	0	0	44	0	0
Stage 1	72	72	-	38	38	-	-	-	-	-	-	-
Stage 2	45	44	-	76	73	-	-	-	-	-	-	-
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	859	774	1016	863	779	1034	1553	-	-	1564	-	-
Stage 1	938	835	-	977	863	-	-	-	-	-	-	-
Stage 2	969	858	-	933	834	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	842	769	1016	853	774	1034	1553	-	-	1564	-	-
Mov Cap-2 Maneuver	842	769	-	853	774	-	-	-	-	-	-	-
Stage 1	938	829	-	977	863	-	-	-	-	-	-	-
Stage 2	954	858	-	919	828	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	9.5		9.2		0		1.2	
HCM LOS	A		A					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1553	-	-	801	905	1564	-	-
HCM Lane V/C Ratio	-	-	-	0.008	0.047	0.006	-	-
HCM Control Delay (s)	0	-	-	9.5	9.2	7.3	0	-
HCM Lane LOS	A	-	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0.1	0	-	-

Future No-Build Conditions – Year 2026

Intersection						
Int Delay, s/veh	1.8					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T		T
Traffic Vol, veh/h	14	3	1	47	14	10
Future Vol, veh/h	14	3	1	47	14	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	75	75	75	75	75	75
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	19	4	1	63	19	13

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	91	26	32	0	0
Stage 1	26	-	-	-	-
Stage 2	65	-	-	-	-
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	909	1050	1580	-	-
Stage 1	997	-	-	-	-
Stage 2	958	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	908	1050	1580	-	-
Mov Cap-2 Maneuver	908	-	-	-	-
Stage 1	996	-	-	-	-
Stage 2	958	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9	0.2	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1580	-	930	-	-
HCM Lane V/C Ratio	0.001	-	0.024	-	-
HCM Control Delay (s)	7.3	0	9	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection												
Int Delay, s/veh	2.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	1	1	7	0	8	0	47	16	12	16	0
Future Vol, veh/h	1	1	1	7	0	8	0	47	16	12	16	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	69	69	69	69	69	69	69	69	69	69	69	69
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	1	1	10	0	12	0	68	23	17	23	0

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	143	148	23	138	137	80	23	0	0	91	0	0
Stage 1	57	57	-	80	80	-	-	-	-	-	-	-
Stage 2	86	91	-	58	57	-	-	-	-	-	-	-
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	826	743	1054	833	754	980	1592	-	-	1504	-	-
Stage 1	955	847	-	929	828	-	-	-	-	-	-	-
Stage 2	922	820	-	954	847	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	809	735	1054	824	746	980	1592	-	-	1504	-	-
Mov Cap-2 Maneuver	809	735	-	824	746	-	-	-	-	-	-	-
Stage 1	955	838	-	929	828	-	-	-	-	-	-	-
Stage 2	911	820	-	941	838	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	9.3		9.1		0		3.2	
HCM LOS	A		A					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1592	-	-	846	900	1504	-	-
HCM Lane V/C Ratio	-	-	-	0.005	0.024	0.012	-	-
HCM Control Delay (s)	0	-	-	9.3	9.1	7.4	0	-
HCM Lane LOS	A	-	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0.1	0	-	-

Intersection						
Int Delay, s/veh	1.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	12	0	6	32	55	23
Future Vol, veh/h	12	0	6	32	55	23
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	13	0	7	35	60	25

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	122	73	85	0	0
Stage 1	73	-	-	-	-
Stage 2	49	-	-	-	-
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	873	989	1512	-	-
Stage 1	950	-	-	-	-
Stage 2	973	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	869	989	1512	-	-
Mov Cap-2 Maneuver	869	-	-	-	-
Stage 1	945	-	-	-	-
Stage 2	973	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.2	1.2	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1512	-	869	-	-
HCM Lane V/C Ratio	0.004	-	0.015	-	-
HCM Control Delay (s)	7.4	0	9.2	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

Intersection												
Int Delay, s/veh	3.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	6	1	27	1	14	0	31	13	10	51	2
Future Vol, veh/h	0	6	1	27	1	14	0	31	13	10	51	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	7	1	30	1	16	0	34	14	11	57	2

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	130	128	58	125	122	41	59	0	0	48	0	0
Stage 1	80	80	-	41	41	-	-	-	-	-	-	-
Stage 2	50	48	-	84	81	-	-	-	-	-	-	-
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	843	763	1008	849	768	1030	1545	-	-	1559	-	-
Stage 1	929	828	-	974	861	-	-	-	-	-	-	-
Stage 2	963	855	-	924	828	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	825	758	1008	838	763	1030	1545	-	-	1559	-	-
Mov Cap-2 Maneuver	825	758	-	838	763	-	-	-	-	-	-	-
Stage 1	929	822	-	974	861	-	-	-	-	-	-	-
Stage 2	947	855	-	909	822	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.6	9.3	0	1.2
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1545	-	-	786	891	1559	-
HCM Lane V/C Ratio	-	-	-	0.01	0.052	0.007	-
HCM Control Delay (s)	0	-	-	9.6	9.3	7.3	0
HCM Lane LOS	A	-	-	A	A	A	A
HCM 95th %tile Q(veh)	0	-	-	0	0.2	0	-

Future Build Conditions – Year 2026

Intersection												
Int Delay, s/veh	5.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕	↕	↕	↕	
Traffic Vol, veh/h	14	4	4	31	12	81	4	62	11	29	19	10
Future Vol, veh/h	14	4	4	31	12	81	4	62	11	29	19	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	100	160	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	75	92	75	92	92	92	75	75	92	92	75	75
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	19	4	5	34	13	88	5	83	12	32	25	13

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	246	201	32	193	195	83	38	0	0	95	0	0
Stage 1	96	96	-	93	93	-	-	-	-	-	-	-
Stage 2	150	105	-	100	102	-	-	-	-	-	-	-
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	708	695	1042	767	700	976	1572	-	-	1499	-	-
Stage 1	911	815	-	914	818	-	-	-	-	-	-	-
Stage 2	853	808	-	906	811	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	623	678	1042	746	683	976	1572	-	-	1499	-	-
Mov Cap-2 Maneuver	623	678	-	746	683	-	-	-	-	-	-	-
Stage 1	908	798	-	911	816	-	-	-	-	-	-	-
Stage 2	761	806	-	877	794	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	10.5		9.9		0.4		3.3	
HCM LOS	B		A					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1572	-	-	683	873	1499	-	-
HCM Lane V/C Ratio	0.003	-	-	0.042	0.154	0.021	-	-
HCM Control Delay (s)	7.3	0	-	10.5	9.9	7.5	-	-
HCM Lane LOS	A	A	-	B	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.5	0.1	-	-

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	1	1	1	15	0	8	0	121	38	12	42	0
Future Vol, veh/h	1	1	1	15	0	8	0	121	38	12	42	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	69	69	69	69	69	69	69	69	69	69	69	69
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	1	1	22	0	12	0	175	55	17	61	0

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	304	325	61	299	298	203	61	0	0	230	0	0
Stage 1	95	95	-	203	203	-	-	-	-	-	-	-
Stage 2	209	230	-	96	95	-	-	-	-	-	-	-
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	648	593	1004	653	614	838	1542	-	-	1338	-	-
Stage 1	912	816	-	799	733	-	-	-	-	-	-	-
Stage 2	793	714	-	911	816	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	632	585	1004	645	606	838	1542	-	-	1338	-	-
Mov Cap-2 Maneuver	632	585	-	645	606	-	-	-	-	-	-	-
Stage 1	912	805	-	799	733	-	-	-	-	-	-	-
Stage 2	782	714	-	896	805	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	10.2		10.4		0		1.7	
HCM LOS	B		B					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1542	-	-	700	701	1338	-	-
HCM Lane V/C Ratio	-	-	-	0.006	0.048	0.013	-	-
HCM Control Delay (s)	0	-	-	10.2	10.4	7.7	0	-
HCM Lane LOS	A	-	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0.1	0	-	-

Intersection						
Int Delay, s/veh	0.5					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	Y		B			4
Traffic Vol, veh/h	1	4	72	1	2	54
Future Vol, veh/h	1	4	72	1	2	54
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	4	78	1	2	59

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	142	79	0	0	79	0
Stage 1	79	-	-	-	-	-
Stage 2	63	-	-	-	-	-
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	851	981	-	-	1519	-
Stage 1	944	-	-	-	-	-
Stage 2	960	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	850	981	-	-	1519	-
Mov Cap-2 Maneuver	850	-	-	-	-	-
Stage 1	944	-	-	-	-	-
Stage 2	959	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	952	1519
HCM Lane V/C Ratio	-	-	0.006	0.001
HCM Control Delay (s)	-	-	8.8	7.4
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0	0

Intersection						
Int Delay, s/veh	1.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	4	13	59	2	5	50
Future Vol, veh/h	4	13	59	2	5	50
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	4	14	64	2	5	54

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	129	65	0	0	66	0
Stage 1	65	-	-	-	-	-
Stage 2	64	-	-	-	-	-
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	865	999	-	-	1536	-
Stage 1	958	-	-	-	-	-
Stage 2	959	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	862	999	-	-	1536	-
Mov Cap-2 Maneuver	862	-	-	-	-	-
Stage 1	958	-	-	-	-	-
Stage 2	956	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.8	0	0.7
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	963	1536
HCM Lane V/C Ratio	-	-	0.019	0.004
HCM Control Delay (s)	-	-	8.8	7.4
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0

Intersection												
Int Delay, s/veh	5.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕	↕	↕	↕	
Traffic Vol, veh/h	12	14	3	21	8	56	8	42	36	95	72	23
Future Vol, veh/h	12	14	3	21	8	56	8	42	36	95	72	23
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	100	160	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	92	91	92	92	92	91	91	92	92	91	91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	13	15	3	23	9	61	9	46	39	103	79	25

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	417	401	92	371	374	46	104	0	0	85	0	0
Stage 1	298	298	-	64	64	-	-	-	-	-	-	-
Stage 2	119	103	-	307	310	-	-	-	-	-	-	-
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	546	538	965	586	557	1023	1488	-	-	1512	-	-
Stage 1	711	667	-	947	842	-	-	-	-	-	-	-
Stage 2	885	810	-	703	659	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	478	498	965	539	516	1023	1488	-	-	1512	-	-
Mov Cap-2 Maneuver	478	498	-	539	516	-	-	-	-	-	-	-
Stage 1	707	622	-	941	837	-	-	-	-	-	-	-
Stage 2	819	805	-	637	614	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	12.4		10.3		0.7		3.8	
HCM LOS	B		B					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1488	-	-	515	778	1512	-	-
HCM Lane V/C Ratio	0.006	-	-	0.062	0.119	0.068	-	-
HCM Control Delay (s)	7.4	0	-	12.4	10.3	7.6	-	-
HCM Lane LOS	A	A	-	B	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.2	0.4	0.2	-	-

Intersection												
Int Delay, s/veh	2.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	6	1	53	1	14	0	82	28	10	138	2
Future Vol, veh/h	0	6	1	53	1	14	0	82	28	10	138	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	7	1	59	1	16	0	91	31	11	153	2

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	291	298	154	287	284	107	155	0	0	122	0	0
Stage 1	176	176	-	107	107	-	-	-	-	-	-	-
Stage 2	115	122	-	180	177	-	-	-	-	-	-	-
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	661	614	892	665	625	947	1425	-	-	1465	-	-
Stage 1	826	753	-	898	807	-	-	-	-	-	-	-
Stage 2	890	795	-	822	753	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	645	609	892	654	620	947	1425	-	-	1465	-	-
Mov Cap-2 Maneuver	645	609	-	654	620	-	-	-	-	-	-	-
Stage 1	826	747	-	898	807	-	-	-	-	-	-	-
Stage 2	874	795	-	807	747	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	10.7		10.8		0		0.5	
HCM LOS	B		B					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1425	-	-	638	698	1465	-	-
HCM Lane V/C Ratio	-	-	-	0.012	0.108	0.008	-	-
HCM Control Delay (s)	0	-	-	10.7	10.8	7.5	0	-
HCM Lane LOS	A	-	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0.4	0	-	-

Intersection						
Int Delay, s/veh	0.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	1	3	83	2	5	92
Future Vol, veh/h	1	3	83	2	5	92
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	3	90	2	5	100

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	201	91	0	0	92	0
Stage 1	91	-	-	-	-	-
Stage 2	110	-	-	-	-	-
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	788	967	-	-	1503	-
Stage 1	933	-	-	-	-	-
Stage 2	915	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	785	967	-	-	1503	-
Mov Cap-2 Maneuver	785	-	-	-	-	-
Stage 1	933	-	-	-	-	-
Stage 2	911	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9	0	0.4
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	914	1503
HCM Lane V/C Ratio	-	-	0.005	0.004
HCM Control Delay (s)	-	-	9	7.4
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0	0

Intersection						
Int Delay, s/veh	1.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			T
Traffic Vol, veh/h	3	9	76	5	16	77
Future Vol, veh/h	3	9	76	5	16	77
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	3	10	83	5	17	84

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	204	86	0	0	88
Stage 1	86	-	-	-	-
Stage 2	118	-	-	-	-
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	784	973	-	-	1508
Stage 1	937	-	-	-	-
Stage 2	907	-	-	-	-
Platoon blocked, %					
Mov Cap-1 Maneuver	775	973	-	-	1508
Mov Cap-2 Maneuver	775	-	-	-	-
Stage 1	937	-	-	-	-
Stage 2	896	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9	0	1.3
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	915	1508
HCM Lane V/C Ratio	-	-	0.014	0.012
HCM Control Delay (s)	-	-	9	7.4
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0	0