

1181 May River Road
Traffic Impact Analysis

Bluffton, South Carolina

Prepared for
Sturre Engineering

Prepared by
Kimley»Horn

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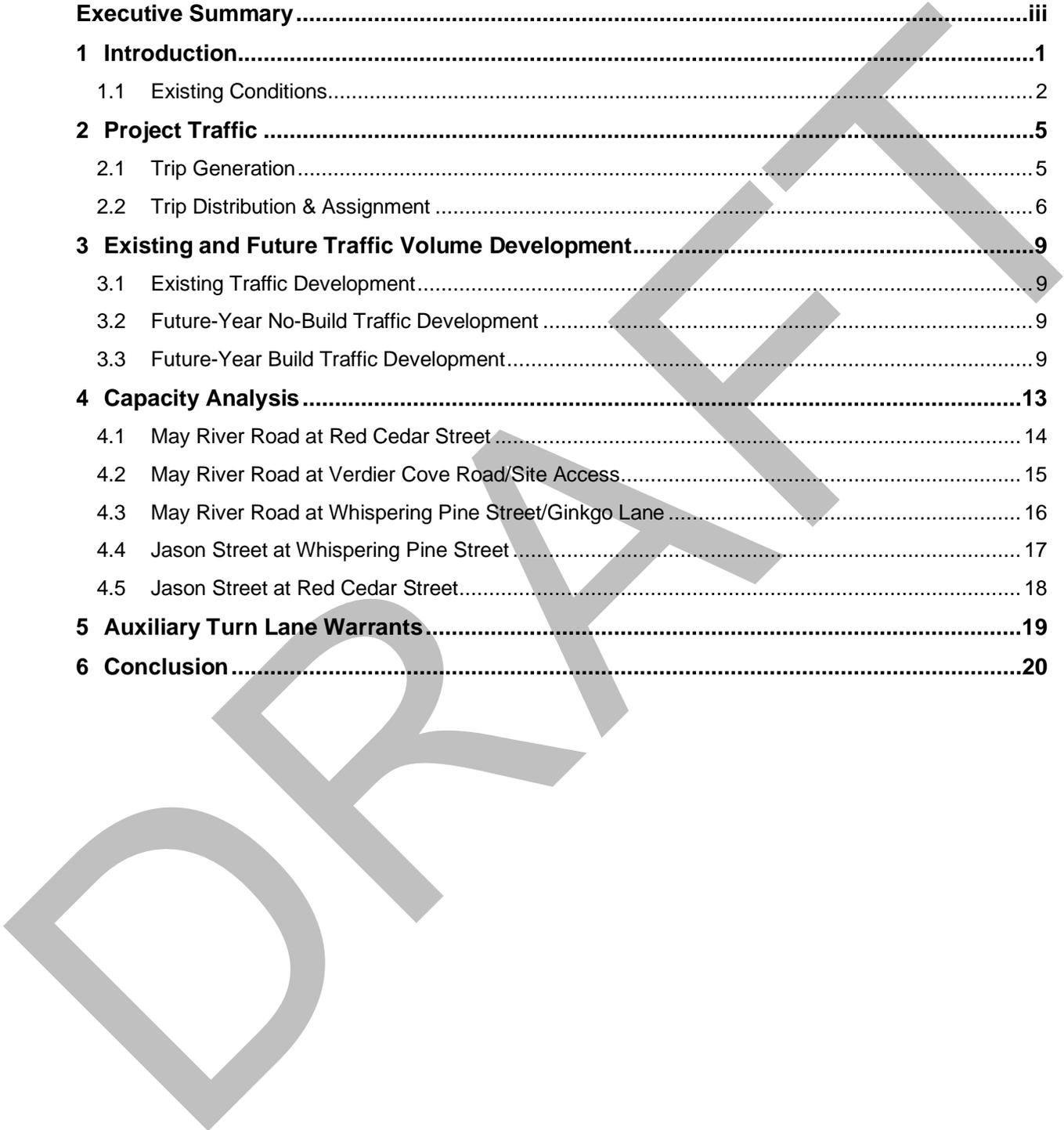
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Executive Summary

The purpose of this Traffic Impact Analysis (TIA) is to review vehicular traffic impacts as a result of the proposed 1181 May River Road Mixed-Use Development. The proposed development is located on the north side of May River Road between Red Cedar Street and Whispering Pine Street, and is planned to consist of the following:

- 4 Residential Units
- 4,000 Square Feet of Retail Space
- 12,000 Square Feet of Health/Fitness Club Space

The development is anticipated to be completed in 2030. Based on the site layout, the proposed development will be accessed via the existing driveway/southbound leg at the intersection of May River Road at Verdier Cove Road.

This TIA evaluates the traffic operations under 2025 Existing conditions, 2030 No-Build conditions, and 2030 Build conditions during the AM and PM peak hours at the following intersections:

- May River Road at Red Cedar Street
- May River Road at Verdier Cove Road/Site Access
- May River Road at Whispering Pine Street/Ginkgo Lane
- Jason Street at Whispering Pine Street
- Jason Street at Red Cedar Street

Based on the results of the traffic analyses, the proposed 1181 May River Road Mixed-use Development is anticipated to have minimal impact on the surrounding road network. No mitigation due to the impacts is recommended as part of this TIA. The site access driveway should maintain its existing configuration with one ingress and one egress lane and placed under stop sign control.

1 Introduction

The purpose of this TIA is to review vehicular traffic impacts as a result of the proposed 1181 May River Road Mixed-Use Development. The proposed development is located on the north side of May River Road between Red Cedar Street and Whispering Pine Street, and is planned to consist of the following:

- 4 Residential Units
- 4,000 Square Feet of Retail Space
- 12,000 Square Feet of Health/Fitness Club Space

The development is anticipated to be completed in 2030. Based on the site layout, the proposed development will be accessed via the existing driveway/southbound leg at the intersection of May River Road at Verdier Cove Road.

The conceptual site plan can be seen in **Appendix A**.

This TIA evaluates the traffic operations under 2025 Existing conditions, 2030 No-Build conditions, and 2030 Build conditions during the AM and PM peak hours at the following intersections and is illustrated in **Figure 1**.

- May River Road at Red Cedar Street
- May River Road at Verdier Cove Road/Site Access
- May River Road at Whispering Pine Street/Ginkgo Lane
- Jason Street at Whispering Pine Street
- Jason Street at Red Cedar Street

1.1 Existing Conditions

The primary roadways in the vicinity of the site are May River Road, Jason Street, Whispering Pine Street, Red Cedar Street, Ginkgo Lane, and Verdier Cove Road.

May River Road is two-lane roadway classified by SCDOT as a minor arterial, with a posted speed limit of 30 miles per hour (mph) in the vicinity of the site. May River Road had a 2024 average daily traffic (ADT) volume of 15,200 vehicles per day (vpd) at SCDOT Count Station 07-0157 in the vicinity of the proposed development.

Jason Street is a two-lane local roadway with a posted speed limit of 30 mph in the vicinity of the site. SCDOT does not provide ADT data for Jason Street.

Whispering Pine Street is a two-lane local roadway with a posted speed limit of 30 mph in the vicinity of the site. SCDOT does not provide ADT data for Whispering Pine Street.

Red Cedar Street is a two-lane local roadway with a posted speed limit of 30 mph in the vicinity of the site. SCDOT does not provide ADT data for Red Cedar Street.

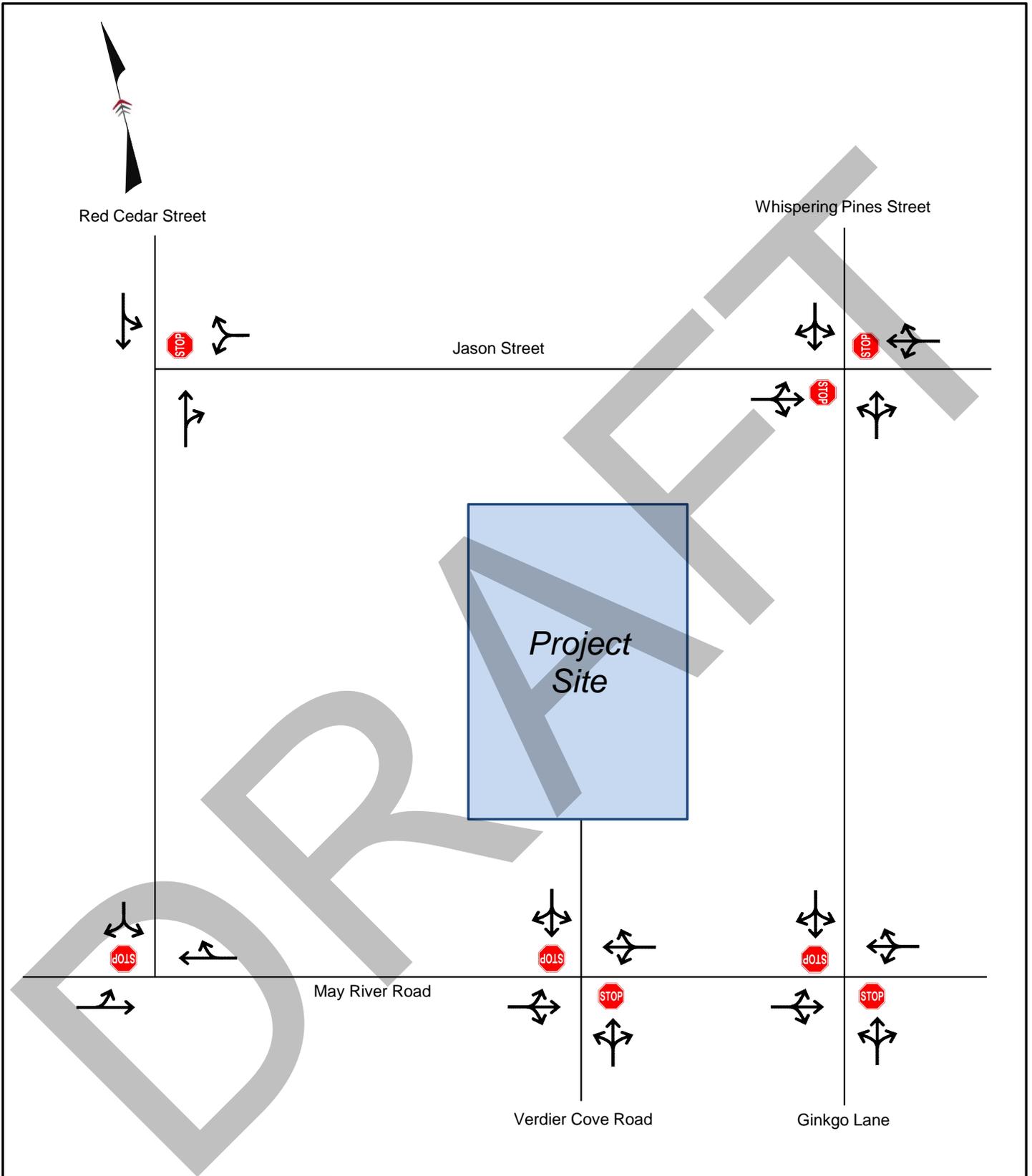
Ginkgo Lane is a two-lane local roadway with a posted speed limit of 20 mph in the vicinity of the site. SCDOT does not provide ADT data for Ginkgo Lane. Ginkgo Lane is the southern leg of the Whispering Pine at May River Road intersection.

Verdier Cove Road is a two-lane local roadway with a posted speed limit of 20 mph in the vicinity of the site. SCDOT does not provide ADT data for Verdier Cove Road.

The existing geometry and traffic control for the study area is illustrated in **Figure 2**.



- Study Intersections**
- 1.) May River Road at Red Cedar Street
 - 2.) May River Road at Verdier Cove Road/Site Access
 - 3.) May River Road at Whispering Pine Street
 - 4.) Jason Street at Whispering Pine Street
 - 5.) Jason Street at Red Cedar Street



Legend

- Existing Laneage
- STOP Existing Stop Control

2 Project Traffic

2.1 Trip Generation

The trip generation rates and equations published in the Institute of Transportation Engineers' (ITE) *Trip Generation Manual, 12th Edition* were used to estimate the trip generation potential for the development. The analysis was performed using the information provided for the following land use codes (LUCs):

- LUC 215 – Single-Family Attached Housing
- LUC 492 – Health/Fitness Club
- LUC 822 – Strip Retail Plaza (<40K)

Since the development includes retail, recreational, and residential land uses, internal capture reductions were calculated. As shown in **Table 1**, the development is anticipated to generate 48 (25 In/23 Out) AM peak hour trips and 93 (51 In/42 Out) PM peak hour net new external trips. Trip generation calculations can be found in **Appendix B**.

Table 1 – Trip Generation Summary

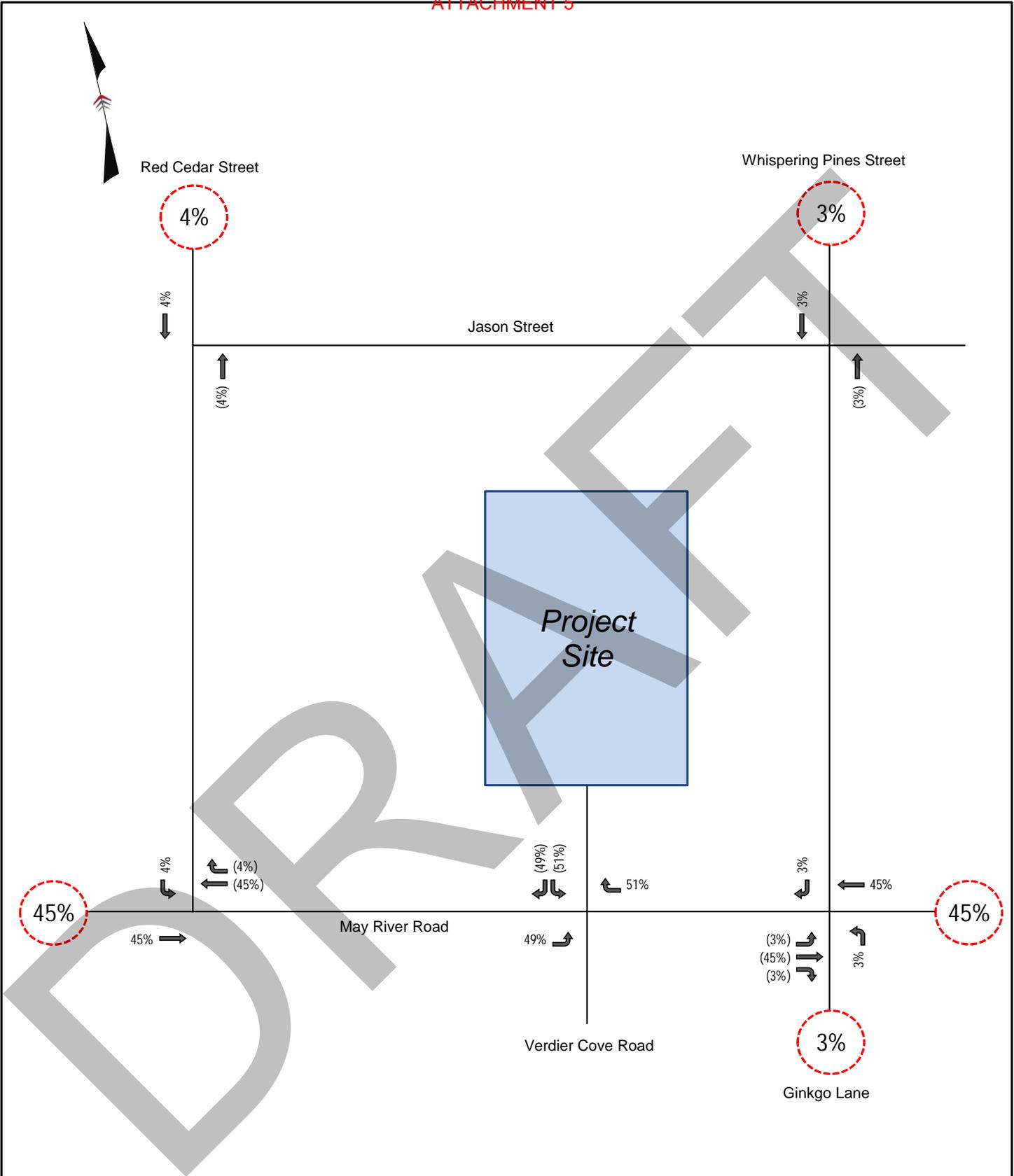
Land Use	Intensity	Units	Daily	AM Peak Hour			PM Peak Hour		
				Total	In	Out	Total	In	Out
215 - Single-Family Attached Housing	4	DU	29	2	1	1	2	1	1
492 – Health/Fitness Club	12.0	KSF	360	30	15	15	54	31	23
822 - Strip Retail Plaza (<40k)	4.0	KSF	218	16	9	7	41	21	20
Subtotal			607	48	25	23	97	53	44
Internal Capture			22	0	0	0	4	2	2
Total Net New External Trips			585	48	25	23	93	51	42

2.2 Trip Distribution & Assignment

New external trips generated by the proposed development were distributed and assigned to the surrounding roadway network based on existing travel patterns, surrounding land uses, and the proposed site layout. The trip distribution percentages used in this analysis are as follows:

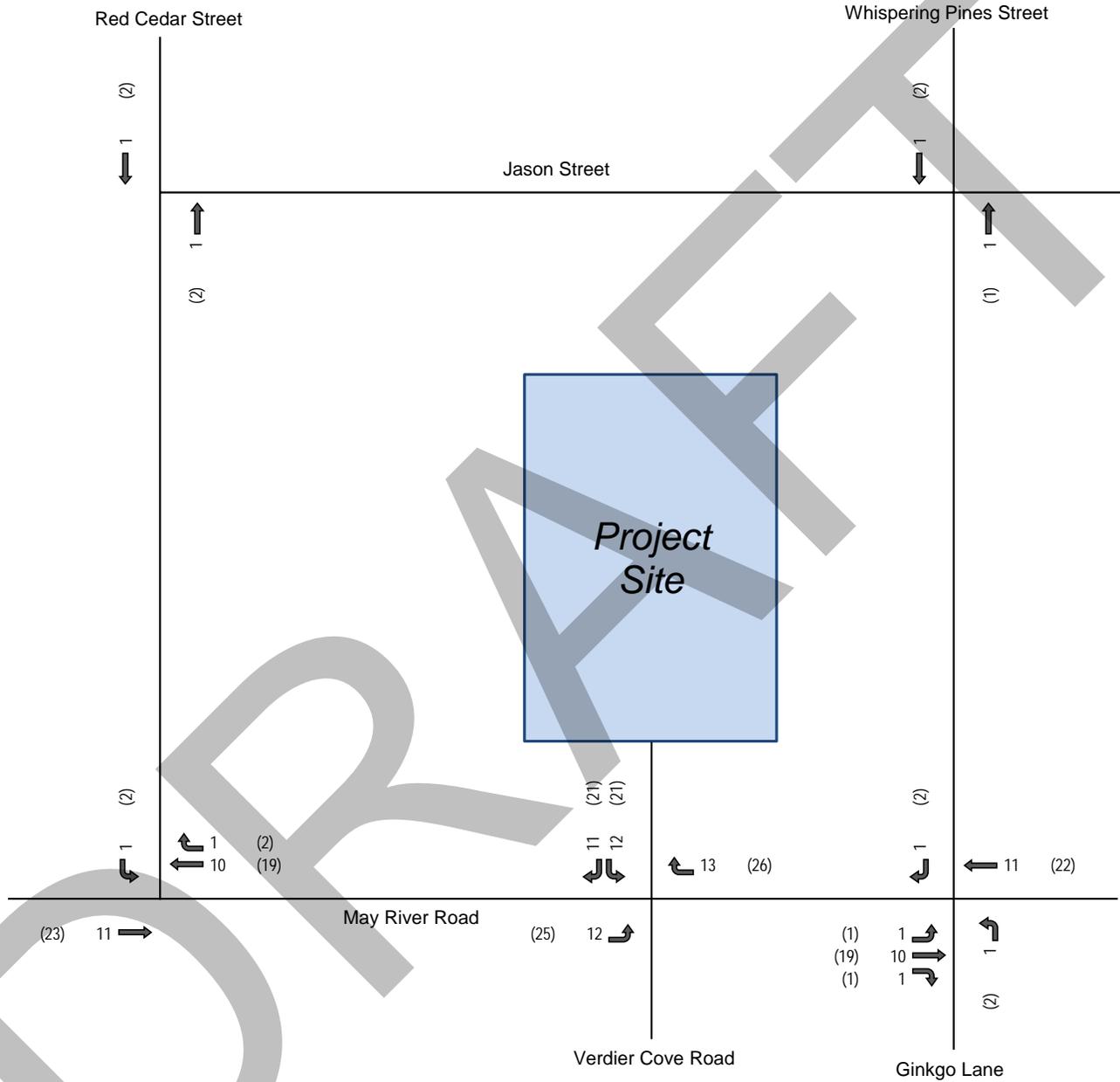
- 45% to/from the West via May River Road
- 45% to/from the East via May River Road
- 3% to/from the North via Whispering Pine Street
- 4% to/from the North via Red Cedar Street
- 3% to/from the South via Ginkgo Street

The site trip distribution and assignment and project trips are illustrated in **Figure 3** and **Figure 4**, respectively.



Legend

- xx% Inbound Trip Distribution
- (xx%) Outbound Trip Distribution



3 Existing and Future Traffic Volume Development

3.1 Existing Traffic Development

Peak period intersection turning movement and heavy vehicle counts were performed by All Traffic Data Services from 7:00 AM to 9:00 AM and 4:00 PM to 6:00 PM on Tuesday, August 19, 2025. **Figure 5** illustrates the 2025 Existing AM and PM peak hour traffic volumes. The raw turning-movement count data is included in **Appendix C**.

3.2 Future-Year No-Build Traffic Development

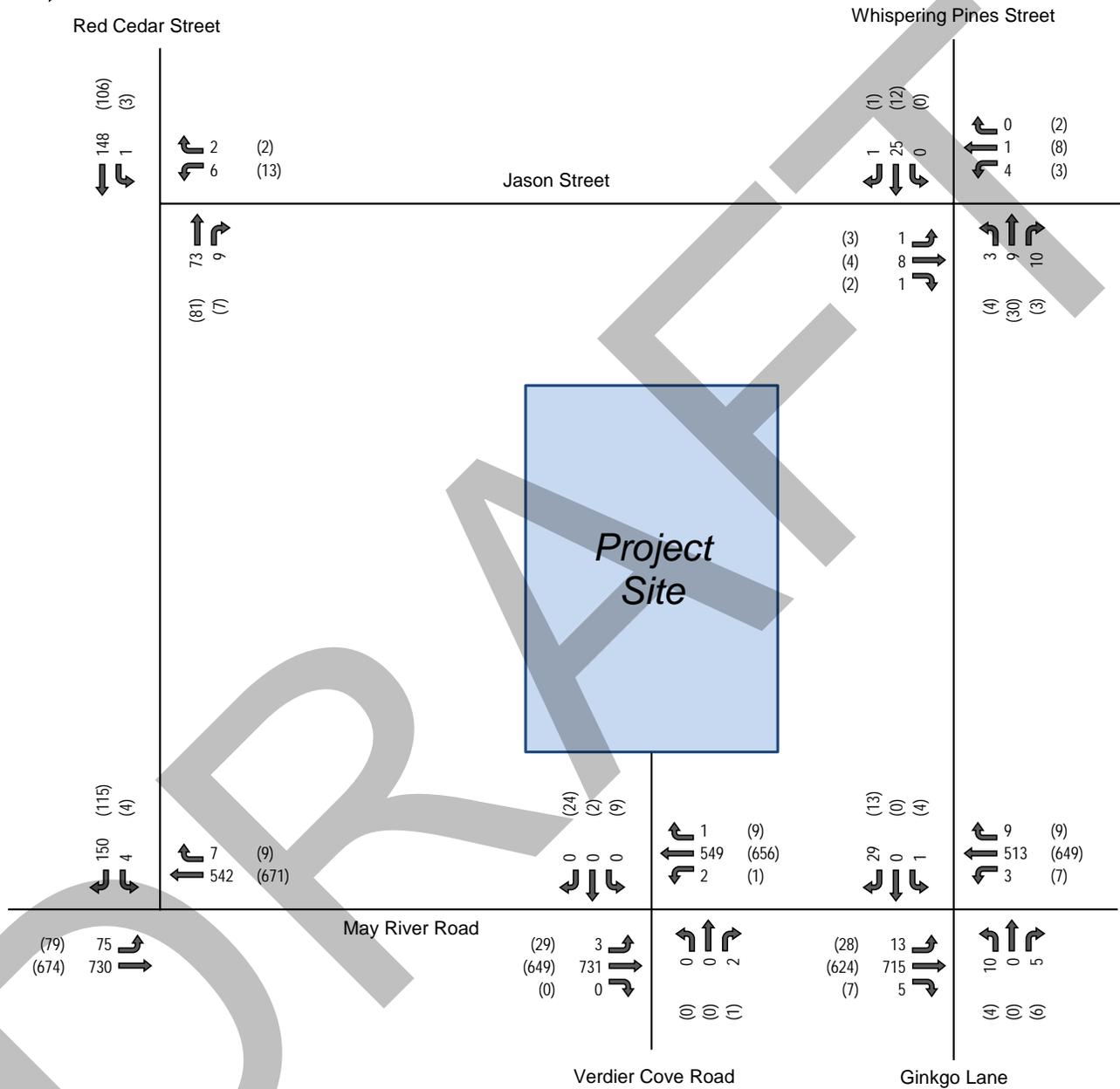
Historic traffic growth represents the increase in existing traffic volumes due to usage increases and non-specific growth throughout the area (i.e., that not associated with the subject development). Count station ID 07-0157 data on May River Road shows an annual growth rate of 3.3% for traffic volume since 2021. Therefore, an annual growth rate of 3.5% was used to capture the expected increase in traffic volume associated with the surrounding developments over the next 5 years.

The 2030 No-Build traffic volumes were estimated by increasing the 2025 Existing traffic volumes at a rate of 3.5% for five years. The 2030 No-Build AM and PM peak hour traffic volumes are shown in **Figure 6**.

3.3 Future-Year Build Traffic Development

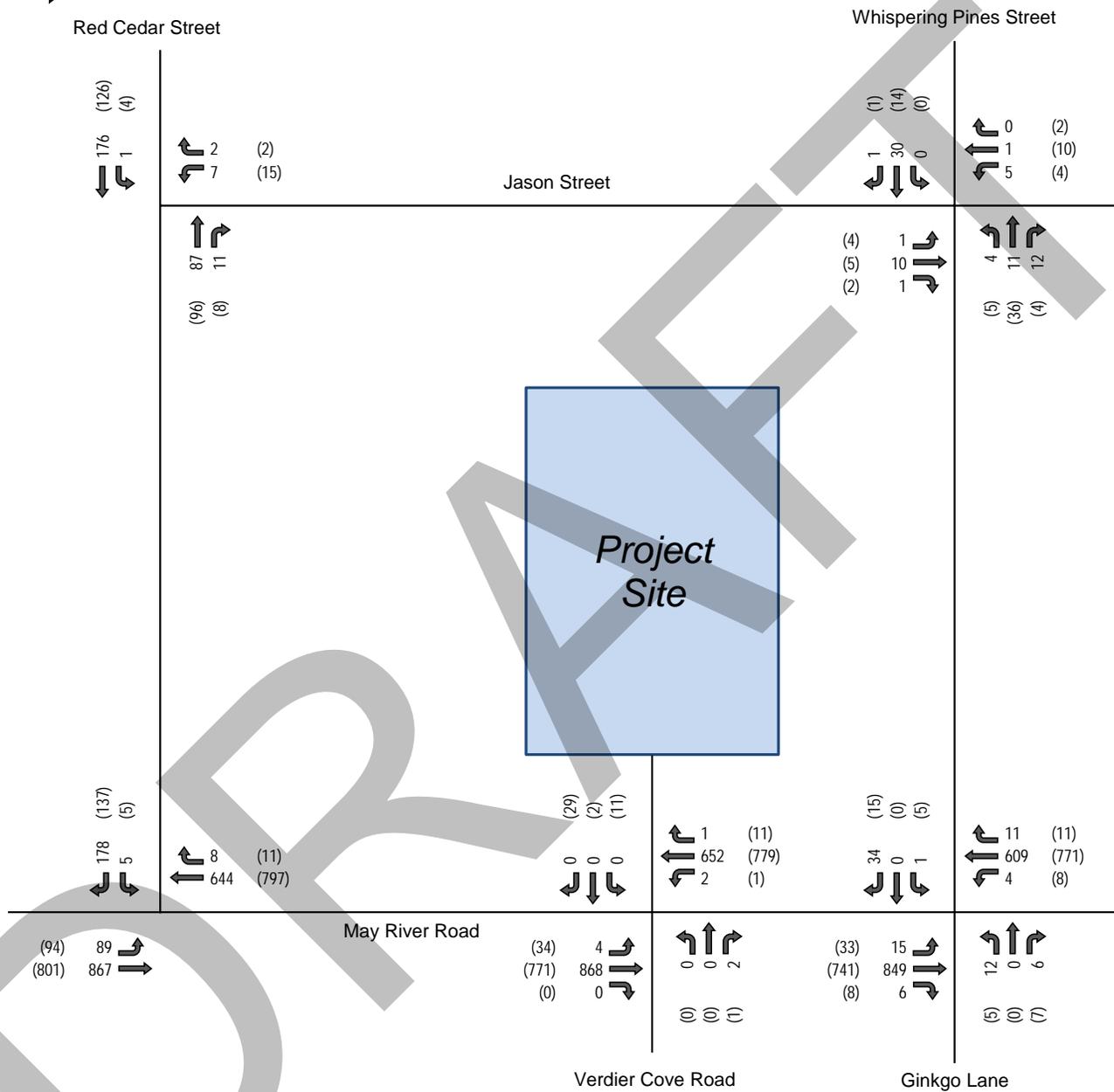
The 1181 May River Road Mixed-Use Development project traffic volumes were added to the 2030 No-Build traffic volumes to develop 2030 Build traffic volumes. **Figure 7** illustrates the 2030 Build traffic volumes for the AM and PM peak hours.

Worksheets documenting the traffic volume development are provided in **Appendix D**.



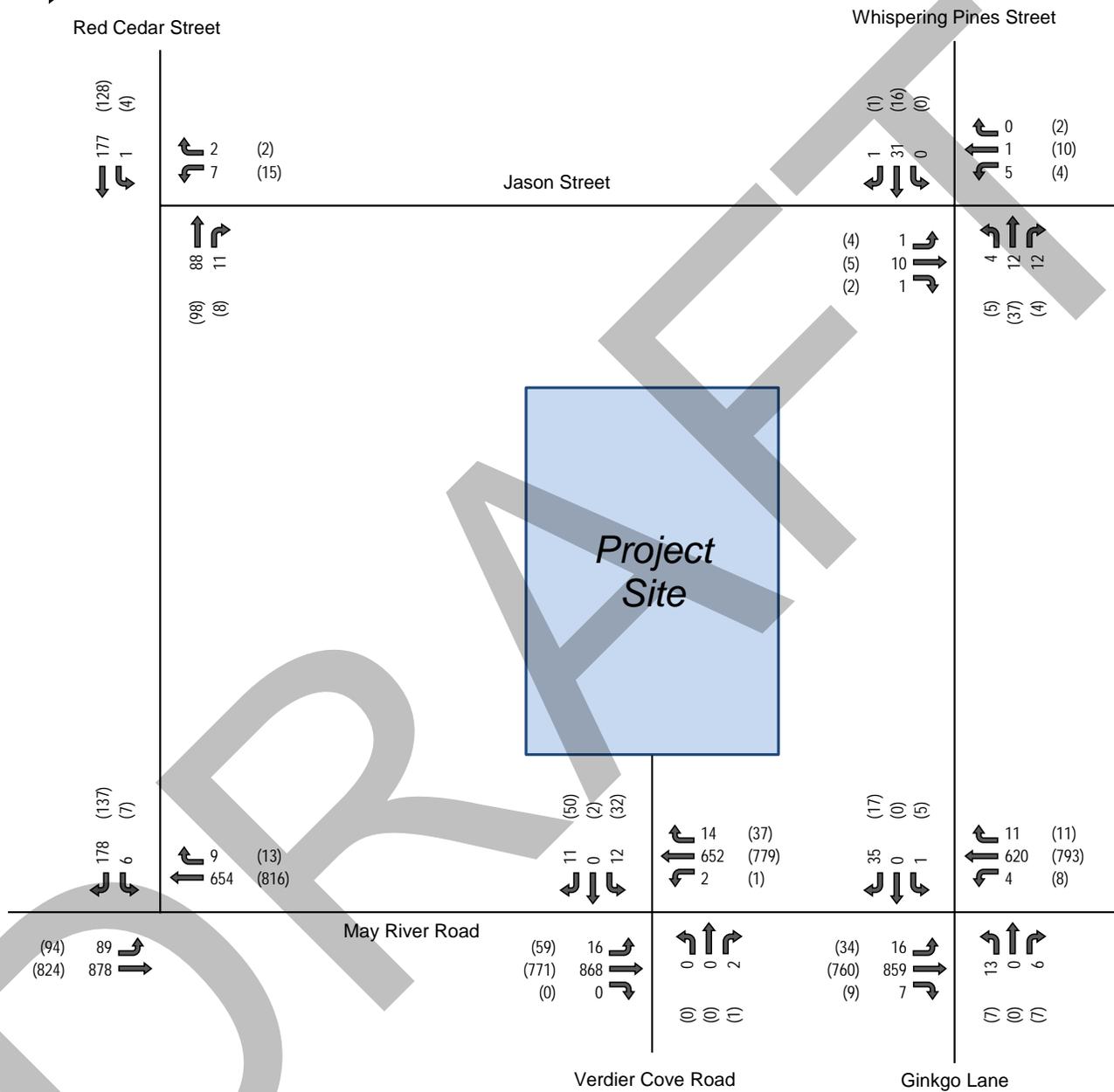
Legend

- xx AM Peak Hour Traffic Volumes
- (xx) PM Peak Hour Traffic Volumes



Legend

- xx AM Peak Hour Traffic Volumes
- (xx) PM Peak Hour Traffic Volumes



Legend

- xx AM Peak Hour Traffic Volumes
- (xx) PM Peak Hour Traffic Volumes

4 Capacity Analysis

Capacity/level-of-Service (LOS) analyses were conducted using the *Highway Capacity Manual (HCM)*, 7th Edition, methodologies of the *Synchro*, Version 12, traffic analysis software. Capacity analyses were conducted for the AM and PM peak hours of the 2025 Existing conditions, 2030 No-Build conditions, and 2030 Build conditions analysis scenarios.

Intersection level of service (LOS) grades range from LOS A to LOS F, which are directly related to the level of control delay at the intersection and characterize the operational conditions of the intersection traffic flow. LOS A operations typically represent ideal, free-flow conditions where vehicles experience little to no delays, and LOS F operations typically represent poor, gridlocked conditions with high vehicular delays, and are generally considered undesirable. **Table 2** lists the LOS control delay thresholds published in the *HCM* for unsignalized intersections.

Table 2 – HCM Level of Service Criteria

LOS	Control Delay per Vehicle (sec/veh)
	Unsignalized Intersections
A	≤ 10
B	> 10 – 15
C	> 15 – 25
D	> 25 – 35
E	> 35 – 50
F	> 50

Existing peak-hour factors (PHF) were utilized for the existing and future scenarios. Existing heavy vehicle percentages were utilized for all scenarios, with a minimum of 2% considered.

Unsignalized intersections operating at LOS A-LOS C are considered to operate with short delays, unsignalized intersections operate at LOS D-LOS E are considered to operate with moderate delays, and intersections operating at LOS F are considered to operate with long delays.

The following sections outline the results of the capacity analysis for each of the study intersections. The capacity analysis worksheets are included in **Appendix E**.

4.1 May River Road at Red Cedar Street

The capacity analysis results for the unsignalized intersection of May River Road at Red Cedar Street are summarized in **Table 3**.

Table 3 – May River Road at Red Cedar Street Analysis Results

Condition	Measure	May River Road		May River Road		Red Cedar Street	
		EBL	EBT	WBT	WBR	SBL	SBR
AM Peak Hour							
2025 Existing	LOS (Delay)	A (9.0)*		A (0.0)		C (17.5)	
	Synchro 95th Q	8'		0'		43'	
2030 No-Build	LOS (Delay)	A (9.6)*		A (0.0)		D (25.6)	
	Synchro 95th Q	10'		0'		78'	
2030 Build	LOS (Delay)	A (9.6)*		A (0.0)		D (27.9)	
	Synchro 95th Q	10'		0'		85'	
PM Peak Hour							
2025 Existing	LOS (Delay)	A (9.6)*		A (0.0)		C (18.9)	
	Synchro 95th Q	8'		0'		35'	
2030 No-Build	LOS (Delay)	B (10.3)*		A (0.0)		D (28.2)	
	Synchro 95th Q	10'		0'		65'	
2030 Build	LOS (Delay)	B (10.4)*		A (0.0)		D (33.7)	
	Synchro 95th Q	13'		0'		80'	

1. Delay Represented in sec/veh.
2. *Left-turn movement LOS (Delay) reported.

Under 2025 Existing conditions, the minor street southbound approach operates at LOS C during the AM and PM peak hour. The eastbound left-turn movement operates at LOS A during both the AM and PM peak hour. Under 2030 No-Build conditions, the minor street southbound approach is expected to increase to LOS D during the AM and PM peak hours, and the eastbound left-turn movement is expected to increase to LOS B during the PM peak hour.

With the addition of the proposed development, all approaches and movements are expected to operate similar to the 2030 No-Build conditions.

It is not uncommon for minor street approaches to operate at LOS E, or even LOS F, during peak hours. Based on the results presented in **Table 3**, no mitigation is recommended at this intersection due to the proposed development.

4.2 May River Road at Verdier Cove Road/Site Access

The capacity analysis results for the unsignalized intersection of May River Road at Verdier Cove Road/Site Access are summarized in **Table 4**. The southbound approach of Site Access is planned to maintain the existing driveway configuration. Site Access is proposed to consist of one ingress lane and one egress lane.

Table 4 – May River Road at Verdier Cove Road/Site Access Analysis Results

Condition	Measure	May River Road			May River Road			Verdier Cove Road			Site Access		
		EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
AM Peak Hour													
2025 Existing	LOS (Delay)	A (8.7)*			A (9.4)*			B (14.6)			A (0.0)		
	Synchro 95th Q	0'			0'			0'			0'		
2030 No-Build	LOS (Delay)	A (9.1)*			B (10.1)*			C (16.7)			A(0.0)		
	Synchro 95th Q	0'			0'			0'			0'		
2030 Build	LOS (Delay)	A (9.2)*			B (10.1)*			C (16.7)			E (48.0)		
	Synchro 95th Q	3'			0'			0'			23'		
PM Peak Hour													
2025 Existing	LOS (Delay)	A (9.1)*			A (8.9)*			B (12.9)			C (23.4)		
	Synchro 95th Q	3'			0'			0'			13'		
2030 No-Build	LOS (Delay)	A (9.7)*			A (9.4)*			B (14.5)			E (37.2)		
	Synchro 95th Q	3'			0'			0'			28'		
2030 Build	LOS (Delay)	A (10.0)*			A (9.4)*			B (14.5)			F (107.1)		
	Synchro 95th Q	8'			0'			0'			113'		

1. Delay Represented in sec/veh.
2. *Left-turn movement LOS (Delay) reported.

Under 2025 Existing and 2030 No-Build condition, the minor street northbound approach operates at LOS C or better during the AM and PM peak hour. The westbound and eastbound left-turn movement operates at LOS B or better during the AM and PM peak hours. With the addition of the proposed development, the northbound approach, eastbound left-turn movement, and westbound left-turn movement are expected to maintain acceptable LOS operations.

Under the 2030 Build condition, the southbound approach providing site access is anticipated to operate at LOS E and LOS F during the AM and PM peak hours, respectively. It is not uncommon for minor street approaches to operate at LOS E, or even LOS F, during peak hours of travel. The Site Access should maintain the existing driveway configuration with one ingress lane, one egress lane, and operating under stop control.

4.3 May River Road at Whispering Pine Street/Ginkgo Lane

The capacity analysis results for the unsignalized intersection of May River Road at Whispering Pine Street/Ginkgo Lane are summarized in **Table 5**.

Table 5 – May River Road at Whispering Pine Street/Ginkgo Lane Analysis Results

Condition	Measure	May River Road			May River Road			Ginkgo Lane			Whispering Pine Street		
		EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
AM Peak Hour													
2025 Existing	LOS (Delay)	A (8.7)*			A (9.4)*			D (33.2)			B (13.3)		
	Synchro 95th Q	0'			0'			10'			5'		
2030 No-Build	LOS (Delay)	A (9.0)*			A (10.0)*			F (53.4)			C (15.1)		
	Synchro 95th Q	3'			0'			18'			8'		
2030 Build	LOS (Delay)	A (9.1)*			B (10.0)*			F (58.3)			C (15.3)		
	Synchro 95th Q	3'			0'			20'			8'		
PM Peak Hour													
2025 Existing	LOS (Delay)	A (9.1)*			A (8.9)*			C (24.6)			C (20.3)		
	Synchro 95th Q	3'			0'			5'			5'		
2030 No-Build	LOS (Delay)	A (9.7)*			A (9.4)*			E (36.6)			D (28.6)		
	Synchro 95th Q	3'			0'			8'			10'		
2030 Build	LOS (Delay)	A (9.8)*			A (9.5)*			E (45.7)			D (29.2)		
	Synchro 95th Q	3'			0'			13'			13'		

1. Delay Represented in sec/veh.

2. *Left-turn movement LOS (Delay) reported.

Under 2025 Existing and 2030 No-Build conditions, the eastbound left-turn and westbound left-turn are expected to operate at LOS A. With the addition of project trips, the westbound left-turn movement is expected to increase to LOS B in the AM peak hour.

The minor street northbound approach currently operates at LOS D and LOS C in the AM and PM peak hours, respectively. The LOS is expected to increase to LOS F and LOS E under the 2030 No-Build conditions. With the addition of project trips in the AM peak hour, the approach is expected to continue to operate at LOS F with approximately 5 seconds of additional delay. In the PM peak hour, it is expected to continue to operate at LOS E with approximately 9 seconds of additional delay.

The minor street southbound approach currently operates at LOS B and LOS C in the AM and PM peak hours, respectively. The LOS is expected to increase to LOS C and LOS D under the 2030 No-Build conditions. With the addition of project trips in the AM peak hour, the approach is expected to continue to operate at LOS C. In the PM peak hour, it is expected to continue to operate at LOS D. In the 2030 Build conditions, the additional project trips are anticipated to add less than 1 second of delay for the AM and PM peak hour conditions.

It is not uncommon for minor street approaches to operate at LOS E, or even LOS F, during peak hours. Based on the results presented in **Table 5**, no mitigation is recommended at this intersection due to the proposed development.

4.4 Jason Street at Whispering Pine Street

The capacity analysis results for the unsignalized intersection of Jason Street at Whispering Pine Street are summarized in **Table 6**.

Table 6 – Jason Street at Whispering Pine Street Analysis Results

Condition	Measure	Jason Street			Jason Street			Whispering Pine Street			Whispering Pine Street		
		EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
AM Peak Hour													
2025 Existing	LOS (Delay)	A (9.4)			A (9.1)			A (7.3)*			A (0.0)*		
	Synchro 95th Q	0'			0'			0'			0'		
2030 No-Build	LOS (Delay)	A (9.5)			A (9.1)			A (7.3)*			A (0.0)*		
	Synchro 95th Q	3'			0'			0'			0'		
2030 Build	LOS (Delay)	A (9.5)			A (9.2)			A (7.3)*			A (0.0)*		
	Synchro 95th Q	3'			0'			0'			0'		
PM Peak Hour													
2025 Existing	LOS (Delay)	A (9.2)			A (9.3)			A (7.3)*			A (0.0)*		
	Synchro 95th Q	0'			3'			0'			0'		
2030 No-Build	LOS (Delay)	A (9.3)			A (9.5)			A (7.3)*			A (0.0)*		
	Synchro 95th Q	3'			3'			0'			0'		
2030 Build	LOS (Delay)	A (9.4)			A (9.5)			A (7.3)*			A (0.0)*		
	Synchro 95th Q	3'			3'			0'			0'		

- 1. Delay Represented in sec/veh.
- 2. *Left-turn movement LOS (Delay) reported.

Under 2025 Existing and 2030 No-Build conditions, all approaches and movements are expected to operate at LOS A during the AM and PM peak hours. With the addition of project traffic, all approaches and movements are expected to continue to operate at LOS A during the AM and PM peak hours. Based the results presented in **Table 6**, No mitigation is recommended at this intersection due to the proposed development.

4.5 Jason Street at Red Cedar Street

The capacity analysis results for the unsignalized intersection of Jason Street at Red Cedar Street are summarized in **Table 7**.

Table 7 – Jason Street at Red Cedar Street Analysis Results

Condition	Measure	Jason Street		Red Cedar Street		Red Cedar Street	
		WBL	WBR	NBT	NBR	SBL	SBT
AM Peak Hour							
2025 Existing	LOS (Delay)	A (9.7)		A (0.0)		A (7.4)*	
	Synchro 95th Q	0'		0'		0'	
2030 No-Build	LOS (Delay)	B (10.0)		A (0.0)		A (7.4)*	
	Synchro 95th Q	0'		0'		0'	
2030 Build	LOS (Delay)	B (10.0)		A (0.0)		A (7.4)*	
	Synchro 95th Q	0'		0'		0'	
PM Peak Hour							
2025 Existing	LOS (Delay)	A (9.7)		A (0.0)		A (7.4)*	
	Synchro 95th Q	3'		0'		0'	
2030 No-Build	LOS (Delay)	B (10.1)		A (0.0)		A (7.5)*	
	Synchro 95th Q	3'		0'		0'	
2030 Build	LOS (Delay)	B (10.1)		A (0.0)		A (7.5)*	
	Synchro 95th Q	3'		0'		0'	

- 1. Delay Represented in sec/veh.
- 2. *Left-turn movement LOS (Delay) reported.

Under 2025 Existing conditions, all approaches and movements are expected to operate at LOS A during the AM and PM peak hours. Under 2030 No-Build conditions, the minor street westbound approach is anticipated to increase to LOS B during the AM and PM peak hours. With the addition of project traffic, all approaches and movements are expected to continue to operate at the same LOS as the 2030 No-Build conditions during the AM and PM peak hours. Based the results presented in **Table 7**, No mitigation is recommended at this intersection due to the proposed development.

5 Auxiliary Turn Lane Warrants

Warrants for additional turn-lane improvements for unsignalized intersections beyond those necessary for capacity were determined based on a review of the 2021 SCDOT Highway Design Manual. The results of the warrants for the left-turn and right-turn lanes under 2030 Build conditions are summarized below and included in **Appendix F**.

The following auxiliary turn-lanes are warranted along May River Road based on the projected 2030 Build traffic volumes:

May River Road at Verdier Cove Road Road/Site Access

- Eastbound left-turn lane

May River Road at Red Cedar Street

- Eastbound left-turn lane

May River Road at Whispering Pine Street/Ginkgo Lane

- Eastbound left-turn lane
- Westbound left-turn lane

It is important to note that there are no turn-lanes present along May River Road, except at the signalized intersection of Buck Island Road. To maintain the recent Town of Bluffton Streetscape Project and the goals of the Old Town Master Plan, *auxiliary turn lanes are not recommended along May River Road.*

6 Conclusion

The purpose of this TIA is to review vehicular traffic impacts as a result of the proposed 1181 May River Road Mixed-Use Development. The proposed development is located on the north side of May River Road between Red Cedar Street and Whispering Pine Street, and is planned to consist of the following:

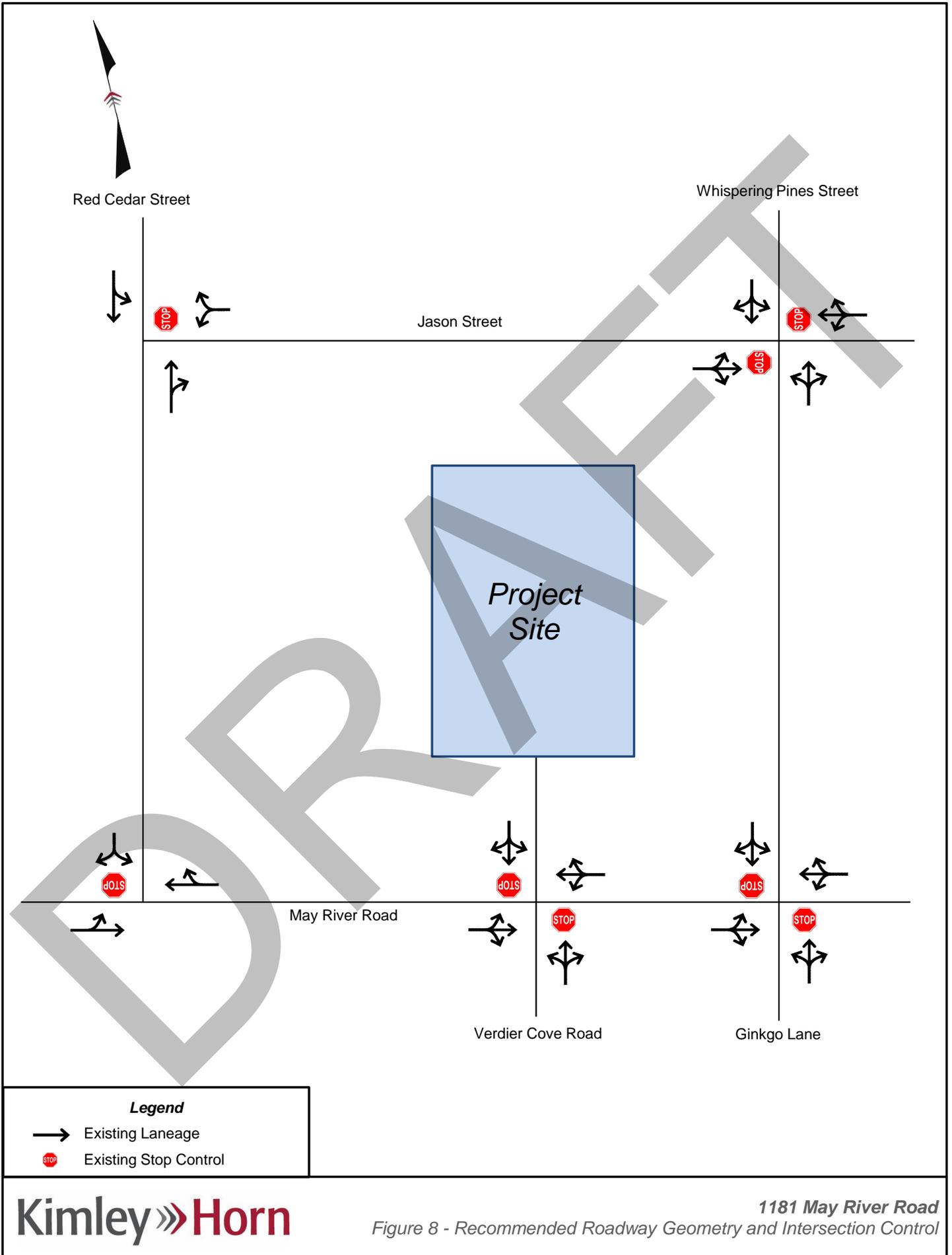
- 4 Residential Units
- 4,000 Square Feet of Retail Space
- 12,000 Square Feet of Health/Fitness Club Space

The development is anticipated to be completed in 2030. Based on the site layout, the proposed development will be accessed via the existing driveway/southbound leg at the intersection of May River Road at Verdier Cove Road.

This TIA evaluates the traffic operations under 2025 Existing conditions, 2030 No-Build conditions, and 2030 Build conditions during the AM and PM peak hours at the following intersections:

- May River Road at Red Cedar Street
- May River Road at Verdier Cove Road/Site Access
- May River Road at Whispering Pine Street/Ginkgo Lane
- Jason Street at Whispering Pine Street
- Jason Street at Red Cedar Street

Based on the results of the traffic analyses, the proposed 1181 May River Road Mixed-use Development is anticipated to have minimal impact on the surrounding road network. No mitigation due to the impacts is recommended as part of this TIA. The site access driveway should maintain its existing configuration with one ingress and one egress lane and placed under stop sign control. Recommended roadway geometry and traffic control is illustrated in **Figure 8**.

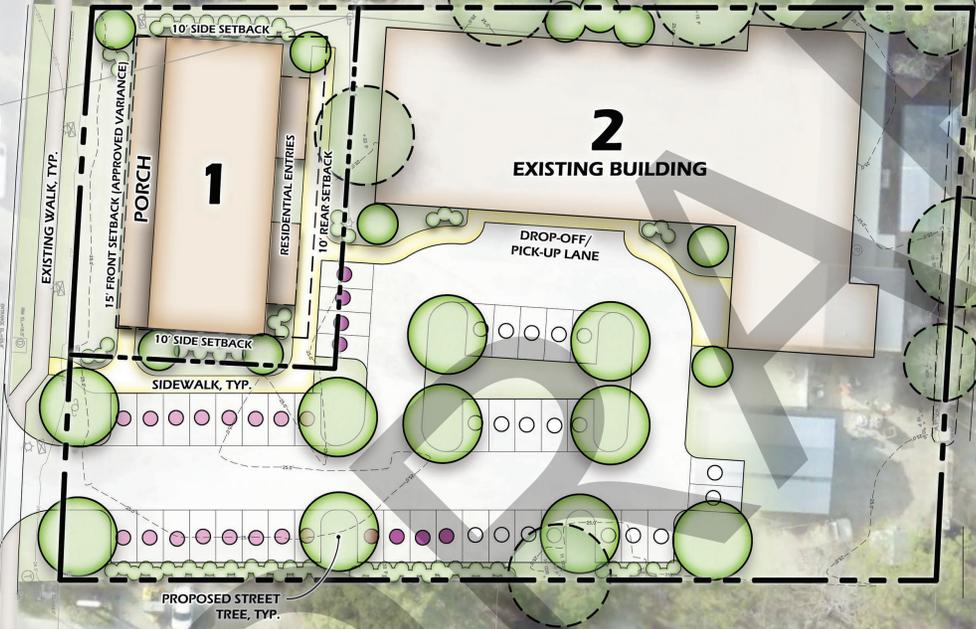


Appendix A – Conceptual Site Plan

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MAY RIVER ROAD

JASON STREET



PARKING SUMMARY

BUILDING 1

4,000 SF RETAIL
4 SPACES/1,000 SF = 16 REQUIRED

4 RESIDENTIAL APARTMENTS
2 SPACES / UNIT = 8 REQUIRED

BUILDING 2 (EXISTING)

12,000 SF GYM
1 SPACE/1,000 SF = 12 REQUIRED

36 REQUIRED SPACES
40 PROPOSED SPACES

NOTE: APPROXIMATE BUILDING AND PORCH FOOTPRINTS SHOWN ARE FOR REFERENCE ONLY. FINAL BUILDING FOOTPRINTS SUBJECT TO CHANGE BASED ON FUTURE BUILDING DESIGNS.

Winters Jones Keefer
LANDSCAPE ARCHITECTURE
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THIS SHEET TO SCALE AT 1/8"=1'-0"

SITE DEVELOPMENT PLANS
FOR
1181 MAY RIVER ROAD
BLUFFTON, SOUTH CAROLINA

DATE: NOV 13, 2024
PROJECT NO.: XXXXXXXX
DRAWN BY: XX
CHECKED BY: XX

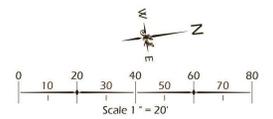


REVISIONS:

DRAWING TITLE
SITE PLAN

DRAWING NUMBER

B



Appendix B – Trip Generation Data

DRAFT

ATTACHMENT 5

Daily Trip Generation Calculations

TRIP GENERATION CHARACTERISTICS					VEHICLE TRIPS			INTERNAL CAPTURE	NEW EXTERNAL VEHICLE TRIPS		
Land Use + Code	Source	Scale	ITE Unit	Equation/Rate	In	Out	Total	IC Trips	In	Out	Total
1 (215) Single-Family Attached Housing	ITE 12th Ed	4	DU	$T = 6.53(X) + 3.25$	15	14	29	7	11	11	22
2 (822) Strip Retail Plaza (<40k)	ITE 12th Ed	4	LKSF	$T = 54.45(X)$	109	109	218	11	104	103	207
3 (492) Health/Fitness Club	ITE 12th Ed	12	KSF	$T = 30.02(X)$	180	180	360	4.00	178	178	356
					304	303	607	22	293	292	585

AM Peak Hour Trip Generation Calculations

TRIP GENERATION CHARACTERISTICS					VEHICLE TRIPS			INTERNAL CAPTURE	NEW EXTERNAL VEHICLE TRIPS		
Land Use + Code	Source	Scale	ITE Unit	Equation/Rate	In	Out	Total	IC Trips	In	Out	Total
1 (215) Single-Family Attached Housing	ITE 12th Ed	4	DU	$T = 0.47(X)$	1	1	2	0	1	1	2
2 (822) Strip Retail Plaza (<40k)	ITE 12th Ed	4	LKSF	$T = 3.93(X)$	9	7	16	0	9	7	16
3 (492) Health/Fitness Club	ITE 12th Ed	12	KSF	$\ln(T) = 0.68 \ln(X) + 1.70$	15	15	30	0	15	15	30
					25	23	48	0	25	23	48

PM Peak Hour Trip Generation Calculations

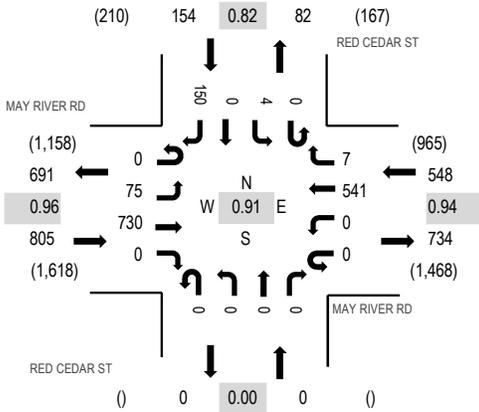
TRIP GENERATION CHARACTERISTICS					VEHICLE TRIPS			INTERNAL CAPTURE	NEW EXTERNAL VEHICLE TRIPS		
Land Use + Code	Source	Scale	ITE Unit	Equation/Rate	In	Out	Total	IC Trips	In	Out	Total
1 (215) Single-Family Attached Housing	ITE 12th Ed	4	DU	$T = 0.51(X)$	1	1	2	0	1	1	2
2 (822) Strip Retail Plaza (<40k)	ITE 12th Ed	4	LKSF	$\ln(T) = 0.68 \ln(X) + 2.77$	21	20	41	2	20	19	39
3 (492) Health/Fitness Club	ITE 12th Ed	12	KSF	$\ln(T) = 0.79 \ln(X) + 2.02$	31	23	54	2	30	22	52
					53	44	97	4	51	42	93



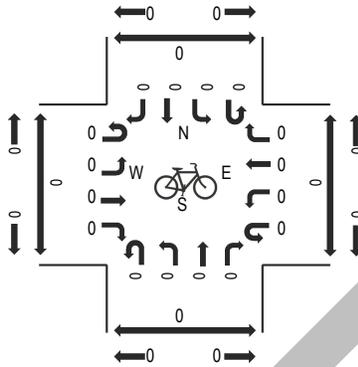
Appendix C – Turning Movement Counts

DRAFT

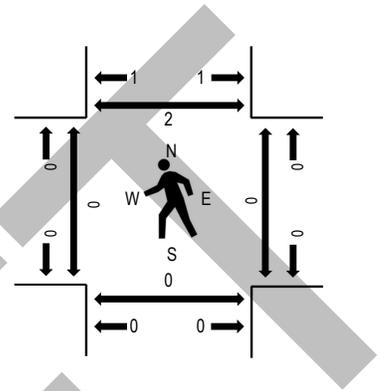
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	MAY RIVER RD Eastbound				MAY RIVER RD Westbound				RED CEDAR ST Northbound				RED CEDAR ST Southbound				Total	Rolling Hour	Pedestrian Crossings				
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North	
7:00 AM	0	18	162	0	0	0	95	0	0	0	0	0	0	0	0	0	12	287	1,330	0	0	0	0
7:15 AM	0	30	173	0	0	0	134	1	0	0	0	0	0	1	0	16	355	1,455	0	0	0	0	
7:30 AM	0	23	157	0	0	0	129	2	0	0	0	0	0	0	0	34	345	1,507	0	0	0	0	
7:45 AM	0	13	171	0	0	0	128	1	0	0	0	0	0	2	0	28	343	1,497	0	0	0	1	
8:00 AM	0	17	209	0	0	0	140	3	0	0	0	0	0	0	0	43	412	1,463	0	0	0	1	
8:15 AM	0	22	193	0	0	0	144	1	0	0	0	0	0	2	0	45	407		0	0	0	0	
8:30 AM	0	21	191	0	0	0	99	1	0	0	0	0	0	2	0	21	335		0	0	0	0	
8:45 AM	0	13	205	0	0	0	86	1	0	0	0	0	0	0	0	4	309		0	0	0	0	

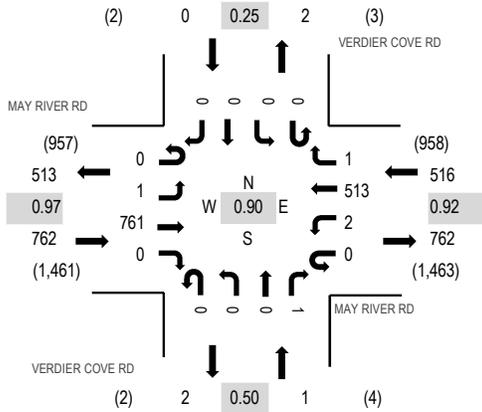
Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
Lights	0	75	725	0	0	0	531	7	0	0	0	0	0	4	0	147	1,489
Mediums	0	0	5	0	0	0	9	0	0	0	0	0	0	0	0	3	17
Total	0	75	730	0	0	0	541	7	0	0	0	0	0	4	0	150	1,507

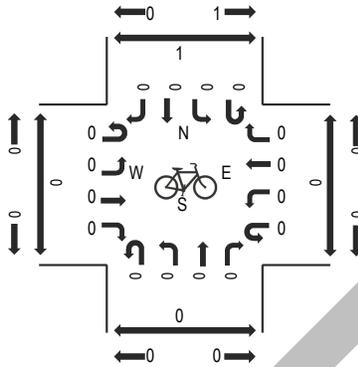
Heavy Vehicle Percentage and Peak Hour Factor

	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Heavy Vehicle %		0.0%				0.2%				0.0%				0.0%			0.1%
Heavy Vehicle %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%
Peak Hour Factor		0.96				0.94				0.00				0.82			0.91
Peak Hour Factor	0.00	0.70	0.95	0.00	0.00	0.00	0.94	0.58	0.00	0.00	0.00	0.00	0.00	0.75	0.00	0.83	0.91

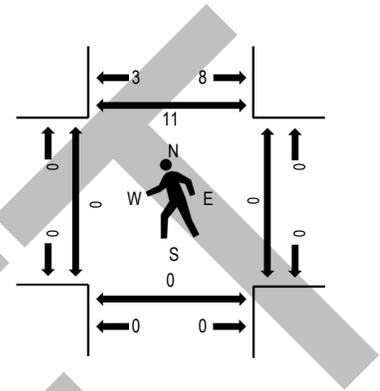
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	MAY RIVER RD Eastbound				MAY RIVER RD Westbound				VERDIER COVE RD Northbound				VERDIER COVE RD Southbound				Total	Rolling Hour	Pedestrian Crossings								
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North					
7:00 AM	0	1	163	0	0	0	92	0	0	0	1	0	0	0	0	0	0	0	0	0	1	258	1,153	0	0	0	1
7:15 AM	0	0	174	0	0	0	133	0	0	0	0	0	0	0	0	0	0	0	0	0	0	307	1,250	0	0	0	1
7:30 AM	0	0	156	0	0	0	135	0	0	0	0	0	1	0	0	0	0	0	0	0	0	292	1,277	0	0	0	0
7:45 AM	0	0	169	0	0	1	126	0	0	0	0	0	0	0	0	0	0	0	0	0	0	296	1,279	0	0	0	1
8:00 AM	0	1	205	0	0	1	147	1	0	0	0	0	0	0	0	0	0	0	0	0	0	355	1,272	0	0	0	2
8:15 AM	0	0	195	0	0	0	138	0	0	0	0	0	1	0	0	0	0	0	0	0	0	334		0	0	0	5
8:30 AM	0	0	192	0	0	0	102	0	0	0	0	0	0	0	0	0	0	0	0	0	0	294		0	0	0	3
8:45 AM	0	0	205	0	0	0	82	0	0	0	0	0	1	0	1	0	0	0	0	0	0	289		0	0	0	2

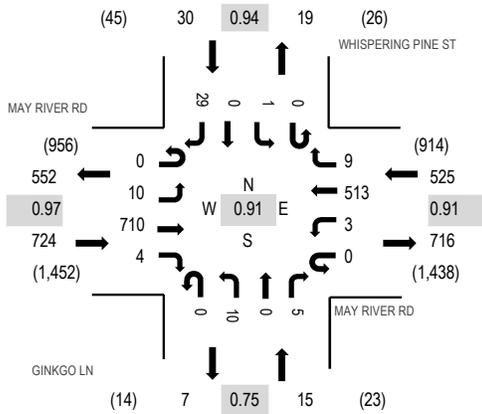
Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	2
Lights	0	1	754	0	0	2	505	1	0	0	0	1	0	0	0	0	1,264
Mediums	0	0	6	0	0	0	7	0	0	0	0	0	0	0	0	0	13
Total	0	1	761	0	0	2	513	1	0	0	0	1	0	0	0	0	1,279

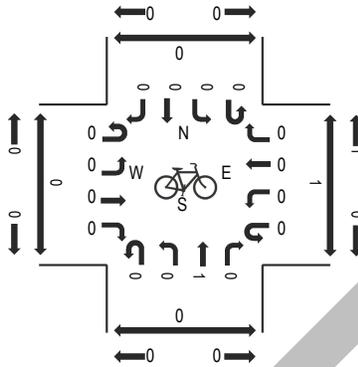
Heavy Vehicle Percentage and Peak Hour Factor

	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Heavy Vehicle %			0.1%	0.0%			0.2%	0.0%			0.0%	0.0%			0.0%	0.0%	0.2%
Peak Hour Factor		0.97				0.92				0.50				0.25			0.90
Peak Hour Factor	0.00	0.25	0.97	0.00	0.00	0.50	0.93	0.25	0.00	0.25	0.00	0.50	0.00	0.25	0.00	0.25	0.90

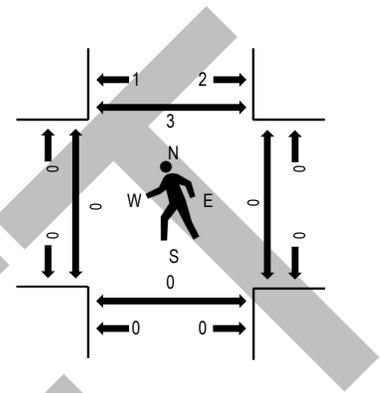
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	MAY RIVER RD Eastbound				MAY RIVER RD Westbound				GINKGO LN Northbound				WHISPERING PINE ST Southbound				Total	Rolling Hour	Pedestrian Crossings				
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North	
7:00 AM	0	0	161	0	0	0	87	2	0	0	0	0	0	0	1	0	4	255	1,159	0	1	1	0
7:15 AM	0	1	169	2	0	0	127	0	0	0	0	1	0	2	0	0	5	307	1,261	0	1	0	1
7:30 AM	0	4	152	0	0	0	124	3	0	4	0	1	0	0	0	0	8	296	1,294	0	0	0	0
7:45 AM	0	1	168	1	0	1	117	3	0	2	0	1	0	0	0	0	7	301	1,290	0	0	0	1
8:00 AM	0	3	198	2	0	1	142	2	0	1	0	1	0	1	0	0	6	357	1,275	0	0	0	1
8:15 AM	0	2	192	1	0	1	130	1	0	3	0	2	0	0	0	0	8	340		0	0	0	1
8:30 AM	0	1	186	3	0	0	96	1	0	4	0	0	0	1	0	0	0	292		0	2	0	2
8:45 AM	0	2	201	2	0	0	76	0	0	3	0	0	0	0	0	0	2	286		0	1	0	1

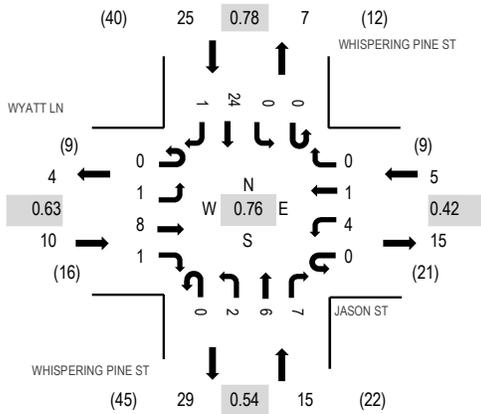
Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	2
Lights	0	10	705	4	0	3	503	8	0	10	0	5	0	1	0	29	1,278
Mediums	0	0	5	0	0	0	8	1	0	0	0	0	0	0	0	0	14
Total	0	10	710	4	0	3	513	9	0	10	0	5	0	1	0	29	1,294

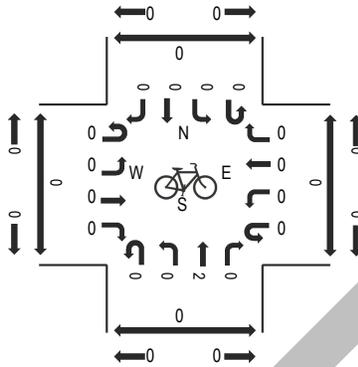
Heavy Vehicle Percentage and Peak Hour Factor

	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Heavy Vehicle %					0.0%		0.4%					0.0%				0.0%	0.2%
Heavy Vehicle %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.2%
Peak Hour Factor							0.91					0.75				0.94	0.91
Peak Hour Factor	0.00	0.63	0.97	0.67	0.00	0.75	0.90	0.75	0.00	0.69	0.00	0.63	0.00	0.38	0.00	0.91	0.91

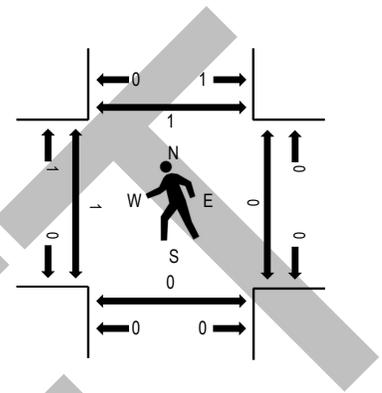
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	WYATT LN Eastbound				JASON ST Westbound				WHISPERING PINE ST Northbound				WHISPERING PINE ST Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
7:00 AM	0	1	1	1	0	0	0	0	0	2	0	0	0	0	5	0	10	49	1	0	0	0
7:15 AM	0	0	2	0	0	1	2	0	0	0	0	0	0	0	6	0	11	50	0	0	0	0
7:30 AM	0	0	1	1	0	1	0	0	0	1	3	3	0	0	8	0	18	55	0	0	0	0
7:45 AM	0	0	2	0	0	0	1	0	0	1	0	0	0	0	6	0	10	42	0	0	0	0
8:00 AM	0	1	1	0	0	0	0	0	0	0	2	2	0	0	5	0	11	38	0	0	0	0
8:15 AM	0	0	4	0	0	3	0	0	0	0	1	2	0	0	5	1	16		1	0	0	1
8:30 AM	0	0	0	0	0	0	0	0	0	0	3	0	0	1	0	1	5		0	0	0	0
8:45 AM	0	0	1	0	0	1	0	0	0	0	1	1	0	0	2	0	6		0	0	0	0

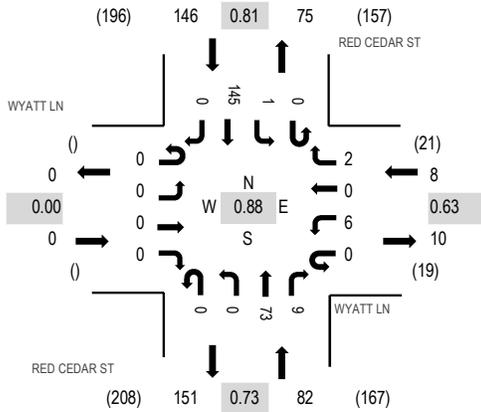
Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lights	0	0	8	1	0	4	1	0	0	2	5	7	0	0	24	0	52
Mediums	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	1	3
Total	0	1	8	1	0	4	1	0	0	2	6	7	0	0	24	1	55

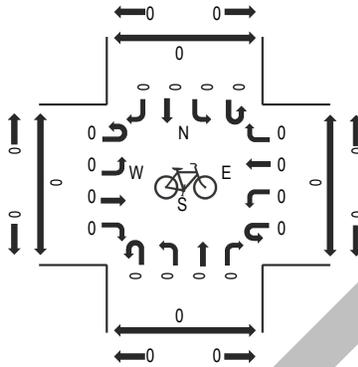
Heavy Vehicle Percentage and Peak Hour Factor

	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Heavy Vehicle %																	0.0%
Heavy Vehicle %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Peak Hour Factor		0.63				0.42				0.54				0.78			0.76
Peak Hour Factor	0.00	0.25	0.50	0.50	0.00	0.33	0.38	0.00	0.00	0.50	0.58	0.58	0.00	0.25	0.78	0.50	0.76

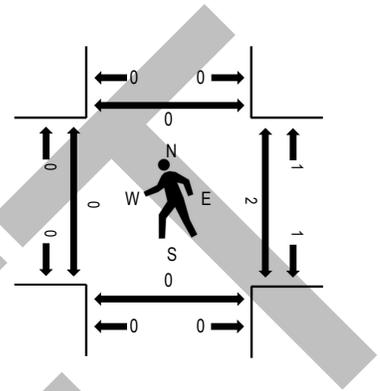
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	WYATT LN Eastbound				WYATT LN Westbound				RED CEDAR ST Northbound				RED CEDAR ST Southbound				Total	Rolling Hour	Pedestrian Crossings				
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North	
7:00 AM	0	0	0	0	0	2	0	1	0	0	16	2	0	0	0	8	0	29	186	0	1	0	0
7:15 AM	0	0	0	0	0	3	0	3	0	0	29	2	0	1	14	0	0	52	224	1	0	1	0
7:30 AM	0	0	0	0	0	4	0	1	0	0	21	3	0	0	32	0	0	61	236	0	1	0	0
7:45 AM	0	0	0	0	0	0	0	1	0	0	14	2	0	1	26	0	0	44	220	0	0	0	0
8:00 AM	0	0	0	0	0	2	0	0	0	0	17	3	0	0	45	0	0	67	198	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	21	1	0	0	42	0	0	64	0	1	0	0	0
8:30 AM	0	0	0	0	0	0	0	1	0	0	18	3	0	0	23	0	0	45	0	1	0	0	0
8:45 AM	0	0	0	0	0	3	0	0	0	0	14	1	0	0	4	0	0	22	0	1	0	0	0

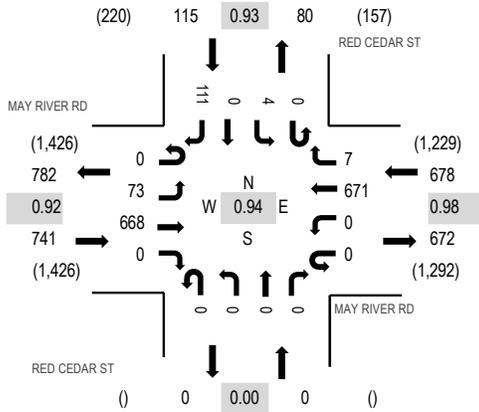
Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lights	0	0	0	0	0	6	0	2	0	0	73	9	0	1	142	0	233
Mediums	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3
Total	0	0	0	0	0	6	0	2	0	0	73	9	0	1	145	0	236

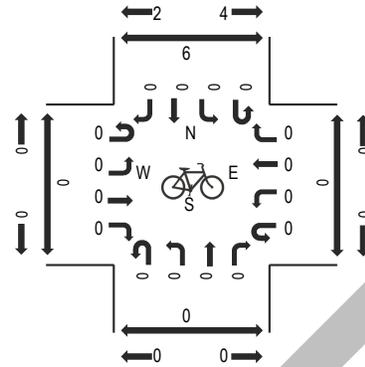
Heavy Vehicle Percentage and Peak Hour Factor

	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Heavy Vehicle %		0.0%				0.0%				0.0%				0.0%			0.0%
Peak Hour Factor	0.00				0.00	0.56	0.00	0.50	0.00	0.00	0.70	0.83	0.00	0.50	0.81	0.00	0.88

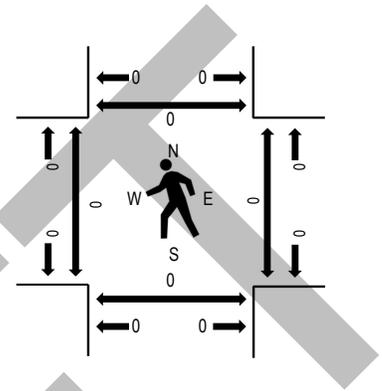
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	MAY RIVER RD Eastbound				MAY RIVER RD Westbound				RED CEDAR ST Northbound				RED CEDAR ST Southbound				Total	Rolling Hour	Pedestrian Crossings				
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North	
4:00 PM	0	17	157	0	0	0	81	1	0	0	0	0	0	0	0	0	20	276	1,341	0	0	0	0
4:15 PM	0	19	156	0	0	0	163	1	0	0	0	0	0	1	0	0	25	365	1,438	0	0	0	0
4:30 PM	0	16	148	0	0	0	140	2	0	0	0	0	0	0	0	0	25	331	1,480	0	0	0	0
4:45 PM	0	16	156	0	0	0	158	5	0	0	0	0	0	2	0	0	32	369	1,524	0	0	0	1
5:00 PM	0	15	153	0	0	0	171	1	0	0	0	0	0	2	0	0	31	373	1,534	0	0	0	0
5:15 PM	0	29	172	0	0	0	167	4	0	0	0	0	0	1	0	0	34	407		0	0	0	0
5:30 PM	0	12	162	0	0	0	172	1	0	0	0	0	0	0	0	0	28	375		0	0	0	0
5:45 PM	0	17	181	0	0	0	161	1	0	0	0	0	0	1	0	0	18	379		0	0	0	0

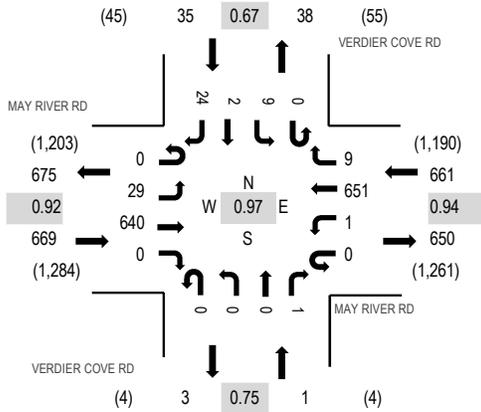
Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lights	0	71	665	0	0	0	668	7	0	0	0	0	0	4	0	109	1,524
Mediums	0	2	3	0	0	0	3	0	0	0	0	0	0	0	0	2	10
Total	0	73	668	0	0	0	671	7	0	0	0	0	0	4	0	111	1,534

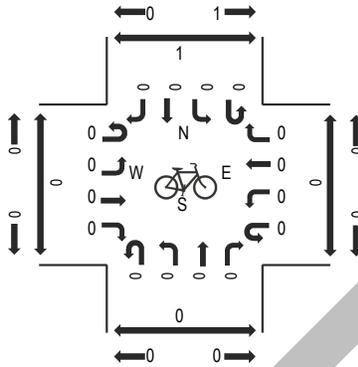
Heavy Vehicle Percentage and Peak Hour Factor

	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Heavy Vehicle %																	
Heavy Vehicle %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Peak Hour Factor		0.92				0.98				0.00				0.93			0.94
Peak Hour Factor	0.00	0.66	0.92	0.00	0.00	0.00	0.98	0.60	0.00	0.00	0.00	0.00	0.00	0.63	0.00	0.92	0.94

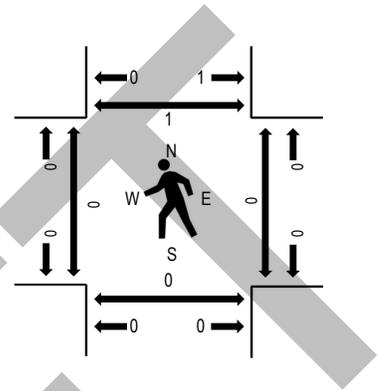
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	MAY RIVER RD Eastbound				MAY RIVER RD Westbound				VERDIER COVE RD Northbound				VERDIER COVE RD Southbound				Total	Rolling Hour	Pedestrian Crossings				
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North	
4:00 PM	0	1	161	0	0	0	87	1	0	0	0	0	0	0	1	0	2	253	1,157	0	0	0	0
4:15 PM	0	1	156	1	0	0	137	0	0	0	0	1	0	0	0	0	2	298	1,245	0	0	0	0
4:30 PM	0	3	138	0	0	0	138	1	0	0	0	1	0	2	0	1	284	1,299	0	0	0	0	
4:45 PM	0	4	150	0	0	0	159	6	0	0	0	1	0	0	0	2	322	1,338	0	0	0	1	
5:00 PM	0	15	136	0	0	0	176	1	0	0	0	0	0	3	0	10	341	1,366	0	0	0	0	
5:15 PM	0	8	168	0	0	0	162	5	0	0	0	1	0	2	1	5	352		0	0	0	0	
5:30 PM	0	5	156	0	0	0	150	3	0	0	0	0	0	3	0	6	323		0	0	0	0	
5:45 PM	0	1	180	0	0	1	163	0	0	0	0	0	0	1	1	3	350		0	0	0	1	

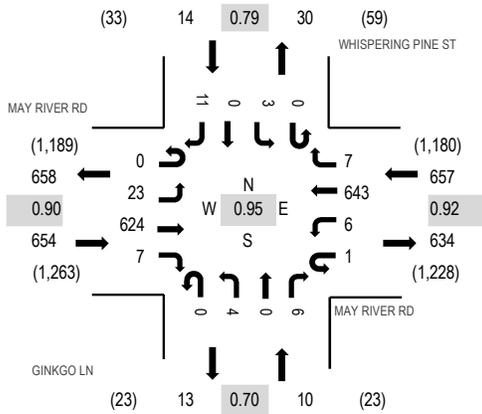
Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total	
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right		
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lights	0	29	637	0	0	1	648	9	0	0	0	1	0	9	2	24	1,360	
Mediums	0	0	3	0	0	0	3	0	0	0	0	0	0	0	0	0	6	
Total	0	29	640	0	0	1	651	9	0	0	0	1	0	9	2	24	1,366	

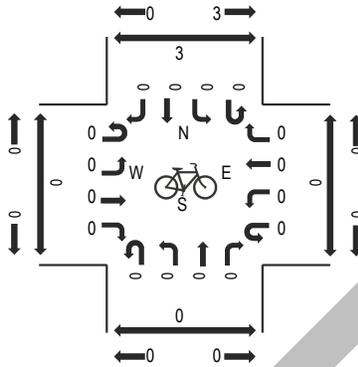
Heavy Vehicle Percentage and Peak Hour Factor

	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Heavy Vehicle %																	0.0%
Heavy Vehicle %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Peak Hour Factor																	0.97
Peak Hour Factor	0.00	0.53	0.89	0.25	0.00	0.25	0.92	0.63	0.00	0.00	0.00	0.75	0.00	0.75	0.50	0.60	0.97

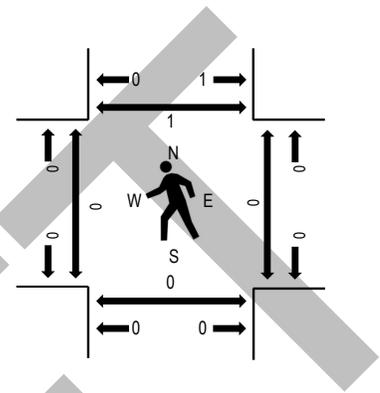
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	MAY RIVER RD Eastbound				MAY RIVER RD Westbound				GINKGO LN Northbound				WHISPERING PINE ST Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
4:00 PM	0	5	154	2	0	0	88	8	0	3	1	1	0	2	0	2	266	1,164	0	0	1	0
4:15 PM	0	2	154	2	0	1	128	3	0	1	0	0	0	2	0	4	297	1,218	0	0	0	0
4:30 PM	0	4	131	4	0	0	134	1	0	2	0	0	0	1	0	4	281	1,266	0	0	0	0
4:45 PM	0	3	148	0	0	1	157	2	0	4	0	1	0	0	0	4	320	1,304	0	0	0	1
5:00 PM	0	5	133	1	1	0	176	1	0	0	0	1	0	0	0	2	320	1,335	0	0	0	0
5:15 PM	0	8	159	2	0	2	161	3	0	1	0	4	0	1	0	4	345		0	0	0	0
5:30 PM	0	6	155	3	0	4	142	0	0	2	0	1	0	2	0	4	319		0	0	0	0
5:45 PM	0	4	177	1	0	0	164	3	0	1	0	0	0	0	0	1	351		0	0	0	1

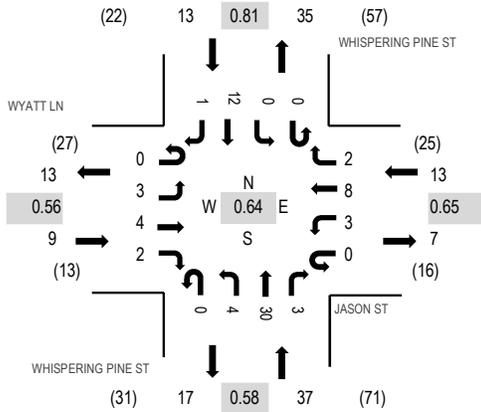
Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lights	0	23	621	7	1	6	640	7	0	4	0	6	0	3	0	11	1,329
Mediums	0	0	3	0	0	0	3	0	0	0	0	0	0	0	0	0	6
Total	0	23	624	7	1	6	643	7	0	4	0	6	0	3	0	11	1,335

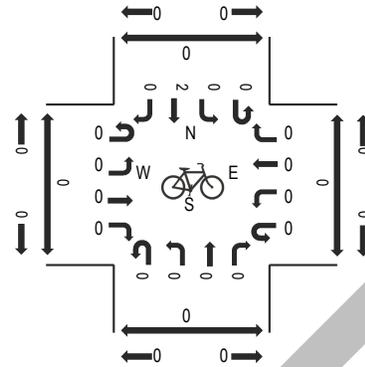
Heavy Vehicle Percentage and Peak Hour Factor

	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Heavy Vehicle %		0.0%			0.0%				0.0%				0.0%				0.0%
Peak Hour Factor	0.00	0.72	0.88	0.50	0.25	0.44	0.91	0.44	0.00	0.63	0.25	0.44	0.00	0.63	0.00	0.88	0.95

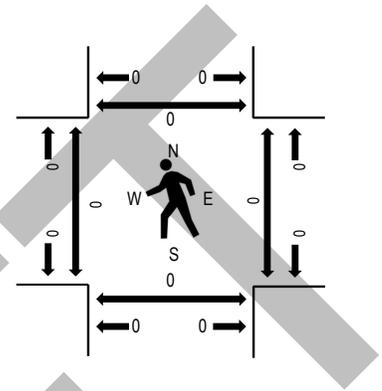
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	WYATT LN Eastbound				JASON ST Westbound				WHISPERING PINE ST Northbound				WHISPERING PINE ST Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
4:00 PM	0	1	2	1	0	2	2	1	0	2	14	0	0	0	2	1	28	72	0	0	0	0
4:15 PM	0	1	1	1	0	1	4	0	0	1	7	1	0	0	4	0	21	58	0	0	0	0
4:30 PM	0	1	0	0	0	0	2	0	0	1	5	1	0	0	3	0	13	57	0	0	0	0
4:45 PM	0	0	1	0	0	0	0	1	0	0	4	1	0	0	3	0	10	57	0	0	0	0
5:00 PM	0	0	1	0	0	1	4	0	0	1	4	1	0	0	2	0	14	59	0	0	0	0
5:15 PM	0	0	0	0	0	1	3	0	0	0	9	3	0	0	4	0	20		0	0	0	0
5:30 PM	0	0	0	3	0	0	2	0	0	0	4	3	0	0	1	0	13		0	0	0	0
5:45 PM	0	0	0	0	0	0	0	1	0	4	4	1	0	0	2	0	12		0	0	0	0

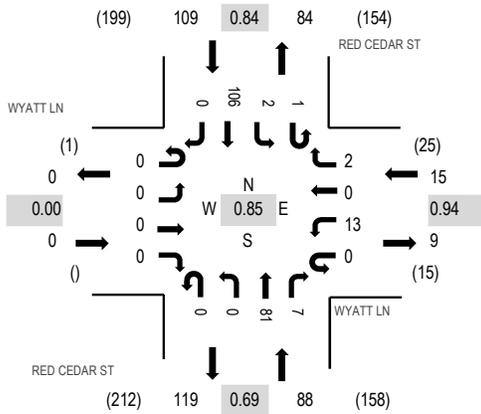
Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lights	0	3	4	2	0	3	8	2	0	4	30	3	0	0	11	1	71
Mediums	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
Total	0	3	4	2	0	3	8	2	0	4	30	3	0	0	12	1	72

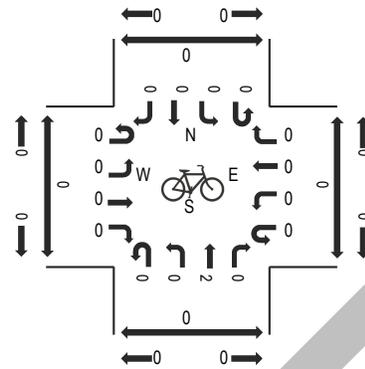
Heavy Vehicle Percentage and Peak Hour Factor

	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Heavy Vehicle %																	
Heavy Vehicle %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Peak Hour Factor		0.56				0.65				0.58				0.81			0.64
Peak Hour Factor	0.00	0.75	0.50	0.25	0.00	0.38	0.63	0.50	0.00	0.31	0.54	0.67	0.00	0.00	0.75	0.25	0.64

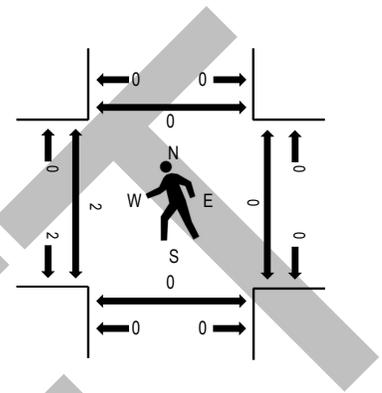
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	WYATT LN Eastbound				WYATT LN Westbound				RED CEDAR ST Northbound				RED CEDAR ST Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
4:00 PM	0	0	0	0	0	0	0	1	0	0	16	3	0	0	22	0	42	186	0	0	0	0
4:15 PM	0	0	0	0	0	2	0	2	0	0	20	0	0	0	25	0	50	200	0	0	0	0
4:30 PM	0	0	0	0	0	2	0	2	0	0	17	2	0	0	18	0	41	212	1	0	0	0
4:45 PM	0	0	0	0	0	3	0	0	0	0	17	3	0	0	30	0	53	211	1	0	0	0
5:00 PM	0	0	0	0	0	4	0	0	0	0	16	1	1	2	32	0	56	196	0	0	0	0
5:15 PM	0	0	0	0	0	4	0	0	0	0	31	1	0	0	26	0	62		0	0	0	0
5:30 PM	0	0	0	0	0	1	0	0	0	0	13	0	0	1	24	1	40		0	1	0	0
5:45 PM	0	0	0	0	0	3	0	1	0	0	17	1	0	0	16	0	38		0	0	0	0

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lights	0	0	0	0	0	13	0	2	0	0	79	7	1	2	105	0	209
Mediums	0	0	0	0	0	0	0	0	0	0	2	0	0	0	1	0	3
Total	0	0	0	0	0	13	0	2	0	0	81	7	1	2	106	0	212

Heavy Vehicle Percentage and Peak Hour Factor

	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Heavy Vehicle %																	
Heavy Vehicle %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Peak Hour Factor		0.00				0.94				0.69				0.84			0.85
Peak Hour Factor	0.00	0.00	0.00	0.00	0.00	0.81	0.00	0.63	0.00	0.00	0.65	0.67	0.25	0.38	0.88	0.25	0.85

Appendix D – Traffic Volume Development Worksheets

DRAFT

ATTACHMENT 5

INTERSECTION TRAFFIC VOLUME DEVELOPMENT

INTERSECTION: May River Road at Red Cedar Street
COUNT DATE: August 19, 2025
AM PEAK HOUR FACTOR: 0.91 **AM FUTURE PEAK HOUR FACTOR:** 0.91
PM PEAK HOUR FACTOR: 0.94 **PM FUTURE PEAK HOUR FACTOR:** 0.94

AM Peak Hour

AM 2025 EXISTING TRAFFIC		EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR			
AM Adjusted Turning Movement Counts ¹		0	75	730	0	0	0	541	7	0	0	0	0	0	4	0	150			
AM Volume Balancing		0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0			
AM 2025 EXISTING TRAFFIC		0	75	730	0	0	0	542	7	0	0	0	0	0	4	0	150			
AM Heavy Vehicle Percentage		2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%			
AM 2030 NO-BUILD TRAFFIC		EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR			
Years To Buildout		5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5			
Annual Growth Rate		3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%			
AM 2030 NO-BUILD TRAFFIC GROWTH		0	14	137	0	0	0	102	1	0	0	0	0	0	1	0	28			
AM 2030 NO-BUILD TRAFFIC		0	89	867	0	0	0	644	8	0	0	0	0	0	5	0	178			
"SITE TRAFFIC DISTRIBUTION"		LAND USE	TYPE		EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Net New Distribution	Entering						45%												4%	
	Exiting									45%	4%									
"AM PROJECT TRIPS"		LAND USE	TYPE		EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Project Trip	Net New				0	0	11	0	0	0	10	1	0	0	0	0	0	1	0	0
					0	0	11	0	0	0	10	1	0	0	0	0	0	1	0	0
AM TOTAL PROJECT TRIPS		0	0	11	0	0	0	0	0	10	1	0	0	0	0	0	0	1	0	0
AM 2030 BUILD-OUT TRAFFIC		0	89	878	0	0	0	654	9	0	0	0	0	0	6	0	178			

PM Peak Hour

PM 2025 EXISTING TRAFFIC		EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR			
PM Adjusted Turning Movement Counts ¹		0	73	668	0	0	0	671	7	0	0	0	0	0	4	0	111			
PM Volume Balancing		0	6	6	0	0	0	0	2	0	0	0	0	0	0	0	4			
PM 2025 EXISTING TRAFFIC		0	79	674	0	0	0	671	9	0	0	0	0	0	4	0	115			
PM Heavy Vehicle Percentage		2%	3%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%			
PM 2030 NO-BUILD TRAFFIC		EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR			
Years To Buildout		5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5			
Annual Growth Rate		3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%			
PM 2030 NO-BUILD TRAFFIC GROWTH		0	15	127	0	0	0	126	2	0	0	0	0	0	1	0	22			
PM 2030 NO-BUILD TRAFFIC		0	94	801	0	0	0	797	11	0	0	0	0	0	5	0	137			
"SITE TRAFFIC DISTRIBUTION"		LAND USE	TYPE		EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Net New Distribution	Entering						45%												4%	
	Exiting									45%	4%									
"PM PROJECT TRIPS"		LAND USE	TYPE		EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Project Trip	Net New				0	0	23	0	0	0	19	2	0	0	0	0	0	2	0	0
					0	0	23	0	0	0	19	2	0	0	0	0	0	2	0	0
PM TOTAL PROJECT TRIPS		0	0	23	0	0	0	0	0	19	2	0	0	0	0	0	0	2	0	0
PM 2030 BUILD-OUT TRAFFIC		0	94	824	0	0	0	816	13	0	0	0	0	0	7	0	137			

ATTACHMENT 5

INTERSECTION TRAFFIC VOLUME DEVELOPMENT

INTERSECTION: May River Road at Verdier Cove Road/Site Access
COUNT DATE: August 19, 2025
AM PEAK HOUR FACTOR: 0.90 **AM FUTURE PEAK HOUR FACTOR:** 0.90
PM PEAK HOUR FACTOR: 0.97 **PM FUTURE PEAK HOUR FACTOR:** 0.95

AM Peak Hour

AM 2025 EXISTING TRAFFIC		EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR			
AM Adjusted Turning Movement Counts ¹		0	1	725	0	0	2	546	1	0	0	0	2	0	0	0	0			
AM Volume Balancing		0	2	6	0	0	0	3	0	0	0	0	0	0	0	0	0			
AM 2025 EXISTING TRAFFIC		0	3	731	0	0	2	549	1	0	0	0	2	0	0	0	0			
AM Heavy Vehicle Percentage		2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%			
AM 2030 NO-BUILD TRAFFIC		EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR			
Years To Buildout		5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5			
Annual Growth Rate		3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%			
AM 2030 NO-BUILD TRAFFIC GROWTH		0	1	137	0	0	0	103	0	0	0	0	0	0	0	0	0			
AM 2030 NO-BUILD TRAFFIC		0	4	868	0	0	2	652	1	0	0	0	2	0	0	0	0			
"SITE TRAFFIC DISTRIBUTION"		LAND USE	TYPE		EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Net New Distribution	Entering					49%					51%									
	Exiting																	51%		49%
"AM PROJECT TRIPS"		LAND USE	TYPE		EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Project Trip	Net New	0	12	0	0	0	0	0	0	0	13	0	0	0	0	0	0	12	0	11
AM TOTAL PROJECT TRIPS		0	12	0	0	0	0	0	0	0	13	0	0	0	0	0	0	12	0	11
AM 2030 BUILD-OUT TRAFFIC		0	16	868	0	0	2	652	14	0	0	0	2	0	12	0	11			

PM Peak Hour

PM 2025 EXISTING TRAFFIC		EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR			
PM Adjusted Turning Movement Counts ¹		0	29	640	0	0	1	651	9	0	0	0	1	0	9	2	24			
PM Volume Balancing		0	0	9	0	0	0	5	0	0	0	0	0	0	0	0	0			
PM 2025 EXISTING TRAFFIC		0	29	649	0	0	1	656	9	0	0	0	1	0	9	2	24			
PM Heavy Vehicle Percentage		2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%			
PM 2030 NO-BUILD TRAFFIC		EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR			
Years To Buildout		5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5			
Annual Growth Rate		3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%			
PM 2030 NO-BUILD TRAFFIC GROWTH		0	5	122	0	0	0	123	2	0	0	0	0	0	2	0	5			
PM 2030 NO-BUILD TRAFFIC		0	34	771	0	0	1	779	11	0	0	0	1	0	11	2	29			
"SITE TRAFFIC DISTRIBUTION"		LAND USE	TYPE		EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Net New Distribution	Entering					49%					51%									
	Exiting																	51%		49%
"PM PROJECT TRIPS"		LAND USE	TYPE		EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Project Trip	Net New	0	25	0	0	0	0	0	0	26	0	0	0	0	21	0	21			
PM TOTAL PROJECT TRIPS		0	25	0	0	0	0	0	0	26	0	0	0	0	21	0	21			
PM 2030 BUILD-OUT TRAFFIC		0	59	771	0	0	1	779	37	0	0	0	1	0	32	2	50			

ATTACHMENT 5

INTERSECTION TRAFFIC VOLUME DEVELOPMENT

INTERSECTION: May River Road at Whispering Pine Street/Ginkgo Lane
COUNT DATE: August 19, 2025
AM PEAK HOUR FACTOR: 0.91 **AM FUTURE PEAK HOUR FACTOR:** 0.91
PM PEAK HOUR FACTOR: 0.95 **PM FUTURE PEAK HOUR FACTOR:** 0.95

AM Peak Hour

AM 2025 EXISTING TRAFFIC		EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR			
AM Adjusted Turning Movement Counts ¹		0	10	710	4	0	3	513	9	0	10	0	5	0	1	0	29			
AM Volume Balancing		0	3	5	1	0	0	0	0	0	0	0	0	0	0	0	0			
AM 2025 EXISTING TRAFFIC		0	13	715	5	0	3	513	9	0	10	0	5	0	1	0	29			
AM Heavy Vehicle Percentage		2%	2%	2%	2%	2%	2%	2%	11%	2%	2%	2%	2%	2%	2%	2%	2%			
AM 2030 NO-BUILD TRAFFIC		EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR			
Years To Buildout		5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5			
Annual Growth Rate		3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%			
AM 2030 NO-BUILD TRAFFIC GROWTH		0	2	134	1	0	1	96	2	0	2	0	1	0	0	0	5			
AM 2030 NO-BUILD TRAFFIC		0	15	849	6	0	4	609	11	0	12	0	6	0	1	0	34			
"SITE TRAFFIC DISTRIBUTION"		LAND USE	TYPE		EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Net New Distribution	Entering										45%			3%						3%
	Exiting		3%	45%	3%															
"AM PROJECT TRIPS"		LAND USE	TYPE		EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Project Trip	Net New	0	1	10	1	0	0	11	0	0	1	0	0	0	0	0	0	0	0	1
AM TOTAL PROJECT TRIPS		0	1	10	1	0	0	11	0	0	1	0	0	0	0	0	0	0	0	1
AM 2030 BUILD-OUT TRAFFIC		0	16	859	7	0	4	620	11	0	13	0	6	0	1	0	35			

PM Peak Hour

PM 2025 EXISTING TRAFFIC		EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR			
PM Adjusted Turning Movement Counts ¹		0	23	624	7	1	6	643	7	0	4	0	6	0	3	0	11			
PM Volume Balancing		0	5	0	0	-1	1	6	2	0	0	0	0	0	1	0	2			
PM 2025 EXISTING TRAFFIC		0	28	624	7	0	7	649	9	0	4	0	6	0	4	0	13			
PM Heavy Vehicle Percentage		2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%			
PM 2030 NO-BUILD TRAFFIC		EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR			
Years To Buildout		5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5			
Annual Growth Rate		3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%			
PM 2030 NO-BUILD TRAFFIC GROWTH		0	5	117	1	0	1	122	2	0	1	0	1	0	1	0	2			
PM 2030 NO-BUILD TRAFFIC		0	33	741	8	0	8	771	11	0	5	0	7	0	5	0	15			
"SITE TRAFFIC DISTRIBUTION"		LAND USE	TYPE		EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Net New Distribution	Entering										45%			3%						3%
	Exiting		3%	45%	3%															
"PM PROJECT TRIPS"		LAND USE	TYPE		EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Project Trip	Net New	0	1	19	1	0	0	22	0	0	2	0	0	0	0	0	0	0	0	2
PM TOTAL PROJECT TRIPS		0	1	19	1	0	0	22	0	0	2	0	0	0	0	0	0	0	0	2
PM 2030 BUILD-OUT TRAFFIC		0	34	760	9	0	8	793	11	0	7	0	7	0	5	0	17			

ATTACHMENT 5

INTERSECTION TRAFFIC VOLUME DEVELOPMENT

INTERSECTION: Jason Street at Whispering Pine Street
COUNT DATE: August 19, 2025
AM PEAK HOUR FACTOR: 0.76 **AM FUTURE PEAK HOUR FACTOR:** 0.76
PM PEAK HOUR FACTOR: 0.64 **PM FUTURE PEAK HOUR FACTOR:** 0.64

AM Peak Hour

AM 2025 EXISTING TRAFFIC		EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR			
AM Adjusted Turning Movement Counts ¹		0	1	8	1	0	4	1	0	0	2	6	7	0	0	24	1			
AM Volume Balancing		0	0	0	0	0	0	0	0	0	1	3	3	0	0	1	0			
AM 2025 EXISTING TRAFFIC		0	1	8	1	0	4	1	0	0	3	9	10	0	0	25	1			
AM Heavy Vehicle Percentage		2%	100%	2%	2%	2%	2%	2%	2%	2%	2%	17%	2%	2%	2%	2%	100%			
AM 2030 NO-BUILD TRAFFIC		EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR			
Years To Buildout		5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5			
Annual Growth Rate		3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%			
AM 2030 NO-BUILD TRAFFIC GROWTH		0	0	2	0	0	1	0	0	0	1	2	2	0	0	5	0			
AM 2030 NO-BUILD TRAFFIC		0	1	10	1	0	5	1	0	0	4	11	12	0	0	30	1			
"SITE TRAFFIC DISTRIBUTION"		LAND USE	TYPE		EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Net New Distribution	Entering																			
	Exiting														3%					3%
"AM PROJECT TRIPS"		LAND USE	TYPE		EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Project Trip	Net New	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0
AM TOTAL PROJECT TRIPS		0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0
AM 2030 BUILD-OUT TRAFFIC		0	1	10	1	0	5	1	0	0	4	12	12	0	0	31	1			

PM Peak Hour

PM 2025 EXISTING TRAFFIC		EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR			
PM Adjusted Turning Movement Counts ¹		0	3	4	2	0	3	8	2	0	4	30	3	0	0	12	1			
PM Volume Balancing		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
PM 2025 EXISTING TRAFFIC		0	3	4	2	0	3	8	2	0	4	30	3	0	0	12	1			
PM Heavy Vehicle Percentage		2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	8%	2%			
PM 2030 NO-BUILD TRAFFIC		EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR			
Years To Buildout		5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5			
Annual Growth Rate		3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%			
PM 2030 NO-BUILD TRAFFIC GROWTH		0	1	1	0	0	1	2	0	0	1	6	1	0	0	2	0			
PM 2030 NO-BUILD TRAFFIC		0	4	5	2	0	4	10	2	0	5	36	4	0	0	14	1			
"SITE TRAFFIC DISTRIBUTION"		LAND USE	TYPE		EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Net New Distribution	Entering																			
	Exiting														3%					3%
"PM PROJECT TRIPS"		LAND USE	TYPE		EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Project Trip	Net New	0	0	0	0	0	0	0	0	0	0	1	0	0	0	2	0			
PM TOTAL PROJECT TRIPS		0	0	0	0	1	0	0	2	0										
PM 2030 BUILD-OUT TRAFFIC		0	4	5	2	0	4	10	2	0	5	37	4	0	0	16	1			

ATTACHMENT 5

INTERSECTION TRAFFIC VOLUME DEVELOPMENT

INTERSECTION: Jason Street at Red Cedar Street
COUNT DATE: August 19, 2025
AM PEAK HOUR FACTOR: 0.88 **AM FUTURE PEAK HOUR FACTOR:** 0.88
PM PEAK HOUR FACTOR: 0.85 **PM FUTURE PEAK HOUR FACTOR:** 0.85

AM Peak Hour

AM 2025 EXISTING TRAFFIC		EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR			
AM Adjusted Turning Movement Counts ¹		0	0	0	0	0	6	0	2	0	0	73	9	0	1	145	0			
AM Volume Balancing		0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0			
AM 2025 EXISTING TRAFFIC		0	0	0	0	0	6	0	2	0	0	73	9	0	1	148	0			
AM Heavy Vehicle Percentage		2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%			
AM 2030 NO-BUILD TRAFFIC		EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR			
Years To Buildout		5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5			
Annual Growth Rate		3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%			
AM 2030 NO-BUILD TRAFFIC GROWTH		0	0	0	0	0	1	0	0	0	0	14	2	0	0	28	0			
AM 2030 NO-BUILD TRAFFIC		0	0	0	0	0	7	0	2	0	0	87	11	0	1	176	0			
"SITE TRAFFIC DISTRIBUTION"		LAND USE	TYPE		EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Net New Distribution	Entering																			4%
	Exiting														4%					
"AM PROJECT TRIPS"		LAND USE	TYPE		EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Project Trip	Net New	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0
AM TOTAL PROJECT TRIPS		0	0	0	1	0	0	0	1	0										
AM 2030 BUILD-OUT TRAFFIC		0	0	0	0	0	7	0	2	0	0	88	11	0	1	177	0	0	0	0

PM Peak Hour

PM 2025 EXISTING TRAFFIC		EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR			
PM Adjusted Turning Movement Counts ¹		0	0	0	0	0	13	0	2	0	0	81	7	1	2	106	0			
PM Volume Balancing		0	0	0	0	0	0	0	0	0	0	0	0	-1	1	0	0			
PM 2025 EXISTING TRAFFIC		0	0	0	0	0	13	0	2	0	0	81	7	0	3	106	0			
PM Heavy Vehicle Percentage		2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%			
PM 2030 NO-BUILD TRAFFIC		EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR			
Years To Buildout		5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5			
Annual Growth Rate		3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%			
PM 2030 NO-BUILD TRAFFIC GROWTH		0	0	0	0	0	2	0	0	0	0	15	1	0	1	20	0			
PM 2030 NO-BUILD TRAFFIC		0	0	0	0	0	15	0	2	0	0	96	8	0	4	126	0			
"SITE TRAFFIC DISTRIBUTION"		LAND USE	TYPE		EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Net New Distribution	Entering																			4%
	Exiting														4%					
"PM PROJECT TRIPS"		LAND USE	TYPE		EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Project Trip	Net New	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0
PM TOTAL PROJECT TRIPS		0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0
PM 2030 BUILD-OUT TRAFFIC		0	0	0	0	0	15	0	2	0	0	98	8	0	4	128	0	0	0	0

Appendix E – Capacity Analysis Worksheets

DRAFT

2025 EXISTING CONDITIONS

DRAFT

HCM 7th TWSC
1: May River Road & Red Cedar Street

1181 May River Road TIA
2025 Existing AM Peak Hour

Intersection						
Int Delay, s/veh	2.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		4	4		4	
Traffic Vol, veh/h	75	730	542	7	4	150
Future Vol, veh/h	75	730	542	7	4	150
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	82	802	596	8	4	165
Major/Minor	Major1	Major2	Minor2			
Conflicting Flow All	603	0	-	0	1566	599
Stage 1	-	-	-	-	599	-
Stage 2	-	-	-	-	967	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	974	-	-	-	122	501
Stage 1	-	-	-	-	548	-
Stage 2	-	-	-	-	369	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	974	-	-	-	104	501
Mov Cap-2 Maneuver	-	-	-	-	104	-
Stage 1	-	-	-	-	465	-
Stage 2	-	-	-	-	369	-
Approach	EB	WB		SB		
HCM Control Delay, s/v	0.84	0		17.48		
HCM LOS				C		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	168	-	-	-	456	
HCM Lane V/C Ratio	0.085	-	-	-	0.371	
HCM Control Delay (s/veh)	9	0	-	-	17.5	
HCM Lane LOS	A	A	-	-	C	
HCM 95th %tile Q(veh)	0.3	-	-	-	1.7	

Intersection												
Int Delay, s/veh	0.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		+			+			+			+	
Traffic Vol, veh/h	3	731	0	2	549	1	0	0	2	0	0	0
Future Vol, veh/h	3	731	0	2	549	1	0	0	2	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None									
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	3	812	0	2	610	1	0	0	2	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	611	0	0	812	0	0	1433	1434	812	1434	1434	611
Stage 1	-	-	-	-	-	-	819	819	-	615	615	-
Stage 2	-	-	-	-	-	-	614	616	-	819	819	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
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	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	968	-	-	814	-	-	112	134	379	112	134	494
Stage 1	-	-	-	-	-	-	370	389	-	479	482	-
Stage 2	-	-	-	-	-	-	479	482	-	370	389	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	968	-	-	814	-	-	111	132	379	110	132	494
Mov Cap-2 Maneuver	-	-	-	-	-	-	111	132	-	110	132	-
Stage 1	-	-	-	-	-	-	367	387	-	477	480	-
Stage 2	-	-	-	-	-	-	477	480	-	365	387	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.04	0.03	14.56	0
HCM LOS			B	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	379	7	-	-	7	-	-	-
HCM Lane V/C Ratio	0.006	0.003	-	-	0.003	-	-	-
HCM Control Delay (s/veh)	14.6	8.7	0	-	9.4	0	-	0
HCM Lane LOS	B	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	-

HCM 7th TWSC
3: Ginkgo Lane/Whispering Pine Street & May River Road

1181 May River Road TIA
2025 Existing AM Peak Hour

Intersection												
Int Delay, s/veh	0.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		+			+			+			+	
Traffic Vol, veh/h	13	715	5	3	513	9	10	0	5	1	0	29
Future Vol, veh/h	13	715	5	3	513	9	10	0	5	1	0	29
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None									
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	11	2	2	2	2	2	2
Mvmt Flow	14	786	5	3	564	10	11	0	5	1	0	32

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	574	0	0	791	0	0	1387	1397	788	1390	1395	569
Stage 1	-	-	-	-	-	-	817	817	-	575	575	-
Stage 2	-	-	-	-	-	-	570	580	-	814	820	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
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	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	999	-	-	829	-	-	120	141	391	120	141	522
Stage 1	-	-	-	-	-	-	370	390	-	503	503	-
Stage 2	-	-	-	-	-	-	506	500	-	372	389	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	999	-	-	829	-	-	109	136	391	114	137	522
Mov Cap-2 Maneuver	-	-	-	-	-	-	109	136	-	114	137	-
Stage 1	-	-	-	-	-	-	361	380	-	500	500	-
Stage 2	-	-	-	-	-	-	473	497	-	357	379	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.15	0.05	33.23	13.3
HCM LOS			D	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	144	32	-	-	10	-	-	467
HCM Lane V/C Ratio	0.115	0.014	-	-	0.004	-	-	0.071
HCM Control Delay (s/veh)	33.2	8.7	0	-	9.4	0	-	13.3
HCM Lane LOS	D	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.4	0	-	-	0	-	-	0.2

HCM 7th TWSC
4: Whispering Pine Street & Jason Street

1181 May River Road TIA
2025 Existing AM Peak Hour

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	1	8	1	4	1	0	3	9	10	0	25	1
Future Vol, veh/h	1	8	1	4	1	0	3	9	10	0	25	1
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									
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	76	76	76	76	76	76	76	76	76	76	76	76
Heavy Vehicles, %	100	2	2	2	2	2	2	17	2	2	2	100
Mvmt Flow	1	11	1	5	1	0	4	12	13	0	33	1

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	54	66	34	64	61	18	34	0	0	25	0	0
Stage 1	34	34	-	26	26	-	-	-	-	-	-	-
Stage 2	20	33	-	38	34	-	-	-	-	-	-	-
Critical Hdwy	8.1	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	7.1	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	7.1	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	4.4	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	749	824	1040	929	830	1060	1577	-	-	1589	-	-
Stage 1	782	867	-	991	873	-	-	-	-	-	-	-
Stage 2	796	868	-	977	867	-	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	746	822	1040	914	828	1060	1577	-	-	1589	-	-
Mov Cap-2 Maneuver	746	822	-	914	828	-	-	-	-	-	-	-
Stage 1	782	867	-	989	871	-	-	-	-	-	-	-
Stage 2	793	865	-	964	867	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	9.4	9.05	0.99	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	222	-	-	831	896	1589	-
HCM Lane V/C Ratio	0.003	-	-	0.016	0.007	-	-
HCM Control Delay (s/veh)	7.3	0	-	9.4	9	0	-
HCM Lane LOS	A	A	-	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0	0	-

HCM 7th TWSC
5: Red Cedar Street & Jason Street

1181 May River Road TIA
2025 Existing AM Peak Hour

Intersection						
Int Delay, s/veh	0.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			T
Traffic Vol, veh/h	6	2	73	9	1	148
Future Vol, veh/h	6	2	73	9	1	148
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	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	7	2	83	10	1	168
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	259	88	0	0	93	0
Stage 1	88	-	-	-	-	-
Stage 2	170	-	-	-	-	-
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	730	970	-	-	1501	-
Stage 1	935	-	-	-	-	-
Stage 2	859	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	730	970	-	-	1501	-
Mov Cap-2 Maneuver	730	-	-	-	-	-
Stage 1	935	-	-	-	-	-
Stage 2	859	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s/v	9.68	0		0.05		
HCM LOS	A					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	778	12	-	
HCM Lane V/C Ratio	-	-	0.012	0.001	-	
HCM Control Delay (s/veh)	-	-	9.7	7.4	0	
HCM Lane LOS	-	-	A	A	A	
HCM 95th %tile Q(veh)	-	-	0	0	-	

HCM 7th TWSC
1: May River Road & Red Cedar Street

1181 May River Road TIA
2025 Existing PM Peak Hour

Intersection						
Int Delay, s/veh	1.9					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		4	4		4	
Traffic Vol, veh/h	79	674	671	9	4	115
Future Vol, veh/h	79	674	671	9	4	115
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	3	2	2	2	2	2
Mvmt Flow	84	717	714	10	4	122
Major/Minor	Major1	Major2	Minor2			
Conflicting Flow All	723	0	-	0	1604	719
Stage 1	-	-	-	-	719	-
Stage 2	-	-	-	-	885	-
Critical Hdwy	4.13	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.227	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	874	-	-	-	116	429
Stage 1	-	-	-	-	483	-
Stage 2	-	-	-	-	403	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	874	-	-	-	98	429
Mov Cap-2 Maneuver	-	-	-	-	98	-
Stage 1	-	-	-	-	406	-
Stage 2	-	-	-	-	403	-
Approach	EB	WB		SB		
HCM Control Delay, s/v	1	0		18.88		
HCM LOS				C		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	189	-	-	-	-	385
HCM Lane V/C Ratio	0.096	-	-	-	-	0.329
HCM Control Delay (s/veh)	9.6	0	-	-	-	18.9
HCM Lane LOS	A	A	-	-	-	C
HCM 95th %tile Q(veh)	0.3	-	-	-	-	1.4

Intersection												
Int Delay, s/veh	0.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		+			+			+			+	
Traffic Vol, veh/h	29	649	0	1	656	9	0	0	1	9	2	24
Future Vol, veh/h	29	649	0	1	656	9	0	0	1	9	2	24
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None									
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	30	669	0	1	676	9	0	0	1	9	2	25

Major/Minor	Major1		Major2		Minor1		Minor2					
Conflicting Flow All	686	0	0	669	0	0	1408	1416	669	1412	1412	681
Stage 1	-	-	-	-	-	-	729	729	-	683	683	-
Stage 2	-	-	-	-	-	-	679	688	-	729	729	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
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	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	908	-	-	921	-	-	116	137	458	116	138	450
Stage 1	-	-	-	-	-	-	414	428	-	439	449	-
Stage 2	-	-	-	-	-	-	441	447	-	414	428	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	908	-	-	921	-	-	102	130	458	109	131	450
Mov Cap-2 Maneuver	-	-	-	-	-	-	102	130	-	109	131	-
Stage 1	-	-	-	-	-	-	393	406	-	438	448	-
Stage 2	-	-	-	-	-	-	414	446	-	392	406	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.39	0.01	12.89	23.39
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	458	77	-	-	3	-	-	232
HCM Lane V/C Ratio	0.002	0.033	-	-	0.001	-	-	0.156
HCM Control Delay (s/veh)	12.9	9.1	0	-	8.9	0	-	23.4
HCM Lane LOS	B	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0	0.1	-	-	0	-	-	0.5

HCM 7th TWSC
3: Ginkgo Lane/Whispering Pine Street & May River Road

1181 May River Road TIA
2025 Existing PM Peak Hour

Intersection												
Int Delay, s/veh	0.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		+			+			+			+	
Traffic Vol, veh/h	28	624	7	7	649	9	4	0	6	4	0	13
Future Vol, veh/h	28	624	7	7	649	9	4	0	6	4	0	13
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None									
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	29	657	7	7	683	9	4	0	6	4	0	14

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	693	0	0	664	0	0	1417	1427	661	1418	1426	688
Stage 1	-	-	-	-	-	-	719	719	-	703	703	-
Stage 2	-	-	-	-	-	-	698	707	-	716	723	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
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	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	903	-	-	925	-	-	115	135	463	114	135	446
Stage 1	-	-	-	-	-	-	419	432	-	428	440	-
Stage 2	-	-	-	-	-	-	431	438	-	421	431	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	903	-	-	925	-	-	104	126	463	106	127	446
Mov Cap-2 Maneuver	-	-	-	-	-	-	104	126	-	106	127	-
Stage 1	-	-	-	-	-	-	398	410	-	423	434	-
Stage 2	-	-	-	-	-	-	412	432	-	394	408	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.39	0.09	24.58	20.26
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	194	76	-	-	19	-	-	254
HCM Lane V/C Ratio	0.054	0.033	-	-	0.008	-	-	0.071
HCM Control Delay (s/veh)	24.6	9.1	0	-	8.9	0	-	20.3
HCM Lane LOS	C	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0.2	0.1	-	-	0	-	-	0.2

HCM 7th TWSC
4: Whispering Pine Street & Jason Street

1181 May River Road TIA
2025 Existing PM Peak Hour

Intersection												
Int Delay, s/veh	3.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		+			+			+			+	
Traffic Vol, veh/h	3	4	2	3	8	2	4	30	3	0	12	1
Future Vol, veh/h	3	4	2	3	8	2	4	30	3	0	12	1
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									
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	64	64	64	64	64	64	64	64	64	64	64	64
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	8	2
Mvmt Flow	5	6	3	5	13	3	6	47	5	0	19	2

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	85	84	20	84	82	49	20	0	0	52	0	0
Stage 1	20	20	-	62	62	-	-	-	-	-	-	-
Stage 2	66	64	-	22	20	-	-	-	-	-	-	-
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	901	807	1058	903	808	1019	1596	-	-	1555	-	-
Stage 1	999	879	-	949	843	-	-	-	-	-	-	-
Stage 2	945	842	-	997	878	-	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	881	803	1058	890	805	1019	1596	-	-	1555	-	-
Mov Cap-2 Maneuver	881	803	-	890	805	-	-	-	-	-	-	-
Stage 1	999	879	-	946	840	-	-	-	-	-	-	-
Stage 2	924	838	-	987	878	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	9.18	9.33	0.79	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	191	-	-	876	851	1555	-
HCM Lane V/C Ratio	0.004	-	-	0.016	0.024	-	-
HCM Control Delay (s/veh)	7.3	0	-	9.2	9.3	0	-
HCM Lane LOS	A	A	-	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0.1	0	-

HCM 7th TWSC
5: Red Cedar Street & Jason Street

1181 May River Road TIA
2025 Existing PM Peak Hour

Intersection						
Int Delay, s/veh	0.8					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			T
Traffic Vol, veh/h	13	2	81	7	3	106
Future Vol, veh/h	13	2	81	7	3	106
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	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	15	2	95	8	4	125
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	231	99	0	0	104	0
Stage 1	99	-	-	-	-	-
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	757	956	-	-	1488	-
Stage 1	925	-	-	-	-	-
Stage 2	894	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	755	956	-	-	1488	-
Mov Cap-2 Maneuver	755	-	-	-	-	-
Stage 1	925	-	-	-	-	-
Stage 2	892	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s/v	9.74	0		0.2		
HCM LOS	A					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	777	50	-	
HCM Lane V/C Ratio	-	-	0.023	0.002	-	
HCM Control Delay (s/veh)	-	-	9.7	7.4	0	
HCM Lane LOS	-	-	A	A	A	
HCM 95th %tile Q(veh)	-	-	0.1	0	-	

2030 NO BUILD CONDITIONS

DRAFT

HCM 7th TWSC
1: May River Road & Red Cedar Street

1181 May River Road TIA
2030 No-Build AM Peak Hour

Intersection						
Int Delay, s/veh	3.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		4	4		4	
Traffic Vol, veh/h	89	867	644	8	5	178
Future Vol, veh/h	89	867	644	8	5	178
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	98	953	708	9	5	196
Major/Minor	Major1	Major2	Minor2			
Conflicting Flow All	716	0	-	0	1860	712
Stage 1	-	-	-	-	712	-
Stage 2	-	-	-	-	1148	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	884	-	-	-	80	432
Stage 1	-	-	-	-	486	-
Stage 2	-	-	-	-	302	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	884	-	-	-	62	432
Mov Cap-2 Maneuver	-	-	-	-	62	-
Stage 1	-	-	-	-	372	-
Stage 2	-	-	-	-	302	-
Approach	EB	WB		SB		
HCM Control Delay, s/v	0.89	0		25.58		
HCM LOS				D		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	168	-	-	-	371	
HCM Lane V/C Ratio	0.111	-	-	-	0.542	
HCM Control Delay (s/veh)	9.6	0	-	-	25.6	
HCM Lane LOS	A	A	-	-	D	
HCM 95th %tile Q(veh)	0.4	-	-	-	3.1	

Intersection												
Int Delay, s/veh	0.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		+			+			+			+	
Traffic Vol, veh/h	4	868	0	2	652	1	0	0	2	0	0	0
Future Vol, veh/h	4	868	0	2	652	1	0	0	2	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None									
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	4	964	0	2	724	1	0	0	2	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	726	0	0	964	0	0	1702	1703	964	1703	1703	725
Stage 1	-	-	-	-	-	-	973	973	-	729	729	-
Stage 2	-	-	-	-	-	-	729	730	-	973	973	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
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	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	877	-	-	714	-	-	72	92	309	72	92	425
Stage 1	-	-	-	-	-	-	303	330	-	414	428	-
Stage 2	-	-	-	-	-	-	414	428	-	303	330	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	877	-	-	714	-	-	71	90	309	71	90	425
Mov Cap-2 Maneuver	-	-	-	-	-	-	71	90	-	71	90	-
Stage 1	-	-	-	-	-	-	300	327	-	412	426	-
Stage 2	-	-	-	-	-	-	412	425	-	298	327	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.04	0.03	16.72	0
HCM LOS			C	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	309	8	-	-	5	-	-	-
HCM Lane V/C Ratio	0.007	0.005	-	-	0.003	-	-	-
HCM Control Delay (s/veh)	16.7	9.1	0	-	10.1	0	-	0
HCM Lane LOS	C	A	A	-	B	A	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	-

HCM 7th TWSC
3: Ginkgo Lane/Whispering Pine Street & May River Road

1181 May River Road TIA
2030 No-Build AM Peak Hour

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	15	849	6	4	609	11	12	0	6	1	0	34
Future Vol, veh/h	15	849	6	4	609	11	12	0	6	1	0	34
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None									
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	11	2	2	2	2	2	2
Mvmt Flow	16	933	7	4	669	12	13	0	7	1	0	37

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	681	0	0	940	0	0	1647	1659	936	1650	1657	675
Stage 1	-	-	-	-	-	-	969	969	-	684	684	-
Stage 2	-	-	-	-	-	-	678	690	-	966	973	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
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	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	911	-	-	729	-	-	79	97	321	79	98	454
Stage 1	-	-	-	-	-	-	305	332	-	439	449	-
Stage 2	-	-	-	-	-	-	442	446	-	306	331	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	911	-	-	729	-	-	69	93	321	74	93	454
Mov Cap-2 Maneuver	-	-	-	-	-	-	69	93	-	74	93	-
Stage 1	-	-	-	-	-	-	293	319	-	434	444	-
Stage 2	-	-	-	-	-	-	402	442	-	288	318	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.16	0.06	53.38	15.08
HCM LOS			F	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	94	31	-	-	11	-	-	395
HCM Lane V/C Ratio	0.211	0.018	-	-	0.006	-	-	0.097
HCM Control Delay (s/veh)	53.4	9	0	-	10	0	-	15.1
HCM Lane LOS	F	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0.7	0.1	-	-	0	-	-	0.3

HCM 7th TWSC
4: Whispering Pine Street & Jason Street

1181 May River Road TIA
2030 No-Build AM Peak Hour

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	1	10	1	5	1	0	4	11	12	0	30	1
Future Vol, veh/h	1	10	1	5	1	0	4	11	12	0	30	1
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									
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	76	76	76	76	76	76	76	76	76	76	76	76
Heavy Vehicles, %	100	2	2	2	2	2	2	17	2	2	2	100
Mvmt Flow	1	13	1	7	1	0	5	14	16	0	39	1

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	66	81	40	79	74	22	41	0	0	30	0	0
Stage 1	40	40	-	33	33	-	-	-	-	-	-	-
Stage 2	26	41	-	46	41	-	-	-	-	-	-	-
Critical Hdwy	8.1	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	7.1	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	7.1	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	4.4	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	734	809	1031	910	817	1055	1569	-	-	1582	-	-
Stage 1	775	862	-	983	868	-	-	-	-	-	-	-
Stage 2	790	861	-	968	861	-	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	731	807	1031	891	814	1055	1569	-	-	1582	-	-
Mov Cap-2 Maneuver	731	807	-	891	814	-	-	-	-	-	-	-
Stage 1	775	862	-	980	865	-	-	-	-	-	-	-
Stage 2	786	858	-	952	861	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	9.51	9.14	1.08	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	241	-	-	814	877	1582	-
HCM Lane V/C Ratio	0.003	-	-	0.019	0.009	-	-
HCM Control Delay (s/veh)	7.3	0	-	9.5	9.1	0	-
HCM Lane LOS	A	A	-	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0	0	-

HCM 7th TWSC
5: Red Cedar Street & Jason Street

1181 May River Road TIA
2030 No-Build AM Peak Hour

Intersection						
Int Delay, s/veh	0.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			T
Traffic Vol, veh/h	7	2	87	11	1	176
Future Vol, veh/h	7	2	87	11	1	176
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	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	8	2	99	13	1	200
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	307	105	0	0	111	0
Stage 1	105	-	-	-	-	-
Stage 2	202	-	-	-	-	-
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	685	949	-	-	1478	-
Stage 1	919	-	-	-	-	-
Stage 2	832	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	684	949	-	-	1478	-
Mov Cap-2 Maneuver	684	-	-	-	-	-
Stage 1	919	-	-	-	-	-
Stage 2	831	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s/v10.01		0		0.04		
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	729	10	-	
HCM Lane V/C Ratio	-	-	0.014	0.001	-	
HCM Control Delay (s/veh)	-	-	10	7.4	0	
HCM Lane LOS	-	-	B	A	A	
HCM 95th %tile Q(veh)	-	-	0	0	-	

HCM 7th TWSC
1: May River Road & Red Cedar Street

1181 May River Road TIA
2030 No-Build PM Peak Hour

Intersection						
Int Delay, s/veh	2.7					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		4	4		4	
Traffic Vol, veh/h	94	801	797	11	5	137
Future Vol, veh/h	94	801	797	11	5	137
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	3	2	2	2	2	2
Mvmt Flow	100	852	848	12	5	146
Major/Minor	Major1	Major2	Minor2			
Conflicting Flow All	860	0	-	0	1906	854
Stage 1	-	-	-	-	854	-
Stage 2	-	-	-	-	1052	-
Critical Hdwy	4.13	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.227	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	777	-	-	-	75	359
Stage 1	-	-	-	-	417	-
Stage 2	-	-	-	-	336	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	777	-	-	-	57	359
Mov Cap-2 Maneuver	-	-	-	-	57	-
Stage 1	-	-	-	-	315	-
Stage 2	-	-	-	-	336	-
Approach	EB	WB		SB		
HCM Control Delay, s/v	1.08	0		28.25		
HCM LOS				D		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	189	-	-	-	302	
HCM Lane V/C Ratio	0.129	-	-	-	0.5	
HCM Control Delay (s/veh)	10.3	0	-	-	28.2	
HCM Lane LOS	B	A	-	-	D	
HCM 95th %tile Q(veh)	0.4	-	-	-	2.6	

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	34	771	0	1	779	11	0	0	1	11	2	29
Future Vol, veh/h	34	771	0	1	779	11	0	0	1	11	2	29
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None									
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	36	812	0	1	820	12	0	0	1	12	2	31

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	832	0	0	812	0	0	1706	1717	812	1711	1711	826
Stage 1	-	-	-	-	-	-	883	883	-	828	828	-
Stage 2	-	-	-	-	-	-	823	834	-	883	883	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
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	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	801	-	-	815	-	-	72	90	379	71	91	372
Stage 1	-	-	-	-	-	-	340	364	-	365	386	-
Stage 2	-	-	-	-	-	-	368	383	-	340	364	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	801	-	-	815	-	-	59	82	379	65	83	372
Mov Cap-2 Maneuver	-	-	-	-	-	-	59	82	-	65	83	-
Stage 1	-	-	-	-	-	-	313	334	-	364	385	-
Stage 2	-	-	-	-	-	-	335	382	-	312	334	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.41	0.01	14.52	37.17
HCM LOS			B	E

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	379	76	-	-	2	-	-	155
HCM Lane V/C Ratio	0.003	0.045	-	-	0.001	-	-	0.285
HCM Control Delay (s/veh)	14.5	9.7	0	-	9.4	0	-	37.2
HCM Lane LOS	B	A	A	-	A	A	-	E
HCM 95th %tile Q(veh)	0	0.1	-	-	0	-	-	1.1

HCM 7th TWSC
3: Ginkgo Lane/Whispering Pine Street & May River Road

1181 May River Road TIA
2030 No-Build PM Peak Hour

Intersection												
Int Delay, s/veh	0.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		+			+			+			+	
Traffic Vol, veh/h	33	741	8	8	771	11	5	0	7	5	0	15
Future Vol, veh/h	33	741	8	8	771	11	5	0	7	5	0	15
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None									
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	35	780	8	8	812	12	5	0	7	5	0	16

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	823	0	0	788	0	0	1682	1694	784	1684	1692	817
Stage 1	-	-	-	-	-	-	854	854	-	834	834	-
Stage 2	-	-	-	-	-	-	828	840	-	849	858	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
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	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	807	-	-	831	-	-	75	93	393	75	93	376
Stage 1	-	-	-	-	-	-	353	375	-	362	383	-
Stage 2	-	-	-	-	-	-	365	381	-	355	374	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	807	-	-	831	-	-	65	84	393	66	84	376
Mov Cap-2 Maneuver	-	-	-	-	-	-	65	84	-	66	84	-
Stage 1	-	-	-	-	-	-	326	347	-	356	376	-
Stage 2	-	-	-	-	-	-	343	374	-	322	345	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.41	0.09	36.55	28.57
HCM LOS			E	D

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	127	76	-	-	18	-	-	174
HCM Lane V/C Ratio	0.1	0.043	-	-	0.01	-	-	0.121
HCM Control Delay (s/veh)	36.6	9.7	0	-	9.4	0	-	28.6
HCM Lane LOS	E	A	A	-	A	A	-	D
HCM 95th %tile Q(veh)	0.3	0.1	-	-	0	-	-	0.4

HCM 7th TWSC
4: Whispering Pine Street & Jason Street

1181 May River Road TIA
2030 No-Build PM Peak Hour

Intersection												
Int Delay, s/veh	3.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		+			+			+			+	
Traffic Vol, veh/h	4	5	2	4	10	2	5	36	4	0	14	1
Future Vol, veh/h	4	5	2	4	10	2	5	36	4	0	14	1
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									
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	64	64	64	64	64	64	64	64	64	64	64	64
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	8	2
Mvmt Flow	6	8	3	6	16	3	8	56	6	0	22	2

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	102	101	23	101	98	59	23	0	0	63	0	0
Stage 1	23	23	-	75	75	-	-	-	-	-	-	-
Stage 2	80	78	-	26	23	-	-	-	-	-	-	-
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	878	789	1054	880	792	1006	1592	-	-	1540	-	-
Stage 1	996	876	-	934	833	-	-	-	-	-	-	-
Stage 2	929	830	-	992	876	-	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	854	785	1054	865	788	1006	1592	-	-	1540	-	-
Mov Cap-2 Maneuver	854	785	-	865	788	-	-	-	-	-	-	-
Stage 1	996	876	-	929	828	-	-	-	-	-	-	-
Stage 2	904	826	-	980	876	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	9.33	9.48	0.81	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	196	-	-	849	829	1540	-
HCM Lane V/C Ratio	0.005	-	-	0.02	0.03	-	-
HCM Control Delay (s/veh)	7.3	0	-	9.3	9.5	0	-
HCM Lane LOS	A	A	-	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.1	0	-

HCM 7th TWSC
5: Red Cedar Street & Jason Street

1181 May River Road TIA
2030 No-Build PM Peak Hour

Intersection						
Int Delay, s/veh	0.8					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			T
Traffic Vol, veh/h	15	2	96	8	4	126
Future Vol, veh/h	15	2	96	8	4	126
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	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	18	2	113	9	5	148
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	275	118	0	0	122	0
Stage 1	118	-	-	-	-	-
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	714	934	-	-	1465	-
Stage 1	907	-	-	-	-	-
Stage 2	871	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	712	934	-	-	1465	-
Mov Cap-2 Maneuver	712	-	-	-	-	-
Stage 1	907	-	-	-	-	-
Stage 2	868	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s/v10.05		0		0.23		
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	732	55	-	
HCM Lane V/C Ratio	-	-	0.027	0.003	-	
HCM Control Delay (s/veh)	-	-	10.1	7.5	0	
HCM Lane LOS	-	-	B	A	A	
HCM 95th %tile Q(veh)	-	-	0.1	0	-	

2030 BUILD CONDITIONS

DRAFT

HCM 7th TWSC
1: May River Road & Red Cedar Street

1181 May River Road TIA
2030 Build AM Peak Hour

Intersection						
Int Delay, s/veh	3.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		4	4		4	
Traffic Vol, veh/h	89	878	654	9	6	178
Future Vol, veh/h	89	878	654	9	6	178
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	98	965	719	10	7	196
Major/Minor	Major1	Major2	Minor2			
Conflicting Flow All	729	0	-	0	1884	724
Stage 1	-	-	-	-	724	-
Stage 2	-	-	-	-	1160	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	875	-	-	-	78	426
Stage 1	-	-	-	-	480	-
Stage 2	-	-	-	-	298	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	875	-	-	-	59	426
Mov Cap-2 Maneuver	-	-	-	-	59	-
Stage 1	-	-	-	-	365	-
Stage 2	-	-	-	-	298	-
Approach	EB	WB		SB		
HCM Control Delay, s/v	0.89	0		27.86		
HCM LOS				D		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	166	-	-	-	354	
HCM Lane V/C Ratio	0.112	-	-	-	0.571	
HCM Control Delay (s/veh)	9.6	0	-	-	27.9	
HCM Lane LOS	A	A	-	-	D	
HCM 95th %tile Q(veh)	0.4	-	-	-	3.4	

Intersection												
Int Delay, s/veh	0.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		+			+			+			+	
Traffic Vol, veh/h	16	868	0	2	652	14	0	0	2	12	0	11
Future Vol, veh/h	16	868	0	2	652	14	0	0	2	12	0	11
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None									
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	18	964	0	2	724	16	0	0	2	13	0	12

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	740	0	0	964	0	0	1729	1744	964	1737	1737	732
Stage 1	-	-	-	-	-	-	1000	1000	-	737	737	-
Stage 2	-	-	-	-	-	-	729	744	-	1000	1000	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
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	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	867	-	-	714	-	-	69	86	309	69	87	421
Stage 1	-	-	-	-	-	-	293	321	-	410	425	-
Stage 2	-	-	-	-	-	-	414	421	-	293	321	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	867	-	-	714	-	-	64	82	309	65	83	421
Mov Cap-2 Maneuver	-	-	-	-	-	-	64	82	-	65	83	-
Stage 1	-	-	-	-	-	-	280	307	-	408	422	-
Stage 2	-	-	-	-	-	-	400	419	-	278	307	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.17	0.03	16.72	48.02
HCM LOS			C	E

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	309	33	-	-	5	-	-	109
HCM Lane V/C Ratio	0.007	0.021	-	-	0.003	-	-	0.235
HCM Control Delay (s/veh)	16.7	9.2	0	-	10.1	0	-	48
HCM Lane LOS	C	A	A	-	B	A	-	E
HCM 95th %tile Q(veh)	0	0.1	-	-	0	-	-	0.9

HCM 7th TWSC
3: Ginkgo Lane/Whispering Pine Street & May River Road

1181 May River Road TIA
2030 Build AM Peak Hour

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	16	859	7	4	620	11	13	0	6	1	0	35
Future Vol, veh/h	16	859	7	4	620	11	13	0	6	1	0	35
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None									
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	11	2	2	2	2	2	2
Mvmt Flow	18	944	8	4	681	12	14	0	7	1	0	38

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	693	0	0	952	0	0	1673	1685	948	1675	1683	687
Stage 1	-	-	-	-	-	-	983	983	-	696	696	-
Stage 2	-	-	-	-	-	-	690	702	-	979	987	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
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	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	902	-	-	722	-	-	76	94	316	76	94	447
Stage 1	-	-	-	-	-	-	299	327	-	432	443	-
Stage 2	-	-	-	-	-	-	435	440	-	301	326	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	902	-	-	722	-	-	66	89	316	70	89	447
Mov Cap-2 Maneuver	-	-	-	-	-	-	66	89	-	70	89	-
Stage 1	-	-	-	-	-	-	287	313	-	428	439	-
Stage 2	-	-	-	-	-	-	394	436	-	282	312	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.16	0.06	58.31	15.3
HCM LOS			F	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	88	33	-	-	11	-	-	389
HCM Lane V/C Ratio	0.238	0.019	-	-	0.006	-	-	0.102
HCM Control Delay (s/veh)	58.3	9.1	0	-	10	0	-	15.3
HCM Lane LOS	F	A	A	-	B	A	-	C
HCM 95th %tile Q(veh)	0.8	0.1	-	-	0	-	-	0.3

HCM 7th TWSC
4: Whispering Pine Street & Jason Street

1181 May River Road TIA
2030 Build AM Peak Hour

Intersection												
Int Delay, s/veh	2.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		+			+			+			+	
Traffic Vol, veh/h	1	10	1	5	1	0	4	12	12	0	31	1
Future Vol, veh/h	1	10	1	5	1	0	4	12	12	0	31	1
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									
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	76	76	76	76	76	76	76	76	76	76	76	76
Heavy Vehicles, %	100	2	2	2	2	2	2	17	2	2	2	100
Mvmt Flow	1	13	1	7	1	0	5	16	16	0	41	1

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	68	84	41	82	76	24	42	0	0	32	0	0
Stage 1	41	41	-	34	34	-	-	-	-	-	-	-
Stage 2	27	42	-	47	42	-	-	-	-	-	-	-
Critical Hdwy	8.1	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	7.1	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	7.1	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	4.4	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	731	807	1029	906	814	1053	1567	-	-	1581	-	-
Stage 1	773	860	-	982	867	-	-	-	-	-	-	-
Stage 2	789	860	-	966	860	-	-	-	-	-	-	-
Platoon blocked, %												
Mov Cap-1 Maneuver	727	804	1029	887	811	1053	1567	-	-	1581	-	-
Mov Cap-2 Maneuver	727	804	-	887	811	-	-	-	-	-	-	-
Stage 1	773	860	-	978	864	-	-	-	-	-	-	-
Stage 2	785	857	-	950	860	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	9.52	9.16	1.04	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	234	-	-	812	873	1581	-	-
HCM Lane V/C Ratio	0.003	-	-	0.019	0.009	-	-	-
HCM Control Delay (s/veh)	7.3	0	-	9.5	9.2	0	-	-
HCM Lane LOS	A	A	-	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0	0	-	-

HCM 7th TWSC
5: Red Cedar Street & Jason Street

1181 May River Road TIA
2030 Build AM Peak Hour

Intersection						
Int Delay, s/veh	0.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			T
Traffic Vol, veh/h	7	2	88	11	1	177
Future Vol, veh/h	7	2	88	11	1	177
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	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	8	2	100	13	1	201
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	310	106	0	0	113	0
Stage 1	106	-	-	-	-	-
Stage 2	203	-	-	-	-	-
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	683	948	-	-	1477	-
Stage 1	918	-	-	-	-	-
Stage 2	831	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	682	948	-	-	1477	-
Mov Cap-2 Maneuver	682	-	-	-	-	-
Stage 1	918	-	-	-	-	-
Stage 2	830	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s/v10.02		0		0.04		
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	727	10	-	
HCM Lane V/C Ratio	-	-	0.014	0.001	-	
HCM Control Delay (s/veh)	-	-	10	7.4	0	
HCM Lane LOS	-	-	B	A	A	
HCM 95th %tile Q(veh)	-	-	0	0	-	

HCM 7th TWSC
1: May River Road & Red Cedar Street

1181 May River Road TIA
2030 Build PM Peak Hour

Intersection						
Int Delay, s/veh	3.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		4	4		4	
Traffic Vol, veh/h	94	824	816	13	7	137
Future Vol, veh/h	94	824	816	13	7	137
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	3	2	2	2	2	2
Mvmt Flow	100	877	868	14	7	146
Major/Minor	Major1	Major2	Minor2			
Conflicting Flow All	882	0	-	0	1952	875
Stage 1	-	-	-	-	875	-
Stage 2	-	-	-	-	1077	-
Critical Hdwy	4.13	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.227	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	763	-	-	-	71	349
Stage 1	-	-	-	-	408	-
Stage 2	-	-	-	-	327	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	763	-	-	-	53	349
Mov Cap-2 Maneuver	-	-	-	-	53	-
Stage 1	-	-	-	-	304	-
Stage 2	-	-	-	-	327	-
Approach	EB	WB		SB		
HCM Control Delay, s/v	1.07	0		33.68		
HCM LOS				D		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	184	-	-	-	274	
HCM Lane V/C Ratio	0.131	-	-	-	0.56	
HCM Control Delay (s/veh)	10.4	0	-	-	33.7	
HCM Lane LOS	B	A	-	-	D	
HCM 95th %tile Q(veh)	0.5	-	-	-	3.2	

Intersection												
Int Delay, s/veh	5.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		+			+			+			+	
Traffic Vol, veh/h	59	771	0	1	779	37	0	0	1	32	2	50
Future Vol, veh/h	59	771	0	1	779	37	0	0	1	32	2	50
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None									
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	62	812	0	1	820	39	0	0	1	34	2	53

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	859	0	0	812	0	0	1759	1797	812	1777	1777	839
Stage 1	-	-	-	-	-	-	936	936	-	842	842	-
Stage 2	-	-	-	-	-	-	823	861	-	936	936	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
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	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	782	-	-	815	-	-	66	80	379	64	82	365
Stage 1	-	-	-	-	-	-	318	344	-	359	380	-
Stage 2	-	-	-	-	-	-	368	372	-	318	344	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	782	-	-	815	-	-	47	68	379	55	70	365
Mov Cap-2 Maneuver	-	-	-	-	-	-	47	68	-	55	70	-
Stage 1	-	-	-	-	-	-	272	294	-	358	379	-
Stage 2	-	-	-	-	-	-	312	371	-	271	294	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.71	0.01	14.52	107.12
HCM LOS			B	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	379	128	-	-	2	-	-	112
HCM Lane V/C Ratio	0.003	0.079	-	-	0.001	-	-	0.791
HCM Control Delay (s/veh)	14.5	10	0	-	9.4	0	-	107.1
HCM Lane LOS	B	A	A	-	A	A	-	F
HCM 95th %tile Q(veh)	0	0.3	-	-	0	-	-	4.5

HCM 7th TWSC
3: Ginkgo Lane/Whispering Pine Street & May River Road

1181 May River Road TIA
2030 Build PM Peak Hour

Intersection												
Int Delay, s/veh	1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		+			+			+			+	
Traffic Vol, veh/h	34	760	9	8	793	11	7	0	7	5	0	17
Future Vol, veh/h	34	760	9	8	793	11	7	0	7	5	0	17
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None									
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	36	800	9	8	835	12	7	0	7	5	0	18

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	846	0	0	809	0	0	1728	1739	805	1729	1738	841
Stage 1	-	-	-	-	-	-	876	876	-	857	857	-
Stage 2	-	-	-	-	-	-	852	863	-	872	881	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
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	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	791	-	-	816	-	-	70	87	383	69	87	365
Stage 1	-	-	-	-	-	-	343	366	-	352	374	-
Stage 2	-	-	-	-	-	-	354	372	-	345	365	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	791	-	-	816	-	-	59	78	383	61	78	365
Mov Cap-2 Maneuver	-	-	-	-	-	-	59	78	-	61	78	-
Stage 1	-	-	-	-	-	-	315	336	-	345	367	-
Stage 2	-	-	-	-	-	-	330	364	-	311	335	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.41	0.09	45.73	29.23
HCM LOS			E	D

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	103	76	-	-	18	-	-	172
HCM Lane V/C Ratio	0.143	0.045	-	-	0.01	-	-	0.135
HCM Control Delay (s/veh)	45.7	9.8	0	-	9.5	0	-	29.2
HCM Lane LOS	E	A	A	-	A	A	-	D
HCM 95th %tile Q(veh)	0.5	0.1	-	-	0	-	-	0.5

HCM 7th TWSC
4: Whispering Pine Street & Jason Street

1181 May River Road TIA
2030 Build PM Peak Hour

Intersection												
Int Delay, s/veh	3.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		+			+			+			+	
Traffic Vol, veh/h	4	5	2	4	10	2	5	37	4	0	16	1
Future Vol, veh/h	4	5	2	4	10	2	5	37	4	0	16	1
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									
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	64	64	64	64	64	64	64	64	64	64	64	64
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	8	2
Mvmt Flow	6	8	3	6	16	3	8	58	6	0	25	2

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	107	105	26	105	103	61	27	0	0	64	0	0
Stage 1	26	26	-	77	77	-	-	-	-	-	-	-
Stage 2	81	80	-	29	27	-	-	-	-	-	-	-
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	872	785	1050	874	787	1004	1587	-	-	1538	-	-
Stage 1	992	874	-	932	831	-	-	-	-	-	-	-
Stage 2	927	829	-	988	873	-	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	848	781	1050	858	783	1004	1587	-	-	1538	-	-
Mov Cap-2 Maneuver	848	781	-	858	783	-	-	-	-	-	-	-
Stage 1	992	874	-	928	827	-	-	-	-	-	-	-
Stage 2	902	824	-	976	873	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	9.35	9.51	0.79	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	192	-	-	844	824	1538	-
HCM Lane V/C Ratio	0.005	-	-	0.02	0.03	-	-
HCM Control Delay (s/veh)	7.3	0	-	9.4	9.5	0	-
HCM Lane LOS	A	A	-	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.1	0	-

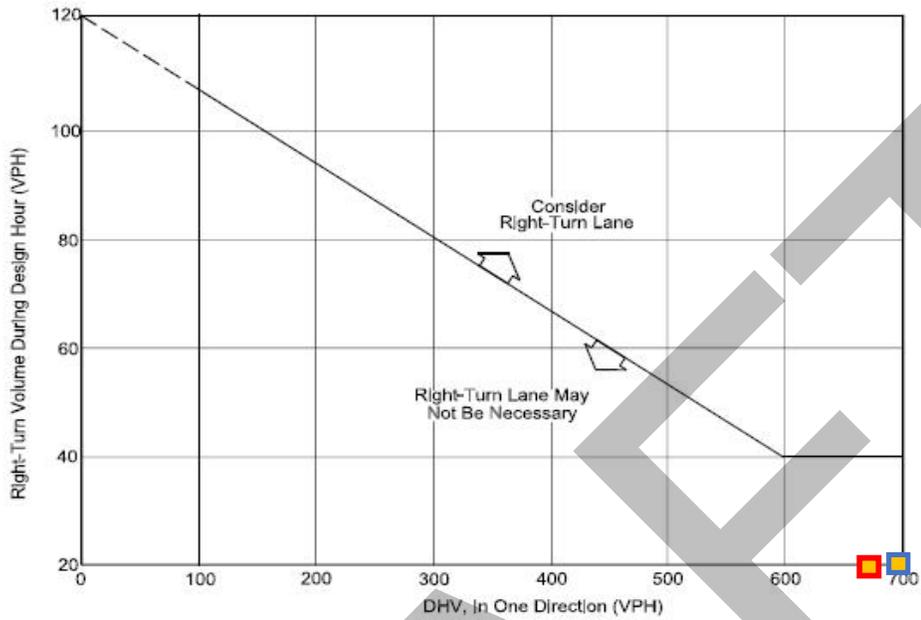
HCM 7th TWSC
5: Red Cedar Street & Jason Street

1181 May River Road TIA
2030 Build PM Peak Hour

Intersection						
Int Delay, s/veh	0.8					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			T
Traffic Vol, veh/h	15	2	98	8	4	128
Future Vol, veh/h	15	2	98	8	4	128
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	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	18	2	115	9	5	151
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	280	120	0	0	125	0
Stage 1	120	-	-	-	-	-
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	710	931	-	-	1462	-
Stage 1	905	-	-	-	-	-
Stage 2	869	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	707	931	-	-	1462	-
Mov Cap-2 Maneuver	707	-	-	-	-	-
Stage 1	905	-	-	-	-	-
Stage 2	866	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s/v10.08		0		0.23		
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	728	55	-	
HCM Lane V/C Ratio	-	-	0.027	0.003	-	
HCM Control Delay (s/veh)	-	-	10.1	7.5	0	
HCM Lane LOS	-	-	B	A	A	
HCM 95th %tile Q(veh)	-	-	0.1	0	-	

Appendix F – Turn Lane Warrant Analyses

DRAFT



Note: For highways with a design speed below 50 miles per hour with a DHV < 300 and where right turns > 40, an adjustment should be used. To read the vertical axis of the chart, subtract 20 from the actual number of right turns.

Example

Given: Design Speed = 35 miles per hour
 DHV = 250 vehicles per hour
 Right Turns = 100 vehicles per hour

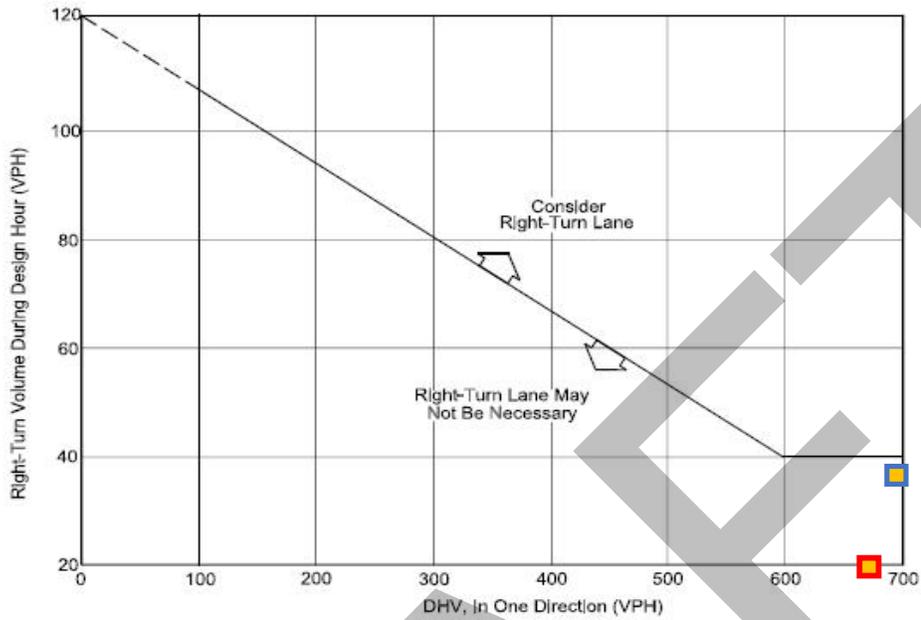
Problem: Determine if a right-turn lane is necessary.

Solution: To read the vertical axis, use $100 - 20 = 80$ vehicles per hour. The figure indicates that a right-turn lane is not necessary, unless other factors (e.g., high crash rate) indicate a lane is needed.

**GUIDELINES FOR RIGHT-TURN LANES AT UNSIGNALIZED INTERSECTIONS
 ON TWO-LANE HIGHWAYS**
 Figure 9.5-A

May River Road at Red Cedar Street

Westbound	Right	DHV	RTs
	2030 Build AM	663	9
	2030 Build PM	829	13



Note: For highways with a design speed below 50 miles per hour with a DHV < 300 and where right turns > 40, an adjustment should be used. To read the vertical axis of the chart, subtract 20 from the actual number of right turns.

Example

Given: Design Speed = 35 miles per hour
 DHV = 250 vehicles per hour
 Right Turns = 100 vehicles per hour

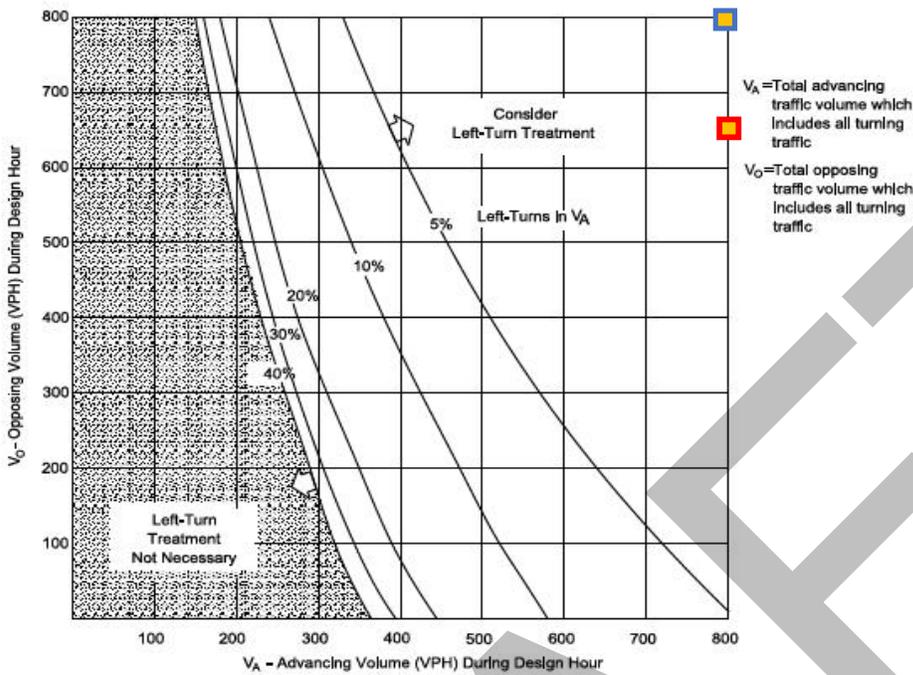
Problem: Determine if a right-turn lane is necessary.

Solution: To read the vertical axis, use $100 - 20 = 80$ vehicles per hour. The figure indicates that a right-turn lane is not necessary, unless other factors (e.g., high crash rate) indicate a lane is needed.

**GUIDELINES FOR RIGHT-TURN LANES AT UNSIGNALIZED INTERSECTIONS
 ON TWO-LANE HIGHWAYS**
 Figure 9.5-A

May River Road at Site Access

Westbound	Right	DHV	RTs
	2030 Build AM	668	14
	2030 Build PM	817	37



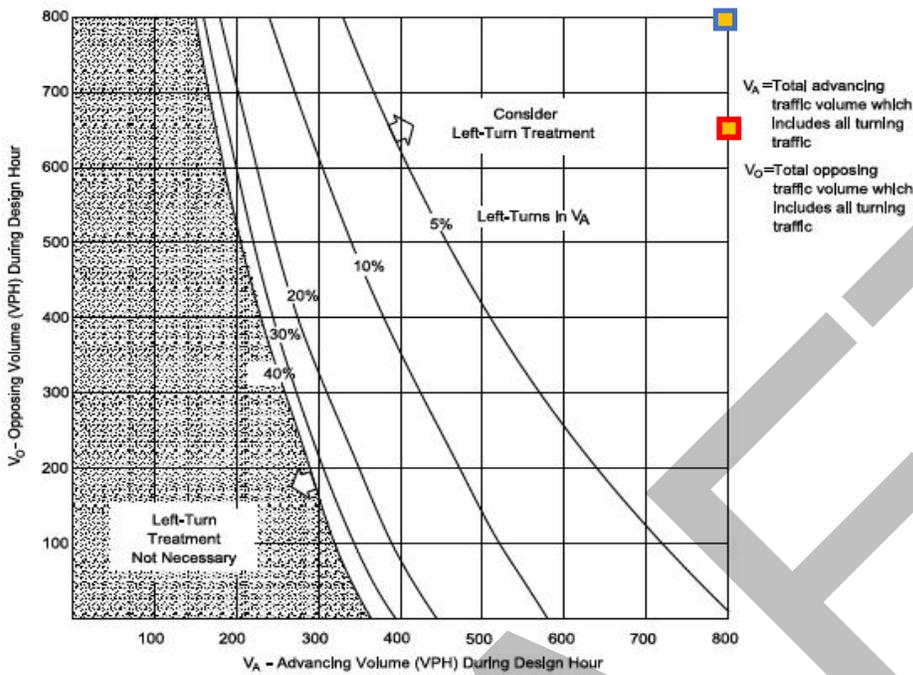
Instructions:

1. The family of curves represents the percent of left turns in the advancing volume (V_A). The designer should locate the curve for the actual percentage of left turns. When this is not an even increment of 5, the designer should estimate where the curve lies.
2. Read V_A and V_O into the chart and locate the intersection of the two volumes.
3. Note the location of the point in #2 relative to the line in #1. If the point is to the right of the line, then a left-turn lane is warranted. If the point is to the left of the line, then a left-turn lane is not warranted based on traffic volumes.

VOLUME GUIDELINES FOR LEFT-TURN LANES AT UNSIGNALIZED INTERSECTIONS ON TWO-LANE HIGHWAYS (40 mph)
Figure 9.5-G

May River Road at Site Access

Eastbound	Left	V_a	V_o	LTs	LT %
■	2030 Build AM	884	668	16	1.8%
■	2030 Build PM	830	817	59	7.1%



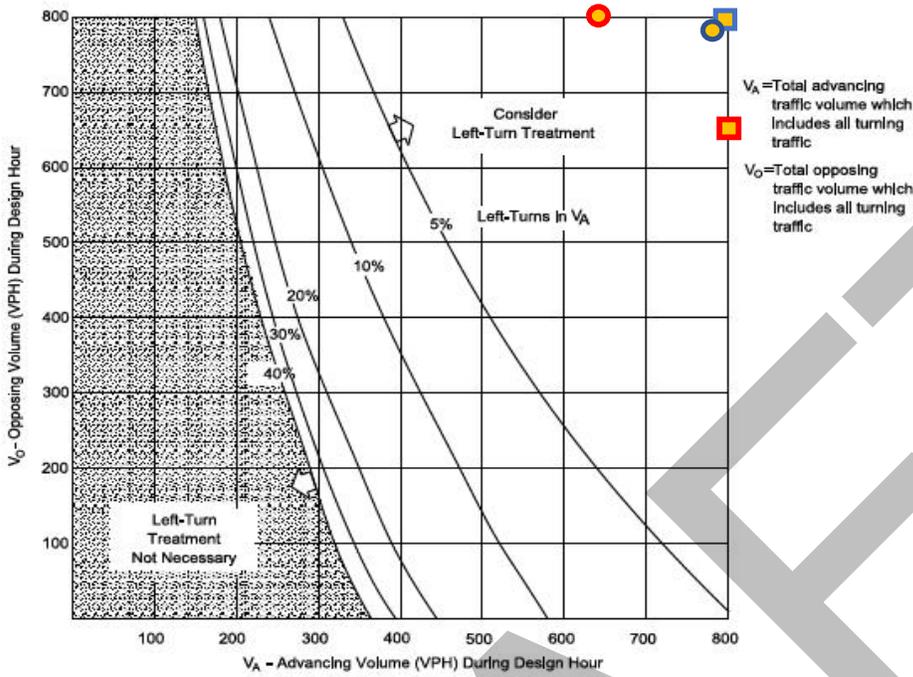
Instructions:

1. The family of curves represents the percent of left turns in the advancing volume (V_A). The designer should locate the curve for the actual percentage of left turns. When this is not an even increment of 5, the designer should estimate where the curve lies.
2. Read V_A and V_O into the chart and locate the intersection of the two volumes.
3. Note the location of the point in #2 relative to the line in #1. If the point is to the right of the line, then a left-turn lane is warranted. If the point is to the left of the line, then a left-turn lane is not warranted based on traffic volumes.

VOLUME GUIDELINES FOR LEFT-TURN LANES AT UNSIGNALIZED INTERSECTIONS ON TWO-LANE HIGHWAYS (40 mph)
Figure 9.5-G

May River Road at Red Cedar Road

Eastbound	Left	V_A	V_O	LTs	LT %
■	2030 Build AM	967	663	89	9.2%
■	2030 Build PM	918	829	94	10.2%



Instructions:

1. The family of curves represents the percent of left turns in the advancing volume (V_A). The designer should locate the curve for the actual percentage of left turns. When this is not an even increment of 5, the designer should estimate where the curve lies.
2. Read V_A and V_O into the chart and locate the intersection of the two volumes.
3. Note the location of the point in #2 relative to the line in #1. If the point is to the right of the line, then a left-turn lane is warranted. If the point is to the left of the line, then a left-turn lane is not warranted based on traffic volumes.

VOLUME GUIDELINES FOR LEFT-TURN LANES AT UNSIGNALIZED INTERSECTIONS ON TWO-LANE HIGHWAYS (40 mph)
Figure 9.5-G

May River Road at Whispering Pine Street/Ginkgo Lane

Direction	Turn	V_A	V_O	LTs	LT %
Eastbound	Left	V_A	V_O	LTs	LT %
	2030 Build AM	882	635	16	1.8%
	2030 Build PM	803	812	34	4.2%
Westbound	Left	V_A	V_O	LTs	LT %
	2030 Build AM	635	882	4	0.6%
	2030 Build PM	812	803	8	1.0%



Outlook

RE: 1181 May River Road Conceptual Review

From Johnson, Joshua, A. <JOHNSONJA@scdot.gov>**Date** Fri 2/20/2026 2:34 PM**To** Turner, Dillon <Dillon.turner@kimley-horn.com>; Nathan Sturre <Nathan@sturreengineering.com>**Cc** Weatherford, Luke, A. <WEATHERFORDLA@scdot.gov>; Fleming, Juleigh, B. <FLEMINGJB@scdot.gov>; Grooms, Robert, W. <GROOMSRW@scdot.gov>; Smalls, Patricia, B. <SMALLSPB@scdot.gov>

Dillon, We will not require an updated TIA for this connection. Thanks,

**Josh Johnson, PE, PTOE***District 6 Traffic Engineer***P** 843-746-6719 **E** johnsonja@scdot.govSouth Carolina Department of Transportation
6355 Fain Street, North Charleston, SC 29406

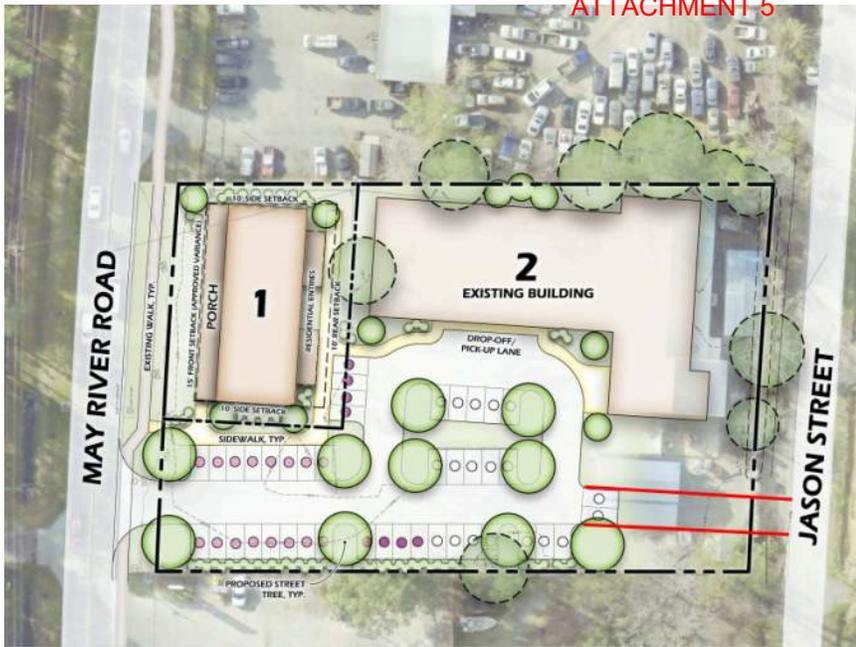
From: Turner, Dillon <Dillon.Turner@kimley-horn.com>**Sent:** Tuesday, February 10, 2026 3:15 PM**To:** Nathan Sturre <Nathan@sturreengineering.com>; Smalls, Patricia, B. <SMALLSPB@scdot.gov>**Cc:** Johnson, Joshua, A. <JOHNSONJA@scdot.gov>; Weatherford, Luke, A. <WEATHERFORDLA@scdot.gov>; Fleming, Juleigh, B. <FLEMINGJB@scdot.gov>; Grooms, Robert, W. <GROOMSRW@scdot.gov>**Subject:** RE: 1181 May River Road Conceptual Review

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Josh,

The Town of Bluffton has requested that the site extend its driveway from the proposed connection at May River Road up to the north, to connect to Jason Street. This proposed connection is shown below:

ATTACHMENT 5



Would SCDOT require an updated TIA to analyze this connection?

Thanks,
Dillon Turner