

Traffic Impact Study

Proposed Residential Development
Block 325.20, Lot 11
Township of Little Egg Harbor
Ocean County, New Jersey

Prepared for:
Dream Homes, Ltd.

Date: June 12, 2025

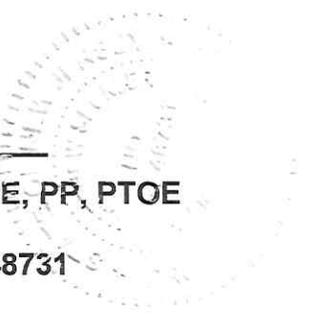
SE&D Job Number: PRI-250085



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STONEFIELD

92 Park Ave
Rutherford, NJ 07070

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Intersection of Mathistown Road and Center Street

INTRODUCTION

This Traffic Impact Study was prepared to investigate the potential impacts of the proposed townhouse development on the adjacent roadway network. The subject property is located along the southerly side of Mathistown Road between Center Street and Lake Champlain Drive in the Township of Little Egg Harbor, Ocean County, New Jersey. The site location is shown on appended **Figure I**.

The subject property is designated as Block 325.20, Lot 11 as depicted on the Township of Little Egg Harbor Tax Map. The site has approximately 751 feet of frontage along Mathistown Road. The existing site is vacant and no formal vehicular access is presently provided. Under the proposed development program, 80 townhouses and 16 multi-family residential apartment units would be constructed. Access is proposed via one (1) full-movement driveway along Mathistown Road.

METHODOLOGY

Stonefield Engineering & Design, LLC has prepared this Traffic Impact Study in accordance with the recommended guidelines and practices outlined by the Institute of Transportation Engineers (ITE) within Transportation Impact Analyses for Site Development. A detailed field investigation was performed to assess the existing conditions of the adjacent roadway network. A data collection effort was completed to identify the existing traffic volumes at the study intersections to serve as a base for the traffic analyses. Capacity analysis, a procedure used to estimate the traffic-carrying ability of roadway facilities over a range of defined operating conditions, was performed using the Highway Capacity Manual, 7th Edition (HCM) and the Synchro 12 Software for all study conditions to assess the roadway operations.

For an unsignalized intersection, Level of Service (LOS) A indicates operations with delay of less than 10 seconds per vehicle, while LOS F describes operations with delay in excess of 50 seconds per vehicle. For a signalized intersection, LOS A indicates operations with delay of less than 10 seconds per vehicle, while LOS F describes operations with delay in excess of 80 seconds per vehicle. The Technical Appendix contains the Highway Capacity Analysis Detail Sheets for the study intersections analyzed in this assessment. The traffic signal timing utilized within the signalized analysis is based on timing directives provided by Ocean County.

2024 EXISTING CONDITION

2024 EXISTING ROADWAY CONDITIONS

The proposed townhouse development is located along Mathistown Road in the Township of Little Egg Harbor, Ocean County, New Jersey. The subject property is designated as Block 325.20, Lot 11 as depicted

on the Township of Little Egg Harbor Tax Map. The site has approximately 751 feet of frontage along Mathistown Road. Land uses in the area are predominantly residential, commercial, medical, and financial uses.

Mathistown Road is classified as an Urban Major Collector roadway with a general north-south orientation and is under the jurisdiction of Ocean County. Along the site frontage, the roadway provides one (1) lane of travel in each direction with additional turning lanes provided at key intersections to facilitate turning movements. Mathistown Road has a posted speed limit of 35 mph. Along the site frontage, curb and sidewalk are provided along both sides of the road, shoulders are provided along both sides of the roadway, and on-street parking is not permitted. Mathistown Road provides north-south mobility throughout Little Egg Harbor Township, from U.S. Route 9 at its northerly terminus to Radio Road at its southerly terminus, serving a mix of commercial and residential uses along its length.

2024 EXISTING TRAFFIC VOLUMES

Turning movement counts were collected during the typical weekday morning and weekday evening time periods to evaluate existing traffic conditions and identify the specific hours when traffic activity on the adjacent roadways is at a maximum and could be potentially impacted by the development of the site. Turning movement counts were collected at the intersection of Mathistown Road and Center Avenue on Tuesday, April 23, 2024, from 7:00 a.m. to 9:00 a.m. and from 4:00 p.m. to 7:00 p.m.

The study time periods were chosen as they are representative of the peak periods of both the adjacent roadway network and the proposed development. The traffic volume data was collected and analyzed to identify the design peak hour in accordance with HCM and ITE guidelines. Based on the review of the count data the weekday morning peak hour occurred from 7:00 a.m. to 8:00 a.m. and the weekday evening peak hour occurred from 4:00 p.m. to 5:00 p.m. Red Oak Lane volumes were forecasted using ITE Trip Generation Manual. The Technical Appendix contains a summary of the turning movement count data. The 2024 Existing weekday morning and weekday evening peak-hour volumes are summarized on appended **Figure 2**.

2024 EXISTING LOS/CAPACITY ANALYSIS

A Level of Service and Volume/Capacity analysis was conducted for the 2024 Existing Condition during the weekday morning and weekday evening peak periods at the study intersections. Under the existing condition, the signalized intersection of Mathistown Road and Center Street is calculated to operate at overall Level of Service C during each of the study peak hours. The turning movements at the unsignalized intersection of Mathistown Road and Red Oak Lane are calculated to operate at Level of Service B or better during each of the study peak hours.

2027 NO-BUILD CONDITION

BACKGROUND GROWTH

The 2024 Existing Condition traffic volume data was grown to a future horizon year of 2027, which is a conservative estimate for when the proposed townhouse development is expected to be fully constructed. In accordance with industry guidelines, the existing traffic volumes at the study intersections were increased by 2.00% annually for three (3) years to generate the 2027 Base Traffic Volumes. These volumes are summarized on appended **Figure 3**. The New Jersey Department of Transportation (NJDOT) Annual Background Growth Rate Table recommends a 1.00% background growth rate within the study area, however, a 2.00% background growth rate was used to provide a more conservative analysis.

OTHER PLANNED DEVELOPMENT PROJECTS

To evaluate the future traffic conditions, it is important to consider the potential site-generated traffic of other projects that could influence the traffic volume at the study intersections. Other planned development projects include those that are either in the entitlement process or have recently been approved for building permits in proximity to the proposed development. Based on research, the following development is anticipated to impact traffic volumes within the study area:

- ◆ Dunkin' at Great Bay Plaza – 2,780-square-foot coffee/donut shop with drive-through

Appended **Figure 4** illustrates the site-generated traffic associated with the Dunkin' project assigned to the study area network.

2027 NO-BUILD TRAFFIC VOLUMES

The site-generated trips associated with the Dunkin' development were added to the 2027 Base Traffic Volumes to calculate the 2027 No-Build Traffic Volumes for the weekday morning and weekday evening peak hours. These volumes are summarized on appended **Figure 5**.

2027 NO-BUILD LOS/CAPACITY ANALYSIS

A Level of Service and Volume/Capacity analysis was also conducted for the 2027 No-Build Condition during the weekday morning and weekday evening peak hours at the study intersections. The signalized intersection of Mathistown Road and Center Street is calculated to operate generally consistent with the findings of the 2024 Existing Condition during each of the study peak hours. The turning movements at the unsignalized intersection of Mathistown Road and Red Oak Lane are calculated to operate generally consistent with the findings of the 2024 Existing Condition during each of the study peak hours.

2027 BUILD CONDITION

The site-generated traffic volume of the proposed townhouse development was estimated to identify the potential impacts of the project. For the purpose of this analysis, a complete project “build out” is assumed within two (2) years of the preparation of this study.

TRIP GENERATION

Trip generation projections for the proposed townhouse development were prepared utilizing ITE’s Trip Generation Manual, 11th Edition. Trip generation rates associated with Land Use 215 “Single-Family Attached Housing” were cited for the 80 townhouse units and Land Use 220 “Multifamily Housing (Low-Rise)” were cited for the 16 multi-family apartment units. **Table I** provides the weekday morning and weekday evening peak hour trip generation volumes associated with the proposed development.

TABLE I – PROPOSED TRIP GENERATION

Land Use	Weekday Morning Peak Hour			Weekday Evening Peak Hour		
	Enter	Exit	Total	Enter	Exit	Total
80-Unit Single-Family Attached Housing <i>ITE Land Use 215</i>	10	28	38	27	19	46
16-Unit Multi-Family Apartments <i>ITE Land Use 220</i>	2	4	6	5	3	8
TOTAL	12	32	44	32	22	54

TRIP ASSIGNMENT/DISTRIBUTION

The trips generated by the proposed development were distributed according to the existing travel pattern along the adjacent roadways and the access management plan of the site. The “New” Site-Generated Traffic Volumes are illustrated on **Figure 6**.

2027 BUILD TRAFFIC VOLUMES

The site-generated trips were added to the 2027 No-Build Traffic Volumes to calculate the 2027 Build Traffic Volumes and are shown on appended **Figure 7**.

2027 BUILD LOS/CAPACITY ANALYSIS

A Level of Service and Volume/Capacity analysis was also conducted for the 2027 Build Condition during the weekday morning and weekday evening peak hours at the study intersections and proposed site driveways.

Appended **Table AI** compares the 2024 Existing, 2027 No-Build, and 2027 Build Conditions Level of Service and delay values.

The signalized intersection of Mathistown Road and Center Street is calculated to operate generally consistent with the findings of the 2027 No-Build Condition during each of the study peak hours. The turning movements at the unsignalized intersection of Mathistown Road, Red Oak Lane, and the proposed site driveway are calculated to operate at Level of Service C or better during each of the study peak hours.

SITE CIRCULATION/PARKING SUPPLY

A review was conducted of the proposed townhouse development using the Site Plan prepared by Challoner & Associates, LLC, dated April 25, 2025. In completing this review, particular attention was focused on the site access, circulation, and parking supply.

Access is proposed via one (1) ingress-only driveway and one (1) egress-only driveway along Mathistown Road. The proposed structures would be located centrally on the site. Vehicular circulation throughout the site would be facilitated via minimum of 24-foot-wide proposed two (2)-way roadways, Maia Way and Maria Loretta Lane. Parking spaces would be provided along both sides of the roadways at 90-degree angle and within the driveways of each townhouse.

Regarding the parking requirements for the proposed development, the Township of Little Egg Harbor Ordinance and the Residential Site Improvement Standards (NJAC 5:21) (RSIS) requires 2.3 parking spaces per townhouse unit and 2.0 parking spaces per apartment unit. For the proposed 80 townhouses and 16 apartment units, this equates to 216 required parking spaces. Each townhouse would provide one (1) garage parking space and one (1) driveway parking space, and an additional 78 surface parking spaces would be provided, which results in 238 parking spaces and meets the parking requirement. The spaces would be nine (9) feet wide by 18 feet deep in accordance with the Township of Little Egg Harbor Ordinance, RSIS, and industry standards.

As per P.L. 2021, c.171 (C.40:55D-66.18 et al.), all projects involving multifamily dwellings with more than five (5) units must have 15% of the required parking be pre-wired for electric vehicle charging stations ("make-ready"). Of the make-ready spaces, 5% must be ADA compliant. For the apartment parking allocation of 32 spaces, this equates to five (5) make-ready spaces. A total of six (6) make-ready parking spaces are proposed, in compliance with the requirements. The electric vehicle requirements consider electric vehicle spaces as a minimum of two (2) parking spaces for the purpose of satisfying parking requirements, up to a 10% reduction of the total requirement. As such, the development plan would be considered to provide 244 (238+ 6) total parking spaces, whereas 216 are required.

The parking supply was evaluated with respect to data published within the ITE's Parking Generation, 6th Edition, for Land Use 215 "Single-Family Attached Housing." The 85th percentile parking demand rate during the peak weekday overnight period for Land Use 215 "Single-Family Attached Housing" is 2.27 vehicles per dwelling unit, and the 85th percentile parking demand rate during the peak weekday overnight period for Land Use 220 "Multifamily Apartments (Low-Rise)" is 1.59 vehicles per dwelling unit. For the proposed 80 townhouses and 16 apartment units, this equates to 207 parking spaces. As such, the proposed parking supply of 238 parking spaces would be sufficient to support the parking demand of the site.

Based on the Township of Little Egg Harbor Ordinance and published ITE parking demand rates, the proposed parking supply of 238 parking spaces would be sufficient to support the expected parking demand of the proposed development.

CONCLUSIONS

This report was prepared to examine the potential traffic impact of the proposed Townhouse. The analysis findings, which have been based on industry-standard guidelines, indicate that the proposed development would not have a significant impact on the traffic operations of the adjacent roadway network. The site driveways and on-site layout have been designed to provide for effective access to and from the subject property. Based on the Township of Little Egg Harbor Ordinance, RSIS requirements, and published ITE parking demand rates, the parking supply would be sufficient to support this project.

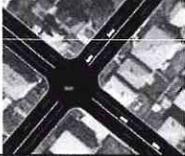
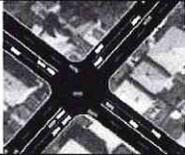
TECHNICAL APPENDIX

LEVEL OF SERVICE/AVERAGE CONTROL DELAY CRITERIA

LEVEL OF SERVICE /AVERAGE CONTROL DELAY CRITERIA

The ability of a roadway to effectively accommodate traffic demand is determined through an assessment of the volume-to-capacity ratio, delay and Level of Service of the lane group and/or intersection. The volume-to-capacity ratio is the ratio of traffic flow rate to capacity for a given transportation facility. As defined within the Highway Capacity Manual, 7th Edition (HCM), intersection delay is the total additional travel time experienced by drivers, passengers, or pedestrians as a result of control measures and interaction with other users of the facility, divided by the volume departing from the corresponding cross section of the facility. Level of service is a qualitative measure describing operational conditions within a traffic stream, based on service measures such as speed and travel time, freedom to maneuver, traffic interruptions, comfort and convenience.

For an unsignalized intersection, LOS A indicates operations with delay less than 10 seconds per vehicle, while LOS F describes operations with delay in excess of 50 seconds per vehicle. For a signalized intersection, LOS A indicates operations with delay less than 10 seconds per vehicle and LOS F denotes operations with delay in excess of 80 seconds per vehicle.

	Level Of Service (LOS)	Signalized Delay Range (average control delay in sec/veh)	Unsignalized Delay Range (average control delay in sec/veh)
	A	≤10	≤10
	B	>10 and ≤20	>10 and ≤15
	C	>20 and ≤35	>15 and ≤25
	D	>35 and ≤55	>25 and ≤35
	E	>55 and ≤80	>35 and ≤50
	F	>80	>50

Source: Highway Capacity Manual, 7th Edition

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Table A1: Comparative Level of Service (Delay) Table
 Township of Little Egg Harbor, Ocean County, New Jersey
 X (n) = Level of Service (seconds of delay)

Intersection	Lane Group	Weekday Morning Peak Hour			Weekday Evening Peak Hour		
		2024 Existing Condition	2027 No-Build Condition	2027 Build Condition	2024 Existing Condition	2027 No-Build Condition	2027 Build Condition
Mathistown Road (E/W) and Center Street (N/S)	EB Left	A (6.6)	A (7.2)	A (7.5)	A (7.6)	A (8.4)	A (8.5)
	EB Through/Right	A (7.3)	A (7.7)	A (7.8)	B (13.4)	B (14.9)	B (15.1)
	WB Left	A (7.4)	A (8.0)	A (8.0)	A (8.7)	A (9.6)	A (9.8)
	WB Through/Right	B (11.0)	B (12.2)	B (12.7)	B (12.2)	B (13.3)	B (13.6)
	NB Left	D (48.7)	D (50.2)	D (49.9)	D (46.1)	D (45.3)	D (46.0)
	NB Through/Right	E (60.2)	E (59.9)	E (59.9)	E (55.7)	D (54.2)	E (56.6)
	SB Left	D (49.6)	D (49.0)	D (49.0)	D (45.6)	D (44.5)	D (45.2)
	SB Through/Right	E (60.2)	E (61.9)	E (61.3)	E (60.1)	E (59.5)	E (59.5)
Overall	C (27.6)	C (28.4)	C (28.1)	C (25.4)	C (25.9)	C (26.3)	
Mathistown Road (E/W), Site Driveway (N), and Red Oak Lane (S)	EB Left	A (8.2)	A (8.3)	A (8.3)	A (8.2)	A (8.3)	A (8.3)
	WB Left	No Volume	No Volume	A (7.6)	No Volume	No Volume	A (8.7)
	NB Left/Through/Right	No Volume	No Volume	C (15.2)	No Volume	No Volume	C (24.1)
	SB Left/Through/Right	B (11.7)	B (12.1)	B (12.1)	B (13.4)	B (13.8)	B (14.0)

TURNING MOVEMENT COUNT DATA

Stonefield Engineering & Design, LLC

92 Park Avenue, Rutherford, NJ 07070

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Intersection of Mathistown Road (E/W)
and Center Street (N/S)
Little Egg Harbor, Ocean County, New Jersey
Saturday, April 20, 2024

File Name : PRI-230283_SAT
Site Code : 00230283
Start Date : 4/20/2024
Page No : 1

Groups Printed- Auto - HV - B/SB

Start Time	Mathistown Road Eastbound					Mathistown Road Westbound					Center Street Northbound					Center Street Southbound					Int. Total
	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	
08:00 AM	1	24	3	0	28	0	40	14	1	55	14	17	0	0	31	11	3	1	5	20	134
08:15 AM	1	25	5	0	31	1	40	18	2	61	15	19	3	1	38	12	10	1	2	25	155
08:30 AM	4	36	8	1	49	4	56	17	1	78	18	18	3	2	41	13	11	4	5	33	201
08:45 AM	5	49	6	0	60	1	33	11	2	47	9	22	3	0	34	21	9	0	8	38	179
Total	11	134	22	1	168	6	169	60	6	241	56	76	9	3	144	57	33	6	20	116	669
09:00 AM	4	34	11	0	49	5	55	12	2	74	16	18	5	1	40	15	15	2	1	33	196
09:15 AM	9	38	6	2	55	8	55	15	1	79	13	23	5	2	43	21	5	5	8	39	216
09:30 AM	8	55	11	2	76	5	52	13	0	70	12	25	5	0	42	10	11	2	3	26	214
09:45 AM	5	39	13	2	59	6	65	17	1	89	22	27	2	2	53	14	20	6	2	42	243
Total	26	166	41	6	239	24	227	57	4	312	63	93	17	5	178	60	51	15	14	140	869
Grand Total	37	300	63	7	407	30	396	117	10	553	119	169	26	8	322	117	84	21	34	256	1538
Apprch %	9.1	73.7	15.5	1.7		5.4	71.6	21.2	1.8		37	52.5	8.1	2.5		45.7	32.8	8.2	13.3		
Total %	2.4	19.5	4.1	0.5	26.5	2	25.7	7.6	0.7	36	7.7	11	1.7	0.5	20.9	7.6	5.5	1.4	2.2	16.6	
Auto	37	292	62	7	398	29	389	116	10	544	119	168	26	8	321	117	83	21	34	255	1518
% Auto	100	97.3	98.4	100	97.8	96.7	98.2	99.1	100	98.4	100	99.4	100	100	99.7	100	98.8	100	100	99.6	98.7
HV	0	7	1	0	8	1	5	1	0	7	0	1	0	0	1	0	1	0	0	1	17
% HV	0	2.3	1.6	0	2	3.3	1.3	0.9	0	1.3	0	0.6	0	0	0.3	0	1.2	0	0	0.4	1.1
B/SB	0	1	0	0	1	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	3
% B/SB	0	0.3	0	0	0.2	0	0.5	0	0	0.4	0	0	0	0	0	0	0	0	0	0	0.2

Start Time	Mathistown Road Eastbound					Mathistown Road Westbound					Center Street Northbound					Center Street Southbound					Int. Total
	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	
Peak Hour Analysis From 08:00 AM to 09:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 09:00 AM																					
09:00 AM	4	34	11	0	49	5	55	12	2	74	16	18	5	1	40	15	15	2	1	33	196
09:15 AM	9	38	6	2	55	8	55	15	1	79	13	23	5	2	43	21	5	5	8	39	216
09:30 AM	8	55	11	2	76	5	52	13	0	70	12	25	5	0	42	10	11	2	3	26	214
09:45 AM	5	39	13	2	59	6	65	17	1	89	22	27	2	2	53	14	20	6	2	42	243
Total Volume	26	166	41	6	239	24	227	57	4	312	63	93	17	5	178	60	51	15	14	140	869
% App. Total	10.9	69.5	17.2	2.5		7.7	72.8	18.3	1.3		35.4	52.2	9.6	2.8		42.9	36.4	10.7	10		
PHF	.722	.755	.788	.750	.786	.750	.873	.838	.500	.876	.716	.861	.850	.625	.840	.714	.638	.625	.438	.833	.894
Auto	26	162	41	6	235	24	222	57	4	307	63	93	17	5	178	60	51	15	14	140	860
% Auto	100	97.6	100	100	98.3	100	97.8	100	100	98.4	100	100	100	100	100	100	100	100	100	100	99.0
HV	0	3	0	0	3	0	4	0	0	4	0	0	0	0	0	0	0	0	0	0	7
% HV	0	1.8	0	0	1.3	0	1.8	0	0	1.3	0	0	0	0	0	0	0	0	0	0	0.8
B/SB	0	1	0	0	1	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	2
% B/SB	0	0.6	0	0	0.4	0	0.4	0	0	0.3	0	0	0	0	0	0	0	0	0	0	0.2

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Intersection of Mathistown Road (E/W)
and Center Street (N/S)
Little Egg Harbor, Ocean County, New Jersey
Tuesday, April 23, 2024

File Name : PRI-230283
Site Code : 00230283
Start Date : 4/23/2024
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Start Time	Mathistown Road Eastbound					Mathistown Road Westbound					Center Street Northbound					Center Street Southbound					Int. Total
	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	
07:00 AM	11	17	7	0	35	0	87	18	5	110	41	41	0	0	82	13	16	3	6	38	265
07:15 AM	9	41	18	0	68	0	81	14	3	98	20	29	1	0	50	14	8	8	7	37	253
07:30 AM	3	21	5	2	31	2	68	17	0	87	21	15	0	3	39	10	12	4	1	27	184
07:45 AM	9	31	6	0	46	2	60	18	0	80	42	44	2	0	88	11	7	7	0	25	239
Total	32	110	36	2	180	4	296	67	8	375	124	129	3	3	259	48	43	22	14	127	941
08:00 AM	5	39	10	0	54	0	73	19	1	93	44	28	1	0	73	13	9	9	1	32	252
08:15 AM	8	46	9	1	64	4	60	12	0	76	16	28	3	0	47	17	17	8	0	42	229
08:30 AM	7	27	5	0	39	4	65	18	0	87	22	18	2	4	46	12	20	4	1	37	209
08:45 AM	10	46	6	4	66	2	47	10	1	60	28	25	1	1	55	14	16	4	3	37	218
Total	30	158	30	5	223	10	245	59	2	316	110	99	7	5	221	56	62	25	5	148	908
*** BREAK ***																					
04:00 PM	21	80	25	1	127	9	68	15	1	93	17	30	3	0	50	19	32	5	4	60	330
04:15 PM	17	84	24	0	125	10	48	18	3	79	19	30	3	0	52	28	22	7	3	60	316
04:30 PM	25	108	31	1	165	9	78	21	1	109	20	30	0	0	50	13	24	7	7	51	375
04:45 PM	13	96	17	0	126	6	49	18	0	73	21	28	0	0	49	15	33	13	2	63	311
Total	76	368	97	2	543	34	243	72	5	354	77	118	6	0	201	75	111	32	16	234	1332
05:00 PM	12	88	29	0	129	8	44	14	0	66	14	22	0	0	36	19	32	6	4	61	292
05:15 PM	19	75	17	0	111	6	42	8	2	58	15	25	1	0	41	23	36	7	3	69	279
05:30 PM	10	66	14	0	90	5	51	17	5	78	30	18	0	0	48	23	31	6	5	65	281
05:45 PM	10	53	21	0	84	5	33	16	1	55	20	19	3	0	42	12	20	3	2	37	218
Total	51	282	81	0	414	24	170	55	8	257	79	84	4	0	167	77	119	22	14	232	1070
06:00 PM	7	77	26	0	110	9	60	16	1	86	14	24	2	0	40	17	25	3	0	45	281
06:15 PM	19	57	13	4	93	7	37	10	3	57	25	22	0	3	50	16	18	9	3	46	246
06:30 PM	12	64	23	1	100	1	30	14	2	47	15	21	3	0	39	16	16	4	1	37	223
06:45 PM	15	50	17	1	83	4	35	10	1	50	8	17	0	1	26	13	25	5	0	43	202
Total	53	248	79	6	386	21	162	50	7	240	62	84	5	4	155	62	84	21	4	171	952
Grand Total	242	1166	323	15	1746	93	1116	303	30	1542	452	514	25	12	1003	318	419	122	53	912	5203
Apprch %	13.9	66.8	18.5	0.9		6	72.4	19.6	1.9		45.1	51.2	2.5	1.2		34.9	45.9	13.4	5.8		
Total %	4.7	22.4	6.2	0.3	33.6	1.8	21.4	5.8	0.6	29.6	8.7	9.9	0.5	0.2	19.3	6.1	8.1	2.3	1	17.5	
Auto	236	1135	314	15	1700	90	1091	297	30	1508	439	503	23	12	977	310	409	119	52	890	5075
% Auto	97.5	97.3	97.2	100	97.4	96.8	97.8	98	100	97.8	97.1	97.9	92	100	97.4	97.5	97.6	97.5	98.1	97.6	97.5
HV	5	15	4	0	24	3	8	4	0	15	6	4	2	0	12	5	5	1	1	12	63
% HV	2.1	1.3	1.2	0	1.4	3.2	0.7	1.3	0	1	1.3	0.8	8	0	1.2	1.6	1.2	0.8	1.9	1.3	1.2
B/SB	1	16	5	0	22	0	17	2	0	19	7	7	0	0	14	3	5	2	0	10	65
% B/SB	0.4	1.4	1.5	0	1.3	0	1.5	0.7	0	1.2	1.5	1.4	0	0	1.4	0.9	1.2	1.6	0	1.1	1.2

Stonefield Engineering & Design, LLC

92 Park Avenue, Rutherford, NJ 07070

201.340.4468 t. 201.340.4472 f.

Intersection of Mathistown Road (E/W)
and Center Street (N/S)
Little Egg Harbor, Ocean County, New Jersey
Tuesday, April 23, 2024

File Name : PRI-230283
Site Code : 00230283
Start Date : 4/23/2024
Page No : 2

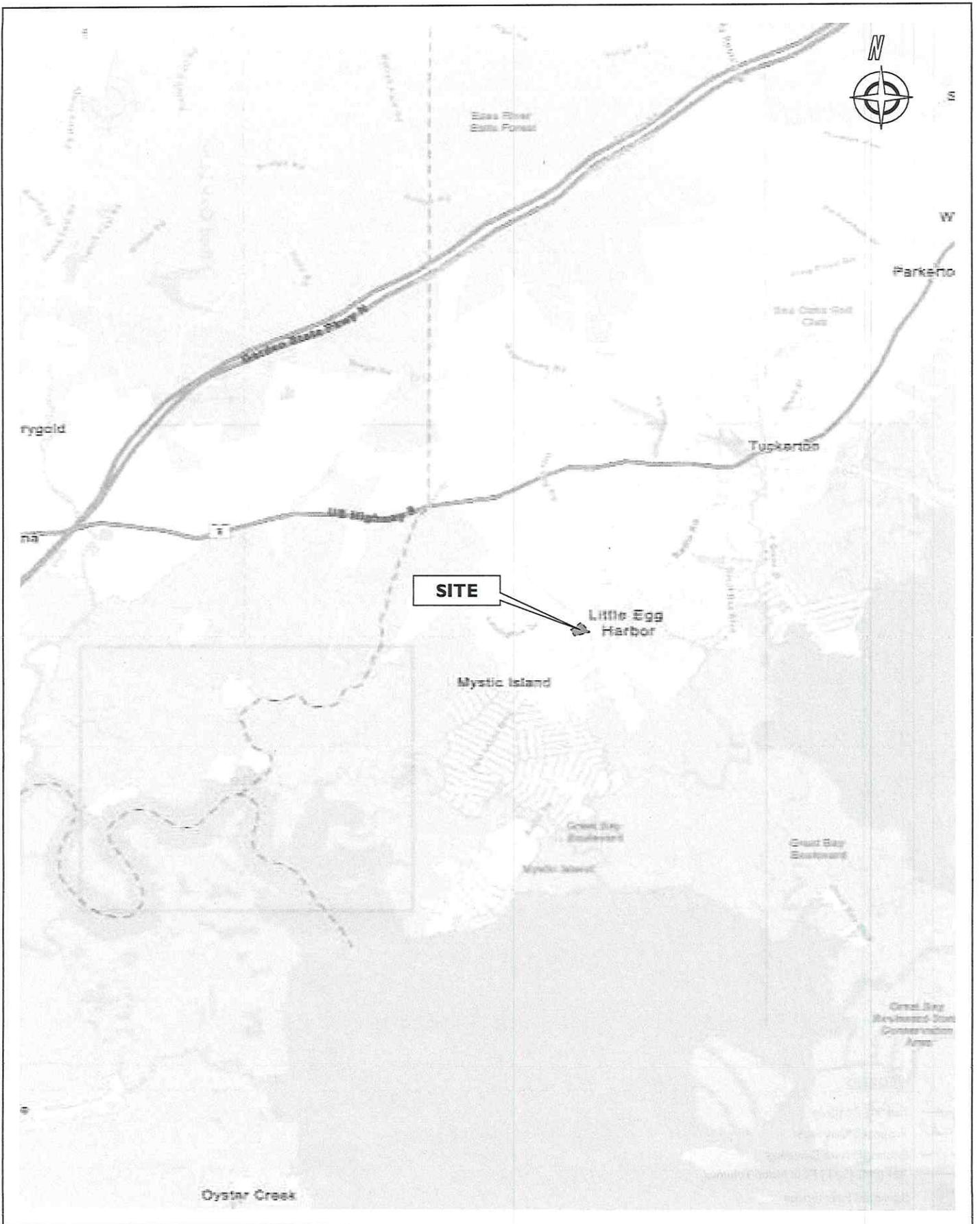
Start Time	Mathistown Road Eastbound					Mathistown Road Westbound					Center Street Northbound					Center Street Southbound					Int. Total
	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:00 AM																					
07:00 AM	11	17	7	0	35	0	87	18	5	110	41	41	0	0	82	13	16	3	6	38	265
07:15 AM	9	41	18	0	68	0	81	14	3	98	20	29	1	0	50	14	8	8	7	37	253
07:30 AM	3	21	5	2	31	2	68	17	0	87	21	15	0	3	39	10	12	4	1	27	184
07:45 AM	9	31	6	0	46	2	60	18	0	80	42	44	2	0	88	11	7	7	0	25	239
Total Volume	32	110	36	2	180	4	296	67	8	375	124	129	3	3	259	48	43	22	14	127	941
% App. Total	17.8	61.1	20	1.1		1.1	78.9	17.9	2.1		47.9	49.8	1.2	1.2		37.8	33.9	17.3	11		
PHF	.727	.671	.500	.250	.662	.500	.851	.931	.400	.852	.738	.733	.375	.250	.736	.857	.672	.688	.500	.836	.888
Auto	31	96	31	2	160	4	288	65	8	365	120	125	3	3	251	45	40	21	14	120	896
% Auto	96.9	87.3	86.1	100	88.9	100	97.3	97.0	100	97.3	96.8	96.9	100	100	96.9	93.8	93.0	95.5	100	94.5	95.2
HV	0	3	0	0	3	0	2	1	0	3	2	0	0	0	2	1	1	0	0	2	10
% HV	0	2.7	0	0	1.7	0	0.7	1.5	0	0.8	1.6	0	0	0	0.8	2.1	2.3	0	0	1.6	1.1
B/SB	1	11	5	0	17	0	6	1	0	7	2	4	0	0	6	2	2	1	0	5	35
% B/SB	3.1	10.0	13.9	0	9.4	0	2.0	1.5	0	1.9	1.6	3.1	0	0	2.3	4.2	4.7	4.5	0	3.9	3.7

Peak Hour Analysis From 12:00 PM to 06:45 PM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 04:00 PM

04:00 PM	21	80	25	1	127	9	68	15	1	93	17	30	3	0	50	19	32	5	4	60	330
04:15 PM	17	84	24	0	125	10	48	18	3	79	19	30	3	0	52	28	22	7	3	60	316
04:30 PM	25	108	31	1	165	9	78	21	1	109	20	30	0	0	50	13	24	7	7	51	375
04:45 PM	13	96	17	0	126	6	49	18	0	73	21	28	0	0	49	15	33	13	2	63	311
Total Volume	76	368	97	2	543	34	243	72	5	354	77	118	6	0	201	75	111	32	16	234	1332
% App. Total	14	67.8	17.9	0.4		9.6	68.6	20.3	1.4		38.3	58.7	3	0		32.1	47.4	13.7	6.8		
PHF	.760	.852	.782	.500	.823	.850	.779	.857	.417	.812	.917	.983	.500	.000	.966	.670	.841	.615	.571	.929	.888
Auto	74	365	97	2	538	32	236	71	5	344	74	115	4	0	193	74	110	31	16	231	1306
% Auto	97.4	99.2	100	100	99.1	94.1	97.1	98.6	100	97.2	96.1	97.5	66.7	0	96.0	98.7	99.1	96.9	100	98.7	98.0
HV	2	1	0	0	3	2	1	1	0	4	1	0	2	0	3	0	0	0	0	0	10
% HV	2.6	0.3	0	0	0.6	5.9	0.4	1.4	0	1.1	1.3	0	33.3	0	1.5	0	0	0	0	0	0.8
B/SB	0	2	0	0	2	0	6	0	0	6	2	3	0	0	5	1	1	1	0	3	16
% B/SB	0	0.5	0	0	0.4	0	2.5	0	0	1.7	2.6	2.5	0	0	2.5	1.3	0.9	3.1	0	1.3	1.2

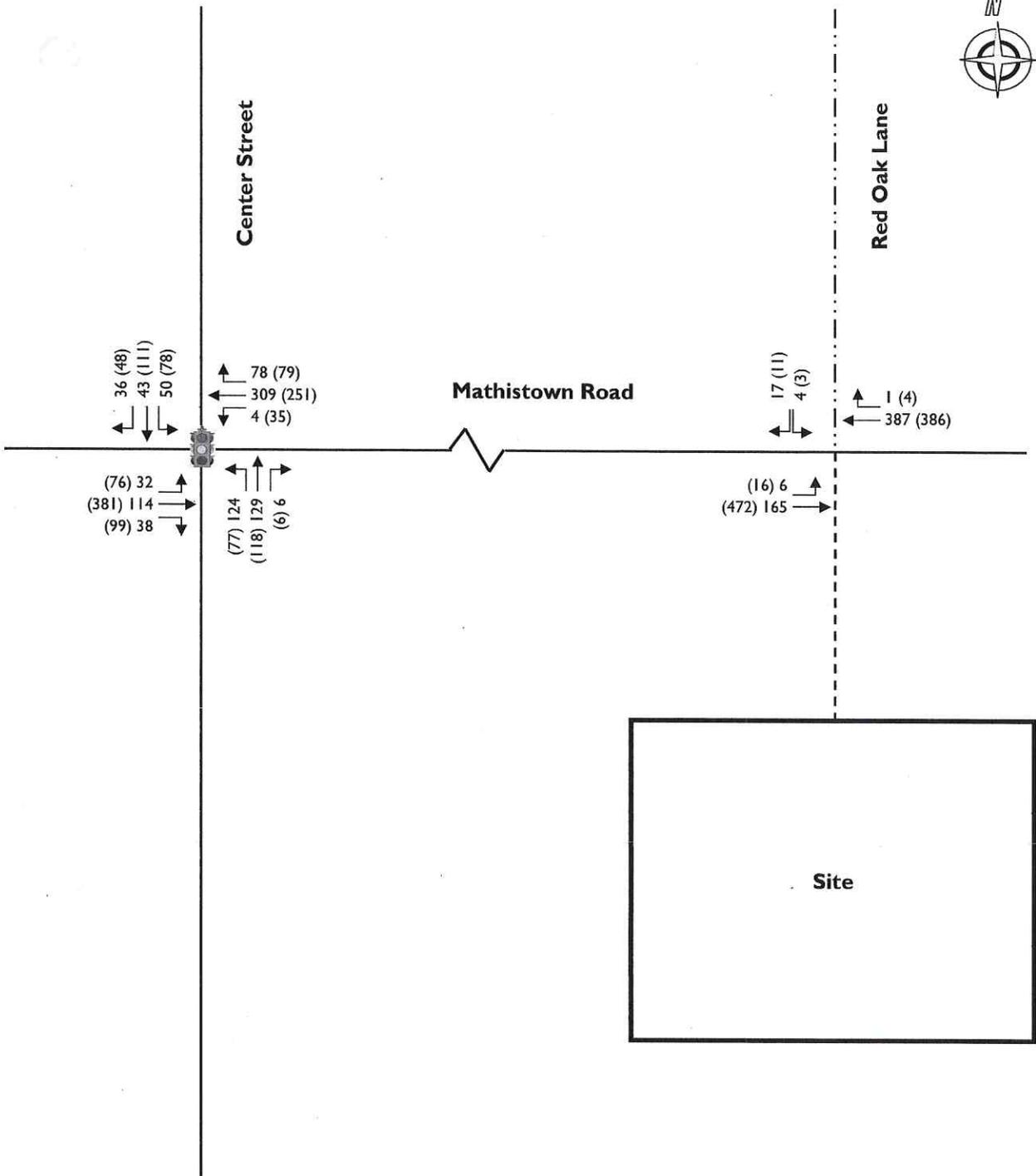
FIGURES



STONEFIELD

Proposed Townhouse Development
167 Mathistown Road
Township of Little Egg Harbor, Ocean County, NJ
Traffic Impact Study

FIGURE I
Site Location Map



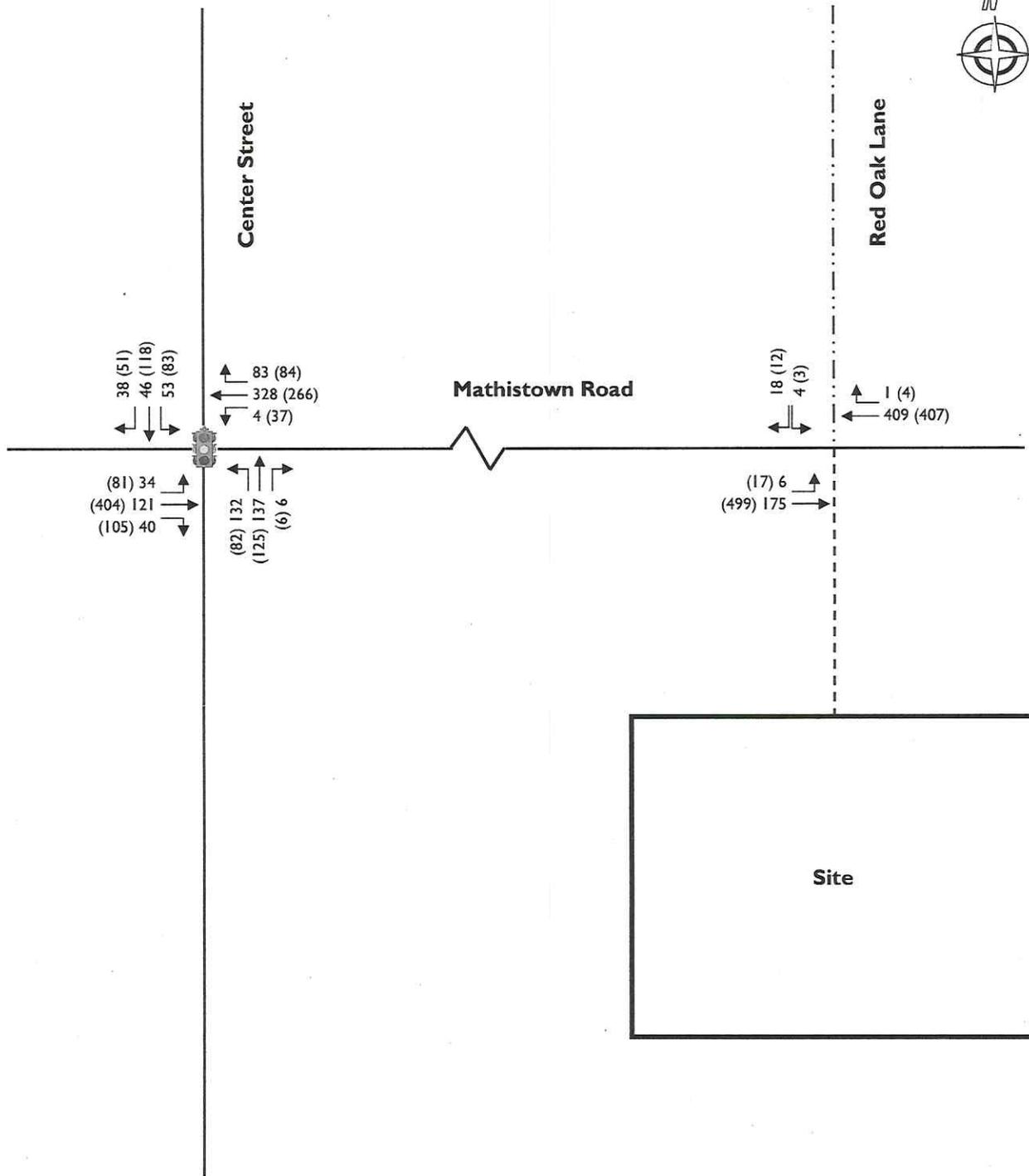
LEGEND

- Existing Roadway
- - - Proposed Driveway
- · - Existing Private Driveway
- ← AM (PM) [SAT] Peak Hour Volumes
-  Signalized Intersection

STONEFIELD

Proposed Townhouse Development
167 Mathistown Road
Township of Little Egg Harbor, Ocean County, NJ
Traffic Impact Study

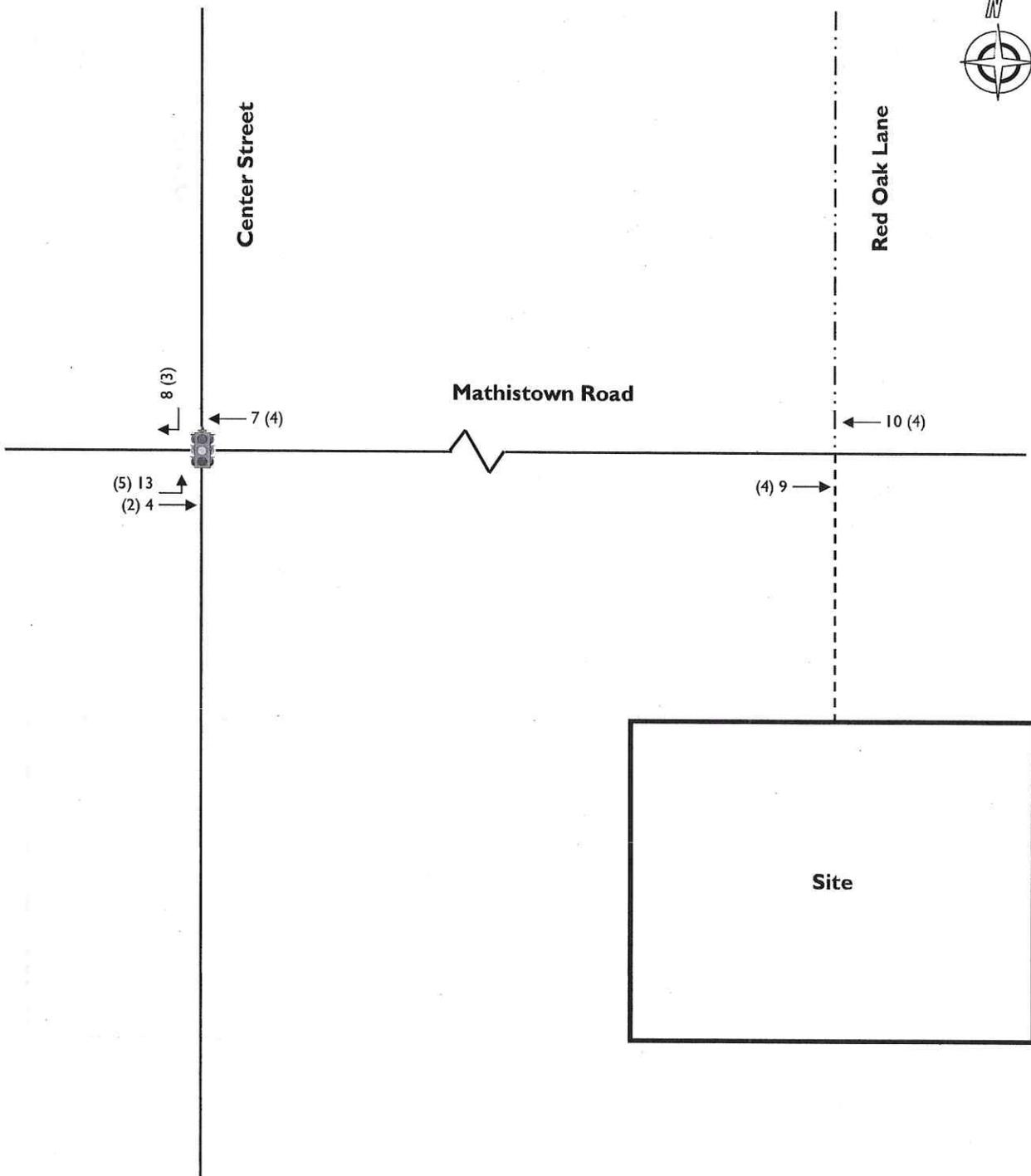
FIGURE 2
2024 Existing Traffic
Volumes



STONEFIELD

Proposed Townhouse Development
167 Mathistown Road
Township of Little Egg Harbor, Ocean County, NJ
Traffic Impact Study

FIGURE 3
2027 Base Traffic Volumes



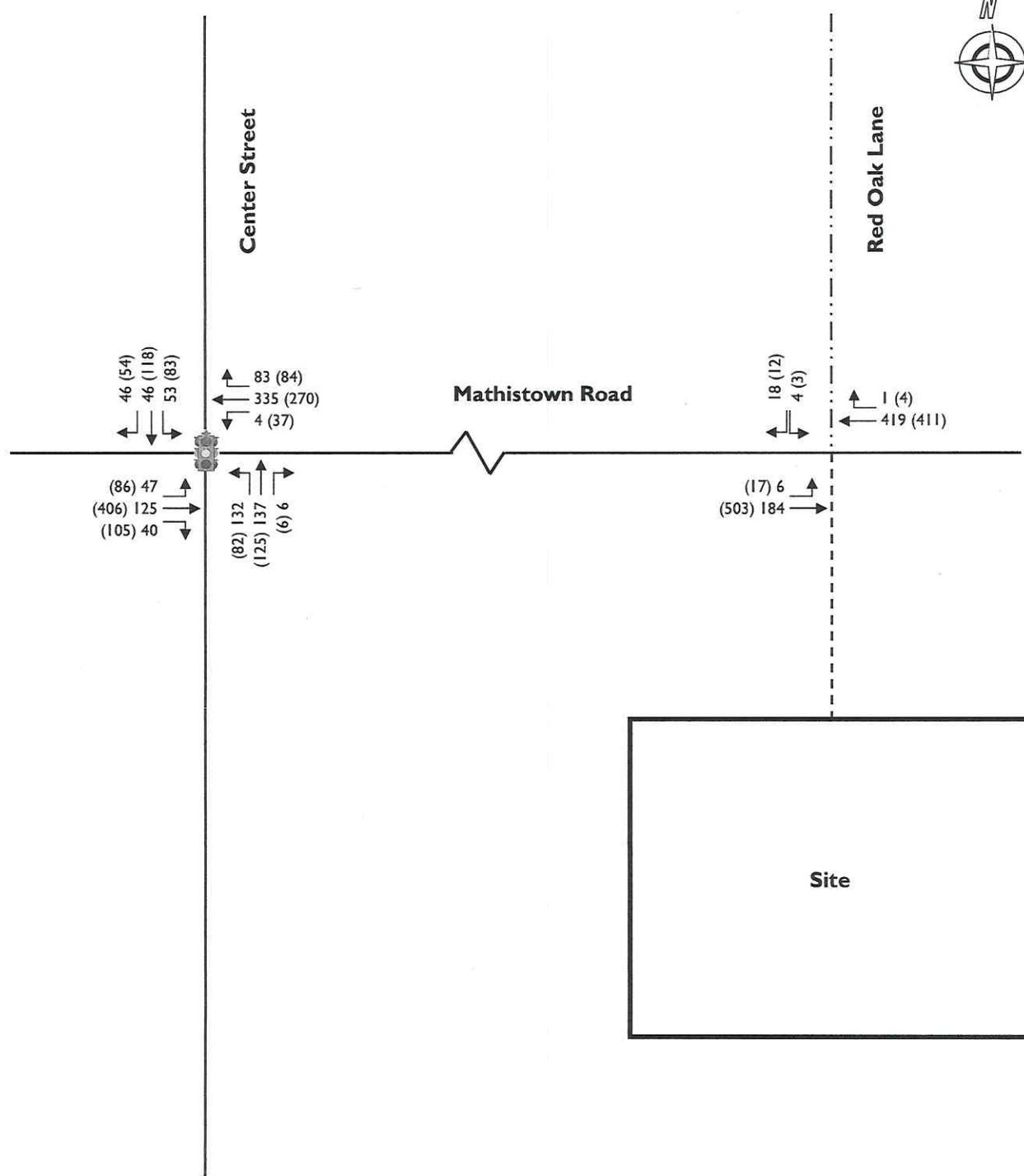
LEGEND

- Existing Roadway
- - - Proposed Driveway
- · - Existing Private Driveway
- ← AM (PM) [SAT] Peak Hour Volumes
-  Signalized Intersection

STONEFIELD

Proposed Townhouse Development
167 Mathistown Road
Township of Little Egg Harbor, Ocean County, NJ
Traffic Impact Study

FIGURE 4
Other Planned Projects
Future Traffic Volumes



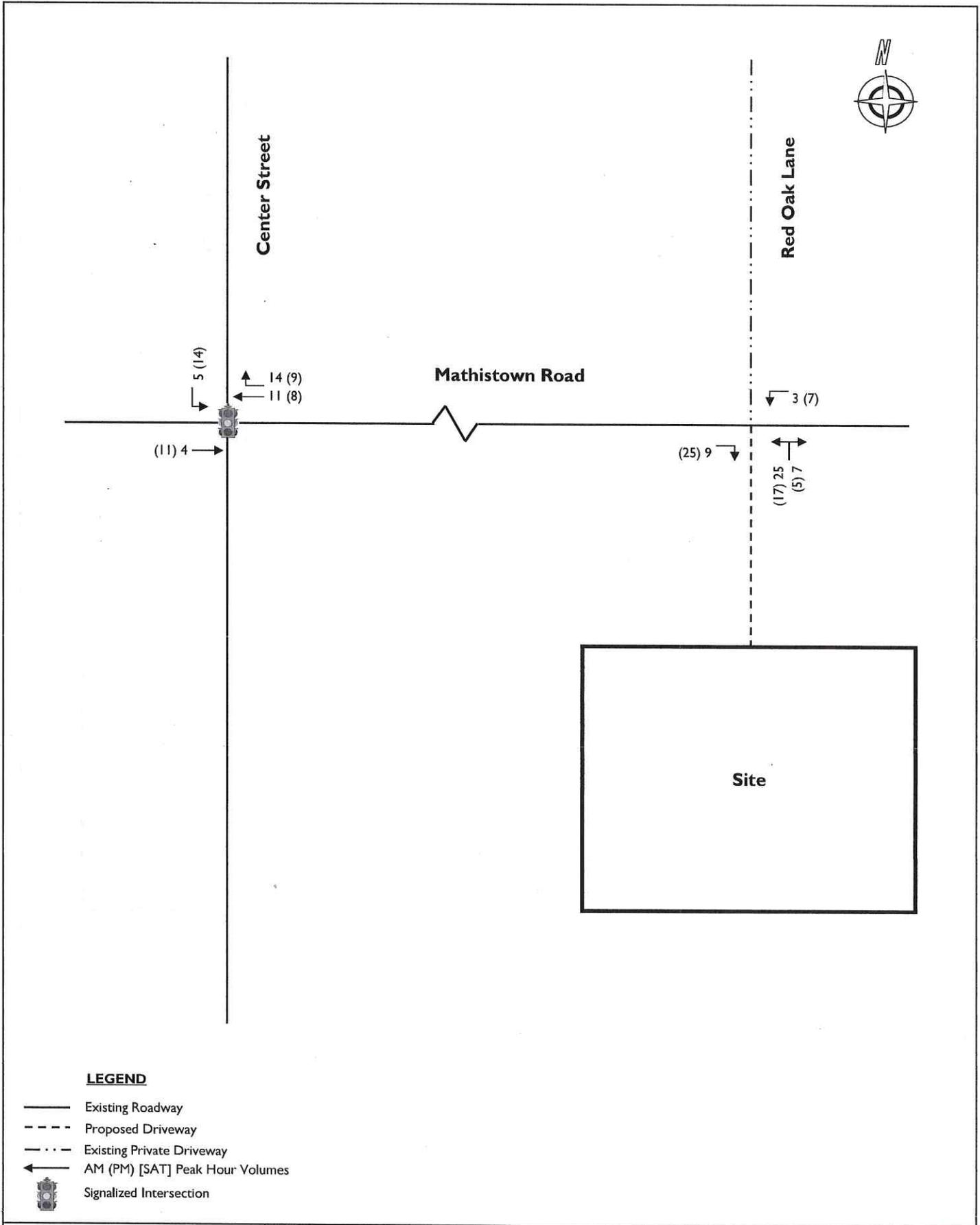
LEGEND

- Existing Roadway
- - - Proposed Driveway
- · - Existing Private Driveway
- ← AM (PM) [SAT] Peak Hour Volumes
- Signalized Intersection

STONEFIELD

Proposed Townhouse Development
167 Mathistown Road
Township of Little Egg Harbor, Ocean County, NJ
Traffic Impact Study

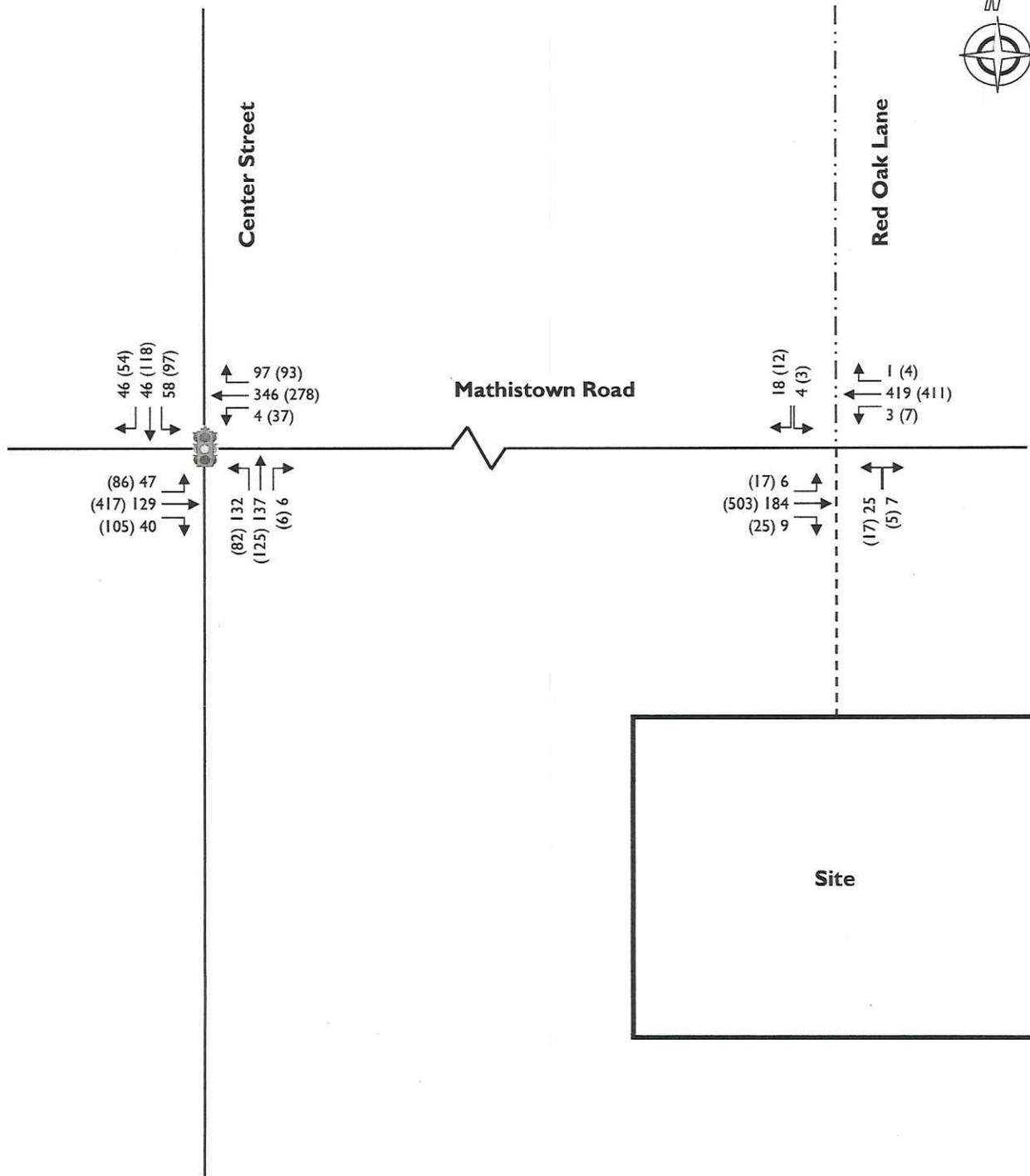
FIGURE 5
2027 No-Build Traffic
Volumes



STONEFIELD

Proposed Townhouse Development
167 Mathistown Road
Township of Little Egg Harbor, Ocean County, NJ
Traffic Impact Study

FIGURE 6
"New" Site-Generated
Traffic Volumes



LEGEND

- Existing Roadway
- - - Proposed Driveway
- · - Existing Private Driveway
- ← AM (PM) [SAT] Peak Hour Volumes
- Signalized Intersection

STONEFIELD

Proposed Townhouse Development
167 Mathistown Road
Township of Little Egg Harbor, Ocean County, NJ
Traffic Impact Study

FIGURE 7
2027 Build Traffic Volumes

HIGHWAY CAPACITY ANALYSIS DETAIL SHEETS

HCM 7th Signalized Intersection Summary
 1: Center Street & Mathistown Road

2024 Existing Condition
 Weekday Morning Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	32	114	38	4	309	78	124	129	6	50	43	36
Future Volume (veh/h)	32	114	38	4	309	78	124	129	6	50	43	36
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1707	1707	1900	1856	1856	1856	1856	1900	1811	1796	1856
Adj Flow Rate, veh/h	36	128	41	4	347	79	139	145	4	56	48	24
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	3	13	13	0	3	3	3	3	0	6	7	3
Cap, veh/h	638	837	268	862	939	214	241	182	5	172	76	38
Arrive On Green	0.04	0.68	0.68	0.01	0.64	0.64	0.08	0.10	0.10	0.05	0.07	0.07
Sat Flow, veh/h	1767	1239	397	1810	1463	333	1767	1797	50	1725	1130	565
Grp Volume(v), veh/h	36	0	169	4	0	426	139	0	149	56	0	72
Grp Sat Flow(s), veh/h/ln	1767	0	1636	1810	0	1796	1767	0	1847	1725	0	1695
Q Serve(g_s), s	0.8	0.0	4.5	0.1	0.0	13.4	8.5	0.0	9.5	3.6	0.0	5.0
Cycle Q Clear(g_c), s	0.8	0.0	4.5	0.1	0.0	13.4	8.5	0.0	9.5	3.6	0.0	5.0
Prop In Lane	1.00		0.24	1.00		0.19	1.00		0.03	1.00		0.33
Lane Grp Cap(c), veh/h	638	0	1105	862	0	1153	241	0	187	172	0	114
V/C Ratio(X)	0.06	0.00	0.15	0.00	0.00	0.37	0.58	0.00	0.80	0.33	0.00	0.63
Avail Cap(c_a), veh/h	713	0	1105	999	0	1153	241	0	462	231	0	424
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	6.6	0.0	7.0	7.4	0.0	10.1	45.4	0.0	52.7	48.5	0.0	54.5
Incr Delay (d2), s/veh	0.0	0.0	0.3	0.0	0.0	0.9	3.3	0.0	7.5	1.1	0.0	5.7
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.4	0.0	2.6	0.1	0.0	9.0	7.1	0.0	8.4	2.8	0.0	4.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	6.6	0.0	7.3	7.4	0.0	11.0	48.7	0.0	60.2	49.6	0.0	60.2
LnGrp LOS	A		A	A		B	D		E	D		E
Approach Vol, veh/h		205			430			288			128	
Approach Delay, s/veh		7.2			11.0			54.7			55.6	
Approach LOS		A			B			D			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.9	19.2	3.9	88.1	13.0	15.1	7.9	84.0				
Change Period (Y+Rc), s	3.0	7.0	3.0	7.0	3.0	7.0	3.0	7.0				
Max Green Setting (Gmax), s	10.0	30.0	10.0	50.0	10.0	30.0	10.0	50.0				
Max Q Clear Time (g_c+I1), s	5.6	11.5	2.1	6.5	10.5	7.0	2.8	15.4				
Green Ext Time (p_c), s	0.0	0.7	0.0	0.9	0.0	0.3	0.0	2.8				
Intersection Summary												
HCM 7th Control Delay, s/veh			27.6									
HCM 7th LOS			C									

HCM 7th TWSC
2: Site Driveway/Red Oak Lane & Mathistown Road

2024 Existing Condition
Weekday Morning Peak Hour

Intersection												
Int Delay, s/veh	0.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↕			↕			↕			↕		
Traffic Vol, veh/h	6	165	0	0	387	1	0	0	0	4	0	17
Future Vol, veh/h	6	165	0	0	387	1	0	0	0	4	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	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	0	1	0	0	3	0	0	0	0	0	0	0
Mvmt Flow	7	185	0	0	435	1	0	0	0	4	0	19

Major/Minor	Major1	Major2			Minor1			Minor2				
Conflicting Flow All	436	0	0	185	0	0	634	635	185	634	634	435
Stage 1	-	-	-	-	-	-	199	199	-	435	435	-
Stage 2	-	-	-	-	-	-	435	436	-	199	199	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1135	-	-	1401	-	-	395	399	862	394	399	625
Stage 1	-	-	-	-	-	-	808	740	-	603	584	-
Stage 2	-	-	-	-	-	-	604	583	-	808	740	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1135	-	-	1401	-	-	380	396	862	392	396	625
Mov Cap-2 Maneuver	-	-	-	-	-	-	380	396	-	392	396	-
Stage 1	-	-	-	-	-	-	802	735	-	603	584	-
Stage 2	-	-	-	-	-	-	585	583	-	802	735	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.29	0	0	11.69
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	63	-	-	1401	-	-	561
HCM Lane V/C Ratio	-	0.006	-	-	-	-	-	0.042
HCM Ctrl Dly (s/v)	0	8.2	0	-	0	-	-	11.7
HCM Lane LOS	A	A	A	-	A	-	-	B
HCM 95th %tile Q(veh)	-	0	-	-	0	-	-	0.1

HCM 7th Signalized Intersection Summary
1: Center Street & Mathistown Road

2024 Existing Condition
Weekday Evening Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	76	381	99	35	251	79	77	118	6	78	111	48
Future Volume (veh/h)	76	381	99	35	251	79	77	118	6	78	111	48
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1885	1900	1811	1856	1885	1841	1856	1411	1885	1885	1870
Adj Flow Rate, veh/h	85	428	109	39	282	83	87	133	7	88	125	36
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	3	1	0	6	3	1	4	3	33	1	1	2
Cap, veh/h	674	905	231	526	843	248	187	192	10	208	154	44
Arrive On Green	0.05	0.62	0.62	0.04	0.61	0.61	0.06	0.11	0.11	0.06	0.11	0.11
Sat Flow, veh/h	1767	1450	369	1725	1377	405	1753	1747	92	1795	1407	405
Grp Volume(v), veh/h	85	0	537	39	0	365	87	0	140	88	0	161
Grp Sat Flow(s), veh/h/ln	1767	0	1819	1725	0	1783	1753	0	1839	1795	0	1812
Q Serve(g_s), s	2.0	0.0	18.9	1.0	0.0	12.0	5.2	0.0	8.8	5.2	0.0	10.4
Cycle Q Clear(g_c), s	2.0	0.0	18.9	1.0	0.0	12.0	5.2	0.0	8.8	5.2	0.0	10.4
Prop In Lane	1.00		0.20	1.00		0.23	1.00		0.05	1.00		0.22
Lane Grp Cap(c), veh/h	674	0	1136	526	0	1091	187	0	202	208	0	198
V/C Ratio(X)	0.13	0.00	0.47	0.07	0.00	0.33	0.46	0.00	0.69	0.42	0.00	0.81
Avail Cap(c_a), veh/h	724	0	1136	596	0	1091	233	0	460	255	0	453
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	7.5	0.0	12.0	8.7	0.0	11.4	44.4	0.0	51.5	44.2	0.0	52.2
Incr Delay (d2), s/veh	0.1	0.0	1.4	0.1	0.0	0.8	1.8	0.0	4.2	1.4	0.0	7.8
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.2	0.0	11.7	0.6	0.0	8.3	4.3	0.0	7.7	4.2	0.0	8.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	7.6	0.0	13.4	8.7	0.0	12.2	46.1	0.0	55.7	45.6	0.0	60.1
LnGrp LOS	A		B	A		B	D		E	D		E
Approach Vol, veh/h		622			404			227			249	
Approach Delay, s/veh		12.6			11.9			52.1			54.9	
Approach LOS		B			B			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.8	20.2	8.1	81.9	9.9	20.1	9.6	80.4				
Change Period (Y+Rc), s	3.0	7.0	3.0	7.0	3.0	7.0	3.0	7.0				
Max Green Setting (Gmax), s	10.0	30.0	10.0	50.0	10.0	30.0	10.0	50.0				
Max Q Clear Time (g_c+I1), s	7.2	10.8	3.0	20.9	7.2	12.4	4.0	14.0				
Green Ext Time (p_c), s	0.0	0.6	0.0	3.4	0.0	0.7	0.1	2.4				
Intersection Summary												
HCM 7th Control Delay, s/veh			25.4									
HCM 7th LOS			C									

HCM 7th TWSC
2: Site Driveway/Red Oak Lane & Mathistown Road

2024 Existing Condition
Weekday Evening Peak Hour

Intersection												
Int Delay, s/veh	0.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↕			↕			↕			↕		
Traffic Vol, veh/h	16	472	0	0	386	4	0	0	0	3	0	11
Future Vol, veh/h	16	472	0	0	386	4	0	0	0	3	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	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	0	1	0	0	3	0	0	0	0	0	0	0
Mvmt Flow	18	530	0	0	434	4	0	0	0	3	0	12

Major/Minor	Major1	Major2	Minor1	Minor2
Conflicting Flow All	438	0	0	530
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	4.1	-	4.1	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	2.2	-	2.2	-
Pot Cap-1 Maneuver	1132	-	1047	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	1132	-	1047	-
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.27	0	0	13.36
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	59	-	-	1047	-	-	446
HCM Lane V/C Ratio	-	0.016	-	-	-	-	-	0.035
HCM Ctrl Dly (s/v)	0	8.2	0	-	0	-	-	13.4
HCM Lane LOS	A	A	A	-	A	-	-	B
HCM 95th %tile Q(veh)	-	0	-	-	0	-	-	0.1

HCM 7th Signalized Intersection Summary
 1: Center Street & Mathistown Road

2027 No-Build Condition
 Weekday Morning Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	47	125	40	4	335	83	132	137	6	53	46	46
Future Volume (veh/h)	47	125	40	4	335	83	132	137	6	53	46	46
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1707	1707	1900	1856	1856	1856	1856	1900	1811	1796	1856
Adj Flow Rate, veh/h	53	140	43	4	376	84	148	154	4	60	52	36
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	3	13	13	0	3	3	3	3	0	6	7	3
Cap, veh/h	608	839	258	839	922	206	236	191	5	174	73	50
Arrive On Green	0.05	0.67	0.67	0.01	0.63	0.63	0.08	0.11	0.11	0.05	0.07	0.07
Sat Flow, veh/h	1767	1253	385	1810	1468	328	1767	1800	47	1725	989	684
Grp Volume(v), veh/h	53	0	183	4	0	460	148	0	158	60	0	88
Grp Sat Flow(s),veh/h/ln	1767	0	1638	1810	0	1796	1767	0	1847	1725	0	1673
Q Serve(g_s), s	1.1	0.0	5.0	0.1	0.0	15.4	9.1	0.0	10.0	3.8	0.0	6.2
Cycle Q Clear(g_c), s	1.1	0.0	5.0	0.1	0.0	15.4	9.1	0.0	10.0	3.8	0.0	6.2
Prop In Lane	1.00		0.23	1.00		0.18	1.00		0.03	1.00		0.41
Lane Grp Cap(c), veh/h	608	0	1096	839	0	1129	236	0	196	174	0	123
V/C Ratio(X)	0.09	0.00	0.17	0.00	0.00	0.41	0.63	0.00	0.80	0.34	0.00	0.72
Avail Cap(c_a), veh/h	670	0	1096	976	0	1129	236	0	462	231	0	418
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	7.2	0.0	7.4	8.0	0.0	11.1	45.1	0.0	52.4	47.9	0.0	54.4
Incr Delay (d2), s/veh	0.1	0.0	0.3	0.0	0.0	1.1	5.2	0.0	7.5	1.2	0.0	7.5
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.7	0.0	2.9	0.1	0.0	10.1	7.7	0.0	8.7	3.0	0.0	5.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	7.2	0.0	7.7	8.0	0.0	12.2	50.2	0.0	59.9	49.0	0.0	61.9
LnGrp LOS	A		A	A		B	D		E	D		E
Approach Vol, veh/h		236			464			306			148	
Approach Delay, s/veh		7.6			12.2			55.2			56.7	
Approach LOS		A			B			E			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.1	19.8	3.9	87.3	13.0	15.8	8.8	82.4				
Change Period (Y+Rc), s	3.0	7.0	3.0	7.0	3.0	7.0	3.0	7.0				
Max Green Setting (Gmax), s	10.0	30.0	10.0	50.0	10.0	30.0	10.0	50.0				
Max Q Clear Time (g_c+I1), s	5.8	12.0	2.1	7.0	11.1	8.2	3.1	17.4				
Green Ext Time (p_c), s	0.0	0.7	0.0	1.0	0.0	0.4	0.0	3.1				
Intersection Summary												
HCM 7th Control Delay, s/veh			28.4									
HCM 7th LOS			C									

HCM 7th TWSC
2: Site Driveway/Red Oak Lane & Mathistown Road

2027 No-Build Condition
Weekday Morning Peak Hour

Intersection												
Int Delay, s/veh	0.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↕			↕			↕			↕		
Traffic Vol, veh/h	6	184	0	0	419	1	0	0	0	4	0	18
Future Vol, veh/h	6	184	0	0	419	1	0	0	0	4	0	18
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	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	0	1	0	0	3	0	0	0	0	0	0	0
Mvmt Flow	7	207	0	0	471	1	0	0	0	4	0	20

Major/Minor	Major1	Major2	Minor1	Minor2
Conflicting Flow All	472	0	0	207
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	4.1	-	-	4.1
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	2.2	-	-	2.2
Pot Cap-1 Maneuver	1100	-	-	1376
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	1100	-	-	1376
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.26	0	0	12.09
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	57	-	-	1376	-	-	532
HCM Lane V/C Ratio	-	0.006	-	-	-	-	-	0.046
HCM Ctrl Dly (s/v)	0	8.3	0	-	0	-	-	12.1
HCM Lane LOS		A	A	A	-	A	-	B
HCM 95th %tile Q(veh)	-	0	-	-	0	-	-	0.1

HCM 7th Signalized Intersection Summary
1: Center Street & Mathistown Road

2027 No-Build Condition
Weekday Evening Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	86	406	105	37	270	84	82	125	6	83	118	54
Future Volume (veh/h)	86	406	105	37	270	84	82	125	6	83	118	54
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1885	1900	1811	1856	1885	1841	1856	1411	1885	1885	1870
Adj Flow Rate, veh/h	97	456	116	42	303	88	92	140	7	93	133	43
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	3	1	0	6	3	1	4	3	33	1	1	2
Cap, veh/h	639	887	226	488	828	241	192	208	10	219	161	52
Arrive On Green	0.06	0.61	0.61	0.04	0.60	0.60	0.06	0.12	0.12	0.06	0.12	0.12
Sat Flow, veh/h	1767	1450	369	1725	1382	401	1753	1752	88	1795	1365	441
Grp Volume(v), veh/h	97	0	572	42	0	391	92	0	147	93	0	176
Grp Sat Flow(s), veh/h/ln	1767	0	1819	1725	0	1783	1753	0	1840	1795	0	1806
Q Serve(g_s), s	2.4	0.0	21.4	1.1	0.0	13.5	5.5	0.0	9.2	5.4	0.0	11.4
Cycle Q Clear(g_c), s	2.4	0.0	21.4	1.1	0.0	13.5	5.5	0.0	9.2	5.4	0.0	11.4
Prop In Lane	1.00		0.20	1.00		0.23	1.00		0.05	1.00		0.24
Lane Grp Cap(c), veh/h	639	0	1112	488	0	1069	192	0	218	219	0	213
V/C Ratio(X)	0.15	0.00	0.51	0.09	0.00	0.37	0.48	0.00	0.67	0.42	0.00	0.82
Avail Cap(c_a), veh/h	687	0	1112	556	0	1069	233	0	460	262	0	451
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	8.3	0.0	13.2	9.6	0.0	12.3	43.4	0.0	50.7	43.2	0.0	51.7
Incr Delay (d2), s/veh	0.1	0.0	1.7	0.1	0.0	1.0	1.9	0.0	3.6	1.3	0.0	7.8
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.5	0.0	13.1	0.7	0.0	9.2	4.5	0.0	7.9	4.4	0.0	9.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	8.4	0.0	14.9	9.6	0.0	13.3	45.3	0.0	54.2	44.5	0.0	59.5
LnGrp LOS	A		B	A		B	D		D	D		E
Approach Vol, veh/h		669			433			239				269
Approach Delay, s/veh		14.0			12.9			50.8				54.3
Approach LOS		B			B			D				D
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.1	21.2	8.3	80.4	10.2	21.2	9.7	78.9				
Change Period (Y+Rc), s	3.0	7.0	3.0	7.0	3.0	7.0	3.0	7.0				
Max Green Setting (Gmax), s	10.0	30.0	10.0	50.0	10.0	30.0	10.0	50.0				
Max Q Clear Time (g_c+I1), s	7.4	11.2	3.1	23.4	7.5	13.4	4.4	15.5				
Green Ext Time (p_c), s	0.0	0.7	0.0	3.6	0.0	0.8	0.1	2.6				
Intersection Summary												
HCM 7th Control Delay, s/veh			25.9									
HCM 7th LOS			C									

HCM 7th TWSC
2: Site Driveway/Red Oak Lane & Mathistown Road

2027 No-Build Condition
Weekday Evening Peak Hour

Intersection												
Int Delay, s/veh	0.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↕			↕			↕			↕		
Traffic Vol, veh/h	17	503	0	0	411	4	0	0	0	3	0	12
Future Vol, veh/h	17	503	0	0	411	4	0	0	0	3	0	12
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	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	0	1	0	0	3	0	0	0	0	0	0	0
Mvmt Flow	19	565	0	0	462	4	0	0	0	3	0	13

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	466	0	0	565	0	0	1065	1070	565	1067	1067	464
Stage 1	-	-	-	-	-	-	603	603	-	464	464	-
Stage 2	-	-	-	-	-	-	462	466	-	603	603	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1106	-	-	1017	-	-	202	223	528	201	224	602
Stage 1	-	-	-	-	-	-	489	491	-	582	567	-
Stage 2	-	-	-	-	-	-	584	566	-	489	491	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1106	-	-	1017	-	-	193	217	528	196	218	602
Mov Cap-2 Maneuver	-	-	-	-	-	-	193	217	-	196	218	-
Stage 1	-	-	-	-	-	-	477	479	-	582	567	-
Stage 2	-	-	-	-	-	-	571	566	-	477	479	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.27	0	0	13.8
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	59	-	-	1017	-	-	426
HCM Lane V/C Ratio	-	0.017	-	-	-	-	-	0.04
HCM Ctrl Dly (s/v)	0	8.3	0	-	0	-	-	13.8
HCM Lane LOS		A	A	A	-	A	-	B
HCM 95th %tile Q(veh)	-	0.1	-	-	0	-	-	0.1

HCM 7th Signalized Intersection Summary
1: Center Street & Mathistown Road

2027 Build Condition
Weekday Morning Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	47	129	40	4	346	97	132	137	6	58	46	46
Future Volume (veh/h)	47	129	40	4	346	97	132	137	6	58	46	46
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1707	1707	1900	1856	1856	1856	1856	1900	1811	1796	1856
Adj Flow Rate, veh/h	53	145	43	4	389	100	148	154	4	65	52	36
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	3	13	13	0	3	3	3	3	0	6	7	3
Cap, veh/h	584	845	251	832	893	229	238	191	5	176	74	51
Arrive On Green	0.05	0.67	0.67	0.01	0.63	0.63	0.08	0.11	0.11	0.05	0.07	0.07
Sat Flow, veh/h	1767	1265	375	1810	1424	366	1767	1800	47	1725	989	684
Grp Volume(v), veh/h	53	0	188	4	0	489	148	0	158	65	0	88
Grp Sat Flow(s),veh/h/ln	1767	0	1640	1810	0	1790	1767	0	1847	1725	0	1673
Q Serve(g_s), s	1.1	0.0	5.2	0.1	0.0	16.8	9.1	0.0	10.0	4.1	0.0	6.2
Cycle Q Clear(g_c), s	1.1	0.0	5.2	0.1	0.0	16.8	9.1	0.0	10.0	4.1	0.0	6.2
Prop In Lane	1.00		0.23	1.00		0.20	1.00		0.03	1.00		0.41
Lane Grp Cap(c), veh/h	584	0	1095	832	0	1122	238	0	196	176	0	125
V/C Ratio(X)	0.09	0.00	0.17	0.00	0.00	0.44	0.62	0.00	0.80	0.37	0.00	0.70
Avail Cap(c_a), veh/h	645	0	1095	970	0	1122	238	0	462	231	0	418
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	7.4	0.0	7.5	8.0	0.0	11.5	44.9	0.0	52.4	47.8	0.0	54.2
Incr Delay (d2), s/veh	0.1	0.0	0.3	0.0	0.0	1.2	5.0	0.0	7.5	1.3	0.0	7.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.7	0.0	3.1	0.1	0.0	10.9	7.7	0.0	8.7	3.2	0.0	5.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	7.5	0.0	7.8	8.0	0.0	12.7	49.9	0.0	59.9	49.0	0.0	61.3
LnGrp LOS	A		A	A		B	D		E	D		E
Approach Vol, veh/h		241			493			306			153	
Approach Delay, s/veh		7.7			12.7			55.1			56.1	
Approach LOS		A			B			E			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.2	19.8	3.9	87.2	13.0	16.0	8.8	82.2				
Change Period (Y+Rc), s	3.0	7.0	3.0	7.0	3.0	7.0	3.0	7.0				
Max Green Setting (Gmax), s	10.0	30.0	10.0	50.0	10.0	30.0	10.0	50.0				
Max Q Clear Time (g_c+I1), s	6.1	12.0	2.1	7.2	11.1	8.2	3.1	18.8				
Green Ext Time (p_c), s	0.0	0.7	0.0	1.0	0.0	0.4	0.0	3.4				
Intersection Summary												
HCM 7th Control Delay, s/veh			28.1									
HCM 7th LOS			C									

HCM 7th TWSC
2: Site Driveway/Red Oak Lane & Mathistown Road

2027 Build Condition
Weekday Morning 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	6	184	9	3	419	1	25	0	7	4	0	18
Future Vol, veh/h	6	184	9	3	419	1	25	0	7	4	0	18
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	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	0	1	0	0	3	0	0	0	0	0	0	0
Mvmt Flow	7	207	10	3	471	1	28	0	8	4	0	20

Major/Minor	Major1		Major2		Minor1		Minor2					
Conflicting Flow All	472	0	0	217	0	0	703	704	212	698	708	471
Stage 1	-	-	-	-	-	-	225	225	-	478	478	-
Stage 2	-	-	-	-	-	-	478	479	-	220	230	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1100	-	-	1365	-	-	355	364	833	357	362	597
Stage 1	-	-	-	-	-	-	782	721	-	572	559	-
Stage 2	-	-	-	-	-	-	572	559	-	787	717	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1100	-	-	1365	-	-	339	360	833	350	358	597
Mov Cap-2 Maneuver	-	-	-	-	-	-	339	360	-	350	358	-
Stage 1	-	-	-	-	-	-	776	716	-	570	557	-
Stage 2	-	-	-	-	-	-	551	557	-	774	712	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.25	0.05	15.17	12.14
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	390	54	-	-	13	-	-	529
HCM Lane V/C Ratio	0.092	0.006	-	-	0.002	-	-	0.047
HCM Ctrl Dly (s/v)	15.2	8.3	0	-	7.6	0	-	12.1
HCM Lane LOS	C	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.3	0	-	-	0	-	-	0.1

HCM 7th Signalized Intersection Summary
1: Center Street & Mathistown Road

2027 Build Condition
Weekday Evening Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	86	417	105	37	278	93	82	125	6	97	118	54
Future Volume (veh/h)	86	417	105	37	278	93	82	125	6	97	118	54
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1885	1900	1811	1856	1885	1841	1856	1411	1885	1885	1870
Adj Flow Rate, veh/h	97	469	116	42	312	98	92	140	7	109	133	43
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	3	1	0	6	3	1	4	3	33	1	1	2
Cap, veh/h	623	892	221	479	811	255	192	193	10	223	161	52
Arrive On Green	0.06	0.61	0.61	0.04	0.60	0.60	0.06	0.11	0.11	0.07	0.12	0.12
Sat Flow, veh/h	1767	1459	361	1725	1354	425	1753	1752	88	1795	1365	441
Grp Volume(v), veh/h	97	0	585	42	0	410	92	0	147	109	0	176
Grp Sat Flow(s),veh/h/ln	1767	0	1820	1725	0	1779	1753	0	1840	1795	0	1806
Q Serve(g_s), s	2.4	0.0	22.1	1.1	0.0	14.4	5.5	0.0	9.3	6.4	0.0	11.4
Cycle Q Clear(g_c), s	2.4	0.0	22.1	1.1	0.0	14.4	5.5	0.0	9.3	6.4	0.0	11.4
Prop In Lane	1.00		0.20	1.00		0.24	1.00		0.05	1.00		0.24
Lane Grp Cap(c), veh/h	623	0	1113	479	0	1066	192	0	202	223	0	213
V/C Ratio(X)	0.16	0.00	0.53	0.09	0.00	0.38	0.48	0.00	0.73	0.49	0.00	0.82
Avail Cap(c_a), veh/h	671	0	1113	547	0	1066	233	0	460	251	0	451
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	8.4	0.0	13.4	9.7	0.0	12.5	44.1	0.0	51.7	43.5	0.0	51.7
Incr Delay (d2), s/veh	0.1	0.0	1.8	0.1	0.0	1.1	1.8	0.0	4.9	1.6	0.0	7.8
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.5	0.0	13.5	0.7	0.0	9.7	4.5	0.0	8.0	5.2	0.0	9.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	8.5	0.0	15.1	9.8	0.0	13.6	46.0	0.0	56.6	45.2	0.0	59.5
LnGrp LOS	A		B	A		B	D		E	D		E
Approach Vol, veh/h		682			452			239			285	
Approach Delay, s/veh		14.2			13.2			52.5			54.0	
Approach LOS		B			B			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.2	20.2	8.3	80.3	10.2	21.2	9.7	78.9				
Change Period (Y+Rc), s	3.0	7.0	3.0	7.0	3.0	7.0	3.0	7.0				
Max Green Setting (Gmax), s	10.0	30.0	10.0	50.0	10.0	30.0	10.0	50.0				
Max Q Clear Time (g_c+I1), s	8.4	11.3	3.1	24.1	7.5	13.4	4.4	16.4				
Green Ext Time (p_c), s	0.0	0.7	0.0	3.7	0.0	0.8	0.1	2.7				
Intersection Summary												
HCM 7th Control Delay, s/veh			26.3									
HCM 7th LOS			C									

HCM 7th TWSC
2: Site Driveway/Red Oak Lane & Mathistown Road

2027 Build Condition
Weekday Evening 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	17	503	25	7	411	4	17	0	5	3	0	12
Future Vol, veh/h	17	503	25	7	411	4	17	0	5	3	0	12
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	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	0	1	0	0	3	0	0	0	0	0	0	0
Mvmt Flow	19	565	28	8	462	4	19	0	6	3	0	13

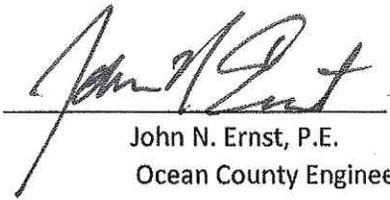
Major/Minor	Major1		Major2		Minor1		Minor2					
Conflicting Flow All	466	0	0	593	0	0	1095	1099	579	1083	1111	464
Stage 1	-	-	-	-	-	-	617	617	-	480	480	-
Stage 2	-	-	-	-	-	-	478	482	-	603	631	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1106	-	-	993	-	-	193	214	519	196	211	602
Stage 1	-	-	-	-	-	-	481	484	-	571	558	-
Stage 2	-	-	-	-	-	-	572	557	-	489	477	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1106	-	-	993	-	-	182	206	519	187	203	602
Mov Cap-2 Maneuver	-	-	-	-	-	-	182	206	-	187	203	-
Stage 1	-	-	-	-	-	-	468	472	-	565	552	-
Stage 2	-	-	-	-	-	-	554	551	-	471	465	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.26	0.14	24.09	13.99
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	213	56	-	-	30	-	-	417
HCM Lane V/C Ratio	0.116	0.017	-	-	0.008	-	-	0.04
HCM Ctrl Dly (s/v)	24.1	8.3	0	-	8.7	0	-	14
HCM Lane LOS	C	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.4	0.1	-	-	0	-	-	0.1

TRAFFIC SIGNAL TIMING DIRECTIVE

LEH-1
 C.R. #2 (Mathistown Road)
 C.R. #103 (Center Street)
 Little Egg Harbor Township


 John N. Ernst, P.E.
 Ocean County Engineer

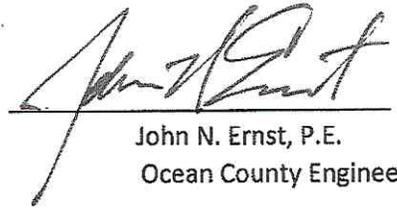
3/9/23
 Date

Date: August 16, 1990
 Revised: September 8, 2006
 July 26, 2011
 March 8, 2023

120 SECOND BACKGROUND AND 71-96 SECOND VARIABLE CYCLE LENGTH

Phase	Signal Faces										Time (Seconds)	
											Plan I	Plan II
	1,2	3	4,5	6	7,8	9	10,11	12	13,14, 15,16	17,18, 19,20	120 sec Cycle	Variable Cycle
NO PEDESTRIAN ACTUATION												
A) Mathistown Rd Lead Left Change	<G-/R <Y-/R	R	<G-/R <Y-/R	R	R	R	R	R	DW	DW	7-10 3	7-10 3
B) Mathistown Rd ROW Pedestrian Clearance Change	G G Y R	G G Y R	G G Y R	G G Y R	R R R R	R R R R	R R R R	R R R R	W FDW DW DW	DW DW DW DW	56-27 23 5 2	7 MIN 23 5 2
C) Center St Lead Left Change	R R	R R	R R	R R	<G-/R <Y-/R	R R	<G-/R <Y-/R	R R	DW DW	DW DW	7-10 3	7-10 3
D) Center St ROW Change Clearance	R R R	R R R	R R R	R R R	G Y R	G Y R	G Y R	G Y R	DW DW DW	DW DW DW	7-30 4 3	7-15 4 3
PEDESTRIAN ACTUATION												
A) Mathistown Rd Lead Left Change	<G-/R <Y-/R	R	<G-/R <Y-/R	R	R	R	R	R	DW	DW	7-10 3	7-10 3
B) Mathistown Rd ROW Pedestrian Clearance Change	G G Y R	G G Y R	G G Y R	G G Y R	R R R R	R R R R	R R R R	R R R R	W FDW DW DW	DW DW DW DW	37-27 23 5 2	7 MIN 23 5 2
C) Center St Lead Left Change	R R	R R	R R	R R	<G-/R <Y-/R	R R	<G-/R <Y-/R	R R	DW DW	DW DW	7-10 3	7-10 3
D) Center St ROW Pedestrian Clearance Vehicle Extension Change Clearance	R R R R	R R R R	R R R R	R R R R	G G G Y	G G G Y	G G G Y	G G G Y	DW DW DW DW	W FDW DW DW	8 18 0-4 4	8 18 0 4
Emergency Flash	Y	Y	Y	Y	R	R	R	R	DARK	DARK	-	-
Offset											-	-

LEH-1
C.R. #2 (Mathistown Road)
C.R. #103 (Center Street)
Little Egg Harbor Township


John N. Ernst, P.E.
Ocean County Engineer

3/9/23
Date

Notes:

1. Signal shall rest in Phase B - Mathistown Road R.O.W.
2. Phase A must be followed by Phase B.
3. Phase C must be followed by Phase D.
4. The vehicle interval is to be set at 2 seconds for Phases A, C and D.
5. Recall is to be in the OFF position.
6. The manual control is to be disconnected.
7. The left-turn slots in Phase A are to be separate phases but concurrently timed if actuation occurs in both slots. Each left-turn slot has the capability of terminating or extending separately or independently of the other, thereby reverting the timing to the non-conflicting Phase B movement.
8. The left-turn slots in Phase C are to be separate phases but concurrently timed if actuation occurs in both slots. Each left-turn slot has the capability of terminating or extending separately or independently of the other, thereby reverting the timing to the non-conflicting Phase D movement.

The following is the Time-Of-Day schedule:

5:00 AM to 11:00 PM	Monday to Sunday	Plan I
All Other Times	Monday to Sunday	Plan II

