

Traffic Engineering, Transportation Planning & Design

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David R. Shropshire, PE, PP
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April 24, 2025

Mr. Christopher Morris
ARH Associates
215 Bellevue Avenue
Hammonton, New Jersey 08037

(via email: cmorris@arh-us.com)

Re: **Traffic Engineering Assessment
Venue at Summers Corner
Block 286, Lots 3, 5, & 6
Block 287, Lot 7
Center Street (CR 103)
Little Egg Harbor Township, Ocean County, NJ
SA Project No. 24257**

Dear Christopher:

In response to your request, Shropshire Associates LLC has prepared a Traffic Engineering Assessment report to evaluate the impact of the traffic to be generated by the proposed Venue at Summers Corner age-restricted residential development along southbound Center Street (CR 103), between its intersection with Oak Lane and Mathistown Road, in Little Egg Harbor Township, Ocean County, New Jersey. The properties are currently vacant.

The proposed Venue at Summers Corner will include the construction of 415 age-restricted residential dwelling units, consisting of 199 detached dwelling units, and 216 attached dwelling units. In addition, the development will include off-street parking and a new internal roadway network to provide circulation throughout the development.

The Venue at Summers Corner residential will have access via two (2) new full-movement roadways / driveways along southbound Center Street (CR 103). The new access points will be located at the existing T-shaped Center Street / Windstar Drive and Center Street / Timberline Drive intersections, creating a new fourth leg at each existing intersection. The site access opposite Windstar Drive will be designed as a boulevard style access with bifurcated inbound and outbound lanes. In addition, the development will include the following roadway improvements along its Center Street frontage based upon our preliminary discussions with Ocean County.

- Widening along the site's frontage along westbound Center Street to provide a full-width shoulder area. This area will be sufficient for the provision of bike lanes in the future if a need is determined by the County.
- Construction of dedicated left-turn lanes for both the eastbound and westbound Center Street approaches at the future site roadway access points and intersections with Windstar Drive and Timberline Drive.
- Restriping of Center Street between its intersections with Windstar Drive and Timberline Drive to create a center two-way left-turn area.



All improvements along the site's Center Street frontage will require final approval from the County with regards to design and operations.

It should also be noted that the Applicant and project team have had two (2) preliminary pre-application meetings with the Ocean County Engineering and Planning Department staff to discuss the proposed Venue at Summers Corner age-restricted development. As a result of these conversations, the Applicant has incorporated the above-referenced frontage and roadway improvements along Center Street. In addition, the study locations analyzed and evaluated in this Traffic Engineering Assessment were recommended by the County staff.

Existing Conditions

A field reconnaissance was conducted to determine features of the adjacent roadway network, roadways and intersections within the study area. Descriptions of the roadways and intersections within the study area are provided below.

Along the site's frontage, **Center Street (CR 103)** is a two-lane undivided roadway that is under the jurisdiction of Ocean County and is classified as an Urban Minor Collector roadway. Center Street has a variable cartway width and consists of a 12' travel lane and a variable shoulder width in each direction. The posted speed limit on Center Street west of its intersection with Mathistown Road is 30 MPH. The posted speed limit on Center Street between its intersection with Mathistown Road and the intersection of Oak Lane is 40 MPH. The posted speed limit on Center Street east of its intersection with Oak Lane is 25 MPH. For this assessment, Center Street is assumed to extend in a general east-west direction.

West of the site, **Mathistown Road (CR 2)** is a two-lane undivided roadway that is under the jurisdiction of Ocean County and is classified as an Urban Major Collector roadway. In the vicinity of the site, Mathistown Road has a variable cartway width and consists of a 12' travel lane and an variable shoulder width in each direction. The posted speed limit on Mathistown Road north of its intersection with Center Street is 45 MPH and the posted speed limit on Mathistown Road south of its intersection with Center Street is 35 MPH. For this assessment, Mathistown Road is assumed to extend in a general north-south direction.

East of the site, **Oak Lane** is a two-lane undivided roadway that is classified as an Urban Major Collector and is under the jurisdiction of Little Egg Harbor Township. Oak Lane has a cartway width of 32' consisting of a 16' travel lane in both the northbound and southbound directions. Oak Lane has a posted speed limit of 25 MPH. For this assessment, Oak Lane is assumed to extend in a general north-south direction.

Opposite the site, **Windstar Drive** is a two-lane undivided local roadway that provides access to an existing residential neighborhood. Windstar Drive has a cartway width of 26' consisting of 13' travel lanes in both the northbound and southbound directions. Windstar Drive has an assumed speed limit of 25 MPH. For this assessment, Windstar Drive is assumed to extend in a general north-south direction.

Opposite the site, **Timberline Drive** is a two-lane undivided local roadway that provides access to an existing residential neighborhood. Timberline Drive has a cartway width of 20' consisting of 10' travel lanes in both the northbound and southbound directions. Timberline Drive has a posted speed limit of 15 MPH. For this assessment, Timberline Drive is assumed to extend in a general north-south direction.



The four-legged **Mathistown Road (CR 2) and Center Street (CR 103)** intersection is controlled by a four-phase semi-actuated traffic signal that operates with a 120-second cycle length during peak hour conditions. All approaches consist of an exclusive left-turn lane, and a shared through/right-turn lane.

The four-legged **Center Street (CR 103) and Oak Lane** intersection is controlled by a two-phase semi-actuated traffic signal that operates with a variable cycle length during peak hour conditions. All approaches consist of a single lane for all permitted movements.

The T-shaped **Center Street (CR 103) and Timberline Drive** intersection is stop-controlled along the northbound Timberline Drive approach. All approaches consist of a single lane for all permitted movements.

The T-shaped **Center Street (CR 103) and Windstar Drive** intersection is stop-controlled along the northbound Windstar Drive approach. All approaches consist of a single lane for all permitted movements.

Traffic Count Data

To determine the amount of traffic on the adjacent roadway network, manual turning movement counts (MTMC) were conducted at the study intersections on Wednesday, February 5, 2025, and Tuesday, February 11, 2025. The counts were conducted during the weekday morning (7:00 AM to 9:00 AM) and the weekday afternoon (2:00 PM to 6:00 PM) peak periods. A summary of the traffic counts can be found in the appendix to this assessment and the existing weekday AM and weekday PM peak hour volumes are illustrated on Figure 1A.

In addition, given the seasonality of traffic volumes and conditions in Little Egg Harbor Township, a seasonal adjustment factor was calculated and applied to the February 2025 peak hour volumes based upon the current New Jersey Department of Transportation (NJDOT) Seasonal Adjustment Table. Based upon this NJDOT data, a seasonal increase of approximately 29% was applied to the collected February 2025 peak hour volumes at all study locations. The seasonally adjusted peak hour volumes are shown in attached Figure 1B. It should be noted that this seasonal adjustment was applied to the collected February 2025 peak hour volume data, which included existing traffic volume associated with school traffic. School traffic would not be occurring during the peak seasonal times of July / August, so it is our opinion that this approach provides for a conservative analysis of the peak seasonal conditions in the vicinity of the site.

It should be noted that based upon the collected weekday AM and weekday PM peak period data, the existing weekday AM and weekday PM peak hours along Center Street in the vicinity of the site occur at the following times.

- Weekday AM Peak Hour = 7:45 AM to 8:45 AM
- Weekday PM Peak Hour = 4:30 PM to 5:30 PM

Future Conditions

As indicated above, the proposed Venue at Summers Corner residential development will consist of 415 residential dwelling units. The traffic resulting from the proposed development will not fully affect the adjacent roadway network until the development is completed. Per the current Ocean County standards, a 10-year development build-out scenario is required for the



proposed Venue at Summers Corner residential development. As such, the future No-Build and Build scenarios assume a development completion year of 2035.

It can be expected that the traffic volumes along the adjacent roadways will increase as a result of general area traffic growth. Based on the NJDOT *Annual Background Growth Table*, a 1.00% to 2.00% annual background traffic growth will be in the vicinity of the site. Therefore, in order to estimate the future 2035 No-Build volumes, the annual growth rates of 1.00% to 2.00% were applied to the seasonal adjusted existing peak hour traffic volumes and are illustrated in Figure 2.

ITE Trip Generation

The amount of traffic to be generated by the proposed Venue at Summers Corner residential development can best be estimated by using data published by the Institute of Transportation Engineers (ITE). ITE has compiled data from thousands of studies for various land uses, independent variables, and study periods and published the results in *Trip Generation, 11th Edition*. The units within the proposed age-restricted development are most similar to ITE Land Use code 251: Senior Adult Housing - Single Family and ITE Land Use code 252: Senior Adult Housing - Multifamily. The total amount of traffic generated by the proposed development is summarized below in Table 1.

Table 1 ITE Trip Generation Venue at Summers Corner						
Development	AM Peak Hour			PM Peak Hour		
	In	Out	Total	In	Out	Total
Senior Adult Housing - Single Family (199 Units)	22	44	66	46	30	76
Senior Adult Housing - Multifamily (216 Units)	16	28	43	30	24	54
Total						
Total	38	72	110	76	54	130

The traffic to be generated by the proposed age-restricted Venue at Summers Corner residential development must be distributed to the adjacent roadway network in a manner in which the residents can reasonably be expected to travel. The site traffic was assigned to the roadway network based on the routes that residents will take to and from the development. The anticipated trip distribution is shown on Figure 3, with the resulting site traffic assignment on Figure 4. The site traffic was then added to the No-Build volumes to determine the Build volumes, which are illustrated in Figure 5.

Operational Analysis

In order to measure the quality of the traffic flow for the adjacent roadways and intersections, capacity analyses for the study intersections have been completed based upon the methods outlined in the *2010 Highway Capacity Manual*. Capacity analysis is a procedure used to estimate the ability of the roadway network to carry traffic. Capacity analyses are



performed based on a Level of Service methodology. Level of Service (LOS) is a qualitative measure that characterizes the operational conditions of a roadway or intersection based on the perceptions by motorists and passengers. LOS are defined for each type of facility (i.e. freeways, highways, signalized intersections, unsignalized intersections). These Levels of Service range from LOS A to LOS F, with a LOS A representing the best operating conditions and a LOS F representing the worst operating conditions.

The determination for the LOS for an unsignalized intersection is based upon the average control delay associated with each minor movement (i.e. yielding left-turn movements from the major roads and stop-controlled movements from the minor approaches). The Levels of Service for signalized intersections are classified in terms of delay, which is based on the extent of driver discomfort and frustration, fuel consumption and lost travel time. The delay experienced by a motorist consists of many factors that relate to control, geometrics, and traffic. Some of these factors include the quality of progression, traffic signal cycle length, the green ratio, and the volume-to-capacity ratio. The Level of Service criteria for signalized and unsignalized intersections is summarized below in Table 2.

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

The existing and future operating conditions at the study intersections were evaluated using the above-described methodology and the latest Synchro computer simulation modeling software. The existing and future levels of service are illustrated on Figures 6, 7, and 8A; with the detailed printouts and capacity analyses worksheets attached for your review. A detailed description of the intersections' operating conditions is provided below.

Mathistown Road (CR 2) and Center Street (CR 103) Intersection

Overall, the existing Mathistown Road (CR 2) and Center Street (CR 103) signalized intersection currently operates at a LOS C during both the weekday AM and the weekday PM peak hours. In addition, all individual movements currently operate at a LOS C or better during all peak hours with the exception of the following:

- The westbound Center Street through/right-turn lane which operates at a LOS D during the weekday PM peak hour.
- The eastbound Center Street through/right-turn lane which operates at a LOS D during both peak hours.
- The southbound Mathistown Road through/right-turn lane which operates at a LOS D during the weekday PM peak hour.



In the future No-Build and Build conditions, the Mathistown Road (CR 2) and Center Street (CR 103) signalized intersection will operate at an overall LOS C during the weekday AM peak hour and a LOS D during the weekday PM peak hour. In addition, all individual movements will operate at existing levels of service. The traffic resulting from the proposed Venue at Summers Corner residential development will cause no changes in the future levels of service at this study location. No further changes or mitigation are recommended at this location to accommodate the traffic to be generated by the proposed development.

Center Street (CR 103) and Oak Lane Intersection

Overall, the existing Center Street (CR 103) and Oak Lane signalized intersection currently operates at a LOS C during the weekday AM peak hour and a LOS B during the weekday PM peak hour. In addition, all individual movements currently operate at a LOS B or better during all peak hours with the exception of the eastbound Center Street approach, which currently operates at a LOS D during both peak hours.

In the future No-Build scenario, the Center Street (CR 103) and Oak Lane signalized intersection will operate at an overall LOS D during the weekday AM peak hour and a LOS C during the weekday PM peak hour. In addition, all individual movements will operate at existing levels of service with the exception of the eastbound Center Street approach operates at a LOS F during the weekday AM peak hour.

Under the future Build conditions, the traffic resulting from the proposed Venue at Summers Corner residential development will cause minor changes in the overall and individual levels of service at the Center Street (CR 103) and Oak Lane signalized intersection. The intersection will operate at an overall LOS E during the weekday AM peak hour and a LOS C during the weekday PM peak hour. In addition, all individual movements will operate at No-Build levels of service during both peak hours with the exception of the following:

- The northbound Oak Lane approach, which will operate at a LOS B during the weekday PM peak hour.
- The southbound Oak Lane approach, which will operate at a LOS C during the weekday PM peak hour.

In order to mitigate future delays noted during both the No-Build and Build scenarios during the weekday AM peak hour, traffic signal timing modifications are recommended for the Center Street / Oak Lane signalized intersection. Final review and approval of these proposed timing modifications will be required from Ocean County. No further modifications to the existing traffic signal equipment or roadway approaches are recommended.

With the proposed Traffic Signal Timing adjustments, the Center Street (CR 103) and Oak Lane signalized intersection will operate at an overall LOS C during the weekday AM peak hour, as compared to an overall LOS E without the mitigation. In addition, all individual movements at the Center Street / Oak Lane intersection will operate at a LOS D or better with the proposed Traffic Signal Timing adjustments, specifically mitigating the LOS F that will occur in the future for the eastbound Center Street approach during the AM peak hour. The new operating conditions with the adjusted signal timings for the weekday AM peak hour are shown in Figure 8B, with the updated analyses attached for your review. In addition, Table 3 below provides a summary of the existing and future levels of service at the Center Street / Oak Lane signalized intersection.



Table 3 Center Street (CR 103) and Oak Lane Level of Service Summary										
Scenario	Center Street (Eastbound)		Center Street (Westbound)		Oak Lane (Northbound)		Oak Lane (Southbound)		Overall	
	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
Existing	D	D	A	B	B	A	A	B	C	B
No-Build	F	D	A	B	B	A	A	B	D	C
Build	F	D	A	B	B	B	A	C	E	C
Build Adjusted	D	D	A	B	B	B	B	C	C	C

Center Street (CR 103) and Timberline Drive / Site Driveway Intersection

Under the existing conditions, the northbound Timberline Drive stop-controlled approach operates at LOS B during both the weekday AM and the weekday PM peak hours. The westbound Center Street conflicting left-turn movements operate at LOS A during both peak hours.

In the future No-Build scenario, all movements will continue to operate at existing levels of service.

In the future Build conditions, access to the Venue at Summers Corner residential development is proposed via a new driveway along westbound Center Street, opposite Timberline Drive. Both the northbound Timberline Drive approach and the southbound site driveway approach will be stop-controlled at the intersection with Center Street. All approaches will consist of a single lane for all permitted movements.

A left-turn lane warrant analysis was performed for eastbound Center Street at the proposed site driveway location. Based upon the future weekday AM and weekday PM peak hour volumes and the Highway Research Board Number 211 guidelines, a left-turn lane is not warranted for the driveway location along eastbound Center Street during the PM peak hour conditions. The AM and PM peak hour warrant graphs are attached for your review. However, based upon our conversations with the Ocean County Engineering and Planning staff, left-turn lanes are being proposed for both the eastbound and westbound Center Street approaches.

In addition to the proposed dedicated left-turn lanes, the Applicant is proposing widening along its westbound Center Street frontage to provide for a full-width shoulder as requested by Ocean County.

Based upon this configuration, the northbound Timberline Drive stop-controlled approach will operate at LOS B during both the weekday AM and the weekday PM peak hours. The southbound Site Driveway stop-controlled approach will operate at LOS B during the weekday AM peak hour and a LOS C during the weekday PM peak hour. Both the eastbound and westbound Center Street conflicting left-turn movements will operate at LOS A during both peak hours.



Center Street (CR 103) and Windstar Drive / Site Driveway Intersection

Under the existing conditions, the northbound Windstar Drive stop-controlled approach operates at LOS B during the weekday AM peak hour and a LOS C during the weekday PM peak hour. The westbound Center Street conflicting left-turn movements operate at LOS A during both peak hours.

In the future No-Build scenario, all movements will continue to operate at existing levels of service.

In the future Build conditions, access to the Venue at Summers Corner residential development is proposed via a new driveway along westbound Center Street, opposite Windstar Drive. Both the northbound Windstar Drive approach and the southbound site driveway approach will be stop-controlled at the intersection with Center Street. All approaches will consist of a single lane for all permitted movements.

A left-turn lane warrant analysis was performed for eastbound Center Street at the proposed site driveway location. Based upon the future weekday AM and weekday PM peak hour volumes and the Highway Research Board Number 211 guidelines, a left-turn lane is not warranted for the driveway location along eastbound Center Street during the PM peak hour conditions. The AM and PM peak hour warrant graphs are attached for your review. However, based upon our conversations with the Ocean County Engineering and Planning staff, left-turn lanes are being proposed for both the eastbound and westbound Center Street approaches.

In addition to the proposed dedicated left-turn lanes, the Applicant is proposing widening along its westbound Center Street frontage to provide for a full-width shoulder as requested by Ocean County.

Based upon this configuration, the northbound Windstar Drive stop-controlled approach will operate at LOS B during the weekday AM peak hour and a LOS C during the weekday PM peak hour. The southbound Site Driveway stop-controlled approach will operate at LOS B during the weekday AM peak hour and a LOS C during the weekday PM peak hour. Both the eastbound and westbound Center Street conflicting left-turn movements will operate at LOS A during both peak hours.

Conclusion

Based on the results presented in this traffic engineering assessment report, the traffic resulting from the proposed Venue at Summers Corner age-restricted residential development will have the following impacts on the adjacent roadway network:

- Based upon the current ITE trip generation rates, the proposed age-restricted residential development will generate a total of 110 trips during the AM peak hour and 130 trips during the weekday PM peak hour.
- The Venue at Summers Corner development will include two (2) new access points along westbound Center Street as well as the following roadway improvements along its Center Street frontage based upon our preliminary discussions with Ocean County.



- Widening along the site's frontage along westbound Center Street to provide a full-width shoulder area. This area will be sufficient for the provision of bike lanes in the future if a need is determined by the County.
- Construction of dedicated left-turn lanes for both the eastbound and westbound Center Street approaches at the future site roadway access points and intersections with Windstar Drive and Timberline Drive.
- Restriping of Center Street between its intersections with Windstar Drive and Timberline Drive to create a center two-way left-turn area.
- Under the future Build conditions, the Mathistown Road (CR 2) and Center Street (CR 103) signalized intersection will operate at an overall LOS C during the weekday AM peak hour and a LOS D during the weekday PM peak hour. In addition, all individual movements will operate at existing levels of service. No further changes or mitigation are recommended for this study location to accommodate the traffic to be generated by the proposed development.
- Under the future Build conditions, the Center Street (CR 103) and Oak Lane signalized intersection will operate at an overall LOS E during the weekday AM peak hour and a LOS C during the weekday PM peak hour. In addition, all individual movements will operate at LOS C or above with the exception of the eastbound Center Street approach which will operate at a LOS F during the weekday AM peak hour and a LOS D during the weekday PM peak hour.

In order to mitigate future delays noted during both the No-Build and Build scenarios during the weekday AM peak hour, traffic signal timing modifications are recommended for the Center Street / Oak Lane signalized intersection. Final review and approval of these proposed timing modifications will be required from Ocean County. No further modifications to the existing traffic signal equipment or roadway approaches are recommended.

With the proposed timing adjustments, the Center Street (CR 103) and Oak Lane signalized intersection will operate at an overall LOS C during the weekday AM peak hour and all individual movements will operate at a LOS D or above. The new operating conditions with the adjusted signal timings for the weekday AM peak hour are shown in Figure 8B, with the updated analyses attached for your review.

- In the future Build conditions, a site driveway will be constructed as the northern leg of the existing intersection creating a four-legged intersection. Both the northbound Timberline Drive approach and the southbound Site Driveway approach will be stop-controlled at the intersection with Center Street. All approaches will consist of a single lane for all permitted movements.

A left-turn lane warrant analysis was performed for eastbound Center Street at the proposed site driveway location. Based upon the future weekday AM and weekday PM peak hour volumes and the Highway Research Board Number 211 guidelines, a left-turn lane is not warranted for the driveway location along eastbound Center Street during the PM peak hour conditions. The AM and PM peak hour warrant graphs are attached for your review.



Based upon this configuration, the northbound Timberline Drive stop-controlled approach will operate at LOS B during both the weekday AM and the weekday PM peak hours. The southbound Site Driveway stop-controlled approach will operate at LOS B during the weekday AM peak hour and a LOS C during the weekday PM peak hour. Both the eastbound and westbound Center Street conflicting left-turn movements will operate at LOS A during both peak hours.

- In the future Build conditions, a site driveway will be constructed as the northern leg of the existing intersection creating a four-legged intersection. Both the northbound Windstar Drive approach and the southbound Site Driveway approach will be stop-controlled at the intersection with Center Street. All approaches will consist of a single lane for all permitted movements.

A left-turn lane warrant analysis was performed for eastbound Center Street at the proposed site driveway location. Based upon the future weekday AM and weekday PM peak hour volumes and the Highway Research Board Number 211 guidelines, a left-turn lane is not warranted for the driveway location along eastbound Center Street during the PM peak hour conditions. The AM and PM peak hour warrant graphs are attached for your review.

Based upon this configuration, the northbound Windstar Drive stop-controlled approach will operate at LOS B during the weekday AM peak hour and a LOS C during the weekday PM peak hour. The southbound Site Driveway stop-controlled approach will operate at LOS B during the weekday AM peak hour and a LOS C during the weekday PM peak hour. Both the eastbound and westbound Center Street conflicting left-turn movements will operate at LOS A during both peak hours.

Should you have any questions or require additional information, please feel free to contact us.

Sincerely,
Shropshire Associates LLC

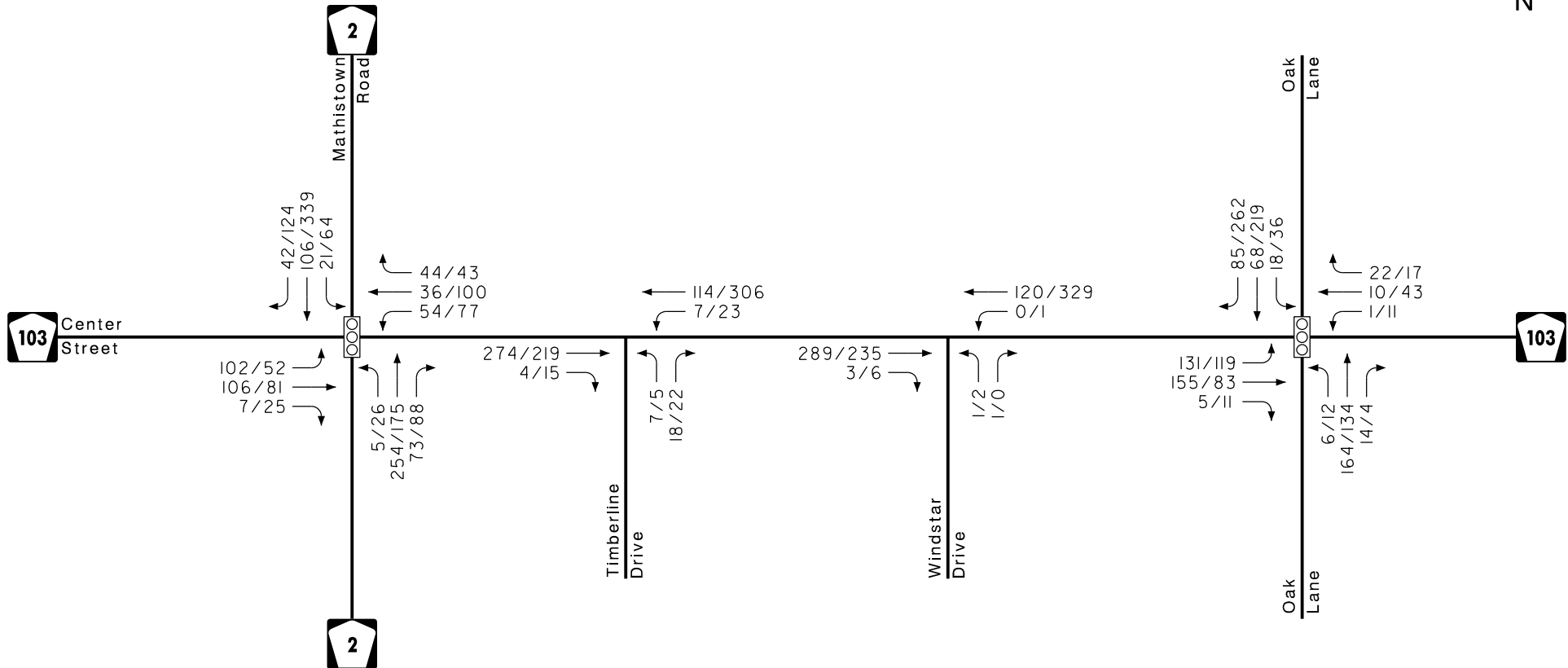
A handwritten signature in black ink, appearing to read 'Nathan B. Mosley'.

Nathan B. Mosley, P.E., C.M.E.
Professional Engineer
N.J. License No. #48698

NBM/jab
Attachments

cc: Carolyn Feigin
Wayne Birchler

(via email: cfeigin@arh-us.com)
(via email: wayne.birchler@lennar.com)

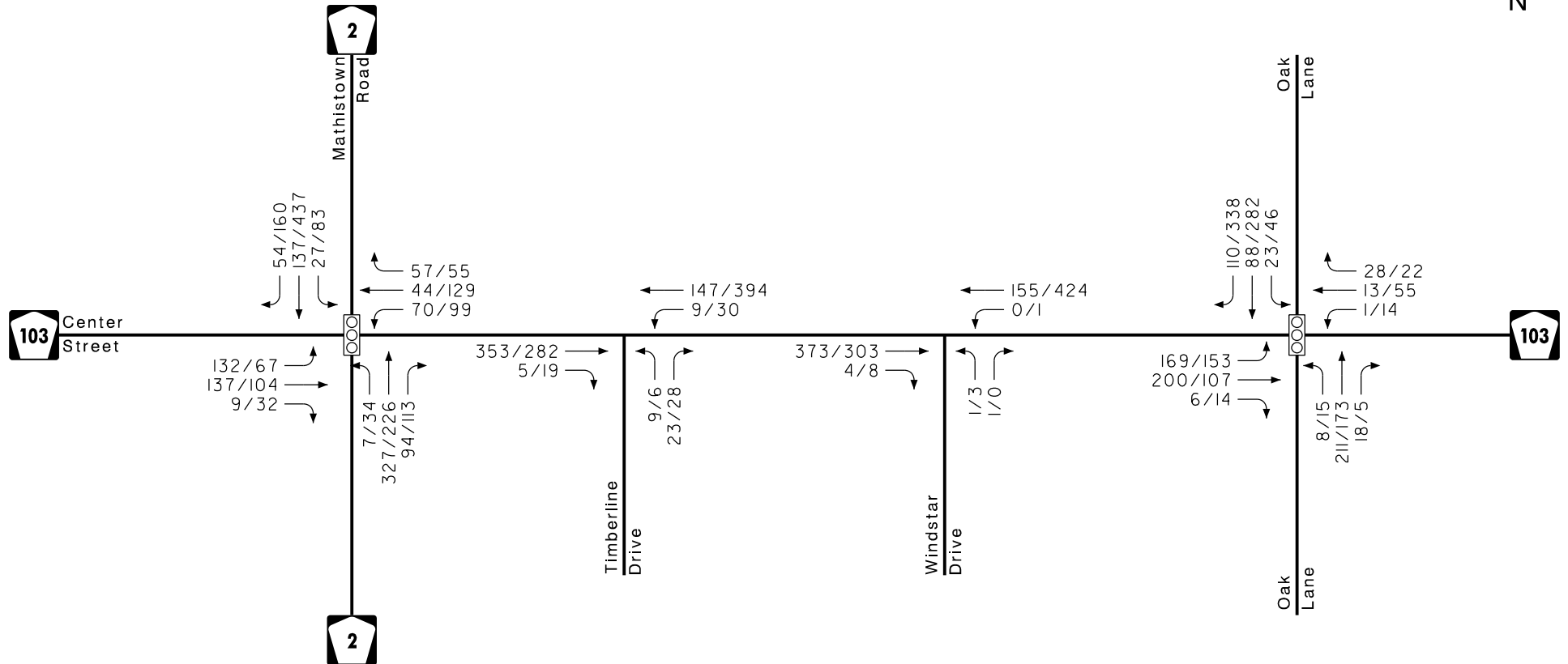


Venue at Summers Corner

Little Egg Harbor Township, Ocean County, NJ
April 2025

TRAFFIC SIGNAL
AM/PM PEAK HOUR

FIGURE 1B
EXISTING VOLUMES
(SEASONAL ADJUSTMENT)

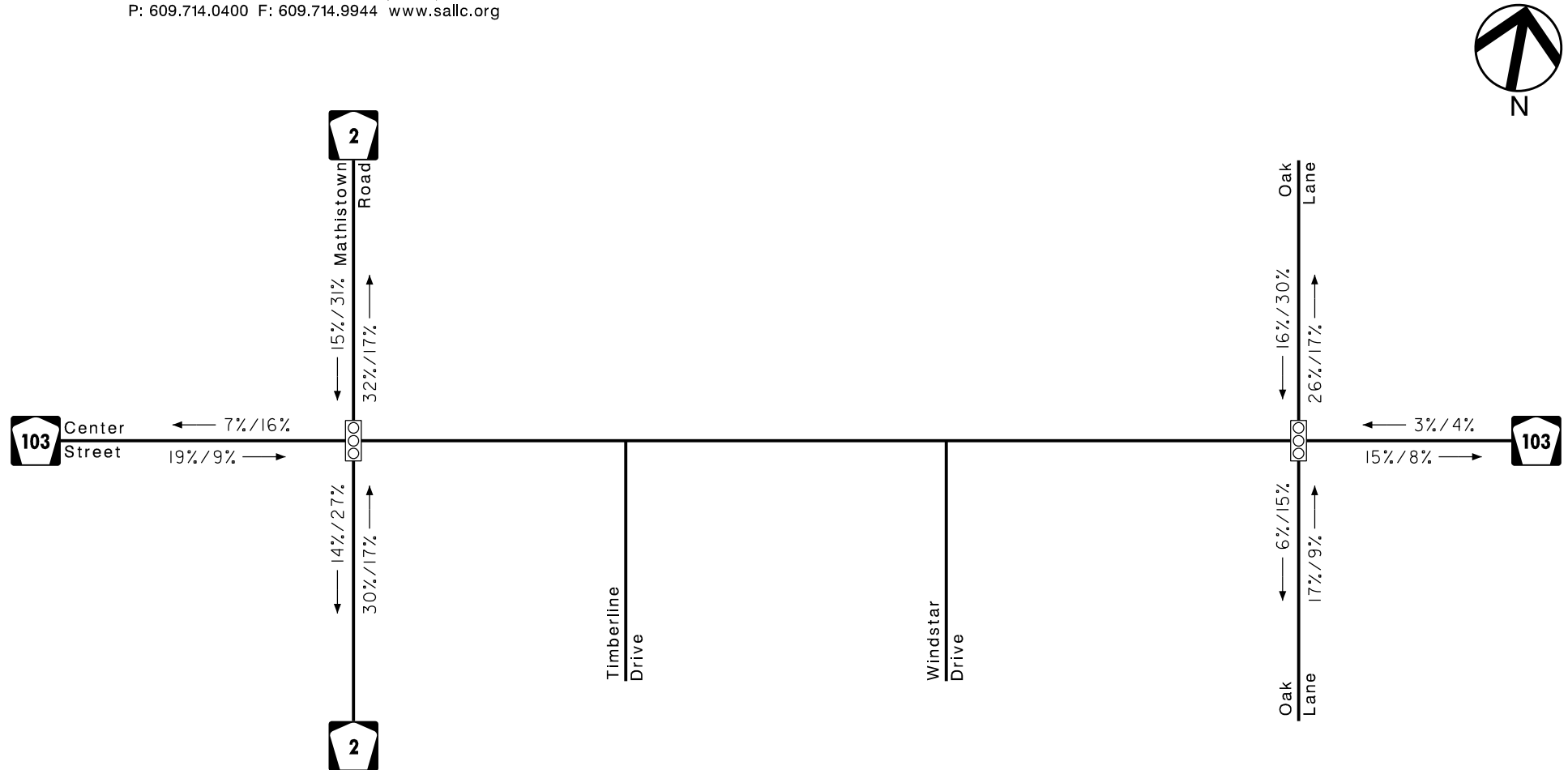


Venue at Summers Corner

Little Egg Harbor Township, Ocean County, NJ
April 2025

 TRAFFIC SIGNAL
AM/PM PEAK HOUR

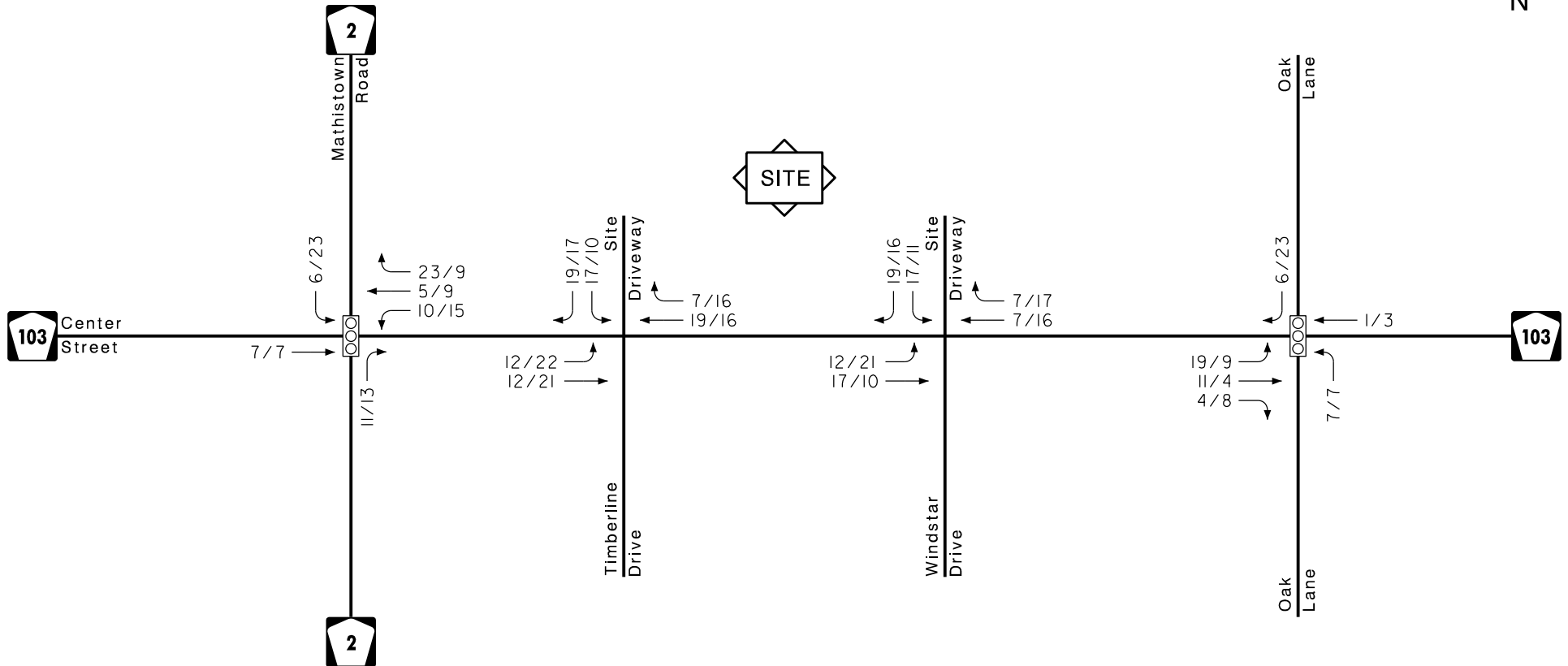
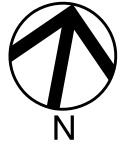
FIGURE 3
TRIP DISTRIBUTION



Venue at Summers Corner

Little Egg Harbor Township, Ocean County, NJ
April 2025

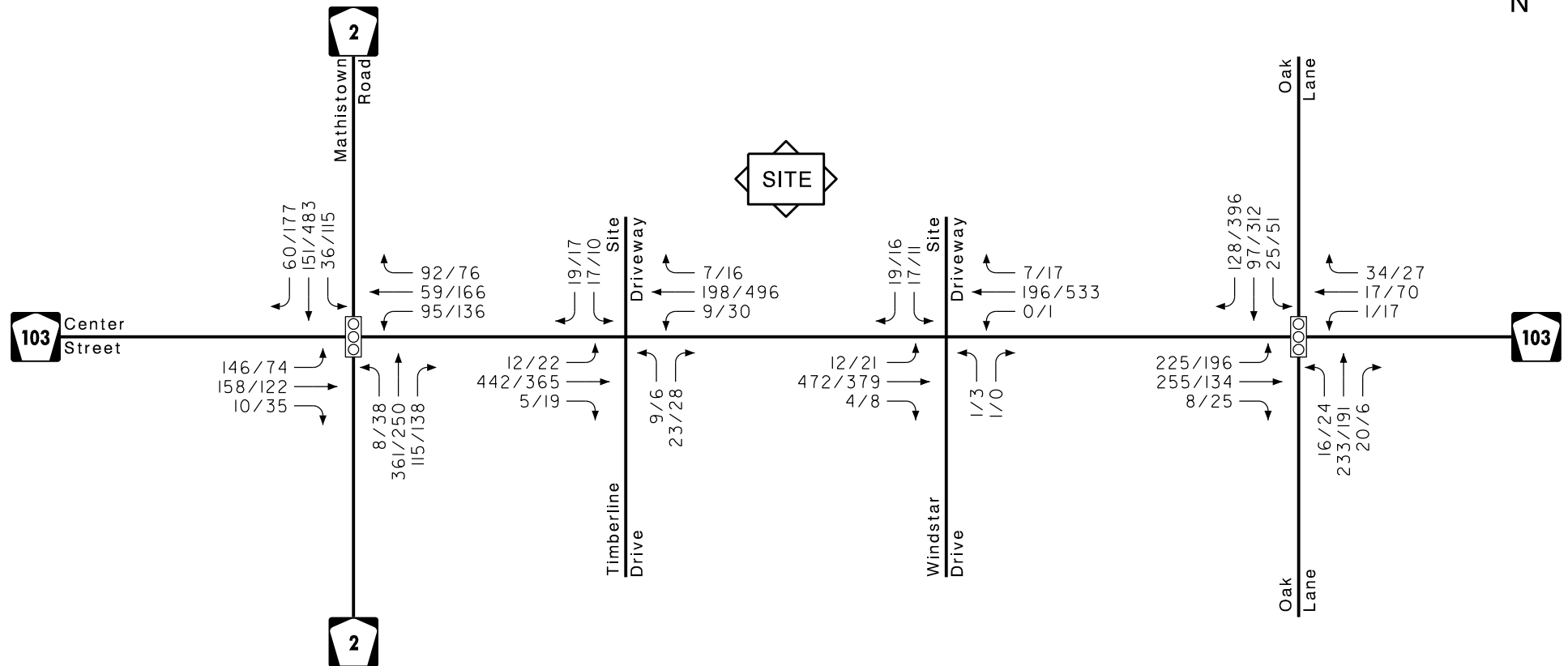
 TRAFFIC SIGNAL
AM/PM PEAK HOUR



Venue at Summers Corner

Little Egg Harbor Township, Ocean County, NJ
April 2025

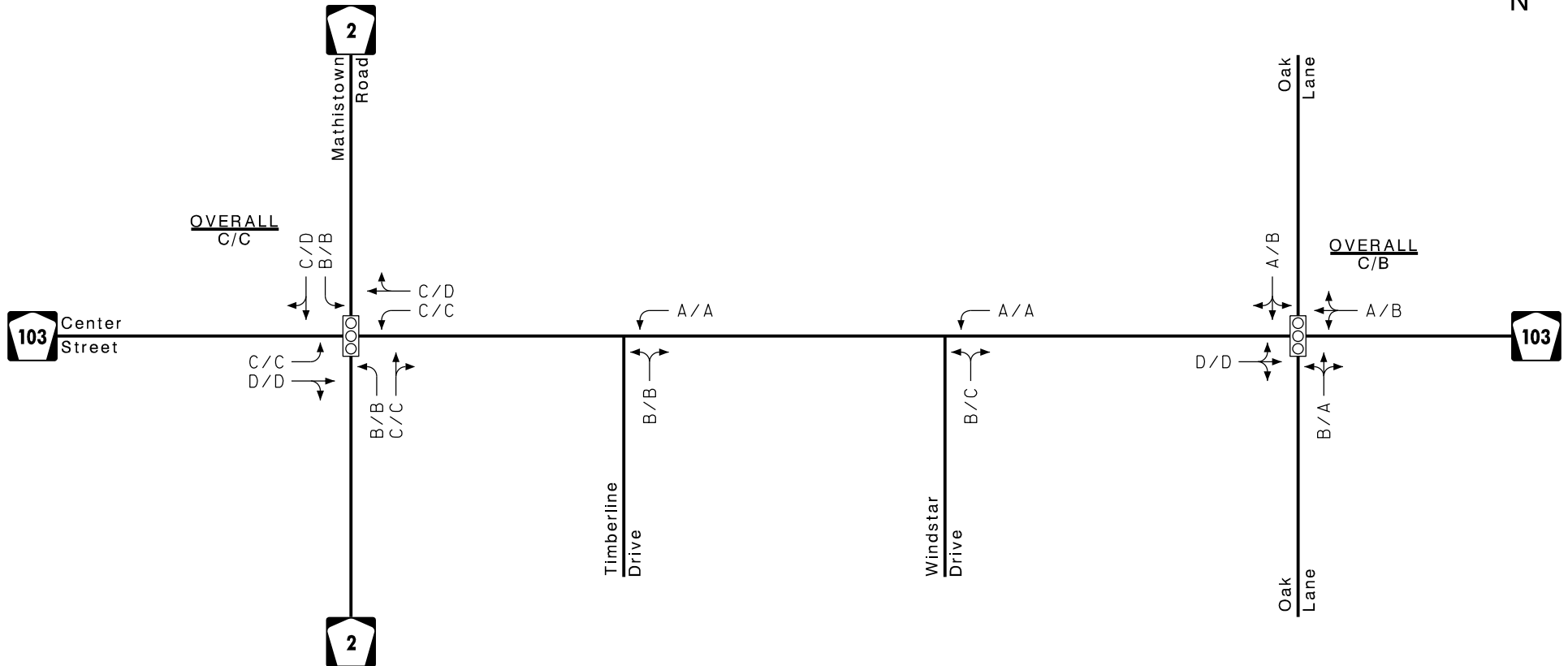
 TRAFFIC SIGNAL
AM/PM PEAK HOUR



Venue at Summers Corner

Little Egg Harbor Township, Ocean County, NJ
April 2025

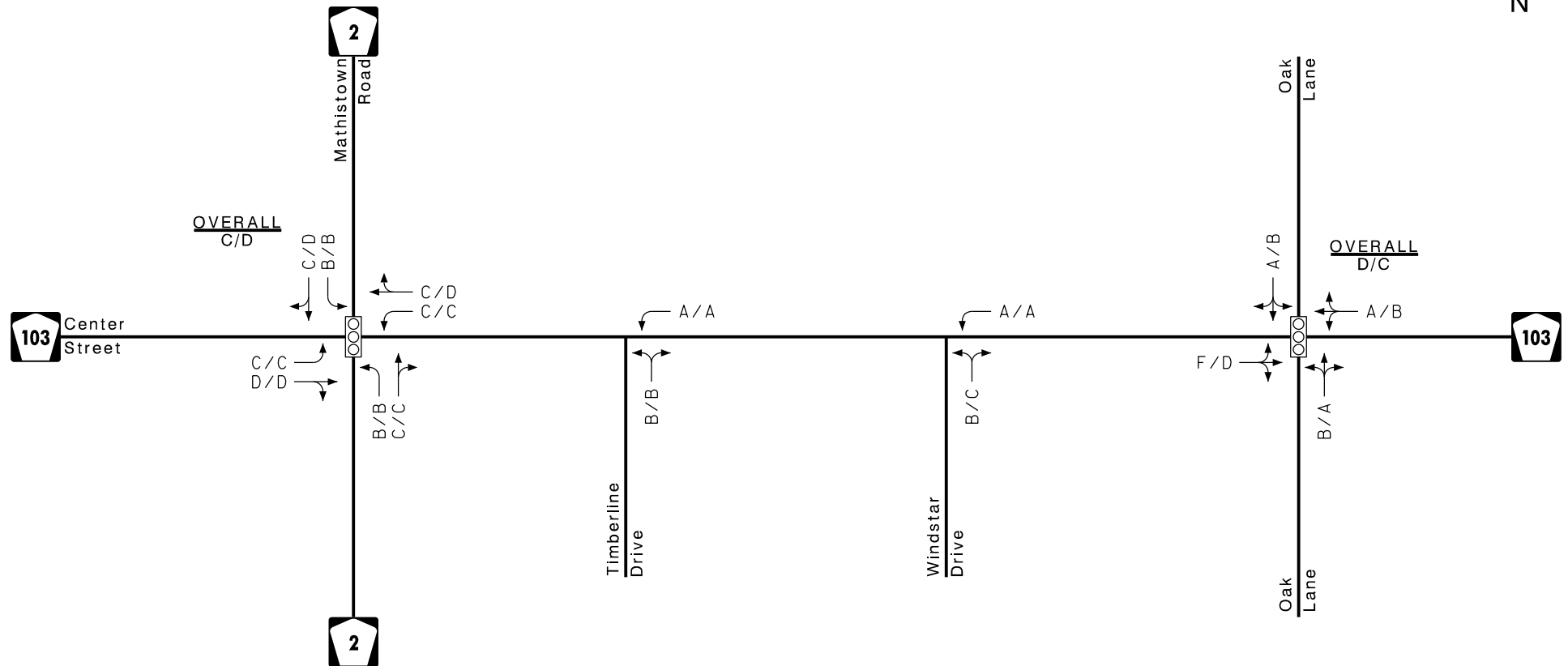
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AM/PM PEAK HOUR



Venue at Summers Corner

Little Egg Harbor Township, Ocean County, NJ
April 2025

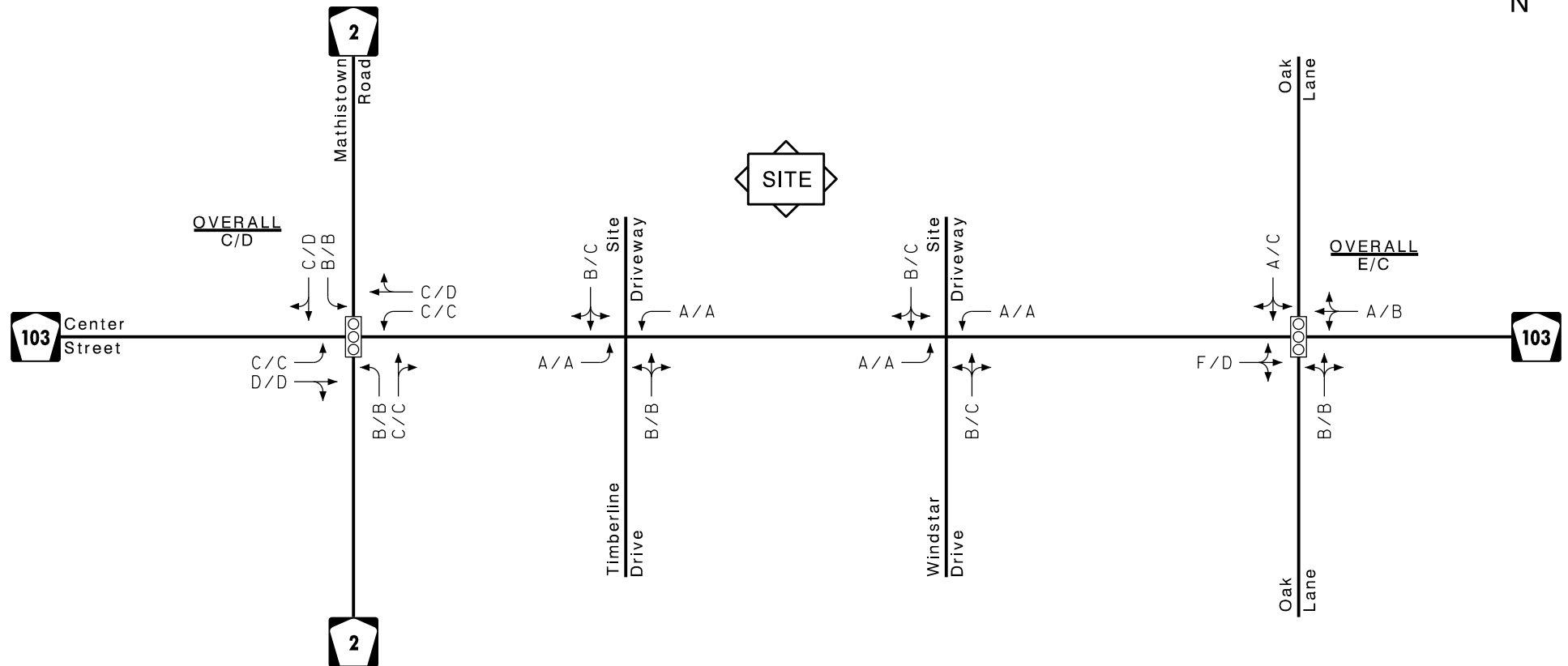
 TRAFFIC SIGNAL
AM/PM PEAK HOUR



Venue at Summers Corner

Little Egg Harbor Township, Ocean County, NJ
April 2025

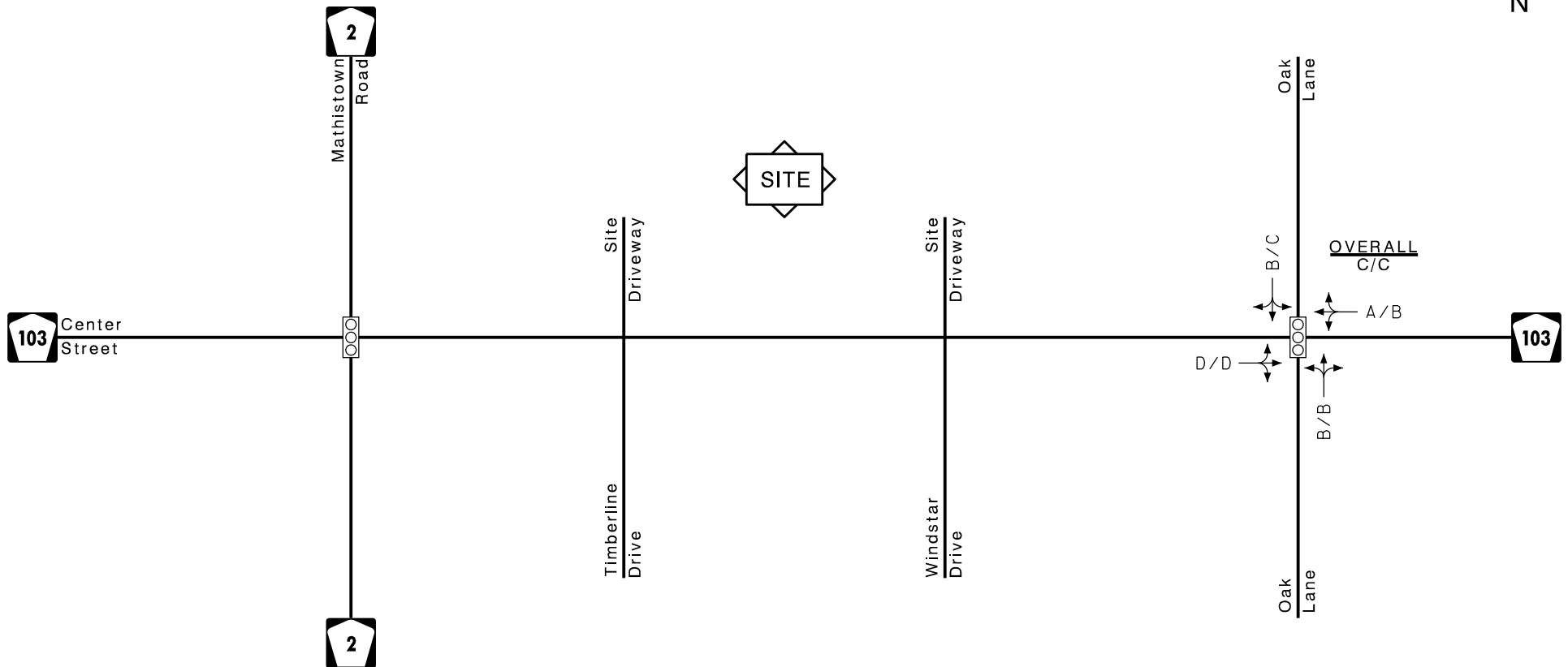
 TRAFFIC SIGNAL
AM/PM PEAK HOUR



Venue at Summers Corner

Little Egg Harbor Township, Ocean County, NJ
April 2025

 TRAFFIC SIGNAL
AM/PM PEAK HOUR



Venue at Summers Corner

Little Egg Harbor Township, Ocean County, NJ
April 2025

 TRAFFIC SIGNAL
AM/PM PEAK HOUR

Shropshire Associates LLC

277 Whitehorse Pike, Suite 203

Atco, NJ 08004

N/S Route: Mathistown Rd.

E/W Route: Center St.

Little Egg Harbor/Ocean County/NJ

Wednesday/Overcast/EM CC/D4-2584

File Name : 24257005

Site Code : 24257005

Start Date : 2/5/2025

Page No : 1

Groups Printed- Unshifted - Tractor Trailers

	Mathistown Rd. Southbound					Center St. Westbound					Mathistown Rd. Northbound					Center St. Eastbound					
Start Time	Right	Thru	Left	Right on Red	App. Total	Right	Thru	Left	Right on Red	App. Total	Right	Thru	Left	Right on Red	App. Total	Right	Thru	Left	Right on Red	App. Total	Int. Total
07:00 AM	4	17	1	0	22	4	5	8	5	22	18	68	0	2	88	1	27	35	0	63	195
07:15 AM	21	29	1	0	51	4	10	14	5	33	22	69	2	0	93	1	24	29	2	56	233
07:30 AM	6	33	3	0	42	7	6	11	3	27	12	55	1	4	72	0	24	15	1	40	181
07:45 AM	5	18	10	0	33	10	11	19	2	42	17	63	0	5	85	2	35	25	0	62	222
Total	36	97	15	0	148	25	32	52	15	124	69	255	3	11	338	4	110	104	3	221	831
08:00 AM	8	26	7	2	43	5	9	10	8	32	12	67	2	1	82	0	23	33	1	57	214
08:15 AM	5	27	3	1	36	8	9	14	6	37	13	60	2	3	78	2	22	22	0	46	197
08:30 AM	11	35	7	1	54	7	15	13	5	40	12	59	5	0	76	4	24	16	3	47	217
08:45 AM	20	33	4	0	57	7	17	7	3	34	16	46	6	0	68	5	18	34	1	58	217
Total	44	121	21	4	190	27	50	44	22	143	53	232	15	4	304	11	87	105	5	208	845
*** BREAK ***																					
02:00 PM	22	66	15	0	103	7	35	24	2	68	16	60	5	3	84	4	20	15	3	42	297
02:15 PM	17	67	15	1	100	7	27	13	2	49	25	45	6	6	82	8	19	17	1	45	276
02:30 PM	12	83	13	2	110	5	18	21	5	49	15	46	5	1	67	0	27	27	1	55	281
02:45 PM	18	54	13	3	88	10	30	16	1	57	19	52	2	1	74	3	19	17	6	45	264
Total	69	270	56	6	401	29	110	74	10	223	75	203	18	11	307	15	85	76	11	187	1118
03:00 PM	20	69	17	1	107	10	21	26	2	59	10	45	9	5	69	4	32	22	2	60	295
03:15 PM	22	78	10	1	111	7	30	21	3	61	23	39	6	3	71	6	18	13	3	40	283
03:30 PM	22	80	11	1	114	13	25	19	6	63	13	44	7	3	67	7	12	17	2	38	282
03:45 PM	28	86	14	2	130	9	17	21	2	49	16	50	14	3	83	2	15	20	2	39	301
Total	92	313	52	5	462	39	93	87	13	232	62	178	36	14	290	19	77	72	9	177	1161
04:00 PM	27	76	19	2	124	8	26	26	4	64	15	42	9	3	69	8	24	12	0	44	301
04:15 PM	22	90	14	5	131	6	29	22	2	59	22	43	7	2	74	3	11	13	2	29	293
04:30 PM	26	69	13	11	119	6	29	20	3	58	22	43	5	2	72	2	22	15	3	42	291
04:45 PM	28	104	18	3	153	7	16	9	7	39	20	47	5	2	74	6	24	12	1	43	309
Total	103	339	64	21	527	27	100	77	16	220	79	175	26	9	289	19	81	52	6	158	1194
05:00 PM	24	74	25	1	124	7	29	23	2	61	15	29	8	1	53	5	18	28	2	53	291
05:15 PM	28	83	11	2	124	8	33	22	3	66	14	40	8	2	64	3	23	16	2	44	298
05:30 PM	21	68	18	4	111	4	26	20	1	51	18	34	4	4	60	4	19	12	3	38	260
05:45 PM	20	68	17	1	106	4	18	22	2	46	18	39	5	2	64	2	13	16	2	33	249
Total	93	293	71	8	465	23	106	87	8	224	65	142	25	9	241	14	73	72	9	168	1098
Grand Total	437	1433	279	44	2193	170	491	421	84	1166	403	1185	123	58	1769	82	513	481	43	1119	6247
Apprch %	19.9	65.3	12.7	2		14.6	42.1	36.1	7.2		22.8	67	7	3.3		7.3	45.8	43	3.8		
Total %	7	22.9	4.5	0.7	35.1	2.7	7.9	6.7	1.3	18.7	6.5	19	2	0.9	28.3	1.3	8.2	7.7	0.7	17.9	
Unshifted	437	1431									1183										
% Unshifted	100	99.9	99.6	100	99.9	98.2	100	100	100	99.7	99.8	99.8	100	100	99.8	98.8	100	99.8	100	99.8	99.8
Tractor Trailers																					
% Tractor Trailers	0	0.1	0.4	0	0.1	1.8	0	0	0	0.3	0.2	0.2	0	0	0.2	1.2	0	0.2	0	0.2	0.2

Shropshire Associates LLC

277 Whitehorse Pike, Suite 203

Atco, NJ 08004

N/S Route: Mathistown Rd.

E/W Route: Center St.

Little Egg Harbor/Ocean County/NJ

Wednesday/Overcast/EM CC/D4-2584

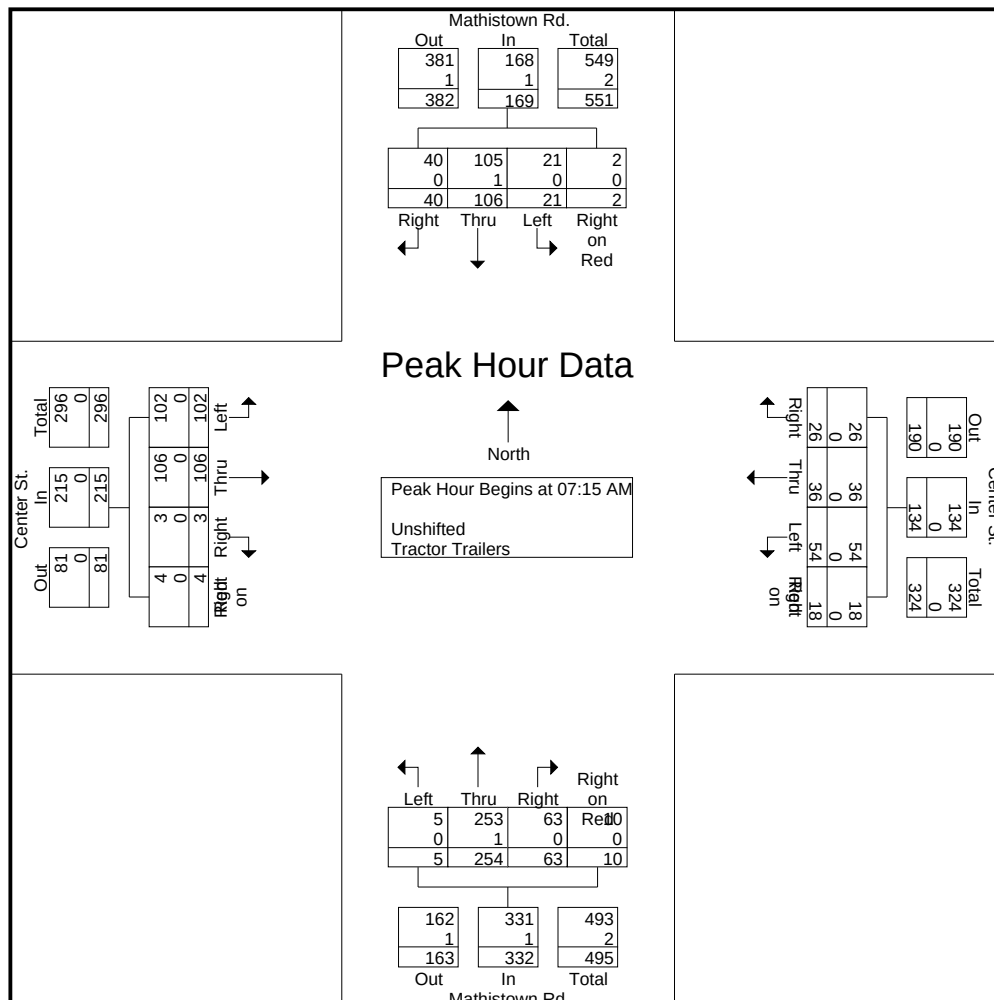
File Name : 24257005

Site Code : 24257005

Start Date : 2/5/2025

Page No : 2

	Mathistown Rd. Southbound					Center St. Westbound					Mathistown Rd. Northbound					Center St. Eastbound					
Start Time	Right	Thru	Left	Right on Red	App. Total	Right	Thru	Left	Right on Red	App. Total	Right	Thru	Left	Right on Red	App. Total	Right	Thru	Left	Right on Red	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:15 AM																					
07:15 AM	21	29	1	0	51	4	10	14	5	33	22	69	2	0	93	1	24	29	2	56	233
07:30 AM	6	33	3	0	42	7	6	11	3	27	12	55	1	4	72	0	24	15	1	40	181
07:45 AM	5	18	10	0	33	10	11	19	2	42	17	63	0	5	85	2	35	25	0	62	222
08:00 AM	8	26	7	2	43	5	9	10	8	32	12	67	2	1	82	0	23	33	1	57	214
Total Volume	40	106	21	2	169	26	36	54	18	134	63	254	5	10	332	3	106	102	4	215	850
% App. Total	23.7	62.7	12.4	1.2		19.4	26.9	40.3	13.4		19	76.5	1.5	3		1.4	49.3	47.4	1.9		
PHF	.476	.803	.525	.250	.828	.650	.818	.711	.563	.798	.716	.920	.625	.500	.892	.375	.757	.773	.500	.867	.912
Unshifted	40	105	21	2	168	26	36	54	18	134	63	253	5	10	331	3	106	102	4	215	848
% Unshifted		99.1	100	100	99.4		100	100	100	100		99.6	100	100	99.7		100	100	100	100	99.8
Tractor Trailers																					
% Tractor Trailers	0	0.9	0	0	0.6	0	0	0	0	0	0	0.4	0	0	0.3	0	0	0	0	0	0.2



Shropshire Associates LLC

277 Whitehorse Pike, Suite 203

Atco, NJ 08004

N/S Route: Mathistown Rd.

E/W Route: Center St.

Little Egg Harbor/Ocean County/NJ

Wednesday/Overcast/EM CC/D4-2584

File Name : 24257005

Site Code : 24257005

Start Date : 2/5/2025

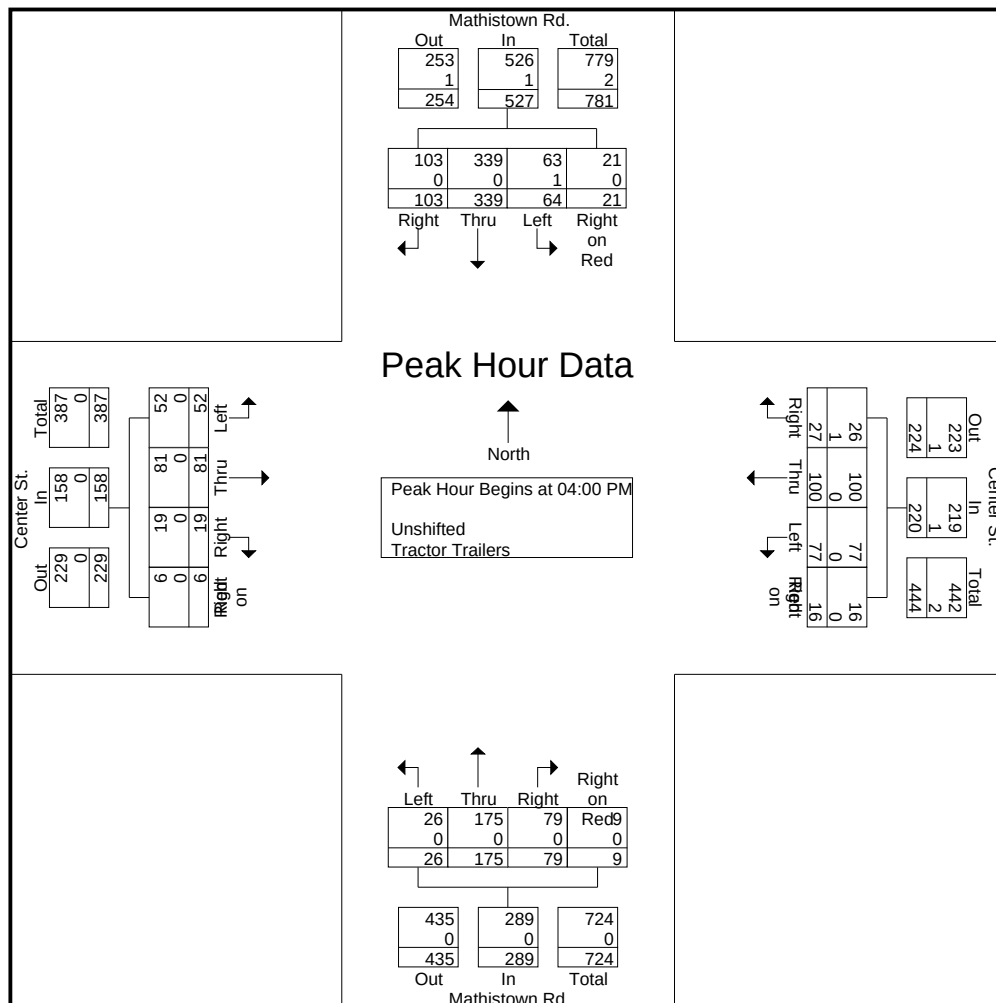
Page No : 3

	Mathistown Rd. Southbound					Center St. Westbound					Mathistown Rd. Northbound					Center St. Eastbound					
Start Time	Right	Thru	Left	Right on Red	App. Total	Right	Thru	Left	Right on Red	App. Total	Right	Thru	Left	Right on Red	App. Total	Right	Thru	Left	Right on Red	App. Total	Int. Total

Peak Hour Analysis From 02:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 04:00 PM

04:00 PM	27	76	19	2	124	8	26	26	4	64	15	42	9	3	69	8	24	12	0	44	301
04:15 PM	22	90	14	5	131	6	29	22	2	59	22	43	7	2	74	3	11	13	2	29	293
04:30 PM	26	69	13	11	119	6	29	20	3	58	22	43	5	2	72	2	22	15	3	42	291
04:45 PM	28	104	18	3	153	7	16	9	7	39	20	47	5	2	74	6	24	12	1	43	309
Total Volume	103	339	64	21	527	27	100	77	16	220	79	175	26	9	289	19	81	52	6	158	1194
% App. Total	19.5	64.3	12.1	4		12.3	45.5	35	7.3		27.3	60.6	9	3.1		12	51.3	32.9	3.8		
PHF	.920	.815	.842	.477	.861	.844	.862	.740	.571	.859	.898	.931	.722	.750	.976	.594	.844	.867	.500	.898	.966
Unshifted	103	339	63	21	526	26	100	77	16	219	79	175	26	9	289	19	81	52	6	158	1192
% Unshifted			98.4	100	99.8	96.3	100	100	100	99.5	100	100	100	100	100	100	100	100	100	100	99.8
Tractor Trailers																					
% Tractor Trailers	0	0	1.6	0	0.2	3.7	0	0	0	0.5	0	0	0	0	0	0	0	0	0	0	0.2



Atco, NJ 08004

Page No : 1

	Oak Lane Southbound					Center St. Westbound					Oak Lane Northbound					Center St. Eastbound					
Start Time	Right	Thru	Left	Right on Red	App. Total	Right	Thru	Left	Right on Red	App. Total	Right	Thru	Left	Right on Red	App. Total	Right	Thru	Left	Right on Red	App. Total	Int. Total
07:00 AM	17	15	3	5	40	6	2	0	4	12	7	67	2	0	76	1	41	39	0	81	209
07:15 AM	21	26	8	4	59	0	4	0	0	4	3	29	2	0	34	1	31	24	1	57	154
07:30 AM	18	12	2	3	35	2	1	0	4	7	1	37	1	1	40	0	33	28	0	61	143
07:45 AM	13	15	5	4	37	2	3	1	4	10	2	31	1	0	34	2	50	40	0	92	173
Total	69	68	18	16	171	10	10	1	12	33	13	164	6	1	184	4	155	131	1	291	679
*** BREAK ***																					
02:00 PM	48	47	13	6	114	3	9	1	3	16	3	31	3	0	37	3	37	22	0	62	229
02:15 PM	45	43	8	12	108	3	13	1	3	20	0	23	3	0	26	0	27	44	0	71	225
02:30 PM	34	28	6	7	75	2	9	0	2	13	1	28	3	1	33	1	26	18	0	45	166
02:45 PM	46	44	9	7	106	1	9	1	2	13	2	20	3	0	25	2	20	22	0	44	188
Total	173	162	36	32	403	9	40	3	10	62	6	102	12	1	121	6	110	106	0	222	808
03:00 PM	52	51	6	7	116	4	11	0	1	16	3	30	2	0	35	3	26	20	0	49	216
03:15 PM	52	40	7	9	108	2	15	1	3	21	1	26	3	0	30	4	21	23	1	49	208
03:30 PM	54	52	13	6	125	0	5	1	2	8	1	24	5	0	30	0	20	29	2	51	214
03:45 PM	52	49	12	4	117	2	7	0	3	12	4	40	4	1	49	2	18	17	1	38	216
Total	210	192	38	26	466	8	38	2	9	57	9	120	14	1	144	9	85	89	4	187	854
04:00 PM	58	41	10	10	119	2	15	2	2	21	3	35	2	0	40	0	15	35	2	52	232
04:15 PM	58	46	11	7	122	0	5	2	2	9	1	27	3	0	31	1	16	22	0	39	201
04:30 PM	58	44	9	7	118	2	10	2	2	16	1	38	3	0	42	5	24	29	0	58	234
04:45 PM	66	56	7	4	133	2	10	4	1	17	2	29	3	0	34	2	24	27	0	53	237
Total	240	187	37	28	492	6	40	10	7	63	7	129	11	0	147	8	79	113	2	202	904
05:00 PM	46	55	10	14	125	3	8	3	4	18	0	35	3	0	38	2	25	30	0	57	238
05:15 PM	55	64	10	12	141	1	15	2	2	20	1	32	3	0	36	2	10	33	0	45	242
05:30 PM	53	52	10	7	122	2	2	0	1	5	3	22	5	0	30	3	23	14	0	40	197
05:45 PM	45	48	6	14	113	1	11	0	5	17	1	22	6	0	29	1	24	13	1	39	198
Total	199	219	36	47	501	7	36	5	12	60	5	111	17	0	133	8	82	90	1	181	875

Shropshire Associates LLC

277 Whitehorse Pike, Suite 203

Atco, NJ 08004

N/S Route: Oak Lane

E/W Route: Center St.

Little Egg Harbor/Ocean County/NJ

Tuesday/Overcast to Snow/LW/D4-2585

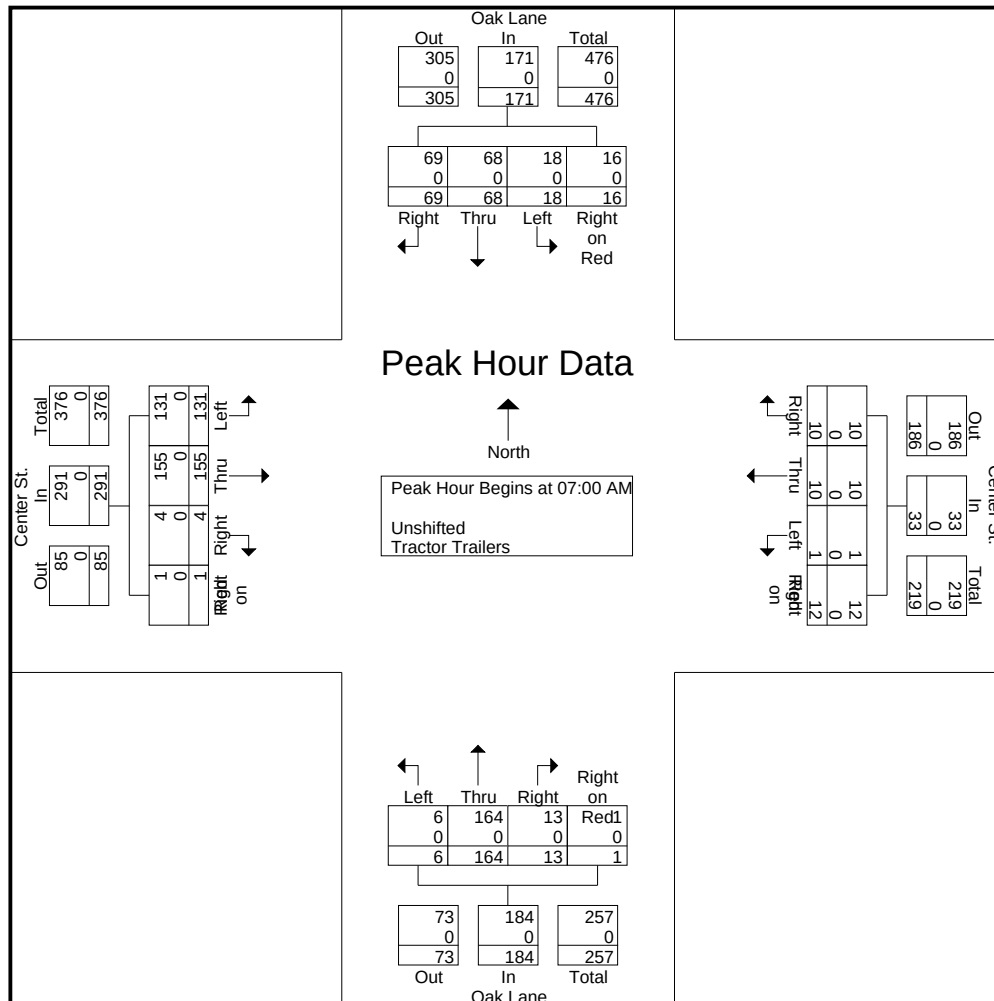
File Name : 24257006

Site Code : 24257006

Start Date : 2/11/2025

Page No : 2

	Oak Lane Southbound					Center St. Westbound					Oak Lane Northbound					Center St. Eastbound					
Start Time	Right	Thru	Left	Right on Red	App. Total	Right	Thru	Left	Right on Red	App. Total	Right	Thru	Left	Right on Red	App. Total	Right	Thru	Left	Right on Red	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:00 AM																					
07:00 AM	17	15	3	5	40	6	2	0	4	12	7	67	2	0	76	1	41	39	0	81	209
07:15 AM	21	26	8	4	59	0	4	0	0	4	3	29	2	0	34	1	31	24	1	57	154
07:30 AM	18	12	2	3	35	2	1	0	4	7	1	37	1	1	40	0	33	28	0	61	143
07:45 AM	13	15	5	4	37	2	3	1	4	10	2	31	1	0	34	2	50	40	0	92	173
Total Volume	69	68	18	16	171	10	10	1	12	33	13	164	6	1	184	4	155	131	1	291	679
% App. Total	40.4	39.8	10.5	9.4		30.3	30.3	3	36.4		7.1	89.1	3.3	0.5		1.4	53.3	45	0.3		
PHF	.821	.654	.563	.800	.725	.417	.625	.250	.750	.688	.464	.612	.750	.250	.605	.500	.775	.819	.250	.791	.812
Unshifted	69	68	18	16	171	10	10	1	12	33	13	164	6	1	184	4	155	131	1	291	679
% Unshifted																					
Tractor Trailers	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Tractor Trailers	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



Shropshire Associates LLC

277 Whitehorse Pike, Suite 203

Atco, NJ 08004

N/S Route: Oak Lane

E/W Route: Center St.

Little Egg Harbor/Ocean County/NJ

Tuesday/Overcast to Snow/LW/D4-2585

File Name : 24257006

Site Code : 24257006

Start Date : 2/11/2025

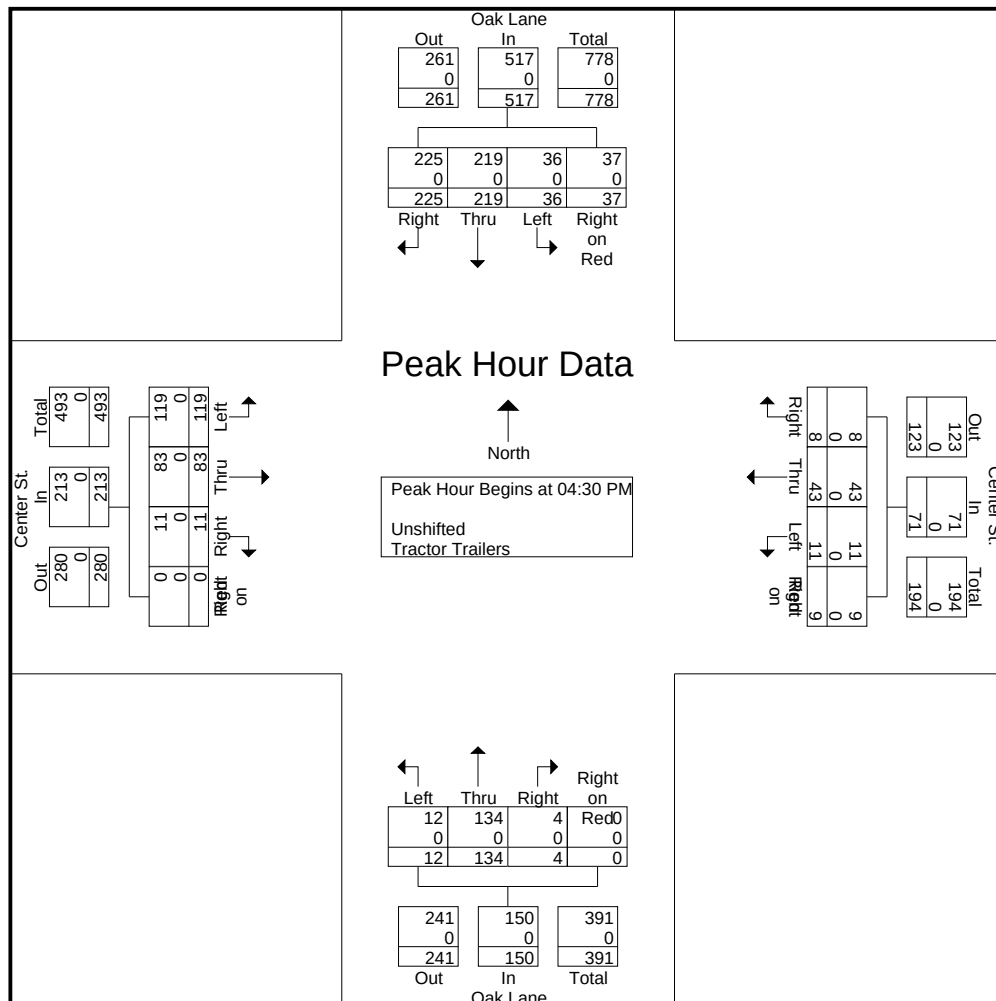
Page No : 3

	Oak Lane Southbound					Center St. Westbound					Oak Lane Northbound					Center St. Eastbound					
Start Time	Right	Thru	Left	Right on Red	App. Total	Right	Thru	Left	Right on Red	App. Total	Right	Thru	Left	Right on Red	App. Total	Right	Thru	Left	Right on Red	App. Total	Int. Total

Peak Hour Analysis From 02:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 04:30 PM

04:30 PM	58	44	9	7	118	2	10	2	2	16	1	38	3	0	42	5	24	29	0	58	234
04:45 PM	66	56	7	4	133	2	10	4	1	17	2	29	3	0	34	2	24	27	0	53	237
05:00 PM	46	55	10	14	125	3	8	3	4	18	0	35	3	0	38	2	25	30	0	57	238
05:15 PM	55	64	10	12	141	1	15	2	2	20	1	32	3	0	36	2	10	33	0	45	242
Total Volume	225	219	36	37	517	8	43	11	9	71	4	134	12	0	150	11	83	119	0	213	951
% App. Total	43.5	42.4	7	7.2		11.3	60.6	15.5	12.7		2.7	89.3	8	0		5.2	39	55.9	0		
PHF	.852	.855	.900	.661	.917	.667	.717	.688	.563	.888	.500	.882	1.00	.000	.893	.550	.830	.902	.000	.918	.982
Unshifted	225	219	36	37	517	8	43	11	9	71	4	134	12	0	150	11	83	119	0	213	951
% Unshifted																					
Tractor Trailers	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Tractor Trailers	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



Shropshire Associates LLC

277 Whitehorse Pike, Suite 203

Atco, NJ 08004

N/S Route: Windstar

E/W Route: Center St.

Little Egg Harbor/Ocean County/NJ

Tuesday/Overcast to Snow/RS/D4-3142

File Name : 24257007

Site Code : 24257007

Start Date : 2/11/2025

Page No : 1

Groups Printed- Windstar Drive Turns

	Center St. Westbound		Windstar Drive Northbound			Center St. Eastbound		
Start Time	Left	App. Total	Right	Left	App. Total	Right	App. Total	Int. Total
07:00 AM	0	0	0	1	1	0	0	1
07:15 AM	0	0	1	0	1	2	2	3
07:30 AM	0	0	0	0	0	1	1	1
*** BREAK ***								
Total	0	0	1	1	2	3	3	5
08:00 AM	0	0	1	0	1	0	0	1
*** BREAK ***								
08:30 AM	0	0	1	0	1	0	0	1
08:45 AM	0	0	1	0	1	0	0	1
Total	0	0	3	0	3	0	0	3
*** BREAK ***								
02:00 PM	1	1	0	1	1	1	1	3
02:15 PM	0	0	0	1	1	0	0	1
02:30 PM	0	0	0	0	0	4	4	4
02:45 PM	0	0	0	0	0	1	1	1
Total	1	1	0	2	2	6	6	9
*** BREAK ***								
03:15 PM	0	0	0	0	0	1	1	1
03:30 PM	2	2	0	0	0	0	0	2
03:45 PM	0	0	0	1	1	1	1	2
Total	2	2	0	1	1	2	2	5
04:00 PM	0	0	0	0	0	2	2	2
*** BREAK ***								
04:30 PM	1	1	0	0	0	3	3	4
04:45 PM	0	0	0	0	0	1	1	1
Total	1	1	0	0	0	6	6	7
05:00 PM	1	1	0	0	0	0	0	1
05:15 PM	0	0	1	0	1	0	0	1
*** BREAK ***								
Total	1	1	1	0	1	0	0	2
Grand Total	5	5	5	4	9	17	17	31
Apprch %	100		55.6	44.4		100		
Total %	16.1	16.1	16.1	12.9	29	54.8	54.8	

Shropshire Associates LLC

277 Whitehorse Pike, Suite 203

Atco, NJ 08004

N/S Route: Windstar

E/W Route: Center St.

Little Egg Harbor/Ocean County/NJ

Tuesday/Overcast to Snow/RS/D4-3142

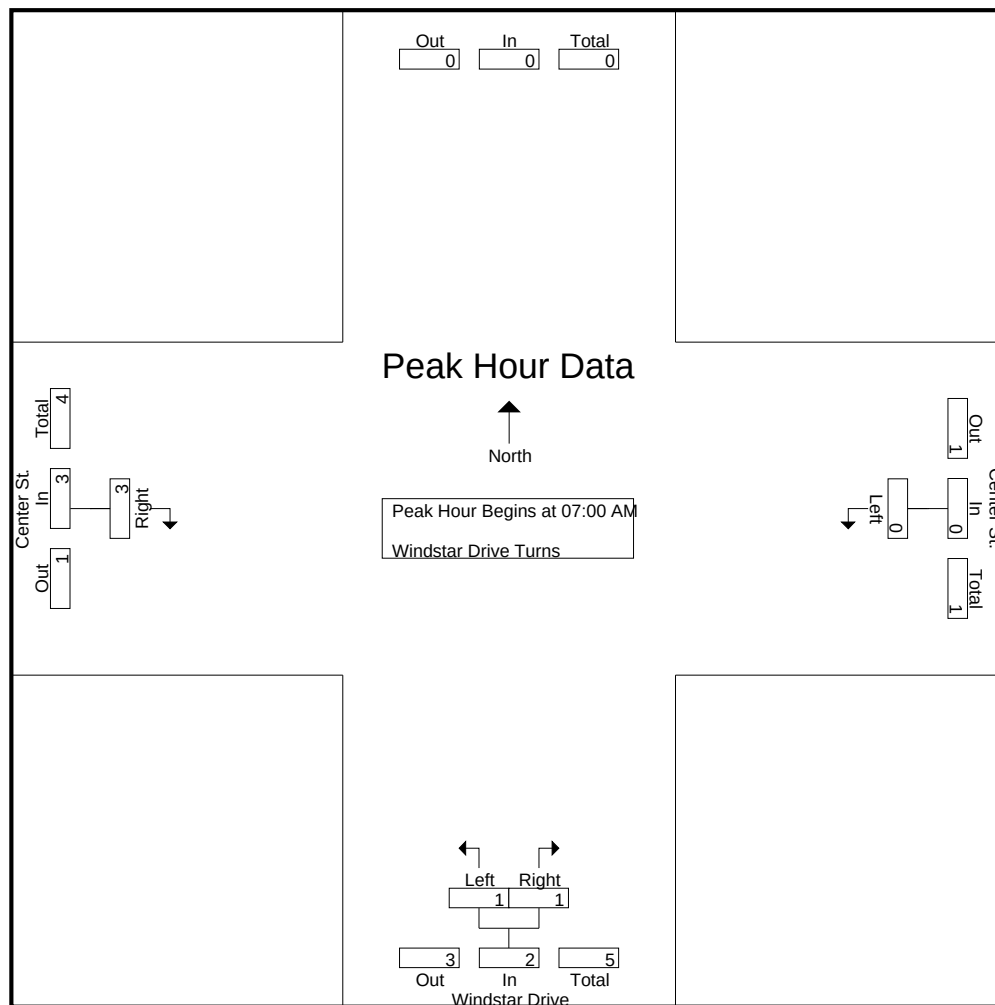
File Name : 24257007

Site Code : 24257007

Start Date : 2/11/2025

Page No : 2

	Center St. Westbound		Windstar Drive Northbound			Center St. Eastbound		
Start Time	Left	App. Total	Right	Left	App. Total	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1								
Peak Hour for Entire Intersection Begins at 07:00 AM								
07:00 AM	0	0	0	1	1	0	0	1
07:15 AM	0	0	1	0	1	2	2	3
07:30 AM	0	0	0	0	0	1	1	1
07:45 AM	0	0	0	0	0	0	0	0
Total Volume	0	0	1	1	2	3	3	5
% App. Total	0		50	50		100		
PHF	.000	.000	.250	.250	.500	.375	.375	.417



Shropshire Associates LLC

277 Whitehorse Pike, Suite 203

Atco, NJ 08004

N/S Route: Windstar

E/W Route: Center St.

Little Egg Harbor/Ocean County/NJ

Tuesday/Overcast to Snow/RS/D4-3142

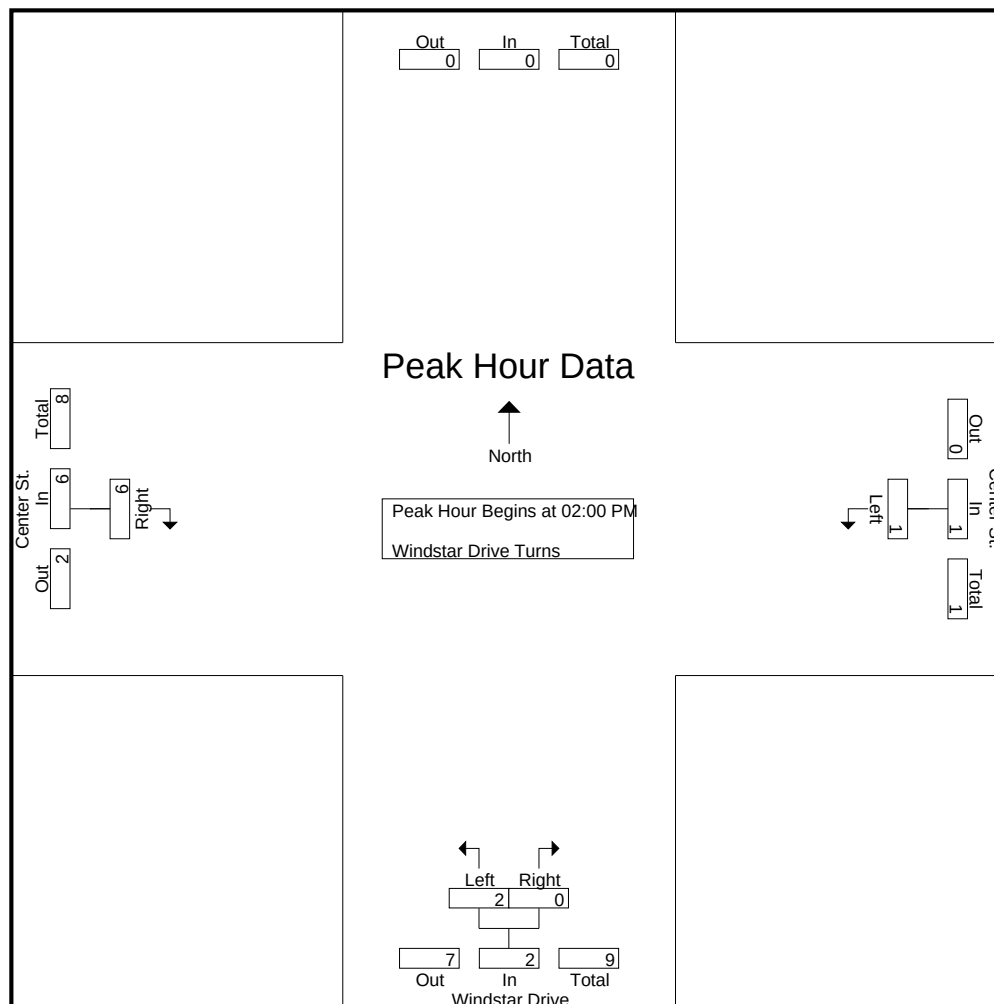
File Name : 24257007

Site Code : 24257007

Start Date : 2/11/2025

Page No : 3

	Center St. Westbound		Windstar Drive Northbound			Center St. Eastbound		
Start Time	Left	App. Total	Right	Left	App. Total	Right	App. Total	Int. Total
Peak Hour Analysis From 02:00 PM to 05:45 PM - Peak 1 of 1								
Peak Hour for Entire Intersection Begins at 02:00 PM								
02:00 PM	1	1	0	1	1	1	1	3
02:15 PM	0	0	0	1	1	0	0	1
02:30 PM	0	0	0	0	0	4	4	4
02:45 PM	0	0	0	0	0	1	1	1
Total Volume	1	1	0	2	2	6	6	9
% App. Total	100		0	100		100		
PHF	.250	.250	.000	.500	.500	.375	.375	.563



Atco, NJ 08004

Page No : 1

[illegible]

Shropshire Associates LLC

277 Whitehorse Pike, Suite 203

Atco, NJ 08004

N/S Route: Timberline Drive (Easternmost)

E/W Route: Center St.

Little Egg Harbor/Ocean County/NJ

Tuesday/Overcast to Snow/RS/D4-3142

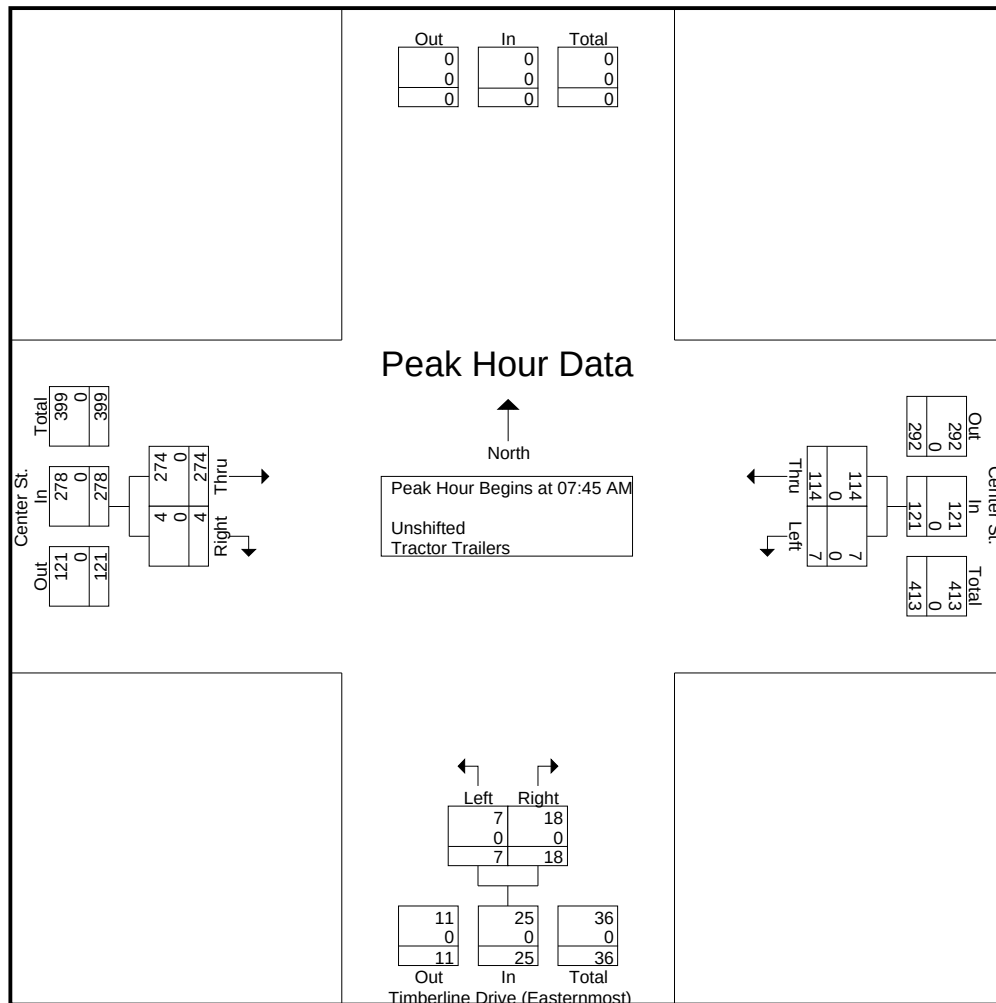
File Name : 24257007

Site Code : 24257007

Start Date : 2/11/2025

Page No : 2

	Center St. Westbound			Timberline Drive (Easternmost) Northbound			Center St. Eastbound			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:45 AM										
07:45 AM	24	3	27	7	2	9	2	83	85	121
08:00 AM	25	3	28	4	2	6	2	73	75	109
08:15 AM	30	1	31	5	3	8	0	59	59	98
08:30 AM	35	0	35	2	0	2	0	59	59	96
Total Volume	114	7	121	18	7	25	4	274	278	424
% App. Total	94.2	5.8		72	28		1.4	98.6		
PHF	.814	.583	.864	.643	.583	.694	.500	.825	.818	.876
Unshifted	114	7	121	18	7	25	4	274	278	424
% Unshifted	100	100	100	100	100	100	100	100	100	100
Tractor Trailers	0	0	0	0	0	0	0	0	0	0
% Tractor Trailers	0	0	0	0	0	0	0	0	0	0



Shropshire Associates LLC

277 Whitehorse Pike, Suite 203

Atco, NJ 08004

N/S Route: Timberline Drive (Easternmost)

E/W Route: Center St.

Little Egg Harbor/Ocean County/NJ

Tuesday/Overcast to Snow/RS/D4-3142

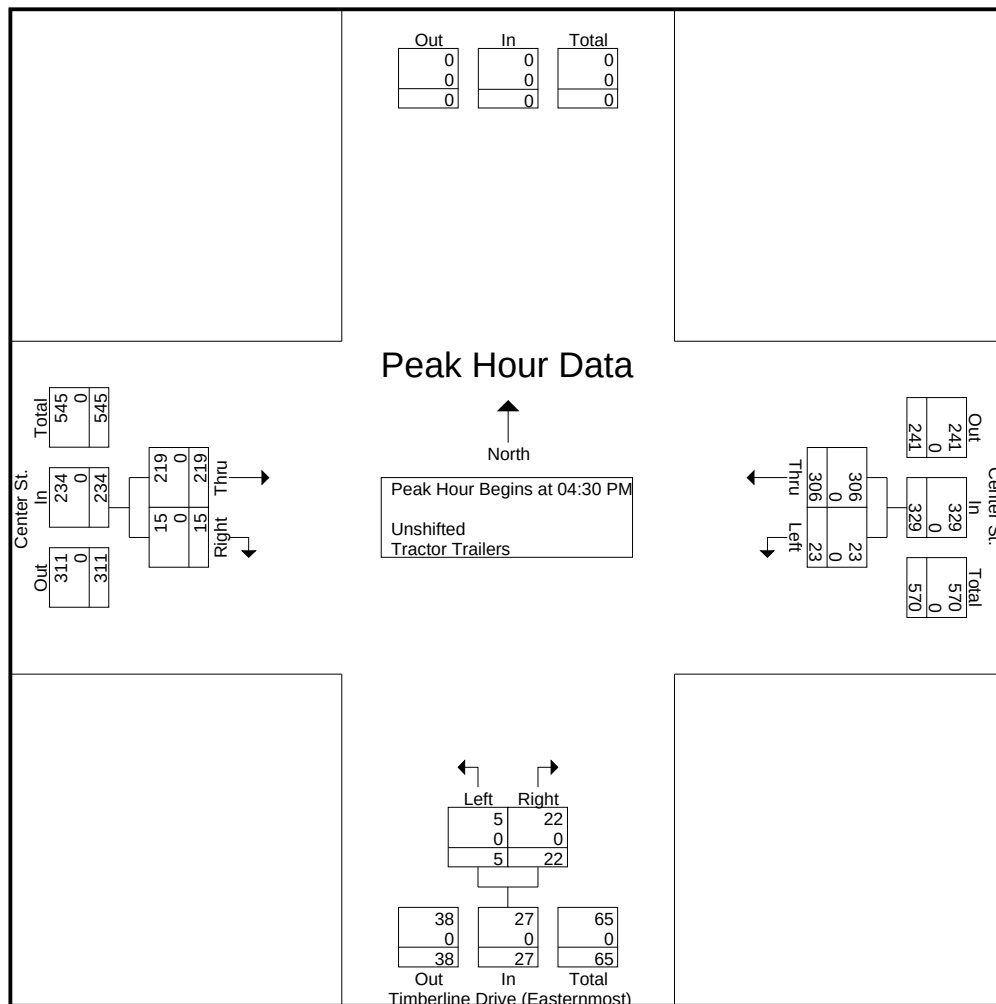
File Name : 24257007

Site Code : 24257007

Start Date : 2/11/2025

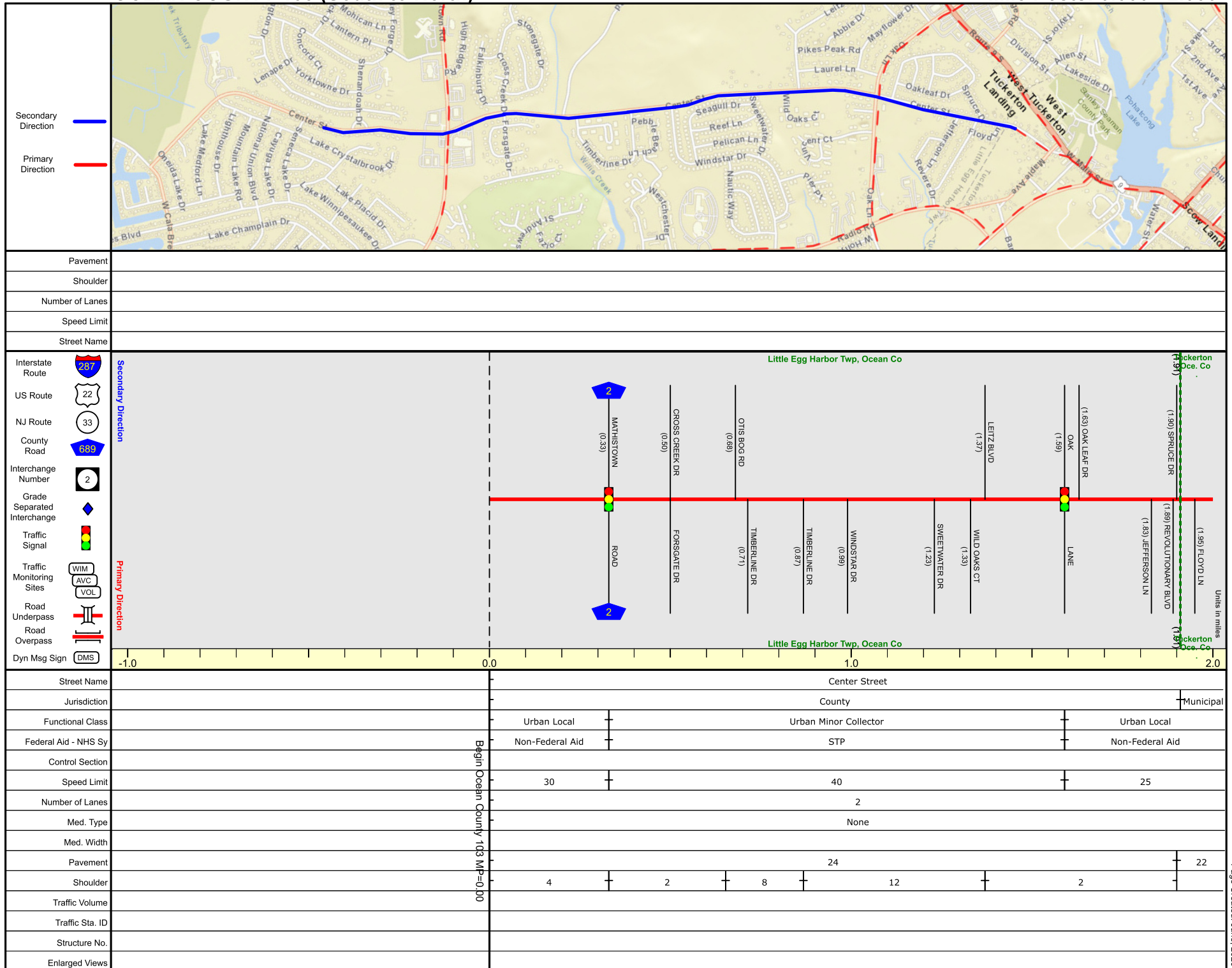
Page No : 3

	Center St. Westbound			Timberline Drive (Easternmost) Northbound			Center St. Eastbound			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 02:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:30 PM										
04:30 PM	85	3	88	7	0	7	2	63	65	160
04:45 PM	74	4	78	6	1	7	1	50	51	136
05:00 PM	61	11	72	6	1	7	9	59	68	147
05:15 PM	86	5	91	3	3	6	3	47	50	147
Total Volume	306	23	329	22	5	27	15	219	234	590
% App. Total	93	7		81.5	18.5		6.4	93.6		
PHF	.890	.523	.904	.786	.417	.964	.417	.869	.860	.922
Unshifted	306	23	329	22	5	27	15	219	234	590
% Unshifted	100	100	100	100	100	100	100	100	100	100
Tractor Trailers	0	0	0	0	0	0	0	0	0	0
% Tractor Trailers	0	0	0	0	0	0	0	0	0	0



OCEAN COUNTY 103 (South to North)

Mile Posts: 0.000 - 2.000



SRI = 15000103__

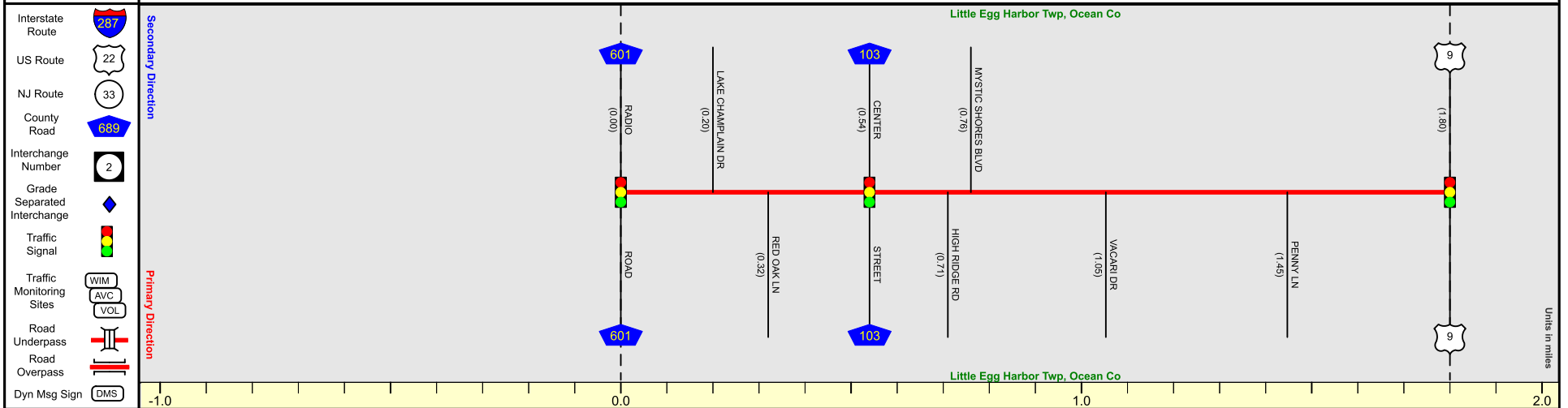
Date last inventoried: September 2011

MATHISTOWN RD (South to North)

Mile Posts: 0.000 - 1.800



Pavement	
Shoulder	
Number of Lanes	
Speed Limit	
Street Name	



Street Name	Mathistown Road
Jurisdiction	County
Functional Class	Urban Major Collector
Federal Aid - NHS Sy	STP
Control Section	Begin Mathistown Rd MP=0.00
Speed Limit	35
Number of Lanes	2
Med. Type	None
Med. Width	
Pavement	24
Shoulder	4
Traffic Volume	
Traffic Sta. ID	
Structure No.	
Enlarged Views	

SRI = 15160002__

Date last inventoried: November 2012

OAK LN (South to North)

Mile Posts: 0.000 - 1.000



Pavement			
Shoulder			
Number of Lanes			
Speed Limit			
Street Name			
Interstate Route US Route NJ Route County Road Interchange Number Grade Separated Interchange Traffic Signal Traffic Monitoring Sites Road Underpass Road Overpass Dyn Msg Sign	Secondary Direction Primary Direction		Units in miles
Street Name	Oak Lane		
Jurisdiction	Municipal		
Functional Class	Urban Local	Urban Major Collector	
Federal Aid - NHS Sy	Non-Federal Aid	STP	
Control Section			
Speed Limit	25		
Number of Lanes	2		
Med. Type	None		
Med. Width			
Pavement	32		
Shoulder			
Traffic Volume			
Traffic Sta. ID			
Structure No.			
Enlarged Views			

SRI = 15161320

Date last inventoried: January 2016

CR 103 (Center Street)
Oak Lane
Little Egg Harbor Twp.

Date: July 25, 2008
Revised: October 26, 2009



WITHOUT PEDESTRIAN ACTUATION 59-77 SECOND VARIABLE CYCLE

<u>Phase</u>	<u>1-3</u>	<u>4-6</u>	<u>7-12</u>	<u>13-16</u>	<u>17-20</u>	<u>Time (sec.)</u>
A. Oak Lane R.O.W.	G	G	R	M	H	24
Pedestrian Clearance	G	G	R	FH	H	15
Change	Y	Y	R	H	H	4
Clearance	R	R	R	H	H	2
B. Center Street R.O.W.	R	R	G	H	H	8-26
Change	R	R	Y	H	H	4
Clearance	R	R	R	H	H	2

WITH PEDESTRIAN ACTUATION

<u>Phase</u>	<u>1-3</u>	<u>4-6</u>	<u>7-12</u>	<u>13-16</u>	<u>17-20</u>	<u>Time (sec.)</u>
A. Oak Lane R.O.W.	G	G	R	M	H	25
Pedestrian Clearance	G	G	R	FH	H	15
Change	Y	Y	R	H	H	4
Clearance	R	R	R	H	H	2
B. Center Street R.O.W.	R	R	G	H	M	7
Pedestrian Clearance	R	R	G	H	FH	19
Change	R	R	Y	H	H	4
Clearance	R	R	R	H	H	2
EMERGENCY FLASHING	Y	Y	R	DARK	DARK	50-60 per min.

NOTES:

Vehicle interval to be set a 2 seconds. Detectors to be equipped with delay units adjusted to provide 10 seconds of delay before placing a call.

Memory circuits are to be disconnected.

If no actuation occurs, signal to rest in Phase A (Oak Lane R.O.W.).

Manual control to be disconnected.



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

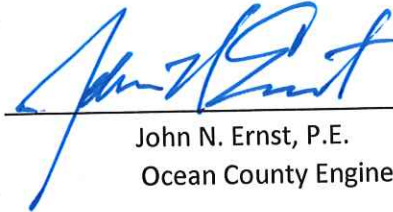
3/9/23

Date

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

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												
Stown Rd Lead Left	<G-/R	R	<G-/R	R	R	R	R	R	DW	DW	7-10	7-10
ge	<Y-/R	R	<Y-/R	R	R	R	R	R	DW	DW	3	3
Stown Rd ROW	G	G	G	G	R	R	R	R	W	DW	56-27	7 MIN
trian Clearance	G	G	G	G	R	R	R	R	FDW	DW	23	23
ge	Y	Y	Y	Y	R	R	R	R	DW	DW	5	5
ance	R	R	R	R	R	R	R	R	DW	DW	2	2
r St Lead Left	R	R	R	R	<G-/R	R	<G-/R	R	DW	DW	7-10	7-10
ge	R	R	R	R	<Y-/R	R	<Y-/R	R	DW	DW	3	3
r St ROW	R	R	R	R	G	G	G	G	DW	DW	7-30	7-15
ge	R	R	R	R	Y	Y	Y	Y	DW	DW	4	4
ance	R	R	R	R	R	R	R	R	DW	DW	3	3
PEDESTRIAN ACTUATION												
Stown Rd Lead Left	<G-/R	R	<G-/R	R	R	R	R	R	DW	DW	7-10	7-10
ge	<Y-/R	R	<Y-/R	R	R	R	R	R	DW	DW	3	3
Stown Rd ROW	G	G	G	G	R	R	R	R	W	DW	37-27	7 MIN
trian Clearance	G	G	G	G	R	R	R	R	FDW	DW	23	23
ge	Y	Y	Y	Y	R	R	R	R	DW	DW	5	5
ance	R	R	R	R	R	R	R	R	DW	DW	2	2
r St Lead Left	R	R	R	R	<G-/R	R	<G-/R	R	DW	DW	7-10	7-10
ge	R	R	R	R	<Y-/R	R	<Y-/R	R	DW	DW	3	3
r St ROW	R	R	R	R	G	G	G	G	DW	W	8	8
trian Clearance	R	R	R	R	G	G	G	G	DW	FDW	18	18
le Extension	R	R	R	R	G	G	G	G	DW	DW	0-4	0
ge	R	R	R	R	Y	Y	Y	Y	DW	DW	4	4
ance	R	R	R	R	R	R	R	R	DW	DW	3	3
lash	Y	Y	Y	Y	R	R	R	R	DARK	DARK	-	-

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

 3/9/23
John N. Ernst, P.E. Date
Ocean County Engineer

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

Senior Adult Housing - Single-Family (251)

Vehicle Trip Ends vs: Dwelling Units

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

Setting/Location: General Urban/Suburban

Number of Studies: 34

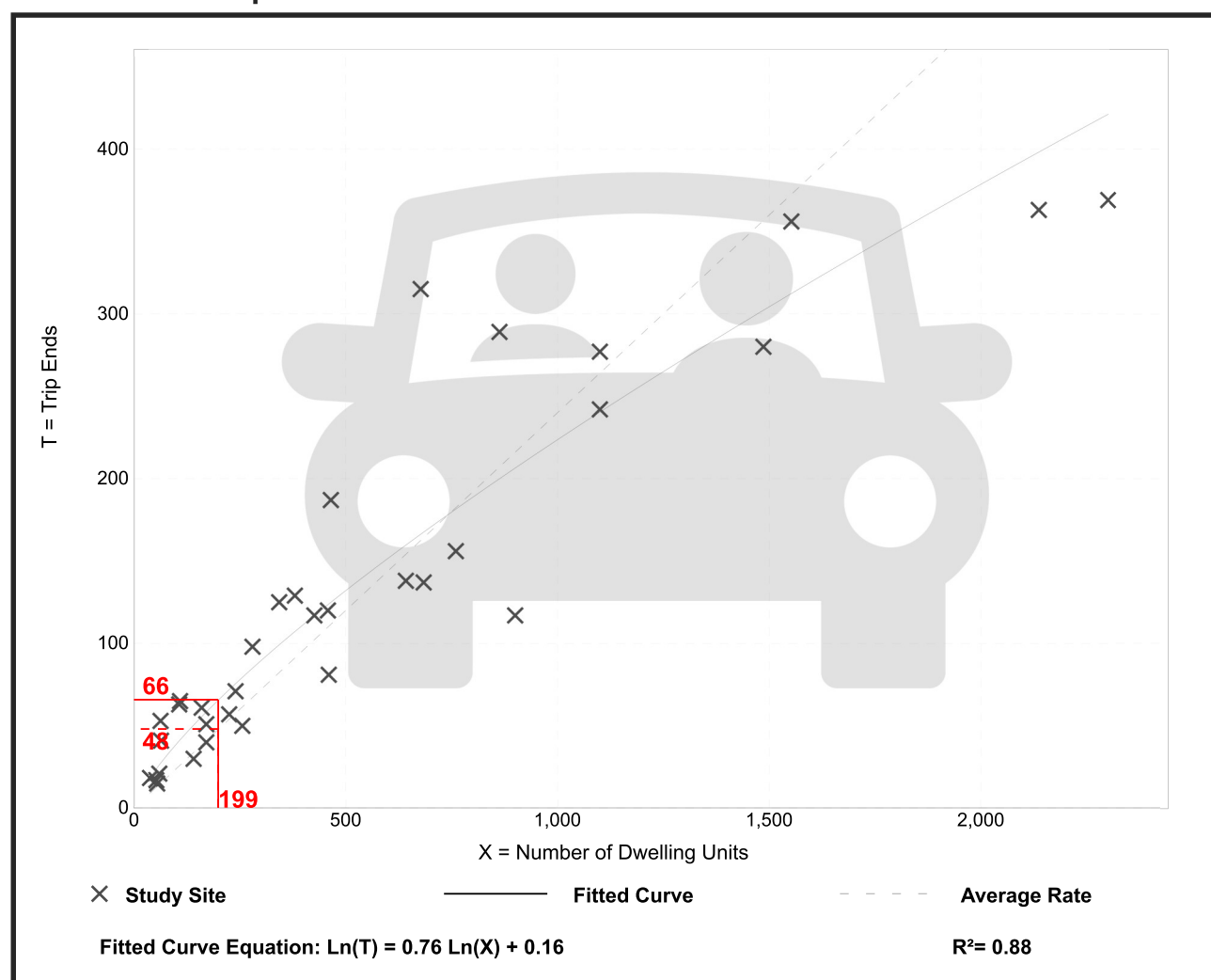
Avg. Num. of Dwelling Units: 557

Directional Distribution: 33% entering, 67% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.24	0.13 - 0.84	0.10

Data Plot and Equation



Senior Adult Housing - Single-Family (251)

Vehicle Trip Ends vs: Dwelling Units

On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.

Setting/Location: General Urban/Suburban

Number of Studies: 35

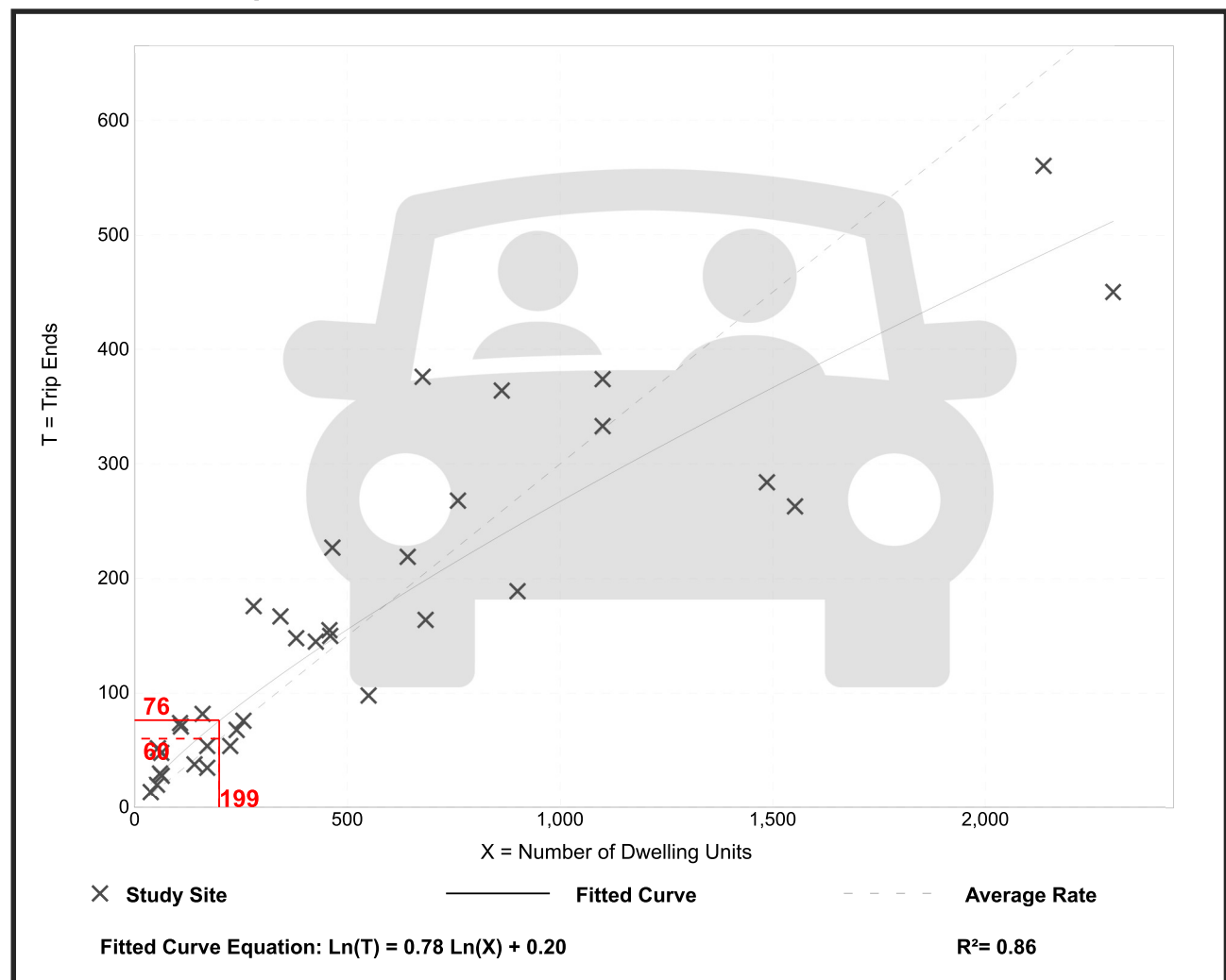
Avg. Num. of Dwelling Units: 556

Directional Distribution: 61% entering, 39% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.30	0.17 - 0.95	0.12

Data Plot and Equation



Senior Adult Housing - Multifamily (252)

Vehicle Trip Ends vs: Dwelling Units

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

Setting/Location: General Urban/Suburban

Number of Studies: 9

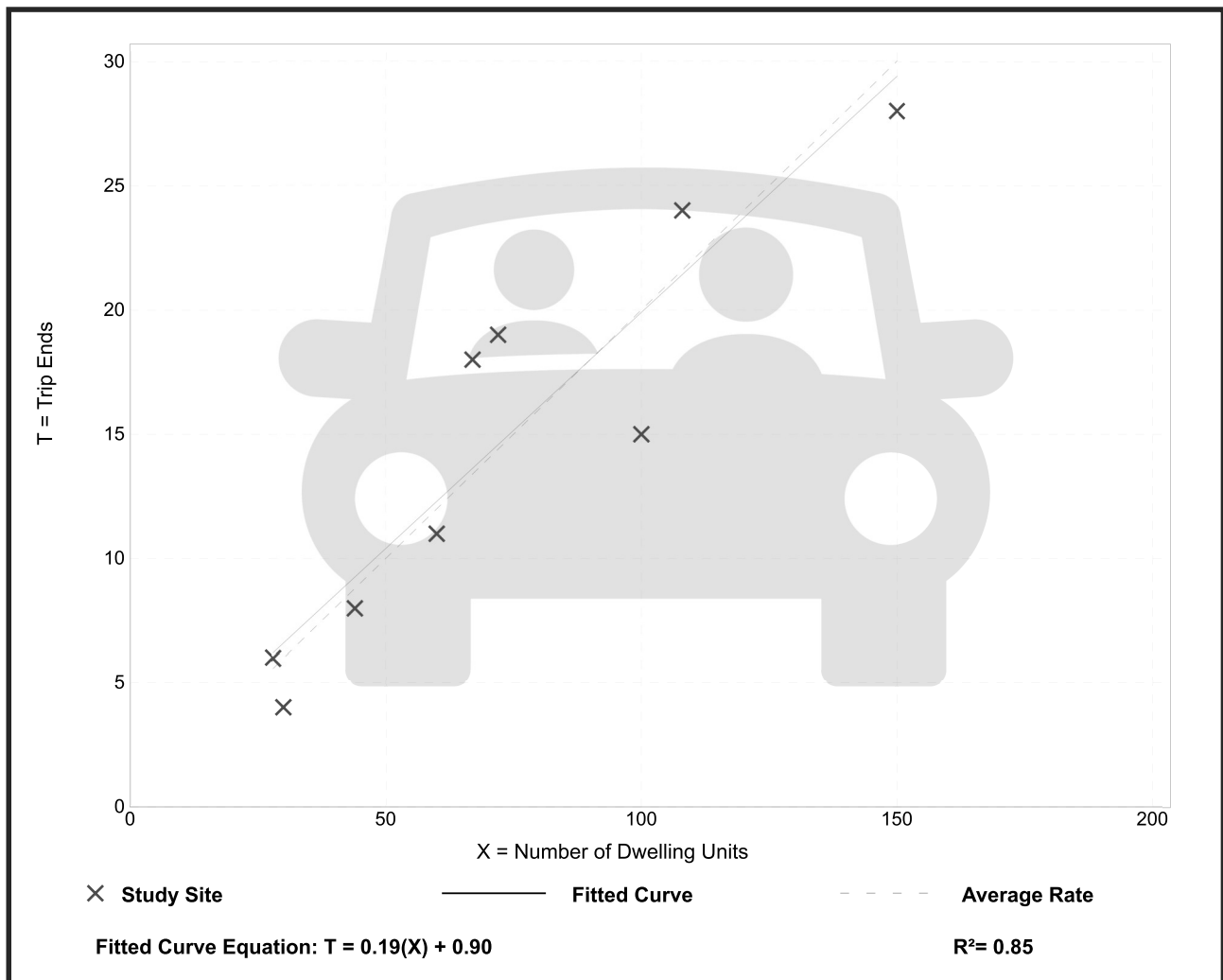
Avg. Num. of Dwelling Units: 73

Directional Distribution: 34% entering, 66% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.20	0.13 - 0.27	0.04

Data Plot and Equation



Senior Adult Housing - Multifamily (252)

Vehicle Trip Ends vs: Dwelling Units

On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.

Setting/Location: General Urban/Suburban

Number of Studies: 9

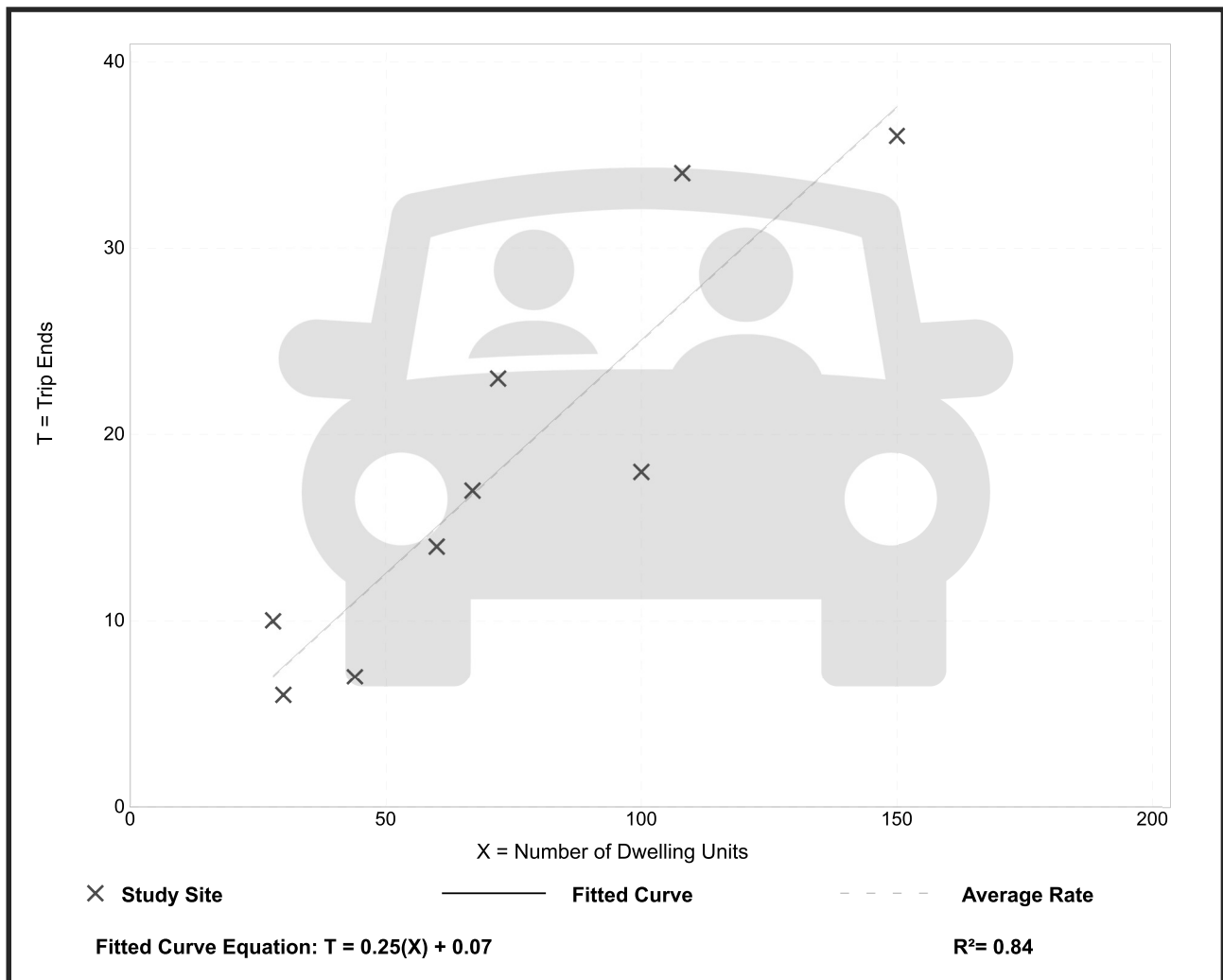
Avg. Num. of Dwelling Units: 73

Directional Distribution: 56% entering, 44% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.25	0.16 - 0.36	0.06

Data Plot and Equation





Left-Turn Lane Warrant Analysis (Two-Lane Roadways)

Time Period	AM	Analyzed Roadway	Center Street	Analyzed Roadway Speed Limit (MPH):	40
SA Project No.	24257	Intersecting Roadway	Site Driveway (East)		
Date	4/23/25	Municipality	Little Egg Harbor		
Analyst	BC	County	Ocean		

Highway Research Record, Number 211, Table 21

Opposing Volume (V _O)	Percent Left Turns in Advancing Volume (V _A)					
	5%	10%	15%	20%	30%	40%
800	330	235	200	180	165	150
700	370	270	225	200	180	170
600	410	300	250	225	200	190
500	460	335	280	250	220	210
400	510	375	310	275	245	230
300	570	415	350	310	275	255
200	635	460	390	345	305	285
100	720	515	440	390	335	320

Inputs

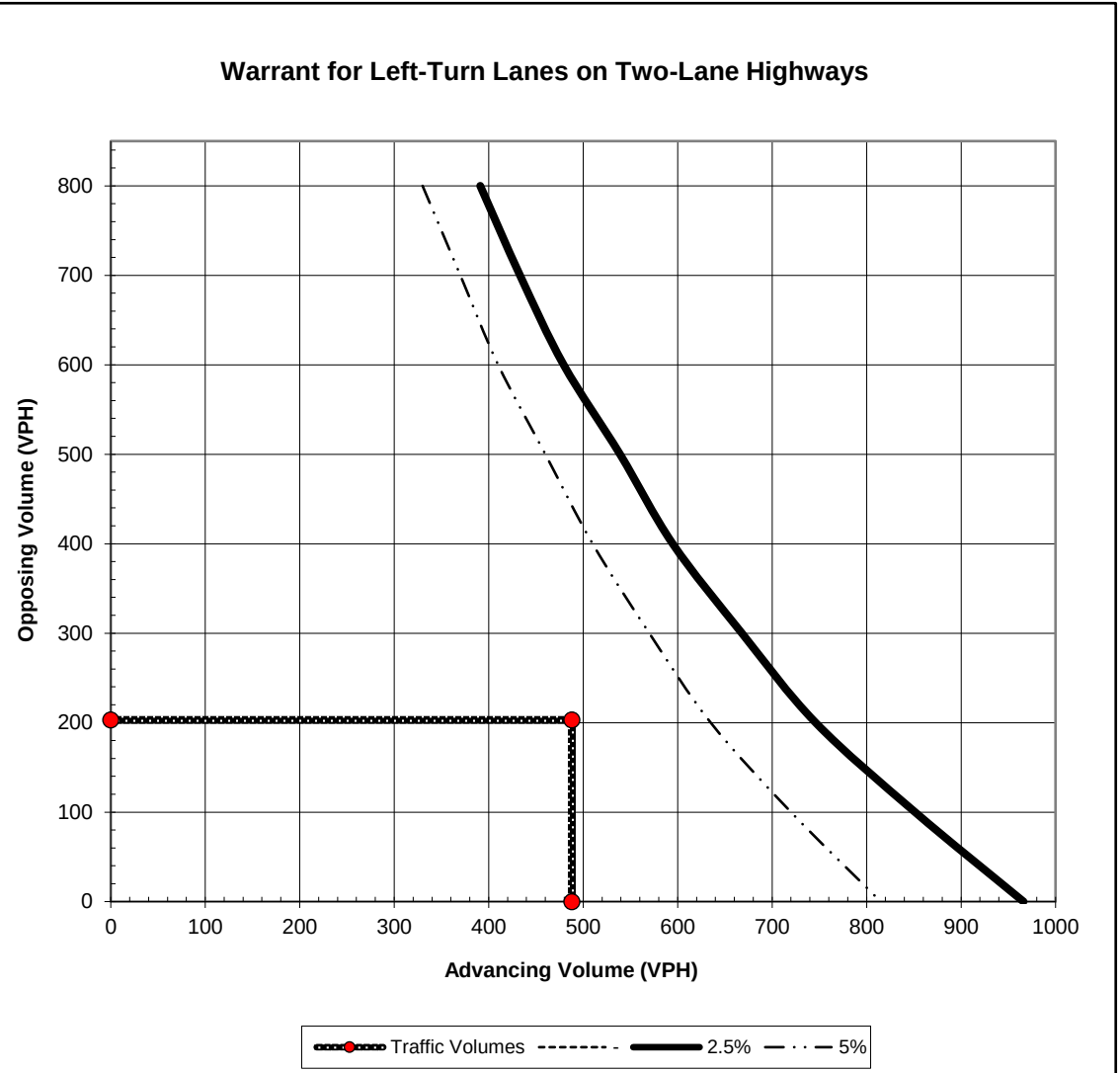
Advancing Traffic Volume (V _A) - Veh / Hr	488
Left-Turning Vehicles in V _A - Veh / Hr	12
Opposing Traffic Volume (V _O) - Veh / Hr	203

Analyses

Opposing Volume (V _O) in Veh / Hr	Advancing Volume (V _A) Required For Warrant		
	Next Lower Range	Calculated % Left-Turns	Next Higher Range
	-	2.5%	5%
800		391	330
700		433	370
600		479	410
500		539	460
400		595	510
300		668	570
200		746	635
100		851	720

Conclusion

Left-Turn Lane Not Warranted



Note: Percent Left-Turns in Advancing Volume Less Than 5% - Results Extrapolated



Left-Turn Lane Warrant Analysis (Two-Lane Roadways)

Time Period	AM	Analyzed Roadway	Center Street	Analyzed Roadway Speed Limit (MPH):	40
SA Project No.	24257	Intersecting Roadway	Site Driveway (West)		
Date	4/15/25	Municipality	Little Egg Harbor		
Analyst	BC	County	Ocean		

Highway Research Record, Number 211, Table 21

Opposing Volume (V _O)	Percent Left Turns in Advancing Volume (V _A)					
	5%	10%	15%	20%	30%	40%
800	330	235	200	180	165	150
700	370	270	225	200	180	170
600	410	300	250	225	200	190
500	460	335	280	250	220	210
400	510	375	310	275	245	230
300	570	415	350	310	275	255
200	635	460	390	345	305	285
100	720	515	440	390	335	320

Inputs

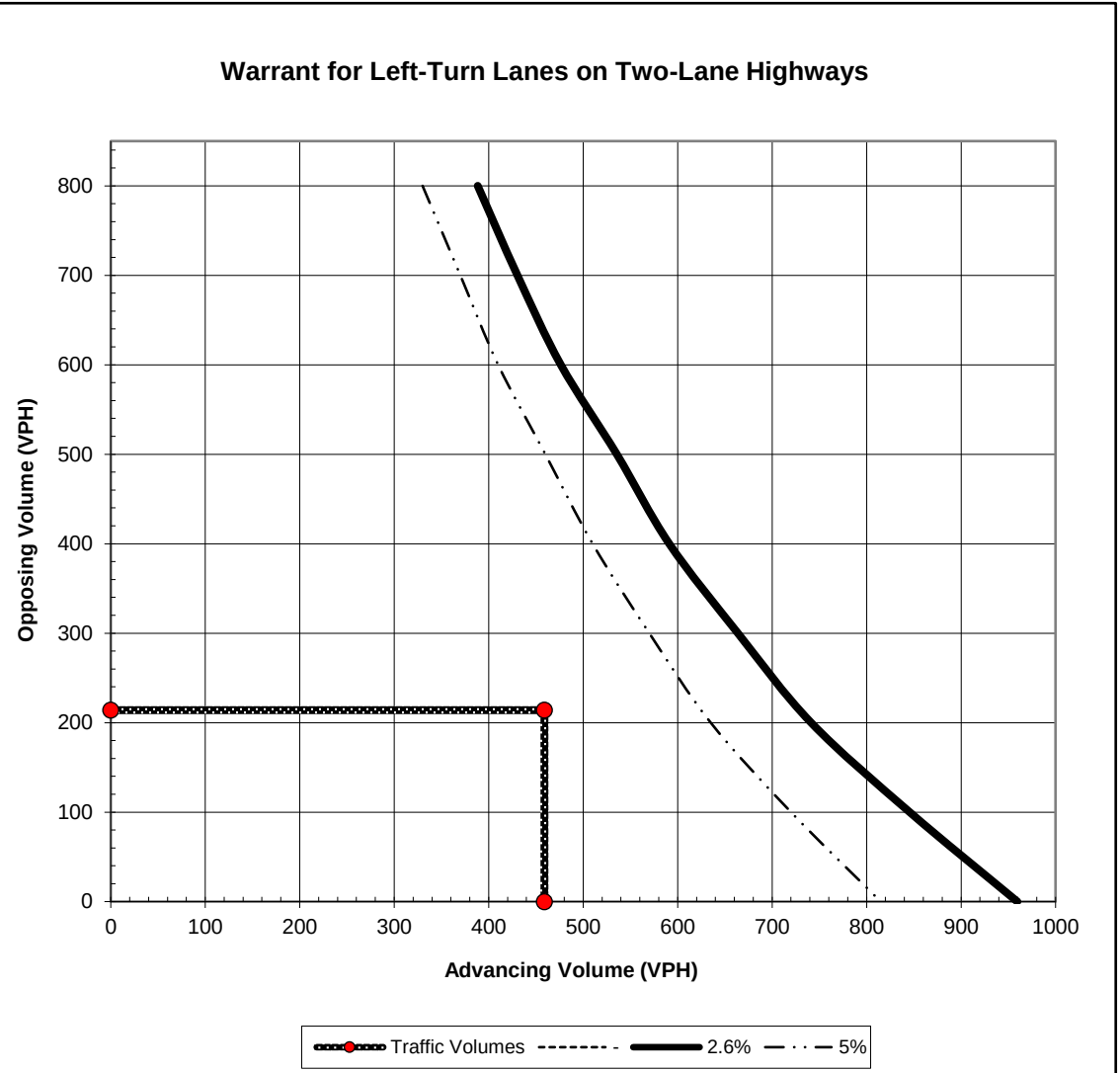
Advancing Traffic Volume (V _A) - Veh / Hr	459
Left-Turning Vehicles in V _A - Veh / Hr	12
Opposing Traffic Volume (V _O) - Veh / Hr	214

Analyses

Opposing Volume (V _O) in Veh / Hr	Advancing Volume (V _A) Required For Warrant		
	Next Lower Range	Calculated % Left-Turns	Next Higher Range
	-	2.6%	5%
800		388	330
700		430	370
600		476	410
500		536	460
400		591	510
300		664	570
200		741	635
100		846	720

Conclusion

Left-Turn Lane Not Warranted



Note: Percent Left-Turns in Advancing Volume Less Than 5% - Results Extrapolated



Left-Turn Lane Warrant Analysis (Two-Lane Roadways)

Time Period	PM	Analyzed Roadway	Center Street	Analyzed Roadway Speed Limit (MPH):	40
SA Project No.	24257	Intersecting Roadway	Site Driveway (East)		
Date	4/23/25	Municipality	Little Egg Harbor		
Analyst	BC	County	Ocean		

Highway Research Record, Number 211, Table 21

Opposing Volume (V _O)	Percent Left Turns in Advancing Volume (V _A)					
	5%	10%	15%	20%	30%	40%
800	330	235	200	180	165	150
700	370	270	225	200	180	170
600	410	300	250	225	200	190
500	460	335	280	250	220	210
400	510	375	310	275	245	230
300	570	415	350	310	275	255
200	635	460	390	345	305	285
100	720	515	440	390	335	320

Inputs

Advancing Traffic Volume (V _A) - Veh / Hr	408
Left-Turning Vehicles in V _A - Veh / Hr	21
Opposing Traffic Volume (V _O) - Veh / Hr	551

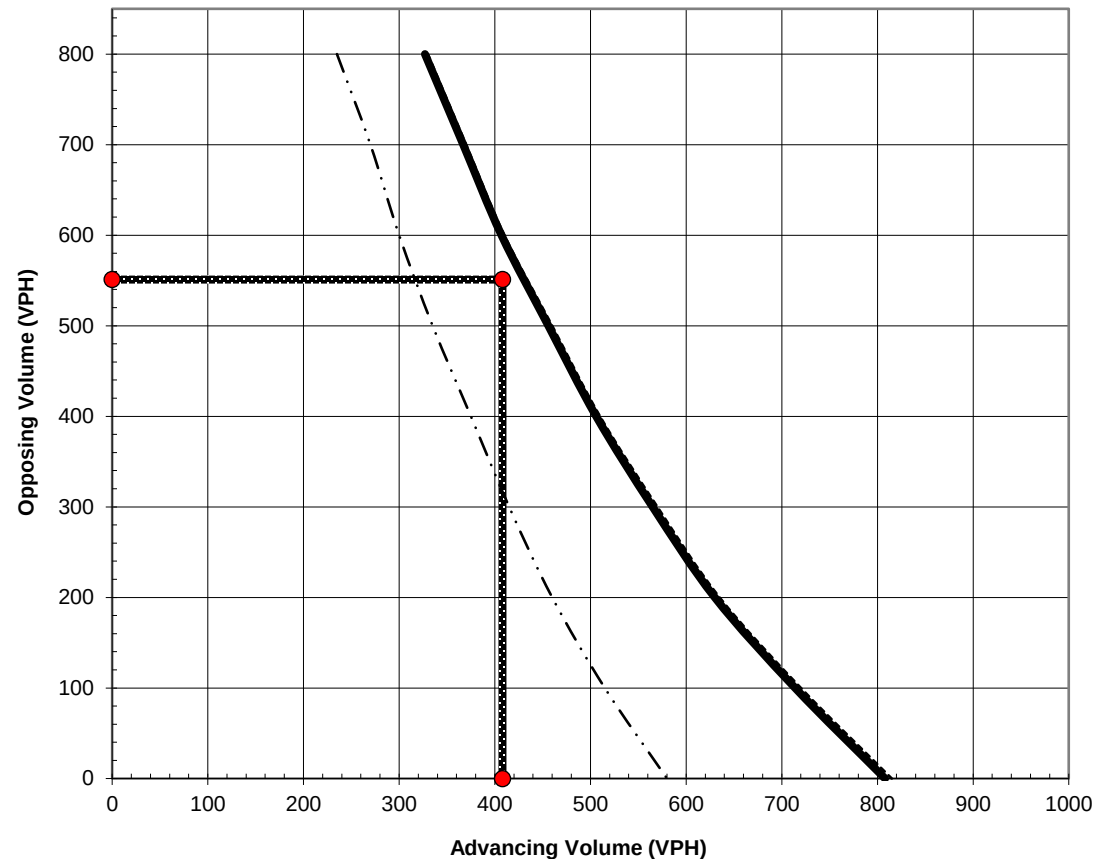
Analyses

Opposing Volume (V _O) in Veh / Hr	Advancing Volume (V _A) Required For Warrant		
	Next Lower Range	Calculated % Left-Turns	Next Higher Range
	5%	5.1%	10%
800	330	327	235
700	370	367	270
600	410	407	300
500	460	456	335
400	510	506	375
300	570	565	415
200	635	630	460
100	720	714	515

Conclusion

Left-Turn Lane Not Warranted

Warrant for Left-Turn Lanes on Two-Lane Highways



Legend: Traffic Volumes (solid line with red dots), 5% (dashed line), 5.1% (solid black line), 10% (dash-dot line)

Note: -

Shropshire Associates LLC

Left-Turn Lane Warrant Analysis (Two-Lane Roadways)

Time Period	PM	Analyzed Roadway	Center Street	Analyzed Roadway Speed Limit (MPH):	40
SA Project No.	24257	Intersecting Roadway	Site Driveway (West)		
Date	4/23/25	Municipality	Little Egg Harbor		
Analyst	BC	County	Ocean		

Highway Research Record, Number 211, Table 21

Opposing Volume (V _O)	Percent Left Turns in Advancing Volume (V _A)					
	5%	10%	15%	20%	30%	40%
800	330	235	200	180	165	150
700	370	270	225	200	180	170
600	410	300	250	225	200	190
500	460	335	280	250	220	210
400	510	375	310	275	245	230
300	570	415	350	310	275	255
200	635	460	390	345	305	285
100	720	515	440	390	335	320

Inputs

Advancing Traffic Volume (V _A) - Veh / Hr	406
Left-Turning Vehicles in V _A - Veh / Hr	22
Opposing Traffic Volume (V _O) - Veh / Hr	542

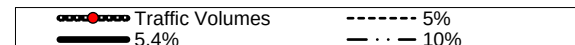
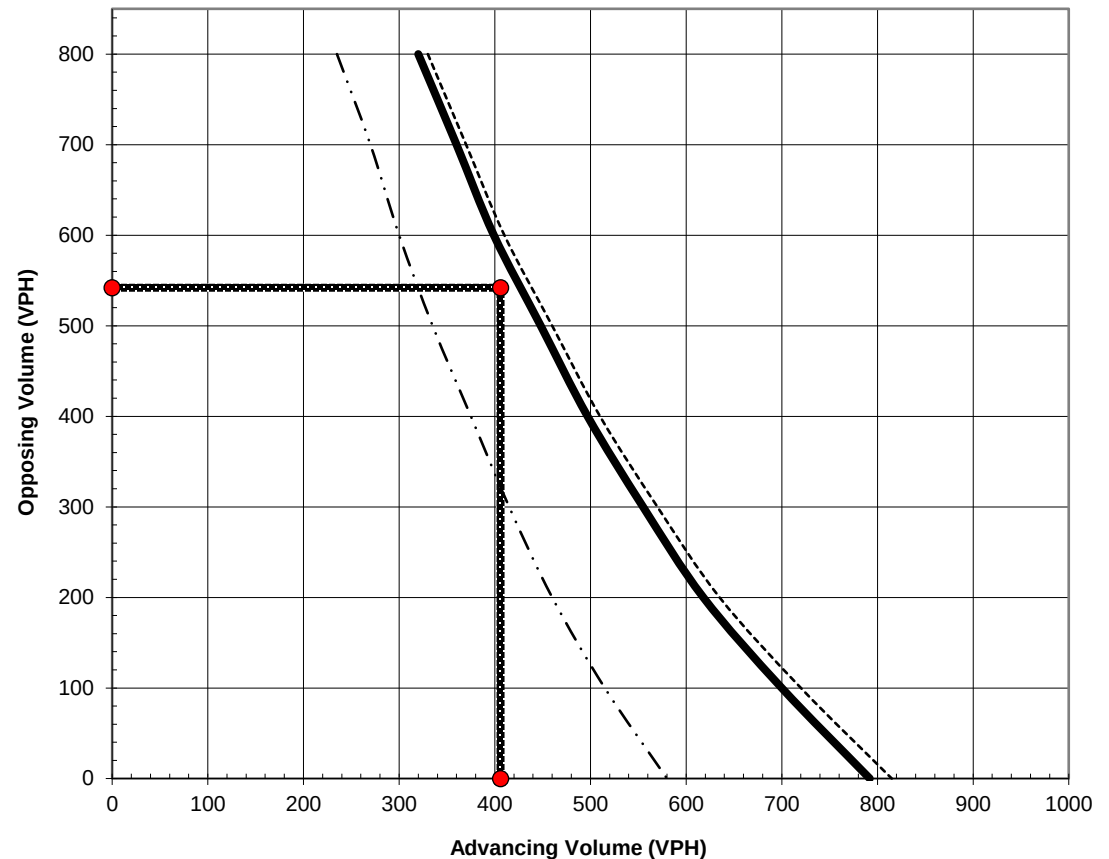
Analyses

Opposing Volume (V _O) in Veh / Hr	Advancing Volume (V _A) Required For Warrant		
	Next Lower Range	Calculated % Left-Turns	Next Higher Range
	5%	5.4%	10%
800	330	320	235
700	370	360	270
600	410	399	300
500	460	448	335
400	510	497	375
300	570	555	415
200	635	618	460
100	720	700	515

Conclusion

Left-Turn Lane Not Warranted

Warrant for Left-Turn Lanes on Two-Lane Highways



Note: -

Lanes, Volumes, Timings
16: Center Street & Mathistown Road

Existing AM
03/10/2025

												
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	27	137	54	7	327	94	132	137	9	70	44	57
Future Volume (vph)	27	137	54	7	327	94	132	137	9	70	44	57
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	120		0	150		0	90		0	100		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	50			50			40			200		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.958			0.967			0.991			0.915	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1805	1807	0	1805	1837	0	1805	1883	0	1805	1738	0
Flt Permitted	0.327			0.598			0.685			0.615		
Satd. Flow (perm)	621	1807	0	1136	1837	0	1302	1883	0	1168	1738	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		20			15			3			52	
Link Speed (mph)		45			35			30			40	
Link Distance (ft)		2135			1615			2580			1403	
Travel Time (s)		32.3			31.5			58.6			23.9	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	0%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	30	151	59	8	359	103	145	151	10	77	48	63
Shared Lane Traffic (%)												
Lane Group Flow (vph)	30	210	0	8	462	0	145	161	0	77	111	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases	6			2			4			8		
Minimum Split (s)	10.0	57.0		10.0	57.0		10.0	14.0		10.0	14.0	
Total Split (s)	13.0	57.0		13.0	57.0		13.0	37.0		13.0	37.0	
Total Split (%)	10.8%	47.5%		10.8%	47.5%		10.8%	30.8%		10.8%	30.8%	
Maximum Green (s)	10.0	50.0		10.0	50.0		10.0	30.0		10.0	30.0	
Yellow Time (s)	3.0	5.0		3.0	5.0		3.0	4.0		3.0	4.0	
All-Red Time (s)	0.0	2.0		0.0	2.0		0.0	3.0		0.0	3.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	3.0	7.0		3.0	7.0		3.0	7.0		3.0	7.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Act Effect Green (s)	64.0	50.0		64.0	50.0		44.0	30.0		44.0	30.0	
Actuated g/C Ratio	0.53	0.42		0.53	0.42		0.37	0.25		0.37	0.25	
v/c Ratio	0.07	0.27		0.01	0.60		0.28	0.34		0.16	0.23	
Control Delay	12.4	21.9		11.9	30.1		25.9	38.6		24.2	21.2	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	

Lanes, Volumes, Timings
16: Center Street & Mathistown Road

Existing AM
03/10/2025

												
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Total Delay	12.4	21.9		11.9	30.1		25.9	38.6		24.2	21.2	
LOS	B	C		B	C		C	D		C	C	
Approach Delay		20.7			29.8			32.6			22.4	
Approach LOS		C			C			C			C	

Intersection Summary

Area Type: Other

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 42.5 (35%), Referenced to phase 2:NWTL and 6:SETL, Start of Yellow

Natural Cycle: 95

Control Type: Pretimed

Maximum v/c Ratio: 0.60

Intersection Signal Delay: 27.6

Intersection LOS: C

Intersection Capacity Utilization 70.3%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 16: Center Street & Mathistown Road

 Ø1	 Ø2 (R)	 Ø3	 Ø4
13 s	57 s	13 s	37 s
 Ø5	 Ø6 (R)	 Ø7	 Ø8
13 s	57 s	13 s	37 s

Lanes, Volumes, Timings
11: Center Street & Oak Lane

Existing AM
04/10/2025

												
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	23	88	110	8	211	18	169	200	6	1	13	28
Future Volume (vph)	23	88	110	8	211	18	169	200	6	1	13	28
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.933			0.990			0.998			0.909	
Flt Protected		0.995			0.998			0.978			0.999	
Satd. Flow (prot)	0	1764	0	0	1877	0	0	1854	0	0	1725	0
Flt Permitted		0.950			0.988			0.830			0.993	
Satd. Flow (perm)	0	1684	0	0	1858	0	0	1574	0	0	1715	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		94			8			1			35	
Link Speed (mph)		25			25			40			25	
Link Distance (ft)		544			1578			1479			1338	
Travel Time (s)		14.8			43.0			25.2			36.5	
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	28	109	136	10	260	22	209	247	7	1	16	35
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	273	0	0	292	0	0	463	0	0	52	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		6			2			4			8	
Permitted Phases	6			2			4			8		
Detector Phase	6	6		2	2		4	4		8	8	
Switch Phase												

Lanes, Volumes, Timings
11: Center Street & Oak Lane

Existing AM
04/10/2025

												
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Minimum Initial (s)	39.0	39.0		39.0	39.0		8.0	8.0		8.0	8.0	
Minimum Split (s)	45.0	45.0		45.0	45.0		14.0	14.0		14.0	14.0	
Total Split (s)	45.0	45.0		45.0	45.0		32.0	32.0		32.0	32.0	
Total Split (%)	58.4%	58.4%		58.4%	58.4%		41.6%	41.6%		41.6%	41.6%	
Maximum Green (s)	39.0	39.0		39.0	39.0		26.0	26.0		26.0	26.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		6.0			6.0			6.0			6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Recall Mode	Max	Max		Max	Max		None	None		None	None	
Act Effect Green (s)		39.1			39.1			24.1			24.1	
Actuated g/C Ratio		0.52			0.52			0.32			0.32	
v/c Ratio		0.30			0.30			0.92			0.09	
Control Delay		7.9			11.5			50.4			9.4	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		7.9			11.5			50.4			9.4	
LOS		A			B			D			A	
Approach Delay		7.9			11.5			50.4			9.4	
Approach LOS		A			B			D			A	

Intersection Summary

Area Type: Other

Cycle Length: 77

Actuated Cycle Length: 75.2

Natural Cycle: 75

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.92

Intersection Signal Delay: 27.2

Intersection LOS: C

Intersection Capacity Utilization 69.4%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 11: Center Street & Oak Lane

 Ø2	 Ø4
45 s	32 s
 Ø6	 Ø8
45 s	32 s

Intersection						
Int Delay, s/veh	0.8					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	353	5	9	147	9	23
Future Vol, veh/h	353	5	9	147	9	23
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	401	6	10	167	10	26
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	407	0	591	404
Stage 1	-	-	-	-	404	-
Stage 2	-	-	-	-	187	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1163	-	473	651
Stage 1	-	-	-	-	679	-
Stage 2	-	-	-	-	850	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1163	-	469	651
Mov Cap-2 Maneuver	-	-	-	-	469	-
Stage 1	-	-	-	-	679	-
Stage 2	-	-	-	-	842	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.5		11.5	
HCM LOS	B					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	587	-	-	1163	-	
HCM Lane V/C Ratio	0.062	-	-	0.009	-	
HCM Control Delay (s)	11.5	-	-	8.1	0	
HCM Lane LOS	B	-	-	A	A	
HCM 95th %tile Q(veh)	0.2	-	-	0	-	

Intersection						
Int Delay, s/veh	0					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	373	4	0	155	1	1
Future Vol, veh/h	373	4	0	155	1	1
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	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	405	4	0	168	1	1
Major/Minor	Major1	Major2		Minor1		
Conflicting Flow All	0	0	409	0	575	407
Stage 1	-	-	-	-	407	-
Stage 2	-	-	-	-	168	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1161	-	483	648
Stage 1	-	-	-	-	676	-
Stage 2	-	-	-	-	867	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1161	-	483	648
Mov Cap-2 Maneuver	-	-	-	-	483	-
Stage 1	-	-	-	-	676	-
Stage 2	-	-	-	-	867	-
Approach	EB	WB		NB		
HCM Control Delay, s	0	0		11.5		
HCM LOS	B					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	553	-	-	1161	-	
HCM Lane V/C Ratio	0.004	-	-	-	-	
HCM Control Delay (s)	11.5	-	-	0	-	
HCM Lane LOS	B	-	-	A	-	
HCM 95th %tile Q(veh)	0	-	-	0	-	

Lanes, Volumes, Timings
16: Center Street & Mathistown Road

Existing PM
03/10/2025

												
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	83	437	160	34	226	113	67	104	32	99	129	55
Future Volume (vph)	83	437	160	34	226	113	67	104	32	99	129	55
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	120		0	150		0	90		0	100		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	50			50			40			200		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.960			0.950			0.965			0.955	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1805	1814	0	1805	1805	0	1805	1834	0	1805	1793	0
Flt Permitted	0.443			0.178			0.561			0.655		
Satd. Flow (perm)	842	1814	0	338	1805	0	1066	1834	0	1244	1793	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		19			26			12			17	
Link Speed (mph)		45			35			30			40	
Link Distance (ft)		2135			1615			2580			1403	
Travel Time (s)		32.3			31.5			58.6			23.9	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	0%	0%	2%	0%	0%	0%	0%	0%	0%	0%	0%	4%
Adj. Flow (vph)	86	451	165	35	233	116	69	107	33	102	133	57
Shared Lane Traffic (%)												
Lane Group Flow (vph)	86	616	0	35	349	0	69	140	0	102	190	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases	6			2			4			8		
Minimum Split (s)	10.0	57.0		10.0	57.0		10.0	14.0		10.0	14.0	
Total Split (s)	13.0	57.0		13.0	57.0		13.0	37.0		13.0	37.0	
Total Split (%)	10.8%	47.5%		10.8%	47.5%		10.8%	30.8%		10.8%	30.8%	
Maximum Green (s)	10.0	50.0		10.0	50.0		10.0	30.0		10.0	30.0	
Yellow Time (s)	3.0	5.0		3.0	5.0		3.0	4.0		3.0	4.0	
All-Red Time (s)	0.0	2.0		0.0	2.0		0.0	3.0		0.0	3.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	3.0	7.0		3.0	7.0		3.0	7.0		3.0	7.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Act Effect Green (s)	64.0	50.0		64.0	50.0		44.0	30.0		44.0	30.0	
Actuated g/C Ratio	0.53	0.42		0.53	0.42		0.37	0.25		0.37	0.25	
v/c Ratio	0.16	0.80		0.12	0.46		0.15	0.30		0.20	0.41	
Control Delay	13.2	39.3		12.9	25.5		24.1	35.3		24.8	37.3	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	

Lanes, Volumes, Timings
16: Center Street & Mathistown Road

Existing PM
03/10/2025

												
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Total Delay	13.2	39.3		12.9	25.5		24.1	35.3		24.8	37.3	
LOS	B	D		B	C		C	D		C	D	
Approach Delay		36.1			24.4			31.6			33.0	
Approach LOS		D			C			C			C	

Intersection Summary

Area Type: Other

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 42.5 (35%), Referenced to phase 2:NWTL and 6:SETL, Start of Yellow

Natural Cycle: 95

Control Type: Pretimed

Maximum v/c Ratio: 0.80

Intersection Signal Delay: 32.1

Intersection LOS: C

Intersection Capacity Utilization 81.8%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 16: Center Street & Mathistown Road

 Ø1	 Ø2 (R)	 Ø3	 Ø4
13 s	57 s	13 s	37 s
 Ø5	 Ø6 (R)	 Ø7	 Ø8
13 s	57 s	13 s	37 s

Lanes, Volumes, Timings
11: Center Street & Oak Lane

Existing PM
04/10/2025

												
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	46	282	338	15	173	5	153	107	14	14	55	22
Future Volume (vph)	46	282	338	15	173	5	153	107	14	14	55	22
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.932			0.997			0.993			0.968	
Flt Protected		0.997			0.996			0.973			0.992	
Satd. Flow (prot)	0	1765	0	0	1887	0	0	1836	0	0	1824	0
Flt Permitted		0.968			0.944			0.776			0.936	
Satd. Flow (perm)	0	1714	0	0	1788	0	0	1464	0	0	1721	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		98			2			4			22	
Link Speed (mph)		25			25			40			25	
Link Distance (ft)		544			1578			1479			1338	
Travel Time (s)		14.8			43.0			25.2			36.5	
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	47	288	345	15	177	5	156	109	14	14	56	22
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	680	0	0	197	0	0	279	0	0	92	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		6			2			4			8	
Permitted Phases	6			2			4			8		
Detector Phase	6	6		2	2		4	4		8	8	
Switch Phase												

Lanes, Volumes, Timings
11: Center Street & Oak Lane

Existing PM
04/10/2025

												
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Minimum Initial (s)	39.0	39.0		39.0	39.0		8.0	8.0		8.0	8.0	
Minimum Split (s)	45.0	45.0		45.0	45.0		14.0	14.0		14.0	14.0	
Total Split (s)	45.0	45.0		45.0	45.0		32.0	32.0		32.0	32.0	
Total Split (%)	58.4%	58.4%		58.4%	58.4%		41.6%	41.6%		41.6%	41.6%	
Maximum Green (s)	39.0	39.0		39.0	39.0		26.0	26.0		26.0	26.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		6.0			6.0			6.0			6.0	

Lead/Lag

Lead-Lag Optimize?

Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Recall Mode	Max	Max		Max	Max		None	None		None	None	
Act Effect Green (s)		39.3			39.3			17.0			17.0	
Actuated g/C Ratio		0.58			0.58			0.25			0.25	
v/c Ratio		0.66			0.19			0.76			0.21	
Control Delay		13.6			8.8			37.1			16.5	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		13.6			8.8			37.1			16.5	
LOS		B			A			D			B	
Approach Delay		13.6			8.8			37.1			16.5	
Approach LOS		B			A			D			B	

Intersection Summary

Area Type: Other

Cycle Length: 77

Actuated Cycle Length: 68.3

Natural Cycle: 65

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.76

Intersection Signal Delay: 18.3

Intersection LOS: B

Intersection Capacity Utilization 79.9%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 11: Center Street & Oak Lane

 Ø2	 Ø4
45 s	32 s
 Ø6	 Ø8
45 s	32 s

Intersection						
Int Delay, s/veh	0.8					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	282	19	30	394	6	28
Future Vol, veh/h	282	19	30	394	6	28
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	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	307	21	33	428	7	30
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	328	0	812	318
Stage 1	-	-	-	-	318	-
Stage 2	-	-	-	-	494	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1243	-	351	727
Stage 1	-	-	-	-	742	-
Stage 2	-	-	-	-	617	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1243	-	339	727
Mov Cap-2 Maneuver	-	-	-	-	339	-
Stage 1	-	-	-	-	742	-
Stage 2	-	-	-	-	595	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.6		11.3	
HCM LOS					B	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	605	-	-	1243	-	
HCM Lane V/C Ratio	0.061	-	-	0.026	-	
HCM Control Delay (s)	11.3	-	-	8	0	
HCM Lane LOS	B	-	-	A	A	
HCM 95th %tile Q(veh)	0.2	-	-	0.1	-	

Intersection						
Int Delay, s/veh	0.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	303	8	1	424	3	0
Future Vol, veh/h	303	8	1	424	3	0
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	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	329	9	1	461	3	0
Major/Minor	Major1	Major2		Minor1		
Conflicting Flow All	0	0	338	0	797	334
Stage 1	-	-	-	-	334	-
Stage 2	-	-	-	-	463	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1232	-	358	712
Stage 1	-	-	-	-	730	-
Stage 2	-	-	-	-	638	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1232	-	358	712
Mov Cap-2 Maneuver	-	-	-	-	358	-
Stage 1	-	-	-	-	730	-
Stage 2	-	-	-	-	637	-
Approach	EB	WB		NB		
HCM Control Delay, s	0	0		15.1		
HCM LOS	C					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	358	-	-	1232	-	
HCM Lane V/C Ratio	0.009	-	-	0.001	-	
HCM Control Delay (s)	15.1	-	-	7.9	0	
HCM Lane LOS	C	-	-	A	A	
HCM 95th %tile Q(veh)	0	-	-	0	-	

Lanes, Volumes, Timings
16: Center Street & Mathistown Road

No-Build AM
03/03/2025

												
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	30	151	60	8	361	104	146	151	10	85	54	69
Future Volume (vph)	30	151	60	8	361	104	146	151	10	85	54	69
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	120		0	150		0	90		0	100		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	50			50			40			200		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.957			0.967			0.991			0.916	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1805	1805	0	1805	1837	0	1805	1883	0	1805	1740	0
Flt Permitted	0.278			0.573			0.664			0.585		
Satd. Flow (perm)	528	1805	0	1089	1837	0	1262	1883	0	1112	1740	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		20			15			3			52	
Link Speed (mph)		45			35			30			40	
Link Distance (ft)		2135			1615			2580			1403	
Travel Time (s)		32.3			31.5			58.6			23.9	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	0%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	33	166	66	9	397	114	160	166	11	93	59	76
Shared Lane Traffic (%)												
Lane Group Flow (vph)	33	232	0	9	511	0	160	177	0	93	135	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases	6			2			4			8		
Minimum Split (s)	10.0	57.0		10.0	57.0		10.0	14.0		10.0	14.0	
Total Split (s)	13.0	57.0		13.0	57.0		13.0	37.0		13.0	37.0	
Total Split (%)	10.8%	47.5%		10.8%	47.5%		10.8%	30.8%		10.8%	30.8%	
Maximum Green (s)	10.0	50.0		10.0	50.0		10.0	30.0		10.0	30.0	
Yellow Time (s)	3.0	5.0		3.0	5.0		3.0	4.0		3.0	4.0	
All-Red Time (s)	0.0	2.0		0.0	2.0		0.0	3.0		0.0	3.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	3.0	7.0		3.0	7.0		3.0	7.0		3.0	7.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Act Effect Green (s)	64.0	50.0		64.0	50.0		44.0	30.0		44.0	30.0	
Actuated g/C Ratio	0.53	0.42		0.53	0.42		0.37	0.25		0.37	0.25	
v/c Ratio	0.09	0.30		0.01	0.66		0.32	0.37		0.20	0.28	
Control Delay	12.5	22.6		11.9	32.3		26.5	39.3		24.7	23.9	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	

Lanes, Volumes, Timings
16: Center Street & Mathistown Road

No-Build AM
03/03/2025

												
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Total Delay	12.5	22.6		11.9	32.3		26.5	39.3		24.7	23.9	
LOS	B	C		B	C		C	D		C	C	
Approach Delay		21.3			31.9			33.3			24.2	
Approach LOS		C			C			C			C	

Intersection Summary

Area Type: Other

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 42.5 (35%), Referenced to phase 2:NWTL and 6:SETL, Start of Yellow

Natural Cycle: 95

Control Type: Pretimed

Maximum v/c Ratio: 0.66

Intersection Signal Delay: 28.9

Intersection LOS: C

Intersection Capacity Utilization 71.8%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 16: Center Street & Mathistown Road

 Ø1	 Ø2 (R)	 Ø3	 Ø4
13 s	57 s	13 s	37 s
 Ø5	 Ø6 (R)	 Ø7	 Ø8
13 s	57 s	13 s	37 s

Lanes, Volumes, Timings
11: Center Street & Oak Lane

No-Build AM
04/10/2025

												
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	25	97	122	9	233	20	206	244	7	1	16	34
Future Volume (vph)	25	97	122	9	233	20	206	244	7	1	16	34
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.932			0.990			0.998			0.910	
Flt Protected		0.995			0.998			0.978			0.999	
Satd. Flow (prot)	0	1762	0	0	1877	0	0	1854	0	0	1727	0
Flt Permitted		0.944			0.987			0.825			0.993	
Satd. Flow (perm)	0	1672	0	0	1857	0	0	1564	0	0	1717	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		95			8			1			42	
Link Speed (mph)		25			25			40			25	
Link Distance (ft)		544			1578			1479			1338	
Travel Time (s)		14.8			43.0			25.2			36.5	
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	31	120	151	11	288	25	254	301	9	1	20	42
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	302	0	0	324	0	0	564	0	0	63	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		6			2			4			8	
Permitted Phases	6			2			4			8		
Detector Phase	6	6		2	2		4	4		8	8	
Switch Phase												

Lanes, Volumes, Timings
11: Center Street & Oak Lane

No-Build AM
04/10/2025

												
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Minimum Initial (s)	39.0	39.0		39.0	39.0		8.0	8.0		8.0	8.0	
Minimum Split (s)	45.0	45.0		45.0	45.0		14.0	14.0		14.0	14.0	
Total Split (s)	45.0	45.0		45.0	45.0		32.0	32.0		32.0	32.0	
Total Split (%)	58.4%	58.4%		58.4%	58.4%		41.6%	41.6%		41.6%	41.6%	
Maximum Green (s)	39.0	39.0		39.0	39.0		26.0	26.0		26.0	26.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		6.0			6.0			6.0			6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Recall Mode	Max	Max		Max	Max		None	None		None	None	
Act Effect Green (s)		39.0			39.0			26.0			26.0	
Actuated g/C Ratio		0.51			0.51			0.34			0.34	
v/c Ratio		0.34			0.34			1.07			0.10	
Control Delay		8.7			12.3			86.4			9.2	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		8.7			12.3			86.4			9.2	
LOS		A			B			F			A	
Approach Delay		8.7			12.3			86.4			9.2	
Approach LOS		A			B			F			A	

Intersection Summary

Area Type: Other

Cycle Length: 77

Actuated Cycle Length: 77

Natural Cycle: 80

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.07

Intersection Signal Delay: 44.7

Intersection LOS: D

Intersection Capacity Utilization 73.8%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 11: Center Street & Oak Lane

 Ø2	 Ø4
45 s	32 s
 Ø6	 Ø8
45 s	32 s

Intersection						
Int Delay, s/veh	0.7					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	430	5	9	179	9	23
Future Vol, veh/h	430	5	9	179	9	23
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	489	6	10	203	10	26
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	495	0	715	492
Stage 1	-	-	-	-	492	-
Stage 2	-	-	-	-	223	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1079	-	400	581
Stage 1	-	-	-	-	619	-
Stage 2	-	-	-	-	819	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1079	-	396	581
Mov Cap-2 Maneuver	-	-	-	-	396	-
Stage 1	-	-	-	-	619	-
Stage 2	-	-	-	-	811	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.4		12.5	
HCM LOS	B					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	514	-	-	1079	-	
HCM Lane V/C Ratio	0.071	-	-	0.009	-	
HCM Control Delay (s)	12.5	-	-	8.4	0	
HCM Lane LOS	B	-	-	A	A	
HCM 95th %tile Q(veh)	0.2	-	-	0	-	

Intersection						
Int Delay, s/veh	0					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	455	4	0	189	1	1
Future Vol, veh/h	455	4	0	189	1	1
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	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	495	4	0	205	1	1
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	499	0	702	497
Stage 1	-	-	-	-	497	-
Stage 2	-	-	-	-	205	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1075	-	407	577
Stage 1	-	-	-	-	615	-
Stage 2	-	-	-	-	834	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1075	-	407	577
Mov Cap-2 Maneuver	-	-	-	-	407	-
Stage 1	-	-	-	-	615	-
Stage 2	-	-	-	-	834	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0		12.6	
HCM LOS					B	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	477	-	-	1075	-	
HCM Lane V/C Ratio	0.005	-	-	-	-	
HCM Control Delay (s)	12.6	-	-	0	-	
HCM Lane LOS	B	-	-	A	-	
HCM 95th %tile Q(veh)	0	-	-	0	-	

Lanes, Volumes, Timings
16: Center Street & Mathistown Road

No-Build PM
03/03/2025

												
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	92	483	177	38	250	125	74	115	35	121	157	67
Future Volume (vph)	92	483	177	38	250	125	74	115	35	121	157	67
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	120		0	150		0	90		0	100		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	50			50			40			200		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.960			0.950			0.965			0.955	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1805	1814	0	1805	1805	0	1805	1834	0	1805	1793	0
Flt Permitted	0.403			0.118			0.487			0.626		
Satd. Flow (perm)	766	1814	0	224	1805	0	925	1834	0	1189	1793	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		19			26			12			17	
Link Speed (mph)		45			35			30			40	
Link Distance (ft)		2135			1615			2580			1403	
Travel Time (s)		32.3			31.5			58.6			23.9	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	0%	0%	2%	0%	0%	0%	0%	0%	0%	0%	0%	4%
Adj. Flow (vph)	95	498	182	39	258	129	76	119	36	125	162	69
Shared Lane Traffic (%)												
Lane Group Flow (vph)	95	680	0	39	387	0	76	155	0	125	231	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases	6			2			4			8		
Minimum Split (s)	10.0	57.0		10.0	57.0		10.0	14.0		10.0	14.0	
Total Split (s)	13.0	57.0		13.0	57.0		13.0	37.0		13.0	37.0	
Total Split (%)	10.8%	47.5%		10.8%	47.5%		10.8%	30.8%		10.8%	30.8%	
Maximum Green (s)	10.0	50.0		10.0	50.0		10.0	30.0		10.0	30.0	
Yellow Time (s)	3.0	5.0		3.0	5.0		3.0	4.0		3.0	4.0	
All-Red Time (s)	0.0	2.0		0.0	2.0		0.0	3.0		0.0	3.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	3.0	7.0		3.0	7.0		3.0	7.0		3.0	7.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Act Effect Green (s)	64.0	50.0		64.0	50.0		44.0	30.0		44.0	30.0	
Actuated g/C Ratio	0.53	0.42		0.53	0.42		0.37	0.25		0.37	0.25	
v/c Ratio	0.19	0.89		0.16	0.50		0.18	0.33		0.26	0.50	
Control Delay	13.4	46.7		13.5	26.8		24.5	36.2		25.5	40.0	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	

Lanes, Volumes, Timings
16: Center Street & Mathistown Road

No-Build PM
03/03/2025

												
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Total Delay	13.4	46.7		13.5	26.8		24.5	36.2		25.5	40.0	
LOS	B	D		B	C		C	D		C	D	
Approach Delay		42.7			25.6			32.4			34.9	
Approach LOS		D			C			C			C	

Intersection Summary

Area Type: Other

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 42.5 (35%), Referenced to phase 2:NWTL and 6:SETL, Start of Yellow

Natural Cycle: 95

Control Type: Pretimed

Maximum v/c Ratio: 0.89

Intersection Signal Delay: 35.7

Intersection LOS: D

Intersection Capacity Utilization 84.0%

ICU Level of Service E

Analysis Period (min) 15

Splits and Phases: 16: Center Street & Mathistown Road

 Ø1	 Ø2 (R)	 Ø3	 Ø4
13 s	57 s	13 s	37 s
 Ø5	 Ø6 (R)	 Ø7	 Ø8
13 s	57 s	13 s	37 s

Lanes, Volumes, Timings
11: Center Street & Oak Lane

No-Build PM
04/10/2025

												
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	51	312	373	17	191	6	187	130	17	17	67	27
Future Volume (vph)	51	312	373	17	191	6	187	130	17	17	67	27
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.932			0.996			0.993			0.967	
Flt Protected		0.997			0.996			0.973			0.993	
Satd. Flow (prot)	0	1765	0	0	1885	0	0	1836	0	0	1824	0
Flt Permitted		0.965			0.934			0.786			0.930	
Satd. Flow (perm)	0	1709	0	0	1768	0	0	1483	0	0	1709	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		98			3			4			23	
Link Speed (mph)		25			25			40			25	
Link Distance (ft)		544			1578			1479			1338	
Travel Time (s)		14.8			43.0			25.2			36.5	
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	52	318	381	17	195	6	191	133	17	17	68	28
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	751	0	0	218	0	0	341	0	0	113	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		6			2			4			8	
Permitted Phases	6			2			4			8		
Detector Phase	6	6		2	2		4	4		8	8	
Switch Phase												

Lanes, Volumes, Timings
11: Center Street & Oak Lane

No-Build PM
04/10/2025

												
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Minimum Initial (s)	39.0	39.0		39.0	39.0		8.0	8.0		8.0	8.0	
Minimum Split (s)	45.0	45.0		45.0	45.0		14.0	14.0		14.0	14.0	
Total Split (s)	45.0	45.0		45.0	45.0		32.0	32.0		32.0	32.0	
Total Split (%)	58.4%	58.4%		58.4%	58.4%		41.6%	41.6%		41.6%	41.6%	
Maximum Green (s)	39.0	39.0		39.0	39.0		26.0	26.0		26.0	26.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		6.0			6.0			6.0			6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Recall Mode	Max	Max		Max	Max		None	None		None	None	
Act Effect Green (s)		39.2			39.2			19.7			19.7	
Actuated g/C Ratio		0.55			0.55			0.28			0.28	
v/c Ratio		0.76			0.22			0.82			0.23	
Control Delay		18.5			9.9			40.4			16.5	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		18.5			9.9			40.4			16.5	
LOS		B			A			D			B	
Approach Delay		18.5			9.9			40.4			16.5	
Approach LOS		B			A			D			B	

Intersection Summary

Area Type: Other

Cycle Length: 77

Actuated Cycle Length: 71

Natural Cycle: 65

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.82

Intersection Signal Delay: 22.3

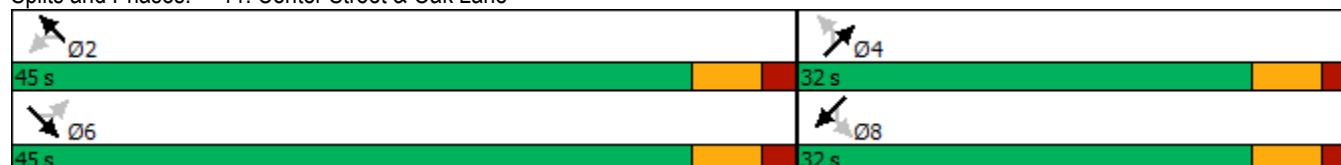
Intersection LOS: C

Intersection Capacity Utilization 88.1%

ICU Level of Service E

Analysis Period (min) 15

Splits and Phases: 11: Center Street & Oak Lane



Intersection						
Int Delay, s/veh	0.7					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	344	19	30	480	6	28
Future Vol, veh/h	344	19	30	480	6	28
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	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	374	21	33	522	7	30

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	395	0	973
Stage 1	-	-	-	-	385
Stage 2	-	-	-	-	588
Critical Hdwy	-	-	4.1	-	6.4
Critical Hdwy Stg 1	-	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	-	5.4
Follow-up Hdwy	-	-	2.2	-	3.5
Pot Cap-1 Maneuver	-	-	1175	-	282
Stage 1	-	-	-	-	692
Stage 2	-	-	-	-	559
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1175	-	271
Mov Cap-2 Maneuver	-	-	-	-	271
Stage 1	-	-	-	-	692
Stage 2	-	-	-	-	537

Approach	EB	WB	NB
HCM Control Delay, s	0	0.5	12.3
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	530	-	-	1175	-
HCM Lane V/C Ratio	0.07	-	-	0.028	-
HCM Control Delay (s)	12.3	-	-	8.2	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.2	-	-	0.1	-

Intersection						
Int Delay, s/veh	0.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	369	8	1	517	3	0
Future Vol, veh/h	369	8	1	517	3	0
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	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	401	9	1	562	3	0

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	410
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.1
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.2
Pot Cap-1 Maneuver	-	-	1160
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1160
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	17.9
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	283	-	-	1160	-
HCM Lane V/C Ratio	0.012	-	-	0.001	-
HCM Control Delay (s)	17.9	-	-	8.1	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

Lanes, Volumes, Timings
16: Center Street & Mathistown Road

Build AM
04/22/2025

												
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	36	151	60	8	361	115	146	158	10	95	59	92
Future Volume (vph)	36	151	60	8	361	115	146	158	10	95	59	92
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	120		0	150		0	90		0	100		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	50			50			40			200		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.957			0.964			0.991			0.909	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1805	1805	0	1805	1832	0	1805	1883	0	1805	1727	0
Flt Permitted	0.266			0.573			0.605			0.570		
Satd. Flow (perm)	505	1805	0	1089	1832	0	1150	1883	0	1083	1727	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		20			16			3			62	
Link Speed (mph)		45			35			30			40	
Link Distance (ft)		2135			1615			2580			1403	
Travel Time (s)		32.3			31.5			58.6			23.9	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	0%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	40	166	66	9	397	126	160	174	11	104	65	101
Shared Lane Traffic (%)												
Lane Group Flow (vph)	40	232	0	9	523	0	160	185	0	104	166	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases	6			2			4			8		
Minimum Split (s)	10.0	57.0		10.0	57.0		10.0	14.0		10.0	14.0	
Total Split (s)	13.0	57.0		13.0	57.0		13.0	37.0		13.0	37.0	
Total Split (%)	10.8%	47.5%		10.8%	47.5%		10.8%	30.8%		10.8%	30.8%	
Maximum Green (s)	10.0	50.0		10.0	50.0		10.0	30.0		10.0	30.0	
Yellow Time (s)	3.0	5.0		3.0	5.0		3.0	4.0		3.0	4.0	
All-Red Time (s)	0.0	2.0		0.0	2.0		0.0	3.0		0.0	3.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	3.0	7.0		3.0	7.0		3.0	7.0		3.0	7.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Act Effect Green (s)	64.0	50.0		64.0	50.0		44.0	30.0		44.0	30.0	
Actuated g/C Ratio	0.53	0.42		0.53	0.42		0.37	0.25		0.37	0.25	
v/c Ratio	0.11	0.30		0.01	0.68		0.34	0.39		0.23	0.35	
Control Delay	12.7	22.6		11.9	32.9		26.8	39.7		25.1	25.1	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	

Lanes, Volumes, Timings
16: Center Street & Mathistown Road

Build AM
04/22/2025

												
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Total Delay	12.7	22.6		11.9	32.9		26.8	39.7		25.1	25.1	
LOS	B	C		B	C		C	D		C	C	
Approach Delay		21.1			32.5			33.7			25.1	
Approach LOS		C			C			C			C	

Intersection Summary

Area Type: Other

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 42.5 (35%), Referenced to phase 2:NWTL and 6:SETL, Start of Yellow

Natural Cycle: 95

Control Type: Pretimed

Maximum v/c Ratio: 0.68

Intersection Signal Delay: 29.2

Intersection LOS: C

Intersection Capacity Utilization 73.5%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 16: Center Street & Mathistown Road

 Ø1	 Ø2 (R)	 Ø3	 Ø4
13 s	57 s	13 s	37 s
 Ø5	 Ø6 (R)	 Ø7	 Ø8
13 s	57 s	13 s	37 s

Lanes, Volumes, Timings
11: Center Street & Oak Lane

Build AM
04/22/2025

												
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	25	97	128	16	233	20	225	255	8	1	17	34
Future Volume (vph)	25	97	128	16	233	20	225	255	8	1	17	34
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.931			0.990			0.998			0.911	
Flt Protected		0.995			0.997			0.977			0.999	
Satd. Flow (prot)	0	1760	0	0	1875	0	0	1853	0	0	1729	0
Flt Permitted		0.945			0.972			0.821			0.993	
Satd. Flow (perm)	0	1672	0	0	1828	0	0	1557	0	0	1719	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		99			8			1			42	
Link Speed (mph)		25			25			40			25	
Link Distance (ft)		544			1578			1479			1338	
Travel Time (s)		14.8			43.0			25.2			36.5	
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	31	120	158	20	288	25	278	315	10	1	21	42
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	309	0	0	333	0	0	603	0	0	64	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		6			2			4			8	
Permitted Phases	6			2			4			8		
Detector Phase	6	6		2	2		4	4		8	8	
Switch Phase												

Lanes, Volumes, Timings
11: Center Street & Oak Lane

Build AM
04/22/2025

												
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Minimum Initial (s)	39.0	39.0		39.0	39.0		8.0	8.0		8.0	8.0	
Minimum Split (s)	45.0	45.0		45.0	45.0		14.0	14.0		14.0	14.0	
Total Split (s)	45.0	45.0		45.0	45.0		32.0	32.0		32.0	32.0	
Total Split (%)	58.4%	58.4%		58.4%	58.4%		41.6%	41.6%		41.6%	41.6%	
Maximum Green (s)	39.0	39.0		39.0	39.0		26.0	26.0		26.0	26.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		6.0			6.0			6.0			6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Recall Mode	Max	Max		Max	Max		None	None		None	None	
Act Effect Green (s)		39.0			39.0			26.0			26.0	
Actuated g/C Ratio		0.51			0.51			0.34			0.34	
v/c Ratio		0.35			0.36			1.15			0.11	
Control Delay		8.7			12.5			113.5			9.2	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		8.7			12.5			113.5			9.2	
LOS		A			B			F			A	
Approach Delay		8.7			12.5			113.5			9.3	
Approach LOS		A			B			F			A	

Intersection Summary

Area Type: Other

Cycle Length: 77

Actuated Cycle Length: 77

Natural Cycle: 90

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.15

Intersection Signal Delay: 58.0

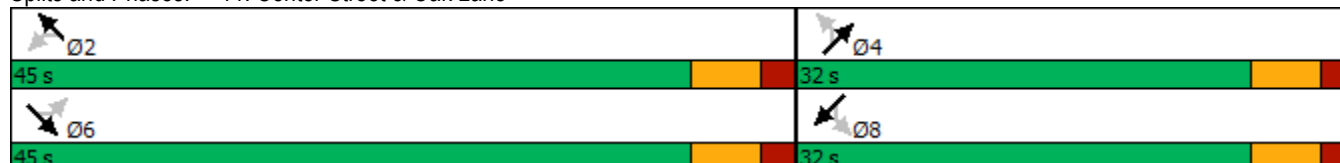
Intersection LOS: E

Intersection Capacity Utilization 75.5%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 11: Center Street & Oak Lane



Intersection												
Int Delay, s/veh	1.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	12	442	5	9	198	7	9	0	23	17	0	19
Future Vol, veh/h	12	442	5	9	198	7	9	0	23	17	0	19
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	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	88	88	88	88	92	88	92	88	92	92	92
Heavy Vehicles, %	2	0	0	0	0	2	0	2	0	2	2	2
Mvmt Flow	13	502	6	10	225	8	10	0	26	18	0	21
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	233	0	0	508	0	0	791	784	505	793	783	229
Stage 1	-	-	-	-	-	-	531	531	-	249	249	-
Stage 2	-	-	-	-	-	-	260	253	-	544	534	-
Critical Hdwy	4.12	-	-	4.1	-	-	7.1	6.52	6.2	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.2	-	-	3.5	4.018	3.3	3.518	4.018	3.318
Pot Cap-1 Maneuver	1335	-	-	1067	-	-	310	325	571	306	325	810
Stage 1	-	-	-	-	-	-	536	526	-	755	701	-
Stage 2	-	-	-	-	-	-	749	698	-	523	524	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1335	-	-	1067	-	-	296	317	571	286	317	810
Mov Cap-2 Maneuver	-	-	-	-	-	-	296	317	-	286	317	-
Stage 1	-	-	-	-	-	-	528	519	-	744	693	-
Stage 2	-	-	-	-	-	-	722	690	-	492	517	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.2			0.4			13.6			14.1		
HCM LOS							B			B		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	453	1335	-	-	1067	-	-	434				
HCM Lane V/C Ratio	0.08	0.01	-	-	0.01	-	-	0.09				
HCM Control Delay (s)	13.6	7.7	0	-	8.4	0	-	14.1				
HCM Lane LOS	B	A	A	-	A	A	-	B				
HCM 95th %tile Q(veh)	0.3	0	-	-	0	-	-	0.3				

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	12	472	4	0	196	7	1	0	1	17	0	19
Future Vol, veh/h	12	472	4	0	196	7	1	0	1	17	0	19
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	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	0	0	0	0	2	0	2	0	2	2	2
Mvmt Flow	13	513	4	0	213	8	1	0	1	18	0	21
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	221	0	0	517	0	0	769	762	515	759	760	217
Stage 1	-	-	-	-	-	-	541	541	-	217	217	-
Stage 2	-	-	-	-	-	-	228	221	-	542	543	-
Critical Hdwy	4.12	-	-	4.1	-	-	7.1	6.52	6.2	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.2	-	-	3.5	4.018	3.3	3.518	4.018	3.318
Pot Cap-1 Maneuver	1348	-	-	1059	-	-	321	335	564	323	336	823
Stage 1	-	-	-	-	-	-	529	521	-	785	723	-
Stage 2	-	-	-	-	-	-	779	720	-	525	520	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1348	-	-	1059	-	-	309	330	564	319	331	823
Mov Cap-2 Maneuver	-	-	-	-	-	-	309	330	-	319	331	-
Stage 1	-	-	-	-	-	-	522	514	-	774	723	-
Stage 2	-	-	-	-	-	-	759	720	-	517	513	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.2			0			14.1			13.3		
HCM LOS							B			B		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	399	1348	-	-	1059	-	-	471				
HCM Lane V/C Ratio	0.005	0.01	-	-	-	-	-	0.083				
HCM Control Delay (s)	14.1	7.7	0	-	0	-	-	13.3				
HCM Lane LOS	B	A	A	-	A	-	-	B				
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0.3				

Lanes, Volumes, Timings
16: Center Street & Mathistown Road

Build PM
04/22/2025

												
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	115	483	177	38	250	138	74	122	35	136	166	76
Future Volume (vph)	115	483	177	38	250	138	74	122	35	136	166	76
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	120		0	150		0	90		0	100		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	50			50			40			200		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.960			0.947			0.967			0.953	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1805	1814	0	1805	1799	0	1805	1837	0	1805	1788	0
Flt Permitted	0.390			0.118			0.454			0.613		
Satd. Flow (perm)	741	1814	0	224	1799	0	863	1837	0	1165	1788	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		19			28			11			18	
Link Speed (mph)		45			35			30			40	
Link Distance (ft)		2135			1615			2580			1403	
Travel Time (s)		32.3			31.5			58.6			23.9	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	0%	0%	2%	0%	0%	0%	0%	0%	0%	0%	0%	4%
Adj. Flow (vph)	119	498	182	39	258	142	76	126	36	140	171	78
Shared Lane Traffic (%)												
Lane Group Flow (vph)	119	680	0	39	400	0	76	162	0	140	249	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases	6			2			4			8		
Minimum Split (s)	10.0	57.0		10.0	57.0		10.0	14.0		10.0	14.0	
Total Split (s)	13.0	57.0		13.0	57.0		13.0	37.0		13.0	37.0	
Total Split (%)	10.8%	47.5%		10.8%	47.5%		10.8%	30.8%		10.8%	30.8%	
Maximum Green (s)	10.0	50.0		10.0	50.0		10.0	30.0		10.0	30.0	
Yellow Time (s)	3.0	5.0		3.0	5.0		3.0	4.0		3.0	4.0	
All-Red Time (s)	0.0	2.0		0.0	2.0		0.0	3.0		0.0	3.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	3.0	7.0		3.0	7.0		3.0	7.0		3.0	7.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Act Effect Green (s)	64.0	50.0		64.0	50.0		44.0	30.0		44.0	30.0	
Actuated g/C Ratio	0.53	0.42		0.53	0.42		0.37	0.25		0.37	0.25	
v/c Ratio	0.25	0.89		0.16	0.52		0.19	0.35		0.29	0.54	
Control Delay	14.0	46.7		13.5	27.1		24.6	36.9		26.0	41.2	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	

Lanes, Volumes, Timings
16: Center Street & Mathistown Road

Build PM
04/22/2025

												
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Total Delay	14.0	46.7		13.5	27.1		24.6	36.9		26.0	41.2	
LOS	B	D		B	C		C	D		C	D	
Approach Delay		41.9			25.9			33.0			35.7	
Approach LOS		D			C			C			D	

Intersection Summary

Area Type: Other

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 42.5 (35%), Referenced to phase 2:NWTL and 6:SETL, Start of Yellow

Natural Cycle: 95

Control Type: Pretimed

Maximum v/c Ratio: 0.89

Intersection Signal Delay: 35.7

Intersection LOS: D

Intersection Capacity Utilization 85.6%

ICU Level of Service E

Analysis Period (min) 15

Splits and Phases: 16: Center Street & Mathistown Road

 Ø1	 Ø2 (R)	 Ø3	 Ø4
13 s	57 s	13 s	37 s
 Ø5	 Ø6 (R)	 Ø7	 Ø8
13 s	57 s	13 s	37 s

Lanes, Volumes, Timings
11: Center Street & Oak Lane

Build PM
04/22/2025

												
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	51	312	396	24	191	6	196	134	25	17	70	27
Future Volume (vph)	51	312	396	24	191	6	196	134	25	17	70	27
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.930			0.996			0.990			0.967	
Flt Protected		0.997			0.995			0.973			0.993	
Satd. Flow (prot)	0	1762	0	0	1883	0	0	1830	0	0	1824	0
Flt Permitted		0.965			0.899			0.788			0.930	
Satd. Flow (perm)	0	1705	0	0	1701	0	0	1482	0	0	1709	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		103			3			5			22	
Link Speed (mph)		25			25			40			25	
Link Distance (ft)		544			1578			1479			1338	
Travel Time (s)		14.8			43.0			25.2			36.5	
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	52	318	404	24	195	6	200	137	26	17	71	28
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	774	0	0	225	0	0	363	0	0	116	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		6			2			4			8	
Permitted Phases	6			2			4			8		
Detector Phase	6	6		2	2		4	4		8	8	
Switch Phase												

Lanes, Volumes, Timings
11: Center Street & Oak Lane

Build PM
04/22/2025

												
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Minimum Initial (s)	39.0	39.0		39.0	39.0		8.0	8.0		8.0	8.0	
Minimum Split (s)	45.0	45.0		45.0	45.0		14.0	14.0		14.0	14.0	
Total Split (s)	45.0	45.0		45.0	45.0		32.0	32.0		32.0	32.0	
Total Split (%)	58.4%	58.4%		58.4%	58.4%		41.6%	41.6%		41.6%	41.6%	
Maximum Green (s)	39.0	39.0		39.0	39.0		26.0	26.0		26.0	26.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		6.0			6.0			6.0			6.0	

Lead/Lag

Lead-Lag Optimize?

Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Recall Mode	Max	Max		Max	Max		None	None		None	None	
Act Effect Green (s)		39.2			39.2			20.9			20.9	
Actuated g/C Ratio		0.54			0.54			0.29			0.29	
v/c Ratio		0.80			0.24			0.84			0.23	
Control Delay		20.6			10.5			41.9			16.5	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		20.6			10.5			41.9			16.5	
LOS		C			B			D			B	
Approach Delay		20.6			10.5			41.9			16.5	
Approach LOS		C			B			D			B	

Intersection Summary

Area Type: Other

Cycle Length: 77

Actuated Cycle Length: 72.1

Natural Cycle: 70

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.84

Intersection Signal Delay: 23.9

Intersection LOS: C

Intersection Capacity Utilization 87.8%

ICU Level of Service E

Analysis Period (min) 15

Splits and Phases: 11: Center Street & Oak Lane

 Ø2	 Ø4
45 s	32 s
 Ø6	 Ø8
45 s	32 s

Intersection												
Int Delay, s/veh	1.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	22	365	19	30	496	16	6	0	28	10	0	17
Future Vol, veh/h	22	365	19	30	496	16	6	0	28	10	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	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	0	0	0	0	2	0	2	0	2	2	2
Mvmt Flow	24	397	21	33	539	17	7	0	30	11	0	18
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	556	0	0	418	0	0	1079	1078	408	1085	1080	548
Stage 1	-	-	-	-	-	-	456	456	-	614	614	-
Stage 2	-	-	-	-	-	-	623	622	-	471	466	-
Critical Hdwy	4.12	-	-	4.1	-	-	7.1	6.52	6.2	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.2	-	-	3.5	4.018	3.3	3.518	4.018	3.318
Pot Cap-1 Maneuver	1015	-	-	1152	-	-	198	219	648	194	218	536
Stage 1	-	-	-	-	-	-	588	568	-	479	483	-
Stage 2	-	-	-	-	-	-	477	479	-	573	562	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1015	-	-	1152	-	-	181	203	648	175	202	536
Mov Cap-2 Maneuver	-	-	-	-	-	-	181	203	-	175	202	-
Stage 1	-	-	-	-	-	-	570	550	-	464	463	-
Stage 2	-	-	-	-	-	-	441	459	-	529	545	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.5			0.5			13.8			18.1		
HCM LOS							B			C		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	445	1015	-	-	1152	-	-	304				
HCM Lane V/C Ratio	0.083	0.024	-	-	0.028	-	-	0.097				
HCM Control Delay (s)	13.8	8.6	0	-	8.2	0	-	18.1				
HCM Lane LOS	B	A	A	-	A	A	-	C				
HCM 95th %tile Q(veh)	0.3	0.1	-	-	0.1	-	-	0.3				

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	21	379	8	1	533	17	3	0	0	11	0	16
Future Vol, veh/h	21	379	8	1	533	17	3	0	0	11	0	16
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	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	0	0	0	0	2	0	2	0	2	2	2
Mvmt Flow	23	412	9	1	579	18	3	0	0	12	0	17
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	597	0	0	421	0	0	1062	1062	417	1053	1057	588
Stage 1	-	-	-	-	-	-	463	463	-	590	590	-
Stage 2	-	-	-	-	-	-	599	599	-	463	467	-
Critical Hdwy	4.12	-	-	4.1	-	-	7.1	6.52	6.2	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.2	-	-	3.5	4.018	3.3	3.518	4.018	3.318
Pot Cap-1 Maneuver	980	-	-	1149	-	-	203	223	640	204	225	509
Stage 1	-	-	-	-	-	-	583	564	-	494	495	-
Stage 2	-	-	-	-	-	-	492	490	-	579	562	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	980	-	-	1149	-	-	191	216	640	199	218	509
Mov Cap-2 Maneuver	-	-	-	-	-	-	191	216	-	199	218	-
Stage 1	-	-	-	-	-	-	565	547	-	479	495	-
Stage 2	-	-	-	-	-	-	475	490	-	561	545	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.5			0			24.2			17.8		
HCM LOS							C			C		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	191	980	-	-	1149	-	-	311				
HCM Lane V/C Ratio	0.017	0.023	-	-	0.001	-	-	0.094				
HCM Control Delay (s)	24.2	8.8	0	-	8.1	0	-	17.8				
HCM Lane LOS	C	A	A	-	A	A	-	C				
HCM 95th %tile Q(veh)	0.1	0.1	-	-	0	-	-	0.3				

Lanes, Volumes, Timings
11: Center Street & Oak Lane

Build AM (Improved)
04/22/2025

												
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	25	97	128	16	233	20	225	255	8	1	17	34
Future Volume (vph)	25	97	128	16	233	20	225	255	8	1	17	34
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.931			0.990			0.998			0.911	
Flt Protected		0.995			0.997			0.977			0.999	
Satd. Flow (prot)	0	1760	0	0	1875	0	0	1853	0	0	1729	0
Flt Permitted		0.941			0.970			0.821			0.994	
Satd. Flow (perm)	0	1665	0	0	1825	0	0	1557	0	0	1721	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		77			6			2			42	
Link Speed (mph)		25			25			40			25	
Link Distance (ft)		544			1578			1479			1338	
Travel Time (s)		14.8			43.0			25.2			36.5	
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	31	120	158	20	288	25	278	315	10	1	21	42
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	309	0	0	333	0	0	603	0	0	64	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		6			2			4			8	
Permitted Phases	6			2			4			8		
Detector Phase	6	6		2	2		4	4		8	8	
Switch Phase												

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Build AM (Improved)
04/22/2025

												
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Minimum Initial (s)	28.0	28.0		28.0	28.0		8.0	8.0		8.0	8.0	
Minimum Split (s)	34.0	34.0		34.0	34.0		14.0	14.0		14.0	14.0	
Total Split (s)	34.0	34.0		34.0	34.0		43.0	43.0		43.0	43.0	
Total Split (%)	44.2%	44.2%		44.2%	44.2%		55.8%	55.8%		55.8%	55.8%	
Maximum Green (s)	28.0	28.0		28.0	28.0		37.0	37.0		37.0	37.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		6.0			6.0			6.0			6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Recall Mode	Max	Max		Max	Max		None	None		None	None	
Act Effect Green (s)		28.3			28.3			30.2			30.2	
Actuated g/C Ratio		0.40			0.40			0.43			0.43	
v/c Ratio		0.43			0.45			0.90			0.08	
Control Delay		15.0			19.3			37.4			5.8	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		15.0			19.3			37.4			5.8	
LOS		B			B			D			A	
Approach Delay		15.0			19.3			37.4			5.8	
Approach LOS		B			B			D			A	

Intersection Summary

Area Type: Other

Cycle Length: 77

Actuated Cycle Length: 70.6

Natural Cycle: 70

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.90

Intersection Signal Delay: 26.0

Intersection LOS: C

Intersection Capacity Utilization 66.4%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 11: Center Street & Oak Lane

