

Traffic Engineering, Transportation Planning & Design

277 White Horse Pike, Suite 203, Atco, NJ 08004
P: 609-714-0400 F: 609-714-9944 www.sallc.org

David R. Shropshire, PE, PP
A Andrew Feranda, PE, PTOE, CME
Randal C. Barranger, PE
Nathan B. Mosley, PE, CME

May 3, 2024

Mr. Nate Russo Sr.
Russo Corporation
P.O. Box 188
403 Helms Avenue
Swedesboro, NJ 08085

(via email: nrusso@russocorporation.com)

Re: **Traffic Engineering Assessment
Truck Repair Facility – Elk Township
Block 15, Lot 15
Elk Road (CR 538) & Buck Road (CR 553)
Elk Township, Gloucester County, NJ
SA Project No. 24029**

Dear Mr. Russo:

At your request, Shropshire Associates, LLC prepared this traffic engineering assessment (TEA) to support applications to Elk Township and Gloucester County for the above referenced truck repair development. The proposal is for construction of an approximately 8,000 square-foot (SF) truck repair facility with associated parking and circulation. The proposed development will be located on the southeast corner of Elk Road (CR 538) and Buck Road (CR 553) with frontage along northbound Buck Road in Elk Township, Gloucester County, NJ.

Access to the proposed development will be provided via one (1) full-movement site driveway along northbound Buck Road (CR 553). Final approval for this driveway will be required from Gloucester County.

Existing Conditions

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

Along the site's frontage, **Elk Road (CR 538)** is a two-lane roadway under Gloucester County jurisdiction and is classified¹ as an Urban Major Collector east of its intersection with Buck Road (CR 553) and a Rural Major Collector west of its intersection with Buck Road (CR 553). Elk Road has an approximate cartway width of 26 (foot) ft which consists of one (1) 11 ft travel lane and 2 ft shoulder in each direction. The posted speed limit along this section of Elk Road is 45 MPH. For the purpose of this study, Elk Road is assumed to extend in a general east-west direction.

Along the site's frontage, **Buck Road (CR 538)** is a two-lane roadway under Gloucester County jurisdiction and is classified as an Urban Major Collector north of its intersection with Elk Road (CR 538) and a Rural Major Collector south of its intersection with Elk Road (CR 538). Buck

¹ NJDOT Straight Line Diagrams



Road has an approximate cartway width of 32 ft which consists of one (1) 12 ft travel lane and 4 ft shoulder in each direction. The posted speed limit along this section of Buck Road is 50 MPH. For the purpose of this study, Buck Road is assumed to extend in a general north-south direction.

In the vicinity of the site, **Willow Grove Road/Aura Road (CR 667)** is a two-lane roadway under Gloucester County jurisdiction west of its intersection with Elk Road (CR 538) and under Elk Township jurisdiction east of its intersection with Elk Road (CR 538). Willow Grove Road extends from south of its intersection with Elk Road (CR 538) to its intersection with Buck Road (CR 553) where it becomes Aura Road to the west of its intersection with Buck Road (CR 553). Willow Grove Road/Aura Road is classified as an Urban Major Collector north of its intersection with Elk Road (CR 538) and a local road south of its intersection with Elk Road (CR 538). Willow Grove Road/Aura Road has an approximate cartway width of 26 ft which consists of one (1) 12 ft travel lane and 1 ft shoulder in each direction. The posted speed limit along this section of Willow Grove Road/Aura Road is 25 MPH. For the purpose of this study, Willow Grove Road/Aura Road is assumed to extend in a general north-south direction at its intersection with Elk Road (CR 538) and a general east-west direction at its intersection with Buck Road (CR 553).

The **Elk Road (CR 538)/Buck Road (CR 553)** signalized intersection is currently controlled by a two-phase semi-actuated traffic signal with a variable background cycle during the weekday AM, weekday PM, and Saturday peak hours. All approaches to the intersection consist of one (1) lane for left-turn movements and one (1) lane for shared through/right-turn movements.

The **Elk Road (CR 538)/Willow Grove Road (CR 667)** intersection is a four-way intersection that is stop-controlled along the northbound and southbound Willow Grove Road approaches. All approaches to the intersection consist of a single lane for all permitted movements.

The **Buck Road (CR 553)/Willow Grove Road-Aura Road (CR 667)** intersection is a four-way intersection that is stop-controlled along the eastbound Aura Road and westbound Willow Grove Road approaches. All approaches to the intersection consist of a single lane for all permitted movements.

Roadway Parking

Currently, there is no parking permitted along Elk Road, Buck Road, and Willow Grove Road/Aura Road in the vicinity of the existing site. No on-street parking is permitted in conjunction with our application. All proposed parking is off-street.

Roadway Geometrics

Based upon our review of the plans and field visits to the site, the roadway pavement in the vicinity of the site is generally in good condition outside of the areas to be replaced as part of the proposed widening and improvements. Sight distances at all site driveways will meet current AASHTO design criteria.

The existing Elk Road/Buck Road signalized intersection has been designed to generally provide for a desirable alignment between the roadways. In addition, all site driveways proposed to the adjacent roadway network will be aligned to provide for safe and efficient movements between the development and the adjacent roadway network.



Traffic Counts

Traffic counts were conducted at the study intersections during morning and evening commuter peak periods considered critical peak periods of analysis for the proposed truck repair facility. To determine the amount of traffic on the adjacent roadway, manual turning movement counts (MTMC) were conducted on a typical Thursday, January 11, 2024, at the study intersections. The MTMCs were conducted during the morning (7:00 AM – 9:00 AM) and afternoon (4:00 PM – 6:00 PM) peak periods. The existing volumes are illustrated in Figure 1. The existing AM and PM traffic count data is attached for reference.

In addition to the MTMC data at the study intersection, as required by Gloucester County, automatic traffic recorders (ATR) were placed along Elk Road and Buck Road in the vicinity of the proposed site driveways to collect hourly, daily, and weekly two-way traffic volumes. A copy of this data is attached to the end of this report for reference. The data collected indicates that the peak time of the existing County roadway occurs during the above-referenced peak periods when the intersection count was done.

Future Conditions

The traffic resulting from the proposed development will not affect the adjacent roadway network until it is fully built-out and occupied, which is anticipated to be by the year 2026. It can be expected that the traffic volumes along the adjacent roadways will increase as a result of general traffic growth in the vicinity of the site. Based on the *Annual Background Growth Table* prepared by NJDOT, a 1.25% annual traffic growth will occur along Elk Road. Buck Road, and Willow Grove Road/Aura Road north of Elk Road and 1.00% annual traffic growth will occur along Willow Grove Road south of Elk Road in the vicinity of the site. To be conservative the 1.25 % growth rate was used for all roadways. Additionally, site traffic from the proposed truck stop/convenience store with gas pumps to be located on the southwest corner of the Elk Road/Buck Road signalized intersection was added to the existing traffic volumes. The projected No-Build volumes are illustrated on Figure 2.

ITE Trip Generation

The amount of traffic to be generated by the proposed 8,000 SF truck repair facility was calculated based on data provided by the Institute of Transportation Engineers (ITE) in the *Trip Generation Manual, 11th Edition*. The proposed commercial development is most similar to ITE Land Use 943: Automobile Parts and Service Center. Table 1 indicates the site traffic to be generated by the proposed truck repair facility during the weekday AM and weekday PM peak hours based upon the ITE trip generation data, with the trip generation worksheets attached for your review.

Table 1						
ITE Trip Generation						
Development	AM Peak Hour			PM Peak Hour		
	In	Out	Total	In	Out	Total
Truck Repair Facility (8,000 SF)	11	4	15	6	10	16



The site traffic must then be distributed to the adjacent roadway network based on circulation patterns which site generated traffic can be expected to travel to and from the site. As required by Gloucester County, the site traffic was assigned to the roadway network based on a 5-mile gravity model analysis of the surrounding municipalities and population densities in the vicinity of the site. A copy of the gravity model analysis is attached for your review, with the site traffic distribution percentages shown in Figure 3. The resulting site traffic assignments for the truck repair facility are illustrated on Figure 4. In order to project the future Build traffic conditions, the No-Build traffic volumes (Figure 2) were combined with the total site traffic (Figure 4). The Build traffic volumes are illustrated on 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. Levels of Service 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 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 determination for the Level of Service 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 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

In order to assess the traffic impact of the proposed commercial development, the study intersections were evaluated under the existing conditions, and future No-Build and Build conditions using the above-described methodology. A detailed description of the study intersection's operations under these scenarios is provided below with the resulting Existing, No-Build and Build Levels of Service illustrated on Figures 6, 7, and 8; respectively. The capacity analysis worksheets are attached for reference.



Elk Road (CR 538) and Buck Road (CR 553) Intersection

Under the existing conditions, the Elk Road and Buck Road signalized intersection operates with an overall LOS B during both the weekday AM and the weekday PM peak hours. All individual movements will operate at LOS B or better during the weekday AM and weekday PM peak hours with the exception of the eastbound Elk Road left-turn movements which operate with an LOS C during the weekday AM peak hour.

Under the future No-Build and Build conditions, the intersection will continue to operate with an overall LOS B during both the weekday AM and the weekday PM peak hours. All individual movements will continue to operate with existing levels of service during all peak hours.

Elk Road (CR 538) and Willow Grove Road (CR 667) Intersection

Under the existing conditions, the eastbound and westbound Elk Road left-turn movements operate with LOS A during the weekday AM and weekday PM peak hours. The northbound and southbound Willow Grove Road shared left-turn/through/right-turn movements operate with LOS B during the weekday AM and weekday PM peak hours.

Under the future No-Build and Build conditions, all movements at the intersection will continue to operate with existing levels of service during all peak hours.

Buck Road (CR 553) and Willow Grove Road and Aura Road (CR 667) Intersection

Under the existing conditions, the northbound and southbound Buck Road left-turn movements operate with LOS A during the weekday AM and weekday PM peak hours. The eastbound and westbound Willow Grove Road and Aura Road shared left-turn/through/right-turn movements operate with LOS B during the weekday AM and weekday PM hours with the exception of the eastbound Willow Grove Road/Aura Road shared left-turn/through/right-turn movements which operate with LOS C during the weekday PM peak hour.

Under the future No-Build conditions, the eastbound Willow Grove Road/Aura Road shared left-turn/through/right-turn movements will operate with LOS C during the weekday AM peak hour. The westbound Willow Grove Road and Aura Road shared left-turn/through/right-turn movements will operate with LOS C during the weekday PM peak hour. All other individual movements at the intersection will operate with Existing levels of service.

Under the future Build conditions, all movements at the intersection will continue to operate with No-Build levels of service.

Buck Road (CR 553) and Site Driveway Intersection

Under the Build conditions, a new stop-controlled full-movement Site Driveway will be constructed along northbound Buck Road. All movements at the intersection will operate with a LOS B or better during the weekday AM, weekday PM, and Saturday peak hours. Final approval is required from Gloucester County with regards to the location, design, and operation of these driveways.

A left-turn lane warrant analysis was performed for southbound Buck Road at the proposed Site Driveway intersection 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 southbound Buck Road during the peak hour conditions. The AM and PM peak hour warrant graphs are attached for your review.

Conclusion

Based upon the data and analysis provided in this traffic engineering assessment, the traffic resulting from the proposed truck repair facility development will not have significant impact on the adjacent roadway network based upon the following conclusions:

- The proposed truck repair facility development will generate 15 new trips during the weekday AM peak hour and 16 new trips during the weekday PM peak hour.
- Under the Build conditions, the Elk Road (CR 538) and Buck Road (CR 553) signalized intersection will continue to operate with an overall LOS B during both the weekday AM and the weekday PM peak hours. All individual movements at the intersection will continue to operate with Existing levels of service during all peak hours.
- Under the Build conditions, all individual movements at the Elk Road (CR 538) and Willow Grove Road (CR 667) intersection continue to operate at existing levels of service of LOS B or better during all peak hours.
- Under the Build conditions, all individual movements at the Buck Road (CR 553) and Willow Grove Road-Aura Road (CR 667) intersection will operate with No-Build levels of service during all peak hours.
- Under the Build conditions, one (1) stop-controlled full-movement site driveway will be constructed along northbound Buck Road (CR 553). All individual movements at the proposed site driveway will operate with a LOS B or better during all peak hours. A left-turn warrant analysis was performed for the site driveway and a left-turn lane was not warranted during all peak hours under the Build conditions. Final approval is required from Gloucester County with regards to the location, design, and operation of the driveway.

Please call if you have any questions.

Sincerely,
Shropshire Associates LLC

A handwritten signature in black ink, appearing to read 'Nathan B. Mosley', is written over the printed name.

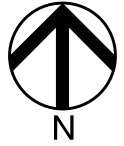
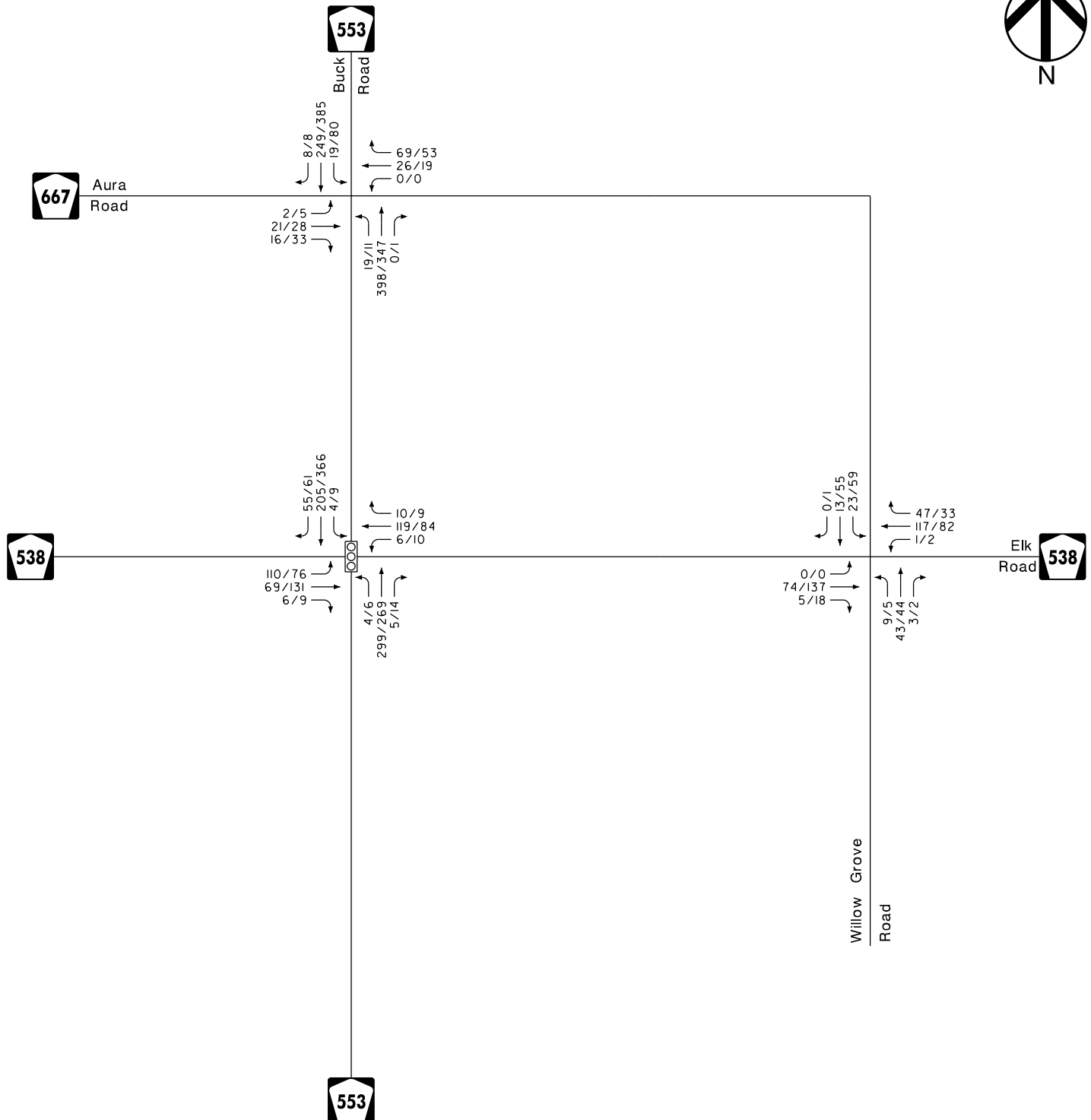
Nathan B. Mosley, P.E., C.M.E.
Professional Engineer

N.J. License No. 48698

NBM/jab
Attachments

cc: Sheldon Danley

(via email: sdanley@midatlanticeng.com)

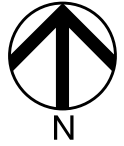
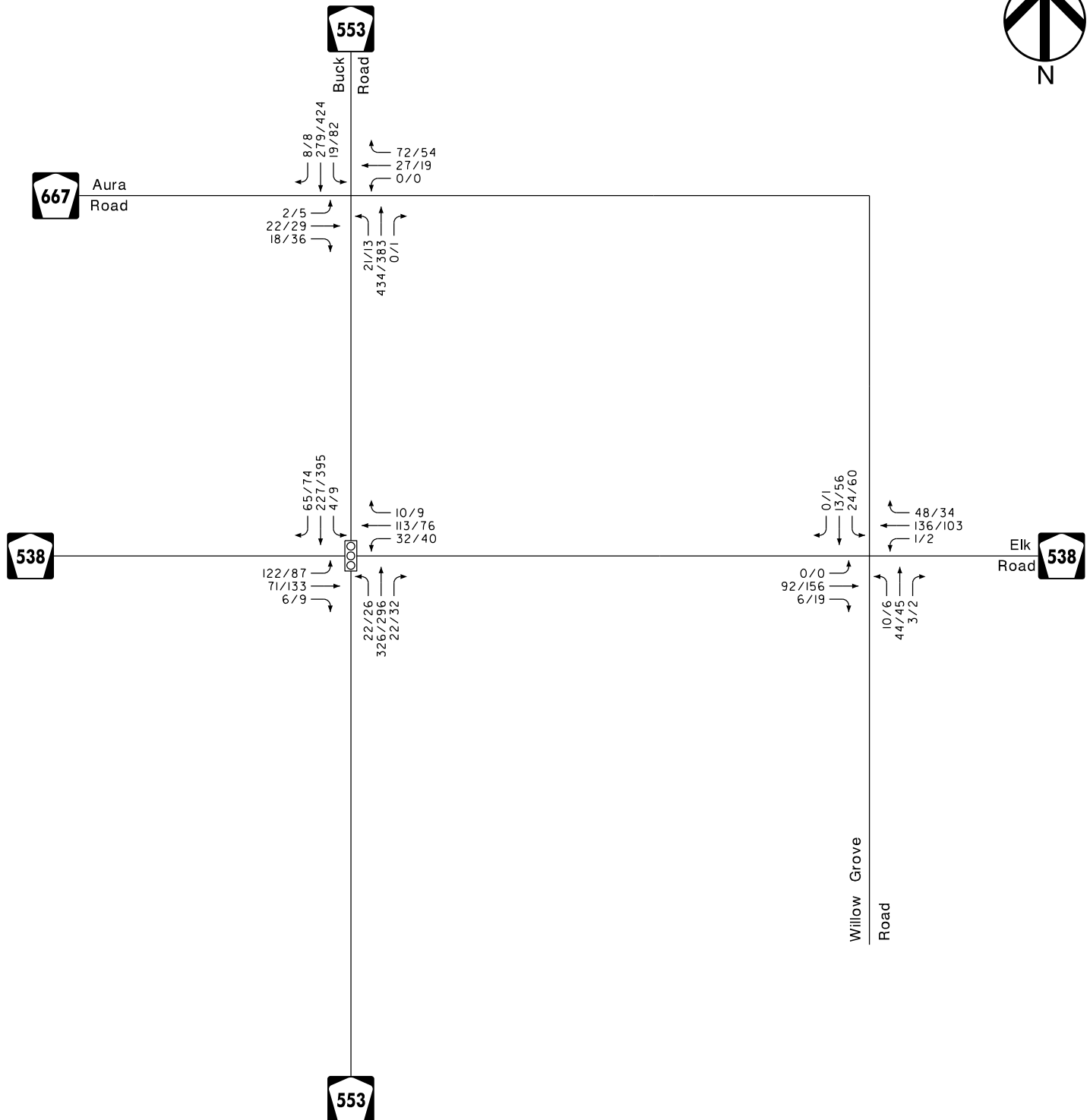


Truck Repair Facility – Elk

Elk Township, Gloucester County, New Jersey

May 2024

 TRAFFIC SIGNAL
AM/PM PEAK HOUR

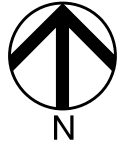
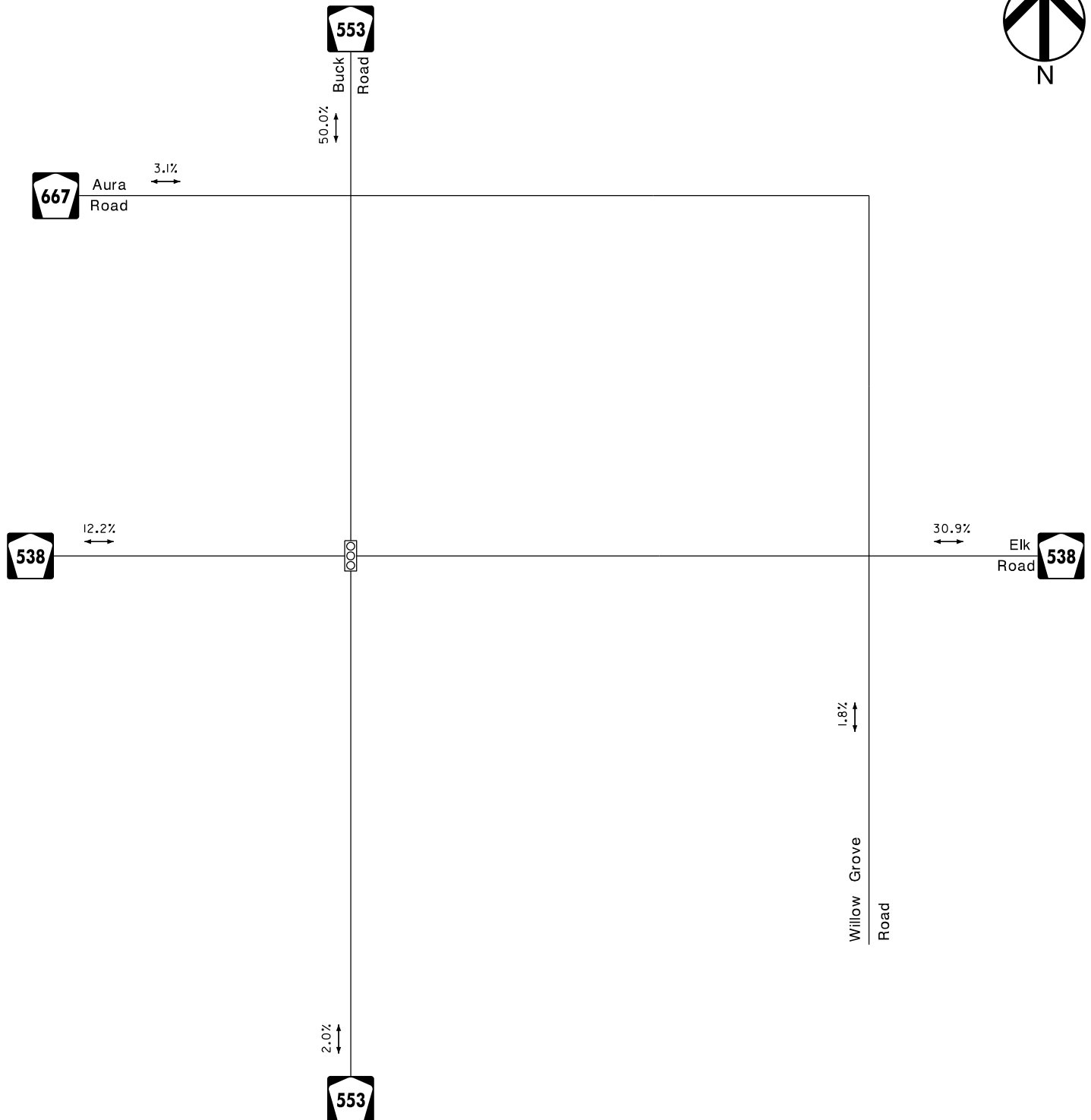


Truck Repair Facility – Elk

Elk Township, Gloucester County, New Jersey

May 2024

 TRAFFIC SIGNAL
AM/PM PEAK HOUR



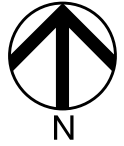
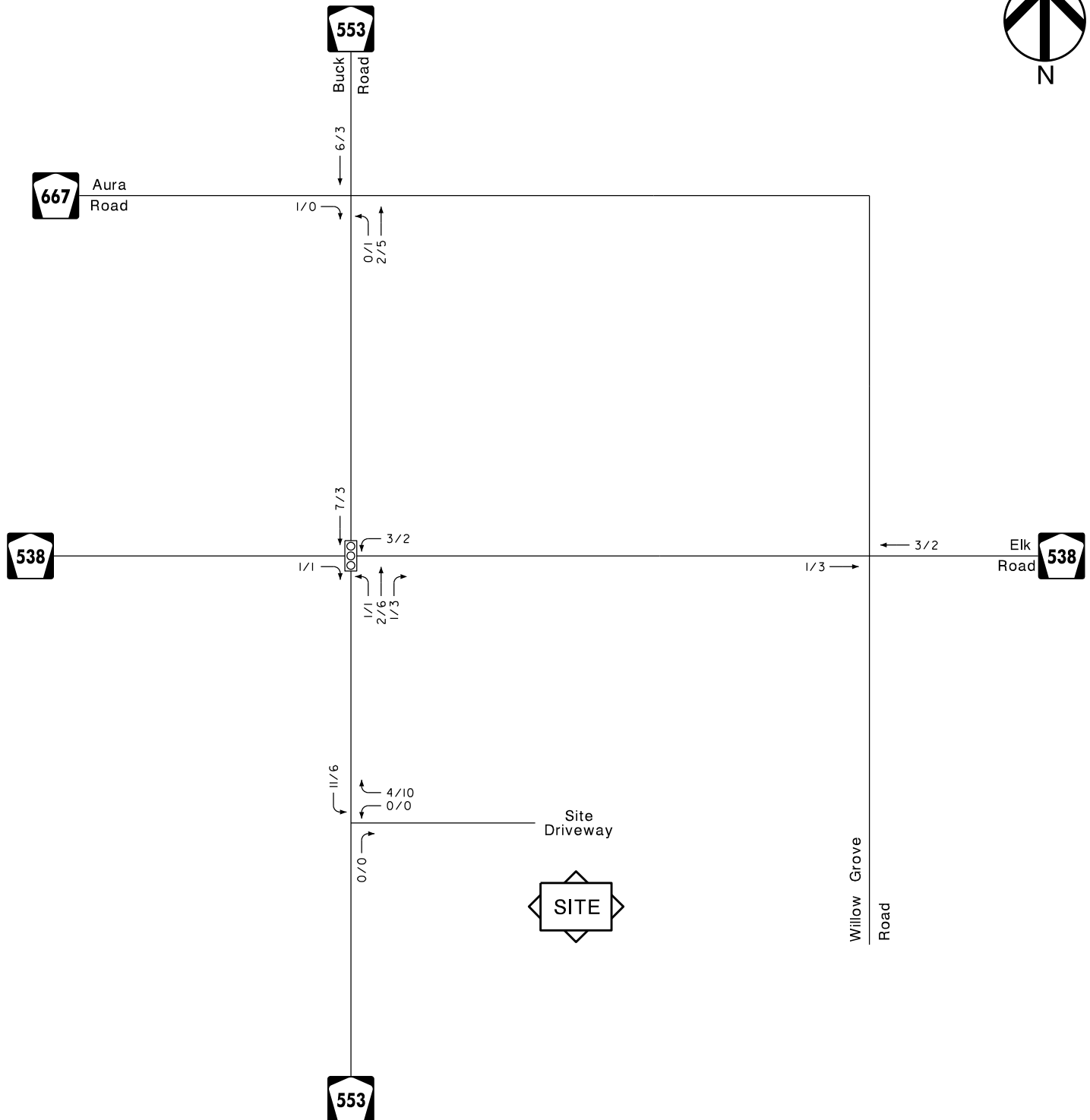
Truck Repair Facility – Elk

Elk Township, Gloucester County, New Jersey

May 2024

 TRAFFIC SIGNAL

AM/PM PEAK HOUR

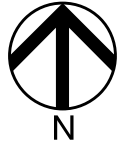
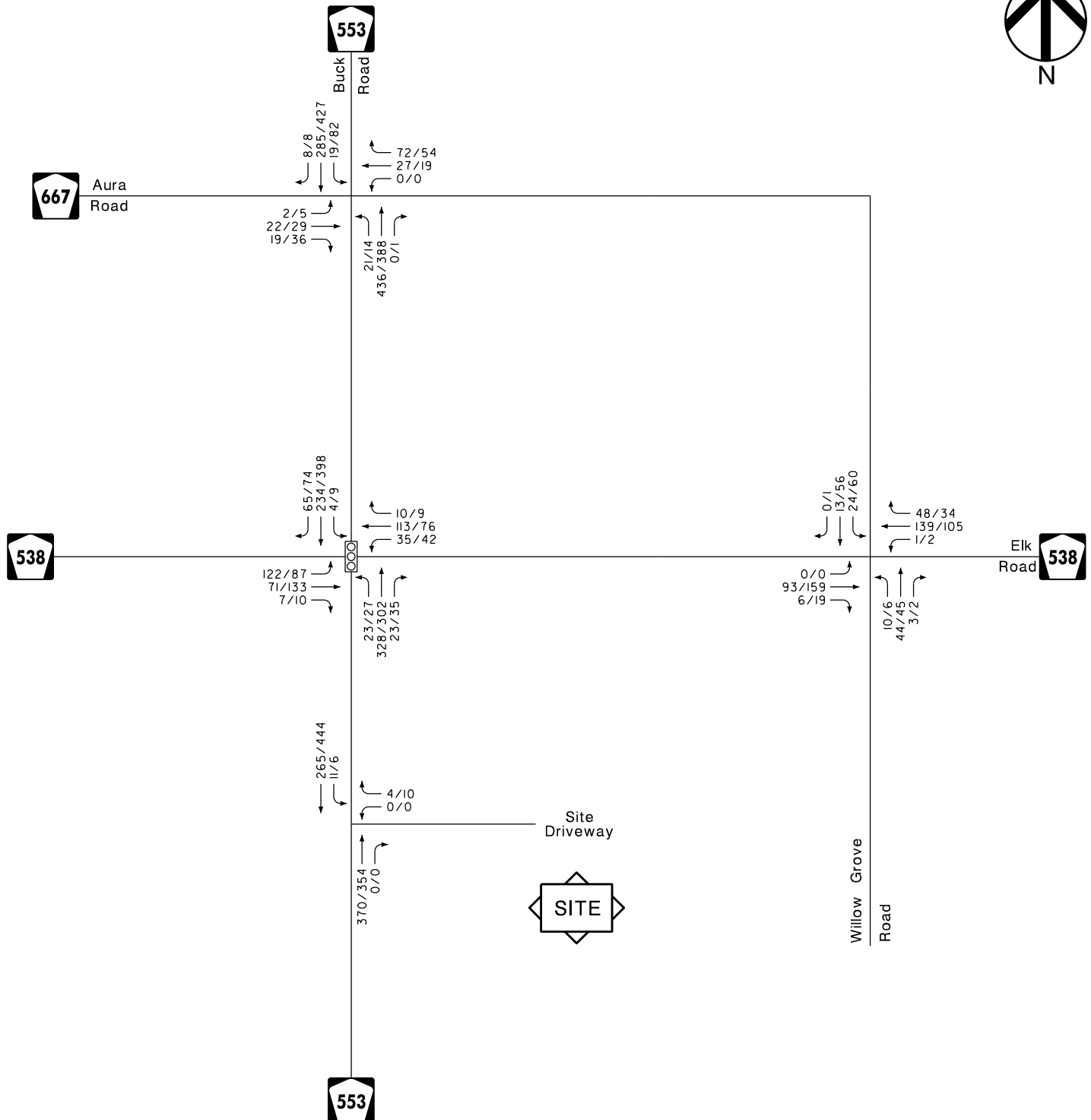


Truck Repair Facility – Elk

Elk Township, Gloucester County, New Jersey

May 2024

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AM/PM PEAK HOUR

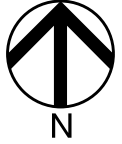
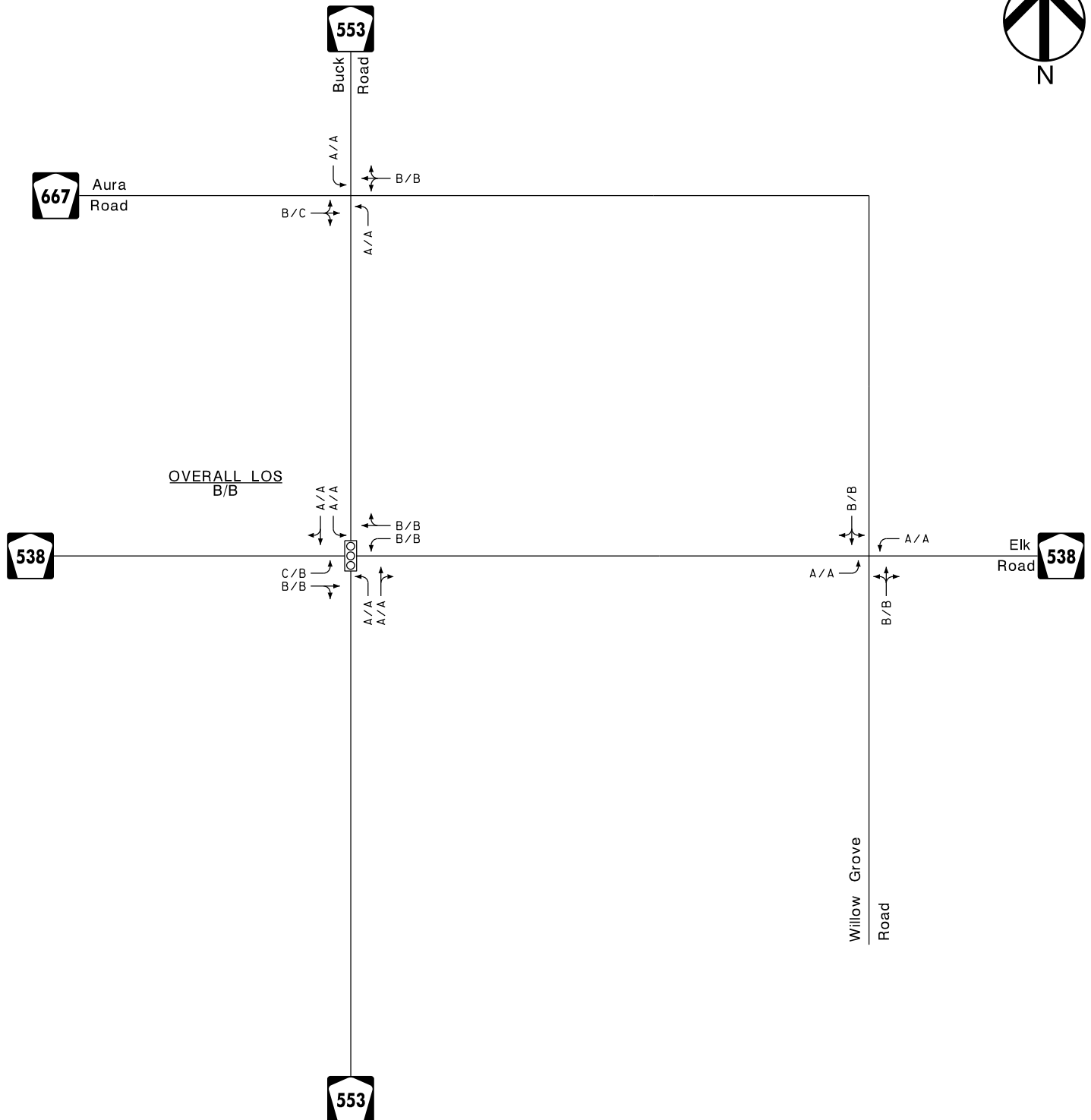


Truck Repair Facility – Elk

Elk Township, Gloucester County, New Jersey

May 2024

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AM/PM PEAK HOUR



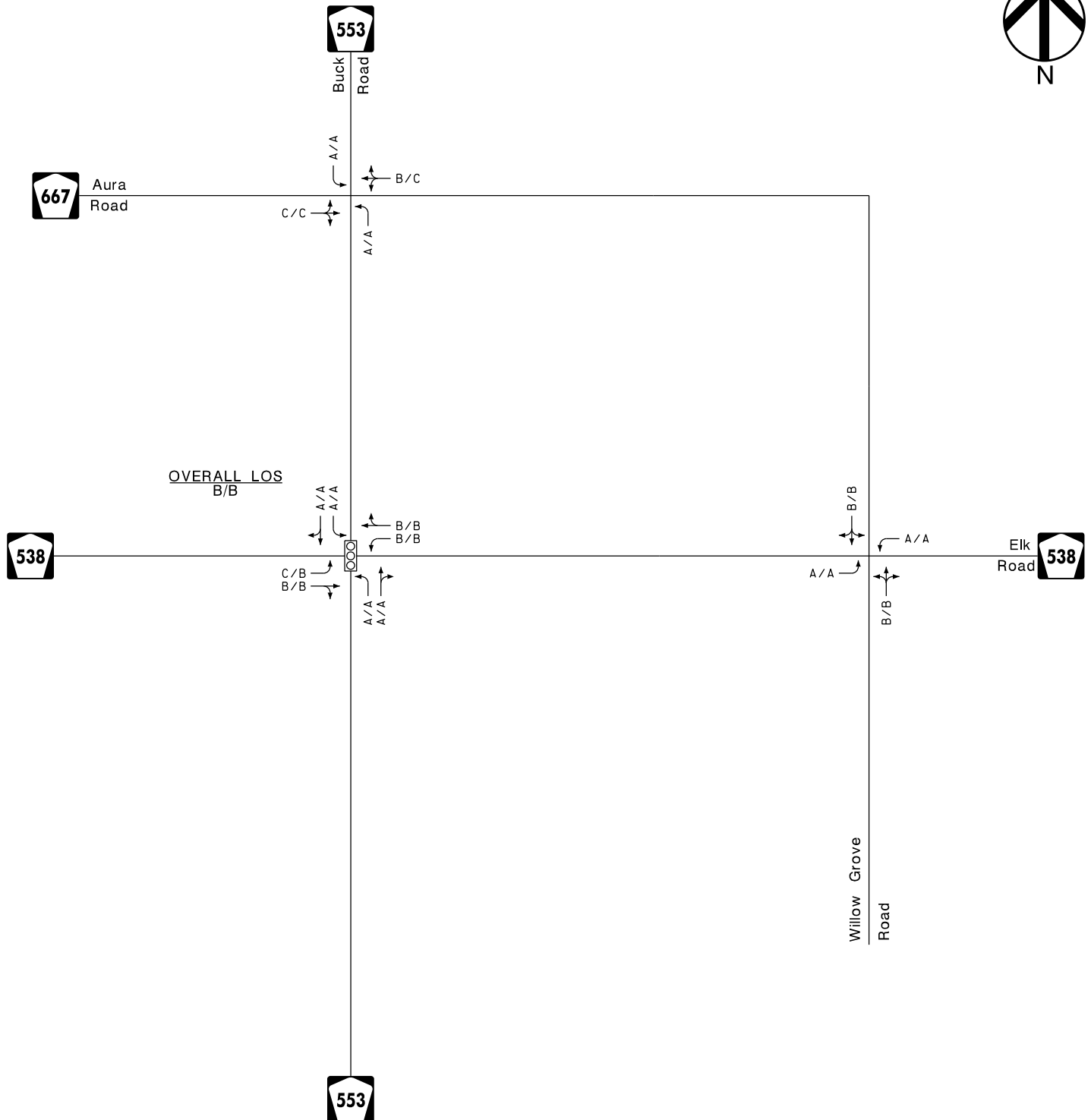
Truck Repair Facility – Elk

Elk Township, Gloucester County, New Jersey

May 2024

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AM/PM PEAK HOUR

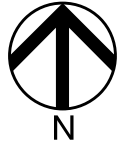
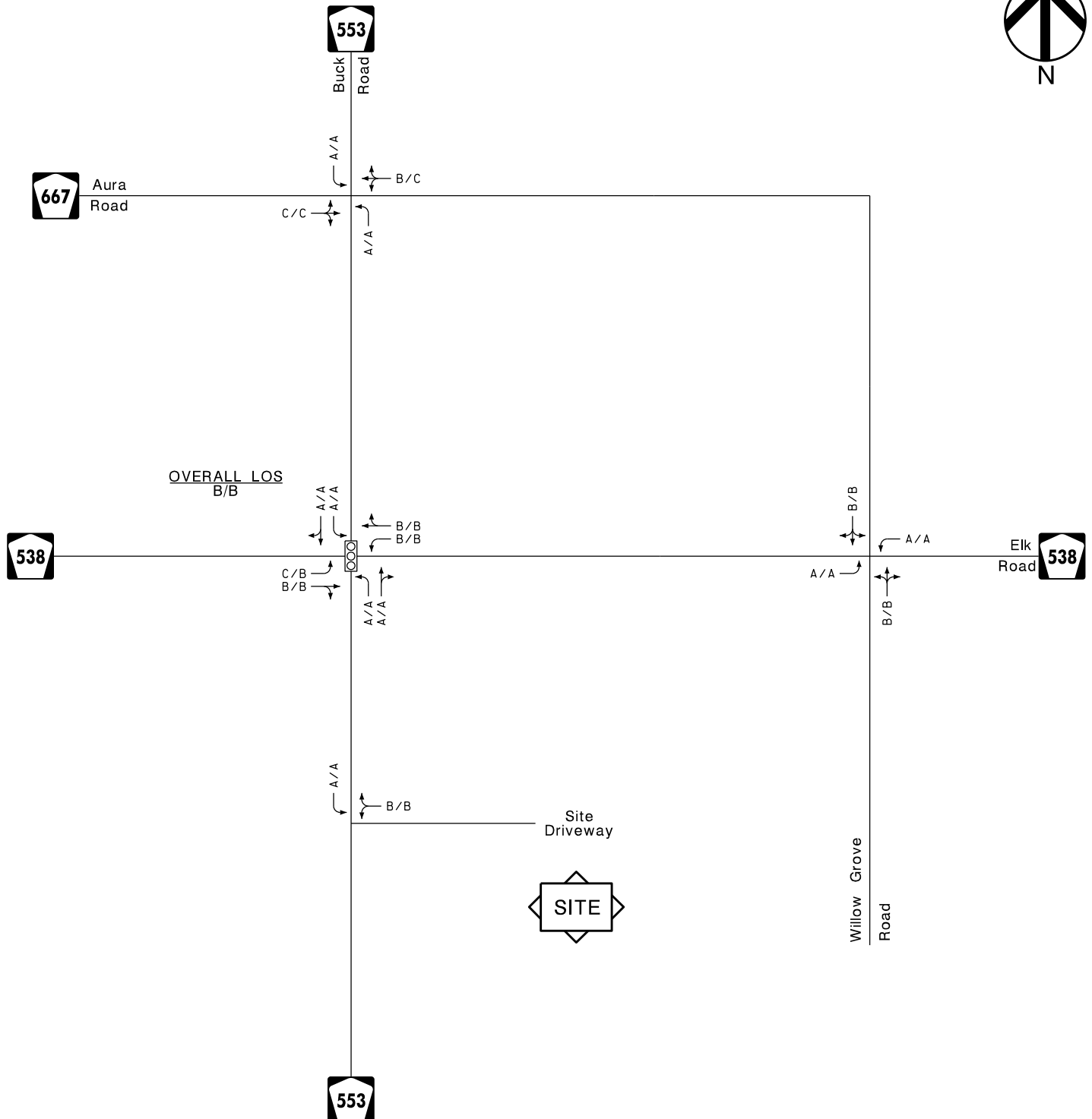


Truck Repair Facility – Elk

Elk Township, Gloucester County, New Jersey

May 2024

 TRAFFIC SIGNAL
AM/PM PEAK HOUR



Truck Repair Facility – Elk

Elk Township, Gloucester County, New Jersey

May 2024

 TRAFFIC SIGNAL

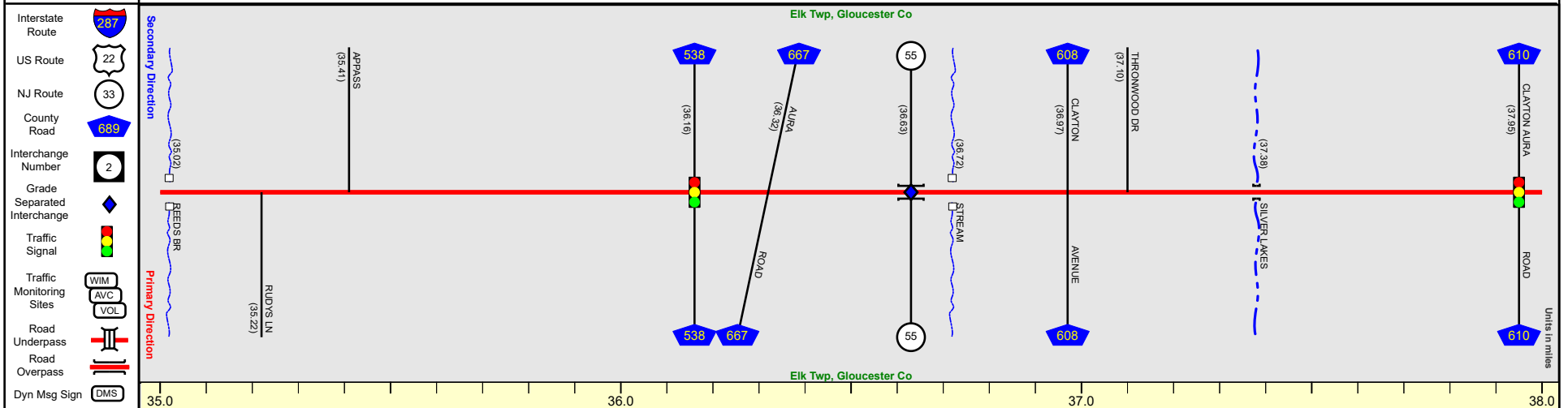
AM/PM PEAK HOUR

ROUTE 553 (South to North)

Mile Posts: 35.000 - 38.000



Pavement	
Shoulder	
Number of Lanes	
Speed Limit	
Street Name	



Street Name	Buck Road		
Jurisdiction	County		
Functional Class	Rural Major Collector	Urban Major Collector	Urban Minor Arterial
Federal Aid - NHS Sy	STP		
Control Section			
Speed Limit	45	50	
Number of Lanes	2		
Med. Type	None		
Med. Width			
Pavement	24		
Shoulder	4	10	4
Traffic Volume	7,523 (2019)		
Traffic Sta. ID	90814		
Structure No.	0809J01	0828170	0808J01
Enlarged Views			

SRI = 00000553__

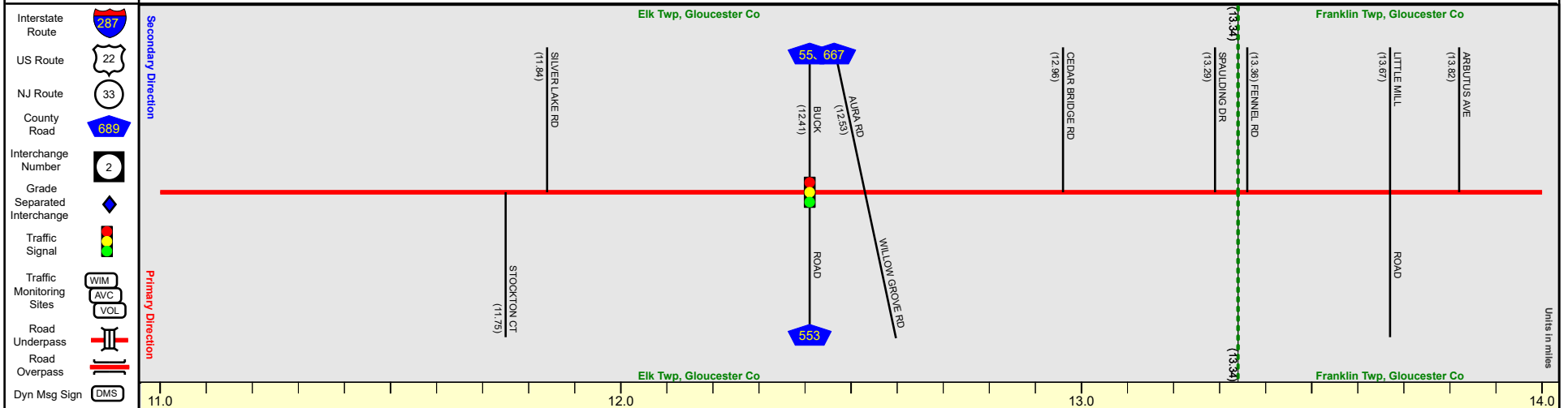
Date last inventoried: June 2012

ROUTE 538 (West to East)

Mile Posts: 11.000 - 14.000



Pavement	
Shoulder	
Number of Lanes	
Speed Limit	
Street Name	



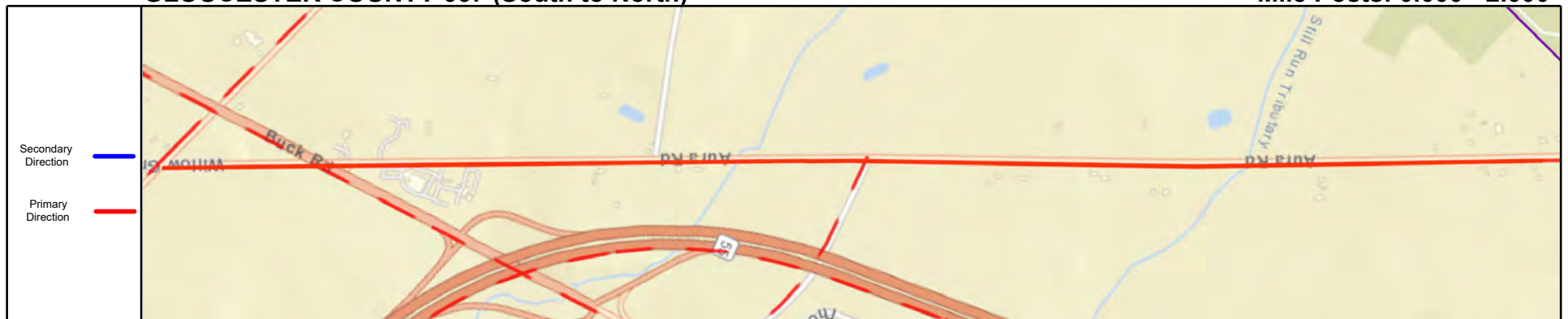
Street Name	Elk Road										Swedesboro Road									
Jurisdiction	County										County									
Functional Class	Rural Major Collector										Urban Major Collector									
Federal Aid - NHS Sy	STP										STP									
Control Section																				
Speed Limit	45										45									
Number of Lanes	2										2									
Med. Type	None										None									
Med. Width																				
Pavement	22										22									
Shoulder	1										1									
Traffic Volume																				
Traffic Sta. ID																				
Structure No.																				
Enlarged Views																				

SRI = 00000538__

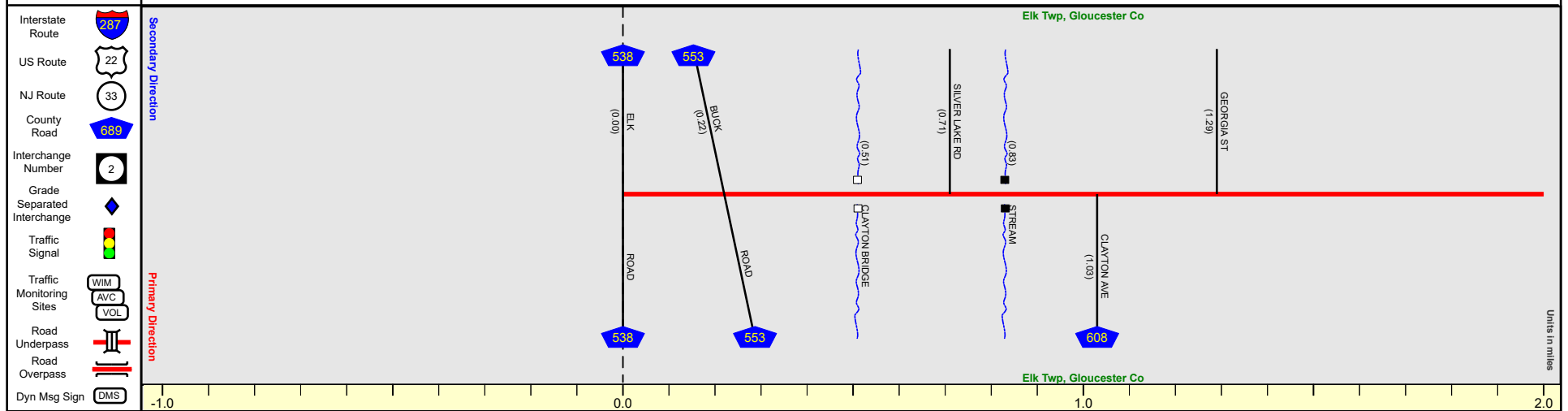
Date last inventoried: June 2012

GLOUCESTER COUNTY 667 (South to North)

Mile Posts: 0.000 - 2.000



Pavement	
Shoulder	
Number of Lanes	
Speed Limit	
Street Name	



Street Name	Willow Grove Road	Aura Road
Jurisdiction	County	
Functional Class	Urban Major Collector	
Federal Aid - NHS Sy	STP	
Control Section		
Speed Limit	25	50 40
Number of Lanes	2	
Med. Type	None	
Med. Width		
Pavement	22	
Shoulder	1 14	1
Traffic Volume	812 (2017)	
Traffic Sta. ID	110869	
Structure No.	0828176	
Enlarged Views		

SRI = 08000667

Date last inventoried: May 2011

Rev. 8/4/92

County Route 538 and
County Route 553
Elk Township
Gloucester County

Variable Cycle Length

Normal Operation--No Pedestrian Actuation

Signal Faces

PHASE	1,14,16,17 3,4,5,15	9,10,11,21 7,20,22,23	19,24 8,12	13,18 2,6	TIME (SECONDS)
<i>φ1</i> CR 553 N/B & S/B	G	R	H	H	24
Change	Y	R	H	H	4
Clearance	R	R	H	H	2
<i>φ4</i> CR 538 E/B & W/B	R	G	H	H	10-24
Change	R	Y	H	H	4
Clearance	R	R	H	H	2

NOTES:

1. The manual control is to be disconnected.
2. The vehicle extension is to be set at 2 seconds.
3. The memory circuit is to be disconnected.
4. Signal to rest in $\phi 1$ Green when there are no actuations.
5. Centerton-Glassboro Road (CR 553) to flash yellow.
6. Swedesboro Road (CR 538) to flash red.

Rev. 8/4/92

County Route 538 and
County Route 553
Elk Township
Gloucester County

Operation with Pedestrian Actuation

Signal Faces

PHASE	1,14,16,17 3,4,5,15	9,10,11,21 7,20,22,23	19,24 8,12	13,18 2,6	TIME (SECONDS)
<i>Ø2</i> <i>Ø1</i> CR 553 N/B & S/B	G	R	WM	H	10
Pedestrian Clearance	G	R	FL-H	H	14
Change	Y	R	H	H	4
Clearance	R	R	H	H	2
<i>Ø4</i> <i>Ø2</i> CR 538 E/B & W/B	R	G	H	WM	10
Pedestrian Clearance	R	G	H	FL-H	14
Change	R	Y	H	H	4
Clearance	R	R	H	H	2

NOTES:

1. The manual control is to be disconnected.
2. The vehicle extension is to be set at 2 seconds.
3. The memory circuit is to be disconnected.
4. Signal to rest in *Ø1* Green when there are no actuations.
5. Centerton-Glassboro Road (CR 553) to flash yellow.
6. Swedesboro Road (CR 538) to flash red.

Shropshire Associates LLC

277 Whitehorse Pike, Suite 203

Atco, NJ 08004

N/S Route: Buck Rd.

E/W Route: Elk Rd.

Elk Township/Gloucester County/NJ

Thursday/Clear/LW/D4-3730

File Name : 22158001

Site Code : 22158001

Start Date : 1/11/2024

Page No : 1

Groups Printed- Unshifted - Tractor Trailers

	Buck Rd. Southbound					Elk Rd. Westbound					Buck Rd. Northbound					Elk Rd. 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	14	37	1	6	58	2	28	1	0	31	0	60	1	0	61	0	16	29	0	45	195
07:15 AM	18	50	2	2	72	3	39	2	0	44	0	63	1	0	64	0	13	40	0	53	233
07:30 AM	6	54	1	6	67	3	35	0	0	38	0	84	1	0	85	1	18	24	2	45	235
07:45 AM	12	57	0	3	72	1	20	0	0	21	0	67	0	1	68	1	22	27	0	50	211
Total	50	198	4	17	269	9	122	3	0	134	0	274	3	1	278	2	69	120	2	193	874
08:00 AM	8	44	1	0	53	3	25	4	0	32	4	85	2	0	91	2	16	19	0	37	213
08:15 AM	3	51	1	0	55	1	16	2	0	19	1	58	0	0	59	2	11	22	0	35	168
08:30 AM	6	48	1	2	57	1	20	0	0	21	0	76	1	0	77	1	9	20	0	30	185
08:45 AM	6	46	1	2	55	1	22	1	0	24	2	63	3	0	68	0	13	19	0	32	179
Total	23	189	4	4	220	6	83	7	0	96	7	282	6	0	295	5	49	80	0	134	745
*** BREAK ***																					
04:00 PM	8	93	1	4	106	2	23	2	0	27	4	64	1	2	71	1	38	16	0	55	259
04:15 PM	16	90	0	2	108	4	25	1	1	31	1	75	2	0	78	1	27	15	2	45	262
04:30 PM	18	80	4	1	103	0	21	4	0	25	4	74	0	1	79	1	34	14	2	51	258
04:45 PM	10	103	4	2	119	2	15	3	0	20	0	56	3	2	61	2	32	31	0	65	265
Total	52	366	9	9	436	8	84	10	1	103	9	269	6	5	289	5	131	76	4	216	1044
05:00 PM	15	77	1	2	95	1	17	3	0	21	1	76	1	0	78	5	32	15	1	53	247
05:15 PM	10	92	1	3	106	2	20	1	1	24	2	64	0	1	67	2	30	26	0	58	255
05:30 PM	5	68	3	3	79	0	18	2	0	20	3	64	2	0	69	2	34	23	1	60	228
05:45 PM	7	67	3	3	80	3	16	3	1	23	1	55	0	0	56	0	22	15	0	37	196
Total	37	304	8	11	360	6	71	9	2	88	7	259	3	1	270	9	118	79	2	208	926
Grand Total	162	1057	25	41	1285	29	360	29	3	421	23	1084	18	7	1132	21	367	355	8	751	3589
Apprch %	12.6	82.3	1.9	3.2		6.9	85.5	6.9	0.7		2	95.8	1.6	0.6		2.8	48.9	47.3	1.1		
Total %	4.5	29.5	0.7	1.1	35.8	0.8	10	0.8	0.1	11.7	0.6	30.2	0.5	0.2	31.5	0.6	10.2	9.9	0.2	20.9	
Unshifted	155	1044										1075									
% Unshifted	95.7	98.8	96	100	98.4	100	99.7	100	100	99.8	100	99.2	100	100	99.2	100	99.7	100	100	99.9	99.1
Tractor Trailers																					
% Tractor Trailers	4.3	1.2	4	0	1.6	0	0.3	0	0	0.2	0	0.8	0	0	0.8	0	0.3	0	0	0.1	0.9

Shropshire Associates LLC

277 Whitehorse Pike, Suite 203

Atco, NJ 08004

N/S Route: Buck Rd.

E/W Route: Elk Rd.

Elk Township/Gloucester County/NJ

Thursday/Clear/LW/D4-3730

File Name : 22158001

Site Code : 22158001

Start Date : 1/11/2024

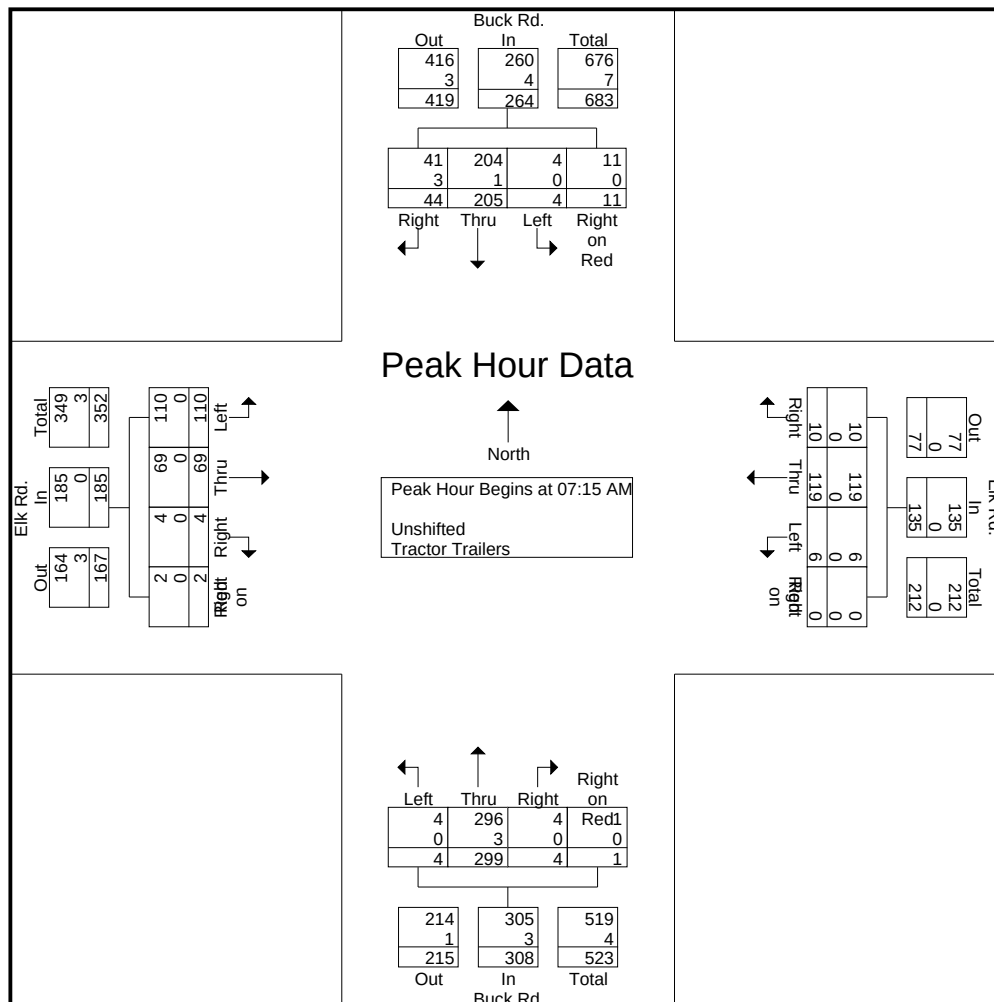
Page No : 2

	Buck Rd. Southbound					Elk Rd. Westbound					Buck Rd. Northbound					Elk Rd. 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	18	50	2	2	72	3	39	2	0	44	0	63	1	0	64	0	13	40	0	53	233
07:30 AM	6	54	1	6	67	3	35	0	0	38	0	84	1	0	85	1	18	24	2	45	235
07:45 AM	12	57	0	3	72	1	20	0	0	21	0	67	0	1	68	1	22	27	0	50	211
08:00 AM	8	44	1	0	53	3	25	4	0	32	4	85	2	0	91	2	16	19	0	37	213
Total Volume	44	205	4	11	264	10	119	6	0	135	4	299	4	1	308	4	69	110	2	185	892
% App. Total	16.7	77.7	1.5	4.2		7.4	88.1	4.4	0		1.3	97.1	1.3	0.3		2.2	37.3	59.5	1.1		
PHF	.611	.899	.500	.458	.917	.833	.763	.375	.000	.767	.250	.879	.500	.250	.846	.500	.784	.688	.250	.873	.949
Unshifted	41	204	4	11	260	10	119	6	0	135	4	296	4	1	305	4	69	110	2	185	885
% Unshifted	93.2	99.5	100	100	98.5	100	100	100	0	100	100	99.0	100	100	99.0	100	100	100	100	100	99.2
Tractor Trailers																					
% Tractor Trailers	6.8	0.5	0	0	1.5	0	0	0	0	0	0	1.0	0	0	1.0	0	0	0	0	0	0.8



Shropshire Associates LLC

277 Whitehorse Pike, Suite 203

Atco, NJ 08004

N/S Route: Buck Rd.

E/W Route: Elk Rd.

Elk Township/Gloucester County/NJ

Thursday/Clear/LW/D4-3730

File Name : 22158001

Site Code : 22158001

Start Date : 1/11/2024

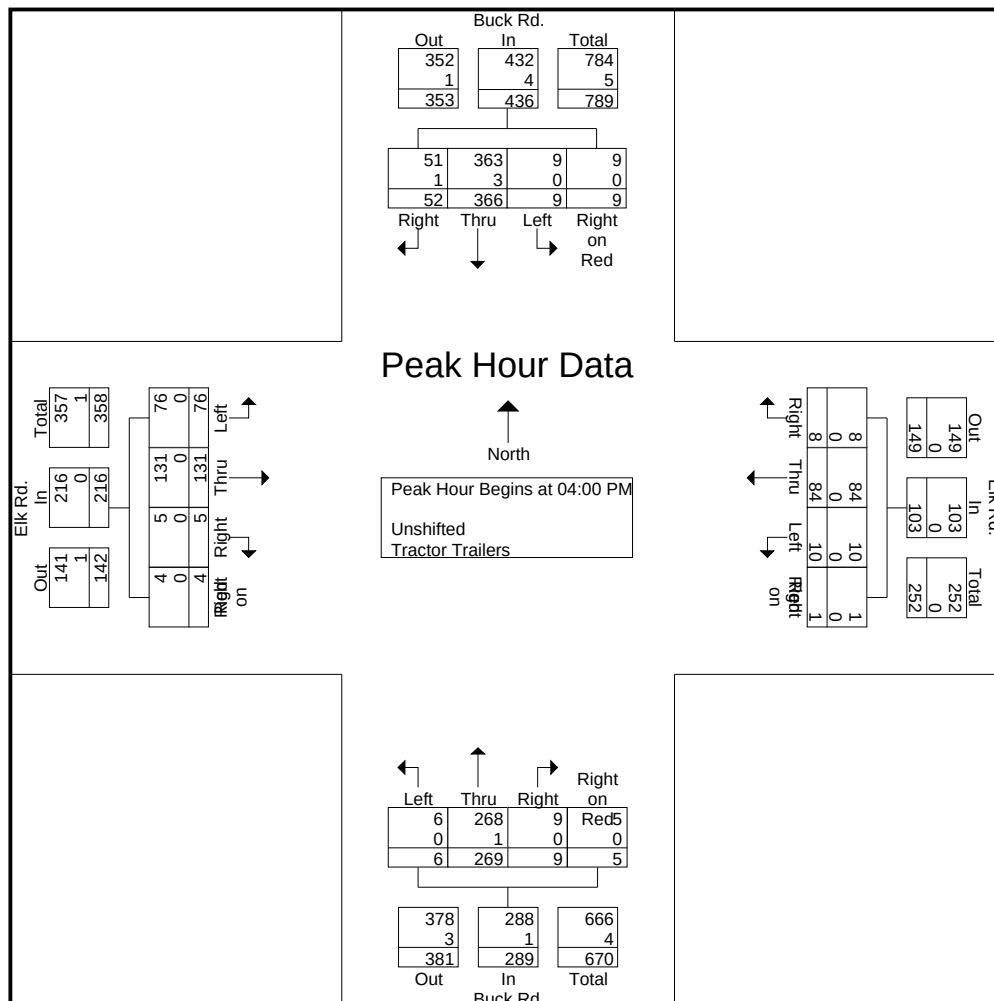
Page No : 3

	Buck Rd. Southbound					Elk Rd. Westbound					Buck Rd. Northbound					Elk Rd. 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 04:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 04:00 PM

04:00 PM	8	93	1	4	106	2	23	2	0	27	4	64	1	2	71	1	38	16	0	55	259
04:15 PM	16	90	0	2	108	4	25	1	1	31	1	75	2	0	78	1	27	15	2	45	262
04:30 PM	18	80	4	1	103	0	21	4	0	25	4	74	0	1	79	1	34	14	2	51	258
04:45 PM	10	103	4	2	119	2	15	3	0	20	0	56	3	2	61	2	32	31	0	65	265
Total Volume	52	366	9	9	436	8	84	10	1	103	9	269	6	5	289	5	131	76	4	216	1044
% App. Total	11.9	83.9	2.1	2.1		7.8	81.6	9.7	1		3.1	93.1	2.1	1.7		2.3	60.6	35.2	1.9		
PHF	.722	.888	.563	.563	.916	.500	.840	.625	.250	.831	.563	.897	.500	.625	.915	.625	.862	.613	.500	.831	.985
Unshifted	51	363	9	9	432	8	84	10	1	103	9	268	6	5	288	5	131	76	4	216	1039
% Unshifted	98.1	99.2	100	100	99.1	100	100	100	100	100	100	99.6	100	100	99.7	100	100	100	100	100	99.5
Tractor Trailers																					
% Tractor Trailers	1.9	0.8	0	0	0.9	0	0	0	0	0	0	0.4	0	0	0.3	0	0	0	0	0	0.5



Shropshire Associates LLC

277 Whitehorse Pike, Suite 203

Atco, NJ 08004

N/S Route: Buck Rd.

E/W Route: Aura Rd. / Willow Grove Rd.

Elk Township/Gloucester County/NJ

Thursday/Clear/EM/T2538

File Name : 22158002

Site Code : 22158002

Start Date : 1/11/2024

Page No : 1

Groups Printed- Unshifted - Tractor Trailers

	Buck Rd. Southbound				Willow Grove Rd. Westbound				Buck Rd. Northbound				Aura Rd. Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
07:00 AM	1	46	7	54	20	3	0	23	0	86	2	88	4	5	0	9	174
07:15 AM	0	68	6	74	19	4	0	23	0	104	3	107	4	3	0	7	211
07:30 AM	3	61	1	65	13	8	0	21	0	103	7	110	3	5	2	10	206
07:45 AM	3	70	7	80	21	6	0	27	0	89	6	95	4	5	0	9	211
Total	7	245	21	273	73	21	0	94	0	382	18	400	15	18	2	35	802
08:00 AM	2	50	5	57	16	8	0	24	0	102	3	105	5	8	0	13	199
08:15 AM	3	51	2	56	16	4	0	20	0	74	4	78	3	4	0	7	161
08:30 AM	1	54	2	57	19	7	0	26	0	95	3	98	2	2	0	4	185
08:45 AM	0	53	3	56	14	2	0	16	0	82	0	82	3	2	1	6	160
Total	6	208	12	226	65	21	0	86	0	353	10	363	13	16	1	30	705
*** BREAK ***																	
04:00 PM	3	95	27	125	6	3	0	9	0	76	6	82	7	2	0	9	225
04:15 PM	2	99	10	111	8	6	0	14	0	85	6	91	7	6	1	14	230
04:30 PM	3	95	17	115	13	5	0	18	0	91	4	95	7	4	1	12	240
04:45 PM	2	106	14	122	10	5	0	15	1	81	1	83	12	11	1	24	244
Total	10	395	68	473	37	19	0	56	1	333	17	351	33	23	3	59	939
05:00 PM	1	91	28	120	13	4	0	17	0	90	3	93	6	9	2	17	247
05:15 PM	2	93	21	116	17	5	0	22	0	85	3	88	8	4	1	13	239
05:30 PM	0	62	19	81	15	0	0	15	0	86	4	90	1	8	0	9	195
05:45 PM	3	86	9	98	6	0	0	6	0	75	6	81	8	4	0	12	197
Total	6	332	77	415	51	9	0	60	0	336	16	352	23	25	3	51	878
Grand Total	29	1180	178	1387	226	70	0	296	1	1404	61	1466	84	82	9	175	3324
Apprch %	2.1	85.1	12.8		76.4	23.6	0		0.1	95.8	4.2		48	46.9	5.1		
Total %	0.9	35.5	5.4	41.7	6.8	2.1	0	8.9	0	42.2	1.8	44.1	2.5	2.5	0.3	5.3	
Unshifted	26	1164	175	1365	220	70	0	290	1	1397	61	1459	83	82	9	174	3288
% Unshifted	89.7	98.6	98.3	98.4	97.3	100	0	98	100	99.5	100	99.5	98.8	100	100	99.4	98.9
Tractor Trailers	3	16	3	22	6	0	0	6	0	7	0	7	1	0	0	1	36
% Tractor Trailers	10.3	1.4	1.7	1.6	2.7	0	0	2	0	0.5	0	0.5	1.2	0	0	0.6	1.1

Shropshire Associates LLC

277 Whitehorse Pike, Suite 203

Atco, NJ 08004

N/S Route: Buck Rd.

E/W Route: Aura Rd. / Willow Grove Rd.

Elk Township/Gloucester County/NJ

Thursday/Clear/EM/T2538

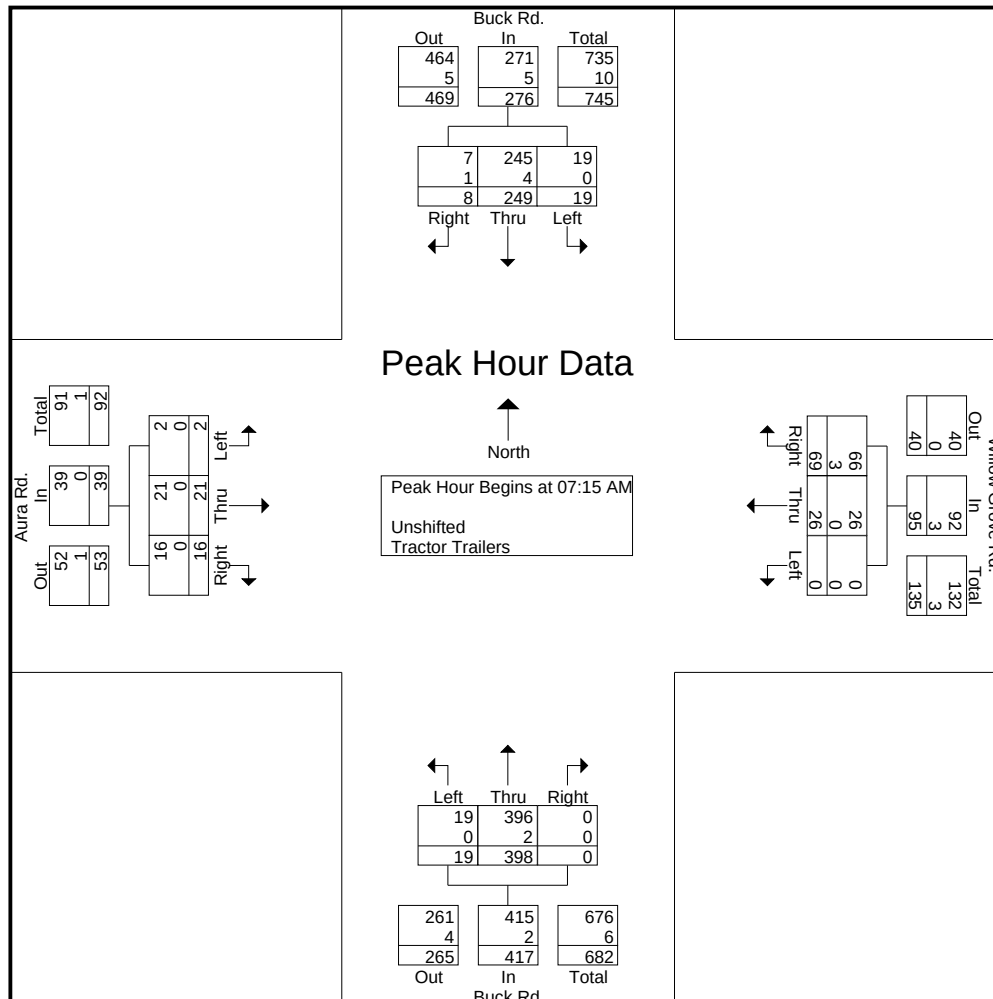
File Name : 22158002

Site Code : 22158002

Start Date : 1/11/2024

Page No : 2

	Buck Rd. Southbound				Willow Grove Rd. Westbound				Buck Rd. Northbound				Aura Rd. Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	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	0	68	6	74	19	4	0	23	0	104	3	107	4	3	0	7	211
07:30 AM	3	61	1	65	13	8	0	21	0	103	7	110	3	5	2	10	206
07:45 AM	3	70	7	80	21	6	0	27	0	89	6	95	4	5	0	9	211
08:00 AM	2	50	5	57	16	8	0	24	0	102	3	105	5	8	0	13	199
Total Volume	8	249	19	276	69	26	0	95	0	398	19	417	16	21	2	39	827
% App. Total	2.9	90.2	6.9		72.6	27.4	0		0	95.4	4.6		41	53.8	5.1		
PHF	.667	.889	.679	.863	.821	.813	.000	.880	.000	.957	.679	.948	.800	.656	.250	.750	.980
Unshifted	7	245	19	271	66	26	0	92	0	396	19	415	16	21	2	39	817
% Unshifted	87.5	98.4	100	98.2	95.7	100	0	96.8	0	99.5	100	99.5	100	100	100	100	98.8
Tractor Trailers	1	4	0	5	3	0	0	3	0	2	0	2	0	0	0	0	10
% Tractor Trailers	12.5	1.6	0	1.8	4.3	0	0	3.2	0	0.5	0	0.5	0	0	0	0	1.2



Shropshire Associates LLC

277 Whitehorse Pike, Suite 203

Atco, NJ 08004

N/S Route: Buck Rd.

E/W Route: Aura Rd. / Willow Grove Rd.

Elk Township/Gloucester County/NJ

Thursday/Clear/EM/T2538

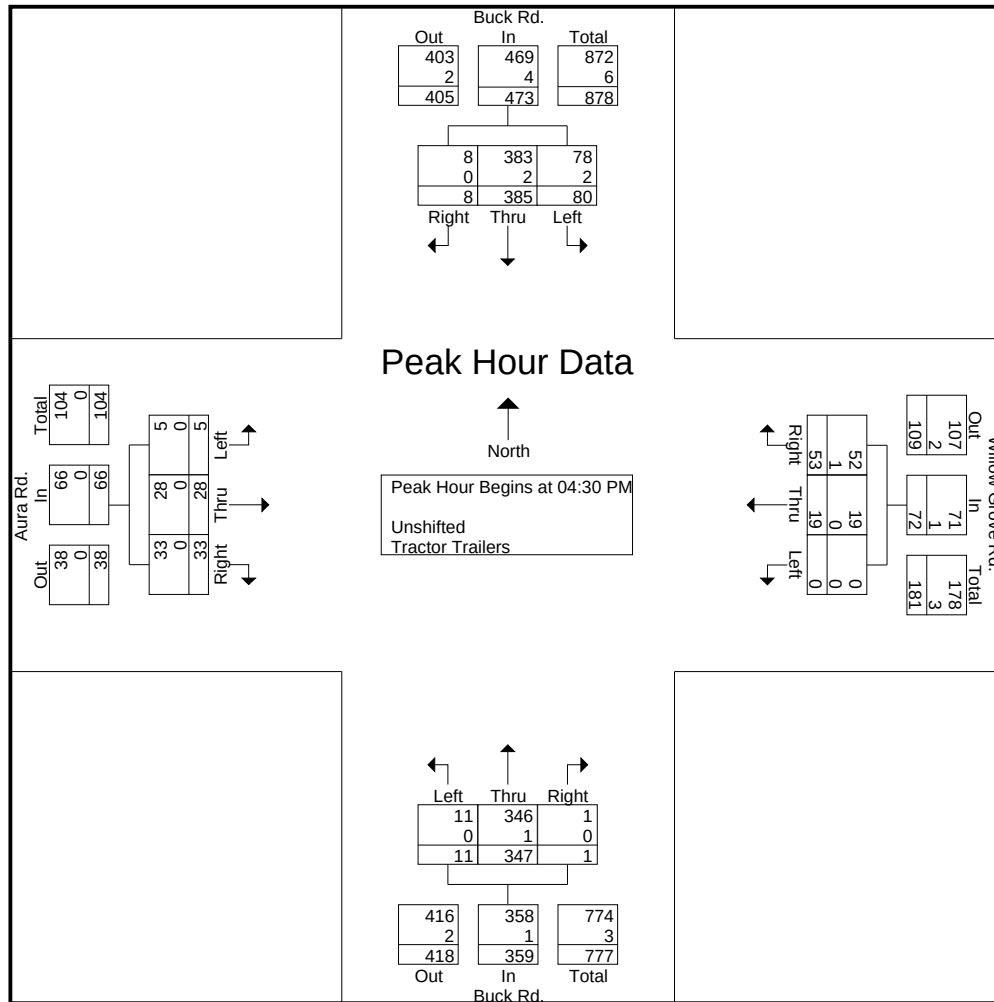
File Name : 22158002

Site Code : 22158002

Start Date : 1/11/2024

Page No : 3

	Buck Rd. Southbound				Willow Grove Rd. Westbound				Buck Rd. Northbound				Aura Rd. Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	3	95	17	115	13	5	0	18	0	91	4	95	7	4	1	12	240
04:45 PM	2	106	14	122	10	5	0	15	1	81	1	83	12	11	1	24	244
05:00 PM	1	91	28	120	13	4	0	17	0	90	3	93	6	9	2	17	247
05:15 PM	2	93	21	116	17	5	0	22	0	85	3	88	8	4	1	13	239
Total Volume	8	385	80	473	53	19	0	72	1	347	11	359	33	28	5	66	970
% App. Total	1.7	81.4	16.9		73.6	26.4	0		0.3	96.7	3.1		50	42.4	7.6		
PHF	.667	.908	.714	.969	.779	.950	.000	.818	.250	.953	.688	.945	.688	.636	.625	.688	.982
Unshifted	8	383	78	469	52	19	0	71	1	346	11	358	33	28	5	66	964
% Unshifted	100	99.5	97.5	99.2	98.1	100	0	98.6	100	99.7	100	99.7	100	100	100	100	99.4
Tractor Trailers	0	2	2	4	1	0	0	1	0	1	0	1	0	0	0	0	6
% Tractor Trailers	0	0.5	2.5	0.8	1.9	0	0	1.4	0	0.3	0	0.3	0	0	0	0	0.6



Shropshire Associates LLC

277 Whitehorse Pike, Suite 203

Atco, NJ 08004

N/S Route: Willow Grove Rd.

E/W Route: Elk Rd.

Elk Township/Gloucester County/NJ

Thursday/Clear/AS/D4-2870

File Name : 22158003

Site Code : 22158003

Start Date : 1/11/2024

Page No : 1

Groups Printed- Unshifted - Tractor Trailers

	Willow Grove Rd. Southbound				Elk Rd. Westbound				Willow Grove Rd. Northbound				Elk Rd. Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
07:00 AM	0	1	10	11	8	25	0	33	0	15	0	15	0	21	0	21	80
07:15 AM	0	5	6	11	11	34	1	46	0	10	3	13	1	12	0	13	83
07:30 AM	0	1	5	6	13	34	0	47	1	10	2	13	1	19	0	20	86
07:45 AM	0	3	6	9	16	17	0	33	1	13	2	16	2	21	0	23	81
Total	0	10	27	37	48	110	1	159	2	48	7	57	4	73	0	77	330
08:00 AM	0	4	6	10	7	32	0	39	1	10	2	13	1	22	0	23	85
08:15 AM	0	3	2	5	12	18	0	30	1	10	1	12	0	13	0	13	60
08:30 AM	0	1	2	3	14	19	1	34	0	12	0	12	1	10	0	11	60
08:45 AM	0	4	1	5	8	17	1	26	0	8	3	11	2	13	0	15	57
Total	0	12	11	23	41	86	2	129	2	40	6	48	4	58	0	62	262
*** BREAK ***																	
04:00 PM	0	11	10	21	6	18	1	25	0	7	3	10	4	37	0	41	97
04:15 PM	0	8	9	17	4	27	0	31	0	9	0	9	4	25	0	29	86
04:30 PM	0	11	12	23	8	25	2	35	1	10	1	12	4	44	0	48	118
04:45 PM	1	16	15	32	6	17	0	23	0	11	1	12	6	29	0	35	102
Total	1	46	46	93	24	87	3	114	1	37	5	43	18	135	0	153	403
05:00 PM	0	16	17	33	9	18	0	27	1	6	1	8	4	35	0	39	107
05:15 PM	0	12	15	27	10	22	0	32	0	17	2	19	4	29	0	33	111
05:30 PM	1	15	11	27	4	18	1	23	3	6	3	12	5	35	0	40	102
05:45 PM	0	4	5	9	3	23	0	26	1	3	2	6	5	22	0	27	68
Total	1	47	48	96	26	81	1	108	5	32	8	45	18	121	0	139	388
Grand Total	2	115	132	249	139	364	7	510	10	157	26	193	44	387	0	431	1383
Apprch %	0.8	46.2	53		27.3	71.4	1.4		5.2	81.3	13.5		10.2	89.8	0		
Total %	0.1	8.3	9.5	18	10.1	26.3	0.5	36.9	0.7	11.4	1.9	14	3.2	28	0	31.2	
Unshifted	2	113	132	247	138	363	7	508	10	151	26	187	42	387	0	429	1371
% Unshifted	100	98.3	100	99.2	99.3	99.7	100	99.6	100	96.2	100	96.9	95.5	100	0	99.5	99.1
Tractor Trailers	0	2	0	2	1	1	0	2	0	6	0	6	2	0	0	2	12
% Tractor Trailers	0	1.7	0	0.8	0.7	0.3	0	0.4	0	3.8	0	3.1	4.5	0	0	0.5	0.9

Shropshire Associates LLC

277 Whitehorse Pike, Suite 203

Atco, NJ 08004

N/S Route: Willow Grove Rd.

E/W Route: Elk Rd.

Elk Township/Gloucester County/NJ

Thursday/Clear/AS/D4-2870

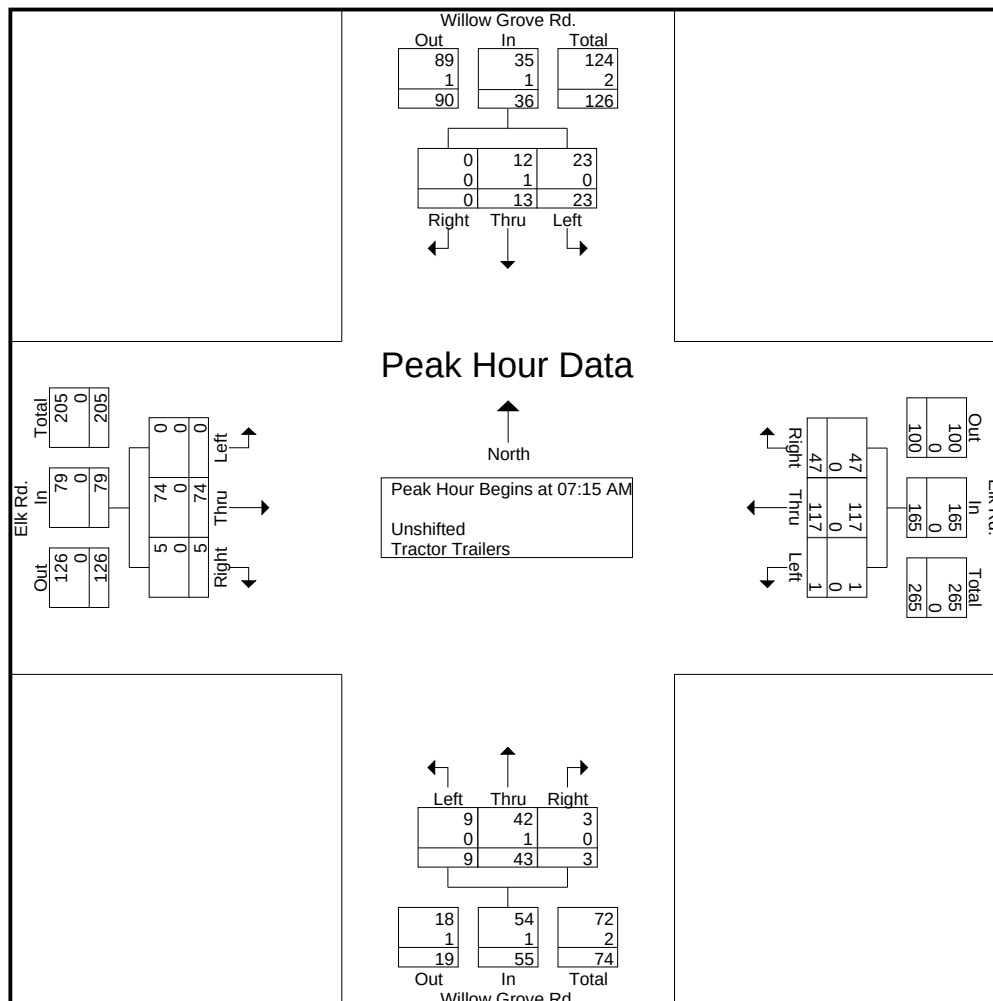
File Name : 22158003

Site Code : 22158003

Start Date : 1/11/2024

Page No : 2

	Willow Grove Rd. Southbound				Elk Rd. Westbound				Willow Grove Rd. Northbound				Elk Rd. Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	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	0	5	6	11	11	34	1	46	0	10	3	13	1	12	0	13	83
07:30 AM	0	1	5	6	13	34	0	47	1	10	2	13	1	19	0	20	86
07:45 AM	0	3	6	9	16	17	0	33	1	13	2	16	2	21	0	23	81
08:00 AM	0	4	6	10	7	32	0	39	1	10	2	13	1	22	0	23	85
Total Volume	0	13	23	36	47	117	1	165	3	43	9	55	5	74	0	79	335
% App. Total	0	36.1	63.9		28.5	70.9	0.6		5.5	78.2	16.4		6.3	93.7	0		
PHF	.000	.650	.958	.818	.734	.860	.250	.878	.750	.827	.750	.859	.625	.841	.000	.859	.974
Unshifted	0	12	23	35	47	117	1	165	3	42	9	54	5	74	0	79	333
% Unshifted	0	92.3	100	97.2	100	100	100	100	100	97.7	100	98.2	100	100	0	100	99.4
Tractor Trailers	0	1	0	1	0	0	0	0	0	1	0	1	0	0	0	0	2
% Tractor Trailers	0	7.7	0	2.8	0	0	0	0	0	2.3	0	1.8	0	0	0	0	0.6



Shropshire Associates LLC

277 Whitehorse Pike, Suite 203

Atco, NJ 08004

N/S Route: Willow Grove Rd.

E/W Route: Elk Rd.

Elk Township/Gloucester County/NJ

Thursday/Clear/AS/D4-2870

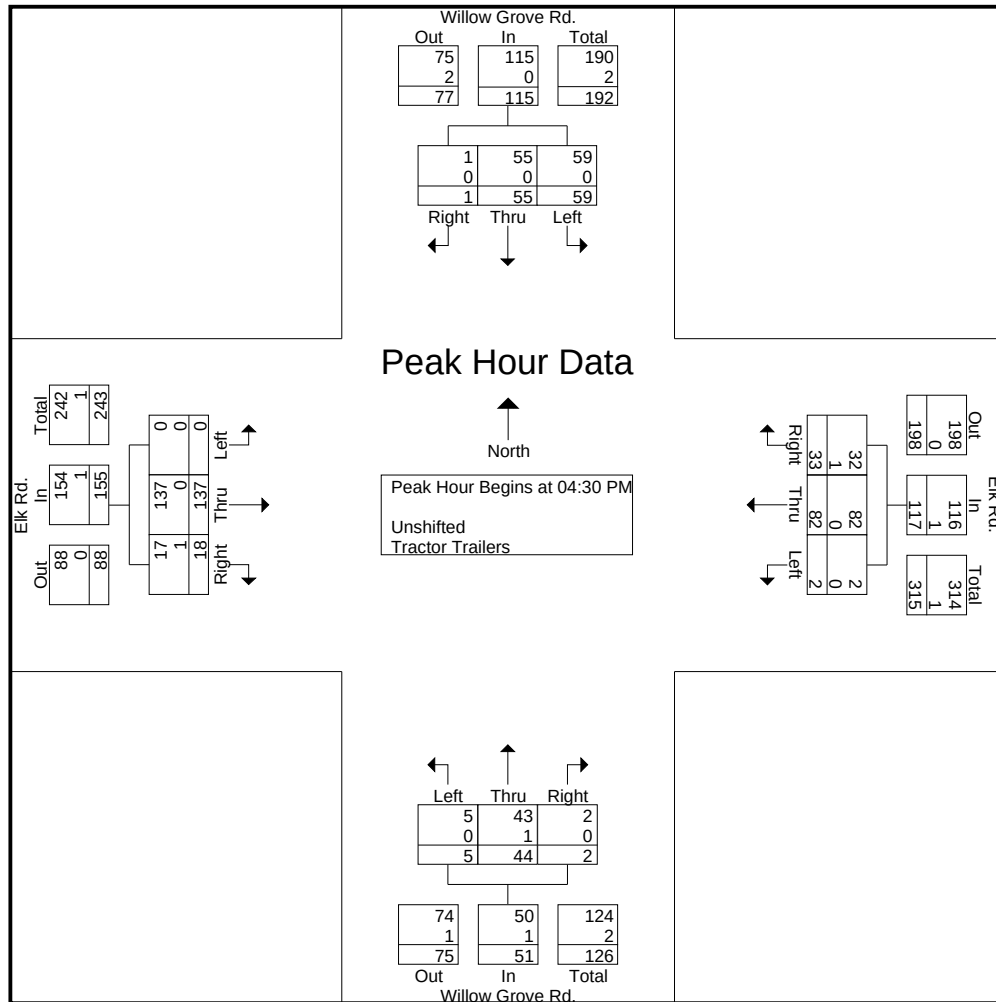
File Name : 22158003

Site Code : 22158003

Start Date : 1/11/2024

Page No : 3

	Willow Grove Rd. Southbound				Elk Rd. Westbound				Willow Grove Rd. Northbound				Elk Rd. Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	11	12	23	8	25	2	35	1	10	1	12	4	44	0	48	118
04:45 PM	1	16	15	32	6	17	0	23	0	11	1	12	6	29	0	35	102
05:00 PM	0	16	17	33	9	18	0	27	1	6	1	8	4	35	0	39	107
05:15 PM	0	12	15	27	10	22	0	32	0	17	2	19	4	29	0	33	111
Total Volume	1	55	59	115	33	82	2	117	2	44	5	51	18	137	0	155	438
% App. Total	0.9	47.8	51.3		28.2	70.1	1.7		3.9	86.3	9.8		11.6	88.4	0		
PHF	.250	.859	.868	.871	.825	.820	.250	.836	.500	.647	.625	.671	.750	.778	.000	.807	.928
Unshifted	1	55	59	115	32	82	2	116	2	43	5	50	17	137	0	154	435
% Unshifted	100	100	100	100	97.0	100	100	99.1	100	97.7	100	98.0	94.4	100	0	99.4	99.3
Tractor Trailers	0	0	0	0	1	0	0	1	0	1	0	1	1	0	0	1	3
% Tractor Trailers	0	0	0	0	3.0	0	0	0.9	0	2.3	0	2.0	5.6	0	0	0.6	0.7



Shropshire Associates LLC

277 Whitehorse Pike, Suite 203

Atco, NJ 08004

N/S Route: Buck Rd.

E/W Route: Elk Rd.

Elk Township/Gloucester County/NJ

Saturday/Couds/LW/D4-3730

File Name : 22158004

Site Code : 22158004

Start Date : 1/13/2024

Page No : 1

Groups Printed- Unshifted - Tractor Trailers

	Buck Rd. Southbound					Elk Rd. Westbound					Buck Rd. Northbound					Elk Rd. 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
11:00 AM	9	39	2	3	53	2	17	0	0	19	3	69	2	0	74	1	9	16	0	26	172
11:15 AM	7	37	1	2	47	1	16	2	0	19	2	62	2	0	66	1	20	14	0	35	167
11:30 AM	9	47	0	1	57	0	17	3	0	20	1	67	3	0	71	0	13	12	0	25	173
11:45 AM	5	45	1	3	54	1	8	2	0	11	1	64	1	0	66	3	8	11	2	24	155
Total	30	168	4	9	211	4	58	7	0	69	7	262	8	0	277	5	50	53	2	110	667
12:00 PM	7	58	2	4	71	3	9	0	1	13	1	57	2	0	60	3	12	10	0	25	169
12:15 PM	6	66	1	0	73	0	13	1	0	14	1	66	1	0	68	2	9	12	0	23	178
12:30 PM	4	49	1	3	57	0	12	2	0	14	1	58	3	0	62	8	10	16	0	34	167
12:45 PM	5	55	2	4	66	1	14	2	0	17	3	49	2	0	54	2	16	11	0	29	166
Total	22	228	6	11	267	4	48	5	1	58	6	230	8	0	244	15	47	49	0	111	680
01:00 PM	6	53	0	0	59	1	10	0	0	11	1	52	0	0	53	1	9	16	0	26	149
01:15 PM	4	51	1	1	57	1	12	1	0	14	0	53	2	0	55	1	9	7	0	17	143
01:30 PM	3	46	1	0	50	0	13	3	0	16	2	42	0	0	44	0	13	4	1	18	128
01:45 PM	2	52	1	1	56	3	19	0	0	22	0	58	2	1	61	0	12	9	0	21	160
Total	15	202	3	2	222	5	54	4	0	63	3	205	4	1	213	2	43	36	1	82	580
Grand Total	67	598	13	22	700	13	160	16	1	190	16	697	20	1	734	22	140	138	3	303	1927
Apprch %	9.6	85.4	1.9	3.1		6.8	84.2	8.4	0.5		2.2	95	2.7	0.1		7.3	46.2	45.5	1		
Total %	3.5	31	0.7	1.1	36.3	0.7	8.3	0.8	0.1	9.9	0.8	36.2	1	0.1	38.1	1.1	7.3	7.2	0.2	15.7	
Unshifted	67	596	13	21	697	13	160	16	1	190	16	695	20	1	732	22	139	136	3	300	1919
% Unshifted																					
Tractor Trailers	0	2	0	1	3	0	0	0	0	0	0	2	0	0	2	0	1	2	0	3	8
% Tractor Trailers	0	0.3	0	4.5	0.4	0	0	0	0	0	0	0.3	0	0	0.3	0	0.7	1.4	0	1	0.4

Atco, NJ 08004

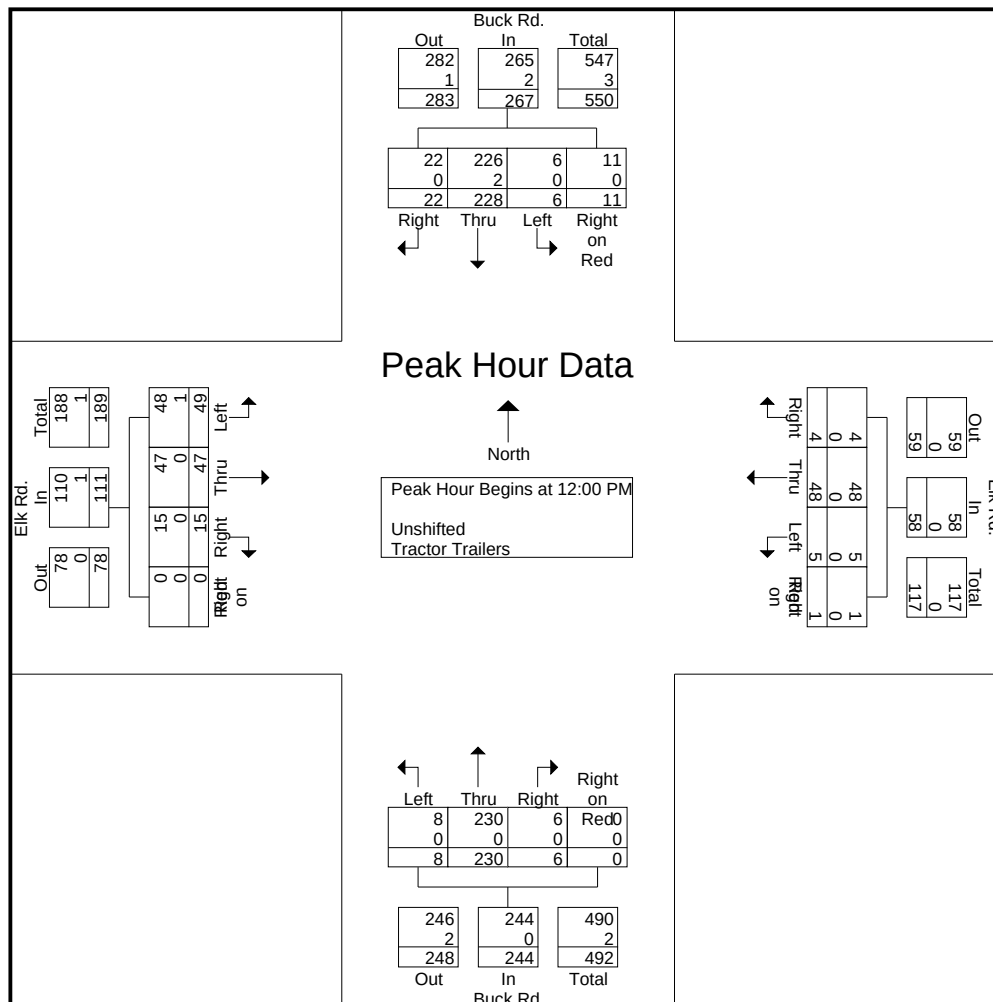
Saturday/Couds/LW/D4-3730

Page No : 2

	Buck Rd. Southbound					Elk Rd. Westbound					Buck Rd. Northbound					Elk Rd. 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 for Entire Intersection Begins at 12:00 PM

12:00 PM	7	58	2	4	71	3	9	0	1	13	1	57	2	0	60	3	12	10	0	25	169
12:15 PM	6	66	1	0	73	0	13	1	0	14	1	66	1	0	68	2	9	12	0	23	178
12:30 PM	4	49	1	3	57	0	12	2	0	14	1	58	3	0	62	8	10	16	0	34	167
12:45 PM	5	55	2	4	66	1	14	2	0	17	3	49	2	0	54	2	16	11	0	29	166
Total Volume	22	228	6	11	267	4	48	5	1	58	6	230	8	0	244	15	47	49	0	111	680
% App. Total	8.2	85.4	2.2	4.1		6.9	82.8	8.6	1.7		2.5	94.3	3.3	0		13.5	42.3	44.1	0		
PHF	.786	.864	.750	.688	.914	.333	.857	.625	.250	.853	.500	.871	.667	.000	.897	.469	.734	.766	.000	.816	.955
Unshifted	22	226	6	11	265	4	48	5	1	58	6	230	8	0	244	15	47	48	0	110	677
% Unshifted		99.1	100	100	99.3	100	100	100	100	100	100	100	100	0	100	100	100	98.0	0	99.1	99.6
Tractor Trailers																					
% Tractor Trailers	0	0.9	0	0	0.7	0	0	0	0	0	0	0	0	0	0	0	0	2.0	0	0.9	0.4



Shropshire Associates LLC

277 Whitehorse Pike, Suite 203

Atco, NJ 08004

N/S Route: Buck Rd.

E/W Route: Aura Rd./Willow Grove Rd.

Elk Township/Gloucester County/NJ

Saturday/Couds/RS/D4-2585

File Name : 22158005

Site Code : 22158005

Start Date : 1/13/2024

Page No : 1

Groups Printed- Unshifted - Tractor Trailers

	Buck Rd. Southbound				Willow Grove Rd. Westbound				Buck Rd. Northbound				Aura Rd. Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
11:00 AM	0	48	6	54	2	3	0	5	0	83	2	85	5	3	0	8	152
11:15 AM	0	42	9	51	13	2	1	16	0	74	5	79	6	2	1	9	155
11:30 AM	0	51	13	64	9	3	0	12	0	75	3	78	3	3	0	6	160
11:45 AM	0	53	7	60	10	2	0	12	0	74	3	77	2	3	0	5	154
Total	0	194	35	229	34	10	1	45	0	306	13	319	16	11	1	28	621
12:00 PM	1	65	9	75	8	1	0	9	0	62	6	68	4	2	1	7	159
12:15 PM	0	70	8	78	9	2	0	11	0	67	6	73	8	1	0	9	171
12:30 PM	0	49	13	62	14	3	0	17	0	78	1	79	5	3	0	8	166
12:45 PM	0	66	8	74	11	2	0	13	0	59	2	61	4	2	0	6	154
Total	1	250	38	289	42	8	0	50	0	266	15	281	21	8	1	30	650
01:00 PM	0	66	10	76	4	1	0	5	0	77	1	78	2	1	2	5	164
01:15 PM	0	56	8	64	5	0	0	5	0	63	5	68	3	0	0	3	140
01:30 PM	0	56	8	64	8	4	0	12	0	50	2	52	1	5	0	6	134
01:45 PM	0	53	12	65	6	3	0	9	0	67	4	71	6	3	1	10	155
Total	0	231	38	269	23	8	0	31	0	257	12	269	12	9	3	24	593
Grand Total	1	675	111	787	99	26	1	126	0	829	40	869	49	28	5	82	1864
Apprch %	0.1	85.8	14.1		78.6	20.6	0.8		0	95.4	4.6		59.8	34.1	6.1		
Total %	0.1	36.2	6	42.2	5.3	1.4	0.1	6.8	0	44.5	2.1	46.6	2.6	1.5	0.3	4.4	
Unshifted	1	659	108	768	99	26	1	126	0	818	37	855	49	28	5	82	1831
% Unshifted	100	97.6	97.3	97.6	100	100	100	100	0	98.7	92.5	98.4	100	100	100	100	98.2
Tractor Trailers	0	16	3	19	0	0	0	0	0	11	3	14	0	0	0	0	33
% Tractor Trailers	0	2.4	2.7	2.4	0	0	0	0	0	1.3	7.5	1.6	0	0	0	0	1.8

Shropshire Associates LLC

277 Whitehorse Pike, Suite 203

Atco, NJ 08004

N/S Route: Buck Rd.

E/W Route: Aura Rd./Willow Grove Rd.

Elk Township/Gloucester County/NJ

Saturday/Couds/RS/D4-2585

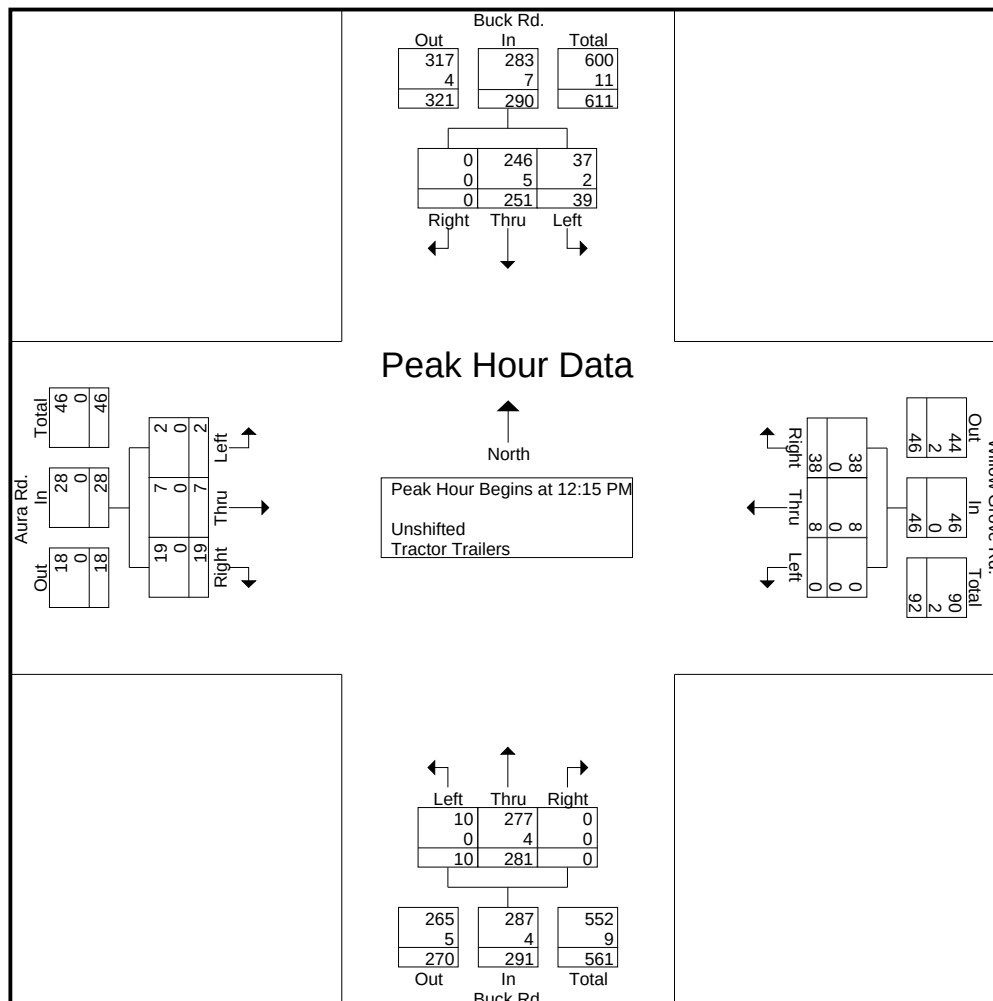
File Name : 22158005

Site Code : 22158005

Start Date : 1/13/2024

Page No : 2

	Buck Rd. Southbound				Willow Grove Rd. Westbound				Buck Rd. Northbound				Aura Rd. Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 12:15 PM																	
12:15 PM	0	70	8	78	9	2	0	11	0	67	6	73	8	1	0	9	171
12:30 PM	0	49	13	62	14	3	0	17	0	78	1	79	5	3	0	8	166
12:45 PM	0	66	8	74	11	2	0	13	0	59	2	61	4	2	0	6	154
01:00 PM	0	66	10	76	4	1	0	5	0	77	1	78	2	1	2	5	164
Total Volume	0	251	39	290	38	8	0	46	0	281	10	291	19	7	2	28	655
% App. Total	0	86.6	13.4		82.6	17.4	0		0	96.6	3.4		67.9	25	7.1		
PHF	.000	.896	.750	.929	.679	.667	.000	.676	.000	.901	.417	.921	.594	.583	.250	.778	.958
Unshifted	0	246	37	283	38	8	0	46	0	277	10	287	19	7	2	28	644
% Unshifted	0	98.0	94.9	97.6	100	100	0	100	0	98.6	100	98.6	100	100	100	100	98.3
Tractor Trailers	0	5	2	7	0	0	0	0	0	4	0	4	0	0	0	0	11
% Tractor Trailers	0	2.0	5.1	2.4	0	0	0	0	0	1.4	0	1.4	0	0	0	0	1.7



Shropshire Associates LLC

277 Whitehorse Pike, Suite 203

Atco, NJ 08004

N/S Route: Willow Grove Rd.

E/W Route: Elk Rd.

Elk Township/Gloucester County/NJ

Saturday/Couds/AS/D4-2870

File Name : 22158006

Site Code : 22158006

Start Date : 1/13/2024

Page No : 1

Groups Printed- Unshifted - Tractor Trailers

	Willow Grove Rd. Southbound				Elk Rd. Westbound				Willow Grove Rd. Northbound				Elk Rd. Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
11:00 AM	0	5	1	6	2	14	0	16	1	3	2	6	2	11	0	13	41
11:15 AM	0	4	8	12	2	14	0	16	0	11	5	16	5	19	1	25	69
11:30 AM	0	6	10	16	4	14	0	18	0	8	5	13	2	10	0	12	59
11:45 AM	0	1	8	9	9	9	0	18	0	4	3	7	4	8	0	12	46
Total	0	16	27	43	17	51	0	68	1	26	15	42	13	48	1	62	215
12:00 PM	0	7	3	10	4	10	0	14	0	4	1	5	4	14	0	18	47
12:15 PM	0	4	1	5	5	12	0	17	0	7	0	7	2	9	0	11	40
12:30 PM	0	5	9	14	7	12	0	19	1	6	1	8	1	10	0	11	52
12:45 PM	0	5	7	12	6	13	0	19	1	8	1	10	6	16	0	22	63
Total	0	21	20	41	22	47	0	69	2	25	3	30	13	49	0	62	202
01:00 PM	0	10	6	16	2	12	0	14	0	1	1	2	1	9	0	10	42
01:15 PM	0	3	4	7	7	14	0	21	0	2	1	3	1	19	0	20	51
01:30 PM	1	8	4	13	2	23	0	25	1	8	0	9	1	11	0	12	59
01:45 PM	0	7	13	20	3	11	0	14	1	5	2	8	2	11	0	13	55
Total	1	28	27	56	14	60	0	74	2	16	4	22	5	50	0	55	207
Grand Total	1	65	74	140	53	158	0	211	5	67	22	94	31	147	1	179	624
Apprch %	0.7	46.4	52.9		25.1	74.9	0		5.3	71.3	23.4		17.3	82.1	0.6		
Total %	0.2	10.4	11.9	22.4	8.5	25.3	0	33.8	0.8	10.7	3.5	15.1	5	23.6	0.2	28.7	
Unshifted	1	63	74	138	53	158	0	211	5	67	22	94	31	146	1	178	621
% Unshifted	100	96.9	100	98.6	100	100	0	100	100	100	100	100	100	99.3	100	99.4	99.5
Tractor Trailers	0	2	0	2	0	0	0	0	0	0	0	0	0	1	0	1	3
% Tractor Trailers	0	3.1	0	1.4	0	0	0	0	0	0	0	0	0	0.7	0	0.6	0.5

Shropshire Associates LLC

277 Whitehorse Pike, Suite 203

Atco, NJ 08004

N/S Route: Willow Grove Rd.

E/W Route: Elk Rd.

Elk Township/Gloucester County/NJ

Saturday/Couds/AS/D4-2870

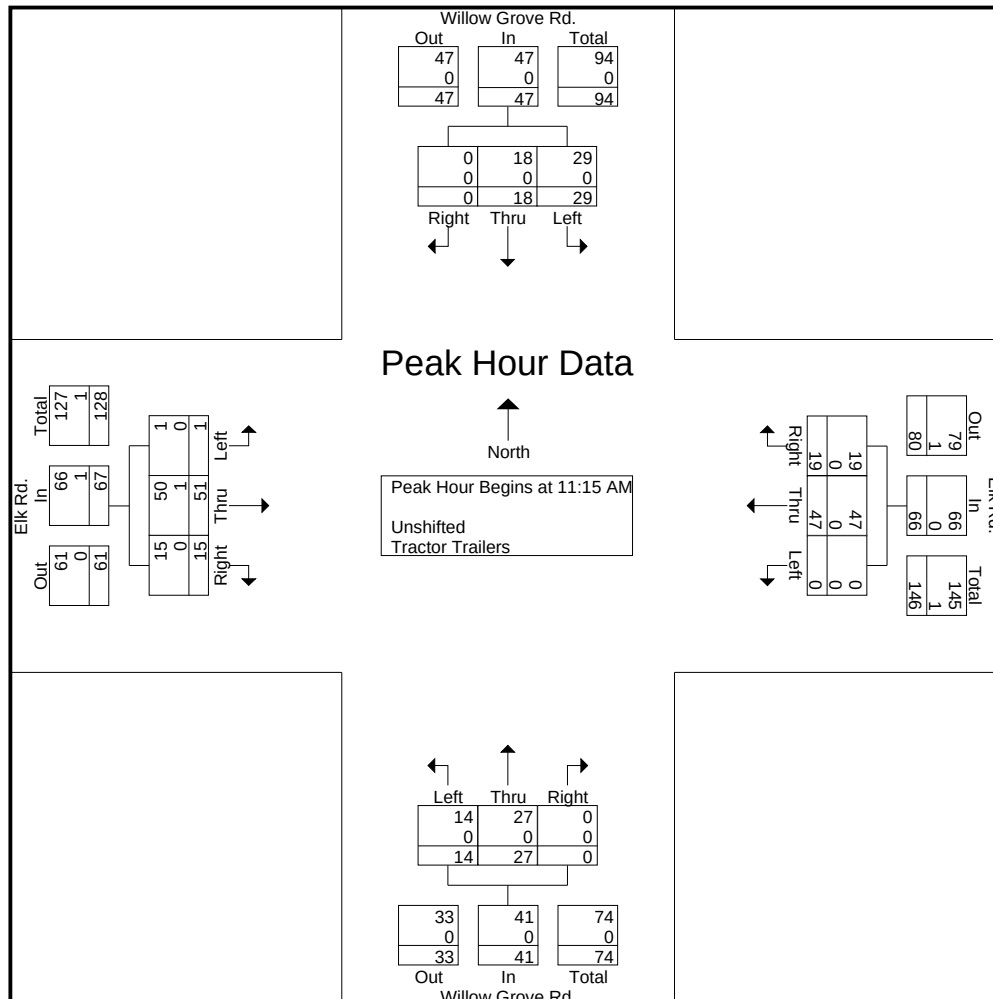
File Name : 22158006

Site Code : 22158006

Start Date : 1/13/2024

Page No : 2

	Willow Grove Rd. Southbound				Elk Rd. Westbound				Willow Grove Rd. Northbound				Elk Rd. Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 11:15 AM																	
11:15 AM	0	4	8	12	2	14	0	16	0	11	5	16	5	19	1	25	69
11:30 AM	0	6	10	16	4	14	0	18	0	8	5	13	2	10	0	12	59
11:45 AM	0	1	8	9	9	9	0	18	0	4	3	7	4	8	0	12	46
12:00 PM	0	7	3	10	4	10	0	14	0	4	1	5	4	14	0	18	47
Total Volume	0	18	29	47	19	47	0	66	0	27	14	41	15	51	1	67	221
% App. Total	0	38.3	61.7		28.8	71.2	0		0	65.9	34.1		22.4	76.1	1.5		
PHF	.000	.643	.725	.734	.528	.839	.000	.917	.000	.614	.700	.641	.750	.671	.250	.670	.801
Unshifted	0	18	29	47	19	47	0	66	0	27	14	41	15	50	1	66	220
% Unshifted	0	100	100	100	100	100	0	100	0	100	100	100	100	98.0	100	98.5	99.5
Tractor Trailers	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
% Tractor Trailers	0	0	0	0	0	0	0	0	0	0	0	0	0	2.0	0	1.5	0.5



Commercial Center - Elk Twp.
 Buck Rd.
 Elk Township/Gloucester County/NJ
 Site Code: 22158-1
 Station ID: 22158
 Location 1: Buck Rd.
 Location 2:
 Latitude: 0.000000
 Longitude: 0.000000
 Direction: South, Lane 1

Shropshire Associates LLC
 277 Whitehorse Pike, Suite 203
 Atco, NJ 08004

File Name: 22158-1 Buck Rd.
 Date Printed: 1/18/2024
 Start Date: 1/11/2024
 End Date: 1/18/2024
 GPS Accuracy: 0 ft
 Location Verified: No

1/11/2024	> 72 -	> 120 -	> 180 -	> 240 -	> 300 -	> 360 -	> 480 -	> 600 -	> 720 -	> 840 -			
Time	0 - 72 in.	120 in.	180 in.	240 in.	300 in.	360 in.	480 in.	600 in.	720 in.	840 in.	960 in.	> 960 in.	Total
12:00 AM	*	*	*	*	*	*	*	*	*	*	*	*	0
1:00	*	*	*	*	*	*	*	*	*	*	*	*	0
2:00	*	*	*	*	*	*	*	*	*	*	*	*	0
3:00	*	*	*	*	*	*	*	*	*	*	*	*	0
4:00	*	*	*	*	*	*	*	*	*	*	*	*	0
5:00	*	*	*	*	*	*	*	*	*	*	*	*	0
6:00	*	*	*	*	*	*	*	*	*	*	*	*	0
7:00	*	*	*	*	*	*	*	*	*	*	*	*	0
8:00	*	*	*	*	*	*	*	*	*	*	*	*	0
9:00	2	10	72	19	5	3	2	0	0	0	0	0	113
10:00	3	8	115	18	1	1	2	0	1	0	0	0	149
11:00	3	11	127	25	5	1	1	3	1	0	0	0	177
12:00 PM	5	18	129	20	1	1	7	0	2	0	0	0	183
1:00	4	9	146	27	4	1	0	0	3	0	0	0	194
2:00	10	17	173	35	5	4	4	2	1	0	0	0	251
3:00	9	20	217	37	9	4	2	2	0	0	0	0	300
4:00	8	32	249	55	6	0	5	1	0	0	0	0	356
5:00	2	27	213	47	5	1	0	0	3	0	0	0	298
6:00	4	12	173	27	6	0	1	1	0	0	0	0	224
7:00	3	13	104	13	3	0	0	0	1	0	0	0	137
8:00	4	5	104	13	5	0	0	1	0	0	0	0	132
9:00	2	7	88	11	0	0	0	0	0	0	0	0	108
10:00	1	2	45	5	0	1	0	1	0	0	0	0	55
11:00	0	4	31	2	1	0	0	0	0	0	0	0	38
Total	60	195	1986	354	56	17	24	11	12	0	0	0	2715

Percentile	15th
Speed	32
	38
	44
	47
Mean Speed (Average)	386.3
10 MPH Pace Speed	34-43
Number in Pace	1847
Percent in Pace	68.0%
Number > 45 MPH	315
Percent > 45 MPH	11.6%

Commercial Center - Elk Twp.
 Buck Rd.
 Elk Township/Gloucester County/NJ
 Site Code: 22158-1
 Station ID: 22158
 Location 1: Buck Rd.
 Location 2:
 Latitude: 0.000000
 Longitude: 0.000000
 Direction: South, Lane 1

Shropshire Associates LLC
 277 Whitehorse Pike, Suite 203
 Atco, NJ 08004

File Name: 22158-1 Buck Rd.
 Date Printed: 1/18/2024
 Start Date: 1/11/2024
 End Date: 1/18/2024
 GPS Accuracy: 0 ft
 Location Verified: No

1/12/2024	> 72 -	> 120 -	> 180 -	> 240 -	> 300 -	> 360 -	> 480 -	> 600 -	> 720 -	> 840 -			
Time	0 - 72 in.	120 in.	180 in.	240 in.	300 in.	360 in.	480 in.	600 in.	720 in.	840 in.	960 in.	> 960 in.	Total
12:00 AM	1	1	17	6	2	0	0	0	1	1	0	0	29
1:00	0	0	10	0	0	0	0	0	0	0	0	0	10
2:00	0	1	7	3	0	0	0	0	1	0	0	0	12
3:00	0	0	8	0	0	0	1	1	0	0	0	0	10
4:00	0	3	16	1	0	1	0	0	0	0	0	0	21
5:00	2	6	36	7	0	0	1	0	0	0	0	0	52
6:00	3	7	85	10	1	1	1	0	2	1	0	0	111
7:00	3	9	126	15	3	7	0	0	0	0	0	0	163
8:00	3	13	124	15	5	1	1	0	0	1	0	0	163
9:00	4	14	101	30	5	1	3	0	0	0	0	0	158
10:00	1	5	115	24	9	0	0	0	0	0	0	0	154
11:00	4	11	114	30	2	0	3	2	0	1	1	0	168
12:00 PM	4	12	164	22	1	5	1	1	2	0	0	0	212
1:00	3	15	166	33	10	1	2	0	1	0	0	0	231
2:00	5	13	192	36	4	0	3	0	1	0	0	0	254
3:00	5	27	230	37	8	4	1	1	2	0	0	0	315
4:00	11	41	222	26	3	1	2	1	1	0	0	0	308
5:00	3	15	216	38	7	0	2	0	1	0	0	0	282
6:00	5	17	183	29	6	2	0	0	0	0	0	0	242
7:00	1	11	115	18	2	0	0	0	1	0	0	0	148
8:00	0	4	93	13	2	1	0	1	0	0	0	0	114
9:00	2	9	75	8	2	0	0	0	1	0	0	0	97
10:00	1	7	45	5	0	0	1	0	0	0	0	0	59
11:00	1	2	40	3	1	0	0	0	0	0	0	0	47
Total	62	243	2500	409	73	25	22	7	14	4	1	0	3360

Percentile 15th 50th 85th 95th
 Speed 32 38 44 47
 Mean Speed (Average) 385.2
 10 MPH Pace Speed 34-43
 Number in Pace 2296
 Percent in Pace 68.3%
 Number > 45 MPH 403
 Percent > 45 MPH 12.0%

Commercial Center - Elk Twp.
 Buck Rd.
 Elk Township/Gloucester County/NJ
 Site Code: 22158-1
 Station ID: 22158
 Location 1: Buck Rd.
 Location 2:
 Latitude: 0.000000
 Longitude: 0.000000
 Direction: South, Lane 1

Shropshire Associates LLC
 277 Whitehorse Pike, Suite 203
 Atco, NJ 08004

File Name: 22158-1 Buck Rd.
 Date Printed: 1/18/2024
 Start Date: 1/11/2024
 End Date: 1/18/2024
 GPS Accuracy: 0 ft
 Location Verified: No

1/13/2024	> 72 -	> 120 -	> 180 -	> 240 -	> 300 -	> 360 -	> 480 -	> 600 -	> 720 -	> 840 -			
Time	0 - 72 in.	120 in.	180 in.	240 in.	300 in.	360 in.	480 in.	600 in.	720 in.	840 in.	960 in.	> 960 in.	Total
12:00 AM	0	3	25	1	0	0	0	0	0	0	0	0	29
1:00	0	0	9	1	0	0	0	0	0	0	0	0	10
2:00	0	1	14	2	1	0	0	0	0	0	0	0	18
3:00	0	2	10	0	0	0	0	0	0	0	0	0	12
4:00	0	0	12	1	1	0	1	0	0	0	0	0	15
5:00	0	2	9	1	1	0	0	0	0	0	0	0	13
6:00	2	3	27	2	0	0	0	0	0	0	0	0	34
7:00	0	3	43	7	1	2	2	1	0	0	0	0	59
8:00	1	10	59	8	6	0	0	0	0	0	0	0	84
9:00	0	3	93	25	2	3	0	1	0	0	0	0	127
10:00	0	11	105	23	7	0	2	0	0	0	0	0	148
11:00	1	11	121	21	10	2	1	0	0	0	0	0	167
12:00 PM	4	27	152	39	5	1	1	0	1	1	0	0	231
1:00	5	23	131	28	6	2	4	1	0	0	0	0	200
2:00	7	11	155	26	5	0	3	0	0	0	0	0	207
3:00	4	13	175	29	10	0	0	0	0	0	0	0	231
4:00	5	14	181	19	4	1	1	1	0	0	0	0	226
5:00	2	12	164	25	6	1	1	0	0	0	0	0	211
6:00	5	13	133	20	2	0	0	0	0	0	0	0	173
7:00	1	15	101	10	3	1	0	0	0	0	0	0	131
8:00	1	6	76	12	2	1	0	0	0	0	0	0	98
9:00	0	9	72	4	0	0	0	0	0	0	0	0	85
10:00	2	6	56	4	0	0	0	0	0	0	0	0	68
11:00	0	2	41	1	2	0	0	0	0	0	0	0	46
Total	40	200	1964	309	74	14	16	4	1	1	0	0	2623

Percentile	15th
Speed	32
	50th
	37
	85th
	44
	95th
	47
Mean Speed (Average)	381.8
10 MPH Pace Speed	34-43
Number in Pace	1742
Percent in Pace	66.4%
Number > 45 MPH	318
Percent > 45 MPH	12.1%

Commercial Center - Elk Twp.
 Buck Rd.
 Elk Township/Gloucester County/NJ
 Site Code: 22158-1
 Station ID: 22158
 Location 1: Buck Rd.
 Location 2:
 Latitude: 0.000000
 Longitude: 0.000000
 Direction: South, Lane 1

Shropshire Associates LLC
 277 Whitehorse Pike, Suite 203
 Atco, NJ 08004

File Name: 22158-1 Buck Rd.
 Date Printed: 1/18/2024
 Start Date: 1/11/2024
 End Date: 1/18/2024
 GPS Accuracy: 0 ft
 Location Verified: No

1/14/2024	> 72 -	> 120 -	> 180 -	> 240 -	> 300 -	> 360 -	> 480 -	> 600 -	> 720 -	> 840 -			
Time	0 - 72 in.	72 - 120 in.	120 - 180 in.	180 - 240 in.	240 - 300 in.	300 - 360 in.	360 - 480 in.	480 - 600 in.	600 - 720 in.	720 - 840 in.	840 - 960 in.	> 960 in.	Total
12:00 AM	0	1	19	4	0	0	0	0	0	0	0	0	24
1:00	0	4	11	5	1	0	0	0	0	0	0	0	21
2:00	0	1	12	2	0	0	0	0	0	0	0	0	15
3:00	0	2	5	1	0	0	0	0	0	0	0	0	8
4:00	0	0	10	1	0	0	1	0	0	0	0	0	12
5:00	0	1	11	1	0	0	0	0	0	0	0	0	13
6:00	0	1	19	2	1	0	0	0	1	0	0	0	24
7:00	1	3	35	5	1	0	0	0	0	0	0	0	45
8:00	0	3	41	4	0	0	0	0	0	0	0	0	48
9:00	3	6	57	11	2	0	2	1	0	0	0	0	82
10:00	1	12	74	12	2	0	0	0	0	0	0	0	101
11:00	3	11	98	21	3	0	0	0	0	0	0	0	136
12:00 PM	4	18	165	21	3	0	0	1	0	0	0	0	212
1:00	4	8	143	27	8	0	0	0	0	0	0	0	190
2:00	3	15	164	17	5	0	0	2	0	0	0	0	206
3:00	4	11	117	22	1	0	0	0	0	0	0	0	155
4:00	1	20	128	15	4	0	1	0	0	0	0	0	169
5:00	4	12	122	15	4	0	0	0	0	0	0	0	157
6:00	1	9	98	14	0	1	0	0	1	0	0	0	124
7:00	3	15	96	8	2	0	0	0	0	0	0	0	124
8:00	0	2	69	9	1	1	0	0	0	0	0	0	82
9:00	0	6	49	4	1	0	0	0	0	0	0	0	60
10:00	0	2	31	4	1	0	0	0	0	0	0	0	38
11:00	0	1	26	2	1	0	0	0	0	0	0	0	30
Total	32	164	1600	227	41	2	4	4	2	0	0	0	2076

Percentile 15th 50th 85th 95th
 Speed 33 38 44 47
 Mean Speed (Average) 387.6
 10 MPH Pace Speed 34-43
 Number in Pace 1432
 Percent in Pace 69.0%
 Number > 45 MPH 239
 Percent > 45 MPH 11.5%

Commercial Center - Elk Twp.

Buck Rd.

Elk Township/Gloucester County/NJ

Site Code: 22158-1

Station ID: 22158

Location 1: Buck Rd.

Location 2:

Latitude: 0.000000

Longitude: 0.000000

Direction: South, Lane 1

Shropshire Associates LLC

277 Whitehorse Pike, Suite 203

Atco, NJ 08004

File Name: 22158-1 Buck Rd.

Date Printed: 1/18/2024

Start Date: 1/11/2024

End Date: 1/18/2024

GPS Accuracy: 0 ft

Location Verified: No

1/15/2024	> 72 -	> 120 -	> 180 -	> 240 -	> 300 -	> 360 -	> 480 -	> 600 -	> 720 -	> 840 -			
Time	0 - 72 in.	120 in.	180 in.	240 in.	300 in.	360 in.	480 in.	600 in.	720 in.	840 in.	960 in.	> 960 in.	Total
12:00 AM	0	0	7	1	0	0	0	1	0	0	0	0	9
1:00	0	0	9	1	0	0	0	0	0	0	0	0	10
2:00	0	0	5	1	0	0	0	0	1	0	0	0	7
3:00	0	0	5	2	0	0	0	0	0	0	0	0	7
4:00	1	0	8	0	2	0	0	1	0	0	0	0	12
5:00	2	2	24	4	1	0	2	0	2	1	0	0	38
6:00	2	1	43	8	1	0	1	0	0	0	0	0	56
7:00	0	4	86	14	2	2	0	0	0	0	0	0	108
8:00	1	9	89	16	6	3	1	1	1	0	0	0	127
9:00	3	11	72	19	5	1	1	3	1	1	0	0	117
10:00	2	12	106	19	4	4	2	0	0	0	0	0	149
11:00	3	12	128	25	3	2	2	0	1	0	1	0	177
12:00 PM	3	11	153	26	4	3	1	2	2	0	0	0	205
1:00	6	11	150	28	5	3	2	4	1	0	0	0	210
2:00	5	17	171	33	10	3	2	0	1	0	0	0	242
3:00	4	18	190	42	1	1	1	1	0	0	0	0	258
4:00	10	22	230	41	5	4	1	1	1	0	0	0	315
5:00	1	14	190	31	4	0	3	0	0	0	0	0	243
6:00	5	12	121	15	3	1	0	1	0	0	0	0	158
7:00	1	4	109	12	1	0	0	0	0	0	0	0	127
8:00	0	6	86	9	1	0	0	0	0	0	0	0	102
9:00	1	1	41	9	1	0	1	0	0	0	0	0	54
10:00	3	2	20	4	0	0	0	0	0	0	0	0	29
11:00	1	2	30	8	1	0	1	1	1	0	0	0	45
Total	54	171	2073	368	60	27	21	16	12	2	1	0	2805

Percentile

Speed

Mean Speed (Average)

10 MPH Pace Speed

Number in Pace

Percent in Pace

Number > 45 MPH

Percent > 45 MPH

15th

30

371.3

34-43

1684

60.0%

294

10.5%

50th

37

85th

43

95th

47

Commercial Center - Elk Twp.
 Buck Rd.
 Elk Township/Gloucester County/NJ
 Site Code: 22158-1
 Station ID: 22158
 Location 1: Buck Rd.
 Location 2:
 Latitude: 0.000000
 Longitude: 0.000000
 Direction: South, Lane 1

Shropshire Associates LLC
 277 Whitehorse Pike, Suite 203
 Atco, NJ 08004

File Name: 22158-1 Buck Rd.
 Date Printed: 1/18/2024
 Start Date: 1/11/2024
 End Date: 1/18/2024
 GPS Accuracy: 0 ft
 Location Verified: No

1/16/2024	> 72 -	> 120 -	> 180 -	> 240 -	> 300 -	> 360 -	> 480 -	> 600 -	> 720 -	> 840 -			
Time	0 - 72 in.	120 in.	180 in.	240 in.	300 in.	360 in.	480 in.	600 in.	720 in.	840 in.	960 in.	> 960 in.	Total
12:00 AM	0	2	18	3	0	0	0	1	1	0	0	0	25
1:00	0	1	5	2	0	1	0	0	0	0	1	0	10
2:00	0	0	2	3	0	0	0	0	0	0	0	0	5
3:00	0	0	5	6	1	0	1	1	0	0	0	0	14
4:00	0	1	18	4	1	0	0	0	0	0	0	0	24
5:00	1	0	21	4	0	0	1	0	0	0	0	0	27
6:00	1	4	53	9	3	2	1	1	1	0	0	0	75
7:00	2	6	80	18	5	2	0	0	0	0	0	0	113
8:00	1	3	100	11	1	1	0	0	1	0	0	0	118
9:00	0	8	90	28	0	2	0	3	1	0	0	0	132
10:00	2	3	86	14	7	0	1	2	2	0	1	0	118
11:00	0	6	88	20	1	3	1	3	1	0	0	0	123
12:00 PM	1	4	105	20	3	3	1	0	5	0	0	0	142
1:00	4	9	110	28	3	1	0	0	0	0	0	0	155
2:00	1	6	133	13	2	2	1	1	0	0	0	0	159
3:00	5	12	175	37	9	3	2	0	0	0	0	0	243
4:00	4	11	192	45	7	4	1	1	0	0	0	0	265
5:00	0	10	150	17	6	0	1	0	0	0	0	0	184
6:00	0	7	124	15	1	0	0	3	0	0	0	0	150
7:00	1	7	74	9	2	0	0	0	0	0	0	0	93
8:00	0	2	47	6	1	0	0	0	0	0	0	0	56
9:00	0	1	33	5	1	1	0	0	1	0	0	0	42
10:00	0	4	26	3	0	0	0	0	0	0	0	0	33
11:00	0	0	24	3	2	1	0	0	0	0	0	0	30
Total	23	107	1759	323	56	26	11	16	13	0	2	0	2336

Percentile	15th
Speed	29
	34
Mean Speed (Average)	343.4
10 MPH Pace Speed	30-39
Number in Pace	1689
Percent in Pace	72.3%
Number > 45 MPH	51
Percent > 45 MPH	2.2%

Commercial Center - Elk Twp.
 Buck Rd.
 Elk Township/Gloucester County/NJ
 Site Code: 22158-1
 Station ID: 22158
 Location 1: Buck Rd.
 Location 2:
 Latitude: 0.000000
 Longitude: 0.000000
 Direction: South, Lane 1

Shropshire Associates LLC
 277 Whitehorse Pike, Suite 203
 Atco, NJ 08004

File Name: 22158-1 Buck Rd.
 Date Printed: 1/18/2024
 Start Date: 1/11/2024
 End Date: 1/18/2024
 GPS Accuracy: 0 ft
 Location Verified: No

1/17/2024	> 72 -	> 120 -	> 180 -	> 240 -	> 300 -	> 360 -	> 480 -	> 600 -	> 720 -	> 840 -			
Time	0 - 72 in.	120 in.	180 in.	240 in.	300 in.	360 in.	480 in.	600 in.	720 in.	840 in.	960 in.	> 960 in.	Total
12:00 AM	0	2	18	2	1	0	0	0	0	0	0	0	23
1:00	0	1	6	1	0	0	0	0	0	0	0	0	8
2:00	0	1	2	2	0	0	0	0	0	0	0	0	5
3:00	0	0	8	4	0	0	1	1	0	0	0	0	14
4:00	0	5	12	2	0	0	0	0	0	0	0	0	19
5:00	0	1	31	6	1	0	1	0	1	0	0	0	41
6:00	1	7	47	9	0	1	0	1	1	0	0	0	67
7:00	0	9	88	15	1	1	1	0	0	0	0	0	115
8:00	3	17	144	20	4	2	2	0	0	0	0	0	192
9:00	0	13	123	22	6	0	1	1	0	0	0	0	166
10:00	3	12	116	17	4	0	1	1	2	0	0	0	156
11:00	1	6	122	33	5	4	2	2	1	0	0	0	176
12:00 PM	2	9	132	29	6	1	1	1	2	0	0	0	183
1:00	1	16	140	28	4	0	0	1	1	0	0	0	191
2:00	2	15	156	32	7	2	0	0	1	0	0	0	215
3:00	6	14	233	54	6	3	1	0	1	1	0	0	319
4:00	7	17	233	58	4	2	2	2	2	1	0	0	328
5:00	8	16	215	29	7	1	0	1	2	0	0	0	279
6:00	1	18	164	21	3	0	2	0	0	0	0	0	209
7:00	1	9	103	20	1	1	0	0	0	0	0	0	135
8:00	0	9	83	6	4	0	0	0	1	0	0	0	103
9:00	0	10	67	11	0	0	0	0	0	0	0	0	88
10:00	1	0	33	3	2	0	0	0	0	0	0	0	39
11:00	0	1	23	1	0	0	0	0	0	0	0	0	25
Total	37	208	2299	425	66	18	15	11	15	2	0	0	3096

Percentile	15th
Speed	30
	36
Mean Speed (Average)	367.7
10 MPH Pace Speed	34-43
Number in Pace	2100
Percent in Pace	67.8%
Number > 45 MPH	181
Percent > 45 MPH	5.8%

Commercial Center - Elk Twp.
 Buck Rd.
 Elk Township/Gloucester County/NJ
 Site Code: 22158-1
 Station ID: 22158
 Location 1: Buck Rd.
 Location 2:
 Latitude: 0.000000
 Longitude: 0.000000
 Direction: North, Lane 2

Shropshire Associates LLC
 277 Whitehorse Pike, Suite 203
 Atco, NJ 08004

File Name: 22158-1 Buck Rd.
 Date Printed: 1/18/2024
 Start Date: 1/11/2024
 End Date: 1/18/2024
 GPS Accuracy: 0 ft
 Location Verified: No

1/11/2024	> 72 -	> 120 -	> 180 -	> 240 -	> 300 -	> 360 -	> 480 -	> 600 -	> 720 -	> 840 -			
Time	0 - 72 in.	72 - 120 in.	120 - 180 in.	180 - 240 in.	240 - 300 in.	300 - 360 in.	360 - 480 in.	480 - 600 in.	600 - 720 in.	720 - 840 in.	840 - 960 in.	> 960 in.	Total
12:00 AM	*	*	*	*	*	*	*	*	*	*	*	*	0
1:00	*	*	*	*	*	*	*	*	*	*	*	*	0
2:00	*	*	*	*	*	*	*	*	*	*	*	*	0
3:00	*	*	*	*	*	*	*	*	*	*	*	*	0
4:00	*	*	*	*	*	*	*	*	*	*	*	*	0
5:00	*	*	*	*	*	*	*	*	*	*	*	*	0
6:00	*	*	*	*	*	*	*	*	*	*	*	*	0
7:00	*	*	*	*	*	*	*	*	*	*	*	*	0
8:00	*	*	*	*	*	*	*	*	*	*	*	*	0
9:00	0	1	65	50	10	2	2	1	1	0	0	0	132
10:00	0	0	73	87	8	2	1	0	1	1	0	0	173
11:00	0	0	75	72	4	1	1	0	2	0	0	0	155
12:00 PM	0	0	50	68	2	1	1	0	0	1	0	0	123
1:00	0	1	77	84	8	1	5	1	0	0	0	0	177
2:00	0	0	66	82	13	4	1	0	0	1	0	0	167
3:00	0	2	92	85	7	2	2	0	0	0	0	0	190
4:00	0	1	108	134	10	3	3	1	0	0	0	0	260
5:00	0	0	96	111	13	0	2	1	0	0	0	0	223
6:00	0	0	65	68	3	1	1	0	0	1	0	0	139
7:00	0	0	47	42	1	0	0	1	0	0	0	0	91
8:00	0	0	22	38	5	0	0	2	0	2	0	0	69
9:00	0	0	16	28	3	0	0	0	1	1	0	0	49
10:00	0	0	21	16	0	0	0	0	0	0	0	0	37
11:00	0	0	7	11	2	0	0	0	0	0	0	0	20
Total	0	5	880	976	89	17	19	7	5	7	0	0	2005

Percentile 15th 50th 85th 95th
 Speed 35 41 46 50
 Mean Speed (Average) 413.1
 10 MPH Pace Speed 36-45
 Number in Pace 1340
 Percent in Pace 66.8%
 Number > 45 MPH 459
 Percent > 45 MPH 22.9%

Commercial Center - Elk Twp.
 Buck Rd.
 Elk Township/Gloucester County/NJ
 Site Code: 22158-1
 Station ID: 22158
 Location 1: Buck Rd.
 Location 2:
 Latitude: 0.000000
 Longitude: 0.000000
 Direction: North, Lane 2

Shropshire Associates LLC
 277 Whitehorse Pike, Suite 203
 Atco, NJ 08004

File Name: 22158-1 Buck Rd.
 Date Printed: 1/18/2024
 Start Date: 1/11/2024
 End Date: 1/18/2024
 GPS Accuracy: 0 ft
 Location Verified: No

1/12/2024	> 72 -	> 120 -	> 180 -	> 240 -	> 300 -	> 360 -	> 480 -	> 600 -	> 720 -	> 840 -			
Time	0 - 72 in.	72 - 120 in.	120 - 180 in.	180 - 240 in.	240 - 300 in.	300 - 360 in.	360 - 480 in.	480 - 600 in.	600 - 720 in.	720 - 840 in.	840 - 960 in.	> 960 in.	Total
12:00 AM	0	0	4	10	0	0	0	1	0	0	0	0	15
1:00	0	0	2	4	0	0	0	0	0	0	0	0	6
2:00	0	0	3	4	0	0	0	0	0	0	0	0	7
3:00	0	0	9	3	1	0	1	0	0	0	0	0	14
4:00	0	0	19	21	2	1	0	0	0	0	0	0	43
5:00	0	1	47	71	10	1	3	1	1	0	0	0	135
6:00	1	0	86	142	9	1	1	0	0	0	0	0	240
7:00	0	1	98	148	16	3	4	0	0	0	0	0	270
8:00	0	0	112	129	14	3	7	1	2	0	0	0	268
9:00	0	1	87	125	12	1	0	2	1	0	0	0	229
10:00	0	1	87	102	9	2	5	0	0	1	0	0	207
11:00	1	1	88	105	8	2	0	0	1	2	0	0	208
12:00 PM	2	2	79	89	11	4	3	0	1	4	0	0	195
1:00	2	3	78	105	7	3	2	0	1	1	0	0	202
2:00	0	1	89	112	11	1	4	1	0	0	0	0	219
3:00	0	0	88	117	3	2	2	1	1	1	0	0	215
4:00	1	2	106	148	16	2	2	0	0	0	0	0	277
5:00	0	0	75	103	10	1	1	0	1	0	0	0	191
6:00	2	1	65	89	8	0	2	0	0	0	0	0	167
7:00	0	2	45	53	4	0	0	0	0	0	0	0	104
8:00	0	0	26	45	2	0	0	1	0	1	0	0	75
9:00	0	0	25	35	0	2	1	0	0	0	0	0	63
10:00	0	0	22	34	1	0	0	0	0	0	0	0	57
11:00	0	0	12	10	0	0	0	0	1	0	0	0	23
Total	9	16	1352	1804	154	29	38	8	10	10	0	0	3430

Percentile 15th 50th 85th 95th
 Speed 35 40 46 50
 Mean Speed (Average) 411.7
 10 MPH Pace Speed 36-45
 Number in Pace 2313
 Percent in Pace 67.4%
 Number > 45 MPH 771
 Percent > 45 MPH 22.5%

Commercial Center - Elk Twp.

Buck Rd.

Elk Township/Gloucester County/NJ

Site Code: 22158-1

Station ID: 22158

Location 1: Buck Rd.

Location 2:

Latitude: 0.000000

Longitude: 0.000000

Direction: North, Lane 2

Shropshire Associates LLC

277 Whitehorse Pike, Suite 203

Atco, NJ 08004

File Name: 22158-1 Buck Rd.

Date Printed: 1/18/2024

Start Date: 1/11/2024

End Date: 1/18/2024

GPS Accuracy: 0 ft

Location Verified: No

1/13/2024	> 72 -	> 120 -	> 180 -	> 240 -	> 300 -	> 360 -	> 480 -	> 600 -	> 720 -	> 840 -			
Time	0 - 72 in.	120 in.	180 in.	240 in.	300 in.	360 in.	480 in.	600 in.	720 in.	840 in.	960 in.	> 960 in.	Total
12:00 AM	0	0	10	5	0	0	0	0	0	0	0	0	15
1:00	0	0	3	1	0	0	0	0	0	0	0	0	4
2:00	0	0	3	4	0	1	0	0	0	0	0	0	8
3:00	0	0	6	9	1	0	0	0	0	0	0	0	16
4:00	0	0	10	7	0	0	0	0	0	0	0	0	17
5:00	0	1	23	19	0	0	0	0	0	0	0	0	43
6:00	1	0	44	39	1	0	0	0	0	0	0	0	85
7:00	0	0	49	61	5	0	4	0	0	0	0	0	119
8:00	0	0	55	75	1	0	0	0	0	0	0	0	131
9:00	0	1	81	86	9	1	1	1	1	0	0	0	181
10:00	0	0	100	92	6	3	2	0	1	0	0	0	204
11:00	2	0	104	140	5	3	4	0	1	0	0	0	259
12:00 PM	2	2	91	125	7	0	1	0	0	0	0	0	228
1:00	1	1	75	123	8	2	0	0	0	1	0	0	211
2:00	0	1	92	114	14	0	3	1	0	1	0	0	226
3:00	0	0	70	85	6	1	0	0	0	1	0	0	163
4:00	1	2	73	115	5	2	1	0	0	0	0	0	199
5:00	0	0	62	91	6	1	1	0	0	0	0	0	161
6:00	0	0	59	75	2	1	1	0	0	0	0	0	138
7:00	0	0	38	48	7	1	0	0	0	0	0	0	94
8:00	0	0	30	43	3	0	0	0	0	0	0	0	76
9:00	0	0	25	42	1	0	0	0	0	0	0	0	68
10:00	0	0	27	27	2	0	1	0	0	0	0	0	57
11:00	1	1	19	20	1	0	1	0	0	0	0	0	43
Total	8	9	1149	1446	90	16	20	2	3	3	0	0	2746

Percentile

Speed

Mean Speed (Average)

10 MPH Pace Speed

Number in Pace

Percent in Pace

Number > 45 MPH

Percent > 45 MPH

15th

35

415.0

39-48

1844

67.2%

672

24.5%

50th

41

46

50

85th

46

95th

50

Commercial Center - Elk Twp.
 Buck Rd.
 Elk Township/Gloucester County/NJ
 Site Code: 22158-1
 Station ID: 22158
 Location 1: Buck Rd.
 Location 2:
 Latitude: 0.000000
 Longitude: 0.000000
 Direction: North, Lane 2

Shropshire Associates LLC
 277 Whitehorse Pike, Suite 203
 Atco, NJ 08004

File Name: 22158-1 Buck Rd.
 Date Printed: 1/18/2024
 Start Date: 1/11/2024
 End Date: 1/18/2024
 GPS Accuracy: 0 ft
 Location Verified: No

1/14/2024	> 72 -	> 120 -	> 180 -	> 240 -	> 300 -	> 360 -	> 480 -	> 600 -	> 720 -	> 840 -			
Time	0 - 72 in.	120 in.	180 in.	240 in.	300 in.	360 in.	480 in.	600 in.	720 in.	840 in.	960 in.	> 960 in.	Total
12:00 AM	0	0	12	4	3	0	0	0	0	0	0	0	19
1:00	0	0	7	14	0	0	0	0	0	0	0	0	21
2:00	1	1	8	5	0	1	0	0	0	0	0	0	16
3:00	0	0	6	8	1	0	0	0	0	0	0	0	15
4:00	0	0	4	3	1	0	0	0	0	0	0	0	8
5:00	0	0	18	13	1	0	0	0	0	0	0	0	32
6:00	0	0	19	26	0	0	0	0	0	0	0	0	45
7:00	0	0	29	39	5	0	0	0	0	0	0	0	73
8:00	0	0	59	70	5	0	1	0	0	0	0	0	135
9:00	1	0	73	58	6	0	0	0	0	0	0	0	138
10:00	1	2	79	86	5	1	2	0	0	2	0	0	178
11:00	1	1	122	92	2	0	0	0	0	0	1	0	219
12:00 PM	0	0	83	81	1	0	1	0	0	0	0	0	166
1:00	0	0	74	94	7	1	0	0	0	0	0	0	176
2:00	1	2	60	90	5	0	0	2	0	0	0	0	160
3:00	1	1	67	86	8	0	2	1	1	0	0	0	167
4:00	0	0	58	67	4	1	1	0	0	0	0	0	131
5:00	0	0	54	68	5	0	0	0	0	0	0	0	127
6:00	0	0	51	49	6	0	1	0	1	0	0	0	108
7:00	0	2	32	44	1	0	0	0	0	0	0	0	79
8:00	0	0	19	33	2	0	0	0	0	0	0	0	54
9:00	0	0	16	22	1	0	1	0	0	0	0	0	40
10:00	0	0	17	24	0	0	0	0	0	0	0	0	41
11:00	1	0	14	9	5	0	0	0	0	0	0	0	29
Total	7	9	981	1085	74	4	9	3	2	2	1	0	2177

Percentile	15th
Speed	37
	42
	47
	51
Mean Speed (Average)	428.0
10 MPH Pace Speed	39-48
Number in Pace	1549
Percent in Pace	71.2%
Number > 45 MPH	691
Percent > 45 MPH	31.7%

Commercial Center - Elk Twp.

Buck Rd.

Elk Township/Gloucester County/NJ

Site Code: 22158-1

Station ID: 22158

Location 1: Buck Rd.

Location 2:

Latitude: 0.000000

Longitude: 0.000000

Direction: North, Lane 2

Shropshire Associates LLC

277 Whitehorse Pike, Suite 203

Atco, NJ 08004

File Name: 22158-1 Buck Rd.

Date Printed: 1/18/2024

Start Date: 1/11/2024

End Date: 1/18/2024

GPS Accuracy: 0 ft

Location Verified: No

1/15/2024	> 72 -	> 120 -	> 180 -	> 240 -	> 300 -	> 360 -	> 480 -	> 600 -	> 720 -	> 840 -			
Time	0 - 72 in.	120 in.	180 in.	240 in.	300 in.	360 in.	480 in.	600 in.	720 in.	840 in.	960 in.	> 960 in.	Total
12:00 AM	0	0	4	9	0	0	0	0	0	0	0	0	13
1:00	0	1	4	4	2	0	0	0	0	0	0	0	11
2:00	0	1	2	9	1	1	0	0	0	0	0	0	14
3:00	0	0	9	6	0	0	1	0	0	0	0	0	16
4:00	0	0	21	29	7	0	0	0	0	0	0	0	57
5:00	0	0	50	59	6	0	0	0	0	0	0	0	115
6:00	1	1	83	119	14	2	0	0	0	1	1	0	222
7:00	0	0	70	101	14	2	1	0	0	2	0	0	190
8:00	1	2	69	88	13	4	3	1	1	0	0	0	182
9:00	2	1	65	102	15	8	2	2	1	1	0	0	199
10:00	0	1	74	105	13	1	1	0	0	3	0	0	198
11:00	2	1	90	97	12	5	1	0	0	0	0	0	208
12:00 PM	0	0	69	88	15	1	3	0	2	2	0	0	180
1:00	1	0	67	64	16	5	4	0	2	2	0	0	161
2:00	1	1	93	101	13	0	1	1	0	0	0	0	211
3:00	2	2	85	105	14	3	0	0	0	1	0	0	212
4:00	0	1	67	107	7	0	5	1	0	1	0	0	189
5:00	0	0	81	90	5	2	0	0	0	1	0	0	179
6:00	1	1	45	58	6	0	2	0	0	0	0	0	113
7:00	0	0	15	28	6	0	1	0	0	0	0	0	50
8:00	0	1	11	24	3	0	0	1	0	0	0	0	40
9:00	0	0	7	17	2	1	0	0	0	0	0	0	27
10:00	0	0	5	19	2	0	0	0	0	0	0	0	26
11:00	0	0	10	9	1	0	0	0	0	0	0	0	20
Total	11	14	1096	1438	187	35	25	6	6	14	1	0	2833

Percentile

Speed

Mean Speed (Average)

10 MPH Pace Speed

Number in Pace

Percent in Pace

Number > 45 MPH

Percent > 45 MPH

15th

34

400.5

36-45

1701

60.0%

579

20.4%

50th

40

85th

45

95th

49

Commercial Center - Elk Twp.
 Buck Rd.
 Elk Township/Gloucester County/NJ
 Site Code: 22158-1
 Station ID: 22158
 Location 1: Buck Rd.
 Location 2:
 Latitude: 0.000000
 Longitude: 0.000000
 Direction: North, Lane 2

Shropshire Associates LLC
 277 Whitehorse Pike, Suite 203
 Atco, NJ 08004

File Name: 22158-1 Buck Rd.
 Date Printed: 1/18/2024
 Start Date: 1/11/2024
 End Date: 1/18/2024
 GPS Accuracy: 0 ft
 Location Verified: No

1/16/2024	> 72 -	> 120 -	> 180 -	> 240 -	> 300 -	> 360 -	> 480 -	> 600 -	> 720 -	> 840 -			
Time	0 - 72 in.	120 in.	180 in.	240 in.	300 in.	360 in.	480 in.	600 in.	720 in.	840 in.	960 in.	> 960 in.	Total
12:00 AM	0	0	9	14	3	0	0	0	0	0	0	0	26
1:00	0	0	1	6	1	2	1	1	0	0	0	0	12
2:00	0	0	8	9	8	3	0	0	1	0	0	0	29
3:00	0	0	3	5	3	0	1	0	0	0	0	0	12
4:00	0	0	14	25	3	3	0	0	0	0	0	0	45
5:00	0	1	39	63	12	3	0	1	2	0	0	0	121
6:00	0	0	78	87	6	2	1	0	0	0	1	0	175
7:00	1	0	80	94	8	2	0	0	0	0	0	0	185
8:00	0	0	79	71	9	2	1	0	0	0	0	0	162
9:00	0	0	88	82	11	6	2	2	2	0	0	0	193
10:00	1	1	55	81	8	5	0	0	1	1	0	0	153
11:00	0	0	58	66	8	7	1	0	1	0	0	0	141
12:00 PM	0	0	53	69	9	3	1	0	0	1	0	0	136
1:00	1	4	53	76	14	7	2	1	1	0	0	0	159
2:00	0	0	68	78	7	3	2	0	0	3	0	0	161
3:00	0	0	87	79	9	2	1	1	0	0	0	0	179
4:00	0	1	76	79	9	1	3	2	0	1	0	0	172
5:00	0	0	65	60	4	1	1	0	1	0	0	0	132
6:00	0	0	42	39	1	0	1	0	0	0	0	0	83
7:00	0	0	40	22	4	1	0	1	0	1	0	0	69
8:00	1	1	15	14	5	0	1	0	0	0	0	0	37
9:00	0	0	16	20	0	0	0	0	1	1	0	0	38
10:00	0	1	11	14	0	0	0	0	0	0	0	0	26
11:00	0	0	6	7	0	0	0	0	1	0	0	0	14
Total	4	9	1044	1160	142	53	19	9	11	8	1	0	2460

Percentile 15th 50th 85th 95th
 Speed 29 35 41 44
 Mean Speed (Average) 358.0
 10 MPH Pace Speed 34-43
 Number in Pace 1491
 Percent in Pace 60.6%
 Number > 45 MPH 121
 Percent > 45 MPH 4.9%

Commercial Center - Elk Twp.
 Buck Rd.
 Elk Township/Gloucester County/NJ
 Site Code: 22158-1
 Station ID: 22158
 Location 1: Buck Rd.
 Location 2:
 Latitude: 0.000000
 Longitude: 0.000000
 Direction: North, Lane 2

Shropshire Associates LLC
 277 Whitehorse Pike, Suite 203
 Atco, NJ 08004

File Name: 22158-1 Buck Rd.
 Date Printed: 1/18/2024
 Start Date: 1/11/2024
 End Date: 1/18/2024
 GPS Accuracy: 0 ft
 Location Verified: No

1/17/2024	> 72 -	> 120 -	> 180 -	> 240 -	> 300 -	> 360 -	> 480 -	> 600 -	> 720 -	> 840 -			
Time	0 - 72 in.	72 - 120 in.	120 - 180 in.	180 - 240 in.	240 - 300 in.	300 - 360 in.	360 - 480 in.	480 - 600 in.	600 - 720 in.	720 - 840 in.	840 - 960 in.	> 960 in.	Total
12:00 AM	0	0	7	3	3	0	0	0	1	0	0	0	14
1:00	0	1	3	5	5	0	1	0	0	0	0	0	15
2:00	0	0	5	6	3	0	2	0	1	0	0	0	17
3:00	0	0	13	8	2	1	0	0	0	0	0	0	24
4:00	0	0	20	16	3	2	0	1	0	0	0	0	42
5:00	1	2	72	62	6	5	2	0	0	0	0	0	150
6:00	2	1	109	94	9	0	0	0	1	0	0	0	216
7:00	1	1	123	87	4	4	0	0	1	0	0	0	221
8:00	0	0	122	92	7	4	3	1	1	0	0	0	230
9:00	0	0	116	108	9	3	3	2	0	0	0	0	241
10:00	0	0	112	105	5	2	2	0	1	0	0	0	227
11:00	0	2	96	88	6	3	1	2	1	1	0	0	200
12:00 PM	0	0	79	83	9	5	2	0	1	2	0	0	181
1:00	1	1	83	73	11	6	7	0	0	0	1	0	183
2:00	1	3	83	97	15	2	4	2	2	0	0	0	209
3:00	0	1	114	127	12	3	1	0	0	0	0	0	258
4:00	1	3	148	120	10	1	1	2	1	1	1	0	289
5:00	2	1	109	79	8	2	1	1	0	1	0	0	204
6:00	0	0	70	64	3	0	1	0	0	0	0	0	138
7:00	0	0	54	52	1	0	1	0	0	0	0	0	108
8:00	0	0	34	26	0	0	0	0	0	1	0	0	61
9:00	0	0	32	24	0	0	0	0	0	0	0	0	56
10:00	0	0	22	18	0	0	0	0	0	0	0	0	40
11:00	0	0	13	12	2	0	0	0	0	0	0	0	27
Total	9	16	1639	1449	133	43	32	11	11	6	2	0	3351

Percentile	15th
Speed	34
	39
	45
	48
Mean Speed (Average)	395.6
10 MPH Pace Speed	34-43
Number in Pace	2284
Percent in Pace	68.2%
Number > 45 MPH	508
Percent > 45 MPH	15.2%

Commercial Center - Elk Twp.
 Buck Rd.
 Elk Township/Gloucester County/NJ
 Site Code: 22158-1
 Station ID: 22158
 Location 1: Buck Rd.
 Location 2:
 Latitude: 0.000000
 Longitude: 0.000000
 Direction: Combined

Shropshire Associates LLC
 277 Whitehorse Pike, Suite 203
 Atco, NJ 08004

File Name: 22158-1 Buck Rd.
 Date Printed: 1/18/2024
 Start Date: 1/11/2024
 End Date: 1/18/2024
 GPS Accuracy: 0 ft
 Location Verified: No

1/11/2024	> 72 -	> 120 -	> 180 -	> 240 -	> 300 -	> 360 -	> 480 -	> 600 -	> 720 -	> 840 -	> 960 in.	Total
Time 0 - 72 in.	120 in.	180 in.	240 in.	300 in.	360 in.	480 in.	600 in.	720 in.	840 in.	960 in.	> 960 in.	
12:00 AM	*	*	*	*	*	*	*	*	*	*	*	0
1:00	*	*	*	*	*	*	*	*	*	*	*	0
2:00	*	*	*	*	*	*	*	*	*	*	*	0
3:00	*	*	*	*	*	*	*	*	*	*	*	0
4:00	*	*	*	*	*	*	*	*	*	*	*	0
5:00	*	*	*	*	*	*	*	*	*	*	*	0
6:00	*	*	*	*	*	*	*	*	*	*	*	0
7:00	*	*	*	*	*	*	*	*	*	*	*	0
8:00	*	*	*	*	*	*	*	*	*	*	*	0
9:00	2	11	137	69	15	5	4	1	1	0	0	245
10:00	3	8	188	105	9	3	3	0	2	1	0	322
11:00	3	11	202	97	9	2	2	3	3	0	0	332
12:00 PM	5	18	179	88	3	2	8	0	2	1	0	306
1:00	4	10	223	111	12	2	5	1	3	0	0	371
2:00	10	17	239	117	18	8	5	2	1	1	0	418
3:00	9	22	309	122	16	6	4	2	0	0	0	490
4:00	8	33	357	189	16	3	8	2	0	0	0	616
5:00	2	27	309	158	18	1	2	1	3	0	0	521
6:00	4	12	238	95	9	1	2	1	0	1	0	363
7:00	3	13	151	55	4	0	0	1	1	0	0	228
8:00	4	5	126	51	10	0	0	3	0	2	0	201
9:00	2	7	104	39	3	0	0	0	1	1	0	157
10:00	1	2	66	21	0	1	0	1	0	0	0	92
11:00	0	4	38	13	3	0	0	0	0	0	0	58
Total	60	200	2866	1330	145	34	43	18	17	7	0	4720

Percentile 15th
 Speed 34
 50th 39
 85th 45
 95th 49
 Mean Speed (Average) 397.7
 10 MPH Pace Speed 34-43
 Number in Pace 3097
 Percent in Pace 65.6%
 Number > 45 MPH 774
 Percent > 45 MPH 16.4%

Commercial Center - Elk Twp.
 Buck Rd.
 Elk Township/Gloucester County/NJ
 Site Code: 22158-1
 Station ID: 22158
 Location 1: Buck Rd.
 Location 2:
 Latitude: 0.000000
 Longitude: 0.000000
 Direction: Combined

Shropshire Associates LLC
 277 Whitehorse Pike, Suite 203
 Atco, NJ 08004

File Name: 22158-1 Buck Rd.
 Date Printed: 1/18/2024
 Start Date: 1/11/2024
 End Date: 1/18/2024
 GPS Accuracy: 0 ft
 Location Verified: No

1/12/2024	> 72 -	> 120 -	> 180 -	> 240 -	> 300 -	> 360 -	> 480 -	> 600 -	> 720 -	> 840 -			
Time	0 - 72 in.	120 in.	180 in.	240 in.	300 in.	360 in.	480 in.	600 in.	720 in.	840 in.	960 in.	> 960 in.	Total
12:00 AM	1	1	21	16	2	0	0	1	1	1	0	0	44
1:00	0	0	12	4	0	0	0	0	0	0	0	0	16
2:00	0	1	10	7	0	0	0	0	1	0	0	0	19
3:00	0	0	17	3	1	0	2	1	0	0	0	0	24
4:00	0	3	35	22	2	2	0	0	0	0	0	0	64
5:00	2	7	83	78	10	1	4	1	1	0	0	0	187
6:00	4	7	171	152	10	2	2	0	2	1	0	0	351
7:00	3	10	224	163	19	10	4	0	0	0	0	0	433
8:00	3	13	236	144	19	4	8	1	2	1	0	0	431
9:00	4	15	188	155	17	2	3	2	1	0	0	0	387
10:00	1	6	202	126	18	2	5	0	0	1	0	0	361
11:00	5	12	202	135	10	2	3	2	1	3	1	0	376
12:00 PM	6	14	243	111	12	9	4	1	3	4	0	0	407
1:00	5	18	244	138	17	4	4	0	2	1	0	0	433
2:00	5	14	281	148	15	1	7	1	1	0	0	0	473
3:00	5	27	318	154	11	6	3	2	3	1	0	0	530
4:00	12	43	328	174	19	3	4	1	1	0	0	0	585
5:00	3	15	291	141	17	1	3	0	2	0	0	0	473
6:00	7	18	248	118	14	2	2	0	0	0	0	0	409
7:00	1	13	160	71	6	0	0	0	1	0	0	0	252
8:00	0	4	119	58	4	1	0	2	0	1	0	0	189
9:00	2	9	100	43	2	2	1	0	1	0	0	0	160
10:00	1	7	67	39	1	0	1	0	0	0	0	0	116
11:00	1	2	52	13	1	0	0	0	1	0	0	0	70
Total	71	259	3852	2213	227	54	60	15	24	14	1	0	6790

Percentile	15th
Speed	34
	39
	45
	49
Mean Speed (Average)	398.6
10 MPH Pace Speed	34-43
Number in Pace	4497
Percent in Pace	66.2%
Number > 45 MPH	1174
Percent > 45 MPH	17.3%

Commercial Center - Elk Twp.
 Buck Rd.
 Elk Township/Gloucester County/NJ
 Site Code: 22158-1
 Station ID: 22158
 Location 1: Buck Rd.
 Location 2:
 Latitude: 0.000000
 Longitude: 0.000000
 Direction: Combined

Shropshire Associates LLC
 277 Whitehorse Pike, Suite 203
 Atco, NJ 08004

File Name: 22158-1 Buck Rd.
 Date Printed: 1/18/2024
 Start Date: 1/11/2024
 End Date: 1/18/2024
 GPS Accuracy: 0 ft
 Location Verified: No

1/13/2024	> 72 -	> 120 -	> 180 -	> 240 -	> 300 -	> 360 -	> 480 -	> 600 -	> 720 -	> 840 -			
Time	0 - 72 in.	72 - 120 in.	120 - 180 in.	180 - 240 in.	240 - 300 in.	300 - 360 in.	360 - 480 in.	480 - 600 in.	600 - 720 in.	720 - 840 in.	840 - 960 in.	> 960 in.	Total
12:00 AM	0	3	35	6	0	0	0	0	0	0	0	0	44
1:00	0	0	12	2	0	0	0	0	0	0	0	0	14
2:00	0	1	17	6	1	1	0	0	0	0	0	0	26
3:00	0	2	16	9	1	0	0	0	0	0	0	0	28
4:00	0	0	22	8	1	0	1	0	0	0	0	0	32
5:00	0	3	32	20	1	0	0	0	0	0	0	0	56
6:00	3	3	71	41	1	0	0	0	0	0	0	0	119
7:00	0	3	92	68	6	2	6	1	0	0	0	0	178
8:00	1	10	114	83	7	0	0	0	0	0	0	0	215
9:00	0	4	174	111	11	4	1	2	1	0	0	0	308
10:00	0	11	205	115	13	3	4	0	1	0	0	0	352
11:00	3	11	225	161	15	5	5	0	1	0	0	0	426
12:00 PM	6	29	243	164	12	1	2	0	1	1	0	0	459
1:00	6	24	206	151	14	4	4	1	0	1	0	0	411
2:00	7	12	247	140	19	0	6	1	0	1	0	0	433
3:00	4	13	245	114	16	1	0	0	0	1	0	0	394
4:00	6	16	254	134	9	3	2	1	0	0	0	0	425
5:00	2	12	226	116	12	2	2	0	0	0	0	0	372
6:00	5	13	192	95	4	1	1	0	0	0	0	0	311
7:00	1	15	139	58	10	2	0	0	0	0	0	0	225
8:00	1	6	106	55	5	1	0	0	0	0	0	0	174
9:00	0	9	97	46	1	0	0	0	0	0	0	0	153
10:00	2	6	83	31	2	0	1	0	0	0	0	0	125
11:00	1	3	60	21	3	0	1	0	0	0	0	0	89
Total	48	209	3113	1755	164	30	36	6	4	4	0	0	5369

Percentile	15th
Speed	34
	39
Mean Speed (Average)	398.8
10 MPH Pace Speed	34-43
Number in Pace	3437
Percent in Pace	64.0%
Number > 45 MPH	990
Percent > 45 MPH	18.4%

Commercial Center - Elk Twp.
 Buck Rd.
 Elk Township/Gloucester County/NJ
 Site Code: 22158-1
 Station ID: 22158
 Location 1: Buck Rd.
 Location 2:
 Latitude: 0.000000
 Longitude: 0.000000
 Direction: Combined

Shropshire Associates LLC
 277 Whitehorse Pike, Suite 203
 Atco, NJ 08004

File Name: 22158-1 Buck Rd.
 Date Printed: 1/18/2024
 Start Date: 1/11/2024
 End Date: 1/18/2024
 GPS Accuracy: 0 ft
 Location Verified: No

1/14/2024	> 72 -	> 120 -	> 180 -	> 240 -	> 300 -	> 360 -	> 480 -	> 600 -	> 720 -	> 840 -			
Time	0 - 72 in.	120 in.	180 in.	240 in.	300 in.	360 in.	480 in.	600 in.	720 in.	840 in.	960 in.	> 960 in.	Total
12:00 AM	0	1	31	8	3	0	0	0	0	0	0	0	43
1:00	0	4	18	19	1	0	0	0	0	0	0	0	42
2:00	1	2	20	7	0	1	0	0	0	0	0	0	31
3:00	0	2	11	9	1	0	0	0	0	0	0	0	23
4:00	0	0	14	4	1	0	1	0	0	0	0	0	20
5:00	0	1	29	14	1	0	0	0	0	0	0	0	45
6:00	0	1	38	28	1	0	0	0	1	0	0	0	69
7:00	1	3	64	44	6	0	0	0	0	0	0	0	118
8:00	0	3	100	74	5	0	1	0	0	0	0	0	183
9:00	4	6	130	69	8	0	2	1	0	0	0	0	220
10:00	2	14	153	98	7	1	2	0	0	2	0	0	279
11:00	4	12	220	113	5	0	0	0	0	0	1	0	355
12:00 PM	4	18	248	102	4	0	1	1	0	0	0	0	378
1:00	4	8	217	121	15	1	0	0	0	0	0	0	366
2:00	4	17	224	107	10	0	0	4	0	0	0	0	366
3:00	5	12	184	108	9	0	2	1	1	0	0	0	322
4:00	1	20	186	82	8	1	2	0	0	0	0	0	300
5:00	4	12	176	83	9	0	0	0	0	0	0	0	284
6:00	1	9	149	63	6	1	1	0	2	0	0	0	232
7:00	3	17	128	52	3	0	0	0	0	0	0	0	203
8:00	0	2	88	42	3	1	0	0	0	0	0	0	136
9:00	0	6	65	26	2	0	1	0	0	0	0	0	100
10:00	0	2	48	28	1	0	0	0	0	0	0	0	79
11:00	1	1	40	11	6	0	0	0	0	0	0	0	59
Total	39	173	2581	1312	115	6	13	7	4	2	1	0	4253

Percentile 15th 50th 85th 95th
 Speed 35 40 46 50
 Mean Speed (Average) 408.3
 10 MPH Pace Speed 36-45
 Number in Pace 2697
 Percent in Pace 63.4%
 Number > 45 MPH 930
 Percent > 45 MPH 21.9%

Commercial Center - Elk Twp.
 Buck Rd.
 Elk Township/Gloucester County/NJ
 Site Code: 22158-1
 Station ID: 22158
 Location 1: Buck Rd.
 Location 2:
 Latitude: 0.000000
 Longitude: 0.000000
 Direction: Combined

Shropshire Associates LLC
 277 Whitehorse Pike, Suite 203
 Atco, NJ 08004

File Name: 22158-1 Buck Rd.
 Date Printed: 1/18/2024
 Start Date: 1/11/2024
 End Date: 1/18/2024
 GPS Accuracy: 0 ft
 Location Verified: No

1/15/2024	> 72 -	> 120 -	> 180 -	> 240 -	> 300 -	> 360 -	> 480 -	> 600 -	> 720 -	> 840 -			
Time	0 - 72 in.	72 - 120 in.	120 - 180 in.	180 - 240 in.	240 - 300 in.	300 - 360 in.	360 - 480 in.	480 - 600 in.	600 - 720 in.	720 - 840 in.	840 - 960 in.	> 960 in.	Total
12:00 AM	0	0	11	10	0	0	0	1	0	0	0	0	22
1:00	0	1	13	5	2	0	0	0	0	0	0	0	21
2:00	0	1	7	10	1	1	0	0	1	0	0	0	21
3:00	0	0	14	8	0	0	1	0	0	0	0	0	23
4:00	1	0	29	29	9	0	0	1	0	0	0	0	69
5:00	2	2	74	63	7	0	2	0	2	1	0	0	153
6:00	3	2	126	127	15	2	1	0	0	1	1	0	278
7:00	0	4	156	115	16	4	1	0	0	2	0	0	298
8:00	2	11	158	104	19	7	4	2	2	0	0	0	309
9:00	5	12	137	121	20	9	3	5	2	2	0	0	316
10:00	2	13	180	124	17	5	3	0	0	3	0	0	347
11:00	5	13	218	122	15	7	3	0	1	0	1	0	385
12:00 PM	3	11	222	114	19	4	4	2	4	2	0	0	385
1:00	7	11	217	92	21	8	6	4	3	2	0	0	371
2:00	6	18	264	134	23	3	3	1	1	0	0	0	453
3:00	6	20	275	147	15	4	1	1	0	1	0	0	470
4:00	10	23	297	148	12	4	6	2	1	1	0	0	504
5:00	1	14	271	121	9	2	3	0	0	1	0	0	422
6:00	6	13	166	73	9	1	2	1	0	0	0	0	271
7:00	1	4	124	40	7	0	1	0	0	0	0	0	177
8:00	0	7	97	33	4	0	0	1	0	0	0	0	142
9:00	1	1	48	26	3	1	1	0	0	0	0	0	81
10:00	3	2	25	23	2	0	0	0	0	0	0	0	55
11:00	1	2	40	17	2	0	1	1	1	0	0	0	65
Total	65	185	3169	1806	247	62	46	22	18	16	2	0	5638

Percentile	15th
Speed	31
	50th
	39
	85th
	45
	95th
	48
Mean Speed (Average)	386.0
10 MPH Pace Speed	34-43
Number in Pace	3370
Percent in Pace	59.8%
Number > 45 MPH	873
Percent > 45 MPH	15.5%

Commercial Center - Elk Twp.
 Buck Rd.
 Elk Township/Gloucester County/NJ
 Site Code: 22158-1
 Station ID: 22158
 Location 1: Buck Rd.
 Location 2:
 Latitude: 0.000000
 Longitude: 0.000000
 Direction: Combined

Shropshire Associates LLC
 277 Whitehorse Pike, Suite 203
 Atco, NJ 08004

File Name: 22158-1 Buck Rd.
 Date Printed: 1/18/2024
 Start Date: 1/11/2024
 End Date: 1/18/2024
 GPS Accuracy: 0 ft
 Location Verified: No

1/16/2024	> 72 -	> 120 -	> 180 -	> 240 -	> 300 -	> 360 -	> 480 -	> 600 -	> 720 -	> 840 -			
Time	0 - 72 in.	72 - 120 in.	120 - 180 in.	180 - 240 in.	240 - 300 in.	300 - 360 in.	360 - 480 in.	480 - 600 in.	600 - 720 in.	720 - 840 in.	840 - 960 in.	> 960 in.	Total
12:00 AM	0	2	27	17	3	0	0	1	1	0	0	0	51
1:00	0	1	6	8	1	3	1	1	0	0	1	0	22
2:00	0	0	10	12	8	3	0	0	1	0	0	0	34
3:00	0	0	8	11	4	0	2	1	0	0	0	0	26
4:00	0	1	32	29	4	3	0	0	0	0	0	0	69
5:00	1	1	60	67	12	3	1	1	2	0	0	0	148
6:00	1	4	131	96	9	4	2	1	1	0	1	0	250
7:00	3	6	160	112	13	4	0	0	0	0	0	0	298
8:00	1	3	179	82	10	3	1	0	1	0	0	0	280
9:00	0	8	178	110	11	8	2	5	3	0	0	0	325
10:00	3	4	141	95	15	5	1	2	3	1	1	0	271
11:00	0	6	146	86	9	10	2	3	2	0	0	0	264
12:00 PM	1	4	158	89	12	6	2	0	5	1	0	0	278
1:00	5	13	163	104	17	8	2	1	1	0	0	0	314
2:00	1	6	201	91	9	5	3	1	0	3	0	0	320
3:00	5	12	262	116	18	5	3	1	0	0	0	0	422
4:00	4	12	268	124	16	5	4	3	0	1	0	0	437
5:00	0	10	215	77	10	1	2	0	1	0	0	0	316
6:00	0	7	166	54	2	0	1	3	0	0	0	0	233
7:00	1	7	114	31	6	1	0	1	0	1	0	0	162
8:00	1	3	62	20	6	0	1	0	0	0	0	0	93
9:00	0	1	49	25	1	1	0	0	2	1	0	0	80
10:00	0	5	37	17	0	0	0	0	0	0	0	0	59
11:00	0	0	30	10	2	1	0	0	1	0	0	0	44
Total	27	116	2803	1483	198	79	30	25	24	8	3	0	4796

Percentile	15th	50th	85th	95th
Speed	29	35	40	44
Mean Speed (Average)	350.9			
10 MPH Pace Speed	30-39			
Number in Pace	3123			
Percent in Pace	65.1%			
Number > 45 MPH	172			
Percent > 45 MPH	3.6%			

Commercial Center - Elk Twp.
 Buck Rd.
 Elk Township/Gloucester County/NJ
 Site Code: 22158-1
 Station ID: 22158
 Location 1: Buck Rd.
 Location 2:
 Latitude: 0.000000
 Longitude: 0.000000
 Direction: Combined

Shropshire Associates LLC
 277 Whitehorse Pike, Suite 203
 Atco, NJ 08004

File Name: 22158-1 Buck Rd.
 Date Printed: 1/18/2024
 Start Date: 1/11/2024
 End Date: 1/18/2024
 GPS Accuracy: 0 ft
 Location Verified: No

1/17/2024	> 72 -	> 120 -	> 180 -	> 240 -	> 300 -	> 360 -	> 480 -	> 600 -	> 720 -	> 840 -			
Time	0 - 72 in.	120 in.	180 in.	240 in.	300 in.	360 in.	480 in.	600 in.	720 in.	840 in.	960 in.	> 960 in.	Total
12:00 AM	0	2	25	5	4	0	0	0	1	0	0	0	37
1:00	0	2	9	6	5	0	1	0	0	0	0	0	23
2:00	0	1	7	8	3	0	2	0	1	0	0	0	22
3:00	0	0	21	12	2	1	1	1	0	0	0	0	38
4:00	0	5	32	18	3	2	0	1	0	0	0	0	61
5:00	1	3	103	68	7	5	3	0	1	0	0	0	191
6:00	3	8	156	103	9	1	0	1	2	0	0	0	283
7:00	1	10	211	102	5	5	1	0	1	0	0	0	336
8:00	3	17	266	112	11	6	5	1	1	0	0	0	422
9:00	0	13	239	130	15	3	4	3	0	0	0	0	407
10:00	3	12	228	122	9	2	3	1	3	0	0	0	383
11:00	1	8	218	121	11	7	3	4	2	1	0	0	376
12:00 PM	2	9	211	112	15	6	3	1	3	2	0	0	364
1:00	2	17	223	101	15	6	7	1	1	0	1	0	374
2:00	3	18	239	129	22	4	4	2	3	0	0	0	424
3:00	6	15	347	181	18	6	2	0	1	1	0	0	577
4:00	8	20	381	178	14	3	3	4	3	2	1	0	617
5:00	10	17	324	108	15	3	1	2	2	1	0	0	483
6:00	1	18	234	85	6	0	3	0	0	0	0	0	347
7:00	1	9	157	72	2	1	1	0	0	0	0	0	243
8:00	0	9	117	32	4	0	0	0	1	1	0	0	164
9:00	0	10	99	35	0	0	0	0	0	0	0	0	144
10:00	1	0	55	21	2	0	0	0	0	0	0	0	79
11:00	0	1	36	13	2	0	0	0	0	0	0	0	52
Total	46	224	3938	1874	199	61	47	22	26	8	2	0	6447

Percentile 15th 50th 85th 95th
 Speed 32 38 43 47
 Mean Speed (Average) 382.2
 10 MPH Pace Speed 34-43
 Number in Pace 4384
 Percent in Pace 68.0%
 Number > 45 MPH 689
 Percent > 45 MPH 10.7%

Commercial Center - Elk Twp.
 Buck Rd.
 Elk Township/Gloucester County/NJ
 Site Code: 22158-2
 Station ID: 22158
 Location 1: Elk Rd.
 Location 2:
 Latitude: 0.000000
 Longitude: 0.000000
 Direction: West, Lane 1

Shropshire Associates LLC
 277 Whitehorse Pike, Suite 203
 Atco, NJ 08004

File Name: 22158-2 Elk Rd.
 Date Printed: 1/18/2024
 Start Date: 1/11/2024
 End Date: 1/18/2024
 GPS Accuracy: 0 ft
 Location Verified: No

1/11/2024	> 72 -	> 120 -	> 180 -	> 240 -	> 300 -	> 360 -	> 480 -	> 600 -	> 720 -	> 840 -			
Time	0 - 72 in.	120 in.	180 in.	240 in.	300 in.	360 in.	480 in.	600 in.	720 in.	840 in.	960 in.	> 960 in.	Total
12:00 AM	*	*	*	*	*	*	*	*	*	*	*	*	0
1:00	*	*	*	*	*	*	*	*	*	*	*	*	0
2:00	*	*	*	*	*	*	*	*	*	*	*	*	0
3:00	*	*	*	*	*	*	*	*	*	*	*	*	0
4:00	*	*	*	*	*	*	*	*	*	*	*	*	0
5:00	*	*	*	*	*	*	*	*	*	*	*	*	0
6:00	*	*	*	*	*	*	*	*	*	*	*	*	0
7:00	*	*	*	*	*	*	*	*	*	*	*	*	0
8:00	*	*	*	*	*	*	*	*	*	*	*	*	0
9:00	0	12	11	2	1	1	1	1	0	0	0	0	29
10:00	1	18	20	4	3	3	2	0	0	0	0	0	51
11:00	0	17	24	1	0	0	1	0	0	0	0	0	43
12:00 PM	1	16	27	4	4	1	2	0	0	0	0	0	55
1:00	0	19	19	2	3	2	2	1	1	1	0	0	50
2:00	0	34	41	5	3	7	2	0	0	0	0	0	92
3:00	0	27	33	2	3	0	4	0	1	0	0	0	70
4:00	1	33	40	3	1	2	0	0	1	0	0	0	81
5:00	2	33	23	4	1	0	0	0	0	0	0	0	63
6:00	2	18	15	1	0	0	0	1	0	1	0	0	38
7:00	0	15	12	2	0	0	0	0	0	0	0	0	29
8:00	0	10	14	0	0	0	0	0	0	0	0	0	24
9:00	0	7	3	0	1	0	0	0	0	0	0	0	11
10:00	0	7	4	1	0	0	0	0	0	0	0	0	12
11:00	1	1	1	0	0	0	0	0	0	0	0	0	3
Total	8	267	287	31	20	16	14	3	3	2	0	0	651

Percentile 15th 50th 85th 95th
 Speed 29 34 41 47
 Mean Speed (Average) 355.4
 10 MPH Pace Speed 30-39
 Number in Pace 410
 Percent in Pace 63.0%
 Number > 45 MPH 63
 Percent > 45 MPH 9.7%

Commercial Center - Elk Twp.

Buck Rd.

Elk Township/Gloucester County/NJ

Site Code: 22158-2

Station ID: 22158

Location 1: Elk Rd.

Location 2:

Latitude: 0.000000

Longitude: 0.000000

Direction: West, Lane 1

Shropshire Associates LLC

277 Whitehorse Pike, Suite 203

Atco, NJ 08004

File Name: 22158-2 Elk Rd.

Date Printed: 1/18/2024

Start Date: 1/11/2024

End Date: 1/18/2024

GPS Accuracy: 0 ft

Location Verified: No

1/12/2024	> 72 -	> 120 -	> 180 -	> 240 -	> 300 -	> 360 -	> 480 -	> 600 -	> 720 -	> 840 -			
Time	0 - 72 in.	120 in.	180 in.	240 in.	300 in.	360 in.	480 in.	600 in.	720 in.	840 in.	960 in.	> 960 in.	Total
12:00 AM	0	3	2	0	0	0	0	0	0	0	0	0	5
1:00	0	1	4	0	0	0	0	0	0	0	0	0	5
2:00	0	3	2	0	0	0	0	0	0	0	0	0	5
3:00	0	1	1	0	0	0	0	0	0	0	0	0	2
4:00	0	8	7	0	0	0	0	0	1	0	0	0	16
5:00	0	4	17	1	0	0	0	0	0	0	0	0	22
6:00	0	25	34	9	4	1	0	0	0	0	0	0	73
7:00	1	26	46	5	6	1	2	0	2	0	0	0	89
8:00	2	16	23	3	1	1	4	1	2	0	1	0	54
9:00	1	19	29	4	4	2	1	0	0	0	0	0	60
10:00	1	13	26	7	0	0	1	0	1	0	0	0	49
11:00	0	21	23	4	2	0	3	0	2	0	0	0	55
12:00 PM	2	21	21	5	2	0	4	0	0	0	0	0	55
1:00	0	27	29	4	2	3	0	1	0	0	1	0	67
2:00	2	21	36	3	1	1	1	1	2	0	0	0	68
3:00	0	33	28	3	2	1	1	0	0	0	0	0	68
4:00	0	35	33	7	1	1	2	1	0	0	0	0	80
5:00	2	30	26	4	1	0	1	0	1	0	0	0	65
6:00	1	19	23	1	0	1	2	0	0	0	0	0	47
7:00	1	21	17	0	0	0	1	0	0	0	0	0	40
8:00	0	15	9	0	0	0	0	0	0	0	0	0	24
9:00	0	12	8	1	0	0	0	0	0	0	0	0	21
10:00	0	1	3	0	1	0	0	0	1	0	0	0	6
11:00	1	2	1	0	0	0	0	0	0	0	0	0	4
Total	14	377	448	61	27	12	23	4	12	0	2	0	980

Percentile	15th
Speed	29
	34
Mean Speed (Average)	356.5
10 MPH Pace Speed	29-38
Number in Pace	617
Percent in Pace	63.0%
Number > 45 MPH	89
Percent > 45 MPH	9.1%

Commercial Center - Elk Twp.

Buck Rd.

Elk Township/Gloucester County/NJ

Site Code: 22158-2

Station ID: 22158

Location 1: Elk Rd.

Location 2:

Latitude: 0.000000

Longitude: 0.000000

Direction: West, Lane 1

Shropshire Associates LLC

277 Whitehorse Pike, Suite 203

Atco, NJ 08004

File Name: 22158-2 Elk Rd.

Date Printed: 1/18/2024

Start Date: 1/11/2024

End Date: 1/18/2024

GPS Accuracy: 0 ft

Location Verified: No

1/13/2024	> 72 -	> 120 -	> 180 -	> 240 -	> 300 -	> 360 -	> 480 -	> 600 -	> 720 -	> 840 -			
Time	0 - 72 in.	120 in.	180 in.	240 in.	300 in.	360 in.	480 in.	600 in.	720 in.	840 in.	960 in.	> 960 in.	Total
12:00 AM	0	1	3	0	0	0	0	0	0	0	0	0	4
1:00	0	0	1	0	0	0	0	0	0	0	0	0	1
2:00	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00	0	0	1	0	0	0	0	0	0	0	0	0	1
4:00	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00	0	0	1	0	0	0	0	0	0	0	0	0	1
6:00	0	1	7	0	0	0	0	0	0	0	0	0	8
7:00	0	9	16	0	2	0	2	0	0	0	0	0	29
8:00	0	5	20	2	1	1	1	0	0	0	0	0	30
9:00	0	14	19	0	2	1	0	0	0	0	0	0	36
10:00	1	17	19	1	2	0	0	0	0	1	0	0	41
11:00	1	26	23	4	2	0	0	0	1	0	0	0	57
12:00 PM	0	16	21	2	0	0	0	0	0	0	0	0	39
1:00	1	18	14	1	2	0	0	0	0	0	0	0	36
2:00	0	26	15	3	0	0	0	0	0	0	0	0	44
3:00	0	18	18	3	1	2	0	0	0	0	0	0	42
4:00	0	28	30	3	1	1	0	1	0	0	0	0	64
5:00	0	23	21	4	1	0	0	0	0	0	0	0	49
6:00	0	15	18	4	0	0	0	0	0	0	0	0	37
7:00	0	20	7	0	0	0	0	0	0	0	0	0	27
8:00	0	5	6	0	0	0	0	0	0	0	0	0	11
9:00	1	16	4	0	0	0	0	0	0	0	0	0	21
10:00	0	5	7	0	0	0	0	0	0	0	0	0	12
11:00	0	5	2	0	0	0	0	0	0	0	0	0	7
Total	4	268	273	27	14	5	3	1	1	1	0	0	597

Percentile	15th
Speed	28
	33
Mean Speed (Average)	346.0
10 MPH Pace Speed	30-39
Number in Pace	383
Percent in Pace	64.2%
Number > 45 MPH	46
Percent > 45 MPH	7.7%

Commercial Center - Elk Twp.

Buck Rd.

Elk Township/Gloucester County/NJ

Site Code: 22158-2

Station ID: 22158

Location 1: Elk Rd.

Location 2:

Latitude: 0.000000

Longitude: 0.000000

Direction: West, Lane 1

Shropshire Associates LLC

277 Whitehorse Pike, Suite 203

Atco, NJ 08004

File Name: 22158-2 Elk Rd.

Date Printed: 1/18/2024

Start Date: 1/11/2024

End Date: 1/18/2024

GPS Accuracy: 0 ft

Location Verified: No

1/14/2024	> 72 -	> 120 -	> 180 -	> 240 -	> 300 -	> 360 -	> 480 -	> 600 -	> 720 -	> 840 -			
Time	0 - 72 in.	120 in.	180 in.	240 in.	300 in.	360 in.	480 in.	600 in.	720 in.	840 in.	960 in.	> 960 in.	Total
12:00 AM	0	8	0	0	0	0	0	0	0	0	0	0	8
1:00	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00	0	1	2	0	0	0	0	0	0	0	0	0	3
3:00	0	1	1	1	0	0	0	0	0	0	0	0	3
4:00	0	1	2	0	0	0	0	0	0	0	0	0	3
5:00	0	4	2	0	0	0	0	0	0	0	0	0	6
6:00	0	3	4	0	0	0	0	0	0	0	0	0	7
7:00	0	6	2	2	0	1	0	0	0	0	0	0	11
8:00	0	6	4	0	0	0	0	0	0	0	0	0	10
9:00	1	18	13	2	0	0	0	0	0	0	0	0	34
10:00	1	18	12	2	0	0	0	0	0	0	0	0	33
11:00	2	13	7	4	1	0	0	0	0	0	0	0	27
12:00 PM	1	29	22	0	1	2	0	0	0	0	0	0	55
1:00	0	20	19	2	1	1	0	0	0	0	0	0	43
2:00	0	20	22	1	0	0	0	0	0	0	0	0	43
3:00	1	25	21	2	1	0	0	1	1	0	0	0	52
4:00	1	27	25	1	0	0	0	0	0	0	0	0	54
5:00	0	18	18	6	0	0	0	0	0	0	0	0	42
6:00	0	4	12	1	1	0	0	0	0	0	0	0	18
7:00	1	13	5	1	0	0	0	0	0	0	0	0	20
8:00	0	10	5	0	0	0	0	0	0	0	0	0	15
9:00	0	5	4	0	0	0	0	0	0	0	0	0	9
10:00	0	5	4	0	0	0	0	0	0	0	0	0	9
11:00	0	2	2	2	0	0	0	0	0	0	0	0	6
Total	8	257	208	27	5	4	0	1	1	0	0	0	511

Percentile	15th
Speed	28
	33
Mean Speed (Average)	344.5
10 MPH Pace Speed	28-37
Number in Pace	325
Percent in Pace	63.6%
Number > 45 MPH	25
Percent > 45 MPH	4.9%

Commercial Center - Elk Twp.
 Buck Rd.
 Elk Township/Gloucester County/NJ
 Site Code: 22158-2
 Station ID: 22158
 Location 1: Elk Rd.
 Location 2:
 Latitude: 0.000000
 Longitude: 0.000000
 Direction: West, Lane 1

Shropshire Associates LLC
 277 Whitehorse Pike, Suite 203
 Atco, NJ 08004

File Name: 22158-2 Elk Rd.
 Date Printed: 1/18/2024
 Start Date: 1/11/2024
 End Date: 1/18/2024
 GPS Accuracy: 0 ft
 Location Verified: No

1/15/2024	> 72 -	> 120 -	> 180 -	> 240 -	> 300 -	> 360 -	> 480 -	> 600 -	> 720 -	> 840 -			
Time	0 - 72 in.	120 in.	180 in.	240 in.	300 in.	360 in.	480 in.	600 in.	720 in.	840 in.	960 in.	> 960 in.	Total
12:00 AM	0	1	1	0	0	0	0	0	0	0	0	0	2
1:00	0	1	0	0	0	0	0	0	0	0	0	0	1
2:00	0	1	3	1	0	0	0	0	0	0	0	0	5
3:00	0	2	4	0	0	0	0	0	0	0	0	0	6
4:00	0	4	6	2	0	0	0	0	0	0	0	0	12
5:00	1	7	24	2	0	0	0	0	0	0	0	0	34
6:00	0	17	32	7	2	0	0	2	0	0	0	0	60
7:00	3	17	37	6	2	4	3	0	0	0	0	0	72
8:00	2	13	24	6	3	1	0	0	0	0	0	0	49
9:00	0	21	25	1	3	2	1	0	0	0	0	0	53
10:00	2	24	18	1	3	2	1	0	0	0	1	0	52
11:00	1	19	26	2	5	0	0	0	0	0	0	0	53
12:00 PM	0	26	29	2	0	2	0	0	1	0	0	0	60
1:00	1	25	26	1	4	1	2	1	0	0	0	0	61
2:00	2	28	31	4	1	0	0	0	0	0	0	0	66
3:00	1	23	35	3	1	1	0	0	0	1	0	0	65
4:00	2	29	29	5	1	0	1	1	0	0	0	0	68
5:00	0	25	47	3	0	1	2	1	2	0	0	1	82
6:00	2	19	17	6	0	0	0	0	0	0	0	0	44
7:00	1	6	14	2	0	0	0	0	0	0	0	0	23
8:00	0	7	13	2	0	0	0	0	0	0	0	0	22
9:00	0	3	10	0	0	0	0	0	0	0	0	0	13
10:00	0	2	1	1	0	0	0	0	0	0	0	0	4
11:00	0	0	1	0	0	0	0	0	0	0	0	0	1
Total	18	320	453	57	25	14	10	5	3	1	1	1	908

Percentile	15th
Speed	28
	34
Mean Speed (Average)	347.9
10 MPH Pace Speed	28-37
Number in Pace	534
Percent in Pace	58.8%
Number > 45 MPH	61
Percent > 45 MPH	6.7%

Commercial Center - Elk Twp.

Buck Rd.

Elk Township/Gloucester County/NJ

Site Code: 22158-2

Station ID: 22158

Location 1: Elk Rd.

Location 2:

Latitude: 0.000000

Longitude: 0.000000

Direction: West, Lane 1

Shropshire Associates LLC

277 Whitehorse Pike, Suite 203

Atco, NJ 08004

File Name: 22158-2 Elk Rd.

Date Printed: 1/18/2024

Start Date: 1/11/2024

End Date: 1/18/2024

GPS Accuracy: 0 ft

Location Verified: No

1/16/2024	> 72 -	> 120 -	> 180 -	> 240 -	> 300 -	> 360 -	> 480 -	> 600 -	> 720 -	> 840 -			
Time	0 - 72 in.	120 in.	180 in.	240 in.	300 in.	360 in.	480 in.	600 in.	720 in.	840 in.	960 in.	> 960 in.	Total
12:00 AM	0	2	3	0	0	0	0	0	0	0	0	0	5
1:00	0	2	2	0	0	0	0	0	0	0	0	0	4
2:00	0	1	6	0	0	0	0	0	0	0	0	0	7
3:00	0	1	5	2	1	0	0	0	0	0	0	0	9
4:00	0	4	17	1	1	0	0	0	0	0	0	0	23
5:00	1	13	24	2	1	0	0	0	0	0	0	0	41
6:00	5	31	43	12	2	0	0	0	0	0	0	0	93
7:00	3	40	20	7	3	1	1	0	0	0	0	0	75
8:00	3	19	15	1	1	3	2	1	1	0	0	0	46
9:00	1	18	31	2	5	3	1	2	2	1	0	0	66
10:00	1	17	24	3	2	1	1	1	0	0	0	0	50
11:00	0	16	17	3	0	0	2	0	0	1	0	0	39
12:00 PM	1	13	12	1	1	0	1	0	0	0	0	0	29
1:00	0	18	26	5	1	0	1	1	0	2	0	0	54
2:00	0	21	28	4	1	2	0	0	0	0	1	0	57
3:00	2	31	33	5	2	0	2	1	0	0	0	0	76
4:00	2	41	27	1	1	1	1	0	1	0	0	0	75
5:00	0	29	24	2	1	0	0	0	0	0	0	0	56
6:00	0	18	17	1	0	1	0	0	0	0	0	0	37
7:00	1	9	10	0	0	0	0	0	0	0	0	0	20
8:00	0	8	11	1	0	0	0	0	0	0	0	0	20
9:00	1	7	4	1	0	0	0	0	0	0	0	0	13
10:00	1	6	5	1	0	0	0	0	0	0	0	0	13
11:00	1	3	0	0	0	0	0	0	0	0	0	0	4
Total	23	368	404	55	23	12	12	6	4	4	1	0	912

Percentile	15th
Speed	26
	31
Mean Speed (Average)	325.5
10 MPH Pace Speed	27-36
Number in Pace	578
Percent in Pace	63.4%
Number > 45 MPH	23
Percent > 45 MPH	2.5%

Commercial Center - Elk Twp.

Buck Rd.

Elk Township/Gloucester County/NJ

Site Code: 22158-2

Station ID: 22158

Location 1: Elk Rd.

Location 2:

Latitude: 0.000000

Longitude: 0.000000

Direction: West, Lane 1

Shropshire Associates LLC

277 Whitehorse Pike, Suite 203

Atco, NJ 08004

File Name: 22158-2 Elk Rd.

Date Printed: 1/18/2024

Start Date: 1/11/2024

End Date: 1/18/2024

GPS Accuracy: 0 ft

Location Verified: No

1/17/2024	> 72 -	> 120 -	> 180 -	> 240 -	> 300 -	> 360 -	> 480 -	> 600 -	> 720 -	> 840 -			
Time	0 - 72 in.	120 in.	180 in.	240 in.	300 in.	360 in.	480 in.	600 in.	720 in.	840 in.	960 in.	> 960 in.	Total
12:00 AM	0	1	1	0	0	0	0	0	0	0	0	0	2
1:00	0	0	1	4	1	1	0	0	0	0	0	0	7
2:00	0	3	4	0	0	0	0	0	0	0	0	0	7
3:00	2	3	6	0	0	0	0	0	0	0	0	0	11
4:00	1	7	6	2	0	0	0	0	0	0	1	0	17
5:00	1	13	19	2	1	0	0	0	0	0	0	0	36
6:00	1	48	42	3	0	0	0	1	0	0	0	0	95
7:00	1	44	30	2	3	2	2	0	0	0	0	0	84
8:00	3	42	26	6	4	1	1	1	0	1	0	0	85
9:00	4	23	23	6	3	1	3	1	1	1	0	0	66
10:00	1	22	20	1	1	3	0	0	0	0	0	0	48
11:00	2	12	15	1	1	1	0	0	0	0	0	0	32
12:00 PM	4	18	21	3	2	1	0	1	0	0	0	0	50
1:00	2	12	26	8	1	3	0	0	0	0	0	0	52
2:00	4	23	28	1	2	2	0	0	0	0	1	0	61
3:00	4	20	25	3	3	1	0	0	0	0	0	0	56
4:00	5	38	29	3	0	0	2	0	1	0	0	0	78
5:00	2	31	30	1	1	0	0	0	1	0	0	0	66
6:00	0	26	20	3	1	1	0	0	0	0	0	0	51
7:00	2	10	10	1	0	0	0	0	0	0	0	1	24
8:00	0	14	18	1	0	0	0	0	0	0	0	0	33
9:00	0	10	7	1	0	0	0	0	0	0	0	0	18
10:00	0	4	7	0	0	1	1	0	0	0	0	0	13
11:00	0	2	1	0	0	0	0	0	1	0	0	0	4
Total	39	426	415	52	24	18	9	4	4	2	2	1	996

Percentile

Speed

Mean Speed (Average) 336.7

10 MPH Pace Speed 29-38

Number in Pace 654

Percent in Pace 65.7%

Number > 45 MPH 40

Percent > 45 MPH 4.0%

Commercial Center - Elk Twp.

Buck Rd.

Elk Township/Gloucester County/NJ

Site Code: 22158-2

Station ID: 22158

Location 1: Elk Rd.

Location 2:

Latitude: 0.000000

Longitude: 0.000000

Direction: West, Lane 1

Shropshire Associates LLC

277 Whitehorse Pike, Suite 203

Atco, NJ 08004

File Name: 22158-2 Elk Rd.

Date Printed: 1/18/2024

Start Date: 1/11/2024

End Date: 1/18/2024

GPS Accuracy: 0 ft

Location Verified: No

1/18/2024	> 72 -	> 120 -	> 180 -	> 240 -	> 300 -	> 360 -	> 480 -	> 600 -	> 720 -	> 840 -			
Time	0 - 72 in.	120 in.	180 in.	240 in.	300 in.	360 in.	480 in.	600 in.	720 in.	840 in.	960 in.	> 960 in.	Total
12:00 AM	0	0	1	0	0	0	0	0	0	0	0	0	1
1:00	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00	0	2	1	1	0	0	0	0	0	0	0	0	4
3:00	0	2	4	0	0	0	0	0	0	0	0	0	6
4:00	0	5	8	0	0	0	0	0	0	0	0	0	13
5:00	3	12	22	3	1	0	0	0	0	0	0	0	41
6:00	1	37	43	11	4	1	1	1	0	0	0	0	99
7:00	3	39	43	7	1	3	3	0	0	0	0	0	99
8:00	5	22	33	7	3	0	1	2	0	0	1	0	74
9:00	2	22	29	4	1	2	5	0	2	0	0	0	67
10:00	3	12	12	1	1	2	1	1	0	0	0	0	33
11:00	0	12	29	3	2	2	1	0	0	0	0	0	49
12:00 PM	1	13	12	1	0	1	0	0	0	1	0	0	29
1:00	*	*	*	*	*	*	*	*	*	*	*	*	0
2:00	*	*	*	*	*	*	*	*	*	*	*	*	0
3:00	*	*	*	*	*	*	*	*	*	*	*	*	0
4:00	*	*	*	*	*	*	*	*	*	*	*	*	0
5:00	*	*	*	*	*	*	*	*	*	*	*	*	0
6:00	*	*	*	*	*	*	*	*	*	*	*	*	0
7:00	*	*	*	*	*	*	*	*	*	*	*	*	0
8:00	*	*	*	*	*	*	*	*	*	*	*	*	0
9:00	*	*	*	*	*	*	*	*	*	*	*	*	0
10:00	*	*	*	*	*	*	*	*	*	*	*	*	0
11:00	*	*	*	*	*	*	*	*	*	*	*	*	0
Total	18	178	237	38	13	11	12	4	2	1	1	0	515

Percentile 15th 50th 85th 95th
Speed 28 33 40 44

Mean Speed (Average) 343.7
10 MPH Pace Speed 28-37
Number in Pace 340
Percent in Pace 66.0%
Number > 45 MPH 23
Percent > 45 MPH 4.7%

Grand Total	132	2461	2725	348	151	92	83	28	30	11	7	2	6070
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Stats Percentile 15th 50th 85th 95th
Speed 28 33 40 45

Mean Speed (Average) 344.1
10 MPH Pace Speed 28-37
Number in Pace 3795
Percent in Pace 62.5%
Number > 45 MPH 370
Percent > 45 MPH 6.1%

Commercial Center - Elk Twp.
 Buck Rd.
 Elk Township/Gloucester County/NJ
 Site Code: 22158-2
 Station ID: 22158
 Location 1: Elk Rd.
 Location 2:
 Latitude: 0.000000
 Longitude: 0.000000
 Direction: East, Lane 2

Shropshire Associates LLC
 277 Whitehorse Pike, Suite 203
 Atco, NJ 08004

File Name: 22158-2 Elk Rd.
 Date Printed: 1/18/2024
 Start Date: 1/11/2024
 End Date: 1/18/2024
 GPS Accuracy: 0 ft
 Location Verified: No

1/11/2024	> 72 -	> 120 -	> 180 -	> 240 -	> 300 -	> 360 -	> 480 -	> 600 -	> 720 -	> 840 -			
Time	0 - 72 in.	120 in.	180 in.	240 in.	300 in.	360 in.	480 in.	600 in.	720 in.	840 in.	960 in.	> 960 in.	Total
12:00 AM	*	*	*	*	*	*	*	*	*	*	*	*	0
1:00	*	*	*	*	*	*	*	*	*	*	*	*	0
2:00	*	*	*	*	*	*	*	*	*	*	*	*	0
3:00	*	*	*	*	*	*	*	*	*	*	*	*	0
4:00	*	*	*	*	*	*	*	*	*	*	*	*	0
5:00	*	*	*	*	*	*	*	*	*	*	*	*	0
6:00	*	*	*	*	*	*	*	*	*	*	*	*	0
7:00	*	*	*	*	*	*	*	*	*	*	*	*	0
8:00	*	*	*	*	*	*	*	*	*	*	*	*	0
9:00	0	0	41	6	3	0	0	0	0	1	0	0	51
10:00	0	2	80	17	6	1	3	1	1	0	0	0	111
11:00	0	2	84	9	3	0	1	1	0	0	0	0	100
12:00 PM	0	1	77	10	4	4	4	0	0	0	0	0	100
1:00	0	2	85	6	1	3	1	2	1	0	0	0	101
2:00	1	4	119	4	5	5	4	1	1	1	0	0	145
3:00	1	3	152	8	6	5	3	0	0	0	0	0	178
4:00	0	3	189	18	3	4	1	0	0	0	0	0	218
5:00	1	0	180	13	4	1	2	0	0	0	0	0	201
6:00	0	3	129	1	0	0	1	1	0	0	0	0	135
7:00	0	0	54	2	2	1	0	1	0	0	0	0	60
8:00	0	1	41	0	0	0	0	0	0	0	0	0	42
9:00	0	0	32	2	0	0	0	0	1	0	0	0	35
10:00	1	0	18	1	0	0	0	0	0	0	0	0	20
11:00	0	0	19	0	0	0	0	0	0	0	0	0	19
Total	4	21	1300	97	37	24	20	7	4	2	0	0	1516

Percentile 15th 50th 85th 95th
 Speed 31 37 45 49
 Mean Speed (Average) 384.9
 10 MPH Pace Speed 34-43
 Number in Pace 914
 Percent in Pace 60.3%
 Number > 45 MPH 258
 Percent > 45 MPH 17.0%

Commercial Center - Elk Twp.
 Buck Rd.
 Elk Township/Gloucester County/NJ
 Site Code: 22158-2
 Station ID: 22158
 Location 1: Elk Rd.
 Location 2:
 Latitude: 0.000000
 Longitude: 0.000000
 Direction: East, Lane 2

Shropshire Associates LLC
 277 Whitehorse Pike, Suite 203
 Atco, NJ 08004

File Name: 22158-2 Elk Rd.
 Date Printed: 1/18/2024
 Start Date: 1/11/2024
 End Date: 1/18/2024
 GPS Accuracy: 0 ft
 Location Verified: No

1/12/2024	> 72 -	> 120 -	> 180 -	> 240 -	> 300 -	> 360 -	> 480 -	> 600 -	> 720 -	> 840 -			
Time	0 - 72 in.	120 in.	180 in.	240 in.	300 in.	360 in.	480 in.	600 in.	720 in.	840 in.	960 in.	> 960 in.	Total
12:00 AM	0	1	9	0	0	0	0	0	0	0	0	0	10
1:00	0	0	9	0	0	0	0	0	0	0	0	0	9
2:00	0	0	2	0	0	1	0	0	0	0	0	0	3
3:00	0	0	7	0	0	0	0	0	0	0	0	0	7
4:00	0	0	14	1	1	0	0	0	0	0	0	0	16
5:00	0	0	27	2	0	0	0	0	0	0	0	0	29
6:00	0	2	56	6	2	0	0	0	0	1	0	0	67
7:00	1	1	121	5	3	2	3	0	0	0	0	0	136
8:00	0	2	95	3	1	5	2	1	2	0	0	0	111
9:00	0	2	66	6	2	2	2	0	0	0	0	0	80
10:00	0	3	83	17	2	2	1	0	0	0	0	0	108
11:00	0	0	85	12	1	1	1	0	1	0	0	0	101
12:00 PM	0	1	93	10	4	1	1	2	2	0	0	0	114
1:00	0	1	100	11	2	0	1	0	1	1	0	0	117
2:00	0	0	122	11	3	2	3	1	1	0	0	0	143
3:00	0	1	176	12	5	1	2	0	0	0	0	0	197
4:00	0	3	196	9	0	5	2	2	2	0	0	0	219
5:00	0	1	185	10	2	3	0	2	0	0	0	0	203
6:00	0	1	110	2	0	0	0	0	1	0	0	0	114
7:00	0	0	68	5	1	0	0	1	1	0	0	0	76
8:00	0	0	45	1	0	1	1	0	1	0	0	0	49
9:00	0	0	32	2	0	0	0	0	0	0	0	0	34
10:00	0	0	20	0	0	0	0	0	0	0	0	0	20
11:00	0	0	13	0	0	0	0	0	0	0	0	0	13
Total	1	19	1734	125	29	26	19	9	12	2	0	0	1976

Percentile 15th 50th 85th 95th
 Speed 31 37 45 49
 Mean Speed (Average) 383.1
 10 MPH Pace Speed 34-43
 Number in Pace 1161
 Percent in Pace 58.8%
 Number > 45 MPH 306
 Percent > 45 MPH 15.5%

Commercial Center - Elk Twp.

Buck Rd.

Elk Township/Gloucester County/NJ

Site Code: 22158-2

Station ID: 22158

Location 1: Elk Rd.

Location 2:

Latitude: 0.000000

Longitude: 0.000000

Direction: East, Lane 2

Shropshire Associates LLC

277 Whitehorse Pike, Suite 203

Atco, NJ 08004

File Name: 22158-2 Elk Rd.

Date Printed: 1/18/2024

Start Date: 1/11/2024

End Date: 1/18/2024

GPS Accuracy: 0 ft

Location Verified: No

1/13/2024	> 72 -	> 120 -	> 180 -	> 240 -	> 300 -	> 360 -	> 480 -	> 600 -	> 720 -	> 840 -			
Time	0 - 72 in.	120 in.	180 in.	240 in.	300 in.	360 in.	480 in.	600 in.	720 in.	840 in.	960 in.	> 960 in.	Total
12:00 AM	0	0	6	1	0	0	0	0	0	0	0	0	7
1:00	0	1	3	0	0	0	0	0	0	0	0	0	4
2:00	0	1	2	0	1	0	0	0	0	0	0	0	4
3:00	0	0	5	0	0	0	0	0	0	0	0	0	5
4:00	0	0	9	0	0	0	0	0	0	0	0	0	9
5:00	0	2	3	0	0	0	0	0	0	0	0	0	5
6:00	0	1	18	1	0	0	0	0	0	0	0	0	20
7:00	0	1	25	0	1	1	4	0	0	0	0	0	32
8:00	0	1	49	3	1	1	2	0	1	0	0	0	58
9:00	2	2	81	2	2	1	1	1	0	0	0	0	92
10:00	1	2	99	15	2	1	1	0	0	0	0	0	121
11:00	0	0	96	6	0	1	0	0	0	0	0	0	103
12:00 PM	0	1	101	6	0	1	1	0	1	0	0	0	111
1:00	0	0	84	5	1	1	0	0	1	0	0	0	92
2:00	0	4	74	2	0	0	0	1	0	0	0	0	81
3:00	0	1	114	3	1	1	0	0	0	0	0	0	120
4:00	0	2	100	2	2	0	1	1	0	0	0	0	108
5:00	0	2	116	5	0	0	0	0	0	0	0	0	123
6:00	0	0	61	0	1	1	0	0	0	0	0	0	63
7:00	0	0	42	1	0	0	0	0	0	0	0	0	43
8:00	0	1	47	6	1	0	0	0	0	0	0	0	55
9:00	0	0	26	1	0	0	0	0	0	0	0	0	27
10:00	0	1	22	0	0	0	0	0	0	0	0	0	23
11:00	0	0	20	1	0	0	0	0	0	0	0	0	21
Total	3	23	1203	60	13	9	10	3	3	0	0	0	1327

Percentile

Speed

Mean Speed (Average)

10 MPH Pace Speed

Number in Pace

Percent in Pace

Number > 45 MPH

Percent > 45 MPH

15th

32

399.9

34-43

751

56.6%

297

22.4%

50th

39

399.9

34-43

751

56.6%

297

22.4%

85th

46

399.9

34-43

751

56.6%

297

22.4%

95th

50

399.9

34-43

751

56.6%

297

22.4%

Commercial Center - Elk Twp.

Buck Rd.

Elk Township/Gloucester County/NJ

Site Code: 22158-2

Station ID: 22158

Location 1: Elk Rd.

Location 2:

Latitude: 0.000000

Longitude: 0.000000

Direction: East, Lane 2

Shropshire Associates LLC

277 Whitehorse Pike, Suite 203

Atco, NJ 08004

File Name: 22158-2 Elk Rd.

Date Printed: 1/18/2024

Start Date: 1/11/2024

End Date: 1/18/2024

GPS Accuracy: 0 ft

Location Verified: No

1/14/2024	> 72 -	> 120 -	> 180 -	> 240 -	> 300 -	> 360 -	> 480 -	> 600 -	> 720 -	> 840 -			
Time	0 - 72 in.	120 in.	180 in.	240 in.	300 in.	360 in.	480 in.	600 in.	720 in.	840 in.	960 in.	> 960 in.	Total
12:00 AM	0	1	7	0	0	0	0	0	0	0	0	0	8
1:00	0	0	8	0	0	0	0	0	0	0	0	0	8
2:00	0	1	6	0	0	0	0	0	0	0	0	0	7
3:00	0	0	5	0	0	0	0	0	0	0	0	0	5
4:00	0	0	8	0	0	0	0	0	0	0	0	0	8
5:00	0	0	4	0	0	0	0	0	0	0	0	0	4
6:00	1	1	17	0	0	0	0	1	0	0	0	0	20
7:00	0	1	20	1	0	1	0	0	0	0	0	0	23
8:00	0	3	29	2	0	1	0	0	0	0	0	0	35
9:00	0	1	48	3	1	1	0	0	0	0	0	0	54
10:00	0	1	63	15	1	1	0	0	0	0	0	0	81
11:00	0	1	63	6	2	1	0	0	0	0	0	0	73
12:00 PM	0	1	98	8	1	1	0	0	0	0	0	0	109
1:00	0	0	86	2	0	1	1	0	0	0	0	0	90
2:00	0	0	68	3	0	0	0	0	0	0	0	0	71
3:00	0	1	66	3	1	1	2	0	0	0	0	0	74
4:00	0	4	47	4	0	0	0	0	0	0	0	0	55
5:00	0	2	47	2	0	0	0	0	0	0	0	0	51
6:00	0	1	44	4	0	1	0	0	0	0	0	0	50
7:00	0	1	42	0	0	0	0	0	0	0	0	0	43
8:00	0	0	35	1	0	0	0	0	0	0	0	0	36
9:00	0	1	21	0	0	0	0	0	0	0	0	0	22
10:00	0	0	9	0	0	0	0	0	0	0	0	0	9
11:00	0	0	9	1	0	0	0	0	0	0	0	0	10
Total	1	21	850	55	6	9	3	1	0	0	0	0	946

Percentile	15th
Speed	33
	40
Mean Speed (Average)	404.4
10 MPH Pace Speed	34-43
Number in Pace	521
Percent in Pace	55.1%
Number > 45 MPH	236
Percent > 45 MPH	24.9%

Commercial Center - Elk Twp.

Buck Rd.

Elk Township/Gloucester County/NJ

Site Code: 22158-2

Station ID: 22158

Location 1: Elk Rd.

Location 2:

Latitude: 0.000000

Longitude: 0.000000

Direction: East, Lane 2

Shropshire Associates LLC

277 Whitehorse Pike, Suite 203

Atco, NJ 08004

File Name: 22158-2 Elk Rd.

Date Printed: 1/18/2024

Start Date: 1/11/2024

End Date: 1/18/2024

GPS Accuracy: 0 ft

Location Verified: No

1/15/2024	> 72 -	> 120 -	> 180 -	> 240 -	> 300 -	> 360 -	> 480 -	> 600 -	> 720 -	> 840 -			
Time	0 - 72 in.	120 in.	180 in.	240 in.	300 in.	360 in.	480 in.	600 in.	720 in.	840 in.	960 in.	> 960 in.	Total
12:00 AM	0	0	4	0	0	0	0	0	0	0	0	0	4
1:00	0	0	2	0	0	0	0	0	0	0	0	0	2
2:00	0	0	4	0	1	0	0	0	0	0	0	0	5
3:00	0	0	9	0	0	0	1	0	0	0	0	0	10
4:00	0	0	7	1	0	0	0	0	0	0	0	0	8
5:00	0	0	26	2	0	0	0	0	0	0	0	0	28
6:00	0	1	47	3	2	2	0	0	1	0	0	0	56
7:00	0	0	72	3	1	0	0	0	0	0	0	0	76
8:00	0	1	58	6	2	2	0	0	0	0	0	0	69
9:00	0	0	55	5	3	1	0	2	1	0	0	0	67
10:00	0	0	74	14	4	0	0	1	0	0	0	0	93
11:00	0	2	92	7	3	3	1	0	1	0	0	0	109
12:00 PM	0	0	75	12	4	2	1	0	2	0	0	0	96
1:00	0	1	97	3	4	2	0	1	0	0	0	0	108
2:00	0	1	99	5	0	5	0	2	1	1	0	0	114
3:00	1	1	126	9	3	3	2	0	1	0	1	0	147
4:00	1	1	121	13	3	1	1	1	1	1	0	0	144
5:00	0	2	143	6	2	2	2	0	1	0	0	0	158
6:00	0	0	64	2	1	0	1	0	0	0	0	0	68
7:00	0	1	34	0	0	1	0	0	0	0	0	0	36
8:00	0	1	21	2	0	0	0	1	0	0	0	0	25
9:00	0	1	12	1	0	0	0	0	0	0	0	0	14
10:00	0	0	15	1	0	0	0	0	0	0	0	0	16
11:00	0	0	11	0	0	0	0	0	0	0	0	0	11
Total	2	13	1268	95	33	24	9	8	9	2	1	0	1464

Percentile	15th
Speed	30
	37
	45
	49
Mean Speed (Average)	379.9
10 MPH Pace Speed	34-43
Number in Pace	830
Percent in Pace	56.7%
Number > 45 MPH	231
Percent > 45 MPH	15.8%

Commercial Center - Elk Twp.

Buck Rd.

Elk Township/Gloucester County/NJ

Site Code: 22158-2

Station ID: 22158

Location 1: Elk Rd.

Location 2:

Latitude: 0.000000

Longitude: 0.000000

Direction: East, Lane 2

Shropshire Associates LLC

277 Whitehorse Pike, Suite 203

Atco, NJ 08004

File Name: 22158-2 Elk Rd.

Date Printed: 1/18/2024

Start Date: 1/11/2024

End Date: 1/18/2024

GPS Accuracy: 0 ft

Location Verified: No

1/16/2024	> 72 -	> 120 -	> 180 -	> 240 -	> 300 -	> 360 -	> 480 -	> 600 -	> 720 -	> 840 -			
Time	0 - 72 in.	120 in.	180 in.	240 in.	300 in.	360 in.	480 in.	600 in.	720 in.	840 in.	960 in.	> 960 in.	Total
12:00 AM	0	2	7	1	0	0	0	0	0	0	0	0	10
1:00	0	0	6	0	1	0	0	0	0	0	0	0	7
2:00	1	0	4	1	0	0	0	0	0	0	0	0	6
3:00	0	1	6	1	1	1	2	0	0	0	0	0	12
4:00	0	0	5	1	1	1	1	0	0	0	0	0	9
5:00	0	0	20	4	0	0	0	0	0	0	0	0	24
6:00	0	2	36	4	0	0	0	0	0	0	0	0	42
7:00	0	1	58	3	1	0	0	0	1	0	0	0	64
8:00	0	4	70	4	2	0	1	1	0	0	0	0	82
9:00	0	2	85	8	3	2	1	0	0	0	0	0	101
10:00	0	1	50	19	1	2	1	0	1	0	0	0	75
11:00	0	1	49	7	2	1	0	0	0	0	0	0	60
12:00 PM	0	1	52	5	3	2	1	0	1	0	0	0	65
1:00	0	1	49	2	4	1	1	0	0	0	0	0	58
2:00	0	2	73	5	3	1	0	2	0	1	0	0	87
3:00	0	1	91	5	4	4	1	0	0	0	1	0	107
4:00	1	4	154	6	2	7	0	1	2	0	0	0	177
5:00	0	6	131	4	0	1	0	0	1	0	0	0	143
6:00	0	3	58	4	1	0	0	0	0	0	0	0	66
7:00	0	0	38	1	0	0	0	0	0	0	0	0	39
8:00	0	1	19	0	0	0	0	0	0	0	0	0	20
9:00	0	1	11	0	0	0	0	0	0	0	0	0	12
10:00	0	0	15	0	0	0	0	0	0	0	0	0	15
11:00	1	1	10	0	0	0	0	0	0	0	0	0	12
Total	3	35	1097	85	29	23	9	4	6	1	1	0	1293

Percentile

Speed

Mean Speed (Average) 351.6

10 MPH Pace Speed 30-39

Number in Pace 753

Percent in Pace 58.2%

Number > 45 MPH 83

Percent > 45 MPH 6.4%

Commercial Center - Elk Twp.
 Buck Rd.
 Elk Township/Gloucester County/NJ
 Site Code: 22158-2
 Station ID: 22158
 Location 1: Elk Rd.
 Location 2:
 Latitude: 0.000000
 Longitude: 0.000000
 Direction: East, Lane 2

Shropshire Associates LLC
 277 Whitehorse Pike, Suite 203
 Atco, NJ 08004

File Name: 22158-2 Elk Rd.
 Date Printed: 1/18/2024
 Start Date: 1/11/2024
 End Date: 1/18/2024
 GPS Accuracy: 0 ft
 Location Verified: No

1/17/2024	> 72 -	> 120 -	> 180 -	> 240 -	> 300 -	> 360 -	> 480 -	> 600 -	> 720 -	> 840 -			
Time	0 - 72 in.	120 in.	180 in.	240 in.	300 in.	360 in.	480 in.	600 in.	720 in.	840 in.	960 in.	> 960 in.	Total
12:00 AM	0	0	10	0	0	0	0	0	0	0	0	0	10
1:00	0	1	5	0	1	0	0	0	0	0	0	0	7
2:00	0	0	8	0	0	0	0	0	0	0	0	0	8
3:00	0	0	8	0	2	0	0	0	0	0	0	0	10
4:00	0	0	9	0	0	0	0	0	0	0	0	0	9
5:00	0	0	26	0	1	0	0	0	0	0	0	0	27
6:00	0	0	49	2	2	0	0	1	0	0	0	0	54
7:00	0	2	70	2	1	0	1	0	0	0	0	0	76
8:00	0	2	73	8	2	2	2	0	0	0	0	0	89
9:00	0	3	91	4	1	2	0	0	0	0	0	0	101
10:00	2	2	68	12	3	3	0	0	1	0	0	0	91
11:00	1	3	52	9	4	1	0	0	0	0	0	0	70
12:00 PM	1	2	82	6	3	1	2	0	2	0	0	0	99
1:00	2	3	82	7	4	3	1	1	2	0	0	0	105
2:00	1	2	83	2	4	1	2	1	2	0	0	0	98
3:00	2	4	137	5	1	5	0	0	1	0	0	0	155
4:00	0	6	171	15	2	2	1	0	1	0	0	0	198
5:00	0	7	169	5	1	0	1	0	0	0	0	0	183
6:00	0	1	90	2	1	1	0	0	0	0	0	0	95
7:00	0	1	52	2	0	0	2	1	0	0	0	0	58
8:00	0	1	37	2	1	0	1	0	1	0	0	0	43
9:00	0	1	30	0	0	0	0	0	0	0	0	0	31
10:00	0	1	17	1	0	0	0	0	0	0	0	0	19
11:00	0	0	15	0	0	0	0	0	0	0	0	0	15
Total	9	42	1434	84	34	21	13	4	10	0	0	0	1651

Percentile	15th
Speed	31
	37
Mean Speed (Average)	382.6
10 MPH Pace Speed	34-43
Number in Pace	1010
Percent in Pace	61.2%
Number > 45 MPH	241
Percent > 45 MPH	14.6%

Commercial Center - Elk Twp.
 Buck Rd.
 Elk Township/Gloucester County/NJ
 Site Code: 22158-2
 Station ID: 22158
 Location 1: Elk Rd.
 Location 2:
 Latitude: 0.000000
 Longitude: 0.000000
 Direction: Combined

Shropshire Associates LLC
 277 Whitehorse Pike, Suite 203
 Atco, NJ 08004

File Name: 22158-2 Elk Rd.
 Date Printed: 1/18/2024
 Start Date: 1/11/2024
 End Date: 1/18/2024
 GPS Accuracy: 0 ft
 Location Verified: No

1/11/2024	> 72 -	> 120 -	> 180 -	> 240 -	> 300 -	> 360 -	> 480 -	> 600 -	> 720 -	> 840 -			Total
Time	0 - 72 in.	120 in.	180 in.	240 in.	300 in.	360 in.	480 in.	600 in.	720 in.	840 in.	960 in.	> 960 in.	
12:00 AM	*	*	*	*	*	*	*	*	*	*	*	*	0
1:00	*	*	*	*	*	*	*	*	*	*	*	*	0
2:00	*	*	*	*	*	*	*	*	*	*	*	*	0
3:00	*	*	*	*	*	*	*	*	*	*	*	*	0
4:00	*	*	*	*	*	*	*	*	*	*	*	*	0
5:00	*	*	*	*	*	*	*	*	*	*	*	*	0
6:00	*	*	*	*	*	*	*	*	*	*	*	*	0
7:00	*	*	*	*	*	*	*	*	*	*	*	*	0
8:00	*	*	*	*	*	*	*	*	*	*	*	*	0
9:00	0	12	52	8	4	1	1	1	0	1	0	0	80
10:00	1	20	100	21	9	4	5	1	1	0	0	0	162
11:00	0	19	108	10	3	0	2	1	0	0	0	0	143
12:00 PM	1	17	104	14	8	5	6	0	0	0	0	0	155
1:00	0	21	104	8	4	5	3	3	2	1	0	0	151
2:00	1	38	160	9	8	12	6	1	1	1	0	0	237
3:00	1	30	185	10	9	5	7	0	1	0	0	0	248
4:00	1	36	229	21	4	6	1	0	1	0	0	0	299
5:00	3	33	203	17	5	1	2	0	0	0	0	0	264
6:00	2	21	144	2	0	0	1	2	0	1	0	0	173
7:00	0	15	66	4	2	1	0	1	0	0	0	0	89
8:00	0	11	55	0	0	0	0	0	0	0	0	0	66
9:00	0	7	35	2	1	0	0	0	1	0	0	0	46
10:00	1	7	22	2	0	0	0	0	0	0	0	0	32
11:00	1	1	20	0	0	0	0	0	0	0	0	0	22
Total	12	288	1587	128	57	40	34	10	7	4	0	0	2167

Percentile 15th
 Speed 30
 Mean Speed (Average) 376.1
 10 MPH Pace Speed 34-43
 Number in Pace 1225
 Percent in Pace 56.5%
 Number > 45 MPH 321
 Percent > 45 MPH 14.8%

Percentile	15th	50th	85th	95th
Speed	30	36	44	49
Mean Speed (Average)	374.3			
10 MPH Pace Speed	34-43			
Number in Pace	1626			
Percent in Pace	55.0%			
Number > 45 MPH	395			
Percent > 45 MPH	13.4%			

Commercial Center - Elk Twp.
 Buck Rd.
 Elk Township/Gloucester County/NJ
 Site Code: 22158-2
 Station ID: 22158
 Location 1: Elk Rd.
 Location 2:
 Latitude: 0.000000
 Longitude: 0.000000
 Direction: Combined

Shropshire Associates LLC
 277 Whitehorse Pike, Suite 203
 Atco, NJ 08004

File Name: 22158-2 Elk Rd.
 Date Printed: 1/18/2024
 Start Date: 1/11/2024
 End Date: 1/18/2024
 GPS Accuracy: 0 ft
 Location Verified: No

1/13/2024	> 72 -	> 120 -	> 180 -	> 240 -	> 300 -	> 360 -	> 480 -	> 600 -	> 720 -	> 840 -			
Time	0 - 72 in.	72 - 120 in.	120 - 180 in.	180 - 240 in.	240 - 300 in.	300 - 360 in.	360 - 480 in.	480 - 600 in.	600 - 720 in.	720 - 840 in.	840 - 960 in.	> 960 in.	Total
12:00 AM	0	1	9	1	0	0	0	0	0	0	0	0	11
1:00	0	1	4	0	0	0	0	0	0	0	0	0	5
2:00	0	1	2	0	1	0	0	0	0	0	0	0	4
3:00	0	0	6	0	0	0	0	0	0	0	0	0	6
4:00	0	0	9	0	0	0	0	0	0	0	0	0	9
5:00	0	2	4	0	0	0	0	0	0	0	0	0	6
6:00	0	2	25	1	0	0	0	0	0	0	0	0	28
7:00	0	10	41	0	3	1	6	0	0	0	0	0	61
8:00	0	6	69	5	2	2	3	0	1	0	0	0	88
9:00	2	16	100	2	4	2	1	1	0	0	0	0	128
10:00	2	19	118	16	4	1	1	0	0	1	0	0	162
11:00	1	26	119	10	2	1	0	0	1	0	0	0	160
12:00 PM	0	17	122	8	0	1	1	0	1	0	0	0	150
1:00	1	18	98	6	3	1	0	0	1	0	0	0	128
2:00	0	30	89	5	0	0	0	1	0	0	0	0	125
3:00	0	19	132	6	2	3	0	0	0	0	0	0	162
4:00	0	30	130	5	3	1	1	2	0	0	0	0	172
5:00	0	25	137	9	1	0	0	0	0	0	0	0	172
6:00	0	15	79	4	1	1	0	0	0	0	0	0	100
7:00	0	20	49	1	0	0	0	0	0	0	0	0	70
8:00	0	6	53	6	1	0	0	0	0	0	0	0	66
9:00	1	16	30	1	0	0	0	0	0	0	0	0	48
10:00	0	6	29	0	0	0	0	0	0	0	0	0	35
11:00	0	5	22	1	0	0	0	0	0	0	0	0	28
Total	7	291	1476	87	27	14	13	4	4	1	0	0	1924

Percentile 15th 50th 85th 95th
 Speed 30 37 45 50
 Mean Speed (Average) 383.2
 10 MPH Pace Speed 34-43
 Number in Pace 1012
 Percent in Pace 52.6%
 Number > 45 MPH 343
 Percent > 45 MPH 17.8%

Commercial Center - Elk Twp.
 Buck Rd.
 Elk Township/Gloucester County/NJ
 Site Code: 22158-2
 Station ID: 22158
 Location 1: Elk Rd.
 Location 2:
 Latitude: 0.000000
 Longitude: 0.000000
 Direction: Combined

Shropshire Associates LLC
 277 Whitehorse Pike, Suite 203
 Atco, NJ 08004

File Name: 22158-2 Elk Rd.
 Date Printed: 1/18/2024
 Start Date: 1/11/2024
 End Date: 1/18/2024
 GPS Accuracy: 0 ft
 Location Verified: No

1/14/2024	> 72 -	> 120 -	> 180 -	> 240 -	> 300 -	> 360 -	> 480 -	> 600 -	> 720 -	> 840 -			
Time	0 - 72 in.	120 in.	180 in.	240 in.	300 in.	360 in.	480 in.	600 in.	720 in.	840 in.	960 in.	> 960 in.	Total
12:00 AM	0	9	7	0	0	0	0	0	0	0	0	0	16
1:00	0	0	8	0	0	0	0	0	0	0	0	0	8
2:00	0	2	8	0	0	0	0	0	0	0	0	0	10
3:00	0	1	6	1	0	0	0	0	0	0	0	0	8
4:00	0	1	10	0	0	0	0	0	0	0	0	0	11
5:00	0	4	6	0	0	0	0	0	0	0	0	0	10
6:00	1	4	21	0	0	0	0	1	0	0	0	0	27
7:00	0	7	22	3	0	2	0	0	0	0	0	0	34
8:00	0	9	33	2	0	1	0	0	0	0	0	0	45
9:00	1	19	61	5	1	1	0	0	0	0	0	0	88
10:00	1	19	75	17	1	1	0	0	0	0	0	0	114
11:00	2	14	70	10	3	1	0	0	0	0	0	0	100
12:00 PM	1	30	120	8	2	3	0	0	0	0	0	0	164
1:00	0	20	105	4	1	2	1	0	0	0	0	0	133
2:00	0	20	90	4	0	0	0	0	0	0	0	0	114
3:00	1	26	87	5	2	1	2	1	1	0	0	0	126
4:00	1	31	72	5	0	0	0	0	0	0	0	0	109
5:00	0	20	65	8	0	0	0	0	0	0	0	0	93
6:00	0	5	56	5	1	1	0	0	0	0	0	0	68
7:00	1	14	47	1	0	0	0	0	0	0	0	0	63
8:00	0	10	40	1	0	0	0	0	0	0	0	0	51
9:00	0	6	25	0	0	0	0	0	0	0	0	0	31
10:00	0	5	13	0	0	0	0	0	0	0	0	0	18
11:00	0	2	11	3	0	0	0	0	0	0	0	0	16
Total	9	278	1058	82	11	13	3	2	1	0	0	0	1457

Percentile	15th
Speed	30
	38
Mean Speed (Average)	383.3
10 MPH Pace Speed	34-43
Number in Pace	759
Percent in Pace	52.1%
Number > 45 MPH	261
Percent > 45 MPH	17.9%

Commercial Center - Elk Twp.
 Buck Rd.
 Elk Township/Gloucester County/NJ
 Site Code: 22158-2
 Station ID: 22158
 Location 1: Elk Rd.
 Location 2:
 Latitude: 0.000000
 Longitude: 0.000000
 Direction: Combined

Shropshire Associates LLC
 277 Whitehorse Pike, Suite 203
 Atco, NJ 08004

File Name: 22158-2 Elk Rd.
 Date Printed: 1/18/2024
 Start Date: 1/11/2024
 End Date: 1/18/2024
 GPS Accuracy: 0 ft
 Location Verified: No

1/15/2024	> 72 -	> 120 -	> 180 -	> 240 -	> 300 -	> 360 -	> 480 -	> 600 -	> 720 -	> 840 -			
Time	0 - 72 in.	120 in.	180 in.	240 in.	300 in.	360 in.	480 in.	600 in.	720 in.	840 in.	960 in.	> 960 in.	Total
12:00 AM	0	1	5	0	0	0	0	0	0	0	0	0	6
1:00	0	1	2	0	0	0	0	0	0	0	0	0	3
2:00	0	1	7	1	1	0	0	0	0	0	0	0	10
3:00	0	2	13	0	0	0	1	0	0	0	0	0	16
4:00	0	4	13	3	0	0	0	0	0	0	0	0	20
5:00	1	7	50	4	0	0	0	0	0	0	0	0	62
6:00	0	18	79	10	4	2	0	2	1	0	0	0	116
7:00	3	17	109	9	3	4	3	0	0	0	0	0	148
8:00	2	14	82	12	5	3	0	0	0	0	0	0	118
9:00	0	21	80	6	6	3	1	2	1	0	0	0	120
10:00	2	24	92	15	7	2	1	1	0	0	1	0	145
11:00	1	21	118	9	8	3	1	0	1	0	0	0	162
12:00 PM	0	26	104	14	4	4	1	0	3	0	0	0	156
1:00	1	26	123	4	8	3	2	2	0	0	0	0	169
2:00	2	29	130	9	1	5	0	2	1	1	0	0	180
3:00	2	24	161	12	4	4	2	0	1	1	1	0	212
4:00	3	30	150	18	4	1	2	2	1	1	0	0	212
5:00	0	27	190	9	2	3	4	1	3	0	0	1	240
6:00	2	19	81	8	1	0	1	0	0	0	0	0	112
7:00	1	7	48	2	0	1	0	0	0	0	0	0	59
8:00	0	8	34	4	0	0	0	1	0	0	0	0	47
9:00	0	4	22	1	0	0	0	0	0	0	0	0	27
10:00	0	2	16	2	0	0	0	0	0	0	0	0	20
11:00	0	0	12	0	0	0	0	0	0	0	0	0	12
Total	20	333	1721	152	58	38	19	13	12	3	2	1	2372

Percentile	15th
Speed	29
	36
	44
	48
Mean Speed (Average)	367.6
10 MPH Pace Speed	34-43
Number in Pace	1257
Percent in Pace	53.0%
Number > 45 MPH	292
Percent > 45 MPH	12.3%

Commercial Center - Elk Twp.

Buck Rd.

Elk Township/Gloucester County/NJ

Site Code: 22158-2

Station ID: 22158

Location 1: Elk Rd.

Location 2:

Latitude: 0.000000

Longitude: 0.000000

Direction: Combined

Shropshire Associates LLC

277 Whitehorse Pike, Suite 203

Atco, NJ 08004

File Name: 22158-2 Elk Rd.

Date Printed: 1/18/2024

Start Date: 1/11/2024

End Date: 1/18/2024

GPS Accuracy: 0 ft

Location Verified: No

1/16/2024	> 72 -	> 120 -	> 180 -	> 240 -	> 300 -	> 360 -	> 480 -	> 600 -	> 720 -	> 840 -			
Time	0 - 72 in.	120 in.	180 in.	240 in.	300 in.	360 in.	480 in.	600 in.	720 in.	840 in.	960 in.	> 960 in.	Total
12:00 AM	0	4	10	1	0	0	0	0	0	0	0	0	15
1:00	0	2	8	0	1	0	0	0	0	0	0	0	11
2:00	1	1	10	1	0	0	0	0	0	0	0	0	13
3:00	0	2	11	3	2	1	2	0	0	0	0	0	21
4:00	0	4	22	2	2	1	1	0	0	0	0	0	32
5:00	1	13	44	6	1	0	0	0	0	0	0	0	65
6:00	5	33	79	16	2	0	0	0	0	0	0	0	135
7:00	3	41	78	10	4	1	1	0	1	0	0	0	139
8:00	3	23	85	5	3	3	3	2	1	0	0	0	128
9:00	1	20	116	10	8	5	2	2	2	1	0	0	167
10:00	1	18	74	22	3	3	2	1	1	0	0	0	125
11:00	0	17	66	10	2	1	2	0	0	1	0	0	99
12:00 PM	1	14	64	6	4	2	2	0	1	0	0	0	94
1:00	0	19	75	7	5	1	2	1	0	2	0	0	112
2:00	0	23	101	9	4	3	0	2	0	1	1	0	144
3:00	2	32	124	10	6	4	3	1	0	0	1	0	183
4:00	3	45	181	7	3	8	1	1	3	0	0	0	252
5:00	0	35	155	6	1	1	0	0	1	0	0	0	199
6:00	0	21	75	5	1	1	0	0	0	0	0	0	103
7:00	1	9	48	1	0	0	0	0	0	0	0	0	59
8:00	0	9	30	1	0	0	0	0	0	0	0	0	40
9:00	1	8	15	1	0	0	0	0	0	0	0	0	25
10:00	1	6	20	1	0	0	0	0	0	0	0	0	28
11:00	2	4	10	0	0	0	0	0	0	0	0	0	16
Total	26	403	1501	140	52	35	21	10	10	5	2	0	2205

Percentile

15th

50th

85th

95th

Speed

27

33

40

44

Mean Speed (Average)

340.8

10 MPH Pace Speed

29-38

Number in Pace

1298

Percent in Pace

58.9%

Number > 45 MPH

106

Percent > 45 MPH

4.8%

Commercial Center - Elk Twp.
 Buck Rd.
 Elk Township/Gloucester County/NJ
 Site Code: 22158-2
 Station ID: 22158
 Location 1: Elk Rd.
 Location 2:
 Latitude: 0.000000
 Longitude: 0.000000
 Direction: Combined

Shropshire Associates LLC
 277 Whitehorse Pike, Suite 203
 Atco, NJ 08004

File Name: 22158-2 Elk Rd.
 Date Printed: 1/18/2024
 Start Date: 1/11/2024
 End Date: 1/18/2024
 GPS Accuracy: 0 ft
 Location Verified: No

1/17/2024	> 72 -	> 120 -	> 180 -	> 240 -	> 300 -	> 360 -	> 480 -	> 600 -	> 720 -	> 840 -			
Time	0 - 72 in.	120 in.	180 in.	240 in.	300 in.	360 in.	480 in.	600 in.	720 in.	840 in.	960 in.	> 960 in.	Total
12:00 AM	0	1	11	0	0	0	0	0	0	0	0	0	12
1:00	0	1	6	4	2	1	0	0	0	0	0	0	14
2:00	0	3	12	0	0	0	0	0	0	0	0	0	15
3:00	2	3	14	0	2	0	0	0	0	0	0	0	21
4:00	1	7	15	2	0	0	0	0	0	0	1	0	26
5:00	1	13	45	2	2	0	0	0	0	0	0	0	63
6:00	1	48	91	5	2	0	0	2	0	0	0	0	149
7:00	1	46	100	4	4	2	3	0	0	0	0	0	160
8:00	3	44	99	14	6	3	3	1	0	1	0	0	174
9:00	4	26	114	10	4	3	3	1	1	1	0	0	167
10:00	3	24	88	13	4	6	0	0	1	0	0	0	139
11:00	3	15	67	10	5	2	0	0	0	0	0	0	102
12:00 PM	5	20	103	9	5	2	2	1	2	0	0	0	149
1:00	4	15	108	15	5	6	1	1	2	0	0	0	157
2:00	5	25	111	3	6	3	2	1	2	0	1	0	159
3:00	6	24	162	8	4	6	0	0	1	0	0	0	211
4:00	5	44	200	18	2	2	3	0	2	0	0	0	276
5:00	2	38	199	6	2	0	1	0	1	0	0	0	249
6:00	0	27	110	5	2	2	0	0	0	0	0	0	146
7:00	2	11	62	3	0	0	2	1	0	0	0	1	82
8:00	0	15	55	3	1	0	1	0	1	0	0	0	76
9:00	0	11	37	1	0	0	0	0	0	0	0	0	49
10:00	0	5	24	1	0	1	1	0	0	0	0	0	32
11:00	0	2	16	0	0	0	0	0	1	0	0	0	19
Total	48	468	1849	136	58	39	22	8	14	2	2	1	2647

Percentile	15th	50th	85th	95th
Speed	29	35	43	47
Mean Speed (Average)	365.3			
10 MPH Pace Speed	31-40			
Number in Pace	1465			
Percent in Pace	55.3%			
Number > 45 MPH	281			
Percent > 45 MPH	10.6%			

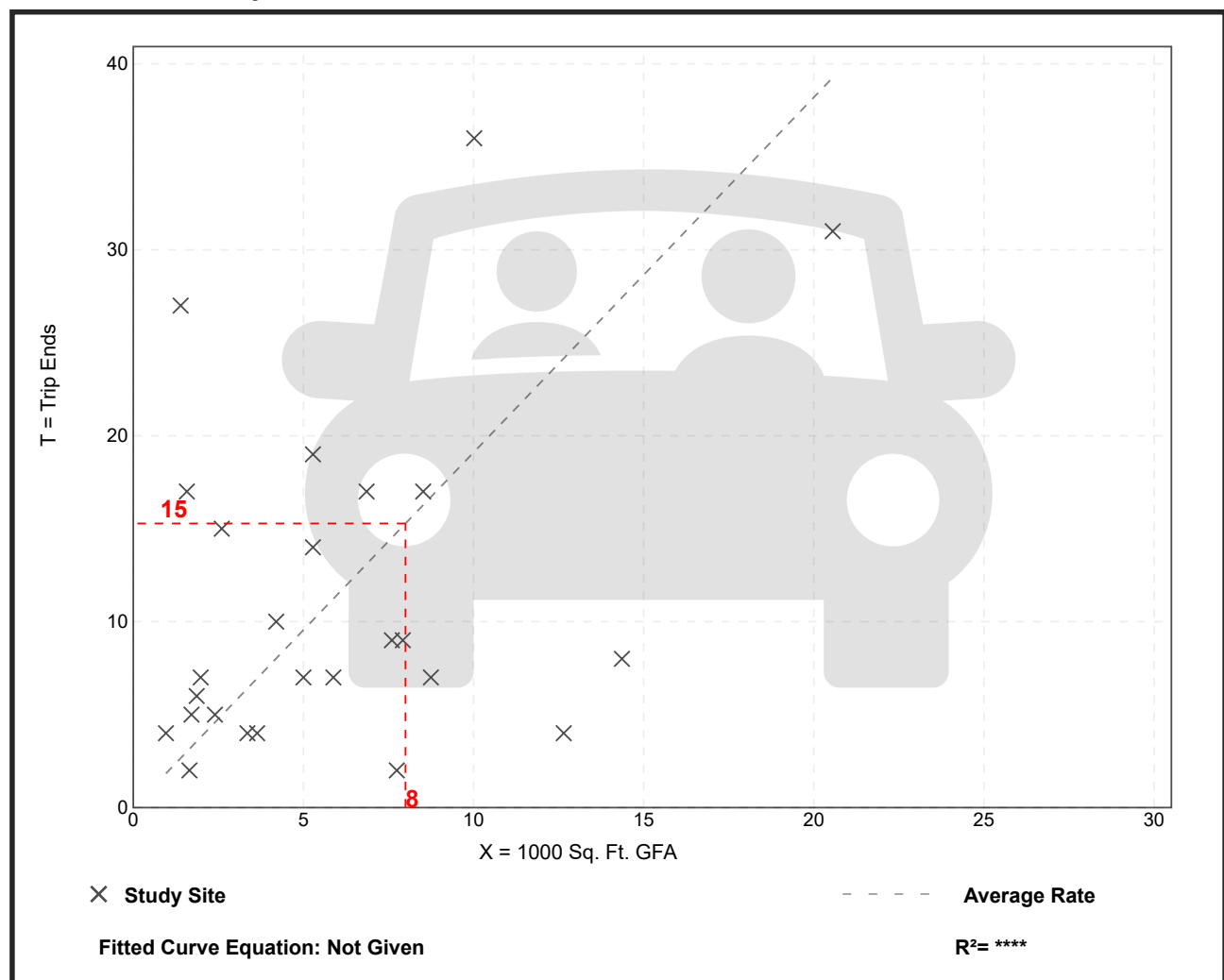
Automobile Parts and Service Center (943)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
 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: 26
 Avg. 1000 Sq. Ft. GFA: 6
 Directional Distribution: 72% entering, 28% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
1.91	0.26 - 19.40	2.28

Data Plot and Equation



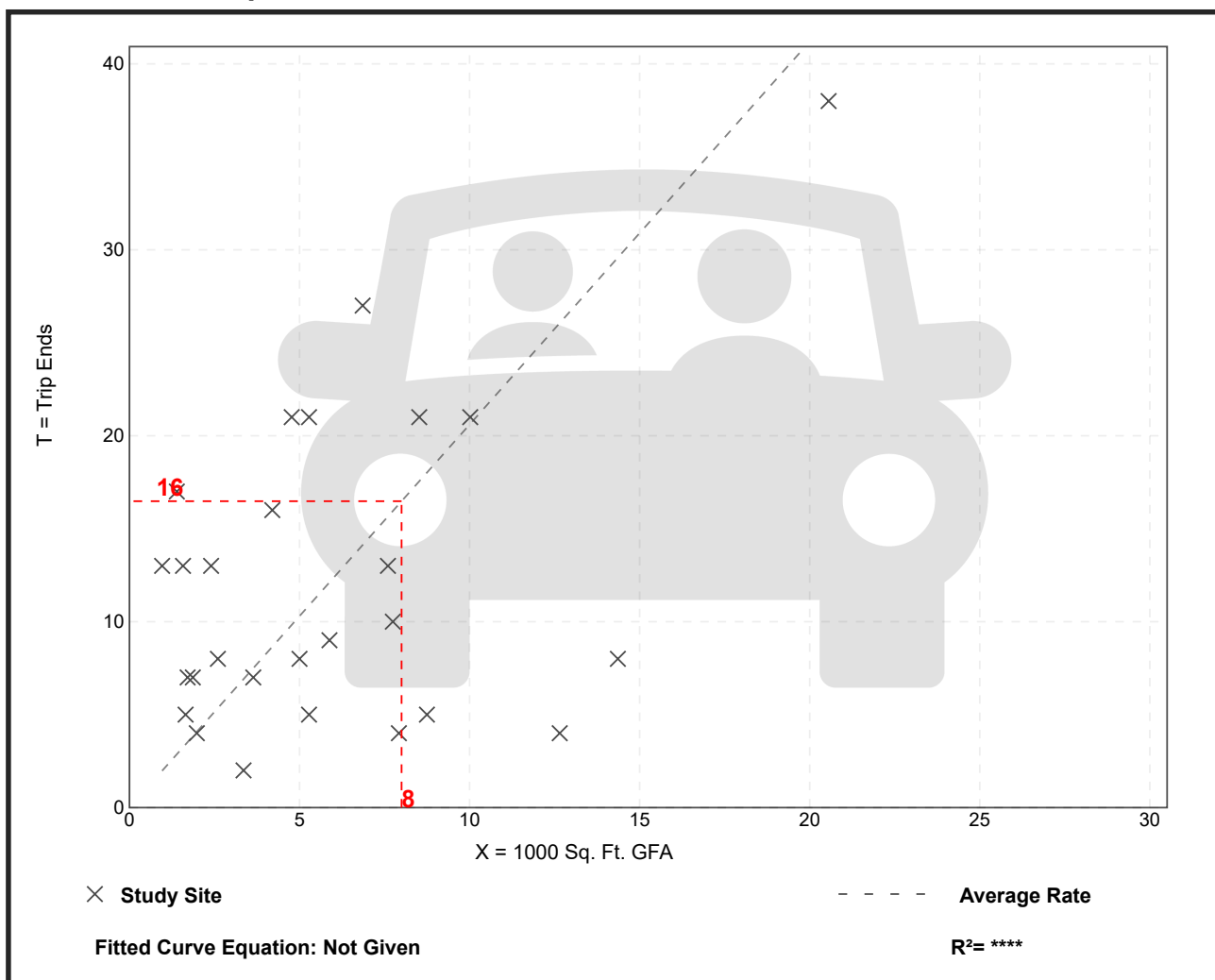
Automobile Parts and Service Center (943)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
 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: 27
 Avg. 1000 Sq. Ft. GFA: 6
 Directional Distribution: 39% entering, 61% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
2.06	0.32 - 13.54	1.97

Data Plot and Equation





GRAVITY MODEL (5 MILES)

Origin / Destination Analysis							
Municipality	Distance, D (miles)	D ² (miles ²)	Total Population	Population Factor	Adjusted Population, P	P / D ²	%
County Gloucester							
1 Elk Township	2.1	4.41	4,424	0.90	3,982	903	17.3%
2 Borough of Clayton	2.0	4.00	8,807	1.00	8,807	2,202	42.1%
3 Franklin Township	3.0	9.00	16,380	0.30	4,914	546	10.4%
4 Monroe Township	5.0	25.00	37,117	0.10	3,712	148	2.8%
5 Washington Township	5.0	25.00	48,677	0.05	2,434	97	1.9%
6 Harrison Township	5.0	25.00	13,641	0.10	1,364	55	1.0%
7 Borough of Glassboro	4.3	18.49	23,149	0.90	20,834	1,127	21.6%
County Salem							
8 Upper Pittsgrove Township	5.0	25.00	3,432	0.50	1,716	69	1.3%
9 Borough of Elmer	5.0	25.00	1,347	0.90	1,212	48	0.9%
10 Pittsgrove Township	5.0	25.00	8,777	0.10	878	35	0.7%
						5,230	100.0%

Roadway Utilization							
Municipality	North	North	South	South	East	West	Total
	S CR 553	SE CR 667	N CR 553	NW Willow Grove	W CR 538	E CR 538	
County Gloucester							
1 Elk Township	2.6%	2.6%	0.0%	0.0%	1.0%	11.1%	17.3%
2 Borough of Clayton	21.1%	0.0%	0.0%	0.0%	21.0%	0.0%	42.1%
3 Franklin Township	0.0%	0.0%	0.0%	1.5%	8.9%	0.0%	10.4%
4 Monroe Township	2.8%	0.0%	0.0%	0.0%	0.0%	0.0%	2.8%
5 Washington Township	1.9%	0.0%	0.0%	0.0%	0.0%	0.0%	1.9%
6 Harrison Township	0.0%	0.5%	0.0%	0.0%	0.0%	0.5%	1.0%
7 Borough of Glassboro	21.6%	0.0%	0.0%	0.0%	0.0%	0.0%	21.6%
County Salem							
8 Upper Pittsgrove Township	0.0%	0.0%	0.7%	0.0%	0.0%	0.6%	1.3%
9 Borough of Elmer	0.0%	0.0%	0.9%	0.0%	0.0%	0.0%	0.9%
10 Pittsgrove Township	0.0%	0.0%	0.4%	0.3%	0.0%	0.0%	0.7%
	50.0%	3.1%	2.0%	1.8%	30.9%	12.2%	100.0%

Left Turn Lane Warrant Analysis

Time Period..... Build AM	Analyzed Roadway..... Buck Road (C.R. 553)	Analyzed Roadway Speed Limit (MPH): 50
SA Job No..... 24029	Intersecting Roadway..... Site Driveway	
Date..... 2/28/24	Township..... Elk	
Analyst..... BDS	County..... Gloucester	

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	280	215	170	160	130	125
700	315	235	190	175	145	135
600	350	255	215	195	165	155
500	390	285	240	215	185	170
400	435	320	270	235	210	190
300	485	360	305	265	235	215
200	545	400	340	300	265	245
100	615	445	375	335	295	275

Inputs

Advancing Traffic Volume (V _A) - Veh / Hr.....	276
Left-Turning Vehicles in V _A - Veh / Hr.....	11
Opposing Traffic Volume (V _O) - Veh / Hr.....	370

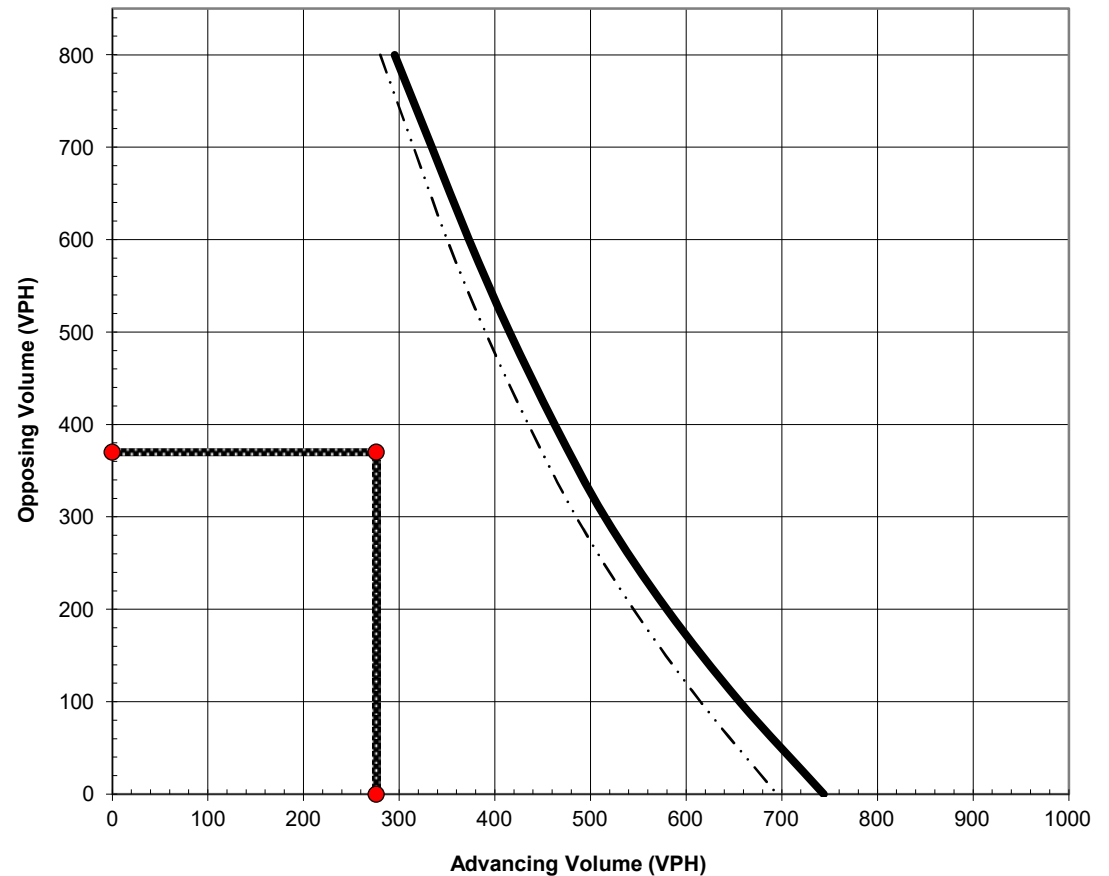
Analyses

Opposing Volume (V _O) in Veh / Hr	Advancing Volume (V _A) Required For Warrant		
	Next Lower Range	Calculated % Left-Turns	Next Higher Range
	-	4.0%	5%
800		295	280
700		334	315
600		373	350
500		415	390
400		463	435
300		515	485
200		580	545
100		656	615

Conclusion

Left-Turn Lane Not Warranted

Warrant for Left-Turn Lanes on Two-Lane Highways



—•— Traffic Volumes - - - - - 4.0% - . . - 5%

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

Left Turn Lane Warrant Analysis

Time Period..... Build PM	Analyzed Roadway..... Buck Road (C.R. 553)	Analyzed Roadway Speed Limit (MPH): 50
SA Job No..... 24029	Intersecting Roadway..... Site Driveway	
Date..... 2/28/24	Township..... Elk	
Analyst..... BDS	County..... Gloucester	

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	280	215	170	160	130	125
700	315	235	190	175	145	135
600	350	255	215	195	165	155
500	390	285	240	215	185	170
400	435	320	270	235	210	190
300	485	360	305	265	235	215
200	545	400	340	300	265	245
100	615	445	375	335	295	275

Inputs

Advancing Traffic Volume (V _A) - Veh / Hr.....	450
Left-Turning Vehicles in V _A - Veh / Hr.....	6
Opposing Traffic Volume (V _O) - Veh / Hr.....	354

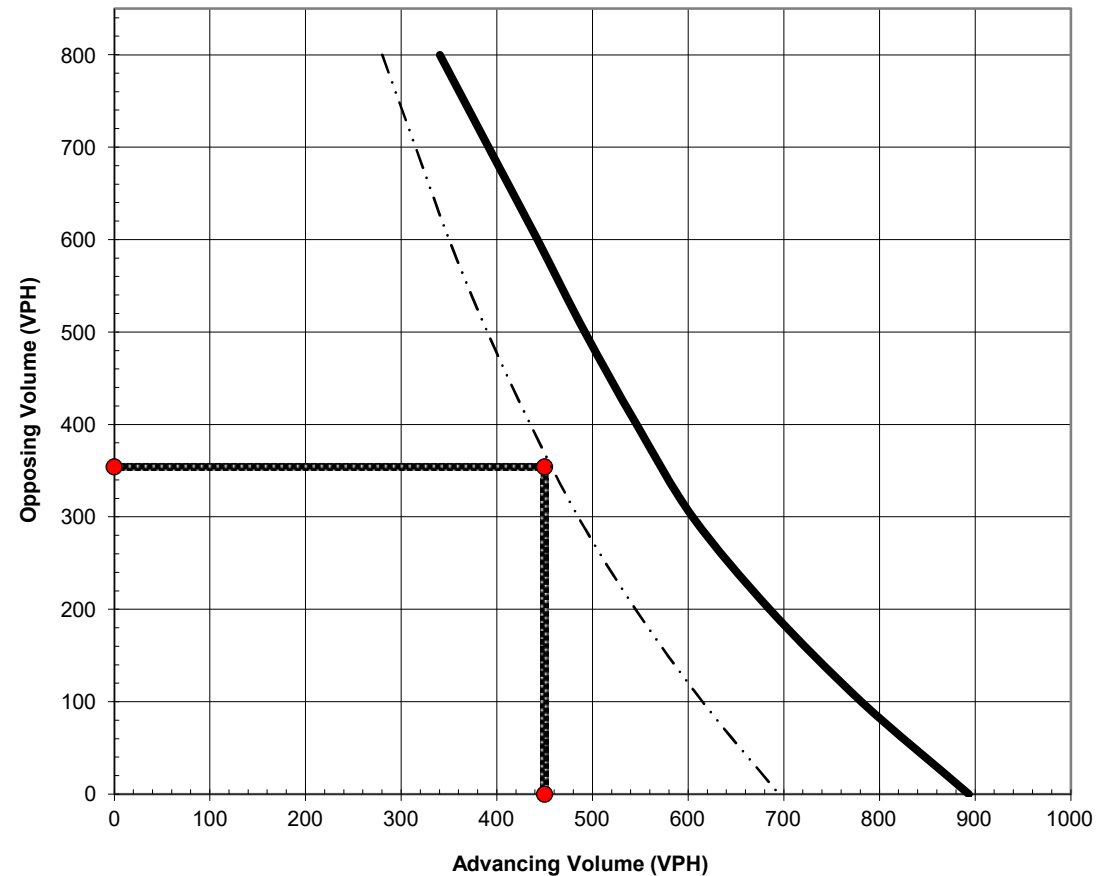
Analyses

Opposing Volume (V _O) in Veh / Hr	Advancing Volume (V _A) Required For Warrant		
	Next Lower Range	Calculated % Left-Turns	Next Higher Range
	-	1.3%	5%
800		340	280
700		391	315
600		442	350
500		492	390
400		546	435
300		605	485
200		685	545
100		781	615

Conclusion

Left-Turn Lane Not Warranted

Warrant for Left-Turn Lanes on Two-Lane Highways



● Traffic Volumes - - - - - 1.3% - - - - - 5%

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

Lanes, Volumes, Timings

3: Buck Road & Elk Road

Existing AM
02/28/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	110	69	6	6	119	10	4	299	5	4	205	55
Future Volume (vph)	110	69	6	6	119	10	4	299	5	4	205	55
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
Fr't	0.989		0.988			0.998			0.968			
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1842	0	1770	1840	0	1770	1859	0	1770	1803	0
Flt Permitted	0.670			0.706			0.591			0.567		
Satd. Flow (perm)	1248	1842	0	1315	1840	0	1101	1859	0	1056	1803	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)	6		9			2			27			
Link Speed (mph)	45		45			50			50			
Link Distance (ft)	1633		621			1948			903			
Travel Time (s)	24.7		9.4			26.6			12.3			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	116	73	6	6	125	11	4	315	5	4	216	58
Shared Lane Traffic (%)												
Lane Group Flow (vph)	116	79	0	6	136	0	4	320	0	4	274	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	
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	4		8			2			6			
Permitted Phases	4	8		2				6				
Detector Phase	4	4	8	8	2	2	6	6				
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	24.0	24.0	24.0	24.0				

Lanes, Volumes, Timings
3: Buck Road & Elk Road

Existing AM
02/28/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Split (s)	16.0	16.0		16.0	16.0		30.0	30.0		30.0	30.0	
Total Split (s)	30.0	30.0		30.0	30.0		30.0	30.0		30.0	30.0	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Maximum Green (s)	24.0	24.0		24.0	24.0		24.0	24.0		24.0	24.0	
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		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		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	None	None		None	None		Max	Max		Max	Max	
Act Effect Green (s)	10.6	10.6		10.6	10.6		28.4	28.4		28.4	28.4	
Actuated g/C Ratio	0.23	0.23		0.23	0.23		0.61	0.61		0.61	0.61	
v/c Ratio	0.41	0.19		0.02	0.32		0.01	0.28		0.01	0.25	
Control Delay	20.3	14.8		14.0	16.4		6.0	7.3		6.0	6.5	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	20.3	14.8		14.0	16.4		6.0	7.3		6.0	6.5	
LOS	C	B		B	B		A	A		A	A	
Approach Delay		18.1			16.3			7.3			6.5	
Approach LOS		B			B			A			A	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 46.4

Natural Cycle: 50

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.41

Intersection Signal Delay: 10.7

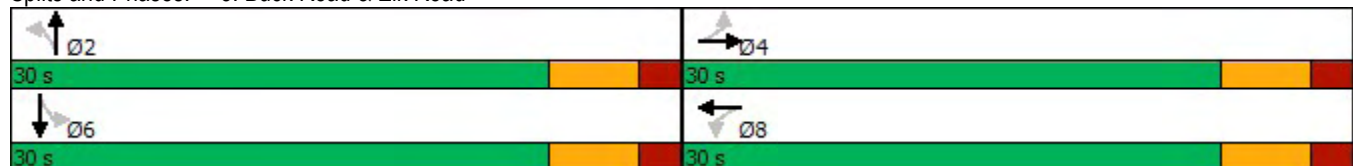
Intersection LOS: B

Intersection Capacity Utilization 51.7%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 3: Buck Road & Elk Road



Lanes, Volumes, Timings
6: Willow Grove Road & Elk Road

Existing AM
02/28/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	74	5	1	117	47	9	43	3	23	13	0
Future Volume (vph)	0	74	5	1	117	47	9	43	3	23	13	0
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		0.992			0.962			0.993				
Flt Protected								0.992			0.969	
Satd. Flow (prot)	0	1848	0	0	1792	0	0	1835	0	0	1805	0
Flt Permitted								0.992			0.969	
Satd. Flow (perm)	0	1848	0	0	1792	0	0	1835	0	0	1805	0
Link Speed (mph)		45			45			25			25	
Link Distance (ft)		621			587			1158			1233	
Travel Time (s)		9.4			8.9			31.6			33.6	
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
Adj. Flow (vph)	0	76	5	1	121	48	9	44	3	24	13	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	81	0	0	170	0	0	56	0	0	37	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
Sign Control		Free			Free			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	22.3%											
Analysis Period (min)	15											
ICU Level of Service A												

Intersection												
Int Delay, s/veh	2.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	74	5	1	117	47	9	43	3	23	13	0
Future Vol, veh/h	0	74	5	1	117	47	9	43	3	23	13	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	76	5	1	121	48	9	44	3	24	13	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	169	0	0	81	0	0	233	250	79	249	228	145
Stage 1	-	-	-	-	-	-	79	79	-	147	147	-
Stage 2	-	-	-	-	-	-	154	171	-	102	81	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1409	-	-	1517	-	-	722	653	981	705	671	902
Stage 1	-	-	-	-	-	-	930	829	-	856	775	-
Stage 2	-	-	-	-	-	-	848	757	-	904	828	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1409	-	-	1517	-	-	710	652	981	666	670	902
Mov Cap-2 Maneuver	-	-	-	-	-	-	710	652	-	666	670	-
Stage 1	-	-	-	-	-	-	930	829	-	856	774	-
Stage 2	-	-	-	-	-	-	832	756	-	853	828	-

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

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	673	1409	-	-	1517	-	-	667
HCM Lane V/C Ratio	0.084	-	-	-	0.001	-	-	0.056
HCM Control Delay (s)	10.8	0	-	-	7.4	0	-	10.7
HCM Lane LOS	B	A	-	-	A	A	-	B
HCM 95th %tile Q(veh)	0.3	0	-	-	0	-	-	0.2

Lanes, Volumes, Timings
7: Buck Road & Willow Grove Road/Aura Road

Existing AM
02/28/2024

												
Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Traffic Volume (vph)	19	398	0	19	249	8	2	21	16	0	26	69
Future Volume (vph)	19	398	0	19	249	8	2	21	16	0	26	69
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					0.996			0.945			0.903	
Flt Protected		0.998			0.997			0.997				
Satd. Flow (prot)	0	1859	0	0	1850	0	0	1755	0	0	1682	0
Flt Permitted		0.998			0.997			0.997				
Satd. Flow (perm)	0	1859	0	0	1850	0	0	1755	0	0	1682	0
Link Speed (mph)		50			50			25			25	
Link Distance (ft)		903			580			843			1233	
Travel Time (s)		12.3			7.9			23.0			33.6	
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
Adj. Flow (vph)	19	406	0	19	254	8	2	21	16	0	27	70
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	425	0	0	281	0	0	39	0	0	97	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
Sign Control		Free			Free			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	38.5%				ICU Level of Service A							
Analysis Period (min)	15											

Intersection												
Int Delay, s/veh	2.7											
Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Traffic Vol, veh/h	19	398	0	19	249	8	2	21	16	0	26	69
Future Vol, veh/h	19	398	0	19	249	8	2	21	16	0	26	69
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	98	98	98	98	98	98	98	98	98	98	98	98
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	19	406	0	19	254	8	2	21	16	0	27	70
Major/Minor	Major1		Major2			Minor2			Minor1			
Conflicting Flow All	262	0	0	406	0	0	789	740	258	759	744	406
Stage 1	-	-	-	-	-	-	296	296	-	444	444	-
Stage 2	-	-	-	-	-	-	493	444	-	315	300	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1302	-	-	1153	-	-	308	345	781	323	343	645
Stage 1	-	-	-	-	-	-	712	668	-	593	575	-
Stage 2	-	-	-	-	-	-	558	575	-	696	666	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1302	-	-	1153	-	-	250	332	781	292	330	645
Mov Cap-2 Maneuver	-	-	-	-	-	-	250	332	-	292	330	-
Stage 1	-	-	-	-	-	-	698	655	-	582	564	-
Stage 2	-	-	-	-	-	-	465	564	-	647	653	-
Approach	NB		SB			SE			NW			
HCM Control Delay, s	0.4		0.6			14.3			13.7			
HCM LOS						B			B			
Minor Lane/Major Mvmt	NBL	NBT	NBR	NWLn1	SELn1	SBL	SBT	SBR				
Capacity (veh/h)	1302	-	-	511	425	1153	-	-				
HCM Lane V/C Ratio	0.015	-	-	0.19	0.094	0.017	-	-				
HCM Control Delay (s)	7.8	0	-	13.7	14.3	8.2	0	-				
HCM Lane LOS	A	A	-	B	B	A	A	-				
HCM 95th %tile Q(veh)	0	-	-	0.7	0.3	0.1	-	-				

Lanes, Volumes, Timings
3: Buck Road & Elk Road

Existing PM
02/28/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	76	131	9	10	84	9	6	269	14	9	366	61
Future Volume (vph)	76	131	9	10	84	9	6	269	14	9	366	61
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
Fr't		0.990			0.986			0.993			0.978	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1844	0	1770	1837	0	1770	1850	0	1770	1822	0
Flt Permitted	0.696			0.667			0.505			0.584		
Satd. Flow (perm)	1296	1844	0	1242	1837	0	941	1850	0	1088	1822	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		7			9			5			17	
Link Speed (mph)		45			45			50			50	
Link Distance (ft)		1633			621			1948			903	
Travel Time (s)		24.7			9.4			26.6			12.3	
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Adj. Flow (vph)	77	132	9	10	85	9	6	272	14	9	370	62
Shared Lane Traffic (%)												
Lane Group Flow (vph)	77	141	0	10	94	0	6	286	0	9	432	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
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		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		24.0	24.0		24.0	24.0	

Lanes, Volumes, Timings
3: Buck Road & Elk Road

Existing PM
02/28/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Split (s)	16.0	16.0		16.0	16.0		30.0	30.0		30.0	30.0	
Total Split (s)	30.0	30.0		30.0	30.0		30.0	30.0		30.0	30.0	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Maximum Green (s)	24.0	24.0		24.0	24.0		24.0	24.0		24.0	24.0	
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		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		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	None	None		None	None		Max	Max		Max	Max	
Act Effect Green (s)	10.1	10.1		10.1	10.1		28.3	28.3		28.3	28.3	
Actuated g/C Ratio	0.22	0.22		0.22	0.22		0.62	0.62		0.62	0.62	
v/c Ratio	0.27	0.34		0.04	0.23		0.01	0.25		0.01	0.38	
Control Delay	17.9	17.2		14.6	15.3		5.5	6.7		5.6	7.6	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	17.9	17.2		14.6	15.3		5.5	6.7		5.6	7.6	
LOS	B	B		B	B		A	A		A	A	
Approach Delay		17.5			15.3			6.6			7.5	
Approach LOS		B			B			A			A	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 45.9

Natural Cycle: 50

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.38

Intersection Signal Delay: 10.1

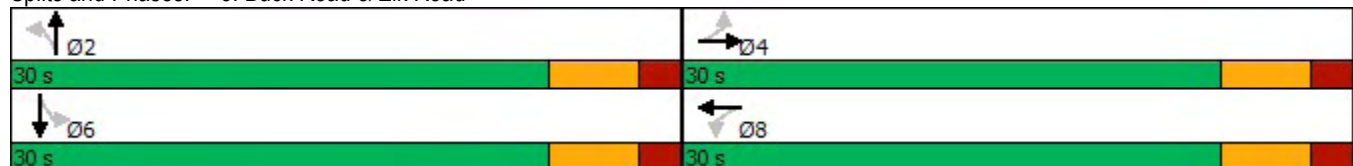
Intersection LOS: B

Intersection Capacity Utilization 43.8%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 3: Buck Road & Elk Road



Lanes, Volumes, Timings
6: Willow Grove Road & Elk Road

Existing PM
02/28/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	137	18	2	82	33	5	44	2	59	55	1
Future Volume (vph)	0	137	18	2	82	33	5	44	2	59	55	1
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		0.985			0.962			0.995			0.999	
Flt Protected					0.999			0.995			0.975	
Satd. Flow (prot)	0	1835	0	0	1790	0	0	1844	0	0	1814	0
Flt Permitted					0.999			0.995			0.975	
Satd. Flow (perm)	0	1835	0	0	1790	0	0	1844	0	0	1814	0
Link Speed (mph)		45			45			25			25	
Link Distance (ft)		621			587			1158			1233	
Travel Time (s)		9.4			8.9			31.6			33.6	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	0	147	19	2	88	35	5	47	2	63	59	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	166	0	0	125	0	0	54	0	0	123	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
Sign Control		Free			Free			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization 27.9%	ICU Level of Service A											
Analysis Period (min) 15												

Intersection												
Int Delay, s/veh	4.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	137	18	2	82	33	5	44	2	59	55	1
Future Vol, veh/h	0	137	18	2	82	33	5	44	2	59	55	1
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	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	147	19	2	88	35	5	47	2	63	59	1
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	123	0	0	166	0	0	297	284	157	291	276	106
Stage 1	-	-	-	-	-	-	157	157	-	110	110	-
Stage 2	-	-	-	-	-	-	140	127	-	181	166	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1464	-	-	1412	-	-	655	625	889	661	632	948
Stage 1	-	-	-	-	-	-	845	768	-	895	804	-
Stage 2	-	-	-	-	-	-	863	791	-	821	761	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1464	-	-	1412	-	-	607	624	889	620	631	948
Mov Cap-2 Maneuver	-	-	-	-	-	-	607	624	-	620	631	-
Stage 1	-	-	-	-	-	-	845	768	-	895	802	-
Stage 2	-	-	-	-	-	-	797	789	-	769	761	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			0.1			11.3			12.1		
HCM LOS							B			B		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	630	1464	-	-	1412	-	-	627				
HCM Lane V/C Ratio	0.087	-	-	-	0.002	-	-	0.197				
HCM Control Delay (s)	11.3	0	-	-	7.6	0	-	12.1				
HCM Lane LOS	B	A	-	-	A	A	-	B				
HCM 95th %tile Q(veh)	0.3	0	-	-	0	-	-	0.7				

Lanes, Volumes, Timings
7: Buck Road & Willow Grove Road/Aura Road

Existing PM
02/28/2024

												
Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Traffic Volume (vph)	11	347	1	80	385	8	5	28	33	0	19	53
Future Volume (vph)	11	347	1	80	385	8	5	28	33	0	19	53
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					0.998			0.932			0.900	
Flt Protected		0.998			0.992			0.996				
Satd. Flow (prot)	0	1859	0	0	1844	0	0	1729	0	0	1676	0
Flt Permitted		0.998			0.992			0.996				
Satd. Flow (perm)	0	1859	0	0	1844	0	0	1729	0	0	1676	0
Link Speed (mph)		50			50			25			25	
Link Distance (ft)		903			580			843			1233	
Travel Time (s)		12.3			7.9			23.0			33.6	
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
Adj. Flow (vph)	11	354	1	82	393	8	5	29	34	0	19	54
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	366	0	0	483	0	0	68	0	0	73	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
Sign Control		Free			Free			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	62.0%				ICU Level of Service B							
Analysis Period (min)	15											

Intersection												
Int Delay, s/veh	3.1											
Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	11	347	1	80	385	8	5	28	33	0	19	53
Future Vol, veh/h	11	347	1	80	385	8	5	28	33	0	19	53
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	98	98	98	98	98	98	98	98	98	98	98	98
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	11	354	1	82	393	8	5	29	34	0	19	54
Major/Minor	Major1			Major2			Minor2			Minor1		
Conflicting Flow All	401	0	0	355	0	0	974	938	397	970	942	355
Stage 1	-	-	-	-	-	-	561	561	-	377	377	-
Stage 2	-	-	-	-	-	-	413	377	-	593	565	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1158	-	-	1204	-	-	231	264	652	233	263	689
Stage 1	-	-	-	-	-	-	512	510	-	644	616	-
Stage 2	-	-	-	-	-	-	616	616	-	492	508	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1158	-	-	1204	-	-	185	238	652	186	237	689
Mov Cap-2 Maneuver	-	-	-	-	-	-	185	238	-	186	237	-
Stage 1	-	-	-	-	-	-	506	465	-	636	609	-
Stage 2	-	-	-	-	-	-	543	609	-	399	463	-
Approach	NB			SB			SE			NW		
HCM Control Delay, s	0.2			1.4			18.3			14.4		
HCM LOS							C			B		
Minor Lane/Major Mvmt	NBL	NBT	NBR	NBL	NBT	NBR	SELn1	SBL	SBT	SBR	SELn1	SBL
Capacity (veh/h)	1158	-	-	458	338	1204	-	-	-	-	-	-
HCM Lane V/C Ratio	0.01	-	-	0.16	0.199	0.068	-	-	-	-	-	-
HCM Control Delay (s)	8.1	0	-	14.4	18.3	8.2	0	-	-	-	-	-
HCM Lane LOS	A	A	-	B	C	A	A	-	-	-	-	-
HCM 95th %tile Q(veh)	0	-	-	0.6	0.7	0.2	-	-	-	-	-	-

Lanes, Volumes, Timings
3: Buck Road & Elk Road

No-Build AM
02/28/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	122	71	6	32	113	10	22	326	22	4	227	65
Future Volume (vph)	122	71	6	32	113	10	22	326	22	4	227	65
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
Fr't	0.989		0.987			0.991			0.967			
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1842	0	1770	1839	0	1770	1846	0	1770	1801	0
Flt Permitted	0.674			0.704			0.573			0.543		
Satd. Flow (perm)	1255	1842	0	1311	1839	0	1067	1846	0	1011	1801	0
Right Turn on Red	Yes			Yes			Yes			Yes		
Satd. Flow (RTOR)	6			9			7			28		
Link Speed (mph)	45			45			50			50		
Link Distance (ft)	1633			621			1948			903		
Travel Time (s)	24.7			9.4			26.6			12.3		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	128	75	6	34	119	11	23	343	23	4	239	68
Shared Lane Traffic (%)												
Lane Group Flow (vph)	128	81	0	34	130	0	23	366	0	4	307	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	
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		94			
Detector 2 Size(ft)	6		6		6		6		6			
Detector 2 Type	Cl+Ex		Cl+Ex		Cl+Ex		Cl+Ex		Cl+Ex			
Detector 2 Channel												
Detector 2 Extend (s)	0.0		0.0		0.0		0.0		0.0			
Turn Type	Perm	NA	Perm		NA	Perm		NA	Perm		NA	
Protected Phases	4		8		8		2		6		6	
Permitted Phases	4	8		2		6		6				
Detector Phase	4	4	8	8	2	2	6	6				
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	24.0	24.0	24.0	24.0				

Lanes, Volumes, Timings
3: Buck Road & Elk Road

No-Build AM
02/28/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Split (s)	16.0	16.0		16.0	16.0		30.0	30.0		30.0	30.0	
Total Split (s)	30.0	30.0		30.0	30.0		30.0	30.0		30.0	30.0	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Maximum Green (s)	24.0	24.0		24.0	24.0		24.0	24.0		24.0	24.0	
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		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		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	None	None		None	None		Max	Max		Max	Max	
Act Effect Green (s)	10.8	10.8		10.8	10.8		28.4	28.4		28.4	28.4	
Actuated g/C Ratio	0.23	0.23		0.23	0.23		0.61	0.61		0.61	0.61	
v/c Ratio	0.44	0.19		0.11	0.30		0.04	0.33		0.01	0.28	
Control Delay	20.8	14.7		15.1	16.0		6.5	7.7		6.2	6.9	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	20.8	14.7		15.1	16.0		6.5	7.7		6.2	6.9	
LOS	C	B		B	B		A	A		A	A	
Approach Delay		18.4			15.8			7.7			6.9	
Approach LOS		B			B			A			A	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 46.6

Natural Cycle: 50

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.44

Intersection Signal Delay: 10.8

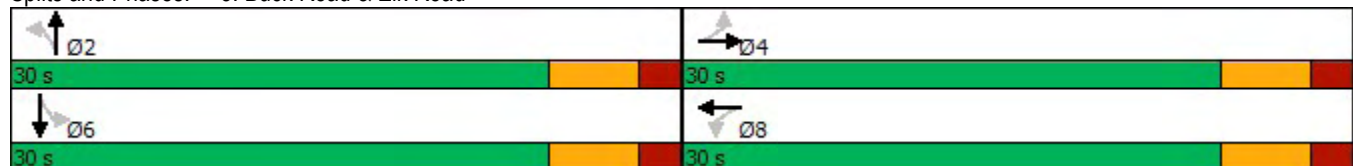
Intersection LOS: B

Intersection Capacity Utilization 51.7%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 3: Buck Road & Elk Road



Lanes, Volumes, Timings
6: Willow Grove Road & Elk Road

No-Build AM
02/28/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	92	6	1	136	48	10	44	3	24	13	0
Future Volume (vph)	0	92	6	1	136	48	10	44	3	24	13	0
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		0.992			0.965			0.993				
Flt Protected								0.991			0.968	
Satd. Flow (prot)	0	1848	0	0	1798	0	0	1833	0	0	1803	0
Flt Permitted								0.991			0.968	
Satd. Flow (perm)	0	1848	0	0	1798	0	0	1833	0	0	1803	0
Link Speed (mph)		45			45			25			25	
Link Distance (ft)		621			587			1158			1233	
Travel Time (s)		9.4			8.9			31.6			33.6	
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
Adj. Flow (vph)	0	95	6	1	140	49	10	45	3	25	13	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	101	0	0	190	0	0	58	0	0	38	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
Sign Control		Free			Free			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	23.3%											
Analysis Period (min)	15											
	ICU Level of Service A											

Intersection												
Int Delay, s/veh	2.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	92	6	1	136	48	10	44	3	24	13	0
Future Vol, veh/h	0	92	6	1	136	48	10	44	3	24	13	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	95	6	1	140	49	10	45	3	25	13	0
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	189	0	0	101	0	0	271	289	98	289	268	165
Stage 1	-	-	-	-	-	-	98	98	-	167	167	-
Stage 2	-	-	-	-	-	-	173	191	-	122	101	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1385	-	-	1491	-	-	682	621	958	663	638	879
Stage 1	-	-	-	-	-	-	908	814	-	835	760	-
Stage 2	-	-	-	-	-	-	829	742	-	882	811	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1385	-	-	1491	-	-	670	620	958	623	637	879
Mov Cap-2 Maneuver	-	-	-	-	-	-	670	620	-	623	637	-
Stage 1	-	-	-	-	-	-	908	814	-	835	759	-
Stage 2	-	-	-	-	-	-	814	741	-	830	811	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			0			11.2			11.1		
HCM LOS							B			B		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	640	1385	-	-	1491	-	-	628				
HCM Lane V/C Ratio	0.092	-	-	-	0.001	-	-	0.061				
HCM Control Delay (s)	11.2	0	-	-	7.4	0	-	11.1				
HCM Lane LOS	B	A	-	-	A	A	-	B				
HCM 95th %tile Q(veh)	0.3	0	-	-	0	-	-	0.2				

Lanes, Volumes, Timings
7: Buck Road & Willow Grove Road/Aura Road

No-Build AM
02/28/2024

												
Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Traffic Volume (vph)	21	434	0	19	279	8	2	22	18	0	27	72
Future Volume (vph)	21	434	0	19	279	8	2	22	18	0	27	72
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
Fr _t					0.997			0.942			0.902	
Fl _t Protected		0.998			0.997			0.998				
Satd. Flow (prot)	0	1859	0	0	1852	0	0	1751	0	0	1680	0
Fl _t Permitted		0.998			0.997			0.998				
Satd. Flow (perm)	0	1859	0	0	1852	0	0	1751	0	0	1680	0
Link Speed (mph)		50			50			25			25	
Link Distance (ft)		903			580			843			1233	
Travel Time (s)		12.3			7.9			23.0			33.6	
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
Adj. Flow (vph)	21	443	0	19	285	8	2	22	18	0	28	73
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	464	0	0	312	0	0	42	0	0	101	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
Sign Control		Free			Free			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization 41.5%	ICU Level of Service A											
Analysis Period (min) 15												

Intersection												
Int Delay, s/veh	2.7											
Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	21	434	0	19	279	8	2	22	18	0	27	72
Future Vol, veh/h	21	434	0	19	279	8	2	22	18	0	27	72
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	98	98	98	98	98	98	98	98	98	98	98	98
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	21	443	0	19	285	8	2	22	18	0	28	73
Major/Minor	Major1			Major2			Minor2			Minor1		
Conflicting Flow All	293	0	0	443	0	0	863	812	289	832	816	443
Stage 1	-	-	-	-	-	-	327	327	-	485	485	-
Stage 2	-	-	-	-	-	-	536	485	-	347	331	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1269	-	-	1117	-	-	275	313	750	288	311	615
Stage 1	-	-	-	-	-	-	686	648	-	563	552	-
Stage 2	-	-	-	-	-	-	529	552	-	669	645	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1269	-	-	1117	-	-	218	300	750	257	298	615
Mov Cap-2 Maneuver	-	-	-	-	-	-	218	300	-	257	298	-
Stage 1	-	-	-	-	-	-	671	635	-	551	540	-
Stage 2	-	-	-	-	-	-	432	540	-	617	632	-
Approach	NB			SB			SE			NW		
HCM Control Delay, s	0.4			0.5			15.2			14.6		
HCM LOS							C			B		
Minor Lane/Major Mvmt	NBL	NBT	NBR	NBL	NBT	NBR	SELn1	SBL	SBT	SBR	SELn1	SBL
Capacity (veh/h)	1269	-	-	477	394	1117	-	-	-	-	-	-
HCM Lane V/C Ratio	0.017	-	-	0.212	0.109	0.017	-	-	-	-	-	-
HCM Control Delay (s)	7.9	0	-	14.6	15.2	8.3	0	-	-	-	-	-
HCM Lane LOS	A	A	-	B	C	A	A	-	-	-	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.8	0.4	0.1	-	-	-	-	-	-

Lanes, Volumes, Timings
3: Buck Road & Elk Road

No-Build PM
02/28/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	87	133	9	40	76	9	26	296	32	9	395	74
Future Volume (vph)	87	133	9	40	76	9	26	296	32	9	395	74
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	0.991					0.984		0.985		0.976		
Flt Protected	0.950			0.950				0.950		0.950		
Satd. Flow (prot)	1770	1846	0	1770	1833	0	1770	1835	0	1770	1818	0
Flt Permitted	0.701			0.666				0.470		0.561		
Satd. Flow (perm)	1306	1846	0	1241	1833	0	875	1835	0	1045	1818	0
Right Turn on Red	Yes			Yes			Yes			Yes		
Satd. Flow (RTOR)	7			9			11			19		
Link Speed (mph)	45			45			50			50		
Link Distance (ft)	1633			621			1948			903		
Travel Time (s)	24.7			9.4			26.6			12.3		
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Adj. Flow (vph)	88	134	9	40	77	9	26	299	32	9	399	75
Shared Lane Traffic (%)												
Lane Group Flow (vph)	88	143	0	40	86	0	26	331	0	9	474	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	
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		94			
Detector 2 Size(ft)	6		6		6		6		6			
Detector 2 Type	Cl+Ex		Cl+Ex		Cl+Ex		Cl+Ex		Cl+Ex			
Detector 2 Channel												
Detector 2 Extend (s)	0.0		0.0		0.0		0.0		0.0			
Turn Type	Perm	NA	Perm		NA	Perm		NA	Perm		NA	
Protected Phases	4		8		8		2		6			
Permitted Phases	4	8		2		6		6				
Detector Phase	4	4	8	8	2	2	6	6				
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	24.0	24.0	24.0	24.0				

Lanes, Volumes, Timings
3: Buck Road & Elk Road

No-Build PM
02/28/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Split (s)	16.0	16.0		16.0	16.0		30.0	30.0		30.0	30.0	
Total Split (s)	30.0	30.0		30.0	30.0		30.0	30.0		30.0	30.0	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Maximum Green (s)	24.0	24.0		24.0	24.0		24.0	24.0		24.0	24.0	
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		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		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	None	None		None	None		Max	Max		Max	Max	
Act Effect Green (s)	10.1	10.1		10.1	10.1		28.3	28.3		28.3	28.3	
Actuated g/C Ratio	0.22	0.22		0.22	0.22		0.62	0.62		0.62	0.62	
v/c Ratio	0.31	0.35		0.15	0.21		0.05	0.29		0.01	0.42	
Control Delay	18.5	17.3		16.1	15.0		6.0	6.8		5.6	7.9	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	18.5	17.3		16.1	15.0		6.0	6.8		5.6	7.9	
LOS	B	B		B	B		A	A		A	A	
Approach Delay		17.7			15.4			6.8			7.9	
Approach LOS		B			B			A			A	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 45.9

Natural Cycle: 50

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.42

Intersection Signal Delay: 10.2

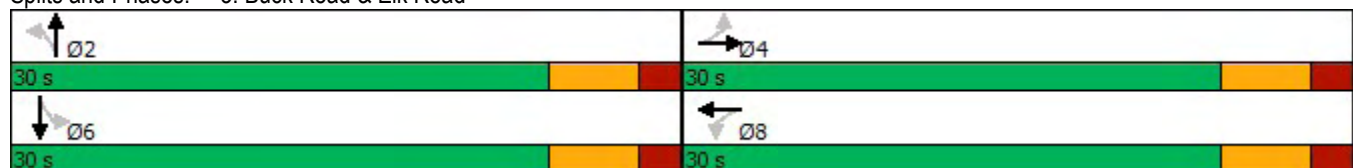
Intersection LOS: B

Intersection Capacity Utilization 56.9%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 3: Buck Road & Elk Road



Lanes, Volumes, Timings
6: Willow Grove Road & Elk Road

No-Build PM
02/28/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	156	19	2	103	34	6	45	2	60	56	1
Future Volume (vph)	0	156	19	2	103	34	6	45	2	60	56	1
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		0.986			0.967			0.995			0.999	
Flt Protected					0.999			0.995			0.975	
Satd. Flow (prot)	0	1837	0	0	1799	0	0	1844	0	0	1814	0
Flt Permitted					0.999			0.995			0.975	
Satd. Flow (perm)	0	1837	0	0	1799	0	0	1844	0	0	1814	0
Link Speed (mph)		45			45			25			25	
Link Distance (ft)		621			587			1158			1233	
Travel Time (s)		9.4			8.9			31.6			33.6	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	0	168	20	2	111	37	6	48	2	65	60	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	188	0	0	150	0	0	56	0	0	126	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
Sign Control		Free			Free			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	29.0%											
Analysis Period (min)	15											
	ICU Level of Service A											

Intersection												
Int Delay, s/veh	4.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	156	19	2	103	34	6	45	2	60	56	1
Future Vol, veh/h	0	156	19	2	103	34	6	45	2	60	56	1
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	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	168	20	2	111	37	6	48	2	65	60	1
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	148	0	0	188	0	0	342	330	178	337	322	130
Stage 1	-	-	-	-	-	-	178	178	-	134	134	-
Stage 2	-	-	-	-	-	-	164	152	-	203	188	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1434	-	-	1386	-	-	612	589	865	617	595	920
Stage 1	-	-	-	-	-	-	824	752	-	869	785	-
Stage 2	-	-	-	-	-	-	838	772	-	799	745	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1434	-	-	1386	-	-	563	588	865	576	594	920
Mov Cap-2 Maneuver	-	-	-	-	-	-	563	588	-	576	594	-
Stage 1	-	-	-	-	-	-	824	752	-	869	783	-
Stage 2	-	-	-	-	-	-	771	770	-	746	745	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			0.1			11.7			12.8		
HCM LOS							B			B		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	592	1434	-	-	1386	-	-	586				
HCM Lane V/C Ratio	0.096	-	-	-	0.002	-	-	0.215				
HCM Control Delay (s)	11.7	0	-	-	7.6	0	-	12.8				
HCM Lane LOS	B	A	-	-	A	A	-	B				
HCM 95th %tile Q(veh)	0.3	0	-	-	0	-	-	0.8				

Lanes, Volumes, Timings
7: Buck Road & Willow Grove Road/Aura Road

No-Build PM

02/28/2024

												
Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Traffic Volume (vph)	13	383	1	82	424	8	5	29	36	0	19	54
Future Volume (vph)	13	383	1	82	424	8	5	29	36	0	19	54
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
Fr't					0.998			0.931			0.900	
Flt Protected		0.998			0.992			0.997				
Satd. Flow (prot)	0	1859	0	0	1844	0	0	1729	0	0	1676	0
Flt Permitted		0.998			0.992			0.997				
Satd. Flow (perm)	0	1859	0	0	1844	0	0	1729	0	0	1676	0
Link Speed (mph)		50			50			25			25	
Link Distance (ft)		903			580			843			1233	
Travel Time (s)		12.3			7.9			23.0			33.6	
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
Adj. Flow (vph)	13	391	1	84	433	8	5	30	37	0	19	55
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	405	0	0	525	0	0	72	0	0	74	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
Sign Control		Free			Free			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization 66.4%	ICU Level of Service C											
Analysis Period (min) 15												

Intersection												
Int Delay, s/veh	3.2											
Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	13	383	1	82	424	8	5	29	36	0	19	54
Future Vol, veh/h	13	383	1	82	424	8	5	29	36	0	19	54
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	98	98	98	98	98	98	98	98	98	98	98	98
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	13	391	1	84	433	8	5	30	37	0	19	55
Major/Minor	Major1		Major2		Minor2		Minor1					
Conflicting Flow All	441	0	0	392	0	0	1060	1023	437	1057	1027	392
Stage 1	-	-	-	-	-	-	605	605	-	418	418	-
Stage 2	-	-	-	-	-	-	455	418	-	639	609	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1119	-	-	1167	-	-	202	236	620	203	234	657
Stage 1	-	-	-	-	-	-	485	487	-	612	591	-
Stage 2	-	-	-	-	-	-	585	591	-	464	485	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1119	-	-	1167	-	-	158	210	620	157	208	657
Mov Cap-2 Maneuver	-	-	-	-	-	-	158	210	-	157	208	-
Stage 1	-	-	-	-	-	-	478	441	-	603	582	-
Stage 2	-	-	-	-	-	-	510	582	-	369	439	-
Approach	NB		SB		SE		NW					
HCM Control Delay, s	0.3		1.3		20.2		15.4					
HCM LOS					C		C					
Minor Lane/Major Mvmt	NBL	NBT	NBR	NWL	SEL	SBL	SBT	SBR				
Capacity (veh/h)	1119	-	-	421	307	1167	-	-				
HCM Lane V/C Ratio	0.012	-	-	0.177	0.233	0.072	-	-				
HCM Control Delay (s)	8.3	0	-	15.4	20.2	8.3	0	-				
HCM Lane LOS	A	A	-	C	C	A	A	-				
HCM 95th %tile Q(veh)	0	-	-	0.6	0.9	0.2	-	-				

Lanes, Volumes, Timings

3: Buck Road & Elk Road

Build AM
02/28/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	122	71	7	35	113	10	23	328	23	4	234	65
Future Volume (vph)	122	71	7	35	113	10	23	328	23	4	234	65
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
Fr't		0.987			0.987			0.990			0.968	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1839	0	1770	1839	0	1770	1844	0	1770	1803	0
Flt Permitted	0.674			0.704			0.570			0.542		
Satd. Flow (perm)	1255	1839	0	1311	1839	0	1062	1844	0	1010	1803	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		7			9			7			28	
Link Speed (mph)		45			45			50			50	
Link Distance (ft)		1633			621			282			903	
Travel Time (s)		24.7			9.4			3.8			12.3	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	128	75	7	37	119	11	24	345	24	4	246	68
Shared Lane Traffic (%)												
Lane Group Flow (vph)	128	82	0	37	130	0	24	369	0	4	314	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
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		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		24.0	24.0		24.0	24.0	

Lanes, Volumes, Timings

3: Buck Road & Elk Road

Build AM
02/28/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Split (s)	16.0	16.0		16.0	16.0		30.0	30.0		30.0	30.0	
Total Split (s)	30.0	30.0		30.0	30.0		30.0	30.0		30.0	30.0	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Maximum Green (s)	24.0	24.0		24.0	24.0		24.0	24.0		24.0	24.0	
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		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		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	None	None		None	None		Max	Max		Max	Max	
Act Effect Green (s)	10.8	10.8		10.8	10.8		28.4	28.4		28.4	28.4	
Actuated g/C Ratio	0.23	0.23		0.23	0.23		0.61	0.61		0.61	0.61	
v/c Ratio	0.44	0.19		0.12	0.30		0.04	0.33		0.01	0.28	
Control Delay	20.8	14.6		15.2	16.0		6.5	7.8		6.2	7.0	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	20.8	14.6		15.2	16.0		6.5	7.8		6.2	7.0	
LOS	C	B		B	B		A	A		A	A	
Approach Delay		18.4			15.8			7.7			7.0	
Approach LOS		B			B			A			A	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 46.6

Natural Cycle: 50

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.44

Intersection Signal Delay: 10.8

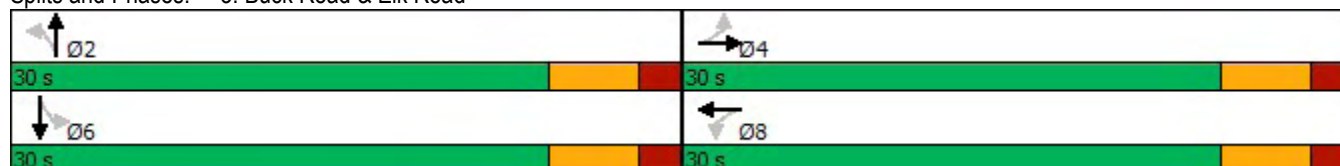
Intersection LOS: B

Intersection Capacity Utilization 51.7%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 3: Buck Road & Elk Road



Lanes, Volumes, Timings
6: Willow Grove Road & Elk Road

Build AM
02/28/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	93	6	1	139	48	10	44	3	24	13	0
Future Volume (vph)	0	93	6	1	139	48	10	44	3	24	13	0
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		0.992			0.966			0.993				
Flt Protected								0.991			0.968	
Satd. Flow (prot)	0	1848	0	0	1799	0	0	1833	0	0	1803	0
Flt Permitted								0.991			0.968	
Satd. Flow (perm)	0	1848	0	0	1799	0	0	1833	0	0	1803	0
Link Speed (mph)		45			45			25			25	
Link Distance (ft)		621			587			1158			1233	
Travel Time (s)		9.4			8.9			31.6			33.6	
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
Adj. Flow (vph)	0	96	6	1	143	49	10	45	3	25	13	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	102	0	0	193	0	0	58	0	0	38	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
Sign Control		Free			Free			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization 23.5%	ICU Level of Service A											
Analysis Period (min) 15												

Intersection												
Int Delay, s/veh	2.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	93	6	1	139	48	10	44	3	24	13	0
Future Vol, veh/h	0	93	6	1	139	48	10	44	3	24	13	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	96	6	1	143	49	10	45	3	25	13	0
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	192	0	0	102	0	0	275	293	99	293	272	168
Stage 1	-	-	-	-	-	-	99	99	-	170	170	-
Stage 2	-	-	-	-	-	-	176	194	-	123	102	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1381	-	-	1490	-	-	677	618	957	659	635	876
Stage 1	-	-	-	-	-	-	907	813	-	832	758	-
Stage 2	-	-	-	-	-	-	826	740	-	881	811	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1381	-	-	1490	-	-	665	617	957	619	634	876
Mov Cap-2 Maneuver	-	-	-	-	-	-	665	617	-	619	634	-
Stage 1	-	-	-	-	-	-	907	813	-	832	757	-
Stage 2	-	-	-	-	-	-	811	739	-	829	811	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			0			11.2			11.1		
HCM LOS							B			B		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	637	1381	-	-	1490	-	-	624				
HCM Lane V/C Ratio	0.092	-	-	-	0.001	-	-	0.061				
HCM Control Delay (s)	11.2	0	-	-	7.4	0	-	11.1				
HCM Lane LOS	B	A	-	-	A	A	-	B				
HCM 95th %tile Q(veh)	0.3	0	-	-	0	-	-	0.2				

Lanes, Volumes, Timings
7: Buck Road & Willow Grove Road/Aura Road

Build AM
02/28/2024

												
Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Traffic Volume (vph)	21	436	0	19	285	8	2	22	19	0	27	72
Future Volume (vph)	21	436	0	19	285	8	2	22	19	0	27	72
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
Fr _t					0.997			0.940			0.902	
Fl _t Protected		0.998			0.997			0.998				
Satd. Flow (prot)	0	1859	0	0	1852	0	0	1747	0	0	1680	0
Fl _t Permitted		0.998			0.997			0.998				
Satd. Flow (perm)	0	1859	0	0	1852	0	0	1747	0	0	1680	0
Link Speed (mph)		50			50			25			25	
Link Distance (ft)		903			580			843			1233	
Travel Time (s)		12.3			7.9			23.0			33.6	
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
Adj. Flow (vph)	21	445	0	19	291	8	2	22	19	0	28	73
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	466	0	0	318	0	0	43	0	0	101	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
Sign Control		Free			Free			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization 41.7%	ICU Level of Service A											
Analysis Period (min) 15												

Intersection												
Int Delay, s/veh	2.7											
Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Traffic Vol, veh/h	21	436	0	19	285	8	2	22	19	0	27	72
Future Vol, veh/h	21	436	0	19	285	8	2	22	19	0	27	72
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	98	98	98	98	98	98	98	98	98	98	98	98
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	21	445	0	19	291	8	2	22	19	0	28	73
Major/Minor	Major1			Major2			Minor2			Minor1		
Conflicting Flow All	299	0	0	445	0	0	871	820	295	841	824	445
Stage 1	-	-	-	-	-	-	333	333	-	487	487	-
Stage 2	-	-	-	-	-	-	538	487	-	354	337	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1262	-	-	1115	-	-	271	310	744	284	308	613
Stage 1	-	-	-	-	-	-	681	644	-	562	550	-
Stage 2	-	-	-	-	-	-	527	550	-	663	641	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1262	-	-	1115	-	-	215	297	744	252	295	613
Mov Cap-2 Maneuver	-	-	-	-	-	-	215	297	-	252	295	-
Stage 1	-	-	-	-	-	-	666	631	-	550	538	-
Stage 2	-	-	-	-	-	-	430	538	-	610	628	-
Approach	NB			SB			SE			NW		
HCM Control Delay, s	0.4			0.5			15.3			14.6		
HCM LOS							C			B		
Minor Lane/Major Mvmt	NBL	NBT	NBR	NWLn1	SELn1	SBL	SBT	SBR				
Capacity (veh/h)	1262	-	-	474	395	1115	-	-				
HCM Lane V/C Ratio	0.017	-	-	0.213	0.111	0.017	-	-				
HCM Control Delay (s)	7.9	0	-	14.6	15.3	8.3	0	-				
HCM Lane LOS	A	A	-	B	C	A	A	-				
HCM 95th %tile Q(veh)	0.1	-	-	0.8	0.4	0.1	-	-				

Lanes, Volumes, Timings
10: Buck Road & Site Driveway

Build AM
02/28/2024

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	4	370	0	11	265
Future Volume (vph)	0	4	370	0	11	265
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.865					
Flt Protected						0.998
Satd. Flow (prot)	1611	0	1863	0	0	1859
Flt Permitted						0.998
Satd. Flow (perm)	1611	0	1863	0	0	1859
Link Speed (mph)	25		50			50
Link Distance (ft)	187		1666			282
Travel Time (s)	5.1		22.7			3.8
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	4	402	0	12	288
Shared Lane Traffic (%)						
Lane Group Flow (vph)	4	0	402	0	0	300
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization 32.9%			ICU Level of Service A			
Analysis Period (min) 15						

Intersection						
Int Delay, s/veh	0.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	4	370	0	11	265
Future Vol, veh/h	0	4	370	0	11	265
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	4	402	0	12	288
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	714	402	0	0	402	0
Stage 1	402	-	-	-	-	-
Stage 2	312	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	398	648	-	-	1157	-
Stage 1	676	-	-	-	-	-
Stage 2	742	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	393	648	-	-	1157	-
Mov Cap-2 Maneuver	393	-	-	-	-	-
Stage 1	676	-	-	-	-	-
Stage 2	733	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	10.6	0		0.3		
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBRWBLn1		SBL	SBT	
Capacity (veh/h)	-	648		1157	-	
HCM Lane V/C Ratio	-	0.007		0.01	-	
HCM Control Delay (s)	-	10.6		8.1	0	
HCM Lane LOS	-	B		A	A	
HCM 95th %tile Q(veh)	-	0		0	-	

Lanes, Volumes, Timings

3: Buck Road & Elk Road

Build PM
02/28/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	87	133	10	42	76	9	27	302	35	9	398	74
Future Volume (vph)	87	133	10	42	76	9	27	302	35	9	398	74
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
Fr't	0.990		0.984			0.985			0.976			
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1844	0	1770	1833	0	1770	1835	0	1770	1818	0
Flt Permitted	0.701			0.665			0.468			0.556		
Satd. Flow (perm)	1306	1844	0	1239	1833	0	872	1835	0	1036	1818	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)	7				9			11			19	
Link Speed (mph)	45				45			50			50	
Link Distance (ft)	1633				621			232			903	
Travel Time (s)	24.7				9.4			3.2			12.3	
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Adj. Flow (vph)	88	134	10	42	77	9	27	305	35	9	402	75
Shared Lane Traffic (%)												
Lane Group Flow (vph)	88	144	0	42	86	0	27	340	0	9	477	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	
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		94			
Detector 2 Size(ft)	6		6		6		6		6			
Detector 2 Type	Cl+Ex		Cl+Ex		Cl+Ex		Cl+Ex		Cl+Ex			
Detector 2 Channel												
Detector 2 Extend (s)	0.0		0.0		0.0		0.0		0.0			
Turn Type	Perm	NA	Perm		NA	Perm		NA	Perm		NA	
Protected Phases	4		8		8		2		6			
Permitted Phases	4	8		2		6		6				
Detector Phase	4	4	8		8	2		2	6		6	
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0		10.0	24.0		24.0	24.0		24.0	

Lanes, Volumes, Timings
3: Buck Road & Elk Road

Build PM
02/28/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Split (s)	16.0	16.0		16.0	16.0		30.0	30.0		30.0	30.0	
Total Split (s)	30.0	30.0		30.0	30.0		30.0	30.0		30.0	30.0	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Maximum Green (s)	24.0	24.0		24.0	24.0		24.0	24.0		24.0	24.0	
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		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		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	None	None		None	None		Max	Max		Max	Max	
Act Effect Green (s)	10.1	10.1		10.1	10.1		28.3	28.3		28.3	28.3	
Actuated g/C Ratio	0.22	0.22		0.22	0.22		0.62	0.62		0.62	0.62	
v/c Ratio	0.31	0.35		0.15	0.21		0.05	0.30		0.01	0.42	
Control Delay	18.4	17.3		16.2	15.0		6.0	6.9		5.7	8.0	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	18.4	17.3		16.2	15.0		6.0	6.9		5.7	8.0	
LOS	B	B		B	B		A	A		A	A	
Approach Delay		17.7			15.4			6.8			7.9	
Approach LOS		B			B			A			A	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 45.9

Natural Cycle: 50

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.42

Intersection Signal Delay: 10.3

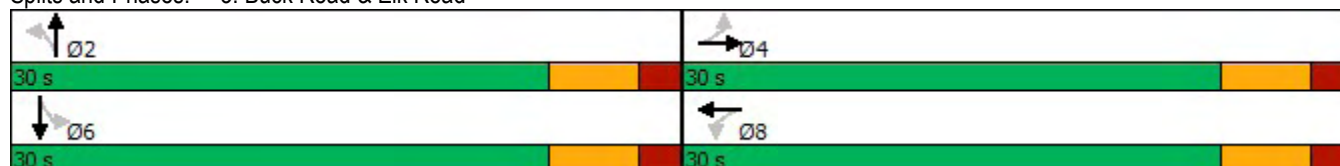
Intersection LOS: B

Intersection Capacity Utilization 57.1%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 3: Buck Road & Elk Road



Lanes, Volumes, Timings
6: Willow Grove Road & Elk Road

Build PM
02/28/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	159	19	2	105	34	6	45	2	60	56	1
Future Volume (vph)	0	159	19	2	105	34	6	45	2	60	56	1
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		0.986			0.967			0.995			0.999	
Flt Protected					0.999			0.995			0.975	
Satd. Flow (prot)	0	1837	0	0	1799	0	0	1844	0	0	1814	0
Flt Permitted					0.999			0.995			0.975	
Satd. Flow (perm)	0	1837	0	0	1799	0	0	1844	0	0	1814	0
Link Speed (mph)		45			45			25			25	
Link Distance (ft)		621			587			1158			1233	
Travel Time (s)		9.4			8.9			31.6			33.6	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	0	171	20	2	113	37	6	48	2	65	60	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	191	0	0	152	0	0	56	0	0	126	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
Sign Control		Free			Free			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization 29.2%	ICU Level of Service A											
Analysis Period (min) 15												

Intersection												
Int Delay, s/veh	4.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	159	19	2	105	34	6	45	2	60	56	1
Future Vol, veh/h	0	159	19	2	105	34	6	45	2	60	56	1
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	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	171	20	2	113	37	6	48	2	65	60	1
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	150	0	0	191	0	0	347	335	181	342	327	132
Stage 1	-	-	-	-	-	-	181	181	-	136	136	-
Stage 2	-	-	-	-	-	-	166	154	-	206	191	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1431	-	-	1383	-	-	607	585	862	612	591	917
Stage 1	-	-	-	-	-	-	821	750	-	867	784	-
Stage 2	-	-	-	-	-	-	836	770	-	796	742	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1431	-	-	1383	-	-	558	584	862	571	590	917
Mov Cap-2 Maneuver	-	-	-	-	-	-	558	584	-	571	590	-
Stage 1	-	-	-	-	-	-	821	750	-	867	782	-
Stage 2	-	-	-	-	-	-	769	768	-	743	742	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			0.1			11.8			12.9		
HCM LOS							B			B		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	588	1431	-	-	1383	-	-	582				
HCM Lane V/C Ratio	0.097	-	-	-	0.002	-	-	0.216				
HCM Control Delay (s)	11.8	0	-	-	7.6	0	-	12.9				
HCM Lane LOS	B	A	-	-	A	A	-	B				
HCM 95th %tile Q(veh)	0.3	0	-	-	0	-	-	0.8				

Lanes, Volumes, Timings
7: Buck Road & Willow Grove Road/Aura Road

Build PM
02/28/2024

												
Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Traffic Volume (vph)	14	388	1	82	427	8	5	29	36	0	19	54
Future Volume (vph)	14	388	1	82	427	8	5	29	36	0	19	54
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
Fr't					0.998			0.931			0.900	
Flt Protected		0.998			0.992			0.997				
Satd. Flow (prot)	0	1859	0	0	1844	0	0	1729	0	0	1676	0
Flt Permitted		0.998			0.992			0.997				
Satd. Flow (perm)	0	1859	0	0	1844	0	0	1729	0	0	1676	0
Link Speed (mph)		50			50			25			25	
Link Distance (ft)		903			580			843			1233	
Travel Time (s)		12.3			7.9			23.0			33.6	
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
Adj. Flow (vph)	14	396	1	84	436	8	5	30	37	0	19	55
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	411	0	0	528	0	0	72	0	0	74	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
Sign Control		Free			Free			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization 66.9%	ICU Level of Service C											
Analysis Period (min) 15												

Intersection												
Int Delay, s/veh	3.2											
Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	14	388	1	82	427	8	5	29	36	0	19	54
Future Vol, veh/h	14	388	1	82	427	8	5	29	36	0	19	54
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	98	98	98	98	98	98	98	98	98	98	98	98
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	14	396	1	84	436	8	5	30	37	0	19	55
Major/Minor	Major1			Major2			Minor2			Minor1		
Conflicting Flow All	444	0	0	397	0	0	1070	1033	440	1067	1037	397
Stage 1	-	-	-	-	-	-	608	608	-	425	425	-
Stage 2	-	-	-	-	-	-	462	425	-	642	612	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1116	-	-	1162	-	-	199	232	617	200	231	652
Stage 1	-	-	-	-	-	-	483	486	-	607	586	-
Stage 2	-	-	-	-	-	-	580	586	-	463	484	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1116	-	-	1162	-	-	155	206	617	154	206	652
Mov Cap-2 Maneuver	-	-	-	-	-	-	155	206	-	154	206	-
Stage 1	-	-	-	-	-	-	475	439	-	597	577	-
Stage 2	-	-	-	-	-	-	505	577	-	367	438	-
Approach	NB			SB			SE			NW		
HCM Control Delay, s	0.3			1.3			20.5			15.5		
HCM LOS							C			C		
Minor Lane/Major Mvmt	NBL	NBT	NBR	NBL	NBT	NBR	SELn1	SBL	SBT	SBR	SELn1	SBL
Capacity (veh/h)	1116	-	-	417	303	1162	-	-	-	-	-	-
HCM Lane V/C Ratio	0.013	-	-	0.179	0.236	0.072	-	-	-	-	-	-
HCM Control Delay (s)	8.3	0	-	15.5	20.5	8.3	0	-	-	-	-	-
HCM Lane LOS	A	A	-	C	C	A	A	-	-	-	-	-
HCM 95th %tile Q(veh)	0	-	-	0.6	0.9	0.2	-	-	-	-	-	-

Lanes, Volumes, Timings
10: Buck Road & Site Driveway

Build PM
02/28/2024

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	10	354	0	6	444
Future Volume (vph)	0	10	354	0	6	444
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.865					
Flt Protected						0.999
Satd. Flow (prot)	1611	0	1863	0	0	1861
Flt Permitted						0.999
Satd. Flow (perm)	1611	0	1863	0	0	1861
Link Speed (mph)	25		50			50
Link Distance (ft)	180		1716			232
Travel Time (s)	4.9		23.4			3.2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	11	385	0	7	483
Shared Lane Traffic (%)						
Lane Group Flow (vph)	11	0	385	0	0	490
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	38.2%			ICU Level of Service A		
Analysis Period (min)	15					

Intersection						
Int Delay, s/veh	0.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	10	354	0	6	444
Future Vol, veh/h	0	10	354	0	6	444
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	11	385	0	7	483

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	882	385	0	0	385
Stage 1	385	-	-	-	-
Stage 2	497	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218
Pot Cap-1 Maneuver	317	663	-	-	1173
Stage 1	688	-	-	-	-
Stage 2	611	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	314	663	-	-	1173
Mov Cap-2 Maneuver	314	-	-	-	-
Stage 1	688	-	-	-	-
Stage 2	606	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.5	0	0.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	663	1173
HCM Lane V/C Ratio	-	-	0.016	0.006
HCM Control Delay (s)	-	-	10.5	8.1
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.1	0