

**TRANSPORTATION IMPACT ASSESSMENT FOR THE
FIELDSTONE FARMS RESIDENTIAL DEVELOPMENT
SOUTH KINGSTOWN, RHODE ISLAND**

**SUBMITTED TO:
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JULY 2022



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INTRODUCTION

Pare Corporation (Pare) has conducted a Transportation Impact Assessment (TIA) to determine the anticipated impacts to the surrounding roadway network associated with the proposed construction of a residential development in South Kingstown, Rhode Island, known as Fieldstone Farms. The development will be located southeast of the intersection of Old North Road and Stony Fort Road, northeast of the University of Rhode Island (URI). The proposed residential development will consist of 39 single-family homes. Ten of the single-family homes will be affordable while the remaining 29 will be market-rate.

The study includes an assessment of the existing conditions of the study area including an inventory of roadway and intersection geometrics, including pedestrian and bicycle facilities, public transportation services, collection of peak period traffic counts, and an analysis of the crash history of the study area.

Additionally, future traffic conditions with and without the proposed development were projected and analyzed. The future (2027) conditions analyzed were projected five years from the existing (2022) conditions. Weekday morning and evening peak periods for existing (2022), future (2027) no-build, and future (2027) build conditions were analyzed.

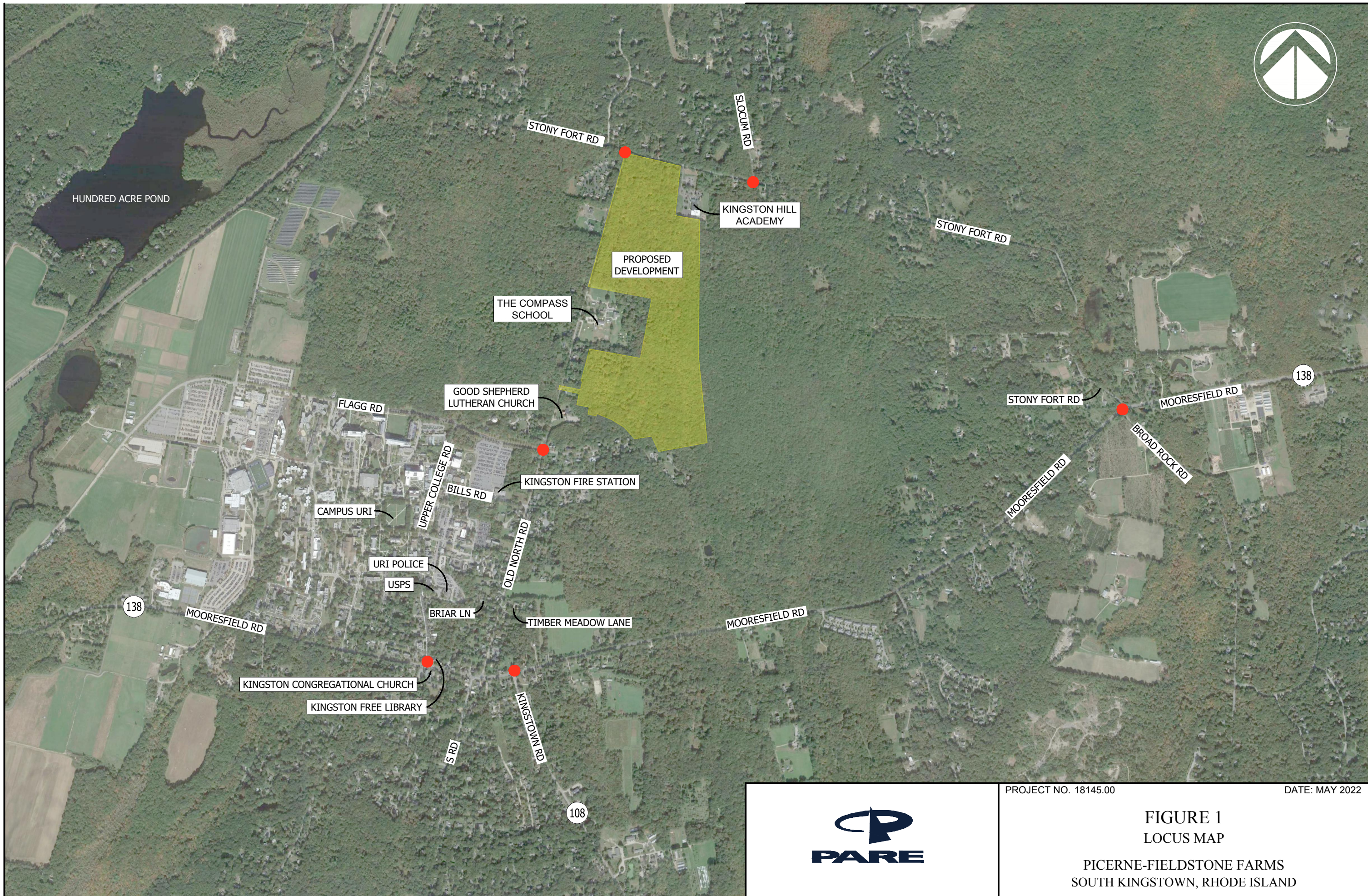
The study then evaluates the results of the future (2027) build condition analysis to determine the impact of the proposed development on the adjacent transportation network and provides recommendations as necessary.

Pare has also specifically addressed traffic related items presented in the September 26, 2018 Findings of Fact of the Public Hearing on Conceptual Master, Comprehensive Permit.

Project Description

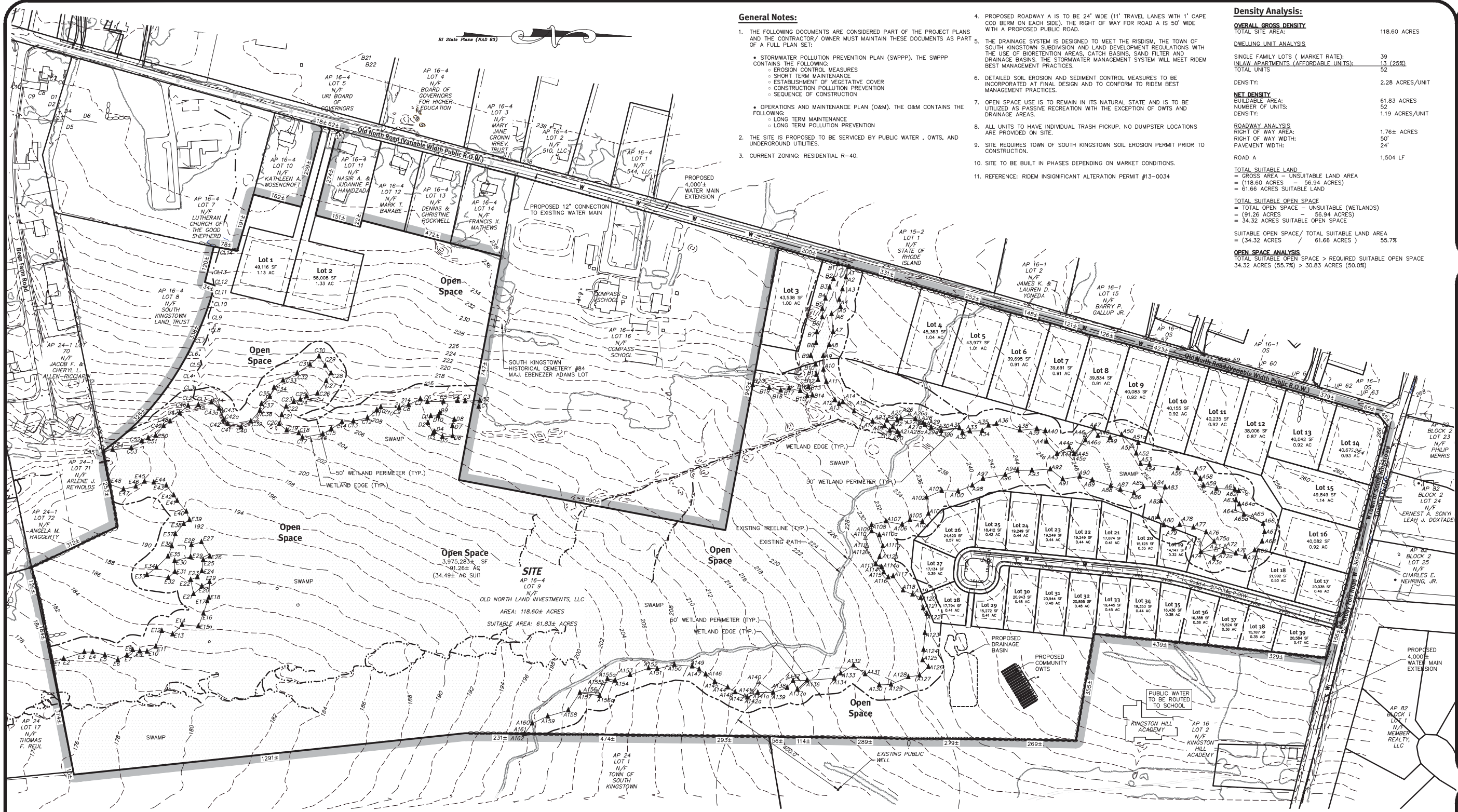
The proposed development will consist of 39 single-family homes plotted along 39 lots. Lot 1 and Lot 2 will be located on the east side of Old North Road, between 429 Old North Road and 449 Old North Road. These two lots will share a common driveway to Old North Road and each lot will serve a single-family home. Lots 3 through 14 are located on the east side of Old North Road between the Compass School and Stony Fort Road. Lots 3 through 14 will include a single-family home. Shared driveways are proposed between adjacent lots, reducing the total number of curb cuts on Old North Road. Lot 15 and Lot 16 are located on the south side of Stony Fort Road, immediately east of Old North Road. Lots 17 through 39 are located on a proposed roadway south of Stony Fort Road, between Old North Road and Kingston Hill Academy. A locus map of the site is provided in Figure 1 while the project site plan is provided in Figure 2.





PROJECT NO. 18145.00 DATE: MAY 2022

FIGURE 1
LOCUS MAP
 PICERNE-FIELDSTONE FARMS
 SOUTH KINGSTOWN, RHODE ISLAND



General Notes:

- THE FOLLOWING DOCUMENTS ARE CONSIDERED PART OF THE PROJECT PLANS AND THE CONTRACTOR/ OWNER MUST MAINTAIN THESE DOCUMENTS AS PART OF A FULL PLAN SET:
 - STORMWATER POLLUTION PREVENTION PLAN (SWPPP). THE SWPPP CONTAINS THE FOLLOWING:
 - EROSION CONTROL MEASURES
 - SHORT TERM MAINTENANCE
 - ESTABLISHMENT OF VEGETATIVE COVER
 - CONSTRUCTION POLLUTION PREVENTION
 - SEQUENCE OF CONSTRUCTION
 - OPERATIONS AND MAINTENANCE PLAN (O&M). THE O&M CONTAINS THE FOLLOWING:
 - LONG TERM MAINTENANCE
 - LONG TERM POLLUTION PREVENTION
- THE SITE IS PROPOSED TO BE SERVICED BY PUBLIC WATER, OWTS, AND UNDERGROUND UTILITIES.
- CURRENT ZONING: RESIDENTIAL R-40.
- PROPOSED ROADWAY A IS TO BE 24' WIDE (11' TRAVEL LANES WITH 1' CAPE COD BERM ON EACH SIDE), THE RIGHT OF WAY FOR ROAD A IS 50' WIDE WITH A PROPOSED PUBLIC ROAD.
- THE DRAINAGE SYSTEM IS DESIGNED TO MEET THE RISIDM, THE TOWN OF SOUTH KINGSTOWN SUBDIVISION AND LAND DEVELOPMENT REGULATIONS WITH THE USE OF BIOTRETMENT AREAS, CATCH BASINS, SAND FILTER AND DRAINAGE BASINS. THE STORMWATER MANAGEMENT SYSTEM WILL MEET RIDEM BEST MANAGEMENT PRACTICES.
- DETAILED SOIL EROSION AND SEDIMENT CONTROL MEASURES TO BE INCORPORATED AT FINAL DESIGN AND TO CONFORM TO RIDEM BEST MANAGEMENT PRACTICES.
- OPEN SPACE USE IS TO REMAIN IN ITS NATURAL STATE AND IS TO BE UTILIZED AS PASSIVE RECREATION WITH THE EXCEPTION OF OWTS AND DRAINAGE AREAS.
- ALL UNITS TO HAVE INDIVIDUAL TRASH PICKUP. NO DUMPSTER LOCATIONS ARE PROVIDED ON SITE.
- SITE REQUIRES TOWN OF SOUTH KINGSTOWN SOIL EROSION PERMIT PRIOR TO CONSTRUCTION.
- SITE TO BE BUILT IN PHASES DEPENDING ON MARKET CONDITIONS.
- REFERENCE: RIDEM INSIGNIFICANT ALTERATION PERMIT #13-0034

Density Analysis:

OVERALL GROSS DENSITY:	118.60 ACRES
TOTAL SITE AREA:	
DWELLING UNIT ANALYSIS:	
SINGLE FAMILY LOTS (MARKET RATE):	39
INLAW APARTMENTS (AFFORDABLE UNITS):	13 (25%)
TOTAL UNITS:	52
DENSITY:	2.28 ACRES/UNIT
NET DENSITY:	
BUILDABLE AREA:	61.83 ACRES
NUMBER OF UNITS:	52
DENSITY:	1.19 ACRES/UNIT
ROADWAY ANALYSIS:	
RIGHT OF WAY AREA:	1.76± ACRES
RIGHT OF WAY WIDTH:	50'
PAVEMENT WIDTH:	24'
ROAD A	1,504 LF
TOTAL SUITABLE LAND:	
= GROSS AREA - UNSUITABLE LAND AREA	
= (118.60 ACRES - 56.84 ACRES)	
= 61.66 ACRES SUITABLE LAND	
TOTAL SUITABLE OPEN SPACE:	
= TOTAL OPEN SPACE - UNSUITABLE (WETLANDS)	
= (91.26 ACRES - 56.94 ACRES)	
= 34.32 ACRES SUITABLE OPEN SPACE	
SUITABLE OPEN SPACE / TOTAL SUITABLE LAND AREA	
= (34.32 ACRES / 61.66 ACRES)	55.7%
OPEN SPACE ANALYSIS:	
TOTAL SUITABLE OPEN SPACE > REQUIRED SUITABLE OPEN SPACE	
34.32 ACRES (55.7%) > 30.83 ACRES (50.0%)	

Dimensional Regulations:

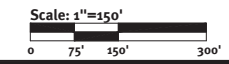
CURRENT ZONING:	RESIDENTIAL R-40	UNDERLYING ZONE:	RESIDENTIAL R-40	FLEXIBLE DESIGN ZONE:	RESIDENTIAL R-10
MINIMUM LOT AREA:	40,000 SF	CURRENT DIM. REGS	10,000 SF	PROPOSED DIM. REGS	14,147 SF
MINIMUM FRONTAGE AND LOT WIDTH:	150'	MINIMUM FRONT YARD:	40'	MINIMUM FRONT YARD:	25' (20' *)
MINIMUM CORNER SIDE YARD:	30'	MINIMUM CORNER SIDE YARD:	20'	MINIMUM CORNER SIDE YARD:	20'
MINIMUM SIDE YARD:	20'	MINIMUM SIDE YARD:	20'	MINIMUM SIDE YARD:	10'
MINIMUM REAR YARD:	40'	MINIMUM REAR YARD:	40'	MINIMUM REAR YARD:	30'
MAXIMUM STRUCTURE HEIGHT:	35'	MAXIMUM STRUCTURE HEIGHT:	35'	MAXIMUM STRUCTURE HEIGHT:	35'
MAXIMUM LOT BUILDING COVERAGE:	20%	MAXIMUM LOT BUILDING COVERAGE:	20%	MAXIMUM LOT BUILDING COVERAGE:	<25%

* PER SECTION 502.2.A LOT FRONTAGE AND WIDTH, FLEXIBLE PROVISIONS- IN R10 TO R200 ZONES, THE PLANNING BOARD IS AUTHORIZED TO REDUCE THE LOT FRONTAGE AND LOT WIDTH OF NEWLY CREATED LOTS IN A SUBDIVISION ON ANY PUBLIC OR APPROVED PRIVATE STREET TO A MINIMUM OF 20 FEET.

Legend:

ASSESSOR'S LINES	SOIL IDENTIFICATION	SoC	SOIL EVALUATIONS 2009 RIDEM VERIFIED
PROPERTY LINE	EXISTING STONEWALL	EXISTING BUILDING	SOIL EVALUATIONS 2007 RIDEM VERIFIED
SOIL BOUNDARY LINE	EXISTING UTILITY POLE	EXISTING MAJOR CONTOUR	SOIL EVALUATIONS 2012 RIDEM WITNESSED & CONCURRED
WETLAND EDGE	EXISTING MAJOR CONTOUR	240	
100' RIVERBANK WETLAND	EXISTING MINOR CONTOUR	242	
50' PERIMETER WETLAND	AP	ASSESSOR'S PLAT	
200' RIVERBANK WETLAND	UP	UTILITY POLE	
EXISTING TREELINE	N/F	NOW OR FORMERLY	
EXISTING STREAM	WETLAND FLAG	▲45	
EXISTING FENCE	WETLAND HATCH		

FIGURE 2



Diprete Engineering
 Two Stafford Court, Cranston, RI 02920
 Tel: 401-943-1000 Fax: 401-943-6006 www.Diprete-Eng.com
Engineers • Planners • Surveyors

CHRISTOPHER A. DUHAMEL
 REGISTERED PROFESSIONAL ENGINEER

No.	Date	Description	By:
1	11/15/2018	Master Plan Submission	S.T.H.
2	02/16/2019	Master Plan Submission	J.A.R.
3	05/21/2019	Proposed Major Land Extension	J.A.R.
4	10/23/2019	Proposed Major Land Extension	J.A.R.
5	09/23/2020	Master Plan Submission	J.A.R.
6	09/23/2020	Master Plan Submission	J.A.R.

Master Plan
Overall Plan
Fieldstone Farms
 Assessor's Plat 16-4, Lot 9
 South Kingstown, Rhode Island
 Prepared for
Old North Land Investments LLC
 75 Lambert Lind Highway
 Warwick, Rhode Island 02886
 DE Job No: 0161-884. Copyright 2018 by Diprete Engineering, Associates, Inc.
 SHEET **5** OF 18

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EXISTING CONDITIONS

A field inventory of the existing conditions within the study area was conducted in May 2022. The study area is defined as the significant roadways and intersections in the vicinity of the proposed site that may be impacted by the traffic due to the construction of Fieldstone Farms.

Study Area Intersections

Old North Road and Stony Fort Road



Photo 1: Old North Road at Stony Fort Road

The intersection of Old North Road and Stony Fort Road forms a three-legged unsignalized intersection. Old North Road forms the south leg of the intersection, and Stony Fort Road forms the east and west legs of the intersection. The northbound approach of Old North Road and the eastbound approach of Stony Fort Road operate under stop-sign control, while the westbound approach on Stony Fort Road operates uncontrolled. Old North Road and Stony Fort Road between Old North Road and Slocum Road are classified as major collectors. On the southern leg of the intersection, Old North Road has one 12-foot lane in each direction separated by a double yellow line. Both the eastern and western legs

of Stony Fort Road have one ten-foot lane in each direction separated by a solid double yellow line. The posted speed limit on both roadways is 25 miles per hour. East of the intersection on Stony Fort Road, a 20 mile per hour school zone is marked in the vicinity of Kingston Hill Academy.

In general, pavement conditions on Old North Road are poor to fair. The majority of the roadway has been crack-sealed. The pavement has deteriorated in many locations and patched potholes are located throughout the roadway limits. There is also evidence of poor drainage along edges of the roadway. Throughout the majority of the roadway, the pavement edge meets the grassed shoulder, forming a low point at the edge of pavement. Stormwater generally has no means of conveyance away from the edge of the roadway, resulting in ponding during rain events.

Roadway conditions along Stony Fort Road are generally good. The roadway appears to have been resurfaced in recent years and has no signs of significant pavement deterioration.

Stony Fort Road and Slocum Road

The intersection of Stony Fort Road and Slocum Road forms a three-legged unsignalized intersection with Stony Fort Road forming the east and west legs of the intersection and Slocum Road forming the north leg of the intersection. All approaches operate under stop-sign control and consist of one 12-foot wide lane in each direction. Slocum Road is classified as major collector, while Stony Fort Road is classified as major collector between Old North Road and Slocum Road and becomes an unclassified local roadway east of the intersection with Slocum Road. Signage along the eastern and western legs indicate weight limits for the bridge along Slocum Road. The posted speed limit on Slocum Road is 30 miles per hour.



Stony Fort Road and Mooresfield Road and Broad Rock Road



Photo 2: Stony Fort Road at Mooresfield Road and Broad Rock Road

The intersection of Stony Fort Road with Mooresfield Road and Broad Rock Road forms a four-legged unsignalized, staggered intersection. Broad Rock Road intersects Mooresfield Road approximately 85 feet to the west. Stony Fort Road forms the north leg of the intersection, Broad Rock Road forms the south leg, and Mooresfield Road forms the east and west legs. Mooresfield Road is classified as a Principal Arterial and this section of Stony Fort Road and Broad Rock Road is an unclassified local roadway. The southbound approach from Stony Fort Road and the northbound approach from Broad Rock Road operate under stop-sign control at the intersection while

Mooresfield Road operates uncontrolled. The northern leg of the intersection, Stony Fort Road, has one 11-foot travel lane in each direction separated by a double yellow line. The posted speed limit on this approach is 25 miles per hour. On both the eastern and western legs of the intersection, Mooresfield Road has one 12-foot travel lane and 5-foot shoulder in each direction, separated by a double yellow line. The posted speed limit on Mooresfield Road is 40 miles per hour.

Kingstown Road and Mooresfield Road

The intersection of Kingstown Road and Mooresfield Road forms a three-legged, signalized intersection. Kingstown Road runs in a north/south direction and consist of one 12-foot-wide lane in each direction with a five-foot wide shoulder on each side. The Kingstown Road eastbound approach consists of a 12-foot wide through-lane and a ten-foot wide right-turn-lane. The Mooresfield Road westbound approach consists of one 13-foot wide shared through/left-turn lane and a five-foot wide shoulder. The posted speed limit in the vicinity of the intersection is 25 miles per hour on Kingstown Road and Mooresfield Road. Traffic signal plans for the intersection were obtained from RIDOT and are included in Appendix B.



Photo 3: Kingstown Road at Mooresfield Road





Photo 4: Upper College Road at Kingstown Road

Upper College Road and Kingstown Road

The intersection of Upper College Road and Kingstown Road forms a three-legged signalized intersection. The Upper College Road leg consists of one 17-foot wide lane in each direction, separated by a double yellow line. The Kingstown Road western leg consists of one 11-foot wide lane in each direction, separated by a solid double yellow line. Additionally, a six-foot wide shoulder is located on the southern side, and a four-foot-wide shoulder is located on the northern side of this leg. The Kingstown Road eastern leg consists of one 11-foot through-lane and one 11-foot right-turn-lane in the westbound direction and one 11-foot eastbound

lane, separated by a solid double yellow line. On-street parallel parking spots are located on both sides of Kingstown Road east of the intersection. Crosswalks are present across each leg of the intersection. The posted speed limits for all approaches are 25 miles per hour. On the south side of the intersection, a driveway from the Kingston Congregational Church intersects Kingstown Road within the limits of the intersection. This driveway is not controlled by the signal. Traffic signal plans for the intersection were obtained from RIDOT and included in Appendix B.

Old North Road at Flagg Road and Bean Farm Road

The intersection of Old North Road at Flagg Road and Bean Farm Road forms a four-legged unsignalized, two-way stop-controlled intersection. Old North Road runs in the general north/south direction while Flagg Road and Bean Farm Road run in an east/west direction. Flagg Road provides access to the University of Rhode Island (URI) and, more directly the “Fine Arts Lot” of the University. Old North Road is classified as a major collector and Flagg Road and Bean Farm Road are unclassified local roadways. The Flagg Road and Bean Farm Road approaches operate under stop-sign control at the intersection while Old North Road operates uncontrolled. Old North Road is comprised of one 11.5-foot-wide travel lane for each direction of travel. Bean Farm Road has no striping to indicate intended lane designation or the presence of a shoulder but has a paved roadway width of 29 feet. Flagg Road has a three-foot wide shoulder, a seven-foot wide parking lane, and a ten-foot wide travel lane on each side of the roadway. The posted speed limit on Old North Road is 25 miles per hour, and the posted speed limit on Flagg Road is 25 miles per hour. Bean Farm Road has no posted speed limit.



Photo 5: Old North Road at Flagg Road and Bean Farm Road



Old North Road at Bills Road

The intersection of Old North Road at Bills Road forms a three-legged unsignalized, intersection. Old North Road forms the north and south legs of the intersection while Bills Road forms the west leg. Bills Road provides access to the Kingston Fire Department. Old North Road is classified as a major collector and Bills Road is an unclassified local roadway. Bills Road operates under stop-sign control at the intersection while Old North Road operates uncontrolled. Old North Road is comprised of one 11-foot-wide travel lane for each direction of travel. Bills Road has no striping to indicate intended lane designation or the presence of a shoulder but has a paved roadway width of 33 feet. “No Parking” signage is present along each side of each leg of the intersection. The posted speed limit on Old North Road is 25 miles per hour. Bills Road has no posted speed limit.



Photo 6: No Parking Signage at the intersection

Public Transportation

The study area falls within the service area of the Rhode Island Public Transit Authority (RIPTA). Route 64 serves the URI Kingston Campus via Mooresfield Road and Routes 62 and 66 serve URI via Route 138 and Route 108. The closest bus stop to the proposed development is located at the URI Memorial Union. The Memorial Union is located as close as 1.0 miles to the nearest point of the Fieldstone Farms development and up to 2.0 miles from the farthest point of the Fieldstone Farms development. These distances equate to an approximate 20-40 minute walk between the proposed development and existing transit services.

Pedestrian & Bicycle Facilities

In general, pedestrian facilities provided within the study area are minimal. Sidewalks are located along both sides of Upper College Road and both sides of Kingstown Road (Route 138) between Mooresfield Road (Route 138) and Upper College Road. Sidewalks are sporadically located along Old North Road from Kingstown Road (Route 138) to Flagg Road. No sidewalks are located within the immediate vicinity of the proposed site driveways on Stony Fort Road or Old North Road.

No official bicycle facilities are located within the study limits. Shoulders are not present on either Old North Road or Stony Fort Road for bicycles to operate in. However, according to RIDOT’s “A Guide to Cycling in the Ocean State, 2015” Old North Road, Stony Fort Road, Mooresfield Road (Route 138), and Slocum Road are classified as a “Suitable Road” for bicycle travel.

The URI – South County Bike Connector has recently been constructed. It’s nearest access point to the Fieldstone Farms development is on Flagg Road, approximately 1.0-2.0 miles from the development. This bike path connects the western portion of the URI campus to the existing William C. O’Neill (South County) Bike Path, providing a connection between URI, West Kingston, Peacedale, Wakefield, and Narragansett.



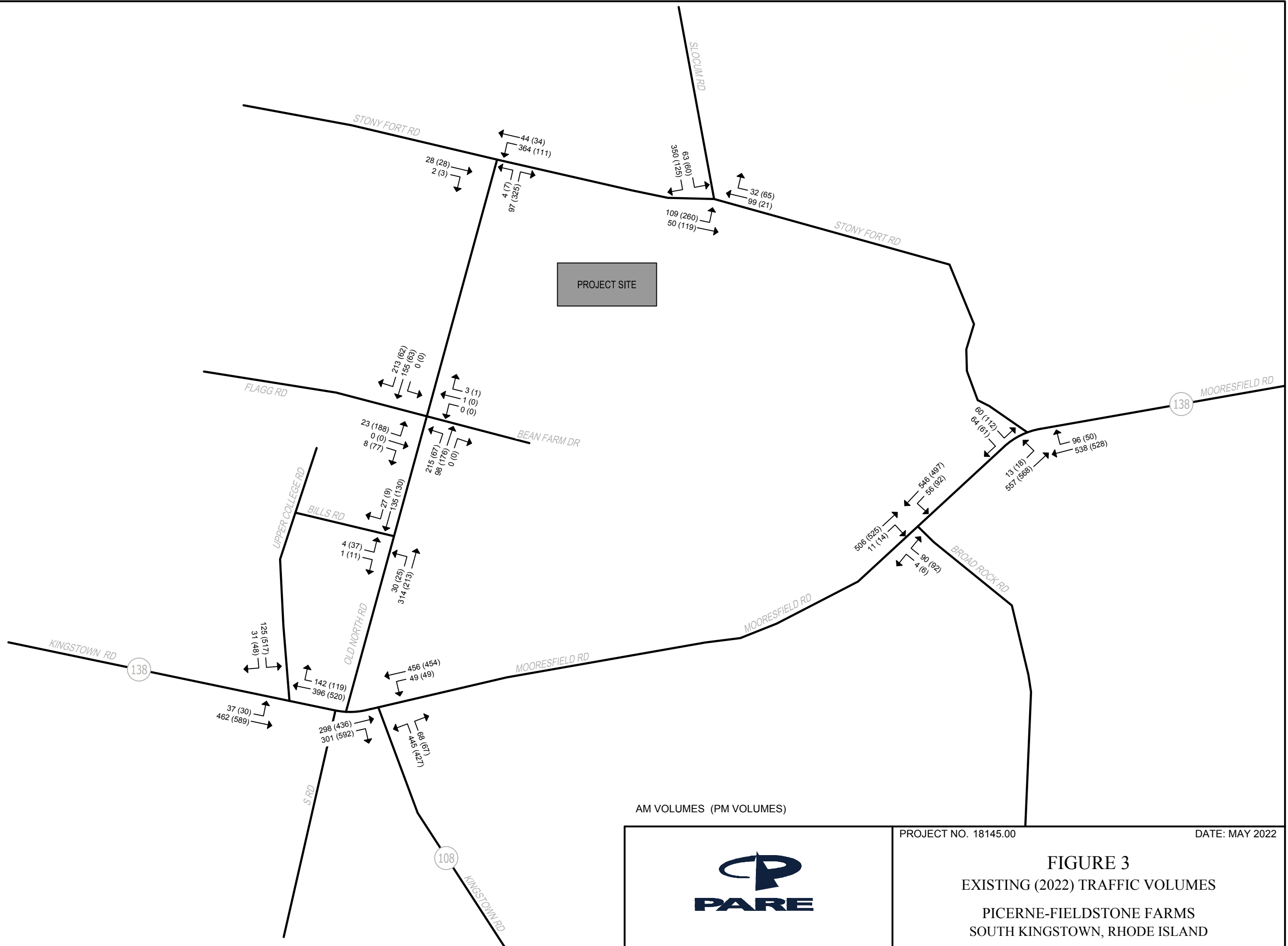
EXISTING TRAFFIC VOLUMES

Existing traffic volume data was collected through turning movement counts (TMCs) at the study intersections. TMC's were performed during the weekday morning (7:00 to 9:00 a.m.) and weekday afternoon (4:00 to 6:00 p.m.) peak periods. These time periods were selected as they represent the peak traffic time periods for the proposed development. Traffic patterns within the study are heavily influenced by URI. Daily peaks correlate to URI's class schedule and significant increases in traffic are observed during many campus events. While the increases in traffic due to events are acknowledged, they do not represent the typical daily traffic patterns and were not assessed as part of this study. Additionally, the time periods of those events do not typically coincide with the peak traffic periods of a residential development, which occur during typical commuter periods of 7:00 – 9:00 a.m. and 4:00 – 6:00 p.m.

The traffic counts used in this study were performed on Tuesday, April 26, 2022 and Thursday, April 28, 2022. The counts were completed while the URI Spring 2022 Semester was in regular session.

Traffic data for the month of April were reviewed to determine if a seasonal adjustment to the traffic data was required. According to Rhode Island Department of Transportation monthly traffic data, traffic volumes in April are above the annual average. To maintain a conservative approach, the traffic volumes were not decreased to meet the annual average. The existing (2022) traffic volumes are shown in Figure 3. Complete traffic count data is included in Appendix A.





AM VOLUMES (PM VOLUMES)



PROJECT NO. 18145.00 DATE: MAY 2022

FIGURE 3
 EXISTING (2022) TRAFFIC VOLUMES
 PICERNE-FIELDSTONE FARMS
 SOUTH KINGSTOWN, RHODE ISLAND

SAFETY ANALYSIS

Crash Data

Vehicle crash data for the study area was obtained from the South Kingstown Police Department for the period of March 31, 2019 through March 31, 2022, a total of three years. Within this period, a total of 101 crashes were reported within the study area. A total of 16 of these crashes resulted in injury and none resulted in a fatality. The crash data is summarized in Table 1 below. Sections of the study area where no crashes are reported are omitted from the table. A full breakdown of the crash data can be found in Appendix C.

Table 1: Crash Data Summary

Roadway/ Intersection	Total Crashes	Non-Fatal Injuries	Fatalities	Rear End	Angle	Sideswipe	Head-On	Single Vehicle
Stony Fort Road (Unspecified Location)	4	2	0	0	1	0	0	3
Old North Road (Unspecified Location)	3	1	0	1	1	0	0	1
Kingstown Road (Unspecified Location)	30	3	0	24	6	0	0	0
Mooresfield Road	1	0	0	0	0	0	0	1
Stony Fort Road at Old North Road	6	3	0	0	1	1	0	4
Kingstown Road at Mooresfield Road	26	2	0	19	3	0	1	3
Kingstown Road at Upper College Road	16	3	0	11	3	2	0	0
Stony Fort Road at Slocum Road	2	0	0	0	0	0	0	2
Stony Fort Road at Mooresfield Road and Broad Rock Road	10	2	0	0	0	1	0	9
Old North Road at Bills Road	1	0	0	0	1	0	0	0
Old North Road at Flagg Road and Bean Farm Road	2	0	0	0	2	0	0	0
Study Area Total	101	16	0	55	18	4	1	23

Several trends in the crash data were observed. Approximately 23% of collisions within the study area occur in the form of single vehicle crashes. Reasons for these collisions range from striking wildlife/animals or a loss of control attributed to slick roadway conditions (caused by snow and ice) or by distracted drivers.



Rear-end collisions frequently occurred within the study area, making up approximately 55% of crashes. In particular, the signalized intersection of Kingstown Road at Mooresfield Road resulted in close to half of these collisions. Rear-end collisions are typically the most common type of collision and are especially common at high-volume, signalized intersections. The intersection with the highest frequency of collisions is Kingstown Road at Mooresfield Road. Approximately 31% of the collisions are along the Route 138 corridor of Kingstown Road and Mooresfield Road, but not at a specific intersection. It should be noted that this stretch of roadway is over two miles within the study area and these accidents occurred over the span of three years.

Sight Distance

On May 17, 2022, spot speed studies were conducted on Old North Road and Stony Fort Road near the site driveways to assess driving speeds along the roadway. Two speed studies were conducted on Old North Road while one was conducted on Stony Fort Road. A summary of the speed data results is shown in Table 2 below. The complete data log can be found in Appendix D. The most notable metric presented in the table is the 85th percentile speed, which is typically considered the design speed and was utilized for the sight distance analysis.

Table 2: Speed Study Summary

	Posted Speed	Average Speed	True Median (50th Percentile)	85th Percentile	10 MPH Pace	% over Posted Speed Limit
Old North Road, 500 feet south of intersection with Stony Fort Road						
Northbound	25	28	28	31	23-32	79%
Southbound	25	27	28	31	23-32	67%
Old North Road, 2,000 feet south of the intersection with Stony Fort Road						
Northbound	25	28	28	32	22-31	75%
Southbound	25	27	27	31	24-33	67%
Stony Fort Road						
Eastbound	25	30	30	35	26-35	87%
Westbound	25	31	31	36	25-34	84%

As displayed in the table, the majority of drivers are driving above the posted speed limit of 25 miles per hour for each roadway. In conjunction with the spot speed studies conducted, the available sight distance for the proposed site driveways were assessed. Given the results of the speed study, a design speed of 35 miles per hour was selected for Old North Road and a design speed of 40 mile per hour was selected for Stony Fort Road.

According to the latest edition of the American Association of State Highway and Transportation Officials (AASHTO) publication *A Policy on the Geometric Design of Highways and Streets*, the required intersection sight distances (ISD) for 35 miles per hour and 40 miles per hour are 390 feet and 445 feet, respectively. A summary of the sight distance requirements for the site driveways can be seen in Table 3.



Table 3: Sight Distance Requirements

		Required ISD (ft)
Old North Road at Site Driveways	To the South (Left)	390
	To the North (Right)	390
Stony Fort Road at Site Driveways	To the West (Left)	445
	To the East (Right)	445

There are several driveways proposed along both Stony Fort Road and Old North Road. Along Old North Road and Stony Fort Road, sight lines are currently obstructed by overgrown vegetation that is anticipated to be removed during construction and would not be present post-development. A stone wall is also located along the east side of Old North Road. While the stone wall lies within the sight triangles of the proposed driveways, the wall appears to have partially collapsed over time and its height is below that of the typical height of a driver’s eye. According to AASHTO, it should be assumed that a driver’s eye is 3.5 feet above the surface of the intersecting road. Additionally, the height of the object to be seen by the driver (the oncoming vehicle on Old North Road) should be assumed to be 3.5 feet above the surface of the road. Given that the stone wall has a height less than 3.5 feet above the roadway, it does not present a sight distance obstruction. Photo X shows a vehicle on Old North Road driving past the stonewall. It can be seen that the driver’s eyes are at a height above the top of the stone wall.

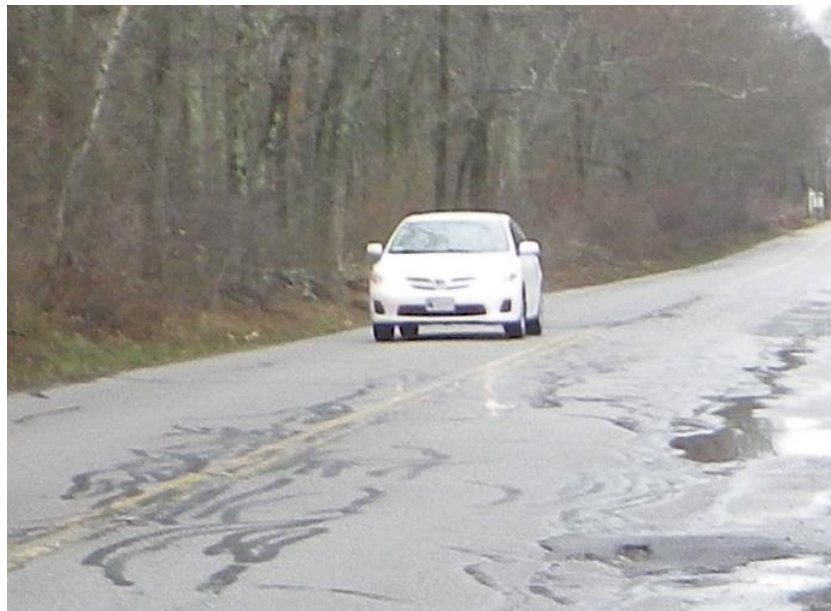


Photo 7: Vehicle traveling northbound on Old North Road. Note the elevation of the driver's eyes in relation to the top of the stone wall.

Appendix E includes graphics displaying the sight triangles for each site driveway. Note that the sight triangles for Lots 14 and 15 extend through the Old North Road/Stony Fort Road intersection. Drivers exiting these two lots will have clear line-of-sight from the driveway to the intersection. Vehicles traveling on either Old North Road or Stony Fort Road in these areas will be traveling at speeds significantly lower than the roadway design speeds as drivers will still be accelerating having just traversed the intersection. Drivers will therefore be able to make the movement out of these driveways in a safe manner.



NO-BUILD CONDITIONS

Traffic volumes in the study area were projected to the year 2027 to cover a five-year horizon from the existing 2022 condition. Under the future (2027) no-build scenario, the traffic volumes include existing traffic volumes and additional traffic volumes associated with expected background growth, as well as any additional developments being constructed that add traffic to the study area.

To provide a conservative analysis, the background growth in traffic volumes consists of a general background traffic growth rate consistent with recent traffic volume growth in the area surrounding the study area and any additional traffic projected from additional developments near the study area. This method allows for the inclusion of a general growth rate to account for any unforeseen increases in traffic volumes and accounts for specific known developments expecting to impact the transportation system adjacent to the project.

To determine the appropriate growth rate to apply to the transportation network within the study area, recent traffic volume trends within the area were reviewed and correlated to expected background traffic growth. RIDOT historical traffic data from Traffic Count Station 3200721080 on Kingstown Road south of Mooresfield Road was used to establish a background growth rate. The count data from this station fluctuated greatly between 2008 to 2021 with an annual average daily traffic (AADT) 11,200 vehicles per day in 2021 to an AADT of 9,700 vehicles per day in 2008. Due to this increase in traffic volumes and overall large fluctuation of data from the count station, a conservative annual growth rate of 1.5% was applied as a general background growth rate. General background growth data can be found in Appendix F.

Pare coordinated with major development contributors in the study area, including: the South Kingstown Planning Department, the Rhode Island Department of Transportation, and the University of Rhode Island to determine if there were any other proposed developments in the area that may have an impact on future travel patterns or increase traffic volumes in the area. The Planning Department was not aware of any other future projects in this area of South Kingstown that would result in significant increases to traffic volumes.

Pare is also aware of two upcoming RIDOT improvement projects within the study limits. First, the rehabilitation of the Kingstown Road (Route 138) corridor from South County Trail (Route 2) to Kingstown Road (Route 108) is identified on the State Transportation Improvement Program (STIP) with funding between 2023-2028. Pare understands that this project may include traffic signal improvements, such as the addition of turn lanes and pedestrian crossing equipment. Second, the intersection of Moorsefield Road with Broad Rock Road and Stony Fort Road is include on the STIP with funding between 2028-2031. Improvements at the intersection may include signalization and pedestrian related improvements. As the scope of both of these projects have yet to be defined, these future improvements were not included in the capacity analysis of future scenarios to provide a conservative analysis.

URI was also contacted to determine upcoming projects that may impact traffic patterns within the study or improvements to the transportation network. None of the anticipated construction or roadway improvement projects is expected to impact the traffic network in a significant way.



Based on the evaluation of the appropriate general background traffic growth and the assessment of future developments, the future (2027) no-build scenario traffic volumes were determined. The future no-build scenario includes the existing traffic volumes with the addition of a 1.5% annual growth rate. The future no-build traffic volumes are shown in Figure 4.

BUILD CONDITIONS

The future build condition represents the future no-build condition plus the anticipated trips due to the construction of the residential development.

Trip Generation

Trip generation for the proposed development was completed using the industry-standard Institute of Transportation Engineers (ITE) *Trip Generation, 11th Edition*. The proposed development was analyzed with Land Use Code (LUC) 210: Single-Family Detached Housing the number of vehicle trips was based on the total number of dwelling units. To maintain a conservative approach, each peak hour was generated through the “peak hour of generator”, which will provide the peak strictly for the site itself, rather than the surrounding streets. A summary of the trips generated by the development is provided in Table 4.

Table 4: Trip Generation Summary

		AM Peak	PM Peak
LUC 210 – Single Family Detached Housing – 39 Units	Entering	9	27
	Exiting	26	16
	Total	35	43

It is important to note that the trip generation figures included in Table 4 represent the maximum volume of trips generated within one hour during the morning and evening peak periods. For example, while there may be a peak period during the morning from 7:00 a.m. to 9:00 a.m., the values shown in Table 4 and used in the analysis represent the peak hour window within that peak period. Complete trip generation calculations are provided in Appendix G.



Project Trip Distribution

The directional distribution of trips entering and exiting the site was determined using Journey-to-Work data from the US Census for the Town of South Kingstown. Additionally, trips to and from the site were split between the sites along Old North Road and Stony Fort Road based on the number of dwelling units along each location. A summary of the trip distribution through the transportation network is provided in Table 5.

Table 5: Trip Distribution Summary

Roadway	General Travel Direction / Work Locations	Percent
Slocum Road	North, East Providence & Kent Counties, RI Massachusetts	33%
Mooresfield Road Eastbound	East Newport County, RI Narragansett	12%
Kingstown Road Southbound	South Wakefield, Narragansett	30%
University of Rhode Island ¹	South URI	15%
Kingstown Road Westbound	West Westerly, Charlestown, RI Connecticut	10%

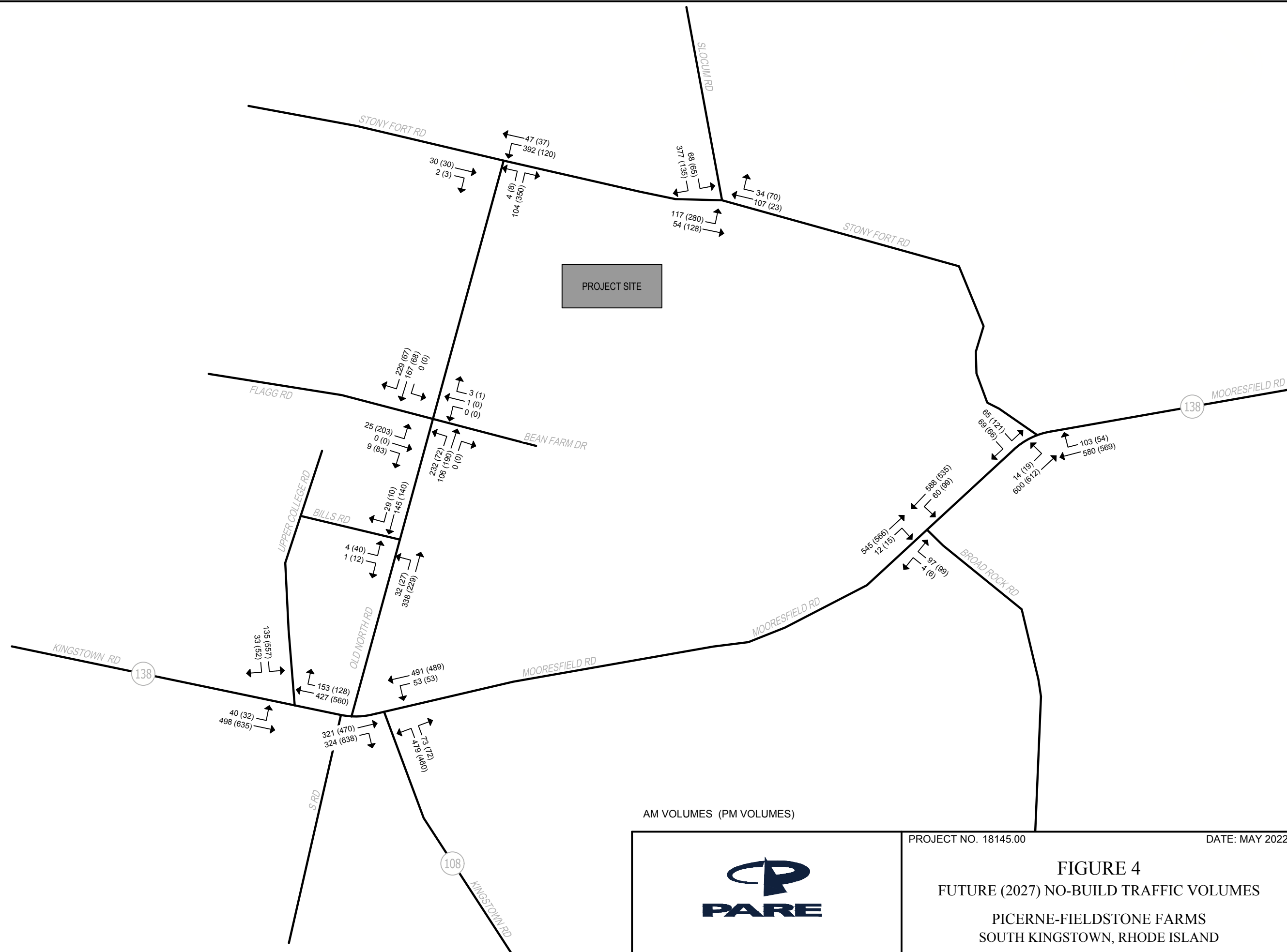
1. One third of those employed within the Town of South Kingstown were assumed to be employed at URI.

The site generated trips are shown in Figure 5 and future build volumes are provided in Figure 6. Trip Distribution calculations are provided in Appendix G. A summary of the analysis scenarios considered are presented below in Table 6.

Table 6: Analysis Scenario Summary

Analysis Scenario		
Existing (2022) Conditions	Future (2027) No-Build Conditions	Future (2027) Build Conditions
Existing traffic volumes – these volumes are the unchanged peak hour traffic volumes collected in the intersection turning movement counts.	Future traffic volumes without the proposed development – these volumes are the existing traffic volumes inflated with a 1.5% annual growth rate over 5 years. They represent the anticipated future conditions if the proposed development is not constructed.	Future traffic volumes with the proposed development – these volumes are the existing traffic volumes inflated with a 1.5% annual growth rate over 5 years plus the trip generated by the proposed development. They represent the anticipated future conditions if the proposed development is constructed.



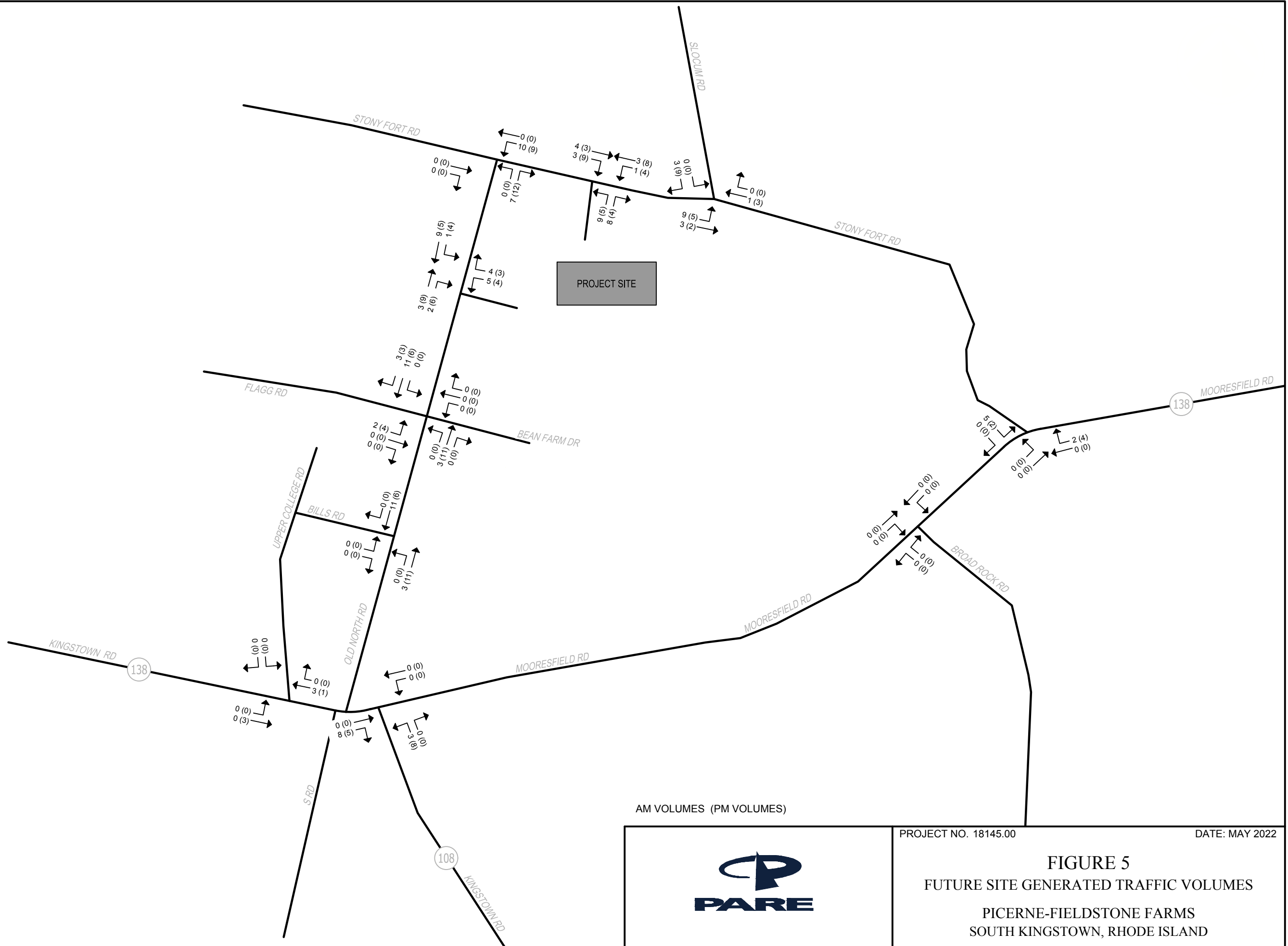


AM VOLUMES (PM VOLUMES)



PROJECT NO. 18145.00 DATE: MAY 2022

FIGURE 4
FUTURE (2027) NO-BUILD TRAFFIC VOLUMES
 PICERNE-FIELDSTONE FARMS
 SOUTH KINGSTOWN, RHODE ISLAND

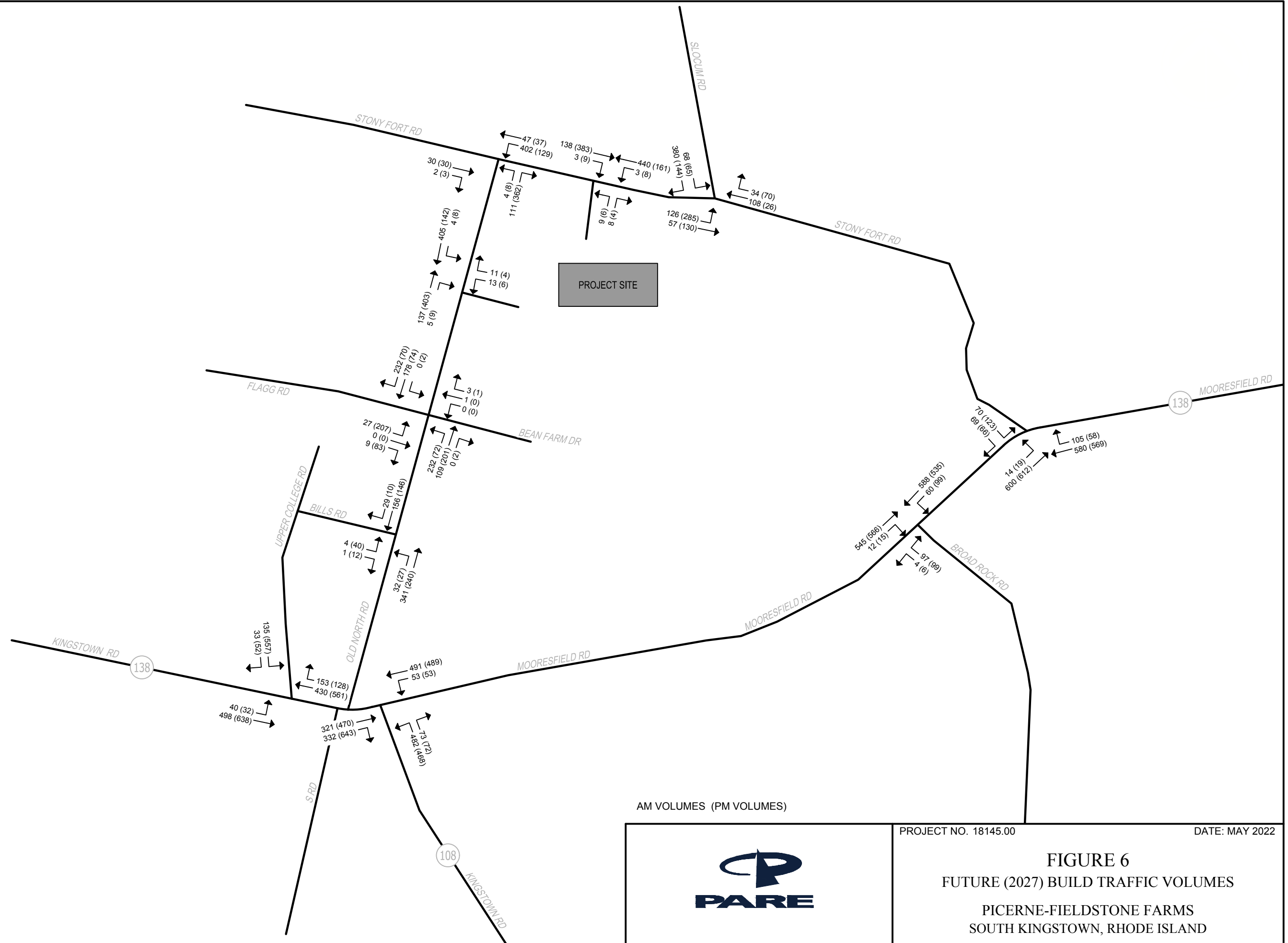


AM VOLUMES (PM VOLUMES)



PROJECT NO. 18145.00 DATE: MAY 2022

FIGURE 5
FUTURE SITE GENERATED TRAFFIC VOLUMES
 PICERNE-FIELDSTONE FARMS
 SOUTH KINGSTOWN, RHODE ISLAND



AM VOLUMES (PM VOLUMES)



PROJECT NO. 18145.00 DATE: MAY 2022

FIGURE 6
FUTURE (2027) BUILD TRAFFIC VOLUMES
PICERNE-FIELDSTONE FARMS
SOUTH KINGSTOWN, RHODE ISLAND

CAPACITY ANALYSIS

A capacity analysis characterizes intersections based on their level of service (LOS). LOS is a quality measure describing operational conditions within a traffic stream, generally in terms of service measures such as speed, travel times, traffic interruptions, etc. Six LOS are defined for each type of facility, from A to F, with A representing the best operating conditions and F representing the worst operating conditions. The LOS criteria, as defined by the 6th edition of the Highway Capacity Manual (HCM) for signalized and unsignalized intersections are provided in Table 7. Tables 8 and 9 show the results of the capacity analysis. The complete capacity analysis results can be found in Appendix H.

Table 7: LOS Criteria for Signalized and Unsignalized Intersections

LOS	Signalized Intersection	Unsignalized Intersection
	Delay Time (sec/veh)	Delay Time (sec/veh)
A	≤ 10	0-10
B	> 10-20	> 10-15
C	> 20-35	> 15-25
D	> 35-55	> 25-35
E	> 55-80	> 35-50
F	> 80	> 50



Fieldstone Farms Residential Development TIA

Table 8: Morning Peak Hour LOS Summary

Intersection	Movement		Existing (2022)		Future (2027) No-Build		Future (2027) Build	
			LOS (Delay ¹)	Queue Length ²	LOS (Delay ¹)	Queue Length ²	LOS (Delay ¹)	Queue Length ²
Kingstown Road at Upper College Road (Signalized)	SB	L, R	B (17.4)	77	C (20.6)	82	C (20.9)	86
	EB	L, T	A (8.5)	148	A (8.7)	175	A (8.9)	180
	WB	T	A (7.8)	108	A (7.8)	125	A (8.0)	128
		R	A (2.7)	21	A (2.8)	24	A (2.8)	25
		App	A (6.4)	-	A (6.5)	-	A (6.6)	-
	Intersection		A (8.8)	-	A (9.3)	-	A (9.6)	-
Kingstown Road at Mooresfield Road (Signalized)	NB	L, R	C (29.8)	217	D (35.7)	242	D (36.2)	245
	EB	T	B (15.5)	131	B (16.4)	142	B (16.4)	142
		R	A (3.7)	41	A (3.8)	42	A (3.8)	43
		App	A (9.5)	-	B (10.0)	-	B (10.0)	-
	WB	L, T	D (39.9)	#333	E (59.3)	#370	E (59.9)	#370
	Intersection		C (26.5)	-	C (34.9)	-	D (35.2)	-
Mooresfield Road at Stony Fort Road (Unsignalized)	SB	L,R	F (111.8)	225	F (211.7)	320	F (228.9)	338
	EB	L, T	A (0.0)	0	A (0.0)	3	A (0.7)	5
	WB	T, R	A (0.2)	3	A (0.2)	0	A (0.0)	0
Old North Road at Flagg Road and Bean Farm Drive (Unsignalized)	NB	L,T,R	A (6.6)	28	A (6.9)	33	A (6.9)	35
	SB	L,T,R	A (0.0)	0	A (0.0)	0	A (0.0)	0
	EB	L,T,R	D (30.9)	23	E (38.0)	30	E (41.9)	35
	WB	L,T,R	C (15.3)	3	C (16.8)	3	C (17.2)	3
Broad Rock Road at Mooresfield Road (Unsignalized)	NB	L, R	E (40.6)	68	F (89.6)	125	F (89.6)	125
	EB	T, R	A (0.0)	0	A (0.0)	0	A (0.0)	0
	WB	L, T	B (14.9)	145	C (18.5)	195	C (18.5)	195
Old North Road at Bills Road (Unsignalized)	NB	L, T	A (0.7)	3	A (0.7)	3	A (0.7)	3
	SB	T, R	A (0.0)	0	A (0.0)	0	A (0.0)	0
	EB	L, R	B (13.7)	3	B (14.3)	3	B (14.5)	3
Stony Fort Road at Slocum Road (Unsignalized)	SB	L, R	C (17.0)	125	C (20.7)	160	C (22.1)	170
	EB	L, T	C (16.5)	98	C (19.2)	120	C (21.7)	143
	WB	T, R	B (10.6)	23	B (11.2)	28	B (11.4)	28



Fieldstone Farms Residential Development TIA

Intersection	Movement		Existing (2022)		Future (2027) No-Build		Future (2027) Build	
			LOS (Delay ¹)	Queue Length ²	LOS (Delay ¹)	Queue Length ²	LOS (Delay ¹)	Queue Length ²
Old North Road at Stony Fort Road ³ (Unsignalized)	NB	L,R	A (3.4)	2.3	A (3.5)	2.4	A (3.6)	2.5
	EB	T,R	A (7.8)	1.8	A (8.3)	1.9	A (8.4)	1.9
	WB	L,T	A (0.9)	-	A (0.9)	-	A (1.0)	-
Stony Fort Road at Site Driveway (Unsignalized)	NB	L, R	-	-	-	-	B (11.7)	3
	EB	T, R	-	-	-	-	A (0.0)	0
	WB	L, T	-	-	-	-	A (0.1)	0
Old North Road at Site Driveway (Unsignalized)	NB	T, R	-	-	-	-	A (0.0)	0
	SB	L, T	-	-	-	-	A (0.1)	0
	WB	L, R	-	-	-	-	B (11.2)	3

- # The 95th percentile volume exceeds capacity, queue may be longer.
1. Delay is measured in seconds/vehicle.
 2. Queue Length shown represents the 95th percentile queue length in feet.
 3. Intersection analyzed using SimTraffic due to unorthodox signage configuration



Fieldstone Farms Residential Development TIA

Table 9: Afternoon Peak Hour LOS Summary

Intersection	Movement		Existing (2022)		Future (2027) No-Build		Future (2027) Build	
			LOS (Delay ¹)	Queue Length ²	LOS (Delay ¹)	Queue Length ²	LOS (Delay ¹)	Queue Length ²
Kingstown Road at Upper College Road (Signalized)	SB	L, R	C (24.7)	326	C (27.1)	#414	C (27.1)	#418
	EB	L, T	C (27.5)	#443	E (57.7)	#533	E (60.9)	#536
	WB	T	C (20.0)	305	C (23.3)	#342	C (23.5)	#342
		R	A (6.8)	43	A (7.3)	47	A (7.3)	47
		App	B (17.6)	-	C (20.3)	-	C (20.5)	-
	Intersection		C (23.1)	-	C (34.9)	-	D (36.1)	-
Kingstown Road at Mooresfield Road (Signalized)	NB	L, R	C (21.7)	216	C (23.2)	243	C (23.5)	248
	EB	T	B (17.1)	#235	B (19.8)	#287	C (20.2)	#287
		R	A (4.4)	57	A (4.8)	60	A (4.9)	60
		App	B (9.8)	-	B (11.2)	-	B (11.4)	-
	WB	L, T	C (23.4)	#327	D (45.6)	#389	D (49.6)	#391
	Intersection		B (16.0)	-	C (22.5)	-	C (23.7)	-
Mooresfield Road at Stony Fort Road (Unsignalized)	SB	L,R	F (340.6)	485	F (540.1)	625	F (555.9)	638
	EB	L, T	A (0.7)	5	A (0.8)	5	A (0.8)	5
	WB	T, R	A (0.0)	0	A (0.0)	0	A (0.0)	0
Old North Road at Flagg Road and Bean Farm Drive (Unsignalized)	NB	L,T,R	A (2.1)	5	A (2.1)	5	A (2.0)	5
	SB	L,T,R	A (0.1)	0	A (0.1)	0	A (0.1)	0
	EB	L,T,R	C (23.9)	123	D (30.9)	165	E (35.4)	188
	WB	L,T,R	A (9.3)	0	A (9.4)	0	A (9.5)	0
Broad Rock Road at Mooresfield Road (Unsignalized)	NB	L, R	D (27.0)	53	E (38.9)	80	E (38.9)	80
	EB	T, R	A (0.0)	0	A (0.0)	0	A (0.0)	0
	WB	L, T	B (11.1)	88	B (12.6)	113	B (12.6)	113
Old North Road at Bills Road (Unsignalized)	NB	L, T	A (0.8)	3	A (0.8)	3	A (0.8)	3
	SB	T, R	A (0.0)	0	A (0.0)	0	A (0.0)	0
	EB	L, R	B (11.8)	10	B (12.2)	10	B (12.4)	10
Stony Fort Road at Slocum Road (Unsignalized)	SB	L, R	A (9.7)	30	B (10.2)	35	B (10.4)	35
	EB	L, T	B (13.5)	88	B (14.9)	105	C (15.4)	110
	WB	T, R	A (8.2)	10	A (8.4)	10	A (8.5)	13



Fieldstone Farms Residential Development TIA

Intersection	Movement		Existing (2022)		Future (2027) No-Build		Future (2027) Build	
			LOS (Delay ¹)	Queue Length ²	LOS (Delay ¹)	Queue Length ²	LOS (Delay ¹)	Queue Length ²
Old North Road at Stony Fort Road ³ (Unsignalized)	NB	L, R	A (5.1)	3.3	A (5.4)	3.5	A (5.5)	3.5
	EB	T, R	A (6.3)	1.9	A (6.5)	1.9	A (6.6)	1.9
	WB	L, T	A (0.3)	-	A (0.3)	-	A (0.3)	-
Stony Fort Road at Site Driveway (Unsignalized)	NB	L, R	-	-	-	-	B (12.2)	3
	EB	T, R	-	-	-	-	A (0.0)	0
	WB	L, T	-	-	-	-	A (0.4)	0
Old North Road at Site Driveway (Unsignalized)	NB	T, R	-	-	-	-	A (0.0)	0
	SB	L, T	-	-	-	-	A (0.2)	0
	WB	L, R	-	-	-	-	B (11.9)	0

- # The 95th percentile volume exceeds capacity, queue may be longer.
- 1 Delay is measured in seconds/vehicle.
- 2 Queue Length shown represents the 95th percentile queue length in feet.
- 3 Intersection analyzed using SimTraffic due to unorthodox signage configuration

As shown in the tables above, there is not expected to be any significant changes in overall LOS between no-build and build conditions for any of the intersections during either the morning or afternoon peak hours. The only LOS shifts seen occurs at the signalized intersection of Kingstown Road at Mooresfield Road during the morning peak hour and at the signalized intersection of Kingstown Road at Upper College Road during the afternoon peak hour. Both of these intersections will go from LOS C to LOS D, with delay increases ranging from a half of a second to a second. The only reason for this LOS shift is that in the no-build scenario, each intersection operates at the threshold of LOS C and LOS D, at exactly 34.9 seconds. Any increase in traffic, no matter how mild, is likely to cause an LOS shift when the intersections are this close to threshold. Neither of the intersections' movements will operate worse than LOS E in the build scenario.

The unsignalized intersections are all anticipated to operate similarly between the build scenario and the no-build scenario for the morning and afternoon peak hours. It should be noted that the intersection of Mooresfield Road with Stony Fort Road and Broad Rock Road currently operates at LOS F and is expected to continue to operate at LOS F under futures scenarios. As previously noted, improvements to the intersection are on the STIP. These improvements as proposed through RIDOT are expected to include signalization, which will vastly improvement the operations at this intersection. As the projected is expected to be completed outside of the 5-year period reviewed under this study, and details have yet to be developed, a signalization scenario was not analyzed.

For purposes of a conservative capacity analysis, all site driveways along Old North Road and all site driveways along Stony Fort Road are treated as one driveway per road. With this conservative approach, the collective driveways are anticipated to operate at LOS B during the build scenario. An LOS B is indicative of an approach operating well, and this delay would be spread out amongst the driveways, lessening the expected delay. No mitigation is recommended.



Due to the unorthodox configuration of the intersection of Old North Road at Stony Fort Road, Pare simulated the intersection using SimTraffic to determine expected queue lengths and delay times. In all scenarios analyzed and each peak hour, the intersection's approaches are anticipated to operate at LOS A, with minimal queuing present.

In general, the results of the capacity analysis indicate that the introduction of traffic associated with the proposed residential development to the adjacent roadway network results in minimal impact on traffic operations within the study area.

MULTI-WAY STOP CONTROL WARRANT ANALYSIS

As part of the September 26, 2018 Findings of Fact of the Public Hearing on Conceptual Master, Comprehensive Permit, Condition 23 states:

“As a required off-site improvement, the applicant shall be responsible for the installation of a stop-sign for the westbound approach of Stony Fort Road at the intersection of Old North Road. Such shall be depicted on the Preliminary Plan submitted by the applicant. If such is not depicted, the traffic impact assessment described in Conditions of Approval #22 above shall include a warrant analysis indicating that installation of such a traffic control devices is not warranted.”

Pare has reviewed the intersection of Old North Road at Stony Fort Road to determine if an all-way stop traffic control condition is warranted. The intersection of Old North Road at Stony Fort Road currently operates under two-way-stop-control where the northbound and eastbound approaches are stop controlled and the westbound approach is uncontrolled. To determine whether an all-way stop control is warranted at this intersection, Pare performed a warrant analysis. Specifically, Pare consulted the Manual of Uniform Traffic Control Devices (MUTCD) warrant for all-way stop control. Typically, this warrant is investigated in situations where the conversion of an intersection to all-way stop control is considered, or signalization is considered and where all-way stop control is used an interim measure during construction. The MUTCD outlines several guidelines for consideration of all-way stop control, rooted in the crash history and the traffic volumes at the intersection. To warrant considerations of all-way stop control, the intersection must meet the following criteria:

- Five or more crashes occurring in a span of a 12-month period that could be reduced by means of AWSC conversion have been identified.
- Volumes approaching the intersection are approximately equal. The MUTCD describes this as 300 vehicles entering the intersection per hour for eight hours from both directions of the major road and 200 vehicles entering the intersection per hour for eight hours from both directions of the minor road

The first guideline is assessed for the intersection referencing the crash data obtained from the South Kingstown Police Department. Table 10 below presents the crash data analyzed for purposes of the warrant.



Table 10: Old North Road at Stony Fort Road Annual Crash Summary

Year	Total Crashes	Non-Fatal Injuries	Fatalities	Rear End	Angle	Sideswipe	Head-On	Single Vehicle
March 2019 – March 2020	1	0	0	0	0	0	0	1
April, 2020 – March 2021	3	0	0	0	0	0	0	3
April 2021 - March 2022	2	3	0	0	1	1	0	0
Total	6	3	0	0	1	1	0	4

As shown in Table 10, the crash frequency for the intersection of Old North Road at Stony Fort Road falls far below the guideline of five crashes per year. Crash types that can potentially be alleviated by the use of AWSC are expected to be angled collisions, which saw the highest frequency at one crash per year, while seeing no additional crashes during the time period analyzed.

From the traffic data collected in April 2022, Pare compared the volumes for the volumetric guideline of the Multi-Way Stop warrant. The warrant outlines that it is typical to assess an eight-hour time period. Pare performed a preliminary analysis using the four hours obtained from the MTMC’s with the assumption that if the time periods analyzed that are denoted as “peak traffic hours” are unable to meet the warrant, then it is unlikely that any additional hours would reach the related volumes thresholds. The values used for analysis were pulled from the volumes that would present themselves in the build scenario; design year 2027. Figure 7 below displays the results of the analysis. If a cell in the table is highlighted yellow, it meets the 100% requirements and if a cell is left white, then it does not meet the requirement. To satisfy the requirements, both cells for the four individual hours need to be yellow.

From Figure 7, it is clear that the multi-way stop warrant is not met in terms of vehicular volumes if additional hours are analyzed. None of the four hours analyzed meet the traffic volume threshold.





PARE Project No.:
Project Name:

18145.00
Fieldstone Farms

Multi-Way Stop Warrant

Volumes

		Major Street Volume (Both Approaches)	Minor Street Volume (One Direction Only)
Time		Stony Fort Road	Old North Road
7:00 AM	8:00 AM	302	42
8:00 AM	9:00 AM	484	122
9:00 AM	10:00 AM		
10:00 AM	11:00 AM		
11:00 AM	12:00 PM		
12:00 PM	1:00 PM		
1:00 PM	2:00 PM		
2:00 PM	3:00 PM		
3:00 PM	4:00 PM		
4:00 PM	5:00 PM	204	372
5:00 PM	6:00 PM	154	248
6:00 PM	7:00 PM		

100% Threshold Met:

Threshold Major
300 VPH

Threshold Minor
200 VPH

Counts completed on:

Tuesday, April 26, 2022

INTERNAL ACCESS ROAD ASSESSMENT

As part of the September 26, 2018 Findings of Fact of the Public Hearing on Conceptual Master, Comprehensive Permit, Condition 24 states:

“The Planning Board may require the development of an internal access road for lots proposed with direct access to Old North Road if the traffic impact assessment required at the Preliminary Plan review stage does not support direct access to the road.”

Pare has reviewed the need for an internal access road connecting the driveways along Old North Road and is of the opinion that an access road is not required given the conditions of the proposed development.

Firstly, as indicated in the sight distance assessment, adequate sight distance is provided at each proposed driveway. There is no characteristic associated with safe ingress/egress of the proposed driveways that in and of itself would warrant or require consolidation or removal of driveways as proposed.

Secondly, the traffic volumes that will be entering and exiting the driveways will be very low, limiting the impact to traffic flow on Old North Road. Access management strategies, consistent with the potential internal access road, are typically used along heavy volume commercial corridor with multiple heavy volume driveways and many vehicle conflict points. The low volume of vehicles associated with single-family houses does not necessitate this type of access management strategy.

Additionally, the density of driveways proposed on Old North Road is consistent with or less than that elsewhere on Old North Road and other nearby sections of Stony Fort Road. At the proposed development's densest area on Old North Road, six driveways (Lots 4 – 14) are proposed over 1,600 feet of roadway. This equates to a driveway density along the east side of Old North Road of 20 driveways per mile. Currently, between 429 – 497 Old North Road, there are 5 driveways on the east side of roadway across 810 feet. This results in a driveway density of 33 driveways per mile. Additionally, along the south side of Stony Fort Road between 376 – 636 Stony Fort Road, there are 14 driveways over 2,650 feet. This results in a driveway density of 28 driveways per mile. The proposed driveway density is less than that which exists on sections of similar roadway nearby and is consistent with the existing characteristics of Old North Road and Stony Fort Road.

Finally, the installation of an internal access road would require additional clearing of vegetation and additional impervious area, resulting in added environmental impacts. The clearing of additional vegetation along Old North Road could result in aesthetic impacts for drivers along Old North Road by reducing the vegetated buffer between the development and the roadway.

Given the information provided above, Pare is of the opinion that an internal access driveway is not necessary for the development as proposed.



SUMMARY AND CONCLUSIONS

Based on Pare's review of existing conditions, Old North Road and Stony Fort Road provide limited pedestrian and bicycle connectivity between the proposed development and URI and the village of Kingston. This connectivity would improve with the proposed installation of sidewalks and along Old North Road.

Based on crash data received from the South Kingstown Police Department, several crash trends were observed. Most concerning of the trends is the high frequency of single vehicle crashes. Vehicle speeds well above the posted speed limit of 25 miles-per-hour were observed on within the study area and are likely contributing to these crashes. Other noted causes include the presence of wildlife and distracted drivers.

Sight distance measurements conducted along Old North Road and Stony Fort Road at the proposed development access points exceed AASHTO requirements for the site driveways. With proper clearing of vegetation within sight triangles at each access point, intersection sight distance requirements will be met.

In general, the proposed residential development is expected to have an insignificant impact to traffic operations within the study area. The trips generated by the development were distributed throughout the network based on Journey to Work data from the US Census. The distribution of traffic across multiple intersections results in an insignificant impact compared to the future (2027) no-build condition. The southbound approach to the intersection of Stony Fort Road and Mooresfield Road operates under LOS F under existing conditions and is expected to worsen under the future (2027) no-build condition and future (2027) build condition. Improvements at this intersection, including realignment with Broad Rock Road and signalization are proposed by RIDOT. It is anticipated that these improvements will significantly improve the safety and capacity of this intersection.

Due to the unorthodox configuration of the intersection of Stony Fort Road at Old North Road, Pare investigated the justification for addition of a stop sign along the eastern leg of the intersection through the MUTCD's multi-way-stop control warrant. Based on crash history and volumetric data provided to Pare, the warrant will not be met, and therefore, we have not recommended this improvement in this study.

The traffic generated by the development is expected to be accommodated within the existing roadway network. Based on the analysis performed under this study, Pare is of the opinion that the construction of the proposed residential development will have no significant impact to the safety and capacity of the surrounding roadway network.





Appendix A

Traffic Count Data

Transportation Data Corporation
 Mario Perone, mperone1@verizon.net
 tel (781) 587-0086 cell (781) 439-4999

N: Upper Coleege Road
 E/W: Kingstown Road (Route 138)
 City, State: Kingston, RI
 Client: Pare/T. Thompson

File Name : 05554A
 Site Code : 05554
 Start Date : 4/28/2022
 Page No : 1

Groups Printed- Cars & Peds - Trucks & Buses - Bikes by Direction

Start Time	Upper College Road From North			Kingstown Road (Route 138) From East			Kingstown Road (Route 138) From West			Int. Total
	Right	Left	Peds	Right	Thru	Peds	Thru	Left	Peds	
07:00 AM	2	20	0	13	54	0	111	6	0	206
07:15 AM	0	17	0	28	77	0	93	6	3	224
07:30 AM	3	18	1	32	94	0	127	10	0	285
07:45 AM	4	34	0	42	109	1	114	6	2	312
Total	9	89	1	115	334	1	445	28	5	1027
08:00 AM	5	21	0	32	86	0	123	11	1	279
08:15 AM	7	30	2	28	89	0	110	9	0	275
08:30 AM	10	42	0	39	94	0	122	9	4	320
08:45 AM	9	32	0	43	127	0	107	8	1	327
Total	31	125	2	142	396	0	462	37	6	1201
Grand Total	40	214	3	257	730	1	907	65	11	2228
Apprch %	15.6	83.3	1.2	26	73.9	0.1	92.3	6.6	1.1	
Total %	1.8	9.6	0.1	11.5	32.8	0	40.7	2.9	0.5	
Cars & Peds	40	206	3	246	691	1	864	64	11	2126
% Cars & Peds	100	96.3	100	95.7	94.7	100	95.3	98.5	100	95.4
Trucks & Buses	0	8	0	7	39	0	42	1	0	97
% Trucks & Buses	0	3.7	0	2.7	5.3	0	4.6	1.5	0	4.4
Bikes by Direction	0	0	0	4	0	0	1	0	0	5
% Bikes by Direction	0	0	0	1.6	0	0	0.1	0	0	0.2

Start Time	Upper College Road From North				Kingstown Road (Route 138) From East				Kingstown Road (Route 138) From West				Int. Total
	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	
08:00 AM	5	21	0	26	32	86	0	118	123	11	1	135	279
08:15 AM	7	30	2	39	28	89	0	117	110	9	0	119	275
08:30 AM	10	42	0	52	39	94	0	133	122	9	4	135	320
08:45 AM	9	32	0	41	43	127	0	170	107	8	1	116	327
Total Volume	31	125	2	158	142	396	0	538	462	37	6	505	1201
% App. Total	19.6	79.1	1.3		26.4	73.6	0		91.5	7.3	1.2		
PHF	.775	.744	.250	.760	.826	.780	.000	.791	.939	.841	.375	.935	.918
Cars & Peds	31	121	2	154	136	374	0	510	436	36	6	478	1142
% Cars & Peds	100	96.8	100	97.5	95.8	94.4	0	94.8	94.4	97.3	100	94.7	95.1
Trucks & Buses	0	4	0	4	5	22	0	27	25	1	0	26	57
% Trucks & Buses	0	3.2	0	2.5	3.5	5.6	0	5.0	5.4	2.7	0	5.1	4.7
Bikes by Direction	0	0	0	0	1	0	0	1	1	0	0	1	2
% Bikes by Direction	0	0	0	0	0.7	0	0	0.2	0.2	0	0	0.2	0.2

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 08:00 AM

Transportation Data Corporation

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N: Upper Coleege Road
E/W: Kingstown Road (Route 138)
City, State: Kingston, RI
Client: Pare/T. Thompson

File Name : 05554A
Site Code : 05554
Start Date : 4/28/2022
Page No : 1

Groups Printed- Cars & Peds

Start Time	Upper College Road From North			Kingstown Road (Route 138) From East			Kingstown Road (Route 138) From West			Int. Total
	Right	Left	Peds	Right	Thru	Peds	Thru	Left	Peds	
07:00 AM	2	19	0	13	52	0	109	6	0	201
07:15 AM	0	15	0	27	75	0	89	6	3	215
07:30 AM	3	17	1	29	87	0	121	10	0	268
07:45 AM	4	34	0	41	103	1	109	6	2	300
Total	9	85	1	110	317	1	428	28	5	984
08:00 AM	5	21	0	32	83	0	115	10	1	267
08:15 AM	7	28	2	25	87	0	103	9	0	261
08:30 AM	10	41	0	39	85	0	114	9	4	302
08:45 AM	9	31	0	40	119	0	104	8	1	312
Total	31	121	2	136	374	0	436	36	6	1142
Grand Total	40	206	3	246	691	1	864	64	11	2126
Apprch %	16.1	82.7	1.2	26.2	73.7	0.1	92	6.8	1.2	
Total %	1.9	9.7	0.1	11.6	32.5	0	40.6	3	0.5	

Start Time	Upper College Road From North				Kingstown Road (Route 138) From East				Kingstown Road (Route 138) From West				Int. Total
	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 08:00 AM													
08:00 AM	5	21	0	26	32	83	0	115	115	10	1	126	267
08:15 AM	7	28	2	37	25	87	0	112	103	9	0	112	261
08:30 AM	10	41	0	51	39	85	0	124	114	9	4	127	302
08:45 AM	9	31	0	40	40	119	0	159	104	8	1	113	312
Total Volume	31	121	2	154	136	374	0	510	436	36	6	478	1142
% App. Total	20.1	78.6	1.3		26.7	73.3	0		91.2	7.5	1.3		
PHF	.775	.738	.250	.755	.850	.786	.000	.802	.948	.900	.375	.941	.915

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 Client: Pare/T. Thompson

File Name : 05554A
 Site Code : 05554
 Start Date : 4/28/2022
 Page No : 1

Groups Printed- Trucks & Buses

Start Time	Upper College Road From North			Kingstown Road (Route 138) From East			Kingstown Road (Route 138) From West			Int. Total
	Right	Left	Peds	Right	Thru	Peds	Thru	Left	Peds	
07:00 AM	0	1	0	0	2	0	2	0	0	5
07:15 AM	0	2	0	0	2	0	4	0	0	8
07:30 AM	0	1	0	1	7	0	6	0	0	15
07:45 AM	0	0	0	1	6	0	5	0	0	12
Total	0	4	0	2	17	0	17	0	0	40
08:00 AM	0	0	0	0	3	0	8	1	0	12
08:15 AM	0	2	0	2	2	0	6	0	0	12
08:30 AM	0	1	0	0	9	0	8	0	0	18
08:45 AM	0	1	0	3	8	0	3	0	0	15
Total	0	4	0	5	22	0	25	1	0	57
Grand Total	0	8	0	7	39	0	42	1	0	97
Apprch %	0	100	0	15.2	84.8	0	97.7	2.3	0	
Total %	0	8.2	0	7.2	40.2	0	43.3	1	0	

Start Time	Upper College Road From North				Kingstown Road (Route 138) From East				Kingstown Road (Route 138) From West				Int. Total
	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 08:00 AM													
08:00 AM	0	0	0	0	0	3	0	3	8	1	0	9	12
08:15 AM	0	2	0	2	2	2	0	4	6	0	0	6	12
08:30 AM	0	1	0	1	0	9	0	9	8	0	0	8	18
08:45 AM	0	1	0	1	3	8	0	11	3	0	0	3	15
Total Volume	0	4	0	4	5	22	0	27	25	1	0	26	57
% App. Total	0	100	0		18.5	81.5	0		96.2	3.8	0		
PHF	.000	.500	.000	.500	.417	.611	.000	.614	.781	.250	.000	.722	.792

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 Client: Pare/T. Thompson

File Name : 05554A
 Site Code : 05554
 Start Date : 4/28/2022
 Page No : 1

Groups Printed- Bikes by Direction

Start Time	Upper College Road From North			Kingstown Road (Route 138) From East			Kingstown Road (Route 138) From West			Int. Total
	Right	Left	Peds	Right	Thru	Peds	Thru	Left	Peds	
07:00 AM	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	1	0	0	0	0	0	1
07:30 AM	0	0	0	2	0	0	0	0	0	2
07:45 AM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	3	0	0	0	0	0	3
08:00 AM	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	1	0	0	1	0	0	2
08:30 AM	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	1	0	0	1	0	0	2
Grand Total	0	0	0	4	0	0	1	0	0	5
Apprch %	0	0	0	100	0	0	100	0	0	
Total %	0	0	0	80	0	0	20	0	0	

Start Time	Upper College Road From North				Kingstown Road (Route 138) From East				Kingstown Road (Route 138) From West				Int. Total
	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 07:30 AM													
07:30 AM	0	0	0	0	2	0	0	2	0	0	0	0	2
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	1	0	0	1	1	0	0	0	2
Total Volume	0	0	0	0	3	0	0	3	1	0	0	0	4
% App. Total	0	0	0		100	0	0		100	0	0		
PHF	.000	.000	.000	.000	.375	.000	.000	.375	.250	.000	.000	.250	.500

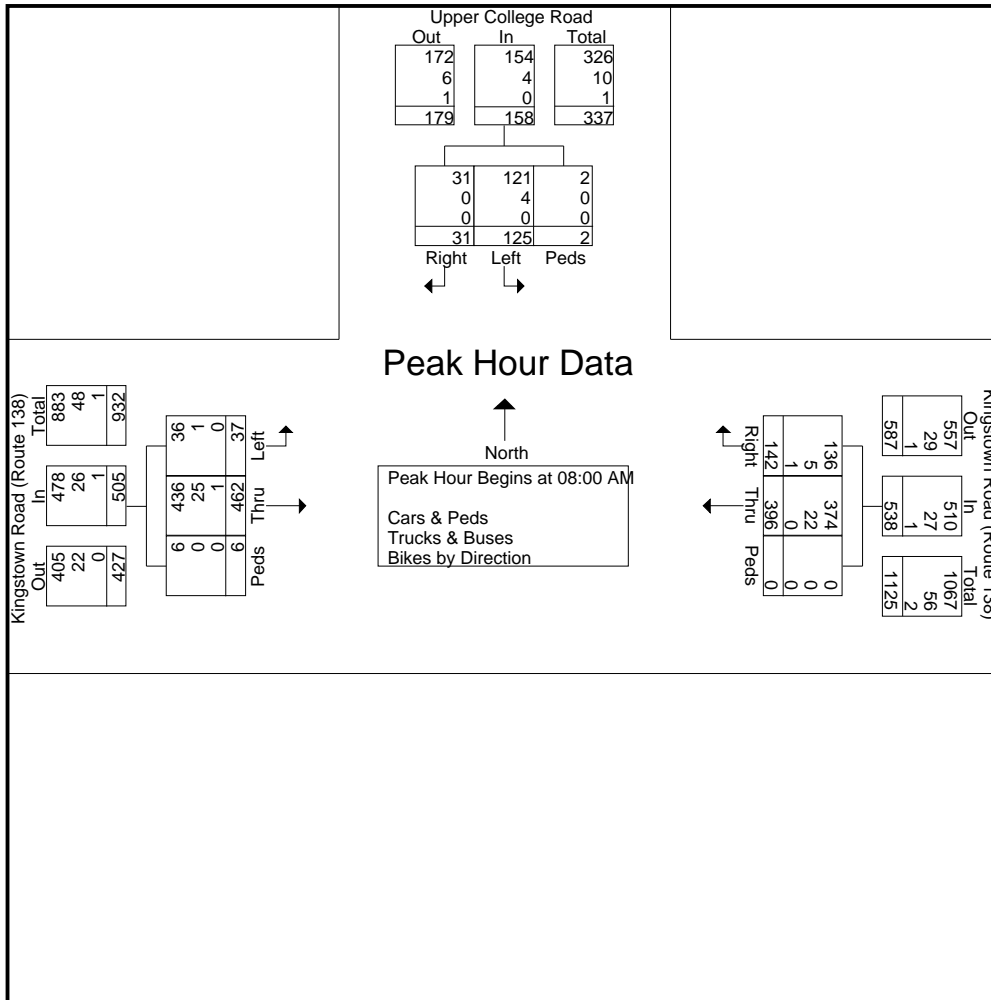
Transportation Data Corporation

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N: Upper Coleege Road
E/W: Kingstown Road (Route 138)
City, State: Kingston, RI
Client: Pare/T. Thompson

File Name : 05554A
Site Code : 05554
Start Date : 4/28/2022
Page No : 1

Start Time	Upper College Road From North				Kingstown Road (Route 138) From East				Kingstown Road (Route 138) From West				Int. Total
	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 08:00 AM													
08:00 AM	5	21	0	26	32	86	0	118	123	11	1	135	279
08:15 AM	7	30	2	39	28	89	0	117	110	9	0	119	275
08:30 AM	10	42	0	52	39	94	0	133	122	9	4	135	320
08:45 AM	9	32	0	41	43	127	0	170	107	8	1	116	327
Total Volume	31	125	2	158	142	396	0	538	462	37	6	505	1201
% App. Total	19.6	79.1	1.3		26.4	73.6	0		91.5	7.3	1.2		
PHF	.775	.744	.250	.760	.826	.780	.000	.791	.939	.841	.375	.935	.918
Cars & Peds	31	121	2	154	136	374	0	510	436	36	6	478	1142
% Cars & Peds	100	96.8	100	97.5	95.8	94.4	0	94.8	94.4	97.3	100	94.7	95.1
Trucks & Buses	0	4	0	4	5	22	0	27	25	1	0	26	57
% Trucks & Buses	0	3.2	0	2.5	3.5	5.6	0	5.0	5.4	2.7	0	5.1	4.7
Bikes by Direction	0	0	0	0	1	0	0	1	1	0	0	1	2
% Bikes by Direction	0	0	0	0	0.7	0	0	0.2	0.2	0	0	0.2	0.2



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 City, State: Kingston, RI
 Client: Pare/T. Thompson

File Name : 05554AA
 Site Code : 05554
 Start Date : 4/28/2022
 Page No : 1

Groups Printed- Cars & Peds - Trucks & Buses - Bikes by Direction

Start Time	Upper College Road From North			Kingstown Road (Route 138) From East			Kingstown Road (Route 138) From West			Int. Total
	Right	Left	Peds	Right	Thru	Peds	Thru	Left	Peds	
04:00 PM	14	108	0	25	121	0	110	5	7	390
04:15 PM	7	117	0	20	139	0	148	8	1	440
04:30 PM	20	126	0	24	144	0	134	11	3	462
04:45 PM	5	147	1	44	127	0	159	5	1	489
Total	46	498	1	113	531	0	551	29	12	1781
05:00 PM	16	127	2	31	110	0	148	6	1	441
05:15 PM	9	119	0	47	115	0	134	10	1	435
05:30 PM	16	93	0	33	114	0	126	6	4	392
05:45 PM	8	105	0	42	90	0	113	10	0	368
Total	49	444	2	153	429	0	521	32	6	1636
Grand Total	95	942	3	266	960	0	1072	61	18	3417
Apprch %	9.1	90.6	0.3	21.7	78.3	0	93.1	5.3	1.6	
Total %	2.8	27.6	0.1	7.8	28.1	0	31.4	1.8	0.5	
Cars & Peds	95	929	3	261	946	0	1068	61	18	3381
% Cars & Peds	100	98.6	100	98.1	98.5	0	99.6	100	100	98.9
Trucks & Buses	0	8	0	4	14	0	4	0	0	30
% Trucks & Buses	0	0.8	0	1.5	1.5	0	0.4	0	0	0.9
Bikes by Direction	0	5	0	1	0	0	0	0	0	6
% Bikes by Direction	0	0.5	0	0.4	0	0	0	0	0	0.2

Start Time	Upper College Road From North				Kingstown Road (Route 138) From East				Kingstown Road (Route 138) From West				Int. Total
	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	
04:15 PM	7	117	0	124	20	139	0	159	148	8	1	157	440
04:30 PM	20	126	0	146	24	144	0	168	134	11	3	148	462
04:45 PM	5	147	1	153	44	127	0	171	159	5	1	165	489
05:00 PM	16	127	2	145	31	110	0	141	148	6	1	155	441
Total Volume	48	517	3	568	119	520	0	639	589	30	6	625	1832
% App. Total	8.5	91	0.5		18.6	81.4	0		94.2	4.8	1		
PHF	.600	.879	.375	.928	.676	.903	.000	.934	.926	.682	.500	.947	.937
Cars & Peds	48	508	3	559	117	514	0	631	587	30	6	623	1813
% Cars & Peds	100	98.3	100	98.4	98.3	98.8	0	98.7	99.7	100	100	99.7	99.0
Trucks & Buses	0	5	0	5	2	6	0	8	2	0	0	2	15
% Trucks & Buses	0	1.0	0	0.9	1.7	1.2	0	1.3	0.3	0	0	0.3	0.8
Bikes by Direction	0	4	0	4	0	0	0	0	0	0	0	0	4
% Bikes by Direction	0	0.8	0	0.7	0	0	0	0	0	0	0	0	0.2

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 04:15 PM

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N: Upper Coleege Road
 E/W: Kingstown Road (Route 138)
 City, State: Kingston, RI
 Client: Pare/T. Thompson

File Name : 05554AA
 Site Code : 05554
 Start Date : 4/28/2022
 Page No : 1

Groups Printed- Cars & Peds

Start Time	Upper College Road From North			Kingstown Road (Route 138) From East			Kingstown Road (Route 138) From West			Int. Total
	Right	Left	Peds	Right	Thru	Peds	Thru	Left	Peds	
04:00 PM	14	106	0	25	116	0	109	5	7	382
04:15 PM	7	113	0	20	137	0	148	8	1	434
04:30 PM	20	124	0	23	142	0	134	11	3	457
04:45 PM	5	145	1	43	127	0	158	5	1	485
Total	46	488	1	111	522	0	549	29	12	1758
05:00 PM	16	126	2	31	108	0	147	6	1	437
05:15 PM	9	117	0	46	115	0	133	10	1	431
05:30 PM	16	93	0	33	112	0	126	6	4	390
05:45 PM	8	105	0	40	89	0	113	10	0	365
Total	49	441	2	150	424	0	519	32	6	1623
Grand Total	95	929	3	261	946	0	1068	61	18	3381
Apprch %	9.3	90.5	0.3	21.6	78.4	0	93.1	5.3	1.6	
Total %	2.8	27.5	0.1	7.7	28	0	31.6	1.8	0.5	

Start Time	Upper College Road From North				Kingstown Road (Route 138) From East				Kingstown Road (Route 138) From West				Int. Total
	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 04:15 PM													
04:15 PM	7	113	0	120	20	137	0	157	148	8	1	157	434
04:30 PM	20	124	0	144	23	142	0	165	134	11	3	148	457
04:45 PM	5	145	1	151	43	127	0	170	158	5	1	164	485
05:00 PM	16	126	2	144	31	108	0	139	147	6	1	154	437
Total Volume	48	508	3	559	117	514	0	631	587	30	6	623	1813
% App. Total	8.6	90.9	0.5		18.5	81.5	0		94.2	4.8	1		
PHF	.600	.876	.375	.925	.680	.905	.000	.928	.929	.682	.500	.950	.935

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Client: Pare/T. Thompson

File Name : 05554AA
Site Code : 05554
Start Date : 4/28/2022
Page No : 1

Groups Printed- Trucks & Buses

Start Time	Upper College Road From North			Kingstown Road (Route 138) From East			Kingstown Road (Route 138) From West			Int. Total
	Right	Left	Peds	Right	Thru	Peds	Thru	Left	Peds	
04:00 PM	0	2	0	0	5	0	1	0	0	8
04:15 PM	0	2	0	0	2	0	0	0	0	4
04:30 PM	0	1	0	1	2	0	0	0	0	4
04:45 PM	0	1	0	1	0	0	1	0	0	3
Total	0	6	0	2	9	0	2	0	0	19
05:00 PM	0	1	0	0	2	0	1	0	0	4
05:15 PM	0	1	0	1	0	0	1	0	0	3
05:30 PM	0	0	0	0	2	0	0	0	0	2
05:45 PM	0	0	0	1	1	0	0	0	0	2
Total	0	2	0	2	5	0	2	0	0	11
Grand Total	0	8	0	4	14	0	4	0	0	30
Apprch %	0	100	0	22.2	77.8	0	100	0	0	
Total %	0	26.7	0	13.3	46.7	0	13.3	0	0	

Start Time	Upper College Road From North				Kingstown Road (Route 138) From East				Kingstown Road (Route 138) From West				Int. Total
	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	
04:00 PM	0	2	0	2	0	5	0	5	1	0	0	1	8
04:15 PM	0	2	0	2	0	2	0	2	0	0	0	0	4
04:30 PM	0	1	0	1	1	2	0	3	0	0	0	0	4
04:45 PM	0	1	0	1	1	0	0	1	1	0	0	1	3
Total Volume	0	6	0	6	2	9	0	11	2	0	0	2	19
% App. Total	0	100	0		18.2	81.8	0		100	0	0		
PHF	.000	.750	.000	.750	.500	.450	.000	.550	.500	.000	.000	.500	.594

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

Transportation Data Corporation
 Mario Perone, mperone1@verizon.net
 tel (781) 587-0086 cell (781) 439-4999

N: Upper Coleege Road
 E/W: Kingstown Road (Route 138)
 City, State: Kingston, RI
 Client: Pare/T. Thompson

File Name : 05554AA
 Site Code : 05554
 Start Date : 4/28/2022
 Page No : 1

Groups Printed- Bikes by Direction

Start Time	Upper College Road From North			Kingstown Road (Route 138) From East			Kingstown Road (Route 138) From West			Int. Total
	Right	Left	Peds	Right	Thru	Peds	Thru	Left	Peds	
04:00 PM	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	2	0	0	0	0	0	0	0	2
04:30 PM	0	1	0	0	0	0	0	0	0	1
04:45 PM	0	1	0	0	0	0	0	0	0	1
Total	0	4	0	0	0	0	0	0	0	4
05:00 PM	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	1	0	0	0	0	0	0	0	1
05:30 PM	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	1	0	0	0	0	0	1
Total	0	1	0	1	0	0	0	0	0	2
Grand Total	0	5	0	1	0	0	0	0	0	6
Apprch %	0	100	0	100	0	0	0	0	0	
Total %	0	83.3	0	16.7	0	0	0	0	0	

Start Time	Upper College Road From North				Kingstown Road (Route 138) From East				Kingstown Road (Route 138) From West				Int. Total
	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	2	0	2	0	0	0	0	0	0	0	0	2
04:30 PM	0	1	0	1	0	0	0	0	0	0	0	0	1
04:45 PM	0	1	0	1	0	0	0	0	0	0	0	0	1
Total Volume	0	4	0	4	0	0	0	0	0	0	0	0	4
% App. Total	0	100	0		0	0	0		0	0	0		
PHF	.000	.500	.000	.500	.000	.000	.000	.000	.000	.000	.000	.000	.500

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

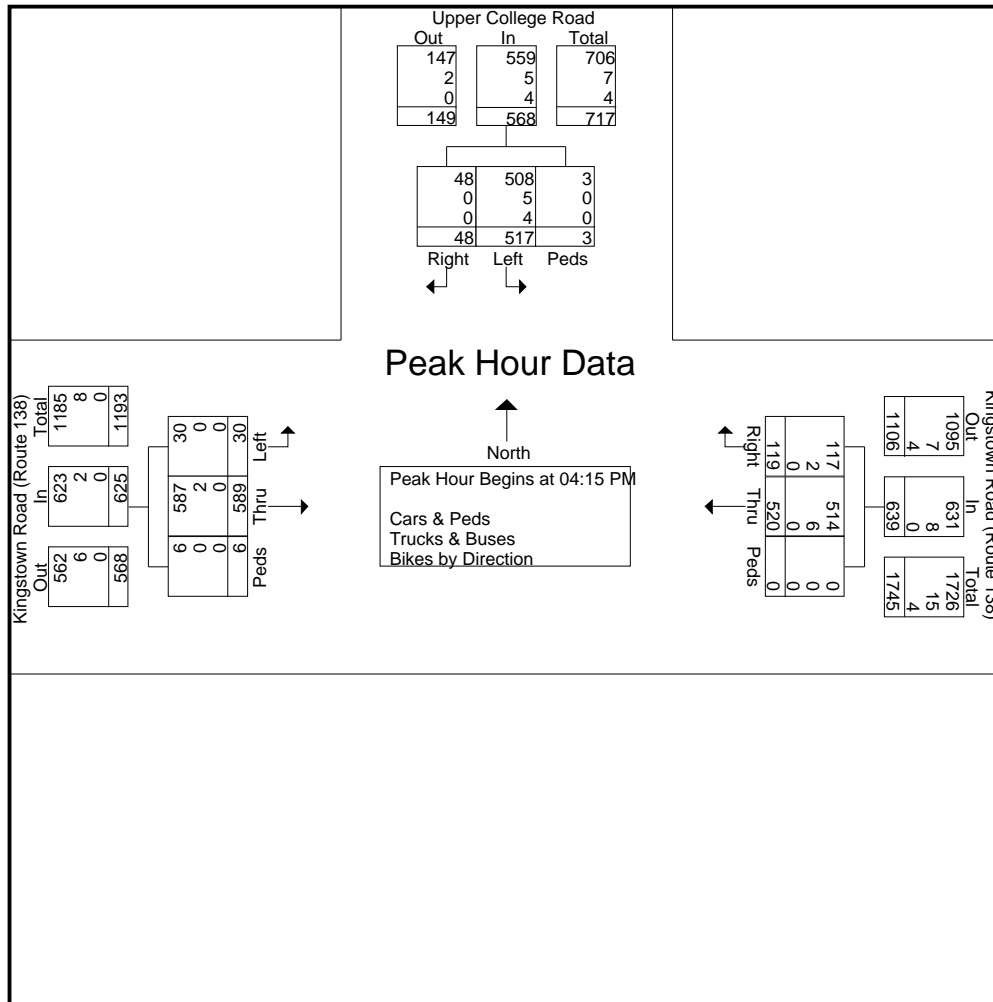
Transportation Data Corporation

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N: Upper Coleege Road
E/W: Kingstown Road (Route 138)
City, State: Kingston, RI
Client: Pare/T. Thompson

File Name : 05554AA
Site Code : 05554
Start Date : 4/28/2022
Page No : 1

Start Time	Upper College Road From North				Kingstown Road (Route 138) From East				Kingstown Road (Route 138) From West				Int. Total
	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 04:15 PM													
04:15 PM	7	117	0	124	20	139	0	159	148	8	1	157	440
04:30 PM	20	126	0	146	24	144	0	168	134	11	3	148	462
04:45 PM	5	147	1	153	44	127	0	171	159	5	1	165	489
05:00 PM	16	127	2	145	31	110	0	141	148	6	1	155	441
Total Volume	48	517	3	568	119	520	0	639	589	30	6	625	1832
% App. Total	8.5	91	0.5		18.6	81.4	0		94.2	4.8	1		
PHF	.600	.879	.375	.928	.676	.903	.000	.934	.926	.682	.500	.947	.937
Cars & Peds	48	508	3	559	117	514	0	631	587	30	6	623	1813
% Cars & Peds	100	98.3	100	98.4	98.3	98.8	0	98.7	99.7	100	100	99.7	99.0
Trucks & Buses	0	5	0	5	2	6	0	8	2	0	0	2	15
% Trucks & Buses	0	1.0	0	0.9	1.7	1.2	0	1.3	0.3	0	0	0.3	0.8
Bikes by Direction	0	4	0	4	0	0	0	0	0	0	0	0	4
% Bikes by Direction	0	0.8	0	0.7	0	0	0	0	0	0	0	0	0.2



Transportation Data Corporation
 Mario Perone, mperone1@verizon.net
 tel (781) 587-0086 cell (781) 439-4999

S: Kingstown Road (Route 108)
 E/W: Moorestown/Kingstown (Route 138)
 City, State: Kingston, RI
 Client: Pare/T. Thompson

File Name : 05554B
 Site Code : 05554
 Start Date : 4/28/2022
 Page No : 1

Groups Printed- Cars & Peds - Trucks & Buses - Bikes by Direction

Start Time	Mooresfield Road (Route 138) From East			Kingstown Road (Route 108) From South			Kingstown Road (Route 138) From West			Int. Total
	Thru	Left	Peds	Right	Left	Peds	Right	Thru	Peds	
07:00 AM	51	15	0	20	46	0	81	60	0	273
07:15 AM	85	17	0	14	77	0	62	81	0	336
07:30 AM	111	8	0	15	143	0	64	88	0	429
07:45 AM	115	11	0	13	123	0	82	79	0	423
Total	362	51	0	62	389	0	289	308	0	1461
08:00 AM	98	15	2	14	86	0	70	78	0	363
08:15 AM	106	11	0	21	82	0	66	84	0	370
08:30 AM	113	13	0	20	114	0	82	69	0	411
08:45 AM	139	10	0	13	163	0	83	67	0	475
Total	456	49	2	68	445	0	301	298	0	1619
Grand Total	818	100	2	130	834	0	590	606	0	3080
Apprch %	88.9	10.9	0.2	13.5	86.5	0	49.3	50.7	0	
Total %	26.6	3.2	0.1	4.2	27.1	0	19.2	19.7	0	
Cars & Peds	797	97	2	129	810	0	572	586	0	2993
% Cars & Peds	97.4	97	100	99.2	97.1	0	96.9	96.7	0	97.2
Trucks & Buses	21	3	0	1	23	0	18	19	0	85
% Trucks & Buses	2.6	3	0	0.8	2.8	0	3.1	3.1	0	2.8
Bikes by Direction	0	0	0	0	1	0	0	1	0	2
% Bikes by Direction	0	0	0	0	0.1	0	0	0.2	0	0.1

Start Time	Mooresfield Road (Route 138) From East				Kingstown Road (Route 108) From South				Kingstown Road (Route 138) From West				Int. Total
	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	
08:00 AM	98	15	2	115	14	86	0	100	70	78	0	148	363
08:15 AM	106	11	0	117	21	82	0	103	66	84	0	150	370
08:30 AM	113	13	0	126	20	114	0	134	82	69	0	151	411
08:45 AM	139	10	0	149	13	163	0	176	83	67	0	150	475
Total Volume	456	49	2	507	68	445	0	513	301	298	0	599	1619
% App. Total	89.9	9.7	0.4		13.3	86.7	0		50.3	49.7	0		
PHF	.820	.817	.250	.851	.810	.683	.000	.729	.907	.887	.000	.992	.852
Cars & Peds	441	46	2	489	68	432	0	500	288	289	0	577	1566
% Cars & Peds	96.7	93.9	100	96.4	100	97.1	0	97.5	95.7	97.0	0	96.3	96.7
Trucks & Buses	15	3	0	18	0	13	0	13	13	8	0	21	52
% Trucks & Buses	3.3	6.1	0	3.6	0	2.9	0	2.5	4.3	2.7	0	3.5	3.2
Bikes by Direction	0	0	0	0	0	0	0	0	0	1	0	1	1
% Bikes by Direction	0	0	0	0	0	0	0	0	0	0.3	0	0.2	0.1

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 08:00 AM

Transportation Data Corporation

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S: Kingstown Road (Route 108)
E/W: Moorestown/Kingstown (Route 138)
City, State: Kingston, RI
Client: Pare/T. Thompson

File Name : 05554B
Site Code : 05554
Start Date : 4/28/2022
Page No : 1

Groups Printed- Cars & Peds

Start Time	Mooresfield Road (Route 138) From East			Kingstown Road (Route 108) From South			Kingstown Road (Route 138) From West			Int. Total
	Thru	Left	Peds	Right	Left	Peds	Right	Thru	Peds	
07:00 AM	50	15	0	20	46	0	81	58	0	270
07:15 AM	85	17	0	14	75	0	59	79	0	329
07:30 AM	107	8	0	15	139	0	63	82	0	414
07:45 AM	114	11	0	12	118	0	81	78	0	414
Total	356	51	0	61	378	0	284	297	0	1427
08:00 AM	96	14	2	14	83	0	67	76	0	352
08:15 AM	103	11	0	21	81	0	63	81	0	360
08:30 AM	110	11	0	20	109	0	77	66	0	393
08:45 AM	132	10	0	13	159	0	81	66	0	461
Total	441	46	2	68	432	0	288	289	0	1566
Grand Total	797	97	2	129	810	0	572	586	0	2993
Apprch %	89	10.8	0.2	13.7	86.3	0	49.4	50.6	0	
Total %	26.6	3.2	0.1	4.3	27.1	0	19.1	19.6	0	

Start Time	Mooresfield Road (Route 138) From East				Kingstown Road (Route 108) From South				Kingstown Road (Route 138) From West				Int. Total
	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 08:00 AM													
08:00 AM	96	14	2	112	14	83	0	97	67	76	0	143	352
08:15 AM	103	11	0	114	21	81	0	102	63	81	0	144	360
08:30 AM	110	11	0	121	20	109	0	129	77	66	0	143	393
08:45 AM	132	10	0	142	13	159	0	172	81	66	0	147	461
Total Volume	441	46	2	489	68	432	0	500	288	289	0	577	1566
% App. Total	90.2	9.4	0.4		13.6	86.4	0		49.9	50.1	0		
PHF	.835	.821	.250	.861	.810	.679	.000	.727	.889	.892	.000	.981	.849

Transportation Data Corporation

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S: Kingstown Road (Route 108)
E/W: Moorestown/Kingstown (Route 138)
City, State: Kingston, RI
Client: Pare/T. Thompson

File Name : 05554B
Site Code : 05554
Start Date : 4/28/2022
Page No : 1

Groups Printed- Trucks & Buses

Start Time	Mooresfield Road (Route 138) From East			Kingstown Road (Route 108) From South			Kingstown Road (Route 138) From West			Int. Total
	Thru	Left	Peds	Right	Left	Peds	Right	Thru	Peds	
07:00 AM	1	0	0	0	0	0	0	2	0	3
07:15 AM	0	0	0	0	2	0	3	2	0	7
07:30 AM	4	0	0	0	3	0	1	6	0	14
07:45 AM	1	0	0	1	5	0	1	1	0	9
Total	6	0	0	1	10	0	5	11	0	33
08:00 AM	2	1	0	0	3	0	3	2	0	11
08:15 AM	3	0	0	0	1	0	3	3	0	10
08:30 AM	3	2	0	0	5	0	5	2	0	17
08:45 AM	7	0	0	0	4	0	2	1	0	14
Total	15	3	0	0	13	0	13	8	0	52
Grand Total	21	3	0	1	23	0	18	19	0	85
Apprch %	87.5	12.5	0	4.2	95.8	0	48.6	51.4	0	
Total %	24.7	3.5	0	1.2	27.1	0	21.2	22.4	0	

Start Time	Mooresfield Road (Route 138) From East				Kingstown Road (Route 108) From South				Kingstown Road (Route 138) From West				Int. Total
	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 08:00 AM													
08:00 AM	2	1	0	3	0	3	0	3	3	2	0	5	11
08:15 AM	3	0	0	3	0	1	0	1	3	3	0	6	10
08:30 AM	3	2	0	5	0	5	0	5	5	2	0	7	17
08:45 AM	7	0	0	7	0	4	0	4	2	1	0	3	14
Total Volume	15	3	0	18	0	13	0	13	13	8	0	21	52
% App. Total	83.3	16.7	0		0	100	0		61.9	38.1	0		
PHF	.536	.375	.000	.643	.000	.650	.000	.650	.650	.667	.000	.750	.765

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S: Kingstown Road (Route 108)
E/W: Moorestown/Kingstown (Route 138)
City, State: Kingston, RI
Client: Pare/T. Thompson

File Name : 05554B
Site Code : 05554
Start Date : 4/28/2022
Page No : 1

Groups Printed- Bikes by Direction

Start Time	Mooresfield Road (Route 138) From East			Kingstown Road (Route 108) From South			Kingstown Road (Route 138) From West			Int. Total
	Thru	Left	Peds	Right	Left	Peds	Right	Thru	Peds	
07:00 AM	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	1	0	0	0	0	1
07:45 AM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	1	0	0	0	0	1
08:00 AM	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	1	0	1
08:45 AM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	1	0	1
Grand Total	0	0	0	0	1	0	0	1	0	2
Apprch %	0	0	0	0	100	0	0	100	0	
Total %	0	0	0	0	50	0	0	50	0	

Start Time	Mooresfield Road (Route 138) From East				Kingstown Road (Route 108) From South				Kingstown Road (Route 138) From West				Int. Total
	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 07:00 AM													
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	1	0	1	0	0	0	0	1
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	1	0	1	0	0	0	0	1
% App. Total	0	0	0		0	100	0		0	0	0		
PHF	.000	.000	.000	.000	.000	.250	.000	.250	.000	.000	.000	.000	.250

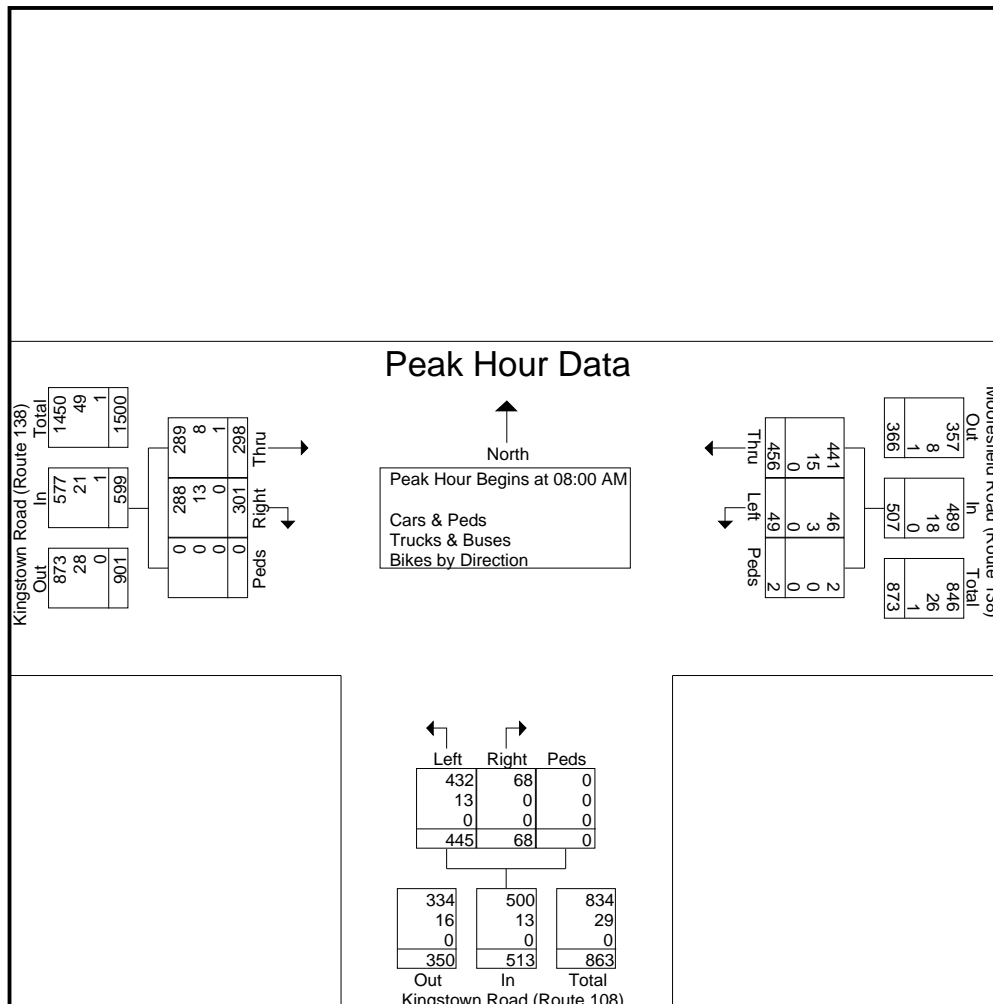
Transportation Data Corporation

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S: Kingstown Road (Route 108)
E/W: Moorestown/Kingstown (Route 138)
City, State: Kingston, RI
Client: Pare/T. Thompson

File Name : 05554B
Site Code : 05554
Start Date : 4/28/2022
Page No : 1

Start Time	Moorestfield Road (Route 138) From East				Kingstown Road (Route 108) From South				Kingstown Road (Route 138) From West				Int. Total
	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 08:00 AM													
08:00 AM	98	15	2	115	14	86	0	100	70	78	0	148	363
08:15 AM	106	11	0	117	21	82	0	103	66	84	0	150	370
08:30 AM	113	13	0	126	20	114	0	134	82	69	0	151	411
08:45 AM	139	10	0	149	13	163	0	176	83	67	0	150	475
Total Volume	456	49	2	507	68	445	0	513	301	298	0	599	1619
% App. Total	89.9	9.7	0.4		13.3	86.7	0		50.3	49.7	0		
PHF	.820	.817	.250	.851	.810	.683	.000	.729	.907	.887	.000	.992	.852
Cars & Peds	441	46	2	489	68	432	0	500	288	289	0	577	1566
% Cars & Peds	96.7	93.9	100	96.4	100	97.1	0	97.5	95.7	97.0	0	96.3	96.7
Trucks & Buses	15	3	0	18	0	13	0	13	13	8	0	21	52
% Trucks & Buses	3.3	6.1	0	3.6	0	2.9	0	2.5	4.3	2.7	0	3.5	3.2
Bikes by Direction	0	0	0	0	0	0	0	0	0	1	0	1	1
% Bikes by Direction	0	0	0	0	0	0	0	0	0	0.3	0	0.2	0.1



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S: Kingstown Road (Route 108)
 E/W: Moorestown/Kingstown (Route 138)
 City, State: Kingston, RI
 Client: Pare/T. Thompson

File Name : 05554BB
 Site Code : 05554
 Start Date : 4/28/2022
 Page No : 1

Groups Printed- Cars & Peds - Trucks & Buses - Bikes by Direction

Start Time	Mooresfield Road (Route 138) From East			Kingstown Road (Route 108) From South			Kingstown Road (Route 138) From West			Int. Total
	Thru	Left	Peds	Right	Left	Peds	Right	Thru	Peds	
04:00 PM	101	16	0	20	106	0	98	92	0	433
04:15 PM	126	11	0	14	111	0	128	110	0	500
04:30 PM	114	14	0	26	112	0	147	94	0	507
04:45 PM	107	10	0	8	122	0	159	128	0	534
Total	448	51	0	68	451	0	532	424	0	1974
05:00 PM	107	14	0	19	82	0	158	104	0	484
05:15 PM	104	14	0	13	100	0	106	120	0	457
05:30 PM	108	12	0	9	87	0	112	88	0	416
05:45 PM	93	9	0	15	78	0	119	81	0	395
Total	412	49	0	56	347	0	495	393	0	1752
Grand Total	860	100	0	124	798	0	1027	817	0	3726
Apprch %	89.6	10.4	0	13.4	86.6	0	55.7	44.3	0	
Total %	23.1	2.7	0	3.3	21.4	0	27.6	21.9	0	
Cars & Peds	850	99	0	122	791	0	1023	810	0	3695
% Cars & Peds	98.8	99	0	98.4	99.1	0	99.6	99.1	0	99.2
Trucks & Buses	10	1	0	2	7	0	4	7	0	31
% Trucks & Buses	1.2	1	0	1.6	0.9	0	0.4	0.9	0	0.8
Bikes by Direction	0	0	0	0	0	0	0	0	0	0
% Bikes by Direction	0	0	0	0	0	0	0	0	0	0

Start Time	Mooresfield Road (Route 138) From East				Kingstown Road (Route 108) From South				Kingstown Road (Route 138) From West				Int. Total
	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	
04:15 PM	126	11	0	137	14	111	0	125	128	110	0	238	500
04:30 PM	114	14	0	128	26	112	0	138	147	94	0	241	507
04:45 PM	107	10	0	117	8	122	0	130	159	128	0	287	534
05:00 PM	107	14	0	121	19	82	0	101	158	104	0	262	484
Total Volume	454	49	0	503	67	427	0	494	592	436	0	1028	2025
% App. Total	90.3	9.7	0		13.6	86.4	0		57.6	42.4	0		
PHF	.901	.875	.000	.918	.644	.875	.000	.895	.931	.852	.000	.895	.948
Cars & Peds	448	48	0	496	65	424	0	489	590	433	0	1023	2008
% Cars & Peds	98.7	98.0	0	98.6	97.0	99.3	0	99.0	99.7	99.3	0	99.5	99.2
Trucks & Buses	6	1	0	7	2	3	0	5	2	3	0	5	17
% Trucks & Buses	1.3	2.0	0	1.4	3.0	0.7	0	1.0	0.3	0.7	0	0.5	0.8
Bikes by Direction	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bikes by Direction	0	0	0	0	0	0	0	0	0	0	0	0	0

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 04:15 PM

Transportation Data Corporation

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S: Kingstown Road (Route 108)
E/W: Moorestown/Kingstown (Route 138)
City, State: Kingston, RI
Client: Pare/T. Thompson

File Name : 05554BB
Site Code : 05554
Start Date : 4/28/2022
Page No : 1

Groups Printed- Cars & Peds

Start Time	Mooresfield Road (Route 138) From East			Kingstown Road (Route 108) From South			Kingstown Road (Route 138) From West			Int. Total
	Thru	Left	Peds	Right	Left	Peds	Right	Thru	Peds	
04:00 PM	100	16	0	20	103	0	96	90	0	425
04:15 PM	124	10	0	14	110	0	127	110	0	495
04:30 PM	112	14	0	26	111	0	147	94	0	504
04:45 PM	106	10	0	7	121	0	159	126	0	529
Total	442	50	0	67	445	0	529	420	0	1953
05:00 PM	106	14	0	18	82	0	157	103	0	480
05:15 PM	103	14	0	13	100	0	106	119	0	455
05:30 PM	106	12	0	9	87	0	112	87	0	413
05:45 PM	93	9	0	15	77	0	119	81	0	394
Total	408	49	0	55	346	0	494	390	0	1742
Grand Total	850	99	0	122	791	0	1023	810	0	3695
Apprch %	89.6	10.4	0	13.4	86.6	0	55.8	44.2	0	
Total %	23	2.7	0	3.3	21.4	0	27.7	21.9	0	

Start Time	Mooresfield Road (Route 138) From East				Kingstown Road (Route 108) From South				Kingstown Road (Route 138) From West				Int. Total
	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 04:15 PM													
04:15 PM	124	10	0	134	14	110	0	124	127	110	0	237	495
04:30 PM	112	14	0	126	26	111	0	137	147	94	0	241	504
04:45 PM	106	10	0	116	7	121	0	128	159	126	0	285	529
05:00 PM	106	14	0	120	18	82	0	100	157	103	0	260	480
Total Volume	448	48	0	496	65	424	0	489	590	433	0	1023	2008
% App. Total	90.3	9.7	0		13.3	86.7	0		57.7	42.3	0		
PHF	.903	.857	.000	.925	.625	.876	.000	.892	.928	.859	.000	.897	.949

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S: Kingstown Road (Route 108)
E/W: Moorestown/Kingstown (Route 138)
City, State: Kingston, RI
Client: Pare/T. Thompson

File Name : 05554BB
Site Code : 05554
Start Date : 4/28/2022
Page No : 1

Groups Printed- Trucks & Buses

Start Time	Mooresfield Road (Route 138) From East			Kingstown Road (Route 108) From South			Kingstown Road (Route 138) From West			Int. Total
	Thru	Left	Peds	Right	Left	Peds	Right	Thru	Peds	
04:00 PM	1	0	0	0	3	0	2	2	0	8
04:15 PM	2	1	0	0	1	0	1	0	0	5
04:30 PM	2	0	0	0	1	0	0	0	0	3
04:45 PM	1	0	0	1	1	0	0	2	0	5
Total	6	1	0	1	6	0	3	4	0	21
05:00 PM	1	0	0	1	0	0	1	1	0	4
05:15 PM	1	0	0	0	0	0	0	1	0	2
05:30 PM	2	0	0	0	0	0	0	1	0	3
05:45 PM	0	0	0	0	1	0	0	0	0	1
Total	4	0	0	1	1	0	1	3	0	10
Grand Total	10	1	0	2	7	0	4	7	0	31
Apprch %	90.9	9.1	0	22.2	77.8	0	36.4	63.6	0	
Total %	32.3	3.2	0	6.5	22.6	0	12.9	22.6	0	

Start Time	Mooresfield Road (Route 138) From East				Kingstown Road (Route 108) From South				Kingstown Road (Route 138) From West				Int. Total
	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. 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	1	0	0	1	0	3	0	3	2	2	0	4	8
04:15 PM	2	1	0	3	0	1	0	1	1	0	0	1	5
04:30 PM	2	0	0	2	0	1	0	1	0	0	0	0	3
04:45 PM	1	0	0	1	1	1	0	2	0	2	0	2	5
Total Volume	6	1	0	7	1	6	0	7	3	4	0	7	21
% App. Total	85.7	14.3	0		14.3	85.7	0		42.9	57.1	0		
PHF	.750	.250	.000	.583	.250	.500	.000	.583	.375	.500	.000	.438	.656

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S: Kingstown Road (Route 108)
 E/W: Moorestown/Kingstown (Route 138)
 City, State: Kingston, RI
 Client: Pare/T. Thompson

File Name : 05554BB
 Site Code : 05554
 Start Date : 4/28/2022
 Page No : 1

Groups Printed- Bikes by Direction

Start Time	Mooresfield Road (Route 138) From East			Kingstown Road (Route 108) From South			Kingstown Road (Route 138) From West			Int. Total
	Thru	Left	Peds	Right	Left	Peds	Right	Thru	Peds	
04:00 PM	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0	0	0	0	0	0	0	0	0
Total %										

Start Time	Mooresfield Road (Route 138) From East				Kingstown Road (Route 108) From South				Kingstown Road (Route 138) From West				Int. Total
	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

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

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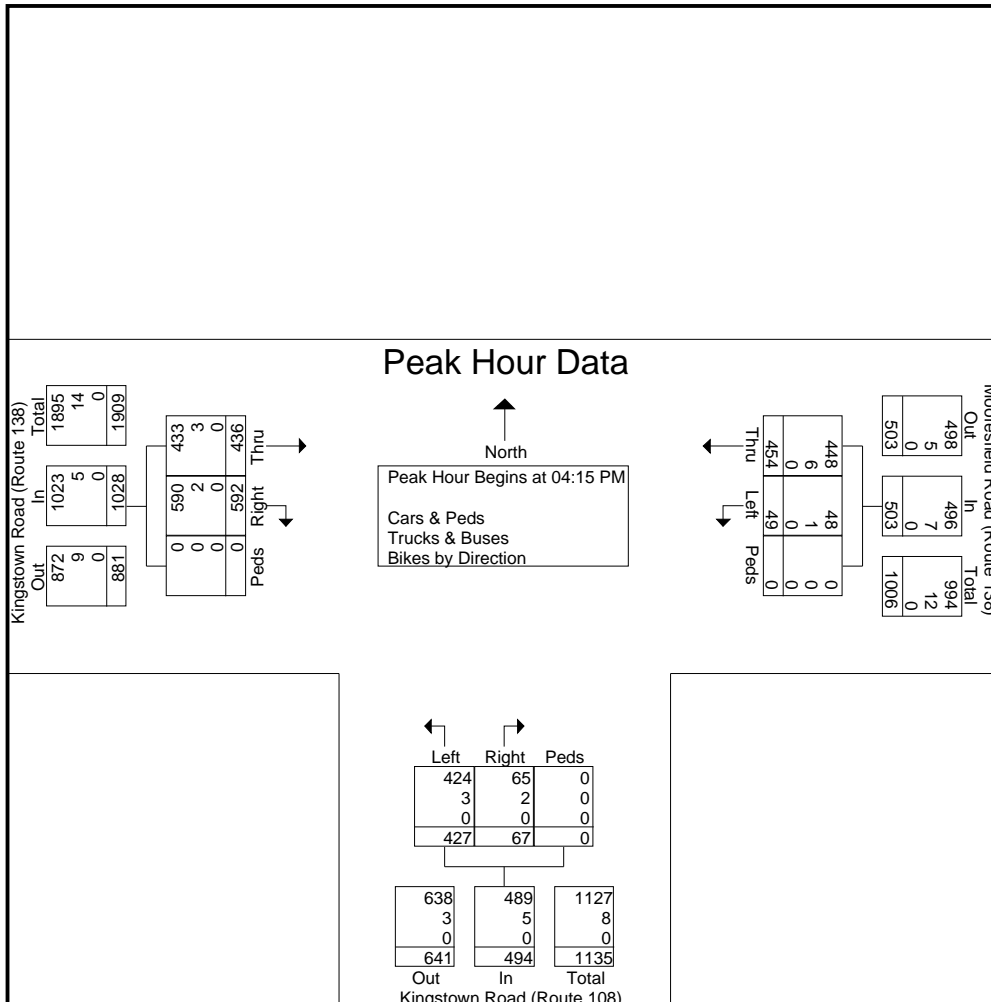
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S: Kingstown Road (Route 108)
 E/W: Moorestown/Kingstown (Route 138)
 City, State: Kingston, RI
 Client: Pare/T. Thompson

File Name : 05554BB
 Site Code : 05554
 Start Date : 4/28/2022
 Page No : 1

Start Time	Moorestfield Road (Route 138) From East				Kingstown Road (Route 108) From South				Kingstown Road (Route 138) From West				Int. Total
	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 04:15 PM													
04:15 PM	126	11	0	137	14	111	0	125	128	110	0	238	500
04:30 PM	114	14	0	128	26	112	0	138	147	94	0	241	507
04:45 PM	107	10	0	117	8	122	0	130	159	128	0	287	534
05:00 PM	107	14	0	121	19	82	0	101	158	104	0	262	484
Total Volume	454	49	0	503	67	427	0	494	592	436	0	1028	2025
% App. Total	90.3	9.7	0		13.6	86.4	0		57.6	42.4	0		
PHF	.901	.875	.000	.918	.644	.875	.000	.895	.931	.852	.000	.895	.948
Cars & Peds	448	48	0	496	65	424	0	489	590	433	0	1023	2008
% Cars & Peds	98.7	98.0	0	98.6	97.0	99.3	0	99.0	99.7	99.3	0	99.5	99.2
Trucks & Buses	6	1	0	7	2	3	0	5	2	3	0	5	17
% Trucks & Buses	1.3	2.0	0	1.4	3.0	0.7	0	1.0	0.3	0.7	0	0.5	0.8
Bikes by Direction	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bikes by Direction	0	0	0	0	0	0	0	0	0	0	0	0	0



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N/S: Old North Road
 W: Bills Road
 City, State: Kingston, RI
 Client: Pare/T. Thompson

File Name : 05554C
 Site Code : 05554
 Start Date : 4/28/2022
 Page No : 1

Groups Printed- Cars & Peds - Trucks & Buses - Bikes by Direction

Start Time	Old North Road From North			Old North Road From South			Bills Road From West			Int. Total
	Right	Thru	Peds	Thru	Left	Peds	Right	Left	Peds	
07:00 AM	0	7	0	21	2	0	0	1	0	31
07:15 AM	0	11	0	48	3	0	0	0	1	63
07:30 AM	6	13	0	101	12	0	0	1	0	133
07:45 AM	2	13	0	74	6	0	0	0	0	95
Total	8	44	0	244	23	0	0	2	1	322
08:00 AM	2	26	0	62	6	0	0	0	0	96
08:15 AM	8	36	0	62	4	1	0	0	0	111
08:30 AM	7	49	0	81	9	1	0	2	1	150
08:45 AM	10	24	0	109	11	1	1	2	1	159
Total	27	135	0	314	30	3	1	4	2	516
Grand Total	35	179	0	558	53	3	1	6	3	838
Apprch %	16.4	83.6	0	90.9	8.6	0.5	10	60	30	
Total %	4.2	21.4	0	66.6	6.3	0.4	0.1	0.7	0.4	
Cars & Peds	35	178	0	550	53	3	1	6	3	829
% Cars & Peds	100	99.4	0	98.6	100	100	100	100	100	98.9
Trucks & Buses	0	1	0	8	0	0	0	0	0	9
% Trucks & Buses	0	0.6	0	1.4	0	0	0	0	0	1.1
Bikes by Direction	0	0	0	0	0	0	0	0	0	0
% Bikes by Direction	0	0	0	0	0	0	0	0	0	0

Start Time	Old North Road From North				Old North Road From South				Bills Road From West				Int. Total
	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	
08:00 AM	2	26	0	28	62	6	0	68	0	0	0	0	96
08:15 AM	8	36	0	44	62	4	1	67	0	0	0	0	111
08:30 AM	7	49	0	56	81	9	1	91	0	2	1	3	150
08:45 AM	10	24	0	34	109	11	1	121	1	2	1	4	159
Total Volume	27	135	0	162	314	30	3	347	1	4	2	7	516
% App. Total	16.7	83.3	0		90.5	8.6	0.9		14.3	57.1	28.6		
PHF	.675	.689	.000	.723	.720	.682	.750	.717	.250	.500	.500	.438	.811
Cars & Peds	27	134	0	161	306	30	3	339	1	4	2	7	507
% Cars & Peds	100	99.3	0	99.4	97.5	100	100	97.7	100	100	100	100	98.3
Trucks & Buses	0	1	0	1	8	0	0	8	0	0	0	0	9
% Trucks & Buses	0	0.7	0	0.6	2.5	0	0	2.3	0	0	0	0	1.7
Bikes by Direction	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bikes by Direction	0	0	0	0	0	0	0	0	0	0	0	0	0

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 08:00 AM

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 W: Bills Road
 City, State: Kingston, RI
 Client: Pare/T. Thompson

File Name : 05554C
 Site Code : 05554
 Start Date : 4/28/2022
 Page No : 1

Groups Printed- Cars & Peds

Start Time	Old North Road From North			Old North Road From South			Bills Road From West			Int. Total
	Right	Thru	Peds	Thru	Left	Peds	Right	Left	Peds	
07:00 AM	0	7	0	21	2	0	0	1	0	31
07:15 AM	0	11	0	48	3	0	0	0	1	63
07:30 AM	6	13	0	101	12	0	0	1	0	133
07:45 AM	2	13	0	74	6	0	0	0	0	95
Total	8	44	0	244	23	0	0	2	1	322
08:00 AM	2	25	0	59	6	0	0	0	0	92
08:15 AM	8	36	0	60	4	1	0	0	0	109
08:30 AM	7	49	0	79	9	1	0	2	1	148
08:45 AM	10	24	0	108	11	1	1	2	1	158
Total	27	134	0	306	30	3	1	4	2	507
Grand Total	35	178	0	550	53	3	1	6	3	829
Apprch %	16.4	83.6	0	90.8	8.7	0.5	10	60	30	
Total %	4.2	21.5	0	66.3	6.4	0.4	0.1	0.7	0.4	

Start Time	Old North Road From North				Old North Road From South				Bills Road From West				Int. Total
	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 08:00 AM													
08:00 AM	2	25	0	27	59	6	0	65	0	0	0	0	92
08:15 AM	8	36	0	44	60	4	1	65	0	0	0	0	109
08:30 AM	7	49	0	56	79	9	1	89	0	2	1	3	148
08:45 AM	10	24	0	34	108	11	1	120	1	2	1	4	158
Total Volume	27	134	0	161	306	30	3	339	1	4	2	7	507
% App. Total	16.8	83.2	0		90.3	8.8	0.9		14.3	57.1	28.6		
PHF	.675	.684	.000	.719	.708	.682	.750	.706	.250	.500	.500	.438	.802

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N/S: Old North Road
 W: Bills Road
 City, State: Kingston, RI
 Client: Pare/T. Thompson

File Name : 05554C
 Site Code : 05554
 Start Date : 4/28/2022
 Page No : 1

Groups Printed- Trucks & Buses

Start Time	Old North Road From North			Old North Road From South			Bills Road From West			Int. Total
	Right	Thru	Peds	Thru	Left	Peds	Right	Left	Peds	
07:00 AM	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	1	0	3	0	0	0	0	0	4
08:15 AM	0	0	0	2	0	0	0	0	0	2
08:30 AM	0	0	0	2	0	0	0	0	0	2
08:45 AM	0	0	0	1	0	0	0	0	0	1
Total	0	1	0	8	0	0	0	0	0	9
Grand Total	0	1	0	8	0	0	0	0	0	9
Aprch %	0	100	0	100	0	0	0	0	0	
Total %	0	11.1	0	88.9	0	0	0	0	0	

Start Time	Old North Road From North				Old North Road From South				Bills Road From West				Int. Total
	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 08:00 AM													
08:00 AM	0	1	0	1	3	0	0	3	0	0	0	0	4
08:15 AM	0	0	0	0	2	0	0	2	0	0	0	0	2
08:30 AM	0	0	0	0	2	0	0	2	0	0	0	0	2
08:45 AM	0	0	0	0	1	0	0	1	0	0	0	0	1
Total Volume	0	1	0	1	8	0	0	8	0	0	0	0	9
% App. Total	0	100	0		100	0	0		0	0	0		
PHF	.000	.250	.000	.250	.667	.000	.000	.667	.000	.000	.000	.000	.563

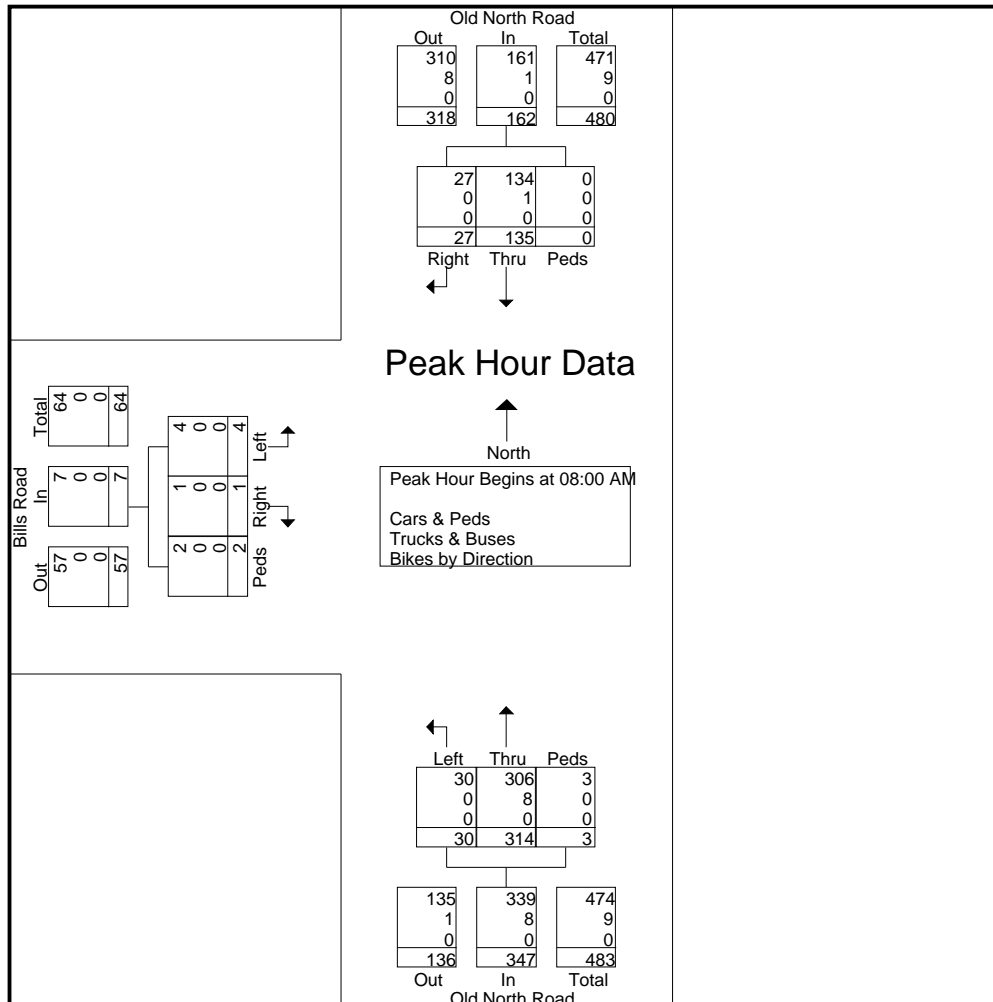
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City, State: Kingston, RI
Client: Pare/T. Thompson

File Name : 05554C
Site Code : 05554
Start Date : 4/28/2022
Page No : 1

Start Time	Old North Road From North				Old North Road From South				Bills Road From West				Int. Total
	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 08:00 AM													
08:00 AM	2	26	0	28	62	6	0	68	0	0	0	0	96
08:15 AM	8	36	0	44	62	4	1	67	0	0	0	0	111
08:30 AM	7	49	0	56	81	9	1	91	0	2	1	3	150
08:45 AM	10	24	0	34	109	11	1	121	1	2	1	4	159
Total Volume	27	135	0	162	314	30	3	347	1	4	2	7	516
% App. Total	16.7	83.3	0		90.5	8.6	0.9		14.3	57.1	28.6		
PHF	.675	.689	.000	.723	.720	.682	.750	.717	.250	.500	.500	.438	.811
Cars & Peds	27	134	0	161	306	30	3	339	1	4	2	7	507
% Cars & Peds	100	99.3	0	99.4	97.5	100	100	97.7	100	100	100	100	98.3
Trucks & Buses	0	1	0	1	8	0	0	8	0	0	0	0	9
% Trucks & Buses	0	0.7	0	0.6	2.5	0	0	2.3	0	0	0	0	1.7
Bikes by Direction	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bikes by Direction	0	0	0	0	0	0	0	0	0	0	0	0	0



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N/S: Old North Road
 W: Bills Road
 City, State: Kingston, RI
 Client: Pare/T. Thompson

File Name : 05554CC
 Site Code : 05554
 Start Date : 4/28/2022
 Page No : 1

Groups Printed- Cars & Peds - Trucks & Buses - Bikes by Direction

Start Time	Old North Road From North			Old North Road From South			Bills Road From West			Int. Total
	Right	Thru	Peds	Thru	Left	Peds	Right	Left	Peds	
04:00 PM	2	26	0	40	4	0	4	5	0	81
04:15 PM	2	31	0	51	7	1	1	9	1	103
04:30 PM	2	34	3	62	7	1	4	8	0	121
04:45 PM	3	39	0	60	7	0	2	15	0	126
Total	9	130	3	213	25	2	11	37	1	431
05:00 PM	1	20	0	41	3	0	0	9	1	75
05:15 PM	4	32	0	28	4	1	0	10	0	79
05:30 PM	3	23	0	35	3	0	0	4	1	69
05:45 PM	0	23	0	26	3	0	1	2	1	56
Total	8	98	0	130	13	1	1	25	3	279
Grand Total	17	228	3	343	38	3	12	62	4	710
Apprch %	6.9	91.9	1.2	89.3	9.9	0.8	15.4	79.5	5.1	
Total %	2.4	32.1	0.4	48.3	5.4	0.4	1.7	8.7	0.6	
Cars & Peds	16	227	3	342	37	3	9	62	4	703
% Cars & Peds	94.1	99.6	100	99.7	97.4	100	75	100	100	99
Trucks & Buses	1	1	0	0	1	0	2	0	0	5
% Trucks & Buses	5.9	0.4	0	0	2.6	0	16.7	0	0	0.7
Bikes by Direction	0	0	0	1	0	0	1	0	0	2
% Bikes by Direction	0	0	0	0.3	0	0	8.3	0	0	0.3

Start Time	Old North Road From North				Old North Road From South				Bills Road From West				Int. Total
	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	
04:00 PM	2	26	0	28	40	4	0	44	4	5	0	9	81
04:15 PM	2	31	0	33	51	7	1	59	1	9	1	11	103
04:30 PM	2	34	3	39	62	7	1	70	4	8	0	12	121
04:45 PM	3	39	0	42	60	7	0	67	2	15	0	17	126
Total Volume	9	130	3	142	213	25	2	240	11	37	1	49	431
% App. Total	6.3	91.5	2.1		88.8	10.4	0.8		22.4	75.5	2		
PHF	.750	.833	.250	.845	.859	.893	.500	.857	.688	.617	.250	.721	.855
Cars & Peds	8	129	3	140	212	24	2	238	8	37	1	46	424
% Cars & Peds	88.9	99.2	100	98.6	99.5	96.0	100	99.2	72.7	100	100	93.9	98.4
Trucks & Buses	1	1	0	2	0	1	0	1	2	0	0	2	5
% Trucks & Buses	11.1	0.8	0	1.4	0	4.0	0	0.4	18.2	0	0	4.1	1.2
Bikes by Direction	0	0	0	0	1	0	0	1	1	0	0	1	2
% Bikes by Direction	0	0	0	0	0.5	0	0	0.4	9.1	0	0	2.0	0.5

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

Transportation Data Corporation
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N/S: Old North Road
 W: Bills Road
 City, State: Kingston, RI
 Client: Pare/T. Thompson

File Name : 05554CC
 Site Code : 05554
 Start Date : 4/28/2022
 Page No : 1

Groups Printed- Cars & Peds

Start Time	Old North Road From North			Old North Road From South			Bills Road From West			Int. Total
	Right	Thru	Peds	Thru	Left	Peds	Right	Left	Peds	
04:00 PM	2	26	0	40	4	0	2	5	0	79
04:15 PM	2	30	0	51	6	1	1	9	1	101
04:30 PM	1	34	3	62	7	1	3	8	0	119
04:45 PM	3	39	0	59	7	0	2	15	0	125
Total	8	129	3	212	24	2	8	37	1	424
05:00 PM	1	20	0	41	3	0	0	9	1	75
05:15 PM	4	32	0	28	4	1	0	10	0	79
05:30 PM	3	23	0	35	3	0	0	4	1	69
05:45 PM	0	23	0	26	3	0	1	2	1	56
Total	8	98	0	130	13	1	1	25	3	279
Grand Total	16	227	3	342	37	3	9	62	4	703
Apprch %	6.5	92.3	1.2	89.5	9.7	0.8	12	82.7	5.3	
Total %	2.3	32.3	0.4	48.6	5.3	0.4	1.3	8.8	0.6	

Start Time	Old North Road From North				Old North Road From South				Bills Road From West				Int. Total
	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	
04:00 PM	2	26	0	28	40	4	0	44	2	5	0	7	79
04:15 PM	2	30	0	32	51	6	1	58	1	9	1	11	101
04:30 PM	1	34	3	38	62	7	1	70	3	8	0	11	119
04:45 PM	3	39	0	42	59	7	0	66	2	15	0	17	125
Total Volume	8	129	3	140	212	24	2	238	8	37	1	46	424
% App. Total	5.7	92.1	2.1		89.1	10.1	0.8		17.4	80.4	2.2		
PHF	.667	.827	.250	.833	.855	.857	.500	.850	.667	.617	.250	.676	.848

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

Transportation Data Corporation

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N/S: Old North Road
W: Bills Road
City, State: Kingston, RI
Client: Pare/T. Thompson

File Name : 05554CC
Site Code : 05554
Start Date : 4/28/2022
Page No : 1

Groups Printed- Trucks & Buses

Start Time	Old North Road From North			Old North Road From South			Bills Road From West			Int. Total
	Right	Thru	Peds	Thru	Left	Peds	Right	Left	Peds	
04:00 PM	0	0	0	0	0	0	2	0	0	2
04:15 PM	0	1	0	0	1	0	0	0	0	2
04:30 PM	1	0	0	0	0	0	0	0	0	1
04:45 PM	0	0	0	0	0	0	0	0	0	0
Total	1	1	0	0	1	0	2	0	0	5
05:00 PM	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
Grand Total	1	1	0	0	1	0	2	0	0	5
Aprch %	50	50	0	0	100	0	100	0	0	
Total %	20	20	0	0	20	0	40	0	0	

Start Time	Old North Road From North				Old North Road From South				Bills Road From West				Int. Total	
	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	Right	Left	Peds	App. 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	0	0	0	0	0	0	0	0	0	2	0	0	2	2
04:15 PM	0	1	0	1	0	1	0	1	0	0	0	0	0	2
04:30 PM	1	0	0	1	0	0	0	0	0	0	0	0	0	1
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	1	1	0	2	0	1	0	1	0	2	0	0	2	5
% App. Total	50	50	0		0	100	0		100	0	0			
PHF	.250	.250	.000	.500	.000	.250	.000	.250	.250	.000	.000	.250	.250	.625

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 City, State: Kingston, RI
 Client: Pare/T. Thompson

File Name : 05554CC
 Site Code : 05554
 Start Date : 4/28/2022
 Page No : 1

Groups Printed- Bikes by Direction

Start Time	Old North Road From North			Old North Road From South			Bills Road From West			Int. Total
	Right	Thru	Peds	Thru	Left	Peds	Right	Left	Peds	
04:00 PM	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	1	0	0	1
04:45 PM	0	0	0	1	0	0	0	0	0	1
Total	0	0	0	1	0	0	1	0	0	2
05:00 PM	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	1	0	0	1	0	0	2
Aprch %	0	0	0	100	0	0	100	0	0	
Total %	0	0	0	50	0	0	50	0	0	

Start Time	Old North Road From North				Old North Road From South				Bills Road From West				Int. Total
	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	1	0	0	1	1
04:45 PM	0	0	0	0	1	0	0	1	0	0	0	0	1
Total Volume	0	0	0	0	1	0	0	1	1	0	0	1	2
% App. Total	0	0	0		100	0	0		100	0	0		
PHF	.000	.000	.000	.000	.250	.000	.000	.250	.250	.000	.000	.250	.500

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

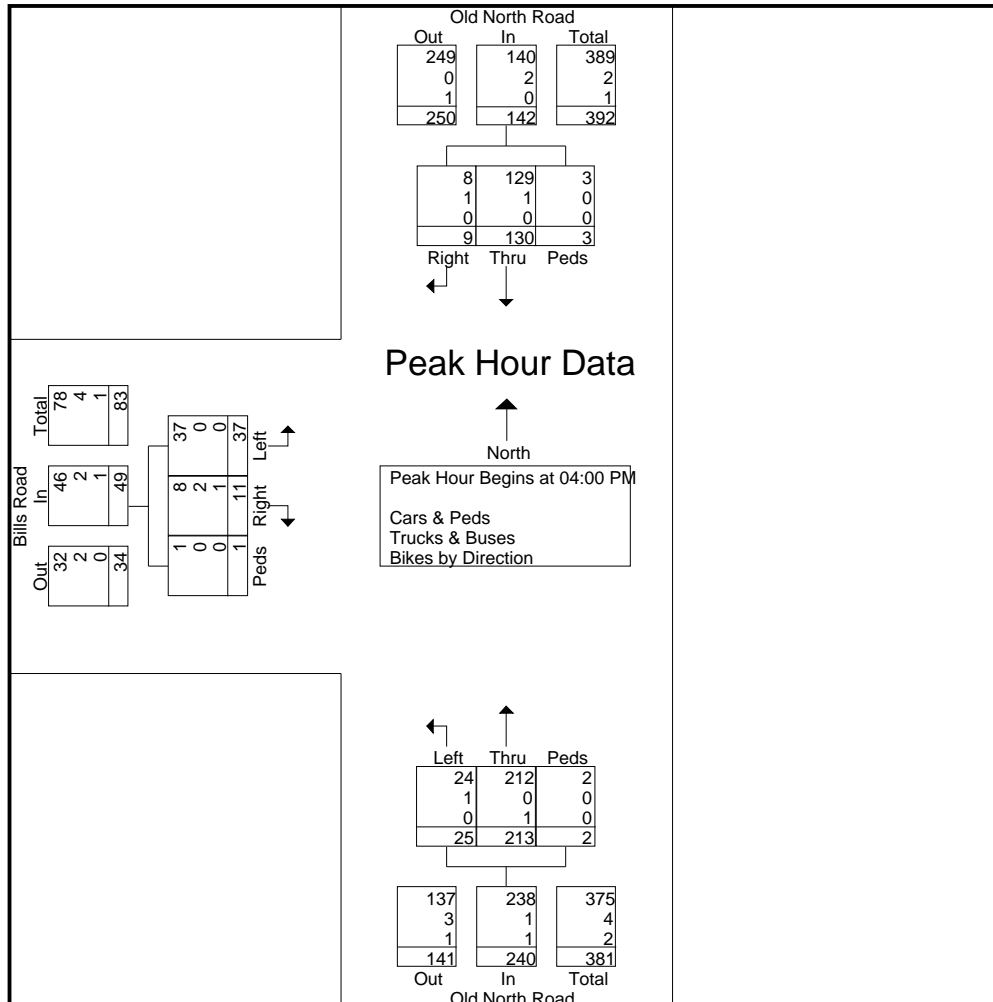
Transportation Data Corporation

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N/S: Old North Road
W: Bills Road
City, State: Kingston, RI
Client: Pare/T. Thompson

File Name : 05554CC
Site Code : 05554
Start Date : 4/28/2022
Page No : 1

Start Time	Old North Road From North				Old North Road From South				Bills Road From West				Int. Total
	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	Right	Left	Peds	App. 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	2	26	0	28	40	4	0	44	4	5	0	9	81
04:15 PM	2	31	0	33	51	7	1	59	1	9	1	11	103
04:30 PM	2	34	3	39	62	7	1	70	4	8	0	12	121
04:45 PM	3	39	0	42	60	7	0	67	2	15	0	17	126
Total Volume	9	130	3	142	213	25	2	240	11	37	1	49	431
% App. Total	6.3	91.5	2.1		88.8	10.4	0.8		22.4	75.5	2		
PHF	.750	.833	.250	.845	.859	.893	.500	.857	.688	.617	.250	.721	.855
Cars & Peds	8	129	3	140	212	24	2	238	8	37	1	46	424
% Cars & Peds	88.9	99.2	100	98.6	99.5	96.0	100	99.2	72.7	100	100	93.9	98.4
Trucks & Buses	1	1	0	2	0	1	0	1	2	0	0	2	5
% Trucks & Buses	11.1	0.8	0	1.4	0	4.0	0	0.4	18.2	0	0	4.1	1.2
Bikes by Direction	0	0	0	0	1	0	0	1	1	0	0	1	2
% Bikes by Direction	0	0	0	0	0.5	0	0	0.4	9.1	0	0	2.0	0.5



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N/S: Old North Road
 E/W: Bean Farm Drive/Flagg Road
 City, State: Kingston, RI
 Client: Pare/T. Thompson

File Name : 05554D
 Site Code : 05554
 Start Date : 4/28/2022
 Page No : 1

Groups Printed- Cars & Peds

Start Time	Old North Road From North				Bean Farm Drive From East				Old North Road From South				Flagg Road From West				Int. Total
	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	
07:00 AM	21	4	0	0	0	0	1	0	0	2	18	0	0	0	0	0	46
07:15 AM	27	9	0	0	0	0	2	0	0	7	42	0	0	0	1	0	88
07:30 AM	56	17	0	0	0	0	0	0	1	9	94	1	2	0	2	0	182
07:45 AM	62	13	0	0	1	0	1	0	0	20	59	0	0	0	1	0	157
Total	166	43	0	0	1	0	4	0	1	38	213	1	2	0	4	0	473
08:00 AM	41	25	0	0	0	0	0	0	0	24	33	0	0	0	4	0	127
08:15 AM	39	41	0	0	2	0	0	0	0	22	35	0	1	0	4	0	144
08:30 AM	63	58	0	0	1	1	0	0	0	27	56	0	4	0	7	0	217
08:45 AM	67	30	0	0	0	0	0	0	0	18	90	0	3	0	7	0	215
Total	210	154	0	0	3	1	0	0	0	91	214	0	8	0	22	0	703
Grand Total	376	197	0	0	4	1	4	0	1	129	427	1	10	0	26	0	1176
Apprch %	65.6	34.4	0	0	44.4	11.1	44.4	0	0.2	23.1	76.5	0.2	27.8	0	72.2	0	
Total %	32	16.8	0	0	0.3	0.1	0.3	0	0.1	11	36.3	0.1	0.9	0	2.2	0	

Start Time	Old North Road From North				Bean Farm Drive From East				Old North Road From South				Flagg Road From West				Int. Total				
	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds					
08:00 AM	41	25	0	0	0	0	0	0	0	24	33	0	0	0	4	0	4	127			
08:15 AM	39	41	0	0	2	0	0	0	2	0	35	0	1	0	4	0	5	144			
08:30 AM	63	58	0	0	1	1	0	0	2	0	27	56	0	4	0	7	11	217			
08:45 AM	67	30	0	0	0	0	0	0	0	0	18	90	0	3	0	7	10	215			
Total Volume	210	154	0	0	3	1	0	0	4	0	91	214	0	8	0	22	30	703			
% App. Total	57.7	42.3	0	0	75	25	0	0	0	0	29.8	70.2	0	26.7	0	73.3	0				
PHF	.784	.664	.000	.000	.752	.375	.250	.000	.000	.500	.000	.843	.594	.000	.706	.500	.000	.786	.000	.682	.810

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 08:00 AM

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N/S: Old North Road
 E/W: Bean Farm Drive/Flagg Road
 City, State: Kingston, RI
 Client: Pare/T. Thompson

File Name : 05554D
 Site Code : 05554
 Start Date : 4/28/2022
 Page No : 1

Groups Printed- Trucks & Buses

Start Time	Old North Road From North				Bean Farm Drive From East				Old North Road From South				Flagg Road From West				Int. Total
	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
08:00 AM	0	1	0	0	0	0	0	0	0	3	0	0	0	0	1	0	5
08:15 AM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2
08:30 AM	2	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	4
08:45 AM	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	2
Total	3	1	0	0	0	0	0	0	0	7	1	0	0	0	1	0	13
Grand Total	3	1	0	0	0	0	0	0	0	7	1	0	0	0	2	0	14
Apprch %	75	25	0	0	0	0	0	0	0	87.5	12.5	0	0	0	100	0	
Total %	21.4	7.1	0	0	0	0	0	0	0	50	7.1	0	0	0	14.3	0	

Start Time	Old North Road From North					Bean Farm Drive From East					Old North Road From South					Flagg Road From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	0	1	0	0	1	0	0	0	0	0	0	3	0	0	3	0	0	1	0	1	5
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	2
08:30 AM	2	0	0	0	2	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	4
08:45 AM	1	0	0	0	1	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	2
Total Volume	3	1	0	0	4	0	0	0	0	0	0	7	1	0	8	0	0	1	0	1	13
% App. Total	75	25	0	0		0	0	0	0		0	87.5	12.5	0		0	0	100	0		
PHF	.375	.250	.000	.000	.500	.000	.000	.000	.000	.000	.000	.583	.250	.000	.667	.000	.000	.250	.000	.250	.650

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N/S: Old North Road
 E/W: Bean Farm Drive/Flagg Road
 City, State: Kingston, RI
 Client: Pare/T. Thompson

File Name : 05554D
 Site Code : 05554
 Start Date : 4/28/2022
 Page No : 1

Groups Printed- Bikes by Direction

Start Time	Old North Road From North				Bean Farm Drive From East				Old North Road From South				Flagg Road From West				Int. Total
	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total %																	

Start Time	Old North Road From North					Bean Farm Drive From East					Old North Road From South					Flagg Road From West					Int. Total
	Right			Peds	App. Total	Right			Peds	App. Total	Right			Peds	App. Total	Right			Peds	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:00 AM																					
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

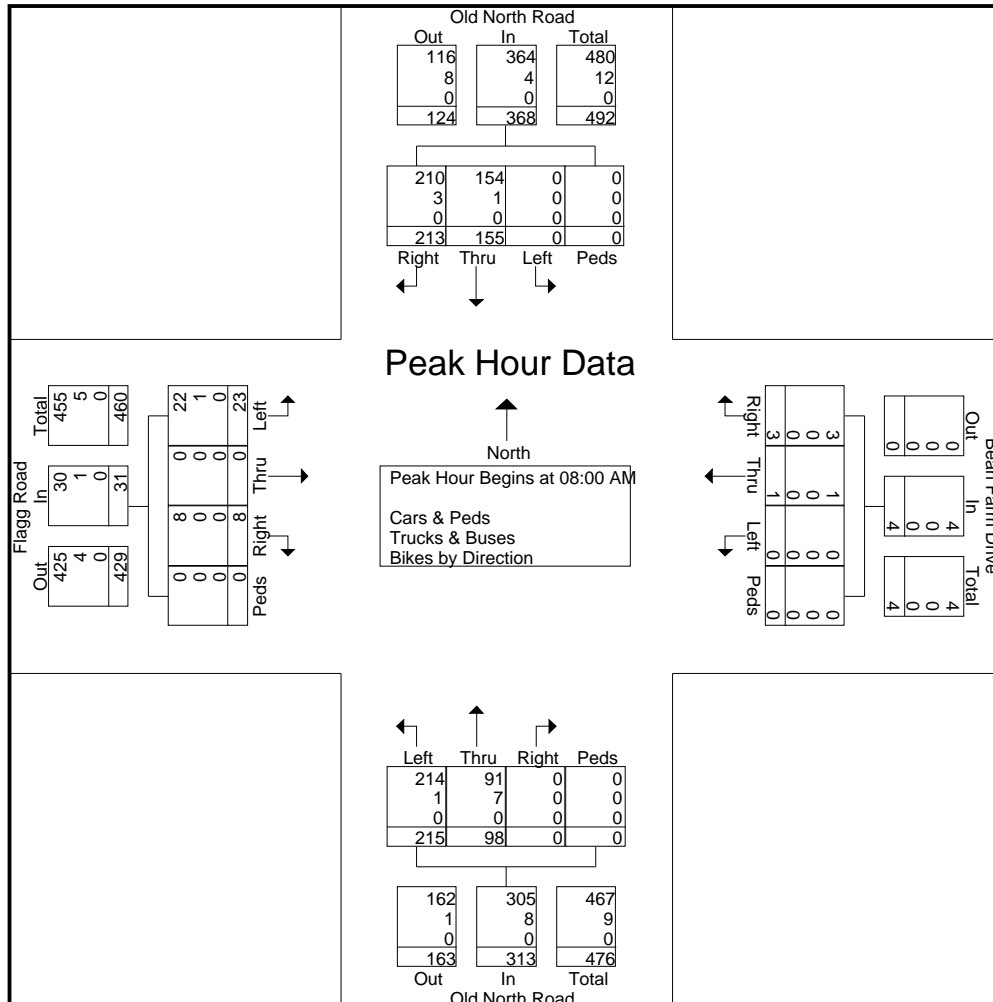
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N/S: Old North Road
E/W: Bean Farm Drive/Flagg Road
City, State: Kingston, RI
Client: Pare/T. Thompson

File Name : 05554D
Site Code : 05554
Start Date : 4/28/2022
Page No : 1

Start Time	Old North Road From North					Bean Farm Drive From East					Old North Road From South					Flagg Road From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	41	26	0	0	67	0	0	0	0	0	0	27	33	0	60	0	0	5	0	5	132
08:15 AM	39	41	0	0	80	2	0	0	0	2	0	24	35	0	59	1	0	4	0	5	146
08:30 AM	65	58	0	0	123	1	1	0	0	2	0	29	56	0	85	4	0	7	0	11	221
08:45 AM	68	30	0	0	98	0	0	0	0	0	0	18	91	0	109	3	0	7	0	10	217
Total Volume	213	155	0	0	368	3	1	0	0	4	0	98	215	0	313	8	0	23	0	31	716
% App. Total	57.9	42.1	0	0		75	25	0	0		0	31.3	68.7	0		25.8	0	74.2	0		
PHF	.783	.668	.000	.000	.748	.375	.250	.000	.000	.500	.000	.845	.591	.000	.718	.500	.000	.821	.000	.705	.810
Cars & Peds	210	154	0	0	364	3	1	0	0	4	0	91	214	0	305	8	0	22	0	30	703
% Cars & Peds	98.6	99.4	0	0	98.9	100	100	0	0	100	0	92.9	99.5	0	97.4	100	0	95.7	0	96.8	98.2
Trucks & Buses	3	1	0	0	4	0	0	0	0	0	0	7	1	0	8	0	0	1	0	1	13
% Trucks & Buses	1.4	0.6	0	0	1.1	0	0	0	0	0	0	7.1	0.5	0	2.6	0	0	4.3	0	3.2	1.8
Bikes by Direction	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bikes by Direction	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



Transportation Data Corporation
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N/S: Old North Road
 E/W: Bean Farm Drive/Flagg Road
 City, State: Kingston, RI
 Client: Pare/T. Thompson

File Name : 05554DD
 Site Code : 05554
 Start Date : 4/28/2022
 Page No : 1

Groups Printed- Cars & Peds - Trucks & Buses - Bikes by Direction

Start Time	Old North Road From North				Bean Farm Drive From East				Old North Road From South				Flagg Road From West				Int. Total
	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	
04:00 PM	12	19	1	0	1	0	0	0	1	36	9	0	10	0	37	0	126
04:15 PM	19	19	1	0	0	0	0	0	0	40	16	0	12	0	43	0	150
04:30 PM	15	16	0	0	0	0	0	0	0	49	20	0	22	0	52	0	174
04:45 PM	16	9	0	0	0	0	0	0	1	51	22	0	33	0	56	1	189
Total	62	63	2	0	1	0	0	0	2	176	67	0	77	0	188	1	639
05:00 PM	5	8	0	0	0	2	0	0	2	39	9	0	14	0	46	1	126
05:15 PM	9	18	0	0	1	0	1	0	0	27	12	0	16	1	30	0	115
05:30 PM	10	12	0	0	0	0	0	0	0	26	15	0	14	0	31	0	108
05:45 PM	9	7	2	0	0	0	2	0	0	16	12	0	16	0	24	0	88
Total	33	45	2	0	1	2	3	0	2	108	48	0	60	1	131	1	437
Grand Total	95	108	4	0	2	2	3	0	4	284	115	0	137	1	319	2	1076
Apprch %	45.9	52.2	1.9	0	28.6	28.6	42.9	0	1	70.5	28.5	0	29.8	0.2	69.5	0.4	
Total %	8.8	10	0.4	0	0.2	0.2	0.3	0	0.4	26.4	10.7	0	12.7	0.1	29.6	0.2	
Cars & Peds	93	106	4	0	2	2	3	0	4	283	115	0	137	1	319	2	1071
% Cars & Peds	97.9	98.1	100	0	100	100	100	0	100	99.6	100	0	100	100	100	100	99.5
Trucks & Buses																	
% Trucks & Buses	2.1	1.9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4
Bikes by Direction	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
% Bikes by Direction	0	0	0	0	0	0	0	0	0	0.4	0	0	0	0	0	0	0.1

Start Time	Old North Road From North					Bean Farm Drive From East					Old North Road From South					Flagg Road From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. 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	12	19	1	0	32	1	0	0	0	1	1	36	9	0	46	10	0	37	0	47	126
04:15 PM	19	19	1	0	39	0	0	0	0	0	0	40	16	0	56	12	0	43	0	55	150
04:30 PM	15	16	0	0	31	0	0	0	0	0	0	49	20	0	69	22	0	52	0	74	174
04:45 PM	16	9	0	0	25	0	0	0	0	0	1	51	22	0	74	33	0	56	1	90	189
Total Volume	62	63	2	0	127	1	0	0	0	1	2	176	67	0	245	77	0	188	1	266	639
% App. Total	48.8	49.6	1.6	0		100	0	0	0		0.8	71.8	27.3	0		28.9	0	70.7	0.4		
PHF	.816	.829	.500	.000	.814	.250	.000	.000	.000	.250	.500	.863	.761	.000	.828	.583	.000	.839	.250	.739	.845
Cars & Peds	60	61	2	0	123	1	0	0	0	1	2	175	67	0	244	77	0	188	1	266	634
% Cars & Peds	96.8	96.8	100	0	96.9	100	0	0	0	100	100	99.4	100	0	99.6	100	0	100	100	100	99.2
Trucks & Buses	2	2	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
% Trucks & Buses	3.2	3.2	0	0	3.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.6
Bikes by Direction	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
% Bikes by Direction	0	0	0	0	0	0	0	0	0	0	0	0.6	0	0	0.4	0	0	0	0	0	0.2

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N/S: Old North Road
 E/W: Bean Farm Drive/Flagg Road
 City, State: Kingston, RI
 Client: Pare/T. Thompson

File Name : 05554DD
 Site Code : 05554
 Start Date : 4/28/2022
 Page No : 1

Groups Printed- Cars & Peds

Start Time	Old North Road From North				Bean Farm Drive From East				Old North Road From South				Flagg Road From West				Int. Total
	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	
04:00 PM	12	19	1	0	1	0	0	0	1	36	9	0	10	0	37	0	126
04:15 PM	18	18	1	0	0	0	0	0	0	40	16	0	12	0	43	0	148
04:30 PM	14	15	0	0	0	0	0	0	0	49	20	0	22	0	52	0	172
04:45 PM	16	9	0	0	0	0	0	0	1	50	22	0	33	0	56	1	188
Total	60	61	2	0	1	0	0	0	2	175	67	0	77	0	188	1	634
05:00 PM	5	8	0	0	0	2	0	0	2	39	9	0	14	0	46	1	126
05:15 PM	9	18	0	0	1	0	1	0	0	27	12	0	16	1	30	0	115
05:30 PM	10	12	0	0	0	0	0	0	0	26	15	0	14	0	31	0	108
05:45 PM	9	7	2	0	0	0	2	0	0	16	12	0	16	0	24	0	88
Total	33	45	2	0	1	2	3	0	2	108	48	0	60	1	131	1	437
Grand Total	93	106	4	0	2	2	3	0	4	283	115	0	137	1	319	2	1071
Apprch %	45.8	52.2	2	0	28.6	28.6	42.9	0	1	70.4	28.6	0	29.8	0.2	69.5	0.4	
Total %	8.7	9.9	0.4	0	0.2	0.2	0.3	0	0.4	26.4	10.7	0	12.8	0.1	29.8	0.2	

Start Time	Old North Road From North				Bean Farm Drive From East				Old North Road From South				Flagg Road From West				Int. Total				
	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds					
04:00 PM	12	19	1	0	32	1	0	0	0	1	36	9	0	46	10	0	37	0	47	126	
04:15 PM	18	18	1	0	37	0	0	0	0	0	40	16	0	56	12	0	43	0	55	148	
04:30 PM	14	15	0	0	29	0	0	0	0	0	49	20	0	69	22	0	52	0	74	172	
04:45 PM	16	9	0	0	25	0	0	0	0	1	50	22	0	73	33	0	56	1	90	188	
Total Volume	60	61	2	0	123	1	0	0	0	1	2	175	67	0	244	77	0	188	1	266	634
% App. Total	48.8	49.6	1.6	0		100	0	0	0		0.8	71.7	27.5	0		28.9	0	70.7	0.4		
PHF	.833	.803	.500	.000	.831	.250	.000	.000	.250	.500	.875	.761	.000	.836	.583	.000	.839	.250	.739	.843	

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

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N/S: Old North Road
 E/W: Bean Farm Drive/Flagg Road
 City, State: Kingston, RI
 Client: Pare/T. Thompson

File Name : 05554DD
 Site Code : 05554
 Start Date : 4/28/2022
 Page No : 1

Groups Printed- Trucks & Buses

Start Time	Old North Road From North				Bean Farm Drive From East				Old North Road From South				Flagg Road From West				Int. Total
	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
04:30 PM	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Apprch %	50	50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total %	50	50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

Start Time	Old North Road From North					Bean Farm Drive From East					Old North Road From South					Flagg Road From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. 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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	1	1	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
04:30 PM	1	1	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	2	2	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
% App. Total	50	50	0	0		0	0	0	0		0	0	0	0		0	0	0	0		
PHF	.500	.500	.000	.000	.500	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.500

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N/S: Old North Road
 E/W: Bean Farm Drive/Flagg Road
 City, State: Kingston, RI
 Client: Pare/T. Thompson

File Name : 05554DD
 Site Code : 05554
 Start Date : 4/28/2022
 Page No : 1

Groups Printed- Bikes by Direction

Start Time	Old North Road From North				Bean Farm Drive From East				Old North Road From South				Flagg Road From West				Int. Total
	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
Total	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
Apprch %	0	0	0	0	0	0	0	0	0	100	0	0	0	0	0	0	
Total %	0	0	0	0	0	0	0	0	0	100	0	0	0	0	0	0	

Start Time	Old North Road From North					Bean Farm Drive From East					Old North Road From South					Flagg Road From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. 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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
Total Volume	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
% App. Total	0	0	0	0	0	0	0	0	0	0	0	100	0	0	0	0	0	0	0	0	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.000	.000	.250	.000	.000	.000	.000	.000	.250

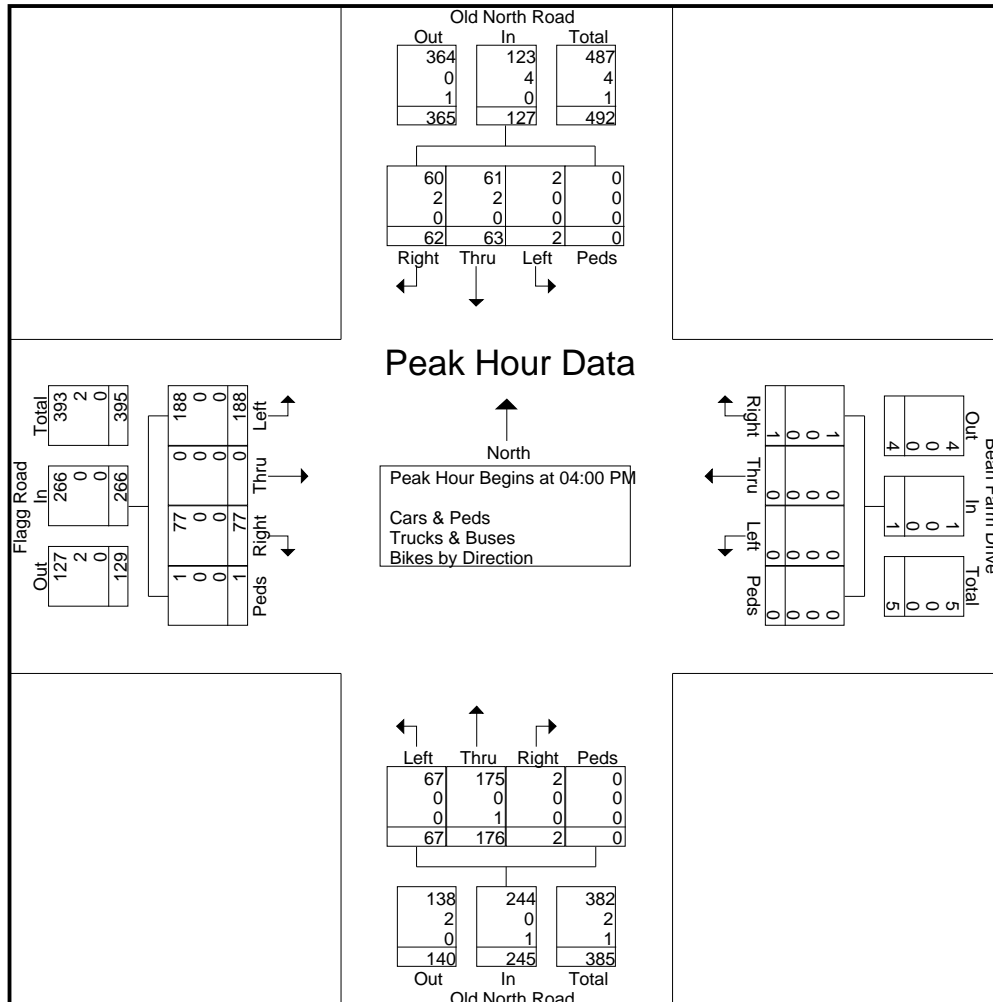
Transportation Data Corporation

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N/S: Old North Road
E/W: Bean Farm Drive/Flagg Road
City, State: Kingston, RI
Client: Pare/T. Thompson

File Name : 05554DD
Site Code : 05554
Start Date : 4/28/2022
Page No : 1

Start Time	Old North Road From North					Bean Farm Drive From East					Old North Road From South					Flagg Road From West					Int. Total	
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. 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	12	19	1	0	32	1	0	0	0	1	1	36	9	0	46	10	0	37	0	47	126	
04:15 PM	19	19	1	0	39	0	0	0	0	0	0	40	16	0	56	12	0	43	0	55	150	
04:30 PM	15	16	0	0	31	0	0	0	0	0	0	49	20	0	69	22	0	52	0	74	174	
04:45 PM	16	9	0	0	25	0	0	0	0	0	1	51	22	0	74	33	0	56	1	90	189	
Total Volume	62	63	2	0	127	1	0	0	0	1	2	176	67	0	245	77	0	188	1	266	639	
% App. Total	48.8	49.6	1.6	0		100	0	0	0		0.8	71.8	27.3	0		28.9	0	70.7	0.4			
PHF	.816	.829	.500	.000	.814	.250	.000	.000	.000	.250	.500	.863	.761	.000	.828	.583	.000	.839	.250	.739	.845	
Cars & Peds	60	61	2	0	123	1	0	0	0	1	2	175	67	0	244	77	0	188	1	266	634	
% Cars & Peds	96.8	96.8	100	0	96.9	100	0	0	0	100	100	99.4	100	0	99.6	100	0	100	100	100	99.2	
Trucks & Buses	2	2	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
% Trucks & Buses	3.2	3.2	0	0	3.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.6
Bikes by Direction	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1
% Bikes by Direction	0	0	0	0	0	0	0	0	0	0	0	0.6	0	0	0.4	0	0	0	0	0	0	0.2



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S: Old North Road
 E/W: Stony Fort Road
 City, State: Saunderstown, RI
 Client: Pare/T. Thompson

File Name : 05554E
 Site Code : 05554
 Start Date : 4/26/2022
 Page No : 1

Groups Printed- Cars & Peds - Trucks & Buses - Bikes by Direction

Start Time	Stony Fort Road From East			Old North Road From South			Stony Fort Road From West			Int. Total
	Thru	Left	Peds	Right	Left	Peds	Right	Thru	Peds	
07:00 AM	3	30	0	5	0	0	1	4	0	43
07:15 AM	6	47	0	7	0	0	0	10	0	70
07:30 AM	12	67	0	12	0	0	1	10	0	102
07:45 AM	2	78	0	15	0	0	2	8	0	105
Total	23	222	0	39	0	0	4	32	0	320
08:00 AM	5	86	0	14	2	0	1	6	0	114
08:15 AM	6	79	0	34	0	0	0	8	0	127
08:30 AM	18	104	0	36	1	0	1	10	0	170
08:45 AM	15	95	0	13	1	0	0	4	0	128
Total	44	364	0	97	4	0	2	28	0	539
Grand Total	67	586	0	136	4	0	6	60	0	859
Apprch %	10.3	89.7	0	97.1	2.9	0	9.1	90.9	0	
Total %	7.8	68.2	0	15.8	0.5	0	0.7	7	0	
Cars & Peds	62	581	0	128	3	0	6	59	0	839
% Cars & Peds	92.5	99.1	0	94.1	75	0	100	98.3	0	97.7
Trucks & Buses	4	5	0	8	1	0	0	1	0	19
% Trucks & Buses	6	0.9	0	5.9	25	0	0	1.7	0	2.2
Bikes by Direction	1	0	0	0	0	0	0	0	0	1
% Bikes by Direction	1.5	0	0	0	0	0	0	0	0	0.1

Start Time	Stony Fort Road From East				Old North Road From South				Stony Fort Road From West				Int. Total
	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	
08:00 AM	5	86	0	91	14	2	0	16	1	6	0	7	114
08:15 AM	6	79	0	85	34	0	0	34	0	8	0	8	127
08:30 AM	18	104	0	122	36	1	0	37	1	10	0	11	170
08:45 AM	15	95	0	110	13	1	0	14	0	4	0	4	128
Total Volume	44	364	0	408	97	4	0	101	2	28	0	30	539
% App. Total	10.8	89.2	0		96	4	0		6.7	93.3	0		
PHF	.611	.875	.000	.836	.674	.500	.000	.682	.500	.700	.000	.682	.793
Cars & Peds	40	359	0	399	89	3	0	92	2	28	0	30	521
% Cars & Peds	90.9	98.6	0	97.8	91.8	75.0	0	91.1	100	100	0	100	96.7
Trucks & Buses	3	5	0	8	8	1	0	9	0	0	0	0	17
% Trucks & Buses	6.8	1.4	0	2.0	8.2	25.0	0	8.9	0	0	0	0	3.2
Bikes by Direction	1	0	0	1	0	0	0	0	0	0	0	0	1
% Bikes by Direction	2.3	0	0	0.2	0	0	0	0	0	0	0	0	0.2

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 08:00 AM

Transportation Data Corporation
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S: Old North Road
 E/W: Stony Fort Road
 City, State: Saunderstown, RI
 Client: Pare/T. Thompson

File Name : 05554E
 Site Code : 05554
 Start Date : 4/26/2022
 Page No : 1

Groups Printed- Cars & Peds

Start Time	Stony Fort Road From East			Old North Road From South			Stony Fort Road From West			Int. Total
	Thru	Left	Peds	Right	Left	Peds	Right	Thru	Peds	
07:00 AM	3	30	0	5	0	0	1	4	0	43
07:15 AM	6	47	0	7	0	0	0	10	0	70
07:30 AM	11	67	0	12	0	0	1	9	0	100
07:45 AM	2	78	0	15	0	0	2	8	0	105
Total	22	222	0	39	0	0	4	31	0	318
08:00 AM	5	86	0	14	1	0	1	6	0	113
08:15 AM	6	77	0	31	0	0	0	8	0	122
08:30 AM	15	101	0	32	1	0	1	10	0	160
08:45 AM	14	95	0	12	1	0	0	4	0	126
Total	40	359	0	89	3	0	2	28	0	521
Grand Total	62	581	0	128	3	0	6	59	0	839
Apprch %	9.6	90.4	0	97.7	2.3	0	9.2	90.8	0	
Total %	7.4	69.2	0	15.3	0.4	0	0.7	7	0	

Start Time	Stony Fort Road From East				Old North Road From South				Stony Fort Road From West				Int. Total
	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 08:00 AM													
08:00 AM	5	86	0	91	14	1	0	15	1	6	0	7	113
08:15 AM	6	77	0	83	31	0	0	31	0	8	0	8	122
08:30 AM	15	101	0	116	32	1	0	33	1	10	0	11	160
08:45 AM	14	95	0	109	12	1	0	13	0	4	0	4	126
Total Volume	40	359	0	399	89	3	0	92	2	28	0	30	521
% App. Total	10	90	0		96.7	3.3	0		6.7	93.3	0		
PHF	.667	.889	.000	.860	.695	.750	.000	.697	.500	.700	.000	.682	.814

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S: Old North Road
 E/W: Stony Fort Road
 City, State: Saunderstown, RI
 Client: Pare/T. Thompson

File Name : 05554E
 Site Code : 05554
 Start Date : 4/26/2022
 Page No : 1

Groups Printed- Trucks & Buses

Start Time	Stony Fort Road From East			Old North Road From South			Stony Fort Road From West			Int. Total
	Thru	Left	Peds	Right	Left	Peds	Right	Thru	Peds	
07:00 AM	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0
07:30 AM	1	0	0	0	0	0	0	1	0	2
07:45 AM	0	0	0	0	0	0	0	0	0	0
Total	1	0	0	0	0	0	0	1	0	2
08:00 AM	0	0	0	0	1	0	0	0	0	1
08:15 AM	0	2	0	3	0	0	0	0	0	5
08:30 AM	3	3	0	4	0	0	0	0	0	10
08:45 AM	0	0	0	1	0	0	0	0	0	1
Total	3	5	0	8	1	0	0	0	0	17
Grand Total	4	5	0	8	1	0	0	1	0	19
Apprch %	44.4	55.6	0	88.9	11.1	0	0	100	0	
Total %	21.1	26.3	0	42.1	5.3	0	0	5.3	0	

Start Time	Stony Fort Road From East				Old North Road From South				Stony Fort Road From West				Int. Total
	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 08:00 AM													
08:00 AM	0	0	0	0	0	1	0	1	0	0	0	0	1
08:15 AM	0	2	0	2	3	0	0	3	0	0	0	0	5
08:30 AM	3	3	0	6	4	0	0	4	0	0	0	0	10
08:45 AM	0	0	0	0	1	0	0	1	0	0	0	0	1
Total Volume	3	5	0	8	8	1	0	9	0	0	0	0	17
% App. Total	37.5	62.5	0		88.9	11.1	0		0	0	0		
PHF	.250	.417	.000	.333	.500	.250	.000	.563	.000	.000	.000	.000	.425

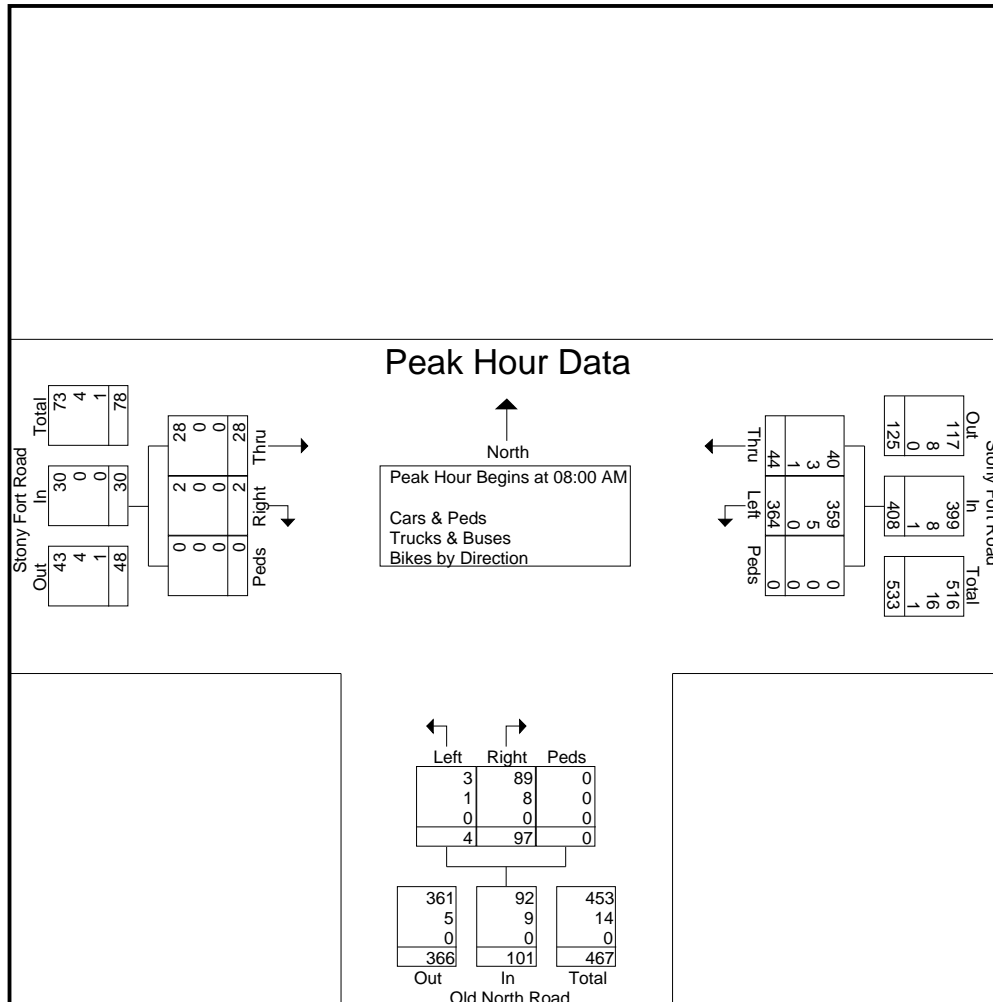
Transportation Data Corporation

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S: Old North Road
E/W: Stony Fort Road
City, State: Saunderstown, RI
Client: Pare/T. Thompson

File Name : 05554E
Site Code : 05554
Start Date : 4/26/2022
Page No : 1

Start Time	Stony Fort Road From East				Old North Road From South				Stony Fort Road From West				Int. Total
	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 08:00 AM													
08:00 AM	5	86	0	91	14	2	0	16	1	6	0	7	114
08:15 AM	6	79	0	85	34	0	0	34	0	8	0	8	127
08:30 AM	18	104	0	122	36	1	0	37	1	10	0	11	170
08:45 AM	15	95	0	110	13	1	0	14	0	4	0	4	128
Total Volume	44	364	0	408	97	4	0	101	2	28	0	30	539
% App. Total	10.8	89.2	0		96	4	0		6.7	93.3	0		
PHF	.611	.875	.000	.836	.674	.500	.000	.682	.500	.700	.000	.682	.793
Cars & Peds	40	359	0	399	89	3	0	92	2	28	0	30	521
% Cars & Peds	90.9	98.6	0	97.8	91.8	75.0	0	91.1	100	100	0	100	96.7
Trucks & Buses	3	5	0	8	8	1	0	9	0	0	0	0	17
% Trucks & Buses	6.8	1.4	0	2.0	8.2	25.0	0	8.9	0	0	0	0	3.2
Bikes by Direction	1	0	0	1	0	0	0	0	0	0	0	0	1
% Bikes by Direction	2.3	0	0	0.2	0	0	0	0	0	0	0	0	0.2



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S: Old North Road
 E/W: Stony Fort Road
 City, State: Saunderstown, RI
 Client: Pare/T. Thompson

File Name : 05554EE
 Site Code : 05554
 Start Date : 4/26/2022
 Page No : 1

Groups Printed- Cars & Peds - Trucks & Buses - Bikes by Direction

Start Time	Stony Fort Road From East			Old North Road From South			Stony Fort Road From West			Int. Total
	Thru	Left	Peds	Right	Left	Peds	Right	Thru	Peds	
04:00 PM	9	25	0	90	2	0	1	4	0	131
04:15 PM	10	26	0	54	2	0	2	11	0	105
04:30 PM	6	28	0	91	1	0	0	7	0	133
04:45 PM	9	32	0	90	2	0	0	6	0	139
Total	34	111	0	325	7	0	3	28	0	508
05:00 PM	8	19	0	80	1	0	0	13	0	121
05:15 PM	10	17	0	66	0	0	2	10	0	105
05:30 PM	15	23	0	43	3	0	3	2	0	89
05:45 PM	4	13	0	33	4	0	1	3	0	58
Total	37	72	0	222	8	0	6	28	0	373
Grand Total	71	183	0	547	15	0	9	56	0	881
Apprch %	28	72	0	97.3	2.7	0	13.8	86.2	0	
Total %	8.1	20.8	0	62.1	1.7	0	1	6.4	0	
Cars & Peds	70	183	0	547	15	0	9	56	0	880
% Cars & Peds	98.6	100	0	100	100	0	100	100	0	99.9
Trucks & Buses	1	0	0	0	0	0	0	0	0	1
% Trucks & Buses	1.4	0	0	0	0	0	0	0	0	0.1
Bikes by Direction	0	0	0	0	0	0	0	0	0	0
% Bikes by Direction	0	0	0	0	0	0	0	0	0	0

Start Time	Stony Fort Road From East				Old North Road From South				Stony Fort Road From West				Int. Total
	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	
04:00 PM	9	25	0	34	90	2	0	92	1	4	0	5	131
04:15 PM	10	26	0	36	54	2	0	56	2	11	0	13	105
04:30 PM	6	28	0	34	91	1	0	92	0	7	0	7	133
04:45 PM	9	32	0	41	90	2	0	92	0	6	0	6	139
Total Volume	34	111	0	145	325	7	0	332	3	28	0	31	508
% App. Total	23.4	76.6	0		97.9	2.1	0		9.7	90.3	0		
PHF	.850	.867	.000	.884	.893	.875	.000	.902	.375	.636	.000	.596	.914
Cars & Peds	34	111	0	145	325	7	0	332	3	28	0	31	508
% Cars & Peds	100	100	0	100	100	100	0	100	100	100	0	100	100
Trucks & Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
% Trucks & Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
Bikes by Direction	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bikes by Direction	0	0	0	0	0	0	0	0	0	0	0	0	0

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

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S: Old North Road
E/W: Stony Fort Road
City, State: Saunderstown, RI
Client: Pare/T. Thompson

File Name : 05554EE
Site Code : 05554
Start Date : 4/26/2022
Page No : 1

Groups Printed- Cars & Peds

Start Time	Stony Fort Road From East			Old North Road From South			Stony Fort Road From West			Int. Total
	Thru	Left	Peds	Right	Left	Peds	Right	Thru	Peds	
04:00 PM	9	25	0	90	2	0	1	4	0	131
04:15 PM	10	26	0	54	2	0	2	11	0	105
04:30 PM	6	28	0	91	1	0	0	7	0	133
04:45 PM	9	32	0	90	2	0	0	6	0	139
Total	34	111	0	325	7	0	3	28	0	508
05:00 PM	7	19	0	80	1	0	0	13	0	120
05:15 PM	10	17	0	66	0	0	2	10	0	105
05:30 PM	15	23	0	43	3	0	3	2	0	89
05:45 PM	4	13	0	33	4	0	1	3	0	58
Total	36	72	0	222	8	0	6	28	0	372
Grand Total	70	183	0	547	15	0	9	56	0	880
Apprch %	27.7	72.3	0	97.3	2.7	0	13.8	86.2	0	
Total %	8	20.8	0	62.2	1.7	0	1	6.4	0	

Start Time	Stony Fort Road From East				Old North Road From South				Stony Fort Road From West				Int. Total
	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. 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	9	25	0	34	90	2	0	92	1	4	0	5	131
04:15 PM	10	26	0	36	54	2	0	56	2	11	0	13	105
04:30 PM	6	28	0	34	91	1	0	92	0	7	0	7	133
04:45 PM	9	32	0	41	90	2	0	92	0	6	0	6	139
Total Volume	34	111	0	145	325	7	0	332	3	28	0	31	508
% App. Total	23.4	76.6	0		97.9	2.1	0		9.7	90.3	0		
PHF	.850	.867	.000	.884	.893	.875	.000	.902	.375	.636	.000	.596	.914

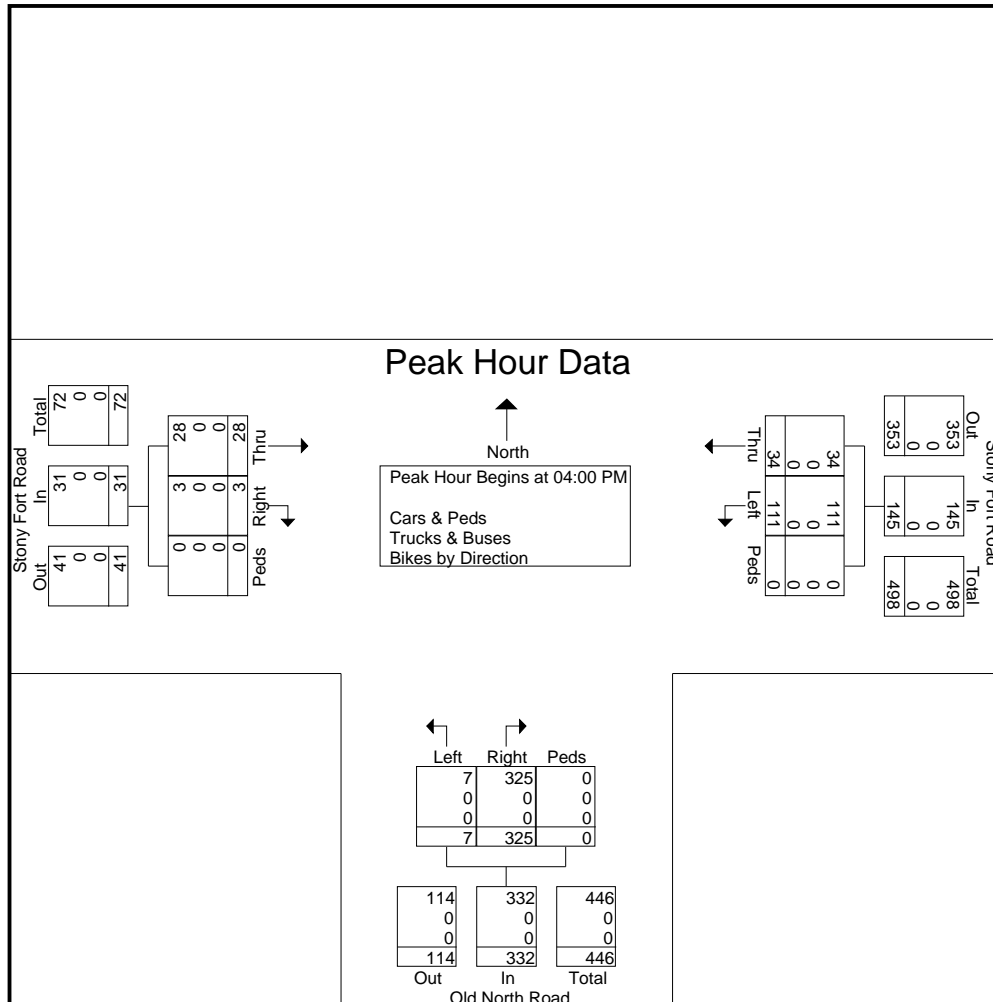
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S: Old North Road
E/W: Stony Fort Road
City, State: Saunderstown, RI
Client: Pare/T. Thompson

File Name : 05554EE
Site Code : 05554
Start Date : 4/26/2022
Page No : 1

Start Time	Stony Fort Road From East				Old North Road From South				Stony Fort Road From West				Int. Total
	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. 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	9	25	0	34	90	2	0	92	1	4	0	5	131
04:15 PM	10	26	0	36	54	2	0	56	2	11	0	13	105
04:30 PM	6	28	0	34	91	1	0	92	0	7	0	7	133
04:45 PM	9	32	0	41	90	2	0	92	0	6	0	6	139
Total Volume	34	111	0	145	325	7	0	332	3	28	0	31	508
% App. Total	23.4	76.6	0		97.9	2.1	0		9.7	90.3	0		
PHF	.850	.867	.000	.884	.893	.875	.000	.902	.375	.636	.000	.596	.914
Cars & Peds	34	111	0	145	325	7	0	332	3	28	0	31	508
% Cars & Peds	100	100	0	100	100	100	0	100	100	100	0	100	100
Trucks & Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
% Trucks & Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
Bikes by Direction	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bikes by Direction	0	0	0	0	0	0	0	0	0	0	0	0	0



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N: Slocum Road
 E/W: Stony Fort Road
 City, State: Saunderstown, RI
 Client: Pare/T. Thompson

File Name : 05554F
 Site Code : 05554
 Start Date : 4/26/2022
 Page No : 1

Groups Printed- Cars & Peds - Trucks & Buses - Bikes by Direction

Start Time	Slocum Road From North			Stony Fort Road From East			Stony Fort Road From West			Int. Total
	Right	Left	Peds	Right	Thru	Peds	Thru	Left	Peds	
07:00 AM	24	6	0	3	6	0	4	4	0	47
07:15 AM	37	10	0	14	17	0	2	13	0	93
07:30 AM	54	19	0	8	22	0	4	14	0	121
07:45 AM	77	12	0	8	20	0	5	18	0	140
Total	192	47	0	33	65	0	15	49	0	401
08:00 AM	80	19	0	5	15	0	4	11	0	134
08:15 AM	88	14	0	11	25	0	6	20	0	164
08:30 AM	97	23	0	10	28	0	32	62	0	252
08:45 AM	85	7	0	6	31	0	8	16	0	153
Total	350	63	0	32	99	0	50	109	0	703
Grand Total	542	110	0	65	164	0	65	158	0	1104
Apprch %	83.1	16.9	0	28.4	71.6	0	29.1	70.9	0	
Total %	49.1	10	0	5.9	14.9	0	5.9	14.3	0	
Cars & Peds	535	108	0	62	162	0	63	153	0	1083
% Cars & Peds	98.7	98.2	0	95.4	98.8	0	96.9	96.8	0	98.1
Trucks & Buses	6	2	0	3	2	0	2	5	0	20
% Trucks & Buses	1.1	1.8	0	4.6	1.2	0	3.1	3.2	0	1.8
Bikes by Direction	1	0	0	0	0	0	0	0	0	1
% Bikes by Direction	0.2	0	0	0	0	0	0	0	0	0.1

Start Time	Slocum Road From North				Stony Fort Road From East				Stony Fort Road From West				Int. Total
	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	
08:00 AM	80	19	0	99	5	15	0	20	4	11	0	15	134
08:15 AM	88	14	0	102	11	25	0	36	6	20	0	26	164
08:30 AM	97	23	0	120	10	28	0	38	32	62	0	94	252
08:45 AM	85	7	0	92	6	31	0	37	8	16	0	24	153
Total Volume	350	63	0	413	32	99	0	131	50	109	0	159	703
% App. Total	84.7	15.3	0		24.4	75.6	0		31.4	68.6	0		
PHF	.902	.685	.000	.860	.727	.798	.000	.862	.391	.440	.000	.423	.697
Cars & Peds	344	62	0	406	29	97	0	126	48	106	0	154	686
% Cars & Peds	98.3	98.4	0	98.3	90.6	98.0	0	96.2	96.0	97.2	0	96.9	97.6
Trucks & Buses	5	1	0	6	3	2	0	5	2	3	0	5	16
% Trucks & Buses	1.4	1.6	0	1.5	9.4	2.0	0	3.8	4.0	2.8	0	3.1	2.3
Bikes by Direction	1	0	0	1	0	0	0	0	0	0	0	0	1
% Bikes by Direction	0.3	0	0	0.2	0	0	0	0	0	0	0	0	0.1

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 08:00 AM

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 E/W: Stony Fort Road
 City, State: Saunderstown, RI
 Client: Pare/T. Thompson

File Name : 05554F
 Site Code : 05554
 Start Date : 4/26/2022
 Page No : 1

Groups Printed- Cars & Peds

Start Time	Slocum Road From North			Stony Fort Road From East			Stony Fort Road From West			Int. Total
	Right	Left	Peds	Right	Thru	Peds	Thru	Left	Peds	
07:00 AM	24	6	0	3	6	0	4	3	0	46
07:15 AM	37	9	0	14	17	0	2	13	0	92
07:30 AM	53	19	0	8	22	0	4	14	0	120
07:45 AM	77	12	0	8	20	0	5	17	0	139
Total	191	46	0	33	65	0	15	47	0	397
08:00 AM	80	18	0	5	14	0	3	11	0	131
08:15 AM	85	14	0	11	25	0	6	20	0	161
08:30 AM	95	23	0	7	27	0	32	61	0	245
08:45 AM	84	7	0	6	31	0	7	14	0	149
Total	344	62	0	29	97	0	48	106	0	686
Grand Total	535	108	0	62	162	0	63	153	0	1083
Apprch %	83.2	16.8	0	27.7	72.3	0	29.2	70.8	0	
Total %	49.4	10	0	5.7	15	0	5.8	14.1	0	

Start Time	Slocum Road From North				Stony Fort Road From East				Stony Fort Road From West				Int. Total
	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 08:00 AM													
08:00 AM	80	18	0	98	5	14	0	19	3	11	0	14	131
08:15 AM	85	14	0	99	11	25	0	36	6	20	0	26	161
08:30 AM	95	23	0	118	7	27	0	34	32	61	0	93	245
08:45 AM	84	7	0	91	6	31	0	37	7	14	0	21	149
Total Volume	344	62	0	406	29	97	0	126	48	106	0	154	686
% App. Total	84.7	15.3	0		23	77	0		31.2	68.8	0		
PHF	.905	.674	.000	.860	.659	.782	.000	.851	.375	.434	.000	.414	.700

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N: Slocum Road
 E/W: Stony Fort Road
 City, State: Saunderstown, RI
 Client: Pare/T. Thompson

File Name : 05554F
 Site Code : 05554
 Start Date : 4/26/2022
 Page No : 1

Groups Printed- Trucks & Buses

Start Time	Slocum Road From North			Stony Fort Road From East			Stony Fort Road From West			Int. Total
	Right	Left	Peds	Right	Thru	Peds	Thru	Left	Peds	
07:00 AM	0	0	0	0	0	0	0	1	0	1
07:15 AM	0	1	0	0	0	0	0	0	0	1
07:30 AM	1	0	0	0	0	0	0	0	0	1
07:45 AM	0	0	0	0	0	0	0	1	0	1
Total	1	1	0	0	0	0	0	2	0	4
08:00 AM	0	1	0	0	1	0	1	0	0	3
08:15 AM	3	0	0	0	0	0	0	0	0	3
08:30 AM	2	0	0	3	1	0	0	1	0	7
08:45 AM	0	0	0	0	0	0	1	2	0	3
Total	5	1	0	3	2	0	2	3	0	16
Grand Total	6	2	0	3	2	0	2	5	0	20
Apprch %	75	25	0	60	40	0	28.6	71.4	0	
Total %	30	10	0	15	10	0	10	25	0	

Start Time	Slocum Road From North				Stony Fort Road From East				Stony Fort Road From West				Int. Total
	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 08:00 AM													
08:00 AM	0	1	0	1	0	1	0	1	1	0	0	1	3
08:15 AM	3	0	0	3	0	0	0	0	0	0	0	0	3
08:30 AM	2	0	0	2	3	1	0	4	0	1	0	1	7
08:45 AM	0	0	0	0	0	0	0	0	1	2	0	3	3
Total Volume	5	1	0	6	3	2	0	5	2	3	0	5	16
% App. Total	83.3	16.7	0		60	40	0		40	60	0		
PHF	.417	.250	.000	.500	.250	.500	.000	.313	.500	.375	.000	.417	.571

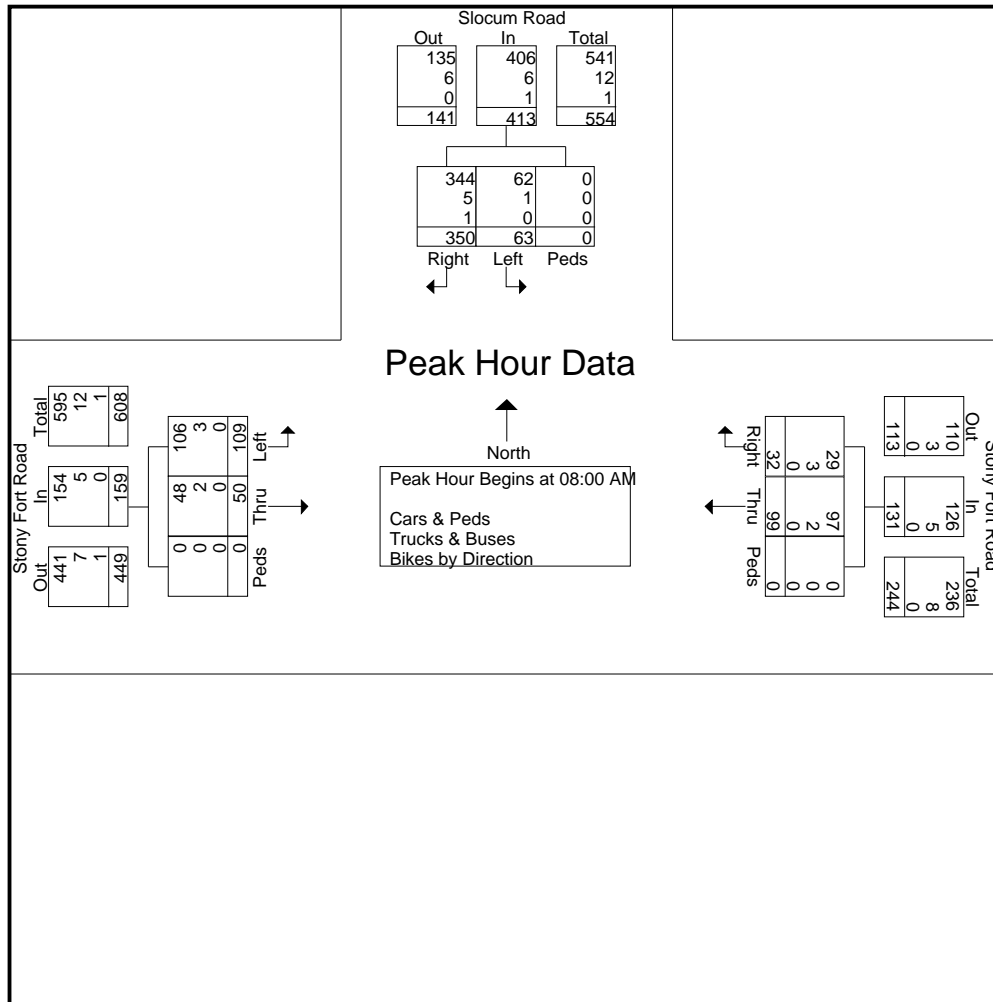
Transportation Data Corporation

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N: Slocum Road
E/W: Stony Fort Road
City, State: Saunderstown, RI
Client: Pare/T. Thompson

File Name : 05554F
Site Code : 05554
Start Date : 4/26/2022
Page No : 1

Start Time	Slocum Road From North				Stony Fort Road From East				Stony Fort Road From West				Int. Total
	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 08:00 AM													
08:00 AM	80	19	0	99	5	15	0	20	4	11	0	15	134
08:15 AM	88	14	0	102	11	25	0	36	6	20	0	26	164
08:30 AM	97	23	0	120	10	28	0	38	32	62	0	94	252
08:45 AM	85	7	0	92	6	31	0	37	8	16	0	24	153
Total Volume	350	63	0	413	32	99	0	131	50	109	0	159	703
% App. Total	84.7	15.3	0		24.4	75.6	0		31.4	68.6	0		
PHF	.902	.685	.000	.860	.727	.798	.000	.862	.391	.440	.000	.423	.697
Cars & Peds	344	62	0	406	29	97	0	126	48	106	0	154	686
% Cars & Peds	98.3	98.4	0	98.3	90.6	98.0	0	96.2	96.0	97.2	0	96.9	97.6
Trucks & Buses	5	1	0	6	3	2	0	5	2	3	0	5	16
% Trucks & Buses	1.4	1.6	0	1.5	9.4	2.0	0	3.8	4.0	2.8	0	3.1	2.3
Bikes by Direction	1	0	0	1	0	0	0	0	0	0	0	0	1
% Bikes by Direction	0.3	0	0	0.2	0	0	0	0	0	0	0	0	0.1



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N: Slocum Road
 E/W: Stony Fort Road
 City, State: Saunderstown, RI
 Client: Pare/T. Thompson

File Name : 05554FF
 Site Code : 05554
 Start Date : 4/26/2022
 Page No : 1

Groups Printed- Cars & Peds - Trucks & Buses - Bikes by Direction

Start Time	Slocum Road From North			Stony Fort Road From East			Stony Fort Road From West			Int. Total
	Right	Left	Peds	Right	Thru	Peds	Thru	Left	Peds	
04:00 PM	25	10	0	15	5	0	23	68	0	146
04:15 PM	35	11	0	17	5	0	21	46	0	135
04:30 PM	31	17	0	18	4	0	25	80	0	175
04:45 PM	34	20	0	16	7	0	31	68	0	176
Total	125	58	0	66	21	0	100	262	0	632
05:00 PM	25	12	0	14	5	0	42	66	0	164
05:15 PM	23	10	0	15	7	0	19	50	0	124
05:30 PM	32	7	0	10	3	0	11	41	0	104
05:45 PM	14	3	0	11	3	0	5	37	0	73
Total	94	32	0	50	18	0	77	194	0	465
Grand Total	219	90	0	116	39	0	177	456	0	1097
Apprch %	70.9	29.1	0	74.8	25.2	0	28	72	0	
Total %	20	8.2	0	10.6	3.6	0	16.1	41.6	0	
Cars & Peds	219	90	0	114	38	0	177	456	0	1094
% Cars & Peds	100	100	0	98.3	97.4	0	100	100	0	99.7
Trucks & Buses	0	0	0	2	1	0	0	0	0	3
% Trucks & Buses	0	0	0	1.7	2.6	0	0	0	0	0.3
Bikes by Direction	0	0	0	0	0	0	0	0	0	0
% Bikes by Direction	0	0	0	0	0	0	0	0	0	0

Start Time	Slocum Road From North				Stony Fort Road From East				Stony Fort Road From West				Int. Total
	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	
04:15 PM	35	11	0	46	17	5	0	22	21	46	0	67	135
04:30 PM	31	17	0	48	18	4	0	22	25	80	0	105	175
04:45 PM	34	20	0	54	16	7	0	23	31	68	0	99	176
05:00 PM	25	12	0	37	14	5	0	19	42	66	0	108	164
Total Volume	125	60	0	185	65	21	0	86	119	260	0	379	650
% App. Total	67.6	32.4	0		75.6	24.4	0		31.4	68.6	0		
PHF	.893	.750	.000	.856	.903	.750	.000	.935	.708	.813	.000	.877	.923
Cars & Peds	125	60	0	185	64	20	0	84	119	260	0	379	648
% Cars & Peds	100	100	0	100	98.5	95.2	0	97.7	100	100	0	100	99.7
Trucks & Buses	0	0	0	0	1	1	0	2	0	0	0	0	2
% Trucks & Buses	0	0	0	0	1.5	4.8	0	2.3	0	0	0	0	0.3
Bikes by Direction	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bikes by Direction	0	0	0	0	0	0	0	0	0	0	0	0	0

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 04:15 PM

Transportation Data Corporation

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N: Slocum Road
E/W: Stony Fort Road
City, State: Saunderstown, RI
Client: Pare/T. Thompson

File Name : 05554FF
Site Code : 05554
Start Date : 4/26/2022
Page No : 1

Groups Printed- Cars & Peds

Start Time	Slocum Road From North			Stony Fort Road From East			Stony Fort Road From West			Int. Total
	Right	Left	Peds	Right	Thru	Peds	Thru	Left	Peds	
04:00 PM	25	10	0	14	5	0	23	68	0	145
04:15 PM	35	11	0	16	5	0	21	46	0	134
04:30 PM	31	17	0	18	4	0	25	80	0	175
04:45 PM	34	20	0	16	7	0	31	68	0	176
Total	125	58	0	64	21	0	100	262	0	630
05:00 PM	25	12	0	14	4	0	42	66	0	163
05:15 PM	23	10	0	15	7	0	19	50	0	124
05:30 PM	32	7	0	10	3	0	11	41	0	104
05:45 PM	14	3	0	11	3	0	5	37	0	73
Total	94	32	0	50	17	0	77	194	0	464
Grand Total	219	90	0	114	38	0	177	456	0	1094
Apprch %	70.9	29.1	0	75	25	0	28	72	0	
Total %	20	8.2	0	10.4	3.5	0	16.2	41.7	0	

Start Time	Slocum Road From North				Stony Fort Road From East				Stony Fort Road From West				Int. Total
	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 04:15 PM													
04:15 PM	35	11	0	46	16	5	0	21	21	46	0	67	134
04:30 PM	31	17	0	48	18	4	0	22	25	80	0	105	175
04:45 PM	34	20	0	54	16	7	0	23	31	68	0	99	176
05:00 PM	25	12	0	37	14	4	0	18	42	66	0	108	163
Total Volume	125	60	0	185	64	20	0	84	119	260	0	379	648
% App. Total	67.6	32.4	0		76.2	23.8	0		31.4	68.6	0		
PHF	.893	.750	.000	.856	.889	.714	.000	.913	.708	.813	.000	.877	.920

Transportation Data Corporation

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N: Slocum Road
E/W: Stony Fort Road
City, State: Saunderstown, RI
Client: Pare/T. Thompson

File Name : 05554FF
Site Code : 05554
Start Date : 4/26/2022
Page No : 1

Groups Printed- Trucks & Buses

Start Time	Slocum Road From North			Stony Fort Road From East			Stony Fort Road From West			Int. Total
	Right	Left	Peds	Right	Thru	Peds	Thru	Left	Peds	
04:00 PM	0	0	0	1	0	0	0	0	0	1
04:15 PM	0	0	0	1	0	0	0	0	0	1
04:30 PM	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	2	0	0	0	0	0	2
05:00 PM	0	0	0	0	1	0	0	0	0	1
05:15 PM	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	1	0	0	0	0	1
Grand Total	0	0	0	2	1	0	0	0	0	3
Aprch %	0	0	0	66.7	33.3	0	0	0	0	
Total %	0	0	0	66.7	33.3	0	0	0	0	

Start Time	Slocum Road From North				Stony Fort Road From East				Stony Fort Road From West				Int. Total
	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. 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	0	0	0	0	1	0	0	1	0	0	0	0	1
04:15 PM	0	0	0	0	1	0	0	1	0	0	0	0	1
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	2	0	0	2	0	0	0	0	2
% App. Total	0	0	0		100	0	0		0	0	0		
PHF	.000	.000	.000	.000	.500	.000	.000	.500	.000	.000	.000	.000	.500

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N: Slocum Road
 E/W: Stony Fort Road
 City, State: Saunderstown, RI
 Client: Pare/T. Thompson

File Name : 05554FF
 Site Code : 05554
 Start Date : 4/26/2022
 Page No : 1

Groups Printed- Bikes by Direction

Start Time	Slocum Road From North			Stony Fort Road From East			Stony Fort Road From West			Int. Total
	Right	Left	Peds	Right	Thru	Peds	Thru	Left	Peds	
04:00 PM	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0
Aprch %	0	0	0	0	0	0	0	0	0	0
Total %										

Start Time	Slocum Road From North				Stony Fort Road From East				Stony Fort Road From West				Int. Total
	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

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

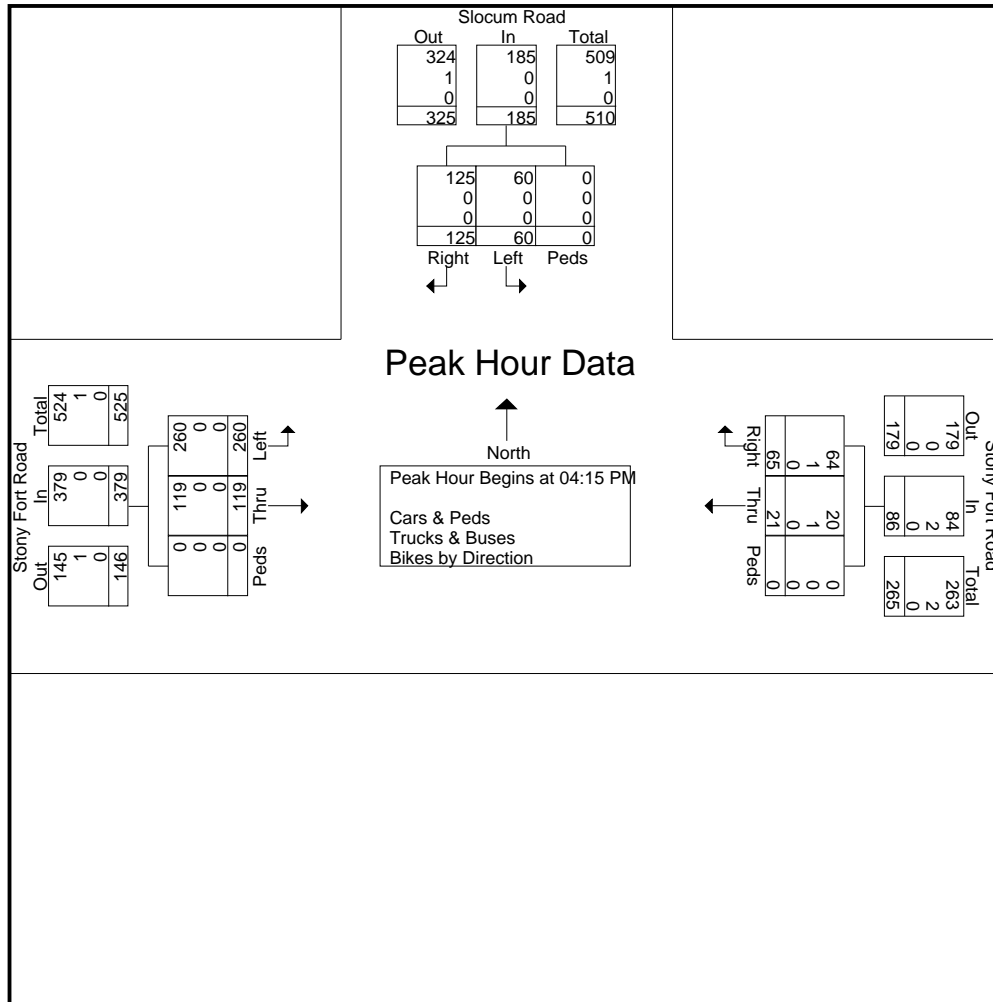
Transportation Data Corporation

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N: Slocum Road
E/W: Stony Fort Road
City, State: Saunderstown, RI
Client: Pare/T. Thompson

File Name : 05554FF
Site Code : 05554
Start Date : 4/26/2022
Page No : 1

Start Time	Slocum Road From North				Stony Fort Road From East				Stony Fort Road From West				Int. Total
	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 04:15 PM													
04:15 PM	35	11	0	46	17	5	0	22	21	46	0	67	135
04:30 PM	31	17	0	48	18	4	0	22	25	80	0	105	175
04:45 PM	34	20	0	54	16	7	0	23	31	68	0	99	176
05:00 PM	25	12	0	37	14	5	0	19	42	66	0	108	164
Total Volume	125	60	0	185	65	21	0	86	119	260	0	379	650
% App. Total	67.6	32.4	0		75.6	24.4	0		31.4	68.6	0		
PHF	.893	.750	.000	.856	.903	.750	.000	.935	.708	.813	.000	.877	.923
Cars & Peds	125	60	0	185	64	20	0	84	119	260	0	379	648
% Cars & Peds	100	100	0	100	98.5	95.2	0	97.7	100	100	0	100	99.7
Trucks & Buses	0	0	0	0	1	1	0	2	0	0	0	0	2
% Trucks & Buses	0	0	0	0	1.5	4.8	0	2.3	0	0	0	0	0.3
Bikes by Direction	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bikes by Direction	0	0	0	0	0	0	0	0	0	0	0	0	0



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N/S: Stony Fort/Broad Rock
 E/W: Moorsefield Road (Route 138)
 City, State: Saunderstown, RI
 Client: Pare/T. Thompson

File Name : 05554G
 Site Code : 05554
 Start Date : 4/26/2022
 Page No : 1

Groups Printed- Cars & Peds - Trucks & Buses - Bikes by Direction

Start Time	Stony Fort Road From North				Mooresfield Road (Route 138) From East				Broad Rock Road From South				Mooresfield Road (Route 138) From West				Int. Total
	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	
07:00 AM	1	4	5	0	12	69	2	0	14	2	1	0	1	118	4	0	233
07:15 AM	0	2	9	0	16	93	5	0	21	5	4	0	3	132	3	0	293
07:30 AM	5	6	14	0	25	115	2	0	32	5	0	0	2	144	3	0	353
07:45 AM	2	6	11	0	20	117	6	0	21	2	1	0	3	113	3	0	305
Total	8	18	39	0	73	394	15	0	88	14	6	0	9	507	13	0	1184
08:00 AM	6	10	11	0	11	111	5	0	20	6	0	0	4	117	2	0	303
08:15 AM	6	10	12	0	21	121	6	0	15	10	2	0	3	136	4	0	346
08:30 AM	12	14	27	0	25	136	2	0	17	8	0	0	2	118	3	0	364
08:45 AM	1	5	10	0	39	153	4	0	12	2	2	0	2	122	4	0	356
Total	25	39	60	0	96	521	17	0	64	26	4	0	11	493	13	0	1369
Grand Total	33	57	99	0	169	915	32	0	152	40	10	0	20	1000	26	0	2553
Apprch %	17.5	30.2	52.4	0	15.1	82	2.9	0	75.2	19.8	5	0	1.9	95.6	2.5	0	
Total %	1.3	2.2	3.9	0	6.6	35.8	1.3	0	6	1.6	0.4	0	0.8	39.2	1	0	
Cars & Peds	32	56	96	0	168	893	31	0	150	39	8	0	16	970	24	0	2483
% Cars & Peds	97	98.2	97	0	99.4	97.6	96.9	0	98.7	97.5	80	0	80	97	92.3	0	97.3
Trucks & Buses																	
% Trucks & Buses	3	1.8	3	0	0.6	2.4	3.1	0	1.3	2.5	20	0	15	3	7.7	0	2.7
Bikes by Direction	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
% Bikes by Direction	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0

Start Time	Stony Fort Road From North					Mooresfield Road (Route 138) From East					Broad Rock Road From South					Mooresfield Road (Route 138) From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	6	10	11	0	27	11	111	5	0	127	20	6	0	0	26	4	117	2	0	123	303
08:15 AM	6	10	12	0	28	21	121	6	0	148	15	10	2	0	27	3	136	4	0	143	346
08:30 AM	12	14	27	0	53	25	136	2	0	163	17	8	0	0	25	2	118	3	0	123	364
08:45 AM	1	5	10	0	16	39	153	4	0	196	12	2	2	0	16	2	122	4	0	128	356
Total Volume	25	39	60	0	124	96	521	17	0	634	64	26	4	0	94	11	493	13	0	517	1369
% App. Total	20.2	31.5	48.4	0		15.1	82.2	2.7	0		68.1	27.7	4.3	0		2.1	95.4	2.5	0		
PHF	.521	.696	.556	.000	.585	.615	.851	.708	.000	.809	.800	.650	.500	.000	.870	.688	.906	.813	.000	.904	.940
Cars & Peds	24	38	58	0	120	95	511	16	0	622	63	25	2	0	90	8	480	11	0	499	1331
% Cars & Peds	96.0	97.4	96.7	0	96.8	99.0	98.1	94.1	0	98.1	98.4	96.2	50.0	0	95.7	72.7	97.4	84.6	0	96.5	97.2
Trucks & Buses	1	1	2	0	4	1	10	1	0	12	1	1	2	0	4	2	13	2	0	17	37
% Trucks & Buses	4.0	2.6	3.3	0	3.2	1.0	1.9	5.9	0	1.9	1.6	3.8	50.0	0	4.3	18.2	2.6	15.4	0	3.3	2.7
Bikes by Direction	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
% Bikes by Direction	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9.1	0	0	0	0.2	0.1

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N/S: Stony Fort/Broad Rock
 E/W: Moorsefield Road (Route 138)
 City, State: Saunderstown, RI
 Client: Pare/T. Thompson

File Name : 05554G
 Site Code : 05554
 Start Date : 4/26/2022
 Page No : 1

Groups Printed- Cars & Peds

Start Time	Stony Fort Road From North				Mooresfield Road (Route 138) From East				Broad Rock Road From South				Mooresfield Road (Route 138) From West				Int. Total
	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	
07:00 AM	1	4	5	0	12	67	2	0	14	2	1	0	1	114	4	0	227
07:15 AM	0	2	8	0	16	91	5	0	21	5	4	0	3	130	3	0	288
07:30 AM	5	6	14	0	25	111	2	0	31	5	0	0	2	134	3	0	338
07:45 AM	2	6	11	0	20	113	6	0	21	2	1	0	2	112	3	0	299
Total	8	18	38	0	73	382	15	0	87	14	6	0	8	490	13	0	1152
08:00 AM	5	9	11	0	11	111	5	0	20	6	0	0	3	113	1	0	295
08:15 AM	6	10	11	0	21	117	5	0	14	9	0	0	1	133	4	0	331
08:30 AM	12	14	27	0	24	132	2	0	17	8	0	0	2	115	2	0	355
08:45 AM	1	5	9	0	39	151	4	0	12	2	2	0	2	119	4	0	350
Total	24	38	58	0	95	511	16	0	63	25	2	0	8	480	11	0	1331
Grand Total	32	56	96	0	168	893	31	0	150	39	8	0	16	970	24	0	2483
Apprch %	17.4	30.4	52.2	0	15.4	81.8	2.8	0	76.1	19.8	4.1	0	1.6	96	2.4	0	
Total %	1.3	2.3	3.9	0	6.8	36	1.2	0	6	1.6	0.3	0	0.6	39.1	1	0	

Start Time	Stony Fort Road From North				Mooresfield Road (Route 138) From East				Broad Rock Road From South				Mooresfield Road (Route 138) From West				Int. Total				
	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds					
08:00 AM	5	9	11	0	25	11	111	5	0	127	20	6	0	0	26	3	113	1	0	117	295
08:15 AM	6	10	11	0	27	21	117	5	0	143	14	9	0	0	23	1	133	4	0	138	331
08:30 AM	12	14	27	0	53	24	132	2	0	158	17	8	0	0	25	2	115	2	0	119	355
08:45 AM	1	5	9	0	15	39	151	4	0	194	12	2	2	0	16	2	119	4	0	125	350
Total Volume	24	38	58	0	120	95	511	16	0	622	63	25	2	0	90	8	480	11	0	499	1331
% App. Total	20	31.7	48.3	0		15.3	82.2	2.6	0		70	27.8	2.2	0		1.6	96.2	2.2	0		
PHF	.500	.679	.537	.000	.566	.609	.846	.800	.000	.802	.788	.694	.250	.000	.865	.667	.902	.688	.000	.904	.937

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 08:00 AM

Transportation Data Corporation
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N/S: Stony Fort/Broad Rock
 E/W: Moorsefield Road (Route 138)
 City, State: Saunderstown, RI
 Client: Pare/T. Thompson

File Name : 05554G
 Site Code : 05554
 Start Date : 4/26/2022
 Page No : 1

Groups Printed- Trucks & Buses

Start Time	Stony Fort Road From North				Mooresfield Road (Route 138) From East				Broad Rock Road From South				Mooresfield Road (Route 138) From West				Int. Total
	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	
07:00 AM	0	0	0	0	0	2	0	0	0	0	0	0	0	4	0	0	6
07:15 AM	0	0	1	0	0	2	0	0	0	0	0	0	0	2	0	0	5
07:30 AM	0	0	0	0	0	4	0	0	1	0	0	0	0	10	0	0	15
07:45 AM	0	0	0	0	0	4	0	0	0	0	0	0	1	1	0	0	6
Total	0	0	1	0	0	12	0	0	1	0	0	0	1	17	0	0	32
08:00 AM	1	1	0	0	0	0	0	0	0	0	0	0	1	4	1	0	8
08:15 AM	0	0	1	0	0	4	1	0	1	1	2	0	1	3	0	0	14
08:30 AM	0	0	0	0	1	4	0	0	0	0	0	0	0	3	1	0	9
08:45 AM	0	0	1	0	0	2	0	0	0	0	0	0	0	3	0	0	6
Total	1	1	2	0	1	10	1	0	1	1	2	0	2	13	2	0	37
Grand Total	1	1	3	0	1	22	1	0	2	1	2	0	3	30	2	0	69
Apprch %	20	20	60	0	4.2	91.7	4.2	0	40	20	40	0	8.6	85.7	5.7	0	
Total %	1.4	1.4	4.3	0	1.4	31.9	1.4	0	2.9	1.4	2.9	0	4.3	43.5	2.9	0	

Start Time	Stony Fort Road From North				Mooresfield Road (Route 138) From East				Broad Rock Road From South				Mooresfield Road (Route 138) From West				Int. Total
	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	
07:30 AM	0	0	0	0	0	4	0	0	1	0	0	0	0	10	0	0	15
07:45 AM	0	0	0	0	0	4	0	0	0	0	0	0	1	1	0	0	6
08:00 AM	1	1	0	0	0	0	0	0	0	0	0	0	1	4	1	0	8
08:15 AM	0	0	1	0	0	4	1	0	1	1	2	0	1	3	0	0	14
Total Volume	1	1	1	0	0	12	1	0	2	1	2	0	3	18	1	0	43
% App. Total	33.3	33.3	33.3	0	0	92.3	7.7	0	40	20	40	0	13.6	81.8	4.5	0	
PHF	.250	.250	.250	.000	.000	.750	.250	.000	.500	.250	.250	.000	.750	.450	.250	.000	.717

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 07:30 AM

Transportation Data Corporation
 Mario Perone, mperone1@verizon.net
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N/S: Stony Fort/Broad Rock
 E/W: Moorsefield Road (Route 138)
 City, State: Saunderstown, RI
 Client: Pare/T. Thompson

File Name : 05554G
 Site Code : 05554
 Start Date : 4/26/2022
 Page No : 1

Groups Printed- Bikes by Direction

Start Time	Stony Fort Road From North				Mooresfield Road (Route 138) From East				Broad Rock Road From South				Mooresfield Road (Route 138) From West				Int. Total
	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
Apprch %	0	0	0	0	0	0	0	0	0	0	0	0	100	0	0	0	
Total %	0	0	0	0	0	0	0	0	0	0	0	0	100	0	0	0	

Start Time	Stony Fort Road From North				Mooresfield Road (Route 138) From East				Broad Rock Road From South				Mooresfield Road (Route 138) From West				Int. Total
	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
% App. Total	0	0	0	0	0	0	0	0	0	0	0	0	100	0	0	0	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.000	.000	.000	.250

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 07:30 AM

Transportation Data Corporation

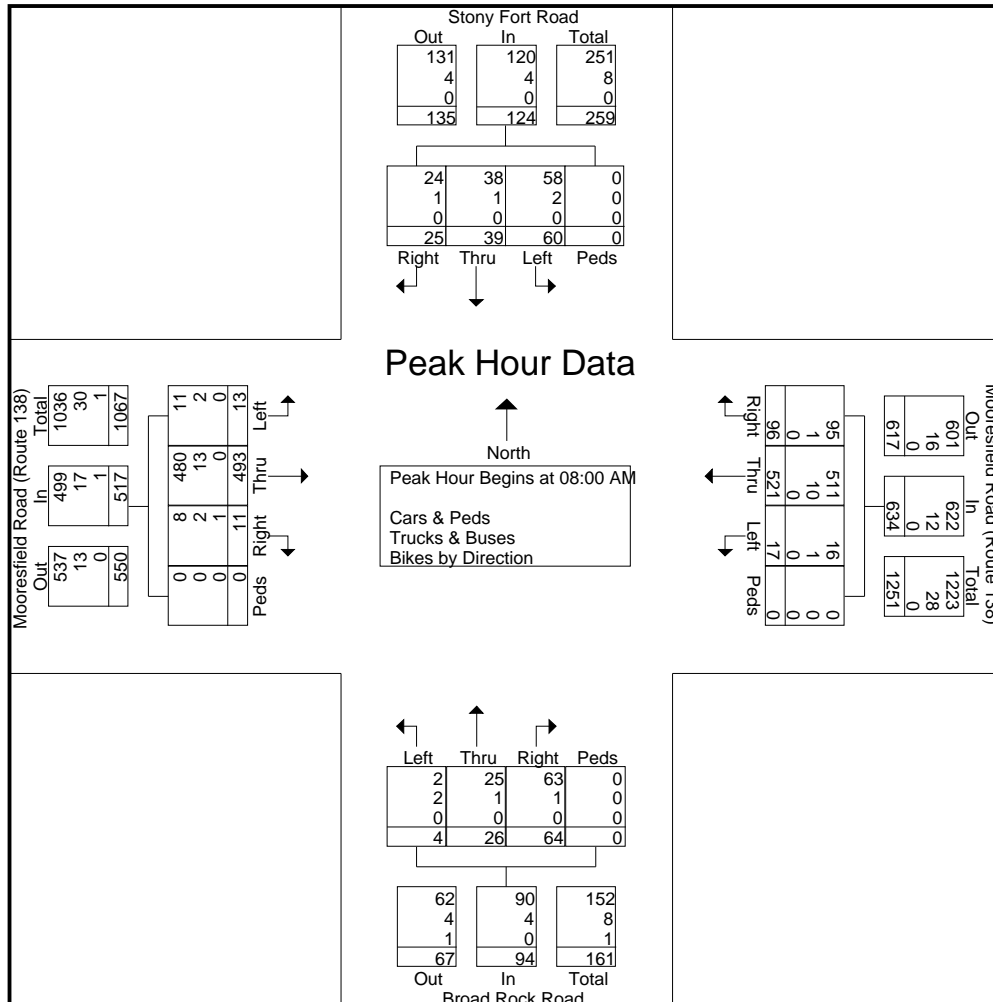
Mario Perone, mperone1@verizon.net

tel (781) 587-0086 cell (781) 439-4999

N/S: Stony Fort/Broad Rock
 E/W: Moorsefield Road (Route 138)
 City, State: Saunderstown, RI
 Client: Pare/T. Thompson

File Name : 05554G
 Site Code : 05554
 Start Date : 4/26/2022
 Page No : 1

Start Time	Stony Fort Road From North					Moorsefield Road (Route 138) From East					Broad Rock Road From South					Moorsefield Road (Route 138) From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	6	10	11	0	27	11	111	5	0	127	20	6	0	0	26	4	117	2	0	123	303
08:15 AM	6	10	12	0	28	21	121	6	0	148	15	10	2	0	27	3	136	4	0	143	346
08:30 AM	12	14	27	0	53	25	136	2	0	163	17	8	0	0	25	2	118	3	0	123	364
08:45 AM	1	5	10	0	16	39	153	4	0	196	12	2	2	0	16	2	122	4	0	128	356
Total Volume	25	39	60	0	124	96	521	17	0	634	64	26	4	0	94	11	493	13	0	517	1369
% App. Total	20.2	31.5	48.4	0		15.1	82.2	2.7	0		68.1	27.7	4.3	0		2.1	95.4	2.5	0		
PHF	.521	.696	.556	.000	.585	.615	.851	.708	.000	.809	.800	.650	.500	.000	.870	.688	.906	.813	.000	.904	.940
Cars & Peds	24	38	58	0	120	95	511	16	0	622	63	25	2	0	90	8	480	11	0	499	1331
% Cars & Peds	96.0	97.4	96.7	0	96.8	99.0	98.1	94.1	0	98.1	98.4	96.2	50.0	0	95.7	72.7	97.4	84.6	0	96.5	97.2
Trucks & Buses	1	1	2	0	4	1	10	1	0	12	1	1	2	0	4	2	13	2	0	17	37
% Trucks & Buses	4.0	2.6	3.3	0	3.2	1.0	1.9	5.9	0	1.9	1.6	3.8	50.0	0	4.3	18.2	2.6	15.4	0	3.3	2.7
Bikes by Direction	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
% Bikes by Direction	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9.1	0	0	0	0.2	0.1



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N/S: Stony Fort/Broad Rock
 E/W: Mooresfield Road (Route 138)
 City, State: Saunderstown, RI
 Client: Pare/T. Thompson

File Name : 05554GG
 Site Code : 05554
 Start Date : 4/26/2022
 Page No : 1

Groups Printed- Cars & Peds - Trucks & Buses - Bikes by Direction

Start Time	Stony Fort Road From North				Mooresfield Road (Route 138) From East				Broad Rock Road From South				Mooresfield Road (Route 138) From West				Int. Total
	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	
04:00 PM	2	9	19	0	7	104	12	0	6	4	2	0	0	138	2	0	305
04:15 PM	4	7	25	0	13	113	11	0	11	9	0	0	2	129	3	0	327
04:30 PM	2	11	24	0	16	128	15	0	11	10	1	0	2	112	1	0	333
04:45 PM	8	18	22	0	13	120	7	0	14	8	2	0	4	112	7	0	335
Total	16	45	90	0	49	465	45	0	42	31	5	0	8	491	13	0	1300
05:00 PM	2	6	41	0	10	113	10	0	16	3	2	0	1	143	6	0	353
05:15 PM	7	7	25	0	11	117	18	0	20	10	1	0	7	140	4	0	367
05:30 PM	4	7	10	0	13	124	11	0	6	2	2	0	4	112	4	0	299
05:45 PM	2	3	7	0	9	93	7	0	3	5	2	0	1	89	1	0	222
Total	15	23	83	0	43	447	46	0	45	20	7	0	13	484	15	0	1241
Grand Total	31	68	173	0	92	912	91	0	87	51	12	0	21	975	28	0	2541
Apprch %	11.4	25	63.6	0	8.4	83.3	8.3	0	58	34	8	0	2.1	95.2	2.7	0	
Total %	1.2	2.7	6.8	0	3.6	35.9	3.6	0	3.4	2	0.5	0	0.8	38.4	1.1	0	
Cars & Peds	31	68	173	0	90	900	91	0	87	51	11	0	21	963	28	0	2514
% Cars & Peds	100	100	100	0	97.8	98.7	100	0	100	100	91.7	0	100	98.8	100	0	98.9
Trucks & Buses																	
% Trucks & Buses	0	0	0	0	2.2	1.3	0	0	0	0	8.3	0	0	1.2	0	0	1.1
Bikes by Direction	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bikes by Direction	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Start Time	Stony Fort Road From North					Mooresfield Road (Route 138) From East					Broad Rock Road From South					Mooresfield Road (Route 138) From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. 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	2	11	24	0	37	16	128	15	0	159	11	10	1	0	22	2	112	1	0	115	333
04:45 PM	8	18	22	0	48	13	120	7	0	140	14	8	2	0	24	4	112	7	0	123	335
05:00 PM	2	6	41	0	49	10	113	10	0	133	16	3	2	0	21	1	143	6	0	150	353
05:15 PM	7	7	25	0	39	11	117	18	0	146	20	10	1	0	31	7	140	4	0	151	367
Total Volume	19	42	112	0	173	50	478	50	0	578	61	31	6	0	98	14	507	18	0	539	1388
% App. Total	11	24.3	64.7	0		8.7	82.7	8.7	0		62.2	31.6	6.1	0		2.6	94.1	3.3	0		
PHF	.594	.583	.683	.000	.883	.781	.934	.694	.000	.909	.763	.775	.750	.000	.790	.500	.886	.643	.000	.892	.946
Cars & Peds	19	42	112	0	173	49	473	50	0	572	61	31	6	0	98	14	501	18	0	533	1376
% Cars & Peds	100	100	100	0	100	98.0	99.0	100	0	99.0	100	100	100	0	100	100	98.8	100	0	98.9	99.1
Trucks & Buses	0	0	0	0	0	1	5	0	0	6	0	0	0	0	0	0	6	0	0	6	12
% Trucks & Buses	0	0	0	0	0	2.0	1.0	0	0	1.0	0	0	0	0	0	0	1.2	0	0	1.1	0.9
Bikes by Direction	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bikes by Direction	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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N/S: Stony Fort/Broad Rock
 E/W: Mooresfield Road (Route 138)
 City, State: Saunderstown, RI
 Client: Pare/T. Thompson

File Name : 05554GG
 Site Code : 05554
 Start Date : 4/26/2022
 Page No : 1

Groups Printed- Cars & Peds

Start Time	Stony Fort Road From North				Mooresfield Road (Route 138) From East				Broad Rock Road From South				Mooresfield Road (Route 138) From West				Int. Total
	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	
04:00 PM	2	9	19	0	7	101	12	0	6	4	1	0	0	135	2	0	298
04:15 PM	4	7	25	0	12	110	11	0	11	9	0	0	2	128	3	0	322
04:30 PM	2	11	24	0	16	127	15	0	11	10	1	0	2	111	1	0	331
04:45 PM	8	18	22	0	13	119	7	0	14	8	2	0	4	110	7	0	332
Total	16	45	90	0	48	457	45	0	42	31	4	0	8	484	13	0	1283
05:00 PM	2	6	41	0	9	111	10	0	16	3	2	0	1	142	6	0	349
05:15 PM	7	7	25	0	11	116	18	0	20	10	1	0	7	138	4	0	364
05:30 PM	4	7	10	0	13	124	11	0	6	2	2	0	4	110	4	0	297
05:45 PM	2	3	7	0	9	92	7	0	3	5	2	0	1	89	1	0	221
Total	15	23	83	0	42	443	46	0	45	20	7	0	13	479	15	0	1231
Grand Total	31	68	173	0	90	900	91	0	87	51	11	0	21	963	28	0	2514
Apprch %	11.4	25	63.6	0	8.3	83.3	8.4	0	58.4	34.2	7.4	0	2.1	95.2	2.8	0	
Total %	1.2	2.7	6.9	0	3.6	35.8	3.6	0	3.5	2	0.4	0	0.8	38.3	1.1	0	

Start Time	Stony Fort Road From North				Mooresfield Road (Route 138) From East				Broad Rock Road From South				Mooresfield Road (Route 138) From West				Int. Total
	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	
04:30 PM	2	11	24	0	16	127	15	0	11	10	1	0	2	111	1	0	331
04:45 PM	8	18	22	0	13	119	7	0	14	8	2	0	4	110	7	0	332
05:00 PM	2	6	41	0	9	111	10	0	16	3	2	0	1	142	6	0	349
05:15 PM	7	7	25	0	11	116	18	0	20	10	1	0	7	138	4	0	364
Total Volume	19	42	112	0	49	473	50	0	61	31	6	0	14	501	18	0	1376
% App. Total	11	24.3	64.7	0	8.6	82.7	8.7	0	62.2	31.6	6.1	0	2.6	94	3.4	0	
PHF	.594	.583	.683	.000	.766	.931	.694	.000	.763	.775	.750	.000	.500	.882	.643	.000	.945

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

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N/S: Stony Fort/Broad Rock
 E/W: Moorsefield Road (Route 138)
 City, State: Saunderstown, RI
 Client: Pare/T. Thompson

File Name : 05554GG
 Site Code : 05554
 Start Date : 4/26/2022
 Page No : 1

Groups Printed- Trucks & Buses

Start Time	Stony Fort Road From North				Mooresfield Road (Route 138) From East				Broad Rock Road From South				Mooresfield Road (Route 138) From West				Int. Total
	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	
04:00 PM	0	0	0	0	0	3	0	0	0	0	1	0	0	3	0	0	7
04:15 PM	0	0	0	0	1	3	0	0	0	0	0	0	0	1	0	0	5
04:30 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	2
04:45 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	2	0	0	3
Total	0	0	0	0	1	8	0	0	0	0	1	0	0	7	0	0	17
05:00 PM	0	0	0	0	1	2	0	0	0	0	0	0	0	1	0	0	4
05:15 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	2	0	0	3
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2
05:45 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Total	0	0	0	0	1	4	0	0	0	0	0	0	0	5	0	0	10
Grand Total	0	0	0	0	2	12	0	0	0	0	1	0	0	12	0	0	27
Apprch %	0	0	0	0	14.3	85.7	0	0	0	0	100	0	0	100	0	0	
Total %	0	0	0	0	7.4	44.4	0	0	0	0	3.7	0	0	44.4	0	0	

Start Time	Stony Fort Road From North					Mooresfield Road (Route 138) From East					Broad Rock Road From South					Mooresfield Road (Route 138) From West					Int. Total
	Right			Peds	App. Total	Right			Peds	App. Total	Right			Peds	App. Total	Right			Peds	App. 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	0	0	0	0	0	0	3	0	0	3	0	0	1	0	1	0	3	0	0	3	7
04:15 PM	0	0	0	0	0	1	3	0	0	4	0	0	0	0	0	0	1	0	0	1	5
04:30 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	2
04:45 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	2	0	0	2	3
Total Volume	0	0	0	0	0	1	8	0	0	9	0	0	1	0	1	0	7	0	0	7	17
% App. Total	0	0	0	0	0	11.1	88.9	0	0		0	0	100	0		0	100	0	0		
PHF	.000	.000	.000	.000	.000	.250	.667	.000	.000	.563	.000	.000	.250	.000	.250	.000	.583	.000	.000	.583	.607

Transportation Data Corporation
 Mario Perone, mperone1@verizon.net
 tel (781) 587-0086 cell (781) 439-4999

N/S: Stony Fort/Broad Rock
 E/W: Moorsefield Road (Route 138)
 City, State: Saunderstown, RI
 Client: Pare/T. Thompson

File Name : 05554GG
 Site Code : 05554
 Start Date : 4/26/2022
 Page No : 1

Groups Printed- Bikes by Direction

Start Time	Stony Fort Road From North				Mooresfield Road (Route 138) From East				Broad Rock Road From South				Mooresfield Road (Route 138) From West				Int. Total
	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total %																	

Start Time	Stony Fort Road From North					Mooresfield Road (Route 138) From East					Broad Rock Road From South					Mooresfield Road (Route 138) From West					Int. Total
	Right			Peds	App. Total	Right			Peds	App. Total	Right			Peds	App. Total	Right			Peds	App. 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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

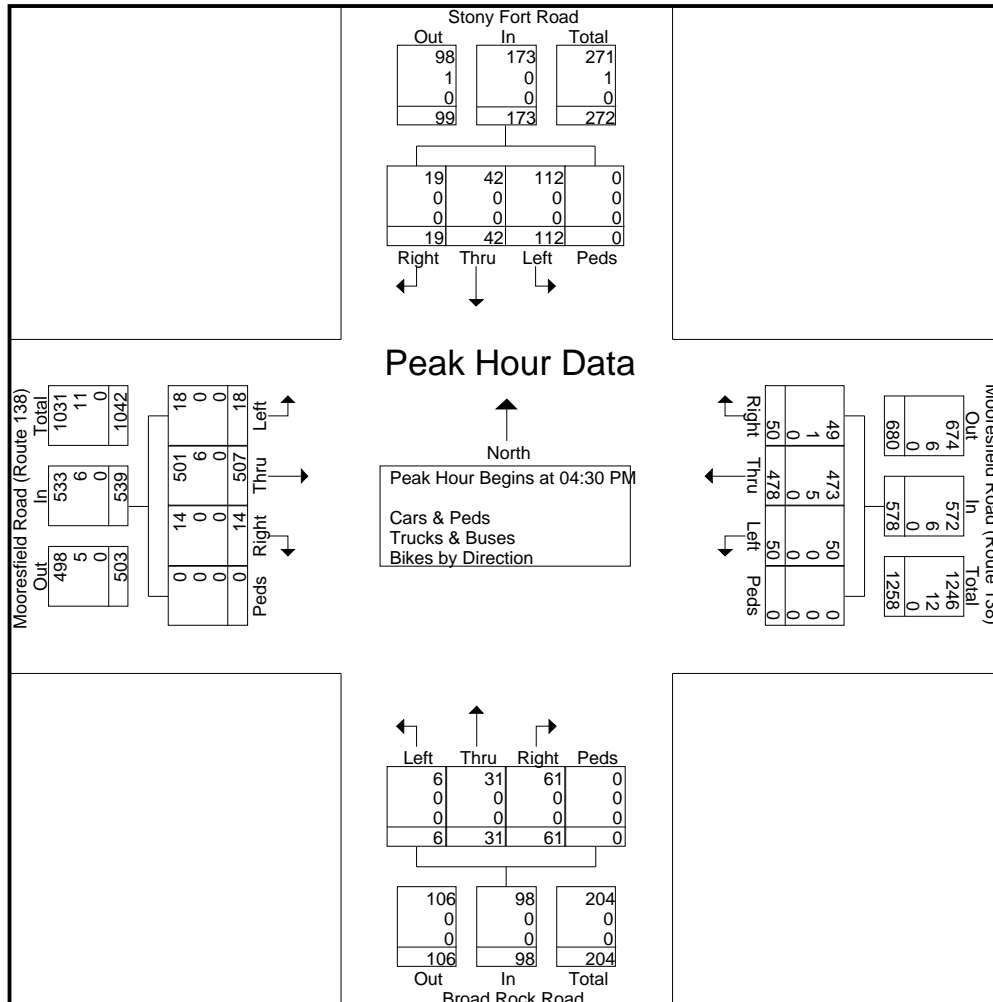
Transportation Data Corporation

Mario Perone, mperone1@verizon.net
tel (781) 587-0086 cell (781) 439-4999

N/S: Stony Fort/Broad Rock
E/W: Moorsefield Road (Route 138)
City, State: Saunderstown, RI
Client: Pare/T. Thompson

File Name : 05554GG
Site Code : 05554
Start Date : 4/26/2022
Page No : 1

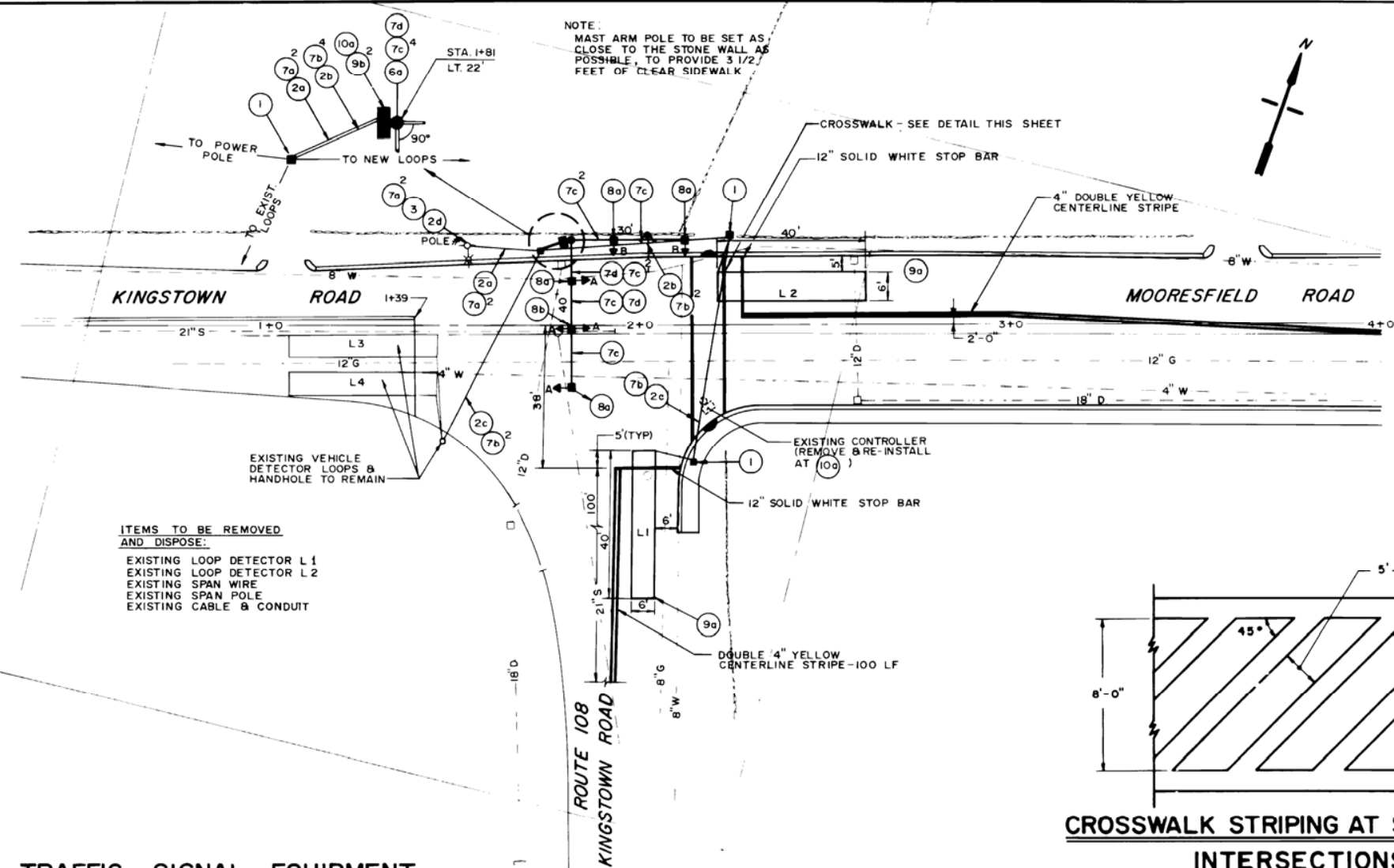
Start Time	Stony Fort Road From North					Moorsefield Road (Route 138) From East					Broad Rock Road From South					Moorsefield Road (Route 138) From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak 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	2	11	24	0	37	16	128	15	0	159	11	10	1	0	22	2	112	1	0	115	333
04:45 PM	8	18	22	0	48	13	120	7	0	140	14	8	2	0	24	4	112	7	0	123	335
05:00 PM	2	6	41	0	49	10	113	10	0	133	16	3	2	0	21	1	143	6	0	150	353
05:15 PM	7	7	25	0	39	11	117	18	0	146	20	10	1	0	31	7	140	4	0	151	367
Total Volume	19	42	112	0	173	50	478	50	0	578	61	31	6	0	98	14	507	18	0	539	1388
% App. Total	11	24.3	64.7	0		8.7	82.7	8.7	0		62.2	31.6	6.1	0		2.6	94.1	3.3	0		
PHF	.594	.583	.683	.000	.883	.781	.934	.694	.000	.909	.763	.775	.750	.000	.790	.500	.886	.643	.000	.892	.946
Cars & Peds	19	42	112	0	173	49	473	50	0	572	61	31	6	0	98	14	501	18	0	533	1376
% Cars & Peds	100	100	100	0	100	98.0	99.0	100	0	99.0	100	100	100	0	100	100	98.8	100	0	98.9	99.1
Trucks & Buses	0	0	0	0	0	1	5	0	0	6	0	0	0	0	0	0	6	0	0	6	12
% Trucks & Buses	0	0	0	0	0	2.0	1.0	0	0	1.0	0	0	0	0	0	0	1.2	0	0	1.1	0.9
Bikes by Direction	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bikes by Direction	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



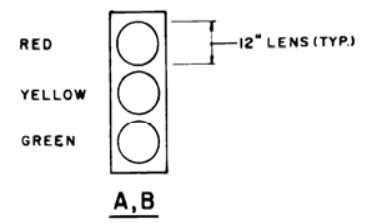


Appendix B

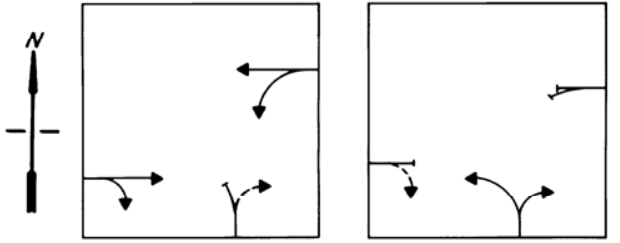
RIDOT Traffic Signal Plans



ITEMS TO BE REMOVED AND DISPOSE:
 EXISTING LOOP DETECTOR L1
 EXISTING LOOP DETECTOR L2
 EXISTING SPAN WIRE
 EXISTING SPAN POLE
 EXISTING CABLE & CONDUIT



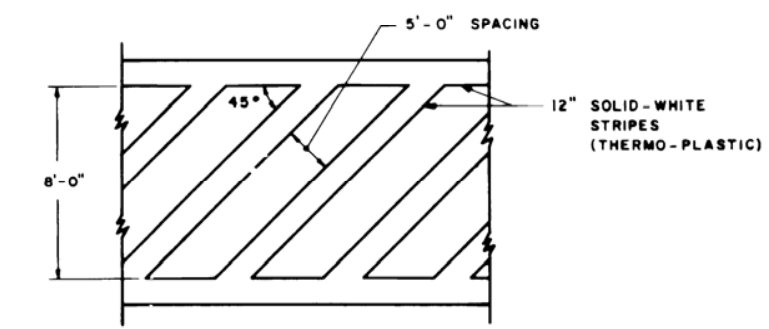
SIGNAL FACE
NOT TO SCALE



SIGNAL PHASING DIAGRAM

SIGNAL FACE	PHASE A					PHASE B					FLASH
	MIN GR	VEH INT	MAX GR	CL 1	CL 2	MIN GR	VEH INT	MAX GR	CL 1	CL 2	
A	G	G	G	Y	R	R	R	R	R	R	FY
B	R	R	R	R	R	G	G	G	Y	R	FR
TIME (SEC)	5.0	2.6	2.0	3.5	1.0	5.0	2.6	2.6	3.8	1.0	
RECALL/MEMORY	ON-VEH/NON-LOCK					OFF/NON-LOCK					

SEQUENCE & TIMING PLAN



CROSSWALK STRIPING AT SIGNALIZED INTERSECTIONS
NOT TO SCALE

TRAFFIC SIGNAL EQUIPMENT

NUMBER	LEGEND	DESCRIPTION	QUANTITY
1	■	PRECAST HANDHOLE TYPE A, RI STD. 18.9	3 EACH
2a	—	1-1/2" RIGID STEEL CONDUIT UNDERGROUND	22 LF
2b	—	2" RIGID STEEL CONDUIT UNDERGROUND	110 LF
2c	—	2" RIGID STEEL CONDUIT UNDER EXISTING PAVEMENT, RI STD. 18.25	57 LF
2d	—	1-1/2" RIGID STEEL CONDUIT OVERHEAD	10 LF
3	—	1-1/2" PVC CONDUIT OVERHEAD	15 LF
6a	●	DUAL MAST ARM (30x40) GAL STEEL TRAFFIC SIGNAL POST AND FOUNDATION, STD. 19.2	1 EACH
7a	—	"6" STRANDED COPPER CONDUCTOR 600V INSULATION	152 LF
7b	—	LOOP DETECTOR LEAD SHIELDED TWISTED PAIR 14 AWG 2 CONDUCTOR	325 LF
7c	—	14 AWG 5 CONDUCTOR CABLE	204 LF
7d	—	14 AWG 7 CONDUCTOR CABLE	54 LF
8a	→	SIGNAL HEAD, 1-WAY, 3-SECTION, 12 INCH MAST ARM MOUNTED (RE-INSTALL FROM SPAN WIRE TO MAST ARM)	4 EACH
8b	↔	SIGNAL HEAD, 2-WAY, 3-SECTION, 12 INCH MAST ARM MOUNTED (RE-INSTALL FROM SPAN WIRE TO MAST ARM)	1 EACH
9a	□	TRAFFIC DETECTORS - LOOP, RI STD. 19.5 (QUADRAPOLE SHOWN)	266 LF
9b	—	DETECTOR RELAYS, LOOP	2 EACH
10a	—	2-PHASE, ACTUATED, POLE MOUNTED DIGITAL CONTROLLER, INCLUDING CABINET	1 EACH

PLAN
SCALE: 1" = 20'

GENERAL NOTES:

- ALL SIGNAL WORK SHALL BE IN ACCORDANCE WITH "TRAFFIC SIGNAL GENERAL NOTES," RI STANDARD 19.6.
- BACKPLATES ARE TO BE INSTALLED ON EAST AND WEST APPROACHES ONLY, THE COST OF THE BACKPLATES SHALL BE INCLUDED IN THE PRICE BID FOR THE SIGNAL HEADS.
- THE CONTRACTOR SHALL SUBMIT TO THE TRAFFIC ENGINEER, FOR REVIEW AND APPROVAL PRIOR TO INSTALLATION OF ALL SIGNAL POLES, A MANUFACTURER'S CERTIFICATE FOR ALL TRAFFIC SIGNAL POLES IN THE CONTRACT. THE CERTIFICATE SHALL CONTAIN THE FOLLOWING INFORMATION:
 - SIZE OF POLE FOR EACH LOCATION.
 - LENGTH, DIA. OF POLE (TOP, GROUND LEVEL AND BOTTOM) AND WALL THICKNESS.
 - LOAD (IN LBS.) AT YIELD STRESS.
 - DEFLECTION (IN INCHES PER 100 LBS.)
- TRAFFIC SIGNAL NUMBER SHALL BE STENCILED ON CONTROLLER CABINET INSIDE AND OUT.
- THE CONTRACTOR SHALL MAINTAIN THE EXISTING TRAFFIC SIGNAL SYSTEMS OR APPROVED TEMPORARY TRAFFIC SIGNAL SYSTEMS OPERABLE AT ALL TIMES UNTIL THE PROPOSED TRAFFIC SIGNAL SYSTEM IS COMPLETELY IN PLACE AND OPERATING.
- THE 4' x 40' DETECTORS SHALL BE INSTALLED IN A QUADRAPOLE CONFIGURATION, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS. THE CURRENT ALONG CONDUCTORS IN THE CENTER SLOT SHALL ALL FLOW IN THE SAME DIRECTION.
- EXISTING 2 CHANNEL RELAYS ARE TO REMAIN WITH EXISTING CONTROLLER AT REINSTALLATION.

INDUCTANCE LOOP VEHICLE DETECTORS

LOOP DESIGNATION	APPROACH GOVERNED	PHASE	CHANNEL NO.	DELAY SETTING
L1	KINGSTOWN RD.-NORTH BND.	B	1	5 SEC.
L2	MOORESFIELD RD.-WEST BND.	A	2	1 SEC.
L3	KINGSTOWN RD - EAST BND.	A	1	1 SEC.
L4	KINGSTOWN RD - EAST BND. RIGHT TURN LANE	A	2	5 SEC.

PREPARED BY:
Lee Pare & Associates, Inc.
 CONSULTING ENGINEERS
 Pawtucket - RI Norwich - CT

REVISIONS		
NO.	DATE	BY

**RHODE ISLAND
DEPARTMENT OF TRANSPORTATION
DIVISION OF PUBLIC WORKS**

**RRR HIGHWAY IMPROVEMENTS
ROUTE 138
MOORESFIELD ROAD
SOUTH KINGSTOWN RHODE ISLAND**

SIGNAL PLAN
TRAFFIC SIGNAL SYSTEM NUMBER 48

CHECKED BY K.D. DATE SEPT. 1986 SCALE AS SHOWN

Appendix C

Crash Data

Picerne-Fieldstone Farms
 South Kingstown, RI
 Crash Data Summary
 Pare Project No. 18145.00
 May, 2022



Crash Ref. No.	Report No.	Date	Time	On Street	Nearest Intersecting Street	Directions of Travel	No. of Vehicles	Injuries	Fatalities	Weather Condition	Road Condition	Lighting	Crash Type
1	19-230-AC	3/31/2019	9:16 AM	Stony Fort Road	Mooresfield Road	South	1	0	0	Clear	Dry	Dark-Not Lighted	Single Vehicle
2	19-234-AC	4/3/2019	10:09 AM	Kingstown Road		North/North	2	0	0	Clear	Dry	Daylight	Rear End
3	19-276-AC	4/17/2019	2:12 PM	Kingstown Road		North/North	2	0	0	Clear	Dry	Daylight	Rear End
4	19-280-AC	4/17/2019	7:58 PM	Old North Road		South	1	0	0	Cloudy	Dry	Dark-Not Lighted	Single Vehicle
5	19-291-AC	4/22/2019	12:19 PM	Kingstown Road	Upper College Road	South/North/South/Unknown	4	0	0	Clear	Dry	Daylight	Angle
6	19-308-AC	4/26/2019	12:55 PM	Kingstown Road	Mooresfield Road	East/East	2	1	0	Clear	Dry	Daylight	Rear End
7	19-332-AC	5/6/2019	6:04 PM	Kingstown Road	Upper College Road	East/East	3	1	0	Clear	Dry	Daylight	Rear End
8	19-339-AC	5/7/2019	8:59 PM	Stony Fort Road	Mooresfield Road	South	1	0	0	Cloudy	Dry	Dark-Not Lighted	Single Vehicle
9	19-423-AC	6/6/2019	6:00 PM	Kingstown Road	Mooresfield Road	East/East	2	0	0	Clear	Dry	Daylight	Rear End
10	19-655-AC	8/21/2019	1:25 AM	Kingstown Road	Mooresfield Road	West	1	0	0	Clear	Dry	Dark-Lighted	Single Vehicle
11	19-701-AC	9/6/2019	5:24 PM	Kingstown Road		West/West	2	0	0	Rain	Wet	Daylight	Rear End
12	19-708-AC	9/7/2019	11:14 AM	Stony Fort Road	Old North Road	North/North	1	0	0	Clear	Dry	Dark-Not Lighted	Single Vehicle
13	19-715-AC	9/10/2019	5:10 PM	Kingstown Road	Upper College Road	East/East	2	0	0	Clear	Dry	Daylight	Rear End
14	19-751-AC	9/19/2019	7:58 AM	Kingstown Road	Upper College Road	East/East	2	0	0	Cloudy	Dry	Daylight	Rear End
15	19-791-AC	9/30/2019	4:07 PM	Kingstown Road	Mooresfield Road	North/North/North	3	0	0	Clear	Dry	Daylight	Rear End
16	19-794-AC	10/1/2019	8:29 AM	Old North Road		North/North	2	1	0	Clear	Dry	Daylight	Angle
17	19-802-AC	10/4/2019	7:05 PM	Kingstown Road	Mooresfield Road	North/North	2	0	0	Clear	Dry	Dark-Lighted	Rear End
18	19-831-AC	10/10/2019	4:57 PM	Kingstown Road		East/East	2	0	0	Rain	Wet	Dusk	Rear End
19	19-832-AC	10/10/2019	7:10 PM	Kingstown Road		Not on Rdway/West	2	0	0	Clear	Dry	Dark-Not Lighted	Angle
20	19-876-AC	10/28/2019	11:39 AM	Kingstown Road	Mooresfield Road	North/North	2	0	0	Cloudy	Dry	Daylight	Rear End
21	19-895-AC	10/31/2019	7:40 PM	Kingstown Road	Mooresfield Road	West/West	2	0	0	Clear	Dry	Dark-Not Lighted	Rear End
22	19-896-AC	10/31/2019	8:04 PM	Stony Fort Road	Mooresfield Road	South	1	0	0	Clear	Wet	Dark-Not Lighted	Single Vehicle
23	19-979-AC	11/22/2019	11:01 PM	Stony Fort Road	Mooresfield Road	East	1	0	0	Clear	Dry	Dark-Not Lighted	Single Vehicle
24	19-989-AC	11/26/2019	1:08 PM	Kingstown Road		East/East	2	0	0	Clear	Dry	Daylight	Angle
25	19-1005-AC #1	12/1/2019	1:01 PM	Kingstown Road		East/East	2	0	0	Clear	Dry	Daylight	Rear End
26	19-1008-AC	12/1/2019	4:02 PM	Kingstown Road		West/South	2	0	0	Snow	Snow	Daylight	Angle
27	19-1010-AC	12/1/2019	4:07 PM	Kingstown Road	Mooresfield Road	North	2	0	0	Snow	Snow	Dark-Lighted	Angle
28	19-1021-AC	12/3/2019	10:00 AM	Old North Road	Bills Road	South/East	2	0	0	Snow	Snow	Daylight	Angle
29	19-1055-AC	12/1/2019	4:08 PM	Kingstown Road	Mooresfield Road	Unknown/Unknown	2	0	0	Snow	Snow	Dusk	Angle
30	19-1042-AC	12/8/2019	5:26 PM	Kingstown Road	Mooresfield Road	East	1	0	0	Clear	Dry	Dark-Not Lighted	Single Vehicle
31	19-1048-AC	12/9/2019	2:52 PM	Kingstown Road		East/East	2	0	0	Rain	Wet	Daylight	Rear End
32	19-1077-AC	12/19/2019	8:38 AM	Stony Fort Road	Slocum Road	West	1	0	0	Clear	Dry	Daylight	Single Vehicle
33	19-1082-AC	12/20/2019	12:41 AM	Stony Fort Road	Mooresfield Road	East	1	0	0	Clear	Dry	Dark-Not Lighted	Single Vehicle

Picrnie-Fieldstone Farms
 South Kingstown, RI
 Crash Data Summary
 Pare Project No. 18145.00
 May, 2022



Crash Ref. No.	Report No.	Date	Time	On Street	Nearest Intersecting Street	Directions of Travel	No. of Vehicles	Injuries	Fatalities	Weather Condition	Road Condition	Lighting	Crash Type
34	20-12-AC	1/8/2020	7:28 AM	Stony Fort Road	Moorefield Road	South	1	0	0	Clear	Ice/Frost	Daylight	Single Vehicle
35	20-47-AC	1/24/2020	9:44 AM	Kingstown Road	Moorefield Road	West/West	2	0	0	Clear	Dry	Daylight	Rear End
36	20-52-AC	1/27/2020	5:21 PM	Kingstown Road		West/West	2	0	0	Clear	Dry	Dusk	Rear End
37	20-53-AC	1/27/2020	8:08 PM	Stony Fort Road	Old North Road	North	1	0	0	Clear	Dry	Dark-Not Lighted	Single Vehicle
38	20-58-AC	1/29/2020	1:44 PM	Kingstown Road		East/East	2	0	0	Clear	Dry	Daylight	Rear End
39	20-59-AC	1/29/2020	2:08 PM	Kingstown Road		East/East	2	0	0	Clear	Dry	Daylight	Rear End
40	20-78-AC	2/4/2020	7:55 AM	Kingstown Road	Moorefield Road	West/West	2	0	0	Cloudy	Wet	Daylight	Rear End
41	20-103-AC	2/10/2020	6:17 PM	Kingstown Road	Upper College Road	West/West	3	1	0	Cloudy	Wet	Dark-Lighted	Rear End
42	20-112-AC	2/18/2020	9:14 AM	Kingstown Road	Moorefield Road	North/East	2	0	0	Clear	Dry	Daylight	Head On
43	20-143-AC	3/3/2020	4:51 PM	Kingstown Road		East/East	2	0	0	Cloudy	Dry	Daylight	Rear End
44	20-178-AC	4/6/2020	12:21 PM	Kingstown Road	Upper College Road	West/West	2	0	0	Clear	Dry	Daylight	Rear End
45	20-197-AC	4/20/2020	1:47 PM	Stony Fort Road	Moorefield Road	North	1	1	0	Clear	Dry	Daylight	Single Vehicle
46	20-199-AC	4/24/2020	3:56 PM	Stony Fort Road	Old North Road	West	1	0	0	Rain	Wet	Daylight	Single Vehicle
47	20-219-AC	5/8/2020	8:51 PM	Stony Fort Road	Moorefield Road	South	1	0	0	Rain	Wet	Dark-Not Lighted	Single Vehicle
48	20-251-AC	5/30/2020	12:59 AM	Stony Fort Road	Old North Road	North	1	0	0	Rain	Wet	Dark-Lighted	Single Vehicle
49	20-307-AC	6/23/2020	3:29 PM	Kingstown Road	Upper College Road	West/West	2	0	0	Clear	Dry	Daylight	Rear End
50	20-484-AC	9/8/2020	2:41 PM	Kingstown Road		East/West	3	0	0	Clear	Dry	Daylight	Rear End
51	20-507-AC	9/20/2020	3:33 PM	Old North Road	Flagg Road	Unknown/Unknown	2	0	0	Clear	Dry	Daylight	Angle
52	20-583-AC	10/22/2020	7:53 AM	Kingstown Road		North/North	2	0	0	Clear	Wet	Daylight	Rear End
53	20-598-AC	10/30/2020	2:44 PM	Kingstown Road	Moorefield Road	North/North	2	0	0	Snow	Wet	Daylight	Rear End
54	20-668-AC	12/6/2020	12:08 AM	Kingstown Road	Upper College Road	West/West	2	0	0	Cloudy	Wet	Dark-Lighted	Rear End
55	20-672-AC	12/7/2020	4:26 PM	Kingstown Road	Moorefield Road	East	3	0	0	Clear	Dry	Dark-Lighted	Rear End
56	21-11-AC	1/7/2021	6:49 PM	Old North Road	Flagg Road	South/West	2	0	0	Clear	Dry	Dark-Unknown Lighting	Angle
57	21-55-AC	1/29/2021	9:51 PM	Stony Fort Road	Slocum Road	North	1	0	0	Clear	Dry	Dark-Not Lighted	Single Vehicle
58	21-89-AC	2/9/2021	4:01 PM	Kingstown Road		West/East	2	0	0	Snow	Wet	Daylight	Angle
59	21-90-AC	2/9/2021	5:06 PM	Kingstown Road	Upper College Road	West/West	2	0	0	Snow	Wet	Dark-Lighted	Rear End
60	21-106-AC	2/18/2021	12:23 PM	Moorefield Road		East	1	0	0	Snow	Snow	Daylight	Single Vehicle
61	21-118-AC	2/18/2021	3:49 PM	Stony Fort Road	Moorefield Road	North	2	0	0	Snow	Snow	Daylight	Sideswipe
62	21-121-AC	2/19/2021	10:30 PM	Stony Fort Road		North	1	0	0	Snow	Snow	Dark-Not Lighted	Single Vehicle
63	21-136-AC	3/2/2021	14:57	Kingstown Road		East/West	2	1	0	Clear	Dry	Daylight	Angle
64	21-139-AC	3/4/2021	5:04 AM	Kingstown Road		East/Not on Roadway	3	0	0	Clear	Dry	Dark-Lighted	Rear End
65	21-150-AC	3/9/2021	9:31 AM	Stony Fort Road		North	1	2	0	Clear	Dry	Dark-Not Lighted	Single Vehicle
66	21-152-AC	3/10/2021	1:02 AM	Stony Fort Road	Moorefield Road	South	1	1	0	Clear	Dry	Dark-Lighted	Single Vehicle
67	21-166-AC	3/18/2021	7:20 PM	Stony Fort Road		North	1	0	0	Rain	Wet	Dark-Not Lighted	Single Vehicle

Picrnie-Fieldstone Farms
 South Kingstown, RI
 Crash Data Summary
 Pare Project No. 18145.00
 May, 2022



Crash Ref. No.	Report No.	Date	Time	On Street	Nearest Intersecting Street	Directions of Travel	No. of Vehicles	Injuries	Fatalities	Weather Condition	Road Condition	Lighting	Crash Type
68	21-186-AC	3/30/2021	1:47 PM	Kingstown Road	Moorefield Road	North/North	2	0	0	Clear	Dry Daylight		Rear End
69	21-190-AC	3/30/2021	9:30 PM	Kingstown Road	Moorefield Road	West	1	0	0	Clear	Dry Dark-Not Lighted		Single Vehicle
70	21-210-AC	4/10/2021	2:53 PM	Kingstown Road		West/West	2	0	0	Clear	Dry Daylight		Rear End
71	21-228-AC	4/20/2021	12:12 AM	Kingstown Road	Upper College Road	West/West	2	0	0	Clear	Dry Daylight		Rear End
72	21-244-AC	4/26/2021	3:47 PM	Stony Fort Road	Old North Road	South/Unknown	2	0	0	Clear	Dry Daylight		Sideswipe
73	21-255-AC	5/1/2021	11:05 AM	Kingstown Road	Moorefield Road	East/East	2	0	0	Clear	Dry Daylight		Rear End
74	21-280-AC	5/17/2021	4:33 PM	Kingstown Road		West/West	2	0	0	Clear	Dry Daylight		Rear End
75	21-293-AC	5/23/2021	11:55 AM	Kingstown Road		East/East	2	0	0	Clear	Dry Daylight		Rear End
76	21-537-AC	8/26/2021	9:26 AM	Kingstown Road		East/East	2	1	0	Clear	Dry Daylight		Rear End
77	21-547-AC	8/31/2021	2:04 PM	Kingstown Road		East	3	0	0	Clear	Dry Daylight		Rear End
78	21-558-AC	9/3/2021	2:29 PM	Stony Fort Road		East/East	2	0	0	Clear	Dry Daylight		Angle
79	21-562-AC	9/4/2021	7:23 PM	Kingstown Road		East/West	3	0	0	Clear	Dry Daylight		Angle
80	21-564-AC	9/5/2021	1:05 PM	Kingstown Road		West/West	2	0	0	Clear	Dry Daylight		Rear End
81	21-613-AC	9/23/2021	9:18 AM	Kingstown Road		West/West	2	0	0	Clear	Dry Daylight		Rear End
82	21-617-AC	9/23/2021	3:48 PM	Kingstown Road	Moorefield Road	West/West	2	0	0	Clear	Dry Daylight		Rear End
83	21-621-AC	9/24/2021	4:18 PM	Kingstown Road	Moorefield Road	West/West	2	0	0	Clear	Dry Daylight		Rear End
84	21-644-AC	10/5/2021	7:40 PM	Kingstown Road	Upper College Road	West/West	2	1	0	Clear	Dry Dark-Lighted		Rear End
85	21-652-AC	10/6/2021	8:07 PM	Kingstown Road		Pulled Over/Eastbound	2	1	0	Clear	Dry Dark-Not Lighted		Rear End
86	21-658-AC	10/7/2021	5:09 PM	Kingstown Road	Moorefield Road	North/North	2	0	0	Clear	Dry Daylight		Rear End
87	21-682-AC	10/15/2021	8:56 AM	Kingstown Road	Moorefield Road	East/South	2	0	0	Clear	Dry Daylight		Angle
88	21-697-AC	10/18/2021	8:52 AM	Kingstown Road	Moorefield Road	North/North	2	0	0	Clear	Dry Daylight		Rear End
89	21-726-AC	10/26/2021	4:42 PM	Kingstown Road		East/East	2	0	0	Rain	Wet Daylight		Rear End
90	21-731-AC	10/28/2021	9:51 AM	Kingstown Road	Upper College Road	East/North	2	0	0	Clear	Dry Daylight		Sideswipe
91	21-848-AC	10/28/2021	10:50 AM	Kingstown Road	Moorefield Road	North/North	2	1	0	Cloudy	Dry Daylight		Rear End
92	21-789-AC	11/19/2021	5:49 PM	Kingstown Road	Moorefield Road	West/West	2	0	0	Clear	Dry Dark-Lighted		Rear End
93	21-794-AC	11/20/2021	7:17 PM	Kingstown Road	Upper College Road	West/East	2	0	0	Clear	Dry Dark-Lighted		Angle
94	21-841-AC	12/6/2021	3:28 PM	Stony Fort Road	Old North Road	East/South	2	3	0	Clear	Wet Daylight		Angle
95	21-876-AC	12/6/2021	2:00 PM	Kingstown Road	Upper College Road	West/West	2	0	0	Clear	Dry Daylight		Rear End
96	22-45-AC	1/31/2022	8:35 AM	Kingstown Road	Moorefield Road	North/North	2	0	0	Clear	Dry Daylight		Rear End
97	22-52-AC	2/2/2022	9:42 AM	Kingstown Road		West/West	2	0	0	Cloudy	Wet Daylight		Rear End
98	22-116-AC	3/1/2022	11:20 AM	Kingstown Road	Upper College Road	Not on Roadway/North	2	0	0	Clear	Dry Daylight		Sideswipe
99	22-148-AC	3/2/2022	2:45 PM	Kingstown Road		North/North	2	0	0	Clear	Dry Daylight		Rear End
100	22-162-AC	3/23/2022	8:10 PM	Kingstown Road	Upper College Road	West/East	2	0	0	Clear	Dry Dark-Lighted		Angle
101	22-185-AC	3/31/2022	1:57 PM	Old North Road		North/North	2	0	0	Cloudy	Wet Daylight		Rear End



Appendix D
Speed Studies

Pare Corporation

8 Blackstone Valley Place
Lincoln, RI, 02865
401-334-4100
www.parecorp.com

Roadway: Stony Fort Road
City, State: Kingston, RI
Weather: 68 and Sunny
Taken By: EB

File Name : Stony Fort Road
Site Code : 18145.00
Start Date : 5/17/2022
Page No : 1

#	EB	WB
1	33	24
2	32	33
3	29	25
4	38	26
5	29	33
6	27	28
7	27	34
8	30	28
9	32	28
10	24	29
11	27	34
12	26	34
13	29	29
14	27	34
15	32	28
16	31	33
17	27	29
18	30	22
19	26	29
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21	35	30
22	28	34
23	30	31
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25	29	33
26	30	23
27	33	33
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29	29	34
30	36	33
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33	29	36
34	38	28
35	31	26
36	27	31
37	28	24
38	26	36
39	30	37
40	35	29
41	30	43
42	24	24
43	26	26
44	33	29
45	28	30
46	23	28
47	24	27
48	31	32
49	19	28
50	24	25
51	28	26
52	29	30
53	31	23
54	29	40
55	23	41
56	24	31
57	28	31
58	35	36
59	30	25
60	36	26
61	34	33
62	30	41

Pare Corporation

8 Blackstone Valley Place
 Lincoln, RI, 02865
 401-334-4100
 www.parecorp.com

File Name : Stony Fort Road
 Site Code : 18145.00
 Start Date : 5/17/2022
 Page No : 2

#	EB	WB
63	27	29
64	41	28
65	33	34
66	34	30
67	28	30
68	23	24
69	24	30
70	22	33
71	35	35
72	37	40
73	32	37
74	34	33
75	28	34
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78	30	32
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87	30	33
88	32	34
89	34	40
90	30	34
91	37	26
92	26	32
93	26	31
94	20	29
95	38	40
96	39	37
97	21	23
98	36	29
99	37	24
100	27	33
101		

Class	Vehicle Count	85 Percentile	10 MPH Pace Speed	Number in Pace	Percent in Pace	Number of Vehicles Over 25 MPH	Percent of Vehicles Over 25 MPH	Average Speed	True Median (50th Percentile)
EB	100	35	26 - 35	72	72	87	87	30	30
WB	100	36	25 - 34	69	69	84	84	31	31
Summary	200	36	26 - 35	140	70	171	86	30	30

Pare Corporation

8 Blackstone Valley Place
Lincoln, RI, 02865
401-334-4100
www.parecorp.com

Roadway: Old North Rd, near Stony Fort
City, State: Kingston, RI
Weather: 68 and Sunny
Taken By: EB

File Name : Stony Fort Road
Site Code : 18145.00
Start Date : 5/17/2022
Page No : 1

#	EB	WB
1	33	24
2	32	33
3	29	25
4	38	26
5	29	33
6	27	28
7	27	34
8	30	28
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59	30	25
60	36	26
61	34	33
62	30	41

Pare Corporation

8 Blackstone Valley Place
 Lincoln, RI, 02865
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File Name : Stony Fort Road
 Site Code : 18145.00
 Start Date : 5/17/2022
 Page No : 2

#	EB	WB
63	27	29
64	41	28
65	33	34
66	34	30
67	28	30
68	23	24
69	24	30
70	22	33
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93	26	31
94	20	29
95	38	40
96	39	37
97	21	23
98	36	29
99	37	24
100	27	33
101		

Class	Vehicle Count	85 Percentile	10 MPH Pace Speed	Number in Pace	Percent in Pace	Number of Vehicles Over 25 MPH	Percent of Vehicles Over 25 MPH	Average Speed	True Median (50th Percentile)
EB	100	35	26 - 35	72	72	87	87	30	30
WB	100	36	25 - 34	69	69	84	84	31	31
Summary	200	36	26 - 35	140	70	171	86	30	30

Pare Corporation

8 Blackstone Valley Place
Lincoln, RI, 02865
401-334-4100
www.parecorp.com

Roadway: Old North Road
City, State: Kingston, RI
Weather: 67 and Sunny
Taken By: EB

File Name : Old North Road
Site Code : 18145.00
Start Date : 5/17/2022
Page No : 1

#	NB	SB
1	34	24
2	26	18
3	27	19
4	31	37
5	22	31
6	35	33
7	35	20
8	27	24
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55	30	30
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57	29	22
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59	30	27
60	22	24
61	26	25
62	26	30

Pare Corporation

8 Blackstone Valley Place
 Lincoln, RI, 02865
 401-334-4100
 www.parecorp.com

File Name : Old North Road
 Site Code : 18145.00
 Start Date : 5/17/2022
 Page No : 2

#	NB	SB
63	28	31
64	24	33
65	29	21
66	24	33
67	31	35
68	29	28
69	25	27
70	28	33
71	20	20
72	21	18
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93	29	30
94	25	26
95	30	28
96	27	25
97	34	20
98	24	23
99	28	31
100	28	30
101		

Class	Vehicle Count	85 Percentile	10 MPH Pace Speed	Number in Pace	Percent in Pace	Number of Vehicles Over 25 MPH	Percent of Vehicles Over 25 MPH	Average Speed	True Median (50th Percentile)
NB	100	32	22 - 31	75	75	75	75	28	28
SB	100	31	24 - 33	67	67	60	60	27	27
Summary	200	32	22 - 31	141	70	135	68	27	28



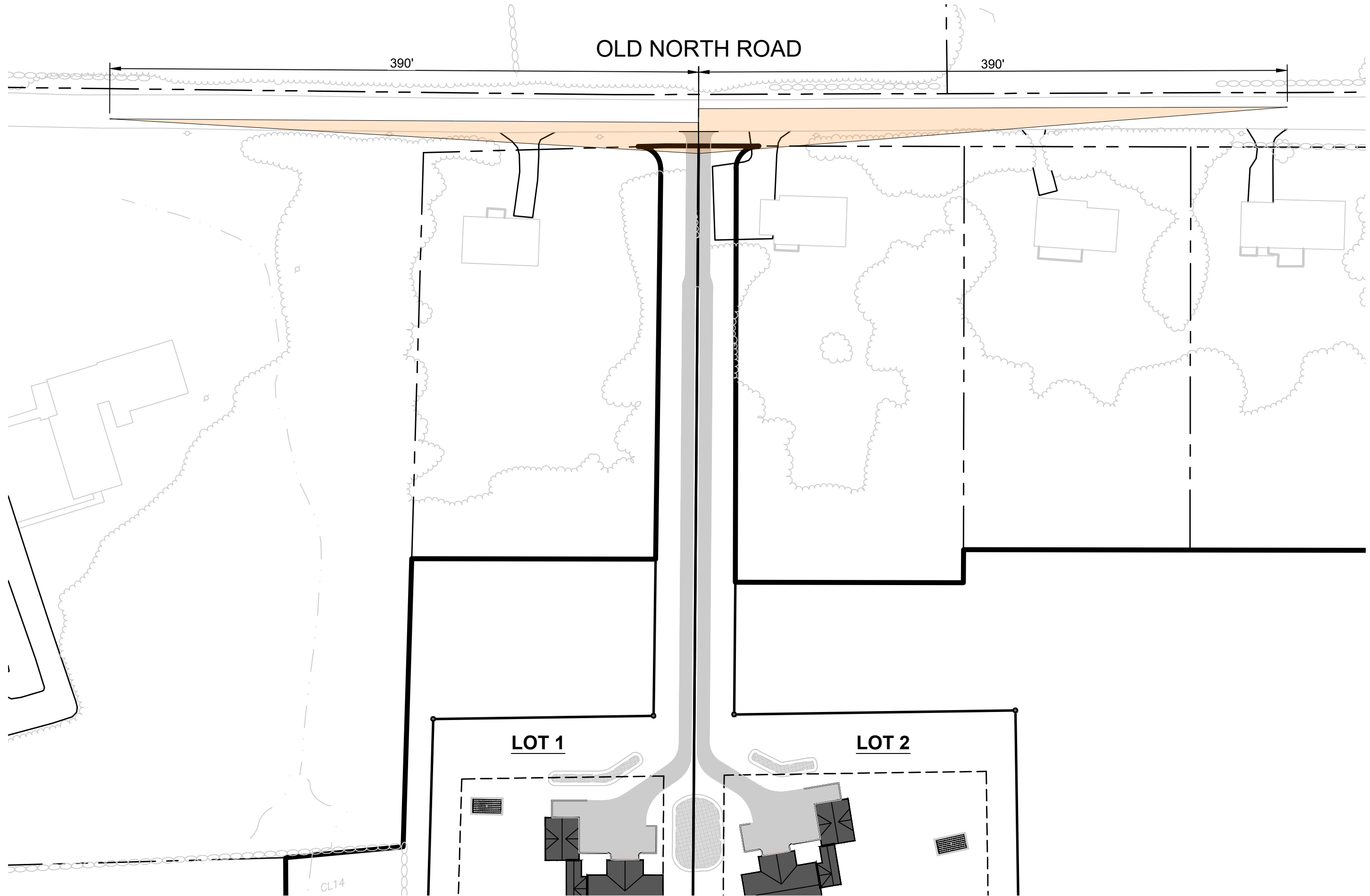
Appendix E
Sight Triangle Figures



OLD NORTH ROAD

390'

390'



SCALE ADJUSTMENT GUIDE
 0" 1"
 BAR IS ONE INCH ON ORIGINAL DRAWING

Picerne - Fieldstone Farms
 Old North Road and Stony Fort Road
 South Kingstown, Rhode Island

REVISIONS:

NO.	DATE	DESCRIPTION

PROJECT NO.:
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 DESIGNED BY: EB
 CHECKED BY: TT
 DRAWN BY: AWB
 APPROVED BY: TT
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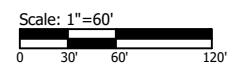
SITE DISTANCE TRIANGLE 1

DRAWING NO.: E1.1

Intersection Sight Distance Summary

Roadway Design Speed = 35 MPH

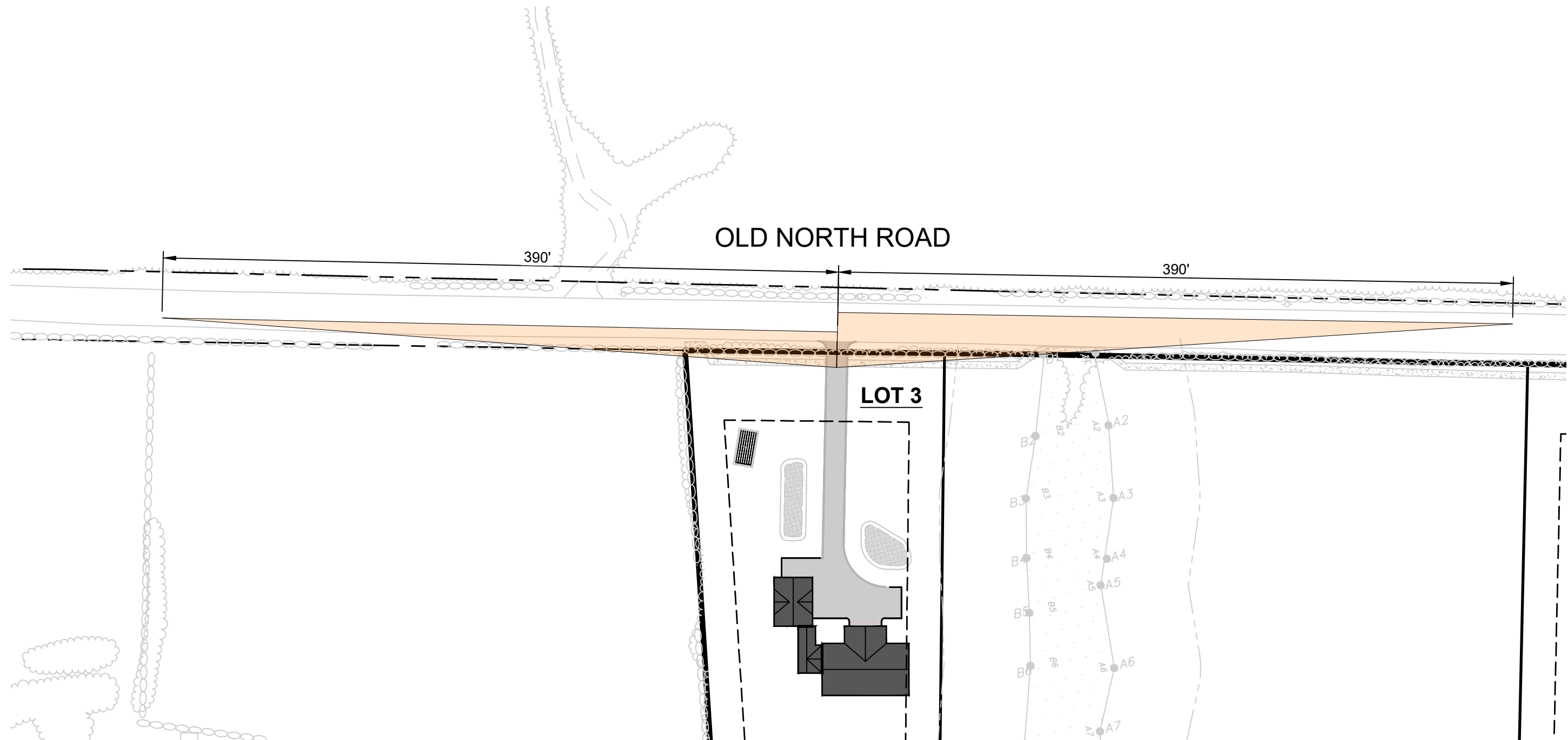
Intersection Sight Distance Requirement = 390'





SCALE ADJUSTMENT GUIDE
 0" 1"
 BAR IS ONE INCH ON ORIGINAL DRAWING

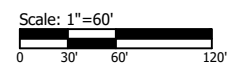
Picrnerne - Fieldstone Farms
 Old North Road and Stony Fort Road
 South Kingstown, Rhode Island



Intersection Sight Distance Summary

Roadway Design Speed = 35 MPH

Intersection Sight Distance Requirement = 390'



REVISIONS:

NO.	DATE	DESCRIPTION

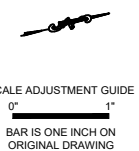
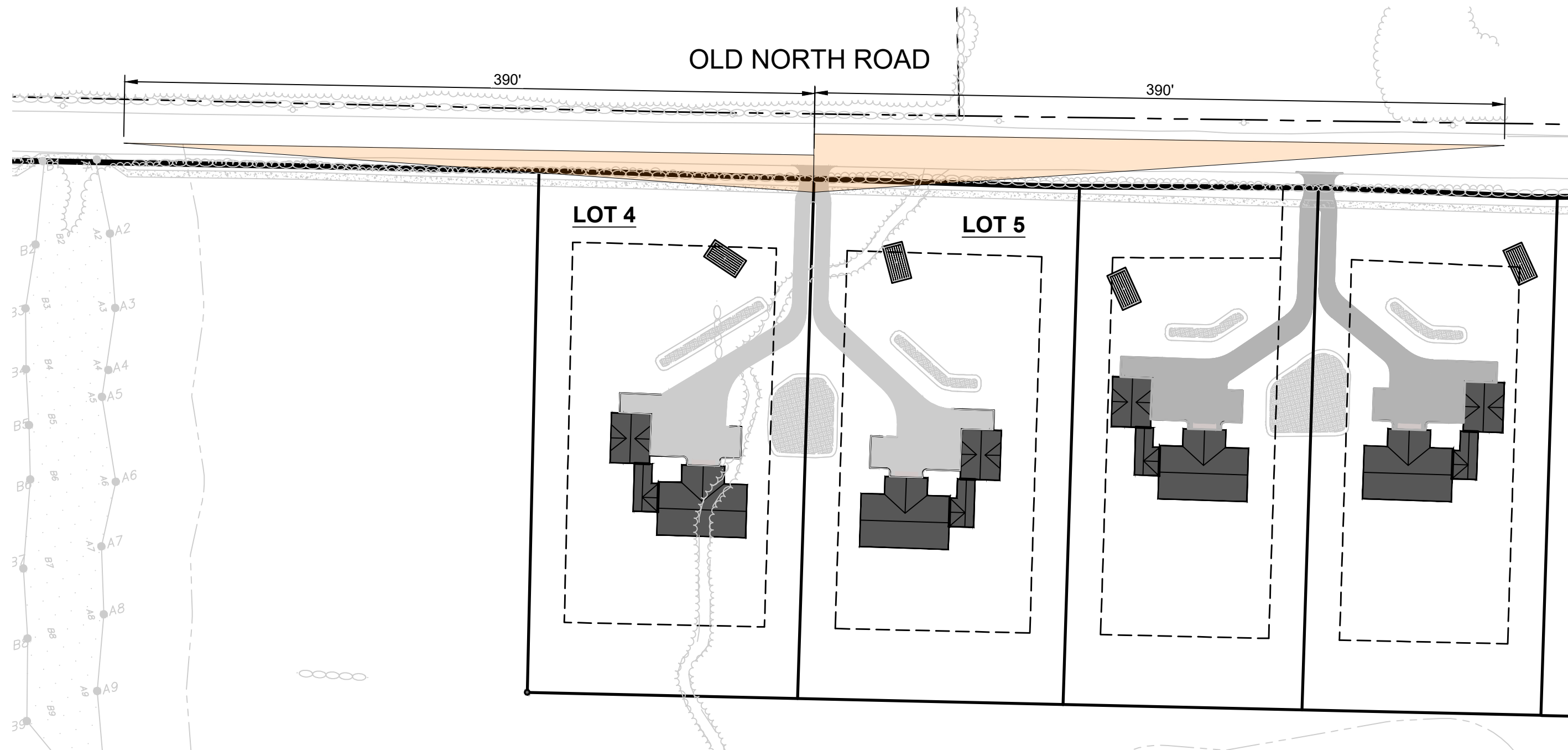
PROJECT NO.:
 DATE: MAY 2022
 SCALE: 1" = 60'
 DESIGNED BY: EB
 CHECKED BY: TT
 DRAWN BY: AWB
 APPROVED BY: TT

DRAWING TITLE:

SITE DISTANCE TRIANGLE 2

DRAWING NO.:

E1.2



Picrre - Fieldstone Farms
Old North Road and Stony Fort Road
South Kingstown, Rhode Island

Intersection Sight Distance Summary

Roadway Design Speed = 35 MPH

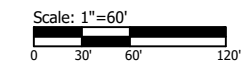
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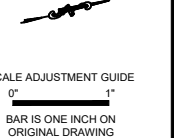
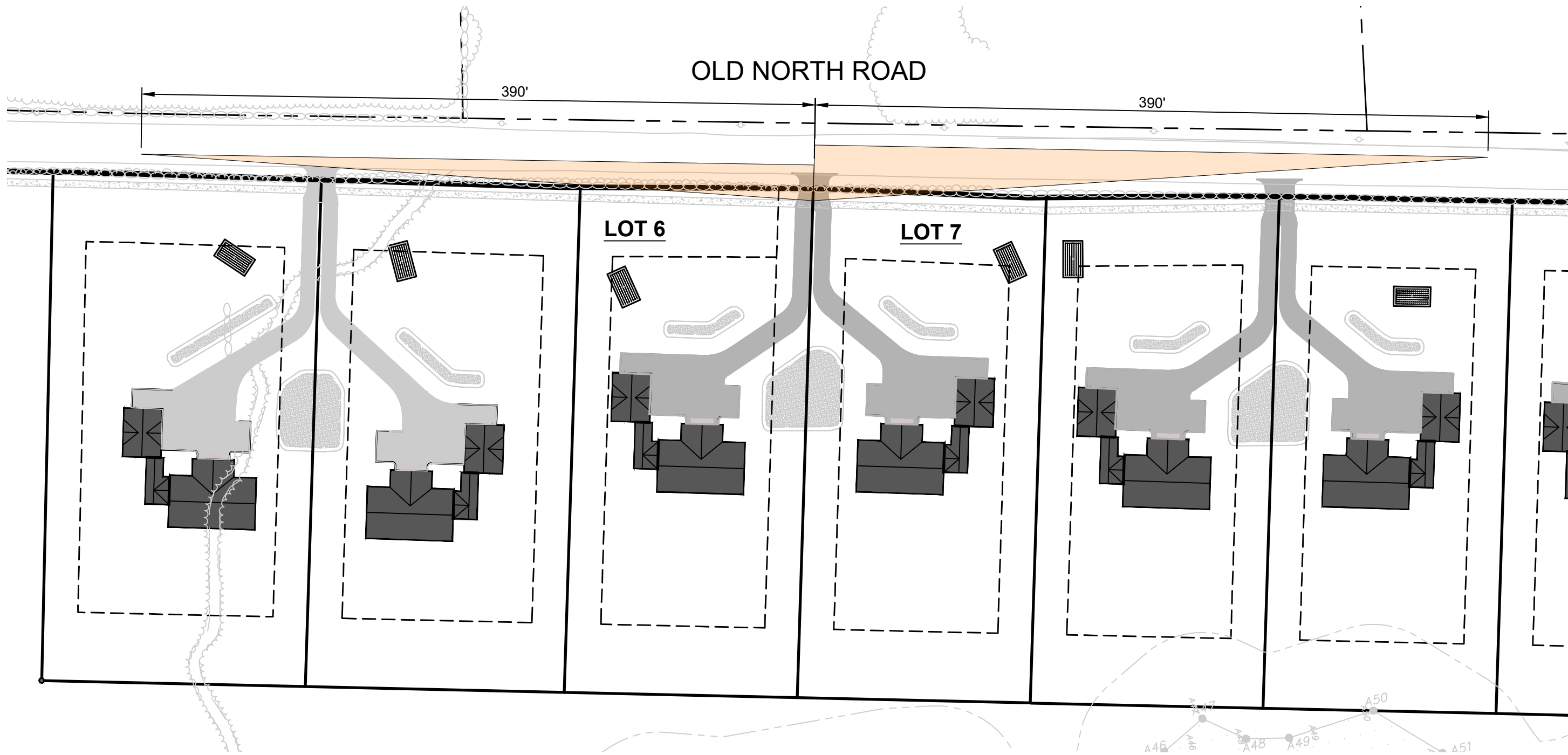
REVISIONS:

PROJECT NO.:
DATE: MAY 2022
SCALE: 1" = 60'
DESIGNED BY: EB
CHECKED BY: TT
DRAWN BY: AWB
APPROVED BY: TT
DRAWING TITLE:

SITE DISTANCE TRIANGLE 3

DRAWING NO.:
E1.3





Picrre - Fieldstone Farms
 Old North Road and Stony Fort Road
 South Kingstown, Rhode Island

Intersection Sight Distance Summary

Roadway Design Speed = 35 MPH

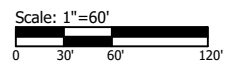
Intersection Sight Distance Requirement = 390'

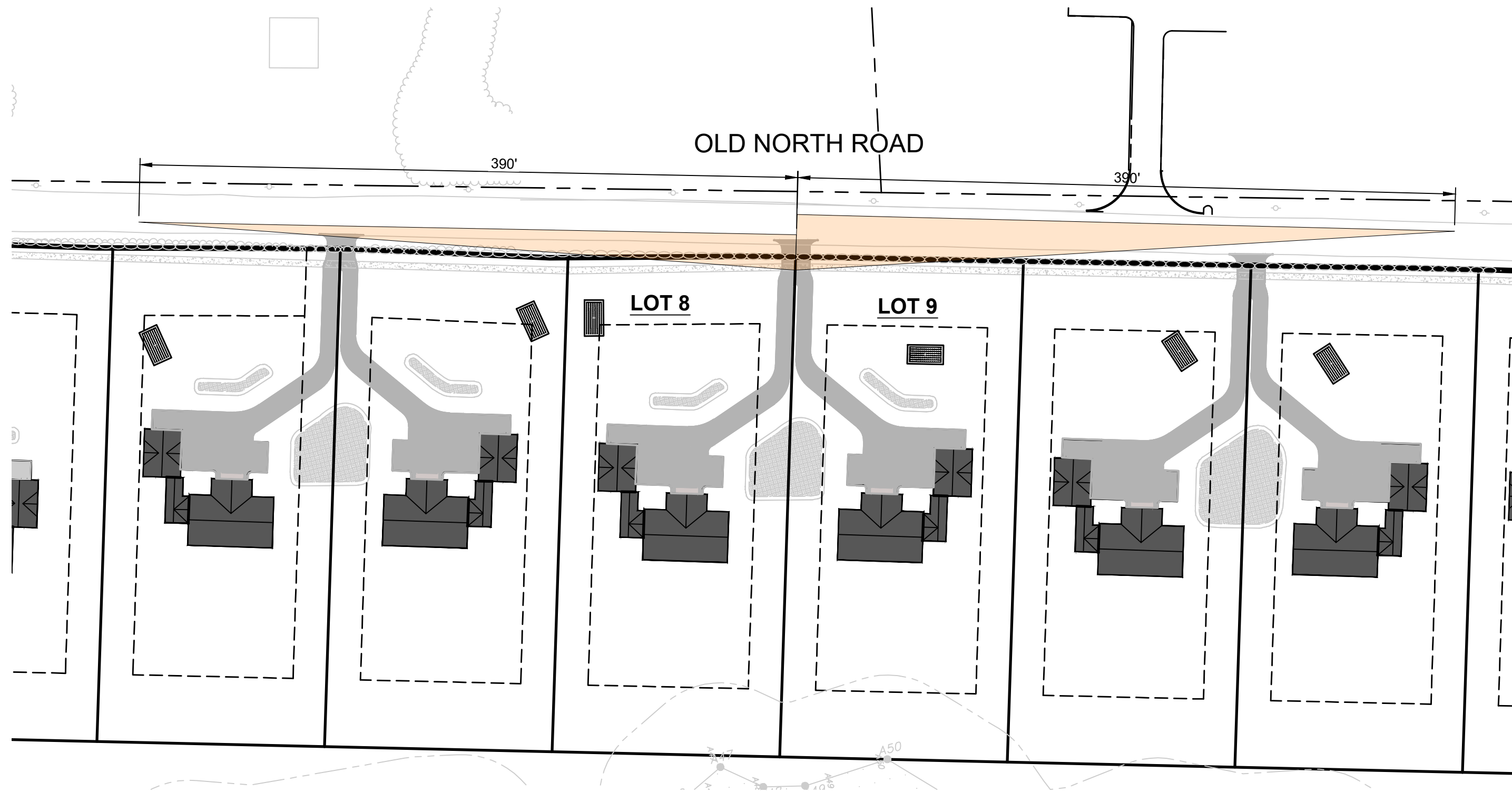
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PROJECT NO.:
 DATE: MAY 2022
 SCALE: 1" = 60'
 DESIGNED BY: EB
 CHECKED BY: TT
 DRAWN BY: AWB
 APPROVED BY: TT
 DRAWING TITLE:

SITE DISTANCE
 TRIANGLE 4

DRAWING NO.:
E1.4





Picrre - Fieldstone Farms
Old North Road and Stony Fort Road
South Kingstown, Rhode Island

Intersection Sight Distance Summary

Roadway Design Speed = 35 MPH

Intersection Sight Distance Requirement = 390'

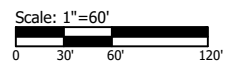
REVISIONS:

NO.	DESCRIPTION	DATE

PROJECT NO.:
DATE: MAY 2022
SCALE: 1" = 60'
DESIGNED BY: EB
CHECKED BY: TT
DRAWN BY: AWB
APPROVED BY: TT
DRAWING TITLE:

SITE DISTANCE TRIANGLE 5

DRAWING NO.:
E1.5





SCALE ADJUSTMENT GUIDE
 0" 1"
 BAR IS ONE INCH ON ORIGINAL DRAWING

Picerne - Fieldstone Farms
 Old North Road and Stony Fort Road
 South Kingstown, Rhode Island

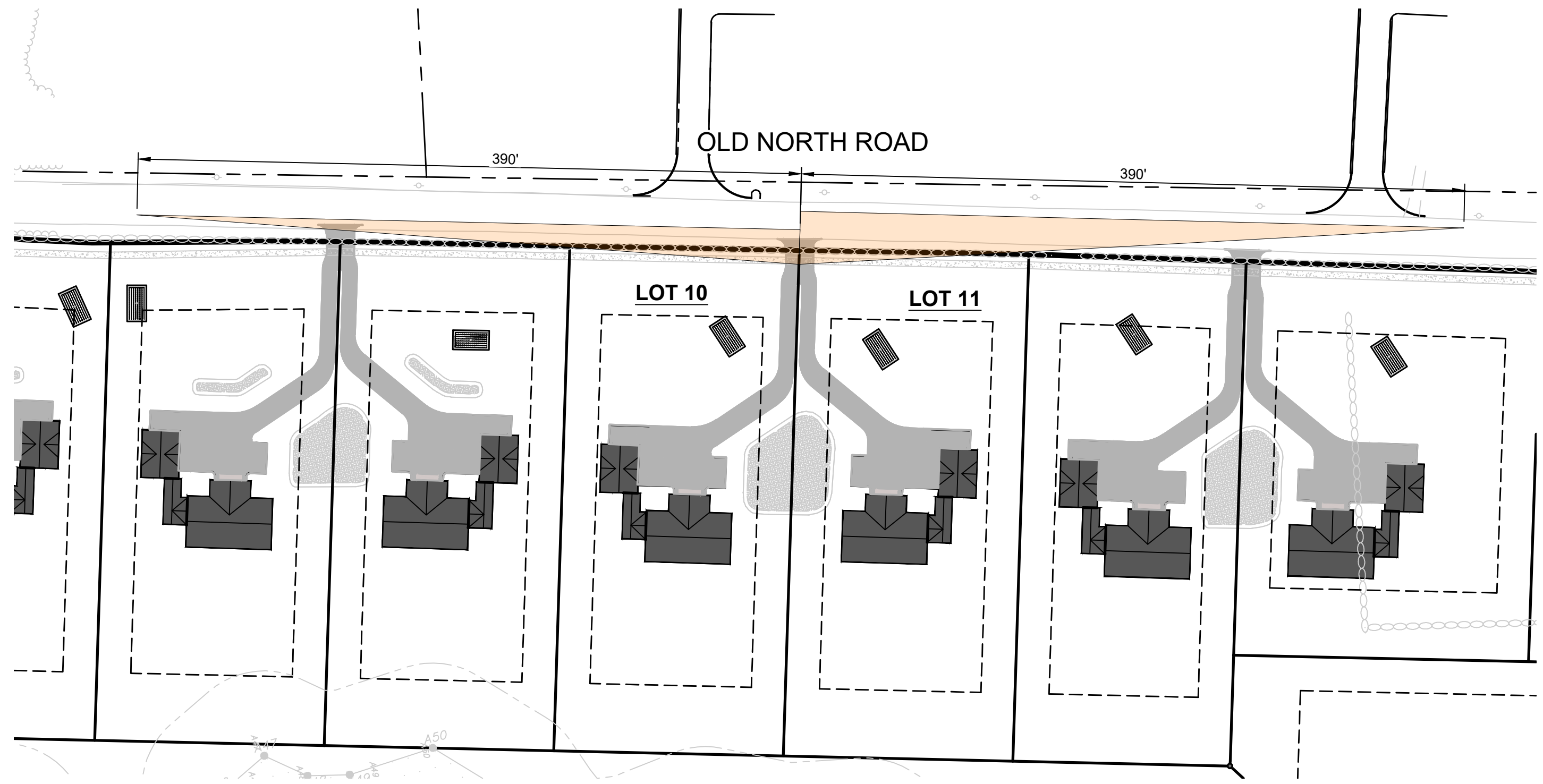
REVISIONS:

NO.	DATE	DESCRIPTION

PROJECT NO.:
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 DESIGNED BY: EB
 CHECKED BY: TT
 DRAWN BY: AWB
 APPROVED BY: TT
 DRAWING TITLE:

SITE DISTANCE
 TRIANGLE 6

DRAWING NO.:
E1.6



Intersection Sight Distance Summary
 Roadway Design Speed = 35 MPH
 Intersection Sight Distance Requirement = 390'

Scale: 1"=60'
 0 30' 60' 120'



SCALE ADJUSTMENT GUIDE
0" 1"
BAR IS ONE INCH ON ORIGINAL DRAWING

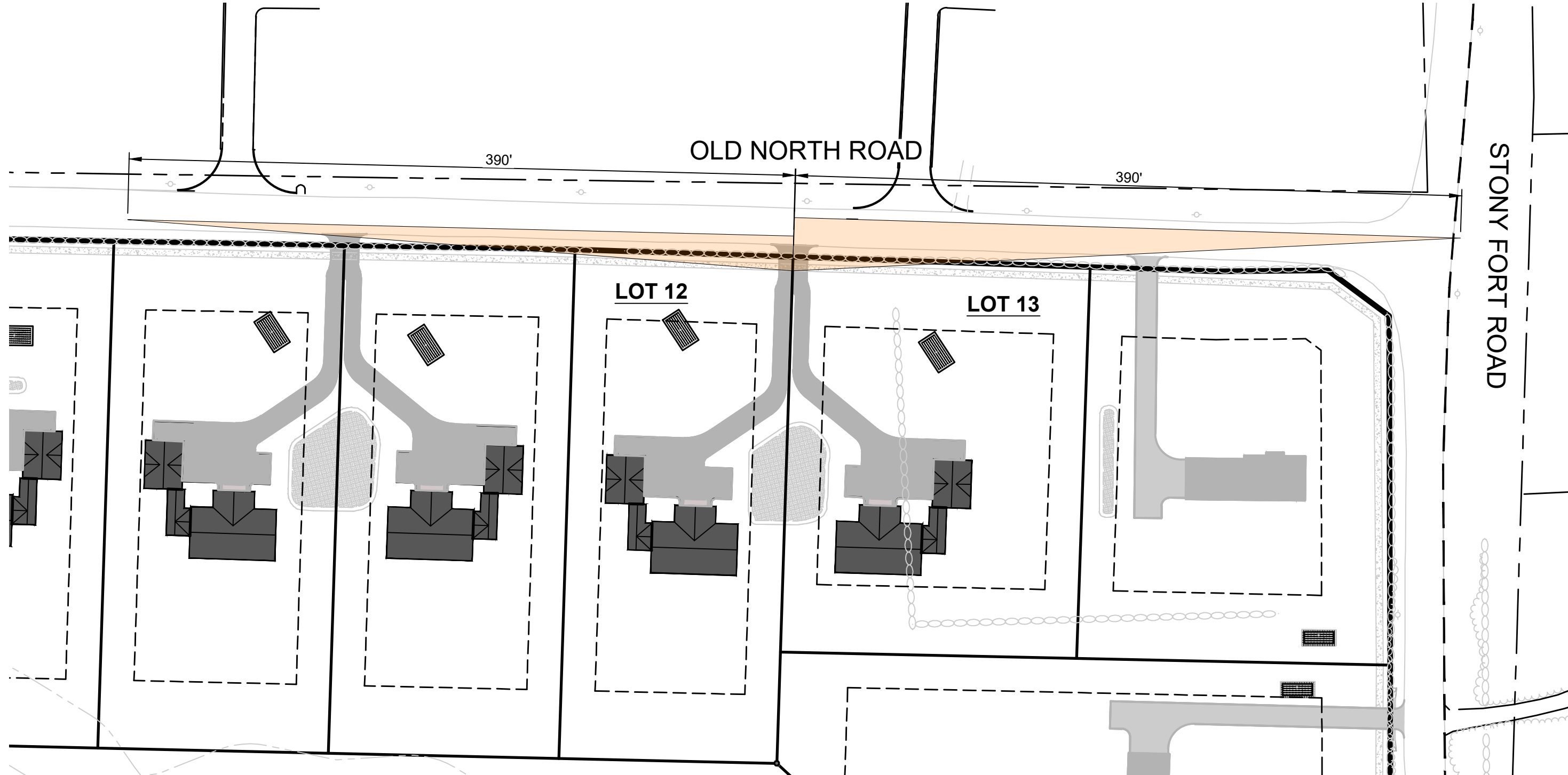
Picerne - Fieldstone Farms
Old North Road and Stony Fort Road
South Kingstown, Rhode Island

REVISIONS:

PROJECT NO.:
DATE: MAY 2022
SCALE: 1" = 60'
DESIGNED BY: EB
CHECKED BY: TT
DRAWN BY: AWB
APPROVED BY: TT
DRAWING TITLE:

SITE DISTANCE TRIANGLE 7

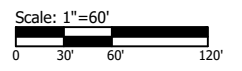
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E1.7



Intersection Sight Distance Summary

Roadway Design Speed = 35 MPH

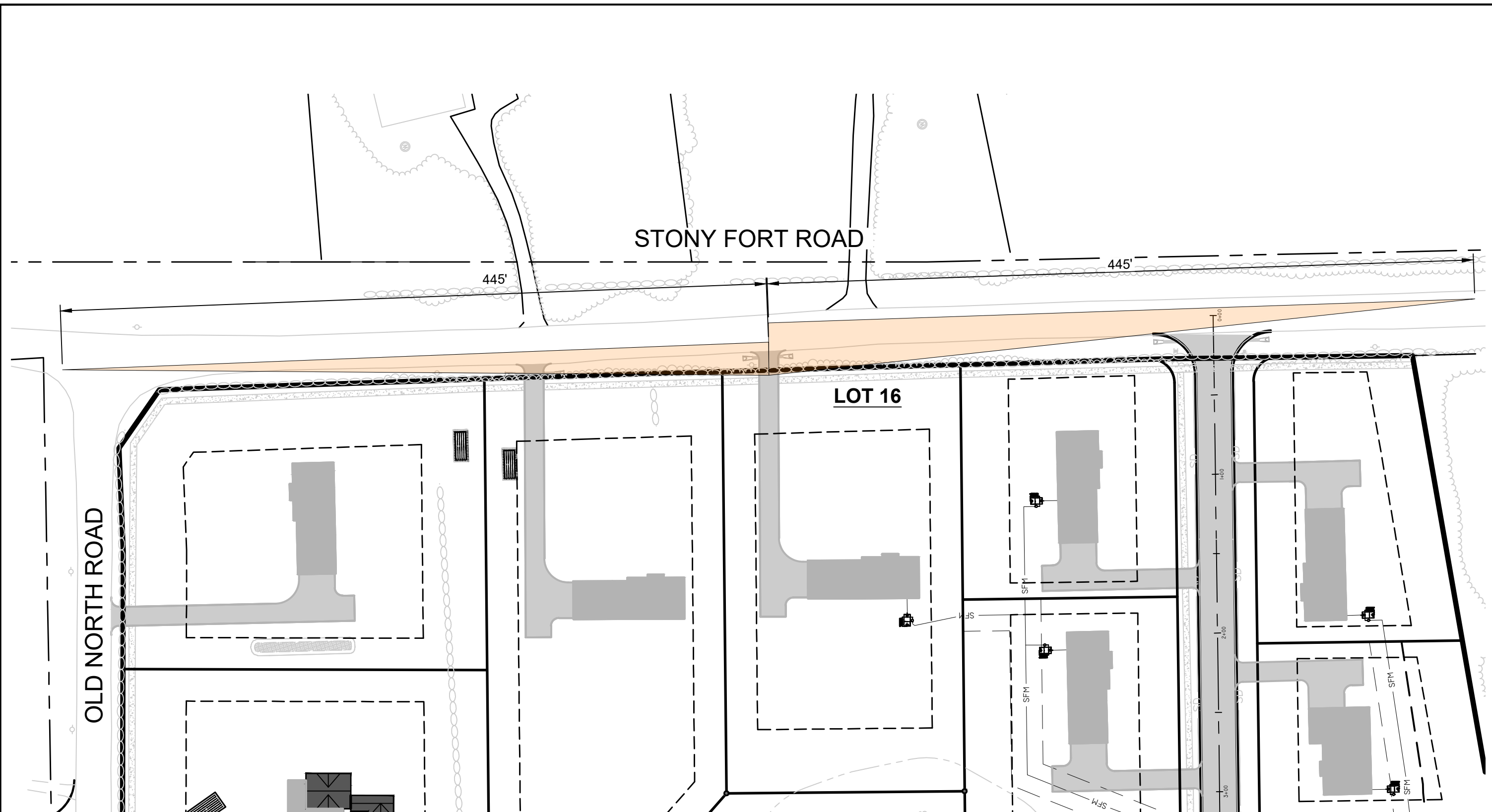
Intersection Sight Distance Requirement = 390'





SCALE ADJUSTMENT GUIDE
 0" 1"
 BAR IS ONE INCH ON ORIGINAL DRAWING

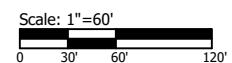
Picrner - Fieldstone Farms
 Old North Road and Stony Fort Road
 South Kingstown, Rhode Island



Intersection Sight Distance Summary

Roadway Design Speed = 40 MPH

Intersection Sight Distance Requirement = 445'



REVISIONS:

NO.	DATE	DESCRIPTION

PROJECT NO.:
 DATE: MAY 2022
 SCALE: 1" = 60'
 DESIGNED BY: EB
 CHECKED BY: TT
 DRAWN BY: AWB
 APPROVED BY: TT
 DRAWING TITLE:

SITE DISTANCE
 TRIANGLE 10

DRAWING NO.:
E1.10



Appendix F
Background Growth

Picerne-Fieldstone Farms-TIA-RI
 South Kingstown, RI
 Existing and Proposed Volumes
 Pare Project No. 18145.00
 May 26, 2022



RIDOT
Route 108 Traffic Count Station 3200721080
 Route 108 Between Route 138 & Saugatucket Road

AADT
 2021 11,200
 2008 9,700
 Years 13

ANNUAL GROWTH RATE 1.11%
Say 1.50%

Town	Roadway	Segment	StationNo	AADT	Date	Bridge	Func1	Loop	PeakHr
32	STHW	BTW	3200721080	11200	2021		14 R		0
32	STHW	BTW	3200721080	10700	2019		14 R		0
32	STHW	BTW	3200721080	10000	2018		14 R		0
32	STHW	BTW	3200721080	8200	2017		14 R		0
32	STHW	BTW	3200721080	9100	2015		14 R		0
32	STHW	BTW	3200721080	10800	2013		14 R		0
32	STHW	BTW	3200721080	10400	2012		14 R		0
32	STHW	BTW	3200721080	9000	2011		14 R		17
32	STHW	BTW	3200721080	9300	2010		14 R		0
32	STHW	BTW	3200721080	10000	2009		14 R		0
32	STHW	BTW	3200721080	9700	2008		14 R		0



Appendix G
Trip Generation and Distribution

Picerne-Fieldstone Farms-TIA-RI
 South Kingstown, RI
 Existing and Proposed Volumes
 Pare Project No. 18145.00
 May 27, 2022



Single-Family Homes

Land Use Code 210: Single-Family Detached Housing

Average Vehicle Trip Ends vs. Dwelling Units

Proposed: Dwelling Units 39 Units

On a: Weekday

Average Rate:	$9.44 * 39 =$	368	
Fitted Curve Equation:	$e^{((0.92 * \ln(39)) + 2.71)} =$	438	
Trips Entering	$50% * 438$	219	
Trips Exiting	$50% * 438$	219	
		438	Trips

AM

On a: Weekday Peak Hour of Generator

Average Rate:	$0.76 * 39 =$	30	
Fitted Curve Equation:	$e^{((0.91 * \ln(39)) + 0.20)} =$	34	
Trips Entering	$26% * 34$	9	
Trips Exiting	$74% * 34$	25	
		34	Trips

PM

On a: Weekday Peak Hour of Generator

Average Rate:	$1.00 * 39 =$	39	
Fitted Curve Equation:	$e^{((0.94 * \ln(9)) + 0.34)} =$	44	
Trips Entering	$64% * 44$	28	
Trips Exiting	$36% * 44$	16	
		44	Trips

Table 3. Residence MCD/County to Workplace MCD/County Commuting Flows for the United States and Puerto Rico Sorted by Residence Geography: 5-Year ACS, 2009-2013

For more information on sampling and estimation methods, confidentiality protection, and sampling and nonsampling errors, see

<http://www2.census.gov/programs-surveys/acs/tech_docs/accuracy/MultiyearACSAccuracyofData2013.pdf>.

Universe: Workers 16 years (members of the Armed Forces and civilians) who were at work during the reference week.

Commuting flows are sorted by residence state, residence county, and residence minor civil division.

Residence			Place of Work			Commuting Flow			
State Name	County Name	Minor Civil Division Name	State Name	County Name	Minor Civil Division Name	Workers in Commuting Flow	Margin of Error	Percentage of Commuters	Route Taken
Rhode Island	Washington County	South Kingstown town	Arizona	Pima County		21	35	0.15%	None
Rhode Island	Washington County	South Kingstown town	Connecticut	Hartford County	East Windsor town	7	11	0.05%	Plains Rd
Rhode Island	Washington County	South Kingstown town	Connecticut	Hartford County	Glastonbury town	14	27	0.10%	Plains Rd
Rhode Island	Washington County	South Kingstown town	Connecticut	Hartford County	Hartford town	8	13	0.06%	Plains Rd
Rhode Island	Washington County	South Kingstown town	Connecticut	Hartford County	Simsbury town	7	12	0.05%	Plains Rd
Rhode Island	Washington County	South Kingstown town	Connecticut	Middlesex County	Essex town	4	7	0.03%	Plains Rd
Rhode Island	Washington County	South Kingstown town	Connecticut	New Haven County	Branford town	18	23	0.13%	Plains Rd
Rhode Island	Washington County	South Kingstown town	Connecticut	New London County	East Lyme town	5	9	0.04%	Plains Rd
Rhode Island	Washington County	South Kingstown town	Connecticut	New London County	Groton town	81	51	0.57%	Plains Rd
Rhode Island	Washington County	South Kingstown town	Connecticut	New London County	Ledyard town	22	28	0.16%	Plains Rd
Rhode Island	Washington County	South Kingstown town	Connecticut	New London County	New London town	84	52	0.59%	Plains Rd
Rhode Island	Washington County	South Kingstown town	Connecticut	New London County	Stonington town	87	65	0.61%	Plains Rd
Rhode Island	Washington County	South Kingstown town	Florida	Orange County		13	19	0.09%	None
Rhode Island	Washington County	South Kingstown town	Illinois	Will County		17	23	0.12%	None
Rhode Island	Washington County	South Kingstown town	Kentucky	Fayette County		19	27	0.13%	None
Rhode Island	Washington County	South Kingstown town	Louisiana	Lafayette Parish		8	13	0.06%	None
Rhode Island	Washington County	South Kingstown town	Massachusetts	Bristol County	Attleboro city	52	33	0.37%	Slocum Rd
Rhode Island	Washington County	South Kingstown town	Massachusetts	Bristol County	Fall River city	18	28	0.13%	Slocum Rd
Rhode Island	Washington County	South Kingstown town	Massachusetts	Bristol County	New Bedford city	16	16	0.11%	Slocum Rd
Rhode Island	Washington County	South Kingstown town	Massachusetts	Bristol County	North Attleborough town	24	28	0.17%	Slocum Rd
Rhode Island	Washington County	South Kingstown town	Massachusetts	Bristol County	Raynham town	5	7	0.04%	Slocum Rd
Rhode Island	Washington County	South Kingstown town	Massachusetts	Bristol County	Somerset town	13	20	0.09%	Slocum Rd
Rhode Island	Washington County	South Kingstown town	Massachusetts	Essex County	Lawrence city	18	20	0.13%	Slocum Rd
Rhode Island	Washington County	South Kingstown town	Massachusetts	Hampden County	Springfield city	35	40	0.25%	Plains Rd
Rhode Island	Washington County	South Kingstown town	Massachusetts	Middlesex County	Belmont town	12	16	0.08%	Slocum Rd
Rhode Island	Washington County	South Kingstown town	Massachusetts	Middlesex County	Cambridge city	8	12	0.06%	Slocum Rd
Rhode Island	Washington County	South Kingstown town	Massachusetts	Middlesex County	Hopkinton town	2	4	0.01%	Slocum Rd
Rhode Island	Washington County	South Kingstown town	Massachusetts	Middlesex County	North Reading town	9	13	0.06%	Slocum Rd
Rhode Island	Washington County	South Kingstown town	Massachusetts	Middlesex County	Tewksbury town	25	41	0.18%	Slocum Rd
Rhode Island	Washington County	South Kingstown town	Massachusetts	Middlesex County	Woburn city	11	17	0.08%	Slocum Rd
Rhode Island	Washington County	South Kingstown town	Massachusetts	Norfolk County	Canton town	12	16	0.08%	Slocum Rd

Residence			Place of Work			Commuting Flow			
State Name	County Name	Minor Civil Division Name	State Name	County Name	Minor Civil Division Name	Workers in Commuting Flow	Margin of Error	Percentage of Commuters	Route Taken
Rhode Island	Washington County	South Kingstown town	Massachusetts	Norfolk County	Foxborough town	27	28	0.19%	Slocum Rd
Rhode Island	Washington County	South Kingstown town	Massachusetts	Norfolk County	Needham town	8	12	0.06%	Slocum Rd
Rhode Island	Washington County	South Kingstown town	Massachusetts	Norfolk County	Quincy city	5	11	0.04%	Slocum Rd
Rhode Island	Washington County	South Kingstown town	Massachusetts	Norfolk County	Westwood town	12	17	0.08%	Slocum Rd
Rhode Island	Washington County	South Kingstown town	Massachusetts	Suffolk County	Boston city	42	40	0.30%	Slocum Rd
Rhode Island	Washington County	South Kingstown town	Massachusetts	Worcester County	Shrewsbury town	10	12	0.07%	Slocum Rd
Rhode Island	Washington County	South Kingstown town	Massachusetts	Worcester County	Worcester city	33	24	0.23%	Slocum Rd
Rhode Island	Washington County	South Kingstown town	New Hampshire	Hillsborough County	Manchester city	28	44	0.20%	Slocum Rd
Rhode Island	Washington County	South Kingstown town	New Hampshire	Hillsborough County	Nashua city	4	7	0.03%	Slocum Rd
Rhode Island	Washington County	South Kingstown town	New Hampshire	Hillsborough County	Wilton town	15	23	0.11%	Slocum Rd
Rhode Island	Washington County	South Kingstown town	New Jersey	Bergen County	Oradell borough	8	12	0.06%	None
Rhode Island	Washington County	South Kingstown town	New York	New York County	Manhattan borough	19	21	0.13%	None
Rhode Island	Washington County	South Kingstown town	New York	Suffolk County	East Hampton town	24	37	0.17%	None
Rhode Island	Washington County	South Kingstown town	New York	Westchester County	Rye town	32	37	0.23%	None
Rhode Island	Washington County	South Kingstown town	North Carolina	Brunswick County		6	10	0.04%	None
Rhode Island	Washington County	South Kingstown town	Rhode Island	Bristol County	Barrington town	12	17	0.08%	Slocum Rd
Rhode Island	Washington County	South Kingstown town	Rhode Island	Bristol County	Bristol town	11	15	0.08%	Rte 138 EB
Rhode Island	Washington County	South Kingstown town	Rhode Island	Bristol County	Warren town	15	24	0.11%	Slocum Rd
Rhode Island	Washington County	South Kingstown town	Rhode Island	Kent County	Coventry town	123	79	0.87%	Slocum Rd
Rhode Island	Washington County	South Kingstown town	Rhode Island	Kent County	East Greenwich town	264	104	1.86%	Slocum Rd
Rhode Island	Washington County	South Kingstown town	Rhode Island	Kent County	Warwick city	755	148	5.32%	Slocum Rd
Rhode Island	Washington County	South Kingstown town	Rhode Island	Kent County	West Greenwich town	58	45	0.41%	Slocum Rd
Rhode Island	Washington County	South Kingstown town	Rhode Island	Kent County	West Warwick town	66	48	0.47%	Slocum Rd
Rhode Island	Washington County	South Kingstown town	Rhode Island	Newport County	Jamestown town	40	31	0.28%	Rte 138 EB
Rhode Island	Washington County	South Kingstown town	Rhode Island	Newport County	Middletown town	217	76	1.53%	Rte 138 EB
Rhode Island	Washington County	South Kingstown town	Rhode Island	Newport County	Newport city	546	189	3.85%	Rte 138 EB
Rhode Island	Washington County	South Kingstown town	Rhode Island	Newport County	Portsmouth town	18	21	0.13%	Rte 138 EB
Rhode Island	Washington County	South Kingstown town	Rhode Island	Providence County	Burrillville town	14	16	0.10%	Slocum Rd
Rhode Island	Washington County	South Kingstown town	Rhode Island	Providence County	Cranston city	363	132	2.56%	Slocum Rd
Rhode Island	Washington County	South Kingstown town	Rhode Island	Providence County	Cumberland town	26	22	0.18%	Slocum Rd
Rhode Island	Washington County	South Kingstown town	Rhode Island	Providence County	East Providence city	33	27	0.23%	Slocum Rd
Rhode Island	Washington County	South Kingstown town	Rhode Island	Providence County	Glocester town	7	13	0.05%	Slocum Rd
Rhode Island	Washington County	South Kingstown town	Rhode Island	Providence County	Johnston town	51	42	0.36%	Slocum Rd
Rhode Island	Washington County	South Kingstown town	Rhode Island	Providence County	Lincoln town	75	51	0.53%	Slocum Rd
Rhode Island	Washington County	South Kingstown town	Rhode Island	Providence County	North Providence town	154	103	1.09%	Slocum Rd

Residence			Place of Work			Commuting Flow			
State Name	County Name	Minor Civil Division Name	State Name	County Name	Minor Civil Division Name	Workers in Commuting Flow	Margin of Error	Percentage of Commuters	Route Taken
Rhode Island	Washington County	South Kingstown town	Rhode Island	Providence County	North Smithfield town	24	27	0.17%	Slocum Rd
Rhode Island	Washington County	South Kingstown town	Rhode Island	Providence County	Pawtucket city	163	85	1.15%	Slocum Rd
Rhode Island	Washington County	South Kingstown town	Rhode Island	Providence County	Providence city	968	193	6.83%	Slocum Rd
Rhode Island	Washington County	South Kingstown town	Rhode Island	Providence County	Smithfield town	108	56	0.76%	Slocum Rd
Rhode Island	Washington County	South Kingstown town	Rhode Island	Providence County	Woonsocket city	69	54	0.49%	Slocum Rd
Rhode Island	Washington County	South Kingstown town	Rhode Island	Washington County	Charlestown town	292	147	2.06%	Plains Rd
Rhode Island	Washington County	South Kingstown town	Rhode Island	Washington County	Exeter town	54	44	0.38%	Plains Rd
Rhode Island	Washington County	South Kingstown town	Rhode Island	Washington County	Hopkinton town	55	38	0.39%	Plains Rd
Rhode Island	Washington County	South Kingstown town	Rhode Island	Washington County	Narragansett town	901	193	6.35%	Rte 138 EB
Rhode Island	Washington County	South Kingstown town	Rhode Island	Washington County	New Shoreham town	8	13	0.06%	None
Rhode Island	Washington County	South Kingstown town	Rhode Island	Washington County	North Kingstown town	814	175	5.74%	Slocum Rd
Rhode Island	Washington County	South Kingstown town	Rhode Island	Washington County	Richmond town	121	80	0.85%	Plains Rd
Rhode Island	Washington County	South Kingstown town	Rhode Island	Washington County	South Kingstown town	6,305	435	44.45%	URI/Rte 108 SB
Rhode Island	Washington County	South Kingstown town	Rhode Island	Washington County	Westerly town	487	131	3.43%	Plains Rd
Rhode Island	Washington County	South Kingstown town	Other workplace outside of the U.S.			18	19	0.13%	None

Source: U.S. Census Bureau, 2009-2013 American Community Survey.

Data are based on a sample and are subject to sampling variability. A margin of error is a measure of an estimate's variability. The larger the margin of error in relation to the size of the estimates, the less reliable the estimate. When added to and subtracted from the estimate, the margin of error forms the 90 percent confidence interval.

Final Split

Flows are presented for counties and their corresponding MCDs for the 12 "strong MCD states" (CT, ME, MA, NH, RI, VT, MI, WI, NJ, NY, MN, and PA), and at the county level for all other states.

Route	Distribution	Final Distribution
Slocum Rd	32.23%	33%
Rte 138 EB	12.22%	12%
URI/Rte 108 SB	44.45%	45%
Plains Rd	9.74%	10%
None	1.36%	UR/Rte 108 Split
URI	14.82%	15%
Route 108	29.64%	30%

Picerne-Fieldstone Farms-TIA-RI
 South Kingstown, RI
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 Pare Project No. 18145.00
 May 21, 2022



2022-2027
 NO-BUILD TRAFFIC VOLUMES
 Future No-Build Growth Factor = 1.5%

Weekday AM Peak Hour

Weekday PM Peak Hour

Kingstown Road (Route 138/108) & Mooresfield Road (Route 138)				
	2022 Existing	2027 No-Build	Site Generated	2027 Build
NB - LT	445	479	3	482
NB - RT	68	73	0	73
EB - T	298	321	0	321
EB - RT	301	324	8	332
WB - LT	49	53	0	53
WB - T	456	491	0	491

Kingstown Road (Route 138/108) & Mooresfield Road (Route 138)				
	2022 Existing	2027 No-Build	Site Generated	2027 Build
NB - LT	427	460	8	468
NB - RT	67	72	0	72
EB - T	436	470	0	470
EB - RT	592	638	5	643
WB - LT	49	53	0	53
WB - T	454	489	0	489

Old North Road at Bills Road				
	2022 Existing	2027 No-Build	Site Generated	2027 Build
NB - LT	30	32	0	32
NB - T	314	338	3	341
SB - T	135	145	11	156
SB - RT	27	29	0	29
EB - LT	4	4	0	4
EB - RT	1	1	0	1

Old North Road at Bills Road				
	2022 Existing	2027 No-Build	Site Generated	2027 Build
NB - LT	25	27	0	27
NB - T	213	229	11	240
SB - T	130	140	6	146
SB - RT	9	10	0	10
EB - LT	37	40	0	40
EB - RT	11	12	0	12

Old North Road at Bean Farm Drive and Flagg Road				
	2022 Existing	2027 No-Build	Site Generated	2027 Build
NB - LT	215	232	0	232
NB - T	98	106	3	109
NB - RT	0	0	0	0
SB - LT	0	0	0	0
SB - T	155	167	11	178
SB - RT	213	229	3	232
EB - LT	23	25	2	27
EB - T	0	0	0	0
EB - RT	8	9	0	9
WB - LT	0	0	0	0
WB - T	1	1	0	1
WB - RT	3	3	0	3

Old North Road at Bean Farm Drive and Flagg Road				
	2022 Existing	2027 No-Build	Site Generated	2027 Build
NB - LT	67	72	0	72
NB - T	176	190	11	201
NB - RT	2	2	0	2
SB - LT	2	2	0	2
SB - T	63	68	6	74
SB - RT	62	67	3	70
EB - LT	188	203	5	208
EB - T	0	0	0	0
EB - RT	77	83	0	83
WB - LT	0	0	0	0
WB - T	0	0	0	0
WB - RT	1	1	0	1

Kingstown Road (Route 138) & Upper College Road				
	2022 Existing	2027 No-Build	Site Generated	2027 Build
SB - LT	125	135	0	135
SB - RT	31	33	0	33
EB - LT	37	40	0	40
EB - T	462	498	0	498
WB - T	396	427	3	430
WB - RT	142	153	0	153

Kingstown Road (Route 138) & Upper College Road				
	2022 Existing	2027 No-Build	Site Generated	2027 Build
SB - LT	517	557	0	557
SB - RT	48	52	0	52
EB - LT	30	32	0	32
EB - T	589	635	3	638
WB - T	520	560	1	561
WB - RT	119	128	0	128

Picerne-Fieldstone Farms-TIA-RI
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2022-2027
 NO-BUILD TRAFFIC VOLUMES
 Future No-Build Growth Factor = 1.5%

Weekday AM Peak Hour

Weekday PM Peak Hour

Moorefield Road (Route 138) & Stony Fort Road				
	2022 Existing	2027 No-Build	Site Generated	2027 Build
SB - LT	60	65	3	68
SB - RT	64	69	0	69
EB - LT	13	14	0	14
EB - T	557	600	0	600
WB - T	538	580	0	580
WB - RT	96	103	1	104

Moorefield Road (Route 138) & Stony Fort Road				
	2022 Existing	2027 No-Build	Site Generated	2027 Build
SB - LT	112	121	2	123
SB - RT	61	66	0	66
EB - LT	18	19	0	19
EB - T	568	612	0	612
WB - T	528	569	0	569
WB - RT	50	54	3	57

Moorefield Road (Route 138) & Broad Rock Road				
	2022 Existing	2027 No-Build	Site Generated	2027 Build
NB - LT	4	4	0	4
NB - RT	90	97	0	97
EB - T	506	545	0	545
EB - RT	11	12	0	12
WB - LT	546	588	0	588
WB - T	56	60	0	60

Moorefield Road (Route 138) & Broad Rock Road				
	2022 Existing	2027 No-Build	Site Generated	2027 Build
NB - LT	6	6	0	6
NB - RT	92	99	0	99
EB - T	525	566	0	566
EB - RT	14	15	0	15
WB - LT	497	535	0	535
WB - T	92	99	0	99

Old North Road & Stony Fort Road				
	2022 Existing	2027 No-Build	Site Generated	2027 Build
NB - LT	4	4	0	4
NB - RT	97	104	7	111
EB - T	28	30	0	30
EB - RT	2	2	0	2
WB - LT	364	392	10	402
WB - T	44	47	0	47

Old North Road & Stony Fort Road				
	2022 Existing	2027 No-Build	Site Generated	2027 Build
NB - LT	7	8	0	8
NB - RT	325	350	13	363
EB - T	28	30	0	30
EB - RT	3	3	0	3
WB - LT	111	120	9	129
WB - T	34	37	0	37

Slocum Road & Stony Fort Road				
	2022 Existing	2027 No-Build	Site Generated	2027 Build
SB - LT	63	68	0	68
SB - RT	350	377	3	380
EB - LT	109	117	8	125
EB - T	50	54	3	57
WB - T	99	107	1	108
WB - RT	32	34	0	34

Slocum Road & Stony Fort Road				
	2022 Existing	2027 No-Build	Site Generated	2027 Build
SB - LT	60	65	0	65
SB - RT	125	135	9	144
EB - LT	260	280	5	285
EB - T	119	128	2	130
WB - T	21	23	3	26
WB - RT	65	70	0	70

Picerne-Fieldstone Farms-TIA-RI
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2022-2027
 NO-BUILD TRAFFIC VOLUMES
 Future No-Build Growth Factor = 1.5%

Weekday AM Peak Hour

Weekday PM Peak Hour

Stony Fort Road & Site Driveway				
	2022 Existing	2027 No-Build	Site Generated	2027 Build
NB - LT	-	-	9	9
NB - RT	-	-	7	7
EB - T	-	-	4	138
EB - RT	-	-	3	3
WB - LT	-	-	3	3
WB - T	-	-	1	440

Stony Fort Road & Site Driveway				
	2022 Existing	2027 No-Build	Site Generated	2027 Build
NB - LT	-	-	5	5
NB - RT	-	-	4	4
EB - T	-	-	3	383
EB - RT	-	-	10	10
WB - LT	-	-	8	8
WB - T	-	-	4	161

Old North Road & Site Driveway				
	2022 Existing	2027 No-Build	Site Generated	2027 Build
NB - T	-	-	3	137
NB - RT	-	-	2	2
SB - LT	-	-	1	1
SB - T	-	-	9	405
WB - LT	-	-	5	5
WB - RT	-	-	4	4

Old North Road & Site Driveway				
	2022 Existing	2027 No-Build	Site Generated	2027 Build
NB - T	-	-	10	404
NB - RT	-	-	6	6
SB - LT	-	-	4	4
SB - T	-	-	5	142
WB - LT	-	-	4	4
WB - RT	-	-	3	3



Appendix H
Capacity Analysis

Intersection									
Intersection Delay, s/veh	26.2								
Intersection LOS	D								
Movement	EBU	EBL	EBT	WBU	WBT	WBR	SBU	SBL	SBR
Vol, veh/h	0	98	53	0	197	28	0	49	419
Peak Hour Factor	0.92	0.56	0.56	0.92	0.78	0.78	0.92	0.73	0.73
Heavy Vehicles, %	2	5	4	2	0	4	2	0	1
Mvmt Flow	0	175	95	0	253	36	0	67	574
Number of Lanes	0	0	1	0	1	0	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	1
HCM Control Delay	15.3	14.9	35.9
HCM LOS	C	B	E

Lane	EBLn1	WBLn1	SBLn1
Vol Left, %	65%	0%	10%
Vol Thru, %	35%	88%	0%
Vol Right, %	0%	12%	90%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	151	225	468
LT Vol	98	0	49
Through Vol	53	197	0
RT Vol	0	28	419
Lane Flow Rate	270	288	641
Geometry Grp	1	1	1
Degree of Util (X)	0.479	0.488	0.897
Departure Headway (Hd)	6.394	6.089	5.035
Convergence, Y/N	Yes	Yes	Yes
Cap	558	588	712
Service Time	4.482	4.175	3.105
HCM Lane V/C Ratio	0.484	0.49	0.9
HCM Control Delay	15.3	14.9	35.9
HCM Lane LOS	C	B	E
HCM 95th-tile Q	2.6	2.7	11.5

Intersection												
Intersection Delay, s/veh	14.3											
Intersection LOS	B											
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	15	0	0	0	0	4	1	0	64	400	0
Peak Hour Factor	0.92	0.63	0.63	0.63	0.92	0.63	0.63	0.63	0.92	0.77	0.77	0.77
Heavy Vehicles, %	2	7	0	0	2	0	0	0	2	3	1	0
Mvmt Flow	0	24	0	0	0	0	6	2	0	83	519	0
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	9.2	8.6	16.7
HCM LOS	A	A	C

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	14%	100%	0%	0%
Vol Thru, %	86%	0%	80%	0%
Vol Right, %	0%	0%	20%	100%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	464	15	5	109
LT Vol	64	15	0	0
Through Vol	400	0	4	0
RT Vol	0	0	1	109
Lane Flow Rate	603	24	8	214
Geometry Grp	1	1	1	1
Degree of Util (X)	0.702	0.039	0.012	0.237
Departure Headway (Hd)	4.194	5.949	5.539	3.989
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	850	604	648	904
Service Time	2.281	3.967	3.558	1.996
HCM Lane V/C Ratio	0.709	0.04	0.012	0.237
HCM Control Delay	16.7	9.2	8.6	8.2
HCM Lane LOS	C	A	A	A
HCM 95th-tile Q	5.9	0.1	0	0.9

Intersection

Intersection Delay, s/veh

Intersection LOS

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	0	0	109
Peak Hour Factor	0.92	0.51	0.51	0.51
Heavy Vehicles, %	2	0	0	4
Mvmt Flow	0	0	0	214
Number of Lanes	0	0	1	0

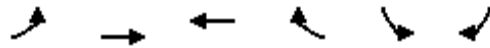
Approach SB

Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	8.2
HCM LOS	A

Lane

Lanes, Volumes, Timings
 11: Kingstown Road (Route 138) & Upper College Road

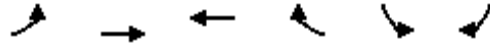
Fieldstone Farm TIA
 Existing (2018) AM Peak Hour



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕	↕	↕	
Volume (vph)	43	437	425	230	104	37
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0			100	0	0
Storage Lanes	0			1	1	0
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt				0.850	0.964	
Flt Protected		0.996			0.964	
Satd. Flow (prot)	0	1807	1810	1568	1634	0
Flt Permitted		0.943			0.964	
Satd. Flow (perm)	0	1711	1810	1568	1634	0
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)				177	25	
Link Speed (mph)		30	30		30	
Link Distance (ft)		940	1310		427	
Travel Time (s)		21.4	29.8		9.7	
Peak Hour Factor	0.94	0.94	0.95	0.95	0.93	0.93
Heavy Vehicles (%)	2%	5%	5%	3%	7%	11%
Adj. Flow (vph)	46	465	447	242	112	40
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	511	447	242	152	0
Turn Type	pm+pt	NA	NA	Perm	Prot	
Protected Phases	5	2	6		3	
Permitted Phases	2			6		
Detector Phase	5	2	6	6	3	
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	
Minimum Split (s)	8.0	8.0	8.0	8.0	8.0	
Total Split (s)	14.0	34.0	34.0	34.0	37.0	
Total Split (%)	16.5%	40.0%	40.0%	40.0%	43.5%	
Maximum Green (s)	10.0	30.0	30.0	30.0	33.0	
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)		0.0	0.0	0.0	0.0	
Total Lost Time (s)		4.0	4.0	4.0	4.0	
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Vehicle Extension (s)	2.4	2.4	2.4	2.4	2.4	
Recall Mode	None	Min	Min	Min	None	
Walk Time (s)			4.0	4.0		
Flash Dont Walk (s)			10.0	10.0		
Pedestrian Calls (#/hr)			0	0		
Act Effect Green (s)		27.0	27.0	27.0	8.7	
Actuated g/C Ratio		0.67	0.67	0.67	0.22	
v/c Ratio		0.44	0.37	0.22	0.41	
Control Delay		6.6	5.8	2.1	16.0	
Queue Delay		0.0	0.0	0.0	0.0	
Total Delay		6.6	5.8	2.1	16.0	

Lanes, Volumes, Timings
 11: Kingstown Road (Route 138) & Upper College Road

Fieldstone Farm TIA
 Existing (2018) AM Peak Hour

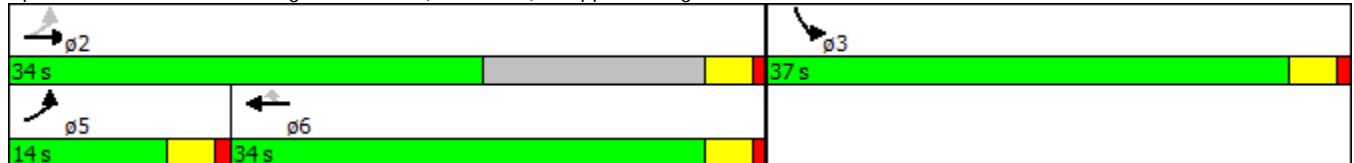


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
LOS		A	A	A	B	
Approach Delay		6.6	4.5		16.0	
Approach LOS		A	A		B	
Queue Length 50th (ft)		56	46	5	24	
Queue Length 95th (ft)		128	103	27	68	
Internal Link Dist (ft)		860	1230		347	
Turn Bay Length (ft)				100		
Base Capacity (vph)		1681	1373	1232	1336	
Starvation Cap Reductn		0	0	0	0	
Spillback Cap Reductn		0	0	0	0	
Storage Cap Reductn		0	0	0	0	
Reduced v/c Ratio		0.30	0.33	0.20	0.11	

Intersection Summary

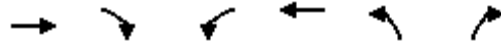
Area Type:	Other
Cycle Length:	85
Actuated Cycle Length:	40.2
Natural Cycle:	40
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.44
Intersection Signal Delay:	6.6
Intersection LOS:	A
Intersection Capacity Utilization:	65.8%
ICU Level of Service:	C
Analysis Period (min):	15

Splits and Phases: 11: Kingstown Road (Route 138) & Upper College Road

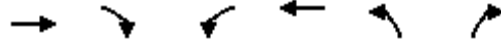


Lanes, Volumes, Timings

12: South Road (Route 108) & Kingstown Road (Route 138)/Mooresfield Road (Route 138) Existing (2018) AM Peak Hour



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↑		↑	↑	
Volume (vph)	342	221	25	551	573	63
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		200	0		0	0
Storage Lanes		1	0		1	0
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850			0.987	
Flt Protected				0.998	0.957	
Satd. Flow (prot)	1810	1553	0	1834	1734	0
Flt Permitted				0.975	0.957	
Satd. Flow (perm)	1810	1553	0	1792	1734	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		240			13	
Link Speed (mph)	30			30	30	
Link Distance (ft)	1310			366	726	
Travel Time (s)	29.8			8.3	16.5	
Peak Hour Factor	0.92	0.92	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	5%	4%	12%	3%	3%	8%
Adj. Flow (vph)	372	240	26	580	603	66
Shared Lane Traffic (%)						
Lane Group Flow (vph)	372	240	0	606	669	0
Turn Type	NA	Perm	Perm	NA	Prot	
Protected Phases	1			1	2	
Permitted Phases		1	1			
Detector Phase	1	1	1	1	2	
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	9.5	9.5	9.5	9.5	9.8	
Total Split (s)	24.5	24.5	24.5	24.5	30.8	
Total Split (%)	44.3%	44.3%	44.3%	44.3%	55.7%	
Maximum Green (s)	20.0	20.0	20.0	20.0	26.0	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.8	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	4.5		4.5	4.8	
Lead/Lag	Lead	Lead	Lead	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	
Vehicle Extension (s)	2.6	2.6	2.6	2.6	2.6	
Recall Mode	Min	Min	Min	Min	None	
Act Effct Green (s)	19.6	19.6		19.6	22.7	
Actuated g/C Ratio	0.38	0.38		0.38	0.44	
v/c Ratio	0.54	0.33		0.89	0.87	
Control Delay	17.2	3.6		36.3	27.4	
Queue Delay	0.0	0.0		0.0	0.0	
Total Delay	17.2	3.6		36.3	27.4	
LOS	B	A		D	C	
Approach Delay	11.9			36.3	27.4	
Approach LOS	B			D	C	

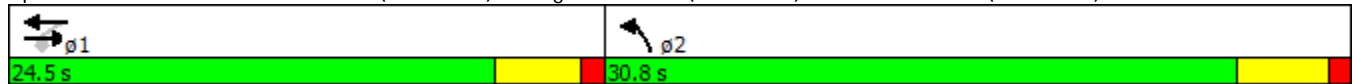


Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Queue Length 50th (ft)	95	0		187	172	
Queue Length 95th (ft)	167	37		#368	#356	
Internal Link Dist (ft)	1230			286	646	
Turn Bay Length (ft)		200				
Base Capacity (vph)	708	754		702	889	
Starvation Cap Reductn	0	0		0	0	
Spillback Cap Reductn	0	0		0	0	
Storage Cap Reductn	0	0		0	0	
Reduced v/c Ratio	0.53	0.32		0.86	0.75	

Intersection Summary

Area Type:	Other
Cycle Length:	55.3
Actuated Cycle Length:	51.7
Natural Cycle:	70
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.89
Intersection Signal Delay:	25.2
Intersection LOS:	C
Intersection Capacity Utilization:	92.6%
ICU Level of Service:	F
Analysis Period (min):	15
# 95th percentile volume exceeds capacity, queue may be longer.	
Queue shown is maximum after two cycles.	

Splits and Phases: 12: South Road (Route 108) & Kingstown Road (Route 138)/Mooresfield Road (Route 138)



3: Old North Road & Stony Fort Road Performance by movement

Movement	EBT	EBR	WBL	WBT	NBL	NBR	All
Denied Del/Veh (s)	0.1	0.1	0.0	0.0	0.1	0.2	0.0
Total Del/Veh (s)	11.1	6.6	3.0	2.5	3.7	4.1	3.5

Intersection: 3: Old North Road & Stony Fort Road

Movement	EB	NB
Directions Served	TR	LR
Maximum Queue (ft)	53	101
Average Queue (ft)	32	46
95th Queue (ft)	51	74
Link Distance (ft)	1392	1108
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection

Int Delay, s/veh 1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	138	577	662	383	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	89	89	85	85	92	92
Heavy Vehicles, %	0	4	4	1	0	0
Mvmt Flow	155	648	779	451	0	0

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	1229	0	1962
Stage 1	-	-	1004
Stage 2	-	-	958
Critical Hdwy	4.1	-	6.4
Critical Hdwy Stg 1	-	-	5.4
Critical Hdwy Stg 2	-	-	5.4
Follow-up Hdwy	2.2	-	3.5
Pot Cap-1 Maneuver	574	-	70
Stage 1	-	-	357
Stage 2	-	-	376
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	574	-	40
Mov Cap-2 Maneuver	-	-	40
Stage 1	-	-	357
Stage 2	-	-	217

Approach	EB	WB	SB
HCM Control Delay, s	2.6	0	0
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	574	-	-	-	-
HCM Lane V/C Ratio	0.27	-	-	-	-
HCM Control Delay (s)	13.6	0	-	-	0
HCM Lane LOS	B	A	-	-	A
HCM 95th %tile Q(veh)	1.1	-	-	-	-

Intersection

Int Delay, s/veh 5.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	32	562	553	176	57	59
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	93	93	83	83	76	76
Heavy Vehicles, %	3	6	3	2	2	5
Mvmt Flow	34	604	666	212	75	78

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	878	0	772
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.13	-	6.25
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.227	-	3.345
Pot Cap-1 Maneuver	765	-	395
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	765	-	395
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0.5	0	62.4
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	765	-	-	-	203
HCM Lane V/C Ratio	0.045	-	-	-	0.752
HCM Control Delay (s)	9.9	0	-	-	62.4
HCM Lane LOS	A	A	-	-	F
HCM 95th %tile Q(veh)	0.1	-	-	-	5

Intersection									
Intersection Delay, s/veh	21								
Intersection LOS	C								
Movement	EBU	EBL	EBT	WBU	WBT	WBR	SBU	SBL	SBR
Vol, veh/h	0	372	175	0	41	72	0	68	112
Peak Hour Factor	0.92	0.87	0.87	0.92	0.76	0.76	0.92	0.90	0.90
Heavy Vehicles, %	2	1	0	2	0	4	2	2	0
Mvmt Flow	0	428	201	0	54	95	0	76	124
Number of Lanes	0	0	1	0	1	0	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	1
HCM Control Delay	27	9.2	10.9
HCM LOS	D	A	B

Lane	EBLn1	WBLn1	SBLn1
Vol Left, %	68%	0%	38%
Vol Thru, %	32%	36%	0%
Vol Right, %	0%	64%	62%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	547	113	180
LT Vol	372	0	68
Through Vol	175	41	0
RT Vol	0	72	112
Lane Flow Rate	629	149	200
Geometry Grp	1	1	1
Degree of Util (X)	0.832	0.203	0.302
Departure Headway (Hd)	4.766	4.908	5.538
Convergence, Y/N	Yes	Yes	Yes
Cap	754	736	654
Service Time	2.845	2.908	3.538
HCM Lane V/C Ratio	0.834	0.202	0.306
HCM Control Delay	27	9.2	10.9
HCM Lane LOS	D	A	B
HCM 95th-tile Q	9.3	0.8	1.3

Intersection												
Intersection Delay, s/veh	8.4											
Intersection LOS	A											
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	71	0	0	0	0	0	1	0	47	151	2
Peak Hour Factor	0.92	0.77	0.77	0.77	0.92	0.25	0.25	0.25	0.92	0.89	0.89	0.89
Heavy Vehicles, %	2	0	0	0	2	0	0	0	2	4	1	0
Mvmt Flow	0	92	0	0	0	0	0	4	0	53	170	2
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	8.6	7.2	9
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	23%	100%	0%	1%
Vol Thru, %	76%	0%	0%	0%
Vol Right, %	1%	0%	100%	99%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	200	71	1	102
LT Vol	47	71	0	1
Through Vol	151	0	0	0
RT Vol	2	0	1	101
Lane Flow Rate	225	92	4	136
Geometry Grp	1	1	1	1
Degree of Util (X)	0.267	0.125	0.005	0.143
Departure Headway (Hd)	4.391	4.874	4.19	3.787
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	822	739	857	951
Service Time	2.391	2.884	2.203	1.797
HCM Lane V/C Ratio	0.274	0.124	0.005	0.143
HCM Control Delay	9	8.6	7.2	7.4
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	1.1	0.4	0	0.5

Intersection

Intersection Delay, s/veh
 Intersection LOS

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	1	0	101
Peak Hour Factor	0.92	0.75	0.75	0.75
Heavy Vehicles, %	2	0	0	0
Mvmt Flow	0	1	0	135
Number of Lanes	0	0	1	0

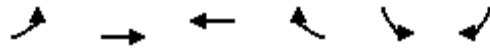
Approach SB

Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	7.4
HCM LOS	A

Lane

Lanes, Volumes, Timings
 11: Kingstown Road (Route 138) & Upper College Road

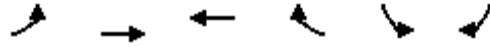
Fieldstone Farm TIA
 Existing (2018) PM Peak Hour



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↑	↗	↘	
Volume (vph)	29	578	429	143	521	48
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0			100	0	0
Storage Lanes	0			1	1	0
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt				0.850	0.989	
Flt Protected		0.998			0.956	
Satd. Flow (prot)	0	1878	1845	1599	1780	0
Flt Permitted		0.967			0.956	
Satd. Flow (perm)	0	1820	1845	1599	1780	0
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)				109	6	
Link Speed (mph)		30	30		30	
Link Distance (ft)		940	1310		427	
Travel Time (s)		21.4	29.8		9.7	
Peak Hour Factor	0.87	0.87	0.93	0.93	0.87	0.87
Heavy Vehicles (%)	0%	1%	3%	1%	1%	0%
Adj. Flow (vph)	33	664	461	154	599	55
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	697	461	154	654	0
Turn Type	pm+pt	NA	NA	Perm	Prot	
Protected Phases	5	2	6		3	
Permitted Phases	2			6		
Detector Phase	5	2	6	6	3	
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	
Minimum Split (s)	8.0	8.0	8.0	8.0	8.0	
Total Split (s)	14.0	34.0	34.0	34.0	37.0	
Total Split (%)	16.5%	40.0%	40.0%	40.0%	43.5%	
Maximum Green (s)	10.0	30.0	30.0	30.0	33.0	
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)		0.0	0.0	0.0	0.0	
Total Lost Time (s)		4.0	4.0	4.0	4.0	
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Vehicle Extension (s)	2.4	2.4	2.4	2.4	2.4	
Recall Mode	None	Min	Min	Min	None	
Walk Time (s)			4.0	4.0		
Flash Dont Walk (s)			10.0	10.0		
Pedestrian Calls (#/hr)			0	0		
Act Effect Green (s)		27.7	27.7	27.7	30.3	
Actuated g/C Ratio		0.42	0.42	0.42	0.46	
v/c Ratio		0.91	0.60	0.21	0.80	
Control Delay		38.1	19.2	5.7	24.9	
Queue Delay		0.0	0.0	0.0	0.0	
Total Delay		38.1	19.2	5.7	24.9	

Lanes, Volumes, Timings
 11: Kingstown Road (Route 138) & Upper College Road

Fieldstone Farm TIA
 Existing (2018) PM Peak Hour

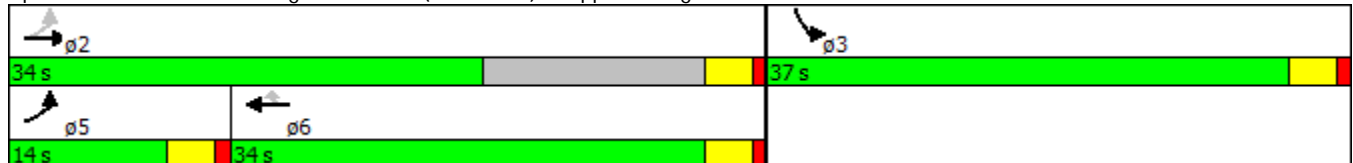


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
LOS		D	B	A	C	
Approach Delay		38.1	15.9		24.9	
Approach LOS		D	B		C	
Queue Length 50th (ft)		275	149	11	228	
Queue Length 95th (ft)		#457	239	43	343	
Internal Link Dist (ft)		860	1230		347	
Turn Bay Length (ft)				100		
Base Capacity (vph)		1233	852	797	908	
Starvation Cap Reductn		0	0	0	0	
Spillback Cap Reductn		0	0	0	0	
Storage Cap Reductn		0	0	0	0	
Reduced v/c Ratio		0.57	0.54	0.19	0.72	

Intersection Summary

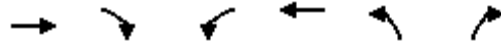
Area Type: Other
 Cycle Length: 85
 Actuated Cycle Length: 66.1
 Natural Cycle: 70
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.91
 Intersection Signal Delay: 26.7
 Intersection LOS: C
 Intersection Capacity Utilization 92.5%
 ICU Level of Service F
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 11: Kingstown Road (Route 138) & Upper College Road

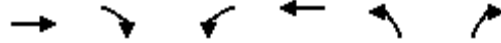


Lanes, Volumes, Timings

12: South Road (Route 108) & Kingstown Road (Route 138)/Mooresfield Road (Route 138) Existing (2018) PM Peak Hour



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↑		↑	↑	
Volume (vph)	452	573	59	414	417	54
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		200	0		0	0
Storage Lanes		1	0		1	0
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850			0.985	
Flt Protected				0.994	0.958	
Satd. Flow (prot)	1863	1599	0	1872	1765	0
Flt Permitted				0.859	0.958	
Satd. Flow (perm)	1863	1599	0	1618	1765	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		610			16	
Link Speed (mph)	30			30	30	
Link Distance (ft)	1310			366	726	
Travel Time (s)	29.8			8.3	16.5	
Peak Hour Factor	0.94	0.94	0.85	0.85	0.91	0.91
Heavy Vehicles (%)	2%	1%	0%	1%	1%	6%
Adj. Flow (vph)	481	610	69	487	458	59
Shared Lane Traffic (%)						
Lane Group Flow (vph)	481	610	0	556	517	0
Turn Type	NA	Perm	Perm	NA	Prot	
Protected Phases	1			1	2	
Permitted Phases		1	1			
Detector Phase	1	1	1	1	2	
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	9.5	9.5	9.5	9.5	9.8	
Total Split (s)	24.5	24.5	24.5	24.5	30.8	
Total Split (%)	44.3%	44.3%	44.3%	44.3%	55.7%	
Maximum Green (s)	20.0	20.0	20.0	20.0	26.0	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.8	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	4.5		4.5	4.8	
Lead/Lag	Lead	Lead	Lead	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	
Vehicle Extension (s)	2.6	2.6	2.6	2.6	2.6	
Recall Mode	Min	Min	Min	Min	None	
Act Effct Green (s)	20.2	20.2		20.2	17.8	
Actuated g/C Ratio	0.43	0.43		0.43	0.38	
v/c Ratio	0.61	0.59		0.81	0.77	
Control Delay	16.6	4.2		26.8	20.8	
Queue Delay	0.0	0.0		0.0	0.0	
Total Delay	16.6	4.2		26.8	20.8	
LOS	B	A		C	C	
Approach Delay	9.6			26.8	20.8	
Approach LOS	A			C	C	

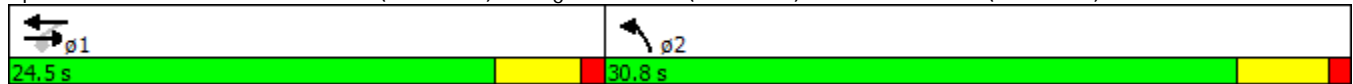


Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Queue Length 50th (ft)	95	0		124	114	
Queue Length 95th (ft)	#237	56		#318	200	
Internal Link Dist (ft)	1230			286	646	
Turn Bay Length (ft)		200				
Base Capacity (vph)	795	1032		690	986	
Starvation Cap Reductn	0	0		0	0	
Spillback Cap Reductn	0	0		0	0	
Storage Cap Reductn	0	0		0	0	
Reduced v/c Ratio	0.61	0.59		0.81	0.52	

Intersection Summary

Area Type:	Other
Cycle Length:	55.3
Actuated Cycle Length:	47.4
Natural Cycle:	55
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.81
Intersection Signal Delay:	16.7
Intersection LOS:	B
Intersection Capacity Utilization:	86.7%
ICU Level of Service:	E
Analysis Period (min):	15
# 95th percentile volume exceeds capacity, queue may be longer.	
Queue shown is maximum after two cycles.	

Splits and Phases: 12: South Road (Route 108) & Kingstown Road (Route 138)/Mooresfield Road (Route 138)



3: Old North Road & Stony Fort Road Performance by movement

Movement	EBT	EBR	WBL	WBT	NBL	NBR	All
Denied Del/Veh (s)	0.1	0.1	0.0	0.0	0.5	0.5	0.4
Total Del/Veh (s)	7.8	4.3	1.3	1.6	11.8	8.9	7.1

Intersection: 3: Old North Road & Stony Fort Road

Movement	EB	NB
Directions Served	TR	LR
Maximum Queue (ft)	61	215
Average Queue (ft)	29	95
95th Queue (ft)	54	165
Link Distance (ft)	1392	1108
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection

Int Delay, s/veh 0.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	48	914	705	147	0	0
Conflicting Peds, #/hr	1	0	0	1	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	94	94	96	96	92	92
Heavy Vehicles, %	0	2	2	1	0	0
Mvmt Flow	51	972	734	153	0	0

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	888	0	1885
Stage 1	-	-	811
Stage 2	-	-	1074
Critical Hdwy	4.1	-	6.4
Critical Hdwy Stg 1	-	-	5.4
Critical Hdwy Stg 2	-	-	5.4
Follow-up Hdwy	2.2	-	3.5
Pot Cap-1 Maneuver	771	-	79
Stage 1	-	-	440
Stage 2	-	-	331
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	770	-	68
Mov Cap-2 Maneuver	-	-	68
Stage 1	-	-	440
Stage 2	-	-	283

Approach	EB	WB	SB
HCM Control Delay, s	0.5	0	0
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	770	-	-	-	-
HCM Lane V/C Ratio	0.066	-	-	-	-
HCM Control Delay (s)	10	0	-	-	0
HCM Lane LOS	B	A	-	-	A
HCM 95th %tile Q(veh)	0.2	-	-	-	-

Intersection

Int Delay, s/veh 88.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	47	644	611	74	156	90
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	93	93	94	94	75	75
Heavy Vehicles, %	4	2	3	0	1	1
Mvmt Flow	51	692	650	79	208	120

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	729	0	1483
Stage 1	-	-	689
Stage 2	-	-	794
Critical Hdwy	4.14	-	6.41
Critical Hdwy Stg 1	-	-	5.41
Critical Hdwy Stg 2	-	-	5.41
Follow-up Hdwy	2.236	-	3.509
Pot Cap-1 Maneuver	866	-	~ 138
Stage 1	-	-	500
Stage 2	-	-	447
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	866	-	~ 125
Mov Cap-2 Maneuver	-	-	~ 125
Stage 1	-	-	500
Stage 2	-	-	404

Approach	EB	WB	SB
HCM Control Delay, s	0.6	0	\$ 484.5
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	866	-	-	-	170
HCM Lane V/C Ratio	0.058	-	-	-	1.929
HCM Control Delay (s)	9.4	0	-	-	-\$ 484.5
HCM Lane LOS	A	A	-	-	F
HCM 95th %tile Q(veh)	0.2	-	-	-	24.7

Notes

-: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection									
Intersection Delay, s/veh	33.4								
Intersection LOS	D								
Movement	EBU	EBL	EBT	WBU	WBT	WBR	SBU	SBL	SBR
Vol, veh/h	0	103	56	0	207	29	0	51	440
Peak Hour Factor	0.92	0.56	0.56	0.92	0.78	0.78	0.92	0.73	0.73
Heavy Vehicles, %	2	5	4	2	0	4	2	0	1
Mvmt Flow	0	184	100	0	265	37	0	70	603
Number of Lanes	0	0	1	0	1	0	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	1
HCM Control Delay	16.9	16.5	47.9
HCM LOS	C	C	E

Lane	EBLn1	WBLn1	SBLn1
Vol Left, %	65%	0%	10%
Vol Thru, %	35%	88%	0%
Vol Right, %	0%	12%	90%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	159	236	491
LT Vol	103	0	51
Through Vol	56	207	0
RT Vol	0	29	440
Lane Flow Rate	284	303	673
Geometry Grp	1	1	1
Degree of Util (X)	0.526	0.535	0.961
Departure Headway (Hd)	6.669	6.364	5.254
Convergence, Y/N	Yes	Yes	Yes
Cap	542	569	693
Service Time	4.68	4.373	3.254
HCM Lane V/C Ratio	0.524	0.533	0.971
HCM Control Delay	16.9	16.5	47.9
HCM Lane LOS	C	C	E
HCM 95th-tile Q	3	3.1	14.1

Intersection												
Intersection Delay, s/veh	15.5											
Intersection LOS	C											
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	16	0	0	0	0	4	1	0	67	420	0
Peak Hour Factor	0.92	0.63	0.63	0.63	0.92	0.63	0.63	0.63	0.92	0.77	0.77	0.77
Heavy Vehicles, %	2	7	0	0	2	0	0	0	2	3	1	0
Mvmt Flow	0	25	0	0	0	0	6	2	0	87	545	0
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	9.3	8.7	18.4
HCM LOS	A	A	C

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	14%	100%	0%	0%
Vol Thru, %	86%	0%	80%	0%
Vol Right, %	0%	0%	20%	100%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	487	16	5	115
LT Vol	67	16	0	0
Through Vol	420	0	4	0
RT Vol	0	0	1	115
Lane Flow Rate	632	25	8	225
Geometry Grp	1	1	1	1
Degree of Util (X)	0.739	0.043	0.012	0.252
Departure Headway (Hd)	4.206	6.038	5.632	4.029
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	848	595	637	895
Service Time	2.302	4.056	3.654	2.036
HCM Lane V/C Ratio	0.745	0.042	0.013	0.251
HCM Control Delay	18.4	9.3	8.7	8.4
HCM Lane LOS	C	A	A	A
HCM 95th-tile Q	6.8	0.1	0	1

Intersection

Intersection Delay, s/veh
 Intersection LOS

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	0	0	115
Peak Hour Factor	0.92	0.51	0.51	0.51
Heavy Vehicles, %	2	0	0	0
Mvmt Flow	0	0	0	225
Number of Lanes	0	0	1	0

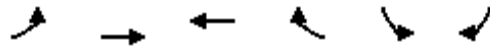
Approach SB

Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	8.4
HCM LOS	A

Lane

Lanes, Volumes, Timings
 11: Kingstown Road (Route 138) & Upper College Road

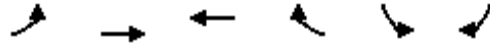
Fieldstone Farm TIA
 Future (2023) No-Build AM Peak Hour



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↑	↗	↘	
Volume (vph)	45	459	447	242	109	39
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0			100	0	0
Storage Lanes	0			1	1	0
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt				0.850	0.964	
Flt Protected		0.996			0.965	
Satd. Flow (prot)	0	1807	1810	1568	1636	0
Flt Permitted		0.940			0.965	
Satd. Flow (perm)	0	1705	1810	1568	1636	0
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)				177	25	
Link Speed (mph)		30	30		30	
Link Distance (ft)		940	1310		427	
Travel Time (s)		21.4	29.8		9.7	
Peak Hour Factor	0.94	0.94	0.95	0.95	0.93	0.93
Heavy Vehicles (%)	2%	5%	5%	3%	7%	11%
Adj. Flow (vph)	48	488	471	255	117	42
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	536	471	255	159	0
Turn Type	pm+pt	NA	NA	Perm	Prot	
Protected Phases	5	2	6		3	
Permitted Phases	2			6		
Detector Phase	5	2	6	6	3	
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	
Minimum Split (s)	8.0	8.0	8.0	8.0	8.0	
Total Split (s)	14.0	34.0	34.0	34.0	37.0	
Total Split (%)	16.5%	40.0%	40.0%	40.0%	43.5%	
Maximum Green (s)	10.0	30.0	30.0	30.0	33.0	
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)		0.0	0.0	0.0	0.0	
Total Lost Time (s)		4.0	4.0	4.0	4.0	
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Vehicle Extension (s)	2.4	2.4	2.4	2.4	2.4	
Recall Mode	None	Min	Min	Min	None	
Walk Time (s)			4.0	4.0		
Flash Dont Walk (s)			10.0	10.0		
Pedestrian Calls (#/hr)			0	0		
Act Effect Green (s)		27.0	27.0	27.0	8.9	
Actuated g/C Ratio		0.61	0.61	0.61	0.20	
v/c Ratio		0.51	0.42	0.25	0.45	
Control Delay		7.4	6.3	2.3	18.0	
Queue Delay		0.0	0.0	0.0	0.0	
Total Delay		7.4	6.3	2.3	18.0	

Lanes, Volumes, Timings
 11: Kingstown Road (Route 138) & Upper College Road

Fieldstone Farm TIA
 Future (2023) No-Build AM Peak Hour



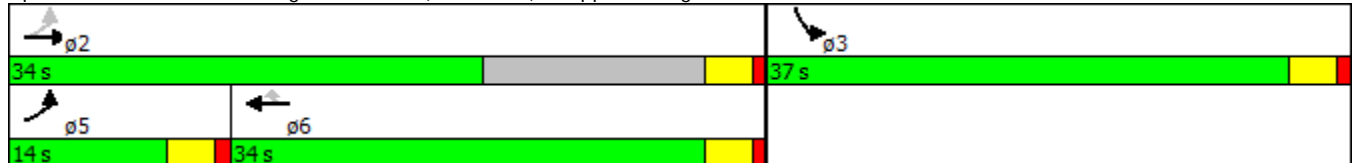
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
LOS		A	A	A	B	
Approach Delay		7.4	4.9		18.0	
Approach LOS		A	A		B	
Queue Length 50th (ft)		61	50	6	28	
Queue Length 95th (ft)		138	110	29	76	
Internal Link Dist (ft)		860	1230		347	
Turn Bay Length (ft)				100		
Base Capacity (vph)		1651	1250	1137	1243	
Starvation Cap Reductn		0	0	0	0	
Spillback Cap Reductn		0	0	0	0	
Storage Cap Reductn		0	0	0	0	
Reduced v/c Ratio		0.32	0.38	0.22	0.13	

Intersection Summary

Area Type: Other
 Cycle Length: 85
 Actuated Cycle Length: 44
 Natural Cycle: 40
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.51
 Intersection Signal Delay: 7.3
 Intersection Capacity Utilization 68.6%
 Analysis Period (min) 15

Intersection LOS: A
 ICU Level of Service C

Splits and Phases: 11: Kingstown Road (Route 138) & Upper College Road

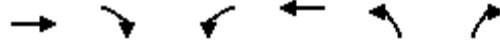


Lanes, Volumes, Timings

12: South Road (Route 108) & Kingstown Road (Route 138)/Mooresfield Road (Route 138) - Future (2022) No-Build AM Peak Hour



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↑		↑	↑	
Volume (vph)	359	232	26	579	602	66
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		200	0		0	0
Storage Lanes		1	0		1	0
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850			0.987	
Flt Protected				0.998	0.957	
Satd. Flow (prot)	1810	1553	0	1834	1734	0
Flt Permitted				0.974	0.957	
Satd. Flow (perm)	1810	1553	0	1790	1734	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		252			13	
Link Speed (mph)	30			30	30	
Link Distance (ft)	1310			366	726	
Travel Time (s)	29.8			8.3	16.5	
Peak Hour Factor	0.92	0.92	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	5%	4%	12%	3%	3%	8%
Adj. Flow (vph)	390	252	27	609	634	69
Shared Lane Traffic (%)						
Lane Group Flow (vph)	390	252	0	636	703	0
Turn Type	NA	Perm	Perm	NA	Prot	
Protected Phases	1			1	2	
Permitted Phases		1	1			
Detector Phase	1	1	1	1	2	
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	9.5	9.5	9.5	9.5	9.8	
Total Split (s)	24.5	24.5	24.5	24.5	30.8	
Total Split (%)	44.3%	44.3%	44.3%	44.3%	55.7%	
Maximum Green (s)	20.0	20.0	20.0	20.0	26.0	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.8	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	4.5		4.5	4.8	
Lead/Lag	Lead	Lead	Lead	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	
Vehicle Extension (s)	2.6	2.6	2.6	2.6	2.6	
Recall Mode	Min	Min	Min	Min	None	
Act Effct Green (s)	20.1	20.1		20.1	23.6	
Actuated g/C Ratio	0.38	0.38		0.38	0.44	
v/c Ratio	0.57	0.34		0.94	0.90	
Control Delay	17.9	3.6		43.3	31.0	
Queue Delay	0.0	0.0		0.0	0.0	
Total Delay	17.9	3.6		43.3	31.0	
LOS	B	A		D	C	
Approach Delay	12.3			43.3	31.0	
Approach LOS	B			D	C	

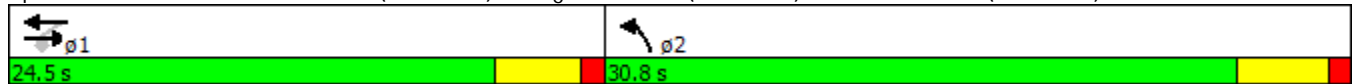


Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Queue Length 50th (ft)	101	0		201	188	
Queue Length 95th (ft)	177	38		#393	#385	
Internal Link Dist (ft)	1230			286	646	
Turn Bay Length (ft)		200				
Base Capacity (vph)	685	744		677	860	
Starvation Cap Reductn	0	0		0	0	
Spillback Cap Reductn	0	0		0	0	
Storage Cap Reductn	0	0		0	0	
Reduced v/c Ratio	0.57	0.34		0.94	0.82	

Intersection Summary

Area Type:	Other
Cycle Length:	55.3
Actuated Cycle Length:	53.1
Natural Cycle:	65
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.94
Intersection Signal Delay:	28.9
Intersection LOS:	C
Intersection Capacity Utilization:	96.7%
ICU Level of Service:	F
Analysis Period (min):	15
# 95th percentile volume exceeds capacity, queue may be longer.	
Queue shown is maximum after two cycles.	

Splits and Phases: 12: South Road (Route 108) & Kingstown Road (Route 138)/Mooresfield Road (Route 138)



Intersection

Int Delay, s/veh 1.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	145	606	696	403	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	89	89	85	85	92	92
Heavy Vehicles, %	0	4	4	1	2	2
Mvmt Flow	163	681	819	474	0	0

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	1293	0	2063
Stage 1	-	-	1056
Stage 2	-	-	1007
Critical Hdwy	4.1	-	6.42
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	2.2	-	3.518
Pot Cap-1 Maneuver	543	-	60
Stage 1	-	-	335
Stage 2	-	-	353
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	543	-	31
Mov Cap-2 Maneuver	-	-	31
Stage 1	-	-	335
Stage 2	-	-	183

Approach	EB	WB	SB
HCM Control Delay, s	2.8	0	0
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	543	-	-	-	-
HCM Lane V/C Ratio	0.3	-	-	-	-
HCM Control Delay (s)	14.4	0	-	-	0
HCM Lane LOS	B	A	-	-	A
HCM 95th %tile Q(veh)	1.3	-	-	-	-

Intersection

Int Delay, s/veh 8.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	34	591	581	185	60	62
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	93	93	83	83	76	76
Heavy Vehicles, %	3	6	3	2	2	5
Mvmt Flow	37	635	700	223	79	82

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	923	0	1520
Stage 1	-	-	811
Stage 2	-	-	709
Critical Hdwy	4.13	-	6.42
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	2.227	-	3.518
Pot Cap-1 Maneuver	736	-	131
Stage 1	-	-	437
Stage 2	-	-	488
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	736	-	121
Mov Cap-2 Maneuver	-	-	121
Stage 1	-	-	437
Stage 2	-	-	450

Approach	EB	WB	SB
HCM Control Delay, s	0.6	0	86.8
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	736	-	-	-	185
HCM Lane V/C Ratio	0.05	-	-	-	0.868
HCM Control Delay (s)	10.1	0	-	-	86.8
HCM Lane LOS	B	A	-	-	F
HCM 95th %tile Q(veh)	0.2	-	-	-	6.4

3: Old North Road & Stony Fort Road Performance by movement

Movement	EBT	EBR	WBL	WBT	NBL	NBR	All
Denied Del/Veh (s)	0.1	0.1	0.6	0.6	0.1	0.2	0.5
Total Del/Veh (s)	14.8	9.2	1.8	2.7	17.3	4.6	3.2

Intersection: 3: Old North Road & Stony Fort Road

Movement	EB	NB
Directions Served	TR	LR
Maximum Queue (ft)	76	93
Average Queue (ft)	34	50
95th Queue (ft)	63	81
Link Distance (ft)	1392	1108
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection	
Intersection Delay, s/veh	25
Intersection LOS	C

Movement	EBU	EBL	EBT	WBU	WBT	WBR	SBU	SBL	SBR
Vol, veh/h	0	391	184	0	43	76	0	71	118
Peak Hour Factor	0.92	0.87	0.87	0.92	0.76	0.76	0.92	0.90	0.90
Heavy Vehicles, %	2	1	0	2	0	4	2	2	0
Mvmt Flow	0	449	211	0	57	100	0	79	131
Number of Lanes	0	0	1	0	1	0	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	1
HCM Control Delay	33	9.4	11.4
HCM LOS	D	A	B

Lane	EBLn1	WBLn1	SBLn1
Vol Left, %	68%	0%	38%
Vol Thru, %	32%	36%	0%
Vol Right, %	0%	64%	62%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	575	119	189
LT Vol	391	0	71
Through Vol	184	43	0
RT Vol	0	76	118
Lane Flow Rate	661	157	210
Geometry Grp	1	1	1
Degree of Util (X)	0.883	0.218	0.329
Departure Headway (Hd)	4.915	5.002	5.641
Convergence, Y/N	Yes	Yes	Yes
Cap	740	720	641
Service Time	2.915	3.019	3.649
HCM Lane V/C Ratio	0.893	0.218	0.328
HCM Control Delay	33	9.4	11.4
HCM Lane LOS	D	A	B
HCM 95th-tile Q	11.1	0.8	1.4

Intersection

Intersection Delay, s/veh	8.5
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	75	0	0	0	0	0	1	0	49	159	2
Peak Hour Factor	0.92	0.77	0.77	0.77	0.92	0.25	0.25	0.25	0.92	0.89	0.89	0.89
Heavy Vehicles, %	2	0	0	0	2	0	0	0	2	4	1	0
Mvmt Flow	0	97	0	0	0	0	0	4	0	55	179	2
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	8.7	7.3	9.1
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	23%	100%	0%	1%
Vol Thru, %	76%	0%	0%	0%
Vol Right, %	1%	0%	100%	99%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	210	75	1	107
LT Vol	49	75	0	1
Through Vol	159	0	0	0
RT Vol	2	0	1	106
Lane Flow Rate	236	97	4	143
Geometry Grp	1	1	1	1
Degree of Util (X)	0.282	0.133	0.005	0.151
Departure Headway (Hd)	4.414	4.914	4.239	3.814
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	819	732	846	943
Service Time	2.414	2.926	2.255	1.826
HCM Lane V/C Ratio	0.288	0.133	0.005	0.152
HCM Control Delay	9.1	8.7	7.3	7.5
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	1.2	0.5	0	0.5

Intersection

Intersection Delay, s/veh
 Intersection LOS

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	1	0	106
Peak Hour Factor	0.92	0.75	0.75	0.75
Heavy Vehicles, %	2	0	0	0
Mvmt Flow	0	1	0	141
Number of Lanes	0	0	1	0

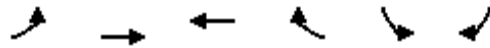
Approach SB

Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	7.5
HCM LOS	A

Lane

Lanes, Volumes, Timings
 11: Kingstown Road (Route 138) & Upper College Road

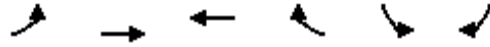
Fieldstone Farm TIA
 Future (2023) No-Build PM Peak Hour



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↑	↗	↘	
Volume (vph)	30	607	451	150	548	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0			100	0	0
Storage Lanes	0			1	1	0
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t				0.850	0.989	
Fl _t Protected		0.998			0.956	
Satd. Flow (prot)	0	1878	1845	1599	1780	0
Fl _t Permitted		0.965			0.956	
Satd. Flow (perm)	0	1816	1845	1599	1780	0
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)				109	6	
Link Speed (mph)		30	30		30	
Link Distance (ft)		940	1310		427	
Travel Time (s)		21.4	29.8		9.7	
Peak Hour Factor	0.87	0.87	0.93	0.93	0.87	0.87
Heavy Vehicles (%)	0%	1%	3%	1%	1%	0%
Adj. Flow (vph)	34	698	485	161	630	57
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	732	485	161	687	0
Turn Type	pm+pt	NA	NA	Perm	Prot	
Protected Phases	5	2	6		3	
Permitted Phases	2			6		
Detector Phase	5	2	6	6	3	
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	
Minimum Split (s)	8.0	8.0	8.0	8.0	8.0	
Total Split (s)	14.0	34.0	34.0	34.0	37.0	
Total Split (%)	16.5%	40.0%	40.0%	40.0%	43.5%	
Maximum Green (s)	10.0	30.0	30.0	30.0	33.0	
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)		0.0	0.0	0.0	0.0	
Total Lost Time (s)		4.0	4.0	4.0	4.0	
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Vehicle Extension (s)	2.4	2.4	2.4	2.4	2.4	
Recall Mode	None	Min	Min	Min	None	
Walk Time (s)			4.0	4.0		
Flash Dont Walk (s)			10.0	10.0		
Pedestrian Calls (#/hr)			0	0		
Act Effect Green (s)		29.1	29.1	29.1	32.7	
Actuated g/C Ratio		0.42	0.42	0.42	0.47	
v/c Ratio		0.97	0.63	0.22	0.82	
Control Delay		48.1	20.6	5.9	26.6	
Queue Delay		0.0	0.0	0.0	0.0	
Total Delay		48.1	20.6	5.9	26.6	

Lanes, Volumes, Timings
 11: Kingstown Road (Route 138) & Upper College Road

Fieldstone Farm TIA
 Future (2023) No-Build PM Peak Hour

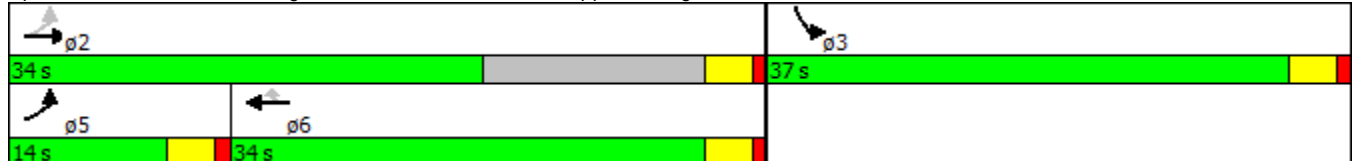


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
LOS		D	C	A	C	
Approach Delay		48.1	17.0		26.6	
Approach LOS		D	B		C	
Queue Length 50th (ft)		298	160	13	246	
Queue Length 95th (ft)		#493	255	46	#418	
Internal Link Dist (ft)		860	1230		347	
Turn Bay Length (ft)				100		
Base Capacity (vph)		1145	793	749	845	
Starvation Cap Reductn		0	0	0	0	
Spillback Cap Reductn		0	0	0	0	
Storage Cap Reductn		0	0	0	0	
Reduced v/c Ratio		0.64	0.61	0.21	0.81	

Intersection Summary

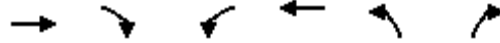
Area Type: Other
 Cycle Length: 85
 Actuated Cycle Length: 69.8
 Natural Cycle: 80
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.97
 Intersection Signal Delay: 31.2
 Intersection LOS: C
 Intersection Capacity Utilization 96.4%
 ICU Level of Service F
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 11: Kingstown Road (Route 138) & Upper College Road

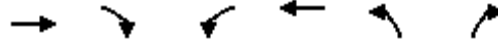


Lanes, Volumes, Timings

12: South Road (Route 108) & Kingstown Road (Route 138)/Mooresfield Road (Route 138) - Future (2022) No-Build PM Peak Hour



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↑		↑	↑	
Volume (vph)	475	602	62	435	438	57
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		200	0		0	0
Storage Lanes		1	0		1	0
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850			0.984	
Flt Protected				0.994	0.958	
Satd. Flow (prot)	1863	1599	0	1872	1763	0
Flt Permitted				0.796	0.958	
Satd. Flow (perm)	1863	1599	0	1499	1763	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		640			16	
Link Speed (mph)	30			30	30	
Link Distance (ft)	1310			366	726	
Travel Time (s)	29.8			8.3	16.5	
Peak Hour Factor	0.94	0.94	0.85	0.85	0.91	0.91
Heavy Vehicles (%)	2%	1%	0%	1%	1%	6%
Adj. Flow (vph)	505	640	73	512	481	63
Shared Lane Traffic (%)						
Lane Group Flow (vph)	505	640	0	585	544	0
Turn Type	NA	Perm	Perm	NA	Prot	
Protected Phases	1			1	2	
Permitted Phases		1	1			
Detector Phase	1	1	1	1	2	
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	9.5	9.5	9.5	9.5	9.8	
Total Split (s)	24.5	24.5	24.5	24.5	30.8	
Total Split (%)	44.3%	44.3%	44.3%	44.3%	55.7%	
Maximum Green (s)	20.0	20.0	20.0	20.0	26.0	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.8	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	4.5		4.5	4.8	
Lead/Lag	Lead	Lead	Lead	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	
Vehicle Extension (s)	2.6	2.6	2.6	2.6	2.6	
Recall Mode	Min	Min	Min	Min	None	
Act Effct Green (s)	20.3	20.3		20.3	18.5	
Actuated g/C Ratio	0.42	0.42		0.42	0.38	
v/c Ratio	0.65	0.61		0.93	0.79	
Control Delay	18.3	4.4		42.3	21.7	
Queue Delay	0.0	0.0		0.0	0.0	
Total Delay	18.3	4.4		42.3	21.7	
LOS	B	A		D	C	
Approach Delay	10.5			42.3	21.7	
Approach LOS	B			D	C	

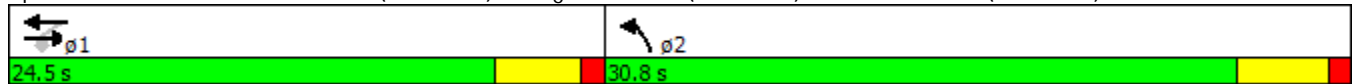


Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Queue Length 50th (ft)	106	0		147	122	
Queue Length 95th (ft)	#275	57		#356	215	
Internal Link Dist (ft)	1230			286	646	
Turn Bay Length (ft)		200				
Base Capacity (vph)	782	1042		629	970	
Starvation Cap Reductn	0	0		0	0	
Spillback Cap Reductn	0	0		0	0	
Storage Cap Reductn	0	0		0	0	
Reduced v/c Ratio	0.65	0.61		0.93	0.56	

Intersection Summary

Area Type:	Other
Cycle Length:	55.3
Actuated Cycle Length:	48.2
Natural Cycle:	60
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.93
Intersection Signal Delay:	21.4
Intersection LOS:	C
Intersection Capacity Utilization	90.6%
ICU Level of Service	E
Analysis Period (min)	15
# 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.	

Splits and Phases: 12: South Road (Route 108) & Kingstown Road (Route 138)/Mooresfield Road (Route 138)



Intersection

Int Delay, s/veh 0.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	50	961	741	154	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	94	94	96	96	92	92
Heavy Vehicles, %	0	2	2	1	2	2
Mvmt Flow	53	1022	772	160	0	0

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	932	0	1981
Stage 1	-	-	852
Stage 2	-	-	1129
Critical Hdwy	4.1	-	6.42
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	2.2	-	3.518
Pot Cap-1 Maneuver	743	-	68
Stage 1	-	-	418
Stage 2	-	-	309
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	743	-	57
Mov Cap-2 Maneuver	-	-	57
Stage 1	-	-	418
Stage 2	-	-	258

Approach	EB	WB	SB
HCM Control Delay, s	0.5	0	0
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	743	-	-	-	-
HCM Lane V/C Ratio	0.072	-	-	-	-
HCM Control Delay (s)	10.2	0	-	-	0
HCM Lane LOS	B	A	-	-	A
HCM 95th %tile Q(veh)	0.2	-	-	-	-

Intersection

Int Delay, s/veh 114.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	49	677	642	78	164	95
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	93	93	94	94	75	75
Heavy Vehicles, %	4	2	3	0	1	1
Mvmt Flow	53	728	683	83	219	127

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	766	0	1557
Stage 1	-	-	724
Stage 2	-	-	833
Critical Hdwy	4.14	-	6.41
Critical Hdwy Stg 1	-	-	5.41
Critical Hdwy Stg 2	-	-	5.41
Follow-up Hdwy	2.236	-	3.509
Pot Cap-1 Maneuver	838	-	~ 125
Stage 1	-	-	482
Stage 2	-	-	428
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	838	-	~ 112
Mov Cap-2 Maneuver	-	-	~ 112
Stage 1	-	-	482
Stage 2	-	-	383

Approach	EB	WB	SB
HCM Control Delay, s	0.6	0	\$ 626.9
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	838	-	-	-	154
HCM Lane V/C Ratio	0.063	-	-	-	2.242
HCM Control Delay (s)	9.6	0	-	-	-\$ 626.9
HCM Lane LOS	A	A	-	-	F
HCM 95th %tile Q(veh)	0.2	-	-	-	28.5

Notes

-: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

3: Old North Road & Stony Fort Road Performance by movement

Movement	EBT	EBR	WBL	WBT	NBL	NBR	All
Denied Del/Veh (s)	0.1	0.1	0.2	0.2	0.5	0.5	0.4
Total Del/Veh (s)	7.7	3.7	0.4	0.7	12.0	9.1	7.0

Intersection: 3: Old North Road & Stony Fort Road

Movement	EB	NB
Directions Served	TR	LR
Maximum Queue (ft)	69	191
Average Queue (ft)	31	98
95th Queue (ft)	58	160
Link Distance (ft)	1392	1108
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection												
Intersection Delay, s/veh	15.8											
Intersection LOS	C											
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	16	0	0	0	0	4	1	0	67	424	0
Peak Hour Factor	0.92	0.63	0.63	0.63	0.92	0.63	0.63	0.63	0.92	0.77	0.77	0.77
Heavy Vehicles, %	2	7	0	0	2	0	0	0	2	3	1	0
Mvmt Flow	0	25	0	0	0	0	6	2	0	87	551	0
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	9.4	8.8	19
HCM LOS	A	A	C

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	14%	100%	0%	0%
Vol Thru, %	86%	0%	80%	0%
Vol Right, %	0%	0%	20%	100%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	491	16	5	127
LT Vol	67	16	0	0
Through Vol	424	0	4	0
RT Vol	0	0	1	127
Lane Flow Rate	638	25	8	249
Geometry Grp	1	1	1	1
Degree of Util (X)	0.748	0.043	0.013	0.279
Departure Headway (Hd)	4.327	6.091	5.685	4.037
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	842	589	631	894
Service Time	2.327	4.113	3.71	2.046
HCM Lane V/C Ratio	0.758	0.042	0.013	0.279
HCM Control Delay	19	9.4	8.8	8.6
HCM Lane LOS	C	A	A	A
HCM 95th-tile Q	7	0.1	0	1.1

Intersection

Intersection Delay, s/veh
 Intersection LOS

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	0	0	127
Peak Hour Factor	0.92	0.51	0.51	0.51
Heavy Vehicles, %	2	0	0	0
Mvmt Flow	0	0	0	249
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	8.6
HCM LOS	A

Lane

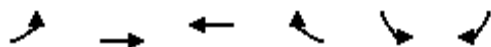
Intersection									
Intersection Delay, s/veh	37								
Intersection LOS	E								
Movement	EBU	EBL	EBT	WBU	WBT	WBR	SBU	SBL	SBR
Vol, veh/h	0	114	60	0	208	29	0	51	444
Peak Hour Factor	0.92	0.56	0.56	0.92	0.78	0.78	0.92	0.73	0.73
Heavy Vehicles, %	2	5	4	2	0	4	2	0	1
Mvmt Flow	0	204	107	0	267	37	0	70	608
Number of Lanes	0	0	1	0	1	0	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	1
HCM Control Delay	18.7	17.1	54.3
HCM LOS	C	C	F

Lane	EBLn1	WBLn1	SBLn1
Vol Left, %	66%	0%	10%
Vol Thru, %	34%	88%	0%
Vol Right, %	0%	12%	90%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	174	237	495
LT Vol	114	0	51
Through Vol	60	208	0
RT Vol	0	29	444
Lane Flow Rate	311	304	678
Geometry Grp	1	1	1
Degree of Util (X)	0.582	0.548	0.987
Departure Headway (Hd)	6.743	6.488	5.362
Convergence, Y/N	Yes	Yes	Yes
Cap	538	559	685
Service Time	4.756	4.501	3.362
HCM Lane V/C Ratio	0.578	0.544	0.99
HCM Control Delay	18.7	17.1	54.3
HCM Lane LOS	C	C	F
HCM 95th-tile Q	3.7	3.3	15.2

Lanes, Volumes, Timings
 11: Kingstown Road (Route 138) & Upper College Road

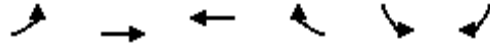
Fieldstone Farm TIA
 Future (2023) Build AM Peak Hour



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↑	↗	↘	
Volume (vph)	45	460	447	245	118	42
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0			100	0	0
Storage Lanes	0			1	1	0
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t				0.850	0.965	
Fl _t Protected		0.996			0.964	
Satd. Flow (prot)	0	1807	1810	1568	1636	0
Fl _t Permitted		0.939			0.964	
Satd. Flow (perm)	0	1703	1810	1568	1636	0
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)				179	25	
Link Speed (mph)		30	30		30	
Link Distance (ft)		940	479		427	
Travel Time (s)		21.4	10.9		9.7	
Peak Hour Factor	0.94	0.94	0.95	0.95	0.93	0.93
Heavy Vehicles (%)	2%	5%	5%	3%	7%	11%
Adj. Flow (vph)	48	489	471	258	127	45
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	537	471	258	172	0
Turn Type	pm+pt	NA	NA	Perm	Prot	
Protected Phases	5	2	6		3	
Permitted Phases	2			6		
Detector Phase	5	2	6	6	3	
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	
Minimum Split (s)	8.0	8.0	8.0	8.0	8.0	
Total Split (s)	14.0	34.0	34.0	34.0	37.0	
Total Split (%)	16.5%	40.0%	40.0%	40.0%	43.5%	
Maximum Green (s)	10.0	30.0	30.0	30.0	33.0	
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)		0.0	0.0	0.0	0.0	
Total Lost Time (s)		4.0	4.0	4.0	4.0	
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Vehicle Extension (s)	2.4	2.4	2.4	2.4	2.4	
Recall Mode	None	Min	Min	Min	None	
Walk Time (s)			4.0	4.0		
Flash Dont Walk (s)			10.0	10.0		
Pedestrian Calls (#/hr)			0	0		
Act Effect Green (s)		26.3	26.3	26.3	9.3	
Actuated g/C Ratio		0.60	0.60	0.60	0.21	
v/c Ratio		0.52	0.43	0.25	0.47	
Control Delay		7.8	6.6	2.4	17.8	
Queue Delay		0.0	0.0	0.0	0.0	
Total Delay		7.8	6.6	2.4	17.8	

Lanes, Volumes, Timings
 11: Kingstown Road (Route 138) & Upper College Road

Fieldstone Farm TIA
 Future (2023) Build AM Peak Hour

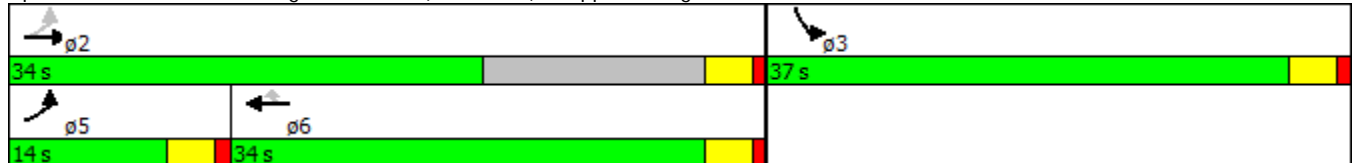


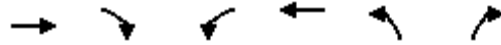
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
LOS		A	A	A	B	
Approach Delay		7.8	5.1		17.8	
Approach LOS		A	A		B	
Queue Length 50th (ft)		63	51	7	30	
Queue Length 95th (ft)		143	115	31	81	
Internal Link Dist (ft)		860	399		347	
Turn Bay Length (ft)				100		
Base Capacity (vph)		1648	1254	1141	1251	
Starvation Cap Reductn		0	0	0	0	
Spillback Cap Reductn		0	0	0	0	
Storage Cap Reductn		0	0	0	0	
Reduced v/c Ratio		0.33	0.38	0.23	0.14	

Intersection Summary

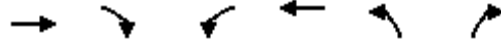
Area Type: Other
 Cycle Length: 85
 Actuated Cycle Length: 43.7
 Natural Cycle: 40
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.52
 Intersection Signal Delay: 7.6
 Intersection LOS: A
 Intersection Capacity Utilization 69.3%
 ICU Level of Service C
 Analysis Period (min) 15

Splits and Phases: 11: Kingstown Road (Route 138) & Upper College Road





Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↑		↑	↑	
Volume (vph)	359	241	26	579	605	66
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		200	0		0	0
Storage Lanes		1	0		1	0
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850			0.987	
Flt Protected				0.998	0.957	
Satd. Flow (prot)	1810	1553	0	1834	1734	0
Flt Permitted				0.974	0.957	
Satd. Flow (perm)	1810	1553	0	1790	1734	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		262			13	
Link Speed (mph)	30			30	30	
Link Distance (ft)	831			366	726	
Travel Time (s)	18.9			8.3	16.5	
Peak Hour Factor	0.92	0.92	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	5%	4%	12%	3%	3%	8%
Adj. Flow (vph)	390	262	27	609	637	69
Shared Lane Traffic (%)						
Lane Group Flow (vph)	390	262	0	636	706	0
Turn Type	NA	Perm	Perm	NA	Prot	
Protected Phases	1			1	2	
Permitted Phases		1	1			
Detector Phase	1	1	1	1	2	
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	9.5	9.5	9.5	9.5	9.8	
Total Split (s)	24.5	24.5	24.5	24.5	30.8	
Total Split (%)	44.3%	44.3%	44.3%	44.3%	55.7%	
Maximum Green (s)	20.0	20.0	20.0	20.0	26.0	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.8	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	4.5		4.5	4.8	
Lead/Lag	Lead	Lead	Lead	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	
Vehicle Extension (s)	2.6	2.6	2.6	2.6	2.6	
Recall Mode	Min	Min	Min	Min	None	
Act Effct Green (s)	20.1	20.1		20.1	23.7	
Actuated g/C Ratio	0.38	0.38		0.38	0.45	
v/c Ratio	0.57	0.35		0.94	0.90	
Control Delay	17.9	3.6		43.6	31.3	
Queue Delay	0.0	0.0		0.0	0.0	
Total Delay	17.9	3.6		43.6	31.3	
LOS	B	A		D	C	
Approach Delay	12.2			43.6	31.3	
Approach LOS	B			D	C	

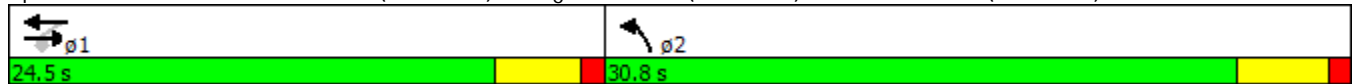


Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Queue Length 50th (ft)	101	0		201	188	
Queue Length 95th (ft)	177	38		#393	#387	
Internal Link Dist (ft)	751			286	646	
Turn Bay Length (ft)		200				
Base Capacity (vph)	684	749		676	858	
Starvation Cap Reductn	0	0		0	0	
Spillback Cap Reductn	0	0		0	0	
Storage Cap Reductn	0	0		0	0	
Reduced v/c Ratio	0.57	0.35		0.94	0.82	

Intersection Summary

Area Type:	Other
Cycle Length:	55.3
Actuated Cycle Length:	53.1
Natural Cycle:	65
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.94
Intersection Signal Delay:	29.0
Intersection LOS:	C
Intersection Capacity Utilization:	96.9%
ICU Level of Service:	F
Analysis Period (min):	15
# 95th percentile volume exceeds capacity, queue may be longer.	
Queue shown is maximum after two cycles.	

Splits and Phases: 12: South Road (Route 108) & Kingstown Road (Route 138)/Mooresfield Road (Route 138)



Intersection

Int Delay, s/veh 9.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	34	591	581	186	63	63
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	93	93	83	83	76	76
Heavy Vehicles, %	3	6	3	2	2	5
Mvmt Flow	37	635	700	224	83	83

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	924	0	1521
Stage 1	-	-	812
Stage 2	-	-	709
Critical Hdwy	4.13	-	6.42
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	2.227	-	3.518
Pot Cap-1 Maneuver	735	-	130
Stage 1	-	-	437
Stage 2	-	-	488
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	735	-	120
Mov Cap-2 Maneuver	-	-	120
Stage 1	-	-	437
Stage 2	-	-	450

Approach	EB	WB	SB
HCM Control Delay, s	0.6	0	97
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	735	-	-	-	182
HCM Lane V/C Ratio	0.05	-	-	-	0.911
HCM Control Delay (s)	10.2	0	-	-	97
HCM Lane LOS	B	A	-	-	F
HCM 95th %tile Q(veh)	0.2	-	-	-	6.9

Intersection

Int Delay, s/veh 1.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	146	615	696	406	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	89	89	85	85	92	92
Heavy Vehicles, %	0	4	4	1	2	2
Mvmt Flow	164	691	819	478	0	0

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	1296	0	2077
Stage 1	-	-	1058
Stage 2	-	-	1019
Critical Hdwy	4.1	-	6.42
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	2.2	-	3.518
Pot Cap-1 Maneuver	541	-	59
Stage 1	-	-	334
Stage 2	-	-	348
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	541	-	30
Mov Cap-2 Maneuver	-	-	30
Stage 1	-	-	334
Stage 2	-	-	177

Approach	EB	WB	SB
HCM Control Delay, s	2.8	0	0
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	541	-	-	-	-
HCM Lane V/C Ratio	0.303	-	-	-	-
HCM Control Delay (s)	14.5	0	-	-	0
HCM Lane LOS	B	A	-	-	A
HCM 95th %tile Q(veh)	1.3	-	-	-	-

3: Old North Road & Stony Fort Road Performance by movement

Movement	EBT	EBR	WBL	WBT	NBL	NBR	All
Denied Del/Veh (s)	0.1	0.2	0.6	0.6	0.2	0.2	0.5
Total Del/Veh (s)	14.2	8.6	2.7	3.6	14.4	4.6	3.8

Intersection: 3: Old North Road & Stony Fort Road

Movement	EB	NB
Directions Served	TR	LR
Maximum Queue (ft)	73	97
Average Queue (ft)	33	51
95th Queue (ft)	60	83
Link Distance (ft)	1392	1108
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection

Intersection Delay, s/veh	27.2
Intersection LOS	D

Movement	EBU	EBL	EBT	WBU	WBT	WBR	SBU	SBL	SBR
Vol, veh/h	0	398	186	0	47	76	0	71	130
Peak Hour Factor	0.92	0.87	0.87	0.92	0.76	0.76	0.92	0.90	0.90
Heavy Vehicles, %	2	1	0	2	0	4	2	2	0
Mvmt Flow	0	457	214	0	62	100	0	79	144
Number of Lanes	0	0	1	0	1	0	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	1
HCM Control Delay	36.6	9.6	11.7
HCM LOS	E	A	B

Lane	EBLn1	WBLn1	SBLn1
Vol Left, %	68%	0%	35%
Vol Thru, %	32%	38%	0%
Vol Right, %	0%	62%	65%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	584	123	201
LT Vol	398	0	71
Through Vol	186	47	0
RT Vol	0	76	130
Lane Flow Rate	671	162	223
Geometry Grp	1	1	1
Degree of Util (X)	0.906	0.229	0.352
Departure Headway (Hd)	4.974	5.091	5.679
Convergence, Y/N	Yes	Yes	Yes
Cap	732	707	637
Service Time	2.974	3.108	3.686
HCM Lane V/C Ratio	0.917	0.229	0.35
HCM Control Delay	36.6	9.6	11.7
HCM Lane LOS	E	A	B
HCM 95th-tile Q	12	0.9	1.6

Intersection

Intersection Delay, s/veh	8.7
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	75	0	0	0	0	0	1	0	49	172	2
Peak Hour Factor	0.92	0.77	0.77	0.77	0.92	0.25	0.25	0.25	0.92	0.89	0.89	0.89
Heavy Vehicles, %	2	0	0	0	2	0	0	0	2	4	1	0
Mvmt Flow	0	97	0	0	0	0	0	4	0	55	193	2
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	8.8	7.3	9.4
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	22%	100%	0%	1%
Vol Thru, %	77%	0%	0%	0%
Vol Right, %	1%	0%	100%	99%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	223	75	1	115
LT Vol	49	75	0	1
Through Vol	172	0	0	0
RT Vol	2	0	1	114
Lane Flow Rate	251	97	4	153
Geometry Grp	1	1	1	1
Degree of Util (X)	0.307	0.134	0.005	0.163
Departure Headway (Hd)	4.411	4.97	4.298	3.836
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	817	723	832	937
Service Time	2.425	2.994	2.326	1.85
HCM Lane V/C Ratio	0.307	0.134	0.005	0.163
HCM Control Delay	9.4	8.8	7.3	7.6
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	1.3	0.5	0	0.6

Intersection

Intersection Delay, s/veh
 Intersection LOS

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	1	0	114
Peak Hour Factor	0.92	0.75	0.75	0.75
Heavy Vehicles, %	2	0	0	0
Mvmt Flow	0	1	0	152
Number of Lanes	0	0	1	0

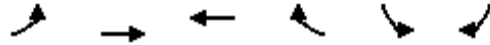
Approach SB

Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	7.6
HCM LOS	A

Lane

Lanes, Volumes, Timings
 11: Kingstown Road (Route 138) & Upper College Road

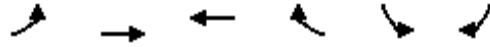
Fieldstone Farm TIA
 Future (2023) Build PM Peak Hour



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↑	↗	↘	
Volume (vph)	30	610	451	160	554	52
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0			100	0	0
Storage Lanes	0			1	1	0
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t				0.850	0.988	
Fl _t Protected		0.998			0.956	
Satd. Flow (prot)	0	1878	1845	1599	1778	0
Fl _t Permitted		0.961			0.956	
Satd. Flow (perm)	0	1809	1845	1599	1778	0
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)				116	7	
Link Speed (mph)		30	30		30	
Link Distance (ft)		940	499		427	
Travel Time (s)		21.4	11.3		9.7	
Peak Hour Factor	0.87	0.87	0.93	0.93	0.87	0.87
Heavy Vehicles (%)	0%	1%	3%	1%	1%	0%
Adj. Flow (vph)	34	701	485	172	637	60
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	735	485	172	697	0
Turn Type	pm+pt	NA	NA	Perm	Prot	
Protected Phases	5	2	6		3	
Permitted Phases	2			6		
Detector Phase	5	2	6	6	3	
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	
Minimum Split (s)	8.0	8.0	8.0	8.0	8.0	
Total Split (s)	14.0	34.0	34.0	34.0	37.0	
Total Split (%)	16.5%	40.0%	40.0%	40.0%	43.5%	
Maximum Green (s)	10.0	30.0	30.0	30.0	33.0	
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)		0.0	0.0	0.0	0.0	
Total Lost Time (s)		4.0	4.0	4.0	4.0	
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Vehicle Extension (s)	2.4	2.4	2.4	2.4	2.4	
Recall Mode	None	Min	Min	Min	None	
Walk Time (s)			4.0	4.0		
Flash Dont Walk (s)			10.0	10.0		
Pedestrian Calls (#/hr)			0	0		
Act Effect Green (s)		29.2	29.2	29.2	33.0	
Actuated g/C Ratio		0.42	0.42	0.42	0.47	
v/c Ratio		0.98	0.63	0.24	0.83	
Control Delay		50.8	20.7	6.0	27.2	
Queue Delay		0.0	0.0	0.0	0.0	
Total Delay		50.8	20.7	6.0	27.2	

Lanes, Volumes, Timings
 11: Kingstown Road (Route 138) & Upper College Road

Fieldstone Farm TIA
 Future (2023) Build PM Peak Hour

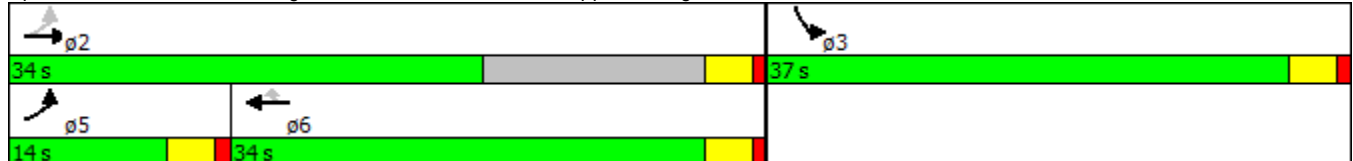


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
LOS		D	C	A	C	
Approach Delay		50.8	16.9		27.2	
Approach LOS		D	B		C	
Queue Length 50th (ft)		301	160	14	252	
Queue Length 95th (ft)		#497	255	48	#428	
Internal Link Dist (ft)		860	419		347	
Turn Bay Length (ft)				100		
Base Capacity (vph)		1135	789	750	840	
Starvation Cap Reductn		0	0	0	0	
Spillback Cap Reductn		0	0	0	0	
Storage Cap Reductn		0	0	0	0	
Reduced v/c Ratio		0.65	0.61	0.23	0.83	

Intersection Summary

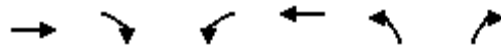
Area Type: Other
 Cycle Length: 85
 Actuated Cycle Length: 70.2
 Natural Cycle: 75
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.98
 Intersection Signal Delay: 32.2
 Intersection LOS: C
 Intersection Capacity Utilization 97.1%
 ICU Level of Service F
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 11: Kingstown Road (Route 138) & Upper College Road

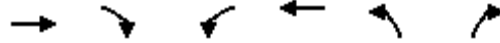


Lanes, Volumes, Timings

12: South Road (Route 108) & Kingstown Road (Route 138)/Mooresfield Road (Route 138) Hour



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↑		↑	↑	
Volume (vph)	475	608	62	435	448	57
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		200	0		0	0
Storage Lanes		1	0		1	0
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850			0.985	
Flt Protected				0.994	0.958	
Satd. Flow (prot)	1863	1599	0	1872	1765	0
Flt Permitted				0.790	0.958	
Satd. Flow (perm)	1863	1599	0	1488	1765	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		647			16	
Link Speed (mph)	30			30	30	
Link Distance (ft)	811			366	726	
Travel Time (s)	18.4			8.3	16.5	
Peak Hour Factor	0.94	0.94	0.85	0.85	0.91	0.91
Heavy Vehicles (%)	2%	1%	0%	1%	1%	6%
Adj. Flow (vph)	505	647	73	512	492	63
Shared Lane Traffic (%)						
Lane Group Flow (vph)	505	647	0	585	555	0
Turn Type	NA	Perm	Perm	NA	Prot	
Protected Phases	1			1	2	
Permitted Phases		1	1			
Detector Phase	1	1	1	1	2	
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	9.5	9.5	9.5	9.5	9.8	
Total Split (s)	24.5	24.5	24.5	24.5	30.8	
Total Split (%)	44.3%	44.3%	44.3%	44.3%	55.7%	
Maximum Green (s)	20.0	20.0	20.0	20.0	26.0	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.8	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	4.5		4.5	4.8	
Lead/Lag	Lead	Lead	Lead	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	
Vehicle Extension (s)	2.6	2.6	2.6	2.6	2.6	
Recall Mode	Min	Min	Min	Min	None	
Act Effct Green (s)	20.3	20.3		20.3	18.8	
Actuated g/C Ratio	0.42	0.42		0.42	0.39	
v/c Ratio	0.65	0.62		0.94	0.80	
Control Delay	18.5	4.4		44.8	22.1	
Queue Delay	0.0	0.0		0.0	0.0	
Total Delay	18.5	4.4		44.8	22.1	
LOS	B	A		D	C	
Approach Delay	10.6			44.8	22.1	
Approach LOS	B			D	C	

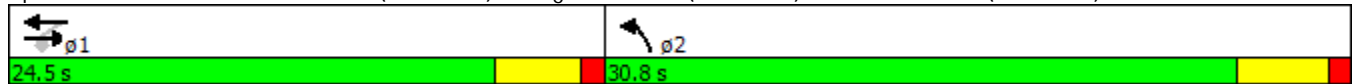


Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Queue Length 50th (ft)	108	0		151	126	
Queue Length 95th (ft)	#275	58		#357	221	
Internal Link Dist (ft)	731			286	646	
Turn Bay Length (ft)		200				
Base Capacity (vph)	778	1044		621	965	
Starvation Cap Reductn	0	0		0	0	
Spillback Cap Reductn	0	0		0	0	
Storage Cap Reductn	0	0		0	0	
Reduced v/c Ratio	0.65	0.62		0.94	0.58	

Intersection Summary

Area Type:	Other
Cycle Length:	55.3
Actuated Cycle Length:	48.5
Natural Cycle:	60
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.94
Intersection Signal Delay:	22.1
Intersection LOS:	C
Intersection Capacity Utilization:	91.1%
ICU Level of Service:	F
Analysis Period (min):	15
# 95th percentile volume exceeds capacity, queue may be longer.	
Queue shown is maximum after two cycles.	

Splits and Phases: 12: South Road (Route 108) & Kingstown Road (Route 138)/Mooresfield Road (Route 138)



Intersection

Int Delay, s/veh 119.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	50	677	642	81	166	95
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	93	93	94	94	75	75
Heavy Vehicles, %	4	2	3	0	1	1
Mvmt Flow	54	728	683	86	221	127

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	769	0	1561
Stage 1	-	-	726
Stage 2	-	-	835
Critical Hdwy	4.14	-	6.41
Critical Hdwy Stg 1	-	-	5.41
Critical Hdwy Stg 2	-	-	5.41
Follow-up Hdwy	2.236	-	3.509
Pot Cap-1 Maneuver	836	-	~ 124
Stage 1	-	-	481
Stage 2	-	-	428
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	836	-	~ 111
Mov Cap-2 Maneuver	-	-	~ 111
Stage 1	-	-	481
Stage 2	-	-	382

Approach	EB	WB	SB
HCM Control Delay, s	0.7	0	\$ 648.3
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	836	-	-	-	152
HCM Lane V/C Ratio	0.064	-	-	-	2.289
HCM Control Delay (s)	9.6	0	-	-	-\$ 648.3
HCM Lane LOS	A	A	-	-	F
HCM 95th %tile Q(veh)	0.2	-	-	-	29

Notes

-: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection

Int Delay, s/veh 0.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	53	967	741	164	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	94	94	96	96	92	92
Heavy Vehicles, %	0	2	2	1	2	2
Mvmt Flow	56	1029	772	171	0	0

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	943	0	1998
Stage 1	-	-	857
Stage 2	-	-	1141
Critical Hdwy	4.1	-	6.42
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	2.2	-	3.518
Pot Cap-1 Maneuver	736	-	66
Stage 1	-	-	416
Stage 2	-	-	305
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	736	-	54
Mov Cap-2 Maneuver	-	-	54
Stage 1	-	-	416
Stage 2	-	-	251

Approach	EB	WB	SB
HCM Control Delay, s	0.5	0	0
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	736	-	-	-	-
HCM Lane V/C Ratio	0.077	-	-	-	-
HCM Control Delay (s)	10.3	0	-	-	0
HCM Lane LOS	B	A	-	-	A
HCM 95th %tile Q(veh)	0.2	-	-	-	-

3: Old North Road & Stony Fort Road Performance by movement

Movement	EBT	EBR	WBL	WBT	NBL	NBR	All
Denied Del/Veh (s)	0.1	0.1	0.2	0.2	0.5	0.5	0.4
Total Del/Veh (s)	7.7	4.1	0.7	1.0	12.2	9.6	7.4

Intersection: 3: Old North Road & Stony Fort Road

Movement	EB	NB
Directions Served	TR	LR
Maximum Queue (ft)	69	196
Average Queue (ft)	31	103
95th Queue (ft)	56	169
Link Distance (ft)	1392	1108
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		