

MIDDLETOWN MIDDLE HIGH SCHOOL
1113 AQUIDNECK AVE,
MIDDLETOWN, RI 02842



MAJOR LAND DEVELOPMENT- MASTER PLAN SUBMISSION

*Town of Middletown Ordinances,
Planning board requirements, &
State of Rhode Island Stormwater Management, Design, and Installation Rules.*

Submitted to:
Town of Middletown Planning Board

Applicant:
Town of Middletown
350 East Main Road,
Middletown, RI 02842

Architect:
HMFH Architects.
130 Bishop Allen Drive,
Cambridge, MA 02139

DBVW Architects.
111 Chestnut Street,
Providence, RI 02903

Landscape Architect:
Traverse Landscape Architects.
150 Chestnut Street, 4th floor
Providence, RI 02903

Civil Engineer:
Samiotes Consultants, Inc.
20 A Street
Framingham, MA 01701

Land Surveyor:
Welch Associates Land Surveyors, Inc.
218 North Main Street,
West Bridgewater, MA 02379

MEP, FP Engineering:
GGD Consulting Engineers, inc.
375 Faunce Corner Rd, Ste D,
Dartmouth, MA 02747



SEPTEMBER 11th, 2024



**Application for Land Development Project / Subdivision / DPR
Certificate of Completeness**

Please see the appropriate Submission Checklist for required application items.

Project Name			
Property Owner		Applicant	
Name	_____	Name	_____
Address	_____	Address	_____
	_____		_____
	_____		_____
Email address	_____	Email address	_____
Phone Number	_____	Phone Number	_____
Plat & Lot Number(s)	Zoning District	Area of Property	
Project			
<input type="checkbox"/> Land Development Project	<input type="checkbox"/> Subdivision	<input type="checkbox"/> Development Plan Review	
Type (if applicable)			
<input type="checkbox"/> Administrative	<input type="checkbox"/> Minor	<input type="checkbox"/> Major	
Stage of Review (if applicable)			
<input type="checkbox"/> Pre-Application	<input type="checkbox"/> Master	<input type="checkbox"/> Preliminary	<input type="checkbox"/> Final
Project Description			
The proposed project is a phased project consisting of the demolition of the existing middle			
School and the construction of the new Middletown Middle High School. Existing athletic facilities			
will remain, and existing parking lot will be repaved. Additionally, the project includes new parking,			
new landscape areas, new walkways, new utilities, and stormwater management infrastructure			
improvements and reconfiguration.			

Zoning Relief Request (if applicable)

Special Use Permit Section(s) _____

Variance Section(s) 1. Section 605 2. Article 27B-§27B02 (6(a)1, 6(a)2, 6(b)) 3. Article 13, § 1304

Current Use of Property Middle School

Proposed Use of Property Middle High School

Reason for seeking relief (to be used in advertisement and notices)

Verbiage example: To construct a _____ (addition, building, etc.) located _____ (how many feet/inches from front, side, or rear yard; or direction: north, south, etc.) from property line where _____ feet is required.

1. Section 605- maximum building footprint: Maximum Allowed Building footprint is 35,000 sf and the proposed building footprint is 91,750 sf thus we are requesting relief for 56,750 sf.

2.- Article 27B-§27B02:

- (6) (a) 1. They shall be directed, shielded, and installed so they do not project onto neighboring properties or public rights-of-way, create unacceptable glare from an adjacent residential property, or have a significant impact on the night sky; and

- (6) (a) 2. They shall be aimed no more than 45 degrees from straight down.

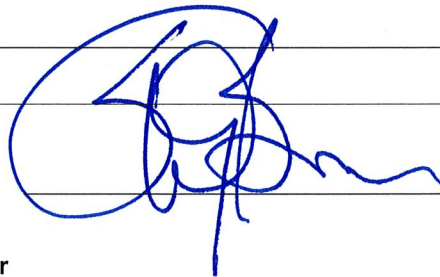
- (6) (b) With the exception of security lighting, all outdoor lighting for commercial, office, industrial, and institutional uses, including lighting for parking areas and vehicular and pedestrian ways shall be extinguished nightly within one-half hour of the close of the facility. When after-hours site security lighting is required, the use of motion-sensor controlled lighting is encouraged.

3. Article 13, § 1304: Based on the requirement the project will require 995 parking spaces, and we are proposing 348 and what we seek relief for 647 due to the projected Actual Parking Based on School Usage of 348.

Addendum of facts (add additional pages if needed)

Signatures:

Signed by Owner



Date


9/16/24

Signed by Administrative Officer
(when complete)

Date

FOR OFFICE USE ONLY

Date Received by Middletown Planning Board

9/16/2024 



Major Land Development Project Submission Checklist Required Items

All plans required by this checklist shall show the following information (as applicable). The shaded boxes within the checklist indicate an item is **not** required at a particular stage of review: Master (M), Preliminary (P), and Final Plan (F).

1. APPLICATION MATERIALS

M	P	F	Quantity	Description	App. Use	Staff Use
			4	1.A Full scale site plans (see section 3 of this document for a list of site plan components) At least 1" = 40' with a sufficient number of sheets (sequentially numbered) to clearly show all of the information required (minimum size of 18" x 24").		
			10 (M, P) 5 (F)	1.B Reduced size copies of all plans (Minimum size of 8.5" X 11"; maximum size of 11" X 17"). Reduced size copies may be submitted after the Technical Review Committee completes its review or one week prior to the Planning Board meeting during which the application will be heard, whichever is sooner.		
			1	1.C Electronic Copies Electronic copy of the full plan set and all supporting materials such as legal documents, abutters list, and permits.		
			1	1.D Abutters List 200-foot abutters list in the format show in Appendix A §8 . Also include the names and addresses of adjoining communities or agencies requiring notification.		
			1	1.E Application Form Also include a detailed description of the zoning relief request (if applicable) and include any modifications that are being requested or approved. Available in Appendix A §6 .		
			1	1.F Municipal Lien Certificates Municipal Lien Certificate for each lot involved in the proposed development (see Tax Assessor's Office), showing that all taxes due on the land have been paid for the period of five (5) years preceding the date of application filing, and that there are no outstanding tax liens thereon		
			1	1.G Application Filing Fee(s) See Chapter 36 Fee Schedule . Include applicable zoning application and abutter's notification fees. Check made payable to the Town of Middletown	N/A	
			1	1.H Review Fee Fees paid to cover the anticipated cost of additional review as required by the Planning Board, including, but not limited to fees for the town's consulting engineer and other expert assistance. (Fees not used will be refunded to the applicant at the conclusion of the application review process.)		

2. SUPPORTING MATERIALS

M	P	F	Quantity	Description	Applicable Standard or Forms	App. Use	Staff Use
			1	2.A Authorization Signed letter from owner(s) authorizing subdivision, if applicant is not the owner		N/A	
			1	2.B Good Standing Documentation If applicable, documentation indicating that the applicant company exists and is in good standing with the State of Rhode Island.		N/A	
			10	2.C Remaining Land Overall Plan of Development for any remaining part of the land being developed, if applicable		N/A	
			10	2.D Legal Documents Copies of any required legal documents including proposed easements and rights-of way, dedications, restrictions, or other required legal documents, including, but not limited, to conservation easements, stormwater facilities maintenance easement, homeowners' association documents, and the like.			
			15	2.E Development Impact Statement Development Impact statement meeting the requirements of §310	Zoning Code: §310 Development Impact Review		
			10	2.F Building Elevations (Minimum size of 8.5" X 11"; maximum size of 11" X 17") Elevations showing all sides of new structures, or existing structures where any changes are proposed, with dimensions and a description of the exterior building materials to be used on any such structures.	Subdivision regulations: §521 Commercial Development		
			1	2.G Construction Schedule Identifying expected start and finish times for major construction tasks			
			3	2.H Drainage/Stormwater Management and Operations Plan Stormwater Management Plan and accompany calculations	§516, Appendix A §9		
			15	2.I Landscape Plan (with stamp of a Registered Rhode Island Landscape Architect) Showing location and description of all proposed plantings and including calculations regarding the necessary percent of landscaped area relative to site development and size, caliper, and species of proposed street trees and parking lot trees if applicable. For projects that including outdoor lighting, the landscaping plan shall contain lighting fixture locations and shall demonstrate that the site lighting and landscaping have been coordinated to minimize conflict between vegetation and intended light distribution, both initially and at vegetation maturity.	Subdivision regulations: §622 Street Trees , Subdivision regulations: §521 Commercial Development , Zoning Code Article 27B: Outdoor Lighting		
			10	2.J Landscape Maintenance Plan A landscape maintenance plan including a schedule of initial and ongoing activities to be undertaken by the property owner, homeowners association or other appropriate party if a landscape plan is proposed	§523		

			10	<p>2.K Outdoor Lighting Plan (Minimum size of 8.5" X 11"; maximum size of 11" X 17") The following information should be provided about each fixture proposed or existing to remain: location, mounting height, orientation, aiming direction, fixture type, lamp type, photometry, correlated color temperature (if LED), fixture catalog cuts, glare reduction devices, on/off control devices, pole foundation details (if applicable), and mounting methods.</p> <p>Calculations demonstrating that the proposed lighting plan will not exceed the allowable number of footcandles at any point along the lot lines.</p> <p>The following plan notes shall appear on the lighting plan: 1."Post-approval alterations, including equipment substitutions, to approved lighting plans shall be submitted to and approved by the Town prior to installation." 2."The Town reserves the right to conduct post-installation inspections to verify compliance with requirements and approved Lighting Plan commitments, and, if necessary, to require remedial action at no expense to the Town."</p>	Zoning Code Article 27B: Outdoor Lighting		
			10	<p>2.L Traffic Study, If applicable Study performed by a RI Licensed Engineer</p>			
			1	<p>2.M Bonding If applicable, a statement indicating it is the intention of the applicant to file a bond, surety or other security in a form satisfactory to the Planning Board, and in sufficient amount to cover the construction and installation of all improvements to the site within the required completion period; -OR- Written approval from the Director of Public Works, or their representative, of the detailed costs, including labor materials, of all improvements which must be installed by the applicant submitted on Public Works Form #1 – Detailed Costs</p>	Appendix A §10		
			10	<p>2.N Open Space Plan (Residential LDP Only)</p> <ul style="list-style-type: none"> o If applicable, preliminary open space plan showing the location, use, and proposed improvements for any land set aside as open space, with connections to house lots and the surrounding neighborhood. Proposed recreational trails and potential links to other trails, natural features or amenities on the site, and sidewalk connections to other neighborhoods, schools, etc. o Preferred ownership scheme, whether public, private, non-profit or homeowner's association with draft legal documentations o Maintenance alternatives, including potential funding sources <p>Conservation easements or other restrictions</p>		N/A	
			1	<p>2.O Comments/Recommendations from the Public Works Director, Fire and Police Chiefs, and other Town officials, as appropriate</p>			
			10	<p>2.P Waivers Statement A written statement indicating the specific sections of the Regulations from which waiver is requested</p>			

3. PERMIT MATERIALS

M	P	F	Quantity	Description	App. Use	Staff Use
			1	<p>3.A RIDEM Permits Confirmation, where applicable, from the Rhode Island Department of Environmental Management that the proposed land development project does not violate provisions of the Fresh Water Wetlands Act (pursuant to Chapter 2-1, General Laws of Rhode Island, as amended, and regulations thereunder)</p>		
			1	<p>3.B Coastal Wetlands (Coastal Resources Management Council – CRMC) Preliminary determination from the CRMC if the property is subject to the jurisdiction of this agency</p>		

		1	3.C Physical Alteration Permit (RI Department of Transportation – RIDOT) A Physical Alteration Permit (PAP) issued by the RIDOT for any connection or construction work within a state highway or state right-of-way		
		1	3.D Wastewater (Middletown DPW or RIDEM) 1) Written confirmation from the Middletown Department of Public Works certifying that the development can tie into the Middletown Sewer Service, or RIDEM Preliminary Subdivision Suitability Report or water table verification within the proposed development area indicating the site is suitable for the safe and proper operation of the OWTS		
		1	3.E Water Availability Letter Written confirmation from the Newport Water Division that the proposed development may connect to the public water system, if applicable		

4. SITE PLANS

For residential development project on land totaling 3 acres or more, two plans sets must be submitted at **Master Plan stage**: One Conventional Plan Set including all items in *Section 4. Site Plans* and one Conservation Development Plan Set including all items in *Section 4. Site Plans* plus the additional Conservation Plan requirements of *Section 5. Conservation Development Plans* in the quantities required per *Section 1. Application Materials, site plans*.

M	P	F	Description	Applicable Standard or Forms	App. Use	Staff Use
GENERAL INFORMATION						
			4.A Name of the Subdivision, address of property owner (s), and applicant (s)			
			4.B Graphic Scale, North Arrow, and legend showing all symbols			
			4.C Name, address, and phone number of the preparer with stamp of registration and signature block			
			4.D Date of plan and revisions			
			4.E Assessors Plat and Lot numbers and Zoning District Includes for land being subdivided and all properties adjacent <u>and</u> directly across the street from the subject property			
			4.F Vicinity or Locus Map			
			4.G References to deeds and recorded plans			
			4.H Legal/Permits Notation of any special conditions of approval imposed by the Zoning or Planning Board, and any permits and agreements with state or federal agencies		N/C	
SITE ANALYSIS MAPS						
			4.I Aerial photograph or Vicinity Map A recent aerial photograph or vicinity map drawn to show the relationship of the project parcel(s) to the area within a half-mile radius, identifying the locations of all streets, zoning district boundaries, schools, parks, fire stations, and other significant public facilities.			
			4.J Soil Map (For Residential LDP Only) Soil map and description of the physical properties of soils on the project parcel(s) and their limitations for the type of development being proposed		N/A	
			4.K Topographic and Slopes <ul style="list-style-type: none"> o Topographic map of the area, identifying natural drainage patterns, existing stormwater drainage facilities, base flood elevation, and the location of any wetlands. o Slope map with slopes grouped according to development suitability 			

M	P	F	Description	Applicable Standard or Forms	App. Use	Staff Use
			4.L Natural Resources Inventory (For Residential LDP Only) <ul style="list-style-type: none"> o Name and location of surface watershed and sub-watershed boundaries, water quality classification, and existing condition of nearest surface water(s). o Include groundwater aquifers, recharge areas, wellhead protection areas, and water table o State-designated Natural Heritage Sites and wildlife habitat and fish presence in streams that could be affected by nearby development o Unfragmented forest tracts o Prime farmland soils o Areas in active farm use, with annotations for cropland, pasturage, orchard, etc. o Large trees, shrubs, or other significant vegetation o State, regional, or community greenways and greenspace priorities o 100-year floodplains as shown on federal flood protection maps 		N/A	
			4.M Cultural Resource Inventory (For Residential LDP Only) <ul style="list-style-type: none"> o State or locally-designated historic sites, districts, cemeteries, or landscapes o Archaeological sites, scenic road corridors, and state-designated scenic areas o Location of stone walls, structures, outbuildings, roads, or trails and other historic features on the parcel 		N/A	
			4.N Recreational Resource Inventory (For Residential LDP Only) <ul style="list-style-type: none"> o Existing hiking, biking, and bridle trails within and adjacent to site o Boat launches, lake and stream access points, beaches, and water trails o Existing play fields and playgrounds within and adjacent to the site 		N/A	
			4.O Site Context Map A recent aerial photograph showing the area within one mile of site at a scale of 1" = 400' or 1" = 500' showing the following: <ul style="list-style-type: none"> o Parcel boundary outline o Topography (10' contours) o Public drinking water supply watersheds and groundwater aquifers o Surface Waters and Wetlands o Conservation and recreation land 			
POTENTIAL CONSERVATION AREAS MAPS (For Residential LDP Only)						
			4.P Non-buildable Areas <ul style="list-style-type: none"> o Wetlands and vernal pools (mapped in blue/green) o Surface waters (mapped in blue) o State-regulated wetland setbacks (mapped in dark blue/green) o Ledge/outcrops (mapped in brown) o Slopes greater than 25% (mapped in orange) o Existing utility easements and power line right-of-ways o Hydric soils (mapped collectively in red cross-hatching). o Existing land restrictions such as utility easements, power line right-of-ways, etc. 		N/A	
			4.Q Partially Constrained Areas <ul style="list-style-type: none"> o Partially Constrained Areas o Slopes between 15-25% (mapped in yellow) o 100-yr flood plains (mapped with blue cross-hatching) o Soils with seasonal high-water table less than 3.5 feet or slowly permeable "hardpan" 		N/A	
			4.R Important Natural, Cultural, and Recreation Resource Areas (from site analysis) <ul style="list-style-type: none"> o Natural resource areas (mapped in green transparent tones) o Cultural resource areas (mapped in red transparent tones) o Recreational resources (mapped with solid and dashed lines, hatching for areas, and annotation as appropriate) 		N/A	
			4.S Summary Map – A simplified map showing: <ul style="list-style-type: none"> o Non-Buildable Areas (mapped in red or red hatching) o Partially constrained areas (mapped in orange or orange hatching) o Important natural, cultural, and recreational resource areas (mapped in green) 		N/A	

M	P	F	Description	Applicable Standard or Forms	App. Use	Staff Use
EXISTING CONDITIONS PLAN(S)						
			4.V Class 1 Comprehensive Boundary Survey. Name, address and signature of land surveyor, with stamp of registration. Certification of survey as a Class 1 Comprehensive Boundary Survey as required by the Procedural and Technical Standards for the Practice of Land Surveying in the State of Rhode Island.			
			4.U Perimeter boundary lines of subject property Includes dimensions of boundaries			
			4.V Abutting properties Property lines and zoning designations of all lots abutting or across the street from the perimeter of the lot proposed to be subdivided, and the names of the property owners and plat/lot indicated thereon.			
			4.W Existing Easements Location and notation of type of existing easement(s) to remain, with accurate dimensions and areas indicated			
			4.X Existing Infrastructure Location of any existing streets, railroads, rights-of-way, paper streets, sidewalks, utilities, stormwater drainage, communications or telecommunications infrastructure, cemeteries, and lot lines			
			4.Y Existing Structures Location of any existing structures, embankments, stone walls, archeological or historical sites or any other significant physical features which may have an effect upon development of the land, including such features on adjacent land.			
			4.Z Boundary Monuments Location of permanent boundary monuments			
			4.AA Existing Natural Features Location of any significant natural features such as watersheds, fresh or saltwater wetlands or their buffers (perimeter wetlands, wooded areas, rock outcrops, cultivated land, coastal features, beaches, etc.			
			4.BB Trees Location of wooded areas with a notation of existing trees with a twelve inch (12") or larger caliper, if any	Subdivision regulations: §518 Retention of Environmental Features		
			4.CC Topography Existing contours with intervals of two (2) feet and finished grade shown as solid lines (notation if no changes to contours are proposed, or where changes are proposed). Include benchmarks on which contours are based.			
			4.DD Flood elevations Notation as to the flood zone of the subject property, including the base flood elevation (BFE) as indicated by the Federal Emergency Management Agency's Flood Insurance Rate Map (FEMA FIRM). The Coastal Resources Management Agency's Suggested Design Elevations with 3 feet of sea level rise (CRMC SDE 3 SLR) must also be provided, if applicable.	Zoning Code: Article 10: Flood Hazard Areas , Article 4: Definitions; Building Height and Subdivision regulations: §517- Flood Prone Areas		
			4.EE Zoning Zoning District designation, setbacks, and lot coverage computations in accordance with the Zoning Ordinance	Zoning Code: Article 6		

M	P	F	Description	Applicable Standard or Forms	App. Use	Staff Use
			4.FF Density calculations Based upon exclusion of unsuitable land from the total land area of the subject parcel, include the total acreage, the acreage of unsuitable land, and the resulting total number of units allowed by right			
			4.GG Undevelopable land Boundaries and total area of any land classified as “unsuitable for development”			
			4.HH Soils Boundaries and notations of soil types classifications for the entire area of the subject parcel(s). If applicable, include location of soil contaminants present.			
PROPOSED CONDITIONS PLAN(S)						
			4.II Sketch Plan (For Residential LDP Only) Plan showing potential development areas as a tone or boundary line with conceptual alternatives. Include a description of overall themes and organizing principles and description of house types and/or architectural themes		N/A	
			4.JJ Proposed layout Proposed location and dimensions of street rights-of-way, street paving, sidewalks, easements, boundary monuments, lots, lot lines, and lot areas			
			4.KK Additional layout details (For Residential LDP Only) <ul style="list-style-type: none"> ○ Provide alternatives for location of lot lines ○ Criteria or statement of design intent for locating lot lines ○ Building envelopes or build-to lines 		N/A	
			4.LL Building Sites (For Residential LDP Only) <ul style="list-style-type: none"> ○ Show development suitability by annotating plans to indicate site scale differences in microclimate (north-facing areas sheltered from summer sun but affected by winter winds, or southern exposure good for solar heating), soils, hydrology, or special features affecting construction such as unique trees or stone walls to be preserved. ○ Proposed water supply and wastewater disposal ○ Views and visual character of house sites – describe with arrows and annotation. ○ Yard spaces and activity areas – distinguish public and private areas, annotate potential uses ○ Indicate site access, service and parking alternatives ○ Indicate how the home sites will be connected to or benefit from the dedicated open space. 		N/A	
			4.MM Proposed street creation or extension If applicable, include roadway design plan(s) and profile(s), including existing and proposed elevations; proposed street names; and notation as whether proposed street creation or extension is to be private or public			
			4.NN Proposed Utilities Proposed location, dimension and description of utilities, sanitary sewers, storm water drainage facilities, water lines, fire hydrants, electrical, telephone, and street lights. Number all manholes and catch basins.			
			4.OO Additional Infrastructure Details <ul style="list-style-type: none"> ○ Alternatives for location and alignment of proposed roads and pedestrian system ○ Cross-section of proposed streetscape, including buildings, plantings, fences, curbs etc. on both sides of the street, along with the width of pavement and shoulders, if any ○ Alternatives for stormwater treatment and management with an emphasis on maintaining the natural hydrology and encouraging the infiltration of precipitation as close to the point of origin as possible (see RI Stormwater Design and Installation Standards Manual). ○ Concept for lighting of streets and homes, placement of utilities including transformer boxes and other access points. 			

M	P	F	Description	Applicable Standard or Forms	App. Use	Staff Use
			<p>4.PP Parking and Amenities Location, dimension, and number of existing and proposed parking spaces; handicapped parking spaces; vehicular drives and curb cuts; loading areas and total square footage of parking area (stalls & aisles); and bicycle racks (1 for each 10 automobile parking spaces, with 2 minimum) must be shown.</p> <p>Any proposed amenities such as bus shelters, playground, benches must be identified.</p>	Subdivision regulations: §521 Commercial Development and Zoning Code: Article 13: Off-street Parking and Loading		
			<p>4.QQ Circulation Location of any proposed sidewalks and pedestrian, bicycle, and vehicular connections to adjacent parcels</p> <p>Pick-up, drop-off zone and plan to demonstrate adequate circulation without impeding flow of bikes and cars on adjacent streets</p>	Subdivision regulations: §521 Commercial Development and Article 6: Specifications for Required Improvements Article 5: Required Minimum standards of Design Commercial Development		
			<p>4.RR Traffic Plan Include vehicle access sites showing the dimensions and location of roads, driveways, curb cuts, radii, parking, as well as other off-site traffic improvements</p>			
			<p>4.SS Solid Waste Location of existing and proposed solid waste facilities, including dumpsters, and location of all screening.</p> <p>Trash receptacle for users of the site must be provided. A litter management control plan must be included on the site plan or as a separate document.</p>	Subdivision regulations: §521 Commercial Development		
			<p>4.TT Land Dedication Parcels of land proposed for dedication to the Town of Middletown, the state of Rhode Island or other public, quasi-public, non-profit organization, or homeowner’s association.</p>		N/A	
			<p>4.UU Percolation Test Holes If applicable, location of all percolation test holes indicated by a letter “P”, with test hole numbers</p>			
			<p>4.VV Groundwater test holes If applicable, location of all ground water table determination test holes indicated by a letter “W”,with test hole numbers.</p>			
			<p>4.WW Deed restrictions Notation of proposed deed restrictions required by the Planning Board.</p>			
			<p>4.XX Fire Protection Proposed location of any required fire hydrants or cisterns and associated access easements residential sprinkler systems are proposed.</p>	§522		
			<p>4.YY Road Profiles If applicable, a separate Profile Drawing(s) of final profiles, at a horizontal scale of one inch equals forty feet (1”=40’) and a vertical scale of one inch equals four feet (1”=4’), showing road grades and cross sections at every one hundred (100) foot station, plus the location and grades of proposed drainage, water and sewer lines.</p>	Subdivision regulations: Appendix B- Drawings		

			4.ZZ Utility Profiles If applicable, a separate <u>Utility Plan</u> to include all of the above information, plus the location and descriptive notation necessary to locate all water lines, sewer lines, storm drainage lines, underground lighting and communication lines, trees and facilities appurtenant thereto.	Subdivision regulations: Appendix B- Drawings		
			4.A.i Soil Erosion and Sediment Control Plan/Stormwater Pollution Prevention Plan	Chapter 151: Construction Site Runoff Control		
			4.B.i Phasing, if applicable Proposed phasing including depiction of which structures and on- and off-site improvements are to be installed in which phase			
			4.C.i Limits of Disturbance Depict the limits of disturbance/work relative to on-and off-site improvements and infrastructure installation			
			4.D.i Grading Plan Show contours at 2-foot intervals for all on and off-site street construction, drainage facilities, and individual house lots, certified by RI registered Professional Engineer			
			4.E.i Low Impact subdivision (LID) Site Planning Proposed measures utilize the Low Impact subdivision (LID) Site Planning & Design Guidance Manual to minimize impacts to the natural topography			

5. CONSERVATION DEVELOPMENT PLANS

For any residential land development project on 3 ACRES OR MORE in the quantities required per Section 1. Application Materials, site plans must be submitted with the following ADDITIONAL items (conservation plans are not permitted on property less than 3 acres):

M	P	F	Description	Applicable Standard or Forms	App. Use	Staff Use
			5.A Documentation and conclusions of the Conservation Development Design Process, a 10 step process listed in Appendix C.		N/A	
			5.B Wetland lines with regulated setbacks, including areas within 200 ft of the parcel.		N/A	
			5.C Boundaries of wooded areas		N/A	
			5.D Large trees (18" dbh or larger), shrubs or other unique vegetation.	§516, Appendix A §9	N/A	
			5.E Prime Farmland Soils and areas in active or recent agricultural use, with notation of use and condition.		N/A	
			5.F Notation on plan if the subdivision is located within or contains any of the following areas: Natural Heritage Areas; National Register of Historic Places; Watershed Protection District; groundwater aquifers, recharge areas and wellhead protection areas; state regional or local greenways and greenspace priorities; areas under jurisdiction of any Special Area Management Plan of RI CRMC; and RIDEM-identified watershed or critical resource areas.	Zoning Code: §310 Development Impact Review	N/A	
			5.G Location and boundaries of all proposed open space		N/A	
			5.H General proposed use(s) of the open space	Appendix A §10	N/A	
			5.I Existing ground cover of open space areas		N/A	
			5.J Areas of open space from which existing vegetation will be removed or altered and areas which are proposed to be disturbed or otherwise graded, excavated, or altered from their existing natural state		N/A	

M	P	F	Description	Applicable Standard or Forms	App. Use	Staff Use
			5.K Generalized proposals for the regrading, revegetating and/or landscaping of proposed disturbed areas in the open space		N/A	
			5.L Location and nature of any proposed buildings, structures, parking areas or roadways, impervious areas recreation areas in the open space		N/A	
			5.M Areas in the open space proposed to be left in their existing natural states without any disturbance		N/A	

SECTION 521.1 - SITE DESIGN		Yes	No	N/A
A. General Location and Layout				
	Buildings located to create a safe, pleasant walking environment and an efficient pedestrian circulation pattern			
	Building placement, orientation and massing promotes active pedestrian-scaled design, provides opportunities for walking, bicycling, and private motor vehicles use and promotes the use of public transportation.			
B. Off-Street Parking and Circulation				
1	Parking lots located to the rear or side of building (<i>not applicable in LI districts except on arterials</i>) OR where site configuration does not allow for parking at rear or side, no more than one row of parking is located at the front, or two rows in the case of large-scale shopping centers and other situations where site conditions warrant; in either case, the number of parking spaces does not exceed 50 spaces (<i>additional landscaping & screening may be required</i>).			
2	<i>For projects with more than 50 parking spaces:</i> Parking broken up into lots of less than 50 spaces.			
	Parking lots are directly connected to each other.			
	Adjacent parking lots separated by a minimum 10' landscaped strip (<i>may be used as walkway</i>).			
3	Circulation provides safe and efficient access into and throughout the site for pedestrians, automobiles, and emergency vehicles.			
	Pedestrian walkways and crosswalks are provided.			
	Pedestrian access to the site from the public way is provided.			
	Pedestrian access from neighboring properties is provided.			
	A pick-up, drop-off zone and plan are required and demonstrate adequate circulation so flow of bikes and cars on adjacent streets are not impeded.			
4	Adequate and safe ingress and egress is provided.			
	Number & width of curb cuts is minimized			
	Existing curb cuts are consolidated (<i>MAY be required</i>).			
	Where possible, provision for vehicular and pedestrian connections to adjacent development is made.			
	Site design does not require use of a public street to maneuver in and out of a parking or loading space on private property.			
C. Utilities				
	All utilities lines serving the site are installed underground.			
	Power lines and utilities in frontage areas are installed underground to the maximum extent possible.			
D. Exterior Lighting				
1	Exterior lighting design shall comply with Zoning Ordinance Article 27B on Outdoor Lighting.			
2	Fixtures illuminating building facades are shielded and directed toward the building, other fixtures shielded and directed to the ground, decorative fixtures less than 12 ft high and shielded to the extent possible.			
E. Infrastructure and Amenities				
1	Dumpsters, storage areas, exposed machinery installation designed and screened or located to provide an audio-visual buffer sufficient to minimize adverse impacts on other land uses within the development area and surrounding properties.			
	Dumpsters screened from view and comply with Town Ordinance Chapter 92A.03 Storage of Trash and Waste			
2	Service equipment screened from public way: roof-mounted units set back from roof edge or with screening that is incorporated into building design; ground-mounted HVAC and other equipment screened by landscaping or decorative fencing.			
3	Exterior litter receptacles shall be provided on all commercial, multi-family residential, and mixed-use properties			
	Receptacles shall be appropriately sized and located. The locations and design of receptacles must be identified on site plans			
	Receptacles shall have decorative designs compatible with the overall design theme for the development.			

	Trash management control plan to prevent litter from entering abutting properties and streets			
4	Bicycle racks shall be provided and identified on site plans. 1 bicycle space per 10 automobile parking spaces or fraction thereof (with min. 2 bike spaces)			
5	Amenities such as benches, bus shelters, playgrounds etc. shall be located on the site plan and compatible with the overall design			
SECTION 521.2 - BUILDING DESIGN AND ARCHITECTURE		Yes	No	N/A
A. Façade and Walls				
1	Primary ground floor public entrance oriented directly to street, interior pedestrian plaza, walkway, or parking lot containing pedestrian plaza(s) and walkway(s).			
2	Street side façade, if visible from the public way, does not consist of an unarticulated blank wall.			
	Street side façade, if visible from the public way, does not consist of an unbroken series of garage doors.			
	No unbroken plane of a wall exceeds forty feet without a minimum 4" wide architectural design feature (Ex: building materials or color to create contrast, or changing siding orientation)			
3	Commercial garage doors not visible from the public way (GB & LI districts are exempt).			
	Loading docks not visible from the public way (GB & LI districts are exempt).			
4	Loading docks not located on any building façade facing a public way.			
	Commercial garage doors screened from public view.			
	Loading docks screened from public view.			
B. Windows & Doors				
	Windows and doors visually compatible with the architectural style of the building.			
1	Windows and glass doors occupy between 20% and 60% of facade visible from the public way (facing a public arterial street in LI districts).			
2	Where consistent with overall building design, windows are of true or simulated divided-light design (except in LI zones). Double-hung windows preferred where consistent with overall building design. Where true windows cannot be used, faux windows that simulate true windows are acceptable.			
C. Materials				
	Building sidings, roofs, and trim constructed of traditional materials such as wooden clapboards, shingles, patterned shingles, brick or stone. Substitute materials may include fiber cement board, composite that resemble traditional materials, standing seam metal roofs, and non-flammable siding (<i>Use of non-traditional or substitute materials require Planning Board or Admin. Officer approval</i>).			
D. Roof Forms and Roof Design				
	Shape and proportion of roof is visible compatible with architectural style of the building.			
1,3	Roof is a traditional form such as hip, gambrel, or gable OR a flat roof incorporating decorative details on all building sides and/or designed to incorporate a sloped design for the portion of the roof visible from the public way, which is designed so that any mechanical equipment installed on the roof is not visible from the public way and abutting properties.			
2	Gradient from level of any sloped roof at least 4:12.			
4	Renovation of existing flat-roof buildings must incorporate decorative details in the roof design			
E. Architectural Elements				
	Architectural elements such as arcades, porches, bays, windows, balconies, dormers and cupolas are in reasonable proportion to the overall building.			

SECTION 521.3 - LANDSCAPING		Yes	No	N/A
A. Existing Vegetation				
	Trees and vegetation are used to satisfy landscaping requirements (whenever possible).			
	Trees having greater than 18" dbh are preserved (whenever possible and with Tree Warden consultation).			
	Trees having greater than 18" dbh that cannot be preserved are replaced with two trees of at least 4" dbh.			
B. Amount Required				
	Planted landscaping occupies a minimum of 25% of the project area.			
C. Screening				
	Screening element such as plantings, stone walls, berms and/or fences (or a combination) provided along all property lines.			
D. Buffers				
1	A landscaped buffer at least 10' is provided along all property lines (<i>may be reduced if stone wall used as screening element</i>).			
2	<i>Along lot lines abutting residential properties or uses</i>	For all uses, a landscaped buffer at least 20' that includes screening at least 6' high measured from finished grade at time of installation is provided.		
		For large scale shopping centers, a landscaped buffer at least 50' that includes screening at least 6' high measured from finished grade at time of installation is provided.		
3	A landscaped buffer at least 5' wide, which is defined by curbing, is provided between buildings and parking lots/driveways.			
E. Plantings				
	Plantings are noninvasive species, and native to Aquidneck Island if possible.			
F. Trees				
1	<i>Deciduous street trees:</i>	Planted along street side property boundary, private streets, and internal driveways.		
		Planted in planter strips or tree wells located between the sidewalk and curb.		
		Spaced no further apart than 30' on center.		
		A minimum of 4" dbh at time of planting.		
2	<i>Parking lot trees</i>	Minimum of one tree provided for every 5 parking spaces.		
		Trees at least 4" caliber dbh and 7' tall at time of planting		
		Surrounded by at least 25 ft ² of permeable unpaved area		
G. Scenic Views				
	Scenic views and historically significant landscape features preserved to the maximum extent reasonably possible			
	Consistent with Town Code Chapter 96: Tree Preservation and Protection (see checklist).			
	Consistent with Town Code Chapter 97: Stone Walls (see checklist).			
H. Maintenance				
	A landscape maintenance agreement and/or bond is required			
	Landscape maintenance plan is required by section 523, and performance and maintenance guarantees are required under Article 7			
SECTION 521.4 - ENVIRONMENTAL IMPACTS		Yes	No	N/A
A. Construction Site Runoff/Erosion & Sedimentation Control				

TOWN OF MIDDLETOWN - PLANNING DEPARTMENT
 COMMERCIAL DEVELOPMENT DESIGN COMPLIANCE CHECKLIST

Rev 2024

1	Erosion and sedimentation controlled so that neighboring property and public facilities or services are not adversely affected during and/or after construction.			
2	Meets standards of the Town of Middletown, including Chapter 151 of the Town Code (see checklist) & the RI Erosion and Sediment Control Handbook.			
B. Stormwater Management				
1	On-site absorption/recharge is maximized; runoff minimized.			
2	No direct discharge of untreated storm-water runoff to a wetland or watercourse from impervious surfaces.			
3	Meets standards of the Town of Middletown, including Chapter 153 of the Town Code (see checklist) & the RI Stormwater Design			
4	A stormwater facilities maintenance easement is required.			
SECTION 521.5 - SIGNAGE		Yes	No	N/A
	Meets requirements of Article 12 of the Zoning Ordinance.			
	Signs and any exterior illumination architecturally compatible with development.			
	Signage for multi-use projects are of uniform design, with similar scale and fabrication.			



September 11th, 2024

Town of Middletown Planning Board
Ronald M. Wolanski, AICP
350 East Main Road
Middletown, RI 02842

Re: Middletown Middle High School Project
104 Hayden Rowe St
Planning Board Waiver Requests

SCI#: 53008.00

Dear Wolanski:

As part of this submission, we are including the Major Land Development- Master Plan Submission application.

We are respectfully submitting this request for waivers to the following Major Land Development- Master Plan Requirement Sections:

(1). Zoning Relief – Section 605 maximum building footprint is 35,000 sf. The proposed building footprint is 91,750 sf thus we are requesting relief for 56,750 sf.

(2). Planning Department Commercial Development Design Compliance Checklist – Section 521.1 Site Design, B. 2. Parking broken up into lots of less than 50 spaces. Existing parking lots to the southeast and southwest to remain currently have more than 50 spaces per lot. Additionally, due to the parking spaces requirements the proposed east parking lot will have more than 50 spaces.

(3). Planning Department Commercial Development Design Compliance Checklist – Section 521.1 Site Design, D. 1. Exterior lighting design shall comply with Zoning Ordinance Article 27B on Outdoor Lighting. § 27B02 CRITERIA:

- (6) (a) 1. They shall be directed, shielded, and installed so they do not project onto neighboring properties or public rights-of-way, create unacceptable glare from an adjacent residential property, or have a significant impact on the night sky; and

- (6) (a) 2. They shall be aimed no more than 45 degrees from straight down.

- (6) (b) With the exception of security lighting, all outdoor lighting for commercial, office, industrial, and institutional uses, including lighting for parking areas and vehicular and pedestrian ways shall be extinguished nightly within one-half hour of the close of the facility. When after-hours site security lighting is required, the use of motion-sensor controlled lighting is encouraged.

(4). Planning Department Commercial Development Design Compliance Checklist – Section 521.1 Site Design, D. 2. Fixtures illuminating building facades are shielded and directed toward the building, other fixtures shielded and directed to the ground, decorative fixtures less than 12 ft high and shielded to the extent possible.

(5). Planning Department Commercial Development Design Compliance Checklist – Section 521.1 Site Design, E.2. Service equipment screened from public way: roof-mounted units set back from roof edge or with screening that is incorporated into building design; ground-mounted HVAC and other equipment screened by landscaping or decorative fencing. Some roof top mechanical units atop the High School wing are partially visible at a distance from the entrance to the site from Turner Road.

Samioles Consultants, Inc.
Civil Engineers + Land Surveyors

20 A Street
Framingham, MA 01701-4102

T 508.877.6688
F 508.877.8349

www.samioles.com

(6). Planning Department Commercial Development Design Compliance Checklist – Section 521.2 Building Design and Architecture, C. Building sidings, roofs, and trim constructed of traditional materials such as wooden clapboards, shingles, patterned shingles, brick or stone. Substitute materials may include fiber cement board, composite that resemble traditional materials, standing seam metal roofs, and non-flammable siding (Use of non-traditional or substitute materials require Planning Board or Admin. Officer approval). The Design employs high quality architectural concrete masonry with profiled metal panel accents, striking a balance between budgetary restraints and aesthetic and durability performance.

(7). Planning Department Commercial Development Design Compliance Checklist – Section 521.2 Building Design and Architecture, D. 1,3. Roof is a traditional form such as hip, gambrel, or gable OR a flat roof incorporating decorative details on all building sides and/or designed to incorporate a sloped design for the portion of the roof visible from the public way, which is designed so that any mechanical equipment installed on the roof is not visible from the public way and abutting properties. The Middletown Middle High School uses a flat roof. Some roof top mechanical units atop the High School wing are partially visible at a distance from the entrance to the site from Turner Road.

(8). Planning Department Commercial Development Design Compliance Checklist – Section 521.3 Landscaping, C. Screening element such as plantings, stone walls, berms and/or fences (or a combination) provided along all property lines. This requirement is not met due to the existing conditions on site along each property line where stone walls and vegetation already exist.

(9). Planning Department Commercial Development Design Compliance Checklist – Section 521.3 Landscaping, D. 1. A landscaped buffer at least 10' is provided along all property lines (may be reduced if stone wall used as screening element). This requirement is not met due to the existing buffering along each property line. No further additions or changes are proposed to any property line.

(10). Planning Department Commercial Development Design Compliance Checklist – Section 521.3 Landscaping, D. 2. Along lot lines abutting residential properties or uses:

- *For all uses, a landscaped buffer at least 20' that includes screening at least 6' high measured from finished grade at time of installation is provided.*
- *For large scale shopping centers, a landscaped buffer at least 50' that includes screening at least 6' high measured from finished grade at time of installation is provided.*

These requirements are not met due to the existing buffering along each property line. No further additions or changes are proposed to any property line.

(11). Planning Department Commercial Development Design Compliance Checklist – Section 521.3 Landscaping, D. 3. A landscaped buffer at least 5' wide, which is defined by curbing, is provided between buildings and parking lots/driveways. This requirement is not met due to the property being a school campus and not all areas are able to be landscaped between the building and parking lots and driveways. The scale creates challenges for cost and future maintenance of landscaped areas along these areas.

(12). Planning Department Commercial Development Design Compliance Checklist – Section 521.3 Landscaping, F. 1 Deciduous street trees:

- *Planted in planter strips or tree wells located between the sidewalk and curb:* Deciduous trees are planted along most drives and curb lines, but the site does not have a planter strip between the curb line and sidewalks.
- *Spaced no further apart than 30' on center:* Trees are not proposed to be planted at a minimum of 30' on center due to the scale of the site. Cost and future maintenance prevent the number of trees required from being attainable for this requirement.

- ***A minimum of 4" dbh at time of planting:*** Trees are not being proposed at a 4" caliber due to the cost of trees at that size coupled with the proposed quantity. However, most will meet the 7' height requirement once planted.

(13). Planning Department Commercial Development Design Compliance Checklist – Section 521.3 Landscaping, F. 2. Trees at least 4" caliber dbh and 7' tall at time of planting. Trees are not being proposed at a 4" caliber due to the cost of trees at that size coupled with the proposed quantity. However, most will meet the 7' height requirement once planted.

(14). Zoning Relief – Article 13, § 1304 1 space per 5 persons based on fire code. Based on the requirement the project will require 995 parking spaces, and we are proposing 348 and what we seek relief for 647 due to the projected Actual Parking Based on School Usage of 348.

If you have any questions regarding this report or other issues, Stephen Garvin, PE, LEED AP can be reached at 508-877-6688 ext. 13

Sincerely,
Stephen Garvin, PE, LEED AP
President

MAJOR LAND DEVELOPMENT PROJECT APPLICATION NARRATIVE MASTER PLAN SUBMISSION

Introduction:

The existing Gaudet Middle School property, located at 1113 Aquidneck Ave in Middletown, RI (Zoning District: PA-Traffic Sensitive Public) is a Public Middle School, serving the Town of Middletown. The campus is abutted by commercial land uses and agricultural land to the north, residential land and Aquidneck Avenue RI DOT controlled road to the west, residential and industrial land uses to the south, and by Turner Road and agricultural land to the east.

Existing Conditions:

The parcel for Middletown Middle High School is 43.39± acres in size, which 3.33± acres are unsuitable land for development, Existing Conditions Survey Plan shows the entire campus including the land use, topographic features, utilities/infrastructure, and identified wetland resource areas. The entrances to the existing school are located off of Aquidneck Ave and Turner Rd. The campus is comprised of a network of concrete/asphalt sidewalks and asphalt drive aisles providing vehicular and pedestrian access throughout the campus, landscape and athletic areas. Additionally, there is undeveloped open land and forested buffer in the north-central and western portion of the property. Four (4) wetland resource areas (series A, B, D & E) have been delineated to the west of the campus on May 5 and 7, 2023. Existing drive access to the north west of the campus and portions of the existing parking lot to the west of the campus are located within the 75’ wetland buffer zones. All major utilities (water, sewer, drainage, gas, telecom, and electric) are available both within and in vicinity of the campus, and within adjacent public streets and drives.

Proposed Project:

The proposed construction is a phased project consisting of the demolition of the existing Middle School and construction of a new combined Middle High School and improvement of the existing campus. Additionally the project includes new parking layouts, new/reconfigured services, new athletic facilities, play areas, new middle and high school plaza spaces for community use and outdoor learning, and stormwater management infrastructure improvements and reconfiguration. The projected water and sewer demand is anticipated to be a slight increase compared to the existing flow to accommodate the future expanded student population. The new building will be serviced via new utility connections, mostly extending from existing on-site services. Walkways and parking lots will now meet all ADA regulations, and provide accessible paved paths throughout the site. Throughout the School site, new plantings will be added to soften the transition between the building, the driveway, and parking lot/walkways areas. As part of the configurations of the existing campus, existing main parking and access road to the southeast (Turner Road) and southwest (Aquidneck Avenue) portions of the campus will be repaved. Additionally, existing partially paved driveway to the north west of the property from Aquidneck Avenue will be paved.

Zoning information:

ZONING TABLE BASE ON ZONING BYLAWS		
Zoning District: PA (Traffic Sensitive Public)		
Requirements	Required/Allowed	Proposed
		Wyatt Road= 703.48 FT*

Minimum lot frontage	300 FT	Turner Road= 809.04 FT* Aquidneck Ave= 648.32 FT*
Minimum lot Width	300 FT	703.48FT*
Maximum building footprint	35,000 FT	91,750 FT

*Existing lot width and frontage not subjected to change.

Development Impacts Review (Middletown Zoning Code: § 310)

(a) Traffic and Parking Conditions:

The proposed project maintains a baseline of the well-known layout of existing access & exit driveways from Turner Rd and Aquidneck Ave and existing parking. The proposed work for these areas will be milling and overlaying of the parking surfaces. While there are 2 existing curb cuts off of Aquidneck Ave, the existing partially paved driveway to the north will now be improved with curbing and a paved drive. Note this improvement of the secondary access drive to Aquidneck is currently considered to be an Add Alternate due to construction budget. Additionally, new parking will be provided for the Middle High School and a proposed new separate drop-off/pick-up areas designated for school bus and private (parent/guardian drop-off/pick-up) traffic will be provided. Finally, an east to west connector drive between parking areas will be provided. Note this connector drive is currently considered to be an Add Alternate due to construction budget.

Existing parking layout:

+/- 313 Parking spaces
14 Accessible Parking spaces

Required parking layout (per article 13, §1304):

1 per 5 persons based on fire code occupancy

4,977 total fire code occupancy x 1 space/5 persons based on fire code occupancy= 995 spaces

Parking Based on Proposed School Usage

MS Staff	79
MS Visitors	15
HS Staff	83
HS Student Permits	156
HS Visitors	15
Total parking required	348

Proposed parking layout:

337 Parking spaces
11 Accessible Parking spaces including 3 Van Accessible spaces
Total Parking Proposed= **348**

See Full Traffic Assessment Memo from the project traffic engineer included within the Appendices for additional information on traffic patterns/observations.

(b) Municipal Utilities and Services:

All major existing on-site utilities have the capacity to meet the needs of the proposed project. New utility extensions/connections are proposed to upgrade utility services to the site and new school building. A new 6" DICL domestic water line will tie to the 12" DI water services stubs for both that RIDOT has installed within Aquidneck Avenue, and will extend to the school along the proposed exit drive. A separate 8" CLDI fire protection line, running parallel to the 6" domestic service, will loop around the proposed building to meet the requirements of the local fire department. All existing sewer connection and structures will be removed up the exiting sewer manholes to remain at the southwest of the site. The new sewer service and manholes will tie into the existing sewer manhole located to just north of the southern access road from Aquidneck Avenue. The existing gas line will be removed, and no new gas line is proposed. The electrical services will be updated to accommodate the load requirements for the proposed project. Communications (Telephone, Cable TV, and Fiber Optic) located within the limits of proposed work will be replaced and routed overhead from the existing utility pole to the northwest corner of the site within Aquidneck Avenue along the north exit road, and eventually will go underground. The proposed on-site stormwater management system will be upgraded to follow the Rhode Island Stormwater Regulations and the Middletown Stormwater Ordinances. The Stormwater Management Design will be reviewed by the Rhode Island Department of Environmental Management (RIDEM).

(c) Physical and Ecological Characteristics:

The project has been proposed to disturb areas predominantly outside the 75-foot and 100-foot buffer zones. There is no direct wetland alteration proposed, the only work within existing 75-foot buffer is improvements to existing parking and access drives off Aquidneck Avenue. To mitigate the potential for adverse impacts to the resource areas in the buffer zones during construction, a detailed soil erosion and sediment control plan has been developed and is included within the submitted plan set.

(d) Community Character and Heritage:

The Middle High School project is proposed construction on an existing school campus; thus it will not introduce any new or incompatible use to the neighborhood. In fact, the updated school campus elements: new aesthetically-pleasing school, thoughtfully designed open space (landscaping and athletic facilities), and traffic improvements will serve to enhance the neighborhood character heritage. The site slopes from east to west and the new building is designed to nestle into the slope, with the tallest portion located at the lower level of the site. The massing steps down towards the higher portions of the site and towards the closest neighboring properties. Substantial vegetative screening existing along the property edges is being maintained. The site design is intended to reflect the rural nature of Middletown with large open spaces and a variety of tree species provides a nod to the prevalent nursery industry in town while enhancing the site with natural visual interest and softening of hardscape features, landscaping is including native species.

Site area lighting will be pole-mounted fixtures featuring full-cutoff optics in the parking area and roadways with switching and dimming control via the networked lighting control system (NLCS). Timed control following dusk-to-dawn schedules with overrides will be employed for initial control of all exterior lighting. Pole heights will typically be 14 feet on 2.5' concrete mounting bases. Building perimeter lighting will be wall-mounted sconces featuring full-cutoff optics over exterior doors with switching and dimming control via the NLCS. Exterior Lighting will be design to comply with Northeast Collaborative for High Performance Schools credit SS 12.1 – Avoid Light Pollution and Unnecessary Lighting.

The below table notes proposed illumination level for exterior location.

Location	Average Illumination Levels
Parking	2 FC
Roadway	1 FC
Walkways	2 FC

Building Entry	10 FC
Building Egress Point	5 FC
Outdoor Activity Areas	10 FC

Legal/Permits

None at current time

P:\Projects\2023\53008.00 Middletown RI Middle High School\Documents\Permitting\Planning Board\Pieces\03.
Narrative\53008.00 Middletown MH School -PB- Narrative

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HMFH Architects

Middletown Middle-High School

1113 Aquidneck Avenue
Middletown, Rhode Island

Traffic Impact Analysis



Existing Gaudet Middle School

August 2023

B **BRYANT**
ASSOCIATES
Improving lives through infrastructure

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Lincoln, RI 02865
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1.0 Introduction

1.1 Purpose of Study

This traffic study was prepared at the request of HMFH Architects (HMFH) in connection with its study of the proposed middle-high school at the existing Joseph H. Gaudet Middle School and Learning Academy site at 1113 Aquidneck Avenue in Middletown, Rhode Island. For the benefit of the citizens of Middletown, the traffic impacts of the proposed school have been evaluated. The study analyzes traffic use attributable to the proposed development of the site and discusses transportation impacts in the vicinity of the site.

1.2 Description of Project

The project site is proposed to be located at the existing Joseph H. Gaudet Middle School and Learning Academy (Gaudet) site, 1113 Aquidneck Avenue in Middletown, as shown in Figure No. 1. Currently, the fourth and fifth grade classes of the Joseph H. Gaudet Learning Academy (Gaudet Academy) and the sixth to eighth grades of the Gaudet Middle School use the Gaudet site. The Middletown High School (grades 9 – 12) is located at 130 Valley Road. The proposed school will be utilized by the middle school (grades 6 – 8) and high school (grades 9 – 12). Gaudet Academy (grades 4 – 5) is proposed to be relocated to the existing Middletown High School (High School) site. The existing Gaudet site has 288 students in the Gaudet Academy (grades 4 – 5) and 469 middle school students (grades 6 – 8). The existing High School has 562 students (grades 9 – 12). The projected number of students at the new Middletown Middle-High School (Middle-High School) are anticipated to be 462 middle school students (grades 6 – 8) and 550 high school students (grades 9 – 12).

Middletown Middle-High School
Middletown, RI



The preferred alternative is the “Z” scheme, see Figure No. 2. The scheme shows the new buildings together in the center of the site. The preferred alternative will utilize the existing driveways on Aquidneck Avenue (RI Route 138A) and Turner Road. There is also an existing partially paved driveway to the north on Aquidneck Avenue that accesses the existing fields to the northwest of the existing school, sometimes referred to as the old movie drive-in driveway. The driveway is proposed to be paved to allow access to the north side of the site and is assumed to be used as a service vehicle entrance only and will not be used for general school traffic.

The existing parking lot on the east side of the site and a portion of the parking lot on the west side of the site are proposed to be resurfaced and new parking lots are proposed on the east and west sides of the new school buildings. Unlike the existing Gaudet site, all the parking lots will be accessible from the driveways on both Aquidneck Avenue and Turner Road as well as the service vehicle driveway on Aquidneck Avenue.

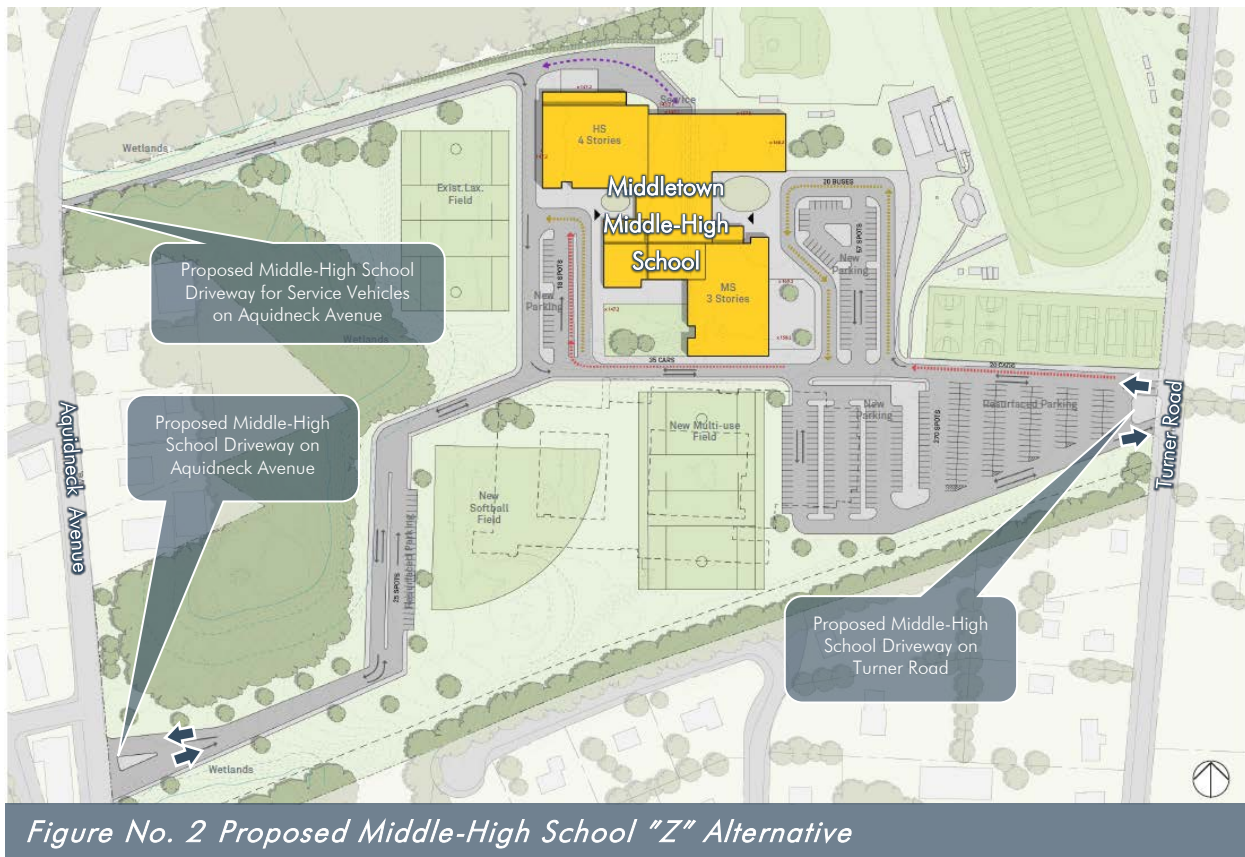


Figure No. 2 Proposed Middle-High School "Z" Alternative

2.0 Existing Conditions

2.1 Study Area

The new school will utilize Aquidneck Avenue and Turner Road for access to and from the site. Traffic volumes are moderate on Aquidneck Avenue, which is classified as an Urban Principal Arterial, as presented in Technical Paper 165, Rhode Island Statewide Planning Program, Department of Administration, 2014. By definition, an arterial highway emphasizes a high level of mobility for through traffic and access to local roadways. Traffic volumes are moderate on Turner Road, which is classified as an urban local road. Land use is residential, commercial, agricultural, and institutional in the study area.

2.1.1 Gaudet Middle School Driveways

The existing Gaudet site utilizes both Aquidneck Avenue and Turner Road for access to and from the site, however, the existing layout does not permit vehicular access between the two roadways. In other words, if a vehicle enters from Aquidneck Avenue then it must exit onto Aquidneck Avenue. The same is true for the Turner Road access driveway.

Middletown Middle-High School

Middletown, RI

The intersection of Aquidneck Avenue (RI Route 138A) and the middle school driveway is a three-way unsignalized intersection that is stop controlled on the school driveway. There is a crosswalk across Aquidneck Avenue to the south. Aquidneck Avenue at the school driveway is a two-lane, two-way bituminous roadway, approximately 33 feet in width with 13-foot travel lanes and 3 to 4-foot shoulders. There are utility poles on both sides of the roadway. There are no sidewalks. The speed limit is posted at 25 mph. There is a "School Speed Limit 20 When Flashing" sign in each direction prior to the school driveway on Aquidneck Avenue. Aquidneck Avenue is currently being reconstructed. The school driveway is an unmarked three-lane, two-way bituminous roadway, approximately 87 feet in width with 30 to 32-foot travel lanes separated by a 25-foot median. The westbound travel lane operates as two lanes at Aquidneck Avenue. The driveway narrows to approximately 30 feet in width away from the intersection. There is concrete curb, concrete sidewalk, and light poles on the south side of the driveway. There is concrete curb on the north side of the driveway.

The intersection of Turner Road and the middle school driveway is a three-way unsignalized intersection that is stop controlled on the school driveway. There are crosswalks across Turner Road between the entrance and exit lanes at the median and to the south of the driveway exit. The crosswalk at the median does not connect to any curb ramps or sidewalks and is not signed. The crosswalk to the south does have pedestrian crossing signs. To the north, Turner Road at the school driveway is a two-lane, two-way bituminous roadway approximately 24 feet in width with 10.5 to 11-foot travel lanes and 1 to 1.5-foot shoulders. There are utility poles on both sides of the roadway. There is bituminous sidewalk behind a grass strip on the west side of the roadway. To the south, Turner Road at the school driveway is a two-lane, two-way bituminous roadway approximately 24.5 feet in width with 10.5 to 11-foot travel lanes and one-to-two-foot shoulders. There is bituminous sidewalk behind a grass strip on the east side of the roadway. There are utility poles on both sides of the roadway. There also is a speed hump on Turner Road just to the south of the signed crosswalk. The speed limit is posted at 25 mph. There is a "School Speed Limit 20 When Flashing" sign in each direction prior to the school driveway on Turner Road. The school driveway at Turner Road is separated by an approximately 50-foot wide circular median with the entrance lane to the north of the median and the exit lanes to the south of the median. The entrance lane is a one-lane, one-way bituminous roadway approximately 29 feet in width with a 24-foot travel lane and 5-foot hatched shoulder. The exit lane to the south of the median is a two-lane, one-way bituminous roadway approximately 27.5 feet in width with 13.5 to 14-foot travel lanes. There is concrete curb and concrete sidewalk on both sides of the driveway.

2.1.2 Surrounding Intersections

The intersection of Aquidneck Avenue (RI Route 138A), East Main Road (Route 138), and the plaza driveway, to the northwest of the site, is a four-way signalized intersection. There is a crosswalk across all of the approaches. Aquidneck Avenue at its intersection with East Main Road and the plaza driveway is a three-lane, two-way bituminous roadway, approximately 82.5 feet in width with a 32-foot southbound travel lane, a 17.5-foot northbound shared left turn-through lane, a 24-foot

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northbound right turn lane, one-to-two-foot shoulders, and a six-foot painted median. The travel lanes narrow to 11-foot travel lanes to the south of the intersection. From the intersection to approximately 50 to 175 feet south of East Main Road there is concrete curb and concrete sidewalk on both sides of the roadway. There are utility poles on both sides of the roadway. East Main Road at its intersection of Aquidneck Avenue and the plaza driveway is a four-lane, two-way bituminous roadway, approximately 48 feet in width with 11-foot travel lanes and two-foot shoulders. There is concrete curb and concrete sidewalk on both sides of the roadway. There are utility poles on the south side of the roadway. The speed limit is posted at 35 miles per hour (mph). The plaza driveway at its intersection of Aquidneck Avenue and East Main Road is a three-lane, two-way bituminous roadway, approximately 50 feet in width with a 22-foot northbound travel lane, a 11.5-foot southbound left turn-through lane, 12.5-foot southbound right turn lane, and two-foot shoulders. There is concrete curb on both sides of the driveway.

The intersection of Aquidneck Avenue (RI Route 138A) and Green End Avenue, to the southwest of the site, is a four-way signalized intersection. There is a crosswalk across Aquidneck Avenue to the north and across Green End Avenue to the east. To the north, Aquidneck Avenue at its intersection with Green End Avenue is a three-lane, two-way bituminous roadway, approximately 44 feet in width with 13 to 15-foot travel lanes, a 12-foot southbound left turn lane, and two-foot shoulders. There is concrete curb on the west side of the roadway in the vicinity of the intersection. There is a bituminous berm on the east side of the roadway in the vicinity of the intersection. There are utility poles on the east side of the roadway. To the south, Aquidneck Avenue at its intersection with Green End Avenue is a three-lane, two-way bituminous roadway, approximately 41 feet in width with 12 to 13.5-foot travel lanes, a 10.5-foot northbound left turn lane, and two to three-foot shoulders. There is concrete curb on both sides of the roadway. There is concrete sidewalk and utility poles on the east side of the roadway. To the west, Green End Avenue at its intersection with Aquidneck Avenue is a three-lane, two-way bituminous roadway, approximately 40 feet in width with 12-foot travel lanes, a 12-foot westbound left turn lane, and two-foot shoulders. There is concrete curb on both sides of the roadway. There is concrete sidewalk on the north side of the roadway. There are utility poles on the south side of the roadway. To the east, Green End Avenue at its intersection with Aquidneck Avenue is a three-lane, two-way bituminous roadway, approximately 40 feet in width with 12 to 14-foot travel lanes, a 10.5 westbound left turn lane, and 1.5 to 2-foot shoulders. There is concrete curb on both sides of the roadway. There is concrete sidewalk and utility poles on the south side of the roadway. The speed limit is posted at 25 mph.

The intersection of Turner Road and East Main Road (Route 138), to the northeast of the site, is a skewed three-way unsignalized intersection that is stop controlled on Turner Road. Turner Road at its intersection with East Main Road is a two-lane, two-way bituminous roadway. There is no curb or sidewalk on either side of the roadway. There are utility poles on the east side of the roadway. East Main Road at its intersection with Turner Road is a four-lane, two-way bituminous roadway. There is concrete curb on both sides of the roadway. There are utility poles on the south side of the roadway.

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The intersection of Turner Road and Green End Avenue, to the southeast of the site, is a three-way unsignalized intersection that is stop controlled on Turner Road. There is a signed crosswalk across Green End Avenue to the east. Turner Road at its intersection with Green End Avenue is a two-lane, two-way bituminous roadway, approximately 46 feet in width with 18 to 23-foot travel lanes with a 5-foot painted median. There is bituminous sidewalk and curb on the east side of the roadway. There are utility poles on the east side of the roadway. The speed limit is posted at 25 mph. Green End Avenue at its intersection with Turner Road is a two-lane, two-way bituminous roadway, approximately 24.5 feet in width with 10-foot travel lanes and 2 to 2.5-foot shoulders. There is bituminous sidewalk and a grass strip on the south side of the roadway. There are utility poles on the north side of the roadway. To the west, there is bituminous berm on the north side of the roadway. To the east, there is bituminous sidewalk and a grass strip on the north side of the roadway. The speed limit is posted at 25 mph.

2.2 Data Collection

Traffic turning movement counts were conducted at the intersections of Aquidneck Avenue (RI Route 138A) and the middle school driveway, Turner Road and the middle school driveway, Aquidneck Avenue, East Main Road (Route 138) and the plaza driveway, Turner Road and East Main Road, and Valley Road and Middletown High School driveway and Police Department driveway between the hours of 6:00 A.M. and 9:00 A.M. and 12:30 P.M. and 3:30 P.M. on Tuesday, May 23, 2023. Traffic turning movement counts were also conducted at the intersections of Aquidneck Avenue and Green End Avenue and Turner Road and Green End Avenue between the hours of 6:00 A.M. and 9:00 A.M. and 12:30 P.M. and 3:30 P.M. on Wednesday, May 24, 2023. 24-Hour traffic volume data using automatic traffic recorders was also acquired on Aquidneck Avenue north of Vierra Terrace and Turner Road south of Wyatt Road between 12:00 A.M. on Tuesday, May 23, 2023, and 12:00 A.M. on Wednesday, May 24, 2023. The traffic count data is shown in Appendix A.

The calculated school A.M. peak hour, based on the existing school traffic volumes, is 7:00 to 8:00 and the school P.M. peak hour is 1:30 to 2:30 for the Gaudet Middle and Middletown High schools.

Pertinent field observations including existing stopping sight distance, location of existing utilities, posted speed limits, traffic control devices, etc. were made on Friday, June 2, 2023. Crash data (Appendix D) was requested from the Middletown Police Department but has not yet been received. In addition, traffic speed data (shown in Appendix E) using road tubes was acquired on Aquidneck Avenue north of Vierra Terrace and Turner Road south of Wyatt Road on Tuesday, May 23, 2023.

2.3 Field Observations – Gaudet Middle School

2.3.1 Observed Morning Arrival Operations

Private vehicles start entering the school at the school driveway on Aquidneck Avenue at approximately 7:20 A.M. A crossing guard was observed arriving and starting to direct entering and exiting traffic at 7:30 A.M. The majority of the entering traffic takes a left turn (from the north) into the

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site and the majority of the traffic exiting the site takes a right turn to travel north on Aquidneck Avenue. Vehicles start lining up at the loop in front of the school and on the west side of the school, with the driver's side of the vehicles adjacent to the curb, prior to 7:30 A.M. Queues on site were minimal after the students started exiting the vehicles. Queues were observed to form in the southbound and northbound directions on Aquidneck Avenue when the crossing guard was directing vehicles entering and exiting the driveway. The queues in the southbound direction reached East Main Road and the queues in the northbound direction went past the 1015 Aquidneck Avenue driveway. To the north of the school, the northbound queues on Aquidneck Avenue at its signalized intersection with East Main Road were observed to reach Aquidneck Drive, to the north of the school driveway. Minimal queues were observed on the driveway for the majority of the arrival operations, however, at approximately 7:50 A.M. there was a 14-vehicle queue exiting the driveway. There were a few bicyclists and students walking from Aquidneck Avenue to the school. With the exception of a few sporadic private vehicles dropping off, the arrival operations end at approximately 7:55 A.M. Bicyclists and pedestrians were observed coming from Columbia Road, south of the school, through cut-throughs in the tree line.

The buses, minibuses, and school vans utilized the Turner Road school driveway between 7:20 A.M. and 7:50 A.M.

Surrounding traffic on Aquidneck Avenue was affected during the school drop-off operations. A significant portion of the traffic on Aquidneck Avenue between East Main Road and the school driveway was from traffic entering and exiting the school. As mentioned previously, when the crossing guard directed traffic at the driveway, queues formed on Aquidneck Avenue. In comparison, there were minimal impacts to the surrounding traffic on Turner Road during the school drop-off observations.

Staff parking occurs in both the west and east school parking lots.

There was increased activity at the school during the morning operations for approximately 30 minutes.

2.3.2 Observed Afternoon Dismissal Operations

Private vehicles were observed to start entering the school driveway on Aquidneck Avenue at approximately 1:40 P.M. and lining up in the loop in front of the school and on the west side of the school adjacent to the curb. The crossing guard was observed to arrive and start directing traffic entering and exiting the driveway at 2:00 P.M. The private vehicle queue, starting at the loop, reached Aquidneck Avenue at 2:10 P.M. The private vehicles started to form a second queue to the north of the queue from the loop, although it did not start at the loop. The second queue started approximately 250 feet to the east of Aquidneck Avenue. There were approximately 38 vehicles queued from the loop and 26 cars queued from the west side of the school when the students were released. It was observed that some private vehicles bypassed the queue on the driveway to park in the west parking lot. At approximately 2:15 P.M. the private vehicles start to exit the driveway. The exiting queue, at its

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peak, stretched from Aquidneck Avenue to just past the west parking lot. With the assistance of the crossing guard, the queues on the driveway cleared quickly and by 2:20 P.M. the driveway was clear. There were minimal queues on Aquidneck Avenue when the crossing guard was directing the exiting traffic. It was observed that there were some parents exiting their vehicles to go into the school to pick up students.

The buses, minibuses, and school vans utilized the Turner Road school driveway between 1:30 P.M. and 2:30 P.M. Some faculty vehicles were exiting during the afternoon dismissal operations. There were also a few observed private vehicle pick-ups (approximately five private vehicles) on the east side of the school.

There was increased activity at the school during the afternoon operations for approximately 40 minutes. The majority of the impact in the vicinity of the school remained on the school site.

3.0 Traffic Forecasts

3.1 Existing Traffic Volumes

Existing traffic volumes for the study area were developed from traffic data obtained by Transportation Data Corporation (TDC).

The total 24-hour two-way traffic volume (from the road tube counts) on Aquidneck Avenue north of Vierra Terrace is approximately 9,400 vehicles per day (vpd) and on Turner Road south of Wyatt Road is approximately 5,400 vpd.

The school hours for the existing Gaudet Middle School, as well as the Gaudet Academy, are from 7:50 A.M. to 2:10 P.M. The school hours for the existing Middletown High School are from 7:30 A.M. to 1:40 P.M. The school A.M. peak, as indicated previously in Section 2.2, occurred between 7:00 and 8:00 and the school P.M. peak occurred between 1:30 and 2:30.

The two-way traffic volumes on Aquidneck Avenue and the Gaudet Middle school driveway were 848 vehicles and 360 vehicles, respectively, during the school A.M. peak hour. The two-way traffic volumes on Aquidneck Avenue and the Gaudet Middle school driveway were 761 vehicles and 176 vehicles, respectively, during the school P.M. peak hour.

The two-way traffic volumes on Turner Road and the Gaudet Middle school driveway were 451 vehicles and 91 vehicles, respectively, during the school A.M. peak hour. The two-way traffic volumes on Turner Road and the Gaudet Middle school driveway were 420 vehicles and 113 vehicles, respectively, during the school P.M. peak hour.

The two-way traffic volumes on Aquidneck Avenue, East Main Road, and the plaza driveway were 875 vehicles, 1,528 vehicles, and 19 vehicles, respectively, during the school A.M. peak hour. The two-way traffic volumes on Aquidneck Avenue, East Main Road, and the plaza driveway were 799 vehicles, 1,570 vehicles, and 143 vehicles, respectively, during the school P.M. peak hour.

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The two-way traffic volumes on Aquidneck Avenue and Green End Avenue were 784 vehicles and 686 vehicles, respectively, during the school A.M. peak hour. The two-way traffic volumes on Aquidneck Avenue and Green End Avenue were 908 vehicles and 829 vehicles, respectively, during the school P.M. peak hour.

The two-way traffic volumes on Turner Road and East Main Road were 493 vehicles and 1,838 vehicles, respectively, during the school A.M. peak hour. The two-way traffic volumes on Turner Road and East Main Road were 420 vehicles and 1,684 vehicles, respectively, during the school P.M. peak hour.

The two-way traffic volumes on Turner Road and Green End Avenue were 367 vehicles and 653 vehicles, respectively, during the school A.M. peak hour. The two-way traffic volumes on Turner Road and Green End Avenue were 416 vehicles and 787 vehicles, respectively, during the school P.M. peak hour.

The two-way traffic volumes on Valley Road, the Middletown High School driveway, and the police department driveway were 1,046 vehicles, 396 vehicles, and 9 vehicles, respectively, during the school A.M. peak hour. The two-way traffic volumes on Valley Road, the Middletown High School driveway, and the police department driveway were 1,367 vehicles, 305 vehicles, and 15 vehicles, respectively, during the school P.M. peak hour.

3.2 Vehicle Trip Generation

To evaluate the traffic impacts of the proposed school, it is necessary to determine the amount of traffic expected to be generated by the proposed school. Typically, the trip generation calculations are based on data compiled in [Trip Generation](#) (11th Edition), an informational report published by the Institute of Transportation Engineers (ITE). [Trip Generation](#) is a tool for planners, transportation professionals, zoning boards, and others who are interested in estimating the number of vehicle trips generated by a proposed development or land use. This document is based on more than 5,500 trip generation studies submitted to the Institute by public agencies, developers, consulting firms, and technical associations. More specific information, however, from the traffic counts for the existing Gaudet site and Middletown High School has been used for the trip generation.

As stated in Section 1.2, the existing Gaudet Middle School site has 288 Gaudet Academy (elementary school) students in grades 4 and 5, and 469 middle school students in grades 6 to 8. The existing Middletown High School has 562 high school students in grades 9 to 12. The proposed Middletown Middle-High School is anticipated to have 462 middle school students in grades 6 to 8 and 550 high school students in grades 9 to 12. The elementary school students in grades 4 and 5 are anticipated to be moved to the existing Middletown High School site on Valley Road. To estimate the minor decrease in middle school and high school students and relocation of the elementary school students and high school students, a ratio was developed between the decrease in students and the number of existing trips that currently enter and exit both the existing Gaudet site and Middletown High School, including buses, staff, and parents. The proposed number of buses is 15

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buses for the middle school and 5 buses for the high school. Table No. 1 contains the existing school traffic volumes and the anticipated proposed school traffic volumes for the school A.M. and school P.M. peak hours.

**Table No. 1
Trip Generation Summary
Middletown Middle-High School**

Time Period	Direction	Gaudet Middle School				Middletown High School		Proposed Middle-High	Trip Increase
		Existing			Proposed	Existing	Proposed		
		Elementary School: 288	Middle School: 469	Gaudet Total	Middle School: 462	High School: 562	High School: 550	Total: 1,012	
AM	Enter	101	166	267	164	277	271	435	+168
	Exit	70	114	184	112	119	116	228	+44
PM	Enter	54	87	141	86	65	64	150	+9
	Exit	56	92	148	91	240	235	326	+178

The distribution of the anticipated vehicle trips by direction was based upon the existing trip patterns observed in the traffic count data and the anticipated usage of the roadways for the school. The anticipated change in trips due to the decrease in projected student population and re-distribution of the schools was added to the existing volumes for analysis under the build conditions. The trip generation calculations and distribution of the traffic anticipated by the new school are shown in Appendix C.

4.0 Capacity Analysis

4.1 General

Capacity analyses in this report focus on the peak hours of traffic volume for the schools because they represent the most critical periods for operations and have the highest capacity requirements for this project. It is expected that there will be minimal impact from the school for the remaining hours of the day.

4.2 Intersections

The intersection capacity analysis was prepared using the Highway Capacity Manual (HCM), 6th edition, published by the Transportation Research Board. The analysis utilizes the concept of Level of Service. The term “level of service” is defined as a qualitative measure describing operational conditions within a traffic stream based on service measures such as speed and travel time, freedom to maneuver, traffic interruptions, comfort and convenience. There are six levels of service utilized for the analysis. They are given letter designations from A to F, with Level of Service A representing the most favorable operating conditions and Level of Service F the least. Level of Service F is assigned to

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the movement if the volume-to-capacity ratio for the movement exceeds 1.0, regardless of the control delay. The level of service criteria for unsignalized and signalized intersections is shown in Table No. 2.

The computer software, Synchro11, was utilized to perform the capacity analysis for the study area.

Table No. 2
Level of Service Criteria for Unsignalized and Signalized Intersections
Source: Highway Capacity Manual, 2016

Level Of Service	Average Total Delay (Second/Vehicle)	
	Unsignalized Intersection	Signalized Intersection
A	≤10	≤10
B	>10 and ≤15	>10 and ≤20
C	>15 and ≤25	>20 and ≤35
D	>25 and ≤35	>35 and ≤55
E	>35 and ≤50	>55 and ≤80
F	>50	>80

Unsignalized intersection capacity analysis for the intersections of Aquidneck Avenue and the middle school driveway, Turner Road and the middle school driveway, Turner Road and East Main Road, and Turner Road and Green End Avenue were undertaken using the school A.M. and school P.M. peak hour volume under existing and proposed conditions. The capacity analysis computations are included in Appendix C. A summary of the level of service for these intersections is shown in Table Nos. 3 and 4 for the school A.M. and school P.M. peak hour, respectively.

Table No. 3
School A.M. Peak Hour - Level of Service Summary
Unsignalized Intersections

Intersection/ Critical Movement	Level of Service (Delay- Second/Vehicle)	
	Existing	Proposed
Aquidneck Avenue/Middle School Driveway		
Aquidneck Avenue SB Approach	A (3.6)	A (2.9)
Middle School Driveway WB Approach	F (56.8)	C (24.5)
Turner Road/Middle School Driveway		
Turner Road NB Approach	A (1.0)	A (3.2)
Middle School Driveway EB Approach	C (15.4)	C (22.3)
Turner Road/East Main Road		
Turner Road NB Approach	F (71.4)	B (13.4)
East Main Road SWB Approach	A (4.4)	A (5.3)
Turner Road/Green End Avenue		
Turner Road SB Approach	C (15.3)	C (16.8)
Green End Avenue EB Approach	A (4.1)	A (4.9)

Table No. 4
School P.M. Peak Hour - Level of Service Summary
Unsignalized Intersections

Intersection/ Critical Movement	Level of Service (Delay- Second/Vehicle)	
	Existing	Proposed
Aquidneck Avenue/Middle School Driveway		
Aquidneck Avenue SB Approach	A (1.8)	A (1.5)
Middle School Driveway WB Approach	C (15.5)	C (15.2)
Turner Road/Middle School Driveway		
Turner Road NB Approach	A (1.8)	A (1.2)
Middle School Driveway EB Approach	B (14.1)	B (13.1)
Turner Road/East Main Road		
Turner Road NB Approach	C (20.0)	D (29.2)
East Main Road SWB Approach	A (3.7)	A (3.7)
Turner Road/Green End Avenue		
Turner Road SB Approach	C (15.0)	C (15.7)
Green End Avenue EB Approach	A (4.4)	A (4.4)

The unsignalized capacity analysis shows that the levels of service will not change or will improve at all the intersections with the exception of the northbound approach at the intersection of Turner Road and East Main Road during the school P.M. peak hour.

Signalized intersection capacity analysis for the intersections of Aquidneck Avenue and East Main Road and Aquidneck Avenue and Green End Avenue were undertaken using the school A.M. and school P.M. peak hour volume under existing and proposed conditions. The capacity analysis computations are included in Appendix C. A summary of the level of service for these intersections is shown in Table Nos. 5 and 6 for the school A.M. and school P.M. peak hour, respectively.

Table No. 5
School A.M. Peak Hour - Level of Service Summary
Signalized Intersections

Intersection/ Critical Movement	Level of Service (Delay- Second/Vehicle)	
	Existing	Proposed
Aquidneck Avenue/East Main Road/Plaza Driveway		
Aquidneck Avenue NB Approach	C (27.3)	C (24.0)
Plaza Driveway SB Approach	C (22.8)	C (23.7)
East Main Road EB Approach	B (14.9)	B (14.9)
East Main Road WB Approach	B (14.9)	B (11.9)
Aquidneck Avenue/Green End Avenue		
Aquidneck Avenue NB Approach	C (25.2)	C (24.8)
Aquidneck Avenue SB Approach	C (33.6)	C (34.2)
Green End Avenue EB Approach	C (25.3)	C (27.5)
Green End Avenue WB Approach	C (31.6)	C (34.6)

Table No. 6
School P.M. Peak Hour - Level of Service Summary
Signalized Intersections

Intersection/ Critical Movement	Level of Service (Delay- Second/Vehicle)	
	Existing	Proposed
Aquidneck Avenue/East Main Road/Plaza Driveway		
Aquidneck Avenue NB Approach	C (29.4)	C (30.6)
Plaza Driveway SB Approach	C (22.6)	C (22.2)
East Main Road EB Approach	C (22.9)	C (22.0)
East Main Road WB Approach	B (11.3)	B (12.0)
Aquidneck Avenue/Green End Avenue		
Aquidneck Avenue NB Approach	D (41.9)	D (41.3)
Aquidneck Avenue SB Approach	D (41.6)	D (43.5)
Green End Avenue EB Approach	C (26.0)	C (24.9)
Green End Avenue WB Approach	C (28.8)	C (30.7)

The signalized capacity analysis shows that the levels of service will not change at both of the signalized intersections during the school A.M. and P.M. peak hours.

5.0 Safety Analysis

5.1 Geometrics

The geometric configurations of the intersections affected by traffic generated by the proposed improvements were examined with regard to safe stopping sight distance using principles presented in A Policy on Geometric Design of Highways and Streets, 2018, of the American Association of State Highway and Transportation Officials (AASHTO). AASHTO provides recommendations for necessary sight distance at intersections.

A design speed of 35 mph was utilized for Aquidneck Avenue in the vicinity of the middle school driveway based on the observed 85th percentile speeds of 31 mph for the northbound and southbound traffic (see Appendix E). The minimum safe stopping distance for roadways with a design speed of 35 mph is 250 feet, as required by AASHTO, Table 3-1. Stopping Sight Distance on Level Roadways, P. 3-4. The sight distances at the middle school driveway on Aquidneck Avenue are in excess of the minimum sight distances required.

A design speed of 35 mph was utilized for Turner Road in the vicinity of the middle school driveway based on the observed 85th percentile speeds of 29 mph for the northbound traffic and 31 mph for the southbound traffic (see Appendix E). The minimum safe stopping distance for roadways with a design speed of 35 mph is 250 feet. The sight distance at the middle school driveway on Turner Road is in excess of the minimum sight distances required to the north. To the south the sight distance is partially restricted by trees and does not meet the minimum sight distance required.

5.2 Crash History

Crash data for the study area was requested from the Middletown Police Department. The crash data will be reviewed and analyzed once received.

6.0 Site Related Recommendations

The following are the recommendations for the proposed school layouts, as well as recommendations for the surrounding area based on the field observations:

- The sight distance at the school driveway on Turner Road is restricted by trees to the south. It is recommended that trees be trimmed or removed on the west side of Turner Road to the south of the school driveway to provide the required sight distance.
- The signal timings on record are not consistent and it is recommended that the timings of Aquidneck Avenue and East Main Road be verified.
- It is recommended that damaged loop detector wires that were observed in the field be repaired on the westbound approach of Aquidneck Avenue and East Main Road. RIDOT has been informed of this issue.
- A pedestrian pushbutton does not appear to be working on the northwest corner of Aquidneck Avenue and East Main Road to cross East Main Road. It is recommended that the pushbutton be repaired.
- All of the pedestrian pushbutton signs are faded at the intersection of Aquidneck Avenue and East Main Road. It is recommended that the pushbutton signs be replaced.
- It is recommended that sidewalks be installed on Aquidneck Avenue.
- It is recommended that the sidewalk on Turner Road be evaluated to determine where the sidewalks should be updated.
- It is recommended that the striped crosswalk at the circular median at the Turner Road driveway be removed.
- The striped crosswalk at the intersection of Turner Road and Green End Avenue has catch basins located at both ends. It is recommended that either the crosswalk or the catch basins be relocated and that ADA compliant ramps be installed.
- It is recommended that ADA compliant ramps be installed on both sides of the crosswalk at the intersection of Aquidneck Avenue and the middle school driveway.

7.0 Conclusions and Recommendations

This traffic impact analysis was conducted to evaluate the impacts on surrounding roadways and intersections due to the proposed Middletown Middle-High School in Middletown, RI. The proposed school will combine Gaudet Middle School and Middletown High School on the existing Gaudet Middle School site. The middle school and high school is projected to have an overall reduction in student population.

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The unsignalized capacity analysis shows that the levels of service will not change or will improve at all the intersections with the exception of the northbound approach at the intersection of Turner Road and East Main Road during the school P.M. peak hour.

The signalized capacity analysis shows that the levels of service will not change at both of the signalized intersections during the school A.M. and P.M. peak hours.

The sight distances at the existing driveways proposed to be utilized are in excess of the minimum stopping distance with the exception of to the south of the driveway on Turner Road. It is recommended that trees be trimmed or removed on the west side of the Turner Road to the south of the school driveway to provide the required sight distance.

Additional recommendations to the surrounding intersections are listed in Section 6.0.

Based upon the analyses, traffic operations on the surrounding roadways and intersections will experience minimal change with the redistribution of traffic from the relocated elementary school students at the Gaudet Middle School and the relocated students at the Middletown High School

APPENDIX A

Traffic Counts



Transportation Data Corporation

Aquidneck Avenue (Route 138A)
 just north of Vierra Terrace
 City, State: Middletown, RI
 Client: Bryant/T. Brayton

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

05711Bvolume
 Site Code: 223032

Start Time	23-May-23 Tue		NB		SB		Combined		24-Ma Wed	NB		SB		Combined	
	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.		A.M.	P.M.	A.M.	P.M.	A.M.	P.M.
12:00	5	95	1	86	6	181	*	*	*	*	*	*			
12:15	2	82	0	82	2	164	*	*	*	*	*	*			
12:30	2	90	3	98	5	188	*	*	*	*	*	*			
12:45	2	99	0	80	2	179	*	*	*	*	*	*			
01:00	0	95	0	67	0	162	*	*	*	*	*	*			
01:15	1	91	1	74	2	165	*	*	*	*	*	*			
01:30	2	86	1	66	3	152	*	*	*	*	*	*			
01:45	2	115	0	68	2	183	*	*	*	*	*	*			
02:00	2	95	1	61	3	156	*	*	*	*	*	*			
02:15	1	75	0	89	1	164	*	*	*	*	*	*			
02:30	0	115	2	58	2	173	*	*	*	*	*	*			
02:45	2	107	1	77	3	184	*	*	*	*	*	*			
03:00	1	135	1	58	2	193	*	*	*	*	*	*			
03:15	1	119	1	83	2	202	*	*	*	*	*	*			
03:30	1	140	1	68	2	208	*	*	*	*	*	*			
03:45	0	131	1	72	1	203	*	*	*	*	*	*			
04:00	0	168	2	74	2	242	*	*	*	*	*	*			
04:15	2	139	2	76	4	215	*	*	*	*	*	*			
04:30	3	135	1	85	4	220	*	*	*	*	*	*			
04:45	2	140	4	73	6	213	*	*	*	*	*	*			
05:00	3	129	8	73	11	202	*	*	*	*	*	*			
05:15	11	129	10	83	21	212	*	*	*	*	*	*			
05:30	7	104	24	75	31	179	*	*	*	*	*	*			
05:45	9	80	28	58	37	138	*	*	*	*	*	*			
06:00	18	78	30	58	48	136	*	*	*	*	*	*			
06:15	28	82	44	43	72	125	*	*	*	*	*	*			
06:30	28	68	64	54	92	122	*	*	*	*	*	*			
06:45	48	65	102	26	150	91	*	*	*	*	*	*			
07:00	45	46	85	42	130	88	*	*	*	*	*	*			
07:15	58	55	103	50	161	105	*	*	*	*	*	*			
07:30	88	51	104	18	192	69	*	*	*	*	*	*			
07:45	62	54	135	28	197	82	*	*	*	*	*	*			
08:00	58	37	105	18	163	55	*	*	*	*	*	*			
08:15	80	24	109	21	189	45	*	*	*	*	*	*			
08:30	51	29	113	21	164	50	*	*	*	*	*	*			
08:45	64	26	124	11	188	37	*	*	*	*	*	*			
09:00	68	28	89	9	157	37	*	*	*	*	*	*			
09:15	75	24	60	14	135	38	*	*	*	*	*	*			
09:30	54	23	86	7	140	30	*	*	*	*	*	*			
09:45	59	11	59	7	118	18	*	*	*	*	*	*			
10:00	54	16	62	7	116	23	*	*	*	*	*	*			
10:15	75	9	49	3	124	12	*	*	*	*	*	*			
10:30	78	11	75	4	153	15	*	*	*	*	*	*			
10:45	72	7	75	2	147	9	*	*	*	*	*	*			
11:00	90	13	69	7	159	20	*	*	*	*	*	*			
11:15	77	5	74	2	151	7	*	*	*	*	*	*			
11:30	103	9	76	3	179	12	*	*	*	*	*	*			
11:45	80	4	91	1	171	5	*	*	*	*	*	*			
Total	1574	3469	2076	2240	3650	5709	0	0	0	0	0	0			
Day Total	5043		4316		9359		0		0		0				
% Total	16.8%	37.1%	22.2%	23.9%			0.0%	0.0%	0.0%	0.0%					
Peak	-	11:00	04:00	07:45	12:00	07:30	04:00	-	-	-	-	-			
Vol.	-	350	582	462	346	741	890	-	-	-	-	-			
P.H.F.	0.850	0.866	0.856	0.883	0.940	0.919									
ADT	ADT 9,359		AADT 9,359												

Transportation Data Corporation

Aquidneck Avenue (Route 138A)
 just north of Vierra Terrace
 City, State: Middletown, RI
 Client: Bryant/T. Brayton

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

05711Bvolume
 Site Code: 223032

Start Time	23-May-23 Tue	NB		Hour Totals		SB		Hour Totals		Combined Totals	
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		5	95			1	86				
12:15		2	82			0	82				
12:30		2	90			3	98				
12:45		2	99	11	366	0	80	4	346	15	712
01:00		0	95			0	67				
01:15		1	91			1	74				
01:30		2	86			1	66				
01:45		2	115	5	387	0	68	2	275	7	662
02:00		2	95			1	61				
02:15		1	75			0	89				
02:30		0	115			2	58				
02:45		2	107	5	392	1	77	4	285	9	677
03:00		1	135			1	58				
03:15		1	119			1	83				
03:30		1	140			1	68				
03:45		0	131	3	525	1	72	4	281	7	806
04:00		0	168			2	74				
04:15		2	139			2	76				
04:30		3	135			1	85				
04:45		2	140	7	582	4	73	9	308	16	890
05:00		3	129			8	73				
05:15		11	129			10	83				
05:30		7	104			24	75				
05:45		9	80	30	442	28	58	70	289	100	731
06:00		18	78			30	58				
06:15		28	82			44	43				
06:30		28	68			64	54				
06:45		48	65	122	293	102	26	240	181	362	474
07:00		45	46			85	42				
07:15		58	55			103	50				
07:30		88	51			104	18				
07:45		62	54	253	206	135	28	427	138	680	344
08:00		58	37			105	18				
08:15		80	24			109	21				
08:30		51	29			113	21				
08:45		64	26	253	116	124	11	451	71	704	187
09:00		68	28			89	9				
09:15		75	24			60	14				
09:30		54	23			86	7				
09:45		59	11	256	86	59	7	294	37	550	123
10:00		54	16			62	7				
10:15		75	9			49	3				
10:30		78	11			75	4				
10:45		72	7	279	43	75	2	261	16	540	59
11:00		90	13			69	7				
11:15		77	5			74	2				
11:30		103	9			76	3				
11:45		80	4	350	31	91	1	310	13	660	44
Total		1574	3469			2076	2240			3650	5709
Combined Total		5043				4316				9359	
Percentage	0.0%										
Total Percent		1574	3469			2076	2240			3650	5709
		31.2%	68.8%			48.1%	51.9%			39.0%	61.0%
ADT		ADT 9,359		AADT 9,359							

Transportation Data Corporation

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

Turner Road
south of Wyatt Road
City, State: Middletown, RI
Client: Bryant/T. Brayton

05711Avolume
Site Code: 223032

Start Time	23-May-23 Tue		NB		SB		Combined		24-Ma Wed	NB		SB		Combined	
	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.		A.M.	P.M.	A.M.	P.M.	A.M.	P.M.
12:00	3	46	2	46	5	92	*	*	*	*	*	*	*	*	
12:15	4	33	4	44	8	77	*	*	*	*	*	*	*	*	
12:30	0	43	0	39	0	82	*	*	*	*	*	*	*	*	
12:45	1	34	0	52	1	86	*	*	*	*	*	*	*	*	
01:00	1	42	1	42	2	84	*	*	*	*	*	*	*	*	
01:15	1	36	1	31	2	67	*	*	*	*	*	*	*	*	
01:30	0	40	1	46	1	86	*	*	*	*	*	*	*	*	
01:45	0	45	3	51	3	96	*	*	*	*	*	*	*	*	
02:00	1	58	0	44	1	102	*	*	*	*	*	*	*	*	
02:15	0	64	3	64	3	128	*	*	*	*	*	*	*	*	
02:30	0	83	0	40	0	123	*	*	*	*	*	*	*	*	
02:45	1	71	1	53	2	124	*	*	*	*	*	*	*	*	
03:00	0	68	1	50	1	118	*	*	*	*	*	*	*	*	
03:15	0	74	0	57	0	131	*	*	*	*	*	*	*	*	
03:30	2	95	1	47	3	142	*	*	*	*	*	*	*	*	
03:45	4	70	0	60	4	130	*	*	*	*	*	*	*	*	
04:00	0	91	0	53	0	144	*	*	*	*	*	*	*	*	
04:15	0	63	0	69	0	132	*	*	*	*	*	*	*	*	
04:30	0	93	0	78	0	171	*	*	*	*	*	*	*	*	
04:45	1	64	2	46	3	110	*	*	*	*	*	*	*	*	
05:00	1	77	5	65	6	142	*	*	*	*	*	*	*	*	
05:15	3	63	6	61	9	124	*	*	*	*	*	*	*	*	
05:30	1	60	13	47	14	107	*	*	*	*	*	*	*	*	
05:45	3	49	12	56	15	105	*	*	*	*	*	*	*	*	
06:00	10	42	5	28	15	70	*	*	*	*	*	*	*	*	
06:15	8	68	8	28	16	96	*	*	*	*	*	*	*	*	
06:30	15	32	14	25	29	57	*	*	*	*	*	*	*	*	
06:45	22	26	23	26	45	52	*	*	*	*	*	*	*	*	
07:00	31	18	46	34	77	52	*	*	*	*	*	*	*	*	
07:15	26	27	70	26	96	53	*	*	*	*	*	*	*	*	
07:30	49	23	91	19	140	42	*	*	*	*	*	*	*	*	
07:45	57	22	83	19	140	41	*	*	*	*	*	*	*	*	
08:00	43	11	54	11	97	22	*	*	*	*	*	*	*	*	
08:15	32	16	59	14	91	30	*	*	*	*	*	*	*	*	
08:30	16	13	43	8	59	21	*	*	*	*	*	*	*	*	
08:45	29	16	52	10	81	26	*	*	*	*	*	*	*	*	
09:00	35	15	72	11	107	26	*	*	*	*	*	*	*	*	
09:15	43	1	39	7	82	8	*	*	*	*	*	*	*	*	
09:30	36	8	64	4	100	12	*	*	*	*	*	*	*	*	
09:45	37	5	55	3	92	8	*	*	*	*	*	*	*	*	
10:00	45	5	30	4	75	9	*	*	*	*	*	*	*	*	
10:15	40	7	36	3	76	10	*	*	*	*	*	*	*	*	
10:30	27	4	35	8	62	12	*	*	*	*	*	*	*	*	
10:45	45	5	49	3	94	8	*	*	*	*	*	*	*	*	
11:00	25	4	36	5	61	9	*	*	*	*	*	*	*	*	
11:15	48	2	40	1	88	3	*	*	*	*	*	*	*	*	
11:30	42	4	38	6	80	10	*	*	*	*	*	*	*	*	
11:45	38	3	42	3	80	6	*	*	*	*	*	*	*	*	
Total	826	1839	1140	1547	1966	3386	0	0	0	0	0	0	0	0	
Day Total	2665		2687		5352		0	0	0	0	0	0	0	0	
% Total	15.4%	34.4%	21.3%	28.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
Peak	-	07:30	03:15	07:15	03:45	07:15	03:45	-	-	-	-	-	-	-	
Vol.	-	181	330	298	260	473	577	-	-	-	-	-	-	-	
P.H.F.	-	0.794	0.868	0.819	0.833	0.845	0.844	-	-	-	-	-	-	-	
ADT	ADT 5,352		AADT 5,352												

Transportation Data Corporation

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

Turner Road
south of Wyatt Road
City, State: Middletown, RI
Client: Bryant/T. Brayton

05711Avolume
Site Code: 223032

Start Time	23-May-23 Tue	NB		Hour Totals		SB		Hour Totals		Combined Totals	
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		3	46			2	46				
12:15		4	33			4	44				
12:30		0	43			0	39				
12:45		1	34	8	156	0	52	6	181	14	337
01:00		1	42			1	42				
01:15		1	36			1	31				
01:30		0	40			1	46				
01:45		0	45	2	163	3	51	6	170	8	333
02:00		1	58			0	44				
02:15		0	64			3	64				
02:30		0	83			0	40				
02:45		1	71	2	276	1	53	4	201	6	477
03:00		0	68			1	50				
03:15		0	74			0	57				
03:30		2	95			1	47				
03:45		4	70	6	307	0	60	2	214	8	521
04:00		0	91			0	53				
04:15		0	63			0	69				
04:30		0	93			0	78				
04:45		1	64	1	311	2	46	2	246	3	557
05:00		1	77			5	65				
05:15		3	63			6	61				
05:30		1	60			13	47				
05:45		3	49	8	249	12	56	36	229	44	478
06:00		10	42			5	28				
06:15		8	68			8	28				
06:30		15	32			14	25				
06:45		22	26	55	168	23	26	50	107	105	275
07:00		31	18			46	34				
07:15		26	27			70	26				
07:30		49	23			91	19				
07:45		57	22	163	90	83	19	290	98	453	188
08:00		43	11			54	11				
08:15		32	16			59	14				
08:30		16	13			43	8				
08:45		29	16	120	56	52	10	208	43	328	99
09:00		35	15			72	11				
09:15		43	1			39	7				
09:30		36	8			64	4				
09:45		37	5	151	29	55	3	230	25	381	54
10:00		45	5			30	4				
10:15		40	7			36	3				
10:30		27	4			35	8				
10:45		45	5	157	21	49	3	150	18	307	39
11:00		25	4			36	5				
11:15		48	2			40	1				
11:30		42	4			38	6				
11:45		38	3	153	13	42	3	156	15	309	28
Total		826	1839			1140	1547			1966	3386
Combined Total		2665				2687				5352	
Percentage	0.0%										
Total Percent		826	1839			1140	1547			1966	3386
		31.0%	69.0%			42.4%	57.6%			36.7%	63.3%
ADT		ADT 5,352		AADT 5,352							

Transportation Data Corporation

Mario Perone, mperone1@verizon.net

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

N/S: Aquidneck Avenue (Route 138A)
 E: Gaudet Middle School Driveway
 City, State: Middletown, RI
 Client: Bryant/T. Brayton

File Name : 05711A
 Site Code : 223032
 Start Date : 5/23/2023
 Page No : 1

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

Start Time	Aquidneck Avenue (Route 138A) From North			Gaudet Middle School Driveway From East			Aquidneck Avenue (Route 138A) From South			Int. Total
	Thru	Left	Peds	Right	Left	Peds	Right	Thru	Peds	
06:00 AM	30	2	0	0	0	0	0	20	0	52
06:15 AM	43	1	0	0	1	0	0	31	0	76
06:30 AM	62	3	0	0	0	0	2	26	0	93
06:45 AM	105	5	0	0	0	0	3	44	0	157
Total	240	11	0	0	1	0	5	121	0	378
07:00 AM	88	12	0	2	0	0	1	43	0	146
07:15 AM	100	24	0	0	2	0	14	45	0	185
07:30 AM	84	79	0	65	25	0	33	55	4	345
07:45 AM	119	30	0	42	21	0	14	60	1	287
Total	391	145	0	109	48	0	62	203	5	963
08:00 AM	104	2	0	4	1	0	2	54	0	167
08:15 AM	104	3	0	1	3	1	3	84	0	199
08:30 AM	113	6	0	4	1	0	0	54	0	178
08:45 AM	123	1	0	3	2	0	3	73	0	205
Total	444	12	0	12	7	1	8	265	0	749
Grand Total	1075	168	0	121	56	1	75	589	5	2090
Apprch %	86.5	13.5	0	68	31.5	0.6	11.2	88	0.7	
Total %	51.4	8	0	5.8	2.7	0	3.6	28.2	0.2	
Cars & Peds	1035	168	0	121	55	1	70	568	5	2023
% Cars & Peds	96.3	100	0	100	98.2	100	93.3	96.4	100	96.8
Trucks & Buses	40	0	0	0	1	0	0	20	0	61
% Trucks & Buses	3.7	0	0	0	1.8	0	0	3.4	0	2.9
Bikes by Direction	0	0	0	0	0	0	5	1	0	6
% Bikes by Direction	0	0	0	0	0	0	6.7	0.2	0	0.3

Start Time	Aquidneck Avenue (Route 138A) From North				Gaudet Middle School Driveway From East				Aquidneck Avenue (Route 138A) From South				Int. Total
	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	
Peak Hour Analysis From 06:00 AM to 08:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 07:30 AM													
07:30 AM	84	79	0	163	65	25	0	90	33	55	4	92	345
07:45 AM	119	30	0	149	42	21	0	63	14	60	1	75	287
08:00 AM	104	2	0	106	4	1	0	5	2	54	0	56	167
08:15 AM	104	3	0	107	1	3	1	5	3	84	0	87	199
Total Volume	411	114	0	525	112	50	1	163	52	253	5	310	998
% App. Total	78.3	21.7	0		68.7	30.7	0.6		16.8	81.6	1.6		
PHF	.863	.361	.000	.805	.431	.500	.250	.453	.394	.753	.313	.842	.723
Cars & Peds	396	114	0	510	112	50	1	163	48	243	5	296	969
% Cars & Peds	96.4	100	0	97.1	100	100	100	100	92.3	96.0	100	95.5	97.1
Trucks & Buses	15	0	0	15	0	0	0	0	0	9	0	9	24
% Trucks & Buses	3.6	0	0	2.9	0	0	0	0	0	3.6	0	2.9	2.4
Bikes by Direction	0	0	0	0	0	0	0	0	4	1	0	5	5
% Bikes by Direction	0	0	0	0	0	0	0	0	7.7	0.4	0	1.6	0.5

Transportation Data Corporation

Mario Perone, mperone1@verizon.net

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

N/S: Aquidneck Avenue (Route 138A)
 E: Gaudet Middle School Driveway
 City, State: Middletown, RI
 Client: Bryant/T. Brayton

File Name : 05711A
 Site Code : 223032
 Start Date : 5/23/2023
 Page No : 1

Groups Printed- Cars & Peds

Start Time	Aquidneck Avenue (Route 138A) From North			Gaudet Middle School Driveway From East			Aquidneck Avenue (Route 138A) From South			Int. Total
	Thru	Left	Peds	Right	Left	Peds	Right	Thru	Peds	
06:00 AM	29	2	0	0	0	0	0	19	0	50
06:15 AM	41	1	0	0	0	0	0	29	0	71
06:30 AM	61	3	0	0	0	0	2	25	0	91
06:45 AM	102	5	0	0	0	0	3	43	0	153
Total	233	11	0	0	0	0	5	116	0	365
07:00 AM	84	12	0	2	0	0	1	41	0	140
07:15 AM	97	24	0	0	2	0	13	44	0	180
07:30 AM	77	79	0	65	25	0	30	53	4	333
07:45 AM	115	30	0	42	21	0	14	60	1	283
Total	373	145	0	109	48	0	58	198	5	936
08:00 AM	100	2	0	4	1	0	2	52	0	161
08:15 AM	104	3	0	1	3	1	2	78	0	192
08:30 AM	103	6	0	4	1	0	0	52	0	166
08:45 AM	122	1	0	3	2	0	3	72	0	203
Total	429	12	0	12	7	1	7	254	0	722
Grand Total	1035	168	0	121	55	1	70	568	5	2023
Apprch %	86	14	0	68.4	31.1	0.6	10.9	88.3	0.8	
Total %	51.2	8.3	0	6	2.7	0	3.5	28.1	0.2	

Start Time	Aquidneck Avenue (Route 138A) From North				Gaudet Middle School Driveway From East				Aquidneck Avenue (Route 138A) From South				Int. Total
	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	
07:30 AM	77	79	0	156	65	25	0	90	30	53	4	87	333
07:45 AM	115	30	0	145	42	21	0	63	14	60	1	75	283
08:00 AM	100	2	0	102	4	1	0	5	2	52	0	54	161
08:15 AM	104	3	0	107	1	3	1	5	2	78	0	80	192
Total Volume	396	114	0	510	112	50	1	163	48	243	5	296	969
% App. Total	77.6	22.4	0		68.7	30.7	0.6		16.2	82.1	1.7		
PHF	.861	.361	.000	.817	.431	.500	.250	.453	.400	.779	.313	.851	.727

Transportation Data Corporation

Mario Perone, mperone1@verizon.net

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

N/S: Aquidneck Avenue (Route 138A)
 E: Gaudet Middle School Driveway
 City, State: Middletown, RI
 Client: Bryant/T. Brayton

File Name : 05711A
 Site Code : 223032
 Start Date : 5/23/2023
 Page No : 1

Groups Printed- Trucks & Buses

Start Time	Aquidneck Avenue (Route 138A) From North			Gaudet Middle School Driveway From East			Aquidneck Avenue (Route 138A) From South			Int. Total
	Thru	Left	Peds	Right	Left	Peds	Right	Thru	Peds	
06:00 AM	1	0	0	0	0	0	0	1	0	2
06:15 AM	2	0	0	0	1	0	0	2	0	5
06:30 AM	1	0	0	0	0	0	0	1	0	2
06:45 AM	3	0	0	0	0	0	0	1	0	4
Total	7	0	0	0	1	0	0	5	0	13
07:00 AM	4	0	0	0	0	0	0	2	0	6
07:15 AM	3	0	0	0	0	0	0	1	0	4
07:30 AM	7	0	0	0	0	0	0	2	0	9
07:45 AM	4	0	0	0	0	0	0	0	0	4
Total	18	0	0	0	0	0	0	5	0	23
08:00 AM	4	0	0	0	0	0	0	1	0	5
08:15 AM	0	0	0	0	0	0	0	6	0	6
08:30 AM	10	0	0	0	0	0	0	2	0	12
08:45 AM	1	0	0	0	0	0	0	1	0	2
Total	15	0	0	0	0	0	0	10	0	25
Grand Total	40	0	0	0	1	0	0	20	0	61
Apprch %	100	0	0	0	100	0	0	100	0	
Total %	65.6	0	0	0	1.6	0	0	32.8	0	

Start Time	Aquidneck Avenue (Route 138A) From North				Gaudet Middle School Driveway From East				Aquidneck Avenue (Route 138A) From South				Int. Total
	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	
07:45 AM	4	0	0	4	0	0	0	0	0	0	0	0	4
08:00 AM	4	0	0	4	0	0	0	0	0	1	0	1	5
08:15 AM	0	0	0	0	0	0	0	0	0	6	0	6	6
08:30 AM	10	0	0	10	0	0	0	0	0	2	0	2	12
Total Volume	18	0	0	18	0	0	0	0	0	9	0	9	27
% App. Total	100	0	0		0	0	0		0	100	0		
PHF	.450	.000	.000	.450	.000	.000	.000	.000	.000	.375	.000	.375	.563

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

N/S: Aquidneck Avenue (Route 138A)
 E: Gaudet Middle School Driveway
 City, State: Middletown, RI
 Client: Bryant/T. Brayton

File Name : 05711A
 Site Code : 223032
 Start Date : 5/23/2023
 Page No : 1

Groups Printed- Bikes by Direction

Start Time	Aquidneck Avenue (Route 138A) From North			Gaudet Middle School Driveway From East			Aquidneck Avenue (Route 138A) From South			Int. Total
	Thru	Left	Peds	Right	Left	Peds	Right	Thru	Peds	
06:00 AM	0	0	0	0	0	0	0	0	0	0
06:15 AM	0	0	0	0	0	0	0	0	0	0
06:30 AM	0	0	0	0	0	0	0	0	0	0
06:45 AM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
07:00 AM	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	1	0	0	1
07:30 AM	0	0	0	0	0	0	3	0	0	3
07:45 AM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	4	0	0	4
08:00 AM	0	0	0	0	0	0	0	1	0	1
08:15 AM	0	0	0	0	0	0	1	0	0	1
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	0	0	0	1	1	0	2
Grand Total	0	0	0	0	0	0	5	1	0	6
Apprch %	0	0	0	0	0	0	83.3	16.7	0	
Total %	0	0	0	0	0	0	83.3	16.7	0	

Start Time	Aquidneck Avenue (Route 138A) From North				Gaudet Middle School Driveway From East				Aquidneck Avenue (Route 138A) From South				Int. Total
	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	
07:15 AM	0	0	0	0	0	0	0	0	1	0	0	1	1
07:30 AM	0	0	0	0	0	0	0	0	3	0	0	3	3
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	1	0	1	1
Total Volume	0	0	0	0	0	0	0	0	4	1	0	5	5
% App. Total	0	0	0	0	0	0	0	0	80	20	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.333	.250	.000	.417	.417

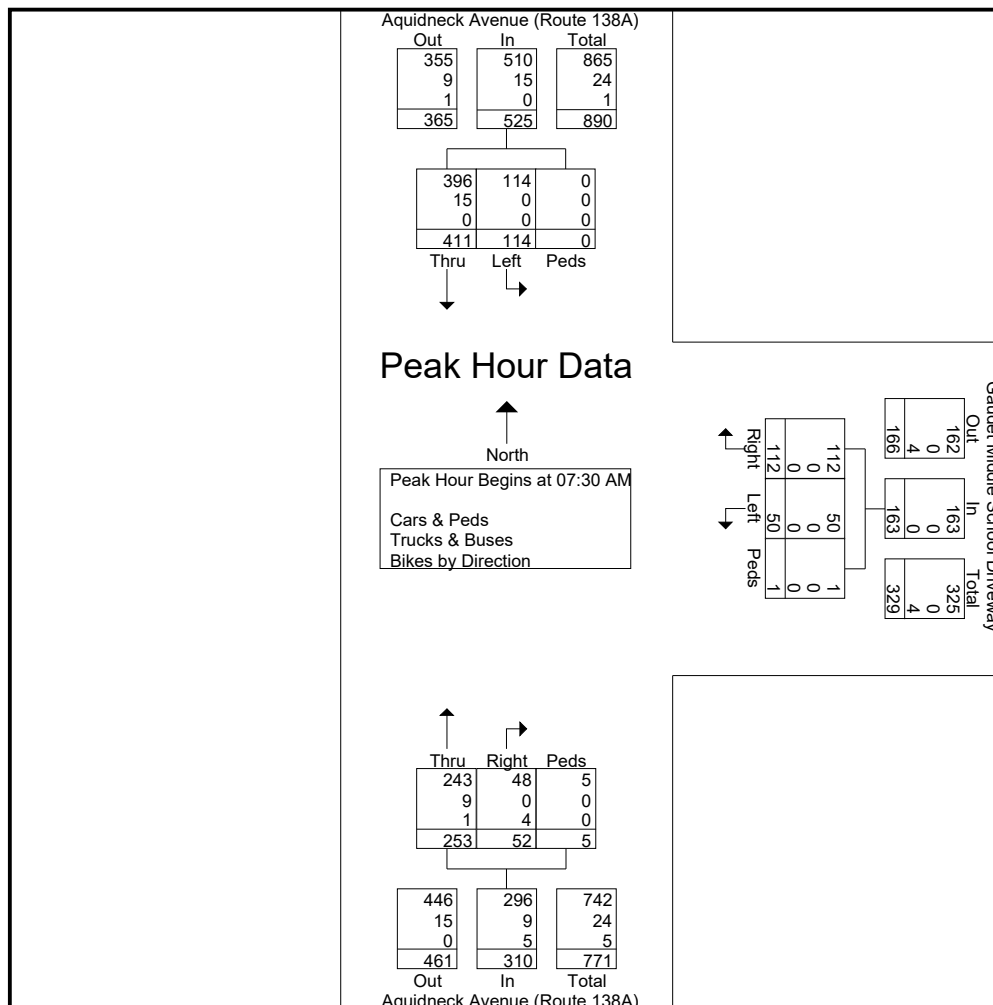
Transportation Data Corporation

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

N/S: Aquidneck Avenue (Route 138A)
E: Gaudet Middle School Driveway
City, State: Middletown, RI
Client: Bryant/T. Brayton

File Name : 05711A
Site Code : 223032
Start Date : 5/23/2023
Page No : 1

Start Time	Aquidneck Avenue (Route 138A) From North				Gaudet Middle School Driveway From East				Aquidneck Avenue (Route 138A) From South				Int. Total
	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	
Peak Hour Analysis From 06:00 AM to 08:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 07:30 AM													
07:30 AM	84	79	0	163	65	25	0	90	33	55	4	92	345
07:45 AM	119	30	0	149	42	21	0	63	14	60	1	75	287
08:00 AM	104	2	0	106	4	1	0	5	2	54	0	56	167
08:15 AM	104	3	0	107	1	3	1	5	3	84	0	87	199
Total Volume	411	114	0	525	112	50	1	163	52	253	5	310	998
% App. Total	78.3	21.7	0		68.7	30.7	0.6		16.8	81.6	1.6		
PHF	.863	.361	.000	.805	.431	.500	.250	.453	.394	.753	.313	.842	.723
Cars & Peds	396	114	0	510	112	50	1	163	48	243	5	296	969
% Cars & Peds	96.4	100	0	97.1	100	100	100	100	92.3	96.0	100	95.5	97.1
Trucks & Buses	15	0	0	15	0	0	0	0	0	9	0	9	24
% Trucks & Buses	3.6	0	0	2.9	0	0	0	0	0	3.6	0	2.9	2.4
Bikes by Direction	0	0	0	0	0	0	0	0	4	1	0	5	5
% Bikes by Direction	0	0	0	0	0	0	0	0	7.7	0.4	0	1.6	0.5



Transportation Data Corporation

Mario Perone, mperone1@verizon.net

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

N/S: Aquidneck Avenue (Route 138A)
 E: Gaudet Middle School Driveway
 City, State: Middletown, RI
 Client: Bryant/T. Brayton

File Name : 05711AA
 Site Code : 223032
 Start Date : 5/23/2023
 Page No : 1

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

Start Time	Aquidneck Avenue (Route 138A) From North			Gaudet Middle School Driveway From East			Aquidneck Avenue (Route 138A) From South			Int. Total
	Thru	Left	Peds	Right	Left	Peds	Right	Thru	Peds	
12:30 PM	100	3	0	3	0	0	1	93	0	200
12:45 PM	90	2	0	1	2	0	0	102	0	197
Total	190	5	0	4	2	0	1	195	0	397
01:00 PM	81	1	0	3	1	1	2	91	0	180
01:15 PM	76	3	0	2	0	0	3	92	0	176
01:30 PM	66	7	0	3	0	0	3	86	1	166
01:45 PM	78	21	1	2	0	3	12	104	0	221
Total	301	32	1	10	1	4	20	373	1	743
02:00 PM	58	17	0	41	12	0	10	83	11	232
02:15 PM	80	5	0	33	17	0	2	84	3	224
02:30 PM	53	1	0	14	6	0	1	113	0	188
02:45 PM	81	5	0	11	1	0	1	108	0	207
Total	272	28	0	99	36	0	14	388	14	851
03:00 PM	61	0	0	5	2	0	4	130	0	202
03:15 PM	84	3	0	4	4	0	0	131	0	226
Grand Total	908	68	1	122	45	4	39	1217	15	2419
Apprch %	92.9	7	0.1	71.3	26.3	2.3	3.1	95.8	1.2	
Total %	37.5	2.8	0	5	1.9	0.2	1.6	50.3	0.6	
Cars & Peds	881	64	1	115	42	4	37	1176	15	2335
% Cars & Peds	97	94.1	100	94.3	93.3	100	94.9	96.6	100	96.5
Trucks & Buses	25	0	0	0	0	0	0	41	0	66
% Trucks & Buses	2.8	0	0	0	0	0	0	3.4	0	2.7
Bikes by Direction	2	4	0	7	3	0	2	0	0	18
% Bikes by Direction	0.2	5.9	0	5.7	6.7	0	5.1	0	0	0.7

Start Time	Aquidneck Avenue (Route 138A) From North				Gaudet Middle School Driveway From East				Aquidneck Avenue (Route 138A) From South				Int. Total
	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	
Peak Hour Analysis From 12:30 PM to 03:15 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 01:45 PM													
01:45 PM	78	21	1	100	2	0	3	5	12	104	0	116	221
02:00 PM	58	17	0	75	41	12	0	53	10	83	11	104	232
02:15 PM	80	5	0	85	33	17	0	50	2	84	3	89	224
02:30 PM	53	1	0	54	14	6	0	20	1	113	0	114	188
Total Volume	269	44	1	314	90	35	3	128	25	384	14	423	865
% App. Total	85.7	14	0.3		70.3	27.3	2.3		5.9	90.8	3.3		
PHF	.841	.524	.250	.785	.549	.515	.250	.604	.521	.850	.318	.912	.932
Cars & Peds	260	44	1	305	85	32	3	120	23	370	14	407	832
% Cars & Peds	96.7	100	100	97.1	94.4	91.4	100	93.8	92.0	96.4	100	96.2	96.2
Trucks & Buses	9	0	0	9	0	0	0	0	0	14	0	14	23
% Trucks & Buses	3.3	0	0	2.9	0	0	0	0	0	3.6	0	3.3	2.7
Bikes by Direction	0	0	0	0	5	3	0	8	2	0	0	2	10
% Bikes by Direction	0	0	0	0	5.6	8.6	0	6.3	8.0	0	0	0.5	1.2

Transportation Data Corporation

Mario Perone, mperone1@verizon.net

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

N/S: Aquidneck Avenue (Route 138A)
 E: Gaudet Middle School Driveway
 City, State: Middletown, RI
 Client: Bryant/T. Brayton

File Name : 05711AA
 Site Code : 223032
 Start Date : 5/23/2023
 Page No : 1

Groups Printed- Cars & Peds

Start Time	Aquidneck Avenue (Route 138A) From North			Gaudet Middle School Driveway From East			Aquidneck Avenue (Route 138A) From South			Int. Total
	Thru	Left	Peds	Right	Left	Peds	Right	Thru	Peds	
12:30 PM	100	3	0	3	0	0	1	90	0	197
12:45 PM	89	2	0	1	2	0	0	98	0	192
Total	189	5	0	4	2	0	1	188	0	389
01:00 PM	78	1	0	3	1	1	2	83	0	169
01:15 PM	74	3	0	2	0	0	3	91	0	173
01:30 PM	61	7	0	3	0	0	3	83	1	158
01:45 PM	78	21	1	2	0	3	12	102	0	219
Total	291	32	1	10	1	4	20	359	1	719
02:00 PM	57	17	0	36	11	0	10	79	11	221
02:15 PM	76	5	0	33	15	0	1	78	3	211
02:30 PM	49	1	0	14	6	0	0	111	0	181
02:45 PM	79	2	0	10	1	0	1	106	0	199
Total	261	25	0	93	33	0	12	374	14	812
03:00 PM	59	0	0	4	2	0	4	126	0	195
03:15 PM	81	2	0	4	4	0	0	129	0	220
Grand Total	881	64	1	115	42	4	37	1176	15	2335
Apprch %	93.1	6.8	0.1	71.4	26.1	2.5	3	95.8	1.2	
Total %	37.7	2.7	0	4.9	1.8	0.2	1.6	50.4	0.6	

Start Time	Aquidneck Avenue (Route 138A) From North				Gaudet Middle School Driveway From East				Aquidneck Avenue (Route 138A) From South				Int. Total
	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	
Peak Hour Analysis From 12:30 PM to 03:15 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 01:45 PM													
01:45 PM	78	21	1	100	2	0	3	5	12	102	0	114	219
02:00 PM	57	17	0	74	36	11	0	47	10	79	11	100	221
02:15 PM	76	5	0	81	33	15	0	48	1	78	3	82	211
02:30 PM	49	1	0	50	14	6	0	20	0	111	0	111	181
Total Volume	260	44	1	305	85	32	3	120	23	370	14	407	832
% App. Total	85.2	14.4	0.3		70.8	26.7	2.5		5.7	90.9	3.4		
PHF	.833	.524	.250	.763	.590	.533	.250	.625	.479	.833	.318	.893	.941

Transportation Data Corporation

Mario Perone, mperone1@verizon.net

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

N/S: Aquidneck Avenue (Route 138A)
 E: Gaudet Middle School Driveway
 City, State: Middletown, RI
 Client: Bryant/T. Brayton

File Name : 05711AA
 Site Code : 223032
 Start Date : 5/23/2023
 Page No : 1

Groups Printed- Trucks & Buses

Start Time	Aquidneck Avenue (Route 138A) From North			Gaudet Middle School Driveway From East			Aquidneck Avenue (Route 138A) From South			Int. Total
	Thru	Left	Peds	Right	Left	Peds	Right	Thru	Peds	
12:30 PM	0	0	0	0	0	0	0	3	0	3
12:45 PM	1	0	0	0	0	0	0	4	0	5
Total	1	0	0	0	0	0	0	7	0	8
01:00 PM	3	0	0	0	0	0	0	8	0	11
01:15 PM	2	0	0	0	0	0	0	1	0	3
01:30 PM	3	0	0	0	0	0	0	3	0	6
01:45 PM	0	0	0	0	0	0	0	2	0	2
Total	8	0	0	0	0	0	0	14	0	22
02:00 PM	1	0	0	0	0	0	0	4	0	5
02:15 PM	4	0	0	0	0	0	0	6	0	10
02:30 PM	4	0	0	0	0	0	0	2	0	6
02:45 PM	2	0	0	0	0	0	0	2	0	4
Total	11	0	0	0	0	0	0	14	0	25
03:00 PM	2	0	0	0	0	0	0	4	0	6
03:15 PM	3	0	0	0	0	0	0	2	0	5
Grand Total	25	0	0	0	0	0	0	41	0	66
Apprch %	100	0	0	0	0	0	0	100	0	
Total %	37.9	0	0	0	0	0	0	62.1	0	

Start Time	Aquidneck Avenue (Route 138A) From North				Gaudet Middle School Driveway From East				Aquidneck Avenue (Route 138A) From South				Int. Total
	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	
02:15 PM	4	0	0	4	0	0	0	0	0	6	0	6	10
02:30 PM	4	0	0	4	0	0	0	0	0	2	0	2	6
02:45 PM	2	0	0	2	0	0	0	0	0	2	0	2	4
03:00 PM	2	0	0	2	0	0	0	0	0	4	0	4	6
Total Volume	12	0	0	12	0	0	0	0	0	14	0	14	26
% App. Total	100	0	0		0	0	0		0	100	0		
PHF	.750	.000	.000	.750	.000	.000	.000	.000	.000	.583	.000	.583	.650

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

N/S: Aquidneck Avenue (Route 138A)
 E: Gaudet Middle School Driveway
 City, State: Middletown, RI
 Client: Bryant/T. Brayton

File Name : 05711AA
 Site Code : 223032
 Start Date : 5/23/2023
 Page No : 1

Groups Printed- Bikes by Direction

Start Time	Aquidneck Avenue (Route 138A) From North			Gaudet Middle School Driveway From East			Aquidneck Avenue (Route 138A) From South			Int. Total
	Thru	Left	Peds	Right	Left	Peds	Right	Thru	Peds	
12:30 PM	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
01:00 PM	0	0	0	0	0	0	0	0	0	0
01:15 PM	0	0	0	0	0	0	0	0	0	0
01:30 PM	2	0	0	0	0	0	0	0	0	2
01:45 PM	0	0	0	0	0	0	0	0	0	0
Total	2	0	0	0	0	0	0	0	0	2
02:00 PM	0	0	0	5	1	0	0	0	0	6
02:15 PM	0	0	0	0	2	0	1	0	0	3
02:30 PM	0	0	0	0	0	0	1	0	0	1
02:45 PM	0	3	0	1	0	0	0	0	0	4
Total	0	3	0	6	3	0	2	0	0	14
03:00 PM	0	0	0	1	0	0	0	0	0	1
03:15 PM	0	1	0	0	0	0	0	0	0	1
Grand Total	2	4	0	7	3	0	2	0	0	18
Apprch %	33.3	66.7	0	70	30	0	100	0	0	
Total %	11.1	22.2	0	38.9	16.7	0	11.1	0	0	

Start Time	Aquidneck Avenue (Route 138A) From North				Gaudet Middle School Driveway From East				Aquidneck Avenue (Route 138A) From South				Int. Total
	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	
02:00 PM	0	0	0	0	5	1	0	6	0	0	0	0	6
02:15 PM	0	0	0	0	0	2	0	2	1	0	0	1	3
02:30 PM	0	0	0	0	0	0	0	0	1	0	0	1	1
02:45 PM	0	3	0	3	1	0	0	1	0	0	0	0	4
Total Volume	0	3	0	3	6	3	0	9	2	0	0	2	14
% App. Total	0	100	0		66.7	33.3	0		100	0	0		
PHF	.000	.250	.000	.250	.300	.375	.000	.375	.500	.000	.000	.500	.583

Peak Hour Analysis From 12:30 PM to 03:15 PM - Peak 1 of 1

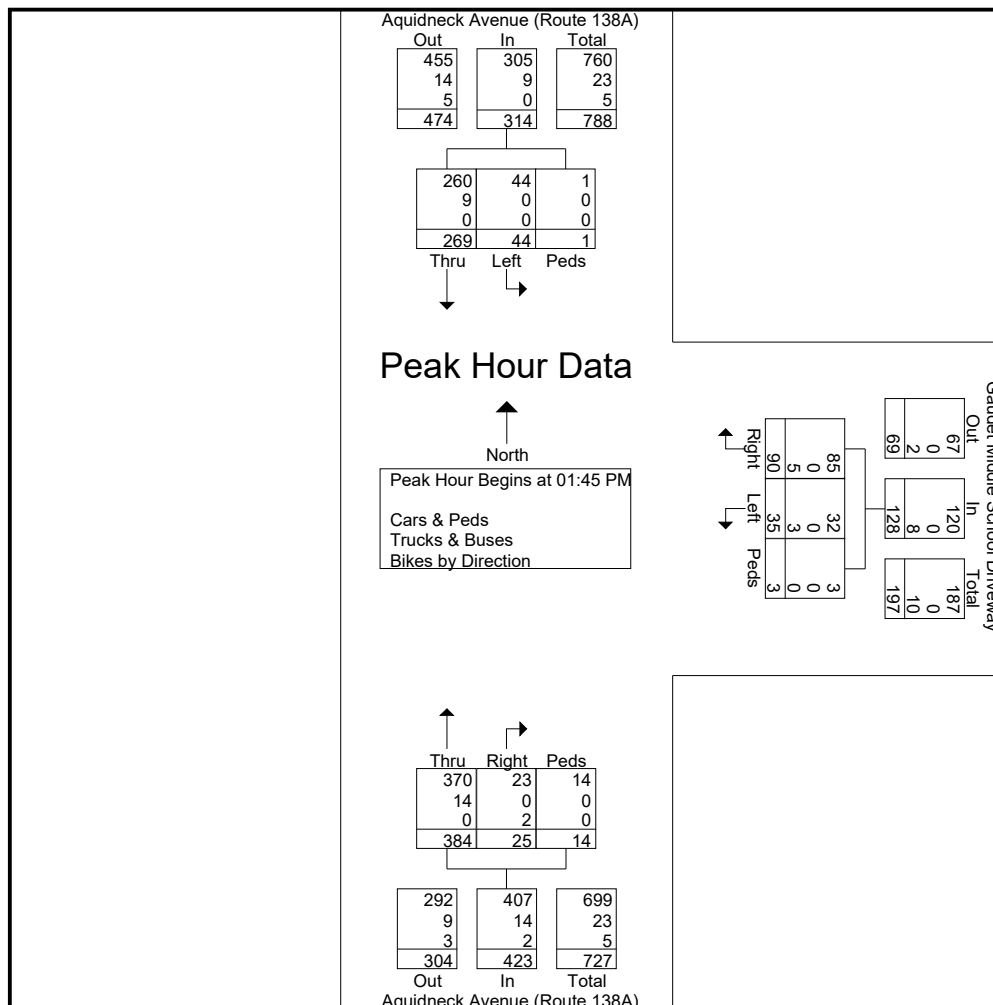
Peak Hour for Entire Intersection Begins at 02:00 PM

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

N/S: Aquidneck Avenue (Route 138A)
 E: Gaudet Middle School Driveway
 City, State: Middletown, RI
 Client: Bryant/T. Brayton

File Name : 05711AA
 Site Code : 223032
 Start Date : 5/23/2023
 Page No : 1

Start Time	Aquidneck Avenue (Route 138A) From North				Gaudet Middle School Driveway From East				Aquidneck Avenue (Route 138A) From South				Int. Total
	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	
Peak Hour Analysis From 12:30 PM to 03:15 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 01:45 PM													
01:45 PM	78	21	1	100	2	0	3	5	12	104	0	116	221
02:00 PM	58	17	0	75	41	12	0	53	10	83	11	104	232
02:15 PM	80	5	0	85	33	17	0	50	2	84	3	89	224
02:30 PM	53	1	0	54	14	6	0	20	1	113	0	114	188
Total Volume	269	44	1	314	90	35	3	128	25	384	14	423	865
% App. Total	85.7	14	0.3		70.3	27.3	2.3		5.9	90.8	3.3		
PHF	.841	.524	.250	.785	.549	.515	.250	.604	.521	.850	.318	.912	.932
Cars & Peds	260	44	1	305	85	32	3	120	23	370	14	407	832
% Cars & Peds	96.7	100	100	97.1	94.4	91.4	100	93.8	92.0	96.4	100	96.2	96.2
Trucks & Buses	9	0	0	9	0	0	0	0	0	14	0	14	23
% Trucks & Buses	3.3	0	0	2.9	0	0	0	0	0	3.6	0	3.3	2.7
Bikes by Direction	0	0	0	0	5	3	0	8	2	0	0	2	10
% Bikes by Direction	0	0	0	0	5.6	8.6	0	6.3	8.0	0	0	0.5	1.2



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

N/S: Turner Road
 W: Gaudet Middle School Driveway
 City, State: Middletown, RI
 Client: Bryant/T. Brayton

File Name : 05711D
 Site Code : 223032
 Start Date : 5/23/2023
 Page No : 1

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

Start Time	Turner Road From North			Turner Road From South			Gaudet Middle School Driveway From West			Int. Total
	Right	Thru	Peds	Thru	Left	Peds	Right	Left	Peds	
06:00 AM	0	5	0	10	2	0	0	0	0	17
06:15 AM	0	7	0	7	1	0	0	0	3	18
06:30 AM	3	12	0	13	0	0	0	0	0	28
06:45 AM	1	22	0	21	0	0	1	3	0	48
Total	4	46	0	51	3	0	1	3	3	111
07:00 AM	11	34	0	29	2	3	0	1	0	80
07:15 AM	14	57	0	24	7	0	2	2	0	106
07:30 AM	23	66	0	39	6	0	2	11	0	147
07:45 AM	4	84	0	47	0	0	1	8	0	144
Total	52	241	0	139	15	3	5	22	0	477
08:00 AM	1	51	0	40	0	0	2	3	0	97
08:15 AM	0	51	0	29	0	0	1	1	0	82
08:30 AM	2	46	0	15	0	0	1	0	0	64
08:45 AM	2	48	0	31	0	1	1	1	0	84
Total	5	196	0	115	0	1	5	5	0	327
Grand Total	61	483	0	305	18	4	11	30	3	915
Apprch %	11.2	88.8	0	93.3	5.5	1.2	25	68.2	6.8	
Total %	6.7	52.8	0	33.3	2	0.4	1.2	3.3	0.3	
Cars & Peds	49	474	0	296	13	4	9	17	3	865
% Cars & Peds	80.3	98.1	0	97	72.2	100	81.8	56.7	100	94.5
Trucks & Buses	11	8	0	7	3	0	2	13	0	44
% Trucks & Buses	18	1.7	0	2.3	16.7	0	18.2	43.3	0	4.8
Bikes by Direction	1	1	0	2	2	0	0	0	0	6
% Bikes by Direction	1.6	0.2	0	0.7	11.1	0	0	0	0	0.7

Start Time	Turner Road From North				Turner Road From South				Gaudet Middle School Driveway From West				Int. Total
	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	
Peak Hour Analysis From 06:00 AM to 08:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 07:15 AM													
07:15 AM	14	57	0	71	24	7	0	31	2	2	0	4	106
07:30 AM	23	66	0	89	39	6	0	45	2	11	0	13	147
07:45 AM	4	84	0	88	47	0	0	47	1	8	0	9	144
08:00 AM	1	51	0	52	40	0	0	40	2	3	0	5	97
Total Volume	42	258	0	300	150	13	0	163	7	24	0	31	494
% App. Total	14	86	0		92	8	0		22.6	77.4	0		
PHF	.457	.768	.000	.843	.798	.464	.000	.867	.875	.545	.000	.596	.840
Cars & Peds	30	255	0	285	148	8	0	156	5	11	0	16	457
% Cars & Peds	71.4	98.8	0	95.0	98.7	61.5	0	95.7	71.4	45.8	0	51.6	92.5
Trucks & Buses	11	2	0	13	2	3	0	5	2	13	0	15	33
% Trucks & Buses	26.2	0.8	0	4.3	1.3	23.1	0	3.1	28.6	54.2	0	48.4	6.7
Bikes by Direction	1	1	0	2	0	2	0	2	0	0	0	0	4
% Bikes by Direction	2.4	0.4	0	0.7	0	15.4	0	1.2	0	0	0	0	0.8

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

N/S: Turner Road
 W: Gaudet Middle School Driveway
 City, State: Middletown, RI
 Client: Bryant/T. Brayton

File Name : 05711D
 Site Code : 223032
 Start Date : 5/23/2023
 Page No : 1

Groups Printed- Cars & Peds

Start Time	Turner Road From North			Turner Road From South			Gaudet Middle School Driveway From West			Int. Total
	Right	Thru	Peds	Thru	Left	Peds	Right	Left	Peds	
06:00 AM	0	5	0	10	2	0	0	0	0	17
06:15 AM	0	7	0	7	1	0	0	0	3	18
06:30 AM	3	11	0	13	0	0	0	0	0	27
06:45 AM	1	20	0	21	0	0	1	3	0	46
Total	4	43	0	51	3	0	1	3	3	108
07:00 AM	11	31	0	28	2	3	0	1	0	76
07:15 AM	13	56	0	23	5	0	2	2	0	101
07:30 AM	14	64	0	39	3	0	2	5	0	127
07:45 AM	2	84	0	47	0	0	0	2	0	135
Total	40	235	0	137	10	3	4	10	0	439
08:00 AM	1	51	0	39	0	0	1	2	0	94
08:15 AM	0	51	0	28	0	0	1	1	0	81
08:30 AM	2	46	0	14	0	0	1	0	0	63
08:45 AM	2	48	0	27	0	1	1	1	0	80
Total	5	196	0	108	0	1	4	4	0	318
Grand Total	49	474	0	296	13	4	9	17	3	865
Apprch %	9.4	90.6	0	94.6	4.2	1.3	31	58.6	10.3	
Total %	5.7	54.8	0	34.2	1.5	0.5	1	2	0.3	

Start Time	Turner Road From North				Turner Road From South				Gaudet Middle School Driveway From West				Int. Total
	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	
07:15 AM	13	56	0	69	23	5	0	28	2	2	0	4	101
07:30 AM	14	64	0	78	39	3	0	42	2	5	0	7	127
07:45 AM	2	84	0	86	47	0	0	47	0	2	0	2	135
08:00 AM	1	51	0	52	39	0	0	39	1	2	0	3	94
Total Volume	30	255	0	285	148	8	0	156	5	11	0	16	457
% App. Total	10.5	89.5	0		94.9	5.1	0		31.2	68.8	0		
PHF	.536	.759	.000	.828	.787	.400	.000	.830	.625	.550	.000	.571	.846

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

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Client: Bryant/T. Brayton

File Name : 05711D
Site Code : 223032
Start Date : 5/23/2023
Page No : 1

Groups Printed- Trucks & Buses

Start Time	Turner Road From North			Turner Road From South			Gaudet Middle School Driveway From West			Int. Total
	Right	Thru	Peds	Thru	Left	Peds	Right	Left	Peds	
06:00 AM	0	0	0	0	0	0	0	0	0	0
06:15 AM	0	0	0	0	0	0	0	0	0	0
06:30 AM	0	1	0	0	0	0	0	0	0	1
06:45 AM	0	2	0	0	0	0	0	0	0	2
Total	0	3	0	0	0	0	0	0	0	3
07:00 AM	0	3	0	0	0	0	0	0	0	3
07:15 AM	1	1	0	1	0	0	0	0	0	3
07:30 AM	9	1	0	0	3	0	0	6	0	19
07:45 AM	1	0	0	0	0	0	1	6	0	8
Total	11	5	0	1	3	0	1	12	0	33
08:00 AM	0	0	0	1	0	0	1	1	0	3
08:15 AM	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	1	0	0	0	0	0	1
08:45 AM	0	0	0	4	0	0	0	0	0	4
Total	0	0	0	6	0	0	1	1	0	8
Grand Total	11	8	0	7	3	0	2	13	0	44
Apprch %	57.9	42.1	0	70	30	0	13.3	86.7	0	
Total %	25	18.2	0	15.9	6.8	0	4.5	29.5	0	

Start Time	Turner Road From North				Turner Road From South				Gaudet Middle School Driveway From West				Int. Total
	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	
07:00 AM	0	3	0	3	0	0	0	0	0	0	0	0	3
07:15 AM	1	1	0	2	1	0	0	1	0	0	0	0	3
07:30 AM	9	1	0	10	0	3	0	3	0	6	0	6	19
07:45 AM	1	0	0	1	0	0	0	0	1	6	0	7	8
Total Volume	11	5	0	16	1	3	0	4	1	12	0	13	33
% App. Total	68.8	31.2	0		25	75	0		7.7	92.3	0		
PHF	.306	.417	.000	.400	.250	.250	.000	.333	.250	.500	.000	.464	.434

Peak Hour Analysis From 06:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 07:00 AM

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

N/S: Turner Road
W: Gaudet Middle School Driveway
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Client: Bryant/T. Brayton

File Name : 05711D
Site Code : 223032
Start Date : 5/23/2023
Page No : 1

Groups Printed- Bikes by Direction

Start Time	Turner Road From North			Turner Road From South			Gaudet Middle School Driveway From West			Int. Total
	Right	Thru	Peds	Thru	Left	Peds	Right	Left	Peds	
06:00 AM	0	0	0	0	0	0	0	0	0	0
06:15 AM	0	0	0	0	0	0	0	0	0	0
06:30 AM	0	0	0	0	0	0	0	0	0	0
06:45 AM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
07:00 AM	0	0	0	1	0	0	0	0	0	1
07:15 AM	0	0	0	0	2	0	0	0	0	2
07:30 AM	0	1	0	0	0	0	0	0	0	1
07:45 AM	1	0	0	0	0	0	0	0	0	1
Total	1	1	0	1	2	0	0	0	0	5
08:00 AM	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	1	0	0	0	0	0	1
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	0	0	0	1
Grand Total	1	1	0	2	2	0	0	0	0	6
Apprch %	50	50	0	50	50	0	0	0	0	
Total %	16.7	16.7	0	33.3	33.3	0	0	0	0	

Start Time	Turner Road From North				Turner Road From South				Gaudet Middle School Driveway From West				Int. Total
	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	
07:00 AM	0	0	0	0	1	0	0	1	0	0	0	0	1
07:15 AM	0	0	0	0	0	2	0	2	0	0	0	0	2
07:30 AM	0	1	0	1	0	0	0	0	0	0	0	0	1
07:45 AM	1	0	0	1	0	0	0	0	0	0	0	0	1
Total Volume	1	1	0	2	1	2	0	3	0	0	0	0	5
% App. Total	50	50	0		33.3	66.7	0		0	0	0		
PHF	.250	.250	.000	.500	.250	.250	.000	.375	.000	.000	.000	.000	.625

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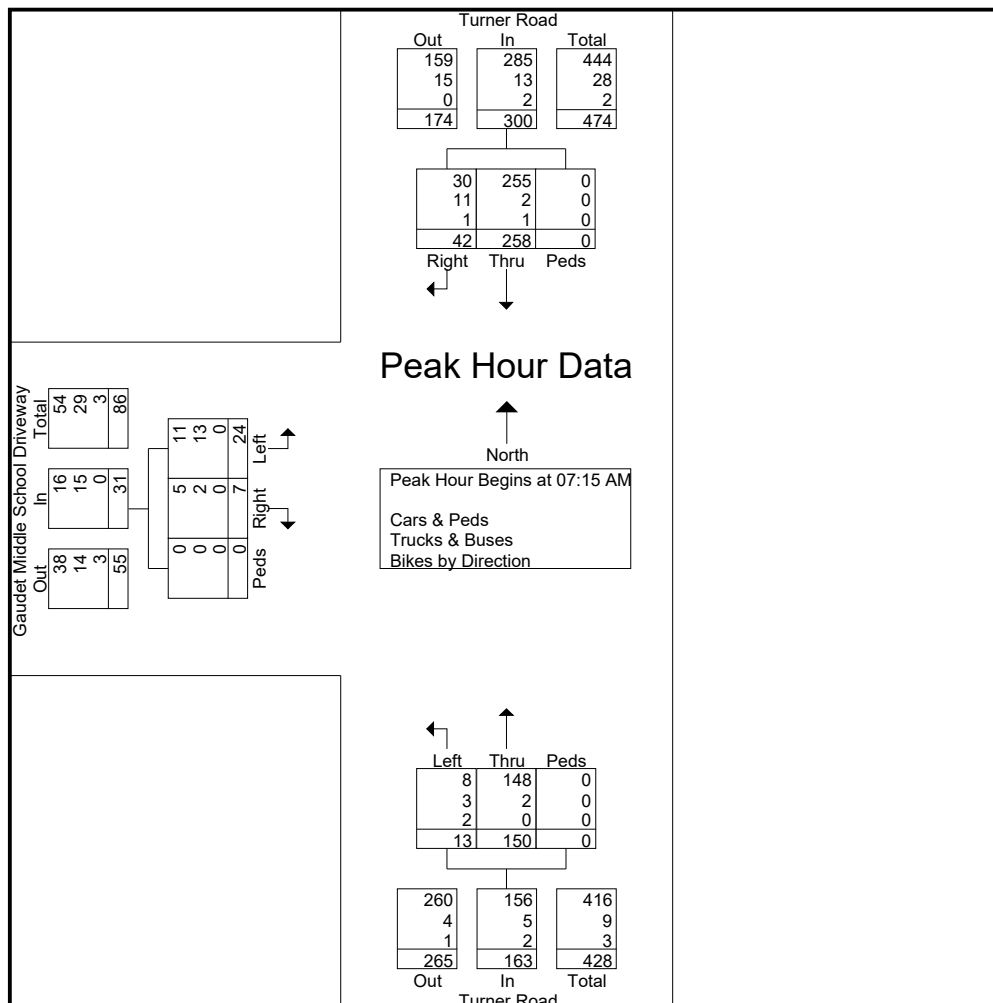
Mario Perone, mperone1@verizon.net

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

N/S: Turner Road
 W: Gaudet Middle School Driveway
 City, State: Middletown, RI
 Client: Bryant/T. Brayton

File Name : 05711D
 Site Code : 223032
 Start Date : 5/23/2023
 Page No : 1

Start Time	Turner Road From North				Turner Road From South				Gaudet Middle School Driveway From West				Int. Total
	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	
Peak Hour Analysis From 06:00 AM to 08:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 07:15 AM													
07:15 AM	14	57	0	71	24	7	0	31	2	2	0	4	106
07:30 AM	23	66	0	89	39	6	0	45	2	11	0	13	147
07:45 AM	4	84	0	88	47	0	0	47	1	8	0	9	144
08:00 AM	1	51	0	52	40	0	0	40	2	3	0	5	97
Total Volume	42	258	0	300	150	13	0	163	7	24	0	31	494
% App. Total	14	86	0		92	8	0		22.6	77.4	0		
PHF	.457	.768	.000	.843	.798	.464	.000	.867	.875	.545	.000	.596	.840
Cars & Peds	30	255	0	285	148	8	0	156	5	11	0	16	457
% Cars & Peds	71.4	98.8	0	95.0	98.7	61.5	0	95.7	71.4	45.8	0	51.6	92.5
Trucks & Buses	11	2	0	13	2	3	0	5	2	13	0	15	33
% Trucks & Buses	26.2	0.8	0	4.3	1.3	23.1	0	3.1	28.6	54.2	0	48.4	6.7
Bikes by Direction	1	1	0	2	0	2	0	2	0	0	0	0	4
% Bikes by Direction	2.4	0.4	0	0.7	0	15.4	0	1.2	0	0	0	0	0.8



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

N/S: Turner Road
 W: Gaudet Middle School Driveway
 City, State: Middletown, RI
 Client: Bryant/T. Brayton

File Name : 05711DD
 Site Code : 223032
 Start Date : 5/23/2023
 Page No : 1

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

Start Time	Turner Road From North			Turner Road From South			Gaudet Middle School Driveway From West			Int. Total
	Right	Thru	Peds	Thru	Left	Peds	Right	Left	Peds	
12:30 PM	2	34	0	41	1	0	1	0	2	81
12:45 PM	0	52	0	37	0	0	1	0	0	90
Total	2	86	0	78	1	0	2	0	2	171
01:00 PM	1	41	0	34	2	0	1	2	1	82
01:15 PM	2	31	0	34	0	0	0	2	0	69
01:30 PM	2	40	0	41	1	0	0	2	0	86
01:45 PM	9	42	0	44	3	0	0	0	0	98
Total	14	154	0	153	6	0	1	6	1	335
02:00 PM	15	33	0	47	4	0	4	10	0	113
02:15 PM	18	47	0	46	13	0	8	25	0	157
02:30 PM	3	41	0	71	6	0	6	14	0	141
02:45 PM	5	46	0	65	0	0	5	5	0	126
Total	41	167	0	229	23	0	23	54	0	537
03:00 PM	12	34	0	64	2	0	4	4	0	120
03:15 PM	24	34	0	66	7	0	6	12	0	149
Grand Total	93	475	0	590	39	0	36	76	3	1312
Apprch %	16.4	83.6	0	93.8	6.2	0	31.3	66.1	2.6	
Total %	7.1	36.2	0	45	3	0	2.7	5.8	0.2	
Cars & Peds	80	463	0	572	35	0	30	62	3	1245
% Cars & Peds	86	97.5	0	96.9	89.7	0	83.3	81.6	100	94.9
Trucks & Buses	13	12	0	18	4	0	4	12	0	63
% Trucks & Buses	14	2.5	0	3.1	10.3	0	11.1	15.8	0	4.8
Bikes by Direction	0	0	0	0	0	0	2	2	0	4
% Bikes by Direction	0	0	0	0	0	0	5.6	2.6	0	0.3

Start Time	Turner Road From North				Turner Road From South				Gaudet Middle School Driveway From West				Int. Total
	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	
Peak Hour Analysis From 12:30 PM to 03:15 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 02:15 PM													
02:15 PM	18	47	0	65	46	13	0	59	8	25	0	33	157
02:30 PM	3	41	0	44	71	6	0	77	6	14	0	20	141
02:45 PM	5	46	0	51	65	0	0	65	5	5	0	10	126
03:00 PM	12	34	0	46	64	2	0	66	4	4	0	8	120
Total Volume	38	168	0	206	246	21	0	267	23	48	0	71	544
% App. Total	18.4	81.6	0		92.1	7.9	0		32.4	67.6	0		
PHF	.528	.894	.000	.792	.866	.404	.000	.867	.719	.480	.000	.538	.866
Cars & Peds	37	164	0	201	242	20	0	262	17	36	0	53	516
% Cars & Peds	97.4	97.6	0	97.6	98.4	95.2	0	98.1	73.9	75.0	0	74.6	94.9
Trucks & Buses	1	4	0	5	4	1	0	5	4	12	0	16	26
% Trucks & Buses	2.6	2.4	0	2.4	1.6	4.8	0	1.9	17.4	25.0	0	22.5	4.8
Bikes by Direction	0	0	0	0	0	0	0	0	2	0	0	2	2
% Bikes by Direction	0	0	0	0	0	0	0	0	8.7	0	0	2.8	0.4

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

N/S: Turner Road
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Client: Bryant/T. Brayton

File Name : 05711DD
Site Code : 223032
Start Date : 5/23/2023
Page No : 1

Groups Printed- Cars & Peds

Start Time	Turner Road From North			Turner Road From South			Gaudet Middle School Driveway From West			Int. Total
	Right	Thru	Peds	Thru	Left	Peds	Right	Left	Peds	
12:30 PM	2	33	0	40	1	0	1	0	2	79
12:45 PM	0	50	0	36	0	0	1	0	0	87
Total	2	83	0	76	1	0	2	0	2	166
01:00 PM	1	41	0	33	2	0	1	2	1	81
01:15 PM	2	31	0	33	0	0	0	2	0	68
01:30 PM	1	39	0	40	1	0	0	2	0	83
01:45 PM	6	39	0	41	3	0	0	0	0	89
Total	10	150	0	147	6	0	1	6	1	321
02:00 PM	7	32	0	46	2	0	4	9	0	100
02:15 PM	17	45	0	44	12	0	4	14	0	136
02:30 PM	3	41	0	70	6	0	6	13	0	139
02:45 PM	5	46	0	65	0	0	5	5	0	126
Total	32	164	0	225	20	0	19	41	0	501
03:00 PM	12	32	0	63	2	0	2	4	0	115
03:15 PM	24	34	0	61	6	0	6	11	0	142
Grand Total	80	463	0	572	35	0	30	62	3	1245
Apprch %	14.7	85.3	0	94.2	5.8	0	31.6	65.3	3.2	
Total %	6.4	37.2	0	45.9	2.8	0	2.4	5	0.2	

Start Time	Turner Road From North				Turner Road From South				Gaudet Middle School Driveway From West				Int. Total
	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	
02:30 PM	3	41	0	44	70	6	0	76	6	13	0	19	139
02:45 PM	5	46	0	51	65	0	0	65	5	5	0	10	126
03:00 PM	12	32	0	44	63	2	0	65	2	4	0	6	115
03:15 PM	24	34	0	58	61	6	0	67	6	11	0	17	142
Total Volume	44	153	0	197	259	14	0	273	19	33	0	52	522
% App. Total	22.3	77.7	0		94.9	5.1	0		36.5	63.5	0		
PHF	.458	.832	.000	.849	.925	.583	.000	.898	.792	.635	.000	.684	.919

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

N/S: Turner Road
W: Gaudet Middle School Driveway
City, State: Middletown, RI
Client: Bryant/T. Brayton

File Name : 05711DD
Site Code : 223032
Start Date : 5/23/2023
Page No : 1

Groups Printed- Trucks & Buses

Start Time	Turner Road From North			Turner Road From South			Gaudet Middle School Driveway From West			Int. Total
	Right	Thru	Peds	Thru	Left	Peds	Right	Left	Peds	
12:30 PM	0	1	0	1	0	0	0	0	0	2
12:45 PM	0	2	0	1	0	0	0	0	0	3
Total	0	3	0	2	0	0	0	0	0	5
01:00 PM	0	0	0	1	0	0	0	0	0	1
01:15 PM	0	0	0	1	0	0	0	0	0	1
01:30 PM	1	1	0	1	0	0	0	0	0	3
01:45 PM	3	3	0	3	0	0	0	0	0	9
Total	4	4	0	6	0	0	0	0	0	14
02:00 PM	8	1	0	1	2	0	0	0	0	12
02:15 PM	1	2	0	2	1	0	4	11	0	21
02:30 PM	0	0	0	1	0	0	0	1	0	2
02:45 PM	0	0	0	0	0	0	0	0	0	0
Total	9	3	0	4	3	0	4	12	0	35
03:00 PM	0	2	0	1	0	0	0	0	0	3
03:15 PM	0	0	0	5	1	0	0	0	0	6
Grand Total	13	12	0	18	4	0	4	12	0	63
Apprch %	52	48	0	81.8	18.2	0	25	75	0	
Total %	20.6	19	0	28.6	6.3	0	6.3	19	0	

Start Time	Turner Road From North				Turner Road From South				Gaudet Middle School Driveway From West				Int. Total
	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	
01:30 PM	1	1	0	2	1	0	0	1	0	0	0	0	3
01:45 PM	3	3	0	6	3	0	0	3	0	0	0	0	9
02:00 PM	8	1	0	9	1	2	0	3	0	0	0	0	12
02:15 PM	1	2	0	3	2	1	0	3	4	11	0	15	21
Total Volume	13	7	0	20	7	3	0	10	4	11	0	15	45
% App. Total	65	35	0		70	30	0		26.7	73.3	0		
PHF	.406	.583	.000	.556	.583	.375	.000	.833	.250	.250	.000	.250	.536

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Client: Bryant/T. Brayton

File Name : 05711DD
Site Code : 223032
Start Date : 5/23/2023
Page No : 1

Groups Printed- Bikes by Direction

Start Time	Turner Road From North			Turner Road From South			Gaudet Middle School Driveway From West			Int. Total
	Right	Thru	Peds	Thru	Left	Peds	Right	Left	Peds	
12:30 PM	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
01:00 PM	0	0	0	0	0	0	0	0	0	0
01:15 PM	0	0	0	0	0	0	0	0	0	0
01:30 PM	0	0	0	0	0	0	0	0	0	0
01:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
02:00 PM	0	0	0	0	0	0	0	1	0	1
02:15 PM	0	0	0	0	0	0	0	0	0	0
02:30 PM	0	0	0	0	0	0	0	0	0	0
02:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	1	0	1
03:00 PM	0	0	0	0	0	0	2	0	0	2
03:15 PM	0	0	0	0	0	0	0	1	0	1
Grand Total	0	0	0	0	0	0	2	2	0	4
Apprch %	0	0	0	0	0	0	50	50	0	
Total %	0	0	0	0	0	0	50	50	0	

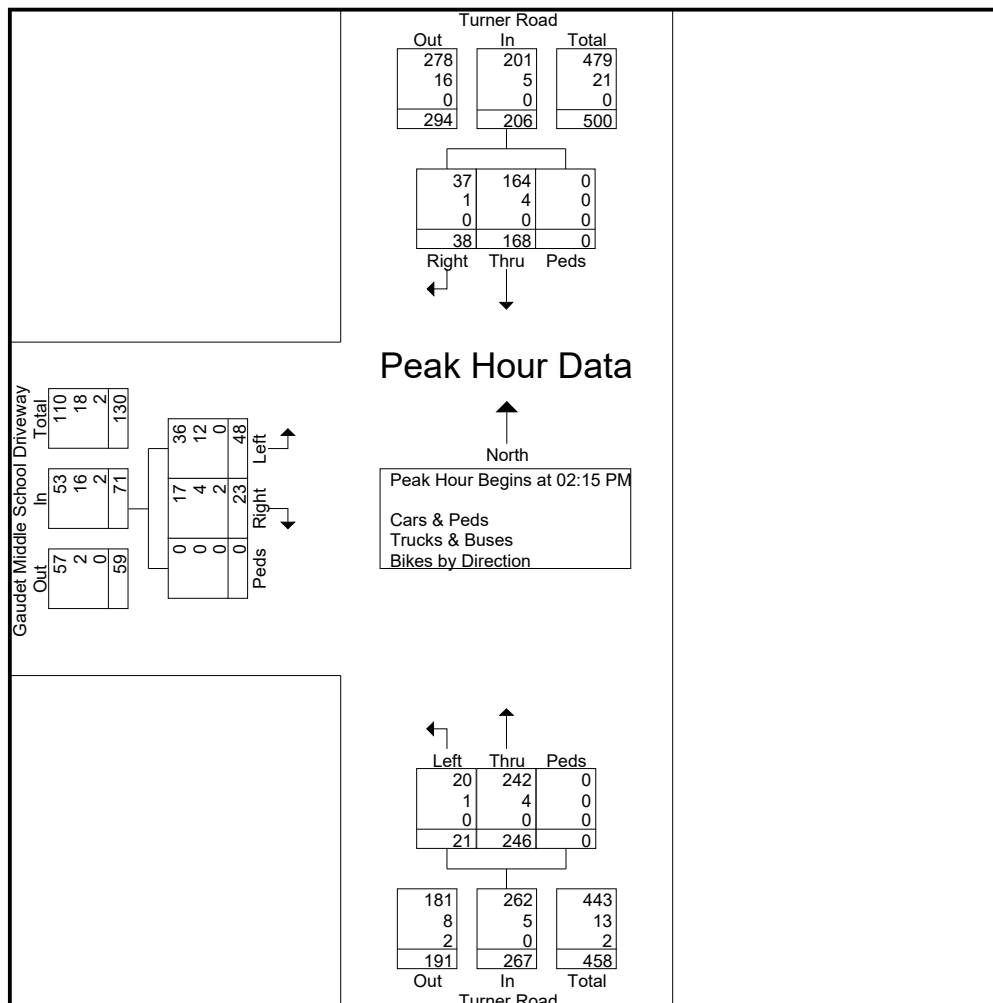
Start Time	Turner Road From North				Turner Road From South				Gaudet Middle School Driveway From West				Int. Total
	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	
02:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00 PM	0	0	0	0	0	0	0	0	2	0	0	2	2
03:15 PM	0	0	0	0	0	0	0	0	0	1	0	1	1
Total Volume	0	0	0	0	0	0	0	0	2	1	0	3	3
% App. Total	0	0	0		0	0	0		66.7	33.3	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.250	.250	.000	.375	.375

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 Client: Bryant/T. Brayton

File Name : 05711DD
 Site Code : 223032
 Start Date : 5/23/2023
 Page No : 1

Start Time	Turner Road From North				Turner Road From South				Gaudet Middle School Driveway From West				Int. Total
	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	
Peak Hour Analysis From 12:30 PM to 03:15 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 02:15 PM													
02:15 PM	18	47	0	65	46	13	0	59	8	25	0	33	157
02:30 PM	3	41	0	44	71	6	0	77	6	14	0	20	141
02:45 PM	5	46	0	51	65	0	0	65	5	5	0	10	126
03:00 PM	12	34	0	46	64	2	0	66	4	4	0	8	120
Total Volume	38	168	0	206	246	21	0	267	23	48	0	71	544
% App. Total	18.4	81.6	0		92.1	7.9	0		32.4	67.6	0		
PHF	.528	.894	.000	.792	.866	.404	.000	.867	.719	.480	.000	.538	.866
Cars & Peds	37	164	0	201	242	20	0	262	17	36	0	53	516
% Cars & Peds	97.4	97.6	0	97.6	98.4	95.2	0	98.1	73.9	75.0	0	74.6	94.9
Trucks & Buses	1	4	0	5	4	1	0	5	4	12	0	16	26
% Trucks & Buses	2.6	2.4	0	2.4	1.6	4.8	0	1.9	17.4	25.0	0	22.5	4.8
Bikes by Direction	0	0	0	0	0	0	0	0	2	0	0	2	2
% Bikes by Direction	0	0	0	0	0	0	0	0	8.7	0	0	2.8	0.4



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

N/S: Plaza Drive/Aquidneck Avenue
 E/W: E. Main Road (Route 138)
 City, State: Middletown, RI
 Client: Bryant/T. Brayton

File Name : 05711B
 Site Code : 223032
 Start Date : 5/23/2023
 Page No : 1

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

Start Time	#510-530 Retail Plaza Driveway From North				E. Main Road (Route 138) From East				Aquidneck Avenue (Route 138A) From South				E. Main Road (Route 138) From West				Int. Total
	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	
06:00 AM	1	1	0	0	0	50	23	0	21	0	1	0	11	22	0	0	130
06:15 AM	0	1	0	0	0	65	32	0	20	0	6	0	10	34	0	0	168
06:30 AM	0	0	0	0	0	91	62	0	23	1	10	0	8	45	1	0	241
06:45 AM	1	0	1	0	0	113	96	0	31	1	10	0	16	70	0	0	339
Total	2	2	1	0	0	319	213	0	95	2	27	0	45	171	1	0	878
07:00 AM	2	1	2	0	0	134	82	1	34	1	13	0	22	57	0	0	349
07:15 AM	2	0	0	0	0	162	83	0	37	0	21	0	39	74	0	0	418
07:30 AM	1	1	3	0	0	164	101	0	53	1	58	0	78	100	1	0	561
07:45 AM	0	1	1	0	0	203	105	0	53	1	46	0	44	80	1	0	535
Total	5	3	6	0	0	663	371	1	177	3	138	0	183	311	2	0	1863
08:00 AM	2	0	3	0	1	200	70	0	43	0	15	0	27	90	4	0	455
08:15 AM	1	0	1	0	3	234	84	0	65	0	17	1	26	78	1	0	511
08:30 AM	4	0	2	0	0	198	96	1	37	2	17	0	26	96	1	0	480
08:45 AM	0	1	3	0	2	183	98	0	48	1	18	0	28	101	4	0	487
Total	7	1	9	0	6	815	348	1	193	3	67	1	107	365	10	0	1933
Grand Total	14	6	16	0	6	1797	932	2	465	8	232	1	335	847	13	0	4674
Apprch %	38.9	16.7	44.4	0	0.2	65.7	34.1	0.1	65.9	1.1	32.9	0.1	28	70.9	1.1	0	
Total %	0.3	0.1	0.3	0	0.1	38.4	19.9	0	9.9	0.2	5	0	7.2	18.1	0.3	0	
Cars & Peds	13	5	16	0	6	1771	906	2	452	8	226	1	330	814	12	0	4562
% Cars & Peds	92.9	83.3	100	0	100	98.6	97.2	100	97.2	100	97.4	100	98.5	96.1	92.3	0	97.6
Trucks & Buses	0	1	0	0	0	26	26	0	13	0	6	0	5	33	1	0	111
% Trucks & Buses	0	16.7	0	0	0	1.4	2.8	0	2.8	0	2.6	0	1.5	3.9	7.7	0	2.4
Bikes by Direction	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
% Bikes by Direction	7.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Start Time	#510-530 Retail Plaza Driveway From North					E. Main Road (Route 138) From East					Aquidneck Avenue (Route 138A) From South					E. Main 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 06:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30 AM																					
07:30 AM	1	1	3	0	5	0	164	101	0	265	53	1	58	0	112	78	100	1	0	179	561
07:45 AM	0	1	1	0	2	0	203	105	0	308	53	1	46	0	100	44	80	1	0	125	535
08:00 AM	2	0	3	0	5	1	200	70	0	271	43	0	15	0	58	27	90	4	0	121	455
08:15 AM	1	0	1	0	2	3	234	84	0	321	65	0	17	1	83	26	78	1	0	105	511
Total Volume	4	2	8	0	14	4	801	360	0	1165	214	2	136	1	353	175	348	7	0	530	2062
% App. Total	28.6	14.3	57.1	0		0.3	68.8	30.9	0		60.6	0.6	38.5	0.3		33	65.7	1.3	0		
PHF	.500	.500	.667	.000	.700	.333	.856	.857	.000	.907	.823	.500	.586	.250	.788	.561	.870	.438	.000	.740	.919
Cars & Peds	3	2	8	0	13	4	793	352	0	1149	209	2	133	1	345	173	328	7	0	508	2015
% Cars & Peds	75.0	100	100	0	92.9	100	99.0	97.8	0	98.6	97.7	100	97.8	100	97.7	98.9	94.3	100	0	95.8	97.7
Trucks & Buses	0	0	0	0	0	0	8	8	0	16	5	0	3	0	8	2	20	0	0	22	46
% Trucks & Buses	0	0	0	0	0	0	1.0	2.2	0	1.4	2.3	0	2.2	0	2.3	1.1	5.7	0	0	4.2	2.2
Bikes by Direction	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
% Bikes by Direction	25.0	0	0	0	7.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0

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

N/S: Plaza Drive/Aquidneck Avenue
 E/W: E. Main Road (Route 138)
 City, State: Middletown, RI
 Client: Bryant/T. Brayton

File Name : 05711B
 Site Code : 223032
 Start Date : 5/23/2023
 Page No : 1

Groups Printed- Cars & Peds

Start Time	#510-530 Retail Plaza Driveway From North				E. Main Road (Route 138) From East				Aquidneck Avenue (Route 138A) From South				E. Main Road (Route 138) From West				Int. Total
	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	
06:00 AM	1	1	0	0	0	49	22	0	20	0	1	0	11	21	0	0	126
06:15 AM	0	1	0	0	0	64	31	0	19	0	6	0	9	34	0	0	164
06:30 AM	0	0	0	0	0	88	61	0	22	1	9	0	8	45	1	0	235
06:45 AM	1	0	1	0	0	111	93	0	31	1	9	0	16	69	0	0	332
Total	2	2	1	0	0	312	207	0	92	2	25	0	44	169	1	0	857
07:00 AM	2	0	2	0	0	129	78	1	32	1	13	0	22	56	0	0	336
07:15 AM	2	0	0	0	0	159	81	0	37	0	20	0	39	71	0	0	409
07:30 AM	1	1	3	0	0	163	97	0	51	1	58	0	77	91	1	0	544
07:45 AM	0	1	1	0	0	200	103	0	53	1	46	0	43	77	1	0	526
Total	5	2	6	0	0	651	359	1	173	3	137	0	181	295	2	0	1815
08:00 AM	2	0	3	0	1	198	68	0	43	0	14	0	27	87	4	0	447
08:15 AM	0	0	1	0	3	232	84	0	62	0	15	1	26	73	1	0	498
08:30 AM	4	0	2	0	0	196	91	1	35	2	17	0	24	93	1	0	466
08:45 AM	0	1	3	0	2	182	97	0	47	1	18	0	28	97	3	0	479
Total	6	1	9	0	6	808	340	1	187	3	64	1	105	350	9	0	1890
Grand Total	13	5	16	0	6	1771	906	2	452	8	226	1	330	814	12	0	4562
Apprch %	38.2	14.7	47.1	0	0.2	66	33.7	0.1	65.8	1.2	32.9	0.1	28.5	70.4	1	0	
Total %	0.3	0.1	0.4	0	0.1	38.8	19.9	0	9.9	0.2	5	0	7.2	17.8	0.3	0	

Start Time	#510-530 Retail Plaza Driveway From North					E. Main Road (Route 138) From East					Aquidneck Avenue (Route 138A) From South					E. Main 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 06:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30 AM																					
07:30 AM	1	1	3	0	5	0	163	97	0	260	51	1	58	0	110	77	91	1	0	169	544
07:45 AM	0	1	1	0	2	0	200	103	0	303	53	1	46	0	100	43	77	1	0	121	526
08:00 AM	2	0	3	0	5	1	198	68	0	267	43	0	14	0	57	27	87	4	0	118	447
08:15 AM	0	0	1	0	1	3	232	84	0	319	62	0	15	1	78	26	73	1	0	100	498
Total Volume	3	2	8	0	13	4	793	352	0	1149	209	2	133	1	345	173	328	7	0	508	2015
% App. Total	23.1	15.4	61.5	0		0.3	69	30.6	0		60.6	0.6	38.6	0.3		34.1	64.6	1.4	0		
PHF	.375	.500	.667	.000	.650	.333	.855	.854	.000	.900	.843	.500	.573	.250	.784	.562	.901	.438	.000	.751	.926

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 City, State: Middletown, RI
 Client: Bryant/T. Brayton

File Name : 05711B
 Site Code : 223032
 Start Date : 5/23/2023
 Page No : 1

Groups Printed- Trucks & Buses

Start Time	#510-530 Retail Plaza Driveway From North				E. Main Road (Route 138) From East				Aquidneck Avenue (Route 138A) From South				E. Main Road (Route 138) From West				Int. Total
	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	
06:00 AM	0	0	0	0	0	1	1	0	1	0	0	0	0	1	0	0	4
06:15 AM	0	0	0	0	0	1	1	0	1	0	0	0	1	0	0	0	4
06:30 AM	0	0	0	0	0	3	1	0	1	0	1	0	0	0	0	0	6
06:45 AM	0	0	0	0	0	2	3	0	0	0	1	0	0	1	0	0	7
Total	0	0	0	0	0	7	6	0	3	0	2	0	1	2	0	0	21
07:00 AM	0	1	0	0	0	5	4	0	2	0	0	0	0	1	0	0	13
07:15 AM	0	0	0	0	0	3	2	0	0	0	1	0	0	3	0	0	9
07:30 AM	0	0	0	0	0	1	4	0	2	0	0	0	1	9	0	0	17
07:45 AM	0	0	0	0	0	3	2	0	0	0	0	0	1	3	0	0	9
Total	0	1	0	0	0	12	12	0	4	0	1	0	2	16	0	0	48
08:00 AM	0	0	0	0	0	2	2	0	0	0	1	0	0	3	0	0	8
08:15 AM	0	0	0	0	0	2	0	0	3	0	2	0	0	5	0	0	12
08:30 AM	0	0	0	0	0	2	5	0	2	0	0	0	2	3	0	0	14
08:45 AM	0	0	0	0	0	1	1	0	1	0	0	0	0	4	1	0	8
Total	0	0	0	0	0	7	8	0	6	0	3	0	2	15	1	0	42
Grand Total	0	1	0	0	0	26	26	0	13	0	6	0	5	33	1	0	111
Apprch %	0	100	0	0	0	50	50	0	68.4	0	31.6	0	12.8	84.6	2.6	0	
Total %	0	0.9	0	0	0	23.4	23.4	0	11.7	0	5.4	0	4.5	29.7	0.9	0	

Start Time	#510-530 Retail Plaza Driveway From North					E. Main Road (Route 138) From East					Aquidneck Avenue (Route 138A) From South					E. Main 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	
07:00 AM	0	1	0	0	1	0	5	4	0	9	2	0	0	0	2	0	1	0	0	1	13
07:15 AM	0	0	0	0	0	0	3	2	0	5	0	0	1	0	1	0	3	0	0	3	9
07:30 AM	0	0	0	0	0	0	1	4	0	5	2	0	0	0	2	1	9	0	0	10	17
07:45 AM	0	0	0	0	0	0	3	2	0	5	0	0	0	0	0	1	3	0	0	4	9
Total Volume	0	1	0	0	1	0	12	12	0	24	4	0	1	0	5	2	16	0	0	18	48
% App. Total	0	100	0	0		0	50	50	0		80	0	20	0		11.1	88.9	0	0		
PHF	.000	.250	.000	.000	.250	.000	.600	.750	.000	.667	.500	.000	.250	.000	.625	.500	.444	.000	.000	.450	.706

Peak Hour Analysis From 06:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 07:00 AM

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 City, State: Middletown, RI
 Client: Bryant/T. Brayton

File Name : 05711B
 Site Code : 223032
 Start Date : 5/23/2023
 Page No : 1

Groups Printed- Bikes by Direction

Start Time	#510-530 Retail Plaza Driveway From North				E. Main Road (Route 138) From East				Aquidneck Avenue (Route 138A) From South				E. Main Road (Route 138) From West				Int. Total
	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	
06:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:45 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
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	1	0	0	0	0	0	0	0	0	0	0	0	0	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	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Grand Total	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Apprch %	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total %	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

Start Time	#510-530 Retail Plaza Driveway From North					E. Main Road (Route 138) From East					Aquidneck Avenue (Route 138A) From South					E. Main 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	
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
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total Volume	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
% App. Total	100	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0		
PHF	.250	.000	.000	.000	.250	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250

Peak Hour Analysis From 06:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 07:30 AM

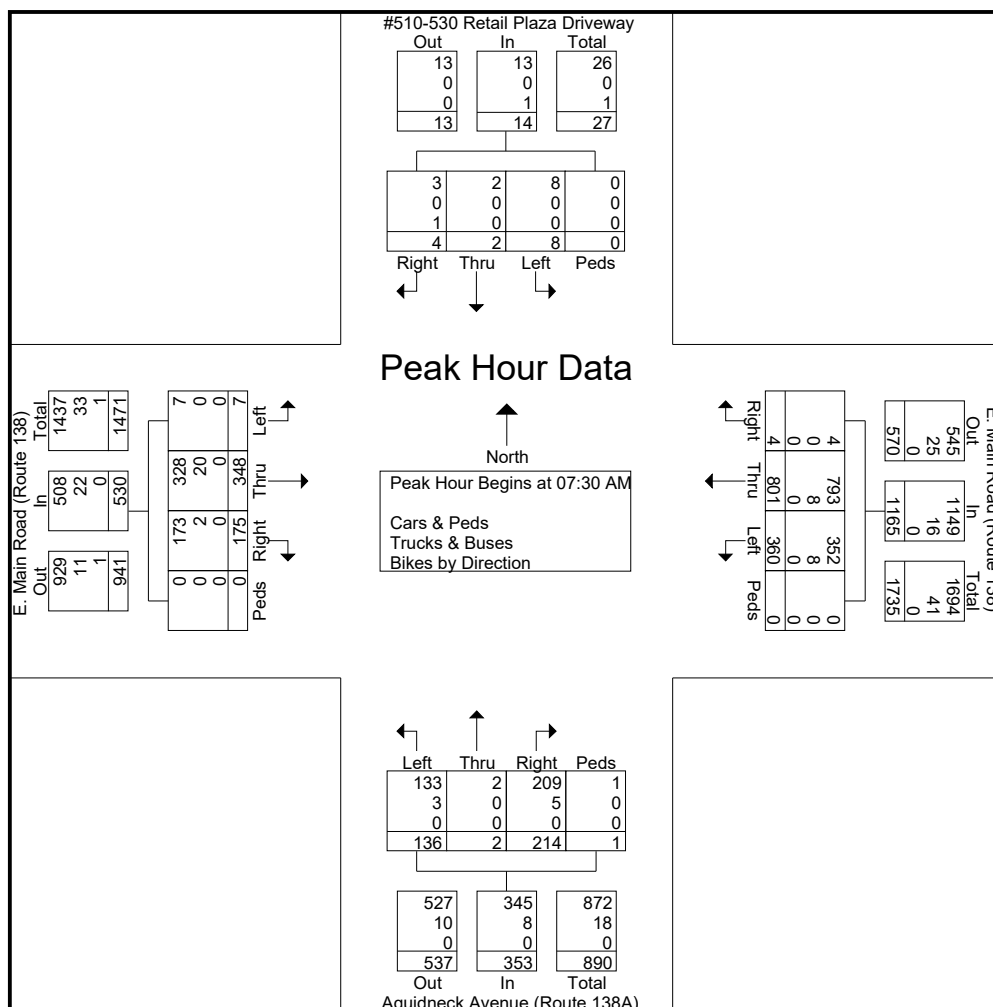
Transportation Data Corporation

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

N/S: Plaza Drive/Aquidneck Avenue
E/W: E. Main Road (Route 138)
City, State: Middletown, RI
Client: Bryant/T. Brayton

File Name : 05711B
Site Code : 223032
Start Date : 5/23/2023
Page No : 1

Start Time	#510-530 Retail Plaza Driveway From North					E. Main Road (Route 138) From East					Aquidneck Avenue (Route 138A) From South					E. Main 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 06:00 AM to 08:45 AM - Peak 1 of 1																						
Peak Hour for Entire Intersection Begins at 07:30 AM																						
07:30 AM	1	1	3	0	5	0	164	101	0	265	53	1	58	0	112	78	100	1	0	179	561	
07:45 AM	0	1	1	0	2	0	203	105	0	308	53	1	46	0	100	44	80	1	0	125	535	
08:00 AM	2	0	3	0	5	1	200	70	0	271	43	0	15	0	58	27	90	4	0	121	455	
08:15 AM	1	0	1	0	2	3	234	84	0	321	65	0	17	1	83	26	78	1	0	105	511	
Total Volume	4	2	8	0	14	4	801	360	0	1165	214	2	136	1	353	175	348	7	0	530	2062	
% App. Total	28.6	14.3	57.1	0		0.3	68.8	30.9	0		60.6	0.6	38.5	0.3		33	65.7	1.3	0			
PHF	.500	.500	.667	.000	.700	.333	.856	.857	.000	.907	.823	.500	.586	.250	.788	.561	.870	.438	.000	.740	.919	
Cars & Peds	3	2	8	0	13	4	793	352	0	1149	209	2	133	1	345	173	328	7	0	508	2015	
% Cars & Peds	75.0	100	100	0	92.9	100	99.0	97.8	0	98.6	97.7	100	97.8	100	97.7	98.9	94.3	100	0	95.8	97.7	
Trucks & Buses	0	0	0	0	0	0	8	8	0	16	5	0	3	0	8	2	20	0	0	22	46	
% Trucks & Buses	0	0	0	0	0	0	1.0	2.2	0	1.4	2.3	0	2.2	0	2.3	1.1	5.7	0	0	4.2	2.2	
Bikes by Direction	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
% Bikes by Direction	25.0	0	0	0	7.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0



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

N/S: Plaza Drive/Aquidneck Avenue
 E/W: E. Main Road (Route 138)
 City, State: Middletown, RI
 Client: Bryant/T. Brayton

File Name : 05711BB
 Site Code : 223032
 Start Date : 5/23/2023
 Page No : 1

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

Start Time	#510-530 Retail Plaza Driveway From North				E. Main Road (Route 138) From East				Aquidneck Avenue (Route 138A) From South				E. Main Road (Route 138) From West				Int. Total
	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	
12:30 PM	14	10	7	0	5	129	60	0	44	6	37	0	40	132	13	0	497
12:45 PM	16	5	3	0	6	141	54	0	59	6	31	0	30	146	13	1	511
Total	30	15	10	0	11	270	114	0	103	12	68	0	70	278	26	1	1008
01:00 PM	18	2	5	0	1	110	47	0	57	4	43	0	26	115	10	1	439
01:15 PM	15	3	7	0	1	115	48	0	56	4	33	0	37	129	10	1	459
01:30 PM	13	5	6	0	1	119	33	0	66	3	32	0	46	134	13	0	471
01:45 PM	9	3	3	0	3	132	46	0	69	7	33	0	45	146	9	1	506
Total	55	13	21	0	6	476	174	0	248	18	141	0	154	524	42	3	1875
02:00 PM	7	2	7	0	4	144	51	0	62	5	46	0	44	142	8	0	522
02:15 PM	7	4	10	0	2	130	42	2	61	6	64	0	25	158	6	0	517
02:30 PM	11	6	9	0	5	140	28	0	80	7	35	0	23	150	5	0	499
02:45 PM	6	2	10	0	2	140	48	0	88	3	38	0	32	168	5	0	542
Total	31	14	36	0	13	554	169	2	291	21	183	0	124	618	24	0	2080
03:00 PM	7	5	4	1	2	118	43	0	102	1	27	1	27	194	5	0	537
03:15 PM	5	4	6	0	3	137	42	0	97	5	39	0	40	175	7	1	561
Grand Total	128	51	77	1	35	1555	542	2	841	57	458	1	415	1789	104	5	6061
Apprch %	49.8	19.8	30	0.4	1.6	72.9	25.4	0.1	62	4.2	33.8	0.1	17.9	77.3	4.5	0.2	
Total %	2.1	0.8	1.3	0	0.6	25.7	8.9	0	13.9	0.9	7.6	0	6.8	29.5	1.7	0.1	
Cars & Peds	128	51	77	1	35	1517	528	2	816	57	454	1	406	1758	104	5	5940
% Cars & Peds	100	100	100	100	100	97.6	97.4	100	97	100	99.1	100	97.8	98.3	100	100	98
Trucks & Buses	0	0	0	0	0	37	14	0	24	0	3	0	9	29	0	0	116
% Trucks & Buses	0	0	0	0	0	2.4	2.6	0	2.9	0	0.7	0	2.2	1.6	0	0	1.9
Bikes by Direction	0	0	0	0	0	1	0	0	1	0	1	0	0	2	0	0	5
% Bikes by Direction	0	0	0	0	0	0.1	0	0	0.1	0	0.2	0	0	0.1	0	0	0.1

Start Time	#510-530 Retail Plaza Driveway From North					E. Main Road (Route 138) From East					Aquidneck Avenue (Route 138A) From South					E. Main 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 12:30 PM to 03:15 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 02:30 PM																					
02:30 PM	11	6	9	0	26	5	140	28	0	173	80	7	35	0	122	23	150	5	0	178	499
02:45 PM	6	2	10	0	18	2	140	48	0	190	88	3	38	0	129	32	168	5	0	205	542
03:00 PM	7	5	4	1	17	2	118	43	0	163	102	1	27	1	131	27	194	5	0	226	537
03:15 PM	5	4	6	0	15	3	137	42	0	182	97	5	39	0	141	40	175	7	1	223	561
Total Volume	29	17	29	1	76	12	535	161	0	708	367	16	139	1	523	122	687	22	1	832	2139
% App. Total	38.2	22.4	38.2	1.3		1.7	75.6	22.7	0		70.2	3.1	26.6	0.2		14.7	82.6	2.6	0.1		
PHF	.659	.708	.725	.250	.731	.600	.955	.839	.000	.932	.900	.571	.891	.250	.927	.763	.885	.786	.250	.920	.953
Cars & Peds	29	17	29	1	76	12	526	156	0	694	359	16	138	1	514	118	680	22	1	821	2105
% Cars & Peds	100	100	100	100	100	100	98.3	96.9	0	98.0	97.8	100	99.3	100	98.3	96.7	99.0	100	100	98.7	98.4
Trucks & Buses	0	0	0	0	0	0	8	5	0	13	8	0	0	0	8	4	6	0	0	10	31
% Trucks & Buses	0	0	0	0	0	0	1.5	3.1	0	1.8	2.2	0	0	0	1.5	3.3	0.9	0	0	1.2	1.4
Bikes by Direction	0	0	0	0	0	0	1	0	0	1	0	0	1	0	1	0	1	0	0	1	3
% Bikes by Direction	0	0	0	0	0	0	0.2	0	0	0.1	0	0	0.7	0	0.2	0	0.1	0	0	0.1	0.1

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

N/S: Plaza Drive/Aquidneck Avenue
 E/W: E. Main Road (Route 138)
 City, State: Middletown, RI
 Client: Bryant/T. Brayton

File Name : 05711BB
 Site Code : 223032
 Start Date : 5/23/2023
 Page No : 1

Groups Printed- Cars & Peds

Start Time	#510-530 Retail Plaza Driveway From North				E. Main Road (Route 138) From East				Aquidneck Avenue (Route 138A) From South				E. Main Road (Route 138) From West				Int. Total
	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	
12:30 PM	14	10	7	0	5	128	60	0	43	6	36	0	40	129	13	0	491
12:45 PM	16	5	3	0	6	139	54	0	56	6	31	0	30	143	13	1	503
Total	30	15	10	0	11	267	114	0	99	12	67	0	70	272	26	1	994
01:00 PM	18	2	5	0	1	109	45	0	52	4	43	0	26	113	10	1	429
01:15 PM	15	3	7	0	1	102	47	0	55	4	33	0	36	127	10	1	441
01:30 PM	13	5	6	0	1	116	32	0	62	3	32	0	42	130	13	0	455
01:45 PM	9	3	3	0	3	130	46	0	67	7	33	0	45	143	9	1	499
Total	55	13	21	0	6	457	170	0	236	18	141	0	149	513	42	3	1824
02:00 PM	7	2	7	0	4	142	50	0	61	5	45	0	44	140	8	0	515
02:15 PM	7	4	10	0	2	125	38	2	61	6	63	0	25	153	6	0	502
02:30 PM	11	6	9	0	5	138	28	0	79	7	35	0	23	147	5	0	493
02:45 PM	6	2	10	0	2	137	47	0	86	3	38	0	29	167	5	0	532
Total	31	14	36	0	13	542	163	2	287	21	181	0	121	607	24	0	2042
03:00 PM	7	5	4	1	2	118	41	0	97	1	26	1	27	193	5	0	528
03:15 PM	5	4	6	0	3	133	40	0	97	5	39	0	39	173	7	1	552
Grand Total	128	51	77	1	35	1517	528	2	816	57	454	1	406	1758	104	5	5940
Apprch %	49.8	19.8	30	0.4	1.7	72.9	25.4	0.1	61.4	4.3	34.2	0.1	17.9	77.3	4.6	0.2	
Total %	2.2	0.9	1.3	0	0.6	25.5	8.9	0	13.7	1	7.6	0	6.8	29.6	1.8	0.1	

Start Time	#510-530 Retail Plaza Driveway From North					E. Main Road (Route 138) From East					Aquidneck Avenue (Route 138A) From South					E. Main 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 12:30 PM to 03:15 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 02:30 PM																					
02:30 PM	11	6	9	0	26	5	138	28	0	171	79	7	35	0	121	23	147	5	0	175	493
02:45 PM	6	2	10	0	18	2	137	47	0	186	86	3	38	0	127	29	167	5	0	201	532
03:00 PM	7	5	4	1	17	2	118	41	0	161	97	1	26	1	125	27	193	5	0	225	528
03:15 PM	5	4	6	0	15	3	133	40	0	176	97	5	39	0	141	39	173	7	1	220	552
Total Volume	29	17	29	1	76	12	526	156	0	694	359	16	138	1	514	118	680	22	1	821	2105
% App. Total	38.2	22.4	38.2	1.3		1.7	75.8	22.5	0		69.8	3.1	26.8	0.2		14.4	82.8	2.7	0.1		
PHF	.659	.708	.725	.250	.731	.600	.953	.830	.000	.933	.925	.571	.885	.250	.911	.756	.881	.786	.250	.912	.953

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

N/S: Plaza Drive/Aquidneck Avenue
 E/W: E. Main Road (Route 138)
 City, State: Middletown, RI
 Client: Bryant/T. Brayton

File Name : 05711BB
 Site Code : 223032
 Start Date : 5/23/2023
 Page No : 1

Groups Printed- Trucks & Buses

Start Time	#510-530 Retail Plaza Driveway From North				E. Main Road (Route 138) From East				Aquidneck Avenue (Route 138A) From South				E. Main Road (Route 138) From West				Int. Total
	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	
12:30 PM	0	0	0	0	0	1	0	0	1	0	1	0	0	3	0	0	6
12:45 PM	0	0	0	0	0	2	0	0	3	0	0	0	0	3	0	0	8
Total	0	0	0	0	0	3	0	0	4	0	1	0	0	6	0	0	14
01:00 PM	0	0	0	0	0	1	2	0	5	0	0	0	0	2	0	0	10
01:15 PM	0	0	0	0	0	13	1	0	1	0	0	0	1	1	0	0	17
01:30 PM	0	0	0	0	0	3	1	0	3	0	0	0	4	4	0	0	15
01:45 PM	0	0	0	0	0	2	0	0	2	0	0	0	0	3	0	0	7
Total	0	0	0	0	0	19	4	0	11	0	0	0	5	10	0	0	49
02:00 PM	0	0	0	0	0	2	1	0	1	0	1	0	0	2	0	0	7
02:15 PM	0	0	0	0	0	5	4	0	0	0	1	0	0	5	0	0	15
02:30 PM	0	0	0	0	0	2	0	0	1	0	0	0	0	2	0	0	5
02:45 PM	0	0	0	0	0	2	1	0	2	0	0	0	3	1	0	0	9
Total	0	0	0	0	0	11	6	0	4	0	2	0	3	10	0	0	36
03:00 PM	0	0	0	0	0	0	2	0	5	0	0	0	0	1	0	0	8
03:15 PM	0	0	0	0	0	4	2	0	0	0	0	0	1	2	0	0	9
Grand Total	0	0	0	0	0	37	14	0	24	0	3	0	9	29	0	0	116
Apprch %	0	0	0	0	0	72.5	27.5	0	88.9	0	11.1	0	23.7	76.3	0	0	
Total %	0	0	0	0	0	31.9	12.1	0	20.7	0	2.6	0	7.8	25	0	0	

Start Time	#510-530 Retail Plaza Driveway From North					E. Main Road (Route 138) From East					Aquidneck Avenue (Route 138A) From South					E. Main 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 12:30 PM to 03:15 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 12:45 PM																					
12:45 PM	0	0	0	0	0	0	2	0	0	2	3	0	0	0	3	0	3	0	0	3	8
01:00 PM	0	0	0	0	0	0	1	2	0	3	5	0	0	0	5	0	2	0	0	2	10
01:15 PM	0	0	0	0	0	0	13	1	0	14	1	0	0	0	1	1	1	0	0	2	17
01:30 PM	0	0	0	0	0	0	3	1	0	4	3	0	0	0	3	4	4	0	0	8	15
Total Volume	0	0	0	0	0	0	19	4	0	23	12	0	0	0	12	5	10	0	0	15	50
% App. Total	0	0	0	0	0	0	82.6	17.4	0	100	100	0	0	0	100	33.3	66.7	0	0	0	
PHF	.000	.000	.000	.000	.000	.000	.365	.500	.000	.411	.600	.000	.000	.000	.600	.313	.625	.000	.000	.469	.735

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

N/S: Plaza Drive/Aquidneck Avenue
 E/W: E. Main Road (Route 138)
 City, State: Middletown, RI
 Client: Bryant/T. Brayton

File Name : 05711BB
 Site Code : 223032
 Start Date : 5/23/2023
 Page No : 1

Groups Printed- Bikes by Direction

Start Time	#510-530 Retail Plaza Driveway From North				E. Main Road (Route 138) From East				Aquidneck Avenue (Route 138A) From South				E. Main Road (Route 138) From West				Int. Total
	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 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
01:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
01:30 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
01:45 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	1	0	0	0	0	1	0	0	2
02:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
02:45 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Total	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	2
03:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
03:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	1	0	0	1	0	1	0	0	2	0	0	5
Apprch %	0	0	0	0	0	100	0	0	50	0	50	0	0	100	0	0	
Total %	0	0	0	0	0	20	0	0	20	0	20	0	0	40	0	0	

Start Time	#510-530 Retail Plaza Driveway From North					E. Main Road (Route 138) From East					Aquidneck Avenue (Route 138A) From South					E. Main 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	
02:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
02:45 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1
Total Volume	0	0	0	0	0	0	1	0	0	1	0	0	1	0	1	0	1	0	0	1	3
% App. Total	0	0	0	0	0	0	100	0	0	0	0	0	100	0	0	0	100	0	0	0	
PHF	.000	.000	.000	.000	.000	.000	.250	.000	.000	.250	.000	.000	.250	.000	.250	.000	.250	.000	.000	.250	.750

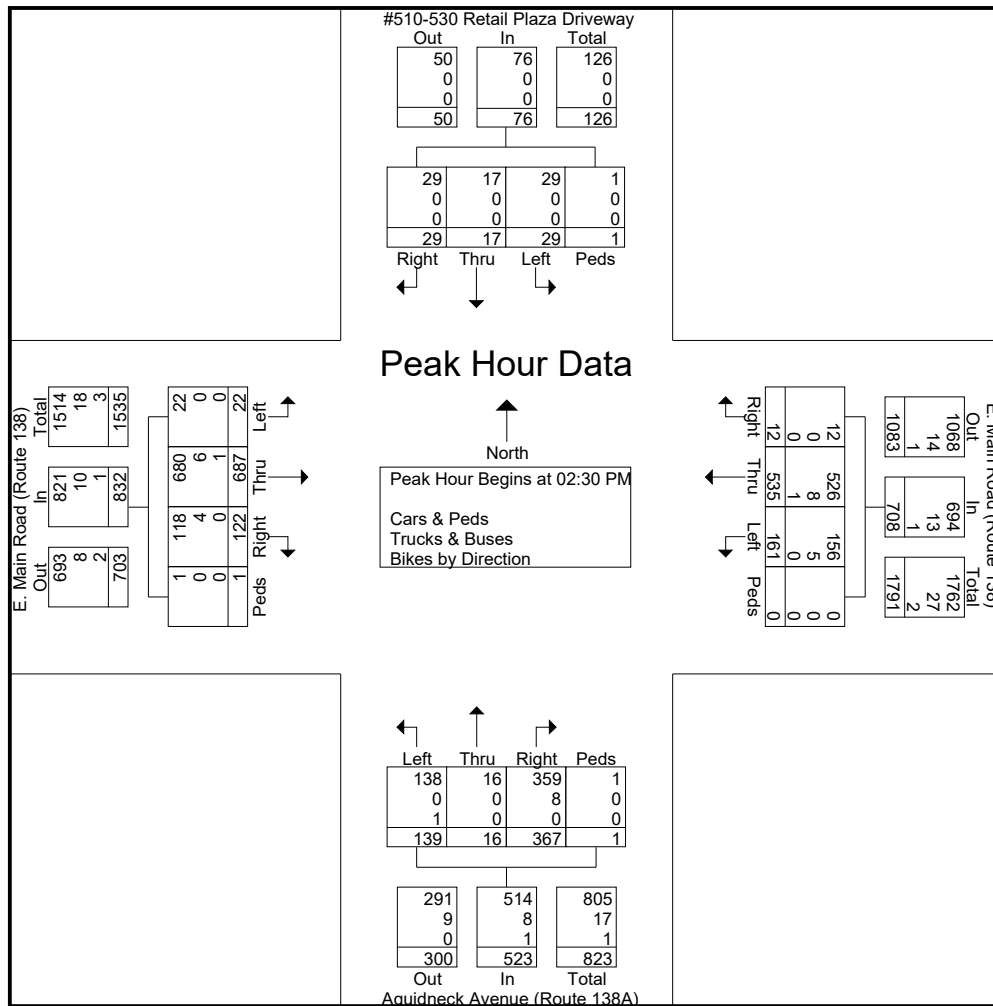
Transportation Data Corporation

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

N/S: Plaza Drive/Aquidneck Avenue
E/W: E. Main Road (Route 138)
City, State: Middletown, RI
Client: Bryant/T. Brayton

File Name : 05711BB
Site Code : 223032
Start Date : 5/23/2023
Page No : 1

	#510-530 Retail Plaza Driveway From North					E. Main Road (Route 138) From East					Aquidneck Avenue (Route 138A) From South					E. Main Road (Route 138) From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 12:30 PM to 03:15 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 02:30 PM																					
02:30 PM	11	6	9	0	26	5	140	28	0	173	80	7	35	0	122	23	150	5	0	178	499
02:45 PM	6	2	10	0	18	2	140	48	0	190	88	3	38	0	129	32	168	5	0	205	542
03:00 PM	7	5	4	1	17	2	118	43	0	163	102	1	27	1	131	27	194	5	0	226	537
03:15 PM	5	4	6	0	15	3	137	42	0	182	97	5	39	0	141	40	175	7	1	223	561
Total Volume	29	17	29	1	76	12	535	161	0	708	367	16	139	1	523	122	687	22	1	832	2139
% App. Total	38.2	22.4	38.2	1.3		1.7	75.6	22.7	0		70.2	3.1	26.6	0.2		14.7	82.6	2.6	0.1		
PHF	.659	.708	.725	.250	.731	.600	.955	.839	.000	.932	.900	.571	.891	.250	.927	.763	.885	.786	.250	.920	.953
Cars & Peds	29	17	29	1	76	12	526	156	0	694	359	16	138	1	514	118	680	22	1	821	2105
% Cars & Peds	100	100	100	100	100	100	98.3	96.9	0	98.0	97.8	100	99.3	100	98.3	96.7	99.0	100	100	98.7	98.4
Trucks & Buses	0	0	0	0	0	0	8	5	0	13	8	0	0	0	8	4	6	0	0	10	31
% Trucks & Buses	0	0	0	0	0	0	1.5	3.1	0	1.8	2.2	0	0	0	1.5	3.3	0.9	0	0	1.2	1.4
Bikes by Direction	0	0	0	0	0	0	1	0	0	1	0	0	1	0	1	0	1	0	0	1	3
% Bikes by Direction	0	0	0	0	0	0	0.2	0	0	0.1	0	0	0.7	0	0.2	0	0.1	0	0	0.1	0.1



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

N/S: Aquidneck Avenue (Route 138A)
 E/W: Green End Avenue
 City, State: Middletown, RI
 Client: Bryant/T. Brayton

File Name : 05711C
 Site Code : 223032
 Start Date : 5/24/2023
 Page No : 1

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

Start Time	Aquidneck Avenue (Route 138A) From North				Green End Avenue From East				Aquidneck Avenue (Route 138A) From South				Green End Avenue From West				Int. Total
	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	
06:00 AM	8	31	1	0	3	14	9	0	2	10	3	0	1	8	9	0	99
06:15 AM	11	32	2	0	3	15	6	0	3	18	3	0	2	10	13	0	118
06:30 AM	15	50	2	0	4	22	13	0	8	27	5	0	3	24	20	0	193
06:45 AM	28	60	3	1	6	36	19	0	10	33	10	0	3	32	29	0	270
Total	62	173	8	1	16	87	47	0	23	88	21	0	9	74	71	0	680
07:00 AM	19	55	2	0	18	44	21	0	14	43	11	0	4	23	25	1	280
07:15 AM	34	54	10	0	13	54	32	0	23	53	9	0	11	37	30	0	360
07:30 AM	32	54	9	0	22	59	48	0	10	53	12	0	8	42	40	0	389
07:45 AM	42	76	7	0	13	69	62	0	27	44	13	1	3	31	36	1	425
Total	127	239	28	0	66	226	163	0	74	193	45	1	26	133	131	2	1454
08:00 AM	27	63	9	0	17	48	52	0	24	53	16	0	9	31	40	0	389
08:15 AM	33	67	12	1	18	75	51	1	23	49	17	1	14	40	32	0	434
08:30 AM	26	63	12	1	11	61	54	1	19	42	11	0	7	44	33	0	385
08:45 AM	39	70	8	0	15	64	56	0	35	54	16	0	11	48	40	0	456
Total	125	263	41	2	61	248	213	2	101	198	60	1	41	163	145	0	1664
Grand Total	314	675	77	3	143	561	423	2	198	479	126	2	76	370	347	2	3798
Apprch %	29.4	63.1	7.2	0.3	12.7	49.7	37.5	0.2	24.6	59.5	15.7	0.2	9.6	46.5	43.6	0.3	
Total %	8.3	17.8	2	0.1	3.8	14.8	11.1	0.1	5.2	12.6	3.3	0.1	2	9.7	9.1	0.1	
Cars & Peds	303	659	72	3	140	541	417	2	189	461	120	2	74	346	339	2	3670
% Cars & Peds	96.5	97.6	93.5	100	97.9	96.4	98.6	100	95.5	96.2	95.2	100	97.4	93.5	97.7	100	96.6
Trucks & Buses	11	16	5	0	3	19	5	0	9	18	6	0	2	16	8	0	118
% Trucks & Buses	3.5	2.4	6.5	0	2.1	3.4	1.2	0	4.5	3.8	4.8	0	2.6	4.3	2.3	0	3.1
Bikes by Direction	0	0	0	0	0	1	1	0	0	0	0	0	0	8	0	0	10
% Bikes by Direction	0	0	0	0	0	0.2	0.2	0	0	0	0	0	0	2.2	0	0	0.3

Start Time	Aquidneck Avenue (Route 138A) From North					Green End Avenue From East					Aquidneck Avenue (Route 138A) From South					Green End Avenue 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 06:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	27	63	9	0	99	17	48	52	0	117	24	53	16	0	93	9	31	40	0	80	389
08:15 AM	33	67	12	1	113	18	75	51	1	145	23	49	17	1	90	14	40	32	0	86	434
08:30 AM	26	63	12	1	102	11	61	54	1	127	19	42	11	0	72	7	44	33	0	84	385
08:45 AM	39	70	8	0	117	15	64	56	0	135	35	54	16	0	105	11	48	40	0	99	456
Total Volume	125	263	41	2	431	61	248	213	2	524	101	198	60	1	360	41	163	145	0	349	1664
% App. Total	29	61	9.5	0.5	11.6	47.3	40.6	0.4	28.1	55	16.7	0.3	11.7	46.7	41.5	0					
PHF	.801	.939	.854	.500	.921	.847	.827	.951	.500	.903	.721	.917	.882	.250	.857	.732	.849	.906	.000	.881	.912
Cars & Peds	121	258	37	2	418	58	240	210	2	510	94	192	59	1	346	41	155	140	0	336	1610
% Cars & Peds	96.8	98.1	90.2	100	97.0	95.1	96.8	98.6	100	97.3	93.1	97.0	98.3	100	96.1	100	95.1	96.6	0	96.3	96.8
Trucks & Buses	4	5	4	0	13	3	8	3	0	14	7	6	1	0	14	0	8	5	0	13	54
% Trucks & Buses	3.2	1.9	9.8	0	3.0	4.9	3.2	1.4	0	2.7	6.9	3.0	1.7	0	3.9	0	4.9	3.4	0	3.7	3.2
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
 Mario Perone, mperone1@verizon.net
 tel (781) 587-0086 cell (781) 439-4999

N/S: Aquidneck Avenue (Route 138A)
 E/W: Green End Avenue
 City, State: Middletown, RI
 Client: Bryant/T. Brayton

File Name : 05711C
 Site Code : 223032
 Start Date : 5/24/2023
 Page No : 1

Groups Printed- Cars & Peds

Start Time	Aquidneck Avenue (Route 138A) From North				Green End Avenue From East				Aquidneck Avenue (Route 138A) From South				Green End Avenue From West				Int. Total
	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	
06:00 AM	8	30	1	0	3	14	9	0	2	9	3	0	1	8	9	0	97
06:15 AM	10	31	2	0	3	15	6	0	3	16	3	0	2	10	13	0	114
06:30 AM	15	48	2	0	4	22	13	0	8	25	5	0	3	22	20	0	187
06:45 AM	26	60	3	1	6	35	17	0	10	32	8	0	3	27	29	0	257
Total	59	169	8	1	16	86	45	0	23	82	19	0	9	67	71	0	655
07:00 AM	18	53	2	0	18	42	21	0	14	42	10	0	4	23	24	1	272
07:15 AM	32	53	10	0	13	52	32	0	21	51	9	0	10	36	29	0	348
07:30 AM	31	51	8	0	22	57	48	0	10	52	11	0	7	36	40	0	373
07:45 AM	42	75	7	0	13	64	61	0	27	42	12	1	3	29	35	1	412
Total	123	232	27	0	66	215	162	0	72	187	42	1	24	124	128	2	1405
08:00 AM	27	62	9	0	16	43	50	0	24	52	15	0	9	30	38	0	375
08:15 AM	32	67	9	1	16	74	50	1	22	48	17	1	14	39	31	0	422
08:30 AM	25	61	11	1	11	61	54	1	19	40	11	0	7	41	32	0	375
08:45 AM	37	68	8	0	15	62	56	0	29	52	16	0	11	45	39	0	438
Total	121	258	37	2	58	240	210	2	94	192	59	1	41	155	140	0	1610
Grand Total	303	659	72	3	140	541	417	2	189	461	120	2	74	346	339	2	3670
Apprch %	29.2	63.5	6.9	0.3	12.7	49.2	37.9	0.2	24.5	59.7	15.5	0.3	9.7	45.5	44.5	0.3	
Total %	8.3	18	2	0.1	3.8	14.7	11.4	0.1	5.1	12.6	3.3	0.1	2	9.4	9.2	0.1	

Start Time	Aquidneck Avenue (Route 138A) From North					Green End Avenue From East					Aquidneck Avenue (Route 138A) From South					Green End Avenue 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 06:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	27	62	9	0	98	16	43	50	0	109	24	52	15	0	91	9	30	38	0	77	375
08:15 AM	32	67	9	1	109	16	74	50	1	141	22	48	17	1	88	14	39	31	0	84	422
08:30 AM	25	61	11	1	98	11	61	54	1	127	19	40	11	0	70	7	41	32	0	80	375
08:45 AM	37	68	8	0	113	15	62	56	0	133	29	52	16	0	97	11	45	39	0	95	438
Total Volume	121	258	37	2	418	58	240	210	2	510	94	192	59	1	346	41	155	140	0	336	1610
% App. Total	28.9	61.7	8.9	0.5		11.4	47.1	41.2	0.4		27.2	55.5	17.1	0.3		12.2	46.1	41.7	0		
PHF	.818	.949	.841	.500	.925	.906	.811	.938	.500	.904	.810	.923	.868	.250	.892	.732	.861	.897	.000	.884	.919

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

N/S: Aquidneck Avenue (Route 138A)
 E/W: Green End Avenue
 City, State: Middletown, RI
 Client: Bryant/T. Brayton

File Name : 05711C
 Site Code : 223032
 Start Date : 5/24/2023
 Page No : 1

Groups Printed- Trucks & Buses

Start Time	Aquidneck Avenue (Route 138A) From North				Green End Avenue From East				Aquidneck Avenue (Route 138A) From South				Green End Avenue From West				Int. Total
	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	
06:00 AM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	2
06:15 AM	1	1	0	0	0	0	0	0	0	2	0	0	0	0	0	0	4
06:30 AM	0	2	0	0	0	0	0	0	0	2	0	0	0	0	0	0	4
06:45 AM	2	0	0	0	0	1	2	0	0	1	2	0	0	1	0	0	9
Total	3	4	0	0	0	1	2	0	0	6	2	0	0	1	0	0	19
07:00 AM	1	2	0	0	0	2	0	0	0	1	1	0	0	0	1	0	8
07:15 AM	2	1	0	0	0	1	0	0	2	2	0	0	1	1	1	0	11
07:30 AM	1	3	1	0	0	2	0	0	0	1	1	0	1	4	0	0	14
07:45 AM	0	1	0	0	0	5	0	0	0	2	1	0	0	2	1	0	12
Total	4	7	1	0	0	10	0	0	2	6	3	0	2	7	3	0	45
08:00 AM	0	1	0	0	1	5	2	0	0	1	1	0	0	1	2	0	14
08:15 AM	1	0	3	0	2	1	1	0	1	1	0	0	0	1	1	0	12
08:30 AM	1	2	1	0	0	0	0	0	0	2	0	0	0	3	1	0	10
08:45 AM	2	2	0	0	0	2	0	0	6	2	0	0	0	3	1	0	18
Total	4	5	4	0	3	8	3	0	7	6	1	0	0	8	5	0	54
Grand Total	11	16	5	0	3	19	5	0	9	18	6	0	2	16	8	0	118
Apprch %	34.4	50	15.6	0	11.1	70.4	18.5	0	27.3	54.5	18.2	0	7.7	61.5	30.8	0	
Total %	9.3	13.6	4.2	0	2.5	16.1	4.2	0	7.6	15.3	5.1	0	1.7	13.6	6.8	0	

Start Time	Aquidneck Avenue (Route 138A) From North					Green End Avenue From East					Aquidneck Avenue (Route 138A) From South					Green End Avenue 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 06:00 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	1	5	2	0	8	0	1	1	0	2	0	1	2	0	3	14
08:15 AM	1	0	3	0	4	2	1	1	0	4	1	1	0	0	2	0	1	1	0	2	12
08:30 AM	1	2	1	0	4	0	0	0	0	0	0	2	0	0	2	0	3	1	0	4	10
08:45 AM	2	2	0	0	4	0	2	0	0	2	6	2	0	0	8	0	3	1	0	4	18
Total Volume	4	5	4	0	13	3	8	3	0	14	7	6	1	0	14	0	8	5	0	13	54
% App. Total	30.8	38.5	30.8	0	21.4	57.1	21.4	0	50	42.9	7.1	0	0	61.5	38.5	0					
PHF	.500	.625	.333	.000	.813	.375	.400	.375	.000	.438	.292	.750	.250	.000	.438	.000	.667	.625	.000	.813	.750

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

N/S: Aquidneck Avenue (Route 138A)
 E/W: Green End Avenue
 City, State: Middletown, RI
 Client: Bryant/T. Brayton

File Name : 05711C
 Site Code : 223032
 Start Date : 5/24/2023
 Page No : 1

Groups Printed- Bikes by Direction

Start Time	Aquidneck Avenue (Route 138A) From North				Green End Avenue From East				Aquidneck Avenue (Route 138A) From South				Green End Avenue From West				Int. Total
	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	
06:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2
06:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	6
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	1	0	0	0	0	0	0	0	0	0	0	1
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2
07:45 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
Total	0	0	0	0	0	1	1	0	0	0	0	0	0	2	0	0	4
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	1	1	0	0	0	0	0	0	8	0	0	10
Apprch %	0	0	0	0	0	50	50	0	0	0	0	0	0	100	0	0	
Total %	0	0	0	0	0	10	10	0	0	0	0	0	0	80	0	0	

Start Time	Aquidneck Avenue (Route 138A) From North					Green End Avenue From East					Aquidneck Avenue (Route 138A) From South					Green End Avenue 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 06:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 06:30 AM																					
06:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	2
06:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	4
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	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Total Volume	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	6	0	0	6	7
% App. Total	0	0	0	0	0	0	100	0	0	0	0	0	0	0	0	0	100	0	0	0	
PHF	.000	.000	.000	.000	.000	.000	.250	.000	.000	.250	.000	.000	.000	.000	.000	.000	.375	.000	.000	.375	.438

Transportation Data Corporation

Mario Perone, mperone1@verizon.net

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

N/S: Aquidneck Avenue (Route 138A)

E/W: Green End Avenue

City, State: Middletown, RI

Client: Bryant/T. Brayton

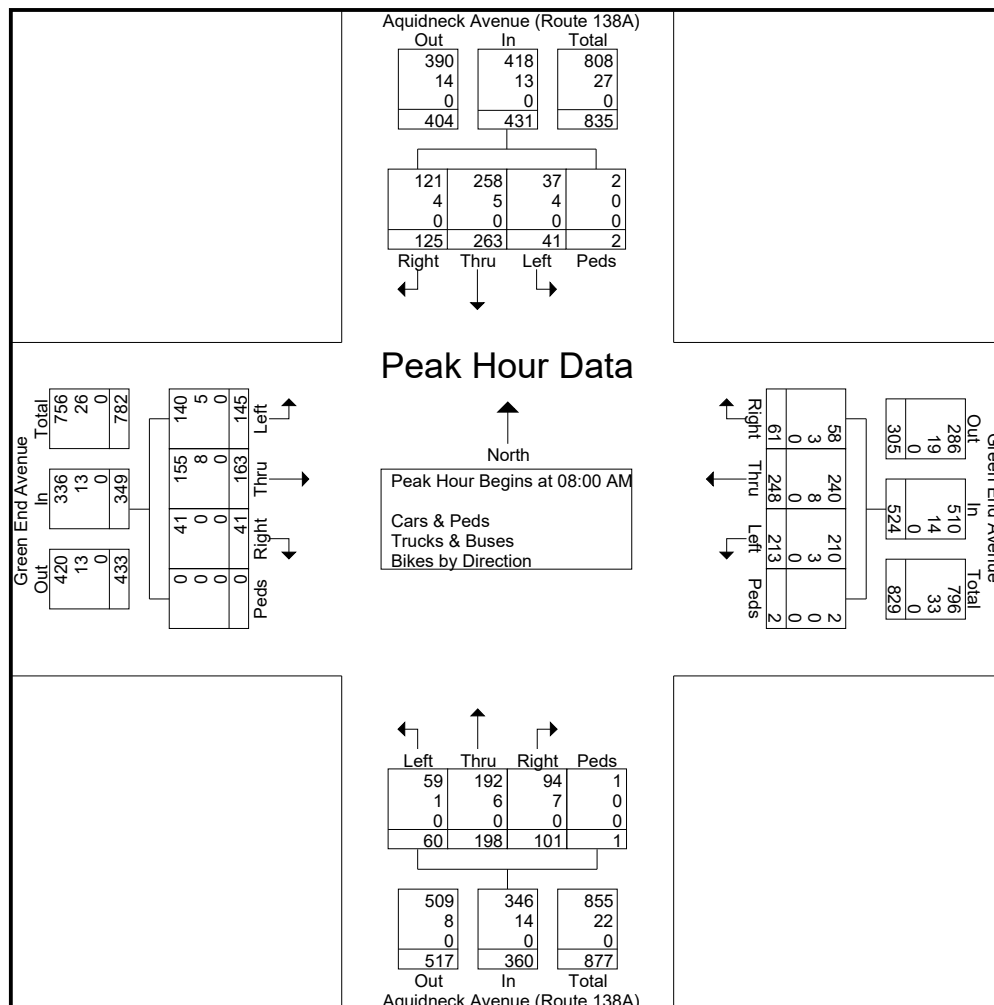
File Name : 05711C

Site Code : 223032

Start Date : 5/24/2023

Page No : 1

Start Time	Aquidneck Avenue (Route 138A) From North					Green End Avenue From East					Aquidneck Avenue (Route 138A) From South					Green End Avenue 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 06:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	27	63	9	0	99	17	48	52	0	117	24	53	16	0	93	9	31	40	0	80	389
08:15 AM	33	67	12	1	113	18	75	51	1	145	23	49	17	1	90	14	40	32	0	86	434
08:30 AM	26	63	12	1	102	11	61	54	1	127	19	42	11	0	72	7	44	33	0	84	385
08:45 AM	39	70	8	0	117	15	64	56	0	135	35	54	16	0	105	11	48	40	0	99	456
Total Volume	125	263	41	2	431	61	248	213	2	524	101	198	60	1	360	41	163	145	0	349	1664
% App. Total	29	61	9.5	0.5		11.6	47.3	40.6	0.4		28.1	55	16.7	0.3		11.7	46.7	41.5	0		
PHF	.801	.939	.854	.500	.921	.847	.827	.951	.500	.903	.721	.917	.882	.250	.857	.732	.849	.906	.000	.881	.912
Cars & Peds	121	258	37	2	418	58	240	210	2	510	94	192	59	1	346	41	155	140	0	336	1610
% Cars & Peds	96.8	98.1	90.2	100	97.0	95.1	96.8	98.6	100	97.3	93.1	97.0	98.3	100	96.1	100	95.1	96.6	0	96.3	96.8
Trucks & Buses	4	5	4	0	13	3	8	3	0	14	7	6	1	0	14	0	8	5	0	13	54
% Trucks & Buses	3.2	1.9	9.8	0	3.0	4.9	3.2	1.4	0	2.7	6.9	3.0	1.7	0	3.9	0	4.9	3.4	0	3.7	3.2
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

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

N/S: Aquidneck Avenue (Route 138A)
E/W: Green End Avenue
City, State: Middletown, RI
Client: Bryant/T. Brayton

File Name : 05711CC
Site Code : 223032
Start Date : 5/24/2023
Page No : 1

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

Start Time	Aquidneck Avenue (Route 138A) From North				Green End Avenue From East				Aquidneck Avenue (Route 138A) From South				Green End Avenue From West				Int. Total
	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	
12:30 PM	42	55	16	0	17	56	23	0	19	69	14	0	18	45	31	0	405
12:45 PM	30	49	10	0	16	58	27	0	20	60	11	0	5	60	45	0	391
Total	72	104	26	0	33	114	50	0	39	129	25	0	23	105	76	0	796
01:00 PM	58	62	17	0	20	62	23	0	24	75	9	0	14	49	36	0	449
01:15 PM	30	53	16	0	10	56	21	0	32	68	16	0	9	44	31	0	386
01:30 PM	30	47	10	1	11	57	19	0	30	69	9	0	7	48	28	0	366
01:45 PM	33	41	21	0	15	50	25	0	27	73	13	0	11	69	43	0	421
Total	151	203	64	1	56	225	88	0	113	285	47	0	41	210	138	0	1622
02:00 PM	40	73	23	0	7	60	30	0	26	73	12	0	13	65	29	0	451
02:15 PM	47	60	16	5	17	61	31	2	39	77	18	0	7	57	25	0	462
02:30 PM	30	50	7	0	12	62	50	0	34	79	12	0	14	61	32	0	443
02:45 PM	41	48	24	0	16	46	30	0	30	90	14	0	7	64	38	0	448
Total	158	231	70	5	52	229	141	2	129	319	56	0	41	247	124	0	1804
03:00 PM	36	54	12	0	12	80	25	0	33	107	16	0	8	74	45	0	502
03:15 PM	33	63	10	0	10	59	23	0	39	103	9	0	10	84	43	0	486
Grand Total	450	655	182	6	163	707	327	2	353	943	153	0	123	720	426	0	5210
Apprch %	34.8	50.7	14.1	0.5	13.6	59	27.3	0.2	24.4	65.1	10.6	0	9.7	56.7	33.6	0	
Total %	8.6	12.6	3.5	0.1	3.1	13.6	6.3	0	6.8	18.1	2.9	0	2.4	13.8	8.2	0	
Cars & Peds	439	645	176	1	153	685	318	0	341	923	152	0	119	705	416	0	5073
% Cars & Peds	97.6	98.5	96.7	16.7	93.9	96.9	97.2	0	96.6	97.9	99.3	0	96.7	97.9	97.7	0	97.4
Trucks & Buses	11	10	6	0	10	19	7	0	12	19	1	0	4	13	10	0	122
% Trucks & Buses	2.4	1.5	3.3	0	6.1	2.7	2.1	0	3.4	2	0.7	0	3.3	1.8	2.3	0	2.3
Bikes by Direction	0	0	0	5	0	3	2	2	0	1	0	0	0	2	0	0	15
% Bikes by Direction	0	0	0	83.3	0	0.4	0.6	100	0	0.1	0	0	0	0.3	0	0	0.3

Start Time	Aquidneck Avenue (Route 138A) From North					Green End Avenue From East					Aquidneck Avenue (Route 138A) From South					Green End Avenue 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 12:30 PM to 03:15 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 02:30 PM																					
02:30 PM	30	50	7	0	87	12	62	50	0	124	34	79	12	0	125	14	61	32	0	107	443
02:45 PM	41	48	24	0	113	16	46	30	0	92	30	90	14	0	134	7	64	38	0	109	448
03:00 PM	36	54	12	0	102	12	80	25	0	117	33	107	16	0	156	8	74	45	0	127	502
03:15 PM	33	63	10	0	106	10	59	23	0	92	39	103	9	0	151	10	84	43	0	137	486
Total Volume	140	215	53	0	408	50	247	128	0	425	136	379	51	0	566	39	283	158	0	480	1879
% App. Total	34.3	52.7	13	0		11.8	58.1	30.1	0		24	67	9	0		8.1	59	32.9	0		
PHF	.854	.853	.552	.000	.903	.781	.772	.640	.000	.857	.872	.886	.797	.000	.907	.696	.842	.878	.000	.876	.936
Cars & Peds	137	211	53	0	401	47	241	124	0	412	131	375	50	0	556	37	281	156	0	474	1843
% Cars & Peds	97.9	98.1	100	0	98.3	94.0	97.6	96.9	0	96.9	96.3	98.9	98.0	0	98.2	94.9	99.3	98.7	0	98.8	98.1
Trucks & Buses	3	4	0	0	7	3	5	4	0	12	5	4	1	0	10	2	1	2	0	5	34
% Trucks & Buses	2.1	1.9	0	0	1.7	6.0	2.0	3.1	0	2.8	3.7	1.1	2.0	0	1.8	5.1	0.4	1.3	0	1.0	1.8
Bikes by Direction	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	2
% Bikes by Direction	0	0	0	0	0	0	0.4	0	0	0.2	0	0	0	0	0	0	0.4	0	0	0.2	0.1

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

N/S: Aquidneck Avenue (Route 138A)
 E/W: Green End Avenue
 City, State: Middletown, RI
 Client: Bryant/T. Brayton

File Name : 05711CC
 Site Code : 223032
 Start Date : 5/24/2023
 Page No : 1

Groups Printed- Cars & Peds

Start Time	Aquidneck Avenue (Route 138A) From North				Green End Avenue From East				Aquidneck Avenue (Route 138A) From South				Green End Avenue From West				Int. Total
	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	
12:30 PM	41	55	16	0	17	53	23	0	18	65	14	0	18	44	30	0	394
12:45 PM	30	48	10	0	15	58	27	0	20	57	11	0	5	59	45	0	385
Total	71	103	26	0	32	111	50	0	38	122	25	0	23	103	75	0	779
01:00 PM	57	60	16	0	19	58	23	0	23	75	9	0	14	47	33	0	434
01:15 PM	27	53	15	0	9	55	21	0	31	67	16	0	7	41	29	0	371
01:30 PM	29	46	9	1	10	55	18	0	30	67	9	0	7	47	27	0	355
01:45 PM	33	40	19	0	14	49	24	0	26	71	13	0	11	67	43	0	410
Total	146	199	59	1	52	217	86	0	110	280	47	0	39	202	132	0	1570
02:00 PM	38	72	23	0	6	60	30	0	25	72	12	0	13	63	28	0	442
02:15 PM	47	60	15	0	16	56	28	0	37	74	18	0	7	56	25	0	439
02:30 PM	30	48	7	0	11	60	50	0	33	79	12	0	12	61	32	0	435
02:45 PM	39	46	24	0	16	44	27	0	29	89	14	0	7	63	36	0	434
Total	154	226	69	0	49	220	135	0	124	314	56	0	39	243	121	0	1750
03:00 PM	35	54	12	0	11	80	25	0	31	105	15	0	8	74	45	0	495
03:15 PM	33	63	10	0	9	57	22	0	38	102	9	0	10	83	43	0	479
Grand Total	439	645	176	1	153	685	318	0	341	923	152	0	119	705	416	0	5073
Apprch %	34.8	51.1	14	0.1	13.2	59.3	27.5	0	24.1	65.2	10.7	0	9.6	56.9	33.5	0	
Total %	8.7	12.7	3.5	0	3	13.5	6.3	0	6.7	18.2	3	0	2.3	13.9	8.2	0	

Start Time	Aquidneck Avenue (Route 138A) From North					Green End Avenue From East					Aquidneck Avenue (Route 138A) From South					Green End Avenue 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 12:30 PM to 03:15 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 02:30 PM																					
02:30 PM	30	48	7	0	85	11	60	50	0	121	33	79	12	0	124	12	61	32	0	105	435
02:45 PM	39	46	24	0	109	16	44	27	0	87	29	89	14	0	132	7	63	36	0	106	434
03:00 PM	35	54	12	0	101	11	80	25	0	116	31	105	15	0	151	8	74	45	0	127	495
03:15 PM	33	63	10	0	106	9	57	22	0	88	38	102	9	0	149	10	83	43	0	136	479
Total Volume	137	211	53	0	401	47	241	124	0	412	131	375	50	0	556	37	281	156	0	474	1843
% App. Total	34.2	52.6	13.2	0		11.4	58.5	30.1	0		23.6	67.4	9	0		7.8	59.3	32.9	0		
PHF	.878	.837	.552	.000	.920	.734	.753	.620	.000	.851	.862	.893	.833	.000	.921	.771	.846	.867	.000	.871	.931

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

N/S: Aquidneck Avenue (Route 138A)
 E/W: Green End Avenue
 City, State: Middletown, RI
 Client: Bryant/T. Brayton

File Name : 05711CC
 Site Code : 223032
 Start Date : 5/24/2023
 Page No : 1

Groups Printed- Trucks & Buses

Start Time	Aquidneck Avenue (Route 138A) From North				Green End Avenue From East				Aquidneck Avenue (Route 138A) From South				Green End Avenue From West				Int. Total
	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	
12:30 PM	1	0	0	0	0	3	0	0	1	4	0	0	0	1	1	0	11
12:45 PM	0	1	0	0	1	0	0	0	0	2	0	0	0	1	0	0	5
Total	1	1	0	0	1	3	0	0	1	6	0	0	0	2	1	0	16
01:00 PM	1	2	1	0	1	4	0	0	1	0	0	0	0	2	3	0	15
01:15 PM	3	0	1	0	1	1	0	0	1	1	0	0	2	3	2	0	15
01:30 PM	1	1	1	0	1	2	1	0	0	2	0	0	0	0	1	0	10
01:45 PM	0	1	2	0	1	1	1	0	1	2	0	0	0	2	0	0	11
Total	5	4	5	0	4	8	2	0	3	5	0	0	2	7	6	0	51
02:00 PM	2	1	0	0	1	0	0	0	1	1	0	0	0	2	1	0	9
02:15 PM	0	0	1	0	1	3	1	0	2	3	0	0	0	1	0	0	12
02:30 PM	0	2	0	0	1	2	0	0	1	0	0	0	2	0	0	0	8
02:45 PM	2	2	0	0	0	2	3	0	1	1	0	0	0	1	2	0	14
Total	4	5	1	0	3	7	4	0	5	5	0	0	2	4	3	0	43
03:00 PM	1	0	0	0	1	0	0	0	2	2	1	0	0	0	0	0	7
03:15 PM	0	0	0	0	1	1	1	0	1	1	0	0	0	0	0	0	5
Grand Total	11	10	6	0	10	19	7	0	12	19	1	0	4	13	10	0	122
Apprch %	40.7	37	22.2	0	27.8	52.8	19.4	0	37.5	59.4	3.1	0	14.8	48.1	37	0	
Total %	9	8.2	4.9	0	8.2	15.6	5.7	0	9.8	15.6	0.8	0	3.3	10.7	8.2	0	

Start Time	Aquidneck Avenue (Route 138A) From North					Green End Avenue From East					Aquidneck Avenue (Route 138A) From South					Green End Avenue 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 12:30 PM to 03:15 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 01:00 PM																					
01:00 PM	1	2	1	0	4	1	4	0	0	5	1	0	0	0	1	0	2	3	0	5	15
01:15 PM	3	0	1	0	4	1	1	0	0	2	1	1	0	0	2	2	3	2	0	7	15
01:30 PM	1	1	1	0	3	1	2	1	0	4	0	2	0	0	2	0	0	1	0	1	10
01:45 PM	0	1	2	0	3	1	1	1	0	3	1	2	0	0	3	0	2	0	0	2	11
Total Volume	5	4	5	0	14	4	8	2	0	14	3	5	0	0	8	2	7	6	0	15	51
% App. Total	35.7	28.6	35.7	0		28.6	57.1	14.3	0		37.5	62.5	0	0		13.3	46.7	40	0		
PHF	.417	.500	.625	.000	.875	1.00	.500	.500	.000	.700	.750	.625	.000	.000	.667	.250	.583	.500	.000	.536	.850

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

N/S: Aquidneck Avenue (Route 138A)
 E/W: Green End Avenue
 City, State: Middletown, RI
 Client: Bryant/T. Brayton

File Name : 05711CC
 Site Code : 223032
 Start Date : 5/24/2023
 Page No : 1

Groups Printed- Bikes by Direction

Start Time	Aquidneck Avenue (Route 138A) From North				Green End Avenue From East				Aquidneck Avenue (Route 138A) From South				Green End Avenue From West				Int. Total
	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 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
01:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
01:45 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	1	0	0	1
02:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15 PM	0	0	0	5	0	2	2	2	0	0	0	0	0	0	0	0	11
02:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	5	0	2	2	2	0	0	0	0	0	0	0	0	11
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	2
Grand Total	0	0	0	5	0	3	2	2	0	1	0	0	0	2	0	0	15
Apprch %	0	0	0	100	0	42.9	28.6	28.6	0	100	0	0	0	100	0	0	
Total %	0	0	0	33.3	0	20	13.3	13.3	0	6.7	0	0	0	13.3	0	0	

Start Time	Aquidneck Avenue (Route 138A) From North					Green End Avenue From East					Aquidneck Avenue (Route 138A) From South					Green End Avenue 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 12:30 PM to 03:15 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 01:30 PM																					
01:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
01:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15 PM	0	0	0	5	5	0	2	2	2	6	0	0	0	0	0	0	0	0	0	0	11
Total Volume	0	0	0	5	5	0	2	2	2	6	0	0	0	0	0	0	1	0	0	1	12
% App. Total	0	0	0	100		0	33.3	33.3	33.3		0	0	0	0		0	100	0	0		
PHF	.000	.000	.000	.250	.250	.000	.250	.250	.250	.250	.000	.000	.000	.000	.000	.000	.250	.000	.000	.250	.273

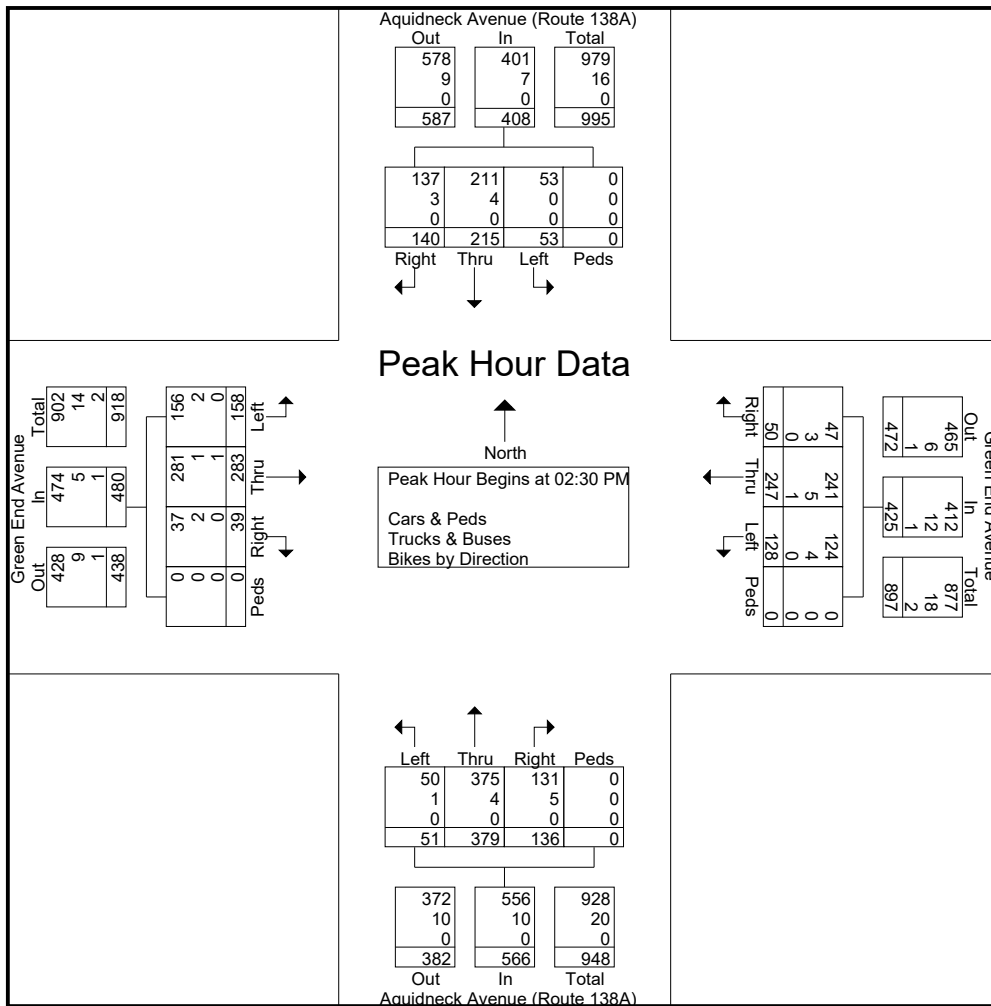
Transportation Data Corporation

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

N/S: Aquidneck Avenue (Route 138A)
E/W: Green End Avenue
City, State: Middletown, RI
Client: Bryant/T. Brayton

File Name : 05711CC
Site Code : 223032
Start Date : 5/24/2023
Page No : 1

Start Time	Aquidneck Avenue (Route 138A) From North					Green End Avenue From East					Aquidneck Avenue (Route 138A) From South					Green End Avenue 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 12:30 PM to 03:15 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 02:30 PM																					
02:30 PM	30	50	7	0	87	12	62	50	0	124	34	79	12	0	125	14	61	32	0	107	443
02:45 PM	41	48	24	0	113	16	46	30	0	92	30	90	14	0	134	7	64	38	0	109	448
03:00 PM	36	54	12	0	102	12	80	25	0	117	33	107	16	0	156	8	74	45	0	127	502
03:15 PM	33	63	10	0	106	10	59	23	0	92	39	103	9	0	151	10	84	43	0	137	486
Total Volume	140	215	53	0	408	50	247	128	0	425	136	379	51	0	566	39	283	158	0	480	1879
% App. Total	34.3	52.7	13	0		11.8	58.1	30.1	0		24	67	9	0		8.1	59	32.9	0		
PHF	.854	.853	.552	.000	.903	.781	.772	.640	.000	.857	.872	.886	.797	.000	.907	.696	.842	.878	.000	.876	.936
Cars & Peds	137	211	53	0	401	47	241	124	0	412	131	375	50	0	556	37	281	156	0	474	1843
% Cars & Peds	97.9	98.1	100	0	98.3	94.0	97.6	96.9	0	96.9	96.3	98.9	98.0	0	98.2	94.9	99.3	98.7	0	98.8	98.1
Trucks & Buses	3	4	0	0	7	3	5	4	0	12	5	4	1	0	10	2	1	2	0	5	34
% Trucks & Buses	2.1	1.9	0	0	1.7	6.0	2.0	3.1	0	2.8	3.7	1.1	2.0	0	1.8	5.1	0.4	1.3	0	1.0	1.8
Bikes by Direction	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	0	2
% Bikes by Direction	0	0	0	0	0	0	0.4	0	0	0.2	0	0	0	0	0	0	0.4	0	0	0.2	0.1



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

S: Turner Road
 E/W: E. Main Road (Route 138)
 City, State: Middletown, RI
 Client: Bryant/T. Brayton

File Name : 05711E
 Site Code : 223032
 Start Date : 5/23/2023
 Page No : 1

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

Start Time	E. Main Road (Route 138) From East			Turner Road From South			E. Main Road (Route 138) From West			Int. Total
	Thru	Left	Peds	Right	Left	Peds	Right	Thru	Peds	
06:00 AM	67	15	0	13	0	1	0	31	0	127
06:15 AM	89	14	2	9	0	0	0	49	0	163
06:30 AM	145	37	0	18	0	0	0	55	0	255
06:45 AM	211	57	0	31	0	0	0	82	0	381
Total	512	123	2	71	0	1	0	217	0	926
07:00 AM	202	52	0	38	1	0	1	89	0	383
07:15 AM	219	70	0	28	0	0	2	86	0	405
07:30 AM	241	89	0	58	0	0	1	111	0	500
07:45 AM	292	87	0	65	1	0	0	111	0	556
Total	954	298	0	189	2	0	4	397	0	1844
08:00 AM	248	84	0	52	0	0	0	123	0	507
08:15 AM	297	99	0	54	0	0	2	120	0	572
08:30 AM	270	93	0	42	1	0	0	106	0	512
08:45 AM	272	75	0	47	2	0	3	114	0	513
Total	1087	351	0	195	3	0	5	463	0	2104
Grand Total	2553	772	2	455	5	1	9	1077	0	4874
Apprch %	76.7	23.2	0.1	98.7	1.1	0.2	0.8	99.2	0	
Total %	52.4	15.8	0	9.3	0.1	0	0.2	22.1	0	
Cars & Peds	2505	757	2	440	4	1	9	1030	0	4748
% Cars & Peds	98.1	98.1	100	96.7	80	100	100	95.6	0	97.4
Trucks & Buses	48	13	0	15	1	0	0	47	0	124
% Trucks & Buses	1.9	1.7	0	3.3	20	0	0	4.4	0	2.5
Bikes by Direction	0	2	0	0	0	0	0	0	0	2
% Bikes by Direction	0	0.3	0	0	0	0	0	0	0	0

Start Time	E. Main Road (Route 138) From East				Turner Road From South				E. Main 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 06:00 AM to 08:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 07:45 AM													
07:45 AM	292	87	0	379	65	1	0	66	0	111	0	111	556
08:00 AM	248	84	0	332	52	0	0	52	0	123	0	123	507
08:15 AM	297	99	0	396	54	0	0	54	2	120	0	122	572
08:30 AM	270	93	0	363	42	1	0	43	0	106	0	106	512
Total Volume	1107	363	0	1470	213	2	0	215	2	460	0	462	2147
% App. Total	75.3	24.7	0		99.1	0.9	0		0.4	99.6	0		
PHF	.932	.917	.000	.928	.819	.500	.000	.814	.250	.935	.000	.939	.938
Cars & Peds	1091	360	0	1451	207	2	0	209	2	440	0	442	2102
% Cars & Peds	98.6	99.2	0	98.7	97.2	100	0	97.2	100	95.7	0	95.7	97.9
Trucks & Buses	16	3	0	19	6	0	0	6	0	20	0	20	45
% Trucks & Buses	1.4	0.8	0	1.3	2.8	0	0	2.8	0	4.3	0	4.3	2.1
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

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

S: Turner Road
 E/W: E. Main Road (Route 138)
 City, State: Middletown, RI
 Client: Bryant/T. Brayton

File Name : 05711E
 Site Code : 223032
 Start Date : 5/23/2023
 Page No : 1

Groups Printed- Cars & Peds

Start Time	E. Main Road (Route 138) From East			Turner Road From South			E. Main Road (Route 138) From West			Int. Total
	Thru	Left	Peds	Right	Left	Peds	Right	Thru	Peds	
06:00 AM	66	15	0	13	0	1	0	30	0	125
06:15 AM	87	14	2	9	0	0	0	47	0	159
06:30 AM	141	37	0	18	0	0	0	54	0	250
06:45 AM	207	53	0	31	0	0	0	80	0	371
Total	501	119	2	71	0	1	0	211	0	905
07:00 AM	191	49	0	38	0	0	1	86	0	365
07:15 AM	213	68	0	28	0	0	2	82	0	393
07:30 AM	238	86	0	54	0	0	1	103	0	482
07:45 AM	288	86	0	60	1	0	0	107	0	542
Total	930	289	0	180	1	0	4	378	0	1782
08:00 AM	245	83	0	52	0	0	0	120	0	500
08:15 AM	293	98	0	54	0	0	2	112	0	559
08:30 AM	265	93	0	41	1	0	0	101	0	501
08:45 AM	271	75	0	42	2	0	3	108	0	501
Total	1074	349	0	189	3	0	5	441	0	2061
Grand Total	2505	757	2	440	4	1	9	1030	0	4748
Apprch %	76.7	23.2	0.1	98.9	0.9	0.2	0.9	99.1	0	
Total %	52.8	15.9	0	9.3	0.1	0	0.2	21.7	0	

Start Time	E. Main Road (Route 138) From East				Turner Road From South				E. Main Road (Route 138) From West				Int. Total
	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	
07:45 AM	288	86	0	374	60	1	0	61	0	107	0	107	542
08:00 AM	245	83	0	328	52	0	0	52	0	120	0	120	500
08:15 AM	293	98	0	391	54	0	0	54	2	112	0	114	559
08:30 AM	265	93	0	358	41	1	0	42	0	101	0	101	501
Total Volume	1091	360	0	1451	207	2	0	209	2	440	0	442	2102
% App. Total	75.2	24.8	0		99	1	0		0.5	99.5	0		
PHF	.931	.918	.000	.928	.863	.500	.000	.857	.250	.917	.000	.921	.940

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

S: Turner Road
 E/W: E. Main Road (Route 138)
 City, State: Middletown, RI
 Client: Bryant/T. Brayton

File Name : 05711E
 Site Code : 223032
 Start Date : 5/23/2023
 Page No : 1

Groups Printed- Trucks & Buses

Start Time	E. Main Road (Route 138) From East			Turner Road From South			E. Main Road (Route 138) From West			Int. Total
	Thru	Left	Peds	Right	Left	Peds	Right	Thru	Peds	
06:00 AM	1	0	0	0	0	0	0	1	0	2
06:15 AM	2	0	0	0	0	0	0	2	0	4
06:30 AM	4	0	0	0	0	0	0	1	0	5
06:45 AM	4	2	0	0	0	0	0	2	0	8
Total	11	2	0	0	0	0	0	6	0	19
07:00 AM	11	3	0	0	1	0	0	3	0	18
07:15 AM	6	2	0	0	0	0	0	4	0	12
07:30 AM	3	3	0	4	0	0	0	8	0	18
07:45 AM	4	1	0	5	0	0	0	4	0	14
Total	24	9	0	9	1	0	0	19	0	62
08:00 AM	3	1	0	0	0	0	0	3	0	7
08:15 AM	4	1	0	0	0	0	0	8	0	13
08:30 AM	5	0	0	1	0	0	0	5	0	11
08:45 AM	1	0	0	5	0	0	0	6	0	12
Total	13	2	0	6	0	0	0	22	0	43
Grand Total	48	13	0	15	1	0	0	47	0	124
Apprch %	78.7	21.3	0	93.8	6.2	0	0	100	0	
Total %	38.7	10.5	0	12.1	0.8	0	0	37.9	0	

Start Time	E. Main Road (Route 138) From East				Turner Road From South				E. Main Road (Route 138) From West				Int. Total
	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	
07:00 AM	11	3	0	14	0	1	0	1	0	3	0	3	18
07:15 AM	6	2	0	8	0	0	0	0	0	4	0	4	12
07:30 AM	3	3	0	6	4	0	0	4	0	8	0	8	18
07:45 AM	4	1	0	5	5	0	0	5	0	4	0	4	14
Total Volume	24	9	0	33	9	1	0	10	0	19	0	19	62
% App. Total	72.7	27.3	0		90	10	0		0	100	0		
PHF	.545	.750	.000	.589	.450	.250	.000	.500	.000	.594	.000	.594	.861

Transportation Data Corporation

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

S: Turner Road
E/W: E. Main Road (Route 138)
City, State: Middletown, RI
Client: Bryant/T. Brayton

File Name : 05711E
Site Code : 223032
Start Date : 5/23/2023
Page No : 1

Groups Printed- Bikes by Direction

Start Time	E. Main Road (Route 138) From East			Turner Road From South			E. Main Road (Route 138) From West			Int. Total
	Thru	Left	Peds	Right	Left	Peds	Right	Thru	Peds	
06:00 AM	0	0	0	0	0	0	0	0	0	0
06:15 AM	0	0	0	0	0	0	0	0	0	0
06:30 AM	0	0	0	0	0	0	0	0	0	0
06:45 AM	0	2	0	0	0	0	0	0	0	2
Total	0	2	0	0	0	0	0	0	0	2
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	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	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
Grand Total	0	2	0	0	0	0	0	0	0	2
Aprch %	0	100	0	0	0	0	0	0	0	
Total %	0	100	0	0	0	0	0	0	0	

Start Time	E. Main Road (Route 138) From East				Turner Road From South				E. Main 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 06:00 AM to 08:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 06:00 AM													
06:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
06:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
06:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
06:45 AM	0	2	0	2	0	0	0	0	0	0	0	0	2
Total Volume	0	2	0	2	0	0	0	0	0	0	0	0	2
% App. Total	0	100	0		0	0	0		0	0	0		
PHF	.000	.250	.000	.250	.000	.000	.000	.000	.000	.000	.000	.000	.250

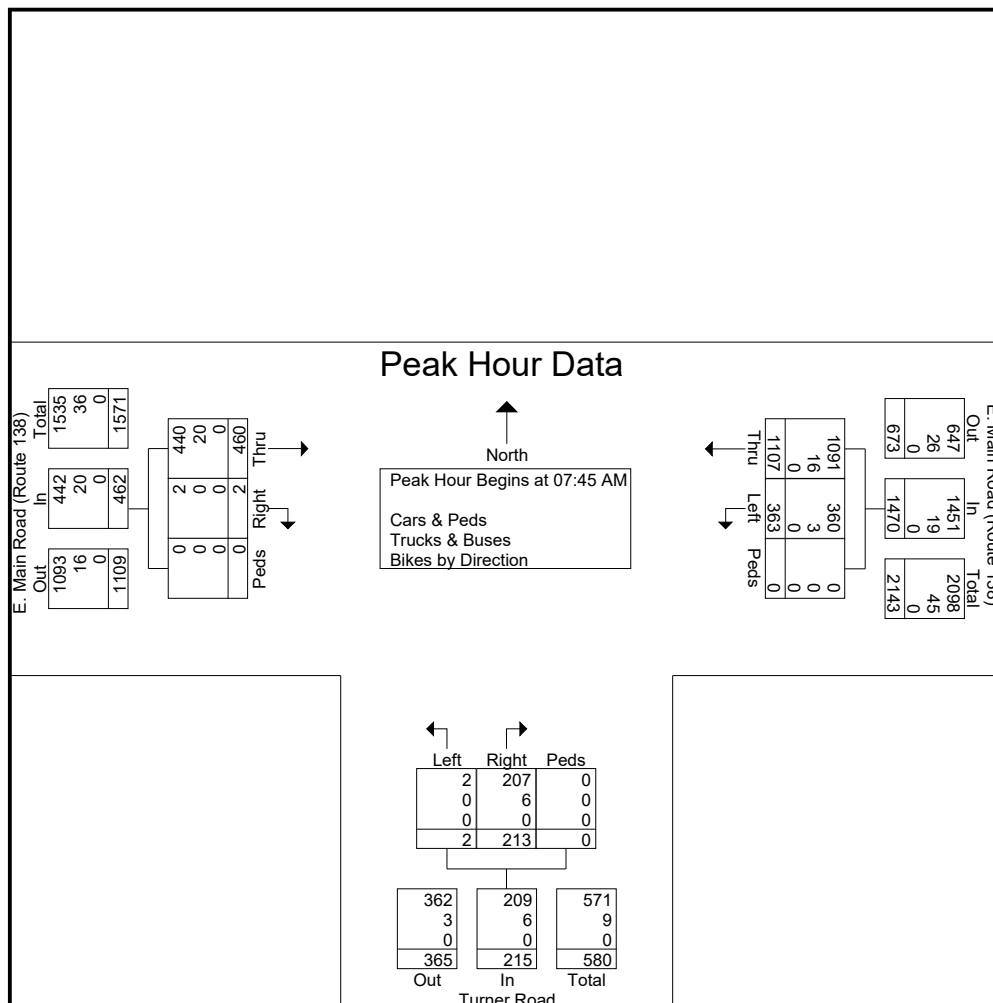
Transportation Data Corporation

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

S: Turner Road
E/W: E. Main Road (Route 138)
City, State: Middletown, RI
Client: Bryant/T. Brayton

File Name : 05711E
Site Code : 223032
Start Date : 5/23/2023
Page No : 1

Start Time	E. Main Road (Route 138) From East				Turner Road From South				E. Main 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 06:00 AM to 08:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 07:45 AM													
07:45 AM	292	87	0	379	65	1	0	66	0	111	0	111	556
08:00 AM	248	84	0	332	52	0	0	52	0	123	0	123	507
08:15 AM	297	99	0	396	54	0	0	54	2	120	0	122	572
08:30 AM	270	93	0	363	42	1	0	43	0	106	0	106	512
Total Volume	1107	363	0	1470	213	2	0	215	2	460	0	462	2147
% App. Total	75.3	24.7	0		99.1	0.9	0		0.4	99.6	0		
PHF	.932	.917	.000	.928	.819	.500	.000	.814	.250	.935	.000	.939	.938
Cars & Peds	1091	360	0	1451	207	2	0	209	2	440	0	442	2102
% Cars & Peds	98.6	99.2	0	98.7	97.2	100	0	97.2	100	95.7	0	95.7	97.9
Trucks & Buses	16	3	0	19	6	0	0	6	0	20	0	20	45
% Trucks & Buses	1.4	0.8	0	1.3	2.8	0	0	2.8	0	4.3	0	4.3	2.1
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



Transportation Data Corporation

Mario Perone, mperone1@verizon.net

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

S: Turner Road
 E/W: E. Main Road (Route 138)
 City, State: Middletown, RI
 Client: Bryant/T. Brayton

File Name : 05711EE
 Site Code : 223032
 Start Date : 5/23/2023
 Page No : 1

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

Start Time	E. Main Road (Route 138) From East			Turner Road From South			E. Main Road (Route 138) From West			Int. Total
	Thru	Left	Peds	Right	Left	Peds	Right	Thru	Peds	
12:30 PM	170	42	0	55	0	0	0	155	0	422
12:45 PM	163	48	0	32	0	0	1	166	0	410
Total	333	90	0	87	0	0	1	321	0	832
01:00 PM	129	50	0	50	0	0	0	142	0	371
01:15 PM	147	33	0	52	1	0	2	152	0	387
01:30 PM	131	50	0	49	1	0	2	159	0	392
01:45 PM	165	41	0	50	0	0	1	166	0	423
Total	572	174	0	201	2	0	5	619	0	1573
02:00 PM	165	41	0	69	2	0	2	176	0	455
02:15 PM	148	56	0	56	0	0	0	162	0	422
02:30 PM	144	49	0	84	1	0	2	195	0	475
02:45 PM	170	67	0	90	0	1	4	238	0	570
Total	627	213	0	299	3	1	8	771	0	1922
03:00 PM	130	31	0	81	3	0	2	220	0	467
03:15 PM	156	59	1	84	0	0	1	236	0	537
Grand Total	1818	567	1	752	8	1	17	2167	0	5331
Apprch %	76.2	23.8	0	98.8	1.1	0.1	0.8	99.2	0	
Total %	34.1	10.6	0	14.1	0.2	0	0.3	40.6	0	
Cars & Peds	1770	551	1	736	8	1	17	2119	0	5203
% Cars & Peds	97.4	97.2	100	97.9	100	100	100	97.8	0	97.6
Trucks & Buses	48	16	0	16	0	0	0	48	0	128
% Trucks & Buses	2.6	2.8	0	2.1	0	0	0	2.2	0	2.4
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	E. Main Road (Route 138) From East				Turner Road From South				E. Main 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 12:30 PM to 03:15 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 02:30 PM													
02:30 PM	144	49	0	193	84	1	0	85	2	195	0	197	475
02:45 PM	170	67	0	237	90	0	1	91	4	238	0	242	570
03:00 PM	130	31	0	161	81	3	0	84	2	220	0	222	467
03:15 PM	156	59	1	216	84	0	0	84	1	236	0	237	537
Total Volume	600	206	1	807	339	4	1	344	9	889	0	898	2049
% App. Total	74.3	25.5	0.1		98.5	1.2	0.3		1	99	0		
PHF	.882	.769	.250	.851	.942	.333	.250	.945	.563	.934	.000	.928	.899
Cars & Peds	590	205	1	796	333	4	1	338	9	871	0	880	2014
% Cars & Peds	98.3	99.5	100	98.6	98.2	100	100	98.3	100	98.0	0	98.0	98.3
Trucks & Buses	10	1	0	11	6	0	0	6	0	18	0	18	35
% Trucks & Buses	1.7	0.5	0	1.4	1.8	0	0	1.7	0	2.0	0	2.0	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

Transportation Data Corporation

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

S: Turner Road
E/W: E. Main Road (Route 138)
City, State: Middletown, RI
Client: Bryant/T. Brayton

File Name : 05711EE
Site Code : 223032
Start Date : 5/23/2023
Page No : 1

Groups Printed- Cars & Peds

Start Time	E. Main Road (Route 138) From East			Turner Road From South			E. Main Road (Route 138) From West			Int. Total
	Thru	Left	Peds	Right	Left	Peds	Right	Thru	Peds	
12:30 PM	169	41	0	53	0	0	0	151	0	414
12:45 PM	159	47	0	32	0	0	1	162	0	401
Total	328	88	0	85	0	0	1	313	0	815
01:00 PM	127	48	0	50	0	0	0	135	0	360
01:15 PM	132	33	0	51	1	0	2	152	0	371
01:30 PM	128	49	0	48	1	0	2	156	0	384
01:45 PM	160	37	0	50	0	0	1	161	0	409
Total	547	167	0	199	2	0	5	604	0	1524
02:00 PM	161	37	0	69	2	0	2	173	0	444
02:15 PM	144	54	0	50	0	0	0	158	0	406
02:30 PM	141	49	0	83	1	0	2	191	0	467
02:45 PM	166	67	0	90	0	1	4	233	0	561
Total	612	207	0	292	3	1	8	755	0	1878
03:00 PM	129	30	0	81	3	0	2	215	0	460
03:15 PM	154	59	1	79	0	0	1	232	0	526
Grand Total	1770	551	1	736	8	1	17	2119	0	5203
Apprch %	76.2	23.7	0	98.8	1.1	0.1	0.8	99.2	0	
Total %	34	10.6	0	14.1	0.2	0	0.3	40.7	0	

Start Time	E. Main Road (Route 138) From East				Turner Road From South				E. Main 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 12:30 PM to 03:15 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 02:30 PM													
02:30 PM	141	49	0	190	83	1	0	84	2	191	0	193	467
02:45 PM	166	67	0	233	90	0	1	91	4	233	0	237	561
03:00 PM	129	30	0	159	81	3	0	84	2	215	0	217	460
03:15 PM	154	59	1	214	79	0	0	79	1	232	0	233	526
Total Volume	590	205	1	796	333	4	1	338	9	871	0	880	2014
% App. Total	74.1	25.8	0.1		98.5	1.2	0.3		1	99	0		
PHF	.889	.765	.250	.854	.925	.333	.250	.929	.563	.935	.000	.928	.898

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

S: Turner Road
 E/W: E. Main Road (Route 138)
 City, State: Middletown, RI
 Client: Bryant/T. Brayton

File Name : 05711EE
 Site Code : 223032
 Start Date : 5/23/2023
 Page No : 1

Groups Printed- Trucks & Buses

Start Time	E. Main Road (Route 138) From East			Turner Road From South			E. Main Road (Route 138) From West			Int. Total
	Thru	Left	Peds	Right	Left	Peds	Right	Thru	Peds	
12:30 PM	1	1	0	2	0	0	0	4	0	8
12:45 PM	4	1	0	0	0	0	0	4	0	9
Total	5	2	0	2	0	0	0	8	0	17
01:00 PM	2	2	0	0	0	0	0	7	0	11
01:15 PM	15	0	0	1	0	0	0	0	0	16
01:30 PM	3	1	0	1	0	0	0	3	0	8
01:45 PM	5	4	0	0	0	0	0	5	0	14
Total	25	7	0	2	0	0	0	15	0	49
02:00 PM	4	4	0	0	0	0	0	3	0	11
02:15 PM	4	2	0	6	0	0	0	4	0	16
02:30 PM	3	0	0	1	0	0	0	4	0	8
02:45 PM	4	0	0	0	0	0	0	5	0	9
Total	15	6	0	7	0	0	0	16	0	44
03:00 PM	1	1	0	0	0	0	0	5	0	7
03:15 PM	2	0	0	5	0	0	0	4	0	11
Grand Total	48	16	0	16	0	0	0	48	0	128
Apprch %	75	25	0	100	0	0	0	100	0	
Total %	37.5	12.5	0	12.5	0	0	0	37.5	0	

Start Time	E. Main Road (Route 138) From East				Turner Road From South				E. Main Road (Route 138) From West				Int. Total
	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	
01:00 PM	2	2	0	4	0	0	0	0	0	7	0	7	11
01:15 PM	15	0	0	15	1	0	0	1	0	0	0	0	16
01:30 PM	3	1	0	4	1	0	0	1	0	3	0	3	8
01:45 PM	5	4	0	9	0	0	0	0	0	5	0	5	14
Total Volume	25	7	0	32	2	0	0	2	0	15	0	15	49
% App. Total	78.1	21.9	0		100	0	0		0	100	0		
PHF	.417	.438	.000	.533	.500	.000	.000	.500	.000	.536	.000	.536	.766

Peak Hour Analysis From 12:30 PM to 03:15 PM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 01:00 PM

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

S: Turner Road
 E/W: E. Main Road (Route 138)
 City, State: Middletown, RI
 Client: Bryant/T. Brayton

File Name : 05711EE
 Site Code : 223032
 Start Date : 5/23/2023
 Page No : 1

Groups Printed- Bikes by Direction

Start Time	E. Main Road (Route 138) From East			Turner Road From South			E. Main Road (Route 138) From West			Int. Total
	Thru	Left	Peds	Right	Left	Peds	Right	Thru	Peds	
12:30 PM	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
01:00 PM	0	0	0	0	0	0	0	0	0	0
01:15 PM	0	0	0	0	0	0	0	0	0	0
01:30 PM	0	0	0	0	0	0	0	0	0	0
01:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
02:00 PM	0	0	0	0	0	0	0	0	0	0
02:15 PM	0	0	0	0	0	0	0	0	0	0
02:30 PM	0	0	0	0	0	0	0	0	0	0
02:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
03:00 PM	0	0	0	0	0	0	0	0	0	0
03:15 PM	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	E. Main Road (Route 138) From East				Turner Road From South				E. Main Road (Route 138) From West				Int. Total
	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
01:15 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	0	0	0	0
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

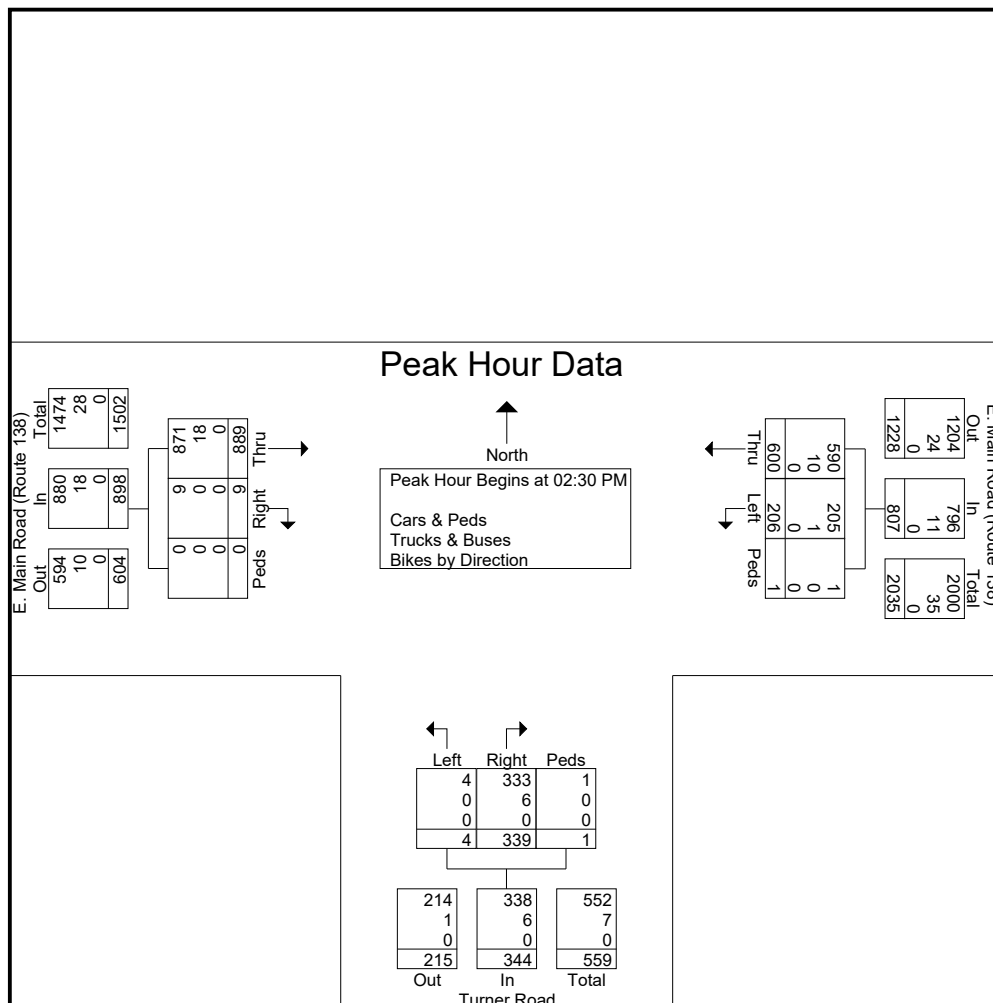
Transportation Data Corporation

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

S: Turner Road
E/W: E. Main Road (Route 138)
City, State: Middletown, RI
Client: Bryant/T. Brayton

File Name : 05711EE
Site Code : 223032
Start Date : 5/23/2023
Page No : 1

Start Time	E. Main Road (Route 138) From East				Turner Road From South				E. Main 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 12:30 PM to 03:15 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 02:30 PM													
02:30 PM	144	49	0	193	84	1	0	85	2	195	0	197	475
02:45 PM	170	67	0	237	90	0	1	91	4	238	0	242	570
03:00 PM	130	31	0	161	81	3	0	84	2	220	0	222	467
03:15 PM	156	59	1	216	84	0	0	84	1	236	0	237	537
Total Volume	600	206	1	807	339	4	1	344	9	889	0	898	2049
% App. Total	74.3	25.5	0.1		98.5	1.2	0.3		1	99	0		
PHF	.882	.769	.250	.851	.942	.333	.250	.945	.563	.934	.000	.928	.899
Cars & Peds	590	205	1	796	333	4	1	338	9	871	0	880	2014
% Cars & Peds	98.3	99.5	100	98.6	98.2	100	100	98.3	100	98.0	0	98.0	98.3
Trucks & Buses	10	1	0	11	6	0	0	6	0	18	0	18	35
% Trucks & Buses	1.7	0.5	0	1.4	1.8	0	0	1.7	0	2.0	0	2.0	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



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

N: Turner Road
 E/W: Green End Avenue
 City, State: Middletown, RI
 Client: Bryant/T. Brayton

File Name : 05711F
 Site Code : 223032
 Start Date : 5/24/2023
 Page No : 1

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

Start Time	Turner Road From North			Green End Avenue From East			Green End Avenue From West			Int. Total
	Right	Left	Peds	Right	Thru	Peds	Thru	Left	Peds	
06:00 AM	14	0	0	2	11	1	6	7	0	41
06:15 AM	8	0	0	1	14	1	9	9	0	42
06:30 AM	22	0	0	2	15	0	14	19	0	72
06:45 AM	36	2	0	4	25	0	31	13	0	111
Total	80	2	0	9	65	2	60	48	0	266
07:00 AM	35	1	0	2	43	0	22	18	0	121
07:15 AM	46	3	0	7	50	0	30	28	0	164
07:30 AM	59	0	0	9	62	1	29	31	0	191
07:45 AM	94	7	0	3	55	0	33	35	0	227
Total	234	11	0	21	210	1	114	112	0	703
08:00 AM	61	3	0	2	55	0	35	26	0	182
08:15 AM	81	3	0	8	61	1	38	37	0	229
08:30 AM	68	3	0	6	52	0	46	26	0	201
08:45 AM	82	7	0	6	51	0	41	39	0	226
Total	292	16	0	22	219	1	160	128	0	838
Grand Total	606	29	0	52	494	4	334	288	0	1807
Apprch %	95.4	4.6	0	9.5	89.8	0.7	53.7	46.3	0	
Total %	33.5	1.6	0	2.9	27.3	0.2	18.5	15.9	0	
Cars & Peds	593	29	0	42	469	4	310	271	0	1718
% Cars & Peds	97.9	100	0	80.8	94.9	100	92.8	94.1	0	95.1
Trucks & Buses	11	0	0	2	15	0	20	13	0	61
% Trucks & Buses	1.8	0	0	3.8	3	0	6	4.5	0	3.4
Bikes by Direction	2	0	0	8	10	0	4	4	0	28
% Bikes by Direction	0.3	0	0	15.4	2	0	1.2	1.4	0	1.5

Start Time	Turner Road From North				Green End Avenue From East				Green End Avenue From West				Int. Total
	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 06:00 AM to 08:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 07:45 AM													
07:45 AM	94	7	0	101	3	55	0	58	33	35	0	68	227
08:00 AM	61	3	0	64	2	55	0	57	35	26	0	61	182
08:15 AM	81	3	0	84	8	61	1	70	38	37	0	75	229
08:30 AM	68	3	0	71	6	52	0	58	46	26	0	72	201
Total Volume	304	16	0	320	19	223	1	243	152	124	0	276	839
% App. Total	95	5	0		7.8	91.8	0.4		55.1	44.9	0		
PHF	.809	.571	.000	.792	.594	.914	.250	.868	.826	.838	.000	.920	.916
Cars & Peds	296	16	0	312	17	211	1	229	142	119	0	261	802
% Cars & Peds	97.4	100	0	97.5	89.5	94.6	100	94.2	93.4	96.0	0	94.6	95.6
Trucks & Buses	7	0	0	7	0	10	0	10	10	4	0	14	31
% Trucks & Buses	2.3	0	0	2.2	0	4.5	0	4.1	6.6	3.2	0	5.1	3.7
Bikes by Direction	1	0	0	1	2	2	0	4	0	1	0	1	6
% Bikes by Direction	0.3	0	0	0.3	10.5	0.9	0	1.6	0	0.8	0	0.4	0.7

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

N: Turner Road
 E/W: Green End Avenue
 City, State: Middletown, RI
 Client: Bryant/T. Brayton

File Name : 05711F
 Site Code : 223032
 Start Date : 5/24/2023
 Page No : 1

Groups Printed- Cars & Peds

Start Time	Turner Road From North			Green End Avenue From East			Green End Avenue From West			Int. Total
	Right	Left	Peds	Right	Thru	Peds	Thru	Left	Peds	
06:00 AM	14	0	0	2	11	1	6	7	0	41
06:15 AM	8	0	0	1	14	1	7	9	0	40
06:30 AM	22	0	0	2	15	0	14	17	0	70
06:45 AM	35	2	0	4	23	0	29	13	0	106
Total	79	2	0	9	63	2	56	46	0	257
07:00 AM	34	1	0	2	41	0	19	18	0	115
07:15 AM	46	3	0	1	49	0	27	27	0	153
07:30 AM	57	0	0	7	55	1	26	29	0	175
07:45 AM	91	7	0	2	51	0	32	33	0	216
Total	228	11	0	12	196	1	104	107	0	659
08:00 AM	57	3	0	2	49	0	34	26	0	171
08:15 AM	80	3	0	8	59	1	33	36	0	220
08:30 AM	68	3	0	5	52	0	43	24	0	195
08:45 AM	81	7	0	6	50	0	40	32	0	216
Total	286	16	0	21	210	1	150	118	0	802
Grand Total	593	29	0	42	469	4	310	271	0	1718
Apprch %	95.3	4.7	0	8.2	91.1	0.8	53.4	46.6	0	
Total %	34.5	1.7	0	2.4	27.3	0.2	18	15.8	0	

Start Time	Turner Road From North				Green End Avenue From East				Green End Avenue From West				Int. Total
	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 06:00 AM to 08:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 07:45 AM													
07:45 AM	91	7	0	98	2	51	0	53	32	33	0	65	216
08:00 AM	57	3	0	60	2	49	0	51	34	26	0	60	171
08:15 AM	80	3	0	83	8	59	1	68	33	36	0	69	220
08:30 AM	68	3	0	71	5	52	0	57	43	24	0	67	195
Total Volume	296	16	0	312	17	211	1	229	142	119	0	261	802
% App. Total	94.9	5.1	0		7.4	92.1	0.4		54.4	45.6	0		
PHF	.813	.571	.000	.796	.531	.894	.250	.842	.826	.826	.000	.946	.911

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

N: Turner Road
 E/W: Green End Avenue
 City, State: Middletown, RI
 Client: Bryant/T. Brayton

File Name : 05711F
 Site Code : 223032
 Start Date : 5/24/2023
 Page No : 1

Groups Printed- Trucks & Buses

Start Time	Turner Road From North			Green End Avenue From East			Green End Avenue From West			Int. Total
	Right	Left	Peds	Right	Thru	Peds	Thru	Left	Peds	
06:00 AM	0	0	0	0	0	0	0	0	0	0
06:15 AM	0	0	0	0	0	0	2	0	0	2
06:30 AM	0	0	0	0	0	0	0	0	0	0
06:45 AM	1	0	0	0	2	0	1	0	0	4
Total	1	0	0	0	2	0	3	0	0	6
07:00 AM	0	0	0	0	2	0	0	0	0	2
07:15 AM	0	0	0	1	0	0	3	0	0	4
07:30 AM	2	0	0	1	0	0	3	2	0	8
07:45 AM	2	0	0	0	2	0	1	1	0	6
Total	4	0	0	2	4	0	7	3	0	20
08:00 AM	4	0	0	0	6	0	1	0	0	11
08:15 AM	1	0	0	0	2	0	5	1	0	9
08:30 AM	0	0	0	0	0	0	3	2	0	5
08:45 AM	1	0	0	0	1	0	1	7	0	10
Total	6	0	0	0	9	0	10	10	0	35
Grand Total	11	0	0	2	15	0	20	13	0	61
Apprch %	100	0	0	11.8	88.2	0	60.6	39.4	0	
Total %	18	0	0	3.3	24.6	0	32.8	21.3	0	

Start Time	Turner Road From North				Green End Avenue From East				Green End Avenue From West				Int. Total
	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	
08:00 AM	4	0	0	4	0	6	0	6	1	0	0	1	11
08:15 AM	1	0	0	1	0	2	0	2	5	1	0	6	9
08:30 AM	0	0	0	0	0	0	0	0	3	2	0	5	5
08:45 AM	1	0	0	1	0	1	0	1	1	7	0	8	10
Total Volume	6	0	0	6	0	9	0	9	10	10	0	20	35
% App. Total	100	0	0		0	100	0		50	50	0		
PHF	.375	.000	.000	.375	.000	.375	.000	.375	.500	.357	.000	.625	.795

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

N: Turner Road
 E/W: Green End Avenue
 City, State: Middletown, RI
 Client: Bryant/T. Brayton

File Name : 05711F
 Site Code : 223032
 Start Date : 5/24/2023
 Page No : 1

Groups Printed- Bikes by Direction

Start Time	Turner Road From North			Green End Avenue From East			Green End Avenue From West			Int. Total
	Right	Left	Peds	Right	Thru	Peds	Thru	Left	Peds	
06:00 AM	0	0	0	0	0	0	0	0	0	0
06:15 AM	0	0	0	0	0	0	0	0	0	0
06:30 AM	0	0	0	0	0	0	0	2	0	2
06:45 AM	0	0	0	0	0	0	1	0	0	1
Total	0	0	0	0	0	0	1	2	0	3
07:00 AM	1	0	0	0	0	0	3	0	0	4
07:15 AM	0	0	0	5	1	0	0	1	0	7
07:30 AM	0	0	0	1	7	0	0	0	0	8
07:45 AM	1	0	0	1	2	0	0	1	0	5
Total	2	0	0	7	10	0	3	2	0	24
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	1	0	0	0	0	0	1
08:45 AM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	1	0	0	0	0	0	1
Grand Total	2	0	0	8	10	0	4	4	0	28
Apprch %	100	0	0	44.4	55.6	0	50	50	0	
Total %	7.1	0	0	28.6	35.7	0	14.3	14.3	0	

Start Time	Turner Road From North				Green End Avenue From East				Green End Avenue From West				Int. Total
	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	
07:00 AM	1	0	0	1	0	0	0	0	3	0	0	3	4
07:15 AM	0	0	0	0	5	1	0	6	0	1	0	1	7
07:30 AM	0	0	0	0	1	7	0	8	0	0	0	0	8
07:45 AM	1	0	0	1	1	2	0	3	0	1	0	1	5
Total Volume	2	0	0	2	7	10	0	17	3	2	0	5	24
% App. Total	100	0	0		41.2	58.8	0		60	40	0		
PHF	.500	.000	.000	.500	.350	.357	.000	.531	.250	.500	.000	.417	.750

Peak Hour Analysis From 06:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 07:00 AM

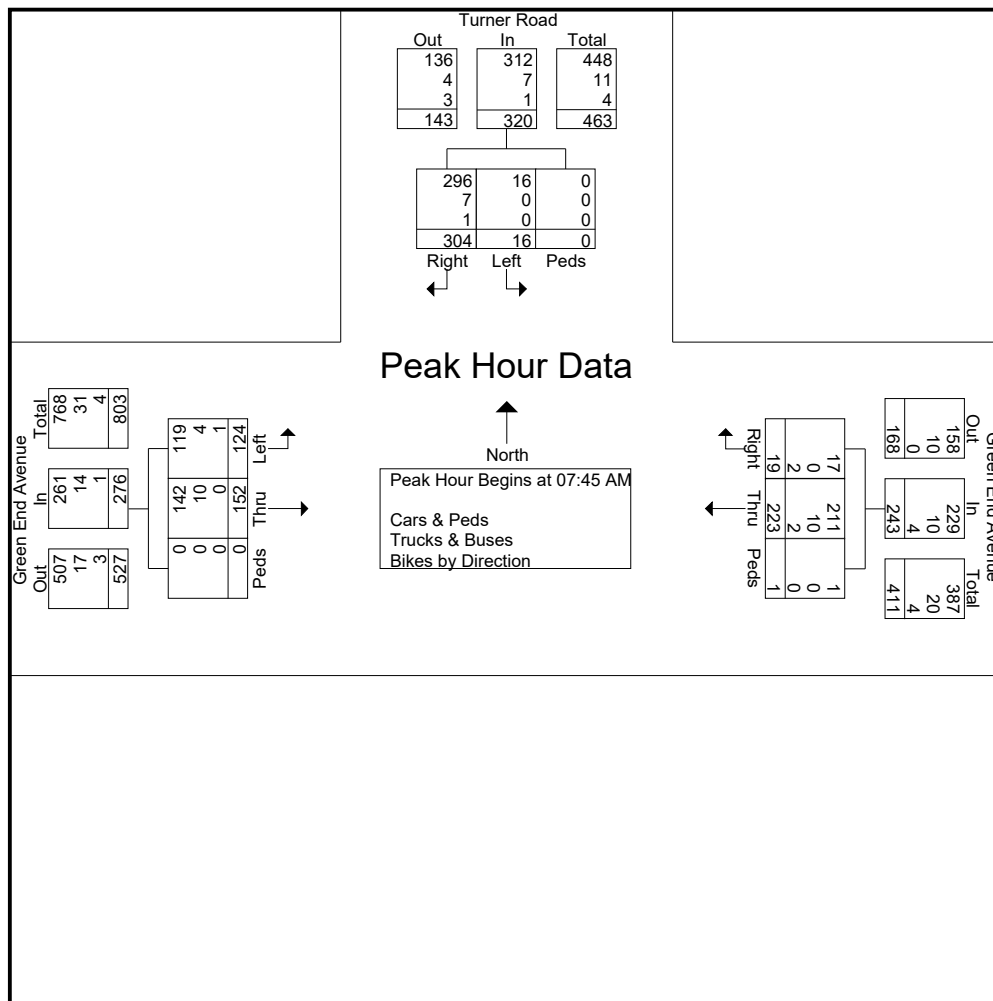
Transportation Data Corporation

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

N: Turner Road
E/W: Green End Avenue
City, State: Middletown, RI
Client: Bryant/T. Brayton

File Name : 05711F
Site Code : 223032
Start Date : 5/24/2023
Page No : 1

Start Time	Turner Road From North				Green End Avenue From East				Green End Avenue From West				Int. Total
	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 06:00 AM to 08:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 07:45 AM													
07:45 AM	94	7	0	101	3	55	0	58	33	35	0	68	227
08:00 AM	61	3	0	64	2	55	0	57	35	26	0	61	182
08:15 AM	81	3	0	84	8	61	1	70	38	37	0	75	229
08:30 AM	68	3	0	71	6	52	0	58	46	26	0	72	201
Total Volume	304	16	0	320	19	223	1	243	152	124	0	276	839
% App. Total	95	5	0		7.8	91.8	0.4		55.1	44.9	0		
PHF	.809	.571	.000	.792	.594	.914	.250	.868	.826	.838	.000	.920	.916
Cars & Peds	296	16	0	312	17	211	1	229	142	119	0	261	802
% Cars & Peds	97.4	100	0	97.5	89.5	94.6	100	94.2	93.4	96.0	0	94.6	95.6
Trucks & Buses	7	0	0	7	0	10	0	10	10	4	0	14	31
% Trucks & Buses	2.3	0	0	2.2	0	4.5	0	4.1	6.6	3.2	0	5.1	3.7
Bikes by Direction	1	0	0	1	2	2	0	4	0	1	0	1	6
% Bikes by Direction	0.3	0	0	0.3	10.5	0.9	0	1.6	0	0.8	0	0.4	0.7



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N: Turner Road
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 Client: Bryant/T. Brayton

File Name : 05711FF
 Site Code : 223032
 Start Date : 5/24/2023
 Page No : 1

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

Start Time	Turner Road From North			Green End Avenue From East			Green End Avenue From West			Int. Total
	Right	Left	Peds	Right	Thru	Peds	Thru	Left	Peds	
12:30 PM	30	2	0	5	63	1	48	28	0	177
12:45 PM	42	5	0	4	51	0	58	38	0	198
Total	72	7	0	9	114	1	106	66	0	375
01:00 PM	33	8	0	1	59	0	51	25	0	177
01:15 PM	34	11	0	4	54	0	50	40	0	193
01:30 PM	27	6	0	4	59	0	53	37	0	186
01:45 PM	49	6	0	6	43	0	62	39	0	205
Total	143	31	0	15	215	0	216	141	0	761
02:00 PM	40	5	0	10	50	0	65	49	0	219
02:15 PM	56	11	0	12	55	0	46	66	0	246
02:30 PM	57	7	0	9	49	0	48	54	0	224
02:45 PM	44	4	0	1	59	0	57	54	0	219
Total	197	27	0	32	213	0	216	223	0	908
03:00 PM	45	8	0	6	73	1	55	56	0	244
03:15 PM	24	7	0	6	52	2	58	62	0	211
Grand Total	481	80	0	68	667	4	651	548	0	2499
Apprch %	85.7	14.3	0	9.2	90.3	0.5	54.3	45.7	0	
Total %	19.2	3.2	0	2.7	26.7	0.2	26.1	21.9	0	
Cars & Peds	467	74	0	67	641	4	616	538	0	2407
% Cars & Peds	97.1	92.5	0	98.5	96.1	100	94.6	98.2	0	96.3
Trucks & Buses	11	0	0	0	22	0	24	10	0	67
% Trucks & Buses	2.3	0	0	0	3.3	0	3.7	1.8	0	2.7
Bikes by Direction	3	6	0	1	4	0	11	0	0	25
% Bikes by Direction	0.6	7.5	0	1.5	0.6	0	1.7	0	0	1

Start Time	Turner Road From North				Green End Avenue From East				Green End Avenue From West				Int. Total
	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 12:30 PM to 03:15 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 02:15 PM													
02:15 PM	56	11	0	67	12	55	0	67	46	66	0	112	246
02:30 PM	57	7	0	64	9	49	0	58	48	54	0	102	224
02:45 PM	44	4	0	48	1	59	0	60	57	54	0	111	219
03:00 PM	45	8	0	53	6	73	1	80	55	56	0	111	244
Total Volume	202	30	0	232	28	236	1	265	206	230	0	436	933
% App. Total	87.1	12.9	0		10.6	89.1	0.4		47.2	52.8	0		
PHF	.886	.682	.000	.866	.583	.808	.250	.828	.904	.871	.000	.973	.948
Cars & Peds	195	24	0	219	27	226	1	254	197	228	0	425	898
% Cars & Peds	96.5	80.0	0	94.4	96.4	95.8	100	95.8	95.6	99.1	0	97.5	96.2
Trucks & Buses	5	0	0	5	0	6	0	6	7	2	0	9	20
% Trucks & Buses	2.5	0	0	2.2	0	2.5	0	2.3	3.4	0.9	0	2.1	2.1
Bikes by Direction	2	6	0	8	1	4	0	5	2	0	0	2	15
% Bikes by Direction	1.0	20.0	0	3.4	3.6	1.7	0	1.9	1.0	0	0	0.5	1.6

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N: Turner Road
 E/W: Green End Avenue
 City, State: Middletown, RI
 Client: Bryant/T. Brayton

File Name : 05711FF
 Site Code : 223032
 Start Date : 5/24/2023
 Page No : 1

Groups Printed- Cars & Peds

Start Time	Turner Road From North			Green End Avenue From East			Green End Avenue From West			Int. Total
	Right	Left	Peds	Right	Thru	Peds	Thru	Left	Peds	
12:30 PM	29	2	0	5	60	1	46	27	0	170
12:45 PM	42	5	0	4	50	0	55	38	0	194
Total	71	7	0	9	110	1	101	65	0	364
01:00 PM	32	8	0	1	54	0	49	23	0	167
01:15 PM	34	11	0	4	52	0	47	38	0	186
01:30 PM	25	6	0	4	57	0	51	37	0	180
01:45 PM	48	6	0	6	41	0	58	39	0	198
Total	139	31	0	15	204	0	205	137	0	731
02:00 PM	40	5	0	10	50	0	58	46	0	209
02:15 PM	53	6	0	11	53	0	43	65	0	231
02:30 PM	55	7	0	9	45	0	48	53	0	217
02:45 PM	43	4	0	1	56	0	55	54	0	213
Total	191	22	0	31	204	0	204	218	0	870
03:00 PM	44	7	0	6	72	1	51	56	0	237
03:15 PM	22	7	0	6	51	2	55	62	0	205
Grand Total	467	74	0	67	641	4	616	538	0	2407
Apprch %	86.3	13.7	0	9.4	90	0.6	53.4	46.6	0	
Total %	19.4	3.1	0	2.8	26.6	0.2	25.6	22.4	0	

Start Time	Turner Road From North				Green End Avenue From East				Green End Avenue From West				Int. Total
	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	
02:15 PM	53	6	0	59	11	53	0	64	43	65	0	108	231
02:30 PM	55	7	0	62	9	45	0	54	48	53	0	101	217
02:45 PM	43	4	0	47	1	56	0	57	55	54	0	109	213
03:00 PM	44	7	0	51	6	72	1	79	51	56	0	107	237
Total Volume	195	24	0	219	27	226	1	254	197	228	0	425	898
% App. Total	89	11	0		10.6	89	0.4		46.4	53.6	0		
PHF	.886	.857	.000	.883	.614	.785	.250	.804	.895	.877	.000	.975	.947

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 Client: Bryant/T. Brayton

File Name : 05711FF
 Site Code : 223032
 Start Date : 5/24/2023
 Page No : 1

Groups Printed- Trucks & Buses

Start Time	Turner Road From North			Green End Avenue From East			Green End Avenue From West			Int. Total
	Right	Left	Peds	Right	Thru	Peds	Thru	Left	Peds	
12:30 PM	1	0	0	0	3	0	2	1	0	7
12:45 PM	0	0	0	0	1	0	3	0	0	4
Total	1	0	0	0	4	0	5	1	0	11
01:00 PM	1	0	0	0	5	0	2	2	0	10
01:15 PM	0	0	0	0	2	0	3	2	0	7
01:30 PM	2	0	0	0	2	0	1	0	0	5
01:45 PM	1	0	0	0	2	0	4	0	0	7
Total	4	0	0	0	11	0	10	4	0	29
02:00 PM	0	0	0	0	0	0	1	3	0	4
02:15 PM	2	0	0	0	1	0	3	1	0	7
02:30 PM	2	0	0	0	1	0	0	1	0	4
02:45 PM	1	0	0	0	3	0	2	0	0	6
Total	5	0	0	0	5	0	6	5	0	21
03:00 PM	0	0	0	0	1	0	2	0	0	3
03:15 PM	1	0	0	0	1	0	1	0	0	3
Grand Total	11	0	0	0	22	0	24	10	0	67
Apprch %	100	0	0	0	100	0	70.6	29.4	0	
Total %	16.4	0	0	0	32.8	0	35.8	14.9	0	

Start Time	Turner Road From North				Green End Avenue From East				Green End Avenue From West				Int. Total
	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	
01:00 PM	1	0	0	1	0	5	0	5	2	2	0	4	10
01:15 PM	0	0	0	0	0	2	0	2	3	2	0	5	7
01:30 PM	2	0	0	2	0	2	0	2	1	0	0	1	5
01:45 PM	1	0	0	1	0	2	0	2	4	0	0	4	7
Total Volume	4	0	0	4	0	11	0	11	10	4	0	14	29
% App. Total	100	0	0		0	100	0		71.4	28.6	0		
PHF	.500	.000	.000	.500	.000	.550	.000	.550	.625	.500	.000	.700	.725

Peak Hour Analysis From 12:30 PM to 03:15 PM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 01:00 PM

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 Client: Bryant/T. Brayton

File Name : 05711FF
 Site Code : 223032
 Start Date : 5/24/2023
 Page No : 1

Groups Printed- Bikes by Direction

Start Time	Turner Road From North			Green End Avenue From East			Green End Avenue From West			Int. Total
	Right	Left	Peds	Right	Thru	Peds	Thru	Left	Peds	
12:30 PM	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
01:00 PM	0	0	0	0	0	0	0	0	0	0
01:15 PM	0	0	0	0	0	0	0	0	0	0
01:30 PM	0	0	0	0	0	0	1	0	0	1
01:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	1	0	0	1
02:00 PM	0	0	0	0	0	0	6	0	0	6
02:15 PM	1	5	0	1	1	0	0	0	0	8
02:30 PM	0	0	0	0	3	0	0	0	0	3
02:45 PM	0	0	0	0	0	0	0	0	0	0
Total	1	5	0	1	4	0	6	0	0	17
03:00 PM	1	1	0	0	0	0	2	0	0	4
03:15 PM	1	0	0	0	0	0	2	0	0	3
Grand Total	3	6	0	1	4	0	11	0	0	25
Apprch %	33.3	66.7	0	20	80	0	100	0	0	
Total %	12	24	0	4	16	0	44	0	0	

Start Time	Turner Road From North				Green End Avenue From East				Green End Avenue From West				Int. Total
	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	
01:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00 PM	0	0	0	0	0	0	0	0	6	0	0	6	6
02:15 PM	1	5	0	6	1	1	0	2	0	0	0	0	8
02:30 PM	0	0	0	0	0	3	0	3	0	0	0	0	3
Total Volume	1	5	0	6	1	4	0	5	6	0	0	6	17
% App. Total	16.7	83.3	0		20	80	0		100	0	0		
PHF	.250	.250	.000	.250	.250	.333	.000	.417	.250	.000	.000	.250	.531

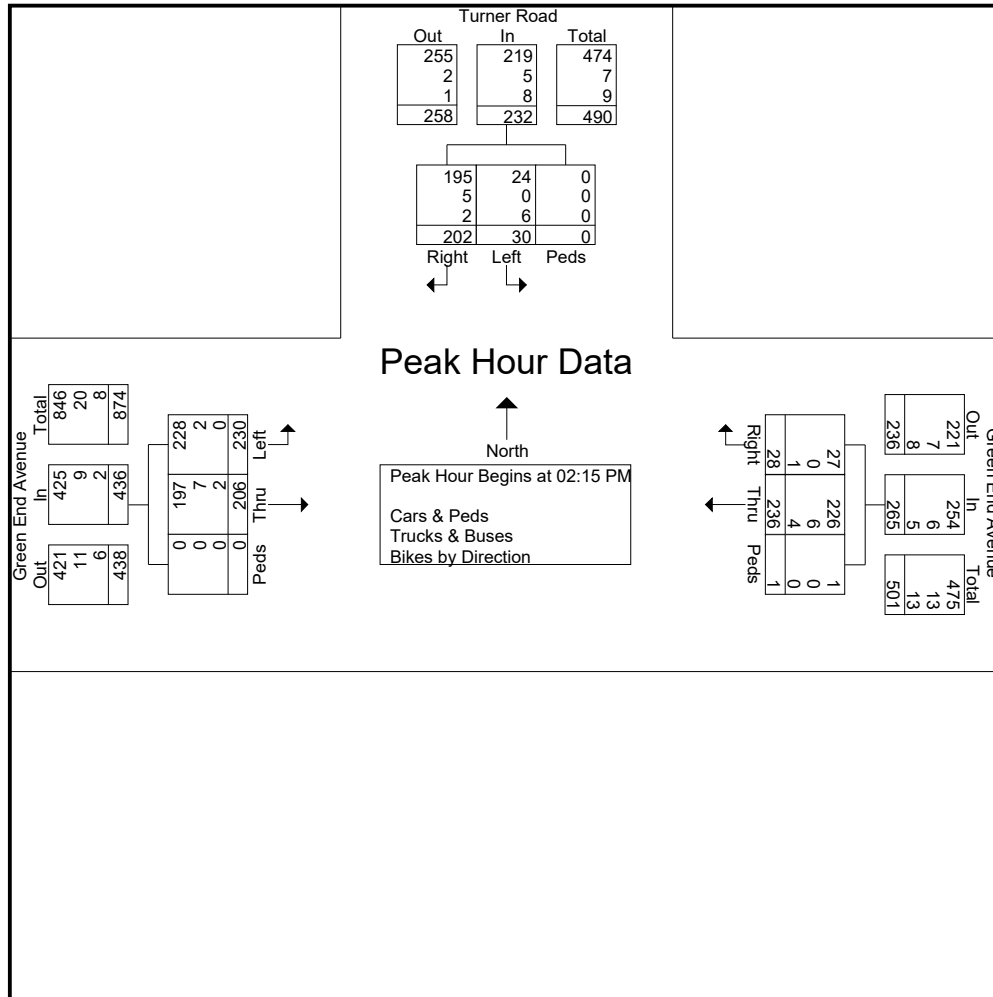
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Client: Bryant/T. Brayton

File Name : 05711FF
Site Code : 223032
Start Date : 5/24/2023
Page No : 1

Start Time	Turner Road From North				Green End Avenue From East				Green End Avenue From West				Int. Total
	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 12:30 PM to 03:15 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 02:15 PM													
02:15 PM	56	11	0	67	12	55	0	67	46	66	0	112	246
02:30 PM	57	7	0	64	9	49	0	58	48	54	0	102	224
02:45 PM	44	4	0	48	1	59	0	60	57	54	0	111	219
03:00 PM	45	8	0	53	6	73	1	80	55	56	0	111	244
Total Volume	202	30	0	232	28	236	1	265	206	230	0	436	933
% App. Total	87.1	12.9	0		10.6	89.1	0.4		47.2	52.8	0		
PHF	.886	.682	.000	.866	.583	.808	.250	.828	.904	.871	.000	.973	.948
Cars & Peds	195	24	0	219	27	226	1	254	197	228	0	425	898
% Cars & Peds	96.5	80.0	0	94.4	96.4	95.8	100	95.8	95.6	99.1	0	97.5	96.2
Trucks & Buses	5	0	0	5	0	6	0	6	7	2	0	9	20
% Trucks & Buses	2.5	0	0	2.2	0	2.5	0	2.3	3.4	0.9	0	2.1	2.1
Bikes by Direction	2	6	0	8	1	4	0	5	2	0	0	2	15
% Bikes by Direction	1.0	20.0	0	3.4	3.6	1.7	0	1.9	1.0	0	0	0.5	1.6



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Mario Perone, mperone1@verizon.net

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

N/S: Valley Road (Route 214)
 E/W: High School Drive/Police Drive
 City, State: Middletown, RI
 Client: Bryant/T. Brayton

File Name : 05711G
 Site Code : 223032
 Start Date : 5/23/2023
 Page No : 1

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

Start Time	Valley Road (Route 214) From North				Middletown High School Driveway From East				Valley Road (Route 214) From South				Police Department Driveway From West				Int. Total
	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	
06:00 AM	0	32	0	0	0	0	0	0	0	18	0	0	1	0	0	0	51
06:15 AM	0	43	1	0	0	0	0	0	5	34	0	0	0	0	0	1	84
06:30 AM	0	72	5	0	0	0	0	0	3	48	0	0	2	0	1	1	132
06:45 AM	0	103	14	0	1	0	1	0	10	54	0	0	1	0	1	0	185
Total	0	250	20	0	1	0	1	0	18	154	0	0	4	0	2	2	452
07:00 AM	0	95	49	0	12	0	6	1	37	76	0	0	0	0	0	0	276
07:15 AM	0	85	100	1	62	0	14	0	55	90	0	0	1	0	4	0	412
07:30 AM	0	120	20	0	11	0	9	0	6	90	0	2	1	1	1	4	265
07:45 AM	0	126	5	0	2	0	3	0	8	101	0	0	1	0	0	0	246
Total	0	426	174	1	87	0	32	1	106	357	0	2	3	1	5	4	1199
08:00 AM	0	134	10	0	4	0	4	0	4	103	0	0	2	0	4	0	265
08:15 AM	0	151	6	0	2	0	0	0	1	106	0	0	0	0	0	1	267
08:30 AM	0	144	9	0	1	0	1	1	2	107	0	0	0	0	3	0	268
08:45 AM	0	166	2	0	7	0	6	0	6	145	0	0	0	0	1	0	333
Total	0	595	27	0	14	0	11	1	13	461	0	0	2	0	8	1	1133
Grand Total	0	1271	221	1	102	0	44	2	137	972	0	2	9	1	15	7	2784
Apprch %	0	85.1	14.8	0.1	68.9	0	29.7	1.4	12.3	87.5	0	0.2	28.1	3.1	46.9	21.9	
Total %	0	45.7	7.9	0	3.7	0	1.6	0.1	4.9	34.9	0	0.1	0.3	0	0.5	0.3	
Cars & Peds	0	1237	212	1	93	0	40	2	129	946	0	2	8	1	15	7	2693
% Cars & Peds	0	97.3	95.9	100	91.2	0	90.9	100	94.2	97.3	0	100	88.9	100	100	100	96.7
Trucks & Buses	0	33	8	0	9	0	4	0	5	25	0	0	1	0	0	0	85
% Trucks & Buses	0	2.6	3.6	0	8.8	0	9.1	0	3.6	2.6	0	0	11.1	0	0	0	3.1
Bikes by Direction	0	1	1	0	0	0	0	0	3	1	0	0	0	0	0	0	6
% Bikes by Direction	0	0.1	0.5	0	0	0	0	0	2.2	0.1	0	0	0	0	0	0	0.2

Start Time	Valley Road (Route 214) From North					Middletown High School Driveway From East					Valley Road (Route 214) From South					Police Department Driveway 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 06:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:00 AM																					
07:00 AM	0	95	49	0	144	12	0	6	1	19	37	76	0	0	113	0	0	0	0	0	276
07:15 AM	0	85	100	1	186	62	0	14	0	76	55	90	0	0	145	1	0	4	0	5	412
07:30 AM	0	120	20	0	140	11	0	9	0	20	6	90	0	2	98	1	1	1	4	7	265
07:45 AM	0	126	5	0	131	2	0	3	0	5	8	101	0	0	109	1	0	0	0	1	246
Total Volume	0	426	174	1	601	87	0	32	1	120	106	357	0	2	465	3	1	5	4	13	1199
% App. Total	0	70.9	29	0.2		72.5	0	26.7	0.8		22.8	76.8	0	0.4		23.1	7.7	38.5	30.8		
PHF	.000	.845	.435	.250	.808	.351	.000	.571	.250	.395	.482	.884	.000	.250	.802	.750	.250	.313	.250	.464	.728
Cars & Peds	0	412	166	1	579	79	0	28	1	108	100	345	0	2	447	3	1	5	4	13	1147
% Cars & Peds	0	96.7	95.4	100	96.3	90.8	0	87.5	100	90.0	94.3	96.6	0	100	96.1	100	100	100	100	100	95.7
Trucks & Buses	0	13	7	0	20	8	0	4	0	12	3	11	0	0	14	0	0	0	0	0	46
% Trucks & Buses	0	3.1	4.0	0	3.3	9.2	0	12.5	0	10.0	2.8	3.1	0	0	3.0	0	0	0	0	0	3.8
Bikes by Direction	0	1	1	0	2	0	0	0	0	0	3	1	0	0	4	0	0	0	0	0	6
% Bikes by Direction	0	0.2	0.6	0	0.3	0	0	0	0	0	2.8	0.3	0	0	0.9	0	0	0	0	0	0.5

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 E/W: High School Drive/Police Drive
 City, State: Middletown, RI
 Client: Bryant/T. Brayton

File Name : 05711G
 Site Code : 223032
 Start Date : 5/23/2023
 Page No : 1

Groups Printed- Cars & Peds

Start Time	Valley Road (Route 214) From North				Middletown High School Driveway From East				Valley Road (Route 214) From South				Police Department Driveway From West				Int. Total
	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	
06:00 AM	0	32	0	0	0	0	0	0	0	17	0	0	1	0	0	0	50
06:15 AM	0	42	1	0	0	0	0	0	5	34	0	0	0	0	0	1	83
06:30 AM	0	68	5	0	0	0	0	0	3	47	0	0	2	0	1	1	127
06:45 AM	0	101	13	0	1	0	1	0	9	53	0	0	1	0	1	0	180
Total	0	243	19	0	1	0	1	0	17	151	0	0	4	0	2	2	440
07:00 AM	0	92	42	0	9	0	4	1	34	74	0	0	0	0	0	0	256
07:15 AM	0	80	100	1	57	0	12	0	54	87	0	0	1	0	4	0	396
07:30 AM	0	117	19	0	11	0	9	0	4	84	0	2	1	1	1	4	253
07:45 AM	0	123	5	0	2	0	3	0	8	100	0	0	1	0	0	0	242
Total	0	412	166	1	79	0	28	1	100	345	0	2	3	1	5	4	1147
08:00 AM	0	129	10	0	4	0	4	0	4	101	0	0	1	0	4	0	257
08:15 AM	0	148	6	0	2	0	0	0	1	103	0	0	0	0	0	1	261
08:30 AM	0	142	9	0	1	0	1	1	2	105	0	0	0	0	3	0	264
08:45 AM	0	163	2	0	6	0	6	0	5	141	0	0	0	0	1	0	324
Total	0	582	27	0	13	0	11	1	12	450	0	0	1	0	8	1	1106
Grand Total	0	1237	212	1	93	0	40	2	129	946	0	2	8	1	15	7	2693
Apprch %	0	85.3	14.6	0.1	68.9	0	29.6	1.5	12	87.8	0	0.2	25.8	3.2	48.4	22.6	
Total %	0	45.9	7.9	0	3.5	0	1.5	0.1	4.8	35.1	0	0.1	0.3	0	0.6	0.3	

Start Time	Valley Road (Route 214) From North					Middletown High School Driveway From East					Valley Road (Route 214) From South					Police Department Driveway 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 06:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:15 AM																					
07:15 AM	0	80	100	1	181	57	0	12	0	69	54	87	0	0	141	1	0	4	0	5	396
07:30 AM	0	117	19	0	136	11	0	9	0	20	4	84	0	2	90	1	1	1	4	7	253
07:45 AM	0	123	5	0	128	2	0	3	0	5	8	100	0	0	108	1	0	0	0	1	242
08:00 AM	0	129	10	0	139	4	0	4	0	8	4	101	0	0	105	1	0	4	0	5	257
Total Volume	0	449	134	1	584	74	0	28	0	102	70	372	0	2	444	4	1	9	4	18	1148
% App. Total	0	76.9	22.9	0.2		72.5	0	27.5	0		15.8	83.8	0	0.5		22.2	5.6	50	22.2		
PHF	.000	.870	.335	.250	.807	.325	.000	.583	.000	.370	.324	.921	.000	.250	.787	1.00	.250	.563	.250	.643	.725

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

N/S: Valley Road (Route 214)
 E/W: High School Drive/Police Drive
 City, State: Middletown, RI
 Client: Bryant/T. Brayton

File Name : 05711G
 Site Code : 223032
 Start Date : 5/23/2023
 Page No : 1

Groups Printed- Trucks & Buses

Start Time	Valley Road (Route 214) From North				Middletown High School Driveway From East				Valley Road (Route 214) From South				Police Department Driveway From West				Int. Total
	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	
06:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
06:15 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
06:30 AM	0	4	0	0	0	0	0	0	0	1	0	0	0	0	0	0	5
06:45 AM	0	2	1	0	0	0	0	0	1	1	0	0	0	0	0	0	5
Total	0	7	1	0	0	0	0	0	1	3	0	0	0	0	0	0	12
07:00 AM	0	3	7	0	3	0	2	0	3	2	0	0	0	0	0	0	20
07:15 AM	0	5	0	0	5	0	2	0	0	3	0	0	0	0	0	0	15
07:30 AM	0	2	0	0	0	0	0	0	0	5	0	0	0	0	0	0	7
07:45 AM	0	3	0	0	0	0	0	0	0	1	0	0	0	0	0	0	4
Total	0	13	7	0	8	0	4	0	3	11	0	0	0	0	0	0	46
08:00 AM	0	5	0	0	0	0	0	0	0	2	0	0	1	0	0	0	8
08:15 AM	0	3	0	0	0	0	0	0	0	3	0	0	0	0	0	0	6
08:30 AM	0	2	0	0	0	0	0	0	0	2	0	0	0	0	0	0	4
08:45 AM	0	3	0	0	1	0	0	0	1	4	0	0	0	0	0	0	9
Total	0	13	0	0	1	0	0	0	1	11	0	0	1	0	0	0	27
Grand Total	0	33	8	0	9	0	4	0	5	25	0	0	1	0	0	0	85
Apprch %	0	80.5	19.5	0	69.2	0	30.8	0	16.7	83.3	0	0	100	0	0	0	
Total %	0	38.8	9.4	0	10.6	0	4.7	0	5.9	29.4	0	0	1.2	0	0	0	

Start Time	Valley Road (Route 214) From North					Middletown High School Driveway From East					Valley Road (Route 214) From South					Police Department Driveway 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 06:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 06:45 AM																					
06:45 AM	0	2	1	0	3	0	0	0	0	0	1	1	0	0	2	0	0	0	0	0	5
07:00 AM	0	3	7	0	10	3	0	2	0	5	3	2	0	0	5	0	0	0	0	0	20
07:15 AM	0	5	0	0	5	5	0	2	0	7	0	3	0	0	3	0	0	0	0	0	15
07:30 AM	0	2	0	0	2	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	7
Total Volume	0	12	8	0	20	8	0	4	0	12	4	11	0	0	15	0	0	0	0	0	47
% App. Total	0	60	40	0		66.7	0	33.3	0		26.7	73.3	0	0		0	0	0	0		
PHF	.000	.600	.286	.000	.500	.400	.000	.500	.000	.429	.333	.550	.000	.000	.750	.000	.000	.000	.000	.000	.588

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

N/S: Valley Road (Route 214)
 E/W: High School Drive/Police Drive
 City, State: Middletown, RI
 Client: Bryant/T. Brayton

File Name : 05711G
 Site Code : 223032
 Start Date : 5/23/2023
 Page No : 1

Groups Printed- Bikes by Direction

Start Time	Valley Road (Route 214) From North				Middletown High School Driveway From East				Valley Road (Route 214) From South				Police Department Driveway From West				Int. Total
	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	
06:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:45 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
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	1	0	0	0	0	0	0	0	1
07:30 AM	0	1	1	0	0	0	0	0	2	1	0	0	0	0	0	0	5
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	1	1	0	0	0	0	0	3	1	0	0	0	0	0	0	6
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	1	1	0	0	0	0	0	3	1	0	0	0	0	0	0	6
Apprch %	0	50	50	0	0	0	0	0	75	25	0	0	0	0	0	0	
Total %	0	16.7	16.7	0	0	0	0	0	50	16.7	0	0	0	0	0	0	

Start Time	Valley Road (Route 214) From North					Middletown High School Driveway From East					Valley Road (Route 214) From South					Police Department Driveway 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	
06:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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	1	0	0	0	1	0	0	0	0	0	1
07:30 AM	0	1	1	0	2	0	0	0	0	0	2	1	0	0	3	0	0	0	0	0	5
Total Volume	0	1	1	0	2	0	0	0	0	0	3	1	0	0	4	0	0	0	0	0	6
% App. Total	0	50	50	0		0	0	0	0		75	25	0	0		0	0	0	0		
PHF	.000	.250	.250	.000	.250	.000	.000	.000	.000	.000	.375	.250	.000	.000	.333	.000	.000	.000	.000	.000	.300

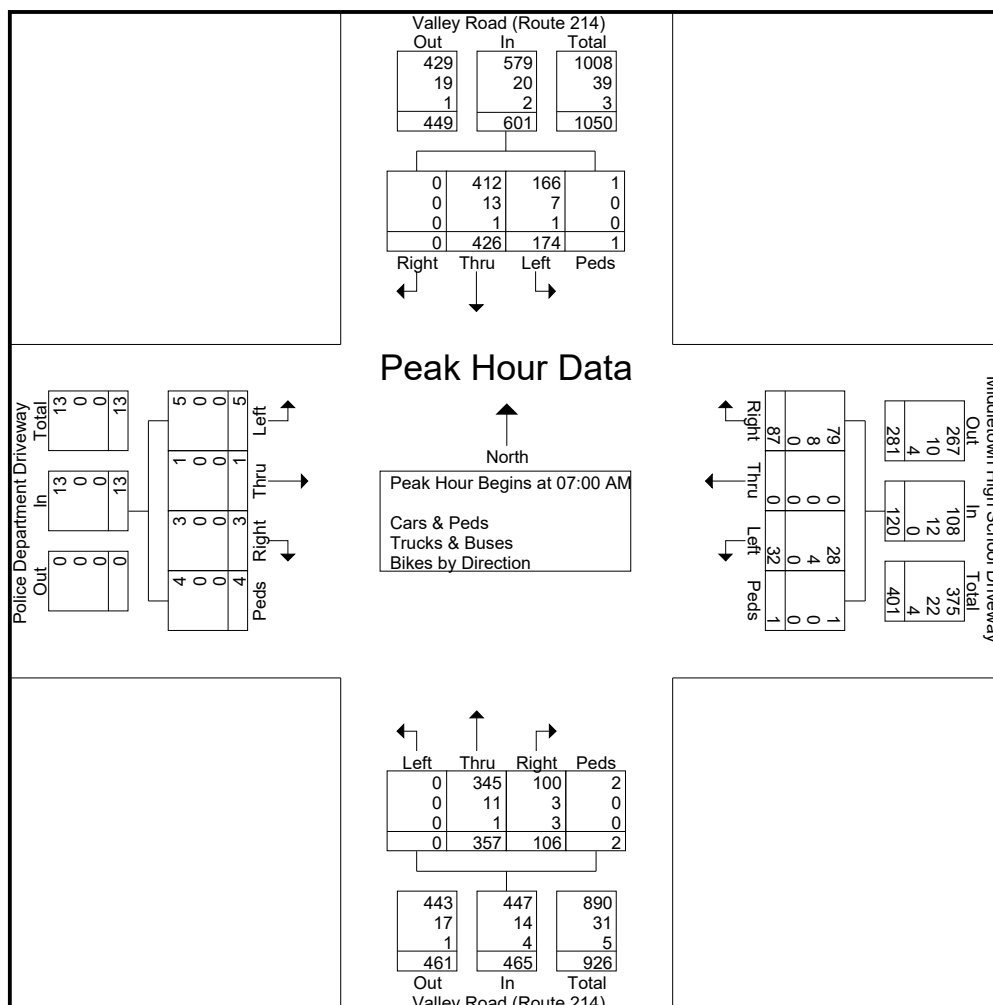
Transportation Data Corporation

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

N/S: Valley Road (Route 214)
E/W: High School Drive/Police Drive
City, State: Middletown, RI
Client: Bryant/T. Brayton

File Name : 05711G
Site Code : 223032
Start Date : 5/23/2023
Page No : 1

Start Time	Valley Road (Route 214) From North					Middletown High School Driveway From East					Valley Road (Route 214) From South					Police Department Driveway 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 06:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:00 AM																					
07:00 AM	0	95	49	0	144	12	0	6	1	19	37	76	0	0	113	0	0	0	0	0	276
07:15 AM	0	85	100	1	186	62	0	14	0	76	55	90	0	0	145	1	0	4	0	5	412
07:30 AM	0	120	20	0	140	11	0	9	0	20	6	90	0	2	98	1	1	1	4	7	265
07:45 AM	0	126	5	0	131	2	0	3	0	5	8	101	0	0	109	1	0	0	0	1	246
Total Volume	0	426	174	1	601	87	0	32	1	120	106	357	0	2	465	3	1	5	4	13	1199
% App. Total	0	70.9	29	0.2		72.5	0	26.7	0.8		22.8	76.8	0	0.4		23.1	7.7	38.5	30.8		
PHF	.000	.845	.435	.250	.808	.351	.000	.571	.250	.395	.482	.884	.000	.250	.802	.750	.250	.313	.250	.464	.728
Cars & Peds	0	412	166	1	579	79	0	28	1	108	100	345	0	2	447	3	1	5	4	13	1147
% Cars & Peds	0	96.7	95.4	100	96.3	90.8	0	87.5	100	90.0	94.3	96.6	0	100	96.1	100	100	100	100	100	95.7
Trucks & Buses	0	13	7	0	20	8	0	4	0	12	3	11	0	0	14	0	0	0	0	0	46
% Trucks & Buses	0	3.1	4.0	0	3.3	9.2	0	12.5	0	10.0	2.8	3.1	0	0	3.0	0	0	0	0	0	3.8
Bikes by Direction	0	1	1	0	2	0	0	0	0	0	3	1	0	0	4	0	0	0	0	0	6
% Bikes by Direction	0	0.2	0.6	0	0.3	0	0	0	0	0	2.8	0.3	0	0	0.9	0	0	0	0	0	0.5



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

N/S: Valley Road (Route 214)
 E/W: High School Drive/Police Drive
 City, State: Middletown, RI
 Client: Bryant/T. Brayton

File Name : 05711GG
 Site Code : 223032
 Start Date : 5/23/2023
 Page No : 1

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

Start Time	Valley Road (Route 214) From North				Middletown High School Driveway From East				Valley Road (Route 214) From South				Police Department Driveway From West				Int. Total
	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	
12:30 PM	0	154	3	0	7	0	1	0	4	135	0	0	2	0	4	1	311
12:45 PM	0	143	0	0	1	0	2	0	1	172	0	0	0	0	2	0	321
Total	0	297	3	0	8	0	3	0	5	307	0	0	2	0	6	1	632
01:00 PM	0	136	3	0	3	0	0	0	3	132	0	0	0	0	1	0	278
01:15 PM	0	131	13	0	9	0	2	1	5	136	0	0	1	0	4	0	302
01:30 PM	0	117	22	0	48	0	20	0	10	145	0	0	4	0	5	0	371
01:45 PM	0	171	10	1	68	0	34	0	3	167	0	1	1	0	1	1	458
Total	0	555	48	1	128	0	56	1	21	580	0	1	6	0	11	1	1409
02:00 PM	0	128	3	0	32	0	20	0	6	153	0	0	0	0	1	0	343
02:15 PM	0	141	7	0	17	0	3	1	4	131	0	0	2	0	1	0	307
02:30 PM	0	128	4	0	9	0	9	0	1	144	0	0	2	0	1	0	298
02:45 PM	0	155	4	0	17	0	5	0	3	132	0	0	2	0	3	0	321
Total	0	552	18	0	75	0	37	1	14	560	0	0	6	0	6	0	1269
03:00 PM	0	134	4	0	7	0	3	0	2	161	0	0	3	0	4	0	318
03:15 PM	0	142	1	0	6	0	3	1	1	162	0	0	0	0	3	0	319
Grand Total	0	1680	74	1	224	0	102	3	43	1770	0	1	17	0	30	2	3947
Apprch %	0	95.7	4.2	0.1	68.1	0	31	0.9	2.4	97.6	0	0.1	34.7	0	61.2	4.1	
Total %	0	42.6	1.9	0	5.7	0	2.6	0.1	1.1	44.8	0	0	0.4	0	0.8	0.1	
Cars & Peds	0	1649	62	1	213	0	97	3	42	1725	0	1	15	0	30	2	3840
% Cars & Peds	0	98.2	83.8	100	95.1	0	95.1	100	97.7	97.5	0	100	88.2	0	100	100	97.3
Trucks & Buses	0	26	12	0	10	0	3	0	1	44	0	0	2	0	0	0	98
% Trucks & Buses	0	1.5	16.2	0	4.5	0	2.9	0	2.3	2.5	0	0	11.8	0	0	0	2.5
Bikes by Direction	0	5	0	0	1	0	2	0	0	1	0	0	0	0	0	0	9
% Bikes by Direction	0	0.3	0	0	0.4	0	2	0	0	0.1	0	0	0	0	0	0	0.2

Start Time	Valley Road (Route 214) From North					Middletown High School Driveway From East					Valley Road (Route 214) From South					Police Department Driveway 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 12:30 PM to 03:15 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 01:30 PM																					
01:30 PM	0	117	22	0	139	48	0	20	0	68	10	145	0	0	155	4	0	5	0	9	371
01:45 PM	0	171	10	1	182	68	0	34	0	102	3	167	0	1	171	1	0	1	1	3	458
02:00 PM	0	128	3	0	131	32	0	20	0	52	6	153	0	0	159	0	0	1	0	1	343
02:15 PM	0	141	7	0	148	17	0	3	1	21	4	131	0	0	135	2	0	1	0	3	307
Total Volume	0	557	42	1	600	165	0	77	1	243	23	596	0	1	620	7	0	8	1	16	1479
% App. Total	0	92.8	7	0.2	67.9	0	31.7	0.4	3.7	96.1	0	0.2	43.8	0	50	6.2					
PHF	.000	.814	.477	.250	.824	.607	.000	.566	.250	.596	.575	.892	.000	.250	.906	.438	.000	.400	.250	.444	.807
Cars & Peds	0	545	35	1	581	155	0	74	1	230	23	580	0	1	604	7	0	8	1	16	1431
% Cars & Peds	0	97.8	83.3	100	96.8	93.9	0	96.1	100	94.7	100	97.3	0	100	97.4	100	0	100	100	100	96.8
Trucks & Buses	0	12	7	0	19	9	0	2	0	11	0	16	0	0	16	0	0	0	0	0	46
% Trucks & Buses	0	2.2	16.7	0	3.2	5.5	0	2.6	0	4.5	0	2.7	0	0	2.6	0	0	0	0	0	3.1
Bikes by Direction	0	0	0	0	0	1	0	1	0	2	0	0	0	0	0	0	0	0	0	0	2
% Bikes by Direction	0	0	0	0	0	0.6	0	1.3	0	0.8	0	0	0	0	0	0	0	0	0	0	0.1

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N/S: Valley Road (Route 214)
 E/W: High School Drive/Police Drive
 City, State: Middletown, RI
 Client: Bryant/T. Brayton

File Name : 05711GG
 Site Code : 223032
 Start Date : 5/23/2023
 Page No : 1

Groups Printed- Cars & Peds

Start Time	Valley Road (Route 214) From North				Middletown High School Driveway From East				Valley Road (Route 214) From South				Police Department Driveway From West				Int. Total
	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	
12:30 PM	0	151	3	0	7	0	1	0	4	134	0	0	2	0	4	1	307
12:45 PM	0	142	0	0	1	0	2	0	0	167	0	0	0	0	2	0	314
Total	0	293	3	0	8	0	3	0	4	301	0	0	2	0	6	1	621
01:00 PM	0	134	3	0	3	0	0	0	3	130	0	0	0	0	1	0	274
01:15 PM	0	123	9	0	9	0	2	1	5	131	0	0	1	0	4	0	285
01:30 PM	0	114	15	0	47	0	20	0	10	139	0	0	4	0	5	0	354
01:45 PM	0	167	10	1	60	0	32	0	3	164	0	1	1	0	1	1	441
Total	0	538	37	1	119	0	54	1	21	564	0	1	6	0	11	1	1354
02:00 PM	0	127	3	0	31	0	20	0	6	153	0	0	0	0	1	0	341
02:15 PM	0	137	7	0	17	0	2	1	4	124	0	0	2	0	1	0	295
02:30 PM	0	127	4	0	9	0	9	0	1	139	0	0	1	0	1	0	291
02:45 PM	0	154	3	0	16	0	4	0	3	126	0	0	2	0	3	0	311
Total	0	545	17	0	73	0	35	1	14	542	0	0	5	0	6	0	1238
03:00 PM	0	133	4	0	7	0	2	0	2	159	0	0	2	0	4	0	313
03:15 PM	0	140	1	0	6	0	3	1	1	159	0	0	0	0	3	0	314
Grand Total	0	1649	62	1	213	0	97	3	42	1725	0	1	15	0	30	2	3840
Apprch %	0	96.3	3.6	0.1	68.1	0	31	1	2.4	97.6	0	0.1	31.9	0	63.8	4.3	
Total %	0	42.9	1.6	0	5.5	0	2.5	0.1	1.1	44.9	0	0	0.4	0	0.8	0.1	

Start Time	Valley Road (Route 214) From North					Middletown High School Driveway From East					Valley Road (Route 214) From South					Police Department Driveway 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 12:30 PM to 03:15 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 01:30 PM																					
01:30 PM	0	114	15	0	129	47	0	20	0	67	10	139	0	0	149	4	0	5	0	9	354
01:45 PM	0	167	10	1	178	60	0	32	0	92	3	164	0	1	168	1	0	1	1	3	441
02:00 PM	0	127	3	0	130	31	0	20	0	51	6	153	0	0	159	0	0	1	0	1	341
02:15 PM	0	137	7	0	144	17	0	2	1	20	4	124	0	0	128	2	0	1	0	3	295
Total Volume	0	545	35	1	581	155	0	74	1	230	23	580	0	1	604	7	0	8	1	16	1431
% App. Total	0	93.8	6	0.2		67.4	0	32.2	0.4		3.8	96	0	0.2		43.8	0	50	6.2		
PHF	.000	.816	.583	.250	.816	.646	.000	.578	.250	.625	.575	.884	.000	.250	.899	.438	.000	.400	.250	.444	.811

Transportation Data Corporation
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 tel (781) 587-0086 cell (781) 439-4999

N/S: Valley Road (Route 214)
 E/W: High School Drive/Police Drive
 City, State: Middletown, RI
 Client: Bryant/T. Brayton

File Name : 05711GG
 Site Code : 223032
 Start Date : 5/23/2023
 Page No : 1

Groups Printed- Trucks & Buses

Start Time	Valley Road (Route 214) From North				Middletown High School Driveway From East				Valley Road (Route 214) From South				Police Department Driveway From West				Int. Total	
	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds		
12:30 PM	0	3	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	4
12:45 PM	0	1	0	0	0	0	0	0	1	5	0	0	0	0	0	0	0	7
Total	0	4	0	0	0	0	0	0	1	6	0	0	0	0	0	0	0	11
01:00 PM	0	1	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	3
01:15 PM	0	6	4	0	0	0	0	0	0	4	0	0	0	0	0	0	0	14
01:30 PM	0	3	7	0	1	0	0	0	0	6	0	0	0	0	0	0	0	17
01:45 PM	0	4	0	0	8	0	2	0	0	3	0	0	0	0	0	0	0	17
Total	0	14	11	0	9	0	2	0	0	15	0	0	0	0	0	0	0	51
02:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
02:15 PM	0	4	0	0	0	0	0	0	0	7	0	0	0	0	0	0	0	11
02:30 PM	0	0	0	0	0	0	0	0	0	5	0	0	1	0	0	0	0	6
02:45 PM	0	1	1	0	1	0	0	0	0	6	0	0	0	0	0	0	0	9
Total	0	6	1	0	1	0	0	0	0	18	0	0	1	0	0	0	0	27
03:00 PM	0	0	0	0	0	0	1	0	0	2	0	0	1	0	0	0	0	4
03:15 PM	0	2	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	5
Grand Total	0	26	12	0	10	0	3	0	1	44	0	0	2	0	0	0	0	98
Apprch %	0	68.4	31.6	0	76.9	0	23.1	0	2.2	97.8	0	0	100	0	0	0	0	
Total %	0	26.5	12.2	0	10.2	0	3.1	0	1	44.9	0	0	2	0	0	0	0	

Start Time	Valley Road (Route 214) From North					Middletown High School Driveway From East					Valley Road (Route 214) From South					Police Department Driveway 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 12:30 PM to 03:15 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 01:00 PM																					
01:00 PM	0	1	0	0	1	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	3
01:15 PM	0	6	4	0	10	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	14
01:30 PM	0	3	7	0	10	1	0	0	0	1	0	6	0	0	6	0	0	0	0	0	17
01:45 PM	0	4	0	0	4	8	0	2	0	10	0	3	0	0	3	0	0	0	0	0	17
Total Volume	0	14	11	0	25	9	0	2	0	11	0	15	0	0	15	0	0	0	0	0	51
% App. Total	0	56	44	0		81.8	0	18.2	0		0	100	0	0		0	0	0	0		
PHF	.000	.583	.393	.000	.625	.281	.000	.250	.000	.275	.000	.625	.000	.000	.625	.000	.000	.000	.000	.000	.750

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 Client: Bryant/T. Brayton

File Name : 05711GG
 Site Code : 223032
 Start Date : 5/23/2023
 Page No : 1

Groups Printed- Bikes by Direction

Start Time	Valley Road (Route 214) From North				Middletown High School Driveway From East				Valley Road (Route 214) From South				Police Department Driveway From West				Int. Total
	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 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
01:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
01:15 PM	0	2	0	0	0	0	0	0	0	1	0	0	0	0	0	0	3
01:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	3	0	0	0	0	0	0	0	1	0	0	0	0	0	0	4
02:00 PM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
02:15 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
02:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
02:45 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
Total	0	1	0	0	1	0	2	0	0	0	0	0	0	0	0	0	4
03:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
03:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	5	0	0	1	0	2	0	0	1	0	0	0	0	0	0	9
Apprch %	0	100	0	0	33.3	0	66.7	0	0	100	0	0	0	0	0	0	
Total %	0	55.6	0	0	11.1	0	22.2	0	0	11.1	0	0	0	0	0	0	

Start Time	Valley Road (Route 214) From North					Middletown High School Driveway From East					Valley Road (Route 214) From South					Police Department Driveway 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 12:30 PM to 03:15 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 12:30 PM																					
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
01:15 PM	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	3
Total Volume	0	3	0	0	3	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	4
% App. Total	0	100	0	0		0	0	0	0		0	100	0	0		0	0	0	0		
PHF	.000	.375	.000	.000	.375	.000	.000	.000	.000	.000	.000	.250	.000	.000	.250	.000	.000	.000	.000	.000	.333

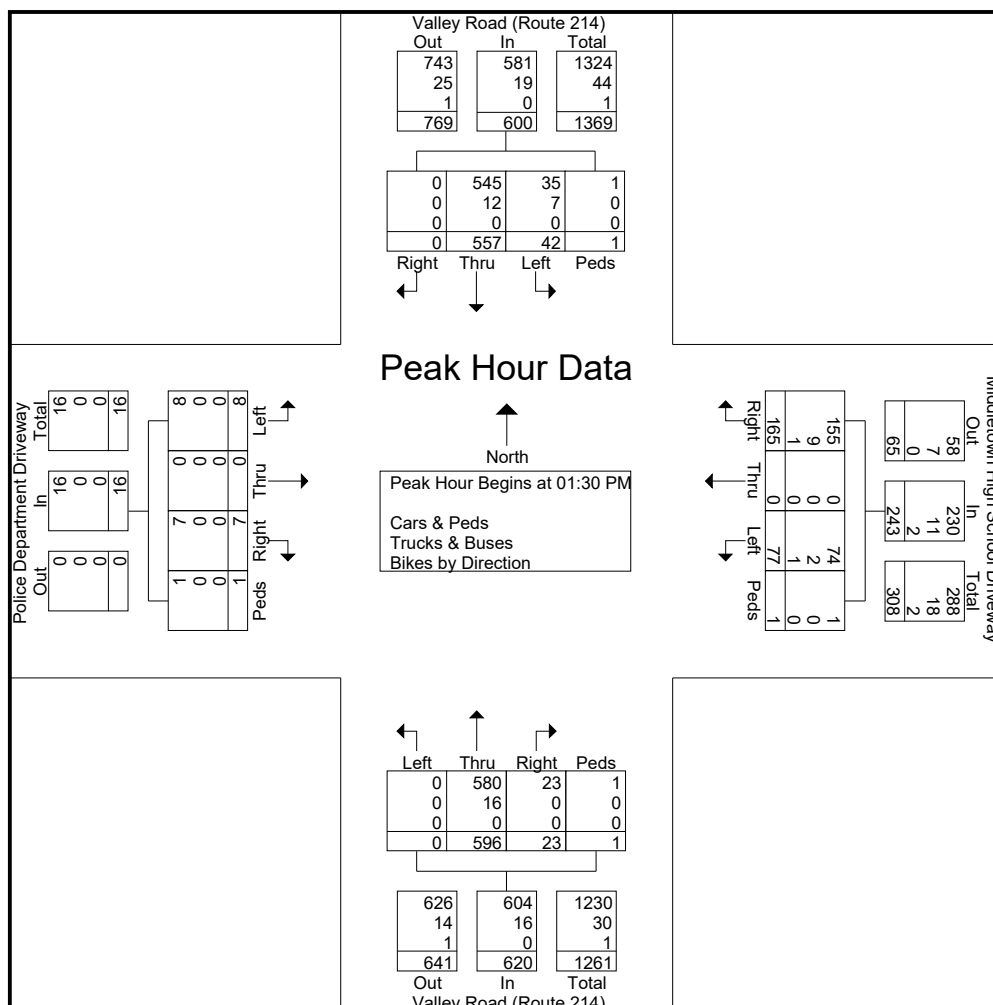
Transportation Data Corporation

Mario Perone, mperone1@verizon.net
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Start Time	Valley Road (Route 214) From North					Middletown High School Driveway From East					Valley Road (Route 214) From South					Police Department Driveway 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 12:30 PM to 03:15 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 01:30 PM																					
01:30 PM	0	117	22	0	139	48	0	20	0	68	10	145	0	0	155	4	0	5	0	9	371
01:45 PM	0	171	10	1	182	68	0	34	0	102	3	167	0	1	171	1	0	1	1	3	458
02:00 PM	0	128	3	0	131	32	0	20	0	52	6	153	0	0	159	0	0	1	0	1	343
02:15 PM	0	141	7	0	148	17	0	3	1	21	4	131	0	0	135	2	0	1	0	3	307
Total Volume	0	557	42	1	600	165	0	77	1	243	23	596	0	1	620	7	0	8	1	16	1479
% App. Total	0	92.8	7	0.2		67.9	0	31.7	0.4		3.7	96.1	0	0.2		43.8	0	50	6.2		
PHF	.000	.814	.477	.250	.824	.607	.000	.566	.250	.596	.575	.892	.000	.250	.906	.438	.000	.400	.250	.444	.807
Cars & Peds	0	545	35	1	581	155	0	74	1	230	23	580	0	1	604	7	0	8	1	16	1431
% Cars & Peds	0	97.8	83.3	100	96.8	93.9	0	96.1	100	94.7	100	97.3	0	100	97.4	100	0	100	100	100	96.8
Trucks & Buses	0	12	7	0	19	9	0	2	0	11	0	16	0	0	16	0	0	0	0	0	46
% Trucks & Buses	0	2.2	16.7	0	3.2	5.5	0	2.6	0	4.5	0	2.7	0	0	2.6	0	0	0	0	0	3.1
Bikes by Direction	0	0	0	0	0	1	0	1	0	2	0	0	0	0	0	0	0	0	0	0	2
% Bikes by Direction	0	0	0	0	0	0.6	0	1.3	0	0.8	0	0	0	0	0	0	0	0	0	0	0.1



APPENDIX B

Trip Generation



August 18, 2023
BAI No. 223032

Trip Generation Calculations

Middletown Middle-High School
Aquidneck Avenue (RI Route 138A), Middletown, RI

Relocated Elementary School Students:

Currently, the Gaudet Middle School site includes the Gaudet Learning Academy fourth and fifth grade elementary school students and the sixth to eighth grade middle school students. The proposed Middletown Middle-High School, at the Gaudet Middle School site, is anticipated to serve sixth to eighth grade middle school students and the existing Middletown High School ninth to twelfth grade students. The fourth and fifth grade elementary school students are proposed to be relocated to the existing Middletown High School site. The number of trips attributed to the elementary school students was determined using the existing ratio of elementary school students to middle school students. Currently, there are 288 elementary school students and 469 middle school students at the Gaudet Middle School site.

$$288 \text{ elementary school students} + 469 \text{ middle school students} = 757 \text{ total students}$$
$$288 \text{ elementary school students} / 757 \text{ total students} = 0.38$$

School A.M. Peak Hour

During the school A.M. peak hour, there are 267 trips entering and 184 trips exiting the Gaudet Middle School site. These trips include buses, staff, and parents for both the elementary and middle school.

The proposed number of trips to remain with the elementary school relocated is:

$$267 \times 0.38 = 101.46, \text{ say } 101 \text{ trips entering to be relocated}$$
$$267 - 101 = 166 \text{ trips entering to remain}$$
$$184 \times 0.38 = 69.92, \text{ say } 70 \text{ trips exiting to be relocated}$$
$$184 - 70 = 114 \text{ trips exiting to remain}$$

School P.M. Peak Hour

During the school P.M. peak hour, there are 141 trips entering and 148 trips exiting the Gaudet Middle School site. These trips include buses, staff, and parents for both the elementary and middle school.

The proposed number of trips to remain with the elementary school relocated is:

$$141 \times 0.38 = 53.58, \text{ say } 54 \text{ trips entering to be relocated}$$
$$141 - 54 = 87 \text{ trips entering to remain}$$
$$148 \times 0.38 = 56.24, \text{ say } 56 \text{ trips exiting to be relocated}$$
$$148 - 56 = 92 \text{ trips exiting to remain}$$



Trip Generation Calculations

Middletown Middle-High School

Aquidneck Avenue (RI Route 138A), Middletown, RI

Projected Decrease in Population:

Currently, there are 469 middle school students and 562 high school students. The projected number of students is 462 middle school students and 550 high school students. Therefore, trip generation was conducted for the projected reduction in the school population (7 middle school students and 12 high school students)

Middle School:

$$7 \text{ less students} / 469 \text{ existing students} = 0.0149$$

High School:

$$12 \text{ less students} / 562 \text{ existing students} = 0.0214$$

School A.M. Peak Hour

During the school A.M. peak hour, there are 166 trips entering and 114 trips exiting attributed to the middle school at the existing Gaudet Middle School. There are 277 trips entering and 119 trips exiting at the existing Middletown High School. These trips include buses, staff, and parents.

The decrease in the number of trips entering and exiting the proposed new school is:

Middle School:

$$0.0149 \times 166 = 2.47, \text{ say } 2 \text{ trips entering}$$

$$0.0149 \times 114 = 1.70, \text{ say } 2 \text{ trips exiting}$$

High School:

$$0.0214 \times 277 = 5.93, \text{ say } 6 \text{ trips entering}$$

$$0.0214 \times 119 = 2.55, \text{ say } 3 \text{ trips exiting}$$

School P.M. Peak Hour

During the school P.M. peak hour, there are 87 trips entering and 92 trips exiting attributed to the middle school at the existing Gaudet Middle School. There are 65 trips entering and 240 trips exiting at the existing Middletown High School. These trips include buses, staff, and parents.

The decrease in the number of trips entering and exiting the proposed new school is:

Middle School:

$$0.0149 \times 87 = 1.30, \text{ say } 1 \text{ trip entering}$$

$$0.0149 \times 92 = 1.37, \text{ say } 1 \text{ trip exiting}$$

High School:

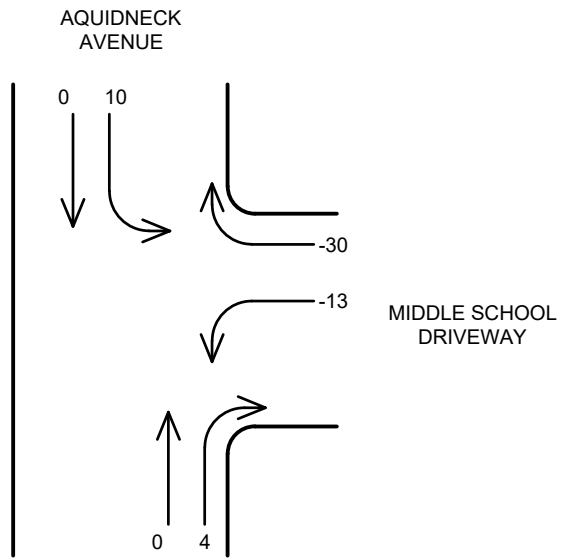
$$0.0214 \times 65 = 1.39, \text{ say } 1 \text{ trip entering}$$

$$0.0214 \times 240 = 5.14, \text{ say } 5 \text{ trips exiting}$$

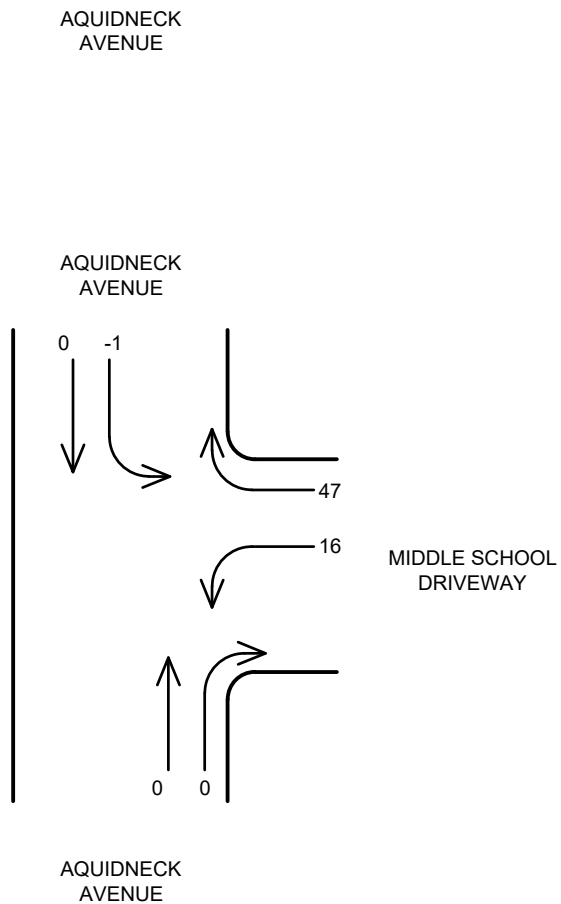


TRAFFIC VOLUMES
MIDDLETOWN MIDDLE-HIGH SCHOOL TRAFFIC IMPACT ANALYSIS
MIDDLETOWN, RI
TRIP GENERATION

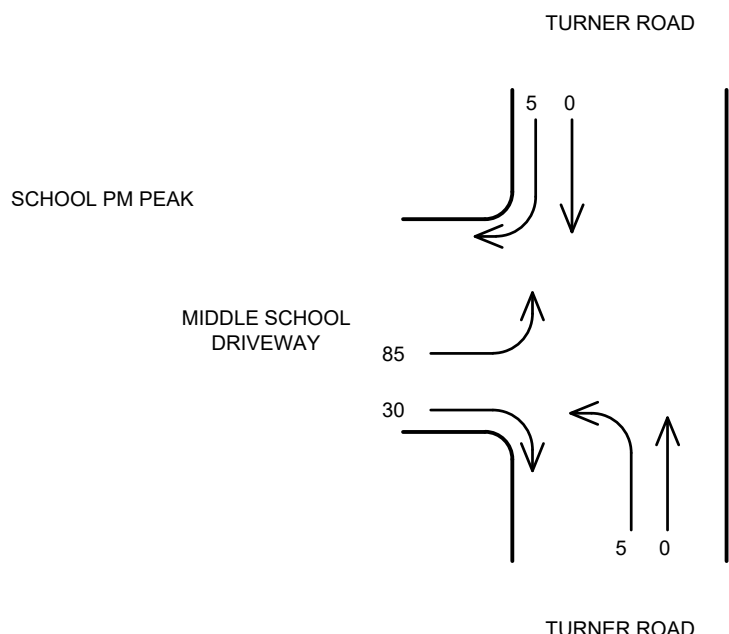
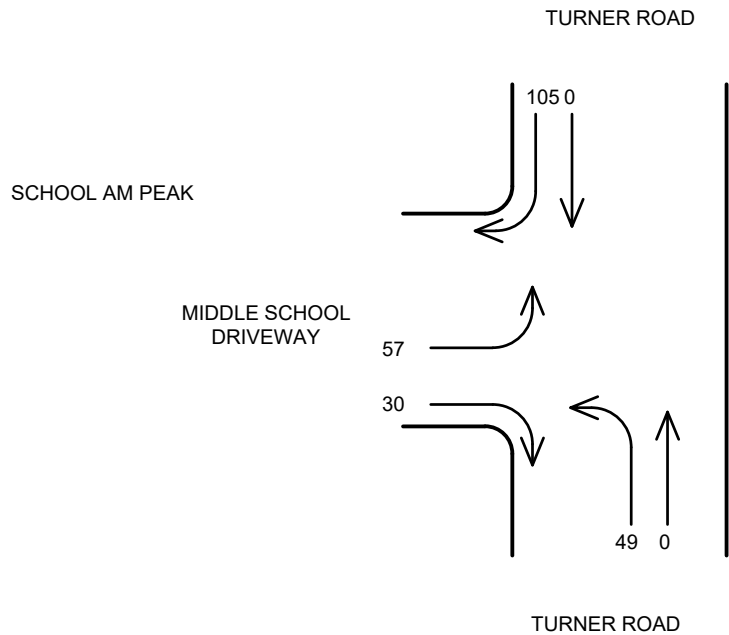
SCHOOL AM PEAK



SCHOOL PM PEAK

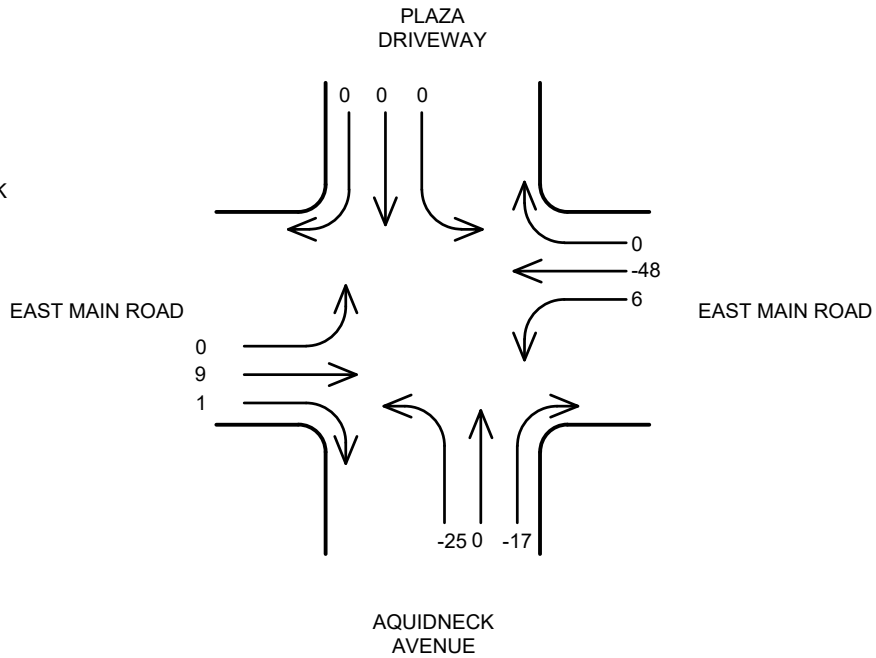


TRAFFIC VOLUMES
MIDDLETOWN MIDDLE-HIGH SCHOOL TRAFFIC IMPACT ANALYSIS
MIDDLETOWN, RI
TRIP GENERATION

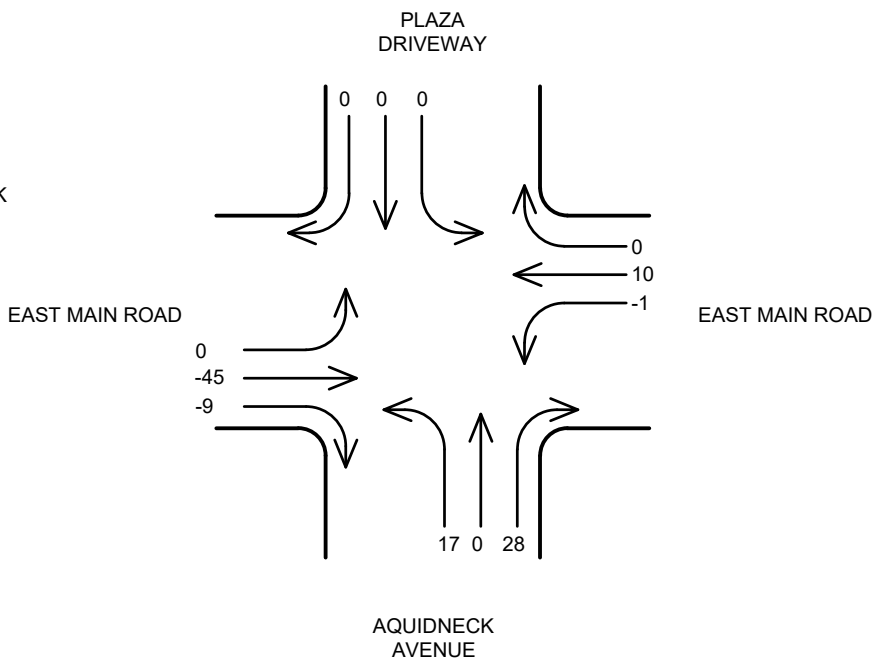


TRAFFIC VOLUMES
MIDDLETOWN MIDDLE-HIGH SCHOOL TRAFFIC IMPACT ANALYSIS
MIDDLETOWN, RI
TRIP GENERATION

SCHOOL AM PEAK



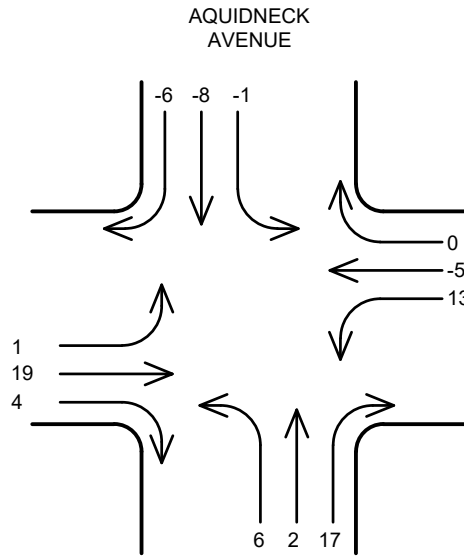
SCHOOL PM PEAK



TRAFFIC VOLUMES
MIDDLETOWN MIDDLE-HIGH SCHOOL TRAFFIC IMPACT ANALYSIS
MIDDLETOWN, RI
TRIP GENERATION

SCHOOL AM PEAK

GREEN END AVENUE

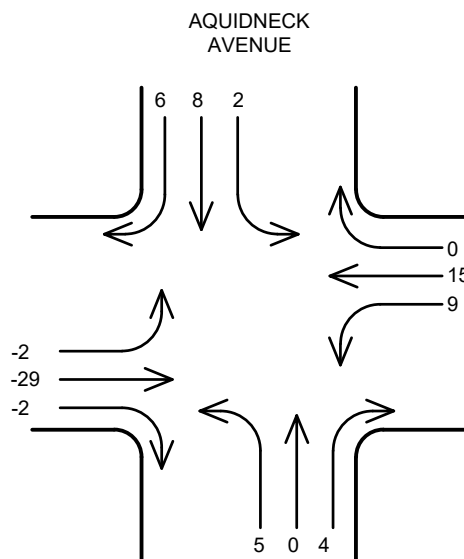


GREEN END AVENUE



SCHOOL PM PEAK

GREEN END AVENUE



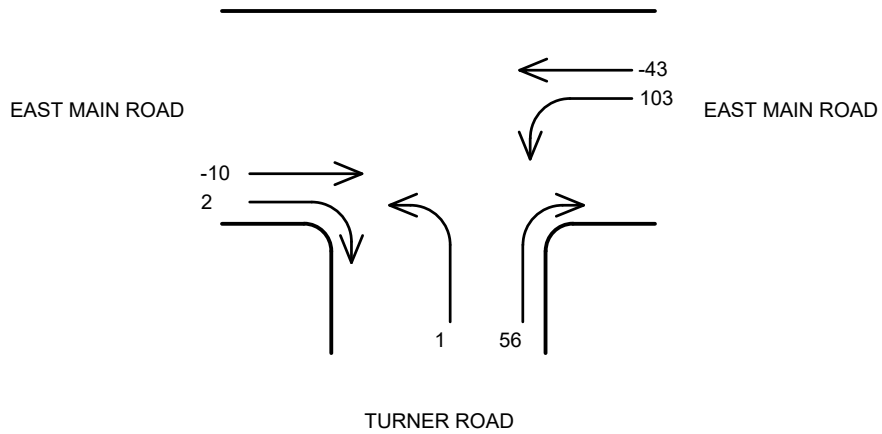
GREEN END AVENUE



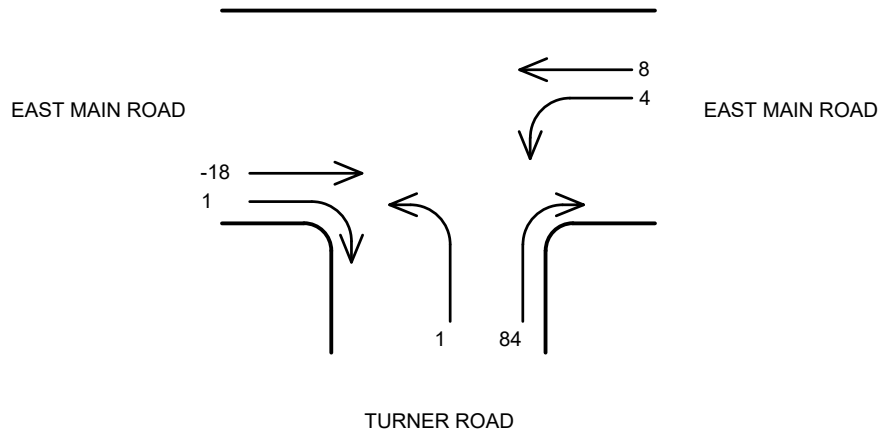
TRAFFIC VOLUMES
MIDDLETOWN MIDDLE-HIGH SCHOOL TRAFFIC IMPACT ANALYSIS
MIDDLETOWN, RI
TRIP GENERATION



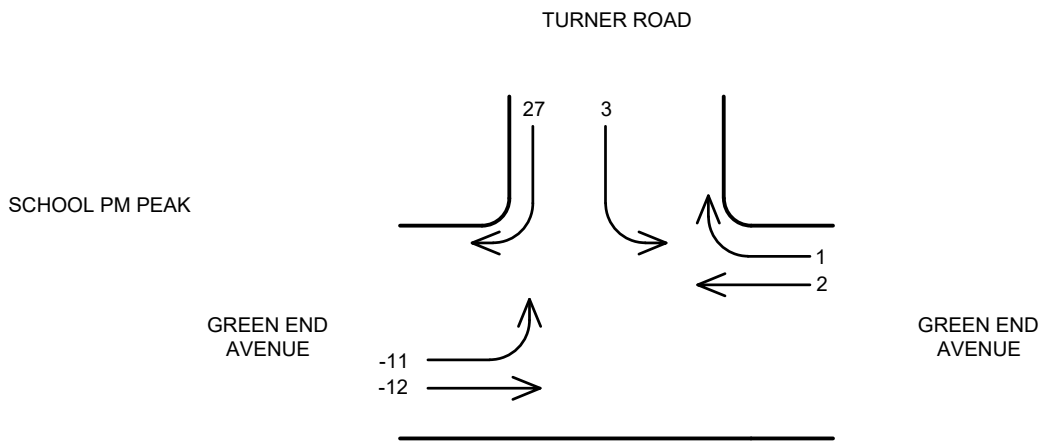
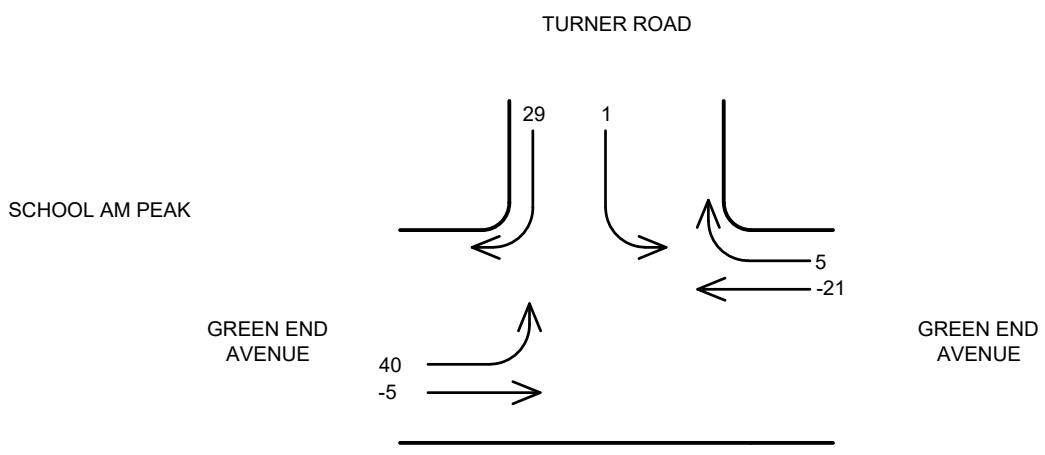
SCHOOL AM PEAK



SCHOOL PM PEAK



TRAFFIC VOLUMES
MIDDLETOWN MIDDLE-HIGH SCHOOL TRAFFIC IMPACT ANALYSIS
MIDDLETOWN, RI
TRIP GENERATION



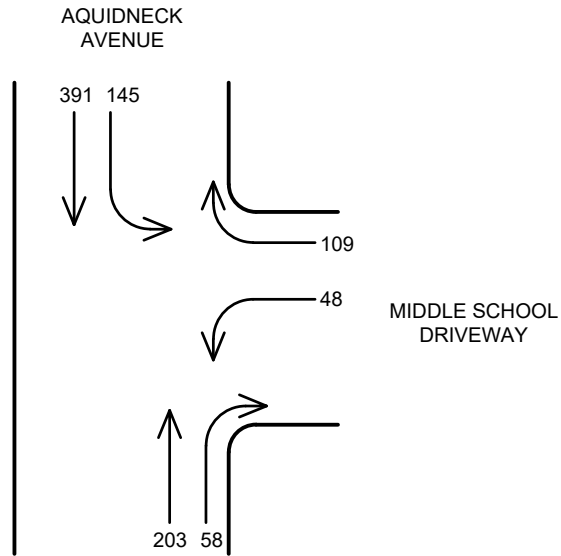
APPENDIX C

Intersection Capacity Analysis Computations

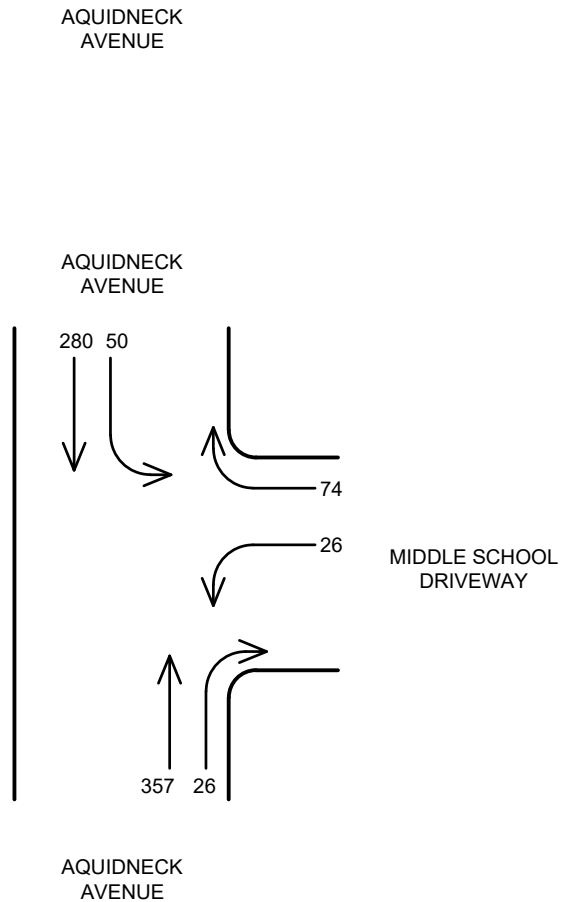


TRAFFIC VOLUMES
MIDDLETOWN MIDDLE-HIGH SCHOOL TRAFFIC IMPACT ANALYSIS
MIDDLETOWN, RI
EXISTING VOLUME

SCHOOL AM PEAK



SCHOOL PM PEAK



Intersection						
Int Delay, s/veh	15.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	48	109	203	58	145	391
Future Vol, veh/h	48	109	203	58	145	391
Conflicting Peds, #/hr	5	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	115	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	48	42	85	48	46	82
Heavy Vehicles, %	0	0	2	0	0	5
Mvmt Flow	100	260	239	121	315	477

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1412	300	0	0	360	0
Stage 1	300	-	-	-	-	-
Stage 2	1112	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	154	744	-	-	1210	-
Stage 1	756	-	-	-	-	-
Stage 2	317	-	-	-	-	-
Platoon blocked, %			-	-	-	-
Mov Cap-1 Maneuver	~ 99	744	-	-	1210	-
Mov Cap-2 Maneuver	~ 99	-	-	-	-	-
Stage 1	756	-	-	-	-	-
Stage 2	204	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	56.8	0	3.6
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	99	744	1210	-
HCM Lane V/C Ratio	-	-	1.01	0.349	0.261	-
HCM Control Delay (s)	-	-	172.2	12.4	9	0
HCM Lane LOS	-	-	F	B	A	A
HCM 95th %tile Q(veh)	-	-	6.2	1.6	1	-

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

Intersection						
Int Delay, s/veh	3.7					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	26	74	357	26	50	280
Future Vol, veh/h	26	74	357	26	50	280
Conflicting Peds, #/hr	15	1	0	3	3	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	115	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	43	51	86	54	60	88
Heavy Vehicles, %	0	0	4	0	0	3
Mvmt Flow	60	145	415	48	83	318

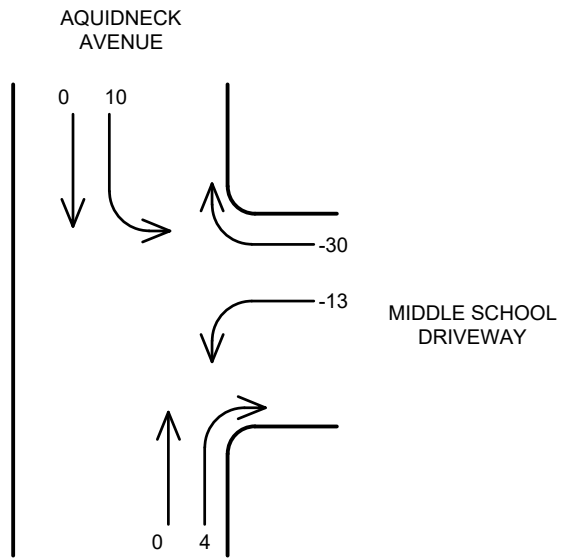
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	941	443	0	0	466	0
Stage 1	442	-	-	-	-	-
Stage 2	499	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	295	619	-	-	1106	-
Stage 1	652	-	-	-	-	-
Stage 2	614	-	-	-	-	-
Platoon blocked, %			-	-	-	-
Mov Cap-1 Maneuver	264	617	-	-	1103	-
Mov Cap-2 Maneuver	264	-	-	-	-	-
Stage 1	650	-	-	-	-	-
Stage 2	550	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	15.5	0	1.8
HCM LOS	C		

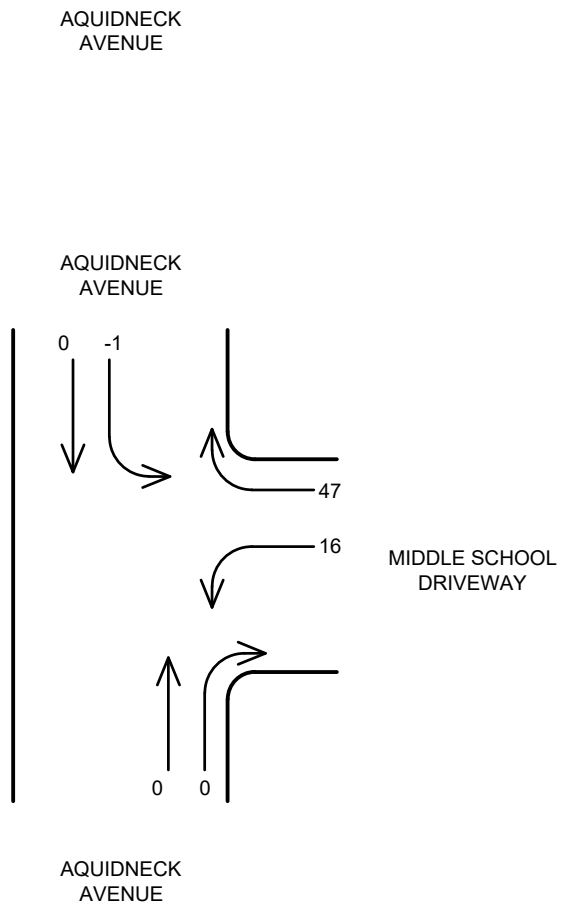
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	264	617	1103	-
HCM Lane V/C Ratio	-	-	0.229	0.235	0.076	-
HCM Control Delay (s)	-	-	22.6	12.6	8.5	0
HCM Lane LOS	-	-	C	B	A	A
HCM 95th %tile Q(veh)	-	-	0.9	0.9	0.2	-

TRAFFIC VOLUMES
MIDDLETOWN MIDDLE-HIGH SCHOOL TRAFFIC IMPACT ANALYSIS
MIDDLETOWN, RI
TRIP GENERATION

SCHOOL AM PEAK

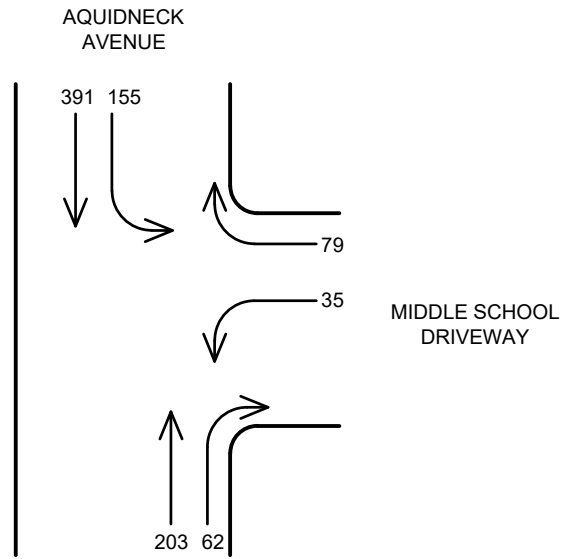


SCHOOL PM PEAK

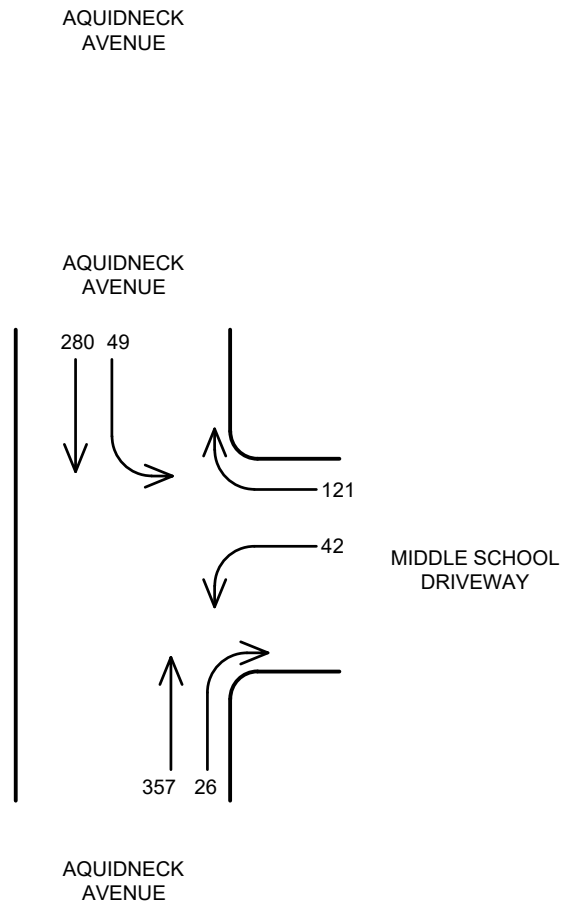


TRAFFIC VOLUMES
MIDDLETOWN MIDDLE-HIGH SCHOOL TRAFFIC IMPACT ANALYSIS
MIDDLETOWN, RI
PROPOSED VOLUME

SCHOOL AM PEAK



SCHOOL PM PEAK



Intersection						
Int Delay, s/veh	5.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	35	79	203	62	155	391
Future Vol, veh/h	35	79	203	62	155	391
Conflicting Peds, #/hr	5	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	115	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	59	64	85	60	64	82
Heavy Vehicles, %	9	9	2	5	5	5
Mvmt Flow	59	123	239	103	242	477

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	1257	291	0	0	342
Stage 1	291	-	-	-	-
Stage 2	966	-	-	-	-
Critical Hdwy	6.49	6.29	-	-	4.15
Critical Hdwy Stg 1	5.49	-	-	-	-
Critical Hdwy Stg 2	5.49	-	-	-	-
Follow-up Hdwy	3.581	3.381	-	-	2.245
Pot Cap-1 Maneuver	183	732	-	-	1200
Stage 1	743	-	-	-	-
Stage 2	359	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	132	732	-	-	1200
Mov Cap-2 Maneuver	132	-	-	-	-
Stage 1	743	-	-	-	-
Stage 2	260	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	24.5	0	2.9
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	132	732	1200	-
HCM Lane V/C Ratio	-	-	0.449	0.169	0.202	-
HCM Control Delay (s)	-	-	52.8	10.9	8.8	0
HCM Lane LOS	-	-	F	B	A	A
HCM 95th %tile Q(veh)	-	-	2	0.6	0.8	-

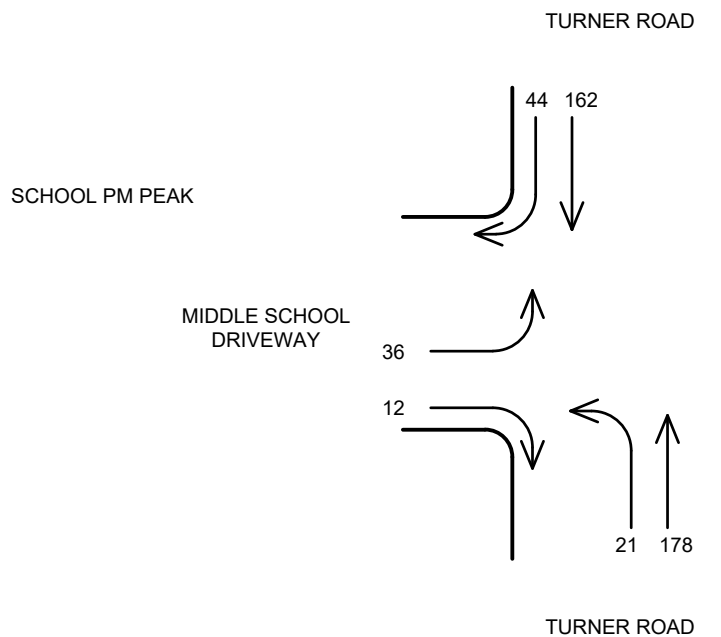
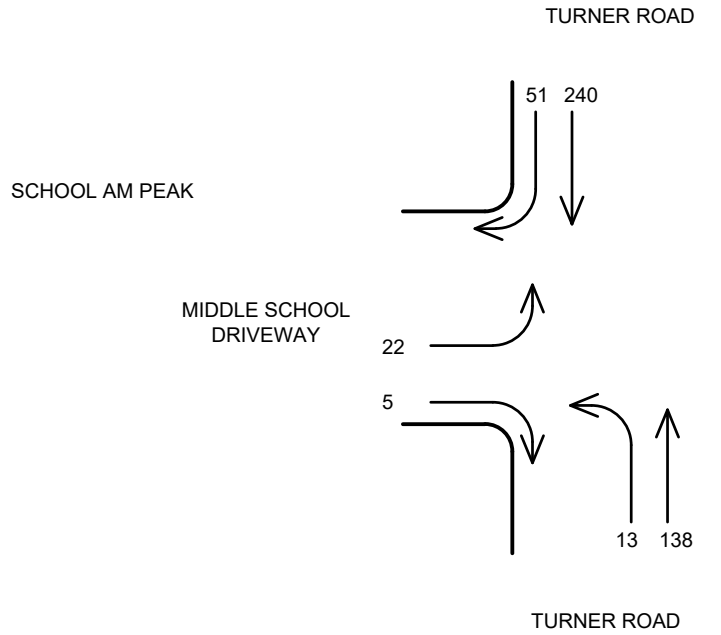
Intersection						
Int Delay, s/veh	3.5					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	42	121	357	26	49	280
Future Vol, veh/h	42	121	357	26	49	280
Conflicting Peds, #/hr	15	1	0	3	3	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	115	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	75	85	86	77	74	88
Heavy Vehicles, %	7	6	4	12	14	3
Mvmt Flow	56	142	415	34	66	318

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	900	436	0	0	452	0
Stage 1	435	-	-	-	-	-
Stage 2	465	-	-	-	-	-
Critical Hdwy	6.47	6.26	-	-	4.24	-
Critical Hdwy Stg 1	5.47	-	-	-	-	-
Critical Hdwy Stg 2	5.47	-	-	-	-	-
Follow-up Hdwy	3.563	3.354	-	-	2.326	-
Pot Cap-1 Maneuver	303	612	-	-	1048	-
Stage 1	642	-	-	-	-	-
Stage 2	622	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	275	610	-	-	1045	-
Mov Cap-2 Maneuver	275	-	-	-	-	-
Stage 1	640	-	-	-	-	-
Stage 2	566	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	15.2	0	1.5
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	275	610	1045
HCM Lane V/C Ratio	-	-	0.204	0.233	0.063
HCM Control Delay (s)	-	-	21.4	12.7	8.7
HCM Lane LOS	-	-	C	B	A
HCM 95th %tile Q(veh)	-	-	0.7	0.9	0.2

TRAFFIC VOLUMES
MIDDLETOWN MIDDLE-HIGH SCHOOL TRAFFIC IMPACT ANALYSIS
MIDDLETOWN, RI
EXISTING VOLUME



Intersection						
Int Delay, s/veh	1.5					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	22	5	13	138	240	51
Future Vol, veh/h	22	5	13	138	240	51
Conflicting Peds, #/hr	0	3	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	50	63	54	73	71	55
Heavy Vehicles, %	55	20	23	1	2	22
Mvmt Flow	44	8	24	189	338	93

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	622	388	431	0	-	0
Stage 1	385	-	-	-	-	-
Stage 2	237	-	-	-	-	-
Critical Hdwy	6.95	6.4	4.33	-	-	-
Critical Hdwy Stg 1	5.95	-	-	-	-	-
Critical Hdwy Stg 2	5.95	-	-	-	-	-
Follow-up Hdwy	3.995	3.48	2.407	-	-	-
Pot Cap-1 Maneuver	375	622	1025	-	-	-
Stage 1	586	-	-	-	-	-
Stage 2	693	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	365	620	1025	-	-	-
Mov Cap-2 Maneuver	365	-	-	-	-	-
Stage 1	571	-	-	-	-	-
Stage 2	693	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	15.4	1	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1025	-	365	620	-	-
HCM Lane V/C Ratio	0.023	-	0.121	0.013	-	-
HCM Control Delay (s)	8.6	0	16.2	10.9	-	-
HCM Lane LOS	A	A	C	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.4	0	-	-

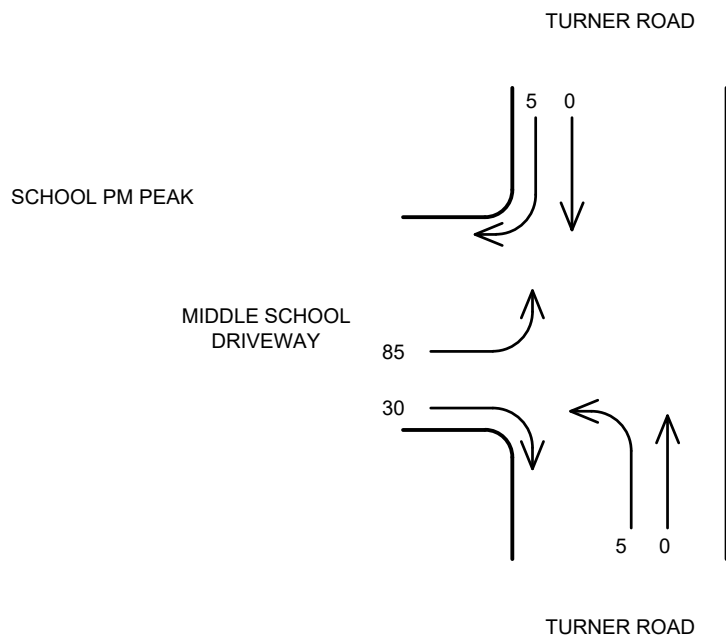
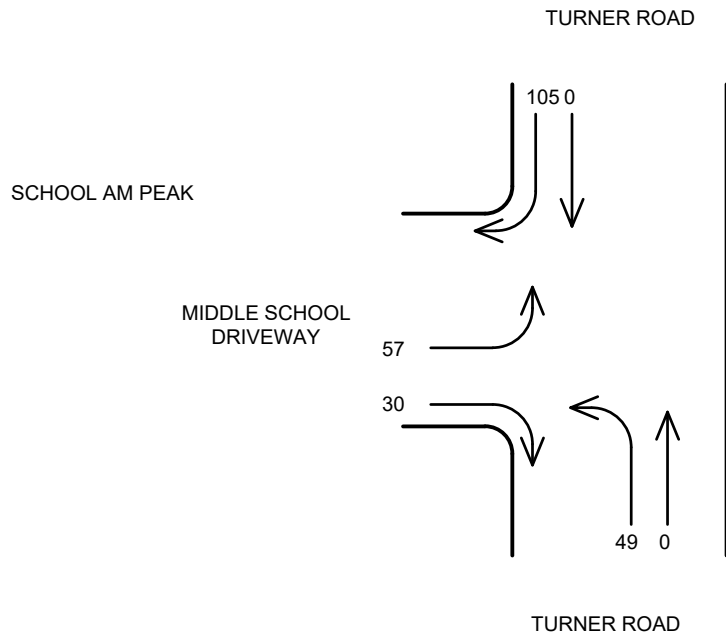
Intersection						
Int Delay, s/veh	3.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	36	12	21	178	162	44
Future Vol, veh/h	36	12	21	178	162	44
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	36	38	40	95	86	61
Heavy Vehicles, %	31	33	14	4	4	30
Mvmt Flow	100	32	53	187	188	72

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	517	224	260	0	-	0
Stage 1	224	-	-	-	-	-
Stage 2	293	-	-	-	-	-
Critical Hdwy	6.71	6.53	4.24	-	-	-
Critical Hdwy Stg 1	5.71	-	-	-	-	-
Critical Hdwy Stg 2	5.71	-	-	-	-	-
Follow-up Hdwy	3.779	3.597	2.326	-	-	-
Pot Cap-1 Maneuver	471	744	1238	-	-	-
Stage 1	749	-	-	-	-	-
Stage 2	695	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	448	744	1238	-	-	-
Mov Cap-2 Maneuver	448	-	-	-	-	-
Stage 1	713	-	-	-	-	-
Stage 2	695	-	-	-	-	-

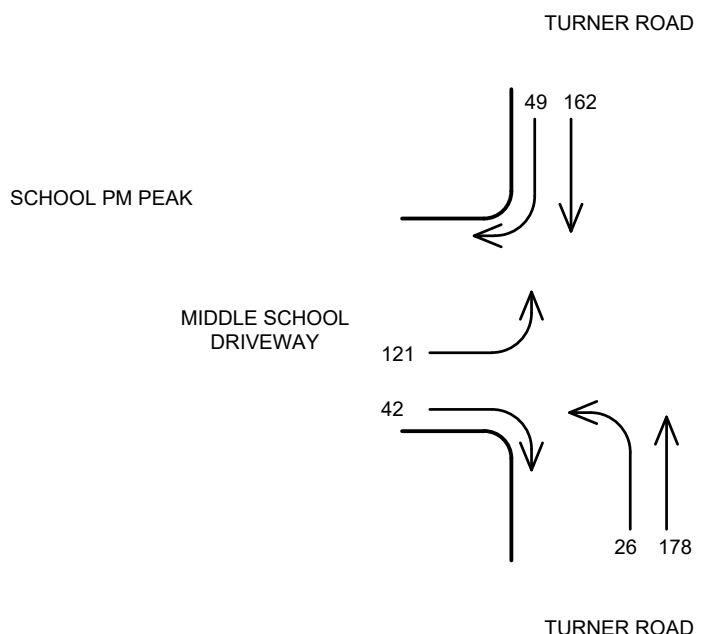
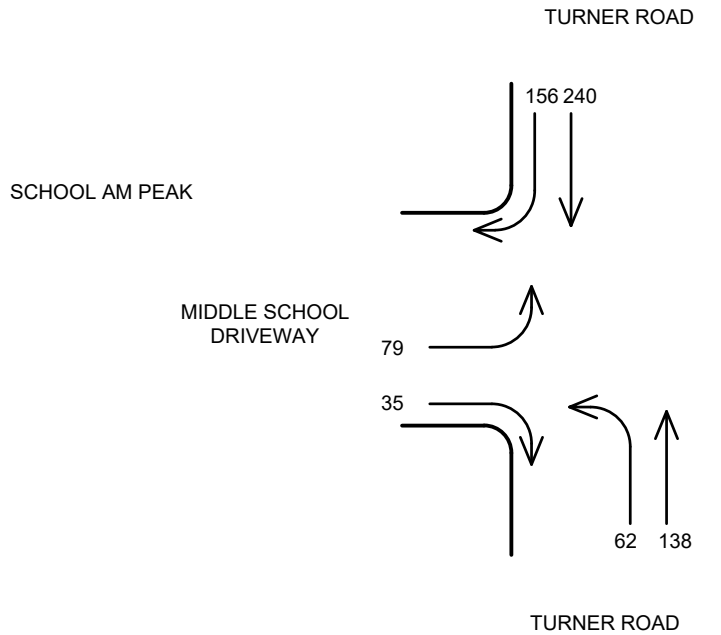
Approach	EB	NB	SB
HCM Control Delay, s	14.1	1.8	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1238	-	448	744	-	-
HCM Lane V/C Ratio	0.042	-	0.223	0.042	-	-
HCM Control Delay (s)	8	0	15.3	10.1	-	-
HCM Lane LOS	A	A	C	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.8	0.1	-	-

TRAFFIC VOLUMES
MIDDLETOWN MIDDLE-HIGH SCHOOL TRAFFIC IMPACT ANALYSIS
MIDDLETOWN, RI
TRIP GENERATION



TRAFFIC VOLUMES
MIDDLETOWN MIDDLE-HIGH SCHOOL TRAFFIC IMPACT ANALYSIS
MIDDLETOWN, RI
PROPOSED VOLUME



Intersection						
Int Delay, s/veh	4.7					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	79	35	62	138	240	156
Future Vol, veh/h	79	35	62	138	240	156
Conflicting Peds, #/hr	0	3	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	64	59	60	73	71	64
Heavy Vehicles, %	9	9	5	1	2	5
Mvmt Flow	123	59	103	189	338	244

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	855	463	582	0	-	0
Stage 1	460	-	-	-	-	-
Stage 2	395	-	-	-	-	-
Critical Hdwy	6.49	6.29	4.15	-	-	-
Critical Hdwy Stg 1	5.49	-	-	-	-	-
Critical Hdwy Stg 2	5.49	-	-	-	-	-
Follow-up Hdwy	3.581	3.381	2.245	-	-	-
Pot Cap-1 Maneuver	320	585	978	-	-	-
Stage 1	621	-	-	-	-	-
Stage 2	666	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	282	583	978	-	-	-
Mov Cap-2 Maneuver	282	-	-	-	-	-
Stage 1	548	-	-	-	-	-
Stage 2	666	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	22.3	3.2	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	978	-	282	583	-	-
HCM Lane V/C Ratio	0.106	-	0.438	0.102	-	-
HCM Control Delay (s)	9.1	0	27.3	11.9	-	-
HCM Lane LOS	A	A	D	B	-	-
HCM 95th %tile Q(veh)	0.4	-	2.1	0.3	-	-

Intersection						
Int Delay, s/veh	4.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	121	42	26	178	162	49
Future Vol, veh/h	121	42	26	178	162	49
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	85	75	77	95	86	74
Heavy Vehicles, %	6	7	12	4	4	14
Mvmt Flow	142	56	34	187	188	66

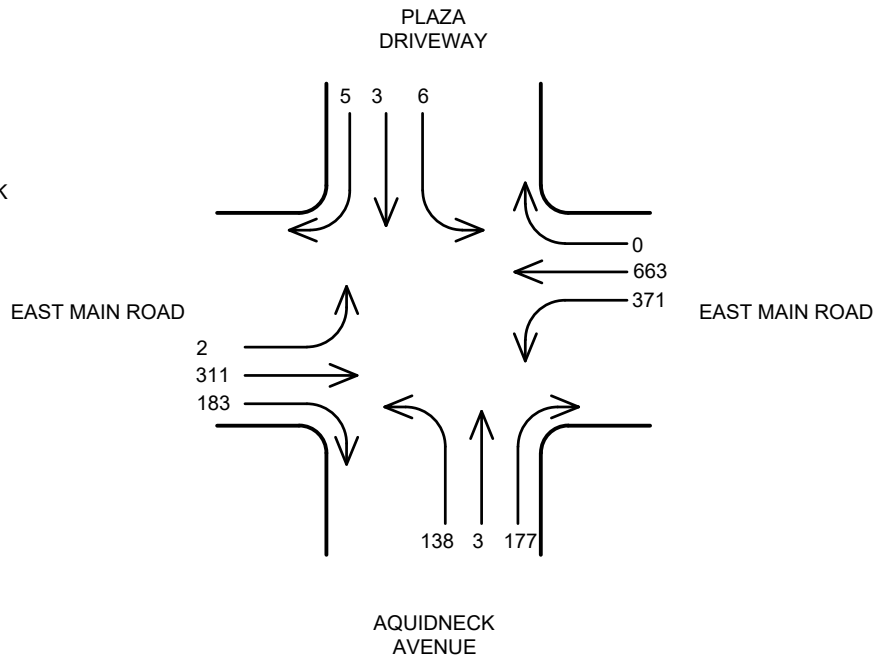
Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	476	221	254	0	-	0
Stage 1	221	-	-	-	-	-
Stage 2	255	-	-	-	-	-
Critical Hdwy	6.46	6.27	4.22	-	-	-
Critical Hdwy Stg 1	5.46	-	-	-	-	-
Critical Hdwy Stg 2	5.46	-	-	-	-	-
Follow-up Hdwy	3.554	3.363	2.308	-	-	-
Pot Cap-1 Maneuver	540	806	1255	-	-	-
Stage 1	806	-	-	-	-	-
Stage 2	778	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	524	806	1255	-	-	-
Mov Cap-2 Maneuver	524	-	-	-	-	-
Stage 1	782	-	-	-	-	-
Stage 2	778	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	13.1	1.2	0
HCM LOS	B		

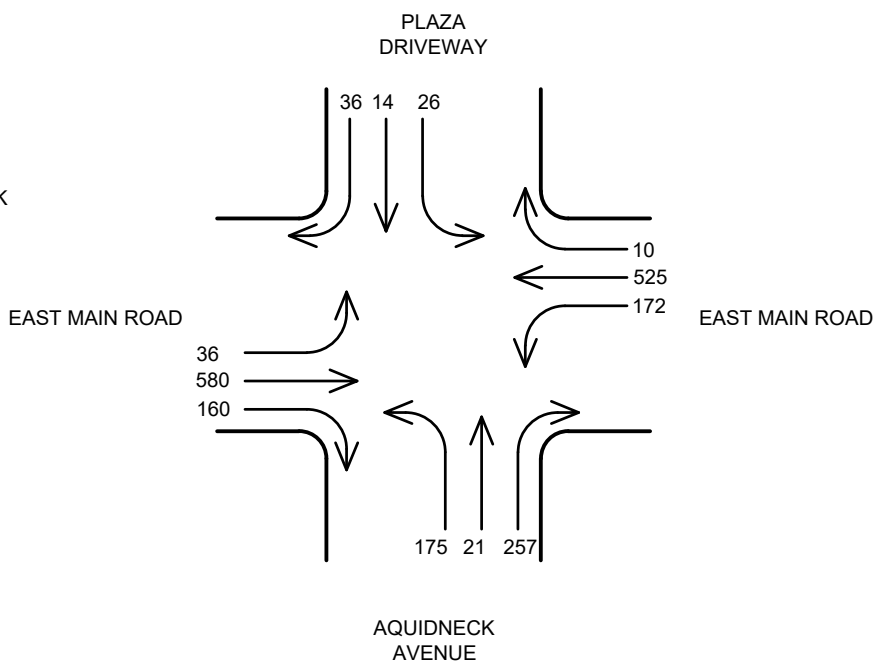
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1255	-	524	806	-	-
HCM Lane V/C Ratio	0.027	-	0.272	0.069	-	-
HCM Control Delay (s)	7.9	0	14.4	9.8	-	-
HCM Lane LOS	A	A	B	A	-	-
HCM 95th %tile Q(veh)	0.1	-	1.1	0.2	-	-

TRAFFIC VOLUMES
MIDDLETOWN MIDDLE-HIGH SCHOOL TRAFFIC IMPACT ANALYSIS
MIDDLETOWN, RI
EXISTING VOLUME

SCHOOL AM PEAK



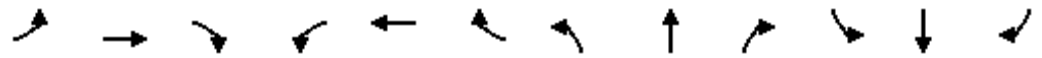
SCHOOL PM PEAK



Lanes, Volumes, Timings
 103: Aquidneck Avenue /Plaza Driveway & East Main Road

223032 Middletown Middle-High School

08/09/2023

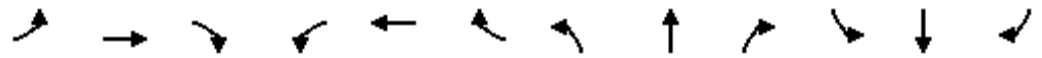


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕			↕↕			↕	↕		↕	↕
Traffic Volume (vph)	2	311	183	371	663	0	138	3	177	6	3	5
Future Volume (vph)	2	311	183	371	663	0	138	3	177	6	3	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		130	0		0
Storage Lanes	0		0	0		0	0		1	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor									0.99		1.00	
Frt		0.935							0.850			0.850
Flt Protected					0.983			0.953			0.964	
Satd. Flow (prot)	0	3270	0	0	3467	0	0	1793	1583	0	1692	1615
Flt Permitted		0.948			0.559			0.718			0.782	
Satd. Flow (perm)	0	3100	0	0	1972	0	0	1351	1562	0	1372	1615
Right Turn on Red			Yes			Yes			Yes			No
Satd. Flow (RTOR)		263							213			
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		3042			425			374			104	
Travel Time (s)		69.1			9.7			8.5			2.4	
Confl. Peds. (#/hr)									1	1		
Peak Hour Factor	0.50	0.78	0.59	0.88	0.82	0.92	0.59	0.75	0.83	0.50	0.75	0.63
Heavy Vehicles (%)	0%	5%	1%	3%	2%	2%	1%	0%	2%	0%	33%	0%
Adj. Flow (vph)	4	399	310	422	809	0	234	4	213	12	4	8
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	713	0	0	1231	0	0	238	213	0	16	8
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		D,P+P	NA		Perm	NA	pm+ov	Perm	NA	Perm
Protected Phases		2		1	1 2			3	1		3	
Permitted Phases	2			2			3		3	3		3
Detector Phase	2	2		1	1 2		3	3	1	3	3	3
Switch Phase												
Minimum Initial (s)	6.0	6.0		10.0			10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	30.0	30.0		15.0			23.0	23.0	15.0	23.0	23.0	23.0
Total Split (s)	32.0	32.0		22.0			26.0	26.0	22.0	26.0	26.0	26.0
Total Split (%)	40.0%	40.0%		27.5%			32.5%	32.5%	27.5%	32.5%	32.5%	32.5%
Maximum Green (s)	27.0	27.0		17.0			21.0	21.0	17.0	21.0	21.0	21.0
Yellow Time (s)	3.5	3.5		3.5			3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.5	1.5		1.5			1.5	1.5	1.5	1.5	1.5	1.5
Lost Time Adjust (s)		0.0						0.0	0.0		0.0	0.0
Total Lost Time (s)		5.0						5.0	5.0		5.0	5.0
Lead/Lag	Lag	Lag		Lead				Lead			Lead	
Lead-Lag Optimize?	Yes	Yes		Yes				Yes			Yes	

Lanes, Volumes, Timings
 103: Aquidneck Avenue /Plaza Driveway & East Main Road

223032 Middletown Middle-High School

08/09/2023

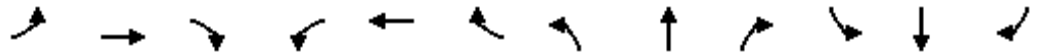


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕			↕↕			↕	↗		↕	↗
Traffic Volume (vph)	36	580	160	172	525	10	175	21	257	26	14	36
Future Volume (vph)	36	580	160	172	525	10	175	21	257	26	14	36
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		130	0		0
Storage Lanes	0		0	0		0	0		1	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor					1.00			1.00	0.98		1.00	0.99
Frt		0.968			0.997				0.850			0.850
Flt Protected		0.997			0.987			0.957			0.968	
Satd. Flow (prot)	0	3413	0	0	3474	0	0	1802	1583	0	1839	1615
Flt Permitted		0.853			0.548			0.704			0.651	
Satd. Flow (perm)	0	2920	0	0	1929	0	0	1324	1558	0	1236	1593
Right Turn on Red			Yes			Yes			Yes			No
Satd. Flow (RTOR)		50			4				127			
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		3042			425			374			104	
Travel Time (s)		69.1			9.7			8.5			2.4	
Confl. Peds. (#/hr)							1		2	2		1
Confl. Bikes (#/hr)						5			2			
Peak Hour Factor	0.69	0.92	0.87	0.84	0.91	0.63	0.68	0.75	0.93	0.65	0.70	0.69
Heavy Vehicles (%)	0%	2%	3%	3%	2%	0%	1%	0%	2%	0%	0%	0%
Adj. Flow (vph)	52	630	184	205	577	16	257	28	276	40	20	52
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	866	0	0	798	0	0	285	276	0	60	52
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		D,P+P	NA		Perm	NA	pm+ov	Perm	NA	Perm
Protected Phases		2		1	1 2			3	1		3	
Permitted Phases	2			2			3		3	3		3
Detector Phase	2	2		1	1 2		3	3	1	3	3	3
Switch Phase												
Minimum Initial (s)	6.0	6.0		10.0			10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	30.0	30.0		15.0			23.0	23.0	15.0	23.0	23.0	23.0
Total Split (s)	36.0	36.0		15.0			29.0	29.0	15.0	29.0	29.0	29.0
Total Split (%)	45.0%	45.0%		18.8%			36.3%	36.3%	18.8%	36.3%	36.3%	36.3%
Maximum Green (s)	31.0	31.0		10.0			24.0	24.0	10.0	24.0	24.0	24.0
Yellow Time (s)	3.5	3.5		3.5			3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.5	1.5		1.5			1.5	1.5	1.5	1.5	1.5	1.5
Lost Time Adjust (s)		0.0						0.0	0.0		0.0	0.0
Total Lost Time (s)		5.0						5.0	5.0		5.0	5.0
Lead/Lag	Lag	Lag		Lead				Lead				

Lanes, Volumes, Timings
 103: Aquidneck Avenue /Plaza Driveway & East Main Road

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lead-Lag Optimize?	Yes	Yes		Yes					Yes			
Vehicle Extension (s)	2.8	2.8		2.8			2.4	2.4	2.8	2.4	2.4	2.4
Recall Mode	C-Max	C-Max		None			None	None	None	None	None	None
Walk Time (s)	5.0	5.0					5.0	5.0		5.0	5.0	5.0
Flash Dont Walk (s)	20.0	20.0					11.0	11.0		11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0					1	1		1	1	1
Act Effct Green (s)		32.7			44.5			20.5	32.3		20.5	20.5
Actuated g/C Ratio		0.41			0.56			0.26	0.40		0.26	0.26
v/c Ratio		0.71			0.61			0.84	0.39		0.19	0.13
Control Delay		22.9			11.3			49.7	8.4		23.2	21.9
Queue Delay		0.0			0.0			0.0	0.0		0.0	0.0
Total Delay		22.9			11.3			49.7	8.4		23.2	21.9
LOS		C			B			D	A		C	C
Approach Delay		22.9			11.3			29.4			22.6	
Approach LOS		C			B			C			C	
Queue Length 50th (ft)		181			98			131	40		23	19
Queue Length 95th (ft)		252			143			167	87		39	34
Internal Link Dist (ft)		2962			345			294			24	
Turn Bay Length (ft)									130			
Base Capacity (vph)		1224			1300			397	707		370	477
Starvation Cap Reductn		0			0			0	0		0	0
Spillback Cap Reductn		0			0			0	0		0	0
Storage Cap Reductn		0			0			0	0		0	0
Reduced v/c Ratio		0.71			0.61			0.72	0.39		0.16	0.11

Intersection Summary

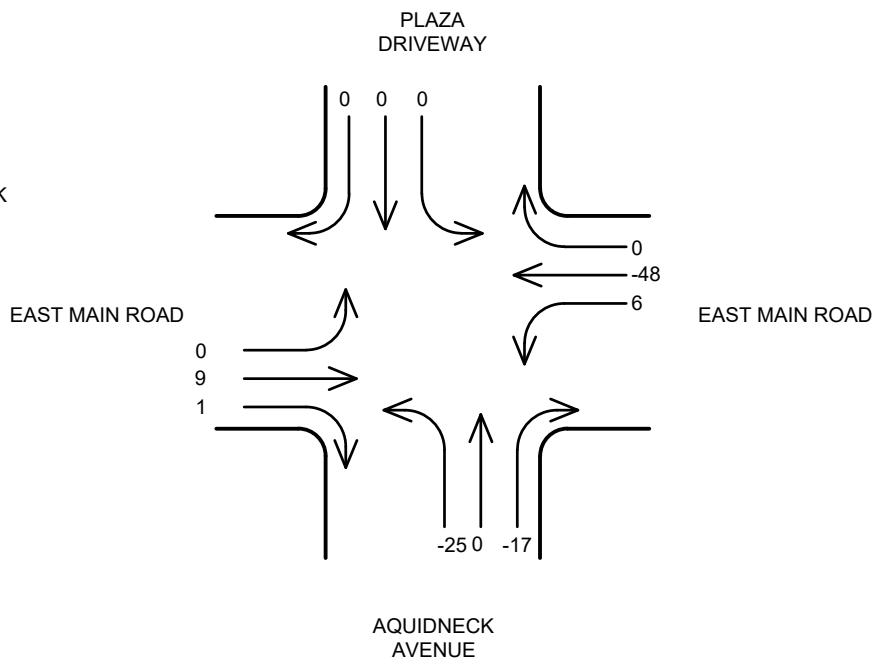
Area Type:	Other
Cycle Length:	80
Actuated Cycle Length:	80
Offset:	0 (0%), Referenced to phase 2:EBWB, Start of Green
Natural Cycle:	70
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.84
Intersection Signal Delay:	20.5
Intersection LOS:	C
Intersection Capacity Utilization:	72.0%
ICU Level of Service:	C
Analysis Period (min):	15

Splits and Phases: 103: Aquidneck Avenue /Plaza Driveway & East Main Road

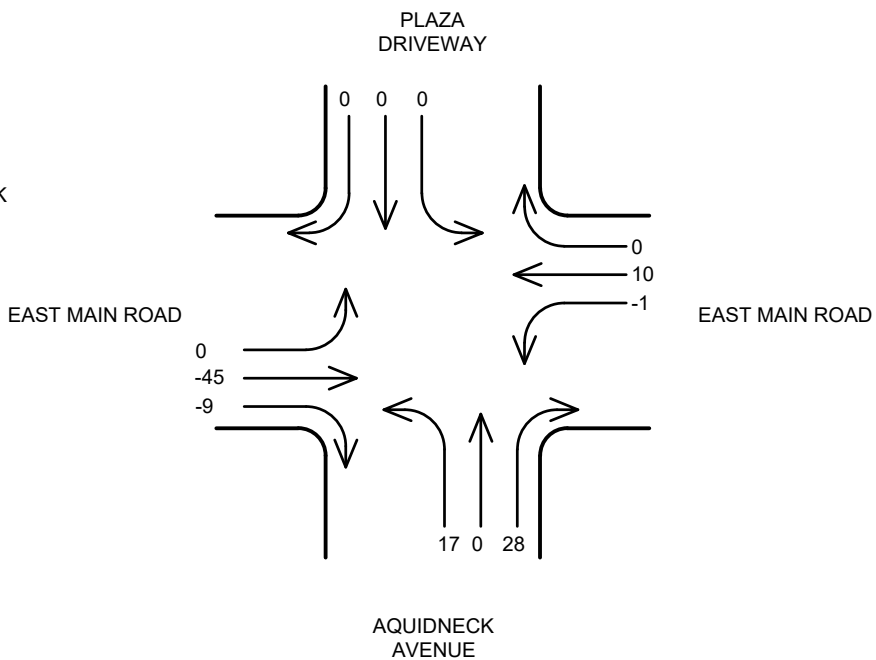


TRAFFIC VOLUMES
MIDDLETOWN MIDDLE-HIGH SCHOOL TRAFFIC IMPACT ANALYSIS
MIDDLETOWN, RI
TRIP GENERATION

SCHOOL AM PEAK

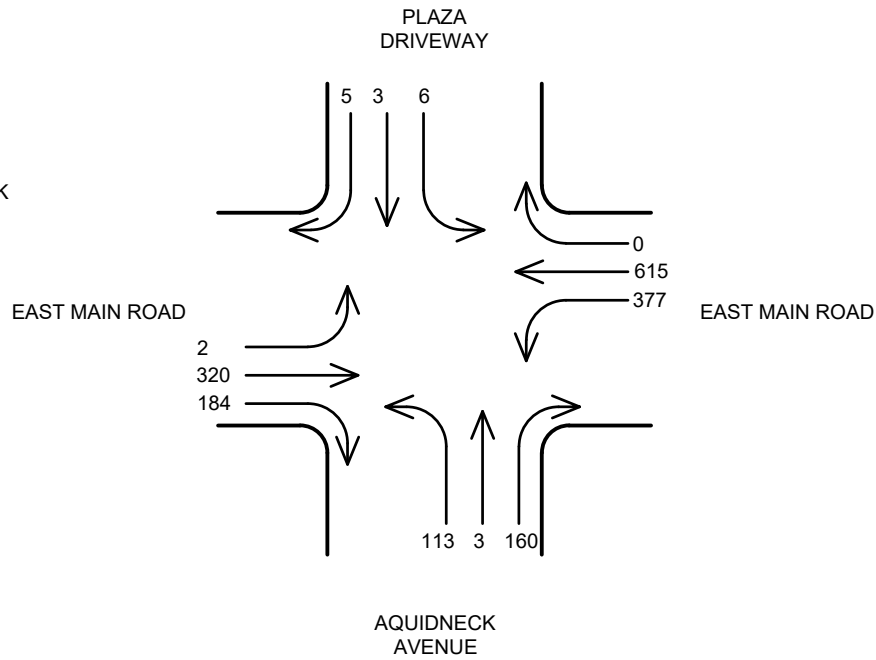


SCHOOL PM PEAK

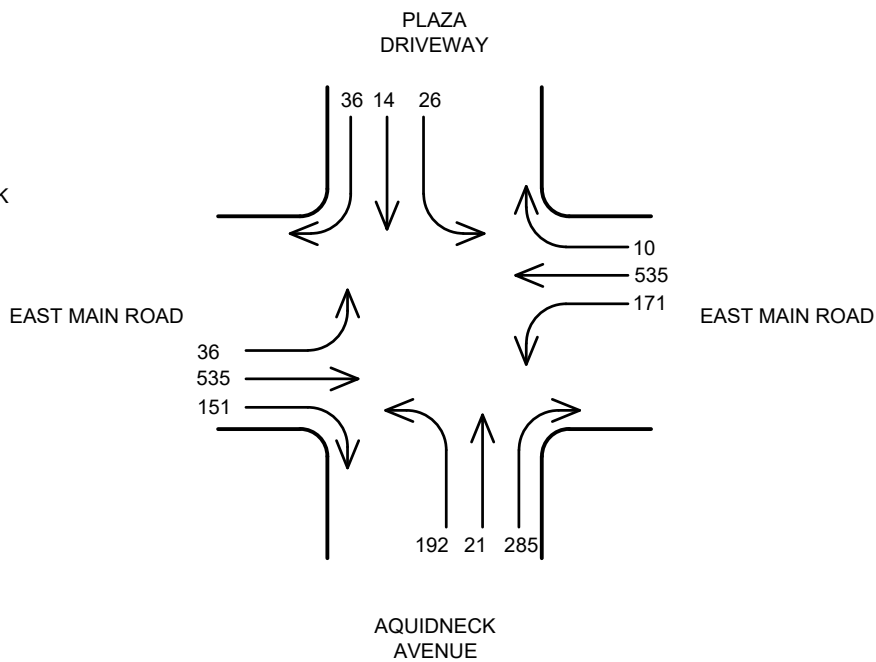


TRAFFIC VOLUMES
MIDDLETOWN MIDDLE-HIGH SCHOOL TRAFFIC IMPACT ANALYSIS
MIDDLETOWN, RI
PROPOSED VOLUME

SCHOOL AM PEAK



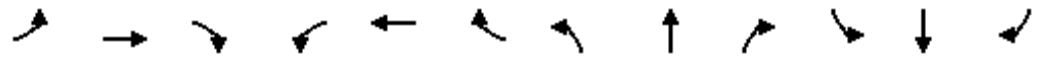
SCHOOL PM PEAK



Lanes, Volumes, Timings
 103: Aquidneck Avenue /Plaza Driveway & East Main Road

223032 Middletown Middle-High School

08/23/2023

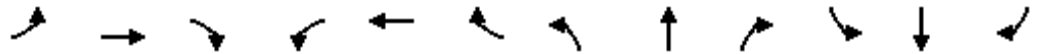


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕			↕↕			↕	↕		↕	↕
Traffic Volume (vph)	2	320	184	377	615	0	113	3	160	6	3	5
Future Volume (vph)	2	320	184	377	615	0	113	3	160	6	3	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		130	0		0
Storage Lanes	0		0	0		0	0		1	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor									0.99		1.00	
Frt		0.936							0.850			0.850
Flt Protected					0.982			0.953			0.964	
Satd. Flow (prot)	0	3272	0	0	3463	0	0	1793	1583	0	1692	1615
Flt Permitted		0.949			0.554			0.719			0.786	
Satd. Flow (perm)	0	3106	0	0	1954	0	0	1353	1562	0	1378	1615
Right Turn on Red			Yes			Yes			Yes			No
Satd. Flow (RTOR)		258							193			
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		3042			425			374			104	
Travel Time (s)		69.1			9.7			8.5			2.4	
Confl. Peds. (#/hr)									1	1		
Peak Hour Factor	0.50	0.78	0.59	0.88	0.82	0.92	0.59	0.75	0.83	0.50	0.75	0.63
Heavy Vehicles (%)	0%	5%	1%	3%	2%	2%	1%	0%	2%	0%	33%	0%
Adj. Flow (vph)	4	410	312	428	750	0	192	4	193	12	4	8
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	726	0	0	1178	0	0	196	193	0	16	8
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		D,P+P	NA		Perm	NA	pm+ov	Perm	NA	Perm
Protected Phases		2		1	1 2			3	1		3	
Permitted Phases	2			2			3		3	3		3
Detector Phase	2	2		1	1 2		3	3	1	3	3	3
Switch Phase												
Minimum Initial (s)	6.0	6.0		10.0			10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	30.0	30.0		15.0			23.0	23.0	15.0	23.0	23.0	23.0
Total Split (s)	32.0	32.0		22.0			26.0	26.0	22.0	26.0	26.0	26.0
Total Split (%)	40.0%	40.0%		27.5%			32.5%	32.5%	27.5%	32.5%	32.5%	32.5%
Maximum Green (s)	27.0	27.0		17.0			21.0	21.0	17.0	21.0	21.0	21.0
Yellow Time (s)	3.5	3.5		3.5			3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.5	1.5		1.5			1.5	1.5	1.5	1.5	1.5	1.5
Lost Time Adjust (s)		0.0						0.0	0.0		0.0	0.0
Total Lost Time (s)		5.0						5.0	5.0		5.0	5.0
Lead/Lag	Lag	Lag		Lead				Lead				
Lead-Lag Optimize?	Yes	Yes		Yes				Yes				

Lanes, Volumes, Timings
 103: Aquidneck Avenue /Plaza Driveway & East Main Road

223032 Middletown Middle-High School

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vehicle Extension (s)	2.8	2.8		2.8			2.4	2.4	2.8	2.4	2.4	2.4
Recall Mode	C-Max	C-Max		None			None	None	None	None	None	None
Walk Time (s)	5.0	5.0					5.0	5.0		5.0	5.0	5.0
Flash Dont Walk (s)	20.0	20.0					11.0	11.0		11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0					1	1		1	1	1
Act Effct Green (s)		29.7			49.1			15.9	35.3		15.9	15.9
Actuated g/C Ratio		0.37			0.61			0.20	0.44		0.20	0.20
v/c Ratio		0.55			0.75			0.73	0.24		0.06	0.02
Control Delay		14.9			11.9			45.3	2.3		24.0	23.2
Queue Delay		0.0			0.0			0.0	0.0		0.0	0.0
Total Delay		14.9			11.9			45.3	2.3		24.0	23.2
LOS		B			B			D	A		C	C
Approach Delay		14.9			11.9			24.0			23.7	
Approach LOS		B			B			C			C	
Queue Length 50th (ft)		97			132			92	0		7	3
Queue Length 95th (ft)		117			185			120	22		17	9
Internal Link Dist (ft)		2962			345			294			24	
Turn Bay Length (ft)									130			
Base Capacity (vph)		1315			1565			355	802		361	423
Starvation Cap Reductn		0			0			0	0		0	0
Spillback Cap Reductn		0			0			0	0		0	0
Storage Cap Reductn		0			0			0	0		0	0
Reduced v/c Ratio		0.55			0.75			0.55	0.24		0.04	0.02

Intersection Summary

Area Type: Other
 Cycle Length: 80
 Actuated Cycle Length: 80
 Offset: 0 (0%), Referenced to phase 2:EBWB, Start of Green
 Natural Cycle: 70
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.75
 Intersection Signal Delay: 15.0
 Intersection LOS: B
 Intersection Capacity Utilization 68.3%
 ICU Level of Service C
 Analysis Period (min) 15

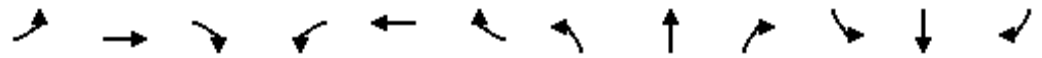
Splits and Phases: 103: Aquidneck Avenue /Plaza Driveway & East Main Road



Lanes, Volumes, Timings
 103: Aquidneck Avenue /Plaza Driveway & East Main Road

223032 Middletown Middle-High School

08/23/2023

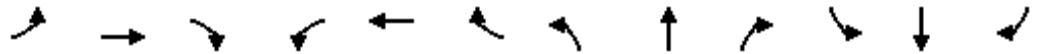


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕			↕↕			↕	↕		↕	↕
Traffic Volume (vph)	36	535	151	171	535	10	192	21	285	26	14	36
Future Volume (vph)	36	535	151	171	535	10	192	21	285	26	14	36
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		130	0		0
Storage Lanes	0		0	0		0	0		1	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor					1.00			1.00	0.98		1.00	0.99
Frt		0.968			0.997				0.850			0.850
Flt Protected		0.997			0.988			0.956			0.968	
Satd. Flow (prot)	0	3413	0	0	3477	0	0	1800	1583	0	1839	1615
Flt Permitted		0.847			0.564			0.702			0.636	
Satd. Flow (perm)	0	2899	0	0	1985	0	0	1320	1558	0	1207	1593
Right Turn on Red			Yes			Yes			Yes			No
Satd. Flow (RTOR)		51			4				151			
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		3042			425			374			104	
Travel Time (s)		69.1			9.7			8.5			2.4	
Confl. Peds. (#/hr)							1		2	2		1
Confl. Bikes (#/hr)						5			2			
Peak Hour Factor	0.69	0.92	0.87	0.84	0.91	0.63	0.68	0.75	0.93	0.65	0.70	0.69
Heavy Vehicles (%)	0%	2%	3%	3%	2%	0%	1%	0%	2%	0%	0%	0%
Adj. Flow (vph)	52	582	174	204	588	16	282	28	306	40	20	52
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	808	0	0	808	0	0	310	306	0	60	52
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		D,P+P	NA		Perm	NA	pm+ov	Perm	NA	Perm
Protected Phases		2		1	1 2			3	1		3	
Permitted Phases	2			2			3		3	3		3
Detector Phase	2	2		1	1 2		3	3	1	3	3	3
Switch Phase												
Minimum Initial (s)	6.0	6.0		10.0			10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	30.0	30.0		15.0			23.0	23.0	15.0	23.0	23.0	23.0
Total Split (s)	36.0	36.0		15.0			29.0	29.0	15.0	29.0	29.0	29.0
Total Split (%)	45.0%	45.0%		18.8%			36.3%	36.3%	18.8%	36.3%	36.3%	36.3%
Maximum Green (s)	31.0	31.0		10.0			24.0	24.0	10.0	24.0	24.0	24.0
Yellow Time (s)	3.5	3.5		3.5			3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.5	1.5		1.5			1.5	1.5	1.5	1.5	1.5	1.5
Lost Time Adjust (s)		0.0						0.0	0.0		0.0	0.0
Total Lost Time (s)		5.0						5.0	5.0		5.0	5.0
Lead/Lag	Lag	Lag		Lead				Lead				

Lanes, Volumes, Timings
 103: Aquidneck Avenue /Plaza Driveway & East Main Road

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lead-Lag Optimize?	Yes	Yes		Yes					Yes			
Vehicle Extension (s)	2.8	2.8		2.8			2.4	2.4	2.8	2.4	2.4	2.4
Recall Mode	C-Max	C-Max		None			None	None	None	None	None	None
Walk Time (s)	5.0	5.0					5.0	5.0		5.0	5.0	5.0
Flash Dont Walk (s)	20.0	20.0					11.0	11.0		11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0					1	1		1	1	1
Act Effct Green (s)		32.3			43.4			21.6	32.7		21.6	21.6
Actuated g/C Ratio		0.40			0.54			0.27	0.41		0.27	0.27
v/c Ratio		0.67			0.63			0.87	0.42		0.18	0.12
Control Delay		22.0			12.0			52.7	8.2		22.7	21.5
Queue Delay		0.0			0.0			0.0	0.0		0.0	0.0
Total Delay		22.0			12.0			52.7	8.2		22.7	21.5
LOS		C			B			D	A		C	C
Approach Delay		22.0			12.0			30.6			22.2	
Approach LOS		C			B			C			C	
Queue Length 50th (ft)		163			107			141	42		22	19
Queue Length 95th (ft)		229			145			184	93		39	34
Internal Link Dist (ft)		2962			345			294			24	
Turn Bay Length (ft)									130			
Base Capacity (vph)		1200			1285			396	729		362	477
Starvation Cap Reductn		0			0			0	0		0	0
Spillback Cap Reductn		0			0			0	0		0	0
Storage Cap Reductn		0			0			0	0		0	0
Reduced v/c Ratio		0.67			0.63			0.78	0.42		0.17	0.11

Intersection Summary

Area Type:	Other
Cycle Length:	80
Actuated Cycle Length:	80
Offset:	0 (0%), Referenced to phase 2:EBWB, Start of Green
Natural Cycle:	70
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.87
Intersection Signal Delay:	20.8
Intersection LOS:	C
Intersection Capacity Utilization:	71.6%
ICU Level of Service:	C
Analysis Period (min):	15

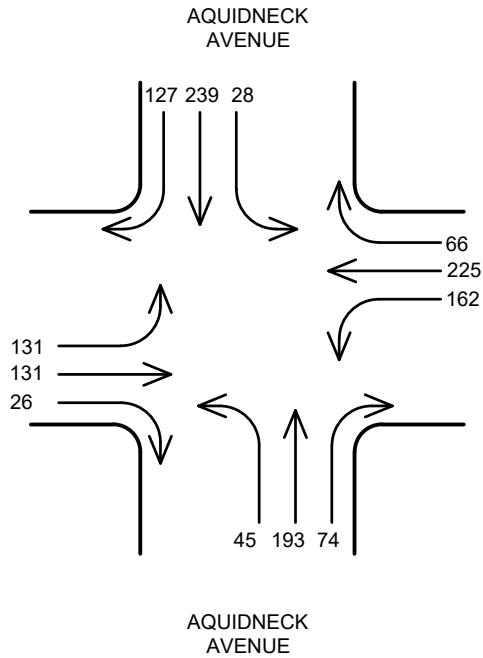
Splits and Phases: 103: Aquidneck Avenue /Plaza Driveway & East Main Road



TRAFFIC VOLUMES
MIDDLETOWN MIDDLE-HIGH SCHOOL TRAFFIC IMPACT ANALYSIS
MIDDLETOWN, RI
EXISTING VOLUME

SCHOOL AM PEAK

GREEN END AVENUE

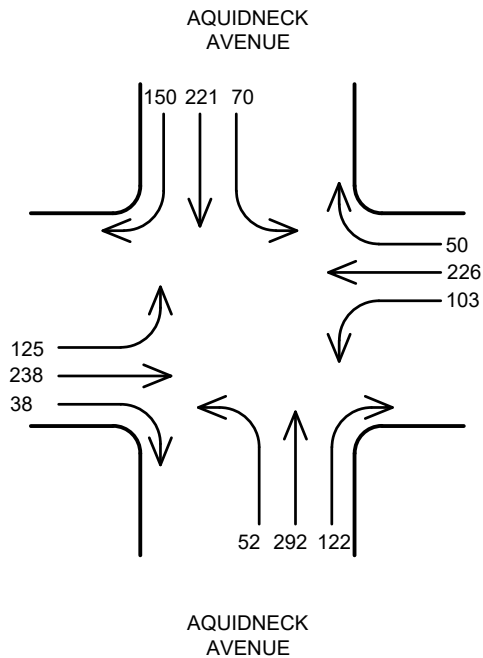


GREEN END AVENUE



SCHOOL PM PEAK

GREEN END AVENUE



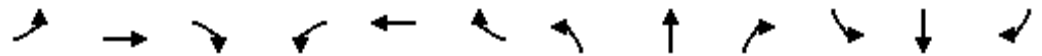
GREEN END AVENUE



Lanes, Volumes, Timings
104: Green End Avenue & Aquidneck Avenue

223032 Middletown Middle-High School

08/09/2023



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	131	131	26	162	225	66	45	193	74	28	239	127
Future Volume (vph)	131	131	26	162	225	66	45	193	74	28	239	127
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	100		0	80		0	80		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		1.00		1.00			1.00					0.99
Frt		0.968			0.964			0.950				0.947
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1733	0	1805	1778	0	1687	1752	0	1736	1731	0
Flt Permitted	0.273			0.554			0.276			0.463		
Satd. Flow (perm)	509	1733	0	1051	1778	0	489	1752	0	846	1731	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		18			21			25				28
Link Speed (mph)		30			30			30				30
Link Distance (ft)		1886			1310			3001				1155
Travel Time (s)		42.9			29.8			68.2				26.3
Confl. Peds. (#/hr)			1	1			2					2
Peak Hour Factor	0.82	0.82	0.59	0.66	0.82	0.75	0.87	0.91	0.69	0.70	0.79	0.76
Heavy Vehicles (%)	2%	5%	8%	0%	4%	0%	7%	3%	3%	4%	3%	3%
Adj. Flow (vph)	160	160	44	245	274	88	52	212	107	40	303	167
Shared Lane Traffic (%)												
Lane Group Flow (vph)	160	204	0	245	362	0	52	319	0	40	470	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12				12
Link Offset(ft)		0			0			0				0
Crosswalk Width(ft)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases	6			2			4			8		
Detector Phase	1	6		5	2		7	4		3	8	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Minimum Split (s)	12.5	24.0		12.5	27.0		12.5	29.0		12.5	24.0	
Total Split (s)	12.6	41.4		11.6	40.4		13.0	24.0		13.0	24.0	
Total Split (%)	14.0%	46.0%		12.9%	44.9%		14.4%	26.7%		14.4%	26.7%	
Maximum Green (s)	7.1	35.4		6.1	34.4		7.5	18.0		7.5	18.0	
Yellow Time (s)	3.0	3.5		3.0	3.5		3.0	3.5		3.0	3.5	
All-Red Time (s)	2.5	2.5		2.5	2.5		2.5	2.5		2.5	2.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.5	6.0		5.5	6.0		5.5	6.0		5.5	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	

Lanes, Volumes, Timings
104: Green End Avenue & Aquidneck Avenue

223032 Middletown Middle-High School

08/09/2023

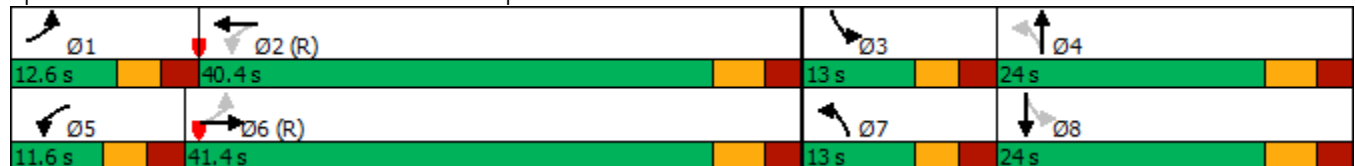


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vehicle Extension (s)	2.6	2.6		2.4	2.4		2.6	2.6		2.6	2.6	
Recall Mode	None	C-Min		None	C-Min		None	Min		None	Min	
Walk Time (s)					4.0			4.0				
Flash Dont Walk (s)					17.0			19.0				
Pedestrian Calls (#/hr)					1			2				
Act Effect Green (s)	32.3	24.4		32.4	24.4		38.1	33.0		37.6	32.7	
Actuated g/C Ratio	0.36	0.27		0.36	0.27		0.42	0.37		0.42	0.36	
v/c Ratio	0.56	0.42		0.56	0.73		0.17	0.49		0.09	0.73	
Control Delay	24.2	26.2		24.3	36.5		16.8	26.5		16.0	35.1	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	24.2	26.2		24.3	36.5		16.8	26.5		16.0	35.1	
LOS	C	C		C	D		B	C		B	D	
Approach Delay		25.3			31.6			25.2			33.6	
Approach LOS		C			C			C			C	
Queue Length 50th (ft)	59	88		95	182		15	133		12	225	
Queue Length 95th (ft)	78	118		89	219		40	#271		26	#395	
Internal Link Dist (ft)		1806			1230			2921			1075	
Turn Bay Length (ft)	100			100			80			80		
Base Capacity (vph)	285	692		440	692		311	657		430	646	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.56	0.29		0.56	0.52		0.17	0.49		0.09	0.73	

Intersection Summary

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 0 (0%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green
 Natural Cycle: 85
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.73
 Intersection Signal Delay: 29.6 Intersection LOS: C
 Intersection Capacity Utilization 68.5% ICU Level of Service C
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

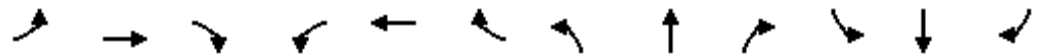
Splits and Phases: 104: Green End Avenue & Aquidneck Avenue



Lanes, Volumes, Timings
104: Green End Avenue & Aquidneck Avenue

223032 Middletown Middle-High School

08/09/2023

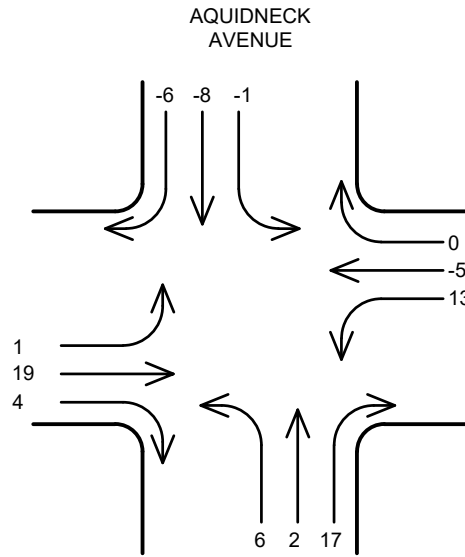


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	125	238	38	103	226	50	52	292	122	70	221	150
Future Volume (vph)	125	238	38	103	226	50	52	292	122	70	221	150
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	100		0	80		0	80		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00				1.00							
Fr _t		0.976			0.967			0.949			0.941	
Fl _t Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1824	0	1752	1756	0	1805	1751	0	1703	1763	0
Fl _t Permitted	0.333			0.424			0.197			0.212		
Satd. Flow (perm)	620	1824	0	782	1756	0	374	1751	0	380	1763	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		13			19			32			40	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1886			1310			3001			1155	
Travel Time (s)		42.9			29.8			68.2			26.3	
Confl. Peds. (#/hr)	1						1					
Peak Hour Factor	0.73	0.86	0.73	0.86	0.94	0.74	0.72	0.95	0.78	0.76	0.76	0.80
Heavy Vehicles (%)	2%	2%	0%	3%	3%	8%	0%	3%	3%	6%	1%	2%
Adj. Flow (vph)	171	277	52	120	240	68	72	307	156	92	291	188
Shared Lane Traffic (%)												
Lane Group Flow (vph)	171	329	0	120	308	0	72	463	0	92	479	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases	6			2			4			8		
Detector Phase	1	6		5	2		7	4		3	8	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Minimum Split (s)	12.5	24.0		12.5	27.0		12.5	29.0		12.5	24.0	
Total Split (s)	12.5	27.0		11.5	26.0		13.0	23.5		13.0	23.5	
Total Split (%)	16.7%	36.0%		15.3%	34.7%		17.3%	31.3%		17.3%	31.3%	
Maximum Green (s)	7.0	21.0		6.0	20.0		7.5	17.5		7.5	17.5	
Yellow Time (s)	3.0	3.5		3.0	3.5		3.0	3.5		3.0	3.5	
All-Red Time (s)	2.5	2.5		2.5	2.5		2.5	2.5		2.5	2.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.5	6.0		5.5	6.0		5.5	6.0		5.5	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	

TRAFFIC VOLUMES
MIDDLETOWN MIDDLE-HIGH SCHOOL TRAFFIC IMPACT ANALYSIS
MIDDLETOWN, RI
TRIP GENERATION

SCHOOL AM PEAK

GREEN END AVENUE



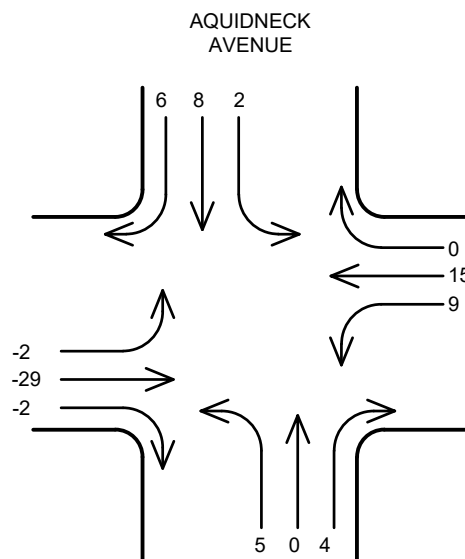
GREEN END AVENUE

AQUIDNECK AVENUE



SCHOOL PM PEAK

GREEN END AVENUE



GREEN END AVENUE

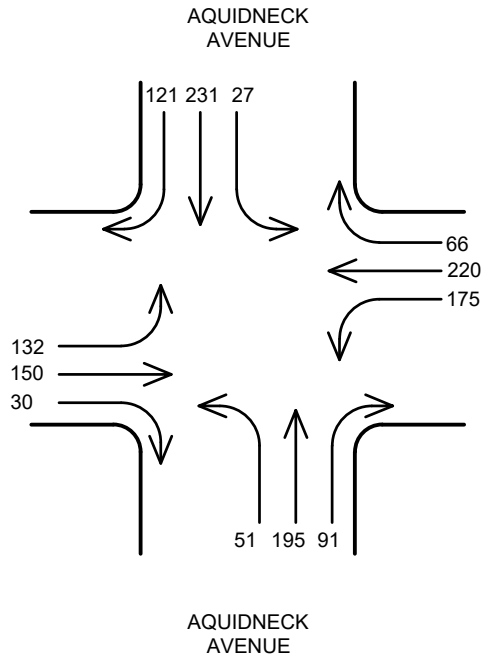
AQUIDNECK AVENUE



TRAFFIC VOLUMES
MIDDLETOWN MIDDLE-HIGH SCHOOL TRAFFIC IMPACT ANALYSIS
MIDDLETOWN, RI
PROPOSED VOLUME

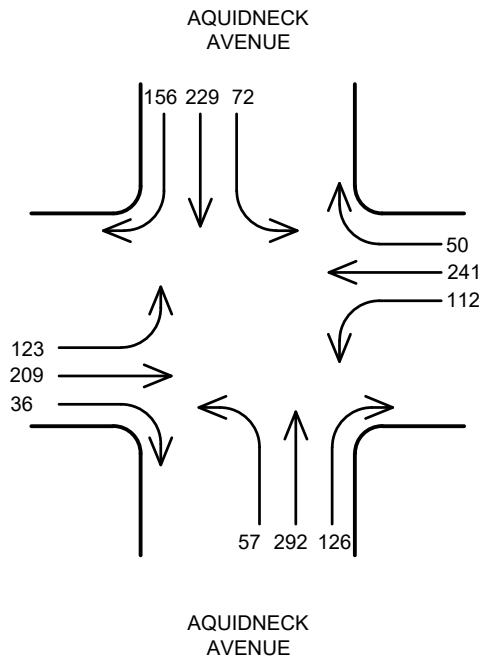
SCHOOL AM PEAK

GREEN END AVENUE



SCHOOL PM PEAK

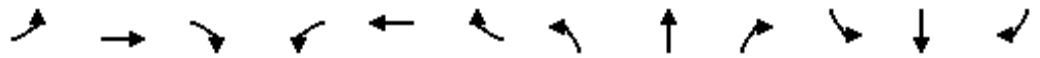
GREEN END AVENUE



Lanes, Volumes, Timings
104: Green End Avenue & Aquidneck Avenue

223032 Middletown Middle-High School

08/23/2023

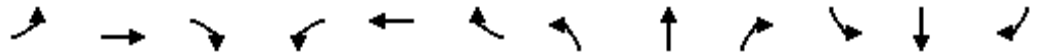


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	132	150	30	175	220	66	51	195	91	27	231	121
Future Volume (vph)	132	150	30	175	220	66	51	195	91	27	231	121
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	100		0	80		0	80		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		1.00		1.00			1.00					0.99
Frt		0.967			0.963			0.943				0.947
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1731	0	1805	1776	0	1687	1740	0	1736	1732	0
Flt Permitted	0.266			0.505			0.279			0.458		
Satd. Flow (perm)	495	1731	0	958	1776	0	495	1740	0	837	1732	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		18			21			31				27
Link Speed (mph)		30			30			30				30
Link Distance (ft)		1886			1310			3001				1155
Travel Time (s)		42.9			29.8			68.2				26.3
Confl. Peds. (#/hr)			1	1			2					2
Peak Hour Factor	0.82	0.82	0.59	0.66	0.82	0.75	0.87	0.91	0.69	0.70	0.79	0.76
Heavy Vehicles (%)	2%	5%	8%	0%	4%	0%	7%	3%	3%	4%	3%	3%
Adj. Flow (vph)	161	183	51	265	268	88	59	214	132	39	292	159
Shared Lane Traffic (%)												
Lane Group Flow (vph)	161	234	0	265	356	0	59	346	0	39	451	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12				12
Link Offset(ft)		0			0			0				0
Crosswalk Width(ft)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases	6			2			4			8		
Detector Phase	1	6		5	2		7	4		3	8	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Minimum Split (s)	12.5	24.0		12.5	27.0		12.5	29.0		12.5	24.0	
Total Split (s)	12.6	41.4		11.6	40.4		13.0	24.0		13.0	24.0	
Total Split (%)	14.0%	46.0%		12.9%	44.9%		14.4%	26.7%		14.4%	26.7%	
Maximum Green (s)	7.1	35.4		6.1	34.4		7.5	18.0		7.5	18.0	
Yellow Time (s)	3.0	3.5		3.0	3.5		3.0	3.5		3.0	3.5	
All-Red Time (s)	2.5	2.5		2.5	2.5		2.5	2.5		2.5	2.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.5	6.0		5.5	6.0		5.5	6.0		5.5	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	

Lanes, Volumes, Timings
104: Green End Avenue & Aquidneck Avenue

223032 Middletown Middle-High School

08/23/2023

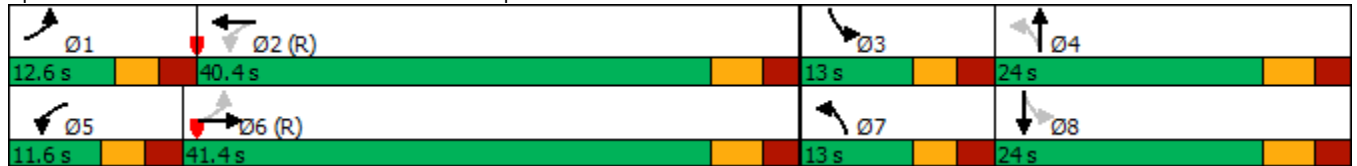


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vehicle Extension (s)	2.6	2.6		2.4	2.4		2.6	2.6		2.6	2.6	
Recall Mode	None	C-Min		None	C-Min		None	Min		None	Min	
Walk Time (s)					4.0			4.0				
Flash Dont Walk (s)					17.0			19.0				
Pedestrian Calls (#/hr)					1			2				
Act Effect Green (s)	31.7	24.1		30.9	23.7		39.3	34.0		37.4	31.1	
Actuated g/C Ratio	0.35	0.27		0.34	0.26		0.44	0.38		0.42	0.35	
v/c Ratio	0.59	0.49		0.68	0.74		0.19	0.51		0.09	0.73	
Control Delay	26.2	28.4		30.2	37.8		16.3	26.2		15.4	35.8	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	26.2	28.4		30.2	37.8		16.3	26.2		15.4	35.8	
LOS	C	C		C	D		B	C		B	D	
Approach Delay		27.5			34.6			24.8			34.2	
Approach LOS		C			C			C			C	
Queue Length 50th (ft)	60	105		105	178		17	144		11	211	
Queue Length 95th (ft)	79	137		97	216		44	#300		25	#374	
Internal Link Dist (ft)		1806			1230			2921			1075	
Turn Bay Length (ft)	100			100			80			80		
Base Capacity (vph)	274	691		392	691		321	676		426	615	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.59	0.34		0.68	0.52		0.18	0.51		0.09	0.73	

Intersection Summary

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 0 (0%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green
 Natural Cycle: 85
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.74
 Intersection Signal Delay: 30.9 Intersection LOS: C
 Intersection Capacity Utilization 67.5% ICU Level of Service C
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

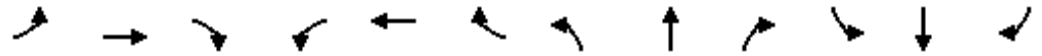
Splits and Phases: 104: Green End Avenue & Aquidneck Avenue



Lanes, Volumes, Timings
104: Green End Avenue & Aquidneck Avenue

223032 Middletown Middle-High School

08/23/2023

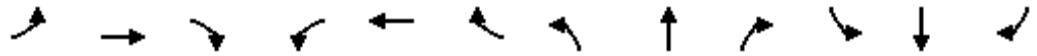


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	123	209	36	112	241	50	57	292	126	72	229	156
Future Volume (vph)	123	209	36	112	241	50	57	292	126	72	229	156
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	100		0	80		0	80		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00				1.00							
Frt		0.975			0.969			0.948			0.941	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1822	0	1752	1761	0	1805	1749	0	1703	1763	0
Flt Permitted	0.300			0.491			0.180			0.213		
Satd. Flow (perm)	558	1822	0	906	1761	0	342	1749	0	382	1763	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		13			17			33			41	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1886			1310			3001			1155	
Travel Time (s)		42.9			29.8			68.2			26.3	
Confl. Peds. (#/hr)	1						1					
Peak Hour Factor	0.73	0.86	0.73	0.86	0.94	0.74	0.72	0.95	0.78	0.76	0.76	0.80
Heavy Vehicles (%)	2%	2%	0%	3%	3%	8%	0%	3%	3%	6%	1%	2%
Adj. Flow (vph)	168	243	49	130	256	68	79	307	162	95	301	195
Shared Lane Traffic (%)												
Lane Group Flow (vph)	168	292	0	130	324	0	79	469	0	95	496	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases	6			2			4			8		
Detector Phase	1	6		5	2		7	4		3	8	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Minimum Split (s)	12.5	24.0		12.5	27.0		12.5	29.0		12.5	24.0	
Total Split (s)	12.5	27.0		11.5	26.0		13.0	23.5		13.0	23.5	
Total Split (%)	16.7%	36.0%		15.3%	34.7%		17.3%	31.3%		17.3%	31.3%	
Maximum Green (s)	7.0	21.0		6.0	20.0		7.5	17.5		7.5	17.5	
Yellow Time (s)	3.0	3.5		3.0	3.5		3.0	3.5		3.0	3.5	
All-Red Time (s)	2.5	2.5		2.5	2.5		2.5	2.5		2.5	2.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.5	6.0		5.5	6.0		5.5	6.0		5.5	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	

Lanes, Volumes, Timings
104: Green End Avenue & Aquidneck Avenue

223032 Middletown Middle-High School

08/23/2023

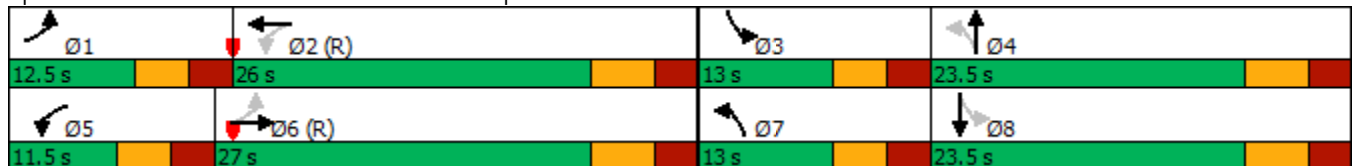


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vehicle Extension (s)	2.6	2.6		2.4	2.4		2.6	2.6		2.6	2.6	
Recall Mode	None	C-Min		None	C-Min		None	Min		None	Min	
Walk Time (s)					4.0			4.0				
Flash Dont Walk (s)					17.0			19.0				
Pedestrian Calls (#/hr)					1			2				
Act Effct Green (s)	27.4	21.3		24.7	18.0		28.5	22.2		28.7	22.3	
Actuated g/C Ratio	0.37	0.28		0.33	0.24		0.38	0.30		0.38	0.30	
v/c Ratio	0.53	0.56		0.35	0.74		0.29	0.87		0.35	0.90	
Control Delay	20.9	27.2		16.9	36.2		16.2	45.5		17.1	48.5	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	20.9	27.2		16.9	36.2		16.2	45.5		17.1	48.5	
LOS	C	C		B	D		B	D		B	D	
Approach Delay		24.9			30.7			41.3			43.5	
Approach LOS		C			C			D			D	
Queue Length 50th (ft)	49	115		37	133		21	202		25	212	
Queue Length 95th (ft)	67	175		64	213		37	#414		46	#331	
Internal Link Dist (ft)		1806			1230			2921			1075	
Turn Bay Length (ft)	100			100			80			80		
Base Capacity (vph)	317	560		368	482		277	540		278	552	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.53	0.52		0.35	0.67		0.29	0.87		0.34	0.90	

Intersection Summary

Area Type: Other
 Cycle Length: 75
 Actuated Cycle Length: 75
 Offset: 0 (0%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green
 Natural Cycle: 85
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.90
 Intersection Signal Delay: 35.9
 Intersection LOS: D
 Intersection Capacity Utilization 72.4%
 ICU Level of Service C
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

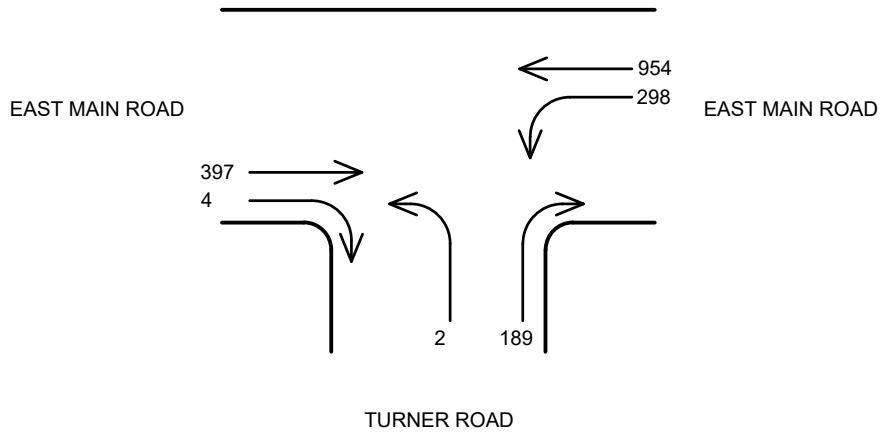
Splits and Phases: 104: Green End Avenue & Aquidneck Avenue



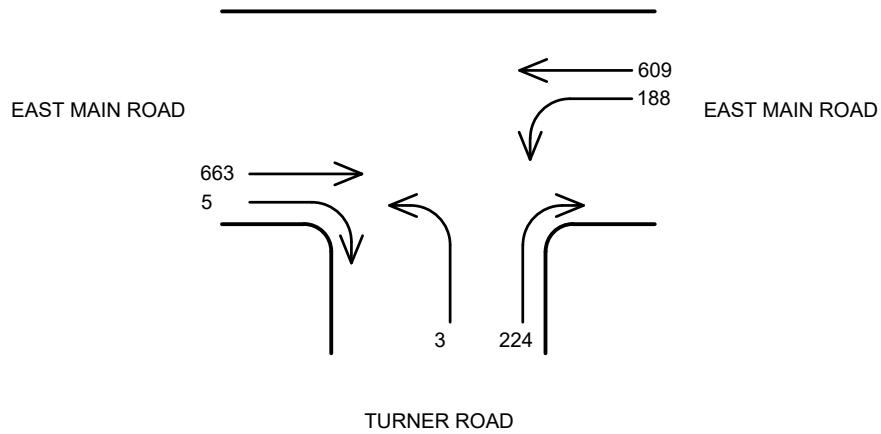
TRAFFIC VOLUMES
MIDDLETOWN MIDDLE-HIGH SCHOOL TRAFFIC IMPACT ANALYSIS
MIDDLETOWN, RI
EXISTING VOLUME



SCHOOL AM PEAK



SCHOOL PM PEAK



Intersection						
Int Delay, s/veh	11.4					
Movement	NBL	NBR	NET	NER	SWL	SWT
Lane Configurations	T		T		T	
Traffic Vol, veh/h	2	189	397	4	298	954
Future Vol, veh/h	2	189	397	4	298	954
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	50	73	89	50	84	82
Heavy Vehicles, %	0	5	5	0	3	3
Mvmt Flow	4	259	446	8	355	1163

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1742	227	0	0	454	0
Stage 1	450	-	-	-	-	-
Stage 2	1292	-	-	-	-	-
Critical Hdwy	6.8	7	-	-	4.16	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.5	3.35	-	-	2.23	-
Pot Cap-1 Maneuver	79	767	-	-	1096	-
Stage 1	615	-	-	-	-	-
Stage 2	225	-	-	-	-	-
Platoon blocked, %			-	-	-	-
Mov Cap-1 Maneuver	7	767	-	-	1096	-
Mov Cap-2 Maneuver	7	-	-	-	-	-
Stage 1	615	-	-	-	-	-
Stage 2	19	-	-	-	-	-

Approach	NB	NE	SW
HCM Control Delay, s	71.4	0	4.4
HCM LOS	F		

Minor Lane/Major Mvmt	NET	NER	NBLn1	SWL	SWT
Capacity (veh/h)	-	-	289	1096	-
HCM Lane V/C Ratio	-	-	0.91	0.324	-
HCM Control Delay (s)	-	-	71.4	9.8	2.8
HCM Lane LOS	-	-	F	A	A
HCM 95th %tile Q(veh)	-	-	8.4	1.4	-

Intersection						
Int Delay, s/veh	4.8					
Movement	NBL	NBR	NET	NER	SWL	SWT
Lane Configurations	T		T		T	
Traffic Vol, veh/h	3	224	663	5	188	609
Future Vol, veh/h	3	224	663	5	188	609
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	38	81	94	63	84	92
Heavy Vehicles, %	0	3	2	0	6	3
Mvmt Flow	8	277	705	8	224	662

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1488	357	0	0	713	0
Stage 1	709	-	-	-	-	-
Stage 2	779	-	-	-	-	-
Critical Hdwy	6.8	6.96	-	-	4.22	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.5	3.33	-	-	2.26	-
Pot Cap-1 Maneuver	117	637	-	-	857	-
Stage 1	454	-	-	-	-	-
Stage 2	418	-	-	-	-	-
Platoon blocked, %			-	-	-	-
Mov Cap-1 Maneuver	69	637	-	-	857	-
Mov Cap-2 Maneuver	69	-	-	-	-	-
Stage 1	454	-	-	-	-	-
Stage 2	245	-	-	-	-	-

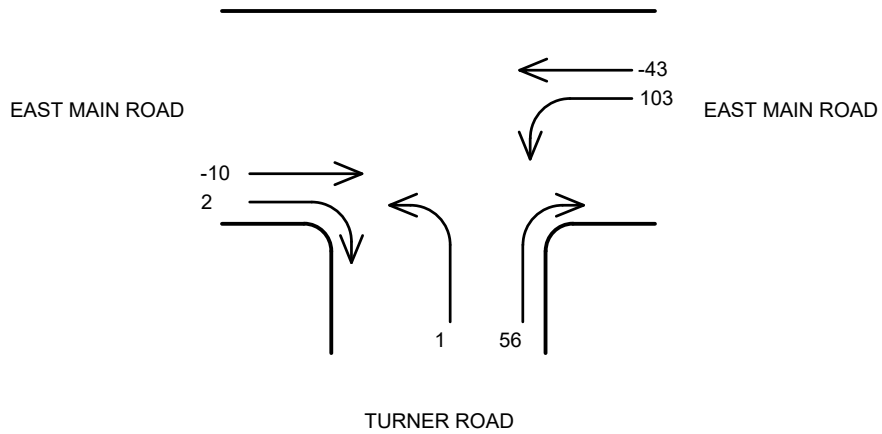
Approach	NB	NE	SW
HCM Control Delay, s	20	0	3.7
HCM LOS	C		

Minor Lane/Major Mvmt	NET	NER	NBLn1	SWL	SWT
Capacity (veh/h)	-	-	519	857	-
HCM Lane V/C Ratio	-	-	0.548	0.261	-
HCM Control Delay (s)	-	-	20	10.7	1.3
HCM Lane LOS	-	-	C	B	A
HCM 95th %tile Q(veh)	-	-	3.3	1	-

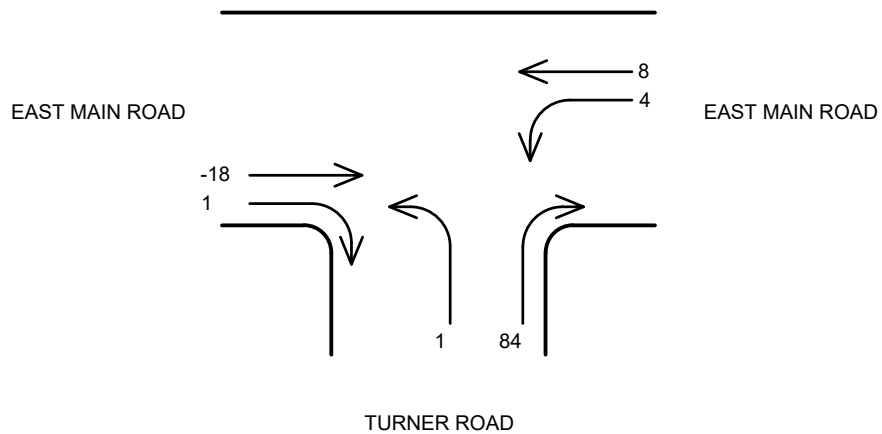
TRAFFIC VOLUMES
MIDDLETOWN MIDDLE-HIGH SCHOOL TRAFFIC IMPACT ANALYSIS
MIDDLETOWN, RI
TRIP GENERATION



SCHOOL AM PEAK



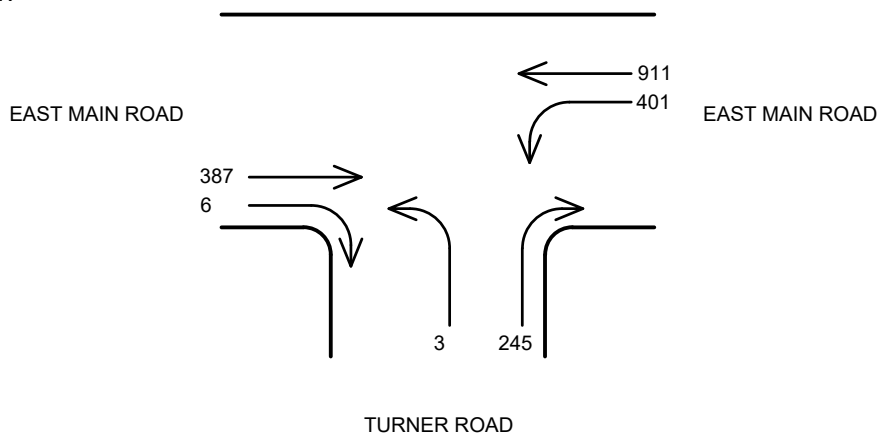
SCHOOL PM PEAK



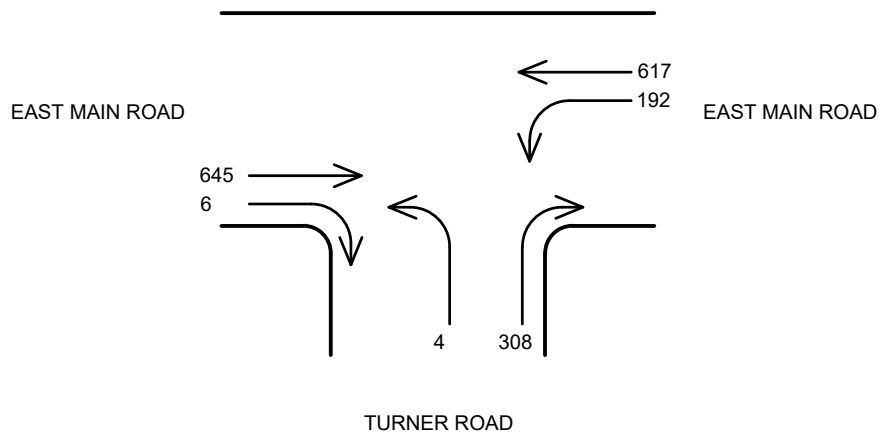
TRAFFIC VOLUMES
MIDDLETOWN MIDDLE-HIGH SCHOOL TRAFFIC IMPACT ANALYSIS
MIDDLETOWN, RI
PROPOSED VOLUME



SCHOOL AM PEAK



SCHOOL PM PEAK



Intersection						
Int Delay, s/veh	5.5					
Movement	NBL	NBR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Vol, veh/h	3	245	387	6	401	911
Future Vol, veh/h	3	245	387	6	401	911
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	50	73	89	50	84	82
Heavy Vehicles, %	0	5	5	0	3	3
Mvmt Flow	6	336	435	12	477	1111

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	1951	224	0	0	447
Stage 1	441	-	-	-	-
Stage 2	1510	-	-	-	-
Critical Hdwy	6.8	7	-	-	4.16
Critical Hdwy Stg 1	5.8	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-
Follow-up Hdwy	3.5	3.35	-	-	2.23
Pot Cap-1 Maneuver	58	770	-	-	1103
Stage 1	622	-	-	-	-
Stage 2	172	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	0	770	-	-	1103
Mov Cap-2 Maneuver	0	-	-	-	-
Stage 1	622	-	-	-	-
Stage 2	0	-	-	-	-

Approach	NB	NE	SW
HCM Control Delay, s	13.4	0	5.3
HCM LOS	B		

Minor Lane/Major Mvmt	NET	NER	NBLn1	SWL	SWT
Capacity (veh/h)	-	-	770	1103	-
HCM Lane V/C Ratio	-	-	0.444	0.433	-
HCM Control Delay (s)	-	-	13.4	10.7	2.9
HCM Lane LOS	-	-	B	B	A
HCM 95th %tile Q(veh)	-	-	2.3	2.2	-

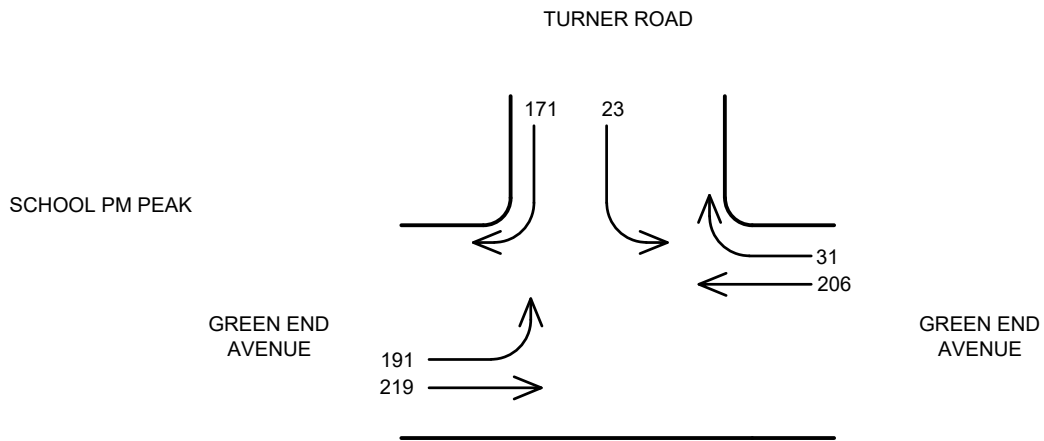
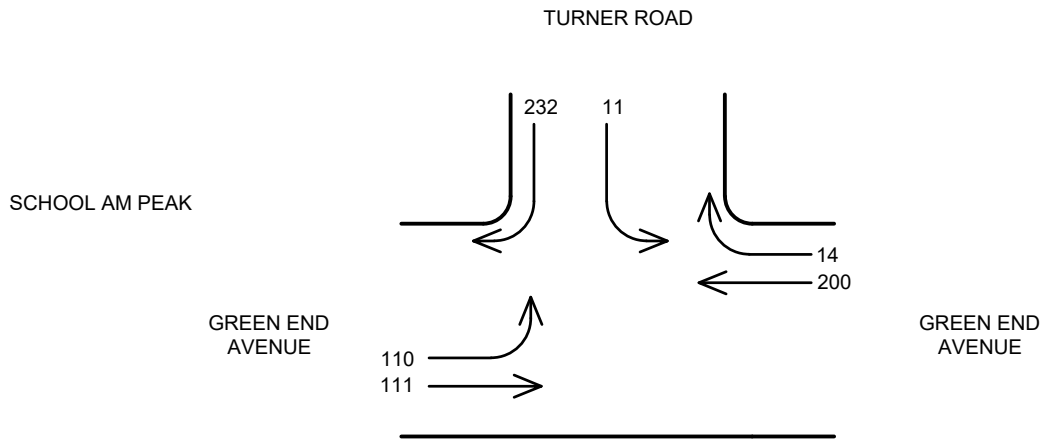
Intersection						
Int Delay, s/veh	7.4					
Movement	NBL	NBR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Vol, veh/h	4	308	645	6	192	617
Future Vol, veh/h	4	308	645	6	192	617
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	38	81	94	63	84	92
Heavy Vehicles, %	0	3	2	0	6	3
Mvmt Flow	11	380	686	10	229	671

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	1485	348	0	0	696
Stage 1	691	-	-	-	-
Stage 2	794	-	-	-	-
Critical Hdwy	6.8	6.96	-	-	4.22
Critical Hdwy Stg 1	5.8	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-
Follow-up Hdwy	3.5	3.33	-	-	2.26
Pot Cap-1 Maneuver	118	645	-	-	870
Stage 1	464	-	-	-	-
Stage 2	411	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	68	645	-	-	870
Mov Cap-2 Maneuver	68	-	-	-	-
Stage 1	464	-	-	-	-
Stage 2	238	-	-	-	-

Approach	NB	NE	SW
HCM Control Delay, s	29.2	0	3.7
HCM LOS	D		

Minor Lane/Major Mvmt	NET	NER	NBLn1	SWL	SWT
Capacity (veh/h)	-	-	525	870	-
HCM Lane V/C Ratio	-	-	0.744	0.263	-
HCM Control Delay (s)	-	-	29.2	10.6	1.3
HCM Lane LOS	-	-	D	B	A
HCM 95th %tile Q(veh)	-	-	6.3	1.1	-

TRAFFIC VOLUMES
MIDDLETOWN MIDDLE-HIGH SCHOOL TRAFFIC IMPACT ANALYSIS
MIDDLETOWN, RI
EXISTING VOLUME



Intersection						
Int Delay, s/veh	7.9					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↶	↷		↶	↷
Traffic Vol, veh/h	110	111	200	14	11	232
Future Vol, veh/h	110	111	200	14	11	232
Conflicting Peds, #/hr	0	0	0	0	1	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	81	84	91	44	39	62
Heavy Vehicles, %	3	6	2	14	0	2
Mvmt Flow	136	132	220	32	28	374

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	252	0	-	0	641 236
Stage 1	-	-	-	-	236 -
Stage 2	-	-	-	-	405 -
Critical Hdwy	4.13	-	-	-	6.4 6.22
Critical Hdwy Stg 1	-	-	-	-	5.4 -
Critical Hdwy Stg 2	-	-	-	-	5.4 -
Follow-up Hdwy	2.227	-	-	-	3.5 3.318
Pot Cap-1 Maneuver	1307	-	-	-	442 803
Stage 1	-	-	-	-	808 -
Stage 2	-	-	-	-	678 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1307	-	-	-	392 803
Mov Cap-2 Maneuver	-	-	-	-	392 -
Stage 1	-	-	-	-	718 -
Stage 2	-	-	-	-	678 -

Approach	EB	WB	SB
HCM Control Delay, s	4.1	0	15.3
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1307	-	-	-	748
HCM Lane V/C Ratio	0.104	-	-	-	0.538
HCM Control Delay (s)	8.1	0	-	-	15.3
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0.3	-	-	-	3.2

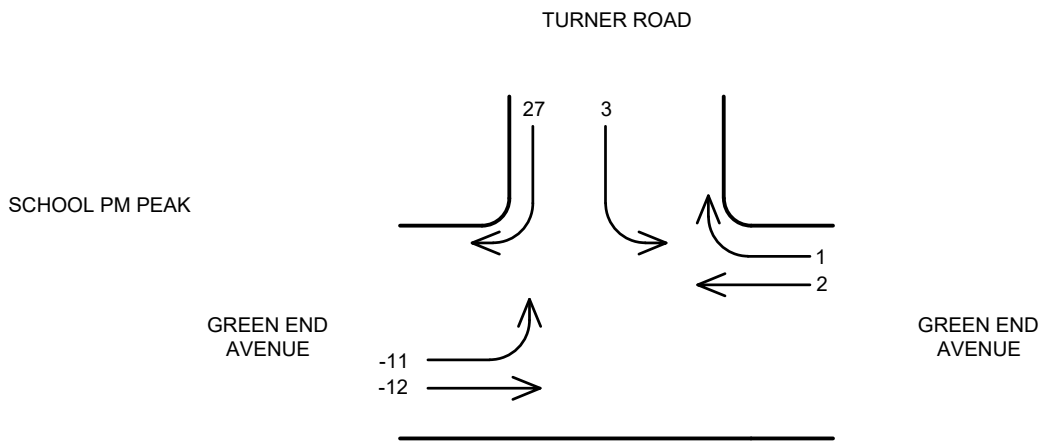
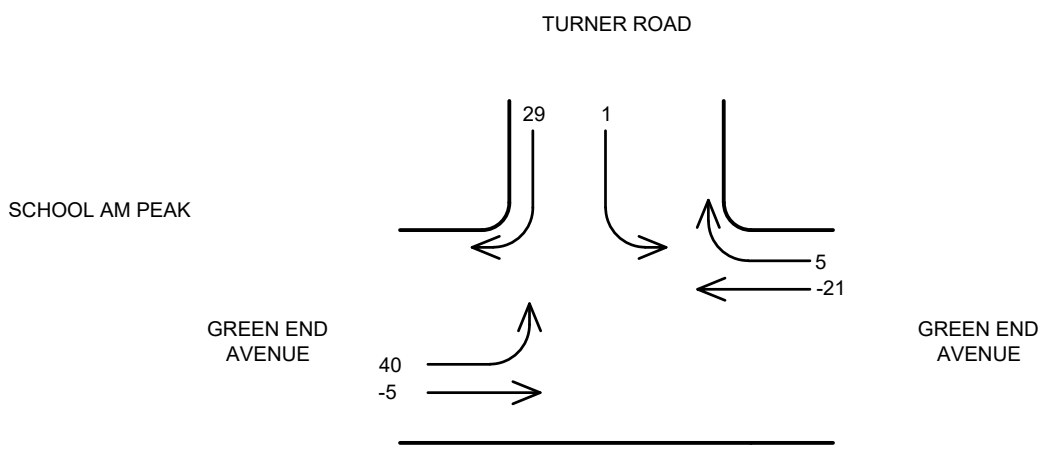
Intersection						
Int Delay, s/veh	5.7					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	191	219	206	31	23	171
Future Vol, veh/h	191	219	206	31	23	171
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	72	88	87	70	96	78
Heavy Vehicles, %	2	4	2	0	0	3
Mvmt Flow	265	249	237	44	24	219

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	281	0	-	0	1038 259
Stage 1	-	-	-	-	259 -
Stage 2	-	-	-	-	779 -
Critical Hdwy	4.12	-	-	-	6.4 6.23
Critical Hdwy Stg 1	-	-	-	-	5.4 -
Critical Hdwy Stg 2	-	-	-	-	5.4 -
Follow-up Hdwy	2.218	-	-	-	3.5 3.327
Pot Cap-1 Maneuver	1282	-	-	-	258 777
Stage 1	-	-	-	-	789 -
Stage 2	-	-	-	-	456 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1282	-	-	-	196 777
Mov Cap-2 Maneuver	-	-	-	-	196 -
Stage 1	-	-	-	-	600 -
Stage 2	-	-	-	-	456 -

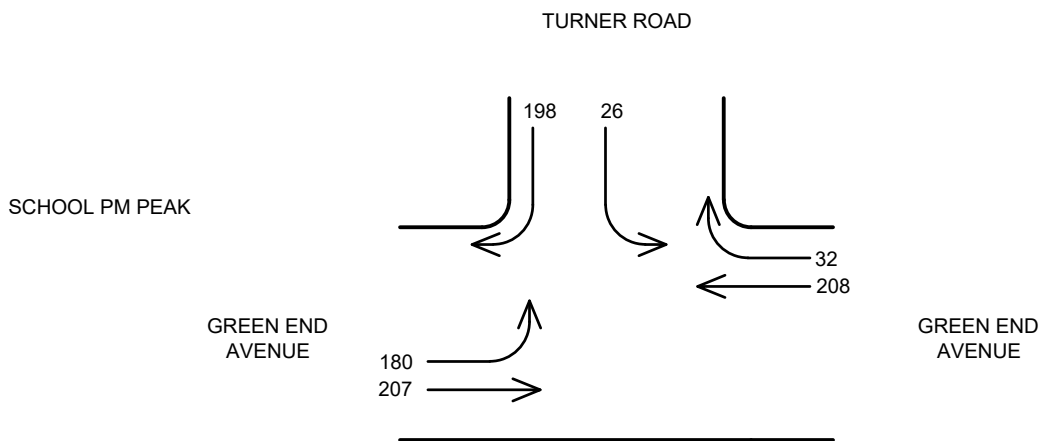
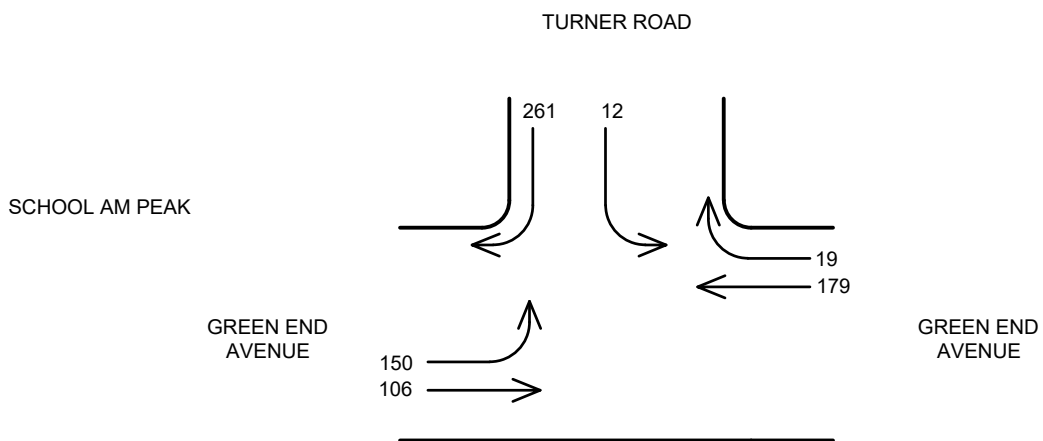
Approach	EB	WB	SB
HCM Control Delay, s	4.4	0	15
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1282	-	-	-	601
HCM Lane V/C Ratio	0.207	-	-	-	0.405
HCM Control Delay (s)	8.5	0	-	-	15
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0.8	-	-	-	2

TRAFFIC VOLUMES
MIDDLETOWN MIDDLE-HIGH SCHOOL TRAFFIC IMPACT ANALYSIS
MIDDLETOWN, RI
TRIP GENERATION



TRAFFIC VOLUMES
MIDDLETOWN MIDDLE-HIGH SCHOOL TRAFFIC IMPACT ANALYSIS
MIDDLETOWN, RI
PROPOSED VOLUME



Intersection						
Int Delay, s/veh	9.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	150	106	179	19	12	261
Future Vol, veh/h	150	106	179	19	12	261
Conflicting Peds, #/hr	0	0	0	0	1	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	81	84	91	44	39	62
Heavy Vehicles, %	3	6	2	14	0	2
Mvmt Flow	185	126	197	43	31	421

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	240	0	-	0	716 219
Stage 1	-	-	-	-	219 -
Stage 2	-	-	-	-	497 -
Critical Hdwy	4.13	-	-	-	6.4 6.22
Critical Hdwy Stg 1	-	-	-	-	5.4 -
Critical Hdwy Stg 2	-	-	-	-	5.4 -
Follow-up Hdwy	2.227	-	-	-	3.5 3.318
Pot Cap-1 Maneuver	1321	-	-	-	400 821
Stage 1	-	-	-	-	822 -
Stage 2	-	-	-	-	615 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1321	-	-	-	340 821
Mov Cap-2 Maneuver	-	-	-	-	340 -
Stage 1	-	-	-	-	698 -
Stage 2	-	-	-	-	615 -

Approach	EB	WB	SB
HCM Control Delay, s	4.9	0	16.8
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1321	-	-	-	749
HCM Lane V/C Ratio	0.14	-	-	-	0.603
HCM Control Delay (s)	8.2	0	-	-	16.8
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0.5	-	-	-	4.1

Intersection						
Int Delay, s/veh	6.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↶	↷		↶	↷
Traffic Vol, veh/h	180	207	208	32	26	198
Future Vol, veh/h	180	207	208	32	26	198
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	72	88	87	70	96	78
Heavy Vehicles, %	2	4	2	0	0	3
Mvmt Flow	250	235	239	46	27	254

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	285	0	-	0	997 262
Stage 1	-	-	-	-	262 -
Stage 2	-	-	-	-	735 -
Critical Hdwy	4.12	-	-	-	6.4 6.23
Critical Hdwy Stg 1	-	-	-	-	5.4 -
Critical Hdwy Stg 2	-	-	-	-	5.4 -
Follow-up Hdwy	2.218	-	-	-	3.5 3.327
Pot Cap-1 Maneuver	1277	-	-	-	273 774
Stage 1	-	-	-	-	786 -
Stage 2	-	-	-	-	478 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1277	-	-	-	212 774
Mov Cap-2 Maneuver	-	-	-	-	212 -
Stage 1	-	-	-	-	609 -
Stage 2	-	-	-	-	478 -

Approach	EB	WB	SB
HCM Control Delay, s	4.4	0	15.7
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1277	-	-	-	616
HCM Lane V/C Ratio	0.196	-	-	-	0.456
HCM Control Delay (s)	8.5	0	-	-	15.7
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0.7	-	-	-	2.4

APPENDIX D

Crash Data Summary



APPENDIX E

Speed Data



Transportation Data Corporation

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

Aquidneck Avenue (Route 138A)
just north of Vierra Terrace
City, State: Middletown, RI
Client: Bryant/T. Brayton

05711Bspeed
Site Code: 223032

Northbound

Start Time	15	16	21	26	31	36	41	46	51	56	61	66	71	76	999	Total	85th Percent	95th Percent
05/23/23	0	0	0	2	5	4	0	0	0	0	0	0	0	0	0	11	37	39
01:00	0	0	1	3	1	0	0	0	0	0	0	0	0	0	0	5	31	33
02:00	1	0	0	0	4	0	0	0	0	0	0	0	0	0	0	5	34	34
03:00	0	0	0	2	0	1	0	0	0	0	0	0	0	0	0	3	37	39
04:00	0	0	2	3	2	0	0	0	0	0	0	0	0	0	0	7	32	34
05:00	0	0	2	15	9	4	0	0	0	0	0	0	0	0	0	30	34	38
06:00	5	6	8	42	31	29	1	0	0	0	0	0	0	0	0	122	37	39
07:00	36	59	77	58	23	0	0	0	0	0	0	0	0	0	0	253	28	32
08:00	13	44	105	81	10	0	0	0	0	0	0	0	0	0	0	253	28	29
09:00	12	58	112	63	11	0	0	0	0	0	0	0	0	0	0	256	27	29
10:00	16	42	125	76	16	4	0	0	0	0	0	0	0	0	0	279	28	31
11:00	27	70	151	95	5	2	0	0	0	0	0	0	0	0	0	350	27	29
12 PM	17	60	186	85	17	1	0	0	0	0	0	0	0	0	0	366	27	29
13:00	19	60	185	107	15	1	0	0	0	0	0	0	0	0	0	387	28	29
14:00	62	62	151	84	30	3	0	0	0	0	0	0	0	0	0	392	28	32
15:00	26	64	199	179	53	3	0	0	0	0	0	0	0	0	1	525	29	32
16:00	17	39	136	263	115	10	2	0	0	0	0	0	0	0	0	582	31	34
17:00	11	9	82	202	113	23	2	0	0	0	0	0	0	0	0	442	33	35
18:00	7	2	41	120	96	26	0	0	1	0	0	0	0	0	0	293	34	37
19:00	0	2	16	86	78	22	2	0	0	0	0	0	0	0	0	206	34	38
20:00	2	5	9	38	47	13	2	0	0	0	0	0	0	0	0	116	34	38
21:00	4	6	17	26	22	11	0	0	0	0	0	0	0	0	0	86	34	38
22:00	0	0	4	10	18	9	2	0	0	0	0	0	0	0	0	43	37	39
23:00	0	0	3	8	13	5	2	0	0	0	0	0	0	0	0	31	37	41
Total	275	588	1612	1648	734	171	13	0	1	0	0	0	0	0	1	5043		
Percent	5.5%	11.7%	32.0%	32.7%	14.6%	3.4%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	07:00	11:00	11:00	11:00	06:00	06:00	06:00										11:00	
Vol.	36	70	151	95	31	29	1										350	
PM Peak	14:00	15:00	15:00	16:00	16:00	18:00	16:00		18:00								15:00	16:00
Vol.	62	64	199	263	115	26	2		1							1	582	
Total	275	588	1612	1648	734	171	13	0	1	0	0	0	0	0	1	5043		
Percent	5.5%	11.7%	32.0%	32.7%	14.6%	3.4%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			

15th Percentile : 19 MPH
50th Percentile : 25 MPH
85th Percentile : 31 MPH
95th Percentile : 34 MPH

Stats 10 MPH Pace Speed : 21-30 MPH
Number in Pace : 3260
Percent in Pace : 64.6%
Number of Vehicles > 25 MPH : 2568
Percent of Vehicles > 25 MPH : 50.9%
Mean Speed(Average) : 25 MPH

Transportation Data Corporation

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Aquidneck Avenue (Route 138A)
just north of Vierra Terrace
City, State: Middletown, RI
Client: Bryant/T. Brayton

05711Bspeed
Site Code: 223032

Southbound

Start Time	15	16	21	26	31	36	41	46	51	56	61	66	71	76	999	Total	85th Percent	95th Percent
05/23/23	0	0	1	3	0	0	0	0	0	0	0	0	0	0	0	4	29	29
01:00	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	2	38	39
02:00	0	0	0	1	2	1	0	0	0	0	0	0	0	0	0	4	37	39
03:00	0	0	0	1	2	0	1	0	0	0	0	0	0	0	0	4	42	44
04:00	0	0	0	3	5	1	0	0	0	0	0	0	0	0	0	9	34	37
05:00	1	2	12	15	30	7	3	0	0	0	0	0	0	0	0	70	34	39
06:00	4	6	32	96	82	16	3	1	0	0	0	0	0	0	0	240	34	37
07:00	46	37	171	135	32	5	0	1	0	0	0	0	0	0	0	427	29	32
08:00	39	60	156	162	33	1	0	0	0	0	0	0	0	0	0	451	28	31
09:00	14	31	118	103	25	3	0	0	0	0	0	0	0	0	0	294	29	32
10:00	12	27	96	98	25	3	0	0	0	0	0	0	0	0	0	261	29	32
11:00	27	39	122	96	22	4	0	0	0	0	0	0	0	0	0	310	28	32
12 PM	22	24	161	118	18	3	0	0	0	0	0	0	0	0	0	346	28	31
13:00	16	37	117	86	17	2	0	0	0	0	0	0	0	0	0	275	28	31
14:00	37	30	95	91	27	5	0	0	0	0	0	0	0	0	0	285	29	33
15:00	23	17	71	115	46	8	1	0	0	0	0	0	0	0	0	281	31	34
16:00	24	2	36	161	69	14	2	0	0	0	0	0	0	0	0	308	32	35
17:00	13	9	40	135	73	19	0	0	0	0	0	0	0	0	0	289	33	36
18:00	5	4	16	64	78	12	2	0	0	0	0	0	0	0	0	181	34	37
19:00	6	11	18	47	40	15	1	0	0	0	0	0	0	0	0	138	34	38
20:00	1	0	10	31	22	7	0	0	0	0	0	0	0	0	0	71	34	37
21:00	0	0	4	16	11	5	1	0	0	0	0	0	0	0	0	37	35	39
22:00	0	1	1	4	3	5	2	0	0	0	0	0	0	0	0	16	39	42
23:00	0	0	0	5	6	1	1	0	0	0	0	0	0	0	0	13	35	41
Total	290	337	1277	1587	668	138	17	2	0	0	0	0	0	0	0	4316		
Percent	6.7%	7.8%	29.6%	36.8%	15.5%	3.2%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	07:00	08:00	07:00	08:00	06:00	06:00	05:00	06:00									08:00	
Vol.	46	60	171	162	82	16	3	1									451	
PM Peak	14:00	13:00	12:00	16:00	18:00	17:00	16:00										12:00	
Vol.	37	37	161	161	78	19	2										346	
Total	290	337	1277	1587	668	138	17	2	0	0	0	0	0	0	0	4316		
Percent	6.7%	7.8%	29.6%	36.8%	15.5%	3.2%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			

15th Percentile : 20 MPH
50th Percentile : 25 MPH
85th Percentile : 31 MPH
95th Percentile : 34 MPH

Stats
10 MPH Pace Speed : 21-30 MPH
Number in Pace : 2864
Percent in Pace : 66.4%
Number of Vehicles > 25 MPH : 2412
Percent of Vehicles > 25 MPH : 55.9%
Mean Speed(Average) : 26 MPH

Transportation Data Corporation

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Turner Road
south of Wyatt Road
City, State: Middletown, RI
Client: Bryant/T. Brayton

05711Aspeed
Site Code: 223032

Northbound

Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	Total	85th Percent	95th Percent
05/23/23	0	0	3	3	2	0	0	0	0	0	0	0	0	8	32	34
01:00	0	0	0	1	1	0	0	0	0	0	0	0	0	2	33	34
02:00	0	0	0	1	0	0	0	1	0	0	0	0	0	2	48	49
03:00	0	0	2	2	2	0	0	0	0	0	0	0	0	6	32	34
04:00	0	0	0	1	0	0	0	0	0	0	0	0	0	1	29	29
05:00	0	1	2	0	4	1	0	0	0	0	0	0	0	8	34	37
06:00	2	0	11	29	12	1	0	0	0	0	0	0	0	55	31	34
07:00	6	21	56	57	20	3	0	0	0	0	0	0	0	163	29	33
08:00	4	3	50	51	11	1	0	0	0	0	0	0	0	120	29	32
09:00	6	2	47	73	23	0	0	0	0	0	0	0	0	151	30	33
10:00	2	5	65	72	12	1	0	0	0	0	0	0	0	157	29	32
11:00	3	5	53	78	12	2	0	0	0	0	0	0	0	153	29	32
12 PM	2	7	51	85	11	0	0	0	0	0	0	0	0	156	29	31
13:00	5	13	58	73	14	0	0	0	0	0	0	0	0	163	29	32
14:00	22	38	124	79	12	1	0	0	0	0	0	0	0	276	28	29
15:00	47	34	123	90	13	0	0	0	0	0	0	0	0	307	28	29
16:00	29	33	113	112	23	1	0	0	0	0	0	0	0	311	28	31
17:00	3	15	92	120	18	1	0	0	0	0	0	0	0	249	29	31
18:00	2	5	57	84	17	3	0	0	0	0	0	0	0	168	29	33
19:00	1	1	31	47	9	1	0	0	0	0	0	0	0	90	29	33
20:00	1	0	20	24	8	2	0	1	0	0	0	0	0	56	31	35
21:00	0	0	5	17	7	0	0	0	0	0	0	0	0	29	31	33
22:00	0	0	6	8	7	0	0	0	0	0	0	0	0	21	32	34
23:00	0	0	1	8	2	2	0	0	0	0	0	0	0	13	35	38
Total	135	183	970	1115	240	20	0	2	0	0	0	0	0	2665		
Percent	5.1%	6.9%	36.4%	41.8%	9.0%	0.8%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	07:00	07:00	10:00	11:00	09:00	07:00		02:00						07:00		
Vol.	6	21	65	78	23	3		1						163		
PM Peak	15:00	14:00	14:00	17:00	16:00	18:00		20:00						16:00		
Vol.	47	38	124	120	23	3		1						311		
Grand Total	135	183	970	1115	240	20	0	2	0	0	0	0	0	2665		
Percent	5.1%	6.9%	36.4%	41.8%	9.0%	0.8%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%			

15th Percentile : 20 MPH
50th Percentile : 25 MPH
85th Percentile : 29 MPH
95th Percentile : 32 MPH

Stats 10 MPH Pace Speed : 21-30 MPH

Number of Vehicles > 25 MPH : 1377
Percent of Vehicles > 25 MPH : 51.7%
Mean Speed(Average) : 25 MPH

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Turner Road
south of Wyatt Road
City, State: Middletown, RI
Client: Bryant/T. Brayton

05711Aspeed
Site Code: 223032

Southbound

Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	Total	85th Percent	95th Percent
05/23/23	0	0	1	4	0	1	0	0	0	0	0	0	0	6	35	38
01:00	0	0	0	2	4	0	0	0	0	0	0	0	0	6	33	34
02:00	0	0	1	3	0	0	0	0	0	0	0	0	0	4	29	29
03:00	0	0	1	1	0	0	0	0	0	0	0	0	0	2	28	29
04:00	0	0	0	1	1	0	0	0	0	0	0	0	0	2	33	34
05:00	0	0	4	20	12	0	0	0	0	0	0	0	0	36	32	34
06:00	0	1	10	30	28	3	0	0	0	0	0	0	0	72	33	34
07:00	4	17	83	144	39	3	0	0	0	0	0	0	0	290	29	33
08:00	8	5	59	100	32	4	0	0	0	0	0	0	0	208	30	34
09:00	5	10	86	93	35	1	0	0	0	0	0	0	0	230	30	33
10:00	2	7	63	61	16	1	0	0	0	0	0	0	0	150	29	32
11:00	2	3	56	66	28	1	0	0	0	0	0	0	0	156	31	33
12 PM	4	6	72	75	22	2	0	0	0	0	0	0	0	181	29	33
13:00	2	12	52	83	19	2	0	0	0	0	0	0	0	170	29	33
14:00	4	12	58	84	39	4	0	0	0	0	0	0	0	201	31	34
15:00	5	10	48	105	41	5	0	0	0	0	0	0	0	214	31	34
16:00	9	5	52	123	51	5	0	1	0	0	0	0	0	246	31	34
17:00	5	6	31	137	44	5	1	0	0	0	0	0	0	229	31	34
18:00	1	1	28	49	26	2	0	0	0	0	0	0	0	107	32	34
19:00	0	1	17	56	22	2	0	0	0	0	0	0	0	98	32	34
20:00	0	1	8	26	7	1	0	0	0	0	0	0	0	43	31	34
21:00	0	1	7	9	7	1	0	0	0	0	0	0	0	25	33	34
22:00	0	0	5	11	2	0	0	0	0	0	0	0	0	18	29	32
23:00	0	0	1	10	3	0	1	0	0	0	0	0	0	15	32	41
Total	51	98	743	1293	478	43	2	1	0	0	0	0	0	2709		
Percent	1.9%	3.6%	27.4%	47.7%	17.6%	1.6%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	08:00	07:00	09:00	07:00	07:00	08:00										07:00
Vol.	8	17	86	144	39	4										290
PM Peak	16:00	13:00	12:00	17:00	16:00	15:00	17:00	16:00								16:00
Vol.	9	12	72	137	51	5	1	1								246
Grand Total	51	98	743	1293	478	43	2	1	0	0	0	0	0	2709		
Percent	1.9%	3.6%	27.4%	47.7%	17.6%	1.6%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			

15th Percentile : 21 MPH
50th Percentile : 26 MPH
85th Percentile : 31 MPH
95th Percentile : 34 MPH

Stats 10 MPH Pace Speed : 21-30 MPH

Number of Vehicles > 25 MPH : 1817
Percent of Vehicles > 25 MPH : 67.1%
Mean Speed(Average) : 27 MPH

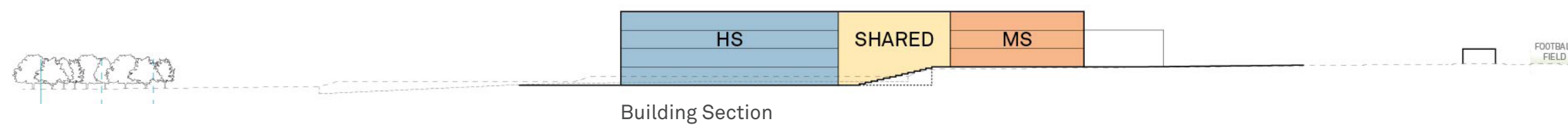
APPENDIX F

Supplemental Plans





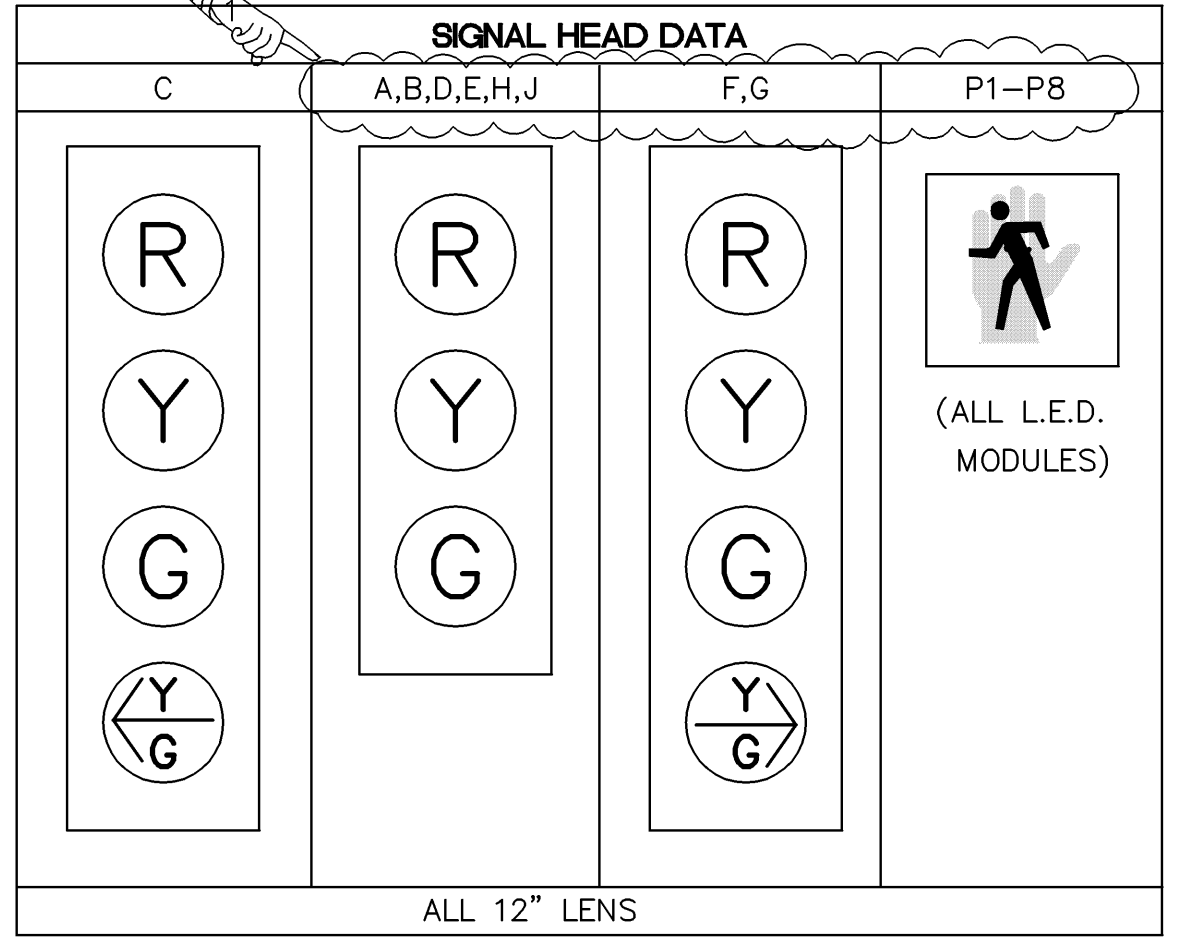
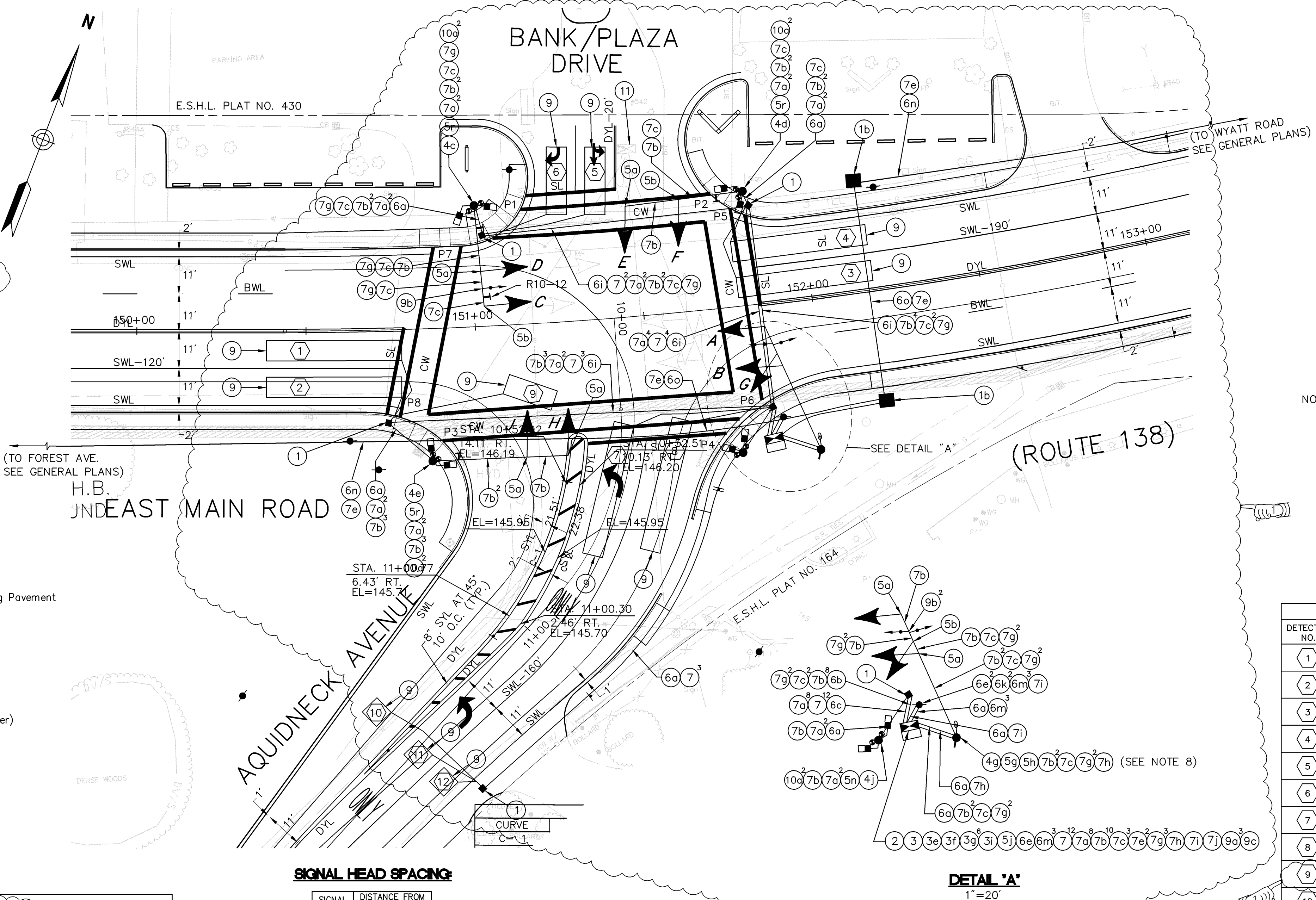
Site Plan



“Z” Scheme
Middletown Middle High School
 Middletown, RI



ITEM NO.	ITEM CODE	ITEM DESCRIPTION
1	T05.0100	Precast Type "A" Handhole Std. 18.2.0
1b	T05.9902	Fiber Optic Handhole
2	T12.9150	Meter Socket W/ Manual Bypass
3	T12.9901	8 Phase TS 2 Type 1 Controller, 12 Position Back Panel, Ground Mounted Inc. Cabinet and Foundation Std. 19.1.0
3e	T12.9906	Fiber Optic Modem - EIA 232/Midpoint
3f	T12.9907	Fiber Optic Patch Panel - 12 Position
3g	T12.9908	Fiber Optic Patch Cord
3i	T12.9913	Fiber Optic Modem - 8 Channel Contact Mapping/Receiver
4c	T11.1030	30 Foot Galvanized Steel Mast Arm Traffic Signal Post and Foundation Std. 19.2.0
4d	T11.1035	35 Foot Galvanized Steel Mast Arm Traffic Signal Post and Foundation Std. 19.2.0
4e	T11.1040	40 Foot Galvanized Steel Mast Arm Traffic Signal Post and Foundation Std. 19.2.0
4f	T11.1040	40 Foot Galvanized Steel Mast Arm Traffic Signal Post (With 30' Shaft) and Foundation Std. 19.2.0 (SEE NOTE 8)
4j	T11.2008	Traffic Signal Standard, 8 Foot, Aluminum Pedestal Pole and Foundation, Std. 19.4.0
5a	T14.3513	1 Way, 3 Section Mast Arm Mounted Signal Head 12 Inch
5b	T14.3516	1 Way, 4 Section Mast Arm Mounted Signal Head 12 Inch (With Dual Indication Fiber Optic Arrow)
5g	T14.9908	Camera Assembly
5h	T14.9909	Camera Assembly Mount
5j	SEE NOTE 6	Camera Control Equipment
5n	T14.9903	2 Way Pedestal Mounted L.E.D. Pedestrian Signal Head 12 Inch
5r	T14.9905	2 Way Bracket Mounted L.E.D. Pedestrian Signal Head 12 Inch
6a	T06.1020	2 Inch Rigid Steel Conduit Underground
6b	T06.1030	3 Inch Rigid Steel Conduit Underground
6c	T06.1040	4 Inch Rigid Steel Conduit Underground
6e	T06.2020	2 Inch Rigid Steel Conduit Overhead
6i	T06.3020	3 Inch Rigid Steel Conduit - Under Existing Pavement
6k	T06.6020	2 Inch Polyvinyl Chloride Plastic Conduit Overhead
6m	T04.5001	6 AWG Single Conductor Cable 600v Insulation
6n	T06.9901	Dual 1-1/4 Inch High Density Polyethylene Duct - Underground
6o	T06.9902	Dual 1-1/4 Inch High Density Polyethylene Duct - Under Existing Pavement
7	T04.5302	14 AWG 2 Conductor Twisted Shielded Cable
7a	T04.5303	14 AWG 3 Conductor Cable
7b	T04.5305	14 AWG 5 Conductor Cable
7c	T04.5307	14 AWG 7 Conductor Cable
7e	T04.9901	12 Strand Single Mode Fiber Optic Cable
7g	T04.9903	Opticom Detector Cable
7h	T04.9904	CCTV System Cable (As Specified by CCTV Equipment Manufacturer)
7i		Cox Cable (By Cox Communications)
7j		Cox Modem (By Cox Communications)
9	T13.1000	Traffic Detector - Loop Std. 19.6.0
9a	T13.1004	Traffic Detector Relay - Loop 4 Channel
9b	T13.9901	Opticom Detector - Single Channel, One Way
9c	T13.9902	Opticom Phase Selector and Chassis
10a	T13.8200	Pedestrian Detector - Pushbutton With Sign
11	201.9901	Remove And Salvage Traffic Signal System

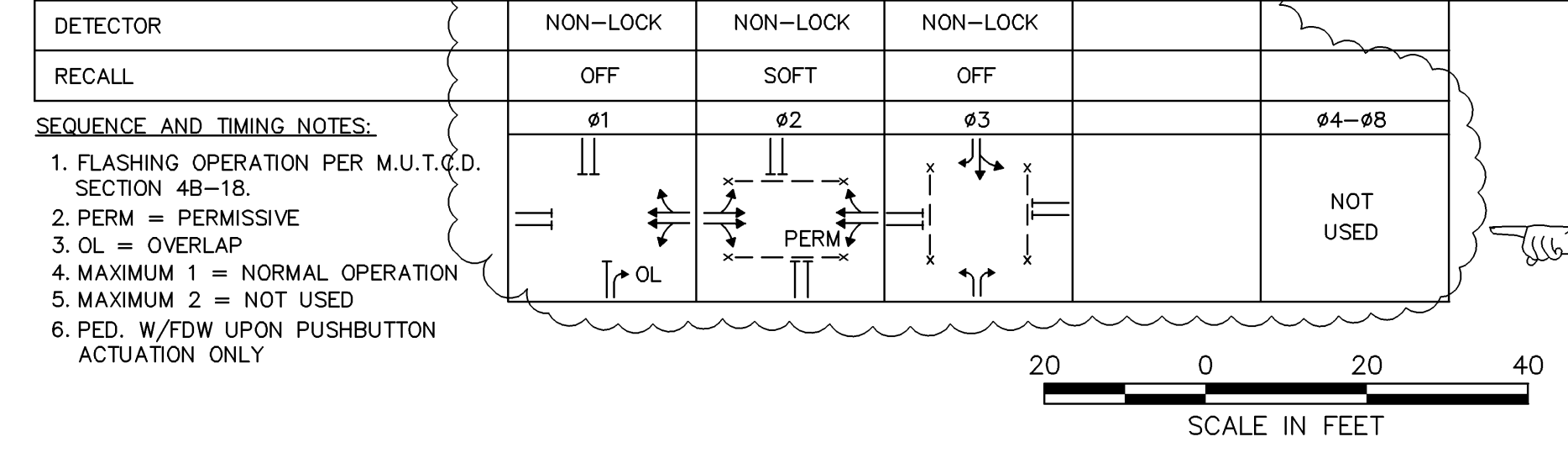


NOTES:
 1) ALL TRAFFIC AND PEDESTRIAN SIGNAL HEADS ARE PROPOSED.
 2) ALL RED, YELLOW, AND GREEN SIGNAL DISPLAYS SHALL BE EQUIPPED WITH LED MODULES.
 3) ARROW DISPLAYS SHALL BE MADE UP OF TWO ROWS OF LED MODULES.

DETECTOR DATA						
DETECTOR NO.	NO. SECTION/ SIZE	RELAY NUMBER	SLOT	DELAY (SEC)	CALL PHASE	REMARKS
1	1-6'x40'	1	2	3	#2	PROPOSED
2	1-6'x40'	1	2	3	#2	PROPOSED
3	1-6'x40'	1	2	3	#1/#2	PROPOSED
4	1-6'x40'	1	2	3	#2	PROPOSED
5	1-6'x20'	2	4	5	#3	PROPOSED
6	1-6'x20'	2	4	7	#3	PROPOSED
7	1-6'x40'	2	4	3	#3	PROPOSED
8	1-6'x40'	2	4	5	#3	PROPOSED
9	1-6'x15'	3	6	25	#1	PROPOSED
10	1-6'x6'	3	6	-	SYSTEM DETECTOR	PROPOSED
11	1-6'x6'	3	6	-	SYSTEM DETECTOR	PROPOSED
12	1-6'x6'	3	6	-	SYSTEM DETECTOR	PROPOSED

NOTES:
 1. DETECTOR 3 IS TO CALL PHASE 1 AND EXTEND PHASE 2.
 2. DETECTOR 9 IS TO EXTEND PHASE 1.
 3. DETECTORS 1, 2, AND 4 TO BE "CALL NON ACTUATED" DURING COORDINATED OPERATION.
 4. SYSTEM DETECTORS (DETECTOR NOS. 10-12) SHALL BE INITIALLY PROGRAMMED IN THE CONTROLLER TO RECORD VOLUME DATA.

SEQUENCE AND TIMING DIAGRAM																	
APPROACH	DIRECTION	HOUSING	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
MINIMUM INTERVAL			10			10			6								FLASHING OPERATION
VEHICLE EXTENSION			2.8			2.8			2.4								
MAXIMUM 1			20			35			25								
MAXIMUM 2			20			35			25								
YELLOW CLEARANCE				3.5			3.5			3.5							
RED CLEARANCE					1.5			1.5			1.5						
PED. WALK/CLEARANCE						5/20				5/11							
EAST MAIN ROAD NB	A,B	R	R	R	R	G	Y	R	R	R	R						FY
EAST MAIN ROAD SB-LT	C	G	Y	R	R	G	Y	R	R	R	R						FY
EAST MAIN ROAD SB	D	G	Y	R	R	G	Y	R	R	R	R						FY
AQUIDNECK AVENUE WB	E	R	R	R	R	R	R	G	Y	R							FR
AQUIDNECK AVENUE WB-RT	F,G	R	R	R	R	R	R	G	Y	R							FR
BANK/PLAZA DRIVE EB	H,J	R	R	R	R	R	R	G	Y	R							FR
PED. CROSSING BANK DRIVE/ PLAZA DR./AQUIDNECK AVE	N-S	P1-P4	DW	DW	DW	DW	DW	DW	DW	DW	DW						DARK
PED. CROSSING EAST MAIN ROAD	E-W	P5-P8	DW	DW	DW	DW	DW	DW	DW	DW	DW						DARK



SIGNAL HEAD SPACING:

SIGNAL HEAD	DISTANCE FROM CENTER OF MAST ARM-POLE
A	40'
B	27'
C	30'
D	20'
E	35'
F	19'
G	31'
H	40'
J	28'

EMERGENCY VEHICLE PRE-EMPTION OPERATION:

- EMERGENCY VEHICLE PRE-EMPTION SIGNALS SHALL BE OPTICALLY TRANSMITTED BY OPTICAL EMITTERS MOUNTED IN EMERGENCY VEHICLES AND RECEIVED BY OPTICAL DETECTORS LOCATED AT EACH INTERSECTION OR BY A SIGNAL RECEIVED OVER THE FIBER OPTIC CABLE LINE FROM THE INTERSECTION WITH WYATT ROAD.
- IN RESPONSE TO A PRE-EMPTION SIGNAL RECEIVED AT AN INTERSECTION BY OPTICAL DETECTOR, THE CONTROLLER SHALL HOLD OR ADVANCE TO AND HOLD IN EMERGENCY VEHICLE PRE-EMPTION PHASE #2 GREEN FOR A MINIMUM OF TEN (10) SECONDS OR UNTIL PRE-EMPTION SIGNAL CEASES. THE CONTROLLER SHALL THEN TIME PRE-EMPTION CLEARANCE (3.5 SECONDS: YELLOW AND 1.5 SECONDS: ALL RED).
- IN RESPONSE TO A PRE-EMPTION SIGNAL RECEIVED OVER THE FIBER OPTIC CABLE LINE FROM THE INTERSECTION WITH WYATT ROAD, THE CONTROLLER SHALL, AFTER TIMING A DELAY INITIALLY PROGRAMMED FOR 10 SECONDS, HOLD OR ADVANCE TO AND HOLD IN EMERGENCY VEHICLE PRE-EMPTION PHASE #2 GREEN FOR A MINIMUM OF TEN (10) SECONDS. THE CONTROLLER SHALL THEN TIME PRE-EMPTION CLEARANCE (3.5 SECONDS: YELLOW AND 1.5 SECONDS: ALL RED).
- MINIMUM GREEN AND NORMAL VEHICLE CLEARANCE SHALL BE PROVIDED ON PHASE THAT IS TO BE TERMINATED BY PRE-EMPTION DEMAND.
- EMERGENCY VEHICLE PRE-EMPTION SHALL OVERRIDE COORDINATION.
- SEE SPECIAL PROVISION FOR ITEM CODE T12.9914 FOR ADDITIONAL REQUIREMENTS.

CONSTRUCTION NOTES:

- THREE SINGLE CONDUCTOR NO. 6 AWG SERVICE WIRES SHALL BE UTILIZED TO PROVIDE METERED SERVICE.
- INSTALL PAVEMENT MARKINGS AS SHOWN. WHERE EXISTING MARKINGS ARE DIFFERENT THAN PROPOSED MARKINGS SHOWN, REMOVE BY APPROVED METHOD.
- STREET NAME SIGNS TO BE INSTALLED ON MAST ARMS IN ACCORDANCE WITH R.I. STD. 19.2.0. SEE SIGNING & STRIPING PLANS FOR LEGENDS.
- COX COMMUNICATION CABLE TO BE INSTALLED FOR CCTV CAMERA (BY COX COMMUNICATIONS).
- THE ITEM "REMOVE AND SALVAGE TRAFFIC SIGNAL SYSTEM" SHALL INCLUDE THE FOLLOWING MAJOR ITEMS AND SHALL BE ACCOMPLISHED IN ACCORDANCE WITH SPECIAL PROVISION FOR ITEM CODE 201.9901:
 - LOCAL CONTROLLER AND ASSOCIATED EQUIPMENT
 - CONTROLLER CABINET
 - TRAFFIC SIGNAL SPAN POLES
 - TRAFFIC SIGNAL HEADS
 - SPAN WIRE ASSEMBLIES
 - MISCELLANEOUS CABLE, WIRING, CONDUIT, ETC.
- CAMERA CONTROL EQUIPMENT (5j) SHALL CONSIST OF THE FOLLOWING PAY ITEMS:
 - T12.9909 - CAMERA POWER SUPPLY
 - T12.9910 - VIDEO SERVER/RECEIVER
 - T12.9911 - NETWORK HUB
- ONE VIDEO SERVER/RECEIVER SHALL BE INSTALLED IN THE CONTROLLER CABINET THIS INTERSECTION AND ONE SHALL BE INSTALLED AT THE RIDOT TRANSPORTATION MANAGEMENT CENTER (TMC).
- THE CAMERA ON THE SOUTHEAST CORNER OF THE INTERSECTION SHALL BE MOUNTED ON THE VERTICAL SHAFT OF THE TRAFFIC SIGNAL POLE 10 FEET ABOVE THE MAST ARM CONNECTION. THE TRAFFIC SIGNAL MAST ARM POLE ON THIS CORNER SHALL BE MANUFACTURED WITH THE LONGER STEEL SHAFT AS REQUIRED.

VANASSE HANGEN BRUSTLIN, INC.
 TRANSPORTATION LAND DEVELOPMENT ENVIRONMENTAL SERVICES
 PROVIDENCE, R.I.

CONSTRUCTION CHANGE
 TRAFFIC SIGNAL NO. 074

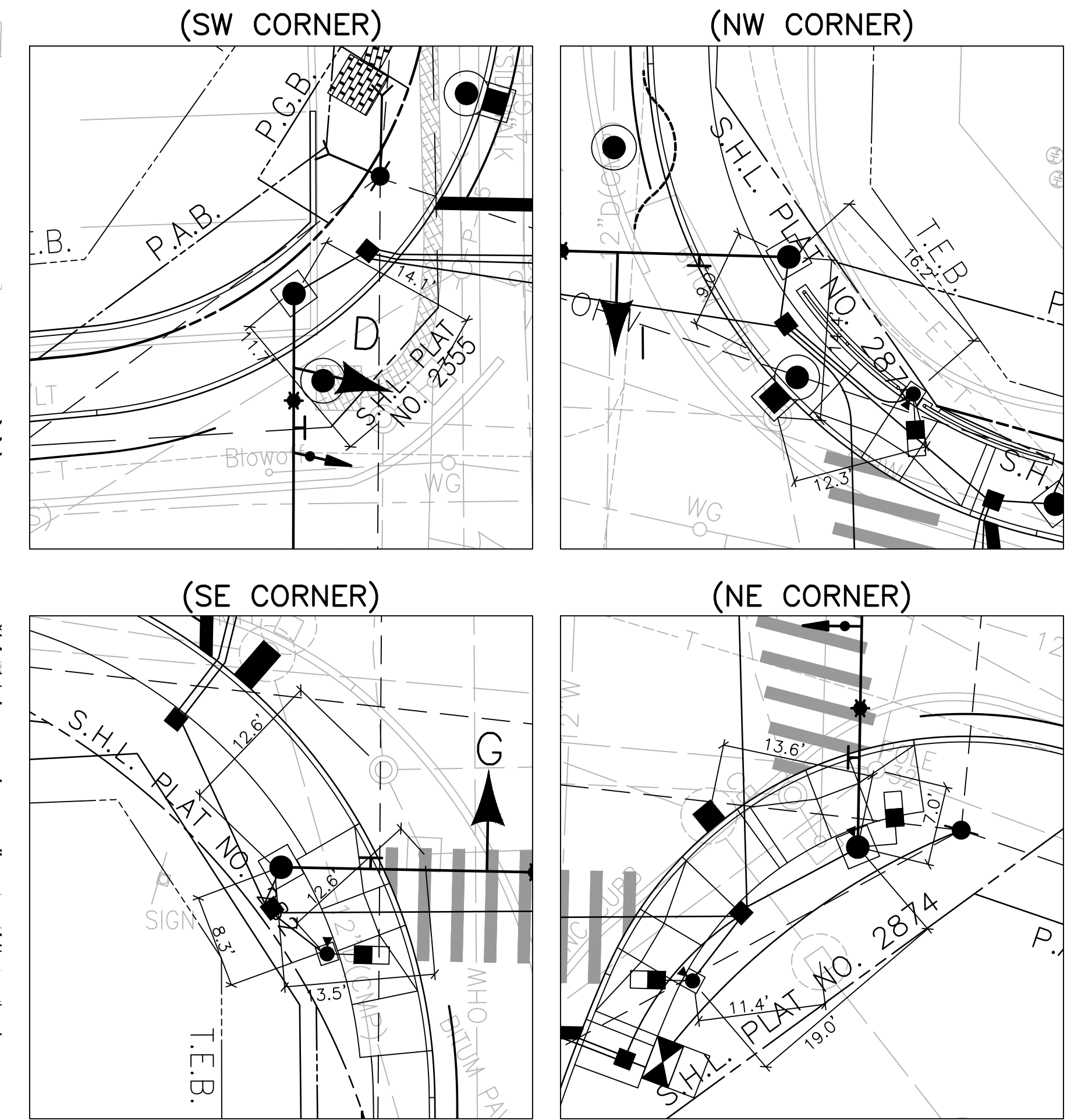
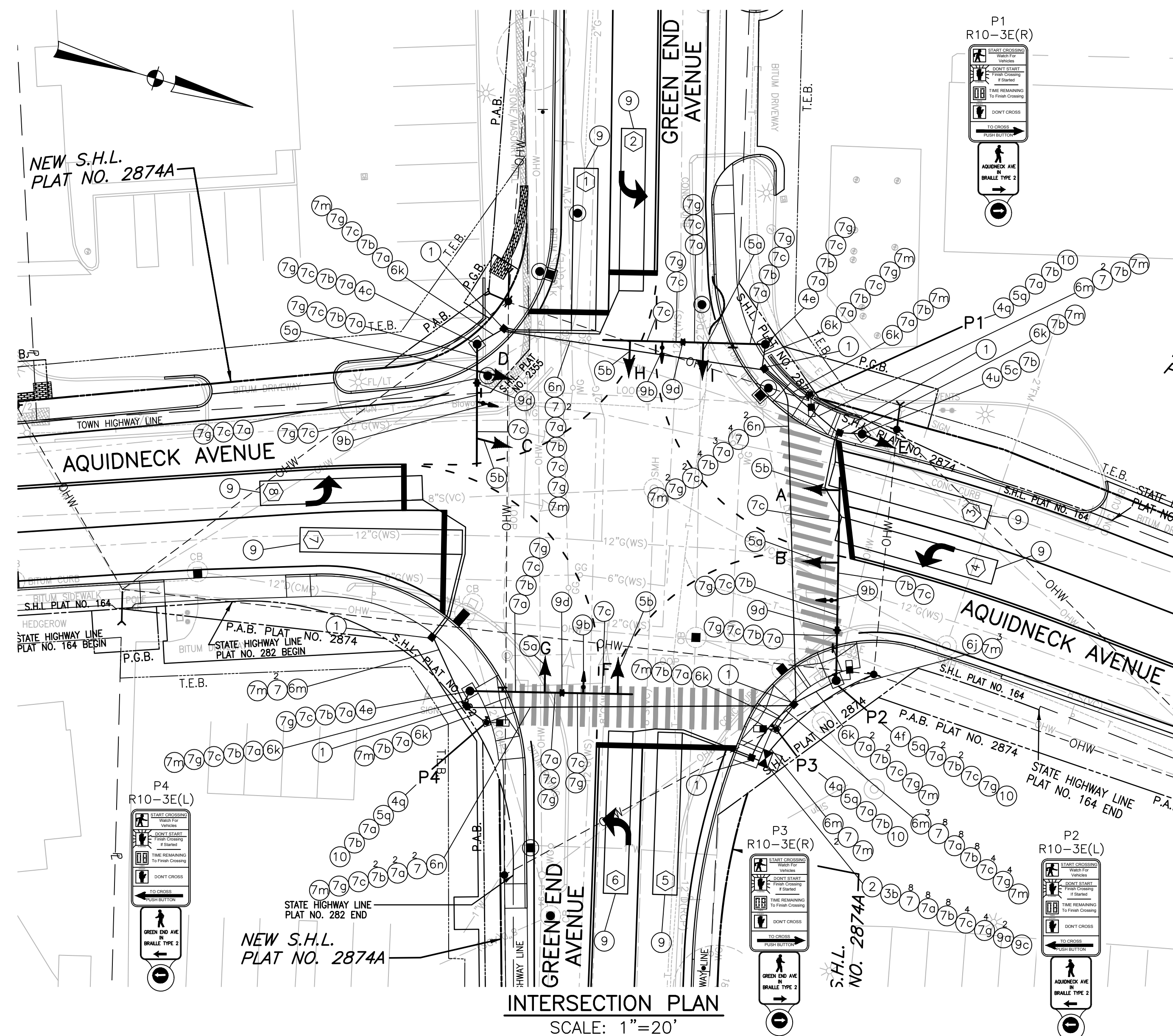
RHODE ISLAND
 DEPARTMENT OF TRANSPORTATION

ARTERIAL IMPROVEMENTS
 EAST MAIN ROAD
 ENTERPRISE DRIVE TO OLIPHANT LANE
 MIDDLETOWN, RHODE ISLAND

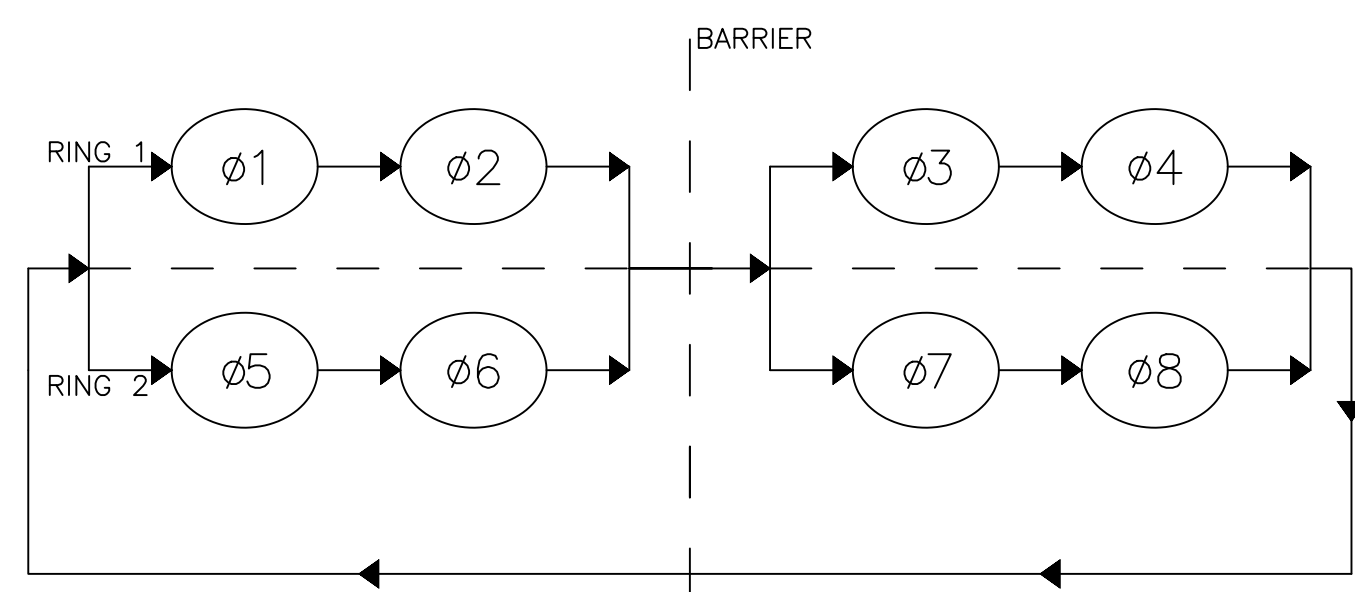
TRAFFIC SIGNAL PLAN - 2
 EAST MAIN ROAD AT AQUIDNECK AVENUE

CHECKED BY _____ DATE _____ SCALE 1"=20'

ITEM NO.	ITEM CODE	ITEM DESCRIPTION
1	T05.0100	Precast Type "A" Handhole Std.18.2.0
2	T12.9150	Meter Socket with Manual By-Pass
3b	T12.0018	Actuated Controller TS-2, Type 1 w/8 Phase Assembly Ground Mounted Including Foundation and Cabinet Std.19.1.0
4c	T11.1030	30 Foot Gal. Steel Mast Arm Traffic Signal Post and Foundation Std.19.2.0
4e	T11.1040	40 Foot Gal. Steel Mast Arm Traffic Signal Post and Foundation Std.19.2.0
4f	T11.1050	50 Foot Gal. Steel Mast Arm Traffic Signal Post and Foundation Std.19.2.0
4q	T11.2010	Traffic Signal Std. 10 Foot 19.4.0 Aluminum Pedestal Pole
4u	T11.2012	Traffic Signal Std. 12 Foot 19.4.0 Aluminum Pedestal Pole
5a	T14.3513	1 Way 3 Section Mast Arm Mounted Signal Head 12 inch
5b	T14.3516	1 Way 4 Section Mast Arm Mounted Signal Head 12 inch (w/Dual Ind Dual Row L.E.D. Arrow)
5c	T14.3713	1 Way 3 Section Pedestal Mounted Signal Head 12 inch
5q	T14.9902	1 Way Bracket Mounted L.E.D. Pedestrian Signal Head 12 inch w/12 inch Countdown Timer
6j	T06.1020	2 inch Rigid Steel Conduit-Underground
6k	T06.1030	3 inch Rigid Steel Conduit-Underground
6m	T06.5130	3 inch Schedule 40 Polyvinyl Chloride Plastic Conduit-Underground
6n	T06.5430	3 inch Schedule 80 Polyvinyl Chloride Plastic Conduit-Under Existing Pavement
7	T04.5302	14 Awg 2 Conductor Twisted Shielded Cable
7a	T04.5303	14 Awg 3 Conductor Cable
7b	T04.5305	14 Awg 5 Conductor Cable
7c	T04.5307	14 Awg 7 Conductor Cable
7g	T04.9901	Optical Detector Cable
7m	T04.5001	6 Awg Single Conductor Cable 600v Insulation
9	T13.1000	Traffic Detectors-Loop Std.19.6.0
9a	T13.1004	Traffic Detector Relay-Loop 4 Channel
9b	T13.9901	Optical Detector-Single Channel, One Way
9c	T13.9902	Optical Phase Selector and Chassis
9d	T13.9903	Optical Detector Confirmation Beacon
10	T13.8210	Accessible Pedestrian Detector-Pushbutton with Sign
11	201.9901	Remove and Salvage Traffic Signal System



PHASE SEQUENCE DIAGRAM



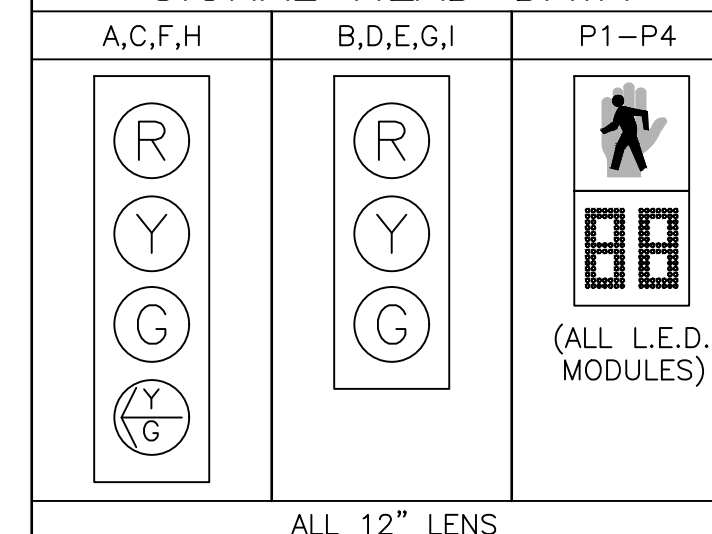
SEQUENCE AND TIMING DIAGRAM

APPROACH	DIRECTION	HOUSING	φ1	φ2	φ3	φ4	φ5	φ6	φ7	φ8
MINIMUM INTERVAL			7	7	7	7	7	7	7	7
VEHICLE EXTENSION			2.6	2.4	2.6	2.6	2.4	2.6	2.6	2.6
MAXIMUM 1			10	25	10	25	10	25	10	25
MAXIMUM 2			15	30	15	30	15	30	15	30
YELLOW CLEARANCE			3.0	3.5	3.0	3.5	3.0	3.5	3.0	3.5
RED CLEARANCE			2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
PED. WALK/CLEARANCE			4/17		4/19					
AQUIDNECK AVENUE	NB-LT	A	R	R	R	R	R	R	R	R
AQUIDNECK AVENUE	NB	B	R	R	R	R	R	R	R	R
AQUIDNECK AVENUE	SB-LT	C	R	R	R	R	R	R	R	R
AQUIDNECK AVENUE	SB	D E	R	R	R	R	R	R	R	R
GREEN END AVENUE	EB-LT	H	G	Y	R	R	R	R	R	R
GREEN END AVENUE	EB	I	R	R	R	R	R	R	R	R
GREEN END AVENUE	WB-LT	F	R	R	R	R	R	R	R	R
GREEN END AVENUE	WB	G	R	R	R	R	R	R	R	R

COORDINATION DATA:
(ALL ENTRIES IN SECONDS)

CYCLE LENGTH	PLAN 1	PLAN 2	PLAN 3
	90.0	75.0	90.0
SPLIT φ1	12.6	12.5	12.6
SPLIT φ2	40.4	26.0	38.8
SPLIT φ3	13.0	13.0	13.0
SPLIT φ4	24.0	23.5	25.6
SPLIT φ5	11.6	11.5	11.5
SPLIT φ6	41.4	27.0	39.9
SPLIT φ7	13.0	13.0	13.0
SPLIT φ8	24.0	23.5	25.6

SIGNAL HEAD DATA



SIGNAL HEAD LOCATIONS

SIGNAL HEAD	DISTANCE FROM MAST
A	47'
B	29'
C	23'
D	7'
E	0'
F	36'
G	18'
H	33'
I	15'

NOTES:

- ALL TRAFFIC AND PEDESTRIAN SIGNAL HEADS ARE PROPOSED.
- ALL RED, YELLOW AND GREEN SIGNAL DISPLAYS SHALL BE EQUIPPED WITH LED MODULES.
- ARROW DISPLAYS SHALL BE MADE UP OF TWO ROWS OF LED MODULES.
- ALL SIGNAL HEADS SHALL BE FITTED WITH BLACK BACKPLATES.

NOTES:

- PLAN FORCE OFF/FLOATING FORCE OFF SHALL BE IN EFFECT.
- SPLIT TIMES EQUAL GREEN PLUS CLEARANCES.

LOOP DETECTOR DATA

DETECTOR NO.	NO. SECTION / SIZE	RELAY NUMBER	SLOT	DELAY (SEC.)	CALL PHASE	REMARKS
①	1-6'x40'	1	2	3	φ6	PROPOSED
②	1-6'x40'	1	2	3	φ1	PROPOSED
③	1-6'x40'	1	2	3	φ8	PROPOSED
④	1-6'x40'	1	2	3	φ3	PROPOSED
⑤	1-6'x40'	2	4	3	φ2	PROPOSED
⑥	1-6'x40'	2	4	3	φ5	PROPOSED
⑦	1-6'x40'	2	4	3	φ4	PROPOSED
⑧	1-6'x40'	2	4	3	φ7	PROPOSED

TRAFFIC SIGNAL NO. 084

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

**INTERSECTION IMPROVEMENTS TO
AQUIDNECK AVENUE AND
GREEN END AVENUE**

MIDDLETOWN, RHODE ISLAND

TRAFFIC SIGNAL PLAN

REVISIONS		
NO.	DATE	BY

CHECKED BY PAE DATE DEC 2017 SCALE AS SHOWN

113 33102
1079 AQUIDNECK AVENUE
1079 AQUIDNECK AVE #2A
MIDDLETOWN, RI 02842

113 89
1100 AQUIDNECK AVENUE
1100 AQUIDNECK AVE
MIDDLETOWN, RI 02842

113 71
1120 PROFESSIONAL CENTER
1120 AQUIDNECK AVENUE
MIDDLETOWN, RI 02842

113 307
1139 AQUIDNECK AVENUE
7 OAKWOOD TERRACE
NEWPORT, RI 02840

113 336
7 COLUMBIA ROAD REALTY
HEIDI & WILLIAM CHRISTY
MIDDLETOWN, RI 02842

113 33101
ABC DEVELOPMENT LLC
47 SEASCAPE AVENUE
MIDDLETOWN, RI 02842

113 33100
ABC DEVELOPMENT LLC
47 SEASCAPE AVENUE
MIDDLETOWN, RI 02842

113 314
ALF PROPERTIES LLC
7 OAKWOOD TERR
NEWPORT, RI 02840

113 187
ANTHONY JOHN H &
106 WYATT RD
MIDDLETOWN, RI 02842

113 313
AQUIDNECK ASSOCIATES
ATTN: KENNETH J ALVES
MIDDLETOWN, RI 02842

113 333
CURTIS JEFFREY T &
10 COLUMBIA RD
MIDDLETOWN, RI 02842

113 73
FITZPATRICK JOSEPH E REV
JOSEPH E & LISA S
NEWPORT, RI 02840

113 183
FLOWERS FAMILY REV TRUST
60 WYATT RD
MIDDLETOWN, RI 02842

113 71A
GAMBRELL OLIN D SR & JANE
1132 AQUIDNECK AVE
MIDDLETOWN, RI 02842

113 312
GDT REALTY LLC
ATTN: GARY TRAVERS
TIVERTON, RI 02878

113 249
GRACIA J MICHAEL & JOANNE
1 ELLEN RD
MIDDLETOWN, RI 02842-5504

113 90
GULLISON JOHN R
PO BOX 3129
NEWPORT, RI 02840

113 105
HASLAM KENNETH J
1076 AQUIDNECK AVE
MIDDLETOWN, RI 02842

119 26
HOOGENDOORN DIXON P
5 WINTHROP DR
MIDDLETOWN, RI 02842

113 70
JENKINS REALTY LLC
1150 AQUIDNECK AVENUE
MIDDLETOWN, RI 02842

113 807
JOHNSON SEAN S & GLENNA
71 WYATT RD
MIDDLETOWN, RI 02842

119 29
JONES ANN
230 TURNER RD
MIDDLETOWN, RI 02842

113 189
KELLEY JUDITH A
29 WYATT ROAD
MIDDLETOWN, RI 02842

113 803
KJH INVESTMENTS LLC
1076 AQUIDNECK AVE
MIDDLETOWN, RI 02842

113 87
LEMLER JEFFREY M &
2 REARDON DR
MIDDLETOWN, RI 02842

113 334
LEVESQUE DONNA
8 COLUMBIA RD
MIDDLETOWN, RI 02842

119 44
LITTLE MARGARET W &
260 TURNER RD
MIDDLETOWN, RI 02842

119 28
LITTLE MARGARET W &
260 TURNER RD
MIDDLETOWN, RI 02842

119 30
MIDDLETOWN METHODIST
200 TURNER RD
MIDDLETOWN, RI 02842

119 11
MIDDLETOWN METHODIST
200 TURNER RD
MIDDLETOWN, RI 02842

119 30X
MIDDLETOWN METHODIST
200 TURNER RD
MIDDLETOWN, RI 02842

113 200
NARRAGANSETT ELECTRIC
TWO NORTH NINTH ST
ALLENTOWN, PA 18101

119 1
NEWPORT MASONIC
152 WYATT RD
MIDDLETOWN, RI 02842

113 184
NEY THOMAS ALEXANDER
70 WYATT RD
MIDDLETOWN, RI 02842

113 337
OPTIMUS HOLDINGS LLC
770 RIVIERA DRIVE
NAPLES, FL 02842

113 104
PERRY HELEN A
31 REARDON DR
MIDDLETOWN, RI 02842

113 305
PETERSON PAUL A & NANCY
155 WYATT RD
MIDDLETOWN, RI 02842

113 335
PHILLIPS MICHAEL J &
6 COLUMBIA RD
MIDDLETOWN, RI 02842

113 306
RICHARDS SARAH E
261 TURNER RD
MIDDLETOWN, RI 02842

113 103
ROCHE DAVID A & AISHA A
29 REARDON DRIVE
MIDDLETOWN, RI 02842

113 309
RODERICK ROSE M LIFE
291 TURNER RD
MIDDLETOWN, RI 02842

119 43
ROSS AMORY L JR
266 TURNER ROAD
MIDDLETOWN, RI 02842

113 308
SANTA SUZANNE M
277 TURNER RD
MIDDLETOWN, RI 02842

113 185
SCHWARZ STEPHEN C &
84 WYATT RD
MIDDLETOWN, RI 02842

113 186
SCHWARZ STEPHEN C &
84 WYATT RD
MIDDLETOWN, RI 02842

113 188
STATE OF RHODE ISLAND
RIDOT ACCOUNTS PAYABLE
PROVIDENCE, RI 02903

113 332
THAYER MARC S & LAUREL J
12 COLUMBIA RD
MIDDLETOWN, RI 02842-5503

113 198A
TOWN OF MIDDLETOWN
BUSINESS MANAGER
MIDDLETOWN, RI 02842

113 199
TOWN OF MIDDLETOWN
26 OLIPHANT LANE
MIDDLETOWN, RI 02842

113 165
VANBRU LIMITED
RHODE ISLAND NURSERIES
MIDDLETOWN, RI 02842

113 33103
WALLACE JOHN P TRUST 2020
JOHN P WALLACE TRUSTEE
PORTSMOUTH, RI 02871

City of Newport
Utilities Department
Water Division
70 Halsey Street
Newport, RI 02840

113 311
1181 REALTY ASSOCIATES
ATTN: OLYMPIC PHYSICAL
MIDDLETOWN, RI 02842

113 314
ALF PROPERTIES LLC
7 OAKWOOD TERR
NEWPORT, RI 02840

113 196
AQUIDNECK ARTISTS STUDIO
GLEN COURT MANAGEMENT
NEWPORT, RI 02840

113 194
AQUIDNECK ARTISTS STUDIO
GLEN COURT MANAGEMENT
NEWPORT, RI 02840

113 313
AQUIDNECK ASSOCIATES
ATTN: KENNETH J ALVES
MIDDLETOWN, RI 02842

113 30A
ARNESEN STIG A & ANN L
2 PARK DR
MIDDLETOWN, RI 02842

113 56
BAICH JOSEPH R
1160 AQUIDNECK AVENUE
MIDDLETOWN, RI 02842

113 27
CCE DEVELOPMENT LLC
499 EAST MAIN ROAD
MIDDLETOWN, RI 02842

113 190
EM MIDDLETOWN DEV LLC
PROGASCO OPERATING I LLC
CRANSTON, RI 02920

113 808
FRATINI ANDREA & KYLE A
45 WYATT RD
MIDDLETOWN, RI 02842

113 53
GAUCH JAMES J & HEIDI L
3 PARK DR
MIDDLETOWN, RI 02842

113 312
GDT REALTY LLC
ATTN: GARY TRAVERS
TIVERTON, RI 02878

113 31
JENKINS BENJAMIN V &
2 -1/2 PARK DR
MIDDLETOWN, RI 02842

113 807
JOHNSON SEAN S & GLENNA
71 WYATT RD
MIDDLETOWN, RI 02842

113 30
KANE TRUST
ATTN: COLEEN IVANOSKOS
MIDDLETOWN, RI 02842

113 189
KELLEY JUDITH A
29 WYATT ROAD
MIDDLETOWN, RI 02842

113 54
LELAND FAMILY REV LIV
ERNEST LELAND TRUSTEE
MIDDLETOWN, RI 02842

113 29
MCKENNA RAYMOND J
1204 AQUIDNECK AVE
MIDDLETOWN, RI 02842

113 28
STATE OF RHODE ISLAND &
65 VALLEY RD
MIDDLETOWN, RI 02842

113 198A
TOWN OF MIDDLETOWN
BUSINESS MANAGER
MIDDLETOWN, RI 02842

113 199
TOWN OF MIDDLETOWN
26 OLIPHANT LANE
MIDDLETOWN, RI 02842

113 55
VALENTINE MICHAEL J &
1170 AQUIDNECK AVENUE
MIDDLETOWN, RI 02842

City of Newport
Utilities Department
Water Division
70 Halsey Street
Newport, RI 02840

Municipal Lien Certificate Middletown RI

Per RIGL § 44-7-11(a); valid for recording through: 10/27/2024

Certificate Date: 08/28/2024	Tax Payer: TOWN OF MIDDLETOWN
Penalty as of: 08/28/2024	26 OLIPHANT LANE
Location: 1113 AQUIDNECK AVE	MIDDLETOWN, RI 02842
Parcel: 113-199	
Unit:	


Place Recording Stamp Here

Receivable	Account #	Type	Detail	Original Bill	Amount Due	Penalty Due	Total Due
2024 RP Tax Roll	R-1992-11778	sw-500	SW-500 : Cust Serv Chg - Swr Maint	\$79.74	\$0.00	\$0.00	\$0.00
2024 RP Tax Roll	R-1992-11778	real	113-199 at 1113 AQUIDNECK AVE	\$0.00	\$0.00	\$0.00	\$0.00
2024 RP Tax Roll	R-1992-11778	sw-100	SW-100 : Consumption Charge 113-1	\$17,509.04	\$0.00	\$0.00	\$0.00
2023 RP Tax Roll	R-1992-11778	sw-500	sw-500 : 113-199 at 1113 AQUIDNEC	\$76.78	\$0.00	\$0.00	\$0.00
2023 RP Tax Roll	R-1992-11778	sw-100	sw-100 : 113-199 at 1113 AQUIDNEC	\$20,087.98	\$0.00	\$0.00	\$0.00
2023 RP Tax Roll	R-1992-11778	real	113-199 at 1113 AQUIDNECK AVE	\$0.00	\$0.00	\$0.00	\$0.00
2022 RP Tax Roll	R-1992-11778	sw-100	sw-100 : 113-199 at 1113 AQUIDNEC	\$13,424.87	\$0.00	\$0.00	\$0.00
2022 RP Tax Roll	R-1992-11778	real	113-199 at 1113 AQUIDNECK AVE	\$0.00	\$0.00	\$0.00	\$0.00
2022 RP Tax Roll	R-1992-11778	sw-500	sw-500 : 113-199 at 1113 AQUIDNEC	\$77.08	\$0.00	\$0.00	\$0.00
2021 RP Tax Roll	R-1992-11778	sw-400	sw-400 : 113-199 at 1113 AQUIDNEC	\$13.71	\$0.00	\$0.00	\$0.00
2021 RP Tax Roll	R-1992-11778	sw-100	sw-100 : 113-199 at 1113 AQUIDNEC	\$14,317.38	\$0.00	\$0.00	\$0.00
2021 RP Tax Roll	R-1992-11778	sw-500	sw-500 : 113-199 at 1113 AQUIDNEC	\$77.14	\$0.00	\$0.00	\$0.00
2021 RP Tax Roll	R-1992-11778	real	113-199 at 1113 AQUIDNECK AVE	\$0.00	\$0.00	\$0.00	\$0.00
2020 RP Tax Roll	R-1992-11778	real	113-199 at 1113 AQUIDNECK AVE	\$0.00	\$0.00	\$0.00	\$0.00
2020 RP Tax Roll	R-1992-11778	sw-100	sw-100 : 113-199 at 1113 AQUIDNEC	\$13,618.41	\$0.00	\$0.00	\$0.00
2020 RP Tax Roll	R-1992-11778	sw-500	sw-500 : 113-199 at 1113 AQUIDNEC	\$72.80	\$0.00	\$0.00	\$0.00
2020 RP Tax Roll	R-1992-11778	sw-400	sw-400 : 113-199 at 1113 AQUIDNEC	\$34.25	\$0.00	\$0.00	\$0.00
2019 RP Tax Roll	R-1992-11778	real	113-199 at 1113 AQUIDNECK AVE	\$0.00	\$0.00	\$0.00	\$0.00
2019 RP Tax Roll	R-1992-11778	sw-400	sw-400 : 113-199 at 1113 AQUIDNEC	\$34.25	\$0.00	\$0.00	\$0.00
2019 RP Tax Roll	R-1992-11778	sw-500	sw-500 : 113-199 at 1113 AQUIDNEC	\$72.62	\$0.00	\$0.00	\$0.00
2019 RP Tax Roll	R-1992-11778	sw-100	sw-100 : 113-199 at 1113 AQUIDNEC	\$13,999.73	\$0.00	\$0.00	\$0.00
Total:							\$0.00

Requested by: Town of Middletown

PLEASE NOTE THAT PENALTY TO ACCRUE DAILY; CONTACT THE TAX COLLECTIONS OFFICE FOR CURRENT AMOUNTS.

Failure to include herein any charges or tax that constitutes a lien on the above mentioned property as of the date of certificate does not affect the validity of the tax or change the subsequent collection thereof.


 GEORGE M. DURGIN
 TAX ASSESSOR

Municipal Lien Certificate Middletown RI

Per RIGL § 44-7-11(a); valid for recording through: 10/27/2024

Certificate Date: 08/28/2024

Tax Payer: TOWN OF MIDDLETOWN

Penalty as of: 08/28/2024

BUSINESS MANAGER
26 OLIPHANT LANE
MIDDLETOWN, RI 02842

Location: 1199 AQUIDNECK AVE

Parcel: 113-198A

Unit:

Place Recording Stamp Here

Receivable	Account #	Type	Detail	Original Bill	Amount Due	Penalty Due	Total Due
2024 RP Tax Roll	R-1999-00021	real	113-198A at 1199 AQUIDNECK AVE	\$0.00	\$0.00	\$0.00	\$0.00
2023 RP Tax Roll	R-1999-00021	sw-300	sw-300 : 113-198A at 1199 AQUIDNE	\$20.00	\$0.00	\$0.00	\$0.00
2023 RP Tax Roll	R-1999-00021	real	113-198A at 1199 AQUIDNECK AVE	\$0.00	\$0.00	\$0.00	\$0.00
2022 RP Tax Roll	R-1999-00021	sw-300	sw-300 : 113-198A at 1199 AQUIDNE	\$20.00	\$0.00	\$0.00	\$0.00
2022 RP Tax Roll	R-1999-00021	real	113-198A at 1199 AQUIDNECK AVE	\$0.00	\$0.00	\$0.00	\$0.00
2021 RP Tax Roll	R-1999-00021	sw-300	sw-300 : 113-198A at 1199 AQUIDNE	\$20.00	\$0.00	\$0.00	\$0.00
2021 RP Tax Roll	R-1999-00021	real	113-198A at 1199 AQUIDNECK AVE	\$0.00	\$0.00	\$0.00	\$0.00
2020 RP Tax Roll	R-1999-00021	real	113-198A at 1199 AQUIDNECK AVE	\$0.00	\$0.00	\$0.00	\$0.00
2020 RP Tax Roll	R-1999-00021	sw-300	sw-300 : 113-198A at 1199 AQUIDNE	\$20.00	\$0.00	\$0.00	\$0.00
2019 RP Tax Roll	R-1999-00021	sw-300	sw-300 : 113-198A at 1199 AQUIDNE	\$20.00	\$0.00	\$0.00	\$0.00
2019 RP Tax Roll	R-1999-00021	real	113-198A at 1199 AQUIDNECK AVE	\$0.00	\$0.00	\$0.00	\$0.00
Total:							\$0.00

Requested by: Town of Middletown

PLEASE NOTE THAT PENALTY TO ACCRUE DAILY; CONTACT THE TAX COLLECTIONS OFFICE FOR CURRENT AMOUNTS.

Failure to include herein any charges or tax that constitutes a lien on the above mentioned property as of the date of certificate does not affect the validity of the tax or change the subsequent collection thereof.


GEORGE M. DURGIN
TAX ASSESSOR



5.0 Roof 57'-4"
 4.0 Fourth 43'-0"
 3.0 Third 28'-8"
 2.0 Second 14'-4"
 1.0 First 0'-0"

EAST ELEVATION **1**



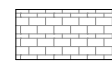
5.0 Roof 57'-4"
 4.0 Fourth 43'-0"
 3.0 Third 28'-8"
 2.0 Second 14'-4"
 1.0 First 0'-0"

SOUTH ELEVATION **2**

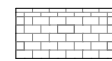
EXTERIOR ELEVATIONS

Middletown Middle High School
 1113 Aquidneck Ave, Middletown, RI

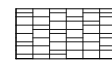
HMFH ARCHITECTS



DECORATIVE CMU VENEER WALL SYSTEM



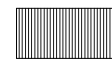
PROTRUDING DECORATIVE CMU VENEER WALL SYSTEM



PROTRUDING DECORATIVE CMU VENEER WALL SYSTEM



HORIZ. METAL PANEL WALL SYSTEM



VERT. METAL PANEL WALL SYSTEM



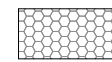
PRE-CAST WALL BASE



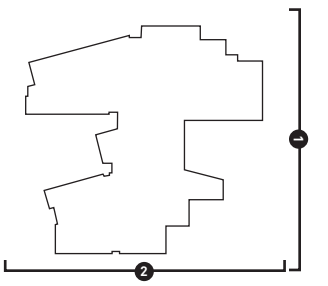
INTERLOCKING ZINC PANEL SYSTEM



ALUMINUM COMPOSITE WALL PANEL SYSTEM



PERFORATED METAL ROOF SCREEN





5.0 Roof 57'-4"
 4.0 Fourth 43'-0"
 3.0 Third 28'-8"
 2.0 Second 14'-4"
 1.0 First 0'-0"

WEST ELEVATION **1**



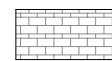
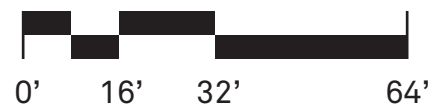
5.0 Roof 57'-4"
 4.0 Fourth 43'-0"
 3.0 Third 28'-8"
 2.0 Second 14'-4"
 1.0 First 0'-0"

NORTH ELEVATION **2**

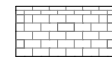
EXTERIOR ELEVATIONS

Middletown Middle High School
 1113 Aquidneck Ave, Middletown, RI

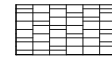
HMFH ARCHITECTS



DECORATIVE CMU VENEER WALL SYSTEM



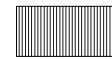
PROTRUDING DECORATIVE CMU VENEER WALL SYSTEM



PROTRUDING DECORATIVE CMU VENEER WALL SYSTEM



HORIZ. METAL PANEL WALL SYSTEM



VERT. METAL PANEL WALL SYSTEM



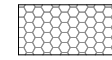
PRE-CAST WALL BASE



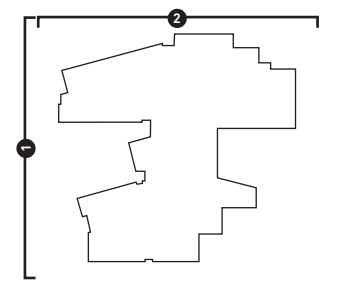
INTERLOCKING ZINC PANEL SYSTEM

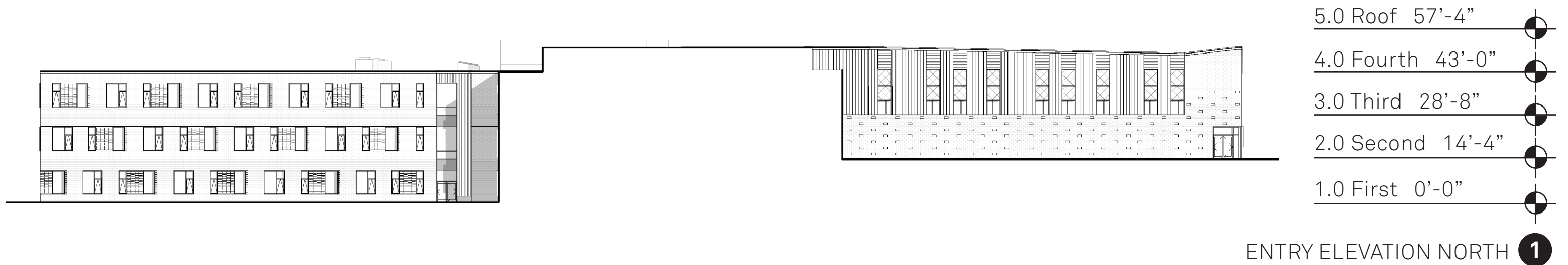


ALUMINUM COMPOSITE WALL PANEL SYSTEM



PERFORATED METAL ROOF SCREEN

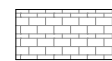
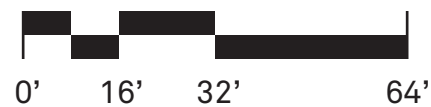




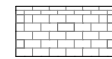
EXTERIOR ELEVATIONS

Middletown Middle High School
 1113 Aquidneck Ave, Middletown, RI

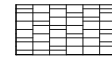
HMFH ARCHITECTS



DECORATIVE CMU VENEER WALL SYSTEM



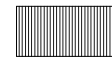
PROTRUDING DECORATIVE CMU VENEER WALL SYSTEM



PROTRUDING DECORATIVE CMU VENEER WALL SYSTEM



HORIZ. METAL PANEL WALL SYSTEM



VERT. METAL PANEL WALL SYSTEM



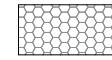
PRE-CAST WALL BASE



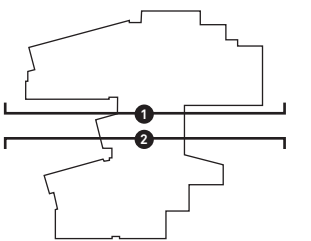
INTERLOCKING ZINC PANEL SYSTEM



ALUMINUM COMPOSITE WALL PANEL SYSTEM



PERFORATED METAL ROOF SCREEN









MHS









Minutes of Meeting

Recorded by: Colin McCarthy

Meeting date: December 20, 2023

Meeting location: 239 Wyatt Rd. Middletown R.I.

Subject/project name: Middletown MS/HS

Project No.: 22011494A

Attendees: Middletown Fire Chief: James Peplau
Battalion Chief: Robert McCall
Middletown Police Chief: Anthony Pesare
Police Captain: Jason Ryan
HMFH: Matt Larue, Tina Stanislaski, Justin Viglianti
DBVW: Ed Cifune
Ed Brady: MPS Building Committee
Bill Nash MPS Building Committee
Colliers Project Leaders: Senior PM Justin Bernard, Assistant PM Colin McCarthy

- Introduction/Kick off Meeting to review site Schematic Design drawings with Middletown Public Safety Officials
- Reviewed site access points from Aquidneck Ave and Turner Rd.
- Connection from both sides of the facility that do not currently exist.
 - Discussion regarding through-traffic and what could be done to avoid using this as a cut through. (Speed Bumps, Speed Tables, Cones, Jersey Barriers, etc.)
 - MS East side, HS West side
- One-Way drive for Construction utilizing the old drive-in roadway.
- Topography Reviewed.
- Reusable site features should be utilized.
- Bus Route reviewed.
- Separate Entrances for MS and HS on respective sides.

- Site Layout Reviewed.
 - Location of E-Bike Storage reviewed.
 - Budget could determine these locations and amount of storage.
 - Building Layout Review
 - Vestibule Access and Security coinciding with SRO location
 - Police Chief concerned of SRO office size large enough to fit students.
 - HMFH confirms the room is large enough for one-on-one conversations.
- Bulletproof Glass recommended by Police Chief for safety at entry vestibules.
- HMFH and DBVW have used School Guard
 - SchoolGuard will make a presentation if necessary.
- Transitions Academy reviewed.
 - Roof Access reviewed.
 - Isometric drawings reviewed.
 - Maximize roof area for future PV paneling.
 - Traffic Study requested by Police Capt.
 - Traffic Study has been completed and reasoning behind the roadway going through the site.
 - Crosswalks were recommended from Police and Fire
 - Town is coordinating with DOT and in Design Process
 - Evacuation currently in place is MS to HS, Preliminary talks in this remaining the same.
 - Police note that Speed Cameras will be utilized in the future in school zones.
 - Parking Lot Traffic Flow reviewed.
 - End curbing in lots.
 - Excessive curbing could harm plowing procedures.
 - Knock Box requested at each entrance/exit.
 - EMERGENCY Shelter
 - Gaudet MS is currently only E-Shelter on Island.

- Does the Shelter need to be hardened structurally?
- Building Code requires Emergency structures to have specific features.
- Meet Red Cross Standards?
- Red Cross Staffing
- State Emergency Management Code
- Cafeteria and Gym utilized during Emergency situations.
- Fire Chief will reach out to EMA for more information regarding requirements.
- Consider the Length of the event.
- Building to be labeled as A side, B side, C side, D side, etc. in coordination with Police and Fire
- HMFH Code Consultant to be present at the next meeting.

Minutes of Meeting

Recorded by: Colin McCarthy
Meeting date: January 26, 2024
Meeting location: 350 E Main Rd. Middletown, R.I. (Middletown Town Hall)
Subject/project name: New Middle/High School Schematic Drawing Review
Project No.: 22011494A
Attendees: Colliers Project Leaders: Colin McCarthy
HMFH Architects: Tina Stanislaski, Matt Larue, Justin Viglianti
DBVW Architects: Ed Cifune
Code Consultant: Tim Wensus
Electrical Consultant: David Pereira
Middletown Fire Chief Jim Peplau
Middletown:
Code Official: Chris Costa
MPS Facilities Director: Poe George
Building Committee: Ed Brady and Bill Nash

HMFH Provides a New MS/HS Plan Overview

- New MS/HS will hold approximately 1,086 Students ranging from grades 6-12.
- The MS and HS will operate independently through classes, administration, and scheduling but will share common resources.
- The school will be built on the current Gaudet MS playfields.
- Road connection between two main roads to keep flow of traffic.

HMFH/DBVW studied neighboring properties and made the Code Official, Chris Costa, aware of the following:

- Four Stories on High School side, 3 stories on Middle School side
- Abutters on Wyatt Rd. Side may be able to see the fourth story.

Zoning P District:

- Guidance on regulations from Building official to HMFH

HMFH presented drawings of Building Design Levels:

- Entrances Overview of HS and MS.
- Auditorium Overview: Reviewed stair access and handicap access to stage.
 - Stage access from front and behind
- Elevators on each side of the building
- Stairs
- Doors
 - Front Door access
 - Fire Alarm automatic closing doors

Fire and Building Codes

- Stairs and Accessibility
- Each wing self-sufficient with egress

Working on code for door width

- Designing now to 21
- Adopt 24 Energy Code (around Fall Time to be adopted)

Tyco Window sprinklers

- Cooling of glazing
- Propose as alternative means of methods.
- Fire side propose as a equivalency.
- Fire rated assembly would be the alternative to Tyco (DD Function)

HMFH Reviewed Transitions Academy and access for handicapped as well as fire exit options.

2a construction

- 1hr and 2hr rating
- No rated separation

Chris Costa expresses concerns of Science Labs on 3rd Floor.

- Gases and Liquids
- Equipment

Electrical Consultant Dave Pereira addresses Warming and Cooling Center at the location of the new MS/HS

- Not to be considered as an Emergency Shelter
- Areas including the gymnasium, kitchen, and locker room will carry HVAC components during an Emergency.
- Facilities Director Poe George is concerned they will not be able to accommodate the number of people with a 500kw generator during an emergency.
- The building will provide a Life Safety distribution system.
- The building will carry a 500kw Diesel generator with the chance of upgrading.
- Dave Pereira advises members of the Building Committee that the electrical code does not allow natural gas.

Plumbing fixtures and actual number of spaces needed to be installed.

David Pereira advises the Building Committee members that the building will be using secondary metering as it is much easier to work with RI Energy in that case.

Minutes of Meeting

Recorded by: Justin Bernard
Meeting date: July 24, 2024
Meeting location: 239 Wyatt Rd. Middletown R.I.
Subject/project name: Middletown MS/HS
Project No.: 22011494A
Attendees: Middletown Fire Chief: James Peplau
Battalion Chief: Robert McCall
Middletown Police Chief: Anthony Pesare
HMFH: Matt Larue, Tina Stanislaski, Justin Viglianti
DBVW: Ed Cifune
Jensen Hughes: Joseph Watson
Bill Nash MPS Building Committee
Colliers Project Leaders: Senior PM Justin Bernard

- Meeting to review equivalent design option for fire rating at interior glazing
- HMFH & Jensen Hughes (Design Team) reviewed specialty sprinklers and products as an alternate way of achieving a 1-hour rating
- Design Team inquired if the fire department had seen window sprinklers in lieu of fire rated glass in town. Chief Peplau noted that it had been used at one building, which is a car dealership.
- Design Team provided product data to the fire department of a specifically list Tyco window sprinkler with special deflector for water distribution over glass for even distribution which is typically installed on both sides of the glazing.
- Design Team provided literature that the ICC has evaluated this equivalent design for up to a 2-hour fire resistance rating.
- Design Team noted that this equivalent design has been used at Rogers High School, Gladstone School in Cranston, and at higher education facilities throughout RI. Also used by HMFH in schools in MA & NH.
- Design Team noted that this equivalent design will only be used in select areas of the school in light wells. Highlighted drawings were provided to the fire department.

- Design Team noted that smoke barriers will not be provided as there is not an open atrium into each floor. Pony walls will be required due to the maximum height opening of 13'.
- Design Team to prepare a package for Middletown FD and Building Official to identify the ask to confirm no objections prior to submitting to planning board.

Minutes of Meeting – Middle/High School Security Meeting

Recorded by:	Colin McCarthy
Meeting date:	April 10, 2024
Meeting location:	Oliphant Administration Building
Subject/project name:	Middletown Public Schools
Project No.:	
Attendees:	Middletown: Rosemarie Kraeger, Poe George, Donna Sweet, Bill Nash, David Annese (IT), Sean Twomey (Middletown Police Department). Colliers Project Leaders: Colin McCarthy HMFH: Matt LaRue, Vassilios Valaes (CPTED) DBVW: Ed Cifune, Emma Osborne GGD: David Pereira

- HMFH reviews overall site plan and Initial start of construction plans with GGD.
 - Two access points to the school, one off Aquidneck Ave and the other from Turner Rd.
 - Third Construction entrance also off Aquidneck Ave that will be located at the “Old Drive-In Entrance”.
 - General strategy is to be able to compartmentalize building and to keep students out of staff areas.
 - Entrance vestibules located next administrative offices.
 - MS and HS Student Resource Officer offices will be in the main spine of the building.
 - GGD described three basic security systems: intrusion alarm, access control, and CCTV.
 - MPS believes that later in the process the emergency response plan should be reviewed with the School Building Committee in executive session.
- Building Admittance

- Entrance vestibules will be controlled access with video intercoms at the exterior.
- DS prefers a transaction type window and door into the main office. Visitors and tardy students will be checked-in at the window. Visitors will then be buzzed into the office directly instead of into the lobby first.
- Review of Security Camera Options
 - Middletown prefers a Cloud-based system for the ease of transfer of footage when needed.
 - Cloud-based system is a lower cost up front but requires continued licensing costs.
 - Premise-based system will be more cost up front. Updating the systems and pulling footage are on-going costs with that option.
 - Middletown's preferred cloud-based CCTV and access control system is by Verkada. GGD and Middletown IT Director will speak further regarding system familiarity that and what will work best. Design team to send plans to DA for review.
 - Interior cameras are desired inside each stair and outside of toilet rooms.
 - Site cameras are expensive and will be limited to select areas. License plate readers are desired at each site entrance as budget allows.
 - Full camera locations to be reviewed at a later date.
- Doors
 - The building can be compartmentalized, and levels of access restricted for after-school events.
 - Sectioning off Gymnasium, Public Restrooms, and Auditorium for events can be done with ease by closing off multiple sets of hold-open security doors.
 - Security doors will be held open on magnets until closed when they remain locked. These can be programmed to be released on a schedule. These will also be tied into the lock down system.
 - As proposed, the only doors that are accessible from the outside are the Middle School Entrance and High School Entrance, locker area door, and delivery/loading dock doors.
 - The remaining exterior doors will be exit only.
 - All exterior doors will be equipped to send an alert when propped open.

- Classroom doors are proposed with locks operated manually by thumbturn from the inside and key from the outside. A visual indicator on the inside shows the teacher the status of the lock.
- Interconnecting doors connect every pair of classrooms. Can have either unlockable passage sets or locksets with thumbturns each side. Lock types will be reviewed later with the hardware consultant.
- Lockdown
 - Panic buttons at the principal's offices SRO offices, and front office administrative staff are preferred.
 - Lockdown card readers can be used in common areas. Requires double tap. Can be different color, not located next to doors to avoid inadvertent triggering.
 - Notification directly to Police.
- Access Plan
 - Card readers will be utilized at exterior doors, lockdown doors, and special access spaces such as IDF closets.
 - MS elevator shall have a card reader outside the hoistway on each floor. HS elevator should have a card reader inside the cab and outside the hoistway on each floor.
 - Two sets of door contacts will be provided on each exterior door for the intrusion alarm and access control systems.
 - The access plan will be tied into the security measures put in place by Middletown.
- Telephone
 - Existing phones are via Cox IP Centrix system.
 - A wall phone will be provided in each classroom.
- Glass
 - Middletown representatives raise the question of bulletproof glass.
 - HMFH and GGD have seen bulletproof glass in only one school they have collectively worked on. Costs are typically prohibitive.
 - All exterior glass will be laminated hurricane resistant per building code. Areas (first floor) can be glazed with intrusion resistant security glass for a higher level of resistance.
 - The purpose of School Guard Glass is to slow down the intruder, it is not bulletproof.

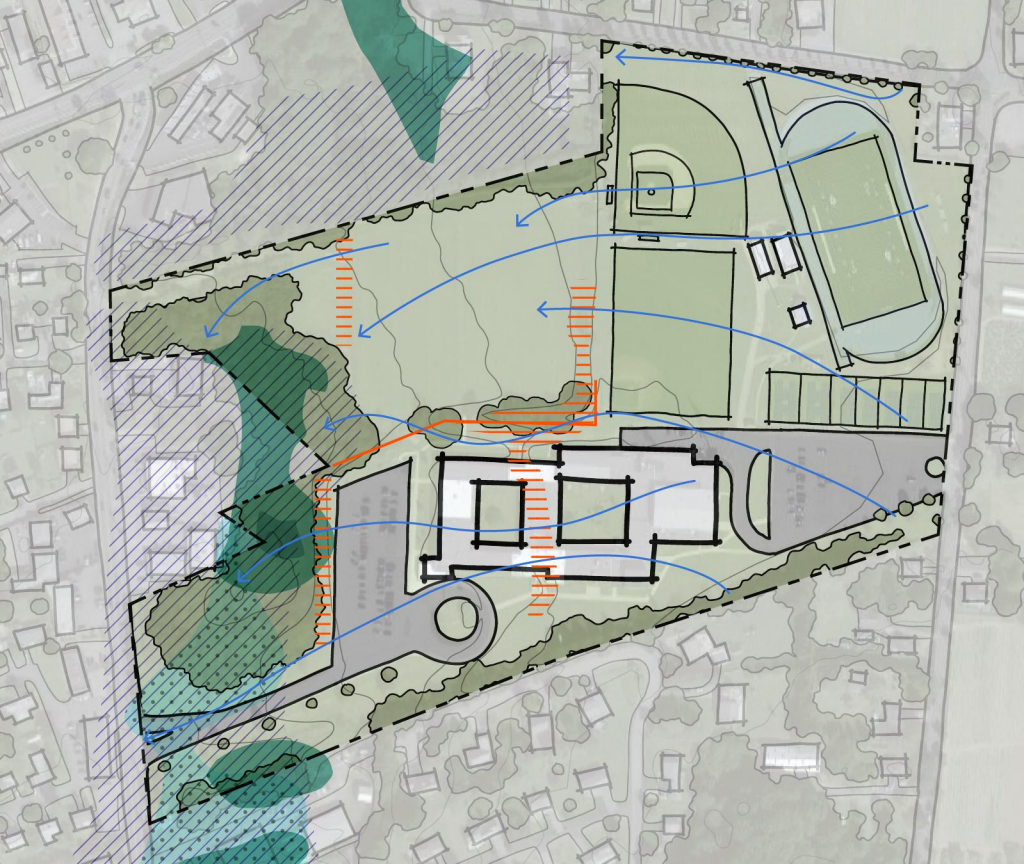
- EC recommends that representatives from Middletown review School Guard Glass as a representative product. A recommendation was made by DVBW that MPS representatives should watch the following SGG5 Demo video ([click here](#)) to get an understanding of the capabilities of this glass.
- Security glass could be used at glazed entrance doors and sidelights. Other strategic ground floor areas may be considered.
- Motion detectors are proposed at all ground floor interior spaces with windows and doors.
- Toilet Rooms
 - Multi-user rooms have an open design for supervision with privacy features on stalls.
 - Vape sensors discussed but experience has not been satisfactory.
- Emergency Response Plan
 - Middletown currently utilizes the ALICE lockdown procedure. Notification should be made to the Police and Fire departments directly.
 - GGD will work with MPS IT to tie-in security systems directly into both Fire and Police Departments.

APPENDIX 6:
AERIAL PHOTOGRAPH-VICINITY MAP

MIDDLETOWN MHS
VICINITY SITE PLAN

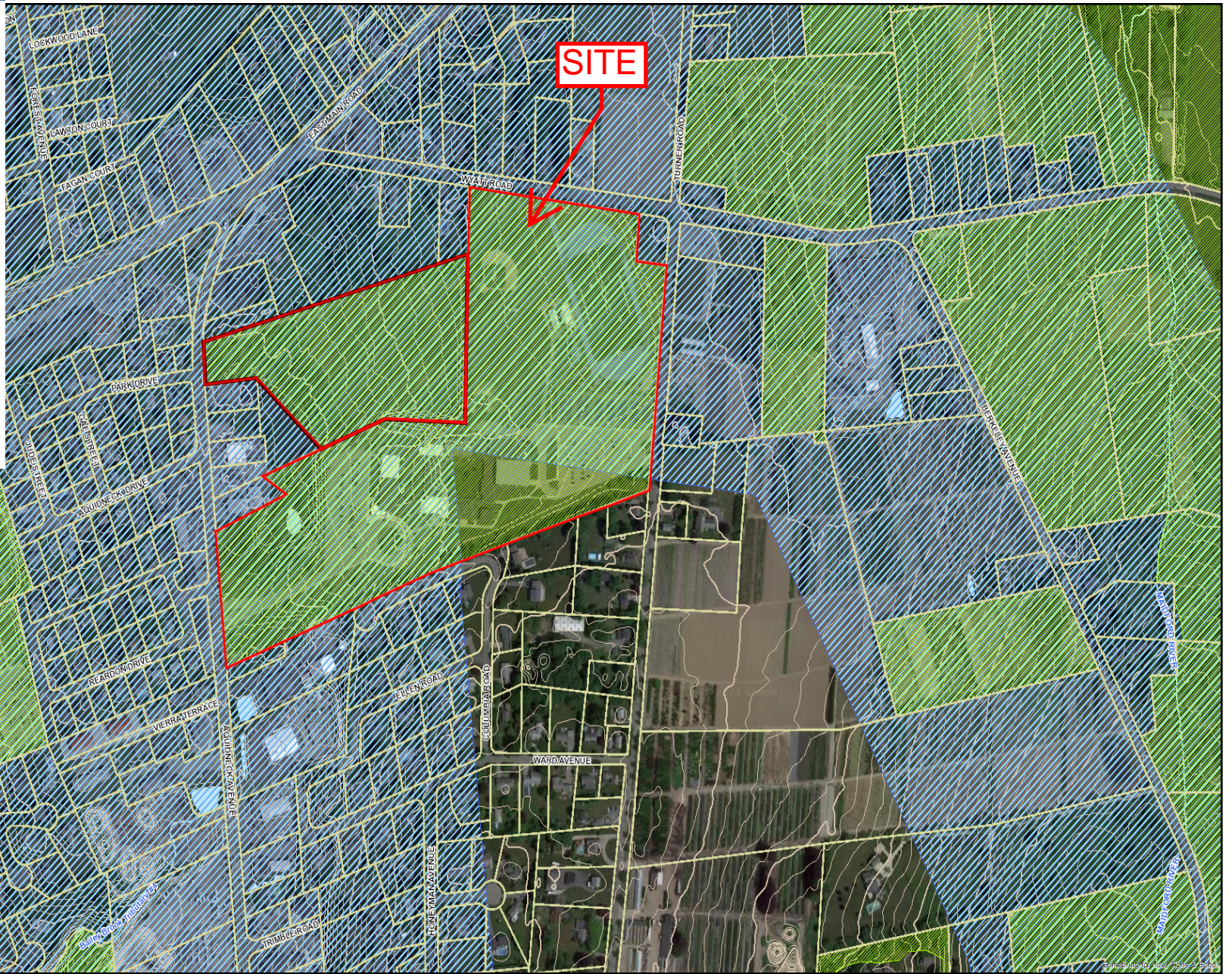


-  1/2 mi radius
-  COMMUNITY SERVICES
-  ZONING DISTRICTS



Legend

- Parcels
- Environmental Recreation, Conservation, and Open Space
- RIGIS Data Water Supply Districts
- Terrain Contours (2ft)
- Transportation Road Name
- Water Streams
- Ponds



Site Context Map

The information depicted on this map is for planning purposes only. It is not adequate for legal boundary definition, regulatory interpretation, or parcel-level analyses.

8/5/2024 8:58:12 AM
Scale: 1"=501'
Scale is approximate





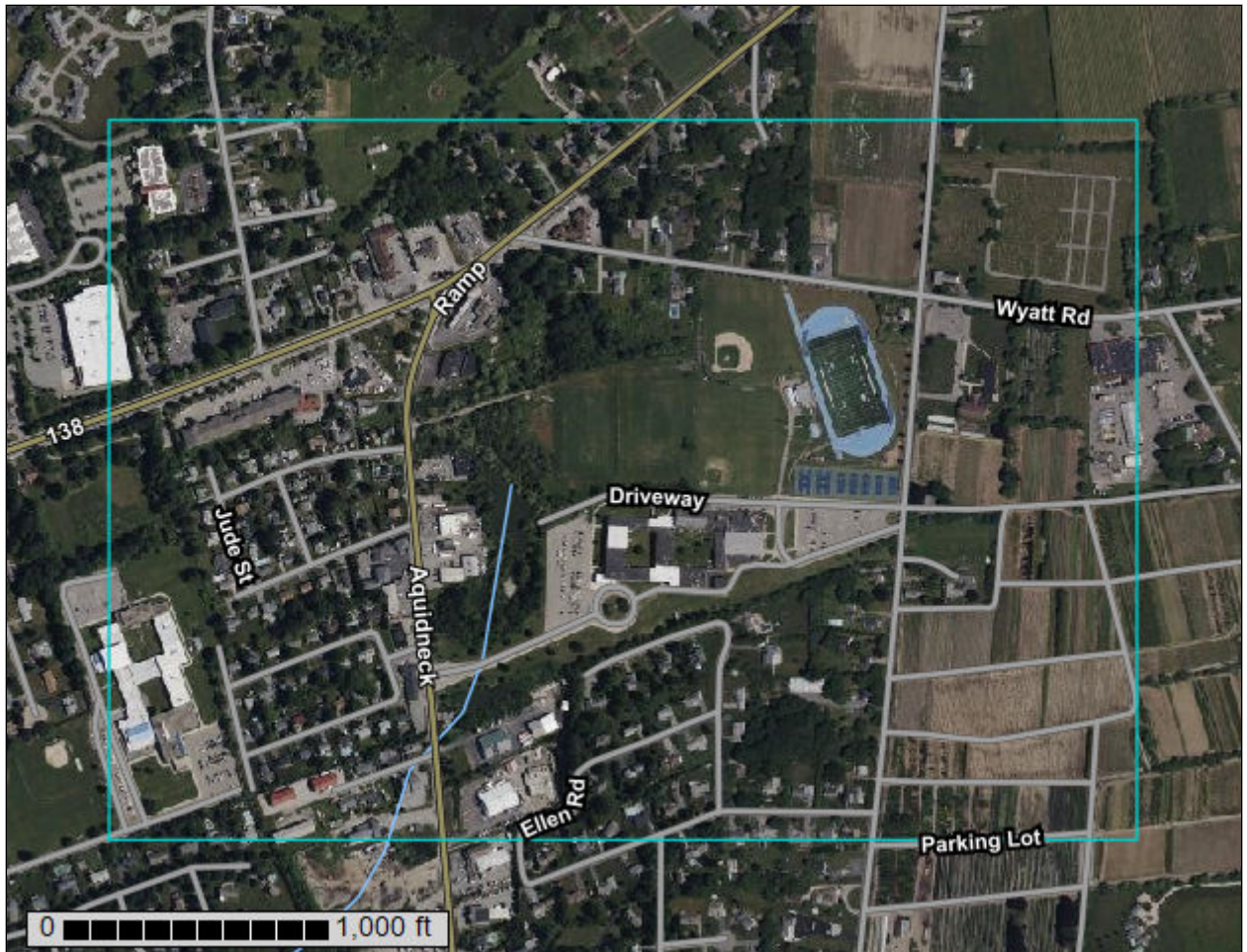
United States
Department of
Agriculture

NRCS

Natural
Resources
Conservation
Service

A product of the National
Cooperative Soil Survey,
a joint effort of the United
States Department of
Agriculture and other
Federal agencies, State
agencies including the
Agricultural Experiment
Stations, and local
participants

Custom Soil Resource Report for State of Rhode Island: Bristol, Kent, Newport, Providence, and Washington Counties



Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (<http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/>) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (<https://offices.sc.egov.usda.gov/locator/app?agency=nrcs>) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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Soil Map

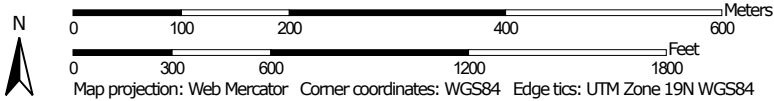
The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report

Soil Map (Middletown Middle High School)




Map Scale: 1:6,990 if printed on A landscape (11" x 8.5") sheet.





MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)




















Soils







 Soil Map Unit Polygons

 Soil Map Unit Lines


 Soil Map Unit Points

Special Point Features






-  Blowout
-  Borrow Pit
-  Clay Spot
-  Closed Depression
-  Gravel Pit
-  Gravelly Spot
-  Landfill
-  Lava Flow
-  Marsh or swamp
-  Mine or Quarry
-  Miscellaneous Water
-  Perennial Water
-  Rock Outcrop
-  Saline Spot
-  Sandy Spot
-  Severely Eroded Spot
-  Sinkhole
-  Slide or Slip
-  Sodic Spot

-  Spoil Area
-  Stony Spot
-  Very Stony Spot
-  Wet Spot
-  Other
-  Special Line Features


Water Features

 Streams and Canals

Transportation

-  Rails
-  Interstate Highways
-  US Routes
-  Major Roads
-  Local Roads

Background

 Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:12,000.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
 Web Soil Survey URL:
 Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: State of Rhode Island: Bristol, Kent, Newport, Providence, and Washington Counties
 Survey Area Data: Version 23, Sep 8, 2023

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jun 14, 2022—Jul 1, 2022

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend (Middletown Middle High School)

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
Ma	Mansfield mucky silt loam	0.1	0.1%
NeA	Newport silt loam, 0 to 3 percent slopes	15.5	6.4%
NeB	Newport silt loam, 3 to 8 percent slopes	35.2	14.6%
NP	Newport-Urban land complex	25.8	10.7%
PmA	Pittstown silt loam, 0 to 3 percent slopes	60.9	25.2%
PmB	Pittstown silt loam, 3 to 8 percent slopes	34.2	14.1%
Se	Stissing silt loam	16.9	7.0%
UD	Udorthents-Urban land complex	28.7	11.9%
Ur	Urban land	24.4	10.1%
Totals for Area of Interest		241.7	100.0%

Map Unit Descriptions (Middletown Middle High School)

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the

Custom Soil Resource Report

scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

State of Rhode Island: Bristol, Kent, Newport, Providence, and Washington Counties

Ma—Mansfield mucky silt loam

Map Unit Setting

National map unit symbol: 9lvr
Elevation: 0 to 340 feet
Mean annual precipitation: 44 to 50 inches
Mean annual air temperature: 48 to 50 degrees F
Frost-free period: 185 to 215 days
Farmland classification: Not prime farmland

Map Unit Composition

Mansfield and similar soils: 95 percent
Minor components: 5 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Mansfield

Setting

Landform: Depressions
Down-slope shape: Concave
Across-slope shape: Concave
Parent material: Loamy lodgment till derived from metamorphic and sedimentary rock

Typical profile

A - 0 to 8 inches: mucky silt loam
Bg - 8 to 15 inches: silt loam
Cd - 15 to 60 inches: channery loam

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Very poorly drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately high (0.00 to 0.20 in/hr)
Depth to water table: About 6 to 12 inches
Frequency of flooding: None
Frequency of ponding: Occasional
Available water supply, 0 to 60 inches: Low (about 3.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 5w
Hydrologic Soil Group: D
Ecological site: F144AY041MA - Very Wet Till Depressions
Hydric soil rating: Yes

Minor Components

Stissing

Percent of map unit: 5 percent

Custom Soil Resource Report

Landform: Depressions
Down-slope shape: Concave
Across-slope shape: Concave
Hydric soil rating: Yes

NeA—Newport silt loam, 0 to 3 percent slopes

Map Unit Setting

National map unit symbol: 9lw3
Elevation: 0 to 300 feet
Mean annual precipitation: 44 to 50 inches
Mean annual air temperature: 48 to 50 degrees F
Frost-free period: 115 to 211 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Newport and similar soils: 90 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Newport

Setting

Landform: Drumlins
Down-slope shape: Linear
Across-slope shape: Convex
Parent material: Loamy lodgment till derived from metamorphic and sedimentary rock

Typical profile

Ap - 0 to 8 inches: silt loam
Bw - 8 to 24 inches: channery silt loam
Cd - 24 to 65 inches: channery silt loam

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Very low
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately high (0.00 to 0.20 in/hr)
Depth to water table: About 23 to 24 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 4.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 1
Hydrologic Soil Group: C
Ecological site: F144AY007CT - Well Drained Dense Till Uplands

Custom Soil Resource Report

Hydric soil rating: No

Minor Components

Pittstown

Percent of map unit: 5 percent

Landform: Drumlins

Down-slope shape: Linear

Across-slope shape: Concave

Hydric soil rating: No

Birchwood

Percent of map unit: 3 percent

Landform: Drumlins

Down-slope shape: Linear

Across-slope shape: Concave

Hydric soil rating: No

Poquonock

Percent of map unit: 2 percent

Landform: Ground moraines, drumlins

Down-slope shape: Convex

Across-slope shape: Convex

Hydric soil rating: No

NeB—Newport silt loam, 3 to 8 percent slopes

Map Unit Setting

National map unit symbol: 9lw4

Elevation: 0 to 300 feet

Mean annual precipitation: 44 to 50 inches

Mean annual air temperature: 48 to 50 degrees F

Frost-free period: 115 to 211 days

Farmland classification: All areas are prime farmland

Map Unit Composition

Newport and similar soils: 90 percent

Minor components: 10 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Newport

Setting

Landform: Drumlins

Down-slope shape: Linear

Across-slope shape: Convex

Parent material: Loamy lodgment till derived from metamorphic and sedimentary rock

Typical profile

Ap - 0 to 8 inches: silt loam

Custom Soil Resource Report

Bw - 8 to 24 inches: channery silt loam

Cd - 24 to 65 inches: channery silt loam

Properties and qualities

Slope: 3 to 8 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Well drained

Runoff class: Low

Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately high (0.00 to 0.20 in/hr)

Depth to water table: About 23 to 24 inches

Frequency of flooding: None

Frequency of ponding: None

Available water supply, 0 to 60 inches: Low (about 4.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 2e

Hydrologic Soil Group: C

Ecological site: F144AY007CT - Well Drained Dense Till Uplands

Hydric soil rating: No

Minor Components

Pittstown

Percent of map unit: 6 percent

Landform: Drumlins

Down-slope shape: Linear

Across-slope shape: Concave

Hydric soil rating: No

Poquonock

Percent of map unit: 2 percent

Landform: Ground moraines, drumlins

Down-slope shape: Convex

Across-slope shape: Convex

Hydric soil rating: No

Birchwood

Percent of map unit: 2 percent

Landform: Drumlins

Down-slope shape: Linear

Across-slope shape: Concave

Hydric soil rating: No

NP—Newport-Urban land complex

Map Unit Setting

National map unit symbol: 9lvx

Elevation: 0 to 280 feet

Mean annual precipitation: 44 to 50 inches

Custom Soil Resource Report

Mean annual air temperature: 48 to 50 degrees F
Frost-free period: 115 to 211 days
Farmland classification: Not prime farmland

Map Unit Composition

Newport and similar soils: 40 percent
Urban land: 30 percent
Minor components: 30 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Newport

Setting

Landform: Drumlins
Down-slope shape: Linear
Across-slope shape: Convex
Parent material: Loamy lodgment till derived from metamorphic and sedimentary rock

Typical profile

Ap - 0 to 8 inches: silt loam
Bw - 8 to 24 inches: channery silt loam
Cd - 24 to 65 inches: channery silt loam

Properties and qualities

Slope: 1 to 15 percent
Surface area covered with cobbles, stones or boulders: 1.6 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately high (0.00 to 0.20 in/hr)
Depth to water table: About 23 to 24 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 4.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2e
Hydrologic Soil Group: C
Ecological site: F144AY007CT - Well Drained Dense Till Uplands
Hydric soil rating: No

Description of Urban Land

Setting

Parent material: Human transported material

Typical profile

R - 0 to 6 inches: variable

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 8s
Hydric soil rating: No

Minor Components

Poquonock

Percent of map unit: 10 percent
Landform: Ground moraines, drumlins
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

Udorthents

Percent of map unit: 10 percent
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Birchwood

Percent of map unit: 5 percent
Landform: Drumlins
Down-slope shape: Linear
Across-slope shape: Concave
Hydric soil rating: No

Pittstown

Percent of map unit: 5 percent
Landform: Drumlins
Down-slope shape: Linear
Across-slope shape: Concave
Hydric soil rating: No

PmA—Pittstown silt loam, 0 to 3 percent slopes

Map Unit Setting

National map unit symbol: 9lwk
Elevation: 0 to 250 feet
Mean annual precipitation: 44 to 50 inches
Mean annual air temperature: 48 to 50 degrees F
Frost-free period: 185 to 211 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Pittstown and similar soils: 90 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Pittstown

Setting

Landform: Drumlins
Down-slope shape: Linear

Custom Soil Resource Report

Across-slope shape: Concave

Parent material: Loamy lodgment till derived from metamorphic and sedimentary rock

Typical profile

A - 0 to 8 inches: very stony silt loam

Bw - 8 to 28 inches: silt loam

Cd - 28 to 60 inches: channery silt loam

Properties and qualities

Slope: 0 to 3 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Moderately well drained

Runoff class: Low

Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.60 in/hr)

Depth to water table: About 18 to 36 inches

Frequency of flooding: None

Frequency of ponding: None

Available water supply, 0 to 60 inches: Low (about 5.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 2w

Hydrologic Soil Group: C

Ecological site: F144AY037MA - Moist Dense Till Uplands

Hydric soil rating: No

Minor Components

Newport

Percent of map unit: 5 percent

Landform: Drumlins

Down-slope shape: Linear

Across-slope shape: Convex

Hydric soil rating: No

Stissing

Percent of map unit: 5 percent

Landform: Depressions

Down-slope shape: Concave

Across-slope shape: Concave

Hydric soil rating: Yes

PmB—Pittstown silt loam, 3 to 8 percent slopes

Map Unit Setting

National map unit symbol: 9lw1

Elevation: 0 to 250 feet

Mean annual precipitation: 44 to 50 inches

Mean annual air temperature: 48 to 50 degrees F

Custom Soil Resource Report

Frost-free period: 185 to 211 days

Farmland classification: All areas are prime farmland

Map Unit Composition

Pittstown and similar soils: 90 percent

Minor components: 10 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Pittstown

Setting

Landform: Drumlins

Down-slope shape: Linear

Across-slope shape: Concave

Parent material: Loamy lodgment till derived from metamorphic and sedimentary rock

Typical profile

A - 0 to 8 inches: very stony silt loam

Bw - 8 to 28 inches: silt loam

Cd - 28 to 60 inches: channery silt loam

Properties and qualities

Slope: 3 to 8 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Moderately well drained

Runoff class: Medium

Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.60 in/hr)

Depth to water table: About 18 to 36 inches

Frequency of flooding: None

Frequency of ponding: None

Available water supply, 0 to 60 inches: Low (about 5.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 2e

Hydrologic Soil Group: C

Ecological site: F144AY037MA - Moist Dense Till Uplands

Hydric soil rating: No

Minor Components

Newport

Percent of map unit: 5 percent

Landform: Drumlins

Down-slope shape: Linear

Across-slope shape: Convex

Hydric soil rating: No

Stissing

Percent of map unit: 5 percent

Landform: Depressions

Down-slope shape: Concave

Across-slope shape: Concave

Hydric soil rating: Yes

Se—Stissing silt loam

Map Unit Setting

National map unit symbol: 9lx6

Elevation: 0 to 250 feet

Mean annual precipitation: 44 to 50 inches

Mean annual air temperature: 48 to 50 degrees F

Frost-free period: 185 to 211 days

Farmland classification: Farmland of statewide importance

Map Unit Composition

Stissing and similar soils: 90 percent

Minor components: 10 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Stissing

Setting

Landform: Depressions

Down-slope shape: Concave

Across-slope shape: Concave

Parent material: Loamy lodgment till derived from metamorphic and sedimentary rock

Typical profile

A - 0 to 8 inches: very stony silt loam

Bg - 8 to 15 inches: silt loam

Cdg - 15 to 60 inches: silt loam

Properties and qualities

Slope: 0 to 3 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Poorly drained

Runoff class: Low

Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)

Depth to water table: About 0 to 18 inches

Frequency of flooding: None

Frequency of ponding: None

Available water supply, 0 to 60 inches: Very low (about 2.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 3w

Hydrologic Soil Group: D

Ecological site: F144AY009CT - Wet Till Depressions

Hydric soil rating: Yes

Minor Components

Pittstown

Percent of map unit: 7 percent
Landform: Drumlins
Down-slope shape: Linear
Across-slope shape: Concave
Hydric soil rating: No

Mansfield

Percent of map unit: 3 percent
Landform: Depressions
Down-slope shape: Concave
Across-slope shape: Concave
Hydric soil rating: Yes

UD—Udorthents-Urban land complex

Map Unit Setting

National map unit symbol: 9lxj
Elevation: 0 to 670 feet
Mean annual precipitation: 44 to 50 inches
Mean annual air temperature: 48 to 50 degrees F
Frost-free period: 120 to 211 days
Farmland classification: Not prime farmland

Map Unit Composition

Udorthents and similar soils: 70 percent
Urban land: 20 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Udorthents

Setting

Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Human transported material

Typical profile

A - 0 to 12 inches: sandy loam
C1 - 12 to 25 inches: sandy loam
C2 - 25 to 60 inches: stratified sand to very gravelly coarse sand

Properties and qualities

Slope: 0 to 15 percent
Depth to restrictive feature: More than 80 inches
Runoff class: Very low
Capacity of the most limiting layer to transmit water (Ksat): High (2.00 to 6.00 in/hr)

Custom Soil Resource Report

Depth to water table: About 42 to 54 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 5.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Hydrologic Soil Group: A
Ecological site: F149BY100NY - Urban Site Complex
Hydric soil rating: No

Description of Urban Land

Setting

Parent material: Human transported material

Typical profile

R - 0 to 6 inches: variable

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 8s
Hydric soil rating: No

Minor Components

Quonset

Percent of map unit: 5 percent
Landform: Outwash plains, terraces, outwash terraces, eskers
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

Merrimac

Percent of map unit: 5 percent
Landform: Terraces, outwash plains, kames
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Ur—Urban land

Map Unit Setting

National map unit symbol: 9lxx
Elevation: 0 to 810 feet
Mean annual precipitation: 44 to 50 inches
Mean annual air temperature: 48 to 50 degrees F
Frost-free period: 100 to 211 days
Farmland classification: Not prime farmland

Map Unit Composition

Urban land: 85 percent

Minor components: 15 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Urban Land

Setting

Parent material: Human transported material

Minor Components

Udorthents

Percent of map unit: 5 percent

Down-slope shape: Linear

Across-slope shape: Linear

Hydric soil rating: No

Pittstown

Percent of map unit: 2 percent

Landform: Drumlins

Down-slope shape: Linear

Across-slope shape: Concave

Hydric soil rating: No

Canton

Percent of map unit: 2 percent

Landform: Hills

Down-slope shape: Convex

Across-slope shape: Convex

Hydric soil rating: No

Charlton

Percent of map unit: 2 percent

Landform: Hills

Down-slope shape: Linear

Across-slope shape: Convex

Hydric soil rating: No

Merrimac

Percent of map unit: 1 percent

Landform: Terraces, outwash plains, kames

Down-slope shape: Linear

Across-slope shape: Linear

Hydric soil rating: No

Sutton

Percent of map unit: 1 percent

Landform: Drainageways, depressions

Down-slope shape: Concave, linear

Across-slope shape: Concave

Hydric soil rating: No

Sudbury

Percent of map unit: 1 percent

Landform: Terraces, outwash plains

Down-slope shape: Linear

Custom Soil Resource Report

Across-slope shape: Concave
Hydric soil rating: No

Newport

Percent of map unit: 1 percent
Landform: Drumlins
Down-slope shape: Linear
Across-slope shape: Convex
Hydric soil rating: No

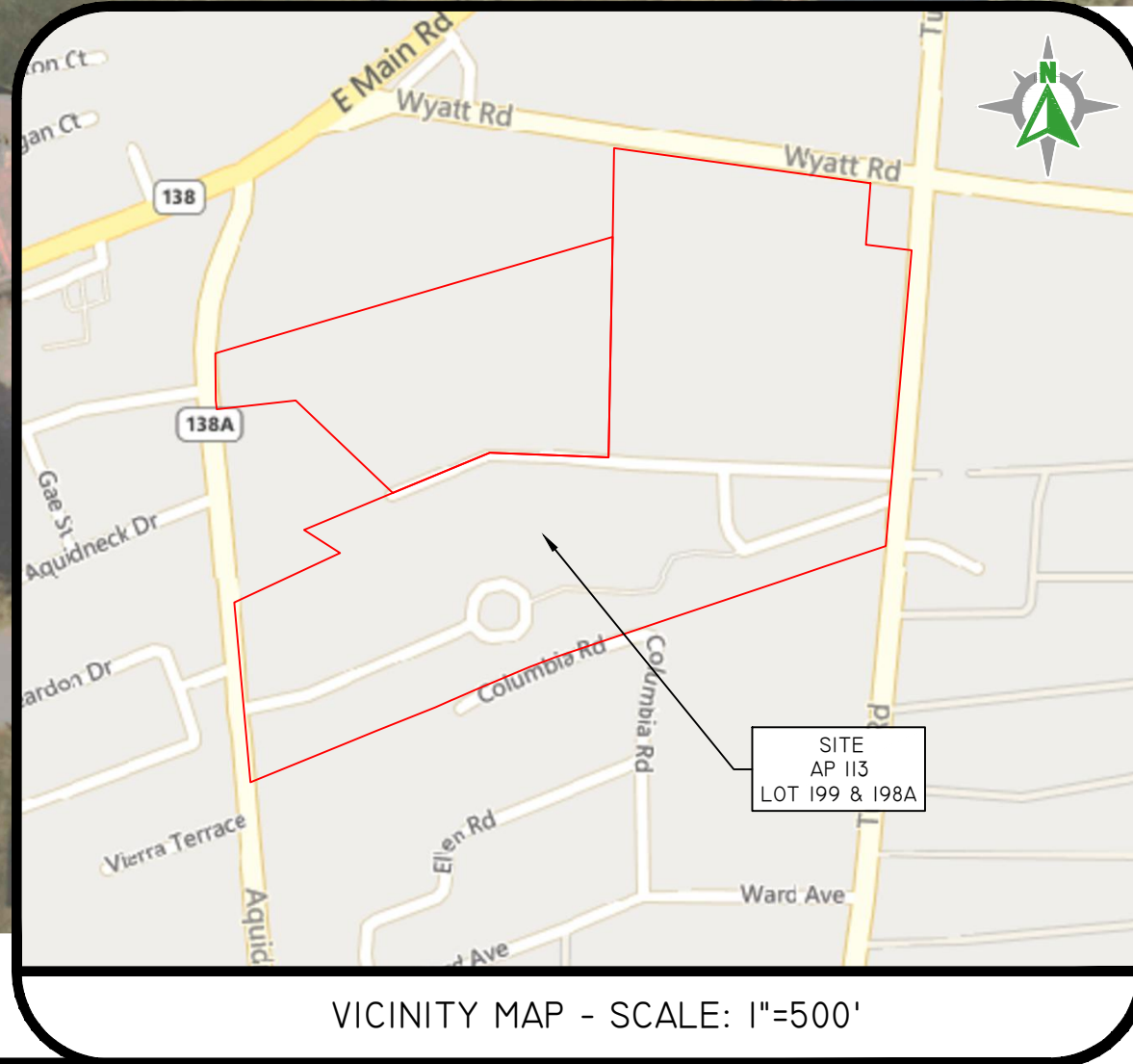
\\NAS108\PROJECTS\2023\2023-01-11\DWG\2023-01-11\DWG_PLOTTED_1/2/2024



DiPrete Engineering
 Two Stafford Court Cranston, RI 02920
 tel 401-943-1000 fax 401-464-6006 www.diprete-eng.com

Boston • Providence • Newport

- 01/02/2024



TEST HOLE LOCATION PLAN

AQUIDNECK AVENUE - MIDDLETOWN HS
 ASSESSOR'S PLAT 113 LOTS 199 & 198A
 MIDDLETOWN, RHODE ISLAND

DRAFT

PREPARED FOR:
MR. STEPHEN POWERS, PE
 SAPIOTTES CONSULTANTS, INC.
 20 A STREET, FRAMINGHAM MA 01701

DE JOB NO: 2023-001 COPYRIGHT 2024 BY DIPRETE ENGINEERING ASSOCIATES, INC.

SHEET | OF 1



STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS

Department of Environmental Management
Office of Water Resources
Onsite Wastewater Treatment Systems Program



Site Evaluation Form
Part A - Soil Profile Description

Application Number _____

Property Owner: Town of Middletown

Property Location: 1113 Aquidneck Avenue (AP 113, Lot 199) Middletown, RI

Date of Test Hole: December 27, 2023

Soil Evaluator: Allison Drake License Number: D-4105

Weather: Cloudy, 40's Shaded: Yes [] No [x] Time: 9:00 AM

Table with 11 columns: TH Horizon, Depth, Horizon Boundaries (Dist, Topo), Soil Colors (Matrix, Re-Dox Features), Re-Dox (Ab., S., Contr.), Texture, Structure, Consistence, Soil Category. Contains two soil profile sections.

TH DTH 23-1 Soil Class Dense Till Total Depth 120" Impervious/Limiting Layer Depth N/A (og) GW Seepage Depth N/A SHWT 22" (og)
TH DTH 23-1 Soil Class Dense Till Total Depth 102" Impervious/Limiting Layer Depth N/A (og) GW Seepage Depth 96" SHWT 33" (og)

Comments: _____



STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS

Department of Environmental Management
Office of Water Resources
Onsite Wastewater Treatment Systems Program



Site Evaluation Form
Part A - Soil Profile Description

Application Number _____

Property Owner: Town of Middletown

Property Location: 1113 Aquidneck Avenue (AP 113, Lot 199) Middletown, RI

Date of Test Hole: December 27, 2023

Soil Evaluator: Allison Drake License Number: D-4105

Weather: Cloudy, 40's Shaded: Yes [] No [x] Time: 9:00 AM

Table with 11 columns: TH Horizon, Depth, Horizon Boundaries (Dist, Topo), Soil Colors (Matrix, Re-Dox Features), Re-Dox (Ab., S., Contr.), Texture, Structure, Consistence, Soil Category. Rows include horizons M, HTM, Bw, Cd1, Cd2, HTM, Cd.

TH DTH 23-3 Soil Class Dense Till Total Depth 128" Impervious/Limiting Layer Depth N/A (og) GW Seepage Depth 126" SHWT 48" (og)
TH DTH 23-4 Soil Class Dense Till Total Depth 120" Impervious/Limiting Layer Depth N/A (og) GW Seepage Depth N/A SHWT 32" (og)

Comments: _____



STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS

Department of Environmental Management
Office of Water Resources
Onsite Wastewater Treatment Systems Program



Site Evaluation Form
Part A - Soil Profile Description

Application Number

Property Owner: Town of Middletown

Property Location: 1113 Aquidneck Avenue (AP 113, Lot 199) Middletown, RI

Date of Test Hole: December 27, 2023

Soil Evaluator: Allison Drake License Number: D-4105

Weather: Cloudy, 40's Shaded: Yes No Time: 9:00 AM

Table with 11 columns: TH Horizon, Depth, Horizon Boundaries (Dist, Topo), Soil Colors (Matrix, Re-Dox Features), Re-Dox (Ab., S., Contr.), Texture, Structure, Consistence, Soil Category. Contains data for two test holes (DTH 23-5 and DTH 23-6).

TH DTH 23-5 Soil Class Dense Till Total Depth 120" Impervious/Limiting Layer Depth N/A (og) GW Seepage Depth N/A SHWT 24" (og)
TH DTH 23-6 Soil Class Dense Till Total Depth 120" Impervious/Limiting Layer Depth N/A (og) GW Seepage Depth N/A SHWT 16" (og)

Comments:



STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS

Department of Environmental Management
Office of Water Resources
Onsite Wastewater Treatment Systems Program



Site Evaluation Form
Part A - Soil Profile Description

Application Number

Property Owner: Town of Middletown

Property Location: 1113 Aquidneck Avenue (AP 113, Lot 199) Middletown, RI

Date of Test Hole: December 27, 2023

Soil Evaluator: Allison Drake License Number: D-4105

Weather: Cloudy, 40's Shaded: Yes No Time: 9:00 AM

Table with 10 columns: TH Horizon, Depth, Horizon Boundaries (Dist, Topo), Soil Colors (Matrix, Re-Dox Features), Re-Dox (Ab., S., Contr.), Texture, Structure, Consistence, Soil Category. Contains two soil profile sections for DTH 23-7 and DTH 23-8.

TH DTH 23-7 Soil Class Dense Till Total Depth 108" Impervious/Limiting Layer Depth N/A (og) GW Seepage Depth N/A SHWT 24" (og)

TH DTH 23-8 Soil Class Dense Till Total Depth 108" Impervious/Limiting Layer Depth N/A (og) GW Seepage Depth 72" SHWT 16" (og)

Comments:



TRUCK ROUTE

**PROTECT FIELD
DURING
CONSTRUCTION**

**MATERIAL STORAGE &
TRADE PARKING**

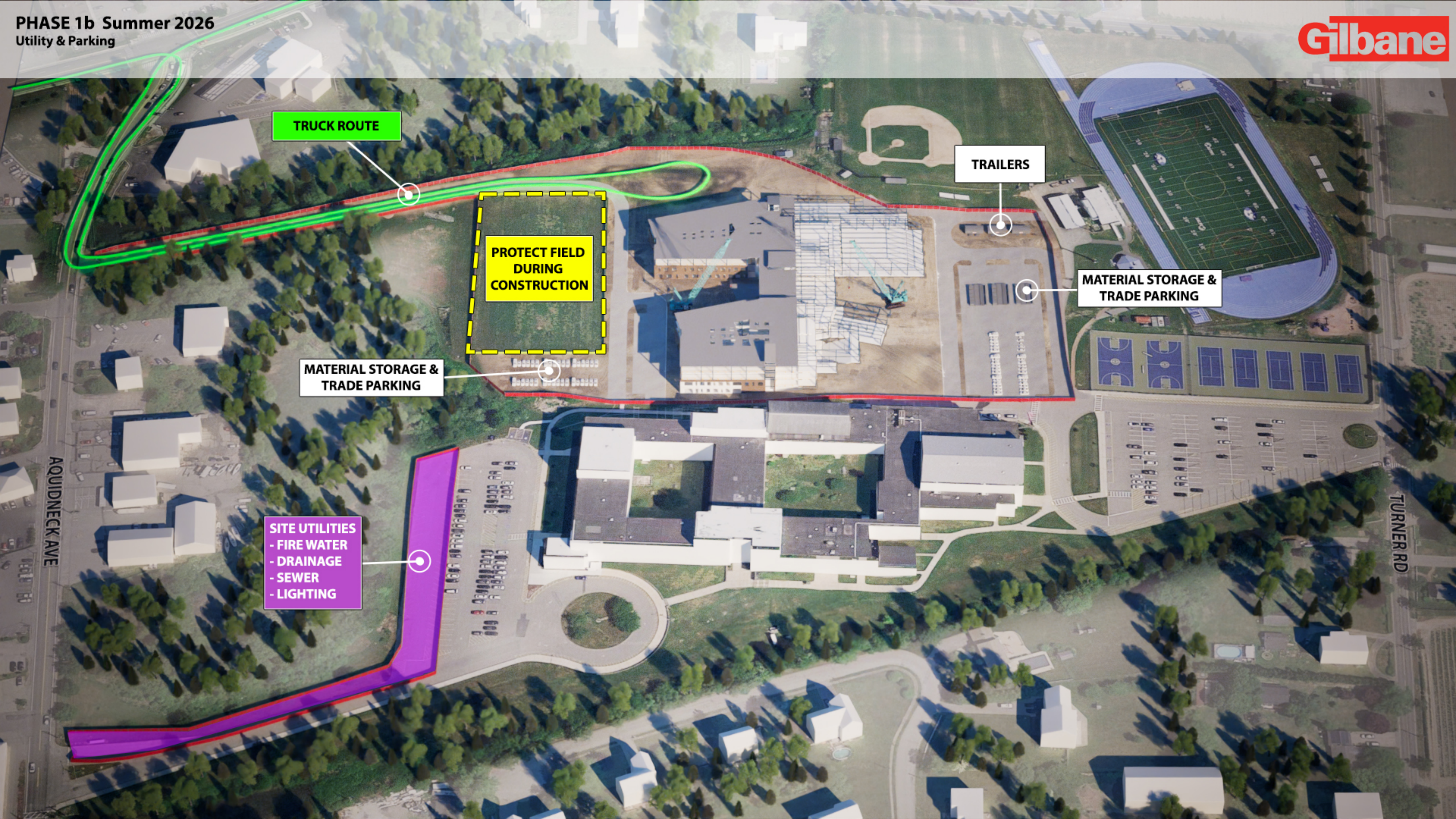
TRAILERS

**MATERIAL STORAGE &
TRADE PARKING**

**INFILTRATION SYSTEM /
STORM WATER DETENTION**

AQUIDNECK AVE

TURNER RD



TRUCK ROUTE

**PROTECT FIELD
DURING
CONSTRUCTION**

TRAILERS

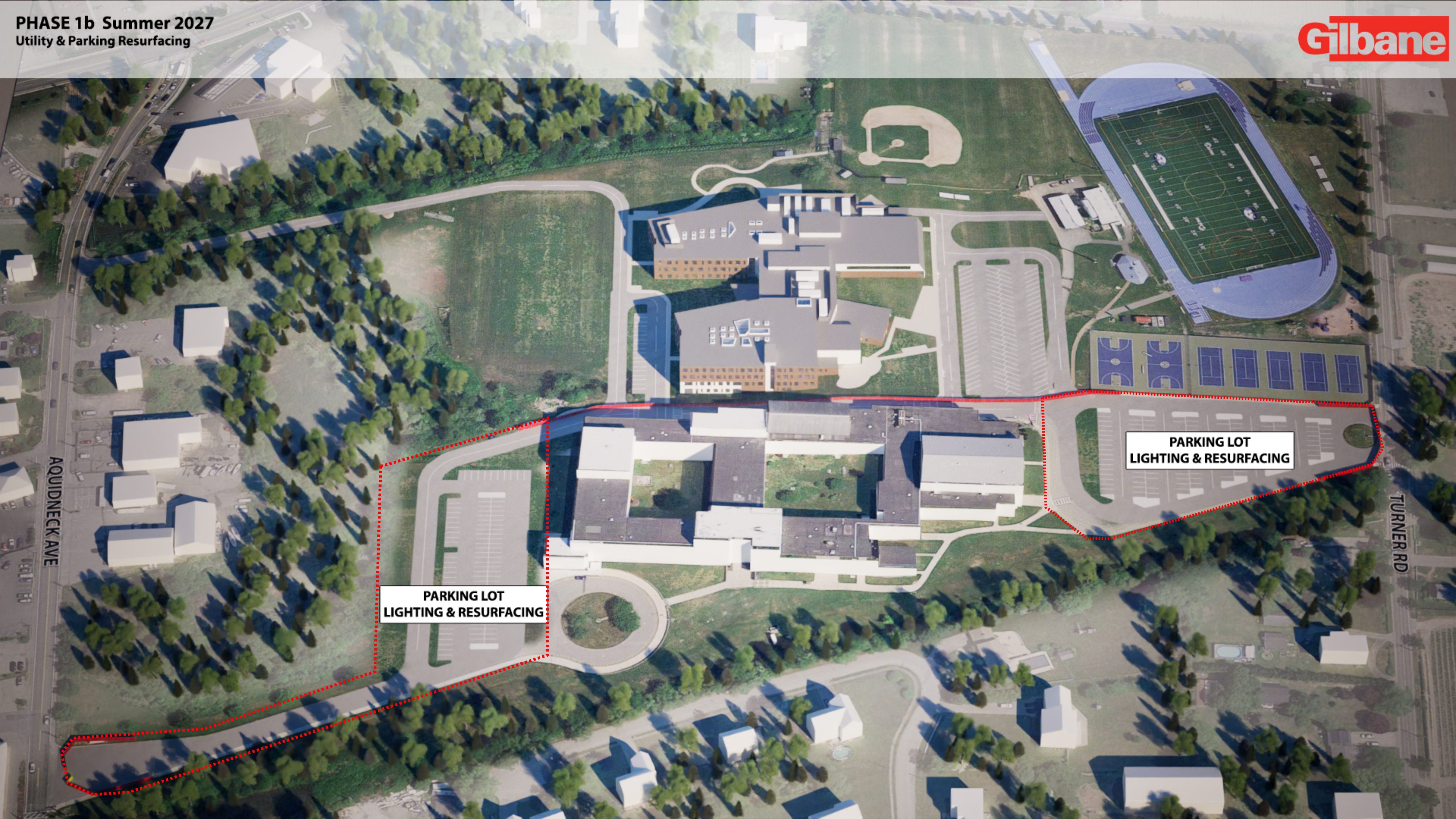
**MATERIAL STORAGE &
TRADE PARKING**

**MATERIAL STORAGE &
TRADE PARKING**

SITE UTILITIES
- FIRE WATER
- DRAINAGE
- SEWER
- LIGHTING

AQUIDNECK AVE

TURNER RD



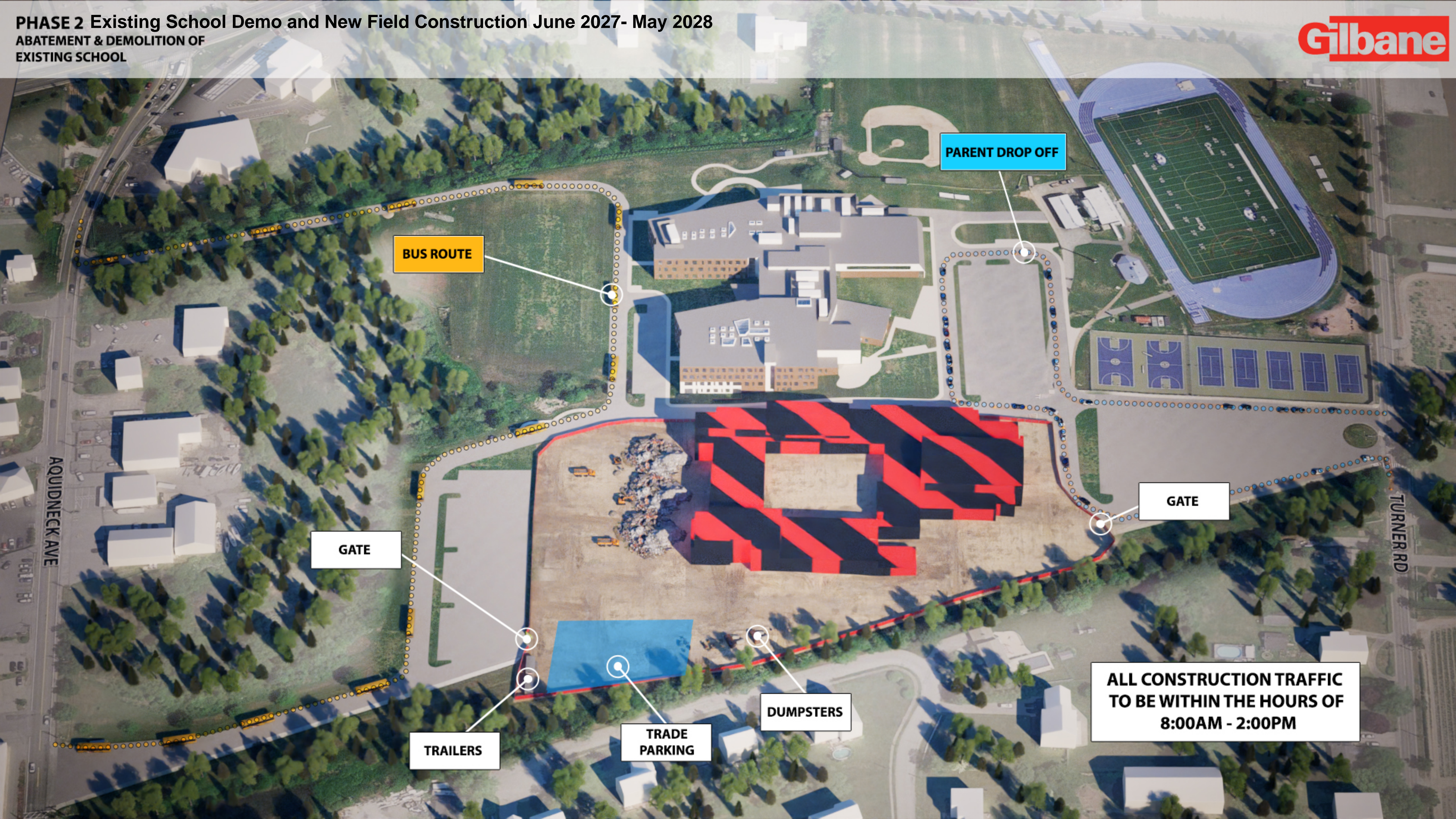
**PARKING LOT
LIGHTING & RESURFACING**

**PARKING LOT
LIGHTING & RESURFACING**

AQUIDNECK AVE

TURNER RD

PHASE 2 Existing School Demo and New Field Construction June 2027- May 2028
ABATEMENT & DEMOLITION OF EXISTING SCHOOL



BUS ROUTE

PARENT DROP OFF

GATE

GATE

TRAILERS

TRADE PARKING

DUMPSTERS

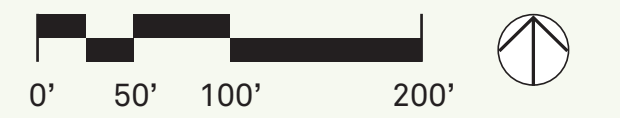
ALL CONSTRUCTION TRAFFIC TO BE WITHIN THE HOURS OF 8:00AM - 2:00PM

AQUIDNECK AVE

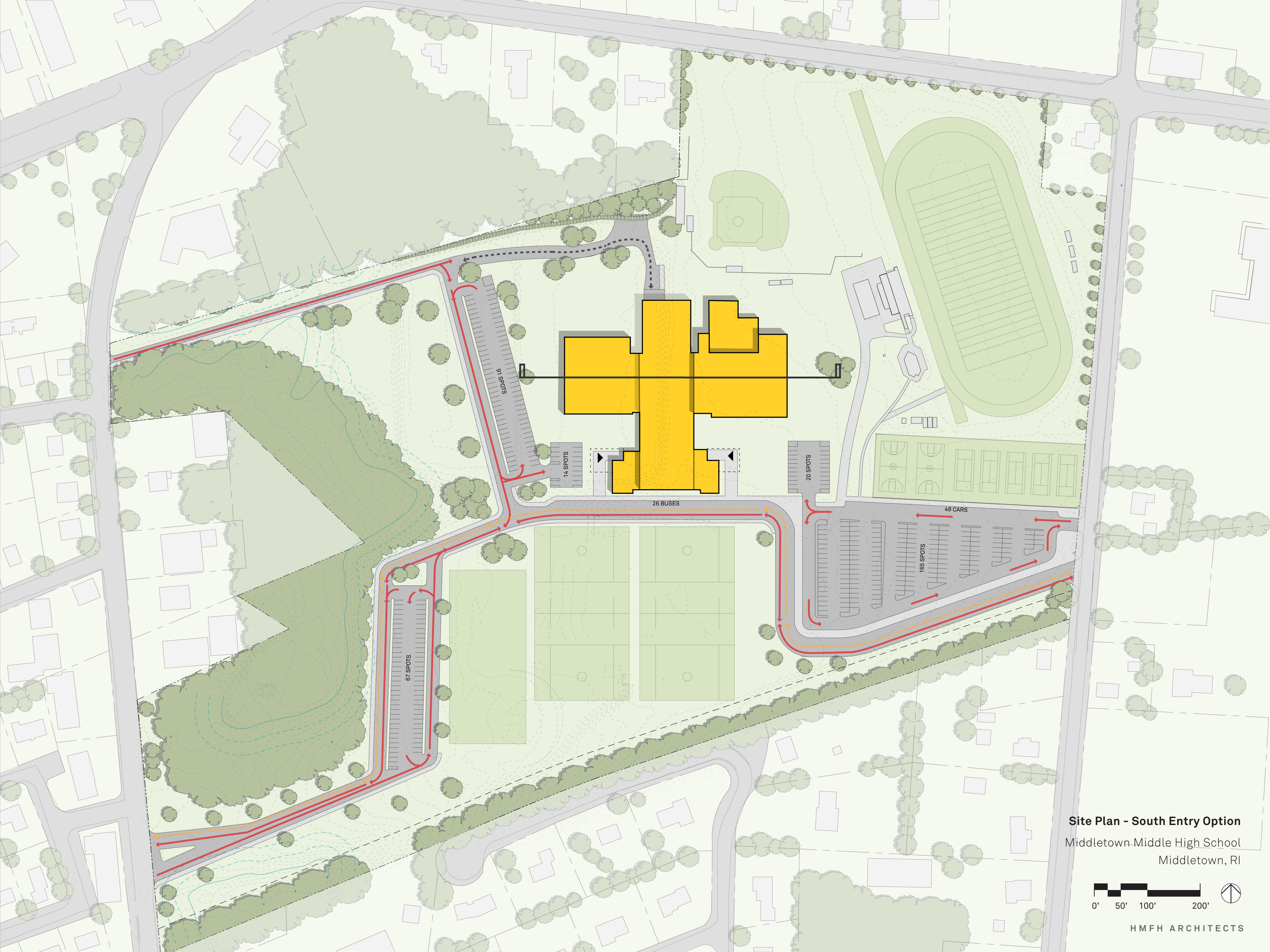
TURNER RD



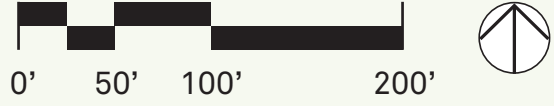
Site Plan - West Entry Option
Middletown Middle High School
Middletown, RI



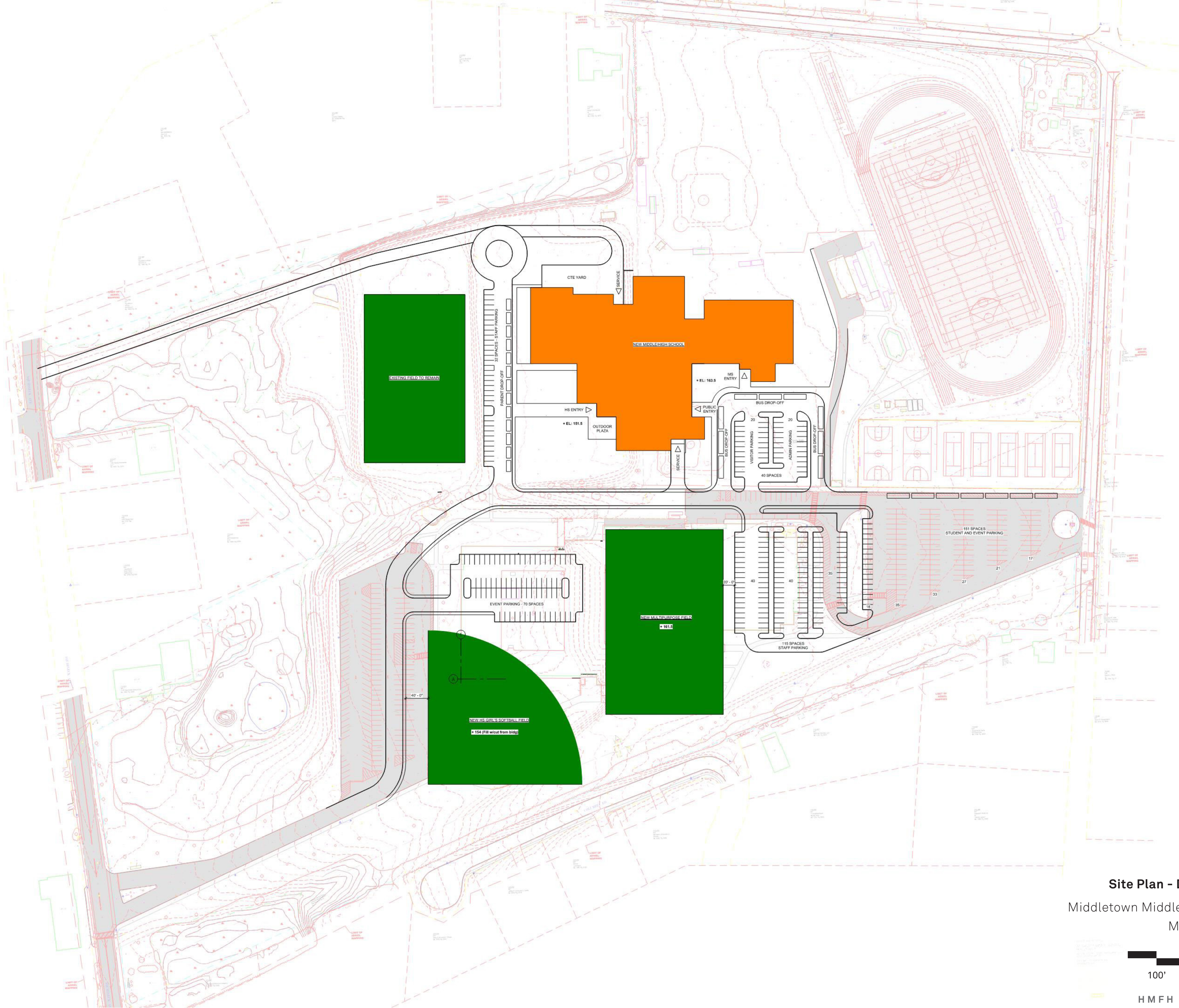
HMFH ARCHITECTS



Site Plan - South Entry Option
Middletown Middle High School
Middletown, RI



HMFH ARCHITECTS



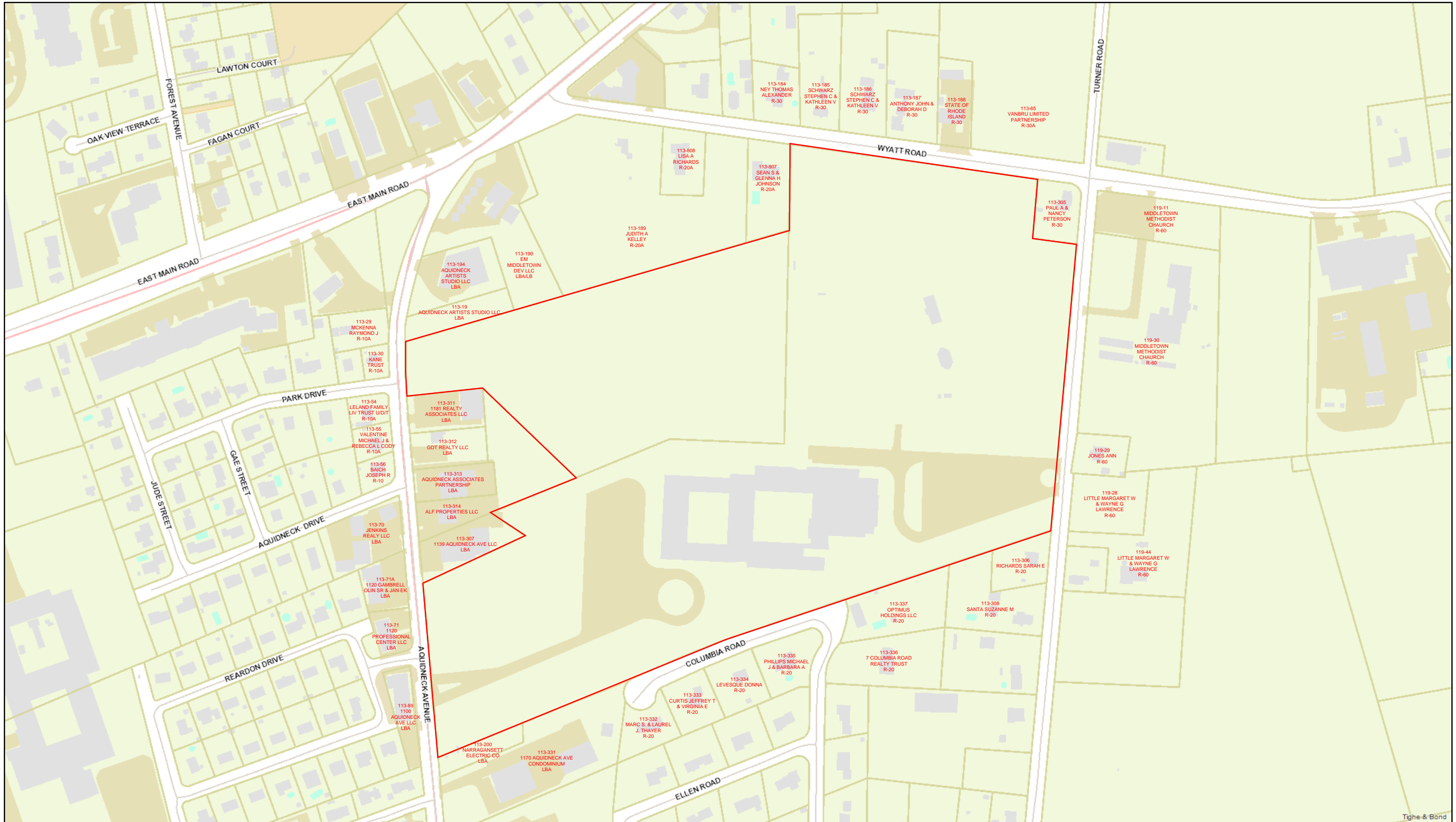
Site Plan - DBVW Option
 Middletown Middle High School
 Middletown, RI





Site Plan - Gym Reuse Option
Middletown Middle High School
Middletown, RI





Tighe & Bond

Abutter Map for New Middletown Middle High School

9/6/2024 10:20:25
 Scale: 1"=250'
 Scale is approximate



The information depicted on this map is for planning purposes only. It is not adequate for legal boundary definition, regulatory interpretation, or parcel-level analyses.