“298 Main”
at 298 Main Street, Yarmouth

Preliminary Subdivision and Site Plan Application

December, 2020

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Atlantic Resource Consultants
Engineering Strategies and Solutions

LICHT
ENVIRONMENTAL DESIGN, LLC

Prepared for:

298 Main Partners, LLC
67 Hillside Street
Yarmouth, Maine 04096

LICHT
ENVIRONMENTAL DESIGN, LLC

December 16, 2020 (Via Delivery & PDF)

Alex Jaegerman, FIACP
Director of Planning & Development
Town of Yarmouth
200 Main Street
Yarmouth, Maine 04096

"298 Main" Preliminary Site Plan and Subdivision Application
298 Main Street
(Map 37, Lot 30)

Dear Mr. Jaegerman:

298 Main Partners, LLC is pleased to submit this Preliminary Site Plan and Subdivision application package for a proposed new mixed-use building to be located at 298 Main Street in Yarmouth. This application is submitted for review under Chapter 703, Character Based Development Code (CBDC) in the Village Center (CD4) District, for the proposed new building and lot plan and includes the following materials:

Enclosed are 12 sets of the following materials: (5 full size and 12 reduced plan sets)

- Cover Letter Report
- Site and Subdivision Application Forms
- Chapter 702 Site Plan Review Standards
- Exhibits 1-22 Attachments
- Exhibit 23 - Architectural Plans (reduced) and Character Based Development Code Article 5.M Assessment
- Site and Survey Plans, 298 Main, prepared by Atlantic Resource Consultants and Ruopp Survey and Mapping, dated 12-16-20

I. INTRODUCTION AND BACKGROUND:

Over the past several months, 298 Main Partners, LLC has submitted a Sketch Plan application and subsequent update and reviewed the proposed mixed use building with the Planning Board and staff. The existing building onsite was determined to not be a Building of Value, allowing for demolition of the existing structure to proceed through the demolition permit process. This project has received significant response from abutters and town residents – informing the design process and resulting in a refined and improved building for 298 Main Street.

Several outreach public meetings have been held at the Railroad Square pavilion to solicit feedback from residents and additional meetings on the larger phased Railroad Square master plan are anticipated over the coming months. Additional design review sessions were also held with Town staff to facilitate the design process. The applicant and design team have responded with a three-story mixed use building and updated site plans which are presented herein which we believe are consistent with the village character and CBDC CD-4 goals of providing development which is "…*attractive, visually compatible and*

complimentary to the established and traditional historic form, scale, character and architecture of Yarmouth Village."

This application is subject to the following ordinances:

1. CBDC Article 1.M –Building and Lot Plans and Article 5 Standards for the CD-4 Village Center District.
2. Major Site Plan Review –Chapter 702
3. Subdivision Review –Chapter 601

With the substantial information on the project and site filed under the Pre-Application Sketch Plan/Building Demolition Review process, this application will focus on the final updated building and site design. The reader may find the prior submittals helpful in understanding the project background and site history. That information will not be repeated in this formal application.

The format of this application follows the Site Plan Application Form with Exhibits provided on specific review standards within the body of the cover letter where appropriate and attached as separate Exhibit attachments where additional documentation or supporting information is requested.

II. EXISTING CONDITIONS:

The site, located at the corner of South and Main Streets is identified as Assessors Map 37 Lot 30 and contains 0.21 acres, (*Exhibit 1).* Refer also to the Site Survey Plan within the Site Plan set. The lot is almost completely occupied by the existing 298 Main Street building, pavement, concrete pads and two areas of landscaping located along the Main Street sidewalk. Adjacent uses include residential homes on the west side of South Street, a mixed use building (Burdick) directly to the south and the Down East Facility to the east and south. Properties on the north side of Main Street are all commercial businesses.

Currently access and parking for residents and businesses in the existing building are located in a haphazard fashion off both South Street and Railroad Square with 3 on-street parking spaces located on Main Street along the site frontage. Parking on the eastern side of the building is actually located on the adjacent property of Down East Energy (Osterman Propane, LLC, Map 37 Lot 28-00B). All of the parking along South Street is unsafe and unattractive, requiring cars back out onto South Street conflicting with pedestrians. South Street has an approximate 22 foot travel way (25 mph) and the street pavement merges with the west side parking areas of 298 Main Street. Sidewalks exist on Main Street only.

The abutting property to the south (J. Burdick) has deeded rights to pass over the southern end of the 298 Main Street property to and from South Street to the Down East property. This access will be maintained and improved with the proposed site development.

The Railroad Square entrance is adjacent to the former St. Lawrence and Atlantic Railroad (MDOT Right of Way) and includes crossing arms which will be removed by MDOT – allowing for an improved Railroad Square entrance and future Rail Trail Bike Path which is being pursued by the Town of Yarmouth and which will create a significant bike-pedestrian-vehicle shared use node at the railroad crossing.

Utilities are available from Main Street and South Street and include overhead electric and communications, underground communications, sanitary sewer, public water and natural gas. A hydrant is located on the west side of South Street and cobra –style street lights are located on several utility poles on Main Street in the vicinity of the site. The locations of buried water and sewer services

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from the existing building are shown as approximate or assumed on the Removals Plan based on site research. (Refer to Site Plans and Topographic Survey for existing conditions and utility locations.)

Stormwater from the site generally drains either to South and Main Streets or to the Down East Property where it is collected in a 12-inch stormdrain system and discharged to an 18-inch stormdrain trunk line in Main Street which located within the Brickyard Hollow MS-4 watershed.

III. PROPOSED DEVELOPMENT:

1. **Building**: (Refer to the attached Architectural Plans and CBDC Architectural Assessment.)

   The proposed building for 298 Main Street in Yarmouth, Maine has been developed in accordance with the Form Based Code requirements adopted by the Town and consists of a three story mixed use building on the site of an existing building of the same use type. The lower level is intended to house commercial tenant space, a small studio residence as well as parking and common amenities/mechanical space for the building while the top two floors contain one and two bedroom condominium units of varying sizes. The exterior of the building consists mainly of masonry and brick and is intended to respond to the context and character of Main Street in both its materiality and detailing. Overall, the proposal for the building at 298 Main Street is intended to respond to the requirements of the code and serve as an example for future development outside of this site within the Village Center District.

   The development will meet the goals of the Comprehensive Plan to provide mixed use and live-work opportunities in the village while presenting a structure deserving of this pivotal site on Main Street.

   The mixed use building will provide: 16 residential condominium units and commercial space:
   - Floor 1: 2,725 square feet of commercial space fronting on Main Street.
     1 - One bedroom residential unit.
     8 – Covered parking spaces (Including one ADA and 4 EV Spaces).
   - Floor 2: 5 –One bedroom and 3 –two bedroom units.
   - Floor 3: 4 –One bedroom and 3 -two bedroom units
   - Elevator
   - Upper floor -ground level entrances from the South Street and RR Square sides of the building.
   - Recycle/Trash rollaway bins and bike storage in covered parking garage.

2. **Site Dimensional Requirements and Waiver Request:**

   Lot area, lot layers, frontages, setbacks, building height and other dimensional requirements are governed by the CBDC Article 5 Standards. Refer to the Site Data Table in *Exhibit 18* and on the Layout Plan, Sheet C-101 for compliance with lot standards.

   One waiver is being requested - for lot coverage. Due the small area and semi-urban use of the lot and surrounding impervious pavement, the applicant is seeking a waiver of the 85% maximum lot coverage standard. However, the proposed development will actually *reduce*

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impervious areas over existing conditions and add additional green space within the public rights of ways. (Refer to *Exhibit 20* for the lot coverage waiver request.)

3. **Site Development & Materials**: (*Refer to Site Layout and Landscaping & Materials Plans.)*

The lot has minimal area outside of the building due to the small lot size. However the space that is available has been used to the greatest degree to create a pedestrian focused streetscape around the building. The current site is unattractive and consists mostly of poorly maintained concrete and pavement. An important element of the site design and landscaping includes the complete replacement and upgrading of the public walk and space at Main Street and the creation of a curb and walk on the east side of South Street – which currently has no formal pedestrian way and has a deteriorated accessible ramp at Main Street[1]. We feel this is especially important when considering the pedestrian and bicycle use by school age children and residents alike where no walk currently exists on a 22 foot street and intersection. These "offsite improvements" are being considered integral to and an important part of creating an inviting and vibrant character - in keeping with the Main Street Masterplan recommendations.

The site plan invokes an inviting and active streetscape with a welcome shop front on Main Street, a paver plaza on the east side of the site forming a visual and purposed public area framing the building as one approaches from the east and creates a new sidewalk and green space strip against the west side of the building on South Street. Specific design measures include:

a. South Street – Granite curbing, 3-foot landscaped esplanade with street trees, 5 foot concrete walk and 2-3 foot landscape beds along the building face.

b. Main Street – Reset or replaced granite curbing with raised granite tree planters, granite paver esplanade ("sett"), with 8 foot concrete walk, and 8-10 foot granite paver walk extensions to the building. Cut granite blocks will form planters and create seating areas along the shop front. New accessible ramps/crossings will be constructed at South Street and Railroad Square. Bicycle racks will also be provided. (Note that the new street curbing heights account for the proposed 2021 - 1.0 to 1.25 inch milling and overlay of Main Street.)

c. Railroad Square Entrance – A large open porous-paver plaza will round the corner from Main Street into the Railroad Square development providing an outside seating and gathering area for 298 Main residents and the public. The use or porous pavers will reduce/treat stormwater flows from the current paved conditions. A landscape bed will anchor the south end of this entry gateway and a 2 foot landscape strip and partial "green wall" at the garage will soften the remainder of the east face of the building.

The east (railroad side) of the entrance is proposed to include grading changes, partial new or re-set granite curbing to allow a WB-50 trailer truck to properly access/egress the site but will not be a complete re-design of the entrance intersection. Rather, the project plans on installing utilities (see below), and paving a base pavement coarse to match with the existing

[1] The Main Street Sidewalk and Streetscape Master Plan and Design Recommendations (Main Street Masterplan) recommends adding a walk on South Street as a safe alternative to pedestrians using the roadway.

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walks/pavement until the formal intersection design is finalized through a collaborative process led by the Town and including the RR Square design team and stakeholders. It is anticipated that the RR Square Masterplan development will provide the final details on this important intersection at a later date.

d. Southern Access Lane -South Street entrance – The use of stamped pavement to create a textured and contrasting 12 - 16 foot wide "alley" at the southern site entrance will enhance this currently very utilitarian area into an inviting shared pedestrian-vehicle space accessing the garage parking. This is the main access and egress drive from the site. The property does not have legal rights to drive through or enter from the adjacent Down East Energy property to the east. As noted earlier, the abutting Burdick property has deeded rights to travel this lane between South Street and the Down East Energy property.

4. **Utilities*:*** *(Refer to Utilities Plan.)*

As noted earlier, public water, sewer, gas and underground ETTV mains will be extended from Main Street up Railroad Square within a common utility and access easement to serve the future phased Railroad Square development. Utilities will be stubbed/capped approximately 60-80 feet into the development for this Phase 1 -298 Main development. Building services will be provided to the east side of the building. The project team has met with CMP to review electric service options for both 298 Main and the larger rear development. 298 Main will connect to the existing pole #CMP-1 along South Street and provide an underground drop service into the west side of the building with an overhead pole guy wire extending over the proposed walk. (The existing utility pole will be replaced.)

The building will comply with NFPA-101 Life Safety and Yarmouth Fire Code requirements for fire department connections and sprinkler requirements. Final fire protection details will be reviewed with the Yarmouth Fire Rescue department as the project progresses.

5. Lighting:

No formal site lighting is proposed for the 298 Main project. Lighting will be incorporated formally into the future phase RR Square Masterplan project. Lighting is currently provided by overhead cobra style commercial lights mounted on two of the Main Street utility poles. The applicant is encouraged by the opportunity for potential street lighting improvements commensurate with future Main Street public improvements.

Alternatively the project will provide shielded, cut-off building accent lighting and up lighting of the façade to compliment the architecture and in keeping with the commercial retail businesses on the ground floor. Recessed and security lighting will also be provided in the garage area for the safety of residents.

Lighting cuts are provided in *Exhibit 22* and the garage photometrics are shown on the Landscaping and Materials Plan.

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6. **Parking and Traffic:** (*Refer to Exhibits 12 and 12A.)*

A Traffic Impact Study has been performed by Diane Morabito, PE, and PTOE of Sewall, included in *Exhibit 12*. The study assesses the net change in trips generated by the site over current/historical use, the "level of service" (LOS) at South and Main Streets and RR Square and Main Street/Yarmouth Crossing and safety conditions. In summary - the report concludes that the proposed use will not change the level of service at South and Main Streets below the current level A and B conditions (for AM and PM Peaks.) Similarly the exiting traffic for RR Square/Main St. (LOS B/C) and Yarmouth Crossing/Main St. (LOS C/D) do not change significantly with the build out of 298 Main or RR Square. Main Street continues to operate at LOS A –indicating sufficient capacity for the current and build-out conditions including increases in background traffic.

Exhibit 12A provides a parking table for 298 Main based on the parking requirements of the CBDC Article 5.K. The table provides a basis for "required" and "provided" parking based on a combination of Main street "frontage" spaces, on-site covered parking and shared parking with Railroad Square. (Refer to the shared parking plan Exhibit 6.1 for the offsite parking location.)

a. Commercial Space – 5 spaces required. Provided are an allowance for 3 spaces (restriped) on Main Street and 2 shared spaces at RR Square.
b. 16 Units – Min. 16 spaces required. 8 spaces provided in covered building parking (4 EV, 3 regular and 1 ADA Space) and 9 shared spaces provided at RR Square.
c. A total of 22 spaces are required. Article 5.K.2 allows for a reduction when using shared parking –the adjusted required number of parking spaces is 19. The shared parking at RR Square will exceed the required 10 spaces.

7. Stormwater Management: (*Refer to Exhibits 13 and 14*.)

The pre and post development drainage conditions are shown in *Exhibit 14.* The post development project will slightly reduce impervious areas from 95% of the site to 92% by incorporating landscape areas as noted above and the porous paver plaza (which per CBDC is only credited with 50% of its area although all of the stormwater discharges to a subsurface system or is infiltrated.) The use of porous pavers provides a positive benefit within the MS-4 watershed by filtering and discharging surface water to storm drains at a reduced peak flow. Improvements include re-setting Catch Basin -1 at Main Street to match the proposed site grading and piping roof drains to the existing storm drain system. All other stormwater will continue to flow in the same general directions at reduced volumes than exist in current conditions.

8. Snow Removal:

Snow removal and property maintenance will be contracted to a private contractor. It is anticipated that plowing and snow blowing will be utilized and that in heavy snow conditions, snow will be removed from the site. A benefit of the site design is reduced open surfaces with covered parking, therefore less snow removal is required compared with the existing building site.

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The public walk improvements will be maintained by the Town of Yarmouth.

9. **Easements and Shared Access with Railroad Square:** (Refer to *Exhibit 6*.)

   The urban or semi-urban nature of this small site - surrounded on two sides by adjacent properties close to the building envelope will require several easements for shared access/parking and utilities. The existing access easement benefitting the abutter (J. Burdick) will be maintained and improved as a shared space as well. Refer to *Exhibit 6*for additional information on easements.

IV. SUMMARY:

We believe the project as presented is both consistent with the Town Comprehensive Plan and Character Based Development Code policies and standards to enhance and create a vibrant and walkable development drawing on the character of Main Street and the village. While the focus has been primarily on the building design and massing, the lot while small, is an important link in the Main Street "chain". The design team has sought to create active public-private spaces through the use of varying materials and appropriately scaled building elements which the Town can be proud of.

The applicant and design team look forward to presenting the 298 Main development to the Planning Broad at the January Planning Board meeting. In the interim, please do not hesitate to contact Matt Teare or me should you require any additional information or have any comments on the application.
Sincerely,

Frederic (Rick) Licht, PE, LSE
Principal

Encl: As Noted

Cc: Matt Teare, 298 Main Partners, LLC
Tamson Hamrock, Bickford Transportation, Inc.
Rob Barrett, Barrett Made
Matt Ahlberg, Barrett Made
Tony Panciocco, Atlantic Resource Consultants, Inc.
Diane Morabito, Sewall

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TOWN OF YARMOUTH

Department of Planning and Development
200 Main Street Yarmouth, Maine 04096
(207)846-2401 WWW.YARMOUTH.ME.US Fax: (207)846-2438

SITE PLAN APPLICATION FORM

◯ **Minor** ◉ **Major**

Date: 12-16-20 **Zoning District** CD-4 VILLAGE DIST. **Map** 37 **Lot** 30 **Ext** _____

Site Location	298 MAIN STREET (CORNER OF SOUTH STREET)
Property Owner	298 MAIN PARTNERS, LLC
Mailing Address	67 HILLSIDE STREET, YARMOUTH, MAINE 004096
E-mail Address	TEARE.MATTD@GMAIL.COM
Phone	207.837.2418 Fax _____

Name of Project	298 MAIN
Existing Use	COMMERCIAL/RESIDENTIAL (MIXED USE)
Proposed Use	COMMERCIAL/RESIDENTIAL (MIXED USE)

Amendment to a previously approved site plan? Yes ☐ No ☑
Special exception use? Yes ☐ No ☑

Fee: $100.00/1000 sq. ft.; up to $3000.00

The Department of Planning and Development shall send notices to all property owners at a minimum of 500 feet including a description of the proposal. Letters will be at a cost of $5/letter to the applicant.

The Town will correspond with only one contact person/agent for this project. Please provide the requested information regarding the contact person/agent.

Contact person/agent	FREDERIC (RICK) LICHT, PE
Mailing Address	LICHT ENVIRONMENTAL DESIGN, LLC, 35 FRAN CIRCLE, GRAY, ME 04039
E-mail Address	RLICHT@SECURESPEED.NET
Phone	207.749.4924 Fax _____

I certify that, to the best of my knowledge, all information provided in this application form and accompanying materials is true and accurate.

Matthew D. Teare

Signature of Owner
(If signed by Owner's agent, provide written documentation of authority to act on behalf of applicant.)

"I authorize appropriate staff within the Yarmouth Planning Department to enter the property that is the subject of this application, at reasonable hours, including buildings, structures or conveyances on the property, to collect facts pertaining to my application."

MATTHEW D. TEARE
Print or type name and title of signer

Revised 5/1/18wls

1. PROJECT DESCRIPTION

A. In a separate document please describe the overall project objectives and proposed uses of property, including quantity and type of residential units (if any).

B. Project details

1. Name and approval date of subdivision this site is in (if applicable)
   N/A
   Subdivision lot numbers (if applicable) N/A
2. Assessor's Map number(s) 37 Lot number(s) 30
3. Existing zone(s) of the site
   CD-4 VILLAGE DISTICT
   Shoreland Overlay District ☐ Yes ☑ No
   Affordable Housing District ☐ Yes ☑ No
   Mobile Home Park Overlay ☐ Yes ☑ No
4. a. Total land area of site (all contiguous land in same ownership)
   0.21 ACRES
   b. Total floor area of each proposed building in square feet
   19, 545 SF
   c. Footprint of each proposed building in square feet
   4,827 SF (EXCLUDING GARAGE)
   d. Height of proposed building(s) 35 feet 3 stories
   e. Total number of proposed parking spaces 8 ONSIT
   f. Number of proposed handicap parking spaces 1

C. Existing conditions

1. Existing land use SINGLE COMMERC./RESID. BUILDING
2. Total floor area of each existing building in square feet
   11, 368 (GROSS AREA)
3. Footprint of each existing building in square feet
   5,067 SF

D. Attach as Exhibit #1 a map such as the Maine Atlas and Gazetteer map (clean photocopies are acceptable). Indicate the location of your project on map.

E. Construction sequence

1. Estimated time of start of project SPRING, 2021
   Estimated time of completion of project SPRING, 2022
2. Is this to be a phased project? Yes ☐ No ☑
3. Attach as Exhibit #2 a construction schedule outlining the anticipated sequence of construction (beginning and completion) for the major aspects of the proposed project, including roads, erosion control and drainage measures, structures, sewer and water lines, other utilities, paving, landscaping.

2. RIGHT, TITLE, OR INTEREST

A. Name and mailing address of record owner of the site
298 MAIN PARTNERS, LLC
67 HILLSIDE STREET, YARMOUTH, MAINE 04096

Phone 207. 837.2418 Fax

B. Attach as Exhibit #3 evidence of corporate or partnership status, if applicant is not an individual.

C. Attach as Exhibit #4 evidence of applicant's right, title, or interest in the site. A complete copy of the document must be provided; financial information may be deleted.
D. Attach as Exhibit #5 a copy of the current owner's existing deed for the site.
E. Attach as Exhibit #6 summary lists of all existing and all proposed easements or other burdens for this property. More detailed information may be required, depending on the particular circumstances of the site.
F. If a condominium, homeowners, or property owners association will be established, attach as Exhibit #7 the articles of incorporation, the Declaration of Covenants and Responsibilities, and the proposed by-laws of the organization.

3. FINANCIAL CAPACITY

A. Estimated cost of the project (including land purchase and development costs)
$5,000, 000+/-

B. Attach as Exhibit #8 evidence of your financial capacity to complete the proposed development. Submit one or more of the following (please check as appropriate):

☐ 1. A written statement from the applicant's bank or a certified public accountant who recently has audited the applicant's finances stating that the applicant has cash reserves in the amount of the estimated cost of the project and can devote those reserves to the project.

☐ 2. When the applicant will personally finance the development, provide copies of bank statements or other evidence, which will indicate availability of funds, and evidence that the applicant can devote these funds to the project.

☐ 3. The most recent corporate annual report showing availability of sufficient funds to finance the development, together with a statement from the applicant that the funds are available and will be used for the proposed project.

☐ 4. A letter from a financial institution, governmental agency, or other funding agency, which indicates a timely commitment to provide a specified amount of funds and the uses for which the funds may be utilized.

☑ 5. In cases where outside funding is required, but there can be no commitment of money until regulatory approvals are received, a formal letter of "intent to fund upon approval" from a funding institution indicating the amount of funds it is prepared to provide, their specified uses and the conditions on which funds will be made available.

4. TECHNICAL ABILITY

A. List all projects undertaken by the applicant within the last five years, beginning with the most recent project:
1. WESTCUSTOGO HALL& COMM. CENTER, N. YARMOUTH; 2. RE-VISION HEADQUARTERS; 3. BARRETT MADE OFFICE, PORTLAND; 4. VILLAGE RUN, ~~YARMOUTH; 5. THE MOTHERHOUSE, PORTLAND.~~

B. Have done no prior projects ☐

C. Attach as Exhibit #9 a list of all consultants retained for this proposed project, such as engineers, architects, landscape architects, environmental consultants; and those firms or personnel who will be responsible for constructing, operating and maintaining the project.

5. SOLID WASTE

Attach as Exhibit #10 an explanation of the proposed method of collection, removal, and disposal for anticipated solid waste from this project.

6. WATER

Attach as Exhibit #11 written confirmation from the Yarmouth Water District that it can supply the proposed development and that the proposed plan has been approved by the District. If the

applicant proposes a private supply, provide evidence that a sufficient and healthful water supply is available for the proposed development.

7. TRAFFIC

Attach as Exhibit #12 a written evaluation and demonstration of the adequacy and availability of adjacent streets to serve the proposed project. If you must submit a full traffic study to DEP, provide two (2) copies with this application. (see Ch. 702 H.2.)

8. SANITARY SEWERS AND STORM DRAINS

A. Estimated sewage gallons per day for the completed project
3,520 GPD (SEE EXHIBIT 11 TABLE
Please note that the Town Manager must approve new sanitary sewer connections that are considered sewer extensions.

B. Will this project generate industrial or non-sanitary waste that will enter the public sewer or drains? No ☑ Yes ☐
If yes, please describe proposed types and amounts:

_____

_____

C. If a subsurface wastewater disposal system is proposed, provide evidence that it conforms to the requirements of the State Plumbing Code.

9. SURFACE DRAINAGE AND-RUNOFF, STORMWATER MANAGEMENT

A. Attach as Exhibit #13 a description of any problems of drainage or topography, or a representation that, in the opinion of the applicant, there are none.

B. Attach as Exhibit #14 a complete stormwater management plan, including drainage calculations for pre- and post-development for 2 yr. and 25 yr. storm events, a drainage plan, and an assessment of any pollutants in the stormwater runoff, that meets the requirements of Chapter 702, Review Criteria re Stormwater Management.

10. EROSION AND SEDIMENTATION CONTROL

A. Attach as Exhibit #15 a written description of erosion and sedimentation control measures to be used during and after construction of the proposed project.

B. Show on a plan the proposed location, type, and detail of erosion control devices, unless this information is included on a site plan drawing.

11. SOILS

A. Attach as Exhibit #16 a medium intensity soils classification report, including description of soils and interpretation of engineering properties. Include geotechnical report, if applicable.

B. Show on a plan the existing soil conditions on the site, unless this information is included on a site plan drawing. Include wetlands delineation and report, if applicable.

12. SITE PLAN ORDINANCE REQUIREMENTS

A. Attach as Exhibit #17 list of approvals needed from other agencies, such as the General Board of Appeals, Army Corps of Engineers, and Maine Department of Environmental Protection.

B. Attach as Exhibit #18 a written statement that explains how the project complies with the site plan review criteria and with specific performance standards required in the zoning district, if applicable. If applicable, please note how the proposal specifically complies with the separate components of the Route One Corridor Design Guidelines.

C. Attach as Exhibit #19 a summary list and a written offer of cession to the Town of all proposed streets, utilities and open space proposed for dedication.

D. Attach as Exhibit #20 all requests for waivers including an explanation of the undue hardship or special design requirements, which are the basis for the requests.

E. Attach as Exhibit #21 a written explanation of all potential nuisances associated with this project and how they will be mitigated, or a representation that, in the opinion of the

applicant, there are none.

13. SITE PLAN DRAWINGS, MAPS

A. Site plan drawings
   a. paper no larger than 24" x 36", with all drawings in a set the same size
   b. bound and folded no larger than 9" x 12", with project name shown on front face of folded plan
   c. number and date drawings, with space for revision dates
   d. scale of the drawings shall be between 1"=20' and 1"=50'
   e. show the entire parcel in single ownership, plus off-site easements

B. Title block shall include:
   a. identification of plan as "Site Plan"; "Amended" if applicable
   b. name and address of project
   c. name(s) and address(es) of site owner and of applicant
   d. name and address of plan designer(s)

C. Location map shall include:
   a. abutting property within one thousand feet of project boundaries
   b. outline of proposed project
   c. zoning district(s) of abutting properties
   d. at least one street intersection

D. North arrow and scale.

E. General plan notes shall include:
   a. zoning district and list of applicable dimensional regulations comparing the required and proposed
   b. proposed number of units
   c. required and proposed number of parking spaces
   d. total square footage of existing and proposed buildings
   e. square footage of proposed building footprint
   f. all requested waivers
   g. indication if proposed structure is to be sprinklered
   h. total square footage for each use, if applicable

F. Name, location, width of existing and proposed streets.

G. A Boundary Survey, Category 1, Condition 2, showing site boundaries.

H. Setbacks as required by zoning ordinance; zone line if site is transected by a zone line or if zone line is within 30 feet of the boundaries of the site.

I. Existing and proposed contours at 2' intervals. Show l' contours and/or spot elevations if sufficient detail cannot be shown with 2' contours.

J. Buildings, structures, and signs
   a. location, dimensions, shape, facade elevations, entrances, materials, colors of exterior of proposed buildings, structures, and signs. (see Ch. 701, II, C, E, F)
   b. description of all finish surface materials
   c. location, dimensions, shape of existing buildings
   d. building's setbacks from property line, if different from required yard setbacks

K. Names of abutting property owners and locations of buildings and curb cuts on abutting properties.

L. Locations and dimensions of parking areas, loading and unloading facilities, driveways, fire lanes, access points. Give typical parking space dimensions. (see Ch. 701, II H; Ch. 702, J.1, 2, 3)

M. Location of all existing and proposed easements and rights-of-way, including identification of who has or will receive the easement.

N. Location, dimensions, materials of existing and proposed pedestrian access ways.
O. Location and size of existing and proposed utilities, both on-site and in adjoining public ways. Location of nearest existing hydrant. Include installation details for proposed utilities.
P. Construction drawings showing plans, profiles, cross-sections, and details of appurtenances for sanitary sewer and storm drainage systems.
Q. Location, height, wattage, bulb type of exterior and building-mounted lighting. Photometric plan consistent with requirements of site plan and zoning ordinances. (See Ch. 701, II X; Ch. 702, J. 4)
R. Location and description of existing natural features, such as wetlands, watercourses, marshes, rock outcroppings, stands of trees. Natural features to be preserved must be identified on plan.
S. Existing and proposed landscaping, fencing, screening. Include fence dimensions, location, material, and a table showing number of plants of each species, common and botanical names. Include planting and preservation details, if applicable. Indicate proposed snow storage area, if applicable. (see Ch. 701, II Y, and Ch. 702 J. 5)
T. Grades, street profiles, typical cross-section, and specifications of proposed streets and sidewalks. These must meet the standards of Ch. 601, Article IV.
U. A description of any right-of-way, street, sidewalk, open space, or other area the applicant proposes to designate as public.
V. Name, registration number, seal, and signature of all registered professionals (engineer, land surveyor, architect, landscape architect, etc.) who prepared the plan.
W. First floor finished floor elevation(s) for all proposed buildings.
X. If project is within the RP district, extent of floodway and floodway fringe.
Y. If project is within Shoreland Overlay District, show required setbacks.

Please be advised to keep in touch with the Director of Planning and Development throughout the process, 846-2401; fax 846-2403. Your responsiveness will help the process to run smoothly.

CONDITIONS OF APPROVAL

The property shown on this plan may be developed and used only as depicted on this approved plan. All elements and features of the plan and all representations made by the applicant concerning the development and use of the property which appear in the record of the Planning Board proceedings are conditions of approval. No change from the conditions of approval is permitted unless an amended plan is first submitted to and approved by the Planning Board.

Surface Water and Groundwater: No owner of a lot, his agents, or successors in interest shall alter the natural course of surface water on any lot in a way which would alter the natural flow of such water across any other parcel, unless such alteration is approved by the owners of all parcels affected. No owner of a lot, his agents, or successors in interest shall use blasting chemicals that generate perhlorates.

TOWN OF YARMOUTH

Department of Planning and Development
200 Main Street Yarmouth, Maine 04096
(207)846-2401 WWW.YARMOUTH.ME.US Fax: (207)846-2438

SUBDIVISION ADMINISTRATIVE ALTERATION APPLICATION FORM

Date: 12-16-20 **Zoning District** CD-4 VD **Map** 37 **Lot** 30 **Ext** ____ **Fee Paid** ____

Fee: $100 per amended or revised lot; Department Noticing: $5.00 per addressee.

Property Owner	298 Main Partners, LLC
Applicant, if other	298 Main Partners, LLC
Mailing Address	67 Hillside Street, Yarmouth, Maine 04096
E-mail Address	teare.mattd@gmail.com
Phone	207.837.2418
Fax	n/a

Name of Subdivision	298 Main
Street Address	298 Main Street, Yarmouth
Existing Use/# Lots	Mixed Use building to be demolished
Proposed Use/# Lots	MIxed use Three Story Building and Covered Parking
Recording Book & Page	N/A

The Town will correspond with only one contact person/agent for this project. Please provide the requested information regarding the contact person/agent.

Contact person/agent	Frederic (Rick) Licht, PE, LSE
Mailing Address	Licht Environmental Design, LLC, 35 Fran Circle, Gray, Maine
E-mail Address	rlicht@securespeed.net
Phone(s)	207.749.4924
Fax	n/a

I certify that, to the best of my knowledge, all information provided in this application form and accompanying materials is true and accurate.

Matthew D. Teare

Signature of Owner/Applicant Date

(If signed by Owner's agent, provide written documentation of authority to act on behalf of applicant.)

"I authorize appropriate staff within the Yarmouth Planning Department to enter the property that is the subject of this application, at reasonable hours, including buildings, structures or conveyances on the property, to collect facts pertaining to my application."

Matthew D. Teare

Print or type name and title of signer

1. PROJECT DESCRIPTION

A. On a separate sheet describe the overall project objectives and proposed uses of property, including quantity and type of residential units (if any) and the nature and purpose of the proposed subdivision alteration.

B. Project details

1. Assessor's Map number(s) 37 Lot number(s) 30

2. Existing zone(s) of the site
CD-4 Village District
Shoreland Overlay District ____ Yes X No
Mobile Home Park Overlay ____ Yes X No

3. Total land area of site (all contiguous land in same ownership)
0.21 acres

4. Proposed number of lots. one lot / one building with 16 condominium units and commercial space.

C. Attach as Exhibit #1 a map such as the Maine Atlas and Gazetteer map (clean photocopies are acceptable). Indicate the location of your project on map.

D. Construction sequence, as applicable

1. Estimated time of start of project Spring, 2021
Estimated time of completion of project Spring, 2022

2. Is this to be a phased project? Yes___ No X

3. Attach as Exhibit #2, if applicable, a construction schedule outlining the anticipated sequence of construction (beginning and completion) for the major aspects of the proposed project, including roads, erosion control and drainage measures, structures, sewer and water lines, other utilities, paving, landscaping.

2. ELIGIBILITY FOR ADMINISTRATIVE APPROVAL

Under Ch.601, Article III.D.2, the planning authority may approve alterations to an approved recording plat when all of the following conditions are met; otherwise, a new subdivision plat must be submitted to the Planning Board: (Not Applicable)

1. The rearrangement of lot lines does not increase the number of lots within a block or subdivision unit or area; **Yes____ No_____**

2. The alteration will not substantially affect any street, alley, utility easement or drainage easement; **Yes_____ No_____**

3. The alteration meets all of the minimum requirements of this Chapter, Chapter 701 (Zoning) of this code and other applicable state and local

codes; **Yes_____ No_____**

4. The alteration is approved by the Public Works Director, the Fire Chief, Town Engineer and Planning Director. Such approved alterations shall be properly recorded in the registry within thirty (30) days thereof or they shall be null and void. Recording of approved alterations also shall be in accordance with the requirements of 30-A M.R.S.A. Section 4407. **Plat shall provide a signature block for approval by Town of Yarmouth, Director of Planning & Development with date.**

3. RIGHT, TITLE, OR INTEREST

A. Name and mailing address of record owner of the site

298 Main Partners, LLC
67 Hillside Street
Yarmouth, Maine 04096

Phone 207.837.2418 Fax _____

B. Attach as Exhibit #3 evidence of corporate or partnership status, if applicant is not an individual.

C. Attach as Exhibit #4 evidence of applicant's right, title, or interest in the site. A complete copy of the document must be provided; (financial information may be redacted).

D. Attach as Exhibit #5 a copy of the current owner's existing deed for the site.

E. Attach as Exhibit #6 summary lists of all existing and all proposed easements or other burdens for this property. More detailed information may be required, depending on the particular circumstances of the site.

F. If a condominium, homeowners, or property owners association is or will be established, attach as Exhibit #7 the articles of incorporation, the Declaration of Covenants and Responsibilities, and the existing/proposed by-laws of the organization. If existing association, evidence of approval of proposed alteration by association.

G. Attach as Exhibit #8 a copy of the most recent approved and recorded subdivision plat, showing date of recording, book, and page.

4. FINANCIAL CAPACITY

A. Estimated cost of the project (including land purchase and development costs)
$5,000,000

B. Attach as Exhibit #9 evidence of your financial capacity to complete the proposed

development. Submit one or more of the following (please check as appropriate):

_____ 1. A written statement from the applicant's bank or a certified public accountant who recently has audited the applicant's finances stating that the applicant has cash reserves in the amount of the estimated cost of the project and can devote those reserves to the project.

_____ 2. When the applicant will personally finance the development, provide evidence of availability of funds and evidence that the applicant can devote these funds to the project.

_____ 3. The most recent corporate annual report showing availability of sufficient funds to finance the development, together with a statement from the applicant that the funds are available and will be used for the proposed project.

_____ 4. A letter from a financial institution, governmental agency, or other funding agency which indicates a timely commitment to provide a specified amount of funds and the uses for which the funds may be utilized.

__X__ 5. In cases where outside funding is required, but there can be no commitment of money until regulatory approvals are received, a formal letter of "intent to fund upon approval" from a funding institution.

5. TECHNICAL ABILITY

A. List all projects undertaken by the applicant within the last five years, beginning with the most recent project: (**Refer to Exhibit 9 -Tecchnical Ability for a list**)

B. Have done no prior projects _____

C. Attach as Exhibit #9 a list of all consultants retained for this proposed project, such as engineers, architects, landscape architects, environmental consultants; and those firms or personnel who will be responsible for constructing, operating and maintaining the project.

6. SUBDIVISION ALTERATION DRAWINGS, MAPS:

A. Drawings
   a. paper no larger than 24" x 36", with all drawings in a set the same size
   b. bound and folded no larger than 9" x 12", with project name shown on front face of folded plan
   c. number and date drawings, with space for revision dates
   d. scale of the drawings shall be between 1"=20' and 1"=50'
   e. show the entire parcel in single ownership, plus off-site easements

B. Title block shall include:
   a. identification of plan as “Alteration of Approved Subdivision Plan”
   b. name and address of project

c. name(s) and address (es) of site owner and of applicant
d. name and address of plan designer(s)
e. name/description of most recent subdivision subject to alteration, with book and page of recording in Cumberland County Registry of Deeds
f. Signature Block for approval by Town of Yarmouth, Planning Board (7 signature lines) with date

C. Location map shall include:
a. abutting property within one thousand feet of project boundaries
b. outline of proposed project
c. zoning district(s) of abutting properties
d. at least one street intersection

D. North arrow and scale.

E. General plan notes shall include:
a. zoning district and list of applicable dimensional regulations comparing the required and proposed
b. net residential acreage calculation
c. all requested waivers

F. Name, location, width of existing and proposed streets.

G. A Boundary Survey, Category 1, Condition 2, showing site boundaries, exact boundaries, dimensions and acreage of all lots, and a minimum of 3 granite monuments at outside corners of the parcel.

H. Setbacks as required by zoning ordinance; zone line if site is transected by a zone line or if zone line is within 30 feet of the boundaries of the site.

I. Existing and proposed contours at 2' intervals. Show l' contours and/or spot elevations if sufficient detail cannot be shown with 2' contours.

J. Location, dimensions, and total square-footage of existing and proposed buildings (existing buildings should be identified as such).

K. Names of abutting property owners and locations of buildings and curb cuts on abutting properties.

L. Locations and dimensions of parking areas, loading and unloading facilities, driveways, fire lanes, access points.

M. Location of all existing and proposed easements and rights-of-way, including identification of who has or will receive the easement.

N. Location, dimensions, materials of existing and proposed pedestrian access ways.

O. Location and size of existing and proposed utilities, both on-site and in adjoining public ways. Location of nearest existing hydrant. Include installation details for

proposed utilities, if applicable.

P. Construction drawings showing plans, profiles, cross-sections, and details of appurtenances for sanitary sewer and storm drainage systems, if applicable.

Q. Location and description of existing natural features, such as wetlands, water courses, marshes, rock outcroppings, stands of trees. Natural features to be preserved must be identified on plan.

R. Grades, street profiles, typical cross-section, and specifications of proposed streets and sidewalks, if applicable. These must meet the standards of Ch. 601, Article IV.

S. A description of any right-of-way, street, sidewalk, open space, or other area the applicant proposes to designate as public.

T. Name, registration number, seal, and signature of all registered professionals (engineer, land surveyor, architect, landscape architect, etc.) who prepared the plan.

U. First floor finished floor elevation(s) for all proposed buildings.

V. If project is within the RP district, extent of floodway and floodway fringe.

W. If project is within Shoreland Overlay District, show required setbacks.

The following submissions are required unless waived by the Director of Planning & Development:

6. WATER (if Alteration involves development)

Attach as Exhibit #10 written confirmation from the Yarmouth Water District that it can supply the proposed development and that the proposed plan has been approved by the District. If the applicant proposes a private supply, provide evidence that a sufficient and healthful water supply is available for the proposed development.

7. TRAFFIC (if Alteration involves development)

Attach as Exhibit #11 a written evaluation and demonstration of the adequacy and availability of adjacent streets to serve the proposed project. If you must submit a full traffic study to DEP, provide two (2) copies with this application.

8. SANITARY SEWERS AND STORM DRAINS (if Alteration involves development)

A. Estimated sewage gallons per day for the completed project
3,520 gpd (See Exhibit 11 Table)

B. Will this project generate industrial or non-sanitary waste that will enter the public sewer or drains? No X Yes ___
If yes, please describe proposed types and amounts

C. If a subsurface wastewater disposal system is proposed, provide evidence that it conforms to the requirements of the State Plumbing Code.

9. SURFACE DRAINAGE AND-RUNOFF, STORMWATER MANAGEMENT (if Alteration

involves development)

A. Attach as Exhibit #12 a description of any problems of drainage or topography, or a representation that, in the opinion of the applicant, there are none.

B. Attach as Exhibit #13 a complete stormwater management plan, including drainage calculations for pre- and post-development for 2 yr. and 25 yr. storm events, a drainage plan, and an assessment of any pollutants in the stormwater runoff, that meets the requirements of Chapter 601, Design Standards.

10. EROSION AND SEDIMENTATION CONTROL (if Alteration involves development)

A. Attach as Exhibit #14 a written description of erosion and sedimentation control measures to be used during and after construction of the proposed project.

B. Show on a plan the proposed location, type, and detail of erosion control devices, unless this information is included on a subdivision drawing.

11. SOILS (if Alteration involves development)

A. Attach as Exhibit #15 a medium intensity soils classification report, including description of soils and interpretation of engineering properties. Include geotechnical report, if applicable.

B. Show on a plan the existing soil conditions on the site, unless this information is included on a subdivision drawing. Include wetlands delineation and report, if applicable.

Chapter 702
Site Plan Review Standards

CHAPTER 702.H
SITE PLAN REVIEW –REVIEW CRITERIA

1. **Conformance with Comprehensive Plan**: The development is consistent with the goals of the Comprehensive Plan in providing live-work opportunities in the Main Street/Village area, creating an attractive, walkable, pedestrian friendly site and designing to the Character Based Development Code (CBDC) to be compatible with the Main Street character.

2. **Traffic:** A traffic impact study has been performed by Diane Morabito, PE, PTOE of Sewall and included as *Exhibit 12*. The study concludes that the South-Main Street and Railroad Square-Main Street intersections will operate at a Level of Service (LOS) of B and C, respectively under the build out conditions. Additionally the report concludes that Main Street traffic movements will continue to operate at a LOS of A. The report concludes that there will be minimal impact on offsite traffic operations from the development of 298 Main Street.

3. **Parking and Vehicle Circulation:** The plans and application provide a parking analysis in *Exhibit 12A* based on the CBDC code requirements. Parking criteria for 16 residential units and the commercial space is met though a combination of using 3 Main Street spaces, 8 garage spaces (including EV spaces and one ADA Space), and shared parking (under a parking lease agreement provided) on the Railroad Square property. No loading docks are required for the project.

4. **Sanitary Sewerage:** The project will discharge an estimated 3,520 gpd of sewerage to the municipal sewer system in Main Street. Discussion with Tom Connolly, Wastewater Superintendent, indicates that the system has capacity to accept this additional flow.

5. **Water:** The project is projected to require 3,520 god of domestic water. The building will be connected to the public water main in Main Street. A capacity to serve letter has been requested from the Yarmouth Water District which should be forthcoming to substantiate that the water system can meet the required domestic and fire flows

6. **Fire Safety:** The project will include a fire department connection, internal fire standpipes and sprinkler systems and is located less than 50 feet from a hydrant on South Street. The applicant will work with the Yarmouth Fire Rescue Dept. and State Fire Marshall's office to ensure the building meets all fire and Life Safety 101 codes.

7. **Buffering:** The proposed building is in a moderate to densely developed area consisting of residential, commercial and industrial uses. No natural buffers or vegetation currently exist onsite. In keeping with the CBDC to provide hardscapes and sidewalks, the project is proposing to create vibrant open spaces against a building with minimal setbacks as required by the CBDC. Full vegetative buffering is not appropriate in this setting. However the project is providing landscaping and street esplanade tree plantings where none exist today to provide shade and soften the view of the building and site.

8. **Natural Areas:** There are no natural areas on or directly adjacent to the project site.

9. **Lighting:** The project is proposing to utilize soft up lighting and on-building accent lighting together with minimal shielded security lighting appropriate for a commercial setting. The residential South Street side of the building will have minimal lighting to respect the neighboring properties. No formal street lights are proposed. The only street lighting are cobra-style lamps located on utility poles along Main Street which will remain. The project should have minimal adverse lighting impact on abutting properties.

10. **Stormwater Management:** The site development will slightly *decrease* the amount of impervious area which directly relates to reduced stormwater peak flows being discharged from the site. A stormwater assessment is provided in *Exhibit 14* for the pre and post-development conditions. The project will employ roof drains connected to existing storm drains, increased landscape areas and the use of pervious pavers to reduce stormwater surface flows from the site over current conditions. The project should have no adverse impacts from stormwater discharges. The onsite system will be maintained by 298 Main Partners, LLC.

11. **Erosion and Sedimentation Control:** The site will be constructed as an urban site with minimal open areas subject to erosion. However a detailed erosion control plan has been included in the Site Plan set. Best management practices to mitigate any potential erosion issues will focus on site barriers and stormwater inlet protection. The project should have no significant impact due to offsite erosion or sedimentation.

12. **Buildings:** The proposed building has been designed to incorporate characteristics of the surrounding Main Street architecture, yet provide its own distinctive style. This application includes Architectural plans and a detailed Chapter 703 Architectural Assessment which demonstrates consistency with the CBDC in providing a building which is of proper scale, is attractive, complementary to the character and forms of Main Street and provides both residential and commercial uses - all elements fostered by the CBDC.

13. **Existing Landscaping:** The existing site contains two small areas of overgrown shrubs and grass totaling approximately 488 s.f. The remainder of the existing site is building or pavement. The proposed development will remove the existing vegetation and replace with more appropriate landscape areas spread around the perimeter of the site and add esplanade and tree plantings in the public way. The site has minimized and compensated for any loss of existing vegetation.

14. **Infrastructure:** The proposed development will not overburden the existing streets, utilities or other public infrastructure. Indeed, the project will actually improve, add and replace existing deteriorated surface infrastructure both on and offsite. The project will be consistent with the existing surrounding infrastructure.

15. **Advertising Features:** Signage for the commercial units will be tasteful and of a uniform design in the character of Main Street business district. All signage will be provided in conformance with the CBDC.

16. **Design Relationship to Site and Surrounding Properties:** (Refer to Standard 12 above.) The site and building have evolved through a public review process and we believe will represent a proud element of this important site on Main Street. The building massing, use of materials and site hardscape and landscape features are consistent with the Main Street Masterplan design themes and with the standards of the Character Based Development Code. The building and site have provided a unified response to the surrounding properties and land uses.

17. **Scenic Vistas or Areas:** No scenic vistas or areas are located on or adjacent to the site as defined by the Yarmouth Comprehensive Plan. However the historic railroad station and village park abut the site and are important visual and historic properties on Main Street. The project will have a positive effect on these properties by removing a deteriorated and poorly maintained building and replacing with a proud structure which will compliment the character of Main Street. The project does not negatively affect any scenic areas as defined in the Yarmouth Comprehensive Plan.

18. **Utilities:** All building utility services will be located underground.

19. **Technical Standards:** The proposed development has been designed to meet the Lot and Plan standards of the CBDC while also meeting the applicable standards of Chapter 702.I.J except where excepted by the CBDC or requested as a waiver from the Planning Board. The following exceptions/waiver requests apply:

    a. Waiver request from CBDC Article 5.F.2A –Lot Coverage has been requested.
    b. Parking Standards of Chapt. 702 are exempted from the CBDC to allow flexibility in design and development including parking and street dimensional standards. The CBDC Standards apply to this development.

20. **Route One Corridor Design Guidelines:** The project is not located in the Route One Corridor. This standard is not applicable to this project.

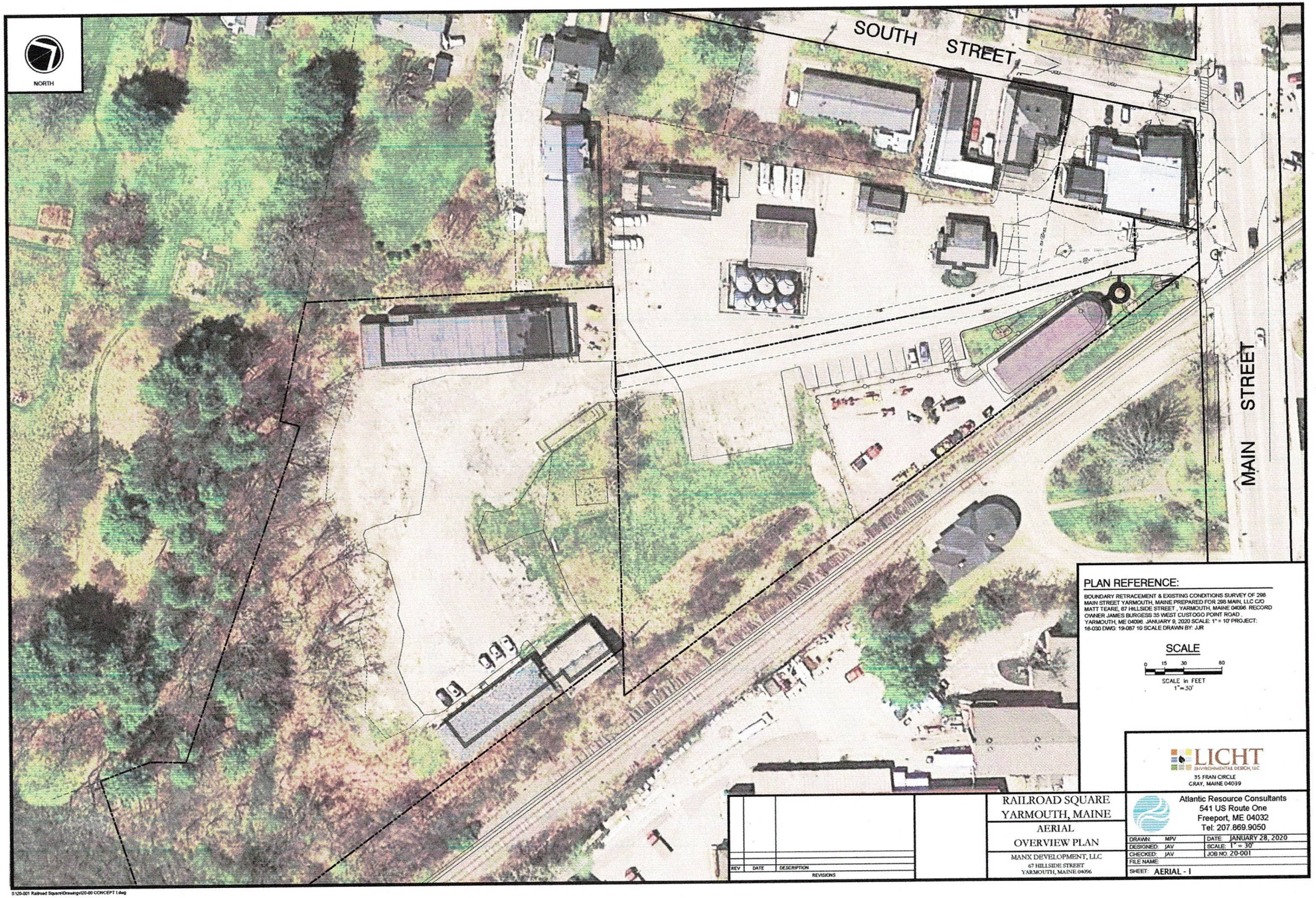
21. **Right, Title and Interest:** *Exhibit 4-5* provides a deed for the property in ownership by the applicant, 298 Main Partners, LLC. Existing and proposed easements are provided for in *Exhibit 6* and on the Survey Boundary Plan. The applicant has provided sufficient right, title and interest to carry out the project.

22. **Technical and Financial Capacity:** Documentation of the applicant's financial and technical capacity to complete the project is provided in *Exhibits 8 and 9*, respectively.

End of Section

Exhibit 1

Locus, Assessors and Zoning Maps



PLAN REFERENCE:

BOUNDARY RETRACEMENT & EXISTING CONDITIONS SURVEY OF 298 MAIN STREET YARMOUTH, MAINE PREPARED FOR 299 MAIN, LLC C/O MATT TEARE, 67 HILLSIDE STREET , YARMOUTH, MAINE 04096. RECORD OWNER JAMES BURGESS 35 WEST CUSTOGO POINT ROAD , YARMOUTH, ME 04096. JANUARY 9, 2020 SCALE: 1" = 10' PROJECT: 16-030 DWG: 19-087.10 SCALE DRAWN BY: JJR

SCALE

0 15 30 60

SCALE in FEET
1"=30'

LICHT
ENVIRONMENTAL DESIGN, LLC
35 FRAN CIRCLE
GRAY, MAINE 04039

REV	DATE	DESCRIPTION
		REVISIONS

RAILROAD SQUARE
YARMOUTH, MAINE
AERIAL
OVERVIEW PLAN

MANX DEVELOPMENT, LLC
67 HILLSIDE STREET
YARMOUTH, MAINE 04096

Atlantic Resource Consultants
541 US Route One
Freeport, ME 04032
Tel: 207.869.9050

DRAWN:	MPV	DATE:	JANUARY 28, 2020
DESIGNED:	JAV	SCALE:	1" = 30'
CHECKED:	JAV	JOB NO.	20-001
FILE NAME:			
SHEET:	AERIAL - 1		

S:\20-001 Railroad Square\Drawings\20-00 CONCEPT 1.dwg

Assessors Maps

Property Boundary

Paper Streets

Water Body

45 Map Number

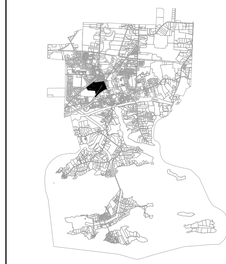
298 MAINE STREET LOT 30

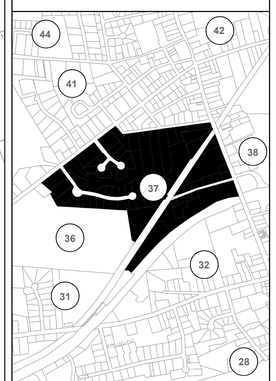
RAILROAD SQUARE MASTERPLAN - LOTS 28 AND 29-00A 4.4 ACRES +/-

Sample Property Label

3-31 1.2 ac

Lot 3
Unit 31
1.2 Acres





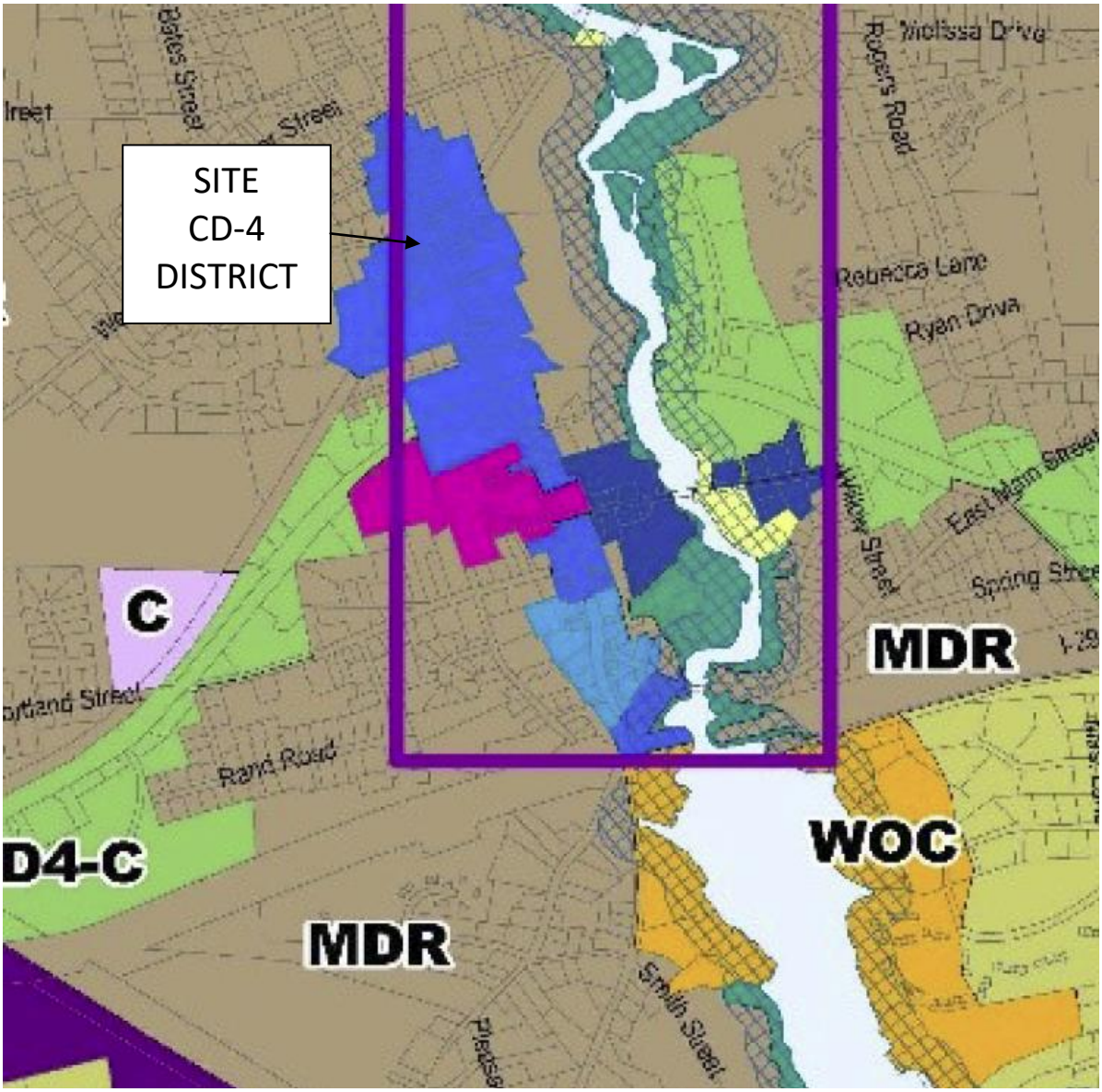
0 100 200
1 inch = 100 feet

The Town of Yarmouth shall not be held liable for discrepancies in land conveyance based on the content of these maps. The maps are for assessing purposes only. Maps revised to 2019.

MAP 37

EXHIBIT 1

- REFERENCE : Yarmouth Zoning Map



LICHT ENVIRONMENTAL DESIGN, LLC

- PREPARED FOR:

298 MAIN PARTNERS LLC
YARMOUTH, ME

- TITLE:

ZONING MAP

EXHIBIT. 1.2

- DATE: DEC, 2020
- SCALE: NTS
- JOB NO: 19.111.1

298 Main - Construction Schedule:

- Permitting/Approvals: January – March 2021
- Building Demolition: April-May 2021
- Geotechnical: May, 2021
- Foundation/Site Prep: May –June 2021
- Building Construction: May 2021 - April 2022
- Site Utilities RR Square: May – June 2021
- Site Work, Walks, Parking: Sept. 2021 – May 2022

Exhibit 2
Construction Schedule

Exhibit 3

Corporate Status

STATE OF MAINE
Department of the Secretary of State
Bureau of Corporations, Elections and Commissions
101 State House Station
Augusta, Maine 04333-0101

June 29, 2020

ANDRE G. DOUCHETTE, ESP.
TAYLOR, MCCORMACK & FRAME, LLC
30 MILK ST., 5TH FLOOR
PORTLAND ME 04101

ATTESTED COPIES
WR DCN: 2201782330031

Enclosed please find copies of documents recently placed on file with our office. Each copy has been attested as a true copy of the original and serves as your evidence of filing. We recommend that you retain these permanently with your records.

Charter#: 20208487DC Legal Name: 298 MAIN PARTNERS, LLC

CERTIFICATE OF FORMATION

DCN: 2201782330032 Page(s) 2

Total Pages 2

Filing Fee $175.00

File No. 20208487DC Pages 2
Fee Paid $ 175
DCN 2201782330032 DLLC
-----FILED----------
06/25/2020

Deputy Secretary of State

A True Copy When Attested By Signature

Deputy Secretary of State

MAINE
LIMITED LIABILITY COMPANY

STATE OF MAINE

CERTIFICATE OF FORMATION

Pursuant to 31 MRSA §1531, the undersigned executes and delivers the following Certificate of Formation:

FIRST: The name of the limited liability company is:

298 Main Partners, LLC

(A limited liability company name must contain the words "limited liability company" or "limited company" or the abbreviation "L.L.C.," "LLC," "L.C." or "LC" or, in the case of a low-profit limited liability company, "L3C" or "l3c" – see 31 MRSA 1508.)

SECOND: Filing Date: (select one)

☑ Date of this filing; or
☐ Later effective date (specified here): _____

THIRD: Designation as a low profit LLC (Check only if applicable):

☐ This is a low-profit limited liability company pursuant to 31 MRSA §1611 meeting all qualifications set forth here:

A. The company intends to qualify as a low-profit limited liability company;

B. The company must at all times significantly further the accomplishment of one or more of the charitable or educational purposes within the meaning of Section 170(c)(2)(B) of the Internal Revenue Code of 1986, as it may be amended, revised or succeeded, and must list the specific charitable or educational purposes the company will further;

C. No significant purpose of the company is the production of income or the appreciation of property. The fact that a person produces significant income or capital appreciation is not, in the absence of other factors, conclusive evidence of a significant purpose involving the production of income or the appreciation of property; and

D. No purpose of the company is to accomplish one or more political or legislative purpose within the meaning of Section 170(c)(2)(D) of the Internal Revenue Code of 1986, or its successor.

FOURTH: Designation as a professional LLC (Check only if applicable):

☐ This is a professional limited liability company* formed pursuant to 13 MRSA Chapter 22-A to provide the following professional services:

_____
(Type of professional services)

FIFTH: The Registered Agent is a: (select **either** a Commercial or Noncommercial Registered Agent)

☑ Commercial Registered Agent CRA Public Number: P10174

Andre G. Duchette, Esq.

(Name of commercial registered agent)

☐ Noncommercial Registered Agent

(Name of noncommercial registered agent)

(physical location, not P.O. Box – street, city, state and zip code)

(mailing address if different from above)

SIXTH: Pursuant to 5 MRSA §105.2, the registered agent listed above has consented to serve as the registered agent for this limited liability company.

SEVENTH: Other matters the members determine to include are set forth in the attached Exhibit _____, and made a part hereof.

****Authorized person(s)** **Dated** 6/24/2020

(Signature of authorized person)

Andre G. Duchette, Esq.

(Type or print name of authorized person)

(Signature of authorized person)

(Type or print name of authorized person)

*Examples of professional service limited liability companies are accountants, attorneys, chiropractors, dentists, registered nurses and veterinarians. (This is not an inclusive list – see 13 MRSA §723.7)

Pursuant to 31 MRSA §1676.1.A, Certificate of Formation **MUST be signed by at least one authorized person.

The execution of this certificate constitutes an oath or affirmation under the penalties of false swearing under 17-A MRSA §453.

Please remit your payment made payable to the Maine Secretary of State.

Submit completed form to: **Secretary of State**
Division of Corporations, UCC and Commissions
101 State House Station
Augusta, ME 04333-0101
Telephone Inquiries: **(207) 624-7752** Email Inquiries: CEC.Corporations@Maine.gov

FILING REQUIREMENTS REMINDER

Once your legal entity has been accepted for filing by the Secretary of State's office, it is important that you keep the following filing requirements in mind.

ANNUAL REPORT FILING:

- An annual report is required to be filed every year in order to maintain a good standing status with this office. The **legal filing deadline is June 1st.**
- The first annual report filing must be filed between January 1st and June 1st of the year following the calendar year in which the entity was incorporated, organized or qualified. Subsequent annual reports must be delivered to the Secretary of State between January 1st and June 1st of the following calendar years. **Examples:**

  Articles filed between **January 1, 2019** to **December 31, 2019**, the first annual report is due by June 1, 2020.
  Articles filed between **January 1, 2020** to **December 31, 2020**, the first annual report is due by June 1, 2021.

- This annual report is required to be filed every year in order to maintain a good standing status with this office.
- It is the entity's responsibility to file the annual report in a timely manner. Your annual report can be filed quickly and easily using Maine's online filing system, simply visit SOSonline.org and click on the Interactive Corporate Services link. Payment may be made by Visa, MasterCard, Discover, American Express, electronic check or subscriber account. The annual report fee is $85 for domestic business entities, $150 for foreign business entities and $35 for domestic and foreign nonprofit corporations.
- If you must file using a paper annual report form, you may download your entity's preprinted paper form by using our "Create a Preprinted Annual Report Form" also available at SOSonline.org under the Interactive Corporate Services link.
- Our office no longer mails a reminder to file annual reports. Email reminders will be sent to the email address on file for the entity. If you would like to receive an email filing reminder notification, you must provide our office with a valid email address and keep it current at all times. The email will come from CEC.Corporations@Maine.gov so you should update your spam filter to add this email address as a non-spam email. Our office is aware that emails coming from this email address often go into a spam folder in email systems.
- If you file paper annual report forms, it is **very important** that you put a reminder on your calendar to file subsequent annual reports in a timely manner.
- If the report is not received by the filing deadline, there will be a late filing penalty assessed. Failure to pay the late filing penalty will result in the administrative dissolution or revocation of your legal entity.

U.S. Small Business Administration
Your Small Business Resource

U.S. Small Business Administration
Maine District Office
Edmund S. Muskie Federal Building – Rm. 512
68 Sewall Street
Augusta, ME 04330

Tel: 207-622-8551
Fax: 207-622-8277
www.sba.gov/me

Need Help Getting Your Small Business Started?

Need Free, Confidential Business Advice?

Need Financing to Help Grow Your Business?

Looking to Sell to the Federal Government?

U.S. Small Business Administration Can Help!

Contact us to learn how the SBA or our Resource Partners can help.
Complete the form below or contact one of our resource partners directly.
Let us work with you to achieve your "entrepreneurial dream".

For FREE, confidential business advice contact one of our resource partners to find a counselor near you:

SCORE (http://scoremaine.org) or check here _____

Small Business Development Center (www.mainesbdc.org) or check here _____

Women's Business Center (www.wbcmaine.org) or check here _____

Name: _____ Telephone: _____

Mailing Address: _____ Town: _____

State: _____ Zip: _____ Email: _____

____ Send me a free Maine Small Business Resource Guide.

____ I would like a phone call from a SBA Field Representative.

____ I am a veteran and would like to learn about veteran's programs/services.

____ I am interested in International Trade.

____ I am interested in selling to the Federal Government.

Return this form by mail to: U.S. Small Business Administration
68 Sewall Street
Augusta, ME 04330

Or by fax to: 207-622-8277 – or by email to: marilyn.geroux@sba.gov - in the email use code SOS/SBA 2012 and specify assistance desired.

IRS.gov

EIN Assistant

Your Progress: 1. Identity 2. Authenticate 3. Addresses 4. Details **5. EIN Confirmation**

Congratulations! The EIN has been successfully assigned.

EIN Assigned: **85-1738560**

Legal Name: **298 MAIN PARTNERS LLC**

The confirmation letter will be mailed to the applicant. This letter will be the applicant's official IRS notice and will contain important information regarding the EIN. Allow up to 4 weeks for the letter to arrive by mail.

We strongly recommend you print this page for your records.

Click "Continue" to get additional information about using the new EIN. Continue >>

Help Topics

Can the EIN be used before the confirmation letter is received?

IRS.gov

EIN Assistant

Your Progress: 1. Identity 2. Authenticate 3. Addresses 4. Details **5. EIN Confirmation**

Additional Information about your EIN

We suggest you print this page for your records.

When Can You Use Your EIN?

This EIN is your permanent number and can be used immediately for most of your business needs, including:

- Opening a bank account
- Applying for business licenses
- Filing a tax return by mail.

However, it will take up to two weeks before your EIN becomes part of the IRS's permanent records. You must wait until this occurs before you can:

- File an electronic return
- Make an electronic payment
- Pass an IRS Taxpayer Identification Number (TIN) matching program.

Next Steps (for LLC)?

If you do not wish to accept the default status of either partnership or disregarded entity, you can file:

- Form 8832 (Entity Classification Election). This form must be completed in a timely manner to receive corporation status. See the instructions for complete information.
- Form 2553 (Election by a Small Business Corporation).This form must be completed in a timely manner to receive S corporation status. See the instructions for complete information.

Acceptance or Non-Acceptance of Election

- The service center will notify the LLC as to the acceptance or non-acceptance of its election. The LLC should generally receive a determination on its election within 60 days after it has filed Form 8832 or Form 2553.
- Do not file Form 1120 (U.S. Corporation Income Tax Return) or Form 1120S (U.S. Income Tax Return for an S Corporation) until you receive notification of your acceptance.

You can download IRS forms, publications, and tax returns at http://www.irs.gov/formspubs

Corrections?

If you need to make changes to your organization's information, you must do so in writing and mail the information to the address provided at https://www.irs.gov/businesses/business-name-change.

Help Topics

- What is Form 8832?
- What is Form 2553?

<< Back Continue >>

Exhibit 4 & 5

RTI & DEED

MAINE REAL ESTATE TAX-Paid

WARRANTY DEED

DLN: 1002040115301

JAMES BURGESS, INC.

a Maine Corporation with a mailing address of c/o Craig R. Burgess, 48 Cottage Lane, Brunswick, ME 04011

for consideration paid, grants to

298 MAIN PARTNERS, LLC

A Maine limited liability company with a mailing address of 67 Hillside Street, Yarmouth, ME 04096, with WARRANTY COVENANTS, the following described real property in Yarmouth, County of Cumberland and State of Maine:

See Exhibit A attached hereto and made a part hereof

Also hereby conveying all rights, easements, privileges, and appurtenances, belonging to the premises hereinabove described.

IN WITNESS WHEREOF, James Burgess, Inc. has caused this instrument to be executed by Craig R. Burgess, its Authorized Agent; thereunto duly authorized this 9th day of October, 2020.

Witness

James Burgess, Inc.

By: Craig R. Burgess
Its: Authorized Agent

State of Maine
Cumberland, ss.

October 9, 2020

Personally appeared before me Craig R. Burgess, and acknowledged the foregoing instrument to be his free act and deed in his said capacity and the free act and deed of James Burgess, Inc.

Before me,

Richard J. Abbondanza, Attorney-at-Law

H-TEARE

DOC :64846 BK:37288 PG:164
RECEIVED - RECORDED, CUMBERLAND COUNTY REGISTER OF DEEDS
10/09/2020, 02:24:59P
Register of Deeds Nancy A. Lane E-RECORDED

EXHIBIT A

(298 Main Street, Yarmouth, ME)

A certain lot or parcel of land together with the buildings, appurtenances and fixtures of any kind located thereon and contained therein located in Yarmouth, Cumberland County, Maine and more particularly bounded and described as follows:

Beginning at the intersection of the southeasterly bounds of South Street and the southwesterly bounds of Main Street; thence South 26° East ninety-four (94) feet, more or less, by the bounds of said Main Street to an iron pin at the most northerly corner of the station grounds of the Atlantic and St. Lawrence Railroad; thence South 78° West by the land of the Atlantic and St. Lawrence Railroad one hundred sixty (160) feet, more or less, to an iron pipe at the northeasterly corner of land now or formerly of William Rollins; thence North 17° West by the land now or formerly of said William Rollins fifty-nine and five tenths (59.50) feet, more or less, to a point three (3) feet distant from the southerly corner of a garage; thence northeasterly and northwesterly by lines parallel to and three (3) feet distant from said garage to the bounds of South Street; thence northeasterly by the bounds of said South Street one hundred one (101) feet, more or less, to the point begun at; containing twenty-eight hundredths of an acre, more or less.

The foregoing premises are conveyed subject to a pole line easement given by Orland H. Blake and Lester C. Blake to New England Telephone and Telegraph Company dated March 27, 1915 and recorded in the Cumberland County Registry of Deeds in Book 946, Page 196.

Excepting from the above described premises the property conveyed by James Burgess to Yarmouth Paint Co., Inc., dated September 24, 1986 and recorded in the Cumberland County Registry of Deeds in Book 7404, Page 333.

The foregoing premises are conveyed subject to all rights, restrictions, reservations, privileges, obligations, easements, covenants and conditions of record.

MAINE REAL ESTATE TRANSFER TAX PAID

026343 BK8789PG0347

YARMOUTH PAINT CO., INC., a corporation organized and existing under the laws of the State of Maine and having its principal place of business in Yarmouth, County of Cumberland, State of Maine

for consideration paid,
grant s to JOEY M. BURDICK

of Yarmouth, Cumberland County, State of Maine
with Warranty Covenants
the land in Yarmouth Cumberland County, State of Maine.

Parcel One:

A certain lot or parcel of land with any buildings thereon southwesterly of Main Street and southeasterly of School Street in the Town of Yarmouth, County of Cumberland, State of Maine, more particularly bounded and described as follows:

Starting at an iron pin on the southwesterly line of Main Street eighty-seven and fifty-nine hundredths (87.59) feet southeasterly from the intersection of the southeasterly line of South Street and the southwesterly line of Main Street; thence south fifty-nine degrees thirty-three minutes twenty-seven seconds west (S 59° 33' 27" W) one hundred sixty-one and eighteen hundredths (161.18) feet along the line of the Atlantic and St. Lawrence Railroad to an iron pin which constitutes the point of beginning of this description; thence north thirty degrees forty-seven minutes and forty seconds west (N 30° 47' 40" W) forty-four and nineteen hundredths (44.19) feet to an iron pin on the line of land now or formerly of William Rollins; thence north fifty-eight degrees fifty-four minutes fifty seconds east (N 58° 54' 50" E) forty-three and fifty-one hundredths (43.51) feet to an iron pin; thence south thirty-one degrees nine minutes forty seconds east (S 31° 9' 40" E) forty-four (44) feet more or less to the line now or formerly of the Atlantic and St. Lawrence Railroad; thence south fifty-nine degrees thirty-three minutes twenty-seven seconds west (S 59° 33' 27" W) forty-three and five hundredths (43.5) feet more or less to the point of beginning.

The above-described premises constitute the southeasterly corner, a rectangular lot approximately forty-four (44) feet by forty-three and five hundredths (43.5) feet of the premises described in a deed from R.E.C. Co. to James Burgess dated November 25, 1985, recorded in the Cumberland County Registry of Deeds in Book 6995, Page 60.

INCLUDED with the above-described premises is a right-of-way for pedestrian and vehicular passage to and from the above-described premises along the southerly line of Grantor's premises, to land now or formerly of the Atlantic and St. Lawrence Railroad and to the South Street.

(PLEASE SEE REVERSE SIDE FOR REMAINDER OF DESCRIPTION)

IN WITNESS WHEREOF, Yarmouth Paint Co., Inc. has caused this instrument to be sealed with the corporate seal and signed in the corporate name by Joey M. Burdick, its President, thereunto duly authorized this 18th day of November 1987

YARMOUTH PAINT CO., INC.

by: Joey M. Burdick President
Joey M. Burdick, its President

The State of Maine Androscoggin ss. November 18, 1987

Then personally appeared the above named Joey M. Burdick

and acknowledged the foregoing instrument to be his free act and deed, and the free act and deed of said corporation.

Before me,
Justice of the Peace - Attorney at Law - Notary Public

T&Mdll

1201 S WARRANTY DEED

Printed Name: Richard L. Trafton

Being the same premises conveyed from James Burgess and Peoples Heritage Savings Bank to Yarmouth Paint Co., Inc. by deed dated June 20, 1986, and recorded in said Registry of Deeds in Book 7240, Page 35, and by corrective deed dated September 22, 1986 recorded in said Registry of Deeds.

Parcel Two:

A certain lot or parcel of land with the buildings thereon on South Street, Town of Yarmouth, County of Cumberland, State of Maine, known as "The Garage", as described in a deed from Rings Gas and Appliance Co. to Ellsworth J. Mansfield et al, dated November 24, 1958, and recorded in the Cumberland County Registry of Deeds in Book 2457, Page 143.

Being the same premises conveyed from Ellsworth J. Mansfield and Emma L. Mansfield to Yarmouth Paint Co., Inc. by deed dated July 17, 1986, and recorded in said Registry of Deeds in Book 7283, Page 150.

The above described premises, Parcel Two is hereby conveyed expressly subject to a mortgage from Yarmouth Paint Co., Inc. to Ellsworth J. Mansfield and Emma L. Mansfield dated July 17, 1986, and recorded in said Registry of Deeds in Book 7283, Page 151, for which mortgage Joey M. Burdick agrees to assume all liability by accepting delivery of this deed.

Yarmouth Paint Co., Inc. conveys both Parcel One and Parcel Two subject to a mortgage to Maine National Bank dated September 22, 1986, recorded in said Registry of Deeds in Book 7404, Page 334, for which mortgage Joey M. Burdick agrees to assume all liability by accepting delivery of this deed.

QUITCLAIM DEED WITH COVENANT
(Maine Statutory Short Form)

KNOW ALL PERSONS BY THESE PRESENTS, that Snow Flake Holdings, a Maine corporation, (formerly known as Downeast Energy Corp.) having its principal place of business in the Town of Brunswick, County of Cumberland, and State of Maine, for consideration paid, grants to Osterman Propane, LLC, a Delaware limited liability company, its successor and assigns, whose mailing address is 6120 South Yale Avenue, Suite 805, Tulsa, Oklahoma 74136, with **QUITCLAIM COVENANTS**, the land in the Towns of Brunswick, Standish, Windham and Yarmouth and the City of South Portland, County of Cumberland, State of Maine, described as follows:

Parcel I: 14-18 Spring Street, Brunswick, Maine:

A certain lot or parcel of land situated on the westerly side of Spring Street, in the Town of Brunswick, County of Cumberland and State of Maine, said parcel being designated "Downeast Parcel" as depicted on a plan entitled, "Boundary Survey of lands of Downeast Energy and MacMillan Co.", by Sitelines, PA, dated May 5, 2010 (hereinafter "Sitelines Plan",) said parcel being more particularly bounded and described as follows: Beginning at a railroad spike set in the pavement on the westerly right-of-way line of said Spring Street at the northeasterly corner of a parcel of land conveyed to MJH-Bruns LLC (referred to as "Lumberyard Parcel" on said plan) by virtue of a Quitclaim Deed dated May 27, 2010 and recorded in the Cumberland County Registry of Deeds in Book 27802, Page 85; thence N 00°15'14" W, along the said westerly sideline of Spring Street, a distance of 206.25 feet to an iron marker found; thence N 82°36'54"W a distance of 192.05 feet to a survey pin set at the northeasterly corner of land of said MJH-Bruns LLC; thence along the easterly side of land of said MJH-Bruns LLC by the following courses:

S 07°17'07" W a distance of 78.72 feet to a railroad spike set;
S 82°02'16" E a distance of 21.33 feet to a railroad spike set;
S 04°28'09" W a distance of 50.31 feet to a railroad spike set;
S 27°28'18" W a distance of 4.22 feet to a railroad spike set;
S 03°40'08" W a distance of 71.57 feet to a railroad spike set;
S 82°39'31" E a distance of 192.25 feet to a railroad spike set at the point of Point of beginning.

Containing 39,057 square feet ± or .0896 ±.

Together with the easement for all purposes, including, without limitation, ingress and egress, below and above ground utilities, parking and storage over and below the following described parcel of land, which easement shall benefit and run with land, which land is denoted on the Sitelines Plan as "Downeast Parcel", and burden the land now or formerly of MJH-Bruns LLC, which land is denoted on the Sitelines Plan as "Lumberyard Parcel": Beginning at the survey pin set

from Manchester Properties, Inc. to Don Rich Oil Company dated July 26, 1994 and recorded in Book 11740, Page 153; (c) the Warranty Deed from Donald L. Rich to Mark S. Plummer dated June 8, 1983 and recorded in Book 6192, Page 319; (d) the Warranty Deed from Don Rich Oil Co. to Down East Energy Corp. dated July 1, 1997 and recorded in Book 13177, Page 11; (e) the instrument recorded in Book 11394, Page 292; and (f) the rights of way recorded in Book 11740, Page 153 and Book 13177, Page 8 and Book 13177, Page 11.

The above described property is subject to: (a) Rights and easements granted to the Portland Pipe Line Corporation by an instrument dated July 30, 1941 and recorded in Book 1646, Page 149, as amended by an instrument recorded in Book 1646, Page 298; by instrument dated July 29, 1941 and recorded in Book 1646, Page 142, as confirmed by instrument dated June 28, 1943 and recorded in Book 1719, Page 69; by instrument dated September 22, 1943 and recorded in Book 1727, Page 151, and rights and easements granted to the Portland Pipe Line Company by an instrument dated November 14, 1980 and recorded in Book 4714, Page 100; (b) Terms and conditions, rights and easements as set forth in a deed from Donald L. Rich to Don Rich Oil Company dated May 23, 1986 and recorded in Book 7185, Page 268; (c) Terms, rights and easements as set forth in a Warranty Deed from W/S North Windham Properties Limited Partnership to Manchester Properties, Inc. dated August 8, 1994 and recorded in Book 11740, Page 148; (d) Terms, rights and easements as set forth in a Deed of Distribution from Frances Isabel Manchester, as Personal Representative of the Estate of Lawrence Victor Manchester, to Frances Isabel Manchester dated September 27, 1988 and recorded in Book 8503, Page 7, and also as set forth in a Warranty Deed to Manchester Properties, Inc. dated November 10, 1988 and recorded in Book 8559, Page 41; (e) Rights or claims of the Town of Windham by virtue of a Certificate of Condemnation dated January 27, 1994 and recorded in Book 11272, Page 98; (f) Rights and easements reserved in the deed from S.D. Warren Company to Manchester Properties, Inc. dated February 23, 1994 and recorded in Book 11394, Page 279; (g) Terms, rights and easements as set forth in a Warranty Deed from Manchester Properties, Inc. to W/S North Windham Properties Limited Partnership dated April 15, 1994 and recorded in Book 11394, Page 292; (h) Rights and easements as set forth in a Quitclaim Deed from Manchester Properties, Inc. to Don Rich Oil Company dated July 26, 1994 and recorded in Book 11740, Page 153; (i) Terms, rights, and easements as set forth in an Agreement between Donald L. Rich and the George C. Shaw Company dated October 23, 1978 and recorded in Book 4326, Page 336; (j) Terms, rights and easements as set forth in a Warranty Deed from Donald L. Rich to Mark S. Plummer dated June 8, 1983 and recorded in Book 6192, Page 319; (k) Terms, rights and easements as set forth in a Warranty Deed from Don Rich Oil Co. to Down East Energy Corp. dated July 1, 1997 and recorded in Book 13177, Page 11; (l) Terms, rights and obligations of a Certificate of Zoning Variance Approval dated May 6, 1999 and recorded in Book 14860, Page 174; (m) Rights and easements granted to Verizon New England Inc. and Central Maine Power Company by an instrument dated February 8, 2008 and recorded in Book 25872, Page 219, and an instrument dated January 22, 2008 and recorded in Book 25898, Page 211; and (n) Rights and easements granted to Verizon New England Inc. and Central Maine Power Company by an instrument dated February 8, 2008 and recorded in Book 25872, Page 219.

Parcel X: 8 Railroad Square, Yarmouth, Maine: Two certain lot or parcels of land, with any buildings thereon, situated westerly of but not adjacent to Main Street in the Town of Yarmouth, Cumberland County, Maine more particularly described as follows:

PARCEL A: A certain lot or parcels of land, with any buildings thereon, situated westerly of but not adjacent to Main Street in the Town of Yarmouth, Cumberland County, Maine more particularly described as follows: Commencing on the redefined southwesterly sideline of Main Street at its intersection with the centerline of the main railroad track now or formerly of the Canadian National Railway Company; thence N 40° 44' 45" W along said sideline 55.03' to a point and the northwesterly line of land of the Atlantic and St. Lawrence Railroad as described in Cumberland County Registry of Deeds in Book 202, Page 154; thence S 62° 19' 40" W along said northwesterly line and land now or formerly of Burgess 145.00' to a railroad spike set and the point of beginning; thence S 40° 40' 20" E 75.95' to an iron rod set; thence S 36° 09' 25" W 33.02' to an iron rod set; thence S 39° 17' 15" W 292.19' to an iron rod set in the northeasterly line of land now or formerly of D & S Corp. as described in deed at Book 2161, Page 114; thence N 40° 40' 20" W along land of said D & S Corp. 208.26' to a granite monument found and land now or formerly of Richards; thence N 62° 19' 40" E along land now or formerly of Richards, New England Telephone Company, Newton and Burgess 328.28' to the point of beginning. Said parcel contains 45,720 square feet, more or less, and is a portion of land conveyed to the Atlantic & St. Lawrence Railroad Company in Book 199, Page 273 and Book 202, Page 154 and is that parcel designated to be conveyed to Snow Flake Canning Company shown on a survey by Maine Land Surveyors, Inc. dated March 12, 1990 and revised June 8, 1990 recorded in the Cumberland County Registry of Deeds in Plan Book 187, Page 52.

The above described premises are conveyed subject to and with the benefit of a twenty (20') foot right of way as shown on said Plan for all purposes of a road including travel by foot or vehicle and the installation of above and below ground utilities including, without limitation, water and sewer lines and electrical and telephone lines which twenty (20') foot right of way is described as follows: A certain parcel of land westerly of and adjacent to Main Street in the Town of Yarmouth, Cumberland County, Maine, more particularly described as follows: A strip of land twenty (20') feet wide centered on a line as follows: Commencing on the redefined southwesterly sideline of Main Street at its intersection with the centerline of the main railroad track now or formerly of the Canadian National Railway Company; thence N 40° 44' 45" W along said sideline 44.77' to the point of beginning; thence S 36° 09' 25" W 178.14' to an iron rod set; thence S 39° 17' 15" W 292.19' to an iron rod set in the line of land now or formerly of D & S Corp. as described in Book 2161, Page 114. This right of way shall run with and benefit the parcels designated on said Plan as "To Be Conveyed to Snow Flake Canning Company" and "To Be Conveyed to Ring's Coal Company" and shall run with the land. By the acceptance of this deed the owner of the premises hereby conveyed agrees and covenants to share equally with the owner of the parcel shown on said Plan designated Gerald Sullivan all expenses incurred for the maintenance and repair of said right of way. Any party installing underground utilities shall be required to return the right of way to its original condition.

The above described premises are conveyed together with the benefit of a protective covenant imposed upon a portion of the land conveyed to Ring's Coal Company, which protective covenant provides as follows: By the acceptance of his deed, Ring's Coal Company covenants, on behalf of itself, its successors and assigns, that no trees, shrubs or any vegetation shall be planted by Ring's Coal Company, its successors and assigns and that no buildings or other structures shall be erected or constructed by Ring's Coal Company, its successors and assigns, on that portion of the premises conveyed to Ring's Coal Company and described as follows: Commencing on the redefined southwesterly sideline on Main Street at a point which is the northwesterly line of the land now or

formerly of St. Lawrence and Atlantic Railroad Company as described in the Cumberland County Registry of Deeds in Book 202, Page 154 which point of beginning is denoted on said Plan as a railroad spike to be set; thence S 62° 19' 40" W along said northwesterly line and land now or formerly of Burgess 145.00' to a railroad spike set; thence S 40° 40' 20" E 65.68', more or less, to the northwesterly sideline of the 20' right of way as shown on said Survey; thence along the northwesterly sideline of said right of way a distance of 145.10' to the southwesterly sideline of Main Street and the point of beginning. The purpose of this covenant is to protect the view of the buildings and premises located on the parcel to be conveyed to Snow Flake Canning Company and to permit a clear view of such buildings from Main Street. This covenant may be enforced by the owner of the parcel designated on said Survey as the premises to be conveyed to Snow Flake Canning Company.

Meaning and intending to convey the same premises as described in a deed from the St. Lawrence & Atlantic Railroad Company to Snow Flake Canning Company dated June 29, 1990 and recorded in the Cumberland County Registry of Deeds in Book 9339, Page 225.

PARCEL B: A certain lot or parcel of land, with the improvements thereon, located on the southwesterly side of Main Street in the Town of Yarmouth, County of Cumberland, State of Maine, being more particularly bounded and described as follows: Beginning at a point on the southeasterly of land now or formerly of James Burgess as described in Book 6695, Page 60. Said point being located S 62° 19' 40" W a distance of 51.33 feet from the southwesterly sideline of said Main Street; thence S 62° 19' 40" W along said line of Burgess, a distance of 93.67 feet to point on the easterly line of land now or formerly of Snow Flake Canning Company; thence S 40° 40' 20" E along said line of Snow Flake Canning Company, a distance of 75.95 feet to a point; thence N 36° 09' 25" E a distance of 93.78 feet to a point; thence N 40° 44' 45" W a distance of 33.51 feet to the Point of Beginning. Containing 4,996 square feet or 0.11 ac.±

The above described premises are conveyed subject to and with the benefit of a twenty (20') right of way for all purposes of a road including travel by foot or vehicle and the installation of above and below ground utilities including, without limitation, water and sewer lines and electrical and telephone lines, which twenty (20') foot right of way is described as follows: A certain parcel of land westerly of and adjacent to Main Street in the Town of Yarmouth, Cumberland County, Maine, more particularly described as follows: A strip of land twenty (20') feet wide centered on a line as follows: Commencing on the redefined southwesterly sideline of Main Street at its intersection with the centerline of the main railroad track now or formerly of the Canadian National Railway Company, thence N 40° 44' 45" W along said sidelines 44.7 feet to a point of beginning; Thence S 36° 09' 25" W 178.14 feet to an iron rod set; Thence S 39° 17' 15" W 292.19 feet to an iron rod set in the line of land now or formerly of D & S Corp. as described in Book 2161, Page 114. This right of way shall run with and benefit the parcels designated as "To Be Conveyed to Snow Flake Canning Company" (conveyed to Downeast Energy Corp.) and "To Be conveyed to Ring's Coal Company" (conveyed to Bickford Transportation, Inc.) as shown on a plan entitled " Plan of Land on Main Street in Yarmouth, Cumberland County, Maine for Ring's Coal Company and Snow Flake Canning Company, dated March 12, 1990 and prepared by Maine Land Surveyors, Inc." and shall run with the land. By the acceptance of this deed the owner of the premises hereby conveyed agrees and covenants to share equally with the owner of the parcel shown on said Plan designated "To Be conveyed to Ring's Coal Company" all expenses incurred for the maintenance and repair of said

right of way. Any party installing underground utilities shall be required to return the right of way to its original condition.

Together with and subject to the rights and easements set forth in Release Deed from D & S Corp to Snow Flake Canning Company and Ring's Coal Company dated March 4, 1991 and recorded in Book 9488, Page 35 and Easement from Ring's Coal Company and Snow Flake Canning Company to D & S Corp. dated March 1, 1991 and recorded in Book 9488, Page 36.

The premises conveyed are conveyed with the benefit of the covenant that no trees shall be planted or structures shall be erected by Bickford Transportation, Inc., its successors and assigns, on that portion of the premises conveyed to Bickford Transportation, Inc. by The Macmillan Company and described as follows: Beginning on the southwesterly sideline of said Main Street, at the northeasterly most corner of land now or formerly of James Burgess as described in Book 6695, Page 60; thence S 62° 19' 40" W along said line of Burgess a distance of 51.33' to point; thence S 40° 40' 20" E a distance of 23.24' to a point on the northwesterly line of said 20' right-of-way described above; thence N 36° 09' 25" E along said 20' right-of-way a distance of 51.34' to the Point of Beginning. Containing 581 square feet or 0.01 ac. ± This covenant shall run with and benefit the land conveyed hereby.

The premises are subject to: (a) rights of way and easement as described in an Easement Deed to D & S Corp. dated March 1, 1991 and recorded in the Cumberland County Registry of Deeds, Book 9488, Page 36; (b) rights and easements as set forth in the deed from The MacMillan Company to Downeast Energy dated September 30, 2011 and recorded in Book 29016, Page 250; (c) rights and easements as set forth in the deed from St. Lawrence & Atlantic Railroad Company to Snow Flake Canning Company dated June 29, 1990 and recorded in Book 9339, Page 225; and (d) rights and easements set forth in the deed from St. Lawrence & Atlantic Railroad Company to Ring's Coal Company, dated June 29, 1990 and recorded in Book 9339, Page 222.

Being the same premises as conveyed to Downeast Energy Corp. by virtue of a deed from The MacMillan Company dated September 30, 2011 and recorded in the Cumberland County Registry of Deeds in Book 29016, Page 250.

IN WITNESS WHEREOF, the said Snow Flake Holdings, has caused this instrument to be signed and sealed in its corporate name by William D. Morrell, its President, thereunto duly authorized, this 20th day of June, 2012.

WITNESS:

Snow Flake Holdings

By: _____

Name: William D. Morrell

Title: President

STATE OF MAINE
CUMBERLAND, ss.

June 20, 2012

Then personally appeared the above named William D. Morrell, President of said Corporation, as aforesaid, and acknowledged the foregoing instrument to be his free act and deed in his said capacity and the free act and deed of said Corporation, before me,

Attorney at Law/~~Notary Public~~
Printed Name: Ronald Epstein

Received
Recorded Register of Deeds
Jun 28,2012 09:03:00A
Cumberland County
Pamela E. Lovley

Easements and Parking Agreement: (See Exhibit 4 for Deed Copies.)

1. View Easement –Front Triangle Bickford Lot. (CCRD Bk 29705 Pg 231, Snowflake Holdings to Osterman Propane, LLC)
2. Access and Utility Easement over Bickford and Osterman Propane, LLC (Down East Energy(Properties) -20 foot width (CCRD Bk 29705 Pg 231, Snowflake Holdings to Osterman Propane, LLC)
3. Access Easement 298 Main Lot to benefit Burdick Property –undefined width or location. (CCRD Bk 8789 Pg 347, Yarmouth Paint to Burdick)
4. Shared Parking Lease Agreement –Railroad Square Associates, LLC and 298 Main Partners, Inc. (Attached.)

Easements to be Obtained as Part of 298 Main & Railroad Square Masterplan:

1. MDOT Access/Utility Easement for widened entrance radius & utilities at RR Square Entrance/Main Street.
2. Re-defined Utility and Access Easement Railroad Square Associates, LLC to respective utility companies and 298 Main Partners, LLC.
3. 298 Main east side plaza development - Railroad Square Associates ,Inc. to 298 Main Partners to allow construction and maintenance of plaza area at entry.

PARKING LEASE AGREEMENT
[DRAFT 11.30.2020]

This PARKING LEASE AGREEMENT (the "Lease") is entered into as of _____ _____, 2021, by and between **Railroad Square Associates, LLC,** a Maine limited liability company ("RSA" or "Landlord"), having a mailing address of _____ _____, and **298 Main Partners, LLC,** a Maine limited liability company having a mailing address of _____ ("Tenant").

RECITALS:

WHEREAS, RSA owns certain real property located at or near 1 and 48 Railroad Square, Yarmouth, Maine being described in a deed to RSA dated _____ and recorded in the Cumberland County Registry of Deeds in Book _____, Page _____(the "RSA Property"); and

WHEREAS, Tenant owns certain real property located at 298 Main Street, Yarmouth, Maine, being described in a deed to Tenant dated _____ and recorded in the Cumberland County Registry of Deeds in Book _____, Page _____ (the "298 Main Property");

WHEREAS, Landlord desires to lease to Tenant, and Tenant desires to lease from Landlord, certain parking spaces located on the RSA Property, in order to enable Tenant to meet certain municipal parking requirements relating to Tenant's development of a mixed-use condominium to be located at the 298 Main Property (the "298 Condominium"), subject to the terms of this Lease.

NOW, THEREFORE, in consideration of the mutual promises and agreements of Landlord and Tenant set forth herein and for other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the Landlord and Tenant hereby agree as follows:

1. Lease of Parking Spaces. Landlord hereby leases to Tenant and Tenant hereby leases from Landlord, for the term of this Lease, [fifteen (15)] surface-lot parking spaces (the "298 Main Spaces") located at the RSA Property for use by owners, tenants, employees, customers and guests of the residential and commercial condominium units located at the 298 Condominium (the "298 Parkers") together with rights of ingress and egress over and across the RSA Property, in common with others, to access the 298 Main Spaces. From time to time and with advance written notice to Tenant, Landlord may designate the location of any of the 298 Main Spaces within the RSA Property. Absent such designation by the Landlord, the 298 Parkers may use any available parking space located at the RSA Property, provided that the total of such parking spaces used at any one time by the 298 Parkers shall not exceed [fifteen (15)] spaces. If requested by Landlord, Tenant shall, or if desired by Tenant, Tenant may, at Tenant's expense, erect signage indicating the spaces available for Tenant's use, which signage shall be subject to the prior written approval of Landlord, such approval not to be unreasonably withheld.

2. Term; Renewal. The term of this Lease shall be ten (10) years commencing on _____ (the "Commencement Date"). Tenant shall have the option to renew this Lease for one additional ten (10) year period by providing written notice to Landlord no less than ninety (90) days prior to the end of the initial term.

3. Tenant's Option to Terminate or to Reduce Spaces. Tenant may terminate this Lease, or may permanently reduce the number of parking spaces available hereunder upon no less than ninety (90) days' written notice to the Landlord. In the event that the number of parking spaces are reduced, rent from such date forward shall be adjusted and reduced proportionally to account for the number of spaces.

4. Rent. During the first year of the term, Tenant shall pay the Landlord the sum of [One Hundred Fifty Dollars ($150.00)] per year, per parking space, for each of the 298 Main Spaces. Starting on the first anniversary of the Commencement Date and on every anniversary of the Commencement Date thereafter, including during any renewal term, Rent shall increase by 3% per year. Rent shall be due and payable on the first day of each year of the term, including any renewal term. Rent for any partial month shall be prorated.

5. Maintenance; Taxes. Landlord shall be responsible for repairs and maintenance of the 298 Main Spaces, including snow plowing, salting & sanding. Landlord shall not be required to pave or install cement or asphalt paving or other hard surface paving on the 298 Main Spaces, but if any of the 298 Main Spaces are so paved, then Landlord shall take reasonable steps to maintain, repair and replace the paved surface. Tenant may, but is not obligated to, arrange for extra plowing of the 298 Main Spaces, at its sole cost and expense and with Landlord's prior written consent, which consent shall not be unreasonably withheld, if Tenant believes extra plowing is necessary for safety and convenience due to the timing of snowstorms. Notwithstanding the foregoing, Tenant shall be responsible for removing any trash or debris left at the 298 Main Spaces by the 298 Parkers, or for the cost of reimbursing Landlord for any cleaning or trash removal necessitated by Tenant's use of the 298 Main Spaces.

Landlord shall be responsible for paying all property taxes and municipal assessments pertaining to the 298 Main Spaces.

6. Parking Rules; Violations; Towing. The 298 Main Spaces may only be used for parking licensed and registered cars, trucks and motorcycles. If parking spaces at the RSA Property are marked or "striped", then the 298 Parkers shall park within the dimensions of the marked or "striped" space. The 298 Main Spaces shall not be used for parking or storing trailers, ATVs, UTVs, snowmobiles, boats or unregistered or junk vehicles. Except in the event of emergency or mechanical breakdown, Tenant shall not permit any of the 298 Parkers to perform mechanical work on vehicles parked within the 298 Main Spaces. Landlord may require vehicles to be temporarily moved out of any of the 298 Main Spaces to permit maintenance of such parking spaces. Landlord may establish, with advance written notice to Tenant, other reasonable rules and regulations for the use of the 298 Main Spaces by the 298 Parkers. However, Landlord shall not adopt any rules that prohibit overnight parking in the 298 Main Spaces by 298 Parkers. Landlord reserves the right to have towed at the vehicle owner's expense any vehicle that violates the rules applicable to the use of the 298 Main Spaces. Landlord may terminate the right of an individual 298 Parker to use any of the 298 Main Spaces if such parker repeatedly or seriously violates any of the rules applicable to the use of the 298 Main Spaces.

7. Insurance. Tenant shall maintain at its expense a policy of general liability insurance coverage on the 298 Main Spaces, insuring against liability for bodily injury and property damage in amounts and on such terms as are reasonably acceptable to the Landlord. Tenant shall name the Landlord as an additional insured and shall provide evidence of such insurance upon reasonable request by Landlord. Landlord shall maintain its own policy of general liability insurance coverage on the RSA Property, insuring against liability for bodily injury and property damage in amounts and on such terms as are customarily carried upon property similar in type and use in Yarmouth, Maine, and shall name Tenant as an additional insured. Landlord shall provide evidence of such insurance upon reasonable request by Tenant.

8. Landlord's Covenants. Landlord represents and warrants that Landlord has good title to the 298 Main Spaces and has full power and authority to enter into this Lease. Upon payment by

Tenant of the rent herein provided, and upon the observance and performance of all the covenants and terms and conditions on Tenant's part to be observed and performed, Tenant shall have the peaceful enjoyment of the use of the 298 Main Spaces for the term hereof without interruption.

9. Indemnification. Tenant hereby agrees to indemnify and hold harmless Landlord from any claim, costs, liability, damages and expense, including, but not limited to, reasonable attorneys' fees, costs and expenses, to the extent arising from or relating to (i) the use of the 298 Main Spaces by the 298 Parkers; (ii) the violation of any rules for use of the 298 Main Spaces by any 298 Main Parker; or (iii) the breach of this Lease by Tenant. Tenant's indemnification obligation shall be deemed satisfied, and Tenant shall not incur additional indemnification expense, to the extent that Tenant's insurance carrier is defending and covering any such claim against Landlord to which Landlord is entitled to indemnification hereunder. Landlord hereby agrees to indemnify and hold harmless Tenant from any claim, costs, liability, damages and expense, including, but not limited to, reasonable attorneys' fees, costs and expenses, to the extent arising from the gross negligence or intentional misdeeds of Landlord with respect to the 298 Main Spaces. Landlord's indemnification obligation shall be deemed satisfied, and Landlord shall not incur additional indemnification expense, to the extent that Landlord's insurance carrier is defending and covering any such claim against Tenant to which Tenant is entitled to indemnification hereunder.

The indemnification obligations set forth in this paragraph 9 shall survive the expiration or termination of this Lease.

10. Assignment and Subletting. Tenant may assign this Lease, in whole, but not in part, to a successor owner of the 298 Main Property including, but not limited to any condominium association that is established in connection with the 298 Condominium; provided, however, that such assignee assumes all of the obligations of the Tenant set forth in this Lease and provided, further, that Tenant shall notify Landlord in writing at least fourteen (14) days before the effective date of any such assignment. Tenant may collaterally assign this Lease to lenders or investors financing construction costs relating to the 298 Main Property. Except as expressly permitted herein, no assignment or sublease shall be permitted without the prior written consent of the Landlord, which may be withheld or conditioned in Landlord's sole discretion.

11. Default and Remedies. In the event of the failure of either party to comply with any term or condition hereof, which failure is not remedied within fourteen (14) days after receipt of written notice describing such failure to perform, or such longer time as is reasonably necessary under the circumstances provided the party receiving notice is diligently pursuing the cure of such failure to perform, the party alleging such default may pursue all legal and equitable remedies.

12. Notices. Any notice delivered by any party under this lease shall be in writing and delivered to the parties by registered or certified mail, return receipt requested, at the parties' respective addresses set forth on page one. Either party may, by such manner of notice, substitute alternative persons or addresses for notice.

13. No Waivers. No failure to act by either party shall be deemed to be a waiver by said party of any of its rights hereunder, and no waiver or consent by either party shall be deemed a waiver of such provision or of a subsequent breach or consent to the same or any other provision.

14. Governing Law; Waiver of Jury Trial. This Lease shall be governed and construed in accordance with the laws of the State of Maine. Landlord and Tenant mutually agree to waive trial by jury in any proceeding brought by either party against the other arising out of or relating to this Lease.

15. Miscellaneous. This Lease, including any exhibits referred to herein, constitutes the entire agreement of the parties with respect to the transactions contemplated hereby. This Lease shall be binding upon the parties and their respective successors and assigns. Headings are for convenience only and shall not be considered a part of this Lease. If any provision of this Lease or its application to any person or circumstances shall to any extent be deemed invalid or unenforceable by a court of competent jurisdiction, the remainder of this Lease shall not be affected thereby and each provision of this Lease shall be valid and enforceable to the fullest extent permitted by law. This Lease shall not be modified except by a writing executed by both parties.

The parties have caused this Parking Lease Agreement to be executed by their representatives, thereunto duly authorized, as of the date first written above.

Landlord
Railroad Square Associates, LLC

_____
By: Tamson Bickford Hamrock, President

Tenant
298 Main Partners, LLC

_____
By:

Its:

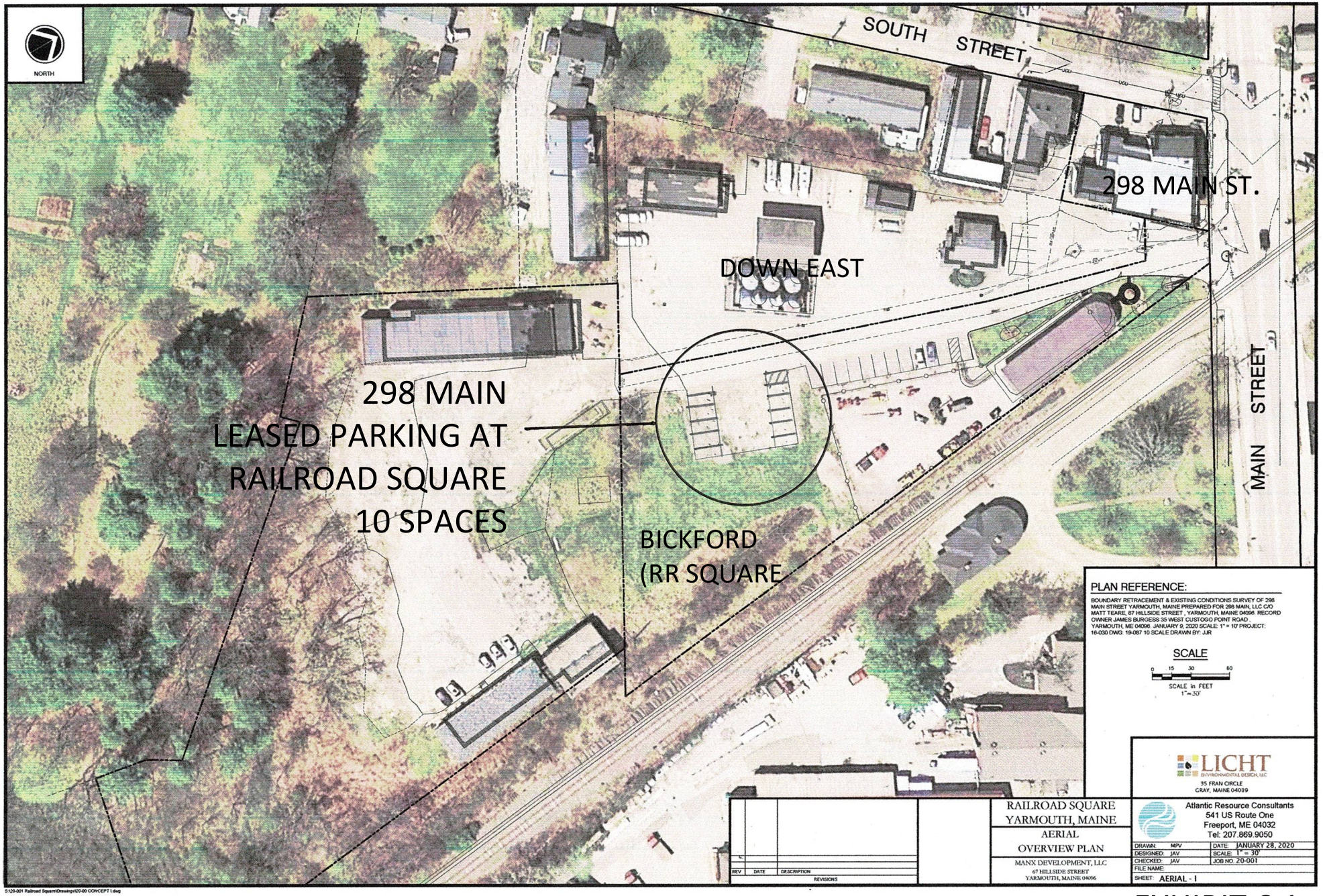


EXHIBIT 6.1
SHARED PARKING

Exhibit 7

Condominium Documents

(To be provided separately)

Exhibit 8
Financial Capacity

December 11, 2020

298 Main Partners, LLC
65 Hanover Street
Portland, ME 04101

RE: 298 Main Street (Village Center), Yarmouth, Maine ("Project")

To Whom it May Concern,

On behalf of Norway Savings Bank, I am pleased to provide this letter in support of Robert Barrett, Barrett Made and 298 Main Partners, LLC ("Developers") plans to develop 298 Main Street, Yarmouth, Maine. Based on our review of the financial aspects of the project, I believe the applicant and the developers have the ability to provide the necessary funds to support the development project.

While this letter of support is not a commitment to lend, the Bank would welcome the opportunity to look at providing financing to the developers on the subject project.

Please feel free to contact me with questions.

Sincerely,

Dana Myles
Regional Vice President, Commercial Lending
207-482-7907
dmyles@norwaysavingsbank.com

Exhibit 9
Technical Ability

EXHIBIT 9
Technical Ability

The applicant, 298 Main Partners, LLC includes Matthew Teare and Rob Barrett of Barrett Made. Matthew's background for over 20 years has been in the development and management of senior and related communities. Rob Barrett and Barrett Made are unique as they bring together both the design end and construction side of building projects. Recent projects by the applicants include: Westcustogo Hall and Community Center, North Yarmouth; Barrett Made Offices, Portland; Revision Energy Headquarters, South Portland; Village Run, Yarmouth and The Motherhouse, Portland. Construction of the 298 Main project will be performed by Barrett Made as general contractor.

298 Main Partners, LLC has retained a team of seasoned professionals to undertake the design and permitting for the 298 Main Project. Team members include:

Barrett Made, Portland, Maine
Architecture and Construction

Licht Environmental Design, LLC, Gray, Maine
Project Manager - Civil Engineering & Permitting

Atlantic Resource Consultants, Freeport, Maine
Civil Engineering and Permitting

Keith Smith Landscape Architecture (KSLA), Portland, Maine
Landscape Architecture

Ruopp Surveying and Mapping, Monmouth, Maine
Survey and Mapping

Sewall –Diane Morabito, Yarmouth, Maine
Traffic Impact Study

.

Solid Waste Management:

The 298 Main Building will include a trash, recycling and returnable bottle enclosure with “rollaways” for separate waste and recycling materials within the covered parking garage. Residents and commercial space occupants will be required to bring their waste and recyclables to the ground floor enclosure separate into the designated rollaway units. Weekly removal for delivery to the Town of Yarmouth municipal recycling facility and bottle redemption centers will be contracted to a vendor.

Exhibit 10
Solid Waste

Yarmouth Water District Capacity to Serve Letter:

A request has been made to the Yarmouth Water District for capacity to serve letter for water usage. The attached table provides an estimate of approximately 3,520 gallons per day. This figure is conservative as it includes a 50 seat restaurant/café which is not currently planned for one of the commercial units. The space is planned for retail or office use.

Exhibit 11

Yarmouth Water District Capacity to Serve

TABLE 1: 298 MAIN STREET, YARMOUTH MIXED USE BUILDING

298 Main Street and RR Square, Yarmouth

Estimated Water/Wastewater Design Flows

Licht Environmental Design, LLC			Date/Rev:	12/4/2020

Type of Use	Unit	# Units	Flow Basis (GPD)	Average Daily Design Flows (GPD)
One - Bedroom Condo (1.)	Dwelling Unit	10	180	1800
Two - Bedroom Condo (1.)	Dwelling Unit	6	180	1080
Commercial/Retail (2.)	Per Emplyee	10	12	120
Commercial/Café (3.), (4.)	Per Employee	10	12	120
	Per Seat	40	10	400
		Total Design Flows (GPD)		3520
Peak Flow Estimate (Gallons per Minute (GPM))				9.8

Notes:

1. Ref: Maine Subsurface Wastewater Disposal Rules (10-144 Chapter 241), Table 4A (180 gpd for up to 2 bedroom dwellings)

2. Ref : Maine Subsurface Wastewater Disposal Rules Table 4C. Emplyees estimated per 24 hour period -retail use.

3. Ref : Maine Subsurface Wastewater Disposal Rules Table 4C.Eating Place 1 meal/day

4. Café/Coffee Shop use assumed for one commercial space conservatively. If retail/office - flows would be significantly reduced.

5. Peak hourly flows -=(ave daily flow/24 hour per day/60 miin. per hour) x (Assume peaking factor 4.0)

Exhibit 12
Traffic Impact Study

TRAFFIC IMPACT STUDY

298 MAIN STREET DEVELOPMENT

YARMOUTH, MAINE

November 19, 2020

Prepared For:

Matthew Teare
Yarmouth, Maine 04096

Prepared by:

Sewall
The evolution of expertise

A TFIC Company

40 Forest Falls Drive, Suite 2 • Yarmouth, Maine 04096 • +1.207.817.5440 • sewall.com • info@sewall.com

INTRODUCTION

The purpose of this report is to summarize a traffic impact study performed by James W. Sewall Company (Sewall) for a proposed redevelopment effort in Yarmouth, Maine. The redevelopment effort is expected to occur over three phases. The first phase will be the redevelopment of the 298 Main Street building. The new 298 Main Street is expected to provide for:

Phase 1

- 14 Residential Condominiums
- 1,325 S.F. Quality Restaurant
- 1,325 S.F. Retail Space

The traffic analysis will determine the expected number of trips and associated impacts to be generated by Phase 1 for local Town of Yarmouth Planning Board approval purposes. Additionally, trip generation analysis was performed for master planning purposes for the two remaining phases at the adjacent Railroad Square development. The Railroad Square development is currently expected to include:

Phase 2

- 6,000 S.F. of Commercial Space, office and retail uses
- Up to 10 Residential Condo Units on Second Floor

Phase 3

- 48 Residential Units for ages 55+
- Community Spaces including community center, art studio, fitness center and storage

The overall site location is shown on the map in Figure 1. It is understood that construction is planned to begin on Phase 1 in 2021 with completion and occupancy expected by the end of 2022. Hence, 2022 was selected as the study year for Phase 1 traffic analysis puposes.

TRIP GENERATION ANALYSIS

The number of trips to be generated by 298 Main Street was estimated utilizing the Institute of Transportation Engineers (ITE) "Trip Generation, 10th edition. Land use codes (LUC) 221 – Multifamily Housing – Mid-rise was used on the basis of 14 dwelling units. Both LUC 931 – Quality Restaurant and LUC 820 – Shopping Center, were utilized on the basis of 1,325 S.F. for the commercial spaces. The overall results are summarized as follows:

PROPOSED PHASE 1 - 298 MAIN - ITE TRIP GENERATION

Time Period	Condos	Restaurant	Retail	Total
Weekday	76	112	50	238
AM Peak Hour – Adjacent Street	5	1	1	7
Entering	1	1	1	3
Exiting	4	0	0	4
AM Peak Hour – Generator	5	6	4	15
Entering	1	5	2	8
Exiting	4	1	2	7
PM Peak Hour – Adjacent Street	6	10	5	21
Entering	4	7	2	13
Exiting	2	3	3	8
PM Peak Hour – Generator	6	11	6	23
Entering	4	7	3	14
Exiting	2	4	3	9
Saturday	70	120	62	252
Saturday Peak Hour	6	14	6	26
Entering	3	8	3	14
Exiting	3	6	3	12

As seen above, the redeveloped 298 Main Street building is expected to generate from 7 to 26 one-way trips in peak hours. The building will generate 238 one-way trips (119 round-trips) on a daily basis (weekday).

In terms of state traffic permitting, there is a trip credit allowed for grandfathered former trips to a pre-existing development. This credit is based upon uses which occupied the site and were operating in the last ten years. It is understood that 298 Main Street previously included:

- 4 Residential Apartments
- 2,250 S.F. of General/Professional Office Space
- 1,500 S.F. Medical Office
- 1,000 S.F. Retail Space

The trips for these former uses, to determine the credit for grandfathered trips for state traffic permitting purposes, were similarly calculated on the basis of dwelling units and square footages utilizing the following ITE land use codes:

LUC 221 – Multifamily Housing – mid rise – 4 dwelling units
LUC 710 – General Office - 2,250 S.F.
LUC 720 – Medical Office – 1,500 S.F.
LUC 820 – Shopping Center – retail - 1,000 S.F.

The trip generation results for the former uses are summarized below:

298 MAIN – PREVIOUS TRIP GENERATION

Time Period	Apts.	Offices	Med. Office	Retail	Total
Weekday	22	22	52	38	134
AM Peak Hour – Adjacent Street	1	3	4	1	9
Entering	0	3	3	1	7
Exiting	1	0	1	0	2
AM Peak Hour – Generator	1	3	5	3	12
Entering	0	3	3	2	8
Exiting	1	0	2	1	4
PM Peak Hour – Adjacent Street	2	3	5	4	14
Entering	1	0	1	2	4
Exiting	1	3	4	2	10
PM Peak Hour – Generator	2	3	6	4	15
Entering	1	1	2	2	6
Exiting	1	2	4	2	9
Saturday	20	4	12	46	82
Saturday Peak Hour	2	1	4	4	11
Entering	1	1	2	2	6
Exiting	1	0	2	2	5

The overall change in trip generation, from the proposed use to the former uses at 298 Main Street, are summarized in the following table:

CHANGE IN ITE TRIP GENERATION

Time Period	Proposed	Former	Change
Weekday	238	134	+104
AM Peak Hour – Adjacent Street	7	9	-2
Entering	3	7	-4
Exiting	4	2	+2

Time Period	Proposed	Former	Change
AM Peak Hour – Generator	15	12	+3
Entering	8	8	0
Exiting	7	4	+3
PM Peak Hour – Adjacent Street	21	14	+7
Entering	13	4	+9
Exiting	8	10	-2
PM Peak Hour – Generator	23	15	+8
Entering	14	6	+8
Exiting	9	9	0
Saturday	252	82	+170
Saturday Peak Hour	26	11	+15
Entering	14	6	+8
Exiting	12	5	+7

As seen above, the redevelopment of 298 Main Street is expected to generate from minus 2 to plus fifteen (15) new one-way trips in peak hours. This level of traffic would not be expected to have a significant impact off-site on traffic operations beyond the site drives.

However, to meet the requirements of the Yarmouth ordinances and to demonstrate impact, traffic analysis was conducted for the proposed access drive intersections as well as the South Street intersection. Given the mix of uses, both the weekday AM and PM peak hours of the adjacent street (the commuter peaks), when volumes are generally heaviest in Maine, were selected as analysis periods.

ADDITIONAL TRIP GENERATION ANALYSIS

The number of trips to be generated by Railroad Square, Phases 2 and 3, were also estimated for master planning purposes. The trips were similarly estimated using the ITE 10th edition. The following lane use codes and bases were used for this preliminary analysis:

Phase 2

LUC 220 – Multifamily Housing – Low-rise – 10 dwelling units
LUC 712 – Small Office Building – 3,000 S.F.
LUC 820 – Shopping Center – 3,000 S.F.

Phase 3

LUC 252 – Senior Adult Housing – Attached – 48 dwelling units

It is understood that the fitness center and art studio are existing uses on-site that will not be significantly increased in size. Hence, no additional trips were assumed for these uses for this preliminary planning analysis. Additionally, the storage space (for residents only) and community space would be considered components of the senior housing development. Additionally, no credit has been taken in this preliminary analysis for internal capture or shared trips. Those capture trips would more than offset any increased trips from the fitness center or art studio. The trip generation results for Phases 2 & 3 are summarized below:

	PROJECTED TRIP GENERATION				
	Phase 2				**Phase 3**
Time Period	Condos	Office	Retail	**Total**	**Adult Condos**
Weekday	74	48	114	236	178
AM Peak Hour – Adjacent Street	5	6	3	14	10
Entering	1	5	2	8	3
Exiting	4	1	1	6	7
AM Peak Hour – Generator	6	10	9	25	16
Entering	2	6	5	13	8
Exiting	4	4	4	12	8
PM Peak Hour – Adjacent Street	6	7	12	25	13
Entering	4	2	6	12	7
Exiting	2	5	6	13	6
PM Peak Hour – Generator	7	11	13	31	15
Entering	4	5	6	15	8
Exiting	3	6	7	16	7
Saturday	82	8	138	228	156
Saturday Peak Hour	7	1	14	22	16
Entering	4	1	7	12	10
Exiting	3	0	7	10	6

The net Phase 1 trips (after the credit for pre-existing trips for 298 Main Street) are added to these later phases as follows:

CHANGE IN ITE TRIP GENERATION

Time Period	Phase 1 Net	Phase 2	Phase 3	Total
Weekday	104	236	178	518
AM Peak Hour – Adjacent Street	-2	14	10	22
Entering	-4	8	3	7
Exiting	2	6	7	15
AM Peak Hour – Generator	3	25	16	44
Entering	0	13	8	21
Exiting	3	12	8	23
PM Peak Hour – Adjacent Street	7	25	13	45
Entering	9	12	7	28
Exiting	-2	13	6	17
PM Peak Hour – Generator	8	31	15	54
Entering	8	15	8	31
Exiting	0	16	7	23
Saturday	170	228	156	554
Saturday Peak Hour	15	22	16	53
Entering	8	12	10	30
Exiting	7	10	6	23

As seen above, the combined 298 Main Street and Railroad Square projects, as currently planned, will generate from 22 to 54 new one–way trips in peak hours. This level of traffic should not require a Traffic Movement Permit (TMP) from the Maine Department of Transportation (MaineDOT) since it is does not meet the 100-trip threshold in any peak hour period.

TRAFFIC VOLUMES

Turning movement/classification counts were conducted by Sewall during the weekday AM (7:00 – 9:00) and PM (3:00 – 6:00) peak hour periods to determine existing volumes. These counts are outlined below:

Main Street Intersection	Count Date – Period	Peak Hour
South Street	9/29/20 – AM	7:45 - 8:45
South Street	9/29/20 – PM	3:30 – 4:30
Yarmouth Crossing Drive & RR Square Dr.	11/4/20 – AM	7:45 – 8:45
Yarmouth Crossing Drive & RR Square Dr.	11/3/20 – PM	3:00 – 4:00

The counts were factored to 30th highest hour conditions using MaineDOT group mean factors for analysis purposes. These volumes typically occur in Maine in late July and early August under peak summer conditions. Since the counts were conducted on separate days they were balanced between the two intersections by holding the higher result for each peak hour period. The resulting 2020 peak hour volumes, expected to represent peak summer AM and PM peak hours, are shown in Figure 2.

The Yarmouth Director of Planning & Development was contacted to determine if there are any other approved (but unbuilt) or pending developments that should be considered in the traffic analysis. The Planner identified the following two projects but 298 Main Street is ahead of both in the permitting process:

- Expansion of 317 Main Street Music Center
- Renovation and Expansion of Masonic Building

Since traffic studies have not yet been performed for these projects a higher growth rate will be used to allow for their development, as discussed with Planning.

Existing average annual daily traffic (AADT) data for the area was obtained from "Traffic Volume Counts, 2019 and 2014 Annual Reports", published by MaineDOT. This data is summarized in the following table:

	Average Annual Daily Traffic				
Location Description	2010	2013	2014	2016	2019
Main Street, NW of Cleaves/School St.	---	---	11950	10720	10410
Main Street, SE of East Elm St.	9860	---	---	8690	8150
Main Street, SE of Cleaves/School Streets	8660	7880	8360	7550	7240
South Street, SW of Main Street	1200	---	---	---	---

As seen above, traffic volumes have generally declined on Main Street both over the longer term 2010 to 2019 period and over the most recent short-term (2016 to 2019) period. As a result, a minimal ½ % annual traffic growth rate would generally be utilized to project the 2020 volumes to future 2022 conditions. However, a higher 2 % growth rate was used to allow for other development projects and to be conservative. The projected 2022 summer No Build volumes are shown in Figure 3.

The Phase I trip assignments were based upon the recorded residential and commercial travel patterns. To represent “worst case” all site trips were assigned to South Street for access rather than split between South Street and the Railroad Square Drive, as shown in Figure 4. This option has been designated as Alternative 1. Alternative 2 assigns all trips to the Railroad Square drive to again represent a “worst case” scenario, as shown in Figure 5.

Based upon the trip assignments, the redevelopment of 298 Main Street, is expected to have a minimal impact on off-site traffic operations. Generally, a project won’t have a significant impact on traffic operations unless it generates in excess of 35 lane hour trips. Based upon the trip assignments, 298 Main Street will generate a maximum of 10 lane hour trips. Even fewer new trips are anticipated when one considers the pre-existing trips at 298 Main Street. No credit was taken for these pre-existing trips to be conservative. Lastly, the projected Build volumes are shown in Figures 5 & 6 for Alternatives 1 & 2.

CAPACITY ANALYSIS

Traffic operations are evaluated in terms of level of service (LOS). Level of service is a qualitative measure that describes operations by letter designation. The levels range from A - very little delay to F - extreme delays. Level of service "D" is generally considered acceptable in urban locations while LOS "E" is generally considered the capacity of a facility and the minimum tolerable level. The level of service for unsignalized intersections is based upon average control delay per vehicle for each minor, opposed movement, as defined in the following table excerpted from the 2010 "Highway Capacity Manual":

Unsignalized Intersection Level of Service

LOS	Delay Range
A	< = 10.0 seconds
B	> 10.0 and <= 15.0
C	> 15.0 and <= 25.0
D	> 25.0 and <= 35.0
E	> 35.0 and <= 50.0
F	> 50.0

UNSIGNALIZED INTERSECTION ANALYSIS

The level of service (LOS) was determined for the unsignalized Main Street intersections of South Street and the Railroad Square/Yarmouth Crossing Drive for existing 2020 and projected 2022 No Build and Build conditions using Synchro 10 and the Highway Capacity Manual (HCM) approach for both access alternatives. The results are provided in the appendix and are summarized in the following tables:

MAIN STREET & SOUTH STREET
AM Peak Hour Level of Service

Approach/Movement	Existing 2020	No Build 2022	Build Alt. 1 2022	Build Alt. 2 2022
Eastbound Main Street Lefts into Peachy's	A (7.8)	A (7.9)	A (7.9)	A (7.9)
Westbound Main Street Lefts	A (8.5)	A (8.6)	A (8.6)	A (8.6)
Northbound South Street	B (13.7)	B (14.1)	B (14.2)	B (14.1)
Southbound Peachy's Drive	D (27.2)	D (29.2)	D (29.7)	D (29.4)

PM Peak Hour Level of Service

Approach/Movement	Existing 2020	No Build 2022	Build Alt. 1 2022	Build Alt. 2 2022
Eastbound Main Street Lefts into Peachy's	--	--	--	--
Westbound Main Street Lefts	A (8.5)	A (8.5)	A (8.6)	A (8.6)
Northbound South Street	B (13.0)	B (13.4)	B (14.2)	B (13.4)
Southbound Peachy's Drive	C (20.5)	C (21.7)	C (22.6)	C (21.8)

As seen above, South Street currently operates at a good LOS "B" in both the AM and PM peak hours. The same level of service "B" is projected for 2022 under both projected Build Alternatives. The increase in delay for South Street due to 298 Main Street is minimal at less than one second. This result is expected given the minimal new lane hour trips. This analysis demonstrates that there are no capacity concerns and that both Main Street and South Street have the capacity to accommodate the additional trips.

MAIN, YARMOUTH CROSSING & RAILROAD SQUARE
AM Peak Hour Level of Service

Approach/Movement	Existing 2020	No Build 2022	Build Alt. 1 2022	Build Alt. 2 2022
Eastbound Main Street Lefts	A (8.0)	A (8.1)	A (8.1)	A (8.1)
Westbound Main Street Lefts	A (8.6)	A (8.7)	A (8.7)	A (8.7)
Northbound Railroad Square	C (16.3)	C (16.4)	C (16.5)	C (15.5)
Southbound Yarmouth Crossing Drive	C (20.6)	C (22.1)	C (22.3)	C (22.8)

	PM Peak Hour Level of Service			
Approach/Movement	Existing 2020	Build No Build 2022	Build Alt. 1 2022	Alt. 2 2022
Eastbound Main Street Lefts	A (8.5)	A (8.6)	A (8.6)	A (8.6)
Westbound Main Street Lefts	A (8.4)	A (8.5)	A (8.5)	A (8.6)
Northbound Railroad Square	B (11.5)	B (11.7)	B (11.8)	C (15.3)
Southbound Yarmouth Crossing Drive	C (23.5)	D (25.5)	D (26.3)	D (27.5)

As seen above, the Yarmouth Crossing Drive currently operate at LOS "C" in the AM peak hour. The same LOS "C" is projected under both 2022 Build Alternatives so the 298 Main Street project will have minimal impact on this drive. During the PM peak hour this drive also currently operates at LOS "C". The LOS is projected to drop to "D" by 2022 due to the projected growth of Main Street volumes. The same LOS "D" is projected for the Build alternative with a minor increase in delay of 2.0 seconds. All Railroad Square movements are projected to operate at LOS "C" or better under Build conditions. To summarize, No Build and Build results are quite similar, as would be expected given the minimal new lane hour trips, showing that the proposed 298 Main Street development will have negligible impact on off-site operations. All Main Street movements will continue to operate at LOS "A" showing no capcity concerns while South Street will operate at a good LOS "B". Given that no credit was taken for pre-existing trips to 298 Main these results are expected to be conservative.

SAFETY ANAYSIS

ACCIDENT REVIEW

The Maine Department of Transportation uses two criteria to determine high crash locations (HCLs). The first is the critical rate factor (CRF), which is a measure of the accident rate. A CRF greater than one indicates a location which has a higher than expected crash rate. The expected rate is calculated as a statewide average of similar facilities.

The second criterion, which must also be met, is based upon the number of accidents that occur at a particular location. Eight or more accidents must occur over the three-year study period for the location to be considered a high crash location. Accident data was obtained from MaineDOT for the vicinity of the site for both Main Street and South Street. The CRF and number of accidents are summarized by location for the most recent three-year period, 2017 to 2019, in the following tables:

Main Street Location Description	# of Acc.	CRF
Intersection of E. Elm and W. Elm Streets	5	0.33
Between Elm and Center Streets	2	0.55
Intersection of Center Street	1	0.26
Between Center and Mill Streets	1	0.34
Intersection of Mill Street	2	0.51
Intersection of South Street	1	0.22
Between South and School/Cleaves Streets	7	0.87
Intersection of School and Cleaves Streets	8	0.47

South Street Location Description	# of Acc.	CRF
Between Main Street and West Elm	0	---

As seen in the above tables, there are no high crash locations within the vicinity of the site. As a result, no additional accident review or evaluation is necessary.

DRIVEWAY SIGHT DISTANCE

One of the most important safety factors to consider for a project is sight distance from the access drives. This sight distance is measured ten feet back from the edge of travel way at a driver's eye height of 3.5 feet to an object height of 4.25 feet. Sewall recommends a minimum sight distance of 250 feet for the posted 25 mile per hour speed limit on Main Street. The Yarmouth Site Plan ordinance requires a lesser 160 feet.

Sewall field checked the sight distances from Railroad Square at Main Street and found them to exceed 300' in both directions. From the proposed South Street drive sight distance exceeds 300' to the left. Sight distance to the right from the South Street drive is approximately 120' to Main Street. This sight distance is adequate since vehicles will be turning onto South Street at a lesser rate of speed and since the corner clearance exceeds recommended state standards for unsignalized intersections.

Sight distance from the proposed drives is adequate to provide for safe access. It is important to note that no signage or landscaping should be located in the driveway sight triangles which could obscure or limit these sight distances in the future.

SUMMARY AND RECOMMENDATIONS

298 Main Street is expected to generate between 7 and 26 one-way trips during peak hours. Previous uses at 298 Main would have generated from 9 to 15 one-way trips during peak hours so net new trips are less. Based upon the trip generation results, with consideration of Maine's typical adjacent street volumes, both the weekday AM and PM peak hours of the adjacent street were selected for analysis.

Trip generation analysis for the Railroad Square Phases 2 and 3 show that overall new trip generation will be under 100 trips in all peak hours at completion. Hence, a Traffic Movement Permit is not expected to be required.

In terms of capacity, the unsignalized South Street approach to Main Street currently operates at a good LOS "B" in both the AM and PM peak hours. The same LOS "B" is projected for 2022 under both Phase 1 Build Alternatives. The increase in delay for South Street due to 298 Main Street is minimal at less than one second. The analysis demonstrates that there are no capacity concerns and that both Main Street and South Street have the capacity to accommodate the additional trips.

The opposite Yarmouth Crossing drive currently operate at LOS "C" in the AM peak hour. The same LOS "C" is projected under both 2022 Build Alternatives so the 298 Main Street project will have minimal impact on this drive. During the PM peak the Yarmouth Crossing drive is projected to be "D" under 2022 No Build volumes. The same LOS "D" is projected for the Build alternatives, again showing no significant impact. All Railroad Square lanes/movements are projected to operate at LOS "C" or better under Build conditions.

To summarize, No Build and Build results are quite similar, as expected given the minimal new lane hour trips, showing that the 298 Main Street development will have negligible impact on traffic operations off-site. All Main Street movements will continue to operate at LOS "A" showing no capacity concerns while South Street will operate at a good LOS "B".

In terms of safety, there are no high crash locations within the extended study area so no further accident review or evaluation is necessary. Sight distance from the proposed drives is adequate to meet standards. It is important that no signage or landscaping be located in the driveway sight triangles which could obscure or limit sight distances in the future.

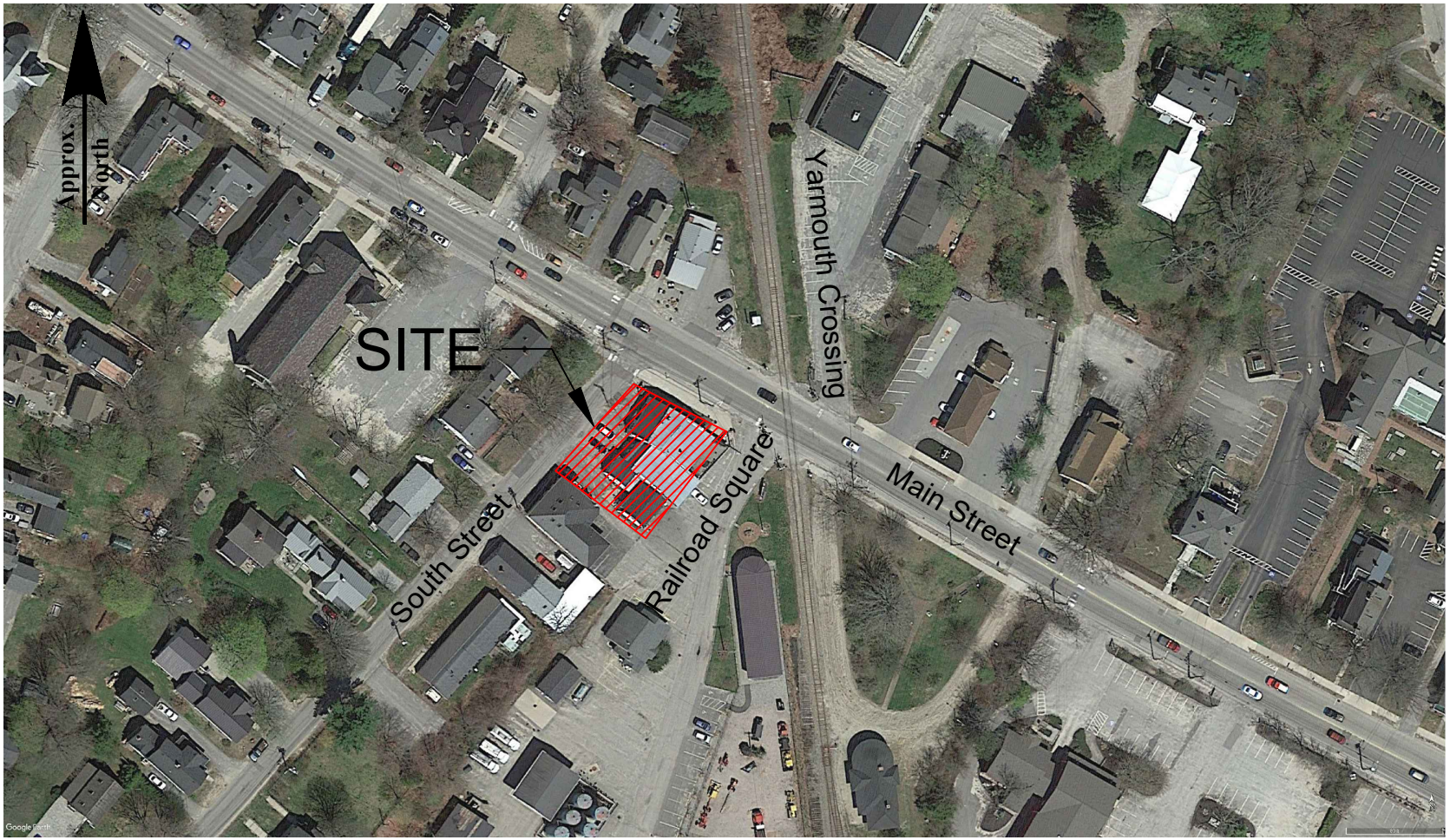


Figure 1

Site Location Map
298 Main Street
Yarmouth, Maine

Sewall
The evolution of expertise
A TPIC Company

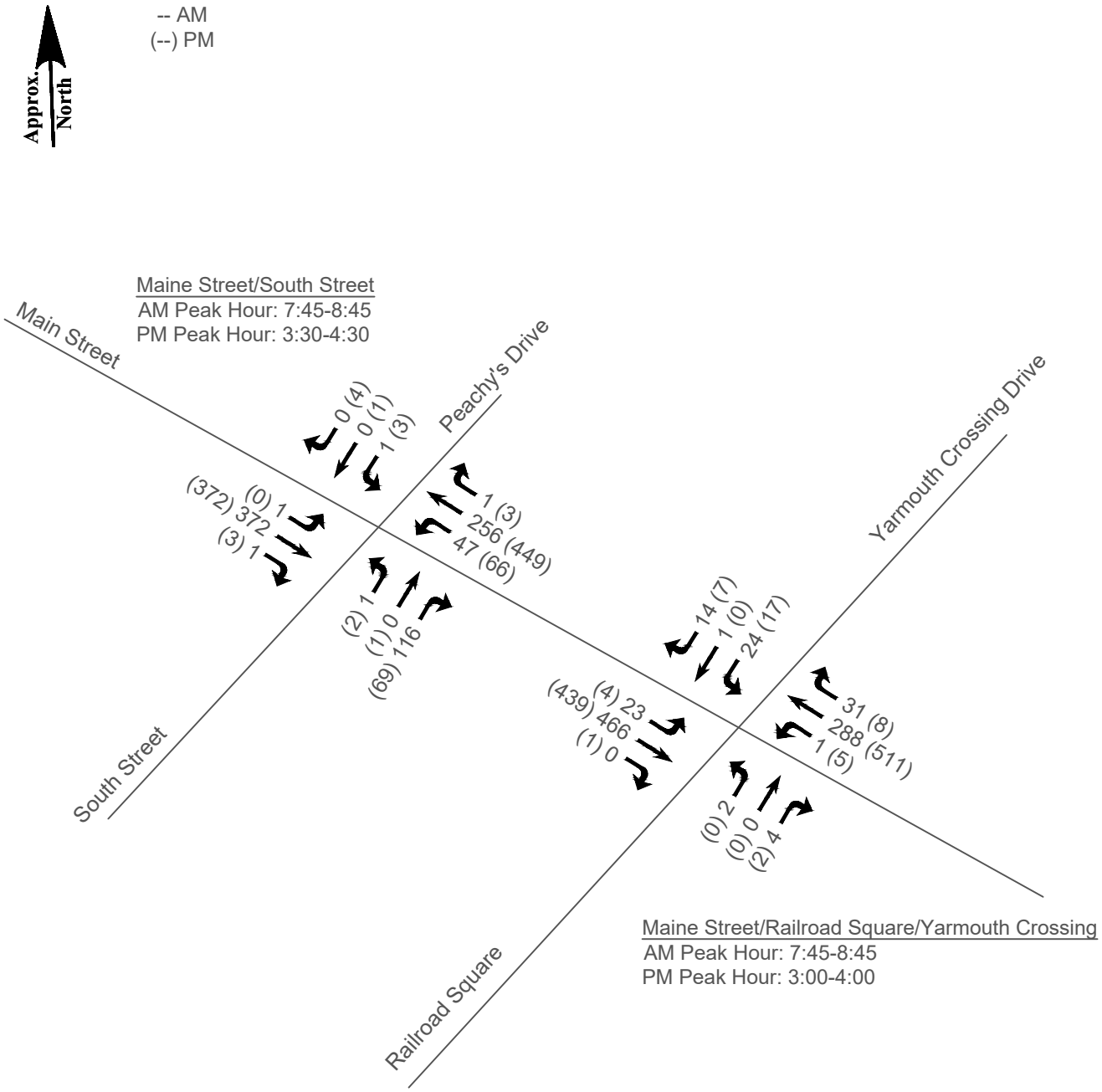


Figure 2

Existing 2020 AM & PM Peak Hr Volumes
298 Main St
Yarmouth, Maine

Sewall
The evolution of expertise
A TRC Company

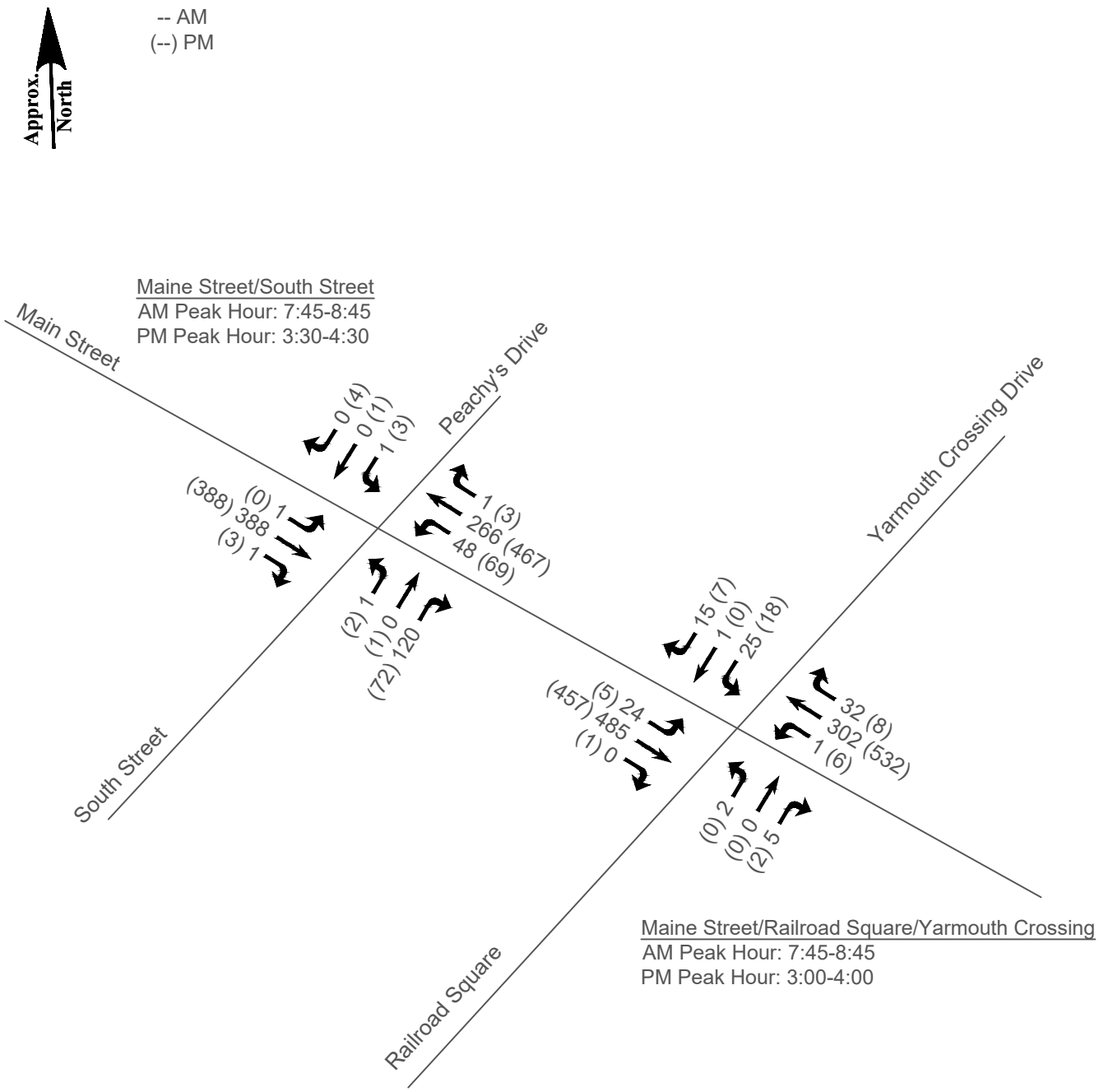


Figure 3

2022 No Build AM & PM Peak Hr Volumes
298 Main St
Yarmouth, Maine

Sewall
The evolution of expertise
A TPIC Company

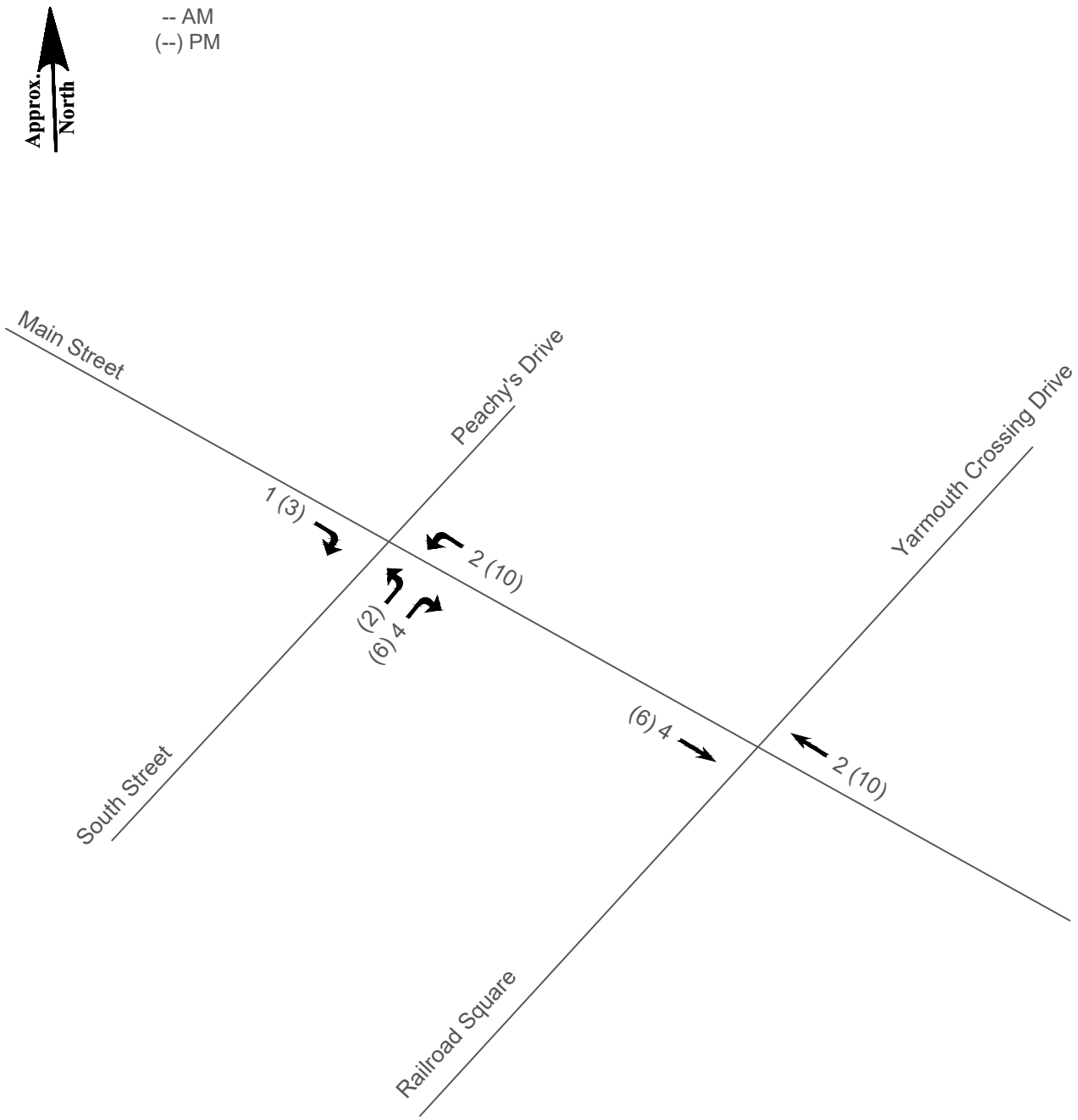


Figure 4

AM & PM Trip Assignments South Street
298 Main St
Yarmouth, Maine

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A TPIC Company

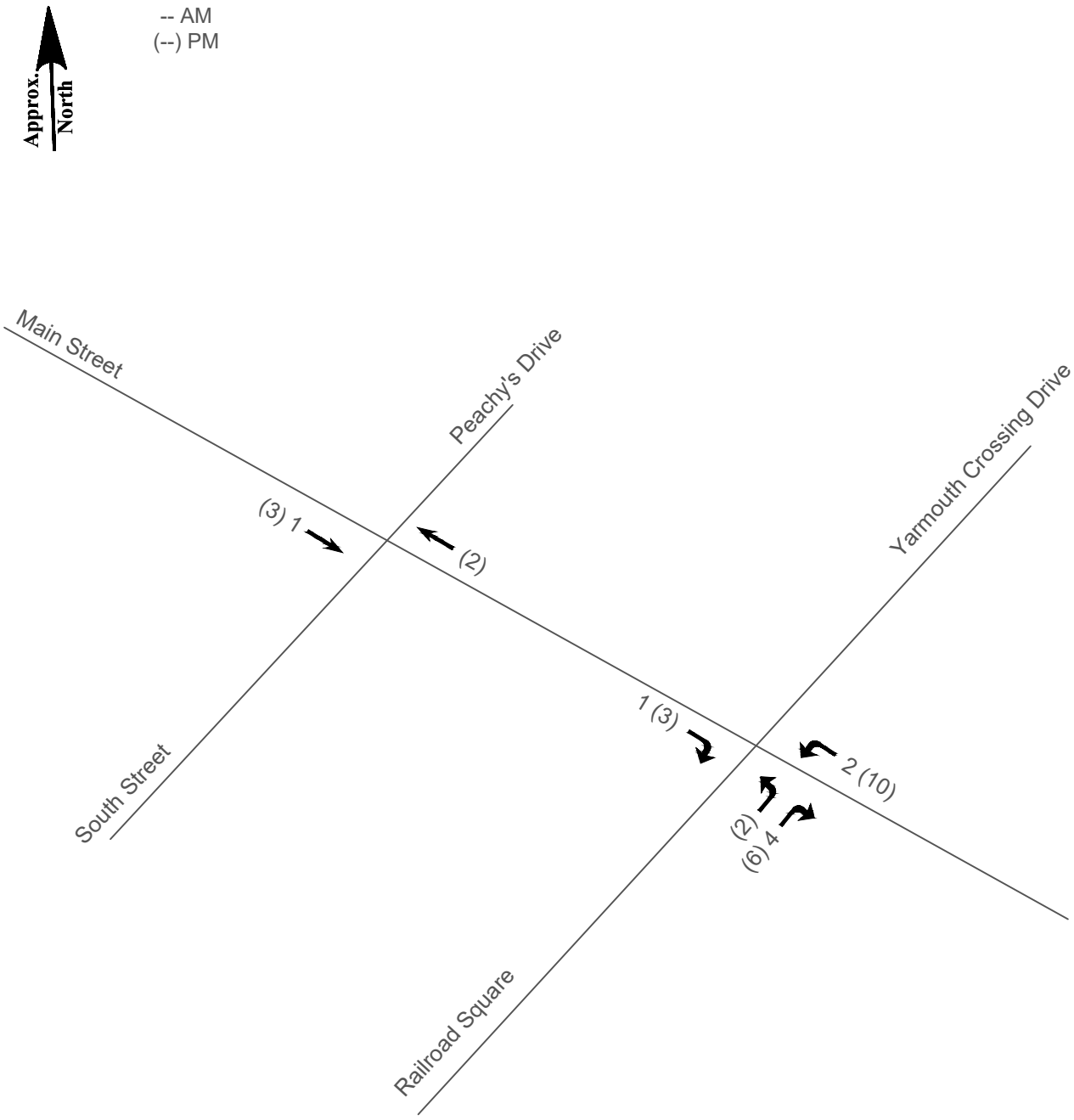

Figure 5

AM & PM Trip Assignments Railroad Square	Sewall The evolution of expertise A TPIC Company
298 Main St	
Yarmouth, Maine	

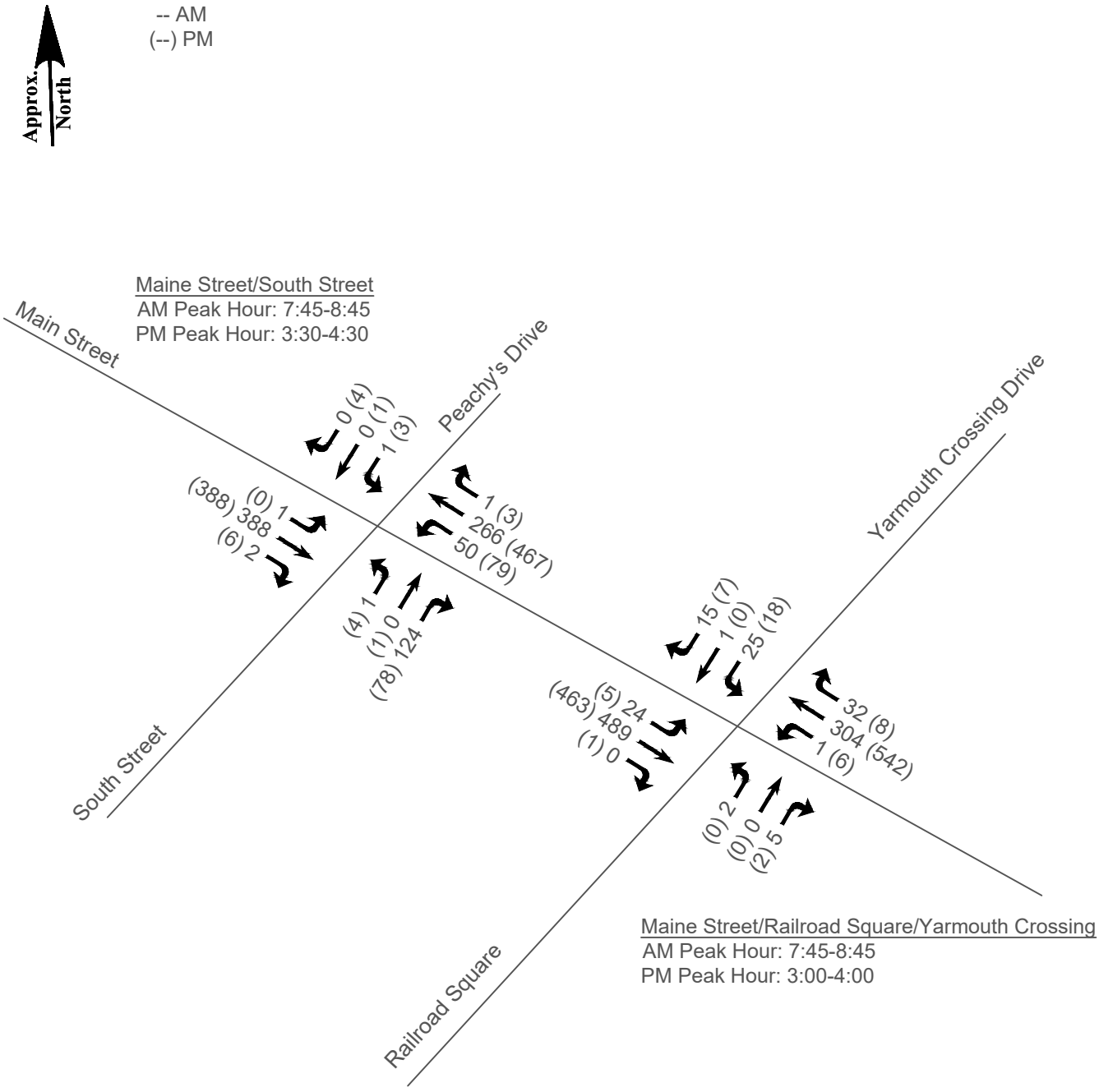

Figure 6

2022 Build AM & PM Peak Hr Volumes South Street
298 Main St
Yarmouth, Maine

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A TPC Company

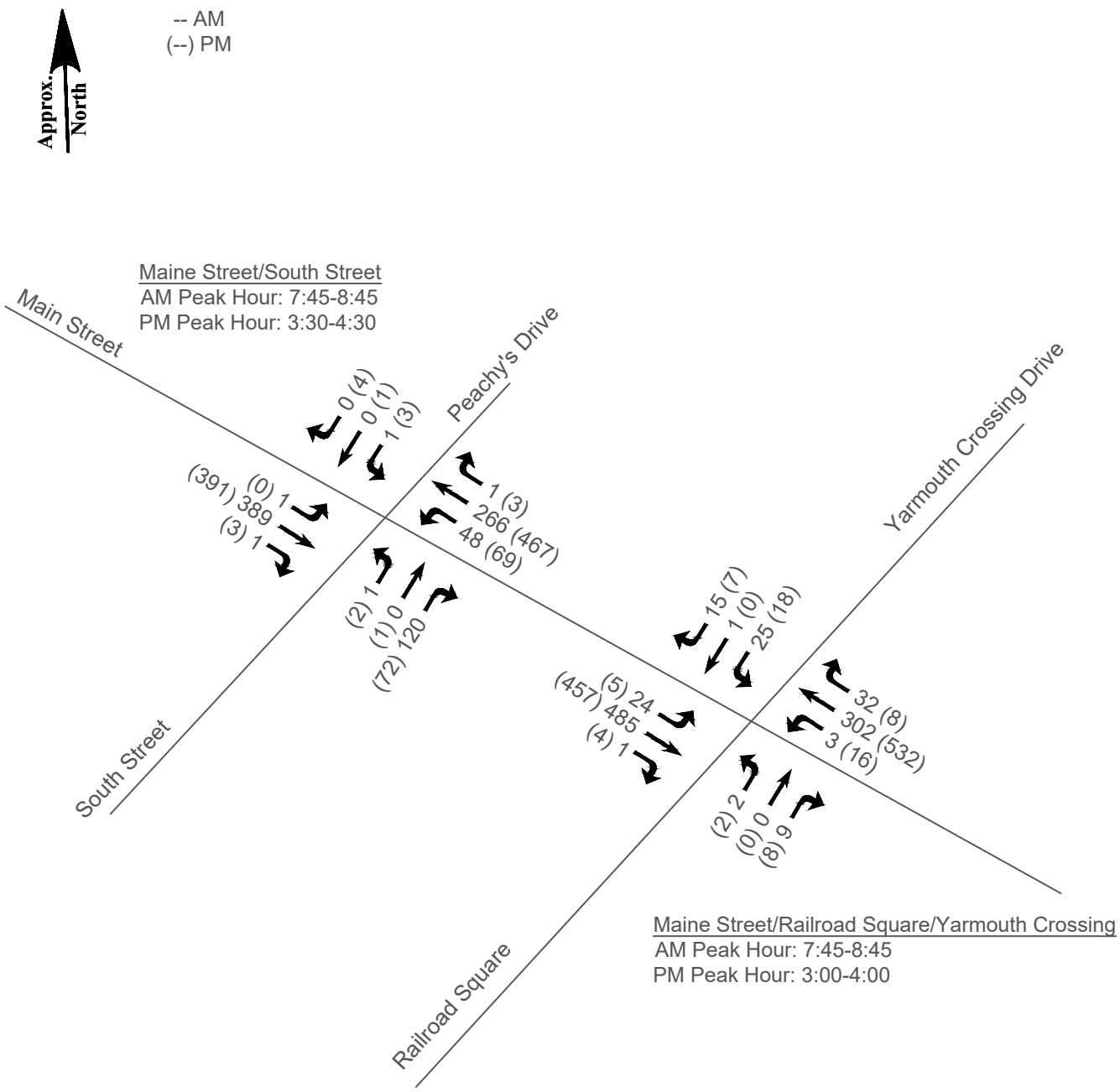


Figure 7

2022 Build AM & PM Peak Hr Volumes Railroad Sq.
298 Main St
Yarmouth, Maine

Sewall
The evolution of expertise
A TPC Company

APPENDIX

Turning Movement Counts

Capacity Analysis

Accident Data

Sewall

40 Forest Falls Drive
Yarmouth, ME 04096

TITLE: Main & South Streets
TOWN: Yarmouth, ME
COUNTER: NAB
WEATHER: Sun/clouds

File Name : YarmouthSouth&Main2020AM
Site Code : 00000111
Start Date : 9/29/2020
Page No : 1

Groups Printed- Passenger Vehicles - Light Trucks - Heavy Trucks

	Driveway Southbound					Main Street Westbound					South Street Northbound					Main Street Eastbound					
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
07:00 AM	0	0	0	3	3	0	32	4	0	36	14	0	0	2	16	0	77	0	0	77	132
07:15 AM	0	0	0	1	1	0	37	17	1	55	9	0	0	3	12	0	73	0	0	73	141
07:30 AM	0	0	0	7	7	0	42	13	0	55	15	0	0	2	17	0	83	0	2	85	164
07:45 AM	0	0	0	3	3	0	65	13	0	78	39	0	0	2	41	0	116	0	0	116	238
Total	0	0	0	14	14	0	176	47	1	224	77	0	0	9	86	0	349	0	2	351	675
08:00 AM	0	0	0	5	5	0	70	13	0	83	27	0	1	6	34	0	85	0	0	85	207
08:15 AM	0	0	0	2	2	0	55	8	0	63	23	0	0	1	24	0	80	0	0	80	169
08:30 AM	0	0	1	5	6	1	57	11	0	69	23	0	0	2	25	1	79	1	0	81	181
08:45 AM	0	0	0	2	2	0	72	11	0	83	19	0	0	2	21	4	102	1	0	107	213
Total	0	0	1	14	15	1	254	43	0	298	92	0	1	11	104	5	346	2	0	353	770
Grand Total	0	0	1	28	29	1	430	90	1	522	169	0	1	20	190	5	695	2	2	704	1445
Apprch %	0	0	3.4	96.6		0.2	82.4	17.2	0.2		88.9	0	0.5	10.5		0.7	98.7	0.3	0.3		
Total %	0	0	0.1	1.9	2	0.1	29.8	6.2	0.1	36.1	11.7	0	0.1	1.4	13.1	0.3	48.1	0.1	0.1	48.7	
Passenger Vehicles																					
% Passenger Vehicles	0	0	100	60.7	62.1	100	94.7	92.2	0	94.1	98.2	0	100	70	95.3	100	95.4	100	0	95.2	94.1
Light Trucks																					
% Light Trucks	0	0	0	39.3	37.9	0	4.2	7.8	100	5	1.8	0	0	30	4.7	0	2	0	100	2.3	4.3
Heavy Trucks	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	0	18	0	0	18	23
% Heavy Trucks																					

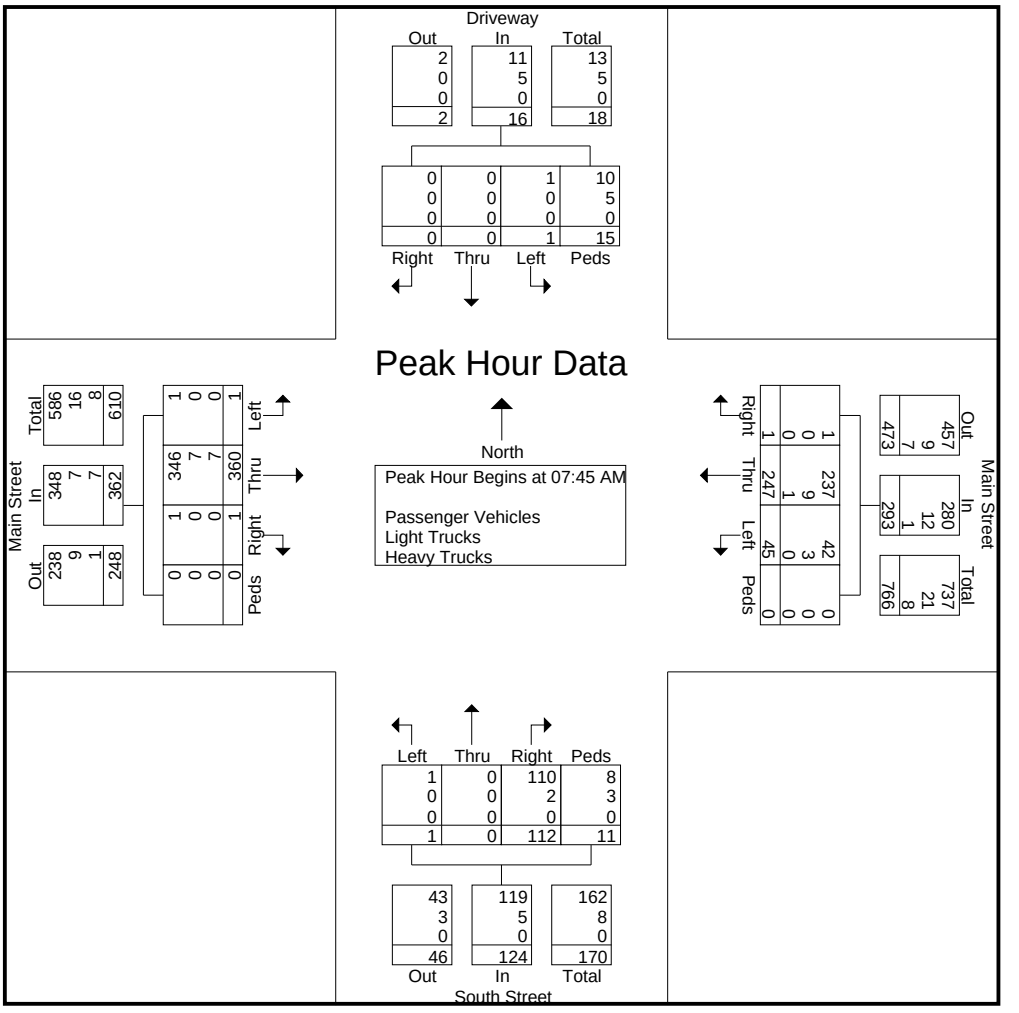
Sewall

40 Forest Falls Drive
Yarmouth, ME 04096

TITLE: Main & South Streets
TOWN: Yarmouth, ME
COUNTER: NAB
WEATHER: Sun/clouds

File Name : YarmouthSouth&Main2020AM
Site Code : 00000111
Start Date : 9/29/2020
Page No : 2

	Driveway Southbound					Main Street Westbound					South Street Northbound					Main Street Eastbound					
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 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:45 AM																					
07:45 AM	0	0	0	3	3	0	65	**13**	0	78	**39**	0	0	2	**41**	0	**116**	0	0	**116**	**238**
08:00 AM	0	0	0	**5**	5	0	**70**	13	0	**83**	27	0	**1**	**6**	34	0	85	0	0	85	207
08:15 AM	0	0	0	2	2	0	55	8	0	63	23	0	0	1	24	0	80	0	0	80	169
08:30 AM	0	0	**1**	5	**6**	**1**	57	11	0	69	23	0	0	2	25	**1**	79	**1**	0	81	181
Total Volume	0	0	1	15	16	1	247	45	0	293	112	0	1	11	124	1	360	1	0	362	795
% App. Total	0	0	6.2	93.8		0.3	84.3	15.4	0		90.3	0	0.8	8.9		0.3	99.4	0.3	0		
PHF	.000	.000	.250	.750	.667	.250	.882	.865	.000	.883	.718	.000	.250	.458	.756	.250	.776	.250	.000	.780	.835
Passenger Vehicles																					
% Passenger Vehicles	0	0	100	66.7	68.8	100	96.0	93.3	0	95.6	98.2	0	100	72.7	96.0	100	96.1	100	0	96.1	95.3
Light Trucks																					
% Light Trucks	0	0	0	33.3	31.3	0	3.6	6.7	0	4.1	1.8	0	0	27.3	4.0	0	1.9	0	0	1.9	3.6
Heavy Trucks	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	7	0	0	7	8
% Heavy Trucks																					



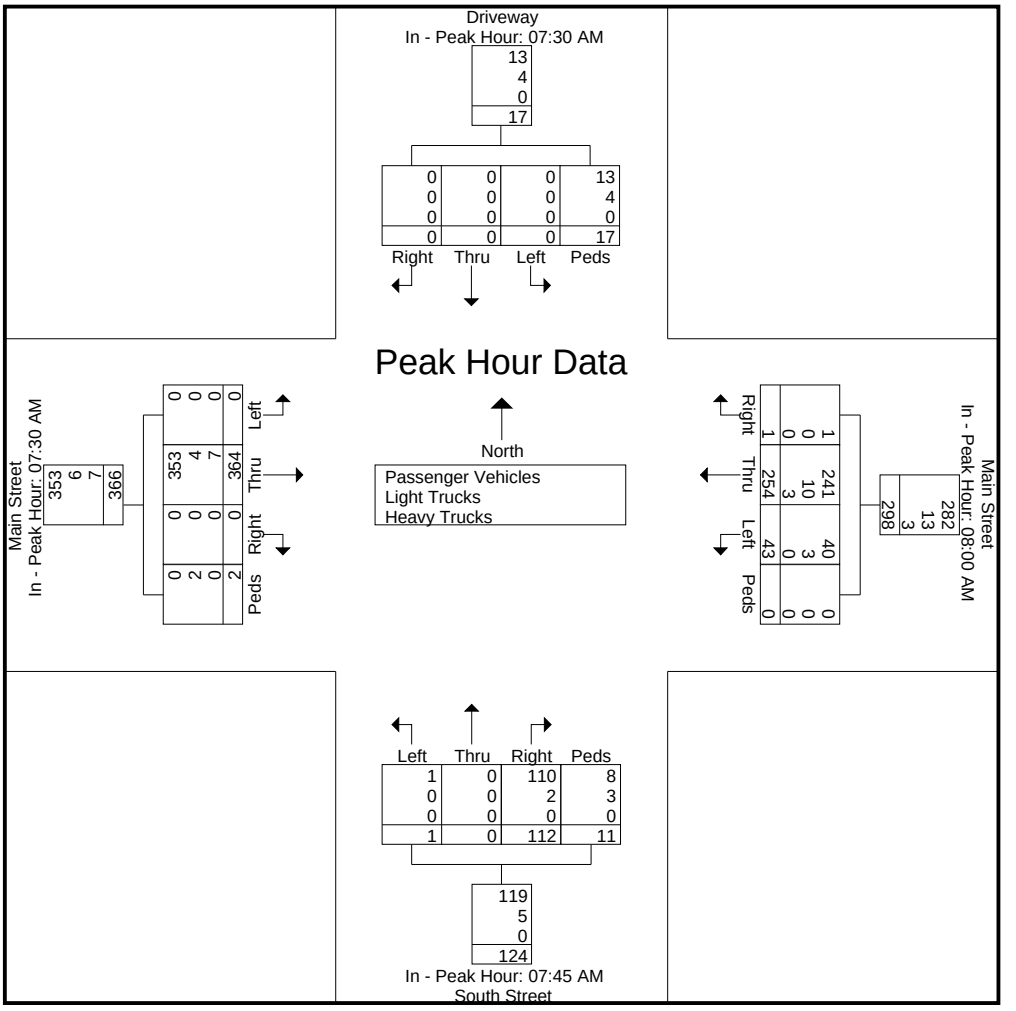
Sewall

40 Forest Falls Drive
Yarmouth, ME 04096

TITLE: Main & South Streets
TOWN: Yarmouth, ME
COUNTER: NAB
WEATHER: Sun/clouds

File Name : YarmouthSouth&Main2020AM
Site Code : 00000111
Start Date : 9/29/2020
Page No : 3

	Driveway Southbound					Main Street Westbound					South Street Northbound					Main Street Eastbound					
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 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Each Approach Begins at:																					
	07:30 AM					08:00 AM					07:45 AM					07:30 AM					
+0 mins.	0	0	0	**7**	**7**	0	70	**13**	0	**83**	**39**	0	0	2	**41**	0	83	0	**2**	85	
+15 mins.	0	0	0	3	3	0	55	8	0	63	27	0	**1**	**6**	34	0	**116**	0	0	**116**	
+30 mins.	0	0	0	5	5	**1**	57	11	0	69	23	0	0	1	24	0	85	0	0	85	
+45 mins.	0	0	0	2	2	0	**72**	11	0	83	23	0	0	2	25	0	80	0	0	80	
Total Volume	0	0	0	17	17	1	254	43	0	298	112	0	1	11	124	0	364	0	2	366	
% App. Total	0	0	0	100		0.3	85.2	14.4	0		90.3	0	0.8	8.9		0	99.5	0	0.5		
PHF	.000	.000	.000	.607	.607	.250	.882	.827	.000	.898	.718	.000	.250	.458	.756	.000	.784	.000	.250	.789	
Passenger Vehicles																					
% Passenger Vehicles	0	0	0	76.5	76.5	100	94.9	93	0	94.6	98.2	0	100	72.7	96	0	97	0	0	96.4	
Light Trucks	0	0	0	4	4	0	10	3	0	13	2	0	0	3	5	0	4	0	2	6	
% Light Trucks	0	0	0	23.5	23.5	0	3.9	7	0	4.4	1.8	0	0	27.3	4	0	1.1	0	100	1.6	
Heavy Trucks	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	7	0	0	7	
% Heavy Trucks																					



Sewall

40 Forest Falls Drive
Yarmouth, ME 04096

TITLE: Main & South Streets
TOWN: Yarmouth
COUNTER: NAB
WEATHER: Sun/clouds

File Name : YarmouthSouth&Main2020PM
Site Code : 00000222
Start Date : 9/29/2020
Page No : 1

Groups Printed- Passenger Vehicles - Light Trucks - Heavy Trucks

	Driveway Southbound					Main Street Westbound					South Street Northbound					Main Street Eastbound					
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
03:00 PM	1	0	1	4	6	0	93	16	0	109	27	0	3	2	32	0	77	0	0	77	224
03:15 PM	1	0	1	5	7	2	94	11	0	107	29	0	1	4	34	1	78	1	0	80	228
03:30 PM	1	1	1	7	10	2	116	13	0	131	19	1	1	1	22	0	73	0	0	73	236
03:45 PM	2	0	1	5	8	0	109	15	0	124	24	0	0	2	26	1	109	0	0	110	268
Total	5	1	4	21	31	4	412	55	0	471	99	1	5	9	114	2	337	1	0	340	956
04:00 PM	0	0	0	7	7	0	94	15	0	109	15	0	0	0	15	1	87	0	2	90	221
04:15 PM	1	0	1	5	7	1	107	21	2	131	9	0	1	7	17	1	91	0	2	94	249
04:30 PM	0	0	0	2	2	0	120	14	0	134	17	0	0	2	19	0	73	0	0	73	228
04:45 PM	0	0	0	5	5	0	126	10	0	136	14	0	0	3	17	2	76	0	0	78	236
Total	1	0	1	19	21	1	447	60	2	510	55	0	1	12	68	4	327	0	4	335	934
05:00 PM	0	0	0	2	2	0	138	17	0	155	12	0	0	2	14	0	89	0	1	90	261
05:15 PM	0	0	0	1	1	0	120	17	0	137	12	0	0	0	12	0	71	0	0	71	221
05:30 PM	0	0	0	6	6	1	109	7	0	117	11	0	0	2	13	0	67	0	3	70	206
05:45 PM	0	0	0	6	6	0	92	13	0	105	13	0	0	1	14	2	62	0	0	64	189
Total	0	0	0	15	15	1	459	54	0	514	48	0	0	5	53	2	289	0	4	295	877
Grand Total	6	1	5	55	67	6	1318	169	2	1495	202	1	6	26	235	8	953	1	8	970	2767
Apprch %	9	1.5	7.5	82.1		0.4	88.2	11.3	0.1		86	0.4	2.6	11.1		0.8	98.2	0.1	0.8		
Total %	0.2	0	0.2	2	2.4	0.2	47.6	6.1	0.1	54	7.3	0	0.2	0.9	8.5	0.3	34.4	0	0.3	35.1	
Passenger Vehicles							1301														
% Passenger Vehicles	100	100	100	56.4	64.2	100	98.7	97.6	50	98.5	98.5	100	100	61.5	94.5	100	98.1	100	25	97.5	97
Light Trucks																					
% Light Trucks	0	0	0	43.6	35.8	0	0.8	2.4	50	1.1	1.5	0	0	38.5	5.5	0	1.2	0	75	1.8	2.5
Heavy Trucks	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0	0	7	0	0	7	13
% Heavy Trucks																					

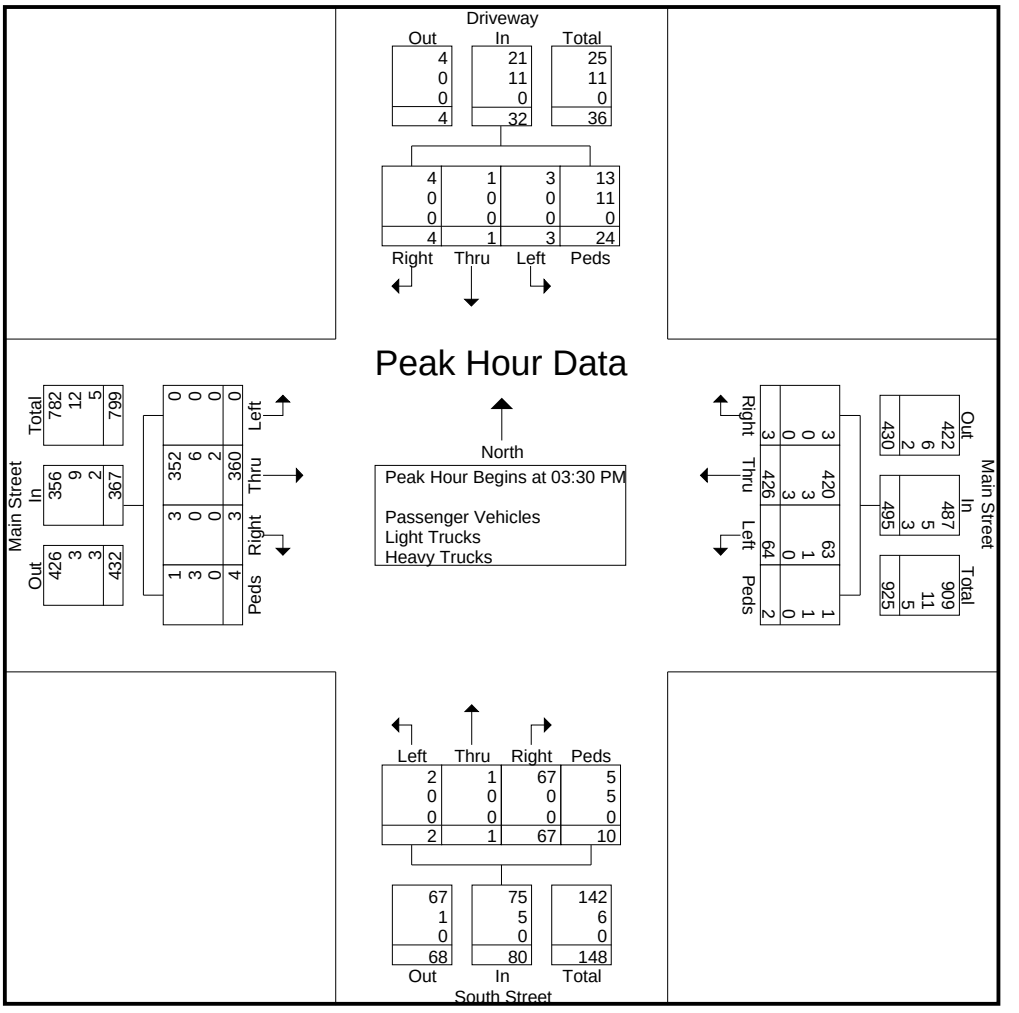
Sewall

40 Forest Falls Drive
Yarmouth, ME 04096

TITLE: Main & South Streets
TOWN: Yarmouth
COUNTER: NAB
WEATHER: Sun/clouds

File Name : YarmouthSouth&Main2020PM
Site Code : 00000222
Start Date : 9/29/2020
Page No : 2

	Driveway Southbound					Main Street Westbound					South Street Northbound					Main Street Eastbound					
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 03:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 03:30 PM																					
03:30 PM	1	**1**	**1**	**7**	**10**	**2**	**116**	13	0	**131**	19	**1**	**1**	1	22	0	73	0	0	73	236
03:45 PM	**2**	0	1	5	8	0	109	15	0	124	**24**	0	0	2	**26**	**1**	**109**	0	0	**110**	**268**
04:00 PM	0	0	0	7	7	0	94	15	0	109	15	0	0	0	15	1	87	0	**2**	90	221
04:15 PM	1	0	1	5	7	1	107	**21**	**2**	131	9	0	1	**7**	17	1	91	0	2	94	249
Total Volume	4	1	3	24	32	3	426	64	2	495	67	1	2	10	80	3	360	0	4	367	974
% App. Total	12.5	3.1	9.4	75		0.6	86.1	12.9	0.4		83.8	1.2	2.5	12.5		0.8	98.1	0	1.1		
PHF	.500	.250	.750	.857	.800	.375	.918	.762	.250	.945	.698	.250	.500	.357	.769	.750	.826	.000	.500	.834	.909
Passenger Vehicles																					
% Passenger Vehicles	100	100	100	54.2	65.6	100	98.6	98.4	50.0	98.4	100	100	100	50.0	93.8	100	97.8	0	25.0	97.0	96.4
Light Trucks																					
% Light Trucks	0	0	0	45.8	34.4	0	0.7	1.6	50.0	1.0	0	0	0	50.0	6.3	0	1.7	0	75.0	2.5	3.1
Heavy Trucks	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	2	0	0	2	5
% Heavy Trucks																					



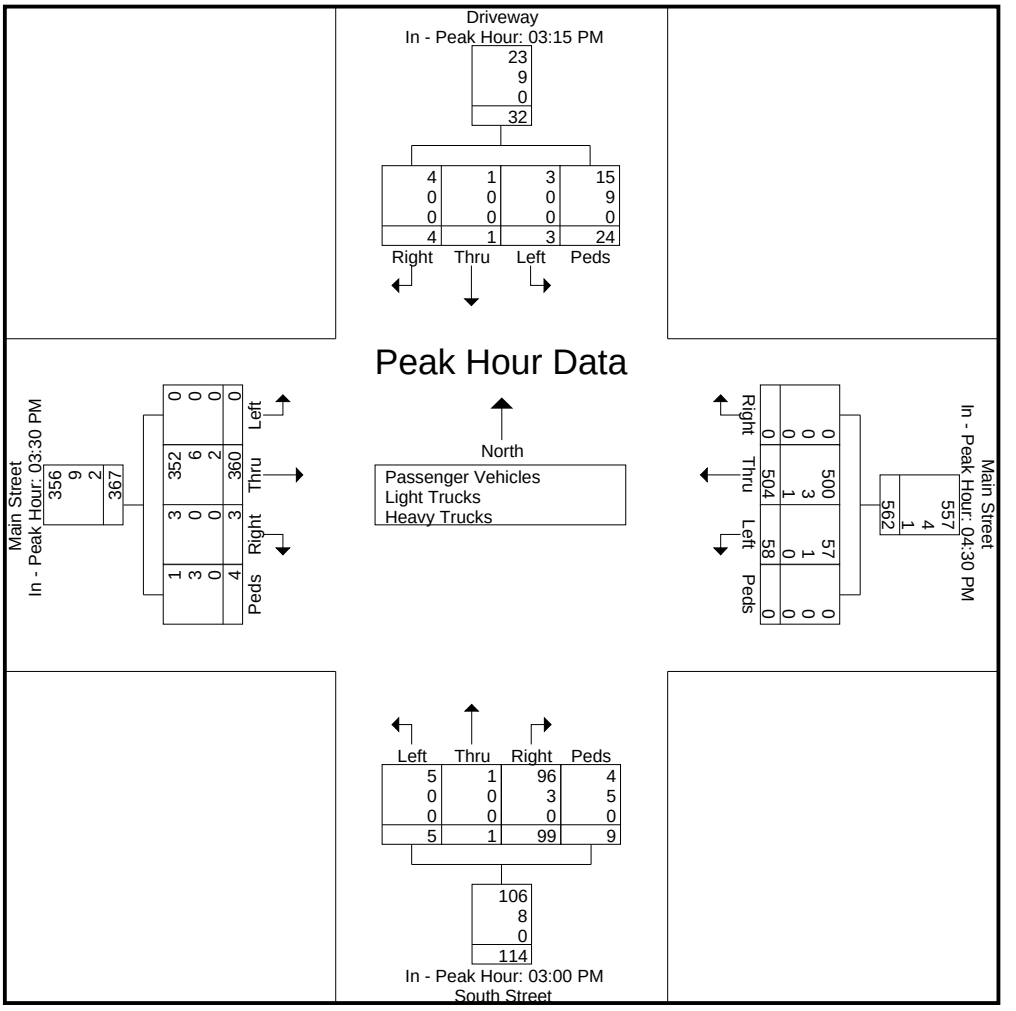
Sewall

40 Forest Falls Drive
Yarmouth, ME 04096

TITLE: Main & South Streets
TOWN: Yarmouth
COUNTER: NAB
WEATHER: Sun/clouds

File Name : YarmouthSouth&Main2020PM
Site Code : 00000222
Start Date : 9/29/2020

	Driveway Southbound					Main Street Westbound					South Street Northbound					Main Street Eastbound					
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 03:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Each Approach Begins at:																					
	03:15 PM					04:30 PM					03:00 PM					03:30 PM					
+0 mins.	1	0	**1**	5	7	0	120	14	0	134	27	0	**3**	2	32	0	73	0	0	73	
+15 mins.	1	**1**	1	**7**	**10**	0	126	10	0	136	**29**	0	1	**4**	**34**	**1**	**109**	0	0	**110**	
+30 mins.	**2**	0	1	5	8	0	**138**	**17**	0	**155**	19	**1**	1	1	22	1	87	0	**2**	90	
+45 mins.	0	0	0	7	7	0	120	17	0	137	24	0	0	2	26	1	91	0	2	94	
Total Volume	4	1	3	24	32	0	504	58	0	562	99	1	5	9	114	3	360	0	4	367	
% App. Total	12.5	3.1	9.4	75		0	89.7	10.3	0		86.8	0.9	4.4	7.9		0.8	98.1	0	1.1		
PHF	.500	.250	.750	.857	.800	.000	.913	.853	.000	.906	.853	.250	.417	.563	.838	.750	.826	.000	.500	.834	
Passenger Vehicles																					
% Passenger Vehicles	100	100	100	62.5	71.9	0	99.2	98.3	0	99.1	97	100	100	44.4	93	100	97.8	0	25	97	
Light Trucks	0	0	0	9	9	0	3	1	0	4	3	0	0	5	8	0	6	0	3	9	
% Light Trucks	0	0	0	37.5	28.1	0	0.6	1.7	0	0.7	3	0	0	55.6	7	0	1.7	0	75	2.5	
Heavy Trucks	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	2	0	0	2	
% Heavy Trucks																					



Sewall

40 Forest Falls Drive
Yarmouth, ME 04096

TITLE: Main, RR Square & Yarmouth X
TOWN: Yarmouth, ME
COUNTER: NAB
WEATHER: Sunny

File Name : YarmouthMainRRSqYC2020AM
Site Code : 00002222
Start Date : 11/4/2020
Page No : 1

Groups Printed- Passenger Vehicles - Light Trucks - Heavy Trucks

	Yarmouth Crossing Dr Southbound					Main Street Westbound					Railroad Square Northbound					Main Street Eastbound					
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
07:00 AM	0	0	0	1	1	1	29	0	0	30	0	0	0	0	0	1	82	0	0	83	114
07:15 AM	0	0	0	1	1	0	35	0	0	35	0	0	0	4	4	0	95	0	0	95	135
07:30 AM	0	0	0	1	1	2	39	0	0	41	1	0	0	0	1	0	101	0	0	101	144
07:45 AM	1	0	0	0	1	5	59	1	0	65	1	0	0	1	2	0	118	1	0	119	187
Total	1	0	0	3	4	8	162	1	0	171	2	0	0	5	7	1	396	1	0	398	580
08:00 AM	1	1	4	0	6	6	49	0	0	55	2	0	2	5	9	0	88	3	0	91	161
08:15 AM	4	0	11	1	16	12	58	0	0	70	1	0	0	1	2	0	95	14	0	109	197
08:30 AM	7	0	7	2	16	5	62	0	0	67	0	0	0	1	1	0	68	3	0	71	155
08:45 AM	2	0	0	0	2	1	48	1	0	50	0	0	0	0	0	3	74	2	0	79	131
Total	14	1	22	3	40	24	217	1	0	242	3	0	2	7	12	3	325	22	0	350	644
Grand Total	15	1	22	6	44	32	379	2	0	413	5	0	2	12	19	4	721	23	0	748	1224
Apprch %	34.1	2.3	50	13.6		7.7	91.8	0.5	0		26.3	0	10.5	63.2		0.5	96.4	3.1	0		
Total %	1.2	0.1	1.8	0.5	3.6	2.6	31	0.2	0	33.7	0.4	0	0.2	1	1.6	0.3	58.9	1.9	0	61.1	
Passenger Vehicles																					
% Passenger Vehicles	100	100	100	83.3	97.7	100	96.3	100	0	96.6	60	0	100	100	89.5	100	96.8	100	0	96.9	96.7
Light Trucks																					
% Light Trucks	0	0	0	16.7	2.3	0	1.1	0	0	1	40	0	0	0	10.5	0	1.8	0	0	1.7	1.6
Heavy Trucks	0	0	0	0	0	0	10	0	0	10	0	0	0	0	0	0	10	0	0	10	20
% Heavy Trucks																					

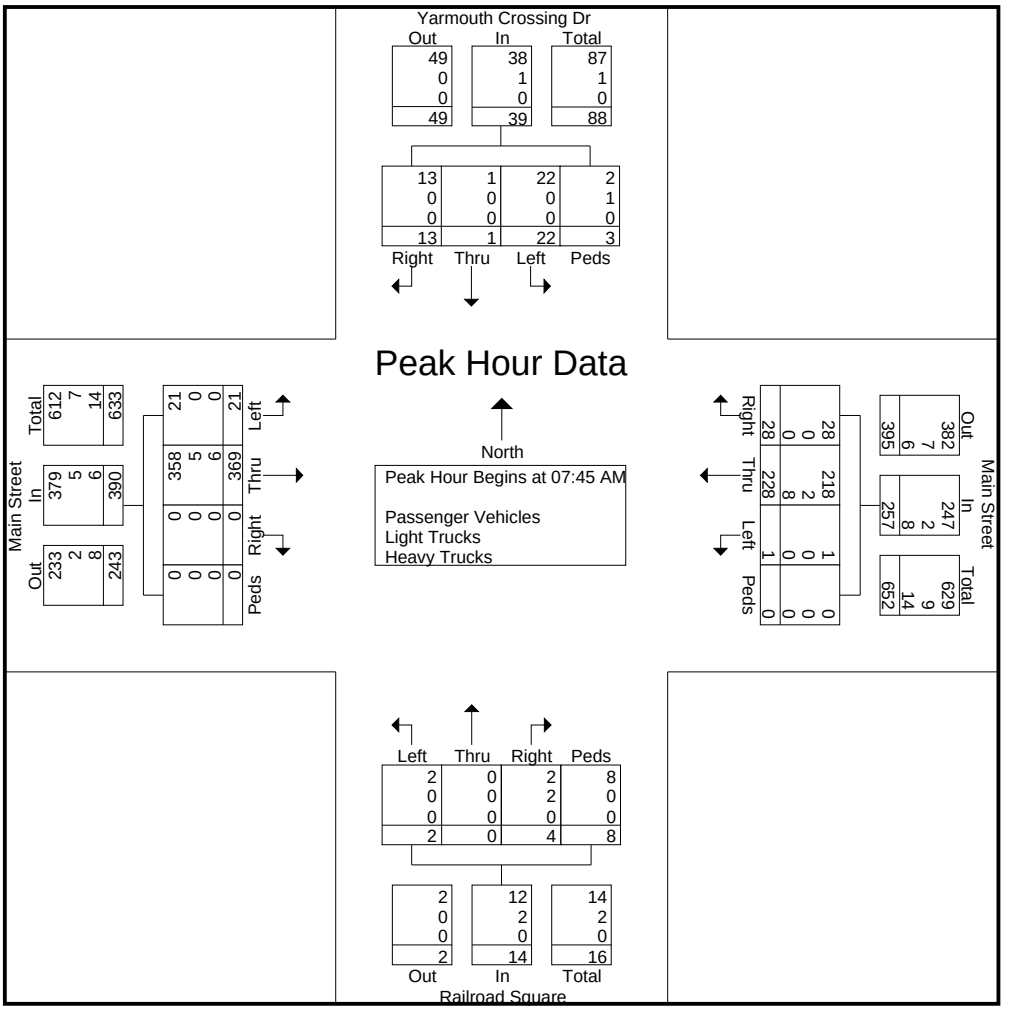
Sewall

40 Forest Falls Drive
Yarmouth, ME 04096

TITLE: Main, RR Square & Yarmouth X
TOWN: Yarmouth, ME
COUNTER: NAB
WEATHER: Sunny

File Name : YarmouthMainRRSqYC2020AM
Site Code : 00002222
Start Date : 11/4/2020
Page No : 2

	Yarmouth Crossing Dr Southbound					Main Street Westbound					Railroad Square Northbound					Main Street Eastbound					
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 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:45 AM																					
07:45 AM	1	0	0	0	1	5	59	**1**	0	65	1	0	0	1	2	0	**118**	1	0	**119**	187
08:00 AM	1	**1**	4	0	6	6	49	0	0	55	**2**	0	**2**	**5**	**9**	0	88	3	0	91	161
08:15 AM	4	0	**11**	1	**16**	**12**	58	0	0	**70**	1	0	0	1	2	0	95	**14**	0	109	**197**
08:30 AM	**7**	0	7	**2**	16	5	**62**	0	0	67	0	0	0	1	1	0	68	3	0	71	155
Total Volume	13	1	22	3	39	28	228	1	0	257	4	0	2	8	14	0	369	21	0	390	700
% App. Total	33.3	2.6	56.4	7.7		10.9	88.7	0.4	0		28.6	0	14.3	57.1		0	94.6	5.4	0		
PHF	.464	.250	.500	.375	.609	.583	.919	.250	.000	.918	.500	.000	.250	.400	.389	.000	.782	.375	.000	.819	.888
Passenger Vehicles																					
% Passenger Vehicles	100	100	100	66.7	97.4	100	95.6	100	0	96.1	50.0	0	100	100	85.7	0	97.0	100	0	97.2	96.6
Light Trucks																					
% Light Trucks	0	0	0	33.3	2.6	0	0.9	0	0	0.8	50.0	0	0	0	14.3	0	1.4	0	0	1.3	1.4
Heavy Trucks	0	0	0	0	0	0	8	0	0	8	0	0	0	0	0	0	6	0	0	6	14
% Heavy Trucks																					



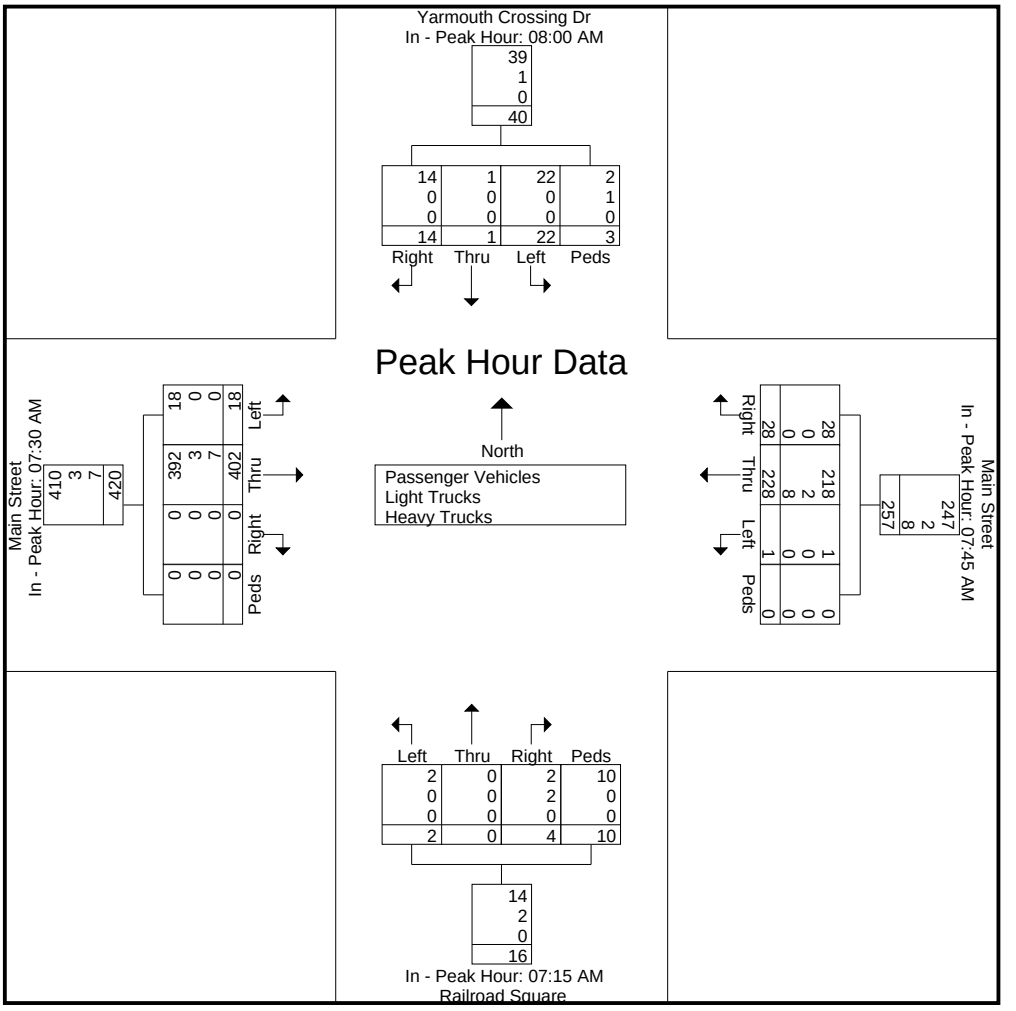
Sewall

40 Forest Falls Drive
Yarmouth, ME 04096

TITLE: Main, RR Square & Yarmouth X
TOWN: Yarmouth, ME
COUNTER: NAB
WEATHER: Sunny

File Name : YarmouthMainRRSqYC2020AM
Site Code : 00002222
Start Date : 11/4/2020
Page No : 3

	Yarmouth Crossing Dr Southbound					Main Street Westbound					Railroad Square Northbound					Main Street Eastbound					
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 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Each Approach Begins at:																					
	08:00 AM					07:45 AM					07:15 AM					07:30 AM					
+0 mins.	1	**1**	4	0	6	5	59	**1**	0	65	0	0	0	4	4	0	101	0	0	101	
+15 mins.	4	0	**11**	1	**16**	6	49	0	0	55	1	0	0	0	1	0	**118**	1	0	**119**	
+30 mins.	**7**	0	7	**2**	16	**12**	58	0	0	**70**	1	0	0	1	2	0	88	3	0	91	
+45 mins.	2	0	0	0	2	5	**62**	0	0	67	**2**	0	**2**	**5**	**9**	0	95	**14**	0	109	
Total Volume	14	1	22	3	40	28	228	1	0	257	4	0	2	10	16	0	402	18	0	420	
% App. Total	35	2.5	55	7.5		10.9	88.7	0.4	0		25	0	12.5	62.5		0	95.7	4.3	0		
PHF	.500	.250	.500	.375	.625	.583	.919	.250	.000	.918	.500	.000	.250	.500	.444	.000	.852	.321	.000	.882	
Passenger Vehicles																					
% Passenger Vehicles	100	100	100	66.7	97.5	100	95.6	100	0	96.1	50	0	100	100	87.5	0	97.5	100	0	97.6	
Light Trucks	0	0	0	1	1	0	2	0	0	2	2	0	0	0	2	0	3	0	0	3	
% Light Trucks	0	0	0	33.3	2.5	0	0.9	0	0	0.8	50	0	0	0	12.5	0	0.7	0	0	0.7	
Heavy Trucks	0	0	0	0	0	0	8	0	0	8	0	0	0	0	0	0	7	0	0	7	
% Heavy Trucks																					



Sewall

40 Forest Falls Drive
Yarmouth, ME 04096

TITLE: Main, RR Square + Yarmouth X
TOWN: Yarmouth, ME
COUNTER: NAB
WEATHER: Sunny

File Name : YarmouthMainRRSqYC2020PM
Site Code : 00001111
Start Date : 11/3/2020
Page No : 1

Groups Printed- Passenger Vehicles - Light Trucks - Heavy Trucks

	Yarmouth Crossing Dr Southbound					Main St Westbound					RR Square Northbound					Main Street Eastbound					
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
03:00 PM	3	0	8	3	14	3	118	0	0	121	0	0	0	9	9	0	111	2	0	113	257
03:15 PM	1	0	1	2	4	2	108	2	0	112	0	0	0	1	1	0	92	1	0	93	210
03:30 PM	2	0	0	2	4	1	119	1	0	121	0	0	0	1	1	0	106	0	0	106	232
03:45 PM	0	0	7	4	11	1	123	2	1	127	2	0	0	6	8	1	79	1	0	81	227
Total	6	0	16	11	33	7	468	5	1	481	2	0	0	17	19	1	388	4	0	393	926
04:00 PM	1	0	3	1	5	2	131	2	0	135	0	0	0	1	1	0	83	0	0	83	224
04:15 PM	1	0	2	3	6	2	111	0	0	113	0	0	0	2	2	0	80	1	2	83	204
04:30 PM	1	0	1	0	2	0	133	0	0	133	1	0	0	3	4	0	99	0	0	99	238
04:45 PM	1	0	1	3	5	1	138	1	0	140	1	0	1	2	4	1	77	0	0	78	227
Total	4	0	7	7	18	5	513	3	0	521	2	0	1	8	11	1	339	1	2	343	893
05:00 PM	1	0	3	2	6	1	143	0	0	144	1	0	2	0	3	0	63	0	0	63	216
05:15 PM	1	0	3	4	8	1	125	0	0	126	0	0	0	0	0	0	68	0	0	68	202
05:30 PM	0	0	0	0	0	0	103	0	0	103	0	0	0	1	1	1	70	0	0	71	175
05:45 PM	1	0	0	0	1	0	89	2	0	91	0	0	0	2	2	1	56	0	0	57	151
Total	3	0	6	6	15	2	460	2	0	464	1	0	2	3	6	2	257	0	0	259	744
Grand Total	13	0	29	24	66	14	1441	10	1	1466	5	0	3	28	36	4	984	5	2	995	2563
Apprch %	19.7	0	43.9	36.4		1	98.3	0.7	0.1		13.9	0	8.3	77.8		0.4	98.9	0.5	0.2		
Total %	0.5	0	1.1	0.9	2.6	0.5	56.2	0.4	0	57.2	0.2	0	0.1	1.1	1.4	0.2	38.4	0.2	0.1	38.8	
Passenger Vehicles							1422														
% Passenger Vehicles	100	0	100	66.7	87.9	100	98.7	60	100	98.4	100	0	100	67.9	75	100	98.6	100	100	98.6	97.9
Light Trucks																					
% Light Trucks	0	0	0	33.3	12.1	0	1	40	0	1.2	0	0	0	32.1	25	0	1.2	0	0	1.2	1.8
Heavy Trucks	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	0	2	0	0	2	7
% Heavy Trucks																					

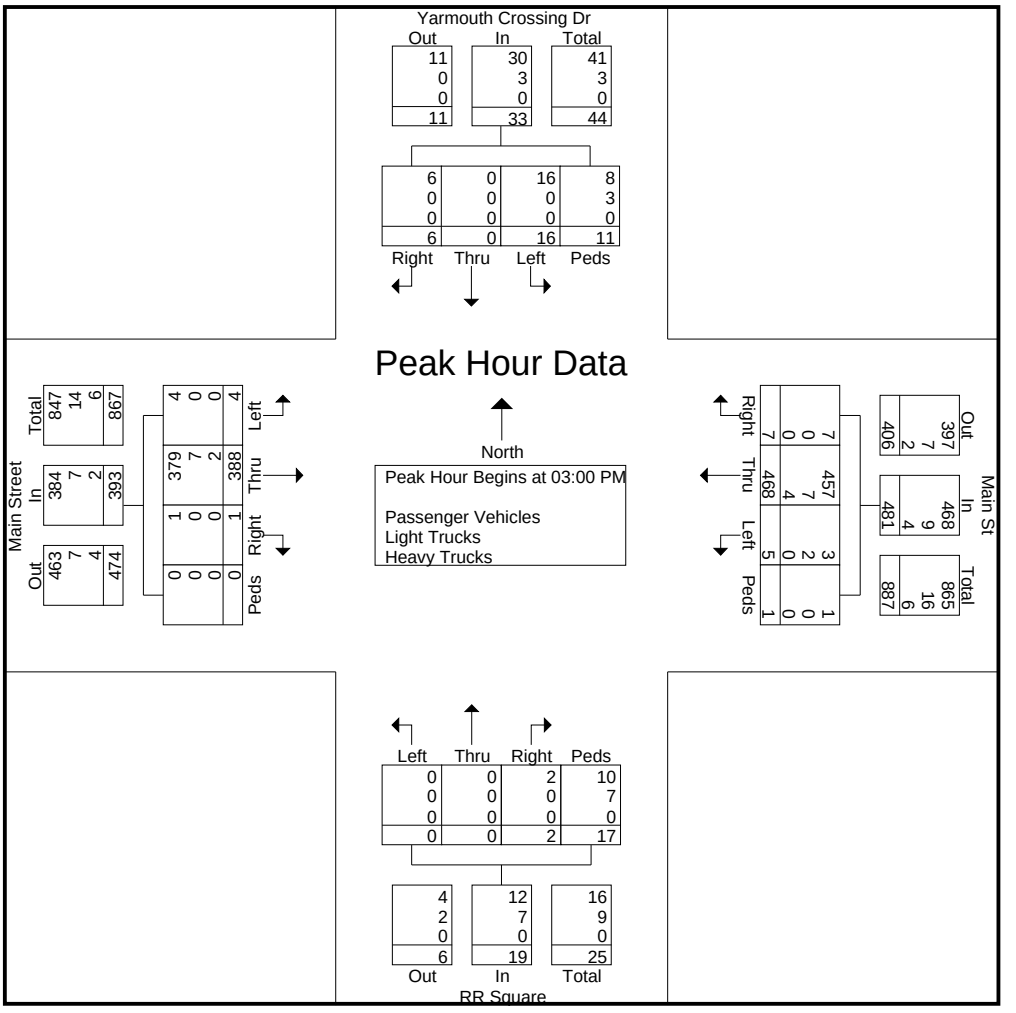
Sewall

40 Forest Falls Drive
Yarmouth, ME 04096

TITLE: Main, RR Square + Yarmouth X
TOWN: Yarmouth, ME
COUNTER: NAB
WEATHER: Sunny

File Name : YarmouthMainRRSqYC2020PM
Site Code : 00001111
Start Date : 11/3/2020
Page No : 2

	Yarmouth Crossing Dr Southbound					Main St Westbound					RR Square Northbound					Main Street Eastbound					
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 03:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 03:00 PM																					
03:00 PM	**3**	0	**8**	3	**14**	**3**	118	0	0	121	0	0	0	**9**	**9**	0	**111**	**2**	0	**113**	**257**
03:15 PM	1	0	1	2	4	2	108	**2**	0	112	0	0	0	1	1	0	92	1	0	93	210
03:30 PM	2	0	0	2	4	1	119	1	0	121	0	0	0	1	1	0	106	0	0	106	232
03:45 PM	0	0	7	**4**	11	1	**123**	2	**1**	**127**	**2**	0	0	6	8	**1**	79	1	0	81	227
Total Volume	6	0	16	11	33	7	468	5	1	481	2	0	0	17	19	1	388	4	0	393	926
% App. Total	18.2	0	48.5	33.3		1.5	97.3	1	0.2		10.5	0	0	89.5		0.3	98.7	1	0		
PHF	.500	.000	.500	.688	.589	.583	.951	.625	.250	.947	.250	.000	.000	.472	.528	.250	.874	.500	.000	.869	.901
Passenger Vehicles																					
% Passenger Vehicles	100	0	100	72.7	90.9	100	97.6	60.0	100	97.3	100	0	0	58.8	63.2	100	97.7	100	0	97.7	96.5
Light Trucks																					
% Light Trucks	0	0	0	27.3	9.1	0	1.5	40.0	0	1.9	0	0	0	41.2	36.8	0	1.8	0	0	1.8	2.8
Heavy Trucks	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	2	0	0	2	6
% Heavy Trucks																					



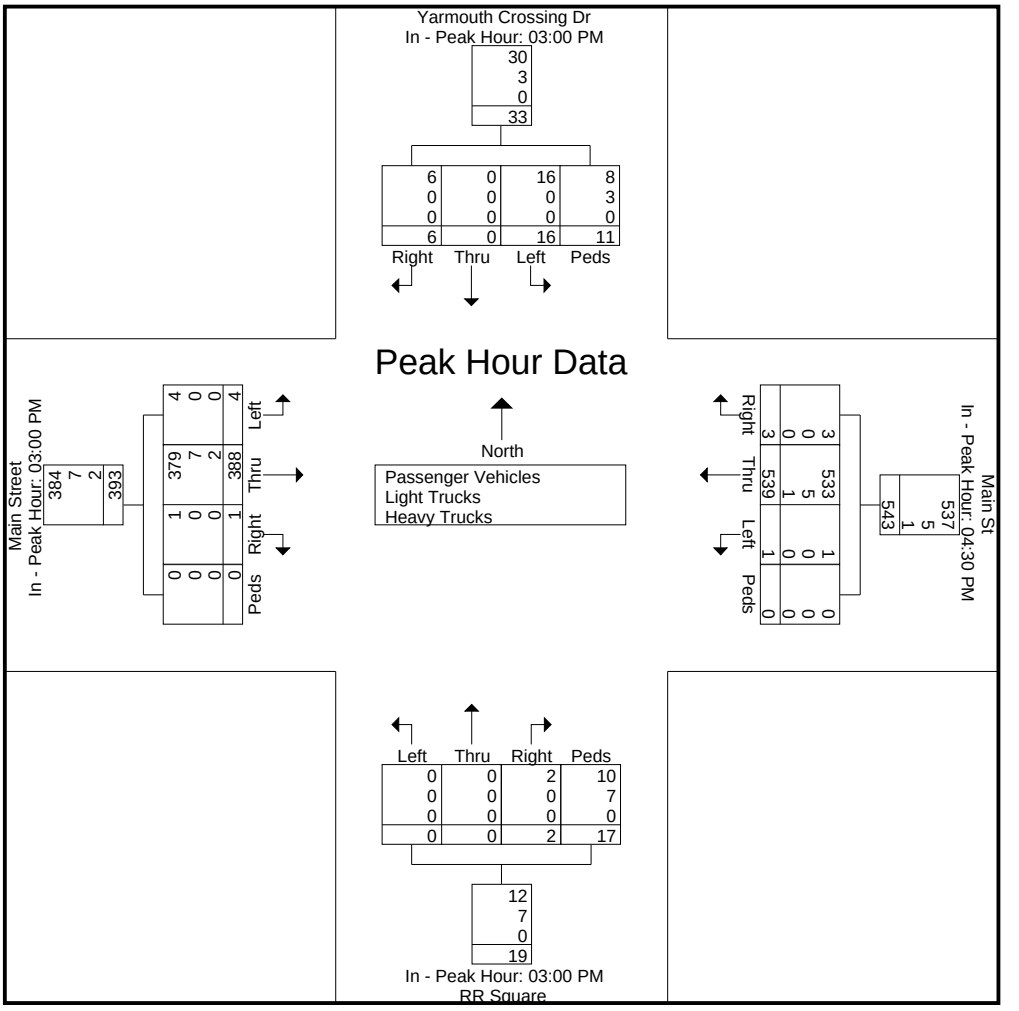
Sewall

40 Forest Falls Drive
Yarmouth, ME 04096

TITLE: Main, RR Square + Yarmouth X
TOWN: Yarmouth, ME
COUNTER: NAB
WEATHER: Sunny

File Name : YarmouthMainRRSqYC2020PM
Site Code : 00001111
Start Date : 11/3/2020
Page No : 3

	Yarmouth Crossing Dr Southbound					Main St Westbound					RR Square Northbound					Main Street Eastbound					
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 03:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Each Approach Begins at:																					
	03:00 PM					04:30 PM					03:00 PM					03:00 PM					
+0 mins.	**3**	0	**8**	3	**14**	0	133	0	0	133	0	0	0	**9**	**9**	0	**111**	**2**	0	**113**	
+15 mins.	1	0	1	2	4	**1**	138	**1**	0	140	0	0	0	1	1	0	92	1	0	93	
+30 mins.	2	0	0	2	4	1	**143**	0	0	**144**	0	0	0	1	1	0	106	0	0	106	
+45 mins.	0	0	7	**4**	11	1	125	0	0	126	**2**	0	0	6	8	**1**	79	1	0	81	
Total Volume	6	0	16	11	33	3	539	1	0	543	2	0	0	17	19	1	388	4	0	393	
% App. Total	18.2	0	48.5	33.3		0.6	99.3	0.2	0		10.5	0	0	89.5		0.3	98.7	1	0		
PHF	.500	.000	.500	.688	.589	.750	.942	.250	.000	.943	.250	.000	.000	.472	.528	.250	.874	.500	.000	.869	
Passenger Vehicles																					
% Passenger Vehicles	100	0	100	72.7	90.9	100	98.9	100	0	98.9	100	0	0	58.8	63.2	100	97.7	100	0	97.7	
Light Trucks	0	0	0	3	3	0	5	0	0	5	0	0	0	7	7	0	7	0	0	7	
% Light Trucks	0	0	0	27.3	9.1	0	0.9	0	0	0.9	0	0	0	41.2	36.8	0	1.8	0	0	1.8	
Heavy Trucks	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	2	0	0	2	
% Heavy Trucks																					



Intersection	
Int Delay, s/veh	2.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	372	1	47	256	1	1	0	116	1	0	0
Future Vol, veh/h	1	372	1	47	256	1	1	0	116	1	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	8	0	8	10	0	10
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	78	78	78	88	88	88	76	76	76	67	67	67
Heavy Vehicles, %	2	2	2	4	4	4	2	2	2	1	1	1
Mvmt Flow	1	477	1	53	291	1	1	0	153	1	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	292	0	0	478	0	0	888	878	488	964	878	302
Stage 1	-	-	-	-	-	-	480	480	-	398	398	-
Stage 2	-	-	-	-	-	-	408	398	-	566	480	-
Critical Hdwy	4.12	-	-	4.14	-	-	7.12	6.52	6.22	7.11	6.51	6.21
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.11	5.51	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.11	5.51	-
Follow-up Hdwy	2.218	-	-	2.236	-	-	3.518	4.018	3.318	3.509	4.009	3.309
Pot Cap-1 Maneuver	1270	-	-	1074	-	-	264	287	580	236	288	740
Stage 1	-	-	-	-	-	-	567	554	-	630	605	-
Stage 2	-	-	-	-	-	-	620	603	-	511	556	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1270	-	-	1074	-	-	249	270	574	164	271	733
Mov Cap-2 Maneuver	-	-	-	-	-	-	249	270	-	164	271	-
Stage 1	-	-	-	-	-	-	566	553	-	629	569	-
Stage 2	-	-	-	-	-	-	578	567	-	371	555	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	1.3	13.7	27.2
HCM LOS			B	D

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	568	1270	-	-	1074	-	-	164
HCM Lane V/C Ratio	0.271	0.001	-	-	0.05	-	-	0.009
HCM Control Delay (s)	13.7	7.8	0	-	8.5	0	-	27.2
HCM Lane LOS	B	A	A	-	A	A	-	D
HCM 95th %tile Q(veh)	1.1	0	-	-	0.2	-	-	0

Intersection	
Int Delay, s/veh	1.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	23	466	0	1	288	31	2	0	4	24	1	14
Future Vol, veh/h	23	466	0	1	288	31	2	0	4	24	1	14
Conflicting Peds, #/hr	0	0	0	0	0	0	8	0	8	2	0	2
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	92	92	92	39	39	39	61	61	61
Heavy Vehicles, %	2	2	2	2	2	2	14	14	14	1	1	1
Mvmt Flow	28	568	0	1	313	34	5	0	10	39	2	23

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	347	0	0	568	0	0	977	973	576	969	956	338
Stage 1	-	-	-	-	-	-	624	624	-	332	332	-
Stage 2	-	-	-	-	-	-	353	349	-	637	624	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.24	6.64	6.34	7.11	6.51	6.21
Critical Hdwy Stg 1	-	-	-	-	-	-	6.24	5.64	-	6.11	5.51	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.24	5.64	-	6.11	5.51	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.626	4.126	3.426	3.509	4.009	3.309
Pot Cap-1 Maneuver	1212	-	-	1004	-	-	219	241	495	234	259	706
Stage 1	-	-	-	-	-	-	453	460	-	684	646	-
Stage 2	-	-	-	-	-	-	640	613	-	467	479	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1212	-	-	1004	-	-	204	233	491	221	250	701
Mov Cap-2 Maneuver	-	-	-	-	-	-	204	233	-	221	250	-
Stage 1	-	-	-	-	-	-	438	444	-	661	645	-
Stage 2	-	-	-	-	-	-	612	612	-	438	463	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.4	0	16.3	20.6
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	334	1212	-	-	1004	-	-	294
HCM Lane V/C Ratio	0.046	0.023	-	-	0.001	-	-	0.217
HCM Control Delay (s)	16.3	8	0	-	8.6	0	-	20.6
HCM Lane LOS	C	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0.1	0.1	-	-	0	-	-	0.8

Intersection	
Int Delay, s/veh	1.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	0	372	3	66	449	3	2	1	69	3	1	4
Future Vol, veh/h	0	372	3	66	449	3	2	1	69	3	1	4
Conflicting Peds, #/hr	1	0	1	1	0	1	5	0	5	13	0	13
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	83	83	83	95	95	95	77	77	77	80	80	80
Heavy Vehicles, %	2	2	2	2	2	2	1	1	1	1	1	1
Mvmt Flow	0	448	4	69	473	3	3	1	90	4	1	5

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	477	0	0	453	0	0	1080	1066	464	1123	1067	489
Stage 1	-	-	-	-	-	-	451	451	-	614	614	-
Stage 2	-	-	-	-	-	-	629	615	-	509	453	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.11	6.51	6.21	7.11	6.51	6.21
Critical Hdwy Stg 1	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.509	4.009	3.309	3.509	4.009	3.309
Pot Cap-1 Maneuver	1085	-	-	1108	-	-	197	223	600	184	223	581
Stage 1	-	-	-	-	-	-	590	573	-	481	484	-
Stage 2	-	-	-	-	-	-	472	484	-	549	572	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1084	-	-	1107	-	-	179	204	592	143	204	573
Mov Cap-2 Maneuver	-	-	-	-	-	-	179	204	-	143	204	-
Stage 1	-	-	-	-	-	-	589	572	-	481	442	-
Stage 2	-	-	-	-	-	-	422	442	-	459	571	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	1.1	13	20.5
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	543	1084	-	-	1107	-	-	243
HCM Lane V/C Ratio	0.172	-	-	-	0.063	-	-	0.041
HCM Control Delay (s)	13	0	-	-	8.5	0	-	20.5
HCM Lane LOS	B	A	-	-	A	A	-	C
HCM 95th %tile Q(veh)	0.6	0	-	-	0.2	-	-	0.1

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	4	439	1	5	511	8	0	0	2	17	0	7
Future Vol, veh/h	4	439	1	5	511	8	0	0	2	17	0	7
Conflicting Peds, #/hr	0	0	0	1	0	1	10	0	10	6	0	6
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	87	87	87	95	95	95	53	53	53	59	59	59
Heavy Vehicles, %	2	2	2	3	3	3	1	1	1	1	1	1
Mvmt Flow	5	505	1	5	538	8	0	0	4	29	0	12

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	547	0	0	507	0	0	1085	1074	517	1081	1070	553
Stage 1	-	-	-	-	-	-	517	517	-	553	553	-
Stage 2	-	-	-	-	-	-	568	557	-	528	517	-
Critical Hdwy	4.12	-	-	4.13	-	-	7.11	6.51	6.21	7.11	6.51	6.21
Critical Hdwy Stg 1	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
Follow-up Hdwy	2.218	-	-	2.227	-	-	3.509	4.009	3.309	3.509	4.009	3.309
Pot Cap-1 Maneuver	1022	-	-	1053	-	-	195	221	560	196	222	535
Stage 1	-	-	-	-	-	-	543	535	-	519	516	-
Stage 2	-	-	-	-	-	-	509	514	-	536	535	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1021	-	-	1052	-	-	187	217	554	191	218	529
Mov Cap-2 Maneuver	-	-	-	-	-	-	187	217	-	191	218	-
Stage 1	-	-	-	-	-	-	539	531	-	515	512	-
Stage 2	-	-	-	-	-	-	489	510	-	524	531	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.1	11.5	23.5
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	554	1021	-	-	1052	-	-	235
HCM Lane V/C Ratio	0.007	0.005	-	-	0.005	-	-	0.173
HCM Control Delay (s)	11.5	8.5	0	-	8.4	0	-	23.5
HCM Lane LOS	B	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0.6

Intersection	
Int Delay, s/veh	2.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	388	1	48	266	1	1	0	120	1	0	0
Future Vol, veh/h	1	388	1	48	266	1	1	0	120	1	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	8	0	8	10	0	10
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	78	78	78	88	88	88	76	76	76	67	67	67
Heavy Vehicles, %	2	2	2	4	4	4	2	2	2	1	1	1
Mvmt Flow	1	497	1	55	302	1	1	0	158	1	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	303	0	0	498	0	0	923	913	508	1002	913	313
Stage 1	-	-	-	-	-	-	500	500	-	413	413	-
Stage 2	-	-	-	-	-	-	423	413	-	589	500	-
Critical Hdwy	4.12	-	-	4.14	-	-	7.12	6.52	6.22	7.11	6.51	6.21
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.11	5.51	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.11	5.51	-
Follow-up Hdwy	2.218	-	-	2.236	-	-	3.518	4.018	3.318	3.509	4.009	3.309
Pot Cap-1 Maneuver	1258	-	-	1056	-	-	250	273	565	222	274	730
Stage 1	-	-	-	-	-	-	553	543	-	618	595	-
Stage 2	-	-	-	-	-	-	609	594	-	496	545	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1258	-	-	1056	-	-	236	256	560	150	256	723
Mov Cap-2 Maneuver	-	-	-	-	-	-	236	256	-	150	256	-
Stage 1	-	-	-	-	-	-	552	542	-	617	558	-
Stage 2	-	-	-	-	-	-	565	557	-	352	544	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	1.3	14.1	29.2
HCM LOS			B	D

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	554	1258	-	-	1056	-	-	150
HCM Lane V/C Ratio	0.287	0.001	-	-	0.052	-	-	0.01
HCM Control Delay (s)	14.1	7.9	0	-	8.6	0	-	29.2
HCM Lane LOS	B	A	A	-	A	A	-	D
HCM 95th %tile Q(veh)	1.2	0	-	-	0.2	-	-	0

Intersection	
Int Delay, s/veh	1.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	24	485	0	1	302	32	2	0	5	25	1	15
Future Vol, veh/h	24	485	0	1	302	32	2	0	5	25	1	15
Conflicting Peds, #/hr	0	0	0	0	0	0	8	0	8	2	0	2
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	92	92	92	39	39	39	61	61	61
Heavy Vehicles, %	2	2	2	2	2	2	14	14	14	1	1	1
Mvmt Flow	29	591	0	1	328	35	5	0	13	41	2	25

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	363	0	0	591	0	0	1018	1014	599	1012	997	354
Stage 1	-	-	-	-	-	-	649	649	-	348	348	-
Stage 2	-	-	-	-	-	-	369	365	-	664	649	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.24	6.64	6.34	7.11	6.51	6.21
Critical Hdwy Stg 1	-	-	-	-	-	-	6.24	5.64	-	6.11	5.51	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.24	5.64	-	6.11	5.51	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.626	4.126	3.426	3.509	4.009	3.309
Pot Cap-1 Maneuver	1196	-	-	985	-	-	205	227	480	219	245	692
Stage 1	-	-	-	-	-	-	439	447	-	670	636	-
Stage 2	-	-	-	-	-	-	627	603	-	452	467	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1196	-	-	985	-	-	190	219	476	205	236	687
Mov Cap-2 Maneuver	-	-	-	-	-	-	190	219	-	205	236	-
Stage 1	-	-	-	-	-	-	423	431	-	646	635	-
Stage 2	-	-	-	-	-	-	598	602	-	421	450	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.4	0	16.4	22.1
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	333	1196	-	-	985	-	-	277
HCM Lane V/C Ratio	0.054	0.024	-	-	0.001	-	-	0.243
HCM Control Delay (s)	16.4	8.1	0	-	8.7	0	-	22.1
HCM Lane LOS	C	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0.2	0.1	-	-	0	-	-	0.9

Intersection	
Int Delay, s/veh	1.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	0	388	3	69	467	3	2	1	72	3	1	4
Future Vol, veh/h	0	388	3	69	467	3	2	1	72	3	1	4
Conflicting Peds, #/hr	1	0	1	1	0	1	5	0	5	13	0	13
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	83	83	83	95	95	95	77	77	77	80	80	80
Heavy Vehicles, %	2	2	2	2	2	2	1	1	1	1	1	1
Mvmt Flow	0	467	4	73	492	3	3	1	94	4	1	5

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	496	0	0	472	0	0	1126	1112	483	1171	1113	508
Stage 1	-	-	-	-	-	-	470	470	-	641	641	-
Stage 2	-	-	-	-	-	-	656	642	-	530	472	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.11	6.51	6.21	7.11	6.51	6.21
Critical Hdwy Stg 1	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.509	4.009	3.309	3.509	4.009	3.309
Pot Cap-1 Maneuver	1068	-	-	1090	-	-	183	210	586	170	209	567
Stage 1	-	-	-	-	-	-	576	562	-	465	471	-
Stage 2	-	-	-	-	-	-	456	470	-	534	561	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1067	-	-	1089	-	-	165	190	578	130	189	559
Mov Cap-2 Maneuver	-	-	-	-	-	-	165	190	-	130	189	-
Stage 1	-	-	-	-	-	-	575	561	-	465	427	-
Stage 2	-	-	-	-	-	-	404	426	-	441	560	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	1.1	13.4	21.7
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	528	1067	-	-	1089	-	-	225
HCM Lane V/C Ratio	0.184	-	-	-	0.067	-	-	0.044
HCM Control Delay (s)	13.4	0	-	-	8.5	0	-	21.7
HCM Lane LOS	B	A	-	-	A	A	-	C
HCM 95th %tile Q(veh)	0.7	0	-	-	0.2	-	-	0.1

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	5	457	1	6	532	8	0	0	2	18	0	7
Future Vol, veh/h	5	457	1	6	532	8	0	0	2	18	0	7
Conflicting Peds, #/hr	0	0	0	1	0	1	10	0	10	6	0	6
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	87	87	87	95	95	95	53	53	53	59	59	59
Heavy Vehicles, %	2	2	2	3	3	3	1	1	1	1	1	1
Mvmt Flow	6	525	1	6	560	8	0	0	4	31	0	12

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	569	0	0	527	0	0	1131	1120	537	1127	1116	575
Stage 1	-	-	-	-	-	-	539	539	-	577	577	-
Stage 2	-	-	-	-	-	-	592	581	-	550	539	-
Critical Hdwy	4.12	-	-	4.13	-	-	7.11	6.51	6.21	7.11	6.51	6.21
Critical Hdwy Stg 1	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
Follow-up Hdwy	2.218	-	-	2.227	-	-	3.509	4.009	3.309	3.509	4.009	3.309
Pot Cap-1 Maneuver	1003	-	-	1035	-	-	181	207	546	183	208	519
Stage 1	-	-	-	-	-	-	528	523	-	504	503	-
Stage 2	-	-	-	-	-	-	494	501	-	521	523	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1002	-	-	1034	-	-	173	203	540	178	204	514
Mov Cap-2 Maneuver	-	-	-	-	-	-	173	203	-	178	204	-
Stage 1	-	-	-	-	-	-	523	518	-	499	498	-
Stage 2	-	-	-	-	-	-	474	496	-	508	518	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.1	11.7	25.5
HCM LOS			B	D

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	540	1002	-	-	1034	-	-	218
HCM Lane V/C Ratio	0.007	0.006	-	-	0.006	-	-	0.194
HCM Control Delay (s)	11.7	8.6	0	-	8.5	0	-	25.5
HCM Lane LOS	B	A	A	-	A	A	-	D
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0.7

Intersection	
Int Delay, s/veh	2.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	388	2	50	266	1	1	0	124	1	0	0
Future Vol, veh/h	1	388	2	50	266	1	1	0	124	1	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	8	0	8	10	0	10
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	78	78	78	88	88	88	76	76	76	67	67	67
Heavy Vehicles, %	2	2	2	4	4	4	2	2	2	1	1	1
Mvmt Flow	1	497	3	57	302	1	1	0	163	1	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	303	0	0	500	0	0	928	918	509	1009	919	313
Stage 1	-	-	-	-	-	-	501	501	-	417	417	-
Stage 2	-	-	-	-	-	-	427	417	-	592	502	-
Critical Hdwy	4.12	-	-	4.14	-	-	7.12	6.52	6.22	7.11	6.51	6.21
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.11	5.51	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.11	5.51	-
Follow-up Hdwy	2.218	-	-	2.236	-	-	3.518	4.018	3.318	3.509	4.009	3.309
Pot Cap-1 Maneuver	1258	-	-	1054	-	-	248	272	564	220	272	730
Stage 1	-	-	-	-	-	-	552	543	-	615	593	-
Stage 2	-	-	-	-	-	-	606	591	-	494	544	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1258	-	-	1054	-	-	233	254	559	147	254	723
Mov Cap-2 Maneuver	-	-	-	-	-	-	233	254	-	147	254	-
Stage 1	-	-	-	-	-	-	551	542	-	614	554	-
Stage 2	-	-	-	-	-	-	561	553	-	346	543	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	1.4	14.2	29.7
HCM LOS			B	D

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	553	1258	-	-	1054	-	-	147
HCM Lane V/C Ratio	0.297	0.001	-	-	0.054	-	-	0.01
HCM Control Delay (s)	14.2	7.9	0	-	8.6	0	-	29.7
HCM Lane LOS	B	A	A	-	A	A	-	D
HCM 95th %tile Q(veh)	1.2	0	-	-	0.2	-	-	0

Intersection	
Int Delay, s/veh	1.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	24	489	0	1	304	32	2	0	5	25	1	15
Future Vol, veh/h	24	489	0	1	304	32	2	0	5	25	1	15
Conflicting Peds, #/hr	0	0	0	0	0	0	8	0	8	2	0	2
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	92	92	92	39	39	39	61	61	61
Heavy Vehicles, %	2	2	2	2	2	2	14	14	14	1	1	1
Mvmt Flow	29	596	0	1	330	35	5	0	13	41	2	25

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	365	0	0	596	0	0	1025	1021	604	1019	1004	356
Stage 1	-	-	-	-	-	-	654	654	-	350	350	-
Stage 2	-	-	-	-	-	-	371	367	-	669	654	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.24	6.64	6.34	7.11	6.51	6.21
Critical Hdwy Stg 1	-	-	-	-	-	-	6.24	5.64	-	6.11	5.51	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.24	5.64	-	6.11	5.51	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.626	4.126	3.426	3.509	4.009	3.309
Pot Cap-1 Maneuver	1194	-	-	980	-	-	203	225	477	216	243	690
Stage 1	-	-	-	-	-	-	436	445	-	669	635	-
Stage 2	-	-	-	-	-	-	625	601	-	449	465	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1194	-	-	980	-	-	188	217	473	203	234	685
Mov Cap-2 Maneuver	-	-	-	-	-	-	188	217	-	203	234	-
Stage 1	-	-	-	-	-	-	420	429	-	645	634	-
Stage 2	-	-	-	-	-	-	596	600	-	418	448	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.4	0	16.5	22.3
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	330	1194	-	-	980	-	-	275
HCM Lane V/C Ratio	0.054	0.025	-	-	0.001	-	-	0.244
HCM Control Delay (s)	16.5	8.1	0	-	8.7	0	-	22.3
HCM Lane LOS	C	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0.2	0.1	-	-	0	-	-	0.9

Intersection	
Int Delay, s/veh	2.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	389	1	48	266	1	1	0	120	1	0	0
Future Vol, veh/h	1	389	1	48	266	1	1	0	120	1	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	8	0	8	10	0	10
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	78	78	78	88	88	88	76	76	76	67	67	67
Heavy Vehicles, %	2	2	2	4	4	4	2	2	2	1	1	1
Mvmt Flow	1	499	1	55	302	1	1	0	158	1	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	303	0	0	500	0	0	925	915	510	1004	915	313
Stage 1	-	-	-	-	-	-	502	502	-	413	413	-
Stage 2	-	-	-	-	-	-	423	413	-	591	502	-
Critical Hdwy	4.12	-	-	4.14	-	-	7.12	6.52	6.22	7.11	6.51	6.21
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.11	5.51	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.11	5.51	-
Follow-up Hdwy	2.218	-	-	2.236	-	-	3.518	4.018	3.318	3.509	4.009	3.309
Pot Cap-1 Maneuver	1258	-	-	1054	-	-	250	273	563	221	274	730
Stage 1	-	-	-	-	-	-	552	542	-	618	595	-
Stage 2	-	-	-	-	-	-	609	594	-	495	544	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1258	-	-	1054	-	-	236	256	558	149	256	723
Mov Cap-2 Maneuver	-	-	-	-	-	-	236	256	-	149	256	-
Stage 1	-	-	-	-	-	-	551	541	-	617	558	-
Stage 2	-	-	-	-	-	-	565	557	-	351	543	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	1.3	14.1	29.4
HCM LOS			B	D

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	552	1258	-	-	1054	-	-	149
HCM Lane V/C Ratio	0.288	0.001	-	-	0.052	-	-	0.01
HCM Control Delay (s)	14.1	7.9	0	-	8.6	0	-	29.4
HCM Lane LOS	B	A	A	-	A	A	-	D
HCM 95th %tile Q(veh)	1.2	0	-	-	0.2	-	-	0

Intersection	
Int Delay, s/veh	2.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	24	485	1	3	302	32	2	0	9	25	1	15
Future Vol, veh/h	24	485	1	3	302	32	2	0	9	25	1	15
Conflicting Peds, #/hr	0	0	0	0	0	0	8	0	8	2	0	2
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	92	92	92	39	39	39	61	61	61
Heavy Vehicles, %	2	2	2	2	2	2	14	14	14	1	1	1
Mvmt Flow	29	591	1	3	328	35	5	0	23	41	2	25

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	363	0	0	592	0	0	1023	1019	600	1021	1002	354
Stage 1	-	-	-	-	-	-	650	650	-	352	352	-
Stage 2	-	-	-	-	-	-	373	369	-	669	650	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.24	6.64	6.34	7.11	6.51	6.21
Critical Hdwy Stg 1	-	-	-	-	-	-	6.24	5.64	-	6.11	5.51	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.24	5.64	-	6.11	5.51	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.626	4.126	3.426	3.509	4.009	3.309
Pot Cap-1 Maneuver	1196	-	-	984	-	-	203	226	479	216	243	692
Stage 1	-	-	-	-	-	-	439	447	-	667	633	-
Stage 2	-	-	-	-	-	-	624	600	-	449	467	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1196	-	-	984	-	-	187	217	475	198	233	687
Mov Cap-2 Maneuver	-	-	-	-	-	-	187	217	-	198	233	-
Stage 1	-	-	-	-	-	-	423	431	-	643	630	-
Stage 2	-	-	-	-	-	-	593	598	-	409	450	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.4	0.1	15.5	22.8
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	371	1196	-	-	984	-	-	269
HCM Lane V/C Ratio	0.076	0.024	-	-	0.003	-	-	0.25
HCM Control Delay (s)	15.5	8.1	0	-	8.7	0	-	22.8
HCM Lane LOS	C	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0.2	0.1	-	-	0	-	-	1

Intersection	
Int Delay, s/veh	2.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	388	6	79	467	3	4	1	78	3	1	4
Future Vol, veh/h	0	388	6	79	467	3	4	1	78	3	1	4
Conflicting Peds, #/hr	1	0	1	1	0	1	5	0	5	13	0	13
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	83	83	83	95	95	95	77	77	77	80	80	80
Heavy Vehicles, %	2	2	2	2	2	2	1	1	1	1	1	1
Mvmt Flow	0	467	7	83	492	3	5	1	101	4	1	5

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	496	0	0	475	0	0	1148	1134	485	1196	1136	508
Stage 1	-	-	-	-	-	-	472	472	-	661	661	-
Stage 2	-	-	-	-	-	-	676	662	-	535	475	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.11	6.51	6.21	7.11	6.51	6.21
Critical Hdwy Stg 1	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.509	4.009	3.309	3.509	4.009	3.309
Pot Cap-1 Maneuver	1068	-	-	1087	-	-	177	203	584	164	203	567
Stage 1	-	-	-	-	-	-	574	561	-	453	461	-
Stage 2	-	-	-	-	-	-	445	461	-	531	559	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1067	-	-	1086	-	-	158	181	576	122	181	559
Mov Cap-2 Maneuver	-	-	-	-	-	-	158	181	-	122	181	-
Stage 1	-	-	-	-	-	-	573	560	-	453	412	-
Stage 2	-	-	-	-	-	-	389	412	-	431	558	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	1.2	14.2	22.6
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	499	1067	-	-	1086	-	-	215
HCM Lane V/C Ratio	0.216	-	-	-	0.077	-	-	0.047
HCM Control Delay (s)	14.2	0	-	-	8.6	0	-	22.6
HCM Lane LOS	B	A	-	-	A	A	-	C
HCM 95th %tile Q(veh)	0.8	0	-	-	0.2	-	-	0.1

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	463	1	6	542	8	0	0	2	18	0	7
Future Vol, veh/h	5	463	1	6	542	8	0	0	2	18	0	7
Conflicting Peds, #/hr	0	0	0	1	0	1	10	0	10	6	0	6
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	87	87	87	95	95	95	53	53	53	59	59	59
Heavy Vehicles, %	2	2	2	3	3	3	1	1	1	1	1	1
Mvmt Flow	6	532	1	6	571	8	0	0	4	31	0	12

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	580	0	0	534	0	0	1149	1138	544	1145	1134	586
Stage 1	-	-	-	-	-	-	546	546	-	588	588	-
Stage 2	-	-	-	-	-	-	603	592	-	557	546	-
Critical Hdwy	4.12	-	-	4.13	-	-	7.11	6.51	6.21	7.11	6.51	6.21
Critical Hdwy Stg 1	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
Follow-up Hdwy	2.218	-	-	2.227	-	-	3.509	4.009	3.309	3.509	4.009	3.309
Pot Cap-1 Maneuver	994	-	-	1029	-	-	176	202	541	177	203	512
Stage 1	-	-	-	-	-	-	524	520	-	497	498	-
Stage 2	-	-	-	-	-	-	488	496	-	517	520	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	993	-	-	1028	-	-	168	198	535	172	199	507
Mov Cap-2 Maneuver	-	-	-	-	-	-	168	198	-	172	199	-
Stage 1	-	-	-	-	-	-	519	515	-	492	493	-
Stage 2	-	-	-	-	-	-	468	491	-	504	515	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.1	11.8	26.3
HCM LOS			B	D

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	535	993	-	-	1028	-	-	211
HCM Lane V/C Ratio	0.007	0.006	-	-	0.006	-	-	0.201
HCM Control Delay (s)	11.8	8.6	0	-	8.5	0	-	26.3
HCM Lane LOS	B	A	A	-	A	A	-	D
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0.7

Intersection	
Int Delay, s/veh	1.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	391	3	69	467	3	2	1	72	3	1	4
Future Vol, veh/h	0	391	3	69	467	3	2	1	72	3	1	4
Conflicting Peds, #/hr	1	0	1	1	0	1	5	0	5	13	0	13
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	83	83	83	95	95	95	77	77	77	80	80	80
Heavy Vehicles, %	2	2	2	2	2	2	1	1	1	1	1	1
Mvmt Flow	0	471	4	73	492	3	3	1	94	4	1	5

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	496	0	0	476	0	0	1130	1116	487	1175	1117	508
Stage 1	-	-	-	-	-	-	474	474	-	641	641	-
Stage 2	-	-	-	-	-	-	656	642	-	534	476	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.11	6.51	6.21	7.11	6.51	6.21
Critical Hdwy Stg 1	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.509	4.009	3.309	3.509	4.009	3.309
Pot Cap-1 Maneuver	1068	-	-	1086	-	-	182	208	583	169	208	567
Stage 1	-	-	-	-	-	-	573	559	-	465	471	-
Stage 2	-	-	-	-	-	-	456	470	-	532	558	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1067	-	-	1085	-	-	165	188	575	129	188	559
Mov Cap-2 Maneuver	-	-	-	-	-	-	165	188	-	129	188	-
Stage 1	-	-	-	-	-	-	572	558	-	465	427	-
Stage 2	-	-	-	-	-	-	404	426	-	439	557	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	1.1	13.4	21.8
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	526	1067	-	-	1085	-	-	224
HCM Lane V/C Ratio	0.185	-	-	-	0.067	-	-	0.045
HCM Control Delay (s)	13.4	0	-	-	8.6	0	-	21.8
HCM Lane LOS	B	A	-	-	A	A	-	C
HCM 95th %tile Q(veh)	0.7	0	-	-	0.2	-	-	0.1

Intersection	
Int Delay, s/veh	1.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	457	4	16	532	8	2	0	8	18	0	7
Future Vol, veh/h	5	457	4	16	532	8	2	0	8	18	0	7
Conflicting Peds, #/hr	0	0	0	1	0	1	10	0	10	6	0	6
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	87	87	87	95	95	95	53	53	53	59	59	59
Heavy Vehicles, %	2	2	2	3	3	3	1	1	1	1	1	1
Mvmt Flow	6	525	5	17	560	8	4	0	15	31	0	12

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	569	0	0	531	0	0	1155	1144	539	1156	1142	575
Stage 1	-	-	-	-	-	-	541	541	-	599	599	-
Stage 2	-	-	-	-	-	-	614	603	-	557	543	-
Critical Hdwy	4.12	-	-	4.13	-	-	7.11	6.51	6.21	7.11	6.51	6.21
Critical Hdwy Stg 1	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
Follow-up Hdwy	2.218	-	-	2.227	-	-	3.509	4.009	3.309	3.509	4.009	3.309
Pot Cap-1 Maneuver	1003	-	-	1031	-	-	175	201	544	174	201	519
Stage 1	-	-	-	-	-	-	527	522	-	490	492	-
Stage 2	-	-	-	-	-	-	481	490	-	517	521	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1002	-	-	1030	-	-	165	194	538	163	194	514
Mov Cap-2 Maneuver	-	-	-	-	-	-	165	194	-	163	194	-
Stage 1	-	-	-	-	-	-	522	517	-	486	480	-
Stage 2	-	-	-	-	-	-	454	478	-	494	516	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.2	15.3	27.5
HCM LOS			C	D

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	370	1002	-	-	1030	-	-	202
HCM Lane V/C Ratio	0.051	0.006	-	-	0.016	-	-	0.21
HCM Control Delay (s)	15.3	8.6	0	-	8.6	0	-	27.5
HCM Lane LOS	C	A	A	-	A	A	-	D
HCM 95th %tile Q(veh)	0.2	0	-	-	0.1	-	-	0.8

Crash Summary Report

Report Selections and Input Parameters

REPORT SELECTIONS

☑ Crash Summary I ☐ Section Detail ☑ Crash Summary II ☐ 1320 Public ☐ 1320 Private ☐ 1320 Summary

REPORT DESCRIPTION

Yarmouth
Rte. 115/Main St. from Elm St./West Elm St. (14704) to School St./Cleaves St. (14699)
South St. from Deering St. (18335) to Rte. 115/Main St. (14701)
Deering St. from West Elm St. (11671) to South St. (18335)

REPORT PARAMETERS

Year 2017, Start Month 1 through Year 2019 End Month: 12

Route: 0115X	Start Node: 14707	Start Offset: 0	☐ Exclude First Node
	End Node: 14699	End Offset: 0	☐ Exclude Last Node
Route: 05Y0055	Start Node: 18335	Start Offset: 0	☑ Exclude First Node
	End Node: 14701	End Offset: 0	☑ Exclude Last Node
Route: 05Y0015	Start Node: 11671	Start Offset: 0	☐ Exclude First Node
	End Node: 18335	End Offset: 0	☐ Exclude Last Node

Crash Summary I

Nodes

Node	Route - MP	Node Description	U/R	Total Crashes	Injury Crashes K	A	B	C	PD	Percent Injury	Annual M Ent-Veh	Crash Rate	Critical Rate	CRF
14707	0115X - 16.94	Int of MAIN ST SUMMER ST	2	0	0	0	0	0	0	0.0	2.177	0.00	0.46	0.00
												Statewide Crash Rate:	0.15	
14705	0115X - 17.09	Int of MAIN ST PATTY LN	2	1	0	0	0	0	1	0.0	2.368	0.14	0.45	0.00
												Statewide Crash Rate:	0.15	
14702	0115X - 17.25	Int of MAIN ST MILL ST	2	2	0	0	0	1	1	50.0	2.998	0.22	0.43	0.00
												Statewide Crash Rate:	0.15	
14703	0115X - 17.19	Int of CENTER ST MAIN ST	2	1	0	0	0	0	1	0.0	3.009	0.11	0.43	0.00
												Statewide Crash Rate:	0.15	
14701	0115X - 17.28	Int of MAIN ST SOUTH ST	2	1	0	0	0	0	1	0.0	3.542	0.09	0.41	0.00
												Statewide Crash Rate:	0.15	
14704	0115X - 17.11	Int of E ELM ST MAIN ST W ELM ST	9	5	0	0	0	0	5	0.0	3.619	0.46	1.38	0.00
												Statewide Crash Rate:	0.75	
14706	0115X - 17.03	Int of HILLSIDE ST MAIN ST	2	0	0	0	0	0	0	0.0	2.394	0.00	0.45	0.00
												Statewide Crash Rate:	0.15	
14699	0115X - 17.46	Int of CLEAVES T MAIN ST SCHOOL ST	9	8	0	0	1	2	5	37.5	4.226	0.63	1.34	0.00
												Statewide Crash Rate:	0.75	
11680	05Y0055 - 0.11	Int of CUMBERLAND ST SOUTH ST	2	0	0	0	0	0	0	0.0	0.309	0.00	0.69	0.00
												Statewide Crash Rate:	0.16	
18335	05Y0015 - 0.10	0508754 YAR,DEERING,SOUTH ST.	2	0	0	0	0	0	0	0.0	0.076	0.00	0.13	0.00
												Statewide Crash Rate:	0.16	
11671	05Y0015 - 0.07	Int of DEERING ST W ELM ST	2	0	0	0	0	0	0	0.0	0.799	0.00	0.62	0.00
												Statewide Crash Rate:	0.16	
Study Years:	3.00	NODE TOTALS:		18	0	0	1	3	14	22.2	25.517	0.24	0.50	0.47

Crash Summary I

Sections

Start Node	End Node	Element	Offset Begin - End	Route - MP	Section Length	U/R	Total Crashes	Injury Crashes K	A	B	C	PD	Percent Injury	Annual HMVM	Crash Rate	Critical Rate	CRF
14706	14707	3123950	0 - 0.09	0115X - 16.94	0.09	2	2	0	0	0	0	2	0.0	0.00194	342.81	539.44	0.00
Int of HILLSIDE ST MAIN ST				ST RTE 115											Statewide Crash Rate: 176.76		
14705	14706	3129264	0 - 0.06	0115X - 17.03	0.06	2	0	0	0	0	0	0	0.0	0.00142	0.00	584.21	0.00
Int of MAIN ST PATTY LN				ST RTE 115											Statewide Crash Rate: 176.76		
14704	14705	3120106	0 - 0.02	0115X - 17.09	0.02	2	1	0	0	0	0	1	0.0	0.00047	712.36	734.67	0.00
Int of E ELM ST MAIN ST W ELM ST				ST RTE 115											Statewide Crash Rate: 176.76		
14703	14704	3100063	0 - 0.08	0115X - 17.11	0.08	2	2	0	0	0	0	2	0.0	0.00238	280.14	512.05	0.00
Int of CENTER ST MAIN ST				ST RTE 115											Statewide Crash Rate: 176.76		
14702	14703	3105714	0 - 0.06	0115X - 17.19	0.06	2	1	0	0	0	1	0	100.0	0.00180	185.32	550.33	0.00
Int of MAIN ST MILL ST				ST RTE 115											Statewide Crash Rate: 176.76		
14701	14702	3120105	0 - 0.03	0115X - 17.25	0.03	2	0	0	0	0	0	0	0.0	0.00088	0.00	653.64	0.00
Int of MAIN ST SOUTH ST				ST RTE 115											Statewide Crash Rate: 176.76		
14699	14701	3943883	0 - 0.18	0115X - 17.28	0.18	2	7	0	0	0	0	7	0.0	0.00684	341.16	391.49	0.00
Int of CLEAVES T MAIN ST SCHOOL ST				ST RTE 115											Statewide Crash Rate: 176.76		
11680	18335	185739	0 - 0.11	05Y0055 - 0	0.11	2	0	0	0	0	0	0	0.0	0.00017	0.00	1750.76	0.00
Int of CUMBERLAND ST SOUTH ST				RD INV 05 Y0055											Statewide Crash Rate: 412.31		
11680	14701	185738	0 - 0.14	05Y0055 - 0.11	0.14	2	0	0	0	0	0	0	0.0	0.00048	0.00	1441.80	0.00
Int of CUMBERLAND ST SOUTH ST				RD INV 05 Y0055											Statewide Crash Rate: 412.31		
11671	18335	185724	0 - 0.03	05Y0015 - 0.07	0.03	2	0	0	0	0	0	0	0.0	0.00005	0.00	1231.38	0.00
Int of DEERING ST W ELM ST				RD INV 05 Y0015											Statewide Crash Rate: 412.31		
Study Years: 3.00				Section Totals:	0.80		13	0	0	0	1	12	7.7	0.01643	263.80	335.16	0.79
				Grand Totals:	0.80		31	0	0	1	4	26	16.1	0.01643	629.06	496.14	1.27


Search...
14706
W MAIN ST
14705
ELM ST
14704
11678
ROYAL RIVER PARK
11673
HILL SIDE ST
CHURCH ST
PATTY LN
11675
11674
Upper Village (historical)
11676
14703
MILL ST
YARMOUTH CROSSING DR
11683
14702
72928
14701
BAKER ST
CENTER ST
W ELM ST
SOUTH ST
YARMOUTH
115
SCHOOL ST
15817
MAIN ST
RAILROAD SQ
11664
11663
CUMBERLAND ST
14699
11672
11677
11680
WOODBURY ST
CLEAVES ST
336
DEERING ST
11671
18335
Scale: 1:3219
200ft

Exhibit 12A
Parking Analysis Table

298 MAIN STREET, YARMOUTH PROPOSED LIVE/WORK BUILDING - PARKING REQUIREMENTS

					ISSUE/REV:	V4 -12-10-20	
PROPOSED USE	**NUMBER/ METRIC**	**UNITS**	**REQUIRED PARKING SPACES (ARTICLE 5.K.1)**		**MIN. REQUIRED SPACES**	**PROVIDED**	
			MINIMUM	**MAXIMUM**		**ON LOT & STREET FRONTAGE**	**SHARED RR SQUARE - OFFSITE**
RESIDENTIAL UNITS	16	DWELLING UNIT (DU)	1/DU	2/DU	16	8	9
COMMERCIAL/RETAIL (1.)	2725	S.F	2/1000 S.F.	4/1000 S.F	5	3	2
						11	11
TOTALS					22	22	
APPLY TABLE 5.K.2 - DIVIDE TOTAL BY 1.2 = ADJUSTED REQUIRED PARKING					**19**	**19**	
NOTES:							
1. REF. YARMOUTH CHARACTER BASED DEVELOPMENT CODE ARTICLE 5.K							
2. SECTION 5.K.2.B ALLOWS SPACES ALONG FRONTAGE ON A THOROUGHFARE TO BE USED TOWARDS MIN. SPACES REQUIRED.							
3. TABLE 5.K.2 -RESIDENTIAL/RETAIL USE -DIVIDE REQUIRED PARKING BY 1.2							
4. REFER TO PARKING EXHIBIT AND SHARED PARKING AGREEMENT WITH BICKFORD TRANSPORTATION, INC IN SITE PLAN APPLICATION.							

Drainage Onsite:

There do not appear to any drainage problems onsite. All stormwater drains to street drains or adjacent catch basins located on abutting properties and is discharged to the Main Street stormdrain system.

Exhibit 13
Drainage Onsite

.

Exhibit 14

Stormwater Management Report & Plans

Atlantic Resource Consultants
Engineering Strategies and Solutions

STORMWATER MANAGEMENT MEMORANDUM
298 MAIN

298 MAIN STREET
YARMOUTH, MAINE
December 2020

INTRODUCTION

The proposed project is located on an approximate 9,330 s.f. lot at the corner of Main Street and South Street in Yarmouth. The proposed project will include the demolition of the existing onsite structure and the construction of a new mixed-use commercial and residential structure.

The project site is tributary to the existing drainage infrastructure located in Railroad square and the infrastructure located in Main Street. Study Point SP-1 represents the drainage infrastructure in Main Street. The Main Street infrastructure discharges to the Royal River and ultimately the Ocean. The existing site is approximately 95% impervious surface area.

This memo discusses the Site's hydrological conditions and quantifies the stormwater runoff generated in the existing and proposed conditions.

DATA COLLECTION AND ASSUMPTIONS

Site Data was gathered from AutoCAD files and drawings provided by Paul H. Ruopp Land Surveying and Mapping. Site contour information was provided by Paul H. Ruopp Land Surveying and Mapping. Soils information was identified using the NRCS Web Soil Survey, a Medium Intensity Soil Survey.

EXISTING SITE CONDITIONS

The existing site is mostly impervious surface area consisting of building roofs, concrete and bituminous pavement. In its current state, the site is 95% impervious. There are some small landscaping areas adjacent to the existing structure.

On-site soils consist of Lamoine silt loam a Hydrologic Soil Group c/d soil and made land. The onsite soils were identified using the NRCS Medium Intensity Soil Survey.

The site is tributary to the existing drainage infrastructure in Railroad Square and Main Street. The site is ultimately tributary to the Royal River and the Ocean.

The watershed plans analyze the portion of the parcel that will be impacted by the development.

PROPOSED SITE CONDITIONS

Proposed site alterations include the construction of the new building, and the reconfiguration of the sidewalks along South Street and Main Street. Additional landscaping areas will also be provided along the sides of the new building. The proposed building will have a flat roof and roof drain connections will be made to the existing drainage system.

As a result of the proposed development, the proposed project will reduce the site impervious surface area to approximately 93% of the site total. A reduction from the pre-development impervious surface area.

WATER QUALITY AND QUANTITY

Water Quality and mitigation shall be achieved through the installation of onsite landscaping and the installation of a pervious paver plaza located off the northeastern side of the new building. The pervious pavers in the plaza area are being installed to help mitigate runoff associated with the development of the site. The pavers will contribute to the reduction in the amount of onsite impervious surface area.

Stormwater Quantity consideration have been provided by a reduction of the impervious surface area of the site, which will result in a reduction in the peak rates of runoff from the site.

All construction will be in accordance with the most current Maine Erosion and Sedimentation Control Best Management Practices. These measures include temporary and permanent seeding, sediment barriers, and stabilized construction entrance.

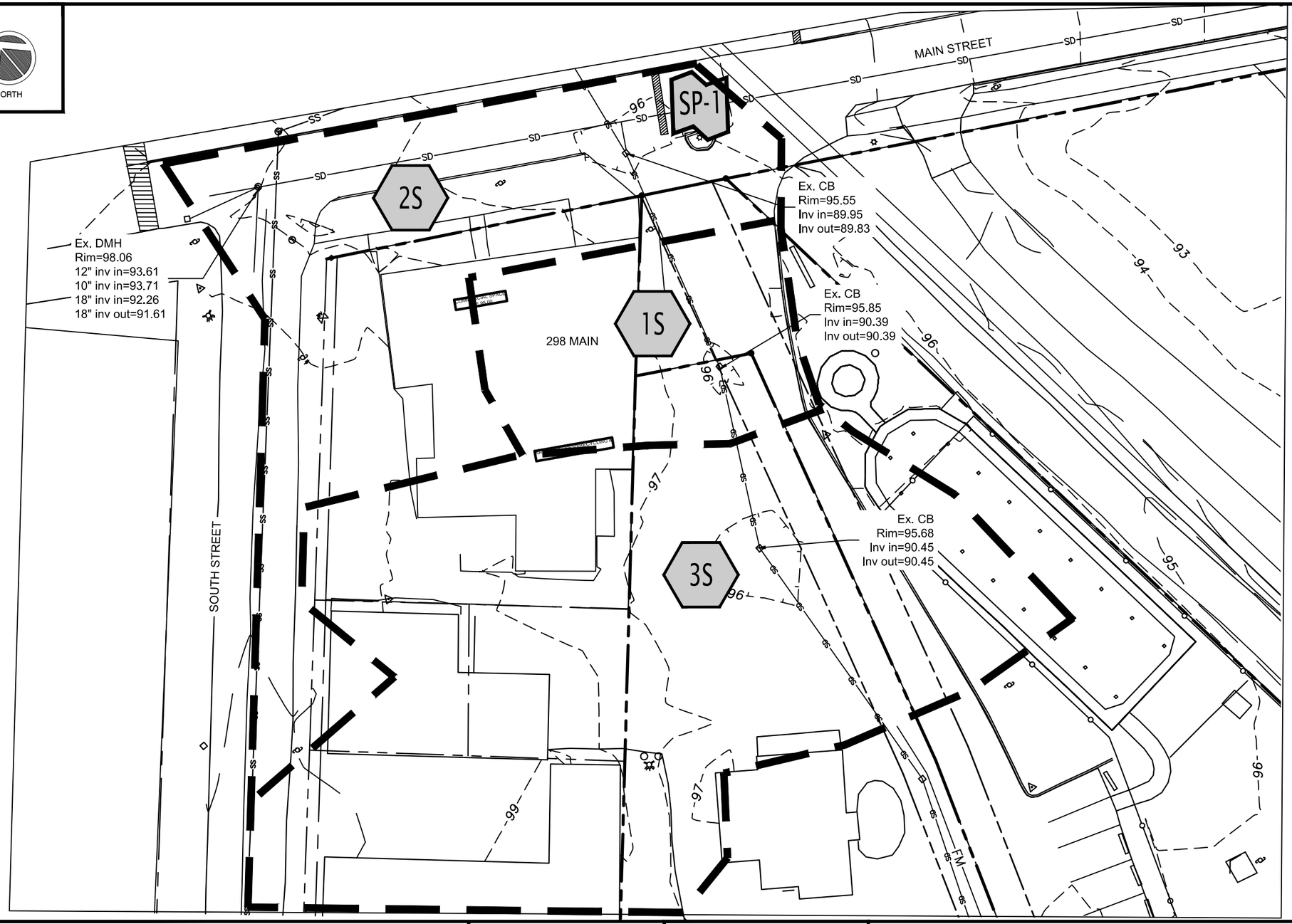
CONCLUSIONS

This project will use long-term and short-term erosion control measures that will mitigate environmental impacts from stormwater. A reduction in the site impervious surface area will reduce the peak rates of runoff from the project site, which is tributary to the drainage infrastructure in Main Street.

ATLANTIC RESOURCE CONSULTANTS

Anthony Panciocco, PE.
Senior Project Engineer

NORTH



DRAINAGE LEGEND

- 1S — SUBCATCHMENT LABEL
- 1P — POND LABEL
- 1R — REACH LABEL
- REACH PATH
- TIME OF CONCENTRATION
- SUBCATCHMENT DIVIDE
- SOILS BOUNDARY
- SP-1 — POINT OF ANALYSIS

0 15 30 60

SCALE in FEET
1"=30'

Atlantic Resource Consultants
541 US Route One
Freeport, ME 04032
Tel: 207.869.9050

Drawn By:	TP
Checked:	TP
Scale:	1"=30'
Date:	12-9-2020
Project No.:	20-001
	P.E.

LICENSE #

Project Information:

298 MAIN
PRE DEVELOPMENT WATERSHED PLAN

298 MAIN STREET

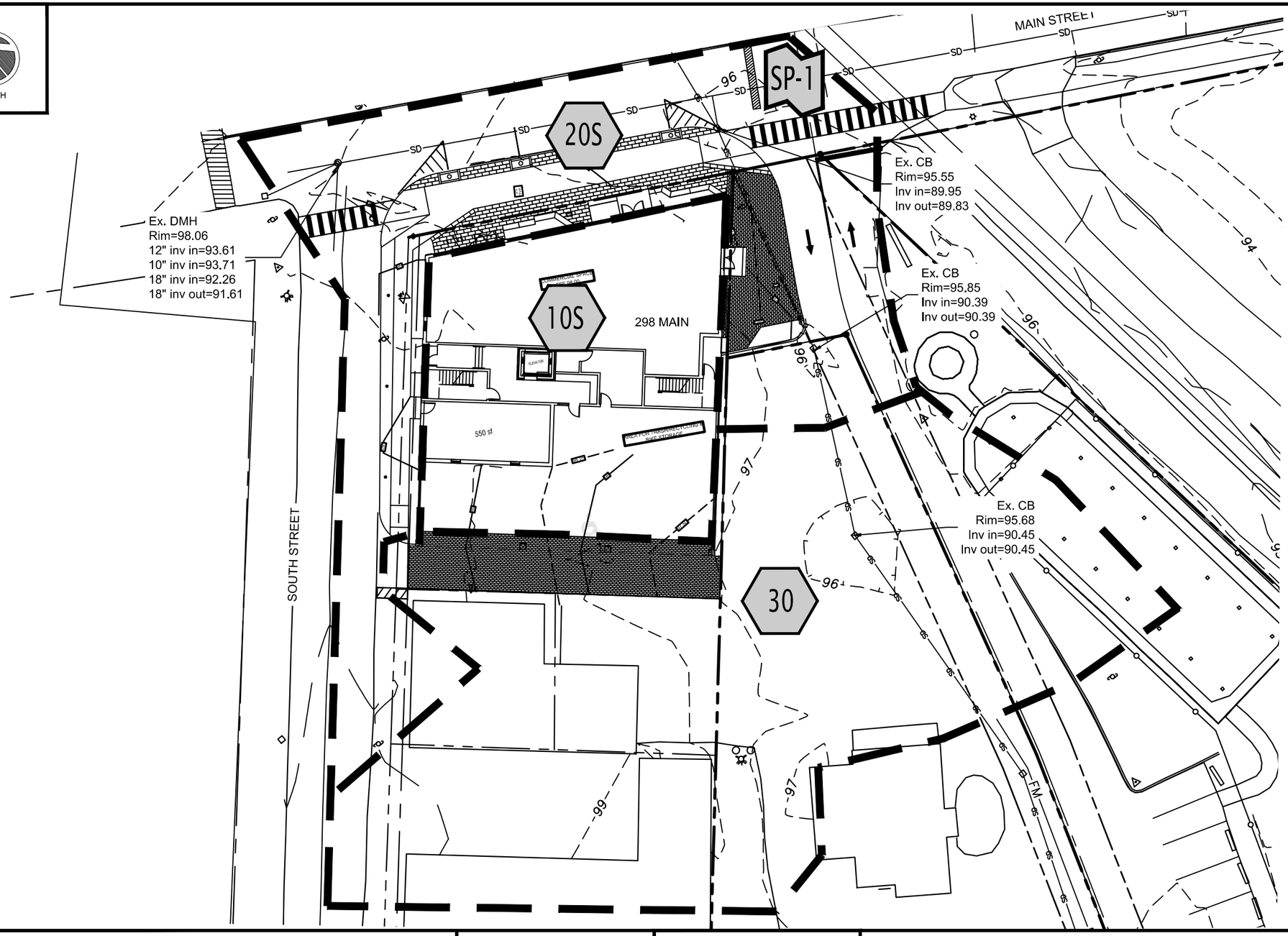
YARMOUTH, MAINE

Sheet No.

1

S:\20-001 Railroad Square\Drawings\20-001 DRAINAGE.dwg

NORTH



DRAINAGE LEGEND

- 1S — SUBCATCHMENT LABEL
- 1P — POND LABEL
- 1R — REACH LABEL
- REACH PATH
- TIME OF CONCENTRATION
- SUBCATCHMENT DIVIDE
- SOILS BOUNDARY
- 1P — POINT OF ANALYSIS

0 15 30 60

SCALE in FEET
1"=30'

Atlantic Resource Consultants
541 US Route One
Freeport, ME 04032
Tel: 207.869.9050

Drawn By:	TP
Checked:	TP
Scale:	1"=30'
Date:	12-9-2020
Project No.:	20-001
P.E.	
LICENSE #	

Project Information:

298 MAIN
POST DEVELOPMENT WATERSHED PLAN

298 MAIN STREET

YARMOUTH, MAINE

Sheet No.

1

S:\20-001 Railroad Square\Drawings\20-001 DRAINAGE.dwg

Erosion & Sedimentation Controls:

Refer to Site Plan sheet C300 Erosion Control Notes for a comprehensive erosion control plan. The site requires minimal erosion controls due to the limited site area and surrounding paved areas. Critical elements requiring protection will be existing catch basins where sediment could enter the MS-4 Stormdrain system. Silt sacks, stone berms and other BMP's as specified on Sheet C-300 will be employed by the contractor.

Exhibit 15

Erosion & Sedimentation Controls

Exhibit 16
USDA Soils Mapping

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 Cumberland County and Part of Oxford County, Maine

Railroad Square

January 29, 2020

Custom Soil Resource Report
Soil Map (Railroad Square)

Map Scale: 1:2,860 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 40 80 160 240

Feet: 0 100 200 400 600

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 19N WGS84

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 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

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: Cumberland County and Part of Oxford County, Maine
Survey Area Data: Version 16, Sep 16, 2019

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jun 7, 2019—Jul 2, 2019

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background

MAP LEGEND

MAP INFORMATION

imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend (Railroad Square)

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
BuB	Lamoine silt loam, 3 to 8 percent slopes	1.9	7.7%
EmB	Elmwood fine sandy loam, 0 to 8 percent slopes	5.6	22.5%
Md	Made land	5.8	23.2%
SuC2	Suffield silt loam, 8 to 15 percent slopes, eroded	1.2	4.7%
WmB	Windsor loamy sand, 0 to 8 percent slopes	10.5	41.8%
Totals for Area of Interest		**25.1**	**100.0%**

Map Unit Descriptions (Railroad Square)

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 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.

Cumberland County and Part of Oxford County, Maine

BuB—Lamoine silt loam, 3 to 8 percent slopes

Map Unit Setting

National map unit symbol: 2t0kc
Elevation: 10 to 490 feet
Mean annual precipitation: 33 to 60 inches
Mean annual air temperature: 36 to 52 degrees F
Frost-free period: 90 to 160 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Lamoine and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Lamoine

Setting

Landform: Marine terraces, river valleys
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Base slope
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Fine glaciomarine deposits

Typical profile

Ap - 0 to 7 inches: silt loam
Bw - 7 to 13 inches: silt loam
Bg - 13 to 24 inches: silty clay loam
Cg - 24 to 65 inches: silty clay

Properties and qualities

Slope: 3 to 8 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Somewhat poorly drained
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.14 in/hr)
Depth to water table: About 6 to 17 inches
Frequency of flooding: None
Frequency of ponding: None
Salinity, maximum in profile: Nonsaline (0.0 to 1.9 mmhos/cm)
Available water storage in profile: Moderate (about 7.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3w
Hydrologic Soil Group: C/D
Hydric soil rating: No

Minor Components

Scantic

Percent of map unit: 10 percent
Landform: Marine terraces, river valleys

Landform position (two-dimensional): Toeslope, footslope
Landform position (three-dimensional): Base slope
Down-slope shape: Linear
Across-slope shape: Concave
Hydric soil rating: Yes

Buxton

Percent of map unit: 3 percent
Landform: Marine terraces, river valleys
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Linear
Across-slope shape: Convex
Hydric soil rating: No

Ragmuff

Percent of map unit: 1 percent
Landform: Marine terraces, river valleys
Landform position (two-dimensional): Backslope, shoulder
Landform position (three-dimensional): Side slope, base slope
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

Biddeford

Percent of map unit: 1 percent
Landform: Marine terraces, river valleys
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Base slope
Down-slope shape: Concave
Across-slope shape: Concave
Ecological site: Marine Terrace Depression (F144BY002ME)
Hydric soil rating: Yes

EmB—Elmwood fine sandy loam, 0 to 8 percent slopes

Map Unit Setting

National map unit symbol: blh8
Elevation: 10 to 900 feet
Mean annual precipitation: 36 to 55 inches
Mean annual air temperature: 39 to 46 degrees F
Frost-free period: 90 to 195 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Elmwood and similar soils: 88 percent
Minor components: 12 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Elmwood

Setting

Landform: Stream terraces
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Coarse-loamy glaciolacustrine deposits

Typical profile

H1 - 0 to 8 inches: fine sandy loam
H2 - 8 to 25 inches: sandy loam
H3 - 25 to 65 inches: silty clay loam

Properties and qualities

Slope: 0 to 8 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Moderately well drained
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 18 to 36 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: High (about 9.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2w
Hydrologic Soil Group: B
Hydric soil rating: No

Minor Components

Swanton

Percent of map unit: 7 percent
Landform: Stream terraces
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: Yes

Melrose

Percent of map unit: 3 percent
Landform: Stream terraces
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Riser
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Whately

Percent of map unit: 2 percent
Landform: Stream terraces
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Tread

Down-slope shape: Concave
Across-slope shape: Concave
Hydric soil rating: Yes

Md—Made land

Map Unit Setting

National map unit symbol: blj8
Elevation: 10 to 1,800 feet
Mean annual precipitation: 30 to 50 inches
Mean annual air temperature: 37 to 46 degrees F
Frost-free period: 90 to 160 days
Farmland classification: Not prime farmland

Map Unit Composition

Made land: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Made Land

Setting

Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear

Typical profile

H1 - 0 to 65 inches: variable

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 8s
Hydric soil rating: No

Minor Components

Buxton

Percent of map unit: 3 percent
Landform: Coastal plains
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Scantic

Percent of map unit: 3 percent
Landform: Coastal plains
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Tread

Down-slope shape: Concave
Across-slope shape: Concave
Hydric soil rating: Yes

Belgrade

Percent of map unit: 3 percent
Landform: Lakebeds
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Deerfield

Percent of map unit: 2 percent
Landform: Outwash terraces
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Au gres

Percent of map unit: 2 percent
Landform: Outwash terraces
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Tread
Down-slope shape: Concave
Across-slope shape: Concave
Hydric soil rating: Yes

Hollis

Percent of map unit: 2 percent
Landform: Till plains
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Rise
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

SuC2—Suffield silt loam, 8 to 15 percent slopes, eroded

Map Unit Setting

National map unit symbol: blk1
Elevation: 10 to 900 feet
Mean annual precipitation: 34 to 48 inches
Mean annual air temperature: 43 to 46 degrees F
Frost-free period: 90 to 160 days
Farmland classification: Not prime farmland

Map Unit Composition

Suffield and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Suffield

Setting

Landform: Coastal plains
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Riser
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Fine glaciolacustrine deposits

Typical profile

H1 - 0 to 6 inches: silt loam
H2 - 6 to 23 inches: silt loam
H3 - 23 to 33 inches: silty clay
H4 - 33 to 65 inches: silty clay

Properties and qualities

Slope: 8 to 15 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Moderately well drained
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 18 to 30 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: High (about 9.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4e
Hydrologic Soil Group: C
Hydric soil rating: No

Minor Components

Hartland

Percent of map unit: 6 percent
Landform: Coastal plains
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Riser
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Belgrade

Percent of map unit: 5 percent
Landform: Coastal plains
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Riser
Down-slope shape: Linear
Across-slope shape: Linear

Hydric soil rating: No

Suffield, slopes >15%

Percent of map unit: 2 percent
Landform: Coastal plains
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Riser
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Suffield, slopes <8%

Percent of map unit: 2 percent
Landform: Coastal plains
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

WmB—Windsor loamy sand, 0 to 8 percent slopes

Map Unit Setting

National map unit symbol: 2w2x2
Elevation: 0 to 1,410 feet
Mean annual precipitation: 36 to 71 inches
Mean annual air temperature: 39 to 55 degrees F
Frost-free period: 140 to 240 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Windsor and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Windsor

Setting

Landform: Outwash terraces, deltas, outwash plains, dunes
Landform position (three-dimensional): Tread, riser
Down-slope shape: Linear, convex
Across-slope shape: Linear, convex
Parent material: Loose sandy glaciofluvial deposits derived from granite and/or loose sandy glaciofluvial deposits derived from schist and/or loose sandy glaciofluvial deposits derived from gneiss

Typical profile

Oe - 0 to 1 inches: moderately decomposed plant material
A - 1 to 3 inches: loamy sand
Bw - 3 to 25 inches: loamy sand
C - 25 to 65 inches: sand

Properties and qualities

Slope: 0 to 8 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Excessively drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to very high (1.42 to 99.90 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Salinity, maximum in profile: Nonsaline (0.0 to 1.9 mmhos/cm)
Available water storage in profile: Low (about 4.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2s
Hydrologic Soil Group: A
Hydric soil rating: No

Minor Components

Hinckley

Percent of map unit: 5 percent
Landform: Outwash plains, eskers, deltas, kames
Landform position (two-dimensional): Summit, shoulder, backslope
Landform position (three-dimensional): Nose slope, side slope, crest, head slope, rise
Down-slope shape: Convex
Across-slope shape: Linear, convex
Hydric soil rating: No

Agawam

Percent of map unit: 5 percent
Landform: Kames, moraines, outwash terraces, kame terraces, outwash plains
Landform position (two-dimensional): Footslope, summit, backslope, shoulder
Landform position (three-dimensional): Side slope, crest, tread, riser, rise
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

Deerfield

Percent of map unit: 5 percent
Landform: Outwash plains, deltas, terraces
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Tread, talf
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Table—K Factor, Whole Soil (Railroad Square)

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
BuB	Lamoine silt loam, 3 to 8 percent slopes	.37	1.9	7.7%
EmB	Elmwood fine sandy loam, 0 to 8 percent slopes	.20	5.6	22.5%
Md	Made land		5.8	23.2%
SuC2	Suffield silt loam, 8 to 15 percent slopes, eroded	.32	1.2	4.7%
WmB	Windsor loamy sand, 0 to 8 percent slopes		10.5	41.8%
Totals for Area of Interest			**25.1**	**100.0%**

Rating Options—K Factor, Whole Soil (Railroad Square)

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

Layer Options (Horizon Aggregation Method): Surface Layer (Not applicable)

Soil Qualities and Features

Soil qualities are behavior and performance attributes that are not directly measured, but are inferred from observations of dynamic conditions and from soil properties. Example soil qualities include natural drainage, and frost action. Soil features are attributes that are not directly part of the soil. Example soil features include slope and depth to restrictive layer. These features can greatly impact the use and management of the soil.

Hydrologic Soil Group (Railroad Square)

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

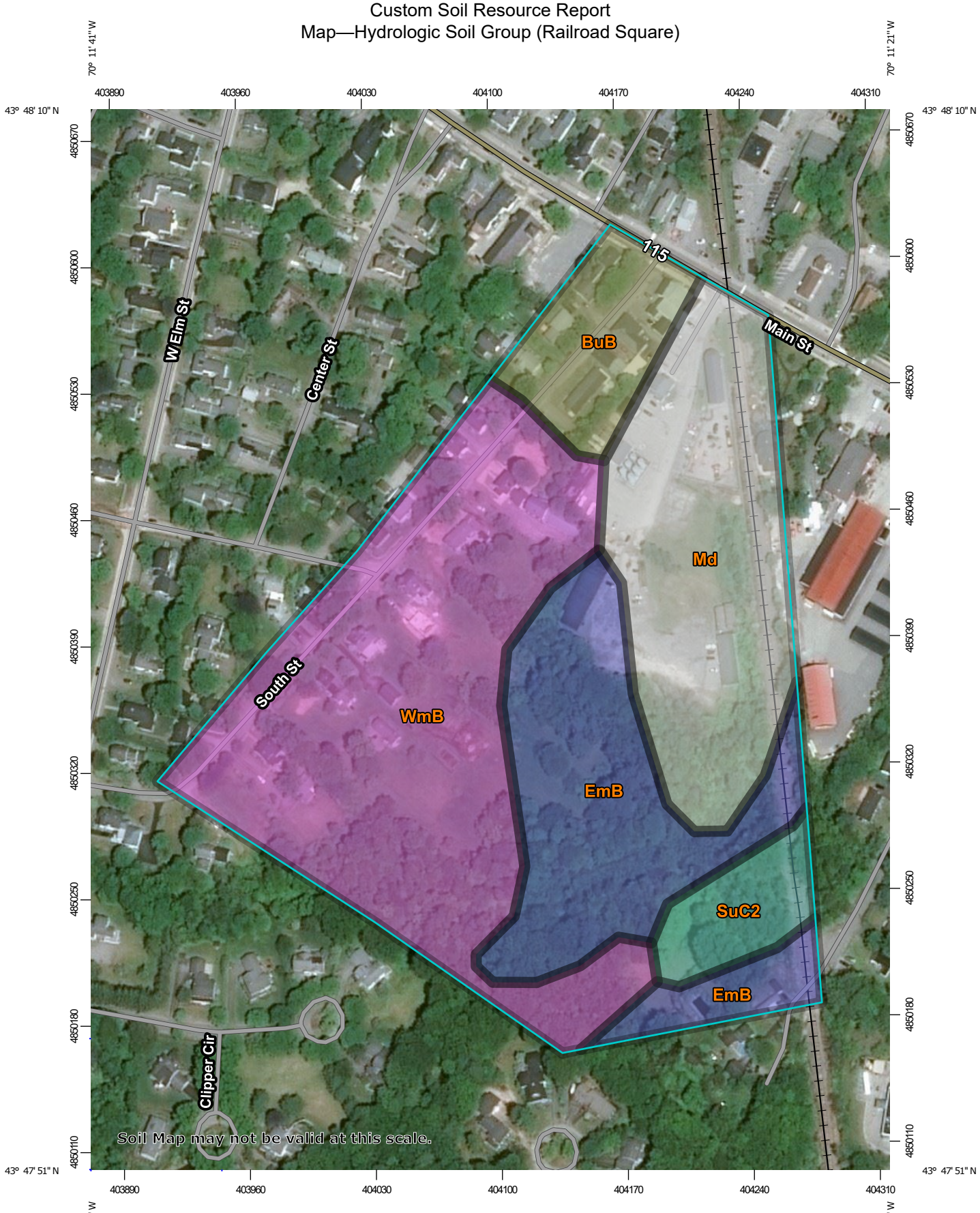
Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

Custom Soil Resource Report
Map—Hydrologic Soil Group (Railroad Square)



Map Scale: 1:2,860 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 40 80 160 240

Feet: 0 100 200 400 600

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 19N WGS84

MAP LEGEND

Area of Interest (AOI)

- Area of Interest (AOI)

Soils

Soil Rating Polygons

- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Lines

- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Points

- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

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 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

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.

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Soil Survey Area: Cumberland County and Part of Oxford County, Maine
Survey Area Data: Version 16, Sep 16, 2019

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jun 7, 2019—Jul 2, 2019

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background

MAP LEGEND	MAP INFORMATION
	imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Table—Hydrologic Soil Group (Railroad Square)

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
BuB	Lamoine silt loam, 3 to 8 percent slopes	C/D	1.9	7.7%
EmB	Elmwood fine sandy loam, 0 to 8 percent slopes	B	5.6	22.5%
Md	Made land		5.8	23.2%
SuC2	Suffield silt loam, 8 to 15 percent slopes, eroded	C	1.2	4.7%
WmB	Windsor loamy sand, 0 to 8 percent slopes	A	10.5	41.8%
Totals for Area of Interest			**25.1**	**100.0%**

Rating Options—Hydrologic Soil Group (Railroad Square)

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

Frost Action (Railroad Square)

Potential for frost action is the likelihood of upward or lateral expansion of the soil caused by the formation of segregated ice lenses (frost heave) and the subsequent collapse of the soil and loss of strength on thawing. Frost action occurs when moisture moves into the freezing zone of the soil. Temperature, texture, density, saturated hydraulic conductivity (Ksat), content of organic matter, and depth to the water table are the most important factors considered in evaluating the potential for frost action. It is assumed that the soil is not insulated by vegetation or snow and is not artificially drained. Silty and highly structured, clayey soils that have a high water table in winter are the most susceptible to frost action. Well drained, very gravelly, or very sandy soils are the least susceptible. Frost heave and low soil strength during thawing cause damage to pavements and other rigid structures.

State and Federal Approvals:

No State DEP or Federal Approvals are required for the 298 Main Project.

Exhibit 17
State and Federal Agency Approvals

Summary of Zoning Standards:

Refer to the attached Site Data Table (also found on Sheet C-101, Layout) for a summary of the CBDC Article 5 Standards related to Site Development. Refer to the attached Architectural Assessment and Building Plans for compliance with additional CBDC Architectural Standards.

Exhibit 18
Summary of Zoning Standards

SITE DATA TABLE

ZONING	CD-4 VILLAGE CENTER (CHAPT. 703, 5.F.2A)	
STANDARD	**REQUIRED/PERMITTED CD-4**	**PROVIDED**
BUILDING TYPE	LIVE/WORK	LIVE/WORK
BUILDING AND LOT USE	LIVE/WORK	MIXED USE
	COMMERCIAL	16 RESID. CONDOS
		2,725 SF COMMERCIAL
MIN. LOT AREA (AC)	N/A	0.21 ACRE
LOT OCCUPATION		
A. LOT WIDTH	18-120 FT.	90+/-
B. LOT COVERAGE	85%	92% (1.)
C. FRONTAGE BUILDOUT	40-100%	97%
PRINCIPAL BUILDING PLACEMENT		
A. PRINCIPAL FRONTAGE SETBACK	0-16 FT.	6-7 FT.
B. SECONDARY FRONTAGE SIDE SETBACK	2-12 FT.	2-3 FT.
C. SIDE SETBACK	0 FT. (MIN.)	2 FT.
D. REAR SETBACK	3-15 FT. (2.)	12 FT.
BUILDING HEIGHT	3 STORIES/35 FT.	3 STORIES/35 FT.
NOTES:		
1. LOT COVERAGE. CURRENT LOT IS 95% IMPERVIOUS AND PROPOSED WILL REDUCE TO 92%.		
A WAIVER IS BEING REQUESTED FROM THE PLANNING BOARD. REFER TO THE SITE PLAN		
APPLICATION FOR LOT COVERAGE COMPUTATIONS.		
2. REAR SETBACK -GREATER OF 3 FT. MIN OR 15 FT. FROM CENTER OF ALLEY OR FROM ABUTTING		
RESIDENTIAL ZONE.		

Summary of Public Streets (Subdivision):

The project will not create any public streets. The improved Railroad Square roadway will remain a private way.

Exhibit 19
Public Streets Summary

Exhibit 20

Waiver Request – Article 5.F.2A Lot Coverage

EXHIBIT 20
Waivers

1. **Lot Coverage**:

The applicant is requesting the granting of one waiver from the Character Based Development Code Article 5 Table 5.F.2A –Character District Standards, Village Center CD-4 for Lot Coverage. The maximum lot coverage standard is 85%.

Lot Coverage is defined in Article 7 as, "*that percentage of the lot area covered by all Structures, Buildings, Driveways, parking lots and other non-vegetated surf*aces".

General Reason for Request. The site is currently approximately 95% impervious. Redevelopment of small (0.21) acre sites is more of an urban design challenge than one of larger lots which have existing open space or opportunities to create more green space. In order to provide adequate density and parking there is little opportunity to provide 15% of the lot as green space. The evolution of the mixed use building from a 4 story building to 3 stories also expanded the building footprint.

Developing a building with efficient density, parking and access while also creating a streetscape character consistent with Main Street - which is almost completely sidewalk and impervious areas – is difficult. Providing significant lawn or garden areas around the front and side of the building would decrease lot coverage but would take away from the very character of Main Street – which emphasizes pedestrian activity and gathering, direct access to street level businesses and tight setbacks to the street. That is not to say that landscaping around the building is not important –but to reach the 85% level on this site would create a hardship.

Mitigation and Lot Improvements: Specific site challenges include the current condition which has been calculated to be 95% impervious (See attached Table) with no stormwater management improvements on the site. The proposed new site plan would reduce the overall Lot Coverage to 92% by implementing the following:

a. Landscaping along the east and west building faces to soften the building façade and provide natural groundwater recharge.
b. Raised landscape beds in the front of the building serving as bench seats.
c. Creation of a 753 s.f. plaza constructed of a low impact stormwater BMP –"pervious pavers" which allows stormwater to drain into a gravel and stone sub base below the pavers providing for temporary peak stormwater storage and promoting infiltration. The CBDC Code allows only 50% of the surface area to be counted towards the 85% lot coverage (impervious area) limit as shown on the attached table.

Conservatively, what has not been included in the lot coverage computations is the creation of a new 3 ft. landscaped esplanade on South Street removing existing pavement and the addition of four tree wells on Main Street where currently none exist. These green areas are "off site" and have

not been included in the 92% lot coverage. The trees will also provide shade and help to absorb stormwater. We feel this should be taken into consideration in the review of this waiver request.

We respectfully request that the Planning Board approve the waiver as requested.

LOT COVERAGE TABLE

12-12-20 REV

AREA CALCULATIONS (SF.)	REF: CD-4 VILLAGE CENTER (CHAPT. 703, 5.F.2A)	
	EXISTING CONDITIONS (SF.)	**PROPOSED DEVELOPMENT (SF.)**
BASIS: AREA OF DEVELOPMENT USED:		
A. LOT AREA	9,330	9,330
B. EAST PLAZA AREA (BICKFORD)	875	875
TOTAL	10,205	10,205
TYPE COVERAGE:		
BUILDING AND PAVEMENT/CONCRETE	9,717	8,976
GRASS/LANDSCAPING	488	476
PERVIOUS PAVERS	0	*753*
(EFFECTIVE AREA: CODE ALLOWANCE =50%)		377
IMPERVIOUS AREA	9,717	9,353
% LOT COVERAGE (IMPERVIOUS/TOTAL AREA)	95%	92%
NOTES:		
1. CHAPT 703.5.5.F.2A - MAX LOT COVERAGE = 85%. A WAIVER IS BEING REQUESTED FROM THE PLANNING		
BOARD. THE PROPOSED 92% IS CONSERVATIVE AS IT DOES NOT INCLUDE ADDITIONAL GREEN SPACE,		
ESPLANADE AND TREE WELLS ON SOUTH AND MAIN STREET PROPOSED WITH THE PROJECT.		

Nuisances and Mitigation:

Nuisances caused by the development may include construction traffic and construction noise from site machinery/equipment and building construction activities. While it is not feasible to mitigate noise completely, measures such as limiting working hours, minimizing weekend work and managing construction traffic to avoid South Street whenever possible may mitigate some of the noise and traffic.

When constructed the project is not expected to create any unusual nuisances which are not normally associated with residential or commercial development. Air handling and HVAC units will be place on the roof away from around the building perimeter – mitigating the effect of additional noise from units placed near the walkways at ground level.

Exhibit 21
Nuisances and Mitigation

Exhibit 22
Lighting Cuts

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DATE: LOCATION:

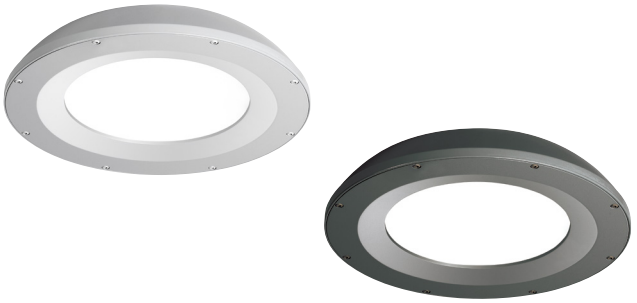
TYPE: PROJECT:

CATALOG #:

SRT1 EDGE-LIT

CEILING/SURFACE/GARAGE

DRIVE EDGE-LIT



FEATURES

- For ceiling mount and parking garage applications from an 8–15 foot mounting height
- Edge-lit flat lens for optimal visual comfort and uniformity across the lens
- Two optical distributions specifically design for parking garage and canopy applications are available making the Beacon Edge-Lit luminaire both versatile and functional
- UL/cUL listed for wet locations, IP65 and 3G vibration rated
- Occupancy sensor available for complete on/off and dimming operation

RELATED PRODUCTS

Drive Edge-Lit SRT2 | Orbeon | Viper Small

SRT1 PSG PAGE

SRT2 PSG PAGE

SRT BROCHURE

SPECIFICATIONS

HOUSING

- Die-cast aluminum housing ensures long electrical component life and luminaire performance
- Corrosion resistant powder coat finish both protects and provides architectural appearance
- One piece molded silicone gasket ensures weather proof seal
- Thermally isolated driver mounted to dedicated bracket reduces operating temperatures and increases driver life and reliability

OPTICS

- Edge-lit acrylic light guide provides blended non-pixelated light for unprecedented visual comfort
- Choice of multiple light outputs with lumen range of 2000–6000
- Two distribution types: Type 5 Square Wide, Type 5 Concentrated
- Wide variety of CCT's and CRI's offered: 3000K (70CRI), 3000K (80CRI), 3500K (80CRI), 4000K (70CRI), 4000K (80CRI) or 5000K (70 CRI) CCT

ELECTRICAL

- 120V–277V 50/60Hz available
- 0–10V dimming drivers are RoHS compliant

INSTALLATION

- Standard quick mount plate over standard 4" junction box or octagonal junction box and allows for simplified fixture installation
- Standard luminaire accepts a rigid or 3/4" NPT stem for pendant mounting via wet location j-box (by others)
- Optional bird deterrent shroud available for field installation

OPTIONS/CONTROLS

- Standalone occupancy sensor available for on/off or dimming operation
- Uplight option provides approximately 800 lumens and consumes only 8 additional watts
- Vandal resistant wire guard available as an option for factory installation or as an accessory for field installation.

CERTIFICATIONS

- Listed to UL1598 for use in wet location, listed for -40ºC to 40ºC applications
- IDA approved with zero uplight for 3000K and warmer CCTs
- DLC® (DesignLights Consortium) Qualified. Please refer to the DLC website for specific product qualifications at www.designlights.org
- IP65

WARRANTY

- 5 year warranty
- See HLI Standard Warranty for additional information

KEY DATA	
Lumen Range	2000–6800
Wattage Range	15–55W
Efficacy Range (LPW)	99–118
Reported Life (Hours)	50K
Weight lbs. (kg)	8 (3.6)

HUBBELL Lighting

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DATE: LOCATION:

TYPE: PROJECT:

CATALOG #:

SRT1 EDGE-LIT

CEILING/SURFACE/GARAGE

ORDERING GUIDE

Example: SRT1-35-3K7-5QW-UNV-BLT-WG

CATALOG # _____

Series		Engine		CCT		Distribution		Voltage		Color/Finish		Options	
SRT1	Edge-Lit Parking Garage Size 1	**15**	15W Nominal 2000 lm	**3K7**	3000K, 70 CRI	**5QW**	Type 5 Square Wide	**UNV**	120V-277V	**BLT**	Black Matte Textured	**CD**	Continuous Dimming[4]
		20	20W Nominal 2500 lm	**3K8**	3000K, 80 CRI	**5C**	Type 5 Concentrated	**120**	120V	**BLS**	Black Gloss Smooth	**WG**	Wire Guard
		35	35W Nominal 4000 lm	**35K8**	3500K, 80 CRI			**208**	208V	**DBT**	Dark Bronze Matte	**UD**	Uplight Module[3]
		55	55W Nominal 6000 lm	**4K7**	4000K, 70 CRI			**240**	240V	**DBS**	Dark Bronze Gloss Smooth	**F**	Single Fuse (120, 277)[1]
				4K8	4000K, 80 CRI			**277**	277V	**GTT**	Graphite Matte Textured	**LD3**	36" Lead Length[2]
				5K7	5000K, 70 CRI					**LGS**	Light Grey Gloss Smooth	**LD6**	72" Lead Length[2]
										PSS	Platinum Silver Smooth	**LD9**	108" Lead Length[2]
										WHT	White Matte Textured	**SP10K**	10kA Surge Protection[3]
										WHS	White Gloss Smooth	**LMB**	Less Mounting Bracket
										VGT	Verde Green Textured		
										Color Option			
										CC	Custom Colors		

Control Options	
NX Standalone	
NXOS12F	NX Distributed Intelligence™, PIR Occ. Sensor, Dimming Daylight Harvesting, up to 12' MH
Sensor Controls	
SCP-8F	Remote control programmable line voltage sensor (8-12' recommended mounting height)[5]
SCP-20F	Remote control programmable line voltage sensor (12-20' recommended mounting height) [5]

Accessories (Order Separately)		
☐	**SRT1-WG**	Wire Guard
☐	**SRT-MB**	Mounting bracket for pre-installation
☐	**SRT1-BS-XXX**	Bird deterrent shroud for SRT1 version, not available with uplight
☐	**SCP-REMOTE**	Remote control for SCP option; order at least on per project to program and control

Notes:

1 Must specify voltage
2 Standard wire lead length 24"
3 SP10K or NXOS12F not available with uplight (UD)
4 Specify when using external 0-10V dimming system
5 120V or 277V only

PERFORMANCE DATA

Nominal Watts	Nominal Lumens	Distribution	5K (5000K NOMINAL 70 CRI)					4K (4000K NOMINAL 70 CRI)					3K (3000K NOMINAL 70 CRI)				
			Lumens	LPW	B	U	G	Lumens	LPW	B	U	G	Lumens	LPW	B	U	G
15	2000	5C	2470	146.61	1	0	1	2459	145.91	1	0	1	2364	140.30	1	0	1
		5QW	2378	141.15	1	0	1	2367	140.48	1	0	1	2276	135.07	1	0	1
20	3000	5C	3093	136.86	1	0	1	3078	136.21	1	0	1	2960	130.97	1	0	1
		5QW	2974	131.60	1	0	1	2960	130.97	1	0	1	2846	125.93	1	0	1
35	4500	5C	4757	131.05	2	0	1	4734	130.42	2	0	1	4552	125.41	2	0	1
		5QW	4574	126.01	2	0	1	4552	125.41	2	0	1	4377	120.58	2	0	1
55	6500	5C	6814	127.13	2	0	1	6782	126.52	2	0	1	6521	121.66	2	0	1
		5QW	6552	122.24	3	0	1	6521	121.66	3	0	1	6270	116.98	3	0	1

ELECTRICAL DATA

Nominal Watts	System Watts	Line Voltage		AMPS AC				Dimming Range	Absolute Voltage Range on 0-10V (+)	
		VAC	HZ	120	208	240	277		VAC	HZ
15	16.9	120-277	50/60	0.14	0.08	0.07	0.06	10% to 100%	0V	10V
20	21.6	120-277	50/60	0.18	0.10	0.09	0.08	10% to 100%	0V	10V
35	34.6	120-277	50/61	0.29	0.17	0.14	0.12	10% to 100%	0V	10V
55	54.9	120-277	50/62	0.46	0.26	0.23	0.20	10% to 100%	0V	10V

HUBBELL Lighting

DATE: LOCATION:

TYPE: PROJECT:

CATALOG #:

SRT1 EDGE-LIT

CEILING/SURFACE/GARAGE

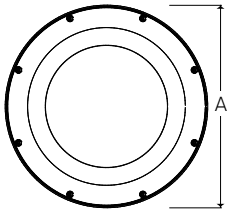
PROJECTED LUMEN MAINTENANCE

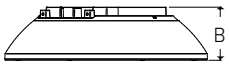
Ambient Temp.	0	25,000	*TM-21-11 36,000	50,000	100,000	Calculated L_{70} (Hours)
25°C / 77°F	1.00	0.98	0.96	0.95	0.89	278,000
40°C / 104°F	0.99	0.98	0.96	0.94	0.88	264,000

LUMINAIRE AMBIENT TEMPERATURE FACTOR (LATF)

Ambient Temperature		Lumen Multiplier
0°C	32°F	1.03
10°C	50°F	1.01
20°C	68°F	1.00
25°C	77°F	1.00
30°C	86°F	0.99
40°C	104°F	0.98
50°C	122°F	0.97

DIMENSIONS



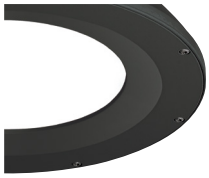


A	B	Weight
12" (304mm)	3.1" (78mm)	8lbs (3.6kg)

ADDITIONAL INFORMATION

FINISH OPTIONS

DB Dark Bronze Textured



BL Black Textured

PS Platinum Silver Smooth

GYS Gray Smooth

WH White Textured

GT Graphite Textured

Wire Guard

An optional wire guard can be specified at the factory or as an accessory for field installation.

Bird Deterrent

An optional bird shroud deterrent can be specified at the factory or as an accessory for field installation.

DATE: LOCATION:

TYPE: PROJECT:

CATALOG #:

SRT1 EDGE-LIT

CEILING/SURFACE/GARAGE

ADDITIONAL INFORMATION (CONT'D)

MOUNTING

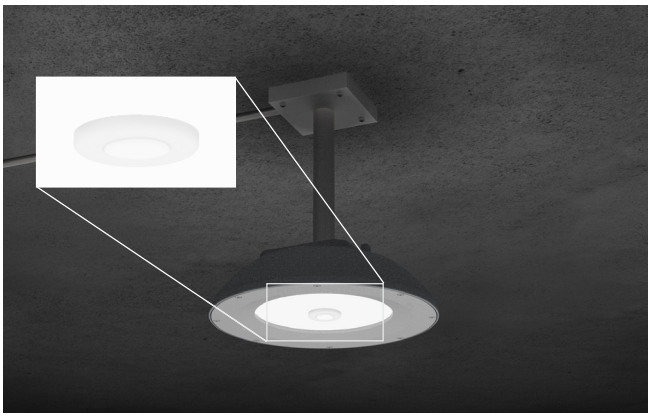
Surface Mount

Mounting plate with “quick mount” hanger for one person simple installation.

Pendant Mount

Standard 3/4" threaded entry for pendant applications.

CONTROLS

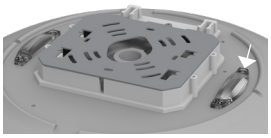


Standalone Controls

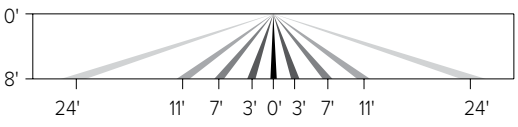
Optional passive infrared sensors are available for basic occupancy and daylight sensing. Programmable via remote or Bluetooth® phone app.

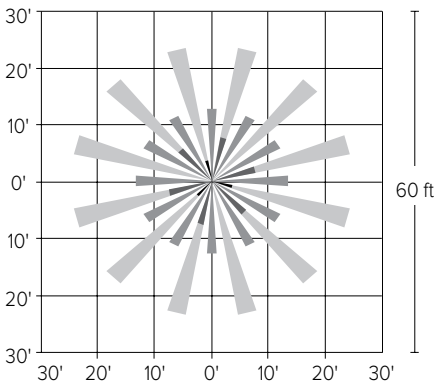
Uplight

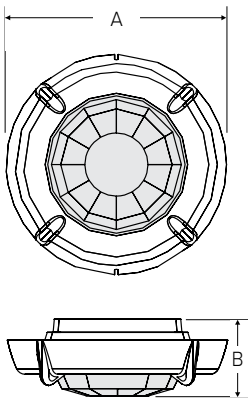
Optional uplight module provides 800 lumens of indirect illumination for improved visual quality while eliminating cave effect.



SCP-8F







A	B
2.3" (59mm)	.8" (20mm)

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DATE: LOCATION:

TYPE: PROJECT:

CATALOG #:

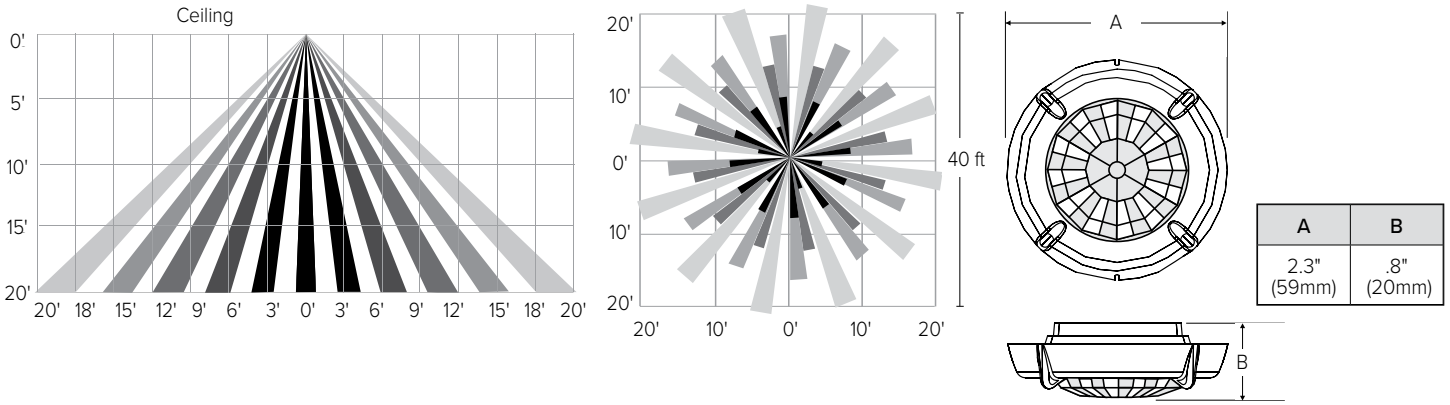
SRT1 EDGE-LIT

CEILING/SURFACE/GARAGE

ADDITIONAL INFORMATION (CONT'D)

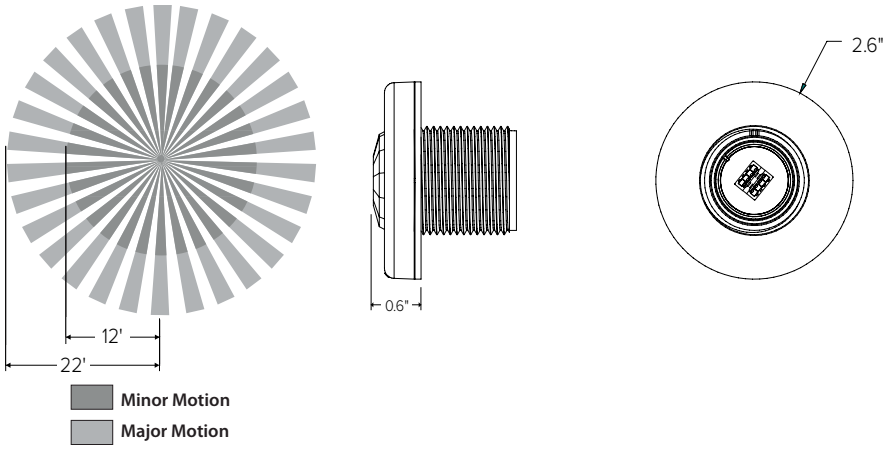
CONTROLS (CONT'D)

SCP-20F



A	B
2.3" (59mm)	.8" (20mm)

NXOS12F



NXSMP-OMNI Range

USE OF TRADEMARKS AND TRADE NAMES

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HUBBELL Lighting

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DATE: | LOCATION:

TYPE: | PROJECT:

CATALOG #:

SRT2 EDGE-LIT

CEILING/SURFACE/GARAGE

DRIVE EDGE-LIT

FEATURES

- Edge-lit optical assembly delivers exceptional uniformity over the entire lens with indirect illumination that reduces glare and improves visual comfort
- Low profile housing intended for 8' - 20' mounting heights for surface, trunnion/yoke or pendant mounting
- Applications include parking garage, walkway or building canopies, corridors, tunnels, large stairwells and other interior applications
- Multiple optical distributions are available making the Beacon Edge-Lit luminaire both versatile and functional
- UL/cUL listed for wet locations, IP65

RELATED PRODUCTS

Drive Edge-Lit SRT1 | Arceos™ ARS Surface | Endura

CONTROL TECHNOLOGY

NX DISTRIBUTED™ INTELLIGENCE wiSCAPE™

SPECIFICATIONS

HOUSING

- Die-cast aluminum housing ensures long electrical component life and luminaire performance
- Corrosion resistant powder coat finish both protects and provides architectural appearance
- One piece molded silicone gasket ensures weather proof seal
- Thermally isolated driver mounted to dedicated bracket reduces operating temperatures and increases driver life and reliability

OPTICS

- Edge-lit acrylic light guide provides blended non-pixelated light for unprecedented visual comfort
- Choice of multiple light outputs with lumen range of 4,000–16,000
- Five distribution types: Type V Square, Type V Rectangular, Type V Concentrated, Type V Wide or Asymmetric (Type 3/4)
- Wide variety of CCT's and CRI's offered: 3000K (70CRI), 3000K (80CRI), 3500K (80CRI), 4000K (70CRI), 4000K (80CRI) or 5000K (70 CRI) CCT

ELECTRICAL

- 120V–277V 50/60Hz with 347V and 480V available
- 0-10V dimming drivers are RoHS compliant and IP66
- Surge protection – Standard 10kA with optional 20kA end of life LED indicator

INSTALLATION

- Standard quick mount plate over standard 4" square junction box or octagonal box and allows for simplified fixture installation.
- Standard luminaire accepts a rigid or free-swinging 3/4" NPT stem for pendant mount via wet location j-box (by others)
- Optional bird deterrent shroud available for field installation
- Optional trunnion/yoke mount available for field installation

OPTIONS/CONTROLS

- Standalone occupancy sensor available for on/off or dimming operation
- NX Distributed Intelligence™ available with in fixture wireless control module, features dimming and occupancy sensor
- wiSCAPE® available with in fixture wireless control module, features dimming and occupancy sensor
- UL924 device available for standalone and wireless control override during power interruptions
- Uplight option provides approximately 800 lumens and consumes only 8 additional watts
- Integral battery backup option available with and without heater. Rated for 0°C (without heater) and -30°C (with heater)
- Emergency lighting relay available for generator or central inverter supplied lighting
- Vandal resistant wire guard available as an option for factory installation or as an accessory for field installation

CERTIFICATIONS

- Listed to UL1598 for use in wet location, listed for -40°C to 40°C applications
- IDA approved with zero uplight for 3000K and warmer CCTs
- DLC® (DesignLights Consortium) Qualified. Please refer to the DLC website for specific product qualifications at www.designlights.org
- IP65

WARRANTY

- 5 year warranty
- See HLI Standard Warranty for additional information

KEY DATA	
Lumen Range	4000–16000
Wattage Range	30–140
Efficacy Range (LPW)	110–135
Reported Life (Hours)	50K
Weight lbs. (kg)	15 (5.8)

SRT BROCHURE

HUBBELL Lighting

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DATE: LOCATION:

TYPE: PROJECT:

CATALOG #:

SRT2 EDGE-LIT

CEILING/SURFACE/GARAGE

ORDERING GUIDE

Example: SRT2-30-3K7-5QW-UNV-BLT-WG

CATALOG #

Series		Engine		CCT		Distribution		Voltage		Color/Finish		Options	
SRT2	Edge-Lit Parking Garage Size 2	**30**	30W Nominal 4000 lm	**3K7**	3000K, 70 CRI	**5QW**	Type Square Wide[1]	**UNV**	120V-277V	**BLT**	Black Matte Textured	**CD**	Continuous Dimming[6]
		50	50W Nominal 6000 lm	**3K8**	3000K, 80 CRI	**5RW**	Type 5 Rect. Wide[1]	**120**	120V	**BLS**	Black Gloss Smooth	**WG**	Wire Guard
		65	65W Nominal 8000 lm	**35K8**	3500K, 80 CRI	**5C**	Type 5 Concentrated	**208**	208V	**DBT**	Dark Bronze Matte Textured	**UD**	Uplight Module[3]
		85	85W Nominal 10000 lm	**4K7**	4000K, 70 CRI	**5W**	Type 5 Wide[4]	**240**	240V	**DBS**	Dark Bronze Gloss Smooth	**F**	Single Fuse (120, 277, 347V)
		100	100W Nominal 12000 lm	**4K8**	4000K, 80 CRI	**ASY**	Asymmetric (Type 4)[1]	**277**	277V	**GTT**	Graphite Matte Textured	**F**	Double Fuse (208, 240, 480V)
		120	120W Nominal 14000 lm	**5K7**	5000K, 70 CRI			**347**	347V	**LGS**	Light Grey Gloss Smooth	**E**	EM Battery Pack (0°C)[2]
		140	140W Nominal 16000 lm					**480**	480V	**PSS**	Platinum Silver Smooth	**EH**	EM Battery w/Heater (-30°C)[2]
										WHT	White Matte Textured	**DTS**	Dimming Transfer Switch
										WHS	White Gloss Smooth	**LD3**	36" Lead Length[5]
										VGT	Verde Green Textured	**LD6**	72" Lead Length[5]
										Color Option		**LD9**	108" Lead Length[5]
										CC	Custom Color	**SP20K**	20kA Surge Protection with End of Life Indicator
												LMB	Less Mounting Bracket

Control Options

NX Standalone

NXOS-12F	NX Distributed Intelligence™, PIR Occ. Sensor, Dimming Daylight Harvesting, up to 12' MH
NXOS924-12F	NX Distributed Intelligence™, PIR Occ. Sensor with UL924 dimming bypass module for controls override, up to 12' MH[3]

NX Networked – Wireless[1]

NXWE	NX Distributed Intelligence™ Wireless Enabled (module + radio)
NXOSW-12F	NX Distributed Intelligence™ Wireless, PIR Occ. Sensor, Dimming Daylight Harvesting, up to 12' MH
NXWE924	NX Distributed Intelligence™ Wireless Enabled with UL924 dimming bypass module for controls override[3]
NXOSW924-12F	NX Distributed Intelligence™ Wireless, PIR Occ. Sensor with UL924 dimming bypass module for controls override, up to 12' MH[3]

wiSCAPE® – Wireless[1]

WIR	Wireless Controls, wiSCAPE®
WIRSC	wiSCAPE® + occupancy sensor
WIR924	Wireless Controls, wiSCAPE® with UL924 dimming bypass module for controls override[3]
WIRSC924	wiSCAPE® + occupancy sensor with UL924 dimming bypass module for controls override[3]

SiteSync

SWP	SiteSync[3,7]
SWPM	SiteSync with occupancy sensor[3,7]

Sensor Controls

SCP-8F	Remote control programmable line voltage sensor (8-12' recommended MH)[2]
SCP-20F	Remote control programmable line voltage sensor (12-20' recommended MH)[2]
SCP924-8F	Programmable sensor with UL924 dimming bypass module for controls override (8-12' recommended MH)[3]
SCP924-20F	Programmable sensor with UL924 dimming bypass module for controls override (12-20' recommended MH)[3]

Accessories (Order Separately)

☐	**SRT2-WG**	Wire Guard for SRT2 version
☐	**SRT-MB**	Mounting bracket for pre-installation
☐	**SRT2-BS-XXX**	Bird deterrent shroud for SRT2 version, not available with uplight or trunnion mount
☐	**SRT2-TM**	Trunnion/Yoke accessory for SRT2 version
☐	**SCP-REMOTE**	Remote control for SCP option; order at least on per project to program and control

Notes:

1 Up to 85W light engines only
2 Must specify voltage, 120V or 277V
3 SP10K or NXOS12F not available with uplight (UD)
4 100–140W light engines only
5 Standard wire lead length 24"
6 Specify when using external 0-10V dimming system
7 65W and 85W only

HUBBELL Lighting

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DATE: LOCATION:

TYPE: PROJECT:

CATALOG #:

SRT2 EDGE-LIT

CEILING/SURFACE/GARAGE

PERFORMANCE DATA

# of LEDs	Engine	DRIVE CURRENT (mA)	SYSTEM WATTS	DISTRIBUTION TYPE	5K (5000K nominal, 70 CRI)					4K (4000K nominal, 70 CRI)					3K (3000K nominal, 70 CRI)				
					LUMENS	LPW*	B	U	G	LUMENS	LPW*	B	U	G	LUMENS	LPW*	B	U	G
280	30	35mA	31.0	5C	3789	122.23	2	0	2	3771	121.65	2	0	2	3626	116.97	2	0	2
				5QW	3686	118.89	2	0	1	3668	118.33	2	0	1	3527	113.77	2	0	1
				ASY	2991	96.48	1	0	2	2976	96.02	1	0	2	2862	92.32	1	0	2
				5RW	3604	116.26	2	0	2	3587	115.71	2	0	2	3449	111.26	2	0	2
	50	55mA	48.1	5C	5684	118.17	2	0	2	5657	117.60	2	0	2	5439	113.08	2	0	2
				5QW	5529	114.94	2	0	1	5502	114.39	2	0	1	5291	109.99	2	0	1
				ASY	4486	93.27	1	0	2	4465	92.82	1	0	2	4293	89.25	1	0	2
				5RW	5406	112.40	2	0	2	5380	111.86	2	0	2	5174	107.56	2	0	2
	65	75mA	65.1	5C	7105	109.14	2	0	2	7071	108.61	2	0	2	6799	104.44	2	0	2
				5QW	6911	106.16	2	0	1	6878	105.65	2	0	1	6613	101.58	2	0	1
				ASY	5608	86.14	1	0	2	5581	85.73	1	0	2	5366	82.43	1	0	2
				5RW	6758	103.81	2	0	2	6726	103.31	2	0	2	6467	99.34	2	0	2
	85	100mA	87.2	5C	9473	108.63	2	0	2	9428	108.11	2	0	2	9065	103.96	2	0	2
				5QW	9214	105.67	2	0	1	9170	105.16	2	0	1	8818	101.12	2	0	1
				ASY	7477	85.75	1	0	2	7441	85.33	1	0	2	7155	82.05	1	0	2
				5RW	9011	103.33	2	0	2	8967	102.84	2	0	2	8623	98.88	2	0	2
560	100	55mA	93.2	5C	11090	118.99	4	0	3	11037	118.42	4	0	3	10612	113.86	4	0	3
				5W	10788	115.75	4	0	3	10736	115.19	4	0	3	10323	110.76	4	0	3
	120	65mA	110.9	5C	13012	117.33	4	0	3	12950	116.77	4	0	3	12451	112.28	4	0	3
				5W	12657	114.13	4	0	3	12597	113.59	4	0	3	12112	109.22	4	0	3
	140	75mA	128.5	5C	14786	115.07	4	0	3	14715	114.52	4	0	3	14149	110.11	4	0	3
				5W	14383	111.93	4	0	3	14315	111.40	4	0	3	13764	107.11	4	0	3

Notes:

* Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representative of the configurations shown. Actual performance may differ as a result of end-user environment, application and inherent performance tolerances of the electrical components.

ELECTRICAL DATA

# OF LEDS	INPUT VOLTAGE (V)	CURRENT (Amps)	SYSTEM POWER (w)
30	120	0.26	31
	208	0.15	
	240	0.13	
	277	0.11	
	347	0.09	
	480	0.06	
50	120	0.40	48.1
	208	0.23	
	240	0.20	
	277	0.17	
	347	0.14	
	480	0.10	
65	120	0.40	65.1
	208	0.23	
	240	0.20	
	277	0.17	
	347	0.14	
	480	0.10	
85	120	0.73	87.2
	208	0.42	
	240	0.36	
	277	0.31	
	347	0.25	
	480	0.18	
100	120	0.78	93.2
	208	0.45	
	240	0.39	
	277	0.34	
	347	0.27	
	480	0.19	
120	120	0.92	110.9
	208	0.53	
	240	0.46	
	277	0.40	
	347	0.32	
	480	0.23	
140	120	1.07	128.5
	208	0.62	
	240	0.54	
	277	0.46	
	347	0.37	
	480	0.27	

PROJECTED LUMEN MAINTENANCE

AMBIENT TEMP.	0	25,000	TM-21-11 36,000	50,000	100,000	Reported L70 (HOURS)	Calculated L70 (HOURS)
25°C / 77°C	1.00	0.97	0.95	0.94	0.89	>60,000	>266,000
40°C / 104°C	0.99	0.96	0.94	0.93	0.85	>60,000	>211,000

AMBIENT TEMPERATURE		LUMEN MULTIPLIER
0°C	32°F	1.03
10°C	50°F	1.01
20°C	68°F	1.00
25°C	77°F	1.00
30°C	86°F	0.99
40°C	104°F	0.98
50°C	122°F	0.97

Use these factors to determine relative lumen output for average ambient temperatures from 0–25°C (32-122°F)

HUBBELL Lighting

DATE: LOCATION:

TYPE: PROJECT:

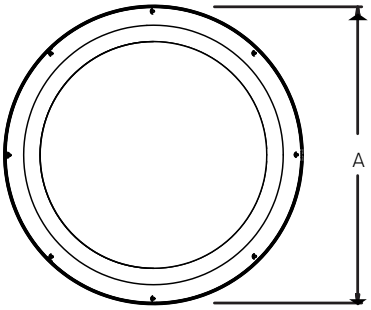
CATALOG #:

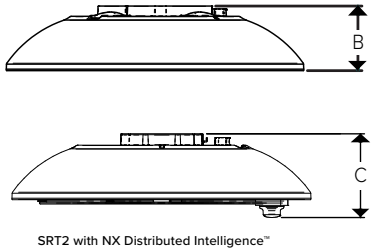
SRT2 EDGE-LIT

CEILING/SURFACE/GARAGE

DIMENSIONS

SRT2



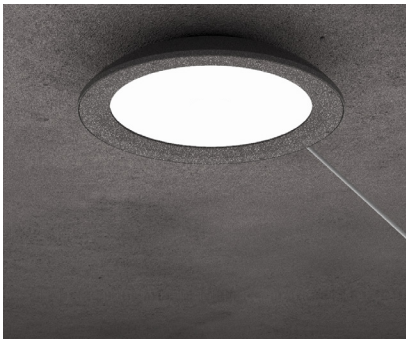


SRT2 with NX Distributed Intelligence™

A	B	C	Weight
18.5" (469mm)	4.0" (1mm)	5.2" (132mm)	15bs (6.8kg)

ADDITIONAL INFORMATION

MOUNTING

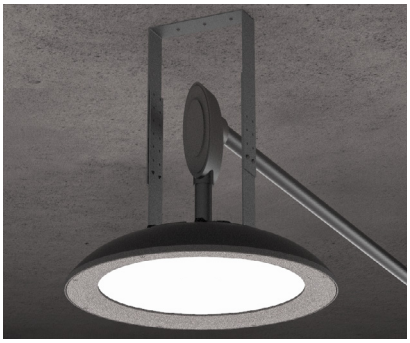


Surface Mount

Mounting plate with “quick mount” hanger for one person simple installation. (conduit not included)

Pendant Mount

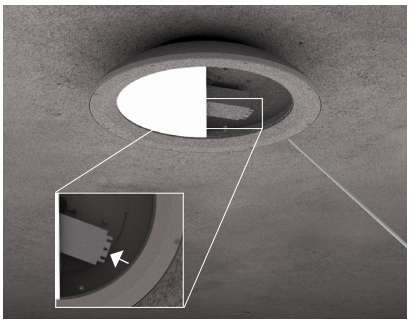
Standard 3/4" threaded entry for pendant applications. (conduit not included)



Trunnion/Yoke Mount

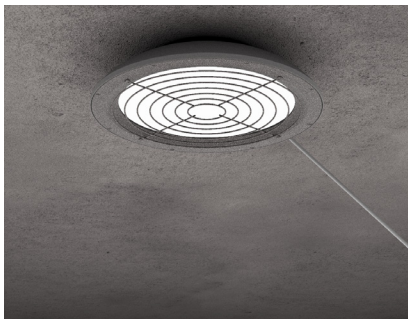
Multiple position trunnion mount adjusts 9" up and down for positioning in 1" increments. (conduit not included)

ACCESSORIES AND SERVICES



Battery Backup

Integral battery backup option available on SRT2 version. (conduit not included)



Wire Guard

An optional wire guard can be specified at the factory or as an accessory for field installation. (conduit not included)

Bird Deterrent

An optional bird shroud deterrent can be specified at the factory or as an accessory for field installation. (conduit not included)

DATE: LOCATION:

TYPE: PROJECT:

CATALOG #:

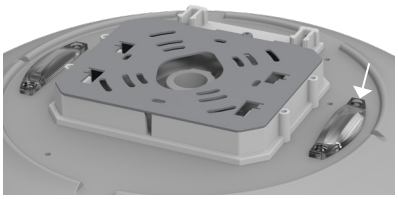
SRT2 EDGE-LIT

CEILING/SURFACE/GARAGE

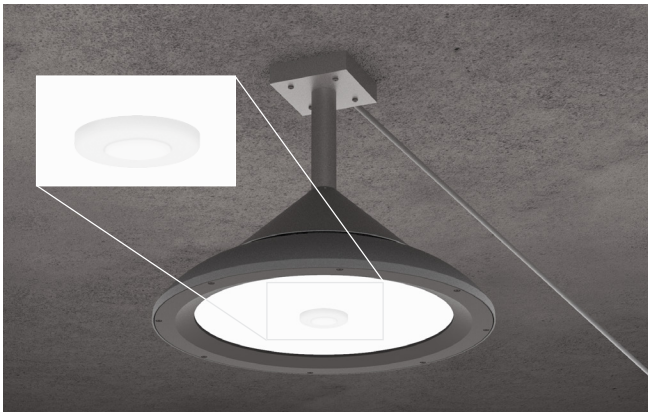
ADDITIONAL INFORMATION CONTINUED

UPLIGHT

Optional uplight module provides 800 lumens of indirect illumination for improved visual quality while eliminating cave effect.

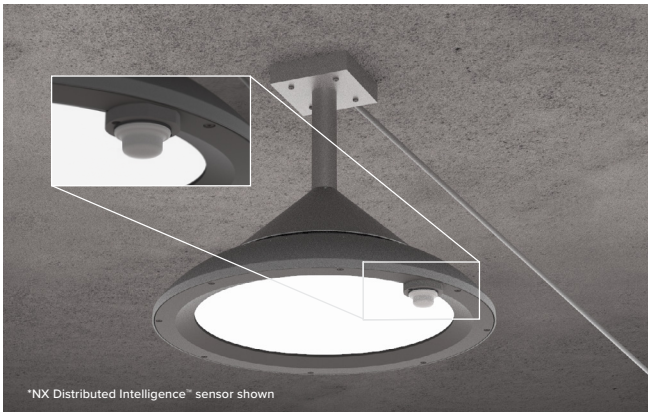


CONTROLS



Standalone Controls

Optional passive infrared sensors are available for basic occupancy and daylight sensing. Programmable via remote or Bluetooth® phone app. (conduit not included)



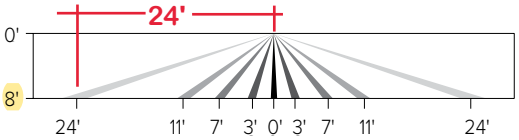
Wireless Controls

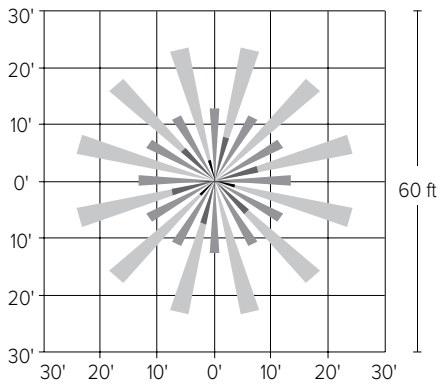
NX DISTRIBUTED™ INTELLIGENCE

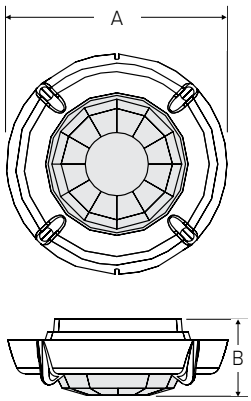
wiSCAPE™ WIRELESS OUTDOOR LIGHTING SYSTEM

Optional NX Distributed Intelligence™ and wiSCAPE® wireless controls are available for SRT2 versions (with or without occupancy sensing). (conduit not included)

SCP-8F







A	B
2.3" (59mm)	.8" (20mm)

HUBBELL Lighting

DATE: LOCATION:

TYPE: PROJECT:

CATALOG #:

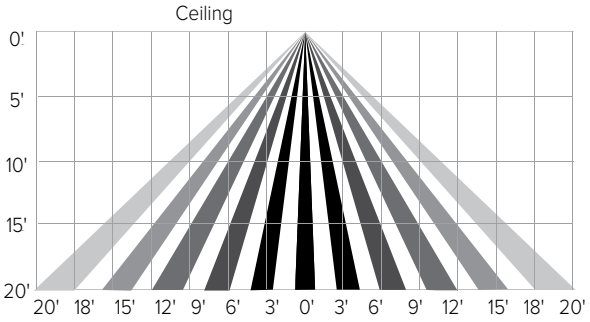
SRT2 EDGE-LIT

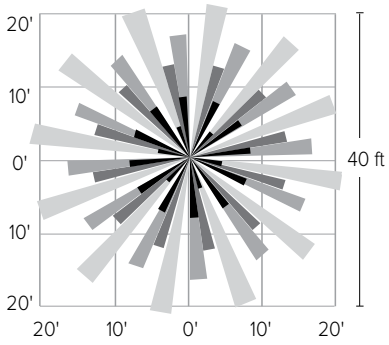
CEILING/SURFACE/GARAGE

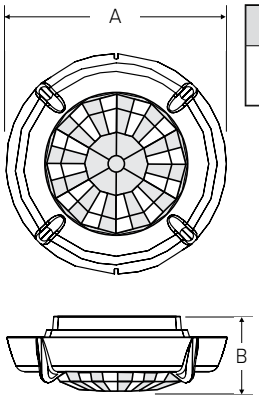
ADDITIONAL INFORMATION CONTINUED

CONTROLS (CONT'D)

SCP-20F

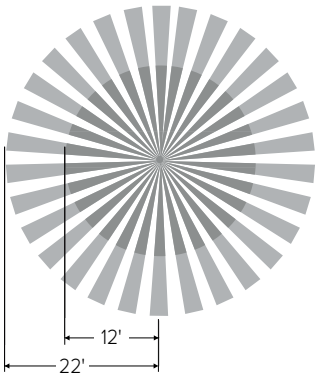


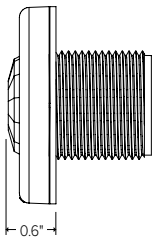


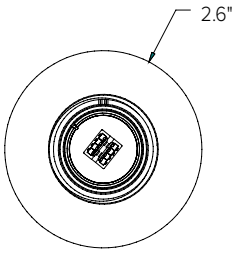


A	B
2.3" (59mm)	.8" (20mm)

NXOS12F







Minor Motion

Major Motion

NXSMP-OMNI Range

USE OF TRADEMARKS AND TRADE NAMES

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Exhibit 23 - Architectural Plans and Chapter 702 Architectural Standards Assessment:

Plans and assessment matrix have been prepared by Barrett Made are bound separately and attached to this submission.

Exhibit 23

Architectural Plans and Chapt 702 Assessment
(Bound Separately)