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TOWN OF NORWELL
ZONING BOARD OF APPEALS

15 HIGH STREET

A New Mixed-Income Community

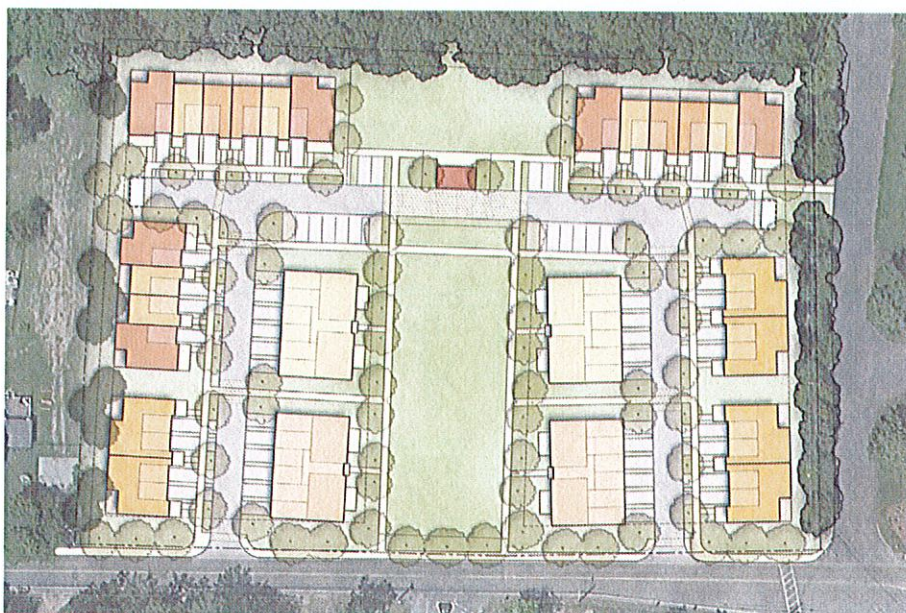
Norwell, MA

TOWN OF NORWELL
TOWN CLERK

2021 MAY -4 A 11: 29

RECEIVED

Application for Comprehensive Permit



Submitted to the Norwell Zoning Board of Appeals

April 30, 2021

Sponsor: Northland Residential Corporation

Town of Norwell, Massachusetts
ZONING BOARD OF APPEALS

Subject Property: A 3.88-acre parcel of land consisting of 15, 19, 27 & 35 High Street

**APPLICATION FOR A COMPREHENSIVE PERMIT
UNDER GENERAL LAW CHAPTER 40B, SECTIONS 20 - 23**

Northland Residential Corporation (hereinafter the “Applicant”) hereby applies to the Board of Appeals of the Town of Norwell, Massachusetts, pursuant to General Laws, Chapter 40B, Section 20 through 23, as amended, for the issuance of a Comprehensive Permit authorizing the applicant to construct 56 rental units on land located at 15, 19, 27 & 35 High Street in Norwell, Massachusetts. The applicant and the development are more particularly described in the exhibits hereto annexed and submitted simultaneously herewith, all of which are incorporated herein by reference and constitute the documents required to be submitted under the regulations for filing a 40B application by the Massachusetts Department of Housing and Community Development (760 CMR 56.00).

The applicant respectfully requests the Board of Appeals after complying with the procedural requirements as provided by law, to issue to the applicant a Comprehensive Permit for the development.

NORTHLAND RESIDENTIAL LLC.

John C. Dawley
President & CEO

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(contained in separate document)

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PROJECT NARRATIVE

Application

This is an application by Northland Residential Corporation (“Applicant”) to Norwell Board of Appeals (“Board” or “ZBA”) pursuant to MGL Chapter 40B, §21 and 760 CMR 56.00 et seq. for a Comprehensive Permit to construct a new, high-quality residential community with 56 rental units in ten buildings (“Project”) on land located at 15, 19, 27 and 35 High Street in Norwell, which consists of approximately 3.88 acres of land and is shown on the Norwell Assessing Maps as Mblu 17/67/PID 667, Mblu 17/16/PID 606, Mblu 17/17/PID 607, and Mblu 17/18/PID 608 and is located in the Residence B, Business C1, and Business B4 Zoning Districts and is improved with a number of structures which will be removed (“Property”).

Applicant

The Applicant is Northland Residential Corporation. Northland will form a limited dividend organization for the Project that will be named later. Northland has successfully designed, permitted, and built many hundreds of housing units in Massachusetts during its nearly fifty-year history. Known for its high-end work in suburban Boston, the company is current constructing a 44-unit townhouse 40B development in Wellesley and a 60-unit townhouse development in Milton, along with an 8-unit 40B project in Falmouth.

Development Team

Northland has assembled a team of experienced professionals with records of success in their fields of expertise. All of them have completed many substantial projects, including 40B projects. Their work has held up to peer review and has stood the test of time. The team includes Union Studio Architecture and Community Design, Merrill Engineers and Land Surveyors, Ryan Associates, Vanasse & Associates, Freeman Law Group, Metro West Collaborative Development, and Dale Associates. Additional information about the team can be found in Exhibit 4, Attachment 1.b of this application.

Project Overview

The applicant proposes to redevelop multiple parcels containing approximately 3.88 acres (169,341 sf) of land along High Street in Norwell, Massachusetts. The Project site is located on the west side of High Street and consists of four lots whose addresses are 15, 19, 27 and 35 High Street. They are shown on the Norwell Assessors Maps as Mblu 17/67/PID 667, Mblu 17/16/PID 606, Mblu 17/17/PID 607, and Mblu 17/18/PID 608.

The Project is shown on drawings entitled “15 High Street Proposed Residential Development, Norwell, Massachusetts,” dated April 30, 2021, which consist of 9 sheets prepared by Merrill Engineers & Land Surveyors and signed and stamped by Deborah Keller, P.E., 1 sheet prepared by Ryan Associates, and 1 sheet prepared by Progress Lighting, and on drawings entitled “15 High Street, Norwell, MA Schematic Architectural Package,” dated January 29, 2021, which consist of 24 sheets prepared by Union Studio Architecture & Community Design (collectively the “Plans”).

The redevelopment scope includes the razing of four existing single-family homes and the construction of ten new buildings containing 56 rental housing units, including 28 one-bedroom units, 22 two-bedroom units, and 6 three-bedroom units for a total of 90 bedrooms; and 14 of the units will be affordable to households earning up to 80 percent of the median area income. There will be 122 parking spaces, a ratio of 2.2 to 1. The combined gross floor area of the new buildings will be approximately 83,400 sf.

The site work includes the construction of entrance driveways, sidewalks, parking, landscaping, stormwater facilities, an on-site septic system, utility services and associated infrastructure.

Local Need

The Town of Norwell (“Town”)’s affordable housing inventory falls short of the Chapter 40B statutory minimum of having 10% housing stock being comprised of low and moderate (“affordable”) income units, with the Town having only 4.9% its total housing units that are affordable based upon the December 21, 2020 Subsidized Housing Inventory (“SHI”) maintained by DHCD, which is the latest published SHI. As the Board is aware, when a community does not satisfy the statutory or regulatory affordable housing minima, there is a presumption that there is a substantial regional housing need that outweighs local concerns. 760 CMR 56.07(3)(a). In such an instance, MGL c.40B, §§20-23 and 760 CMR 56.00 et seq. require a zoning board of appeals to grant a comprehensive permit to allow the construction of low- and moderate-income housing and provide relief from otherwise applicable local requirements and regulations, including but not limited to zoning bylaws, subdivision rules and other local requirements and regulations (“Local Requirements”).

A zoning board of appeals may not insist upon compliance with Local Requirements unless such compliance is “Consistent With Local Needs;” and, under G.L. c.40B, §20, Local Requirements will be considered “Consistent With Local Needs” only if “they are reasonable in view of the regional need for low and moderate income housing considered with the number of

low income persons in the city or town affected and the need to protect the health or safety of the occupants of the proposed housing or of the residents of the city or town, to promote better site and building design in relation to the surroundings, or to preserve open spaces, and if such requirement and regulations are applied as equally as possible to both subsidized and unsubsidized housing.” The Applicant has worked to carefully design the Project to be Consistent With Local Needs.

The Project will bring 14 much-needed affordable rental units to the Town and the Project has been carefully designed to mitigate Local Concerns. The Applicant believes, for all the reasons set forth herein, that the Project meets all of the requirements for a Comprehensive Permit under the statute and applicable state regulations, that it will be a benefit to the Town, and a Comprehensive Permit should and is required to be issued for the Project.

Project Eligibility

The Applicant and the Project are eligible to apply for and receive a comprehensive permit from the Board because, on April 21, 2021, the Applicant received a Project Eligibility Letter (“PEL”) for the Project from Massachusetts Housing Partnership (“MHP”) under 760 CMR 56.04(6). A copy of the PEL is submitted herewith as Exhibit 2.

The PEL contains all of the findings required under 760 CMR 56.04(4); and, under 760 CMR 56.04(6), issuance of the PEL “shall be considered by the Board ... to be conclusive evidence that the Project and the Applicant have satisfied the project eligibility requirements of 760 CMR 56.04(1)” so as to allow the Applicant to be eligible to apply for and obtain a comprehensive permit for the Project. Specifically, the PEL establishes that all of the project eligibility requirements as set forth below have been satisfied:

As evidenced by the written Determination of Project Eligibility set forth in the PEL, the project is eligible under MHP’s Permanent Rental Housing Program.

Funding

Prior to Massachusetts Housing Partnership’s issuance of the PEL, Middlesex Savings Bank issued a letter indicating their interest in financing the Project. Middlesex Savings Bank has financed a number of projects for Northland Residential, including two 40B projects that are currently under construction.

Site Control

The Applicant controls the property according to the requirements of 760 CMR 56.04(1)(c) of the 40B Regulations, as evidenced by Massachusetts Housing Partnership's issuance of a PEL and as further evidenced by the purchase and sale agreement contained in Exhibit 4, Attachment 4.a of this application.

Existing Conditions

The subject property consists of four contiguous lots whose addresses are 15, 19, 27, and 35 High Street, Norwell. The combined area of the lots is approximately 169,341 square feet. The FEMA Flood Insurance Rate Map 25023C0092J dated July 17, 2012 indicates that the property is located within an Area of Minimal Flood Hazard (Zone X). The Massachusetts Natural Heritage Atlas, 14th Edition (2017), indicates that the property does not contain any priority habitat or estimated habitat for rare species. According to Massachusetts Division of Fisheries and Wildlife maps, the property does not contain and is not within 100 feet of any vernal pools. The Town of Norwell GIS map indicates that the property does not contain any wetlands resources. The property shows no evidence of ledge.

Each of the four lots in the property contains an existing structure. 15 and 19 High Street are vacant single-family dwelling units. The property owner applied for demolition permits for these units in 2015, and the Norwell Historical Commission imposed a one-year demolition delay which has since expired. 27 High Street is an occupied single-family home. In 2016, the Norwell Historical Commission issued a letter indicating that the home is not historically significant and may be demolished. 35 High Street is an office located in a single-family-style structure. It was built in the mid-twentieth century and is not listed in the Historical Commission's inventory of historic buildings.

An underground stormwater drainage pipe runs along the southern border of the subject property. A plan recorded in the Norfolk County Registry of Deeds ('87-902) indicates that the pipe is located directly at the property line between 35 and 37 High Street, and that there is a twenty-foot permanent easement along the path of the pipe, ten feet of which is located within the subject property.

Architectural Design & Site Planning

In considering the layout for 15 High Street, our goal was to balance the efficiency of a mid-density project with the scale and character of a walkable neighborhood that fits seamlessly into the larger Norwell community. The neighborhood is organized around a single loop road that provides two points of access while also avoiding potential conflicts with the existing access

drive to the commercial property across High Street, as well as a pair of centralized green spaces that double as shared outdoor spaces and needed stormwater and septic areas. The homes, roads and greens are connected by a network of sidewalks that will foster a sense of community and make it possible for residents to walk to neighborhood amenities, local businesses, and places of employment. Most units include a one car garage with room for a second car as needed in the driveway. The neighborhood also includes guest parking in centralized locations.

When distributing and designing the architecture, care was given to try and keep the scale of the buildings in the range of one-and-a-half to two-and-a-half stories, in keeping with the surrounding context. The buildings have been oriented such that they present their shorter side facades to High Street, replicating the existing pattern and spacing of the single-family homes that inhabit the rest of this street. Care was also given to locate lower scale one-and-a-half story buildings at the edges, stepping up to the two-and-a-half story buildings at the middle and rear of the site. The use and scale of the community make it a natural transition between the residential neighborhood to the south and the commercial area to the north.

While the units themselves are a combination of townhouses and small multi-family structures, they have been designed to still feel residential in character, including the use of details that respect the local wood vernacular but with materials that provide longer term durability with lower required maintenance. Most units also include a front door accessed from individual porches and stoops, giving each home a sense of connection and individuality.

In terms of unit types, the Project features a wide variety of plans that range from 800 square feet up to almost 1,800 square feet. These include one bedroom, two bedroom, and three bedroom options, often including separate spaces that can serve as dens or home offices. There is an accessible unit for each bedroom type and a number of other adaptable accessible units. Twenty of the units have bedrooms on the ground floor, making them well-suited for Norwell's growing senior population. The unit types should allow for a variety of potential residents that represent a healthy mix of income and household types, addressing one of the primary goals of Norwell's Housing Production Plan.

Civil Design

Under the post-development condition, the proposed impervious surface runoff will be discharged into a subsurface infiltration chamber system with pretreatment. The drainage facility will collect and treat the proposed impervious surfaces through first defense pretreatment units prior to discharge to the infiltration chambers. The stormwater management system was designed to be in compliance with the DEP Stormwater Management Regulations.

There will be an increase in runoff rates due to the additional impervious area proposed on the site. This increase is attenuated by the proposed subsurface infiltration systems by providing infiltration, storage volume and discharge controls. These measures will both detain and infiltrate runoff, help mitigate increased rates and volumes of runoff for the 2, 10, and 100-year storms events off site.

Existing water, gas, telephone, cable, and electric services are located on High Street. These existing utilities will be extended to the site to support the proposed development. Fire protection will be provided by sprinkler systems where required by code.

A new septic system, compliant with Massachusetts Title 5 regulations and sized for 90 bedrooms, will be installed on the site. The field required for the system has been designed to fit under an open space at the center of the site, which will be landscaped and will serve as an outdoor amenity for the residents.

Sustainability & Conformance with Massachusetts Governor's Executive Order No. 385

The Massachusetts's Governor's Executive Order 385 encourages state agencies to incorporate sustainable development and the protection of resources into their operations. To that end, in the Application for Chapter 40B PEL, Massachusetts Housing Partnership requests the Sponsor to complete Section 7, entitled "Sustainable Development". For supplemental information to what is outlined below, we recommend the aforementioned Section 7 of the PEL Application also be read.

The proposed multi-family development by its design concentrates development preserving precious resources. The proposed 56 dwellings are tightly arranged on a 4-acre parcel. The compact site plan helps to conserve land, especially when compared to creating the same number of residences in the form of single-family houses on one-acre building lots – a practice land planners critically refer to as "suburban sprawl". The housing proposed will be re-purposing four existing one-acre single-family parcels that previously were developed, so no heavily forested land will be clear-cut. With the required infrastructure already existing in High Street, this new community will use this existing infrastructure as opposed to extending infrastructure into an undeveloped portion of town. The "15 High Street" site is well-suited for multi-family development as it is located at the intersection of High Street and Washington Street (Route 53), allowing easy access for its residents to the abundance of nearby retail shops, food establishments and commercial institutions with pedestrian facilities readily available.

The Project concentrates development away from sensitive lands, natural resources, agricultural lands, critical habitats, wetlands and cultural landscapes. The entire property is uplands with no nearby wetlands. There are no priority habitat or estimated habitat for rare species on the site. The proposed apartment community will contain both a sub-surface septic facility and storm water drainage field allowing the open grass surfaces above to serve as a passive recreation area for the enjoyment of the residents.

In developing the proposed apartment community, natural resources will be conserved by reducing waste and pollution through efficient use of land, energy, water and materials. The wastewater generated by the 56 apartments will be treated on-site using advanced technology. The soils have been witnessed by the Norwell Board of Health and have been deemed to have acceptable drainage characteristics. Much of the storm water produced will be collected and fed to an on-site underground structure and allowed to percolate down into the ground replenishing the water table. Low impact development (LID) and other innovative techniques will be implemented where practical. The open area above the wastewater and storm water fields will be used by the residents for open space and passive recreation. The apartments will feature low flow plumbing fixtures to reduce the consumption of potable water. The landscaping will include grasses and plantings that are hardy and drought resistant. The structural design of the buildings will use wood trusses, which more efficiently span large distances and consume less wood than conventional framing. The Applicant has a long history of installing Energy Star appliances in the homes we build, and we will continue that practice at 15 High Street reducing the energy needs of the 56 households served.

Tabulation of Proposed Buildings

The Tabulation of Proposed Buildings is attached to this application as Exhibit 6.

Transportation Impact

When complete, the development is projected to generate approximately 27 new trips during the weekday morning peak hour and 35 new trips during the weekday evening peak hour. 80 percent of the trips are expected to arrive at and depart the site from/to Washington Street (Route 53) to the north, rather than traveling on High Street to the south.

Each of the street intersections closest to the Project site has a vehicle crash rate that is below the MassDOT average for the district. The projected peak hour traffic volume increase at these intersections is negligible. The development is not projected to create a meaningful impact on local traffic.

The Transportation Impact Assessment is attached to this application as Exhibit 7, and the Transportation Impact Assessment Appendix is contained in the Supplemental Materials.

Waivers

The Waiver List is attached to this application as Exhibit 8.

Abutters

The subject property is located at a transition between a residential neighborhood to the south and a local commercial district to the north. An office condominium complex sits on the west and north boundaries of the property. A retail building that contains a CVS and a package store is across High Street to the east. The property on the southern boundary of the site contains a single-family home.

The Abutters List, certified by the Norwell Assessors Office, is attached to this application as Exhibit 9.

Filing Fees

As required by the Norwell Zoning Board of Appeals' posted fee schedule, the applicant has included two payments with this application. The Comprehensive Permit filing fee is \$5,000 plus \$500 per proposed unit, which for this Project totals \$33,000. The second, the peer review escrow deposit, is \$20,000.

Copies of the checks delivered with the application are attached to this application as Exhibit 10.

Supplemental Materials

In order to reduce the size of the application binders, certain materials have been placed in a separate Supplemental Materials document. These include the Transportation Impact Assessment Appendix, the Stormwater Report Appendix, and the site cut and fill calculations.

TOWN OF NORWELL

**BOARD OF
APPEALS**

P.O. Box 295
345 Main Street
Norwell MA 02061

Tel: 781.659.8018
Fax: 781.659.1892

**COMPREHENSIVE PERMIT APPLICATION**

Pursuant to MGL Chapter 40B, §§20-23 and 760 CMR 56.00

FOR TOWN USE ONLY (Official Date Stamp below):

Received by Board of Appeals:

Received by Town Clerk:

Application Fee Paid/Date: _____

Escrow Amount Paid/Date: _____

TO THE NORWELL BOARD OF APPEALS:

The undersigned hereby submits this application for a Comprehensive Permit pursuant to M.G.L. Chapter 40B, §§ 20-23, 760 CMR 56.00, including any amendments thereto:

APPLICANT (Name/Mailing Address): Northland Residential Corporation (the current sponsor which shall form a limited dividend organization to be name later) 80 Beharrell Street, Suite E

Concord, MA 01742

Tel. 781-229-4708 Fax 781-229-7676 email: pcrabtree@northlandresidential.com

APPLICANT STATUS (Check one): ☐ Public Agency ☐ Non-Profit Organization ☒ Limited Dividend Corp.

SUBSIDIZING AGENCY/PROGRAM: Massachusetts Housing Partnership

PROPERTY OWNER(S) (include mailing address, if different from applicant): 44 High Street Realty Trust; 35 High Street Realty Trust; 27 High Street Realty Trust (Stephen Marsh, Trustee); Stephen and Laurie Marsh, individually. 110 Bartletts Island Way, Marshfield Hills, MA 02050

Tel. _____ Fax _____ email: hughes.associates@comcast.net

APPLICANT'S REPRESENTATIVE (including mailing address, if different from applicant) _____

Tel. _____ Fax _____ email: _____

PROPERTY LOCATION: 15, 19, 27, and 35 High Street, Norwell, MA 02061

PROPOSED PROJECT NAME: 15 High Street

ZBA FILE NO. _____

BRIEF PROJECT DESCRIPTION *(include total number and type of units, rental or ownership, number of bedrooms, building area, acreage, number of affordable, and other information necessary for public notice):*

[See page that follows this application form.](#)

Total Land Area *(acres or square footage):* 3.88 acres **Lot Frontage:** 511 ft.

Site Control: Property is ☐ Owned ☒ Under purchase contract ☐ Leased

List Assessors Map No., Block No., and Lot No. of all parcels _____

[See page that follows this application form.](#)

Registry of Deeds Book and Page No. [See page that follows this application form](#)
or Land Court Certificate of Title number _____ *(Required as evidence of site control and for filing of Board's Decision)*

ZONING DISTRICT(S) OF PROPERTY *(Check all that apply.):*

- Residential: ☐ District A ☒ District B
Business: ☐ District A ☒ District B ☒ District C 1 (specify)
Overlay Districts and other zones:
☒ Aquifer Protection District
☐ Salt Marsh Conservation District
☐ Flood Plain
☐ Watershed and Wetlands Protection District
☐ Historic Building, Site, Scenic Street or Vista (See
Norwell Historical Commission booklet.)
☐ Wireless Facility District
☐ Village Overlay District
☐ Adult Entertainment District
☐ Other _____

BUFFER ZONE REQUIREMENTS *(Identify for each applicable zoning district):* _____

[See page that follows this application form.](#)

CURRENT PROPERTY USE(S): [Each of the four lots contains a single-family dwelling unit.](#)

PROJECT DEVELOPMENT TEAM:

Project Developer/Mail Address: Northland Residential Corporation
80 Beharrell Street, Suite E, Concord, MA 01742

Tel. 781-229-4708 Fax 781-229-7676 email: pcrabortree@northlandresidential.com

Project Construction Manager/Mail Address: Northland Residential Construction
80 Beharrell Street, Suite E, Concord, MA 01742

Project Attorney/Mail Address: Freeman Law Group LLC
86 Willow Street, Yarmouthport, MA, 02675

Tel. 508-362-4700 Fax 508-362-4701 email: pfreeman@freemanlawgroup.com

Project Engineer/Mail Address: Merrill Engineers and Land Surveyors
427 Columbia Road, Hanover, MA 02339

Tel. 781-826-9200 Fax _____ email: dkeller@merrillinc.com

Project Landscape Architect/Mail Address: Ryan Associates
144 Moody Street, Bldg 4, Waltham, MA 02453

Tel. 781-314-0401 Fax _____ email: aaukeman@ryanassoc.com

Project Architect/Mail Address: Union Studio Architecture & Community Design
140 Union Street, Providence, RI 02903

Tel. 401-272-4724 Fax 401-272-4825 email: jeremy@unionstudioarch.com

This application must be signed by the property owner(s) of all parcels in order to be accepted. Non-owner applicants shall provide certification that permission has been granted by the property owner to file this application, if no other documentation acceptable to the Board of Appeals has been provided. If the applicant designates a representative to act on his or her behalf, the applicant must provide written authorization to the Board of Appeals in advance of any appearance by that representative before the Board.

The applicant acknowledges that:

- 1. This application shall not be considered complete without receipt of all documentation, information, and fee requirements as set forth in the applicable Comprehensive Permit section of the Board of Appeals Rules and Regulations and General Information.*
- 2. Thirty (30) complete application packets are required to be submitted.*

3. *Noncompliance with Technical Review Escrow Requirements, as detailed in the Comprehensive Permit section of the Board of Appeals Rules and Regulations and General Information, shall be grounds for the Board of Appeals to suspend its public hearing until such time as the escrow requirement is met.*

The undersigned under penalties of perjury hereby certifies that (s)he has read and examined the Board of Appeals Rules and Regulations and General Information and the Comprehensive Permit Application with all of its supporting documentation and certifies that the required information is complete and the proposed project is accurately represented therein.

I/We hereby request a public hearing before the Board of Appeals.

Property Owner(s): Stephen Marsh Date April 30, 2021
Signature

Property Owner(s): Laurie J K Marsh Date April 30, 2021
Signature

Applicant(s): Town C Daring for Northland Residential Corporation Date 4-30-21
(Signature if not the property owner)

Applicant's interest is: ☐ Owner ☒ Developer ☐ Agent/Attorney ☐ Other (specify) _____

Applicant(s): _____ Date _____
(Signature if not the property owner)

Applicant's interest is: ☐ Owner ☐ Developer ☐ Agent/Attorney ☐ Other (specify) _____

Applicant(s): _____ Date _____
(Signature if not the property owner)

Applicant's interest is: ☐ Owner ☐ Developer ☐ Agent/Attorney ☐ Other (specify) _____

Office Use only:

<input type="radio"/> Town Clerk	(1)	<input type="radio"/> Board of Appeals	(9)
<input type="radio"/> Planning Board	(2)	<input type="radio"/> Conservation Commission	(2)
<input type="radio"/> Board of Health	(1)	<input type="radio"/> Water Commissioners/Dept.	(1)
<input type="radio"/> Fire Department	(1)	<input type="radio"/> Design Review Board	(1)
<input type="radio"/> Board of Selectmen	(1)	<input type="radio"/> Affordable Housing Trust	(1)
<input type="radio"/> Norwell Housing Authority	(1)	<input type="radio"/> Norwell Affordable Housing Partnership	(1)
<input type="radio"/> Highway Surveyor/Director	(1)	<input type="radio"/> Board of Assessors	(1)
<input type="radio"/> Permanent Drainage Committee	(1)	<input type="radio"/> Transportation Enhancement Committee	(1)
<input type="radio"/> Traffic Study Committee	(1)	<input type="radio"/> North River Commission	(1)
<input type="radio"/> Historical Commission	(1)	<input type="radio"/> Community Preservation Committee	(1)
<input type="radio"/> Building Inspector/ADA Coordinator	(1)	<input type="radio"/> Commission on Disabilities	(1)
<input type="radio"/> Police Department	(1)	<input type="radio"/> Council on Aging	(1)
<input type="radio"/> Lands & Natural Resources	(1)	<input type="radio"/> Groundwater Protection	(1)
<input type="radio"/> MAPC/Clean Water Act	(1)	<input type="radio"/> Town Counsel	(1)
<input type="radio"/> DHCD/MassHousing	(1)	<input type="radio"/> MEPA	(1)
<input type="radio"/> Other _____	(1)	<input type="radio"/> Other _____	(1)

Technical Review Consultants:

<input type="radio"/> Professional Engineer	_____	(1)
<input type="radio"/> Landscape Architect	_____	(1)
<input type="radio"/> Building Architect	_____	(1)
<input type="radio"/> Financial	_____	(1)
<input type="radio"/> Special Counsel	_____	(1)

ADDITIONAL APPLICATION PAGE

BRIEF PROJECT DESCRIPTION:

The applicant, Northland Residential Corporation, proposes to redevelop multiple parcels containing approximately 3.9 acres (169,341 sf) of land along High Street in Norwell, Massachusetts. The project site is located on the west side of High Street and consists of four lots whose addresses are 15, 19, 27 and 35 High Street.

The redevelopment scope includes the razing of four (4) existing single-family homes and the construction of ten (10) new buildings containing fifty-six (56) rental housing units, including twenty-eight (28) one-bedroom units, twenty-two (22) two-bedroom units, and six (6) three-bedroom units for a total of ninety (90) bedrooms. Fourteen (14) of the units will be affordable to households earning up to 80% of the median area income. The combined gross floor area of the new buildings will be approximately 83,400 sf.

The site work includes the construction of entrance driveways, sidewalks, parking, landscaping, stormwater facilities, an on-site septic system, utility services and associated infrastructure.

ASSESSORS MAP NO., BLOCK NO., AND LOT NO. OF EACH PARCEL:

15 High Street:	Mblu 17/ /67/ /	PID 667
19 High Street:	Mblu 17/ / 16/ /	PID 606
27 High Street:	Mblu 17/ / 17/ /	PID 607
35 High Street:	Mblu 17/ / 18/ /	PID 608

REGISTRY OF DEEDS BOOK AND PAGE NO. OF EACH PARCEL:

15 High Street:	Book 40257, page 154
19 High Street:	Book 21541, page 184
27 High Street:	Book 47490, page 169
35 High Street:	Book 49753, page 57

BUFFER ZONE REQUIREMENTS:

The project site contains a district boundary that separates a Residence B Zoning District from a Business C1 and a Business B4 Zoning District. The Town of Norwell Zoning Bylaw requires a buffer “on any premises in a business district if abutting or extending into a residential district when through new construction, addition, or occupancy change the premises is put to use not allowed in a residential district.” The applicant requests a waiver from this requirement.



April 21, 2021

John C. Dawley President and CEO
Northland Residential Corporation
80 Beharrell Street, Suite E
Concord, MA 01742

Re: Determination of Project Eligibility-15 High Street (the "Project")
Massachusetts Housing Partnership Fund Board's ("MHP") Permanent Rental Financing Program

Dear Mr. Dawley:

This letter is in response to your request for a determination of Project Eligibility under the provisions of the Commonwealth of Massachusetts comprehensive permit process (M.G.L. Chapter 40B, 760 C.M.R. 56, and the Massachusetts Department of Housing and Community Development's Comprehensive Permit Guidelines) (collectively, the "Comprehensive Permit Rules") for the above-referenced Project. The Project, as proposed in your application received on February 1, 2021 (the "Application"), shall consist of fifty six (56) rental housing units, including 28 one-bedroom units, 22 two bedroom units and 6 three-bedroom units (10.7%), located in 10 buildings on a 3.88 acre parcel of land on High Street in Norwell. There will be 122 parking spaces for a ratio of 2.2/1.

In connection with your request, and in accordance with the Comprehensive Permit Rules, MHP has performed an on-site inspection of the Project, has reviewed initial pro forma and other pertinent information submitted by Northland Residential Corporation (the "Applicant"), and has taken into consideration comments submitted from the Town of Norwell.

Based upon our review, we find the following:

- 1) The Project, as proposed, appears generally eligible under the requirements of MHP's Permanent Rental Financing Program (the "Program"), subject to final approval.
- 2) The proposed site is an appropriate location for the Project. Specifically, (a) the Project responds directly to Town affordable housing production goals as stated in its Housing Production Plan; (b) the site is within walking distance to a variety of office and commercial uses and a K-6 public school; (c) the site provides nearly direct vehicular access to Route 228, Route 3 and Route 53, and is within two miles of multiple places of employment, a major medical center, and a K-12 public charter school; and (d) the Project, which will replace four existing single family homes, has ready access to existing utilities including gas, water, and electricity.
- 3) MHP's Design Review Consultant, Rick Fenuccio, found that the proposed conceptual design for the Project is generally appropriate for the site and complies fully with 40B design standards. Specifically, (a) building design is consistent with the surrounding development and architectural context in terms of style, variety, material, and scale; (b) the site design is well executed, representing a maximum site build-out while not appearing too dense; and (c) site landscaping includes a nice mix of public and private outdoor spaces; and (d) the streetscape provides welcoming and attractive frontage along High Street.

Mr. Fennucio recommended 1) that the submittal to the Zoning Board of Appeals should include additional information relative to site landscaping, lighting, screening, bike parking and storage areas, and 2) that project construction should include replacement of the existing sidewalk along High Street directly in front of the site. MHP has confidence that these recommendations can be satisfactorily addressed during the public hearing process with the Town of Norwell.

- 4) Based upon comparable rentals in the area and proposed rents, the proposed Project appears financially feasible within the Norwell market.
- 5) The Project appears financially feasible on the basis of estimated development and operating costs set forth in the initial pro forma provided by the Applicant and a land value determination value consistent with the Comprehensive Permit Rules. In addition, the Project budgets are consistent with the Comprehensive Permit Rules relative to cost examination and limitations on profit and distributions.
- 6) The Applicant will be a single-purpose entity subject to MHP's limited dividend requirements. The Applicant meets the general eligibility standards of the Program; and
- 7) The Applicant has site control as evidenced by a Purchase and Sale Agreement dated April 22, 2020.

This letter is intended to be a written preliminary determination of Project Eligibility under the Comprehensive Permit Rules, establishing fundability by a subsidizing agency under a low and moderate income housing subsidy program, which qualifies the Project for consideration for a comprehensive permit under M.G.L. Chapter 40B (a "Comprehensive Permit").

This preliminary determination of eligibility is subject to final review of eligibility and final approval by MHP, and is expressly limited to the specific Project proposed in the Application and subject to the minimum affordability and limited dividend requirements set forth in Exhibit A hereto. The requirements imposed by your Comprehensive Permit must not result in a loan to value ratio that exceeds MHP's requirements. Changes to the proposed Project, including without limitation, alterations in unit mix, proposed rents, development team, unit design, development costs and/or income restrictions may affect eligibility and final approval. Accordingly, you are encouraged to keep MHP informed of the status and progress of your Comprehensive Permit application and any changes to the Project that may affect financial projections and/or eligibility under the Program. In addition, MHP requires that it be notified (1) when the Applicant applies to the local ZBA for a Comprehensive Permit; (2) when the ZBA issues a decision; and (3) when any appeals are filed.

Please note that this preliminary determination of Project Eligibility is not a commitment or guarantee of or by MHP for financing, either expressed or implied, and if you determine not to apply to MHP for permanent financing and/or in the event your application for permanent financing with MHP is denied, this letter shall be of no further force and effect. Also, please note that this letter shall be of no force or effect if the Applicant has not filed for a Comprehensive Permit within two years of the date of this letter.

Final review and approval under the Comprehensive Permit Rules will be undertaken by MHP only in conjunction with an application to MHP for permanent mortgage financing for the Project. After the ZBA's issuance of a Comprehensive Permit for the Project, MHP would be pleased to entertain a request for permanent mortgage financing pursuant to and in accordance with MHP's standard underwriting process. At that time, MHP shall require a complete loan application, a copy of the decision of the ZBA and any amendments thereto, a copy of the decision, if any, by the Housing Appeals Committee, revised preliminary plans and designs, if applicable, and such additional documents and information as required in connection with the loan underwriting process.

Should you have any comments or questions concerning this letter, please do not hesitate to call Katy Lacy at 857-317-8514.

Sincerely,

A handwritten signature in blue ink, appearing to read 'D. Kinkel', followed by a period.

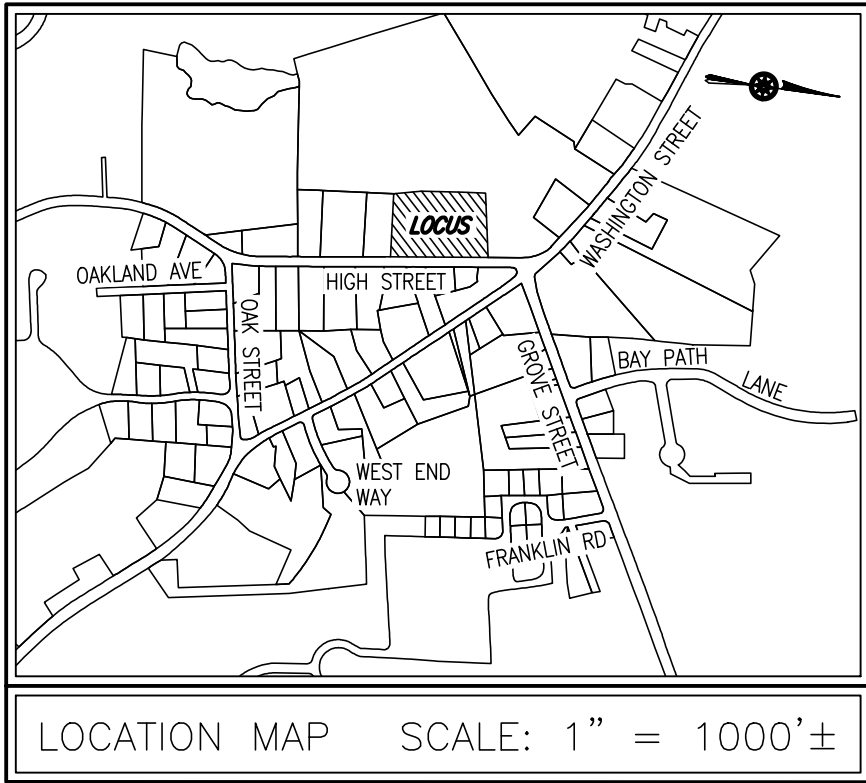
Danielle J. Kinkel
General Counsel

cc: Roberta Rubin, Chief Counsel, DHCD
Ellen H. Allen, Chair, Board of Selectmen
Lois S. Barbour, Chair, Norwell ZBA

EXHIBIT A

Affordability Requirements: At least fourteen (14) of the units must be affordable to households earning up to eighty percent (80%) of the median area income. The affordability requirements will be documented through an affordable housing agreement that will be recorded prior to the mortgage and shall create covenants running with the property for a minimum period of thirty (30) years.

Limited Dividend Policy: The Project owner must comply with MHP's limited dividend policy.



15 HIGH STREET PROPOSED RESIDENTIAL DEVELOPMENT

15, 19, 27 & 35 HIGH STREET NORWELL, MASSACHUSETTS

APRIL 30, 2021

INDEX

SHEET	DESCRIPTION
C1.1	COVER AND INDEX
C2.1	EXISTING CONDITIONS PLAN
C3.1	SITE LAYOUT PLAN
C4.1	GRADING AND DRAINAGE PLAN
C5.1	UTILITY PLAN
C6.1-6.4	CONSTRUCTION DETAILS
L1.0	STREET TREE & LANDSCAPE PLAN



2021 MassGIS GOOGLE MAP

VICINITY MAP

OWNER/APPLICANT:
NORTHLAND RESIDENTIAL CORPORATION
80 BEHARRELL STREET, SUITE E
CONCORD, MASSACHUSETTS 01742
P: 781-229-4700

ATTORNEY:
FREEMAN LAW GROUP, LLC
86 WILLOW STREET
YARMOUTHPORT, MA 02675
P: 508-362-4700

CIVIL ENGINEER/SURVEYOR:
MERRILL ENGINEERS AND LAND SURVEYORS
427 COLUMBIA ROAD
HANOVER, MA 02339
P: 781-826-9200

LANDSCAPE ARCHITECT:
RYAN ASSOCIATES LANDSCAPE ARCHITECTURE AND PLANNING
144 MOODY STREET, BUILDING 4
WALTHAM, MASSACHUSETTS 02453
P: 781-314-0401

ARCHITECT:
UNION STUDIO ARCHITECTURE & COMMUNITY DESIGN
140 UNION STREET
PROVIDENCE, RI 02903
P: 401-272-4724

REVISIONS

1	4/30/21	REVIEW & COORDINATION
---	---------	-----------------------



DRAWN BY: JG

DESIGNED BY: DK

CHECKED BY: DK



SITE PLAN
#15, 19, 27 & 35 HIGH STREET
NORWELL, MASSACHUSETTS 02061
OWNER/APPLICANT
NORTHLAND RESIDENTIAL CORPORATION
80 BEHARRELL STREET, SUITE E
CONCORD, MASSACHUSETTS 01742

JANUARY 29, 2021

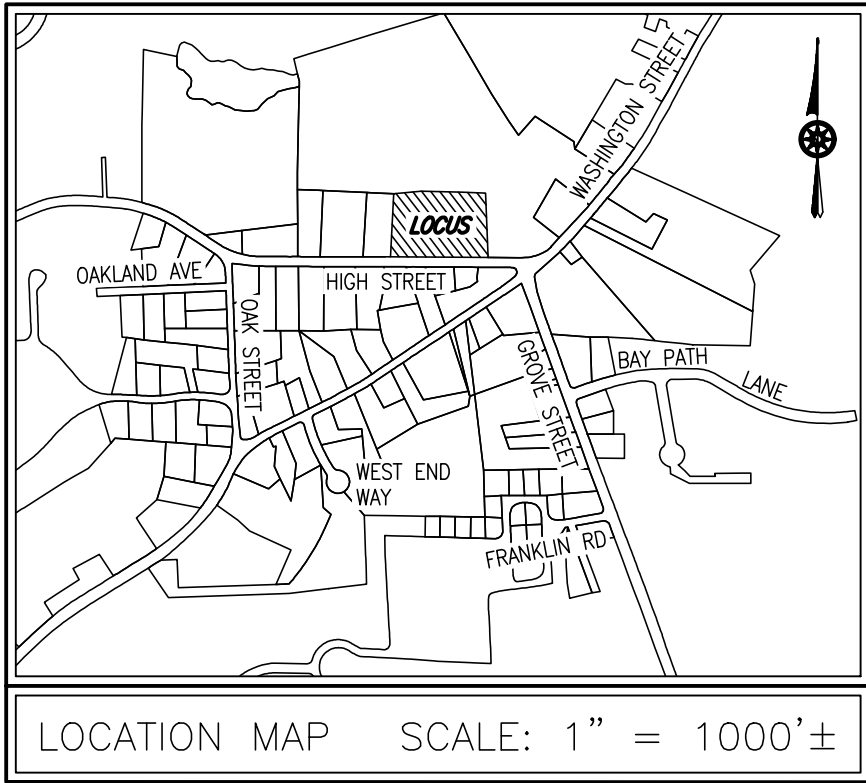
SCALE: AS NOTED

JOB NO. 20-127

LATEST REVISION:
APRIL 30, 2021

COVER & INDEX

SHEET C1.1



RECORD OWNER:

ASSESSORS MAP 11B BLOCK 17 LOT 67
#15 HIGH STREET

44 HIGH STREET REALTY TRUST
169 MACOMBERS RIDGE
MARSHFIELD, MA 02051
DEED BOOK 40257 PAGE 154

ASSESSORS MAP 11B BLOCK 17 LOT 16
#19 HIGH STREET

STEPHEN N. & LAURIE K. MARSH
169 MACOMBERS RIDGE
MARSHFIELD, MA 02051
DEED BOOK 21541 PAGE 184
LOT A - PLAN #83 OF 2002

ASSESSORS MAP 11B BLOCK 17 LOT 17
#27 HIGH STREET

27 HIGH STREET REALTY TRUST
169 MACOMBERS RIDGE
MARSHFIELD, MA 02051
DEED BOOK 47490 PAGE 169
LOT B - PLAN #83 OF 2002

ASSESSORS MAP 11B BLOCK 17 LOT 18
#35 HIGH STREET

35 HIGH STREET REALTY TRUST
169 MACOMBERS RIDGE
MARSHFIELD, MA 02051
DEED BOOK 49753 PAGE 57
LOT B - PLAN BOOK 2881 PAGE 295

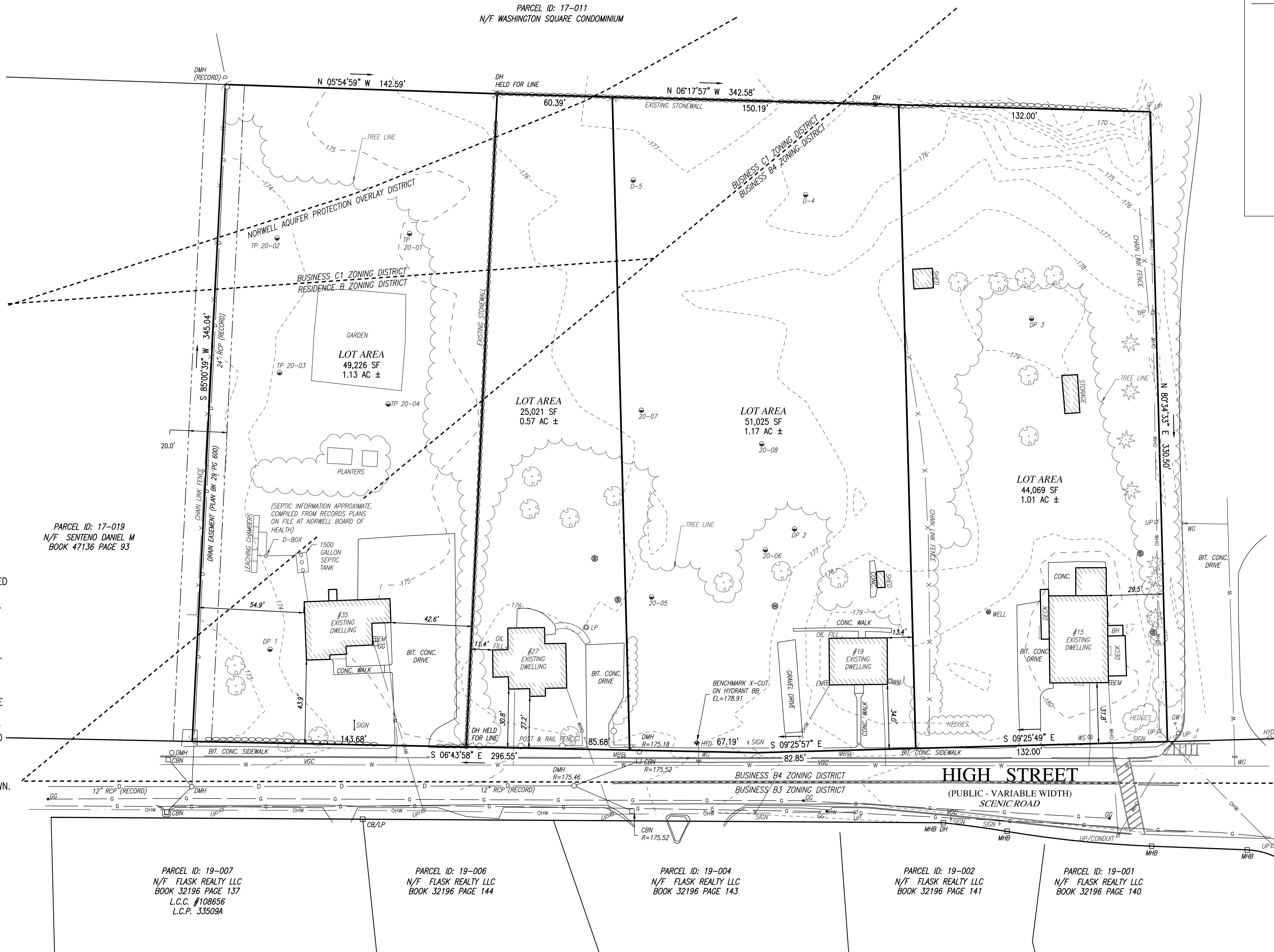
NOTES:

1. TOPOGRAPHIC AND DETAIL INFORMATION SHOWN HEREON IS BASED UPON AN ON THE GROUND SURVEY PERFORMED BY MERRILL ENGINEERS AND LAND SURVEYORS DURING SEPTEMBER OF 2020.
2. ALL ELEVATIONS ARE BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988.
3. SUBJECT SITE IS IN THE "RESIDENCE B," "BUSINESS B4," AND "BUSINESS C1" ZONES AS DEPICTED ON THE TOWN OF NORWELL ZONING MAP.
4. SUBJECT SITE IS PARTIALLY IN THE TOWN OF NORWELL AQUIFER PROTECTION DISTRICT.
5. SUBJECT SITE IS PARTIALLY IN A ZONE B AND ZONE C SURFACE WATER PROTECTION AREA.
6. EXISTING UTILITIES, WHERE SHOWN, HAVE BEEN COMPILED BASED ON OBSERVED ABOVE GROUND EVIDENCE AND AVAILABLE RECORD PLANS AND ARE TO BE CONSIDERED APPROXIMATE. MERRILL ENGINEERS AND LAND SURVEYORS DOES NOT GUARANTEE THE LOCATION OF THE UNDERGROUND UTILITIES SHOWN OR THAT ALL EXISTING UTILITIES AND/OR SUBSURFACE STRUCTURES ARE SHOWN.

FLOOD NOTE:

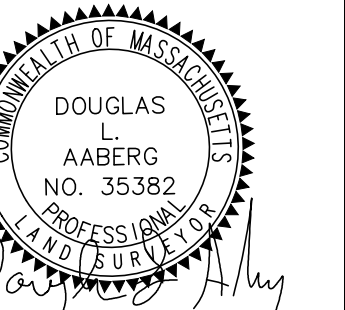
BY GRAPHIC PLOTTING ONLY, THIS PROPERTY IS LOCATED IN ZONE X OF THE FLOOD INSURANCE RATE MAP, AS SHOWN ON COMMUNITY MAP No. 25023C0092J, WHICH BEARS AN EFFECTIVE DATE OF JULY 17, 2012, AND IS NOT IN A SPECIAL FLOOD HAZARD AREA.

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1 4/30/21 REVIEW & COORDINATION



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DESIGNED BY: DK

CHECKED BY: DK

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427 COLUMBIA ROAD, HANOVER, MA 02339 / T: (781) 826-9200
26 UNION STREET, PLYMOUTH MA 02360 / T: (508) 746-6060
WWW.MERRILLINC.COM

SITE PLAN
#15, 19, 27 & 35 HIGH STREET
NORWELL, MASSACHUSETTS 02061

OWNER/APPLICANT
NORTHLAND RESIDENTIAL CORPORATION
80 BEHARREL STREET, SUITE E
CONCORD, MASSACHUSETTS 01742

JANUARY 29, 2021

SCALE: 1"=30'

JOB NO. 20-127

LATEST REVISION:
APRIL 30, 2021

EXISTING CONDITIONS
PLAN

SHEET C2.1

ZONING DATA

1. **TOTAL PARCEL SIZE:** 3.88± ACRES (169,341± S.F.) (ALL UPLAND)
2. **ZONE:** RESIDENCE B, BUSINESS B4 AND C1; AQUIFER PROTECTION OVERLAY
3. **USE:** EXISTING: RESIDENTIAL
PROPOSED: (NO CHANGE)
4. **BUILDING COVERAGE:** MAX. ALLOWED: 30,481± S.F. (18%)
BUSINESS DISTRICTS B & C
EXISTING: 4,792± S.F. (2.8%)
PROPOSED: 39,139± S.F. (23.1%)

5. **SITE COVERAGE:** AQUIFER PROTECTION DISTRICT:
MAXIMUM ALLOWED: 84,670± S.F. (50% OF UPLAND)
EXISTING: 12,741± S.F. (7.5% OF UPLAND)
PROPOSED: 91,668± S.F. (54.1% OF UPLAND)
- BUSINESS DISTRICTS B & C:
MIN OPEN SPACE ALLOWED: 56,447± S.F. (33% OF UPLAND)
EXISTING: 156,601± S.F. (92.5% OF UPLAND)
PROPOSED: 77,673± S.F. (45.9% OF UPLAND)

6. **DIMENSIONAL REQUIREMENTS:**
- | DISTRICT: RESIDENCE B/BUSINESS B4 & C1 | EXISTING: | PROPOSED: |
|--|-------------|---------------|
| MIN. LOT AREA | 43,560 S.F. | 169,341± S.F. |
| MIN. LOT FRONTAGE | 80' | 511.4' |
| MIN. LOT WIDTH | 150'(*) | 485.4' |
| MIN. FRONT YARD | | |
| RESIDENCE B | 35' | 15.0' |
| BUSINESS B-4 & C-1 | 50' | 27.2' |
| MIN. SIDE & REAR YARD | | |
| RESIDENCE B SIDE & REAR | 20' | 20.0' |
| BUSINESS B-4 & C-1 SIDE | 10' | 20.0' |
| REAR | 20' | 20.0' |

- MAX. BUILDING HEIGHT
- | | | |
|--------------------|---------------------|---------------|
| RESIDENCE B | 34'/24" STORIES | |
| BUSINESS B-4 & C-1 | 34'/24" STORIES(**) | 24" STORIES |
| | | 43'/3 STORIES |

- (*) MIN LOT WIDTH IN BUSINESS DISTRICTS A AND B SHALL BE 125 FT.
(**) MIN HEIGHT FOR DWELLING UNITS WITHIN A BUSINESS DISTRICT

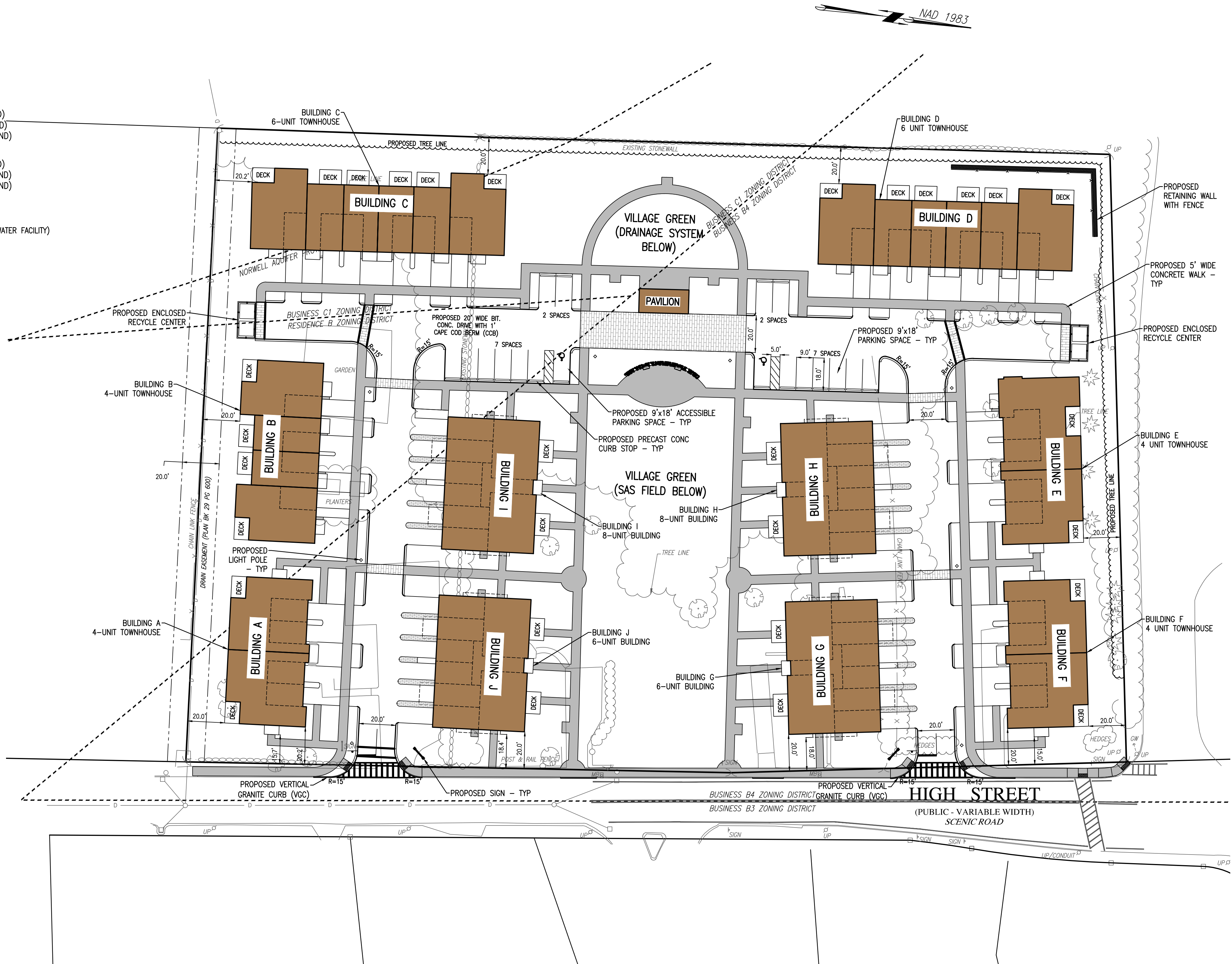
7. **PARKING:**
- EXISTING BUILDING:
RESIDENTIAL - NO MARKED SPACES

REQUIRED (SECTION 201-12.6):

- DWELLING UNIT HAVING 2 OR MORE BEDROOMS - 2 SPACES
DWELLING UNIT HAVING FEWER THAN 2 BEDROOMS - 1 SPACE

- | | |
|--------------------------------|-------------------|
| ONE BEDROOM UNITS - 28 | = 28 SPACES |
| TWO OR MORE BEDROOM UNITS - 28 | = 56 SPACES |
| | TOTAL = 84 SPACES |

- PROPOSED:
- | | |
|----------------------|-----|
| UNIT GARAGE SPACES | 52 |
| UNIT DRIVEWAY SPACES | 52 |
| SURFACE SPACES | 18 |
| TOTAL PARKING SPACES | 112 |



REVISIONS

1	4/30/21	REVIEW & COORDINATION
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DESIGNED BY: DK

CHECKED BY: DK

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80 BECHARRELL STREET, SUITE E
CONCORD, MASSACHUSETTS 01742

JANUARY 29, 2021

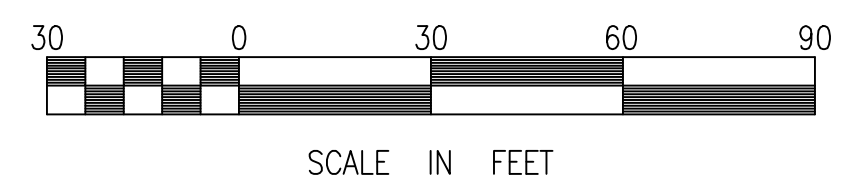
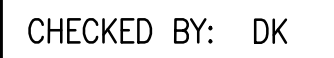
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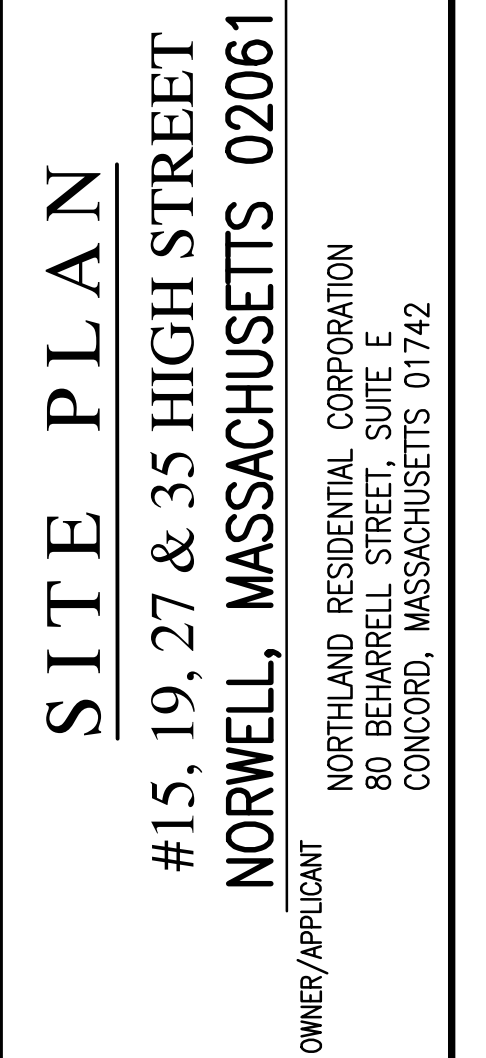
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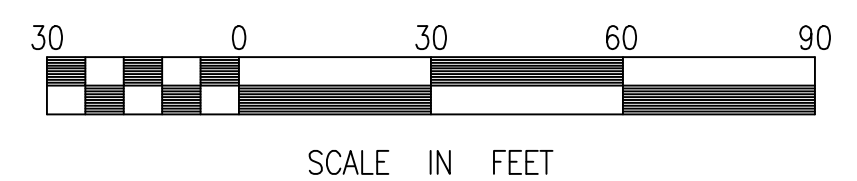
SITE LAYOUT PLAN

SHEET C3.1

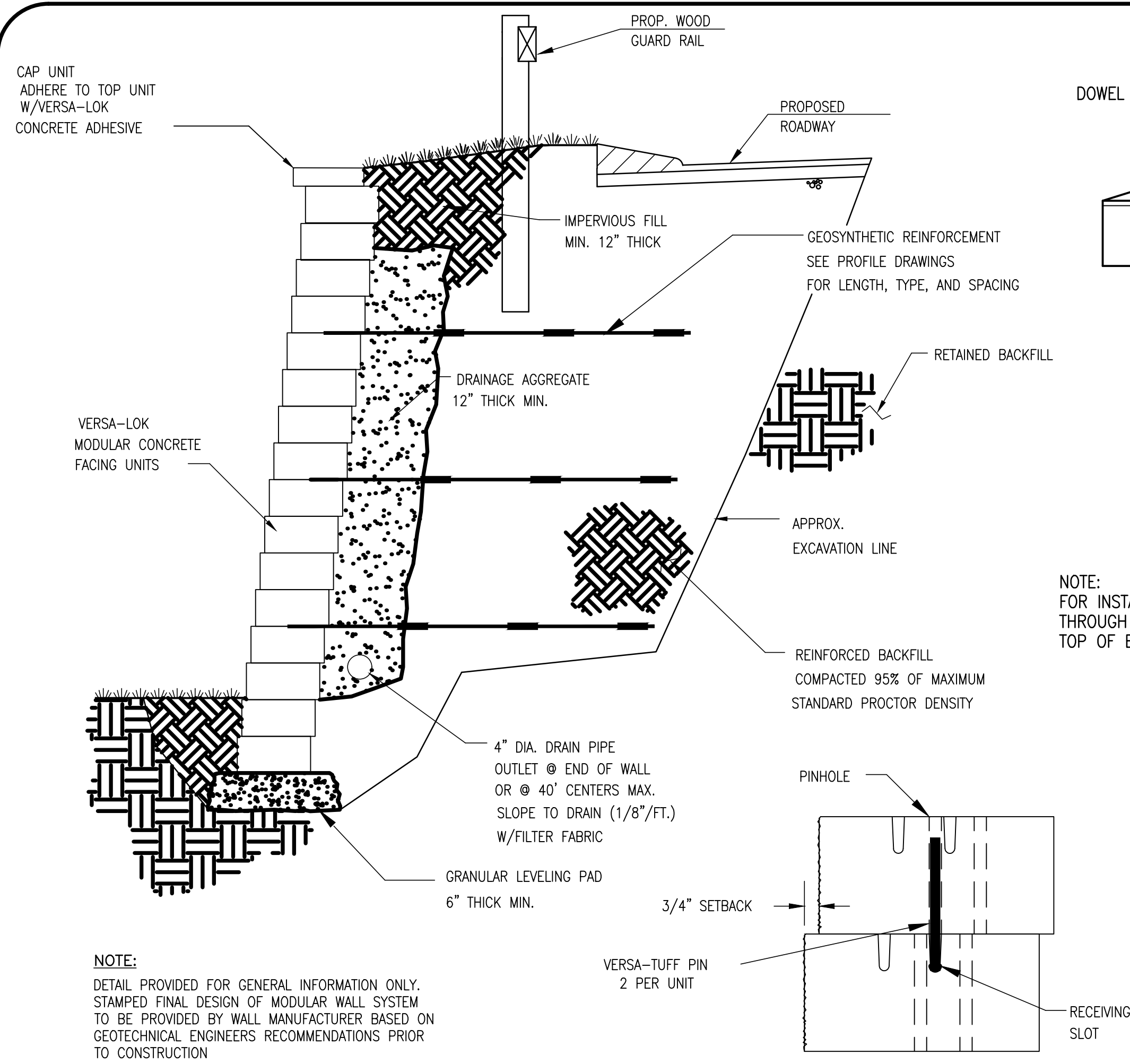




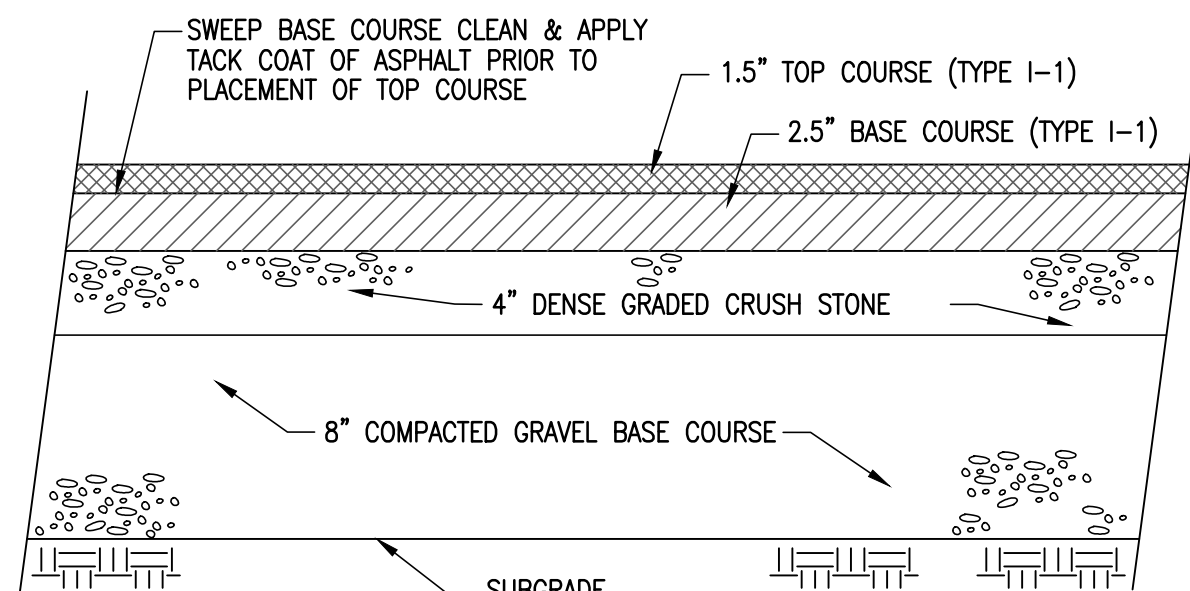
SHEET C5.1



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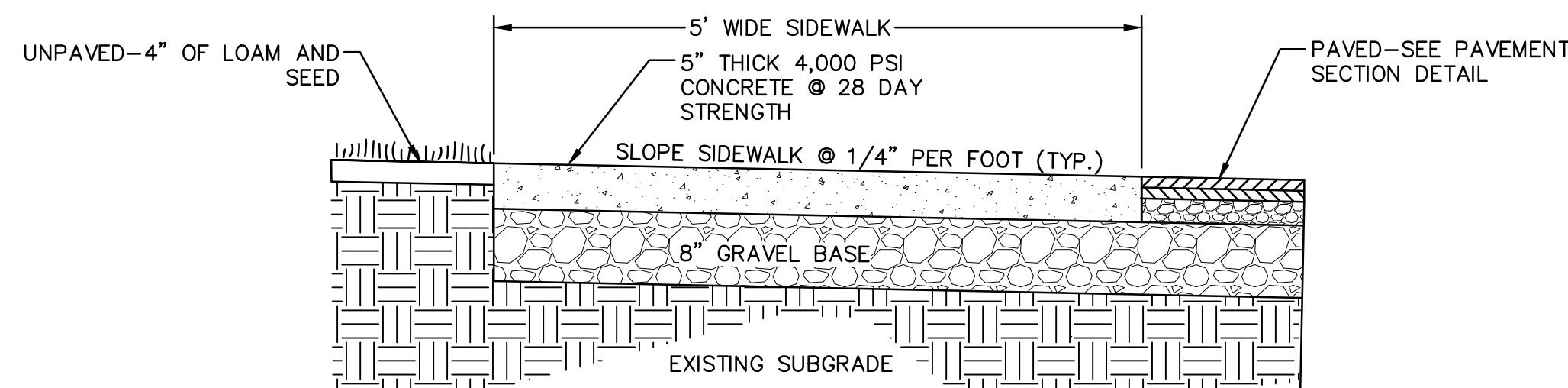


REINFORCED BLOCK RETAINING WALL DETAIL
(NOT TO SCALE)



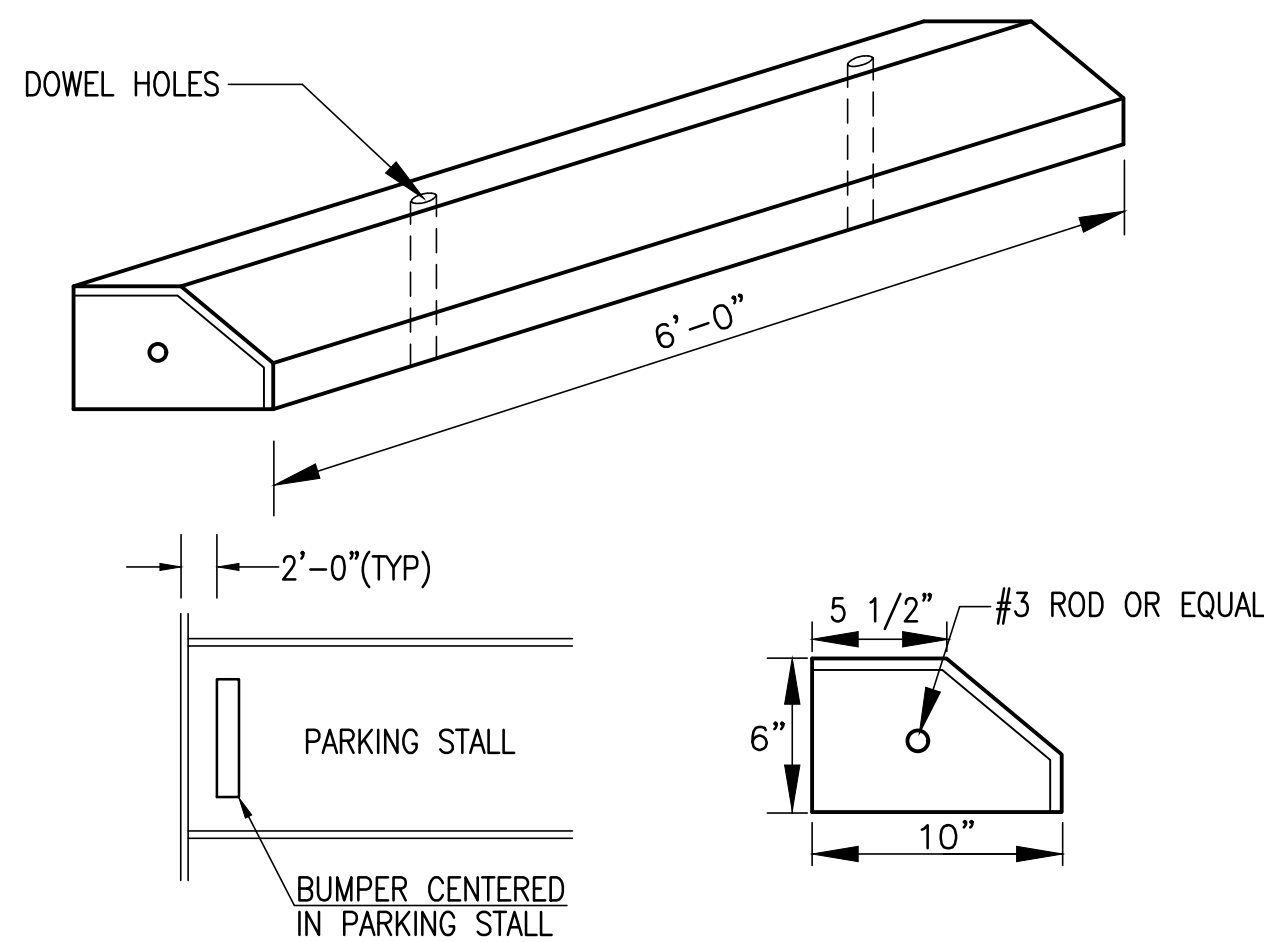
BITUMINOUS CONCRETE PAVEMENT
(NOT TO SCALE)

- NOTE:**
1. ALL UNSUITABLE MATERIAL SHALL BE REMOVED AND REPLACED WITH CLEAN GRAVEL BASE (95% COMPACTION)
 2. ALL DRIVEWAY AND PARKING AREAS SHALL BE CONSTRUCTED IN ACCORDANCE WITH GEOTECHNICAL ENGINEERS SPECIFICATIONS.



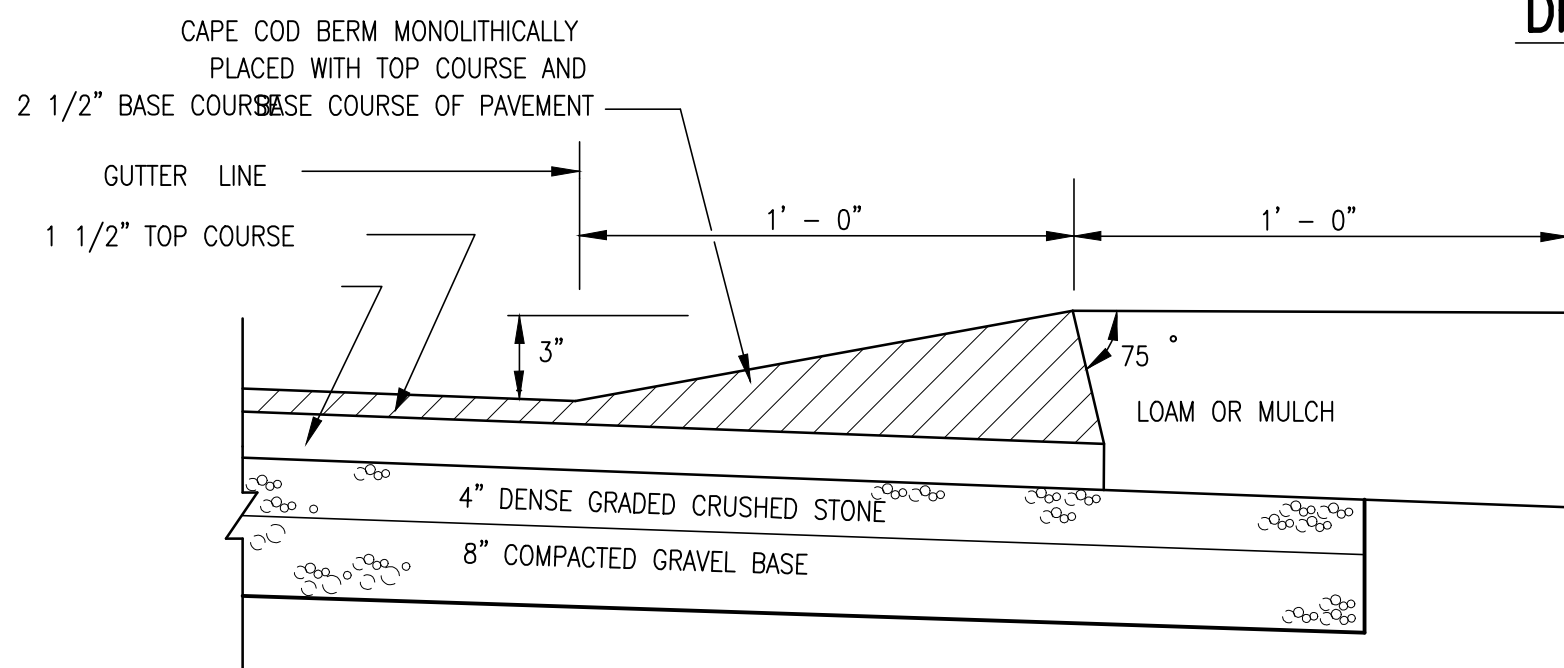
- NOTES:**
1. SIDEWALK TO HAVE TOOLED JOINTS 5' O.C. (TYP.) WITH EXPANSION JOINTS 15' ON CENTER AND PREMOLDED FILLER.
 2. SEE PLAN FOR ELEVATIONS AT CURB CURB CONSTRUCTION
 3. CUT NEAT LINE 6" FROM CURB LINE AND REMOVE BINDER, BASE AND STONE, REPLACE WITH CEMENT CONCRETE.

CONCRETE SIDEWALK DETAIL
(NOT TO SCALE)



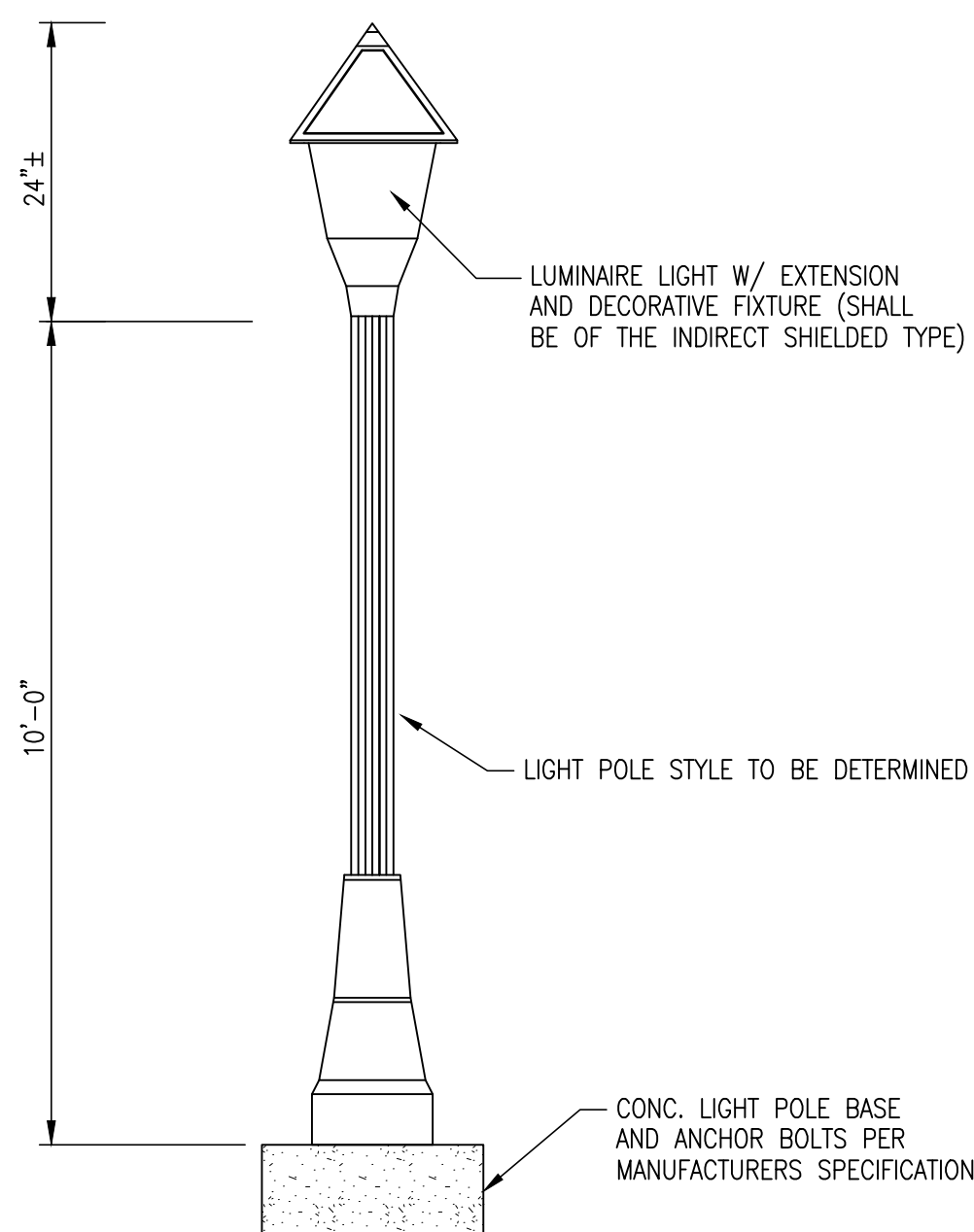
NOTE:
FOR INSTALLATION OF EACH BUMPER LOG, DRIVE (2) 5/8" DIA x 15" LONG STEEL RODS THROUGH PROVIDED OPENINGS IN BUMPER LOG AND INTO PAVEMENT UNTIL FLUSH WITH TOP OF BUMPER LOG (FOR PLACEMENT OF LOG, SEE DIAGRAM ABOVE)

PRECAST CONCRETE WHEELSTOP DETAIL
(NOT TO SCALE)



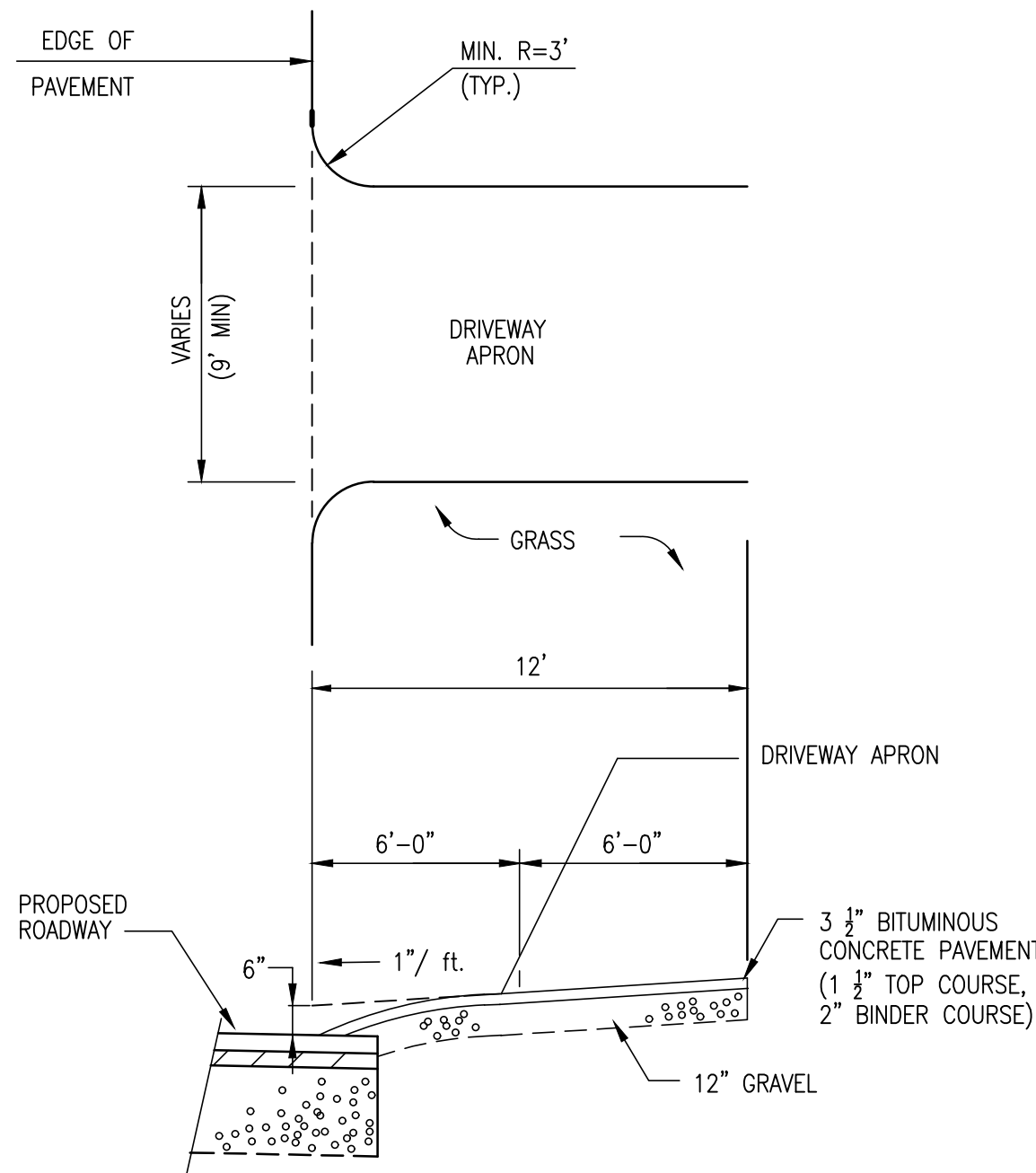
*IF THE IN-SITU MATERIAL IS TO BE USED FOR THE SUBBASE IT SHALL MEET THE MASS HIGHWAY SPEC. M1.03.0 TYPE b OR M2.01.7

MONOLITHIC BITUMINOUS CONCRETE BERM DETAIL (CAPE COD BERM)
(NOT TO SCALE)



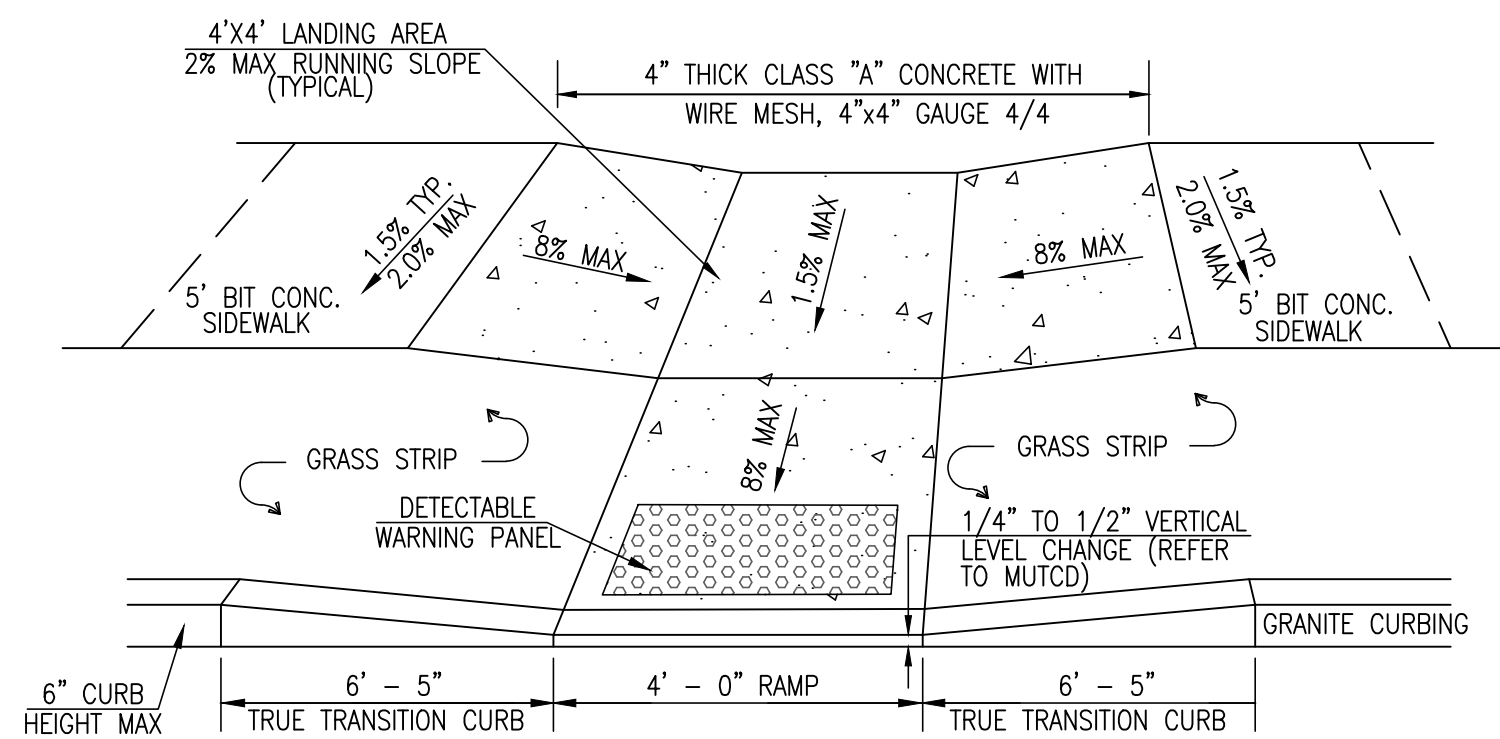
NOTE: ALL LIGHT SHALL BE REFLECTED DOWN TO PREVENT LIGHT POLLUTION AND SHALL BE DARK SKY COMPLIANT.

LIGHT POLE FOUNDATION DETAIL
(NOT TO SCALE)



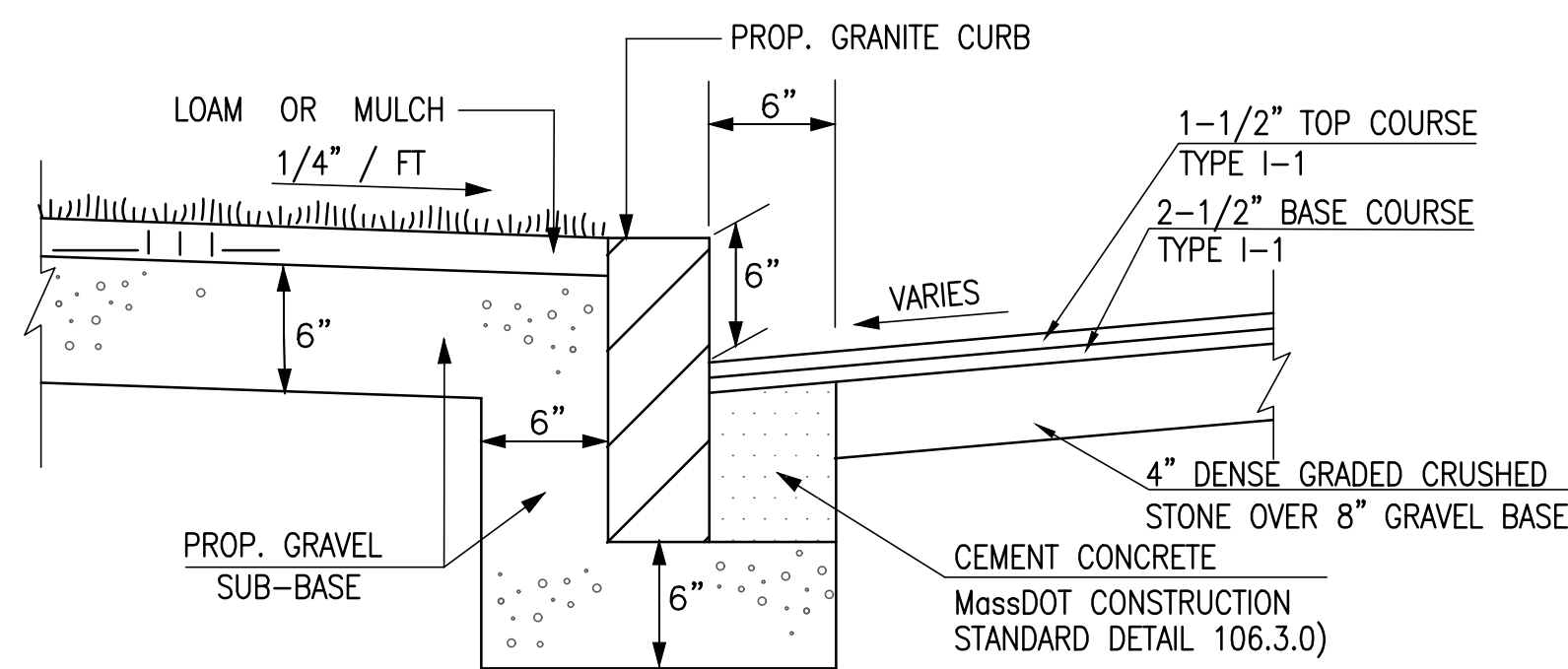
NOTES:
1. SLOPES OF ALL DRIVEWAYS SHALL NOT EXCEED 10% WITHIN 75 FEET OF STREET LINE.

DRIVEWAY APRON DETAIL
(NOT TO SCALE)

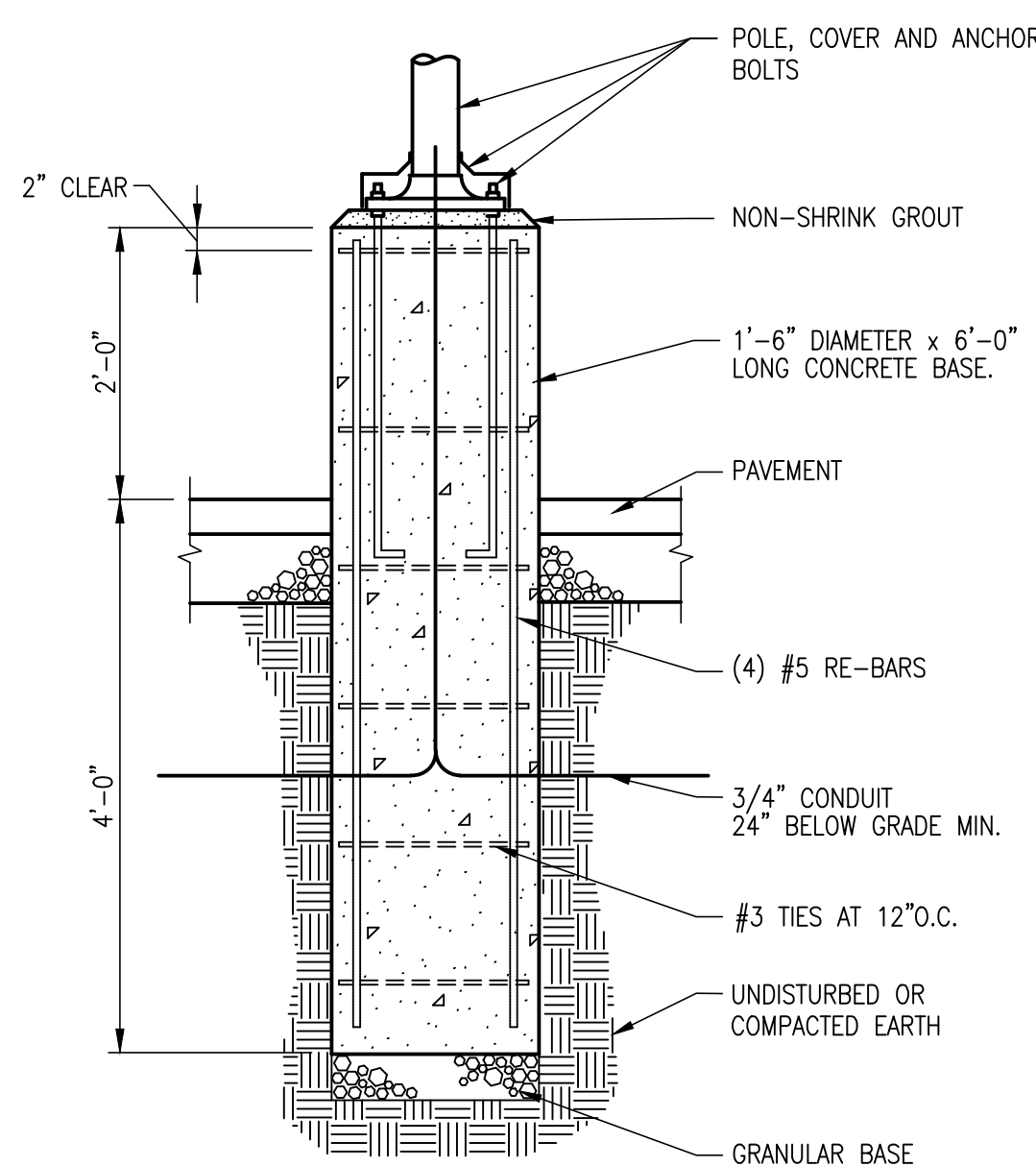


- NOTES:**
1. DIMENSIONS SUBJECT TO CHANGE IN THE FIELD IF THE EXISTING CONDITIONS MAKE THE RAMP IMPRACTICAL, UNSAFE, OR ILLEGAL.
 2. BROOM FINISH SURFACE AT RIGHT ANGLES TO DIRECTION OF TRAVEL.

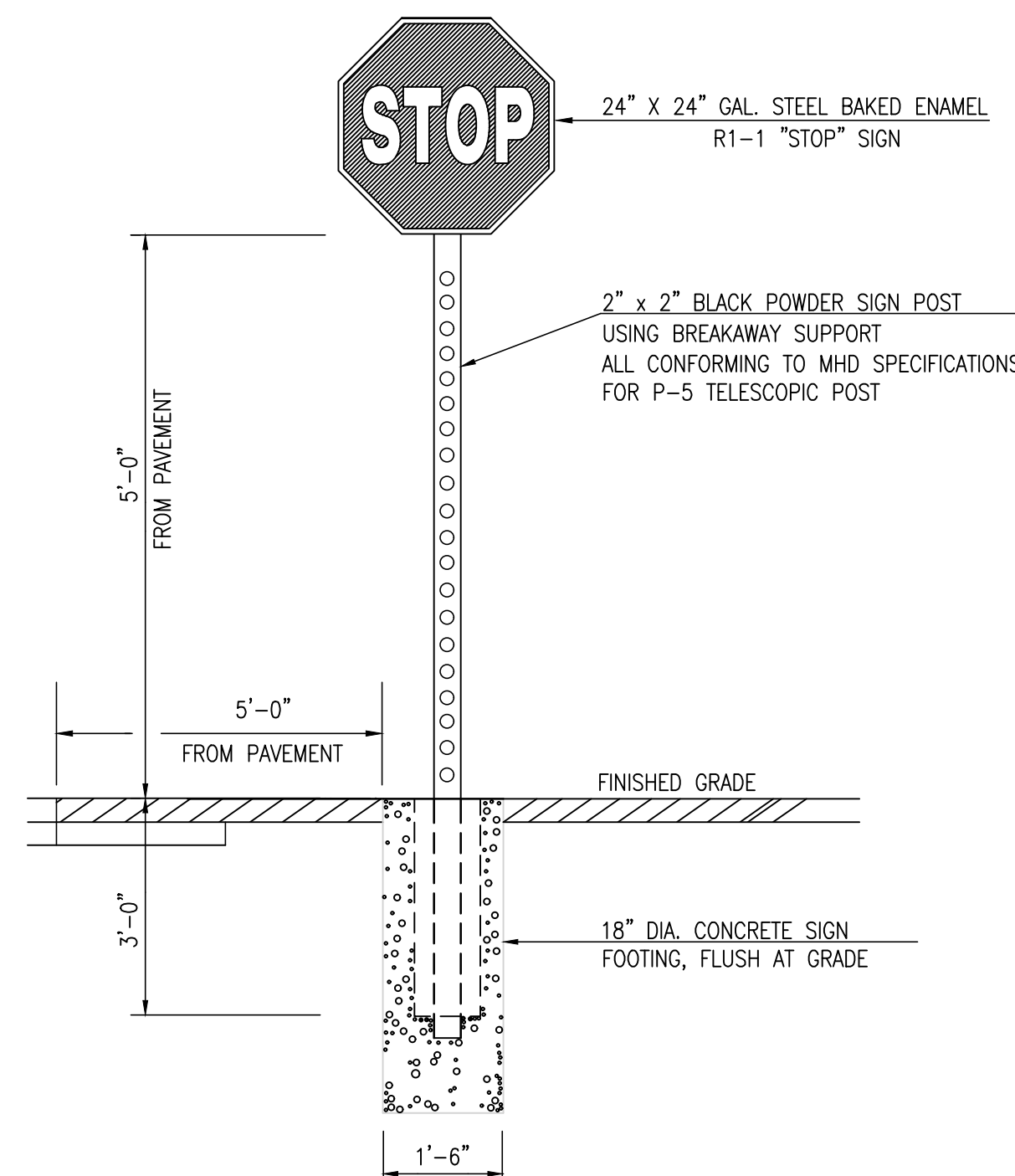
WHEELCHAIR RAMP DETAIL
(NOT TO SCALE)



VERTICAL GRANITE CURB DETAIL
(NOT TO SCALE)



NOTES:
LIGHT POLE FOUNDATION DESIGN IS SUBJECT TO CHANGE BASED ON FINAL POLE AND FIXTURE SELECTION AND GEOTECHNICAL SITE INVESTIGATION.



STOP SIGN DETAIL
(NOT TO SCALE)

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REVISIONS

1	4/30/21	REVIEW & COORDINATION
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CHECKED BY: DK

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SITE PLAN

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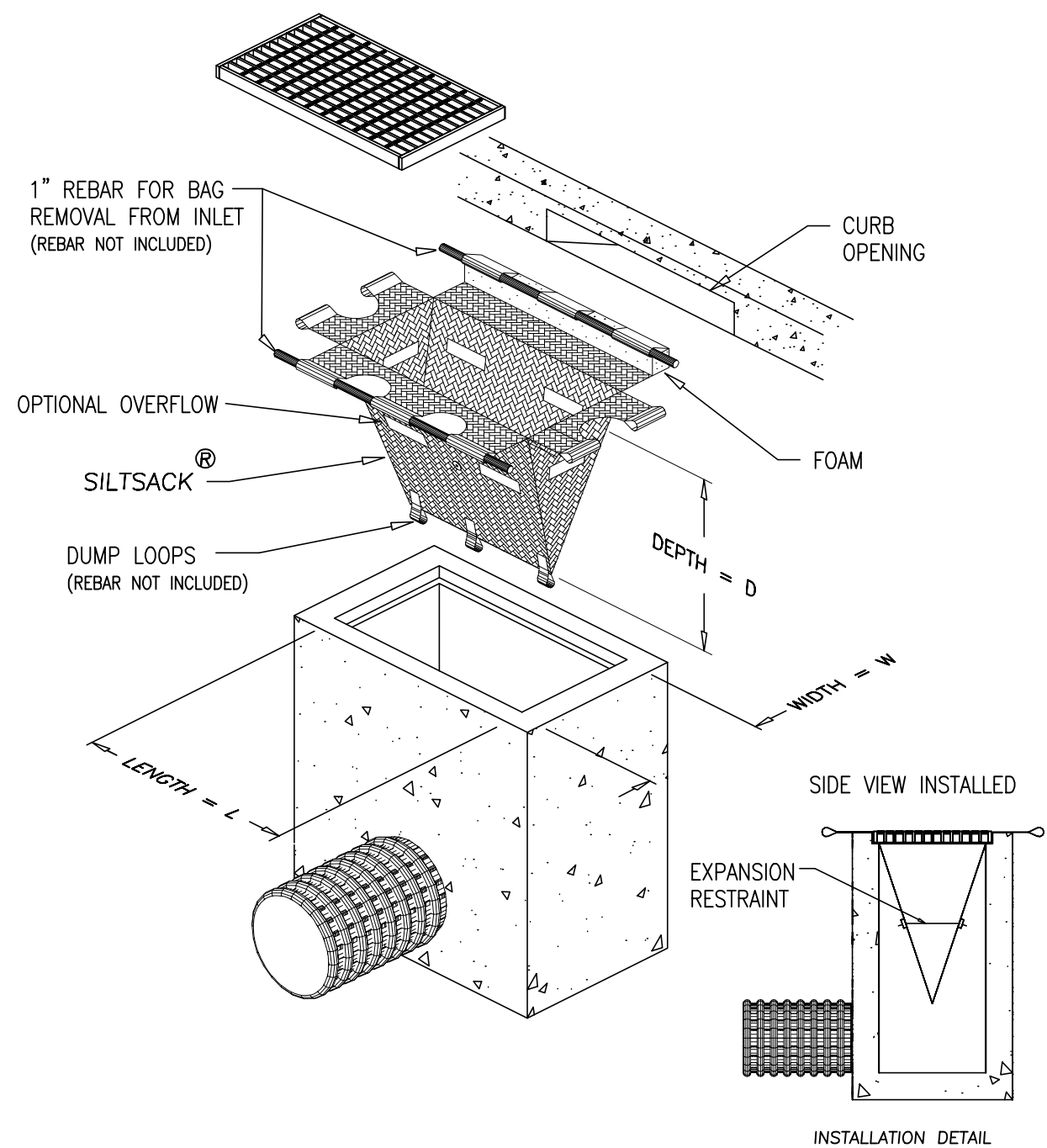
JANUARY 29, 2021

SCALE: N.T.S.

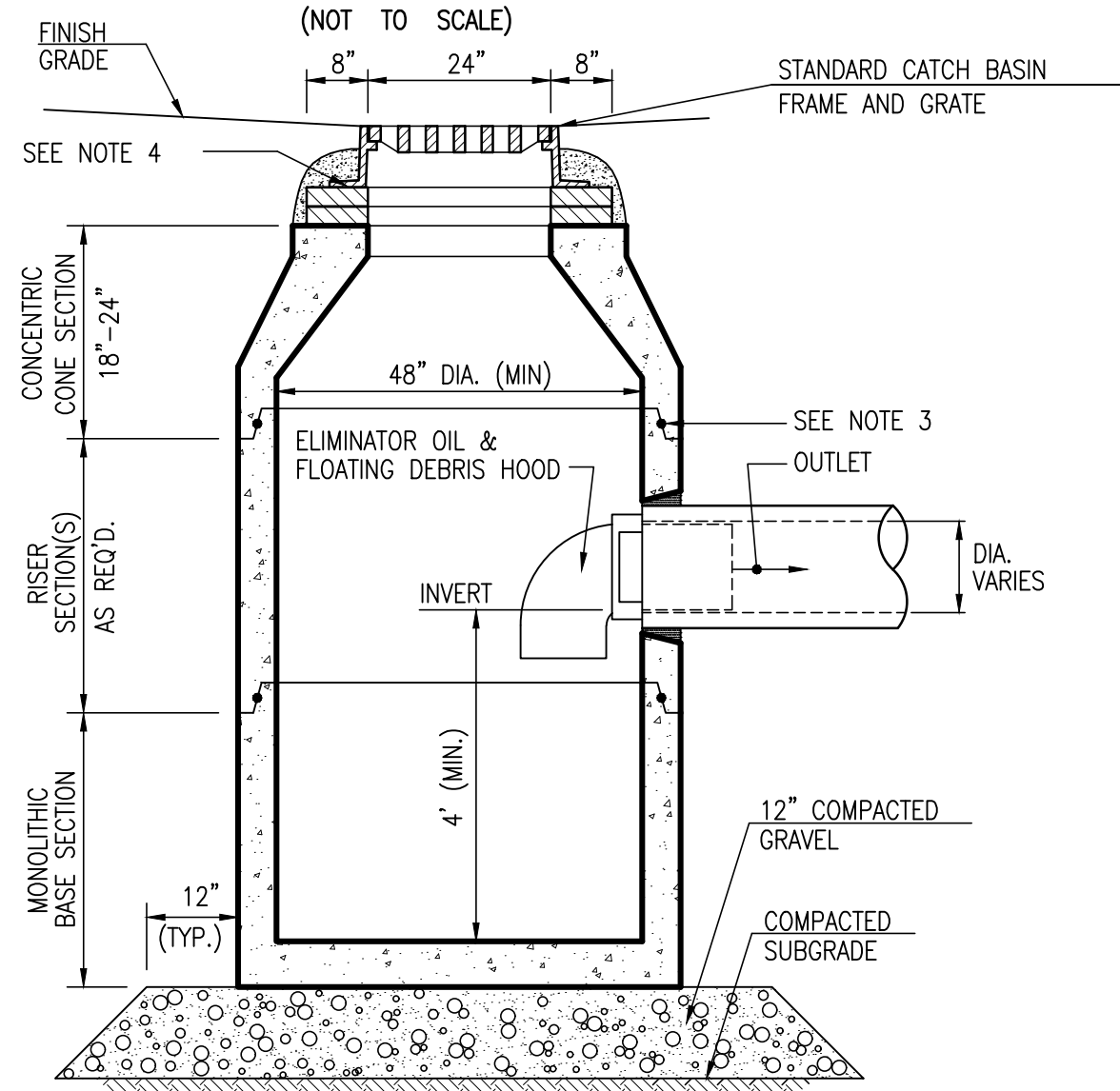
JOB NO. 20-127

LATEST REVISION:
APRIL 30, 2021

CONSTRUCTION DETAILS

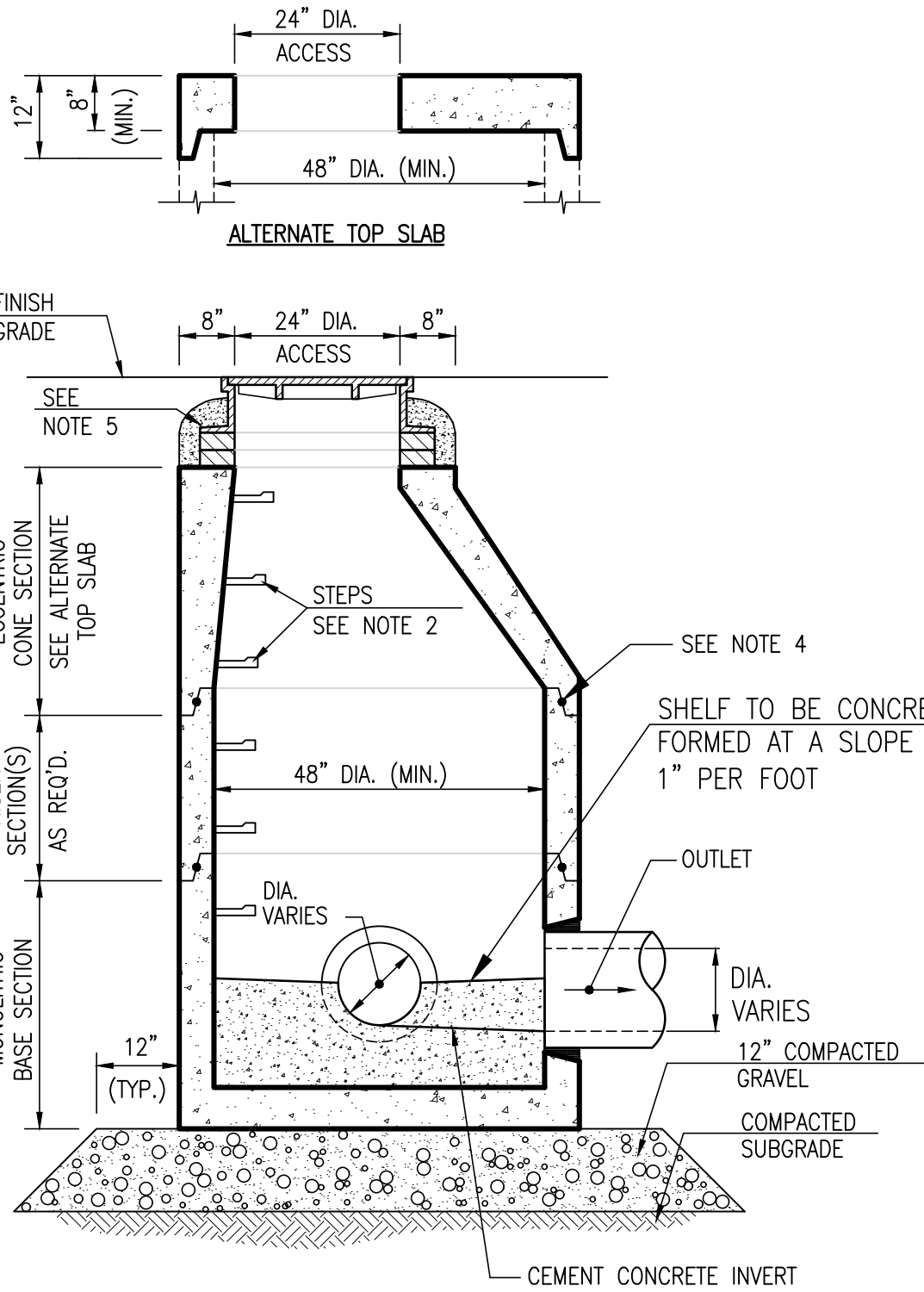


SILT SACK DETAIL
(NOT TO SCALE)



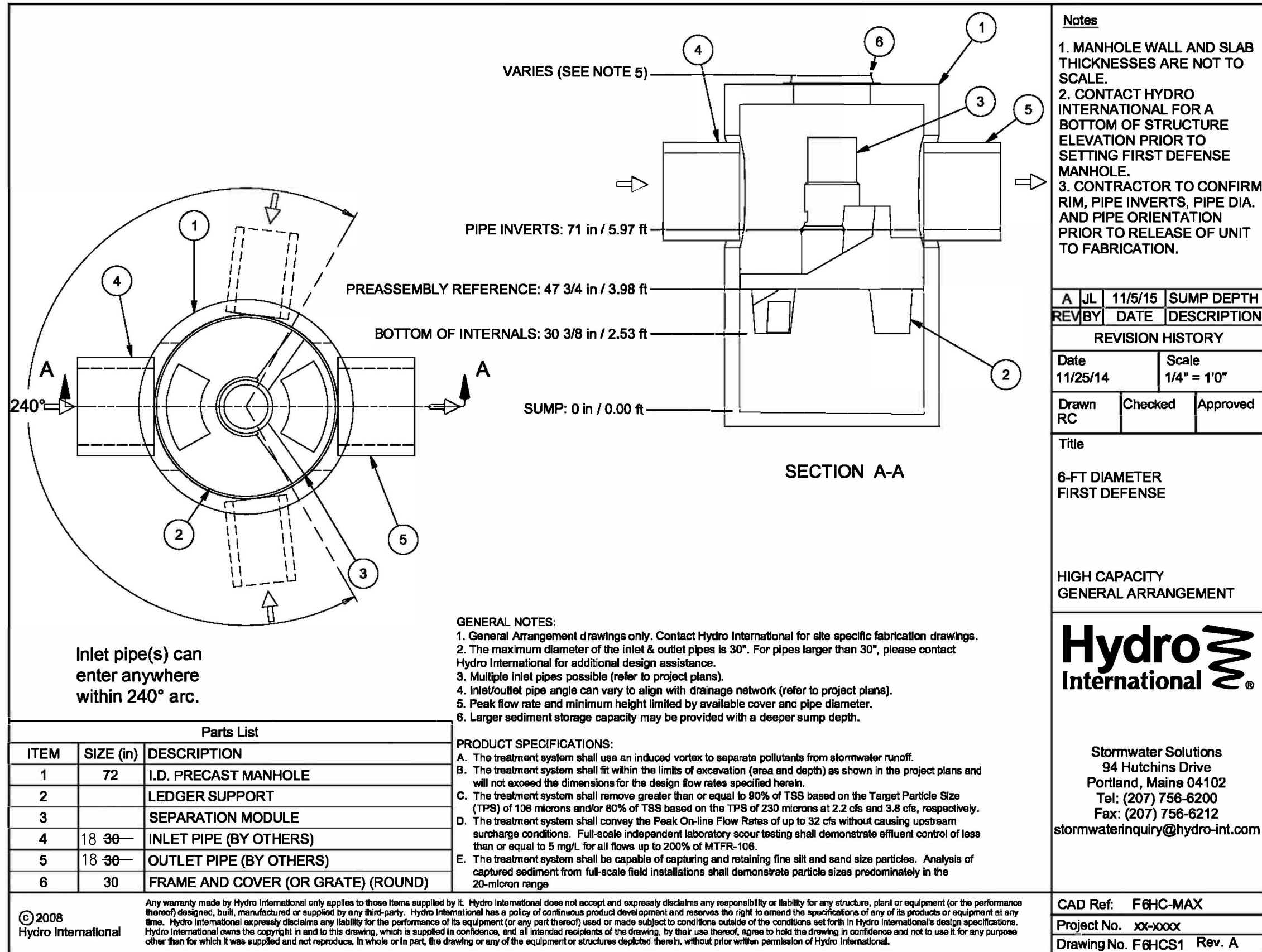
- NOTES:
1. ALL SECTIONS SHALL BE DESIGNED FOR HS-20 LOADING.
 2. PROVIDE "V" KNOCKOUTS FOR PIPES WITH 2" MAX. CLEARANCE TO OUTSIDE OF PIPE. MORTAR ALL PIPE CONNECTIONS.
 3. JOINT SEALANT BETWEEN PRECAST SECTIONS SHALL BE PREFORMED BUTYL RUBBER.
 4. CATCH BASIN FRAME AND GRATE SHALL BE SET IN FULL MORTAR BED. ADJUST TO GRADE WITH CLAY BRICK AND MORTAR (2 BRICK COURSES TYPICALLY, 5 BRICK COURSES MAXIMUM)

PRECAST CATCH BASIN DETAIL
(NOT TO SCALE)

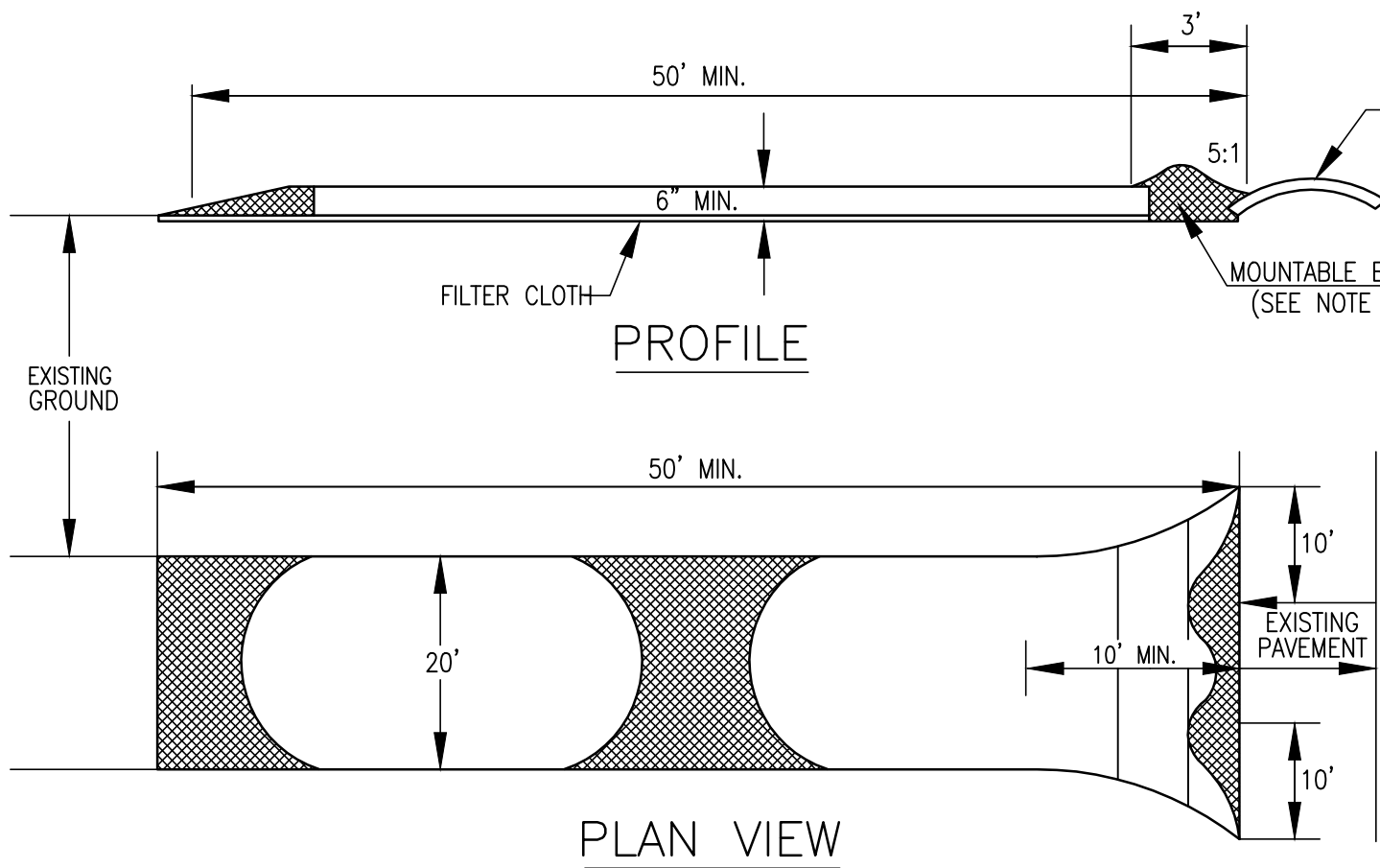


- NOTES:
1. ALL SECTIONS SHALL BE DESIGNED FOR HS-20 LOADING.
 2. COPOLYMER MANHOLE STEPS SHALL BE INSTALLED AT 12" O.C. FOR THE FULL DEPTH OF THE STRUCTURE.
 3. PROVIDE "V" KNOCKOUTS FOR PIPES WITH 2" MAX. CLEARANCE TO OUTSIDE OF PIPE. MORTAR ALL PIPE CONNECTIONS.
 4. JOINT SEALANT BETWEEN PRECAST SECTIONS SHALL BE PREFORMED BUTYL RUBBER.
 5. DRAIN MANHOLE FRAME AND COVER SHALL BE SET IN FULL MORTAR BED. ADJUST TO GRADE WITH CLAY BRICK AND MORTAR (2 BRICK COURSES TYPICALLY, 5 BRICK COURSES MAXIMUM)

PRECAST CONCRETE MANHOLE DETAIL
(NOT TO SCALE)



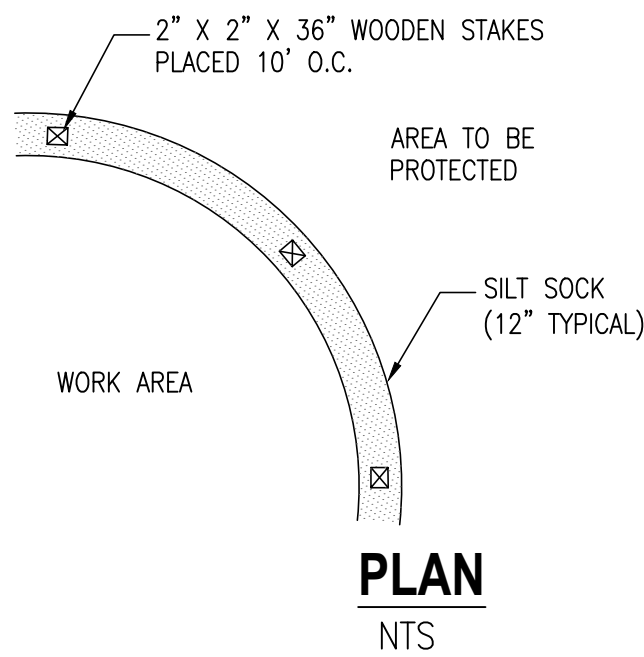
FIRST DEFENSE HIGH CAPACITY PRETREATMENT UNIT (FD-6HC) - FD3
(DESIGNED FOR H-20 LOADING)
(NOT TO SCALE)



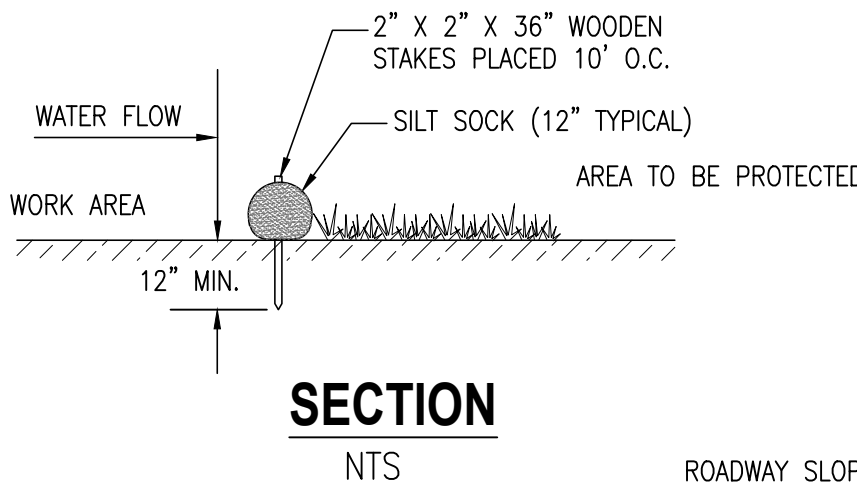
STABILIZED CONSTRUCTION ENTRANCE
(NOT TO SCALE)

SPECIFICATIONS

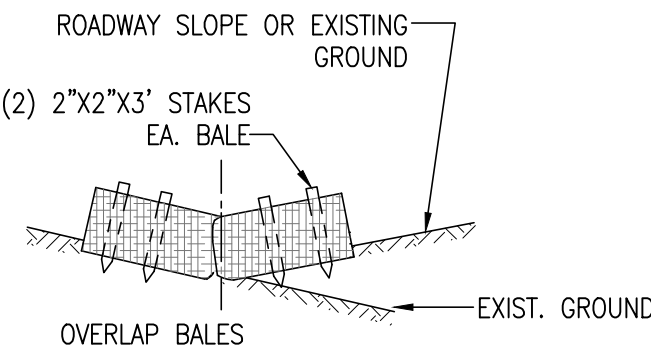
1. STONE SIZE - USE 2" STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
2. LENGTH - AS REQUIRED, BUT NOT LESS THAN 50 FT.(EXCEPT ON A SINGLE RESIDENCE LOT WHERE A 30' MINIMUM LENGTH WOULD APPLY).
3. THICKNESS - NOT LESS THAN SIX (6) INCHES.
4. WIDTH - TEN (10) FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESSOR EGRESS OCCURS.
5. FILTER CLOTH - WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE. FILTER WILL NOT BE REQUIRED ON A SINGLE FAMILY RESIDENCE LOT.
6. SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
7. MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAYS MUST BE REMOVED IMMEDIATELY.
8. WASHING - WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHTS OF WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
9. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.



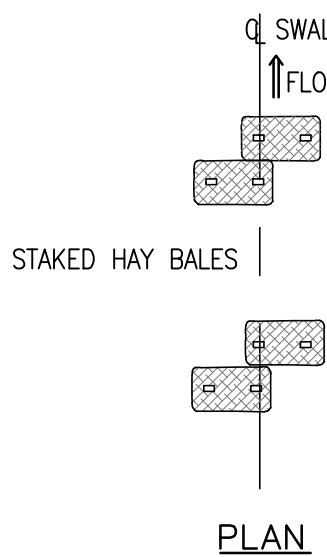
SILT SOCK DETAIL
(NOT TO SCALE)



SECTION
NTS

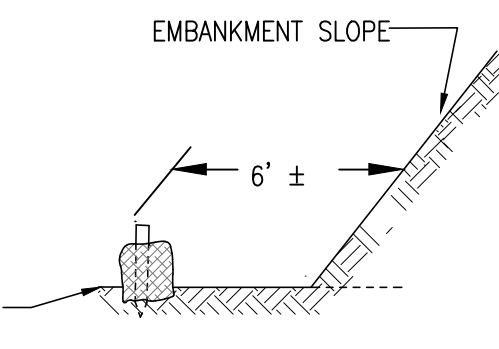


SECTION



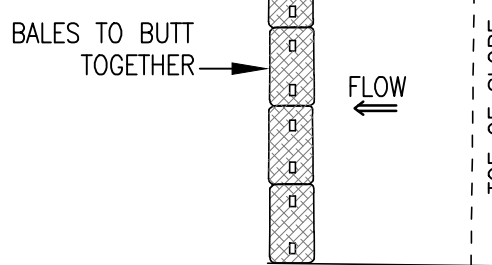
PLAN

NOTE: TO BE USED IN LOCATIONS WHERE EXIST. GROUND SLOPES IN TOWARD THE TOE OF THE EMBANKMENT. OR IN NARROW DITCHES.



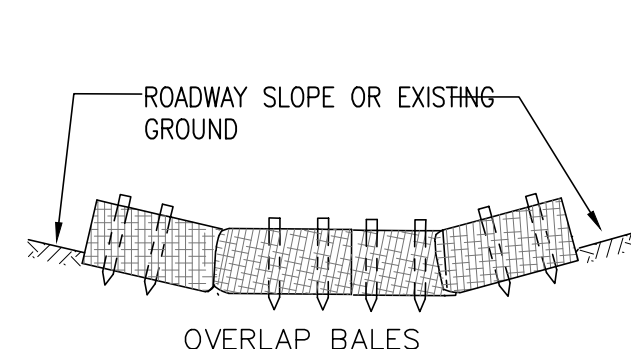
SECTION

*- VARIES DEPENDING ON HEIGHT OF SLOPE AND STEEPNESS OF RESULTING GRADES AT TOE OF SLOPE EXIST. GROUND INTERSECTION.

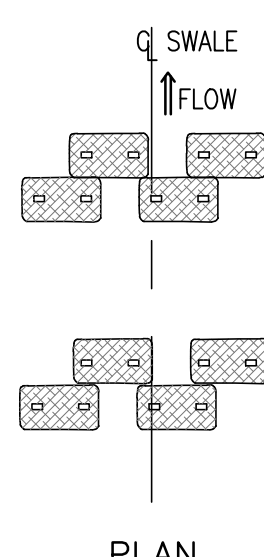


PLAN

NOTE: TO BE USED WHERE EXIST. GROUND SLOPES AWAY FROM THE TOE OF THE EMBANKMENT.

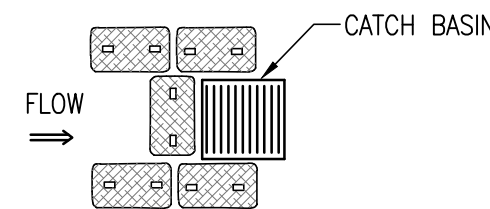


SECTION

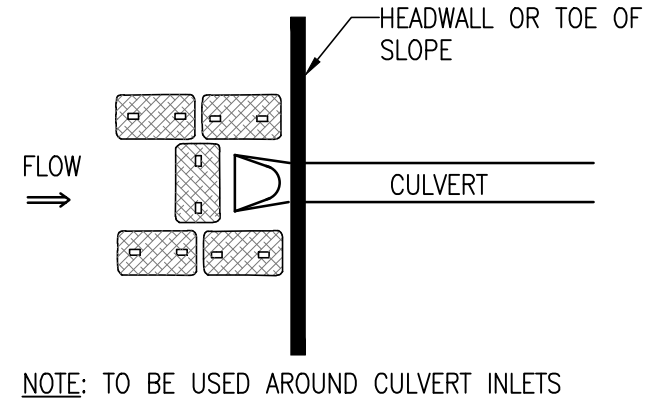


PLAN

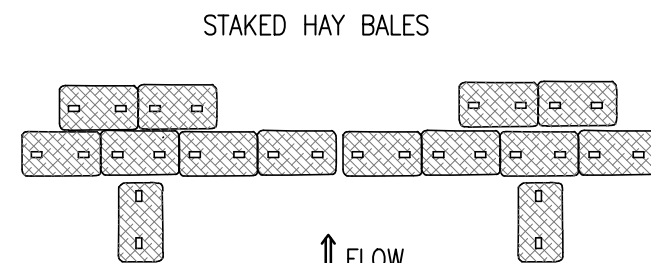
NOTE: TO BE USED IN LOCATIONS WHERE EXIST. GROUND SLOPES IN TOWARD THE TOE OF THE EMBANKMENT. OR IN WIDE DITCHES.



NOTE: TO BE USED AROUND CATCH BASINS.



NOTE: TO BE USED AROUND CULVERT INLETS



NOTE: TO BE USED AT BOTTOM OF FILL SLOPE WHERE HEAVY FLOW MAY BE ANTICIPATED

TEMPORARY EROSION CONTROL DETAILS
(NOT TO SCALE)

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REVISIONS

1	4/30/21	REVIEW & COORDINATION
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DEBORAH W. KELLER
CIVIL
No. 45914
REGISTERED PROFESSIONAL ENGINEER
Commonwealth of Massachusetts

DRAWN BY: JG

DESIGNED BY: DK

CHECKED BY: DK

Merrill
Engineers and Land Surveyors
427 COLUMBIA ROAD, HANOVER, MA 02339 / T: (781) 826-9200
26 UNION STREET, PLYMOUTH MA 02360 / T: (508) 746-6060
WWW.MERRILLINC.COM

SITE PLAN

#15, 19, 27 & 35 HIGH STREET
NORWELL, MASSACHUSETTS 02061

OWNER/APPLICANT
NORTHLAND RESIDENTIAL CORPORATION
80 BEHARRELL STREET, SUITE E
CONCORD, MASSACHUSETTS 01742

JANUARY 29, 2021

SCALE: N.T.S.

JOB NO. 20-127

LATEST REVISION:
APRIL 30, 2021

CONSTRUCTION DETAILS

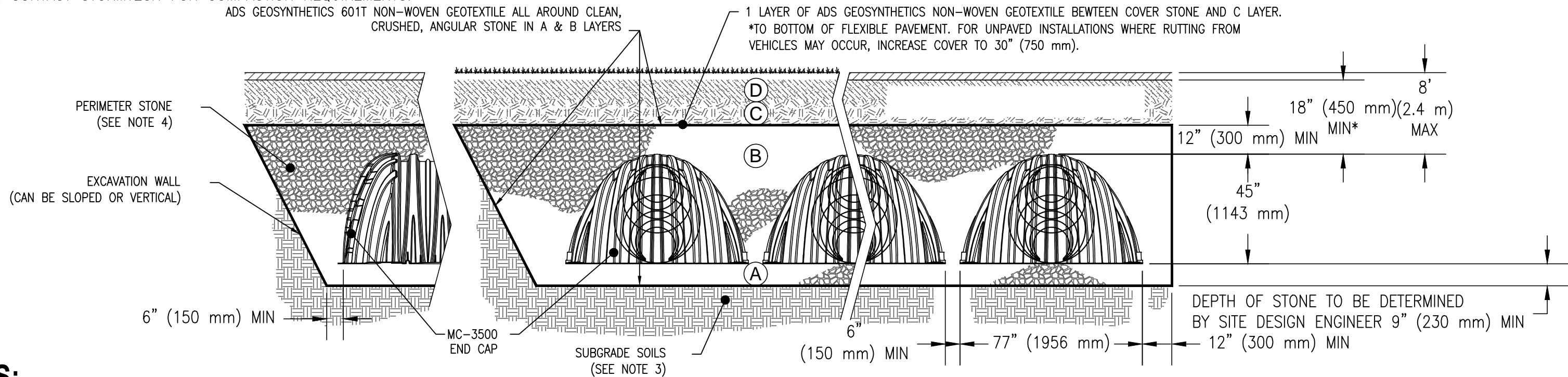
SHEET C6.2

ACCEPTABLE FILL MATERIALS: STORMTECH MC-3500 CHAMBER SYSTEMS

MATERIAL LOCATION	DESCRIPTION	AASHTO MATERIAL CLASSIFICATIONS	COMPACTION / DENSITY REQUIREMENT
D	FINAL FILL: FILL MATERIAL FOR LAYER 'D' STARTS FROM THE TOP OF THE 'C' LAYER TO THE BOTTOM OF FLEXIBLE PAVEMENT OR UNPAVED FINISHED GRADE ABOVE. NOTE THAT PAVEMENT SUBBASE MAY BE PART OF THE 'D' LAYER	N/A	PREPARE PER SITE DESIGN ENGINEER'S PLANS. PAVED INSTALLATIONS MAY HAVE STRINGENT MATERIAL AND PREPARATION REQUIREMENTS.
C	INITIAL FILL: FILL MATERIAL FOR LAYER 'C' STARTS FROM THE TOP OF THE EMBEDMENT STONE ('B' LAYER) TO 24" (600 mm) ABOVE THE TOP OF THE CHAMBER. NOTE THAT PAVEMENT SUBBASE MAY BE A PART OF THE 'C' LAYER.	AASHTO M145 ¹ A-1, A-2.4, A-3 OR AASHTO M43 ¹ 3, 357, 4, 467, 5, 56, 57, 6, 67, 68, 7, 78, 8, 89, 9, 10	BEGIN COMPACTIONS AFTER 24" (600 mm) OF MATERIAL OVER THE CHAMBERS IS REACHED. COMPACT ADDITIONAL LAYERS IN 12" (300 mm) MAX LIFTS TO A MIN. 95% PROCTOR DENSITY FOR WELL GRADED MATERIAL AND 95% RELATIVE DENSITY FOR PROCESSED AGGREGATE MATERIALS.
B	EMBEDMENT STONE: FILL SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE ('A' LAYER) TO THE 'C' LAYER ABOVE.	CLEAN, CRUSHED, ANGULAR STONE	NO COMPACTION REQUIRED.
A	FOUNDATION STONE: FILL BELOW CHAMBERS FROM THE SUBGRADE UP TO THE FOOT (BOTTOM) OF THE CHAMBER.	CLEAN, CRUSHED, ANGULAR STONE	PLATE COMPACT OR ROLL TO ACHIEVE A FLAT SURFACE. ^{2,3}

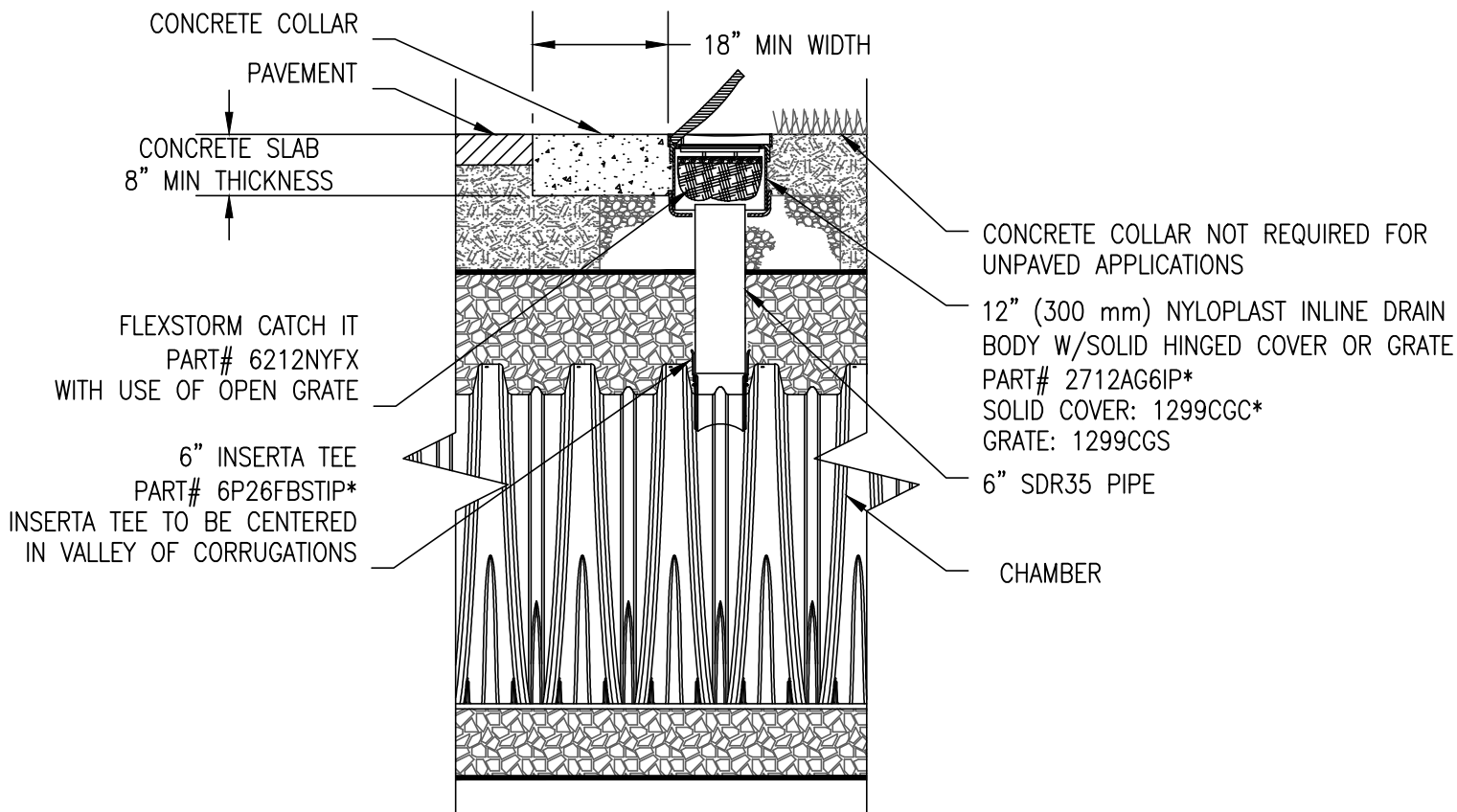
PLEASE NOTE:

- THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR NO. 4 (AASHTO M43) STONE".
- STORMTECH COMPACTION REQUIREMENTS ARE MET FOR 'A' LOCATION MATERIALS WHEN PLACED AND COMPACTED IN 9" (230 mm) (MAX) LIFTS USING TWO FULL COVERAGES WITH A VIBRATORY COMPACTOR.
- WHERE INFILTRATION SURFACES MAY BE COMPROMISED BY COMPACTION, FOR STANDARD DESIGN LOAD CONDITIONS, A FLAT SURFACE MAY BE ACHIEVED BY RAKING OR DRAGGING WITHOUT COMPACTION EQUIPMENT. FOR SPECIAL LOAD DESIGNS, CONTACT STORMTECH FOR COMPACTION REQUIREMENTS.



NOTES:

- CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418-16a, "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS" CHAMBER CLASSIFICATION 45x76 DESIGNATION SS.
- MC-3500 CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
- THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR ASSESSING THE BEARING RESISTANCE (ALLOWABLE BEARING CAPACITY) OF THE SUBGRADE SOILS AND THE DEPTH OF FOUNDATION STONE WITH CONSIDERATION FOR THE RANGE OF EXPECTED SOIL MOISTURE CONDITIONS.
- PERIMETER STONE MUST BE EXTENDED HORIZONTALLY TO THE EXCAVATION WALL FOR BOTH VERTICAL AND SLOPED EXCAVATION WALLS.
- REQUIREMENTS FOR HANDLING AND INSTALLATION:
 - TO MAINTAIN THE WIDTH OF CHAMBERS DURING SHIPPING AND HANDLING, CHAMBERS SHALL HAVE INTEGRAL, INTERLOCKING STACKING LUGS.
 - TO ENSURE A SECURE JOINT DURING INSTALLATION AND BACKFILL, THE HEIGHT OF THE CHAMBER JOINT SHALL NOT BE LESS THAN 3".
 - TO ENSURE THE INTEGRITY OF THE ARCH SHAPE DURING INSTALLATION, a) THE ARCH STIFFNESS CONSTANT AS DEFINED IN SECTION 6.2.8 OF ASTM F2418 SHALL BE GREATER THAN OR EQUAL TO 500 LBS/IN/IN. AND b) TO RESIST CHAMBER DEFORMATION DURING INSTALLATION AT ELEVATED TEMPERATURES (ABOVE 73° F / 23° C), CHAMBERS SHALL BE PRODUCED FROM REFLECTIVE GOLD OR YELLOW COLORS.



* THE PART# 2712AG6IPKIT CAN BE USED TO ORDER ALL NECESSARY COMPONENTS FOR A SOLID LID INSPECTION PORT INSTALLATION

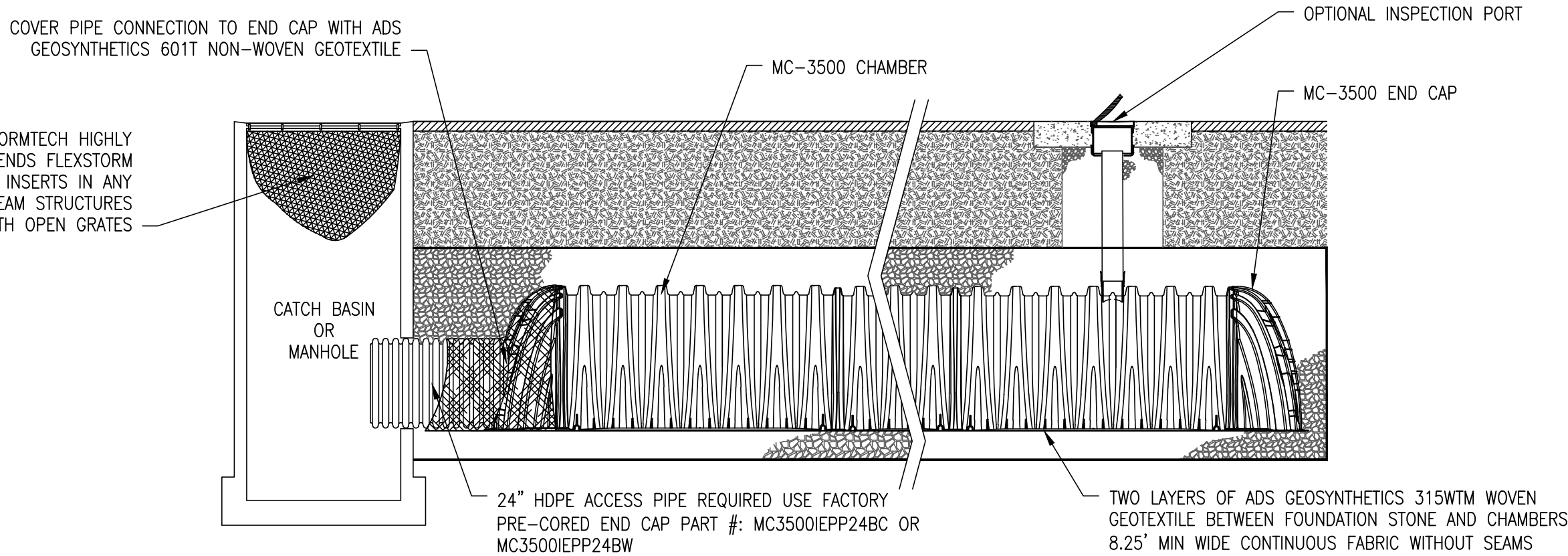
6" INSPECTION PORT DETAIL
(NOT TO SCALE)

INSPECTION & MAINTENANCE

- STEP 1) INSPECT ISOLATOR ROW FOR SEDIMENT
- A. INSPECTION PORTS (IF PRESENT)
- A.1. REMOVE/OPEN LID ON NYLOPLAST INLINE DRAIN
- A.2. REMOVE AND CLEAN FLEXSTORM FILTER IF INSTALLED
- A.3. USING A FLASHLIGHT AND STADIA ROD, MEASURE DEPTH OF SEDIMENT AND RECORD ON MAINTENANCE LOG
- A.4. LOWER A CAMERA INTO ISOLATOR ROW FOR VISUAL INSPECTION OF SEDIMENT LEVELS (OPTIONAL)
- A.5. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.
- B. ALL ISOLATOR ROWS
- B.1. REMOVE COVER FROM STRUCTURE AT UPSTREAM END OF ISOLATOR ROW
- B.2. USING A FLASHLIGHT, INSPECT DOWN THE ISOLATOR ROW THROUGH OUTLET PIPE
- i) MIRRORS ON POLES OR CAMERAS MAY BE USED TO AVOID A CONFINED SPACE ENTRY
- ii) FOLLOW OSHA REGULATIONS FOR CONFINED SPACE ENTRY IF ENTERING MANHOLE
- B.3. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.
- STEP 2) CLEAN OUT ISOLATOR ROW USING THE JETVAC PROCESS
- A. A FIXED CULVERT CLEANING NOZZLE WITH REAR FACING SPREAD OF 45" (1.1 m) OR MORE IS PREFERRED
- B. APPLY MULTIPLE PASSES OF JETVAC UNTIL BACKFLUSH WATER IS CLEAN
- C. VACUUM STRUCTURE SUMP AS REQUIRED
- STEP 3) REPLACE ALL COVERS, GRATES, FILTERS, AND LIDS; RECORD OBSERVATIONS AND ACTIONS.
- STEP 4) INSPECT AND CLEAN BASINS AND MANHOLES UPSTREAM OF THE STORMTECH SYSTEM.

NOTES

- INSPECT EVERY 6 MONTHS DURING THE FIRST YEAR OF OPERATION. ADJUST THE INSPECTION INTERVAL BASED ON PREVIOUS OBSERVATIONS OF SEDIMENT ACCUMULATION AND HIGH WATER ELEVATIONS.
- CONDUCT JETTING AND VACTORING ANNUALLY OR WHEN INSPECTION SHOWS THAT MAINTENANCE IS NECESSARY.



MC-3500 ISOLATOR ROW DETAIL
(NOT TO SCALE)

REVISIONS

1	4/30/21	REVIEW & COORDINATION
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DRAWN BY: JG

DESIGNED BY: DK

CHECKED BY: DK



SITE PLAN
#15, 19, 27 & 35 HIGH STREET
NORWELL, MASSACHUSETTS 02061

OWNER/APPLICANT
NORTHLAND RESIDENTIAL CORPORATION
80 BEHARRELL STREET, SUITE E
CONCORD, MASSACHUSETTS 01742

JANUARY 29, 2021

SCALE: N.T.S.

JOB NO. 20-127

LATEST REVISION:
APRIL 30, 2021

CONSTRUCTION DETAILS

SHEET C6.3

NOTE:

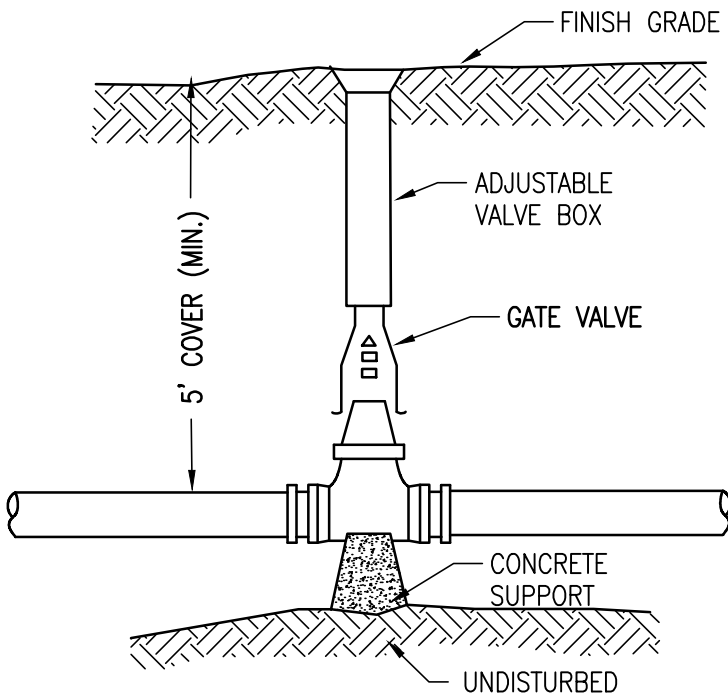
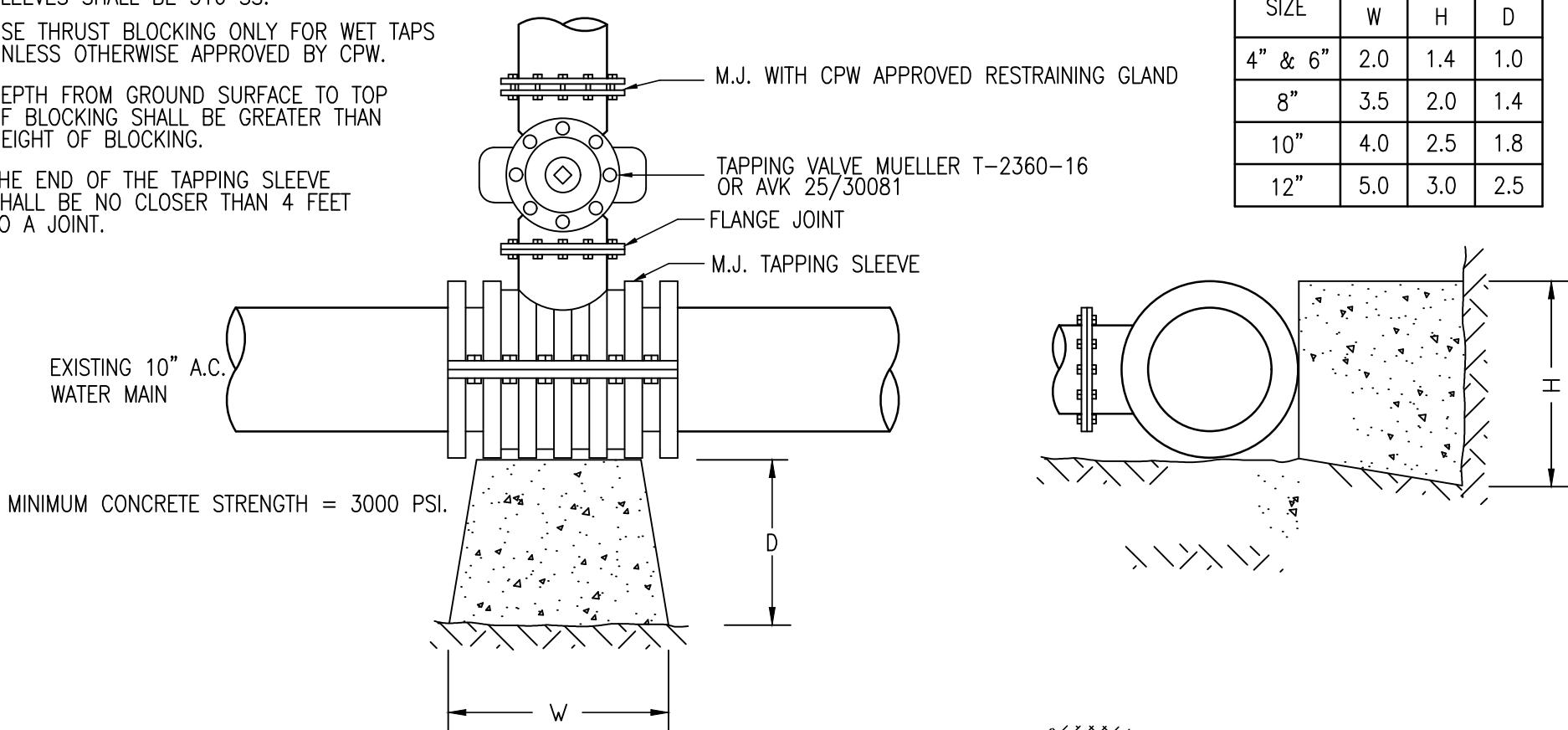
1. TAPPING SADDLES ARE NOT ALLOWED FOR MAIN-ON-MAIN TAPS.
2. USE MUELLER OR AMERICAN DARLING DUCTILE IRON OR 316 STAINLESS STEEL TAPPING SLEEVES FOR TAP SIZES 4" - 24".
3. USE 316 STAINLESS STEEL TAPPING SLEEVES BY DRESSER OR CASCADE FOR TAPS ON MAINS 30" AND GREATER.
4. BOLTS AND NUTS FOR ALL TAPPING SLEEVES SHALL BE 316 SS.
5. USE THRUST BLOCKING ONLY FOR WET TAPS UNLESS OTHERWISE APPROVED BY CPW.
6. DEPTH FROM GROUND SURFACE TO TOP OF BLOCKING SHALL BE GREATER THAN HEIGHT OF BLOCKING.
7. THE END OF THE TAPPING SLEEVE SHALL BE NO CLOSER THAN 4 FEET TO A JOINT.

TAPPING SLEEVE DETAIL

(NOT TO SCALE)

* CONSULT DPW PRIOR TO PURCHASING ANY WATER MAIN MATERIALS. COMPLETE INSTALLATION IN ACCORDANCE TO DPW REQUIREMENTS

TAP SIZE	DIMENSIONS IN FT		
	W	H	D
4" & 6"	2.0	1.4	1.0
8"	3.5	2.0	1.4
10"	4.0	2.5	1.8
12"	5.0	3.0	2.5

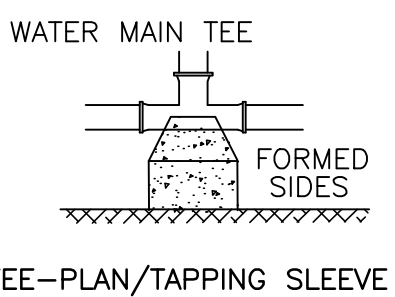
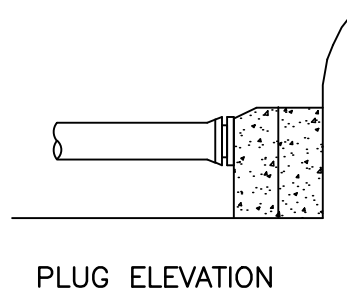
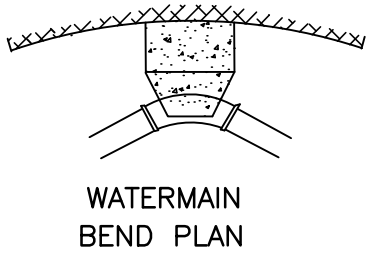
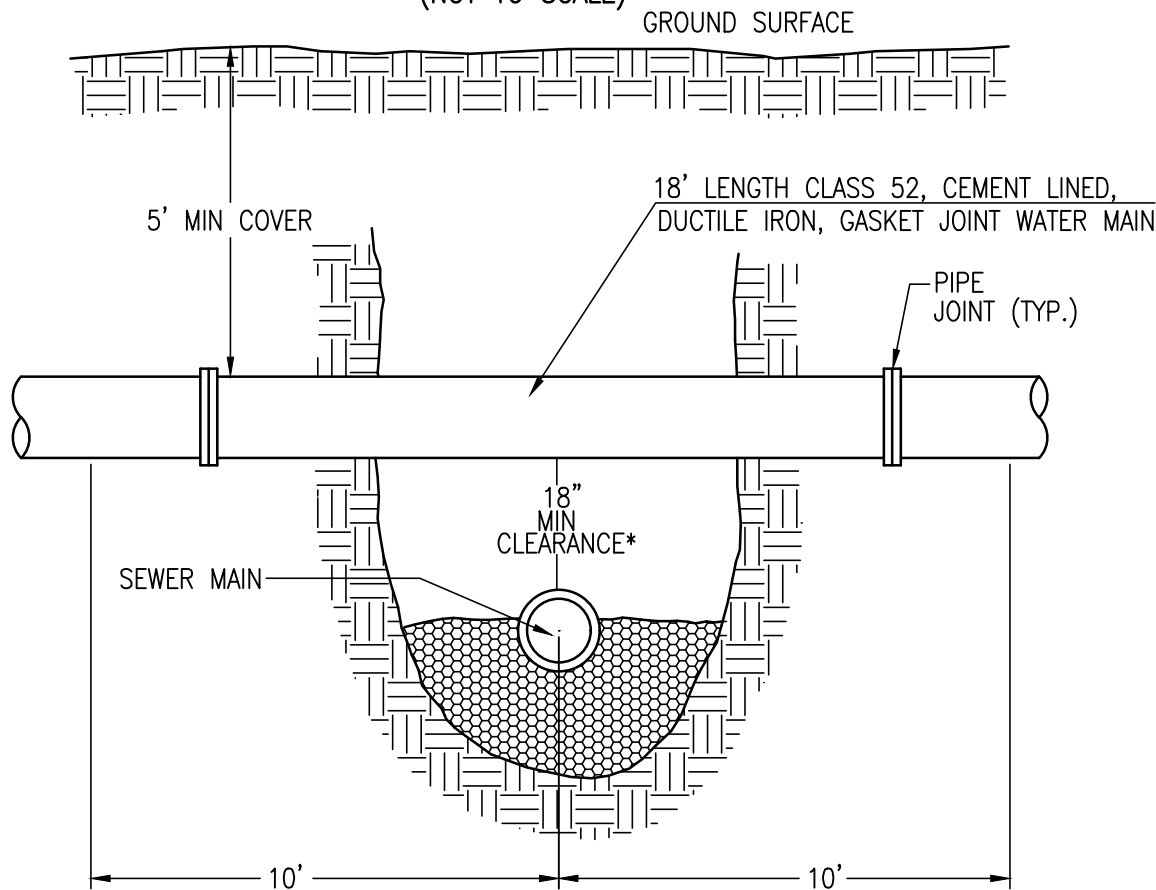


WATER GATE DETAIL

(NOT TO SCALE)

TYPICAL WATER CROSSING DETAIL

(NOT TO SCALE)



FORMED SIDES

THRUST BLOCK DETAILS

(NOT TO SCALE)

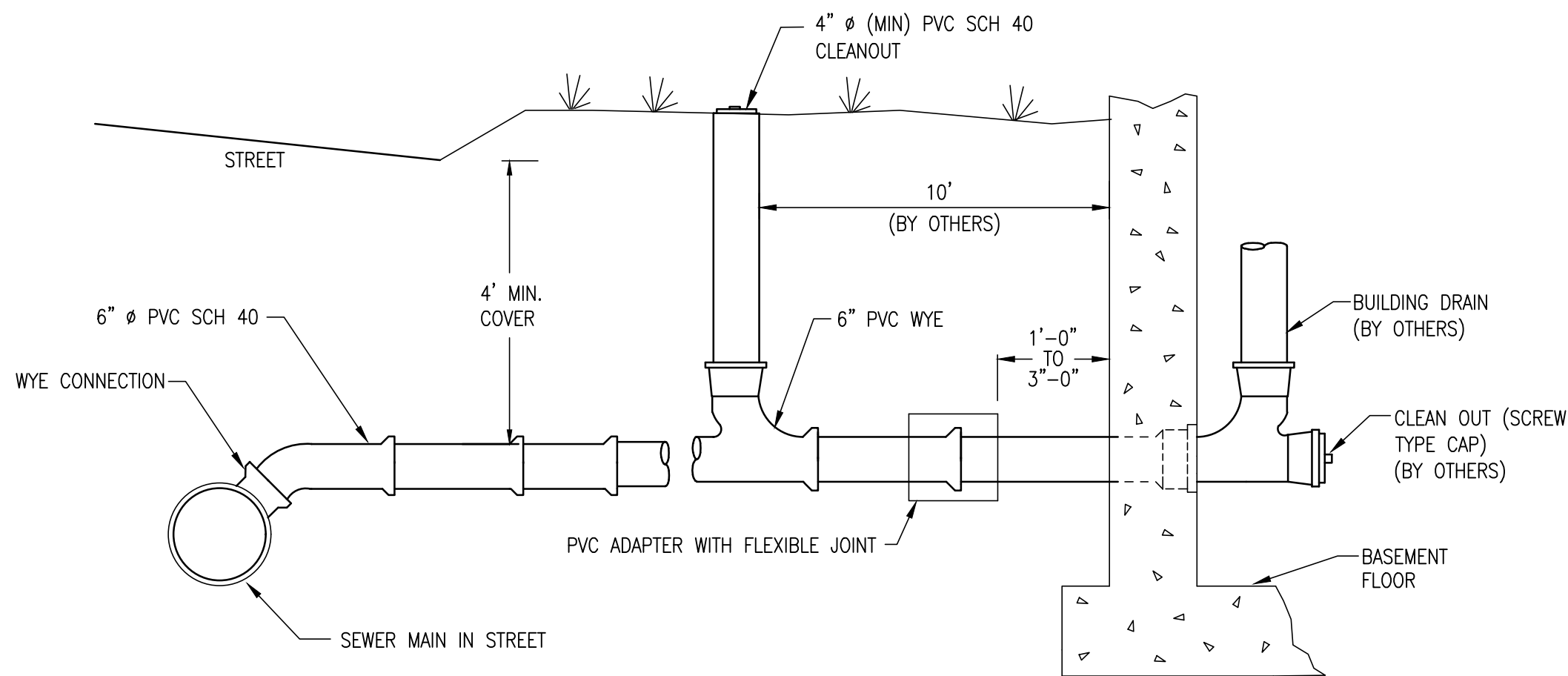
PRECAST CONCRETE BLOCK PLACED AGAINST UNDISTURBED MATERIAL AND OR STONE (LARGE DIAMETER)

NOTE:

1. CONCRETE FOR THRUST BLOCKS SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 1500 P.S.I. AT 28 DAYS
2. THRUST BLOCK BEARING AREAS TO BE IN ACCORDANCE WITH TABLE BELOW, UNLESS DETERMINED OTHERWISE BY THE ENGINEER BECAUSE OF SOIL CONDITIONS.
3. NO CONCRETE SHALL BE POURED IN PLACE WITHOUT APPROVAL OF ENGINEER.

TABLE OF BEARING AREAS (S.F.)			
SIZE OF MAIN (IN)	90° BEND	TEES & PLUGS	45° BEND
8	5	4	3

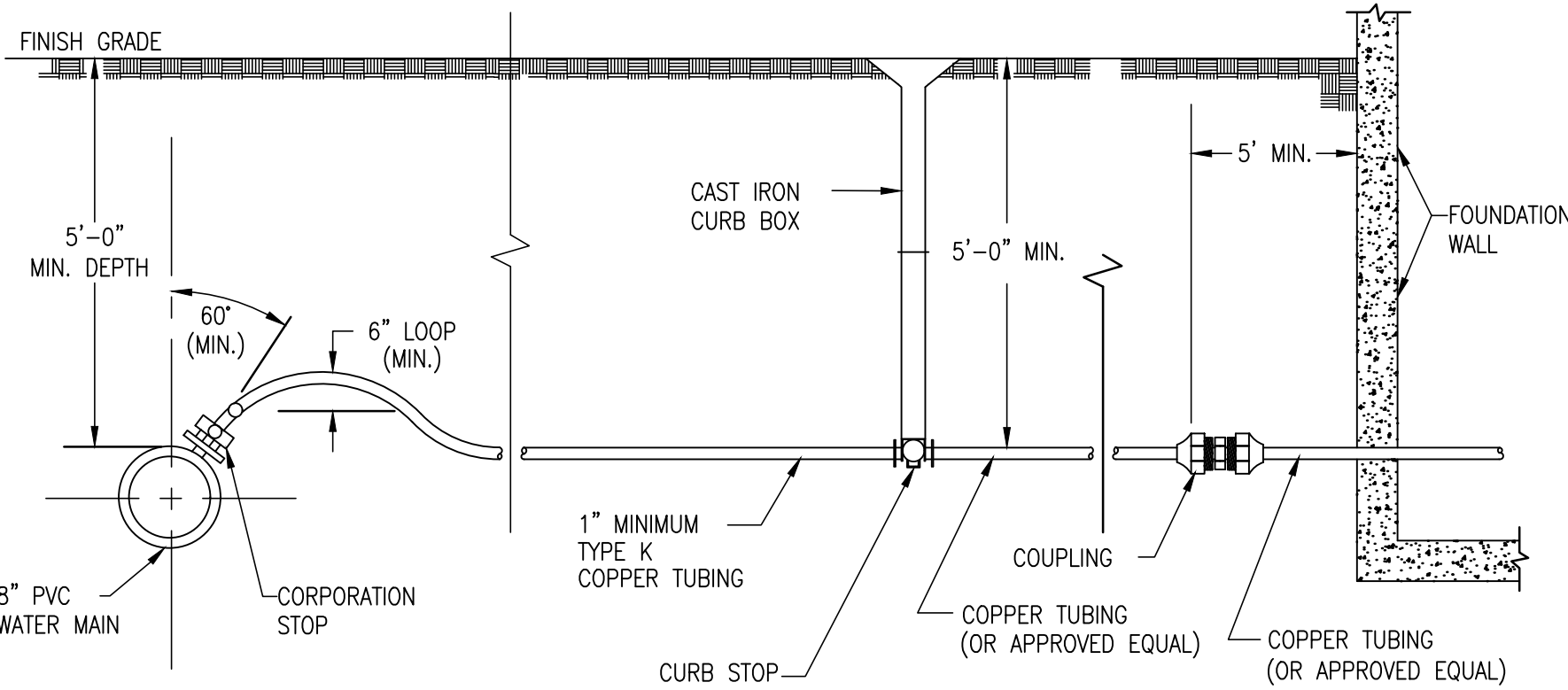
* WHEN THE CROSSING AS SHOWN IS LESS THAN 18" VERTICAL CLEARANCE THE SEWER MAIN OR SERVICE MUST BE ENCASED 10" ON BOTH SIDES OF CROSSING WITH 6" OF 3000 PSI CONCRETE. IF THE SEWER MAIN OR SERVICE CROSSES ABOVE THE WATERMAIN OR SERVICE TOTAL ENCASEMENT, BOTH SIDES OF THE CROSSING IS REQUIRED, REGARDLESS OF SEPARATION.



HOUSE SEWER: MINIMUM SLOPE 1/4" PER FOOT

TYPICAL BUILDING SEWER CONNECTION DETAIL

(NOT TO SCALE)

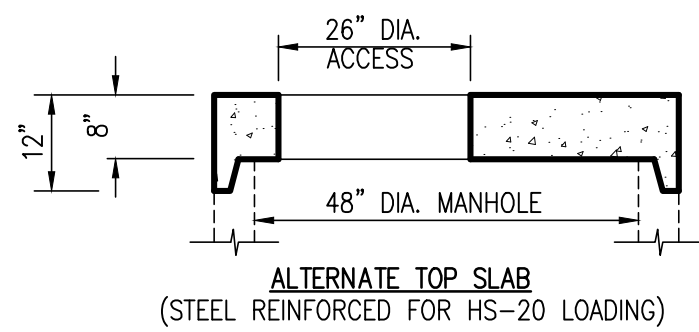


NOTE:

VERIFY MATERIALS AND TAPPING AND INSTALLATION REQUIREMENTS WITH THE TOWN OF NORWELL WATER DEPARTMENT.

WATER SERVICE DETAIL

(NOT TO SCALE)

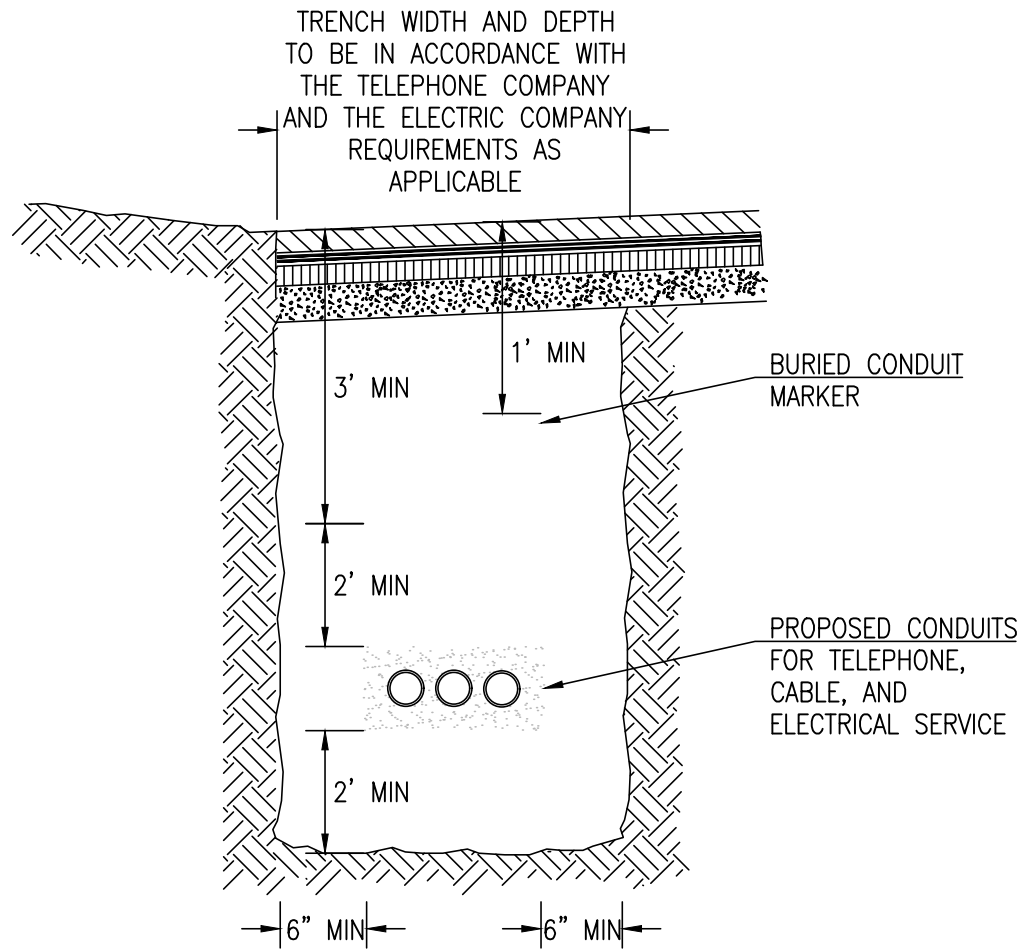
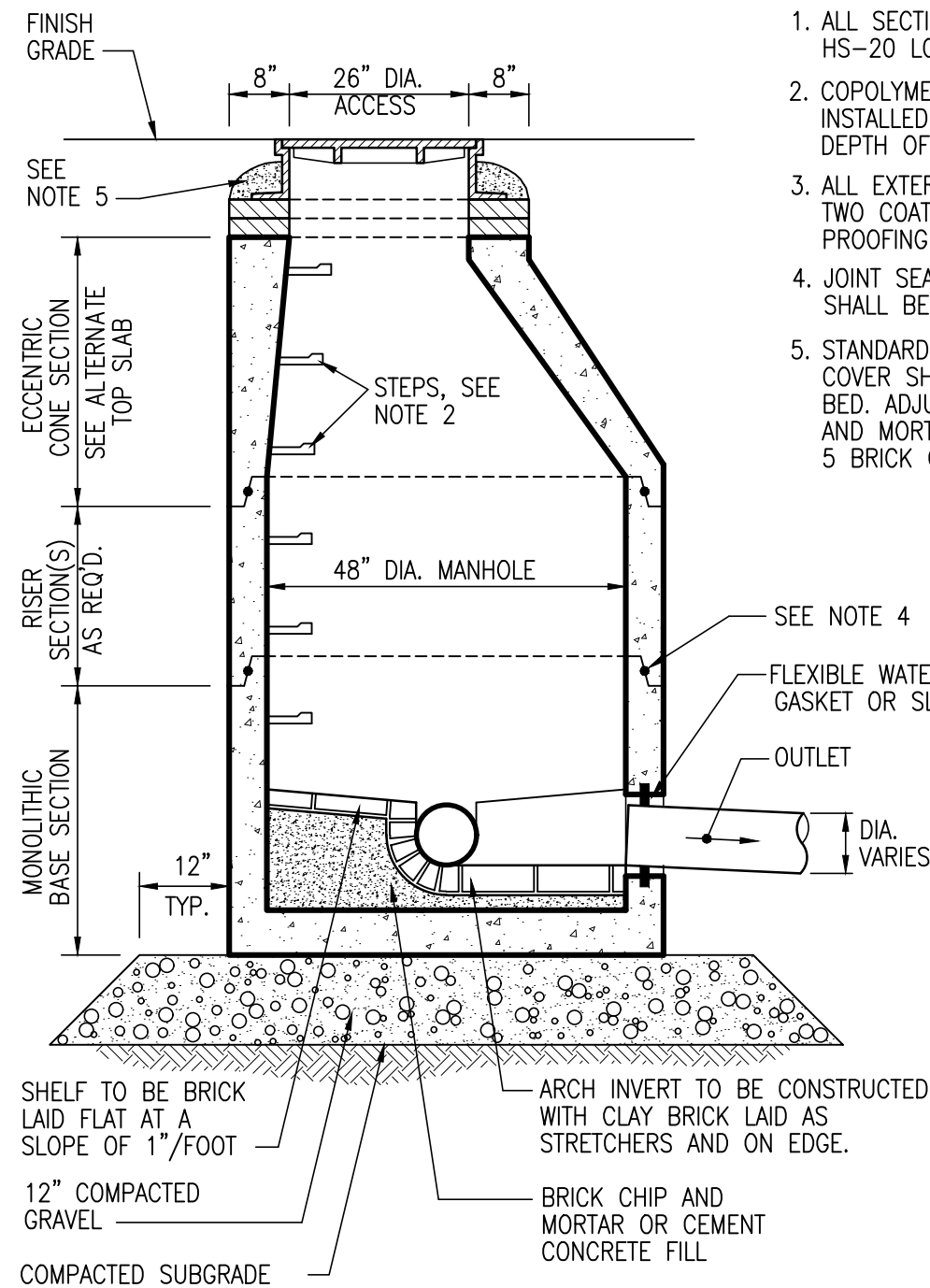


SEWER MANHOLE DETAIL

(NOT TO SCALE)

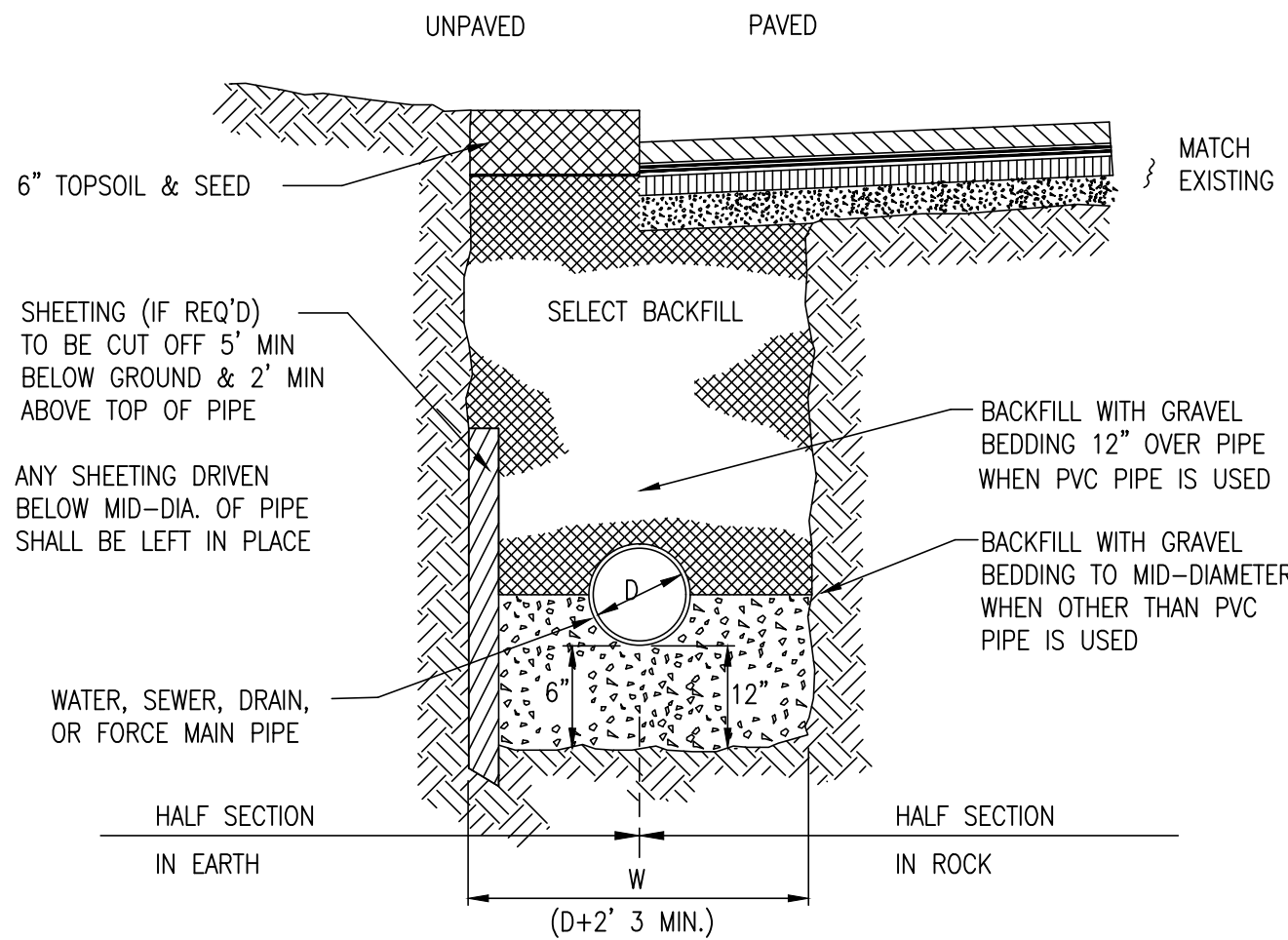
NOTES:

1. ALL SECTIONS SHALL BE DESIGNED FOR HS-20 LOADING.
2. COPOLYMER MANHOLE STEPS SHALL BE INSTALLED AT 12" O.C. FOR THE FULL DEPTH OF THE STRUCTURE.
3. ALL EXTERIOR SURFACES SHALL BE GIVEN TWO COATS OF BITUMINOUS WATER-PROOFING MATERIAL.
4. JOINT SEALANT BETWEEN PRECAST SECTIONS SHALL BE PREFORMED BUTYL RUBBER.
5. STANDARD SEWER MANHOLE FRAME AND COVER SHALL BE SET IN FULL MORTAR BED. ADJUST TO GRADE WITH CLAY BRICK AND MORTAR (2 BRICK COURSES TYPICALLY, 5 BRICK COURSES MAXIMUM)



TYPICAL ELECTRIC/TELEPHONE/CABLE CONDUIT (US-UTILITY SERVICE) DETAIL

(NOT TO SCALE)

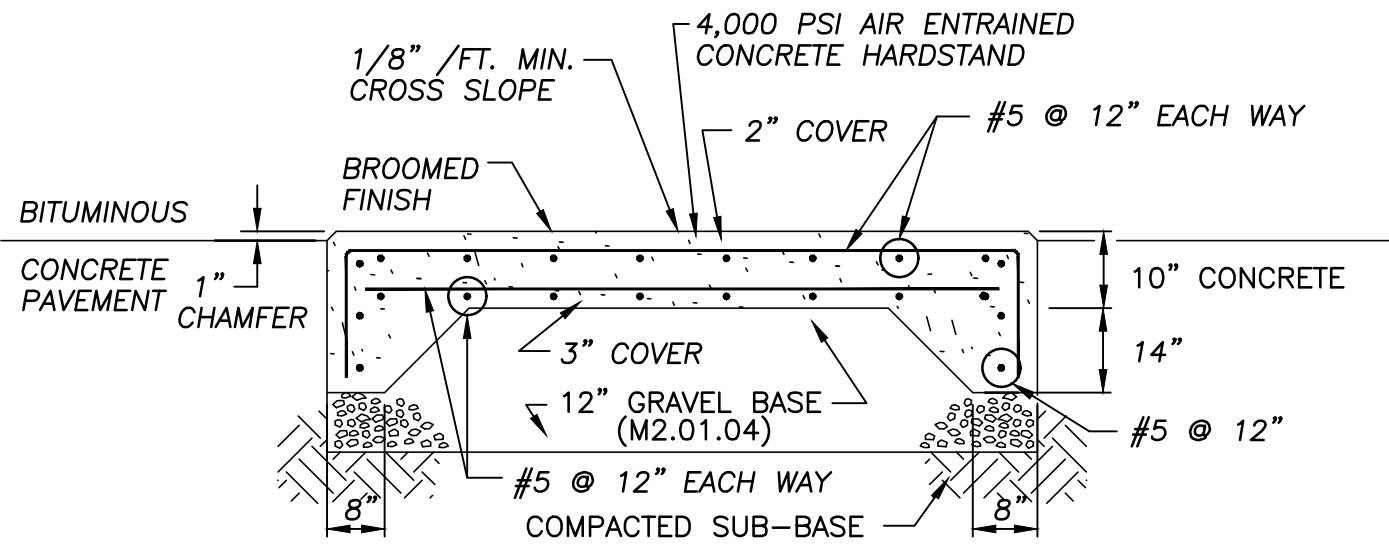


TYPICAL UTILITY TRENCH DETAIL

(NOT TO SCALE)

UTILITY NOTES:

1. THE CONTRACTOR SHALL INSTALL ALL UTILITIES IN ACCORDANCE WITH LOCAL UTILITY PURVEYOR REQUIREMENTS. REPRESENTATIVES FROM THE LOCAL UTILITY PURVEYOR SHALL BE CONTACTED PRIOR TO CONSTRUCTION TO REVIEW THE PROPOSED CONSTRUCTION MATERIALS AND LOCATIONS.
2. ALL UNDERGROUND UTILITIES SHALL BE INSTALLED AND INSPECTED AND WRITTEN APPROVAL OBTAINED BEFORE CONSTRUCTION OF THE ROADWAY BASE COURSE BEGINS.
3. THE SEWER SYSTEM TESTING SHALL OCCUR PRIOR TO ACTIVATION AND WILL INCLUDE PRESSURE TESTING, MANHOLE VACUUM TESTING, AND MANDREL DEFLECTION TESTING.
4. THE WATER SYSTEM TESTING SHALL OCCUR PRIOR TO ACTIVATION AND WILL INCLUDE PRESSURE TESTING, CHLORINATION AND BACTERIOLOGICAL SAMPLING PER NORWELL DPW STANDARDS.



DUMPSTER PAD DETAIL DETAIL

(NOT TO SCALE)

NOTES:

- 1) LOCATIONS PER SITE PLAN
- 2) PROVIDE 1/2" DEEP CONTROL JOINTS AT 5' O.C.
- 3) PROVIDE CONSTRUCTION JOINT WITH 1/4" PREMOLDED 6" EXPANSION JOINT FILLER AT 25' O.C.

REVISIONS

NO.	DESCRIPTION	DATE
1	14/30/21 REVIEW & COORDINATION	



DRAWN BY: JG

DESIGNED BY: DK

CHECKED BY: DK



SITE PLAN
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JANUARY 29, 2021

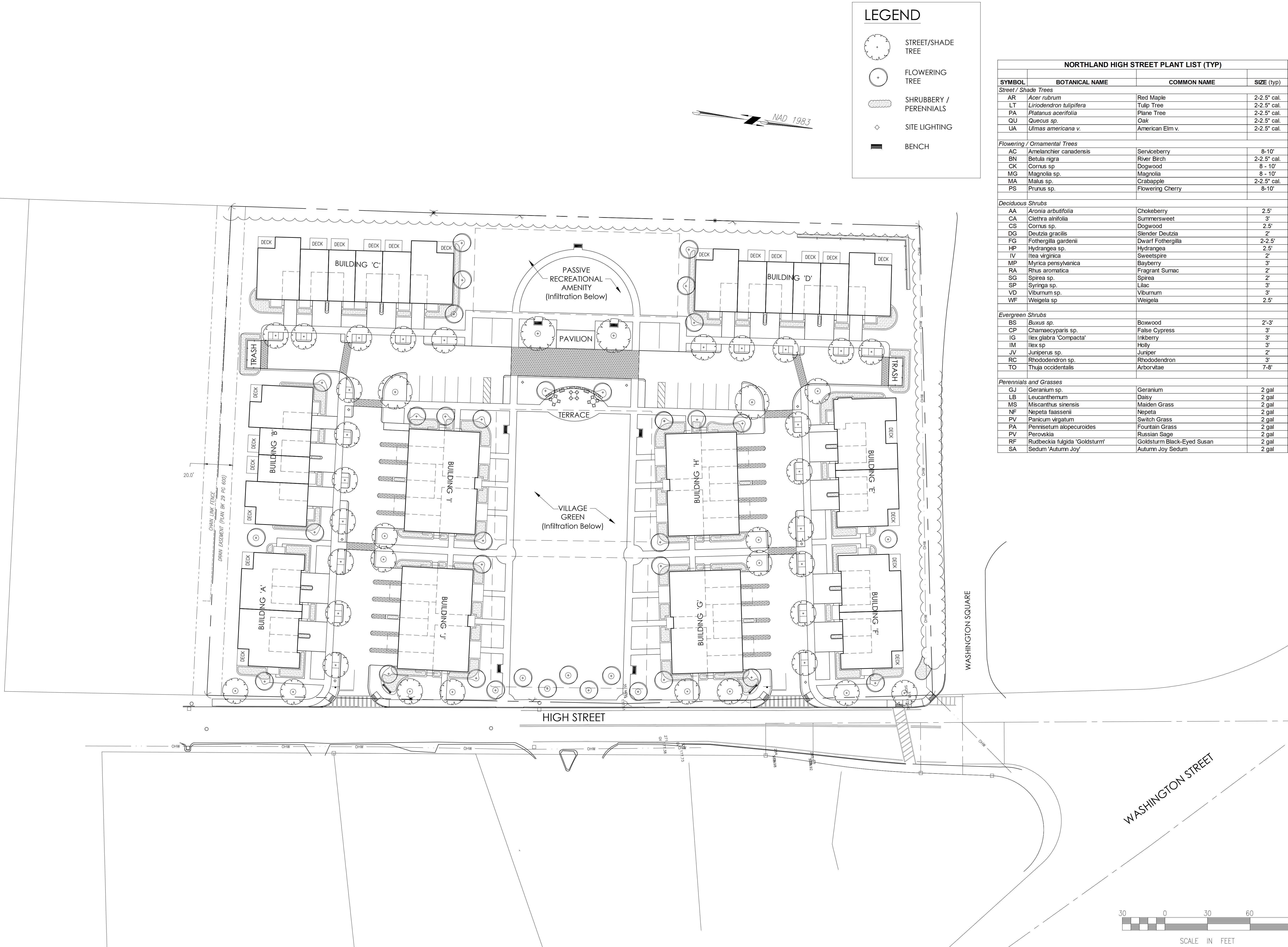
SCALE: N.T.S.

JOB NO. 20-127

LATEST REVISION:
APRIL 30, 2021

CONSTRUCTION DETAILS

SHEET C6.4



NORTHLAND HIGH STREET PLANT LIST (TYP)			
SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE (typ)
<i>Street / Shade Trees</i>			
AR	<i>Acer rubrum</i>	Red Maple	2-2.5" cal.
LT	<i>Liriodendron tulipifera</i>	Tulip Tree	2-2.5" cal.
PA	<i>Platanus acerifolia</i>	Plane Tree	2-2.5" cal.
QU	<i>Quercus sp.</i>	Oak	2-2.5" cal.
UA	<i>Ulmus americana v.</i>	American Elm v.	2-2.5" cal.
<i>Flowering / Ornamental Trees</i>			
AC	<i>Amelanchier canadensis</i>	Serviceberry	8-10'
BN	<i>Betula nigra</i>	River Birch	2-2.5" cal.
CK	<i>Cornus sp.</i>	Dogwood	8 - 10'
MG	<i>Magnolia sp.</i>	Magnolia	8 - 10'
MA	<i>Malus sp.</i>	Crabapple	2-2.5" cal.
PS	<i>Prunus sp.</i>	Flowering Cherry	8-10'
<i>Deciduous Shrubs</i>			
AA	<i>Aronia arbutifolia</i>	Chokeberry	2.5'
CA	<i>Clethra alnifolia</i>	Summersweet	3'
CS	<i>Cornus sp.</i>	Dogwood	2.5'
DG	<i>Deutzia gracilis</i>	Slender Deutzia	2'
FG	<i>Fothergilla gardenii</i>	Dwarf Fothergilla	2-2.5'
HP	<i>Hydrangea sp.</i>	Hydrangea	2.5'
IV	<i>Itea virginica</i>	Sweetspire	2'
MP	<i>Myrica pensylvanica</i>	Bayberry	3'
RA	<i>Rhus aromatica</i>	Fragrant Sumac	2'
SG	<i>Spiraea sp.</i>	Spiraea	2'
SP	<i>Syringa sp.</i>	Lilac	3'
VD	<i>Viburnum sp.</i>	Viburnum	3'
WF	<i>Weigela sp.</i>	Weigela	2.5'
<i>Evergreen Shrubs</i>			
BS	<i>Buxus sp.</i>	Boxwood	2'-3'
CP	<i>Chamaecyparis sp.</i>	False Cypress	3'
IG	<i>Ilex glabra 'Compacta'</i>	Inkberry	3'
IM	<i>Ilex sp.</i>	Holly	3'
JV	<i>Juniperus sp.</i>	Juniper	2'
RC	<i>Rhododendron sp.</i>	Rhododendron	3'
TO	<i>Thuja occidentalis</i>	Arborvitae	7-8'
<i>Perennials and Grasses</i>			
GJ	<i>Geranium sp.</i>	Geranium	2 gal
LB	<i>Leucanthemum</i>	Daisy	2 gal
MS	<i>Miscanthus sinensis</i>	Maiden Grass	2 gal
NF	<i>Nepeta faassenii</i>	Nepeta	2 gal
PV	<i>Panicum virgatum</i>	Switch Grass	2 gal
PA	<i>Pennisetum alopecuroides</i>	Fountain Grass	2 gal
PV	<i>Perovskia</i>	Russian Sage	2 gal
RF	<i>Rudbeckia fulgida 'Goldsturm'</i>	Goldsturm Black-Eyed Susan	2 gal
SA	<i>Sedum 'Autumn Joy'</i>	Autumn Joy Sedum	2 gal

ISSUED

1 04/30/21

REVIEW & COORDINATION

2

3

4

5

6

STREET TREE & LANDSCAPE PLAN

SCALE: AS NOTED

15 HIGH STREET

NORWELL, MA 02061

OWNER/APPLICANT: NORTHLAND RESIDENTIAL CORPORATION

80 BEHARRELL STREET, SUITE E

CONCORD, MASSACHUSETTS 01742

RYAN ASSOCIATES

LANDSCAPE ARCHITECTURE AND PLANNING

144 Moody Street, Building 4

Waltham, MA 02453-5332

ph: 781 - 314 - 0401

www.ryan-dsac.com

SCALE: 1/2" = 1'-0"

DRAWN BY: APRU

DATE: 03.31.21

REVISIONS:

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ACCOUNT MANAGER:

JARED SOUZA

GENERAL NOTES:

THIS LIGHTING DESIGN IS BASED ON LIMITED INFORMATION SUPPLIED BY OTHERS TO PROGRESS COMMERCIAL. SITE DETAILS PROVIDED HEREIN ARE REPRODUCED ONLY AS A VISUALIZATION AID AND FIELD DEVIATIONS MAY SIGNIFICANTLY AFFECT PREDICTED PERFORMANCE. PRIOR TO INSTALLATION - CRITICAL SITE INFORMATION (POLE LOCATIONS, ORIENTATION, MOUNTING HEIGHT, ETC) SHOULD BE COORDINATED WITH THE CONTRACTOR AND/OR SPECIFIER RESPONSIBLE FOR THE PROJECT. CONFORMANCE TO FACILITY CODE AND OTHER LOCAL REQUIREMENTS IS THE RESPONSIBILITY OF THE OWNER AND/OR THE OWNER'S REPRESENTATIVE.

PROJECT NUMBER:

032521FHS

LIGHTING SCHEDULE						
TYPE	QTY	PART NUMBER	MH	LUMENS	LLF	DESCRIPTION
A	2	PCPTT-27LED-4K-4	10'	1930	0.950	27W 4000K LED POST TOP TYPE 4
B	8	PCPTT-55LED-4K-3	10'	3939	0.950	55W 4000K LED POST TOP TYPE 3
C	2	PCPTT-55LED-4K-4	10'	3938	0.950	55W 4000K LED POST TOP TYPE 4
D	2	PCPTT-55LED-4K-5	10'	4047	0.950	55W 4000K LED POST TOP TYPE 5

CALCULATION SUMMARY						
AREA	CALCTYPE	UNITS	AVG	MAX	MIN	AVG/MIN
SITE	Illuminance	Fc	0.29	3.9	0.0	N.A.
PARKING & DRIVELANES	Illuminance	Fc	0.89	3.9	0.1	8.90

LED Post Top Traditional

Specifications:

Construction:

Traditional style post top luminaire with decorative cast aluminum cap mechanically attached to optical chamber. Cast aluminum multi-sided cage with UV stabilized acrylic lenses sealed for weather tight operation. Aluminum lower electrical chamber with bottom filter to mount to 3"OD x 3/4" tenon.

Construction:

One piece optical system with internal brass standoffis soldered to the board which can be field replaced. Two-piece die cut silicone and polycarbonate foam gasket ensures weather-proof seal around each individual LED and allows luminaire to be rated for high-pressure hose down applications. The optical cartridge is secured to extruded housing with fasteners and heat pad to ensure thermal conductivity. Optics held into place without use of adhesives and complete assembly is gasketed for high pressure hose down cleaning.

Electrical:

Luminaire equipped with LED driver that operates with 120-277V universal voltage, 50/60Hz and includes 0-10V dimming capability. Power factor is 0.92 at full load. All electrical components rated at 50,000 hours at full load and 250C ambient conditions. Thermal feedback between PCB and driver to protect luminaire from excessive temperature by reducing drive current as necessary. Surge protection standard with device providing surge current rating of 20kA using 8/20 µSec wave; LSP clamping voltage of 82kV and surge rating of 540J.

Finish:

Polyester powder paint finish that is corrosion resistant and resists surface impacts up to 160 inch-pound.

Listing/Certification:

The luminaire bears an NRTL label and is marked suitable for wet locations.

Warranty:

5 year limited warranty covering LED array and LED driver(s).

Catalog number:

Series	Engine/Wattage	Color Temp	Distribution	Finish	Options
PCPTT	27LED - 24LEDS @ 27W** 55LED - 24LEDS @ 55W** 80LED - 36LEDS @ 80W** 110LED - 48LEDS @ 110W** 135LED - 60LEDS @ 135W**	4K - 4000K, 70 CRI	3 - Type 3 4 - Type 4 5 - Type 5	BZ - Bronze BL - Black GN - Green	BLANK PC - Photocell

* Small Only

** Large Only

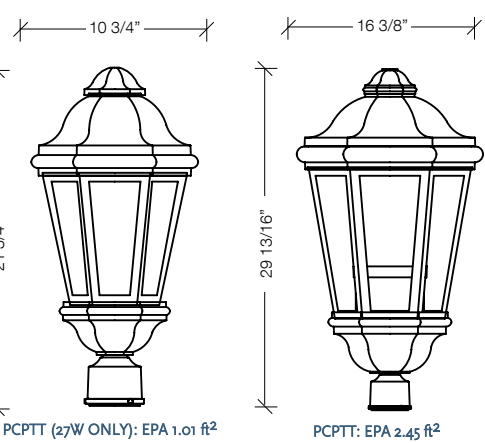
For more information visit our website: www.progresslighting.com

Progress Lighting • 701 Millennium Boulevard • Greenville, SC 29607
REV 01/19

Images:



Dimensions & Mounting



Engine/Wattage	# of LEDES	Delivered Lumens (varies by optics)	Delivered LPW	Drive Current (milliamps)
27	24	1930-1995	71-74	350 mA
55	24	3940-4090	69-71	700 mA
80	36	5900-6070	72-74	700 mA
110	48	7870-8095	71-73	700 mA
135	60	9840-10120	73-76	700 mA

15 HIGH STREET

A New Mixed-Income Community

Norwell, MA

Application for Project Eligibility



Submitted to Massachusetts Housing Partnership

January 29, 2021

Sponsor: Northland Residential Corporation



80 Beharrell Street – Suite E

Concord, MA 01742

Tel: 781-229-4700

Fax: 781-229-7676

WWW.NORTHLANDRESIDENTIAL.COM

January 29, 2021

Nancy McCafferty
Massachusetts Housing Partnership
160 Federal Street
Boston, MA 02110

RE: Application for 40B Project Eligibility Letter for 15 High Street

Dear Nancy:

Enclosed is our application for a Project Eligibility Letter ("PEL") for 15 High Street in Norwell, Massachusetts. Our signature below indicates our certification of the following:

We have completed the enclosed MHP PEL Information Form dated January 29, 2021, and that the information set forth therein is true and accurate as of the date hereof to the best of our knowledge, information and belief. We further understand that MHP is relying upon this certification in processing the request for issuance of a Project Eligibility Letter in connection with the above-reference Project.

We have reviewed MHP's requirements as outlined in the letter received from MHP on December 9, 2020, and we understand MHP's requirements in connection with (a) the application for the PIL and (b) the procedures after the issuance of the PIL, including the requirement for the completion, within 90 days of project completion and prior to permanent loan closing, of an audited cost certification by a certified public accountant who has been prequalified with the Department of Housing and Community Development (DHCD) and the posting of a bond for completion of the cost certification as a condition of final approval by MHP under Chapter 40B.

Thank you.

Sincerely,

John C. Dawley
President & CEO

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Massachusetts Housing Partnership

Application for Chapter 40B Project Eligibility Letter ("PEL")

MHP requires the PEL applicant to complete the attached PEL Information Form and all required attachments as the key part of its application. Please return this PEL Information Form with a cover letter on your letterhead that contains the language on the next page and is signed by an authorized representative of the applicant. Please be sure to include MHP's application and 40B technical assistance fund fee with your completed application.

Section 1: GENERAL INFORMATION

1.a Project Information

Name of Proposed Project: _____

Municipality: _____

Site Address: _____

Zip Code: _____

Number of Dwelling Units: _____ Affordable Units _____ Market Units _____

Age Restricted?: Yes No If Yes, 55+, 60+ or 62+? _____

Project Type: New Construction Rehabilitation Both

Name of Proposed Development Entity (Applicant): _____

Entity Type: Limited Dividend Organization Non-Profit Public Agency

Has this entity already been formed? Yes No

Has the entity or principal individuals ever previously applied for permitting at the site for the Proposed Project? If yes, please see attachment 1.F. Yes No

1.b Applicant Information

Name: _____

Business Address: _____

Business Phone: _____

Business Fax No.: _____

Website Address: _____

1.c Principal Individuals

Principal Name #1: _____

Title: _____

Office Phone: _____

Cell Phone: _____

Email: _____

Principal Name #2: _____

Title: _____

Office Phone: _____

Cell Phone: _____

Email: _____

Principal Name #3: _____

Title: _____

Office Phone: _____

Cell Phone: _____

Email: _____

2. Development Team

2.a Project Architect

Name, Organization: _____
Address: _____
Phone: _____
Email: _____

2.b Project Engineer

Name, Organization: _____
Address: _____
Phone: _____
Email: _____

2.c Legal Counsel

Name, Organization: _____
Address: _____
Phone: _____
Email: _____

2.d Project Consultant

Name, Organization: _____
Address: _____
Phone: _____
Email: _____

2.e Proposed Management Entity

Name, Organization: _____
Address: _____
Phone: _____
Email: _____

2.f 40B Consultant

Name, Organization: _____
Address: _____
Phone: _____
Email: _____

2.f Other team member. Please describe role:

Name, Organization: _____
Address: _____
Phone: _____
Email: _____

Required Attachments

1.A Experience of Sponsor

Please attach separately a description of the experience of the Sponsor and the individuals representing the Sponsor in development projects like the project for which the PEL is being sought. Include any other relevant experience in housing development and management, real estate, and finance that you deem relevant to the qualifications of the Sponsor in connection with the subject project.

1.B Outline of Development Team

Please attach separately resumes for these individuals and companies. If any of the members of the development team are related to the Sponsor through common ownership, please so indicate on the attached list.

1.C Financial Disclosure Forms

We do not require financial statements from Sponsors for PELs, but you are welcome to provide them. We do, however, require you to complete and return the attached Financial Disclosure Forms as follows **Corporate Financial Disclosure Form** for each entity comprising the Sponsor and **Personal Financial Disclosure Form** for each principal owner of each entity comprising the Sponsor

1.D Fair Housing Experience

Please attach a description of your experience to date in marketing and renting housing units in keeping with state and federal fair housing standards. Please note your experience in preparing Affirmative Fair Housing Marketing and Resident Selection Plans (AFHMP), and in conducting outreach and performing resident selection procedures (including administering the lottery process, determining eligibility under applicable subsidy programs, and waitlist management) in accordance with these standards. Please also disclose whether the Sponsor has ever been charged with a violation of fair housing requirements.

Fair Housing Note: The guidelines promulgated by the Department of Housing and Community Development updated May 2013 (see attached) contain the following requirements of the development team with regard to the capacity to handle fair housing compliance:

Your development team, staff, other entity, or individual responsible for fair housing compliance have not required intervention by a state subsidizing agency to address fair housing complaints or concerns nor had a finding or final determination against it for violation of state or federal fair housing law within the past five (5) years;

- Your development team, staff, or other entity has successfully carried out similar AFHMP responsibilities for minimum of three (3) projects in Massachusetts, or the individual contracted to carry out the AFHMP tasks has successfully carried out similar responsibilities for a minimum of five (5) projects in Massachusetts; and*

- Your development team, staff, or other entity has the capacity to address matters relating to limited English language proficiency (LEP). This includes language access planning and providing reasonable language assistance at no cost to the applicant, so that applicants with LEP may meaningfully apply and access the housing opportunity.*

Additional Attachments (if applicable)

1.E Organizational Documentation Requirements for Nonprofit Sponsors

If the Sponsor is a non-profit organization, we require the following materials: a. The articles of organization for the organization; b. Evidence of good standing with the Public Charities Division of the Office of the State Attorney General; c. The conflict of interest policy for the organization; d. A disclosure of all related parties, and contracts or other arrangements involved with these related parties, which currently exist or are anticipated in connection with the project; e. A disclosure of all entities that are related to or affiliated with your organization by reason of common control, financial interdependence or other means.

1.F Prior Permitting Experience at Site

Please indicate if you have ever applied for permitting at the subject site, and been declined by the Town. If so, please explain how your proposal has been changed to address the Town's concerns.

1.G Additional Development Team Members

Please included name, organization, address, phone, and email contact information for additional development team members that did not fit in the space provided above.

Section 2: Site Condition and Information

Name of Proposed Project: _____

1.a Site Information

Municipality: _____

Street Address: _____

Zip Code: _____

Cross Street (if applicable): _____

1.b Brief Project Description (200 words or less):

1.c Existing Conditions

Buildable Area Calculations	Acres
Total Site Area	
Wetland Area (per MA DEP)	
Flood/ Hazard Area (per FEMA)	
Endangered Species Habitat (per MESA)	
Conservation/ Article 97 Land	
Protected Agricultural Land	
Other Non-Buildable	
Total Non-Buildable Area	
Total Buildable Site Area	
Total Impervious Areas	
Driveways, Parking, Sidewalks	
Building	
Total Open Areas/ Landscaped	
Undeveloped Open Area	
Landscaped Area	

Existing Utilities and Infrastructure	Yes/No	Description
Wastewater- private wastewater treatment		
Wastewater- public sewer		
Storm Sewer		
Water- public water		
Water- private well		
Natural Gas		
Electricity		
Roadway Access to Site		
Sidewalk Access to Site		
Other:		

1.d Surrounding Land Use and Amenities

Surrounding Land Use / Amenities	Distance from Site (mi.)	Available by Public Transportation?
Shopping facilities		
Schools		
Government Offices		
Multifamily Housing		
Public Safety Facilities		
Office/ Industrial Uses		
Conservation Land		
Recreational Facilities		
Houses of Worship		
Other:		

Please describe the surrounding land use:

1.e Zoning and Current Use

Site zoning district: _____

Please briefly describe known current use or prior use of site:

Zoning Analysis	Zoning Requirements	Proposed Development
Minimum Area (ft.):		
Minimum Frontage(ft.):		
Maximum Gross Floor Area Ratio:		
Minimum Setbacks (ft.):		
Front Yard (ft.):		
Side Yard(ft.):		
Rear Yard (ft.):		
Minimum Lot Width (ft.):		
Maximum Height (ft.):		
Number of Stories:		
Minimum Number of Parking Spaces:		
Ratio of Parking Spaces to Housing Units:		

Please list and describe the local standards and zoning waivers requested. If needed, attach additional sheet (see attachments) :

1

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Required Attachments

2.A Locus Map

Please provide a locus map and aerial photograph which identifies the site within the context of the Project's neighborhood.

2.B Tax Map

Please provide a copy of municipal tax map with subject parcels and parcel ID numbers clearly identified.

2.C Site Photographs

Please provide photographs of surrounding buildings and features that illustrate the physical context of the site. Site photos should include the pictures of the surrounding neighborhood as well.

2.D Site Plan

Site plan showing topography, existing building and proposed building footprints and paved areas for the Project, lot lines, existing and proposed roads and streets, wetlands and buffer zones, flood zones if any, or any other environmental constraints. This should include parcel map with neighboring lots with buildings shown and 1 full size site plan and at least 1 11"x 17" plan.

2.E Building Design

Drawings showing exterior elevations of the proposed buildings, illustrative rendering, typical floor plans, and unit plans. Building designs should include 1 full size rendering and at least 3 11" x 17" plans.

2.F Project Narrative

Narrative description by the project architect describing the site and the project's approach to the massing of the building(s), the project's relationship to adjacent properties, and the proposed exterior building materials; this narrative must be supplemented by supporting visual information, such as the aerial geographical information available from Mass GIS, which provides visual evidence about the massing of existing structures surrounding the subject parcel. Project narrative must be either signed by the Project Architect or printed on Project Architect's letterhead.

2.G Tabular Zoning Analysis

Please provide a tabular zoning analysis of the site.

Additional Attachments (if applicable)

2.H Environmental Site Assessment

Any environmental site assessments that have been performed.

Section 3: Project Information

Name of Proposed Project: _____

Project Type: New Construction Rehabilitation Both

Age Restricted? Yes No If Yes, 55+, 60+ or 62+? _____

Dwelling Units per Acre: _____

Total Number of Dwelling Units: _____ Total Number of Affordable Units: _____

Total Number of Market Rate Units: _____ Total Affordable at _____% AMI: _____

Percentage of units with 3 or more bedrooms: _____ Total Affordable at _____% AMI: _____

Number of Handicap Accessible Units: _____ Total Affordable at _____% AMI: _____

Market Rate Accessible Units: _____ Total Affordable at _____% AMI: _____

Affordable Accessible Units: _____

Unit Mix: Affordable Units

Unit Type	Studio	1 Bedroom	2 Bedroom	3 Bedroom	4 Bedroom
Number of Units:					
Number of Bathrooms:					
Square Feet per Unit:					

Unit Mix: Market Rate Units

Unit Type	Studio	1 Bedroom	2 Bedroom	3 Bedroom	4 Bedroom
Number of Units:					
Number of Bathrooms:					
Square Feet per Unit:					

Section 4: Site Control

Name of Proposed Project: _____

1.a State regulations require a sponsor applying for a PEL to demonstrate site control. Please identify the form of control which the Sponsor has for the site of the Project.

Direct ownership by Sponsor

Ownership by affiliate

If so, please Identify the affiliate:

Offer to Purchase

Purchase and Sale Agreement

Other

Please describe:

Required Attachments

4.A Evidence of Site Control

Copies of all applicable, fully executed documents (deed, ground lease, purchase and sale agreement, option agreement, land disposition agreements, agreements to purchase easements) showing evidence of site control, including any required easements, along with copies of all amendments and extensions.

Section 5: Project Financials

Name of Proposed Project: _____

1.a Appraisal or Market Study

Have you engaged an appraisal or market study of the property? Yes No

NOTE: MHP is required under state regulations to engage, independently, an appraisal which values the property assuming the development rights in existence under current zoning prior to the issuance of a Comprehensive Permit. This appraisal will be subject to MHP's review and approval. If an appraisal has already been done, it may assist MHP or its appraiser in completing the required appraisal.

Please note that if the project is 20 units or less in size, MHP may waive this requirement if the Applicant provides a written request by the Chief Elected Official of the town or city in which the project is located. In substitution for the as-is appraisal MHP would require documentation supporting the acquisition cost; such documentation may be in the form of either a local tax assessment, a limited appraisal, or an opinion of value from a licensed real estate broker.

Required Attachments

5.A Market Rental Comparables

Please provide MHP with a listing of market rents being achieved in properties comparable to the Project.

5.B Development Budget

Please provide a detailed development budget showing the following: 1.) Sources of funds: first mortgage permanent loan, subsidy funds if any (please itemize each), equity from borrower or limited partners. If the construction-period financing has been identified, please indicate the intended construction lender and sources of funds expected during construction. 2.)Uses of funds: land acquisition, construction costs (broken down between sitework and building costs), and soft costs (identifying in detail the professional costs paid to third parties, the reserves proposed if any, the legal and closing costs, the financing costs, and the overhead and fees to be paid to the developer).

5.C Operating Budget

Please provide an operating budget, showing, upon completion, sources of operating revenue (broken down by rental income from each unit type, plus income from other sources), and operating costs (showing management fees, administrative costs, repair and maintenance costs, utility costs, taxes and insurance costs, and contributions to reserves if any

Additional Attachments (if applicable)

5.D Appraisal or Market Study

If you have engaged an appraisal or market study of the property, please provide it.

Section 6: Municipal Actions

Name of Proposed Project: _____

1.a Contact with Municipality

Have you contacted the Municipality regarding the proposed Project? Yes No

Please list the names and titles of employees or board members of the Municipality you have contacted:

Name	Title, phone number
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

Please describe below the contact you have had to date with the Municipality regarding this project:

Please describe any actions you are aware of which the municipality has taken to promote the development of affordable housing.

Additional Attachments (if applicable)

6.A Additional Support for Proposed Project

Please attach any letters of support from the Town for the proposed Project

Section 7: Sustainable Development

Name of Proposed Project: _____

Please describe below any aspects of the Project which are in keeping with the ten Massachusetts Sustainable Development Principles

[Sustainable Development Principles](#)

DEVELOPER SELF-ASSESSMENT

(for consistency with the Sustainable Development Principles)

Method 1:

Check "X" Below

Yes No NA

Redevelop First

If Rehabilitation:

- Rehabilitation/Redevelopment/Improvements to Structure
- Rehabilitation/Redevelopment/Improvements to Infrastructure

Check "X" below if applicable

If New Construction:

- Contributes to revitalization of town center or neighborhood
- Walkable to:
 - (a) transit
 - (b) downtown or village center
 - (c) school
 - (d) library
 - (e) retail, services or employment center
- Located in municipally-approved growth center

Explanation **(Required)**

Optional - Demonstration of Municipal Support:

Check "X" below if applicable

- Letter of Support from the Chief Elected Official of the municipality*
- Housing development involves municipal funding
- Housing development involves land owned or donated by the municipality

*Other acceptable evidence: Zoning variance issued by ZBA for project; Minutes from Board of Selectman meeting showing that the project was discussed, approved, etc.

Explanation (Required)

Method 2: Development meets a minimum of **five (5)** of the Commonwealth's *Sustainable Development Principles*, as shown in the next section below.

If the development involves strong **municipal support** (evidence of such support must be submitted as an attachment), the development need only meet **four (4)** of the *Sustainable Development Principles*. However, one (1) of the Principles met must be **Protect Land and Ecosystems**.

Please explain at the end of each category how the development follows the relevant *Sustainable Development Principle(s)* and explain how the development demonstrates each of the checked "X" statements listed under the *Sustainable Development Principle(s)*.

Check "X" Below
Yes No NA

(1) Concentrate Development and Mix Uses

Support the revitalization of city and town centers and neighborhoods by promoting development that is compact, conserves land, protects historic resources, and integrates uses. Encourage remediation and reuse of existing sites, structures, and infrastructure rather than new construction in undeveloped areas. Create pedestrian friendly districts and neighborhoods that mix commercial, civic, cultural, educational, and recreational activities with open spaces and homes.

Check "X" below if applicable

- Higher density than surrounding area
- Mixes uses or adds new uses to an existing neighborhood
- Includes multi-family housing
- Utilizes existing water/sewer infrastructure
- Compact and/or clustered so as to preserve undeveloped land
- Reuse existing sites, structures, or infrastructure
- Pedestrian friendly
- Other (discuss below)

Explanation (Required)

Check "X" Below
Yes No NA

(2) Advance Equity & Make Efficient Decisions

Promote equitable sharing of the benefits and burdens of development. Provide technical and strategic support for inclusive community planning and decision making to ensure social, economic, and environmental justice. Ensure that the interests of future generations are not compromised by today's decisions. Promote development in accordance with smart growth and environmental stewardship.

Check "X" below if applicable

- Concerted public participation effort (beyond the minimally required public hearings)
- Streamlined permitting process, such as 40B or 40R
- Universal Design and/or visitability
- Creates affordable housing in middle to upper income area and/or meets regional need
- Creates affordable housing in high poverty area
- Promotes diversity and social equity and improves the neighborhood
- Includes environmental cleanup and/or neighborhood improvement in an Environmental Justice Community
- Other (discuss below)

Explanation **(Required)**

--

Check "X" Below

Yes No NA

(3) Protect Land and Ecosystems

Protect and restore environmentally sensitive lands, natural resources, agricultural lands, critical habitats, wetlands and water resources, and cultural and historic landscapes. Increase the quantity, quality and accessibility of open spaces and recreational opportunities.

Check "X" below if applicable

- Creation or preservation of open space or passive recreational facilities
- Protection of sensitive land, including prime agricultural land, critical habitats, and wetlands
- Environmental remediation or clean up
- Responds to state or federal mandate
- Eliminates or reduces neighborhood blight
- Addresses public health and safety risk
- Cultural or Historic landscape/existing neighborhood enhancement
- Other (discuss below)

Explanation **(Required)**

Check "X" Below

Yes No NA

(4) Use Natural Resources Wisely

Construct and promote developments, buildings, and infrastructure that conserve natural resources by reducing waste and pollution through efficient use of land, energy, water, and materials.

Check "X" below if applicable

- Uses alternative technologies for water and/or wastewater treatment
- Uses low impact development (LID) or other innovative techniques
- Other (discuss below)

Explanation **(Required)**

Check "X" Below

Yes No NA

(5) Expand Housing Opportunities

Support the construction and rehabilitation of homes to meet the needs of people of all abilities, income levels and household types. Build homes near jobs, transit, and where services are available. Foster the development of housing, particularly multifamily and single-family homes, in a way that is compatible with a community's character and vision and with providing new housing choices for people of all means.

Check "X" below if applicable

- Includes rental units, including for low/mod households
- Includes homeownership units, including for low/mod households
- Includes housing options for special needs and disabled population
- Expands the term of affordability
- Homes are near jobs, transit, and other services
- Other (discuss below)

Explanation **(Required)**

Check "X" Below

Yes No NA

(6) Provide Transportation Choice

Maintain and expand transportation options that maximize mobility, reduce congestion, conserve fuel and improve air quality. Prioritize rail, bus, boat, rapid and surface transit, shared-vehicle and shared-ride services, bicycling, and walking. Invest strategically in existing and new passenger and freight transportation infrastructure that supports sound economic development consistent with smart growth objectives.

Check "X" below if applicable

- Walkable to public transportation
- Reduces dependence on private automobiles (e.g., provides previously unavailable shared transportation, such as Zip Car or shuttle buses)
- Increased bike & ped access
- For rural areas, located in close proximity (i.e., approximately one mile) to a transportation corridor that provides access to employment centers, retail/commercial centers, civic or cultural destinations
- Other (discuss below)

Explanation **(Required)**

Check "X" Below

Yes No NA

(7) Increase Job and Business Opportunities

Attract businesses and jobs to locations near housing, infrastructure, and transportation options. Promote economic development in industry clusters. Expand access to education, training, and entrepreneurial opportunities. Support growth of local businesses, including sustainable natural resource-based businesses, such as agriculture, forestry, clean energy technology, and fisheries.

Check "X" below if applicable

- Permanent jobs
- Permanent jobs for low- or moderate-income persons
- Jobs near housing, service or transit
- Housing near an employment center
- Expand access to education, training, or entrepreneurial opportunities
- Support local businesses
- Support natural resource-based businesses
- Re-uses or recycles materials from a local or regional industry's waste stream
- Support manufacture of resource-efficient materials, such as recycled or low-toxicity materials
- Support businesses that utilize locally produced resources such as locally harvested wood or agricultural products
- Other (discuss below)

Explanation **(Required)**

Check "X" Below

Yes No NA

(8) Promote Clean Energy

Maximize energy efficiency and renewable energy opportunities. Support energy conservation strategies, local clean power generation, distributed generation technologies, and innovative industries. Reduce greenhouse gas emissions and consumption of fossil fuels.

Check "X" below if applicable

- Energy Star or equivalent*
- Uses renewable energy source, recycled and/or non-/low-toxic materials,exceeds the state energy code, is configured to optimize solar access, and/or otherwise results in waste reduction and conservation of resources
- Other (discuss below)

* All units are required by MassHousing to be Energy Star Efficient. Please include in your explanation a description of how the development will meet Energy Star criteria.

Explanation **(Required)**

Check "X" Below

Yes No NA

(9) Plan Regionally

Support the development and implementation of local and regional, state and interstate plans that have broad public support and are consistent with these principles. Foster development projects, land and water conservation, transportation and housing that have a regional or multi-community benefit. Consider the long-term costs and benefits to the Commonwealth.

Check "X" below if applicable

- Consistent with a municipally supported regional plan
- Addresses barriers identified in a Regional Analysis of Impediments to Fair Housing
- Measurable public benefit beyond the applicant community
- Other (discuss below)

Explanation **(Required)**

Additional Attachments (if applicable)**7.A Additional Support for Sustainable Development Principles**

Please provide any additional information for Project aspects which are in keeping with the ten Massachusetts Sustainable Development Principles which are not included in the space provided.

Section 8: Application Fee

For each Site Approval Application, please submit this form along with a check made out to :

**Massachusetts Housing Partnership
160 Federal Street
Boston, MA 02110**

1.a MHP Project Eligibility Processing fee

Developer Type:	For-profit	Non-profit
	\$2,000	\$1,500

1.b MHP 40B Technical Assistance Fund

Project Name: _____

Developer Name: _____

Municipality: _____

Number of Units: _____ x _____ per unit Subtotal _____

Base Fee amount: For-profit Developers- \$2,500 Public Agency, CDC, Non-profit Developers _____

Total 40B Technical Assistance fund Fee: _____

Required Attachments**8.A Application and 40B technical Assistance Fund fees**

Please remit payment of fees upon submitting this application.

Appendix 1. Attachment Checklist

Please use this checklist below to help ensure a complete application. Missing or incomplete applications may cause unnecessary delays in the processing of site approval. Thank you for your attention.

Required Attachments

- 1.A. Experience of Sponsor**
- 1.B. Outline of Development Team**
- 1.C. Financial Disclosure Forms**
- 1.D. Fair Housing Experience**
- 2.A Locus Map**
- 2.B Tax Map**
- 2.C Site Photographs**
- 2.D Site Plan**
- 2.E Building Designs**
- 2.F Project Narrative**
- 2.G Tabular Zoning Analysis**
- 4.A Evidence of Site Control**
- 5.A Market Rental Comparables**
- 5.B Operating Budget**
- 5.C Development Budget**
- 8.A MHP Application and 40B Technical Assistance Fee**

Additional Attachments (if applicable)

- 1.E. Documentation Requirements for Nonprofit Sponsors**
- 1.F. Prior Permitting Experience at Site**
- 2.H Environmental Site Assessment**
- 5.D Appraisal or Market Study**
- 6.A Letter of Support from Community**
- 7.A Additional Support for Sustainable Development Principals**

Section One

Section 1.A Experience of Sponsor

The Senior Management Team for Northland Residential LLC (“Northland”) has designed, permitted, constructed, marketed and conveyed over 750 homeownership units in Massachusetts. The majority of the units developed by Northland have been townhomes located in some of the most desirable suburbs of Boston. Some of featured communities include (see attached Corporate Brochure for more details):

- **The Villages at Brookside**, Bourne, MA (232 residences)
- **The Woodlands at Belmont Hill** – Belmont, MA (121 residences)
- **The Village at Seven Springs** – Burlington, MA (94 residences)
- **The Residences at Black Rock** – Hingham, MA (52 residences)
- **Duxbury Woods** – Duxbury, MA (40 residences)
- **Woodmere at Brush Hill** – Milton, MA (36 residences)

Our team currently has two new developments under construction – **Fieldstone Way** and **Wolcott Woods**.

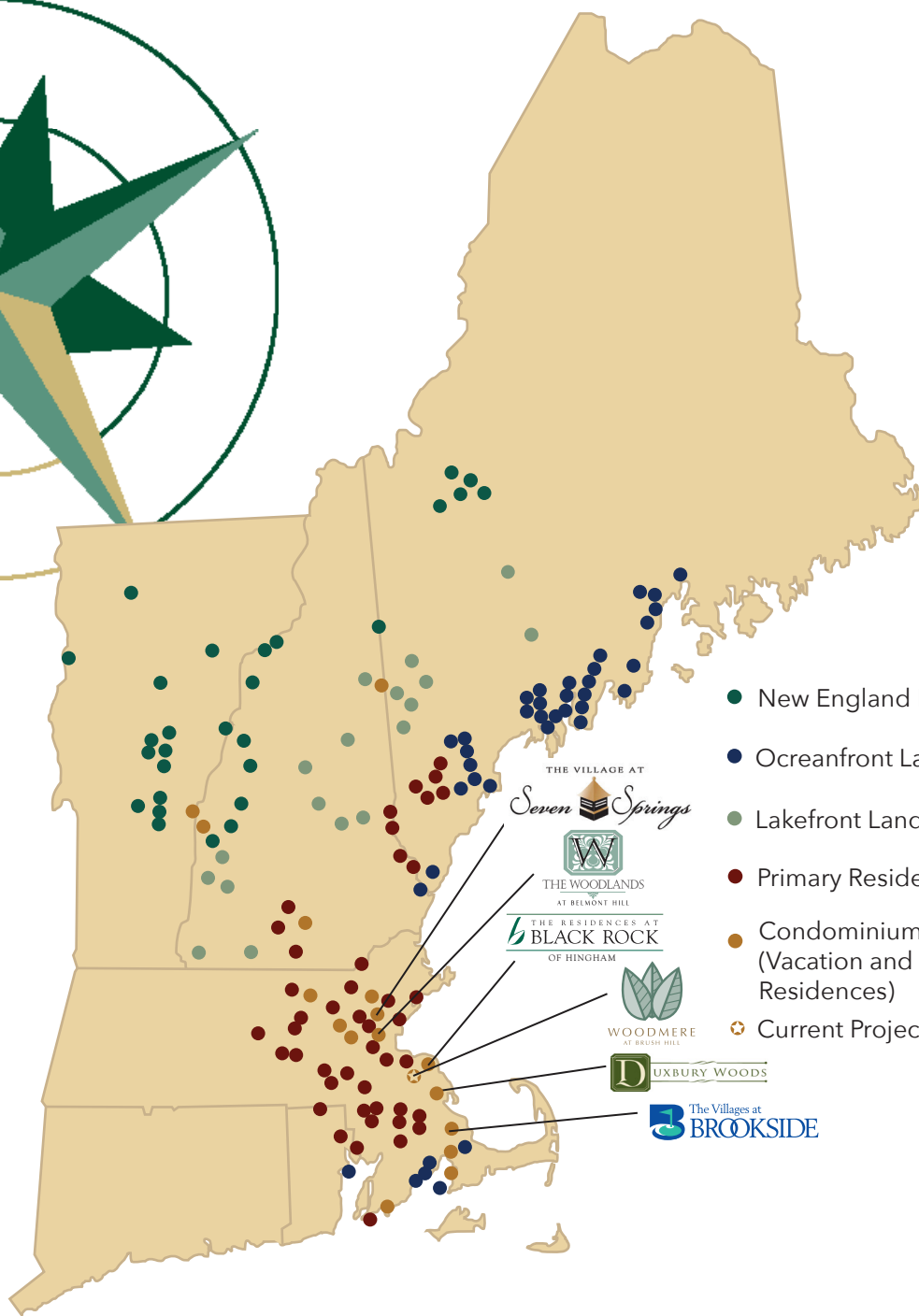
Fieldstone Way is a 44-unit homeownership townhouse community located in Wellesley, Massachusetts. The development was designed and permitted (using Chapter 40B) by Peter Crabtree, who worked closely with the Town of Wellesley during the permitting process. Construction broke ground in Q3 2019 and brought our first townhomes to market in March 2020 and despite the pandemic, sales have been robust. The well-conceived development plan has helped to fill a void in the local housing stock – that being entry-level new construction and townhomes designed with the empty-nester in mind. The initial lottery for 7 of the affordable units attracted over 140 applicants, a new record for the Lottery Agent (Mahoney Properties). The Northland Team developing this new community consists of the following people.

- Peter Crabtree, Director of Acquisitions & Development & Project Executive
- Sean Skehill, Director of Construction
- Elaine Leonard, Director of Sales & Marketing
- Rick Thomas, CFO

Wolcott Woods is Northland’s newest townhouse community located in Milton, Massachusetts. Wolcott Woods consists of 60 units – 54 market-rate units and 6 moderate-income units. This age-restricted community is nestled into the hillside of a 47-acre parcel which abuts the Blue Hills Reservation. Jack Dawley worked closely with the Town of Milton to enact a re-zoning of the parcel and subsequent issuance of a Special Permit by the Planning Board. Mr. Dawley’s vision will soon become the South Shore’s premier townhouse community. Construction broke ground in Q3 2020. The Northland Team developing this new community consists of the following people.

- Stephen Gallagher, Development Manager & Project Executive
- Sean Skehill, Director of Construction
- Elaine Leonard, Director of Sales & Marketing
- Rick Thomas, CFO

NORTHLAND IS NEW ENGLAND



- New England Farmland
- Oceanfront Land and Homes
- Lakefront Land and Homes
- Primary Residential Housing
- Condominiums (Vacation and Primary Residences)
- Current Projects



Northland[®]
Residential
Corporation

Tel: 781.229.4700

Email: info@northlandresidential.com

www.northlandresidential.com

CORPORATE OVERVIEW



A Distinguished Legacy in Real Estate



At its inception nearly 46 years ago, Northland Residential adopted the Compass Rose as our signature icon. Known for providing guidance and direction, this symbol remains a strong representation of Northland's path – a steadfast commitment to the real estate principle of "highest and best use."

Recognized for its dedication to the environment, Northland Residential Corporation is a privately owned company which has become one of New England's premier developers of extraordinary real estate. Northland's diverse portfolio is comprised of oceanfront and lakefront developments, golf course communities, historic properties, private homes, vacation homes, and condominium communities.

For nearly 46 years, Northland has maintained a strong focus in the New England area. Our thorough knowledge and understanding of buyer demographics, economic conditions and trends in residential development are all important factors greatly influencing the quality of our work. In many of our projects, we work closely with conservation groups, municipalities and state environmental agencies to maintain extensive open space and protected conservation land.

NORTHLAND AT A GLANCE

- Award-winning privately owned residential developer headquartered in Concord, Massachusetts
- Nationally recognized developer of luxury properties throughout New England
- Named Builder of the Year by the Builders Association of Greater Boston



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CORPORATE OFFICERS



The Residences at Black Rock
Hingham, MA

John C. Dawley

President and Chief Executive Officer

Mr. Dawley has been associated with Northland since 1985. As a principal of Northland Residential Corporation, he was named vice president in 1995. He holds a Master of Science degree in Real Estate from Massachusetts Institute of Technology. His experience in residential construction and project management has been celebrated throughout his tenure with Northland. Due to his remarkable forecasting abilities with trends in residential development, he is consistently credited with identifying winning acquisitions.

Richard A. Thomas

Vice President, Chief Financial Officer, and Treasurer

Mr. Thomas is a Certified Public Accountant and has provided services to clients in the real estate industry since 1983. He has been associated with Northland since 1986 as an outside auditor and joined the company in 1997. As Chief Financial Officer and Treasurer, and a principal of Northland Residential Corporation, he is responsible for all accounting matters, financial reporting, tax compliance, human resources, and managing banking and investor relations.

Peter D. Crabtree

Vice President, Director of Acquisitions & Development

Mr. Crabtree has more than 20 years of experience in the real estate industry with a wide range of accomplishments. His deep interest in the field led him to Massachusetts Institute of Technology, where, he attained his Master's Degree in Real Estate Development. Since joining Northland in 2001, Peter's responsibilities include identifying acquisition opportunities, financial and market analysis, due diligence, permitting, project management, and fee-for-service consulting activities.

Elaine F. Leonard

Vice President, Director of Sales and Marketing

Recognized for her accomplished track record in high-end residential sales and marketing, Ms. Leonard joined Northland in 2006. Her background includes a professional association with American Real Estate Partners and founding a successful entrepreneurial venture, a full-service marketing firm servicing the needs of large-scale residential developers. As V.P. of Sales and Marketing at Northland, she is responsible for orchestrating all of Northland's on-site sales and marketing operations and managing the company's sales personnel.



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BOARD OF DIRECTORS



The Village at Seven Springs
Burlington, MA

Throughout our company's history, one of the cornerstones of our success has been our distinguished Board of Directors. These individuals have shaped the growth of our firm, and their collective business acumen, depth of experience, and fundamental integrity serve to further solidify our legacy as one of New England's foremost developers of exceptional residential real estate.

Jack Dawley

Chairman of the Board
President & CEO, Northland Residential Corporation
Concord, Massachusetts

Richard Thomas

CFO, Northland Residential Corporation
Concord, Massachusetts

Frank M. Stewart

Former CEO, Northland Residential Corporation
Gloucester, Massachusetts

Robert Danziger

President and CEO Emeritus
Northland Investment Corporation
Newton, Massachusetts

Peter A. Bailey

International Director
Jones Lang LaSalle
Boston, Massachusetts
Former Chief Financing Officer
Spaulding & Slye Colliers

James P. Kelleher

Chief Investment Officer
New Boston Fund
Boston, Massachusetts

Patrick Callahan

President
Callahan Construction, Inc.
Bridgewater, Massachusetts



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INDUSTRY PARTNERS AND TESTIMONIALS

The Residences at Black Rock
Hingham, Massachusetts



Northland has developed strong working relationships with financial institutions and leaders

- Grazado Velleco Architects
- BSB Design
- CBT Architects
- Marcus, Errico, Emmer & Brooks, PC
- Leggat McCall Properties
- New Boston Fund
- Cape Cod 5
- Middlesex Savings Bank
- Eastern Bank
- Wells Fargo
- Roomscapes
- Ryan Associates
- Boston Private Bank & Trust
- Webster Bank
- Rogers and Gray Insurance Company
- The Dartmouth Group
- Stantec
- National Lumber
- Cape and Islands Kitchens
- J.J. O'Brien & Sons
- Kitchen Associates
- Morr Interiors
- Design East
- Setting the Space

"The hallmark of Northland's business success has been its strength and stability, regardless of the economic climate. Perhaps the best evidence of this is that it not only locates and develops prime development sites on its own, but is also sought out by other developers, institutional lenders, and marketing consultants in order to rescue troubled projects."

V. Douglas Errico
Marcus, Errico, Emmer & Brooks, P.C.

"The Northland name has been known as a responsible developer of New England properties for over a quarter century. In addition to providing construction financing, we have also provided mortgage loans for their buyers. This experience has given us the opportunity to hear first-hand the admiration of their customers for not only the quality of the end product, but also for the respectful nature of the customer relationship."

R. Bruce Hammatt, Jr.
Cape Cod 5 Savings Bank

"Northland has approached all of their projects with a professional attitude. Through the years, with the extremes that our industry endures, Northland kept its focus on creating quality housing in a gentlemanly manner. The principals have brought together a very talented and dedicated team to provide in-house development, construction and sales functions. This integrated approach has allowed Northland to be a builder that can act quickly when an opportunity warrants, to respond to customer input during construction, and to stay flexible during challenging economic times."

James A. Velleco, AIA



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Web: www.northlandresidential.com

ADVISORY SERVICES

Northland Residential Corporation is recognized as New England's pre-eminent developer of extraordinary residential real estate. We are well-positioned to serve as advisors to a select clientele who will benefit from the breadth of our experience, expertise, and resources. Our reputation is that of a firm which delivers exceptional service, sound advice, and solid professional leadership. Each consulting assignment is managed by a senior member of the firm, who expertly pilots the project through to successful completion.

In addition to our staff's broad range of expertise, we have access to a vast network of industry experts. Over the course of the past four decades, we have cultivated relationships with conservation groups, municipalities, family estates, attorneys, planning boards, review committees, historical commissions, regulatory entities, and financial institutions. Our advisory services are offered in a menu format, allowing us to create customized programs specifically tailored to each client's goals and timelines.

- Project Feasibility Analysis
- Project and Construction Management
- Debt and Equity Financing Coordination
- New Profit Center Development
- Land planning
- Permitting Coordination
- Green Building and Sustainability
- Brokerage
- Real Estate Marketing
- Design Center Operations
- Sales and Marketing



We have provided advisory services to a distinguished group of organizations, including:

A.D. Makepeace	Leggatt McCall Properties
Archdiocese of Boston	National Development
Benfield Family Trust	Nelson Kinder Mosseau & Saturley, PC
Boise Cascade	New Boston Fund
Boston University	New Bridge on the Charles
Cedemere Ventures	Peoples Heritage Bank
Charles Green Estate	Smith Family Trust
Choate Hall & Stewart, LLP	Sudbury Valley Trustees
Curvey Family Trust	The Grossman Companies
Dahl Properties	The Meridian Group
Dartmouth College Real Estate Office	The Paine Trust
E.M. Loew Estate	The Residences at Black Rock
Greater Boston YMCA	Trust for Public Lands
Hebrew Senior Life	U.S. Trust Company
ING/Clarion	
James River Corporation	



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NATIONAL AND REGIONAL AWARDS

NATIONAL ASSOCIATION OF HOME BUILDERS

- 2013 Silver Award for Marketing Manager of the Year – Lorraine DeVaux
- 2013 Best Integration of Nature and Landscape – The Residences at Black Rock
- 2012 Best Architectural Design of a One-of-A-Kind Detached Home – The Residences at Black Rock
- 2012 Best Product Design of a Multi-Family Community – The Villages at Brookside
- 2012 Best Staging of a New Home – The Residences at Black Rock
- 2012 Best Staging of a new Home – The Woodlands at Belmont Hill
- 2012 Professional Builder Magazine Silver Award for Best Community (The Village at Seven Springs)
- 10th Best Building/Development Firm to Work For in the U.S. – Professional Builder Magazine
- 2008 Building W/ Trees Awards of Excellence – NAHB National Green Building Conference (a joint project with the National Arbor Day Foundation). One of only two developers nationally to win this award.

BUILDER/ARCHITECT OF THE MONTH

- The Woodlands at Belmont Hill
- White Cliffs Condominiums
- Stratford Ponds
- The Villages at Brookside

CONSERVATION AWARDS & RECOGNITIONS

- Donation of Fowler's Beach, Long Island, ME – Oceanside Conservation Trust of Casco Bay
- Largest Single Private Conservation Transaction, Carlisle, MA – Carlisle Conservation Foundation
- Master Conservation Plans of Goodnow Farm, Sudbury, MA – Sudbury Valley Trustees & Sudbury Conservation Commission
- 440 Acre Public Open Space Donation at King Ridge, Sutton, NH – Ausbon Sargent Conservation Trust & Sutton Conservation Commission

BUILDERS ASSOCIATION OF GREATER BOSTON

- 2012 Silver and Gold Awards for Best Print Ad (Community) – The Residences at Black Rock and The Villages at Brookside newspaper advertisements
- 2012 Silver Award for Best Historic Renovation – The Carriage House Residences at Belmont Hill
- 2012 Gold Award for Best Single-Family Home (2500 to 4000 sq ft) – custom home at The Residences at Black Rock
- 2012 Silver Award for Best Brochure (Commercial or Residential) – for a brochure for The Woodlands at Belmont Hill
- 2012 Silver Award for Best Multi-Family or Single-Family Reuse/Conversion – The Carriage House Residences at Belmont Hill
- 2012 Silver Award for Best 55+ Community – The Villages at Brookside
- 2012 Gold Award for Project Manager of the Year – Peter Crabtree
- 2011 Builder of the Year
- Best Innovative Land Planning Design – Goodnow Farm
- Best Multi-Family Design under \$250,000 – Stratford Ponds
- Community Service Award – land preservation at King Ridge, NH
- Best Brochure for a Community with an average value over \$300,000 – Owl's Head, Maine
- Best Brochure for a Community with an average value under \$300,000 – Long Island, Maine



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PROJECT SUMMARIES

THE VILLAGE AT SEVEN SPRINGS

Burlington, Massachusetts



The Village at Seven Springs integrates the development of a new residential apartment and condominium community on approximately a 70-acre parcel, formerly used as a sand, gravel and concrete processing plant. Approximately 40 acres of the site was developed into a residential community consisting of 425 residential units (94 condos and 331 apartments [developed by National Development of New England]) arranged in a "New England village style" design. The remaining approximately 30 acres of the site was preserved as open space with a bicycle path, walking trails, wooded areas, and several water features. The Master Plan clusters the proposed apartment and townhouse condo buildings around a landscaped central water amenity located inside a central loop road



SEVEN SPRINGS AT A GLANCE

- Acquisition Date:.....August 2005
- Total number of Units: 94
- Completion Date: 2013
- Target Market:Active Adults
- Gross Sales:\$48,500,000



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PROJECT SUMMARIES

THE WOODLANDS AT BELMONT HILL Belmont, Massachusetts



The Woodlands at Belmont Hill is located in the town of Belmont, Massachusetts, a highly desirable suburb of Boston with accessibility to downtown in just 15 minutes. These elegant townhomes feature exceptional architectural design and craftsmanship. Most units have a first-floor owner's bedroom suite, attached 2-car garage, gourmet kitchen, luxurious living and dining rooms, and private outdoor space.

This community also celebrates the past with the extensive renovation of three historic buildings on site: the South Cottage, the McLean Hospital Horse Stables (Carriage House), and Upham House, transforming each into unique condominiums.



THE WOODLANDS AT A GLANCE

- Acquisition Date:..... March 2005
- Total number of Units: 121
- Completion Date: 2015
- Target Market: Active Adults
- Gross Sales: \$148,000,000



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PROJECT SUMMARIES

THE RESIDENCES AT BLACK ROCK Hingham, Massachusetts



Nestled amongst granite hillsides and pine woods in the heart of historic Hingham, Massachusetts, The Residences at Black Rock evoke the warmth and charm of a classic New England village while providing the contemporary amenities of the finest resort communities. This award-winning community features thoughtfully planned home sites designed to capture the stunning natural features found throughout the championship golf course at the Black Rock Country Club. After two previous developers' unsuccessful attempts at the project, Northland was selected to complete the remaining build-out of 52 homes. These elegant free-standing homes, ranging in size from 2,400 to 3,700 square feet, reflect exceptional architectural design and craftsmanship. Most homes feature a first-floor owner's bedroom suite, attached 2-car garage with optional golf cart bay, gourmet kitchen, luxurious living and dining rooms, private outdoor spaces, and spectacular vista views across the privately owned golf course.

BLACK ROCK AT A GLANCE

- Acquisition Date:..... December 2009
- Total number of Units:138 (52 Units Built by Northland)
- Completion Date: 2016
- Target Market:Active Adults
- Gross Sales:\$70,000,000



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PROJECT SUMMARIES

THE VILLAGES AT BROOKSIDE Bourne, Massachusetts



The Villages at Brookside reflect the seaside characteristics that Cape Cod is so well known for, yet the living space is architecturally distinctive with a warm, welcoming ambiance. The design is targeted for active adults and features a first-floor owner's bedroom suite. A total of 232 townhomes are clustered into several villages to create neighborhoods within the overall community. Careful planning allowed two-thirds of the townhouses to rest along the edges of the fairways capturing the picturesque views. Additional recreational amenities include a pool complex, putting green, and walking trails.

BROOKSIDE AT A GLANCE

- Acquisition Date:April 2003
- Total number of Units:232
- Completion Date: 2017
- Target Market:Active Adults
- Gross Sales: \$102,000,000

Our sales center and model home complex at The Villages at Brookside were the first throughout Massachusetts, New Hampshire and Rhode Island to be recognized by the U.S. Green Building Council with the coveted LEED (Leadership in Energy and Environmental Design) Certification.



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PROJECT SUMMARIES

DUXBURY WOODS

Duxbury, Massachusetts



Duxbury is a quintessential seaside New England town, known for its exceptional town services, pristine shore line and historic architectural character. Prior to the introduction of Duxbury Woods, affluent empty nesters and retirees in the Town had few maintenance free communities to choose from. Duxbury Woods' condominiums were designed by an award-winning architectural firm known for its luxurious waterfront estate homes. Residents embraced these townhomes for their distinctive elevations, expansive light filled floor plans, soaring ceilings and expertly packaged specifications.

DUXBURY WOODS AT A GLANCE

- Acquisition Date:..... 2013
- Total number of Units: 40
- Completion Date: 2016
- Target Market: Active Adults
- Gross Sales: \$22,000,000



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PROJECT SUMMARIES

WOODMERE AT BRUSH HILL

Milton, Massachusetts



Woodmere at Brush Hill offers a unique blend of suburban serenity in an estate setting with its classic architecture, stone walls, and lush landscaping. Located on historic Brush Hill Road on the grounds of a former estate in Milton, Massachusetts, there will be a total of 34 townhomes built as well as two single level condominiums in the renovated Dupee Mansion. Each will incorporate exceptional architectural design and craftsmanship. The Townhomes will feature first-floor owner's bedroom suite, attached 2-car garage, gourmet kitchen, luxurious living and dining rooms, and private outdoor space. The condominiums located in the Dupee Mansion will offer open light-filled living spaces, attached garage parking, and private terraces.



WOODMERE AT A GLANCE

- Acquisition Date:..... 2015
- Total number of Units: 36
- Anticipated Completion Date: 2018
- Target Market: Active Adults
- Projected Gross Sales: \$32,000,000



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FIELDSTONE WAY

Fieldstone Way
Wellesley, Massachusetts



Development In Progress

- EXPECTED COMPLETION DATE: 2021
- Total # of Homes: 44

Northland's new development, **Fieldstone Way**, is located less than a mile from the heart of Wellesley and the commuter rail.

Designed in collaboration with award-winning architect, Union Studio, Fieldstone Way is set on 12 acres of private grounds off of Great Plain Ave.

The finely crafted one, two-, and three-bedroom home designs are architecturally timeless and range in size from 900–3,600 SF. Each home is enhanced by tall ceilings, tasteful appointments, first or second floor owner's suites, superb open kitchen, all ensuite bedrooms, polished hardwoods, and garage parking.

The neighborhood comes together around a central village green where beautifully landscaped grounds include a footpath that connects to the adjacent Sudbury Aqueduct walking trail. Front porch gardens and private courtyards further distinguish each townhome.

The neighborhood features a small antique fieldstone cottage which will be restored as part of the project.



DEVELOPED BY



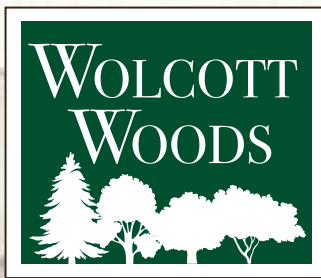


GREAT PLAIN AVE.

FIELDSTONE WAY

FIELDSTONE
WAY





WHERE *Exquisite* DESIGN,
Comfort AND *Nature* ALIGN



Now Taking Reservations!

Wolcott Woods, a new 55+ community in Milton, sits nestled on 47 hillside acres neighboring the Blue Hills Reservation. Formerly a private estate, this new neighborhood offers the best of both worlds: a serene, natural setting and a convenient location. These 54 exquisite homes will enjoy the peace and quiet, just 10 miles from Boston.

Pricing starting at \$1,350,000 | By appointment only.

For more information and to set up a tour:
Greta Gustafson | 617-686-6258 | ggustafson@landvest.com

DEVELOPED BY



wolcottwoods.com

PRESENTED BY

LandVest
REAL ESTATE



Renderings are for illustrative purposes only. Approximate layouts, dimensions and pricing are subject to change.



AERIAL VIEW OF PROPOSED LAYOUT

PROPOSED REVISION TO MANOR HOUSE CLUSTER

WOLCOTT WOODS
APRIL 23, 2020



UNION STUDIO
ARCHITECTURE & COMMUNITY DESIGN

Section 1.B Development Team

Development Team for 15 High Street, Norwell, MA

Northland Residential Corporation

- Jack Dawley – President & CEO
- Peter Crabtree – SVP, Director of Development & Acquisitions
- Steve Gallagher – Development Manager
- Elaine Leonard – SVP, Director of Sales & Marketing
- Richard Thomas – EVP, CFO
- Sean Skehill – SVP, Director of Construction

Permitting Attorney

- Peter Freeman, Esq.

Architect – Union Studio Architecture & Community Design

- Don Powers – President & Founding Principal
- Jeremy Lake – Senior Associate

Civil Engineer – Merrill Engineering

- Deb Keller – Senior Project Manager

Landscape Architect – Ryan Associates

- Alan Aukeman - Principal
- Tom Ryan – Principal & Founder

Consultant

- Scott Dale

PETER L. FREEMAN • ATTORNEY
FREEMAN LAW GROUP LLC

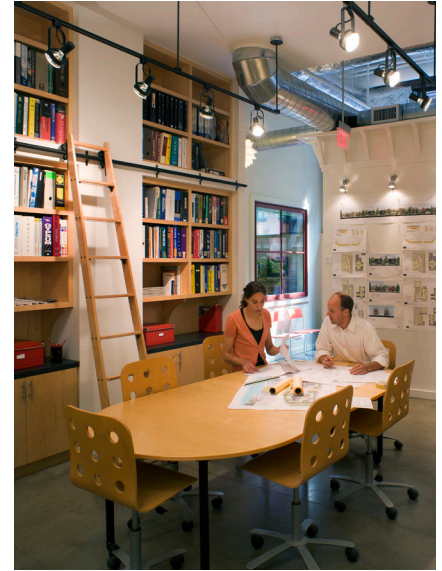
Peter L. Freeman has been an attorney with a state-wide practice for over 30 years. His practice involves a wide range of areas including non-profit organizations, real estate acquisition and financing, municipal, zoning, land development, environmental and wetlands permitting, construction law, administrative law, commercial transactions, and litigation, with a special emphasis on affordable housing development, including Chapter 40B and Chapter 40R. He has represented clients on over 150 Chapter 40B projects across the Commonwealth. His representation covers the entire spectrum of the development process, from initial planning and the permitting process through the transactional work acquiring the properties and closing the loans. He has assisted developers and non-profits in the creation of thousands of units of affordable housing, and works frequently with housing subsidizing agencies such as Mass Housing, the Massachusetts Department of Housing & Community Development, and the Massachusetts Housing Partnership. He is also a frequent speaker at seminars and conferences on land use matters and affordable housing, a member of the Construction Industry Panel of Neutrals of the American Arbitration Association, and an Adjunct Professor of Law at Boston University School of Law where he teaches Affordable Housing and Community Development Law. He earned a J.D. from Boston University School of Law in 1975 and a B.A. from Yale University in 1971, and he is an active Member of the Board of Directors of numerous local housing non-profit organizations, including Housing Assistance Corp., Homeless Not Hopeless, Inc., Our First Home, Inc. and the Island Housing Trust of Martha's Vineyard.

Matt Gaines
Marcus Errico, Emmer & Brooks

Matt Gaines is a Partner at Marcus, Errico, Emmer & Brooks, and primarily works in the firm's Condominium Group and Real Estate Department. As an attorney in the firm's Condominium Group, Matt focuses on the review and drafting of condominium documents, lien enforcement actions, the enforcement of rules and covenants, and fair housing and discrimination matters, including requests for reasonable accommodations/modifications. In addition, Matt handles all aspects of real estate acquisition, development and financing including: drafting and negotiating purchase and sale agreements; reviewing commercial loan documentation; conducting and reviewing title examinations; and reviewing zoning and subdivision matters.

Matt currently serves as the Chair of CAI's Massachusetts legislative action committee, and is an active member of the Massachusetts Real Estate Bar Association (REBA)

Matt frequently writes and lectures on a variety of topics related to condominium law and legislative action.



FIRM PROFILE

UNION STUDIO

Union Studio is a nationally practicing architecture and community design firm based in Providence, Rhode Island. Founded in 2001, our growing office of 24 architects and urban designers shares the mission to use architecture to encourage social connection, walkability, and sense of place to help create and sustain true neighborhoods and communities.

Union Studio brings a comprehensive approach to the design of buildings. We infuse rigorous technical detail with an “expert generalist” viewpoint; a combination that integrates a broad understanding (and respect for) key building trades with our architectural practice. This results in a project that is not only effectively managed, but ultimately exhibits a sense of overall cohesion. We design places that “feel right,” while being memorable and firmly grounded in the realities of today’s market driven real estate world.

This unique combination of talents has attracted clients – and awards – from across the U.S. and Canada. With projects in Texas, Arkansas, Oregon, Washington State, Michigan, Virginia, New York and throughout New England, Union Studio has developed a national reputation in perfecting techniques for distilling the nuances of local character combined with a traditionally inspired view of economy and simplicity.



UNION STUDIO
ARCHITECTURE & COMMUNITY DESIGN

140 Union Street Providence, Rhode Island 02903 p. 401.272.4724 unionstudioarch.com

DONALD W. POWERS AIA, LEED AP, CNU

PRESIDENT & FOUNDING PRINCIPAL



REGISTRATIONS

Registered Architect: Licensed
in Rhode Island, Massachusetts,
Connecticut, Michigan, Virginia.
NCARB.

Donald W. Powers has nearly three decades of experience in all aspects of architectural practice. His completed work includes urban and town planning, commercial and institutional buildings, affordable housing, historic restoration of landmark buildings, and single-family residences. In recent years, his work has concentrated on integrated, mixed-use planning and architectural design with the goal of creating truly diverse and vibrant neighborhoods. A 20-year association with the Congress for the New Urbanism and frequent collaboration with some of the best firms in the country doing traditional urban design has brought an expertise in the technique and art of creating livable communities and cherished places. Donald has a single-minded vision to restore communities and save the world from sprawl.

EDUCATION

Harvard University, Graduate School of Design - Cambridge, MA
Master of Architecture

University of Virginia - Charlottesville, VA
Bachelor of Science, Architecture
Honors: Annual Design Prize

AFFILIATIONS & ACCREDITATIONS

LEED Accredited Professional

American Institute of Architects

Congress for the New Urbanism - *New England Chapter Board of Directors*

CNU IX Providence - *Executive Committee & Program Co-Chair 2006*

GrowSmartRI - *Board of Directors*

Institute for Classical Architecture - *New England Chapter Founding Board Member*

City of Providence Zoning Commission - *Subcommittee for Form-Based Zoning, Committee Chairman*



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DONALD W. POWERS AIA, LEED AP, CNU

PRESIDENT & FOUNDING PRINCIPAL

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SPEAKING ENGAGEMENTS

Small Housing Trends: Recession Survival Tactics & Moving Forward
12th Annual New Partners for Smart Growth Conference, 2013

**Innovating Community Design and Mass Market Housing - and -
Deconstructing the Mass Appeal and Continued Relevance of
Traditional Architecture**

Residential Architect magazine's Reinvention, 2012

The Real Deal: Implemented Incremental Urbanism
CNU 20, 2012

Cottage Housing & Innovative Zoning
6th Annual Massachusetts Housing Institute, 2012

Principles of Compact Cottage Court Development
Build Boston, 2011

Utopias: A Conversation

List Art Gallery at Brown University, 2011

(a panel discussion responding to the David Winton Bell Gallery exhibition
Building Expectation: Past & Present Visions of the Architectural Future)

Planning and Designing Successful Mixed-Use Centers
Healthy Places by Design Community Workshops, 2011

Small Site Development: Resources and Best Practices
Massachusetts Municipal Association Conference, 2011

The "New" Increment of Urbanism: Opportunity & Technique
CNU New England, 2009 (*presented with Douglas Kallfelz*)

**The Details of the New Urbanism: From Curb to Cupola - The Case for
Simplicity**
CNU 2007, CNU 2008, & CNU 2009 (*presented with Douglas Kallfelz*)



JEREMY R. LAKE AIA, LEED AP, CNU

SENIOR ASSOCIATE



REGISTRATIONS

Registered Architect: Licensed in Maryland.

Jeremy brings nearly 20 years of experience working on architecture and community design projects at a range of scales. At Union Studio his specialty is neighborhood-scale projects, including the design of new neighborhoods, crafting vision plans to revitalize existing communities and generating design guidelines to help guide future development. For these types of projects he often serves as both a designer and project manager, with a talent for serving as a versatile liaison between planning and architecture. Jeremy joined Union Studio in July of 2012 after eleven years at Torti Gallas and Partners where he worked on a variety of market-rate neighborhoods, HOPE VI revitalization projects, and residential architecture projects.

Jeremy has served on the Board of Directors of the Rhode Island Chapter of the American Institute of Architects and is an active member of the Congress for the New Urbanism.

EDUCATION

University of Miami - *Miami, FL*

Master of Architecture

Master of Architecture in Suburb and Town Design

Bowdoin College - *Brunswick, ME*

Bachelor of Arts, Anthropology; Minor: Biology

AFFILIATIONS & ACCREDITATIONS

LEED Accredited Professional

American Institute of Architects - *RI Chapter Board of Directors, 2013 - 2016*

Congress for the New Urbanism

SPEAKING ENGAGEMENTS

Successful and Effective Land Use and Zoning Policies: Cottage Courts, Massachusetts Municipal Association Annual Meeting, 2018

Meeting Changing Housing Preferences Through A Form Based Approach, Cape Cod Commission OneCape Summit, 2018

Creative Approaches to Moderate Density: Filling the Missing Middle on Cape Cod, Cape Housing Institute, 2018

Filling the Gap: Affordable Housing Crisis Through Design, CNU Illinois & AIA Chicago, 2019

Getting Great Multifamily Housing in Your Community: Fieldstone Way, SNEAPA, 2019



UNION STUDIO
ARCHITECTURE & COMMUNITY DESIGN

140 Union Street Providence, Rhode Island 02903 P 401.272.4724

Deborah W. Keller, P.E.
Senior Project Manager

PROFESSIONAL REGISTRATION AND CERTIFICATIONS

- Registered Professional Civil Engineer - Massachusetts License No. 45874
- DEP Soil Evaluator – Massachusetts

PROFESSIONAL AFFILIATIONS

- Member, American Society of Civil Engineers
- Member, Boston Society of Civil Engineers

Deb Keller has managed numerous residential, commercial, and industrial projects from inception thru permitting and construction since 1993 and joined Merrill in 2016. Her areas of expertise include site design, grading, stormwater management and drainage analysis, state and local permitting, and MassDOT highway designs. She has extensive experience in the design, management and implementation of civil engineering projects involving due diligence & feasibility studies, stormwater management & detailed drainage analysis reports, construction plans, and presentation of projects to approving authorities for project permits at the local and state level for various residential and commercial projects throughout Massachusetts. Deb has over 16 years of experience as a Registered Professional Engineer. She holds a Bachelor of Science degree in Civil Engineering Technology from the Wentworth Institute of Technology.

Representative projects Deb has been involved with are the following:

- Woodland Village, a 40B Comprehensive Permit Residential Development consisting of 152 condominium units in Hanover;
- The Village of Hanover, a multi-use development on 125 acres in Hanover;
- The Village at Lincoln Park, a 41-acre smart growth development consisting of commercial, mixed-used and residential components in Dartmouth;
- Copperwood Estates, a 40B Comprehensive Permit Subdivision consisting of 34 single family lots in Pembroke;
- 40 River Street, a 40B Comprehensive Permit consisting of 18 rental units in Norwell;
- Wolcott Woods, a Great Estate Planned Unit Development consisting of 54 residential units in Milton; and
- Merchants Row, Commercial Redevelopment Site in Hanover.

RYAN ASSOCIATES LANDSCAPE ARCHITECTURE & PLANNING



ALAN AUKEMAN, RLA, ASLA, PRINCIPAL

Alan has been with Ryan Associates since 2005. His work has ranged from performing initial planning studies and assembling permitting and construction document packages to providing project oversight and construction administration. In his time at Ryan Associates, Alan has overseen a full range of project types ranging from institutional to mixed-used public and private development.

SELECTED PROJECTS

Fieldstone Way, Wellesley, MA – 40b Townhome Community, Full permitting and design services
Frost Homes, Waterbury, CT – Renovations and redevelopment of a supported housing community
LePage Pondview Apartments, Gloucester, MA - Full design services for affordable housing infill
The Coolidge School, Watertown, MA - Senior housing school conversion
Duxbury Woods, Duxbury, MA – 40b Townhome Community, full design services
Johnston Square and Sharp Leadenhall Apartments, Baltimore, MD - Renovations to low income and assisted apartment community
Skyview Apartments, Scranton, PA - Renovations to low income housing community
Telford 180, Boston, MA - Design and development for a public plaza, green roof, and urban streetscape
The Woodlands at Belmont Hill, Belmont, MA – Age-targeted Townhouse development on the site of historic hospital grounds
The Villages at Seven Springs, Burlington, MA - Townhouse development on a former industrial site
The Residences at Black Rock, Hingham, MA - Full design services for residential golf community
The Villages at Brookside, Falmouth, MA - Full design services for townhouse golf club development
Red Mill Village Housing, Norton, MA - Mixed use development with public open space
Hammatt Street Block, Ipswich, MA - Redesign of downtown block
Mount Ida College, Newton, MA - Redevelopment of numerous campus spaces and master planning
Beaver Brook, Belmont, MA - Redesign and documentation for spray park and playground renovation
Mount Wachusett Community College, Gardner, MA - Master planning for campus
Hammatt Street Block, Ipswich, MA - Redesign of downtown block
Regional Headquarters for the FBI, Albany, NY - Design services for secured office complex on a landfill site
Crosstown Center, Boston, MA - Mixed use center with streetscape and greenroof
MIT Brain and Cognitive Science Building, Cambridge, MA - Urban plaza

EDUCATION

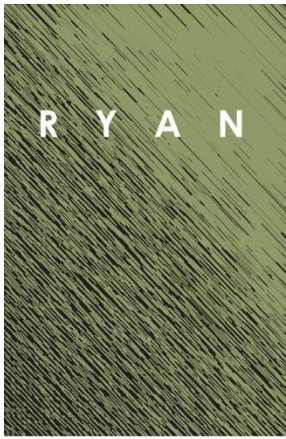
University of Virginia, School of Architecture - Master of Landscape Architecture, 2005
Michigan State, School of Arts and Sciences - Master of English, 1997
Calvin College - Bachelor of Arts, 1995

PUBLICATIONS

2016	Presenter, "Bridging the Design-construction Divide" at 2016 ASLA Annual Meeting
2011	Reviewer, <i>Landscape Architectural Detailing</i> . Tom Ryan. Wiley Publishing, February 2011
2007	"Site Maintenance: Landscape management is essential for operational efficiencies and positive results," <i>Today's Facility Manager</i> . June 2007 with Tom Ryan.

REGISTRATION

Massachusetts Registered Landscape Architect Registration #1577 (2009)



Building 4
144 Moody Street
Waltham, MA 02453
PH: 781-314-0401
FX: 781-314-0401

RYAN ASSOCIATES
LANDSCAPE ARCHITECTURE AND PLANNING

Thomas R. Ryan, FASLA

tryan@ryan-assoc.com

Principal

RYAN ASSOCIATES
1998 – Present

RECENT PROJECTS:

Boyde's Crossing
Norfolk, MA

Project: Pocket Neighborhood Transit Oriented Design
Client: Powerhead LLC
Architect: BKA Architects
Services: Design, documentation and Construction Phase services

Transit Oriented Housing
Norwood, Norton, &
Ashland, MA

Project: Upland Woods, East Main, and Cirrus Apartments
Client: Thorndike Development/Campanelli
Architect: Cube 3
Services: Planning, Design and Documentation, and Construction Administration

Smith College Library
Northampton, MA

Project: Development of a new Library
Client: Smith College
Architect: Shepley Bullfinch
Artist: Maya Lin Studios
Services: Design review, documentation and Construction Phase services

Tower Hill Botanical Garden
Boylston, MA

Project: Development of Gardens within Reach
Client: Tower Hill Botanical Garden
Services: Design, documentation and Construction Phase services

Partners Healthcare
Somerville, MA

Project: Tech Center and support facilities for healthcare provider
Client: The Office of James Burnett
Architect: Gensler Boston
Services: Landscape technical review and construction phase services

Mount Ida College
Newton, MA

Project: Redevelopment of 3 Courtyards and Landscape Master Planning
Client: Mount Ida College
Architect: Imai, Keller, Moore
Services: Site Planning

Seton Highlands Ph. 2 & 3
Plymouth, MA

Project: Planning for housing at the PineHills
Client: Design Housing
Architects: D Michael Collins Architects
Services: Planning and site design

Turner Hill
Ipswich, MA

Project: Redesign of golf oriented housing
Client: Silver Oak Management
Architect: Grazado Velleco Architects.
Services: Design, and permit services

The Rice Silk Mill
Pittsfield, MA

Project: Mill renovation for housing
Client: Rees Larkin Development and TAT
Architect: The Architectural Team (TAT)
Services: Design, and permit services

**The Residences at
Black Rock**
Hingham, MA

Projects: Residential golf community
Client: Northland Development
Architect: CBT Architects
Services: Landscape architecture and planning services

Granada Highlands
Malden, MA

Projects: Site analysis, inventory, rehab master plan and implementation of plan for 40 acre apartment complex built in the 1970s
Client: Equity Residential
Services: Full services

**The Villages at
Seven Springs**
Burlington, MA

Projects: Townhouse development on the site of a former industrial site
Client: Northland Development
Architect: BSB Design
Services: Full landscape architecture services

**The Villages at
Brookside**
Bourne, MA

Projects: Townhouse golf club development
Client: Northland Development
Architect: Grazado Velleco Architects
Services: Full landscape architecture services

Red Mill Village Housing
Norton, MA

Projects: Mixed use of retail and housing with public open space
Client: Thorndike Development
Architect: Devereaux and Associates and Gleysteen Associates
Services: Detail design, construction documentation and administration

**WestRidge Retirement
Community**
Hudson, MA

Projects: Mixed use of recreation and housing with public open space
Client: Thorndike Development
Architect: Devereaux and Associates and Gleysteen Associates
Services: Planning, detail design, construction documentation and administration

PineHills Housing
Plymouth, MA

Projects: 5 phases of housing at the PineHills
Client: Thorndike Development
Architect: Devereaux and Associates and Gleysteen Associates
Services: Site planning, design, construction documentation and admin.

**Chapman's Reach at
Marina Bay**
Quincy, MA

Projects: Neo-traditional housing development
Client: Thorndike Development and Richard Burck and Associates
Architect: Devereaux Associates Bradford Saivetz and Gleysteen Associates
Services: Design development, construction documentation, and administration

**The Woodlands at
Belmont Hill**
Belmont, MA

Projects: Townhouse development on the site of an historic Hospital grounds
Client: Northland Development
Architect: Grazado Velleco Architects
Services: Landscape architecture services

**GreatBrook Senior
Housing**
Norton, MA

Projects: 116-unit senior housing development with public gardens
Client: Thorndike Development
Architect: Devereaux and Associates and Gleysteen Associates
Services: Site planning, design, construction documentation and administration

Stonebridge Commons
Hanson, MA

Projects: 114 townhouse units, affordable and market rate housing development
Client: Mark Ridder
Services: Site planning and design

PREVIOUS EXPERIENCE

1995 – 1998	HARGREAVES ASSOCIATES , Principal Cambridge, MA; San Francisco, CA
1989 – 1995	BURCK RYAN ASSOCIATES , Principal Watertown, MA
1988-1989	RYAN ASSOCIATES , Principal Lexington, MA
1982 – 1988	SASAKI ASSOCIATES , Senior Associate Watertown, MA
1981 – 1982	S.W.A. GROUP Boston, MA
1979 – 1981	CAROL R. JOHNSON & ASSOCIATES Cambridge, MA
1975 – 1977	DUANE E. LINDEN & ASSOCIATES Chicago, IL

RECENT AWARDS

2015	Named Distinguished Alumnus 2015 - Univ. of Wisconsin Department of Landscape Architecture
2013	ASLA Design Honor Award – The Highline Section 2 (Field Operations) – Tech. Consult
2010	Named Fellow of the American Society of Landscape Architects ,
2010	ASLA Design Honor Award – The Highline Section 1 (Field Operations) – Tech. Consultant
2008	Arbor Day Foundation & NAHB: Building w/ Trees Award of Excellence – The Woodlands
2007	ASLA Design Honor Award - Mesa Arts Center (Martha Schwartz Inc) – Tech. Consultant
2006	Builder's Magazine Builder's Choice Grand Award: Active Adult Community - Red Mill Village
2006	NAHB Gold Award for Best Overall Community (under 200 homes) - Red Mill Village
2005	Builder's Magazine Builder's Choice Design Award - "Chilton" at the PineHills
2005	NAHB Silver Award, Best Active Adult Community - GreatBrook Senior Community

RECENT PUBLICATIONS / PRESENTATIONS

2014	Panelist, My Eyes/My Ears discussion of presentation by O/A on sound in the City
2014	Presenter, <i>Landscape Forensics, Why Natural Systems-based Design Solutions Sometimes Fail</i> at 2014 ASLA Annual Meeting
2013	Presenter, <i>Landscape Forensics, Why things fail</i> at 2013 ASLA Annual Meeting
2013	Presenter, <i>Contract Documents in a Digital Age</i> at 2013 ASLA Annual Meeting
2013	Presenter, Webinar on <i>Forgiving Landscape Details for Ease of Construction</i> for Land8
2012	Presenter, Lecture on <i>Building Landscapes near Water</i> , Ball State University
2011	Presenter, Lecture on <i>Landscape Architectural Detailing</i> at Temple University
2011	Contributor to <i>Hardscaping Your Condo</i> in New England Condominium Magazine April issue
2011	Published <i>Landscape Architectural Detailing</i> for Wiley Publishing

RECENT TEACHING EXPERIENCE

Instructor: 2013- present	Practices in Landscape Architecture, Documentation and Project Delivery Landscape Architecture Program, Harvard University Graduate School of Design, Cambridge, MA
Instructor: 2014- 2016	Ecologies, Techniques, Technologies II, Drainage Landscape Architecture Program, Harvard University Graduate School of Design, Cambridge, MA
Instructor: 2012- 2016	Ecologies, Techniques, Technologies II, Grading Landscape Architecture Program, Harvard University Graduate School of Design, Cambridge, MA
Instructor: 2008 - 2012	Advanced Construction Techniques, Detailing and Construction Documents Landscape Architecture Program University of Pennsylvania, Philadelphia, PA

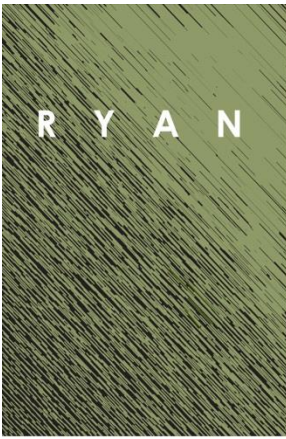
EDUCATION

- 1977 – 1979 **Graduate School of Design**, Master of Landscape Architecture
Harvard University
Cambridge, MA
- 1970 – 1975 **School of Agriculture & Life Science**, Bachelor of Science in Landscape Architecture
University of Wisconsin
Madison, WI

MASSACHUSETTS REGISTRATION

Registration: # 590

Since: 1978



A S S O C I A T E S
L A N D S C A P E A R C H I T E C T U R E A N D P L A N N I N G

Building 4
144 Moody Street
Waltham, MA 02453
P H : 7 8 1 - 3 1 4 - 0 4 0 1
F X : 7 8 1 - 3 1 4 - 0 4 0 1

RECENT PROJECTS: HOUSING

Duxbury Woods
Duxbury, MA

Project: 40b townhouse community
Client: Northland Residential
Architect: Grazado Velleco Architects.
Services: Planning, Design and Documentation, and Construction Administration

Boyde's Crossing
Norfolk, MA

Project: Pocket Neighborhood Transit Oriented Design
Client: Powerhead LLC
Architect: BKA Architects
Services: Design, documentation and Construction Phase services

Transit Oriented Housing
*Norwood, Norton, &
Ashland, MA*

Project: Upland Woods, East Main, and Cirrus Apartments
Client: Thorndike Development/Campanelli
Architect: Cube 3
Services: Planning, Design and Documentation, and Construction Administration

Dorset Park
Weymouth, MA

Projects: Townhouse development on the site of a former naval air station
Client: Northland Development
Architect: Union Studios
Services: Planning, Design and Documentation, and Construction Administration

**The Residences at
Turner Hill**
Ipswich, MA

Project: Redesign of golf oriented housing
Client: Silver Oak Management
Architect: Grazado Velleco Architects, Kao Design Group.
Services: Planning, Permitting, Documentation, and Construction Administration

**Pondview
Apartments**
Gloucester, MA

Projects: Senior housing school conversion
Client: LePage Affordable Housing LLC / The Caleb Foundation
Architect: The Architectural Team
Services: Landscape architecture services

Silk Mill
Pittsfield, MA

Project: Mill renovation for housing
Client: Rees Larkin Development and TAT
Architect: The Architectural Team (TAT)
Services: Design, and permit services

**The Coolidge
School**
Watertown, MA

Projects: Senior housing school conversion
Client: Mitchell Properties
Architect: The Architectural Team
Services: Landscape architecture services

The Residences at Black Rock Hingham, MA	Projects: Residential golf community Client: Northland Development Architect: CBT Architects Services: Landscape architecture and planning services
The Woodlands at Belmont Hill Belmont, MA	Projects: Townhouse development on the site of an historic Hospital grounds Client: Northland Development Architect: Grazado Velleco Architects Services: Landscape architecture services
The Villages at Seven Springs Burlington, MA	Projects: Townhouse development on the site of a former industrial site Client: Northland Development Architect: BSB Design Services: Landscape architecture services
The Villages at Brookside Falmouth, MA	Project: <i>Townhouse gold club development</i> Client: Northland Development Architect: Grazado Velleco Architects Services: Landscape architecture services
Red Mill Village Housing Norton, MA	Projects: Mixed use of retail and housing with public open space Client: Thorndike Development Architect: Devereaux and Associates and Gleysteen Associates Services: Design, contract documentation, and construction administration
Johnston Square and Sharp Leadenhall Apartment Renovations Baltimore, MD	Project: <i>Low Income and Market rate housing renovations</i> Client: The Architectural Team Architect: The Architectural Team Services: Design, contract documentation, and construction administration
Skyview Apartments Apartment Renovations Scranton, PA	Project: Low Income housing renovations Client: The Architectural Team Architect: The Architectural Team Services: Design, contract documentation, and construction administration
13 Elm Newton, MA	Projects: Townhouse infill development Client: A. Bonadio Architect: Helena Eckert Services: Landscape architecture services
Stonebridge Commons Hanson, MA	Projects: 114 townhouse units, affordable and market rate housing development Client: Mark Ridder Services: Site planning and design

Scott W. Dale, Principal
Dale Associates, LLC.
84 Lexington Road
Lincoln, MA. 01773
sdale@daleassoc.com
Ph: 617-571-3320

Dale Associates, LLC., was formed in 2020 to advise clients engaged in multifamily real estate development and investment in the design, development, construction and management of market-rate and affordable multifamily housing. Prior to the formation of Dale Associates, Mr. Dale was Senior Vice President of Development for AvalonBay Communities, Inc., where he worked for 21 years and was responsible for the development activities in the Greater Boston region. During his tenure with AvalonBay, Mr. Dale was responsible for the development of 22 multifamily residential communities comprising 5,678 residential units with \$1.326B in direct capital investment. The communities were comprised of suburban garden, mid-rise in-fill, high-rise urban and mixed-use developments. Many of the residential communities included an affordable mixed-income component managed under MGL Chapter 40B, or other inclusionary affordable housing statute. Mr. Dale is also familiar with current sustainable development practices, including LEED and Energy Star certification programs.

Mr. Dale received his undergraduate degree in civil engineering from the University of Calgary in 1983, and his MBA from Boston University in 1993.

Section 1.D Applicant Fair Housing Experience

The Senior Management Team for Northland Residential LLC (“Northland”) has designed, permitted, constructed, marketed and conveyed over 700 homeownership units in Massachusetts. For the vast majority of the market-rate units Northland has developed, Northland has used an in-house Sales & Marketing Team led by Elaine Leonard. And to respond to the specific question above, no one on this team has been accused of any violations of fair housing requirements. For the communities Northland has developed that have had an affordable component (see a listing of the projects below), Northland has hired an independent 3rd party experienced in preparing and implementing AFHMP to serve as the Lottery Agent. In addition, Northland hired an independent 3rd party to serve as the Monitoring Agent for these projects. None of these projects have been charged with any violations of fair housing requirements.

In response to the specific notes regarding Fair Housing Requirements in this application, Northland states the following.

1. Northland, its development team, staff, other entities, or individual responsible for fair housing compliance has not required intervention by a state subsidizing agency to address fair housing complaints or concerns nor had a finding or final determination against it for violation of state or federal fair housing law with the past five years.
2. Northland, as a sponsor, has successfully carried out similar AFHMP responsibilities for more than three projects in Massachusetts (see list of projects below). This was accomplished through hiring a 3rd party experienced in AFHMP activities to successfully market the affordable units in these developments.
3. For the subject project, as we have done in the past, NRC will hire an experienced and well-qualified 3rd party for the AFHMP responsibilities. In addition, this firm will possess the ability to address matters relating to limited English language proficiency (LEP) including language access planning and providing reasonable language assistance at no cost to the applicant, so that applicants with LEP may meaningfully apply and access the housing opportunity.

Portfolio of Northland Residential Communities with an Affordable Component

The Village at Seven Springs, Burlington, Massachusetts

Northland Project Executives: Jack Dawley & Peter Crabtree

Northland CFO: Richard Thomas

Northland Sales & Marketing: Lynne Peterson & Elaine Leonard

Lottery Agent: Town of Burlington

Monitoring Agent: DHCD

Northland, through its affiliate, Seven Springs Residential LLC, developed “The Village at Seven Springs” – a 90-unit for-sale townhouse condominium community located in Burlington, MA. The townhouse community consisted of eighty-one (81) market-rate townhouses and nine (9) affordable townhouses. The Village at Seven Springs was the for-sale condominium component of the overall residential community permitted by National Development. National Development constructed and rented “Arbortpoint at Seven Springs” – a 331-unit apartment community on the abutting site. The development was a LIP with 10 percent of the units being designated as affordable. The project was completed in 2013.

Duxbury Woods, Duxbury, Massachusetts

Northland Project Executives: Jack Dawley & Peter Crabtree

Northland CFO: Richard Thomas

Northland Sales & Marketing: Elaine Leonard

Lottery Agent: SEB, LLC

Monitoring Agent: MetroWest Collaborative & Development

Northland, through its affiliate, Duxbury Residential LLC, was the developer of “Duxbury Woods” – a 40-unit for-sale townhouse condominium community located in Duxbury, Massachusetts. The community consisted of thirty (30) market-rate townhouses and ten (10) affordable townhouses. Permits for the development were attained under Chapter 40B. Construction for the community began in 2013 and the final certificate of occupancy was attained on November 21, 2016. The cost examination for Duxbury Woods has been completed and approved by MassHousing.

Woodmere at Brush Hill, Milton, Massachusetts

Northland Project Executive: Jack Dawley

Northland CFO: Richard Thomas

Northland Sales & Marketing: Elaine Leonard

Lottery Agent: SEB LLC

Monitoring Agent: DHCD

Northland, through its affiliate, Milton NRC, LLC, developed “Woodmere at Brush Hill” in Milton, Massachusetts. Woodmere consists of 36 homeownership townhouses (32 market-rate and 4 affordable) and was permitted working closely with the Town of Milton and using the LIP Program. The development is now complete, and all units have been conveyed.

Village at Old Main, Falmouth, Massachusetts**Northland Project Executive:** Jack Dawley**Northland CFO:** Richard Thomas**Northland Sales & Marketing:** Elaine Leonard**Lottery Agent:** Maloney Properties**Monitoring Agent:** Falmouth Housing Trust, Inc.

Northland, through its affiliate, Shining Sea NRC LLC, is currently developing “Village at Old Main” in Falmouth, Massachusetts. Village at Old Main consists of 8 homeownership townhouse condominiums – 6 market-rate and 2 affordable units. Village at Old Main was permitted under Chapter 40b. Northland purchased the development rights and permits from an unrelated third party. The two affordable units have been conveyed and the final market-rate unit will be delivered in Q3 2021.

Fieldstone Way, Wellesley, Massachusetts**Northland Project Executive:** Peter Crabtree**Northland CFO:** Richard Thomas**Northland Sales & Marketing:** Elaine Leonard**Lottery Agent:** Maloney Properties**Monitoring Agent:** MetroWest Collaborative & Development

Northland, through its affiliate, Wellesley Residential, LLC, is currently constructing “Fieldstone Way” in Wellesley, Massachusetts. Fieldstone Way consists of 44 homeownership townhouses and was permitted under Chapter 40b. Site work commenced in Q3 2019 and the vertical construction began in Q1 2020. Currently, 10 units have been issued a Certificate of Occupancy and another 14 units are under construction. The lottery for the initial 7 affordable units has been conducted and conveyances are projected for Q1 & Q2 2021.

Wolcott Woods, Milton, Massachusetts**Northland Project Executives:** Jack Dawley, Peter Crabtree & Stephen Gallagher**Northland CFO:** Richard Thomas**Northland Sales & Marketing:** Elaine Leonard**Lottery Agent:** TBD**Monitoring Agent:** TBD

Northland, through its affiliate, Wolcott Residential, LLC, is currently constructing “Wolcott Woods” in Milton, Massachusetts. Wolcott Woods consists of 60 homeownership residences (50 new townhomes, 4 units within renovated historic buildings and 6 affordable units). This age-restricted community was permitted by way of a re-zoning and issuance of a Special Permit. Site work commenced in Q2 2020 and the vertical construction began in Q4 2020.

Section 1.F Prior Permitting Experience at the Site

Northland Residential has not had any prior permitting experience at the four parcels that make up the Subject Property, which include 15, 19, 27 & 35 High Street, Norwell, Massachusetts.

Section Two





SUBJECT
PARCEL

WASHINGTON STREET

HIGH STREET

GRACE FARRAR COLE
ELEMENTARY SCHOOL

WASHINGTON SQUARE
CONDOMINIUM COMPLEX

QUEEN ANNE
PLAZA

LOCAL RETAIL



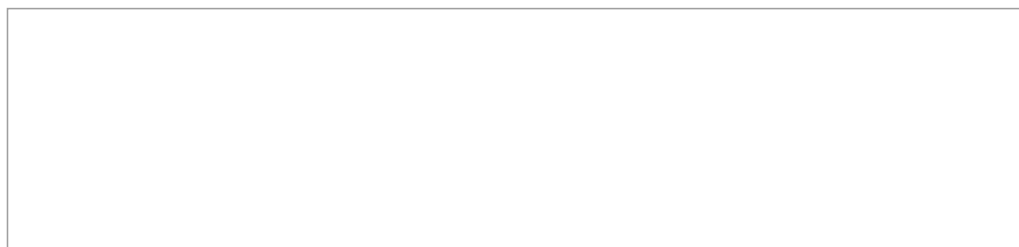
A 160 Federal St, Boston, MA 02110

28 min , 19.7 miles

B 15 High St, Norwell, MA 02061

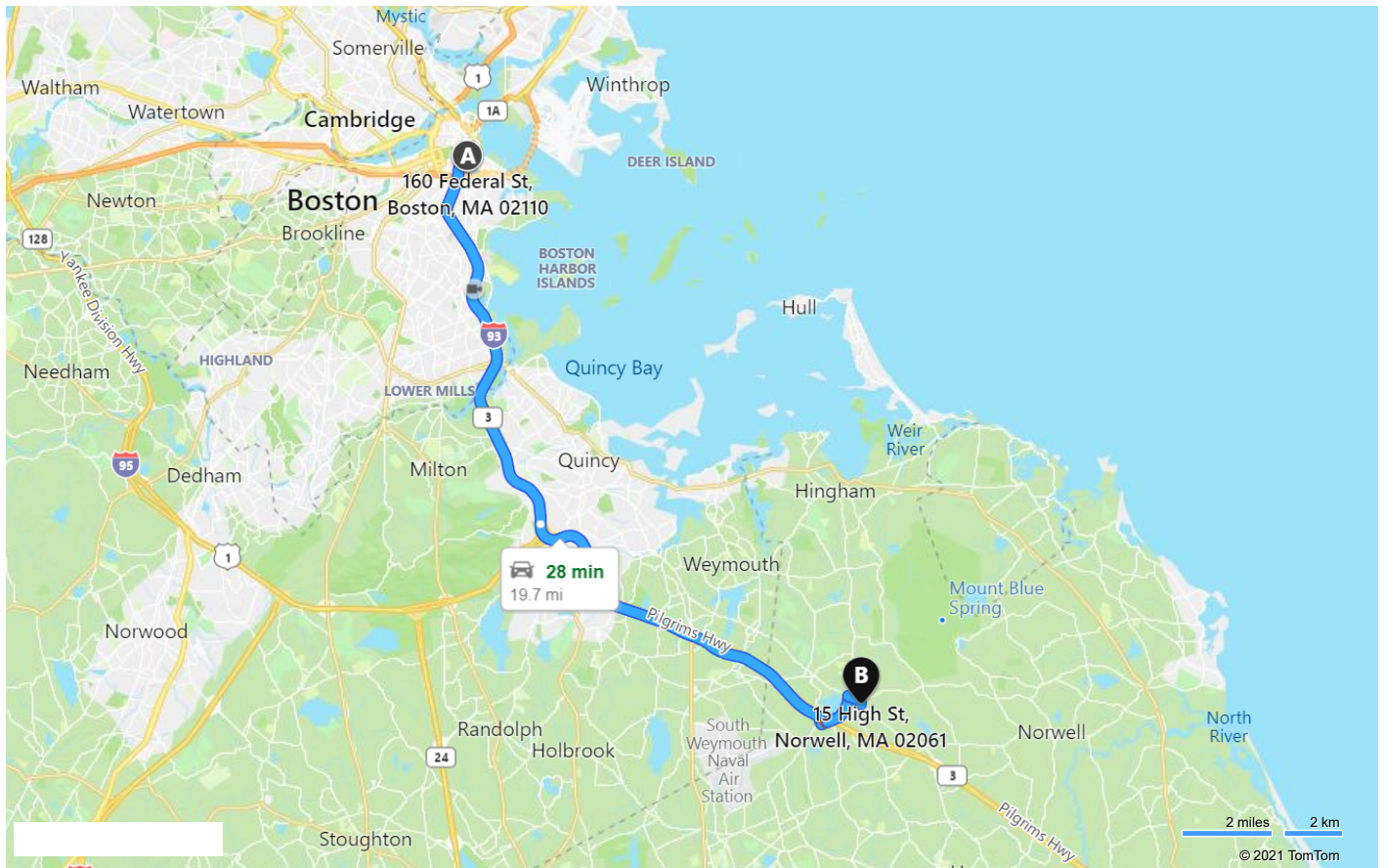
Light traffic

Via I-93 S, MA-3 S

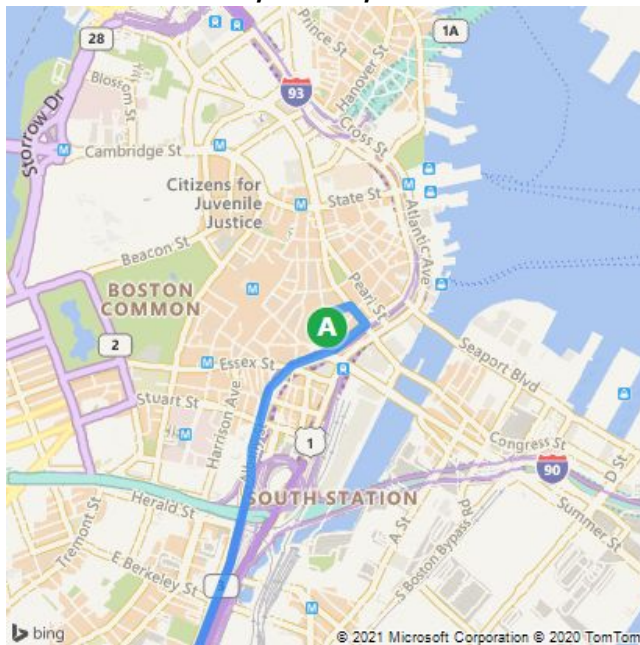
**A** 160 Federal St, Boston, MA 02110

↑	1.	Head north on Federal St toward Federal Ct	177 ft
↗	2.	Turn right onto Matthews St	407 ft
↗	3.	Turn right onto Congress St Subway on the corner	377 ft
↗	4.	Turn right onto Purchase St	39 ft
	5.	Take ramp left for I-93 South toward Quincy / Worcester ▲ Minor Congestion	9.6 mi
	6.	At exit 7 , take ramp left for MA-3 South toward Cape Cod ▲ Minor Congestion	8.4 mi
↗	7.	At exit 14 , take ramp right for MA-228 toward Hingham / Rockland	0.2 mi
↙	8.	Turn left onto MA-228 / Hingham St	1.0 mi
↗	9.	Turn right onto MA-53 / Washington St KFC on the corner	0.3 mi
↗	10.	Bear right onto High St Mobil on the corner	344 ft
	11.	Arrive at High St The last intersection is Washington St If you reach Oak St, you've gone too far	

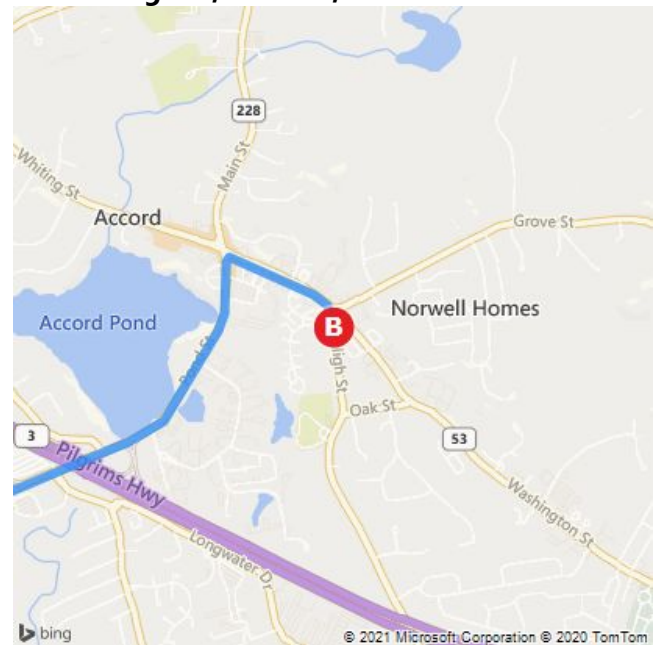
B 15 High St, Norwell, MA 02061



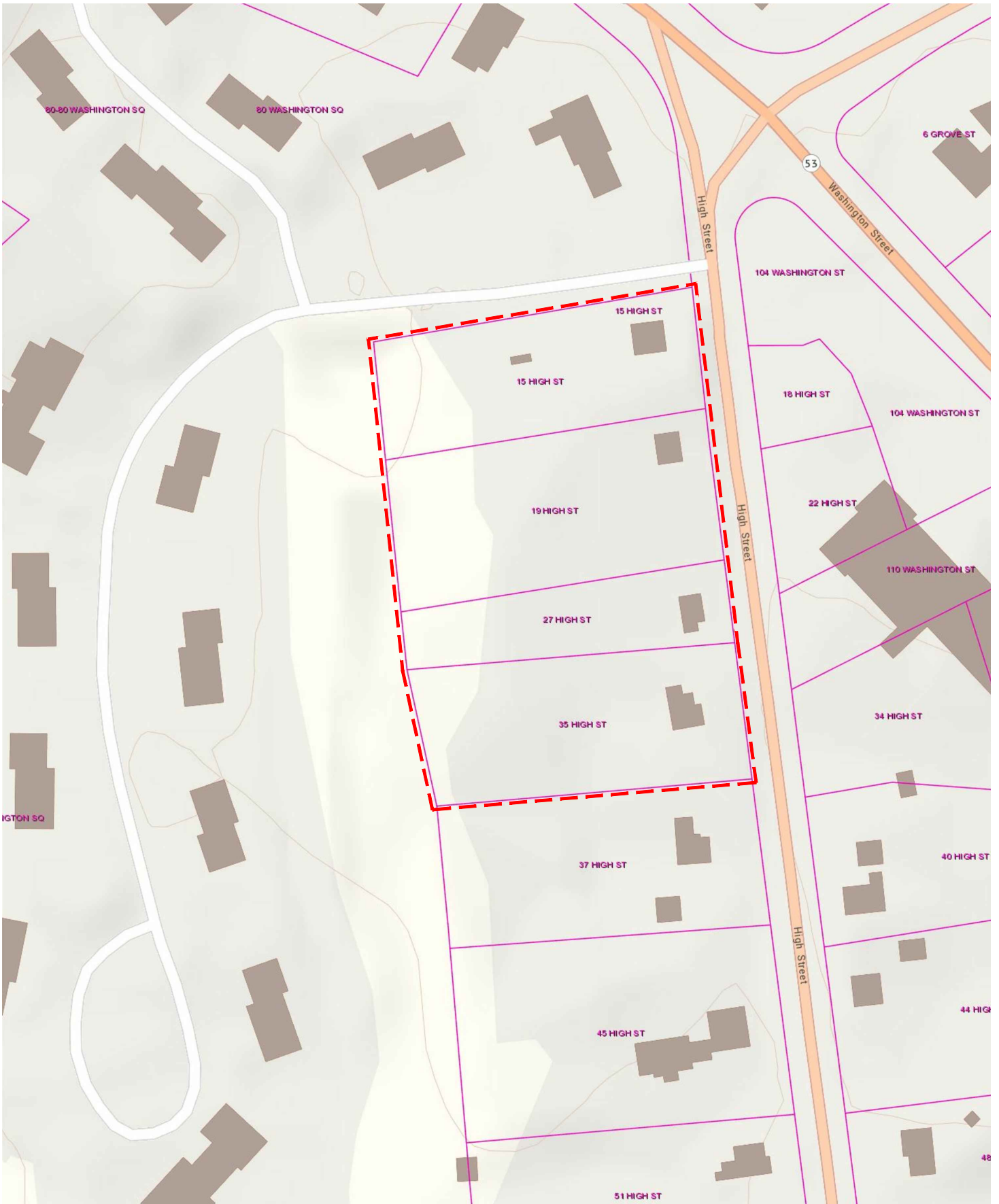
A 160 Federal St, Boston, MA 02110



B 15 High St, Norwell, MA 02061



These directions are subject to the Microsoft® Service Agreement and are for informational purposes only. No guarantee is made regarding their completeness or accuracy. Construction projects, traffic, or other events may cause actual conditions to differ from these results. Map and traffic data © 2021 TomTom.



CURRENT OWNER		TOPO.	UTILITIES	STRT./ROAD	LOCATION	CURRENT ASSESSMENT		918 NORWELL, MA	
MARSH STEPHEN N TRUSTEE 44 HIGH STREET REALTY TRUST BOX 570 NORWELL, MA 02061 Additional Owners:						Description	Code	Appraised Value	Assessed Value
						RESIDNTL	1010	194,600	194,600
						RES LAND	1010	261,400	261,400
						RESIDNTL	1010	3,000	3,000
SUPPLEMENTAL DATA									
Other ID:		Land CR							
IDNum	454	Map/Sheet 11B							
LocUnit									
Class Code	R1								
Class 1	C1								
Living_SF	1575								
GIS ID: M_251252_880292		ASSOC PID#				Total		459,000	459,000
RECORD OF OWNERSHIP		BK-VOL/PAGE	SALE DATE	q/lu	v/i	SALE PRICE	V.C.	PREVIOUS ASSESSMENTS (HISTORY)	
MARSH STEPHEN N TRUSTEE		40257/154	08/26/2011	Q	I	350,000	00	Yr.	Code
MARTIN PAUL G		21165/193	12/18/2001	U	I		1 1A	2020	1010
NORWELL LAND TRUST		5670/ 87	06/13/1984	U				2020	1010
MARTIN PAUL G TRUSTEE		18213/ 170	01/18/0200	U	I		1 1A	2020	1010
								Total:	Total:
								459,000	432,200
								Total:	410,300
EXEMPTIONS		OTHER ASSESSMENTS		This signature acknowledges a visit by a Data Collector or Assessor					
Year	Type	Description	Code	Description	Number	Amount	Comm. Int.		
Total:									
NBHD/ SUB		Street Index Name		Tracing		Batch		192,800	
45/A								1,800	
NOTES								3,000	
								261,400	
								459,000	
								C	
								0	
TAKING B 36072/249								459,000	
REDEMPTION 40257/152								C	
								0	
BUILDING PERMIT RECORD		VISIT/ CHANGE HISTORY						459,000	
Permit ID	Issue Date	Type	Description	Amount	Insp. Date	% Comp.	Date Comp.	Comments	Date
									09/05/2014
									03/20/2012
			</						

CONSTRUCTION DETAIL				CONSTRUCTION DETAIL (CONTINUED)								
Element	Cd.	Ch.	Description	Element	Cd.	Ch.	Description					
Style	06		Conventional									
Model	01		Residential									
Grade	03		Average									
Stories	1.75		1 3/4 Stories									
Occupancy	1											
Exterior Wall 1	14		Wd Shin/Clapb									
Exterior Wall 2												
Roof Structure	03		Gable/Hip									
Roof Cover	03		Asph/F Gls/Cmp									
Interior Wall 1	06		Cust Wd Panel									
Interior Wall 2												
Interior Flr 1	09		Pine/Soft Wood									
Interior Flr 2												
Heat Fuel	02		Oil									
Heat Type	05		Hot Water									
AC Type	01		None									
Total Bedrooms	03		3 Bedrooms									
Total Bthrms	1											
Total Half Baths	0											
Total Xtra Fixtrs												
Total Rooms	8											
Bath Style	02		Average									
Kitchen Style	02		Average									
OB-OUTBUILDING & YARD ITEMS(L) / XF-BUILDING EXTRA FEATURES(B)												
Code	Description	Sub	Sub Descript	L/B	Units	Unit Price	Yr	Gde	Dp Rt	Chd	%Cnd	Apr Value
SHED				L	1	100.00	1999		1		100	100
BUILDING SUB-AREA SUMMARY SECTION												
Code	Description			Living Area	Gross Area	Eff. Area	Unit Cost	Undeprec. Value				
BAS	First Floor			750	750	750	750	160.72		120,540		
TQS	Three Quarter Story			638	750	750	638	136.72		102,539		
UBM	Basement, Unfinished			0	750	750	150	32.14		24,108		
Ttl. Gross Liv/Lease Area:				1,388	2,250		1,538			247,187		

A black and white photograph of a two-story house with a dark roof and a chimney, surrounded by trees and foliage. The house has a prominent chimney on the left side and a small porch or entrance on the right. The roof is dark, and the walls appear to be light-colored. The house is surrounded by dense trees and foliage, with a large tree on the left side. The overall scene is a typical suburban or rural setting.

CURRENT OWNER		TOPO.	UTILITIES	STRT./ROAD	LOCATION	CURRENT ASSESSMENT		
MARSH STEPHEN TRUSTEE 35 HIGH STREET REALTY TRUST BOX 419 MARSHFIELD, MA 02061 Additional Owners:		1 Level	2 Public Water	1 Paved	4 Bus. District	Description	Assessed Value	
			4 Gas				COMMERC. COM LAND COMMERC.	77,500 262,200 400
		SUPPLEMENTAL DATA						
Other ID:		Land CR		ASSOC PID#		340,100		
IDNum	396	Map/Sheet	11B					
LocUnit	11-34							
Class Code	R1							
Class 1	C1							
Living_SF	1099							
GIS ID: M_251266, 880182								
RECORD OF OWNERSHIP		BK-VOL/PAGE	SALE DATE	q/u	v/i	SALE PRICE	V.C.	
MARSH STEPHEN TRUSTEE VORDERER THOMAS W VORDERER THOMAS W MERRITT WARREN P & PATRICIA M		49753/ 57	05/01/2018	U	I	750,000	1T	
		45238/ 131	02/19/2015	U	I	305,900	1F	
		32970/ 48	07/03/2006	U	I	350,000	1P	
		12379/ 82	11/10/1993	U		1	1A	
EXEMPTIONS		Amount	Description	Code	Number	Amount	Comm. Int.	
Total:								
ASSESSING NEIGHBORHOOD		Street Index Name		Tracing		Batch		
NBHD/ SUB								
45/A								
VORDERER DPM(OOC)								

Section 2.C. Site Photographs



PHOTO KEY PLAN



A: VIEW LOOKING NORTH TOWARDS WASHINGTON STREET



B: VIEW LOOKING SOUTH DOWN HIGH STREET

SITE CONTEXT



C: VIEW LOOKING WEST TOWARDS WASHINGTON SQUARE OFFICE CONDOMINIUM COMPLEX



D: VIEW LOOKING SOUTH IN WASHINGTON SQUARE OFFICE CONDOMINIUM COMPLEX

SITE CONTEXT



E: VIEW LOOKING NORTH IN WASHINGTON SQUARE OFFICE CONDOMINIUM COMPLEX



F: VIEW LOOKING SOUTH DOWN HIGH STREET FROM CVS ENTRANCE

SITE CONTEXT



G: VIEW LOOKING SOUTH DOWN HIGH STREET FROM SITE



H: VIEW LOOKING WEST FROM HIGH STREET AT SOUTHERN BOUNDARY OF SITE

SITE CONTEXT



I: 15 HIGH STREET: EXISTING STRUCTURE



J: 19 HIGH STREET: EXISTING STRUCTURE

SITE CONTEXT



K: 27 HIGH STREET: EXISTING STRUCTURE



L: 35 HIGH STREET: EXISTING STRUCTURE

SITE CONTEXT

Note:

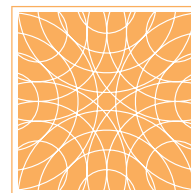
The Civil and Landscape drawings included in the PEL application, which are dated January 29, 2021, have been superseded and are not included in this Comprehensive Permit application.

The Civil and Landscape drawings included elsewhere in this Comprehensive Permit application package, which are dated April 30, 2021, contain minor updates that address filing requirements in Norwell's Zoning Bylaw and Zoning Board of Appeals Rules and Regulations, and that address comments from Town departments and committees that are contained in the Board of Selectmen Chair's letter to Massachusetts Housing Partnership dated March 15, 2021.

15 HIGH STREET, NORWELL, MA

SCHEMATIC ARCHITECTURE PACKAGE

JANUARY 29, 2021



UNION STUDIO

ARCHITECTURE & COMMUNITY DESIGN

www.unionstudioarch.com

140 Union Street Providence, RI 02903

[t 401.272.4724](tel:4012724724) [f 401.272.4825](tel:4012724825)

PROGRAM

- 8-Unit Walk Ups:
(12) 1BR Flats and
(4) 2BR Townhouses
- 6-Unit Walk Ups:
(4) 1BR Flats
(8) 2BR Townhouses
- 2/1BR Stacked Flats
(6) Lower 1BR Flats
(6) Upper 2BR Flats
- (6) 1BR Townhouses
- (4) 2BR Townhouses
- (6) 3BR Townhouses

(56) Units /
(90) Bedrooms Total

* (3) Accessible Units

(122) Parking Spaces
(52) Unit Garages
(52) Unit Driveways
(18) Surface Spaces



15 HIGH STREET, NORWELL, MA

ILLUSTRATIVE SITE PLAN

JANUARY 29, 2021

SCALE: 1"=50'-0"

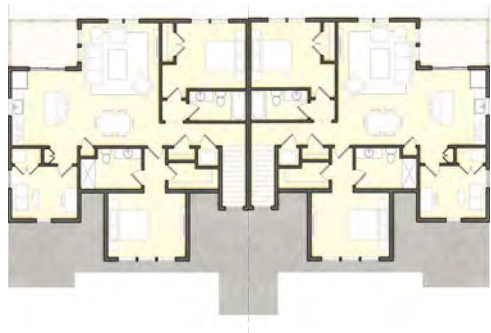




SITE KEY PLAN



FIRST FLOOR KEY PLAN



SECOND FLOOR KEY PLAN

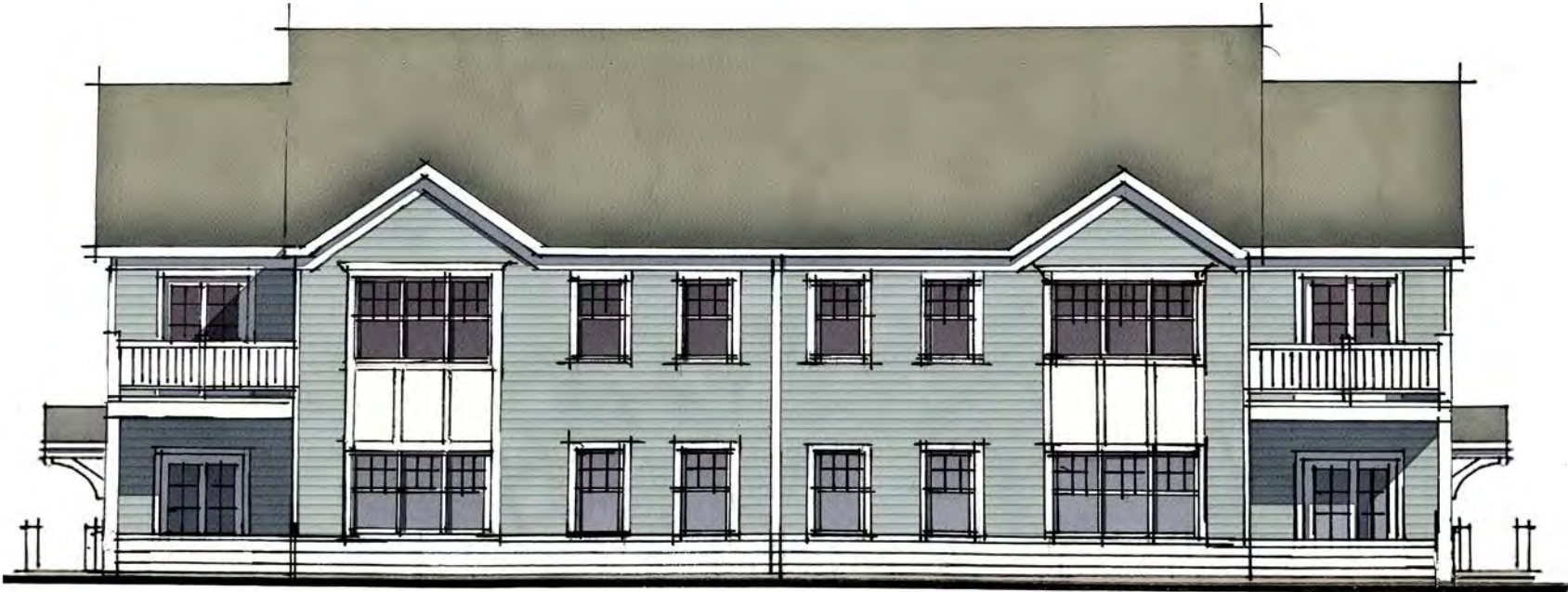
15 HIGH STREET, NORWELL, MA

ELEVATIONS - FOUR-PLEX

JANUARY 29, 2021

SCALE: 3/32"=1'-0"

0' 1' 2' 4' 10' 20' 40'



REAR ELEVATION



SIDE ELEVATION

TYPICAL EXTERIOR MATERIALS:

- COMPOSITE CLAPBOARD SIDING WITH SHINGLE ACCENTS
- SMOOTH COMPOSITE RUNNING TRIM AND CORNERBOARDS
- SMOOTH MDO PANELS
- WINDOW CASINGS WITH PVC SUBSILL
- DOUBLE HUNG INSULATED VINYL WINDOWS WITH LOW-E GLAZING AND DIVIDED LITES
- FIBERGLASS ENTRY DOOR WITH VISION LITE
- STEEL CARRIAGE HOUSE STYLE OVERHEAD GARAGE DOOR WITH LITES
- 25 YR ASPHALT SHINGLE ROOF
- ALUMINUM GUTTERS AND DOWNSPOUTS
- COMPOSITE DECKING
- PVC BRACKETS AND CORBELS
- PVC POSTS AND RAILING SYSTEMS

15 HIGH STREET, NORWELL, MA

ELEVATIONS - FOUR-PLEX

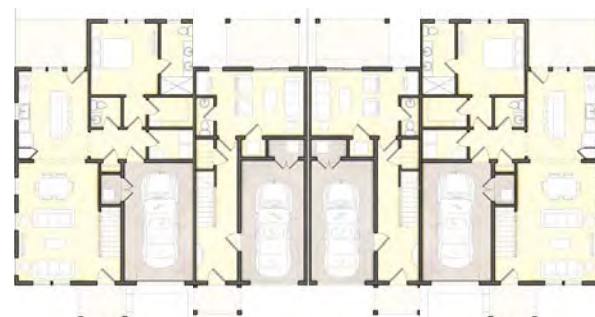
JANUARY 29, 2021

SCALE: 3/32"=1'-0"

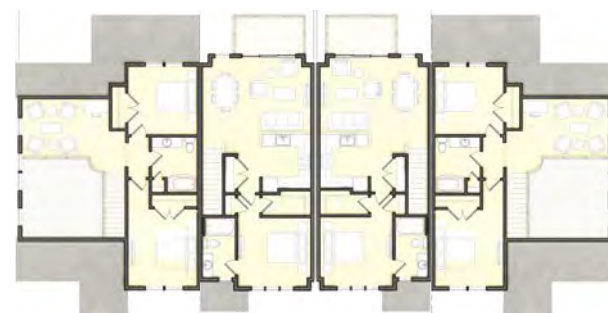




SITE KEY PLAN



3BR 1BR 1BR 3BR
FIRST FLOOR KEY PLAN



3BR 1BR 1BR 3BR
SECOND FLOOR KEY PLAN

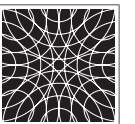
15 HIGH STREET, NORWELL, MA

ELEVATIONS - FOUR UNIT TOWNHOUSES

JANUARY 29, 2021

SCALE: 3/32"=1'-0"

0' 1' 2' 4' 10' 20' 40'





REAR ELEVATION



SIDE ELEVATION

TYPICAL EXTERIOR MATERIALS:

- COMPOSITE CLAPBOARD SIDING WITH SHINGLE ACCENTS
- SMOOTH COMPOSITE RUNNING TRIM AND CORNERBOARDS
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15 HIGH STREET, NORWELL, MA

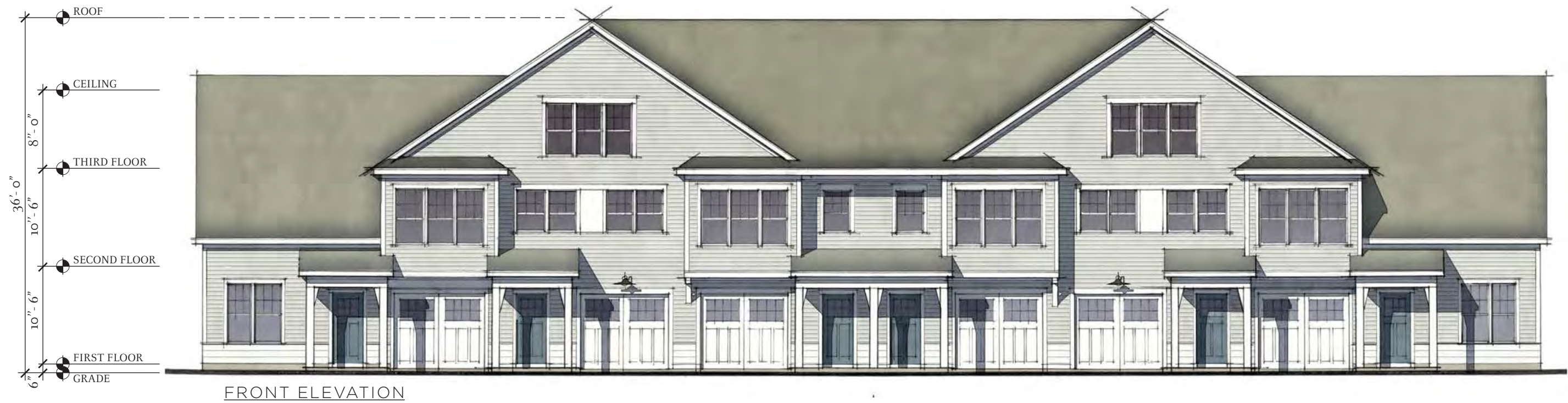
ELEVATIONS - FOUR UNIT TOWNHOUSES

JANUARY 29, 2021

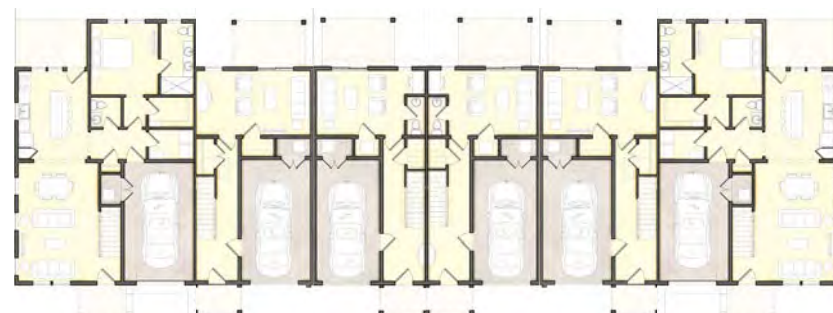
SCALE: 3/32"=1'-0"

0' 1' 2' 4' 10' 20' 40'





SITE KEY PLAN



FIRST FLOOR KEY PLAN



SECOND FLOOR KEY PLAN



THIRD FLOOR KEY PLAN

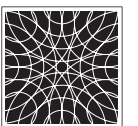
15 HIGH STREET, NORWELL, MA

ELEVATIONS - SIX UNIT TOWNHOUSES

JANUARY 29, 2021

SCALE: 3/32"=1'-0"

0' 1' 2' 4' 10' 20' 40'





REAR ELEVATION



SIDE ELEVATION

TYPICAL EXTERIOR MATERIALS:

- COMPOSITE CLAPBOARD SIDING WITH SHINGLE ACCENTS
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15 HIGH STREET, NORWELL, MA

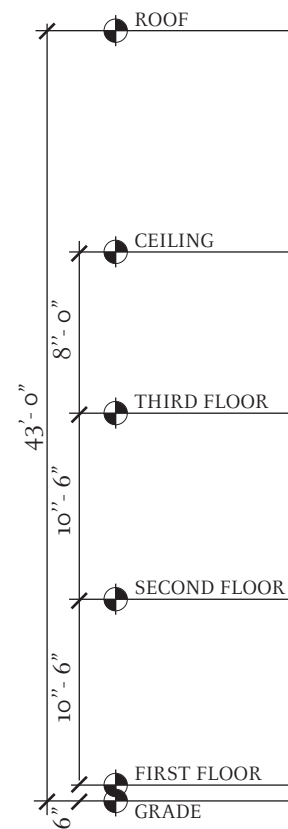
ELEVATIONS - SIX UNIT TOWNHOUSES

JANUARY 29, 2021

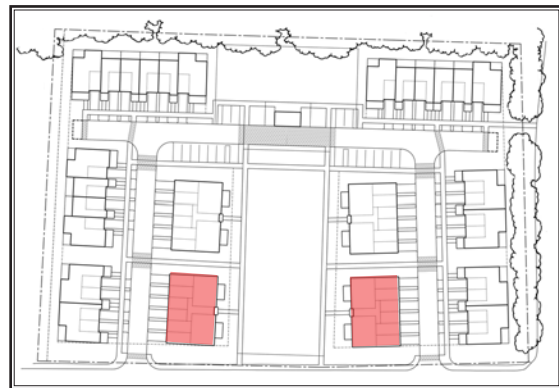
SCALE: 3/32"=1'-0"

0' 1' 2' 4' 10' 20' 40'





FRONT ELEVATION



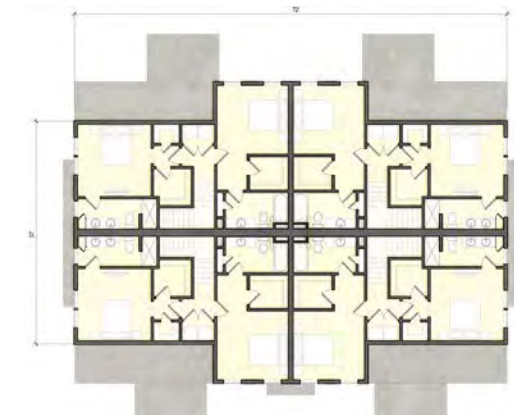
SITE KEY PLAN



FIRST FLOOR KEY PLAN



SECOND FLOOR KEY PLAN



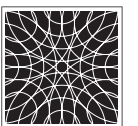
THIRD FLOOR KEY PLAN

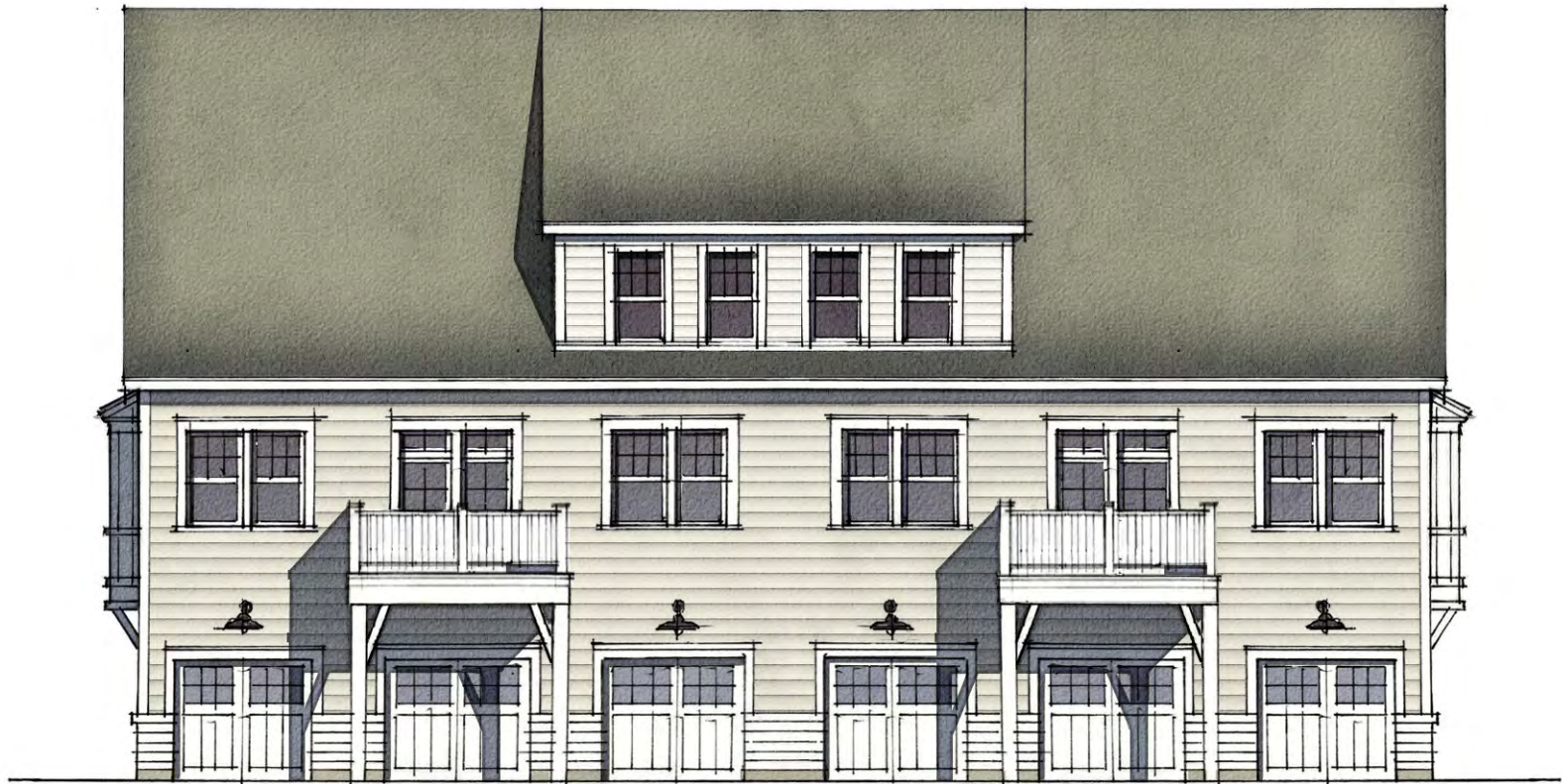
15 HIGH STREET, NORWELL, MA

ELEVATIONS - SIX-PLEX

JANUARY 29, 2021

SCALE: 3/32"=1'-0"





REAR ELEVATION



SIDE ELEVATION

TYPICAL EXTERIOR MATERIALS:

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15 HIGH STREET, NORWELL, MA

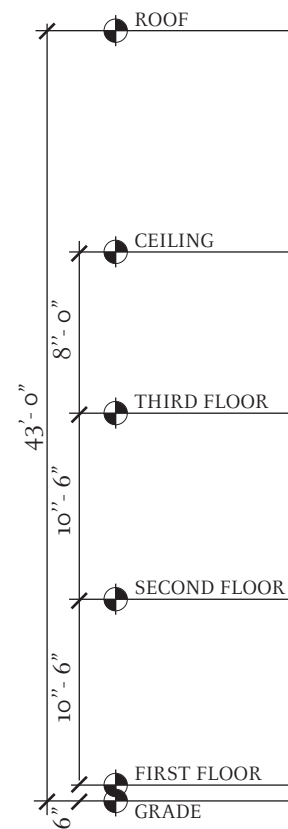
ELEVATIONS - SIX-PLEX

JANUARY 29, 2021

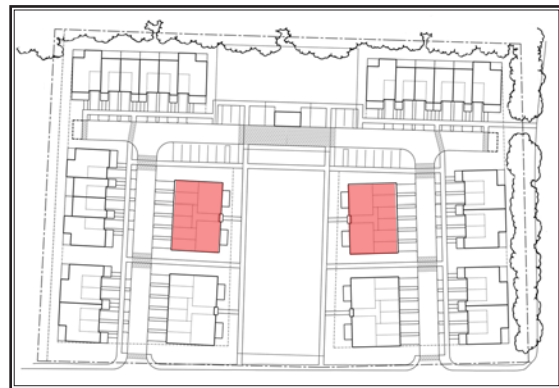
SCALE: 3/32"=1'-0"

0' 1' 2' 4' 10' 20' 40'





FRONT ELEVATION



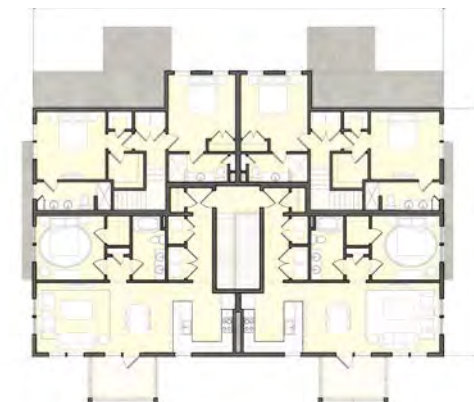
SITE KEY PLAN



FIRST FLOOR KEY PLAN



SECOND FLOOR KEY PLAN



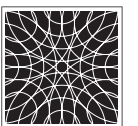
THIRD FLOOR KEY PLAN

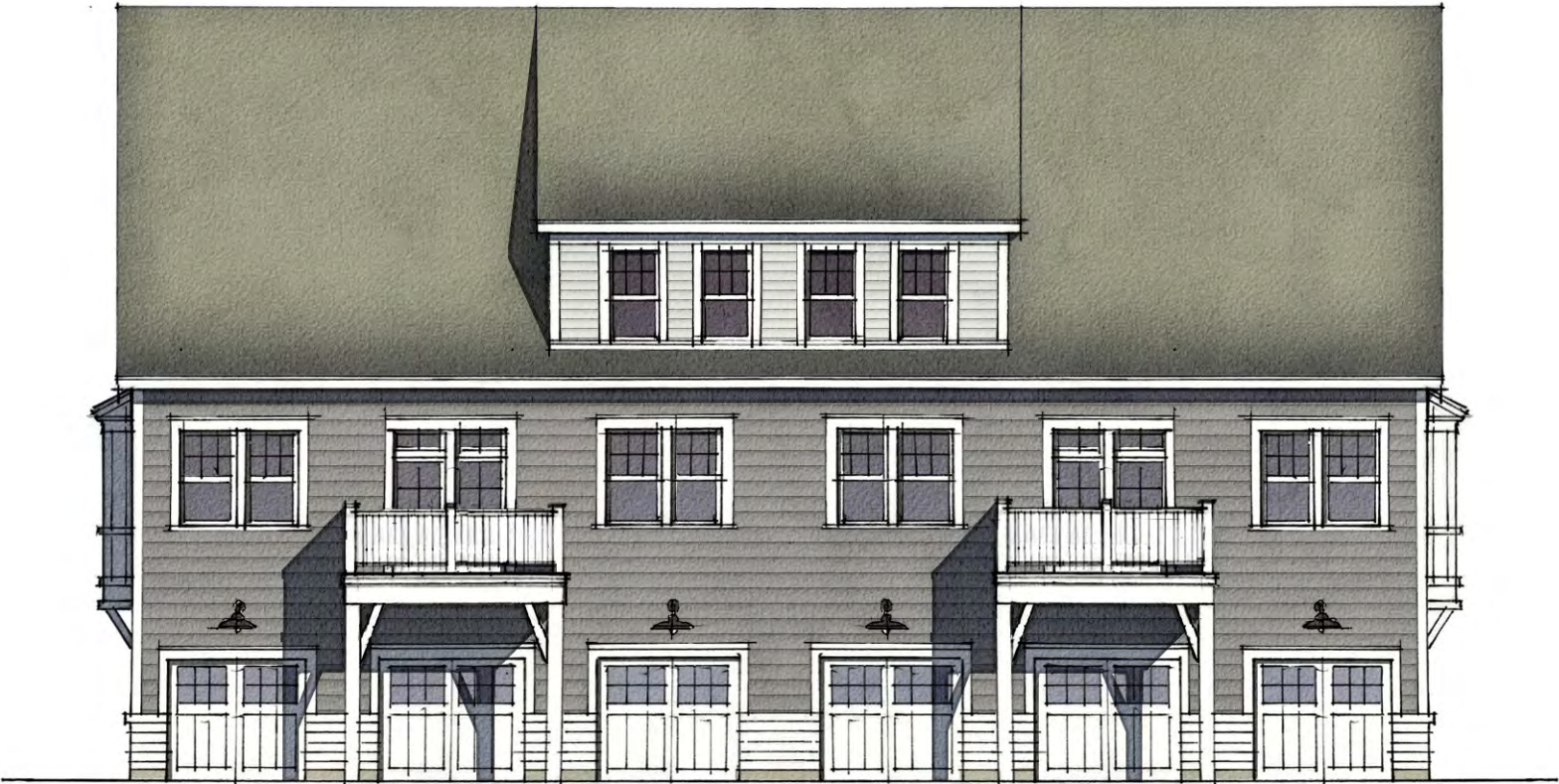
15 HIGH STREET, NORWELL, MA

ELEVATIONS - EIGHT-PLEX

JANUARY 29, 2021

SCALE: 3/32"=1'-0"





REAR ELEVATION



SIDE ELEVATION

TYPICAL EXTERIOR MATERIALS:

- COMPOSITE CLAPBOARD SIDING WITH SHINGLE ACCENTS
- SMOOTH COMPOSITE RUNNING TRIM AND CORNERBOARDS
- SMOOTH MDO PANELS
- WINDOW CASINGS WITH PVC SUBSILL
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15 HIGH STREET, NORWELL, MA

ELEVATIONS - EIGHT-PLEX

JANUARY 29, 2021

SCALE: 3/32"=1'-0"

0 1' 2' 4' 10' 20' 40'



SQUARE FOOTAGE TOTALS

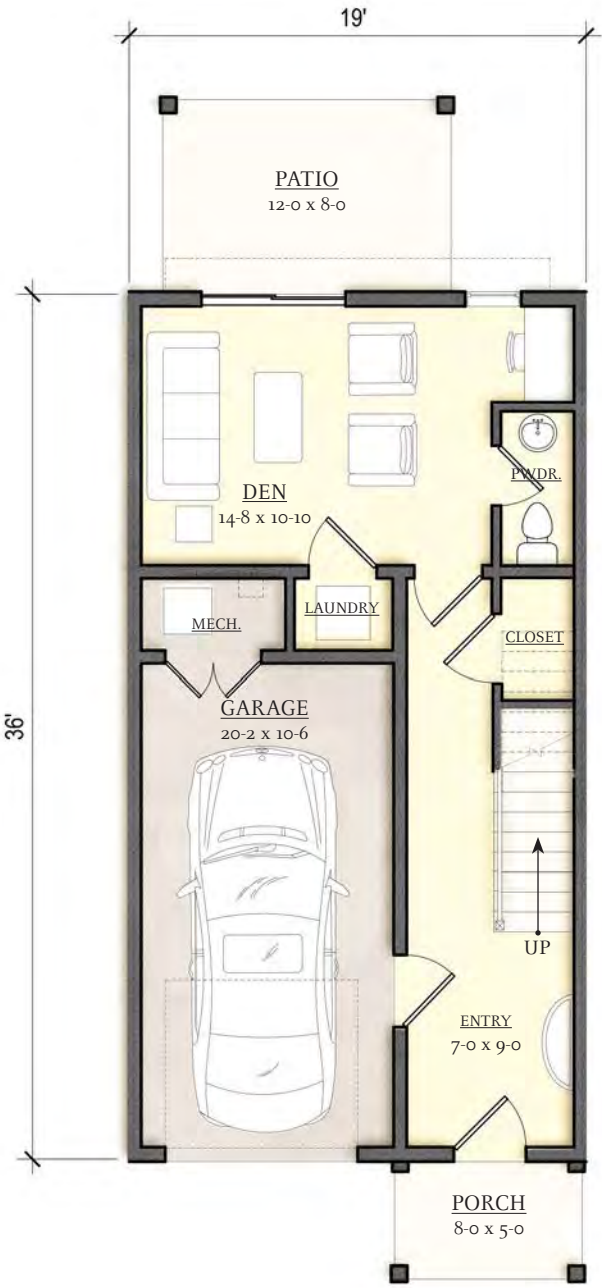
1BR Townhouse Total - 1183 sf

First Floor - 456 sf

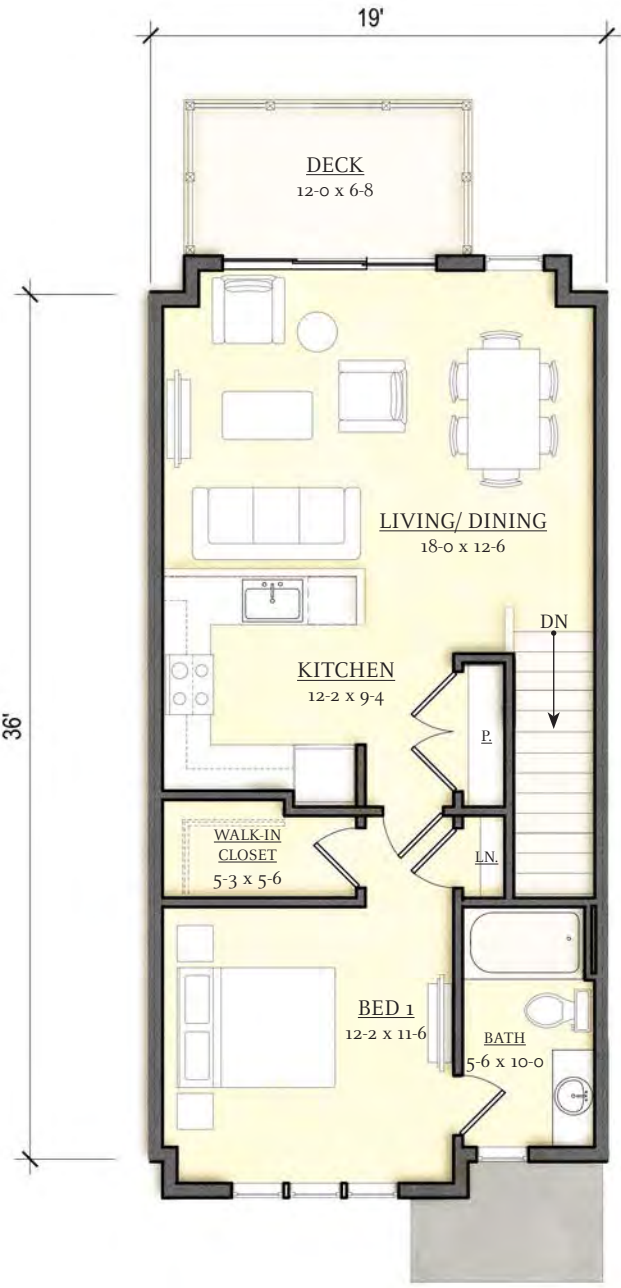
Second Floor - 727 sf



KEY PLAN



FIRST FLOOR

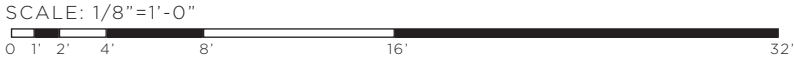


SECOND FLOOR

15 HIGH STREET, NORWELL, MA

UNIT PLANS - ONE BEDROOM TOWNHOUSE

JANUARY 29, 2021



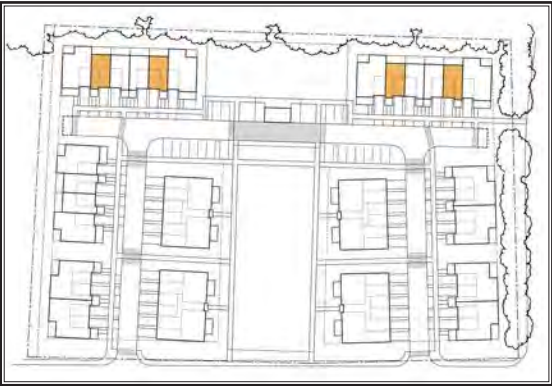
SQUARE FOOTAGE TOTALS

2BR Townhouse Total - 1786 sf

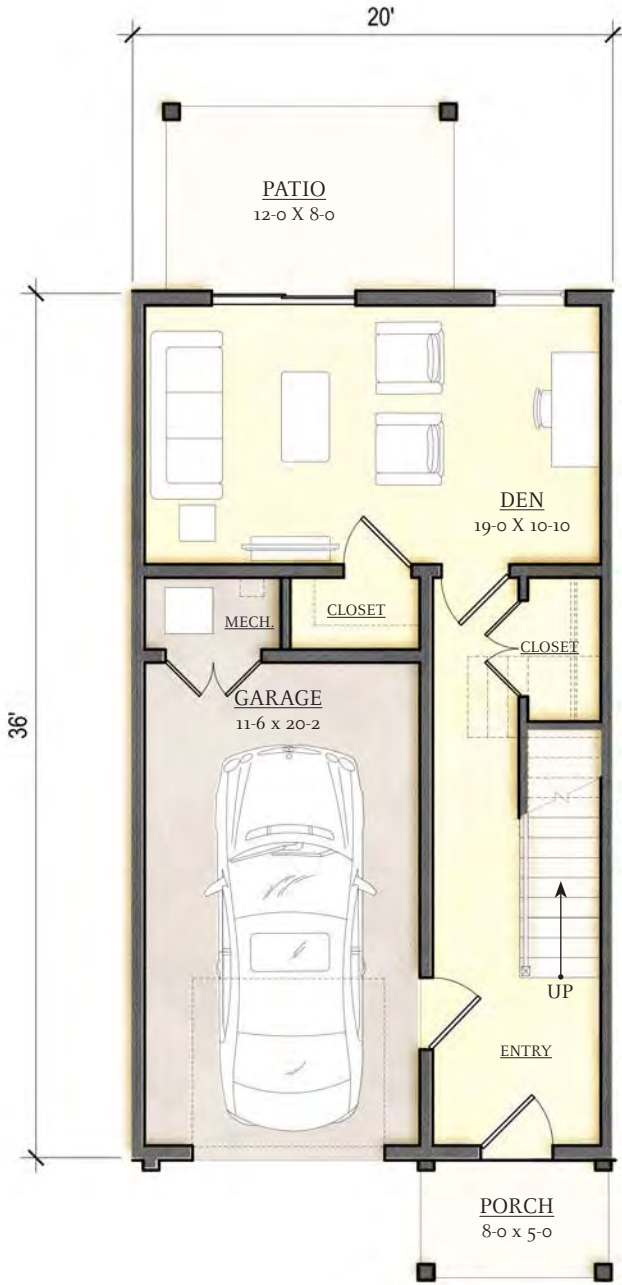
First Floor - 472 sf

Second Floor - 720 sf

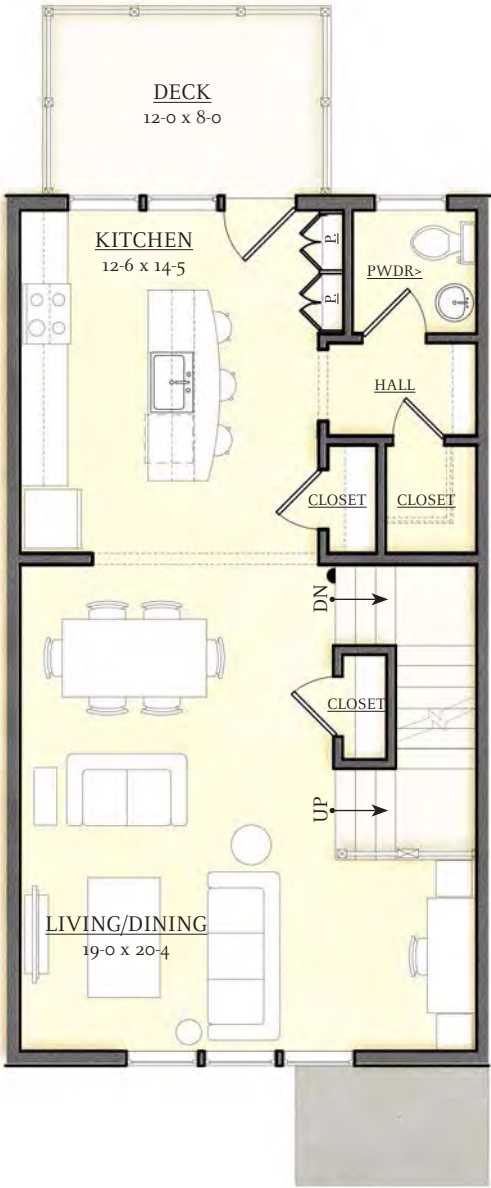
Third Floor - 594 sf



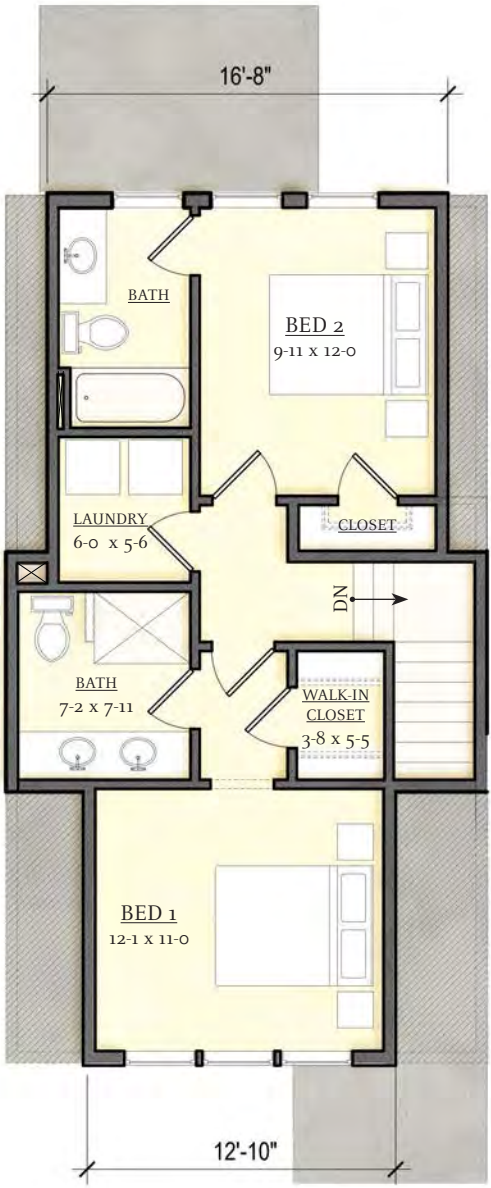
KEY PLAN



FIRST FLOOR



SECOND FLOOR



THIRD FLOOR

15 HIGH STREET, NORWELL, MA

UNIT PLANS - TWO BEDROOM TOWNHOUSE

JANUARY 29, 2021

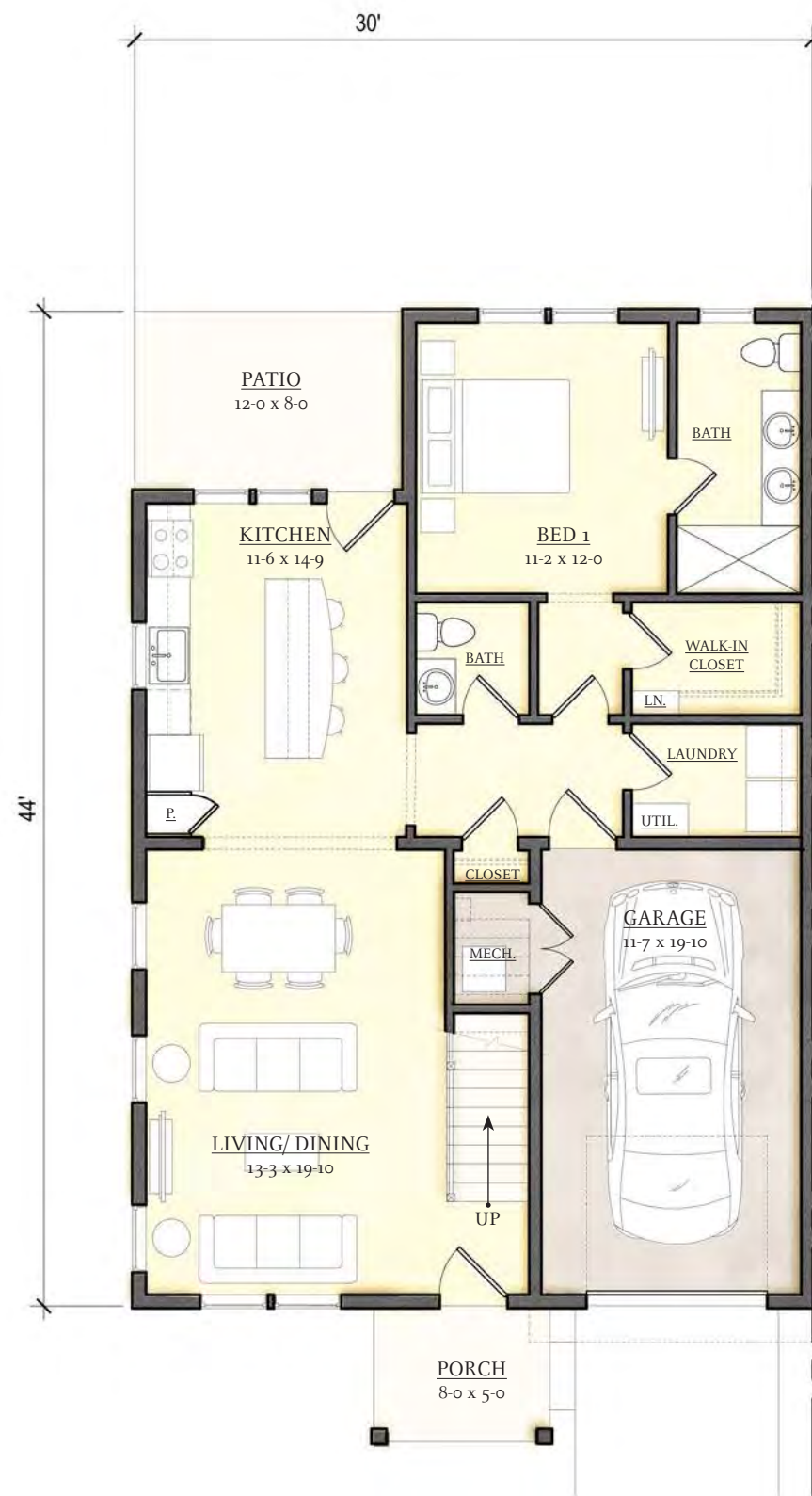


SQUARE FOOTAGE TOTALS

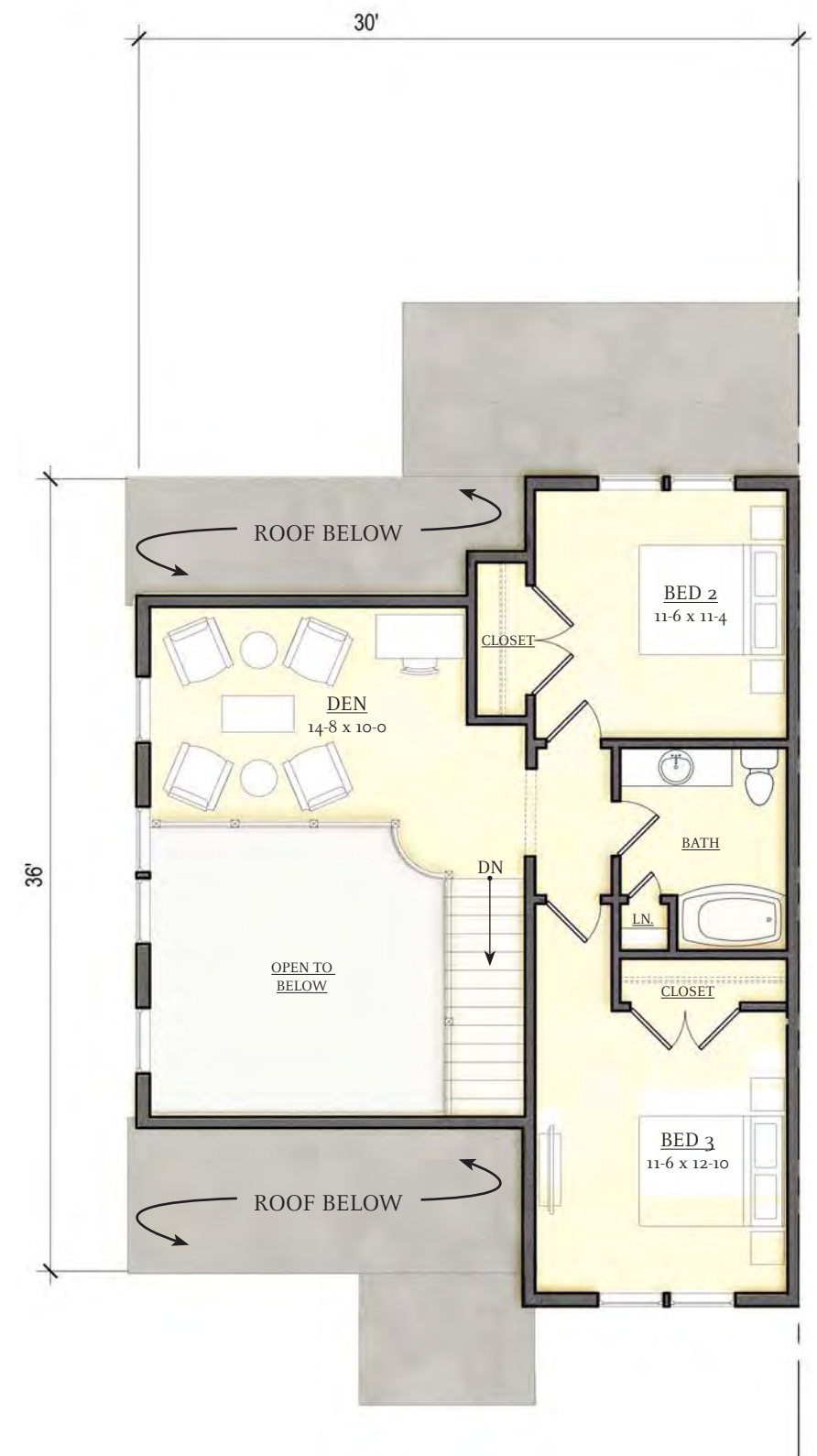
3BR Townhouse ADA Total - 1648 sf
 First Floor - 980 sf
 Second Floor - 668 sf



KEY PLAN



FIRST FLOOR



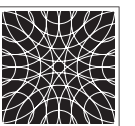
SECOND FLOOR

15 HIGH STREET, NORWELL, MA

UNIT PLANS - THREE BEDROOM TOWNHOUSE

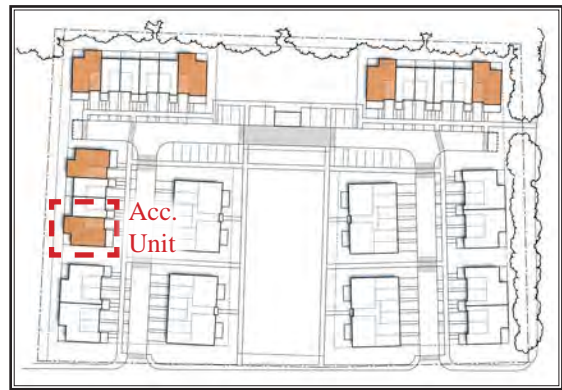
JANUARY 29, 2021

SCALE: 1/8"=1'-0"

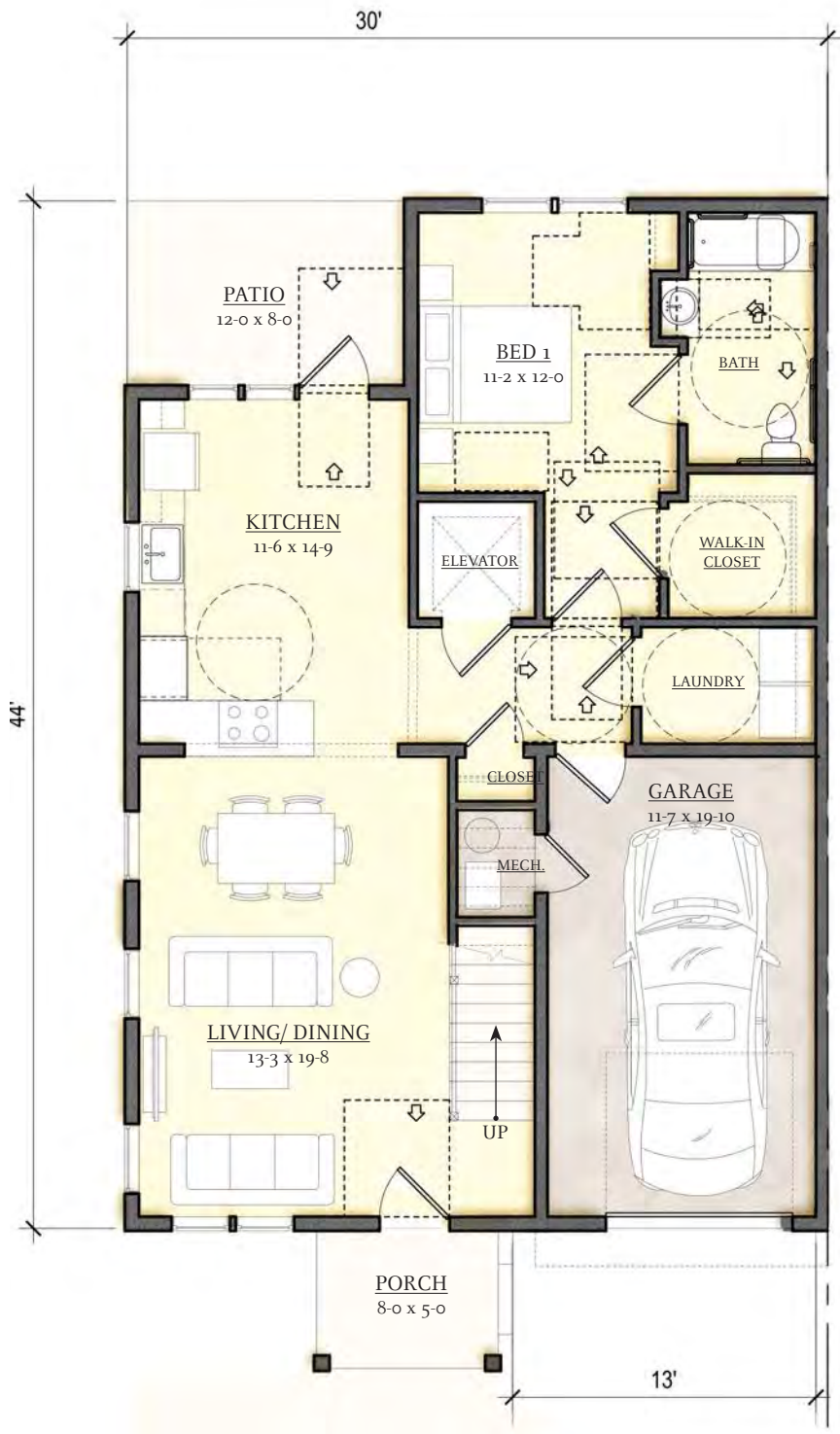


SQUARE FOOTAGE TOTALS

3BR Townhouse ADA Total - 1648 sf
 First Floor - 980 sf
 Second Floor - 668 sf



KEY PLAN



FIRST FLOOR



SECOND FLOOR

15 HIGH STREET, NORWELL, MA

UNIT PLANS - THREE BEDROOM ACCESSIBLE TOWNHOUSE

JANUARY 29, 2021

SCALE: 1/8"=1'-0"



SQUARE FOOTAGE TOTALS

1BR Lower Flat Total - 1015 sf

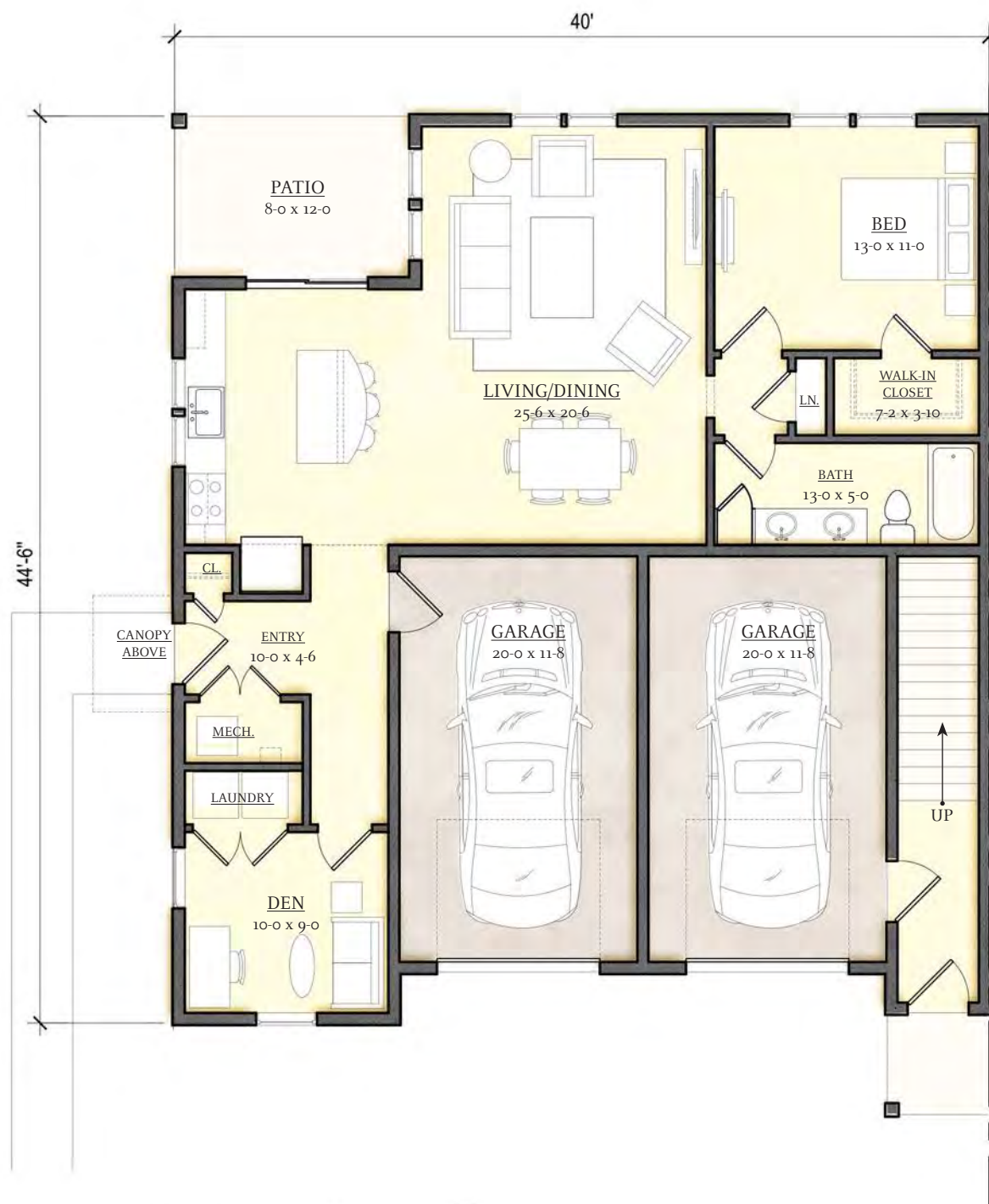
2BR Upper Flat Total- 1377 sf

First Floor- 112 sf

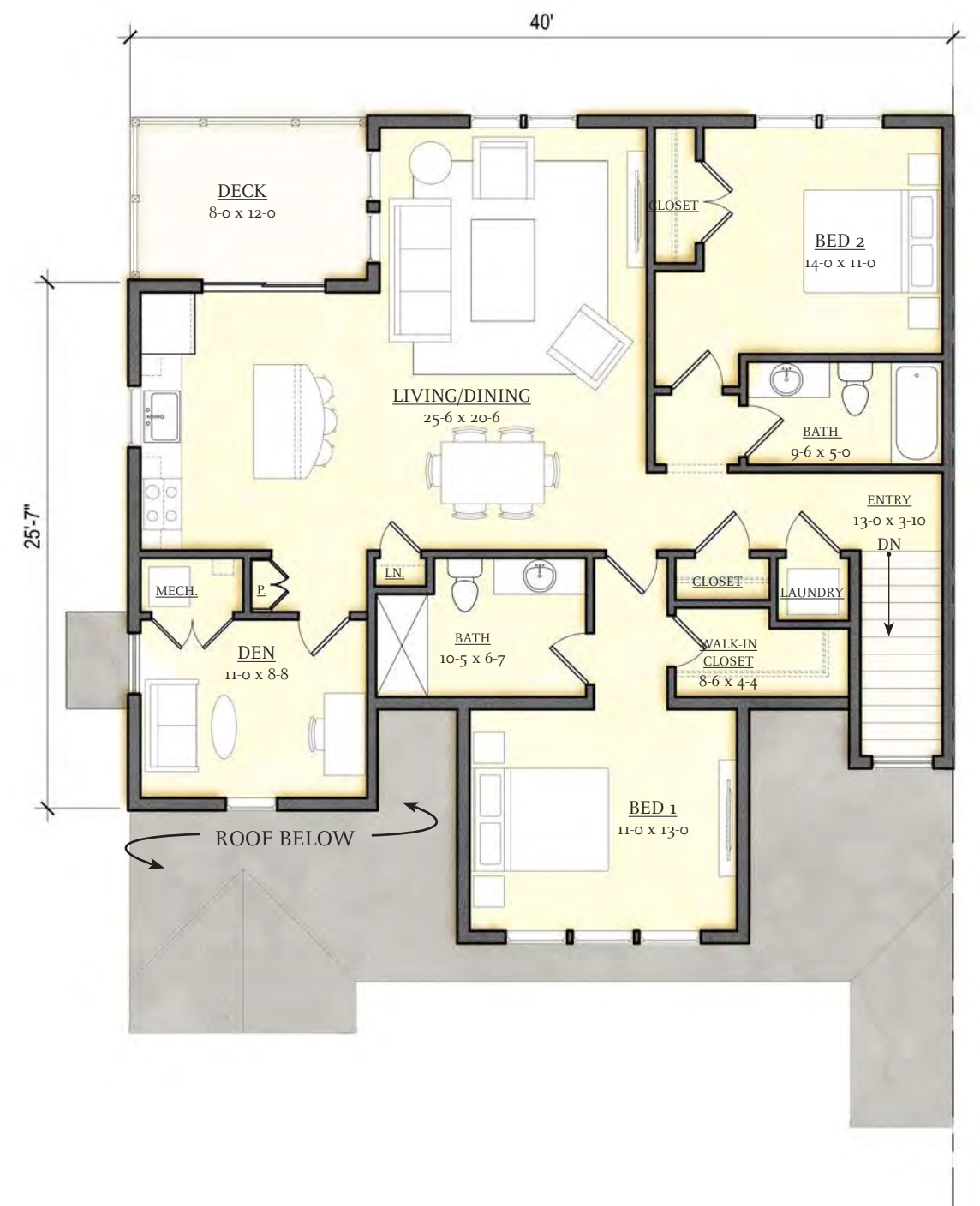
Second Floor- 1265 sf



KEY PLAN



FIRST FLOOR



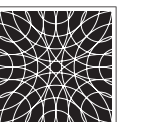
SECOND FLOOR

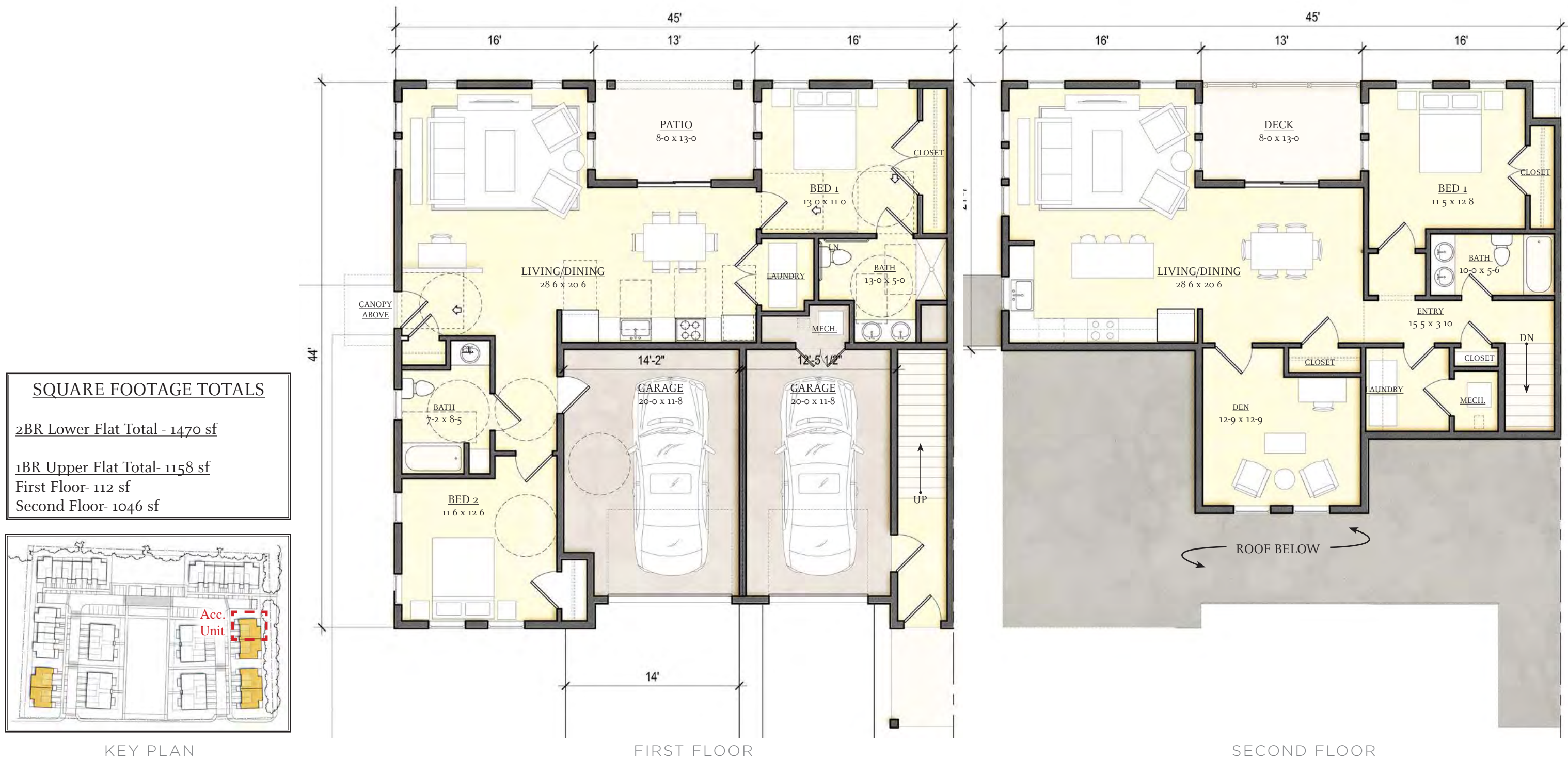
15 HIGH STREET, NORWELL, MA

UNIT PLANS - TWO BEDROOM FLAT OVER ONE BEDROOM FLAT

JANUARY 29, 2021

SCALE: 1/8"=1'-0"





15 HIGH STREET, NORWELL, MA

UNIT PLANS - ONE BEDROOM FLAT OVER TWO BEDROOM ACCESSIBLE FLAT

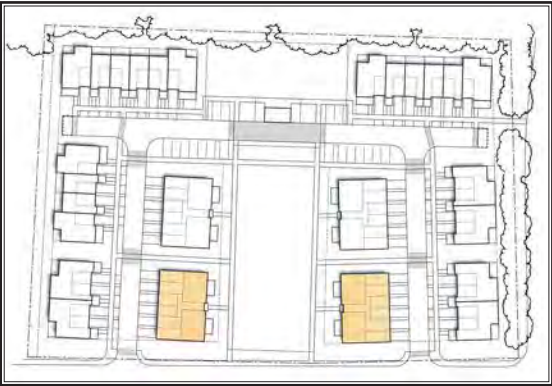
JANUARY 29, 2021

SCALE: 1/8"=1'-0"

SQUARE FOOTAGE TOTALS

Six-Plex Building Total - 8585 sf
 First Floor - 1906 sf
 Second Floor - 3683 sf
 Third Floor- 2996 sf

1BR Flat Total - 800 sf



KEY PLAN



15 HIGH STREET, NORWELL, MA

UNIT PLANS - SIX-PLEX

JANUARY 29, 2021

SCALE: 1/8"=1'-0"



SQUARE FOOTAGE TOTALS

Six-Plex Building Total - 8585 sf

First Floor - 1906 sf

Second Floor - 3683 sf

Third Floor- 2996 sf

2BR Townhouse A Total - 1610 sf

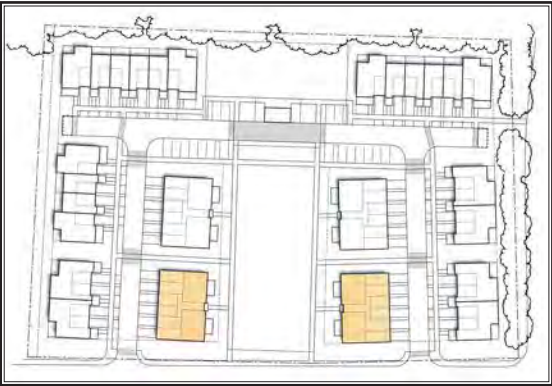
Second Floor- 860 sf

Third Floor- 750 sf

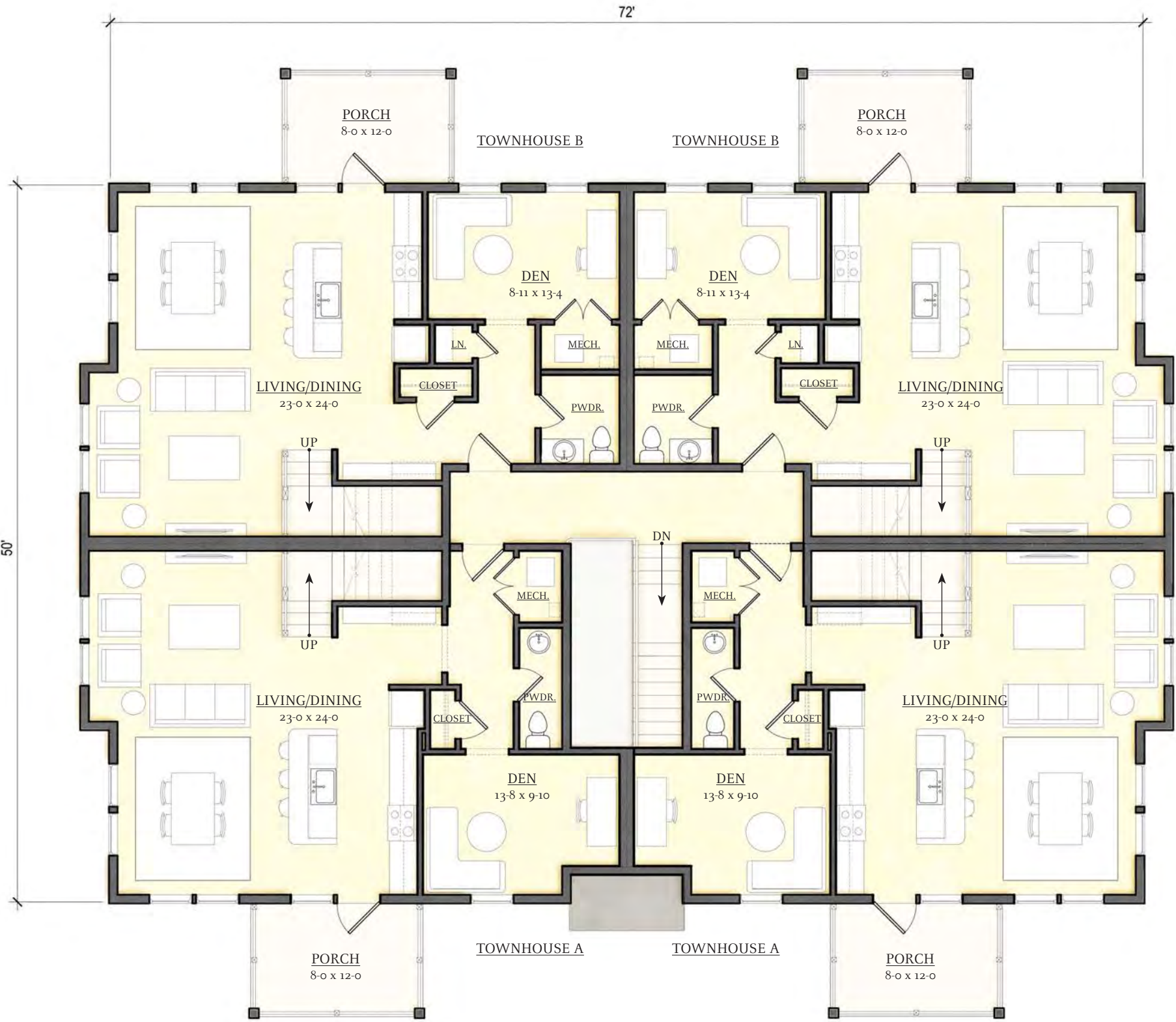
2BR Townhouse B Total - 1615 sf

Second Floor- 865 sf

Third Floor- 750 sf



KEY PLAN



SECOND FLOOR

15 HIGH STREET, NORWELL, MA

UNIT PLANS - SIX-PLEX

JANUARY 29, 2021

SCALE: 1/8"=1'-0"



SQUARE FOOTAGE TOTALS

Six-Plex Building Total - 8585 sf

First Floor - 1906 sf

Second Floor - 3683 sf

Third Floor- 2996 sf

2BR Townhouse A Total - 1610 sf

Second Floor- 860 sf

Third Floor- 750 sf

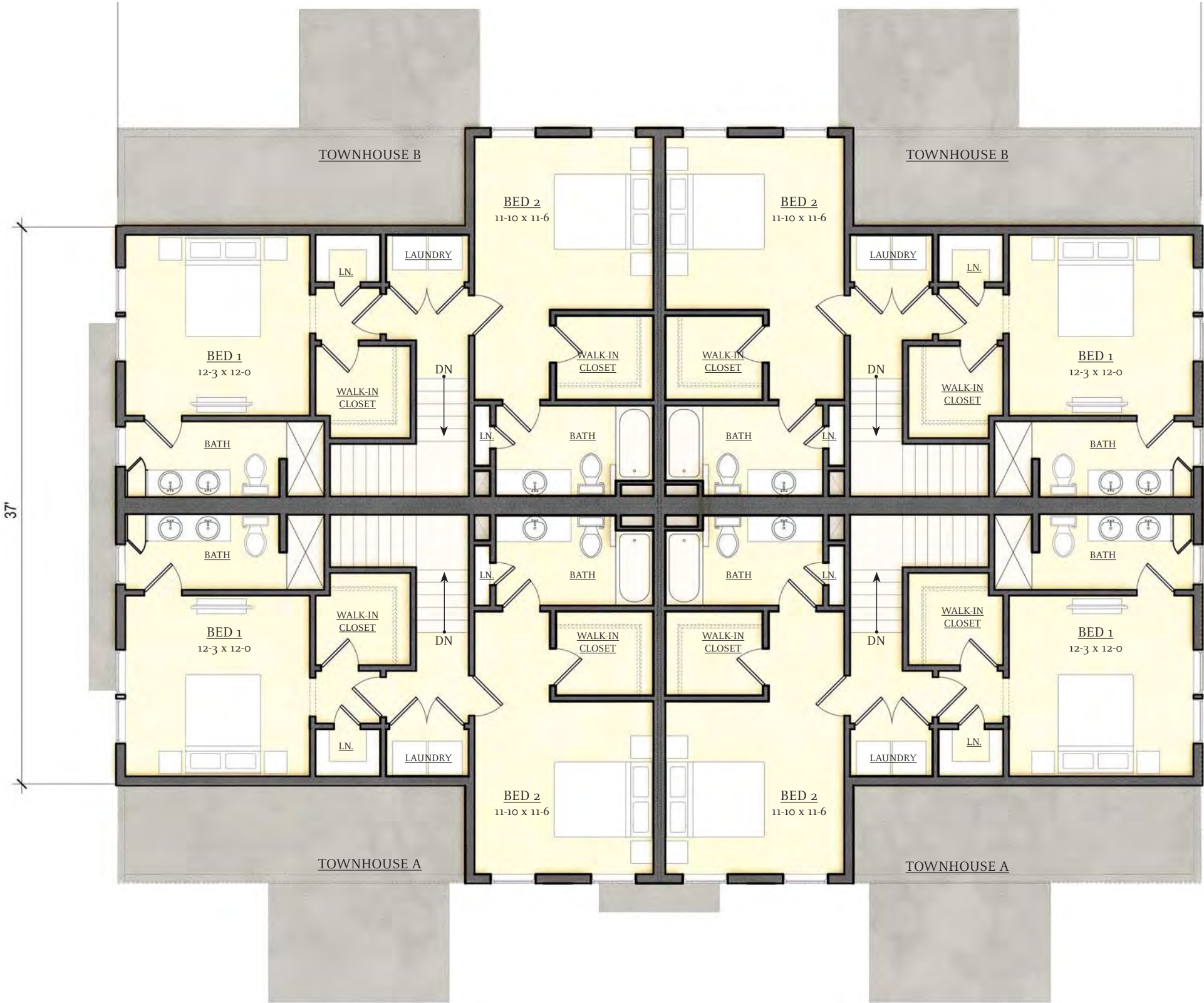
2BR Townhouse B Total - 1615 sf

Second Floor- 865 sf

Third Floor- 750 sf



KEY PLAN



THIRD FLOOR

15 HIGH STREET, NORWELL, MA

UNIT PLANS - SIX-PLEX

JANUARY 29, 2021

SCALE: 1/8"=1'-0"



SQUARE FOOTAGE TOTALS

Eight-Plex Building Total - 8,885 sf

First Floor - 1,903 sf

Second Floor - 3,680 sf

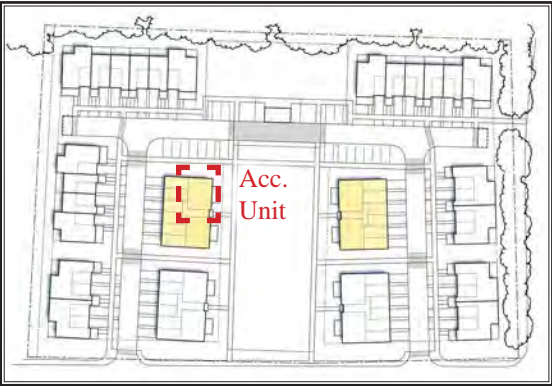
Third Floor- 3,302 sf

1BR Flat ADA Total - 800 sf

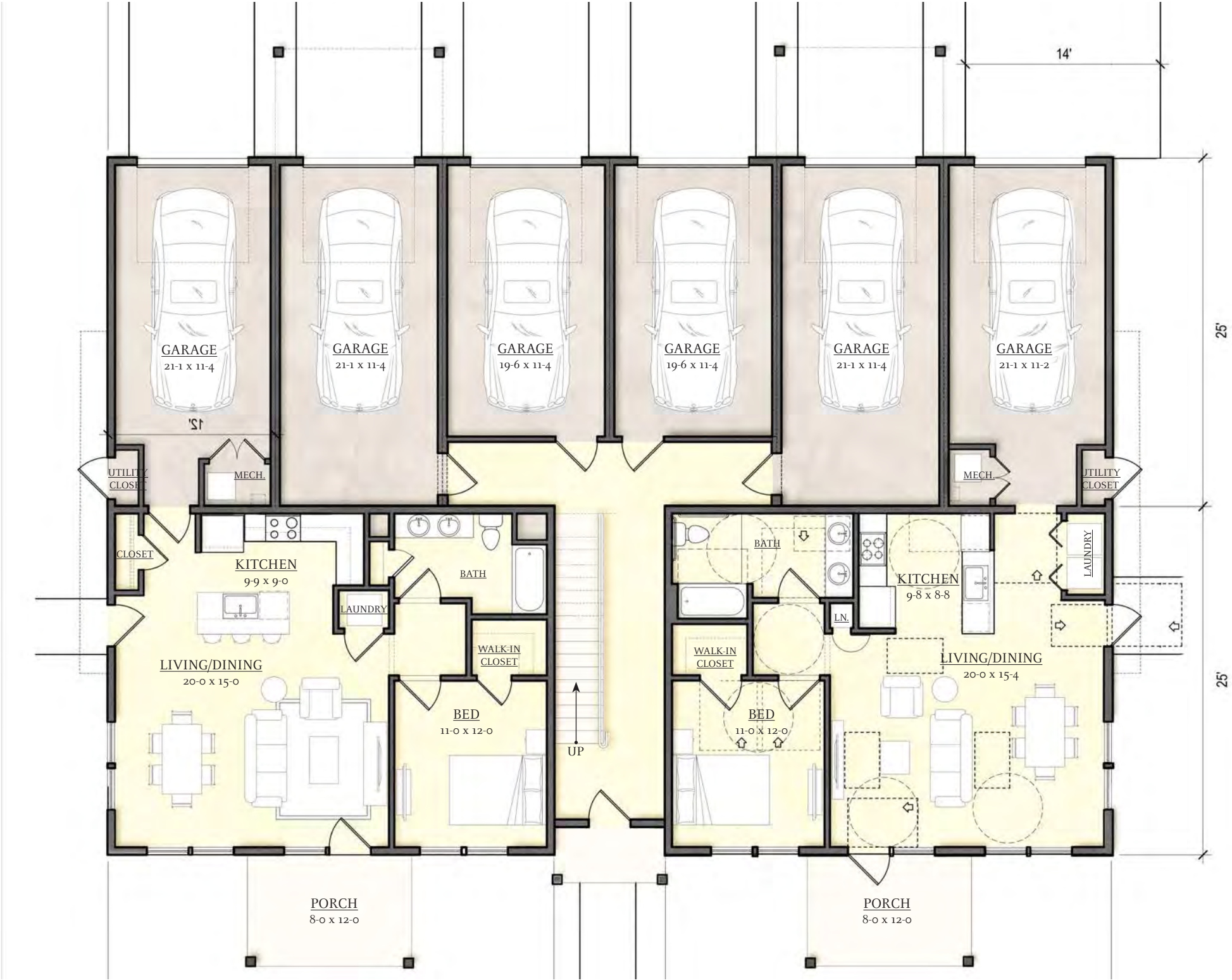
2BR Townhouse Total - 1,544 sf

Second Floor - 860 sf

Third Floor - 684 sf



KEY PLAN



FIRST FLOOR

15 HIGH STREET, NORWELL, MA

UNIT PLANS - EIGHT-PLEX (SHOWN WITH ONE BEDROOM ACCESSIBLE UNIT)

JANUARY 29, 2021

SCALE: 1/8"=1'-0"

0' 1' 2' 4' 8' 16' 32'

SQUARE FOOTAGE TOTALS

Eight-Plex Building Total - 8,885 sf

First Floor - 1,903 sf

Second Floor - 3,680 sf

Third Floor- 3,302 sf

1BR Flat Total - 805 sf

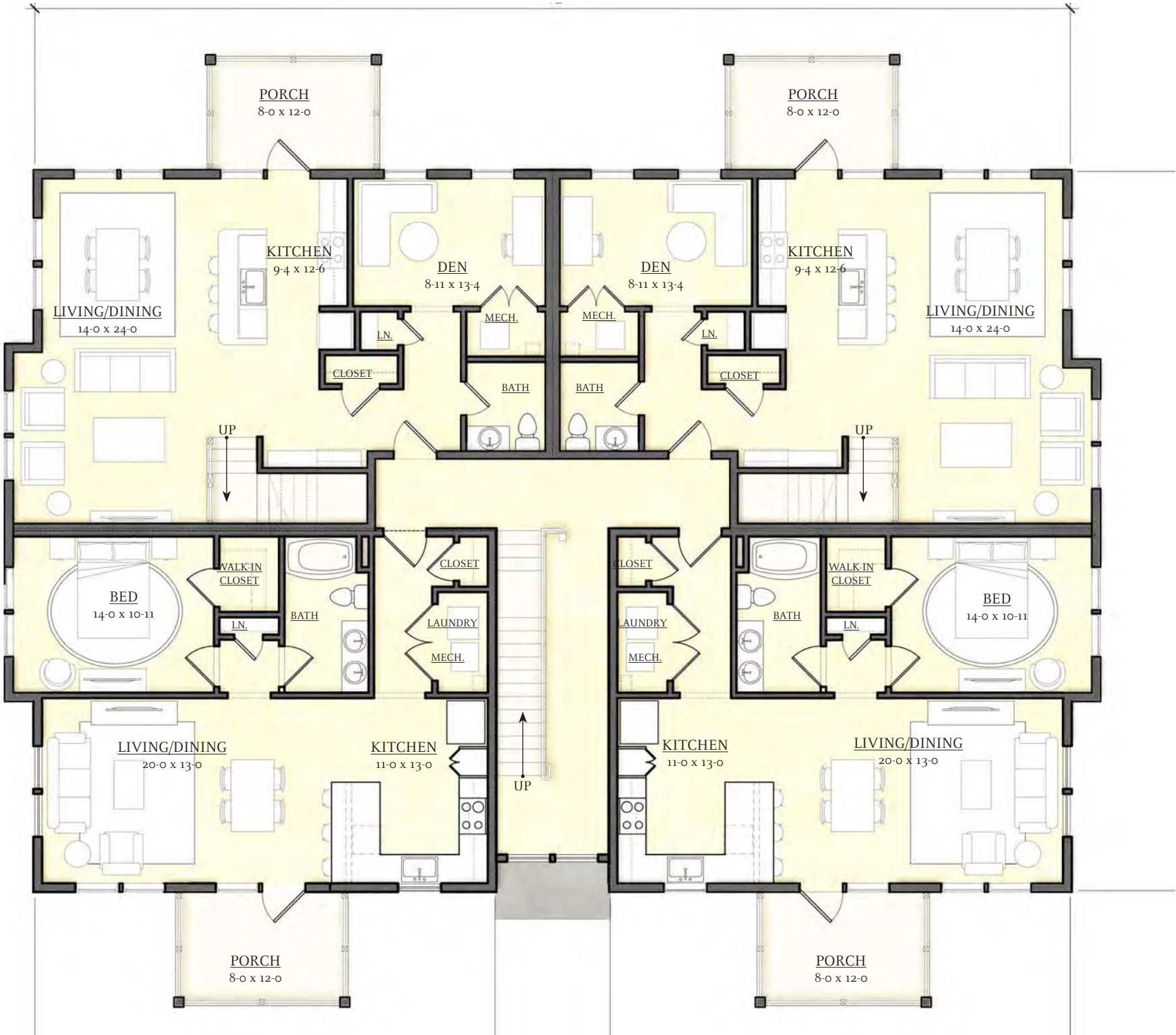
2BR Townhouse Total - 1,544 sf

Second Floor - 860 sf

Third Floor - 684 sf



KEY PLAN



SECOND FLOOR

15 HIGH STREET, NORWELL, MA

UNIT PLANS - EIGHT-PLEX

JANUARY 29, 2021

SCALE: 1/8"=1'-0"



SQUARE FOOTAGE TOTALS

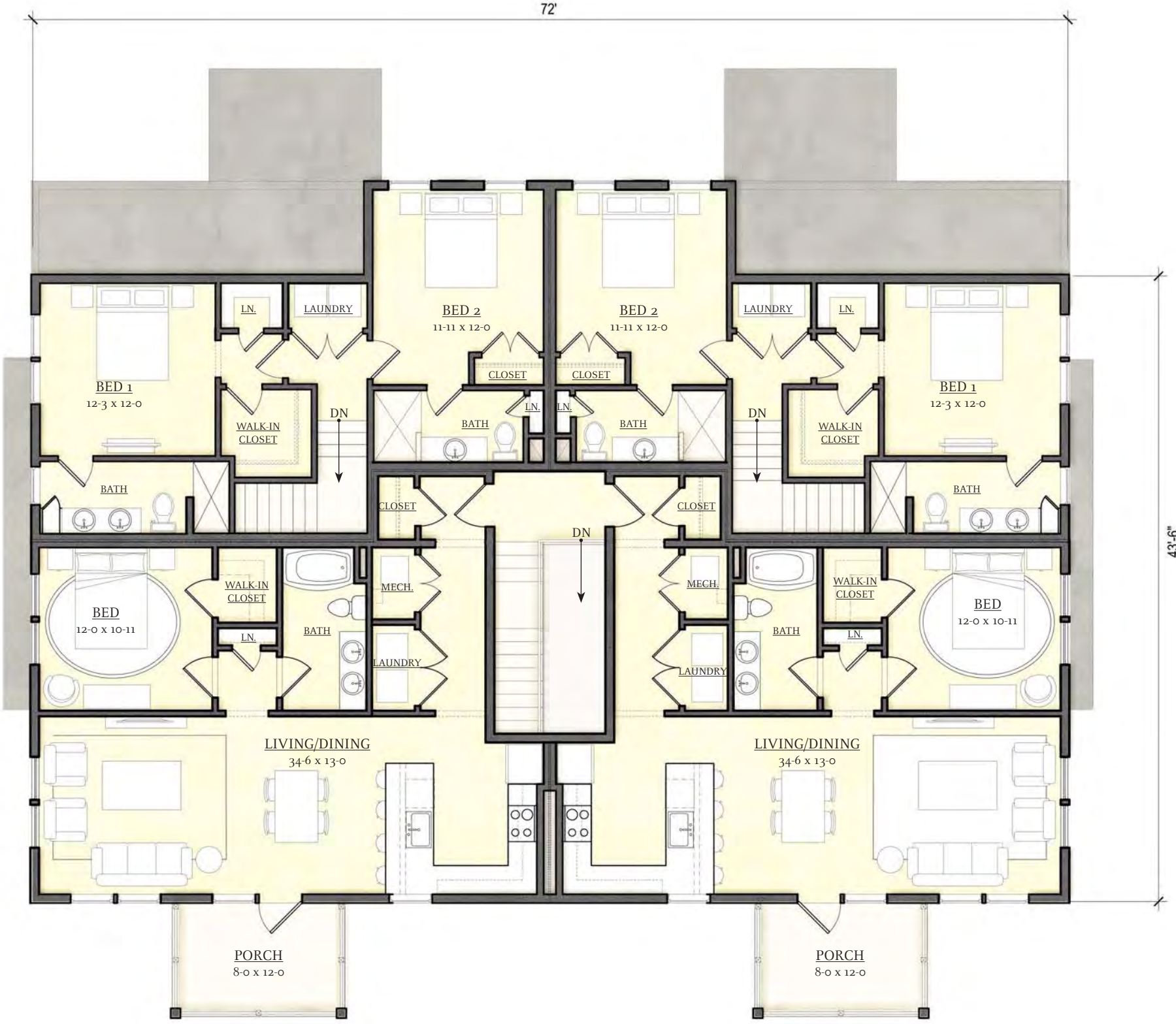
Eight-Plex Building Total - 8,885 sf
 First Floor - 1,903 sf
 Second Floor - 3,680 sf
 Third Floor- 3,302 sf

1BR Flat Total - 885 sf

2BR Townhouse Total - 1,544 sf
 Second Floor - 860 sf
 Third Floor - 684 sf



KEY PLAN



THIRD FLOOR

15 HIGH STREET, NORWELL, MA

UNIT PLANS - EIGHT-PLEX

JANUARY 29, 2021

SCALE: 1/8"=1'-0"



Section 2.F. Project Narratives

NARRATIVE OF SITE CHARACTERISTICS

The subject property consists of four contiguous lots whose addresses are 15, 19, 27, and 35 High Street, Norwell. The combined area of the lots is approximately 169,341 square feet.

The FEMA Flood Insurance Rate Map 25023C0092J dated July 17, 2012 indicates that the property is located within an Area of Minimal Flood Hazard (Zone X). The Massachusetts Natural Heritage Atlas, 14th Edition (2017), indicates that the property does not contain any priority habitat or estimated habitat for rare species. According to Massachusetts Division of Fisheries and Wildlife maps, the property does not contain and is not within 100 feet of any vernal pools. The Town of Norwell GIS map indicates that the property does not contain any wetlands resources. The property shows no evidence of ledge.

Each of the four lots in the property contains an existing structure. 15 and 19 High Street are vacant single-family dwelling units. The property's seller applied for demolition permits for these units in 2015, and the Norwell Historical Commission imposed a one-year demolition delay which has since expired. 27 High Street is an occupied single-family home. 35 High Street is an office located in a single-family-style structure.

An underground stormwater drainage pipe runs along the southern border of the subject property. A plan recorded in the Norfolk County Registry of Deeds ('87-902) indicates that the pipe is located directly at the property line between 35 and 37 High Street, and that there is a twenty-foot permanent easement along the path of the pipe, ten feet of which is located within the subject property.

The subject property is located at a transition between a residential neighborhood to the south and a local commercial district to the north. An office condominium complex sits on the west and north boundaries of the property. A retail building that contains a CVS and a package store is across High Street to the east. The property on the southern boundary of the site is a single-family home.



UNION STUDIO

January 28, 2021

ARCHITECTURAL DESIGN NARRATIVE FOR 15 HIGH STREET

In considering the layout for 15 High Street, our goal was to balance the efficiency of a mid-density project with the scale and character of a walkable neighborhood that fits seamlessly into the larger Norwell community. The neighborhood is organized around a single loop road that provides two points of access while also avoiding potential conflicts with the existing access drive to the commercial property across High Street, as well as a pair of centralized green spaces that double as shared outdoor spaces and needed stormwater and septic areas. The homes, roads and greens are connected by a network of sidewalks that will foster a sense of community and make it possible for residents to walk to neighborhood amenities, local businesses, and places of employment. While the specific neighborhood amenities are still being determined, the goal is to create a number of shared spaces where residents can gather. Most units include a one car garage with room for a second car as needed in the driveway. The neighborhood also includes guest parking in centralized locations.

When distributing and designing the architecture, care was given to try and keep the scale of the buildings in the range of one-and-a-half to two-and-a-half stories, in keeping with the surrounding context. The buildings have been oriented such that they present their shorter side facades to High Street, replicating the existing pattern and spacing of the single-family homes that inhabit the rest of this street. Care was also given to locate lower scale one-and-a-half story buildings at the edges, stepping up to the two-and-a-half story buildings at the middle and rear of the site. The use and scale of the community make it a natural transition between the residential neighborhood to the south and the commercial area to the north.

While the units themselves are a combination of townhouses and small multi-family structures, they have been designed to still feel residential in character, including the use of details that respect the local wood vernacular but with materials that provide longer term durability with lower required maintenance. Most units also include a front door accessed from individual porches and stoops, giving each home a sense of connection and individuality.



UNION STUDIO

In terms of unit types, the project features a wide variety of plans that range from 800 square feet up to almost 1,800 square feet. These include one bedroom, two bedroom, and three bedroom options, often including separate spaces that can serve as dens or home offices. There is an accessible unit for each bedroom type and a number of other adaptable accessible units. Twenty of the units have bedrooms on the ground floor, making them well-suited for Norwell's growing senior population. The unit types should allow for a variety of potential residents that represent a healthy mix of income and household types, addressing one of the primary goals of Norwell's Housing Production Plan.

Sincerely,

A handwritten signature in black ink, appearing to read "Jeremy R. Lake". The signature is fluid and cursive, with a long horizontal stroke at the end.

Jeremy R. Lake, AIA, CNU, LEED AP
Senior Associate



Section 2.H. Environmental Site Assessment

Limited Subsurface Assessment

15, 19, & 27 High Street
Norwell, Massachusetts

Prepared For:

John C. Dawley
Northland Residential Corporation
80 Beharrell Street, Suite E
Concord, MA 01742

August 5, 2020

BETA Project No: 7151



August 5, 2020

John C. Dawley
Northland Residential Corporation
80 Beharrell Street, Suite E
Concord, MA 01742

Re: Limited Subsurface Investigation
15, 19, & 27 High Street
Norwell, Massachusetts

Dear Mr. Dawley:

BETA Group, Inc. (BETA) is pleased to submit findings for the Limited Subsurface Investigation completed for the property referenced as 15, 19, and 27 High Street in Norwell, Massachusetts (the site). For a summary of findings, please review the Executive Summary on the following page. The Executive Summary should be reviewed in conjunction with the entire report.

BETA appreciates the opportunity to provide you with environmental services. If we can be of further assistance regarding this matter, please contact our office.

Very truly yours,

BETA Group, Inc.

A handwritten signature in blue ink that reads "Mykel Mendes".

Mykel Mendes
Environmental Engineer

A handwritten signature in black ink that reads "Marylou Armstrong".

Marylou Armstrong, LSP
Vice President

Job No. 7151



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Appendices

Appendix A - Photographic Documentation
Appendix B - Pertinent Sections of APEX Historically Completed Environmental Documentation
Appendix C - Certificates of Analysis
Appendix D - Lead-impacted Soil Excavation Areas – Dimensions and Disposal Options

1.0 EXECUTIVE SUMMARY

In June 2018, Apex Companies, LLC (Apex) issued an ASTM Phase I Environmental Site Assessment (ESA) Report at 15, 19, 27, and 35 High Street in Norwell, MA on behalf of Artis Senior Living, LLC as part of a real estate transaction. Based on the findings/results of the Phase I ESA, Apex conducted a soil investigation at the site in September 2018 to address recognized environmental conditions (RECs) identified in the 2018 ASTM Phase I Environmental Site Assessment. Apex identified the following RECs at or in connection with the site:

1. Unmarked containers and a rusted 55-gallon drum with significant pitting along the exterior of the 15 High Street structure.
2. Peeling/flaking, loose paint throughout the 19 High Street structure; and
3. Storage of several automotive parts, fuel, and other petroleum containers throughout the exterior and interior portions of the on-site structures. The 27 High Street structure has an unfinished basement. Petroleum staining (and kitty litter used as an absorbent) was observed beneath and surrounding a 175-gallon aboveground storage tank (AST).

During the September 2018 soil investigation, Apex collected 68 soil samples from the exterior portions of the 15, 19, and 27 High Street. Based upon analytical data, Apex concluded that detectable concentrations of Lead exceeding the applicable MassDEP Reportable Concentration for Soil Category S-1 (RCS-1) standard of 200 parts per million (ppm) were detected in 25 soil samples requiring notification to MassDEP (a 120-day release condition). In addition, one sample collected from the northern portion of 19 High Street analyzed for TCLP Lead exceeded the USEPA TCLP standard for lead. Apex recommended that this soil material be managed as hazardous waste.

In an effort to further evaluate and delineate the Lead impacts previously identified in the site soils as well as assess any potential petroleum impacts beneath the basement area of the 27 High Street structure, BETA conducted a limited subsurface exploration on July 17, 2020.

BETA supervised the advancement of fourteen (14) shallow soil borings (A-M) throughout the 15 and 19 High Street portions of the site and one (1) shallow soil boring (Basement 1) through the basement floor of the 27 High Street structure.

Soil samples from each boring were field screened for evidence of potential contamination utilizing olfactory, visual, jar head space techniques and an X-ray Fluorescence (XRF) analyzer. Soil samples collected from 15 and 19 High Street were submitted for total Lead, TCLP-Lead, and for disposal qualification (DQ) analysis purposes. Additionally, one soil sample collected from beneath the basement of 27 High Street was submitted for Extractable Petroleum Hydrocarbons (EPH) ranges with polycyclic aromatic hydrocarbons (PAH) targets, volatile organic compounds (VOCs), and volatile petroleum hydrocarbons (VPH).

Soil analytical results revealed detectable concentrations of Acetone from the sample collected from Basement 1, however this concentration is well below the applicable RCS-1 Standard.

Detectable concentrations of Lead were identified from all soil boring samples, however, concentrations were below applicable RCS-1 standards with one exception. The detected Lead concentrations from D (0'-2') were above the applicable RCS-1 soil standards. Composite soil samples were collected from soil borings G & H for TCLP-Lead analysis. These detectable concentrations were well below the TCLP Lead standard of 5.0 mg/L.

Based upon Apex and BETA field screening and analytical data, Lead impacts to soil consistently decrease with distance and depth as one moves away from the 15 and 19 High Street structures.

Based upon Apex and BETA's field screening and analytical data, there are six distinct areas of Lead impacted soil. These areas conservatively consist of approximately 160 tons of impacted soils.

Recommendations:

As part of future redevelopment activities, soil materials exceeding the applicable RCS-1 standard and / or TCLP standard should be appropriately managed and disposed of off-site as a Release Abatement Measure (RAM) pursuant to MassDEP regulations.

Based upon the analytical data generated to date, a combined estimate of approximately 175 tons of Lead impacted soils is projected for excavation and off-site disposal. The 175 tons includes up to 80 tons of Lead impacted soils; and 95 tons of TCLP Lead soils (characteristic hazardous waste) and soils > 8,000 ppm. Please refer to Appendix D for dimensions of Lead impacted areas.

Due to the age of the on-site structures, an asbestos survey of each structure (15, 19, 27 and 35 High Street) should be conducted prior to demolition activities.

For future demolition activities involving the disturbance of lead-based painted building materials, collection of a demolition debris waste stream composite sample (all materials, including the substrates) and analysis for lead using Toxicity Characteristic Leaching Procedure (TCLP) methodologies would be required to determine if the waste stream is considered hazardous waste or could be disposed of as general construction debris. Demolition workers should be trained and protected in accordance with applicable OSHA regulations (29 CFR 1926.62).

FULL REPORT AVAILABLE UPON REQUEST

Section Four

Section 4.A. Evidence of Site Control

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PURCHASE AND SALE AGREEMENT

1. PARTIES; AGREEMENT TO SELL AND PURCHASE

This 21st day of April, 2020, the undersigned Stephen N. Marsh, Trustee of the 44 High Street Realty Trust, u/d/t dated March 31, 2009 and recorded with the Plymouth Registry of Deeds (the "Registry") in Book 37001, page 205; Stephen N. Marsh and Laurie J. Marsh, individually; Stephen N. Marsh, Trustee of 27 High Street Realty Trust, u/d/t dated September 21, 2016, and described in a Trustee's Certificate pursuant to M.G.L. c. 184, §35, recorded with the Registry Book 47490, page 168; and Stephen N. Marsh, Trustee of 35 High Street Realty Trust, u/d/t dated May 1, 2018, and described in a Trustee's Certificate pursuant to M.G.L. c. 184, §35, recorded with the Registry Book 49753, page 56 (collectively, hereinafter referred to as the "Seller") hereby agrees to sell, and Northland Residential Corporation, and/or its successors and with Seller's consent, assigns or nominees, which consent shall not be unreasonably withheld if the assignee or nominee is an entity related to Northland Residential Corporation (hereinafter referred to as the "Buyer"), agrees to purchase, upon the terms and conditions hereinafter set forth, the "Property" described in Section 2 below, and in Exhibit A attached hereto.

2. DESCRIPTION OF PROPERTY

The Property to be transferred and conveyed to Buyer hereunder includes the real property and rights described on Exhibit A attached hereto and incorporated by reference herein. Such Property includes, without limitation, the lands, buildings, structures, improvements, existing homes (excluding all household furnishings), and appurtenant easements and rights described in Exhibit A, including without limitation approximately 3.85 acres of land. The Property also includes Seller's rights in existing governmental permits and approvals relating to the development of the Property (if any) and if assignable, and all infrastructure and other improvements currently existing upon or under the Property ("Infrastructure"), and any and all plans, reports, test results, data and studies relating to the Property which are either in Seller's possession or under Seller's control.

For Seller's title, see four (4) Deeds recorded with the Registry in Book 40257, page 154; Book 21541, page 184; Book 47490, page 169; and Book 49753, page 57.

The Property is located at 15 High Street, 19 High Street, 27 High Street, and 35 High Street, Norwell, Plymouth County, Massachusetts. The Property is more particularly described in Exhibit A.

3. TITLE; DEED

The Property shall be conveyed by good and sufficient Quitclaim Deed(s) and shall run to Buyer or its assignee designated by Buyer by written notice to Seller at least three business days before the Closing (hereinafter defined). Said Quitclaim Deed(s) shall convey good and clear record and marketable and insurable title thereto, free from any and all encumbrances except:

- (a) provisions of existing building laws;

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- (b) any liens for municipal assessments assessed after the date of Closing;
 - (c) real estate taxes which are not yet due and payable on the date of Closing; and
 - (d) any other easements, restrictions, covenants, agreements, or other matters of record insofar as in force and applicable to the Property, provided the same do not prohibit or materially interfere with the development, construction, marketing, sale, and use, of the Property for the "Proposed Project," as described below.

4. PROPOSED PROJECT; PERMITS AND APPROVALS

(a) The contemplated use of the Property (the "Proposed Project") consists of the development of a sixty (60) unit multi-family apartment community consisting of ninety (90) bedrooms (the "Units") (the Proposed Project may include up to 25% of the Units being designated as "moderate income" units pursuant to a Local Initiative Project or Comprehensive Permit issued by the Town pursuant to M.G.L. Chapter 40B ("Comprehensive Permit")), and related improvements and infrastructure, all of which to be approved and permitted by the Town of Norwell (the "Town") and any other applicable governmental agencies or entities.

(b) Buyer's obligations hereunder with respect to the Property are expressly contingent upon Buyer (or its nominee) obtaining approval of the Comprehensive Permit to Buyer (or its nominee) from the Town and any other applicable entities or agencies, Final Approval by the subsidizing agency and execution of a Regulatory Agreement to govern the Proposed Project, as well as issuance of any and all other governmental permits and approvals for the Proposed Project (all of the foregoing being collectively referred to as the "Buyer's Approvals"), all of which shall be upon terms and conditions acceptable to Buyer, in Buyer's sole discretion, with any appeal periods relating thereto having expired with no appeals having been filed, or with any appeals being dismissed upon terms and conditions acceptable to Buyer.

5. PLANS

Buyer shall obtain, at its sole cost and expense, any new engineering report(s), traffic study(ies), environmental report(s), plans and engineering services relating to the Proposed Project (collectively, the "Plans").

6. PURCHASE PRICE

The agreed "Purchase Price" for the Property (subject to adjustment, as hereinafter described) is Three Million Two Hundred Thousand Dollars (\$3,200,000.00), of which \$75,000.00 has been paid as a deposit upon the execution of this Agreement (the "Deposit"), to be held according to the provisions of Section 16 below, and the remainder of which will be paid at the time of the delivery and recording of the Deed by attorney's check, or by certified or bank check, or by wire transfer.

Notwithstanding the foregoing, in the event that the Buyer's Approvals issued authorize the construction of fewer than sixty (60) Units and/or fewer than ninety (90) bedrooms, then the Buyer and Seller shall negotiate in good faith for a period of at least thirty (30) days, or such longer period as Buyer and Seller may agree in writing, following such determination (the

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“Purchase Price Negotiation Period”) to determine an adjustment to the Purchase Price based on such reduced Unit count. If Buyer and Seller cannot agree on such an adjustment despite such good faith negotiations within the Purchase Price Negotiation Period, then Buyer and Seller shall memorialize in writing the date of expiration of the Purchase Price Negotiation Period (the “Purchase Price Negotiation End Date”), and either party may terminate this Agreement upon written notice and Escrow Agent within thirty (30) days following the Purchase Price Negotiation End Date, in which event the Deposit, or any remaining portion thereof, shall be returned forthwith to Buyer and, except as expressly set forth herein, neither party shall have any further liability or obligation to the other hereunder. If Buyer does not so notify Seller within thirty (30) days following the Purchase Price Negotiation End Date, then Buyer’s right to terminate this Agreement pursuant to this paragraph shall be conclusively deemed waived.

7. DUE DILIGENCE; CONDITIONS OF PURCHASE

(a) Due Diligence Investigations

(i) Buyer shall have until 5:00 p.m. on the first business day following the sixtieth (60th) day from the date of this Agreement (the “Due Diligence Date” or “Due Diligence Period”) to make investigations of various aspects of the Property, and the Proposed Project, including without limitation, its value, marketability, financeability, wetlands delineation, environmental condition(s), boundaries, topography, title, presence or absence of ledge, soil conditions, possible applicability of the so-called “Rivers Act,” subdivision, zoning and permitting aspects, the likelihood of the Buyer’s Approvals being granted upon acceptable terms and conditions, as well as the confirmation that the site’s soils will support construction of the Proposed Project, including but not limited to stormwater and wastewater, in locations and configurations suitable to Buyer, in its sole discretion. Buyer shall also have the right during the Due Diligence Period to confirm that access, drainage, electricity, telephone, gas, internet and cable television service will be available for the Proposed Project, and that connections to provide such services to all of the Proposed Project will be available when required for construction and connection, without moratorium or limit on the number of connections per year. Buyer shall further have the right during the Due Diligence Period to conduct an Environmental Review of the Property. All of the foregoing may be hereinafter collectively referred to as “Due Diligence Investigations”.

(ii) Seller has already provided to Buyer soil studies related to the Property, that were in Seller’s possession received from Artis Senior Living and Seller represents that it has no other documentation to provide other than the following which if in Seller’s possession will be provided to Buyer within ten (10) days from execution of the Agreement: title insurance policies; copies of existing leases; zoning and land use analyses and/or opinions; plans; survey; documentation related to historic use and restrictions; reports or information regarding utility availability; permits and approvals previously issued for demolition of the houses at 15 and 19 High St; copies of any and all environmental reports (including information regarding underground fuel storage tanks); Geotechnical information for the Property; any documentation or plans related to wetlands, water-related setbacks, restrictions of uses including Order of Conditions, certificates of compliance, and violation notices or other related items; state and local permits and licenses for the Property and/or the Proposed Project’s permitted use; test results; title reports and updates; title insurance policies; copies of existing leases; zoning and land use analyses and/or opinions; plans; surveys; soil studies; traffic studies; documentation

related to historic use and restrictions; reports or information regarding utility availability; permits and approvals previously issued for the Property; and any and all other investigative materials relating to the Property and either in Seller's possession or under Seller's control (collectively, "Seller's Due Diligence Materials"), together with authorization (if Buyer so requests) for Buyer to obtain access to and copies of any such materials from any third parties involved in the preparation thereof (the "Project Consultants"), at no cost to Seller.

(iii) As provided in Section 18 below, Buyer shall have the right of access to the Property for such purposes. Buyer shall notify Seller of its intention to exercise such right of access no later than two business days prior to Buyer's intended access, and Seller or its designee shall have the right to be present during Buyer's testing or investigation(s).

(iv) If Buyer is not satisfied, in its sole discretion, with any of its investigations relating to the Property and/or the Proposed Project, then Buyer shall have the option to terminate this Agreement by giving written to Seller or Seller's attorney no later than 5:00 P.M. on the first business day immediately following the last day of the Due Diligence Period. Upon such notice being given, the Deposit plus all interest accrued thereon shall be forthwith refunded to Buyer within five (5) days of said notice, and thereupon this Agreement shall become null and void and without further recourse to the parties.

(v) Any objection to the status of the Title pursuant to the provisions of Paragraph 7(a)(i) shall be submitted in writing to the Seller's attorney on or before the last day of the Due Diligence Period, or the objections will be deemed waived.

(vi) Buyer and Seller agree that in the event the current State of Emergency in Massachusetts due to Covid-19 remains in effect as of the date of execution of this Agreement, Buyer shall use reasonable efforts to undertake its Due Diligence Investigations, but in the event Buyer is prohibited from conducting any of its investigations, or is unable to perform or complete any of its investigations due to the State of Emergency, Buyer shall give written notice to Seller and the expiration of the Due Diligence Period shall be extended for such reasonable period of time as may be necessary for Buyer to complete its Due Diligence Investigations.

(b) Further Contingencies and Conditions of Purchase. Buyer's obligations to purchase the Property shall also be expressly contingent upon the following requirements having been met prior to the Closing:

(i) No Adverse Change. There shall be no material and adverse change between the Due Diligence Date and the date of Closing with respect to title or environmental condition.

(ii) Buyer's Approvals. Buyer's obligations to purchase the Property shall be subject to Buyer having secured any and all of the Buyer's Approvals from the Town and all other applicable entities and/or regulatory agencies (including the Comprehensive Permit and Regulatory Agreement related thereto and Final Approval by the subsidizing agency) for the Proposed Project, upon terms and conditions acceptable to Buyer in its sole and absolute discretion, as described in Section 4 above, with any appeal periods relating thereto having expired with no appeals having been filed, or with any appeals being dismissed upon terms and conditions acceptable to Buyer, as described in Section 4 above.

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(iii) Buyer's Termination Rights. Notwithstanding the foregoing, the Buyer may terminate this Agreement at any time, either during the Due Diligence Period or at any time thereafter prior to Closing, if Buyer determines in its sole discretion that (i) any of the conditions of purchase set forth herein are not likely to be satisfied, or (ii) any one or more of the Buyer's Approvals are not likely to be granted without appeal or upon terms and conditions satisfactory to Buyer. Upon any such termination, the Deposit or the remaining portion of the Deposit shall be immediately refunded to Buyer, with interest.

8. COVENANTS AND REPRESENTATIONS OF SELLER

(a) Seller hereby represents to Buyer, which representations shall be true as of the date hereof and also as of the date of Closing:

(i) Seller currently holds good and marketable title to the Property and has full legal authority to enter into this transaction and to fulfill all of Seller's obligations hereunder, and execution of this Agreement and consummation of the transaction contemplated hereunder shall constitute the valid and binding obligations of Seller in accordance with the terms hereof.

(ii) Neither the execution of this Agreement, nor the consummation of the transaction contemplated hereby, will constitute a violation of, or be in conflict with or constitute a default under any term or provision of any document, order, agreement or lease.

(iii) Except for the possible presence of arsenic disclosed by Seller to Buyer, Seller has no knowledge of any past or present contamination of the Property in violation of any local, state or federal law, regulation order, permit or approval.

(iv) Seller has no knowledge of any past or present underground fuel storage tank ("UST") on the Property, except as otherwise disclosed.

(v) To the best of Seller's knowledge, there is no contemplated, threatened or actual eminent domain proceeding(s) and/or litigation, or the expiration or termination or filing of any appeals of any permits previously granted with respect to the Property, or any other past or current legal proceedings which, if adversely determined, would affect the ability of Buyer to acquire and/or develop the Property for the Proposed Project.

(vi) Except for the existing rental agreements for the tenants-at-will in 27 High Street and 35 High Street, Norwell, MA, there are no existing leases or rental agreements relating to the Property.

The foregoing representations shall survive Closing, and Buyer's obligations hereunder shall further be contingent upon all of the foregoing being and remaining true and accurate in all material respects as of the Closing.

(b) Until such time as this Agreement has been terminated, Seller shall not hereafter encumber, transfer, convey, lease, license or assign, or alter the real estate tax status of, the Property, except as expressly provided herein.

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9. COVENANTS AND REPRESENTATIONS OF BUYER

(a) Buyer represents that:

(i) Buyer is a Massachusetts corporation duly organized, validly existing and in good standing in Massachusetts and has all requisite power and authority to enter into, execute and deliver this Agreement and perform its obligations hereunder.

(ii) The execution and delivery of this Agreement and the consummation of the transaction contemplated hereunder on the part of Buyer does not and will not violate any applicable law, ordinance, statute, rule, regulation, order, decree, or judgment, conflict with or result in a breach of any material terms or provisions of, or constitute a default under, or result in the creation or imposition of any lien, charge, or encumbrance upon any of the property or assets of the Buyer by reason of the terms of any contract, mortgage, lien, lease, agreement, indenture, instrument or judgment to which Buyer is a party or which is or purports to be binding upon Buyer or otherwise affects Buyer, which will not be discharged, assumed or released at the Closing. No action by any Governmental Authority is necessary to make this Agreement a valid instrument binding upon Buyer in accordance with its terms.

10. APPROVAL PERIOD

Following expiration of the Due Diligence Period, as the same may be extended pursuant to Section 7(a)(vi) due to Covid-19 (if Buyer has not terminated this Agreement as provided above), Buyer, at Buyer's sole cost and expense, shall commence efforts to obtain all of Buyer's Approvals necessary for the Proposed Project. Not less than sixty (60) days after expiration of the Due Diligence Period, as the same may be extended pursuant to Section 7(a)(vi) due to Covid-19, (if Buyer has not terminated this Agreement as provided above), Buyer shall submit a Site Eligibility application to the subsidizing agency. Within seventy-five (75) days after Buyer's receipt of a Site Eligibility Letter from the subsidizing agency, Buyer shall submit a Comprehensive Permit Application to the Town's Zoning Board of Appeals.

Buyer shall have at least twelve (12) months subsequent to the end of the Due Diligence Period, as the same may be extended pursuant to Section 7(a)(vi) due to Covid-19 (the "Approval Period") in order to secure Buyer's Approvals, and Seller shall at all times fully cooperate with such efforts. Moreover, as long as Buyer is still diligently pursuing Buyer's Approvals, the Approval Period may be extended by Buyer upon notice to Seller for up to two (2) additional six-month periods, such extension notice(s) to be given at least five (5) business days prior to the end of the then-current Approval Period.

Buyer and Seller agree that in the event a State of Emergency is declared in Massachusetts due to Covid-19 at any point during the Approval Period, then the Approval Period shall be suspended until such State of Emergency is no longer in effect. Notwithstanding the foregoing, the Buyer may, in its discretion, still undertake any efforts to obtain the Buyer's Approvals while the Approval Period is suspended due to Covid-19.

Within five (5) business days of receipt of written notification from Buyer that it has elected to exercise its right to extend the Approval Period for the second time, as described above, Escrow Agent shall release the Deposit (less any Option Payments (as defined below)

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which have been previously paid to Seller) to Seller (the "Extension Payment"). Upon release of said funds to the Seller, the Deposit shall become non-refundable, but shall be credited towards the Purchase Price at Closing, except in the event that the Closing does not occur owing to a Seller's default and/or a Seller's failure to perform its obligations hereunder, in which event the full amount of the Deposit shall be refunded to Buyer.

Buyer shall use reasonable and diligent efforts to obtain Buyer's Approvals for the Proposed Project, but in any event, Buyer's obligations to purchase the Property hereunder are contingent upon Buyer obtaining all of Buyer's Approvals, without pending appeal(s) and without any conditions or requirements which are unacceptable to Buyer in its sole and absolute discretion. If Buyer has not obtained Buyer's Approvals for the Proposed Project prior to the expiration of the Approval Period, as it may be extended, then Buyer shall have the option, in its sole discretion, to terminate this Agreement by giving written notice to Seller no later than 5:00 P.M. on the last day of the Approval Period. Upon such notice being given, the Deposit, minus any amounts released to Seller pursuant to this Section 10 or Section 12, plus all interest accrued thereon, shall be forthwith refunded to Buyer within five (5) days of said notice, and thereupon this Agreement shall become null and void and without further recourse to the parties, except for those provisions that the parties agree shall survive any termination of the Agreement.

In the event that any of Buyer's Approvals are appealed, and any such appeal(s) remain pending at the expiration of the Approval Period, as it may be extended, then the Buyer and Seller shall negotiate in good faith for a period of at least thirty (30) days, or such longer period as Buyer and Seller may agree in writing, following the expiration of the Approval Period (the "Appeal Negotiation Period") to determine a reasonable further extension of the Approval Period to allow any such appeal(s) to be adjudicated or dismissed upon terms and conditions acceptable to Buyer. If Buyer and Seller cannot agree on such a further extension of the Approval Period despite such good faith negotiations within the Appeal Negotiation Period, then Buyer and Seller shall memorialize in writing the date of expiration of the Appeal Negotiation Period (the "Appeal Negotiation End Date"), and Buyer may, in Buyer's sole discretion, terminate this Agreement upon written notice given to Seller and Escrow Agent within thirty (30) days following the Appeal Negotiation End Date, in which event the Deposit, or any remaining portion thereof, shall be returned forthwith to Buyer and, except as expressly set forth herein, neither party shall have any further liability or obligation to the other hereunder. If Buyer does not so notify Seller within thirty (30) days following the Appeal Negotiation End Date, then Buyer's right to terminate this Agreement pursuant to this paragraph shall be conclusively deemed waived.

As soon as reasonably possible after the execution of this Agreement given the current state of affairs related to Covid-19, but in no event sooner than fourteen (14) days after Buyer has completed its own soil studies, the Buyer, Seller and Seller's attorney shall arrange to meet with the Town Administrator in order to solicit feedback on a conceptual development plan prepared by the Buyer for the Property. The Seller or Seller's attorney shall be responsible for scheduling such meeting.

The Parties acknowledge the Seller owns additional land in the vicinity of the Property, which land would classify the Seller as an abutter for zoning purposes. The Seller agrees not to oppose or object to, or directly assist any other person or entity in opposing or objecting to, any governmental permit or approval proposed or issued in furtherance of the Project or Buyer's Approvals or in the event the transaction is consummate and the Closing occurs, to interfere with

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the Buyer's exclusive use and possession of any and all improvements located upon or to be constructed upon the Property in connection with the Project. The forms of opposition and/or interference prohibited hereby shall include, without limitation, oral or written opposition to the Project, and/or the construction and/or use of any and all improvements located or to be located on the Property, oral or written opposition to any of Buyer's Approval or modification thereof, and/or any administrative, judicial or quasi-judicial appeal of any of Buyer's Approval. Upon written request by Buyer, Seller hereby further agrees to confirm such non-opposition and non-interference in writing.

11. CLOSING

(a) Subject to satisfaction of all conditions and contingencies described herein (or express written waiver thereof by Buyer), the delivery and recording of the Deed and other documents for the Property ("Closing") shall take place on the thirtieth (30th) day following Buyer's receipt of all Buyer's Approvals with any appeal periods relating thereto having expired with no appeals having been filed, or with any appeals being dismissed upon terms and conditions acceptable to Buyer. If such date falls on a Saturday, Sunday or holiday, the delivery of the Deed and other documents shall take place on the next business day thereafter.

(b) The Closing shall take place at the office of the Buyer's attorney, lender or lender's attorney, or other location in the Boston, Massachusetts area specified by Buyer, subject to extensions as provided in this Agreement, at 10:00 A.M.

(c) At the Closing, Seller shall deliver the Deed(s), an affidavit that Seller is not a foreign entity as defined in Section 1445 of the Internal Revenue Code, a Bill of Sale, Assignment and/or other transfer document(s) for aspects of the Property not encompassed by the Deed, and such other usual and customary documents consistent with applicable title standards and practices for closings of this type in Plymouth County.

(d) At the Closing, Seller shall deliver to Buyer a Certificate that the warranties and representations of Section 8 are true as of the date of the Closing.

12. ADJUSTMENTS; PAYMENTS TO SELLER

(a) Adjustments. Real estate taxes for the current tax fiscal year shall be apportioned as of the close of business on the day immediately preceding the Closing, and the net amount shall be added to or deducted from, as the case may be, the Purchase Price payable by Buyer at the time of the delivery of the Deed. If the amount of said taxes is not known at the time of the delivery of the Deed, they shall be apportioned on the basis of the taxes assessed for the preceding year, with a reapportionment as soon as the new tax rate and valuation can be ascertained; and if the taxes which are to be apportioned shall thereafter be reduced by abatement, the amount of such abatement less the reasonable cost of obtaining the same shall be apportioned between the parties, on the same basis as the previous apportionment for taxes at the Closing, provided that neither party shall be obligated to institute or prosecute proceedings for an abatement.

(b) Option Payments. Commencing on the 241st day after the beginning of the Approval Period, and continuing on the same date of each month thereafter, Buyer shall

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authorize the Escrow Agent to release to Seller from the Deposit the amount of \$2,000.00 per month (the "Option Payments"). Such Option Payments made by Buyer shall be credited towards the Purchase Price at Closing. If the Closing does not occur and this Agreement is terminated, then any Option Payments previously made by Buyer shall be deemed non-refundable; provided, however, that if this Agreement is terminated due to Seller's nonperformance, or Seller's inability, failure or refusal to deliver title and possession, as provided in this Agreement, then upon such termination, all Option Payments shall be promptly refunded in full by Seller to Buyer.

(c) Tax Payments. Following expiration of the Due Diligence Period, as the same may be extended pursuant to Section 7(a)(vi) due to Covid-19 (if Buyer has not terminated this Agreement as provided above), and continuing until Closing or termination of the Agreement, the Buyer shall commence paying to Seller the real estate taxes for the Property (the "Tax Payments"). For the first tax period following the expiration of the Due Diligence Period, as the same may be extended pursuant to Section 7(a)(vi) due to Covid-19, the Tax Payment to be made by Buyer to Seller shall be prorated based on the remaining number of days in said tax period. For all subsequent tax periods, Seller shall pay the taxes directly to the Town, and submit an invoice to the Buyer for reimbursement of such payment, which Buyer shall pay within ten (10) business days. Such Tax Payments made by Buyer shall be credited towards the Purchase Price at Closing. If the Closing does not occur and this Agreement is terminated, then any Tax Payments previously made by Buyer shall be deemed non-refundable; provided, however, that if this Agreement is terminated due to Seller's nonperformance, or Seller's inability, failure or refusal to deliver title and possession, as provided in this Agreement, then upon such termination, all Tax Payments shall be promptly refunded in full by Seller to Buyer. If the event the Closing takes place prior to the end of any tax period for which a Tax Payment is made, the amount of the Tax Payment shall be prorated for said period, and the net amount shall be deducted from the Purchase Price payable by Buyer at the time of the delivery of the Deed.

13. POSSESSION AND CONDITION OF PREMISES; INSURANCE

(a) Full possession of the Property, free of all tenants and occupants, is to be delivered at the time of Closing with the Property, including the improvements thereon, with their fixtures and any earth materials and timber thereon, to be then in as is condition as presently exists, usual wear and tear excepted. Buyer shall be entitled to an inspection of the Property prior to the Closing to determine whether or not this condition has been satisfied.

(b) Seller shall maintain from the date of execution of this Agreement the same fire, casualty and liability insurance coverage on the Property throughout the term of this Agreement.

14. EXTENSION OF TIME TO DELIVER TITLE AND/OR POSSESSION

(a) If, on the date of Closing, Seller shall be unable to give title or to make conveyance, or to deliver possession of the Property, all as herein stipulated, or if on the date of Closing the Property does not conform with the provisions hereof, then Seller shall (i) remove all liens, municipal liens except for those referenced in Section 3(c) above, which shall be subject to an adjustment at closing and encumbrances which secure the payment of money and (ii) use reasonable efforts (involving an expenditure of no more than \$20,000.00 without Seller's consent) to remove any objections or defects in title which are not liens or encumbrances which

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secure the payment of money, or to deliver possession as provided herein, or to make the Property conform to the provisions hereof, as the case may be, in which event Seller shall give written notice thereof to Buyer at or before the time for performance hereunder, and thereupon the date for the Closing shall be extended for a reasonable period of time, but not more than sixty (60) days.

(b) If, at the expiration of the extended time for performance hereunder, Seller shall have failed so to remove any defects, deliver possession or make the Property conform, as the case may be, pursuant to this Section 14, the Deposit shall be forthwith refunded to Buyer, and thereupon all other obligations of the parties hereto shall cease, and this Agreement shall be void and without recourse to the parties hereto; provided, however, that Buyer shall have the election at either the original or extended Closing to accept such title as Seller can deliver, and to accept possession of the Property in its then condition, and to pay therefor the Purchase Price, without reduction (and without any liability of Seller), in which case Seller shall convey such title and deliver such possession; provided, however, that in the event of such conveyance in accordance with the provisions of this paragraph, if the Property being conveyed shall have been taken by exercise of the power of eminent domain subsequent to the date of this Agreement, or damaged by casualty, unless Seller has previously restored the Property to its former condition, Seller shall pay over or assign to Buyer on delivery of the Deed all awards or insurance proceeds recovered or recoverable on account of such taking or damage less any amounts reasonably expended by Seller in obtaining such awards or insurance proceeds, or for restoration, in which event the Purchase Price, shall only be reduced by the amount of the insurance deductible.

(c) To enable Seller to make conveyance as herein provided, Seller may at the time of delivery of the Deed for the Property use the purchase money or any portion thereof to clear the title of any or all encumbrances or interests affecting the Property, provided that all instruments so procured are recorded simultaneously with the delivery of said Deed, or with respect to mortgage discharge(s) from institutional lender(s), reasonable arrangements are made to procure and record same subsequent to the Closing in accordance with customary conveyancing practice.

15. BROKER

Seller and Buyer hereby mutually warrant and represent that they have dealt with no real estate broker or other party who might be entitled to a commission or other compensation in connection with this transaction, other than Walter Steinkrauss, Paramount Partners, 1266 Furnace Brook Parkway, Suite 310, Quincy, MA ("Broker"). Seller shall be responsible for payment of a commission to Broker in accordance with a separate agreement between Seller and Broker.

16. DEPOSIT; ESCROW HOLDER

(a) All deposit(s) made hereunder, shall be held in escrow pursuant to this Agreement by Buyer's attorneys, Marcus, Errico, Emmer & Brooks, P.C., ("Escrow Holder"), and shall be deposited in a federally-insured interest-bearing account in a bank qualified to do business in the Commonwealth of Massachusetts, subject to the terms of this Agreement, and shall be duly accounted for at the time for performance of this Agreement.

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(b) If this transaction closes as herein contemplated, all interest on the Deposit shall be paid in equal parts to Buyer and Seller. If Buyer is entitled to a refund of the Deposit or any part thereof, the interest thereon shall be paid to Buyer. If Seller is entitled to receive or retain the Deposit or any part thereof, the interest thereon shall be paid to Seller.

(c) The duties of the Escrow Holder shall be determined by the express provisions of this Agreement, and are purely ministerial in nature. Escrow Holder's dual role as Buyer's attorneys and as escrow agent shall be deemed hereby expressly consented to by the parties, and shall not disqualify Escrow Holder from continuing to act as Buyer's legal counsel hereunder, even if a dispute or litigation arises with respect to the Deposit or any rights or obligations hereunder. If there is any dispute between the parties hereto as to whether or not the Escrow Holder is obligated to disburse or release the funds held under and pursuant to this Agreement, the Escrow Holder shall not be obligated to make such disbursement or delivery, but in such event shall hold the funds until receipt by the Escrow Holder of an authorization in writing signed by all persons having an interest in said dispute, directing the disposition of the funds, or in the absence of such authorization, the Escrow Holder shall either hold the funds until directed or ordered otherwise by a court or other tribunal of competent jurisdiction, or deposit the funds into such court or tribunal. Buyer agrees to indemnify and hold Escrow Holder harmless against any claim, liability cost or expense (including reasonable legal defense costs and fees) arising from Escrow Holder's acts or omissions as escrow agent hereunder, except to the extent done in willful bad faith.

17. BUYER'S DEFAULT; DAMAGES

If Buyer defaults in its obligation to close this transaction as provided hereunder, the Deposit made by Buyer, including accumulated interest, shall be paid to Seller as liquidated damages, which shall be Seller's sole and exclusive remedy for such default, both at law and in equity. Buyer and Seller hereby mutually agree that the amount of the Deposit represents a fair and reasonable estimate of Seller's damages in the event of a default by Buyer.

18. ACCESS

(a) Upon three days written notice to Seller, Seller hereby agrees that Buyer and Buyer's representatives, consultants or agents shall have the right of access to the Property at reasonable times, from the date of this Agreement up to and including the Closing, all at the sole risk and responsibility of Buyer, to conduct soils, survey and engineering tests, appraisals, environmental and hazardous materials tests and inspections of the land, and structural inspections of the Infrastructure, and to show the Property to potential lenders and equity investors, and their consultants, agents, and attorneys. Seller acknowledges and agrees that physical and invasive testing may be required to verify the condition of the Property, but no testing shall be done until Seller has been notified of the scope of the testing, the methodologies to be used, and the identities of the consultants/contractor retained by the Buyer. Buyer and its consultants/contractors will provide Seller with certificate of insurance five (5) days prior to commencement of any testing, naming Seller as an additionally insured party. Buyer shall return the Property to its pre-testing condition.

(b) Notwithstanding the provisions of Section 24 hereof, Seller agrees that Buyer may discuss the Property with, and make inquiries of, any attorneys, consultants, lender, investors,

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abutters, public officials or authorities in order to conduct its Due Diligence investigations and/or to pursue its permits and approvals. To the extent consistent with this Agreement, Seller will use reasonable efforts to cooperate with Buyer in connection with Buyer's discussions and inquiries, which shall include execution of such reasonable documents and/or applications which are required to be in the name of the owner of the land while Seller is the owner, and the submission to regulatory authorities of letters of approval and support by Seller, if reasonably requested or required.

(c) Buyer shall indemnify Seller for any damage caused by Buyer's, or Buyer's agents', activities on the property, not proximately caused by SELLER's own negligence.

19. NOTICES TO SELLER AND TO BUYER

All notices required or permitted to be given hereunder shall be sent either (a) by electronic means (email) with delivery confirmation, (b) in writing and delivered by hand, or mailed postage prepaid by registered or certified mail, return receipt requested, or delivered by a recognized overnight delivery service, or (c) sent by facsimile transmission, with confirmation copy sent by regular mail, addressed to the parties and the parties' attorneys, as follows:

(i) If to Seller:

Stephen N. Marsh
110 Bartletts Island Way
Marshfield Hills, MA 02050

fax:
email:

With a copy to Seller's Attorney:

Roger Hughes, Esq.
Hughes & Associates
46 Accord Park Drive
Norwell, MA 02061

fax:
email: hughes.associates@comcast.net

(ii) If to the Buyer:

Northland Residential Corporation
80 Beharrell Street, Suite E
Concord, MA 01742
Attn: John C. Dawley, President and CEO

fax: (781) 229-7676
email: jdawley@northlandresidential.com
copy: gyoung@northlandresidential.com

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copy: pcrabtree@northlandresidential.com

With a copy to Buyer's Attorney:

Matthew W. Gaines, Esq.
Marcus, Errico, Emmer & Brooks, P.C.
45 Braintree Hill Office Park
Braintree, MA 02184

fax: (781) 843-1529
email: mgaines@meeb.com

Notices shall be effective upon such electronic or personal delivery, or if mailed or sent by delivery service, upon the date sent, or if sent by facsimile, on the date so sent.

20. SEVERABILITY

A determination that any provision of this Agreement is unenforceable or invalid shall not affect the enforceability or validity of any other provision. Any determination that the application of any provision of this Agreement to any person or to particular circumstances is illegal or unenforceable shall not affect the enforceability or validity of such provision as it may apply to other persons or circumstances.

21. CONSTRUCTION OF AGREEMENT

This instrument, executed in duplicate, is to take effect as a sealed instrument, to be construed according to the laws of the Commonwealth of Massachusetts, sets forth the entire contract between the parties and is binding upon and inures to the benefit of the parties hereto, and their respective heirs, legal representatives, successors and assigns, and may be canceled, modified or amended only by a written instrument executed by the party or parties to be bound thereby. The captions and marginal notes are used only as a matter of convenience and are not to be considered a part of this Agreement or to be used in determining the intent of the parties to it.

22. TITLE STANDARDS

(a) Any matter which is the subject of a Title Standard or Practice Standard of the Massachusetts Real Estate Bar Association at the time of delivery of the Deed shall be governed by said Title Standard or Practice Standard to the extent applicable.

(b) In addition to the foregoing, and not in limitation thereof, it is understood and agreed by the parties hereto that the Property shall not be in conformity with the title provisions of this Agreement unless:

(i) any current building, structures, systems and improvements, including without limitation all driveways, garages, septic systems (if any), and all means of ingress and egress to the Property, shall be located completely within the boundary lines of the Property and shall not encroach upon or under the Property of any other person or entity.

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(ii) no building, structure, septic system or improvement of any kind belonging to any other person or entity shall encroach upon or under the Property.

(iii) the Property, as presently used, shall abut or have access to a public way, or a private way leading to a public way, providing adequate legal access and frontage pursuant to the ordinances and/or by-laws of the town or city in which it is located.

(iv) title to the premises is good and marketable, and insurable for the benefit of the Buyer and the Buyer's lender.

(v) Any and all mortgages and monetary liens on the Property, and any possible claims to the Property by parties other than the Seller, have been discharged of record, except as otherwise expressly provided in this Agreement.

23. HAZARDOUS SUBSTANCES

(a) Between the date hereof and the Closing, Seller shall not generate, release, store, dispose of, dump, flush or in any way introduce on to the Property any Hazardous Substances, as that term or similar term is defined by any applicable environmental laws.

(b) Seller shall notify Buyer of any incident of which Seller has knowledge that would require the filing of notice or notification of release or threat of release of a reportable quantity or concentration of Hazardous Substances pursuant to any applicable environmental laws. If any such incident occurs between the date hereof and the Closing, unless such release is caused by Buyer or its agent, Buyer shall have the right to elect to terminate this Agreement, by giving written notice thereof to Seller within ten (10) days after receipt of Seller's notification of the incident, whereupon the Deposit plus all interest accrued thereon shall be forthwith refunded to Buyer, and this Agreement shall become null and void and without further recourse to the parties.

(c) Seller shall indemnify and hold Buyer harmless against any claims, liabilities, costs, expenses, losses or damages caused by Seller to which Buyer may be subjected or incur which arise from any environmental condition existing at the Property prior to closing.

24. CONFIDENTIALITY

Buyer and Seller mutually acknowledge that it is in their best interests to maintain the confidentiality of the economic terms and provisions of this Agreement. Except as otherwise provided herein, neither Seller nor Buyer shall disclose to any third party any of the economic terms or provisions of this Agreement prior to the Closing. Neither Seller nor Buyer shall issue any press release relating to this Agreement or Buyer's intended use of the Property. Notwithstanding the foregoing, Buyer shall have the right to disclose the economic terms and provisions of this Agreement, as well as any and all information relating to the Property, to Buyer's principals, employees, agents, representatives, attorneys, consultants, accountants, lenders and investors involved in the potential purchase of the Property and to prospective tenants or buyers of Buyer's contemplated development of the Property.

25. EXECUTION IN COUNTERPARTS

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EXHIBIT A

to Purchase and Sale Agreement:

Legal Description of Real Property

100% of the legal and beneficial title to the Property described in the Purchase and Sale Agreement, and hereinafter, being approximately 3.85 acres of land, and all of the improvements thereon or thereunder, including the real property described in four (4) Deeds to Seller recorded with the Plymouth County Registry of Deeds in Book 40257, page 154; Book 21541, page 184; Book 47490, page 169; and Book 49753, page 57.

Other Rights and Easements included as part of the Real Property

- a. Any and all beneficial rights, easements, rights of way, permits and approvals relating or appurtenant to the above.
- b. Any and all improvements located on, under or above the above-described lands or properties.

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This Agreement may be executed by the parties in multiple counterparts, which, when taken together, shall constitute one integrated instrument.

[SIGNATURES APPEAR ON NEXT PAGE.]

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SELLER: 44 HIGH STREET REALTY TRUST

By: [Signature]
Stephen N. Marsh, Trustee

27 HIGH STREET REALTY TRUST

By: [Signature]
Stephen N. Marsh, Trustee

35 HIGH STREET REALTY TRUST

By: [Signature]
Stephen N. Marsh, Trustee

[Signature]
Stephen N. Marsh, individually

[Signature]
Laurie J. Marsh, individually

BUYER: NORTHLAND RESIDENTIAL CORPORATION

By: [Signature] 4-22-20
John C. Dawley, President and CEO,
duly authorized

ESCROW
HOLDER: MARCUS, ERRICO, EMMER & BROOKS, P.C.

By: _____
Matthew W. Gaines

EXHIBIT(S):

A: Description of Property

MODIFICATION OF PURCHASE AND SALE AGREEMENT

Reference is hereby made to a certain Purchase and Sale Agreement dated April 21, 2020, by and between Stephen N. Marsh, Trustee of the 44 High Street Realty Trust, Stephen N. Marsh and Laurie J. Marsh, individually, Stephen N. Marsh, Trustee of 27 High Street Realty Trust, and Stephen N. Marsh, Trustee of 35 High Street Realty Trust, all as Seller, and Northland Residential Corporation, as Buyer, relating to certain property known as 15 High Street, 19 High Street, 27 High Street, and 35 High Street, in the Town of Norwell, Massachusetts, (the "P&S").

Seller and Buyer hereby agree to amend and modify P&S, as follows:

The Due Diligence Date as defined in paragraph 7(a)(i) of the P&S is hereby extended to August 14, 2020.

Except as expressly modified and amended above, all other terms and conditions of the P&S shall remain in full force and effect. This Modification may be executed by the parties in multiple counterparts, which, when taken together, shall constitute one integrated instrument.

Executed as an instrument under seal as of the 16 day of July, 2020.

SELLER: 44 HIGH STREET REALTY TRUST

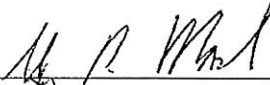
By: 
Stephen N. Marsh, Trustee

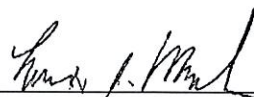
27 HIGH STREET REALTY TRUST

By: 
Stephen N. Marsh, Trustee

35 HIGH STREET REALTY TRUST

By: 
Stephen N. Marsh, Trustee


Stephen N. Marsh, individually


Laurie J. Marsh, individually

BUYER: NORTHLAND RESIDENTIAL CORPORATION

By: John C. Dawley
John C. Dawley, President and CEO,
duly authorized

SECOND MODIFICATION OF PURCHASE AND SALE AGREEMENT

Reference is hereby made to a certain Purchase and Sale Agreement dated April 21, 2020, by and between Stephen N. Marsh, Trustee of the 44 High Street Realty Trust, Stephen N. Marsh and Laurie J. Marsh, individually, Stephen N. Marsh, Trustee of 27 High Street Realty Trust, and Stephen N. Marsh, Trustee of 35 High Street Realty Trust, all as Seller, and Northland Residential Corporation, as Buyer, relating to certain property known as 15 High Street, 19 High Street, 27 High Street, and 35 High Street, in the Town of Norwell, Massachusetts, as amended by a Modification of Purchase and Sale Agreement dated July 16, 2020 (the "P&S").

Seller and Buyer hereby agree to amend and modify P&S, as follows:

The Due Diligence Date as defined in paragraph 7(a)(i) of the P&S is hereby extended to August 28, 2020.

Except as expressly modified and amended above, all other terms and conditions of the P&S shall remain in full force and effect. This Second Modification may be executed by the parties in multiple counterparts, which, when taken together, shall constitute one integrated instrument.

Executed as an instrument under seal as of the 14th day of August, 2020.

SELLER:

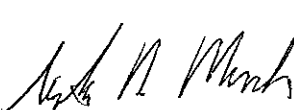
44 HIGH STREET REALTY TRUST


By: 
Stephen N. Marsh, Trustee

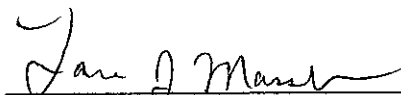
27 HIGH STREET REALTY TRUST

By: 
Stephen N. Marsh, Trustee

35 HIGH STREET REALTY TRUST

By: 
Stephen N. Marsh, Trustee


Stephen N. Marsh, individually


Laurie J. Marsh, individually

BUYER:

NORTHLAND RESIDENTIAL CORPORATION

By: John C. Dawley 8-17-20
John C. Dawley, President and CEO,
duly authorized

THIRD MODIFICATION OF PURCHASE AND SALE AGREEMENT

Reference is hereby made to a certain Purchase and Sale Agreement dated April 21, 2020, by and between Stephen N. Marsh, Trustee of the 44 High Street Realty Trust, Stephen N. Marsh and Laurie J. Marsh, individually, Stephen N. Marsh, Trustee of 27 High Street Realty Trust, and Stephen N. Marsh, Trustee of 35 High Street Realty Trust, all as Seller, and Northland Residential Corporation, as Buyer, relating to certain property known as 15 High Street, 19 High Street, 27 High Street, and 35 High Street, in the Town of Norwell, Massachusetts, as amended by a Modification of Purchase and Sale Agreement dated July 16, 2020, and as amended by a Second Modification of Purchase and Sale Agreement dated August 14, 2020 (the "P&S").

Seller and Buyer hereby agree to amend and modify P&S as follows:

1. Amend paragraph 11(a) of the P&S by deleting it in its entirety and inserting in place thereof the following:
 - (a) Subject to satisfaction of all conditions and contingencies described herein (or express written waiver thereof by Buyer), the delivery and recording of the Deed and other documents for the Property ("Closing") shall take place on the thirtieth (30th) day following the later of (i) Buyer's receipt of all Buyer's Approvals with any appeal periods relating thereto having expired with no appeals having been filed, or with any appeals being dismissed upon terms and conditions acceptable to Buyer, or (ii) Buyer's receipt of the final signoff from the Massachusetts Department of Environmental Protection and/or any other regulatory agency certifying that the cleanup and remediation of the contaminated soil as described in paragraph 26 of this Agreement is complete. If such date falls on a Saturday, Sunday or holiday, the delivery of the Deed and other documents shall take place on the next business day thereafter.
2. Amend the P&S by inserting at the end thereof the following new paragraph:

26. REMEDATION OF CONTAMINATED SOIL

The Buyer and Seller agree as follows with respect to the remediation of the contaminated soil at the Property. The parties agree that upon execution of this Third Modification of the P&S, the Buyer shall enter into a contract with BETA for the remediation of the contaminated soil at the Property. The contract shall contain a provision whereby in the event of termination of this Agreement, the contract shall be fully assignable and assumable by the Seller with no recourse to Buyer. The Seller, as the owner of the Property, shall be obligated to file all regulatory paperwork related to the remediation of the soil. Unless and until this Agreement is terminated, the Buyer shall oversee and manage the remediation process. While the filing of the required paperwork with the appropriate governmental agencies shall take place as soon as reasonably practicable, the Buyer shall not be obligated to commence the remediation of the contaminated

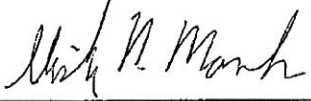
soils unless and until Buyer has obtain all of Buyer's Approvals, with any appeal periods relating thereto having expired with no appeals having been filed, or with any appeals being dismissed upon terms and conditions acceptable to Buyer. In the event the transaction as contemplated in this Agreement is consummated, the Purchase Price shall be reduced by \$75,000.00 to compensate the Buyer for the costs and expenses incurred to remediate the contaminated soil. In the event the transaction is not consummated and this Agreement is terminated for any reason, within five (5) business days of such termination, the Seller shall reimburse Buyer for actual out of pocket costs and expenses incurred as of such date related to the remediation of the soil, up to a maximum of \$75,000.00.

Except as expressly modified and amended above, all other terms and conditions of the P&S shall remain in full force and effect. This Third Modification may be executed by the parties in multiple counterparts, which, when taken together, shall constitute one integrated instrument.

Executed as an instrument under seal as of the ____ day of August, 2020.

SELLER:

44 HIGH STREET REALTY TRUST

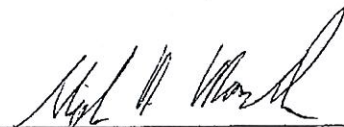
By: 
Stephen N. Marsh, Trustee


27 HIGH STREET REALTY TRUST

By: 
Stephen N. Marsh, Trustee

35 HIGH STREET REALTY TRUST

By: 
Stephen N. Marsh, Trustee


Stephen N. Marsh, individually


Laurie J. Marsh, individually

BUYER:

NORTHLAND RESIDENTIAL CORPORATION

By:  8-23-20
John C. Dawley, President and CEO,

FOURTH MODIFICATION OF PURCHASE AND SALE AGREEMENT

Reference is hereby made to a certain Purchase and Sale Agreement dated April 21, 2020, by and between Stephen N. Marsh, Trustee of the 44 High Street Realty Trust, Stephen N. Marsh and Laurie J. Marsh, individually, Stephen N. Marsh, Trustee of 27 High Street Realty Trust, and Stephen N. Marsh, Trustee of 35 High Street Realty Trust, all as Seller, and Northland Residential Corporation, as Buyer, relating to certain property known as 15 High Street, 19 High Street, 27 High Street, and 35 High Street, in the Town of Norwell, Massachusetts, as amended by a Modification of Purchase and Sale Agreement dated July 16, 2020, as amended by a Second Modification of Purchase and Sale Agreement dated August 14, 2020, and as amended by a Third Modification of Purchase and Sale Agreement dated August 23, 2020 (the "P&S").

Seller and Buyer hereby agree to amend and modify P&S as follows:

1. Amend the first paragraph of Section 10 of the P&S by deleting the second sentence therein and replacing it with the following:

"On or before December 15, 2020, the Buyer shall submit a Site Eligibility application to the subsidizing agency."

Except as expressly modified and amended above, all other terms and conditions of the P&S shall remain in full force and effect. This Fourth Modification may be executed by the parties in multiple counterparts, which, when taken together, shall constitute one integrated instrument.

Executed as an instrument under seal as of the ____ day of October, 2020.

SELLER:

44 HIGH STREET REALTY TRUST

By: _____
Stephen N. Marsh, Trustee

27 HIGH STREET REALTY TRUST

Stephen N. Marsh
By: _____
Stephen N. Marsh, Trustee

35 HIGH STREET REALTY TRUST

Stephen N. Marsh
By: _____
Stephen N. Marsh, Trustee

Stephen N. Marsh

Stephen N. Marsh, individually

Laurie J. Marsh

Laurie J. Marsh, individually

BUYER:

NORTHLAND RESIDENTIAL CORPORATION

By: *John C Dawley*
10-26-20
John C. Dawley, President and CEO,
duly authorized

FIFTH MODIFICATION OF PURCHASE AND SALE AGREEMENT

Reference is hereby made to a certain Purchase and Sale Agreement dated April 21, 2020, by and between Stephen N. Marsh, Trustee of the 44 High Street Realty Trust, Stephen N. Marsh and Laurie J. Marsh, individually, Stephen N. Marsh, Trustee of 27 High Street Realty Trust, and Stephen N. Marsh, Trustee of 35 High Street Realty Trust, all as Seller, and Northland Residential Corporation, as Buyer, relating to certain property known as 15 High Street, 19 High Street, 27 High Street, and 35 High Street, in the Town of Norwell, Massachusetts, as amended by a Modification of Purchase and Sale Agreement dated July 16, 2020, as amended by a Second Modification of Purchase and Sale Agreement dated August 14, 2020, as amended by a Third Modification of Purchase and Sale Agreement dated August 23, 2020, and as amended by a Fourth Modification of Purchase and Sale Agreement dated October 26, 2020 (the "P&S").

Seller and Buyer hereby agree to amend and modify P&S as follows:

1. Amend the first paragraph of Section 10 of the P&S by deleting the second sentence therein and replacing it with the following:

"On or before January 15, 2021, the Buyer shall submit a Site Eligibility application to the subsidizing agency."

Except as expressly modified and amended above, all other terms and conditions of the P&S shall remain in full force and effect. This Fourth Modification may be executed by the parties in multiple counterparts, which, when taken together, shall constitute one integrated instrument.

Executed as an instrument under seal as of the 7 day of December, 2020.

SELLER:

44 HIGH STREET REALTY TRUST

By: *Stephen N Marsh*

Stephen N. Marsh, Trustee

27 HIGH STREET REALTY TRUST

By: *Stephen N. Marsh*

Stephen N. Marsh, Trustee

35 HIGH STREET REALTY TRUST

By: *Stephen N. Marsh*

Stephen N. Marsh, Trustee

Stephen N. Marsh

Stephen N. Marsh, individually

Laurie J Marsh

Laurie J. Marsh, individually

BUYER: NORTHLAND RESIDENTIAL CORPORATION

By:

John C. Dawley 12-8-20

John C. Dawley, President and CEO,
duly authorized

SIXTH MODIFICATION OF PURCHASE AND SALE AGREEMENT

Reference is hereby made to a certain Purchase and Sale Agreement dated April 21, 2020, by and between Stephen N. Marsh, Trustee of the 44 High Street Realty Trust, Stephen N. Marsh and Laurie J. Marsh, individually, Stephen N. Marsh, Trustee of 27 High Street Realty Trust, and Stephen N. Marsh, Trustee of 35 High Street Realty Trust, all as Seller, and Northland Residential Corporation, as Buyer, relating to certain property known as 15 High Street, 19 High Street, 27 High Street, and 35 High Street, in the Town of Norwell, Massachusetts, as amended by a Modification of Purchase and Sale Agreement dated July 16, 2020, as amended by a Second Modification of Purchase and Sale Agreement dated August 14, 2020, as amended by a Third Modification of Purchase and Sale Agreement dated August 23, 2020, as amended by a Fourth Modification of Purchase and Sale Agreement dated October 26, 2020, and as amended by a Fifth Modification of Purchase and Sale Agreement dated December 7, 2020 (the "P&S").

Seller and Buyer hereby agree to amend and modify P&S as follows:

1. Amend the first paragraph of Section 10 of the P&S by deleting the second sentence therein and replacing it with the following:

"On or before January 29, 2021, the Buyer shall submit a Site Eligibility Letter application to the subsidizing agency."
2. Buyer hereby acknowledges the Seller's desire to salvage the granite blocks composing the foundation of one or more of the existing structures. To that end, Buyer agrees to work with Seller during the demolition of the existing structures to salvage these granite blocks.

Except as expressly modified and amended above, all other terms and conditions of the P&S shall remain in full force and effect. This Fifth Modification may be executed by the parties in multiple counterparts, which, when taken together, shall constitute one integrated instrument.

Executed as an instrument under seal as of the 8th day of January, 2021.

[Signature Blocks on Next Page]

SELLER:

44 HIGH STREET REALTY TRUST

By: Stephen N. Marsh
Stephen N. Marsh, Trustee

27 HIGH STREET REALTY TRUST

By: Stephen N. Marsh
Stephen N. Marsh, Trustee

35 HIGH STREET REALTY TRUST

By: Stephen N. Marsh
Stephen N. Marsh, Trustee

Stephen N. Marsh
Stephen N. Marsh, individually

Laurie J. Marsh
Laurie J. Marsh, individually

BUYER:

NORTHLAND RESIDENTIAL CORPORATION

By: JCDawley
John C. Dawley, President and CEO,
duly authorized

1-9-21

Section Six

Section 6 – Municipal Actions

6.1.a Contact with Municipality

Have you contacted the Municipality regarding the proposed Project? YES

Please list the names and titles of employees or board members of the Municipality you have contacted:

Name	Title	Phone #
Peter Morin	Town Administrator	(781) 659-8000
Ellen H. Allen	Chair, Board of Selectmen	(781) 659-8000

Please describe the contact you have had to date with the Municipality regarding this project:

On October 22, 2020, Peter Crabtree and Jack Dawley (Northland Residential) conducted a Zoom Meeting with Peter Morin (Town Administrator) and Ellen Allen (Chair, Board of Selectmen) from the Town of Norwell. The meeting opened with an overview of Northland Residential and the portfolio of properties Mr. Crabtree and Mr. Dawley have developed over the past 20 years. The discussion included an overview of the town's housing needs, and more specifically the need for both rental housing and affordable housing in Norwell, as outlined in the town's Housing Production Plan. At the time of the meeting, the HPP showed that Norwell was below the goal of reaching the 10% SHI threshold by approximately 60 units (assuming the delayed Simon Hill project is constructed, and it adds 126 units to the SHI). The meeting then advanced to a discussion of the development vision Northland has for the subject property, that being the creation of approximately 56 apartments. The unit mix would be 1, 2 and 3-bedroom units and 25% of the apartments would be set-aside for households earning up to 80% AMI. The permitting tool used will be Chapter 40b. The architectural design will aim to keep the buildings at a residential scale with predominantly townhouse and walk-up flats. The majority of the units will have an attached garage. The meeting was concluded with Mr. Morin and Ms. Allen agreeing that Norwell needed to continue to make progress in the creation of affordable housing and expressed their interest in advancing the discussion on how the subject property on High Street could help the town achieve this goal.

Please describe any actions you are aware of which the municipality has taken to promote the development of affordable housing.

The Town of Norwell has an approved Housing Production Plan. In Table II-32, "Housing Production Goals Based on Types of Units" it states that the 5-years goals are to create 25 homeownership units and 65 rental units. The HPP notes that since 2011, four new developments have been approved in the town:

- Washington Place – 6 affordable homeownership units;
- Simon Hill – 126 rental units (approved but construction has been delayed);
- Circuit Street - 1 homeownership unit; and
- 40 River Street – 18 rental units

6A Additional Support for Proposed Project

Please attach any letters of support from the Town for the proposed Project

To date, no letters have been requested or received.

Section Eight

Section 8.A. Application Fees

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NORTHLAND RESIDENTIAL LLC
80 BEHARRELL STREET, SUITE E
CONCORD, MA 01742

BOSTON PRIVATE BANK & TRUST COMPANY
BOSTON, MASSACHUSETTS 02110

5-234/110

50391

DATE

AMOUNT

1/25/2021

PAY

Massachusetts Housing Partnership

**4,250.00

Four Thousand Two Hundred Fifty and 00/100 *****

TO THE ORDER OF

Massachusetts Housing Partnership

PUR RED IMAGE
FACES WITH HEAT

Paul A. Thomas

MP

Security Features Included Details on back.

THE FACE OF THIS DOCUMENT HAS A COLORED BACKGROUND ON WHITE PAPER

NORTHLAND RESIDENTIAL LLC
80 BEHARRELL STREET, SUITE E
CONCORD, MA 01742

BOSTON PRIVATE BANK & TRUST COMPANY
BOSTON, MASSACHUSETTS 02110

5-234/110

50392

DATE

AMOUNT

1/25/2021

PAY

Massachusetts Housing Partnership

**5,100.00

Five Thousand One Hundred and 00/100 *****

TO THE ORDER OF

Massachusetts Housing Partnership

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NORTHLAND RESIDENTIAL LLC
80 BEHARRELL STREET, SUITE E
CONCORD, MA 01742

BOSTON PRIVATE BANK & TRUST COMPANY
BOSTON, MASSACHUSETTS 02110

5-234/110

50393

DATE

AMOUNT

1/25/2021

PAY

Massachusetts Housing Partnership

**2,000.00

Two Thousand and 00/100 *****

TO THE ORDER OF

Massachusetts Housing Partnership

PUR RED IMAGE
FACES WITH HEAT

Paul A. Thomas

MP

Security Features Included Details on back.

April 30, 2021

Stormwater Management Report
Submitted To: Town of Norwell

15, 19, 27 & 35 High Street, Norwell MA

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Proposed Residential Development 15, 19, 27 & 35 High Street Norwell, MA

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 - Existing Conditions
 - Proposed Conditions
 - Compliance with Stormwater Management Standards
2. Figures
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 - FEMA Flood Map
 - NRCS Soils Survey Map
 - MassGIS Wetland Map
 - 2018 Google Earth Aerial Map
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 - Proposed Conditions Model
 - Supplemental Drainage Calculations
 - Groundwater Recharge Volume
 - Infiltration System Drawdown
 - Water Quality Volume
 - TSS Removal
 - Closed Drainage System Sizing
 - Soil Testing Results
4. Operation and Maintenance Plans
 - Construction Operation and Maintenance Plan & Pollution Prevention Plan
 - Long Term Source Control / Pollution Prevention Plan & Operation and Maintenance Plan
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Stormwater Management Report

- Project Description
- Existing Conditions
- Proposed Conditions
- Compliance with Stormwater Management Standards

Stormwater Management Report

**15, 19, 27 & 35 High Street
Norwell, Massachusetts**

April 30, 2021

Project Summary

The project proponent, Northland Residential Corporation, proposes to redevelop multiple parcels containing approximately 3.9 acres (169,341 sf) of land along High Street in Norwell, Massachusetts. The proposed redevelopment consists a new mixed unit residential community containing 56 dwelling units including razing the existing four single family homes, construction of ten new buildings consisting of 28 townhomes and 28 flat style units, entrance driveways, sidewalk and parking, landscaping, stormwater facilities, onsite septic system, utility services and associated infrastructure.

The properties are located on the west side of High Street and consists of four (4) lots whose addresses are 15, 19, 27 and 35 High Street and are identified as Block 17, Lots 16, 17, 18 and 67 on the Town of Norwell Assessor's Map 11B. The property is currently developed with four single family homes with access from High Street. The property has frontage on High Street to the east and developed commercial property to the north and west and abuts residential property to the south. The property is located within the Business B4, Business C1 and Residence B Zoning Districts and the majority of the property is located with the Aquifer Protection Overlay District. Refer to the USGS Site Locus Map for the location of the parcel. The lot generally slopes to the southwest toward the abutting property and then to the bordering vegetated wetland area associated with Hatch Pond. The property is not located within a Zone A, or Land Subject to Flooding resource area as shown on the current FEMA Flood Map (250260092J, dated July 17, 2012). Refer to the FEMA Flood Map.

Drainage computations were performed using the Natural Resources Conservation Services (NRCS) TR-20 method and HydroCAD® Drainage Calculation Software. Watershed Delineation Area plans, the HydroCAD® Report, and copies of the calculation sheets are included as appendices to this report.

Existing Conditions

The site presently consists of four (4) single family homes and associated driveways and yard areas. The remainder of the site is comprised of wooded areas and open fields surrounding the residential homes which front High Street. The site's topography is gentle to moderate with slopes ranging from 0 to 8 percent draining towards the southwest off site. The site has frontage along High Street with four access drives.

Soil types were obtained from NRCS mapping and were found to be Canton fine sandy loam (3-8% slopes). The soil type is identified as Hydrologic Soil Group (HSG) B soils. In order to confirm the soil class and groundwater depth characteristics of the soil, soil testing was performed during June and December of 2020 within the approximate location of the proposed septic system and stormwater facilities. Based on the soil textures encountered at the time of testing, the overall site was found to have sandy soils (HSG A) with a transition into denser loamy sand texture in the northern portion of the site. Refer to NRCS Soils Map and Section 3 of this report for supporting soil testing results.

Under the existing conditions, the westerly portion of the site's stormwater runoff flows overland towards High Street with no stormwater controls (Design Point 1). The majority of the site's stormwater runoff flows overland toward the southwesterly property boundary (Design Point 2), while the remaining northerly portion of the site's stormwater runoff flows overland in a northwesterly direction towards an existing depression just off property (Design Point 3).

Existing conditions were established with supporting field inspections of the watershed areas and historic documentation of site conditions. Medium sand soil textures were identified and no indication of standing water was observed within the limits of the proposed stormwater infiltration system, therefore the hydraulic conductivity for sand (8.27 in/hr) listed by Rawls 1982 were utilized in the stormwater analysis.

Proposed Conditions

Under the post development condition, the proposed impervious surface runoff will be discharged into a subsurface infiltration chamber system with pretreatment. The drainage facility will collect and treat the proposed impervious surfaces through first defense pre-treatment units prior to discharge to the infiltration chambers. The stormwater management system was designed to be in compliance with the DEP Stormwater Management Regulations (SMR).

There will be an increase in runoff rates due to the additional impervious area proposed on the site. This increase is attenuated by the proposed subsurface infiltration systems by providing infiltration, storage volume and discharge controls. These measures will both detain and infiltrate runoff, help mitigate increased rates and volumes of runoff for the 2, 10, and 100-year storms events off site.

Compliance with Stormwater Management Standards

Standard 1 – No New Untreated Discharges

No new stormwater conveyances will discharge untreated impervious runoff into, or cause erosion to downgradient areas. A subsurface infiltration system is proposed to capture and treat runoff from the building roofs and paved driveway, parking and sidewalk areas, which will improve the quality of stormwater discharge from the site.

Standard 2 – Peak Rate Attenuation

Peak rates of runoff were calculated using the TR-20 methodology developed by the NRCS computer-based program, HydroCAD (refer to Section 3). The increase in runoff is attenuated by the proposed subsurface infiltration chamber system providing treatment, infiltration and storage volume controls. These measures will both detain and infiltrate runoff, mitigating increased rates of runoff for the 2, 10, and 100-year storms events.

All closed drainage structures were designed employing the rational method and the Norwell design regulations to accommodate peak flows generated by the 100-yr storm event where applicable. The stormwater facility has been designed to accommodate peak flows generated by the 100-year storm event. Refer to Section 3 for closed drainage system sizing design.

The following is a summary of pre- and post-construction peak rates and volume of runoff:

	PEAK RATES OF RUNOFF					
	Design Point 1 (High Street)		Design Point 2 (Southwest)		Design Point 3 (Northwest)	
	EXISTING (cfs)	PROPOSED (cfs)	EXISTING (cfs)	PROPOSED (cfs)	EXISTING (cfs)	PROPOSED (cfs)
2YR	0.05	0.01	0.00	0.00	0.00	0.00
10YR	0.44	0.15	0.04	0.00	0.00	0.01
25 YR	0.97	0.34	0.27	0.03	0.02	0.04
100YR	2.28	0.82	1.61	0.19	0.28	0.25

	PEAK VOLUME OF RUNOFF					
	Design Point 1 (High Street)		Design Point 2 (Southwest)		Design Point 3 (Northwest)	
	EXISTING (AF)	PROPOSED (AF)	EXISTING (AF)	PROPOSED (AF)	EXISTING (AF)	PROPOSED (AF)
2YR	0.012	0.004	0.000	0.000	0.000	0.000
10YR	0.046	0.016	0.025	0.003	0.002	0.003
25 YR	0.082	0.029	0.077	0.007	0.013	0.009
100YR	0.173	0.063	0.249	0.020	0.056	0.028

Standard 3 – Groundwater Recharge

Runoff will be infiltrated by a subsurface infiltration chamber system. The infiltration chamber system will be a minimum of four feet above seasonal high groundwater. The hydraulic conductivity was based on soil conditions found on the site via soil testing and DEP SMR Table 2.3.3 1982 Rawls Rates - values developed from Rawls, Brakensiek and Saxton, 1982 for sand, (HSG A) soils with an exfiltration rate of 8.27 in/hr. The total required groundwater recharge volume for the entire site was calculated to be 4,583 cubic feet. The proposed subsurface infiltration facilities will provide 27,110 cubic feet of recharge below the minimum outlet elevation. Refer to Section 5 for recharge volume, drawdown calculations and soil testing results.

Standard 4 – Water Quality

A Long-Term Source Control/Pollution Prevention Plan has been incorporated into the Operation and Maintenance Plan. The water quality volume was calculated using the one-inch

rule for the total proposed impervious area of 2.10 acres. The total required water quality treatment volume was calculated to be 7,623 cubic feet. The proposed water quality treatment volume provided is 27,110 cubic feet through the subsurface infiltration system. Refer to Section 5 for water quality calculations for the treatment stream.

In accordance with the guidelines of the Stormwater Management Policy, the Total Suspended Solids (TSS) Removal was calculated to be 80% or greater for the new treatment train which will handle the stormwater runoff from the proposed project area. The treatment train consists of deep hooded catch basin, a pretreatment unit to subsurface infiltration chamber system to achieve the required removal rate of 80% total suspended soils. TSS removal calculations are included in Section 5.

Standard 5 – Land Use with Higher Potential Pollutants Loads (LUHPPL)

The proposed project is not considered a LUHPPL. Not Applicable.

Standard 6 – Critical Areas

The proposed project does not discharge to any critical areas. Not Applicable.

Standard 7 – Redevelopment and Other Projects Subject to the Standards only to the maximum extent practicable

This project is not considered a redevelopment project. Not Applicable. The project site is currently developed, and the proposed project consists of razing several existing structures and constructing new residential buildings. Portions of the site could be considered redevelopment, but for the purpose of stormwater design, the project was considered new development and has been designed to be in compliance with the stormwater standards.

Standard 8 – Construction Period Pollutions Prevention and Erosion and Sedimentation Control

Silt socks will be placed at the limit of work as erosion control barriers prior to commencement of any construction activity. A Construction Operation and Maintenance Plan and Construction Pollution Prevention Plan have been provided. Refer to the construction detail plan for erosion control details and the BMP Operation and Maintenance Plan.

Standard 9 – Operation and Maintenance Plan

The Long-Term Source Control/Pollution Prevention Plan and Operation and Maintenance Plan is provided.

Standard 10 – Prohibition of Illicit Discharges

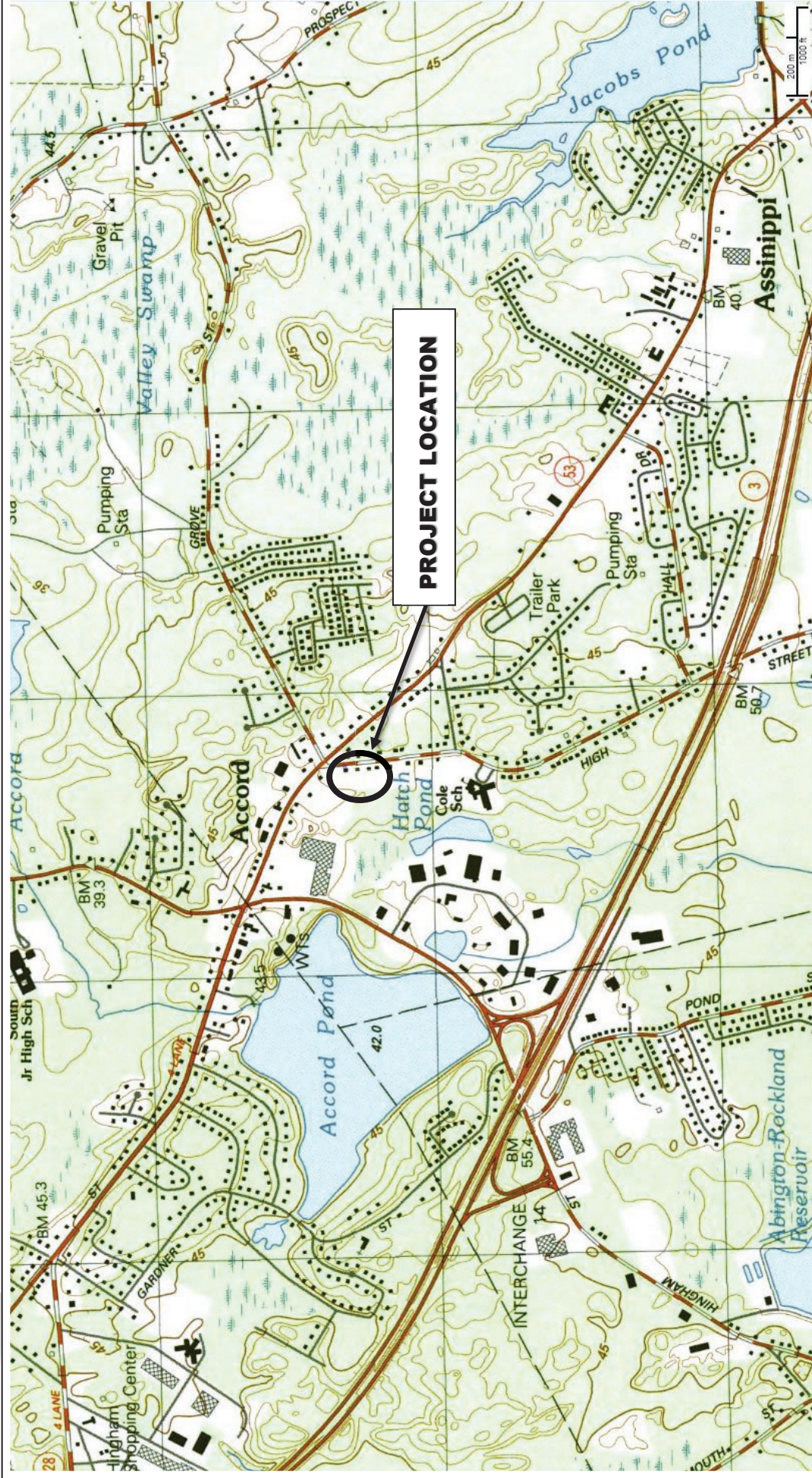
No illicit discharges are anticipated on site. Measures to prevent illicit discharges are included in the Long-Term Source Control/Pollution Prevention Plan.



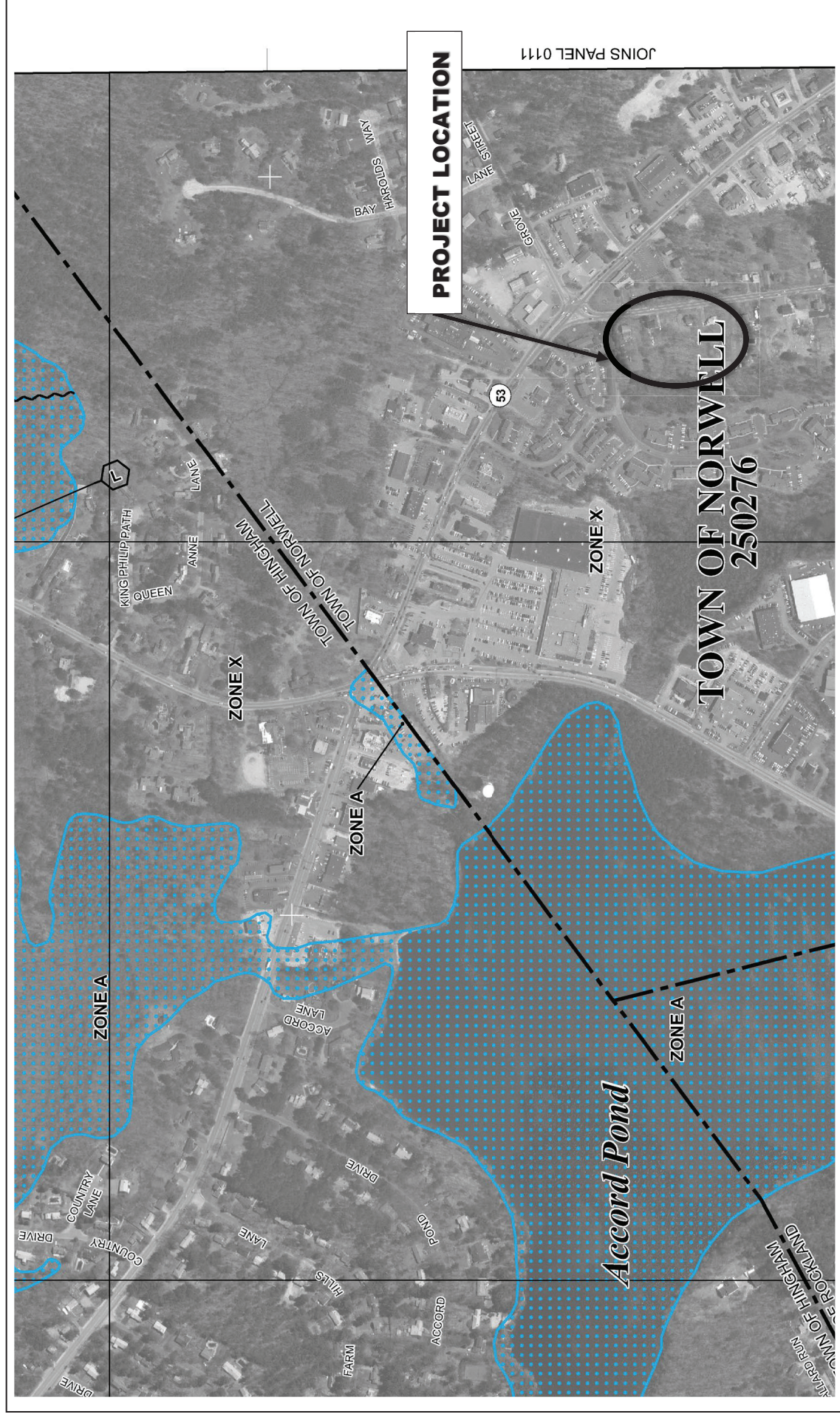
Figures

- USGS Map
- FEMA Flood Map
- NRCS Soil Survey Map
- MassGIS Wetland Map
- 2018 Google Earth Aerial Map

USGS Map



FEMA Flood Map

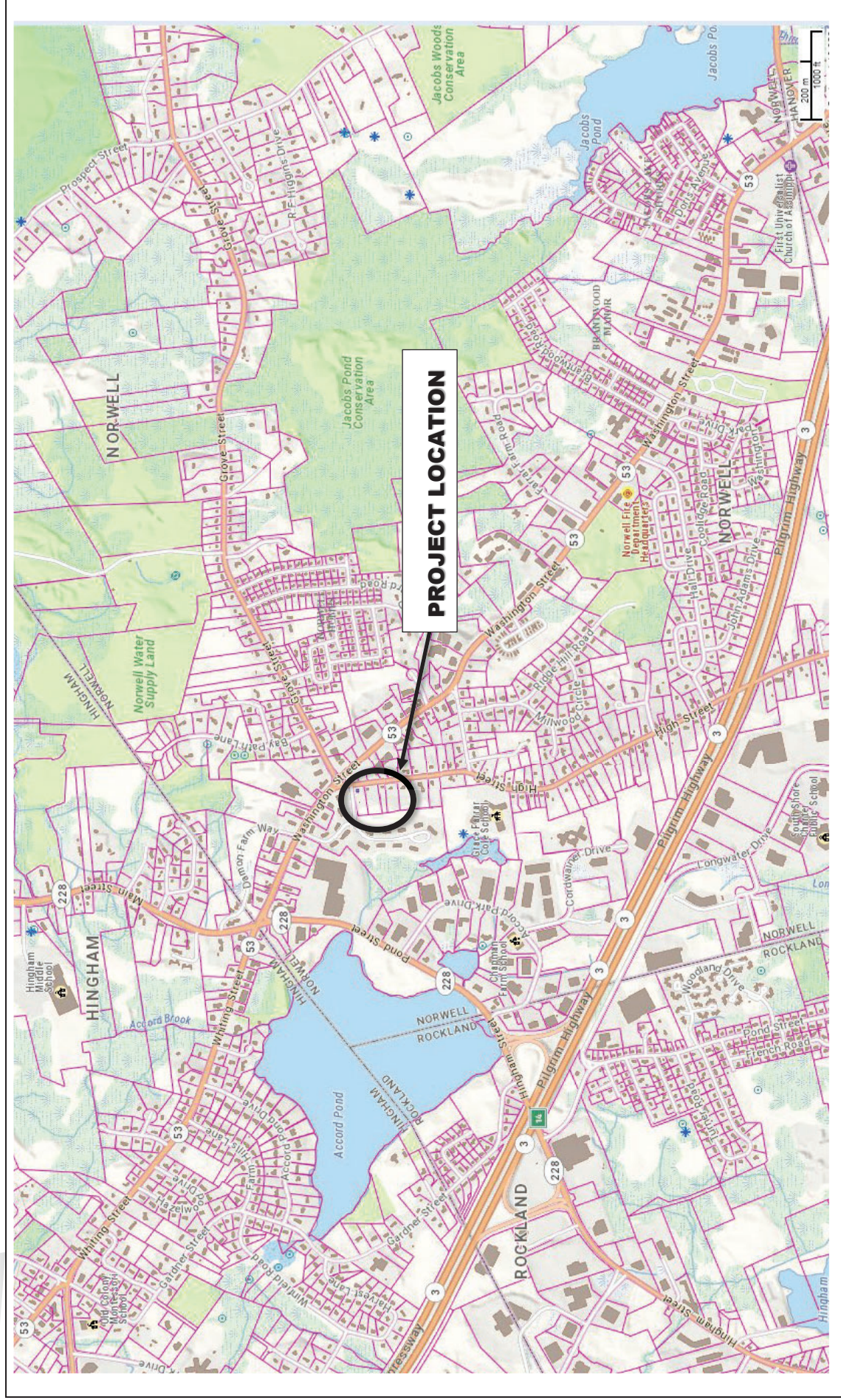


100

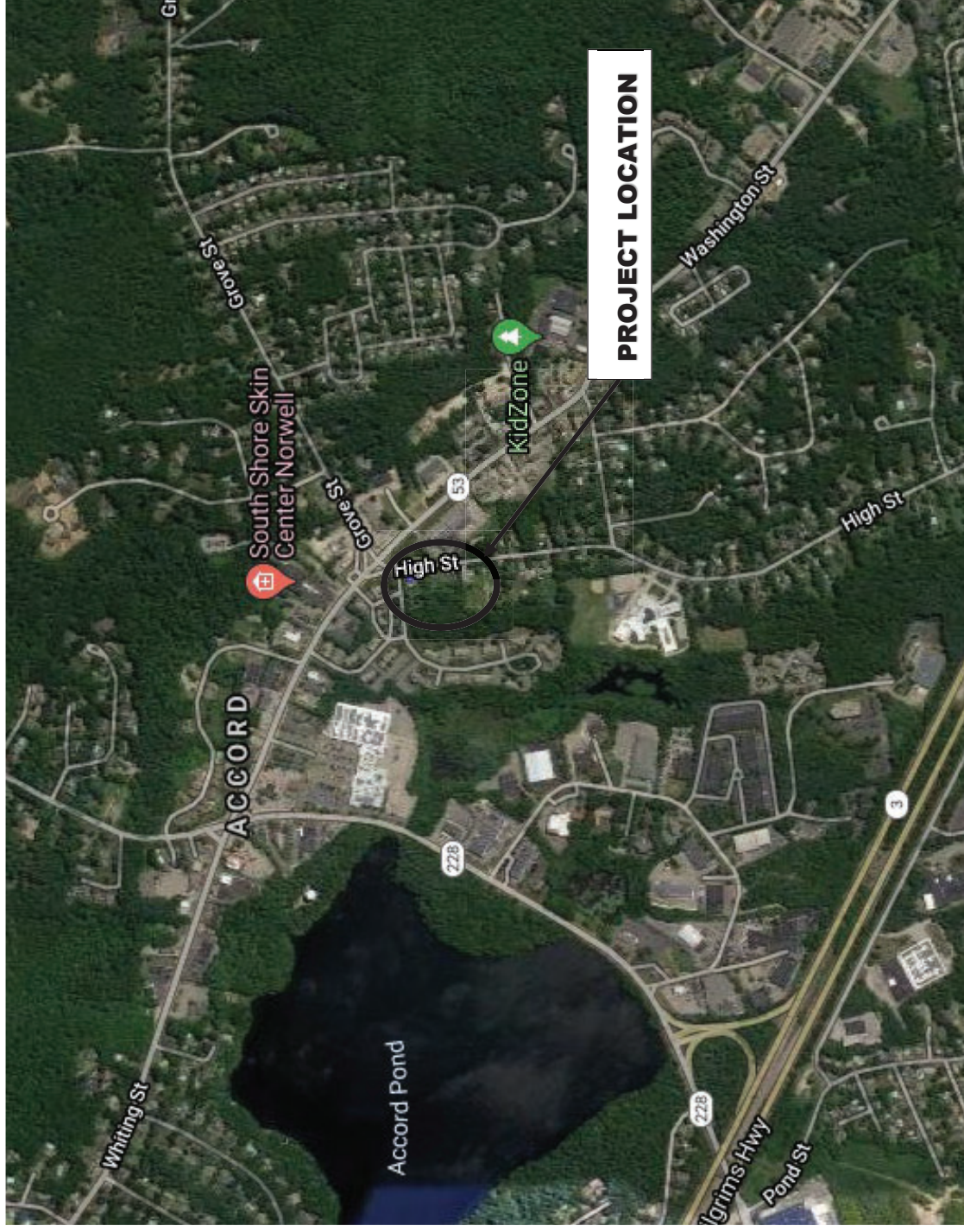


(508) 746-6060 / 26 Union Street, Plymouth, MA 02360
merrillinc.com / (781) 826-9200 / 427 Columbia Road, Hanover, MA 02339

MassGIS Wetland Map



2018 Google Earth Aerial Map



(508) 746-6060 / 26 Union Street, Plymouth, MA 02360
merrillinc.com / (781) 826-9200 / 427 Columbia Road, Hanover, MA 02339

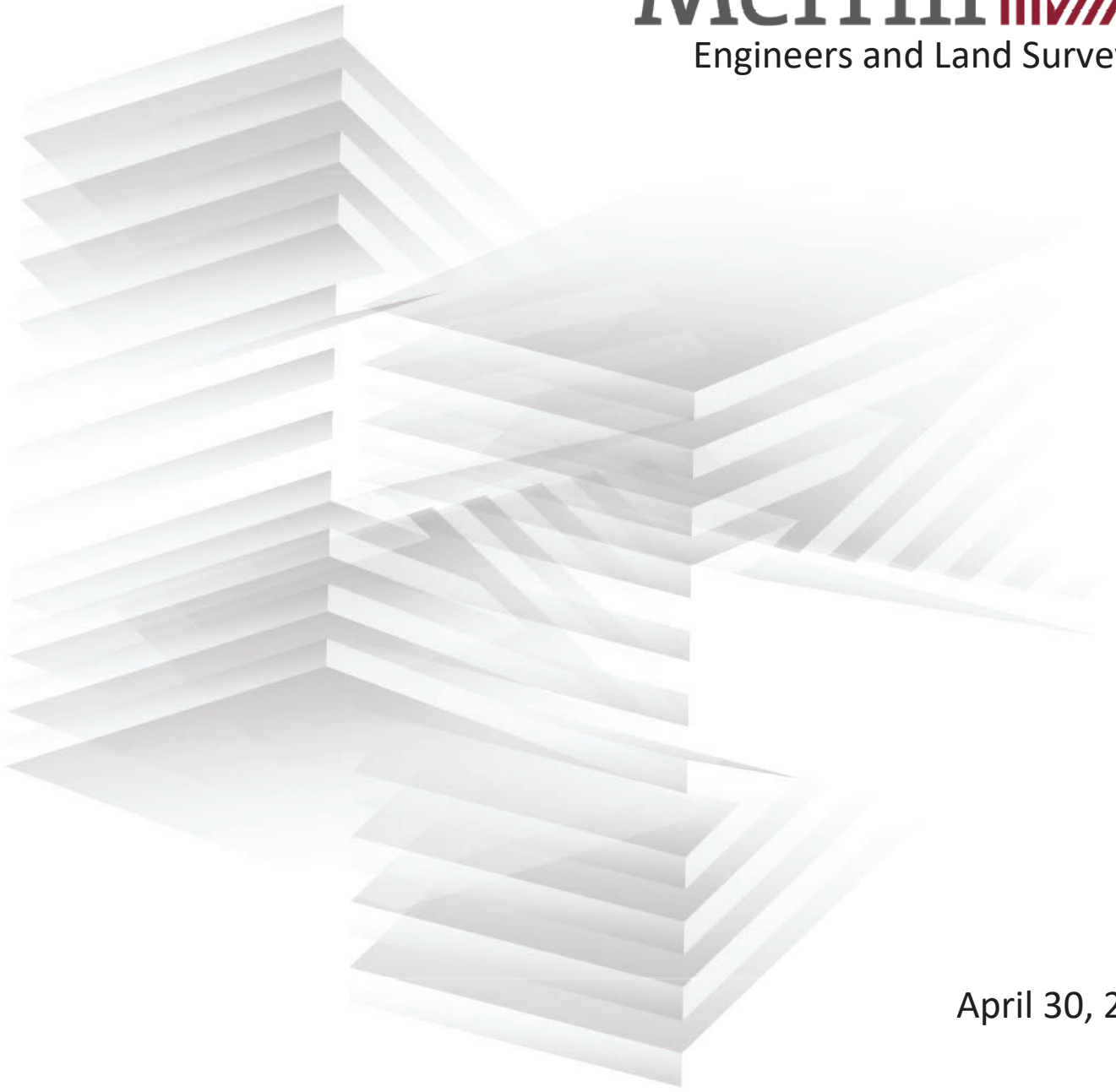
Note:

The Drainage Calculations and Soil Testing Forms are available in the Supplemental Materials portion of this application.



Operation and Maintenance Plans

- Construction Operation and Maintenance Plan & Pollution Prevention Plan
- Long Term Source Control / Pollution Prevention Plan & Operation and Maintenance Plan



April 30, 2021

Construction Phase Operation & Maintenance Plan

#15, 19, 27 & 35 High Street, Norwell

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CONSTRUCTION PHASE OPERATION AND MAINTENANCE PLAN

Dated: April 30, 2021

15, 19, 27 & 35 High Street Norwell, MA

The structural and stabilization practices utilized on site correspond with plans entitled “15 High Street, Proposed Residential Development, 15, 19, 27 & 35 High Street, Norwell, Massachusetts”, dated April 30, 2021 as revised hereinafter referred to as the Site Plans.

Responsible Party for Operation and Maintenance Contact Information:

Northland Residential Corporation
80 Beharrell Street, Suite E
Concord, Massachusetts 01742
P: 781.229.4700

Source of Funding:

Operation and Maintenance of this stormwater management system will be the responsibility of the property owner to include its successor and/or assigns, as the same may appear on record with the appropriate register of deeds.

Project Description:

The project proponent, Northland Residential Corporation, proposes to redevelop multiple parcels containing approximately 3.9 acres (169,341 sf) of land along High Street in Norwell, Massachusetts. The proposed redevelopment consists a new mixed unit residential community containing 56 dwelling units including razing the existing four single family homes, construction of ten new buildings consisting of 28 townhomes and 28 flat style units, entrance driveways, sidewalk and parking, landscaping, stormwater facilities, onsite septic system, utility services and associated infrastructure. The properties are located on the west side of High Street and consists of four (4) lots whose addresses are 15, 19, 27 and 35 High Street and are identified as Block 17, Lots 16, 17, 18 and 67 on the Town of Norwell Assessor’s Map 11B. The property is currently developed with four single family homes with access from High Street. The property has frontage on High Street to the east and developed commercial property to the north and west and abuts residential property to the south. The property is located within the Business B4, Business C1 and Residence B Zoning Districts and the majority of the property is located with the Aquifer Protection Overlay District. Refer to the USGS Site Locus Map for the location of the parcel. The lot generally slopes to the southwest toward the abutting property and then to the bordering vegetated wetland area associated with Hatch Pond. The property is not located within a Zone A, or Land Subject to Flooding resource area as shown on the current FEMA Flood Map (250260092J, dated July 17, 2012). Refer to the FEMA Flood Map.

Pre-Development Condition

The site presently consists of four (4) single family homes and associated driveways and yard areas. The remainder of the site is comprised of wooded areas and open fields surrounding the residential homes which front High Street. The site's topography is gentle to moderate with slopes ranging from 0 to 8 percent draining towards the southwest off site. The site has frontage along High Street with four access drives.

Soils

Soil types were obtained from NRCS mapping and were found to be Canton fine sandy loam (3-8% slopes). The soil type is identified as Hydrologic Soil Group (HSG) B soils. In order to confirm the soil class and groundwater depth characteristics of the soil, soil testing was performed during June and December of 2020 within the approximate location of the proposed septic system and stormwater facilities. Based on the soil textures encountered at the time of testing, the overall site was found to have sandy soils (HSG A) with a transition into denser loamy sand texture in the northern portion of the site. Refer to NRCS Soils Map and Section 3 of this report for supporting soil testing results.

Post-Development Condition

Under the post development condition, the proposed impervious surface runoff will be discharged into a subsurface infiltration chamber system with pretreatment. The drainage facility will collect and treat the proposed impervious surfaces through first defense pretreatment units prior to discharge to the infiltration chambers. The stormwater management system was designed to be in compliance with the DEP Stormwater Management Regulations (SMR).

Erosion and Sedimentation Control Best Management Practices:

Structural Practices:

- 1) **Silt Sock Erosion Control Barrier** – A silt sock barrier will be constructed along downward slopes at the limit of work in locations shown on the plans. This control will be installed prior to major soil disturbance on the site. The sediment silt sock barrier should be installed as shown on the Construction Detail Plan.

Silt Sock Installation Requirements

- a) Locate the silt sock where identified on the plans.
- b) The silt sock line should be nearly level through most of its length to impound a broad, temporary pool. The last 10 to 20 feet at each end of the silt sack should be swung slightly uphill (approximately 0.5 feet in elevation) to provide storage capacity.
- c) The silt sock shall be staked every 8 linear feet with 1-inch by 1-inch stakes.
- d) Sediment silt socks should be removed when they have served their useful purpose, but not before the upslope area has been permanently stabilized through one growing season. Retained sediment must be removed and properly disposed of, or mulched and seeded.

Silt Sock Inspection/Maintenance

- a) Silt socks should be inspected immediately after each rainfall event of 1-inch or greater, and at least daily during prolonged rainfall. Inspect the depth of sediment, fabric tears, and to see that the stakes are firmly in the ground. Repair or replace as necessary.
 - b) Remove sediment deposits promptly after storm events to provide adequate storage volume for the next rain and to reduce pressure on the fence. Sediment will be removed from behind the sediment fence when it becomes about ½ foot deep at the silt sock. Take care to avoid undermining fence during cleanout.
 - c) If the fabric tears, decomposes, or in any way becomes ineffective, replace it immediately.
 - d) Remove all silt sock materials after the contributing drainage area has been properly stabilized. Sediment deposits remaining after the fabric has been removed should be graded to conform with the existing topography and vegetated.
- 2) **Sediment Fence Control Barrier** – A sediment fence barrier will be installed along the limit of work in areas where silt sock barriers can not be used. This control will be installed prior to major soil disturbance on the site. The sediment fence should be installed as shown on the Erosion Control Detail Plan and be Amoco woven polypropylene 1198 or equivalent.

Sediment Fence Design/Installation Requirements

- a) Locate the fence where necessary.
- b) The fence line should be nearly level through most of its length to impound a broad, temporary pool. The last 10 to 20 feet at each end of the fence should be swung slightly uphill (approximately 0.5 feet in elevation) to provide storage capacity.
- c) Excavate a trench approximately 8 inches deep and 4 inches wide, or a V-trench; along the line of the fence, upslope side.
- d) Fasten support wire fence (14 gauge with 6-inch mesh) securely to the upslope side of the fence posts with wire ties or staples. Wire should extend 6 inches into the trench.
- e) Attach continuous length of fabric to upslope side of fence posts. Avoid joints, particularly at low points in the fence line. Where joints are necessary, fasten fabric securely to support posts and overlap to the next post.
- f) Place the bottom one foot of fabric in the trench. Backfill with compacted earth or gravel.

- g) Filter cloth shall be fastened securely to the woven wire fence with ties spaced every 24 inches at the top, mid-section, and bottom.
- h) Sediment fences should be removed when they have served their useful purpose, but not before the upslope area has been permanently stabilized through one growing season. Retained sediment must be removed and properly disposed of, or mulched and seeded.

Sediment Fence Inspection/Maintenance

- a) Silt fences should be inspected immediately after each rainfall event of 1-inch or greater, and at least daily during prolonged rainfall. Inspect the depth of sediment, fabric tears, if the fabric is securely attached to the fence posts, and to see that the fence posts are firmly in the ground. Repair or replace as necessary.
 - b) Remove sediment deposits promptly after storm events to provide adequate storage volume for the next rain and to reduce pressure on the fence. Sediment will be removed from behind the sediment fence when it becomes about ½ foot deep at the fence. Take care to avoid undermining fence during cleanout.
 - c) If the fabric tears, decomposes, or in any way becomes ineffective, replace it immediately.
 - d) Remove all fencing materials after the contributing drainage area has been properly stabilized. Sediment deposits remaining after the fabric has been removed should be graded to conform with the existing topography and vegetated.
- 3) **Stabilized Construction Entrances** – A stabilized construction entrance will be placed at the existing southern driveway along High Street. The construction entrance will keep mud and sediment from being tracked off the construction site onto surrounding streets by vehicles leaving the site. The stabilized construction entrance will be installed prior to any major soil disturbance on site. The construction entrance will be graded to contain stormwater runoff from the entrance to prevent sediment from washing onto the adjacent ground surface. The stabilized construction entrance shall be constructed as shown on the Site Plans.

Construction Entrance Installation Requirements

- a) Grade foundation of construction entrance with slightly concave shape to contain runoff within the entrance to prevent sediment from washing onto the adjacent ground surface.
- b) Stone for a stabilized construction entrance shall consist of 1 to 3-inch stone placed on a stable foundation.
- c) Pad dimensions: The minimum length of the gravel pad should be 30 feet. The pad should extend the full width of the proposed roadway, or wide enough so that the largest construction vehicle will fit in the entrance with room to spare; whichever is greater.

- d) A geotextile filter fabric shall be placed between the stone fill and the earth surface below the pad to reduce the migration of soil particles from the underlying soil into the stone and vice versa. The filter fabric should be Amoco woven polypropylene 1198 or equivalent.
- e) Washing: If the site conditions are such that the majority of mud is not removed from the vehicle tires by the gravel pad, then the tires should be washed before the vehicle enters the road or street. The wash area shall be located at the stabilized construction entrance.
- f) Water employed in the washing process shall be directed to the temporary sedimentation basin/dewatering area as shown on the plans prior to discharge. Sediment should be prevented from entering any watercourses.

Construction Entrance Maintenance

- a) The entrance should be maintained in a condition that will prevent tracking or flowing of sediment onto High Street. This may require periodic topdressing with additional stone
 - b) The construction entrance and sediment disposal area shall be inspected weekly and after heavy rains or heavy use.
 - c) Mud and sediment tracked or washed onto public road shall be immediately removed by sweeping.
 - d) Once mud and soil particles clog the voids in the gravel and the effectiveness of the gravel pad is no longer satisfactory, the pad must be topdressed with new stone. Replacement of the entire pad may be necessary when the pad becomes completely clogged.
 - e) If washing facilities are used, the temporary sedimentation basin/dewatering area should be cleaned out as often as necessary to assure that adequate trapping efficiency and storage volume is available. Any water pumped from the temporary sedimentation basin shall be directed into a sediment dirt bag or equivalent inlet protection prior to discharge. Discharge should not be across the disturbed construction site but rather to undisturbed areas.
 - f) The pad shall be reshaped as needed for drainage and runoff control.
 - g) Broken road pavement on High Street shall be repaired immediately.
 - h) All temporary erosion and sediment control measures shall be removed within 30 days after final site stabilization is achieved or after the temporary practices are no longer needed and only following approval by the Engineering Department or their representative. Trapped sediment shall be removed or stabilized on site. Disturbed soil areas resulting from removal shall be permanently stabilized.
- 4) **Temporary Sediment Basin** – A temporary sediment basins shall be constructed in locations as determined by the Site Contractor as necessary. The temporary sediment basins will handle storm water, filtering out sediment until the permanent stormwater drainage system is functioning properly. The temporary sediment basins will be lined with sediment erosion barrier controls.

Sediment Basin Design/Installation Requirements

- a) Divert runoff from undisturbed areas away from basins.
- b) The sediment basins should have a minimum volume based on ½ inch of storage for each acre of drainage area.
- c) The length-to-width ratio should be 2:1 or greater; divert inflow to upper end of basin to avoid short-circuiting flow. Length is defined as the average distance from the inlet to the outlet of the trap.
- d) Utilize side slopes of 3:1.
- e) The sediment basins should be located as close to the sediment source as site conditions permit considering soils, pool area, dam length, and spillway conditions.
- f) Line bottom with gravel and stabilize as soon as possible.

Sediment Basin and Swale Inspection/Maintenance

- a) The sediment basins should be readily accessible for maintenance and sediment removal. The sediment basins should remain in operation and be properly maintained until the site area is permanently stabilized by vegetation and/or when permanent structures are in place.
 - b) Inspect the sediment basins after each significant rainfall.
 - c) Remove and properly dispose of sediment when it accumulates to one-half design volume (level marked by reference stake). The effectiveness of a sediment pond is based less on its size than on regular sediment removal.
 - d) Check embankment and outlet for erosion damage.
 - e) Check embankment for: settlement, seepage, or slumping along the toe. Repair immediately. Remove trash and other debris from principal spillway and pool area.
 - f) Clean or replace gravel when sediment pool does not drain properly.
- 5) **Inlet Protection** – Inlet Protection will be utilized around the existing catch basin grates as shown on the site plans. The inlet protection will prevent any sediment from entering the street(s) and or site's closed drainage system. Siltsack or equivalent will be utilized for the inlet protection. Siltsack is manufactured by ACF Environmental. The telephone number is 1-800-437-6746. Regular flow siltsack will be utilized, and if it does not allow enough storm water flow, hi-flow siltsack will be utilized.

Silt Sack (or equivalent) Inlet Protection Maintenance Requirements

- a) The silt sack trapping device and the catch basin should be inspected after every rain storm and repairs made as necessary.
- b) Sediment should be removed from the silt sack after the sediment has reached a maximum depth of one-half the depth of the trap.
- c) Sediment should be disposed of in a suitable area and protected from erosion by either structural or vegetative means. Sediment material removed shall be disposed of in accordance with all applicable local, state, and federal regulations.
- d) The silt sack must be replaced if it is ripped or torn in any way.
- e) Temporary traps should be removed and the area repaired as soon as the contributing drainage area to the inlet has been completely stabilized.

Stabilization Practices:

Stabilization measures shall be implemented as soon as practicable in portions of the site where construction activities have temporarily or permanently ceased, but in no case more than 14 days after the construction activity in that portion of the site has temporarily or permanently ceased, with the following exceptions.

- Where the initiation of stabilization measures by the 14th day after construction activity temporary or permanently cease is precluded by snow cover, stabilization measures shall be initiated as soon as practicable.
 - Where construction activity will resume on a portion of the site within 21 days from when activities ceased, then stabilization measures do not have to be initiated on that portion of the site by the 14th day after construction activity temporarily ceased.
- 1) **Temporary Seeding** – Temporary seeding will allow a short-term vegetative cover on disturbed site areas that may be in danger of erosion. Temporary seeding will be done at stock piles and disturbed portions of the site where construction activity will temporarily cease for at least 21 days. The temporary seedings will stabilize cleared and unvegetated areas that will not be brought into final grade for several weeks or months.

Temporary Seeding Planting Procedures

- a) Planting should preferably be done between April 1st and June 30th, and September 1st through September 31st. If planting is done in the months of July and August, irrigation may be required. If planting is done between October 1st and March 31st, mulching should be applied immediately after planting. If seeding is done during the summer months, irrigation of some sort will probably be necessary.
- b) Before seeding, install structural practice controls. Utilize Amoco supergro or equivalent.

- c) The seedbed should be firm with a fairly fine surface. Perform all cultural operations across or at right angles to the slope. A minimum of 2 to 4-inches of tilled topsoil is required. The topsoil must have a sandy loam to silt loam texture with 15% to 20% organic content.
- d) Apply uniformly 2 tons of ground limestone per acre (100 lbs. Per 1,000 sq.ft.) or according to soil test. Apply uniformly 10-10-10 analysis fertilizer at the rate of 400 lbs. per acre (14 lbs. per 1,000 sq.ft.) or as indicated by soil test. Forty percent of the nitrogen should be in organic form. Work in lime and fertilizer to a depth of 4-inches using any suitable equipment.
- e) Select the appropriate seed species for temporary cover from the following table.

Species	Seeding Rate (lbs/1,000 sq.ft.)	Seeding Rate (lbs/acre)	Recommended Seeding Dates	Seed Cover required
Annual Ryegrass	1	40	April 1 st to June 1 st August 15 th to Sept. 15 th	¼ inch
Foxtail Millet	0.7	30	May 1 st to June 30 th	½ to ¾ inch
Oats	2	80	April 1 st to July 1 st August 15 th to Sept. 15 th	1 to 1-½ inch
Winter Rye	3	120	August 15 th to Oct. 15 th	1 to 1-½ inch

- f) Apply the seed uniformly by hydroseeding, broadcasting, or by hand.
- g) Use effective mulch, such as clean grain straw; tacked and/or tied with netting to protect seedbed and encourage plant growth.

Temporary Seeding Maintenance

- a) Inspect within 6 weeks of planting to see if stands are adequate. Check for damage within 24 hours of the end to a heavy rainfall, defined as a 2-year storm event (i.e., 3.35 inches of rainfall within a twenty-four hour period). Stands should be uniform and dense. Reseed and mulch damaged and sparse areas immediately. Tack or tie down mulch as necessary.
 - b) Seeds should be supplied with adequate moisture. Furnish water as needed, especially in abnormally hot or dry weather. Water application rates should be controlled to prevent runoff.
- 2) **Geotextiles** - Geotextiles such as jute netting will be used in combination with other practices such as mulching to stabilize slopes. The following geotextile materials or equivalent are to be utilized for structural and nonstructural controls as shown in the following table.

Practice	Manufacturer	Product	Remarks
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Sediment Fence	Amoco	Woven polypropylene 1198 or equivalent	0.425 mm opening
Construction Entrance	Amoco	Woven polypropylene 2002 or equivalent	0.300 mm opening
Outlet Protection	Amoco	Nonwoven polypropylene 4551 or equivalent	0.150 mm opening
Erosion Control (slope stability)	Amoco	Supergro or equivalent	Erosion control revegetation mix, open polypropylene fiber on degradable polypropylene net scrim

Amoco may be reached at (800) 445-7732

Geotextile Installation

- a) Netting and matting require firm, continuous contact between the materials and the soil. If there is no contact, the material will not hold the soil and erosion will occur underneath the material.

Geotextile Maintenance

- a) In the field, regular inspections should be made to check for cracks, tears, or breaches in the fabric. The appropriate repairs should be made.
- 3) **Mulching and Netting** – Mulching will provide immediate protection to exposed soils during the period of short construction delays, or over winter months through the application of plant residues, or other suitable materials, to exposed soil areas. In areas, which have been seeded either for temporary or permanent cover, mulching should immediately follow seeding. On steep slopes, mulch must be supplemented with netting. The preferred mulching material is straw.

Mulch (Straw) Installation

- a) Straw has been found to be one of the most effective organic mulch materials. The specifications for straw are described below, but other material may be appropriate. The straw should be air-dried; free of undesirable seeds & coarse materials. The application rate per 1,000 sq.ft. is 90-100 lbs. (2-3 bales) and the application rate per acre is 2 tons (100-120 bales). The application should cover about 90% of the surface. The use of straw mulch is appropriate where mulch is maintained for more than three months. Straw mulch is subject to wind blowing unless anchored, is the most commonly used mulching material, and has the best microenvironment for germinating seeds.

Mulch Maintenance

- a) Inspect after rainstorms to check for movement of mulch or erosion. If washout, breakage, or erosion occurs, repair surface, reseed, remulch, and install new netting.

- b) Straw or grass mulches that blow or wash away should be repaired promptly.
 - c) If plastic netting is used to anchor mulch, care should be taken during initial mowings to keep the mower height high. Otherwise, the netting can wrap up on the mower blade shafts. After a period of time, the netting degrades and becomes less of a problem.
 - d) Continue inspections until vegetation is well established.
- 4) **Land Grading** – Grading on fill slopes, cut slopes, and stockpile areas will be done with full siltation controls in place.

Land Grading Requirements

- a) Areas to be graded should be cleared and grubbed of all timber, logs, brush, rubbish, and vegetated matter that will interfere with the grading operation. Topsoil should be stripped and stockpiled for use on critical disturbed areas for establishment of vegetation. Cut slopes to be topsoiled should be thoroughly scarified to a minimum depth of 3-inches prior to placement of topsoil.
- b) Fill materials should be generally free of brush, rubbish, rocks, and stumps. Frozen materials or soft and easily compressible materials should not be used in fills intended to support buildings, parking lots, roads, conduits, or other structures.
- c) Earth fill intended to support structural measures should be compacted to a minimum of 90 percent of Standard Proctor Test density with proper moisture control, or as otherwise specified by the engineer responsible for the design. Compaction of other fills should be to the density required to control sloughing, erosion or excessive moisture content. Maximum thickness of fill layers prior to compaction should not exceed 9 inches.
- d) The uppermost one foot of fill slopes should be compacted to at least 85 percent of the maximum unit weight (based on the modified AASHTO compaction test). This is usually accomplished by running heavy equipment over the fill.
- e) Fill should consist of material from borrow areas and excess cut will be stockpiled in areas shown on the Site Plans. All disturbed areas should be free draining, left with a neat and finished appearance, and should be protected from erosion.

Land Grading Stabilization Maintenance

- a) All slopes should be checked periodically to see that vegetation is in good condition. Any rills or damage from erosion and animal burrowing should be repaired immediately to avoid further damage.
- b) If seeps develop on the slopes, the area should be evaluated to determine if the seep will cause an unstable condition. Subsurface drains or a gravel mulch may be required to solve seep problems. However, no seeps are anticipated.
- c) Areas requiring revegetation should be repaired immediately. Control undesirable vegetation such as weeds and woody growth to avoid bank stability problems in the future.

- 5) **Topsoiling** – Topsoiling will help establish vegetation on all disturbed areas throughout the site during the seeding process. The soil texture of the topsoil to be used will be a sandy loam to a silt loam texture with 15% to 20% organic content.

Topsoiling Placement

- a) Topsoil should not be placed while in a frozen or muddy condition, when the subgrade is excessively wet, or when conditions exist that may otherwise be detrimental to proper grading or proposed seeding.
 - b) Do not place topsoil on slopes steeper than 2.5:1, as it will tend to erode.
 - c) If topsoil and subsoil are not properly bonded, water will not infiltrate the soil profile evenly and it will be difficult to establish vegetation. The best method is to actually work the topsoil into the layer below for a depth of at least 6 inches.
- 6) **Permanent Seeding** – Permanent Seeding should be done immediately after the final design grades are achieved. Native species of plants should be used to establish perennial vegetative cover on disturbed areas. The revegetation should be done early enough in the fall so that a good cover is established before cold weather comes and growth stops until the spring. A good cover is defined as vegetation covering 75 percent or more of the ground surface.

Permanent Seeding Seedbed Preparation

- a) In infertile or coarse-textured subsoil, it is best to stockpile topsoil and re-spread it over the finished slope at a minimum 2 to 6-inch depth and roll it to provide a firm seedbed. The topsoil must have a sandy loam to silt loam texture with 15% to 20% organic content. If construction fill operations have left soil exposed with a loose, rough, or irregular surface, smooth with blade and roll.
- b) Loosen the soil to a depth of 3-5 inches with suitable agricultural or construction equipment.
- c) Areas not to receive topsoil shall be treated to firm the seedbed after incorporation of the lime and fertilizer so that it is depressed no more than ½ - 1 inch when stepped on with a shoe. Areas to receive topsoil shall not be firmed until after topsoiling and lime and fertilizer is applied and incorporated, at which time it shall be treated to firm the seedbed as described above.

Permanent Seeding Grass Selection/Application

- a) Select an appropriate cool or warm season grass based on site conditions and seeding date. Apply the seed uniformly by hydro-seeding, broadcasting, or by hand. Uniform seed distribution is essential. On steep slopes, hydroseeding may be the most effective seeding method. Surface roughening is particularly important when preparing slopes for hydroseeding.
- b) Lime and fertilize. Organic fertilizer shall be utilized in areas within the 100 foot buffer zone to a wetland resource area.

- c) Mulch the seedlings with straw applied at the rate of ½ tons per acre. Anchor the mulch with erosion control netting or fabric on sloping areas. Amoco supergro or equivalent should be utilized.

Permanent Seeding Inspection/Maintenance

- a) Frequently inspect seeded areas for failure and make necessary repairs and reseed immediately. Conduct or follow-up survey after one year and replace failed plants where necessary.
- b) If vegetative cover is inadequate to prevent rill erosion, overseed and fertilize in accordance with soil test results.
- c) If a stand has less than 40% cover, reevaluate choice of plant materials and quantities of lime and fertilizer. Re-establish the stand following seedbed preparation and seeding recommendations, omitting lime and fertilizer in the absence of soil test results. If the season prevents resowing, mulch or jute netting is an effective temporary cover.
- d) Seeded areas should be fertilized during the second growing season. Lime and fertilize thereafter at periodic intervals, as needed. Organic fertilizer shall be utilized in areas within the 100-foot buffer zone to a wetland resource area.

Dust Control:

Dust control will be utilized throughout the entire construction process of the site. For example, keeping disturbed surfaces moist during windy periods will be an effective control measure, especially along vehicle circulation paths. The use of dust control will prevent the movement of soil to offsite areas. However, care must be taken to not create runoff from excessive use of water to control dust. The following are methods of dust control that may be used on-site:

- Vegetative Cover – The most practical method for disturbed areas not subject to traffic.
- Calcium Chloride – Calcium chloride may be applied by mechanical spreader as loose, dry granules or flakes at a rate that keeps the surface moist but not so high as to cause water pollution or plant damage.
- Sprinkling – The site may be sprinkled until the surface is wet. Sprinkling will be effective for dust control on haul roads and other traffic routes.
- Stone – Stone will be used to stabilize construction roads; will also be effective for dust control.

The general contractor shall employ an on-site water vehicle for the control of dust as necessary.

Non-Stormwater Discharges:

The construction de-watering and all non-stormwater discharges will be directed into a sediment dirt bag (or equivalent inlet protection) or a sediment basin. Sediment material

removed shall be disposed of in accordance with all applicable local, state, and federal regulations.

The developer and site general contractor will comply with the E.P.A.'s Final General Permit for Construction De-watering Discharges, (N.P.D.E.S., Section 402 and 40 C.F.R. 122.26(b)(14)(x).

Soil Stockpiling:

Topsoil and subsoil from the roadway grading will be stockpiled in locations shown on the plans.

Stockpile Material Construction Procedure

- 1) Topsoil and subsoil that are stripped will be stockpiled for later distribution on disturbed areas.
- 2) The stockpiles will be located as shown on the plans. These locations will allow them to not interfere with work on the site.
- 3) Seed the stockpiles with a temporary erosion control mix if the stockpile is to remain undisturbed for more than 30 days. The stockpiles must be stable and the side slopes should not exceed 2:1.
- 4) Sediment erosion control measures should be placed surrounding each stockpile.
- 5) As needed, the stockpiled topsoil and subsoil are redistributed throughout the site.

Pollution Prevention:

Spill Prevention and Response:

The site supervisor or their representative shall be present on the job site at all times during the course of work and shall be present during the delivery, removal of any liquid/chemical materials to or from the job site. They will also be present during any refueling practices. All subcontractors will be notified of their responsibilities in writing. In the event a spill occurs, the site supervisor shall be notified immediately.

The site supervisor shall have in place a spill prevention plan and resources to contain and clean up any potential spills in a timely manner. Refer to the attached Spill Containment & Management Plan, including Spill Report, Emergency Response Equipment Inventory, and Emergency Notification and phone numbers.

Fueling and Maintenance of Equipment or Vehicles:

The site supervisor shall produce a written document received by all subcontractors and employees that delineates their responsibilities on site. This document shall include language that shall permit the maintenance of vehicles only in designated locations on the job site. The site supervisor shall document receipt of these instructions by obtaining the signatures of subcontractors and individuals that may enter the site and the date in which they were notified of their responsibilities.

Several types of vehicles and equipment will be used on-site throughout the project, including graders, scrapers, excavators, loaders, paving equipment, rollers, trucks and trailers, backhoes, and forklifts. Vehicles requiring refueling or lubrication shall be brought to a designated portion of the site away from environmentally sensitive areas (such as storm drains, steep slopes, etc.) or shall utilize temporary drip protection measures at the location of fueling. The operator shall take precautions to ensure that drips, spills or seeps do not enter the ground. The use of absorbent towels beneath the fuel tank is recommended. Absorbent, spill cleanup materials and spill kits should be kept on site. Refueling or maintenance of equipment in locations other than those designated for such activity shall be performed under the supervision of the site supervisor or his/her designee. The site supervisor shall have a fuel spill plan and measures on site to initiate containment and clean-up in the event a fuel spill occurs.

1. Fueling operations shall take place in designated area(s) as shown on site maps. Provide temporary drip protection during fueling operations which take place outside of designated area(s). Materials necessary to address a spill shall be made readily available in a location known to the site supervisor or his/her designee.
2. Fueling operation procedures shall be in effect throughout the project duration.

Maintenance Requirements -

1. Vehicles and equipment will be inspected on each day of use. Leaks will be repaired immediately, or the problem vehicle or equipment will be removed from the project site.
2. All emergency response equipment listed in the Emergency Response Equipment Inventory shall be made readily available and kept in a designated location known to the site supervisor or his/her designee. All such materials shall be replenished as necessary to the listed amounts.

Washing of Equipment and Vehicles:

The site supervisor shall produce a written document received by all subcontractors and employees that delineates their responsibilities on site. The site supervisor shall document receipt of these instructions by obtaining the signatures of subcontractors and individuals that may enter the site and the date in which they were notified of their responsibilities. This document shall include language that shall not permit vehicle washing on the job site. Concrete trucks shall be exempt from this rule. Concrete truck cleaning shall be confined within the work area and conducted in a manner to prevent water drainage beyond the specified area of work.

Concrete truck washout shall be conducted in designated areas only and shall not be discharged in areas which would allow wash water to leave the site or enter protected areas.

Maintenance Requirements -

1. The site supervisor shall maintain a log of individuals receiving these instructions.

Storage, Handling, and Disposal of Construction Products, Materials, and Wastes:

Building products stored on site shall be kept in designated materials storage areas as shown on the site map(s). Storage areas shall properly contain materials and prevent

materials or their containers/wrappers from being strewn about the site. Any leaking containers shall be removed and properly disposed of immediately. Weather sensitive materials shall be safely stored in closed temporary containers as necessary.

1. Place all materials being stored for future use in designated storage areas.
2. Place all weather sensitive materials in closed temporary containers as necessary. Care should be taken to store materials in accordance with manufacturer's recommendations and to avoid storing combinations of materials which may cause a noxious, volatile or otherwise dangerous condition.
3. All non-hazardous solid waste shall be disposed of in a trash receptacle (dumpster) which shall be removed and disposed of at an approved land fill.

Maintenance Requirements -

1. The site supervisor shall inspect the designated storage areas weekly and after storm events as well as any portions of the site under construction to ensure that all materials are properly stored. The storage areas will be kept clean, well-organized, and equipped with ample cleanup supplies as appropriate for the materials being stored.

Pesticides, Herbicides, Insecticides, Fertilizers, and Landscape Materials

The use of pesticides and herbicides is not currently anticipated for this site. Fertilizers and landscape materials will be used to stabilize slopes and other disturbed areas.

1. Store all fertilizers and landscape materials in designated secure locations. Store all weather sensitive materials in closed containers in accordance with manufacturer's recommendations.

Maintenance Requirements

1. The site supervisor shall inspect the designated storage areas weekly as well as any portions of the site under construction to ensure that all materials are properly stored. Storage issues shall be immediately addressed.

Diesel Fuel, Oil, Hydraulic Fluids, Other Petroleum Products, and Other Chemicals

Storage of diesel fuel, oil hydraulic fluids and other petroleum products/chemicals shall be in a secure area protected from the outside elements.

Refueling and maintenance for vehicles or equipment shall occur either within the designated area or shall utilize temporary drip protection measures at the location of fueling. The site supervisor shall have a fuel spill plan and measures on site to initiate containment and clean-up in the event a fuel spill occurs.

Refueling or maintenance of equipment in locations other than those designated for such activity shall be performed under the supervision of the site supervisor or his/her designee and shall employ drip pans or other suitable means of preventing fuel, hydraulic fluid, etc. from spilling or being otherwise carried offsite or into protected areas.

Hazardous or Toxic Waste

(Note: Examples include paints, solvents, petroleum-based products, wood preservatives, additives, curing compounds, acids.)

Hazardous or toxic waste associated with paints, solvents, petroleum-based products, wood preservatives, additives, curing compounds, acids shall be stored in sealed containers to prevent leakage and corrosion, and which are labeled in accordance with applicable Resource Conservation and Recover Act (RCRA) and all other applicable federal, state and local requirements.

Hazardous or toxic waste shall be collected in approved containers and disposed of in accordance with municipal, state and federal regulations.

Hazardous and toxic waste shall not be disposed of in solid waste containers intended for non-hazardous construction debris.

Maintenance Requirements

1. The site supervisor shall inspect all portions of the project under construction weekly and after storm events to ensure that all hazardous or toxic materials are stored and disposed of in accordance with the practices detailed above and shall immediately correct any improper storage or disposal practices.

Construction and Domestic Waste:

(Note: Examples include packaging materials, scrap construction materials, masonry products, timber, pipe and electrical cuttings, plastics, styrofoam, concrete, and other trash or building materials.)

All construction and domestic waste shall be collected and disposed of into dumpsters. Dumpsters will be placed away from stormwater conveyances and drains, and meet all federal, state, and municipal regulations. Only trash and construction debris from the site will be deposited in the dumpster. No construction materials will be buried on-site. Any overflow from containers/dumpsters shall be cleaned up immediately. All personnel will be instructed regarding the correct disposal of trash and construction debris. Notices that state these practices will be posted in the job site trailer and the individual who manages day-to-day operations will be responsible for seeing that these practices are followed.

Recyclable waste material shall be stored in an appropriate container or in a designated location on site until it can be removed.

1. Dumpsters and recyclable waste material containers shall be located as needed throughout the site.

Maintenance Requirements

1. The site supervisor shall inspect all dumpsters and containers to confirm that construction and domestic waste is properly contained and shall also ascertain that waste is being picked up in a timely manner to ensure that no receptacles are overflowing. Pick-up schedules shall be modified, or the number of receptacles shall be increased as needed.

Sanitary Waste

Sanitary facilities (portable toilets) will be provided at the site throughout the construction phase. The portable toilets will be located away from a concentrated flow paths or traffic flow.

Sanitary facilities will be brought to the site at the start of construction.

Maintenance Requirements

1. If necessary, the site supervisor shall execute a contract with a vendor to supply and maintain portable toilets throughout the site for the project duration. The portable toilets shall be inspected weekly for evidence of leaking holding tanks. Toilets with leaking holding tanks will be removed from the site and replaced with new portable toilets. The site supervisor shall determine if a sufficient number of toilets are present to meet staffing levels and shall ensure that the toilets are regularly and properly maintained.

Washing of Applicators and Containers used for Paint, Concrete or Other Materials

Concrete washout shall be restricted to designated areas only. Paints, form release oils, curing compounds, etc. shall be recycled and/or disposed of utilizing appropriate containers in accordance with manufacturer's recommendations and EPA guidelines.

1. Direct all wash water into a leak-proof container or leak-proof pit at the appropriate designated location. The washout location shall be designated before concrete pours commence. The container or pit must be designed so that no overflow can occur due to inadequate sizing or precipitation. Concrete trucks shall wash out only at washout pit or container such as a portable roll-off washout pit.
2. Signs will be posted marking the location of the washout area to ensure that the concrete and other equipment operators use the proper facility. Concrete pours or other material application will not be conducted during or before an anticipated storm event.
3. Provide suitable containers for recycling or disposal for cleanup of paints, form release oils, curing compounds, etc.

Maintenance Requirements

1. The site supervisor shall inspect concrete washout pits (or other acceptable facility) daily to ensure that they are properly maintained. Washout pits shall be cleaned out when the area is filled to 75% of holding capacity. If necessary, wash water in a washout pit shall be vacuumed off and the hardened concrete broken up and recycled. Wash water and broken up concrete shall be properly disposed of at a suitable facility. If necessary, the washout pit shall be repaired and relined with plastic prior to continued use.
2. Containers for waste paint, form release oil, curing compounds, etc. shall be sealed and removed from the site and properly disposed of at a suitable facility. Empty containers shall replace those being removed for disposal.

Fertilizers

Fertilizers shall be used only as necessary to establish vegetative stabilized slopes and disturbed areas. Apply at recommended rates. Use only slow release fertilizers to minimize discharge of nitrogen or phosphorous.

1. Store all fertilizers in designated locations. Store all weather sensitive materials in closed containers in accordance with manufacturer's recommendations.
2. To prevent accidental release of fertilizers, the site supervisor shall attempt to coordinate delivery of fertilizers to coincide with application and reduce the need to warehouse large quantities on-site.
3. Avoid applying before heavy rains that could cause excess nutrients to be discharged.
4. Never apply to frozen ground or apply to stormwater conveyance channels with flowing water.
5. Follow all other federal, state, and local requirements regarding fertilizer applications.

Maintenance Requirements

1. Site supervisor shall make regular inspections to ensure that fertilizer is being applied at proper rates and that all perimeter controls are in place and properly maintained to control runoff which may contain fertilizer.

Inspection and Corrective Action:

Operator personnel must inspect the construction site at least once every 7 calendar days and within 24 hours of a storm event of ½-inch or greater. The owner shall be responsible to secure the services of a design professional or similar "qualified person" (inspector) on an on-going basis throughout all phases of the project. The inspector should review the erosion and sediment controls with respect to the following:

- Whether or not the measure was installed/performed correctly.
- Whether or not there has been damage to the measure or ineffective controls since it was installed or performed.
- What corrective actions should be done to correct any problems with the measure.

The inspector should complete the Stormwater Management Best Management Practices Inspection Schedule and Evaluation Checklist – Construction Phase, as attached or provided in the Site's Stormwater Pollution Prevention Plan, for documenting the findings and should request the required maintenance or repair for the pollution prevention measures when the inspector finds that it is necessary for the measure to be effective. The inspector should notify the appropriate person to make the changes.

It is essential that the inspector document the inspection of the pollution prevention measures. These records will be used to request maintenance and repair and to prove that the inspection and maintenance were performed.

Spill Containment and Management Plan

April 30, 2021

Initial Notification

In the event of a spill, the facility manager will be notified immediately.

Facility Managers (name) _____

Facility Manager (phone) _____

Assessment - Initial Containment

The supervisor will assess the incident and initiate containment control measures with the appropriate spill containment equipment included in the spill kit kept on-site. The supervisor will first contact the Fire Department and then notify the Police Department, Department of Public Works, Board of Health and Conservation Commission. The fire department is ultimately responsible for matters of public health and safety and should be notified immediately.

Contact: _____ Phone Number: _____

Fire Department: 911

Police Department: 911

Department of Public Works: (781) 659-8042

Board of Health Phone: (781) 659-8016

Conservation Commission Phone: (781) 659-8022

Further Notification

Based on the assessment from the Fire Chief, additional notification to a cleanup contractor may be made. The Massachusetts Department of Environmental Protection (DEP) and the EPA may be notified depending upon the nature and severity of the spill. The Fire Chief will be responsible for determining the level of cleanup and notification required. The attached list of emergency phone numbers shall be posted in the facility office and readily accessible to all employees.

HAZARDOUS WASTE / OIL SPILL REPORT

Date____/____/____

Time_____AM / PM

Exact location (Transformer #)_____

Type of equipment_____Make_____Size_____

S / N_____Weather Conditions_____

On or near water ☐ Yes If yes, name of body of water_____

☐ No

Type of chemical / oil spilled_____

Amount of chemical / oil spilled_____

Cause of spill_____

Measures taken to contain or clean up spill_____

Amount of chemical / oil recovered_____Method_____

Material collected as a result of clean up

_____drums containing_____

_____drums containing_____

_____drums containing_____

Location and method of debris disposal_____

Name and address of any person, firm, or corporation suffering damages_____

Procedures, method, and precautions instituted to prevent a similar occurrence from recurring_____

Spill reported to General Office by_____Time_____AM / PM

Spill reported to DEP / National Response Center by_____

DEP Date____/____/____Time_____AM / PM Inspector_____

NRC Date____/____/____Time_____AM / PM Inspector_____

Additional comments_____

EMERGENCY RESPONSE EQUIPMENT INVENTORY

The following equipment and materials shall be maintained at all times and stored in a secure area for long-term emergency response need.

--	SORBENT PADS	1 BALE
--	SAND BAGS (empty)	5
--	SPEEDI-DRI ABSORBENT	1 – 40LB BAGS
--	12" INFLATABLE PIPE PLUG	1
--	15" INFLATABLE PIPE PLUG	1
--	18" INFLATABLE PIPE PLUG	1
--	SQUARE END SHOVELS	1
--	PRY BAR	1

EMERGENCY NOTIFICATION PHONE NUMBERS

1. FACILITY MANAGER
NAME: _____ BEEPER: _____
PHONE: _____ CELL PHONE: _____

ALTERNATE:
NAME: _____ BEEPER: N/A _____
PHONE: _____ CEL PHONE: _____
2. FIRE DEPARTMENT
EMERGENCY: 911
BUSINESS: (781) 659-8158
3. POLICE DEPARTMENT
EMERGENCY: 911
BUSINESS: (781) 659-7979
4. MASSACHUSETTS DEPARTMENT OF ENVIRONMENTAL PROTECTION
EMERGENCY: (888) 340-1133
SOUTHEAST REGION - LAKEVILLE OFFICE: (508) 946-2700
5. NATIONAL RESPONSE CENTER
PHONE: (800) 424-8802

ALTERNATE: U.S. ENVIRONMENTAL PROTECTION AGENCY
EMERGENCY: (617) 223-7265
BUSINESS: (617) 860-4300
6. DEPARTMENT OF PUBLIC WORKS – ENGINEERING
CONTACT: Glenn Ferguson, Director
PHONE: (781) 659-8042
7. CONSERVATION COMMISSION
CONTACT: Will Saunders, Conservation Agent
PHONE: (781) 659-8022
8. BOARD OF HEALTH
CONTACT: R. Benjamin Margro, Health Agent
PHONE: (781) 659-8016

STORMWATER MANAGEMENT
BEST MANAGEMENT PRACTICES
INSPECTION SCHEDULE AND EVALUATION CHECKLIST – CONSTRUCTION PHASE

PROJECT LOCATION: **High Street, Norwell, MA**

Latest Revision: _____

Best Management Practice	Inspection Frequency (1)	Date Inspected	Inspector	Minimum Maintenance and Key Items to Check	Cleaning/Repair Needed yes/no List items	Date of Cleaning/Repair	Performed By	Water Level in System
Silt Sock Erosion Control Barrier	Weekly or after every major storm event – minimum weekly			Check sediment levels and remove when reaches ¼ to ½ the height of sock				
Stabilized Construction Entrance	Weekly or after every major storm event – minimum weekly			Check sediment levels in stone				
Temporary Sedimentation Basin	Weekly or after every major storm event – minimum weekly			Check sediment levels				
Catch Basin & Pre-treatment Structure (Inlet Protection)	Weekly or after every major storm event – minimum weekly			Check silt sack for sediment levels, tears or any damage				
Stockpiles	Weekly or after every major storm event – minimum weekly			Ensure surrounding erosion control measure are intact				
Temp/Prop Seeding for Stabilization	Weekly or after every major storm event – minimum weekly							
Geotextiles/ Mulching & Netting	Weekly or after every major storm event – minimum weekly							

Dust Control	Weekly							
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(1) Refer to the Massachusetts Stormwater Management, Volume Two: Stormwater Technical Handbook (2008) for recommendations regarding frequency for inspection and maintenance of specific BMPs.

Limited or no use of sodium chloride salts, fertilizers or pesticides recommended. Slow release fertilizer recommended.

Other notes:(Include deviations from: Con Com Order of Conditions, PB Approval, Construction Sequence and Approved Plan)

Stormwater Control Manager: _____ Stamp



April 30, 2021

Long-Term Pollution Prevention Plan Operation & Maintenance Plan

#15, 19, 27 & 35 High Street, Norwell

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LONG TERM POLLUTION PREVENTION PLAN / OPERATION AND MAINTENANCE PLAN

Date: April 30, 2021

15 High Street Proposed Residential Development 15, 19, 27 & 35 High Street Norwell, MA

Responsible Party for Operation and Maintenance Contact Information:

Northland Residential Corporation
80 Beharrell Street, Suite E
Concord, Massachusetts 01742
P: 781.229.4700

Best Management Practices (BMPs) of the Commonwealth of Massachusetts Department of Environmental Protection's (DEP's) Stormwater Management Policy (SMP) have been implemented and utilized for the project. The following information provided is to be used as a guideline for monitoring and maintaining the performance of the drainage facilities and to ensure that the quality of water runoff meets the standards set forth by the SMP. The structural Best Management Practices (BMPs) shall be inspected during rainfall conditions during the first year of operation to verify functionality.

General Conditions

1. The BMP's will be owned and maintained by the property owner.
2. All Stormwater BMP's shall be operated and maintained in accordance with the design plans and the following Long-Term Operations and Maintenance Plan.
3. The Responsible Party shall:
 - a. Maintain an Operation and Maintenance Log (see Attachment A). The Log shall include all BMP inspections, repairs, replacement activities and disposal activities (disposal material and disposal location shall be included in the Log);
 - b. Retain inspection and maintenance logs for a period of three years, on an ongoing basis;
 - c. Make the logs available to the Town upon request;
 - d. Allow members and agents of the Norwell DPW to enter the premises and ensure that the Responsible Party has complied with the Operation and Maintenance Plan requirements for each BMP.
4. An inspection and maintenance schedule should be adhered to at a minimum for the first year of service of all BMP's referenced in this document. After the first year of service, a more accurate inspection/maintenance schedule should be determined based on the level of service for this site.

Operation and Maintenance

1.0 Requirements for Routine Inspections and Maintenance of Stormwater Best Management Practices

Note: The Town shall be notified immediately if a change in ownership or maintenance responsibility occurs at the site.

Drain lines

After construction, the drainlines shall be inspected after every major storm for the first few months to ensure proper functions. Presence of accumulated sand and silt would indicate more frequent maintenance of the pre-treatment devices is required. Thereafter, the drainlines shall be inspected at least once per year.

Deep sump and hooded Catch Basins

Catch basin grates shall be checked quarterly and following heavy rainfalls to verify that the inlet openings are not clogged by debris. Debris shall be removed from the grates and disposed of properly. Deep sump catch basins shall be inspected and cleaned bi-annually of all accumulated sediments. Catch basins with hoods shall be inspected annually to check oil build-up and outlet obstructions. Material shall be removed from catch basins and disposed of in accordance with all applicable regulations.

Pre-treatment Structures – First Defense FD-6HC

The proprietary pretreatment unit shall be inspected and maintained from the surface, without entry into the unit biannually and following heavy rain events defined as a storm event exceeding one inch of rainfall within a twenty-four hour period to verify that the inlet opening is not clogged by debris.

During the first year of installation, perform inspection regularly, so an accurate maintenance schedule can be established. Perform oil and floatables removal once per year and immediately in the event of a spill. Oil shall be removed by using a small portable pump and disposed of properly. Perform sediment removal once per year or as needed and following a spill event. Sediment shall be removed from the unit using a vacuum truck. The requirements for the disposal from the unit should be in compliance with all local, state and federal regulations.

Please refer to the attached manufacturer's maintenance manual for additional detail on proper inspection and maintenance of the First Defense unit.

Subsurface Infiltration Chamber System

Proper maintenance of the subsurface infiltration system is essential to the long-term effectiveness of the infiltration function. After construction, the subsurface infiltration chamber systems shall be inspected for proper function after every major storm event until the site is completely developed and stabilized. After the site has been stabilized, the subsurface infiltration chamber system shall be inspected at least twice per year or if lack of performance is observed and perform necessary corrective measures to maintain infiltration capacity; as required by the Stormwater Management Policy.

The system shall have inspection ports for proper inspections. Inspections shall include checking the water level in the system after a major storm event, and performing necessary corrective action if water is observed 72 hours following the storm. The owner shall retain a qualified stormwater professional to assess the cause of this condition and develop a corrective action plan for restoring the infiltration function. The owner shall immediately implement the corrective action to restore the infiltration function. Documentation of these actions shall be maintained in the inspection and maintenance records.

Inspection & Maintenance Steps

Accumulated sediment must be removed from the bottom of the chambers. Material removed from the systems shall be disposed of in accordance with all applicable local, state, and federal regulations.

Step 1. Inspect chamber rows for sediment and water levels

7.0 Inspection Ports

- a. Remove/open lid on nyloplast inspection port
- b. Remove and clean flexstorm filter if installed
- c. Using a flashlight and stadia rod, measure depth of sediment or water level and record on maintenance log
- d. Lower camera into chamber row for visual inspection of sediment or water levels (optional)
- e. If water is observed 72 hours following a storm event, proceed to Step 3. If not, proceed to Step 4

8.0 Clean out locations

- 8.1 Remove clean out cover
- 8.2 Using a flashlight, inspect down the chamber row through the manifold pipe
- 8.3 If sediment is at, or above 3" at inlet chambers, proceed to Step 2. If not, proceed to Step 4.

Step 2. Clean out inlet chambers (first 12.5 ft. only) using the jetvac process if sediment build up is observed

- a. A fixed culvert cleaning nozzle with rear facing spread of 45" or more is preferred
- b. Apply multiple passes of jetvac until backflush water is clean
- c. Vacuum structure sump as required

Step 3. Repair chamber system when water levels do not infiltrate after 72 hours. A corrective action plan shall be prepared by a qualified stormwater professional and immediately implemented.

Step 4. Replace all covers, grates, filters, and lids; record observations and actions.

Step 5. Inspect and clean basins and manholes upstream of the chamber system.

Please refer to the attached manufacturer's maintenance manual for additional detail on proper inspection and maintenance of the StormTech chamber system.

Roadway Pavement Maintenance

Vacuum sweepers shall sweep the roadway periodically during dry weather to remove excess sediments to reduce the amount of sediments that the drainage system shall have to remove from the runoff. The sweeping should be conducted four times per year and will be the responsibility of the property owner.

Salt used for de-icing on the roadway during winter months should be limited as much as possible as this will reduce the need for removal and treatment.

Sand containing the minimum amount of calcium chloride (or approved equivalent) needed for handling may be applied as part of the routine winter maintenance activities.

2.0 Inspections

The responsible party shall secure the services of a Licensed Engineer or similar professional (inspector) on an on-going basis. The inspector shall review the project with respect to the following:

- Proper installation and performance of the Stormwater Management System.
- Review of the controls to determine any damaged or ineffective controls.
- Corrective actions.

The inspector shall prepare a report documenting the findings and should request the required maintenance or repair for the pollution prevention controls when the inspector finds that it is necessary for the control to be effective.

If hydrocarbons or any petroleum products are detected in any stormwater structure during an inspection, immediate measures shall be taken to remove and dispose of the material in accordance with all applicable regulations. The inspector shall notify the Owner to make the changes.

The owner shall be responsible for retaining the inspection and maintenance records for a period of three years, on an ongoing basis.

For additional information, refer to Performance, Standards and Guidelines for Stormwater Management in Massachusetts, published by the Department of Environmental Protection.

Pollution Prevention Plan

Good Housekeeping

To develop and implement an operation and maintenance program with the goal of preventing or reducing pollutant runoff by keeping potential pollutants from coming into

contact with stormwater or being transported off site without treatment, the following efforts will be made:

- Property Management awareness and training on how to incorporate pollution prevention techniques into maintenance operations.
- Follow appropriate best management practices (BMPs) by proper maintenance and inspection procedures.
- Resident education outreach, including promoting recycling through the Town of Norwell Transfer Station.

1.0 Storage and Disposal of Household Waste and Toxics

This management measure involves educating the general public on the management considerations for hazardous materials. Failure to properly store hazardous materials dramatically increases the probability that they will end up in local waterways. Many people have hazardous chemicals stored throughout their homes, especially in garages and storage sheds. Practices such as covering hazardous materials or even storing them properly, can have dramatic impacts. Property owners are encouraged to support the household hazardous product collection events sponsored by the Town of Norwell.

MADEP has prepared several materials for residents on how to properly use and dispose of household hazardous materials:

<http://www.mass.gov/dep/recycle/reduce/househol.htm>

For consumer questions on household hazardous waste call the following number:

DEP Household Hazardous Waste Hotline 800-343-3420

The following is a list of management considerations for hazardous materials as outlined by the EPA:

- Ensuring sufficient aisle space to provide access for inspections and to improve the ease of material transport;
- Storing materials well away from high-traffic areas to reduce the likelihood of accidents that might cause spills or damage to drums, bags, or containers.
- Stacking containers in accordance with the manufacturers' directions to avoid damaging the container or the product itself;
- Storing containers on pallets or equivalent structures. This facilitates inspection for leaks and prevents the containers from coming into contact with wet floors, which can cause corrosion. This consideration also reduces the incidence of damage by pests.

The following is a list of commonly used hazardous materials used in the household:

Batteries – automotive and rechargeable

Disinfectant

.....nickel cadmium batteries	Drain clog dissolvers
.....(no alkaline batteries)	Driveway sealer
Gasoline	Flea dips, sprays and collars
Oil-based paints	Houseplant insecticides
Fluorescent light bulbs and lamps	Metal polishes
Pool chemicals	Mothballs
Propane tanks	Motor oil and filters
Lawn chemicals,	Muriatic acid (concrete cleaner)
fertilizers and weed killers	Nail polishes and nail polish
Turpentine	removers
Bug sprays	Oven cleaner
Antifreeze	Household pest and rat poisons
Paint thinners, strippers, varnishes and	Rug and upholstery cleaners
.....stains	Shoe polish
Arts and crafts chemicals	Windshield wiper fluid
Charcoal lighter fluid	

2.0 **Vehicle Washing**

This management measure involves educating the general public on the water quality impacts of the outdoor washing of automobiles and how to avoid allowing polluted runoff to enter the storm drain system. Outdoor car washing has the potential to result in high loads of nutrients, metals, and hydrocarbons during dry weather conditions in many watersheds, as the detergent-rich water used to wash the grime off our cars flows down the street and into the storm drain. The following management practices will be encouraged:

- Washing cars on gravel, grass, or other permeable surfaces.
- Blocking off the storm drain during car washing and redirecting wash water onto grass or landscaping to provide filtration.
- Using hoses with nozzles that automatically turn off when left unattended.
- Using only biodegradable soaps.
- Minimize the amounts of soap and water used. Wash cars less frequently.
- Promote use of commercial car wash services.

3.0 **Landscape Maintenance**

This management measure seeks to control the storm water impacts of landscaping and lawn care practices through education and outreach on methods that reduce nutrient loadings and the amount of storm water runoff generated from lawns. Nutrient loads generated by fertilizer use on suburban lawns can be significant, and recent research has shown that lawns produce more surface runoff than previously thought.

Using proper landscaping techniques can effectively increase the value of a property while benefiting the environment. These practices can benefit the environment by reducing water use; decreasing energy use (because less water pumping and treatment is required); minimizing runoff of storm and irrigation water that transports soils, fertilizers, and pesticides; and creating additional habitat for plants and wildlife. The following lawn and landscaping management practices will be encouraged:

- Mow lawns at the highest recommended height.
- Minimize lawn size and maintain existing native vegetation.
- Collect rainwater for landscaping/gardening needs (rain barrels and cisterns to capture roof runoff).
- Raise public awareness for promoting the water efficient maintenance practices by informing users of water efficient irrigation techniques and other innovative approaches to water conservation.
- Abide by water restrictions and other conservation measures implemented by the Town of Norwell.
- Water only when necessary.
- Use automatic irrigation systems to reduce water use.

4. Integrated Pest Management (IPM)

This management measure seeks to limit the adverse impacts of insecticides and herbicides by providing information on alternative pest control techniques other than chemicals or explaining how to determine the correct dosages needed to manage pests.

The presence of pesticides in stormwater runoff has a direct impact on the health of aquatic organisms and can present a threat to humans through contamination of drinking water supplies. The pesticides of greatest concern are insecticides, such as diazinon and chlorpyrifos, which even at very low levels can be harmful to aquatic life. The major source of pesticides to urban streams is home application of products designed to kill insects and weeds in the lawn and garden.

The following IPM practices will be encouraged:

- Pesticides and herbicides shall be used sparingly. Fertilizers should be restricted to the use of organic fertilizers only.
- Lawn care and landscaping management programs including appropriate pesticide use management as part of program.

5. Pet Waste Management

Pet waste management involves using a combination of pet waste collection programs, pet awareness and education, to alert residents to the proper disposal techniques for pet droppings. The following management practices will be encouraged:

- Raise awareness of residents that are also pet owners that they are encouraged to pick up after their pets and dispose of the waste either in the trash, including on their own lawns and walking trails.
- Provide signage along walking trails.

6. **Proper Management of Deicing Chemicals and Snow**

The following deicing chemicals and snow storage practices will be encouraged:

- Select effective snow disposal sites adjacent to or on pervious surfaces in upland areas away from water resources and wells. At these locations, the snow meltwater can filter in to the soil, leaving behind sand and debris, which can be removed in the springtime.
- No roadway deicing materials shall be stockpiled on site unless all storage areas are protected from exposure to rain, snow, snowmelt and runoff.
- Avoid dumping snow into any waterbody, including wetlands, cranberry bogs, detention/infiltration basins, and grassed swales/channels.
- Avoid disposing of snow on top of storm drain catch basins.

7. **Illicit Discharge Statement**

Illicit discharges are non-stormwater discharges to the storm drain system which typically contain bacteria or other pollutants. All illicit discharges are prohibited. Any illicit discharges should be reported to MassDOT and/or the DPW as applicable to be addressed in accordance with their respective policies.

Allowable Non-Stormwater Discharges

The following non-stormwater discharges are authorized provided it has been determined by the permittee that they are not significant contributors of pollutants to the MS4. If these discharges are identified as significant contributors to the MS4, they must be addressed in the Illicit Discharge Detection and Elimination minimum control measure described in Parts II, III, IV and V.

1. water line flushing,
2. landscape irrigation,
3. diverted stream flows,
4. rising ground waters,
5. uncontaminated ground water infiltration (as defined at 40 CFR 35.2005(20)),
6. uncontaminated pumped ground water,
7. discharge from potable water sources,
8. foundation drains,
9. air conditioning condensation,
10. irrigation water, springs,
11. water from crawl space pumps,
12. footing drains,
13. lawn watering,
14. flows from riparian habitats and wetlands,

15. dechlorinated swimming pool discharges,
 16. street wash water, and
 17. discharges or flows from fire fighting activities occur during emergency situations.
- The permittee is not expected to evaluate fire fighting discharges with regard to pollutant contributions. Therefore, these discharges are authorized as allowable non-storm water discharges, unless identified, by EPA, as significant sources of pollutants to Waters of the U.S..

Spill Containment and Management Plan

April 30, 2021

Initial Notification

In the event of a spill, the facility manager will be notified immediately.

Facility Managers (name) _____

Facility Manager (phone) _____

Assessment - Initial Containment

The supervisor will assess the incident and initiate containment control measures with the appropriate spill containment equipment included in the spill kit kept on-site. The supervisor will first contact the Fire Department and then notify the Police Department, Department of Public Works, Board of Health and Conservation Commission. The fire department is ultimately responsible for matters of public health and safety and should be notified immediately.

Contact: _____ Phone Number: _____

Fire Department: 911 _____

Police Department: 911 _____

Department of Public Works: (781) 659-8042 _____

Board of Health Phone: (781) 659-8016 _____

Conservation Commission Phone: (781) 659-8022 _____

Further Notification

Based on the assessment from the Fire Chief, additional notification to a cleanup contractor may be made. The Massachusetts Department of Environmental Protection (DEP) and the EPA may be notified depending upon the nature and severity of the spill. The Fire Chief will be responsible for determining the level of cleanup and notification required. The attached list of emergency phone numbers shall be posted in the facility office and readily accessible to all employees.

HAZARDOUS WASTE / OIL SPILL REPORT

Date____/____/____

Time_____AM / PM

Exact location (Transformer #)_____

Type of equipment_____Make_____Size_____

S / N_____Weather Conditions_____

On or near water ☐ Yes If yes, name of body of water_____

☐ No

Type of chemical / oil spilled_____

Amount of chemical / oil spilled_____

Cause of spill_____

Measures taken to contain or clean up spill_____

Amount of chemical / oil recovered_____Method_____

Material collected as a result of clean up

_____drums containing_____

_____drums containing_____

_____drums containing_____

Location and method of debris disposal_____

Name and address of any person, firm, or corporation suffering damages_____

Procedures, method, and precautions instituted to prevent a similar occurrence from recurring_____

Spill reported to General Office by_____Time_____AM / PM

Spill reported to DEP / National Response Center by_____

DEP Date____/____/____Time_____AM / PM Inspector_____

NRC Date____/____/____Time_____AM / PM Inspector_____

Additional comments_____

EMERGENCY RESPONSE EQUIPMENT INVENTORY

The following equipment and materials shall be maintained at all times and stored in a secure area for long-term emergency response need.

--	SORBENT PADS	1 BALE
--	SAND BAGS (empty)	5
--	SPEEDI-DRI ABSORBENT	1 – 40LB BAGS
--	12" INFLATABLE PIPE PLUG	1
--	15" INFLATABLE PIPE PLUG	1
--	18" INFLATABLE PIPE PLUG	1
--	SQUARE END SHOVELS	1
--	PRY BAR	1

EMERGENCY NOTIFICATION PHONE NUMBERS

1. FACILITY MANAGER
NAME: _____ BEEPER: _____
PHONE: _____ CELL PHONE: _____

ALTERNATE:
NAME: _____ BEEPER: N/A _____
PHONE: _____ CEL PHONE: _____
2. FIRE DEPARTMENT
EMERGENCY: 911
BUSINESS: (781) 659-8158
3. POLICE DEPARTMENT
EMERGENCY: 911
BUSINESS: (781) 659-7979
4. MASSACHUSETTS DEPARTMENT OF ENVIRONMENTAL PROTECTION
EMERGENCY: (888) 340-1133
SOUTHEAST REGION - LAKEVILLE OFFICE: (508) 946-2700
5. NATIONAL RESPONSE CENTER
PHONE: (800) 424-8802

ALTERNATE: U.S. ENVIRONMENTAL PROTECTION AGENCY
EMERGENCY: (617) 223-7265
BUSINESS: (617) 860-4300
6. DEPARTMENT OF PUBLIC WORKS – ENGINEERING
CONTACT: Glenn Ferguson, Director
PHONE: (781) 659-8042
7. CONSERVATION COMMISSION
CONTACT: Will Saunders, Conservation Agent
PHONE: (781) 659-8022
8. BOARD OF HEALTH
CONTACT: R. Benjamin Margro, Health Agent
PHONE: (781) 659-8016

**STORMWATER MANAGEMENT
BEST MANAGEMENT PRACTICES**
INSPECTION SCHEDULE AND EVALUATION CHECKLIST – POST CONSTRUCTION PHASE

PROJECT LOCATION: **High Street, Norwell, MA**

Latest Revision: _____

Best Management Practice	Inspection Frequency (1)	Date Inspected	Inspector	Minimum Maintenance and Key Items to Check	Cleaning/Repair Needed yes/no List items	Date of Cleaning/Repair	Performed By	Water Level in Detention System
Drain Lines	Yearly			-Sediment build-up -Trash and debris				
Deep Sump Hooded Catch Basins	Quarterly			-Sediment level exceeds 8" -Trash and debris - Floatable oils or hydrocarbon - Grate or outlet blockage				
Pre-Treatment Structure (First Defense Unit)	Quarterly			-Sediment not to exceed 18" -Floating contaminants shall be removed by vacuum pump prior to sediment removal -Outlet blockages				
Subsurface Infiltration Chamber System	Twice a Year			-Sediment buildup -Standing water greater than 48 hours				
Roadway Pavement Maintenance	Quarterly							

(1) Refer to the Massachusetts Stormwater Management, Volume Two: Stormwater Technical Handbook (2008) for recommendations regarding frequency for inspection and maintenance of specific BMPs.

Limited or no use of sodium chloride salts, fertilizers or pesticides recommended. Slow release fertilizer recommended.
Other notes:(Include deviations from: Con Com Order of Conditions, PB Approval, Construction Sequence and Approved Plan)

Stormwater Control Manager: _____

Stamp

Note:

The Operations and Maintenance Manual is contained in the Supplemental Information portion of this application.

TABULATION OF PROPOSED BUILDINGS

	Type	BRs	BRs + Dens	Net SF	Footprint SF
Building A	Flats	6	10	4,784	3,236
Building B	Townhouses	8	12	5,662	3,888
Building C	Townhouses	12	18	9,234	5,328
Building D	Townhouses	12	18	9,234	5,328
Building E	Flats	6	10	5,020	3,524
Building F	Flats	6	10	4,784	3,236
Building G	Townhouses/Flats	10	14	8,050	3,636
Building H	Townhouses/Flats	10	12	8,068	3,636
Building I	Townhouses/Flats	10	12	8,068	3,636
Building J	Townhouses/Flats	10	14	8,050	3,636
	Totals:	90	130	70,954	39,084

Ground Area Occupied By:	Acres	% of Site
Buildings	0.9	23%
Driveways, Sidewalks, & Parking	1.16	30%
Wetlands & Upland Area	0	0%
Open Areas/Landscaped	1.82	47%
Open Areas/Undeveloped	0	0%
Total Site	3.88	100%

Transportation Impact Assessment

Proposed Residential Development
15 High Street
Norwell, Massachusetts

Prepared for:

Northland Residential Corporation
Concord, Massachusetts

April 2021

Prepared by:



35 New England Business Center Drive
Suite 140
Andover, MA 01810

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EXECUTIVE SUMMARY

Vanasse & Associates, Inc. (VAI) has prepared this Transportation Impact Assessment (TIA) in order to evaluate potential traffic impacts associated with the proposed residential development to be located at 15 High Street in Norwell, Massachusetts (the “Project”). This study evaluates the following specific areas as they relate to the Project: i) access requirements; ii) potential off-site improvements; and iii) safety considerations; and identifies and analyzes existing and future traffic conditions, both with and without the Project.

PROJECT DESCRIPTION

The proposed development will be a mixed-income rental community consisting of 56 units of multifamily housing with a total of approximately 122 parking spaces. Currently, the site consists of single-family houses that will be demolished as part of the proposed Project. The proposed site location is very well suited for housing as it is located adjacent to the intersection of High Street and Washington Street (Route 53), allowing easy access for residents to the abundance of nearby retail shops and commercial institutions with pedestrian facilities readily available. Access and egress to the complex is proposed by two full-access driveways onto High Street.

EXISTING CONDITIONS

A comprehensive field inventory of traffic conditions on the study area roadways was conducted in March 2021.

Existing Traffic Volumes

In order to establish base traffic-volume conditions within the study area, manual turning movement counts (TMCs) were completed in October 2020 and April 2021. The TMCs were conducted during the weekday morning and weekday evening peak periods, which represent the peak periods for residential traffic. In order to develop 2021 Existing traffic-volume conditions, the data collected required adjustments due to the effects of the COVID-19 pandemic. Based on the evaluation of the existing permanent count station, the 2020 and 2021 weekday morning and evening peak-hour traffic volumes were increased by 9 and 6 percent, respectively.

Safety Analysis

Motor vehicle crash data was acquired from the Massachusetts Department of Transportation (MassDOT) Safety Management/Traffic Operations Unit for the most recent five-year period available (2014 through 2018) in order to examine motor vehicle crash trends occurring within the study area. The intersection of Washington Street (Route 53) at High Street/Grove Street experienced the highest frequency of accidents over the five-year review period with a total of 54 accidents reported. All of the study intersections were found to have a motor vehicle crash rate *below* the MassDOT average for the District in which the Project is located (District 5). No fatalities were reported at any of the study area intersections over the five-year period reviewed.

FUTURE CONDITIONS

Traffic volumes within the study area were projected to 2028, which reflects a seven-year planning horizon consistent with State traffic study guidelines.

Background Traffic Growth

Based on traffic-volume data compiled by MassDOT from permanent count stations, it was determined that traffic volumes within the study area have fluctuated over the past several years. In order to provide a prudent planning condition for the Project, a slightly higher 1.0 percent per year compounded annual background traffic growth rate was used in order to account for future traffic growth and presently unforeseen development within the study area.

Specific Development by Others

The Town of Norwell was contacted in order to determine if there are any planned or approved specific development projects within the area that would have an impact on future traffic volumes at the study intersections. Based on these discussions, the proposed commercial building expansion at 119 Washington Street was the only future project identified in the immediate area of the Project site. Traffic from this site-specific project was incorporated into the study.

Planned Roadway Improvements

The Town of Norwell was contacted to determine if there were any planned roadway improvements in the area that would have an impact on future traffic operations. Based on these discussions, no planned roadway improvement projects that would affect the study area were identified.

No-Build Traffic Volumes

The 2028 No-Build weekday morning and evening peak-hour traffic-volume networks were developed by applying the 1 percent per year compounded annual background traffic growth rate to the 2021 existing condition peak-hour traffic volumes plus the identified background developments.

Site-Generated Traffic Volumes

The proposal entails construction of 56 multifamily housing units. In order to develop the anticipated traffic characteristics of the Project, trip-generation statistics published by Institute of

Transportation Engineers (ITE)¹ were reviewed. ITE Land Use Code (LUC) 220, *Multifamily Housing (Low-Rise)* was used to develop the traffic characteristics of the proposal. Trip-generation calculations were performed for a typical weekday, as well as the weekday morning and weekday evening peak hours, the critical time periods for Project-related traffic activity. The proposed development is expected to generate approximately 382 new vehicle trips on an average weekday (two-way, 24-hour volume), with 27 new vehicle trips (6 entering and 21 exiting) expected during the weekday morning peak hour and 35 new vehicle trips (22 entering and 13 exiting) expected during the weekday evening peak hour.

Trip Distribution and Assignment

The directional distribution of generated trips to and from the Project site was determined based on a review of Journey-to-Work data obtained from the U.S. Census for persons residing in Norwell and then refined based on existing traffic patterns within the study area. In summary, 80 percent of the trips are expected to arrive and depart the site to/from the north and 20 percent of the trips are expected to arrive and depart the site to/from the south.

TRAFFIC OPERATIONS ANALYSIS

In order to assess the impact of the proposed Project on the roadway network, traffic operations analyses were performed at the study intersections under 2021 Existing, 2028 No-Build, and 2028 Build conditions. The addition of site-related traffic will not result in a significant impact on overall operations at the study area intersections.

RECOMMENDATIONS

A transportation improvement program has been developed that is designed to provide safe and efficient access to the Project site and address deficiencies identified at off-site locations evaluated in conjunction with this study. The following improvements have been recommended as a part of this evaluation and, where applicable, will be completed in conjunction with the Project subject to receipt of all necessary rights, permits, and approvals.

Project Access

Access and egress to the Project site will be provided by two full-access driveways onto High Street. The following recommendations are offered with respect to Project access, internal circulation, and parking, many of which are already reflected on the Site Plans for the Project:

- The Project site driveways and internal circulating drives should be 20 feet in width where two-way traffic is to be conveyed and designed to accommodate the turning and maneuvering requirements of the largest anticipated responding emergency vehicle as defined by the Norwell Fire Department.
- Vehicles exiting the Project site should be placed under STOP-sign control with a marked STOP-line provided.

¹*Trip Generation*, 10th Edition; Institute of Transportation Engineers; Washington, DC; 2017.

- All signs and pavement markings to be installed within the Project site should conform to the applicable standards of the *Manual on Uniform Traffic Control Devices* (MUTCD)².
- Americans with Disabilities Act (ADA)-compliant wheelchair ramps should be provided at all pedestrian crossings internal to the Project site and for crossing the Project site driveways.
- Crosswalks across the Project driveways should be positioned to be consistent with the existing sidewalk on High Street and not recessed into the development.
- Signs and landscaping to be installed as a part of the Project within intersection sight triangle areas of the Project site driveways should be designed and maintained so as not to restrict lines of sight.
- Snow windows within the sight triangle areas of the Project site driveways and at intersections within the Project site should be promptly removed where such accumulations would impede sight lines.

Off-Site Recommendations

Speed Radar Signs: The traffic data documented herein indicates that vehicles are traveling above the legally enforceable posted speed limit. Dynamic Speed Feedback Signs should be considered along High Street. Dynamic Speed Feedback Signs are radar activated signs that dynamically display approaching speeds for individual vehicles or display messages such as “SLOW DOWN” or “REDUCE SPEED” when a vehicle exceeds a certain speed. They alert drivers that they are speeding and create a sense of being monitored.

High Street Crosswalk: A mid-block crosswalk across High Street exists in the vicinity of the Project northern driveway. Due to pedestrian safety concerns as well as the redundancy of this crosswalk with an existing crosswalk over High Street at the Route 53 intersection, removal of this crosswalk should be considered in favor of the existing signalized intersection crosswalk.

TRANSPORTATION DEMAND MANAGEMENT (TDM) PLAN

As is the case with many developments, a major focus of the traffic mitigation plan focuses on the reduction of single-occupant vehicles arriving and departing to and from the site. This is predominantly accomplished by developing a comprehensive Transportation Demand Management (TDM) strategy. The proponent is committed to supporting a balanced multimodal transportation plan to serve the residents and visitors of the site. The major features of this TDM plan that support this commitment are as follows:

- A “welcome packet” will be provided to residents detailing available public transportation services, bicycle, and walking alternatives, and commuter options available.
- In order to encourage the use of public transportation, the property management team will make available public transportation schedules which will be posted in a centralized location for the residents.

²*Manual on Uniform Traffic Control Devices* (MUTCD); Federal Highway Administration; Washington, D.C.; 2009.

- In order to encourage car/vanpooling, the property management team will identify car/vanpool resources that may be available to residents of the proposed Project. This information will be posted in a centralized location for the residents, employees, and visitors.
- The property management team will provide information on available pedestrian and bicycle facilities in the vicinity of the Project site. This information will be posted in a centralized location.

With implementation of the above recommendations, safe and efficient vehicular, pedestrian, and bicycle access will be provided to the Project site and the Project can be accommodated within the confines of the existing and improved transportation system.

CONCLUSIONS

The proposed Project will not result in a significant impact on overall operations. With the implementation of the above recommendations, safe and efficient access will be provided to the planned development and the proposed development can be constructed with minimal impact to the area.

INTRODUCTION

Vanasse & Associates, Inc. (VAI) has prepared this Transportation Impact Assessment (TIA) in order to evaluate potential traffic impacts associated with the proposed residential development to be located at 15 High Street in Norwell, Massachusetts (the “Project”). This study evaluates the following specific areas as they relate to the Project: i) access requirements; ii) potential off-site improvements; and iii) safety considerations; and identifies and analyzes existing and future traffic conditions, both with and without the Project.

PROJECT DESCRIPTION

The proposed development will be a mixed-income rental community consisting of 56 units of multifamily housing with a total of approximately 122 parking spaces. Currently, the site consists of single-family houses that will be demolished as part of the proposed Project. The proposed site location is very well suited for housing as it is located adjacent to the intersection of High Street and Washington Street (Route 53), allowing easy access for residents to the abundance of nearby retail shops and commercial institutions. Access and egress to complex is proposed by two full-access driveways onto High Street.

STUDY METHODOLOGY

This study was prepared in consultation with the Town of Norwell and in accordance with the Massachusetts Department of Transportation (MassDOT) Guidelines for *Transportation Impact Assessment (TIA) Guideline*; and the standards of the Traffic Engineering and Transportation Planning professions for the preparation of such reports; and was conducted in three distinct stages. The first stage involved an assessment of existing conditions in the study area and included an inventory of roadway geometrics; pedestrian facilities; observations of traffic flow; review of safety characteristics along area roadways; and collection of daily and peak-period traffic counts. In the second stage of the study, future traffic conditions were projected and analyzed. Specific travel demand forecasts for the Project were assessed along with future traffic demands due to expected traffic growth independent of the Project. A seven-year time horizon was selected for analyses consistent with State guidelines for the preparation of TIAs. The traffic analysis conducted in stage two identifies existing or projected future roadway capacity, traffic safety, and site access issues. The third stage of the study presents and evaluates measures to address traffic and safety issues, if any, identified in stage two of the study.

EXISTING CONDITIONS

A comprehensive field inventory of traffic conditions on the study area roadways was conducted in March 2021. The field investigation consisted of an inventory of existing roadway geometrics, pedestrian facilities, traffic volumes, and operating characteristics, as well as posted speed limits and land use information for the roadways that provide access to the Project including Washington Street (Route 53), High Street, and Oak Street as well as the intersections which are expected to accommodate the majority of Project-related traffic. The study area for the Project is listed below and graphically depicted in Figure 1.

1. Washington Street (Route 53) at High Street/Grove Street
2. High Street at private driveway (Washington Square condominium complex)
3. High Street at Oak Street
4. Washington Street (Route 53) at Oak Street

The following describes the study area roadway and intersections:

GEOMETRY

Roadways

Washington Street (Route 53)

Washington Street (Route 53) is a two-lane urban minor arterial under MassDOT jurisdiction that traverses the study area in a general north-south orientation providing access to the Route 3 corridor at Exit 14 via Route 228 to the north and Route 3 via the Exit 13 interchange to the south. In the vicinity of the Project site, Washington Street provides an approximate 12-foot wide travel lane in each direction, separated by a painted double-yellow centerline. An approximate 2-foot wide paved shoulder is provided along both sides of the corridor. Within the study area, sidewalk is provided along the northbound sides of the roadway and partially provided along the southbound side, with painted crosswalks provided across the corridor at the signalized intersection of High Street and Grove Street. The posted speed limit along Route 53 is 40 miles per hour (mph). Land use along the corridor is predominantly commercial in nature.

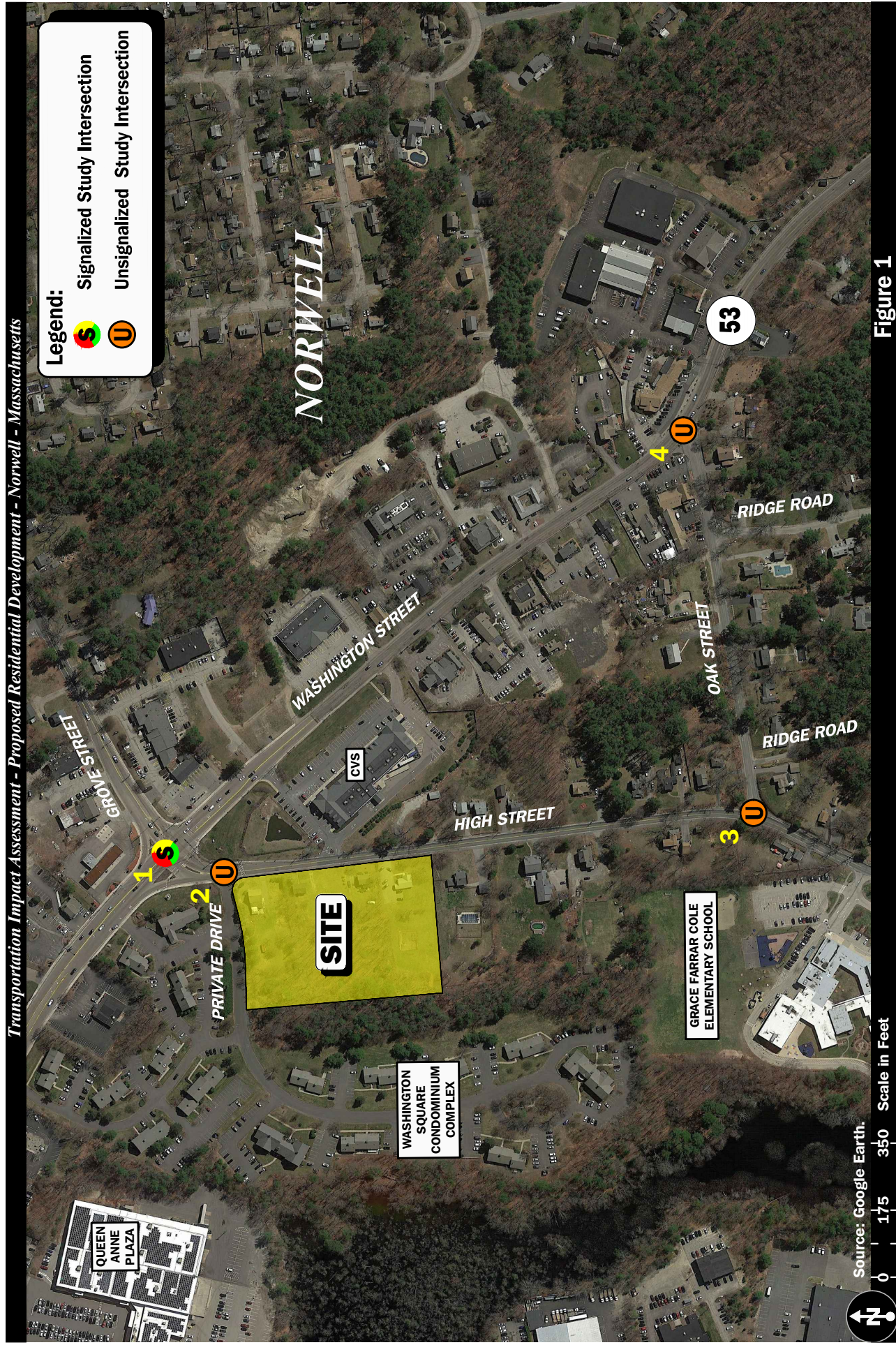


Figure 1

Site Location and Study Area Map

High Street

High Street is an urban minor arterial street under local jurisdiction that traverses the study area in a general north-south orientation providing access to the Route 53 corridor to the north and Route 123 to the south. In the vicinity of the Project site, High Street provides an approximate 12-foot wide travel lane in each direction, separated by a painted double-yellow centerline. An approximate 2-foot wide paved shoulder is provided along both sides of the street. Sidewalk is provided along the southbound side of the roadway, with painted crosswalks provided across the main intersections. The posted speed limit along High Street in the vicinity of the site is 35 mph in the southbound direction and 30 mph in the northbound direction. High Street, south of Oak Street, is within a school zone and during school hours, the posted speed limit is 20 mph. Land use within the study area consists mostly of residential properties.

Oak Street

Oak Street is a local street under Town jurisdiction that traverses the study area in a general west-east orientation providing access to High Street to the west and Route 53 to the east. Oak Street provides an approximate 11-foot wide travel lane in each direction, separated by a painted double-yellow centerline. Sidewalk is provided along the eastbound direction with painted crosswalks provided at the intersection of High Street. There is no posted speed limit along Oak Street except within the school zone where the posted speed limit is 20 mph during school hours. Land use within the study area consists mostly of residential properties.

Intersections

Figure 2 summarizes existing lane use and travel lane widths at the study area intersections as observed in March 2021.

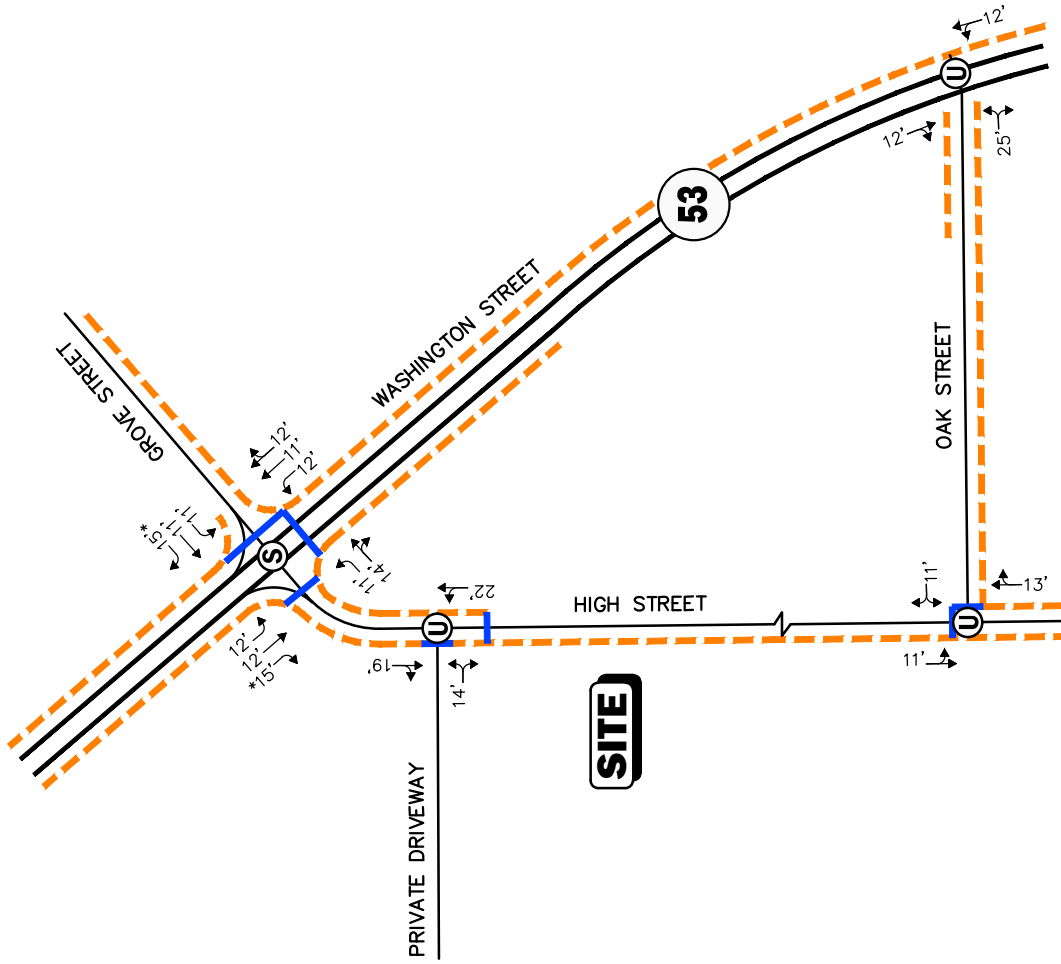
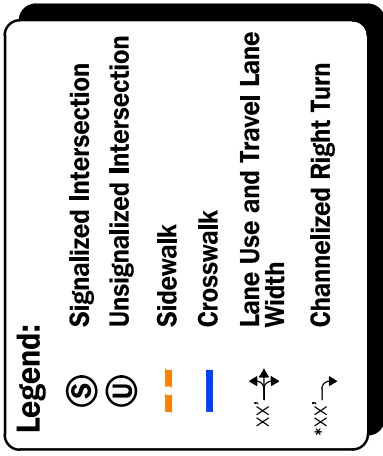
EXISTING TRAFFIC VOLUMES

In order to establish base traffic-volume conditions within the study area, manual turning movement counts (TMCs) were completed on Thursday, October 8, 2020 and Thursday, April 1, 2021. The TMCs were conducted during the weekday morning (7:00 to 9:00 AM) and weekday evening (4:00 to 6:00 PM) peak periods, which represent the peak periods for residential traffic.

Traffic Adjustment

In order to develop 2021 Existing traffic-volume conditions, the data collected required adjustment due to the effects of the COVID-19 pandemic. To achieve this, count data from the MassDOT permanent count station ID 6255 located on Route 3 north of Route 18 were reviewed.³ Traffic-volume data collected at this continuous count station in October 2020 and April 2021 were compared to October 2018 and April 2019 traffic volumes that were collected at the same location. The 2018 and 2019 traffic volumes were expanded to 2020 and 2021 (same year condition) by applying a background traffic growth rate of 1.0 percent per year (discussion follows) in order to allow for a comparison of the data. Based on this pre- and post-COVID-19 traffic data comparison, the 2020 and 2021 traffic-volume data that was collected as a part of this assessment were adjusted upward by an additional 9 and 6 percent, respectively, in order to account for the reduced traffic volumes resulting from the phased “Reopening Massachusetts” plan.

³MassDOT traffic volumes for the Commonwealth of Massachusetts; 2020.



VAI Vanasse & Associates inc

Figure 2

Existing Intersection Lane Use, Travel Lane Width and Pedestrian Facilities

Seasonal Adjustment

In addition to correction factors for COVID-19, adjustments were made to account for seasonal fluctuations in traffic. The MassDOT permanent count station ID 6255 data were used to adjust the traffic volumes for seasonal fluctuations. Based on this data, it was determined that April traffic volumes are approximately 1.0 percent lower than the average-month conditions and October traffic volumes are approximately 1.0 percent above than average-month conditions for this station. Therefore, traffic volumes for April were increased by 1.0 percent to average-month condition for analysis. The October traffic volumes were not adjusted downward in order to provide a conservative analysis condition.

The 2021 Existing traffic volumes are summarized in Table 1, with the weekday morning and evening peak-hour traffic volumes graphically depicted on Figure 3. Note that the peak-hour traffic volumes presented in Table 1 were obtained from the TMCs and are reflected on the aforementioned figure.

Table 1
EXISTING ROADWAY TRAFFIC-VOLUME SUMMARY

Location	Daily Volume (vpd) ^a	Weekday Morning Peak Hour (8:00 – 9:00 AM)			Weekday Afternoon Peak Hour (4:30 – 5:30PM)		
		Volume (vph) ^b	Percent of Daily Traffic	Predominant Flow	Volume (vph)	Percent of Daily Traffic	Predominant Flow
High Street, south of Private Driveway	8,100	614	7.5	52% NB	725	9.0	54% SB

^aTwo-way daily traffic expressed in vehicles per day. (estimated)

^bManual turning movement counts conducted in April 2021 (adjusted).

^cThe percent of daily traffic that occurs during the peak hour.

NB= northbound; SB=Southbound.

As can be seen in Table 1, High Street south of the private driveway was found to accommodate approximately 8,100 vehicles on an average weekday (24-hour, two-way volume), with approximately 614 vehicles per hour (vph) during the weekday morning peak hour and 725 vph during the weekday evening peak hour. The predominant flow on High Street during the weekday morning peak hour is in the northbound direction and during the weekday evening peak hour is in the southbound direction.

A review of the peak-period traffic counts indicates that the weekday morning peak hour generally occurs between 8:00 and 9:00 AM with the weekday evening peak hour generally occurring between 4:30 and 5:30 PM.

PEDESTRIAN AND BICYCLE FACILITIES

A comprehensive field inventory of pedestrian and bicycle facilities within the study area was undertaken in March 2021. The field inventory consisted of a review of the location of sidewalks and pedestrian crossing locations along the study roadway and at the study intersections, as well as the location of existing and planned future bicycle facilities. As detailed on Figure 2, sidewalks



Figure 3

2021 Baseline Condition Peak Hour Traffic Volumes



Vanasse &
Associates inc

are provided on the west side of High Street within the study area. A mid-block crosswalk on High Street is provided in the vicinity of the driveway to the Washington Square condominium complex. Within the study area, painted crosswalks are provided at the major intersections. Formal bicycle facilities are not provided within the immediate study area.

PUBLIC TRANSPORTATION

Public transportation services are provided within the study area by the Massachusetts Bay Transportation Authority (MBTA) for commuter rail service. The Greenbush Commuter Rail line, East Weymouth station (in Weymouth), is the closest station to the proposed development. The station is located approximately 4.5 miles north of the site, approximately 12 minutes driving time. The MBTA commuter rail Greenbush Line provides convenient access to Boston and operates Monday through Friday from 6:15 AM to 11:55 PM. Commuter rail zone (actual zone is Zones 1A-10) fares are \$2.40 one way and \$90.00 for a monthly pass.

All MBTA trains are handicapped and wheelchair accessible. Schedule and fare information for the MBTA fixed-route bus and commuter rail service are provided in the Appendix.

SAFETY ANALYSIS

In order to evaluate whether there are any notable trends that would indicate potential safety deficiencies within the study area, a motor vehicle accident analysis was conducted in accordance with State guidelines as described below.

Vehicle Accident Data

Motor vehicle accident data was acquired from the MassDOT Safety Management/Traffic Operations Unit for the most recent five-year period available (2014 through 2018) in order to examine motor vehicle accident trends occurring within the study area. The data is summarized by intersection, type, and severity, and is presented in Table 2.

As summarized in Table 2, the intersection Washington Street (Route 53) at High Street/Grove Street experienced the highest frequency of accidents with a total of 54 accidents over the five-year review period, averaging 10.8 accidents per year. The majority of the accidents were rear-end collisions (30 out of 54), occurred on dry pavement (43 out of 54), during the daylight (43 out of 54), in clear weather (39 out of 54), and caused property damage only (38 out of 54). All study intersections were found to have a motor vehicle crash rate *below* the MassDOT average for the District in which the Project is located (District 5). No fatalities were reported at any of the study area intersections over the five-year period reviewed. In addition, the Highway Safety Improvement Program (HSIP) database was reviewed. The intersection of Washington Street (Route 53) at High Street/Grove Street is listed as a HSIP in the (2013 through 2015) cluster listing. It is important to note that none of the study intersections were included in the most recent listing HSIP listing. This intersection is also part of the Route 53 Corridor Study planning analysis being conducted by the Central Transportation Planning Staff (CTPS) and expected to be released to the public shortly. The detailed MassDOT Crash Rate Worksheets and High Crash Location mapping are provided in the Appendix.

Table 2
MOTOR VEHICLE ACCIDENT DATA SUMMARY^a

Scenario	Washington Street (Route 53) at High Street/ Grove Street (Signalized)	High Street at Private driveway (Unsignalized)	High Street at Oak Street (Unsignalized)	Washington Street (Route 53) at Oak Street (Unsignalized)
<i>Year:</i>				
2014	15	0	0	1
2015	11	0	0	1
2016	11	0	0	1
2017	8	0	0	0
2018	9	0	2	2
Total	54	0	2	5
Average ^a	10.80	0.00	0.40	1.00
Crash Rate ^b	0.74	0.00	0.13	0.14
Significant ^c	No	No	No	No
<i>Type:</i>				
Angle	17	0	1	1
Rear-End	30	0	0	1
Head-On	1	0	0	1
Sideswipe	4	0	0	2
Fixed Object	1	0	1	0
Pedestrian	0	0	0	0
Bicyclist	0	0	0	0
Unknown/Other	0	0	0	0
Total	54	0	2	5
<i>Weather Conditions:</i>				
Clear	39	0	1	3
Cloudy/Rain	12	0	0	2
Snow/Ice	2	0	1	0
Fog	1	0	0	0
Unknown/Other	0	0	0	0
Total	54	0	2	5
<i>Lighting Conditions:</i>				
Daylight	43	0	2	5
Dawn/Dusk	1	0	0	0
Dark (lit)	9	0	0	0
Dark (unlit)	1	0	0	0
Unknown/Other	0	0	0	0
Total	54	0	2	5
<i>Pavement Conditions :</i>				
Dry	43	0	1	4
Wet	10	0	0	1
Snow/Ice	1	0	1	0
Unknown/Other	0	0	0	0
Total	54	0	2	5
<i>Severity:</i>				
Property Damage Only	38	0	2	5
Personal Injury	14	0	0	0
Fatality	0	0	0	0
Unknown/Other	2	0	0	0
Total	54	0	2	5

^aSource: MassDOT, 2014 through 2018.

^bAverage crashes over five-year period.

^cCrash rate per million entering vehicles.

Unsignalized intersections are significant if rate >0.57 crashes per million vehicles (District 5) or if rate >0.57 crashes per million vehicles (Statewide).

Signalized intersections are significant if rate >0.75 crashes per million vehicles (District 5) or if rate >0.78 crashes per million vehicles (Statewide).

SPOT SPEED MEASUREMENTS

Vehicle travel speed measurements were performed along High Street in the vicinity of the Project site. Table 3 summarizes the vehicle travel speed measurements.

Table 3
VEHICLE TRAVEL SPEED MEASUREMENTS

	High Street Northbound	High Street Southbound
Mean Travel Speed (mph)	33	30
85 th Percentile Speed (mph)	35	33
Posted Speed Limit (mph)	30	35

mph = miles per hour.

As can be seen in Table 3, the mean (average) vehicle travel speed along High Street in the vicinity of the Project site was found to be approximately 33 mph in the northbound direction and approximately 30 mph in the southbound direction. The measured 85th percentile vehicle travel speed, or the speed at which 85 percent of the observed vehicles traveled above, was found to be approximately 35 mph in the northbound direction and 33 mph in the southbound direction.

FUTURE CONDITIONS

Traffic volumes in the study area were projected to the year 2028, which reflects a seven-year planning horizon consistent with State Traffic Study Guidelines. Independent of the Project, traffic volumes on the roadway network in the year 2028 under No-Build conditions include all existing traffic and new traffic resulting from background traffic growth. Anticipated Project-generated traffic volumes superimposed upon this 2028 No-Build traffic network reflect the 2028 Build conditions with the Project.

FUTURE TRAFFIC GROWTH

Future traffic growth is a function of the expected land development in the immediate area and the surrounding region. Several methods can be used to estimate this growth. A procedure frequently employed estimates an annual percentage increase in traffic growth and applies that percentage to all traffic volumes under study. The drawback to such a procedure is that some turning volumes may actually grow at either a higher or a lower rate at particular intersections.

An alternative procedure identifies the location and type of planned development, estimates the traffic to be generated, and assigns it to the area roadway network. This procedure produces a more realistic estimate of growth for local traffic. However, the drawback of this procedure is that the potential growth in population and development external to the study area would not be accounted for in the traffic projections.

To provide a conservative analysis framework, both procedures were used, the salient components of which are described below.

GENERAL BACKGROUND TRAFFIC GROWTH

Traffic-volume data compiled by MassDOT from permanent count stations and historic traffic counts in the area were reviewed in order to determine general background traffic growth trends. Based on this data, it was determined that traffic volumes within the study area have fluctuated over the past several years. In order to provide a prudent planning condition for the Project, a slightly higher 1.0 percent per year compounded annual background traffic growth rate was used in order to account for future traffic growth and presently unforeseen development within the study area.

SPECIFIC DEVELOPMENT BY OTHERS

The Town of Norwell was contacted in order to determine if there are any planned or approved development projects that are expected to influence future traffic volumes within the study area. Based on these discussions, the following project was identified for inclusion in this assessment:

- ***119 Washington Street – Proposed Commercial Building Expansion*** – This project will entail a minor expansion of 3,500± square feet (sf) to Bay Path Center, an existing approximate 11,921± sf multi-tenant retail building located at 119 Washington Street in Norwell. Specifically, the project entails the addition of a drive-through facility to a previously approved 3,500± sf addition on the northern side of the building. Traffic volumes from this development were obtained from the Transportation Impact Assessment⁴ memo submitted by VAI in October 2020 and were assigned onto the study area roadway network based on existing traffic patterns. These volumes were included in the future condition networks.

No other developments were identified at this time that are expected to result in an increase in traffic within the study area beyond the general background traffic growth rate.

ROADWAY IMPROVEMENT PROJECTS

The Town of Norwell was contacted to determine if there were any planned roadway improvements in the area that would have an impact on future traffic operations. Based on these discussions, no planned roadway improvement projects that would affect the study area were identified.

NO-BUILD TRAFFIC VOLUMES

The 2028 No-Build peak-hour traffic-volume networks were developed by applying the 1 percent per year compounded annual background traffic growth rate to the 2021 Existing peak-hour traffic volumes plus the identified background developments. The resulting 2028 No-Build weekday morning and weekday evening peak-hour traffic-volume networks are shown on Figure 4.

PROJECT-GENERATED TRAFFIC

The proposal entails construction of 56 multifamily housing units. In order to develop the anticipated traffic characteristics of the Project, trip-generation statistics published by ITE⁵ were reviewed. ITE LUC 220, *Multifamily Housing (Low-Rise)* was used to develop the traffic characteristics of the proposal.

Mode Split

Since the Project site is located approximately 4.5 miles from public transportation, it is likely that most residents will choose personal vehicles to commute to work. Data from the most recent Journey-to-Work U.S. Census⁶ for Census Tract 5041-01 (the tract the Project is located in) was

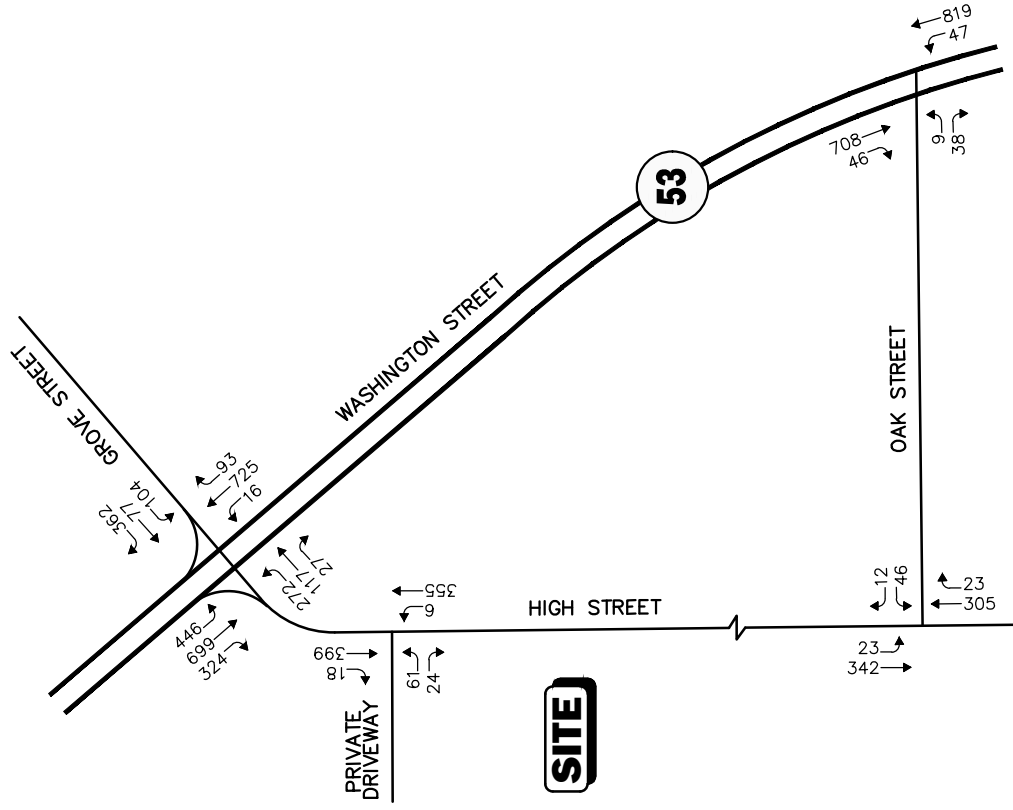
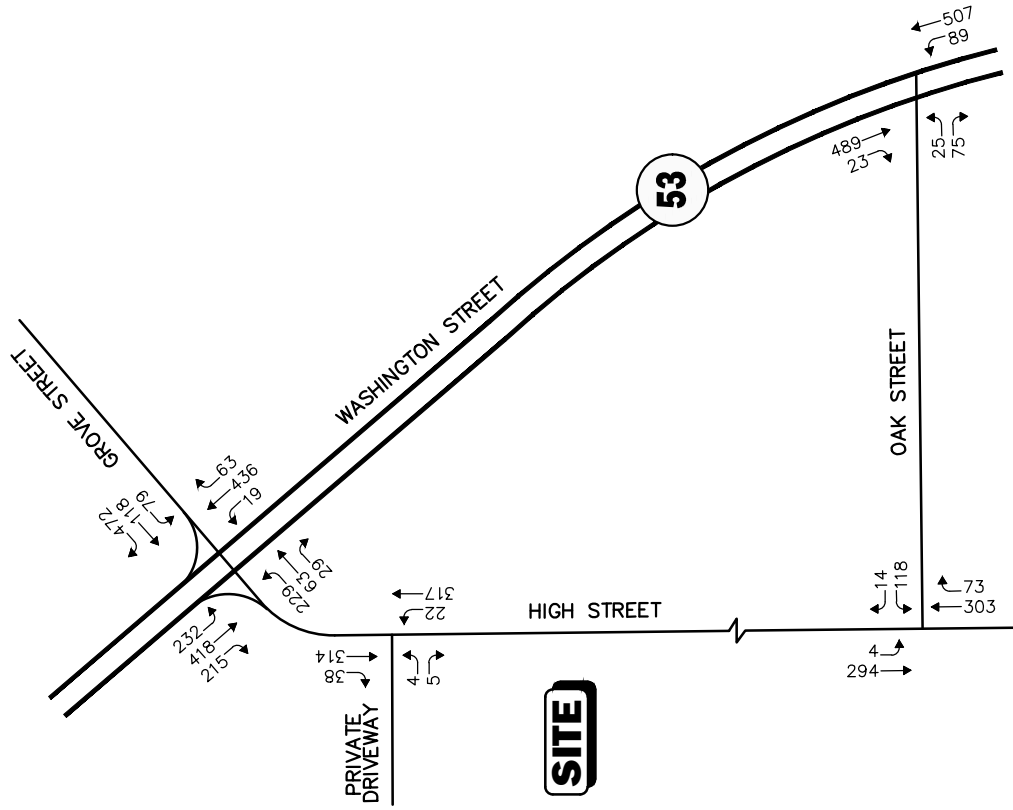
⁴*Transportation Impact Assessment - Proposed Commercial Building Expansion- 119 Washington Street– Norwell, Massachusetts*; VAI.; October 13, 2020.

⁵Ibid 1.

⁶2013-2017 5-Year American Community Survey; U.S. Census Bureau; Census Tract 3424; 2019.

WEEKDAY MORNING PEAK HOUR (8:00 - 9:00 AM)

WEEKDAY EVENING PEAK HOUR (4:30 - 5:30 PM)



Note: Imbalances exist due to numerous curb cuts and side streets that are not shown.
Not to Scale

Figure 4

VA Vanasse & Associates inc

2028 No-Build Condition
Peak Hour Traffic Volumes

reviewed to determine the mode split characteristics of the immediate area. Table 4 summarizes the mode split obtained from the United States Census Bureau, ACS 2015-2019.

Table 4
MODE SPLIT SUMMARY

Mode	Percent
Car/Trucks/Vans	83.0
Drive Alone	80.0
Carpooled	3.0
Public Transit	9.9
Other ^b	7.1
TOTAL	100

^aBased on the United States Census Bureau for Census Tract 5041-01, American Community Survey 2015-2019.

^bIncludes bicycle, walk, and working at home.

As can be seen in Table 4, approximately 83 percent of commuters in this area of Norwell use personal vehicles or carpools to commute to work.

Transit Trips

Public transportation services are provided within the study area by the MBTA with a commuter rail station within approximately 4.5 miles from the site. Based on the Commuting Characteristics by Sex of the 2015-2019 American Community Survey 5-Year Estimation, approximately 9.9 percent of commuters in this area of Norwell use other travel modes besides personal vehicles or carpools to commute to work. However, due to the distance of the site from public transit services and to provide a conservative analysis, a non-auto trip reduction was not employed.

Trip-generation calculations were performed for a typical weekday, as well as the weekday morning and weekday evening peak hours, the critical time periods for Project-related traffic activity. A summary of the expected vehicle-trip generation is summarized in Table 5.

As shown in Table 5, the proposed 56 housing units is expected to generate approximately 382 new vehicle trips on an average weekday (two-way, 24-hour volume), with 27 new vehicle trips (6 entering and 21 exiting) expected during the weekday morning peak hour and 35 new vehicle trips (22 entering and 13 exiting) expected during the weekday evening peak hour.

Table 5
TRIP-GENERATION SUMMARY

Time Period/Direction	Proposed Residential Trips (56 Units) ^a
Weekday Daily	382
<i>Weekday Morning Peak Hour:</i>	
Entering	6
<u>Exiting</u>	<u>21</u>
Total	27
<i>Weekday Evening Peak Hour:</i>	
Entering	22
<u>Exiting</u>	<u>13</u>
Total	35

^aBased on ITE LUC 220, *Multifamily Housing (Low-Rise)*.

TRIP DISTRIBUTION AND ASSIGNMENT

The directional distribution of the site-generated trips to and from the proposed development were determined based on a review of the Journey-to-Work data obtained from the United States Census Bureau.⁷ The directional distribution of generated trips to and from the Project site was determined based on a review of Journey-to-Work for persons residing in the Town of Norwell, and then refined based on existing traffic patterns within the study area. The general trip distribution for the proposal is summarized in Table 6 and graphically depicted on Figure 5.

Table 6
TRIP-DISTRIBUTION SUMMARY

Roadway	Direction (To/From)	Percentage (To/From)
Washington Street (Route 53)	North	60
Washington Street (Route 53)	South	15
Grove Street	East	10
<u>High Street</u>	South	<u>15</u>
TOTAL		100

The weekday morning and weekday evening peak-hour traffic volumes expected to be generated by the residential development were assigned on the study area roadway network as shown on Figure 6.

⁷Table 3. *Residence MCD/County to Workplace MCD/County Commuting Flows for the United States and Puerto Rico Sorted by Residence Geography: 5-Year ACS, 2011-2015.*

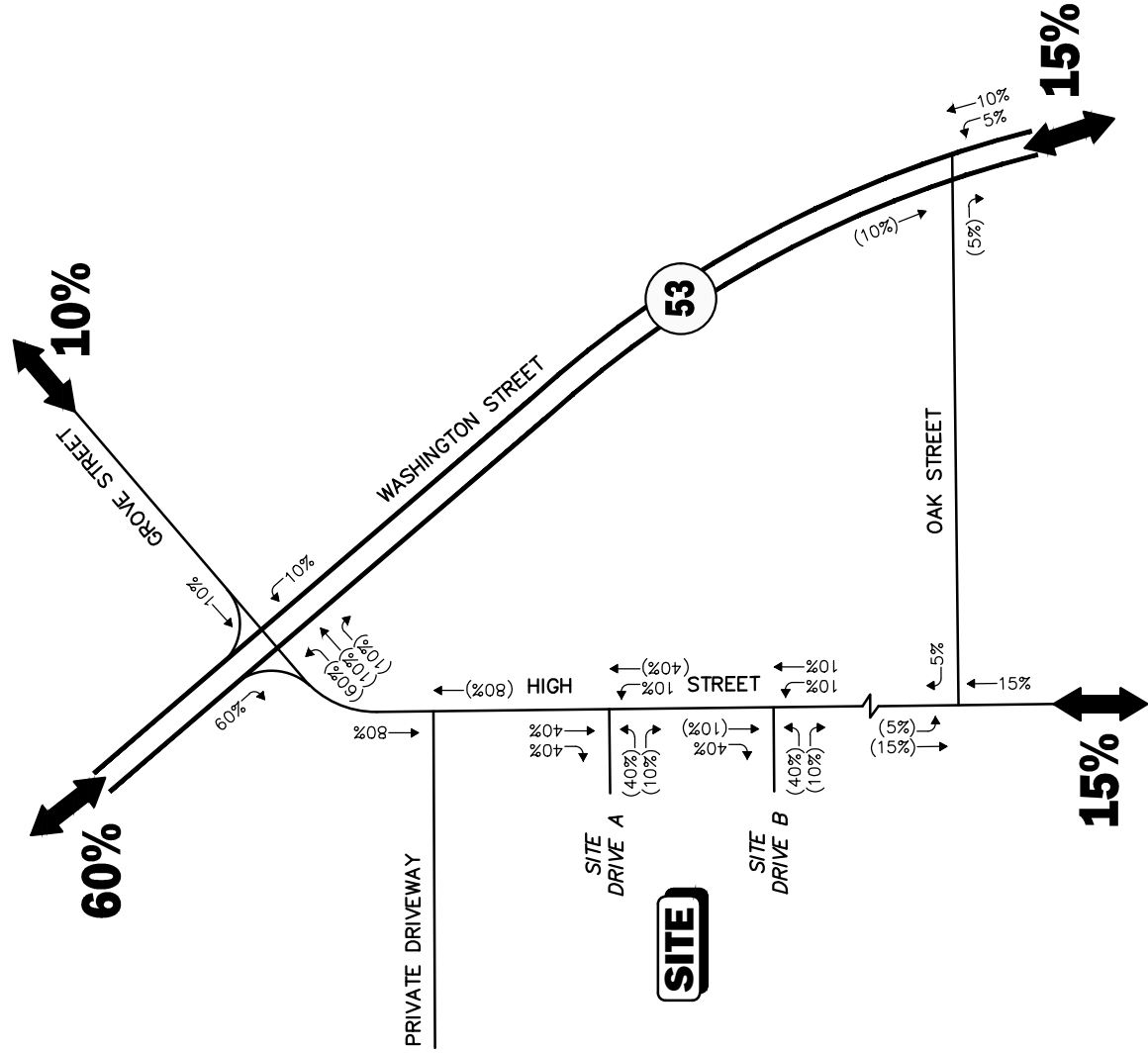
Legend:

XX

Entering Trips

(XX)

Exiting Trips



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Figure 5
Trip Distribution Map

WEEKDAY MORNING PEAK HOUR

WEEKDAY EVENING PEAK HOUR

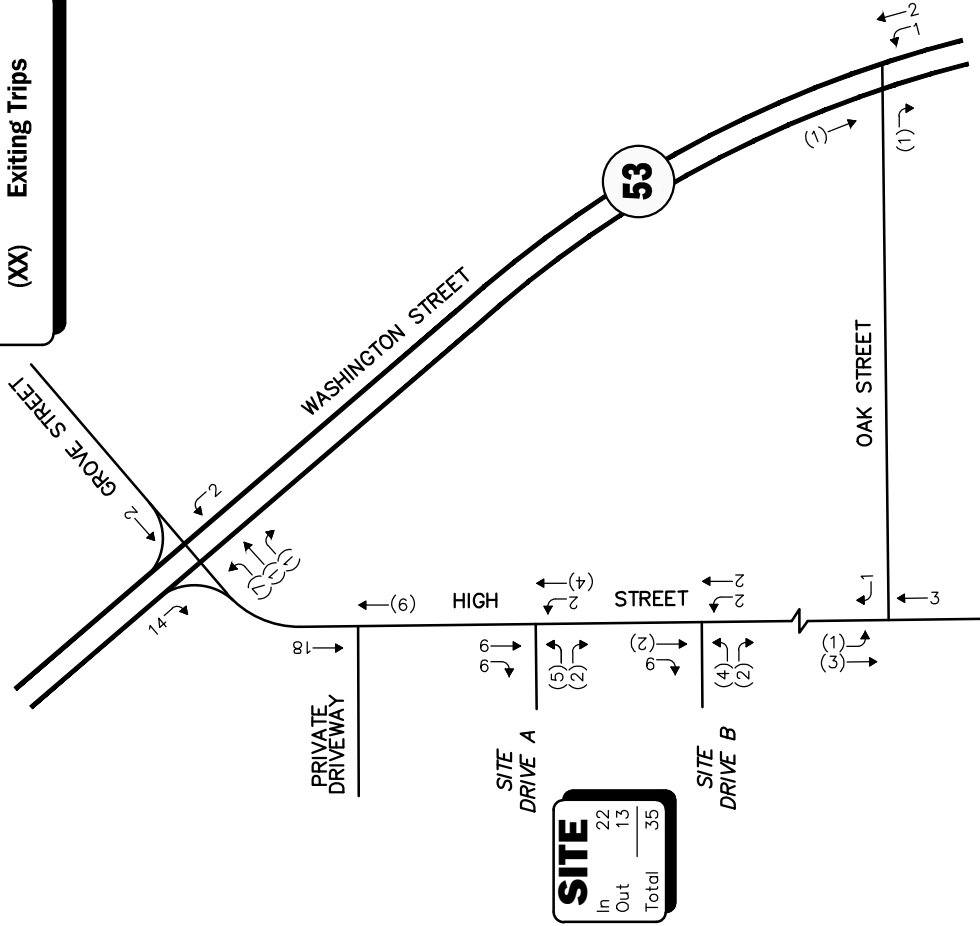
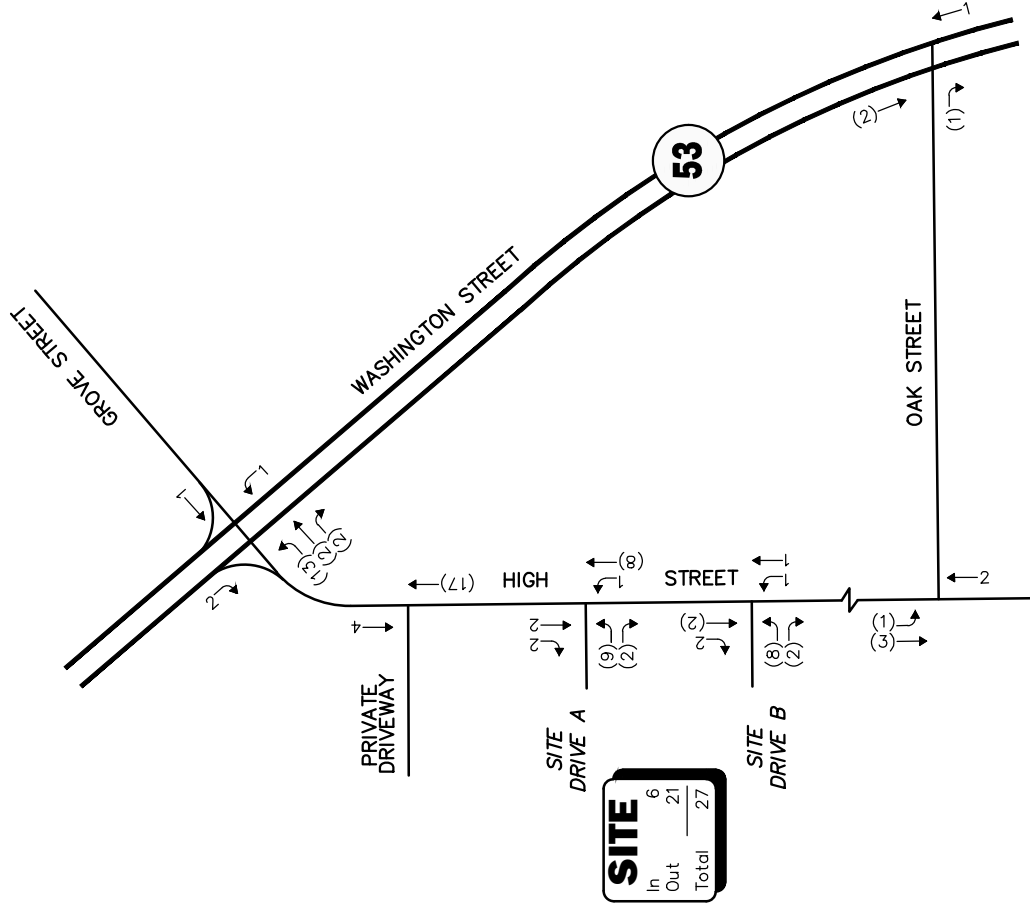
Legend:

XX

Entering Trips

(XX)

Exiting Trips



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Figure 6

Project Generated
Peak Hour Traffic Volumes

FUTURE TRAFFIC VOLUMES - BUILD CONDITION

The 2028 Build condition networks consist of the 2028 No-Build traffic volumes, plus the proposed site-generated traffic added to them. The 2028 Build weekday morning and weekday evening peak-hour traffic-volume networks are graphically depicted on Figure 7.

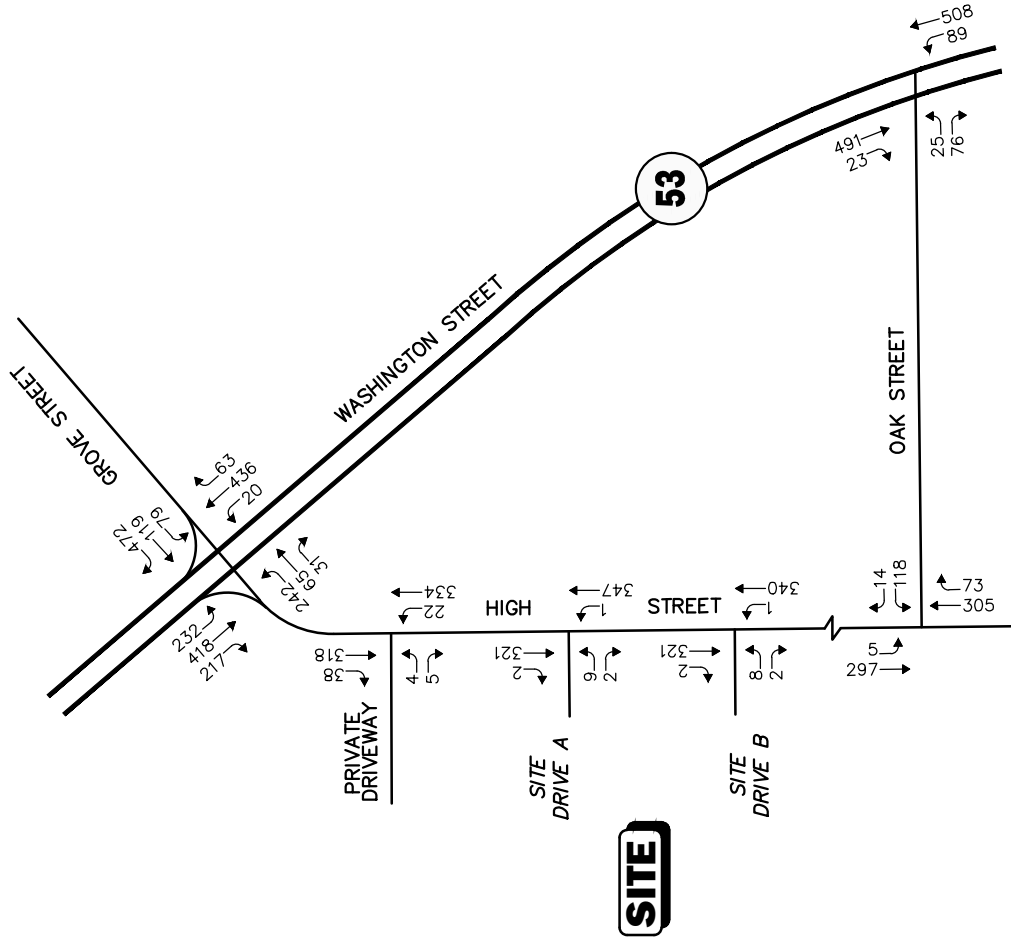
A summary of peak-hour projected traffic-volume increases external to the study area that is the subject of this assessment is shown in Table 7. These volumes are based on the expected increases from the Project.

Table 7
PEAK-HOUR TRAFFIC-VOLUME INCREASES

Location/Peak Hour	2028 No Build	2028 Build	Traffic-Volume Increase Over No-Build	Percent Increase Over No-Build
<i>Route 53, north of High Street:</i>				
Weekday Morning	2,002	2,017	15	0.7
Weekday Evening	2,828	2,849	21	0.7
<i>Route 53, south of Oak Street:</i>				
Weekday Morning	1,160	1,164	4	0.3
Weekday Evening	1,612	1,617	5	0.3
<i>Grove Street, east of Route 53:</i>				
Weekday Morning	1,027	1,030	3	0.3
Weekday Evening	1,199	1,202	3	0.3
<i>High Street, south of Oak Street:</i>				
Weekday Morning	788	793	5	0.6
Weekday Evening	716	722	6	0.8

As shown in Table 7, in comparison to future No-Build conditions, Project-related traffic increases are projected to range between 3 to 21 vehicles during peak hours, with traffic percent increases ranging 0.3 to 0.8 percent.

WEEKDAY MORNING PEAK HOUR



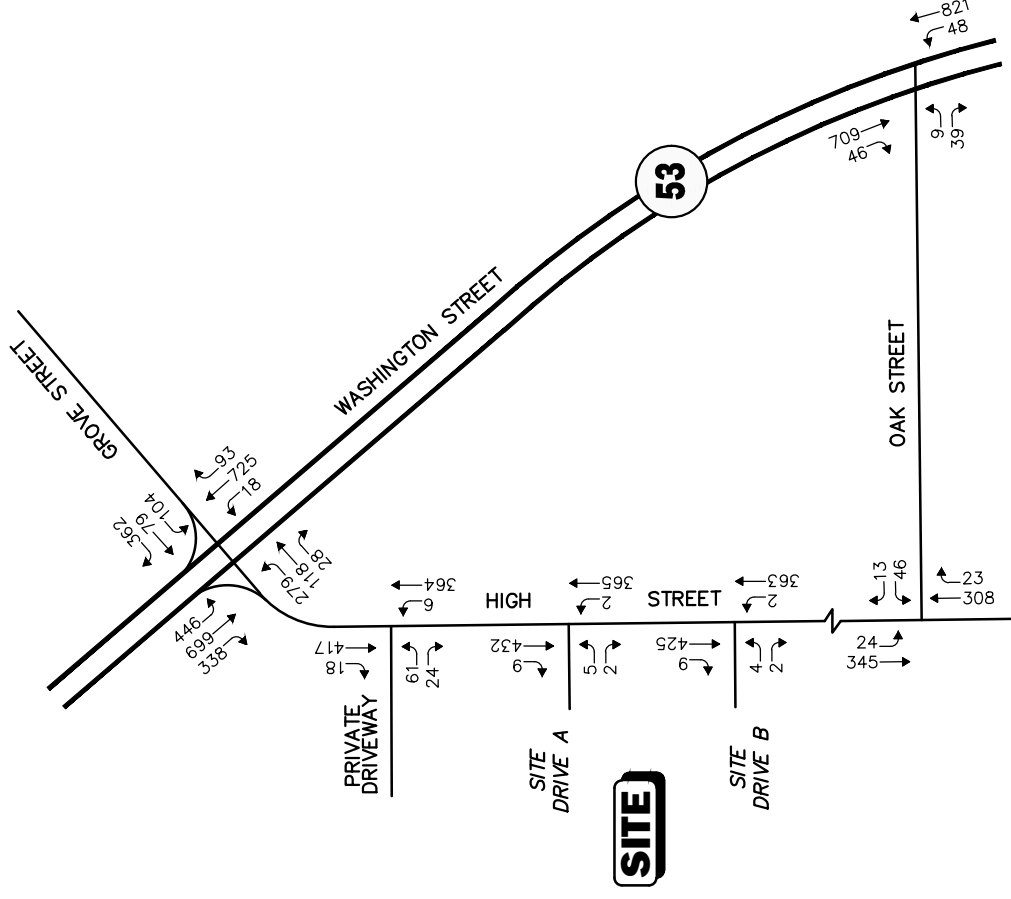
Note: Imbalances exist due to numerous curb cuts and side streets that are not shown.



Figure 7

2028 Build Condition
Peak Hour Traffic Volumes

WEEKDAY EVENING PEAK HOUR



SIGHT DISTANCE EVALUATION

Sight distance measurements were performed at the Project site driveway intersections with High Street in accordance with MassDOT and American Association of State Highway and Transportation Officials (AASHTO)⁸ requirements. Both stopping sight distance (SSD) and intersection sight distance (ISD) measurements were performed. In brief, SSD is the distance required by a vehicle traveling at the design speed of a roadway, on wet pavement, to stop prior to striking an object in its travel path. ISD is the sight distance required by a driver entering or crossing an intersecting roadway to perceive an on-coming vehicle and safely complete a turning or crossing maneuver with on-coming traffic. In accordance with AASHTO standards, if the measured ISD is at least equal to the required SSD value for the appropriate design speed, the intersection can operate in a safe manner. Table 8 presents the measured SSD and ISD at the site driveway intersections.

⁸A *Policy on Geometric Design of Highway and Streets*, 7th Edition; American Association of State Highway and Transportation Officials (AASHTO); Washington D.C.; 2018.

Table 8
SIGHT DISTANCE MEASUREMENTS^a

Intersection/Sight Distance Measurement	Distances (Feet)		
	Required Minimum (SSD)	Desirable (ISD) ^b	Measured
High Street at Site Driveway A			
<i>Stopping Sight Distance:</i>			
High Street approaching from the north	250 ^c	--	368
High Street approaching from the south	250 ^d	--	500+
<i>Intersection Sight Distance:</i>			
Looking to the north from the Project Site Driveway A	--	390 ^c	341
Looking to the south from the Project Site Driveway A	--	390 ^d	500+
High Street at Site Driveway B			
<i>Stopping Sight Distance:</i>			
High Street approaching from the north	250 ^c	--	481
High Street approaching from the south	250 ^d	--	500+
<i>Intersection Sight Distance:</i>			
Looking to the north from the Project Site Driveway B	--	390 ^c	400
Looking to the south from the Project Site Driveway B	--	390 ^d	500+

^aRecommended minimum values obtained from *A Policy on Geometric Design of Highways and Streets*, 7th Edition; American Association of State Highway and Transportation Officials (AASHTO); 2018.

^bValues shown are the intersection sight distance for a vehicle turning right or left exiting a roadway under STOP control such that motorists approaching the intersection on the major street should not need to adjust their travel speed to less than 70 percent of their initial approach speed.

^cBased on posted speed limit of 35 mph (85th percentile speed is 33 mph).

^dBased on 85th percentile speed of 35 mph.

As can be seen in Table 8, the sight distance at the (North) Site Driveway A intersection with High Street was found to exceed the recommended minimum sight distances, based on the vehicle travel speed of 35 mph. However, based on AASHTO standards if the measured ISD is higher than the required SSD value the intersection can operate in a safe manner, therefore, this driveway will function in a safe manner.

The available lines of sight at the (South) Site Driveway B intersection with High Street will meet or exceed the recommended minimum sight distance to function in a safe (SSD) manner based on assumed approach speed of 35 mph.

TRAFFIC OPERATIONS ANALYSIS

Measuring existing and future traffic volumes quantifies traffic flow within the study area. To assess quality of flow, roadway capacity and vehicle queue analyses were conducted under Existing, No-Build, and Build traffic-volume conditions. Capacity analyses provide an indication of how well the roadway facilities serve the traffic demands placed upon them, with vehicle queue analyses providing a secondary measure of the operational characteristics of an intersection or section of roadway under study.

METHODOLOGY

Levels of Service

A primary result of capacity analyses is the assignment of level-of-service to traffic facilities under various traffic-flow conditions.⁹ The concept of level-of-service is defined as a qualitative measure describing operational conditions within a traffic stream and their perception by motorists and/or passengers. A level-of-service definition provides an index to quality of traffic flow in terms of such factors as speed, travel time, freedom to maneuver, traffic interruptions, comfort, convenience, and safety.

Six levels of service are defined for each type of facility. They are given letter designations from A to F, with level-of-service (LOS) A representing the best operating conditions and LOS F representing congested or constrained operating conditions.

Since the level-of-service of a traffic facility is a function of the traffic flows placed upon it, such a facility may operate at a wide range of levels of service, depending on the time of day, day of week, or period of year.

⁹The capacity analysis methodology is based on the concepts and procedures presented in the *Highway Capacity Manual*; Transportation Research Board; Washington, DC; 2010.

Signalized Intersections

The six levels of service for signalized intersections may be described as follows:

- *LOS A* describes operations with very low control delay; most vehicles do not stop at all.
- *LOS B* describes operations with relatively low control delay. However, more vehicles stop than LOS A.
- *LOS C* describes operations with higher control delays. Individual cycle failures may begin to appear. The number of vehicles stopping is significant at this level, although many still pass through the intersection without stopping.
- *LOS D* describes operations with control delay in the range where the influence of congestion becomes more noticeable. Many vehicles stop, and individual cycle failures are noticeable.
- *LOS E* describes operations with high control delay values. Individual cycle failures are frequent occurrences.
- *LOS F* describes operations with high control delay values that often occur with over-saturation. Poor progression and long cycle lengths may also be major contributing causes to such delay levels.

Levels of service for signalized intersections were calculated using the Percentile Delay Method implemented as a part of the Synchro™ 10 software as required by MassDOT. The Percentile Delay Method assesses the effects of signal type, timing, phasing, and progression; vehicle mix; and geometrics on “percentile” delay. Level-of-service designations are based on the criterion of percentile delay per vehicle and is a measure of: i) driver discomfort; ii) motorist frustration; and iii) fuel consumption; and includes a uniform delay based on percentile volumes using a Poisson arrival pattern, an initial queue move-up time, and a queue interaction delay that accounts for delays resulting from queues extending from adjacent intersections. Table 9 summarizes the relationship between level-of-service and percentile delay and uses the same numerical delay thresholds as the 2000 *Highway Capacity Manual*¹⁰ method. The tabulated percentile delay criterion may be applied in assigning level-of-service designations to individual lane groups, to individual intersection approaches, or to entire intersections.

Table 9
LEVEL-OF-SERVICE CRITERIA
FOR SIGNALIZED INTERSECTIONS

Level of Service	Percentile Delay Per Vehicle (Seconds)
A	≤10.0
B	10.1 to 20.0
C	20.1 to 35.0
D	35.1 to 55.0
E	55.1 to 80.0
F	>80.0

¹⁰*Highway Capacity Manual*; Transportation Research Board; Washington, DC; 2000.

Unsignalized Intersections

The six levels of service for unsignalized intersections may be described as follows:

- *LOS A* represents a condition with little or no control delay to minor street traffic.
- *LOS B* represents a condition with short control delays to minor street traffic.
- *LOS C* represents a condition with average control delays to minor street traffic.
- *LOS D* represents a condition with long control delays to minor street traffic.
- *LOS E* represents operating conditions at or near capacity level, with very long control delays to minor street traffic.
- *LOS F* represents a condition where minor street demand volume exceeds capacity of an approach lane, with extreme control delays resulting.

The levels of service of unsignalized intersections are determined by application of a procedure described in the 2010 *Highway Capacity Manual*.¹¹ Level of service is measured in terms of average control delay. Mathematically, control delay is a function of the capacity and degree of saturation of the lane group and/or approach under study and is a quantification of motorist delay associated with traffic control devices such as traffic signals and STOP signs. Control delay includes the effects of initial deceleration delay approaching a STOP sign, stopped delay, queue move-up time, and final acceleration delay from a stopped condition. Definitions for level of service at unsignalized intersections are also given in the 2010 *Highway Capacity Manual*. Table 10 summarizes the relationship between level of service and average control delay for two-way stop controlled and all-way stop controlled intersections.

Table 10
LEVEL-OF-SERVICE CRITERIA FOR
UNSIGNALIZED INTERSECTIONS^a

Level-of-Service by Volume-to-Capacity Ratio		Average Control Delay (Seconds Per Vehicle)
$v/c \leq 1.0$	$v/c > 1.0$	
A	F	≤ 10.0
B	F	10.1 to 15.0
C	F	15.1 to 25.0
D	F	25.1 to 35.0
E	F	35.1 to 50.0
F	F	> 50.0

^aSource: *Highway Capacity Manual*; Transportation Research Board; Washington, DC; 2010; page 19-2.

¹¹*Highway Capacity Manual*; Transportation Research Board; Washington, DC; 2010.

ANALYSIS RESULTS

Level-of-service and vehicle queue analyses were conducted for 2021 Existing, 2028 No-Build, and 2028 Build conditions for the intersections within the study area. The results of the intersection capacity and vehicle queue analyses are summarized for signalized intersections in Table 11 and for unsignalized intersections in Table 12 with the detailed analysis results presented in the Appendix. The following is a summary of the level-of-service and delay analyses for the intersections within the study area:

Signalized Intersections

Washington Street (Route 53) at High Street/Grove Street

Under all conditions, this signalized intersection will operate at an overall LOS C during the weekday morning peak hour and at an overall LOS D during the weekday evening peak hour. It is noteworthy that the level of service remains the same under future No-Build and Build conditions. The Project-related impacts generally defined an increase in motorist delay that resulted in a corresponding increase in vehicle queuing of 1 vehicle.

Unsignalized Intersections

High Street at Private driveway (Washington Square Condominium Complex)

Under all conditions, the movements at this unsignalized intersection will operate at an overall LOS B or better during the weekday morning peak hour and at an overall LOS C during the weekday evening peak hour. It is noteworthy that the level of service remains the same under the future No-Build and Build conditions. The Project impact on queues and delays will be minimal.

High Street at Oak Street

Under Existing conditions, the movements at this unsignalized intersection will operate at an overall LOS D during the weekday morning peak hour and at an overall LOS C during the weekday evening peak hour. Under future conditions, the movements at this intersection will operate at an overall LOS E during the weekday morning peak hour and at an overall LOS C during weekday evening peak hour. It is noteworthy that the level of service remains the same under future No-Build and Build conditions. The Project impact on queues and delays will be minimal.

Washington Street (Route 53) at Oak Street

Under Existing condition, the movements at this unsignalized intersection will operate at an overall LOS D during the weekday morning and evening peak hours. Under future conditions, the movements at this intersection will operate at an overall LOS E during the weekday morning peak hour and at an overall LOS D during weekday evening peak hour. It is noteworthy that the level of service remains the same under future No-Build and Build conditions. The Project impact on queues and delays will be minimal.

High Street at Site Drive A

Under future condition, the movements at this unsignalized intersection will operate at an overall LOS B during the weekday morning peak hour and at an overall LOS C during weekday evening peak hour.

High Street at Site Drive B

Under future condition, the movements at this unsignalized intersection will operate at an overall LOS B during the weekday morning and evening peak hours.

Table 11
SIGNALIZED INTERSECTION LEVEL-OF-SERVICE AND VEHICLE QUEUE SUMMARY

Signalized Intersection/Peak Hour/Movement	2021 Existing			2028 No-Build			2028 Build					
	V/C ^a	Delay ^b	LOS ^c	Queue ^d Avg/95 th	V/C	Delay	LOS	Queue Avg/95 th	V/C	Delay	LOS	Queue Avg/95 th
Route 53 at High Street and Grove Street												
<i>Weekday Morning:</i>												
High Street EB LT	0.57	31.9	C	104/223	0.61	33.1	C	112/240	0.64	34.2	C	120/253
High Street EB TH RT	0.14	19.9	B	30/84	0.15	19.8	B	32/89	0.15	19.6	B	34/91
Grove Street WB LT	0.56	57.9	E	50/112	0.60	59.8	E	55/121	0.6	60.0	E	55/121
Grove Street WB TH	0.58	53.8	D	76/153	0.61	54.6	D	82/162	0.61	55.0	E	84/164
Grove Street WB RT	0.30	0.40	A	0/0	0.32	0.50	A	0/0	0.32	0.50	A	0/0
Route 53 SB LT	0.76	56.2	E	136/294	0.77	56.0	E	146/328	0.77	56.2	E	146/328
Route 53 SB TH	0.79	47.3	D	235/562	0.87	53.9	D	262/624	0.87	54.4	D	263/624
Route 53 SB RT	0.13	0.20	A	0/0	0.14	0.20	A	0/0	0.14	0.20	A	0/0
Route 53 NB LT	0.06	39.7	D	10/38	0.06	39.8	D	11/40	0.07	39.8	D	11/41
Route 53 NB TH RT	0.50	33.9	C	130/264	0.56	36.1	D	147/305	0.57	36.3	D	147/305
Overall	--	29.4	C	--	--	31.3	C	--	--	31.5	C	--
<i>Weekday Evening:</i>												
High Street EB LT	0.68	45.8	D	176/323	0.72	47.4	D	192/375	0.74	48.4	D	197/395
High Street EB TH RT	0.24	32.8	C	79/162	0.26	32.8	C	87/176	0.26	32.9	C	88/179
Grove Street WB LT	0.70	78.9	E	76/179	0.74	>80.0	F	85/206	0.75	>80.0	F	85/207
Grove Street WB TH	0.36	56.5	E	56/123	0.37	56.2	E	60/131	0.38	56.4	E	62/134
Grove Street WB RT	0.21	0.30	A	0/0	0.23	0.30	A	0/0	0.23	0.30	A	0/0
Route 53 SB LT	0.88	64.2	E	312/648	0.95	76.9	E	350/712	0.95	77.1	E	351/712
Route 53 SB TH	0.91	54.1	D	467/932	1.00	71.2	E	546/1045	1	71.3	E	547/1045
Route 53 SB RT	0.18	0.20	A	0/0	0.19	0.20	A	0/0	0.2	0.20	A	0/0
Route 53 NB LT	0.06	50.7	D	11/38	0.06	50.8	D	12/40	0.08	50.9	D	14/44
Route 53 NB TH RT	0.84	51.5	D	307/550	0.93	60.2	E	353/628	0.93	60.3	E	353/628
Overall	--	42.5	D	--	--	50.3	D	--	--	50.2	D	--

^aVolume-to-capacity ratio.

^bControl (signal) delay per vehicle in seconds.

^cLevel of service.

^dQueue length in feet.

NB = northbound; SB = southbound; EB = eastbound; WB = westbound; LT = left-turning movements; TH = through movements; RT = right-turning movements.

Table 12
UNSIGNALIZED INTERSECTION LEVEL-OF-SERVICE AND VEHICLE QUEUE SUMMARY

Unsignalized Intersection/ Peak Hour/Movement	2021 Existing			2028 No-Build			2028 Build					
	Demand ^a	Delay ^b	LOS ^c	Queue 95 th Percentile	Demand	Delay	LOS	Queue 95 th Percentile	Demand	Delay	LOS	Queue 95 th Percentile
High Street at Private Driveway												
<i>Weekday Morning:</i>												
Private Driveway EB LT TH	9	12.4	B	0.1	9	12.8	B	0.1	9	13.0	B	0.1
High Street NB LT	22	8.0	A	0.1	22	8.1	A	0.1	22	8.1	A	0.1
<i>Weekday Evening:</i>												
Private Driveway EB LT TH	85	18.1	C	1.0	85	19.9	C	1.1	85	20.8	C	1.2
High Street NB LT	6	8.2	A	0.0	6	8.3	A	0.0	6	8.3	A	0.0
High Street at Oak Street												
<i>Weekday Morning:</i>												
Oak Street WB LT RT	123	27.7	D	3.5	132	35.1	E	4.6	132	36.1	E	4.7
High Street SB LT	4	9.4	A	0.0	4	9.6	A	0.0	5	9.6	A	0.0
<i>Weekday Evening:</i>												
Oak Street WB LT RT	54	16.9	C	0.8	58	18.5	C	1.0	59	18.7	C	1.0
High Street SB LT	21	8.1	A	0.1	21	8.2	A	0.1	23	8.2	A	0.1
Route 53 at Oak Street												
<i>Weekday Morning:</i>												
Oak Street EB LT TH	93	29.5	D	3.4	100	41.6	E	4.9	101	42.2	E	5.0
Route 53 NB LT	83	9.1	A	0.3	89	9.3	A	0.4	89	9.3	A	0.4
<i>Weekday Evening:</i>												
Oak Street EB LT TH	43	25.9	D	1.2	47	33.9	D	1.8	48	34.1	D	1.9
Route 53 NB LT	44	9.5	A	0.2	47	9.8	A	0.2	48	9.8	A	0.2
High Street at Site Drive A												
<i>Weekday Morning:</i>												
Site Driveway EB LT/RT	--	--	--	--	--	--	--	--	11	13.7	B	0.1
High Street NB LT	--	--	--	--	--	--	--	--	1	8.0	A	0.0
<i>Weekday Evening:</i>												
Site Driveway EB LT/RT	--	--	--	--	--	--	--	--	7	15.0	C	0.1
High Street NB LT	--	--	--	--	--	--	--	--	2	8.3	A	0.0

See notes at end of table.

Table 12 (Continued)
UNSIGNALIZED INTERSECTION LEVEL-OF-SERVICE AND VEHICLE QUEUE SUMMARY

Unsignalized Intersection/ Peak Hour/Movement	2021 Existing			2028 No-Build			2028 Build					
	Demand ^a	Delay ^b	LOS ^c	Queue 95 th Percentile	Demand	Delay	LOS	Queue 95 th Percentile	Demand	Delay	LOS	Queue 95 th Percentile
High Street at Site Drive B												
<i>Weekday Morning:</i>												
Site Driveway B EB LT/RT	--	--	--	--	--	--	--	--	10	13.6	B	0.1
High Street NB LT	--	--	--	--	--	--	--	--	1	8.0	A	0.0
<i>Weekday Evening:</i>												
Site Driveway B EB LT/RT	--	--	--	--	--	--	--	--	6	14.6	B	0.1
High Street NB LT	--	--	--	--	--	--	--	--	2	8.3	A	0.0

^aDemand in vehicles per hour.

^bControl (signal) delay per vehicle in seconds.

^cLevel of service.

^dQueue length in vehicles.

NB = northbound; SB = southbound; EB = eastbound; WB = westbound; LT = left-turning movements; TH = through movements; RT = right-turning movements.

CONCLUSIONS AND RECOMMENDATIONS

Vanasse & Associates, Inc. (VAI) has prepared this Transportation Impact Assessment (TIA) in order to evaluate potential traffic impacts associated with the proposed residential development to be located at 15 High Street in Norwell, Massachusetts (the “Project”). This study was prepared in accordance with the Massachusetts Department of Transportation (MassDOT) Guidelines for *Transportation Impact Assessment (TIA) Guideline*; and was conducted pursuant to the standards of the Traffic Engineering and Transportation Planning Professions for the preparation of such reports. Based on the results of this study, the following can be concluded:

- The proposed construction of 56 multifamily housing units will generate approximately 382 new vehicle trips on an average weekday (two-way, 24-hour volume), with 27 new vehicle trips (6 entering and 21 exiting) expected during the weekday morning peak hour and 35 new vehicle trips (22 entering and 13 exiting) expected during the weekday evening peak hour;
- The analysis has indicated that the Project will result in minimal impact on motorist delays at the study intersections, as compared to future No-Build conditions;
- Project-related traffic increases in the area are expected to be between 0.3 to 0.8 percent during the peak-hours.
- No apparent safety deficiencies were noted with respect to the motor vehicle crash history at the study area intersections; and
- Lines of sight at the Project site roadway intersections with High Street were found to meet or exceed the recommended minimum distance for safe operation based on the appropriate approach speed.

In consideration of the above, we have concluded that the Project can be accommodated within the confines of the existing transportation infrastructure in a safe and efficient manner with the implementation of the following recommendations.

RECOMMENDATIONS

A detailed transportation improvement program has been developed that is designed to provide safe and efficient access to the Project site and address deficiencies identified at off-site locations evaluated in conjunction with this study. The following improvements have been recommended as a part of this evaluation and, where applicable, will be completed in conjunction with the Project subject to receipt of all necessary rights, permits, and approvals.

Project Access

Access and egress to the Project site will be provided by two full-access driveways onto High Street. The following recommendations are offered with respect to Project access, internal circulation, and parking, many of which are already reflected on the Site Plans for the Project:

- The Project site driveways and internal circulating drives should be 20 feet in width where two-way traffic is to be conveyed, and designed to accommodate the turning and maneuvering requirements of the largest anticipated responding emergency vehicle as defined by the Nowell Fire Department.
- Vehicles exiting the Project site should be placed under STOP-sign control with a marked STOP-line provided.
- All signs and pavement markings to be installed within the Project site should conform to the applicable standards of the *Manual on Uniform Traffic Control Devices* (MUTCD)¹².
- Americans with Disabilities Act (ADA)-compliant wheelchair ramps should be provided at all pedestrian crossings internal to the Project site and for crossing the Project site driveways.
- Crosswalks across the Project driveways should be positioned to be consistent with the existing sidewalk on High Street and not recessed into the development.
- Signs and landscaping to be installed as a part of the Project within intersection sight triangle areas of the Project site driveways should be designed and maintained so as not to restrict lines of sight.
- Snow windows within the sight triangle areas of the Project site driveways and at intersections within the Project site should be promptly removed where such accumulations would impede sight lines.

Off-Site Recommendations

High Street Traffic Calming

Speed Radar Signs: The traffic data documented herein indicates that vehicles are traveling above the legally enforceable posted speed limit. Dynamic Speed Feedback Signs should be considered along High Street. Dynamic Speed Feedback Signs are radar activated signs that dynamically display approaching speeds for individual vehicles or display messages such as “SLOW DOWN” or “REDUCE SPEED” when a vehicle exceeds a certain speed. They alert drivers that they are

¹²Ibid 2.

speeding and create a sense of being monitored.

High Street Crosswalk: A mid-block crosswalk across High Street exists in the vicinity of the Project northern driveway. Due to pedestrian safety concerns as well as the redundancy of this crosswalk with an existing crosswalk over High Street at the Route 53 intersection, removal of this crosswalk should be considered in favor of the existing signalized intersection crosswalk.

TRANSPORTATION DEMAND MANAGEMENT (TDM) PLAN

As is the case with many developments, a major focus of the traffic mitigation plan focuses on the reduction of single-occupant vehicles arriving and departing to and from the site. This is predominantly accomplished by developing a comprehensive Transportation Demand Management (TDM) strategy. The proponent is committed to supporting a balanced multimodal transportation plan to serve the residents and visitors of the site. The major features of this TDM plan that support this commitment are as follows:

- A “welcome packet” will be provided to residents detailing available public transportation services, bicycle, and walking alternatives, and commuter options available.
- In order to encourage the use of public transportation, the property management team will make available public transportation schedules which will be posted in a centralized location for the residents.
- In order to encourage car/vanpooling, the property management team will identify car/vanpool resources that may be available to residents of the proposed Project. This information will be posted in a centralized location for the residents, employees, and visitors.
- The property management team will provide information on available pedestrian and bicycle facilities in the vicinity of the Project site. This information will be posted in a centralized location.

With implementation of the above recommendations, safe and efficient vehicular, pedestrian, and bicycle access will be provided to the Project site and the Project can be accommodated within the confines of the existing and improved transportation system.

CONCLUSIONS

The proposed Project will not result in a significant impact on overall operations. With the implementation of the above recommendations, safe and efficient access will be provided to the planned development and the proposed development can be constructed with minimal impact to the area.

WAIVERS REQUESTED

The Applicant requests that the Board issue a Comprehensive Permit issue for the Project as shown on the proposed plans submitted herewith ("Plans"), in lieu of any requirement that the Applicant apply separately to any Local Board for a local permit. Under 760 CMR 56.02, the term "Local Board" means any local board or official, including, but not limited to, any board of survey, board of health, planning board, conservation commission, historical commission, water, sewer or other type of board, department, commission or district, ; and any fire, police, traffic, or other department, building inspector or similar official or board, and any select board or any other board that performs functions usually performed by locally created boards. Waivers from the Local Requirements and Regulations shall be acted upon accordingly by the ZBA, so that the Applicant need not make separate applications to the individual Local Boards. Under MGL c.40B, the comprehensive permit acts as a master permit for all local action.

The Applicant will comply with all technical local requirements related to the municipal water and sewer systems unless a specific waiver is requested and granted. The Applicant requests waivers for the Project from otherwise applicable local building permit, water and septic fees for the affordable units. The Applicant reserves the right to amend the Requested Waivers during the public hearing process. The Applicant hereby requests waivers to allow the structure and uses shown on the Plans and request waivers from the ZBL for the Project from the following Local Requirements and Regulations and requests that all of the waivers identified herein be granted.

Please note that, as provided for under 760 CMR 56.05(7), the Applicant seeks waivers **only** from the "as-of-right" zoning requirements set forth in the Norwell Zoning By-law ("ZBL") as set forth below; and, the Applicant notes and emphasizes that no waiver is needed (or sought) from any special permit requirement set forth under the Zoning Bylaws because 760 CMR §56.05(7) expressly provides that: "Zoning waivers are required solely from the "as of right" requirements of the zoning district where the project site is located; there shall be no requirement to obtain waivers from the special permit requirements of the district."

1. ZBA Rules and Regulations Article J Comprehensive Permits:

The Applicant seeks a waiver from any provision of the ZBA's Comprehensive Permit Regulations to the extent that they conflict or are inconsistent with the requirements of 760 CMR 56.00 et seq., including, but not limited to the following:

Section 2. Definitions.

The term “Local Board” shall be waived so that it is consistent with 760 CMR 56.01, so that the term includes the Board of Water Commissioners and any other Local Board omitted from the list in the Board’s regulations.

Section 3. The Minimum Jurisdictional Requirements for Filing an Application.

The Minimum Jurisdictional Requirements for Filing an Application shall be waived to the extent that they are inconsistent with 760 CMR 56.00, including 760 CMR 56.04, which provides that eligibility to file a comprehensive permit application is established by issuance of the Project Eligibility Letter.

Section 4. Elements of the Complete Application.

(d) Definition of Bedroom

The Applicant has prepared a Tabulation of Proposed Buildings that counts both the number of bedrooms and the number of bedrooms plus dens. The Applicant requests a waiver from this section to the extent that the inclusion of dens in the bedroom count increases the impact that any Local Requirement or Regulation has on the project.

(k) Proof of Filing of Notification form with Mass. Historic Commission.

The Applicant requests a waiver from this section. The form will be filed in the future at the appropriate time.

(o) Pro Forma.

The Applicant requests a waiver from this section to the extent that it conflicts with the requirements of 760 CMR 56.05(6), as any pro forma review cannot take place until after a number of events occurs; and, furthermore, the time for the Applicant to comply with any proper request for pro forma review does not toll the 180-day deadline for the Board to complete the public hearing unless an extension of time is agreed to.

(p) Appraisal.

The Applicant requests a waiver from this section as the fair market value of the Property is not relevant to the Board's review and action on the comprehensive permit.

Section 6. Application Filing Fees

The Applicant has paid the required application filing fee, but the Applicant requests the Board to provide the Applicant with how the fee is consistent with fees charged to market rate developments.

Section 7. Technical Review; Escrow; Consultant Selection and Appeal

(c) Technical Review

The Applicant requests the Board to waive any fees for special counsel to the Board for general representation as 760 CMR 56.05 expressly provides that, "Legal fees for general representation of the Board or other Local Boards shall not be imposed on the Applicant."

Section 8. Review of any Conditions Claimed to by the Applicant to be Uneconomic

(a) Applicant's Burden.

The Applicant requests the Board to waive any shifting of the burden of proof that is inconsistent with 760 CMR 56.05(7), which provides that "the Board shall grant such Waivers as are Consistent with Local Needs and are required to permit the construction and operation of the Project."

(b) \$5,000 Application fee for pro forma review.

The Applicant requests the Board to waive the \$5000 pro forma fee unless and until the provisions of 760 CMR 56.05(6) have been satisfied.

Section 9. Public Hearing and Decision

(c) Quantum of Board Vote

The Applicant requests that the Board waive the requirement for a unanimous vote of the Board to grant a comprehensive permit as G.L. c.40B, §21 expressly provides that comprehensive permit approval requires only a majority vote.

Section 10. Changes in the Application

- (a) New PEL or written confirmation that a new PEL is not required if changes to the application are made.

If a change to the application is made, the Applicant reserves the right to seek a waiver from this requirement and from (b) as well.

Section 12. Other Provisions

- (b) Issuance of Building Permits

The Applicant requests the Board to waive the requirement that the Project must comply with the Board's rules and regulations, as they may be amended in the future, as no modification to a Local Requirement made after the date of application may be imposed. 760 CMR 56.01.

- (d) Terms and Conditions

The Applicant requests the Board to waive the requirement for assignments of the comprehensive permit and for the Board to adhere to the permit transfer requirements set forth under 760 CMR 56.05(12)(b).

- (e) Performance Guarantees

The Applicant requests a waiver from this requirement as it will not obtain occupancy permits until construction is completed or guaranteed.

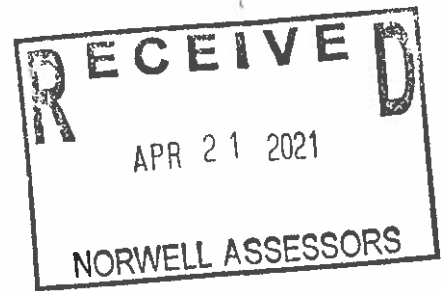
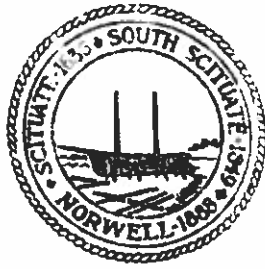
2. Additional Waivers Requested:

Town of Norwell General Bylaws, Zoning Bylaws and Rules & Regulations		
Local Regulation or Bylaw Section	Description	Requested Waiver(s)
Article 8	Permitted Residential Uses	Allow Multi-Family Residential Use and appurtenant uses as shown on the Plans.
Article 9: 201-9.4	Required Yards – Front, Side and Rear Yards Setback Requirements	Front Yard Set Back: Required - 50' Proposed - 15'
Article 9: 201-9.6	Height Restrictions	Required - 2 ½ Stories, 34' Proposed - 3 Stories, 43'
Article 12: 201-12.4	Size of Off-Street Parking Spaces	Required - 9' x 20' Proposed - 9' x 18'
Article 10: 201-10.1	Business A, B and C Restrictions Building Coverage	Building Coverage: Maximum Permitted – 18% Proposed – 23.1%
Article 12: 201-12.7(G)	Bicycle Racks	Required - 2 Racks Proposed - None
Article 13: 201-13.1	District Boundary Buffers	Waiver of All Applicable Article 13: 201-13.1 Regulations.
Article 14: 201-14.5-14.7	Signs – General Provisions	Waiver of All Applicable Article 14 Regulations.
Article 19.0	Aquifer Protection Overlay District	Waiver of All Applicable Article 19.0 Regulations.
Division 4, Rules & Regulations, Chapter 304: 304-64 (C)	High Groundwater Determination	Waiver of Division 4, Rules and Regulations, Chapter 304.
Division 4, Rules & Regulations, Chapter 304: 304-64 (H)	Nitrogen Sensitive District	Waiver of Division 4, Rules and Regulations, Chapter 304.

Division 4, Rules & Regulations, Chapter 304: 304-64 (M)	Pump Systems must be pressure dosed	Waiver of Division 4, Rules and Regulations, Chapter 304.
Division 2, Part IV Land Use and Natural Resources, Chapter 62	Soil, Loam, Sand or Gravel Removal	Waiver of Division 2, Part IV, Chapter 62.
Division 4, Rules & Regulations, Chapter 308	Permanent Drainage Committee	Waiver of Division 4, Rules and Regulations, Chapter 308.
Division 4, Rules & Regulations, Chapter 301, Article 10	Board of Appeals - Comprehensive Permit Application	Waiver of Division 4, Rules and Regulations, Chapter 301.
Division 2, Part V: Street and Ways, Chapter 82	Scenic Roads	Waiver of All Applicable Chapter 82 Rules and Regulations.
Division 2, Part IV, Land Use and Natural Resources, Chapter 61, Article 1	Wetlands Protection	Waiver requested to the extent necessary to allow for construction of project as shown on plans. The project will comply with MA Wetlands Protection Act and MADEP regulations 310 CMR 10.
Division 4, Rules and Regulations, Chapter 302 Planning Board	Part 1 Subdivision Rules and Regulations	Waiver requested from the potential application of subdivision rules and regulations to any portion of the project or project site as shown on the Site Plans.

NOTE: In addition to the above specifically listed waivers, the Applicant also intends to request a waiver from all applicable local by-laws, regulations, and requirements of the Town of Norwell so that the Project can be constructed in accordance with the submitted plans.

Certified
4/23/21
D. Margro



TOWN OF NORWELL
345 MAIN STREET
NORWELL, MA 02061

REQUEST FOR A CERTIFIED LIST OF ABUTTERS

REQUIRED BY DEPARTMENT:

☐ BOARD OF SELECTMEN ☐ BOARD OF HEALTH ☐ HIGHWAY, TREE, & GROUNDS
☒ BOARD OF APPEALS ☐ PLANNING BOARD
☐ BUILDING DEPARTMENT ☐ CONSERVATION COMMISSION ☐ TOWN CLERK

REQUESTED BY: Steve Gallagher of Northland Residential Corporation

EMAIL: sgallagher@northlandresidential.com

TELEPHONE: office 781 229-4708 FAX: mobile 401-569-4416

DATE REQUIRED BY: _____

LOCATION: MAP 11B BLOCK 17 LOT 67 / 11B 17-16 / 11B 17-17 ^{BIK Lot} ^{BIK Lot}

ADDRESS: 15, 19, 27 & 35 High St + 11B 17-18 ^{BIK Lot}

OWNER OF RECORD: 17-67: 44 High Street Realty Trust, Stephen N. Marsh, Trustee

PURPOSE OF LIST: Comprehensive Permit

(Example: Liquor License, Class II Auto, Junk Dealer, Special Permit, Etc.)

REQUIREMENT: 100-ft. Radius _____ 300-ft. Radius ☒ 500-ft. Radius _____

DIRECT ADJOINING _____ STREET APPROVAL _____

SIGNED D. Margro

DATE 4/23/21

→ 17-16 Stephen N. & Laurie K. Marsh

17-17 27 High Street Realty Trust
Stephen N. Marsh, Trustee

17-18 35 High Street Realty Trust
Stephen Marsh, Trustee

15,19,27 & 35 HIGH STREET 300 FT. ABUTTERS' LIST			
PARCEL ID	LOCATION	OWNER	MAILING ADDRESS
17-16 LOCUS	19 HIGH ST	STEPHEN N & LAURIE K MARSH	P.O. BOX 570, NORWELL, MA. 02061
17-17 LOCUS	27 HIGH ST	27 HIGH STREET REALTY TRUST, STEPHEN N MARSH, TRUSTEE	P.O. BOX 570, NORWELL, MA. 02061
17-18 LOCUS	35 HIGH ST	35 HIGH STREET REALTY TRUST, STEPHEN MARSH, TRUSTEE	P.O. BOX 570, NORWELL, MA. 02061
17-67 LOCUS	15 HIGH ST	44 HIGH STREET REALTY TRUST, STEPHEN N MARSH, TRUSTEE	BOX 570, NORWELL, MA. 02061
17-11-001- THRU 17-11- 006	80 WASHINGTON SQ	BUILDING A NORWELL LLC	C/O RADAR PROPERTIES, 80 WASHINGTON SQUARE UNIT J-40, NORWELL, MA. 02061
17-11-007 & 17-11-008	80 WASHINGTON SQ	S & S WASHINGTON SQUARE REALTY TRUST, MARY L SULLIVAN, TRUSTEE	50 COLLIER RD., SCITUATE, MA. 02066
17-11-009 & 17-11-010	80 WASHINGTON SQ	WASHINGTON STREET NOMINEE TRUST, C/O PETER BELLOTTI & KENNETH FREED, TRUSTEES	529 MAIN STREET, SUITE 128, BOSTON, MA. 02125
17-11-011 THRU 17-11- 013	80 WASHINGTON SQ	RAM REALTY TRUST, PETER A & CINDY A RAMSAY, TRUSTEES	<i>P.O. Box 436, Humarock, MA 02047</i> 80 WASHINGTON STREET, BLDG. E11, NORWELL, MA. 02061
17-11-014	80 WASHINGTON SQ	PETER A & CINDY RAMSAY	80 WASHINGTON STREET, BLDG. E11, NORWELL, MA. 02061 <i>P.O. Box 436 Humarock, MA 02047</i>
17-11-015	80 WASHINGTON SQ	NRF REALTY TRUST, JONATHAN D FABRIZIO, TRUSTEE	80 WASHINGTON SQ, UNIT C-15, NORWELL, MA. 02061
17-11-016	80 WASHINGTON SQ	DEMATTEO PROPERTIES, INC.	80 WASHINGTON SQ., # 16, NORWELL, MA. 02061
17-11-017 & 17-11-018	80 WASHINGTON SQ	HOPE REALTY TRUST, KRISTIN M PENZA, TRUSTEE	80 WASHINGTON SQ., UNIT C 17, NORWELL, MA. 02061
17-11-019 & 17-11-020	80 WASHINGTON SQ	THE MCGOWAN FAMILY REALTY TRUST, OWEN MCGOWAN, TRUSTEE	80 WASHINGTON SQ., UNIT 20, NORWELL, MA. 02061
17-11-021	80 WASHINGTON SQ	CHRISTIAN N FORD	80 WASHINGTON SQ., UNIT D21, NORWELL, MA. 02061
17-11-022	80 WASHINGTON SQ	SAMANDERINLEA LLC	80 WASHINGTON SQ., UNIT 22, NORWELL, MA. 02061

15,19,27 & 35 HIGH STREET 300 FT. ABUTTERS' LIST PG 2			
PARCEL ID	LOCATION	OWNER	MAILING ADDRESS
17-11-023	80 WASHINGTON SQ	RK & RN LLC	80 WASHINGTON SQ., D28, NORWELL, MA. 02061
17-11-024	80 WASHINGTON SQ	JOSEPH J IANTOSCA	325 WOODS RD, STE 202, BRAINTREE, MA. 02184
17-11-025	80 WASHINGTON SQ	PROGRESS CARE REALTY LLC	80 WASHINGTON SQ., NORWELL, MA. 02061
		DIANE LITTLEFIELD RITSHER & ANNE	
17-11-026	80 WASHINGTON SQ	M MCNALLY	80 WASHINGTON SQ., NORWELL, MA. 02061
17-11-027	80 WASHINGTON SQ	PATRICIA M FLAHERTY	80 WASHINGTON SQ., NORWELL, MA. 02061
		D28 WASHINGTON SQUARE REALTY	
17-11-028	80 WASHINGTON SQ	TRUST, ROBERT L & ANN NUTT	80 WASHINGTON SQ., NORWELL, MA. 02061
17-11-029	80 WASHINGTON SQ	COMER DEVELOPMENT LLC	335 WASHINGTON ST., NORWELL, MA. 02061
		COLIN F REGAN C/O BRENDA & COLIN	
17-11-030	80 WASHINGTON SQ	REGAN	277 FAIR OAKS LN., COHASSET, MA. 02025-1372
17-11-031	80 WASHINGTON SQ	CATHARINE L ST DON	52 CLIFTON AV, HULL, MA. 02045
		DE PLANNING LLC C/O YOUNG	
17-11-032	80 WASHINGTON SQ	BELFORD LLC	80 WASHINGTON SQ., UNIT F32, NORWELL, MA. 02061
17-11-033 & 17-11-034	80 WASHINGTON SQ	MURRAY FINANCIAL TRUST JOSEPH G & NANCY A MURRAY, TRUSTEES	80 WASHINGTON SQ., NORWELL, MA. 02061
		EASTERN BANK GENERAL SERVICE	
17-11-035	80 WASHINGTON SQ	EP2-26	195 MARKET ST, LYNN, MA 01901-1508
17-11-036 & 17-11-037	80 WASHINGTON SQ	PETROCELLI FAMILY SERIES LLC	80 WASHINGTON SQ., NORWELL, MA. 02061
17-11-045 & 17-11-046	80 WASHINGTON SQ	80 WASH LLC	80 WASHINGTON SQ., UNIT 45, NORWELL, MA. 02061
17-11-047	80 WASHINGTON SQ	VRT CORP	80 WASHINGTON SQ., NORWELL, MA. 02061

15,19,27 & 35 HIGH STREET 300 FT. ABUTTERS' LIST PG 3				
PARCEL ID	LOCATION	OWNER	MAILING ADDRESS	
17-11-048	80 WASHINGTON SQ	VRT CORP	80 WASHINGTON SQ UNIT 48, NORWELL, MA. 02061	
17-11-049 & 17-11-050	80 WASHINGTON SQ	CERRIDWEN LLC	80 WASHINGTON ST., SUITE M50, NORWELL, MA. 02061	
17-11-051 & 17-11-052	80 WASHINGTON SQ	NORWELL SURGICAL REALTY TRUST ROBERT E LINCOLN, TRUSTEE	80 WASHINGTON SQ., NORWELL, MA. 02061	
17-11-053 & 17-11-054	80 WASHINGTON SQ	MICHAEL C HANSON	80 WASHINGTON ST., 0-53, NORWELL, MA. 02061	
17-11-055 & 17-11-056	80 WASHINGTON SQ	JAMES L MINITER INSURANCE AGENCY, INC.	80 WASHINGTON SQ., NORWELL, MA. 02061	
17-11-057	80 WASHINGTON SQ	MURRAY FINANCIAL TRUST NANCY A & JOSEPH G MURRAY, TRUSTEES	80 WASHINGTON SQ., NORWELL, MA. 02061	
17-11-058	80 WASHINGTON SQ	Q-58 REALTY TRUST NANCY & JOSEPH MURRAY, TRUSTEES	80 WASHINGTON SQ., NORWELL, MA. 02061	
17-11-061 THRU 17-11- 068	80 WASHINGTON SQ	THE NINETEENTH HOLE NOMINEE REALTY TRUST BRYAN MORRISSEY & BRUCE HENRIKSEN, TRUSTEES	80 WASHINGTON SQ., BLDG. S, NORWELL, MA. 02061	
17-11-038 & 17-11-039	80 WASHINGTON SQ	BUILDING J NORWELL LLC C/O RADAR PROPERTIES	80 WASHINGTON SQ., BLDG J-40, NORWELL, MA. 02061	
17-11-040 THRU 17-11- 042	80 WASHINGTON SQ	BUILDING J NORWELL LLC C/O RADAR PROPERTIES	80 WASHINGTON SQ., BLDG. J-40, NORWELL, MA. 02061	
17-19	37 HIGH ST	DANIEL M SENTENO & JOANNA L MCDONALD	37 HIGH ST, NORWELL, MA. 02061	
17-20	45 HIGH ST	DAVID F DOYLE	45 HIGH ST., NORWELL, MA. 02061	
19-11	44 HIGH ST	44 HIGH STREET REALTY TRUST	P O BOX 570, NORWELL, MA. 02061	
19-9 & 19-7	40 HIGH ST	STEPHEN N MARSH, TRUSTEE	104 WASHINGTON ST., NORWELL, MA. 02061	
19-8	114 WASHINGTON ST	FLASK REALTY LLC	BOX 570, NORWELL, MA. 02061	

NORTHLAND RESIDENTIAL LLC
80 BEHARRELL STREET, SUITE E
CONCORD, MA 01742

BOSTON PRIVATE BANK & TRUST COMPANY
BOSTON, MASSACHUSETTS 02110

5-2347110

50485

DATE 4/29/2021

AMOUNT **20,000.00

PAY Town of Norwell

Twenty Thousand and 00/100*****

TO THE ORDER OF Town of Norwell

John C. Dady

NORTHLAND RESIDENTIAL LLC

50485

Town of Norwell

Date	Type	Reference	Original Amt.	Balance Due	4/29/2021 Discount	Payment
4/29/2021	Bill	Peer Review Escrow	20,000.00	20,000.00		20,000.00
Check Amount						20,000.00

Cash-Boston Private

20,000.00

NORTHLAND RESIDENTIAL LLC
80 BEHARRELL STREET, SUITE E
CONCORD, MA 01742

BOSTON PRIVATE BANK & TRUST COMPANY
BOSTON, MASSACHUSETTS 02110

5-2347110

50484

DATE 4/29/2021

AMOUNT **33,000.00

PAY Town of Norwell

Thirty-Three Thousand and 00/100*****

TO THE ORDER OF Town of Norwell

John C. Dady

NORTHLAND RESIDENTIAL LLC

50484

Town of Norwell

Date	Type	Reference	Original Amt.	Balance Due	4/29/2021 Discount	Payment
4/29/2021	Bill	Filing Fee	33,000.00	33,000.00		33,000.00
Check Amount						33,000.00

Cash-Boston Private

33,000.00