NECK FARM ESTATES

13 Neck Road Lancaster, Massachusetts



Application for a Comprehensive Permit

Under M.G.L. Chapter 40B, Section 20-23

Submitted By:

Neck Farm, LLC

Submitted To:

The Lancaster Zoning Board of Appeals

October 2023

NECK FARM ESTATES

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BLATMAN, BOBROWSKI, HAVERTY & SILVERSTEIN, LLC

- ATTORNEYS AT LAW -

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CHRISTOPHER J. ALPHEN, Esq. Chris@bbhslaw.net

October 19, 2023

HAND DELIVERED

Zoning Board of Appeals Prescott Building 701 Main Street Lancaster, MA 01523

RE:

Neck Farm Estates

13 Neck Road, Lancaster - Comprehensive Permit

Dear Members of the Board:

This document constitutes an application, pursuant to G. L. c. 40B, §§ 20-23 (the "Act"), and the regulations promulgated thereunder for a Comprehensive Permit to authorize the construction of eleven (11) rental units, including three (3) affordable units (the "Project") on a .56-acre site located on Neck Road and Center Bridge Road in Lancaster (the "Property" or "Site"). The Property is located in the Residential ("R") Zoning District. The Application for Zoning Board of Appeals Hearing is attached hereto in "Section 1".

1.0 Applicant

This Application is filed by Neck Farm, LLC (the "Applicant"), a Massachusetts Limited Liability Company, with a principal address of 66 West Street, Suite 1F, Leominster, Massachusetts. A copy of the Applicant's Certificate of Organization as filed with the Massachusetts Secretary of State's Office is attached hereto in "Section 8".

The entire development team has significant experience in Chapter 40B. The attorneys representing Neck Farm, LLC are Christopher J. Alphen and Paul J. Haverty of Blatman, Bobrowski, Haverty & Silverstein, LLC ("BBHS"). BBHS is among the leading land use law firms and Chapter 40B experts in the state. The firm has represented both developers and municipalities in the Chapter 40B process.

Josephe D. Peznola, P.E. is the engineer for the Project. Mr. Peznola is the Director of Engineering and Branch Manager of Hancock Associates. Mr. Peznola has extensive experience in multi-family developments. Mr. Peznola has significant experience working on affordable projects under Chapter 40B. Mr. Peznola has been involved in numerous affordable housing projects, representing developers as well as consulting for local Boards.

The Applicant has retained Maugel DeStefano Architects to act as the Project's architect.

The team at Maugel DeStefano Architects are extremely familiar with Comprehensive Permit requirements and the area of the Site.

The description of the Development Team is attached hereto in "Section 2". The Applicant respectfully requests that all notices from the Board in connection with this Application be sent to Paul J. Haverty and Christopher J. Alphen, Blatman, Bobrowski, Haverty & Silverstein, LLC, 9 Damonmill Sq., Concord, MA 01742, or electronically to paul@bbhslaw.net and chris@bbhslaw.net.

2.0 Limited Dividend Organization

The Applicant, Neck Farm LLC, will conform to the limited dividend requirements of Chapter 40B.

The Regulatory Agreement stipulates that the developer's profit, which shall be payable to Developer or to the partners, shareholders or other owners of Developer or the Project, shall

be limited to a total development profit of no greater than ten percent (10%) of Owner's Equity, as determined by the cost certification report audited by MassHousing. The profit margin will be analyzed by MassHousing under its cost certification procedures and a copy of the report will be filed with the Town of Lancaster.

3.0 Project Subsidy

The Applicant has received a Project Eligibility Letter from MassHousing. A copy of the Project Eligibility Letter is attached hereto in "Section 7". The Project Eligibility Letter issued by MassHousing satisfies the jurisdictional subsidy requirements established under the Act and the regulations promulgated thereunder.

The Project Eligibility Letter issued by MassHousing contains the findings required by 760 CMR 56.04(4), including the finding that the Applicant controls the Site pursuant to 760 CMR 56.04(4)(g). Pursuant to 760 CMR 56.04(6), the determinations made by the Subsidizing Agency are conclusive, and any challenge to such determination may be made "solely upon the grounds that there has been a substantial change affecting the project eligibility requirements set forth at 760 CMR 56.04(1)."

The Applicant has notified the Subsidizing Agency of the submittal of this application. A copy of the notice to the MassHousing is attached hereto in "Section 9".

4.0 Site Control

The Applicant controls the Property within the meaning of the Act. The Property is controlled by the Applicant. The property-owning entity and the Applicant are controlled by the same persons. A copy of the applicable Deed is attached hereto in "Section 10".

5.0 The Property

The Property is located on Neck Road and Center Bridge Road. The Property has an Assessor's Parcel Id. Of 34-0-42.

The Property is a vacant 24,743 square foot parcel. The Property was previously improved with a single or two-family dwelling which became inhabitable and demolished. The Property has access to Route 2 and Route 495. The Property is near public and commercial services.

An existing conditions plan, aerial photographs of the surrounding area and town plans are attached hereto in "Section 4". Such materials, along with the existing conditions narrative contained herein, fulfill the requirement for an existing conditions summary contained in 760 CMR 56.05(2)(b).

Proposed design features and floor plans and exterior elevations for the proposed structures are shown on a set of plans, prepared by Maugel DeStafano Architects are attached hereto in "Section 5" (the "Architectural Plans") (collectively, the Site Development Plans and the Architectural Plans are referred to as the "Project Plans"). The Architectural Plans submitted herewith fulfill the requirement for submitting preliminary, scaled architectural plans contained in 760 CMR 56.05(2)©. The Project Plans are filed with this Application and are made a part hereof by reference. Under the Act, plans filed with a Comprehensive Permit Application may be preliminary plans, and the Applicant reserves the right to revise the Project Plans prior to final approval of the Project.

6.0 Project Description

The Project will contain three small multi-family buildings. One building will contain seven (7) units and the two other buildings will contain two (2) units each. The Project will

consist of four (4) one-bedroom units, five (5) two-bedroom units and two (2) three-bedroom units. A tabulation of proposed buildings type and size is attached hereto in "Section 6".

The overall design approach for the Project was to create appropriate and contextual buildings that fit its rural New England setting. The Project is conceptualized as a simple farmhouse and a detached barn, complementing nearby residential and historic properties. First floor units in the larger structure will offer accessibility.

Individual building components are designed to a human scale and use conventional local materials, such as clapboard siding and divided-lite windows. Welcoming porches and finished carpentry details are among the features that blend in with the character of neighboring homes and civic buildings.

The layout of the buildings provides space for landscaping and plantings between the structures, with generous pathways connecting building entrances and public sidewalks. The driveway and resident parking spaces are designed to minimize visibility from public ways, allow easy access for residents and accommodate maneuvering for emergency vehicles.

Most units will be one and one-half (1.5) stories in scale, although some units will have the option of walkout basements to the rear based on site grades. All units will be similar in scale and character.

7.0 Existing Site and Surrounding Site Area Conditions (See 760 CMR 56.05(2)(b))

The Property is located in a rural section of Lancaster surrounded primarily by single-family residential homes. The existing residential fabric is fairly low density, featuring homes on large lots. These homes come in a variety of sizes but are typically in the range of one to two stories.

8.0 Proposed Landscaping/Buffers

Portions of the property will be undisturbed to provide a natural buffer between the public way and the abutting neighbors. The Applicant met with the Lancaster Affordable Housing Trust to discuss the Project. At the meeting, the Trust and some Lancaster's citizens expressed concerns regarding the setback of the principal building to Neck Road. In response, the Applicant revised the site plan to move the principal building further away from Neck Road. As shown on the Site Plan, the side/front setback is 10 feet, with the 25-foot landscaped strip between the Property boundary and Neck Road, the principal building will be located approximately 35 feet from the road.

9.0 Project Impacts

A. Municipal Services

Wastewater System

The Project will be served by public sewer. The Applicant is currently working with the Lancaster Sewer District Commission and Weston & Sampson to determine the mechanism to connect the Project.

Stormwater

The stormwater management system for the Project is designed in conformance with the Massachusetts Department of Environmental Protection's Stormwater Management Standards.

No adverse impact on the municipal stormwater drainage system will be generated by the Project. A stormwater report from Hancock Associates is provided in Section 13.

Public Safety

Impacts on public safety would be associated with adequate access to and from the Site.

Public safety vehicle access to and from the site will be from Center Bridge Road and Neck

Farm Road, public ways. Police and Fire apparatus will have full access to the side and front and rear of each of the dwelling units. The Project will have no adverse impact upon public safety.

Utilities

Utilities, including water, electric and cable television, will be extended to the Site from Center Bridge Road, as shown on the Site Development Plans. No adverse impacts relative to public services or utilities to abutting properties or to the Town in general are anticipated.

A. Construction Impacts

Anticipated impacts of the Project associated with the construction process include erosion and sedimentation, noise, dust and debris control. Although these impacts will be temporary in nature, mitigation controls will be in place to avoid and minimize any impacts. Such controls include the following:

- Construction sequencing, best management practices for erosion control,
 equipment and vehicle management, material storage and use, waste disposal and
 spill prevention and response.
- ii. A daily inspection of the site conditions, as needed, to control dust during construction and to provide watering, as needed.

B. Historical and Archeological Impacts

The Applicant is unaware of any historical or archeological impacts that will result from the Project. The Property is located within the Center Village Historic District.

C. Environmental Impacts

The Applicant does not expect the Project to result in any adverse environmental impacts to the Site and the development will comply with state regulatory standards. The Site is not within 100 feet of any wetland resource areas.

D. Traffic Impacts

The Applicant does not anticipate any significant traffic impacts from the Project to the surrounding roadway system. The additional traffic generated by the newly constructed units will have nominal impact on Center Bridge Road and Neck Farm Road. As indicated in the PEL, the Applicant will prepare a traffic study. The Applicant anticipates meeting with the Board to determine the scope of a traffic study, considering the size of the Project.

10.0 Request for Zoning Waivers

The subject property is zoned Residential. Certain elements of the proposed development do not comply with the current underlying zoning. Consequently, an exception of use is required to enable the proposed multi-family residential project at the density to be constructed. Other exceptions to the Town of Lancaster's Zoning Bylaws and other local land use regulations are specifically detailed in this application. If any specific exceptions have not been listed in this application, the applicant, upon notification of such an oversight, shall promptly amend the list of exceptions included herein. The Waiver Request List is attached hereto in "Section 11".

11.0 G. L. c. 40B and Local Housing Needs

The Act provides in relevant part that all communities are required to have a minimum of ten percent (10%) of their housing stock dedicated to low and moderate income housing. See G. L. c. 40B, § 20, and 760 CMR 56.03(3)(a). Based upon most recent applicable data available, subsidized housing in Lancaster for low to moderate income purposes is 5.04 %, which is well below the 10% requirement. See Executive Office of Housing and Livable Communities (EOHLC) Subsidized Housing Inventory as of June 29, 2023, attached hereto in "Section 12".

Because the Town is below the required 10% threshold, there exists a legal presumption that the regional need for affordable housing outweighs any local concerns. In such case, the municipality must approve the Comprehensive Permit or approve it with conditions, unless the project will fail to comply with federal or state health or safety concerns.

As set forth in the MassHousing's Site Approval Letter, three (3) of the dwelling units shall be affordable units. The affordable units will be marketed and rented to eligible households whose annual income may not exceed 80% of area median income, adjusted for household size, as determined by the U.S. Department of Housing and Urban Development (the "Affordable Units"). Subject to approval by EOHLC, all eleven (11) of the units shall be eligible to be included in the Town's Subsidized Housing Inventory ("SHI"), as maintained by EOHLC.

The affordable units will initially be made available based on a selection plan, on terms acceptable to the Subsidizing Agency, in accordance with applicable fair housing laws.

12.0 Filing with Other Boards

The Applicant has not filed any other applications with any other boards. The Applicant will file with the Conservation Commission once the site plan has been approved by the Board.

13.0 Additional Information

The Applicant has provided additional information / documents to this Application as described in the Table of Contents attached hereto.

The Applicant reserves the right to provide, and anticipates providing, additional information to the Board of Appeals during the course of the hearing process.

14.0 Phasing

The Applicant does not currently plan to phase the Project. The Applicant reserves the right to propose phasing, if necessary.

15.0 Finding of Fact

The applicant requests that the Board of Appeals make the following findings of fact in connection with the action of the Board on this application:

- 1. Neck Farm, LLC, a limited dividend organization within the meaning of General Laws, Chapter 40B, is eligible to receive a subsidy under a state or federal affordable housing program after a Comprehensive Permit has been granted.
- 2. The applicant has shown evidence of its site control to qualify it as a recipient of a Comprehensive Permit for this site.
- 3. MassHousing, as the Program Administrator of the New England Fund Program, will be the subsidizing agency within the meaning of the regulations of 40B (760 CMR 56.04) and within the meaning of the procedural regulations of the Housing Appeals Committee (760 CMR 56.07).
- 4. The number of low or moderate income housing units in the town of Lancaster constitutes less than ten percent (10%) as reported in the latest decennial census of the Town and reported by EOHLC.
- 5. The development as proposed in the application is consistent with local needs within the meaning of General Laws, Chapter 40B, Section 20.

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.

16.0 Summary

This Application proposes an attractive, well-designed affordable housing development that will address a long-standing and serious shortage of rental housing for households earning less than eighty percent (80%) of Area Median Income. The Site design and existing conditions afford

ample area to accommodate the proposed development. Moreover, the Project has been designed to minimize and mitigate potential impacts to municipal systems and services.

The Applicant respectfully submits that the Project will meet a severe regional and local need for affordable rental housing while also addressing the health, safety, and environmental concerns of Lancaster residents.

Respectfully submitted,

Neck Farm, LLC,

By its attorneys,

Blatman, Bobrowski, Haverty & Silverstein, LLC

Christopher J. Alphen, Esq.

Paul J. Haverty, Esq.

FORM A

APPLICATION FOR HEARING

TO THE ZONING BOARD OF APPEALS OF THE TOWN OF LANCASTER:

I, the	e undersig ance, spec	ial permit, comprehe	tion your Honorable I		ing upon Ap	plicant's Red	quest for
	•	Neck Farm, LLC	66 West Street, Leo	minster	978.371.2	226 Ext. 19	(office)
			wski, Haverty & Silver		978.371.2	296 (fax)	
(1)	Applicant	9 Damonmill Squar	e, Ste. 4A4, Concord	, MA 01742	chris@bbl	nslaw.net	
		Name	Address		Telephone		
(2)	Owner	BayState Investors	Group				
		Name	Address		Telephone		
(3)	If there is	an option to purchas	e; the name and addr	ess of the prosp	ective purcha	iser	
(4)		d Title stands in the n	WITTO OIL	nvestors Group		whose ad	dress is
			ter, Worcester County			_ by a Deed	
		in the Worcester Dis urt Title Certificate#	strict Registry of Deed	s, Book <u>61180</u>	, Page	104	OR
(5)	Said prer	nises are situated in Residential	a District classified u	nder the Zoning	By-Law of th	e Town of L	ancaster
	(a) Locat	ion of property affect	ed 13 Neck Road				
	(b) Asses	ssor's Book34	, Parcel 42		, .		
	(c) State Vacar	what is located on pl nt Lot.	remises (e.g. number	type and use of	buildings; ty	pe of vegeta	tion, etc.
	(d) Ctata	in full what Applicant	t donimon to do uman th			. ,	
			t desires to do upon the ven (11) residential u		t will consist	four one bed	room
	units, fiv	e two bedroom units	and two three bedroo	om units. The sit	e is currently	undevelope	d with
		cess to Route 2 and	Route 495.				
Rece	eived and F	filed:					
	, ,			1	1		
 Date				Signatu	e of Applicar	at.	_
				1 Signatur	1 X-17	Z.	
Towr	n Clerk			Signatu	re of Owner		

Comprehensive Permit Application Last Revised: May 2020

FORM B (Comprehensive Permit)

REQUESTS FOR FINDINGS OF FACT IN SUPPORT OF PETITION FOR COMPREHENSIVE PERMIT

Applicant hereby requests that the Board, upon public hearing and after review of the evidence submitted, grant the Applicant a Comprehensive Permit in accordance with the provisions of G. L. c. 40B and make the following findings in support of the application:

1.	The	e Applicant,	Neck Farm	n, LLC	whose address is
	_66	6 West Street, Le	ominster, MA		, is the (owner, lessee, optionee) of
		tain land situated			in the Town of Lancaster
		'		a deed recorded with	n the Worcester District Registry of Deeds, Bool
	6	<u>811180 ,</u> Page _–	<u>104</u>		
If A	Annli	cant is not the o	wner compl	ete the following:	
	•			•	
		ner of said land is	,	Investors Group	, whose
ado	dress	s is66 Wes	<u>it Street, Leor</u>	minster, MA	
2.	Sai Re	d land is situated esidential.	in a district cla	assified under the La	ncaster Zoning By-Law as
3.		sently located on developed .568 a	the premises ocre lot locate	is: d at the corner of Cer	nter Bridge Road and Neck Road.
4.	The	e Applicant desire e proposed projec	s to use said pet will consist of	premises as follows: of eleven (11) residen	ntial units within three (3) buildings . The
	pro	oject will consist fo	our one bedro	om units, five two bed	droom units and two three bedroom units.
5.	Арр	olicant is qualified	to apply for a	comprehensive pern	nit in that: (attach extra sheets if necessary)
	(A)	Applicant is a (p particulars:	ublic agency,	non-profit organization	on, limited dividend organization) in the followin
		Limi	ted dividend c	organization.	
	(B)	The specific proj	ect has been	determined to be elig	ible for funding under a low and/or moderate
	,	income housing follows:	program and	has received site app	proval from a qualifying subsidizing agency as
		by a Project El	igibility Letter	dated August 21, 20.	23, issued by MassHousing.

	(C) Applicant has a specific legal interest in and on the applicant are continuous and the applicant are continuous.		
	authorized agents. Accordingly, the Applica	ant has site control.	
6.	By the grant of the comprehensive permit, Applicated below listed provisions of the following local code		ons to the
	See waiver requests attached hereto.		E E E E
7.	The grant of the comprehensive permit is reasonareasons:	able and consistent with local needs for	the following
	See memorandum attached hereto.		
	Ac	Muid I Sat	
Sig	nature of Applicant	Signature of Owner	

Christopher J. Alphen, Esq.
Blatman, Bobrowski, Haverty & Silverstein, LLC
9 Damonmill Square, Ste. 4A4
Concord, MA 01742
978.371.2226 Ext. 19 (office)
978.371.2296 (fax)
chris@bbhslaw.net

David J. Singleton

CERTIFIED PUBLIC ACCOUNTANT

66 West Street - Leominster, Massachusetts 01453 Office (978) 840-6920 Fax (978) 840-6970

RESUME

Former home builder, Tewksbury, Leominster and Meredith NH (6 residential homes built)

University of Lowell – Civil Engineering Major (incomplete)

Salem State University – Bachelor of Science Business Administration

Bentley College - Master in Taxation

Certified Public Accountant licensed in Massachusetts (35 years)

Co-Owner of Several Commercial Properties in Leominster, Boylston, Billerica and Worcester Boylston – 4 unit commercial strip, 8,000 sq ft
Worcester – 2 commercial units, 10,000 sq ft
Billerica – 2 unit commercial condo, 17,600 sq ft

JOHN CHERUBINI

29 Sandy Ridge Rd Sterling Ma. 01564 978-337-7758

john@progressivecapitalfunding.com

EDUCATION: Fitchburg State University 1997

Double Major: Business Marketing

Business Management

EXPERIENCE: Owner of Progressive Payroll Service, Inc. *Established in 2011

Over 200 businesses/clients

Owner of Progressive Capital Funding, LLC *Established in 2021

Funded over \$13,000,000

Owner of Multiple Real Estate Entities:

81 Shrewsbury St, LLC located in Boylston Ma – 8,000sqft Retail

71 Pullman St, LLC located in Worcester Ma- 10,000sqft Retail/Flex space

DSJC, Inc – located in Billerica Ma – 17,600sqft Flex space

129 Sterling Rd. Lancaster Ma – 2 Family Residential

80-82 Pearl St. Clinton Ma – 4 Unit Bldg Residential

200 Walnut St. Clinton Ma – 3 Unit Bldg Residential

Brent Maugel AIA



REGISTRATIONS

Registered Architect: MA #5554 Registered Architect: RI #3140 Registered Architect: NH #00029 Registered Architect: CT #9440

CERTIFICATIONS AND AFFILIATIONS

Boston Society of Architects American Institute of Architects American Society of Architectural Perspectivists **NCARB**

COMMUNITY SERVICE

YMCA Basketball Coach Melrose Planning Board Melrose Open Space Committee Loaves and Fishes Habitat for Humanity Boston Architectural College, Thesis Advisor Fidelity Bank Corporator Concord Business Partnership Roger Williams College, Guest Critic

EDUCATION

Bachelor of Architecture, Boston **Architectural Center** Bachelor of Science, Bowling Green State University

Brent Maugel is the founder and president of Maugel Architects.

Brent is a noted design influencer who has 40 years of innovative architectural design and project management experience. He has designed over 30 million square feet of commercial and residential space throughout New England. Brent's service-oriented approach and mission to enrich people lives has been the foundation of the firm's success.

Prior to starting Maugel Architects in 1993, Brent worked for renowned architectural firms in Boston. Strategic planning for large properties and campuses is a passion for Brent. His expertise includes the strategic master planning and design of large scale mixed-use developments, office and industrial parks, healthcare facilities, multifamily complexes, retail developments, and MBTA stations. The influence of his work is evident at many of the Greater Boston area's office parks, including Network Drive, Northwest Park, the District Burlington and the XChange Bedford.

Daniel Barton AIA

PRINCIPAL



PROFESSIONAL REGISTRATIONS

Registered Architect: MA #20717

National Council of Architects Registration Board: #87486

CERTIFICATIONS AND AFFILIATIONS

American Institute of Architects
Boston Society of Architects
National Trust Historic Preservation
Historic New England

AWARDS

IFMA Boston Award of Excellence for World Academy School

Glassman Design Award, Boston Architectural Center

EDUCATION

Bachelor of Architecture, Boston Architectural College

VOLUNTEER WORK

Groton Community School Trustee

Groton Historic Districts Commission

Chairman: 1998-2015

Design Review Committee, Groton

Chairman: 2012-2015

Station Ave Overlay Committee Member:

Groton Sign Bylaw Committee

Youth Group Co-leader FRS Carlisle

Dan is a principal in the firm and leads Maugel's Strategic Planning services.

With more than 30 years of planning and architectural design experience, Dan leads the firm's strategic planning services efforts. He has particular expertise in master planning, strategic planning, facility design, feasibility analysis, consensus-building, and multidisciplinary team coordination. His work ranges from the design of individual buildings to the planning and urban design for campuses, cities, neighborhoods, and transportation.

Salisbury Affordable Housing, Salisbury, MA

Maugel's design concepts for two affordable housing projects were selected by the Town of Salisbury and the Affordable Housing Trust for 41-units at 29 Elm Street and 19 Maple Street. The projects feature additions and alterations to the Spalding School Building and two new buildings to be built on the Elm Street site. The residences include studios and one, two and three-bedroom units.

Old High School Commons, Acton, MA

Maugel transformed the former two-story Acton High School, located at Massachusetts Avenue and Charter Road in Acton into 15 affordable apartments. The historic building is nominated for listing on the National Register of Historic Buildings.

Five Chimneys, Concord, MA

Five Chimneys is a unique mixed-use building located in Concord. The design includes parking beneath the building, office space on the middle floor and housing on the top floor. This structure was thoughtfully designed to put living spaces within the roof structure, thereby reducing the apparent height of the building. Maugel designed many scale elements, such as columns and dormers, to make the new building fit into the residential context.

Blake Block, Bedford, MA

This mixed-use project on Bedford's historic Main Street has been designed to appear as several distinct buildings constructed at different periods through time. Restaurants and shops line Main Street at the first level and are supported by abundant parking behind the new structure. The seven second

Daniel Barton AIA

RESUME CONTINUED

floor condominiums units featuring abundant window lines, balconies, and cathedral ceilings.

- Oakridge Burlington, Burlington, MA
 Maugel Architects designed this townhouse community in the central business district of Burlington as part of the mixed-use overlay zoning for the Route 3A corridor. The units feature federal style detailing and individual private entry ways, enclosed parking garages, bay windows, and cathedral ceilings.
- Hatter's Point, Amesbury, MA
 Hatter's Point is a \$40 million, 80-unit
 condominium complex located in a historic brick
 mill on the Merrimack River. Multiple buildings
 totaling over 120,000 SF were transformed into
 living units for active adults over 55 years of age.
- World Academy School, Nashua, NH Dan's design of the World Academy School won the 2014 IFMA Award of Excellence. One of the major design objectives was to create a sense of connection, transparency, and community between the students, faculty, and administration. To accomplishes this, Dan designed an open central core in the middle school which transformed a main thoroughfare from a traditional locker-lined hallway to an open, lightfilled gathering space.
- Nashawtuc Country Club, Concord, MA
 Dan led the master planning and feasibility study
 to determine options for improving, relocating,
 or redeveloping the club's 40,000 SF clubhouse
 building. The goal of the plan was to provide
 members with a state-of-the-art fitness center,
 enhanced casual dining, and expanded familycentered amenities.

Thoreau Club, Concord, MA.

Situated on a 50-acre wooded site, the club offers state-of-the-art fitness and recreational facilities in a rural Concord setting. Maugel designed three buildings and provided comprehensive planning associated with multiple swimming and tennis functions, seasonal air supported dome structures, an outdoor summer camp, and a banquet hall. In a later phase, Maugel designed a 25,000 SF fitness center addition.

• Concord Country Club, Concord, MA.

Dan conducted the campus planning to reconfigure recreational facilities and site circulation at this private golf, tennis, and swimming club. The plan led to the design and construction of a new fieldhouse, pool facility, and competition tennis court. The project included comprehensive permitting, interfacing with the club's golf course architect, the coordination of site utilities, and a new waste-water treatment facility.

• St. Anne's in-the-Fields, Lincoln, MA.

Dan designed a three-phased building project and site design for Saint Anne's. The scope involved the construction of a 15,000 SF parish hall/administrative wing and the renovation and expansion of the ca. 1870 Sanctuary. By reorienting the space and creating of a new entry core the design achieves accessibility to all building areas and welcome members and visitors.



PROFESSIONAL REGISTRATIONS

Mark Pelletier AIA

Registered Architect: MA #20053, NH #03887

National Council of Architects Registration Board: #38496

Leadership in Energy and Environmental Design Accredited Professional, 2008

CERTIFICATIONS AND AFFILIATIONS

Clean Room Design-Build Short Course

American Institute of Architects

Boston Society of Architects

EDUCATION

Bachelor of Architecture, Wentworth Institute of Technology

Mark is a principal in the firm. He has over 20 years of experience in the design of complex projects in the residential, recreation and commercial sectors.

Marks's expertise includes master planning and programming, building design and detailing, code analysis, and project support through construction.

- Project Manager/Designer, Residential Housing
 Mark was responsible for schematic design, design development, programming, construction documents, construction administration, and estimating in the area of residential architecture and multi-family housing. He is knowledgeable in wood frame construction and code requirements relating independent building and shared communities.
- Lynn YMCA, Lynn, MA
 Mark was the lead architect for the new 70,000 SF Lynn YMCA
 located in Lynn. The new facility features a community wing that
 includes a wellness clinic, an instructional kitchen, and community
 gathering spaces. Exercise venues feature a state-of-the-art
 wellness center, gymnasium, indoor track, and aquatics center.
- Grist Mill Apartments, Chelmsford, MA
 Mark worked closely with Winstanley and Princeton Properties to
 design a mix of unit sizes appropriately scaled to the neighborhood.
 To complement the historical context of the community, the
 building features a mansard roof and traditional detailing in cornice
 mouldings, window trim, and dormers. A mix of underground and
 surface parking was also designed to provide ample parking for 138
 vehicles.
- Project Manager/Designer, Health Care Facilities
 Mark designed and assisted in the project management of a series
 of highly specialized adult day care facilities for Boston University
 and East Boston Neighborhood Health Center in the greater Boston
 area. Other projects included the expansion of the rehab and adult
 day care services for Cape Cod Hospital, a 45-bed Alzheimer Suite
 for the German Center for Extended Care, and a state-of-the-art
 sports therapy and rehab facility in Salem.



Jeremy Baldwin AIA

ARCHITECT

PROFESSIONAL REGISTRATIONS

Registered Architect: MA #951043

CERTIFICATIONS AND AFFILIATIONS

American Institute of Architects
Boston Society of Architects
National Council Architectural
Registration Board (NCARB)

EDUCATION

Master of Architecture, Boston Architectural College

Bachelor of Architectural Engineering
Tech, Wentworth Institute of Technology

Jeremy joined Maugel in 2017. He brings 18 years of experience as a project manager and Registered Architect to the firm.

Jeremy has led teams on a broad range of project types and sizes and has a long track record of helping clients formulate strategy and execute projects efficiently. He has particular expertise in the multifamily housing sector and is experienced with 3D/4D modeling, specifications writing, and building code analysis. He is also an experienced presenter to town forums and historical committees.

• 274 Franklin Street, Worcester, MA

A GoVenture Capital and The Michaels Organization joint venture, the Franklin Street scope includes 421 residential units of approximately 431,000 SF residential with a wrap design of a four-story precast parking structure with 360 parking spaces.

Lake Point Village Senior Housing, Lakeville, MA

The 66-unit Lake Point senior housing residences pay homage to the elegance of a bygone era often seen in large New England lake houses and turn of the century homes in the Hamptons. The spacious two bedrooms units feature a den, smart technologies, sustainable materials and panoramic views of Lakeville ponds.

Village at Bedford Woods, Bedford, MA

Four distinct housing types were designed to create a village-style aesthetic for the 26-unit Bedford Woods townhome development. Located on Albion Road, the three building development was designed with several different roof configurations to provide distinct character while preserving continuity throughout the project.

Cedar Crossing, Walpole MA

This 300 unit apartment development in Walpole is designed around wetlands to create three neighborhoods with distinct housing styles: the first is a four building, 4-story garden style apartment complex with a clubhouse; the second is a townhouse community; and the third neighborhood will feature single family homes.

Jeremy Baldwin AIA

RESUME CONTINUED

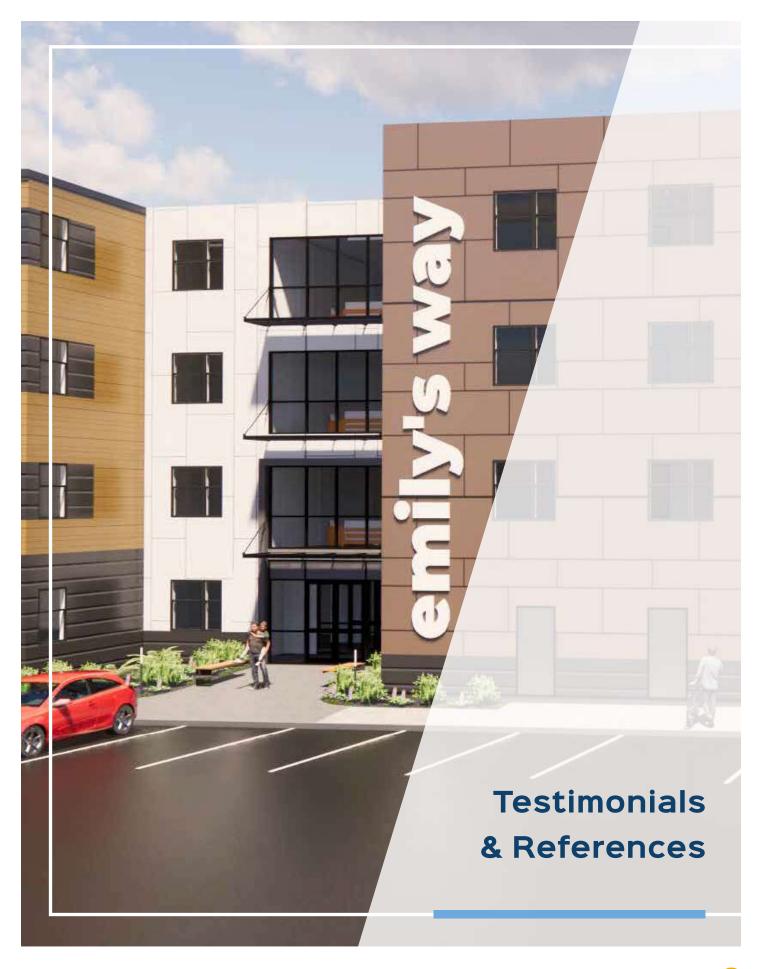
Northgate Meadows, Sterling, MA

Northgate Meadows is a 72-unit multi-residential housing development located on Research Drive in Sterling. The 106,000 SF podium-style building features four stories of residential living with one and two bedroom affordable and market rate units. Rentable storage units and plenty of open space are located on each floor. The 26,500 SF of parking located beneath the building provides ample space for vehicles and a dog grooming station.

222 Brooks Street, Worcester, MA

Brooks Street is a 145,000 SF apartment complex with 111 dwelling units. Cost efficiency is the highlight of the project. Creative building code solutions, along with innovative structural and mechanical design make this building product extremely cost effective during escalated material costs in the Covid-era. The building features four-stories of residential living with an open parking garage below. Sited in an area with a mix of commercial and single-family homes, the design features modern industrial forms and materials and a residential scale to blend into the surrounding context. Tenant amenities include professional workspaces, storage areas and a fitness center.

Genesis Healthcare, Dracut, Massachusetts. Jeremy is the lead architect for Genesis Healthcare's new four-story, 80,000 SF skilled rehabilitation facility in Dracut.



Client Testimonials



Omni Properties

"Omni Properties has partnered with Maugel since 1999. Our projects require multiple iterations because of ongoing permitting. We have relied heavily on their flexibility and their ability to respond quickly and accurately while producing outstanding work. Their team is an integral part of our design process from conception to finish—our success is due in large part to the Maugel team."

David Hale, Partner, Omni Properties



LR Russo Development

"As developers, we rely on thoughtful design and accurate construction documents. For over 20 years, Maugel has consistently provided both. While their design skills are exceptional, their real value to us is their knowledge of how to design great looking buildings while respecting our budgetary constraints. Maugel's thoroughness, accuracy, and attention to detail has saved us significant constructions costs."

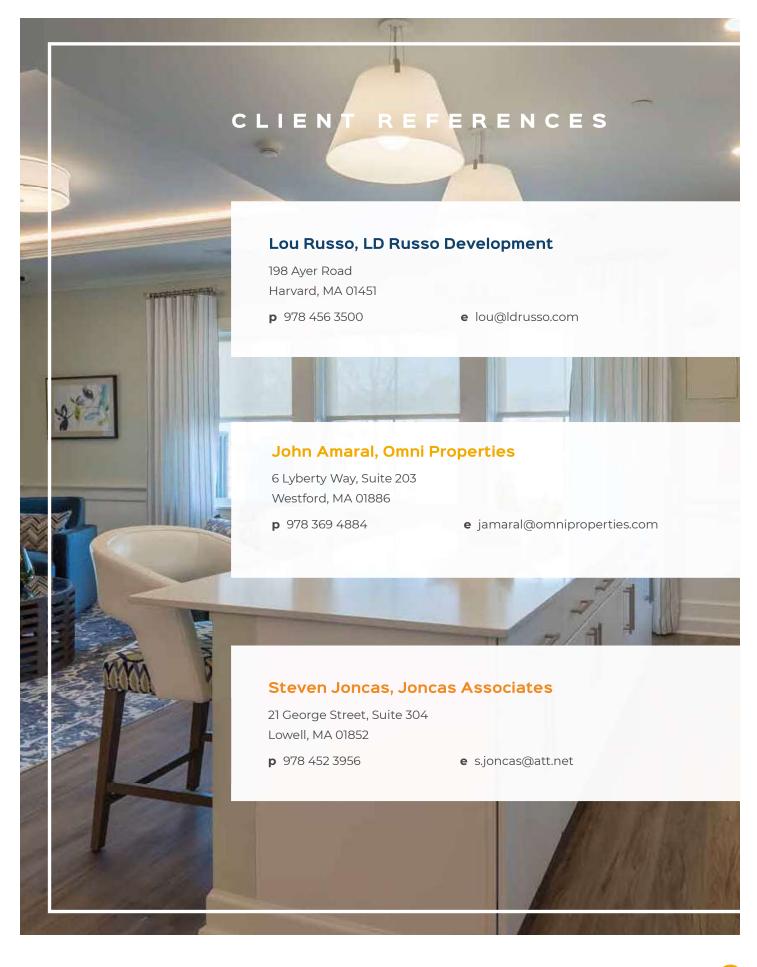
Lou Russo, President, LD Russo Development



Broadway Supportive Housing

"Maugel performed design and construction monitoring tasks above expectations including review of contractor's performance, monitoring the construction budget, and addressing unknown conditions that often arise in rehabilitation work. Maugel also served as Common Ground's architect on two other projects: Old High School Commons, a conversion of an historic Town of Acton school building into affordable housing, and Residences at Kelley's Corner, a new construction, 31 unit affordable rental housing for seniors also in Acton."

Steve Joncas. Dir RE Development, Common Ground Development Corp.





200 Ayer Road / Suite 200 / Harvard, MA 01451 / 978 456 2800

22 Ladd Street / Portsmouth, NH 03801 / 603 431 8701



MAUGEL.COM



JOSEPH D. PEZNOLA, P.E. DIRECTOR OF ENGINEERING



Joseph Peznola is the Director of Engineering and also Branch Manager of the Marlborough, MA office of Hancock Associates. Mr. Peznola is a Registered Professional Engineer in Massachusetts and New Hampshire, with over 28 years of experience in land development. His experience includes technical quality control and assurance for the engineering department, strategic planning, and business development and project management.

Education: Bachelor of Science, Civil Engineering, 1987, University of Lowell, MA

Registrations: Registered Professional Civil Engineer, MA #38117

Registered Professional Civil Engineer, NH, #10270

Certified Soil Evaluator, MA

Certified Septic System Inspector, MA Licensed Septic Designer, NH #1706

Affiliations: Vice Chairman, Town of Hudson Board of Appeals, and member 1994-2014

Member Public Policy Committee Home Builders Association of Massachusetts Member Massachusetts Dept. of Environmental Protection Stakeholder Groups

Stormwater Management

Groundwater Discharge Permit Regulation Revisions

Revisions to Sewer Design Flows

Citizen Member, Lowell Master Planning Committee

Member, Assabet River Consortium

CHAPA 40B Training Subcommittee Member 2003-2014/Co-Chair 2010-2014

Additional Relative Experience:

Presented at conferences and seminars on engineering, housing and business Organize Citizens Housing and Planning Association Bi-Annual Conferences Trainer for Citizen Planner Training Collaborative

REPRESENTATIVE PROJECTS

Affordable Housing/Multi-Family Projects:

Gorham Street Apartments Coalition for a Better Acre Lowell, MA

The CBA-sponsored initiative involves new construction of 24 units on the vacant property at 305 Gorham Street, providing working families with quality housing that will be professionally managed. Project Manager providing surveying and civil engineering services from concept to construction for CBA.

The Coolidge at Sudbury B'nai B'rith Housing Sudbury, MA

The Coolidge, a new 64-unit housing complex in Sudbury that aims to serve active seniors and adults aged 55 and over, according to B'nai B'rith Housing. Project Manager providing conceptual design,



JOSEPH D. PEZNOLA, P.E.

DIRECTOR OF ENGINEERING

permitting, construction document development and construction oversight for this high profile project in the heart of Sudbury.

Unity Place Coalition for a Better Acre, Lowell, MA

Project Manager for 23-unit affordable housing redevelopment project. Provided site design and permitting support through Planning board and Zoning Board of Appeals.

Welcome Home Veterans Northeast Outreach Center and CBA Haverhill, MA

Project Manager for three new buildings with a total of 27 units with preference for units being given to veterans. CBA partnered with the Veterans Northeast Outreach Center, which will provide services to the veterans who fill the units. Hancock provided surveying and civil engineering services from permitting through completion of construction.

89 Oxbow - Building Initiatives Wayland MA

Project Manager for this 16-unit affordable housing project proposed through a private public partnership between the town and the developer for the reuse of a former military site. Provided low impact development drainage system and recirculating sand filter/pressure dosed septic system design.

Till Housing, Westborough, MA

Project Manager for a group home for this non-profit organization. Project included permitting through Conservation Commission and Zoning Board. Provided construction support and oversight as well.

Graniteville Woods, Westford, MA

Project Manager for this 164 unit residential development on 180 acres in Westford's historic Graniteville section of town. The project is being permitted under Massachusetts General Laws Chapter 40B. Hancock is providing full engineering and surveying support of the project.

Robin Hill Meadows Chelmsford, MA

Project Manager for 16 units Chapter 40B single-family home development on four acres. The project was permitted as a Local Initiative Petition under M.G.L Chapter 40B. The project involved wetlands, a major power company easement, and a home on the state's historic registry.

Wyndbrook at Tyngsboro, Tyngsboro, MA

Project Manager for this 80-unit age restricted affordable housing project. The project involves the construction of individual home sites with the 25-acre property. Successfully defended the project through an appeal by DEP of the local conservation commission's approval. Hancock's services consisted of survey, floodplain study, site design, landscape design, retaining wall design, environmental permitting all in addition to full support of the Chapter 40B permitting. The development is slated for completion of phases 1 and 2 in the spring of 2007.

Princeton Commons, North Chelmsford, MA

Project Manager for this 120-unit Chapter 40B apartment community. Provided site and landscape design for this high profile development. Acted as lead presenter before the Zoning Board of Appeals.

Seven Hills Foundation – Various Sites

Provided surveying and civil engineering services for multiple group home projects throughout Massachusetts.



JOSEPH D. PEZNOLA, P.E. DIRECTOR OF ENGINEERING

Site Development:

Vanguard at Waterfront Square, Revere MA

The Vanguard at Waterfront Square will comprise of two elevator buildings with a total of 144,443 square feet including a clubhouse complex. An outdoor pool will offer unobstructed ocean views. The project calls for 194 apartments, with an average of 725 SF. The Vanguard will be the first project to be developed as part of the Waterfront Square TOD (transit-oriented development) master plan. The master development plan includes approximately 900 residences, offices, hotels and retail stores and restaurants. In addition, over 5 acres of public plazas and open space is being planned as well as access to the Revere Beach oceanfront via the Markey Pedestrian Bridge. The project is located immediately adjacent to the Wonderland MBTA (Massachusetts Bay Transit Authority) Subway station (Blue Line), which provides rail service to downtown Boston and Logan Airport (4.2 miles). Hancock provided surveying, civil engineer, wetland science and permitting support services for the Vanguard. Hancock is providing the same services to Master Developer of Waterfront Square Eurovest, as well as one of the other site developers Upton + Upton Partners.

New England Studios at Devens, Devens, MA

Opened in the Fall of 2013, New England Studios is a state-of-the-art, soundproof building providing four contiguous 18,000 square foot stages, which can be used individually or joined to total 72,000 square feet for feature film and television production. The development also includes 4,000 square feet of sound stage support space, a 30,000 square foot 3 story production support building with dressing rooms, a 20,000 square foot mill building to house production construction facilities, mechanical effects, grip and lighting and set storage. Hancock provided surveying and civil engineering support and was the permitting consultant for the project.

Cornerstone Square Westford, MA

Project Manager for 240,000 square foot Lifestyle Retail Center on 30 acres in the heart of Westford's commercial district. Hancock is providing full engineering survey and environmental services for this ambitious project. The project includes a private wastewater treatment facility with groundwater discharge of the treated effluent.

Marlborough Savings Bank, Marlborough, MA

Project Manager for a 15,000 square foot for the bank's new corporate office and main branch to be located in downtown Marlborough. The project involved permitting support through City Council and Site Plan Review Committee.

GLCAC-Headstart, Methuen, MA

Project Manager for a 10,000 square foot school and child care facility on one acre of city owned land. The project involves redevelopment of the parcel with the new two story building parking lot and playground.

Devens Commons, Devens, MA

Project Manager for 266,000 square foot mixed-use downtown Devens development currently under construction. Provided engineering and surveying services, prepared perimeter survey plan, developed construction documents and performed a construction layout for this large high profile project. The project includes a hotel, conference center, and 72,000 square feet of office space, 20,000 square feet of retail space, a grocery store, convenience store, gasoline service station and a car wash.



JOSEPH D. PEZNOLA, P.E.

DIRECTOR OF ENGINEERING

Peer Review of 40B Housing Projects:

- Endicott Village, Boxford, MA
- Johnson Farm, Sudbury, MA
- Steven's Corner, North Andover MA
- Merrimack Condominiums, North Andover, MA
- Orchard Village, North Andover MA
- 815 Main Street, Wareham, MA
- The Retreat at Union Pond, Wareham MA
- Bartlett Pond, Wareham, MA
- Lafayette Tides, Marblehead, MA
- The Residence at Highrock Village, Westwood, MA
- Linwood Estates, Northbridge, MA
- Afra Terrace, West Boylston, MA
- Autumnwood and Annie's Pasture, Sandwich, MA
- Annie's Pasture, Sandwich, MA
- Whitney Estates, Berlin, MA
- Various 40B projects, Hudson, MA

Residential Subdivisions:

Wyndbrook at Dover, Dover NH

Project Manager for 72 lot cluster subdivision. Provided full site design and permitting support through City of Dover and NH Department of Environmental Services (DES).

Great Woods, Dracut, MA

Project Manager for the Open Space Residential Subdivision that consists of 57 residential home sites on 70 acres. The project includes 3,100 feet of roadway. Provided preliminary subdivision design, Open Space Special Permit and a definitive subdivision design.

The Villages at Meadow Wood, Chelmsford, MA

Project Manager for this 71 unit detached condominium project on 25 acres. The units are currently selling for \$400,000, are age restricted and have no affordability component. Provided surveying and civil engineering services.

Wyndbrook at Dover, Dover, NH

Project Manager for this 55+ Residential Development that consisted of 70 units. Provided conceptual design services and sewer design services.

Talbot Estates, Chelmsford MA

Project Manager for this ten lot Open Space Development. Provided surveying and civil engineering services.

Forest Edge, Dracut, MA

Project Manager for 27 lot residential subdivision. Provided survey support, civil design and permitting for this cluster subdivision.

Paul J. Haverty, Esq.

Blatman, Bobrowski, & Haverty, LLC

9 Damonmill Square, Suite 4A4, Concord, MA 01742

paul@bbhlaw.net

Blatman, Bobrowski & Haverty, LLC, Concord, MA

Partner, January 1, 2017 to Present

My practice is focused on representing private developers in the development process, with a continued strong focus on permitting, particularly permitting pursuant to G. L. c. 40B, §§ 20-23. I am also Town Counsel for the Town of Chelmsford, have acted as Special Town Counsel for numerous municipalities, and have represented many other municipalities on Chapter 40B applications as a consultant pursuant to the MHP Technical Assistance Program.

Blatman, Bobrowski, Mead & Talerman, LLC, Newburyport, MA

Senior Associate, April 2015 to December, 2016

My practice was focused upon representation of municipal clients, with a strong focus on permitting, including the comprehensive permit process. I also continued to represent developers seeking local permits, including comprehensive permit applications.

Regnante, Sterio & Osborne LLP, Wakefield, MA

Associate, September 2002 – March 2015

My practice consisted of representing clients seeking comprehensive permits pursuant to G. L. c. 40B, §§ 20-23. I represented developers in all facets of the comprehensive permit development process, including the project eligibility stage, representation before the local zoning board of appeals, representation at the Housing Appeals Committee, and subsequent litigation in the trial courts and appeals courts. I also represented some municipal clients while at this firm.

Land Court Division of the Trial Courts, Boston, MA

Law Clerk, September 2001 to August, 2002.

As law clerk for the Hon. Karyn F. Scheier, I participated in trials and motion sessions, assisted with the drafting of decisions, and conducted legal research on land use appeals.

PUBLICATIONS

Compelling Reasons Why the Legislature Should Resist the Call to Repeal Chapter 40B, 88 Mass L. Rev. 77.

Massachusetts Housing Appeals Committee Reporter – Case Commentary (2009-2015) (developer commentary) and 2019 to present (municipal commentary).

EDUCATION

Suffolk University Law School – JD, magna cum laude, 2001

Salem State College – BA summa cum laude, 1998

RECENT 40B DEVELOPMENTS

- 31 Hunting Lane, LLC 24 unit homeownership development in Sherborn. Currently in permitting.
- 41 North Main Street, LLC 60-unit rental development in Sherborn. Currently in permitting.

Crescent Builders, Inc. – 96-unit rental development and 60-unit home ownership development in Lancaster. Approved, currently under appeal.

Pennrose, LLC – 93-unit rental development in Wareham. Approved.

253 Reservoir, LLC – 60-unit rental development in Norton. Currently in permitting.

Arlington Land Realty, LLC – 219 unit rental development in Arlington. Acted as MHP Consultant. Currently in permitting.

Indian Ridge Realty Trust – 24-unit home ownership development in Holliston. Acted as MHP Consultant. Approved.

30 Town Farm Road, LLC – 24-unit home ownership development in Ipswich. Acted as MHP Consultant. Approved.

ASSESSORS

RECORD OWNER

REFERENCES DRED BOOK 61180, PAGE 105 SURVEY NOTES

THE WIENT OF THIS PLAN IS TO SUPPORT A PEL APPLICATION FOR A PROPOSED RESEARCHMENT AT 13 NECK ROAD IN LANGSTER, MA. THIS PLAN IS PRELIMMARY AND SHOULD NOT BE USED FOR CONSTRUCTION PURPOSES. PLAN INTENT

THE ABUTTER'S NAMES AND DEED REFERENCES SHOWN HEREON HAVE BEEN TAKEN FROM CURRENT TAN ASSESSOR PROCEDS. THE LOCUS PROPERTY LIES IN A RESIDENTIAL ZOWING DISTRICT AND IS SUBJECT TO THE FOLLOWING SETBACK DISTRICES.

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THE LOCUS PROPERTY IS STUATED IN NON-HAZARD FLOOD ZONE "X" AS SHOWN ON FEMA COMMUNITY PANEL 25027C-0458E DATED 07/04/2011.

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 - UNLESS OTHERWSE SHOWN, ALL NEW UTILITIES SHALL BE UNDERGROUND.
- CONTRACTOR SHALL FURNISH CONSTRUCTION LAYOUT OF BUILDING AND STE MPROFEMENTS. THIS WORK SHALL BE PERFORMED BY A PROFESSIONAL LAND SURVEYOR.
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- CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIR AND/OR REPLACEMENT OF ANY EXISTING MIPRO IEMENTS. DIAMAGED DUMING CONSTRUCTION THAT ARE NOT DESSIDANTS TOR DEALING MAIN OF REMOVIL HEREON DIAMAGED MIPROFESS. THEN RESPECTIVE OWNERS.

 - THIS PLAN IS NOT MIZNOED TO SHOW AN ENGNEERED BUILDING FOUNDATION DESIGN. WHICH WOULD INCLUDE DETAILS, AND FINIL ELEN HANGO OF POTIONES, WILLS AND SUBSIARRICE DRAINAGE. TO PREVENT WITHOUP ELOQUING, SEE ARRIFECTURAL AND/ORS STRUCTURAL DRAINAGE.
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 - WHERE EXISTING UTLITY LINES/STRUCTURES ARE TO BE CUT/BRONCH DOWN/ ABANDONED, LINES/STRUCTURES SHALL BE PLUGGED/CAPPED/FILLED IN ACORDANCE WTH OWNER REQUIREMENTS.
 - 10. THE CONTRACTOR SHALL VERIEY THE LOCATION AND RELATIVE ELEVATION OF BENCH MARKS PRIOR TO COMMENCEMENT OF CONSTRUCTION. ANY DISCREPANCY SHALL BE REPORTED TO THE ENGINEER.
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REGULATORY NOTES

- TRACTOR SHALL CONTACT DIC-SAFE FOR UNDERGROUND UTILITY MARKING AT 1-888-344-7233 AT LEAST HOURS PRIOR TO COMMENCABENT OF ANY MORE.
- THEORIES AND COMBUSTS AND DESIGNATE AND CONTROLTON REQUIRES PROME TO COMBUSTS AND LATTER AND CONTROLTON AND LANGUAGES OF RECOLUTION AND INFORMES PROME TO COMBUST OF ANY LOCATION OF ANY LOCATION AND LANGUAGES OF RECOLUTION AND LATTER PROME THAT CONTROL AND LATTER AND LATTER AND CONTROL AND LATTER AND LATTER AND LATTER AND CONTROL AND LATTER AND LATTER AND CONTROL AND LATTER A
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DIMENSIONAL REQUIREMENTS

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LOT SUMMARY

26%	36%	11%	27%
6,445± SF	8,945± SF	2,620± SF	6,733± 5F
BUILDING COVERAGE	PARKING AND OTHER PAVED VEHICULAR AREAS	SIDEWALK AREAS	OPEN SPACE/LANDSCAPED AREAS

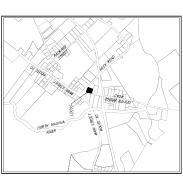
PERMIT SITE PLAN

MECK FARM

LANCASTER, MASSACHUSETTS 01523 13 NECK FARM ROAD

8

NECK FARM, LLC



LOCUS MAP SCALE: 1'=1,000'

APPLICANT:

NECK FARM, LLC 66 WEST STREET, SUITE 1F LEOMINSTER, MASSACHUSETTS 01453

NECK

FARM

13 Neck Road Lancaster, Massachusetts 01523

Neck Farm, LLC

66 West Street, Ste 1F Leominster, Massachusetts 01453

HANCOCK ASSOCIATES

Civil Engineers

Land Surveyors

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AND CONTRACTOR

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SZE MATERIAL

OF FLOW DIRECTION, CATCH BASIN

MANNELE & ROUND CATCH BASIN

Environmental Consultants

34 CHELMSCORD STREET, CHELMSFORD, MA 01824 VOICE (978) 244—0110, FAX (978) 244—1133 WWW.HAHCOCKASSOCIATES.COM



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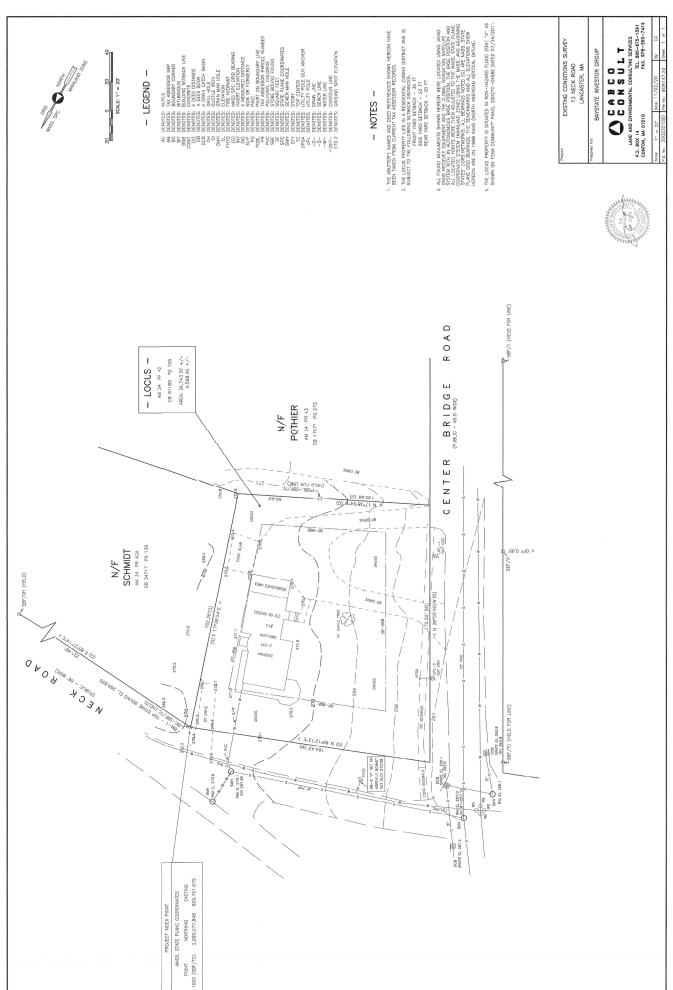
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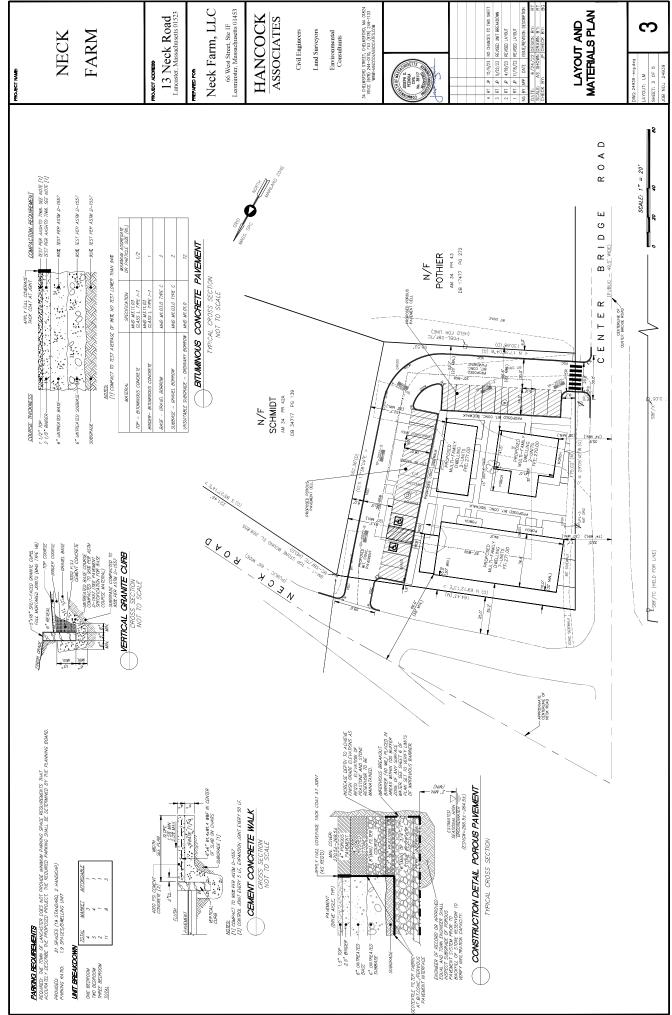
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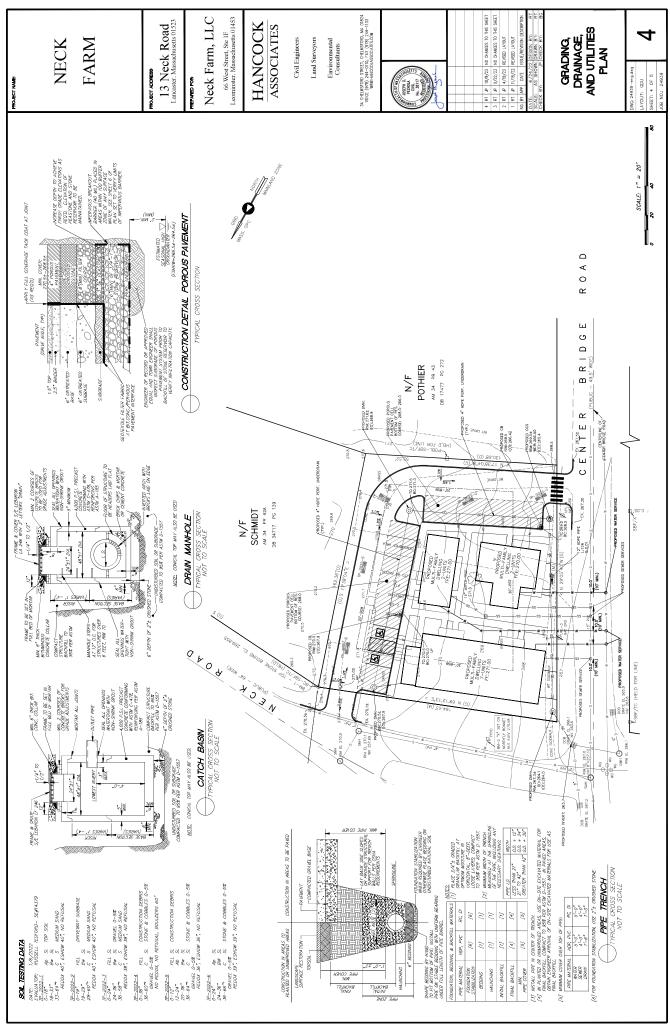
SHEET INDEX

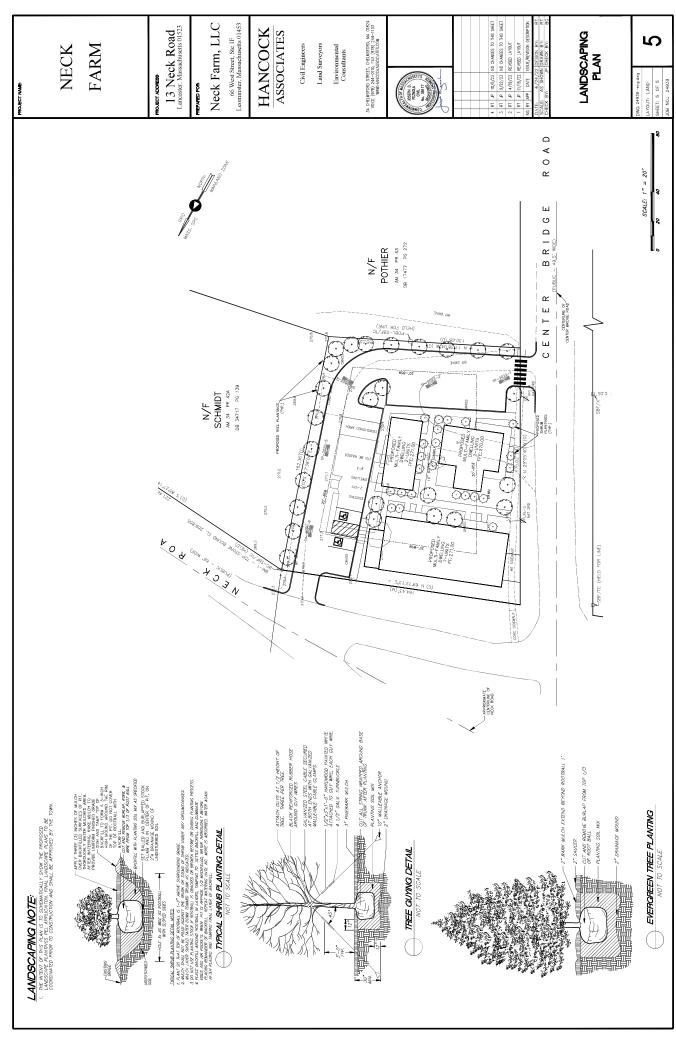
SHEET	SHEET 1TILE SHEET
SHEET	SHEET 2EXISTING CONDITIONS PLAN
SHEET	SHEET 3LAYOUT & MATERIALS PLAN
SHEET	SHEET 4GRADING, DRAINAGE, & UTILITIES PLAN
SHEET	SHEET 5LANDSCAPE PLAN

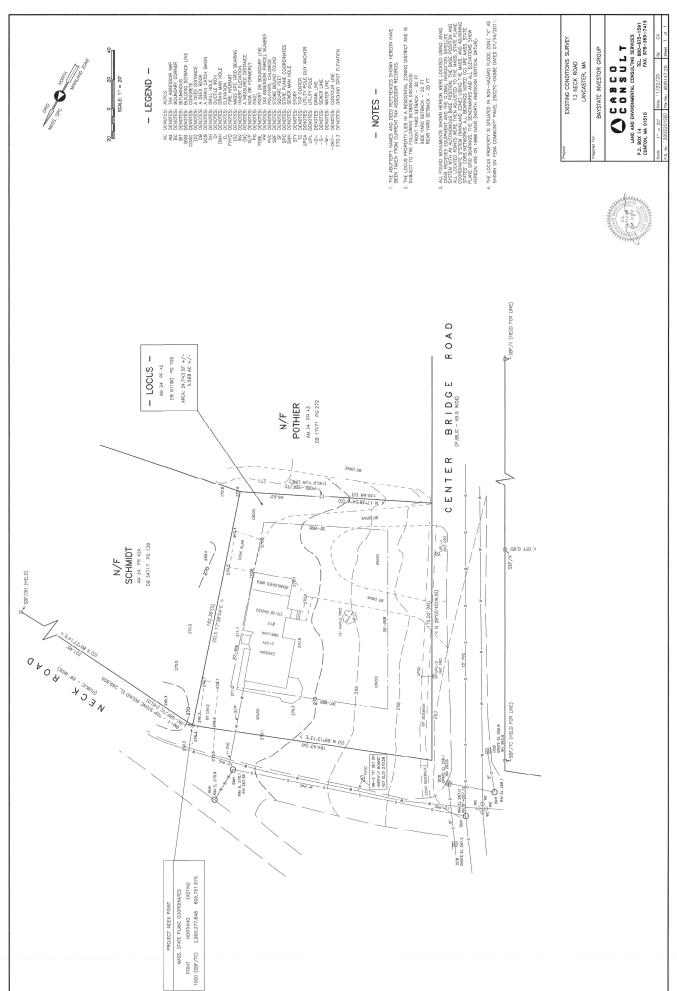
IDENTIAL DISTRICT

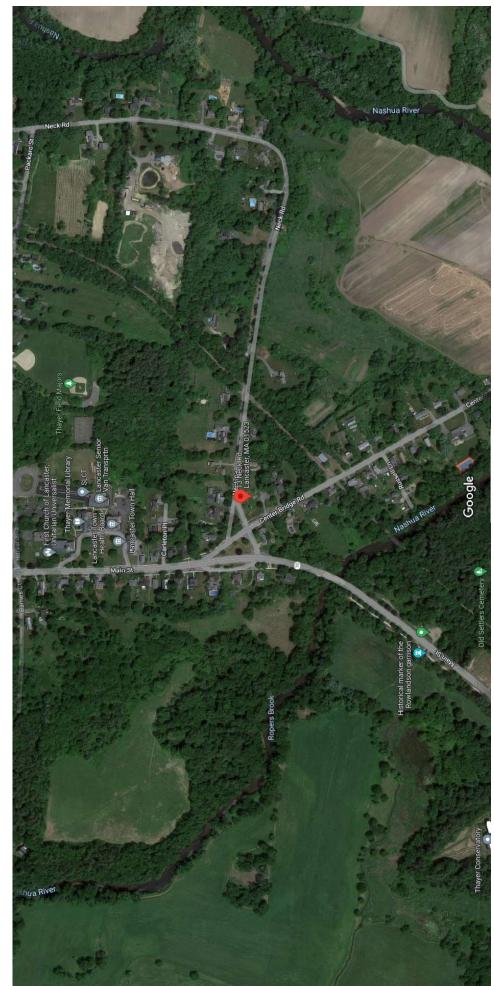






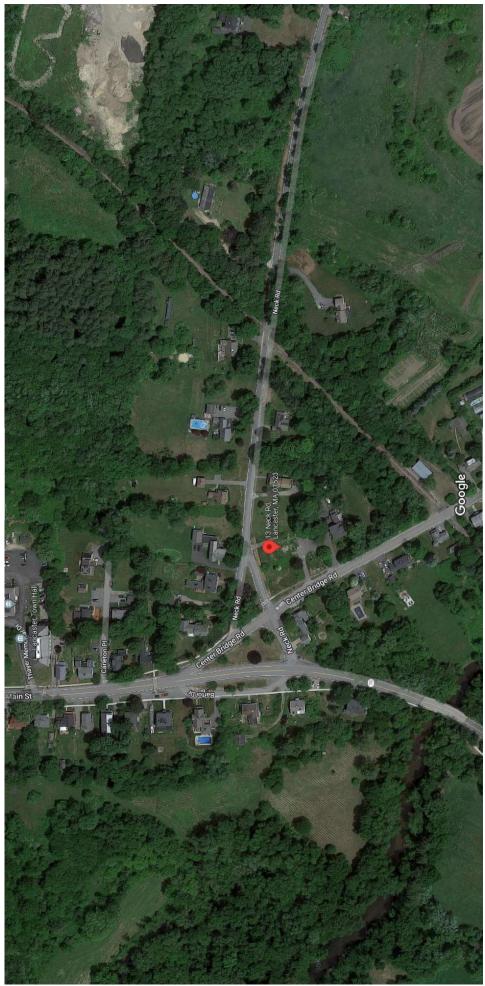






Imagery ©2022 Google, Imagery ©2022 MassGIS, Commonwealth of Massachusetts EOEA, Maxar Technologies, USDA/FPAC/GEO, Map data ©2022 200 ft

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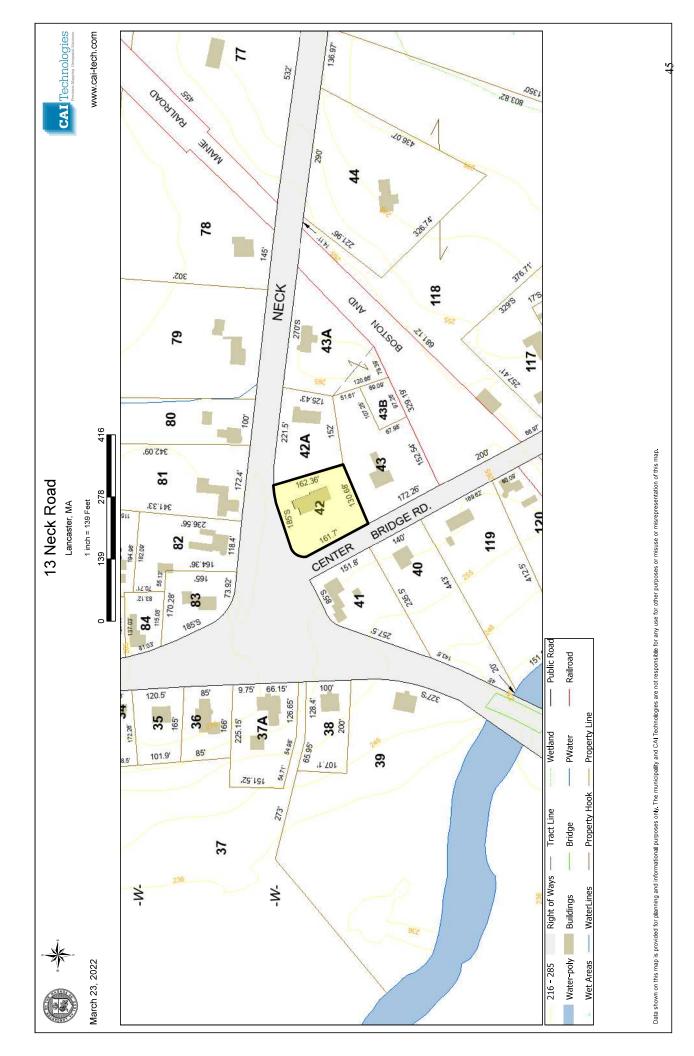


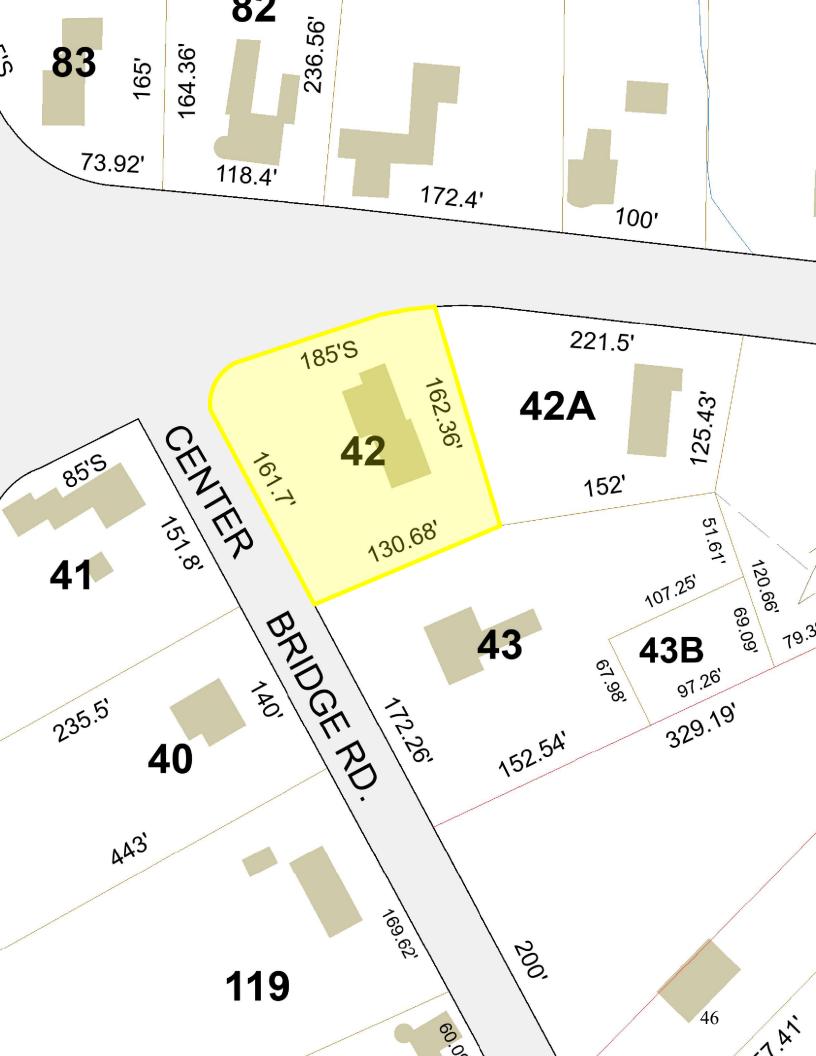
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Imagery ©2022 Google, Imagery ©2022 MassGlS, Commonwealth of Massachusetts EOEA, Maxar Technologies, Map data ©2022 50ft





Public Search 12/5/22, 12:39 PM

LUC: 130 MUNICIPALITY: LANCASTER BAYSTATE INVESTORS GROUP PARID: 1470340000000420

PARCEL YEAR: 2022 13 NECK RD

Property Information

13 NECK RD Property Location: R-RESIDENTIAL Class: 130-VACANT LAND - DEVELOPABLE MA147 - LANCASTER Use Code (LUC): District:

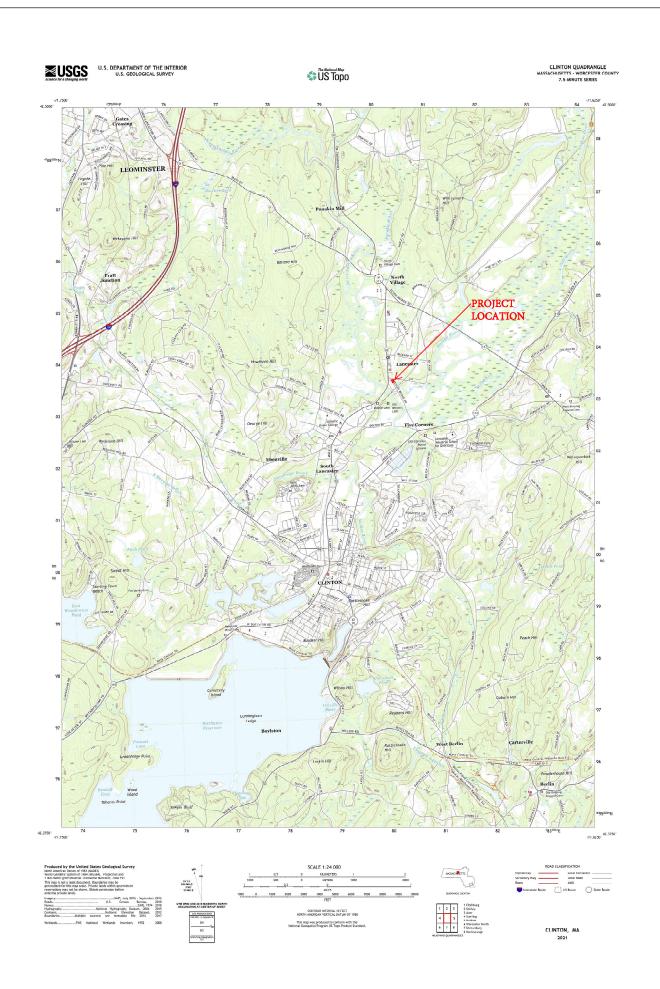
.5000 Deeded Acres:

21,780 Square Feet:

Owner

State Zip Code Deed Book/Page LEOMINSTER 66 WEST ST 1F MA 01453 61180/104 Address Co-Owner City BAYSTATE INVESTORS GROUP Owner

7



SITE CHARACTERISTICS/CONSTRAINTS

FEMA STATEMENT

As shown on the attached FEMA Firmette attached the site is not located in a Special Flood Hazard Area or any other area. The FEMA FIRM Panel is Map Number 25027C0458E, dated July 4, 2011.

WETLAND STATEMENT

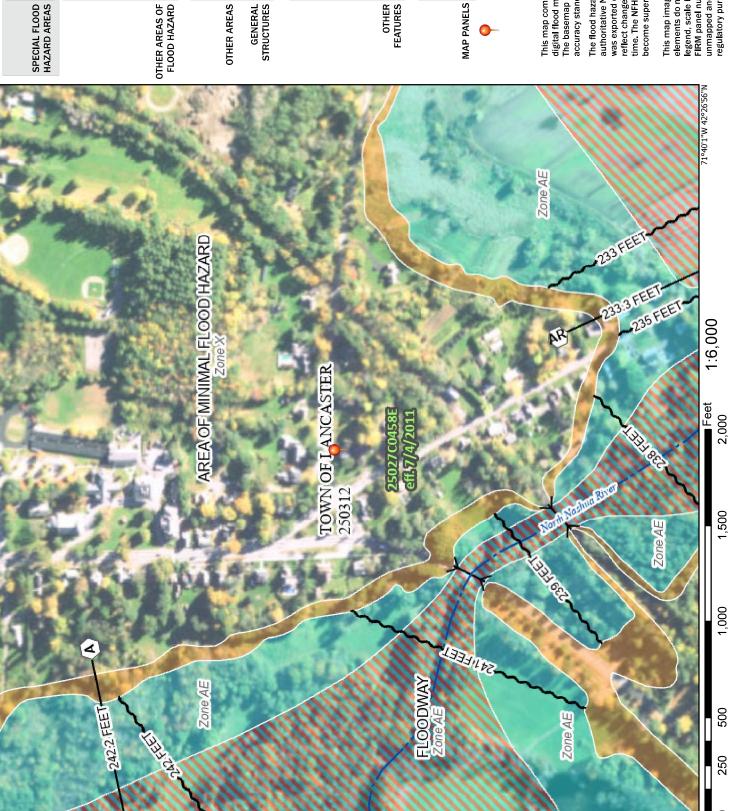
The site does not contain any wetlands on the premises or within 100' of the property.

HISTORIC STATEMENT

The property is located within Center Village Historic District, said district was Nationally registered on 9/15/1977.

National Flood Hazard Layer FIRMette





Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS

With BFE or Depth Zone AE, AO, AH, VE, AR Without Base Flood Elevation (BFE)

0.2% Annual Chance Flood Hazard, Areas depth less than one foot or with drainage areas of less than one square mile Zone X of 1% annual chance flood with average Regulatory Floodway

Future Conditions 1% Annual Chance Flood Hazard Zone X

Area with Flood Risk due to Levee Zone D Area with Reduced Flood Risk due to Levee. See Notes. Zone X

No screen Area of Minimal Flood Hazard Zone X **Effective LOMRs**

Area of Undetermined Flood Hazard Zone D

Channel, Culvert, or Storm Sewer GENERAL ---- Channel, Culvert, or Storn STRUCTURES | 1111111 Levee, Dike, or Floodwall Cross Sections with 1% Annual Chance

Water Surface Elevation Coastal Transect

Base Flood Elevation Line (BFE) Jurisdiction Boundary Limit of Study mm 513 mm

Coastal Transect Baseline OTHER

Hydrographic Feature

FEATURES

Digital Data Available

No Digital Data Available

Unmapped

MAP PANELS

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of The basemap shown complies with FEMA's basemap digital flood maps if it is not void as described below

authoritative NFHL web services provided by FEMA. This map reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or The flood hazard information is derived directly from the was exported on 3/3/2022 at 9:52 AM and does not become superseded by new data over time. This map image is void if the one or more of the following map legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot \$\infty\$ used for regulatory purposes. elements do not appear: basemap imagery, flood zone labels,

Massachusetts Cultural Resource Information System Scanned Record Cover Page

Inventory No: LAN.C

Historic Name: Center Village Historic District

Common Name:

City/Town: Lancaster
Village/Neighborhood: Lancaster;

Local No:

Year Constructed:

Use(s): Commercial District; Other Institutional;

Residential District;

Significance: Architecture; Commerce; Community Planning; Religion; Social History;

Designation(s): Nat'l Register District (09/15/1977);

Building Materials:

Demolished No



The Massachusetts Historical Commission (MHC) has converted this paper record to digital format as part of ongoing projects to scan records of the Inventory of Historic Assets of the Commonwealth and National Register of Historic Places nominations for Massachusetts. Efforts are ongoing and not all inventory or National Register records related to this resource may be available in digital format at this time.

The MACRIS database and scanned files are highly dynamic; new information is added daily and both database records and related scanned files may be updated as new information is incorporated into MHC files. Users should note that there may be a considerable lag time between the receipt of new or updated records by MHC and the appearance of related information in MACRIS. Users should also note that not all source materials for the MACRIS database are made available as scanned images. Users may consult the records, files and maps available in MHC's public research area at its offices at the State Archives Building, 220 Morrissey Boulevard, Boston, open M-F, 9-5.

Users of this digital material acknowledge that they have read and understood the MACRIS Information and Disclaimer (http://mhc-macris.net/macrisdisclaimer.htm)

Data available via the MACRIS web interface, and associated scanned files are for information purposes only. THE ACT OF CHECKING THIS DATABASE AND ASSOCIATED SCANNED FILES DOES NOT SUBSTITUTE FOR COMPLIANCE WITH APPLICABLE LOCAL, STATE OR FEDERAL LAWS AND REGULATIONS. IF YOU ARE REPRESENTING A DEVELOPER AND/OR A PROPOSED PROJECT THAT WILL REQUIRE A PERMIT, LICENSE OR FUNDING FROM ANY STATE OR FEDERAL AGENCY YOU MUST SUBMIT A PROJECT NOTIFICATION FORM TO MHC FOR MHC'S REVIEW AND COMMENT. You can obtain a copy of a PNF through the MHC web site (www.sec.state.ma.us/mhc) under the subject heading "MHC Forms."

Commonwealth of Massachusetts
Massachusetts Historical Commission
220 Morrissey Boulevard, Boston, Massachusetts 02125
www.sec.state.ma.us/mhc

This file was accessed on: Thursday, March 3, 2022 at 10:43 AM

FORM A - AREA SURV	ORM	A -	AREA	SU	RV	$\mathbf{E} \mathbf{Y}$
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MASSACHUSETTS HISTORICAL COMMISSION Office of the Secretary, State House, Boston

Form numbers in this area	Area no.
all properties in NR district	C

1. Town Lancaster
Name of area (if any) Central Village
Historic District
3. General date or period
4. Is area uniform (explain):
in style?
in condition?
in type of ownership?
- in use?

5. Map. Use space below to draw a general map of the area involved. Indicate any historic properties for which individual reports are completed on Forms B thru F, using corresponding numbers. Show street names (including route numbers, if any) and indicate north. Indicate with an 'x' existing houses not inventoried on Form B.

see attached map

DO NOT WRITE USGS Quadrant_	IN	THIS	SPACE
MHC Photo no			

6. Recorded by CB

Organization MHC

Date 3-25-77

(over)





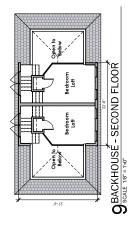


7. Historical data. Explain the historical/architectural importance of this area.

8. Bibliography and/or references such as local histories, deeds, assessor's records, early maps, etc.

N LAN.C NR dist found A I D SEVEN BRIDGE C1386 C13860 C136as 01274 C138 #C127e CHIL C1372 II C134 C135 01276 2 0en26 C132 17 C1301 1270 E127b C12901 \$ 10126 1-10140 1014b 1014b C128 11
C125 12
C125 1 00 0114 1 CITY CARD c9 HARWAR II CIU goA 09 -C112 C38 T FC87a C88al demolished U 9113 U TC3 17 c61a Charles Cod El Cusa 59 E CUS 258







3 FARMHOUSE SECOND FLOOR PLAN SCALE 1/8" = 1/2"

Living/Dining

6 WEST ELEVATION - FARMHOUSE



BACKHOUSE - FIRST FLOOR Scale 1/8" = 1-5"

1 1 WEST ELEVATION - BACK HOUSE

N O

Living / Dining



4 NORTH ELEVATION - FARMHOUSE



SOUTH ELEVATION- FARMHOUSE SCALE 1/8" = 1-0"

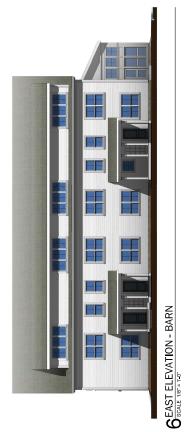






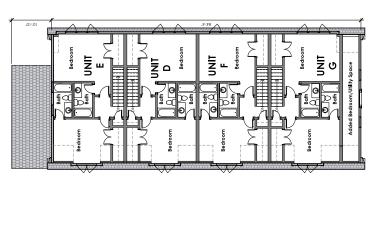
7 NORTH ELEVATION - BACK HOUSE

13 Neck Road, Lancaster MA / FARMHOUSE PLANS & ELEVATIONS / 15 February 2023

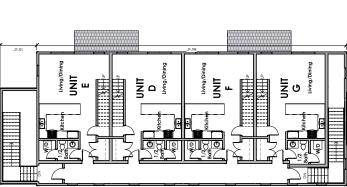


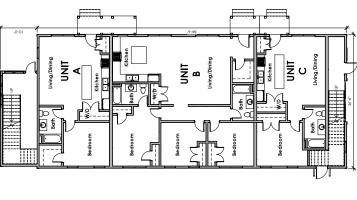


WEST ELEVATION - BARN SCALE 1/08 = 1-05



SCALE 1/8" = 1-0"





SOUTH ELEVATION - BARN scale 1/8" = 1-0"

3 BARN - THIRD FLOOR

2 BARN - SECOND FLOOR

A BARN - FIRST FLOOR SCALE 1/8" = 1'-0"

13 Neck Road, Lancaster MA

BARN PLANS AND ELEVATIONS

/ 15 February 2023

MAUGEL DESTEFANO





CONCEPT RENDERING VIEW

/ 15 February 2023

Shaping the Exceptional | 200 Ayer Road | Suite 200 | Harvard, MA 01451 | 978 458 2800





CONCEPT RENDERING VIEW

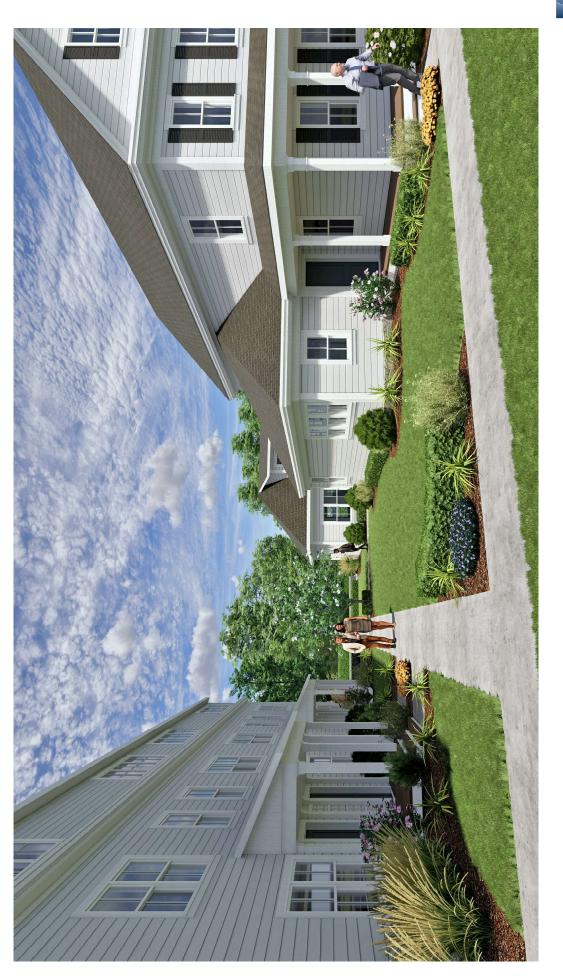
/ 15 February 2023





CONCEPT RENDERING VIEW

W / 15 February 2023





CONCEPT RENDERING VIEW

VIEW / 15 February 2023

Shaping the Exceptional / 200 Ayer Road / Suite 200 / Harvard, MA 01451 / 978 458 2800

SECTION 6

TABULATION OF PROPOSED BUILDINGS

Total Dwelling Units: 11 Total Number of Affordable Units: 3

Number of Market Units: 8 Number of AMI 50% Affordable Units: 0

Number of AMI 80% Affordable Units: 3

Unit Information:

Unit Type	Bedrooms	Baths	# Of Units	Unit Sq. Ft.	Rent	U	tilities
Affordable Unit - Below 80%	2 Bedroom	2 Baths	1	1,064		\$1,743	\$269
Affordable Unit - Below 80%	1 Bedroom	1 Bath	1	620		\$1,476	\$200
Market	3 Bedroom	2 Baths	1	1,322		\$2,625	\$0
Market	1 Bedroom	1 Bath	3	620		\$1,650	\$0
Market	2 Bedroom	2 Baths	4	1,064		\$2,200	\$0
Affordable Unit - Below 80%	3 Bedroom	2 Baths	1	1.200		\$1.991	\$334



Massachusetts Housing Finance Agency One Beacon Street Boston, MA 02108

Tel: 617-854-1000 Fax: 617-854-1091 Relay 711

www.masshousing.com

August 21, 2023

Neck Farm, LLC 66 West Street Leominster, MA 01453 Attention: John Cherubini

Re: Neck Farm Estates, Lancaster Project Eligibility/Site Approval MassHousing ID No. 1182

Dear Mr. Cherubini:

This letter is in response to your application as "Applicant" for a determination of Project Eligibility ("Site Approval") pursuant to Massachusetts General Laws Chapter 40B ("Chapter 40B"), 760 CMR 56.00 (the "Regulations") and the Comprehensive Permit Guidelines issued by the Executive Office of Housing and Livable Communities ("EOHLC").

") (the "Guidelines" and, collectively with Chapter 40B and the Regulations, the "Comprehensive Permit Rules"), under the New England Fund ("NEF") Program ("the Program") of the Federal Home Loan Bank of Boston ("FHLBank Boston").

Neck Farm, LLC submitted an application with MassHousing pursuant to Chapter 40B. You have proposed to build eleven (11) units of rental housing (the "Project") on approximately 0.56 acres of land located at 13 Neck Road (the "Site") in Lancaster (the "Municipality").

In accordance with the Comprehensive Permit Rules, this letter is intended to be a written determination of Project Eligibility by MassHousing acting as Subsidizing Agency under the Guidelines, including Part V thereof, "Housing Programs In Which Funding Is Provided By Other Than A State Agency."

MassHousing has performed an on-site inspection of the Site, which local boards and officials were invited to attend, and has reviewed the pertinent information for the Project submitted by the Applicant, the Municipality and others in accordance with the Comprehensive Permit Rules.

Municipal Comments

Pursuant to the Regulations, the Town of Lancaster was given a thirty (30) day period in which to review the Site Approval application and submit comments to MassHousing. The Lancaster Town Administrator submitted a letter expressing several concerns raised by local officials and members of the community.

The comments identified the following areas of concern:

- The Municipality requests that the Applicant provide a comprehensive traffic study to review impacts to area roadways. Road capacity, sight lines, snow conditions and other safety issues should be considered. Dangerous intersections already exist where Neck Road and Main Street (Route 70). Improved configurations and signalization may be needed at these locations.
- The Municipality expressed concern about potential drainage and stormwater management impacts on abutting properties.

Community Comments

In addition to comments from Municipal staff and officials, MassHousing received several letters from area residents and other interested parties, expressing various concerns for the proposed Project. While letters from the community largely echoed the concerns identified by Municipal officials, the letters received are summarized below:

- Area residents are concerned that the size and scale of the proposed Project is not in keeping with the modest nature of surrounding neighborhood residences of mostly single-family homes.
- Area residents are concerned about increased traffic and pedestrian safety, echoing the Municipality's comments regarding the concerns of public safety impacts due to the anticipated increase of traffic congestion on nearby roads.

MassHousing carefully considered the Municipality's concerns and, to the extent appropriate within the context of the Site Approval process, has offered responses in the following "Recommendations" section of this letter.

MassHousing Determination and Recommendation

MassHousing staff has determined that the Project appears generally eligible under the requirements of the Program, subject to final review of eligibility and to Final Approval. As a result of our review, we have made the findings as required pursuant to 760 CMR 56.04(1) and (4). Each such finding, with supporting reasoning, is set forth in further detail on Attachment 1 hereto. It is important to note that Comprehensive Permit Rules limit MassHousing to these specific findings in order to determine Project Eligibility. If, as here, MassHousing issues a determination of Project Eligibility, the Applicant may apply to the Zoning Board of Appeals ("ZBA") for a comprehensive permit. At that time local boards, officials and members of the public are provided the opportunity to further review the Project to ensure compliance with applicable state and local standards and regulations.

Based on MassHousing's site and design review, and considering feedback received from the Municipality, the following issues should be addressed in the application to the ZBA, and the Applicant should be prepared to explore them more fully during the public hearing process:

 Development of this Site will require compliance with all state and federal environmental laws, regulations and standards applicable to existing conditions and to the proposed use related to building construction, stormwater management, wastewater collection and treatment, and

¹ MassHousing has relied on the Applicant to provide truthful and complete information with respect to this approval. If at any point prior to the issuance of a comprehensive permit MassHousing determines that the Applicant has failed to disclose any information pertinent to the findings set forth in 760 CMR 56.04 or information requested in the Certification and Acknowledgment of the Application, MassHousing retains the right to rescind this Site Approval letter.

hazardous waste safety. The Applicant should expect that the Municipality will require evidence of such compliance prior to the issuance of a building permit for the Project.

- The Applicant should be prepared to provide a detailed traffic study assessing potential impacts of the Project on area roadways, including traffic volumes, crash rates, and the safety and level of service (LOS) of area intersections, and identifying appropriate traffic mitigation in compliance with all applicable state and local requirements governing site design.
- The traffic study or other professional site design process should address proposed on-site circulation and parking to ensure compliance with public safety standards and good design practice relative to drive-aisle widths, turning radii and sight distances along the Site drive and the parking areas through which it passes. The Applicant should be prepared to address concerns about provisions for safe pedestrian access and pedestrian/vehicular separation within the Site.
- A landscape plan should be provided to address Municipal comments concerning open space elements, including a detailed planting plan as well as paving, lighting and signage details.
- The Applicant is encouraged to work with its design team to address concerns related to
 pedestrian circulation, open space elements and providing safe connections to existing
 sidewalks and streets.

MassHousing has also reviewed the application for compliance within the requirements of 760 CMR 56.04(2) relative to Application requirements and has determined that the material provided by the Applicant is sufficient to show compliance.

This Site Approval is expressly limited to the development of no more than eleven (11) rental units under the terms of the Program, of which not less than three (3) of such units shall be restricted as affordable for low- or moderate-income persons or families as required under the terms of the Guidelines. It is not a commitment or guarantee of financing and does not constitute a site plan or building design approval. Should you consider, prior to obtaining a comprehensive permit, the use of any other housing subsidy program, the construction of additional units or a reduction in the size of the Site, you may be required to submit a new Site Approval application for review by MassHousing. Should you consider a change in tenure type or a change in building type or height, you may be required to submit a new site approval application for review by MassHousing.

For guidance on the comprehensive permit review process, you are advised to consult the Guidelines. Further, we urge you to review carefully with legal counsel the M.G.L. c.40B Comprehensive Permit Regulations at 760 CMR 56.00.

This approval will be effective for a period of two (2) years from the date of this letter. Should the Applicant not apply for a comprehensive permit within this period this letter shall be considered to be expired and no longer in effect unless MassHousing extends the effective period of this letter in writing. In addition, the Applicant is required to notify MassHousing at the following times throughout this two-year period: (1) when the Applicant applies to the local ZBA for a Comprehensive Permit, (2) when the ZBA issues a decision and (3) if applicable, when any appeals are filed.

Should a comprehensive permit be issued, please note that prior to (i) commencement of construction of the Project or (ii) issuance of a building permit, the Applicant is required to submit to MassHousing

a request for Final Approval of the Project (as it may have been amended) in accordance with the Comprehensive Permit Rules (see especially 760 CMR 56.04(07) and the Guidelines including, without limitation, Part III thereof concerning Affirmative Fair Housing Marketing and Resident Selection). Final Approval will not be issued unless MassHousing is able to make the same findings at the time of issuing Final Approval as required at Site Approval.

Please note that MassHousing may not issue Final Approval if the Comprehensive Permit contains any conditions that are inconsistent with the regulatory requirements of the New England Fund Program of the FHLBank Boston, for which MassHousing serves as Subsidizing Agency, as reflected in the applicable regulatory documents. In the interest of providing for an efficient review process and in order to avoid the potential lapse of certain appeal rights, the Applicant may wish to submit a "final draft" of the Comprehensive Permit to MassHousing for review. Applicants who avail themselves of this opportunity may avoid significant procedural delays that can result from the need to seek modification of the Comprehensive Permit after its initial issuance.

If you have any questions concerning this letter, please contact Michael Busby at (617) 854-1219.

Sincerely

Colin M. McNiece General Counsel

'ender

cc: Ed Augustus, Secretary, Executive Office of Housing and Livable Communities

The Honorable John J. Cronin
The Honorable Meghan Kilcoyne

Stephen J. Kerrigan, Chair, Select Board Robert Alix, Chair, Zoning Board of Appeals

Attachment 1

760 CMR 56.04 Project Eligibility: Other Responsibilities of Subsidizing Agency Section (4) Findings and Determinations

Neck Farm Estates, Project #1182

MassHousing hereby makes the following findings, based upon its review of the application, and taking into account information received during the site visit and from written comments:

(a) that the proposed Project appears generally eligible under the requirements of the housing subsidy program, subject to final approval under 760 CMR 56.04(7);

The Project is eligible under the NEF housing subsidy program and at least 25% of the units will be available to households earning at or below 80% of the Area Median Income, adjusted for household size, as published by the U.S. Department of Housing and Urban Development ("HUD"). The most recent HUD income limits indicate that 80% of the current median income for a four-person household in Lancaster is \$94,650. Proposed rent levels of \$1,476 for a one-bedroom affordable unit; \$1,743 for a two-bedroom affordable unit and \$1,991 for a three-bedroom unit accurately reflect current affordable rent levels for the Eastern Worcester HMFA under the NEF Program.

The Applicant submitted a letter of financial interest from Clinton Savings Bank, a member bank of the FHLBank Boston under the NEF Program.

(b) that the site of the proposed Project is generally appropriate for residential development, taking into consideration information provided by the Municipality or other parties regarding municipal actions previously taken to meet affordable housing needs, such as inclusionary zoning, multifamily districts adopted under c.40A, and overlay districts adopted under c.40R, (such finding, with supporting reasoning, to be set forth in reasonable detail);

Based on a site inspection by MassHousing staff, internal discussions, and a thorough review of the application, MassHousing finds that the Site is suitable for residential use and development and that such use would be compatible with surrounding uses and would address the local need for housing.

Section IV-A (3) (a) of the Guidelines provide guidance to Subsidizing Agencies for evaluating a municipality's actions intended to meet affordable housing needs. MassHousing carefully reviewed the information provided by the Municipality describing previous municipal actions intended to provide affordable housing. Specific examples cited by the Municipality include:

- Adopting an Inclusionary Zoning Bylaw to increase the creation of affordable units;
- Forming the Lancaster Affordable Housing Trust; and
- Completed a Housing Production Plan.

MassHousing commends the Town's progress towards creating a range of diverse housing options to meet its affordable housing needs. Lancaster does have an approved Housing Production Plan. According to EOHLC's Chapter 40B Subsidized Housing Inventory, updated through August 1, 2023, Lancaster has 138 (SHI) units (5.04% of its housing inventory), which is 136 units below the statutory minima requirement of 10%.

(c) that the conceptual project design is generally appropriate for the site on which it is located, taking into consideration factors that may include proposed use, conceptual site plan and building massing, topography, environmental resources, and integration into existing development patterns (such finding, with supporting reasoning, to be set forth in reasonable detail);

Relationship to Adjacent Building Typology (Including building massing, site arrangement, and architectural details):

The overall design approach for Neck Farm is to create appropriate and contextual buildings, befitting its rural New England setting. The Applicant proposes two buildings, conceptualized as a simple farmhouse and a detached barn, complementing nearby residential and historic properties. Within the buildings will be a mix of dwelling unit types, including one-, two-, and three-bedroom flats, and two-story townhouses. First-floor units in the larger structure will offer accessibility. Individual building components are designed to a human scale and use conventional local materials, such as clapboard siding and divided-lite windows. Welcoming porches and finish carpentry details are among the features that blend seamlessly with the character of neighboring homes and civic buildings.

Relationship to adjacent streets/Integration into existing development patterns

The existing neighborhood is bounded by Route 117 to the north, Nashua River to the east, South Lancaster to the south, and Nashua River to the west. The area is semi-rural in nature. Within the immediate area of the Site, transportation access helps define the character of its development. Major travel and commuter routes within the area of the Site include Route 117 and Main Street (Route 70). The property is about five miles west of I-495 and four miles east of I-190. The Shirley MBTA commuter rail station is located about eight miles to the north. The Site is located in an area with primarily residential land uses.

Density

The Applicant proposes to build eleven (11) rental units on approximately 0.5 acres of buildable land. The resulting density is 22 units per buildable acre, which is acceptable given the proposed housing type.

Conceptual Site Plan

Layout of the site provides space for landscape and plantings between the structures, with generous pathways connecting building entrances and public sidewalks. The driveway and resident parking spaces are designed to minimize visibility from public ways, allow easy access for residents and visitors, and accommodate maneuvering for emergency vehicles. Integrating sustainability into Neck Farm is a fundamental goal for the project. At a minimum, the development team would like to exceed code requirements for insulation values and mechanical equipment, install high-efficiency appliances, provide dual-flush toilets, specify native plantings, consider permeable paving, and make provisions for future solar power.

Environmental Resources

The property does not contain any area of critical concern or areas of estimated or priority habitat of rare species, wildlife or vernal pools.

Topography

The Site is generally level and at grade. The topographic features of the Site have been considered in relationship to the proposed development plans and do not constitute an impediment to development of the Site.

(d) that the proposed Project appears financially feasible within the housing market in which it will be situated (based on comparable rentals or sales figures);

According to the appraisal report for the Site, Lancaster's residential market appears stable and strong, with an overall upward trajectory in sales volume and prices in the last decade. MassHousing's Appraisal and Marketing team (A&M) performed a Competitive Market Analysis and found that proposed market rents for each unit type fall within the range of adjusted comparable market rents.

(e) that an initial pro forma has been reviewed, including a land valuation determination consistent with the Secretariat's Guidelines, and the Project appears financially feasible and consistent with the Secretariat's Guidelines for Cost Examination and Limitations on Profits and Distributions (if applicable) on the basis of estimated development costs;

MassHousing has commissioned an as "As-Is" appraisal which indicates a land valuation of \$190,000. Based on a proposed investment of \$2,599,570 in equity and permanent financing, the development proforma appears to be financially feasible and within the limitations on profits and distributions.

(f) that the Applicant is a public agency, a non-profit organization, or a Limited Dividend Organization, and it meets the general eligibility standards of the housing program; and

MassHousing finds that the Applicant must be organized as a Limited Dividend Organization. MassHousing sees no reason this requirement could not be met given information reviewed to date. The Applicant meets the general eligibility standards of the NEF housing subsidy program and has executed an Acknowledgment of Obligations to restrict their profits in accordance with the applicable limited dividend provisions.

(g) that the Applicant controls the site, based on evidence that the Applicant or a related entity owns the site or holds an option or contract to acquire such interest in the site, or has such other interest in the site as is deemed by the Subsidizing Agency to be sufficient to control the site.

A related entity to the Applicant controls the entire .56-acre Site through a deed of ownership recorded with the Worcester South District Registry of Deeds in Book 61180 at page 106.

Corporations Division

Business Entity Summary

ID Number: 001619416 Request certificate New search

Summary for: NECK FARM, LLC

REAL PROPERTY

Summary Ion. N	ECK FARM, LLC					
The exact name	of the Domestic Limited Li	ability Company (LLC): NECK FARM, LLC				
Entity type: Domestic Limited Liability Company (LLC)						
Identification Nu	mber: 001619416					
Date of Organiza 11-17-2022	tion in Massachusetts:					
		Last date certain:				
The location or a location or address		are maintained (A PO box is not a valid				
Address: 66 WEST	ST, STE 1F					
City or town, State Country:	, Zip code, LEOMINSTER	R, MA 01453 USA				
The name and ac	dress of the Resident Age	nt:				
 Name: DAVE SI	NGLETON					
Address: 66 WEST	ST, STE 1F					
City or town, State Country:	, Zip code, LEOMINSTER	R, MA 01453 USA				
The name and bu	siness address of each Ma	anager:				
Title	Individual name	Address				
		nd business address of the person(s) ed with the Corporations Division:				
Title	Individual name	Address				
SOC SIGNATORY	DAVE SINGLETON	66 WEST ST, STE 1F LEOMINSTER, MA 01453 USA				
SOC SIGNATORY	JOHN CHERUBINI	PO BOX 725 CLINTON, MA 01510 USA				
	liver, and record any reco	son(s) authorized to execute, rdable instrument purporting to affect an				
Title	Individual name	Address				
REAL PROPERTY	DAVE SINGLETON	66 WEST ST, STE 1F LEOMINSTER, MA 01453 USA				

Manufacturing

PO BOX 725 CLINTON, MA 01510 USA

Merger

Allowed

Confidential

Data

JOHN CHERUBINI

Consent

View filings for this business entity:	
ALL FILINGS	
Annual Report	
Annual Report - Professional	
Articles of Entity Conversion	
Certificate of Amendment	•
View filings	
Comments or notes associated with this business entity:	
	1.

New search

BLATMAN, BOBROWSKI, HAVERTY & SILVERSTEIN, LLC

- ATTORNEYS AT LAW -

9 DAMONMILL SQUARE, SUITE 4A4 CONCORD, MA 01742 PHONE 978.371.2226 FAX 978.371.2296

CHRISTOPHER J. ALPHEN, Esq. Chris@bbhslaw.net

October 17, 2023

Jessica L. Malcolm Manager of Comprehensive Permit Programs Mass Housing One Beacon Street Boston, MA 02108

RE:

Neck Farm Estates

13 Neck Road, Lancaster - Comprehensive Permit

MassHousing #1182

Dear Ms. Malcolm:

Please accept this correspondence as evidence that the Applicant Neck Farm, LLC submitted an application for a comprehensive permit to the Lancaster Zoning Board of Appeals seeking approval for the construction of eleven (11) rental units on a .54-acre site located on Neck Road and Center Bridge Road in Lancaster, Massachusetts. This project was approved by a Project Eligibility Letter dated August 21, 2021.

Please feel free to contact us if you have any questions regarding this matter.

Very truly yours,

Christopher J. Alphen, Esq.

cc:

Lancaster Zoning Board of Appeals

Worcester District Registry of Deeds - 20/20 Perfect Vision i2 Document Detail Report

Current datetime: 12/5/2022 2:19:19 PM

Doc#	Document Type	Town	Book/Page	File Date	Consideration		
104357	DEED		61180/104	10/04/2019	202918.00		
Property-Stre	Property-Street Address and/or Description						
13 NECK RD BK 289-216							
Grantors							
SANDERS EDWARD G, SANDERS DEBRA A							
Grantees							
BAYSTATE INVESTORS GROUP, SINGLETON DAVID J, CHERUBINI JOHN							
References-Book/Pg Description Recorded Year							
13096/101 DEED 1990							
Registered Land Certificate(s)-Cert# Book/Pg							

Bk: 61180 Pg: 104

Worcester South District Registry of Deeds Electronically Recorded Document

This is the first page of the document – Do not remove

Recording Information

Document Number : 104357 Document Type : DEED

Recorded Date : October 04, 2019 Recorded Time : 12:31:20 PM

Recorded Book and Page : 61180 / 104

Number of Pages(including cover sheet) : 3
Receipt Number : 1176069
Recording Fee (including excise) : \$1,050.68

MASSACHUSETTS EXCISE TAX Worcester District ROD #20 001 Date: 10/04/2019 12:31 PM

Ctrl# 201797 11660 Doc# 00104357 Fee: \$925.68 Cons: \$202,918.00

Worcester South District Registry of Deeds Kathryn A. Toomey, Register 90 Front St Worcester, MA 01608 (508) 798-7717

QUITCLAIM DEED

I, Edward G. Sanders, a married man, Individually, of Lancaster, Worcester County, Massachusetts,

In consideration of Two Hundred and Two Thousand Nine Hundred and Eighteen and no/100 (\$202,918.00) dollars

Grant to BayState Investors Group, a Massachusetts General Partnership, with an office at 66 West Street, 1F, Leominster, Worcester County, Massachusetts, having as its general partners David J. Singleton, of 66 West Street, Leominster, MA and John Cherubini, of 66 West Street, Leominster, MA

with Quitclaim covenants

A certain parcel of land, with any building thereon, situated in the Southerly part of the Center Village, Lancaster, Massachusetts, at the junction on two roads called Neck Road and Center Road, containing one-half (1/2) acre, and bounded and described as follows:

BEGINNING at a stake and stones on Center Road distance nine (9) rods and twenty (20) links Southeasterly from a large elm tree near the junction of said roads;

THENCE North 76° East seven (7) rods and twenty-three (23) links to a bound;

THENCE North 7° 30' West nine (9) rods and twenty-one (21) links to Neck Road;

THENCE On line of fence as it now stands and around corner to place of beginning.

SAID premises are hereby conveyed together with all privileges and appurtenances and subject to conditions as in deed recorded with Worcester District Registry of Deeds in Book 289, Page 216, in so far as in force and effect.

BEING the same premises conveyed to Edward G. Sanders, by deed of Deborah S. Thomson and recorded in the Worcester County Southern District Registry of Deeds dated October 11, 1990, in Book 13096, Page 101.

The Grantor, Edward G. Sanders, herein, hereby release any and all rights of Homestead by law or written declaration with respect to real estate conveyed herein and states under the pains and penalties of perjury that no other individual is entitled to the benefits of homestead.

I, Debra A. Sanders, being the spouse of the above-named grantor, Edward G. Sanders, joins in this deed for the purposes of releasing any and all homestead rights in the above-referenced property.

Bk: 61180 Pg: 106

Executed as a sealed instrument on this3, day of October, 2019.	
Edward G. Sanders	
THE COMMONWEALTH OF MASSACHUSETTS	
Worcester, ss:	
On this <u>3</u> , day of <u>October</u> , 2019, before me, the undersigned Notary Public, personally appeared <u>Edward G. Sanders</u> and proved to me through satisfactory evidence of identification, which was Government Identification namingly a <u>MA Driver's License</u> , to be the person whose name is signed on the preceding or attached document, and acknowledged to me that he signed i voluntarily for its stated purpose(s).	
HOLLY H. HINES Notery Public COMMONWEALTH OF MASSACHUSETTS My Commission Expires March 30, 2023	
Notary Public My Commission Expires: March 30, 2023	
May Commission Disputed Manager Commission C	
Executed as a sealed instrument on this 3, day of October, 2019.	
Debra A. Sanders	
Deora va. Banders	
THE COMMONWEALTH OF MASSACHUSETTS	
Worcester, ss:	
On this <u>3</u> , day of <u>October</u> , 2019, before me, the undersigned Notary Public, personally appeared <u>Debra A. Sanders</u> and proved to me through satisfactory evidence of identification, which was Government Identification namingly a <u>MA Driver's License</u> , to be the person whose name is signed on the preceding or attached document, and acknowledged to me that she signed it voluntarily for its stated purpose(s).	
Notary Public My Commission Expires: March 30, 2023 HOLLY M. HINES Notary Public My Commission Expires March 30, 2023	

My Commission Expires: March 30, 2023

ATTEST: WORC Kathryn A. Toomey, Register

Development: Neck Farm Estates

Neck Road & Center Bridge Road Lancaster, Massachusetts

EXHIBIT A – WAIVER LIST – APPROVAL DECISION

regulation in terms of interests sought to be protected thereunder. The applicant provides the following waiver language to allow the The applicant provides the following information to assist the permit granting authority in analyzing the project and assessing the likely impact on the community as defined in 760 CMR 56. The project meets the intent of each and every by-law, rule, and permit granting authority to easily adopt or modify as it deems appropriate.

of occupancy have been issued, these Waivers, the Comprehensive Permit and the Conditions shall not authorize any further waiver of The Board of Appeals authorizes the following waivers from the requirements of the Lancaster Zoning Bylaw and other local by-laws, Specifications listed in the Comprehensive Permit Decision, and provided that the project is in fact constructed in accordance with the within the project thereafter must conform to the Lancaster Zoning Bylaw and other local bylaws, rules, and regulations, subject to the Comprehensive Permit, the Conditions, and the Plans and Specifications. Once the project has been fully constructed and certificates the Lancaster Zoning Bylaws or other local bylaws, rules, or regulations; any proposed further modification of the project or any unit rules, and regulations listed in this Exhibit A if and only if the Comprehensive Permit for the Project containing the Conditions identified in the attached Comprehensive Permit Application is finally issued and only to the extent necessary and sufficient to construct, occupy, and maintain the project in accordance with the Comprehensive Permit, the Conditions, and Plans and regulations concerning modifications of comprehensive permits found at 760 CMR 56.05(11).

EXHIBIT A-1

ZONING BYLAWS OF THE TOWN OF LANCASTER

Section Number	Title	Requirement, Waiver Requested
Sections 220-8	USE REGULATION SCHEDULE / USE REGULATION SCHEDULE	Multi-Dwellings are prohibited in Residential Zoning District. The Applicant seeks a waiver to allow the proposed Multi-Dwelling Development including accessory uses in Residential Zoning District.
Section 220-10	LOT DIMENSIONS	Section 220-10 provides lot dimension requirements. The Bylaw provides a minimum lot area of 87,120 square feet when the locus contains 24,743 square feet. The Bylaw requires a minimum of 225 feet of frontage. The locus contains 175.02 feet of frontage. The Applicant requests a waiver from these requirements to construct the project as shown on the plans.
Section 220-11	YARD DIMENSIONS	Section 220-11 provides setback requirements. The Bylaw provides a minimum front yard setback of 30 feet. The proposed project provides a front setback of 3 feet. The Applicant requests a waiver from these dimensional requirements to construct the project as shown on the plans. Section C of Section 220-11 require certain landscape requirements. The Applicant requests a waiver from these requirements to build the project as shown on the plans.
Section 220-12	BUILDING DIMENSIONS	Section 220-12 provides that no building shall exceed 32 feet in height. The buildings proposed by the project will be about 35 feet. The Applicant requests a waiver to permit the building height as shown on the plans.
Section 220-13	FENCES AND WALLS; CORNER CLEARANCE	Section 220-13 regulates fences and walls. The Applicant requests a waiver from these regulations to the extent necessary to permit the project as shown on the plans.
Section 220-22	GENERAL REQUIREMENTS – REQUIRED OFF STREET PARKING	Section 220-22 provides general requirements for off street parking. The Applicant requests a waiver from these

Waiver Request Page 2

Waiver Request Page 3

Section Number	Title	Requirement, Waiver Requested
Regulations Section 302-40		with the Town Clerk. The Applicant will provide sufficient copies to the Board and will provide a electronic version to the Town.

EXHIBIT A-2

CHAPTER 205

STORMWATER MANAGEMENT RULES AND REGULATIONS

Requirement, Waiver Requested	VT RULES The Applicant requests a waiver from these requirements and states further that the Project will Comply with the State and Federal regulations.
Title	STORMWATER MANAGEMENT RULES AND REGULATIONS
Section Number	CHAPTER 205

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EXHIBIT A-3

CHAPTER 306 LANCASTER WETLANDS PROTECTION RULES AND REGULATIONS

Section Number	Title	Requirement, Waiver Requested
Section 306-1	AUTHORITY AND PURPOSE	Applicant seeks a waiver from this section as the Zoning Board of Appeals is provided with the authority to issue all local approvals.
		These Town of Lancaster Wetlands Regulations were promulgated by the Town of Lancaster Conservation Commission to which authority is granted under the Lancaster Wetlands Protection Bylaw. The purpose of the bylaw is to protect the wetlands, wildlife, water resources, flood-prone areas, and adjoining upland areas in the Town of Lancaster by controlling activities deemed by the Conservation Commission to have a significant or cumulative effect on resource area values, as outlined in § 215-1 of the Wetlands Protection Bylaw
		Applicant will Comply with the Massachusetts Wetlands Protection Act, G.L. c. 131, § 40 and 310 CMR 10.00 et. seq.

EXHIBIT A-4

LANCASTER SEWER DISTRICT AND WATER DIVISION

Requirement, Waiver Requested	Applicant seeks a waiver of payment of any fees associated with any sewer connection, extensions or any related fee for service required for the affordable units.	Applicant seeks a waiver of payment of any fees associated with any water connection, extensions or any related fee for service required for the affordable units.
Title	LANCASTER SEWER DISTRICT	LANCASTER WATER DIVISION
Section Number		

Executive Office of Housing and Livable Communities Chapter 40B Subsidized Housing Inventory (SHI) as of June 29, 2023*

	2020 Census	Total		
	Year Round	Development		
Community	Housing Units		SHI Units	%
Abington	6,799	666	489	7.19%
Acton	9,151	1,517	737	8.05%
Acushnet	4,275	125	95	2.22%
Adams	4,299	324	324	7.54%
Agawam	12,313	620	558	4.53%
Alford	237	0	0	0.00%
Amesbury	7,808	841	663	8.49%
Amherst	10,684	1,467	1,252	11.72%
Andover	13,464	2,212	1,675	12.44%
Aquinnah	215	33	33	15.35%
Arlington	20,400	1,615	1,299	6.37%
Ashburnham	2,448	144	29	1.18%
Ashby	1,206	0	0	0.00%
Ashfield	800	20	19	2.38%
Ashland	7,456	1,021	419	5.62%
Athol	5,207	261	261	5.01%
Attleboro	19,049	1,166	1,166	6.12%
Auburn	6,979	366	366	5.24%
Avon	1,830	75	75	4.10%
Ayer	3,783	381	226	5.97%
Barnstable	21,915	1,816	1,485	6.78%
Barre	2,234	83	83	3.72%
Becket	950	1	1	0.11%
Bedford	5,424	1,243	989	18.23%
Belchertown	6,301	402	376	5.97%
Bellingham	6,732	983	755	11.22%
Belmont	10,839	785	673	6.21%
Berkley	2,352	158	40	1.70%
Berlin	1,307	320	204	15.61%
Bernardston	954	22	22	2.31%
Beverly	17,754	2,538	1,992	11.22%
Billerica	15,460	1,982	1,668	10.79%
Blackstone	3,864	165	123	3.18%
Blandford	543	0	0	0.00%
Bolton	1,967	409	298	15.15%
Boston	299,238	58,823	57,443	19.20%
Bourne	8,930	1,127	589	6.60%
Boxborough	2,343	323	266	11.35%
Boxford	2,796	85	44	1.57%

Holden	7,419	518	410	5.53%
Holland	1,149	0	0	0.00%
Holliston	5,544	520	253	4.56%
Holyoke	16,829	3,376	3,254	19.34%
Hopedale	2,384	115	115	4.82%
Hopkinton	6,597	843	725	10.99%
Hubbardston	1,737	49	49	2.82%
Hudson	8,455	1,054	896	10.60%
Hull	5,005	83	83	1.66%
Huntington	937	30	30	3.20%
Ipswich	6,215	800	589	9.48%
Kingston	5,251	358	235	4.48%
Lakeville	4,382	433	250	5.71%
Lancaster	2,736	224	138	5.04%
Lanesborough	1,371	28	28	2.04%
Lawrence	29,976	3,989	3,969	13.24%
Lee	2,796	176	176	6.29%
Leicester	4,338	176	176	4.06%
Lenox	2,642	178	172	6.51%
Leominster	18,687	1,407	1,370	7.33%
Leverett	806	2	2	0.25%
Lexington	12,252	1,551	1,320	10.77%
Leyden	323	0	0	0.00%
Lincoln	2,322	370	298	12.83%
Littleton	3,861	666	452	11.71%
Longmeadow	5,931	282	282	4.75%
Lowell	43,370	5,197	5,127	11.82%
Ludlow	8,720	290	290	3.33%
Lunenburg	4,702	386	386	8.21%
Lynn	36,699	4,307	4,307	11.74%
Lynnfield	4,734	632	562	11.87%
Malden	27,676	2,761	2,594	9.37%
Manchester	2,293	137	115	5.02%
Mansfield	9,266	1,218	965	10.41%
Marblehead	8,650	399	333	3.85%
Marion	2,263	201	159	7.03%
Marlborough	17,498	2,179	1,872	10.70%
Marshfield	10,594	1,024	821	7.75%
Mashpee	7,342	368	342	4.66%
Mattapoisett	2,884	68	68	2.36%
Maynard	4,730	610	425	8.99%
Medfield	4,432	474	393	8.87%
Medford	25,711	3,209	1,766	6.87%
Medway	4,819	838	548	11.37%
Melrose	12,580	1,511	967	7.69%
Mendon	2,215	77	40	1.81%
Merrimac	2,746	402	146	5.32%

CIVIL ENGINEERING LAND SURVEYING WETLAND SCIENCE

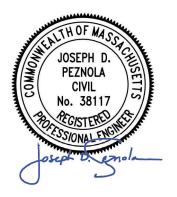


Stormwater Report

In Support of

Lancaster, MA

Comprehensive Permit Filing for Neck Farm 13 Neck Road (Map 24, Lot 32)



Prepared By: Hancock Associates

Prepared For: Neck Farm, LLC October 9, 2023

185 Centre Street | Danvers, MA 01923 | V: 978-777-3050 | F: 978-774-7816 | HancockAssociates.com

BOSTON, CHELMSFORD, DANVERS, MARLBOROUGH, NEWBURYPORT, PRINCETON, MA | SALEM, NH



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Introduction

Neck Farm, LLC proposes to construct a Multi-Family Development at 13 Neck Road, Lancaster, MA. Associated improvements will include paved vehicular and pedestrian areas, recreational areas, landscaped areas, stormwater management systems, and utility services. The project area is currently comprised of a building, paved vehicular areas, paved walking paths, and vegetated areas. The project area is accessed by Neck Road on its northern border and Center Bridge Road on its western border and consists of $0.57\pm$ acres and is bounded Center Bridge Road to the west, Neck Road to the north, and residential properties to the south and east. Elevations on site range from elevation 270 at the northeast property line to elevation 267 at the Center Bridge Road.

The project area is not located within a FEMA flood zone as shown on FEMA map number 25027C0458E dated July 7, 2011. The proposed stormwater management system will include catch basins with deep sumps and hoods, pervious pavement, and a network of pipes. The system will discharge to the existing stormwater system on Center Bridge Road.

Design guidance for the proposed pervious pavement was used using the University of New Hampshire Center for Stormwater Technology Evaluation and Verification publications on pervious pavement. Their guidance uses laboratory tests to determine the total time for concentration for runoff to infiltrate into the crushed stone reservoir course. The consensus of their laboratory testing concurred a time of concentration of 790 minutes shall be used for stormwater modeling. Stormwater modeling for this project reflects this data and was used for the deign of the pervious pavement onsite.

The proposed stormwater management system was designed to meet the Stormwater Management Standards described in the Massachusetts Stormwater Handbook and the Town of Lancaster's Stormwater Standards. The following report describes the system's compliance with these standards.

Standard 1: No New Untreated Discharges

The Massachusetts Stormwater Handbook states that no new stormwater conveyances may discharge untreated stormwater directly to or cause erosions in wetlands or waters of the Commonwealth. The project does not include new stormwater conveyances.

Standard 2: Peak Rate Attenuation

The Massachusetts Stormwater Handbook states that stormwater management systems shall be designed so that post-development peak discharge rates do not exceed pre-development peak discharge rates. A summary of the existing and proposed discharge rates follows. The proposed condition discharge rates of runoff are at or below the existing rates to the same discharge points. Please see the attached "Existing Drainage Figure" and "Proposed Drainage Figure" figures (Appendix III) and HydroCAD output (Appendix IV) for more information.

For the purpose of these calculations the following assumptions were made:

- The project property lines and edge of pavement on the right-of-way were used to delineate watershed boundaries.
- The same total watershed area of the drainage areas is used to compare the existing and proposed conditions.
- The Natural Resources Conservation Service (NRCS) Web Soil Survey defines soils in the project area as 305B, Paxton fine sandy loam (Hydrologic Soil Group C). Test pits were dug onsite by this office in 2022 and discovered sandy soils as well as sandy loam parent material onsite.



One (1) drainage area have been modeled to represent the existing condition:

• Drainage Area EX1 consists of the conditions of the previous development, the now demolished single-family house that was on property. This consists of roof areas, paved vehicular areas, and grassed areas. Stormwater runoff from EX1 drains via overland flow to an existing network of pipes located at the intersection of Neck Road and Center Bridge Road, Discharge Point 10R.

In the proposed condition a stormwater management system will collect and treat stormwater runoff from the project site. This system will include pervious pavement cells. Three (3) drainage areas have been modeled to represent the proposed condition:

- Drainage Area 1S will consist of paved vehicular and pedestrian areas. Stormwater discharge from 1S will drain overland to the proposed pervious pavement cells. From there overflow is directed via a proposed pipe network into the existing network of pipes located at the intersection of Neck Road and Center Bridge Road, Discharge Point 1R
- Drainage Area 2S will consist of roof areas. Stormwater discharge from 2S will drain via roof
 drains directly into the reservoir course of the pervious pavement cells. From there overflow is
 directed via a proposed pipe network into the existing network of pipes located at the
 intersection of Neck Road and Center Bridge Road, Discharge Point 1R
- Drainage Area 3S will consist of grassed/landscape areas and paved pedestrian areas.
 Stormwater discharge from 3S will flow overland and directed to the existing network of pipes located at the intersection of Neck Road and Center Bridge Road, Discharge Point 1R

The following table compares the peak rates of runoff under the existing and proposed conditions using the Northeast Regional Climate Center (NRCC) Atlas of Precipitation Extremes for the Northeastern United States and Southeastern Canada

Tal	ble	1:	Peak	k R	ates	of	^c Runo <u>f</u>	Ŧ

	Peak Rate (cfs)							
Discharge Point	2-Year Storm (3.22" Rainfall Depth) 10-Year Storm (4.86" Rainfall Depth)		100-Year Storm (8.64" Rainfall Depth)					
	Existing	Proposed	Existing	Proposed	Existing	Proposed		
10R/1R	1.02	0.37	1.97	0.76	4.32	3.31		

cfs - Cubic Feet per Second

Standard 3: Recharge

The Massachusetts Stormwater Handbook states that loss of annual recharge to groundwater shall be eliminated or minimized. The annual recharge from the post-development site shall approximate the annual recharge from the pre-development conditions based on soil type. Recharge volumes are provided for the majority of the proposed impervious areas. For the purpose of these calculations, all of the project areas are considered to be Hydrologic Soil Group C. The required recharge volume is 0.25" multiplied by

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the area of impervious surfaces. Please see the attached Hydrocad summaries for the recharge volumes provided within the reservoir course (Appendix VI). The volumes is as follows:

Required Recharge Volume, HSG C = Target Depth * Impervious Area = 0.25" * 17,995 SF = 375 CF

Capture Area Adjustment

There are areas within this development that do not drain to recharge facilities, subcatchment 3S are directed to the existing drainage features at the intersection of Neck Road and Center Bridge Road,.

((Site Area Draining to Recharge Facilities) / (Total Site Impervious Area) > 65% (16,335 SF / 17,995 SF) x 100% = 91% (>65%)

Ratio of Total Site Impervious Area to Site Area Draining to Recharge Facilities 17,995 SF / 16,335 SF = 1.10

Adjusted Minimum Required Recharge Volume 375 CF x 1.10 = 413 CF

The recharge volume is provided below the weir (elevation 266.50) controlling the outflow for the pervious paver reservoir course. The volume provided is 770 cubic feet. Since the volume provided is greater than the required recharge volume, the standard is met.

The Massachusetts Stormwater Handbook states that the recharge volume must drain within 72 hours. Observations in soil testing performed on-site indicate that the soil that the pervious pavement will be installed upon is sandy loam as indicated on the site plan The following "drawdown" calculation assumes a Rawl's Rate of 1.02 inches per hour, corresponding to texture class "sandy loam".

Drawdown Time = Storage Volume / (Rawl's Rate * Bottom Area) = 770 CF / (1.02 in/hr *3,795 SF) = 2.4 Hour

Since the drawdown time of 2.4 hours is less than 72 hours, the requirement is met.

Standard 4: Water Quality

The Massachusetts Stormwater Handbook states that systems shall be designed to remove 80% of the average annual post-development construction load of Total Suspended Solids (TSS). The treatment BMP's have been sized to provide at least 80% TSS removal and measures will be taken for long-term pollution prevention.

Stormwater runoff from vehicular paved areas will be treated for at least 80% TSS removal via pervious pavers. The treatment train computation is as follows:

Table 2: Treatment Train Calculation

ВМР	TSS Removal Rate	Starting TSS Load	Amount Removed	Remaining Load
Pervious Pavement	0.20			
	0.80			



These BMP's are sized to capture and treat the 1.0" water quality flow rate from the contributing paved areas because the project area is located within a Critical Area, known as the Central Nashua River Valley.

Water Quality Volume Calculations

The Massachusetts Department of Environmental Protection Wetlands Program Standard Method to Convert Required Water Quality Volume to a Discharge Rate for Sizing Flow Based Manufactured Proprietary Stormwater Treatment Practices, the Q rate associated with the 0.5-inch water quality volume is calculated using the following equations:

WQV = (A)*0.5in.

Where:

A = paved surface drainage area (in square feet) WQV = water quality volume in watershed inches (0.5-inch in this case)

Pervious Pavement WQV = (8,715 SF) (1.0 inch.) (1.0 ft / 12inches) WQV = 726 CF (770 CF Provided)

Standard 5: Land Uses with Higher Potential Pollutant Loads

The proposed project is not a Land Use with Higher Potential Pollutant Load (LUHPPL).

Standard 6: Critical Area

The proposed project is within a Critical Area known as the Central Nashua River Valley. The Central Nashua River Valley has been designated as an Area of Environmental Concern (ACEC). See standard 4 for Standard 4 for water quality volume calculations demonstrating compliance with the requirement to retain the 1" water quality volume.

Standard 7: Redevelopment

The proposed project is not a redevelopment.

Standard 8: Construction Period Pollution Prevention and Erosion & Sedimentation Control

Best management practices (BMP) for erosion and sedimentation control are staked straw bales, filter fences, wattles, hydro seeding, and phased development. Many stormwater BMP technologies (e.g., infiltration technologies) are not designed to handle the high concentrations of sediments typically found in construction runoff and must be protected from construction-related sediment loadings. Construction BMP's <u>must</u> be maintained. In developing the proposed project certain measures will be implemented to minimize impacts erosion and sedimentation could have on surrounding areas. This section addresses items that involve proper construction techniques, close surveillance of workmanship, and immediate response to emergency situations. The developer must be prepared to provide whatever reasonable measures are necessary to protect the environment during construction and to stabilize all disturbed areas as soon as construction ends. Construction period pollution prevention and erosion and

Project #24939 Page 4

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sediment control shall meet the requirements for the 2022 EPA Construction General Permit for all projects requiring coverage under the CGP.

Pre-Construction

- 1. The contractor shall have a stockpile of materials required to control erosion on-site to be used to supplement or repair erosion control devices. These materials shall include, but are not limited to straw bales, silt fence, wattles and crushed stone.
- 2. The contractor is responsible for erosion control on site and shall utilize erosion control measures where needed, regardless of whether the measures are specified on the plan or in the order of conditions.

Preliminary Site Work

- 1. Excavated materials should be stockpiled, separating the topsoil for future use on the site. Erosion control shall be utilized along the down slope side of the piles and side slopes shall not exceed 2:1.
- 2. If intense rainfall is anticipated, the installation of supplemental straw bale dikes, silt fences, or armored dikes shall be considered.
- 3. Unsuitable excavated material shall be removed from the site.
- 4. Construction entrance shall be installed.
- 5. Existing catch basins shall be protected with silt sacks.

Ongoing Site Work

- 1. Erosion control measures shall be regularly inspected and replaced as needed.
- 2. Dewatering shall be done in a manner so as not to transmit silt, sand or particulate matter to the receiving water or existing drainage system.

Landscaping

- 1. Landscaping shall occur as soon as possible to provide permanent stabilization of disturbed surfaces.
- 2. If the season or adverse weather conditions do not allow the establishment of vegetation, temporary mulching with straw, wood chips weighted with snow fence or branches, or other methods shall be provided.
- 3. A minimum of 4 inches of topsoil shall be placed and its surface smoothed to the specified grades.
- 4. The use of herbicides is strongly discouraged.
- 5. Hydro seeding is encouraged for steep slopes. Application rates on slopes greater than 3:1 shall have a minimum seeding rate of 5-lbs/1000 SF. A latex or fiber tackifier shall be used on these slopes at a minimum rate of 50 lbs. of tackifier per 500 gallons of water used.

Standard 9: Operations and Maintenance Plan

The information provided herein is intended to provide the base information for operation and maintenance of the site in perpetuity subject to updates and revisions as required at a future date. As such all future property owners must be notified in writing of this plan and be provided with a copy of this plan, a complete set of the design drawings and/or a completed as-built plan showing all the drainage features as they were constructed, which are considered part of this document. Please see the attached Operations and Maintenance Log (Appendix VII).

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Stormwater management system owner:

The party responsible for operation and maintenance:

Neck Farm, LLC

Neck Farm, LLC

Preliminary Stormwater Operation and Maintenance Budget

Quarterly Inspection and Maintenance x \$2,500 per visit = \$10,000 annually

Illicit Discharge - Practices to Minimize Storm Water Contamination

- All waste materials will be collected and stored in a securely lidded metal dumpster.
- All trash and debris from the site will be deposited in the dumpster. The dumpster will be emptied on a regular schedule prior to being over full.
- All personnel will be instructed regarding the correct procedure for waste disposal.
- Good housekeeping and spill control practices will be followed to minimize storm water contamination from petroleum products, paints, and cleaning products.
- All site vehicles will be monitored for leaks and receive regular preventive maintenance to reduce the chance of leakage.
- Spill kits will be provided with any activity that could provide contamination.
- All paint containers and curing compounds will be tightly sealed and stored when not required for use. Excess paint will not be discharged to the storm sewers, but will be properly disposed according to the manufacturer's instructions.
- All spills will be cleaned up immediately upon discovery. Spills large enough to reach the storm sewers will be reported to the Massachusetts Department of Environmental Protection Northeast Regional Office at 1-888-304-1133.

Pervious Pavement

In most porous pavement designs, the pavement itself acts as pretreatment to the stone reservoir below. Consequently, frequent cleaning and maintenance of the pavement surface is critical to prevent clogging. To keep the surface clean, frequent vacuum sweeping along with jet washing of asphalt and concrete pavement is required. No winter sanding shall be conducted on the porous surface. Annual inspections shall occur with a representative from the Town Engineer's Office as witness to the inspection.

Deep Sump Hooded Catch Basins

Inspect deep sump catch basins four times per year including the end of the foliage and snow removal seasons. Sediments must also be removed four times per year or when the depth of deposits is greater than or equal to one half the depth of the sump. Vacuum trucks are to be used to remove trapped sediment and supernatant.

Although catch basin debris often contains concentrations of oil and hazardous materials such as petroleum hydrocarbons and metals, MassDEP classifies them as solid waste. Any contaminated materials must be evaluated in accordance with the Hazardous Waste Regulations, 310 CMR 30.00, and handled as hazardous waste. MassDEP regulations prohibit landfills from accepting materials that contain free draining liquids.

Roof Drain Leaders

Routine roof inspections shall be performed two times per year. The roof shall be kept clean and free of debris, and the roof drainage systems shall be kept clear. Gutters and downspouts shall be cleaned at least twice per year, or more frequently as necessary.

Vegetated Areas Maintenance

Although not a structural component of the drainage system, the maintenance of vegetated areas may affect the functioning of stormwater management practices. This includes the health/density of vegetative

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cover and activities such as the application and disposal of lawn and garden care products, disposal of leaves and yard trimmings.

Initial Post-Construction Inspection

During the initial period of vegetation establishment pruning and weeding are required twice in first year by contractor or owner. Any dead vegetation/plantings found after the first year will be replaced. Proper mulching is mandatory and regular watering may be required initially to ensure proper establishment of new vegetation.

Long-Term Maintenance

The planted areas shall be inspected on a semi-annual basis and any litter removed. Weeds and invasive plant species shall be removed by hand. Maintain planted areas adjacent to pavement to prevent soil washout. Immediately clean any soil deposits on pavement. Leaf litter and other detritus shall be removed twice per year. If needed to maintain aesthetic appearance, perennial plantings may be trimmed at the end of the growing season.

Trees and shrubs shall be inspected twice per year to evaluate health and attended to as necessary. Seeded ground cover or grass areas shall not receive mulching. Re-seed bare areas; install appropriate erosion control measures when native soil is exposed or erosion channels are forming. Plant alternative mixtures of grass species in the event of unsuccessful establishment. The grass vegetation should not be cut to a height less than four inches.

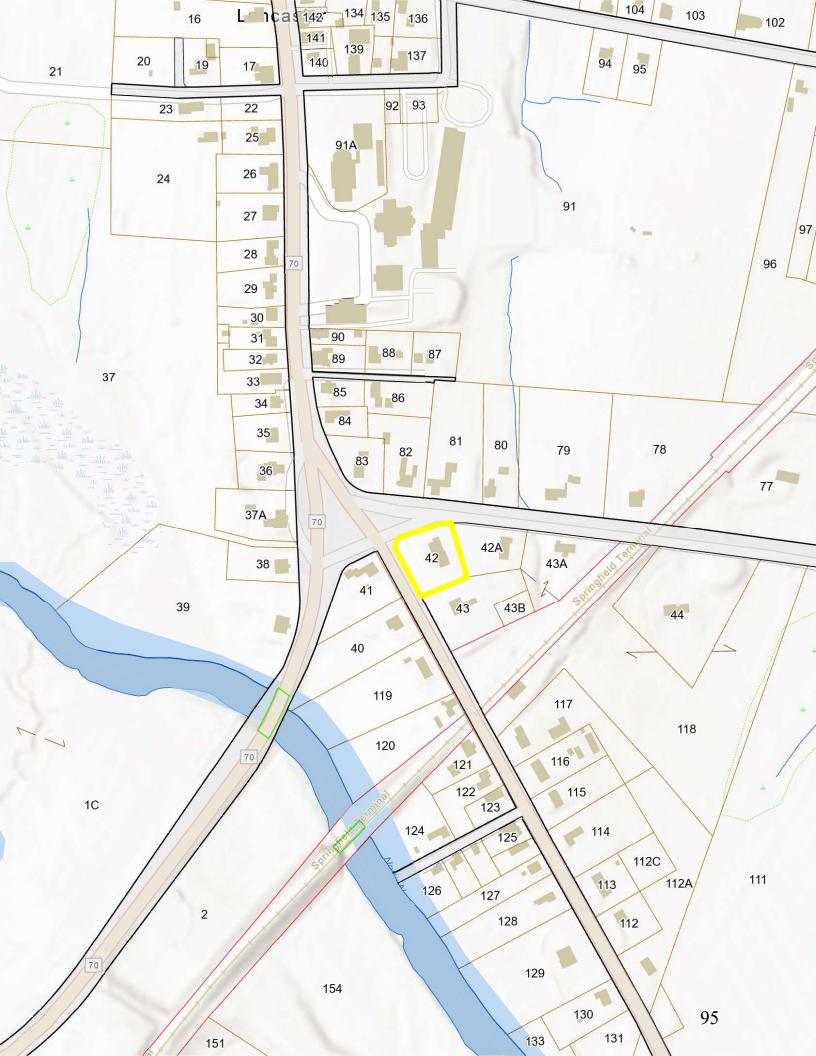
Pesticide/Herbicide Usage

No pesticides are to be used unless a single spot treatment is required for a specific control application.

Standard 10: Prohibition of Illicit Discharges

No illicit discharges currently exist and no future illicit discharges will be allowed including wastewater discharges and discharges of stormwater contaminated by contact with process wastes, raw materials, toxic pollutants, hazardous substances, soil, or grease.

Appendix I Locus Map



Appendix II Stormwater Checklist



Massachusetts De artment of nvironmental rotection Bureau of Resource Protection - Wetlands Program

Chec list for Stormwater e ort

Introduction

Im ortant: When filling out forms on the computer, use only the tab key to move your cursor - do not use the return key.





A Stormwater Report must be submitted with the Notice of Intent permit application to document compliance with the Stormwater Management Standards. The following checklist is NOT a substitute for the Stormwater Report (which should provide more substantive and detailed information) but is offered here as a tool to help the applicant organi e their Stormwater Management documentation for their Report and for the reviewer to assess this information in a consistent format. As noted in the Checklist, the Stormwater Report must contain the engineering computations and supporting information set forth in Volume 3 of the Massachusetts Stormwater Handbook. The Stormwater Report must be prepared and certified by a Registered Professional Engineer (RPE) licensed in the Commonwealth.

The Stormwater Report must include:

- The Stormwater Checklist completed and stamped by a Registered Professional Engineer (see page 2) that certifies that the Stormwater Report contains all re uired submittals. This Checklist is to be used as the cover for the completed Stormwater Report.
- Applicant/Project Name
- Project Address
- Name of Firm and Registered Professional Engineer that prepared the Report
- Long-Term Pollution Prevention Plan re uired by Standards 4-
- Construction Period Pollution Prevention and Erosion and Sedimentation Control Plan re uired by Standard
- Operation and Maintenance Plan re uired by Standard 9

In addition to all plans and supporting information, the Stormwater Report must include a brief narrative describing stormwater management practices, including environmentally sensitive site design and LID techni ues, along with a diagram depicting runoff through the proposed BMP treatment train. Plans are re uired to show e isting and proposed conditions, identify all wetland resource areas, NRCS soil types, critical areas, Land Uses with Higher Potential Pollutant Loads (LUHPPL), and any areas on the site where infiltration rate is greater than 2.4 inches per hour. The Plans shall identify the drainage areas for both e isting and proposed conditions at a scale that enables verification of supporting calculations.

As noted in the Checklist, the Stormwater Management Report shall document compliance with each of the Stormwater Management Standards as provided in the Massachusetts Stormwater Handbook. The soils evaluation and calculations shall be done using the methodologies set forth in Volume 3 of the Massachusetts Stormwater Handbook.

To ensure that the Stormwater Report is complete, applicants are re uired to fill in the Stormwater Report Checklist by checking the bo to indicate that the specified information has been included in the Stormwater Report. If any of the information specified in the checklist has not been submitted, the applicant must provide an e planation. The completed Stormwater Report Checklist and Certification must be submitted with the Stormwater Report.

swcheck.doc 04/01/0

¹ The Stormwater Report may also include the Illicit Discharge Compliance Statement re uired by Standard 10. If not included in the Stormwater Report, the Illicit Discharge Compliance Statement must be submitted prior to the discharge of stormwater runoff to the post-construction best management practices.

² For some comple projects, it may not be possible to include the Construction Period Erosion and Sedimentation Control Plan in the Stormwater Report. In that event, the issuing authority has the discretion to issue an Order of Conditions that approves the project and includes a condition re uiring the proponent to submit the Construction Period Erosion and Sedimentation Control Plan before commencing any land disturbance activity on the site.



Massachusetts De artment of nvironmental rotection

Bureau of Resource Protection - Wetlands Program

Chec list for Stormwater e ort

B Stormwater Chec list and Certification

The following checklist is intended to serve as a guide for applicants as to the elements that ordinarily need to be addressed in a complete Stormwater Report. The checklist is also intended to provide conservation commissions and other reviewing authorities with a summary of the components necessary for a comprehensive Stormwater Report that addresses the ten Stormwater Standards.

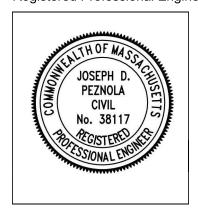
Note: Because stormwater re uirements vary from project to project, it is possible that a complete Stormwater Report may not include information on some of the subjects specified in the Checklist. If it is determined that a specific item does not apply to the project under review, please note that the item is not applicable (N.A.) and provide the reasons for that determination.

A complete checklist must include the Certification set forth below signed by the Registered Professional Engineer who prepared the Stormwater Report.

egistered rofessional ngineer's Certification

I have reviewed the Stormwater Report, including the soil evaluation, computations, Long-term Pollution Prevention Plan, the Construction Period Erosion and Sedimentation Control Plan (if included), the Long-term Post-Construction Operation and Maintenance Plan, the Illicit Discharge Compliance Statement (if included) and the plans showing the stormwater management system, and have determined that they have been prepared in accordance with the re-uirements of the Stormwater Management Standards as further elaborated by the Massachusetts Stormwater Handbook. I have also determined that the information presented in the Stormwater Checklist is accurate and that the information presented in the Stormwater Report accurately reflects conditions at the site as of the date of this permit application.

Registered Professional Engineer Block and Signature



losed Danola	10/9/23
Signature and Date	

Chec list

ro ect Ty e: Is the application for new developmen redevelopment	t, redevelopment, or a mi	of new and
X New development		
Redevelopment		
☐ Mi of New Development and Redevelopment		



Massachusetts De artment of nvironmental rotection Bureau of Resource Protection - Wetlands Program

Chec list for Stormwater e ort

Chec list (continued)

env	Measures: Stormwater Standards re uire LID measures to be considered. Document what vironmentally sensitive design and LID Techni ues were considered during the planning and design of project:
	No disturbance to any Wetland Resource Areas
	Site Design Practices (e.g. clustered development, reduced frontage setbacks)
	Reduced Impervious Area (Redevelopment Only)
	Minimi ing disturbance to e isting trees and shrubs
	LID Site Design Credit Re uested:
	☐ Credit 1
	☐ Credit 2
	☐ Credit 3
	Use of country drainage versus curb and gutter conveyance and pipe
	Bioretention Cells (includes Rain Gardens)
	Constructed Stormwater Wetlands (includes Gravel Wetlands designs)
	Treebo Filter
	Water Quality Swale
	Grass Channel
	Green Roof
	Other (describe):
Sta	ndard : No New Untreated Discharges
	No new untreated discharges
	Outlets have been designed so there is no erosion or scour to wetlands and waters of the Commonwealth
	Supporting calculations specified in Volume 3 of the Massachusetts Stormwater Handbook included.



Massachusetts De artment of nvironmental rotection

Bureau of Resource Protection - Wetlands Program

Chec list for Stormwater e ort

Cł	Chec list (continued)			
Sta	ndard : ea ate ttenuation			
X	Standard 2 waiver re uested because the project is located in land subject to coastal storm flowage and stormwater discharge is to a wetland subject to coastal flooding. Evaluation provided to determine whether off-site flooding increases during the 100-year 24-hour storm.			
X	Calculations provided to show that post-development peak discharge rates do not e ceed pre-development rates for the 2-year and 10-year 24-hour storms. If evaluation shows that off-site flooding increases during the 100-year 24-hour storm, calculations are also provided to show that post-development peak discharge rates do not e ceed pre-development rates for the 100-year 24-hour storm.			
Sta	ndard : echarge			
X	Soil Analysis provided.			
X	Re uired Recharge Volume calculation provided.			
	Re uired Recharge volume reduced through use of the LID site Design Credits.			
X	Si ing the infiltration, BMPs is based on the following method: Check the method used.			
	☒ Static ☐ Simple Dynamic ☐ Dynamic Field¹			
	Runoff from all impervious areas at the site discharging to the infiltration BMP.			
X	Runoff from all impervious areas at the site is <i>not</i> discharging to the infiltration BMP and calculations are provided showing that the drainage area contributing runoff to the infiltration BMPs is sufficient to generate the re-uired recharge volume.			
X	Recharge BMPs have been si ed to infiltrate the Re uired Recharge Volume.			
	Recharge BMPs have been si ed to infiltrate the Re uired Recharge Volume <i>only</i> to the ma imum e tent practicable for the following reason:			
	☐ Site is comprised solely of C and D soils and/or bedrock at the land surface			
	M.G.L. c. 21E sites pursuant to 310 CMR 40.0000			
	☐ Solid Waste Landfill pursuant to 310 CMR 19.000			
	Project is otherwise subject to Stormwater Management Standards only to the ma imum e tent practicable.			
X	Calculations showing that the infiltration BMPs will drain in 72 hours are provided.			
	Property includes a M.G.L. c. 21E site or a solid waste landfill and a mounding analysis is included.			

 $^{1}\,\,$ 0 $\,\,$ TSS removal is re uired prior to discharge to infiltration BMP if Dynamic Field method is used.



Massachusetts De artment of nvironmental rotection Bureau of Resource Protection - Wetlands Program

Chec list for Stormwater e ort

Ch	ec list (continued)
Star	ndard : echarge (continued)
	The infiltration BMP is used to attenuate peak flows during storms greater than or e ual to the 10-year 24-hour storm and separation to seasonal high groundwater is less than 4 feet and a mounding analysis is provided.
	Documentation is provided showing that infiltration BMPs do not adversely impact nearby wetland resource areas.
Staı	ndard : ater uality
•	Long-Term Pollution Prevention Plan typically includes the following: Good housekeeping practices; Provisions for storing materials and waste products inside or under cover; Vehicle washing controls; Re uirements for routine inspections and maintenance of stormwater BMPs; Spill prevention and response plans; Provisions for maintenance of lawns, gardens, and other landscaped areas; Re uirements for storage and use of fertili ers, herbicides, and pesticides; Pet waste management provisions; Provisions for operation and management of septic systems; Provisions for solid waste management; Snow disposal and plowing plans relative to Wetland Resource Areas; Winter Road Salt and/or Sand Use and Storage restrictions; Street sweeping schedules; Provisions for prevention of illicit discharges to the stormwater management system; Documentation that Stormwater BMPs are designed to provide for shutdown and containment in the event of a spill or discharges to or near critical areas or from LUHPPL; Training for staff or personnel involved with implementing Long-Term Pollution Prevention Plan; List of Emergency contacts for implementing Long-Term Pollution Prevention Plan.
	A Long-Term Pollution Prevention Plan is attached to Stormwater Report and is included as an attachment to the Wetlands Notice of Intent. Treatment BMPs subject to the 44 TSS removal pretreatment re uirement and the one inch rule for calculating the water uality volume are included, and discharge: is within the one II or Interim Wellhead Protection Area
	□ Is near or to other critical areas
	 ☐ is within soils with a rapid infiltration rate (greater than 2.4 inches per hour)
	involves runoff from land uses with higher potential pollutant loads.
	The Re uired Water Quality Volume is reduced through use of the LID site Design Credits.
	Calculations documenting that the treatment train meets the 0 TSS removal re uirement and, if applicable, the 44 TSS removal pretreatment re uirement, are provided.



Massachusetts De artment of nvironmental rotection Bureau of Resource Protection - Wetlands Program

Chec list for Stormwater e ort

Cł	nec list (continued)
Sta	ndard : ater uality (continued)
X	The BMP is si ed (and calculations provided) based on:
	☑ The or 1 Water Quality Volume or
	☐ The e uivalent flow rate associated with the Water Quality Volume and documentation is provided showing that the BMP treats the re_uired water_uality volume.
	The applicant proposes to use proprietary BMPs, and documentation supporting use of proprietary BMP and proposed TSS removal rate is provided. This documentation may be in the form of the propriety BMP checklist found in Volume 2, Chapter 4 of the Massachusetts Stormwater Handbook and submitting copies of the TARP Report, STEP Report, and/or other third party studies verifying performance of the proprietary BMPs.
	A TMDL e ists that indicates a need to reduce pollutants other than TSS and documentation showing that the BMPs selected are consistent with the TMDL is provided.
Sta	ndard : Land Uses ith Higher otential ollutant Loads (LUH Ls)
X	The NPDES Multi-Sector General Permit covers the land use and the Stormwater Pollution Prevention Plan (SWPPP) has been included with the Stormwater Report. The NPDES Multi-Sector General Permit covers the land use and the SWPPP will be submitted <i>prior to</i> the discharge of stormwater to the post-construction stormwater BMPs.
	The NPDES Multi-Sector General Permit does <i>not</i> cover the land use.
	LUHPPLs are located at the site and industry specific source control and pollution prevention measures have been proposed to reduce or eliminate the e posure of LUHPPLs to rain, snow, snow melt and runoff, and been included in the long term Pollution Prevention Plan.
	All e posure has been eliminated.
	All e posure has <i>not</i> been eliminated and all BMPs selected are on MassDEP LUHPPL list.
	The LUHPPL has the potential to generate runoff with moderate to higher concentrations of oil and grease (e.g. all parking lots with 1000 vehicle trips per day) and the treatment train includes an oil grit separator, a filtering bioretention area, a sand filter or e uivalent.
Sta	ndard : Critical reas
X	The discharge is near or to a critical area and the treatment train includes only BMPs that MassDEP has approved for stormwater discharges to or near that particular class of critical area.
X	Critical areas and BMPs are identified in the Stormwater Report.



Massachusetts De artment of nvironmental rotection

Bureau of Resource Protection - Wetlands Program

Chec list for Stormwater e ort

Cł	nec list (continued)
	Indard: edevelo ments and ther ro ects Sub ect to the Standards only to the maimum tent racticable The project is subject to the Stormwater Management Standards only to the maimum E tent Practicable as a:
	☐ Limited Project
	 Small Residential Projects: 5-9 single family houses or 5-9 units in a multi-family development provided there is no discharge that may potentially affect a critical area. Small Residential Projects: 2-4 single family houses or 2-4 units in a multi-family development with a discharge to a critical area Marina and/or boatyard provided the hull painting, service and maintenance areas are protected from e posure to rain, snow, snow melt and runoff Bike Path and/or Foot Path
	Redevelopment Project
	Redevelopment portion of mi of new and redevelopment.
	Certain standards are not fully met (Standard No. 1, , 9, and 10 must always be fully met) and an e planation of why these standards are not met is contained in the Stormwater Report. The project involves redevelopment and a description of all measures that have been taken to improve e isting conditions is provided in the Stormwater Report. The redevelopment checklist found in Volume 2 Chapter 3 of the Massachusetts Stormwater Handbook may be used to document that the proposed stormwater management system (a) complies with Standards 2, 3 and the pretreatment and structural BMP re uirements of Standards 4- to the ma imum e tent practicable and (b) improves e isting conditions.

Standard: Construction eriod ollution revention and rosion and Sedimentation Control

A Construction Period Pollution Prevention and Erosion and Sedimentation Control Plan must include the following information:

- Narrative:
- Construction Period Operation and Maintenance Plan;
- Names of Persons or Entity Responsible for Plan Compliance;
- Construction Period Pollution Prevention Measures:
- Erosion and Sedimentation Control Plan Drawings;
- Detail drawings and specifications for erosion control BMPs, including si ing calculations;
- Vegetation Planning;
- Site Development Plan;
- Construction Se uencing Plan;
- Se uencing of Erosion and Sedimentation Controls;
- Operation and Maintenance of Erosion and Sedimentation Controls;
- Inspection Schedule;
- Maintenance Schedule;
- Inspection and Maintenance Log Form.
- A Construction Period Pollution Prevention and Erosion and Sedimentation Control Plan containing the information set forth above has been included in the Stormwater Report.



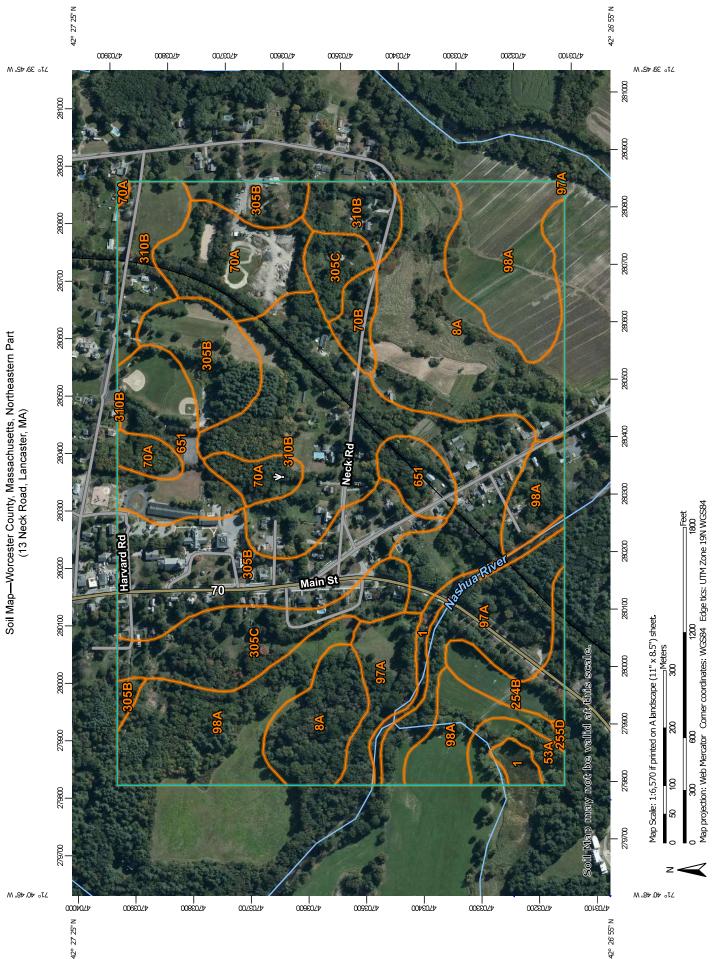
Massachusetts De artment of nvironmental rotection

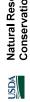
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Chec list for Stormwater e ort

Cł	nec list (continued)
	andard : Construction eriod ollution revention and rosion and Sedimentation Control ontinued)
	The project is highly comple and information is included in the Stormwater Report that e plains whit is not possible to submit the Construction Period Pollution Prevention and Erosion and Sedimentation Control Plan with the application. A Construction Period Pollution Prevention and Erosion and Sedimentation Control has <i>not</i> been included in the Stormwater Report but will be submitted <i>before</i> land disturbance begins.
	The project is <i>not</i> covered by a NPDES Construction General Permit.
	The project is covered by a NPDES Construction General Permit and a copy of the SWPPP is in the
X	Stormwater Report. The project is covered by a NPDES Construction General Permit but no SWPPP been submitted. The SWPPP will be submitted BEFORE land disturbance begins.
Sta	andard : eration and Maintenance lan
X	The Post Construction Operation and Maintenance Plan is included in the Stormwater Report and includes the following information:
	X Name of the stormwater management system owners;
	x Party responsible for operation and maintenance;
	X Schedule for implementation of routine and non-routine maintenance tasks;
	Plan showing the location of all stormwater BMPs maintenance access areas;
	Description and delineation of public safety features;
	x Estimated operation and maintenance budget; and
	Operation and Maintenance Log Form.
	The responsible party is not the owner of the parcel where the BMP is located and the Stormwater Report includes the following submissions:
	A copy of the legal instrument (deed, homeowner's association, utility trust or other legal entity) that establishes the terms of and legal responsibility for the operation and maintenance of the project site stormwater BMPs;
	A plan and easement deed that allows site access for the legal entity to operate and maintain BMP functions.
Sta	andard : rohibition of Illicit Discharges
X	The Long-Term Pollution Prevention Plan includes measures to prevent illicit discharges;
	An Illicit Discharge Compliance Statement is attached;
X	NO Illicit Discharge Compliance Statement is attached but will be submitted <i>prior to</i> the discharge of any stormwater to post-construction BMPs.

Appendix III NRCS Soils Map





MAP LEGEND

Special Line Features Streams and Canals Interstate Highways Aerial Photography Very Stony Spot Major Roads Local Roads Stony Spot **US Routes** Spoil Area Wet Spot Other Rails **Nater Features Fransportation** Background W 8 Ŧ Soil Map Unit Polygons Area of Interest (AOI) Miscellaneous Water Soil Map Unit Points Soil Map Unit Lines Closed Depression Marsh or swamp Perennial Water Mine or Quarry Special Point Features Rock Outcrop **Gravelly Spot** Saline Spot Borrow Pit Lava Flow Clay Spot **Gravel Pit** Area of Interest (AOI) Blowout Landfill Soils

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

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

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

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service Web Soil Survey URL:

Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Worcester County, Massachusetts, Northeastern Part

Survey Area Data: Version 15, Jun 10, 2020

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

Date(s) aerial images were photographed: Aug 12, 2019—Sep 29, 2019

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Severely Eroded Spot

Slide or Slip

Sinkhole

Sodic Spot

Sandy Spot

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
1	Water	3.8	1.9%
8A	Limerick silt loam, 0 to 3 percent slopes	27.7	13.7%
53A	Freetown muck, ponded, 0 to 1 percent slopes	2.9	1.4%
70A	Ridgebury fine sandy loam, 0 to 3 percent slopes	13.6	6.7%
70B	Ridgebury fine sandy loam, 3 to 8 percent slopes	2.3	1.1%
97A	Suncook loamy fine sand, 0 to 3 percent slopes	16.1	7.9%
98A	Winooski very fine sandy loam, 0 to 3 percent slopes	34.0	16.8%
254B	Merrimac fine sandy loam, 3 to 8 percent slopes	4.3	2.1%
255D	Windsor loamy sand, 15 to 25 percent slopes	0.2	0.1%
305B	Paxton fine sandy loam, 3 to 8 percent slopes	29.2	14.4%
305C	Paxton fine sandy loam, 8 to 15 percent slopes	14.0	6.9%
310B	Woodbridge fine sandy loam, 3 to 8 percent slopes	41.5	20.5%
651	Udorthents, smoothed	12.5	6.2%
Totals for Area of Interest		202.2	100.0%

Worcester County, Massachusetts, Northeastern Part

305B—Paxton fine sandy loam, 3 to 8 percent slopes

Map Unit Setting

National map unit symbol: 2t2qp Elevation: 0 to 1,570 feet

Mean annual precipitation: 36 to 71 inches Mean annual air temperature: 39 to 55 degrees F

Frost-free period: 140 to 240 days

Farmland classification: All areas are prime farmland

Map Unit Composition

Paxton and similar soils: 80 percent Minor components: 20 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Paxton

Setting

Landform: Ground moraines, drumlins, hills

Landform position (two-dimensional): Summit, shoulder, backslope Landform position (three-dimensional): Nose slope, side slope, crest

Down-slope shape: Convex, linear Across-slope shape: Convex

Parent material: Coarse-loamy lodgment till derived from gneiss, granite, and/or schist

Typical profile

Ap - 0 to 8 inches: fine sandy loam
Bw1 - 8 to 15 inches: fine sandy loam
Bw2 - 15 to 26 inches: fine sandy loam
Cd - 26 to 65 inches: gravelly fine sandy loam

Properties and qualities

Slope: 3 to 8 percent

Depth to restrictive feature: 18 to 39 inches to densic material

Drainage class: Well drained Runoff class: Medium

Capacity of the most limiting layer to transmit water (Ksat): Very low

to moderately low (0.00 to 0.14 in/hr)

Depth to water table: About 18 to 37 inches

Frequency of flooding: None Frequency of ponding: None

Maximum salinity: Nonsaline (0.0 to 1.9 mmhos/cm)

Available water supply, 0 to 60 inches: Low (about 3.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 2s

Hydrologic Soil Group: C

Ecological site: F144AY007CT - Well Drained Dense Till Uplands

Hydric soil rating: No

Minor Components

Woodbridge

Percent of map unit: 9 percent

Landform: Ground moraines, drumlins, hills

Landform position (two-dimensional): Summit, backslope, footslope

Landform position (three-dimensional): Side slope

Down-slope shape: Concave Across-slope shape: Linear Hydric soil rating: No

Ridgebury

Percent of map unit: 6 percent

Landform: Depressions, ground moraines, hills, drainageways Landform position (two-dimensional): Toeslope, backslope,

footslope

Landform position (three-dimensional): Base slope, head slope, dip

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

Charlton

Percent of map unit: 5 percent

Landform: Hills

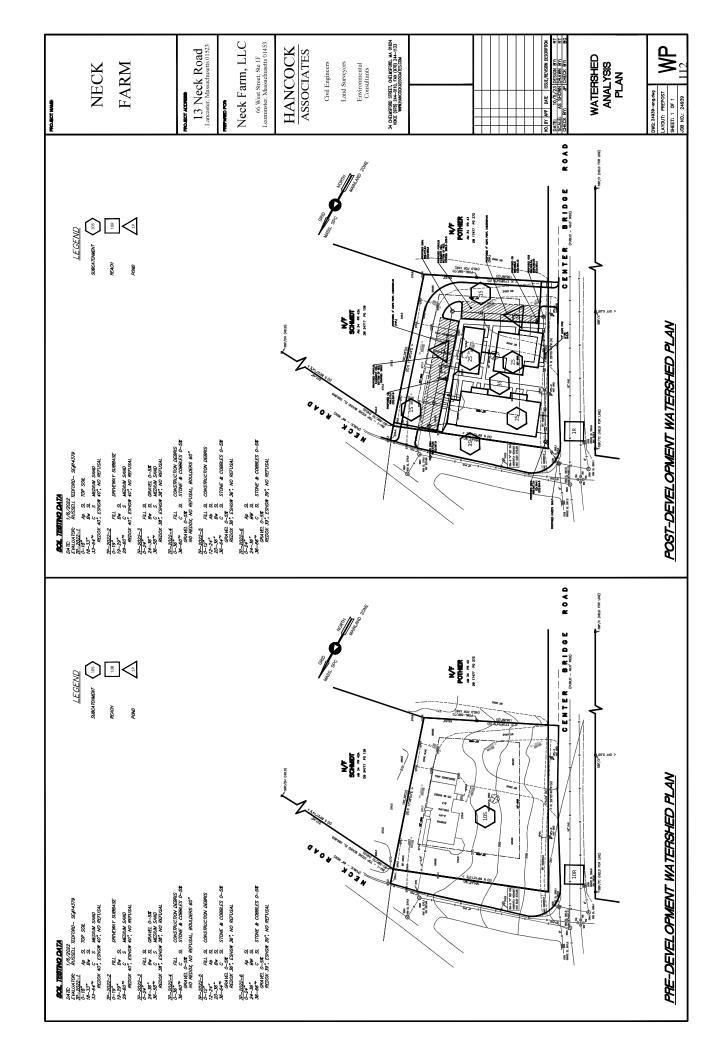
Down-slope shape: Linear Across-slope shape: Linear Hydric soil rating: No

Data Source Information

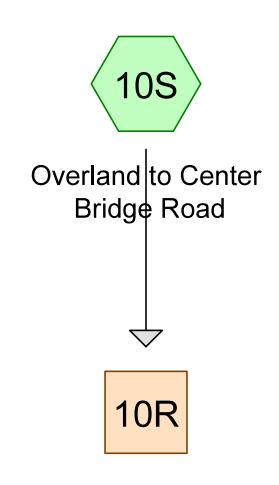
Soil Survey Area: Worcester County, Massachusetts, Northeastern Part

Survey Area Data: Version 18, Sep 10, 2023

Appendix IIII Existing and Proposed Drainage Figures



Appendix V Hydrocad Output



Center Bridge Road

PRE DEVELOPMENT









Routing Diagram for 24939-hcad

Prepared by Hancock Associates, Printed 10/6/2023 HydroCAD® 10.00-24 s/n 00821 © 2018 HydroCAD Software Solutions LLC

Printed 10/6/2023

Page 2

Area Listing (selected nodes)

Area	CN	Description
(sq-ft)		(subcatchment-numbers)
21,680	74	>75% Grass cover, Good, HSG C (10S)
6,340	98	Paved parking, HSG C (10S)
2,620	98	Roofs, HSG C (10S)
30,640	81	TOTAL AREA

Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment 10S: Overland to Center Bridge Road

Runoff Area=30,640 sf 29.24% Impervious Runoff Depth>1.37" Flow Length=165' Tc=10.9 min CN=81 Runoff=1.02 cfs 3,503 cf

Reach 10R: Center Bridge Road

Inflow=1.02 cfs 3,503 cf Outflow=1.02 cfs 3,503 cf

Total Runoff Area = 30,640 sf Runoff Volume = 3,503 cf Average Runoff Depth = 1.37" 70.76% Pervious = 21,680 sf 29.24% Impervious = 8,960 sf

Summary for Subcatchment 10S: Overland to Center Bridge Road

Runoff = 1.02 cfs @ 12.16 hrs, Volume= 3,503 cf, Depth> 1.37"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs Type III 24-hr 2-Year Rainfall=3.22"

Δ	rea (sf)	CN	Description	escription							
	2,620		Roofs, HSG	-							
	6,340		Paved parki								
	21,680		>75% Grass	O,	d, HSG C						
	30,640	81	Weighted A	verage	·						
	21,680		70.76% Perv	J							
	8,960		29.24% lmp	ervious Are	a						
Tc	Length	Slop	e Velocity	Capacity	Description						
(min)	(feet)	(ft/f	(ft/sec)	(cfs)							
9.2	50	0.006	0.09		Sheet Flow, Sheet Flow						
					Grass: Short n= 0.150 P2= 3.13"						
1.7	115	0.027	0 1.15		Shallow Concentrated Flow, Shallow Flow						
					Short Grass Pasture Kv= 7.0 fps						
10.9	165	Total									

Summary for Reach 10R: Center Bridge Road

Inflow Area = 30,640 sf, 29.24% Impervious, Inflow Depth > 1.37" for 2-Year event

Inflow = 1.02 cfs @ 12.16 hrs, Volume= 3,503 cf

Outflow = 1.02 cfs @ 12.16 hrs, Volume= 3,503 cf, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment 10S: Overland to Center Bridge Road

Runoff Area=30,640 sf 29.24% Impervious Runoff Depth>2.65" Flow Length=165' Tc=10.9 min CN=81 Runoff=1.97 cfs 6,757 cf

Reach 10R: Center Bridge Road

Inflow=1.97 cfs 6,757 cf Outflow=1.97 cfs 6,757 cf

Total Runoff Area = 30,640 sf Runoff Volume = 6,757 cf Average Runoff Depth = 2.65" 70.76% Pervious = 21,680 sf 29.24% Impervious = 8,960 sf

Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment 10S: Overland to Center Bridge Road

Runoff Area=30,640 sf 29.24% Impervious Runoff Depth>5.98" Flow Length=165' Tc=10.9 min CN=81 Runoff=4.32 cfs 15,270 cf

Reach 10R: Center Bridge Road

Inflow=4.32 cfs 15,270 cf Outflow=4.32 cfs 15,270 cf

Total Runoff Area = 30,640 sf Runoff Volume = 15,270 cf Average Runoff Depth = 5.98" 70.76% Pervious = 21,680 sf 29.24% Impervious = 8,960 sf

Summary for Subcatchment 10S: Overland to Center Bridge Road

Runoff = 4.32 cfs @ 12.15 hrs, Volume= 15,270 cf, Depth> 5.98"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs Type III 24-hr 100-Year Rainfall=8.64"

A	rea (sf)	CN	Description	escription						
	2,620	98	Roofs, HSG	С						
	6,340	98	Paved parki	ng, HSG C						
	21,680	74	>75% Grass	cover, Goo	d, HSG C					
	30,640	81	Weighted A	verage						
	21,680		70.76% Perv	ious Area						
	8,960		29.24% lmp	ervi <mark>o</mark> us Are	a					
Tc	Length	Slop	e Velocity	Capacity	Description					
(min)	(feet)	(ft/f	(ft/sec)	(cfs)						
9.2	50	0.006	0.09		Sheet Flow, Sheet Flow					
					Grass: Short n= 0.150 P2= 3.13"					
1.7	115	0.027	0 1.15		Shallow Concentrated Flow, Shallow Flow					
					Short Grass Pasture Kv= 7.0 fps					
10.9	165	Total								

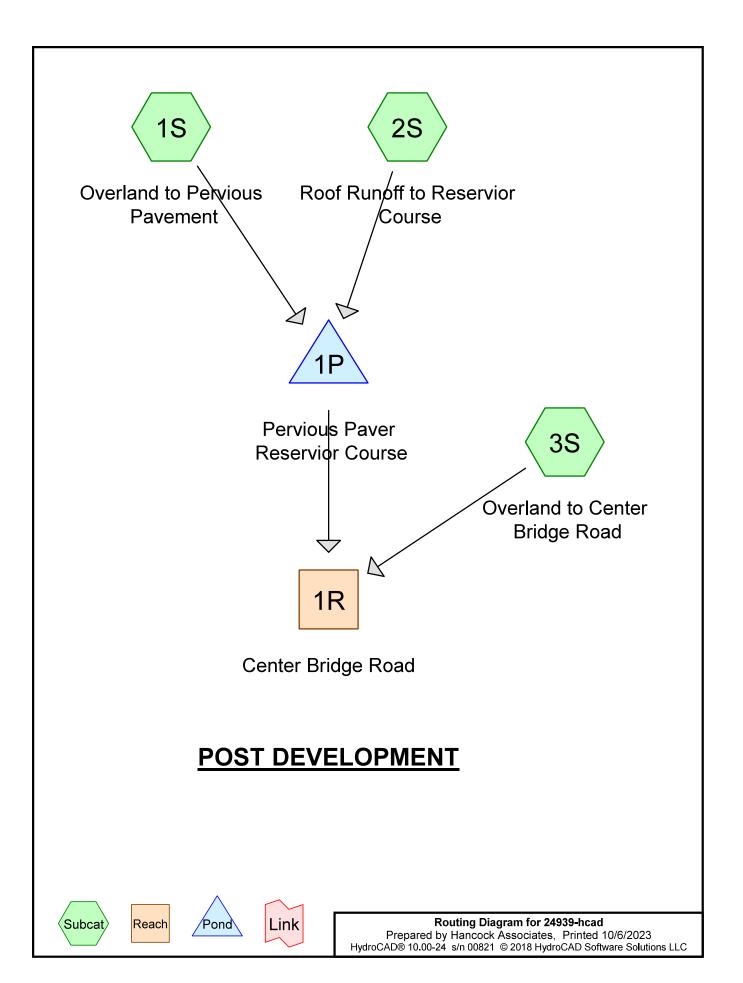
Summary for Reach 10R: Center Bridge Road

Inflow Area = 30,640 sf, 29.24% Impervious, Inflow Depth > 5.98" for 100-Year event

Inflow = 4.32 cfs @ 12.15 hrs, Volume= 15,270 cf

Outflow = 4.32 cfs @ 12.15 hrs, Volume= 15,270 cf, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs



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Page 2

Area Listing (selected nodes)

Area	CN	Description
(sq-ft)		(subcatchment-numbers)
12,645	74	>75% Grass cover, Good, HSG C (1S, 3S)
8,715	98	Paved parking, HSG C (1S)
6,445	98	Roofs, HSG C (2S)
1,175	98	Sidewalk, HSG C (1S)
1,660	98	Sidewalks, HSG C (3S)
30,640	88	TOTAL AREA

Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points Runoff by SCS TR-20 method, UH=SCS, Weighted-CN Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Runoff Area=13,020 sf 75.96% Impervious Runoff Depth>0.51" **Subcatchment 1S: Overland to Pervious Pavement**

Tc=790.0 min CN=92 Runoff=0.05 cfs 551 cf

Runoff Area=6,445 sf 100.00% Impervious Runoff Depth>2.79" **Subcatchment 2S: Roof Runoff to Reservior Course**

Tc=6.0 min CN=98 Runoff=0.45 cfs 1,500 cf

Runoff Area=11,175 sf 14.85% Impervious Runoff Depth>1.19" **Subcatchment 3S: Overland to Center Bridge Road**

Tc=6.0 min CN=78 Runoff=0.37 cfs 1,104 cf

Inflow=0.37 cfs 1,104 cf Reach 1R: Center Bridge Road Outflow=0.37 cfs 1,104 cf

Peak Elev=266.25' Storage=388 cf Inflow=0.45 cfs 2,051 cf

Pond 1P: Pervious Paver Reservior Course Discarded=0.09 cfs 2,042 cf Primary=0.00 cfs 0 cf Outflow=0.09 cfs 2,042 cf

> Total Runoff Area = 30,640 sf Runoff Volume = 3,155 cf Average Runoff Depth = 1.24" 41.27% Pervious = 12,645 sf 58.73% Impervious = 17,995 sf

Summary for Subcatchment 1S: Overland to Pervious Pavement

Runoff = 0.05 cfs @ 20.00 hrs, Volume= 551 cf, Depth> 0.51"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs Type III 24-hr 2-Year Rainfall=3.22"

	Ar	ea (sf)	CN	Des	escription							
		8,715	98	Paved parking, HSG C								
*	* 1,175 98 Sidewalk, HSG C											
		3,130	74	>75	% Grass	cover, Goo	d, HSG C					
	1	13,020	92	Wei	Neighted Average							
		3,130		24.0	04% Perv	rious Area						
		9,890		75.9	75.96% Impervious Area							
(Tc min)	Length (feet)	Slo _l (ft/		/elocity (ft/sec)	Capacity (cfs)	Description					
7	790.0			Direct Entry, Porous Pavement								

Summary for Subcatchment 2S: Roof Runoff to Reservior Course

Runoff = 0.45 cfs @ 12.09 hrs, Volume= 1,500 cf, Depth> 2.79"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs Type III 24-hr 2-Year Rainfall=3.22"

A	rea (sf)	CN	Description	scription							
	6,445	98	Roofs, HSG	ofs, HSG C							
	6,445		100.00% lm	0.00% Impervious Area							
Tc	Length	Slop	e Velocity	Capacity	Description						
(min)	(feet)	(ft/ft) (ft/sec)	(cfs)							
6.0					Direct Entry, Direct						

Summary for Subcatchment 3S: Overland to Center Bridge Road

Runoff = 0.37 cfs @ 12.10 hrs, Volume= 1,104 cf, Depth> 1.19"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs Type III 24-hr 2-Year Rainfall=3.22"

_	Α	rea (sf)	CN	Description	scription									
k	•	1,660	98	Sidewalks, I	lewalks, HSG C									
		9,515	74	>75% Grass	cover, Goo	d, HSG C								
		11,175	78	Weighted A	verage									
		9,515		85.15% Per	vious Area									
		1,660		14.85% Imp										
	Tc	Length	Slo	e Velocity	Capacity	Description								
	(min)	(feet)	(ft/											
	6.0					Direct Entry,								

Summary for Reach 1R: Center Bridge Road

Inflow Area = 30,640 sf, 58.73% Impervious, Inflow Depth > 0.43" for 2-Year event

Inflow = 0.37 cfs @ 12.10 hrs, Volume= 1,104 cf

Outflow = 0.37 cfs @ 12.10 hrs, Volume= 1,104 cf, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Summary for Pond 1P: Pervious Paver Reservior Course

Inflow Area = 19,465 sf, 83.92% Impervious, Inflow Depth > 1.26" for 2-Year event

Inflow = 0.45 cfs @ 12.09 hrs, Volume= 2,051 cf

Outflow = 0.09 cfs @ 11.75 hrs, Volume= 2,042 cf, Atten= 80%, Lag= 0.0 min

Discarded = 0.09 cfs @ 11.75 hrs, Volume= 2,042 cf

Primary = 0.00 cfs @ 5.00 hrs, Volume= 0 cf

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs Peak Elev= 266.25' @ 12.52 hrs Surf.Area= 3,795 sf Storage= 388 cf

Plug-Flow detention time= 19.6 min calculated for 2,042 cf (100% of inflow) Center-of-Mass det. time= 17.9 min (843.9 - 826.0)

Volume	Invert	Avail.Storage	Storage Description
#1	266.00'	752 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
			1,898 cf Overall - 18 cf Embedded = 1,879 cf x 40.0% Voids
#2	266.00'	18 cf	4.0" Round Pipe Storage Inside #1
			L= 210.0'

770 cf Total Available Storage

Elevation	Surf.Area	Inc.Store	Cum.Store
(feet)	(sq-ft)	(cubic-feet)	(cubic-feet)
266.00	3,795	0	0
266.50	3,795	1,898	1,898

Device	Routing	Invert	Outlet Devices
#1	Discarded	266.00'	1.020 in/hr Exfiltration over Surface area Phase-In= 0.01'
#2	Primary	265.40'	12.0" Round Culvert L= 128.0' CPP, projecting, no headwall, Ke= 0.900
			Inlet / Outlet Invert= 265.40' / 264.10' S= 0.0102 '/' Cc= 0.900
			n= 0.012 Corrugated PP, smooth interior, Flow Area= 0.79 sf
#3	Device 2	266.50'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)

Discarded OutFlow Max=0.09 cfs @ 11.75 hrs HW=266.01' (Free Discharge)

Primary OutFlow Max=0.00 cfs @ 5.00 hrs HW=266.00' TW=0.00' (Dynamic Tailwater)

2=Culvert (Passes 0.00 cfs of 1.02 cfs potential flow)
3=Sharp-Crested Rectangular Weir (Controls 0.00 cfs)

¹⁼Exfiltration (Exfiltration Controls 0.09 cfs)

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Page 1

Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment 1S: Overland to Pervious Pavement Runoff Area=13,020 sf 75.96% Impervious Runoff Depth>0.90"

Tc=790.0 min CN=92 Runoff=0.08 cfs 972 cf

Subcatchment 2S: Roof Runoff to Reservior Course Runoff Area=6,445 sf 100.00% Impervious Runoff Depth>4.26"

Tc=6.0 min CN=98 Runoff=0.68 cfs 2,290 cf

Subcatchment 3S: Overland to Center Bridge Road Runoff Area=11,175 sf 14.85% Impervious Runoff Depth>2.39"

Tc=6.0 min CN=78 Runoff=0.76 cfs 2,226 cf

Reach 1R: Center Bridge Road Inflow=0.76 cfs 2,226 cf

Outflow=0.76 cfs 2,226 cf

Pond 1P: Pervious Paver Reservior Course

Peak Elev=266.48' Storage=740 cf Inflow=0.68 cfs 3,262 cf

Discarded=0.09 cfs 3,247 cf Primary=0.00 cfs 0 cf Outflow=0.09 cfs 3,247 cf

Total Runoff Area = 30,640 sf Runoff Volume = 5,488 cf Average Runoff Depth = 2.15" 41.27% Pervious = 12,645 sf 58.73% Impervious = 17,995 sf

Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points Runoff by SCS TR-20 method, UH=SCS, Weighted-CN Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Runoff Area=13,020 sf 75.96% Impervious Runoff Depth>1.89" **Subcatchment 1S: Overland to Pervious Pavement**

Tc=790.0 min CN=92 Runoff=0.15 cfs 2,047 cf

Runoff Area=6,445 sf 100.00% Impervious Runoff Depth>7.72" **Subcatchment 2S: Roof Runoff to Reservior Course**

Tc=6.0 min CN=98 Runoff=1.23 cfs 4,149 cf

Runoff Area=11,175 sf 14.85% Impervious Runoff Depth>5.63" **Subcatchment 3S: Overland to Center Bridge Road**

Tc=6.0 min CN=78 Runoff=1.74 cfs 5,245 cf

Inflow=3.31 cfs 6,899 cf Reach 1R: Center Bridge Road Outflow=3.31 cfs 6,899 cf

Peak Elev=266.75' Storage=770 cf Inflow=1.23 cfs 6,196 cf **Pond 1P: Pervious Paver Reservior Course** Discarded=0.09 cfs 3,772 cf Primary=1.59 cfs 1,653 cf Outflow=1.68 cfs 5,426 cf

Total Runoff Area = 30,640 sf Runoff Volume = 11,441 cf Average Runoff Depth = 4.48"

41.27% Pervious = 12,645 sf 58.73% Impervious = 17,995 sf

Summary for Subcatchment 1S: Overland to Pervious Pavement

Runoff = 0.15 cfs @ 20.00 hrs, Volume= 2,047 cf, Depth> 1.89"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs Type III 24-hr 100-Year Rainfall=8.64"

_	Δ	rea (sf)	CN	Descriptio	escription								
		8,715	98	Paved parking, HSG C									
×	* 1,175 98 Sidewalk, HSG C												
_		3,130	74	>75% Gras	s cover, Goo	d, HSG C							
		13,020	92	Weighted	Average								
		3,130		24.04% Pervious Area									
		9,890		75.96% lm	pervious Are	a							
	Tc	Length	Slo	oe Velocit	/ Capacity	Description							
_	(min)	(feet)	(ft/	t) (ft/sec	(cfs)								
	790.0			Direct Entry, Porous Pavement									

Summary for Subcatchment 2S: Roof Runoff to Reservior Course

Runoff = 1.23 cfs @ 12.09 hrs, Volume= 4,149 cf, Depth> 7.72"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs Type III 24-hr 100-Year Rainfall=8.64"

A	rea (sf)	CN	Description	escription							
	6,445	98	Roofs, HSG (ofs, HSG C							
	6,445		L00.00% lm	00.00% Impervious Area							
Tc	Length	Slope	Velocity	Capacity	Description						
(min)	(feet)	(ft/ft) (ft/sec)	(cfs)							
6.0					Direct Entry, Direct						

Summary for Subcatchment 3S: Overland to Center Bridge Road

Runoff = 1.74 cfs @ 12.09 hrs, Volume= 5,245 cf, Depth> 5.63"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs Type III 24-hr 100-Year Rainfall=8.64"

	Area (sf)	CN	Description		
*	1,660	98	Sidewalks, HSG C		
	9,515	74	>75% Grass cover, Good, HSG C		
	11,175	78	Weighted Average		
	9,515		85.15% Pervious Area		
	1,660		14.85% Impervious Area		
•	Tc Length	Slo	pe Velocity Capacity Description		
<u>(mi</u>	n) (feet)	(ft/	ft) (ft/sec) (cfs)		

6.0 Direct Entry,

Summary for Reach 1R: Center Bridge Road

Inflow Area = 30,640 sf, 58.73% Impervious, Inflow Depth > 2.70" for 100-Year event

Inflow = 3.31 cfs @ 12.10 hrs, Volume= 6,899 cf

Outflow = 3.31 cfs @ 12.10 hrs, Volume= 6,899 cf, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Summary for Pond 1P: Pervious Paver Reservior Course

Inflow Area = 19,465 sf, 83.92% Impervious, Inflow Depth > 3.82" for 100-Year event Inflow = 1.23 cfs @ 12.09 hrs, Volume= 6,196 cf

Outflow = 1.68 cfs @ 12.10 hrs, Volume= 5,426 cf, Atten= 0%, Lag= 1.1 min

Discarded = 0.09 cfs @ 10.90 hrs, Volume= 3,772 cf

Primary = 1.59 cfs @ 12.10 hrs, Volume= 1,653 cf

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs Peak Elev= 266.75' @ 12.11 hrs Surf.Area= 3,795 sf Storage= 770 cf

Plug-Flow detention time= 64.6 min calculated for 5,407 cf (87% of inflow) Center-of-Mass det. time= 18.1 min (853.5 - 835.3)

#1 266.00' 752 cf Custom Stage Data (Prismatic) Listed below (Recalc)	
$1,898 ext{ cf Overall} - 18 ext{ cf Embedded} = 1,879 ext{ cf } ext{ x } 40.0\% ext{ Voids}$	
#2 266.00' 18 cf 4.0" Round Pipe Storage Inside #1	
L= 210.0'	

770 cf Total Available Storage

Elevation	Surf.Area	Inc.Store	Cum.Store
(feet)	(sq-ft)	(cubic-feet)	(cubic-feet)
266.00	3,795	0	0
266.50	3,795	1,898	1,898

Device	Routing	Invert	Outlet Devices
#1	Discarded	266.00'	1.020 in/hr Exfiltration over Surface area Phase-In= 0.01'
#2	Primary	265.40'	12.0" Round Culvert L= 128.0' CPP, projecting, no headwall, Ke= 0.900
			Inlet / Outlet Invert= 265.40' / 264.10' S= 0.0102 '/' Cc= 0.900
			n= 0.012 Corrugated PP, smooth interior, Flow Area= 0.79 sf
#3	Device 2	266.50'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)

Discarded OutFlow Max=0.09 cfs @ 10.90 hrs HW=266.01' (Free Discharge)

Primary OutFlow Max=1.48 cfs @ 12.10 hrs HW=266.74' TW=0.00' (Dynamic Tailwater)

2=Culvert (Passes 1.48 cfs of 2.73 cfs potential flow)

¹⁼Exfiltration (Exfiltration Controls 0.09 cfs)

T_3=Sharp-Crested Rectangular Weir (Weir Controls 1.48 cfs @ 1.59 fps)

Appendix VI Hydrocad Output for Recharge Volume

Stage-Area-Storage for Pond 1P: Pervious Paver Reservior Course

Storage (cubic-feet) 770

770

770 770

770

770 770

770

770

Surface

(sq-ft) 3,795 3,795

3,795 3,795

3,795

3,795 3,795

3,795

3,795

		tage Area Store	
Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)
266.00	3,795	0	266.67
266.01	3,795	15	266.68
266.02	3,795	31	266.69
266.03	3,795	46	266.70
266.04	3,795	61	266.71
266.05	3,795	77	266.72
266.06	3,795	92	266.73
266.07	3,795	108	266.74
266.08	3,795	123	266.75
266.09	3,795	139	
266.10	3,795	155	
266.11	3,795	170	
266.12	3,795	186	
266.13	3,795	201	
266.14	3,795	217	
266.15	3,795	232	
266.16	3,795	248	
266.17	3,795	264	
266.18	3,795	279	
266.19	3,795	295	
266.20	3,795	310	
266.21	3,795	326	
266.22	3,795	342	
266.23	3,795	357	
266.24	3,795	373	
266.25	3,795	388	
266.26	3,795	404	
266.27	3,795	419	
266.28	3,795	435	
266.29	3,795	450	
266.30	3,795 3,795	466	
266.31		481	
266.32 266.33	3,795 3,795	497 512	
266.34	3,795 3,795	527	
266.35	3,795	542	
266.36	3,795	557	
266.37	3,795	573	
266.38	3,795	588	
266.39	3,795	603	
266.40	3,795	618	
266.41	3,795	633	
266.42	3,795	649	
266.43	3,795	664	
266.44	3,795	679	
266.45	3,795	694	
266.46	3,795	709	
266.47	3,795	724	
266.48	3,795	740	
266.49	3,705	755 770	
266.50 266.51	3,795 3,795	770 770	
266.52	3,795	770	
266.53	3,795	770	
266.54	3,795	770	
266.55	3,795	770	
266.56	3,795	770	
266.57	3,795	770	
266.58	3,795	770	
266.59	3,795	770	
266.60	3,795	770	
266.61	3,795	770	
266.62	3,795	770	
266.63	3,795	770	
266.64	3,795	770	
266.65	3,795	770	
266.66	3,795	770	

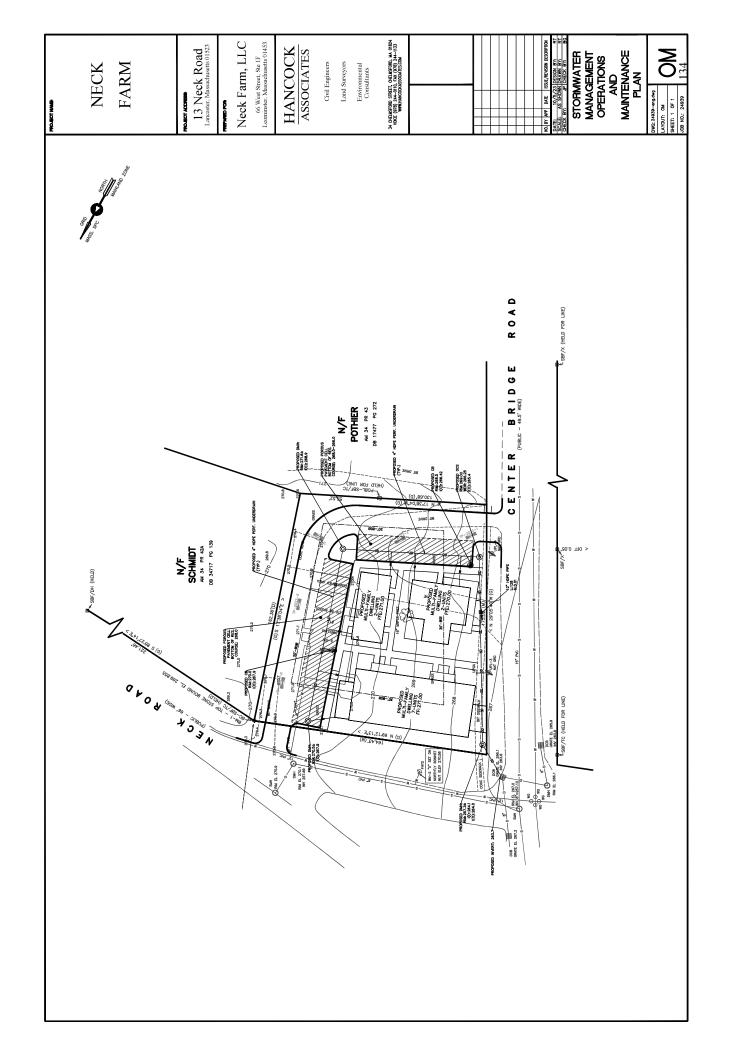
Appendix IV Operations and Maintenance Log



Neck Farm

Operations and Maintenance Lo	9
Inspections for Year:	

Structural Best Management Practice	Action	Date Completed	Completed By	Comments
Deep Sump Hooded Catch Basin–	Inspect/ Clean			
Inspect/clean four times per year. Clean when	Inspect/ Clean			
sump is 50% full.	Inspect/ Clean			
	Inspect/ Clean			
	Inspect/ Clean			
Pervious Pavement – Inspect twice per year.	Inspect			
Clean as required	Inspect			
Roof Drain Leaders – Inspect/clean twice per	Inspect/Clean			
year.	Inspect/Clean			
Vegetated Areas Maintenance – Inspect	Inspect			
twice per year. Maintain as required.	Inspect			



FORM D

REVENUE CERTIFICATION

Αрг	olication/Petition/Appeal	of			
1. 2. 3.		n, LLC by: Christopher J. Alphen, Esq. Investors Group Iap34 Parcel42			
Pui her	rsuant to G.L. c. 40D, Se eby certifies as follows:	ection 57, and the General By-Laws of the Town of Lancaster,	the undersigned applicant		
1)	The following named ownership or proprietar	persons, firms or corporations constitute the complete list ry interest in the property or use subject to the above-entitled ap	of all parties having an plication.		
2)	Each of the below listed parties have complied with the laws of the Commonwealth of Massachusetts and the Town of Lancaster in that they have not neglected or refused to pay any local taxes, fees, assessments betterments or other municipal charges for not less than a twelve month period.				
N.	AME OF	BayState Investors Group by:			
	ITERESTED PARTY		DDRESS		
_		Blatman, Bobrowski, Haverty & Silverstein, LLC			
0	WNER:	9 Damonmill Square, Ste. 4A4			
Α	PPLICANT:	Concord, MA 01742 978.371.2226 Ext. 19 (office)			
0	THER:	978.371.2296 (fax) chris@bbhslaw.net			
Sig	ned under the pains and	d penaities of perjury,			
(Sig	Christopher Ognature of Applicant	DATED: September 7, 20)23		
Ch CE	RTIFIED BY TOWN OF	Attorney for the Applicant -LANCASTER TOWN COLLECTOR	م م		
	Kreucy	Oval DATED: 10-3-6			

Comprehensive Permit Application Last Revised: May 2020



Subject Property:

Property Address: 13 NECK RD

Parcel Number: 034-0042.0 Mailing Address: BAYSTATE INVESTORS GROUP CAMA Number: 034-0042.0

66 WEST ST 1F

LEOMINSTER, MA 01453-

Abutters:

9/7/2023

Parcel Number: 034-0037.0 Mailing Address: SPENCER JOHN W & SARAH P

CAMA Number: 034-0037.0 **PO BOX 184**

Property Address: 0 MAIN ST LANCASTER, MA 01523-

Parcel Number: 034-0037.A Mailing Address: TAYLOR SAMUEL P & EMILY E

CAMA Number: 034-0037.A 634 MAIN ST

Property Address: 634 MAIN ST LANCASTER, MA 01523-

Parcel Number: 034-0038.0 Mailing Address: TURNER ALEXANDRA W JOHN A

CAMA Number: 034-0038.0 **BOWMAN JR** 620 MAIN ST Property Address: 620 MAIN ST

LANCASTER, MA 01523-

Mailing Address: MCGARITY JOHN & KAREN Parcel Number: 034-0039.0

CAMA Number: 034-0039.0 602 MAIN ST

Property Address: 602 MAIN ST LANCASTER, MA 01523-

Parcel Number: 034-0040.0 Mailing Address: LUPPOLD ASHLEY E JEFFREY A

CAMA Number: 034-0040.0 **OSGOOD**

Property Address: 81 CENTER BRIDGE RD 81 CENTER BRIDGE RD LANCASTER, MA 01523-

Parcel Number: 034-0041.0 Mailing Address: PHILLIPS SEAN L & KRISTEN E

CAMA Number: 034-0041.0 47 CENTER BRIDGE RD Property Address: 47 CENTER BRIDGE RD LANCASTER, MA 01523-

Parcel Number: 034-0042.A Mailing Address: SCHMIDT RAYMOND E

CAMA Number: 034-0042.A C/O MARTHA L SCHMIDT PO BOX 548

Property Address: 43 NECK RD LANCASTER, MA 01523-

Parcel Number: 034-0043.0 Mailing Address: POTHIER LEANDER S & AMY P

CAMA Number: 034-0043.0 66 CENTER BRIDGE RD APT 1F

Property Address: 66 CENTER BRIDGE RD LANCASTER, MA 01523-

Parcel Number: 034-0043.A Mailing Address: JOHNSON LAURIE & DOROTHY

CAMA Number: 034-0043.A 59 NECK RD

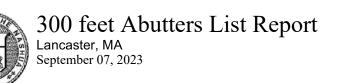
Property Address: 59 NECK RD LANCASTER, MA 01523-

Parcel Number: 034-0079.0 Mailing Address: POLANIK AMY

CAMA Number: 034-0079.0 56 NECK RD

Property Address: 56 NECK RD LANCASTER, MA 01523-





Parcel Number: 034-0080.0 Mailing Address: RICHTER HENRY A

CAMA Number: 034-0080.0 36 NECK RD

Property Address: 36 NECK RD LANCASTER, MA 01523-

Parcel Number: 034-0081.0 Mailing Address: MALATOS SEBASTIAN & TAYLOR

CAMA Number: 034-0081.0 24 NECK RD

Property Address: 24 NECK RD LANCASTER, MA 01523-

Parcel Number: 034-0082.0 Mailing Address: PIROZZOLO-MELLOWES REBECCA JAN

CAMA Number: 034-0082.0 MELLOWES JOHN WYTHEMAN

Property Address: 12 NECK RD 7870 N CLUB CIRCLE MILWAUKEE, WI 53217-

Parcel Number: 034-0083.0 Mailing Address: WILSON GREGORY C & MARILYN A TRS

CAMA Number: 034-0083.0 WILSON FAMILY REV TRUST

Property Address: 2 NECK RD 2 NECK RD

LANCASTER, MA 01523-

Parcel Number: 034-0084.0 Mailing Address: MCCAULEY HEATHER CAMA Number: 034-0084.0 PO BOX 604

Property Address: 659 MAIN ST LANCASTER, MA 01523-

Parcel Number: 038-0119.0 Mailing Address: OHAGAN MARY

CAMA Number: 038-0119.0 77 CENTER BRIDGE RD

Property Address: 77 CENTER BRIDGE RD LANCASTER, MA 01523-

Parcel Number: 038-0120.0 Mailing Address: LAUGHLIN BRENDAN & ASHLEY

CAMA Number: 038-0120.0 300 BOLTON STATION RD Property Address: 85 CENTER BRIDGE RD LANCASTER, MA 01523-