www.vhb.com

December 21, 2021

Ref: 15392.00

Mr. Stephen Parretti, Chair
Leicester Conservation Commission
3 Washburn Square
Leicester, Massachusetts 01524

Re: **Notice of Intent:**
Leicester Central, 0, 90 and 92 Huntoon Memorial Highway
Leicester, Massachusetts

Dear Chairman Parretti:

On behalf of JMC/TBG Leicester LLC (the Applicant), Vanasse Hangen Brustlin, Inc. (VHB) respectfully submits this Notice of Intent (NOI) for 0, 90 and 92 Huntoon Memorial Highway in Leicester, Massachusetts. The Project consists of approximately 260,000 square feet of building space, ancillary landscape improvements, parking spaces, and utility improvements to support this use (the Project Site).

This NOI is filed under the Massachusetts Wetlands Protection Act (WPA) for work on the Project Site within the 200-foot Riverfront Area and 100-foot buffer zone to Bordering Vegetated Wetland (BVW). No alterations are proposed within the local 25-foot No Disturb Zone (NDZ) established under the Town of Leicester Wetlands Protection Bylaw (the Bylaw). The full scope of work is described in the attached NOI narrative.

A check made payable to the Town of Leicester in the amount of $800.00 is enclosed for the payment of the local share of the state filing fee. A check made payable to the Commonwealth of Massachusetts in the amount of $775.00 has been sent directly to the DEP Lock Box. A check made payable to the Town of Leicester in the amount of $1,575.00 is enclosed for the payment of the local Bylaw filing fee.

In compliance with the WPA, notification to abutters within 300 feet of the property regarding this NOI will be made by certified, return receipt mail at least 48 hours prior to the hearing date.

Engineers | Scientists | Planners | Designers

101 Walnut Street
PO Box 9151
Watertown, Massachusetts 02471
P 617.924.1770
F 617.924.2286

Please advertise this matter for public hearing at the Commission's next scheduled meeting. Should you have any questions concerning this submittal, or require additional information please contact me at (508) 513-2727.

Sincerely,

Kim Justham

Kim Justham
Environmental Scientist

Attachment: Notice of Intent – Leicester Central

CC: DEP Northeast Regional Office (filed electronically via eDEP)
JMC/TBG Leicester LLC

Notice of Intent

Leicester Central

0, 90 & 92 Huntoon Memorial Highway
Leicester, MA 01524

PREPARED FOR

JMC/TBG Leicester LLC
100 Grandview Road, Suite 203
Braintree, MA 02184
617.305.4120

PREPARED BY

120 Front Street
Suite 500
Worcester, MA 01608
508.752.1001

December 21, 2021

Table of Contents

NOI Forms

WPA Form 3
NOI Fee Transmittal Form
Copies of Filing Fee Checks

NOI Figures

Figure 1 – USGS Locus Map
Figure 2 – Aerial Map
Figure 3 – NHESP Map
Figure 4 – FEMA Map

Attachment A – NOI Narrative

1 Introduction 1

2 Site Description 1

Wetland Resource Areas 2
Wetland 2 3
Wetland 4 4
Wetland 5 4
Wetland 6 4
Wetland 7 4
Wetland 8 4
Wetland 9 5
Riverfront Area 5
Buffer Zone 5
Local Setbacks 5

3 Work Description 6

Work in Wetland Resource Areas 6
Work in Buffer Zone 7

4 Mitigation Measures 7

Erosion and Sediment Control 7
Non-Structural Practices 8
Structural Practices 9
Stormwater Management 9

5 Regulatory Compliance 10

Work in Riverfront Area 10
Alternatives Analysis 12
Work in Buffer Zone 13

6 Summary 13

Attachment B – Abutter Information

Attachment C – Field Data Forms

Attachment D – Site Photos

Attachment E – Project Plans

Attachment F – Supporting Documents

Notice of Intent Forms

- WPA Form 3A
- Additional Property Owners
- NOI Wetland Fee Transmittal Form
- Copies of Filing Fee Checks

Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands
WPA Form 3 - Notice of Intent
Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP:
MassDEP File #:
eDEP Transaction #:1322739
City/Town:LEICESTER

A.General Information

1. Project Location:

a. Street Address	0, 90, & 92 HUNTOON MEMORIAL HIGHWAY		
b. City/Town	LEICESTER	c. Zip Code	01524
d. Latitude	42.20491N	e. Longitude	71.90627W
f. Map/Plat #	44	g.Parcel/Lot #	A-4.1, A-5, A-6

2. Applicant:

☐ Individual ☑ Organization

a. First Name			b.Last Name		
c. Organization	JMC/ TBG LEICESTER, LLC				
d. Mailing Address	100 GRANDVIEW ROAD, SUITE 203				
e. City/Town	BRAINTREE	f. State	MA	g. Zip Code	02184
h. Phone Number		i. Fax		j. Email	

3.Property Owner:

☑ more than one owner

a. First Name	ROBERT		b. Last Name	SIGEL	
c. Organization	ASR REALTY COMPANY, LLC				
d. Mailing Address	117 PADDOCK CIRCLE				
e. City/Town	MASHPEE	f.State	MA	g. Zip Code	02649
h. Phone Number		i. Fax		j.Email	

4.Representative:

a. First Name	KIM		b. Last Name	JUSTHAM	
c. Organization	VHB				
d. Mailing Address	120 FRONT STREET, SUITE 500				
e. City/Town	WORCESTER	f. State	MA	g. Zip Code	01608
h.Phone Number	508-513-2738	i.Fax		j.Email	kjustham@vhb.com

5.Total WPA Fee Paid (Automatically inserted from NOI Wetland Fee Transmittal Form):

a.Total Fee Paid	1,575.00	b.State Fee Paid	775.00	c.City/Town Fee Paid	800.00

6.General Project Description:

THE APPLICANT IS PROPOSING TO CONSTRUCT AN APPROXIMATELY 260,000 SQUARE FOOT BUILDING, ANCILLARY LANDSCAPE IMPROVEMENTS, PARKING SPACES, AND UTILITY IMPROVEMENTS TO SUPPORT THIS USE.

7a.Project Type:

1. ☐ Single Family Home
2. ☐ Residential Subdivision
3. ☐ Limited Project Driveway Crossing
4. ☑ Commercial/Industrial
5. ☐ Dock/Pier
6. ☐ Utilities
7. ☐ Coastal Engineering Structure
8. ☐ Agriculture (eg., cranberries, forestry)
9. ☐ Transportation
10. ☐ Other

7b.Is any portion of the proposed activity eligible to be treated as a limited project subject to 310 CMR 10.24 (coastal) or 310 CMR 10.53 (inland)?

1. ☐ Yes ☑ No If yes, describe which limited project applies to this project:
2. Limited Project

8.Property recorded at the Registry of Deeds for:

a.County:	b.Certificate:	c.Book:	d.Page:
WORCESTER		54687	170
WORCESTER		54687	151
WORCESTER		66504	86

B. Buffer Zone & Resource Area Impacts (temporary & permanent)

1.Buffer Zone & Resource Area Impacts (temporary & permanent):

☐ This is a Buffer Zone only project - Check if the project is located only in the Buffer Zone of a Bordering Vegetated Wetland, Inland Bank, or Coastal Resource Area.

2.Inland Resource Areas: (See 310 CMR 10.54 - 10.58, if not applicable, go to Section B.3. Coastal Resource Areas)

Resource Area	Size of Proposed Alteration	Proposed Replacement (if any)
a.☐ Bank	1. linear feet	2. linear feet
b.☐ Bordering Vegetated Wetland	1. square feet	2. square feet
c.☐ Land under Waterbodies and Waterways	1. Square feet	2. square feet
	3. cubic yards dredged	
d.☐ Bordering Land Subject to Flooding	1. square feet	2. square feet
	3. cubic feet of flood storage lost	4. cubic feet replaced
e.☐ Isolated Land Subject to Flooding	1. square feet	
	2. cubic feet of flood storage lost	3. cubic feet replaced

f.☑ Riverfront Area

Grindstone Brook
1. Name of Waterway (if any)

2. Width of Riverfront Area (check one)
☐ 25 ft. - Designated Densely Developed Areas only
☐ 100 ft. - New agricultural projects only
☑ 200 ft. - All other projects

3. Total area of Riverfront Area on the site of the proposed project: 367157 square feet

4. Proposed Alteration of the Riverfront Area:

34406 a. total square feet	0 b. square feet within 100 ft.	34406 c. square feet between 100 ft. and 200 ft.

5. Has an alternatives analysis been done and is it attached to this NOI? ☑ Yes ☐ No

6. Was the lot where the activity is proposed created prior to August 1, 1996? ☑ Yes ☐ No

3.Coastal Resource Areas: (See 310 CMR 10.25 - 10.35)

Resource Area	Size of Proposed Alteration	Proposed Replacement (if any)
a.☐ Designated Port Areas	Indicate size under	Land under the ocean below,
b.☐ Land Under the Ocean	1. square feet 2. cubic yards dredged	
c.☐ Barrier Beaches	Indicate size under Coastal Beaches and/or Coatstal Dunes, below	
d.☐ Coastal Beaches	1. square feet	2. cubic yards beach nourishment
e.☐ Coastal Dunes	1. square feet	2. cubic yards dune nourishment
f.☐ Coastal Banks	1. linear feet	
g.☐ Rocky Intertidal Shores	1. square feet	
h.☐ Salt Marshes	1. square feet	2. sq ft restoration, rehab, crea.
i.☐ Land Under Salt Ponds	1. square feet	
	2. cubic yards dredged	
j.☐ Land Containing Shellfish	1. square feet	
k.☐ Fish Runs	Indicate size under Coastal Banks, Inland Bank, Land Under the Ocean, and/or inland Land Under Waterbodies and Waterways, above	
	1. cubic yards dredged	
l.☐ Land Subject to Coastal Storm Flowage	1. square feet	

4.Restoration/Enhancement

☐ Restoration/Replacement

If the project is for the purpose of restoring or enhancing a wetland resource area in addition to the square footage that has been entered in Section B.2.b or B.3.h above, please entered the additional amount here.

a. square feet of BVW b. square feet of Salt Marsh

5.Projects Involves Stream Crossings

☐ Project Involves Streams Crossings

If the project involves Stream Crossings, please enter the number of new stream crossings/number of replacement stream crossings.

a. number of new stream crossings b. number of replacement stream crossings

C. Other Applicable Standards and Requirements

Streamlined Massachusetts Endangered Species Act/Wetlands Protection Act Review

1. Is any portion of the proposed project located in **Estimated Habitat of Rare Wildlife** as indicated on the most recent Estimated Habitat Map of State-Listed Rare Wetland Wildlife published by the Natural Heritage of Endangered Species program (NHESP)?

a. ☐ Yes ☑ No

If yes, include proof of mailing or hand delivery of NOI to:
Natural Heritage and Endangered Species
Program
Division of Fisheries and Wildlife
1 Rabbit Hill Road
Westborough, MA 01581

b. Date of map:FROM MAP VIEWER

If yes, the project is also subject to Massachusetts Endangered Species Act (MESA) review (321 CMR 10.18)....

c. Submit Supplemental Information for Endangered Species Review * (Check boxes as they apply)

1.☐ Percentage/acreage of property to be altered:

(a) within Wetland Resource Area percentage/acreage

(b) outside Resource Area percentage/acreage

2.☐ Assessor's Map or right-of-way plan of site

3.☐ Project plans for entire project site, including wetland resource areas and areas outside of wetland jurisdiction, showing existing and proposed conditions, existing and proposed tree/vegetation clearing line, and clearly demarcated limits of work **

a.☐ Project description (including description of impacts outside of wetland resource area & buffer zone)

b.☐ Photographs representative of the site

c.☐ MESA filing fee (fee information available at: http://www.mass.gov/eea/agencies/dfg/dfw/natural-heritage/regulatory-review/mass-endangered-species-act-mesa/mesa-fee-schedule.html)
Make check payable to "Natural Heritage & Endangered Species Fund" and **mail to NHESP** at above address

*Projects altering **10 or more acres** of land, also submit:*

d.☐ Vegetation cover type map of site

e.☐ Project plans showing Priority & Estimated Habitat boundaries

d. OR Check One of the following

1.☐ Project is exempt from MESA review. Attach applicant letter indicating which MESA exemption applies. (See 321 CMR 10.14, http://www.mass.gov/eea/agencies/dfg/dfw/laws-regulations/cmr/321-cmr-1000-massachusetts-endangered-species-act.html#10.14; the NOI must still be sent to NHESP if the project is within estimated habitat pursuant to 310 CMR 10.37 and 10.59.)

2. ☐ Separate MESA review ongoing.
   a. NHESP Tracking Number
   b. Date submitted to NHESP
3. ☐ Separate MESA review completed.
   Include copy of NHESP "no Take" determination or valid Conservation & Management Permit with approved plan.

* Some projects **not** in Estimated Habitat may be located in Priority Habitat, and require NHESP review...

2. For coastal projects only, is any portion of the proposed project located below the mean high waterline or in a fish run?
   a. ☑ Not applicable - project is in inland resource area only
   b. ☐ Yes ☐ No

   If yes, include proof of mailing or hand delivery of NOI to either:

   South Shore - Cohasset to Rhode Island, and the Cape & Islands:

   Division of Marine Fisheries -
   Southeast Marine Fisheries Station
   Attn: Environmental Reviewer
   836 S. Rodney French Blvd
   New Bedford, MA 02744

   North Shore - Hull to New Hampshire:

   Division of Marine Fisheries -
   North Shore Office
   Attn: Environmental Reviewer
   30 Emerson Avenue
   Gloucester, MA 01930

   If yes, it may require a Chapter 91 license. For coastal towns in the Northeast Region, please contact MassDEP's Boston Office. For coastal towns in the Southeast Region, please contact MassDEP's Southeast Regional office.

3. Is any portion of the proposed project within an Area of Critical Environmental Concern (ACEC)?

   a. ☐ Yes ☑ No

   If yes, provide name of ACEC (see instructions to WPA Form 3 or DEP Website for ACEC locations). **Note:** electronic filers click on Website.

   b. ACEC Name

4. Is any portion of the proposed project within an area designated as an Outstanding Resource Water (ORW) as designated in the Massachusetts Surface Water Quality Standards, 314 CMR 4.00?
   a. ☐ Yes ☑ No

5. Is any portion of the site subject to a Wetlands Restriction Order under the Inland Wetlands Restriction Act (M.G.L.c. 131, § 40A) or the Coastal Wetlands Restriction Act (M.G.L.c. 130, § 105)?
   a. ☐ Yes ☑ No

6. Is this project subject to provisions of the MassDEP Stormwater Management Standards?
   a. ☑ Yes, Attach a copy of the Stormwater Report as required by the Stormwater Management Standards per 310 CMR 10.05(6)(k)-(q) and check if:
      1. ☐ Applying for Low Impact Development (LID) site design credits (as described in Stormwater Management Handbook Vol.2, Chapter 3)
      2. ☐ A portion of the site constitutes redevelopment
      3. ☐ Proprietary BMPs are included in the Stormwater Management System

b. ☐ No, Explain why the project is exempt:

1. ☐ Single Family Home

2. ☐ Emergency Road Repair

3. ☐ Small Residential Subdivision (less than or equal to 4 single-family houses or less than or equal to 4 units in multi-family housing project) with no discharge to Critical Areas.

D. Additional Information

Applicants must include the following with this Notice of Intent (NOI). See instructions for details.

Online Users: Attach the document transaction number (provided on your receipt page) for any of the following information you submit to the Department by regular mail delivery.

1. USGS or other map of the area (along with a narrative description, if necessary) containing sufficient information for the
☑ Conservation Commission and the Department to locate the site. (Electronic filers may omit this item.)
2. Plans identifying the location of proposed activities (including activities proposed to serve as a Bordering Vegetated Wetland
☑ [BVW] replication area or other mitigating measure) relative to the boundaries of each affected resource area.
3. Identify the method for BVW and other resource area boundary delineations (MassDEP BVW Field Data Form(s).
☑ Determination of Applicability, Order of Resource Area Delineation, etc.), and attach documentation of the methodology.
4. List the titles and dates for all plans and other materials submitted with this NOI.
☑

a. Plan Title:	b. Plan Prepared By:	c. Plan Signed/Stamped By:	c. Revised Final Date:	e. Scale:
LEICESTER CENTRAL 0, 90, & 92 HUNTOON MEMORIAL HIGHWAY LEICESTER, MA 01524	CHRIS HAGEN/ VHB	JUSTIN DUFRESNE/ VHB	12/7/2021	

5. If there is more than one property owner, please attach a list of these property owners not listed on this form.
☑

6. Attach proof of mailing for Natural Heritage and Endangered Species Program, if needed.
☐

7. Attach proof of mailing for Massachusetts Division of Marine Fisheries, if needed.
☐

8. Attach NOI Wetland Fee Transmittal Form.
☑

9. Attach Stormwater Report, if needed.
☑

E. Fees

1. Fee Exempt: No filing fee shall be assessed for projects of any city, town, county, or district of the Commonwealth, federally recognized Indian tribe housing authority, municipal housing authority, or the Massachusetts Bay Transportation Authority.

Applicants must submit the following information (in addition to pages 1 and 2 of the NOI Wetland Fee Transmittal Form) to confirm fee payment:

369518	12/15/2021
2. Municipal Check Number	3. Check date
369459	12/15/2021
4. State Check Number	5. Check date
Vanasse Hangen Brustlin, Inc.	
6. Payer name on check: First Name	7. Payer name on check: Last Name

F. Signatures and Submittal Requirements

I hereby certify under the penalties of perjury that the foregoing Notice of Intent and accompanying plans, documents, and supporting data are true and complete to the best of my knowledge. I understand that the Conservation Commission will place notification of this Notice in a local newspaper at the expense of the applicant in accordance with the wetlands regulations, 310 CMR 10.05(5)(a).

I further certify under penalties of perjury that all abutters were notified of this application, pursuant to the requirements of M.G.L. c. 131, § 40. Notice must be made by Certificate of Mailing or in writing by hand delivery or certified mail (return receipt requested) to all abutters within 100 feet of the property line of the project location.

Peter Mahoney, authorized signatory	12/22/21
1. Signature of Applicant	2. Date
Peter Mahoney, as owner and authorized signatory under purchase agreement	12/22/21
3. Signature of Property Owner(if different)	4. Date
Kim Justham	12/22/2021
5. Signature of Representative (if any)	6. Date

For Conservation Commission:

Two copies of the completed Notice of Intent (Form 3), including supporting plans and documents, two copies of the NOI Wetland Fee Transmittal Form, and the city/town fee payment, to the Conservation Commission by certified mail or hand delivery.

For MassDEP:

One copy of the completed Notice of Intent (Form 3), including supporting plans and documents, one copy of the NOI Wetland Fee Transmittal Form, and a **copy** of the state fee payment to the MassDEP Regional Office (see Instructions) by certified mail or hand delivery.

Other:

If the applicant has checked the "yes" box in Section C, Items 1-3, above, refer to that section and the Instructions for additional submittal requirements.

The original and copies must be sent simultaneously. Failure by the applicant to send copies in a timely manner may result in dismissal of the Notice of Intent.

Additional Property Owners Leicester Central NOI, Huntoon Memorial Highway

Property Owner

First Name	
Last Name	
Organization	JMC/TBG Leicester, LLC
Mailing Address	100 Grandview Road, Suite 203
City/Town	Braintree
State	MA
Zip Code	02184

Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

WPA Form 3 - Notice of Wetland FeeTransmittal Form

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP:
MassDEP File #:
eDEP Transaction #:1322739
City/Town:LEICESTER

A. Applicant Information

1. Applicant:

a. First Name			b.Last Name		
c. Organization	JMC/ TBG LEICESTER, LLC				
d. Mailing Address	100 GRANDVIEW ROAD, SUITE 203				
e. City/Town	BRAINTREE	f. State	MA	g. Zip Code	02184
h. Phone Number		i. Fax		j. Email	

2.Property Owner:(if different)

a. First Name	ROBERT		b. Last Name	SIGEL	
c. Organization	ASR REALTY COMPANY, LLC				
d. Mailing Address	117 PADDOCK CIRCLE				
e. City/Town	MASHPEE	f.State	MA	g. Zip Code	02649
h. Phone Number		i. Fax		j.Email	

3. Project Location:

a. Street Address	0, 90, & 92 HUNTOON MEMORIAL HIGHWAY	b. City/Town	LEICESTER

Are you exempted from Fee? ☐

Note: Fee will be exempted if you are one of the following:

- City/Town/County/District
- Municipal Housing Authority
- Indian Tribe Housing Authority
- MBTA

State agencies are only exempt if the fee is less than $100

B. Fees

Activity Type	Activity Number	Activity Fee	RF Multiplier	Sub Total
B.) EACH BUILDING (FOR DEVELOPMENT) INCLUDING SITE;	1	1050.00	RFA MULTIPLIER 1.5	1575.00

City/Town share of filling fee	State share of filing fee	Total Project Fee
$800.00	$775.00	$1,575.00

$775.00

Commonwealth of Massachusetts
DEP-Department of Environmental Protection
P.O. Box 4062
Boston, MA 02211

AUTHORIZED SIGNATURE

Security Check features included. Details on back.

⑈369459⑈ ⑆211070175⑆ 1130161371⑈

VANASSE HANGEN BRUSTLIN, INC.
101 WALNUT STREET • PO BOX 9151
WATERTOWN, MASSACHUSETTS 02471

EMILY BUSINESS FORMS 800.392.6018 VISION

369459

Check Date: 12/15/2021

Invoice Number	Date	Voucher	Amount	Discounts	Previous Pay	Net Amount
Lisa Cummings 121021	12/10/2021	1420331	$775.00			$775.00
Commonwealth of Massachusetts		TOTAL	$775.00			$775.00
Citizens	25	0004919				

$800.00

Town of Leicester
3 Washburn Square
Leicester, MA 01524

AUTHORIZED SIGNATURE

Security Check features included. Details on back.

⑈369518⑈ ⑆211070175⑆ 1130161371⑈

VANASSE HANGEN BRUSTLIN, INC.
101 WALNUT STREET • PO BOX 9151
WATERTOWN, MASSACHUSETTS 02471

EMILY BUSINESS FORMS 800.392.6018 VISION

369518

Check Date: 12/15/2021

Invoice Number	Date	Voucher	Amount	Discounts	Previous Pay	Net Amount
Lisa Cummings 12/10/	12/10/2021	1420333	$800.00			$800.00
Town of Leicester		TOTAL	$800.00			$800.00
Citizens	84	0020308				

Town of Leicester
3 Washburn Square
Leicester, MA 01524

$1,575.00

AUTHORIZED SIGNATURE

Security Check features included. Details on back.

⑈369517⑈ ⑆211070175⑆ 1130161371⑈

VANASSE HANGEN BRUSTLIN, INC.
101 WALNUT STREET • PO BOX 9151
WATERTOWN, MASSACHUSETTS 02471

EMILY BUSINESS FORMS 800.392.6018 VISION

369517

Check Date: 12/15/2021

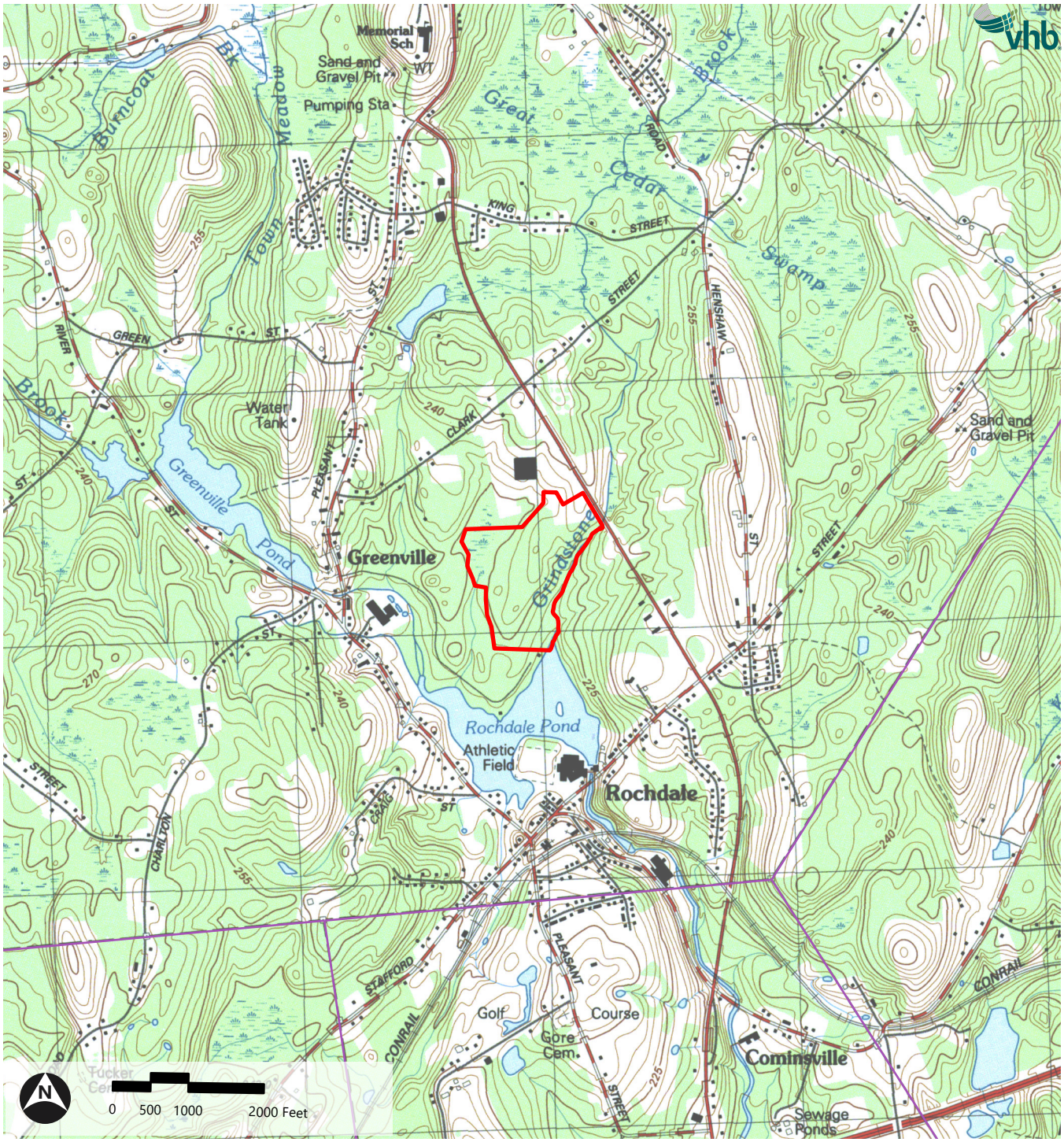
Invoice Number	Date	Voucher	Amount	Discounts	Previous Pay	Net Amount
Lisa Cummings 12/10	12/10/2021	1420332	$1,575.00			$1,575.00
Town of Leicester		TOTAL	$1,575.00			$1,575.00
Citizens	83	0020308				

Notice of Intent Figures

- Figure 1 – Site Location Map
- Figure 2 – Aerial Map
- Figure 3 – NHESP Map
- Figure 4 – FEMA FIRM Map

Figure 1: USGS Locus Map

Warehouse Development | Leicester, MA



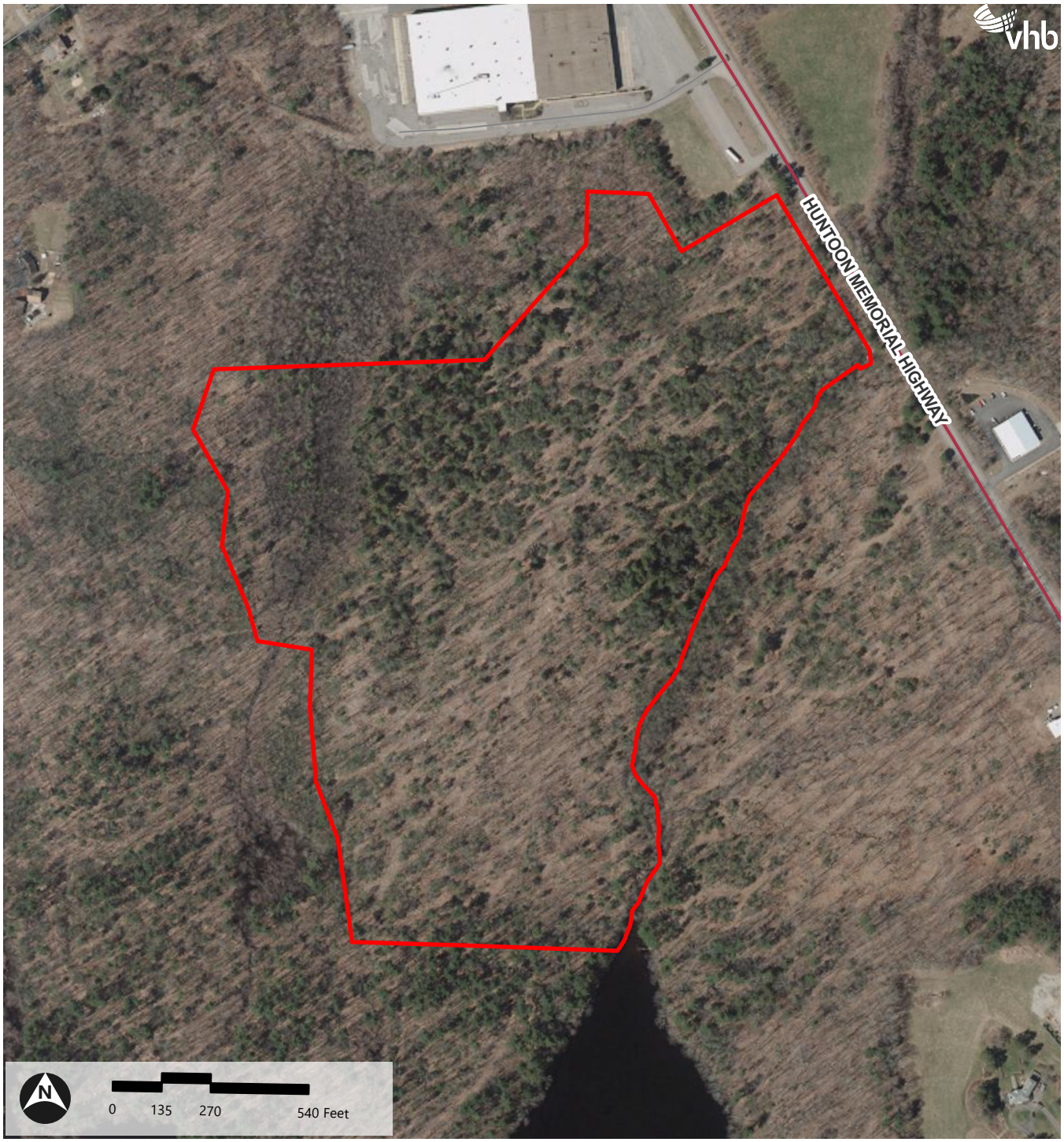
Source: USGS, MassGIS

Project_Area

Path: \\vhb.com\gis\proj\Worcester\15392.00 Leicester Warehouse\Data\Basemap\15392_Leicester Warehouse_NOI Figures.aprx (kjustham, 11/17/2021)

Figure 2: Aerial Imagery

Warehouse Development | Leicester, MA



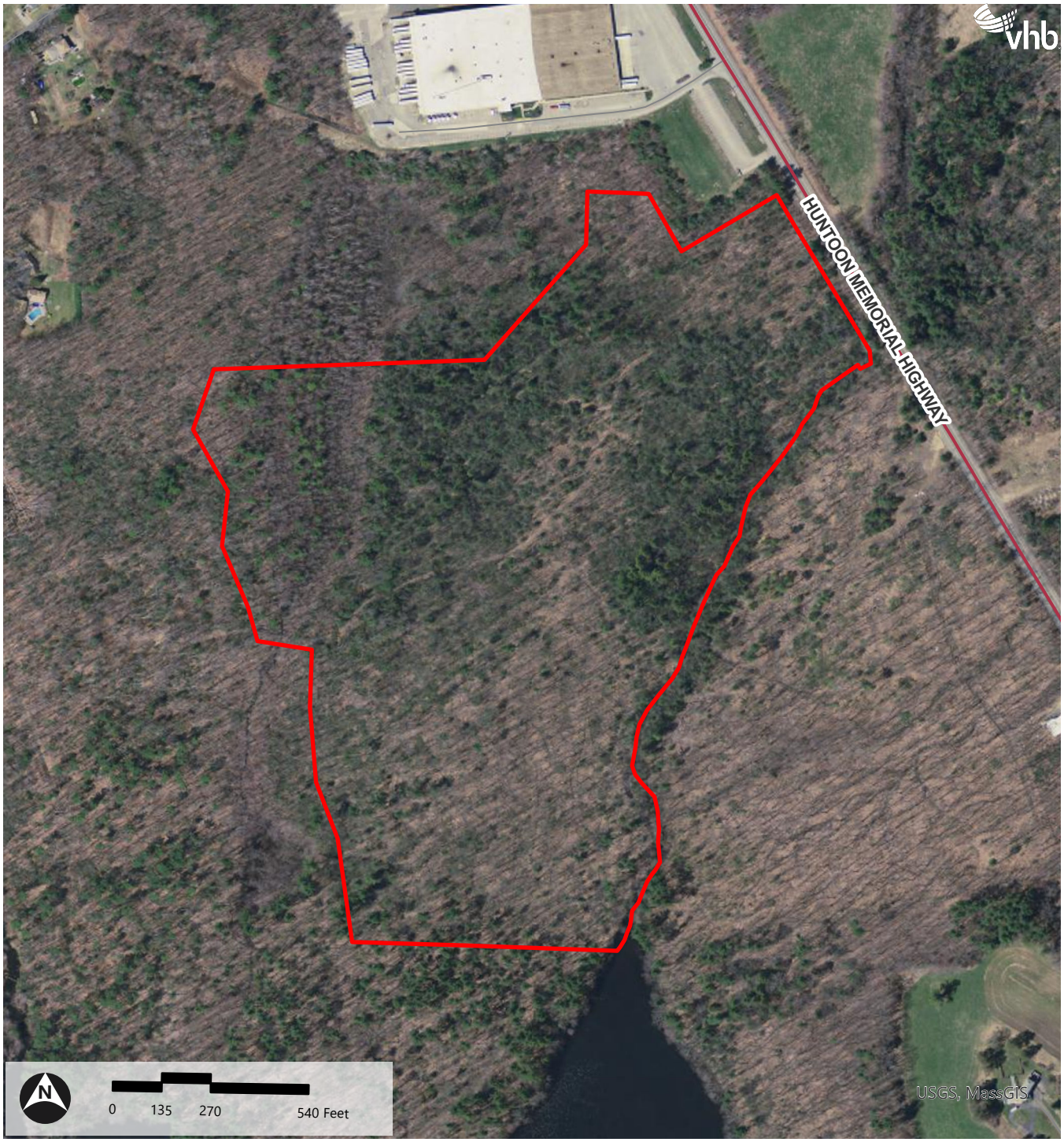
Path: \\vhb.com\gis\proj\Worcester\15392.00 Leicester Warehouse\Data\Basemap\15392_Leicester Warehouse_NOI Figures.aprx (kjustham, 11/17/2021)

Source: USGS, MassGIS

Project_Area

Figure 3: NHESP

Warehouse Development | Leicester, MA



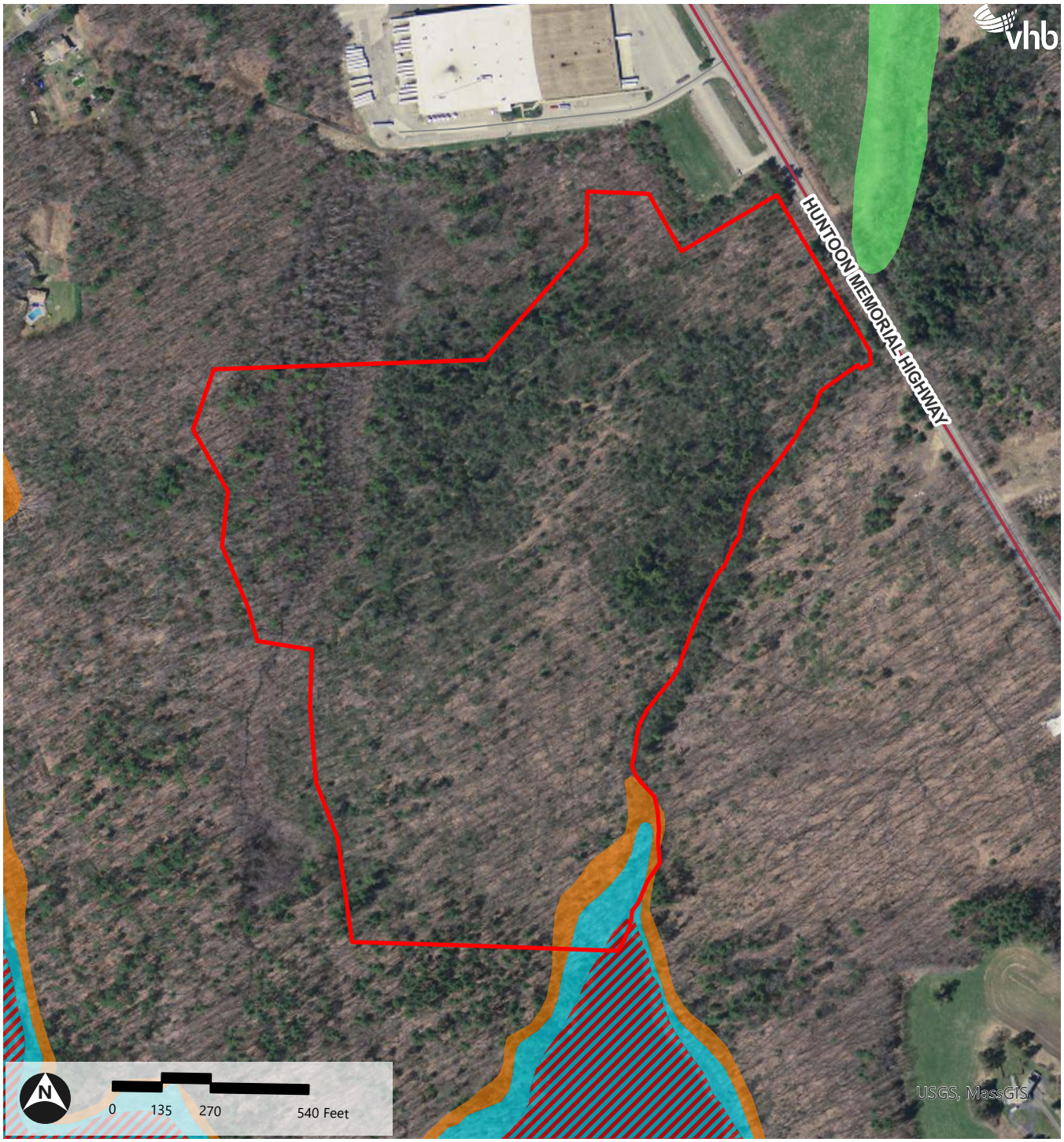
Source: USGS, MassGIS

Path: \\vhb.com\gis\proj\Worcester\15392.00 Leicester Warehouse\Data\Basemap\15392_Leicester Warehouse_NOI Figures.aprx (kjustham, 11/17/2021)

- Project_Area
- NHESP Priority Habitats of Rare Species - None Present
- NHESP Estimated Habitats of Rare Wildlife - None Present
- NHESP Certified Vernal Pools - None Present
- NHESP Potential Vernal Pools - None Present

Figure 4: FEMA Flood Zones

Warehouse Development | Leicester, MA



Path: \\vhb.com\gis\proj\Worcester\15392.00 Leicester Warehouse\Data\Basemap\15392_Leicester Warehouse_NOI Figures.aprx (kjustham, 11/17/2021)

Project_Area

FEMA Flood Zone Designations

- A: 1% Annual Chance of Flooding, no BFE
- AE: 1% Annual Chance of Flooding, with BFE
- AE: Regulatory Floodway
- X: 0.2% Annual Chance of Flooding

Source: USGS, MassGIS

Attachment A
Notice of Intent Narrative

- Introduction
- Site Description
- Work Description
- Mitigation Measures
- Regulatory Compliance
- Summary

Attachment A - Notice of Intent Narrative

This Notice of Intent (NOI) is filed pursuant to the Massachusetts Wetlands Protection Act, M.G.L. Chapter 131, Section 40 (WPA) and its implementing regulations, 310 CMR 10.00, and the Town of Leicester Wetlands Protection Bylaw (the Bylaw). This narrative describes the wetland resource areas associated with the Project Site, the proposed work, impacts to wetland resource areas, mitigation measures, and how the Project meets the performance standards of the WPA and Bylaw.

Introduction

The Applicant, JMC/TBG Leicester, LLC, is proposing the development of a manufacturing, industrial, or warehouse facility (the Project). As proposed, the Project consists of approximately 260,000 square feet of building space, ancillary landscape improvements, parking spaces, and utility improvements to support this use (the Project Site).

Portions of the property contain resource areas subject to the jurisdiction of the WPA and the Bylaw, including: Bank, Bordering Vegetated Wetland (BVW), Bordering Land Subject to Flooding (BLSF) and Riverfront Area (RFA). Proposed work has been minimized to occur only in outer Riverfront Area and portions of the 100-foot buffer zone (buffer zone) to BVW and Bank. No work will occur in the local 25-foot No Disturb Zone (NDZ) established under the Bylaw.

Wetland resource areas will be protected from impacts during construction through the implementation of an erosion and sedimentation control program. This program includes provisions to minimize areas of disturbance through phasing and sequencing, limit erosion through stabilization, and prevent sediment from leaving the site by installing structural controls. Runoff generated from the project will be collected and treated in accordance with design guidelines[1] developed by the Department of Environmental Protection (DEP) and standards contained in the WPA Regulations.

Site Description

The Project Site is comprised of three parcels of land located at 0, 90, and 92 Huntoon Memorial Highway in Leicester, totaling approximately 49.8 acres (**Figure 1**). The Project Site is located in an area zoned as Highway Business-Industrial 2 and Suburban-Agricultural in Leicester and can be accessed via Huntoon Memorial Highway. The Project Site is currently undeveloped and consists of vacant wooded land with several

[1] DEP, 2008. *Massachusetts Stormwater Handbook.*

cleared overgrown dirt roadways with low-lying vegetation. The topography of the Project Site slopes down towards Grindstone Brook, which transects the site from north to south. The Project Site lies within the French surface watershed and is bounded to the north by a commercial warehouse property and wetland system, to the east by Grindstone Brook and Huntoon Memorial Highway, to the west by undeveloped, forested land, and to the south by undeveloped, wooded land, wetlands, and Rochdale Pond (**Figure 2**). The soils within the eastern and central portions of the Project Site are mapped as Montauk fine sandy loams, with Freetown mucks in the northwest and Canton fine sandy loams in the southwest (Attachment F).

According to the most recently available data provided by the Massachusetts Natural Heritage and Endangered Species Program (NHESP) [1], proposed work will not occur in Priority and Estimated Habitats of Rare Species. There are no certified or potential vernal pools located on or adjacent to the Project Site (**Figure 3**).

No portion of the Project Site is located within an Area of Critical Environmental Concern (ACEC). No portion of the Project Site is located in an area designated as an Outstanding Resource Water. No portion of the Project site is located within a Zone II Wellhead Protection Area[2]. According to the most recently issued FEMA Flood Insurance Rate Map (FIRM)[3], no work will occur within mapped flood zones (**Figure 4**).

Wetland resource areas on/adjacent to the Project Site are described below.

Wetland Resource Areas

Wetlands on/adjacent to the Project Site were delineated on 21 May and 16 June 2019, by VHB wetland scientists in accordance with methods developed by the DEP[4] and the U.S. Army Corps of Engineers[5]. The following sections of this narrative describe the wetlands and identify resource areas that are regulated under the WPA Regulations (310 CMR 10.00) and the federal Clean Water Act (CWA).

Resource areas regulated under the Wetlands Protection Act (WPA) are summarized in the table below and are described in more detail in the following sections of this attachment.

[2] DEP, 2017. Approved Wellhead Protection Areas (Zone II).

[3] Federal Emergency Management Agency, National Hazard Flood Layer, Digital Flood Insurance Rate Map (DFIRM) MassGIS.

[4] DEP, 1995. *Delineating Bordering Vegetated Wetlands Under the Massachusetts Wetlands Protection Act.*

[5] USACE, 2012. *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region, Version 2.0.*

Table 1 Wetland Resource Areas

Wetland	Flag Numbers	Type	Resource Areas
2	BF2-100 to BF2-193	Perennial Stream	Bank, Riverfront Area, LUWW, BLSF
4	WF4-100 to WF4-114	Emergent wetland	BVW
5	WF5-100 to WF5-141	Forested wetland	BVW
6	WF6-100 to WF6-104	Emergent wetland	BVW
7	WF7-100 to WF7-105	Emergent wetland	BVW
8	WF8-100 to WF8-145 and BF4-100 to BF4-111	Forested wetland and an intermittent stream	BVW and Bank
9	WF9-100 to WF9-183	Forested wetland	BVW

Source: VHB, 2021.

Wetland 2

Wetland/ Stream 2 (Grindstone Brook) is a perennial riverine system flowing north to south along the property line of Parcel #2 and the adjacent parcel to the east (94-102 Huntoon Memorial Highway; not part of this project). Stream 2 originates on Parcel #2 at a large concrete culvert under Huntoon Memorial Highway and runs for approximately 1/3 mile before entering Rochdale Pond to the south of the Project Site. Stream 2 has an average channel width of approximately 10-15 feet and a bank height of approximately 1-2 feet. The dominant substrate consists of cobble/gravel and water depth averages approximately 6-24 inches.

Bordering Land Subject to Flooding (BLSF) is associated with Stream 2 south of the Project Site adjacent to Rochdale Pond, as well as north of the site on the east side of Huntoon Memorial Highway. The limits of the BLSF are equal to FEMA Flood Zone AE and Zone A and the 100-year flood zone, as shown on Figure 4.

Wetland 4

Wetland 4 is a small palustrine emergent wetland (PEM) on a low shelf adjacent to the west bank of Stream 2 (Grindstone Brook) between bank flags BF2-156 and 160. Topography is generally flat throughout the wetland. The shrub layer is sparse and dominated by Morrow's honeysuckle (*Lonicera morrowii*), American witch-hazel (*Hamamelis virginiana*), and mountain laurel (*Kalmia latifolia*). The herbaceous layer is dominated by cinnamon fern (*Osmundastrum cinnamomeum*), sensitive fern (*Onoclea sensibilis*), American false hellebore (*Veratrum viride*), tussock sedge (*Carex stricta*), and *Sphagnum spp*. The wetland was demarcated with pink survey flagging.

Resource areas regulated under the WPA and the Bylaw include BVW.

Wetland 5

Wetland 5 is a palustrine emergent/ palustrine forested (PFO) wetland on the west bank of Stream 2 (Grindstone Brook); it extends northwest into Parcel #2 for approximately 250 feet from bank flag BF2-170. The wetland slopes down from west to east to a low shelf adjacent to Grindstone Brook. The tree layer is dominated by yellow birch (*Betula alleghaniensis*) and red maple (*Acer rubrum*). The shrub layer is dominated by black elderberry (*Sambucus nigra*), yellow birch, Eastern hemlock (*Tsuga canadensis*), and *Rubus spp*. Dominant species in the herbaceous layer include cinnamon fern. Observed wetland soils were muck. Surface water, saturation, and a high-water table were observed. The wetland was demarcated with pink survey flagging.

Resource areas regulated under the WPA and the Bylaw include BVW.

Wetland 6

Wetland 6 is a small palustrine emergent wetland on a low shelf adjacent to the west bank of Stream 2 (Grindstone Brook) between, bank flags BF2-171 and 174. A short, steep slope borders the wetland along its western edge. Topography is generally flat throughout the wetland. The shrub layer is sparse and is dominated by Morrow's honeysuckle. The herbaceous layer is dominated by cinnamon fern, sensitive fern, American false hellebore, tussock sedge, and Sphagnum moss. The wetland was demarcated with pink survey flagging.

Resource areas regulated under the WPA and the Bylaw include BVW.

Wetland 7

Wetland 7 is a small palustrine emergent wetland on a low shelf adjacent to the west bank of Stream 2 (Grindstone Brook), between bank flags BF176 and 179. A gradual slope borders the wetland along its western edge. Topography is generally flat throughout the wetland. There is evidence that this wetland has been used as a campsite in the past (i.e., tarps, fire pit, trash). The tree layer is dominated by Eastern hemlock), red maple , and yellow birch. The shrub layer is dominated by yellow birch, Eastern hemlock, red maple, and Morrow's honeysuckle. The herbaceous layer is dominated by cinnamon fern, sensitive fern, American false hellebore, tussock sedge, and Sphagnum moss. The wetland was demarcated with pink survey flagging.

Resource areas regulated under the WPA and the Bylaw include BVW.

Wetland 8

Wetland 8 is a large depressional palustrine forested wetland extending from the northwest corner of Parcel #1 into the northwest corner of parcel #2. Topography is generally flat throughout the wetland, with some mound and pool microtopography. The tree layer is dominated by red maple and yellow birch. The shrub layer is dominated by highbush blueberry (*Vaccinium corymbosum*), yellow birch, and coastal sweet pepperbush (*Clethra alnifolia*). Dominant species in the herbaceous layer include

cinnamon fern, tussock sedge and Sphagnum moss. Observed wetland soils were muck, which is consistent with the soil type listed by NRCS (Freetown muck). The wetland was demarcated with pink survey flagging.

An unnamed intermittent stream (approximately 3-4 feet wide) originates within the wetland and flows in a southwesterly direction, continuing onto the adjacent parcel to the southwest (not part of this project). The stream is not shown on the current USGS map and has a watershed size less of than a square mile (approximately 0.15 sq. mile) per the USGS Stream Stats Survey results (Attachment F). Stream Stats was unable to generate a report for the 99% Flow Duration. Bank was demarcated with blue survey flagging.

Resource areas regulated under the WPA and the Bylaw include BVW and bank.

Wetland 9

Wetland 9 is a palustrine forested wetland extending north from the stream located off property southwest of parcel #2. The northern end of the wetland is small and depressional with generally flat topography, continuing as a narrow, sloping wetland towards the south. The tree layer is dominated by red maple and yellow birch. The shrub layer is dominated by highbush blueberry, yellow birch, and coastal sweet pepperbush. Dominant species in the herbaceous layer include cinnamon fern, tussock sedge, common soft rush, Sphagnum moss, and wool grass (*Scirpus cyperinus*). Soils within the wetland generally had a fine sandy loam texture with a matrix chroma of at least 2 or less down to 12 inches. Buttressed trunks and water-stained leaves were observed with areas of surface water and saturation. The wetland was demarcated with pink survey flagging.

Resource areas regulated under the WPA and the Bylaw include BVW.

Riverfront Area

RFA extends outward 200-feet from the Bank/MAHW line of Grindstone Brook (Wetland 2). The RFA is generally characterized by upland forest dominated by Eastern hemlock, white pine, oaks, and mountain laurel and includes several BVWs along the bank of Grindstone Brook (Wetlands 4, 5, 6 and 7).

Buffer Zone

The WPA regulations (310 CMR 10.02(2)(b)) and local Bylaw establish a 100-foot buffer zone from the limits of Wetlands 4, 5, 6, 7, 8, and 9 described above. In general, buffer zones are undeveloped forest dominated by Eastern hemlock, white pine, oaks and mountain laurel.

Local Setbacks

As outlined in Section 3 of the Rules and Regulations for Administering the Town of Leicester Wetlands Protection Bylaw, the Town has established a 25-foot vegetative No

Disturb Zone (NDZ) that is required for any project from any '*bank, bordering vegetated wetland, isolated vegetated wetland, marsh, wet meadow, bog, swamp, reservoir, pond, creek, river or stream, or any land under said waters*'.

The NDZ is currently undisturbed upland forest dominated by Eastern hemlock, white pine, oaks, and mountain laurel.

Work Description

Proposed work will consist of construction of an approximately 260,000 SF high bay industrial warehouse or manufacturing facility as depicted on the site plans prepared by VHB dated December 7, 2021 (Attachment E). The proposed building will result in building coverage of 12% of the Site. The proposed facility will be supported by approximately 279 passenger vehicle parking spaces, 43 loading docks, and 59 trailer parking spaces. The proposed facility is anticipated to be served by new water, sewer, and telephone/data connections to existing infrastructure in Huntoon Memorial Highway. As gas service is not currently available at the Site, the Project requires the use of propane to serve the building which is anticipated to be stored in tanks located at-grade on-site. General work type and sequencing will be as follows:

- Clearing vegetation;
- Earthwork (excavating and grading);
- Constructing the building, parking areas, and stormwater systems;
- Loaming, seeding, and landscaping; and
- Removing erosion and sedimentation controls after the area has fully stabilized.

Because the Site is currently undeveloped, the Project will result in the creation of additional impervious area. As such, the proposed grading and stormwater management system have been designed to mitigate the effects of the additional impervious area, subsequent increase in stormwater runoff, and needs for water quality treatment in accordance with the Massachusetts DEP Stormwater Standards. The stormwater management system and compliance with the Stormwater Standards is described in the Stormwater Report prepared by VHB dated December 2021 (Attachment E; bound separately).

Work in Wetland Resource Areas

The proposed project will include approximately 34,406 square feet of alteration to the outer 75 feet of the 200-foot Riverfront Area. Alterations will include clearing, grubbing, filling and grading to support the construction of the building and a driveway/fire lane along its east side.

Table 2 Work in Wetland Resource Areas

Resource Area	Type of Alteration	Amount
Riverfront Area	Filling and grading for construction of warehouse and associated improvements	34,406 square feet

Source: VHB, 2021.

Work in Buffer Zone

The proposed project will include approximately 77,482 square feet of alteration to the 100-foot Buffer Zone. Alterations will include clearing, grubbing, filling, and grading to support the construction of the warehouse and a driveway/ fire lane along its east side.

Table 3 Work in Buffer Zone

Resource Area	Type of Alteration	Amount
100-foot buffer zone to BVW	Filling and grading for construction of warehouse and associated improvements	77,482 square feet

Source: VHB, 2021.

Mitigation Measures

A suite of mitigation measures is proposed to prevent short- and long-term impacts to wetland resource areas and compensate for direct disturbances. Mitigation measures proposed for this project include:

Erosion and Sediment Control

An erosion and sedimentation control program will be implemented to minimize temporary impacts to wetland resource areas during the construction phase of the project. The program incorporates Best Management Practices (BMPs) specified in guidelines developed by the DEP[6] and the U.S. Environmental Protection Agency (EPA)[7].

Proper implementation of the erosion and sedimentation control program will:

- minimize exposed soil areas through sequencing and temporary stabilization;
- place structures to manage stormwater runoff and erosion; and

6 DEP, 1997. *Massachusetts Erosion and Sediment Control Guidelines for Urban and Suburban Areas: A Guide for Planners, Designers, and Municipal Officials.*

7 EPA, 2007. *Interim Developing Your Stormwater Pollution Prevention Plan: A Guide for Construction Sites*. Office of Water. Report EPA 833-R-060-04.

- establish a permanent vegetative cover or other forms of stabilization as soon as practicable.

The following sections describe the controls that will be used and practices that will be followed during construction. These practices comply with criteria contained in the NPDES General Permit for Discharges from Large and Small Construction Activities issued by the EPA.

Non-Structural Practices

Non-structural practices to be used during construction include temporary stabilization, temporary seeding, permanent seeding, and dust control. These practices will be initiated as soon as practicable in appropriate areas at the site.

Temporary Stabilization

Any areas of exposed soil or stockpiles that will remain inactive for more than 14 days will be covered with a layer of straw mulch applied at a rate of 90 pounds per 1,000 square feet. The mulch will be anchored with a tacking coat (non-tar) applied by a hydroseeder. Steeper slopes (greater than 10 percent) will be covered with a bonded fiber matrix (EcoAegis® or similar) according to the recommendations provided by the manufacturer.

In the event that heavy rain is forecast (more than 2 inches over a 24-hour period), slopes that are not stabilized will be treated with a polyacrylamide (PAM) product such as Silt Stop® (or an equivalent product). PAM is a nontoxic substance that promotes soil bonding. The PAM shall be applied in powder or liquid form in accordance with the recommendations provided by the manufacturer. This practice is only needed for sites that are highly susceptible to erosion – remove if not applicable

Temporary Seeding

If conditions allow, a temporary vegetative cover will be established on areas of exposed soils (including stockpiles) that remain unstabilized for a period of more than 60 days. The seeded surfaces will be covered with a layer of straw mulch or bonded fiber matrix as described above. The seed mix shall include a blend of rapid germinating grasses that are indigenous to central Massachusetts.

Permanent Seeding

Upon completion of final grading, any areas not covered by pavement, other forms of stabilization, or other methods of landscaping will be seeded with New England Conservation/Wildlife mix produced by New England Wetland Plants, Inc. This seed mix includes: Virginia Wild Rye (*Elymus virginicus*), Little Bluestem (*Schizachyrium scoparium*), Big Bluestem (*Andropogon gerardii*), Red Fescue (*Festuca rubra*), Switch Grass (*Panicum virgatum*), Partridge Pea (*Chamaecrista fasciculata*), Panicledleaf Tick Trefoil (*Desmodium paniculatum*), Indian Grass (*Sorghastrum nutans*), Blue Vervain (*Verbena hastata*), Butterfly Milkweed (*Asclepias tuberosa*), Black Eyed Susan (*Rudbeckia hirta*), Common Sneezeweed (*Helenium autunale*), Heath Aster (*Asterpilosus/Symphyotrichum pilosum*),

Early Goldenrod (*Solidago juncea*), Upland Bentgrass (*Agrostis perennans*). The mix will be applied at a rate of 25 pounds per acre and will be covered with mulch or bonded fiber matrix as described above.

Pavement Sweeping

The interior roads, existing parking lots, and proposed lots (once paved) shall be swept as needed during construction. The sweeping program will remove sediment and other contaminants directly from paved surfaces before their release into stormwater runoff. Pavement sweeping has been demonstrated to be an effective initial treatment for reducing pollutant loading into stormwater. A street sweeper shall be kept at the site or at a nearby location to facilitate this practice. Once construction has been completed, sweeping at the project site will occur as required under the Operation and Maintenance Plan.

Dust Control

The erosion and sediment control program includes provisions to minimize the generation of dust during dry and windy conditions. When necessary, larger areas of exposed soil will be wetted to prevent wind borne transport of fine-grained sediment. Enough water shall be applied to wet the upper 0.5 inches of soil. The water will be applied as a fine spray to prevent erosion. A water truck will be kept on the property (or at a nearby location) to facilitate this practice.

Structural Practices

Structural erosion and sedimentation controls to be used on the site include barriers and stabilized construction exits.

Erosion Control Barriers

Prior to any ground disturbance, an approved erosion control barrier will be installed at the downgradient limit of work. As construction progresses, additional barriers will be installed around the base of stockpiles, if any, and other erosion prone areas. The barriers will be entrenched into the substrate to prevent underflow.

If sediment has accumulated to a depth which impairs proper functioning of the barrier, it will be removed by hand or by machinery operating upslope of the barriers. This material will be either reused at the Site or disposed of at a suitable offsite location. Any damaged sections of the barrier will be repaired or replaced immediately upon discovery.

Stormwater Management

The Project will incorporate Best Management Practices (BMPs) that will provide water quality treatment to the stormwater runoff from impervious areas, mitigate peak rates and volumes by providing subsurface infiltration and retention, and promote stormwater recharge, in accordance with DEP policy. BMPs implemented into the site design include

minimized disturbance to existing trees and vegetation and subsurface infiltration. Because the Project is considered a land use with higher potential pollutant load (LUHPPL), the proposed stormwater management system has been designed to treat the one-inch Water Quality Volume and provide 44% Total Suspended Solids (TSS) pretreatment prior to infiltration. In general, stormwater from the proposed impervious surfaces is being captured via deep sump and hooded catch basins and routed to either a proprietary hydrodynamic separator prior to infiltration or to a gravel wetland.

Full details on the system (including supporting calculations) are included in the accompanying Stormwater Management Report (Attachment E, bound separately). Compliance with the 10 stormwater management standards cited in Section 310 CMR 10.05(6)(k) of the WPA Regulations is evaluated in Attachment E. The Project's stormwater design will fully comply with the MassDEP Stormwater Standards and will also follow the Leicester Stormwater Management By-law requirements.

Regulatory Compliance

As demonstrated below, work in wetland resource areas and/or the 100-foot buffer zone fully complies with applicable performance standards contained under the WPA regulations.

Work in Riverfront Area

As demonstrated below, work proposed in Riverfront Area complies with the requirements contained in the 310 CMR 10.58(4).

4)*General Performance Standard. Where the presumption set forth in 310 CMR 10.58(3) is not overcome, the applicant shall prove by a preponderance of the evidence that there are no practicable and substantially equivalent alternatives to the proposed project with less adverse effects on the interests identified in M.G.L. c. 131, § 40 and that the work, including proposed mitigation, will have no significant adverse impact on the riverfront area to protect the interests identified in M.G.L. c. 131, § 40*

(a)*Protection of Other Resource Areas. The work shall meet the performance standards for all other resource areas within the riverfront area, as identified in 310 CMR 10.55 (Bordering Vegetated Wetland) and 10.57 (Land Subject to Flooding). When work in the riverfront area is also within the buffer zone to another resource area, the performance standards for the riverfront area shall contribute to the protection of the interests of M.G.L. c. 131, § 40 in lieu of any additional requirements that might otherwise be imposed on work in the buffer zone within the riverfront area.*

No work is planned within BVW or BLSF. There is proposed work within approximately 144 square feet of overlapping Riverfront Area and 100-foot Buffer Zone; performance standards for Riverfront Area will be met here, as in the entirety of the altered Riverfront Area.

(b)*Protection of Rare Species.* *No project may be permitted within the riverfront area which will have any adverse effect on specified habitat sites of rare wetland or upland, vertebrate or invertebrate species, as identified by the procedures established under 310 CMR 10.59 or 10.37, or which will have any adverse effect on vernal pool habitat certified prior to the filing of the Notice of Intent.*

No mapped rare species habitat or vernal pools occur at this site.

(c)*Practicable and Substantially Equivalent Economic Alternatives.* *There must be no practicable and substantially equivalent economic alternative to the proposed project with less adverse effects on the interests identified in M.G.L. c. 131 § 40.*

See Alternatives Analysis below.

(d)*No Significant Adverse Impact.* *The work, including proposed mitigation measures, must have no significant adverse impact on the riverfront area to protect the interests identified in M.G.L. c. 131, § 40.* ***1.*** *Within 200-foot riverfront areas, the issuing authority may allow the alteration of up to 5000 square feet or 10% of the riverfront area within the lot, whichever is greater, on a lot recorded on or before October 6, 1997 or lots recorded after October 6, 1997 subject to the restrictions of 310 CMR 10.58(4)(c)2.b.vi., or up to 10% of the riverfront area within a lot recorded after October 6, 1997, provided that:*

Proposed alterations within Riverfront Area total 34,406 square feet, 9.4% of the total Riverfront Area.

a. *At a minimum, a 100-foot wide area of undisturbed vegetation is provided. This area shall extend from mean annual high-water along the river unless another location would better protect the interests identified in M.G.L. c. 131 § 40.*

No work is proposed within the 100-foot inner riparian area.

b. *Stormwater is managed according to standards established by the Department in its Stormwater Policy.*

The Project Proponent plans to manage stormwater according to the standards established by the Department in its Stormwater Policy. See Stormwater Report (bound separately).

c. *Proposed work does not impair the capacity of the riverfront area to provide important wildlife habitat functions. For work within an undeveloped riverfront area which exceeds 5,000 square feet, the issuing authority may require a wildlife habitat evaluation study under 310 CMR 10.60.*

Proposed work will not impact the inner riparian area (up to 100 feet from bank). The proposed +/- 34,000 sf alteration of Riverfront Area will occur only within the outer 75 feet of the outer riparian area, leaving an intact vegetated corridor to provide foraging, breeding, and dispersal habitat for wildlife.

d. *Proposed work shall not impair groundwater or surface water quality by incorporating erosion and sedimentation controls and other measures to attenuate nonpoint source pollution.*

Proposed work will not impair groundwater or surface water quality. Erosion and sedimentation controls and other measures to attenuate nonpoint source pollution will be implemented (see Mitigation Measures above).

Alternatives Analysis

The work within Riverfront Area is governed by the WPA regulations at 310 CMR 10.58, which require the Applicant to demonstrate that "there are no practicable and substantially equivalent economic alternatives to the proposed project with less adverse effects on the interests identified in M.G.L. c.131 §40." VHB examined alternatives to the Project to assess their feasibility and to demonstrate that the Project as currently proposed represents the only practicable alternative.

Alternative 1: No Build Alternative

The no-build alternative would not construct the 260,000 square foot manufacturing, industrial, or warehouse facility, with ancillary landscape improvements, parking spaces, and utility improvements. Under this alternative, the current Site conditions would remain the same, with the entirety of the 200-foot Riverfront Area left undisturbed.

This alternative is not consistent with the goal of the Project, which is to develop a facility in the region that addresses industry demand due to the recent transformation of the shipping, delivery, retail, and industrial industry from the exponential growth in online shopping and the COVID pandemic. The no-build alternative will not address the expanding need for this type of facility in the region.

Alternative 2: Previous Project

A similar project (warehouse/light manufacturing/retail) with associated parking, a single ingress/egress, and other improvements) was proposed and approved in June of 2010. In April of 2017, the permit was granted an extension until 10 June 2020.

The Previous Project proposed alterations up to the edges of Wetlands 5, 8, and 9, leaving no vegetated buffer to protect water quality within these wetlands. In addition, approximately 95,000 square feet of alterations were proposed within 100-foot Buffer Zone. The flagging done for the current project in 2019 extends beyond the (circa) 2009 lines for the 2010 application. With this extension in wetland area, if built today, the previous project would now fall within BVW. Although this alternative is consistent with the goal of the Project, it was not chosen because it does not significantly protect the interests of the WPA.

Alternative 3: The Proposed Project (Preferred Alternative)

This alternative would construct the Project as described in this narrative. This alternative will result in a greater amount of impact within the Riverfront Area. However, it has been designed to reduce overall impacts to wetland resource areas, while addressing an industry need within the region and providing numerous benefits to the Town of Leicester. The Project will have a positive fiscal impact for the Town, with a significant increase in tax revenue and limited impacts on public services. The Project will be the

home for new businesses and new job growth. As a non-residential project, the impacts to local services are anticipated to be minimal.

The current design of the Project allows for the safest, most flexible, and most efficient traffic flow within the development, separating truck traffic from the vehicular traffic of staff and clients, and providing options for multiple tenants. Parking allotments have been reduced compared to the previous project and are based on Town regulations. The size and placement of the warehouse building were selected as the best balance between the needs of the applicant and providing adequate environmental protections. The Project confines impacts within the Riverfront Area to the outer riparian area, leaving the vegetation within the inner riparian area undisturbed. The Project will not alter flow patterns or increase erosion to the river and will not decrease the ability of the Riverfront Area to protect the interests of the WPA. There are no proposed alterations to the 25-foot No Disturb Zone, and alterations to the 100' Buffer Zone have been reduced by approximately 18,000 square feet compared to the previously proposed project. For these reasons, this alternative was selected as the Preferred Alternative.

Work in Buffer Zone

As identified in 310 CMR 10.53(1) of the WPA regulations, "*the issuing authority should consider the characteristics of the buffer zone, such as the presence of steep slopes, that may increase the potential for adverse impacts on resource areas. Conditions may include limitations on the scope and location of work in the buffer zone as necessary to avoid alteration of resource areas. The issuing authority may require erosion and sedimentation controls during construction, a clear limit of work, and the preservation of natural vegetation adjacent to the resource area and/or other measures commensurate with the scope and location of the work within the buffer zone to protect the interests of the Act.*"

The proposed Project has been designed to address these requirements. As identified in the Mitigation Measures section of this attachment, an erosion and sedimentation control program will be implemented to prevent adverse impacts during construction. The Project Site is generally flat (not steeply sloped), disturbance to existing trees and vegetation has been minimized, and work has been proposed to minimize impacts within the 100-foot buffer zone to the greatest extent practicable.

Summary

The Applicant, JMC/TBG Leicester LLC, is proposing to construct an approximately 260,000 square foot manufacturing, industrial, or warehouse facility, with ancillary landscape improvements, parking spaces, and utility improvements to support this use. Approximately 34,406 square feet of alteration will occur within the outer Riverfront Area and 77,482 square feet within 100-foot buffer zone to wetlands. As demonstrated in the preceding narrative, work in Riverfront Area and 100-foot buffer zone fully complies with the WPA regulations. An erosion and sedimentation control program will be implemented to minimize temporary impacts to wetland resource areas during the construction phase of the Project.

The applicant respectfully requests that the Leicester Conservation Commission find these measures adequately protective of the interests identified in the WPA and issue an Order of Conditions approving the work described in this NOI and shown on the accompanying plans.

Attachment B
Abutter Information

- List of Abutters
- Abutter Notification Letter

Town of Leicester

Abutters List

CONCOM. / PLANNING

ParcelID	Location	Owner	Co-Owner	Mailing Address	City	State	Zip
43 C2 0	CLARK ST	SIGEL ROBERT		117 PADDOCK CIRCLE	MASHPEE	MA	02649
43 C3.1 0	CLARK ST	MELENDEZ DORIS	ORTIZ ISHAA	42 CLARK ST	ROCHDALE	MA	01542
43 C5 0	PLEASANT ST	TOWN OF LEICESTER	TOWN HALL	3 WASHBURN SQUARE	LEICESTER	MA	01524
43 C8 0	HANKEY ST	WORCESTER TOOL+STAMPING C		PO BOX 308	ROCHDALE	MA	01542-0308
43 C9 0	REAR PLEASANT ST	BERGIN JR JOSEPH D	BERGIN JR THOMAS J	P O BOX 486	HARDWICK	MA	01037
44 A4 0	88 HUNTOON MEMORIAL HW	88 PROPERTYCO LLC		655 THIRD AVE 18TH FL	NEW YORK	NY	10017
44 A7 0	94 102 HUNTOON MEMORIAL HW	ROBERT A SIGEL TR RT 56 TRUST		117 PADDOCK CIRCLE	MASHPEE	MA	02649
44 B1 0	HENSHAW ST	HENSHAW HOLDINGS LLC		515 HENSHAW ST	ROCHDALE	MA	01542
44 B6 0	93 HUNTOON MEMORIAL HW	CKB REALTY LLC		447 RAWSON ST	LEICESTER	MA	01524
46 A1 0	980 STAFFORD ST	ONEIL NANCY E		980 STAFFORD STREET	ROCHDALE	MA	01542

End of Report

Above is a certified list of abutters and abutters to the abutters within 300 feet of subject.
Subject property: 90 Huntoon Memorial Highway, Assessors Map 44-A4.1, Deed Ref. 6730/2
Subject owner(s): Robert Sigel
Subject property: Route 56, Assessors Map 44-A5, Deed Ref. 66504/86
Subject owner(s): JMC/TBG Leicester LLC
Subject property: 92 Huntoon Memorial Highway, Assessors Map 44-A6, Deed Ref. 54687/170
Subject owner(s): Robert Sigel

Sandy Genna, Principal Assessor
Prepared by: Kathleen Asquith, Assistant Assessor

ABUTTER NOTIFICATION LETTER
UNDER THE MASSACHUSETTS WETLANDS PROTECTION ACT
AND THE LEICESTER WETLANDS PROTECTION BYLAW

In accordance with the second paragraph of Massachusetts General Laws Chapter 131, Section 40, you are hereby notified of the following:

An Upcoming Leicester Conservation Commission Public Hearing

To Whom It May Concern,

You are an abutter within 300 feet of the proposed project described below. A **NOTICE OF INTENT** application has been filed with the Leicester Conservation Commission by:

APPLICANT: JMC/ TBG Leicester, LLC

For work located at:

PROJECT ADDRESS: 0, 90, 92 Huntoon Memorial Highway

ASSESSOR'S MAP & BLOCK: MAP: 44 PARCEL: A-4.1, A-5, A-6

The proposed project includes: Construction of an approximately 260,000 square foot building, ancillary landscape improvements, parking spaces, and utility improvements to support the use.

The Applicant's Agent is: Vanasse Hangen Brustlin, Inc.

The Public Hearing will be held at: Leicester Town Hall in the Conference Room
DATE: ___January 14, 2021____
TIME: __6:30 PM_____
NOTE: Notice of the public hearing, including its date, time, and place, will be published at least five (5) days in advance in the Worcester Telegram & Gazette.

NOTE: Plans and application describing the proposed activity are on file with the Leicester Conservation Commission (508)892-7007.

Attachment C
Field Data Forms

› BVW Field Data Forms

DEP Bordering Vegetated Wetland (310 CMR 10.55) Delineation Field Data Form

Applicant: **JMC/TBG Leicester LLC** Prepared by: **VHB** Project location: **Huntoon Memorial Highway, Leicester** DEP File #: _____

Check all that apply:
- ☐ Vegetation alone presumed adequate to delineate BVW boundary: fill out Section I only
- ☑ Vegetation and other indicators of hydrology used to delineate BVW boundary: fill out Sections I and II
- ☐ Method other than dominance test used (attach additional information)

Section I. Vegetation Observation Plot Number: **Flag 5-111** Transect Number: **Upgradient** Date of Delineation: **1-Dec-21**

Sample Layer and Plant Species	Scientific name	% Cover	% Dominance	Dominant Plant (yes or no)	Wetland Indicator Category*
Tree Layer					
Eastern hemlock	*Tsuga canadensis*	60.0%	75.5%	yes	FACU
red oak	*Quercus rubra*	14.5%	18.2%	no	FACW*
red maple	*Acer rubrum*	5.0%	6.3%	no	FAC*
Sapling/Shrub Layer					
Eastern hemlock	*Tsuga canadensis*	5.0%	50.0%	yes	FACU
Eastern white pine	*Pinus strobus*	5.0%	50.0%	yes	FACU
Shrub Layer					
none					
Climbing Woody Vine					
none					
Ground Cover					
none					0

Remarks: Upland characterized by riprap roadside slope.

Morphological Adaptations: 0 **Description:**

* An asterisk after indicator status denotes wetlands plants: plants listed in the Wetlands Protection Act (MGL c.131, s.40); plants in the genus Sphagnum; or plants listed as FAC, FAC+, FACW-, FACW, FACW+, or OBL.

Vegetation conclusion: Non-wetland

Number of dominant wetland indicator plants: 0 **Number of dominant non-wetland indicator plants: 1**

Is the number of dominant wetland plants equal to or greater than the number of dominant non-wetland plants? no

If vegetation alone is presumes adequate to delineate the BVW boundary, submit this form with the Request for Determination of Applicability or Notice of Intent.

Section II. Indicators of Hydrology

Hydric Soil Interpretation

1. Soil Survey

Is there a published soil survey for this site? ☑ yes ☐ no

title/date: **Soil Survey of Worcester County, Southern Part - 1998**

map number: **MA615**

soil type mapped: **Montauk fine sandy loam**

hydric soil inclusions: **n/a**

Are field observations consistent with soil survey? ☑ yes ☐ no

Remarks:

2. Soil Description

Horizon	Depth (inches)	Matrix Color	Mottles Color or Texture
A	0-3	7.5YR 2.5/1	sandy loam
B1	3-5	7.5YR 3/3	sandy loam
B2	5-12	7.5YR 3/4	sandy loam

Remarks:

3. Other:

Conclusion: Is soil hydric? ☐ yes ☑ no

Other Indicators of Hydrology: (check all that apply and describe)

- ☐ Site inundated:
- ☐ Depth to free water in observation hole:
- ☐ Depth to soil saturation in observation hole:
- ☐ Water marks:
- ☐ Drift Lines:
- ☐ Sediment deposits:
- ☐ Drainage patterns in BVW:
- ☐ Oxidized rhizoshperes:
- ☐ Water-stained leaves:
- ☐ Recorded data (stream, lake, or tidal gauge; aerial photo; other):
- ☐ Other:

Vegetation and Hydrology Conclusion for Upgradient of Flag 5-111

	yes	no
Number of wetland indicator plants >= number of non-wetland plants		**X**
Wetland hydrology present:		
hydric soils present		**X**
other indicators of hydrology present		**X**
Sample location is in a BVW		**X**

Submit this form with the Request for Determination of Applicability or Notice of Intent

DEP Bordering Vegetated Wetland (310 CMR 10.55) Delineation Field Data Form

Applicant: **JMC/TBG Leicester LLC** Prepared by: **VHB** Project location: **Huntoon Memorial Highway, Leicester** DEP File #: _____

Check all that apply:
- ☐ Vegetation alone presumed adequate to delineate BVW boundary: fill out Section I only
- ☑ Vegetation and other indicators of hydrology used to delineate BVW boundary: fill out Sections I and II
- ☐ Method other than dominance test used (attach additional information)

Section I. Vegetation Observation Plot Number: **Flag 5-111** Transect Number: **Downgradient** Date of Delineation: **1-Dec-21**

Sample Layer and Plant Species	Scientific name	% Cover	% Dominance	Dominant Plant (yes or no)	Wetland Indicator Category*
Tree Layer					
red maple	*Acer rubrum*	18.0%	56.3%	yes	FAC*
Eastern hemlock	*Tsuga canadensis*	14.0%	43.8%	no	FACU
Sapling/Shrub Layer					
yellow birch	*Betula alleghaniensis*	30.0%	45.5%	yes	FAC*
black elderberry	*Sambucus nigra*	18.0%	27.3%	yes	FACW*
common blackberry	*Rubus alleghaniensis*	13.0%	19.7%	no	FACU
red-osier dogwood	*Cornus stolonifera*	5.0%	7.6%	no	FACW*
Climbing Woody Vine					
none					
Ground Cover					
cinnamon fern	*Osmunda cinnamomea*	35.0%	100.0%	yes	FACW*

Remarks: _____

Morphological Adaptations: 0 **Description:** _____

* An asterisk after indicator status denotes wetlands plants: plants listed in the Wetlands Protection Act (MGL c.131, s.40); plants in the genus Sphagnum; or plants listed as FAC, FAC+, FACW-, FACW, FACW+, or OBL.

Vegetation conclusion: Wetland

Number of dominant wetland indicator plants: 3 **Number of dominant non-wetland indicator plants: 0**

Is the number of dominant wetland plants equal to or greater than the number of dominant non-wetland plants? yes

If vegetation alone is presumes adequate to delineate the BVW boundary, submit this form with the Request for Determination of Applicability or Notice of Intent.

Section II. Indicators of Hydrology

Hydric Soil Interpretation

1. Soil Survey

Is there a published soil survey for this site? ☑ yes ☐ no

title/date: **Soil Survey of Worcester County, Southern Part - 1998**

map number: **MA615**

soil type mapped: **Montauk fine sandy loam**

hydric soil inclusions: **n/a**

Are field observations consistent with soil survey? ☐ yes ☐ no

Remarks:

2. Soil Description

Horizon	Depth (inches)	Matrix Color	Mottles Color or Texture
Oi	2-0		organic matter
A/B	0-12+	5GY 2.5/1	muck

Remarks:

3. Other:

Conclusion: Is soil hydric? ☑ yes ☐ no

Other Indicators of Hydrology: (check all that apply and describe)

- ☐ Site inundated:
- ☑ Depth to free water in observation hole: 0 inches
- ☑ Depth to soil saturation in observation hole: 0 inches
- ☐ Water marks:
- ☐ Drift Lines:
- ☐ Sediment deposits:
- ☐ Drainage patterns in BVW:
- ☐ Oxidized rhizoshperes:
- ☐ Water-stained leaves:
- ☐ Recorded data (stream, lake, or tidal gauge; aerial photo; other):
- ☐ Other:

Vegetation and Hydrology Conclusion for Downgradient of Flag 5-111

	yes	no
Number of wetland indicator plants >= number of non-wetland plants	X	
Wetland hydrology present:		
hydric soils present	X	
other indicators of hydrology present	X	
Sample location is in a BVW	X	

Submit this form with the Request for Determination of Applicability or Notice of Intent

DEP Bordering Vegetated Wetland (310 CMR 10.55) Delineation Field Data Form

Applicant: **JMC/TBG Leicester LLC** Prepared by: **VHB** Project location: **Huntoon Memorial Highway, Leicester** DEP File #: _____

Check all that apply:
- ☐ Vegetation alone presumed adequate to delineate BVW boundary: fill out Section I only
- ☑ Vegetation and other indicators of hydrology used to delineate BVW boundary: fill out Sections I and II
- ☐ Method other than dominance test used (attach additional information)

Section I. Vegetation Observation Plot Number: **Flag 8-132** Transect Number: **Upgradient** Date of Delineation: **1-Dec-21**

Sample Layer and Plant Species	Scientific name	% Cover	% Dominance	Dominant Plant (yes or no)	Wetland Indicator Category*
Tree Layer					
Eastern hemlock	*Tsuga canadensis*	38.0%	79.2%	yes	FACU
Northern red oak	*Quercus rubra*	10.0%	20.8%	no	FACU
Sapling/Shrub Layer					
mountain laurel	*Kalmia latifolia*	50.0%	71.4%	yes	FACU
American witch-hazel	*Hamamelis virginiana*	15.0%	21.4%	no	FACU
Eastern white pine	*Pinus strobus*	5.0%	7.1%	no	FACU
Climbing Woody Vine					
none					
Ground Cover					
wintergreen	*Gaultheria procumbens*	25.0%	62.5%	yes	FACU
princess pine	*Dendrolycopodium hickeyi*	10.0%	25.0%	no	NI
bracken fern	*Pteridium aquilinum*	5.0%	12.5%	no	FACU

Remarks:

Morphological Adaptations: 0 **Description:**

* An asterisk after indicator status denotes wetlands plants: plants listed in the Wetlands Protection Act (MGL c.131, s.40); plants in the genus Sphagnum; or plants listed as FAC, FAC+, FACW-, FACW, FACW+, or OBL.

Vegetation conclusion: Non-wetland

Number of dominant wetland indicator plants: 0 **Number of dominant non-wetland indicator plants: 1**

Is the number of dominant wetland plants equal to or greater than the number of dominant non-wetland plants? no

If vegetation alone is presumes adequate to delineate the BVW boundary, submit this form with the Request for Determination of Applicability or Notice of Intent.

Section II. Indicators of Hydrology

Hydric Soil Interpretation

1. Soil Survey

Is there a published soil survey for this site? ☑ yes ☐ no

title/date: **Soil Survey of Worcester County, Southern Part - 1998**

map number: **MA615**

soil type mapped: **Montauk fine sandy loam**

hydric soil inclusions: **n/a**

Are field observations consistent with soil survey? ☑ yes ☐ no

Remarks:

2. Soil Description

Horizon	Depth (inches)	Matrix Color	Mottles Color or Texture
O	2-0		
A	0-2	5YR 2.5/1	sandy loam
E	2-4	7.5YR 3/1	sandy loam
B1	4-8	7.5YR 4/6	sandy loam
B2	8+	10YR 5/8	sandy loam

Remarks:

3. Other:

Conclusion: Is soil hydric? ☐ yes ☑ no

Other Indicators of Hydrology: (check all that apply and describe)

- ☐ Site inundated:
- ☐ Depth to free water in observation hole:
- ☐ Depth to soil saturation in observation hole:
- ☐ Water marks:
- ☐ Drift Lines:
- ☐ Sediment deposits:
- ☐ Drainage patterns in BVW:
- ☐ Oxidized rhizoshperes:
- ☐ Water-stained leaves:
- ☐ Recorded data (stream, lake, or tidal gauge; aerial photo; other):
- ☐ Other:

Vegetation and Hydrology Conclusion for Upgradient of Flag 8-132

	yes	no
Number of wetland indicator plants >= number of non-wetland plants		**X**
Wetland hydrology present:		
hydric soils present		**X**
other indicators of hydrology present		**X**
Sample location is in a BVW		**X**

Submit this form with the Request for Determination of Applicability or Notice of Intent

DEP Bordering Vegetated Wetland (310 CMR 10.55) Delineation Field Data Form

Applicant: **JMC/TBG Leicester LLC** Prepared by: **VHB** Project location: **Huntoon Memorial Highway, Leicester** DEP File #: _____

Check all that apply:
- ☐ Vegetation alone presumed adequate to delineate BVW boundary: fill out Section I only
- ☑ Vegetation and other indicators of hydrology used to delineate BVW boundary: fill out Sections I and II
- ☐ Method other than dominance test used (attach additional information)

Section I. Vegetation Observation Plot Number: **Flag 8-132** Transect Number: **Downgradient** Date of Delineation: **1-Dec-21**

Sample Layer and Plant Species	Scientific name	% Cover	% Dominance	Dominant Plant (yes or no)	Wetland Indicator Category*
Tree Layer					
red maple	*Acer rubrum*	18.0%	56.3%	yes	FAC*
Eastern hemlock	*Tsuga canadensis*	14.0%	43.8%	no	FACU
Sapling/Shrub Layer					
yellow birch	*Betula alleghaniensis*	30.0%	45.5%	yes	FAC*
black elderberry	*Sambucus nigra*	18.0%	27.3%	yes	FACW*
common blackberry	*Rubus alleghaniensis*	13.0%	19.7%	no	FACU
red-osier dogwood	*Cornus stolonifera*	5.0%	7.6%	no	FACW*
Climbing Woody Vine					
none					
Ground Cover					
cinnamon fern	*Osmundastrum cinnamomeum*	35.0%	100.0%	yes	FACW*

Remarks: _____

Morphological Adaptations: 0 **Description:** _____

* An asterisk after indicator status denotes wetlands plants: plants listed in the Wetlands Protection Act (MGL c.131, s.40); plants in the genus Sphagnum; or plants listed as FAC, FAC+, FACW-, FACW, FACW+, or OBL.

Vegetation conclusion: Wetland

Number of dominant wetland indicator plants: 3 **Number of dominant non-wetland indicator plants: 0**

Is the number of dominant wetland plants equal to or greater than the number of dominant non-wetland plants? yes

If vegetation alone is presumes adequate to delineate the BVW boundary, submit this form with the Request for Determination of Applicability or Notice of Intent.

Section II. Indicators of Hydrology

Hydric Soil Interpretation

1. Soil Survey

Is there a published soil survey for this site? ☑ yes ☐ no

title/date: **Soil Survey of Worcester County, Southern Part - 1998**

map number: **MA615**

soil type mapped: **Freetown muck**

hydric soil inclusions: **n/a**

Are field observations consistent with soil survey? ☑ yes ☐ no

Remarks:

2. Soil Description

Horizon	Depth (inches)	Matrix Color	Mottles Color or Texture
O	2-0		organic matter
A/B	0-12+	5GY 2.5/1	muck

Remarks:

3. Other:

Conclusion: Is soil hydric? ☑ yes ☐ no

Other Indicators of Hydrology: (check all that apply and describe)

- ☐ Site inundated:
- ☑ Depth to free water in observation hole: 6 inches
- ☑ Depth to soil saturation in observation hole: 0 inches
- ☐ Water marks:
- ☐ Drift Lines:
- ☐ Sediment deposits:
- ☐ Drainage patterns in BVW:
- ☐ Oxidized rhizoshperes:
- ☐ Water-stained leaves:
- ☐ Recorded data (stream, lake, or tidal gauge; aerial photo; other):
- ☐ Other:

Vegetation and Hydrology Conclusion for Downgradient of Flag 8-132

	yes	no
Number of wetland indicator plants >= number of non-wetland plants	X	
Wetland hydrology present:		
hydric soils present	X	
other indicators of hydrology present	X	
Sample location is in a BVW	X	

Submit this form with the Request for Determination of Applicability or Notice of Intent

DEP Bordering Vegetated Wetland (310 CMR 10.55) Delineation Field Data Form

Applicant: **JMC/TBG Leicester LLC** Prepared by: **VHB** Project location: **Huntoon Memorial Highway, Leicester** DEP File #: _____

Check all that apply:
- ☐ Vegetation alone presumed adequate to delineate BVW boundary: fill out Section I only
- ☑ Vegetation and other indicators of hydrology used to delineate BVW boundary: fill out Sections I and II
- ☐ Method other than dominance test used (attach additional information)

Section I. Vegetation Observation Plot Number: **Flag 9-123** Transect Number: **Upgradient** Date of Delineation: **1-Dec-21**

Sample Layer and Plant Species	Scientific name	% Cover	% Dominance	Dominant Plant (yes or no)	Wetland Indicator Category*
Tree Layer					
black oak	*Quercus velutina*	18.0%	100.0%	yes	UPL
Sapling/Shrub Layer					
mountain laurel	*Kalmia latifolia*	28.0%	52.8%	yes	FACU
American witch-hazel	*Hamamelis virginiana*	15.0%	28.3%	no	FACU
black oak	*Quercus velutina*	10.0%	18.9%	no	UPL
Eastern white pine	*Pinus strobus*				
Climbing Woody Vine					
none					
Ground Cover					
wintergreen	*Gaultheria procumbens*	25.0%	100.0%	yes	FACU

Remarks:

Morphological Adaptations: 0 **Description:**

* An asterisk after indicator status denotes wetlands plants: plants listed in the Wetlands Protection Act (MGL c.131, s.40); plants in the genus Sphagnum; or plants listed as FAC, FAC+, FACW-, FACW, FACW+, or OBL.

Vegetation conclusion: Non-wetland

Number of dominant wetland indicator plants: 0 **Number of dominant non-wetland indicator plants: 1**

Is the number of dominant wetland plants equal to or greater than the number of dominant non-wetland plants? no

If vegetation alone is presumes adequate to delineate the BVW boundary, submit this form with the Request for Determination of Applicability or Notice of Intent.

Section II. Indicators of Hydrology

Hydric Soil Interpretation

1. Soil Survey

Is there a published soil survey for this site? ☑ yes ☐ no

title/date: **Soil Survey of Worcester County, Southern Part - 1998**

map number: **MA615**

soil type mapped: **Montauk fine sandy loam**

hydric soil inclusions: **n/a**

Are field observations consistent with soil survey? ☑ yes ☐ no

Remarks:

2. Soil Description

Horizon	Depth (inches)	Matrix Color	Mottles Color or Texture
Oi	0.5-0		
A	0-1	10YR 2/1	sandy loam
B1	1-5	7.5YR 2.5/2	sandy loam
B2	5-12	7.5YR 4/6	sandy loam

Remarks:

3. Other:

Conclusion: Is soil hydric? ☐ yes ☑ no

Other Indicators of Hydrology: (check all that apply and describe)

- ☐ Site inundated:
- ☐ Depth to free water in observation hole:
- ☐ Depth to soil saturation in observation hole:
- ☐ Water marks:
- ☐ Drift Lines:
- ☐ Sediment deposits:
- ☐ Drainage patterns in BVW:
- ☐ Oxidized rhizoshperes:
- ☐ Water-stained leaves:
- ☐ Recorded data (stream, lake, or tidal gauge; aerial photo; other):
- ☐ Other:

Vegetation and Hydrology Conclusion for Upgradient of Flag 9-123

	yes	no
Number of wetland indicator plants >= number of non-wetland plants		**X**
Wetland hydrology present:		
hydric soils present		**X**
other indicators of hydrology present		**X**
Sample location is in a BVW		**X**

Submit this form with the Request for Determination of Applicability or Notice of Intent

DEP Bordering Vegetated Wetland (310 CMR 10.55) Delineation Field Data Form

Applicant: **JMC/TBG Leicester LLC** Prepared by: **VHB** Project location: **Huntoon Memorial Highway, Leicester** DEP File #: _____

Check all that apply:
- ☐ Vegetation alone presumed adequate to delineate BVW boundary: fill out Section I only
- ☑ Vegetation and other indicators of hydrology used to delineate BVW boundary: fill out Sections I and II
- ☐ Method other than dominance test used (attach additional information)

Section I. Vegetation Observation Plot Number: **Flag 9-123** Transect Number: **Downgradient** Date of Delineation: **1-Dec-21**

Sample Layer and Plant Species	Scientific name	% Cover	% Dominance	Dominant Plant (yes or no)	Wetland Indicator Category*
Tree Layer					
red maple	*Acer rubrum*	23.0%	56.1%	yes	FAC*
Eastern hemlock	*Tsuga canadensis*	18.0%	43.9%	no	FACU
Sapling/Shrub Layer					
yellow birch	*Betula alleghaniensis*	18.0%	58.1%	yes	FAC*
highbush blueberry	*Vaccinium corymbosum*	5.0%	16.1%	no	FACW*
mountain laurel	*Kalmia latifolia*	8.0%	25.8%	no	FACU
Climbing Woody Vine					
none					
Ground Cover					
tussock sedge	*Carex stricta*	18.0%	72.0%	yes	FACW*
cinnamon fern	*Osmunda cinnamomea*	5.0%	20.0%	no	FACW*
woolgrass	*Scirpus cyperinus*	2.0%	8.0%	no	FACW*

Remarks: _____

Morphological Adaptations: 0 **Description:** _____

* An asterisk after indicator status denotes wetlands plants: plants listed in the Wetlands Protection Act (MGL c.131, s.40); plants in the genus Sphagnum; or plants listed as FAC, FAC+, FACW-, FACW, FACW+, or OBL.

Vegetation conclusion: Wetland

Number of dominant wetland indicator plants: 2 **Number of dominant non-wetland indicator plants: 0**

Is the number of dominant wetland plants equal to or greater than the number of dominant non-wetland plants? yes

If vegetation alone is presumes adequate to delineate the BVW boundary, submit this form with the Request for Determination of Applicability or Notice of Intent.

Section II. Indicators of Hydrology

Hydric Soil Interpretation

1. Soil Survey

Is there a published soil survey for this site? ☑ yes ☐ no

title/date: **Soil Survey of Worcester County, Southern Part - 1998**

map number: **MA615**

soil type mapped: **Montauk fine sandy loam**

hydric soil inclusions: **n/a**

Are field observations consistent with soil survey? ☑ yes ☐ no

Remarks:

2. Soil Description

Horizon	Depth (inches)	Matrix Color	Mottles Color or Texture
A1	0-2	5Y 2.5/1	sandy loam
E	2-4	2.5Y 5/1	sandy loam
B1	4-7	5Y 3/2	sandy loam
B2	7-12	5Y 5/2	10YR 5/8

Remarks:

3. Other:

Conclusion: Is soil hydric? ☑ yes ☐ no

Other Indicators of Hydrology: (check all that apply and describe)

- ☐ Site inundated:
- ☑ Depth to free water in observation hole: 4 inches
- ☑ Depth to soil saturation in observation hole: 0 inches
- ☐ Water marks:
- ☐ Drift Lines:
- ☐ Sediment deposits:
- ☐ Drainage patterns in BVW:
- ☐ Oxidized rhizoshperes:
- ☑ Water-stained leaves:
- ☐ Recorded data (stream, lake, or tidal gauge; aerial photo; other):
- ☐ Other: Areas of surface water observed

Vegetation and Hydrology Conclusion for Downgradient of Flag 9-123

	yes	no
Number of wetland indicator plants >= number of non-wetland plants	X	
Wetland hydrology present:		
hydric soils present	X	
other indicators of hydrology present	X	
Sample location is in a BVW	X	

Submit this form with the Request for Determination of Applicability or Notice of Intent

Attachment D
Site Photos

vhb Engineers | Scientists | Planners | Designers

PHOTOGRAPHIC LOG

Client Name: JMC/TBG Leicester LLC | **Site Location:** Huntoon Memorial Highway, Leicester | **Project No**: 15392.00

Photo No.: 1 | **Date:** 06/16/19

Description:

Stream 2 (Grindstone Brook)

View facing south.

vhb Engineers | Scientists | Planners | Designers

PHOTOGRAPHIC LOG

Client Name: JMC/TBG Leicester LLC | **Site Location:** Huntoon Memorial Highway, Leicester | **Project No**: 15392.00

Photo No. : 2 | **Date:** 10/18/21

Description:

Stream 2 (Grindstone Brook)

View facing south towards the confluence of Stream 2 and Rochdale Pond.

vhb Engineers | Scientists | Planners | Designers

PHOTOGRAPHIC LOG

Client Name: JMC/TBG Leicester LLC | **Site Location:** Huntoon Memorial Highway, Leicester | **Project No**: 15392.00

Photo No. : 3 | **Date:** 12/01/21

Description:

Wetland 4

View facing southwest from WF4-104 towards Grindstone Brook.

vhb Engineers | Scientists | Planners | Designers

PHOTOGRAPHIC LOG

Client Name: JMC/TBG Leicester LLC | **Site Location:** Huntoon Memorial Highway, Leicester | **Project No**: 15392.00

Photo No. : 4 | **Date:** 12/01/21

Description:

Wetland 5

View facing northeast from the vicinity of WF5-111.

vhb Engineers | Scientists | Planners | Designers

PHOTOGRAPHIC LOG

Client Name: JMC/TBG Leicester LLC | **Site Location:** Huntoon Memorial Highway, Leicester | **Project No**: 15392.00

Photo No. : 5 | **Date:** 12/01/21

Description:

Wetland 5

View facing northeast from the vicinity of WF5-106.

vhb Engineers | Scientists | Planners | Designers

PHOTOGRAPHIC LOG

Client Name: JMC/TBG Leicester LLC | **Site Location:** Huntoon Memorial Highway, Leicester | **Project No**: 15392.00

Photo No. : 6 | **Date:** 12/01/21

Description:

Wetland 6

View facing south from WF6-104 towards Grindstone Brook.

vhb Engineers | Scientists | Planners | Designers

PHOTOGRAPHIC LOG

Client Name: JMC/TBG Leicester LLC | **Site Location:** Huntoon Memorial Highway, Leicester | **Project No**: 15392.00

Photo No. : 7 | **Date:** 12/01/21

Description:

Wetland 7

View facing south from WF7-103 towards Grindstone Brook. Note remnants of campsite in right midground (ropes and tarp) and center background (folded blue camp chair and firepit).

vhb Engineers | Scientists | Planners | Designers

PHOTOGRAPHIC LOG

Client Name: JMC/TBG Leicester LLC | **Site Location:** Huntoon Memorial Highway, Leicester | **Project No**: 15392.00

Photo No. : 8 | **Date:** 12/01/21

Description:

Wetland 7

View facing northeast from WF7-100.

vhb Engineers | Scientists | Planners | Designers

PHOTOGRAPHIC LOG

Client Name: JMC/TBG Leicester LLC | **Site Location:** Huntoon Memorial Highway, Leicester | **Project No**: 15392.00

Photo No. : 9 | **Date:** 05/21/19

Description:

Wetland 8

View facing west from the vicinity of WF8-127.

vhb Engineers | Scientists | Planners | Designers

PHOTOGRAPHIC LOG

Client Name: JMC/TBG Leicester LLC | **Site Location:** Huntoon Memorial Highway, Leicester | **Project No**: 15392.00

Photo No. : 10 | **Date:** 12/01/21

Description:

Wetland 8

View facing east from the vicinity of WF8-132.

vhb Engineers | Scientists | Planners | Designers

PHOTOGRAPHIC LOG

Client Name: JMC/TBG Leicester LLC | **Site Location:** Huntoon Memorial Highway, Leicester | **Project No**: 15392.00

Photo No. : 11 **Date:** 10/18/21

Description:

Wetland 8

Unamed intermittent stream (Stream 4). View facing west from corduroy road stream crossing.

vhb Engineers | Scientists | Planners | Designers

PHOTOGRAPHIC LOG

Client Name: JMC/TBG Leicester LLC | **Site Location:** Huntoon Memorial Highway, Leicester | **Project No**: 15392.00

Photo No. : 12 **Date:** 05/21/19

Description:

Wetland 9

View facing east from WF9-111.

vhb Engineers | Scientists | Planners | Designers

PHOTOGRAPHIC LOG

Client Name: JMC/TBG Leicester LLC	**Site Location:** Huntoon Memorial Highway, Leicester	**Project No**: 15392.00

Photo No. : 13	**Date:** 12/01/21

Description:

Wetland 9

View facing south from the vicinity of WF9-123.

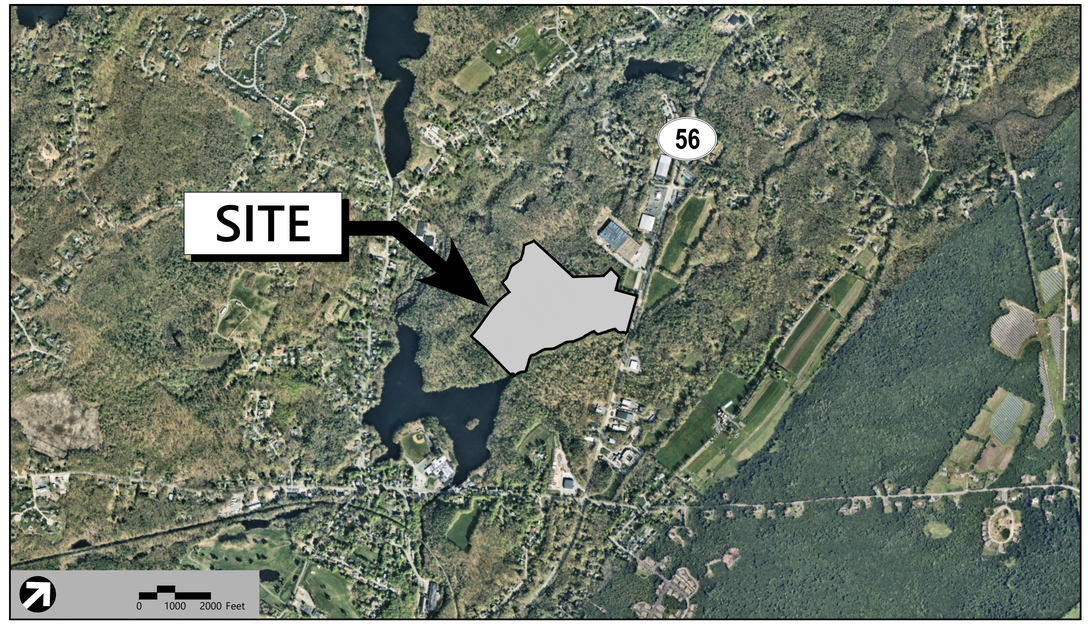
Attachment E
Project Plans

Site Plans

Issued for	Local Approvals
Date Issued	December 7, 2021
Latest Issue	December 7, 2021

Leicester Central

0, 90, & 92 Huntoon Memorial Highway
Leicester, MA 01524



Owners

JMC/TBG Leicester, LLC
100 Grandview Road
Suite 203
Braintree, MA 02184
781.849.0011

ASR Realty Company, LLC
117 Paddock Circle
Mashpee, MA 02649

Applicant

JMC/TBG Leicester, LLC
100 Grandview Road
Suite 203
Braintree, MA 02184
781.849.0011

Parcel ID's: 44 A4.1 0, 44 A6 0, & 44 A5 0

Sheet Index

No.	Drawing Title	Latest Issue
C1.00	Legend and General Notes	December 7, 2021
C2.00	Overall Site Plan	December 7, 2021
C2.01-2.02	Layout and Materials Plan	December 7, 2021
C3.00	Fire Access Plan	December 7, 2021
C4.00	Overall Grading, Drainage, and Erosion Control Plan	December 7, 2021
C4.01-4.02	Grading, Drainage, and Erosion Control Plan	December 7, 2021
C5.00	Overall Utility Plan	December 7, 2021
C5.01-5.02	Utility Plan	December 7, 2021
C6.00-6.03	Site Details	December 7, 2021
L1.00	Planting Plan	December 7, 2021
L2.00	Planting Details	December 7, 2021

Reference Drawings

No.	Drawing Title	Latest Issue
Sv-1	Existing Conditions Plan of Land	December 6, 2021
Sv-2	Existing Conditions Plan of Land	December 6, 2021
A1.0	Overall Floor Plan	December 6, 2021
A2.0	Roof Plan	December 6, 2021
A5.0	Exterior Elevations	December 6, 2021
SL-2C/2D	Site Lighting Photometric Calculation	December 7, 2021

vhb.com

120 Front Street
Suite 500
Worcester, MA 01608
508.752.1001

Geotechnical Engineer
Yankee Engineering & Testing, Inc.
10 Mason Street
Worcester, MA 01609
508.831.7404

Environmental Scientist / Traffic Engineer
VHB
120 Front Street
Suite 500
Worcester, MA 01608
508.752.1001

Architect
ARCO
30 Speen Street
Suite 300
Framingham, MA 01701
508.217.3131

Surveyor / Landscape Architect
VHB
101 Walnut Street
PO Box 9151
Watertown, MA 02471
617.924.1770

Site Lighting Designer
APEX Lighting Solutions
20-30 Beaver Road
Wethersfield, CT 06109
860.632.8766

VHB Project : 15392.00 - Leicester Central
Issued for : Local Approvals - 12/7/2021

\\VHB\GBL\PROJ\WORCESTER\15392.00 LEICESTER WAREHOUSE\CAD\LD\PLANSET\15392.00 - COV 14 December 2021

Legend

Exist.	Prop.	
		PROPERTY LINE
		PROJECT LIMIT LINE
		RIGHT-OF-WAY/PROPERTY LINE
		EASEMENT
		BUILDING SETBACK
		PARKING SETBACK
10+00	10+00	BASELINE
		CONSTRUCTION LAYOUT
		ZONING LINE
		TOWN LINE
		LIMIT OF DISTURBANCE
		WETLAND LINE WITH FLAG
		FLOODPLAIN
BLSF		BORDERING LAND SUBJECT TO FLOODING
BZ		WETLAND BUFFER ZONE
NDZ		NO DISTURB ZONE
200'RA		200' RIVERFRONT AREA
		GRAVEL ROAD
EOP	EOP	EDGE OF PAVEMENT
BB	BB	BITUMINOUS BERM
BC	BC	BITUMINOUS CURB
CC	CC	CONCRETE CURB
	CG	CURB AND GUTTER
ECC	ECC	EXTRUDED CONCRETE CURB
CC	MCC	MONOLITHIC CONCRETE CURB
CC	PCC	PRECAST CONC. CURB
SGE	SGE	SLOPED GRAN. EDGING
VGC	VGC	VERT. GRAN. CURB
		LIMIT OF CURB TYPE
		SAWCUT
		BUILDING
	EN	BUILDING ENTRANCE
	LD	LOADING DOCK
		BOLLARD
D	D	DUMPSTER PAD
		SIGN
		DOUBLE SIGN
		STEEL GUARDRAIL
		WOOD GUARDRAIL
		PATH
		TREE LINE
		WIRE FENCE
		FENCE
		STOCKADE FENCE
		STONE WALL
		RETAINING WALL
		STREAM / POND / WATER COURSE
		DETENTION BASIN
		HAY BALES
		SILT FENCE
		SILT SOCK / STRAW WATTLE
4	4	MINOR CONTOUR
20	20	MAJOR CONTOUR
10	10	PARKING COUNT
	C10	COMPACT PARKING STALLS
DYL	DYL	DOUBLE YELLOW LINE
SL	SL	STOP LINE
		CROSSWALK
		ACCESSIBLE CURB RAMP
		ACCESSIBLE PARKING
VAN	VAN	VAN-ACCESSIBLE PARKING

Exist.	Prop.	
		CONCRETE
		HEAVY DUTY PAVEMENT
		BUILDINGS
		RIPRAP
		CONSTRUCTION EXIT
27.35 TC×	27.35 TC×	TOP OF CURB ELEVATION
26.85 BC×	26.85 BC×	BOTTOM OF CURB ELEVATION
132.75 ×	132.75 ×	SPOT ELEVATION
45.0 TW× 38.5 BW×	45.0 TW× 38.5 BW×	TOP & BOTTOM OF WALL ELEVATION
		BORING LOCATION
		TEST PIT LOCATION
MW	MW	MONITORING WELL
UD	UD	UNDERDRAIN
12"D	12"D	DRAIN
6"RD	6"RD	ROOF DRAIN
12"S	12"S	SEWER
FM	FM	FORCE MAIN
OHW	OHW	OVERHEAD WIRE
6"W	6"W	WATER
4"FP	4"FP	FIRE PROTECTION
	2"DW	DOMESTIC WATER
3"G	G	GAS
E	E	ELECTRIC
STM	STM	STEAM
T	T	TELEPHONE
FA	FA	FIRE ALARM
CATV	CATV	CABLE TV
		CATCH BASIN CONCENTRIC
		CATCH BASIN ECCENTRIC
		DOUBLE CATCH BASIN CONCENTRIC
		DOUBLE CATCH BASIN ECCENTRIC
		GUTTER INLET
		DRAIN MANHOLE CONCENTRIC
		DRAIN MANHOLE ECCENTRIC
TD		TRENCH DRAIN
E	E	PLUG OR CAP
CO	CO	CLEANOUT
		FLARED END SECTION
		HEADWALL
S	S	SEWER MANHOLE CONCENTRIC
S	S	SEWER MANHOLE ECCENTRIC
CS	CS	CURB STOP & BOX
WV	WV	WATER VALVE & BOX
TSV	TSV	TAPPING SLEEVE, VALVE & BOX
		FIRE DEPARTMENT CONNECTION
HYD	HYD	FIRE HYDRANT
WM	WM	WATER METER
PIV	PIV	POST INDICATOR VALVE
W	W	WATER WELL
GC	GC	GAS GATE
GM	GM	GAS METER
E	EMH	ELECTRIC MANHOLE
EM	EM	ELECTRIC METER
		LIGHT POLE
T	TMH	TELEPHONE MANHOLE
T	T	TRANSFORMER PAD
		UTILITY POLE
		GUY POLE
		GUY WIRE & ANCHOR
HH	HH	HAND HOLE
PB	PB	PULL BOX
		MATCHLINE

Abbreviations

General

ABAN	ABANDON
ACR	ACCESSIBLE CURB RAMP
ADJ	ADJUST
APPROX	APPROXIMATE
BIT	BITUMINOUS
BS	BOTTOM OF SLOPE
BWLL	BROKEN WHITE LANE LINE
CONC	CONCRETE
DYCL	DOUBLE YELLOW CENTER LINE
EL	ELEVATION
ELEV	ELEVATION
EX	EXISTING
FDN	FOUNDATION
FFE	FIRST FLOOR ELEVATION
GRAN	GRANITE
GTD	GRADE TO DRAIN
LA	LANDSCAPE AREA
LOD	LIMIT OF DISTURBANCE
MAX	MAXIMUM
MIN	MINIMUM
NIC	NOT IN CONTRACT
NTS	NOT TO SCALE
PERF	PERFORATED
PROP	PROPOSED
REM	REMOVE
RET	RETAIN
R&D	REMOVE AND DISPOSE
R&R	REMOVE AND RESET
SWEL	SOLID WHITE EDGE LINE
SWLL	SOLID WHITE LANE LINE
TS	TOP OF SLOPE
TYP	TYPICAL

Utility

CB	CATCH BASIN
CMP	CORRUGATED METAL PIPE
CO	CLEANOUT
DCB	DOUBLE CATCH BASIN
DMH	DRAIN MANHOLE
CIP	CAST IRON PIPE
COND	CONDUIT
DIP	DUCTILE IRON PIPE
FES	FLARED END SECTION
FM	FORCE MAIN
F&G	FRAME AND GRATE
F&C	FRAME AND COVER
GI	GUTTER INLET
GT	GREASE TRAP
HDPE	HIGH DENSITY POLYETHYLENE PIPE
HH	HANDHOLE
HW	HEADWALL
HYD	HYDRANT
INV	INVERT ELEVATION
I=	INVERT ELEVATION
LP	LIGHT POLE
MES	METAL END SECTION
PIV	POST INDICATOR VALVE
PWW	PAVED WATER WAY
PVC	POLYVINYLCHLORIDE PIPE
RCP	REINFORCED CONCRETE PIPE
R=	RIM ELEVATION
RIM=	RIM ELEVATION
SMH	SEWER MANHOLE
TSV	TAPPING SLEEVE, VALVE AND BOX
UG	UNDERGROUND
UP	UTILITY POLE

Notes

General

1. CONTRACTOR SHALL NOTIFY "DIG-SAFE" (1-888-344-7233) AT LEAST 72 HOURS BEFORE EXCAVATING.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR SITE SECURITY AND JOB SAFETY. CONSTRUCTION ACTIVITIES SHALL BE IN ACCORDANCE WITH OSHA STANDARDS AND LOCAL REQUIREMENTS.
3. ACCESSIBLE ROUTES, PARKING SPACES, RAMPS, SIDEWALKS AND WALKWAYS SHALL BE CONSTRUCTED IN CONFORMANCE WITH THE FEDERAL AMERICANS WITH DISABILITIES ACT AND WITH STATE AND LOCAL LAWS AND REGULATIONS (WHICHEVER ARE MORE STRINGENT).
4. AREAS DISTURBED DURING CONSTRUCTION AND NOT RESTORED WITH IMPERVIOUS SURFACES (BUILDINGS, PAVEMENTS, WALKS, ETC.) SHALL RECEIVE SIX INCHES LOAM AND SEED.
5. WITHIN THE LIMITS OF THE BUILDING FOOTPRINT, THE SITE CONTRACTOR SHALL PERFORM EARTHWORK OPERATIONS REQUIRED UP TO SUBGRADE ELEVATIONS.
6. WORK WITHIN THE LOCAL RIGHTS-OF-WAY SHALL CONFORM TO LOCAL MUNICIPAL STANDARDS. WORK WITHIN STATE RIGHTS-OF-WAY SHALL CONFORM TO THE LATEST EDITION OF THE STATE HIGHWAY DEPARTMENTS STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES.
7. UPON AWARD OF CONTRACT, CONTRACTOR SHALL MAKE NECESSARY CONSTRUCTION NOTIFICATIONS AND APPLY FOR AND OBTAIN NECESSARY PERMITS, PAY FEES, AND POST BONDS ASSOCIATED WITH THE WORK INDICATED ON THE DRAWINGS, IN THE SPECIFICATIONS, AND IN THE CONTRACT DOCUMENTS. DO NOT CLOSE OR OBSTRUCT ROADWAYS, SIDEWALKS, AND FIRE HYDRANTS, WITHOUT APPROPRIATE PERMITS.
8. TRAFFIC SIGNAGE AND PAVEMENT MARKINGS SHALL CONFORM TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
9. AREAS OUTSIDE THE LIMITS OF PROPOSED WORK DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE RESTORED BY THE CONTRACTOR TO THEIR ORIGINAL CONDITION AT THE CONTRACTOR'S EXPENSE.
10. IN THE EVENT THAT SUSPECTED CONTAMINATED SOIL, GROUNDWATER, AND OTHER MEDIA ARE ENCOUNTERED DURING EXCAVATION AND CONSTRUCTION ACTIVITIES BASED ON VISUAL, OLFACTORY, OR OTHER EVIDENCE, THE CONTRACTOR SHALL STOP WORK IN THE VICINITY OF THE SUSPECT MATERIAL TO AVOID FURTHER SPREADING OF THE MATERIAL, AND SHALL NOTIFY THE OWNER IMMEDIATELY SO THAT THE APPROPRIATE TESTING AND SUBSEQUENT ACTION CAN BE TAKEN.
11. CONTRACTOR SHALL PREVENT DUST, SEDIMENT, AND DEBRIS FROM EXITING THE SITE AND SHALL BE RESPONSIBLE FOR CLEANUP, REPAIRS AND CORRECTIVE ACTION IF SUCH OCCURS.
12. DAMAGE RESULTING FROM CONSTRUCTION LOADS SHALL BE REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL COST TO OWNER.
13. CONTRACTOR SHALL CONTROL STORMWATER RUNOFF DURING CONSTRUCTION TO PREVENT ADVERSE IMPACTS TO OFF SITE AREAS, AND SHALL BE RESPONSIBLE TO REPAIR RESULTING DAMAGES, IF ANY, AT NO COST TO OWNER.
14. THIS PROJECT DISTURBS MORE THAN ONE ACRE OF LAND AND FALLS WITHIN THE NPDES CONSTRUCTION GENERAL PERMIT (CGP) PROGRAM AND EPA JURISDICTION. PRIOR TO THE START OF CONSTRUCTION CONTRACTOR IS TO FILE A CGP NOTICE OF INTENT WITH THE EPA AND PREPARE A STORMWATER POLLUTION PREVENTION PLAN IN ACCORDANCE WITH THE NPDES REGULATIONS. CONTRACTOR SHALL CONFIRM THE OWNER HAS ALSO FILED A NOTICE OF INTENT WITH THE EPA.

Utilities

1. THE LOCATIONS, SIZES, AND TYPES OF EXISTING UTILITIES ARE SHOWN AS AN APPROXIMATE REPRESENTATION ONLY. THE OWNER OR ITS REPRESENTATIVE(S) HAVE NOT INDEPENDENTLY VERIFIED THIS INFORMATION AS SHOWN ON THE PLANS. THE UTILITY INFORMATION SHOWN DOES NOT GUARANTEE THE ACTUAL EXISTENCE, SERVICEABILITY, OR OTHER DATA CONCERNING THE UTILITIES, NOR DOES IT GUARANTEE AGAINST THE POSSIBILITY THAT ADDITIONAL UTILITIES MAY BE PRESENT THAT ARE NOT SHOWN ON THE PLANS. PRIOR TO ORDERING MATERIALS AND BEGINNING CONSTRUCTION, THE CONTRACTOR SHALL VERIFY AND DETERMINE THE EXACT LOCATIONS, SIZES, AND ELEVATIONS OF THE POINTS OF CONNECTIONS TO EXISTING UTILITIES AND, SHALL CONFIRM THAT THERE ARE NO INTERFERENCES WITH EXISTING UTILITIES AND THE PROPOSED UTILITY ROUTES, INCLUDING ROUTES WITHIN THE PUBLIC RIGHTS OF WAY.
2. WHERE AN EXISTING UTILITY IS FOUND TO CONFLICT WITH THE PROPOSED WORK, OR EXISTING CONDITIONS DIFFER FROM THOSE SHOWN SUCH THAT THE WORK CANNOT BE COMPLETED AS INTENDED, THE LOCATION, ELEVATION, AND SIZE OF THE UTILITY SHALL BE ACCURATELY DETERMINED WITHOUT DELAY BY THE CONTRACTOR, AND THE INFORMATION FURNISHED IN WRITING TO THE OWNER'S REPRESENTATIVE FOR THE RESOLUTION OF THE CONFLICT AND CONTRACTOR'S FAILURE TO NOTIFY PRIOR TO PERFORMING ADDITIONAL WORK RELEASES OWNER FROM OBLIGATIONS FOR ADDITIONAL PAYMENTS WHICH OTHERWISE MAY BE WARRANTED TO RESOLVE THE CONFLICT.
3. SET CATCH BASIN RIMS, AND INVERTS OF SEWERS, DRAINS, AND DITCHES IN ACCORDANCE WITH ELEVATIONS ON THE GRADING AND UTILITY PLANS.
4. RIM ELEVATIONS FOR DRAIN AND SEWER MANHOLES, WATER VALVE COVERS, GAS GATES, ELECTRIC AND TELEPHONE PULL BOXES, AND MANHOLES, AND OTHER SUCH ITEMS, ARE APPROXIMATE AND SHALL BE SET/RESET AS FOLLOWS:
   - A. PAVEMENTS AND CONCRETE SURFACES: FLUSH
   - B. ALL SURFACES ALONG ACCESSIBLE ROUTES: FLUSH
   - C. LANDSCAPE, LOAM AND SEED, AND OTHER EARTH SURFACE AREAS: ONE INCH ABOVE SURROUNDING AREA AND TAPER EARTH TO THE RIM ELEVATION.
5. THE LOCATION, SIZE, DEPTH, AND SPECIFICATIONS FOR CONSTRUCTION OF PROPOSED PRIVATE UTILITY SERVICES SHALL BE INSTALLED ACCORDING TO THE REQUIREMENTS PROVIDED BY, AND APPROVED BY, THE RESPECTIVE UTILITY COMPANY (GAS, TELEPHONE, ELECTRIC, FIRE ALARM, ETC.). FINAL DESIGN LOADS AND LOCATIONS TO BE COORDINATED WITH OWNER AND ARCHITECT.
6. CONTRACTOR SHALL MAKE ARRANGEMENTS FOR AND SHALL BE RESPONSIBLE FOR PAYING FEES FOR POLE RELOCATION AND FOR THE ALTERATION AND ADJUSTMENT OF GAS, ELECTRIC, TELEPHONE, FIRE ALARM, AND ANY OTHER PRIVATE UTILITIES, WHETHER WORK IS PERFORMED BY CONTRACTOR OR BY THE UTILITIES COMPANY.
7. UTILITY PIPE MATERIALS SHALL BE AS FOLLOWS, UNLESS OTHERWISE NOTED ON THE PLAN:
   - A. WATER PIPES SHALL BE DUCTILE IRON (DI) CLASS 52
   - B. SANITARY SEWER PIPES SHALL BE POLYVINYL CHLORIDE (PVC) SEWER PIPE SDR-35
   - C. STORM DRAINAGE PIPES SHALL BE HIGH DENSITY POLYETHYLENE (HDPE)
   - D. PIPE INSTALLATION AND MATERIALS SHALL COMPLY WITH THE STATE PLUMBING CODE WHERE APPLICABLE. CONTRACTOR SHALL COORDINATE WITH LOCAL PLUMBING INSPECTOR PRIOR TO BEGINNING WORK.
8. CONTRACTOR SHALL COORDINATE WITH ELECTRICAL CONTRACTOR AND SHALL FURNISH EXCAVATION, INSTALLATION, AND BACKFILL OF ELECTRICAL FURNISHED SITEWORK RELATED ITEMS SUCH AS PULL BOXES, CONDUITS, DUCT BANKS, LIGHT POLE BASES, AND CONCRETE PADS. SITE CONTRACTOR SHALL FURNISH CONCRETE ENCASEMENT OF DUCT BANKS IF REQUIRED BY THE UTILITY COMPANY AND AS INDICATED ON THE DRAWINGS.
9. CONTRACTOR SHALL EXCAVATE AND BACKFILL TRENCHES FOR GAS IN ACCORDANCE WITH GAS COMPANY'S REQUIREMENTS.
10. ALL DRAINAGE AND SANITARY STRUCTURE INTERIOR DIAMETERS (4' MIN.) SHALL BE DETERMINED BY THE MANUFACTURER BASED ON THE PIPE CONFIGURATIONS SHOWN ON THESE PLANS AND LOCAL MUNICIPAL STANDARDS. FOR MANHOLES THAT ARE 20 FEET IN DEPTH AND GREATER, THE MINIMUM DIAMETER SHALL BE 5 FEET.

Layout and Materials

1. DIMENSIONS ARE FROM THE FACE OF CURB, FACE OF BUILDING, FACE OF WALL, AND CENTER LINE OF PAVEMENT MARKINGS, UNLESS OTHERWISE NOTED.
2. CURB RADII ARE THREE FEET UNLESS OTHERWISE NOTED.
3. CURBING SHALL BE PRECAST CONCRETE CURB WITHIN THE SITE UNLESS OTHERWISE INDICATED ON THE PLANS.
4. SEE ARCHITECTURAL DRAWINGS FOR EXACT BUILDING DIMENSIONS AND DETAILS CONTIGUOUS TO THE BUILDING, INCLUDING SIDEWALKS, RAMPS, BUILDING ENTRANCES, STAIRWAYS, UTILITY PENETRATIONS, CONCRETE DOOR PADS, COMPACTOR PAD, LOADING DOCKS, BOLLARDS, ETC.
5. PROPOSED BOUNDS AND ANY EXISTING PROPERTY LINE MONUMENTATION DISTURBED DURING CONSTRUCTION SHALL BE SET OR RESET BY A PROFESSIONAL LAND SURVEYOR.
6. PRIOR TO START OF CONSTRUCTION, CONTRACTOR SHALL VERIFY EXISTING PAVEMENT ELEVATIONS AT INTERFACE WITH PROPOSED PAVEMENTS, AND EXISTING GROUND ELEVATIONS ADJACENT TO DRAINAGE OUTLETS TO ASSURE PROPER TRANSITIONS BETWEEN EXISTING AND PROPOSED FACILITIES.

Demolition

1. CONTRACTOR SHALL REMOVE AND DISPOSE OF EXISTING MANMADE SURFACE FEATURES WITHIN THE LIMIT OF WORK INCLUDING BUILDINGS, STRUCTURES, PAVEMENTS, SLABS, CURBING, FENCES, UTILITY POLES, SIGNS, ETC. UNLESS INDICATED OTHERWISE ON THE DRAWINGS. REMOVE AND DISPOSE OF EXISTING UTILITIES, FOUNDATIONS AND UNSUITABLE MATERIAL BENEATH AND FOR A DISTANCE OF 10 FEET BEYOND THE PROPOSED BUILDING FOOTPRINT INCLUDING EXTERIOR COLUMNS.
2. EXISTING UTILITIES SHALL BE TERMINATED, UNLESS OTHERWISE NOTED, IN CONFORMANCE WITH LOCAL, STATE AND INDIVIDUAL UTILITY COMPANY STANDARD SPECIFICATIONS AND DETAILS. THE CONTRACTOR SHALL COORDINATE UTILITY SERVICE DISCONNECTS WITH THE UTILITY REPRESENTATIVES.
3. CONTRACTOR SHALL DISPOSE OF DEMOLITION DEBRIS IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS, ORDINANCES AND STATUTES.
4 THE DEMOLITION LIMITS DEPICTED IN THE PLANS IS INTENDED TO AID THE CONTRACTOR DURING THE BIDDING AND CONSTRUCTION PROCESS AND IS NOT INTENDED TO DEPICT EACH AND EVERY ELEMENT OF DEMOLITION. THE CONTRACTOR IS RESPONSIBLE FOR IDENTIFYING THE DETAILED SCOPE OF DEMOLITION BEFORE SUBMITTING ITS BID/PROPOSAL TO PERFORM THE WORK AND SHALL MAKE NO CLAIMS AND SEEK NO ADDITIONAL COMPENSATION FOR CHANGED CONDITIONS OR UNFORESEEN OR LATENT SITE CONDITIONS RELATED TO ANY CONDITIONS DISCOVERED DURING EXECUTION OF THE WORK.
5. UNLESS OTHERWISE SPECIFICALLY PROVIDED ON THE PLANS OR IN THE SPECIFICATIONS, THE ENGINEER HAS NOT PREPARED DESIGNS FOR AND SHALL HAVE NO RESPONSIBILITY FOR THE PRESENCE, DISCOVERY, REMOVAL, ABATEMENT OR DISPOSAL OF HAZARDOUS MATERIALS, TOXIC WASTES OR POLLUTANTS AT THE PROJECT SITE. THE ENGINEER SHALL NOT BE RESPONSIBLE FOR ANY CLAIMS OF LOSS, DAMAGE, EXPENSE, DELAY, INJURY OR DEATH ARISING FROM THE PRESENCE OF HAZARDOUS MATERIAL AND CONTRACTOR SHALL INDEMNIFY AND HOLD HARMLESS THE ENGINEER FROM ANY CLAIMS MADE IN CONNECTION THEREWITH. MOREOVER, THE ENGINEER SHALL HAVE NO ADMINISTRATIVE OBLIGATIONS OF ANY TYPE WITH REGARD TO ANY CONTRACTOR AMENDMENT INVOLVING THE ISSUES OF PRESENCE, DISCOVERY, REMOVAL, ABATEMENT OR DISPOSAL OF ASBESTOS OR OTHER HAZARDOUS MATERIALS.

Erosion Control

1. PRIOR TO STARTING ANY OTHER WORK ON THE SITE, THE CONTRACTOR SHALL NOTIFY APPROPRIATE AGENCIES AND SHALL INSTALL EROSION CONTROL MEASURES AS SHOWN ON THE PLANS AND AS IDENTIFIED IN FEDERAL, STATE, AND LOCAL APPROVAL DOCUMENTS PERTAINING TO THIS PROJECT.
2. CONTRACTOR SHALL INSPECT AND MAINTAIN EROSION CONTROL MEASURES ON A WEEKLY BASIS (MINIMUM) OR AS REQUIRED PER THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP). THE CONTRACTOR SHALL ADDRESS DEFICIENCIES AND MAINTENANCE ITEMS WITHIN TWENTY-FOUR HOURS OF INSPECTION. CONTRACTOR SHALL PROPERLY DISPOSE OF SEDIMENT SUCH THAT IT DOES NOT ENCUMBER OTHER DRAINAGE STRUCTURES AND PROTECTED AREAS.
3. CONTRACTOR SHALL BE FULLY RESPONSIBLE TO CONTROL CONSTRUCTION SUCH THAT SEDIMENTATION SHALL NOT AFFECT REGULATORY PROTECTED AREAS, WHETHER SUCH SEDIMENTATION IS CAUSED BY WATER, WIND, OR DIRECT DEPOSIT.
4. CONTRACTOR SHALL PERFORM CONSTRUCTION SEQUENCING SUCH THAT EARTH MATERIALS ARE EXPOSED FOR A MINIMUM OF TIME BEFORE THEY ARE COVERED, SEEDED, OR OTHERWISE STABILIZED TO PREVENT EROSION.
5. UPON COMPLETION OF CONSTRUCTION AND ESTABLISHMENT OF PERMANENT GROUND COVER, CONTRACTOR SHALL REMOVE AND DISPOSE OF EROSION CONTROL MEASURES AND CLEAN SEDIMENT AND DEBRIS FROM ENTIRE DRAINAGE AND SEWER SYSTEMS.

Existing Conditions Information

1. BASE PLAN: THE PROPERTY LINES SHOWN WERE DETERMINED BY AN ACTUAL FIELD SURVEY CONDUCTED BY VHB, INC., IN JULY, 2019 AND FROM DEEDS AND PLANS OF RECORD. THE EXISTING CONDITIONS SHOWN ON THESE PLANS WERE DEVELOPED FROM A COMBINED EFFORT OF LIDAR & AERIAL PHOTOGRAMMETRIC MAPPING BY EASTERN TOPOGRAPHICS, INC., BASED ON AERIAL PHOTOGRAPHS TAKEN ON APRIL 25, 2019, AND AUGMENTED BY AN ON-THE-GROUND SURVEY PERFORMED BY VHB DURING JULY, 2019 AND NOVEMBER, 2021.
   - A. DELINEATION OF THE WETLANDS AND PLACEMENT OF THE FLAGS WAS PERFORMED BY: VHB ENVIRONMENTAL GROUP IN JUNE, 2019 AND REFLAGGED IN OCTOBER 2021
2. TOPOGRAPHY: ELEVATIONS ARE BASED ON NAVD 1988.
3. GEOTECHNICAL DATA INCLUDING TEST PIT AND BORING LOCATIONS AND ELEVATIONS WERE OBTAINED FROM YANKEE ENGINEERING & TESTING, INC.

Document Use

1. THESE PLANS AND CORRESPONDING CADD DOCUMENTS ARE INSTRUMENTS OF PROFESSIONAL SERVICE, AND SHALL NOT BE USED, IN WHOLE OR IN PART, FOR ANY PURPOSE OTHER THAN FOR WHICH IT WAS CREATED WITHOUT THE EXPRESSED, WRITTEN CONSENT OF VHB. ANY UNAUTHORIZED USE, REUSE, MODIFICATION OR ALTERATION, INCLUDING AUTOMATED CONVERSION OF THIS DOCUMENT SHALL BE AT THE USER'S SOLE RISK WITHOUT LIABILITY OR LEGAL EXPOSURE TO VHB.
2. CONTRACTOR SHALL NOT RELY SOLELY ON ELECTRONIC VERSIONS OF PLANS, SPECIFICATIONS, AND DATA FILES THAT ARE OBTAINED FROM THE DESIGNERS, BUT SHALL VERIFY LOCATION OF PROJECT FEATURES IN ACCORDANCE WITH THE PAPER COPIES OF THE PLANS AND SPECIFICATIONS THAT ARE SUPPLIED AS PART OF THE CONTRACT DOCUMENTS.
3. SYMBOLS AND LEGENDS OF PROJECT FEATURES ARE GRAPHIC REPRESENTATIONS AND ARE NOT NECESSARILY SCALED TO THEIR ACTUAL DIMENSIONS OR LOCATIONS ON THE DRAWINGS. THE CONTRACTOR SHALL REFER TO THE DETAIL SHEET DIMENSIONS, MANUFACTURERS' LITERATURE, SHOP DRAWINGS AND FIELD MEASUREMENTS OF SUPPLIED PRODUCTS FOR LAYOUT OF THE PROJECT FEATURES.

vhb.com

vhb

120 Front Street
Suite 500
Worcester, MA 01608
508.752.1001

Leicester Central

0, 90, & 92 Huntoon Memorial Highway
Leicester, MA 01524

No.	Revision	Date	Appvd.

Designed by CSH | Checked by JWD

Issued for: Local Approvals | Date: December 7, 2021

Not Approved for Construction

Drawing Title: Legend and General Notes

Drawing Number: C1.00

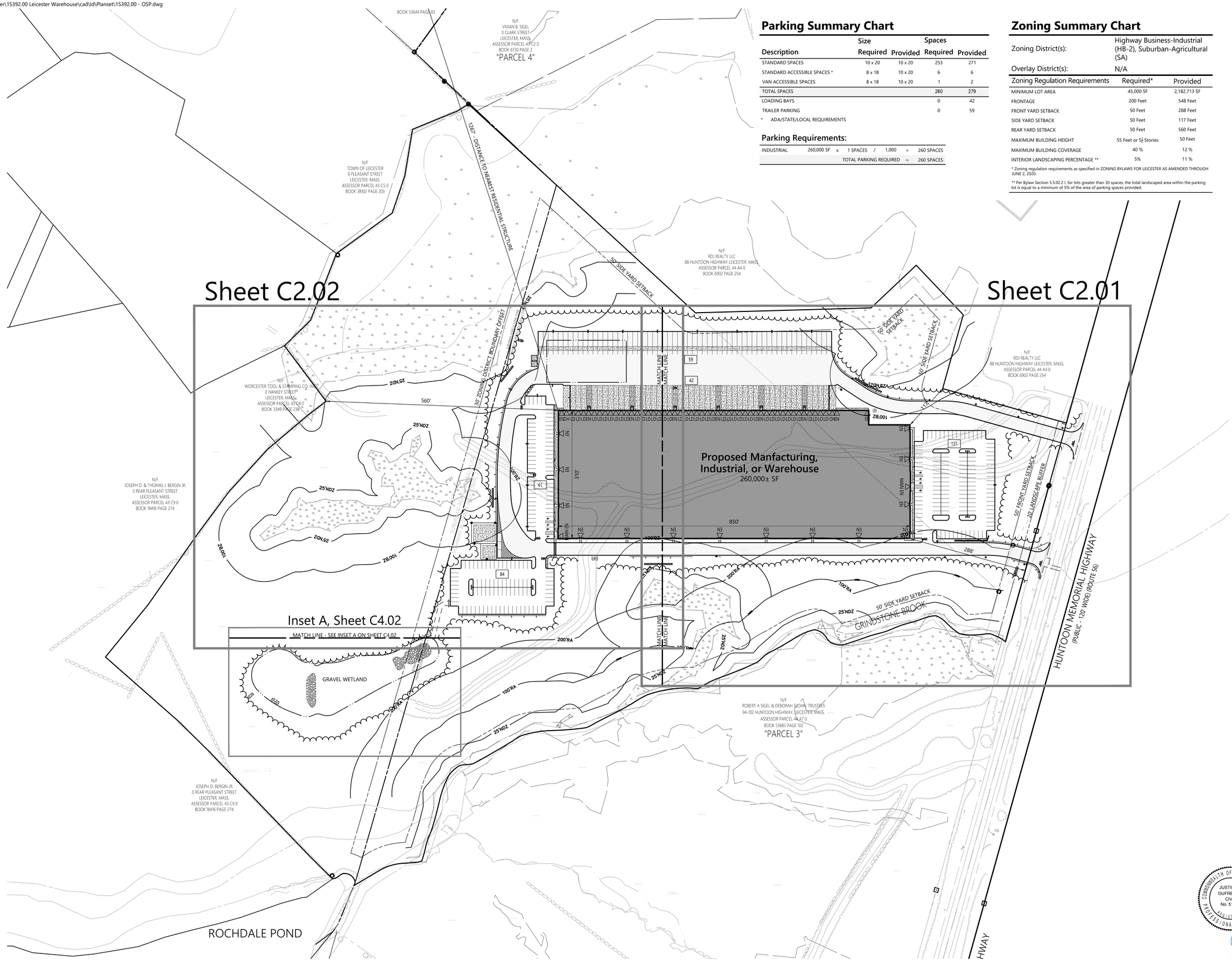
COMMONWEALTH OF MASSACHUSETTS
JUSTIN W. DUFRESNE
CIVIL
No. 51506
REGISTERED PROFESSIONAL ENGINEER

Sheet 1 of 17

Project Number: 15392.00

Saved Monday, December 13, 2021 3:17:31 PM CHAGEN Plotted Tuesday, December 14, 2021 4:51:17 PM Chris Hagen

\\vhb\gbl\proj\Worcester\15392.00 Leicester Warehouse\cad\ld\Planset\15392.00 - OSP.dwg



Parking Summary Chart

Description	Size Required	Size Provided	Spaces Required	Spaces Provided
STANDARD SPACES	10 x 20	10 x 20	253	271
STANDARD ACCESSIBLE SPACES *	8 x 18	10 x 20	6	6
VAN ACCESSIBLE SPACES	8 x 18	10 x 20	1	2
TOTAL SPACES			260	279
LOADING BAYS			0	42
TRAILER PARKING			0	59

* ADA/STATE/LOCAL REQUIREMENTS

Parking Requirements:

INDUSTRIAL	260,000 SF	x	1 SPACES	/ 1,000	=	260 SPACES
			TOTAL PARKING REQUIRED		=	260 SPACES

Zoning Summary Chart

Zoning District(s):	Highway Business-Industrial (HB-2), Suburban-Agricultural (SA)
Overlay District(s):	N/A

Zoning Regulation Requirements	Required*	Provided
MINIMUM LOT AREA	45,000 SF	2,182,713 SF
FRONTAGE	200 Feet	548 Feet
FRONT YARD SETBACK	50 Feet	288 Feet
SIDE YARD SETBACK	50 Feet	117 Feet
REAR YARD SETBACK	50 Feet	560 Feet
MAXIMUM BUILDING HEIGHT	55 Feet or 5½ Stories	50 Feet
MAXIMUM BUILDING COVERAGE	40 %	12 %
INTERIOR LANDSCAPING PERCENTAGE **	5%	11 %

* Zoning regulation requirements as specified in ZONING BYLAWS FOR LEICESTER AS AMENDED THROUGH JUNE 2, 2020.

** Per Bylaw Section 5.5.02.2 I, for lots greater than 30 spaces, the total landscaped area within the parking lot is equal to a minimum of 5% of the area of parking spaces provided.

Riverfront Area Notes

1. TOTAL RIVERFRONT AREA: 367,157 SF
2. PROJECT PROPOSES 34,406 SF (9.4%) OF DISTURBANCE

vhb.com

120 Front Street
Suite 500
Worcester, MA 01608
508.752.1001

Leicester Central

0, 90, & 92 Huntoon Memorial Highway
Leicester, MA 01524

No.	Revision	Date	Appvd.

Designed by CSH
Checked by JWD
Issued for Local Approvals
Date December 7, 2021

Not Approved for Construction

Drawing Title
Overall Site Plan/Locus Plan

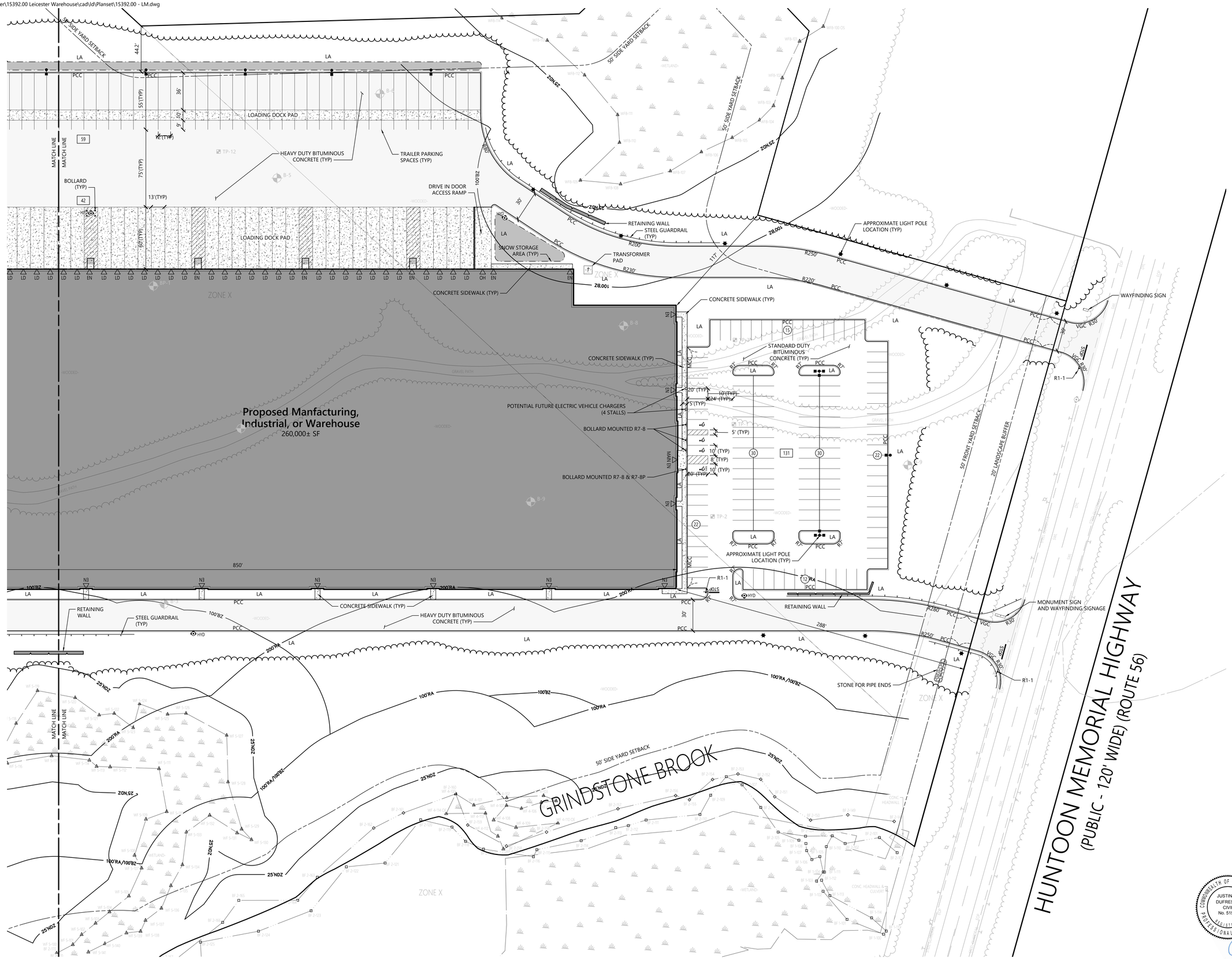
Drawing Number
C2.00

Sheet 2 of 17

Project Number
15392.00

COMMONWEALTH OF MASSACHUSETTS
JUSTIN W. DUFRESNE
CIVIL
No. 51506
REGISTERED PROFESSIONAL ENGINEER

Saved Tuesday, December 14, 2021 7:35:16 AM CHAGEN Plotted Tuesday, December 14, 2021 4:53:51 PM Chris Hagen



vhb.com
120 Front Street
Suite 500
Worcester, MA 01608
508.752.1001

Sign Summary

M.U.T.C.D. Number	Specification Width	Specification Height	Desc.
R1–1	30"	30"	STOP
R7–8	12"	18"	RESERVED PARKING
R7–8P	12"	6"	VAN ACCESSIBLE

0 20 40 80 Feet

Leicester Central

0, 90, & 92 Huntoon Memorial Highway
Leicester, MA 01524

No.	Revision	Date	Appvd.

Designed by CSH
Checked by JWD
Issued for Local Approvals
Date December 7, 2021

Not Approved for Construction

Drawing Title
Layout and Materials Plan

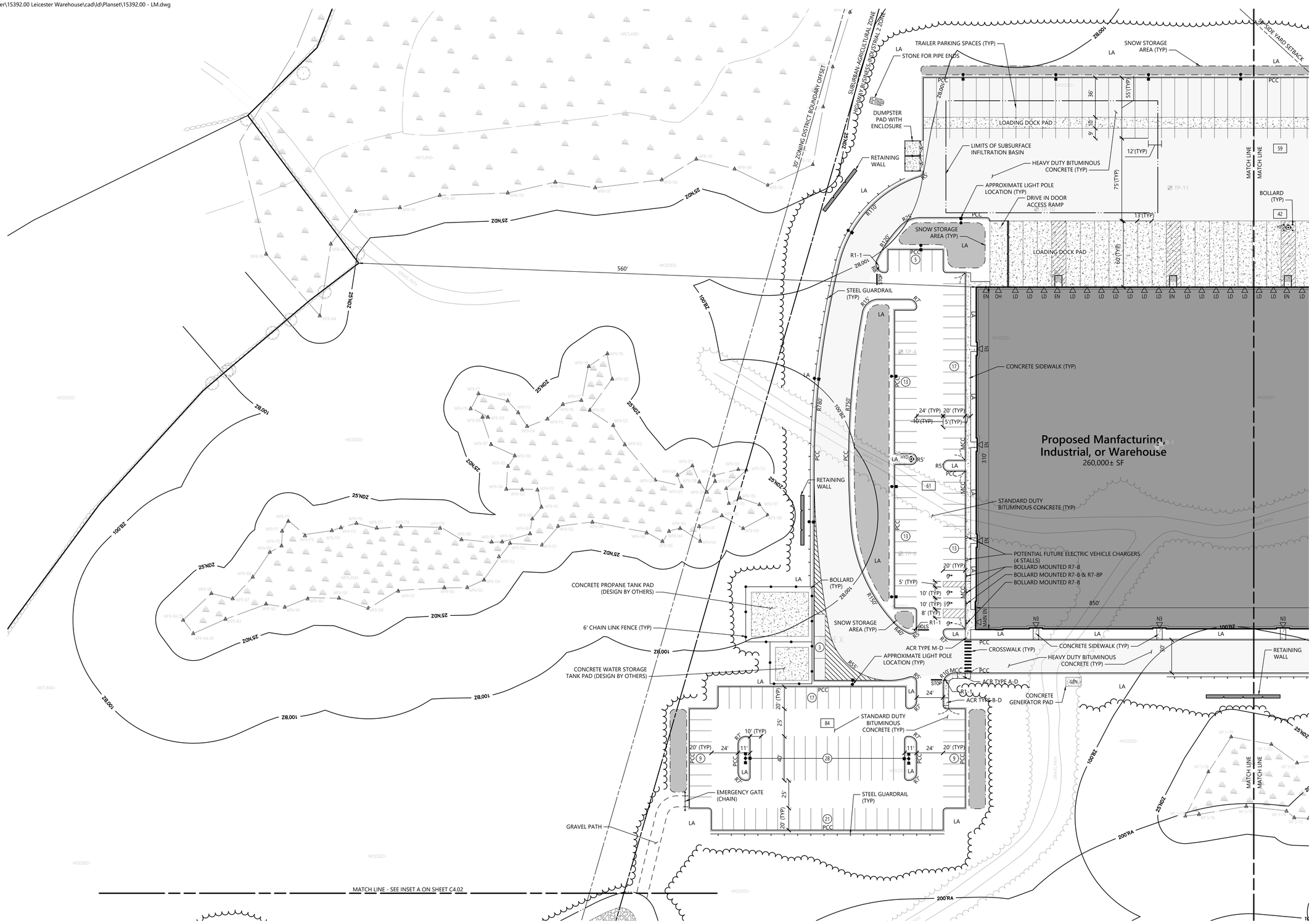
Drawing Number
C2.01

Sheet 3 of 17

Project Number 15392.00

COMMONWEALTH OF MASSACHUSETTS
JUSTIN W. DUFRESNE
CIVIL
No. 51506
REGISTERED PROFESSIONAL ENGINEER

Saved Tuesday, December 14, 2021 3:30:47 PM CHAGEN Plotted Tuesday, December 14, 2021 4:56:45 PM Chris Hagen



vhb.com

120 Front Street
Suite 500
Worcester, MA 01608
508.752.1001

Sign Summary

M.U.T.C.D. Number	Specification Width	Specification Height	Desc.
R1–1	30"	30"	STOP
R7–8	12"	18"	RESERVED PARKING
R7–8P	12"	6"	VAN ACCESSIBLE

0 20 40 80 Feet

Leicester Central

0, 90, & 92 Huntoon Memorial Highway
Leicester, MA 01524

No.	Revision	Date	Appvd.

Designed by: CSH
Checked by: JWD

Issued for: **Local Approvals**
Date: **December 7, 2021**

Not Approved for Construction

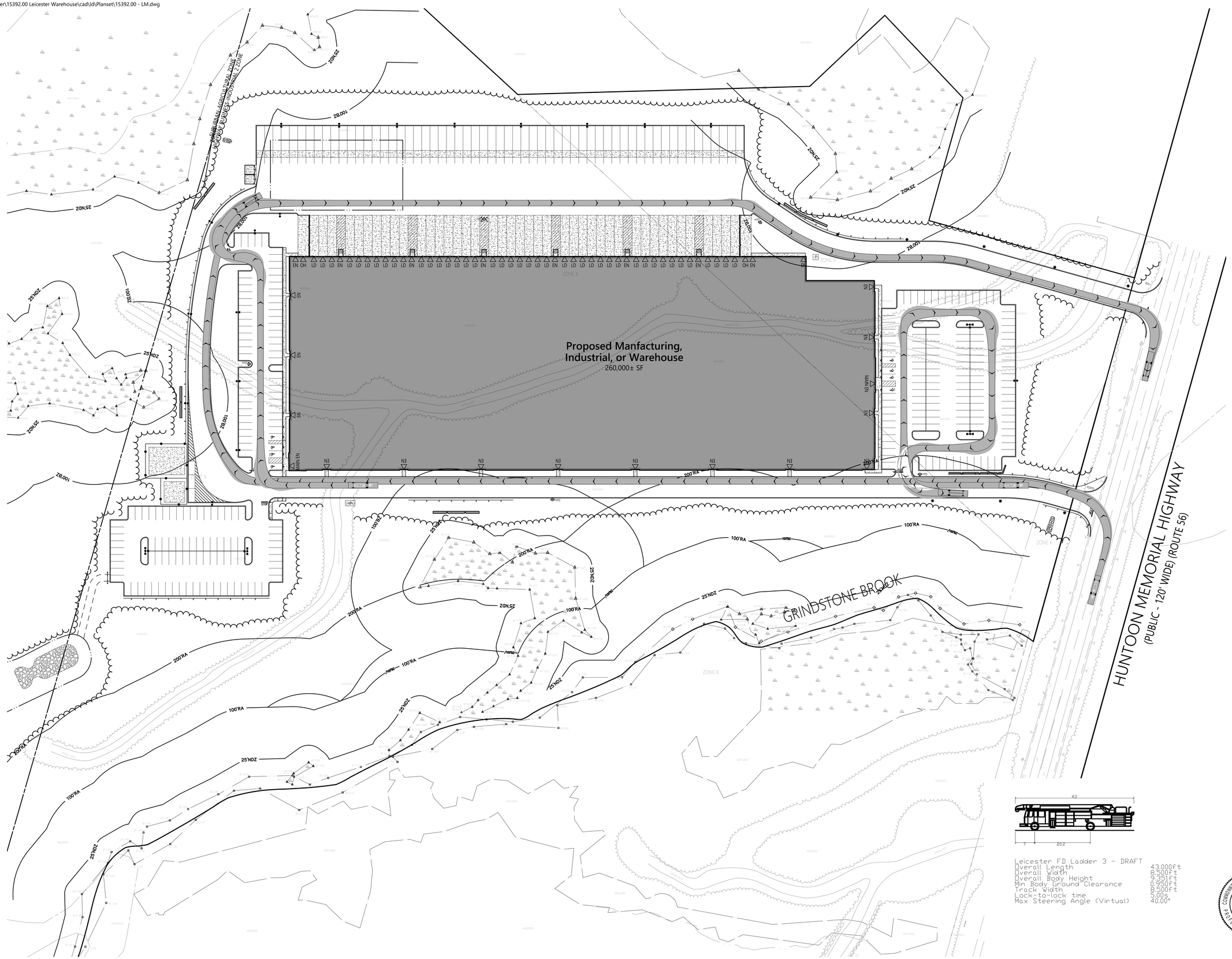
Drawing Title
Layout and Materials Plan

Drawing Number
C2.02

Sheet 4 of 17

Project Number
15392.00

COMMONWEALTH OF MASSACHUSETTS
JUSTIN W. DUFRESNE
CIVIL
No. 51506
REGISTERED PROFESSIONAL ENGINEER



vhb.com
120 Front Street
Suite 500
Worcester, MA 01608
508.752.1001

0 30 60 120 Feet

Leicester Central

0, 90, & 92 Huntoon Memorial Highway
Leicester, MA 01524

No.	Revision	Date	Appvd.

Designed by CSH
Checked by JWD
Issued for Local Approvals
Date December 7, 2021

Not Approved for Construction

Drawing Title
Fire Access Plan

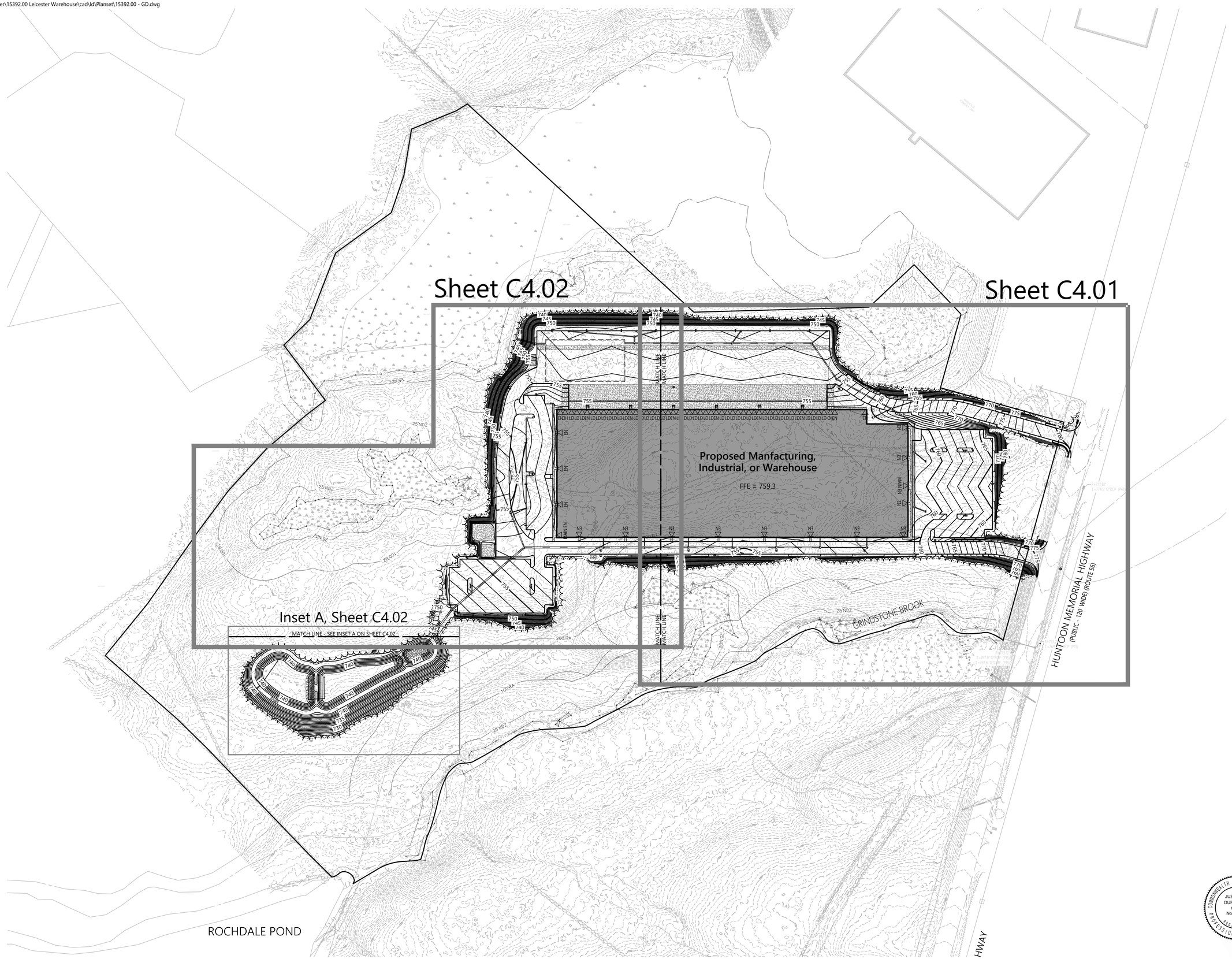
Drawing Number
C3.00

COMMONWEALTH OF MASSACHUSETTS
JUSTIN W. DUFRESNE
CIVIL
No. 51506
REGISTERED PROFESSIONAL ENGINEER

Sheet 5 of 17

Project Number 15392.00

Saved Tuesday, December 14, 2021 3:30:47 PM CHAGEN Plotted Tuesday, December 14, 2021 4:57:15 PM Chris Hagen



vhb.com
120 Front Street
Suite 500
Worcester, MA 01608
508.752.1001

0 50 100 200 Feet

Leicester Central

0, 90, & 92 Huntoon Memorial Highway
Leicester, MA 01524

No.	Revision	Date	Appvd.

Designed by CSH
Checked by JWD
Issued for Local Approvals
Date December 7, 2021

Not Approved for Construction

Drawing Title
Overall Grading, Drainage, and Erosion Control Plan

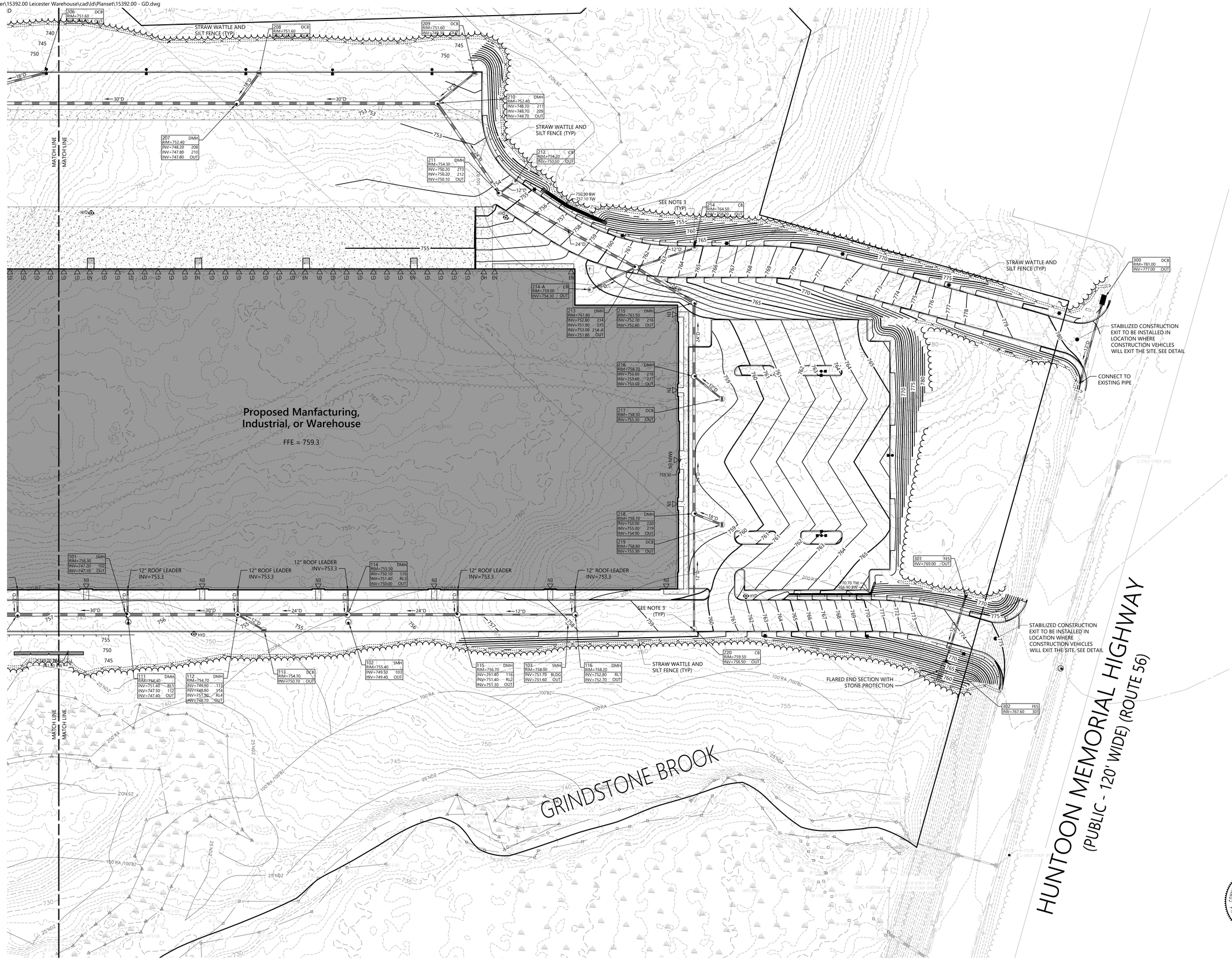
Drawing Number
C4.00

Sheet 6 of 17

Project Number 15392.00

COMMONWEALTH OF MASSACHUSETTS
JUSTIN W. DUFRESNE
CIVIL
No. 51506
REGISTERED PROFESSIONAL ENGINEER

Saved Monday, December 13, 2021 6:16:35 PM CHAGEN Plotted Tuesday, December 14, 2021 4:57:35 PM Chris Hagen



vhb.com
120 Front Street
Suite 500
Worcester, MA 01608
508.752.1001

Notes

1. STABILIZED CONSTRUCTION EXIT TO BE FIELD LOCATED AT LIMIT OF DISTURBANCE.
2. ALL EROSION CONTROL MEASURES SHALL BE IN PLACE PRIOR TO CONSTRUCTION. CONTRACTOR TO CONFIRM EROSION AND SEDIMENTATION CONTROLS IN PLACE DURING CONSTRUCTION ARE INSTALLED AND MAINTAINED IN ACCORDANCE WITH CITY OF LEICESTER REQUIREMENTS.
3. SILT SACKS SHALL BE INSTALLED AND MAINTAINED IN ALL CATCH BASINS ONLINE DURING CONSTRUCTION.

0 20 40 80 Feet

Leicester Central

0, 90, & 92 Huntoon Memorial Highway
Leicester, MA 01524

No.	Revision	Date	Appvd.

Designed by CSH
Checked by JWD
Issued for Local Approvals
Date December 7, 2021

Not Approved for Construction

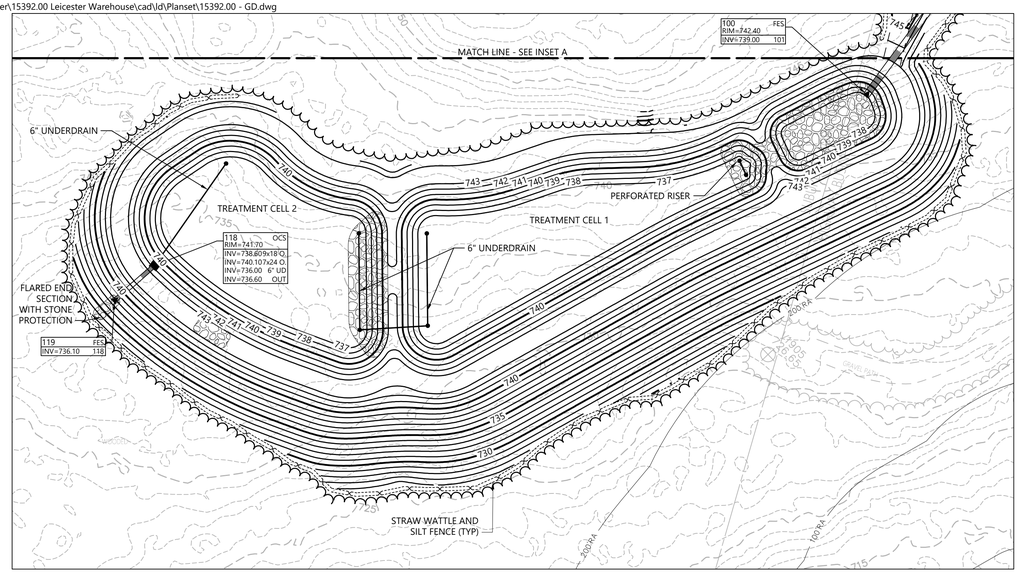
Drawing Title
Grading, Drainage, and Erosion Control Plan

Drawing Number
C4.01

Sheet 7 of 17

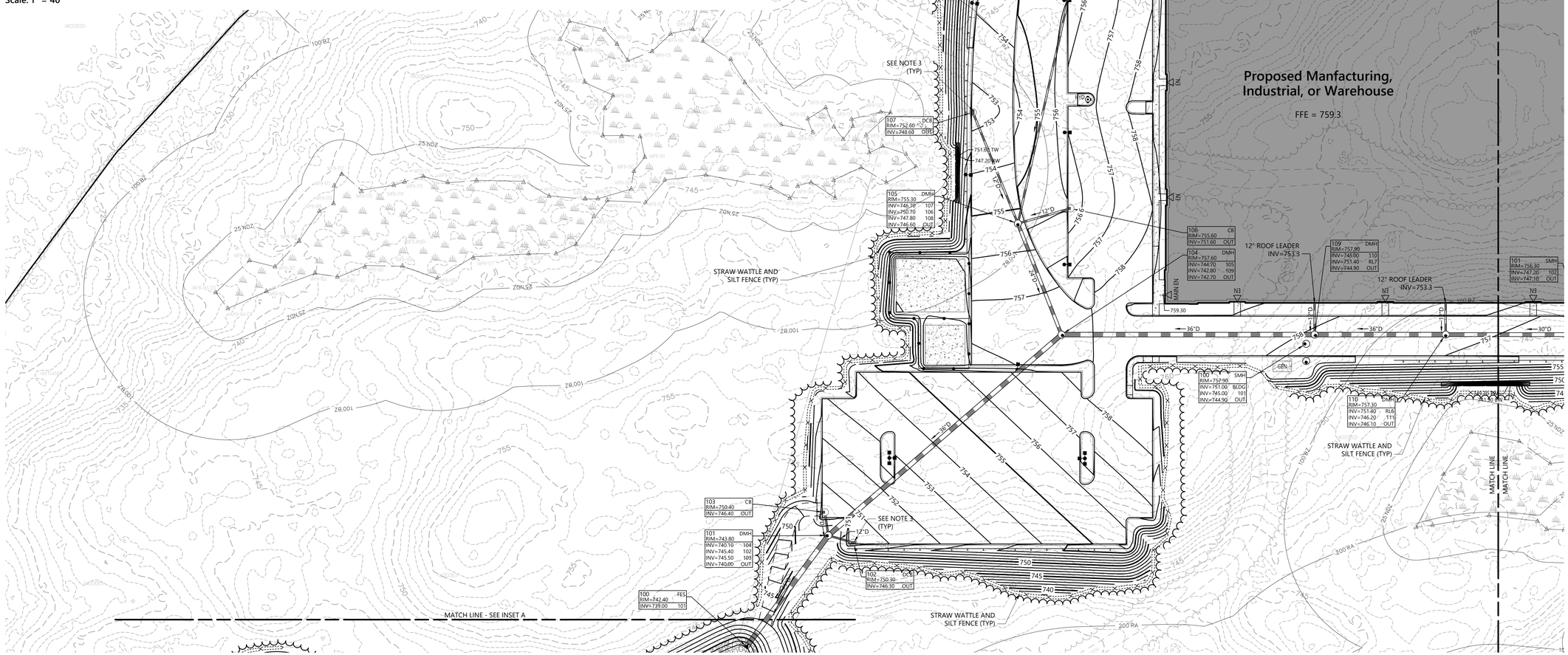
Project Number 15392.00

COMMONWEALTH OF MASSACHUSETTS
JUSTIN W. DUFRESNE
CIVIL
No. 51506
REGISTERED PROFESSIONAL ENGINEER



Inset A

Scale: 1" = 40'



vhb.com

120 Front Street
Suite 500
Worcester, MA 01608
508.752.1001

Notes

1. STABILIZED CONSTRUCTION EXIT TO BE FIELD LOCATED AT LIMIT OF DISTURBANCE.
2. ALL EROSION CONTROL MEASURES SHALL BE IN PLACE PRIOR TO CONSTRUCTION. CONTRACTOR TO CONFIRM EROSION AND SEDIMENTATION CONTROLS IN PLACE DURING CONSTRUCTION ARE INSTALLED AND MAINTAINED IN ACCORDANCE WITH CITY OF LEICESTER REQUIREMENTS.
3. SILT SACKS SHALL BE INSTALLED AND MAINTAINED IN ALL CATCH BASINS ONLINE DURING CONSTRUCTION.

0 20 40 80 Feet

Leicester Central

0, 90, & 92 Huntoon Memorial Highway
Leicester, MA 01524

No.	Revision	Date	Appvd.

Designed by CSH
Checked by JWD
Issued for Local Approvals
Date December 7, 2021

Not Approved for Construction

Drawing Title
Grading, Drainage, and Erosion Control Plan

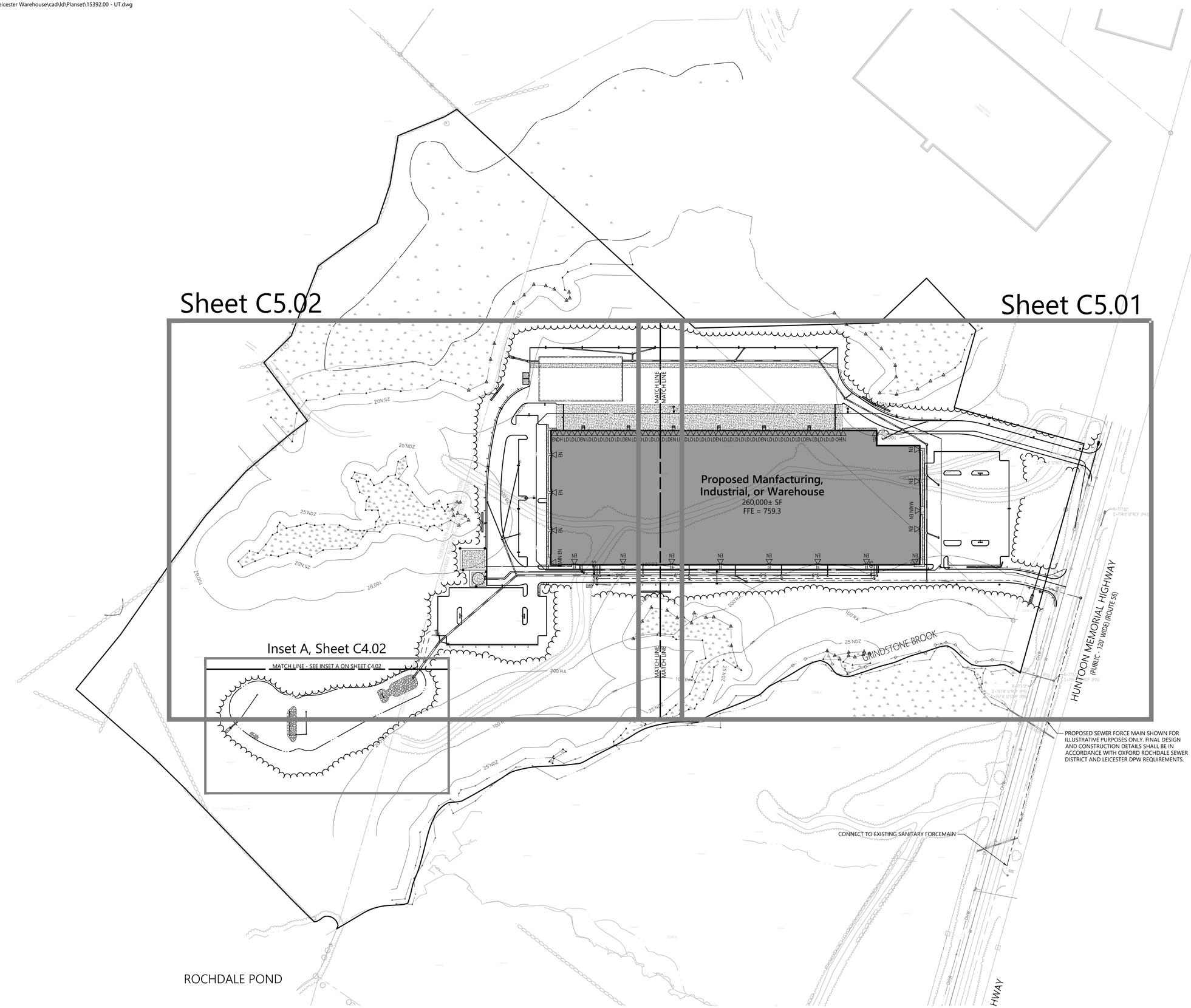
Drawing Number
C4.02

Sheet 8 of 17

Project Number 15392.00

COMMONWEALTH OF MASSACHUSETTS
JUSTIN W. DUFRESNE
CIVIL
No. 51506
REGISTERED PROFESSIONAL ENGINEER

\\vhb\gbl\proj\Worcester\15392.00 Leicester Warehouse\cad\ld\Planset\15392.00 - UT.dwg



vhb.com

120 Front Street
Suite 500
Worcester, MA 01608
508.752.1001

0 50 100 200 Feet

Leicester Central

0, 90, & 92 Huntoon Memorial Highway
Leicester, MA 01524

No.	Revision	Date	Appvd.

Designed by CSH
Checked by JWD
Issued for Local Approvals
Date December 7, 2021

Not Approved for Construction

Drawing Title
Overall Utility Plan

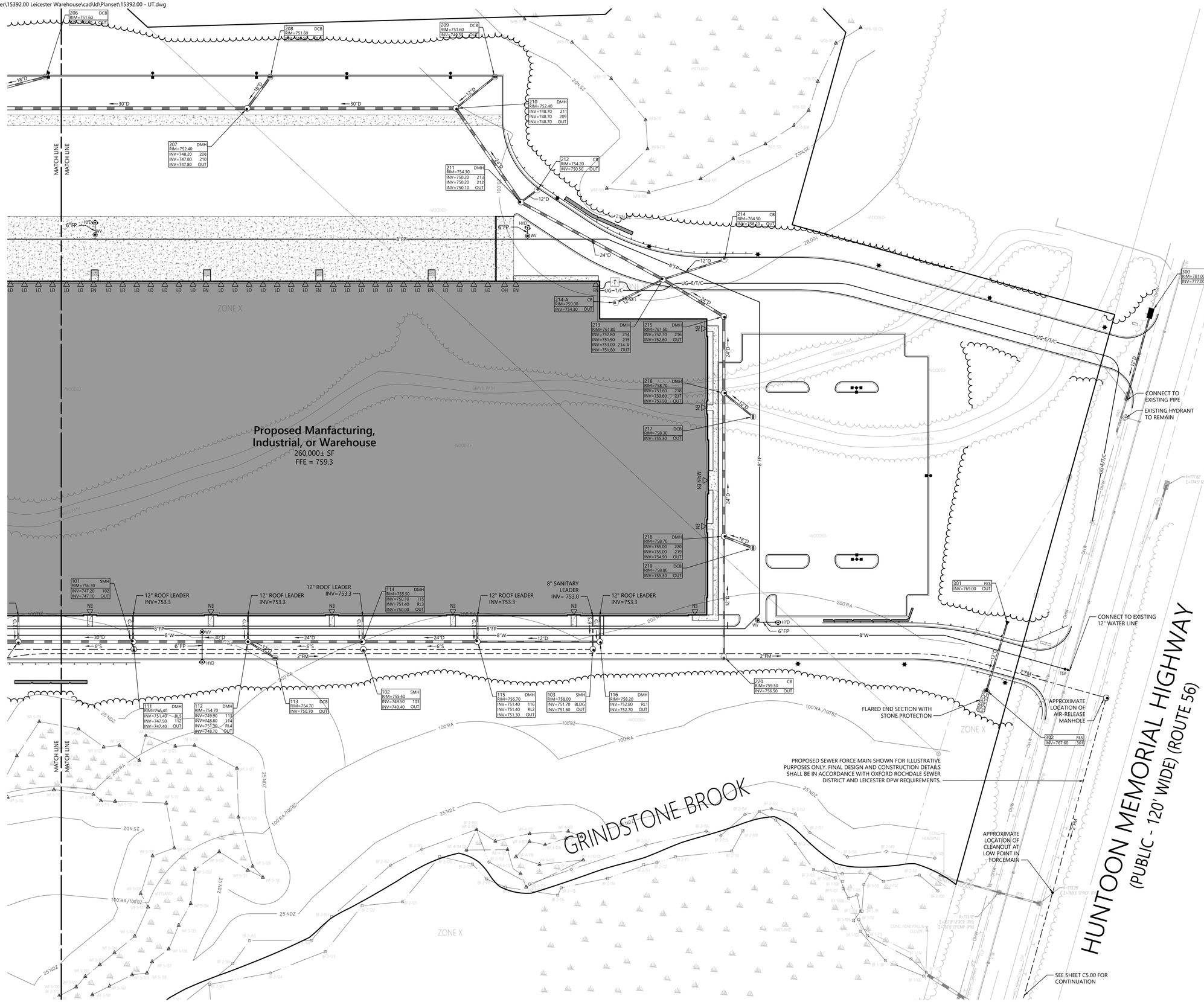
Drawing Number
C5.00

COMMONWEALTH OF MASSACHUSETTS
JUSTIN W. DUFRESNE
CIVIL
No. 51506
REGISTERED PROFESSIONAL ENGINEER

Sheet 9 of 17

Project Number
15392.00

Saved Tuesday, December 14, 2021 4:41:48 PM CHAGEN Plotted Tuesday, December 14, 2021 5:01:04 PM Chris Hagen



vhb.com
120 Front Street
Suite 500
Worcester, MA 01608
508.752.1001

0 20 40 80 Feet

Leicester Central

0, 90, & 92 Huntoon Memorial Highway
Leicester, MA 01524

No.	Revision	Date	Appvd.

Designed by CSH
Checked by JWD
Issued for Local Approvals
Date December 7, 2021

Not Approved for Construction

Drawing Title
Utility Plan

Drawing Number
C5.01

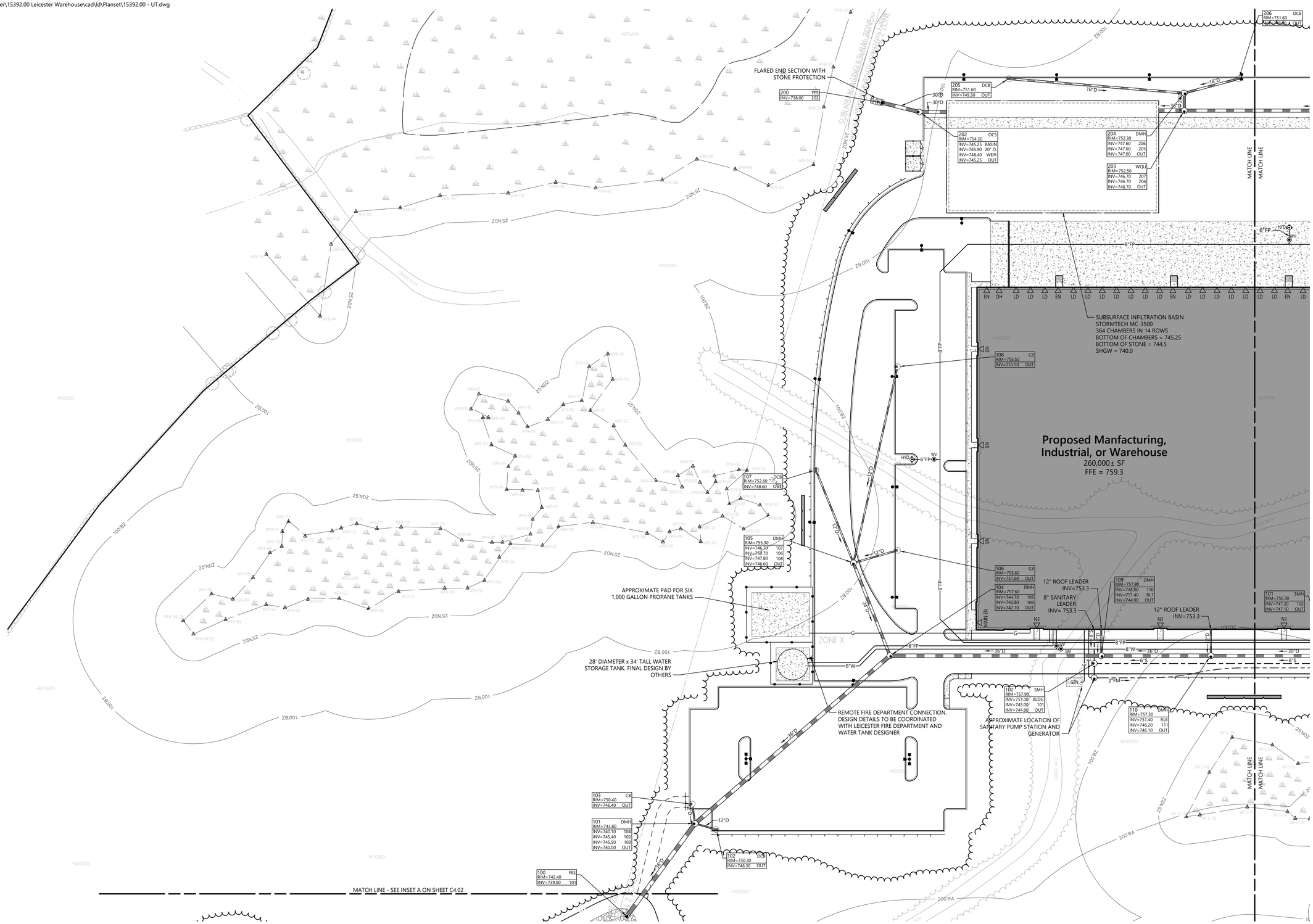
Sheet 10 of 17

Project Number
15392.00

COMMONWEALTH OF MASSACHUSETTS
JUSTIN W. DUFRESNE
CIVIL
No. 51506
REGISTERED PROFESSIONAL ENGINEER

Saved Tuesday, December 14, 2021 4:41:48 PM CHAGEN Plotted Tuesday, December 14, 2021 5:01:15 PM Chris Hagen

\\vhb\gbl\proj\Worcester\15392.00 Leicester Warehouse\cad\ld\Planset\15392.00 - UT.dwg



vhb.com

120 Front Street
Suite 500
Worcester, MA 01608
508.752.1001

0 20 40 80 Feet

Leicester Central

0, 90, & 92 Huntoon Memorial Highway
Leicester, MA 01524

No.	Revision	Date	Appvd.

Designed by CSH
Checked by JWD
Issued for Local Approvals
Date December 7, 2021

Not Approved for Construction

Drawing Title
Utility Plan

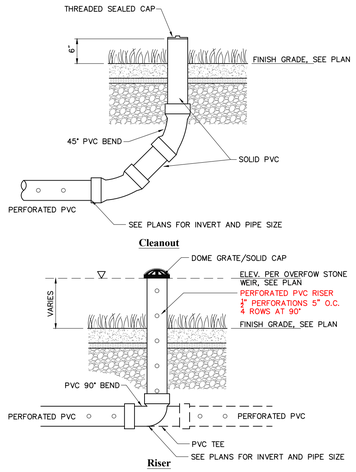
Drawing Number
C5.02

Sheet 11 of 17

Project Number
15392.00

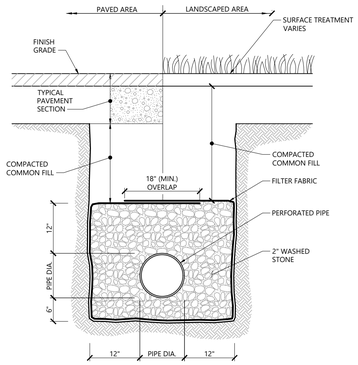
COMMONWEALTH OF MASSACHUSETTS
JUSTIN W. DUFRESNE
CIVIL
No. 51506
REGISTERED PROFESSIONAL ENGINEER

Saved Tuesday, December 14, 2021 4:41:48 PM CHAGEN Plotted Tuesday, December 14, 2021 5:01:24 PM Chris Hagen



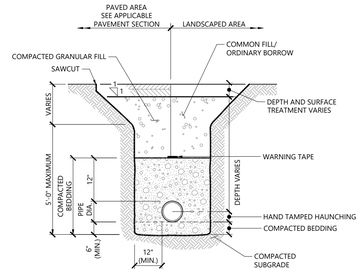
Gravel Wetland Subdrain 6/08

N.T.S. Source: VHB



Underdrain (UD) 1/16

N.T.S. Source: VHB LD_184

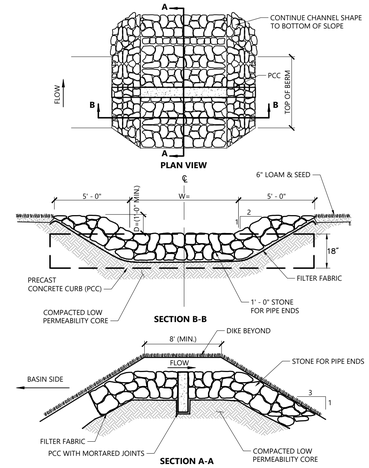


NOTES

1. WHERE UTILITY TRENCHES ARE CONSTRUCTED THROUGH DETENTION BASIN BERMS OR OTHER SUCH SPECIAL SECTIONS, PLACE TRENCH BACKFILL WITH MATERIALS SIMILAR TO THE SPECIAL SECTION REQUIREMENTS.
2. USE METALLIC TRACING/WARNING TAPE OVER ALL PIPES.
3. COMPACTED GRANULAR FILL MAY CONSIST OF GRAVEL, CRUSHED STONE, SAND, OR OTHER MATERIAL AS APPROVED BY ENGINEER.

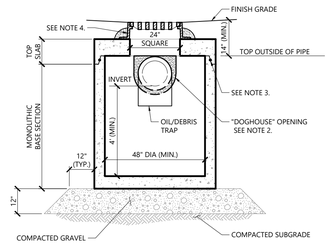
Utility Trench 11/19

N.T.S. Source: VHB LD_300



Overflow Stone Swale 1/16

N.T.S. Source: VHB LD_161



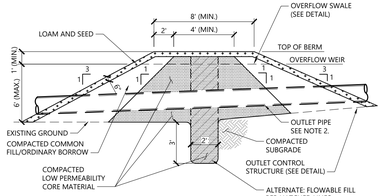
NOTES

1. ALL SECTIONS SHALL BE DESIGNED FOR HS-20 LOADING.
2. PROVIDE DOGHOUSE OPENING FOR PIPES WITH 2" MAX. CLEARANCE TO OUTSIDE OF PIPE. TOP SLAB SHALL NOT REST DIRECTLY ON PIPE. GROUT ALL PIPE CONNECTIONS (NON-SHRINK GROUT).
3. JOINT SEALANT BETWEEN PRECAST SECTIONS SHALL BE PREFORMED BUTYL RUBBER.
4. CATCH BASIN FRAME AND GRATE (4"DEPTH) SHALL BE SET IN FULL MORTAR BED.
5. ADJUST TO FINISH GRADE WITH CLAY BRICK AND MORTAR AS REQUIRED.

Catch Basin (CB) Shallow Cover with Oil/Debris Trap 1/16

N.T.S. Source: VHB LD_105

vhb.com
120 Front Street
Suite 500
Worcester, MA 01608
508.752.1001

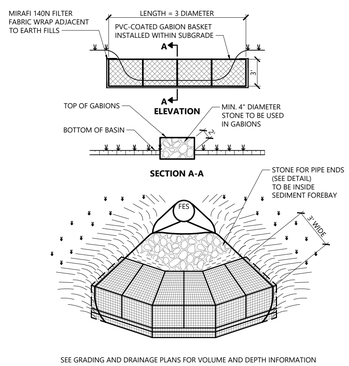


NOTES

1. LOW PERMEABILITY CORE MATERIAL IS CONTINUOUS FOR THE FULL LENGTH OF THE EMBANKMENT.
2. WHERE PIPES PENETRATE THE LOW PERMEABILITY CORE, PIPE SHALL BE BEDDED IN THE LOW PERMEABILITY CORE MATERIAL.
3. THE BERM SECTION IS SUBJECT TO CHANGE AND WILL BE BASED ON THE RESULTS OF FURTHER GEOTECHNICAL INVESTIGATIONS.

Detention Basin Berm Section 12/20

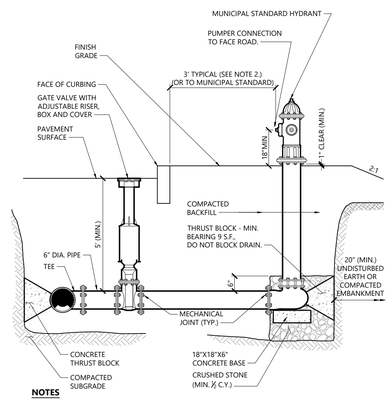
N.T.S. Source: VHB LD_160



SEE GRADING AND DRAINAGE PLANS FOR VOLUME AND DEPTH INFORMATION

Sediment Forebay with Gabion Baffles 1/16

N.T.S. Source: VHB LD_166



NOTES

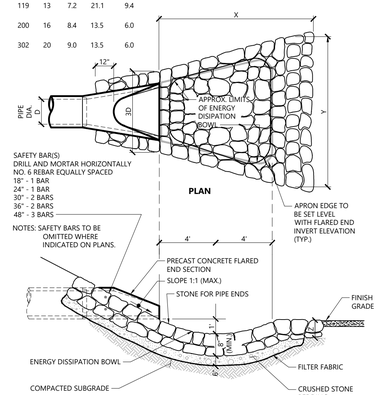
1. CONCRETE THRUST BLOCKS TO BE USED ONLY WHERE THEY CAN BEAR ON UNDISTURBED EARTH AS SHOWN. USE CLAMPS AND TIE RODS OR OTHER ACCEPTABLE METHOD OF JOINT RESTRAINT WHERE SOIL CONDITIONS PROHIBIT THE USE OF THRUST BLOCKS.
2. HYDRANT IN SIDEWALK AREAS TO BE LOCATED TO PROVIDE MINIMUM CLEAR SIDEWALK PASSAGE WIDTH OF 3 FEET AT HYDRANT.
3. A 36-INCH CLEAR SPACE SHALL BE MAINTAINED AROUND THE CIRCUMFERENCE OF THE HYDRANT UNLESS OTHERWISE APPROVED BY AUTHORITY HAVING JURISDICTION.

Hydrant Construction 12/19

N.T.S. Source: VHB LD_250

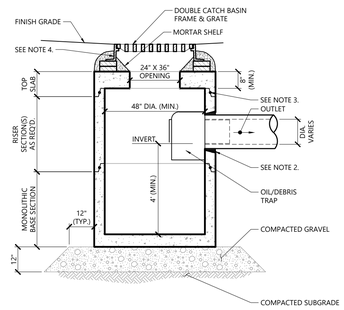
RIPRAP STONE

FES NO.	X	Y	Z	STONE DIA. (D50)
100	20	11.0	18.9	8.4
119	13	7.2	21.1	9.4
200	16	8.4	13.5	6.0
302	20	9.0	13.5	6.0



Flared End Section (FES) with Stone Protection 3/19

N.T.S. Source: VHB LD_134



NOTES

1. ALL SECTIONS SHALL BE DESIGNED FOR HS-20 LOADING.
2. FOR HDPE, PVC, AND DI PIPE, PROVIDE FLEXIBLE BOOT CONNECTION INSTALLED PER MANUFACTURER'S RECOMMENDATIONS. FOR RCP, PROVIDE OPENINGS FOR PIPES WITH 2" MAX. CLEARANCE TO OUTSIDE OF PIPE AND MORTAR CONNECTIONS.
3. JOINT SEALANT BETWEEN PRECAST SECTIONS SHALL BE BUTYL RUBBER.
4. DOUBLE CATCH BASIN FRAME AND GRATE SHALL BE SET IN FULL MORTAR BED. ADJUST TO GRADE WITH CLAY BRICK AND MORTAR (2 BRICKS TYPICALLY, 5 BRICK COURSES MAXIMUM).

Double Grate Catch Basin (DCB) with Oil/Debris Trap 11/19

N.T.S. Source: VHB LD_103

Leicester Central

0, 90, & 92 Huntoon Memorial Highway
Leicester, MA 01524

No.	Revision	Date	Appvd.

Designed by CSH | Checked by JWD

Issued for: Local Approvals | Date: December 7, 2021

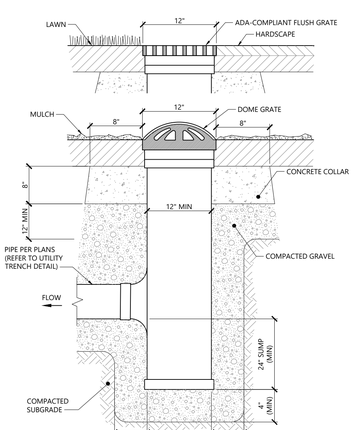
Not Approved for Construction

Drawing Title: Site Details

Drawing Number: C6.00

Sheet 12 of 17

Project Number: 15392.00

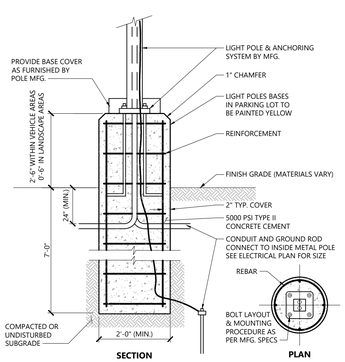


NOTES:

1. AREA DRAINS SHALL BE NYLOPLAST 12" DIAMETER DRAIN BASIN, OR APPROVED EQUAL.
2. GRATES SHALL BE NYLOPLAST 12" PEDESTRIAN MODEL 1299CGP OR 12" DOME GRATE MODEL 1299CGD (OR APPROVED EQUAL).

Area Drain (AD) Type 1 12/19

N.T.S. Source: VHB LD_193

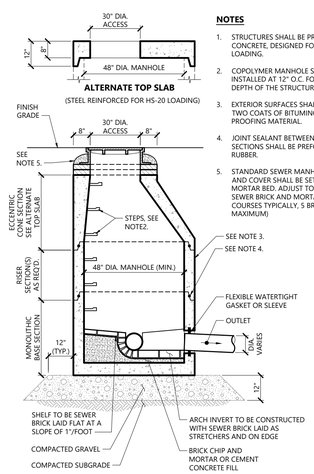


NOTES

DETAIL PROVIDED FOR GENERAL INFORMATION ONLY. CONTRACTOR TO PROVIDE STAMPED FINAL DESIGN OF LIGHT POLE FOUNDATION BASED ON RECOMMENDATIONS FROM THE GEOTECHNICAL ENGINEER.

Light Pole Foundation Detail (Up to 40' Pole) 12/19

N.T.S. Source: VHB LD_310

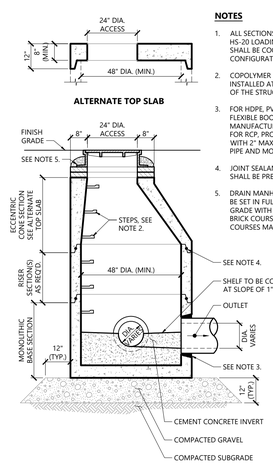


NOTES

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

Sanitary Sewer Manhole (SMH) 1/16

N.T.S. Source: VHB LD_200

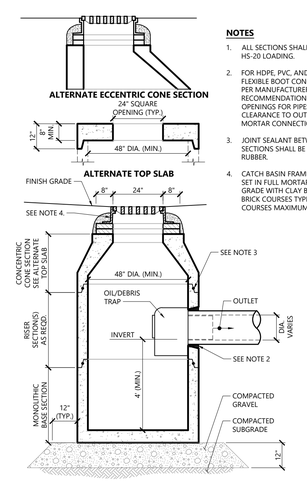


NOTES

1. ALL SECTIONS SHALL BE DESIGNED FOR HS-20 LOADING. DIAMETER OF STRUCTURES SHALL BE COORDINATED WITH PIPE CONFIGURATIONS.
2. COPOLYMER MANHOLE STEPS SHALL BE INSTALLED AT 12" O.C. FOR THE FULL DEPTH OF THE STRUCTURE.
3. FOR HDPE, PVC, AND DI PIPE, PROVIDE FLEXIBLE BOOT CONNECTION INSTALLED PER MANUFACTURER'S RECOMMENDATIONS. FOR RCP, PROVIDE OPENINGS FOR PIPES WITH 2" MAX. CLEARANCE TO OUTSIDE OF PIPE AND MORTAR CONNECTIONS.
4. JOINT SEALANT BETWEEN PRECAST SECTIONS SHALL BE PREFORMED BUTYL RUBBER.
5. DRAIN MANHOLE FRAME AND COVER SHALL BE SET IN FULL MORTAR BED. ADJUST TO GRADE WITH CLAY BRICK AND MORTAR (2 BRICK COURSES TYPICALLY, 5 BRICK COURSES MAXIMUM)

Drain Manhole (DMH) 11/19

N.T.S. Source: VHB LD_115



NOTES

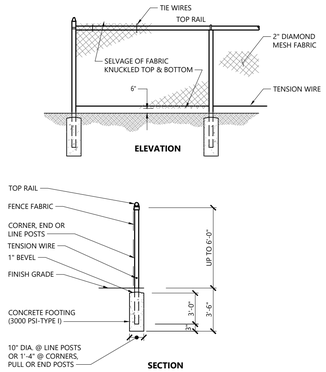
1. ALL SECTIONS SHALL BE DESIGNED FOR HS-20 LOADING.
2. FOR HDPE, PVC, AND DI PIPE, PROVIDE FLEXIBLE BOOT CONNECTION INSTALLED PER MANUFACTURER'S RECOMMENDATIONS. FOR RCP, PROVIDE OPENINGS FOR PIPES WITH 2" MAX. CLEARANCE TO OUTSIDE OF PIPE AND MORTAR CONNECTIONS.
3. JOINT SEALANT BETWEEN PRECAST SECTIONS SHALL BE PREFORMED BUTYL RUBBER.
4. CATCH BASIN FRAME AND GRATE SHALL BE SET IN FULL MORTAR BED. ADJUST TO GRADE WITH CLAY BRICK AND MORTAR (2 BRICK COURSES TYPICALLY, 5 BRICK COURSES MAXIMUM).

Catch Basin (CB) With Oil/Debris Trap 3/21

N.T.S. Source: VHB LD_101

COMMONWEALTH OF MASSACHUSETTS
JUSTIN W. DUFRESNE
CIVIL
No. 51506
REGISTERED PROFESSIONAL ENGINEER

Saved Tuesday, December 14, 2021 4:56:05 PM AGORMAN Plotted Tuesday, December 14, 2021 4:57:54 PM Annie Gorman



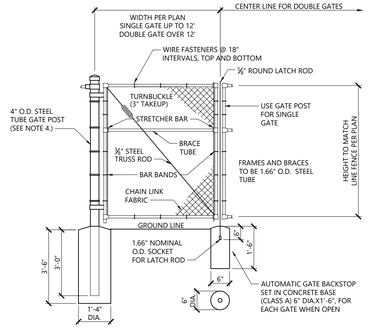
NOTE

1. MATERIALS TO BE SUPPLIED AND INSTALLED IN CONFORMANCE WITH "CHAIN LINK MANUFACTURER'S INSTITUTE" PRODUCT MANUAL.

Chain Link Fence up to 6'

12/19

N.T.S. Source: VHB LD_481_MA



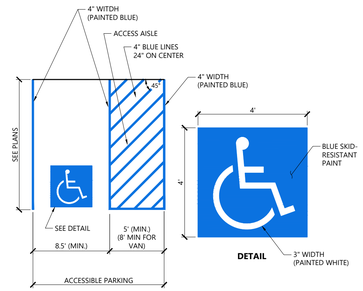
NOTES

1. CHAIN LINK FABRIC FOR GATES TO BE THE SAME AS REQUIRED FOR FENCE.
2. GATE POST BASE-PORTLAND CEMENT CONCRETE (3000 PSI).
3. FENCE FABRIC, POSTS, FRAMEWORKS, AND HARDWARE SHALL BE GALVANIZED STEEL PER SPECIFICATIONS.
4. GATE POSTS TO BE USED ON EACH SIDE OF SINGLE AND DOUBLE GATE OPENINGS.

Chain Link Fence Gate

1/16

N.T.S. Source: VHB LD_482



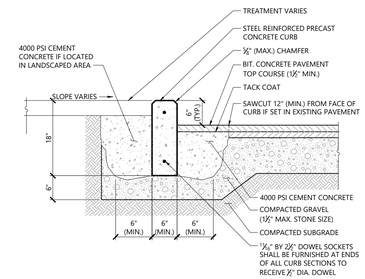
NOTES

1. ALL DIMENSIONS TO CENTER OF 4" PAVEMENT STRIPING.
2. ALL SLOPES THROUGHOUT THE ACCESSIBLE PARKING AND AISLE AREAS SHALL NOT EXCEED 1.5%.

Accessible Parking Space

12/19

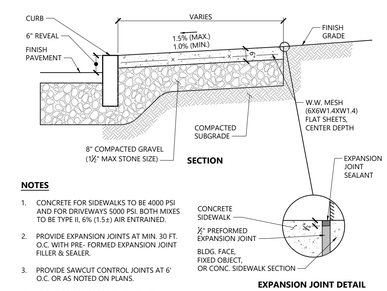
N.T.S. Source: VHB LD_552B



Precast Concrete Curb (PCC)

3/20

N.T.S. Source: VHB LD_404



NOTES

1. CONCRETE FOR SIDEWALKS TO BE 4000 PSI AND FOR DRIVEWAYS 5000 PSI. BOTH MIXES TO BE TYPE II, 6% (1.5±) AIR ENTRAINED.
2. PROVIDE EXPANSION JOINTS AT MIN. 30 FT. O.C. WITH PRE- FORMED EXPANSION JOINT FILLER & SEALER.
3. PROVIDE SAWCUT CONTROL JOINTS AT 6' O.C. OR AS NOTED ON PLANS.
4. PROVIDE MEDIUM BROOM FINISH IN DIRECTION PERPENDICULAR TO CURB.
5. ALL EXPOSED CONCRETE SURFACES SHALL BE SEALED WITH A SILANE-SILOXANE PRODUCT.

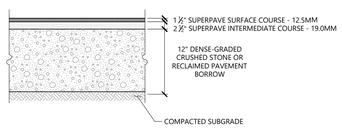
Concrete Sidewalk

3/20

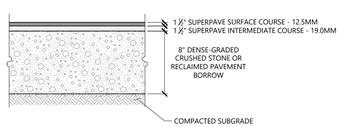
N.T.S. Source: VHB LD_420

vhb.com

120 Front Street
Suite 500
Worcester, MA 01608
508.752.1001



HEAVY DUTY FLEXIBLE PAVEMENT - 15-YEAR DESIGN LIFE

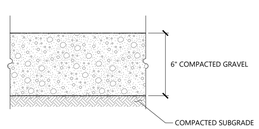


STANDARD DUTY FLEXIBLE PAVEMENT - 15-YEAR DESIGN LIFE

Bituminous Concrete Pavement Sections

11/19

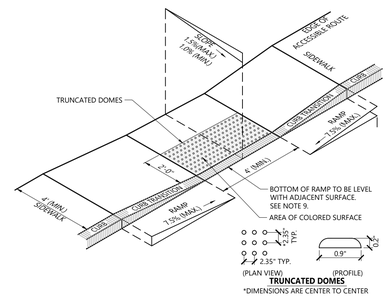
N.T.S. Source: VHB REV LD_430



Gravel Path

6/21

N.T.S. Source: VHB



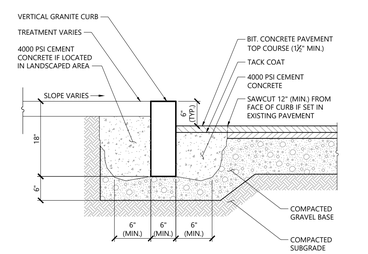
NOTES

1. THE MAXIMUM ALLOWABLE SIDEWALK AND CURB RAMP CROSS SLOPES SHALL BE 1.5 (1% MIN.).
2. THE MAXIMUM ALLOWABLE SLOPE OF ACCESSIBLE ROUTE EXCLUDING CURB RAMPS SHALL BE 5%.
3. THE MAXIMUM ALLOWABLE SLOPE OF ACCESSIBLE ROUTE AT CURB RAMPS SHALL BE 7.5%.
4. A MINIMUM OF 3 FEET CLEAR SHALL BE MAINTAINED AT ANY PERMANENT OBSTACLE IN ACCESSIBLE ROUTE (I.E., HYDRANTS, UTILITY POLES, TREE WELLS, SIGNS, ETC.).
5. CURB TREATMENT VARIES, SEE PLANS FOR CURB TYPE.
6. RAMP, CURB, AND ADJACENT PAVEMENTS SHALL BE GRADED TO PREVENT PONDING.
7. SEE TYPICAL SIDEWALK SECTION FOR RAMP CONSTRUCTION.
8. WHERE ACCESSIBLE ROUTES ARE LESS THAN 5' IN WIDTH (EXCLUDING CURBING) A 5' x 5' PASSING AREA SHALL BE PROVIDED AT INTERVALS NOT TO EXCEED 200 FEET.
9. ELIMINATE CURBING AT RAMP (OTHER THAN VERTICAL CURBING, WHICH SHALL BE SET FLUSH) WHERE IT ABUTS ROADWAY.
10. DETECTABLE WARNINGS SHALL CONTRAST VISUALLY WITH ADJOINING SURFACES.
11. DETECTABLE WARNINGS SHALL BE INSTALLED PERPENDICULAR TO ACCESSIBLE ROUTE.

Accessible Curb Ramp (ACR) Type 'A-D'

12/20

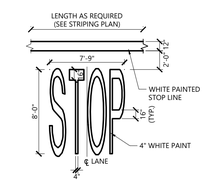
N.T.S. Source: VHB LD_500



Vertical Granite Curb (VGC)

3/20

N.T.S. Source: VHB LD_402



NOTES

1. PAVEMENT MARKINGS TO BE INSTALLED FOR ON SITE WORK IN LOCATIONS SHOWN.

Painted Pavement Markings - On Site

1/16

N.T.S. Source: VHB LD_554

Leicester Central

0, 90, & 92 Huntoon Memorial Highway
Leicester, MA 01524

No.	Revision	Date	Appvd.

Designed by CSH | Checked by JWD

Issued for: Local Approvals | Date: December 7, 2021

Not Approved for Construction

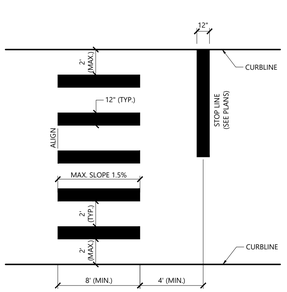
Drawing Title: Site Details

Drawing Number: C6.01

Sheet 13 of 17

Project Number: 15392.00

COMMONWEALTH OF MASSACHUSETTS
JUSTIN W. DUFRESNE
CIVIL
No. 51506
REGISTERED PROFESSIONAL ENGINEER

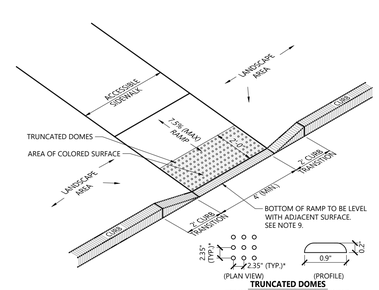


NOTES

1. TWELVE INCH (12") LINES SHALL BE APPLIED IN ONE APPLICATION, NO COMBINATION OF LINES (TWO - 6 INCH LINES) WILL BE ACCEPTED.
2. LONGITUDINAL CROSSWALK LINES TO BE PARALLEL TO CURBLINE.
3. ALL LONGITUDINAL CROSSWALK LINES SHALL BE THE SAME LENGTH AND PROPERLY ALIGNED.
4. CROSS WALK SIDESLOPE SHALL NOT EXCEED 1.5%.

Crosswalk

12/19

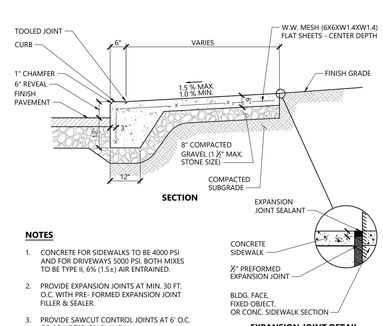


NOTES

1. THE MAXIMUM ALLOWABLE SIDEWALK AND CURB RAMP CROSS SLOPES SHALL BE 1.5 (1% MIN.).
2. THE MAXIMUM ALLOWABLE SLOPE OF ACCESSIBLE ROUTE EXCLUDING CURB RAMPS SHALL BE 5%.
3. THE MAXIMUM ALLOWABLE SLOPE OF ACCESSIBLE ROUTE AT CURB RAMPS SHALL BE 7.5%.
4. A MINIMUM OF 3 FEET CLEAR SHALL BE MAINTAINED AT ANY PERMANENT OBSTACLE IN ACCESSIBLE ROUTE (I.E., HYDRANTS, UTILITY POLES, TREE WELLS, SIGNS, ETC.).
5. CURB TREATMENT VARIES, SEE PLANS FOR CURB TYPE.
6. RAMP, CURB AND ADJACENT PAVEMENTS SHALL BE GRADED TO PREVENT PONDING.
7. SEE TYPICAL SIDEWALK SECTION FOR RAMP CONSTRUCTION.
8. WHERE ACCESSIBLE ROUTES ARE LESS THAN 5' IN WIDTH (EXCLUDING CURBING) A 5' x 5' PASSING AREA SHALL BE PROVIDED AT INTERVALS NOT TO EXCEED 200 FEET.
9. ELIMINATE CURBING (OTHER THAN VERTICAL CURBING, WHICH SHALL BE SET FLUSH) WHERE IT ABUTS ROADWAYS.
10. DETECTABLE WARNINGS SHALL CONTRAST VISUALLY WITH ADJOINING SURFACES.
11. DETECTABLE WARNINGS SHALL BE INSTALLED PERPENDICULAR TO THE ACCESSIBLE ROUTE.

Accessible Curb Ramp (ACR) Type 'M-D'

12/20

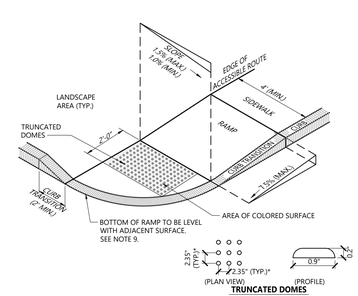


NOTES

1. CONCRETE FOR SIDEWALKS TO BE 4000 PSI AND FOR DRIVEWAYS 5000 PSI. BOTH MIXES TO BE TYPE II, 6% (1.5±) AIR ENTRAINED.
2. PROVIDE EXPANSION JOINTS AT MIN. 30 FT. O.C. WITH PRE- FORMED EXPANSION JOINT FILLER & SEALER.
3. PROVIDE SAWCUT CONTROL JOINTS AT 6' O.C. OR AS NOTED ON PLANS.
4. PROVIDE BROOM FINISH IN DIRECTION PERPENDICULAR TO CURB.
5. ALL EXPOSED CONCRETE SURFACES SHALL BE SEALED WITH A SILANE-SILOXANE PRODUCT.

Monolithic Concrete Curb (MCC) & Sidewalk

3/20



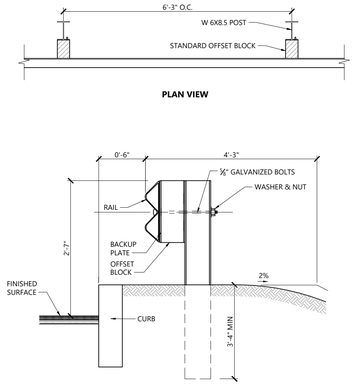
NOTES

1. THE MAXIMUM ALLOWABLE SIDEWALK AND CURB RAMP CROSS SLOPES SHALL BE 1.5 (1% MIN.).
2. THE MAXIMUM ALLOWABLE SLOPE OF ACCESSIBLE ROUTE EXCLUDING CURB RAMPS SHALL BE 5%.
3. THE MAXIMUM ALLOWABLE SLOPE OF ACCESSIBLE ROUTE AT CURB RAMPS SHALL BE 7.5%.
4. A MINIMUM OF 3 FEET CLEAR SHALL BE MAINTAINED AT ANY PERMANENT OBSTACLE IN ACCESSIBLE ROUTE (I.E., HYDRANTS, UTILITY POLES, TREE WELLS, SIGNS, ETC.).
5. CURB TREATMENT VARIES, SEE PLANS FOR CURB TYPE.
6. RAMP, CURB AND ADJACENT PAVEMENTS SHALL BE GRADED TO PREVENT PONDING.
7. SEE TYPICAL SIDEWALK SECTION FOR RAMP CONSTRUCTION.
8. WHERE ACCESSIBLE ROUTES ARE LESS THAN 5' IN WIDTH (EXCLUDING CURBING) A 5' x 5' PASSING AREA SHALL BE PROVIDED AT INTERVALS NOT TO EXCEED 200 FEET.
9. ELIMINATE CURBING AT RAMP WHERE IT ABUTS ROADWAY, EXCEPT WHERE VERTICAL CURBING IS INDICATED ON THE DRAWINGS TO BE INSTALLED AND SET FLUSH.
10. DETECTABLE WARNINGS SHALL CONTRAST VISUALLY WITH ADJOINING SURFACES.
11. DETECTABLE WARNINGS SHALL BE INSTALLED PERPENDICULAR TO THE ACCESSIBLE ROUTE.
12. CONTRACTOR TO SUBMIT R.F.I. FOR THIS TYPE OF ACCESSIBLE CURB RAMP FOR APEX ROADWAY CROSSINGS.

Accessible Curb Ramp (ACR) - Type 'B-D'

12/20

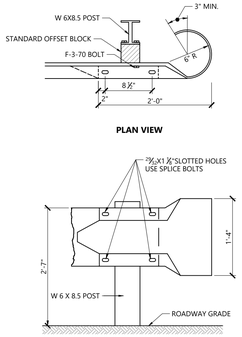
Saved Tuesday, December 14, 2021 4:56:05 PM AGORMAN Plotted Tuesday, December 14, 2021 4:58:41 PM Annie Gorman

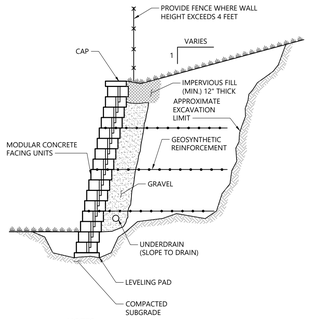


Steel Beam Guardrail with Steel Post

10/20

N.T.S. Source: VHB LD_456





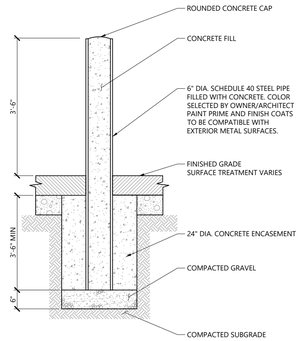
NOTES

DETAIL PROVIDED FOR GENERAL INFORMATION ONLY. STAMPED FINAL DESIGN OF MODULAR WALL SYSTEM TO BE PROVIDED BY CONTRACTOR BASED ON GEOTECHNICAL ENGINEER'S RECOMMENDATIONS.

Modular Retaining Wall

10/20

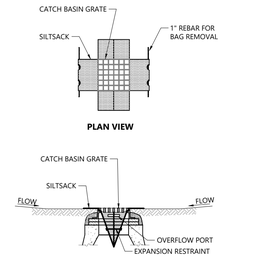
N.T.S. Source: VHB LD_750



Bollard

12/19

N.T.S. Source: VHB LD_700



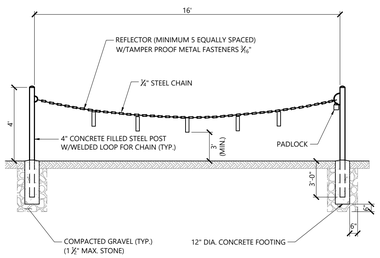
NOTES

1. INSTALL SILTSACK IN ALL CATCH BASINS WHERE INDICATED ON THE PLAN BEFORE COMMENCING WORK OR IN PAVED AREAS AFTER BINDER COURSE IS PLACED AND HAY BALES HAVE BEEN REMOVED.
2. GRATE TO BE PLACED OVER SILTSACK.
3. SILTSACK SHALL BE INSPECTED PERIODICALLY AND AFTER ALL STORM EVENTS AND CLEANING OR REPLACEMENT SHALL BE PERFORMED PROMPTLY AS NEEDED. MAINTAIN UNTIL UPSTREAM AREAS HAVE BEEN PERMANENTLY STABILIZED

Siltsack Sediment Trap

1/20

N.T.S. Source: VHB LD_674



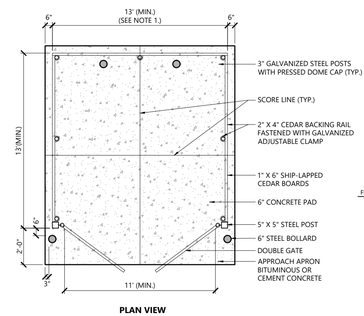
NOTES

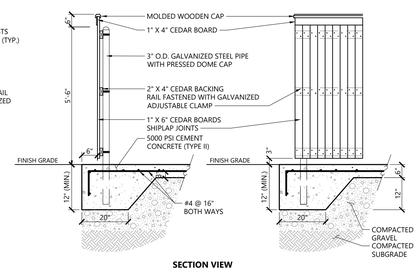
1. SHOP PRIME & PAINT EXPOSED SURFACES FIELD PAINT EPOXY ENAMEL-YELLOW.
2. PROVIDE "MASTER" PADLOCK WITH QUANTITY OF KEYS AS REQUIRED BY MUNICIPALITY.
3. 3,000 PSI CONCRETE FOOTING & PIPE FILL

Emergency Gate (Chain)

12/19

N.T.S. Source: VHB LD_487





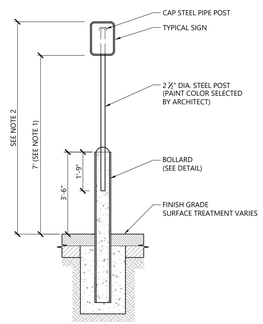
NOTES

1. DUMPSTER PAD DIMENSIONS SHOWN AS MINIMUM. REFER TO PLAN FOR ACTUAL DIMENSION.
2. PAD DESIGNED FOR 6 YARD DUMPSTER.

Dumpster Pad w/ Enclosure

1/20

N.T.S. Source: VHB LD_713

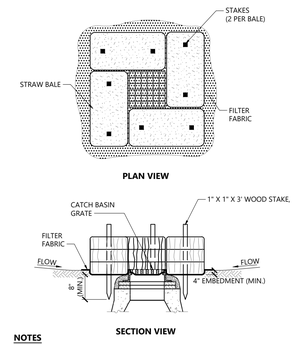


1. THIS DIMENSION SHALL BE A MINIMUM OF 5' FOR ACCESSIBLE SIGNAGE.
2. THIS DIMENSION SHALL BE A MAXIMUM OF 8' FOR ACCESSIBLE SIGNAGE

Bollard Mounted Sign

2/20

N.T.S. Source: VHB LD_703



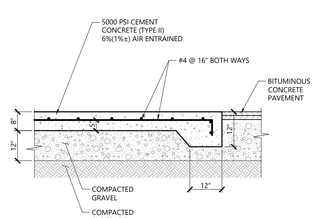
NOTES

1. ENCLOSE STRUCTURE WITH HAYBALES IMMEDIATELY AFTER CATCH BASIN CONSTRUCTION. MAINTAIN UNTIL PAVING BINDER COURSE IS COMPLETE OR A PERMANENT STAND OF GRASS HAS BEEN ESTABLISHED.
2. IF GRATE IS AGAINST EXISTING CURB THEN BALES ARE TO BE PLACED AROUND THREE SIDES OF GRATE ONLY.
3. GRATE TO BE PLACED OVER FILTER FABRIC.
4. BALES SHALL BE INSPECTED PERIODICALLY AND AFTER ALL STORM EVENTS AND REPAIR OR REPLACEMENT SHALL BE PERFORMED PROMPTLY AS NEEDED.

Catch Basin Sediment Trap

1/16

N.T.S. Source: VHB LD_673



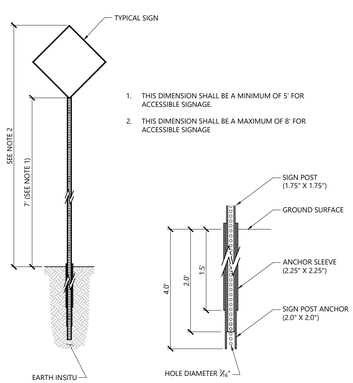
NOTES

1. SIZE OF PAD TO BE AS INDICATED ON PLANS.
2. CONSTRUCTION JOINTS SHALL BE SPACED NO MORE THAN 30 FEET ON CENTER AND SHALL BE EQUALLY SPACED OVER THE LENGTH AND WIDTH OF THE PAD.

Loading Dock Pad / Compactor Pad

1/20

N.T.S. Source: VHB LD_711

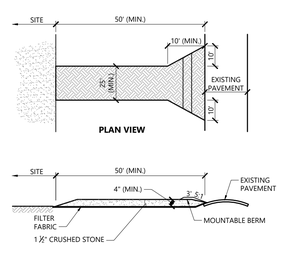


1. THIS DIMENSION SHALL BE A MINIMUM OF 5' FOR ACCESSIBLE SIGNAGE.
2. THIS DIMENSION SHALL BE A MAXIMUM OF 8' FOR ACCESSIBLE SIGNAGE

Sign Post - Type 'B'

3/19

N.T.S. Source: VHB LD_702



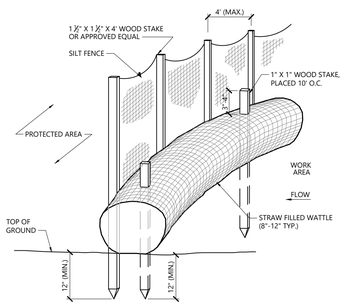
NOTES

1. EXIT WIDTH SHALL BE A TWENTY-FIVE (25) FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS.
2. THE EXIT SHALL BE MAINTAINED IN A CONDITION WHICH SHALL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY. BERM SHALL BE PERMITTED. PERIODIC INSPECTION AND MAINTENANCE SHALL BE PROVIDED AS NEEDED.
3. STABILIZED CONSTRUCTION EXIT SHALL BE REMOVED PRIOR TO FINAL FINISH MATERIALS BEING INSTALLED.

Stabilized Construction Exit

1/16

N.T.S. Source: VHB LD_682



NOTES

1. STRAW WATTLE SHALL BE AS MANUFACTURED BY EARTHSAVER OR APPROVED EQUAL.
2. STRAW WATTLES SHALL OVERLAP A MINIMUM OF 12 INCHES.
3. STRAW WATTLE SHALL BE INSPECTED PERIODICALLY AND AFTER ALL STORM EVENTS, AND REPAIR OR REPLACEMENT SHALL BE PERFORMED PROMPTLY AS NEEDED.
4. TEMPORARY STRAW WATTLES TO BE REMOVED BY CONTRACTOR. ALL OTHERS TO REMAIN IN PLACE UNLESS DIRECTED OTHERWISE BY ENGINEER.
5. IF NON BIODEGRADABLE NETTING IS USED THE NETTING SHALL BE COLLECTED AND DISPOSED OF OFFSITE.

Straw Wattle - Erosion Control Barrier

10/21

N.T.S. Source: VHB LD_659-A

vhb.com

120 Front Street
Suite 500
Worcester, MA 01608
508.752.1001

Leicester Central

0, 90, & 92 Huntoon Memorial Highway
Leicester, MA 01524

No.	Revision	Date	Appvd.

Designed by CSH | Checked by JWD

Issued for: Local Approvals | Date: December 7, 2021

Not Approved for Construction

Drawing Title: Site Details

Drawing Number: C6.02

Sheet 14 of 17

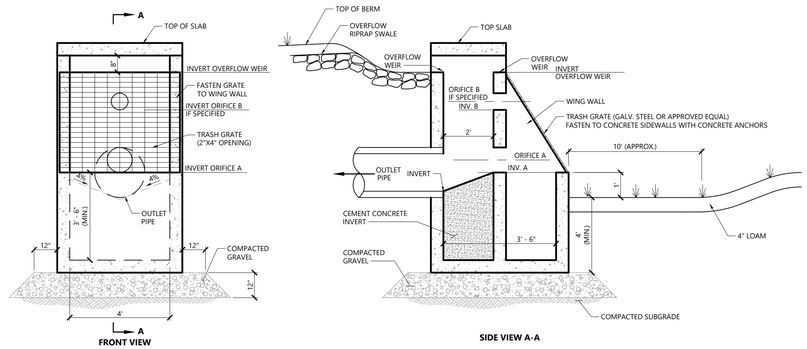
Project Number: 15392.00

COMMONWEALTH OF MASSACHUSETTS
JUSTIN W. DUFRESNE
CIVIL
No. 51506
REGISTERED PROFESSIONAL ENGINEER

Saved Tuesday, December 14, 2021 4:56:05 PM AGORMAN Plotted Tuesday, December 14, 2021 4:59:27 PM Annie Gorman

DETENTION BASIN

DETENTION BASIN NO.	DIAMETER ORIFICE A	INVERT ORIFICE A	DIAMETER ORIFICE B	INVERT ORIFICE B	DIAMETER OUTLET PIPE	OUTLET PIPE INVERT	OVERFLOW WEIR ELEV.	OVERFLOW SWALE DIMENSIONS W= D=	OVERFLOW SWALE ELEV.	TOP OF BERM



Basin Multi-Stage Outlet Control Structure (OCS)

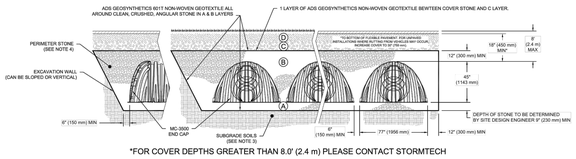
2/20

N.T.S. Source: VHB LD_162B

ACCEPTABLE FILL MATERIALS: STORMTECH MC-3500 CHAMBER SYSTEMS

	MATERIAL LOCATION	DESCRIPTION	AASHTO MATERIAL CLASSIFICATIONS	COMPACTION / DENSITY REQUIREMENT
D	**FINAL FILL:** FILL MATERIAL FOR LAYER 'D' STARTS FROM THE TOP OF THE 'C' LAYER TO THE BOTTOM OF FLEXIBLE PAVEMENT OR UNPAVED FINISHED GRADE ABOVE. NOTE THAT PAVEMENT SUBBASE MAY BE PART OF THE 'D' LAYER	ANY SOIL/ROCK MATERIALS, NATIVE SOILS, OR PER ENGINEER'S PLANS. CHECK PLANS FOR PAVEMENT SUBGRADE REQUIREMENTS.	N/A	PREPARE PER SITE DESIGN ENGINEER'S PLANS. PAVED INSTALLATIONS MAY HAVE STRINGENT MATERIAL AND PREPARATION REQUIREMENTS.
C	**INITIAL FILL:** FILL MATERIAL FOR LAYER 'C' STARTS FROM THE TOP OF THE EMBEDMENT STONE (18" LAYER) TO 24" (600 mm) ABOVE THE TOP OF THE CHAMBER. NOTE THAT PAVEMENT SUBBASE MAY BE A PART OF THE 'C' LAYER.	GRANULAR WELL-GRADED SOIL/AGGREGATE MIXTURES, <35% FINES OR PROCESSED AGGREGATE. MOST PAVEMENT SUBBASE MATERIALS CAN BE USED IN LIEU OF THIS LAYER.	AASHTO M145[1] A-1, A-2-4, A-3 OR AASHTO M43[1] 3, 357, 4, 467, 5, 56, 57, 6, 67, 68, 7, 78, 8, 89, 9, 10	BEGIN COMPACTIONS AFTER 24" (600 mm) OF MATERIAL OVER THE CHAMBERS IS REACHED. COMPACT ADDITIONAL LAYERS IN 12" (300 mm) MAX LIFTS TO A MIN. 95% PROCTOR DENSITY FOR WELL GRADED MATERIAL AND 95% RELATIVE DENSITY FOR PROCESSED AGGREGATE MATERIALS.
B	**EMBEDMENT STONE:** FILL SURROUNDING THE CHAMBERS (FROM THE FOUNDATION STONE ON LAYER) TO THE 'C' LAYER ABOVE.	CLEAN, CRUSHED, ANGULAR STONE	AASHTO M43[1] 3, 4	NO COMPACTION REQUIRED.
A	**FOUNDATION STONE:** FILL BELOW CHAMBERS FROM THE SUBGRADE UP TO THE FOOT (BOTTOM) OF THE CHAMBER.	CLEAN, CRUSHED, ANGULAR STONE	AASHTO M43[1] 3, 4	PLATE COMPACT OR ROLL TO ACHIEVE A FLAT SURFACE.[2,3]

PLEASE NOTE:
1. UNLESS NOTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR, FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR NO. 4 (AASHTO M43) STONE".
2. STORMTECH COMPACTION REQUIREMENTS ARE MET FOR 'A' LOCATION MATERIALS WHEN PLACED AND COMPACTED IN 9" (230 mm) (MAX.) LIFTS USING TWO FULL COVERAGES WITH A VIBRATORY COMPACTOR.
3. WHERE INFILTRATION SURFACES MAY BE COMPROMISED BY COMPACTION, FOR STANDARD DESIGN LOAD CONDITIONS, A FLAT SURFACE MAY BE ACHIEVED BY RAKING OR DRAGGING WITHOUT COMPACTION EQUIPMENT. FOR SPECIAL LOAD DESIGNS, CONTACT STORMTECH FOR COMPACTION REQUIREMENTS.
4. ONCE LAYER 'C' IS PLACED, ANY SOIL/MATERIAL CAN BE PLACED IN LAYER 'D' UP TO THE FINISHED GRADE. MOST PAVEMENT SUBBASE SOILS CAN BE USED TO REPLACE THE MATERIAL REQUIREMENTS OF LAYER 'C' OR 'D' AT THE SITE DESIGN ENGINEER'S DISCRETION.



*FOR COVER DEPTHS GREATER THAN 8.0' (2.4 m) PLEASE CONTACT STORMTECH

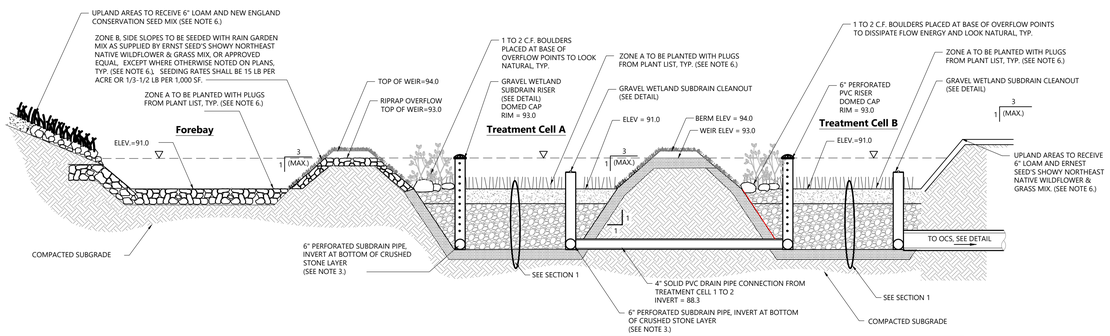
NOTES:

1. CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418-16a, "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS" CHAMBER CLASSIFICATION 45476 DESIGNATION SS.
2. MC-3500 CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
3. THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR ASSESSING THE BEARING RESISTANCE (ALLOWABLE BEARING CAPACITY) OF THE SUBGRADE SOILS AND THE DEPTH OF FOUNDATION STONE WITH CONSIDERATION FOR THE RANGE OF EXPECTED SOIL MOISTURE CONDITIONS.
4. PERIMETER STONE MUST BE EXTENDED HORIZONTALLY TO THE EXCAVATION WALL FOR BOTH VERTICAL AND SLOPED EXCAVATION WALLS.
5. REQUIREMENTS FOR HANDLING AND INSTALLATION:
   - TO MAINTAIN THE WIDTH OF CHAMBERS DURING SHIPPING AND HANDLING, CHAMBERS SHALL HAVE INTEGRAL, INTERLOCKING STACKING LUGS.
   - TO ENSURE A SECURE JOINT DURING INSTALLATION AND BACKFILL, THE HEIGHT OF THE CHAMBER JOINT SHALL NOT BE LESS THAN 3".
   - TO ENSURE THE INTEGRITY OF THE ARCH SHAPE DURING INSTALLATION, a) THE ARCH STIFFNESS CONSTANT AS DEFINED IN SECTION 6.2.8 OF ASTM F2418 SHALL BE GREATER THAN OR EQUAL TO 500 LBS/IN/IN, AND b) TO RESIST CHAMBER DEFORMATION DURING INSTALLATION AT ELEVATED TEMPERATURES (ABOVE 73° F / 23° C), CHAMBERS SHALL BE PRODUCED FROM REFLECTIVE GOLD OR YELLOW COLORS.

Stormtech MC-3500

N.T.S. Source: VHB LD_

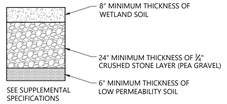
vhb.com
120 Front Street
Suite 500
Worcester, MA 01608
508.752.1001



Notes:

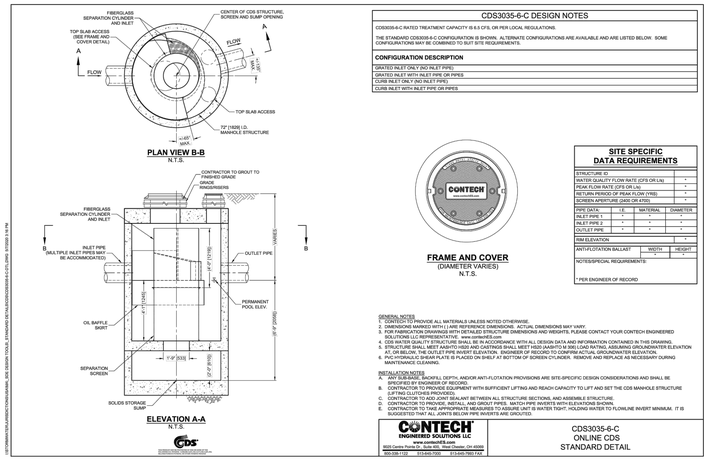
1. SIDE SLOPES SHALL BE 3:1 MAX. 3% MIN.
2. PVC DRAIN PIPES SHALL CONFORM TO ASTM F810. PERFORATIONS, WHEN APPLICABLE, SHALL BE 3/4" HOLES ON 5" CENTERS AND IN THREE ROWS 120° APART.
3. PIPE INVERTS AND STRUCTURE LOCATIONS AS SPECIFIED PER PLAN
4. LOW PERMEABILITY SOIL MATERIAL IS CONTINUOUS FOR THE FULL LENGTH OF THE EMBANKMENT WITH A MINIMUM 6" THICKNESS. PERMEABILITY = 1 x 10-5 cm/s
5. WHERE PIPES PENETRATE THE LOW PERMEABILITY SOIL, PIPE SHALL BE BEDDED IN THE LOW PERMEABILITY MATERIAL.
6. SEE PLANTING PLAN AND DETAILS FOR PLANT TYPES AND SEED MIX.

Section 1:



Gravel Wetland

N.T.S. Source: VHB



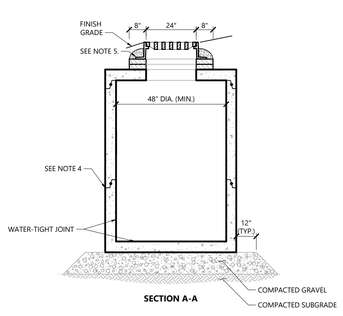
Water Quality Unit (WQU)

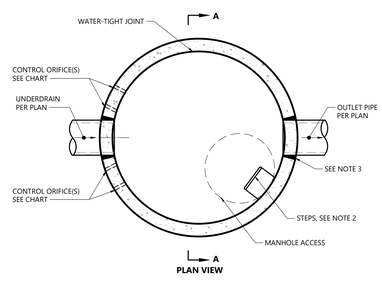
10/20

N.T.S. Source: StormTech

OUTLET STRUCTURE CHART

DETENTION BASIN	STRUCTURE NUMBER	TOP OF GRATE ELEVATION	DIMENSIONS ORIFICE A	INVERT ORIFICE A	DIMENSIONS ORIFICE B	INVERT ORIFICE B
GRAVEL WETLAND	118	741.7	9"H x 18"W	738.6	7"H x 24"W	741.1





NOTES

1. ALL SECTIONS SHALL BE DESIGNED FOR HS-20 LOADING. DIAMETER OF STRUCTURES SHALL BE COORDINATED WITH PIPE CONFIGURATIONS.
2. COPOLYMER MANHOLE STEPS SHALL BE INSTALLED AT 12" O.C. FOR THE FULL DEPTH OF THE STRUCTURE.
3. FOR HDPE, PVC, AND DI PIPE, PROVIDE FLEXIBLE BOOT CONNECTION INSTALLED PER MANUFACTURER'S RECOMMENDATIONS. FOR RCP, PROVIDE OPENINGS FOR PIPES WITH 2" MAX. CLEARANCE TO OUTSIDE OF PIPE AND MORTAR CONNECTIONS.
4. JOINT SEALANT BETWEEN PRECAST SECTIONS SHALL BE PREFORMED BUTYL RUBBER.
4. CATCH BASIN FRAME AND GRATE SHALL BE SET IN FULL MORTAR BED. ADJUST TO GRADE WITH CLAY BRICK AND MORTAR (2 BRICK COURSES TYPICALLY, 5 BRICK COURSES MAXIMUM).

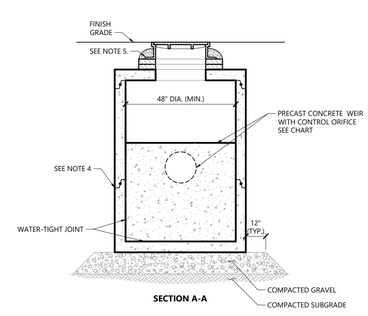
Outlet Control Structure (OCS) - Gravel Wetland

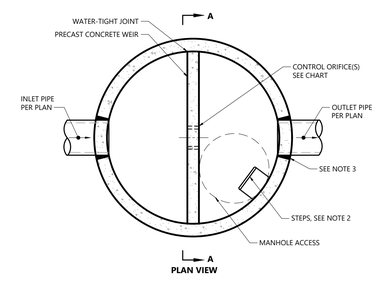
3/20

N.T.S. Source: VHB REV LD_162A

OUTLET STRUCTURE CHART

DETENTION BASIN	STRUCTURE NUMBER	TOP OF WEIR ELEVATION	DIMENSIONS ORIFICE A	INVERT ORIFICE A
SUBSURFACE INFILTRATION BASIN	202	748.4	20" DIA.	745.9





NOTES

1. ALL SECTIONS SHALL BE DESIGNED FOR HS-20 LOADING. DIAMETER OF STRUCTURES SHALL BE COORDINATED WITH PIPE CONFIGURATIONS.
2. COPOLYMER MANHOLE STEPS SHALL BE INSTALLED AT 12" O.C. FOR THE FULL DEPTH OF THE STRUCTURE.
3. FOR HDPE, PVC, AND DI PIPE, PROVIDE FLEXIBLE BOOT CONNECTION INSTALLED PER MANUFACTURER'S RECOMMENDATIONS. FOR RCP, PROVIDE OPENINGS FOR PIPES WITH 2" MAX. CLEARANCE TO OUTSIDE OF PIPE AND MORTAR CONNECTIONS.
4. JOINT SEALANT BETWEEN PRECAST SECTIONS SHALL BE PREFORMED BUTYL RUBBER.
5. DRAIN MANHOLE FRAME AND COVER SHALL BE SET IN FULL MORTAR BED. ADJUST TO GRADE WITH CLAY BRICK AND MORTAR (2 BRICK COURSES TYPICALLY, 5 BRICK COURSES MAXIMUM)

Outlet Control Structure with Weir (OCS) - Subsurface Infiltration Basin

3/20

N.T.S. Source: VHB REV LD_162A

Leicester Central

0, 90, & 92 Huntoon Memorial Highway
Leicester, MA 01524

No.	Revision	Date	Appvd.

Designed by CSH
Checked by JWD
Issued for Local Approvals
Date December 7, 2021

Not Approved for Construction

Drawing Title
Site Details

Drawing Number
C6.03

Sheet 15 of 17

Project Number
15392.00

COMMONWEALTH OF MASSACHUSETTS
JUSTIN W. DUFRESNE
CIVIL
No. 51506
REGISTERED PROFESSIONAL ENGINEER

Saved Tuesday, December 14, 2021 4:56:05 PM AGORMAN Plotted Tuesday, December 14, 2021 5:06:39 PM Annie Gorman

Planting Notes

1. ALL PROPOSED PLANTING LOCATIONS SHALL BE STAKED AS SHOWN ON THE PLANS FOR FIELD REVIEW AND APPROVAL BY THE LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.
2. CONTRACTOR SHALL VERIFY LOCATIONS OF ALL BELOW GRADE AND ABOVE GROUND UTILITIES AND NOTIFY OWNERS REPRESENTATIVE OF CONFLICTS.
3. NO PLANT MATERIALS SHALL BE INSTALLED UNTIL ALL GRADING AND CONSTRUCTION HAS BEEN COMPLETED IN THE IMMEDIATE AREA. CONTRACTOR SHALL NOTIFY OWNER'S REPRESENTATIVE OF ANY CONFLICT.
4. A 3-INCH DEEP MULCH PER SPECIFICATION SHALL BE INSTALLED UNDER ALL TREES AND SHRUBS, AND IN ALL PLANTING BEDS, UNLESS OTHERWISE INDICATED ON THE PLANS, OR AS DIRECTED BY OWNER'S REPRESENTATIVE.
5. ALL TREES SHALL BE BALLED AND BURLAPPED, UNLESS OTHERWISE NOTED IN THE DRAWINGS OR SPECIFICATION, OR APPROVED BY THE OWNER'S REPRESENTATIVE.
6. FINAL QUANTITY FOR EACH PLANT TYPE SHALL BE AS GRAPHICALLY SHOWN ON THE PLAN. THIS NUMBER SHALL TAKE PRECEDENCE IN CASE OF ANY DISCREPANCY BETWEEN QUANTITIES SHOWN ON THE PLANT LIST AND ON THE PLAN. THE CONTRACTOR SHALL REPORT ANY DISCREPANCIES BETWEEN THE NUMBER OF PLANTS SHOWN ON THE PLANT LIST AND PLANT LABELS PRIOR TO BIDDING.
7. ANY PROPOSED PLANT SUBSTITUTIONS MUST BE REVIEWED BY LANDSCAPE ARCHITECT AND APPROVED IN WRITING BY THE OWNER'S REPRESENTATIVE.
8. ALL PLANT MATERIALS INSTALLED SHALL MEET THE SPECIFICATIONS OF THE "AMERICAN STANDARDS FOR NURSERY STOCK" BY THE AMERICAN ASSOCIATION OF NURSERYMEN AND CONTRACT DOCUMENTS.
9. ALL PLANT MATERIALS SHALL BE GUARANTEED FOR ONE YEAR FOLLOWING DATE OF FINAL ACCEPTANCE.
10. AREAS DESIGNATED "LOAM & SEED" SHALL RECEIVE MINIMUM 6" OF LOAM AND SPECIFIED SEED MIX. LAWNS OVER 2:1 SLOPE SHALL BE PROTECTED WITH EROSION CONTROL FABRIC.
11. ALL DISTURBED AREAS NOT OTHERWISE NOTED ON CONTRACT DOCUMENTS SHALL BE LOAM AND SEEDED OR MULCHED AS DIRECTED BY OWNER'S REPRESENTATIVE.
12. THIS PLAN IS INTENDED FOR PLANTING PURPOSES. REFER TO SITE / CIVIL DRAWINGS FOR ALL OTHER SITE CONSTRUCTION INFORMATION.

Plant Maintenance Notes

1. CONTRACTOR SHALL PROVIDE COMPLETE MAINTENANCE OF THE LAWNS AND PLANTINGS. NO IRRIGATION IS PROPOSED FOR THIS SITE. THE CONTRACTOR SHALL SUPPLY SUPPLEMENTAL WATERING FOR NEW LAWNS AND PLANTINGS DURING THE ONE YEAR PLANT GUARANTEE PERIOD.
2. CONTRACTOR SHALL PROVIDE ALL MATERIALS, LABOR, AND EQUIPMENT FOR THE COMPLETE LANDSCAPE MAINTENANCE WORK. WATER SHALL BE PROVIDED BY THE CONTRACTOR.
3. WATERING SHALL BE REQUIRED DURING THE GROWING SEASON, WHEN NATURAL RAINFALL IS BELOW ONE INCH PER WEEK.
4. WATER SHALL BE APPLIED IN SUFFICIENT QUANTITY TO THOROUGHLY SATURATE THE SOIL IN THE ROOT ZONE OF EACH PLANT.
5. CONTRACTOR SHALL REPLACE DEAD OR DYING PLANTS AT THE END OF THE ONE YEAR GUARANTEE PERIOD. CONTRACTOR SHALL TURN OVER MAINTENANCE TO THE FACILITY MAINTENANCE STAFF AT THAT TIME.

Edge of Woods Clearing

1. EXISTING TREES TO REMAIN SHALL BE PROTECTED WITH TEMPORARY EROSION CONTROL FENCE AND HAY BALE BARRIER. ERECT BARRIER AT EDGE OF THE EARTHWORK CUT LINE PRIOR TO TREE CLEARING. LAY OUT THIS LINE BY FIELD SURVEY.

Tree Protection

1. EXISTING TREES TO REMAIN SHALL BE PROTECTED WITH TEMPORARY CONSTRUCTION FENCE. ERECT FENCE AT EDGE OF THE TREE DRIPLINE PRIOR TO START OF CONSTRUCTION.
2. CONTRACTOR SHALL NOT OPERATE VEHICLES WITHIN THE TREE PROTECTION AREA. CONTRACTOR SHALL NOT STORE VEHICLES OR MATERIALS, OR DISPOSE OF ANY WASTE MATERIALS, WITHIN THE TREE PROTECTION AREA.
3. DAMAGE TO EXISTING TREES CAUSED BY THE CONTRACTOR SHALL BE REPAIRED BY A CERTIFIED ARBORIST AT THE CONTRACTOR'S EXPENSE.

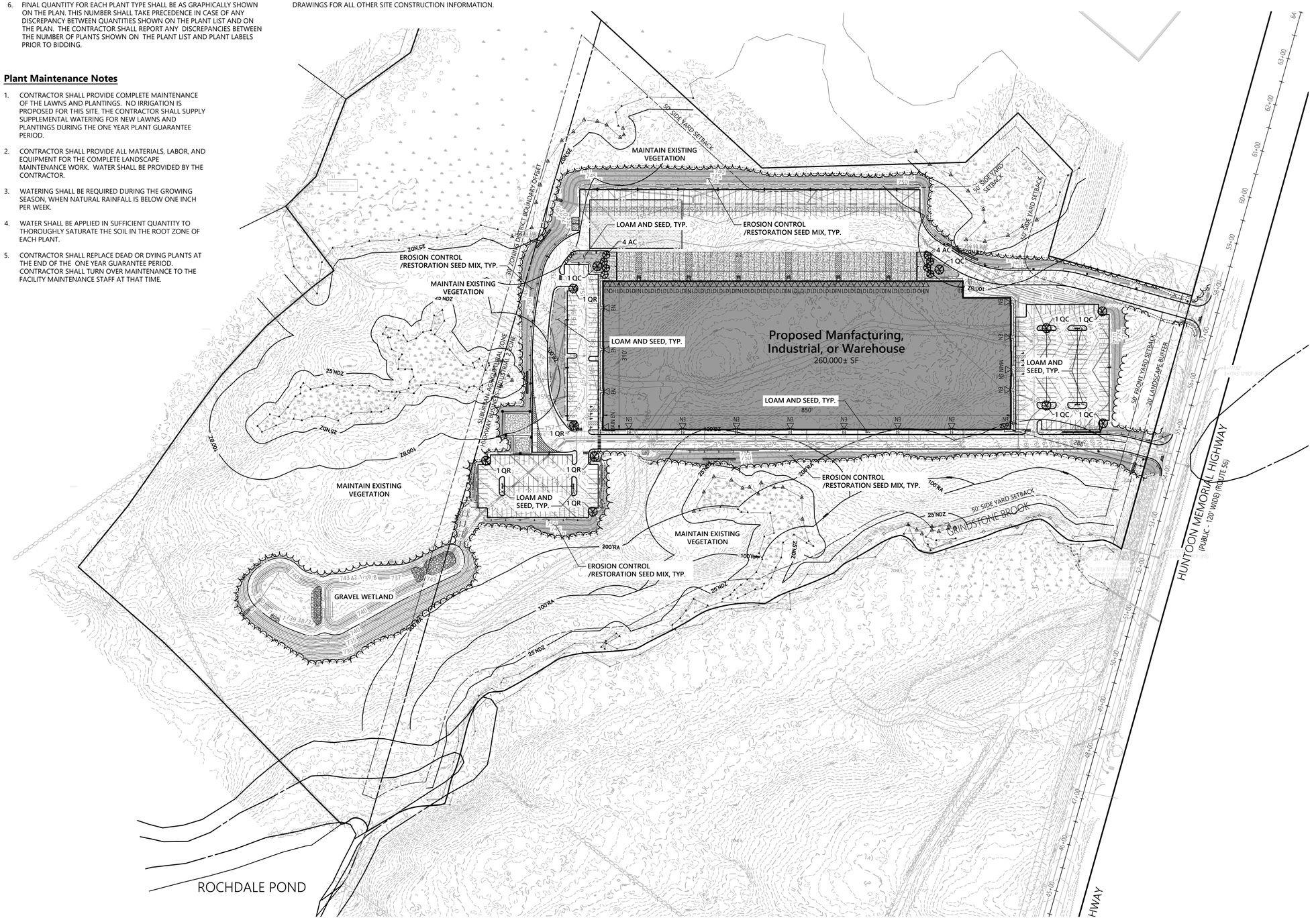
PLANT SCHEDULE

DECIDUOUS TREES	QTY	BOTANICAL NAME	COMMON NAME	SIZE
QC	6	Quercus coccinea	Scarlet Oak	2 1/2 - 3" CAL.
QR	5	Quercus rubra	Red Oak	2 1/2 - 3" CAL.

EVERGREEN TREES	QTY	BOTANICAL NAME	COMMON NAME	SIZE
AC	8	Abies concolor	White Fir	6 - 7' HT.

Seed Mixtures:

1. AREAS INDICATED AS "EROSION CONTROL/RESTORATION SEED MIX" ARE TO BE SEEDED WITH NEW ENGLAND CONSERVATION EROSION CONTROL/RESTORATION MIX FOR DRY SITES, AS MANUFACTURED BY NEW ENGLAND WETLAND PLANTS, INC. AMHERST, MA (413) 548-8000, www.NEWP.com,OR AN APPROVED EQUAL. APPLY IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.



vhb.com
120 Front Street
Suite 500
Worcester, MA 01608
508.752.1001

0 50 100 200 Feet

Leicester Central

0, 90, & 92 Huntoon Memorial Highway
Leicester, MA 01524

No.	Revision	Date	Appvd.

Designed by MF
Checked by EB
Issued for Local Approvals
Date December 7, 2021

Not Approved for Construction

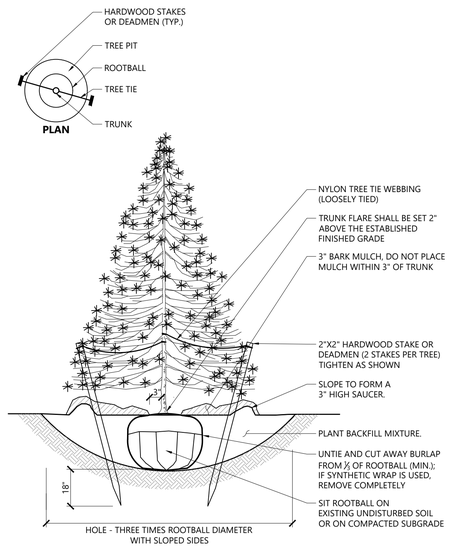
Drawing Title
Planting Plan

Drawing Number
L1.00

Sheet 16 of 17

Project Number 15392.00

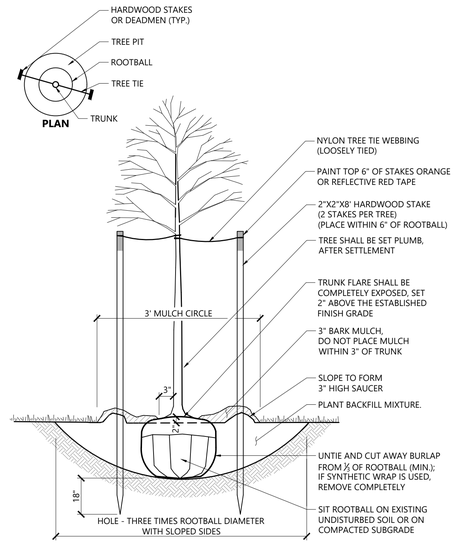
MASSACHUSETTS ERIK BEDNARSKI NO. 1508 LANDSCAPE ARCHITECT
12/14/2021



Evergreen Tree Planting

9/21

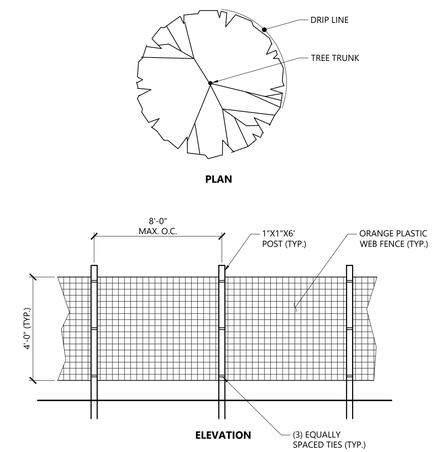
N.T.S. Source: VHB LD_604



Tree Planting (For Trees Under 4" Caliper)

9/21

N.T.S. Source: VHB LD_602



NOTES

1. INSTALL TREE PROTECTION FENCE AT THE DRIP LINE OF EXISTING TREES TO REMAIN.

Tree Protection Fence

1/16

N.T.S. Source: VHB LD_610

vhb.com
120 Front Street
Suite 500
Worcester, MA 01608
508.752.1001

Leicester Central

0, 90, & 92 Huntoon Memorial Highway
Leicester, MA 01524

No.	Revision	Date	Appvd.

Designed by MF
Checked by EB
Issued for Local Approvals
Date December 7, 2021

Not Approved for Construction

Drawing Title
Planting Details

Drawing Number
L2.00

Sheet 17 of 17

Project Number
15392.00

MASSACHUSETTS ERIK BEDNARSKI REGISTERED LANDSCAPE ARCHITECT NO. 1598
12/14/2021

General Notes

1) THE PROPERTY LINES SHOWN ON THIS PLAN ARE BASED UPON AN ACTUAL FIELD SURVEY CONDUCTED BY VHB, INC. IN JULY, 2019 AND FROM DEEDS AND PLANS OF RECORD.

2) THE EXISTING CONDITIONS SHOWN ON THIS PLAN WERE DEVELOPED FROM A COMBINED EFFORT OF LIDAR & AERIAL PHOTOGRAMMETRIC MAPPING BY EASTERN TOPOGRAPHICS, INC., BASED ON AERIAL PHOTOGRAPHS TAKEN ON APRIL 25, 2019, AND AUGMENTED BY AN ON-THE-GROUND SURVEY PERFORMED BY VHB DURING JULY 2019.

3) THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES SHOWN ON THIS PLAN ARE BASED ON FIELD OBSERVATIONS AND INFORMATION OF RECORD. THEY ARE NOT WARRANTED TO BE EXACTLY LOCATED NOR IS IT WARRANTED THAT ALL UNDERGROUND UTILITIES OR OTHER STRUCTURES ARE SHOWN ON THIS PLAN.

4) HORIZONTAL DATUM IS BASED ON MASS. GRID SYSTEM, NAD 1983. ELEVATIONS SHOWN ON THIS PLAN REFER TO NAVD OF 1988.

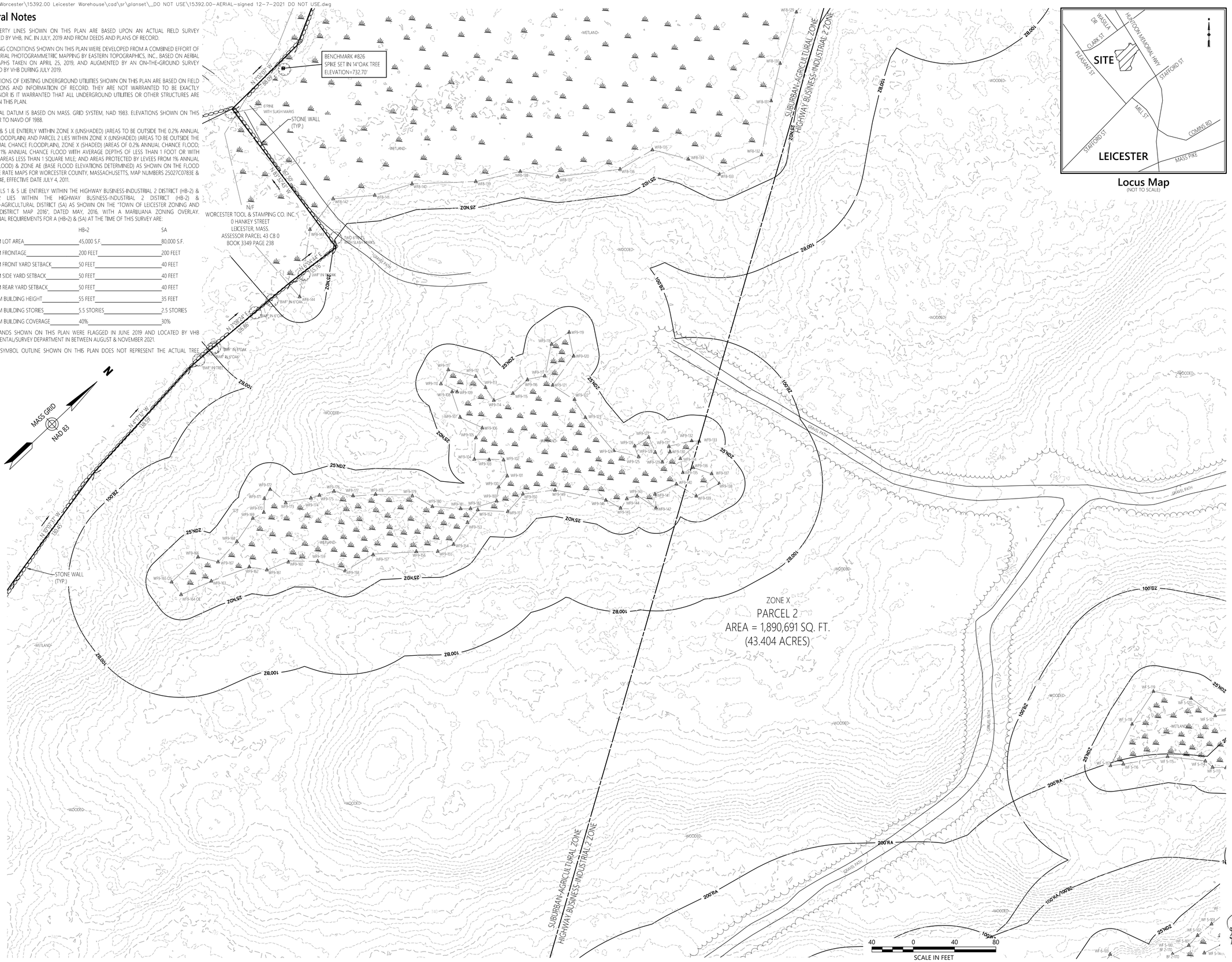
5) PARCELS 1 & 5 LIE ENTIERLY WITHIN ZONE X (UNSHADED) (AREAS TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN) AND PARCEL 2 LIES WITHIN ZONE X (UNSHADED) (AREAS TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN), ZONE X (SHADED) (AREAS OF 0.2% ANNUAL CHANCE FLOOD; AREAS OF 1% ANNUAL CHANCE FLOOD WITH AVERAGE DEPTHS OF LESS THAN 1 FOOT OR WITH DRAINAGE AREAS LESS THAN 1 SQUARE MILE; AND AREAS PROTECTED BY LEVEES FROM 1% ANNUAL CHANCE FLOOD) & ZONE AE (BASE FLOOD ELEVATIONS DETERMINED) AS SHOWN ON THE FLOOD INSURANCE RATE MAPS FOR WORCESTER COUNTY, MASSACHUSETTS, MAP NUMBERS 25027C0783E & 25027C0784E, EFFECTIVE DATE JULY 4, 2011.

6) THE PARCELS 1 & 5 LIE ENTIRELY WITHIN THE HIGHWAY BUSINESS-INDUSTRIAL 2 DISTRICT (HB-2) & PARCEL 2 LIES WITHIN THE HIGHWAY BUSINESS-INDUSTRIAL 2 DISTRICT (HB-2) & SUBURBAN-AGRICULTURAL DISTRICT (SA) AS SHOWN ON THE TOWN OF LEICESTER ZONING AND OVERLAY DISTRICT MAP 2016", DATED MAY, 2016, WITH A MARIJUANA ZONING OVERLAY. DIMENSIONAL REQUIREMENTS FOR A (HB-2) & (SA) AT THE TIME OF THIS SURVEY ARE:

	HB-2	SA
MINIMUM LOT AREA	45,000 S.F.	80,000 S.F.
MINIMUM FRONTAGE	200 FEET	200 FEET
MINIMUM FRONT YARD SETBACK	50 FEET	40 FEET
MINIMUM SIDE YARD SETBACK	50 FEET	40 FEET
MINIMUM REAR YARD SETBACK	50 FEET	40 FEET
MAXIMUM BUILDING HEIGHT	55 FEET	35 FEET
MAXIMUM BUILDING STORIES	5.5 STORIES	2.5 STORIES
MAXIMUM BUILDING COVERAGE	40%	30%

7) THE WETLANDS SHOWN ON THIS PLAN WERE FLAGGED IN JUNE 2019 AND LOCATED BY VHB ENVIRONMENTAL/SURVEY DEPARTMENT IN BETWEEN AUGUST & NOVEMBER 2021.

8) THE TREE SYMBOL OUTLINE SHOWN ON THIS PLAN DOES NOT REPRESENT THE ACTUAL TREE CANOPY.



Locus Map
(NOT TO SCALE)

Legend

- DRAIN MANHOLE
- CATCH BASIN
- SEWER MANHOLE
- ELECTRIC MANHOLE
- TELEPHONE MANHOLE
- MANHOLE
- HAND HOLE
- WATER GATE
- FIRE HYDRANT
- GAS GATE
- BOLLARD w/LIGHT
- STREET SIGN
- LIGHT POLE
- UTILITY POLE
- GUY POLE
- GUY WIRE
- MONITORING WELL
- FLOOD LIGHT
- WELL
- MARSH
- F.F.E =45.27' FINISHED FLOOR ELEVATION
- CNO COULD NOT OPEN
- NPV NO PIPES VISIBLE
- DYL DOUBLE YELLOW LINE
- DWL DASHED WHITE LINE
- SYL SINGLE WHITE LINE
- EOP EDGE OF PAVEMENT
- CC CONCRETE CURB
- VGC VERTICAL GRANITE CURB
- SGE SLOPED GRANITE EDGE
- BB BITUMINOUS BERM
- BC BITUMINOUS CURB
- GUARD RAIL
- CHAIN LINK FENCE
- DRAINAGE LINE
- SEWER LINE
- OHW OVERHEAD WIRE
- E UNDERGROUND ELECTRIC
- T TELEPHONE LINE
- G GAS LINE
- W WATER LINE
- STONE WALL
- TREE LINE
- 100'BZ 100-FT BUFFER ZONE
- 100'RA 100-FT RIVER FRONT AREA
- 200'RA 200-FT RIVER FRONT AREA
- AP1-100 LIMIT MEAN ANNUAL HIGH WATER
- BF1-100 LIMIT OF BANK
- WF1-100 VEGETATED WETLAND BOUNDARY

vhb.com
101 Walnut Street
PO Box 9151
Watertown, MA 02471
617.924.1770

JMC/TBG Leicester, LLC

0, 90 & 92 Huntoon Memorial Highway (Route 56) Leicester, Massachusetts

No.	Revision	Date	Appvd.

Designed by | Checked by

Issued for | Date
December 6, 2021

Drawing Title
Existing Conditions Plan of Land

Drawing Number
Sv-1

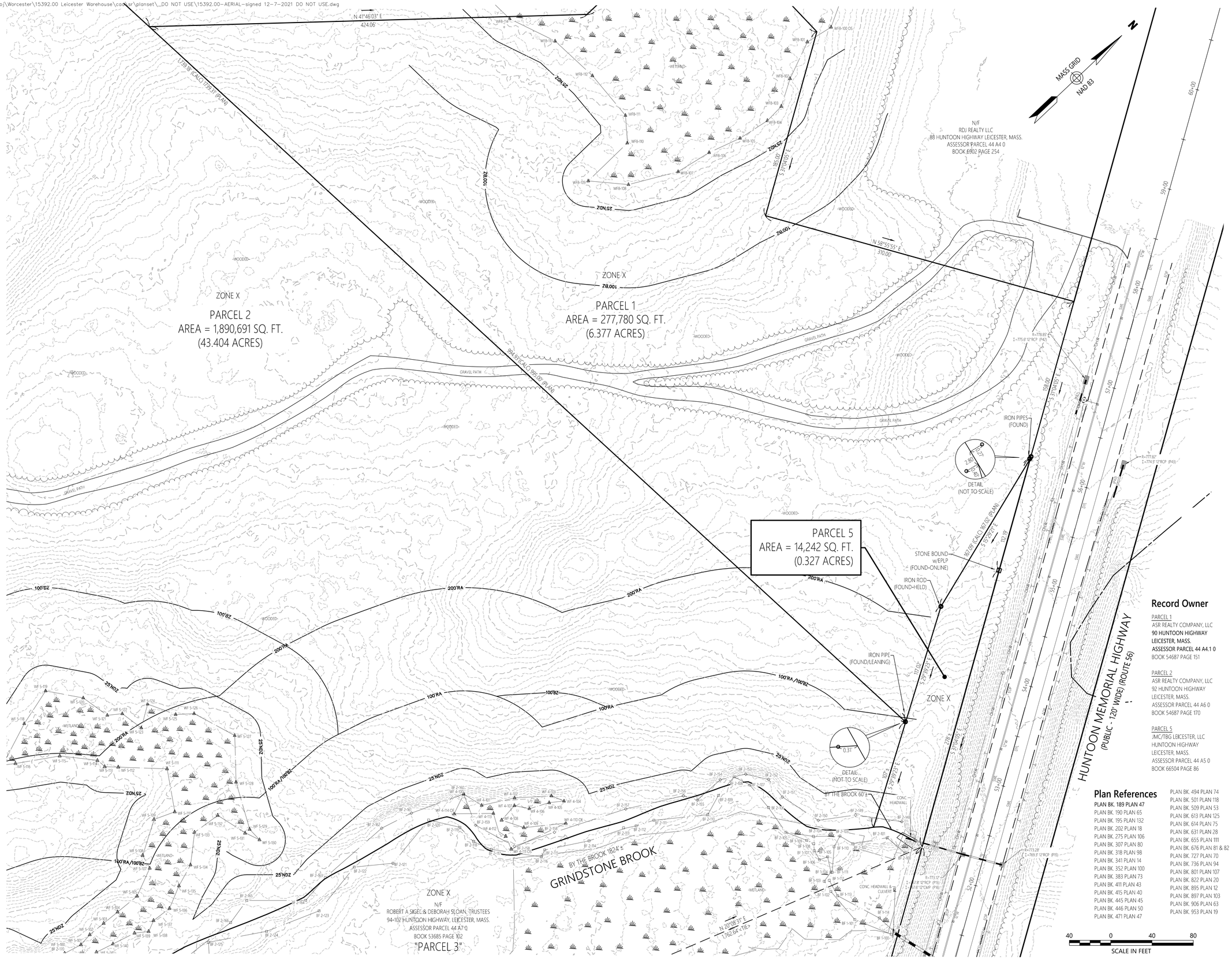
COMMONWEALTH OF MASSACHUSETTS
RUSSELL J. BOUSQUET
NO. 35389
REGISTERED PROFESSIONAL LAND SURVEYOR
12-7-2021

Sheet 1 of 2

Project Number
15392.00

Saved Friday, December 10, 2021 12:18:31 PM CDROBERTSON, Plotted Tuesday, December 14, 2021 8:31:32 AM Craig Robertson

\\vhb.com\gbl\proj\Worcester\15392.00 Leicester Warehouse\cad\dwg\planset_DO NOT USE\15392.00-AERIAL-signed 12-7-2021 DO NOT USE.dwg



vhb.com

101 Walnut Street
PO Box 9151
Watertown, MA 02471
617.924.1770

Legend

- DRAIN MANHOLE
- CATCH BASIN
- SEWER MANHOLE
- ELECTRIC MANHOLE
- TELEPHONE MANHOLE
- MANHOLE
- HAND HOLE
- WATER GATE
- FIRE HYDRANT
- GAS GATE
- BOLLARD w/LIGHT
- STREET SIGN
- LIGHT POLE
- UTILITY POLE
- GUY POLE
- GUY WIRE
- MONITORING WELL
- FLOOD LIGHT
- WELL
- MARSH
- F.F.E =45.27' FINISHED FLOOR ELEVATION
- CNO COULD NOT OPEN
- NPV NO PIPES VISIBLE
- DYL DOUBLE YELLOW LINE
- DWL DASHED WHITE LINE
- SYL SINGLE WHITE LINE
- EOP EDGE OF PAVEMENT
- CC CONCRETE CURB
- VGC VERTICAL GRANITE CURB
- SGE SLOPED GRANITE EDGE
- BB BITUMINOUS BERM
- BC BITUMINOUS CURB
- GUARD RAIL
- CHAIN LINK FENCE
- DRAINAGE LINE
- SEWER LINE
- OHW OVERHEAD WIRE
- E UNDERGROUND ELECTRIC
- T TELEPHONE LINE
- G GAS LINE
- W WATER LINE
- STONE WALL
- TREE LINE
- 100'BZ 100-FT BUFFER ZONE
- 100'RA 100-FT RIVER FRONT AREA
- 200'RA 200-FT RIVER FRONT AREA
- AF1-100 LIMIT MEAN ANNUAL HIGH WATER
- BF1-100 LIMIT OF BANK
- WF1-100 VEGETATED WETLAND BOUNDARY

Record Owner

PARCEL 1
ASR REALTY COMPANY, LLC
90 HUNTOON HIGHWAY
LEICESTER, MASS.
ASSESSOR PARCEL 44 A4.1 0
BOOK 54687 PAGE 151

PARCEL 2
ASR REALTY COMPANY, LLC
92 HUNTOON HIGHWAY
LEICESTER, MASS.
ASSESSOR PARCEL 44 A6 0
BOOK 54687 PAGE 170

PARCEL 5
JMC/TBG LEICESTER, LLC
HUNTOON HIGHWAY
LEICESTER, MASS.
ASSESSOR PARCEL 44 A5 0
BOOK 66504 PAGE 86

Plan References

PLAN BK. 189 PLAN 47
PLAN BK. 190 PLAN 65
PLAN BK. 195 PLAN 132
PLAN BK. 202 PLAN 18
PLAN BK. 275 PLAN 106
PLAN BK. 307 PLAN 80
PLAN BK. 318 PLAN 98
PLAN BK. 341 PLAN 14
PLAN BK. 352 PLAN 100
PLAN BK. 383 PLAN 73
PLAN BK. 411 PLAN 43
PLAN BK. 415 PLAN 40
PLAN BK. 445 PLAN 45
PLAN BK. 446 PLAN 50
PLAN BK. 471 PLAN 47
PLAN BK. 494 PLAN 74
PLAN BK. 501 PLAN 118
PLAN BK. 509 PLAN 53
PLAN BK. 613 PLAN 125
PLAN BK. 614 PLAN 75
PLAN BK. 631 PLAN 28
PLAN BK. 655 PLAN 111
PLAN BK. 676 PLAN 81 & 82
PLAN BK. 727 PLAN 70
PLAN BK. 736 PLAN 94
PLAN BK. 801 PLAN 107
PLAN BK. 822 PLAN 20
PLAN BK. 895 PLAN 12
PLAN BK. 897 PLAN 103
PLAN BK. 906 PLAN 63
PLAN BK. 953 PLAN 19

JMC/TBG Leicester, LLC

0, 90 & 92 Huntoon Memorial Highway (Route 56) Leicester, Massachusetts

No.	Revision	Date	Appvd.

Designed by | Checked by

Issued for | Date

December 6, 2021

Drawing Title

Existing Conditions Plan of Land

Drawing Number

Sv-2

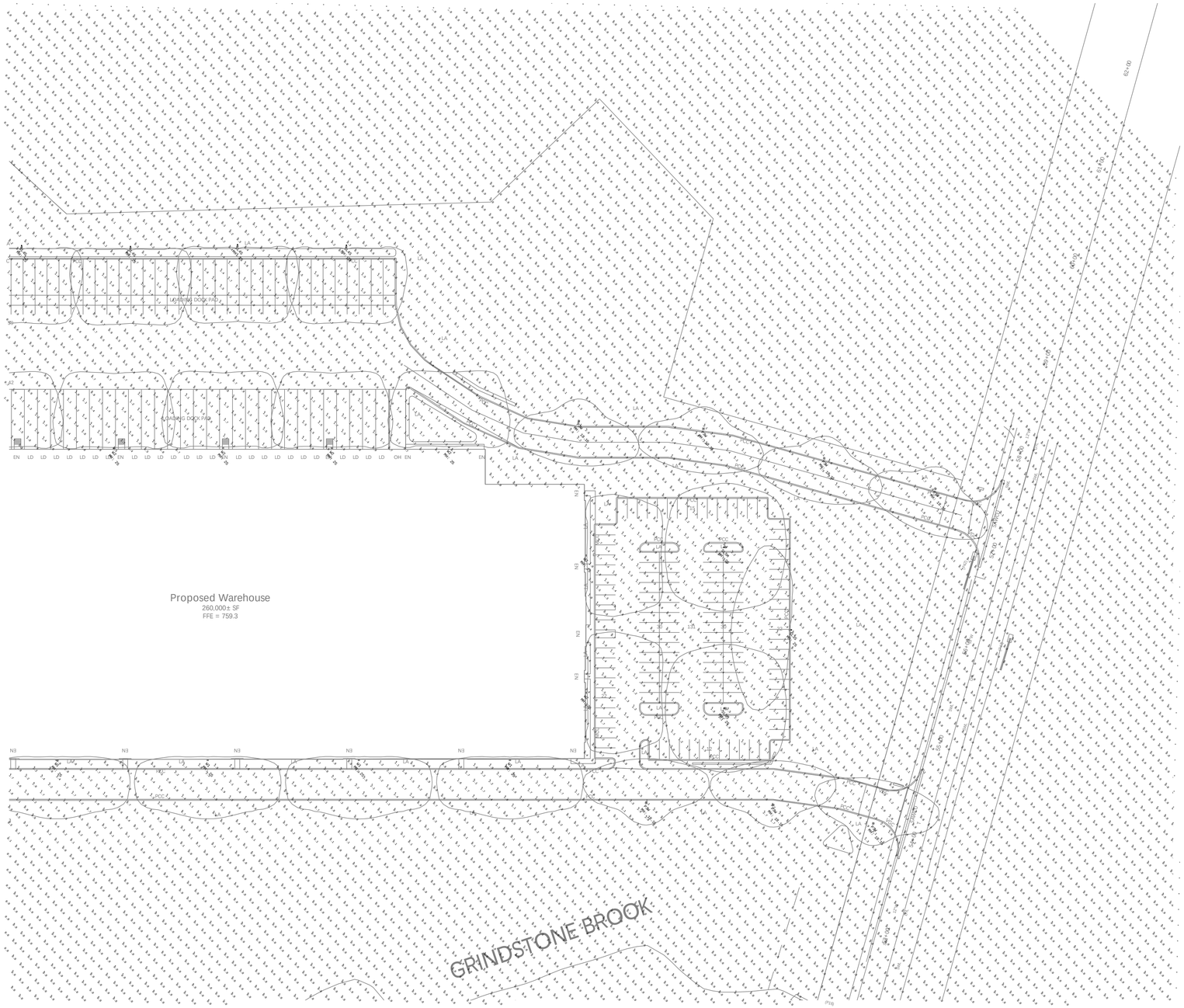
COMMONWEALTH OF MASSACHUSETTS
RUSSELL J. BOUSQUET
NO. 35389
REGISTERED PROFESSIONAL LAND SURVEYOR

12-7-2021

Sheet 2 of 2

Project Number
15392.00

Saved Tuesday, December 14, 2021 8:43:12 AM CDROBERTSON Plotted Tuesday, December 14, 2021 8:49:17 AM Craig Robertson



JOB NAME: 90 & 92 HUNTOON MEMORIAL HIGHWAY - LEICESTER, MA
APEX LIGHTING SOLUTIONS
WORKPLANE/CALC PLANE: @ FINISH GRADE
MOUNTING HEIGHT: SEE LUMINAIRE SCHEDULE
APPS: LC
SALES: SP
SPECIFIER: VHB

Luminaire Schedule

Qty	Label	Arrangement	Lumens	Input Watts	LLF	BUG Rating	Description
7	P3W	SINGLE	9013	64.7	0.850	B2-U0-G3	US ARCH RZR-PTY-LED-III-W-40LED-525mA-NW-VOLT-FINISH / SNTS-164-11-PT27-FINISH
3	SL3S	SINGLE	11696	128.2	0.850	B1-U0-G3	US ARCH RZR-PLED-III-W-40LED-1050mA-NW-VOLT-FINISH-HS-PLED / SNTS-255-7-1-FINISH
1	SL4	SINGLE	14858	128.2	0.850	B3-U0-G3	US ARCH RZR-PLED-IV-FT-40LED-1050mA-NW-VOLT-FINISH / SNTS-255-7-1-FINISH
11	SL4S	SINGLE	11665	128.2	0.850	B1-U0-G3	US ARCH RZR-PLED-IV-FT-40LED-1050mA-NW-VOLT-FINISH-HS-PLED / SNTS-255-7-1-FINISH
2	SL5DM	BACK-BACK	16716	128.2	0.850	B4-U0-G2	US ARCH RZR-PLED-VSQ-M-40LED-1050mA-NW-VOLT-FINISH / SNTS-255-7-2-FINISH
2	SL5M	SINGLE	16716	128.2	0.850	B4-U0-G2	US ARCH RZR-PLED-VSQ-M-40LED-1050mA-NW-VOLT-FINISH / SNTS-255-7-1-FINISH
6	W1	SINGLE	11950	128.2	0.850	B1-U0-G3	US ARCH RZR-WM2-PLED-III-40LED-1050mA-NW-VOLT-FINISH-HS-PLED / WALL MOUNTED @25 AFG TO BOF
9	W2	SINGLE	11665	128.2	0.850	B1-U0-G3	US ARCH RZR-WM2-PLED-IV-FT-40LED-1050mA-NW-VOLT-FINISH-HS-PLED / WALL MOUNTED @25 AFG TO BOF

Calculation Summary

Label	Grid Height	Avg	Max	Min	Avg/Min	Max/Min
CalcPts_1	0	0.10	4.3	0.0	N.A.	N.A.
BACK ACCESS ROAD		1.44	3.2	0.8	1.80	4.00
BACK PARKING AND ROADWAY		1.49	2.6	0.5	2.98	5.20
FRONT PARKING LOT		1.25	2.6	0.4	3.13	6.50
LOADING DOCK PAD - DRIVING AREA		1.06	3.0	0.3	3.53	10.00
SMALL PARKING LOT		1.89	4.3	0.4	4.73	10.75

GENERAL DISCLAIMER:

Calculations have been performed according to IES standards and good practice Some differences between measured values and calculated results may occur due to tolerances in calculation methods, testing procedures, component performance, measurement techniques and field conditions such as voltage and temperature variations. Input data used to generate the attached calculations such as room dimensions, reflectances, furniture and architectural elements significantly affect the lighting calculations. If the real environment conditions do not match the input data, differences will occur between measured values and calculated values.

* LLF Determined Using Current Published Lamp Data

NOTE TO REVIEWER:

Total Light Loss Factor (LLF) applied at time of design is determined by applying the Lamp Lumen Depreciation (LLD) from current lamp manufacturer's catalog, a Luminaire Dirt Depreciation Factor (LDD) based on IES recommended values and a Ballast Factor (BF) from current ballast specification sheets. Application of an incorrect Light Loss Factor (LLF) will result in forecasts of performance that will not accurately depict actual results.

For proper comparison of photometric layouts, it is essential that you insist all designers use correct Light Loss Factors.

APEX
LIGHTING SOLUTIONS
THE POINT WHERE ALL ASCENDING LINES CONVERGE
telephone 860.632.8766
www.apexlightingsolutions.com

PROJECT TITLE:

90 & 92 HUNTOON MEMORIAL HIGHWAY
LEICESTER, MA

DRAWING TITLE:

SITE LIGHTING
PHOTOMETRIC CALCULATION

SCALE : 1"=50'-0"

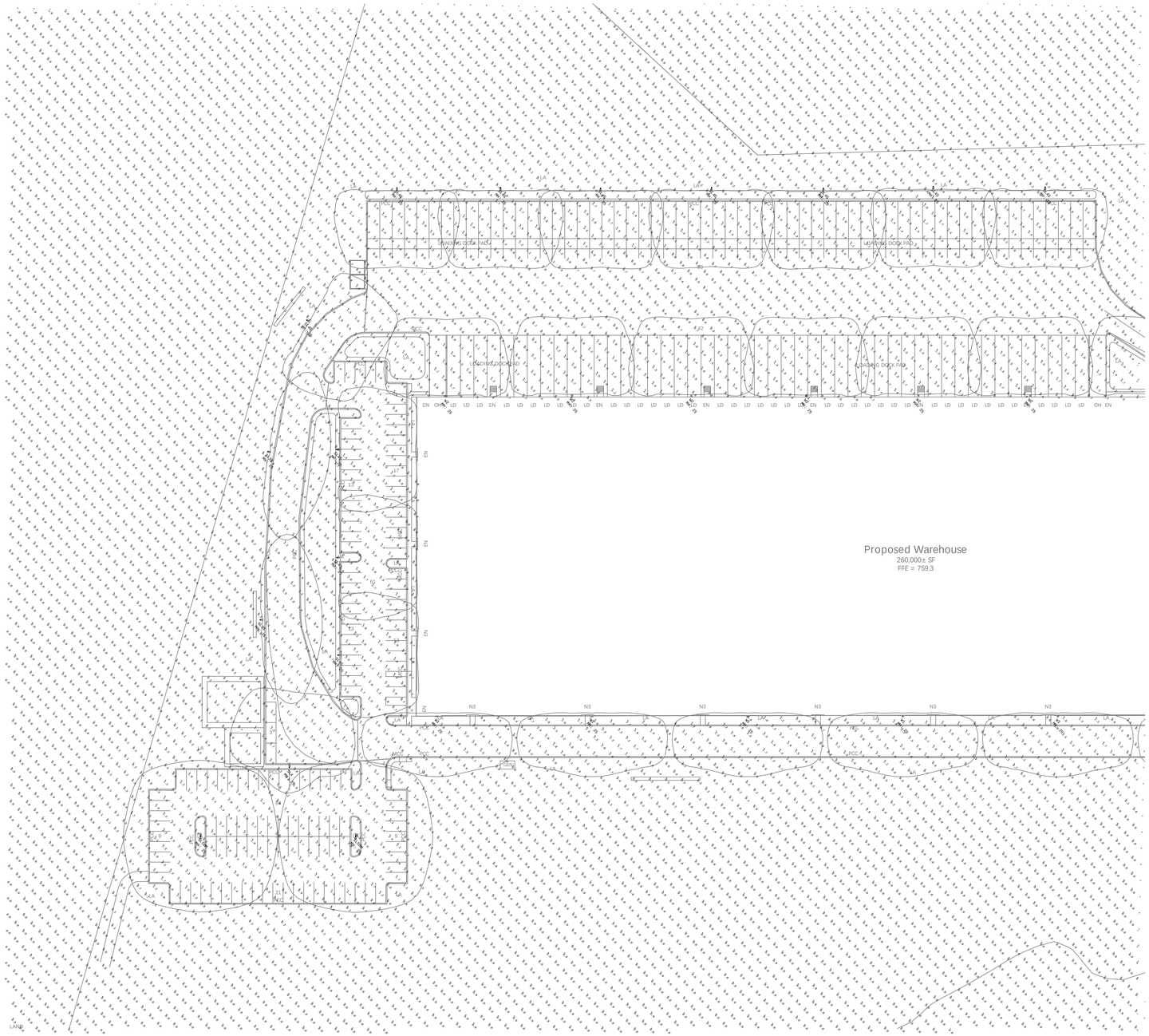
DATE: 12/7/21

DRAWN BY: LC

SHEET:

SL-2C

FILE NAME: SL-2C 90-92 HUNTOON MEMORIAL HIGHWAY - LEICESTER, MA 12-13-2021 LC.dwg



JOB NAME: 90 & 92 HUNTOON MEMORIAL HIGHWAY - LEICESTER, MA
APEX LIGHTING SOLUTIONS
WORKPLANE/CALC PLANE: @ FINISH GRADE
MOUNTING HEIGHT: SEE LUMINAIRE SCHEDULE
APPS: LC
SALES: SP
SPECIFIER: VHB

Luminaire Schedule

Qty	Label	Arrangement	Lumens	Input Watts	LLF	BUG Rating	Description
7	P3W	SINGLE	9013	64.7	0.850	B2-U0-G3	US ARCH RZR-PTY-LED-III-W-40LED-525mA-NW-VOLT-FINISH / SNTS-164-11-PT27-FINISH
3	SL3S	SINGLE	11696	128.2	0.850	B1-U0-G3	US ARCH RZR-PLED-III-W-40LED-1050mA-NW-VOLT-FINISH-HS-PLED / SNTS-255-7-1-FINISH
1	SL4	SINGLE	14858	128.2	0.850	B3-U0-G3	US ARCH RZR-PLED-IV-FT-40LED-1050mA-NW-VOLT-FINISH / SNTS-255-7-1-FINISH
11	SL4S	SINGLE	11665	128.2	0.850	B1-U0-G3	US ARCH RZR-PLED-IV-FT-40LED-1050mA-NW-VOLT-FINISH-HS-PLED / SNTS-255-7-1-FINISH
2	SL5DM	BACK-BACK	16716	128.2	0.850	B4-U0-G2	US ARCH RZR-PLED-VSQ-M-40LED-1050mA-NW-VOLT-FINISH / SNTS-255-7-2-FINISH
2	SL5M	SINGLE	16716	128.2	0.850	B4-U0-G2	US ARCH RZR-PLED-VSQ-M-40LED-1050mA-NW-VOLT-FINISH / SNTS-255-7-1-FINISH
6	W1	SINGLE	11950	128.2	0.850	B1-U0-G3	US ARCH RZR-WM2-PLED-III-40LED-1050mA-NW-VOLT-FINISH-HS-PLED / WALL MOUNTED @25 AFG TO BOF
9	W2	SINGLE	11665	128.2	0.850	B1-U0-G3	US ARCH RZR-WM2-PLED-IV-FT-40LED-1050mA-NW-VOLT-FINISH-HS-PLED / WALL MOUNTED @25 AFG TO BOF

Calculation Summary

Label	Grid Height	Avg	Max	Min	Avg/Min	Max/Min
CalcPts_1	0	0.10	4.3	0.0	N.A.	N.A.
BACK ACCESS ROAD		1.44	3.2	0.8	1.80	4.00
BACK PARKING AND ROADWAY		1.49	2.6	0.5	2.98	5.20
FRONT PARKING LOT		1.25	2.6	0.4	3.13	6.50
LOADING DOCK PAD - DRIVING AREA		1.06	3.0	0.3	3.53	10.00
SMALL PARKING LOT		1.89	4.3	0.4	4.73	10.75

GENERAL DISCLAIMER:

Calculations have been performed according to IES standards and good practice Some differences between measured values and calculated results may occur due to tolerances in calculation methods, testing procedures, component performance, measurement techniques and field conditions such as voltage and temperature variations. Input data used to generate the attached calculations such as room dimensions, reflectances, furniture and architectural elements significantly affect the lighting calculations. If the real environment conditions do not match the input data, differences will occur between measured values and calculated values.

* LLF Determined Using Current Published Lamp Data

NOTE TO REVIEWER:

Total Light Loss Factor (LLF) applied at time of design is determined by applying the Lamp Lumen Depreciation (LLD) from current lamp manufacturer's catalog, a Luminaire Dirt Depreciation Factor (LDD) based on IES recommended values and a Ballast Factor (BF) from current ballast specification sheets. Application of an incorrect Light Loss Factor (LLF) will result in forecasts of performance that will not accurately depict actual results.

For proper comparison of photometric layouts, it is essential that you insist all designers use correct Light Loss Factors.

APEX
LIGHTING SOLUTIONS
THE POINT WHERE ALL ASCENDING LINES CONVERGE
telephone 860.632.8766
www.apexlightingsolutions.com

PROJECT TITLE:

90 & 92 HUNTOON MEMORIAL HIGHWAY
LEICESTER, MA

DRAWING TITLE:

SITE LIGHTING
PHOTOMETRIC CALCULATION

SCALE : 1"=50'-0"

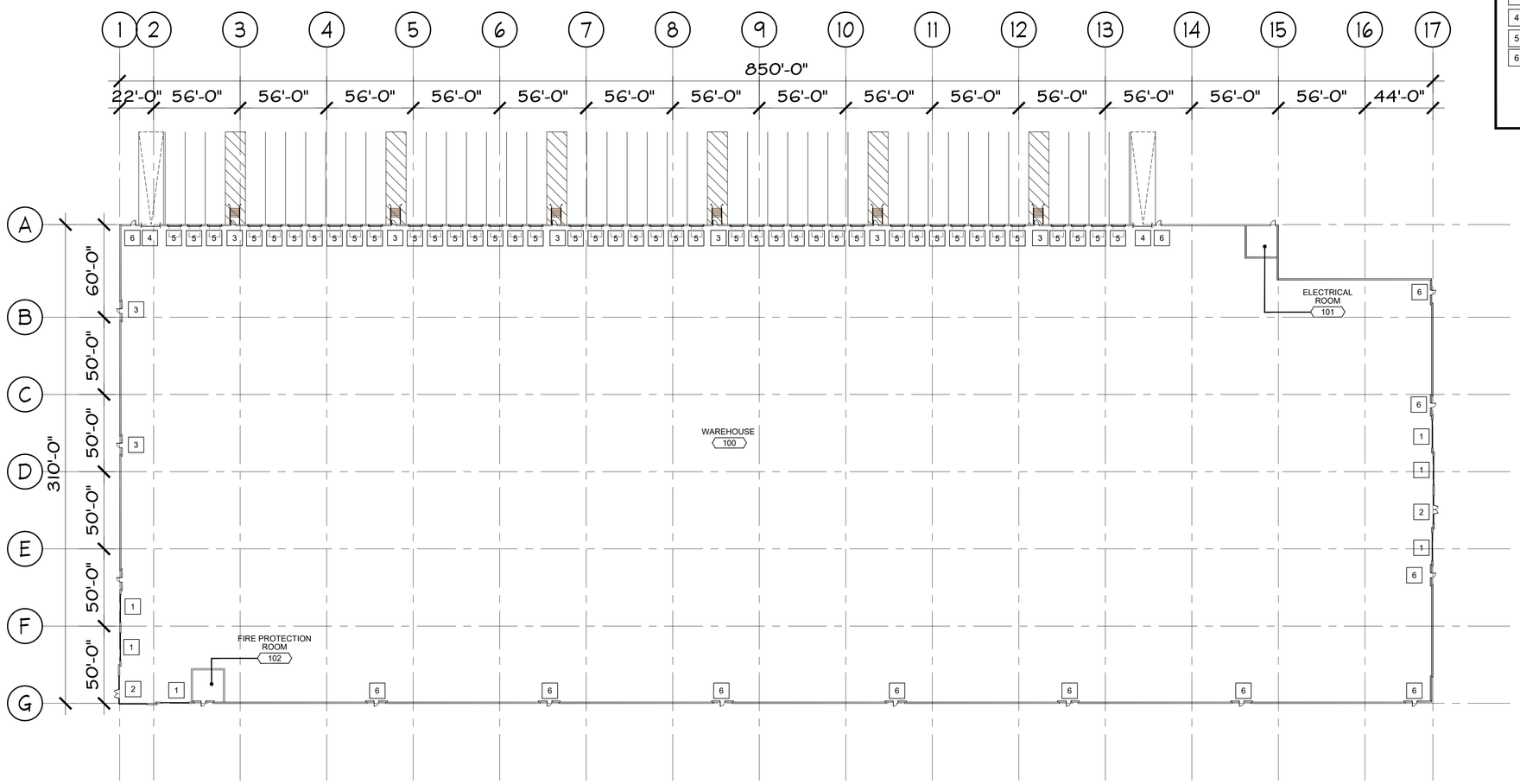
DATE: 12/7/21

DRAWN BY: LC

SHEET:

SL-2D

FILE NAME: SL-2C 90-92 HUNTOON MEMORIAL HIGHWAY - LEICESTER, MA 12-13-2021 LC.dwg



1 / A1.0 OVERALL FLOOR PLAN

SCALE :1"=40'-0"

GENERAL FLOOR PLAN NOTES

1. CONTRACTOR TO VERIFY ALL DIMENSIONS AND CONDITIONS SHOWN ON THE DRAWINGS AT THE JOB SITE AND NOTIFY ARCHITECT OF ANY OMISSIONS, DISCREPANCIES, AND/OR CONFLICTS BEFORE PROCEEDING WITH THE WORK.
2. GLAZING AND EQUIPMENT SUPPLIERS SHALL FIELD VERIFY ALL DIMENSIONS PRIOR TO FABRICATION.
3. DOORS SHOWN ADJACENT TO WALLS ARE TYPICALLY 4" FROM ADJACENT UNLESS NOTED OTHERWISE.
4. ALL DIMENSIONS ARE TO FACE OF PARTITIONS.
5. ALL EXTERIOR AND EXPOSED INTERIOR TILT CONCRETE JOINTS SHALL BE CAULKED USING A TWO (2) PART TREMCO DYMERIC POLYURETHANE OR EQUAL. THE JOINTS SHALL ALSO HAVE A BACKER ROD BEHIND THE CAULK.
6. EXTERIOR PAINT SYSTEM FOR THE CONCRETE TILT-UP PANELS SHALL CONSIST OF (1) COAT OF A RESISTANT PRIMER AND (1) COAT OF A MEDIUM TEXTURE PAINT. SYSTEM TO CARRY A 10 YEAR WARRANTY.
7. COORDINATE FIRE EXTINGUISHERS LOCATIONS WITH ARCHITECT AND LOCAL FIRE MARSHALL. LOCATIONS SHALL FOLLOW NFPA 472 AND ADA GUIDELINES. SEE SHEET LS1.1

FLOOR PLAN KEY NOTES

1. KNOCK OUT (K.O.) FOR FUTURE STOREFRONT SYSTEM.
2. NEW STOREFRONT ENTRANCE
3. TYPICAL DOCK STAIR AND MAN DOOR.
4. TYPICAL DRIVE IN DOOR
5. TYPICAL OVERHEAD DOOR
6. TYPICAL MAN DOOR

ARCHITECT
GMA ARCHITECTS
30 SPEEN STREET
FRAMINGHAM, MA
(P) 508-872-5151
WWW.GMA-ARCHITECTS.COM

DESIGN BUILDER
ARCO NATIONAL CONSTRUCTION | NEW ENGLAND
30 SPEEN STREET
FRAMINGHAM, MA
(P) 508-217-3131
WWW.ARCONATIONAL.COM

CONSULTING ENGINEERS
CIVIL: NAME / ADDRESS / CITY / STATE / ZIP / CONTACT INFO
STRUCTURAL: NAME / ADDRESS / CITY / STATE / ZIP / CONTACT INFO
MECHANICAL: NAME / ADDRESS / CITY / STATE / ZIP / CONTACT INFO
ELECTRICAL: NAME / ADDRESS / CITY / STATE / ZIP / CONTACT INFO
PLUMBING: NAME / ADDRESS / CITY / STATE / ZIP / CONTACT INFO
FIRE PROTECTION: NAME / ADDRESS / CITY / STATE / ZIP / CONTACT INFO

LEICESTER CENTRAL

HUNTOON MEMORIAL HIGHWAY
LEICESTER, MASSACHUSETTS

JOB NO : SP8228
PA : BJC
DATE : 12.06.2021

REVISIONS

THIS DESIGN AND THESE DRAWINGS ARE THE PROPERTY OF GMA ARCHITECTS, INC. AND MAY NOT BE USED OR REPRODUCED WITHOUT PRIOR WRITTEN PERMISSION FROM GMA ARCHITECTS, INC.

SHEET NUMBER

A1.0

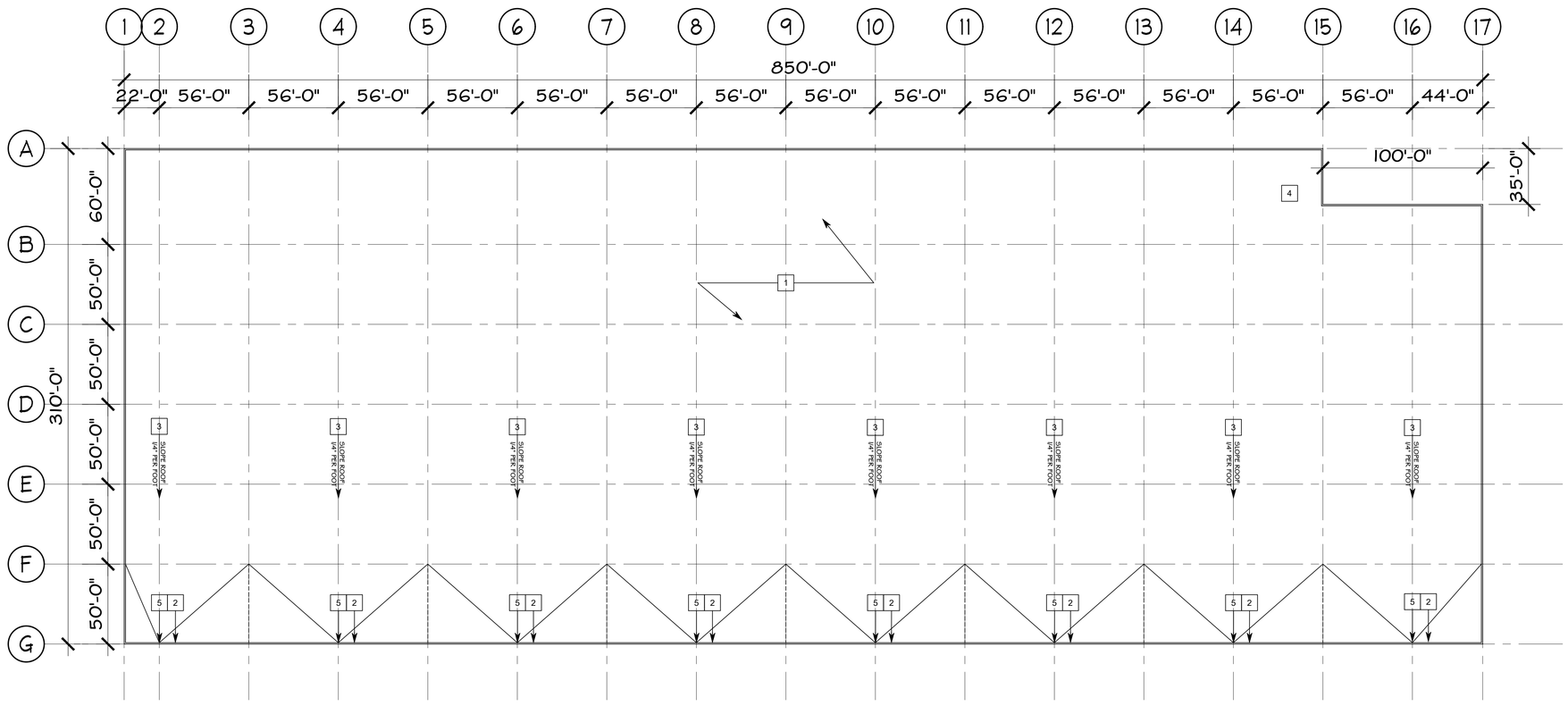
OVERALL FLOOR PLAN

GENERAL ROOF PLAN NOTES

1. GALVANIZED METAL ROOF DECK SHALL BE FACTORY PRIMED. BAR JOISTS SHALL BE PAINTED WITH GRAY FACTORY PRIMER
2. FLASH MECHANICAL EQUIPMENT AND PENETRATIONS ON THE ROOF ACCORDING TO MANUFACTURER'S SPECIFICATIONS.
3. FLASHING AND COUNTER FLASHING FOR ROOF TOP UNITS SHALL BE COMPLETED IN ACCORDANCE WITH SMACNA
4. 10'-0" MINIMUM DISTANCE ANY VENT TO AIR INTAKE.
5. ALL ROOF AREAS TO BE SLOPED 1/4" PER FOOT MIN. UNLESS NOTED OTHERWISE. SEE THE PLANS FOR AREAS OF STRUCTURE SLOPE.
6. ALL PLBG., MECH., ELECT., ETC. ITEMS MOUNTED ON OR PENETRATING ROOF MAY NOT BE SHOWN, SEE RESPECTIVE PLANS FOR LOCATIONS. PENETRATIONS, ETC. THROUGH ROOF SYSTEM SHALL COMPLY W/ROOF MANUFACTURER'S PRINTED INSTRUCTIONS & STANDARDS.
7. ALL WORK & MATERIALS BELONGING TO & ADJACENT TO ROOF SHALL BE IN FULL COMPLIANCE WITH ROOF MANUFACTURER'S STANDARD INSTALLATION DETAILS & WARRANTY.
8. PROVIDE CRICKETS ADJACENT TO ALL ROOF-TOP EQUIPMENT, ETC. (TYPICAL). MINIMUM 1/4" PER FOOT SLOPE ON ALL CRICKETS.

ROOF PLAN KEY NOTES

1. MECHANICALLY FASTENED OVER 60 MIL WHITE TPO ROOFING MEMBRANE AND POLYISO RIGID INSULATION (R-30) - TWO LAYERS OF APPROXIMATELY 2.6", APPROXIMATELY 5.2" TOTAL THICKNESS, STAGGER LAYERS OF INSULATION OVER SLOPED STRUCTURAL STEEL OPEN WEB JOISTS AND METAL DECK (TYP). LAP INSULATION JOINTS. LOCATED OVER AMBIENT WAREHOUSE
2. OVERFLOW SCUPPER (24" WIDE X 8" HIGH) .
3. SLOPED STRUCTURE AT 1/4" PER FOOT MINIMUM.
4. ROOF LADDER.
5. ROOF DRAIN. SEE PLUMBING DRAWINGS.



1 / A2.0 OVERALL ROOF PLAN

SCALE :1"=40'-0"

ARCHITECT
GMA ARCHITECTS
30 SPEEN STREET
FRAMINGHAM, MA
(P) 508-872-5151
WWW.GMA-ARCHITECTS.COM

DESIGN BUILDER
ARCO
NATIONAL | CONSTRUCTION
NEW ENGLAND
30 SPEEN STREET
FRAMINGHAM, MA
(P) 508-217-3131
WWW.ARCONATIONAL.COM

CONSULTING ENGINEERS

CIVIL: NAME / ADDRESS / CITY / STATE / ZIP / CONTACT INFO

STRUCTURAL: NAME / ADDRESS / CITY / STATE / ZIP / CONTACT INFO

MECHANICAL: NAME / ADDRESS / CITY / STATE / ZIP / CONTACT INFO

ELECTRICAL: NAME / ADDRESS / CITY / STATE / ZIP / CONTACT INFO

PLUMBING: NAME / ADDRESS / CITY / STATE / ZIP / CONTACT INFO

FIRE PROTECTION: NAME / ADDRESS / CITY / STATE / ZIP / CONTACT INFO

LEICESTER CENTRAL

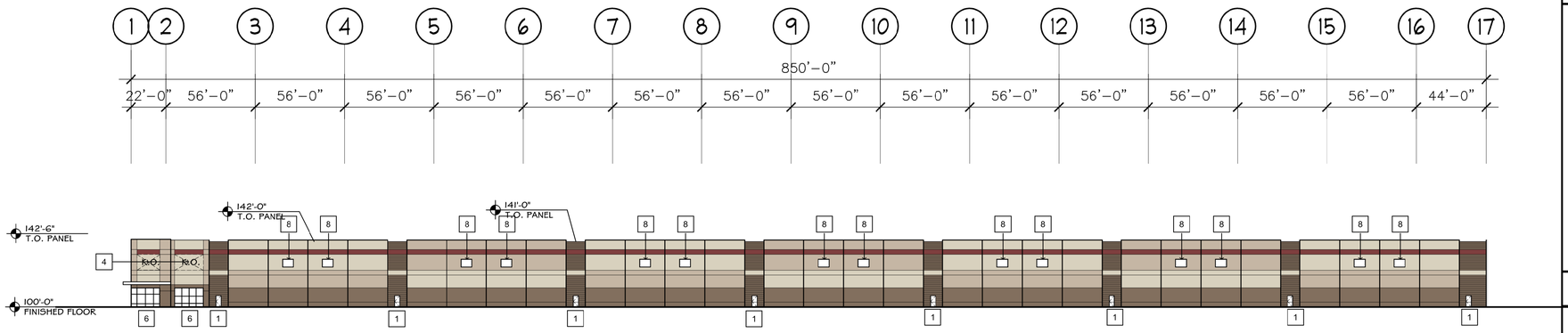
HUNTOON MEMORIAL HIGHWAY
LEICESTER, MASSACHUSETTS

JOB NO : SP8228
PA : BJC
DATE : 12.06.2021

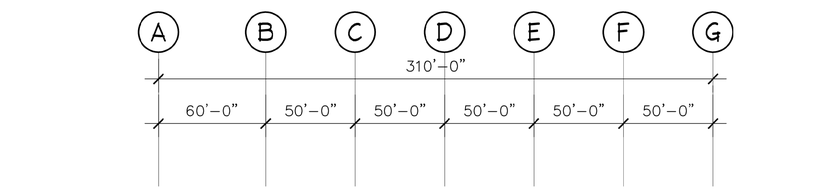
REVISIONS △

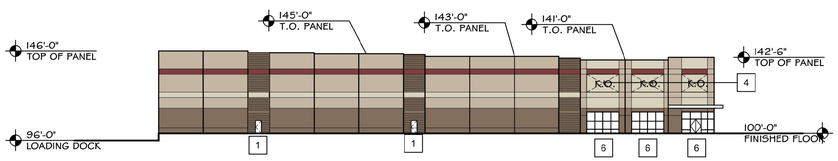
THIS DESIGN AND THESE DRAWINGS ARE THE PROPERTY OF GMA ARCHITECTS, INC. NO PART OF THIS WORK MAY BE REPRODUCED WITHOUT PRIOR WRITTEN PERMISSION FROM GMA ARCHITECTS, INC.

SHEET NUMBER
A2.0
ROOF PLAN

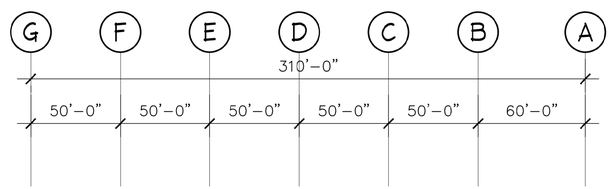


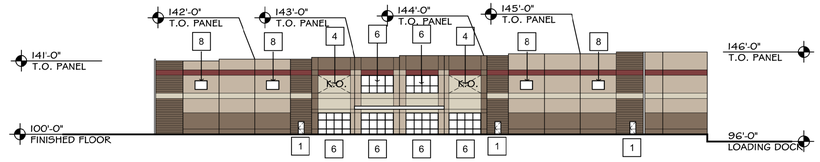
1 A2 SOUTH ELEVATION
SCALE: 1" = 40'-0"



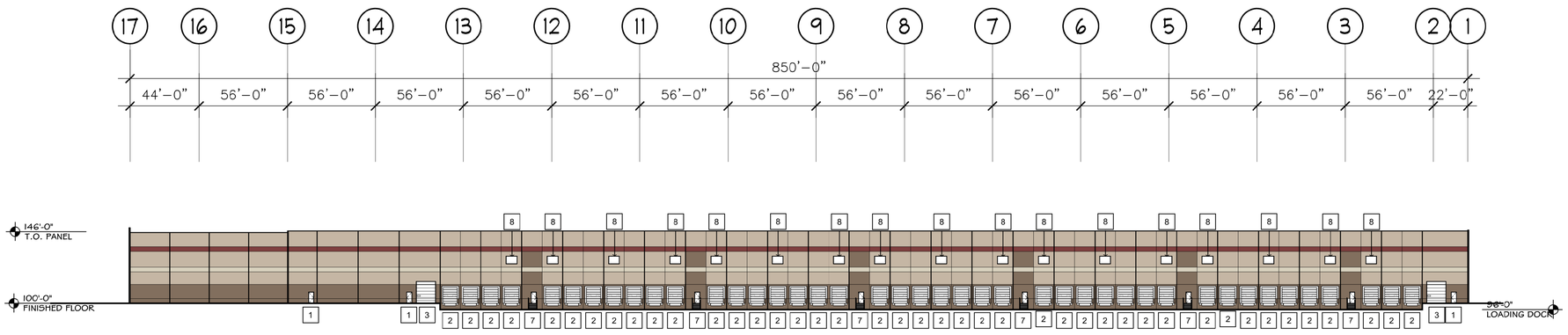


1 A2 WEST ELEVATION
SCALE: 1" = 40'-0"





1 A2 EAST ELEVATION
SCALE: 1" = 40'-0"



1 A2 NORTH ELEVATION
SCALE: 1" = 40'-0"

ELEVATION KEY NOTES

1. SCHEDULED DOOR AND FRAME. RE: FLOOR PLANS AND DOOR SCHEDULE.
2. SCHEDULED OVERHEAD DOOR WITH MECHANICAL DOCK LEVELERS. RE: FLOOR PLANS AND DOOR SCHEDULE.
3. SCHEDULED DRIVE-IN DOOR. RE: FLOOR PLAN AND DOOR SCHEDULE.
4. KNOCK-OUT PANEL FOR FUTURE STOREFRONT SYSTEM.
5. PAINTED CONCRETE TILT-UP PANEL, RE: STRUCTURAL FOR ADDITIONAL INFORMATION.
6. INSULATED GLAZING IN ALUMINUM WINDOW SYSTEM.
7. DOCK STAIR WITH HANDRAILS AND GUARDRAILS.

FINISH SCHEDULE

P-1	SHERWIN WILLIAMS: TBD
P-2	SHERWIN WILLIAMS: TBD
P-3	SHERWIN WILLIAMS: TBD
P-4	SHERWIN WILLIAMS: TBD
P-5	SHERWIN WILLIAMS: TBD

ARCHITECT
GMA ARCHITECTS
30 SPEEN STREET
FRAMINGHAM, MA
(P) 314-822-5191
WWW.GMAARCHITECTS.COM

DESIGN BUILDER
ARCO
NATIONAL | CONSTRUCTION
NEW ENGLAND
30 SPEEN STREET
FRAMINGHAM, MA
(P) 508-217-3131
WWW.ARCONATIONAL.COM

CONSULTING ENGINEERS
CIVIL: NAME / ADDRESS / CITY / STATE / ZIP / CONTACT INFO
STRUCTURAL: NAME / ADDRESS / CITY / STATE / ZIP / CONTACT INFO
MECHANICAL: NAME / ADDRESS / CITY / STATE / ZIP / CONTACT INFO
ELECTRICAL: NAME / ADDRESS / CITY / STATE / ZIP / CONTACT INFO
PLUMBING: NAME / ADDRESS / CITY / STATE / ZIP / CONTACT INFO
FIRE PROTECTION: NAME / ADDRESS / CITY / STATE / ZIP / CONTACT INFO

LEICESTER CENTRAL
HUNTOON MEMORIAL HIGHWAY
LEICESTER, MASSACHUSETTS

JOB NO : SP8228
PA : BJC
DATE : 12.06.2021

REVISIONS

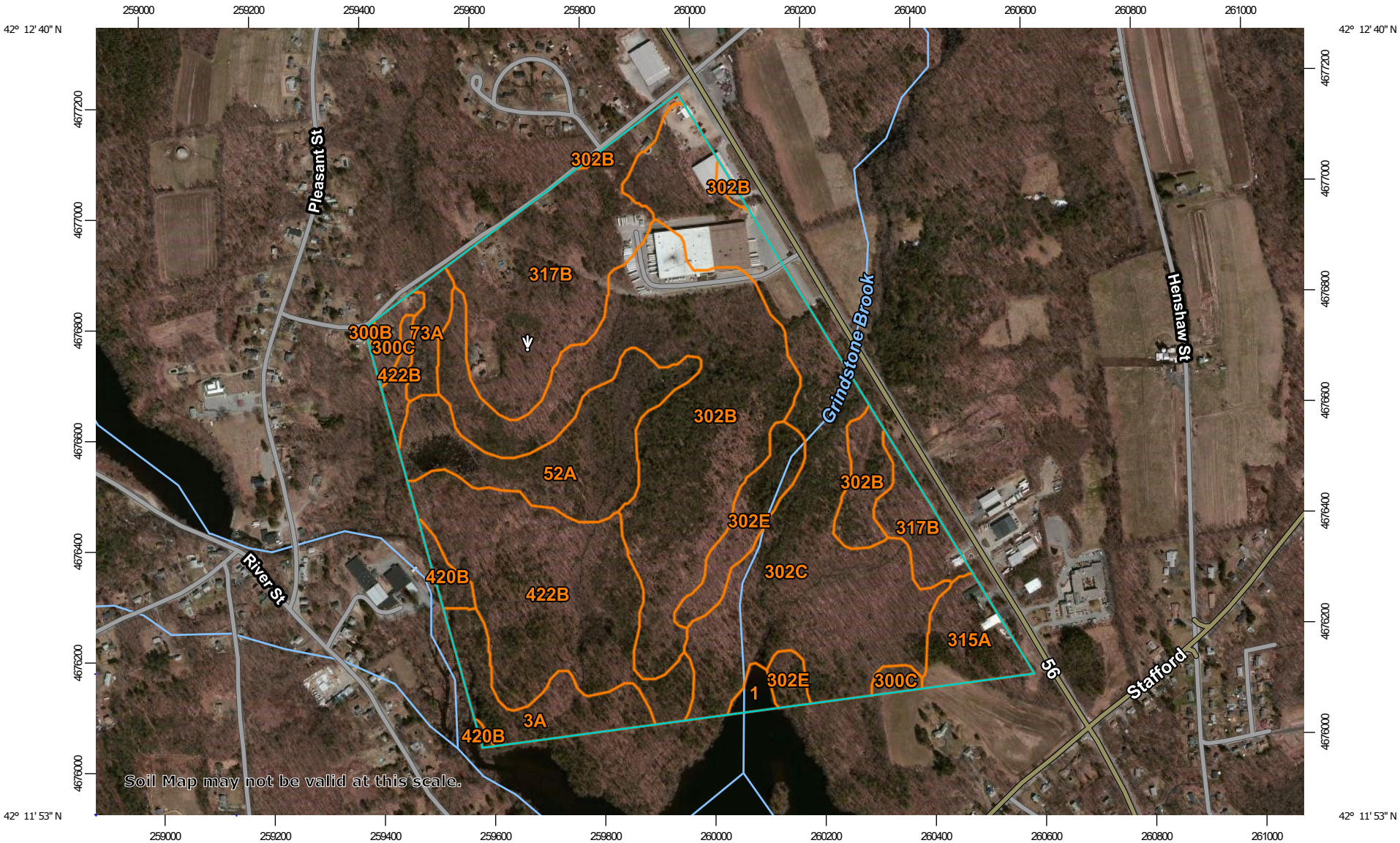
THIS DESIGN AND THESE DRAWINGS ARE THE PROPERTY OF GMA ARCHITECTS, INC NO PART OF THIS WORK MAY BE REPRODUCED WITHOUT PRIOR WRITTEN PERMISSION FROM GMA ARCHITECTS, INC.

SHEET NUMBER
A5.0
EXTERIOR ELEVATIONS

Attachment F
Supporting Documents

- NRCS Web Soil Survey
- Stream Stats

Soil Map—Worcester County, Massachusetts, Southern Part
(Huntoon Memorial Highway, Leicester, MA)



Map Scale: 1:10,000 if printed on A landscape (11" x 8.5") sheet.

N

Meters: 0 100 200 400 600

Feet: 0 450 900 1800 2700

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

MAP LEGEND

Area of Interest (AOI)

- Area of Interest (AOI)

Soils

- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features

- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features

- Streams and Canals

Transportation

- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background

- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:25,000.

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

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

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

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

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

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

Soil Survey Area: Worcester County, Massachusetts, Southern Part
Survey Area Data: Version 11, Sep 11, 2018

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

Date(s) aerial images were photographed: Mar 30, 2011—May 1, 2011

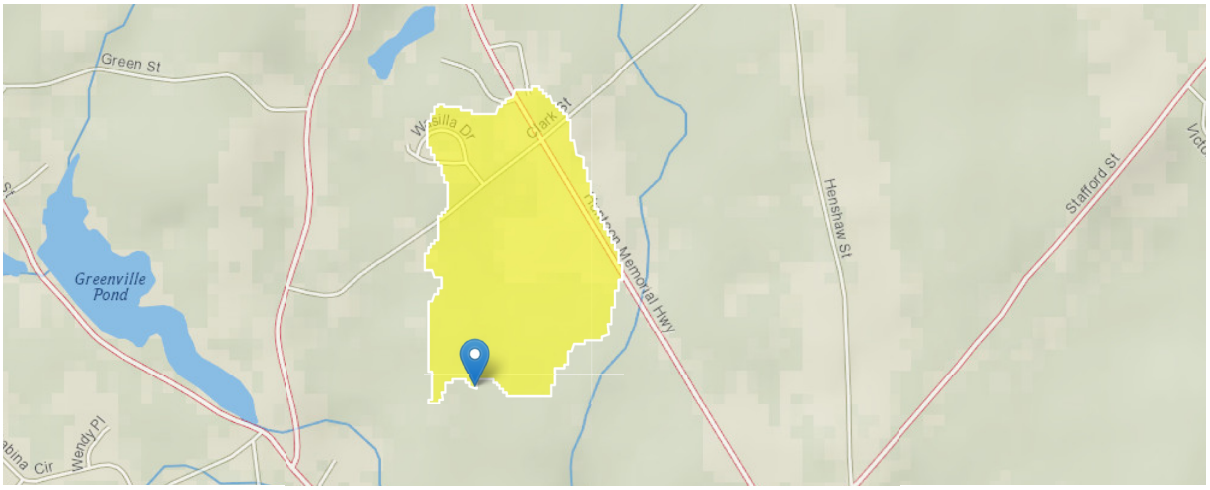
The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
1	Water	1.2	0.6%
3A	Scarboro and Walpole soils, 0 to 3 percent slopes	8.5	4.1%
52A	Freetown muck, 0 to 1 percent slopes	16.9	8.2%
73A	Whitman fine sandy loam, 0 to 3 percent slopes, extremely stony	3.0	1.4%
300B	Montauk fine sandy loam, 3 to 8 percent slopes	0.1	0.1%
300C	Montauk fine sandy loam, 8 to 15 percent slopes	2.7	1.3%
302B	Montauk fine sandy loam, 0 to 8 percent slopes, extremely stony	50.5	24.5%
302C	Montauk fine sandy loam, 8 to 15 percent slopes, extremely stony	46.9	22.8%
302E	Montauk fine sandy loam, 15 to 35 percent slopes, extremely stony	7.4	3.6%
315A	Scituate fine sandy loam, 0 to 3 percent slopes	6.3	3.1%
317B	Scituate fine sandy loam, 3 to 8 percent slopes, extremely stony	30.1	14.6%
420B	Canton fine sandy loam, 3 to 8 percent slopes	1.7	0.8%
422B	Canton fine sandy loam, 0 to 8 percent slopes, extremely stony	30.6	14.9%
Totals for Area of Interest		**205.9**	**100.0%**

Huntoon Memorial Hwy Leicester, MA Stream 4 StreamStats Report

Region ID:	MA
Workspace ID:	MA20190612155158861000
Clicked Point (Latitude, Longitude):	42.20376, -71.90972
Time:	2019-06-12 11:52:15 -0400



Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	0.15	square miles
ELEV	Mean Basin Elevation	773	feet
LC06STOR	Percentage of water bodies and wetlands determined from the NLCD 2006	14.3	percent
DRFTPERSTR	Area of stratified drift per unit of stream length	-100000	square mile per mile
MAREGION	Region of Massachusetts 0 for Eastern 1 for Western	0	dimensionless
BSLDEM250	Mean basin slope computed from 1:250K DEM	2.414	percent

Peak-Flow Statistics Parameters[Peak Statewide 2016 5156]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	0.15	square miles	0.16	512
ELEV	Mean Basin Elevation	773	feet	80.6	1948
LC06STOR	Percent Storage from NLCD2006	14.3	percent	0	32.3

Peak-Flow Statistics Disclaimers[Peak Statewide 2016 5156]

One or more of the parameters is outside the suggested range. Estimates were extrapolated with unknown errors

Peak-Flow Statistics Flow Report[Peak Statewide 2016 5156]

Statistic	Value	Unit
2 Year Peak Flood	8.86	ft^3/s
5 Year Peak Flood	15.5	ft^3/s
10 Year Peak Flood	21.1	ft^3/s
25 Year Peak Flood	29.5	ft^3/s
50 Year Peak Flood	36.6	ft^3/s
100 Year Peak Flood	44.4	ft^3/s
200 Year Peak Flood	52.9	ft^3/s

Statistic	Value	Unit
500 Year Peak Flood	65.5	ft^3/s

Peak-Flow Statistics Citations

Zarriello, P.J.,2017, Magnitude of flood flows at selected annual exceedance probabilities for streams in Massachusetts: U.S. Geological Survey Scientific Investigations Report 2016–5156, 99 p. (https://dx.doi.org/10.3133/sir20165156)

Flow-Duration Statistics Parameters[Statewide Low Flow WRIR00 4135]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	0.15	square miles	1.61	149
DRFTPERSTR	Stratified Drift per Stream Length	-100000	square mile per mile	0	1.29
MAREGION	Massachusetts Region	0	dimensionless	0	1
BSLDEM250	Mean Basin Slope from 250K DEM	2.414	percent	0.32	24.6

Flow-Duration Statistics Flow Report[Statewide Low Flow WRIR00 4135]

Statistic	Value	Unit

Flow-Duration Statistics Citations

Low-Flow Statistics Parameters[Statewide Low Flow WRIR00 4135]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	0.15	square miles	1.61	149
BSLDEM250	Mean Basin Slope from 250K DEM	2.414	percent	0.32	24.6
DRFTPERSTR	Stratified Drift per Stream Length	-100000	square mile per mile	0	1.29
MAREGION	Massachusetts Region	0	dimensionless	0	1

Low-Flow Statistics Flow Report[Statewide Low Flow WRIR00 4135]

Statistic	Value	Unit

Low-Flow Statistics Citations

USGS Data Disclaimer: Unless otherwise stated, all data, metadata and related materials are considered to satisfy the quality standards relative to the purpose for which the data were collected. Although these data and associated metadata have been reviewed for accuracy and completeness and approved for release by the U.S. Geological Survey (USGS), no warranty expressed or implied is made regarding the display or utility of the data for other purposes, nor on all computer systems, nor shall the act of distribution constitute any such warranty.

USGS Software Disclaimer: This software has been approved for release by the U.S. Geological Survey (USGS). Although the software has been subjected to rigorous review, the USGS reserves the right to update the software as needed pursuant to further analysis and review. No warranty, expressed or implied, is made by the USGS or the U.S. Government as to the functionality of the software and related material nor shall the fact of release constitute any such warranty. Furthermore, the software is released on condition that neither the USGS nor the U.S. Government shall be held liable for any damages resulting from its authorized or unauthorized use.

USGS Product Names Disclaimer: Any use of trade, firm, or product names is for descriptive purposes only and does not imply endorsement by the U.S. Government.

Application Version: 4.3.1