

Market Landing Park Expansion

Newburyport, Massachusetts

SUBMITTED TO **Newburyport Conservation Commission**
60 Pleasant Street
Newburyport, MA 01950

PROPONENT **City of Newburyport**
60 Pleasant Street
Newburyport, MA 01950

PREPARED BY **VHB**
99 High Street, 10th Floor
Boston, MA 02110

July 15, 2022



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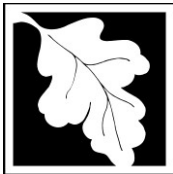
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Notice of Intent Forms

› WPA Form 3



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 Number
Document Transaction Number
Newburyport
City/Town

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



Note:
 Before completing this form consult your local Conservation Commission regarding any municipal bylaw or ordinance.

A. General Information

1. Project Location (**Note:** electronic filers will click on button to locate project site):

<u>24 Merrimac Street</u>	<u>Newburyport</u>	<u>01950</u>
a. Street Address	b. City/Town	c. Zip Code
Latitude and Longitude:		
<u>42.81210</u>	<u>-70.87165</u>	
d. Latitude	e. Longitude	
<u>11-1-A, C, D, E, F</u>		
f. Assessors Map/Plat Number		
<u>M-251439-951519; 251550-951514; 251614-85151; 251551-951451; 251622-951470</u>		

2. Applicant:

<u>Andrew</u>	<u>Port</u>
a. First Name	b. Last Name
<u>City of Newburyport</u>	
c. Organization	
<u>60 Pleasant Street</u>	
d. Street Address	
<u>Newburyport</u>	<u>MA</u>
e. City/Town	f. State
<u>978-465-4400</u>	<u>01950</u>
h. Phone Number	g. Zip Code
<u>N/A</u>	<u>aport@cityofnewburyport.com</u>
i. Fax Number	j. Email Address

3. Property owner (required if different from applicant): Check if more than one owner

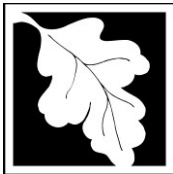
<u>Sean</u>	<u>Reardon</u>
a. First Name	b. Last Name
<u>City of Newburyport</u>	
c. Organization	
<u>60 Pleasant Street</u>	
d. Street Address	
<u>Newburyport</u>	<u>MA</u>
e. City/Town	f. State
<u>978-465-4400</u>	<u>01950</u>
h. Phone Number	g. Zip Code
<u>N/A</u>	<u>sreardon@cityofnewburyport.com</u>
i. Fax Number	j. Email address

4. Representative (if any):

<u>Stephanie</u>	<u>Kruel</u>
a. First Name	b. Last Name
<u>VHB</u>	
c. Company	
<u>99 High Street, 10th Floor</u>	
d. Street Address	
<u>Boston</u>	<u>MA</u>
e. City/Town	f. State
<u>617-607-2972</u>	<u>02110</u>
h. Phone Number	g. Zip Code
<u>N/A</u>	<u>skruel@vhb.com</u>
i. Fax Number	j. Email address

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

<u>\$500.00</u>	<u>\$237.50</u>	<u>N/A</u>
a. Total Fee Paid	b. State Fee Paid	c. City/Town Fee Paid



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

Provided by MassDEP:

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A. General Information (continued)

6. General Project Description:

Grading and landscaping activities to renovate an existing municipal park.

7a. Project Type Checklist: (Limited Project Types see Section A. 7b.)

- 1. Single Family Home
- 2. Residential Subdivision
- 3. Commercial/Industrial
- 4. Dock/Pier
- 5. Utilities
- 6. Coastal engineering Structure
- 7. Agriculture (e.g., cranberries, forestry)
- 8. Transportation
- 9. Other

7b. Is any portion of the proposed activity eligible to be treated as a limited project (including Ecological Restoration 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. (See 310 CMR 10.24 and 10.53 for a complete list and description of limited project types)

2. Limited Project Type

If the proposed activity is eligible to be treated as an Ecological Restoration Limited Project (310 CMR10.24(8), 310 CMR 10.53(4)), complete and attach Appendix A: Ecological Restoration Limited Project Checklist and Signed Certification.

8. Property recorded at the Registry of Deeds for:

Essex	N/A
a. County	b. Certificate # (if registered land)
N/A	N/A
c. Book	d. Page Number

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

- 1. Buffer Zone Only – 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).

Check all that apply below. Attach narrative and any supporting documentation describing how the project will meet all performance standards for each of the resource areas altered, including standards requiring consideration of alternative project design or location.



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

For all projects affecting other Resource Areas, please attach a narrative explaining how the resource area was delineated.

Resource Area	Size of Proposed Alteration	Proposed Replacement (if any)
a. <input type="checkbox"/> Bank	1. linear feet	2. linear feet
b. <input type="checkbox"/> Bordering Vegetated Wetland	1. square feet	2. square feet
c. <input type="checkbox"/> Land Under Waterbodies and Waterways	1. square feet	2. square feet
	3. cubic yards dredged	

Resource Area	Size of Proposed Alteration	Proposed Replacement (if any)
d. <input type="checkbox"/> Bordering Land Subject to Flooding	1. square feet	2. square feet
	3. cubic feet of flood storage lost	4. cubic feet replaced
e. <input type="checkbox"/> Isolated Land Subject to Flooding	1. square feet	
	2. cubic feet of flood storage lost	3. cubic feet replaced

- f. Riverfront Area
1. Name of Waterway (if available) - **specify coastal or inland**
Merrimack River
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: 122,478 square feet

4. Proposed alteration of the Riverfront Area:

<u>122,478</u>	<u>49,332</u>	<u>73,146</u>
a. total square feet	b. square feet within 100 ft.	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)

Note: for coastal riverfront areas, please complete **Section B.2.f.** above.



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

Check all that apply below. Attach narrative and supporting documentation describing how the project will meet all performance standards for each of the resource areas altered, including standards requiring consideration of alternative project design or location.

Online Users:
Include your document transaction number (provided on your receipt page) with all supplementary information you submit to the Department.

<u>Resource Area</u>	<u>Size of Proposed Alteration</u>	<u>Proposed Replacement (if any)</u>
a. <input type="checkbox"/> Designated Port Areas	Indicate size under Land Under the Ocean, below	
b. <input type="checkbox"/> Land Under the Ocean	_____	
	1. square feet	

	2. cubic yards dredged	
c. <input type="checkbox"/> Barrier Beach	Indicate size under Coastal Beaches and/or Coastal Dunes below	
d. <input type="checkbox"/> Coastal Beaches	_____	_____
	1. square feet	2. cubic yards beach nourishment
e. <input type="checkbox"/> Coastal Dunes	_____	_____
	1. square feet	2. cubic yards dune nourishment
	<u>Size of Proposed Alteration</u>	<u>Proposed Replacement (if any)</u>
f. <input type="checkbox"/> Coastal Banks	_____	
	1. linear feet	
g. <input type="checkbox"/> Rocky Intertidal Shores	_____	
	1. square feet	
h. <input type="checkbox"/> Salt Marshes	_____	_____
	1. square feet	2. sq ft restoration, rehab., creation
i. <input type="checkbox"/> Land Under Salt Ponds	_____	
	1. square feet	

	2. cubic yards dredged	
j. <input type="checkbox"/> Land Containing Shellfish	_____	
	1. square feet	
k. <input type="checkbox"/> 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. <input checked="" type="checkbox"/> Land Subject to Coastal Storm Flowage	176,696	
	1. square feet	

4. Restoration/Enhancement
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 enter the additional amount here.

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

5. Project Involves Stream Crossings

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



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C. Other Applicable Standards and Requirements

- This is a proposal for an Ecological Restoration Limited Project. Skip Section C and complete Appendix A: Ecological Restoration Limited Project Checklists – Required Actions (310 CMR 10.11).

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 and Endangered Species Program (NHESP)? To view habitat maps, see the *Massachusetts Natural Heritage Atlas* or go to http://maps.massgis.state.ma.us/PRI_EST_HAB/viewer.htm.

- 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**

- August 2017
b. Date of map

If yes, the project is also subject to Massachusetts Endangered Species Act (MESA) review (321 CMR 10.18). To qualify for a streamlined, 30-day, MESA/Wetlands Protection Act review, please complete Section C.1.c, and include requested materials with this Notice of Intent (NOI); *OR* complete Section C.2.f, if applicable. *If MESA supplemental information is not included with the NOI, by completing Section 1 of this form, the NHESP will require a separate MESA filing which may take up to 90 days to review (unless noted exceptions in Section 2 apply, see below).*

- c. Submit Supplemental Information for Endangered Species Review*

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

2. Project plans for entire project site, including wetland resource areas and areas outside of wetlands 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

* Some projects **not** in Estimated Habitat may be located in Priority Habitat, and require NHESP review (see <http://www.mass.gov/eea/agencies/dfg/dfw/natural-heritage/regulatory-review/>). Priority Habitat includes habitat for state-listed plants and strictly upland species not protected by the Wetlands Protection Act.

** MESA projects may not be segmented (321 CMR 10.16). The applicant must disclose full development plans even if such plans are not required as part of the Notice of Intent process.



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C. Other Applicable Standards and Requirements (cont'd)

(c) MESA filing fee (fee information available at http://www.mass.gov/dfwele/dfw/nhosp/regulatory_review/mesa/mesa_fee_schedule.htm).
 Make check payable to "Commonwealth of Massachusetts - NHESP" 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

(f) 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/dfwele/dfw/nhosp/regulatory_review/mesa/mesa_exemptions.htm; 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 # _____ 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.

3. For coastal projects only, is any portion of the proposed project located below the mean high water line or in a fish run?

a. Not applicable – project is in inland resource area only b. Yes No

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

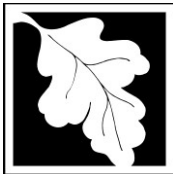
South Shore - Cohasset to Rhode Island border, and the Cape & Islands:

Division of Marine Fisheries -
 Southeast Marine Fisheries Station
 Attn: Environmental Reviewer
 836 South Rodney French Blvd.
 New Bedford, MA 02744
 Email: DMF.EnvReview-South@state.ma.us

North Shore - Hull to New Hampshire border:

Division of Marine Fisheries -
 North Shore Office
 Attn: Environmental Reviewer
 30 Emerson Avenue
 Gloucester, MA 01930
 Email: DMF.EnvReview-North@state.ma.us

Also if yes, the project 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.



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:

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C. Other Applicable Standards and Requirements (cont'd)

Online Users:
Include your document transaction number (provided on your receipt page) with all supplementary information you submit to the Department.

4. 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 MassDEP Website for ACEC locations). **Note:** electronic filers click on Website.
b. ACEC
5. 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
6. 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
7. 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. Check why the project is exempt:
1. Single-family house
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

- This is a proposal for an Ecological Restoration Limited Project. Skip Section D and complete Appendix A: Ecological Restoration Notice of Intent – Minimum Required Documents (310 CMR 10.12).

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.

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.



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D. Additional Information (cont'd)

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.

Market Landing Park Expansion

a. Plan Title

Sasaki

75% Construction Documents

b. Prepared By

c. Signed and Stamped by

May 18, 2022

As noted

d. Final Revision Date

e. Scale

(57 sheets)

f. Additional Plan or Document Title

g. Date

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:

N/A

N/A

2. Municipal Check Number

3. Check date

372878

June 22, 2022

4. State Check Number

5. Check date

VHB

-

6. Payor name on check: First Name

7. Payor name on check: Last Name



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City/Town

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.

<i>Andrew R. Pat, Director of Planning & Dev</i>	<i>7/11/2022</i>
1. Signature of Applicant	2. Date
<i>[Signature]</i>	<i>7/11/2022</i>
3. Signature of Property Owner (if different)	4. Date
<i>Stephanie Kneel</i>	<i>7/15/2022</i>
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 any part of Section C, Item 3, above, refer to that section and the Instructions for additional submittal requirements.

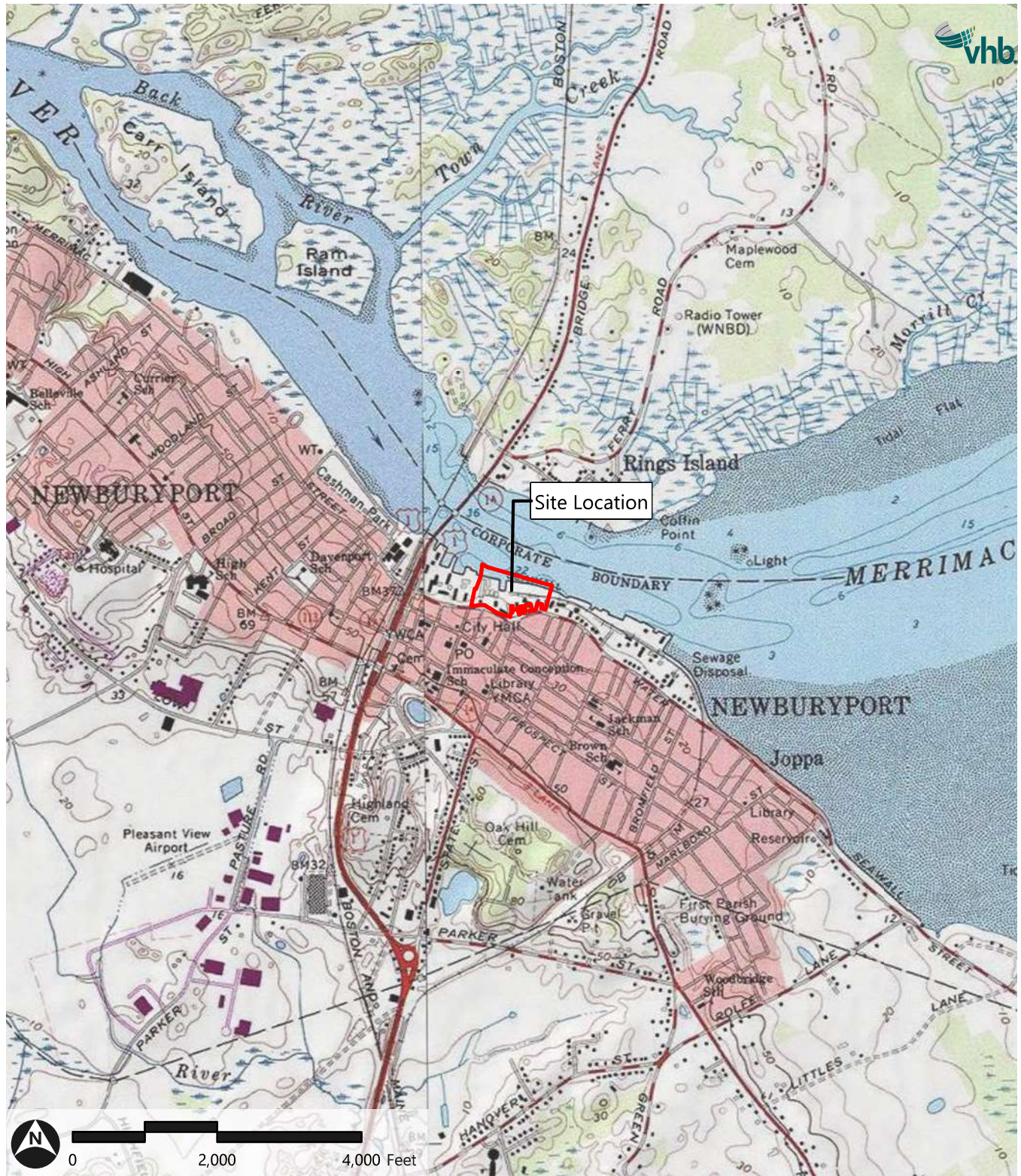
The original and copies must be sent simultaneously. Failure by the applicant to send copies in a timely manner may result in dismissal of the Notice of Intent.

Notice of Intent Figures

- › Figure 1 – Site Locus Map
- › Figure 2 – Existing Conditions
- › Figure 3 – FEMA 1% Annual Chance Floodplain
- › Figure 4 – Wetland Resource Areas
- › Figure 5 – Conceptual Site Plan

Figure 1: Site Locus Map

Market Landing Park Expansion | Newburyport, MA



 Site Location

Path: \\vhb.com\gis\proj\Boston\15252.00 Market Landing Park Exp\Project\MarketLandingParkExp.aprx (SPelletier, 6/20/2022)

Figure 2: Existing Conditions

Market Landing Park Expansion | Newburyport, MA

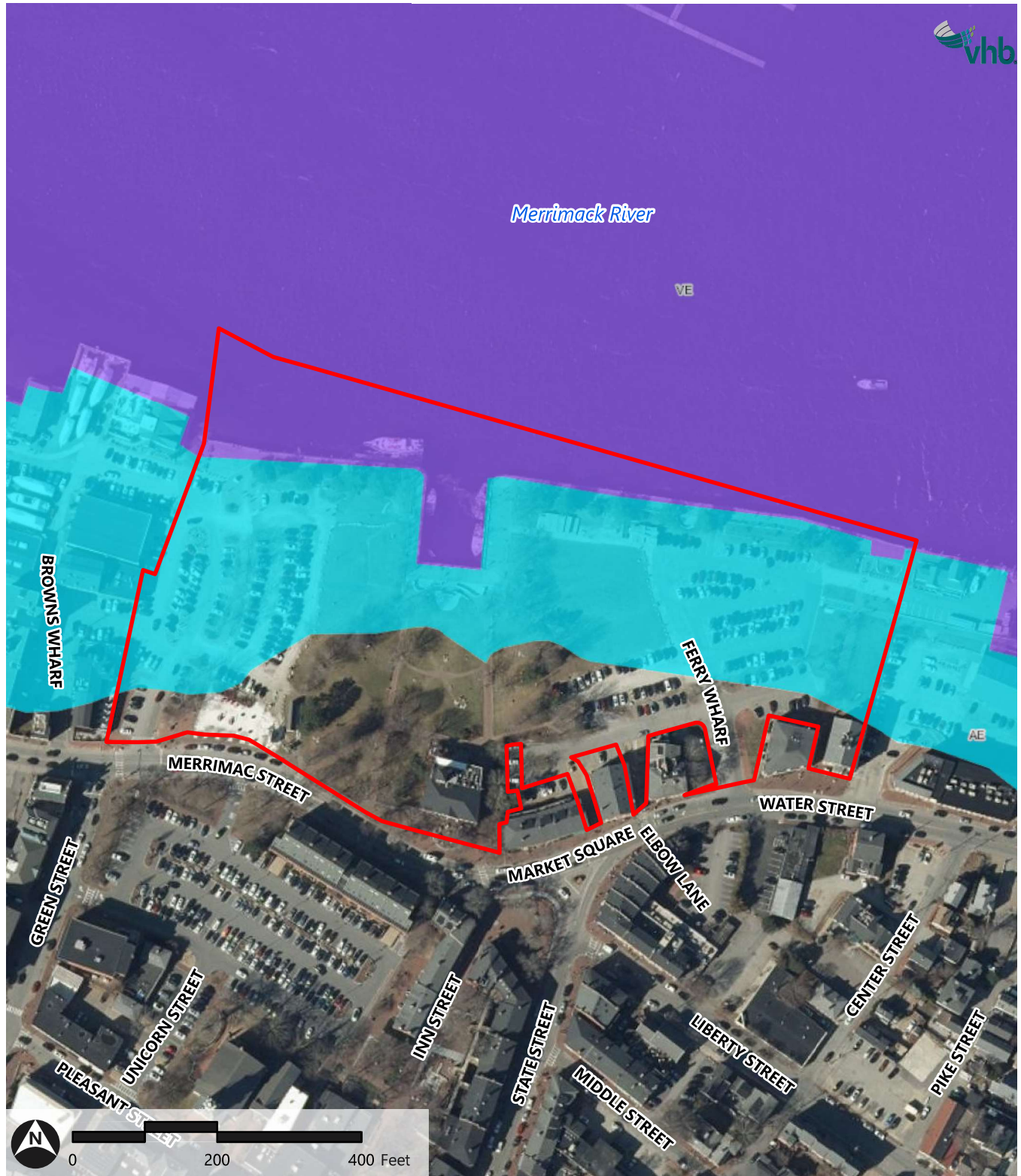


Path: \\vhb.com\gis\proj\Boston\15252.00 Market Landing Park Exp\Project\MarketLandingParkExp.aprx (SPelletier, 6/20/2022)

 Site Location

Figure 3: FEMA Floodplain

Market Landing Park Expansion | Newburyport, MA



Path: \\vhb.com\gis\proj\Boston\15252.00 Market Landing Park Exp\Project\MarketLandingParkExp.aprx (SPelletier, 6/20/2022)

- Site Location
- AE: 1% Annual Chance of Flooding, with BFE
- VE: High Risk Coastal Area

Source: ArcGIS Online, VHB, MassGIS

Figure 4: Wetland Resource Areas
 Market Landing Park Expansion | Newburyport, MA



Path: \\vhb.com\gis\proj\Boston\15252.00 Market Landing Park Exp\Project\MarketLandingParkExp.aprx (SPelletier, 6/20/2022)

- Site Location
- Coastal Bank
- 25' Buffer to Coastal Bank
- 100' Buffer to Coastal Bank
- 200' Riverfront Area
- Land Subject to Coastal Storm Flowage

Source: ArcGIS Online, VHB, MassGIS



Source: Sasaki

Figure 5
Conceptual Site Plan

Attachment A

Notice of Intent Narrative

- › Introduction
- › Existing Conditions
- › Proposed Conditions
- › Climate Resiliency
- › Work Description
- › Regulatory Compliance
- › Additional Regulations
- › Mitigation Measures



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Attachment A

Notice of Intent Narrative

This Notice of Intent (NOI) is submitted pursuant to the requirements of the Massachusetts Wetlands Protection Act (WPA)(MGL Chapter 131, Section 40) and its implementing regulations (310 CMR 10.00), and the Requirements of the Newburyport Wetlands Ordinance (the "Ordinance") and associated regulations.

1.1 Introduction

The City of Newburyport (the "Proponent") is requesting that the Newburyport Conservation Commission (the "Commission") issue an Order of Conditions for grading and landscaping activities (the "Project") at 24 Merrimac Street in Newburyport, Massachusetts (the "Project Site"). The purpose of the Project is to renovate the existing Market Landing Park to enhance public access to the waterfront and create a resilient edge to the Downtown. This Project will impact approximately 176,696 square feet of Land Subject to Coastal Storm Flowage (LSCSF), 122,478 square feet of 200-foot of Riverfront Area (RA), and 49,332 square feet of 100-foot Buffer to Coastal Bank.

The Project will be low impact and provide community benefits, including the addition of public green space and park enhancement features including pedestrian walkways and plazas, a new visitor center with public restrooms, resilient grading, and efficient parking. The Project has been designed to comply with the standards of the WPA and the Ordinance, and to meet Massachusetts Stormwater Regulations, as described in more detail below.

1.2 Existing Conditions

The Project Site is located within the existing Market Landing Park, located on the Merrimack River waterfront in Newburyport, Massachusetts. It is bounded to the north by the Merrimack River, to the east and west by restaurant and retail establishments, and to the south by Merrimac Street. **Figure 1** depicts the location of the Project Site.

The existing Project Site includes parking lots on the east and west borders, and a dock and shared use path along the waterfront abutting a green space. Ground elevations vary across the Project Site. Near the waterfront, elevations reach approximately 11 feet. The center of the East Lot dips down to elevation 9 feet toward the middle, with higher elevations (around 14 feet) along the northern portions of the Newburyport Waterfront Trust land near Railroad Avenue. Water Street appears to be at approximately elevation 11 feet. The West Lot has

similar elevations, dipping down to 8 feet toward the middle, and then ramping up to 17 feet near Merrimac Street. **Figure 2** depicts existing conditions.

Portions of the Project Site are currently within the Federal Emergency Management Agency (FEMA)-designated floodplain, i.e., they are currently susceptible to flooding during the 1 percent annual chance flood up to elevations 12 feet and 13 feet North American Vertical Datum of 1988 (NAVD88)(known as the Base Flood Elevation (BFE)). **Figure 3** identifies the extent of the area subject to the flood-related portions of the building code as shown on the applicable FEMA Flood Insurance Rate Map (FIRM) panel.

The Project Site contains wetland resource areas that are jurisdictional under the WPA and the Ordinance, including the 100-foot buffer to Coastal Bank, the 200-foot RA, and Land Subject to Coastal Storm Flowage. The majority of the Project Site consists of filled tidelands jurisdictional under the Public Waterfront Act (Chapter 91). **Figure 4** depicts wetland resource areas.

1.3 Proposed Conditions

Market Landing Park has been a central feature of Newburyport, Massachusetts for decades. Situated at the intersection of downtown and the Merrimack River, the park provides quintessential views of the water and passive park space that have long been a defining part of every visitor's experience. Steeped in maritime history, the park is a symbol of both old and new, welcoming the City's commercial fishing fleet, international yachts, small sailboats, and everything in between its docks along the boardwalk.

In 2021, the Project Team completed schematic design for the long-awaited expansion of the central waterfront park in downtown Newburyport. This redesign was oriented around four primary design principles:

- › Program – An active and inclusive year-round destination
- › Character – A uniquely Newburyport window on the Merrimack River
- › Connectivity – A functional waterfront stitched into Downtown
- › Environment – A resilient and sustainable edge to Downtown

After an extensive public participation process, consensus was built around balancing parking with green space, bringing a shared use path efficiently through the park, raising grades, distributing sculptures and playful elements throughout the park, and using a durable, context sensitive palette of materials (see **Figure 5**).

These elements have come together to create an expanded destination at Newburyport's waterfront. A new shared use path threads through the park connecting pieces the City has already built on the east and west. Plazas on either side of the central embayment act to slow down bike traffic and provide social gathering space at the heart of the park with views of the Merrimack. Two new historic pathways – Central Wharf Way and Ferry Wharf Way – connect Merrimac Street to the waterfront, honoring a longstanding agreement the City has had with Newburyport residents to maintain these public access routes.

A new visitor center and restroom building provides a gateway to the Project Site at the southwest corner, where most visitors to Newburyport arrive. This building has been designed with resiliency in mind, as described below.

The remaining parking lot has been organized to maximize green space, provide Americans with Disabilities Act (ADA) access and retain service access to the Harbormaster facility and commercial docks, as well as the recreational boating docks. Comfortable places to gather and circulate everyday will supplement existing event space at the heart of the park.

The materials palette, grading, and program spaces reflect the many conversations with the community about how the park serves as a symbol of the community. A warm and timeless palette of brick, granite, wood, and native coastal plantings will stitch the park into the surrounding context of Newburyport, while some fresh furnishings and programs will nod to the existing contemporary flair of the City's population and arts community. Additional light fixtures will be included to provide safe and uniform light levels across the park for nighttime visitors.

Emphasizing fill within the grading plan allows important aspects of the park program to be resilient to flood events (see Section 1.4 below), builds in stormwater infrastructure to better drain downtown, and accommodates requirements around contaminated soils. Engineering plans are included in **Attachment D**.

1.4 Climate Resiliency

As sea level rises over the next century, both tidal flooding and coastal storm flooding will increase in Newburyport. As described in the Newburyport Climate Resiliency Plan (October 8, 2020) (the "Climate Plan"), with as little as 3 feet of sea level rise (SLR) portions of the park would be permanently inundated by predicted tidal action in the absence of flood mitigation measures. The Plan identifies the following long-term strategy (2030-2070) for the area around the park:

"If feasible, implement plans to raise the waterfront bulkhead and park itself or transition the area as waters rise."

In order for bulkhead elevation to be a successful flood mitigation measure, the entire bulkhead from Bromfield Street to Bridge Street would need to be elevated. There are no current plans to elevate the bulkhead in this manner; therefore, sites that wish to avoid tidal flooding and reduce the occurrence of coastal storm flooding would need to be individually elevated.

1.4.1 Future Flood Elevations

Section 8.E.3 of Newburyport's Wetlands Protection Regulations require that 40 inches of SLR by 2070 be considered in project planning and design. The Project team used a higher SLR projection of 4.2 feet (50 inches) by 2070, which is currently being used by the Massachusetts Environmental Policy Act (MEPA) Office and the Massachusetts Office of Coastal Zone Management (CZM), and is modeled in the Massachusetts Coast Flood Risk Model. It was

estimated that 50 inches of SLR would raise the elevation of mean higher high water (MHHW) within the Merrimack River from its present-day elevation of approximately 4.5 feet NAVD88 to approximately 8.7 feet NAVD88.

1.4.2 Flood Resilience Measures

The Project includes measures to protect the Site from tidal flooding under most conditions through 2070 (knowing that King Tides can be several feet higher than MHHW). The selected design elevates grades to the maximum extent practicable within the City-owned parcels and connects back to the existing grades of the adjacent parcels that are controlled by others. Site elevations will range from 10 feet and 15 feet NAVD88.

However, under the proposed condition, the Project Site will remain vulnerable to both current and future flooding from low probability coastal storms (e.g., the 1 percent annual chance flood), as it is not feasible to raise grades so that the park is above either the current or future BFE. Therefore, the park's landscaping is designed to be resilient to occasional flooding through the use of appropriate hard scaping and salt-tolerant vegetation.

Buildings within the future and current floodplain, on the other hand, are required to be designed to different standards than open space. Under the Massachusetts State Building Code, new buildings within the FEMA Floodplain must be designed and constructed in compliance with the flood-related portions of the code, including using a design flood elevation (DFE) to set flood proofing elevations.

The Project's sole building is the Visitor Center, which also includes public restrooms and storage areas. Although the structure is not located within either the currently effective FEMA floodplain or LSCSF, it is nevertheless being designed to be resilient to future flooding. The finish floor elevation (FFE) will be set at 15.33 feet NAVD88, which is 40 inches above the BFE of 12 feet NAVD88. The wood frame construction will also be raised an additional 12 inches above the 40 inches on a concrete curb. The concrete curb at the base of the building will be clad in granite and will be waterproof. The finished floors will be polished concrete and floor drains will be provided. In addition, the structure will be designed so that it can be raised up in the future, if needed.

1.5 Work Description

Project work includes the following:

- › **Demolition** – The existing restroom and visitor information buildings, parking areas, and pathways will be removed. Some existing trees will need to be removed to coordinate with the accommodate the park improvements.
- › **Erosion Control** – Straw wattles will be installed at the perimeter to the downhill side of construction areas. Stabilized construction entrances will be provided at all construction exits to reduce tracking of sediment beyond the work area. Inlet protection (hay bales and/or silt sacks) will be installed at all existing drainage inlets prior to construction.

- › **Soil Removal/Remediation** – There is an existing Activity and Use Limitation (AUL) on the Project Site due to soil contamination. Any soils that are excavated for the park construction, including utility and foundation installation will be handled in accordance with the AUL. Excavated soils will be reused on-site if possible. It is anticipated that some soils will need to be removed from the Project Site and disposed of in a regulated landfill.
- › **Addition of Fill** – The Project Site will be raised between the existing parking areas and buildings and the boardwalk to provide views of the river and help limit coastal flooding. The fill will be provided from excess soils excavated during the park construction where possible based in accordance with the AUL restrictions. Clean fill will be used as needed to raise the existing grades.

Pathway/Plaza Construction – The project includes the installation of a new bituminous asphalt bike path running east to west across the Project Site as well as new brick and granite unit paver pathways connecting from Merrimac Street and Water Street to the boardwalk. A swing/trellis structure will be installed to provide a resting area with views of the waterfront.

- › **Utility Installation** – The project will include the installation of two new wet fire hydrants to replace the existing dry hydrants on either side of the embayment. These hydrants will be connected to the existing water mains in Merrimac Street, Water Street, and Custom House Way. New water services will also be provided for new irrigation systems and to the existing water system for the docks.

New water and sewer services will also be provided to the Visitor Center.

An existing electrical transformer and several electrical panels will be moved to accommodate park construction and raise equipment to the proposed grades. New Project Site lighting will also be installed in the park. New underground conduits will be installed to provide electrical service to the Visitor Center, park, and docks.

- › **Stormwater Management System Installation** – The existing 24 to 30 inches culvert from Water Street to the river will be replaced with a larger culvert pipe to increase capacity and reduce flooding of Market Square. The existing 30 inches outfall through the bulkhead will be left in place for this project. This outfall will be replaced from the manhole installed at the end of this project as part of the future bulkhead renovation project.

The Project will also include installation of new drainage inlets, pipes, and water quality inlets to collect and treat runoff from the park prior to connecting to the existing outfalls.

- › **Parking Lot Reconfiguration** – The existing asphalt parking lots will be replaced with smaller asphalt parking lots with granite curbs and concrete sidewalks. The parking areas will also provide access to the bike path for emergency vehicles and cranes for removing the docks. Access to the Harbor Master facility and parking areas behind the Market Square buildings will be maintained through the east parking lot. The existing dumpster enclosure serving the Sea Level Oyster Bar will be replaced.
- › **Visitor Center Construction** – A new Visitor Center will be constructed to replace the existing restroom and visitor information buildings. Construction of this building will include a granite paver plaza.
- › **Planting and Landscaping Installation** – New trees and shrubs will be planted throughout the park. Ground cover will include new lawn areas and perennial planting areas.

Reinforced turf areas will be provided for a small event lawn area as well as to allow vehicular access to the bike path for emergency vehicles and dock service vehicles.

Project activities are anticipated to begin in spring 2023 and last approximately 18 months.

1.6 Regulatory Compliance

The Project Site contains several wetland resource areas that are jurisdictional under the WPA and/or the Ordinance and their associated regulations. Jurisdictional resources areas under the WPA include the 100-Foot Buffer to Coastal Bank, 200-Foot RA, and Land Subject to Coastal Storm Flowage¹. These resources areas are described in more detail below and shown in **Figure 3**. Resource areas that are jurisdictional under the WPA are also jurisdictional under the Ordinance. The Ordinance identifies additional interests and performance standards as described below. Compliance with each performance standard is also described below.

1.6.1 Buffer to Coastal Bank

The 100-foot buffer to Coastal Bank extends onto the Project Site, work within which is subject to review under the WPA. There are no WPA performance standards for work within the buffer zone. Under the Ordinance, buffer zones are considered resource areas.

The Project Site includes approximately 49,332 square feet of land within the 100-foot buffer zone. The Project does not propose work within the 25-foot buffer zone. All of the buffer zone has been previously disturbed.

Performance Standards

Section 8.A.4. of Newburyport's Wetlands Protection Regulations establishes the following performance standards for buffer zones:

- a) No activity is permitted within 25 feet of the delineated edge of the above-mentioned wetland resource areas as defined in Section 8(A)(2)(a through d).
 - **Compliance:** The Project Site lies outside of this zone.
- b) To maintain the perpetual integrity of the No-Disturbance Zone and to ensure that there will be no encroachments into this Zone by the applicant or future owners of the subject property, the Commission may require the No-Disturbance Zone to be marked on the ground, at the applicant's expense, with permanent markers.
 - **Compliance:** The Project Site lies outside of this zone.
- c) In addition to complying with the above setbacks, the total disturbance to the buffer zone by any project or projects cumulatively shall not exceed twenty percent (20 percent) of the buffer zone existing on the Project Site.

¹ The LSCSF resource area will be depicted on the existing conditions survey.

- **Compliance:** The entire Project Site is previously disturbed, and work within the buffer zone will improve the functioning of the adjacent resource areas.
- d) Minor activities that are proposed within the outer 75 feet of the buffer zone (25 feet or more from the delineated edge of the wetland resource) may be allowed through a "Letter Permit" at the discretion of the Commission's agent.
 - **Compliance:** Project activities are not categorized as minor activities.
- e) Underground fuel storage tanks and other structures or facilities for the storage of gasoline, oil, or other fuels or hazardous materials located outside of any dwelling or building shall not be located in any buffer zone.
 - **Compliance:** No such facilities are proposed as part of the Project.

1.6.2 Riverfront Area

According to 310 CMR 10.58, a RA is the area of land between a river's mean annual high water line and a parallel line measured horizontally. In tidal rivers, the mean annual high-water line is coincident with the mean high water (MHW) line determined under 310 CMR 10.23. Riverfront areas are likely to be significant to protect the private or public water supply; to protect groundwater; to provide flood control; to prevent storm damage; to prevent pollution; to protect land containing shellfish; to protect wildlife habitat; and to protect the fisheries.

Approximately 122,478 square feet of RA are within the Project Site. All of the RA has been previously disturbed.

Performance Standards

310 CMR 10.58(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 economic 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 § 40.310.*

- 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 10.30 (Coastal Bank), 10.32 (Salt Marsh), 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.
 - **Compliance:** There is no Salt Marsh, Bordering Vegetated Wetlands, or Land Subject to Flooding (Bordering and Isolated Areas) within the limit of work. No impact to Coastal Bank is anticipated as part of the Project.
- 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.

- **Compliance:** There are no specified habitat sites or rare species on the Project 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.
- **Compliance:** The Project will be low impact and will be beneficial. Given the waterfront nature of the existing park, the Project cannot be located elsewhere.
- 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.
- **Compliance:** As part of a redevelopment, the Project is not subject to this subsection as per 310 CMR 10.58(5).

310 CMR 10.58 (5) Redevelopment Within Previously Developed Riverfront Areas; Restoration and Mitigation. Notwithstanding the provisions of 310 CMR 10.58(4)(c) and (d), the issuing authority may allow work to redevelop a previously developed riverfront area, provided the proposed work improves existing conditions. Redevelopment means replacement, rehabilitation or expansion of existing structures, improvement of existing roads, or reuse of degraded or previously developed areas. A previously developed riverfront area contains areas degraded prior to August 7, 1996 by impervious surfaces from existing structures or pavement, absence of topsoil, junkyards, or abandoned dumping grounds. Work to redevelop previously developed riverfront areas shall conform to the following criteria:

- a) At a minimum, proposed work shall result in an improvement over existing conditions of the capacity of the riverfront area to protect the interests identified in M.G.L. c. 131 § 40. When a lot is previously developed but no portion of the riverfront area is degraded, the requirements of 310 CMR 10.58(4) shall be met.
- **Compliance:** The Project has been designed to improve the RA. The Project Site is primarily urban fill placed for the purposes of land-making, historically has had buildings on it, and is currently occupied in large part by surface parking.
- b) Stormwater management is provided according to standards established by the Department.
- **Compliance:** The Project has been designed to meet the Stormwater Standards as described in Section 1.6.1.
- c) Within 200-foot riverfront areas, proposed work shall not be located closer to the river than existing conditions, 100 feet, whichever is less, or not closer than existing conditions within 25-foot riverfront areas, except in accordance with 310 CMR 10.58(5)(f) or (g).
- **Compliance:** Under existing conditions the entire Project Site is previously disturbed up to the shoreline.
- d) Proposed work, including expansion of existing structures, shall be located outside the riverfront area or toward the riverfront area boundary and away from the river, except in accordance with 310 CMR 10.58(5)(f) or (g).

- **Compliance:** The Project proposes construction of a Visitor Center located outside of the RA.
- e) The area of proposed work shall not exceed the amount of degraded area, provided that the proposed work may alter up to 10 percent if the degraded area is less than 10 percent of the riverfront area, except in accordance with 310 CMR 10.58(5)(f) or (g).
 - **Compliance:** Under existing conditions, the entire Project Site is previously disturbed up to the shoreline. The Project Site is primarily urban fill placed for the purposes of land-making, historically has had buildings on it, and is currently occupied in large part by surface parking. Restoration is not proposed. The Project has been designed to improve the condition of the RA.
- f) When an applicant proposes restoration on-site of degraded riverfront area, alteration may be allowed notwithstanding the criteria of 310 CMR 10.58(5)(c), (d), and (e) at a ratio in square feet of at least 1:1 of restored area to area of alteration not conforming to the criteria. Areas immediately along the river shall be selected for restoration. Alteration not conforming to the criteria shall begin at the riverfront area boundary.
 - **Compliance:** Restoration is not proposed.
- g) When an applicant proposes mitigation either on-site or in the riverfront area within the same general area of the river basin, alteration may be allowed notwithstanding the criteria of 310 CMR 10.58(5)(c), (d), or (e) at a ratio in square feet of at least 2:1 of mitigation area to area of alteration not conforming to the criteria or an equivalent level of environmental protection where square footage is not a relevant measure.
 - **Compliance:** The Project has been designed to improve the condition of the RA. No mitigation is required or proposed.

1.6.3 Land Subject to Coastal Storm Flowage

According to 310 CMR 10.04, LSCSF means land subject to any inundation caused by coastal storms up to and including that caused by the 100-year storm, surge of record or storm of record, whichever is greater. It is identified on a site by using the existing conditions land survey to locate the BFE that is identified on the currently effective FEMA FIRM. On the Project Site, the highest BFE is at elevation 13 feet NAVD88, closer to the river, while the landward extent of LSCSF is located at 12 feet NAVD88.

The Project Site contains approximately 176,696 square feet of LSCSF. All of the LSCSF has been previously disturbed.

Performance Standards

The Wetlands Regulations at 310 CMR 10.00 do not contain performance standards for work in LSCSF. Section 8.E.3 of Newburyport's Wetlands Protection Regulations includes the following performance standards for this resource area:

- a) Any activity shall not have an adverse effect by increasing the elevation or velocity of flood waters or by increasing flows due to a change in drainage or flowage characteristics (e.g., change in direction) on the subject site, adjacent properties, or any public or private way.

- **Compliance:** The Project Site will meet existing grades along its borders. Proposed grade changes are gradual and will not change flowage characteristics.
- b) Relative sea level rise and the landward migration of resource areas in response to relative sea level rise shall be incorporated into the design and construction of structures and other activities proposed in Land Subject to Coastal Storm Flowage. At a minimum, for activities proposed in A and V-Zones, a rate of relative sea level rise in Massachusetts of 40 inches by the year 2070 shall be incorporated into the project design and construction.
 - **Compliance:** The Project team considered a higher SLR projection of 4.2 feet (50 inches) by 2070 in the planning and design of the Project.
- c) When the AH-Zone (or an A-Zone which is hydraulically constricted) is significant to the interests of flood control or storm damage prevention, additional performance standards shall apply.
 - **Compliance:** The Project Site does not contain any AH-Zones.
- d) When Land Subject to Coastal Storm Flowage is significant to wildlife and their habitat a proposed activity shall not impair the capacity of those portions of Land Subject to Coastal Storm Flowage to provide important wildlife habitat functions. Alterations may be permitted only if they will have no adverse effect on wildlife and their habitat.
 - **Compliance:** There are no specified habitat sites or rare species on the Project Site.
- e) When Land Subject to Coastal Storm Flowage is significant to the prevention of pollution there shall be no adverse effects to the critical characteristic of this area to remove suspended solids and other contaminants from runoff before entering into other wetland resource areas.
 - **Compliance:** As a result of the Project, the amount of impervious area on the Project Site will decrease. Increased vegetation will improve the functions of LSCSF.
- f) The following activities proposed within velocity zones (V-Zones) of Land Subject to Coastal Storm Flowage are likely to have an adverse effect on the protected interests and are therefore prohibited unless the applicant proves with a preponderance of credible evidence that the proposed activity and resultant alteration will not have an adverse effect on said interests:
 - › Construction or placement of new structures, including buildings, sheds, garages, additions, and substantial improvements to existing structures supported on a solid foundation or proposed below the base flood elevation plus 2 feet;
 - › New parallel/shear walls or vertical walls for existing structures;
 - › Impermeable paving for new roads, driveways and parking lots;
 - › New or proposed expansions of coastal engineering structures;
 - › New or expanded septic systems;
 - › New or expanded stormwater management systems/discharges;
 - › New or expanded utilities;
 - › New underground storage tanks; and
 - › New activities and uses that change the physical characteristics of the land through draining, excavating, dredging, dumping, filling, removing vegetation, removing or transferring loam, peat, sand, soil or other material substance which

will reduce the natural storage capacity of the land, interfere with the landward migration of coastal resources in response to sea level rise, interfere with the natural drainage/tidal patterns of any watercourse, or degrade the water quality of surface or groundwater.

- **Compliance:** No work is proposed within a velocity zone.
- g) A proposed activity within a velocity zone of a beach or coastal bank shall not destroy or otherwise impair the function of any portion of said landform and/or shall not have an adverse effect on adjacent wetland resources.
 - **Compliance:** No work is proposed within a velocity zone. There is no coastal beach or coastal bank on the Project Site.
- h) Specific activities proposed within the AO-zone of a beach or coastal bank of Land Subject to Coastal Storm Flowage are likely to have an adverse effect on the protected interests and are therefore prohibited.
 - **Compliance:** There is no AO-zone located on the Project Site.
- i) Notwithstanding the above, pedestrian walkways for public shoreline access and non-motorized use and projects designed to protect critical public infrastructure from storm surge and sea level rise may be permitted within LSCSF under an Order of Conditions.
 - **Compliance:** The Project includes pedestrian walkways for public shoreline access and non-motorized use within LSCSF.

1.7 Additional Regulations

1.7.1 Massachusetts Stormwater Regulations

According to the Massachusetts Department of Environmental Protection's (MassDEP's) 1996 Stormwater Policy, and as codified in 310 CMR 10.05(6)(k), stormwater runoff from all industrial, commercial, institutional, office, residential and transportation projects including site preparation, construction and redevelopment, and all point source stormwater discharges from said projects, shall be managed according to the Stormwater Management Standards. A complete Stormwater Management Report is included in **Attachment E**.

The Project has been designed to meet the Stormwater Standards as described below:

1. *No new stormwater conveyances (e.g. outfalls) may discharge untreated stormwater directly to or cause erosion in wetlands or waters of the Commonwealth.*
 - **Compliance:** The project does not include any new stormwater outfalls to the Merrimack River. The proposed stormwater system will treat runoff from the Project Site prior to connecting to the existing stormwater outfalls.
2. *Stormwater management systems shall be designed so that post-development peak discharge rates do not exceed pre-development peak discharge rates. This Standard may be waived for discharges to land subject to coastal storm flowage as defined in 310 CMR 10.04.*

- **Compliance:** The Project Site runoff will discharge to land subject to coastal storm flowage, however, the post-development peak discharge rates will not exceed pre-development peak discharge rates from the Project Site.
3. *Loss of annual recharge to groundwater shall be eliminated or minimized through the use of infiltration measures including environmentally sensitive site design, low impact development techniques, stormwater best management practices, and good operation and maintenance. At a minimum, the annual recharge from the post-development site shall approximate the annual recharge from pre-development conditions based on soil type. This Standard is met when the stormwater management system is designed to infiltrate the required recharge volume as determined in accordance with the Massachusetts Stormwater Handbook.*
- **Compliance:** The total area of pervious surfaces on the Project Site will be increased allowing greater groundwater recharge on-site.
4. *Stormwater management systems shall be designed to remove 80% of the average annual post-construction load of Total Suspended Solids (TSS). This Standard is met when:*
- a. *Suitable practices for source control and pollution prevention are identified in a long-term pollution prevention plan, and thereafter are implemented and maintained;*
 - b. *Structural stormwater best management practices are sized to capture the required water quality volume determined in accordance with the Massachusetts Stormwater Handbook; and*
 - c. *Pretreatment is provided in accordance with the Massachusetts Stormwater Handbook.*
- **Compliance:** Water quality inlets will be installed to treat runoff from all parking areas on-site. These water quality inlets are designed to remove 80 percent of the average annual post-construction load of TSS.
5. *For land uses with higher potential pollutant loads, source control and pollution prevention shall be implemented in accordance with the Massachusetts Stormwater Handbook to eliminate or reduce the discharge of stormwater runoff from such land uses to the maximum extent practicable. If through source control and/or pollution prevention all land uses with higher potential pollutant loads cannot be completely protected from exposure to rain, snow, snow melt, and stormwater runoff, the proponent shall use the specific structural stormwater BMPs determined by the Department to be suitable for such uses as provided in the Massachusetts Stormwater Handbook. Stormwater discharges from land uses with higher potential pollutant loads shall also comply with the requirements of the Massachusetts Clean Waters Act, M.G.L. c. 21, §§ 26-53 and the regulations promulgated thereunder at 314 CMR 3.00, 314 CMR 4.00 and 314 CMR 5.00.*
- **Compliance:** The project land use is not defined as a higher potential pollutant load.
6. *Stormwater discharges within the Zone II or Interim Wellhead Protection Area of a public water supply, and stormwater discharges near or to any other critical area, require the use of the specific source control and pollution prevention measures and the specific structural*

stormwater best management practices determined by the Department to be suitable for managing discharges to such areas, as provided in the Massachusetts Stormwater Handbook. A discharge is near a critical area if there is a strong likelihood of a significant impact occurring to said area, taking into account site-specific factors. Stormwater discharges to Outstanding Resource Waters and Special Resource Waters shall be removed and set back from the receiving water or wetland and receive the highest and best practical method of treatment. A "storm water discharge" as defined in 314 CMR 3.04(2)(a)1 or (b) to an Outstanding Resource Water or Special Resource Water shall comply with 314 CMR 3.00 and 314 CMR 4.00. Stormwater discharges to a Zone I or Zone A are prohibited unless essential to the operation of a public water supply.

- **Compliance:** The project runoff does not discharge within a Zone II or Interim Wellhead Protection Area or any other critical area.
7. *A redevelopment project is required to meet the following Stormwater Management Standards only to the maximum extent practicable: Standard 2, Standard 3, and the pretreatment and structural best management practice requirements of Standards 4, 5, and 6. Existing stormwater discharges shall comply with Standard 1 only to the maximum extent practicable. A redevelopment project shall also comply with all other requirements of the Stormwater Management Standards and improve existing conditions.*
- **Compliance:** The project is considered a redevelopment project as the Project Site is currently developed and the area of impervious surface will be reduced by the proposed project. The project will still meet Standards 1, 2, 3, 4, 5, and 6.
8. *A plan to control construction-related impacts including erosion, sedimentation and other pollutant sources during construction and land disturbance activities (construction period erosion, sedimentation, and pollution prevention plan) shall be developed and implemented.*
- **Compliance:** A Stormwater Pollution Prevention Plan (SWPPP) as required by the National Pollutant Discharge Elimination System (NPDES) Construction General Permit (CGP) has been prepared for the Project.
9. *A long-term operation and maintenance plan shall be developed and implemented to ensure that stormwater management systems function as designed.*
- **Compliance:** A long-term operation and maintenance plan has been included.
10. *All illicit discharges to the stormwater management system are prohibited.*
- **Compliance:** The proposed project does not include any illicit discharges.

1.7.2 Chapter 91

Approximately 4.47 acres of the Project Site are within filled tidelands that lie between the first public way and the MHW mark. A Chapter 91 license is required for any work within this area. As a public open space, Market Landing Park is considered a Water Dependent Use under Chapter 91 and is therefore subject to fewer restrictions than uses categorized as non-water

dependent (310 CMR 9.12(2)(a)4.). Parking that is accessory to water-dependent uses is allowed within Chapter 91 jurisdiction (310 CMR 9.12(3)(b)). In addition, Section 2. (i) of Chapter 96 of the Acts of 2020, removes the prohibition on public parking within filled tidelands on the Project Site. Nevertheless, a reduction in the size of the on-site parking facilities is desirable. The Waterways Program recommends avoiding placing parking within 100 feet of the shoreline to the maximum extent practicable.

Placement of additional fill within previously filled tidelands on the Project Site is permissible (310 CMR 9.32(1)(a)1.).

The City has not adopted a Municipal Harbor Plan, and therefore modifications to the Chapter 91 requirements are not allowed.

The following Chapter 91 licenses have been issued on the Project Site:

- › **DPW 504 (1925)** – Arthur J. Brooks – Build bulkhead & place fill between Mercantile & Central Wharves
- › **DPW 3034 (1948)** – Diamond Match Co. Bulkhead – Prior to current configuration
- › **DEP 194 (1976)** – Grading, Bulkhead

None of these licenses reflect the entirety of currently existing conditions.

A new license will be required to implement proposed conditions. All property owners must be parties to this license.

1.8 Mitigation Measures

Engineering plans detailing the mitigation measures described below are included in **Attachment D**.

1.8.1 Erosion and Sedimentation Control Measures

The contractor will be required to construct all erosion and sedimentation (E&S) control measures in accordance with MassDEP's "Massachusetts Erosion and Sediment Control Guidelines for Urban and Suburban Areas." E&S measures will be in place prior to the commencement of any site work or earthwork operations and will be maintained during construction. They will remain in place until all site work is complete and groundcover is established.

- › A limit of work will be established with construction fencing and straw wattles.
- › Stockpiles will be surrounded on their perimeters with approved E&S control devices to prevent and/or control siltation and erosion. They will be covered to prevent stormwater infiltration.
- › All disturbed or exposed area subject to erosion will be stabilized with mulch or seeded for temporary vegetative cover.
- › Stabilized construction entrances/exits will be installed to prevent tracking or flowing of sediment into public rights-of-way.

- › During construction, runoff will be directed to temporary drainage swales and sedimentation basins.
- › On-site and nearby catch basins will be protected with straw wattles/haybales and siltsacks to prevent sediment from entering drainage structures.
- › Throughout construction, all E&S measures will be inspected weekly and immediately after storm events to ensure that they are properly cleaned and repaired or replaced as needed. The contractor will keep additional E&S devices on-site for installation.

1.8.2 Tree Protection

Forty-six existing trees will remain on-site and will be protected with fencing at the edge of the critical root zone.

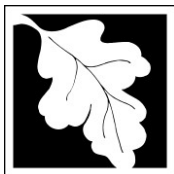


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Attachment B

Filing Fee Information

- › Fee Transmittal Form
- › Copy of Filing Fee Check



Massachusetts Department of Environmental Protection
 Bureau of Resource Protection - Wetlands
NOI Wetland Fee Transmittal Form
 Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

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



A. Applicant Information

1. Location of Project:

24 Merrimac Street

a. Street Address

Newburyport

b. City/Town

c. Check number

d. Fee amount

2. Applicant Mailing Address:

Andrew

a. First Name

Port

b. Last Name

City of Newburyport (Office of Planning & Development)

c. Organization

60 Pleasant Street

d. Mailing Address

Newburyport

e. City/Town

MA

f. State

01950

g. Zip Code

978-465-4400

h. Phone Number

N/A

i. Fax Number

aport@cityofnewburyport.com

j. Email Address

3. Property Owner (if different):

Sean

a. First Name

Reardon

b. Last Name

City of Newburyport

c. Organization

60 Pleasant Street

d. Mailing Address

Newburyport

e. City/Town

MA

f. State

01950

g. Zip Code

978-465-4400

h. Phone Number

N/A

i. Fax Number

sreardon@cityofnewburyport.com

j. Email Address

To calculate filing fees, refer to the category fee list and examples in the instructions for filling out WPA Form 3 (Notice of Intent).

B. Fees

Fee should be calculated using the following process & worksheet. **Please see Instructions before filling out worksheet.**

Step 1/Type of Activity: Describe each type of activity that will occur in wetland resource area and buffer zone.

Step 2/Number of Activities: Identify the number of each type of activity.

Step 3/Individual Activity Fee: Identify each activity fee from the six project categories listed in the instructions.

Step 4/Subtotal Activity Fee: Multiply the number of activities (identified in Step 2) times the fee per category (identified in Step 3) to reach a subtotal fee amount. Note: If any of these activities are in a Riverfront Area in addition to another Resource Area or the Buffer Zone, the fee per activity should be multiplied by 1.5 and then added to the subtotal amount.

Step 5/Total Project Fee: Determine the total project fee by adding the subtotal amounts from Step 4.

Step 6/Fee Payments: To calculate the state share of the fee, divide the total fee in half and subtract \$12.50. To calculate the city/town share of the fee, divide the total fee in half and add \$12.50.



Massachusetts Department of Environmental Protection
 Bureau of Resource Protection - Wetlands
NOI Wetland Fee Transmittal Form
 Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

B. Fees (continued)

Step 1/Type of Activity	Step 2/Number of Activities	Step 3/Individual Activity Fee	Step 4/Subtotal Activity Fee
2.j	1	\$500.00	\$500.00
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Step 5/Total Project Fee: _____

Step 6/Fee Payments:

Total Project Fee:	\$500.00
State share of filing Fee:	a. Total Fee from Step 5 \$237.50
City/Town share of filing Fee:	b. 1/2 Total Fee less \$12.50
	c. 1/2 Total Fee plus \$12.50

C. Submittal Requirements

- a.) Complete pages 1 and 2 and send with a check or money order for the state share of the fee, payable to the Commonwealth of Massachusetts.

Department of Environmental Protection
 Box 4062
 Boston, MA 02211

- b.) **To the Conservation Commission:** Send the Notice of Intent or Abbreviated Notice of Intent; a **copy** of this form; and the city/town fee payment.

To MassDEP Regional Office (see Instructions): Send a copy of the Notice of Intent or Abbreviated Notice of Intent; a **copy** of this form; and a **copy** of the state fee payment. (E-filers of Notices of Intent may submit these electronically.)

From Account
1130161371

Serial Number
372878

Amount
237.50

Payee Name
Commonwealth of Massachusetts

Account Name
Vanasse Hangen Brustlin Inc

Paid Date
06/24/2022

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

CITIZENS BANK
MASSACHUSETTS
5-70172110

372878
CHECK DATE

June 22, 2022

Two Hundred Thirty Seven and 50/100

AMOUNT

\$237.50

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

Michael J. ...
MICHAEL J. ...
V. HANGEN BRUSTLIN INC



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BOS-004062

DO NOT WRITE STAMP OR SIGN BELOW THIS LINE
RESERVED FOR FINANCIAL INSTITUTION USE

>011000138<
CR PAYEE ACCT
LACK END GTD
BANK OF AMERICA

This design obtains a Security Seven.

The security features listed, as well as those not listed, exceed banking industry guidelines.

- Security Check Features
- Microprint Signature Line
- Chemical Protection
- Foundliner Watermark
- Security of document creation
- Security of document printing
- Security of ink coloration
- Security of ink adhesion
- Security of ink durability
- Security of ink coloration
- Security of ink adhesion
- Security of ink durability

FEDERAL RESERVE BOARD OF GOVERNORS REG. C.C.

Attachment C

Abutter Notification Materials

- › Abutter Notification Form
- › List of Abutters
- › Affidavit of Service

**Notification to Abutters Under the
Massachusetts Wetlands Protection Act and the
Newburyport Wetlands Ordinance**

In accordance with the second paragraph of Massachusetts General Laws Chapter 131, Section 40 and the City of Newburyport's Wetlands Ordinance, you are hereby notified of the following.

- A. The name of the applicant is Andrew Port
- B. The applicant has filed a Notice of Intent with the Conservation Commission for the City of Newburyport seeking permission to remove, fill, dredge, or alter an Area subject to Protection under the Wetlands Protection Act (General Laws Chapter 131, Section 40) and the City of Newburyport's Wetlands Ordinance.
- C. The address of the lot where the activity is proposed is:
24 Merrimac Street, Newburyport MA, 01950
- D. The Public Hearing will be held on August 2, 2022 at 7 pm. Said hearing shall be located either in the Senior/Community Center or online via remote participation with confirmation and access information to be posted on the City Website meetings calendar at www.cityofnewburyport.com/calendar. All interested parties should look to the meetings calendar on the City website as the hearing date approaches.
- E. Copies of the Notice of Intent may be examined by visiting www.cityofnewburyport.com/conservation-commission and selecting the meeting agenda.
- F. Copies of the Notice of Intent may be obtained from either (check one) the applicant _____ or the applicant's representative X, by calling this telephone number (617) 607 - 2972 between the hours of 9 and 5, on the following days of the week: Monday, Tuesday, Wednesday, Thursday, and Friday.

NOTE: Notice of the public hearing, including its date, time, and place, will be published at least five (5) days in advance in the Newburyport Daily News.

NOTE: Notice of the public hearing, including its date, time, and place, will be posted in Newburyport City Hall not less than forty-eight (48) hours in advance.

NOTE: You also may contact the Newburyport Conservation Commission or the Department of Environmental Protection Northeast Regional Office for more information about this application or the Wetlands Protection Act. To contact the Newburyport Conservation Commission, please email jgodtfredsen@cityofnewburyport.com.

3/ 28/ / /
CITY OF NEWBURYPORT
MUNICIPAL PARKING LOT
60 PLEASANT ST
NEWBURYPORT, MA 01950

3/ 30/ / /
SRP REALTY LLC
1 MERRIMAC ST UNIT 1+2
NEWBURYPORT, MA 01950

3/ 31/ / /
R L HOLDINGS LLC
C/O ROBERT LORAYNE
19 FEDERAL ST
NEWBURYPORT, MA 01950

3/ 32/ / /
FIRST CHURCH OF CHRIST SCIENTIST
1 MERRIMAC ST UNIT 4
NEWBURYPORT, MA 01950

3/ 33/ / /
SHEA KEVIN TRS
CAPITOL REALTY TRUST
10 ROGERS WAY
WALTHAM, MA 02452

3/ 34/ / /
PROMENADE HOLDINGS LLC
1 MERRIMAC ST UNIT 7
NEWBURYPORT, MA 01950

3/ 35/ / /
PROMENADE HOLDINGS LLC
1 MERRIMAC ST UNIT 7
NEWBURYPORT, MA 01950

3/ 36/ / /
LYNCH ROBERT
KAREN J/T
13 PARKER RIDGE WAY
NEWBURYPORT, MA 01950

3/ 37/ / /
FERGUSON MARK A
JAYNE A J/T
28 OAK CIR
MERRIMAC, MA 01860

3/ 38/ / /
FERGUSON MARK A
JAYNE A J/T
28 OAK CIR
MERRIMAC, MA 01860

3/ 39/ / /
TRIEFF RONALD H
SHEILA J J/T
1 MERRIMAC ST - UNIT 11
NEWBURYPORT, MA 01950

3/ 40/ / /
GUAY MARK J & JENNIFER L TRS
MARITIME NOMINEE TRUST
1 MERRIMAC ST UNIT 12
NEWBURYPORT, MA 01950

3/ 41/ / /
CAMPOCHIARO DAVID
1 MERRIMAC ST UNIT 13
NEWBURYPORT, MA 01950

3/ 42/ / /
GRADY JOHN F
1 MERRIMAC ST UNIT 14
NEWBURYPORT, MA 01950

3/ 43/ / /
BOUCHARD PAUL R
IRENE D J/T
PO BOX 1390
NEWBURYPORT, MA 01950

3/ 44/ / /
ALLEN KENT E & SUSAN E TRS
KENT E ALLEN REVOCABLE TRUST
30 PROSPECT ST UNIT 1
NEWBURYPORT, MA 01950

3/ 45/ / /
SAVAGE-CREEDON EILEEN
96 HIGH RD
NEWBURY, MA 01951

3/ 46/ / /
ISTANBULLU-GIUGLIANO LLC
9 LIBERTY ST
DANVERS, MA 01923

3/ 47/ / /
BURAK JASON L
37 APPLETON AVE
S HAMILTON, MA 01982

3/ 48/ / /
ST PIERRE RONALD
1 MERRIMAC ST UNIT 20
NEWBURYPORT, MA 01950

3/ 49/ / /
WALTH CHRISTIN L
1 MERRIMAC ST UNIT 21
NEWBURYPORT, MA 01950

3/ 50/ / /
DEMETROULAKOS LUCAS M TRS
JACQUELINE M LEVASSEUR TRS
1 MERRIMAC ST UNIT 22
NEWBURYPORT, MA 01950

3/ 51/ / /
MCMORROW JAMES G
MARY LOU J/T
1 MERRIMAC ST UNIT 23
NEWBURYPORT, MA 01950

3/ 52/ / /
EMANUELSON GORDON C
1 MERRIMAC ST UNIT 24
NEWBURYPORT, MA 01950

3/ 53/ / /
MILLER JAMES P
KAREN A
291 SAVANNA DR
CHARLES TOWN , WV 25414

3/ 54/ / /
TAPLIN TODD F TRUSTEE
EWT NOMINEE TRUST
1 MERRIMAC ST UNIT 26
NEWBURYPORT, MA 01950

3/ 55/ / /
DUBOIS DAVID
DONNA T/E
1 MERRIMAC ST UNIT 27
NEWBURYPORT, MA 01950

3/ 56/ / /
BARNES SWIFT C III TRS
C/O SWIFT C BARNES
2376 PACIFIC AVENUE
SAN FRANCISCO, CA 94115

3/ 57/ / /
WURZEL JOSEPH F
WURZEL MAUREEN T/E
3361 YOUNGS RD
SOUTHERN PINES, NC 28387

3/ 58/ / /
DEAN EUGENE J III TRS
AMJEEJ REALTY TRUST
1 MERRIMAC ST UNIT 30
NEWBURYPORT, MA 01950

3/ 58/B / /
DUBOIS DAVID
DONNA T/E
1 MERRIMAC ST UNIT 27
NEWBURYPORT, MA 01950

3/ 58/C / /
MCMORROW JAMES G
1 MERRIMAC ST UNIT 23
NEWBURYPORT, MA 01950

3/ 58/D / /
BURAK JASON L
37 APPLETON AVE
S HAMILTON, MA 01982

3/ 58/E / /
DEAN EUGENE J III TRUSTEE
AMJEEJ REALTY TRUST
1 MERRIMAC ST UNIT 30
NEWBURYPORT, MA 01950

4/ 30/ / /
CITY OF NEWBURYPORT
INN STREET MALL
60 PLEASANT ST
NEWBURYPORT, MA 01950

4/ 40/ / /
MARKET SQUARE LIMITED PARTNERSHI
C/O DANIEL ABDULLA
70 HIGH ST
NEWBURYPORT, MA 01950

9/ 22/A / /
CURTIS JOHN G & JANN KEITH-CURTI
CURTIS FAMILY TRUST
191 HIGH ST UNIT 4
NEWBURYPORT, MA 01950

9/ 22/B / /
VOGEL BRUCE TRS
30-32 WATER ST UNIT 2 REALTY TRU
5 BROMFIELD CT
NEWBURYPORT, MA 01950

9/ 22/C / /
GILMORE RICHARD S JR TRS
RACHEL D HOLLINGSWORTH TRS
19 CHERRY ST
DANVERS, MA 01923

9/ 22/D / /
MORTON ASHLEY M
ZACHARY R COMTOIS T/E
30-32 WATER ST UNIT 4
NEWBURYPORT, MA 01950

9/ 22/E / /
MCCARTHY SEAN
30-32 WATER ST UNIT 5
NEWBURYPORT, MA 01950

9/ 22/F / /
CULLISS GARY TRUSTEE
32 WATER ST REALTY TRUST
258 WEST 71 STREET #1A
NEW YORK, NY 10023-3775

9/ 22/G / /
LOCICERO STEPHEN L & RAE-ANN S T
STEPHEN & RAE-ANN LOCICERO FAMIL
2634 BAYSIDE WALK
SAN DIEGO, CA 92109

9/ 23/ / /
J & B WATER ST LLC
JOHN S DEMARS
5031 BAL HARBOR BLVD
PUNTA GORDA, FL 33950

9/ 25/A / /
MARINO CAVEN LLC
C/O JESSICA CAVEN
5 REFLECTION POND DR
ROCKPORT, ME 04856

9/ 25/B / /
COLLINS THOMAS A
PAMELA J J/T
42 ORGANUG RD
YORK, ME 03909

9/ 25/C / /
WETHERBEE GUY M TRUSTEE
MINTON IRREVOCABLE TRUST
101 NORTHERN BLVD
NEWBURY, MA 01951

9/ 25/D / /
19 MARKET SQUARE LLC
19 MARKET SQ UNIT R4
NEWBURYPORT, MA 01950

9/ 25/E / /
RICHEY JANET E TRS
JANET E RICHEY LIVING TRUST
48 KENT ST UNIT 9
NEWBURYPORT, MA 01950

9/ 25/F / /
HENRY PETER T
454 CENTRAL AVE
DOVER, NH 03820

9/ 25/G / /
LEAHY C P & WARREN M L TRS
C & M NOMINEE TRUST
12 TEMPLE BLVD EAST
NEWBURY, MA 01951

9/ 25/H / /
MCDAVITT DONALD TRUSTEE
DONALD MCDAVITT LIVING TRUST
8 HEARTBREAK HILL
IPSWICH, MA 01938

9/ 25/I / /
PERRY RICHARD W TRUSTEE
SRS II REALTY TRUST
10 CURTIS AVE
MIDDLETON, MA 01949

9/ 25/J / /
SHERMAN LJ & CA TRS
ABRAHAM'S REALTY TRUST
691 WASHINGTON ST
NEW YORK, NY 10014

9/ 25/K / /
SHERMAN LJ & CA TRS
ABRAHAM'S REALTY TRUST
691 WASHINGTON ST
NEW YORK, NY 10014

9/ 25/L / /
SHERMAN LJ & CA TRS
ABRAHAM'S REALTY TRUST
691 WASHINGTON ST
NEW YORK, NY 10014

9/ 25/M / /
WEBB BARRY D TRUSTEE
BARRY D WEBB REVOCABLE TRUST
PO BOX 172
NEWBURYPORT, MA 01950

9/ 25/N / /
SIGELMAN ADAM H
6030 ALGIERS PLACE
DULLES, VA 20189

9/ 25/O / /
PARKER ROSS B L/I
HOLLY PARKER TRS
2 ELBOW LN UNIT 2EA
NEWBURYPORT, MA 01950

9/ 25/P / /
BURKE SAMANTHA J TRS
SAMANTHA J BURKE REVOCABLE
TRUST
2 ELBOW LN UNIT 2EB
NEWBURYPORT, MA 01950

9/ 25/Q / /
SUVAL JAMIAN C
PATRICIA H MALLOY T/E
18 MARKET SQ 18M1
NEWBURYPORT, MA 01950

9/ 25/R / /
HOOKER ROBERT L
18 MARKET SQ UNIT 2
NEWBURYPORT, MA 01950

9/ 25/S / /
BERGER HOWARD M TRS
NBPT MARKET SQUARE REALTY TRUST
18 MARKET SQ UNIT 18M3
NEWBURYPORT, MA 01950

9/ 25/T / /
CORCORAN MONICA
18 MARKET SQUARE #4
NEWBURYPORT, MA 01950

9/ 25/U / /
JACOBSON ALAN J
225 COOLIDGE AVE UNIT 106
WATERTOWN, MA 02472

9/ 25/V / /
ROWE FRANK
1 LIBERTY ST-UNIT 1L2
NEWBURYPORT, MA 01950

9/ 25/W / /
MOUGHAN PAUL V JR TRS
KAREN L MOUGHAN TRS
2 PARSONS RD
WEST NEWBURY, MA 01985

9/ 25/X / /
KELLER KAREN G
1 LIBERTY SQ UNIT 4
NEWBURYPORT, MA 01950

9/ 25/Y / /
KENDALL SCOTT
5A LIBERTY ST
NEWBURYPORT, MA 01950

9/ 25/Z / /
BRENDON-MOTA LLC
259 TURNPIKE RD
SOUTHBORO, MA 01772

9/ 26/A / /
PANTANELLA MARY C TRS
MARY C PANTANELLA 2014 TRST
9A LIBERTY ST
NEWBURYPORT, MA 01950

9/ 26/B / /
CIAMPITTI ROBERT A JR TRUSTEE
11A LIBERTY ST NOMINEE TRUST
11A LIBERTY ST
NEWBURYPORT, MA 01950

11/ 1/ / /
CITY OF NEWBURYPORT
FIREHOUSE CENTER
1-3 MARKET SQ
NEWBURYPORT, MA 01950

11/ 1/A / /
N R A
C/O CITY HALL
60 PLEASANT ST
NEWBURYPORT, MA 01950

11/ 1/B / /
NEWBURYPORT WATERFRONT TRUST
CITY HALL
60 PLEASANT ST
NEWBURYPORT, MA 01950

11/ 1/C / /
N R A
C/O CITY HALL
60 PLEASANT ST
NEWBURYPORT, MA 01950

11/ 1/D / /
N R A
C/O CITY HALL
60 PLEASANT ST
NEWBURYPORT, MA 01950

11/ 1/E / /
N R A
C/O CITY HALL
60 PLEASANT ST
NEWBURYPORT, MA 01950

11/ 1/F / /
N R A
C/O CITY HALL
60 PLEASANT ST
NEWBURYPORT, MA 01950

11/ 4/A / /
NEWBURYPORT MANAGER LLC TRS
C/O NEW ENGLAND DEVELOPMENT
75 PARK PLAZA
BOSTON, MA 02116

11/ 4/B / /
NEWBURYPORT MANAGER LLC TRS
C/O NEW ENGLAND DEVELOPMENT
75 PARK PLAZA
BOSTON, MA 02116

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NEWBURYPORT MANAGER LLC TRS
C/O NEW ENGLAND DEVELOPMENT
75 PARK PLAZA
BOSTON, MA 02116

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NEWBURYPORT MANAGER LLC TRS
C/O NEW ENGLAND DEVELOPMENT
75 PARK PLAZA
BOSTON, MA 02116

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NEWBURYPORT MANAGER LLC TRS
C/O NEW ENGLAND DEVELOPMENT
75 PARK PLAZA
BOSTON, MA 02116

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NEWBURYPORT MANAGER LLC TRS
C/O NEW ENGLAND DEVELOPMENT
75 PARK PLAZA
BOSTON, MA 02116

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NEWBURYPORT MANAGER LLC TRS
C/O NEW ENGLAND DEVELOPMENT
75 PARK PLAZA
BOSTON, MA 02116

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NEWBURYPORT MANAGER LLC TRS
C/O NEW ENGLAND DEVELOPMENT
75 PARK PLAZA
BOSTON, MA 02116

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NEWBURYPORT MANAGER LLC TRS
C/O NEW ENGLAND DEVELOPMENT
75 PARK PLAZA
BOSTON, MA 02116

11/ 4/J / /
NEWBURYPORT MANAGER LLC TRS
C/O NEW ENGLAND DEVELOPMENT
75 PARK PLAZA
BOSTON, MA 02116

11/ 5/ / /
MCFARLAND JAMES O & EILEEN L TRS
JPM REALTY NOMINEE TRUST
PO BOX 314
MEDFORD, MA 02155

11/ 15/A / /
BARRANCO MICHAEL C
MARIA BARRANCO J/T
11 MARKET SQ UNIT 1
NEWBURYPORT, MA 01950

11/ 15/B / /
ALLEN KEITH C
11 MARKET SQ UNIT 2
NEWBURYPORT, MA 01950

11/ 15/C / /
GALLEGOS KARL V
1251 VALLEY RESERVE DR
KENNESAW, GA 30152

11/ 15/D / /
NMP PROPERTIES 1 LLC
C/O PIRAINO
17 J ST
NEWBURYPORT, MA 01950

11/ 15/E / /
11-5 MARKET SQUARE REALTY LLC
PO BOX 247
NEWBURYPORT, MA 01950

11/ 15/F / /
CORTLAND EQUITY PARTNERS LLC
10 CORTLAND LANE
WEST NEWBURY, MA 01985

11/ 15/G / /
MISTERLOAN LLC
11 MARKET SQ UNIT 7
NEWBURYPORT, MA 01950

11/ 15/H / /
GRIFFIN MARK W
CLAIRE M PAPANASTASIOU T/E
3 ORANGE ST UNIT 4
NEWBURYPORT, MA 01950

11/ 15/I / /
CRONIN SHARON A TRS
MARKET SQUARE REALTY TRUST
11 MARKET SQ UNIT 9
NEWBURYPORT, MA 01950

11/ 15/J / /
CRONIN SHARON A TRS
MARKET SQUARE REALTY TRUST
11 MARKET SQ UNIT 9
NEWBURYPORT, MA 01950

11/ 15/K / /
CRONIN SHARON A TRS
MARKET SQUARE REALTY TRUST
11 MARKET SQ UNIT 9
NEWBURYPORT, MA 01950

11/ 26/A / /
ANDREWS RAY L
PO BOX 351
NEWBURYPORT, MA 01950

11/ 26/B / /
PATHFINDER FINANCIAL GROUP INC
5 WATER ST REAR UNIT B
NEWBURYPORT, MA 01950

11/ 26/C / /
LEVASSEUR CAROL
5 WATER ST REAR UNIT F
NEWBURYPORT, MA 01950

11/ 26/D / /
PATHFINDER FINANCIAL GROUP INC
5 WATER ST REAR UNIT B
NEWBURYPORT, MA 01950

11/ 26/E / /
FRASCONE THOMAS A
TRACY J T/E
5 WATER ST REAR UNIT E
NEWBURYPORT, MA 01950

11/ 26/F / /
5 WATER LLC
C/O NANCY TOULIOPOULOS
7 RUTGERS RD
ANDOVER, MA 01810

11/ 26/G / /
OREILLY DANIEL M TRUSTEE
5 WATER STREET REALTY TRUST
2123 REGENTS BLVD
WEST PALM BEACH, FL 33409

11/ 26/H / /
OREILLY DANIEL M TRUSTEE
5 WATER STREET REALTY TRUST
2123 REGENTS BLVD
WEST PALM BEACH, FL 33409

11/ 26/I / /
PROPS LLC
1 WATER ST
NEWBURYPORT, MA 01950

11/ 26/J / /
FRENCH TWIST PROPERTIES LLC
6 MERRILL ST
WEST NEWBURY, MA 01985

12/ 9/ / /
CITY OF NEWBURYPORT
HARBORMASTER BUILDING
60 PLEASANT ST
NEWBURYPORT, MA 01950

12/ 10/ / /
NEWBURYPORT MARITIME SOCIETY INC
25 WATER ST
NEWBURYPORT, MA 01950

12/ 12/ / /
NEWBURYPORT MANAGER LLC TRS
C/O NEW ENGLAND DEVELOPMENT
75 PARK PLAZA
BOSTON, MA 02116

47/ 9/ / /
BERNARD RENE M
45 MERRIMAC ST
NEWBURYPORT, MA 01950

48/ 20/ / /
GEONAUTICS INC
C/O MERRIMAC MILL INC
44 MERRIMAC STREET
NEWBURYPORT, MA 01950

48/ 21/ / /
OLDER PAMELA
42 MERRIMAC ST
NEWBURYPORT, MA 01950

48/ 24/ / /
NEWBURYPORT MANAGER LLC TRS
C/O NEW ENGLAND DEVELOPMENT
75 PARK PLAZA
BOSTON, MA 02116

48/ 25/ / /
BROWNS WHARF LLC
PO BOX 708
NEW CASTLE, NH 03854

48/ 26/ / /
MERRIMAC STREET ALE HOUSE LLC
C/O JOSEPH A LEONE
272 WATER ST
NEWBURYPORT, MA 01950

48/ 23A/ / /
NEWBURYPORT MANAGER LLC TRS
C/O NEW ENGLAND DEVELOPMENT
75 PARK PLAZA
BOSTON, MA 02116

AFFIDAVIT OF SERVICE

Under the Massachusetts Wetlands Protection Act

(to be submitted to the Massachusetts Department of Environmental Protection and the Conservation Commission when filing a Notice of Intent)

I, Stephanie Kruei, hereby certify under the pains and penalties of perjury that on July 15, 2022 I gave notification to abutters in compliance with the second paragraph of Massachusetts General Laws Chapter 131, Section 40, and the **DEP Guide to Abutter Notification** dated April 8, 1994, in connection with the following matter:

A Notice of Intent filed under the Massachusetts Wetlands Protection Act and the Newburyport Wetlands Ordinance by Andrew Port with the City of Newburyport on July 15, 2022 for property located at 24 Merrimac Street, Newburyport MA, 01950.

The form of the notification, and a list of the abutters to whom it was given and their addresses are attached to this Affidavit of Service.



Signature

July 15, 2022
Date

Attachment D

Engineering Plans



SASAKI

C5-02	DRAINAGE PLAN	SASAKI
C5-03	DRAINAGE PLAN	SASAKI
C5-04	DRAINAGE PLAN	SASAKI
C6-00	UTILITY PLAN - KEYPLAN	SASAKI
C6-01	UTILITY PLAN	SASAKI
C6-02	UTILITY PLAN	SASAKI
C6-03	UTILITY PLAN	SASAKI
C6-04	UTILITY PLAN	SASAKI
C7-01	EROSION & SEDIMENT CONTROL DETAILS	SASAKI
C7-02	DRAINAGE DETAILS	SASAKI
C7-03	DRAINAGE DETAILS	SASAKI
C7-04	DRAINAGE DETAILS	SASAKI
C7-05	UTILITY DETAILS	SASAKI
C7-06	UTILITY DETAILS	SASAKI

04

05

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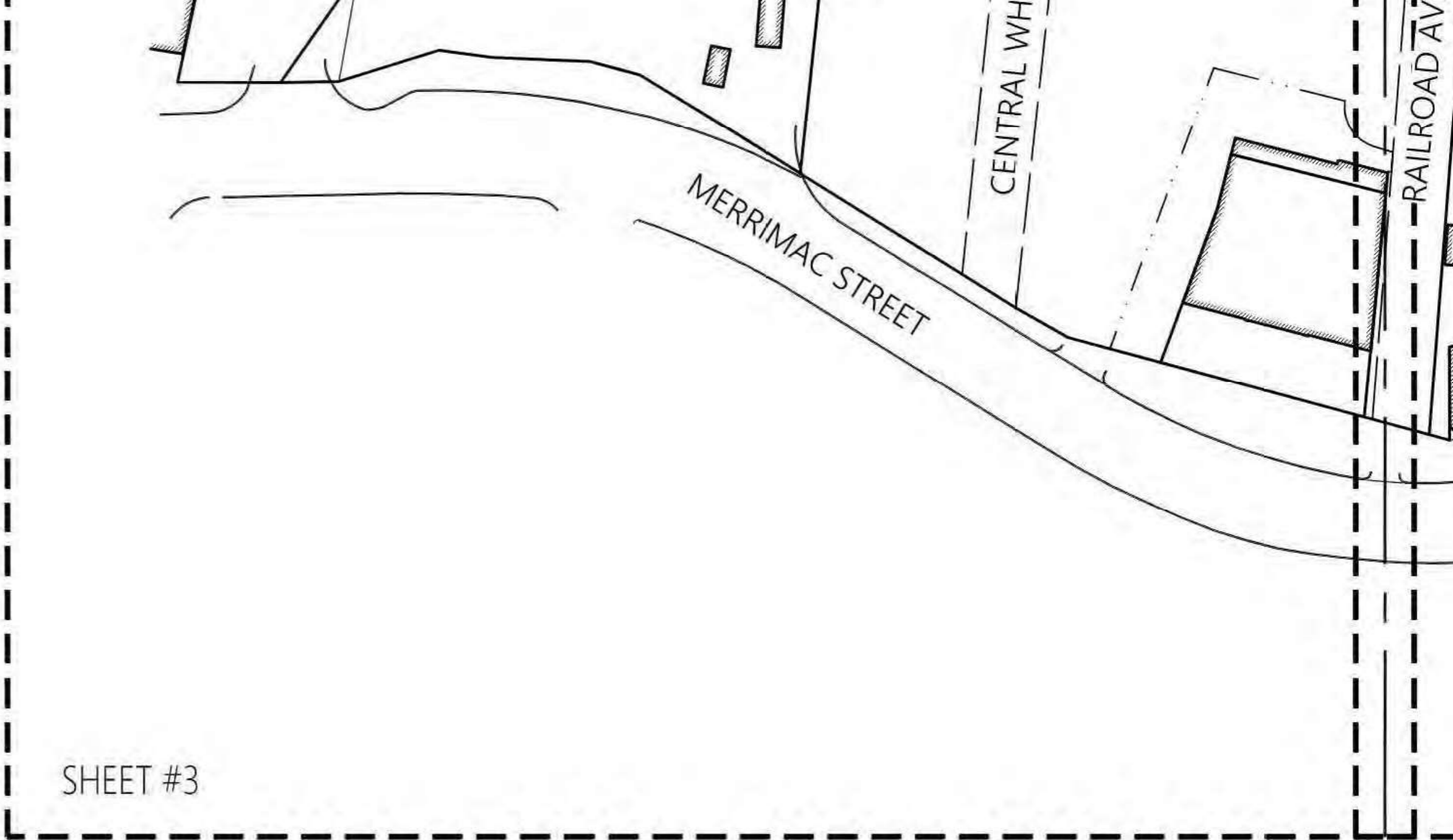
SHEET #3

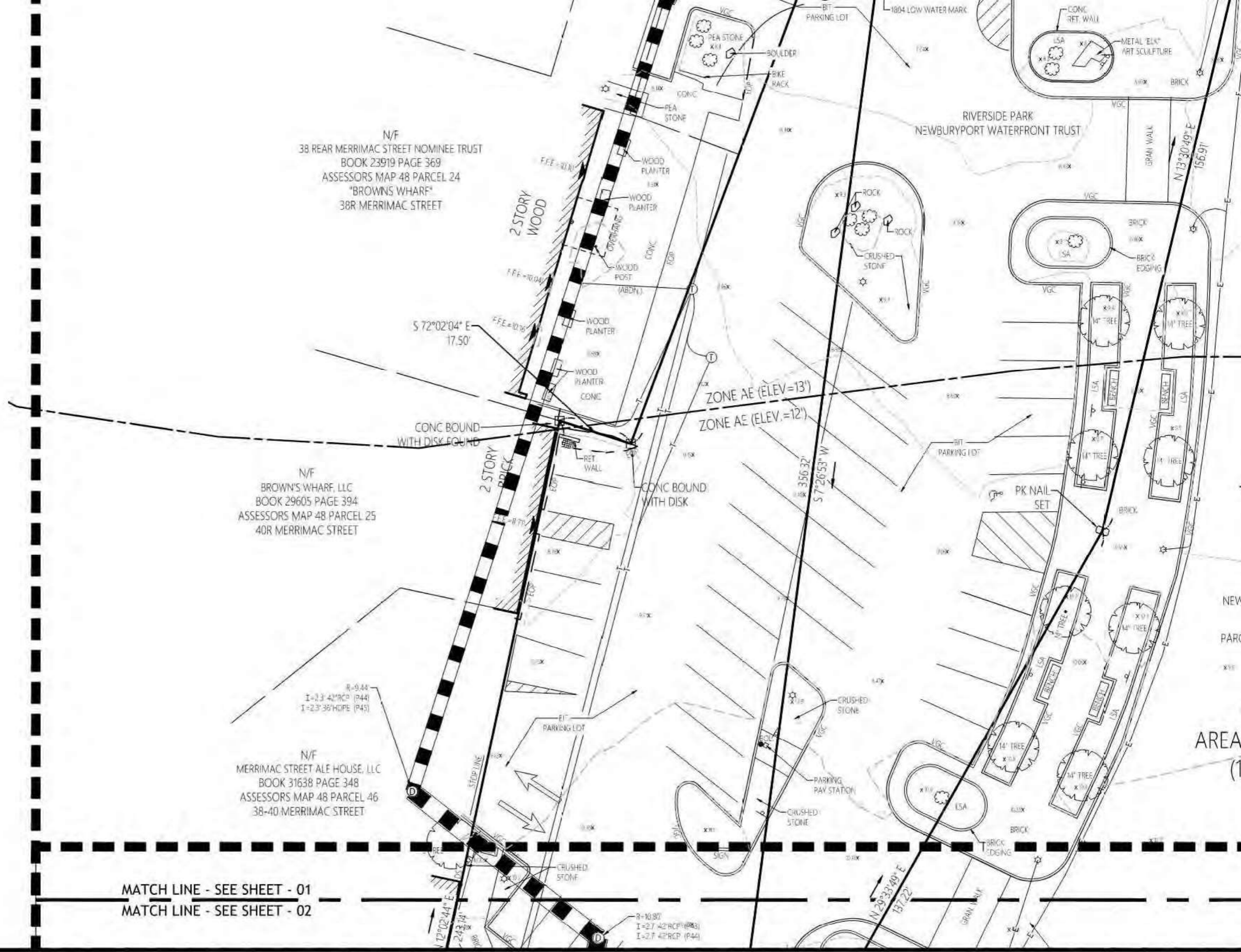
SHEET #3

MERRIMAC STREET

CENTRAL WH

RAILROAD AV





MATCH LINE - SEE SHEET - 01
MATCH LINE - SEE SHEET - 02

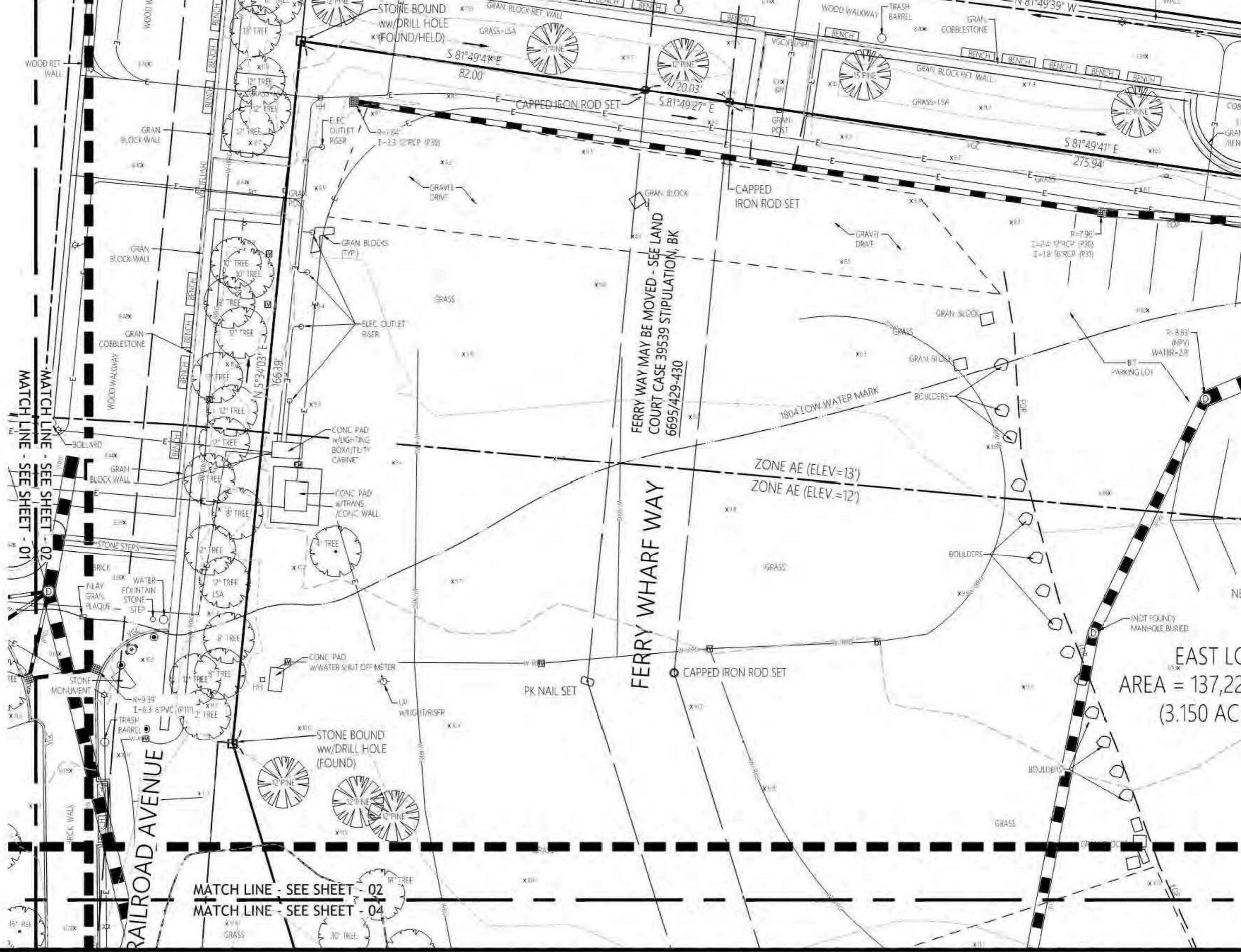
N/F
38 REAR MERRIMAC STREET NOMINEE TRUST
BOOK 23919 PAGE 369
ASSESSORS MAP 48 PARCEL 24
"BROWN'S WHARF"
38R MERRIMAC STREET

N/F
BROWN'S WHARF, LLC
BOOK 29605 PAGE 394
ASSESSORS MAP 48 PARCEL 25
40R MERRIMAC STREET

N/F
MERRIMAC STREET ALE HOUSE, LLC
BOOK 31638 PAGE 348
ASSESSORS MAP 48 PARCEL 46
38-40 MERRIMAC STREET

R=9.44
I=23'42"RCP (P44)
I=23'36"HOPE (P45)

R=10.80
I=27'42"RCP (P43)
I=27'42"RCP (P44)




MATCH LINE - SEE SHEET - 01
MATCH LINE - SEE SHEET - 02

MATCH LINE - SEE SHEET - 02
MATCH LINE - SEE SHEET - 04

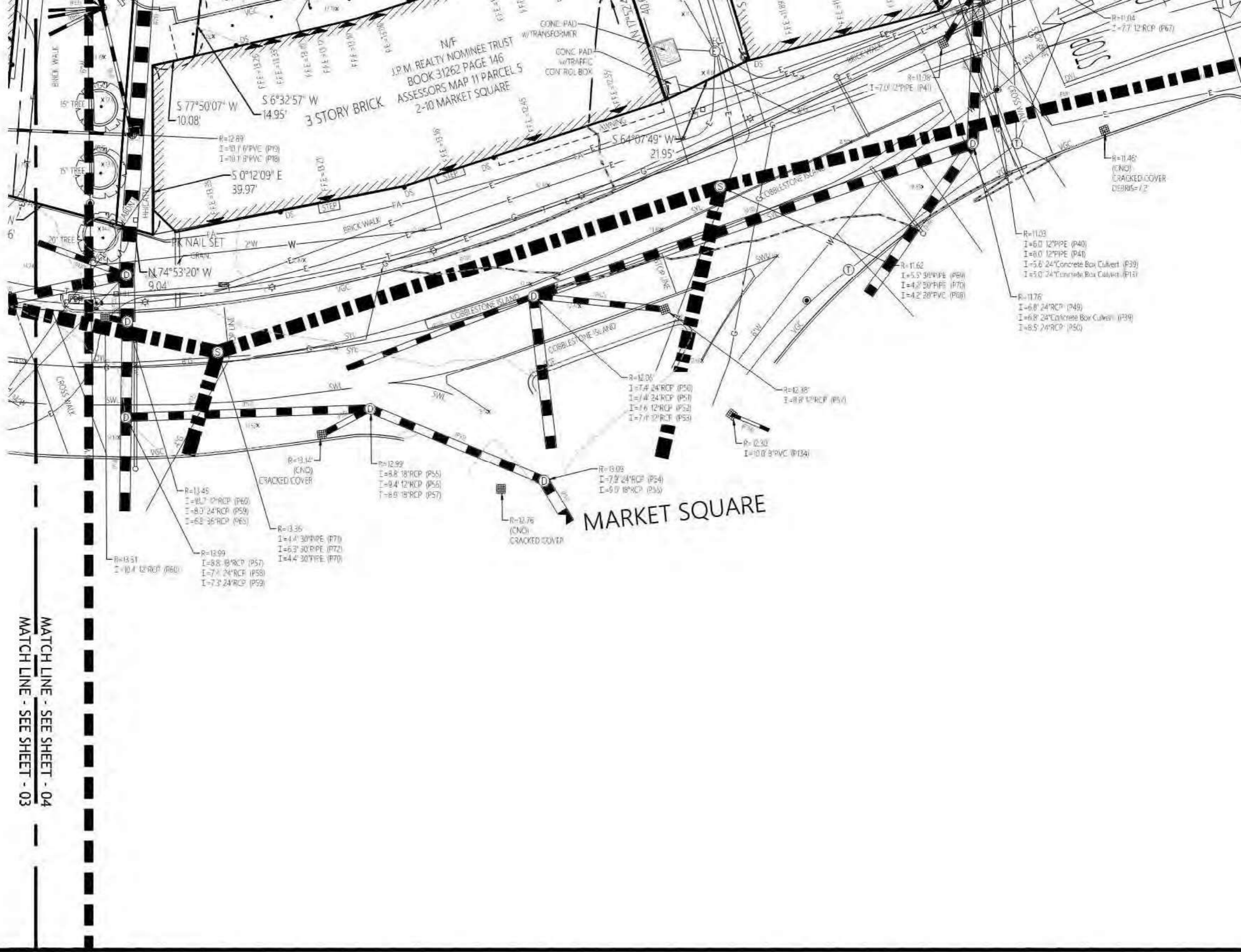
FERRY WAY MAY BE MOVED - SEE LAND COURT CASE 39539 STIPULATION, BK 6695/429-430

EAST LO
AREA = 137,22
(3.150 AC)

Legend

	DRAIN MANHOLE
	CATCH BASIN
	SEWER MANHOLE
	ELECTRIC MANHOLE
	TELEPHONE MANHOLE
	MANHOLE
HH 	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
	IRRIGATION VALVE
	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 YELLOW LINE
LSA	LANDSCAPED AREA
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
-OW	OVERHEAD WIRE
-E	UNDERGROUND ELECTRIC
-FA	UNDERGROUND FIRE ALARM
-T	TELEPHONE LINE
-G	GAS LINE
-W	WATER LINE
-W-IRRG	WATER IRRIGATION LINE
	STONE WALL
	TREE LINE

MATCH LINE - SEE SHEET - 04
MATCH LINE - SEE SHEET - 03



N/F
J.P.M. REALTY NOMINEE TRUST
BOOK 31262 PAGE 146
ASSESSORS MAP 11 PARCEL 5
2-10 MARKET SQUARE

3 STORY BRICK

MARKET SQUARE

R=13.51
I=10.4' 12" RCP (P60)

R=13.99
I=8.8' 18" RCP (P57)
I=7.7' 24" RCP (P58)
I=7.3' 24" RCP (P59)

R=13.45
I=11.7' 12" RCP (P60)
I=8.0' 24" RCP (P59)
I=6.0' 36" RCP (P65)

R=13.14
I=4.4' 30" PIPE (P70)
I=6.3' 30" PIPE (P72)
I=4.4' 30" PIPE (P70)

R=12.99
I=8.8' 18" RCP (P55)
I=9.4' 12" RCP (P56)
I=6.9' 18" RCP (P57)

R=12.05
I=7.4' 24" RCP (P50)
I=7.4' 24" RCP (P51)
I=7.6' 12" RCP (P52)
I=7.1' 12" RCP (P53)

R=13.08
I=7.9' 24" RCP (P54)
I=9.9' 18" RCP (P55)

R=12.30
I=10.0' 8" PVC (P134)

R=12.38
I=11.8' 12" RCP (P51)

R=11.62
I=5.5' 30" PIPE (P69)
I=4.3' 50" PIPE (P70)
I=4.2' 30" PVC (P08)

R=11.03
I=6.0' 12" PIPE (P40)
I=8.0' 12" PIPE (P41)
I=5.6' 24" Concrete Box Culvert (P39)
I=5.0' 24" Concrete Box Culvert (P13)

R=11.76
I=6.8' 24" RCP (P49)
I=6.8' 24" Concrete Box Culvert (P39)
I=6.5' 24" RCP (P50)

R=11.46
(CNO)
CRACKED COVER
DEBRIS=1/2

S 77°50'07" W
10.08'

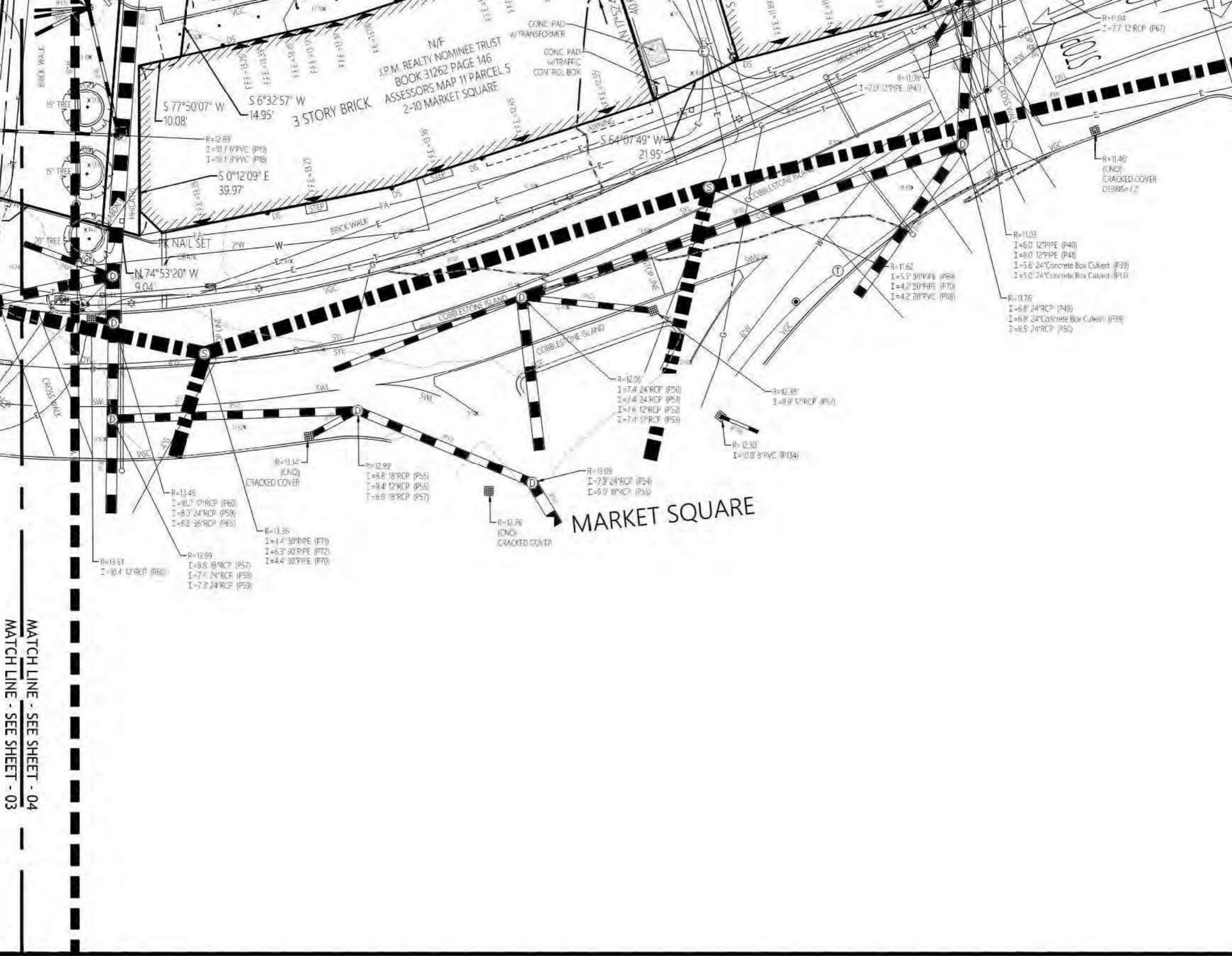
S 6°32'57" W
14.95'

R=12.89
I=8.1' 8" PVC (P19)
I=10.1' 8" PVC (P18)

S 0°12'09" E
39.97'

N 74°53'20" W
9.04'

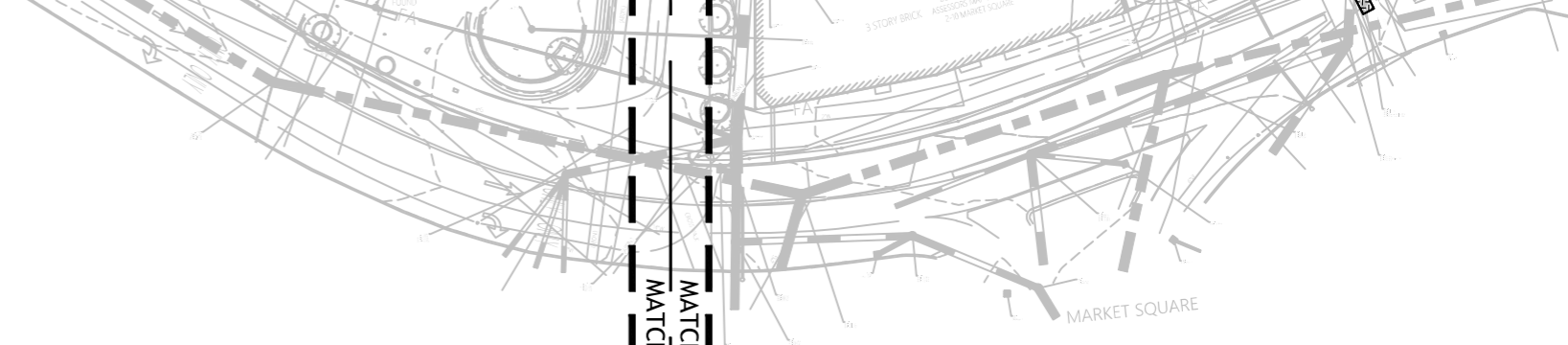
S 64°07'49" W
21.95'



SHEET #3

SHEET #4

MATCH LINE - SEE SHEET - 04
 MATCH LINE - SEE SHEET - 03



DEMOLITION LEGEND

	DEMOLISH ASPHALT PAVEMENT, FULL DEPTH		R&D WOOD EDGE		ADJUST DRAINAGE STRUCTURE	NOTES 1. SEE C2-00 FOR SITE PREPARATION AND DEMOLITION NOTES. 2. ALL EXISTING SURFACE SITE FEATURES SHOWN WITHIN THE LIMITS OF WORK ARE TO BE REMOVED AND DEMOLISHED UNLESS OTHERWISE NOTED. 3. ALL UTILITY STRUCTURES TO REMAIN SHALL BE RESET TO PROPOSED GRADE. 4. CRITICAL ROOT ZONE IS AN APPROXIMATION. ALL EXCAVATION AND EARTHWORK WITHIN CRITICAL ROOT ZONE TO BE PERFORMED BY HAND ONLY. 5. REFER TO THE EROSION AND SEDIMENT CONTROL PLANS FOR LIMITS OF TREE PROTECTION FENCING.
	R&D GRAVEL/CRUSHED SEA SHELLS		SAWCUT PAVEMENT		DEMOLISH DRAINAGE STRUCTURE	
	DEMOLISH CONCRETE PAVEMENT		R&D CURB		DEMOLISH BOLLARD/SIGN/POST	
	DEMOLISH SITE FEATURES (MISC)		R&D FENCE		R&S LIGHT POLE, R&D FOUNDATION	
	R&D LAWN		ABANDON EXISTING DRAIN PIPE		PROTECT UTILITY STRUCTURE	
	DEMOLISH BUILDING STRUCTURE		DEMO EXISTING OVERHEAD ELECTRIC		R&S SITE SIGNAGE	
	DEMOLISH WOOD RAMP/DECK		ABANDON UTILITIES		TREE TO BE REMOVED	
	DEMOLISH BRICK/COBBLESTONE AREA				PROTECT EXISTING STRUCTURE	
	DEMOLISH GRANITE CROSSING				REMOVE & RELOCATE GRANITE BLOCK	
	CRITICAL ROOT ZONE				REMOVE & DEMOLISH EXISTING STRUCTURE	
					R&D REMOVE AND DISPOSE	
					R&S REMOVE AND SALVAGE	
					R&R REMOVE AND RELOCATE	
					VIF VERIFY IN FIELD	

N/F
38 REAR MERRIMAC STREET NOMINEE TRUST
BOOK 23919 PAGE 369
ASSESSORS MAP 48 PARCEL 24
"BROWNS WHARF"
38R MERRIMAC STREET

2 STORY
WOOD

(ABDN.)

ZONE AE (ELEV.=13')
ZONE AE (ELEV.=12')

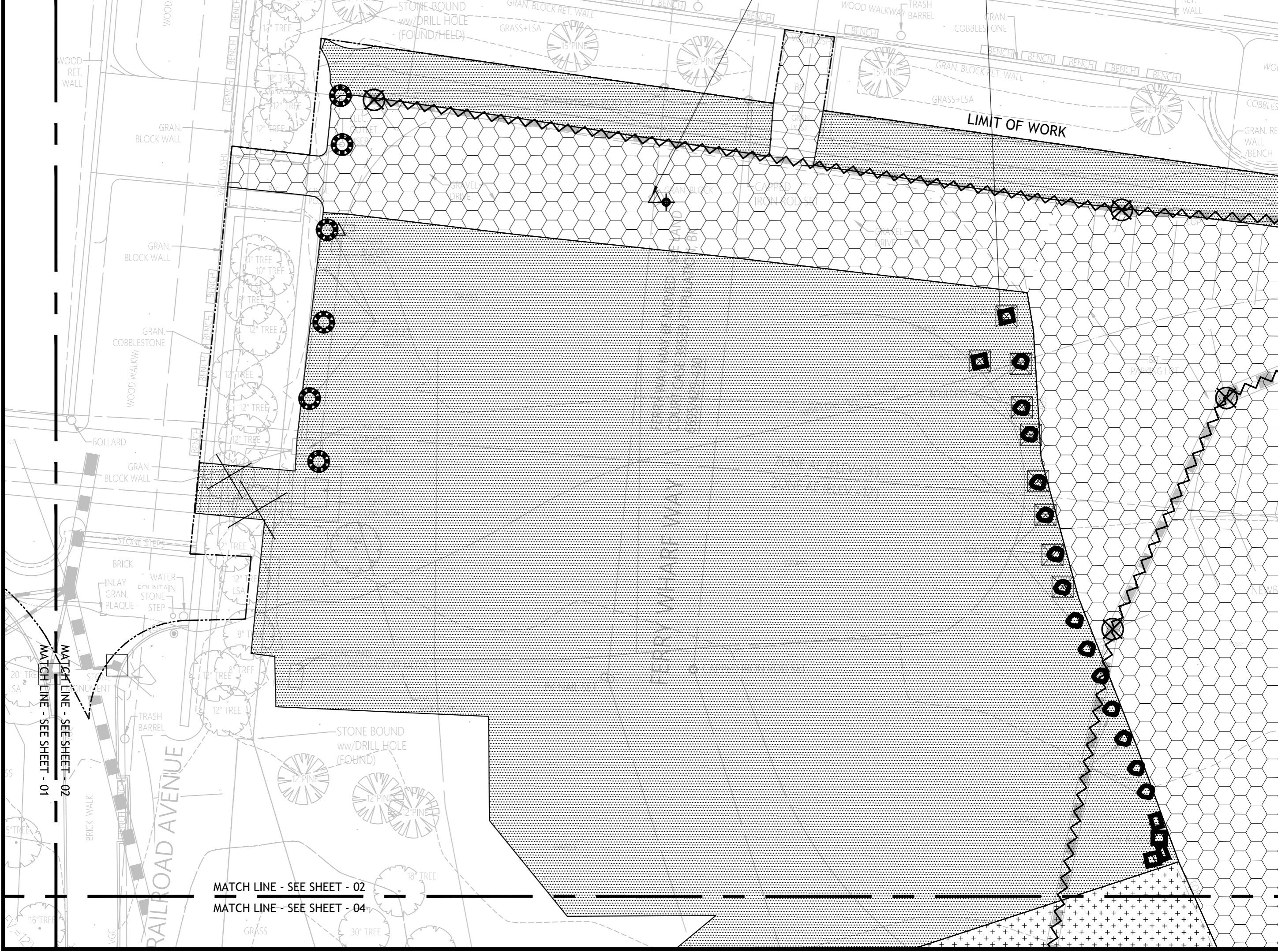
N/F
BROWN'S WHARF, LLC
BOOK 29605 PAGE 394
ASSESSORS MAP 48 PARCEL 25
40R MERRIMAC STREET

2 STORY
BRICK

N/F
MERRIMAC STREET ALE HOUSE, LLC
BOOK 31638 PAGE 348
ASSESSORS MAP 48 PARCEL 46
38-40 MERRIMAC STREET

RIVERSIDE PARK
NEWBURYPORT WATERFRONT TRUST

NEWBURYPORT, MA
01901
PROJECT: ALE HOUSE
DATE: 05/18/22






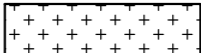

















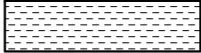



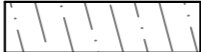

MATCH LINE - SEE SHEET - 01
MATCH LINE - SEE SHEET - 02

MATCH LINE - SEE SHEET - 02
MATCH LINE - SEE SHEET - 04

LIMIT OF WORK

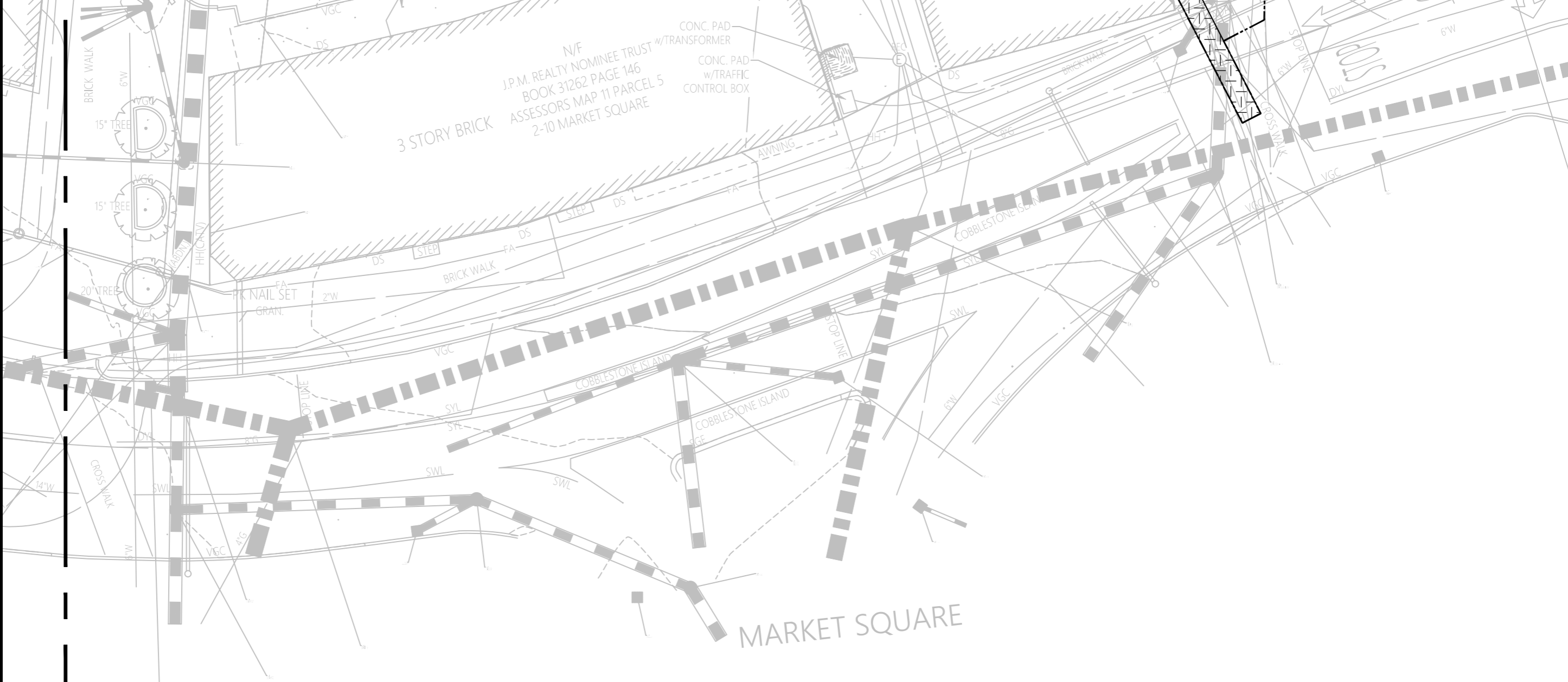
RAILROAD AVENUE

DEMOLITION LEGEND

	DEMOLISH ASPHALT PAVEMENT, FULL DEPTH		R&D WOOD EDGE		ADJUST DRAINAGE STRUCTURE
	R&D GRAVEL/CRUSHED SEA SHELLS		SAWCUT PAVEMENT		DEMOLISH DRAINAGE STRUCTURE
	DEMOLISH CONCRETE PAVEMENT		R&D CURB		DEMOLISH BOLLARD/SIGN/POST
	DEMOLISH SITE FEATURES (MISC)		R&D FENCE		R&S LIGHT POLE, R&D FOUNDATION
	R&D LAWN		ABANDON EXISTING DRAIN PIPE		PROTECT UTILITY STRUCTURE
	DEMOLISH BUILDING STRUCTURE		DEMO EXISTING OVERHEAD ELECTRIC		R&S SITE SIGNAGE
	DEMOLISH WOOD RAMP/DECK		ABANDON UTILITIES		TREE TO BE REMOVED
	DEMOLISH BRICK/COBBLESTONE AREA				PROTECT EXISTING STRUCTURE
	DEMOLISH GRANITE CROSSING				REMOVE & RELOCATE GRANITE BLOCK
	CRITICAL ROOT ZONE				REMOVE & DEMOLISH EXISTING STRUCTURE
				R&D	REMOVE AND DISPOSE
				R&S	REMOVE AND SALVAGE
				R&R	REMOVE AND RELOCATE
				VIF	VERIFY IN FIELD

NOTES

1. SEE C2-00 FOR SITE PREPARATION AND DEMOLITION NOTES.
2. ALL EXISTING SURFACE SITE FEATURES SHOWN WITHIN THE LIMITS OF WORK ARE TO BE REMOVED AND DEMOLISHED UNLESS OTHERWISE NOTED.
3. ALL UTILITY STRUCTURES TO REMAIN SHALL BE RESET TO PROPOSED GRADE.
4. CRITICAL ROOT ZONE IS AN APPROXIMATION. ALL EXCAVATION AND EARTHWORK WITHIN CRITICAL ROOT ZONE TO BE PERFORMED BY HAND ONLY.
5. REFER TO THE EROSION AND SEDIMENT CONTROL PLANS FOR LIMITS OF TREE PROTECTION FENCING.



MATCH LINE - SEE SHEET - 04
MATCH LINE - SEE SHEET - 03

N/F
J.P.M. REALTY NOMINEE TRUST
BOOK 31262 PAGE 146
ASSESSORS MAP 11 PARCEL 5
2-10 MARKET SQUARE

MARKET SQUARE

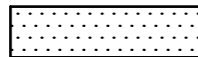


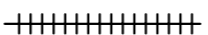







SHEET #3

SHEET #4

MATCH LINE - SEE SHEET - 04
 MATCH LINE - SEE SHEET - 03

5/18/22 9:09:45 PM G:\08314.00\3.0_Working\3.9_CAD\1_SheetFiles\C3-00 SEDIMENT CONTROL PLAN - KEYPLAN.dwg

EROSION CONTROL LEGEND

	STABILIZED CONSTRUCTION ENTRANCE			LIMIT OF WORK	
				STRAW WATTLE	
				TREE PROTECTION FENCING	
				INLET PROTECTION	
				PROPOSED DRAINAGE STRUCTURES	
				PROPOSED DRAINAGE LINE	

NOTES

1. REFER TO C3-00 FOR SEDIMENT & EROSION CONTROL NOTES
2. EROSION CONTROL PLANS REPRESENTS MEASURES FOR ALL FUTURE STAGES OF CONSTRUCTION. CONTRACTOR SHALL IMPLEMENT EROSION CONTROL MEASURES AS NEEDED FOR PER EACH CONSTRUCTION STAGE.
3. LIMITS OF TREE PROTECTION FENCING TO EXTEND TO CRITICAL ROOT ZONE. CRITICAL ROOT ZONE IS AN APPROXIMATION. FINAL TREE PROTECTION FENCE LOCATIONS ARE TO BE DETERMINED IN THE FIELD PRIOR TO CONSTRUCTION ACTIVITY AS DIRECTED BY THE ENGINEER AND MAY DIFFER FROM CONSTRUCTION DOCUMENTS.

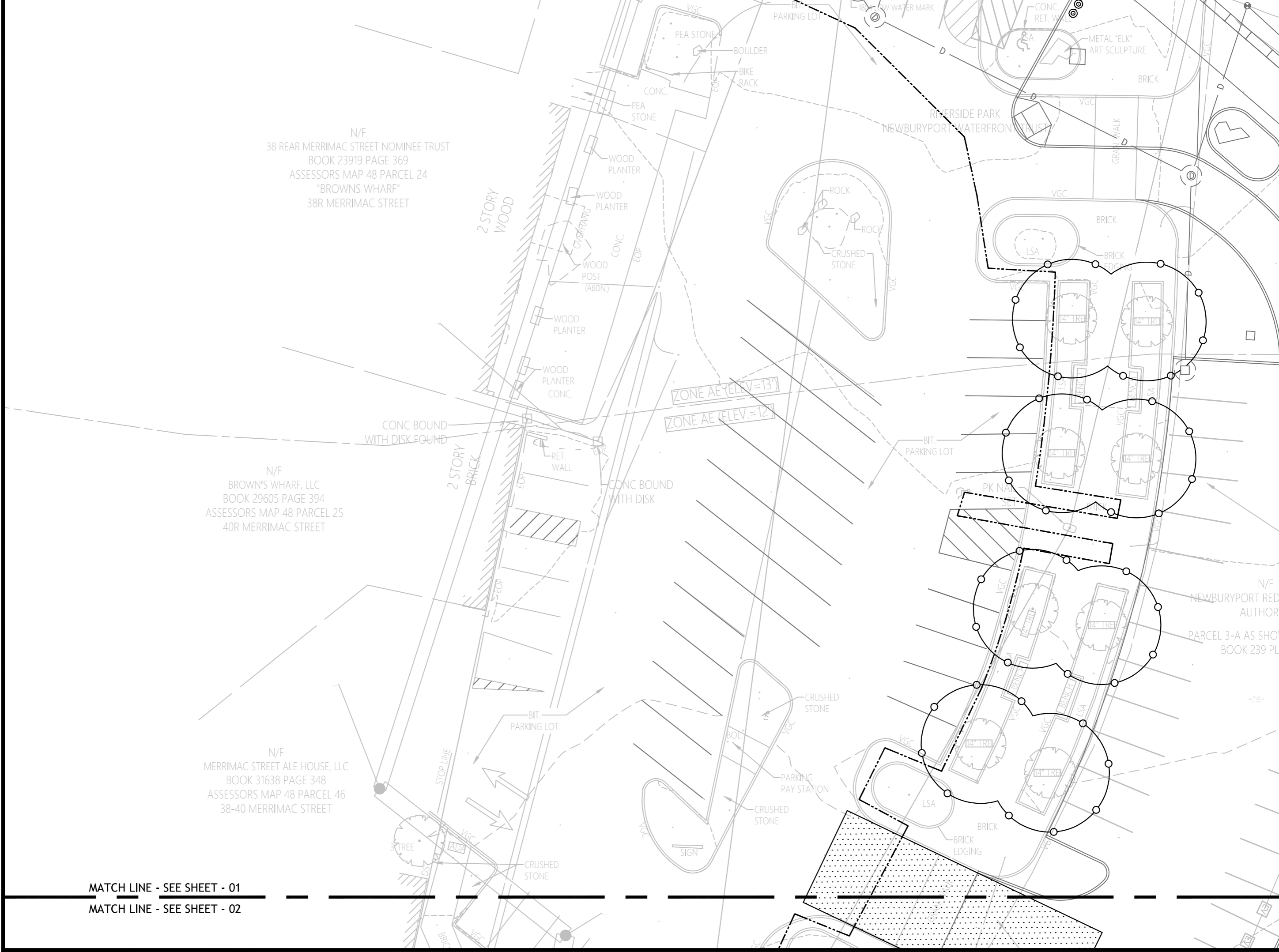
N/F
38 REAR MERRIMAC STREET NOMINEE TRUST
BOOK 23919 PAGE 369
ASSESSORS MAP 48 PARCEL 24
"BROWNS WHARF"
38R MERRIMAC STREET

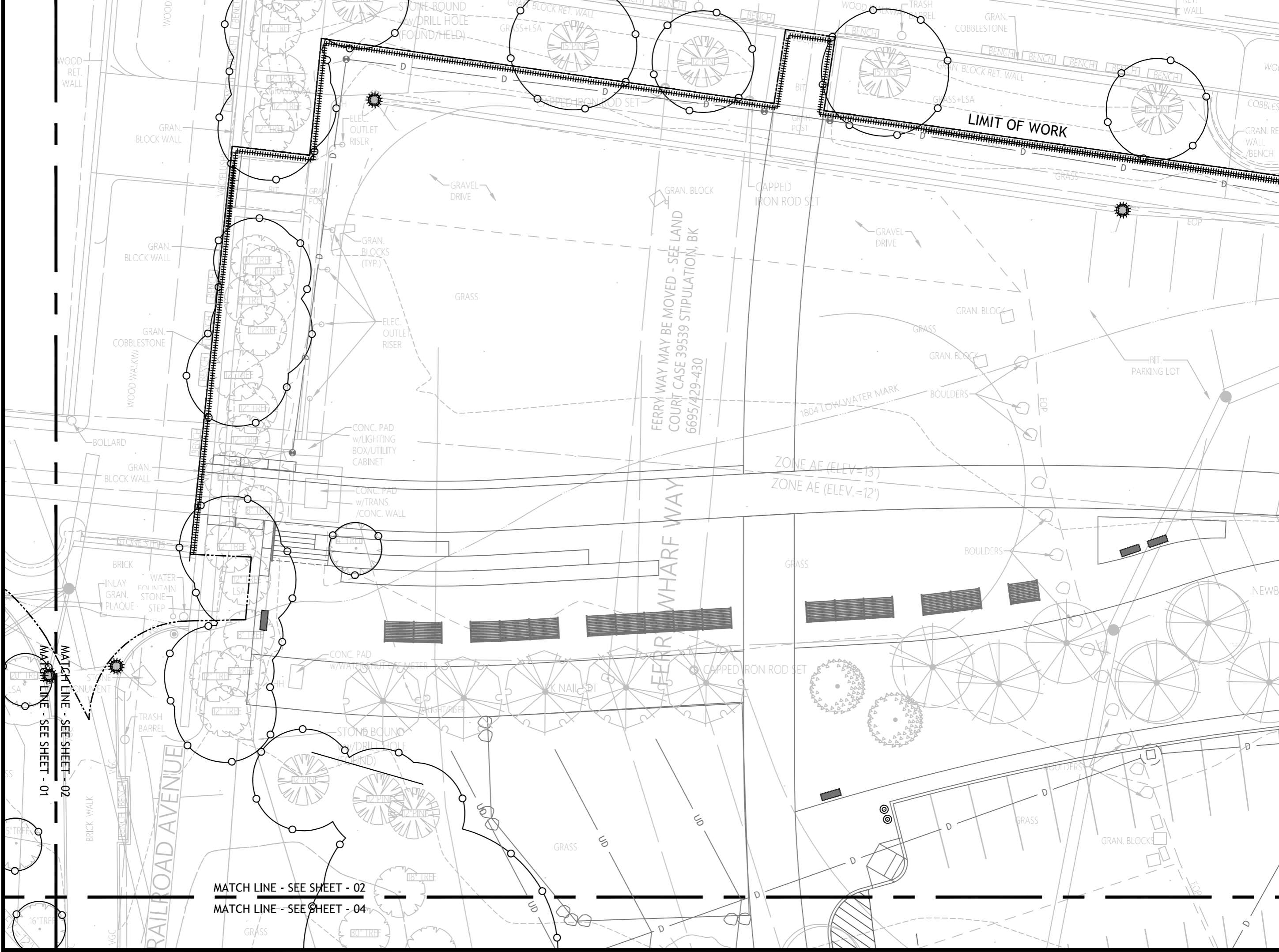
N/F
BROWN'S WHARF, LLC
BOOK 29605 PAGE 394
ASSESSORS MAP 48 PARCEL 25
40R MERRIMAC STREET

N/F
MERRIMAC STREET ALE HOUSE, LLC
BOOK 31638 PAGE 348
ASSESSORS MAP 48 PARCEL 46
38-40 MERRIMAC STREET

MATCH LINE - SEE SHEET - 01

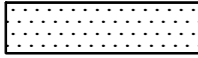

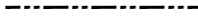
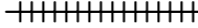







MATCH LINE - SEE SHEET - 02





MATCH LINE - SEE SHEET - 02
MATCH LINE - SEE SHEET - 04

EROSION CONTROL LEGEND

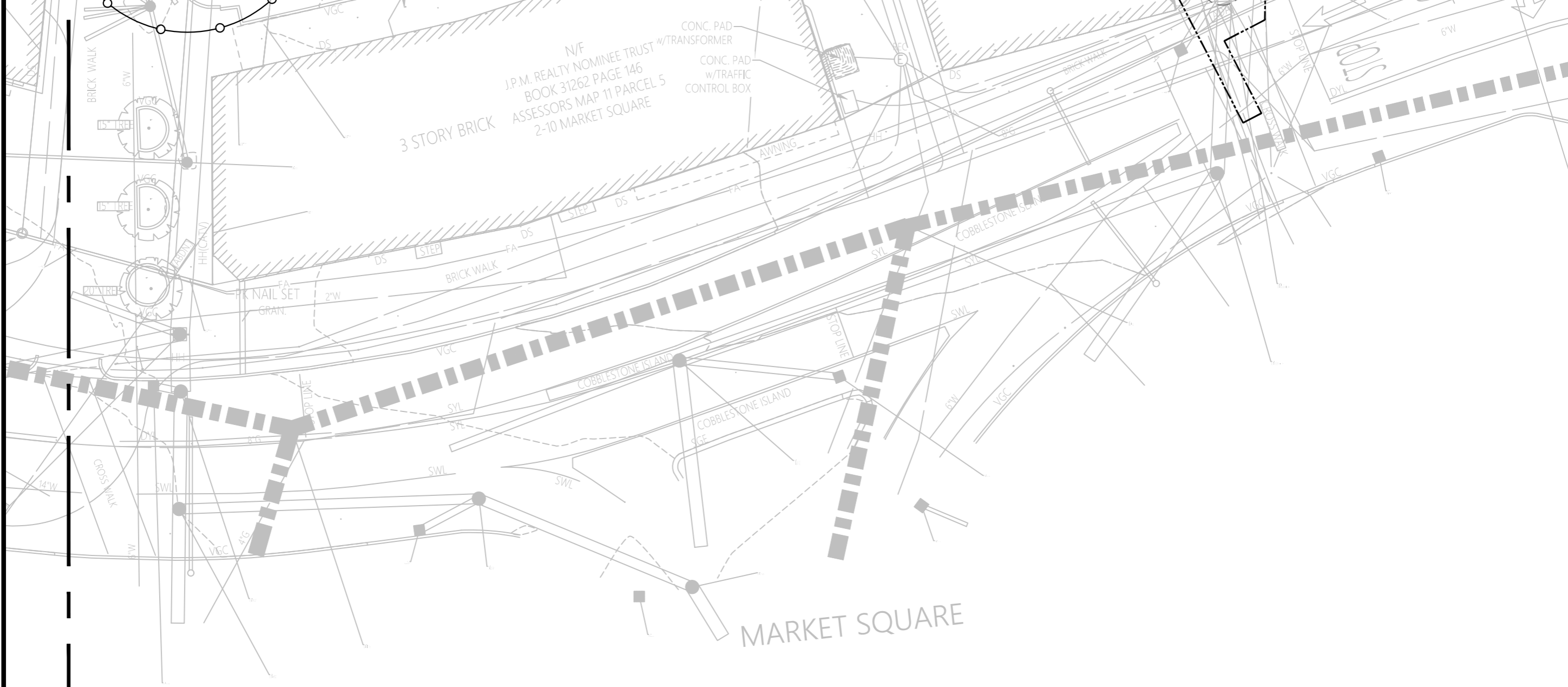
	STABILIZED CONSTRUCTION ENTRANCE			LIMIT OF WORK	
				STRAW WATTLE	
				TREE PROTECTION FENCING	
				INLET PROTECTION	
				PROPOSED DRAINAGE STRUCTURES	
				PROPOSED DRAINAGE LINE	

NOTES

1. REFER TO C3-00 FOR SEDIMENT & EROSION CONTROL NOTES
2. EROSION CONTROL PLANS REPRESENTS MEASURES FOR ALL FUTURE STAGES OF CONSTRUCTION. CONTRACTOR SHALL IMPLEMENT EROSION CONTROL MEASURES AS NEEDED FOR PER EACH CONSTRUCTION STAGE.
3. LIMITS OF TREE PROTECTION FENCING TO EXTEND TO CRITICAL ROOT ZONE. CRITICAL ROOT ZONE IS AN APPROXIMATION. FINAL TREE PROTECTION FENCE LOCATIONS ARE TO BE DETERMINED IN THE FIELD PRIOR TO CONSTRUCTION ACTIVITY AS DIRECTED BY THE ENGINEER AND MAY DIFFER FROM CONSTRUCTION DOCUMENTS.

5/18/22 9:06:39 PM G:\08314.00\3.0_Working\3.9_CAD\1_SheetFiles\C3-00 SEDIMENT CONTROL PLAN - KEYPLAN.dwg

MATCH LINE - SEE SHEET - 04
MATCH LINE - SEE SHEET - 03



N/F
J.P.M. REALTY NOMINEE TRUST
BOOK 31262 PAGE 146
ASSESSORS MAP 11 PARCEL 5
2-10 MARKET SQUARE

MARKET SQUARE

3 STORY BRICK

COBBLESTONE ISLAND

COBBLESTONE ISLAND

COBBLESTONE ISLAND

BRICK WALK

BRICK WALK

BRICK WALK

15" REF

20" REF

CROSS WALK

PK NAIL SET GRAN.

CONC. PAD W/TRANSFORMER

CONC. PAD W/TRAFFIC CONTROL BOX

AWNING

STOP LINE

STOP LINE

DYL

VGC

VGC

SYL

SWL

SWL

SWL

6"W

VGC

6"W

2"W

DS

DS

DS

DS

6"W

VGC

VGC

6"W

DYL

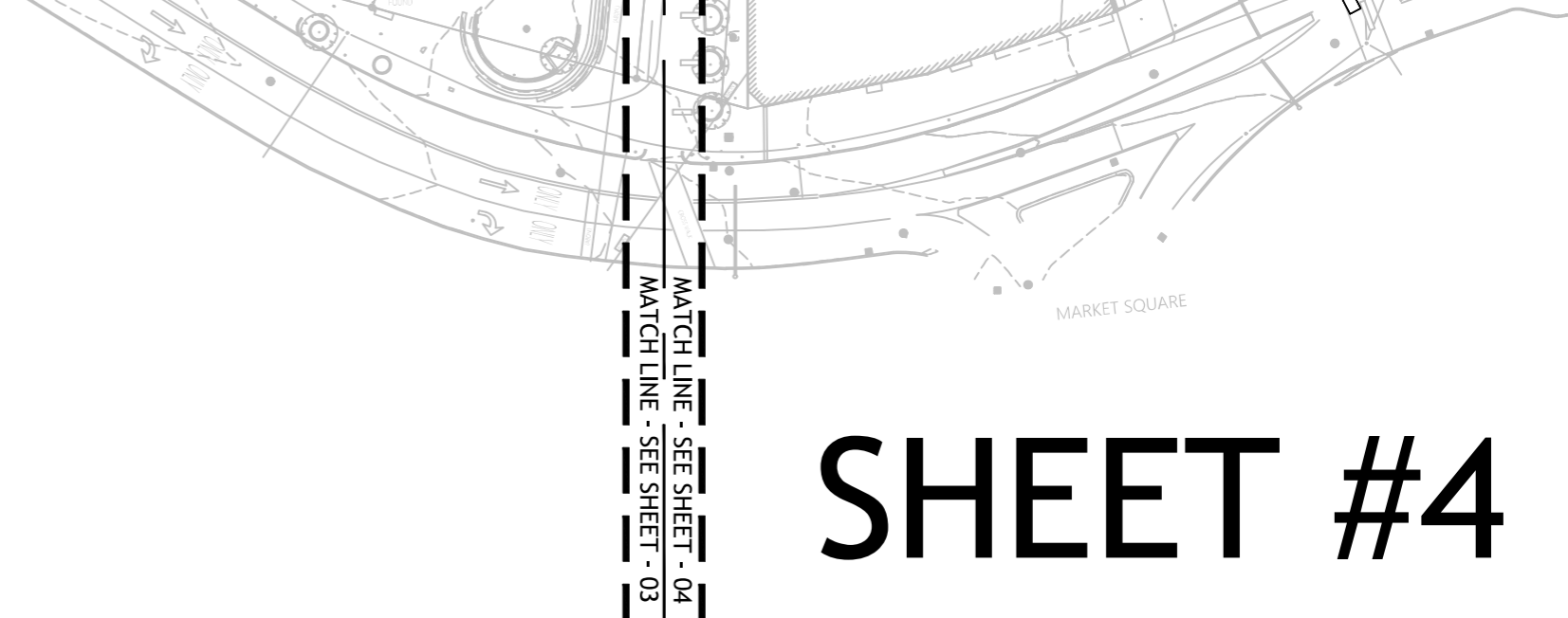
6"W

STOP LINE

MARKET SQUARE

SHEET #3

SHEET #4

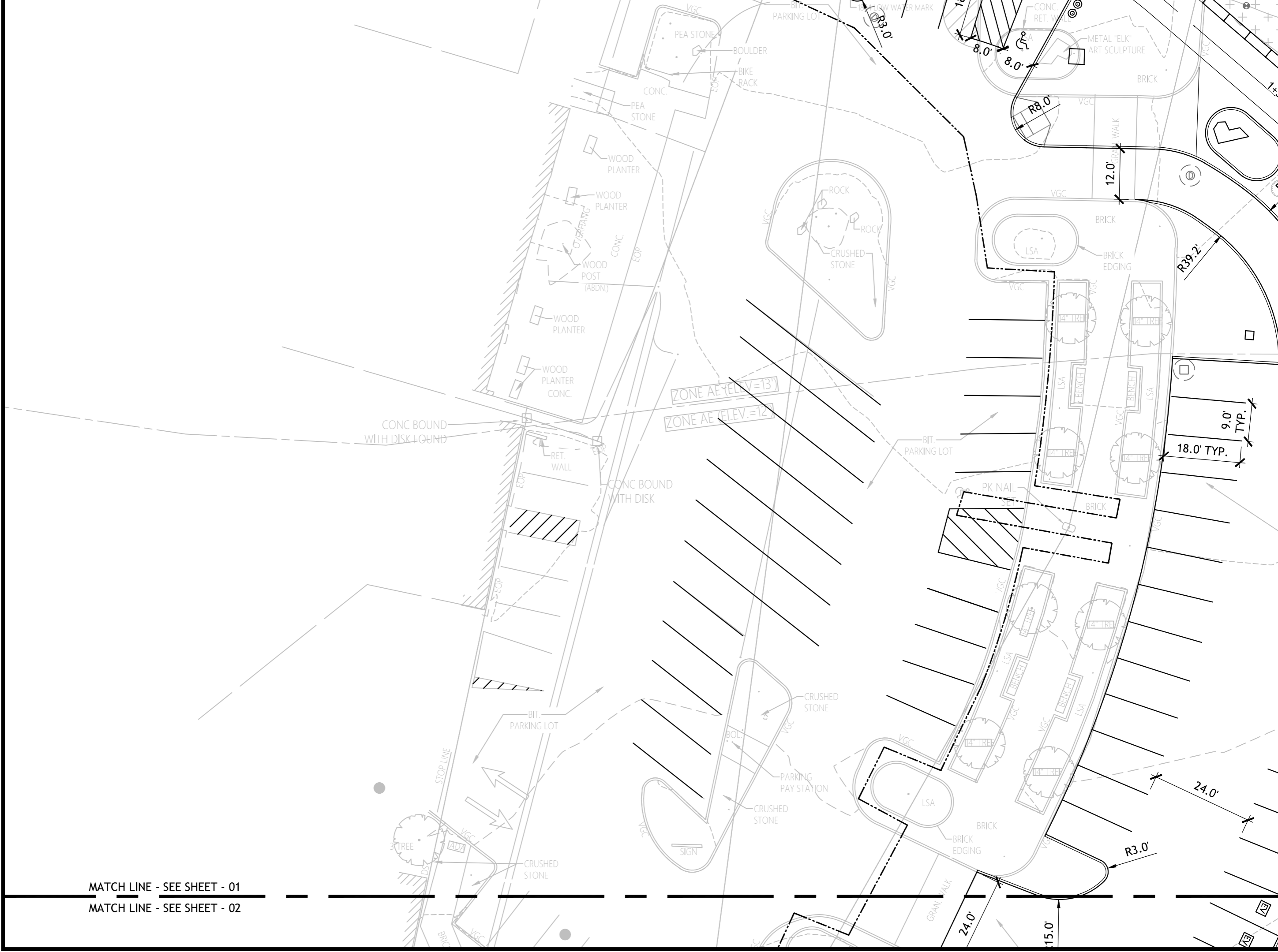


LEGEND

----- LIMIT OF WORK

NOTES

1. ALL WORK SHOWN OUTSIDE THE PROPERTY LINE IS FOR REFERENCE ONLY, AND IS NOT A PART OF THE MARKET LANDING IMPROVEMENTS PROJECT.
2. SEE SHEET C-4.00 FOR LAYOUT NOTES



MATCH LINE - SEE SHEET - 01

MATCH LINE - SEE SHEET - 02

5/18/22 9:06:12 PM G:\08314.00\3.0_Working\3.9_CAD1_SheetFiles\C4-00_LAYOUT PLAN - KEYPLAN.dwg



MATCH LINE - SEE SHEET - 01
MATCH LINE - SEE SHEET - 02

MATCH LINE - SEE SHEET - 02
MATCH LINE - SEE SHEET - 04

FERRY WHARF WAY

FERRY WAY MAY BE REMOVED - SEE LAND COURT CASE#39539 STIPULATION #BK 6695/429-430

LIMIT OF WORK

50

5+00

5+50

6+00

6+50

7+00

44.8'

7+50

ZONE AE (ELEV. = 13)
ZONE AE (ELEV. = 12)

19.0'

12.0'

9.0' TYP.

R5.0

R10.0

R8.0

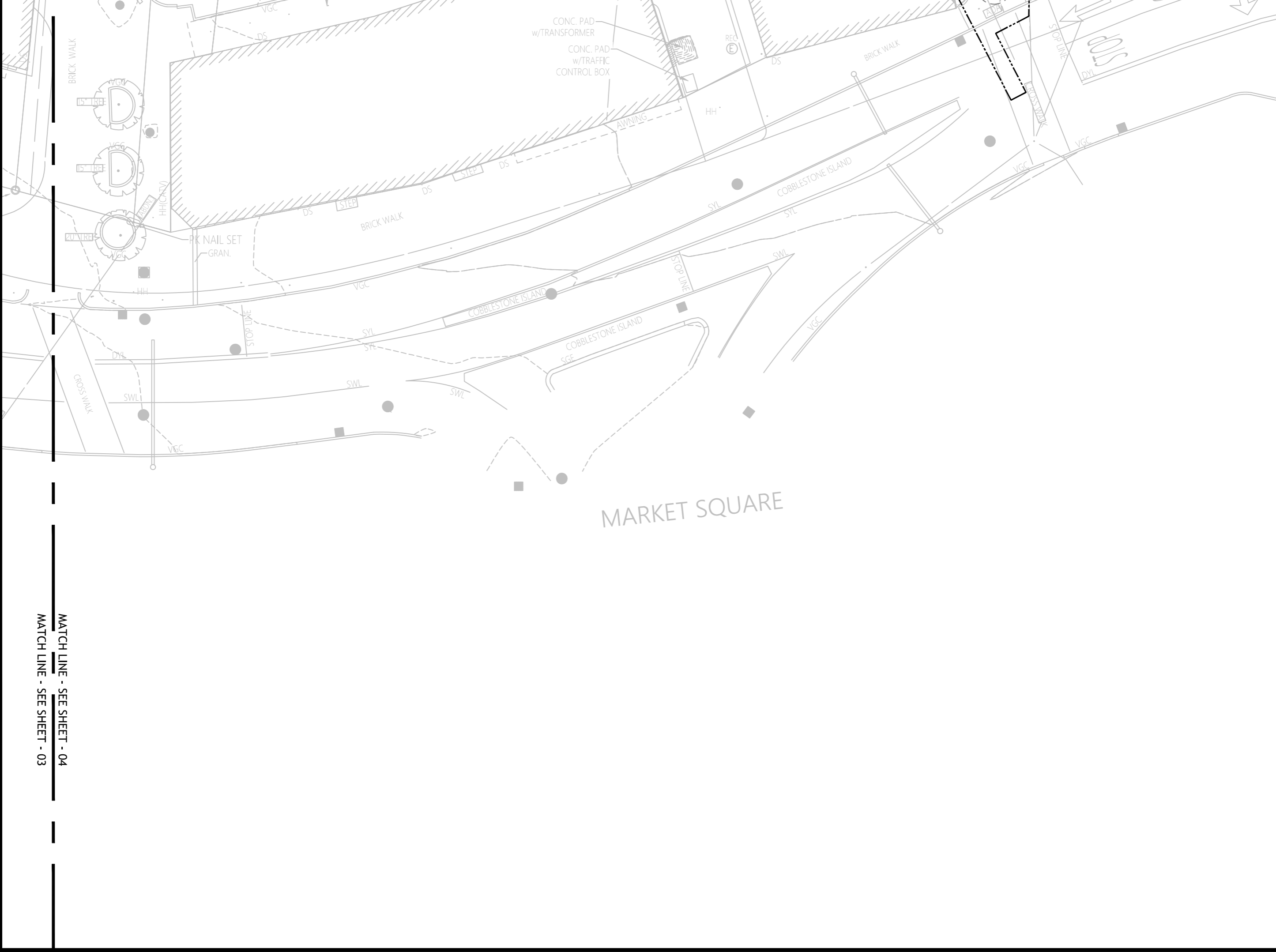
LEGEND

----- LIMIT OF WORK

NOTES

1. ALL WORK SHOWN OUTSIDE THE PROPERTY LINE IS FOR REFERENCE ONLY, AND IS NOT A PART OF THE MARKET LANDING IMPROVEMENTS PROJECT.
2. SEE SHEET C-4.00 FOR LAYOUT NOTES

MATCH LINE - SEE SHEET - 04
MATCH LINE - SEE SHEET - 03



SHEET #3

SHEET #4

MATCH LINE - SEE SHEET - 04
 MATCH LINE - SEE SHEET - 03

LEGEND

LIMIT OF WORK

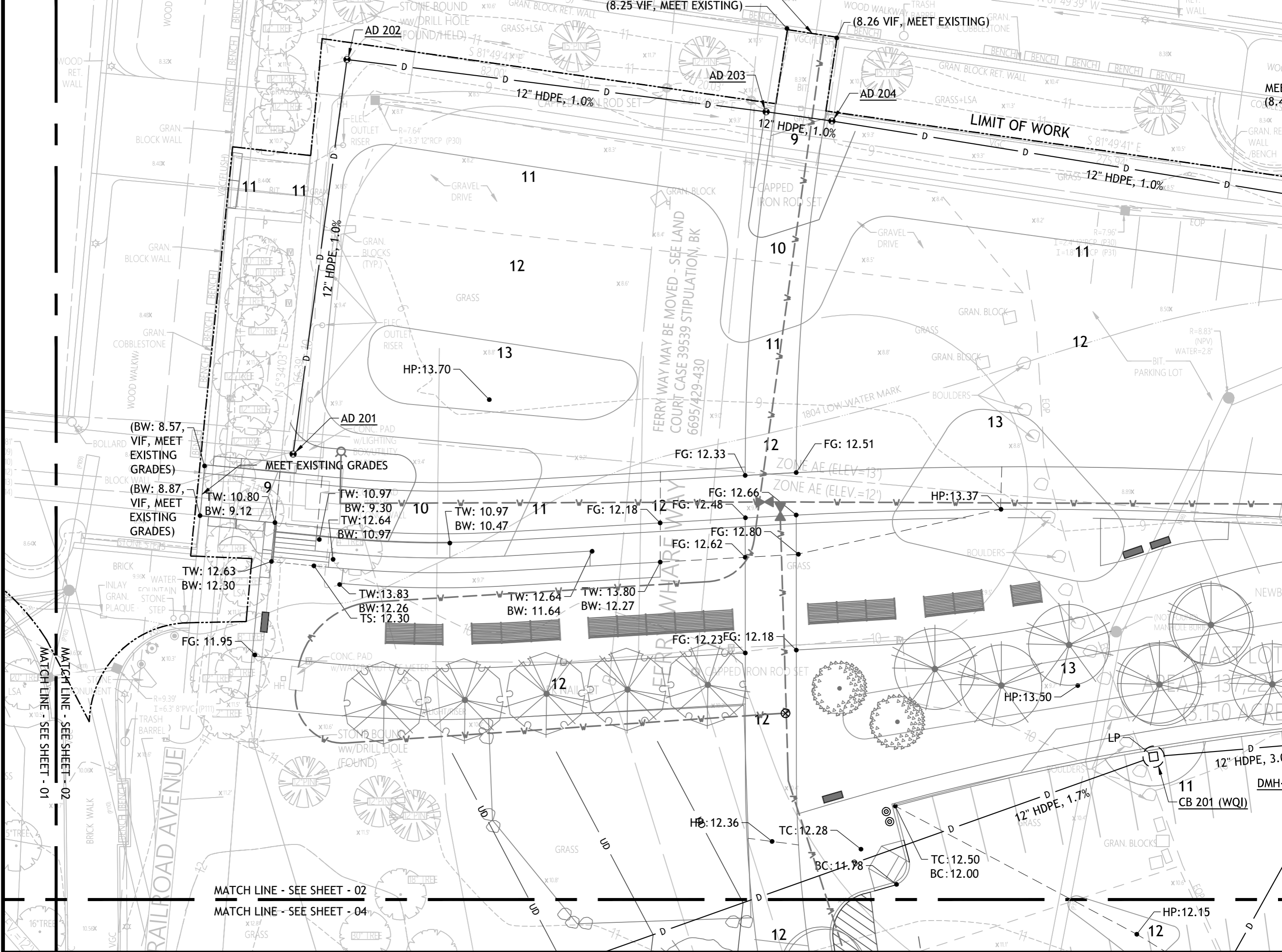
SYMBOLS	DESCRIPTION	DETAIL
	WQS WATER QUALITY STRUCTURE	C7-04
	CB CATCHBASIN	 C7-03
	AD AREA DRAIN IN PAVMENT	 C7-02
	PD AREA DRAIN IN PLANTED AREA	 C7-02
	DMH DRAINAGE MANHOLE	 C7-03
	CO CLEANOUT	 C7-02
	12" HDPE, 1.2% DRAINAGE LINE	
	UD UNDERDRAIN LINE	 C7-02
	W WATER LINE	

VIF - VERIFY IN FIELD

NOTE:

1. SEE C5-00 FOR DRAINAGE NOTES.

7/14/22 10:18:36 AM G:\08314.00\3.0_Working\3.9_CAD\1_SheetFiles\C5-00 DRAINAGE PLAN - KEYPLAN.dwg



MATCH LINE - SEE SHEET - 01

MATCH LINE - SEE SHEET - 02

MATCH LINE - SEE SHEET - 02












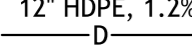



MATCH LINE - SEE SHEET - 04

DMH-11 CB 201 (WQI)

HP:12.15

LEGEND

LIMIT OF WORK

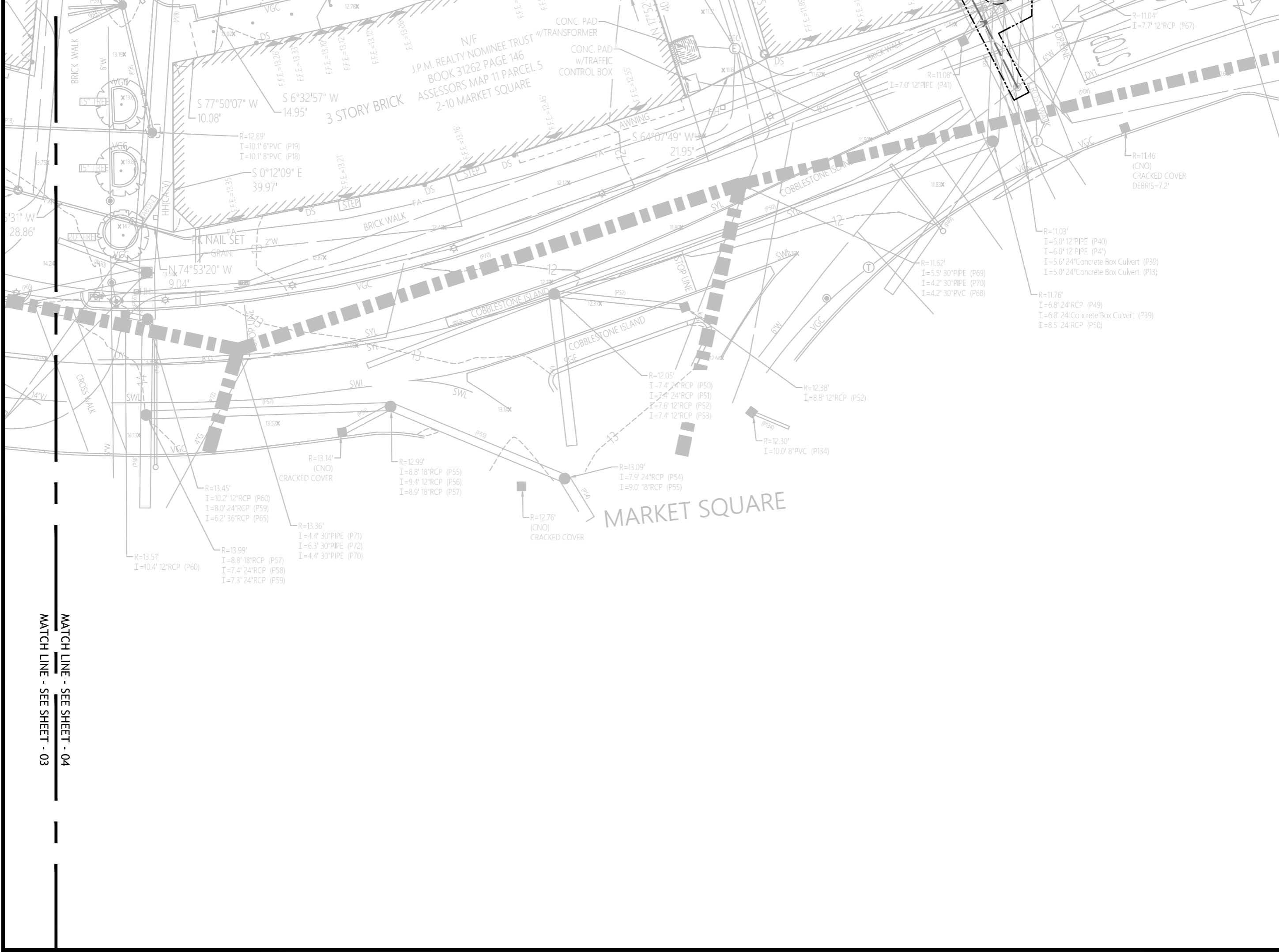
SYMBOLS	DESCRIPTION	DETAIL
	WQS WATER QUALITY STRUCTURE	C7-04
	CB CATCHBASIN	
	AD AREA DRAIN IN PAVMENT	
	PD AREA DRAIN IN PLANTED AREA	
	DMH DRAINAGE MANHOLE	
	CO CLEANOUT	
	12" HDPE, 1.2% DRAINAGE LINE	
	UNDERDRAIN LINE	
	WATER LINE	

VIF VERIFY IN FIELD

NOTE:

- SEE C5-00 FOR DRAINAGE NOTES.

MATCH LINE - SEE SHEET - 04
MATCH LINE - SEE SHEET - 03



J.P.M. REALTY NOMINEE TRUST
BOOK 31262 PAGE 146
ASSESSORS MAP 11 PARCEL 5
2-10 MARKET SQUARE

MARKET SQUARE

COBBLESTONE ISLAND

COBBLESTONE ISLAND

COBBLESTONE ISLAND



SHEET #3

SHEET #4

MATCH LINE - SEE SHEET - 04
MATCH LINE - SEE SHEET - 03

LEGEND

LIMIT OF WORK

SYMBOLS	DESCRIPTION	DETAIL
⊙	CLEANOUT	
✕	GATE VALVE	
⊗	CURB STOP	
	FIRE HYDRANT	
—W—W—	WATER LINE	
—S—S—	SANITARY SEWER LINE	

NOTE:

1. SEE C6-00 FOR UTILITY NOTES.
2. SEE E SERIES DRAWINGS FOR DUCT BANK SIZES AND ELECTRICAL EQUIPMENT INFORMATION.

N/F
38 REAR MERRIMAC STREET NOMINEE TRUST
BOOK 23919 PAGE 369
ASSESSORS MAP 48 PARCEL 24
"BROWNS WHARF"
38R MERRIMAC STREET

2 STORY
WOOD

(ABDN.)

ZONE AE (ELEV.=13')

ZONE AE (ELEV.=12')

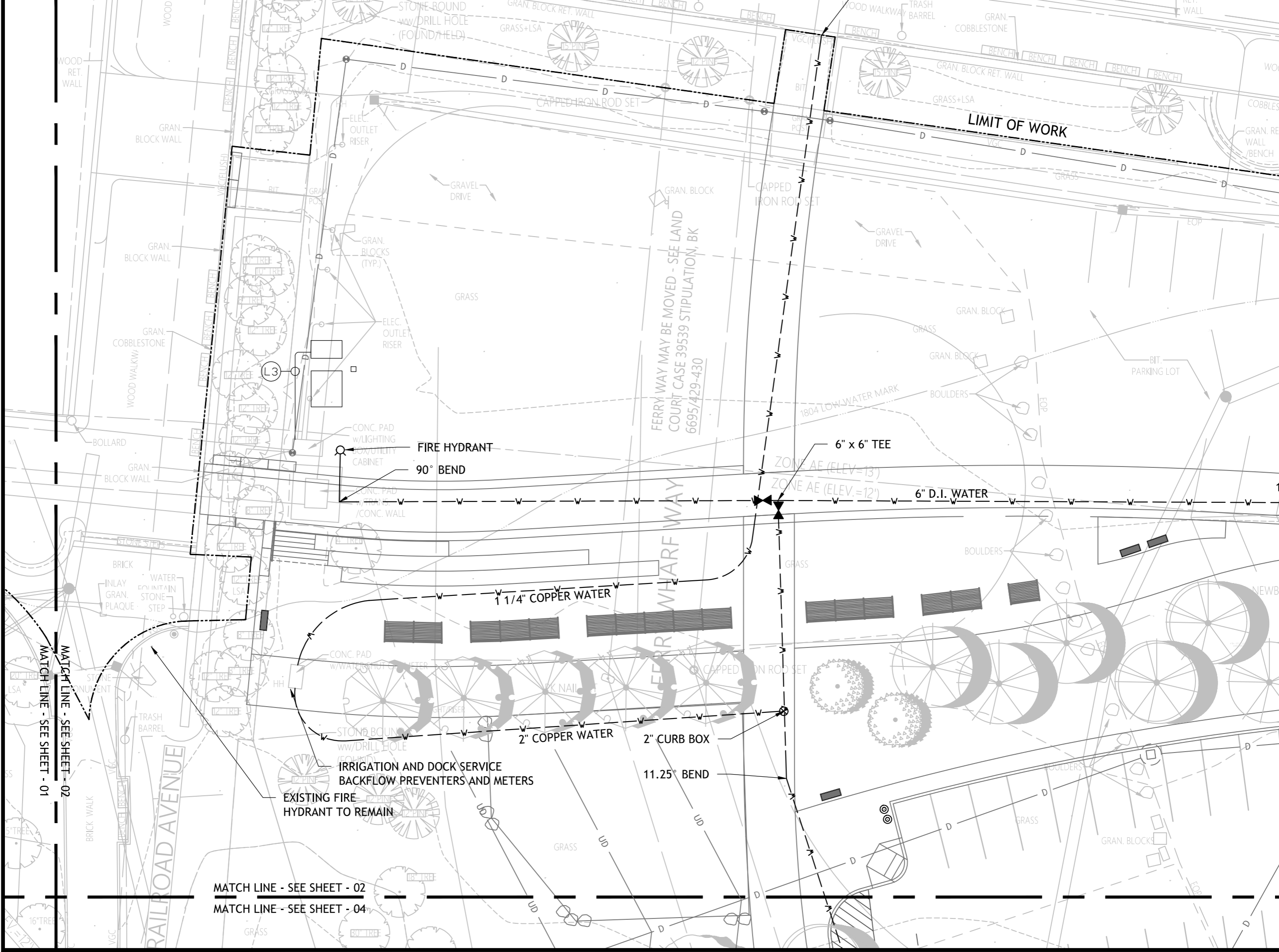
N/F
BROWN'S WHARF, LLC
BOOK 29605 PAGE 394
ASSESSORS MAP 48 PARCEL 25
40R MERRIMAC STREET

2 STORY
BRICK

N/F
MERRIMAC STREET ALE HOUSE, LLC
BOOK 31638 PAGE 348
ASSESSORS MAP 48 PARCEL 46
38-40 MERRIMAC STREET

RIVERSIDE PARK
NEWBURYPORT WATERFRONT TRUST

N/F
NEWBURYPORT RED
AUTHOR
PARCEL 3-A AS SHO
BOOK 239 PL



MATCH LINE - SEE SHEET - 01
MATCH LINE - SEE SHEET - 02

MATCH LINE - SEE SHEET - 02
MATCH LINE - SEE SHEET - 04

LEGEND

LIMIT OF WORK

SYMBOLS	DESCRIPTION	DETAIL
---------	-------------	--------



CLEANOUT



GATE VALVE



CURB STOP



FIRE HYDRANT

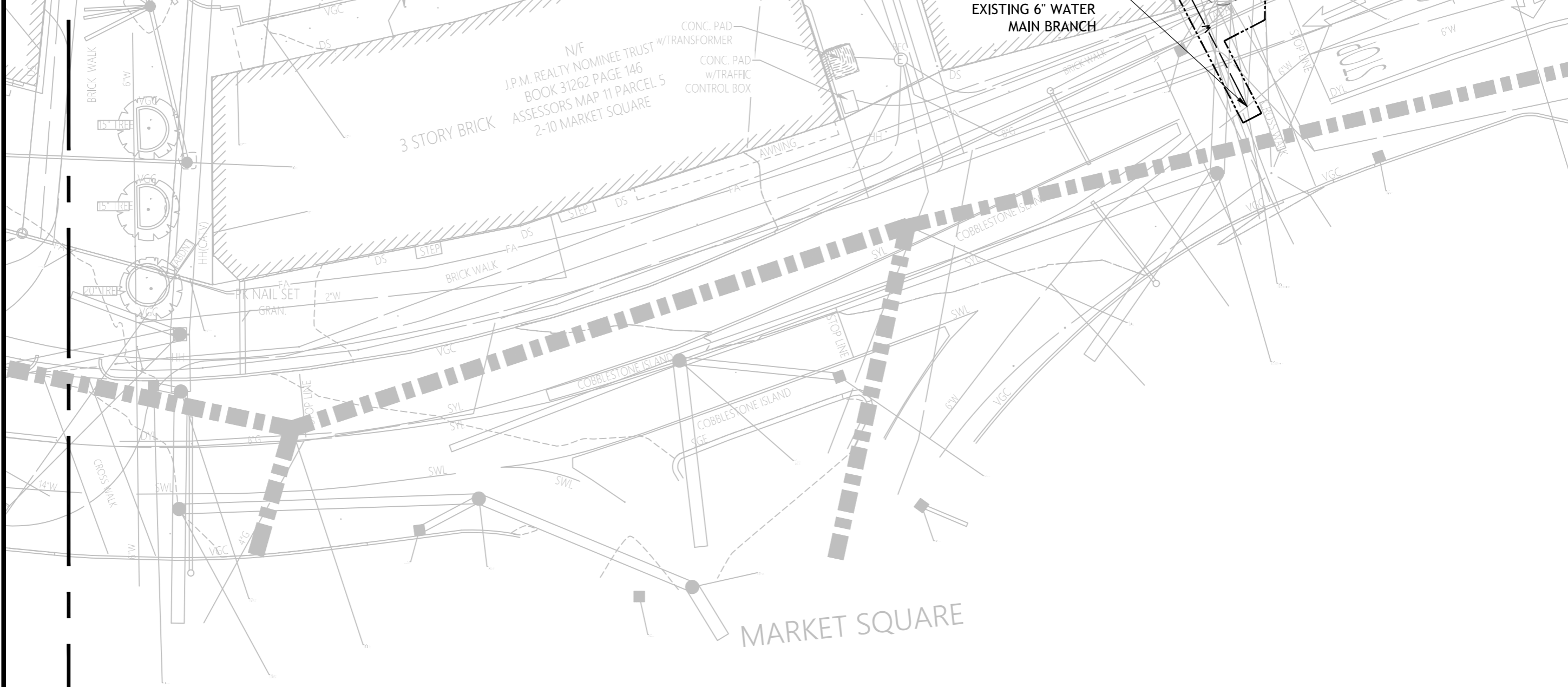


—W—W—	WATER LINE
—S—S—	SANITARY SEWER LINE

NOTE:

1. SEE C6-00 FOR UTILITY NOTES.
2. SEE E SERIES DRAWINGS FOR DUCT BANK SIZES AND ELECTRICAL EQUIPMENT INFORMATION.

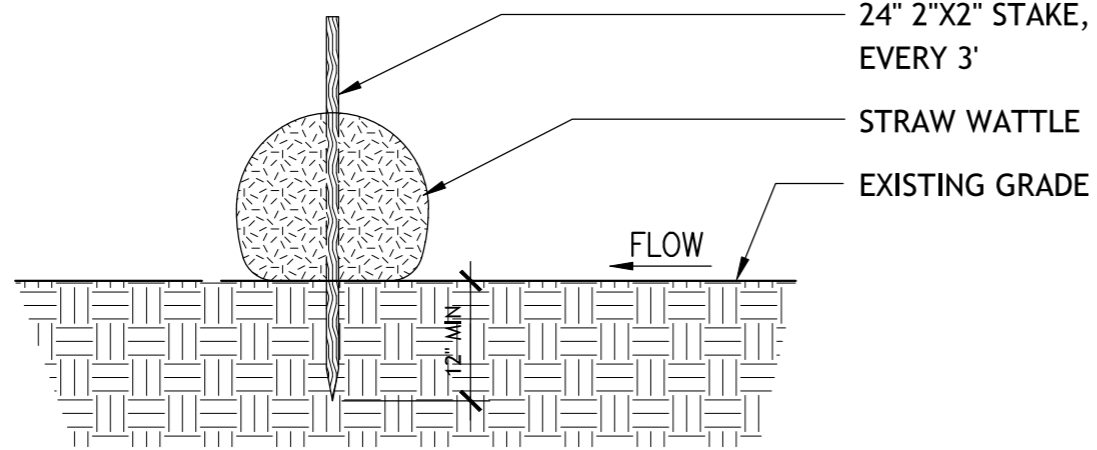
MATCH LINE - SEE SHEET - 04
MATCH LINE - SEE SHEET - 03



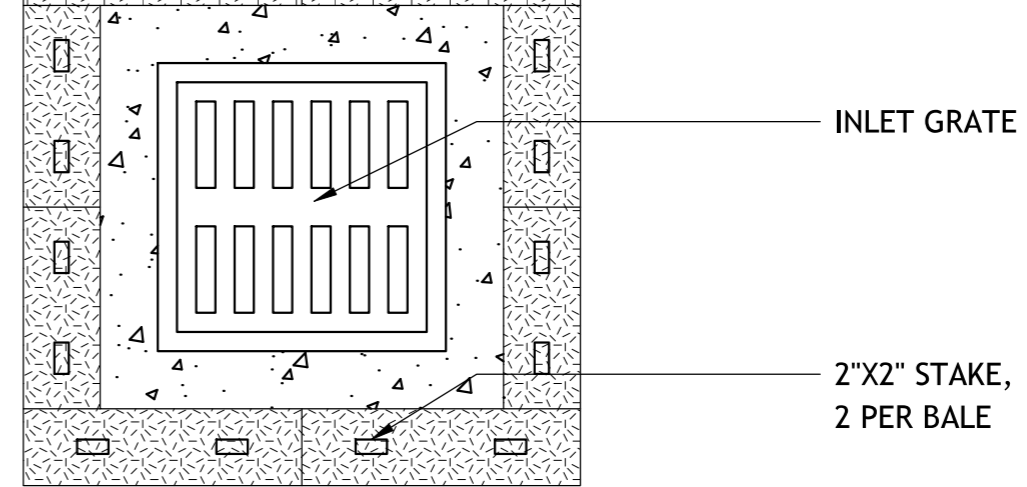
EXISTING 6" WATER
MAIN BRANCH

N/F
J.P.M. REALTY NOMINEE TRUST
BOOK 31262 PAGE 146
ASSESSORS MAP 11 PARCEL 5
2-10 MARKET SQUARE

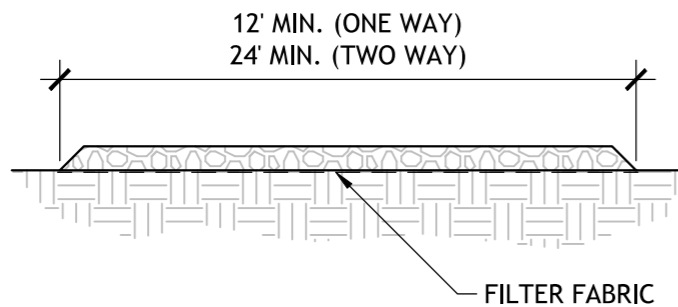
MARKET SQUARE



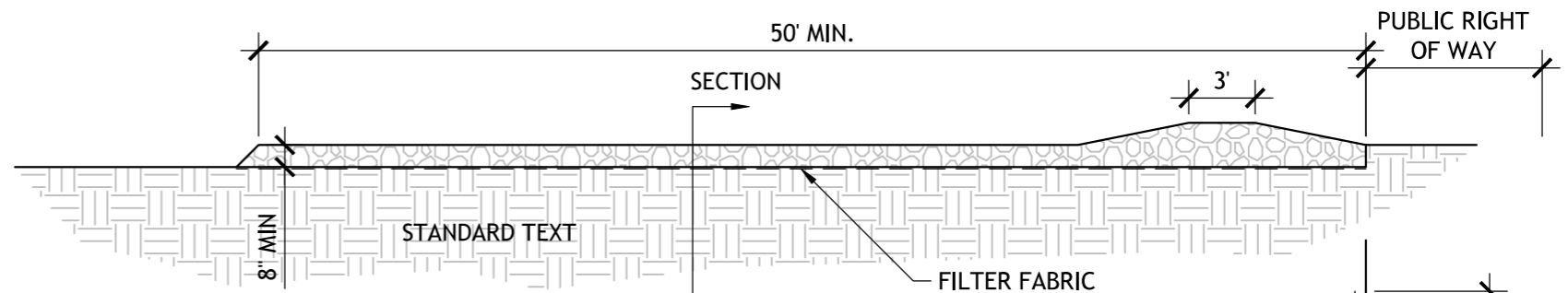
05 STRAW WATTLE
1" = 1'-0"



04 INLET PROTECTION
1" = 1'-0"



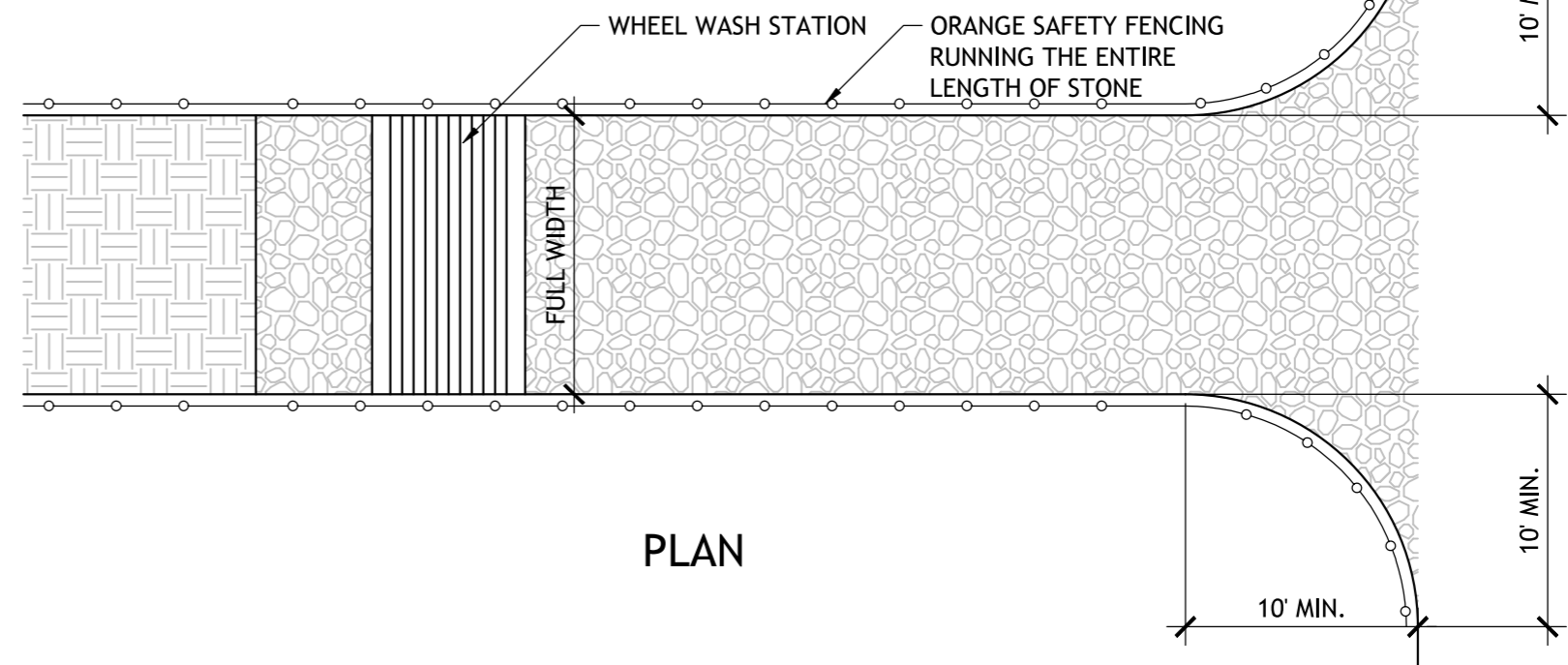
SECTION



SIDE ELEVATION

CONSTRUCTION SPECIFICATIONS

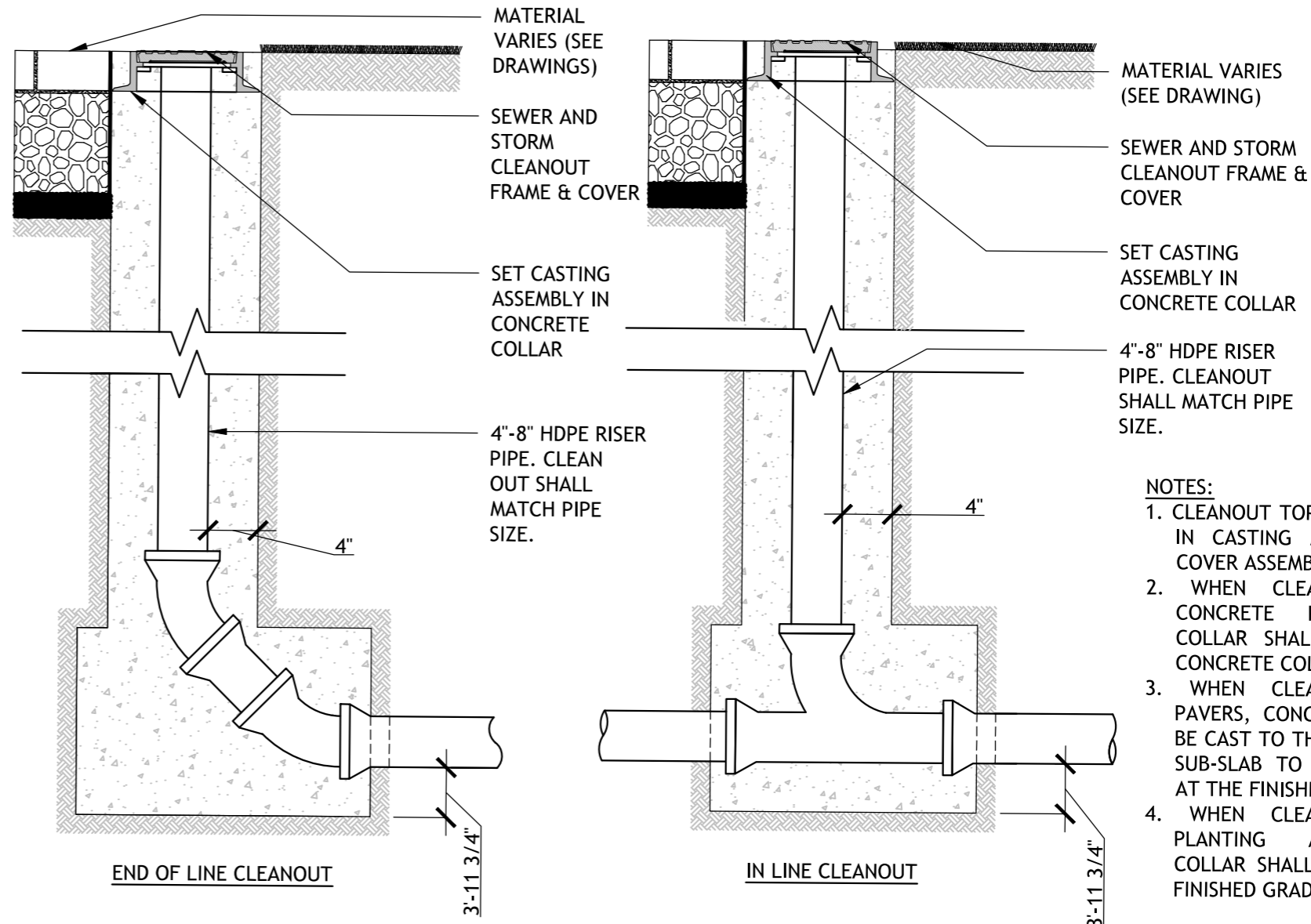
1. STONE SIZE - USE 2" TO 3" STONE
2. LENGTH - GREATER THAN OR EQUAL TO 50 FEET
3. THICKNESS - 8"
4. WIDTH - TWELVE FOOT MINIMUM (ONE WAY), TWENTY FOUR FOOT MINIMUM (TWO WAY), BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS.
5. SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM SHALL BE PERMITTED.
6. MAINTENANCE - THE ENTRANCE 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.
7. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED.



PLAN

03 STABILIZED CONSTRUCTION ENTRANCE
1/8" = 1'-0"

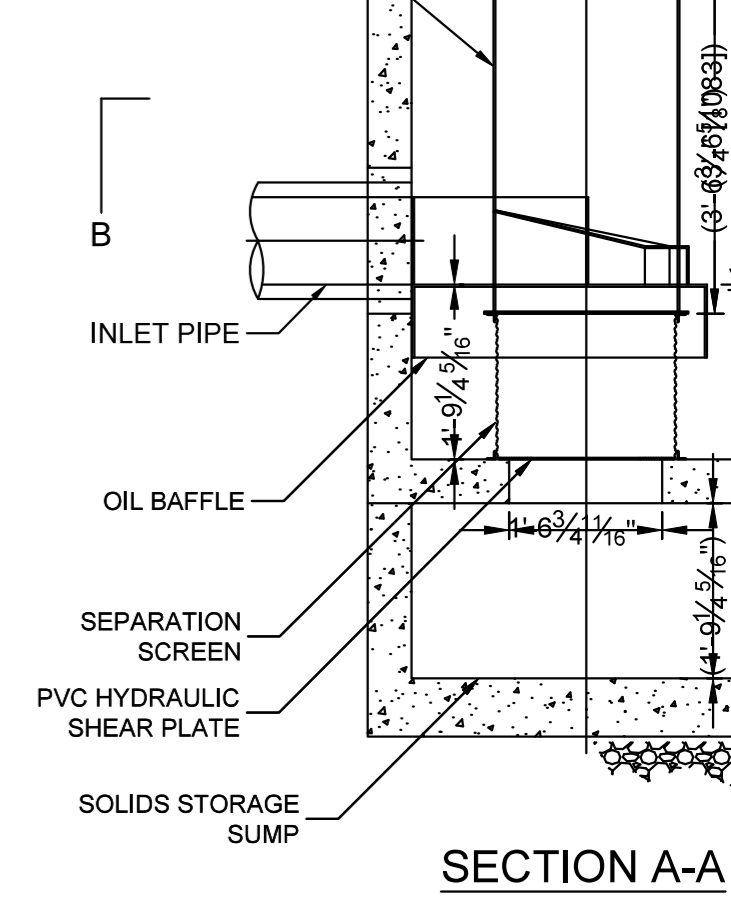
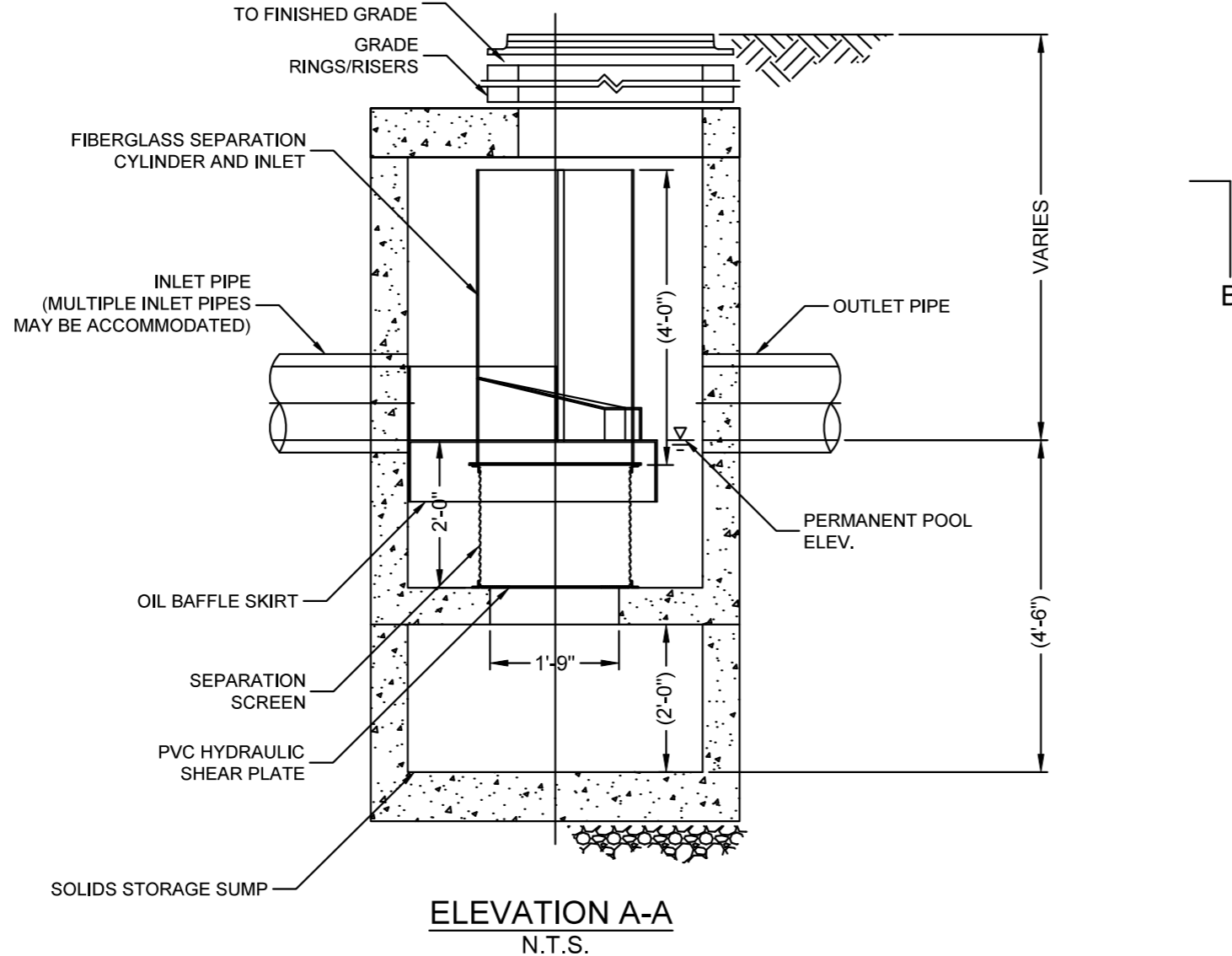
02



- NOTES:**
1. CLEANOUT TOP SHALL BE ENCLOSED IN CASTING AND/OR FABRICATED COVER ASSEMBLY.
 2. WHEN CLEANOUT OCCURS CONCRETE PAVING, CONCRETE COLLAR SHALL MATCH ADJACENT CONCRETE COLOR.
 3. WHEN CLEANOUT OCCURS PAVERS, CONCRETE COLLAR SHALL BE CAST TO THE ELEVATION OF THE SUB-SLAB TO ALLOW FOR PAVING AT THE FINISHED GRADE.
 4. WHEN CLEANOUT OCCURS PLANTING AREAS, CONCRETE COLLAR SHALL BE HELD 4" BELOW FINISHED GRADE.

06 **WYE CLEANOUT**
1"=1'-0"

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GENERAL NOTES

1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
2. FOR SITE SPECIFIC DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHT, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS LLC REPRESENTATIVE. www.ContechES.com
3. CDS WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING. CONTRACTOR TO CONFIRM STRUCTURE MEETS REQUIREMENTS OF PROJECT.
4. STRUCTURE SHALL MEET AASHTO HS20 LOAD RATING, ASSUMING EARTH COVER OF 0' - 2', AND GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION. CASTINGS SHALL MEET AASHTO M306 AND BE CAST WITH THE CONTECH LOGO.
5. IF REQUIRED, PVC HYDRAULIC SHEAR PLATE IS PLACED ON SHELF AT BOTTOM OF SCREEN CYLINDER. REMOVE AND REPLACE AS NECESSARY DURING MAINTENANCE CLEANING.
6. CDS STRUCTURE SHALL BE PRECAST CONCRETE CONFORMING TO ASTM C-478 AND AASHTO LOAD FACTOR DESIGN METHOD.

INSTALLATION NOTES

- A. ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
- B. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE CDS MANHOLE STRUCTURE.
- C. CONTRACTOR TO INSTALL JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS AND ASSEMBLE STRUCTURE.
- D. CONTRACTOR TO PROVIDE, INSTALL, AND GROUT INLET AND OUTLET PIPE(S). MATCH PIPE INVERTS WITH ELEVATIONS SHOWN. ALL PIPE CENTERLINES TO MATCH PIPE OPENING CENTERLINES.
- E. CONTRACTOR TO TAKE APPROPRIATE MEASURES TO ASSURE UNIT IS WATER TIGHT, HOLDING WATER TO FLOWLINE INVERT MINIMUM. IT IS SUGGESTED THAT ALL JOINTS BELOW PIPE INVERTS ARE GROUTED.

GENERAL NOTES

1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
2. DIMENSIONS MARKED WITH () ARE REFERENCE DIMENSIONS. ACTUAL CONSTRUCTION PRODUCTS REPRESENTATIVE. www.contech-cpi.com
3. FOR SITE SPECIFIC DRAWINGS WITH DETAILED DIMENSIONS AND WEIGHT, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS LLC REPRESENTATIVE. www.ContechES.com
4. CDS WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING.
5. STRUCTURE SHALL MEET AASHTO HS20 AND CASTINGS SHALL MEET AASHTO M306 AND BE CAST WITH THE CONTECH LOGO.
6. PVC HYDRAULIC SHEAR PLATE IS PLACED ON SHELF AT BOTTOM OF SCREEN CYLINDER. REMOVE AND REPLACE AS NECESSARY DURING MAINTENANCE CLEANING.

INSTALLATION NOTES

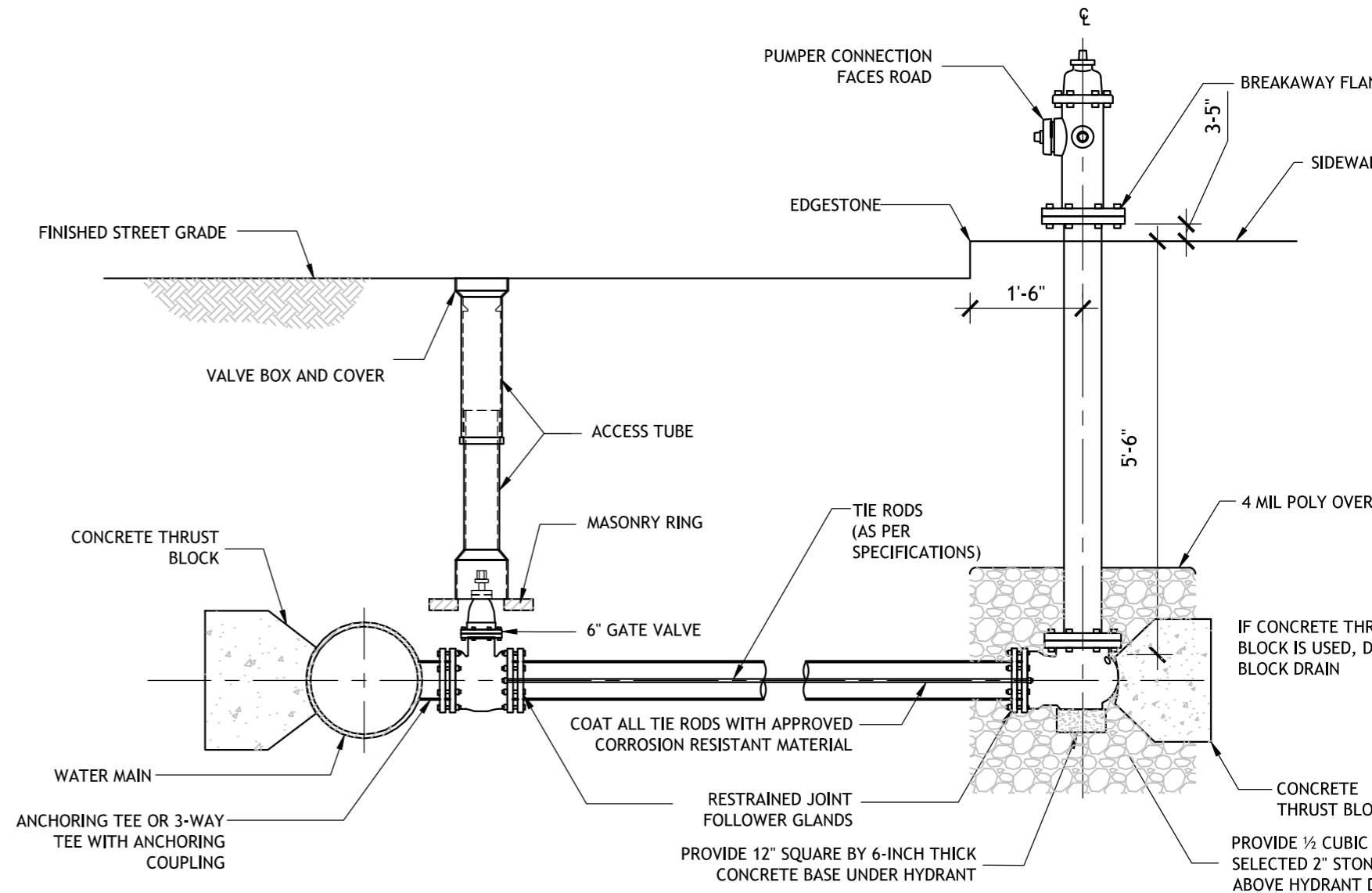
1. ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
2. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE CDS MANHOLE STRUCTURE.
3. CONTRACTOR TO ADD JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS AND ASSEMBLE STRUCTURE.
4. CONTRACTOR TO PROVIDE, INSTALL, AND GROUT INLET AND OUTLET PIPE(S). MATCH PIPE INVERTS WITH ELEVATIONS SHOWN. ALL PIPE CENTERLINES TO MATCH PIPE OPENING CENTERLINES.
5. CONTRACTOR TO TAKE APPROPRIATE MEASURES TO ASSURE UNIT IS WATER TIGHT, HOLDING WATER TO FLOWLINE INVERT MINIMUM. IT IS SUGGESTED THAT ALL JOINTS BELOW PIPE INVERTS ARE GROUTED.

STRUCTURE WEIGHT

APPROXIMATE HEAVIEST PICK = ### LBS.

NOTES:

1. ANY DEVIATIONS OF THIS TYPICAL CONNECTION TO MEET FIELD CONDITIONS SHALL BE APPROVED BY THE ENGINEER.
2. USE RESTRAINED JOINT FOLLOWER GLANDS, WHERE CONCRETE THRUST BLOCK IS UNACCEPTABLE TO THE ENGINEER.
3. CONCRETE THRUST BLOCK TO BE USED ONLY WHERE IT WILL BEAR ON UNDISTURBED EARTH AND WHERE APPROVED BY THE ENGINEER.
4. SIZE OF BLOCK OR FITTING TO BE DESIGNED FOR SPECIFIC CONDITIONS, OR ANY NECESSARY BENDS.
5. HYDRANT SHALL BE A WATEROUS PACER WB-67.



PIPE SIZE	NUMBER OF RODS PER FITTING	DIAMETER OF RODS
4" - 12"	2	3/4"
16"	4	3/4"
20" - 24"	4	1 1/2"
36"	6	1 1/2"

carrying a maximum pressure of 200 p.s.i.
Soil classified as a well graded compact coarse sand and gravel.

All exposed metal shall be painted or coated. Concrete shall be 3,000 p.s.i. at 28 days. Reinforcing steel shall be A.S.T.M. #4 includes water hammer allowance.

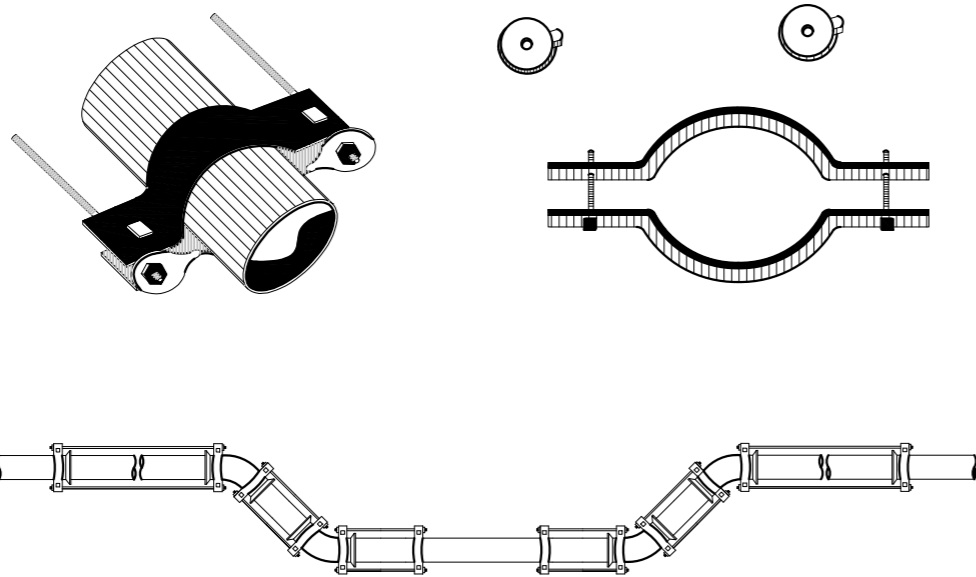
The actual method of restraint must be determined by the designer. The following installations to be used as a guide to the designer. Final approval by the Water and Sewer Commission.

SOLUTION

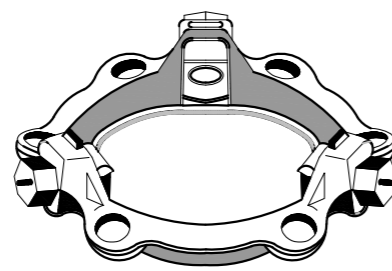
1. Enter Table I at 24-inch pipe diameter - go vertically down column until opposite 67-1/2° angle fitting.
2. See chart immediately below Table I - select soil type curve reflecting actual soil classification. Type B curve.
3. Enter chart at thrust to be resisted and go vertically to soil type curve selected in 2 above - see chart and note for required thrust block bearing area.
4. From this intersection go horizontally following arrow line to intersection with required thrust block bearing area. This area is required to resist thrust.
5. Continue horizontally to "thrust block dimensions" column and select dimensions "b" and "d" immediately below. For this problem, a 7' - 0" square thrust block is required for this problem.
6. Continue horizontally to "reinforcing steel - each way" column, noting columns further classification by "thrust block detail", for type I and type II requirements.)

Two solutions to illustrative problem are acceptable:

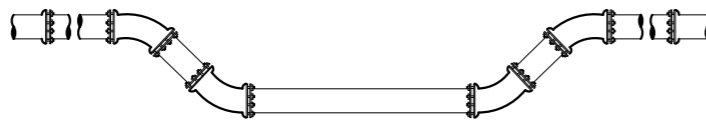
- solution 1 - type I thrust block and soil type B indicate no reinforcement required.
- solution 2 - type II thrust block and soil type B indicate #5 A 12 each way required.



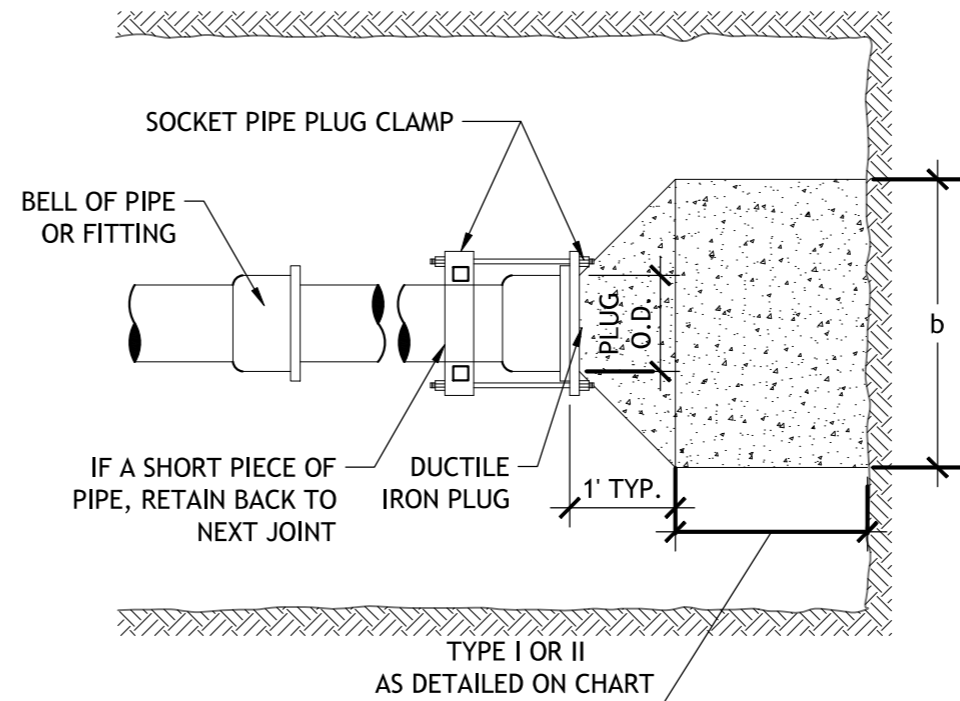
NOTE :
Devices need to be placed beyond the area of restraints in accordance with manufactures recommendations.



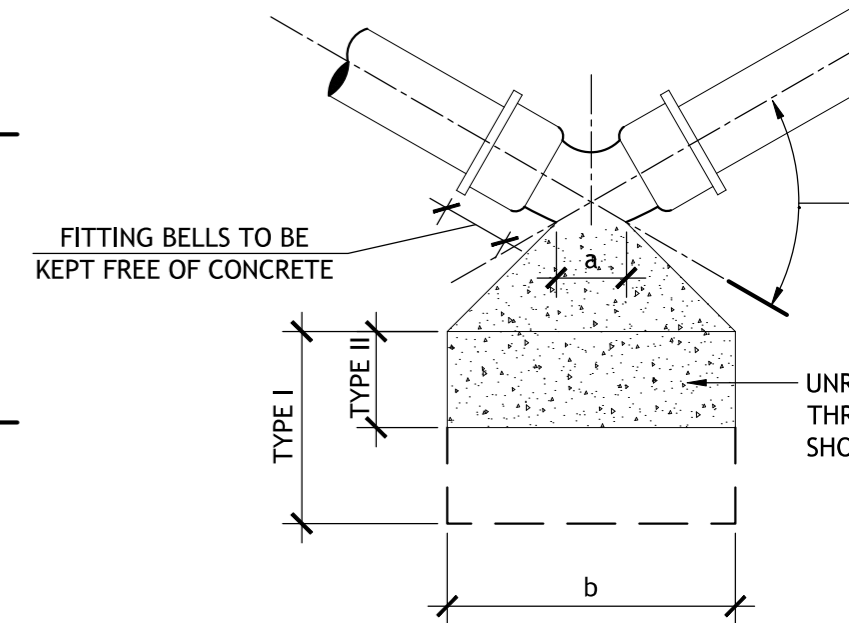
WEDGE ACTION RESTRAINT DEVICE



TYPICAL THRUST RESTRAINT USING WEDGE ACTION RESTRAINT DEVICE



PLAN - DEAD END



PLAN - BEND

SHEET #3

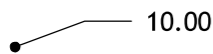




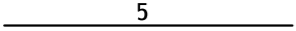
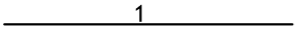

SHEET #4

MATCH LINE - SEE SHEET - 04
MATCH LINE - SEE SHEET - 03

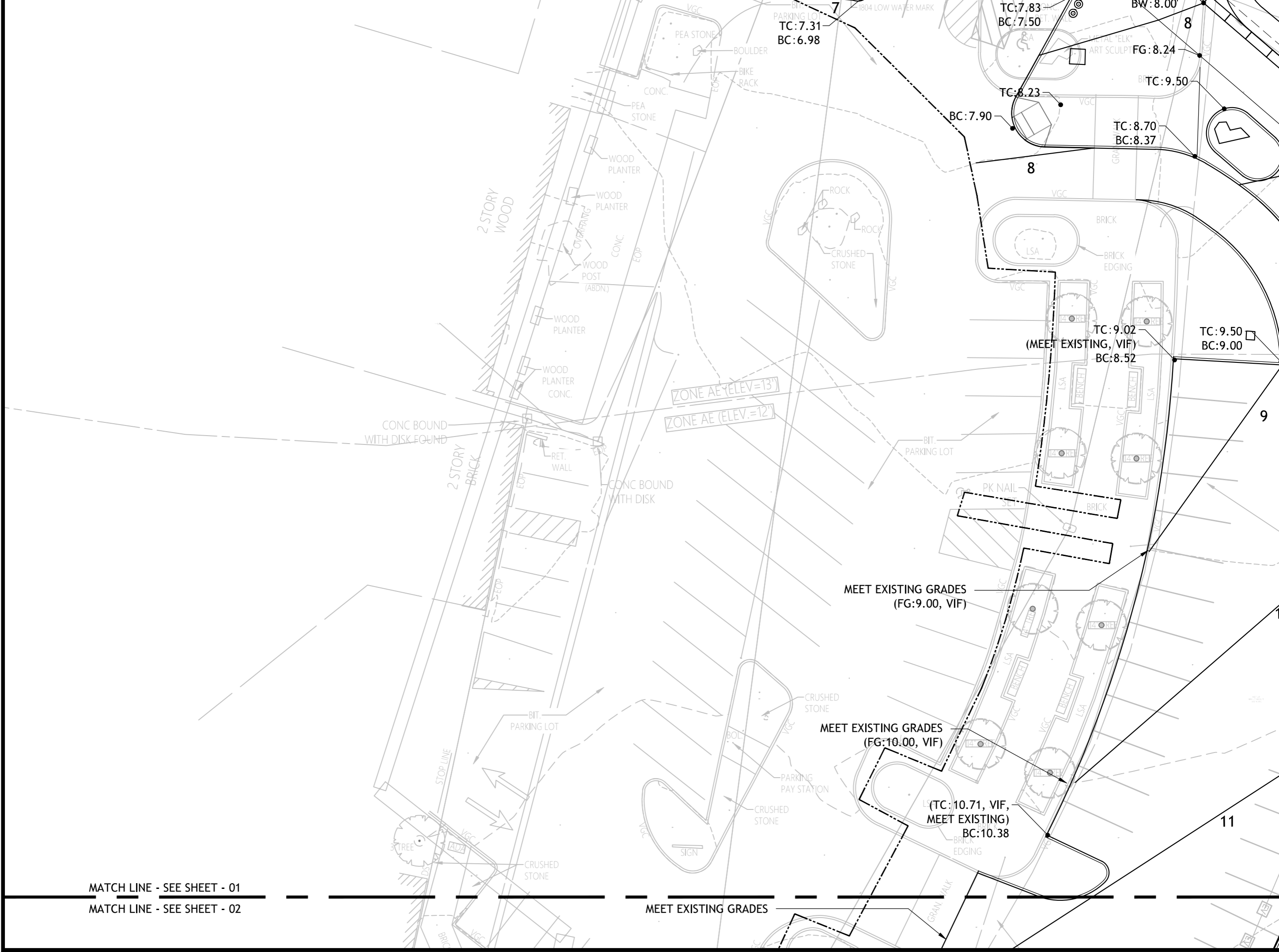
MARKET SQUARE

LEGEND

LIMIT OF WORK

SYMBOLS	DESCRIPTION
TC	TOP OF CURB
BC	BOTTOM OF CURB
TW	TOP OF WALL
BW	BOTTOM OF WALL
TS	TOP OF STAIR
BS	BOTTOM OF STAIR
TR	TOP OF RAMP
BR	BOTTOM OF RAMP
FG	FINISHED GRADE
HP	HIGH POINT
LP	LOW POINT
 10.00	SPOT ELEVATION
 TS BS	TOP AND BOTTOM OF STAIR
 TW BW	TOP AND BOTTOM OF WALL
 TR BR	TOP AND BOTTOM OF RAMP
+HP	HIGHPOINT
+LP	LOWPOINT
	SWALE
 5	CONTOUR MAJOR
 1	CONTOUR MINOR
	EXISTING TREE TO REMAIN CRITICAL ROOT ZONE

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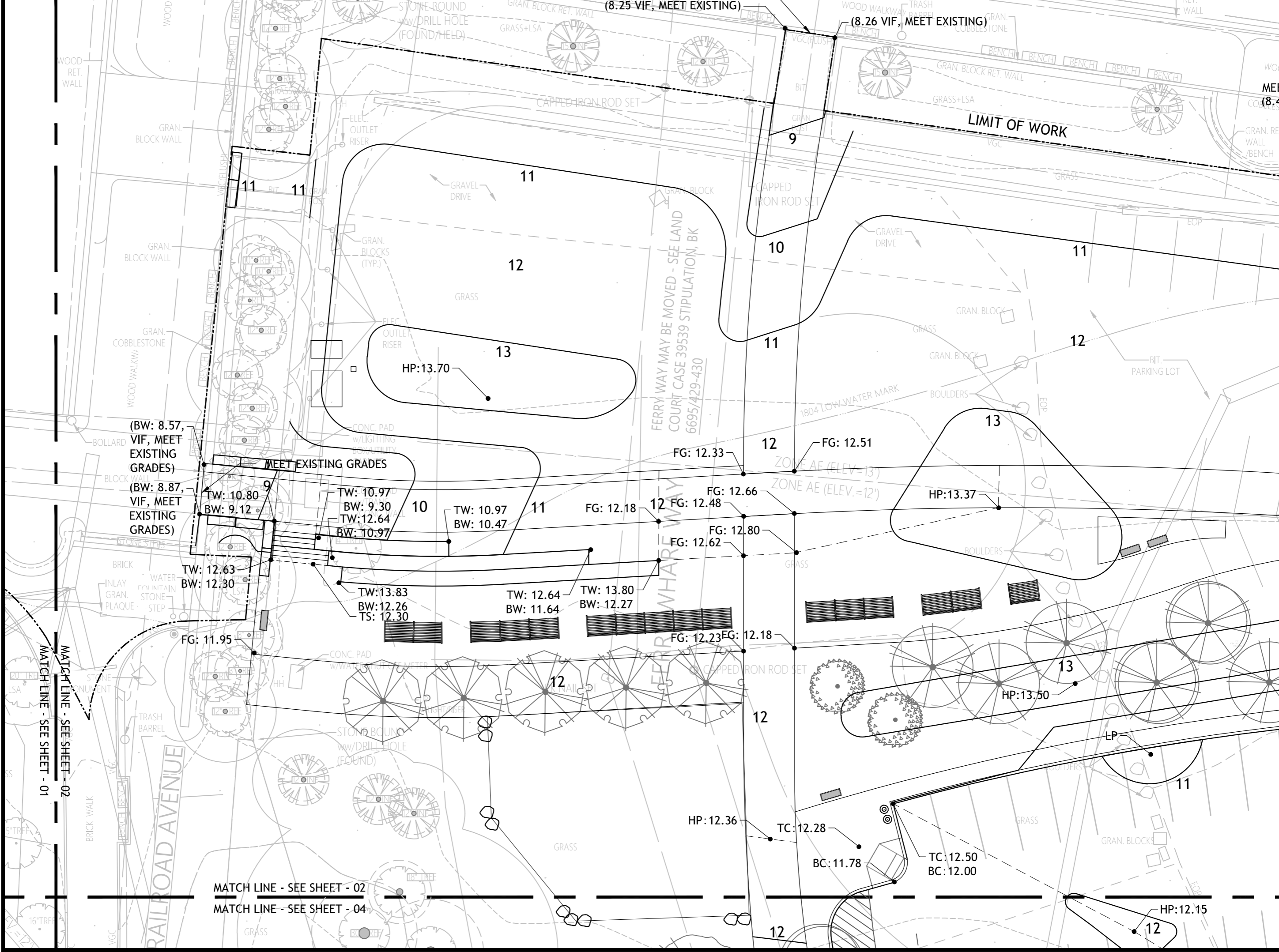
MATCH LINE - SEE SHEET - 01
MATCH LINE - SEE SHEET - 02

MEET EXISTING GRADES

MEET EXISTING GRADES (FG:9.00, VIF)

MEET EXISTING GRADES (FG:10.00, VIF)

(TC:10.71, VIF, MEET EXISTING) BC:10.38



MATCH LINE - SEE SHEET - 01

MATCH LINE - SEE SHEET - 02

MATCH LINE - SEE SHEET - 02

MATCH LINE - SEE SHEET - 04

LIMIT OF WORK

FERRY WAY MAY BE MOVED - SEE LAND COURT CASE 39539 STIPULATION, BK 6695/429-430

ZONE AE (ELEV.=13')

ZONE AE (ELEV.=12')


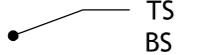

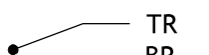
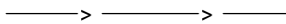
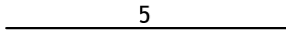
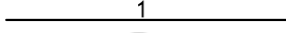

(BW: 8.57, VIF, MEET EXISTING GRADES)

(BW: 8.87, VIF, MEET EXISTING GRADES)

MEET EXISTING GRADES

LEGEND

LIMIT OF WORK

SYMBOLS	DESCRIPTION
TC	TOP OF CURB
BC	BOTTOM OF CURB
TW	TOP OF WALL
BW	BOTTOM OF WALL
TS	TOP OF STAIR
BS	BOTTOM OF STAIR
TR	TOP OF RAMP
BR	BOTTOM OF RAMP
FG	FINISHED GRADE
HP	HIGH POINT
LP	LOW POINT
 10.00	SPOT ELEVATION
 TS BS	TOP AND BOTTOM OF STAIR
 TW BW	TOP AND BOTTOM OF WALL
 TR BR	TOP AND BOTTOM OF RAMP
+HP	HIGHPOINT
+LP	LOWPOINT
	SWALE
 5	CONTOUR MAJOR
 1	CONTOUR MINOR
	EXISTING TREE TO REMAIN CRITICAL ROOT ZONE

SHEET #3








SHEET #4

MATCH LINE - SEE SHEET - 03
 MATCH LINE - SEE SHEET - 04

LEGEND






PAVEMENT ASSEMBLIES (PA TYPES)

SEE
L8.01

-  PA-00 BITUMINOUS CONCRETE PAVEMENT
-  PA-10 CAST-IN-PLACE CONC PAVM'T (VEHICULAR)
-  PA-11 CAST-IN-PLACE CONC PAVM'T (PEDESTRIAN)
-  PA-20 BRICK UNIT PAVEMENT (VEHICULAR)
-  PA-21 BRICK UNIT PAVEMENT (PEDESTRIAN)
-  PA-40 GRANITE UNIT PAVEMENT (VEHICULAR)
-  PA-41 GRANITE UNIT PAVEMENT (PEDESTRIAN)



EDGING CONDITIONS (EG TYPES)

SEE
L8.02

-  EG-00 GRANITE CURB (VEHICULAR)
-  EG-01 GRANITE CURB FLUSH CONDITION
-  EG-02 GRANITE PLANTER EDGING (PEDESTRIAN)
-  EG-03 MOUNTABLE CURB
-  EG-10 CURB CUT

SITE WALL (WS TYPES)









SEE
L8.04

-  WS-03 TIERED GRANITE BLOCK WALL
-  WS-10 RECLAIMED GRANITE BLOCK WALL

SITE FURNISHINGS (FE TYPES)



SEE
L8.08

SEE
L8.09

-  FE-10 BICYCLE RACKS
-  FE-20 WASTE AND RECEPTACLES
-  FE-30 DRINKING FOUNTAIN
-  FE-40 BENCH
-  FE-41 PICNIC TABLE
-  FE-50 PARKING METER
-  FE-60 PARK INTERPRETIVE SIGNAGE
-  LT-00 LIGHT FIXTURE FOOTING

SITE STAIRS AND HANDRAILS (SS / RH TYPES)

SEE
L8.04

-  RH-00 SS HAND RAIL
-  SS-00 SITE STEPS

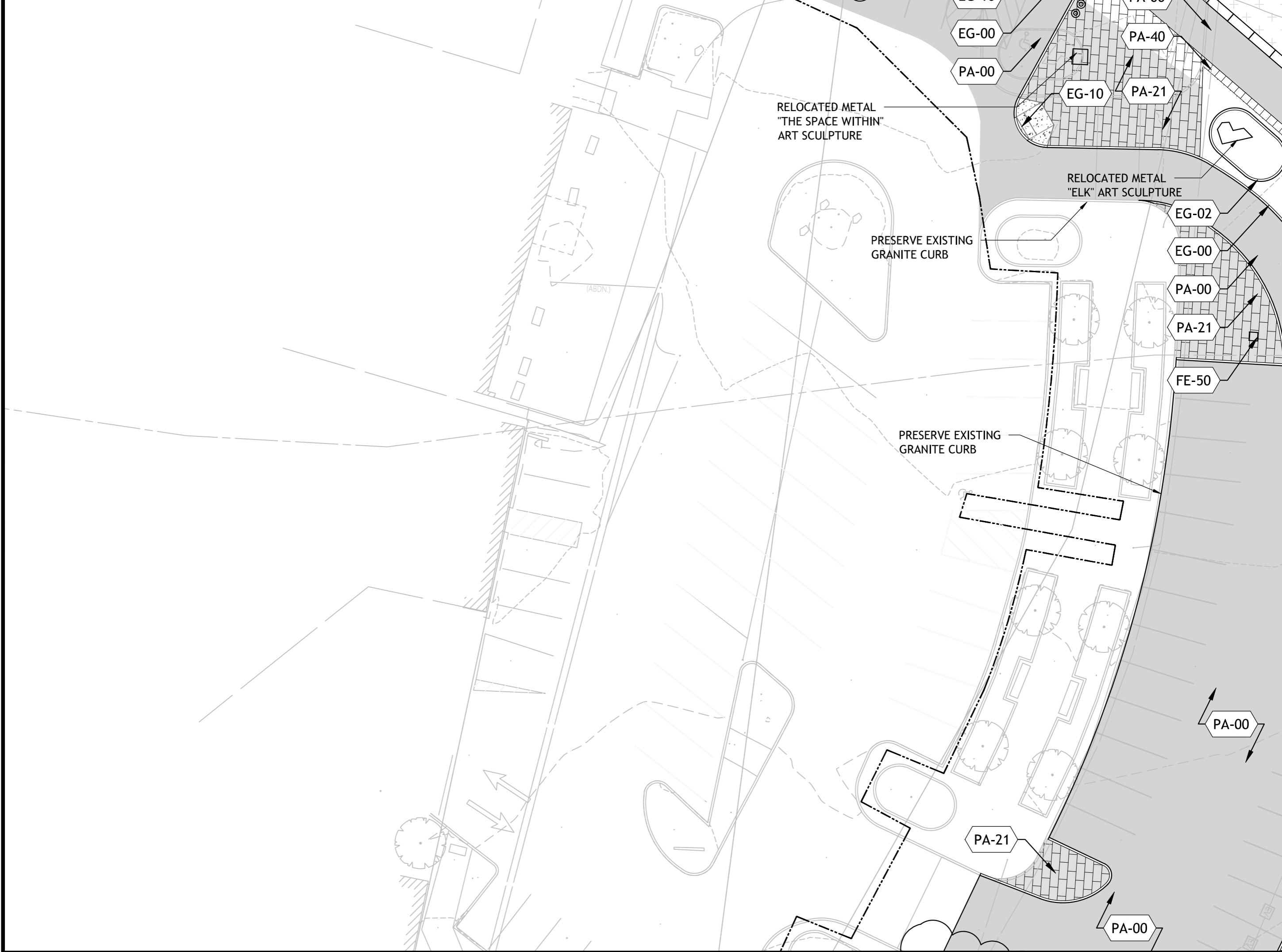
PLANTING AREA

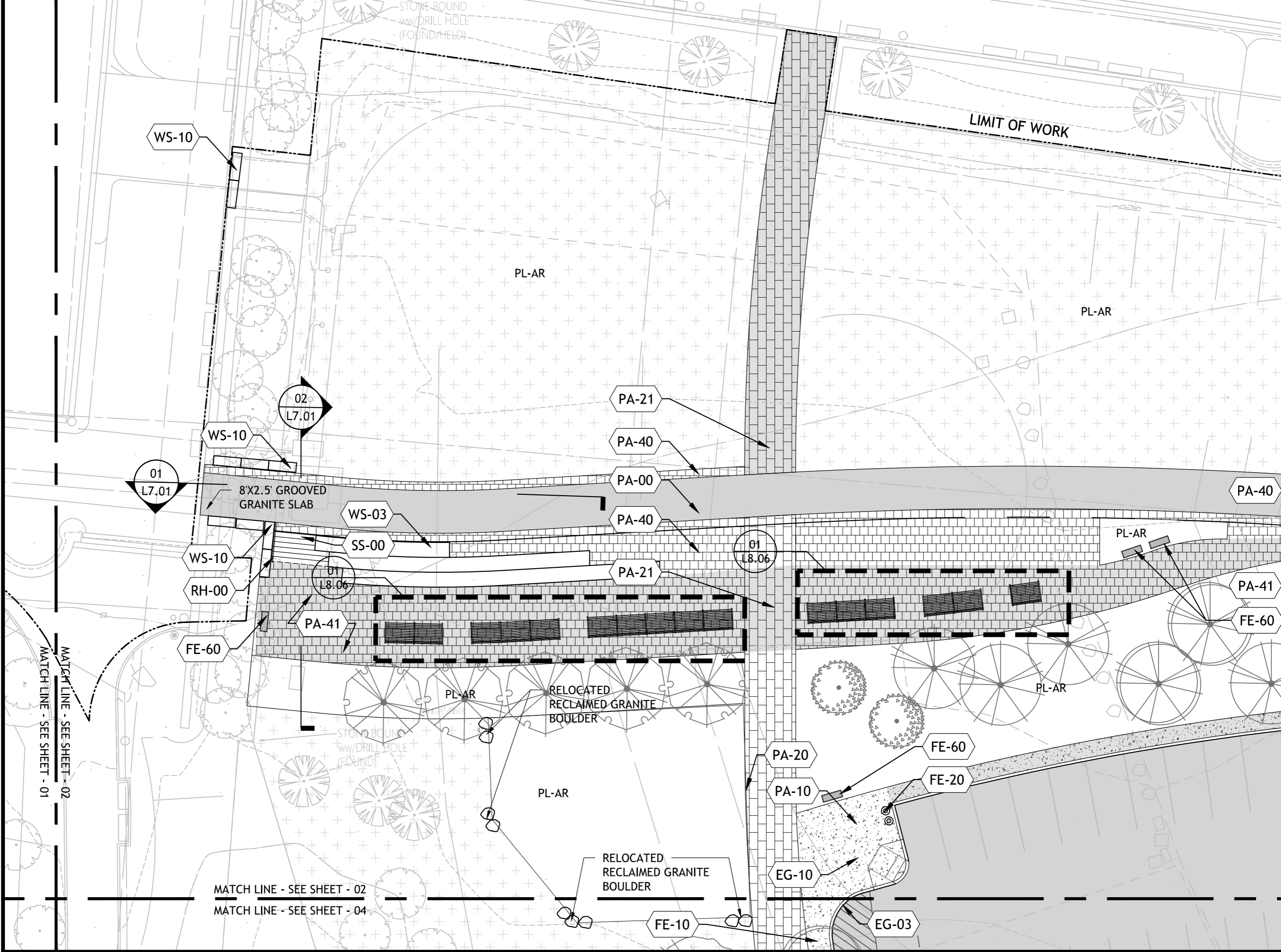
SEE
L3.00

SEE
L4.00

- PL-AR PLANTING AREAS REFER TO PLANTING PLANS








LIMIT OF WORK





LEGEND

PAVEMENT ASSEMBLIES (PA TYPES) SEE
L8.01

-  PA-00 BITUMINOUS CONCRETE PAVEMENT
-  PA-10 CAST-IN-PLACE CONC PAVM'T (VEHICULAR)
-  PA-11 CAST-IN-PLACE CONC PAVM'T (PEDESTRIAN)
-  PA-20 BRICK UNIT PAVEMENT (VEHICULAR)
-  PA-21 BRICK UNIT PAVEMENT (PEDESTRIAN)
-  PA-40 GRANITE UNIT PAVEMENT (VEHICULAR)
-  PA-41 GRANITE UNIT PAVEMENT (PEDESTRIAN)

EDGING CONDITIONS (EG TYPES) SEE
L8.02

- EG-00 GRANITE CURB (VEHICULAR)
- EG-01 GRANITE CURB FLUSH CONDITION
- EG-02 GRANITE PLANTER EDGING (PEDESTRIAN)
- EG-03 MOUNTABLE CURB
- EG-10 CURB CUT

SITE WALL (WS TYPES) SEE
L8.04

- WS-03 TIERED GRANITE BLOCK WALL
- WS-10 RECLAIMED GRANITE BLOCK WALL

SITE FURNISHINGS (FE TYPES) SEE
L8.08 SEE
L8.09

- FE-10 BICYCLE RACKS
- FE-20 WASTE AND RECEPTACLES
- FE-30 DRINKING FOUNTAIN
- FE-40 BENCH
- FE-41 PICNIC TABLE
- FE-50 PARKING METER
- FE-60 PARK INTERPRETIVE SIGNAGE
- LT-00 LIGHT FIXTURE FOOTING

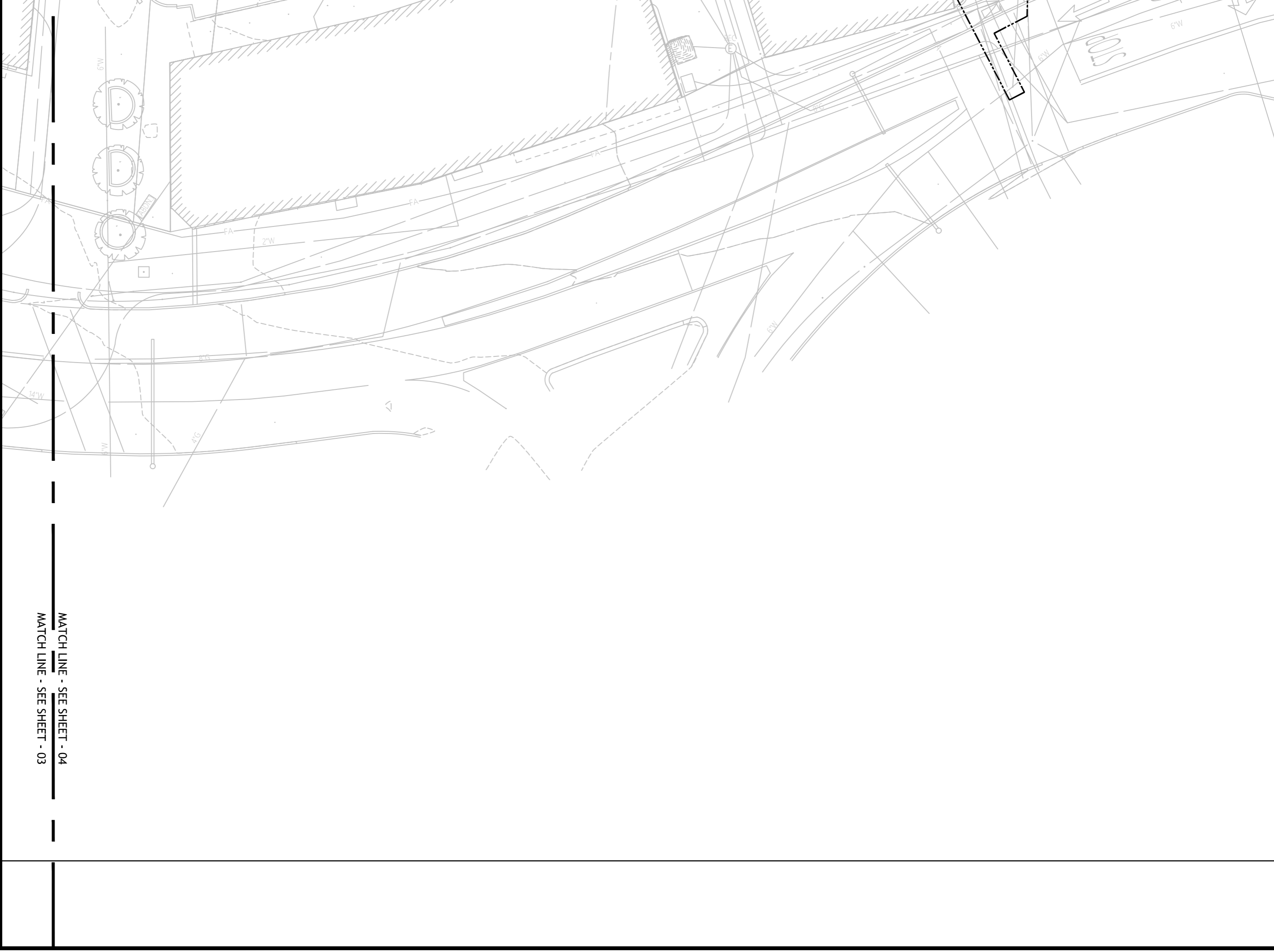
SITE STAIRS AND HANDRAILS (SS / RH TYPES) SEE
L8.04

- RH-00 SS HAND RAIL
- SS-00 SITE STEPS

PLANTING AREA SEE
L3.00 SEE
L4.00

PL-AR PLANTING AREAS
REFER TO PLANTING PLANS

LIMIT OF WORK



MATCH LINE - SEE SHEET - 04
MATCH LINE - SEE SHEET - 03

SHEET #3

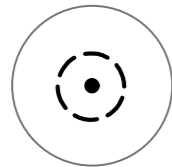
SHEET #4

MATCH LINE - SEE SHEET - 04
MATCH LINE - SEE SHEET - 03

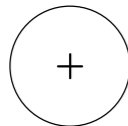
LEGEND

----- LIMIT OF WORK

TREE PLANTING LEGEND



EXISTING TREE TO REMAIN
CRITICAL ROOT ZONE



PROPOSED CANOPY
TREE, SYMBOL
VARIES BY SPECIES.
SEE PLANTING
SCHEDULE.



PROPOSED SHRUB,
SYMBOL VARIES BY
SPECIES. SEE PLANTING
SCHEDULE.

NOTES

1. ALL WORK SHOWN OUTSIDE THE PROPERTY LINE IS FOR REFERENCE ONLY, AND IS NOT A PART OF THE MARKET LANDING IMPROVEMENTS PROJECT.
2. SEE SHEET C-4.00 FOR LAYOUT NOTES

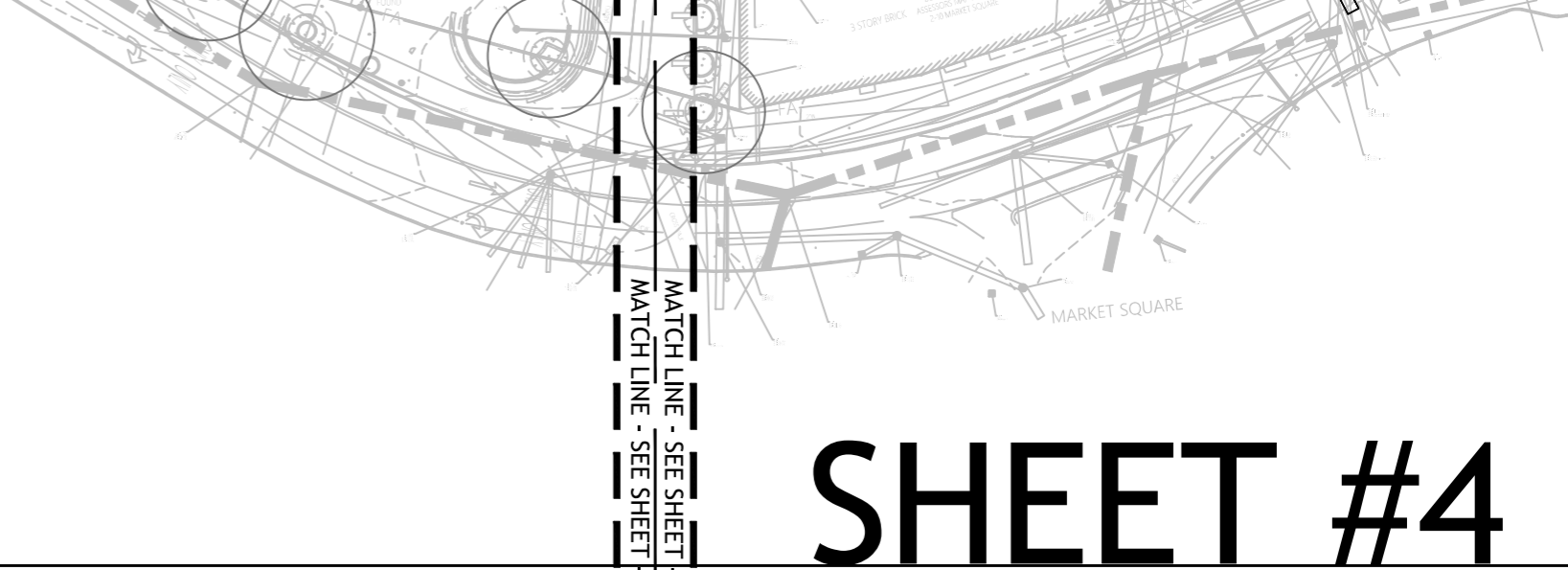
TREE PLANTING NOTES

1. REFER TO L4-00 SERIES FOR UNDERSTORY AND GROUND COVER PLANTING.
2. FOR TREES IN PAVEMENT, REFER TO L2-00 MATERIALS PLANS SERIES FOR TYPE OF PAVEMENT.

TREE DETAILS

SEE L8-12 SEE L8-13

VT-00 TREE PLANTING AT PLANTING BED



N/F
38 REAR MERRIMAC STREET NOMINEE TRUST
BOOK 23919 PAGE 369
ASSESSORS MAP 48 PARCEL 24
"BROWNS WHARF"
38R MERRIMAC STREET

2 STORY
WOOD

(ABDN.)

ZONE AE (ELEV.=13')

ZONE AE (ELEV.=12')

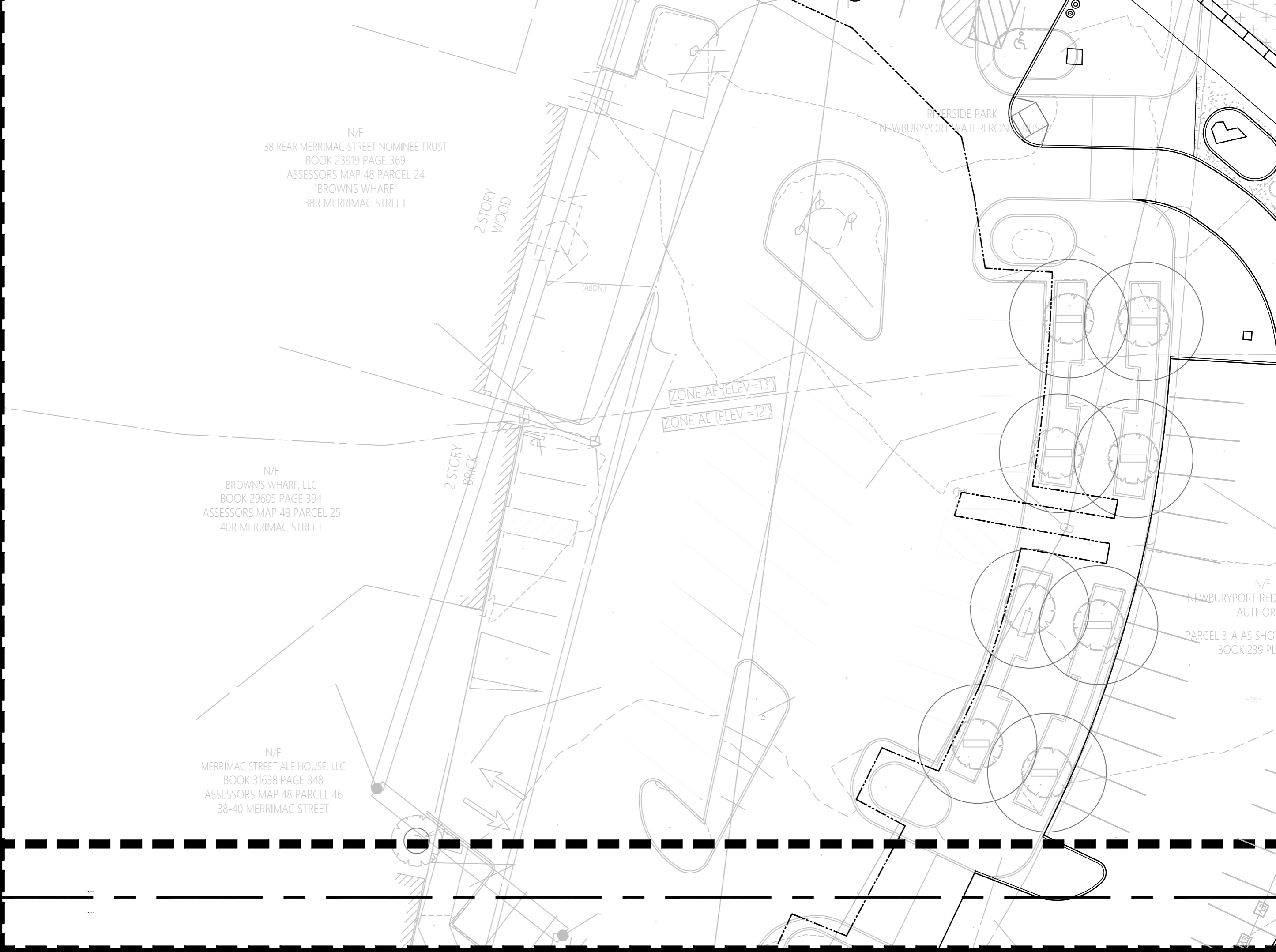
N/F
BROWN'S WHARF, LLC
BOOK 29605 PAGE 394
ASSESSORS MAP 48 PARCEL 25
40R MERRIMAC STREET

2 STORY
BRICK

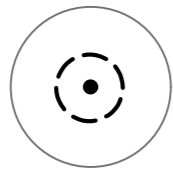
N/F
MERRIMAC STREET ALE HOUSE, LLC
BOOK 31638 PAGE 348
ASSESSORS MAP 48 PARCEL 46
38-40 MERRIMAC STREET

RIVERSIDE PARK
NEWBURYPORT WATERFRONT TRUST

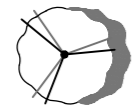
N/F
NEWBURYPORT RED
AUTHOR
PARCEL 3-A AS SHO
BOOK 239 PL



LEGEND



EXISTING TREE TO REMAIN
CRITICAL ROOT ZONE

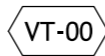
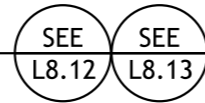


CODE COMMON NAME
QP WILLOW OAK

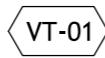


CF PINK FLOWERING
DOGWOOD

PLANTING DETAILS



TREE PLANTING-AT
PLANTING BED



CONIFER TREE PLANTING

LIMIT OF WORK

NOTES

1. REFER TO L4.00 SERIES FOR
UNDERSTORY AND GROUND COVER
PLANTING.

2. REFER TO L4-05 FOR PLANT
SCHEDULES.

SHEET #3

SHEET #4

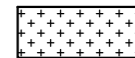
MATCH LINE - SEE SHEET - 04
 MATCH LINE - SEE SHEET - 03

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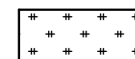
LEGEND



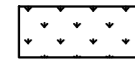
EXISTING TREE TO REMAIN



LAWN (SEED MIX TBD)



PERENNIAL MIX - GENERAL PARK PLANTING



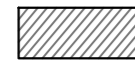
PERENNIAL MIX - VISITOR CENTER



PERENNIAL MIX - PARKING PLANTING



PERENNIAL MIX - BUFFER PLANTING



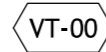
REINFORCED TURF (TBD)



SHRUB, SYMBOL VARIES BY SPECIES. SEE PLANTING SCHEDULE.

PLANTING DETAILS

SEE L8.12 SEE L8.13



TREE PLANTING-AT PLANTING BED



CONIFER TREE PLANTING

 LIMIT OF WORK

NOTES

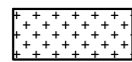
- REFER TO L4-00 SERIES FOR UNDERSTORY AND GROUND COVER PLANTING.
- REFER TO L4-05 FOR PLANT SCHEDULES.



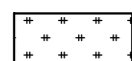
LEGEND



EXISTING TREE TO REMAIN



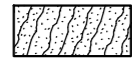
LAWN (SEED MIX TBD)



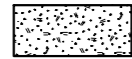
PERENNIAL MIX - GENERAL PARK PLANTING



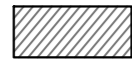
PERENNIAL MIX - VISITOR CENTER



PERENNIAL MIX - PARKING PLANTING



PERENNIAL MIX - BUFFER PLANTING

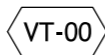
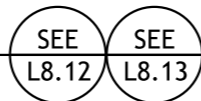


REINFORCED TURF (TBD)



SHRUB, SYMBOL VARIES BY SPECIES. SEE PLANTING SCHEDULE.

PLANTING DETAILS



TREE PLANTING-AT PLANTING BED



CONIFER TREE PLANTING

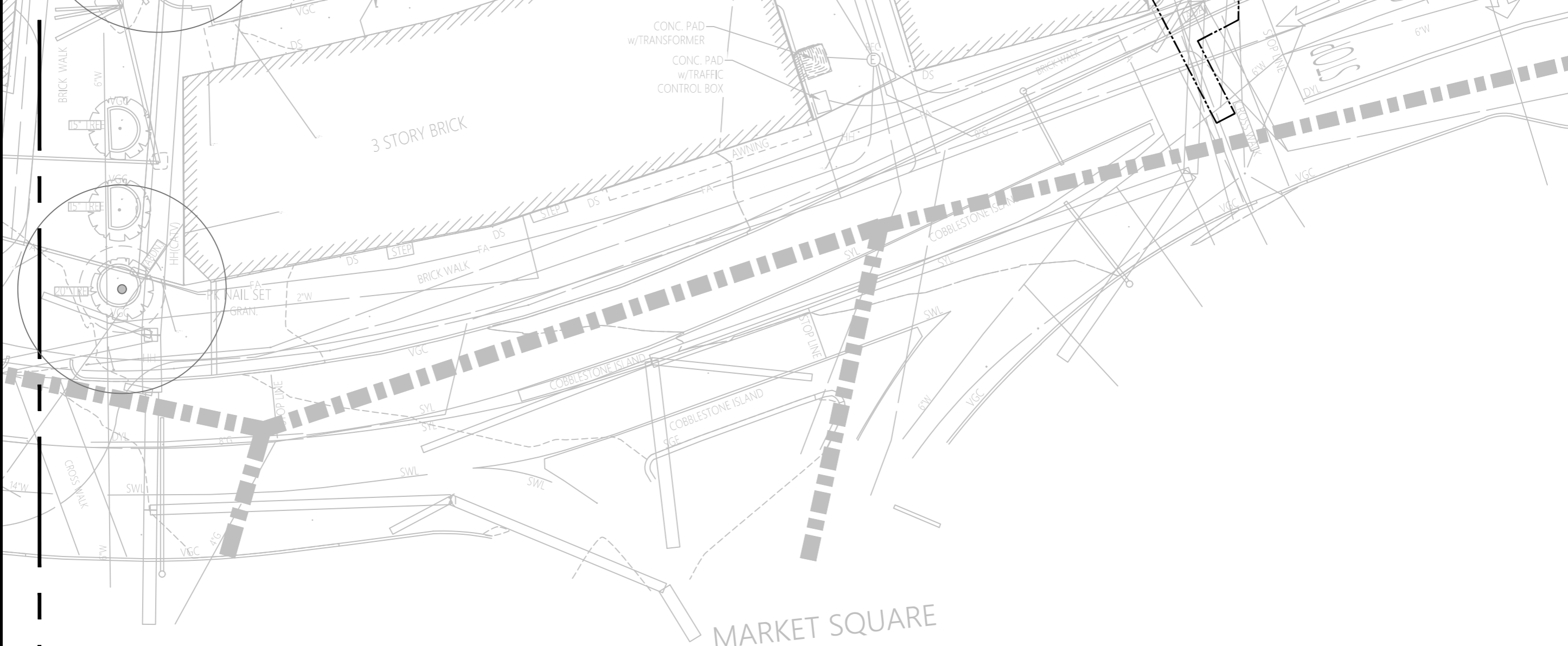
LIMIT OF WORK



NOTES

1. REFER TO L4-00 SERIES FOR UNDERSTORY AND GROUND COVER PLANTING.
2. REFER TO L4-05 FOR PLANT SCHEDULES.

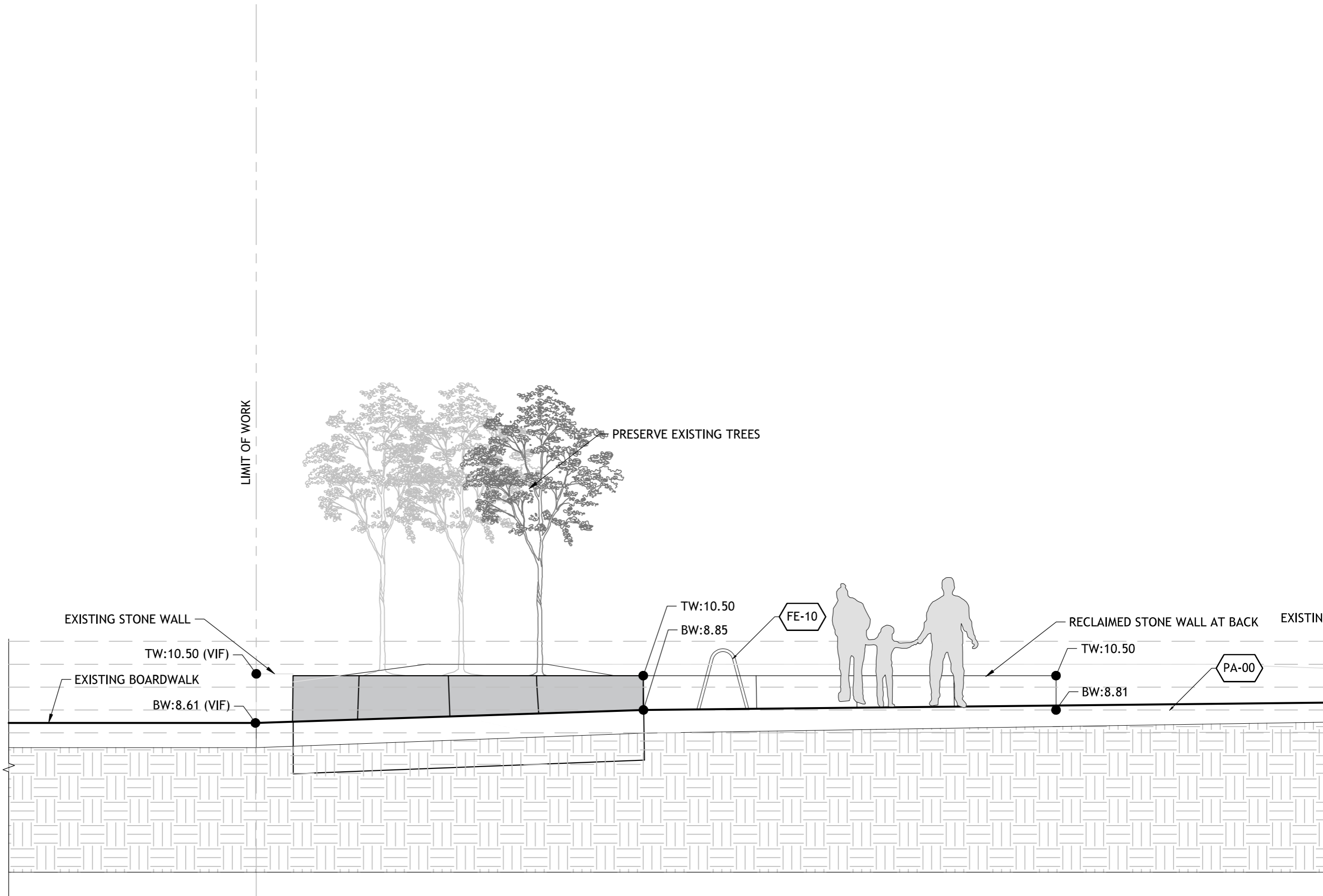
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MATCH LINE - SEE SHEET - 04
 MATCH LINE - SEE SHEET - 03

MARKET SQUARE

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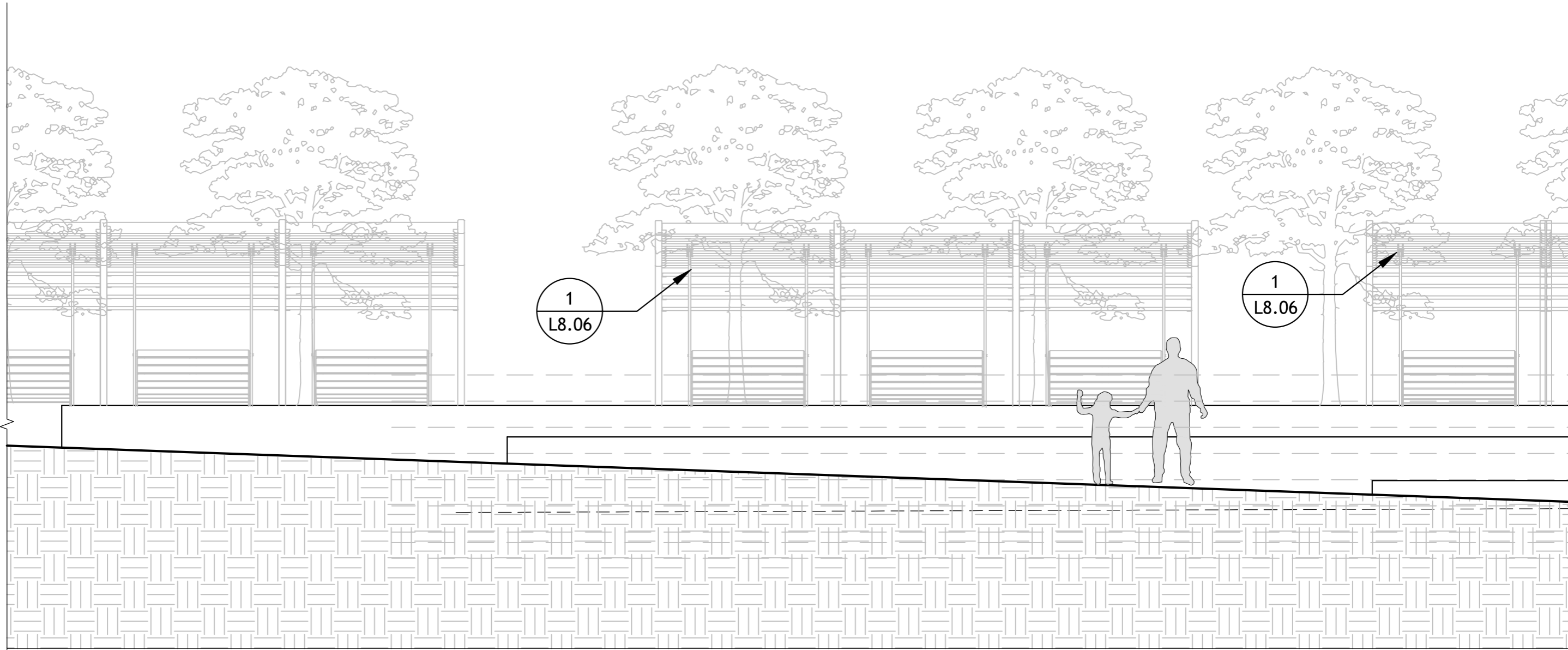


1

SITE SECTION- WEST EMBAYMENT

1/4"=1'0"

5/18/22 8:22:13 PM G:\08314.00\3.0_Working\3.9_CAD1_SheetFiles\L7-02 SITE SECTIONS.dwg



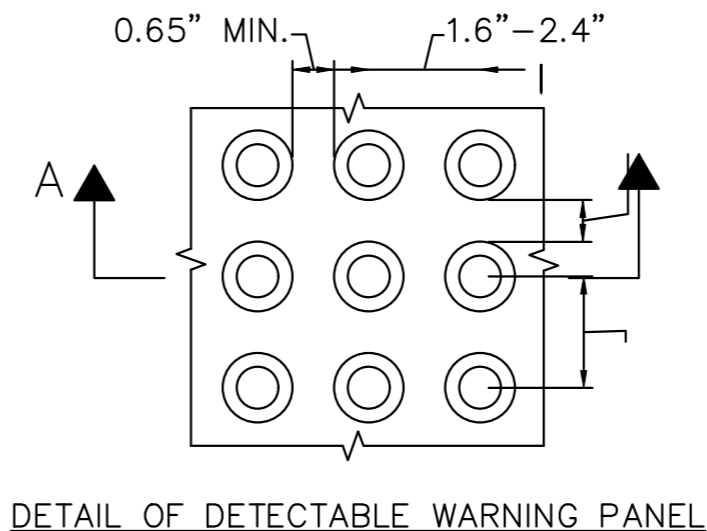
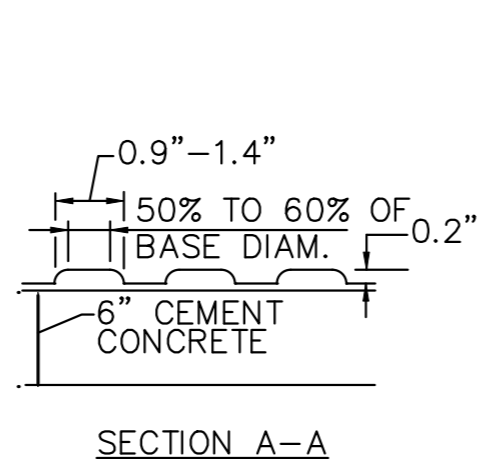
1

SITE SECTION- FERRY WHARF PLAZA

1/4"=1'-0" _XREF

TYPICAL INSTALLATION

SECTION A-A

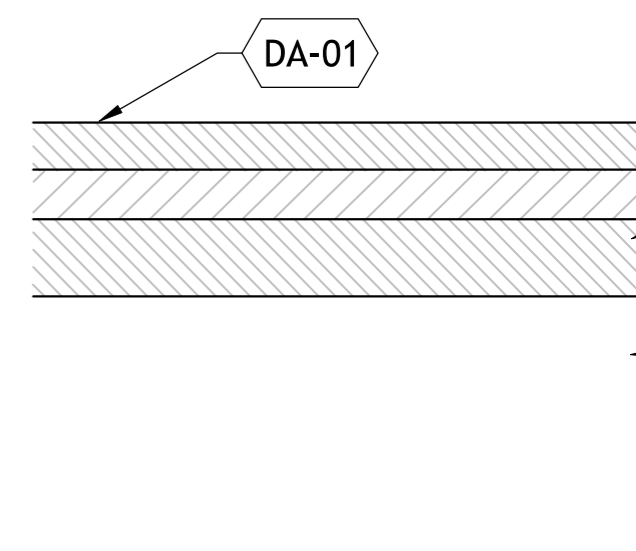


EG-10 CURB RAMP
SCALE: N.T.S.

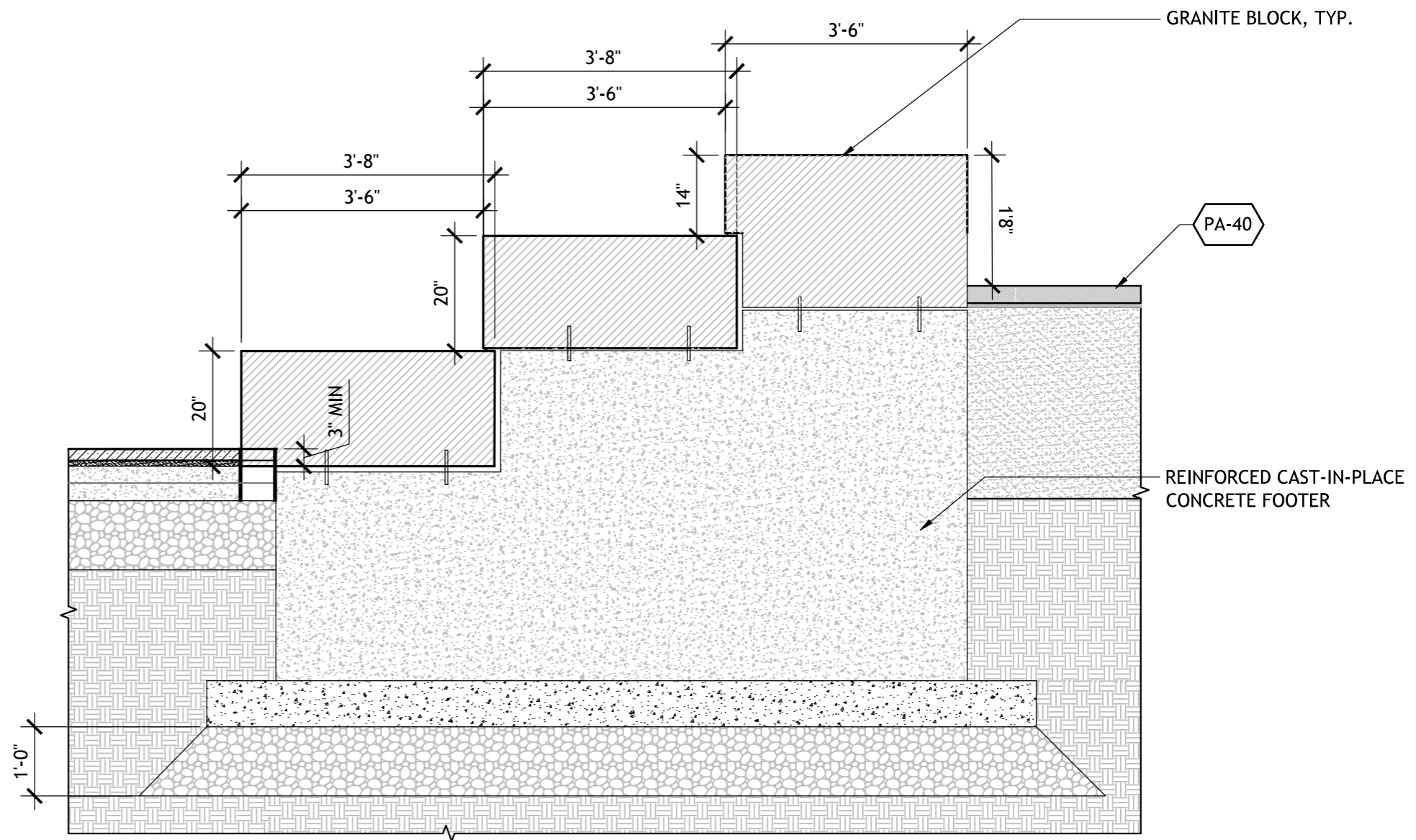
NOTES:

1. DETECTABLE WARNING PANELS SHALL BE PERMANENTLY APPLIED TO THE RAMP.
2. DETECTABLE WARNING PANELS SHALL MATCH CIT OF NEWBURYPORT COLOR STANDARDS.
3. ALL CEMENT CONCRETE RAMPS SHALL BE 6" THICK. AT BRICK RAMPS, A 6" THICK CEMENT CONCRETE PAD IS REQUIRED UNDER THE AREA OF EACH WARNING PANEL.
4. DETECTABLE WARNING PANELS SHALL BE AS MANUFACTURED BY ADA SOLUTIONS, INC. OF NORTH BILLERICA, MA OR AN APPROVED EQUAL.
5. DETECTABLE WARNING PANELS SHALL BE INSTALLED PER THE MANUFACTURER'S RECOMMENDATIONS.

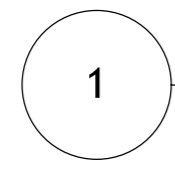
EG-11 DETECTABLE WARNING
SCALE: N.T.S.



EG-03 MOUNTABLE CURB (VEH)
1"=1'-0"



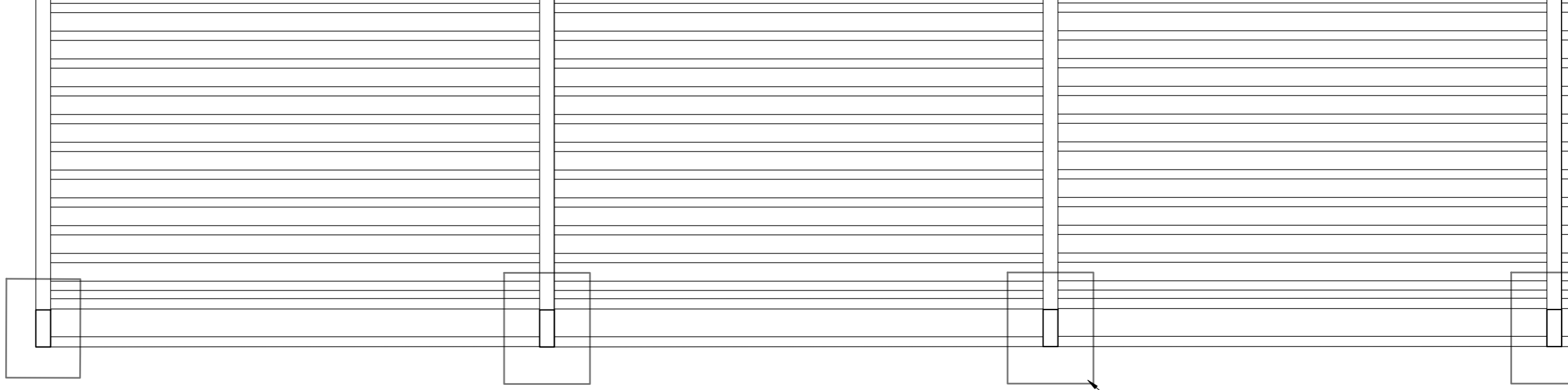
WS-03 SITE WALL - TIERED
1/2"=1'-0"



FERRY WHARF PLAZA AXONOMETRIC VIEW

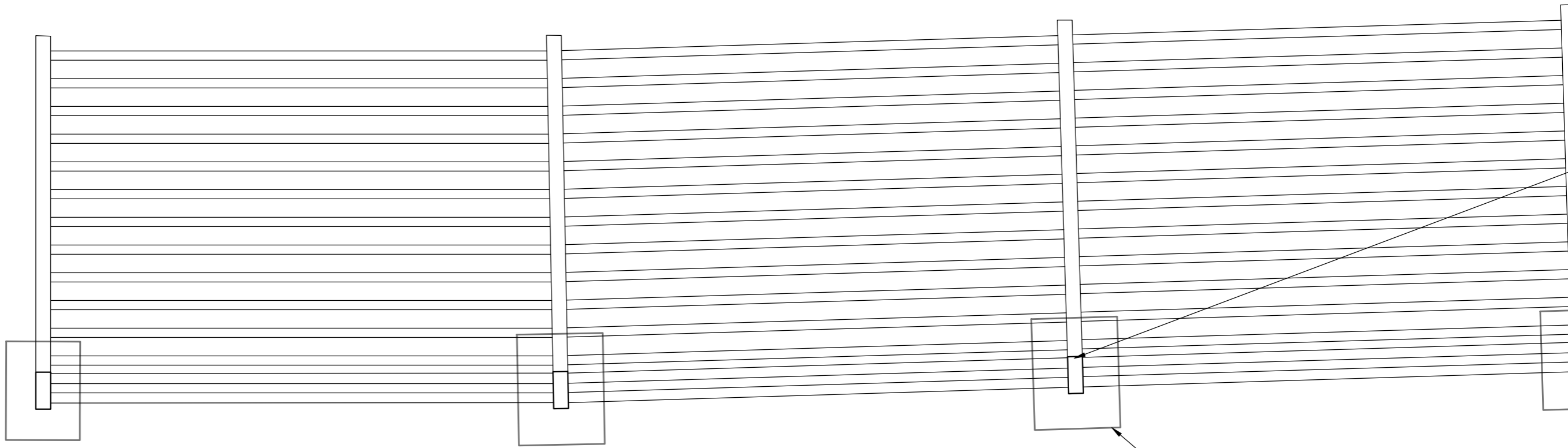
N.T.S.





BASE PLATE 13" x 13" x 3/4", TYP.

ST-02 SWING TRELLIS STRUCTURE C
1/8"=1'-0"



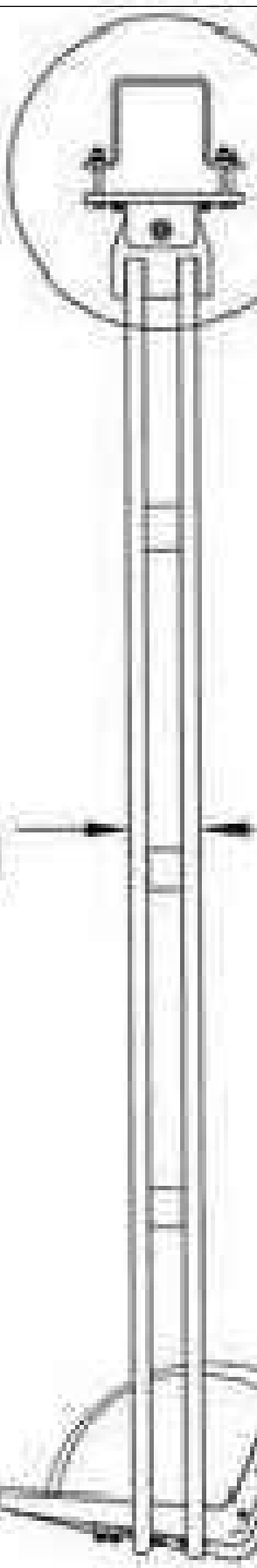
BASE PLATE 13" x 13" x 3/4", TYP.

ST-01 SWING TRELLIS STRUCTURE B
1/8"=1'-0"

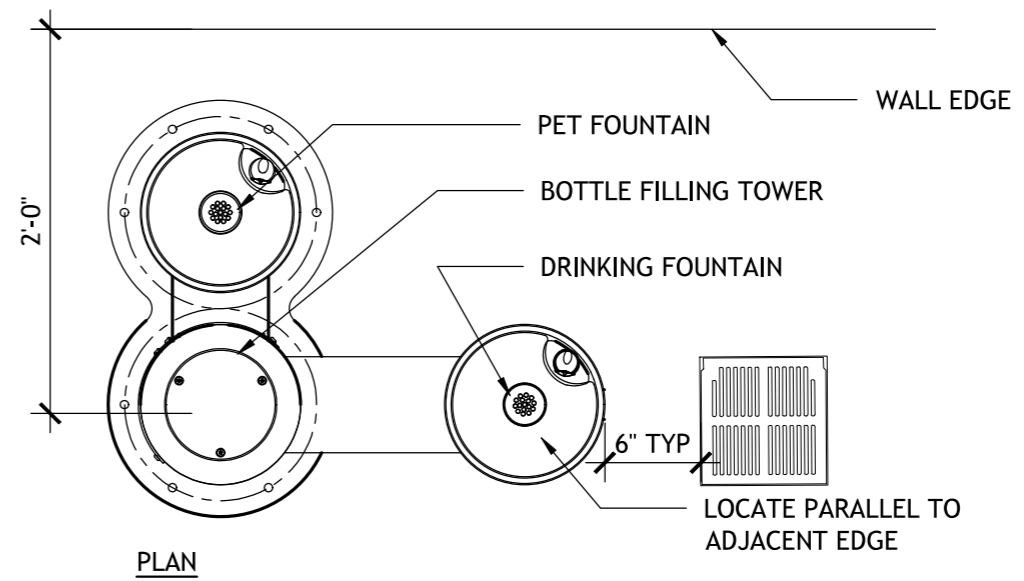
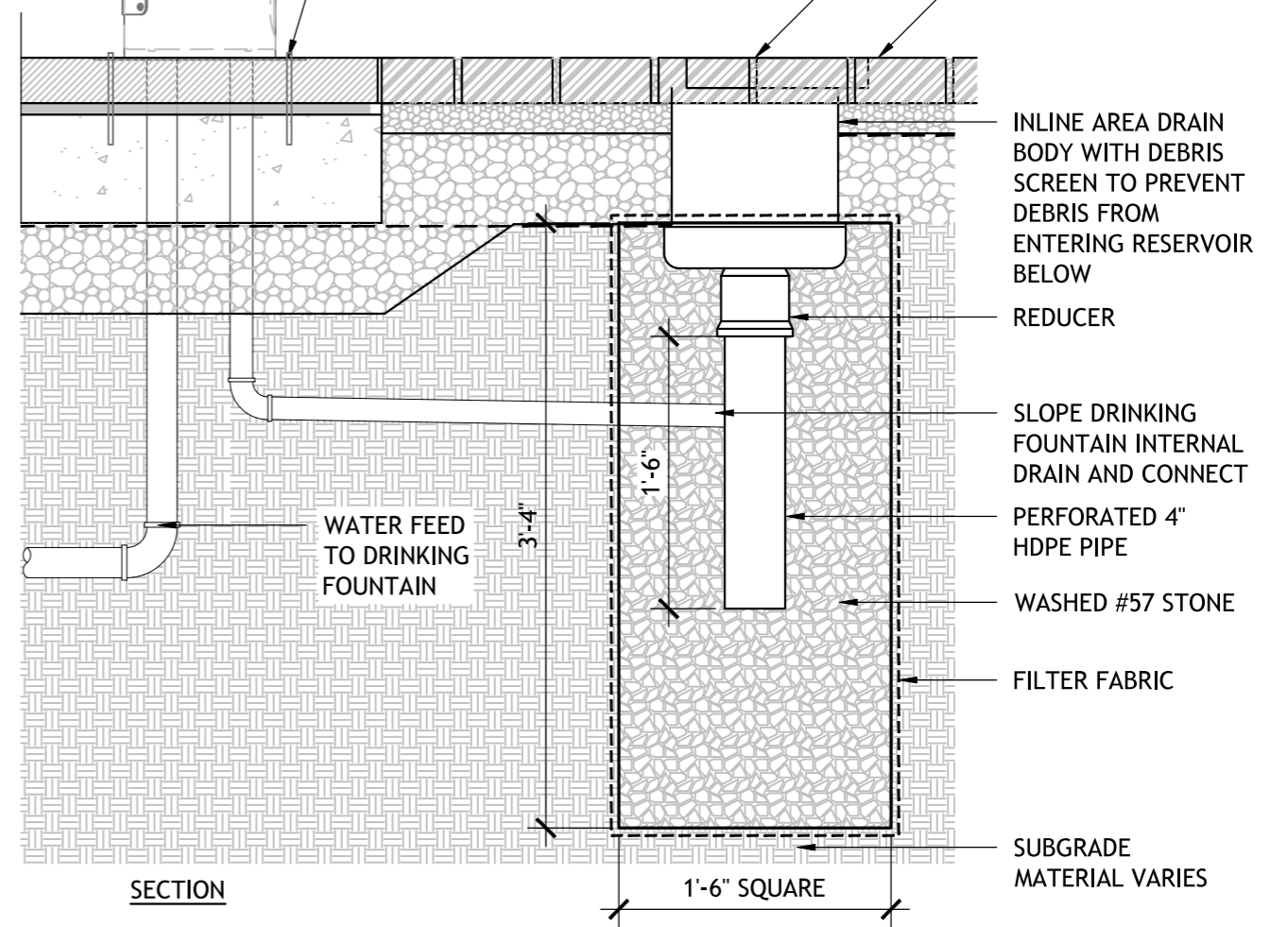
1" = 1'-0"

FE-01 1" = 1'-0"

5"
[127]



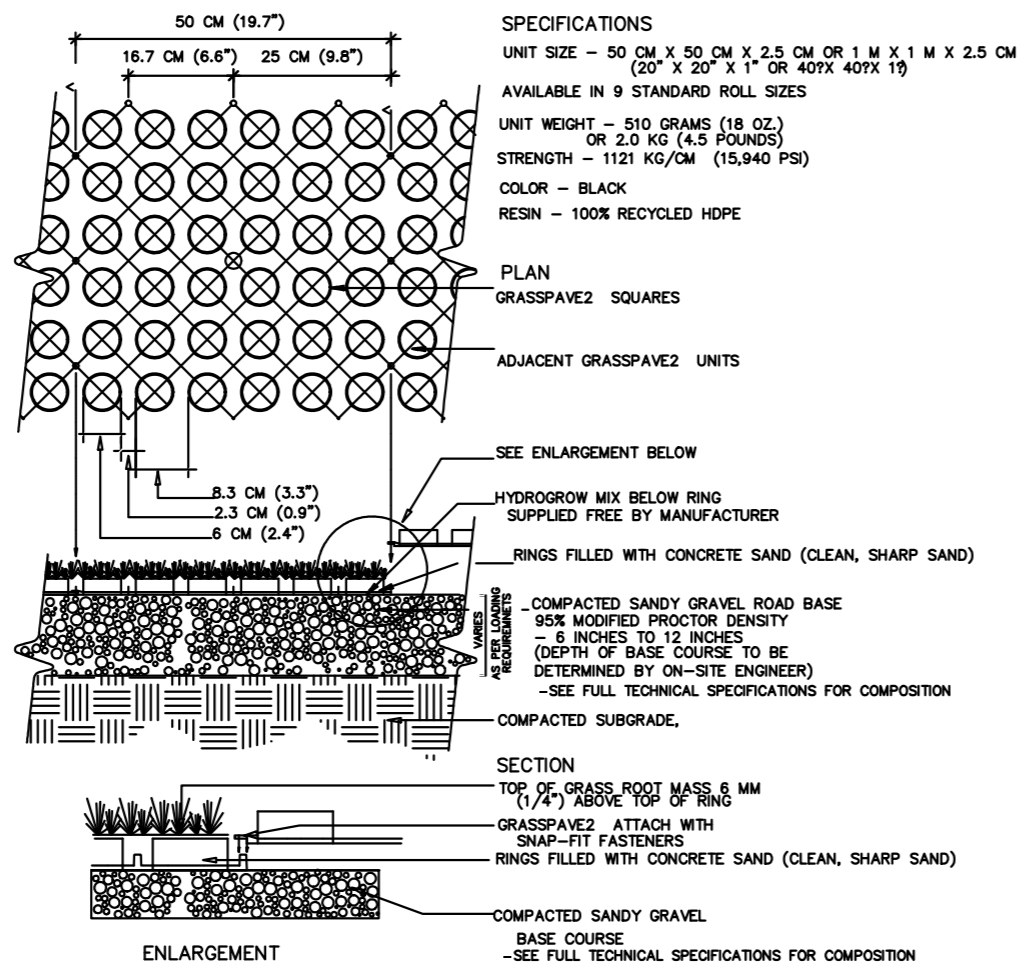
FE-00 BENCH SWING
1" = 1'-0"



NOTE: REFER TO MANUFACTURER'S INSTRUCTIONS FOR MOUNTING AND INSTALLATIONS

FE-30 DRINKING FOUNTAIN WITH PET FOUNTAIN LAYOUT

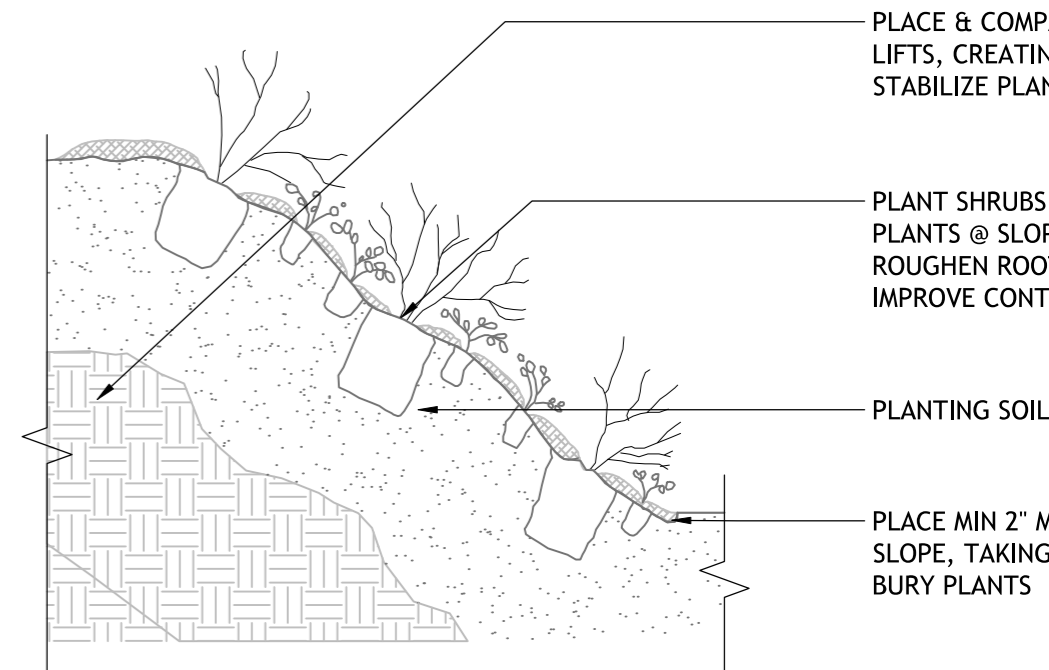
1" = 1'-0"



VT-14

REINFORCED TURF

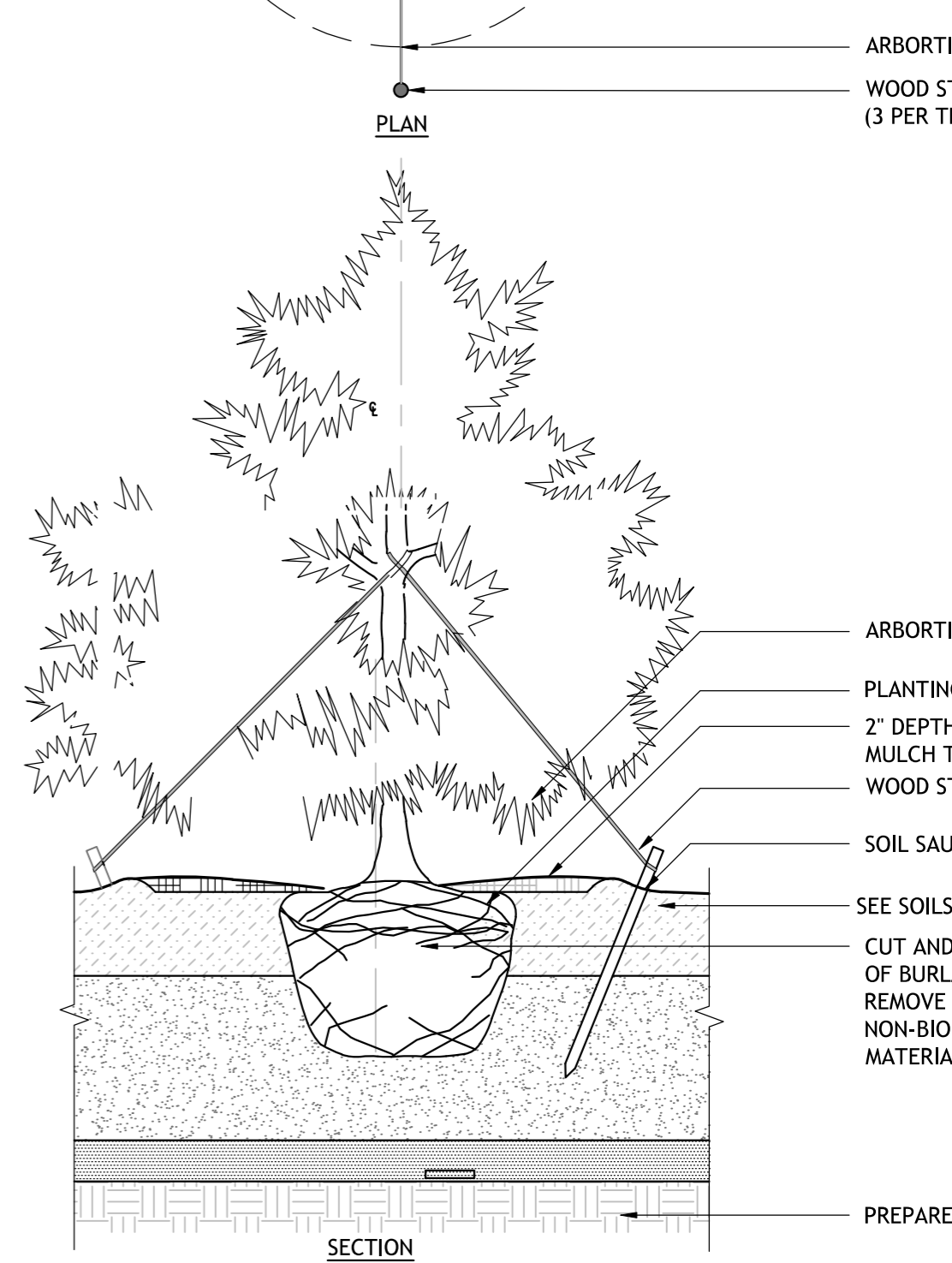
1"=1'-0"



VT-12

SHRUB & PERENNIAL PLANTING @SLOPE

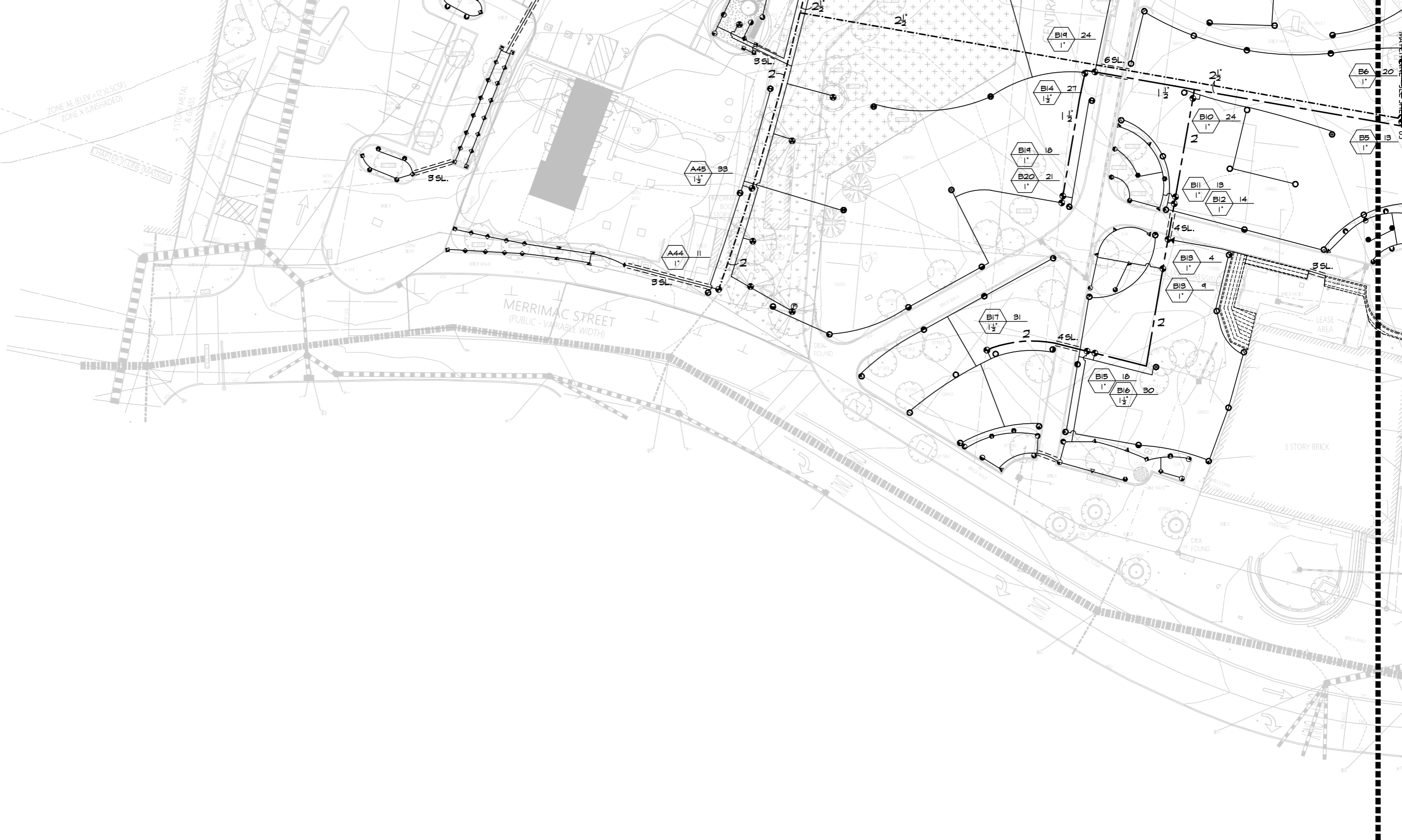
1"=1'-0"



- NOTE:
1. SET
 2. MUL
 3. TRE
 4. FOL
 5. INST
 6. INST
 7. PRU
 8. RUB
 9. REF
 10. STA

VT-01 CONIFER TREE PLANTING

1/2"=1'-0"



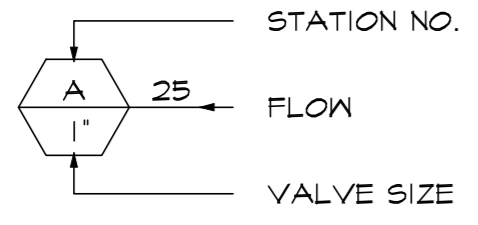
SHEET #3

MAINLINE PIPE SLEEVES, MINIMUM WIRE CONDUIT SIZE TO BE 2-INCH, UNLESS OTHERWISE NOTED. SEE SLEEVING DETAIL.

-  AUTOMATIC RAIN SENSOR
-  MOISTURE SENSOR
-  AUTOMATIC CONTROLLER
-  IRRIGATION WATER METER
-  BACK FLOW PREVENTION DEVICE IN ENCLOSURE
-  MASTER VALVE AND FLOW SENSOR

AUTOMATIC RAIN SENSOR
 MOISTURE SENSOR
 AUTOMATIC CONTROLLER
 IRRIGATION WATER METER
 BACK FLOW PREVENTION DEVICE IN ENCLOSURE
 MASTER VALVE AND FLOW SENSOR

VALVE DESIGNATION:

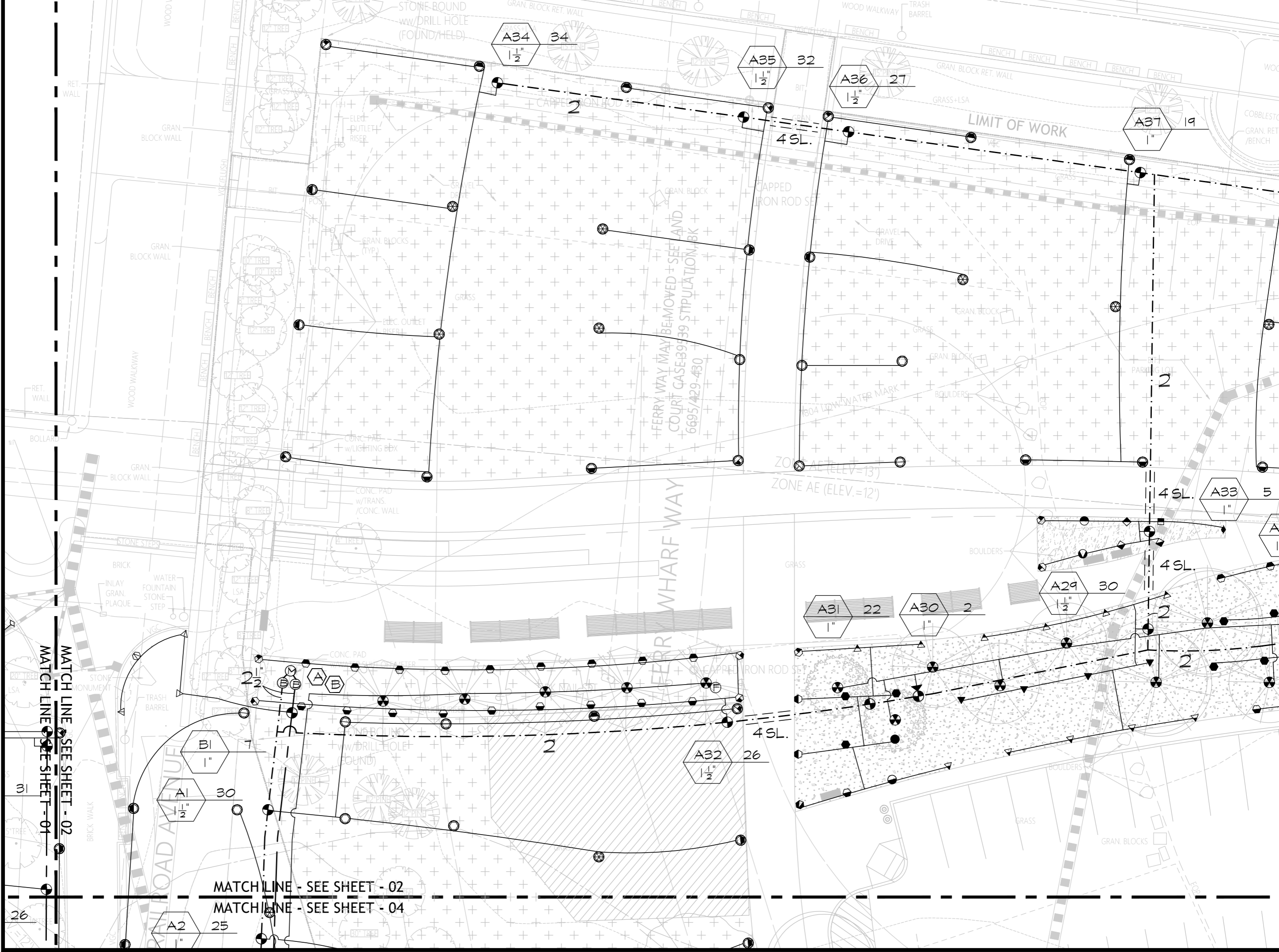


SEE SHEET II-02 FOR IRRIGATION NOTES

5/18/22 6:07:34 PM K:\SASAKI\Market Landing Newburyport\05 Design 75% CD\Market Landing Irrigation Plan.dwg



MATCH LINE - SEE SHEET - 01



MATCH LINE - SEE SHEET - 01
MATCH LINE - SEE SHEET - 02

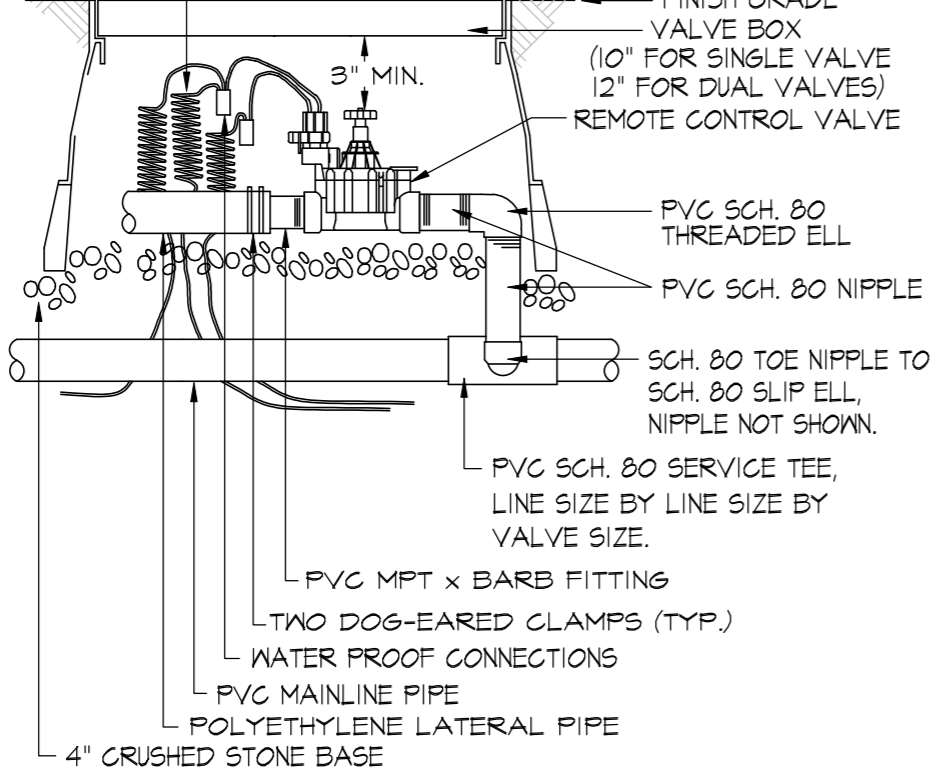
MATCH LINE - SEE SHEET - 02
MATCH LINE - SEE SHEET - 04

+FERRY WAY MAY BE REMOVED - SEE LAND COURT CASE 139-99 STIPULATION BK 6695/429-430

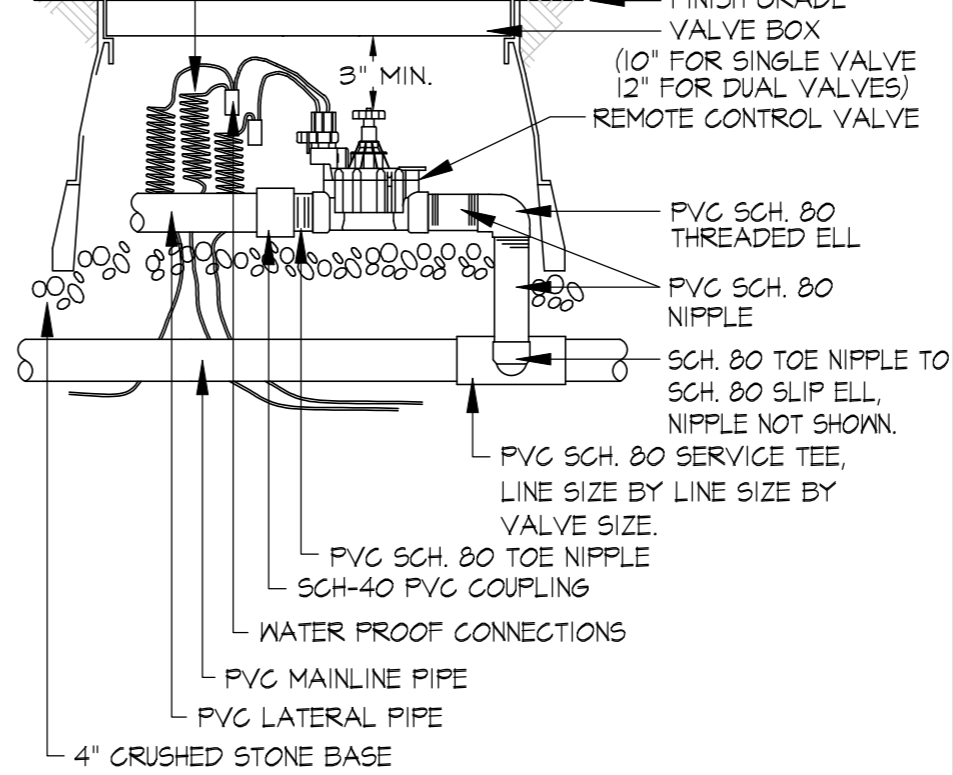
LIMIT OF WORK

ZONE AE (ELEV.=13\')

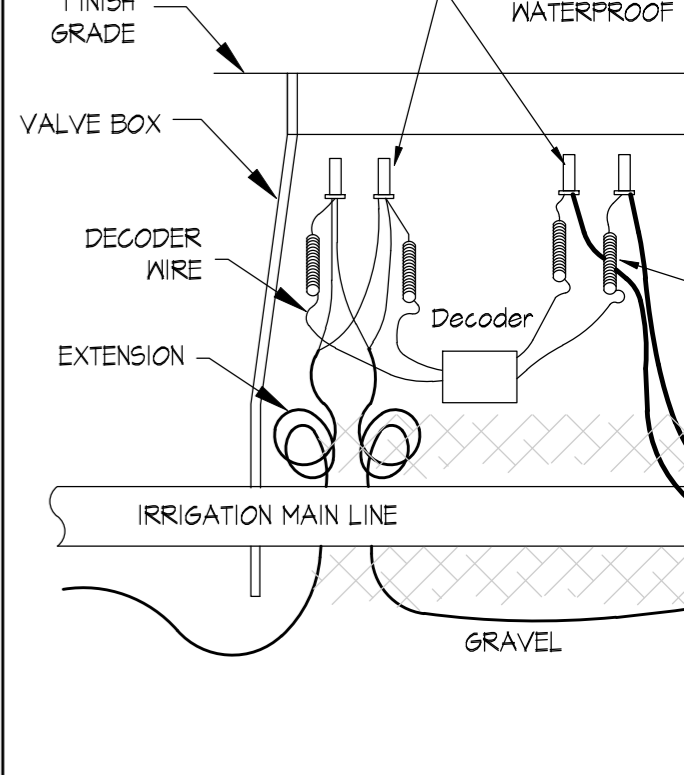
ZONE AE (ELEV.=12\')



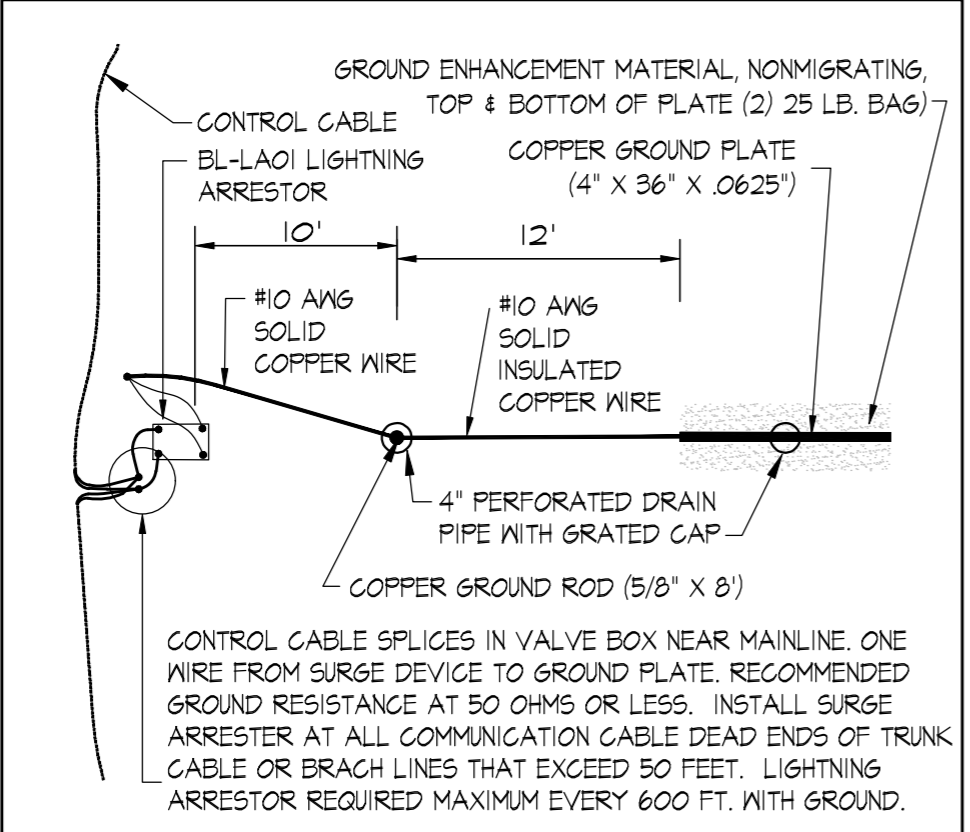
11 24 VOLT ELECTRIC VALVE DETAIL
(WITH POLYETHYLENE LATERAL LINE) NO SCALE



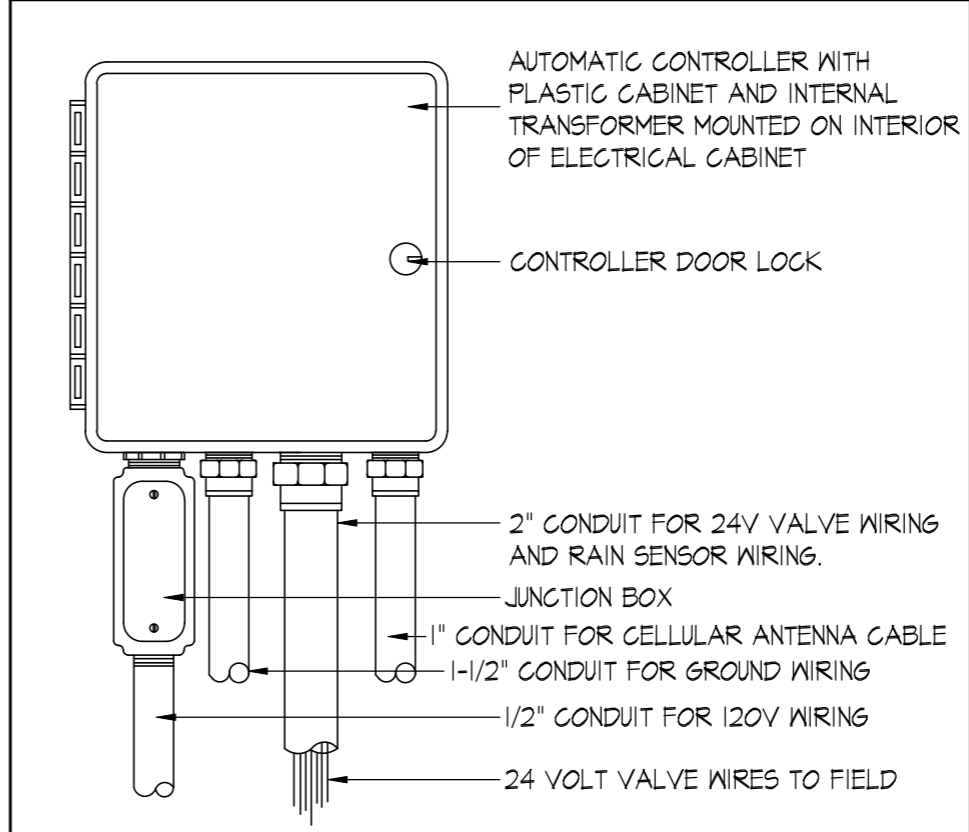
12 24 VOLT ELECTRIC VALVE DETAIL
NO SCALE



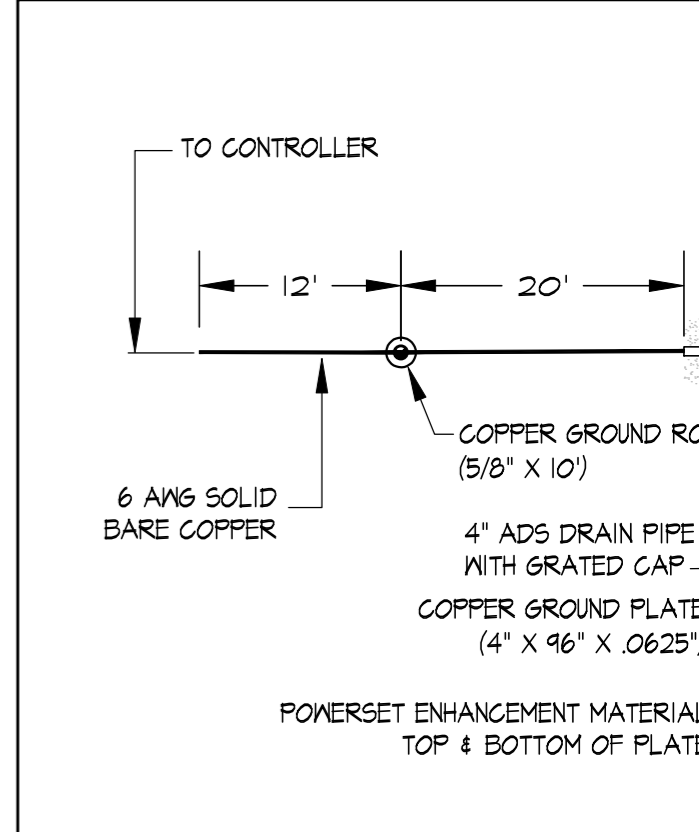
13 DECODER IN VALVE BOX DETAIL
NO SCALE



16 LIGHTNING ARRESTOR GROUND DETAIL
NO SCALE



17 AUTOMATIC CONTROLLER DETAIL
NO SCALE



18 CONTROLLER GROUNDING DETAIL
NO SCALE

LIGHTING LEGEND

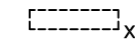


DIGITAL TIMECLOCK

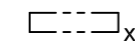


EXTERIOR PHOTOCELL, WEATHERPROOF

DEMOLITION LEGEND



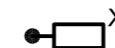
EXISTING EQUIPMENT OR DEVICE TO BE REMOVED



EXISTING EQUIPMENT OR DEVICE TO REMAIN

XRL = EXISTING RELOCATED
XRU = EXISTING BOX & CONDUIT REUSED
XTR = EXISTING TO REMAIN
XR = EXISTING TO BE REMOVED

SITE LEGEND



POLE MOUNTED FIXTURE, "X" INDICATES FIXTURE TYPE,
(REFER TO LIGHTING FIXTURE SCHEDULE) PROVIDE HEADS AS REQUIRED



POST TOP FIXTURE, "X" INDICATES FIXTURE TYPE
REFER TO LIGHTING FIXTURE SCHEDULE



BOLLARD LIGHT FIXTURE



BOLLARD



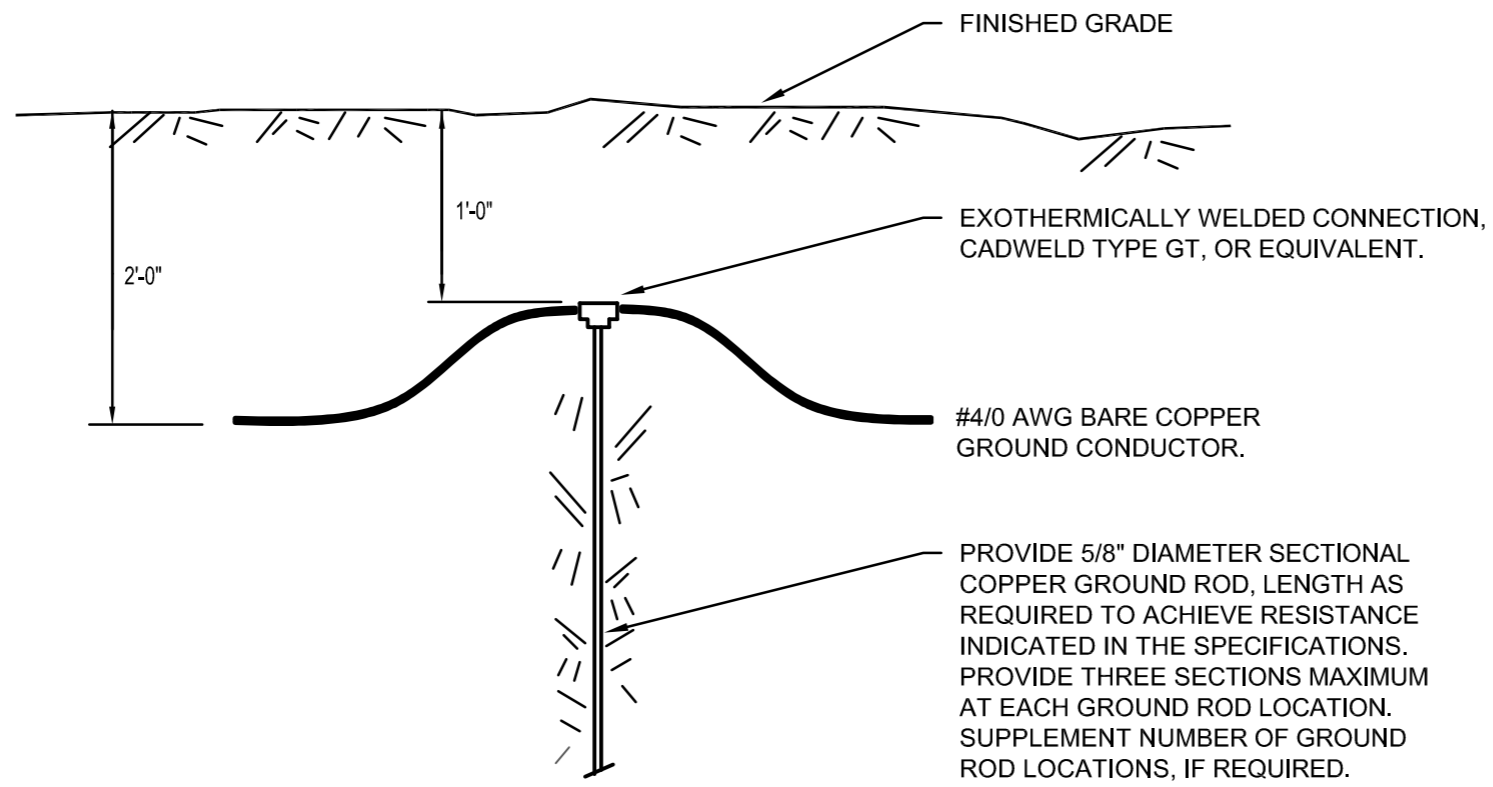
SPLICE CONNECTION, REFER TO WIRING DIAGRAM



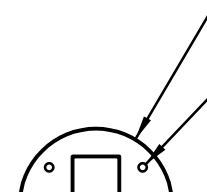
BLUE LIGHT PHONE LOCATION

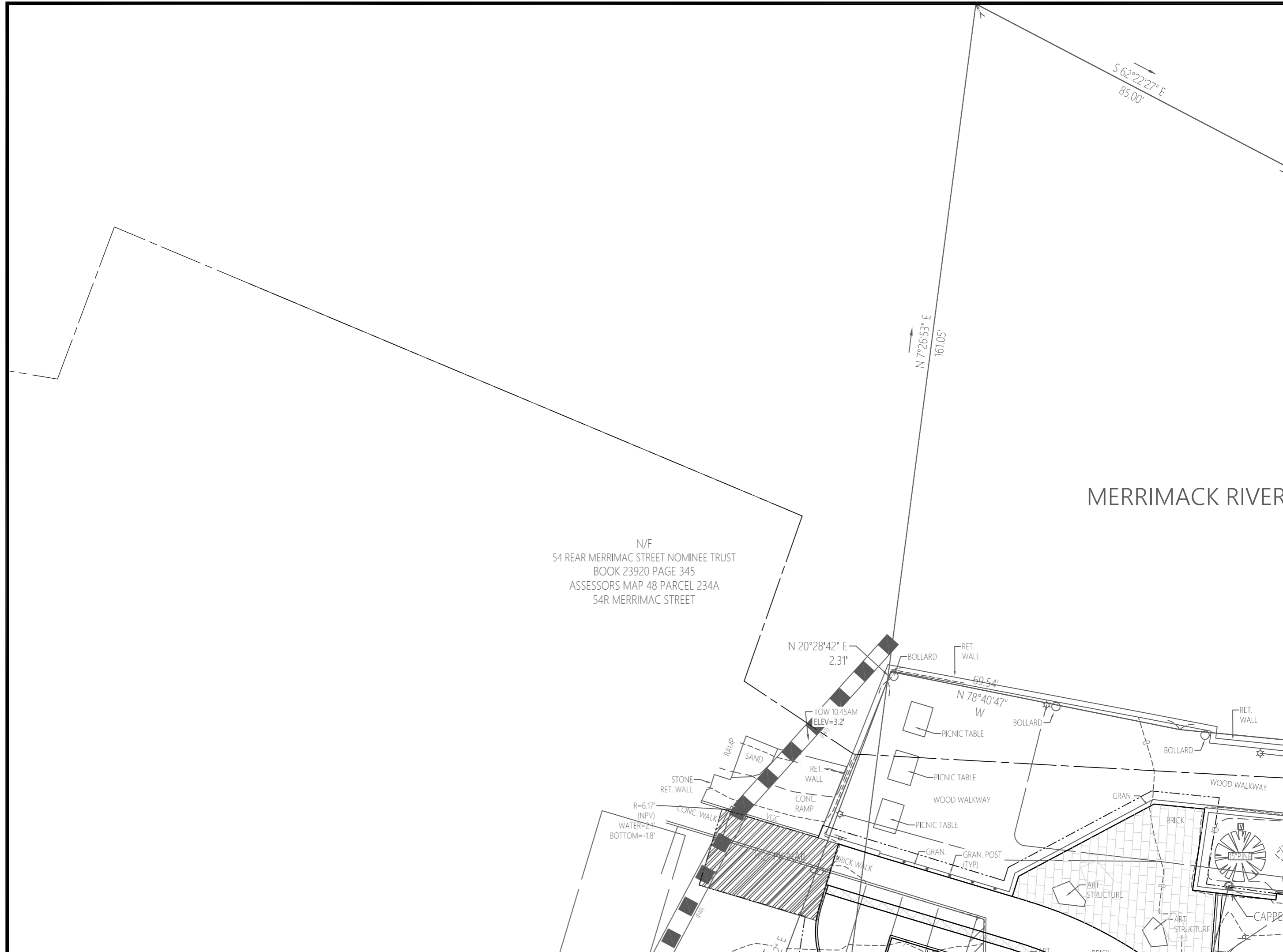


UTILITY POLE



⑤ TYPICAL GROUND ROD INSTALLATION
NOT TO SCALE





S 62°22'27" E
85.00'

N 7°26'53" E
161.05'

N/F
54 REAR MERRIMAC STREET NOMINEE TRUST
BOOK 23920 PAGE 345
ASSESSORS MAP 48 PARCEL 234A
54R MERRIMAC STREET

MERRIMACK RIVER

N 20°28'42" E
2.31'

RET. WALL

TOW 10.45AM
ELEV=3.2'

69.54'

N 78°40'47" W

PICNIC TABLE

PICNIC TABLE

WOOD WALKWAY

PICNIC TABLE

R=6.17'
(NPV)
WATER=2'-1"
BOTTOM=-1.8'

CONC. WALK

RAMP

SAND

RET. WALL

CONC. RAMP

VGC

BRICK WALK

GRAN. POST (TYP)

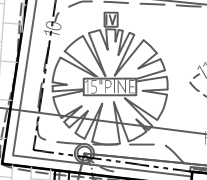
GRAN.

GRAN.

BRICK

ART STRUCTURE

ART STRUCTURE



CAPPE

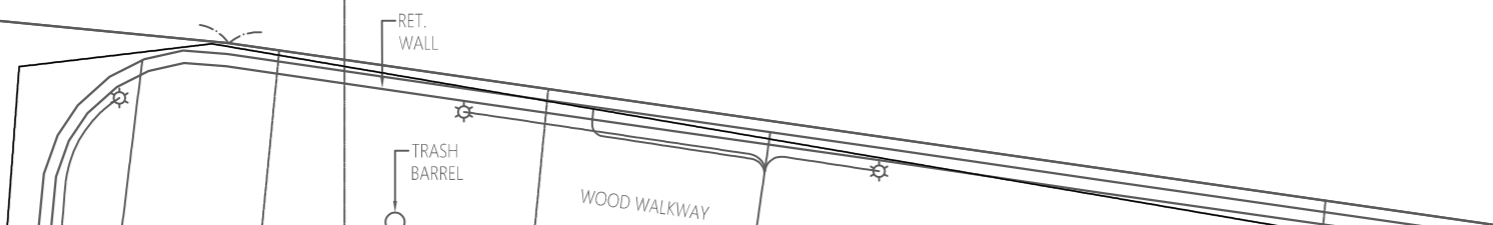
- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8

MATCH LINE - SEE SHEET - 02
MATCH LINE - SEE SHEET - 01

S 74°04'20" E
926.38'

MERRIMACK RIVER

TOW
ELEV=2.9'



SUBMERGED LANDS OF NEWBURYPORT
REDEVELOPMENT AUTHORITY"
(REG. LAND DOC. 132517 & BK 5644/181 & 182)

TOW
ELEV=2.9'

Attachment E

Stormwater Report



STORMWATER MANAGEMENT PERMIT

Revised 11/12/19

Department of Public Services
Engineering Division
16C Perry Way
Newburyport, MA 01950
Telephone: 978-465-4464 x1711

APPLICATION

Received Date: _____
Fee Paid: _____
Date Paid: _____
Permit #: _____
Approved By: _____
Approval Date: _____
(For DPS use only)

1. Project / Site Information

Is land disturbance at the site 10,000 square feet or more? If 'yes', then a permit is required, please fill out application below. If 'no', then no permit is required.

Project / Site Name: Market Landina Park Expansion

Project Street / Location: 24 Merrimac Street, Newburyport, MA

Assessor's Map: 42 Parcel(s): 11-1-A, 11-1-B, 11-1-C, 11-1-D, 11-1-E, 11-1-F

Applicant Type (Check One) Residential Non-Residential

Application Fee Structure		Proposed Project Land Disturbance (sq. ft.)	Application Fee (Non-Refundable)
Land disturbance less than 10,000 square feet	No permit required	290,967	N/A (Waived for municipal project)
Land disturbance 10,000 square feet and greater	\$200.00 base fee plus \$1.00 for every 1,000 square feet of land disturbance		

Total Area of Impervious Surfaces: (Paved, parking, decks, roofs, etc.) (sq. ft.)	<u>Existing</u> 146,658 sf	<u>Proposed</u> 127,896 sf	<u>Net</u> - 18,762 sf
--	-------------------------------	-------------------------------	---------------------------

2. Applicant Information

Name: Andrew Port, Director of Planning and Development, City of Newburyport
Address: 60 Pleasant Street, Newburyport, MA
Phone: 978-465-4400
E-mail: APort@cityofnewburyport.com

3. Owner Information

Check box if Owner is also the Applicant

Sean R. Reardon, Mayor
60 Pleasant Street, Newburyport, MA 01950
978-465-4413
sreardon@cityofnewburyport.com

4. Application Waiver

The project described above is exempt from meeting the stormwater management standards as outlined in the Newburyport Stormwater Management Ordinances (Chapter 17) for the following reason:

Land disturbance is less than 10,000 square feet.

Other: _____

Attach any relevant and supporting documentation for an Application Waiver.

5. Certification

I hereby certify that the information contained herein including all attachments is true, accurate, and complete to the best of my knowledge. Further, I grant the Newburyport Department of Public Services and its' agents permission to enter the property to verify the information in the application and to inspect for compliance with the resulting permit.

APORT 7/12/2022 Joe Mearls 7/12/2022
Applicant's Signature Date Owner's Signature Date

The City of Newburyport
Market Landing Park Expansion

Stormwater Management Report

Submitted for:
Site Plan Review

Prepared for:
City of Newburyport
60 Pleasant Street,
Newburyport, MA 01950

Prepared by:
Jamie Veillette, EIT
Steve Engler, PE
Sasaki
64 Pleasant Street
Watertown, MA 02472-2316

Issue Date: July 15, 2022
SA#: 08314.00



SASAKI

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Appendices

Appendix A - MassDEP Stormwater Checklist

Appendix B - Figures

Figure 1: USGS Site Locus Map

Figure 2: Ortho Map

Figure 3: Priority Resource Map

Figure 4: FEMA Floodplain Map

Figure 5: Impervious Area - Existing vs. Proposed

Figure 6: Proposed Catchment Areas

Appendix C - Geotechnical Investigations

NRCS Soils Map

Draft Geotechnical Report by Nobis Group

Appendix D - Stormwater Calculations

NRCC Rainfall Data

IDF Input Table

SewerGEM Flextables

Contech Design Summary

Water Quality Calculations

TSS Removal Calculations

Appendix E - Offsite Drainage Analysis Memo

Appendix F - Stormwater Pollution Prevention Plan (SWPPP)

Appendix G - Stormwater Operation & Maintenance Plan

Appendix H - 75% Construction Documents (Submitted Separately)

1.0 Project Introduction

1.1 DEVELOPMENT DESCRIPTION

The proposed development is a redevelopment of the existing Market Landing Park. The purpose of the Project is to renovate the existing Market Landing Park to enhance public access to the waterfront and create a resilient edge to the Downtown.

The project site consists of approximately 4.6 acres of land in downtown Newburyport including an existing park along Newburyport's historic waterfront. The park expansion project will convert two existing waterfront parking lots into additional green space on both sides of the existing Market Landing Park and construct a new Visitor Center and Restroom building. The redevelopment of the park will strengthen pedestrian connectivity to the waterfront boardwalk and maritime opportunities along the Merrimack River. Demolition of existing utilities, paved parking lots, gravel areas, and the existing information booth will occur to accommodate the redevelopment project. The design presented within this report aims to make the most meaningful impact to water quantity and quality possible in the context of the development.

1.2 DESIGN OBJECTIVE

This document was to provide an overview of the proposed stormwater management system for the redevelopment of Market Landing Park (the Site). This report is intended to address the requirements of the Massachusetts Department of Environmental Protection (MassDEP) Massachusetts Stormwater Standards (Standards), and the City of Newburyport Stormwater Rules and Regulations.

2.0 Existing Conditions

2.1 SITE DESCRIPTION

The Site is located within the Agricultural/Conservation district (A/C) and Waterfront Mixed Use district (WMU) with a Downtown Overlay District (DOD) as shown on the "City of Newburyport, MA Zoning Map." Currently the site consists of the existing Market Landing Park, located on the Merrimack River waterfront in Newburyport, Massachusetts. The location of the Site is depicted in the Site Locus Map attached in Figure 1 in Appendix B. The Site consists of parking lots on the east and west borders, and a dock and shared use path along the waterfront abutting a green space. Land surrounding the Site is occupied by restaurant and retail establishments to the east and west, the Merrimack River to the north, and Merrimac and Water Streets to the south.

2.2 SITE SLOPES

Ground elevations vary across the Site. Near the waterfront, elevations reach approximately 11'. The center of the East Lot slopes down to elevation 9' toward the middle, with higher elevations (around 14') along the northern portions of the Newburyport Waterfront Trust land near Railroad Avenue. Water Street is at approximately elevation 11'. The West Lot has similar elevations, sloping down to 8' toward the middle, and then ramping up to 17' near Merrimac Street. The natural grade of this slope is generally flat between 2.5% and 4%. Figure 2 depicts existing conditions.

2.3 SITE SOILS

The NRCS soil data was obtained through the Web Soil Survey portal on the USDA NRCS website. The areas surrounding the property were queried for soil types according to the record soil survey maps maintained by NRCS. Soils within the project area, as published in the USDA Soil Survey Essex County, Version 17, dated September 2, 2021, are classified as Urban Land (602). The Hydrologic Soil Group (HSG) for this soil type is not listed or not available on the NRCS website. The soils on site can be classified as either Hydrologic Soil Group (HSG) C or D soils based on the physical exploration of the site. Soils were classified as "low permeability" soils in the geotechnical report prepared by Nobis Group, dated June 23, 2022. The HSG rating for soil types is based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long duration storms. Soils designated as HSG C generally have a poor infiltration capacity and often include a soil layer which impedes downward movement of water through the soil profile. Soils designated as HSG D have very slow infiltration rates with high runoff potential. The NRCS Soils Mapping is provided in Appendix C.

Stormwater Management Report

Market Landing Park Expansion

A subsurface exploration program was conducted in January 2022. The explorations included test borings to determine soil textures and seasonal high groundwater at the proposed visitor center and swing trellis locations. A change in the proposed visitor center location required additional test borings be performed on site in May 2022. The general results of the explorations indicated topsoil or fill, underlain by silt and deposits, organic silt deposits, and/or bedrock. Conditions were inconsistent across the site and not all strata layers were encountered in every boring. Seasonal high groundwater was observed ranging from 4.1 to 12.5 feet below existing ground surface.

2.4 SITE DRAINAGE AND GROUNDCOVER

Under existing conditions, stormwater runoff from the project area primarily flows to the Merrimack River either overland or through an existing stormwater collection system. The flows collected by the stormwater collection system in the West Lot discharge to an existing 42" outfall at the boat launch north of the West Lot and the flows collected by the stormwater collection system in the East Lot discharge to an existing 30" outfall at the boardwalk north of East Lot. Existing groundcover consists primarily of gravel and asphalt parking lots, open park green space in good condition, pea stone and grass landscaped areas, and concrete and brick walkways. An Impervious Area Map of the existing vs. proposed groundcover conditions is provided as Figure 5 in Appendix B.

3.0 Floodplain Management and Resource Areas

Portions of the Site are currently within the Federal Emergency Management Agency (FEMA)-designated floodplain, i.e., they are currently susceptible to flooding during the 1% annual chance flood up to elevations 12' and 13' NAVD88 (known as the Base Flood Elevation (BFE)). Figure 4 in Appendix B shows the FEMA Flood Insurance Rate Map panels #5009C0128F, dated July 3, 2012, and #25009C0136G, dated July 16, 2014.

The Site contains wetland resource areas, including the 100-foot buffer to Coastal Bank, the 200' Riverfront Area and Land Subject to Coastal Storm Flowage. The majority of the Site consists of filled tidelands which are considered Commonwealth Tidelands and require review and approval by the MassDEP - Waterways Division under Chapter 91, the Massachusetts Public Waterfront Act. A separate application with the MassDEP Waterways Division will be filed for this project.

4.0 Proposed Conditions

4.1 SITE DESCRIPTION

The proposed site development involves demolition of the existing information booth and restrooms and construction of a new visitor center with public restrooms, pedestrian walkways and plazas. The redevelopment of the park will also include reducing the impervious area, expanding the public green space, and implementing resilient grading. The project will include new utility services and relocation of existing services to accommodate park construction. The proposed stormwater management system consists of deep-sump hooded catch basins, drainage manholes, conveyance piping, and stormwater treatment units to manage runoff quality. Roof drainage from the proposed visitor center will be provided via the roof water collection system that will be directed to an existing drainage structure along Merrimac Street.

4.2 SITE SOILS

Under proposed conditions, topography will be altered to raise the grade between the existing parking areas and buildings and the boardwalk to help limit coastal flooding. The fill will be provided from excess soils excavated during the park construction where possible. It is anticipated that some soils will need to be removed from the site and disposed of in a regulated land fill. Clean fill will be used as needed to raise the existing grades.

4.3 SITE DRAINAGE AND GROUNDCOVER

The project is defined as redevelopment by the Massachusetts Stormwater Management Standards as a "development, rehabilitation, expansion and phased projects on previously developed sites, provided the redevelopment results in no net increase in impervious area." (Massachusetts Stormwater Handbook, Chapter 1, Standard 7). Due to the parking lot reconfiguration, the impervious area will decrease on-site through the addition of green space in the existing gravel/asphalt parking lots. Currently, approximately 3.36 acres of impervious surfaces exist within the project area, this total includes the existing gravel/asphalt parking lots, brick/concrete sidewalks, and existing information booth and bathroom structure. The