



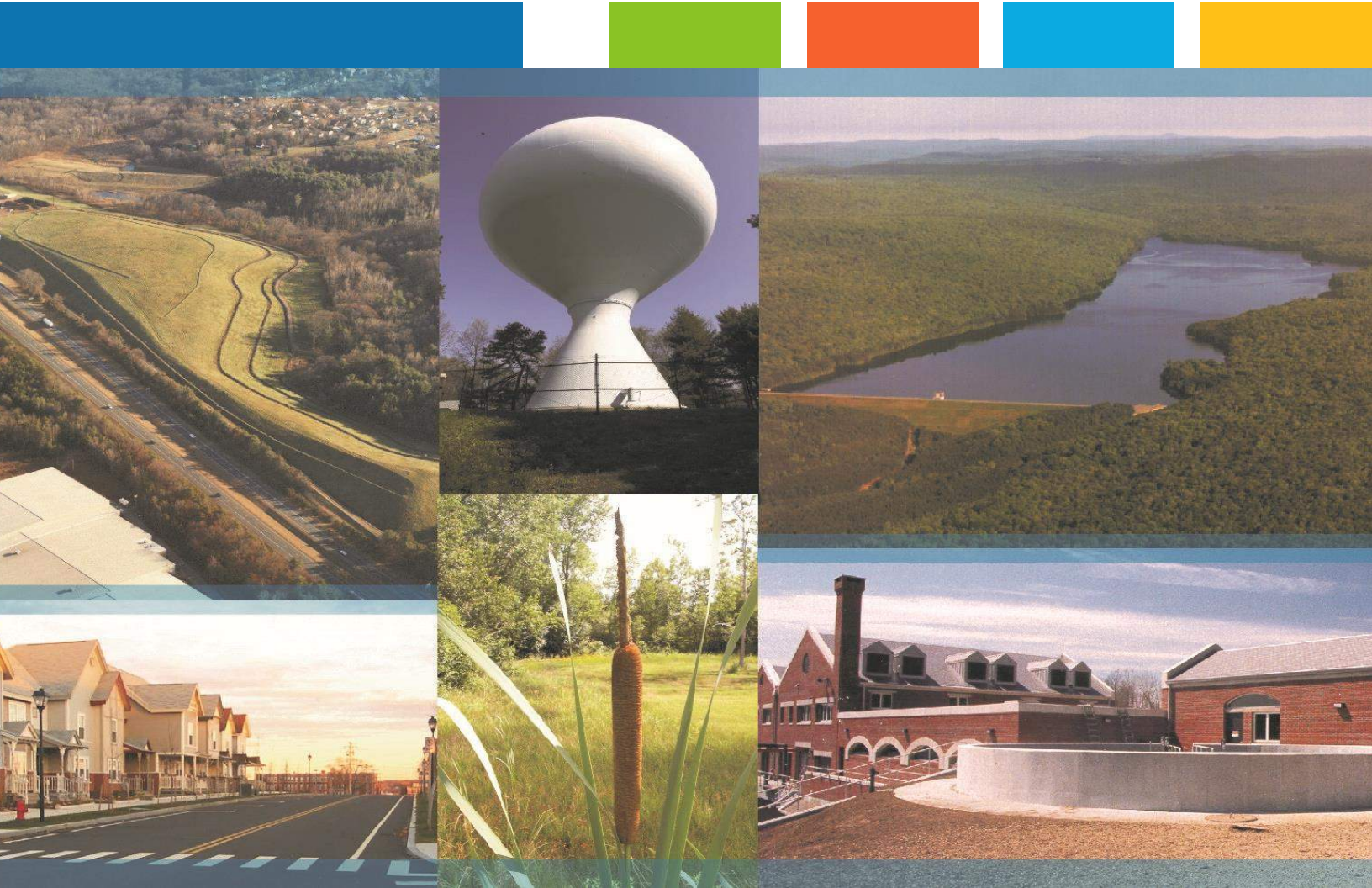
Conservation Commission AGENDA

Thursday, April 10, 2025 - 6:00 PM

Regular Meeting
Agawam Senior Center
954 Main Street
Agawam, MA 01001

A. Conservation Commission

- 1) PUBLIC HEARING CONT.-NOTICE OF INTENT-Bridge Street-Town of Agawam
- 2) PUBLIC HEARING CONT.-NOTICE OF INTENT-1014 North St Ext-VIP Homes & Associates, LLc (continued to April 24, 2025)
- 3) ENFORCEMENT ORDER UPDATES
- 4) APPROVAL OF MINUTES-March 27, 2025
- 5) Correspondence and Complaints



Vietnam Veterans Memorial Bridge
Proposed Bridge Preservation -
Bridge Street over Westfield River
Agawam, Massachusetts

Notice of Intent

Town of Agawam

March 2025

Tighe&Bond

W1975-059
March 13, 2025

Agawam Conservation Commission
36 Main Street
Agawam, MA 01001

Re: **Vietnam Veterans Memorial Bridge
Proposed Bridge Preservation -
Bridge Street over Westfield River
Notice of Intent**

Dear Members of the Commission:

On behalf of the Applicant, the Town of Agawam, Tighe & Bond is submitting this Notice of Intent (NOI) for the proposed preservation of the Veterans Memorial Bridge over the Westfield River in Agawam, Massachusetts.

The Towns of Agawam and West Springfield plan to make various improvements to the Vietnam Veterans Memorial Bridge. The project proposes to address numerous deficiencies identified in a 2021 Massachusetts Department of Transportation (MassDOT) inspection of the bridge, and to prolong the use of the existing bridge structure. The proposed repairs include drainage improvements, guardrail and sidewalk repairs, concrete repairs to substructure of the bridge, waterproofing and repaving of the top deck, and repairs to the steel and bearings below the deck. The project has been designed as three phases; however, this NOI addresses the entire scope of work within the Commission's jurisdiction. Construction is anticipated to commence as soon as July 2025.

This NOI has been prepared to address the portions of work proposed in Agawam within the limits of the Riverfront Area of the Westfield River and 100-foot Buffer Zone to Bank, which are regulated under the Massachusetts Wetlands Protection Act (MAWPA, M.G.L. c. 131 §40). Activities within these resource areas include repairs to the bridge deck and abutment within its existing footprint. Work will occur above the Bank/Mean Annual High Water and Bordering Land Subject to Flooding elevation lines. No work will occur within the Westfield River.

We look forward to having the opportunity to discuss this project with the Agawam Conservation Commission and anticipate being included on the Commission's next public hearing agenda. Should you have any questions regarding this application or require any additional information, please contact Melissa Coady at 413-572-3224 / MPCoady@tighebond.com or me at 413-572-3246 / AMLacasse@tighebond.com

Sincerely,

TIGHE & BOND, INC.



Andrea M. Lacasse, PE
Project Manager

Enclosures

Copy: MassDEP Western Region Division of Wetlands and Waterways
Natural Heritage and Endangered Species Program (NHESP)
Mario Mazza, Superintendent, Agawam Department of Public Works

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Wetland Fee Transmittal Form

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- D Abutter Notification
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 - List of Abutters

- E NHESP Correspondence

"\\tighebond.com\data\Data\Projects\W\W1975\Project 059 - Bridge St over Westfield River\Permitting\MAWPA\NOI - Agawam\Bridge St Agawam NOI Narrative.docx"



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

Agawam

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):

Bridge Street

a. Street Address

Agawam

b. City/Town

01001

c. Zip Code

Latitude and Longitude:

42.099289

d. Latitude

-72.636176

e. Longitude

N/A (Public Right-of-Way)

f. Assessors Map/Plat Number

N/A (Public Right-of-Way)

g. Parcel /Lot Number

2. Applicant:

Mario

a. First Name

Mazza

b. Last Name

Agawam Department of Public Works

c. Organization

1000 Suffield Street

d. Street Address

Agawam

e. City/Town

MA

f. State

01001

g. Zip Code

413-821-0623

h. Phone Number

i. Fax Number

MMazza@agawam.ma.us

j. Email Address

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

a. First Name

b. Last Name

c. Organization

d. Street Address

e. City/Town

f. State

g. Zip Code

h. Phone Number

i. Fax Number

j. Email address

4. Representative (if any):

Andrea

a. First Name

Lacasse

b. Last Name

Tighe & Bond, Inc.

c. Company

53 Southampton Road

d. Street Address

Westfield

e. City/Town

MA

f. State

01085

g. Zip Code

413-572-3246

h. Phone Number

i. Fax Number

AMLacasse@tighebond.com

j. Email address

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

N/A Fee Exempt

a. Total Fee Paid

N/A Fee Exempt

b. State Fee Paid

N/A Fee Exempt

c. City/Town Fee Paid



WPA Form 3 – Notice of Intent

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

Provided by MassDEP:

MassDEP File Number

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Agawam

City/Town

A. General Information (continued)

6. General Project Description:

This project proposes the preservation and repair of the Veterans Memorial Bridge-Bridge Street over the Westfield River in Agawam, Massachusetts.

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)
- 310 CMR 10.53(3)(i) - maintenance and repair of a bridge

2. Limited Project Type

If the proposed activity is eligible to be treated as an Ecological Restoration Limited Project (310 CMR 10.24(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:

Hampden

a. County

N/A - Roadway ROW

c. Book

b. Certificate # (if registered land)

N/A - Roadway ROW

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.



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

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Agawam

City/Town

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. ☐ Bank	1. linear feet	2. linear feet
b. ☐ Bordering Vegetated Wetland	1. square feet	2. square feet
c. ☐ Land Under Waterbodies and Waterways	1. square feet	2. square feet
	3. cubic yards dredged	

Resource Area	Size of Proposed Alteration	Proposed Replacement (if any)
d. ☐ Bordering Land Subject to Flooding	1. square feet	2. square feet
	3. cubic feet of flood storage lost	4. cubic feet replaced
e. ☐ Isolated Land Subject to Flooding	1. square feet	
	2. cubic feet of flood storage lost	3. cubic feet replaced
f. ☒ Riverfront Area	Westfield River (Inland)	
	1. Name of Waterway (if available) - specify coastal or inland	

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: 6,500
square feet

4. Proposed alteration of the Riverfront Area:

<u>1,900</u>	<u>1,900</u>	<u>0</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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Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP:

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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.

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

4. ☐ Restoration/Enhancement

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 2021

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 97% / 0.30 acres
percentage/acreage

(b) outside Resource Area N/A
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 <https://www.mass.gov/mas-endangered-species-act-mesa-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.



WPA Form 3 – Notice of Intent

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

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

- (c) ☒ MESA filing fee (fee information available at <https://www.mass.gov/how-to/how-to-file-for-a-mesa-project-review>).

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, <https://www.mass.gov/service-details/exemptions-from-review-for-projectsactivities-in-priority-habitat>; 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 - Bourne to Rhode Island border, and the Cape & Islands:

North Shore - Plymouth to New Hampshire border:

Division of Marine Fisheries -
Southeast Marine Fisheries Station
Attn: Environmental Reviewer
836 South Rodney French Blvd.
New Bedford, MA 02744
Email: dmf.envreview-south@mass.gov

Division of Marine Fisheries -
North Shore Office
Attn: Environmental Reviewer
30 Emerson Avenue
Gloucester, MA 01930
Email: dmf.envreview-north@mass.gov

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.

- c. ☐ Is this an aquaculture project? d. ☐ Yes ☒ No

If yes, include a copy of the Division of Marine Fisheries Certification Letter (M.G.L. c. 130, § 57).



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

WPA Form 3 – Notice of Intent

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Agawam

City/Town

Online Users:

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

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

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.



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

WPA Form 3 – Notice of Intent

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Agawam

City/Town

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.

Proposed Bridge Preservation - Bridge Street over Westfield River A-05-003 = W-21-013 (0KX)
Phase 1, Phase 2, and Phase 3

Tighe & Bond, Inc.

b. Prepared By

March 2025

d. Final Revision Date

c. Signed and Stamped by

Various

e. Scale

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:

2. Municipal Check Number

3. Check date

4. State Check Number

5. Check date

6. Payor name on check: First Name

7. Payor name on check: Last Name



WPA Form 3 – Notice of Intent

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

Provided by MassDEP:

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Agawam

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.

1. Signature of Applicant Mario Mazza, Superintendent, Agawam DPW

2. Date

3. Signature of Property Owner (if different)

4. Date

Andrea M. Lacasse

3/13/2025

5. Signature of Representative (if any) Andrea M. Lacasse PE, Tighe & Bond, Inc.

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.



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:

Bridge Street

a. Street Address

N/A Fee Exempt

c. Check number

Agawam

b. City/Town

N/A Fee Exempt

d. Fee amount

2. Applicant Mailing Address:

Mario

a. First Name

Mazza

b. Last Name

Agawam Department of Public Works

c. Organization

1000 Suffield Street

d. Mailing Address

Agawam

e. City/Town

MA

f. State

01001

g. Zip Code

413-821-0623

h. Phone Number

i. Fax Number

MMazza@agawam.ma.us

j. Email Address

3. Property Owner (if different):

a. First Name

b. Last Name

c. Organization

d. Mailing Address

e. City/Town

f. State

g. Zip Code

h. Phone Number

i. Fax Number

j. Email Address

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.

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



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
N/A Fee Exempt			

Step 5/Total Project Fee: _____

Step 6/Fee Payments:

Total Project Fee: _____
a. Total Fee from Step 5

State share of filing Fee: _____
b. 1/2 Total Fee **less** \$12.50

City/Town share of filing Fee: _____
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.)

SECTION 1

Section 1

Introduction

Tighe & Bond is submitting this Notice of Intent (NOI) on behalf of the Town of Agawam Department of Public Works (Town) for their proposed preservation project of the Vietnam Veterans Memorial Bridge over the Westfield River in Agawam, Massachusetts. As this project spans two towns, Agawam and West Springfield, two NOIs have been prepared to present the elements of the project under the specific jurisdiction of each conservation commission. This NOI has been prepared for the portion of the project under the jurisdiction of the Agawam Conservation Commission. Construction activities include drainage repairs, guardrail and sidewalk repairs, concrete repairs to the subsurface and abutments of the bridge, waterproofing and repaving of the top deck, and repairs to the steel and bearings below the deck. As noted below, these activities are proposed within areas subject to protection and jurisdiction under the Massachusetts Wetlands Protection Act (MAWPA, M.G.L. c 131 §40). Phase 1 construction is anticipated to commence as soon as July 2025.

As explained in greater detail in the following sections, the proposed work will occur within the limits of the Riverfront Area and the 100-foot Buffer Zone to inland Bank of the Westfield River in Agawam. Work will occur above the Bank/Mean Annual High-Water Line and the 100-year flood elevation, thus no impacts to Bordering Land Subject to Flooding (BLSF) will occur.

1.1 Project Locus

The project area spans the municipal boundary between the Towns of Agawam and West Springfield in Hampden County, Massachusetts. The Project Locus, as that term is defined at 310 CMR 10.04, is comprised of the Bridge Street roadway right-of-way. A summary of the Project Locus by town is provided in Table 1-1.

TABLE 1-1
Project Locus Total Acreage

Project Location	Agawam	West Springfield	Total Acreage
Roadway ROW	0.49 (21,500 sf)	0.80 (34,800 sf)	1.07 (46,500 sf)
Staging Area Parcel	-	3.2 (139,500 sf)	3.2 (139,500 sf)

1.1.1 Project Site

The Project Site, or Limit of Work, occupies an approximately 1.54-acre area located at the existing Bridge Street Bridge over the Westfield River. The Limit of Work within Agawam occupies approximately 0.27 acres of the total Project Site. A summary of the Project Site by town is provided in Table 1-2.

TABLE 1-2
Project Site Total Acreage

Total Project Site Acreage	Agawam	West Springfield
1.54 (67,200 sf)	0.27 (11,700 sf)	1.27 (55,500 sf)

Vietnam Veterans Memorial Bridge - Proposed Bridge 1-1
Preservation- Notice of Intent

1.2 Project Purpose

The Towns of Agawam and West Springfield propose the preservation of the existing bridge components due to numerous deficiencies noted in a Massachusetts Department of Transportation (MassDOT) inspection of the bridge in 2021. Rehabilitation measures will include drainage repairs, guardrail and sidewalk repairs, concrete repairs to the subsurface and abutments of the bridge, waterproofing and repaving of the top deck, and repairs to the steel and bearings below the deck. To avoid impacts to the Westfield River, no work will occur in or from the water.

SECTION 2

Section 2

Existing Environment

2.1 General Site Description

Land use in the general vicinity was determined based on direct observations made through site inspection and wetland delineation tasks and a review of online information available through the Massachusetts Geographic Information System (MassGIS).

The proposed bridge repair project is located at the existing bridge over the Westfield River between the Towns of Agawam and West Springfield. Railroad tracks, commercial properties, a hydroelectric power plant, and an existing boat launch surround the bridge on the north side of the Westfield River. Residential and commercial properties surround the bridge on the south side of the Westfield River.

2.2 Methodology of Resource Area Investigations

On April 13, 2023, a Tighe & Bond wetland scientist visited the Project area to identify and delineate wetland resource areas and evaluate the jurisdictional status of each relative to local, state, and federal criteria. Photos from the site visit are provided in Appendix C. Jurisdictional resource areas in the vicinity of the proposed work were delineated in accordance Massachusetts Department of Environmental Protection (MassDEP) guidelines, 310 CMR 10.00, the United States Army Corps of Engineers *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region* (January 2012).

Boundaries of jurisdictional resource areas within the vicinity of the proposed Project were delineated using sequentially numbered pink flagging tape for Mean Annual High Water (MAHW) and blue flagging tape for inland Bank. The boundaries Bank and MAHW were delineated in accordance with the definitions set forth in the regulations at 310 CMR 310 CMR 10.54(2) and 10.58(2)(2), respectively. Resource area boundaries are shown on the Project Drawings in Appendix B.

2.3 Description of Wetland Resource Areas

The following wetland resource areas were identified within the Project Locus and immediate vicinity of the Project Site, and are subject to jurisdiction under the MAWPA and its implementing regulations:

- Bank (Inland)
- Bordering Land Subject to Flooding (BLSF)
- Riverfront Area

2.3.1 Inland Bank

Inland Bank is defined at 310 CMR 10.54(2)(a) as *"...the portion of the land surface which normally abuts and confines a water body. It occurs between a water body and a vegetated bordering wetland and adjacent floodplain, or, in the absence of these, it occurs between a water body and an upland."*

Bank and MAHW flags were not hung on the Agawam side of the Westfield River as the topography is a steep, almost vertical rock face. Bank lines were extrapolated based on the elevations of the delineated Bank on the West Springfield side of the Westfield River.

2.3.1.1 Mean Annual High Water (MAHW)

The Mean Annual High-Water Line (MAHWL) was identified using *"the first observable break in slope, visible markings or changes in the character of soils or vegetation due to prolonged presence of water and that distinguishes between predominantly aquatic and predominantly terrestrial land."*

MAHW lines were extrapolated based on the elevations of the delineated MAHW lines on the West Springfield side of the Westfield River.

2.3.2 Bordering Land Subject to Flooding

Bordering Land Subject to Flooding (BLSF) is defined at 310 CMR 10.57(2)(a) and (c) as *"...an area with low, flat topography adjacent to and inundated by flood waters rising from creeks, rivers, streams, ponds, or lakes. It extends from the banks of these waterways and water bodies; where a bordering vegetated wetland occurs, it extends from said wetland... The boundary of Bordering Land Subject to Flooding is the estimated maximum lateral extent of flood water which will theoretically result from the statistical 100-year frequency storm. Said boundary shall be that determined by reference to the most recently available flood profile data prepared for the community within which the work is proposed under the National Flood Insurance Program..."*

The Federal Emergency Management Agency (FEMA) Flood Insurance Study (FIS, Community Number 250133, June 7, 2023) and Flood Insurance Rate Map (FIRM, Community Panel Number 25013C0382E, effective July 16, 2013) for the area were reviewed during the preparation of this NOI. According to FEMA mapping, the base flood elevation is 66.8 feet North American Vertical Datum (NAVD 88). The Project Site in Agawam is situated well above this elevation.

2.3.3 Riverfront Area

Riverfront Area is defined at 310 CMR 10.58(2), as *"the area of land between a river's mean annual high water line and a parallel line measured horizontally. The riverfront area may include or overlap other resource areas or their buffer zones. The riverfront area does not have a buffer zone."*

The 200-foot Riverfront Area of the Westfield River within the vicinity of the Project Site consists of forested uplands, Bridge Street, and residential properties. Portions of Riverfront Area within the Project Site meet the criteria to be considered previously developed and "degraded" as set forth at 310 CMR 10.58(5). Approximately 6,500 sf of Riverfront Area is located within the vicinity of the Project Locus; 1,900 sf of that is located within the Project's Limit of Work.

2.4 Rare Species

According to the Massachusetts Natural Heritage and Endangered Species Program (NHESP) Atlas (15th edition, effective August 2021) and MassGIS online mapping tool, the proposed work will occur within designated Priority Habitats of Rare Species (PH 1038)

and Estimated Habitats of Rare Wildlife (EH 764). A map illustrating NHESP Priority and Estimated Habitats relative to the proposed limits of work is provided as Figure 4 in Appendix A.

2.4.1 Request for Rare Species Information

On May 31, 2023, the NHESP responded to Tighe & Bond’s request for information regarding state-listed species in the vicinity of the Project Site. A copy of the correspondence with NHESP is provided in Appendix E. Information provided by NHESP is provided in Table 2-1 below.

TABLE 2-1
NHESP Provided Information

Scientific Name	Common Name	Taxonomic Group	State Status
<i>Strophitus undulatus</i>	Creeper	Mussel	Special Concern

As a wholly aquatic species, *S. undulatus* habitat is limited to Land Under Water within the Westfield River.

SECTION 3

Section 3

Project Description

3.1 Site Preparation and Access

The repairs to the bridge will include approximately 11,700 sf of work within the existing Town-owned Right-of-Way. Access to the south abutment will be from the bridge deck; equipment and materials will be lowered to the work area. Deck, sidewalk, and curb repairs will be completed on the existing roadway. Project work on the Agawam portion of the project will not include any significant ground disturbance. These activities are described in the following sections.

3.2 Proposed Activities

The proposed bridge preservation project involves drainage repairs, guardrail and sidewalk repairs, concrete repairs to the substructure (abutments, pier) of the bridge, waterproofing and repaving of the top deck, and repairs to the steel and bearings below the deck. The proposed work will preserve the existing components of the bridge. The project proposes to perform repairs in three phases to complete the scope of work. The repairs in each phase are as follows:

3.2.1 Phase 1

- South Abutment Concrete Repair
 - Concrete repairs are proposed to address areas of spalling and efflorescence on the face of the bridge abutment.

Access - The south abutment will be accessed by lowering equipment and contractors down from the bridge.

Repairs - Abutment repairs will include removing and replacing the utility brick opening with non-deteriorated bricks. Following the brick opening work, the entire surface of the abutment, bridge seat, and wingwall will be cleaned by power washing. All debris will be captured and removed. Spalling and efflorescence repair will consist of removing deteriorated concrete, preparing the surface for new installation, and placing new concrete or cement mortar at repair locations. Concrete sealer will be applied to protect against water damage and provide longevity. Any reinforcing bars that have been deteriorated will be repaired by splicing in reinforcing bars. The repairs and sequence may be modified so that sections with worse deterioration are repaired first.

- Guardrail Repair
 - Guardrail repairs are proposed to address the damage located along the roadway.

Access – The area will be accessed from the existing Bridge Street roadway.

Repairs - Guardrail repair will include the removal and resetting of railing splices. Areas that have missing handrails will be replaced in-kind to match the existing roadway guardrails.

- Pier Repairs
 - Pier repairs will be completed to address exposed rebar and spalling along the south facing section.

Access – The area will be accessed from a snooper truck or suspension from the bridge.

Repairs – Repairs will the removal of any deteriorated or spalling concrete. Exposed rebar will be repaired by splicing reinforced steel bars into the degraded sections. After the sections have been fixed, concrete will be applied to prewetted concrete to interface between existing and new concrete sections. Concrete sealer will be applied to newly installed concrete areas to protect against water damage and increase longevity. All concrete sections once cured, shall be rubbed to produce a smooth finish to match the existing surfaces.

- Sidewalk Repair
 - Sidewalk repairs will be completed to address deterioration that has occurred along the entire Project Site.

Access – The area will be accessed from the existing Bridge Street roadway.

Repairs – Sidewalk repairs will include the removal of loose and deteriorated concrete including oil, dirt, grease and other materials. Following the cleaning, new steel reinforcement will be addressed at the direction of the engineer. The excavated sidewalk will then be filled with low permeability concrete to be flush with the existing deck and sealed to prevent water damage and extend its service life.

- Drainage/Scupper Repair
 - Drainage and scupper repairs will be completed to update the existing pipes.

Access – Scuppers will be accessed by the existing roadway for cleaning and painting, and from under the bridge to attach the pipe to the abutment.

Repairs – Drainage repairs include cleaning out and repainting the existing scuppers. Following the cleaning, a new PVC pipe will be attached to the scuppers by a flexible steel coupling. At pipe bends, cleanouts will be installed for long term maintenance.

3.2.2 Phase 2

- Bridge Joint Repair
 - Joint repairs will address deterioration between the steel and adjacent concrete and upgrade the existing seal.

Access – The area will be accessed from the existing Bridge Street roadway.

Repairs – Joint repairs consist of partial depth concrete repairs to address any deterioration along the seal and roadway. These repairs should be completed in a similar sequence to the deck repairs. Following the concrete replacement, the steel joints will be cleaned and the joint seal will be replaced.

- Pavement Excavation and Membrane Waterproofing
 - Excavation and membrane waterproofing will address the asphalt deterioration along the bridge. Membrane waterproofing will reduce the chances of deterioration from water or chloride intrusion.

Access – The area will be accessed from the existing Bridge Street roadway. Equipment for excavation and repair will be staged along the north side of the bridge.

Repairs – Work on the deck will begin with the removal of deteriorated pavement and waterproofing; this includes any temporary deck repair material that may have been introduced in Phase 1. Following the excavation of materials, the engineer will inspect the deck and address any steel reinforcement repairs at spot locations along the bridge that may need partial or full depth repair. Repaired areas will be filled with a rapid set concrete mixture to be flush with the surrounding surface. After the concrete has cured, the newly repaired deck will be paved with hot mix asphalt over the spray applied membrane waterproofing. Following the deck repair activities and paving, deck drains will be replaced and sealed.

- Curbing Repairs
 - Curbing repairs will address loose or damaged sections along the entire bridge span.

Access – The area will be accessed from the existing Bridge Street roadway. Equipment for excavation and repair will be staged along the north side of the bridge.

Repairs – Curb repairs consist of concrete patching and replacement along the full length of the bridge. Areas that have loose curb or where the membrane has been damaged, should be reset and sealed using non shrink grout.

3.2.3 Phase 3

- Replace and Paint Bearings
 - Cleaning and painting the bridge substructure will reduce chlorine intrusion and enhance its appearance.

Access – The north abutment will be accessed with equipment staged on the ground surface adjacent to the bridge. Beam ends will be accessed by framing off the bridge.

Repairs – Demolish and replace existing north abutment bearing. Following replacement, paint the full width of the beams and cross bracings per the special provisions.

- Exterior Girder End Repair
 - Address deterioration on the girder ends and replace steel plates as necessary.

Access – The area will be accessed with equipment staged on the ground surface adjacent to the bridge. Girder ends will be accessed by framing off the bridge.

Repairs – Address any areas with section loss by cutting, grinding, or replacing the area with steel filler plates. In areas of significant deterioration, epoxy repair fairing compound should be applied. Sections should then be cleaned, painted and sealed per the special provisions

Project Drawings for all three phases of the project are provided in Appendix B.

3.3 Construction Period Protective Measures

3.3.1 Erosion Control Barriers

Erosion control barriers will be placed downgradient of the repair work as needed. Erosion control barriers will consist of compost filter tubes or similar products. The proposed locations of these barriers and typical details are shown on Sheets 5 and 6, respectively, of the Project Drawings in Appendix B. The contractor will be required to maintain a reserve supply of erosion control barriers on-site to make repairs, as necessary. During blast cleaning and painting, the contractor will be required to work in a manner that prevents debris from falling into sensitive resource areas. At the conclusion of the project, the erosion control barriers will be removed and properly disposed of off-site following the stabilization of disturbed areas. Inlet protection will be installed at catch basins near the project area. Additional measures include street sweeping, as needed. The proposed locations of these barriers and protective measures are shown on erosion control detail the Project Drawings.

3.4 Alternatives Analysis

3.4.1 No Action

A no-build alternative would take no action at this time to repair the existing deterioration. This alternative would have the smallest impact at this time, however the condition of the structure will continue to decline as the bridge ages requiring larger, more invasive repairs or a complete structure replacement at a later date. This approach will be more expensive and will cause more significant impacts to resource areas.

3.4.2 Bridge Preservation

The preferred alternative, bridge preservation, addresses the current minor deficiencies of the structure with the objective of maintaining and preserving the structure to maximize service life. This approach to asset management aims to prevent more costly, more invasive repairs by addressing early signs of deterioration. This alternative minimizes impacts to resource areas by addressing deterioration while it is relatively minor.

3.4.3 Bridge Replacement

This is the most expensive, invasive alternative. The Vietnam Veteran's Memorial Bridge is a complex structure that crosses the Westfield River with two 160-foot spans for a total of 320 feet. A replacement structure would require work not only within resource areas along the banks of the river but also work within the river. The Westfield River is a regulatory floodway, and is mapped for Estimated Habitats of Rare Wildlife, and Priority Habitats for Rare Species. A replacement would involve evaluating the substructure elements for reuse. If the pier is found to be beyond repair or insufficient to support a

new superstructure the pier may require replacement or at a minimum structural reinforcement; both would require work within the water. While the abutments are set back from the river banks, replacement or structural reinforcement would both have significant impacts within resource areas. The bridge was originally constructed in the early 1970s. Based on the current condition and age of the bridge, if no preservation action were taken, a limitations may be imposed within 10 to 15 years and a possible complete closure within 30 to 40 years.

Given the bridge length of 320 feet necessary to span the river, a pier is required. The Massachusetts Department of Transportation recommends a maximum span length of 150', and for spans beyond 150', the design engineer should consider a multi-span structure. If a multi-span structure is not possible, a special study would be required to determine the more appropriate structure which would balance superstructure and substructure costs to optimize design as well as balancing aesthetics and constructability.

SECTION 4

Section 4

Regulatory Compliance

The proposed activities fall within areas subject to the Agawam Conservation Commission's jurisdiction under the MAWPA. The project has been designed to avoid environmental impacts when possible and to minimize unavoidable impacts when practicable. Descriptions of the project's compliance with the regulatory requirements of the WPA are provided in the following sections.

4.1 Massachusetts Wetlands Protection Act

4.1.1 Limited Project Status

The proposed redevelopment of the Vietnam Veterans Memorial Bridge qualifies for consideration as a Limited Project per 310 CMR 10.53(3)(i):

The maintenance, repair and improvement (but not substantial enlargement except when necessary to meet the Massachusetts Stream Crossing Standards) of structures, including dams and reservoirs and appurtenant works to such dams and reservoirs, buildings, piers, towers, headwalls, bridges, and culverts which existed on the effective date of 310 CMR 10.51 through 10.60 (April 1, 1983). (310 CMR 10.53(3)(i)).

The Town respectfully requests that the Commission grant Limited Project status to the proposed activities at the bridge relative to the following requirements:

- 310 CMR 10.58(5)(f) – Riverfront Area Restoration
- 310 CMR 10.58(5)(g) – Riverfront Area Mitigation

An alternatives analysis has been completed and can be found in Section 3.4. Compliance with performance standards has been achieved to the maximum extent practicable. Descriptions of the proposed activities relative to the performance standards are presented in Section 4.1.3.

4.1.2 Summary of MAWPA Jurisdictional Alterations

Activities associated with the proposed rehabilitation of the bridge in Agawam are located within the limits of the following jurisdictional areas:

- Riverfront Area
- 100-foot Buffer Zone to Bank

The following sections describe how the proposed project satisfies the Performance Standards set forth in the MAWPA.

As summarized in WPA Form 3, the project will result in approximately 1,900 sf of alterations within the 100-foot Buffer Zone to Bank and Riverfront Area. While the total Limits of Work for the project occupy approximately 11,700 sf of space within these resource areas, impacts should only occur within the existing footprint of the bridge.

Activities within these resource areas include repairs to the existing bridge components. Selective trimming of vegetation may be needed surrounding the abutment in order to provide clear access to equipment and contractors to perform repairs in the area. A summary of jurisdictional alterations is presented below in Table 4-1.

TABLE 4-1

Summary of Proposed Alterations to Jurisdictional Areas

Municipality	BLSF (sf)	BLSF (cf)	Riverfront Area	Riverfront Area
			(sf) 0-100 feet	(sf) 100-200 feet
Agawam:	0	0	1,900	0
West Springfield:	3,400	3,400	11,000	10,000
TOTAL:	3,400	3,400	12,900	10,000

4.1.3 Riverfront Area Performance Standards Compliance

As described in Section 2, portions of the Westfield River Riverfront Area meet the criteria to be considered previously developed and “degraded” as set forth at 310 CMR 10.58(5). Specifically, 1,900 square feet of the Riverfront Area within the Project Site is occupied by the paved surface of Bridge Street. The proposed project will result in approximately 1,900 square feet of alterations to Riverfront Area due to the activities associated with the bridge improvements. The performance standards for Riverfront redevelopment provisions set forth at 310 CMR 10.58(5) are presented below.

- (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.*

As portions of the Riverfront Area within the Project Locus qualify as previously developed and/or degraded, the proposed activities have been compared to the requirements of 310 CMR 10.58(5). Proposed activities will result in the redevelopment of the existing bridge to prolong the life of the existing bridge. Bridge repairs are confined to the existing footprint and components of the bridge. Selective trimming of vegetation will occur surrounding the abutment to provide access to the perform the work. Access to abutment will be made from the roadway above. Contractor access to the area surrounding the abutment may be needed but will not result in disturbance to the ground.

- (b) *Stormwater management is provided according to standards established by the Department.*

The proposed project will not result in any new point source discharges and will not result in an increase in impervious surfaces. Therefore, the project is not required to comply with the MassDEP Massachusetts Stormwater Management Standards (Standards).

- (c) *Within 200-foot riverfront area, proposed work shall not be located closer to the river than existing conditions or 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).*

The bridge repair activities are proposed within the footprint of the existing bridge components; therefore, the proposed work will not be located any closer to the Westfield River than existing conditions.

- (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).*

As mentioned above, the proposed bridge repair activities are within the footprint of the existing bridge component; therefore, the proposed work will not be located any closer to the Westfield River than existing conditions.

- (e) *The area of proposed work shall not exceed the amount of degraded area, provided that the proposed work may alter up to 10% if the degraded area is less than 10% of the riverfront area, except in accordance with 310 CMR 10.58(5)(f) or (g).*

The proposed project aims to redevelop the existing bridge structure. Proposed project activities are located within the existing footprint of the bridge, which is within degraded Riverfront Area, and thus the proposed work shall not exceed the amount of existing degraded area. While the amount of degraded Riverfront Area within the Project Locus is greater than 10% of the total Riverfront Area, the proposed project activities are confined to previously degraded Riverfront Area and will not extend into non-degraded Riverfront Area.

- (f) *When an applicant proposed restoration on-site of degraded riverfront area, alteration may be allowed notwithstanding the criteria of 310 CMR 10.58(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. Restoration shall include*

- 1. removal of all debris, but retaining any trees or other mature vegetation;*
- 2. grading to a topography which reduces runoff and increases infiltration;*
- 3. coverage by topsoil at a depth consistent with natural conditions at the site; and*
- 4. seeding and planting with an erosion control seed mixture, followed by plantings of herbaceous and woody species appropriate to the site.*

Disturbance to unimproved or non-degraded portions of Riverfront Area is not proposed with this project. This project will not increase the amount of degraded Riverfront Area at the site as the bridge repair activities are proposed within the footprints of the existing bridge structure. Any disturbed areas will be stabilized upon completion of construction.

- (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(c), (d), or (e) at a ratio in square feet of at least 2:1 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. Alteration not conforming to the criteria shall begin at the riverfront area boundary. Mitigation may include off-site restoration of riverfront areas, conservation restrictions under M.G.L. c. 184 §§ 31 to 33 to preserve undisturbed riverfront area that could otherwise be altered under 310 CMR 10.00, the purchase of*

development rights within the riverfront area, the restoration of bordering vegetated wetland, projects to remedy an existing adverse impact on the interests identified in M.G.L. c. 131 § 40 for which the applicant is not legally responsible, or similar activities undertaken voluntarily by the applicant which will support a determination by the issuing authority of no significant adverse impact. Preference shall be given to potential mitigation projects, if any, identified in a River Basin Plan approved by the Secretary of the Executive Office of Environmental Affairs.

The Project Site is highly constrained due to the nature of the proposed work as a bridge improvement project as well as the steep topography on-site, and thus on-site mitigation and restoration is not feasible. Disturbance to non-degraded Riverfront Area is not anticipated with this project as proposed activities are confined to the existing bridge structure. Any disturbed areas will be stabilized upon completion of construction.

4.1.4 Stormwater Management

As the proposed project activities are limited to the components and footprint of the existing bridge, no new impervious surfaces or point source discharges will result from the proposed activities. Per the recommended final decision issued on July 29, 2016 in the Matter of Berkshire Community College Docket # WET-2015-023 from the MassDEP Office of Appeals and Dispute Resolution, it was ruled that 310 CMR 10.05(6)(k) through (q) does not apply to a project that does not propose a "point source" or "stormwater discharge" within resource areas or their Buffer Zones.

4.1.5 Abutter Notification

Abutters within 100 feet of the Project Locus were notified by Tighe & Bond in accordance with the MAWPA. Copies of the lists of abutters are provided in Appendix D.

4.1.6 Estimated Habitats of Rare Wildlife

In accordance with the requirements set forth at 310 CMR 10.59, a copy of this NOI has been submitted to NHESP.

4.2 Massachusetts Endangered Species Act

The proposed work activities associated with this project take place in both the Towns of Agawam and West Springfield. Table 4-2 below outlines the areas of rare species mapped by NHESP with relation to the limits of work for each respective town. A separate Notice of Intent has been prepared and submitted for the portion of the proposed work in West Springfield.

TABLE 4-2

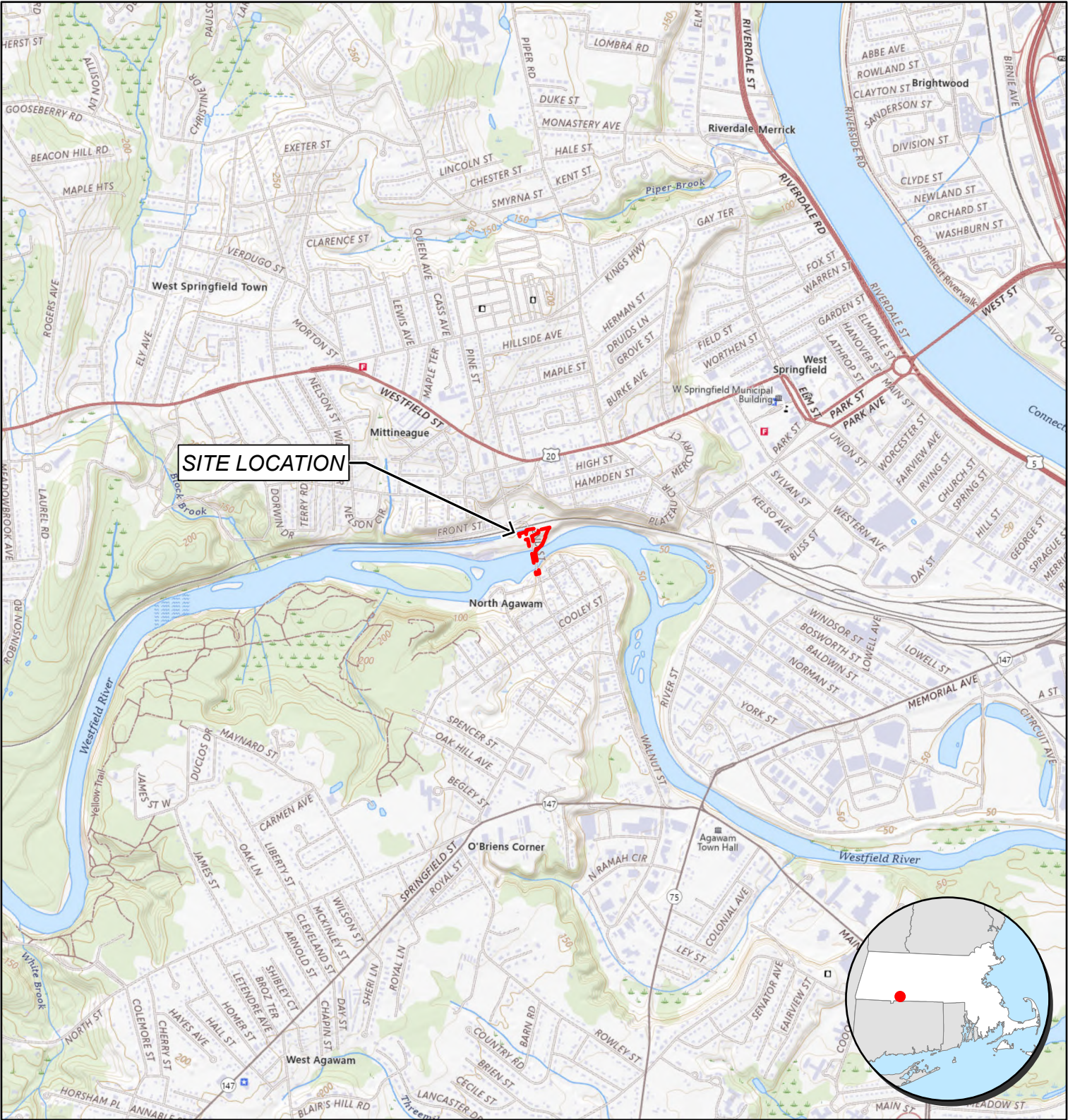
Summary of NHESP Priority Habitat within the Project Locus

Town	NHESP Mapped Area (Acres)	Percentage of Town-Specific Project Area
Agawam	0.30	97%
West Springfield	0.48	38%

APPENDIX A

FIGURE 1
SITE LOCATION
March 2025

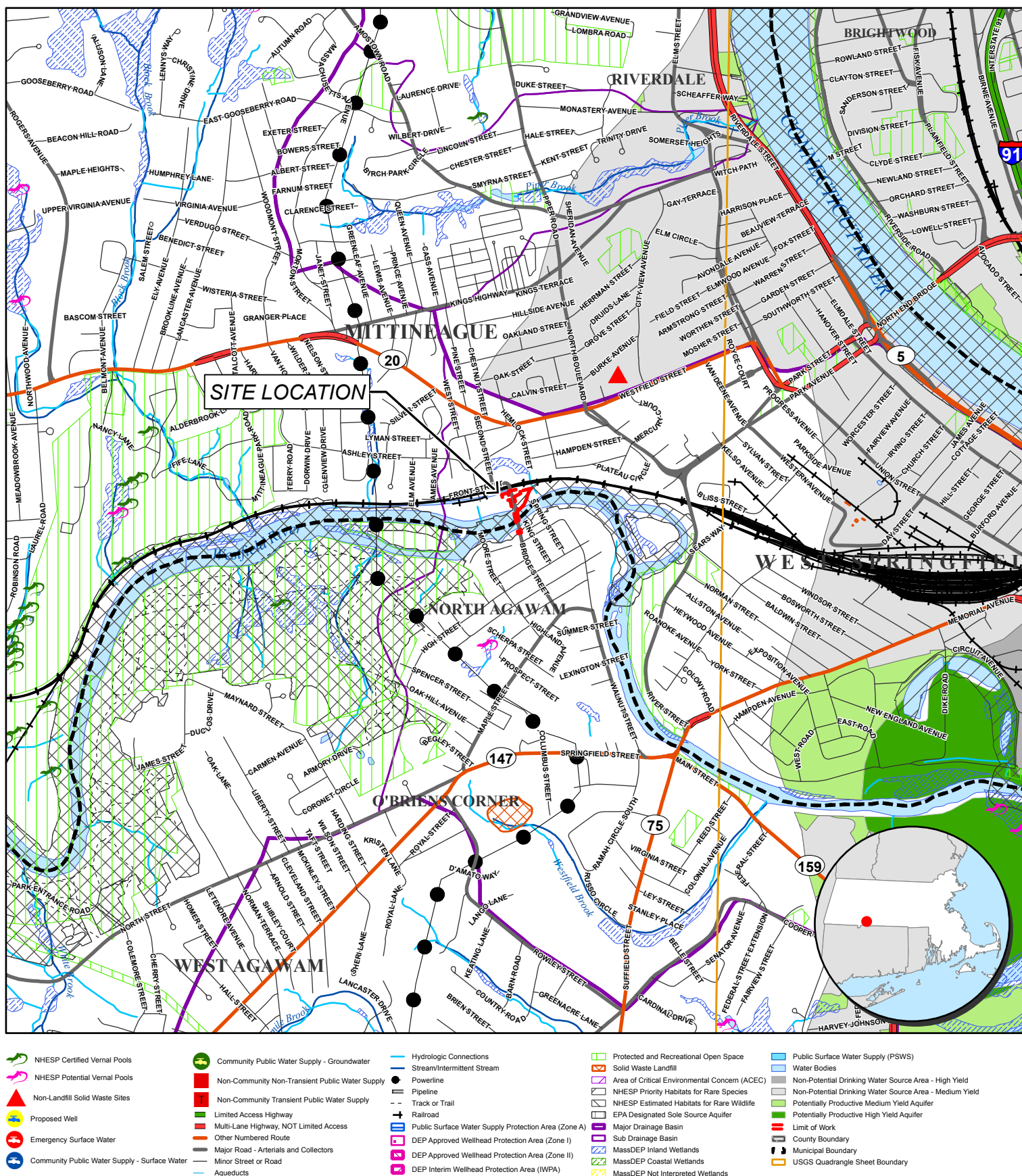
Vietnam Veterans Memorial Bridge over Westfield River
Bridge Street Agawam, Massachusetts
and Front Street West Springfield, Massachusetts



Limit of Work

FIGURE 2
PRIORITY RESOURCES
 March 2025

Vietnam Veterans Memorial Bridge over Westfield River
 Bridge Street Agawam, Massachusetts
 and Front Street West Springfield, Massachusetts



March 2025

and Front Street West Springfield, Massachusetts

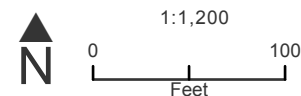
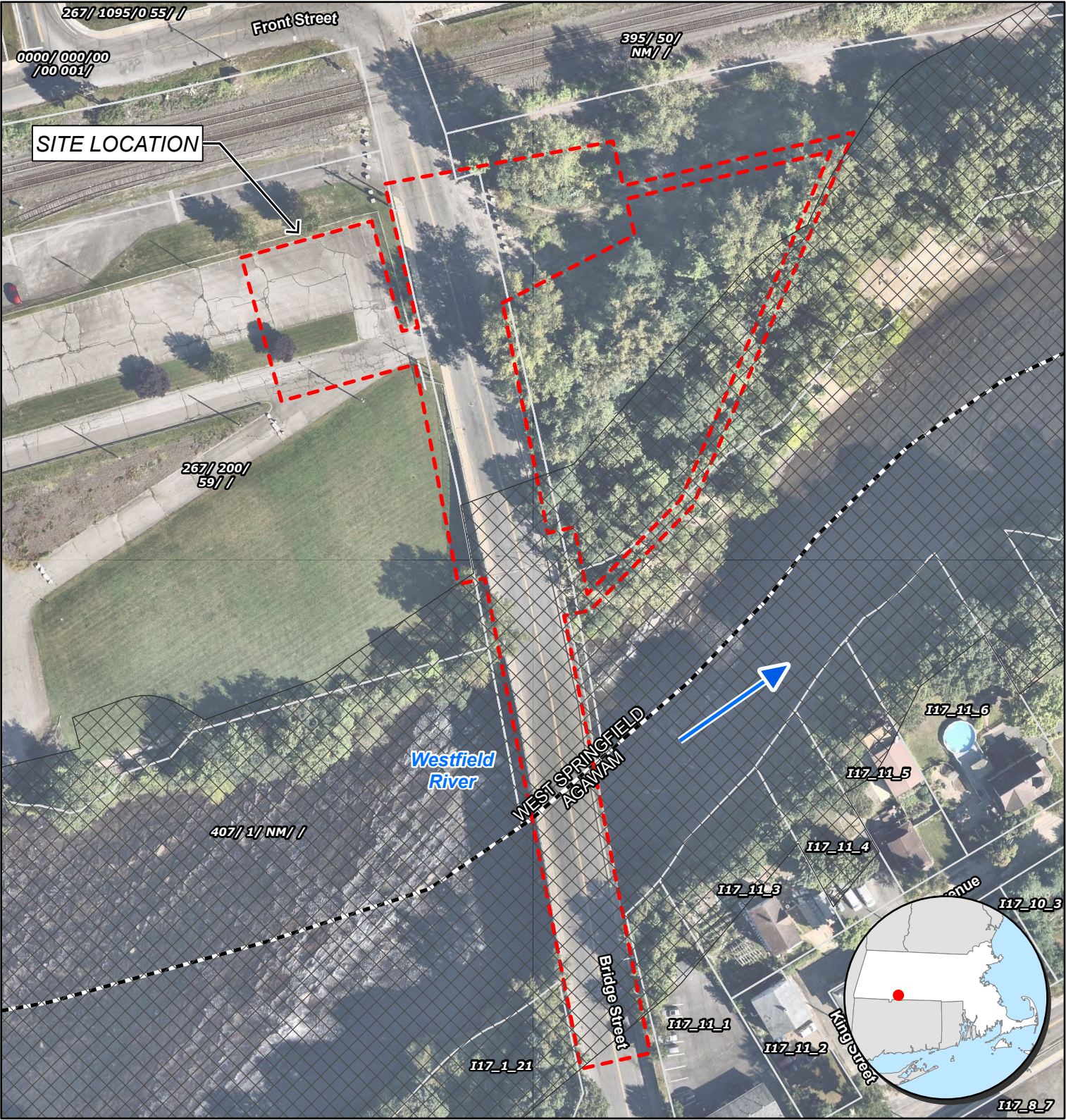


FIGURE 4
NHESP ESTIMATED AND PRIORITY HABITAT MAP
 March 2025

Vietnam Veterans Memorial Bridge over Westfield River
 Bridge Street Agawam, Massachusetts
 and Front Street West Springfield, Massachusetts

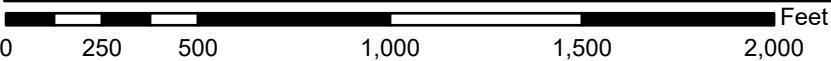
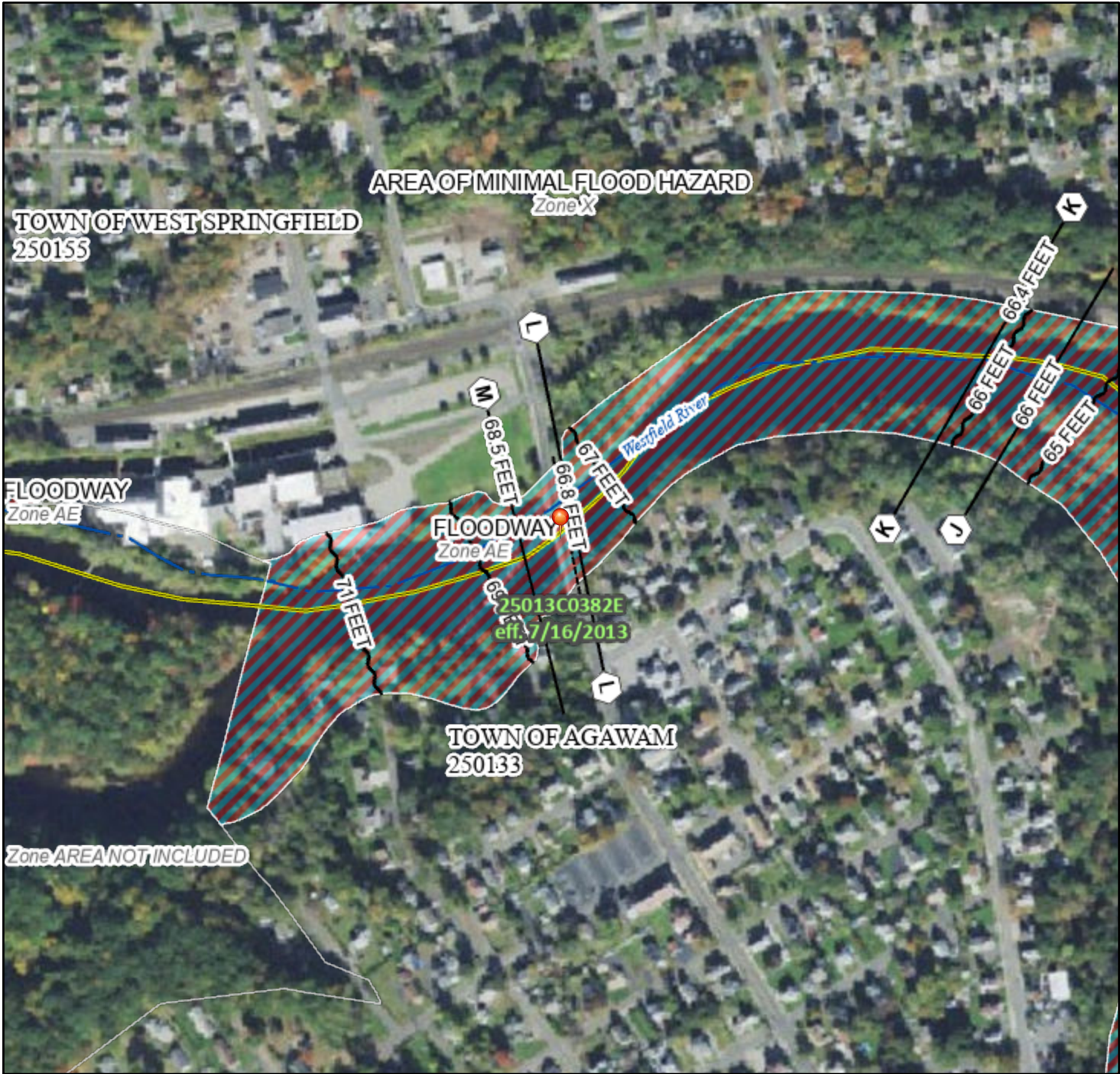


National Flood Hazard Layer FIRMette

72°38'29"W 42°6'11"N



Figure 5: FEMA FIRMette



1:6,000

72°37'52"W 42°5'44"N

Basemap Imagery Source: USGS National Map 2023

Legend

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

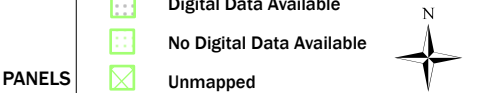
SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE) Zone A, V, A99
		With BFE or Depth Zone AE, AO, AH, VE, AR
		Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD		0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
		Future Conditions 1% Annual Chance Flood Hazard Zone X
		Area with Reduced Flood Risk due to Levee. See Notes. Zone X
		Area with Flood Risk due to Levee Zone D

OTHER AREAS		NO SCREEN Area of Minimal Flood Hazard Zone X
		Effective LOMRs
GENERAL STRUCTURES		Area of Undetermined Flood Hazard Zone D

GENERAL STRUCTURES		Channel, Culvert, or Storm Sewer
		Levee, Dike, or Floodwall

OTHER FEATURES		20.2 Cross Sections with 1% Annual Chance Water Surface Elevation
		17.5 Cross Sections with 1% Annual Chance Water Surface Elevation
		Coastal Transect
		Base Flood Elevation Line (BFE)
		Limit of Study
		Jurisdiction Boundary
		Coastal Transect Baseline
		Profile Baseline
MAP PANELS		Digital Data Available
		No Digital Data Available
		Unmapped



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

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

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 2/25/2025 at 3:32 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

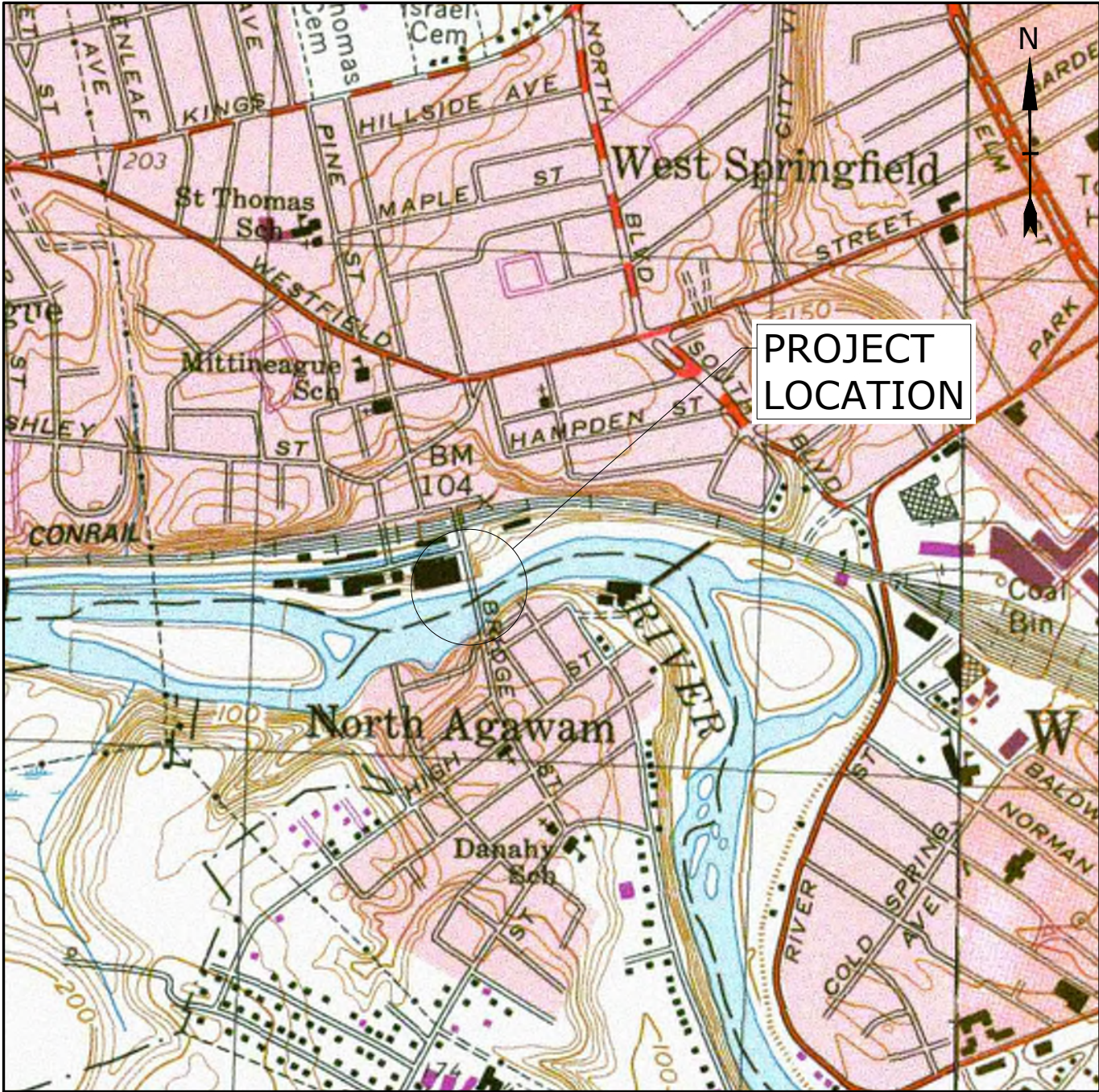
APPENDIX B

TOWN OF AGAWAM AND TOWN OF WEST SPRINGFIELD, MASSACHUSETTS

VIETNAM VETERANS MEMORIAL BRIDGE PROPOSED BRIDGE PRESERVATION BRIDGE STREET OVER THE WESTFIELD RIVER A-05-003=W-21-013 (0KX)

PHASE 1 90% SUBMITTAL MARCH 2025

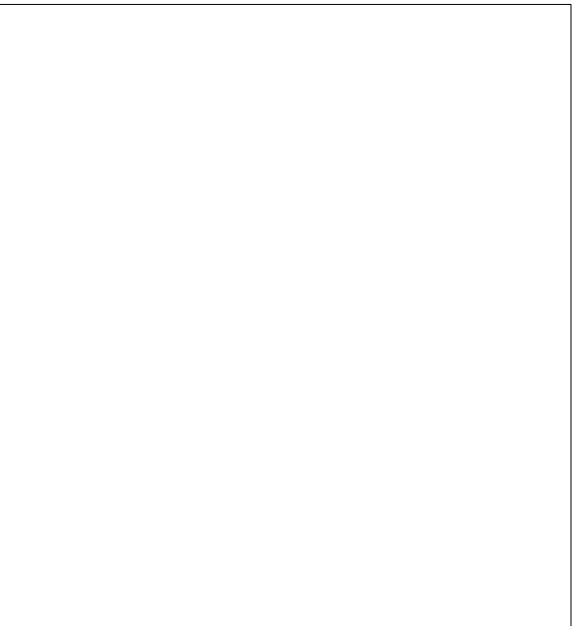
LIST OF DRAWINGS	
SHEET NO.	SHEET TITLE
1	COVER
2	BRIDGE KEY PLAN, PROFILES, & LOCUS
3	GENERAL NOTES
4	LEGEND & ABBREVIATIONS
5	EXISTING CONDITIONS & CONSTRUCTION STAGING PLAN
6	EROSION CONTROL DETAILS
7	TEMPORARY TRAFFIC CONTROL PLAN
8	GENERAL BRIDGE PLAN & ELEVATION
9	NORTH ABUTMENT PROPOSED REPAIRS
10	SOUTH ABUTMENT PROPOSED REPAIRS
11	SUBSTRUCTURE REPAIR DETAILS
12	SIDEWALK REPAIR DETAILS (SHEET 1 OF 2)
13	SIDEWALK REPAIR DETAILS (SHEET 2 OF 2)
14	GUARDRAIL REPAIR DETAILS
15	DRAINAGE REPAIR DETAILS



LOCATION MAP
SCALE: 1" = 1000'

PREPARED BY:

Tighe&Bond

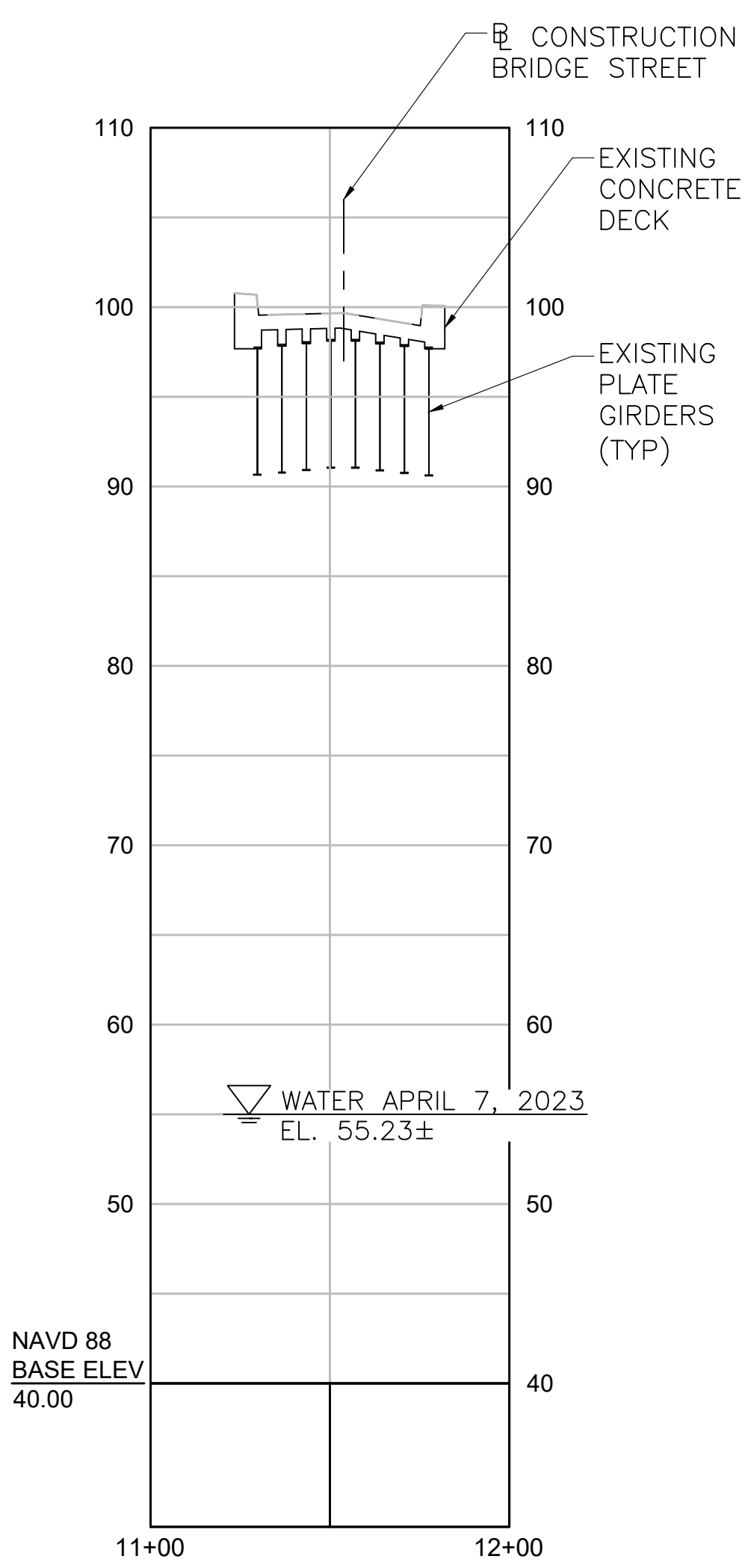
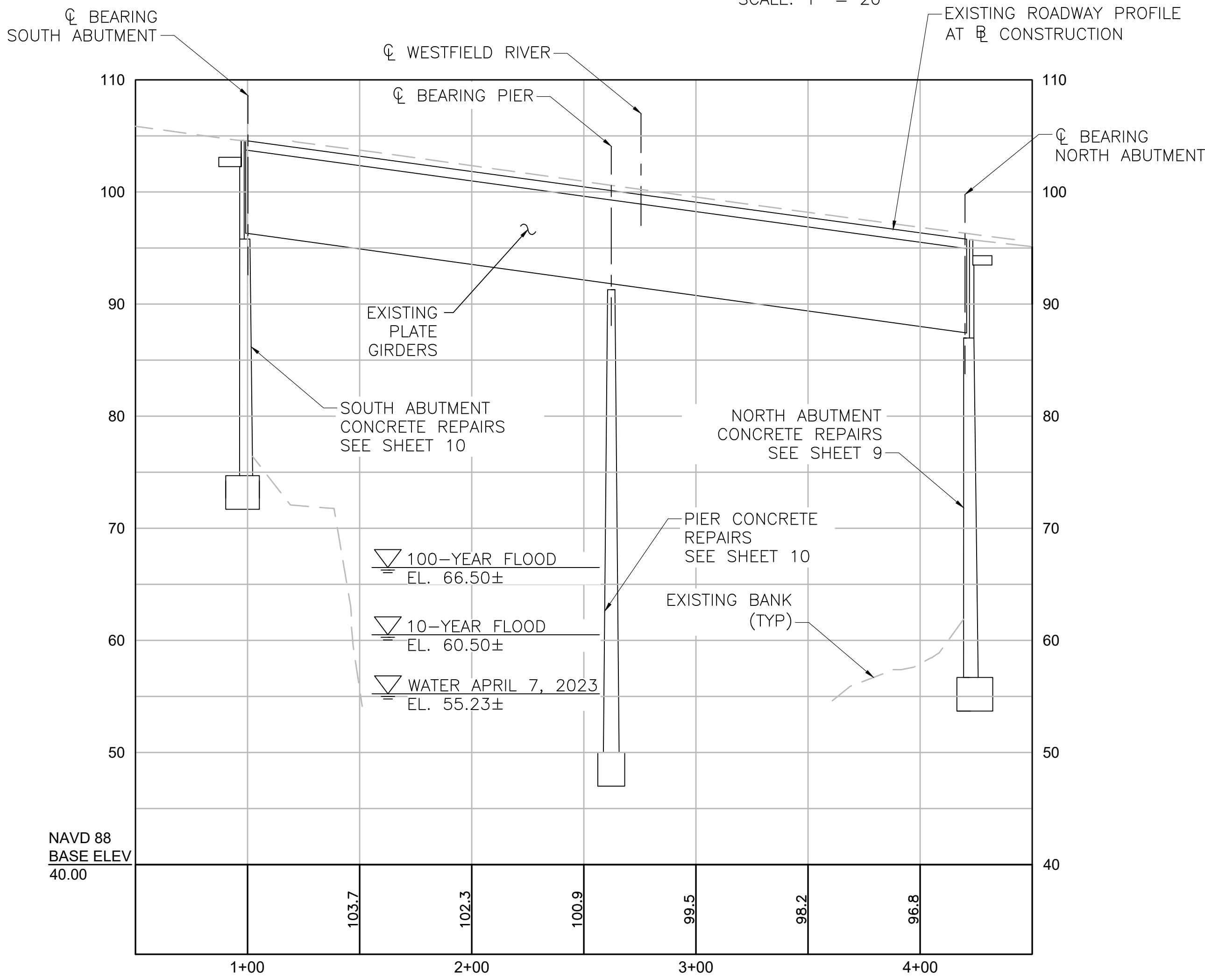
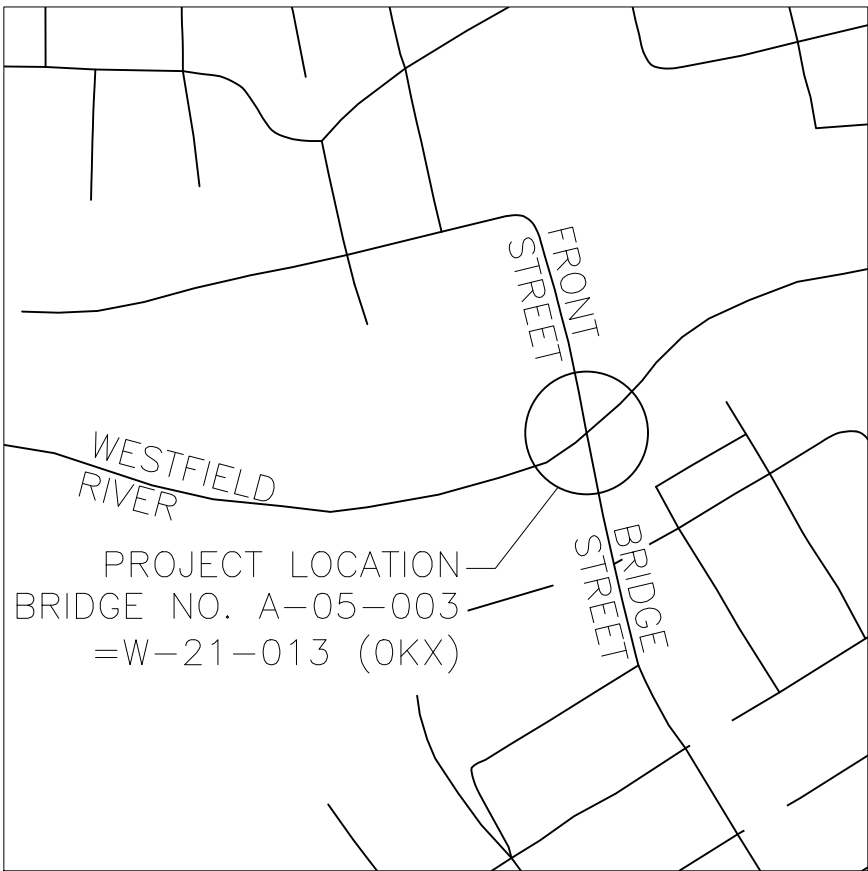
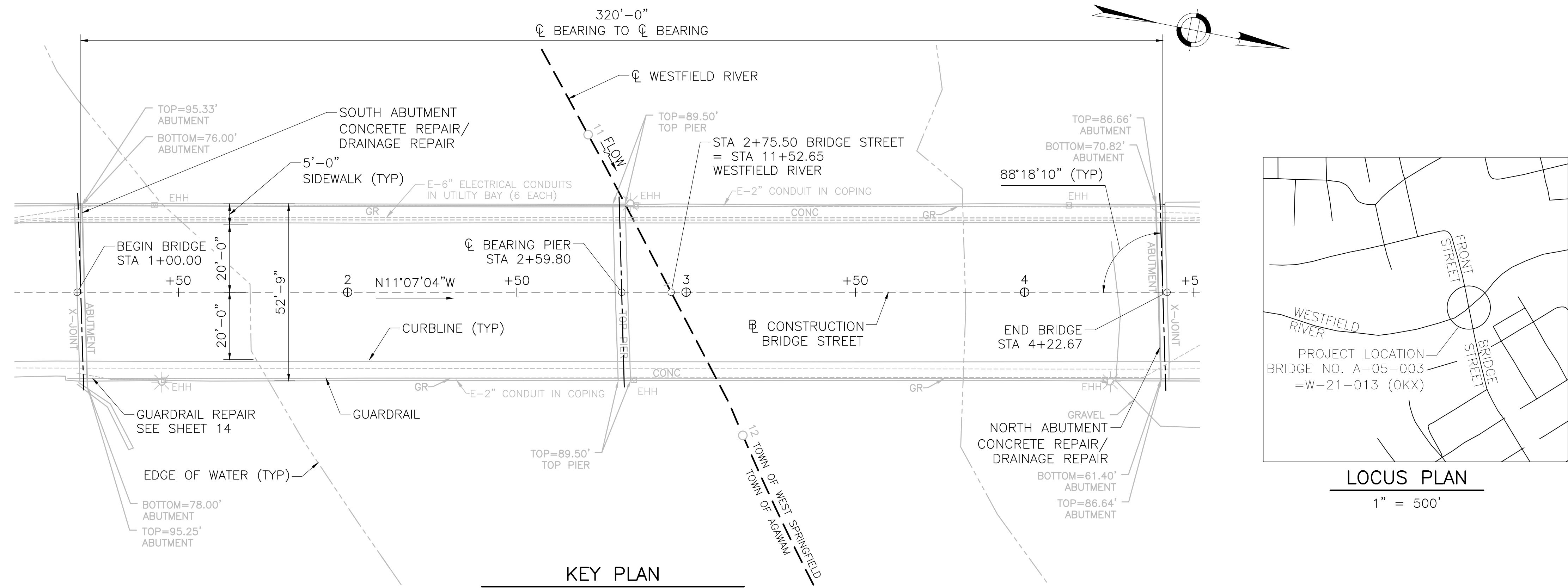


PREPARED FOR:

TOWN OF WEST SPRINGFIELD
DEPARTMENT OF PUBLIC WORKS
ROB COLSON, DPW DIRECTOR
TOWN OF AGAWAM
DEPARTMENT OF PUBLIC WORKS
MARIO MAZZA, DPW SUPERINTENDENT

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**NOT FOR CONSTRUCTION
COMPLETE SET 15 SHEETS**



ESTIMATED QUANTITIES			
(NOT GUARANTEED)			
ITEM NO.	DESCRIPTION	QTY	UNIT
100.71	MASONRY WORK	1	LS
101.	CLEARING AND GRUBBING	0.30	A
107.64	REMOVAL AND REPLACEMENT OF BRIDGE RAILING	10	FT
107.855	PRESSURE INJECTION OF CRACKS	60	FT
127.1	REINFORCED CONCRETE EXCAVATION	10	CY
748.	MOBILIZATION	1	LS
767.121	SEDIMENT CONTROL BARRIER	200	FT
811.34	PULL BOX REPLACED	6	EA
850.	TRAFFIC CONTROLS FOR CONSTRUCTION AND MAINTENANCE OPERATIONS	1	LS
905.2	5000 PSI, 3/8 INCH, 710 CEMENT CONCRETE	6	CY
909.2	CEMENTITIOUS MORTAR FOR PATCHING	300	SF
910.1	STEEL REINFORCEMENT FOR STRUCTURES	2800	LB
915.4	BRICK MASONRY	80	SF
964.01	CONCRETE PENETRANT SEALER	2400	SF
964.1	EPOXY BONDING COMPOUND	300	SF
968.1	SCUPPER AND DOWNSPOUT	2	EA

COMMONWEALTH OF MASSACHUSETTS
MassDOT, Highway Division
**APPROVED UNDER PROVISIONS OF
MASS. GEN. LAWS CH 85 § 35**
DISTRICT 2 BRIDGE ENGINEER DATE

90% SUBMITTAL

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PROPOSED BRIDGE
PRESERVATION
PHASE 1

AGAWAM /
WEST SPRINGFIELD

VIETNAM VETERANS
MEMORIAL BRIDGE

BRIDGE STREET
OVER
WESTFIELD RIVER
A-05-003 = W-21-013
(OKX)

MARK	DATE	DESCRIPTION
PROJECT NO:	W1975-059	
DATE:	MARCH 2025	
FILE:	W1975-059-11-P1-BR FIRST SHEET.dwg	
DRAWN BY:	JHM	
DESIGNED/CHECKED BY:	AML	
APPROVED BY:	JRI	

BRIDGE KEY PLAN,
PROFILES, & LOCUS

SCALE: AS SHOWN

SHEET 2 OF 15

Last Saved: 3/5/2025 11:45pm By: SSak
Plotted On: Rpt 12, 2025-1-45pm By: SSak
Title & Content: W1975-059-20-P1-G-GENERAL NOTES.dwg
Project: 059 - Bridge St. over Westfield River Drawings: Figures/AutoCAD/Sheet/Phase 1/W1975-059-20-P1-G-GENERAL NOTES.dwg

DESIGN LOADS AND SPECIFICATIONS:

1. DESIGN LOADING:	H20–44
2. DESIGN METHOD:	(1971) DESIGN LOADING
3. SPECIFICATIONS:	AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 9TH ED., 2020 AS AMENDED MASSDOT LRFD BRIDGE MANUAL, 2013, AS AMENDED BY SUPPLEMENTS THE MASSACHUSETTS HIGHWAY DEPARTMENT STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES DATED 2024
4. REINFORCING STEEL:	AASHTO M31 (ASTM A 615) GRADE 60 EPOXY COATED BARS
5. CONCRETE:	ABUTMENT REPAIRS: 5000 PSI, 3/8", 710 CEMENT CONCRETE SIDEWALK REPAIRS: 5000 PSI, 3/8", 710 CEMENT CONCRETE

BASE PLAN NOTES

- THE EXISTING CONDITIONS INFORMATION SHOWN ON THE DRAWINGS IS BASED ON SURVEY DRAWINGS PROVIDED BY WSP USA INC. TITLED "MASSACHUSETTS DEPARTMENT OF TRANSPORTATION PLAN OF TOPOGRAPHIC SURVEY OF FRONT STREET & BRIDGE STREET" AND DATED APRIL 7, 2023.
- UTILITY LOCATIONS SHOWN WERE PLOTTED FROM INFORMATION SUPPLIED BY RESPECTIVE UTILITY COMPANIES AND DATA OBTAINED FROM FIELD SURVEYS AND AS BUILT DRAWINGS. THE ACCURACY AND COMPLETENESS OF SUBSURFACE INFORMATION SHOWN ON THESE DRAWINGS IS NOT GUARANTEED.
- THE HORIZONTAL COORDINATE SYSTEM IS THE NORTH AMERICAN DATUM OF 1983 (NAD 83), MASSACHUSETTS STATE PLANE, MAINLAND ZONE, US FEET. VERTICAL DATUM IS THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).
- THE EXISTING CONDITIONS SHOWN ARE APPROXIMATE. CONTRACTOR TO FIELD VERIFY EXISTING CONDITIONS.
- WETLAND RESOURCE AREAS WERE DELINEATED BY TIGHE & BOND, INC. ON APRIL 13, 2023

GENERAL NOTES

- NOTIFY DIGSAFE AT 1–888–344–7233 AND OTHER UTILITY OWNERS IN THE AREA NOT ON THE DIGSAFE LIST AT LEAST 72 HOURS PRIOR TO ANY DIGGING, TRENCHING, ROCK REMOVAL, DEMOLITION, BORING, BACKFILLING, GRADING, LANDSCAPING, OR ANY OTHER EARTH MOVING OPERATIONS.
- LOCATIONS OF EXISTING UTILITIES ARE APPROXIMATE. IN ADDITION, SOME UTILITIES MAY NOT BE SHOWN. DETERMINE THE EXACT LOCATION OF UTILITIES BY TEST PIT OR OTHER METHODS, AS NECESSARY TO PREVENT DAMAGE TO UTILITIES AND/OR INTERRUPTIONS IN UTILITY SERVICE OR CONSTRUCTION OPERATIONS. PERFORM TEST PIT EXCAVATIONS AND OTHER INVESTIGATIONS TO LOCATE UTILITIES, AND PROVIDE THIS INFORMATION TO THE ENGINEER, PRIOR TO CONSTRUCTING THE PROPOSED IMPROVEMENTS. LOCATE ALL EXISTING UTILITIES TO BE CROSSED BY HAND EXCAVATION.
- NOTIFY THE ENGINEER OF ANY UTILITIES IDENTIFIED DURING CONSTRUCTION THAT ARE NOT SHOWN ON THE DRAWINGS OR THAT DIFFER IN SIZE OR MATERIAL.
- TIGHE & BOND ASSUMES NO RESPONSIBILITY FOR ANY ISSUES, LEGAL OR OTHERWISE, RESULTING FROM CHANGES MADE TO THESE DRAWINGS WITHOUT WRITTEN AUTHORIZATION FROM TIGHE & BOND.
- THE CONTRACTOR IS RESPONSIBLE FOR SITE SAFETY; COORDINATION WITH THE OWNER, ALL SUBCONTRACTORS, WITH OTHER CONTRACTORS WORKING WITHIN THE LIMITS OF WORK, AND THE MEANS AND METHODS OF CONSTRUCTING THE PROPOSED WORK.
- OBTAIN, PAY FOR AND COMPLY WITH PERMITS, NOTICES AND FEES NECESSARY TO COMPLETE THE WORK. ARRANGE AND PAY FOR NECESSARY INSPECTIONS AND APPROVALS FROM THE JURISDICTIONAL AUTHORITIES.
- FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO CONSTRUCTION. IF FIELD CONDITIONS ARE OBSERVED THAT VARY SIGNIFICANTLY FROM THOSE SHOWN ON THE DRAWINGS, IMMEDIATELY NOTIFY THE ENGINEER IN WRITING FOR RESOLUTION OF THE CONFLICTING INFORMATION.
- PROTECT AND MAINTAIN ALL UTILITIES IN THE AREAS UNDER CONSTRUCTION DURING THE WORK. LEAVE ALL PIPES AND STRUCTURES WITHIN THE LIMITS OF THE CONTRACT IN A CLEAN AND OPERABLE CONDITION AT THE COMPLETION OF THE WORK. TAKE ALL NECESSARY PRECAUTIONS TO PREVENT SAND AND SILT FROM DISTURBED AREAS FROM ENTERING THE DRAINAGE SYSTEM.
- NOTIFY THE ENGINEER IN WRITING OF ANY CONFLICT, ERROR, AMBIGUITY, OR DISCREPANCY WITH THE PLANS OR BETWEEN THE PLANS AND ANY APPLICABLE LAW, REGULATION, CODE, STANDARD SPECIFICATION, OR MANUFACTURER’S INSTRUCTIONS.

- THE CONTRACTOR IS RESPONSIBLE FOR SUPPORT OF EXISTING UTILITIES AND REPAIR OR REPLACEMENT COSTS OF UTILITIES DAMAGED DURING CONSTRUCTION, WHETHER ABOVE OR BELOW GRADE. REPLACE DAMAGED UTILITIES IMMEDIATELY AT NO ADDITIONAL COST TO THE OWNER AND AT NO COST TO THE PROPERTY OWNER.
- TAKE NECESSARY MEASURES AND PROVIDE CONTINUOUS BARRIERS OF SUFFICIENT TYPE, SIZE, AND STRENGTH TO PREVENT ACCESS TO ALL WORK AND STAGING AREAS AT THE COMPLETION OF EACH DAYS WORK.
- NO OPEN TRENCHES WILL BE ALLOWED OVERNIGHT. THE USE OF ROAD PLATES TO PROTECT THE EXCAVATION WILL BE CONSIDERED UPON REQUEST, BUT BACKFILLING IS PREFERRED.
- THE CONTRACTOR IS RESPONSIBLE FOR ALL NECESSARY TRAFFIC CONTROL/SAFETY DEVICES TO ENSURE SAFE VEHICULAR AND PEDESTRIAN ACCESS THROUGH THE WORK AREA, OR FOR SAFELY IMPLEMENTING DETOURS AROUND THE WORK AREA. PERFORM TRAFFIC CONTROL IN ACCORDANCE WITH THE CONTRACTOR’S APPROVED TRAFFIC CONTROL PLAN.
- MAINTAIN EMERGENCY ACCESS TO ALL PROPERTIES WITHIN THE PROJECT AREA AT ALL TIMES DURING CONSTRUCTION.
- WHEN WORKING IN THE ROAD, PROVIDE THE OWNER AND LOCAL FIRE/POLICE/SCHOOL AUTHORITIES A DETAILED PLAN OF APPROACH INDICATING METHODS OF PROPOSED TRAFFIC ROUTING ON A DAILY BASIS. PROVIDE COORDINATION TO ENSURE COMMUNICATION AND COORDINATION BETWEEN THE OWNER, CONTRACTOR AND LOCAL FIRE/POLICE/SCHOOL AUTHORITIES THROUGHOUT THE CONSTRUCTION PERIOD.
- REMOVE AND DISPOSE OF ALL CONSTRUCTION–RELATED WASTE MATERIALS AND DEBRIS IN STRICT ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE, AND FEDERAL LAWS.
- ALL PROPOSED WORK MAY BE ADJUSTED IN THE FIELD BY THE ENGINEER TO MEET EXISTING CONDITIONS.
- ALL DEBRIS GENERATED AS A RESULT OF THE WORK IS TO BE CLEANED UP DAILY AND CONTAINERIZED OR STABILIZED BY THE END OF EACH WORKDAY.

REINFORCEMENT

- ANY CAST–IN–PLACE CONCRETE SHALL MEET AASHTO COVER REQUIREMENTS.
- WHERE REINFORCEMENT IS NOT SHOWN ON DRAWINGS, PROVIDE REINFORCEMENT IN ACCORDANCE WITH APPLICABLE TYPICAL DETAILS OR SIMILAR TO THAT SHOWN FOR MOST NEARLY SIMILAR SITUATIONS, AS DETERMINED BY THE ENGINEER. IN NO CASE SHALL REINFORCEMENT BE LESS THAN MINIMUM REINFORCEMENT PERMITTED BY THE APPLICABLE CODES.
- WHERE REINFORCEMENT IS CALLED FOR IN SECTION, REINFORCEMENT IS CONSIDERED TYPICAL WHEREVER THE SECTION APPLIES.
- REINFORCEMENT SHALL BE CONTINUOUS THROUGH ALL CONSTRUCTION JOINTS UNLESS OTHERWISE INDICATED ON THE DRAWINGS.
- REINFORCEMENT COUPLER SPLICES SHALL BE MECHANICAL DEVICES CAPABLE OF TRANSMITTING THE ULTIMATE TENSILE AND COMPRESSIVE STRENGTH OF THE BAR. REINFORCEMENT COUPLERS SHALL BE PER MASSDOT APPROVED REINFORCEMENT COUPLER LIST.
- PROVIDE AND SCHEDULE ON SHOP DRAWINGS, ALL NECESSARY ACCESSORIES TO HOLD REINFORCEMENT SECURELY IN POSITION.
- INSTALLATION OF REINFORCEMENT SHALL BE COMPLETED AT LEAST 24 HOURS PRIOR TO SCHEDULED CONCRETE PLACEMENT. NOTIFY ENGINEER OF COMPLETION AT LEAST 24 HOURS PRIOR TO SCHEDULED COMPLETION OF PLACEMENT OR REINFORCEMENT. REINFORCEMENT SHALL BE SET BEFORE PLACING CONCRETE.
- REINFORCEMENT SHALL BE SET BEFORE PLACING CONCRETE. SETTING ANY REINFORCEMENT INTO WET CONCRETE IS PROHIBITED.
- REINFORCING STEEL SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M 31 GRADE 60. UNLESS OTHERWISE NOTED ON THE CONSTRUCTION DRAWINGS, ALL BARS SHALL BE LAPPED AS FOLLOWS:

MODIFICATION CONDITION	#4 BARS	#5 BARS	#6 BARS
1. NONE	16"	19"	23"
2. 12" OF CONCRETE BELOW BAR	20"	25"	30"
3. EPOXY COATED BARS, COVER < 3DB, OR CLEAR SPACING < 6DB	23"	29"	34"
4. COATED BARS, ALL OTHER CASES	18"	23"	27"
5. CONDITION 2. AND 3.	26"	32"	39"
6. CONDITION 2. AND 4.	24"	30"	36"

CONCRETE

- CONCRETE SHALL BE CONTROLLED CONCRETE, PROPORTIONED, MIXED AND PLACED UNDER THE SUPERVISION OF AN APPROVED CONCRETE TESTING AGENCY OR THE ENGINEER.
- CONCRETE SHALL BE MASSDOT PRE–APPROVED MIX DESIGN CONCRETE UNLESS OTHERWISE NOTED AND SHALL BE AIR ENTRAINED (SEE SPECS).
- THE USE OF CONSTRUCTION JOINTS WHERE SHOWN ON THE DRAWINGS IS MANDATORY. OMISSIONS, ADDITIONS OR CHANGES SHALL NOT BE MADE EXCEPT WITH THE SUBMISSION OF A WRITTEN REQUEST TOGETHER WITH DRAWINGS OF THE PROPOSED JOINT LOCATIONS FOR APPROVAL OF THE STRUCTURAL ENGINEER.
- WHERE CONSTRUCTION JOINTS ARE NOT SHOWN, DRAWINGS SHOWING LOCATION OF CONSTRUCTION JOINTS AND CONCRETE PLACING SEQUENCE SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO PREPARATION OF THE REINFORCEMENT SHOP DRAWINGS.
- CONCRETE SLABS SHALL BE CAST SO THAT THE SLAB THICKNESS IS AT NO POINT LESS THAN THAT INDICATED ON THE DRAWINGS.
- EXPOSED EDGES OF CONCRETE ELEMENTS SHALL HAVE CHAMFERED CORNERS.
- ONLY CRITICAL CONSTRUCTION JOINTS ARE SHOWN. SEE SPECIFICATIONS FOR REQUIRED MAXIMUM SPACING OF CONSTRUCTION JOINTS.

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PROPOSED BRIDGE
PRESERVATION
PHASE 1

AGAWAM /
WEST SPRINGFIELD

VIETNAM VETERANS
MEMORIAL BRIDGE

BRIDGE STREET
OVER
WESTFIELD RIVER
A-05-003 = W-21-013
(OKX)

MARK	DATE	DESCRIPTION
PROJECT NO:		W1975-059
DATE:		MARCH 2025
FILE:		W1975-059-20-P1-G-GENERAL NOTES.dwg
DRAWN BY:		JHM
DESIGNED/CHECKED BY:		AML
APPROVED BY:		JRI

GENERAL NOTES

SCALE: NO SCALE

SHEET 3 OF 15

COMMONWEALTH OF MASSACHUSETTS
MassDOT, Highway Division
APPROVED UNDER PROVISIONS OF
MASS. GEN. LAWS CH 85 § 35

DISTRICT 2 BRIDGE ENGINEERDATE

Last Saved: 3/5/2025 3:46pm By: SS&T
Plotted On: Rpt 05_2025-3_46pm By: SS&T
Title & Bond: \\tjg-bond.com\data\user\Projects\W1975-059-20-P1-G-GENERAL NOTES.dwg - Bridge St. over Westfield River\Drawings - Figures\AutoCAD\Sheet\Phase 1\W1975-059-20-P1-G-GENERAL NOTES.dwg

GENERAL SYMBOLS

EXISTING	PROPOSED	DESCRIPTION
BM #		BENCHMARK
		BOUND (CONC, STONE, LAND COURT, ETC.)
		CATCH BASIN - SQUARE
		DISK (CA/T, USC&GS, LAND COURT, ETC.)
		DRAIN MANHOLE
		ELECTRIC MANHOLE
		ELECTRIC METER
		FLASHING BEACON
		GAS GATE
		GAS METER
		GUY WIRE ANCHOR
		FIRE HYDRANT
		LIGHT POLE
		MAG NAIL
		CIRCULAR POST
		SQUARE POST
		REBAR/IRON PIN
		RAILROAD SIGNAL
		RAILROAD SWITCH
		SEWER MANHOLE
		TRAVERSE POINT
		TREE
		SIGN
		SIGN - DOUBLE POST
		UTILITY POLE W/ LIGHT
		UTILITY POLE
		WATER MANHOLE
		WATER GATE
		WETLAND FLAG
		OVERHEAD CABLE/WIRE
		CURBING
		CONTOURS (ON-THE-GROUND SURVEY DATA)
		UNDERGROUND DRAIN PIPE (DOUBLE LINE 24 INCH AND OVER)
		UNDERGROUND ELECTRIC DUCT (DOUBLE LINE 24 INCH AND OVER)
		UNDERGROUND GAS MAIN (DOUBLE LINE 24 INCH AND OVER)
		BALANCED STONE WALL
		GUARD RAIL - STEEL POSTS
		EROSION CONTROL BARRIER
		TREE LINE
		BANK OF RIVER
		MHW (MEAN HIGH WATER)
		100-FT BUFFER ZONE
		200-FT RIVERFRONT AREA
		TOWN OR CITY BOUNDARY LINE
		PROPERTY LINE OR APPROXIMATE PROPERTY LINE
		EASEMENT
		LIMITS OF NATURAL HERITAGE
		10-YEAR FLOOD ELEVATION
		100-YEAR FLOOD ELEVATION

ABBREVIATIONS

GENERAL	
ABAN	ABANDON
APPROX.	APPROXIMATE
A.C.	ASPHALT CONCRETE
AC	ASBESTOS CEMENT
ASB	ASBESTOS
BOMO	BOLT OVER MAIN OUTLET
BIT.	BITUMINOUS
BC	BOTTOM OF CURB
BD.	BOUND
BL	BASELINE
BLDG	BUILDING
BM	BENCHMARK
BR	BRIDGE
CB	CATCH BASIN
CC	CEMENT CONCRETE CURB
CCM	CEMENT CONCRETE MASONRY
CEM	CEMENT
CI	CURB INLET
CIP	CAST IRON PIPE
CLF	CHAIN LINK FENCE
CL	CENTERLINE
CLF	CHAIN LINK FENCE
CONC	CONCRETE
CPP	CORRUGATED PLASTIC PIPE
CRW	CONCRETE RETAINING WALL
DBYL	DOUBLE YELLOW LINE
DI	DUCTILE IRON
DMH	DRAIN MANHOLE
DSK	DISK
DIA.	DIAMETER
ELEV (or EL.)	ELEVATION
EMH	ELECTRIC MANHOLE
EOP (or EP)	EDGE OF PAVEMENT
EHH	ELECTRICAL HANDHOLE
FM	FORCED MAIN
FOD	FULL OF DEBRIS
GR	GUARDRAIL
GRAV	GRAVEL
HMA	HOT MIX ASPHALT
HYD	HYDRANT
INV	INVERT
MAG	MAG NAIL
MH	MANHOLE
MHW	MEAN HIGH WATER
N/F	NOW OR FORMERLY
MPV	NO PIPE VISIBLE
OHW	OVERHEAD WIRE
PK	PK NAIL
PL	PROPERTY LINE
RCP	REINFORCED CONCRETE PIPE
RET	RETAINING
RRS	RAILROAD SPIKE
R&D	REMOVE AND DISPOSE
SGE	SLOPED GRANITE EDGING
UTO	UNABLE TO OBSERVE
SMH	SEWER MANHOLE
SPK	SPIKE
SRW	STONE RETAINING WALL
STA	STATION
SWL	SOLID WHITE LINE
VC	VITRIFIED CLAY PIPE
VGC	VERTICAL GRANITE CURB
WDP	WARNING DETECTION PAD
WL	WATER LEVEL

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PROPOSED BRIDGE
PRESERVATION
PHASE 1

AGAWAM /
WEST SPRINGFIELD

VIETNAM VETERANS
MEMORIAL BRIDGE

BRIDGE STREET
OVER
WESTFIELD RIVER
A-05-003 = W-21-013
(0KX)

MARK	DATE	DESCRIPTION
PROJECT NO: W1975-059		
DATE: MARCH 2025		
FILE: W1975-059-20-P1-G-GENERAL NOTES.dwg		
DRAWN BY: JHM		
DESIGNED/CHECKED BY: AML		
APPROVED BY: JRI		

LEGEND & ABBREVIATIONS

SCALE: NO SCALE

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PROPOSED BRIDGE
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VIETNAM VETERANS
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BRIDGE STREET
OVER
WESTFIELD RIVER
A-05-003 = W-21-013
(OKX)

MARK	DATE	DESCRIPTION
PROJECT NO:	W1975-059	
DATE:	MARCH 2025	
FILE:	W1975-059-30-P1-C-CIVIL.dwg	
DRAWN BY:	JHM	
DESIGNED/CHECKED BY:	AML	
APPROVED BY:	JRI	

EXISTING CONDITIONS
& CONSTRUCTION
STAGING PLAN

SCALE: 1" = 30'

SHEET 5 OF 15

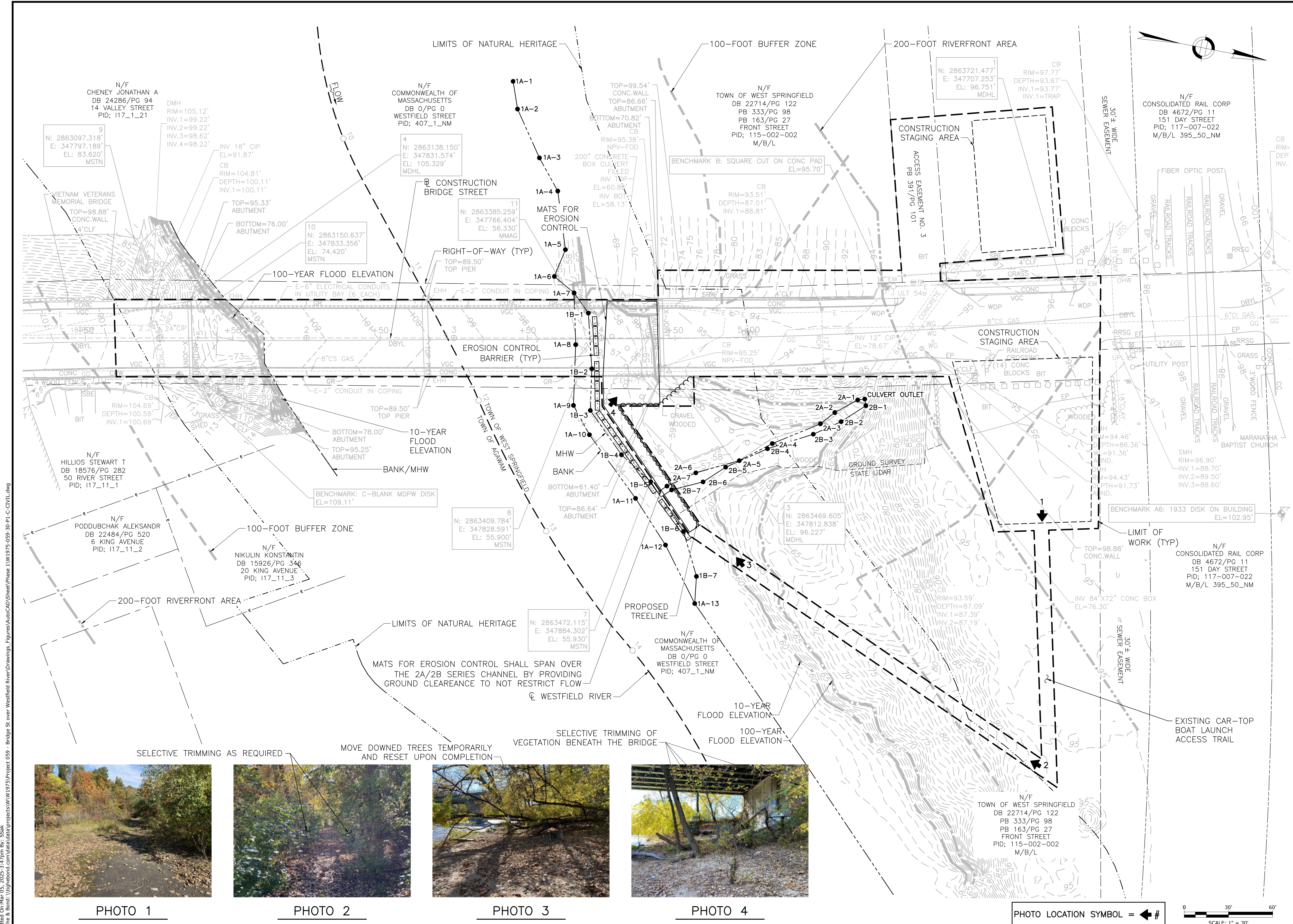


PHOTO 1

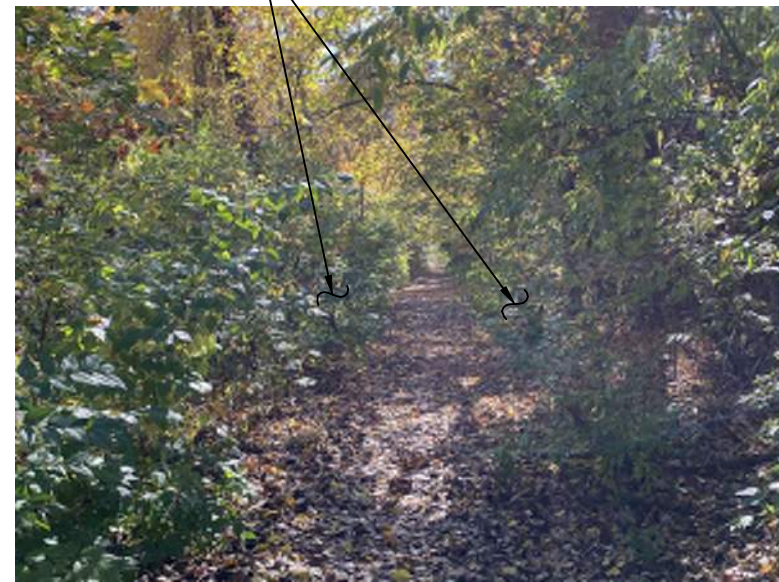


PHOTO 2



PHOTO 3



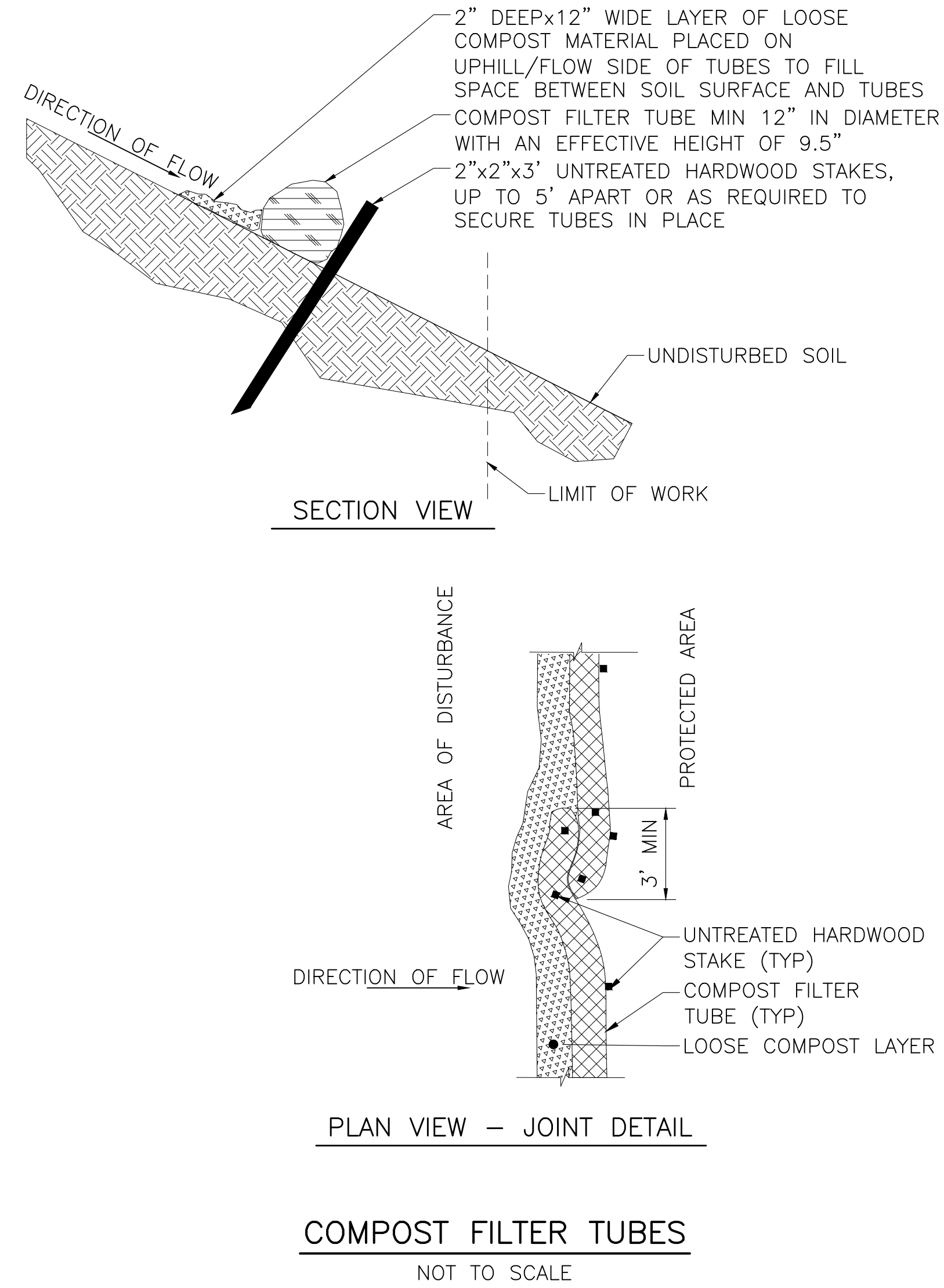
PHOTO 4

PHOTO LOCATION SYMBOL = ◀ #

0 30' 60'
SCALE: 1" = 30'

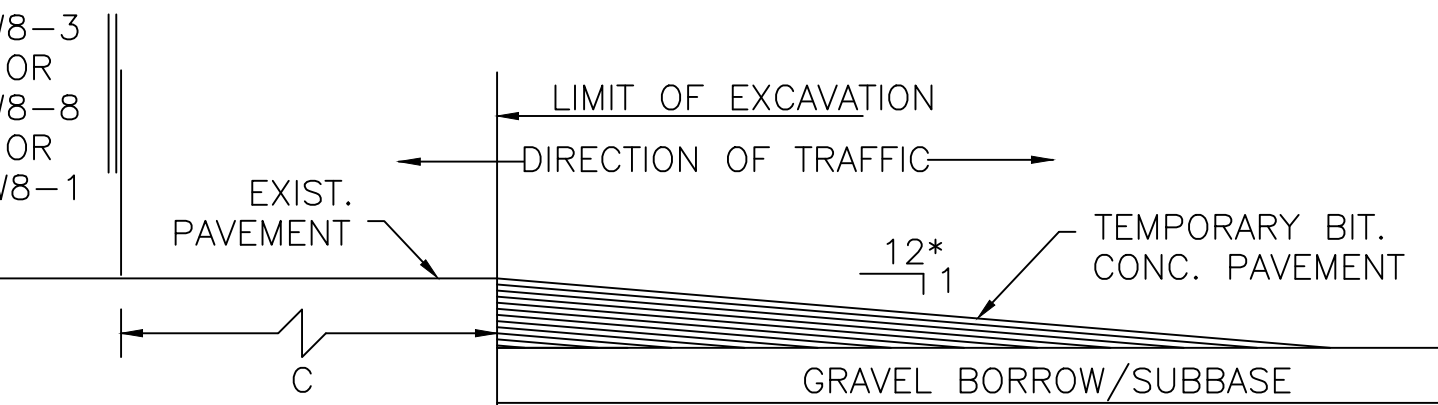
1. ALL EROSION CONTROL MEASURES SHOWN, SPECIFIED AND REQUIRED BY THE ENGINEER SHALL BE INSTALLED PRIOR TO ANY CONSTRUCTION OR IMMEDIATELY UPON REQUEST. MAINTAIN ALL SUCH CONTROL MEASURES UNTIL FINAL SURFACE TREATMENTS ARE IN PLACE AND/OR UNTIL PERMANENT VEGETATION IS ESTABLISHED.
2. MAINTAIN AN ADDITIONAL SUPPLY OF EROSION CONTROL MEASURES THROUGHOUT THE CONSTRUCTION PERIOD.
3. PRIOR TO STARTING WORK, CLEARLY STAKE WORK LIMIT LINE(S). DO NOT DISTURB VEGETATION AND TOPSOIL BEYOND THE NEW LIMIT LINE. COORDINATE WITH THE ENGINEER THE LOCATIONS FOR THE TEMPORARY STOCKPILING OF TOPSOIL DURING CONSTRUCTION.
4. SIDE SLOPES, AND DISTURBED VEGETATED AREAS, SHALL BE A MAXIMUM GRADE OF 2:1 COMPACTED, STABILIZED, LOAMED AND SEEDED AS SHOWN ON DRAWINGS. SIDE SLOPES SHALL BE IMMEDIATELY FINE GRADED AND SEEDED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS.
5. SILT TRAPPED AT BARRIERS SHALL BE REMOVED AND DISPOSED OF IN UPLAND AREAS OUTSIDE BUFFER ZONES. MATERIALS DEPOSITED IN ANY TEMPORARY SETTLING BASIN SHALL BE REMOVED AT THE COMPLETION OF THE PROJECT. ALL DISTURBED AREAS SHALL BE RESTORED.
6. INSTALL EROSION CONTROLS AT THE EDGE OF NEW WORK. EROSION CONTROLS SHALL ACT AS LIMIT OF WORK LINE TO HELP ENSURE THAT EQUIPMENT DOES NOT DISTURB ADJACENT PROPERTIES.
7. ADDITIONAL EROSION CONTROLS MAY BE REQUIRED TO LIMIT SEDIMENTS FROM DISCHARGING TO ADJACENT PROPERTIES OR WATERWAYS.
8. PROPERLY STABILIZE AND PROTECT TEMPORARY STOCKPILES OF MATERIALS RELATED TO THE CONSTRUCTION ACTIVITIES TO LIMIT MOVEMENT OF MATERIAL ONTO ADJACENT PARCELS, OR INTO THE STREAM.
9. STABILIZE THE AREAS OF CONSTRUCTION ACTIVITIES AT THE CLOSE OF EACH CONSTRUCTION DAY. CHECK EROSION CONTROLS AT THIS TIME AND MAINTAIN OR REINFORCE IF NECESSARY
10. PROTECT NEW WORK FROM FLOODING. PROPERLY SLOPE GRADING IN THE AREAS SURROUNDING ALL EXCAVATIONS TO LIMIT WATER FROM RUNNING INTO THE EXCAVATED AREA OR TO ADJACENT PROPERTIES. UPON COMPLETION OF THE WORK, RESTORE ALL AREAS IN A SATISFACTORY MANNER.
11. ALL SILT-LADEN WATER MUST BE SETTLED OR FILTERED TO REMOVE ALL SEDIMENTS PRIOR TO RELEASE TO AN UPLAND AREA, IN A SEDIMENTATION OR FILTER BAG LOCATED DOWN GRADIENT.
12. DEWATER AS NECESSARY TO KEEP CONSTRUCTION AREAS FREE OF WATER, DISCHARGE WATER FROM DEWATERING TO APPROPRIATE UPLAND LOCATION AND WITHOUT SEDIMENT (SEE DEWATERING REQUIREMENTS).
13. AT THE END OF EACH WORK DAY, ANY SEDIMENTS TRACKED ONTO PUBLIC RIGHTS-OF-WAY BEYOND THE PROJECT LIMITS SHALL BE SWEEPED.

1. PROVIDE A MINIMUM TUBE DIAMETER OF 12" FOR SLOPES UP TO 50' IN LENGTH WITH A SLOPE RATIO OF 3H:1V OR STEEPER. LONGER SLOPES OF 3H:1V MAY REQUIRE LARGER TUBE DIAMETER OR ADDITIONAL COURSING OF FILTER TUBES TO CREATE A FILTER BERM. REFER TO MANUFACTURER'S RECOMMENDATIONS FOR SITUATION WITH LONGER SLOPES OR STEEPER SLOPES.
2. INSTALL TUBES ALONG CONTOURS AND PERPENDICULAR TO SHEET OR CONCENTRATED FLOW.
3. DO NOT INSTALL IN PERENNIAL, EPHEMERAL OR INTERMITTENT STREAMS.
4. CONFIGURE TUBES AROUND EXISTING SITE FEATURES TO MINIMIZE SITE DISTURBANCE AND MAXIMIZE CAPTURE AREA OF STORMWATER RUN-OFF.
5. TUBES FOR COMPOST FILTERS SHALL BE JUTE MESH OR APPROVED BIODEGRADABLE MATERIAL. ADDITIONAL TUBES SHALL BE USED AT THE DIRECTION OF THE ENGINEER.
6. TAMP TUBES IN PLACE TO ENSURE GOOD CONTACT WITH SOIL SURFACE. IT IS NOT NECESSARY TO TRENCH TUBES INTO EXISTING GRADE.
7. WHEN STAKING IS NOT POSSIBLE, SUCH AS WHEN TUBES MUST BE PLACED ON PAVEMENT, HEAVY CONCRETE OR CINDER BLOCKS CAN BE USED BEHIND TUBES UP TO 5' APART OR AS REQUIRED TO SECURE TUBES IN PLACE.
8. PROVIDE 3' MINIMUM OVERLAP AT ENDS OF TUBES TO JOIN IN A CONTINUOUS BARRIER AND MINIMIZE UNIMPEDED FLOW.
9. STAKE JOINING TUBES SNUGLY AGAINST EACH OTHER TO PREVENT UNFILTERED FLOW BETWEEN THEM.
10. SECURE ENDS OF TUBES WITH STAKES SPACED 18" APART THROUGH TOPS OF TUBES.



NOTES:

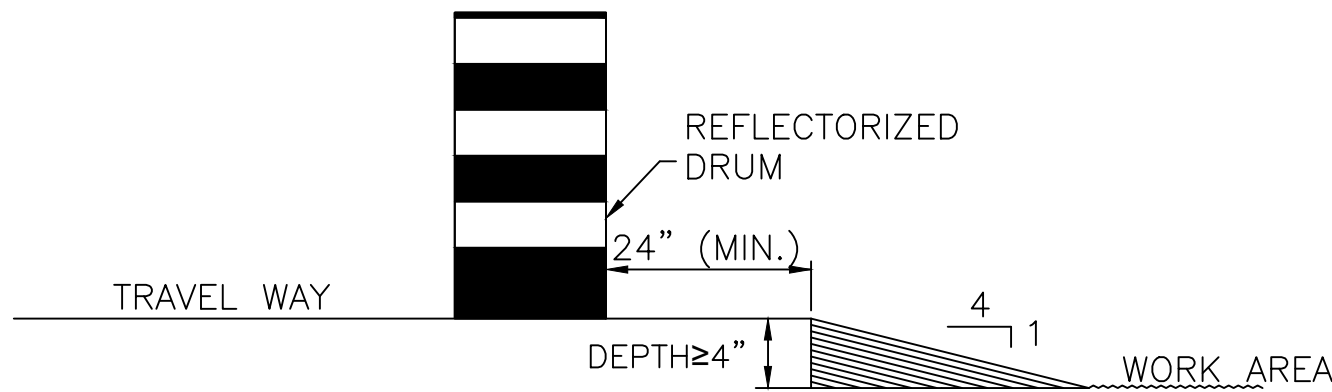
- ALL TEMPORARY TRAFFIC CONTROL WORK SHALL CONFORM TO THE LATEST EDITION OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD) AND ALL REVISIONS.
- ALL SIGN LEGENDS, BORDERS, AND MOUNTING SHALL BE IN ACCORDANCE WITH THE MUTCD.
- SIGNS AND SIGN SUPPORTS LOCATED ON OR NEAR THE TRAVELED WAY, CHANNELIZING DEVICES, BARRIERS, AND CRASH ATTENUATORS MUST PASS THE CRITERIA SET FORTH IN NCHRP REPORT 350, "RECOMMENDED PROCEDURES FOR THE SAFETY PERFORMANCE EVALUATION OF HIGHWAY FEATURES" AND/OR "MANUAL FOR ASSESSING SAFETY HARDWARE" (MASH).
- PORTABLE CHANGEABLE MESSAGE SIGN TO BE IN PLACE TWO WEEKS PRIOR TO ROAD CLOSURE TO PROVIDE ADVANCED NOTICE.
- THE CONTRACTOR SHALL PROVIDE ALL SIGNATURE, BARRICADES, POLICE DETAILS AND OTHER CONTROLS AS REQUIRED FOR TRAFFIC CONTROL.
- TEMPORARY CONSTRUCTION SIGNING AND ALL OTHER TRAFFIC CONTROL DEVICES SHALL BE IN PLACE PRIOR TO THE START OF ANY WORK.
- TEMPORARY CONSTRUCTION SIGNING, BARRICADES, AND ALL OTHER NECESSARY WORK ZONE TRAFFIC CONTROL DEVICES SHALL BE REMOVED FROM THE HIGHWAY OR COVERED WHEN THEY ARE NOT REQUIRED FOR CONTROL OF TRAFFIC.
- THE FIRST FIVE PLASTIC DRUMS OF A TAPER SHALL BE MOUNTED WITH TYPE A LIGHTS.
- THE ADVISORY SPEED LIMIT, IF REQUIRED, SHALL BE DETERMINED BY THE ENGINEER.
- DISTANCES ARE A GUIDE AND MAY BE ADJUSTED IN THE FIELD BY THE ENGINEER.
- MAXIMUM SPACING OF TRAFFIC DEVICES IN A TAPER (DRUMS OR CONES) IS EQUAL IN FEET TO THE SPEED LIMIT IN MPH.
- MINIMUM LANE WIDTH IS TO BE 10 FEET UNLESS OTHERWISE SHOWN. MINIMUM LANE WIDTH TO BE MEASURED FROM THE EDGE OF DRUMS OR MEDIAN BARRIER.
- ALL SIGNS SHALL BE MOUNTED ON THEIR OWN STANDARD SIGN SUPPORTS.
- CONTACT THE TOWN OF SPRINGFIELD AND AGAWAM AT LEAST TWO WEEKS PRIOR TO PLANNED IMPLEMENTATION OF THE ROAD CLOSURE.
- NOTIFY EACH ABUTTER AT LEAST 24 HOURS IN ADVANCE OF THE START OF ANY WORK THAT WILL REQUIRE THE TEMPORARY CLOSURE OF ACCESS, SUCH AS CONDUIT INSTALLATION, EXISTING PAVEMENT EXCAVATION, TEMPORARY DRIVEWAY PAVEMENT PLACEMENT, AND SIMILAR OPERATIONS.
- DURING ALL CONSTRUCTION ACTIVITIES ON THE ROADWAYS, ONE LANE ALTERNATING TRAFFIC FLOW SHALL BE MAINTAINED.
- FULL ROADWAY WIDTH MUST BE RETURNED AT THE END OF EACH ROAD DAY.
- THE NUMBER OF POLICE OFFICERS AT ANY LOCATION IS TO BE DETERMINED BY THE TOWNS OF WEST SPRINGFIELD AND AGAWAM.
- ONE LANE TRAFFIC FLOW SHALL BE REQUIRED DURING ALL OPERATIONS WHICH REDUCE DRIVE LANE(S) LESS THAN 12'.
- HALF WIDTH CONSTRUCTION METHODS SHALL BE UTILIZED FOR ROAD EXCAVATION. BASE PREPARATION, AND PAVING OPERATIONS.
- AS CONSTRUCTION OPERATIONS CHANGE, SO SHALL WARNING SIGNS. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING AND ARRANGING SIGNS AS CONSTRUCTION VARIES AND PROCEEDS.



LONGITUDINAL DROP-OFF DETAIL

NOT TO SCALE

* - INCREASE SLOPE RATIO FOR HIGHER SPEEDS



LATERAL DROP-OFF DETAIL

NOT TO SCALE

LEGEND:

- REFLECTORIZED PLASTIC DRUM OR 36" CONE
- P/F POLICE/FLAGGER DETAIL
- TYPE III BARRICADE
- PORTABLE CHANGEABLE MESSAGE SIGN (PCMS)
- ARROW BOARD
- WORK ZONE
- DIRECTION OF TRAFFIC
- IMPACT ATTENUATOR
- MEDIAN BARRIER
- MEDIAN BARRIER WITH WARNING LIGHTS
- WORK VEHICLE
- TRUCK MOUNTED ATTENUATOR
- TRAFFIC OR PEDESTRIAN SIGNAL
- SIGN

FORMULAS FOR DETERMINING TAPER LENGTHS:

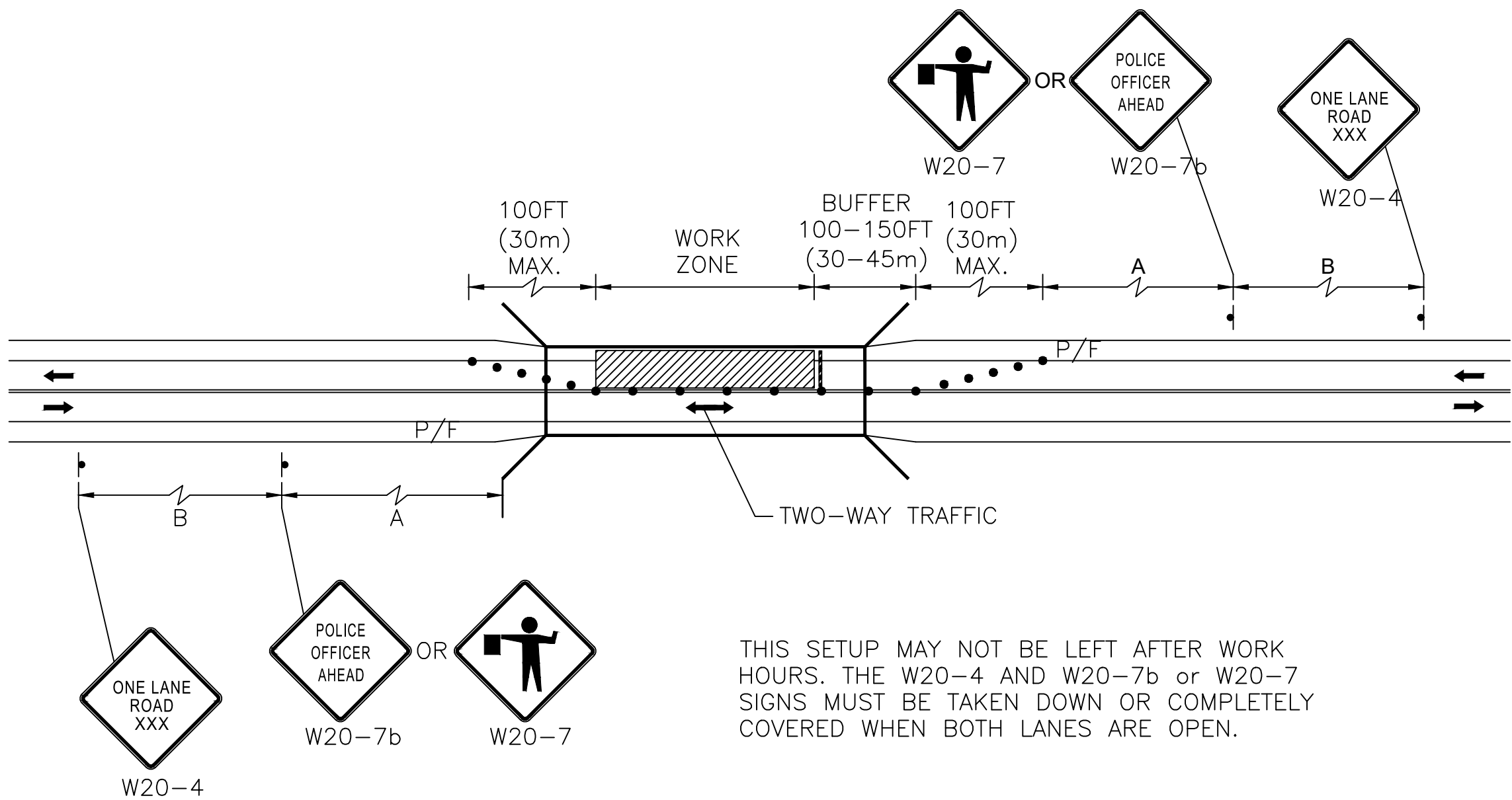
SPEED LIMIT (S)	
40 MPH OR LESS	$L = \frac{WS^2}{60}$
45 MPH OR MORE	$L = WS$

WHERE:

L = TAPER LENGTH IN FEET
W = WIDTH OF OFFSET IN FEET

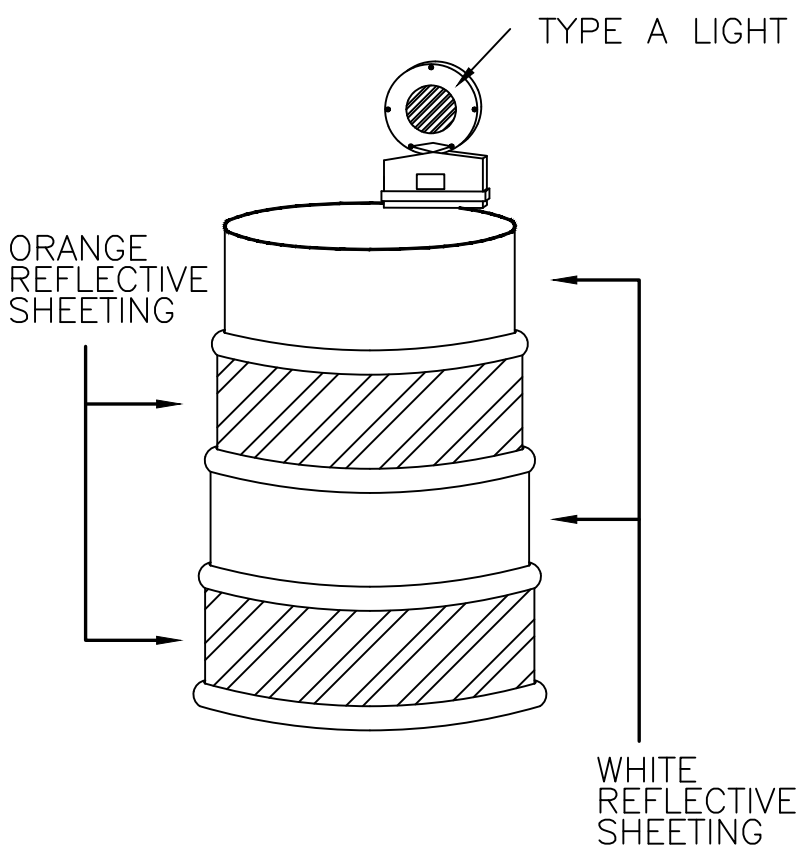
S = POSTED SPEED LIMIT, OR OFF-PEAK 85TH-PERCENTILE SPEED PRIOR TO WORK STARTING, OR THE ANTICIPATED OPERATING SPEED IN MPH

TAPER LENGTH (L)
FEET



SINGLE LANE ALTERNATIVE TRAFFIC

NOT TO SCALE



PLASTIC DRUMS

NOTES:

- DRUM DESIGN AND APPLICATION SHALL BE AS PER THE CURRENT EDITION OF THE MUTCD.
- DRUMS SHALL BE APPROXIMATELY 36" IN HEIGHT, HAVING A MINIMUM WALL THICKNESS OF 3/32" AND A MINIMUM DIAMETER OF 18" REGARDLESS OF ORIENTATION.
- DRUM MATERIAL MUST BE APPROVED UV RESISTANT, LOW DENSITY, IMPACT RESISTANT, LINEAR POLYETHYLENE (OR APPROVED EQUIVALENT).
- SHEETING SHALL BE APPROVED ORANGE AND WHITE TYPE IV REFLECTORIZED SHEETING CONFORMING TO M9.30.0.
- ALL DRUMS SHALL BE WELL MAINTAINED INCLUDING REMOVAL OF DUST OR ROAD FILM, SO AS NOT TO REDUCE REFLECTIVE EFFICIENCY. WHEN A DRUM LOSES TARGET VALUE IT SHALL BE REPLACED.
- STORE UNUSED DRUMS IN ONE LOCATION, AWAY FROM ALL TRAFFIC, OR REMOVE FROM SITE ENTIRELY.

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PROPOSED BRIDGE PRESERVATION PHASE 1

AGAWAM / WEST SPRINGFIELD

VIETNAM VETERANS MEMORIAL BRIDGE

BRIDGE STREET OVER WESTFIELD RIVER

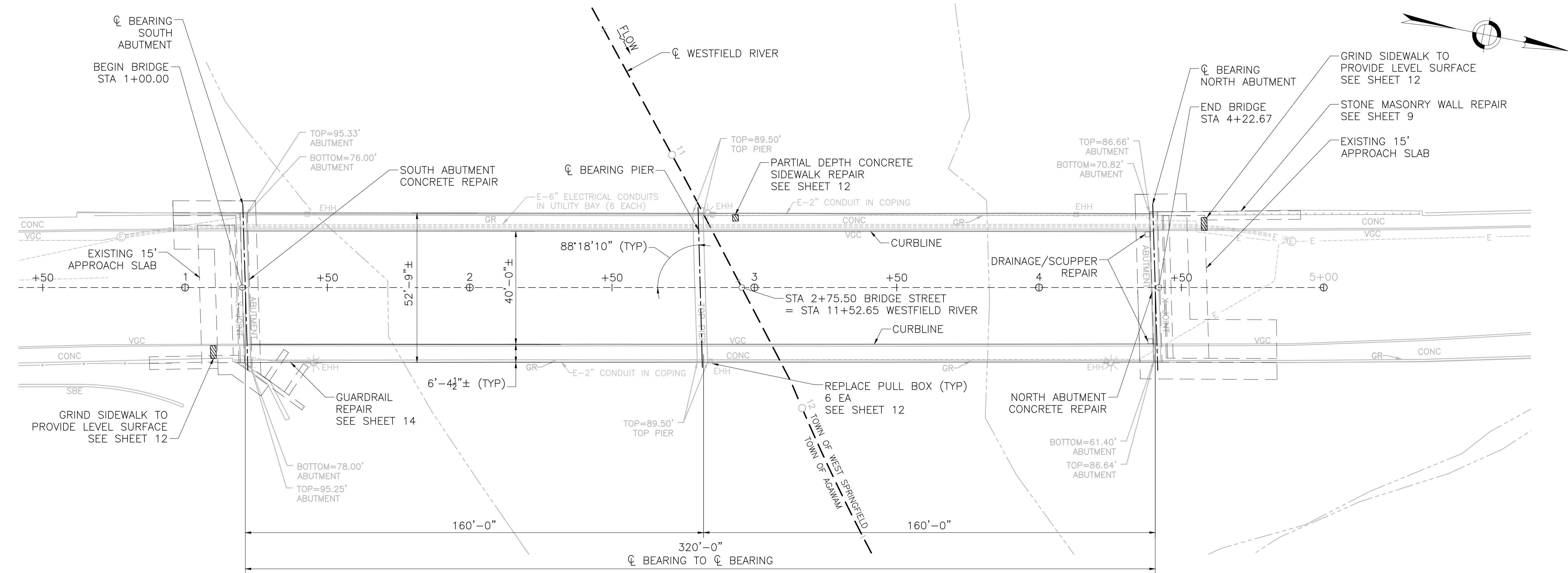
A-05-003 = W-21-013 (OKX)

MARK	DATE	DESCRIPTION
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DATE:	MARCH 2025	
FILE:	W1975-059-50-P1-T-TTCP.dwg	
DRAWN BY:	JHM	
DESIGNED/CHECKED BY:	AML	
APPROVED BY:	JRI	

TEMPORARY TRAFFIC CONTROL PLAN

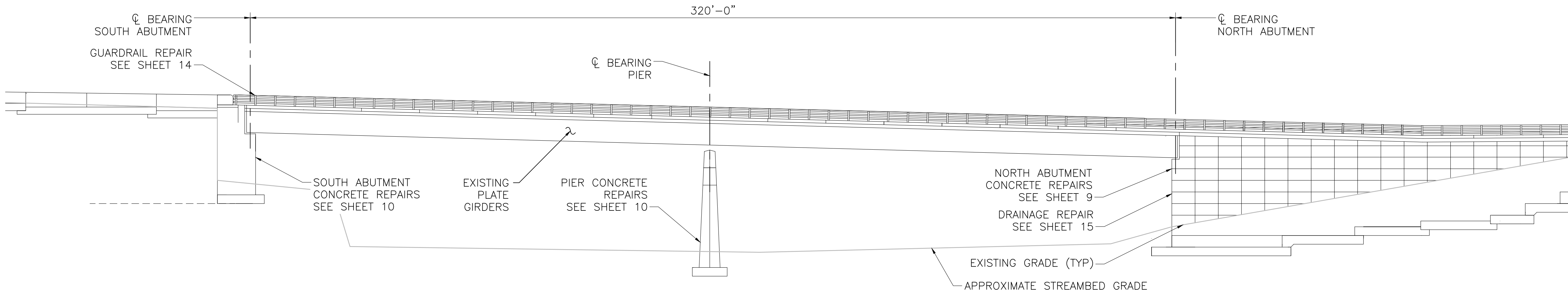
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SHEET 7 OF 15



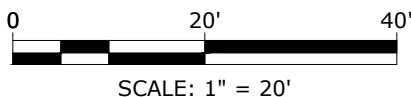
GENERAL BRIDGE PLAN

SCALE: 1" = 20'



EAST ELEVATION

SCALE: 1" = 20'



COMMONWEALTH OF MASSACHUSETTS
MassDOT, Highway Division
**APPROVED UNDER PROVISIONS OF
MASS. GEN. LAWS CH 85 § 35**

DISTRICT 2 BRIDGE ENGINEER

DATE

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PROPOSED BRIDGE
PRESERVATION
PHASE 1

AGAWAM /
WEST SPRINGFIELD

VIETNAM VETERANS
MEMORIAL BRIDGE

BRIDGE STREET
OVER
WESTFIELD RIVER
A-05-003 = W-21-013
(OKX)

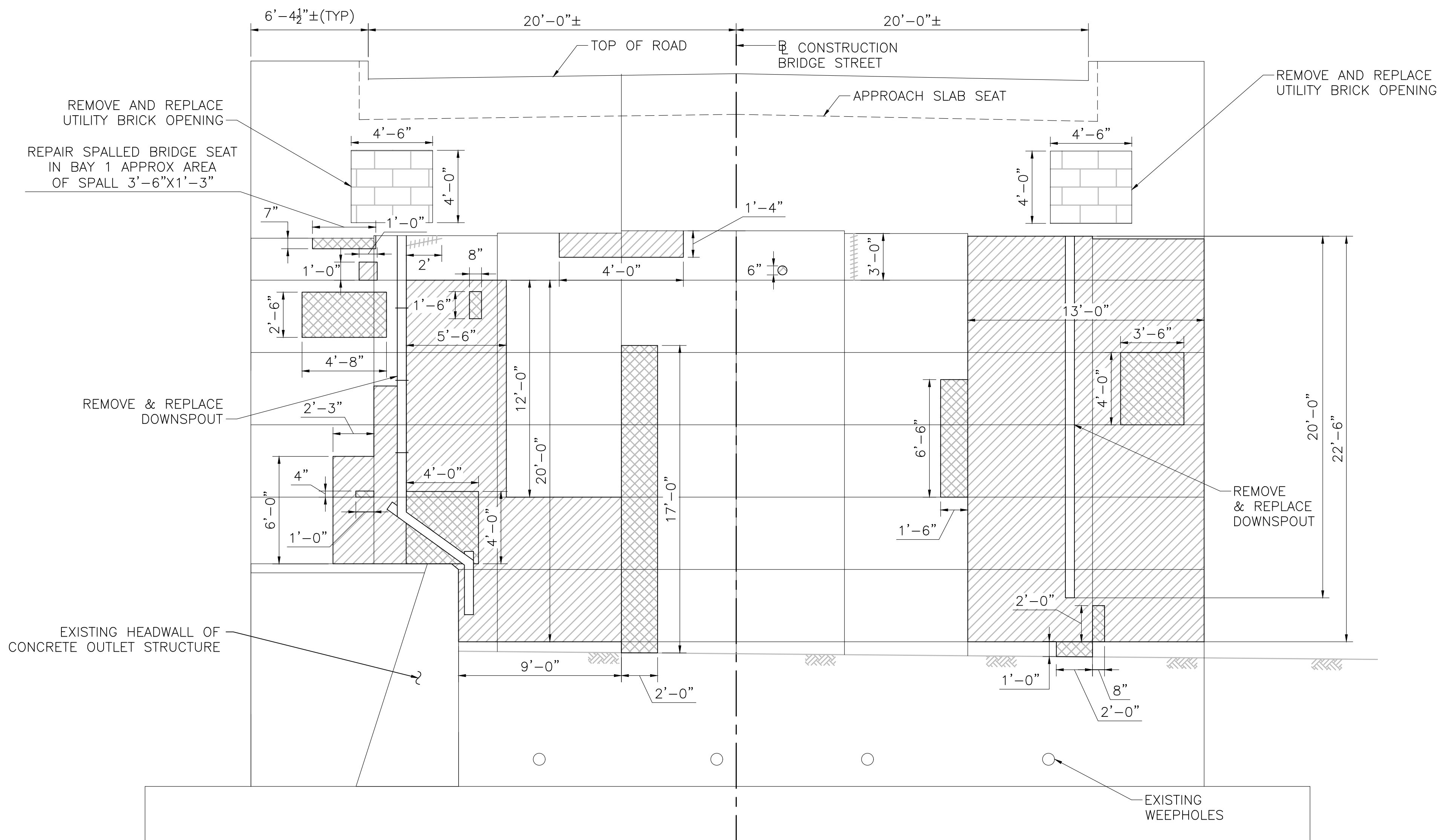
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DATE:	MARCH 2025	
FILE:	W1975-059-60-P1-S-PLAN.dwg	
DRAWN BY:	JHM	
DESIGNED/CHECKED BY:	AML	
APPROVED BY:	JRI	

GENERAL BRIDGE PLAN &
ELEVATION

SCALE: 1" = 20'

SHEET 8 OF 15

Last Saved: 3/5/2025 3:45pm By: JSAK
Project: 059 - Bridge St. over Westfield River Drawings: Figures AutoCAD Sheet Phase 1 W1975-059-61-P1-S-ABUTMENTS.dwg
Title & Content: W1975-059-61-P1-S-ABUTMENTS.dwg



ELEVATION OF NORTH ABUTMENT

SCALE: 1/4" = 1'-0"

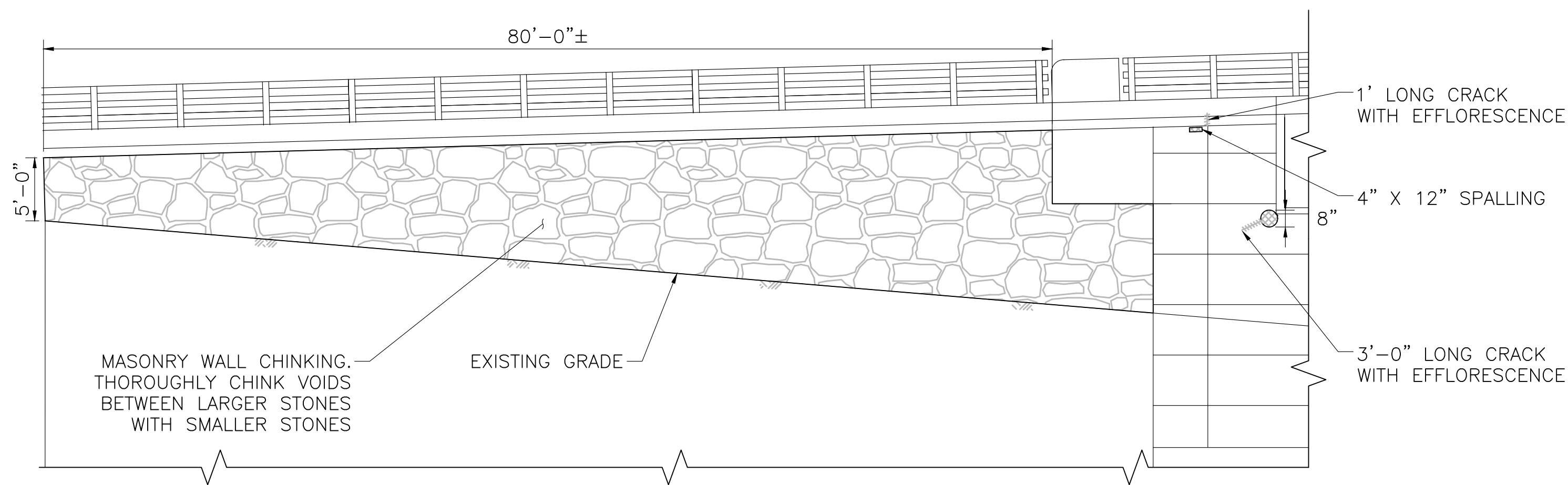
NOTES:

- INDICATES APPROXIMATE AREAS OF CONCRETE SPALLING REPAIR WORK.
- INDICATES APPROXIMATE AREAS OF CONCRETE DELAMINATION REPAIR WORK.
- INDICATES APPROXIMATE AREAS OF CONCRETE CRACK WITH EFFLORESCENCE REPAIR WORK.
- DIMENSIONS ARE APPROXIMATE. ENGINEER TO DETERMINE LIMITS OF CONCRETE REPAIRS IN THE FIELD.
- CLEAN THE ENTIRE SURFACE OF BRIDGE SEATS, ABUTMENT AND WINGWALLS BY POWERWASHING. REMOVE ALL VEGETATION GROWING ON ABUTMENTS. TREAT CUT STEMS WITH HERBICIDE. ONLY USE OF GLYSOPHATE AND IMAZAPYR BASED HERBICIDES ARE PERMITTED WITHOUT WRITTEN PERMISSION BY THE ENGINEER, SUCH AS RODEO AND POLARIS AC COMPLETE. EQUIVALENTS MAY BE SUBMITTED FOR REVIEW AND APPROVAL BY THE ENGINEER.
- CAPTURE DEBRIS FROM POWERWASHING.
- APPLY CONCRETE PENETRANT SEALER TO FRONT FACE OF ABUTMENT AFTER REPAIR TO PROTECT CONCRETE FROM CHLORIDE INTRUSION.
- REMOVAL AND REPLACEMENT OF BRICKS ASSOCIATED WITH THE UTILITY OPENINGS SHALL BE PAID FOR UNDER ITEM 915.4 BRICK MASONRY.



MASONRY WALL CHINKING. THOROUGHLY CHINK VOIDS BETWEEN LARGER STONES WITH SMALLER STONES

MASONRY WALL REPAIR

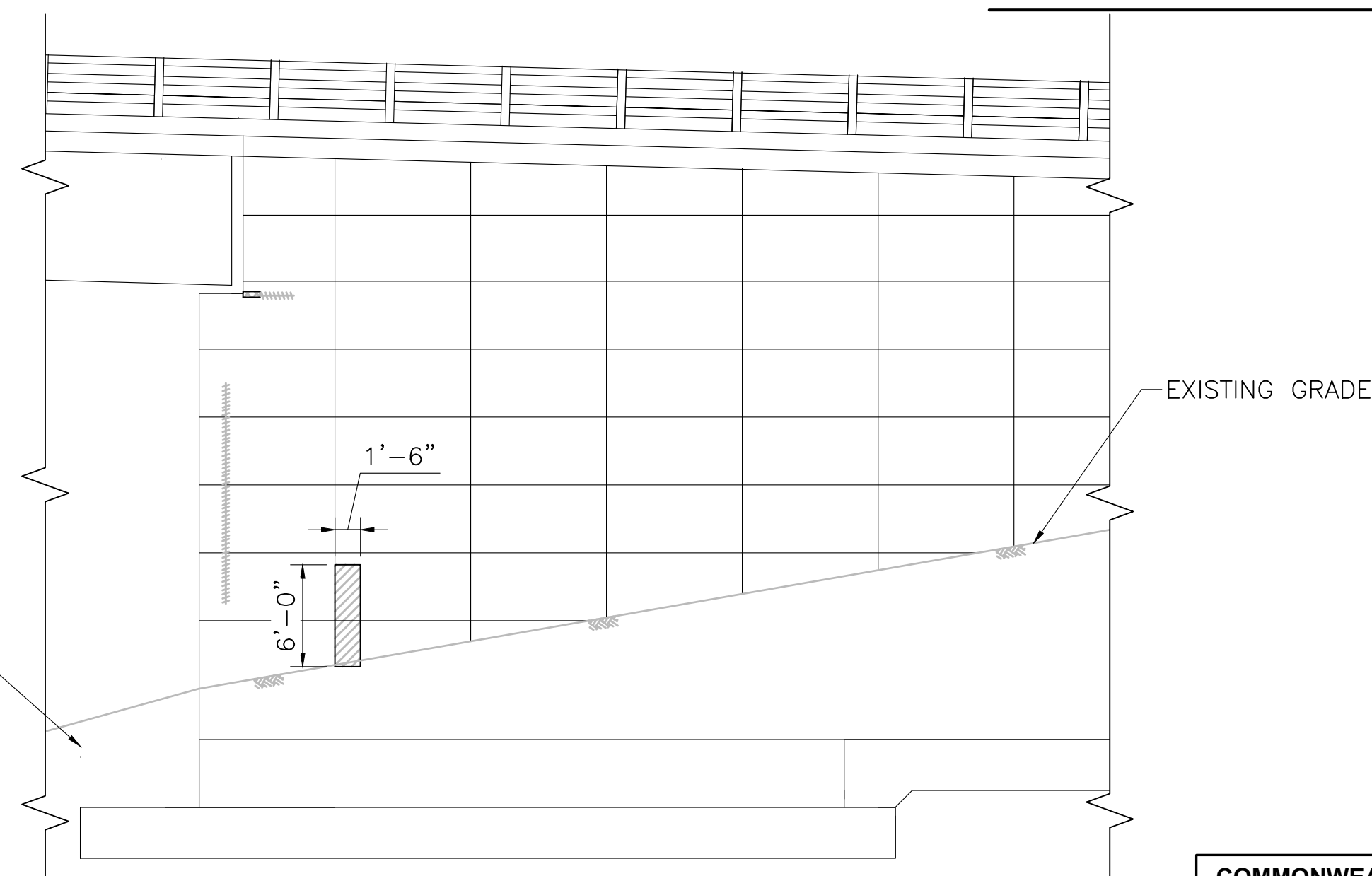


ELEVATION OF NORTHWEST WALL

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

NOTES:

- MASONRY WALL REPAIR CONSIST OF CHINKING EXISTING STONE. THE TYPE AND GRADE OF NEW STONE SHALL BE IN-KIND WITH EXISTING STONE. ALL STONES SHALL BE CLEANED OF ALL MORTAR, SOIL AND OTHER FOREIGN MATTER PRIOR TO USE.
- CHINKING ASSOCIATED WITH MASONRY WALL REPAIRS ON THE NORTHWEST WALL SHALL BE PAID FOR UNDER ITEM 100.71 MASONRY WORK.



ELEVATION OF NORTHEAST WALL

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

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DISTRICT 2 BRIDGE ENGINEER

DATE

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PROPOSED BRIDGE
PRESERVATION
PHASE 1

AGAWAM /
WEST SPRINGFIELD

VIETNAM VETERANS
MEMORIAL BRIDGE

BRIDGE STREET
OVER
WESTFIELD RIVER
A-05-003 = W-21-013
(OKX)

MARK	DATE	DESCRIPTION
PROJECT NO:	W1975-059	
DATE:	MARCH 2025	
FILE:	W1975-059-61-P1-S-ABUTMENTS.dwg	
DRAWN BY:	JHM	
DESIGNED/CHECKED BY:	AML	
APPROVED BY:	JRI	

NORTH ABUTMENT
PROPOSED REPAIRS

SCALE: AS SHOWN

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PROPOSED BRIDGE
PRESERVATION
PHASE 1

AGAWAM /
WEST SPRINGFIELD

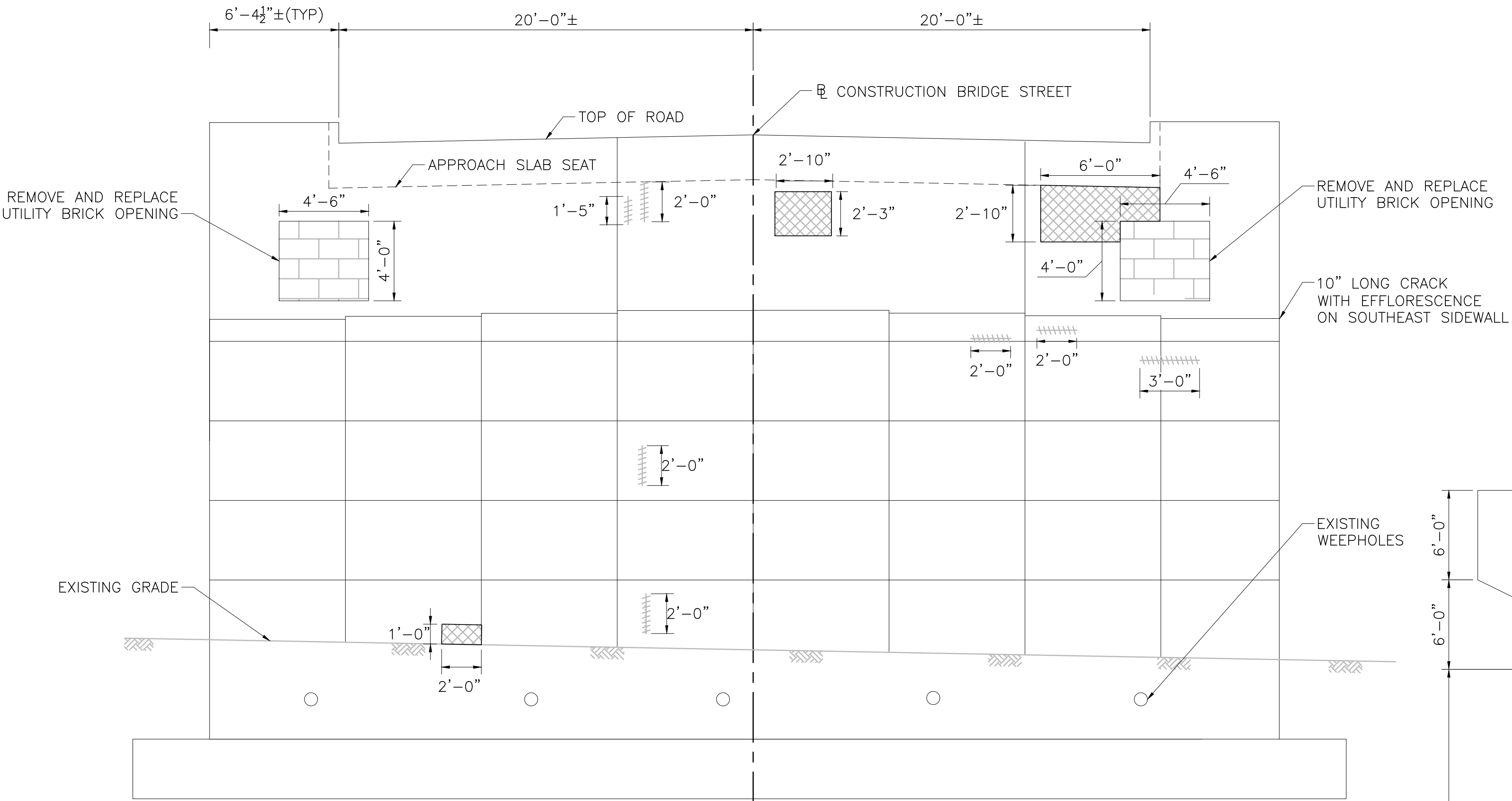
VIETNAM VETERANS
MEMORIAL BRIDGE

BRIDGE STREET
OVER
WESTFIELD RIVER
A-05-003 = W-21-013
(OKX)

MARK	DATE	DESCRIPTION
PROJECT NO:		W1975-059
DATE:		MARCH 2025
FILE:		W1975-059-61-P1-S-ABUTMENTS.dwg
DRAWN BY:		JHM
DESIGNED/CHECKED BY:		AML
APPROVED BY:		JRI

SOUTH ABUTMENT
PROPOSED REPAIRS

SCALE: AS SHOWN

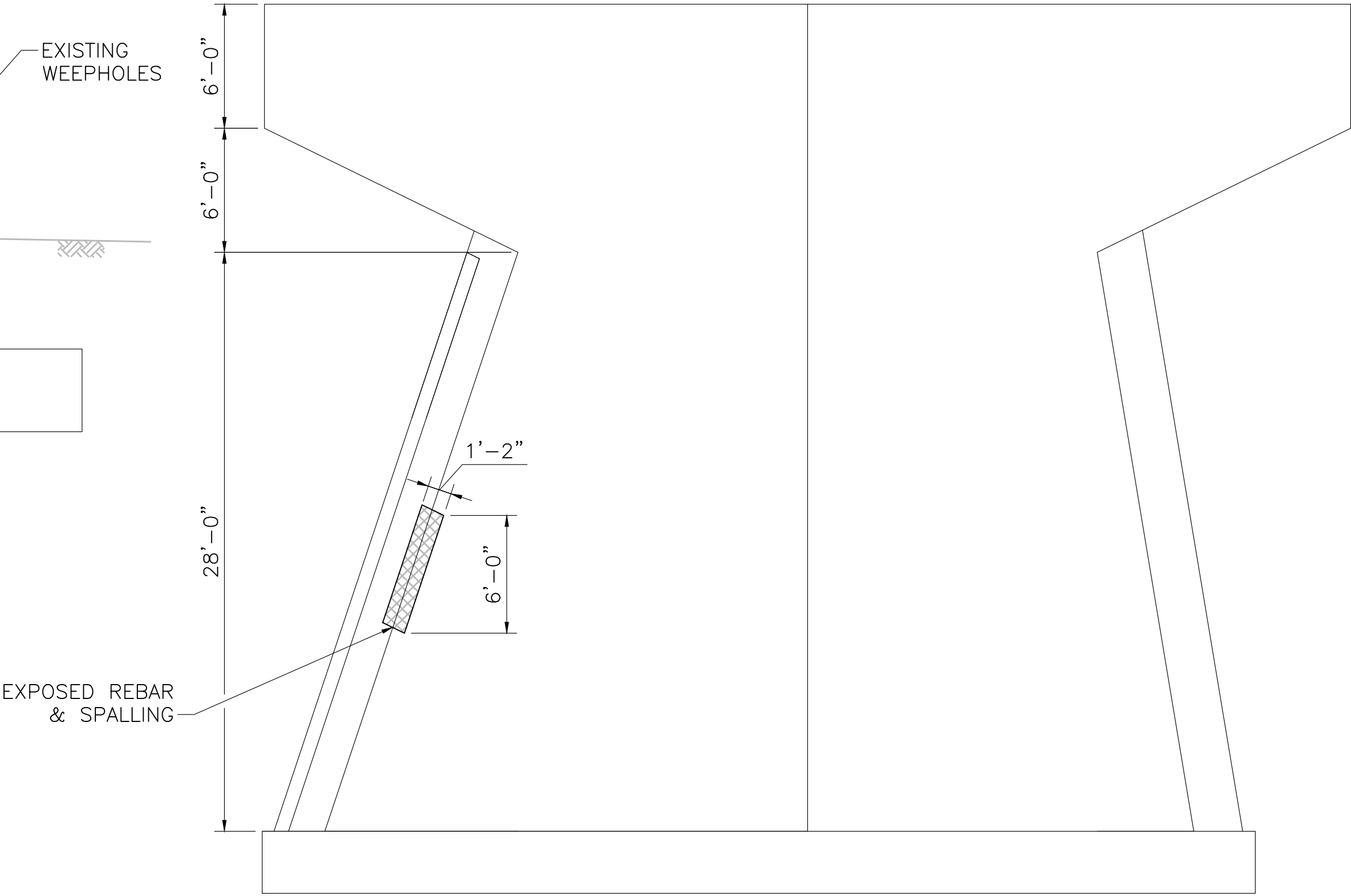


ELEVATION OF SOUTH ABUTMENT

SCALE: 1/4" = 1'-0"

NOTES:

- INDICATES APPROXIMATE AREAS OF CONCRETE SPALLING REPAIR WORK.
- INDICATES APPROXIMATE AREAS OF CONCRETE DELAMINATION REPAIR WORK.
- INDICATES APPROXIMATE AREAS OF CONCRETE CRACK WITH EFFLORESCENCE REPAIR WORK.
- DIMENSIONS ARE APPROXIMATE. ENGINEER TO DETERMINE LIMITS OF CONCRETE REPAIRS IN THE FIELD.
- CLEAN THE ENTIRE SURFACE OF BRIDGE SEATS, ABUTMENT AND WINGWALLS BY POWERWASHING. REMOVE ALL VEGETATION GROWING ON ABUTMENTS. TREAT CUT STEMS WITH HERBICIDE. ONLY USE OF GLYSOPHATE AND IMAZAPYR BASED HERBICIDES ARE PERMITTED WITHOUT WRITTEN PERMISSION BY THE ENGINEER, SUCH AS RODEO AND POLARIS AC COMPLETE. EQUIVALENTS MAY BE SUBMITTED FOR REVIEW AND APPROVAL BY THE ENGINEER.
- CAPTURE DEBRIS FROM POWERWASHING.
- APPLY CONCRETE PENETRANT SEALER TO FRONT FACE OF ABUTMENT AFTER REPAIR TO PROTECT CONCRETE FROM CHLORIDE INTRUSION.
- REMOVAL AND REPLACEMENT OF BRICKS ASSOCIATED WITH THE UTILITY OPENINGS SHALL BE PAID FOR UNDER ITEM 915.4 BRICK MASONRY.



ELEVATION SOUTH PIER

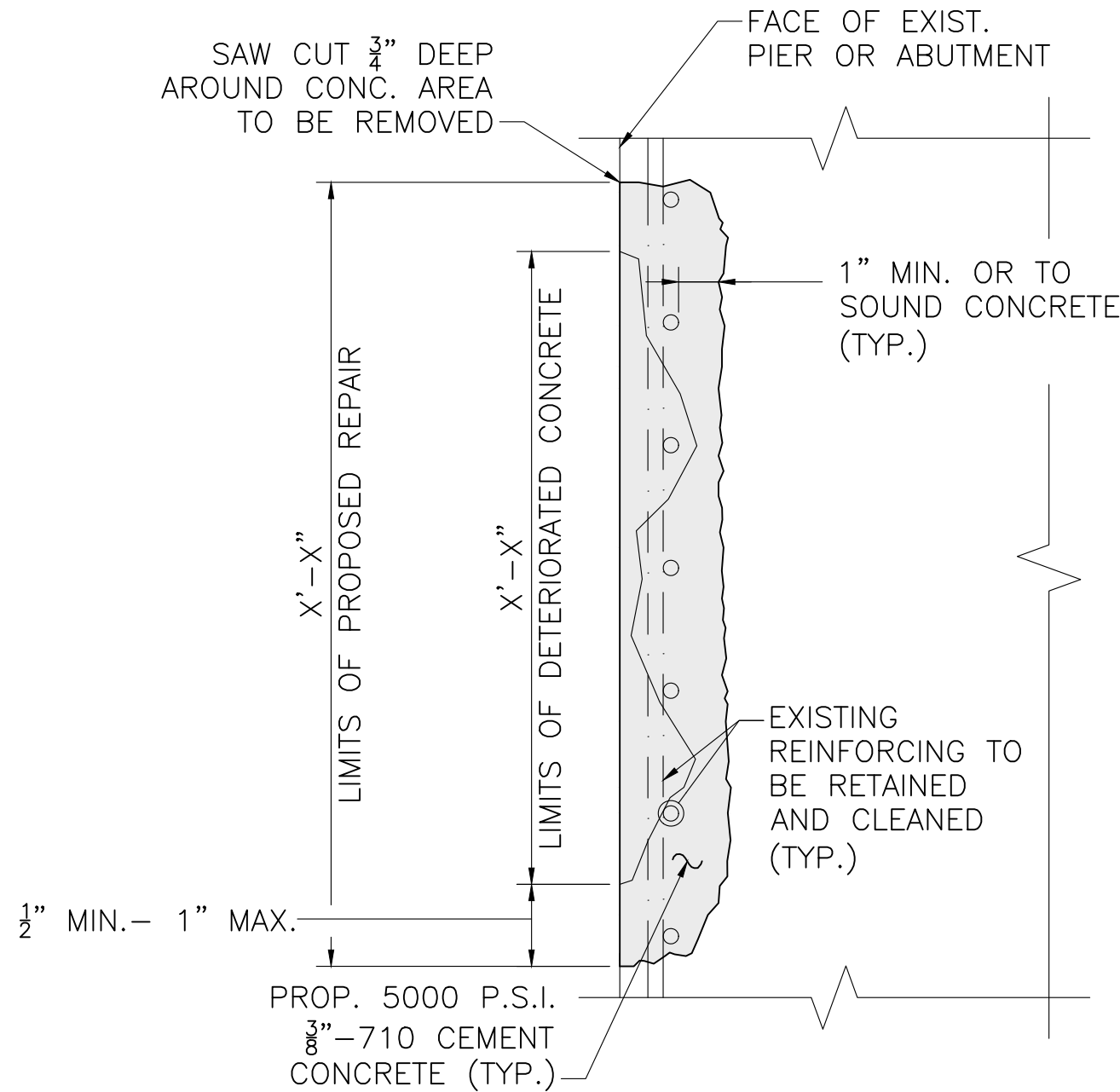
SCALE: 3/16" = 1'-0"

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DISTRICT 2 BRIDGE ENGINEER

DATE

Last Saved: 3/5/2025 10:05:49pm By: JSAK
Indexed On: 3/5/2025 3:49pm By: JSAK
Title & Content: \\w1975-059-62-p1-s-conc DTL.dwg - Bridge St. over Westfield River Drawings - Figures AutoCAD Sheet Phase 1 W1975-059-62-p1-s-conc DTL.dwg



NOTE:
IF THERE IS LESS THAN 1 1/2" CONCRETE COVER, THEN THE CONTRACTOR SHALL BUILD OUT THE FORM TO ENSURE A MINIMUM OF 1 1/2" COVER.

PARTIAL DEPTH REPAIR
SCALE: 1/8" = 1'-0"

SUBSTRUCTURE CONCRETE REPAIR NOTES:

1. SUBSTRUCTURE REPAIRS SHALL CONSIST OF REMOVING DETERIORATED CONCRETE, PREPARING THE REPAIR SURFACE, FORMING WHERE REQUIRED, PLACING AND FINISHING NEW CONCRETE OR CEMENTITIOUS MORTAR.
2. THE REPAIR IS DESIGNATED AS A DEEP PATCH WHEN THE EXCAVATED DEPTH TO SOUND CONCRETE EXCEEDS 2" FROM THE FACE OF THE CONCRETE OR REINFORCING STEEL IS ENCOUNTERED.
3. THE REPAIR IS DESIGNATED AS A SHALLOW DEPTH WHEN THE DEPTH OF SOUND CONCRETE IS REACHED AT OR LESS THAN 2" FROM THE FACE OF THE CONCRETE AND REINFORCING STEEL IS NOT ENCOUNTERED.
4. 5000 PSI, 3/8 INCH, 710 CEMENT CONCRETE (ITEM 905.2) SHALL BE USED FOR ALL DEEP PATCH REPAIRS. ALL SHALLOW DEPTH REPAIRS SHALL BE PATCHED WITH CEMENTITIOUS MORTAR FOR PATCHING (ITEM 909.2).
- 5.
6. THE CONTRACTOR SHALL ESTABLISH LIMITS OF REPAIRS AT THE DIRECTION OF THE ENGINEER. THE EXTENT, LOCATION AND REPAIR TYPE (DEEP PATCH OR SHALLOW DEPTH REPAIR) ARE TO BE FIELD VERIFIED AND APPROVED BY THE ENGINEER AFTER THE CONTRACTOR HAS SOUNDED AND MARKED OUT THE REPAIR AREA. THE AREAS OF REPAIR SHALL BE MADE APPROXIMATELY RECTANGULAR WITH THE SIDES GENERALLY PERPENDICULAR TO THE SURFACE BEING REPAIRED.
7. THE DETERIORATED CONCRETE SHALL BE REMOVED AS REQUIRED TO PROVIDE GOOD SOUND CONCRETE ON WHICH NEW CONCRETE CAN BE PLACED AND SATISFACTORILY BONDED TO UNDAMAGED OR UNDISTURBED REINFORCEMENT.
8. SAW CUT ALONG NEAT LINES AROUND REPAIR AREA PRIOR TO CONCRETE EXCAVATION. USE SAW CUT DEPTH OF 1", OR AS REQUIRED TO AVOID CUTTING REINFORCING STEEL.
9. SUBSTRUCTURE REPAIR SHOULD INCLUDE THE REMOVAL OF ALL DETERIORATED, LOOSE, SPALLED, AND HOLLOW SOUNDING CONCRETE. THE DETERIORATED CONCRETE SHALL BE REMOVED FROM WITHIN THE REPAIR AREAS TO THE DEPTH OF SOUND CONCRETE. WHEN REINFORCING STEEL IS UNCOVERED, CARE SHALL BE TAKEN SO AS NOT TO DAMAGE THE STEEL OR ITS BOND TO THE SURROUNDING CONCRETE. MAXIMUM 25 LB. HAMMERS WITH CHISEL POINTS SHALL BE USED FOR CONCRETE REMOVAL. MAXIMUM 15 LB. HAMMERS SHALL BE USED ONCE REINFORCING STEEL IS EXPOSED.
10. THE CONTRACTOR SHALL STOP REMOVING DETERIORATED CONCRETE WHEN A MAXIMUM DEPTH OF 6 INCHES IS REACHED. THE ENGINEER SHALL BE IMMEDIATELY NOTIFIED TO DETERMINE IF THE EXCAVATION CAN BE CONTINUED.
11. IF REINFORCING STEEL IS EXPOSED THEN CLEAN BY MECHANICAL CLEANING OR HIGH PRESSURE WASHING WITH WATER THAT CONTAINS NO DETERGENTS OR BOND INHIBITING CHEMICALS. WHERE ACTIVE CORROSION HAS OCCURRED THAT WOULD INHIBIT BONDING, CLEAN STEEL USING ABRASIVE BLASTING METHODS ACCEPTABLE TO THE ENGINEER, THEN PAINT WITH A ZINC-RICH PRIMER CONFORMING TO MASSDOT STANDARD SPECIFICATION NO. M7.04.11.
12. AFTER REMOVAL AND EDGE PREPARATIONS ARE COMPLETE, REMOVE BOND INHIBITING MATERIALS (DIRT, GREASE, LOOSELY BONDED AGGREGATE) BY ABRASIVE BLASTING OR HIGH PRESSURE WATER BLASTING WITH WATER THAT CONTAINS NO DETERGENTS OR BOND INHIBITING CHEMICALS. CHECK THE CONCRETE SURFACES AFTER CLEANING TO ENSURE THAT SURFACE IS FREE FROM ADDITIONAL LOOSE AGGREGATE OR THAT ADDITIONAL DELAMINATIONS ARE NOT PRESENT.
13. EXISTING REINFORCING BARS, WHICH ARE BROKEN OR HAVE LOST 25% OR MORE OF THEIR CROSS SECTIONAL AREA, OR AS ORDERED REPAIRED BY THE ENGINEER, SHALL BE REPAIRED BY SPLICING IN NEW REINFORCING BARS OF THE SAME DIAMETER. SEE EXISTING BRIDGE PLANS FOR BAR SIZES. SPLICE LAPS ARE TO BE AT LEAST 32 BAR DIAMETERS. MISSING OR DETERIORATED REINFORCING STEEL SHALL BE REPLACED AS DIRECTED BY THE ENGINEER AND WILL BE PAID UNDER ITEM 910.1.
14. ALL SURFACES WHERE NEW CONCRETE WILL BE BONDED TO EXISTING CONCRETE SHALL BE PRE-WETTED WITH CLEAN WATER TO SATURATED SURFACE (SSD) CONDITION (WITH NO STANDING WATER) IMMEDIATELY PRIOR TO THE CONCRETE PLACEMENT. IF INDICATED ON THE PLANS OR DIRECTED BY THE ENGINEER, APPLY EPOXY BONDING COMPOUND SUITABLE FOR BONDING FRESH CONCRETE TO HARDENED CONCRETE FOR LOAD BEARING APPLICATIONS TO INTERFACE BETWEEN NEW AND EXISTING CONCRETE. THE EPOXY BONDING COMPOUND SHALL CONFORM TO AASHTO M 235 TYPE V, GRADE AND CLASS SHALL BE SPECIFIED FOR EACH APPLICATION AND SHALL BE APPLIED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND THE SPECIAL PROVISIONS. THE COST ASSOCIATED WITH THIS WORK WILL BE PAID UNDER ITEM 964.1.
15. IN GENERAL, EPOXY BONDING COMPOUND (ITEM 964.1) SHALL BE USED FOR ALL SHALLOW DEPTH REPAIR AND HORIZONTAL SURFACES OF DEEP PATCH REPAIR, SUCH AS TOP EXCAVATED SURFACES OF PIER CAP AND BEAM SEAT.
16. IF EPOXY BONDING COMPOUND (ITEM 964.1) IS USED, THE FORMS SHALL BE INSTALLED AT LEAST ONCE PRIOR TO APPLICATION OF THE EPOXY BONDING COMPOUND IN ORDER TO ENSURE FORMS CAN BE REINSTALLED AND FILLED BEFORE THE EPOXY BONDING COMPOUND HARDENS.
17. ALL CONCRETE SURFACES ONCE CURED, SHALL BE RUBBED TO PRODUCE A SMOOTH FINISH TO MATCH EXISTING SURFACES. WET CURING IN ACCORDANCE WITH THE SUPPLEMENTAL SPECIFICATIONS FOR HIGHWAYS AND BRIDGES SECTION 901.65, SUB-SECTION A-2 WILL BE REQUIRED.
18. CONCRETE ABUTMENT SEATS, AND EXPOSED SECTIONS OF ABUTMENT STEMS SHALL (AS DETERMINED BY THE ENGINEER) RECEIVE A CONCRETE PENETRANT/SEALER, 30 DAYS AFTER ALL REPAIRS HAVE BEEN MADE. CONCRETE SEALANT SHALL BE PAID FOR UNDER ITEM 964.01 CONCRETE PENETRANT SEALER.
19. THE REPAIR PHASING AND SEQUENCE MAY BE MODIFIED BY THE ENGINEER SO THAT THE SECTIONS WITH WORSE DETERIORATION ARE REPAIRED FIRST.

NOTES FOR CONTRACTOR:

IF ANY OF THE FOLLOWING CONDITIONS ARE ENCOUNTERED, THE CONTRACTOR SHALL STOP REMOVING DETERIORATED CONCRETE AND IMMEDIATELY NOTIFY THE ENGINEER TO DETERMINE IF THE EXCAVATION CAN BE CONTINUED:

1. WHEN A MAXIMUM EXCAVATION DEPTH OF 6 INCHES IS REACHED IN ANY SUBSTRUCTURE REPAIR.
2. WHEN THE EXCAVATION ENCROACHES ON THE BEARING DEVICES.

COMMONWEALTH OF MASSACHUSETTS
MassDOT, Highway Division
**APPROVED UNDER PROVISIONS OF
MASS. GEN. LAWS CH 85 § 35**
DISTRICT 2 BRIDGE ENGINEER DATE

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**PROPOSED BRIDGE
PRESERVATION
PHASE 1**

**AGAWAM /
WEST SPRINGFIELD**

**VIETNAM VETERANS
MEMORIAL BRIDGE**

**BRIDGE STREET
OVER
WESTFIELD RIVER
A-05-003 = W-21-013
(OKX)**

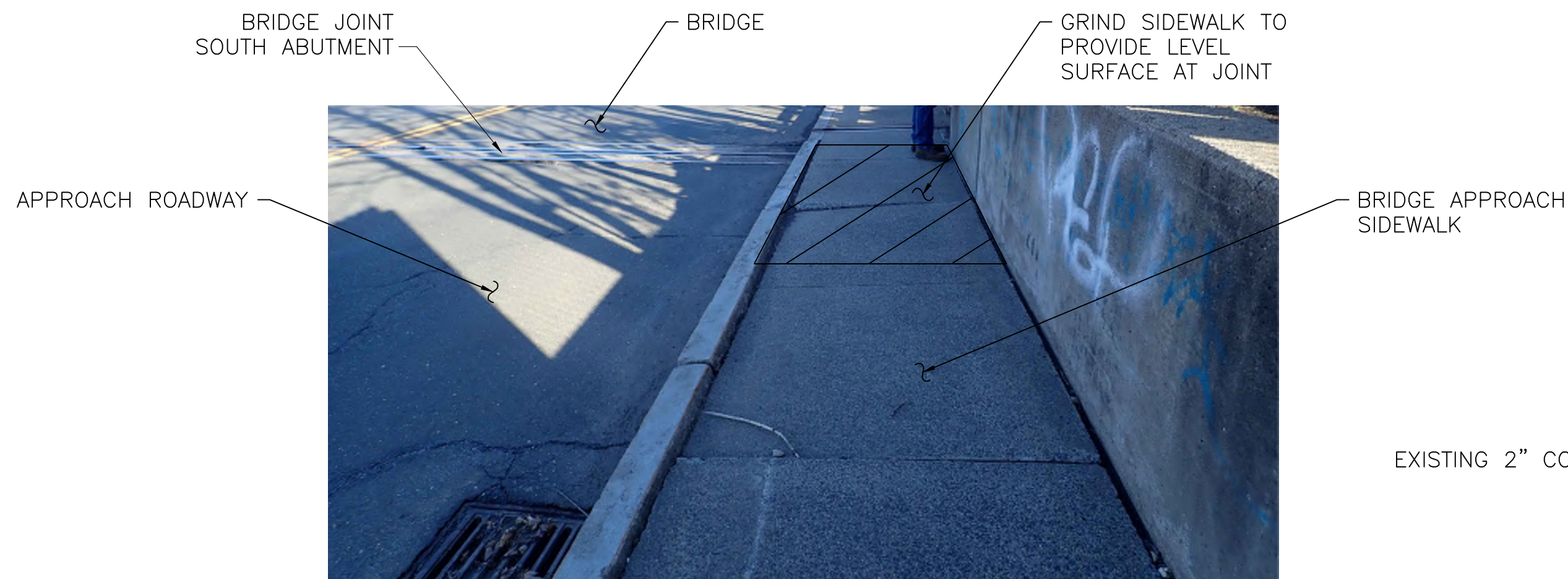
MARK	DATE	DESCRIPTION
PROJECT NO:		W1975-059
DATE:		MARCH 2025
FILE:		W1975-059-62-P1-S-CONC DTL.dwg
DRAWN BY:		JHM
DESIGNED/CHECKED BY:		AML
APPROVED BY:		JRI

**SUBSTRUCTURE REPAIR
DETAILS**

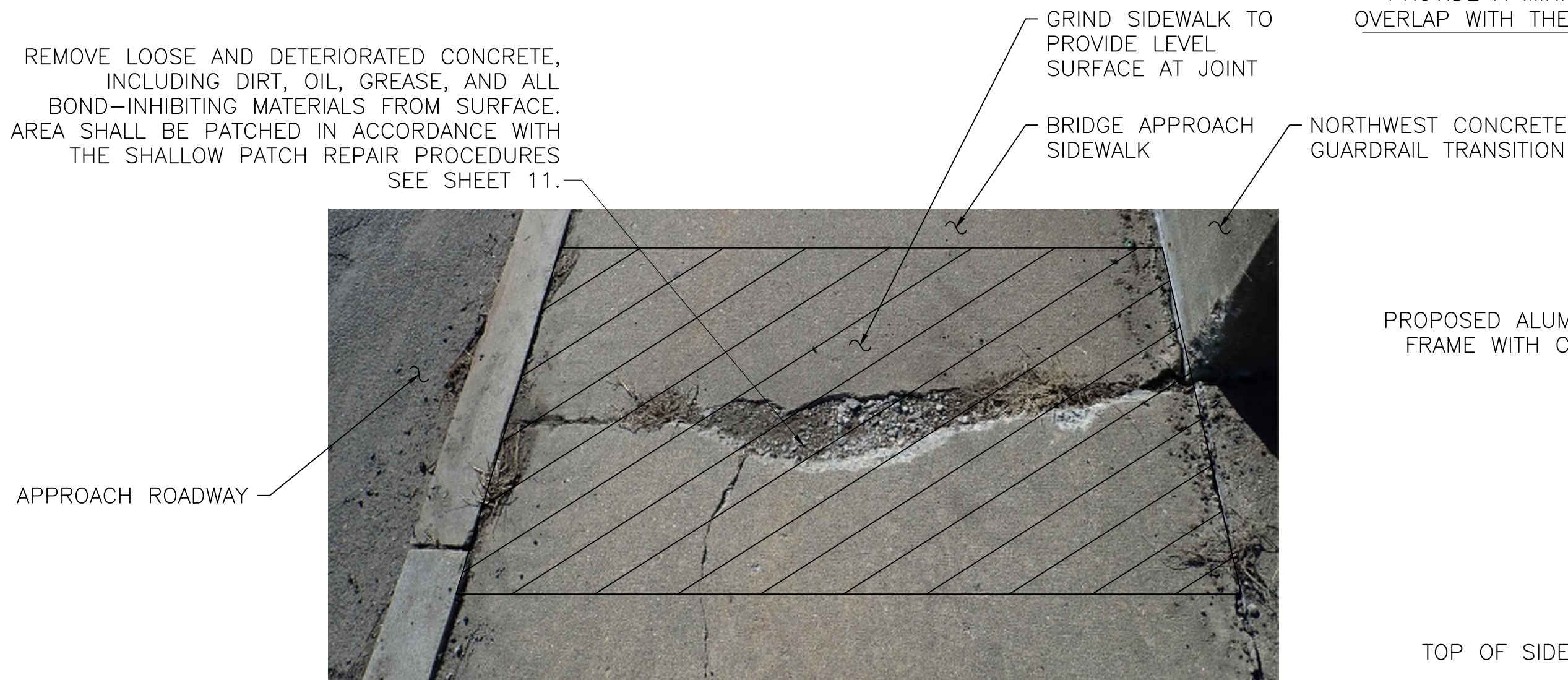
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SHEET 11 OF 15

Last Saved: 3/5/2025 3:50pm By: JSAK
Project: 059 - Bridge St. over Westfield River Drawings - Figures AutoCAD Sheet Phase 1 W1975-059-63-P1-S-JOINTS.dwg
Title: Tighe & Bond



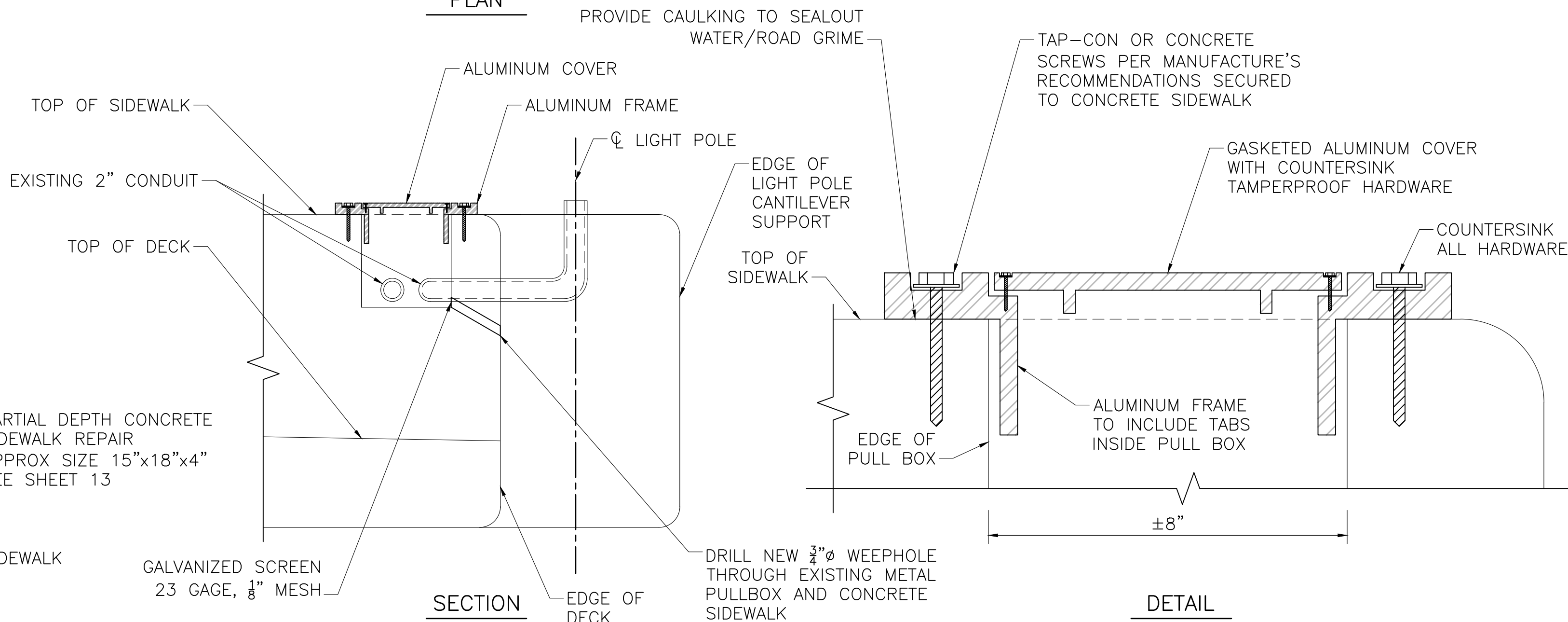
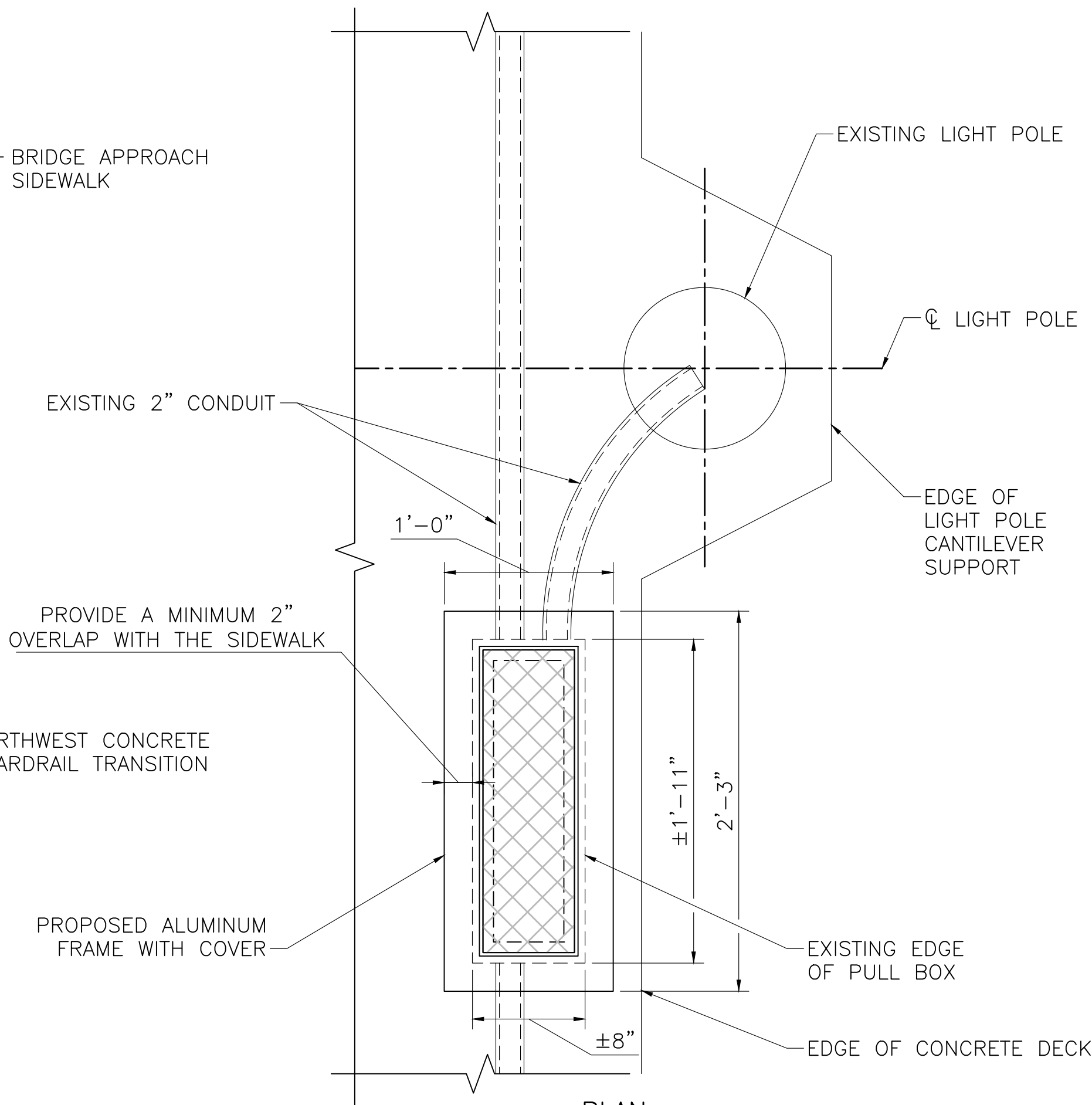
SOUTHEAST APPROACH SIDEWALK REPAIR



NORTHWEST APPROACH SIDEWALK REPAIR



PARTIAL DEPTH CONCRETE SIDEWALK REPAIR



PULL BOX REPLACED

NOT TO SCALE

NOTES:

1. END OF BARS TO BE 2" CLEAR OF JOINT.
2. DO NOT CARRY LONGITUDINAL BARS THRU PARAFFIN JOINT.
3. JOINT SEALER TO BE SAME COLOR AS CONCRETE.

NOTES:

1. TOTAL OF 6 PULL BOX FRAMES AND COVERS TO BE INSTALLED.
2. PULL BOX FRAME AND COVER SHALL BE ALUMINUM AND CONFORM TO ASTM B-221.
3. CONTRACTOR TO VERIFY IN THE FIELD THE DIMENSIONS OF THE PULL BOX CAVITY PRIOR TO FABRICATION OF METAL FRAME AND COVER.
4. CLEAN DEBRIS OUT OF EXISTING PULL BOX CAVITY.
5. CONTRACTOR SHALL PROTECT EXISTING CONDUITS AND ELECTRICAL WIRE DURING CONSTRUCTION. ANY DAMAGE TO THE CONDUIT OR ELECTRICAL WIRE SHALL BE REPAIRED BY THE CONTRACTOR WITH AN APPROVED METHOD FROM THE ENGINEER AT NO ADDITIONAL COSTS TO THE OWNER.
6. PRIOR TO DRILLING WEEPHOLES, CONTRACTOR SHALL LOCATE REINFORCING BARS IN THE SIDEWALK. CONTRACT SHALL NOT DAMAGE ANY REINFORCING BARS WHEN DRILLING WEEPHOLES.

COMMONWEALTH OF MASSACHUSETTS
MassDOT, Highway Division
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MASS. GEN. LAWS CH 85 § 35
DISTRICT 2 BRIDGE ENGINEER DATE

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**PROPOSED BRIDGE
PRESERVATION
PHASE 1**

**AGAWAM /
WEST SPRINGFIELD**

**VIETNAM VETERANS
MEMORIAL BRIDGE**

**BRIDGE STREET
OVER
WESTFIELD RIVER
A-05-003 = W-21-013
(0KX)**

MARK	DATE	DESCRIPTION
PROJECT NO:	W1975-059	
DATE:	MARCH 2025	
FILE:	W1975-059-63-P1-S-JOINTS.dwg	
DRAWN BY:	JHM	
DESIGNED/CHECKED BY:	AML	
APPROVED BY:	JRI	

**SIDEWALK REPAIR DETAILS
(SHEET 1 OF 2)**

SCALE: AS SHOWN

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PROPOSED BRIDGE
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PHASE 1

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MEMORIAL BRIDGE

BRIDGE STREET
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WESTFIELD RIVER
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(OKX)

MARK	DATE	DESCRIPTION
PROJECT NO: W1975-059		
DATE: MARCH 2025		
FILE: W1975-059-62-P1-S-CONC DTL.dwg		
DRAWN BY: JHM		
DESIGNED/CHECKED BY: AML		
APPROVED BY: JRI		

SIDEWALK REPAIR DETAILS
(SHEET 2 OF 2)

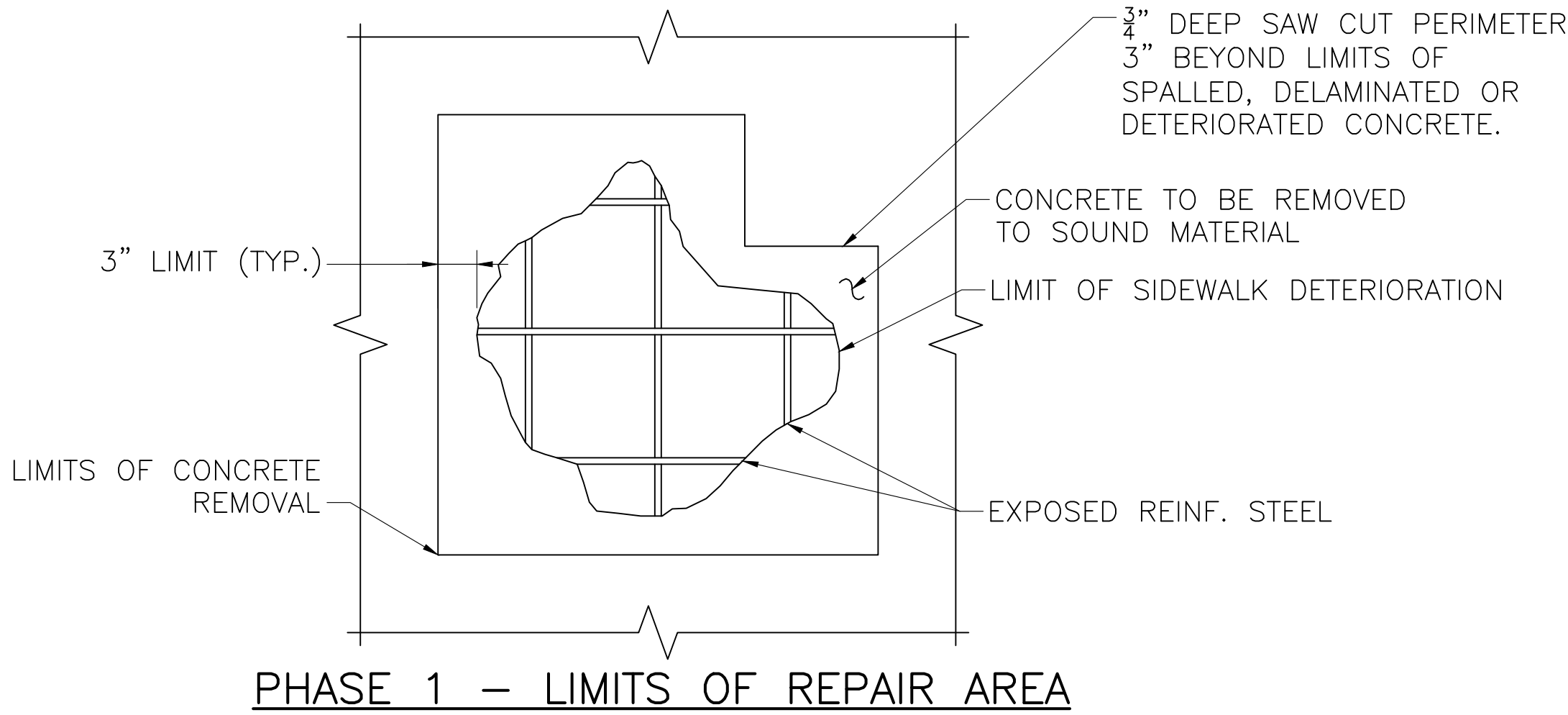
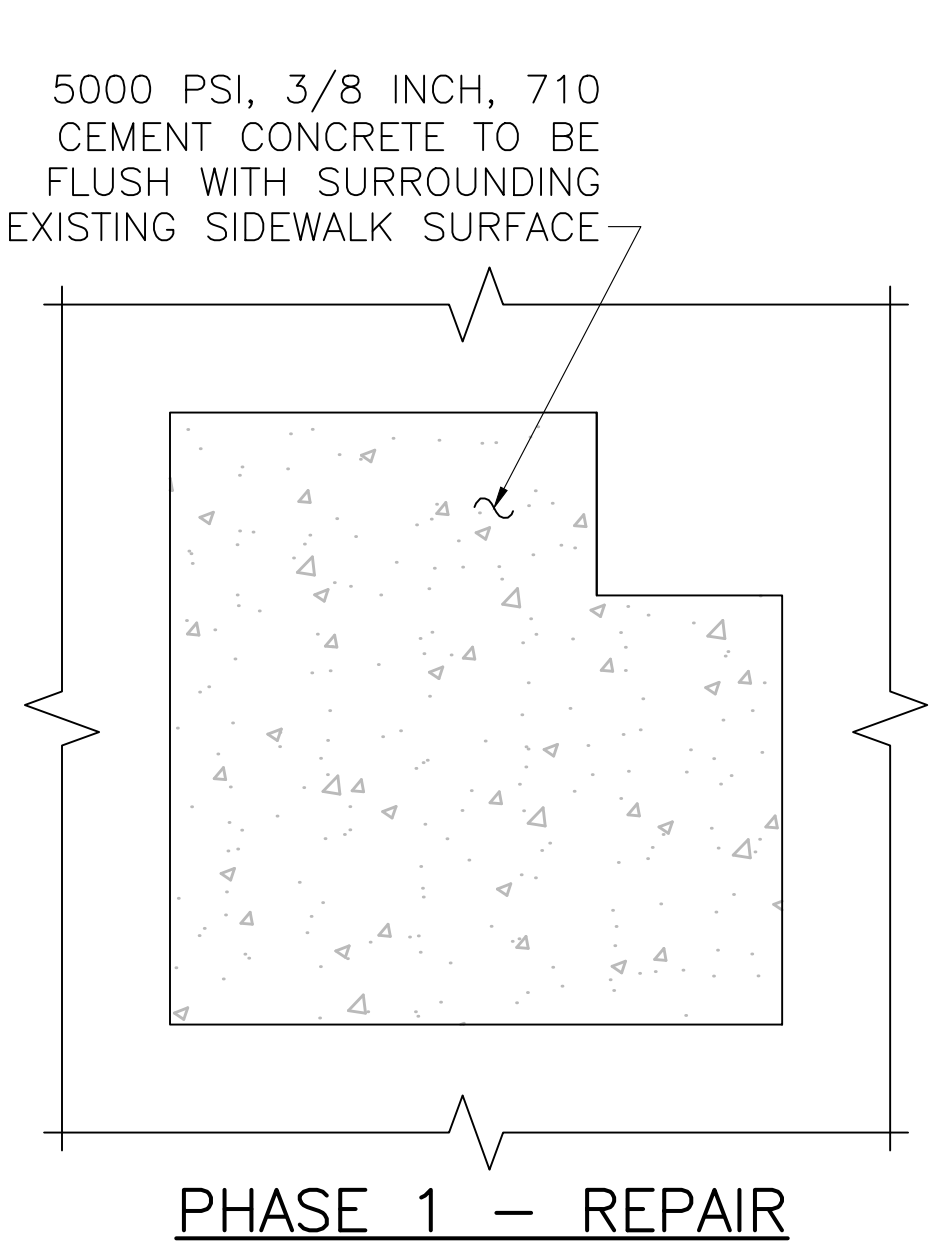
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SHEET 13 OF 15

COMMONWEALTH OF MASSACHUSETTS
MassDOT, Highway Division
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MASS. GEN. LAWS CH 85 § 35

DISTRICT 2 BRIDGE ENGINEER

DATE

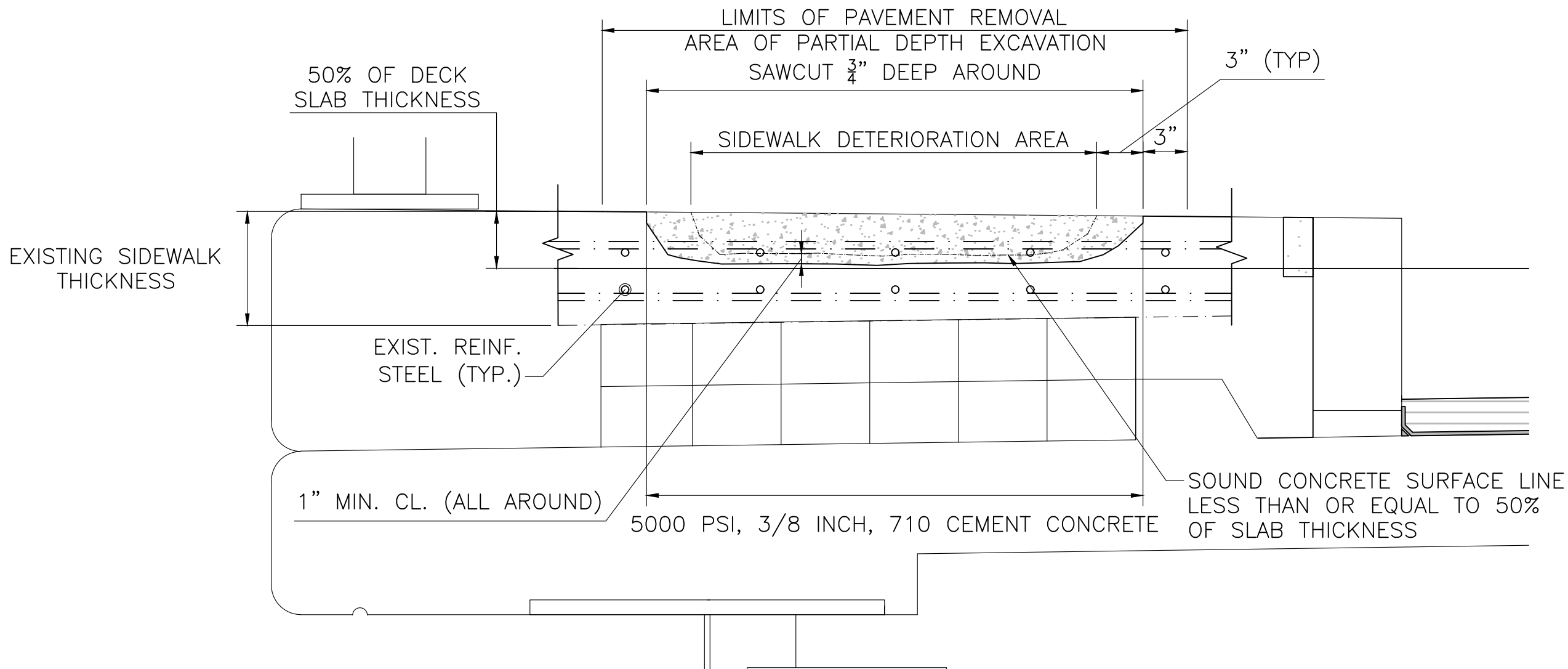


SIDEWALK REPAIR TYPE A SEQUENCE NOTES:

1. THE SHAPE OF THE EXCAVATED AREAS SHALL BE RECTANGULAR WITH SQUARE CORNERS.
2. CLEAN THE EXPOSED STEEL REINFORCEMENT.
3. INSTALL NEW STEEL REINFORCEMENT AS DIRECTED BY THE ENGINEER.
4. MIX AND PLACE 5000 PSI, 3/8 INCH, 710 CEMENT CONCRETE IN THE EXCAVATED AREAS. THE TOP SURFACE OF THE RAPID SETTING CONCRETE SHALL BE FLUSH WITH THE SURROUNDING EXISTING SIDEWALK SURFACE.

SIDEWALK REPAIR GENERAL NOTES:

1. REPLACE DETERIORATED SIDEWALK CONCRETE AND ANY EXISTING TEMPORARY CONCRETE PATCHES, SUCH AS DURACAL PATCHES, WITH NEW CONCRETE.
2. INSPECT THE SIDEWALK TO IDENTIFY ADDITIONAL AREAS OF FULL AND PARTIAL DEPTH SIDEWALK REPAIRS. THE FINAL LIMITS OF JOINT AND SIDEWALK REPAIRS TO BE DETERMINED BY THE ENGINEER.
3. CONCRETE EXCAVATION ASSOCIATED WITH THE BRIDGE SIDEWALK REPAIRS SHALL BE PAID FOR UNDER ITEMS 127.1 REINFORCED CONCRETE EXCAVATION.
4. ALL CONCRETE USED IN THE SIDEWALK REPAIRS SHALL BE LOW PERMEABILITY CONCRETE. THE TOP SURFACE OF THE REPAIR MATERIAL SHALL BE FLUSH WITH THE EXISTING CONCRETE DECK.
5. ALL EXISTING STEEL REINFORCEMENT SHALL REMAIN IN PLACE. NEW EPOXY COATED STEEL REINFORCEMENT SHALL BE PLACED TO SUPPLEMENT EXISTING REINFORCEMENT THAT HAS A SECTION LOSS OF 25% OR MORE OF THE ORIGINAL CROSS SECTION AREA OR HAS BROKEN, AS DETERMINED BY THE ENGINEER. NEW REINFORCEMENT SHALL EXTEND 30 BAR DIAMETERS IN EACH DIRECTION FROM WHERE THE SECTION LOSS OR BREAK ENDS. THE LIMITS OF THE REPAIR SHALL BE MODIFIED TO MEET THE REINFORCEMENT STEEL LAP SPLICE REQUIREMENTS. NEW REINFORCING STEEL SHALL BE PLACED AT THE SAME LEVEL ALONGSIDE THE EXISTING DETERIORATED OR BROKEN REINFORCING STEEL.
6. ALL NEW REINFORCING STEEL SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M31 GRADE 60, UNLESS OTHERWISE NOTED ON THE PLANS. ALL NEW REINFORCING STEEL SHALL BE EPOXY COATED.
7. PARTIAL DEPTH REPAIRS: ALL DETERIORATED AND DELAMINATED CONCRETE SHALL BE REMOVED TO A MINIMUM DEPTH OF 1" BELOW THE BOTTOM OF THE TOP LAYER OF EXISTING TRANSVERSE REINFORCEMENT STEEL TO A MAXIMUM OF 50% OF THE THICKNESS OF THE EXISTING CONCRETE DECK.
8. ALL EXISTING REINFORCING STEEL AND CONCRETE SURFACES THAT ARE TO BE IN CONTACT WITH REPAIR CONCRETE SHALL BE ABRASIVELY BLAST CLEANED IN ORDER TO REMOVE ALL RUST, OIL, AND DEBRIS THAT IS NOT TIGHTLY ADHERED, FOLLOWED BY APPLICATION OF COMPRESSED AIR TO REMOVE ALL DUST. EXISTING CONCRETE REPAIR SURFACES THAT WILL BE IN CONTACT WITH REPAIR CONCRETE SHALL BE PRE-WETTED FOR A MINIMUM OF 15 MINUTES USING POTABLE WATER IN PLACEMENT OF REPAIR CONCRETE.



TYPICAL TYPE A PARTIAL DEPTH SIDEWALK REPAIR DETAIL

AGAWAM /
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VIETNAM VETERANS
MEMORIAL BRIDGE

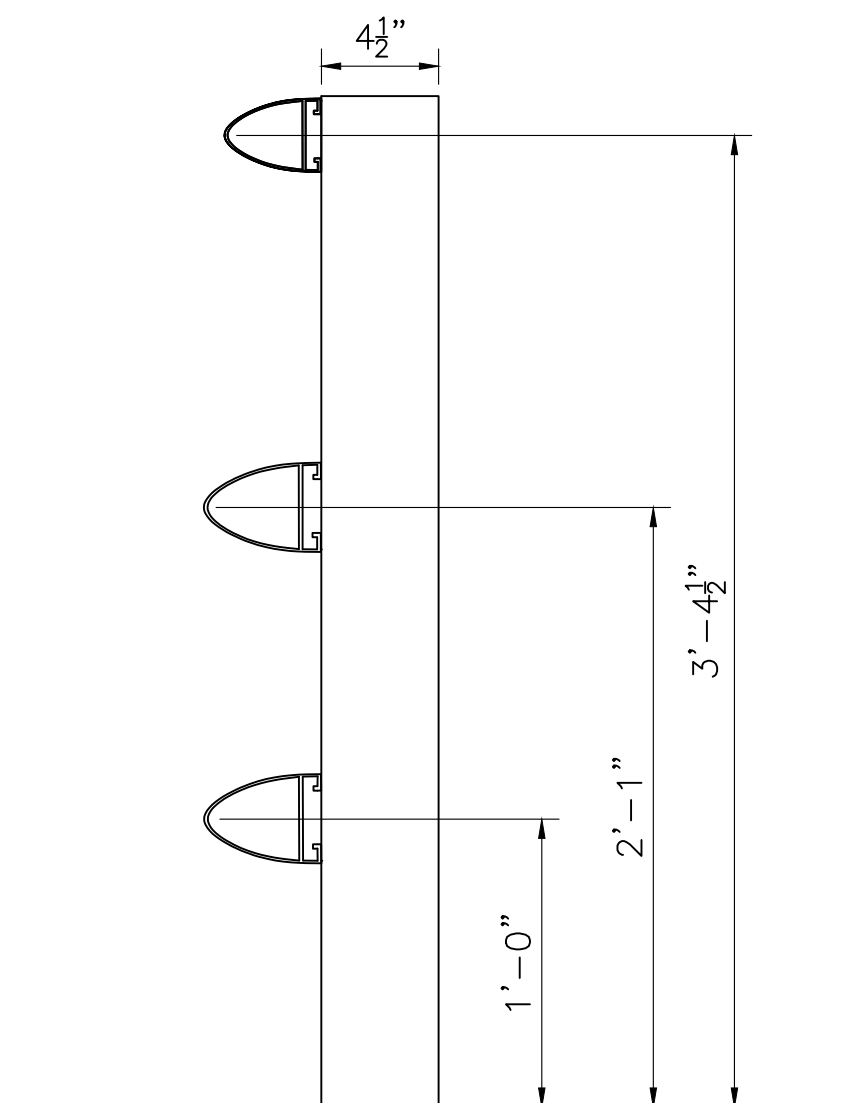
BRIDGE STREET
OVER
WESTFIELD RIVER
A-05-003 = W-21-013
(0KX)

[illegible]

GUARDRAIL REPAIR DETAILS

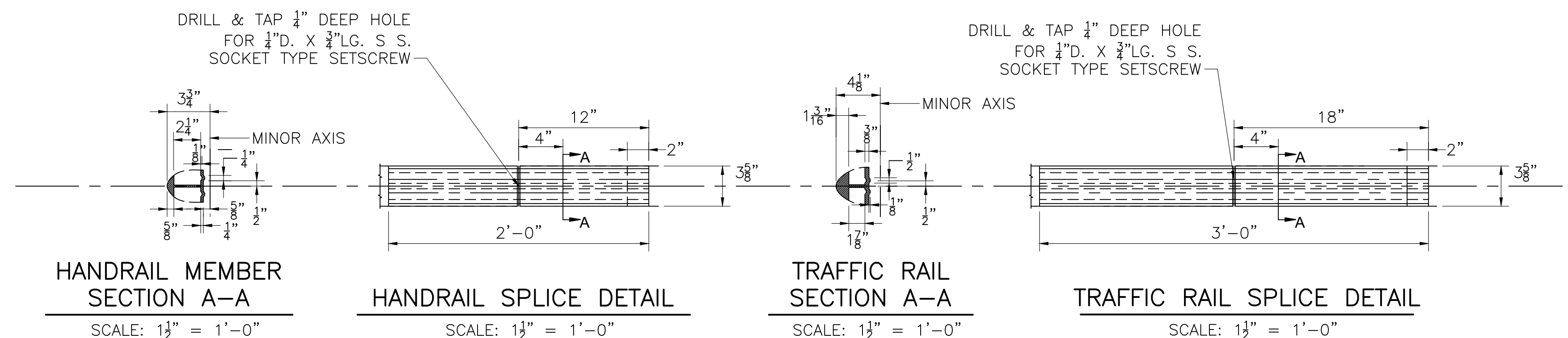
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SHEET 14 OF 15



SECTION B-B
SIDE ELEVATION

SCALE: $1\frac{1}{2}'' = 1'-0''$



NOTES:

1. REPLACEMENT HANDRAIL TO BE ASTM B-221 ALLOY 6061-T6.
2. STAINLESS STEEL SET SCREWS TO BE ASTM A-193 GRADE B8.
3. CONTRACTOR TO FIELD VERIFY ALL DIMENSIONS AND RAILING CONNECTIONS AND REVIEW FINDINGS WITH ENGINEER PRIOR TO ORDERING AND FABRICATING OF RAIL REPLACEMENT ELEMENTS.



GUARDRAIL

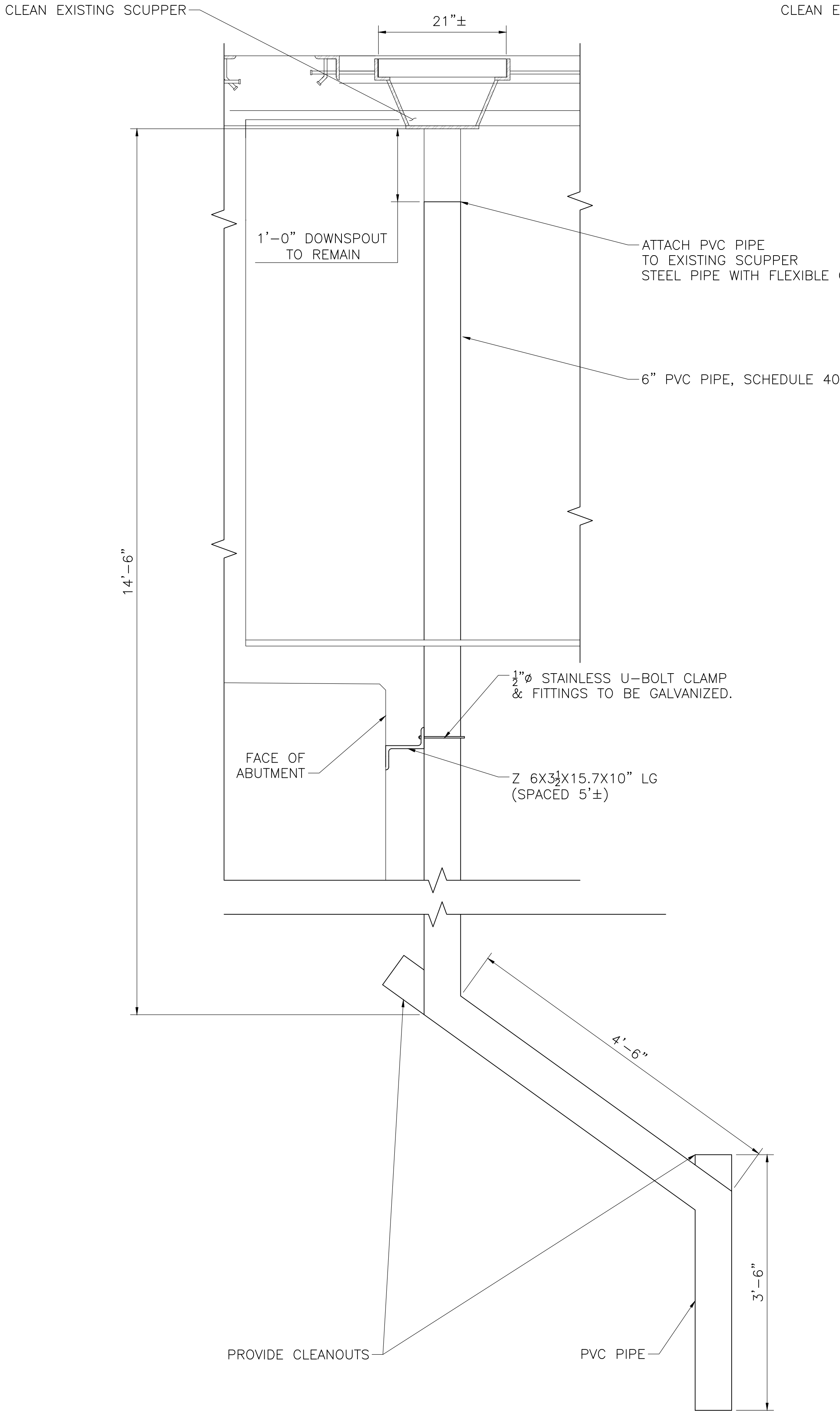
NOT TO SCALE

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MassDOT, Highway Division
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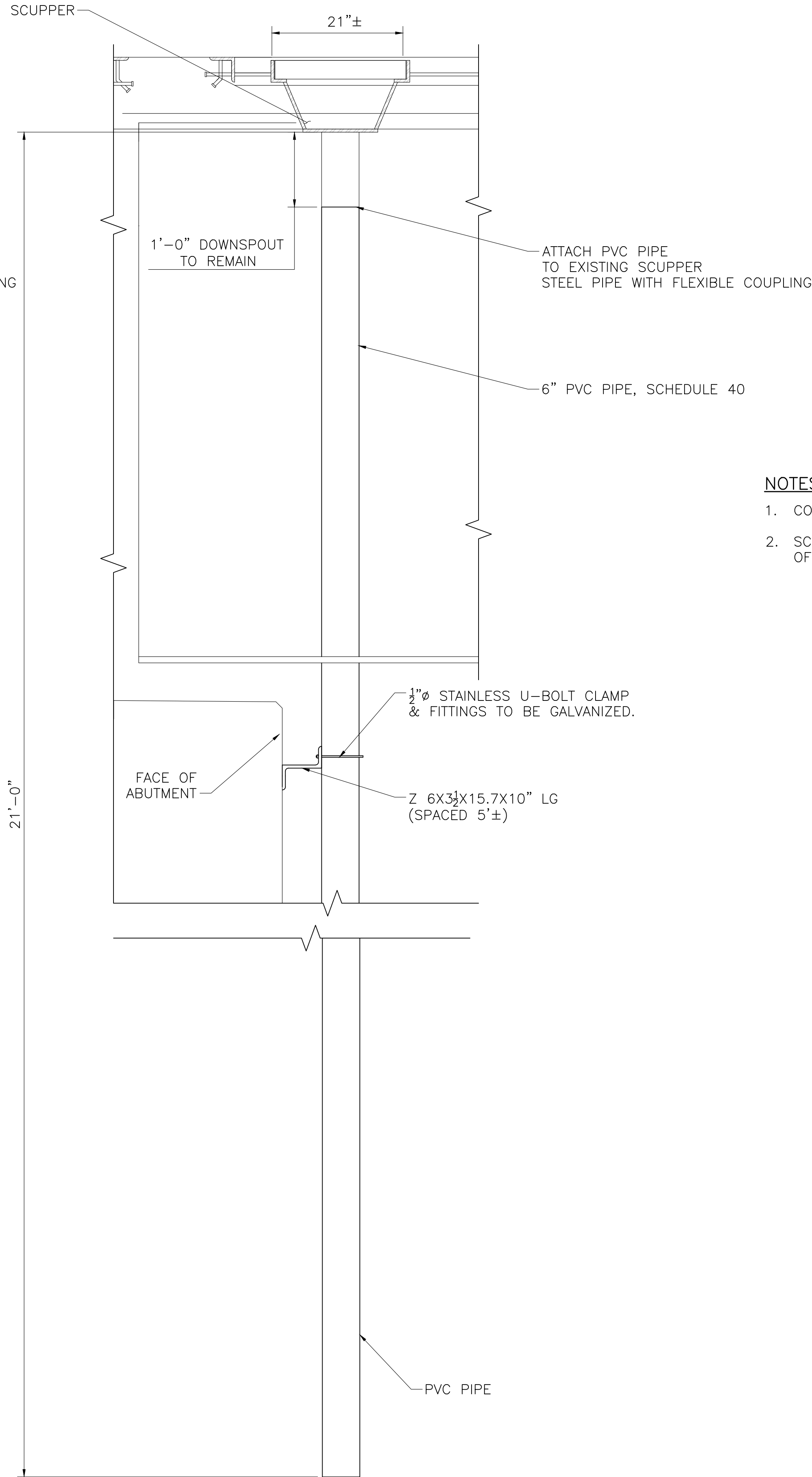
DISTRICT 2 BRIDGE ENGINEER

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Project: 059 - Bridge St. over Westfield River Drawings
Figure: AutoCAD Sheet/Phase 1/W1975-059-65-P1-S-DRAINAGE.dwg
Title: Tighe & Bond
User: jssak



SCUPPER DETAIL (WEST)
SCALE: 1" = 1'-0"



SCUPPER DETAIL (EAST)
SCALE: 1" = 1'-0"

- NOTES:**
- CONTRACTOR TO VERIFY EXISTING DIMENSION IN FIELD.
 - SCUPPERS SHALL BE CLEANED TO PRIOR INSTALLATION OF DOWNSPOUTS.

COMMONWEALTH OF MASSACHUSETTS
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**PROPOSED BRIDGE
PRESERVATION
PHASE 1**

**AGAWAM /
WEST SPRINGFIELD**

**VIETNAM VETERANS
MEMORIAL BRIDGE**

**BRIDGE STREET
OVER
WESTFIELD RIVER
A-05-003 = W-21-013
(0KX)**

MARK	DATE	DESCRIPTION
PROJECT NO:		W1975-059
DATE:		MARCH 2025
FILE:		W1975-059-65-P1-S-DRAINAGE.dwg
DRAWN BY:		JHM
DESIGNED/CHECKED BY:		AML
APPROVED BY:		JRI

DRAINAGE REPAIR DETAILS

SCALE: AS SHOWN

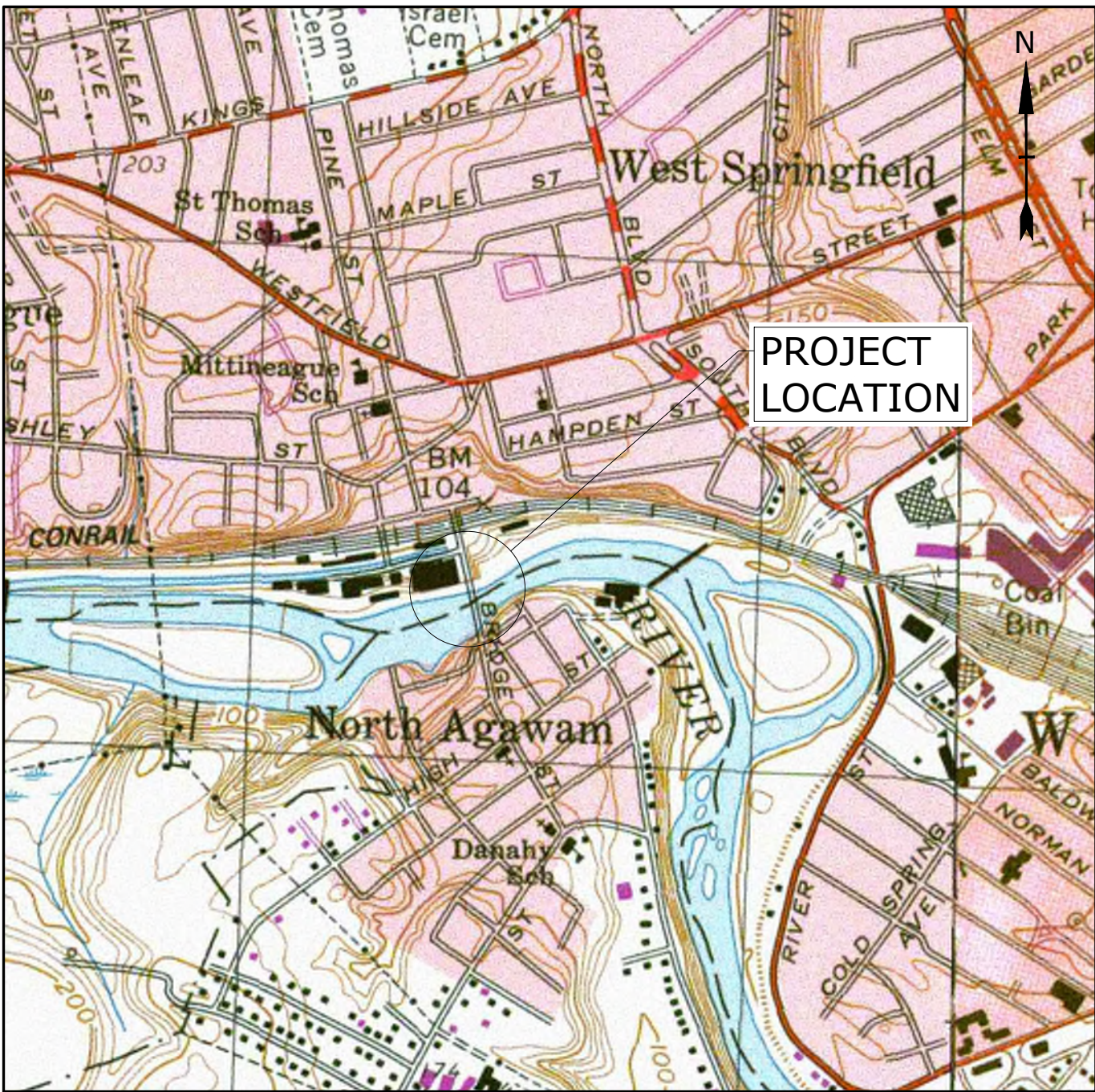
SHEET 15 OF 15

TOWN OF AGAWAM AND TOWN OF WEST SPRINGFIELD, MASSACHUSETTS

VIETNAM VETERANS MEMORIAL BRIDGE PROPOSED BRIDGE PRESERVATION BRIDGE STREET OVER THE WESTFIELD RIVER A-05-003=W-21-013 (0KX)

PHASE 2 90% SUBMITTAL MARCH 2025

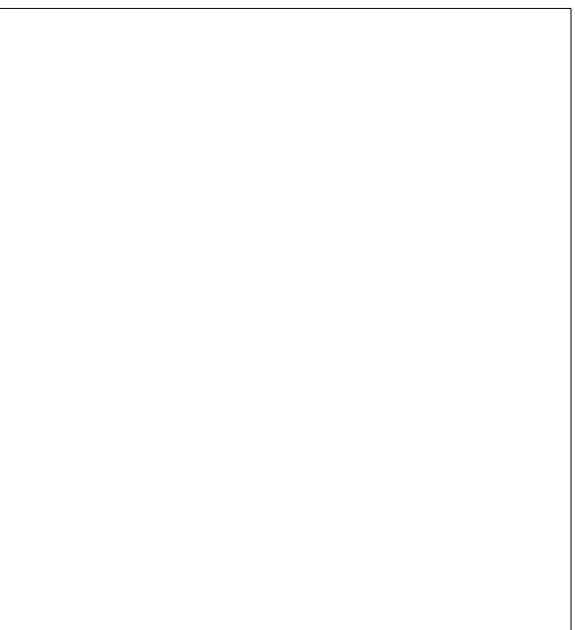
LIST OF DRAWINGS	
SHEET NO.	SHEET TITLE
1	COVER
2	BRIDGE KEY PLAN, PROFILES, & LOCUS
3	GENERAL NOTES
4	LEGEND & ABBREVIATIONS
5	EXISTING CONDITIONS & CONSTRUCTION STAGING PLAN
6	TEMPORARY TRAFFIC CONTROL PLAN
7	GENERAL BRIDGE PLAN & ELEVATION
8	BRIDGE DECK PAVING & JOINT DETAILS
9	SIDEWALK REPAIR DETAILS
10	CONCRETE DECK REPAIR DETAILS (SHEET 1 OF 2)
11	CONCRETE DECK REPAIR DETAILS (SHEET 2 OF 2)
12	DECK DRAIN DETAILS
13	SCUPPER REPAIR DETAILS
14	SHIELDING DETAILS



LOCATION MAP
SCALE: 1" = 1000'

PREPARED BY:

Tighe&Bond

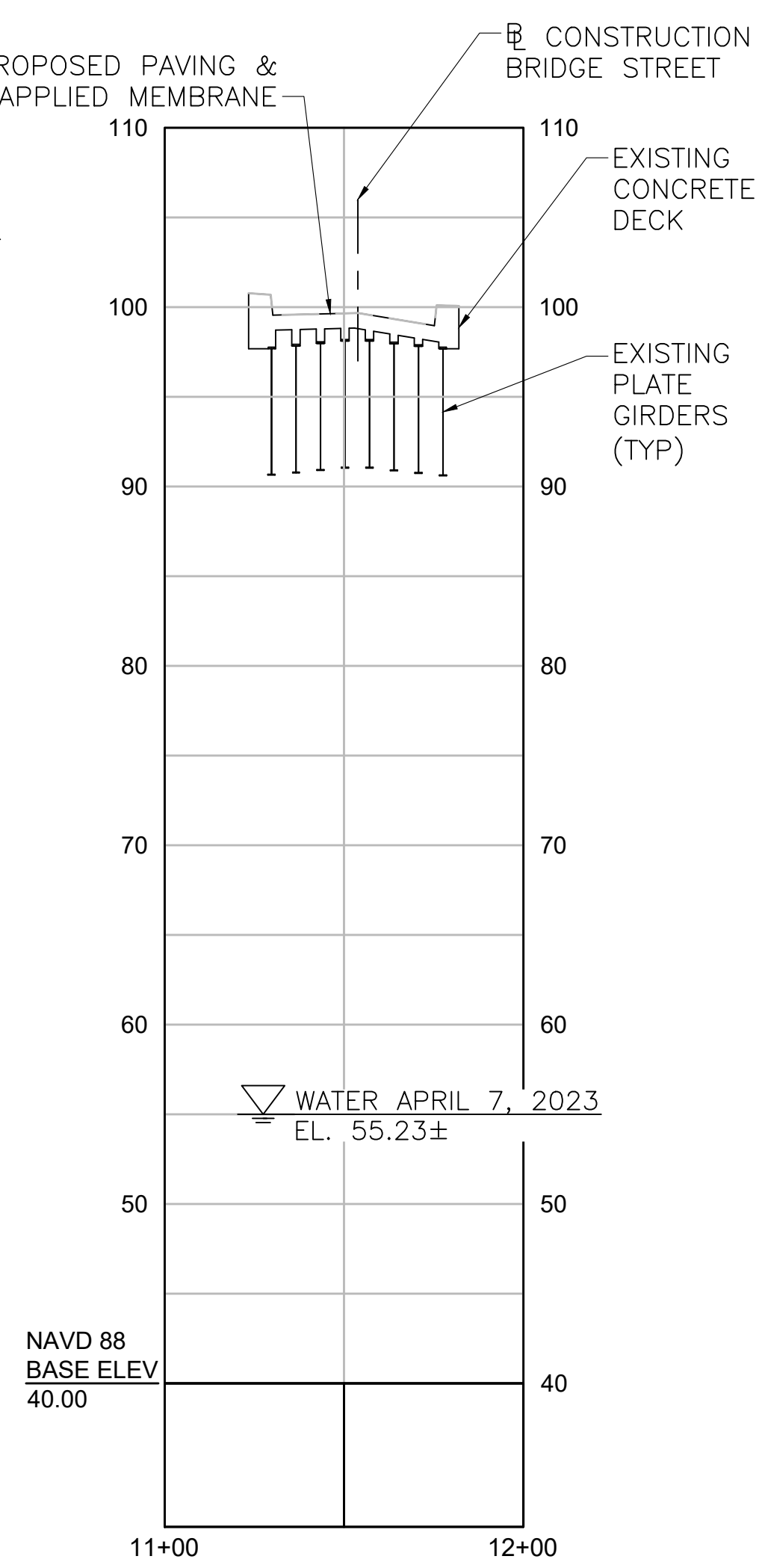
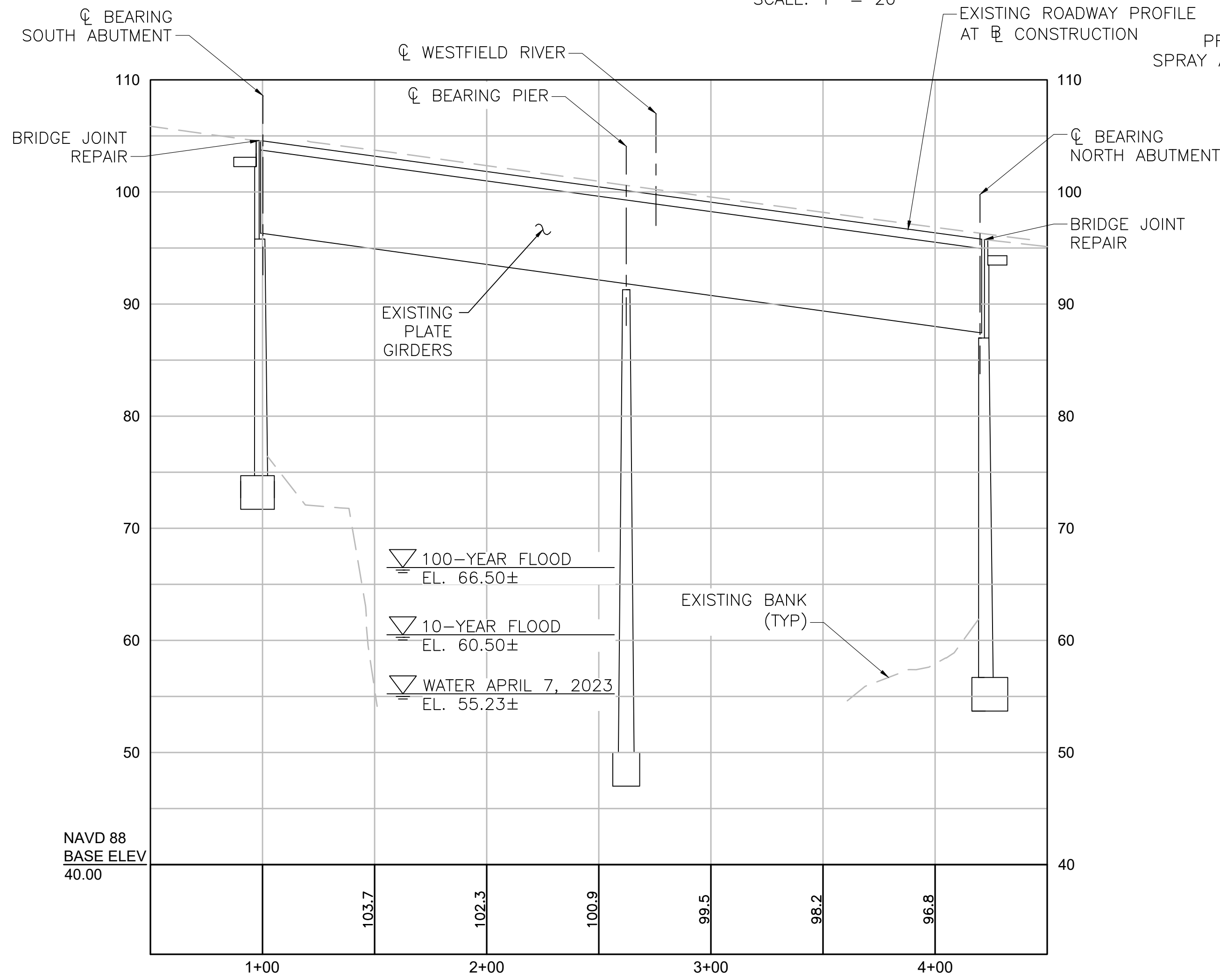
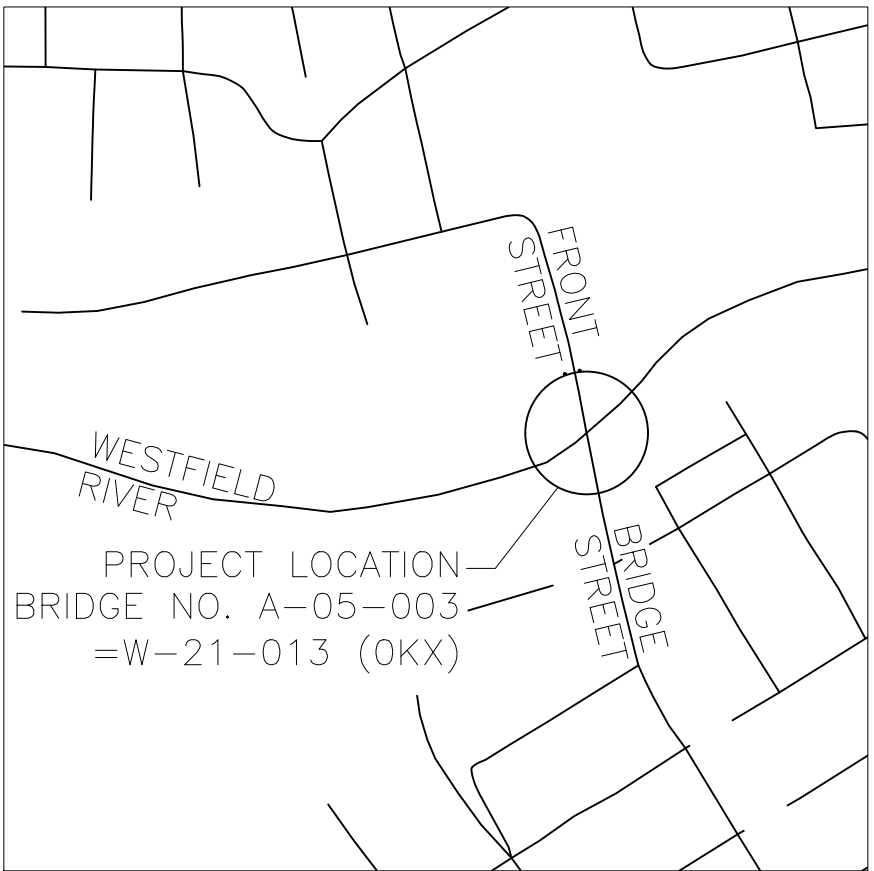
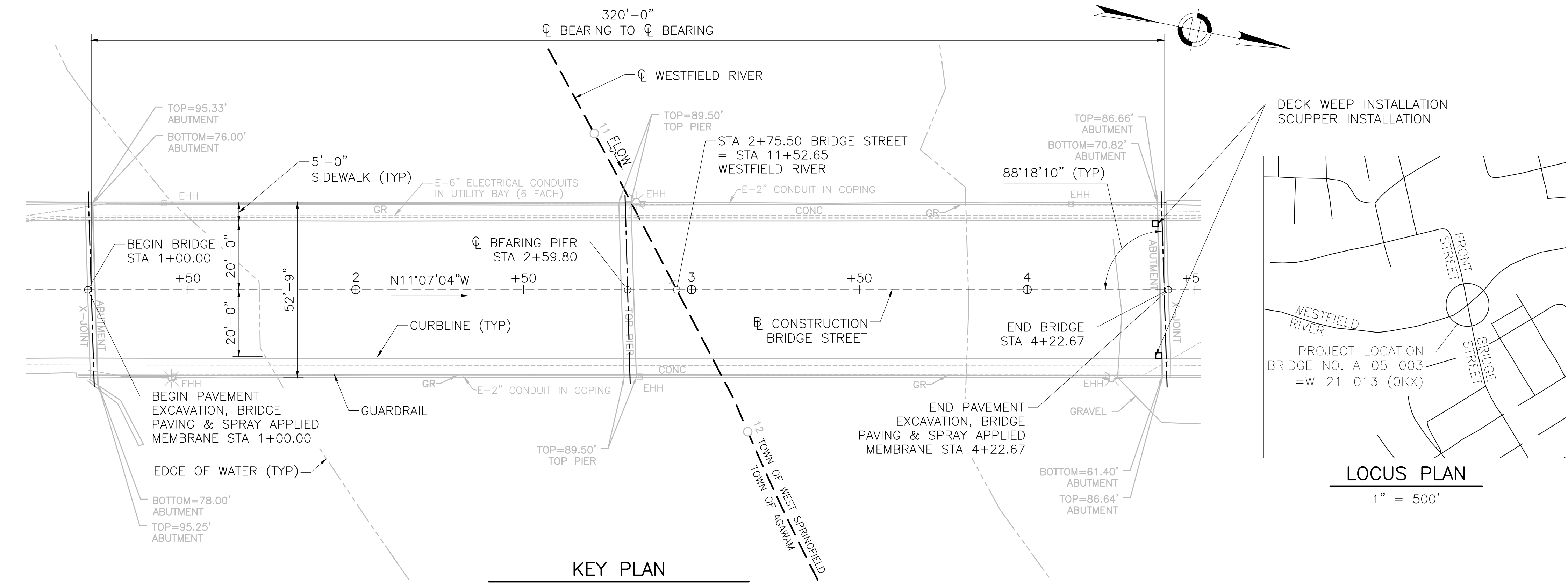


PREPARED FOR:

TOWN OF WEST SPRINGFIELD
DEPARTMENT OF PUBLIC WORKS
ROB COLSON, DPW DIRECTOR
TOWN OF AGAWAM
DEPARTMENT OF PUBLIC WORKS
MARIO MAZZA, DPW SUPERINTENDENT

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COMPLETE SET 14 SHEETS**



ESTIMATED QUANTITIES			
(NOT GUARANTEED)			
ITEM NO.	DESCRIPTION	QTY	UNIT
106.12	BRIDGE CURB REMOVED AND RESET	24	FT
106.14	BRIDGE SCUPPER	2	EA
106.15	BLEEDER (BRIDGE DECK) PVC	2	EA
127.4	REINFORCED CONCRETE DECK EXCAVATION	60	SY
127.41	REINFORCED CONCRETE DECK EXCAVATION(PARTIAL DEPTH)	5	CY
129.6	BRIDGE PAVEMENT EXCAVATION	1430	SY
450.60	SUPERPAVE BRIDGE SURFACE COURSE - 9.5 (SSC-B - 9.5)	110	TON
450.70	SUPERPAVE BRIDGE PROTECTIVE COURSE - 9.5 (SPC-B - 9.5)	110	TON
482.4	SAWCUTTING PORTLAND CEMENT CONCRETE	640	FT
748.	MOBILIZATION	1	LS
850.	TRAFFIC CONTROLS FOR CONSTRUCTION AND MAINTENANCE OPERATIONS	1	LS
861.104	4 INCH REFLECTORIZED YELLOW LINE (PAINTED)	640	FT
909.2	CONTINUOUS MORTAR FOR PATCHING	630	SF
909.3	RAPID SETTING LOW PERMEABILITY CONCRETE	20	CY
910.1	STEEL REINFORCEMENT FOR STRUCTURES	6750	LB
965.	MEMBRANE WATERPROOFING FOR BRIDGE DECKS	13000	SF
973.2	PRECOMPRESSED JOINT SEAL	106	FT
994.01	TEMPORARY PROTECTIVE SHIELDING	900	SF

COMMONWEALTH OF MASSACHUSETTS
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PROPOSED BRIDGE
PRESERVATION
PHASE 2

AGAWAM /
WEST SPRINGFIELD

VIETNAM VETERANS
MEMORIAL BRIDGE

BRIDGE STREET
OVER
WESTFIELD RIVER
A-05-003 = W-21-013
(OKX)

MARK	DATE	DESCRIPTION
PROJECT NO:	W1975-059	
DATE:	MARCH 2025	
FILE:	W1975-059-11-P2-BR FIRST SHEET.dwg	
DRAWN BY:	JHM	
DESIGNED/CHECKED BY:	AML	
APPROVED BY:	JRI	

BRIDGE KEY PLAN,
PROFILES, & LOCUS

SCALE: AS SHOWN

Last Saved: 3/5/2025 1:47pm By: SSak
Plotted On: Rpt 12, 2025-1:47pm By: SSak
Title & Content: \\tighebond.com\data\user\Projects\W1975\Projects\W1975\059 - Bridge St. over Westfield River\Drawings - Figures\AutoCAD\Sheet\Phase 2\W1975-059-20-P2-G-GENERAL NOTES.dwg

DESIGN LOADS AND SPECIFICATIONS:

1. DESIGN LOADING:	H20-44
2. DESIGN METHOD:	(1971) DESIGN LOADING
3. SPECIFICATIONS:	AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 9TH ED., 2020 AS AMENDED MASSDOT LRFD BRIDGE MANUAL, 2013, AS AMENDED BY SUPPLEMENTS THE MASSACHUSETTS HIGHWAY DEPARTMENT STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES DATED 2024
4. REINFORCING STEEL:	AASHTO M31 (ASTM A 615) GRADE 60 EPOXY COATED BARS
5. CONCRETE:	DECK REPAIRS: RAPID SETTING LOW PERMEABILITY CONCRETE

BASE PLAN NOTES

- THE EXISTING CONDITIONS INFORMATION SHOWN ON THE DRAWINGS IS BASED ON SURVEY DRAWINGS PROVIDED BY WSP USA INC. TITLED "MASSACHUSETTS DEPARTMENT OF TRANSPORTATION PLAN OF TOPOGRAPHIC SURVEY OF FRONT STREET & BRIDGE STREET" AND DATED APRIL 7, 2023.
- UTILITY LOCATIONS SHOWN WERE PLOTTED FROM INFORMATION SUPPLIED BY RESPECTIVE UTILITY COMPANIES AND DATA OBTAINED FROM FIELD SURVEYS AND AS BUILT DRAWINGS. THE ACCURACY AND COMPLETENESS OF SUBSURFACE INFORMATION SHOWN ON THESE DRAWINGS IS NOT GUARANTEED.
- THE HORIZONTAL COORDINATE SYSTEM IS THE NORTH AMERICAN DATUM OF 1983 (NAD 83), MASSACHUSETTS STATE PLANE, MAINLAND ZONE, US FEET. VERTICAL DATUM IS THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).
- THE EXISTING CONDITIONS SHOWN ARE APPROXIMATE. CONTRACTOR TO FIELD VERIFY EXISTING CONDITIONS.
- WETLAND RESOURCE AREAS WERE DELINEATED BY TIGHE & BOND, INC. ON APRIL 13, 2023

GENERAL NOTES

- NOTIFY DIGSAFE AT 1-888-344-7233 AND OTHER UTILITY OWNERS IN THE AREA NOT ON THE DIGSAFE LIST AT LEAST 72 HOURS PRIOR TO ANY DIGGING, TRENCHING, ROCK REMOVAL, DEMOLITION, BORING, BACKFILLING, GRADING, LANDSCAPING, OR ANY OTHER EARTH MOVING OPERATIONS.
- LOCATIONS OF EXISTING UTILITIES ARE APPROXIMATE. IN ADDITION, SOME UTILITIES MAY NOT BE SHOWN. DETERMINE THE EXACT LOCATION OF UTILITIES BY TEST PIT OR OTHER METHODS, AS NECESSARY TO PREVENT DAMAGE TO UTILITIES AND/OR INTERRUPTIONS IN UTILITY SERVICE OR CONSTRUCTION OPERATIONS. PERFORM TEST PIT EXCAVATIONS AND OTHER INVESTIGATIONS TO LOCATE UTILITIES, AND PROVIDE THIS INFORMATION TO THE ENGINEER, PRIOR TO CONSTRUCTING THE PROPOSED IMPROVEMENTS. LOCATE ALL EXISTING UTILITIES TO BE CROSSED BY HAND EXCAVATION.
- NOTIFY THE ENGINEER OF ANY UTILITIES IDENTIFIED DURING CONSTRUCTION THAT ARE NOT SHOWN ON THE DRAWINGS OR THAT DIFFER IN SIZE OR MATERIAL.
- TIGHE & BOND ASSUMES NO RESPONSIBILITY FOR ANY ISSUES, LEGAL OR OTHERWISE, RESULTING FROM CHANGES MADE TO THESE DRAWINGS WITHOUT WRITTEN AUTHORIZATION FROM TIGHE & BOND.
- THE CONTRACTOR IS RESPONSIBLE FOR SITE SAFETY; COORDINATION WITH THE OWNER, ALL SUBCONTRACTORS, WITH OTHER CONTRACTORS WORKING WITHIN THE LIMITS OF WORK, AND THE MEANS AND METHODS OF CONSTRUCTING THE PROPOSED WORK.
- OBTAIN, PAY FOR AND COMPLY WITH PERMITS, NOTICES AND FEES NECESSARY TO COMPLETE THE WORK. ARRANGE AND PAY FOR NECESSARY INSPECTIONS AND APPROVALS FROM THE JURISDICTIONAL AUTHORITIES.
- FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO CONSTRUCTION. IF FIELD CONDITIONS ARE OBSERVED THAT VARY SIGNIFICANTLY FROM THOSE SHOWN ON THE DRAWINGS, IMMEDIATELY NOTIFY THE ENGINEER IN WRITING FOR RESOLUTION OF THE CONFLICTING INFORMATION.
- PROTECT AND MAINTAIN ALL UTILITIES IN THE AREAS UNDER CONSTRUCTION DURING THE WORK. LEAVE ALL PIPES AND STRUCTURES WITHIN THE LIMITS OF THE CONTRACT IN A CLEAN AND OPERABLE CONDITION AT THE COMPLETION OF THE WORK. TAKE ALL NECESSARY PRECAUTIONS TO PREVENT SAND AND SILT FROM DISTURBED AREAS FROM ENTERING THE DRAINAGE SYSTEM.
- NOTIFY THE ENGINEER IN WRITING OF ANY CONFLICT, ERROR, AMBIGUITY, OR DISCREPANCY WITH THE PLANS OR BETWEEN THE PLANS AND ANY APPLICABLE LAW, REGULATION, CODE, STANDARD SPECIFICATION, OR MANUFACTURER'S INSTRUCTIONS.

- THE CONTRACTOR IS RESPONSIBLE FOR SUPPORT OF EXISTING UTILITIES AND REPAIR OR REPLACEMENT COSTS OF UTILITIES DAMAGED DURING CONSTRUCTION, WHETHER ABOVE OR BELOW GRADE. REPLACE DAMAGED UTILITIES IMMEDIATELY AT NO ADDITIONAL COST TO THE OWNER AND AT NO COST TO THE PROPERTY OWNER.
- TAKE NECESSARY MEASURES AND PROVIDE CONTINUOUS BARRIERS OF SUFFICIENT TYPE, SIZE, AND STRENGTH TO PREVENT ACCESS TO ALL WORK AND STAGING AREAS AT THE COMPLETION OF EACH DAYS WORK.
- NO OPEN TRENCHES WILL BE ALLOWED OVERNIGHT. THE USE OF ROAD PLATES TO PROTECT THE EXCAVATION WILL BE CONSIDERED UPON REQUEST, BUT BACKFILLING IS PREFERRED.
- THE CONTRACTOR IS RESPONSIBLE FOR ALL NECESSARY TRAFFIC CONTROL/SAFETY DEVICES TO ENSURE SAFE VEHICULAR AND PEDESTRIAN ACCESS THROUGH THE WORK AREA, OR FOR SAFELY IMPLEMENTING DETOURS AROUND THE WORK AREA. PERFORM TRAFFIC CONTROL IN ACCORDANCE WITH THE CONTRACTOR'S APPROVED TRAFFIC CONTROL PLAN.
- MAINTAIN EMERGENCY ACCESS TO ALL PROPERTIES WITHIN THE PROJECT AREA AT ALL TIMES DURING CONSTRUCTION.
- WHEN WORKING IN THE ROAD, PROVIDE THE OWNER AND LOCAL FIRE/POLICE/SCHOOL AUTHORITIES A DETAILED PLAN OF APPROACH INDICATING METHODS OF PROPOSED TRAFFIC ROUTING ON A DAILY BASIS. PROVIDE COORDINATION TO ENSURE COMMUNICATION AND COORDINATION BETWEEN THE OWNER, CONTRACTOR AND LOCAL FIRE/POLICE/SCHOOL AUTHORITIES THROUGHOUT THE CONSTRUCTION PERIOD.
- REMOVE AND DISPOSE OF ALL CONSTRUCTION-RELATED WASTE MATERIALS AND DEBRIS IN STRICT ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE, AND FEDERAL LAWS.
- ALL PROPOSED WORK MAY BE ADJUSTED IN THE FIELD BY THE ENGINEER TO MEET EXISTING CONDITIONS.
- ALL DEBRIS GENERATED AS A RESULT OF THE WORK IS TO BE CLEANED UP DAILY AND CONTAINERIZED OR STABILIZED BY THE END OF EACH WORKDAY.

REINFORCEMENT

- ANY CAST-IN-PLACE CONCRETE SHALL MEET AASHTO COVER REQUIREMENTS.
- WHERE REINFORCEMENT IS NOT SHOWN ON DRAWINGS, PROVIDE REINFORCEMENT IN ACCORDANCE WITH APPLICABLE TYPICAL DETAILS OR SIMILAR TO THAT SHOWN FOR MOST NEARLY SIMILAR SITUATIONS, AS DETERMINED BY THE ENGINEER. IN NO CASE SHALL REINFORCEMENT BE LESS THAN MINIMUM REINFORCEMENT PERMITTED BY THE APPLICABLE CODES.
- WHERE REINFORCEMENT IS CALLED FOR IN SECTION, REINFORCEMENT IS CONSIDERED TYPICAL WHEREVER THE SECTION APPLIES.
- REINFORCEMENT SHALL BE CONTINUOUS THROUGH ALL CONSTRUCTION JOINTS UNLESS OTHERWISE INDICATED ON THE DRAWINGS.
- REINFORCEMENT COUPLER SPLICES SHALL BE MECHANICAL DEVICES CAPABLE OF TRANSMITTING THE ULTIMATE TENSILE AND COMPRESSIVE STRENGTH OF THE BAR. REINFORCEMENT COUPLERS SHALL BE PER MASSDOT APPROVED REINFORCEMENT COUPLER LIST.
- PROVIDE AND SCHEDULE ON SHOP DRAWINGS, ALL NECESSARY ACCESSORIES TO HOLD REINFORCEMENT SECURELY IN POSITION.
- INSTALLATION OF REINFORCEMENT SHALL BE COMPLETED AT LEAST 24 HOURS PRIOR TO SCHEDULED CONCRETE PLACEMENT. NOTIFY ENGINEER OF COMPLETION AT LEAST 24 HOURS PRIOR TO SCHEDULED COMPLETION OF PLACEMENT OR REINFORCEMENT. REINFORCEMENT SHALL BE SET BEFORE PLACING CONCRETE.
- REINFORCEMENT SHALL BE SET BEFORE PLACING CONCRETE. SETTING ANY REINFORCEMENT INTO WET CONCRETE IS PROHIBITED.
- REINFORCING STEEL SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M 31 GRADE 60. UNLESS OTHERWISE NOTED ON THE CONSTRUCTION DRAWINGS, ALL BARS SHALL BE LAPPED AS FOLLOWS:

MODIFICATION CONDITION	#4 BARS	#5 BARS	#6 BARS
1. NONE	16"	19"	23"
2. 12" OF CONCRETE BELOW BAR	20"	25"	30"
3. EPOXY COATED BARS, COVER < 3DB, OR CLEAR SPACING < 6DB	23"	29"	34"
4. COATED BARS, ALL OTHER CASES	18"	23"	27"
5. CONDITION 2. AND 3.	26"	32"	39"
6. CONDITION 2. AND 4.	24"	30"	36"

SUPERSTRUCTURE REHABILITATION NOTES

- AFTER REMOVAL OF EXISTING PAVEMENT AND MEMBRANE, THE EXISTING CONCRETE BRIDGE DECKS SHALL BE "SOUNDED" TO DETERMINE AREAS REQUIRING PARTIAL AND FULL DEPTH DECK REPAIRS. DETERIORATED CONCRETE SHALL BE REMOVED AND REMAINING CONCRETE SURFACES AND EXPOSED REINFORCEMENT CLEANED. CONCRETE REMOVAL SHALL BE PAID FOR UNDER ITEM 127.1, 127.4 & 127.41. DECK CONCRETE REPAIR SHALL BE PAID FOR UNDER ITEM 909.3. REMOVAL OF EXISTING PAVEMENT AND MEMBRANE SHALL BE INCIDENTAL TO ITEM 129.6.
- DETERIORATED AREAS OF DECK AND SUBSTRUCTURES SHALL BE PATCHED WITH CONCRETE. PRIOR TO PLACING NEW CONCRETE, THE PATCHED AREAS SHALL BE PREPARED TO A SATURATED, SURFACE-DRY CONDITION.

CONCRETE

- CONCRETE SHALL BE CONTROLLED CONCRETE, PROPORTIONED, MIXED AND PLACED UNDER THE SUPERVISION OF AN APPROVED CONCRETE TESTING AGENCY OR THE ENGINEER.
- CONCRETE SHALL BE MASSDOT PRE-APPROVED MIX DESIGN CONCRETE UNLESS OTHERWISE NOTED AND SHALL BE AIR ENTRAINED (SEE SPECS).
- THE USE OF CONSTRUCTION JOINTS WHERE SHOWN ON THE DRAWINGS IS MANDATORY. OMISSIONS, ADDITIONS OR CHANGES SHALL NOT BE MADE EXCEPT WITH THE SUBMISSION OF A WRITTEN REQUEST TOGETHER WITH DRAWINGS OF THE PROPOSED JOINT LOCATIONS FOR APPROVAL OF THE STRUCTURAL ENGINEER.
- WHERE CONSTRUCTION JOINTS ARE NOT SHOWN, DRAWINGS SHOWING LOCATION OF CONSTRUCTION JOINTS AND CONCRETE PLACING SEQUENCE SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO PREPARATION OF THE REINFORCEMENT SHOP DRAWINGS.
- CONCRETE SLABS SHALL BE CAST SO THAT THE SLAB THICKNESS IS AT NO POINT LESS THAN THAT INDICATED ON THE DRAWINGS.
- EXPOSED EDGES OF CONCRETE ELEMENTS SHALL HAVE CHAMFERED CORNERS.
- ONLY CRITICAL CONSTRUCTION JOINTS ARE SHOWN. SEE SPECIFICATIONS FOR REQUIRED MAXIMUM SPACING OF CONSTRUCTION JOINTS.

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PROPOSED BRIDGE
PRESERVATION
PHASE 2

AGAWAM /
WEST SPRINGFIELD

VIETNAM VETERANS
MEMORIAL BRIDGE

BRIDGE STREET
OVER
WESTFIELD RIVER
A-05-003 = W-21-013
(OKX)

MARK	DATE	DESCRIPTION
PROJECT NO:		W1975-059
DATE:		MARCH 2025
FILE:		W1975-059-20-P2-G-GENERAL NOTES.dwg
DRAWN BY:		JHM
DESIGNED/CHECKED BY:		AML
APPROVED BY:		JRI

GENERAL NOTES

SCALE: NO SCALE

SHEET 3 OF 14

COMMONWEALTH OF MASSACHUSETTS
MassDOT, Highway Division
APPROVED UNDER PROVISIONS OF
MASS. GEN. LAWS CH 85 § 35

DISTRICT 2 BRIDGE ENGINEERDATE

Last Saved: 3/5/2025 10:41:10pm By: SS&T
Plotted On: Rpt 05_2025-110pm By: SS&T
Title & Bond: \\tighebond.com\data\user\Projects\W1975\059-20-P2-G-GENERAL NOTES.dwg - Bridge St. over Westfield River\Drawings - Figures\AutoCAD\Sheet\Phase 2\W1975-059-20-P2-G-GENERAL NOTES.dwg

GENERAL SYMBOLS

EXISTING	PROPOSED	DESCRIPTION
		BENCHMARK
		BOUND (CONC, STONE, LAND COURT, ETC.)
		CATCH BASIN - SQUARE
		DISK (CA/T, USC&GS, LAND COURT, ETC.)
		DRAIN MANHOLE
		ELECTRIC MANHOLE
		ELECTRIC METER
		FLASHING BEACON
		GAS GATE
		GAS METER
		GUY WIRE ANCHOR
		FIRE HYDRANT
		LIGHT POLE
		MAG NAIL
		CIRCULAR POST
		SQUARE POST
		REBAR/IRON PIN
		RAILROAD SIGNAL
		RAILROAD SWITCH
		SEWER MANHOLE
		TRAVERSE POINT
		TREE
		SIGN
		SIGN - DOUBLE POST
		UTILITY POLE W/ LIGHT
		UTILITY POLE
		WATER MANHOLE
		WATER GATE
		WETLAND FLAG
		OVERHEAD CABLE/WIRE
		CURBING
		CONTOURS (ON-THE-GROUND SURVEY DATA)
		UNDERGROUND DRAIN PIPE (DOUBLE LINE 24 INCH AND OVER)
		UNDERGROUND ELECTRIC DUCT (DOUBLE LINE 24 INCH AND OVER)
		UNDERGROUND GAS MAIN (DOUBLE LINE 24 INCH AND OVER)
		BALANCED STONE WALL
		GUARD RAIL - STEEL POSTS
		EROSION CONTROL BARRIER
		TREE LINE
		BANK OF RIVER
		MHW (MEAN HIGH WATER)
		100-FT BUFFER ZONE
		200-FT RIVERFRONT AREA
		TOWN OR CITY BOUNDARY LINE
		PROPERTY LINE OR APPROXIMATE PROPERTY LINE
		EASEMENT
		LIMITS OF NATURAL HERITAGE
		10-YEAR FLOOD ELEVATION
		100-YEAR FLOOD ELEVATION

ABBREVIATIONS

GENERAL	
ABAN	ABANDON
APPROX.	APPROXIMATE
A.C.	ASPHALT CONCRETE
AC	ASBESTOS CEMENT
ASB	ASBESTOS
BOMO	BOLT OVER MAIN OUTLET
BIT.	BITUMINOUS
BC	BOTTOM OF CURB
BD.	BOUND
BL	BASELINE
BLDG	BUILDING
BM	BENCHMARK
BR	BRIDGE
CB	CATCH BASIN
CC	CEMENT CONCRETE CURB
CCM	CEMENT CONCRETE MASONRY
CEM	CEMENT
CI	CURB INLET
CIP	CAST IRON PIPE
CLF	CHAIN LINK FENCE
CL	CENTERLINE
CLF	CHAIN LINK FENCE
CONC	CONCRETE
CPP	CORRUGATED PLASTIC PIPE
CRW	CONCRETE RETAINING WALL
DBYL	DOUBLE YELLOW LINE
DI	DUCTILE IRON
DMH	DRAIN MANHOLE
DSK	DISK
DIA.	DIAMETER
ELEV (or EL.)	ELEVATION
EMH	ELECTRIC MANHOLE
EOP (or EP)	EDGE OF PAVEMENT
EHH	ELECTRICAL HANDHOLE
FM	FORCED MAIN
FOD	FULL OF DEBRIS
GR	GUARDRAIL
GRAV	GRAVEL
HMA	HOT MIX ASPHALT
HYD	HYDRANT
INV	INVERT
MAG	MAG NAIL
MH	MANHOLE
MHW	MEAN HIGH WATER
N/F	NOW OR FORMERLY
MPV	NO PIPE VISIBLE
OHW	OVERHEAD WIRE
PK	PK NAIL
PL	PROPERTY LINE
RCP	REINFORCED CONCRETE PIPE
RET	RETAINING
RRS	RAILROAD SPIKE
R&D	REMOVE AND DISPOSE
SGE	SLOPED GRANITE EDGING
UTO	UNABLE TO OBSERVE
SMH	SEWER MANHOLE
SPK	SPIKE
SRW	STONE RETAINING WALL
STA	STATION
SWL	SOLID WHITE LINE
VC	VITRIFIED CLAY PIPE
VGC	VERTICAL GRANITE CURB
WDP	WARNING DETECTION PAD
WL	WATER LEVEL

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PROPOSED BRIDGE
PRESERVATION
PHASE 2

AGAWAM /
WEST SPRINGFIELD

VIETNAM VETERANS
MEMORIAL BRIDGE

BRIDGE STREET
OVER
WESTFIELD RIVER
A-05-003 = W-21-013
(0KX)

MARK	DATE	DESCRIPTION
PROJECT NO:		W1975-059
DATE:		MARCH 2025
FILE:		W1975-059-20-P2-G-GENERAL NOTES.dwg
DRAWN BY:		JHM
DESIGNED/CHECKED BY:		AML
APPROVED BY:		JRI

LEGEND & ABBREVIATIONS

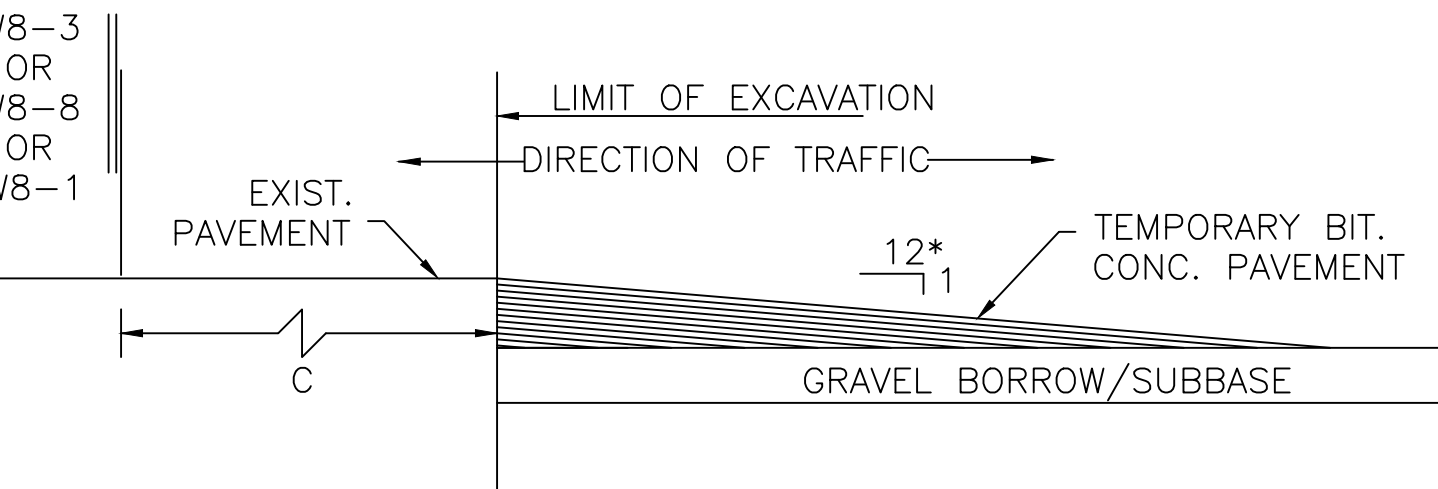
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DRAWN BY:		JHM
DESIGNED/CHECKED BY:		AML
APPROVED BY:		JRI
EXISTING CONDITIONS & CONSTRUCTION STAGING PLAN		
SCALE:		1" = 30'
SHEET 5 OF 14		

NOTES:

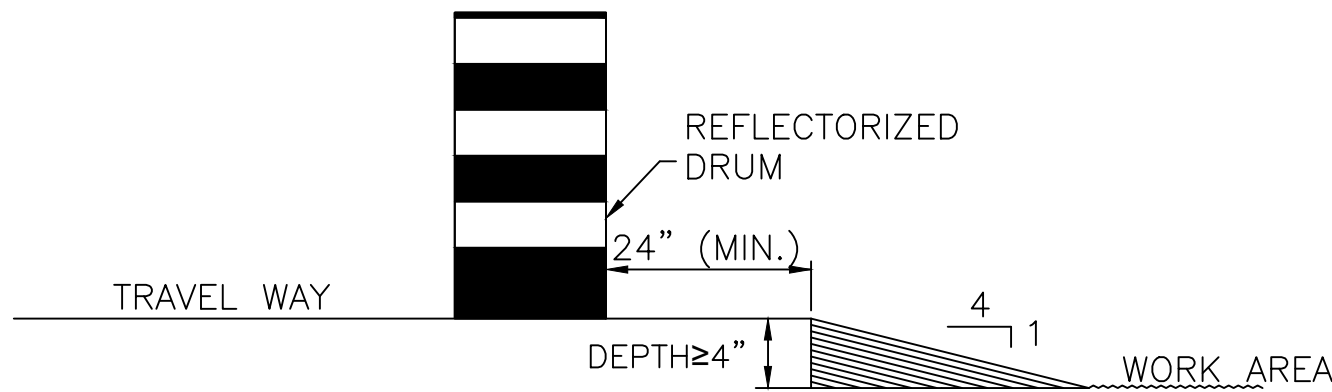
- ALL TEMPORARY TRAFFIC CONTROL WORK SHALL CONFORM TO THE LATEST EDITION OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD) AND ALL REVISIONS.
- ALL SIGN LEGENDS, BORDERS, AND MOUNTING SHALL BE IN ACCORDANCE WITH THE MUTCD.
- SIGNS AND SIGN SUPPORTS LOCATED ON OR NEAR THE TRAVELED WAY, CHANNELIZING DEVICES, BARRIERS, AND CRASH ATTENUATORS MUST PASS THE CRITERIA SET FORTH IN NCHRP REPORT 350, "RECOMMENDED PROCEDURES FOR THE SAFETY PERFORMANCE EVALUATION OF HIGHWAY FEATURES" AND/OR "MANUAL FOR ASSESSING SAFETY HARDWARE" (MASH).
- PORTABLE CHANGEABLE MESSAGE SIGN TO BE IN PLACE TWO WEEKS PRIOR TO ROAD CLOSURE TO PROVIDE ADVANCED NOTICE.
- THE CONTRACTOR SHALL PROVIDE ALL SIGNATURE, BARRICADES, POLICE DETAILS AND OTHER CONTROLS AS REQUIRED FOR TRAFFIC CONTROL.
- TEMPORARY CONSTRUCTION SIGNING AND ALL OTHER TRAFFIC CONTROL DEVICES SHALL BE IN PLACE PRIOR TO THE START OF ANY WORK.
- TEMPORARY CONSTRUCTION SIGNING, BARRICADES, AND ALL OTHER NECESSARY WORK ZONE TRAFFIC CONTROL DEVICES SHALL BE REMOVED FROM THE HIGHWAY OR COVERED WHEN THEY ARE NOT REQUIRED FOR CONTROL OF TRAFFIC.
- THE FIRST FIVE PLASTIC DRUMS OF A TAPER SHALL BE MOUNTED WITH TYPE A LIGHTS.
- THE ADVISORY SPEED LIMIT, IF REQUIRED, SHALL BE DETERMINED BY THE ENGINEER.
- DISTANCES ARE A GUIDE AND MAY BE ADJUSTED IN THE FIELD BY THE ENGINEER.
- MAXIMUM SPACING OF TRAFFIC DEVICES IN A TAPER (DRUMS OR CONES) IS EQUAL IN FEET TO THE SPEED LIMIT IN MPH.
- MINIMUM LANE WIDTH IS TO BE 10 FEET UNLESS OTHERWISE SHOWN. MINIMUM LANE WIDTH TO BE MEASURED FROM THE EDGE OF DRUMS OR MEDIAN BARRIER.
- ALL SIGNS SHALL BE MOUNTED ON THEIR OWN STANDARD SIGN SUPPORTS.
- CONTACT THE TOWN OF SPRINGFIELD AND AGAWAM AT LEAST TWO WEEKS PRIOR TO PLANNED IMPLEMENTATION OF THE ROAD CLOSURE.
- NOTIFY EACH ABUTTER AT LEAST 24 HOURS IN ADVANCE OF THE START OF ANY WORK THAT WILL REQUIRE THE TEMPORARY CLOSURE OF ACCESS, SUCH AS CONDUIT INSTALLATION, EXISTING PAVEMENT EXCAVATION, TEMPORARY DRIVEWAY PAVEMENT PLACEMENT, AND SIMILAR OPERATIONS.
- DURING ALL CONSTRUCTION ACTIVITIES ON THE ROADWAYS, ONE LANE ALTERNATING TRAFFIC FLOW SHALL BE MAINTAINED.
- FULL ROADWAY WIDTH MUST BE RETURNED AT THE END OF EACH ROAD DAY.
- THE NUMBER OF POLICE OFFICERS AT ANY LOCATION IS TO BE DETERMINED BY THE TOWNS OF WEST SPRINGFIELD AND AGAWAM.
- ONE LANE TRAFFIC FLOW SHALL BE REQUIRED DURING ALL OPERATIONS WHICH REDUCE DRIVE LANE(S) LESS THAN 12'.
- HALF WIDTH CONSTRUCTION METHODS SHALL BE UTILIZED FOR ROAD EXCAVATION. BASE PREPARATION, AND PAVING OPERATIONS.
- AS CONSTRUCTION OPERATIONS CHANGE, SO SHALL WARNING SIGNS. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING AND ARRANGING SIGNS AS CONSTRUCTION VARIES AND PROCEEDS.



LONGITUDINAL DROP-OFF DETAIL

NOT TO SCALE

* - INCREASE SLOPE RATIO FOR HIGHER SPEEDS



LATERAL DROP-OFF DETAIL

NOT TO SCALE

LEGEND:

- REFLECTORIZED PLASTIC DRUM OR 36" CONE
- P/F POLICE/FLAGGER DETAIL
- TYPE III BARRICADE
- PORTABLE CHANGEABLE MESSAGE SIGN (PCMS)
- ARROW BOARD
- WORK ZONE
- DIRECTION OF TRAFFIC
- IMPACT ATTENUATOR
- MEDIAN BARRIER
- MEDIAN BARRIER WITH WARNING LIGHTS
- WORK VEHICLE
- TRUCK MOUNTED ATTENUATOR
- TRAFFIC OR PEDESTRIAN SIGNAL
- SIGN

FORMULAS FOR DETERMINING TAPER LENGTHS:

SPEED LIMIT (S)	
40 MPH OR LESS	$L = \frac{WS^2}{60}$
45 MPH OR MORE	$L = WS$

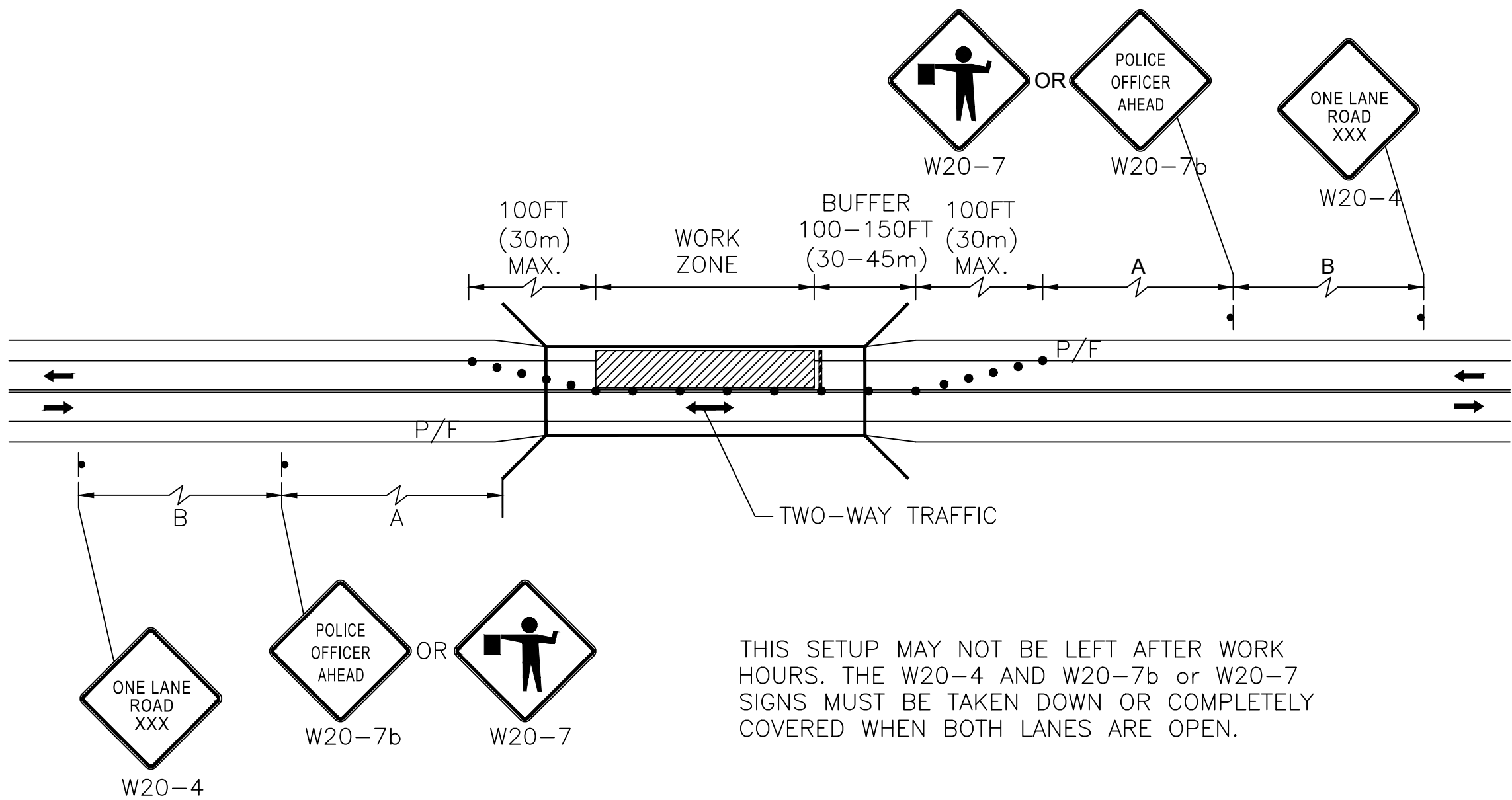
WHERE:

L = TAPER LENGTH IN FEET

W = WIDTH OF OFFSET IN FEET

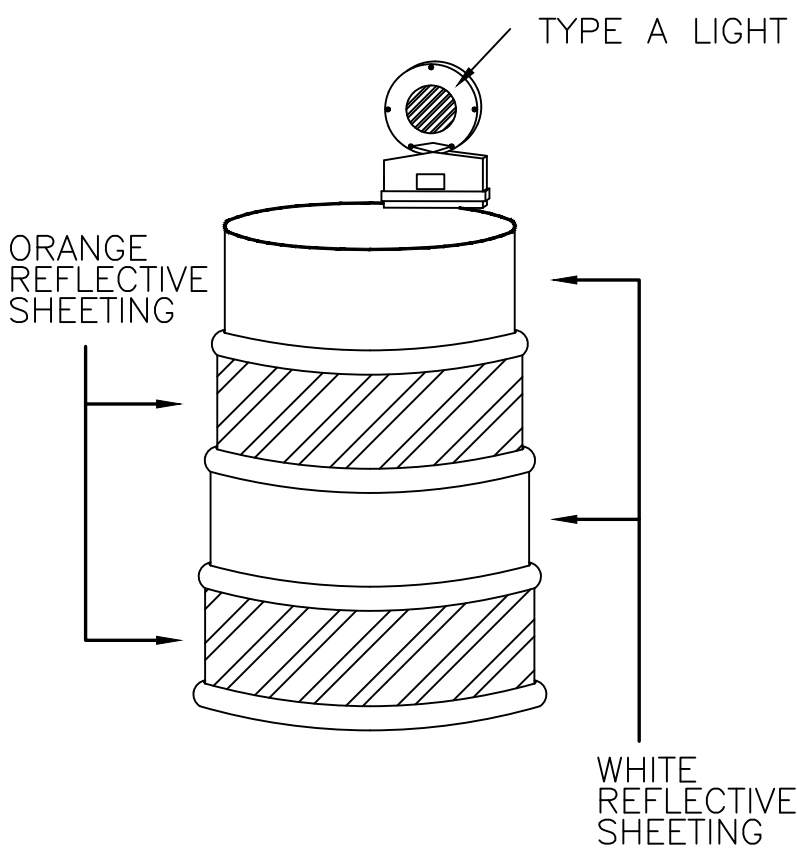
S = POSTED SPEED LIMIT, OR OFF-PEAK 85TH-PERCENTILE SPEED PRIOR TO WORK STARTING, OR THE ANTICIPATED OPERATING SPEED IN MPH

TAPER LENGTH (L)
FEET



SINGLE LANE ALTERNATIVE TRAFFIC

NOT TO SCALE



PLASTIC DRUMS

NOTES:

- DRUM DESIGN AND APPLICATION SHALL BE AS PER THE CURRENT EDITION OF THE MUTCD.
- DRUMS SHALL BE APPROXIMATELY 36" IN HEIGHT, HAVING A MINIMUM WALL THICKNESS OF 3/32" AND A MINIMUM DIAMETER OF 18" REGARDLESS OF ORIENTATION.
- DRUM MATERIAL MUST BE APPROVED UV RESISTANT, LOW DENSITY, IMPACT RESISTANT, LINEAR POLYETHYLENE (OR APPROVED EQUIVALENT).
- SHEETING SHALL BE APPROVED ORANGE AND WHITE TYPE IV REFLECTORIZED SHEETING CONFORMING TO M9.30.0.
- ALL DRUMS SHALL BE WELL MAINTAINED INCLUDING REMOVAL OF DUST OR ROAD FILM, SO AS NOT TO REDUCE REFLECTIVE EFFICIENCY. WHEN A DRUM LOSES TARGET VALUE IT SHALL BE REPLACED.
- STORE UNUSED DRUMS IN ONE LOCATION, AWAY FROM ALL TRAFFIC, OR REMOVE FROM SITE ENTIRELY.

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PROPOSED BRIDGE PRESERVATION PHASE 2

AGAWAM / WEST SPRINGFIELD

VIETNAM VETERANS MEMORIAL BRIDGE

BRIDGE STREET OVER WESTFIELD RIVER

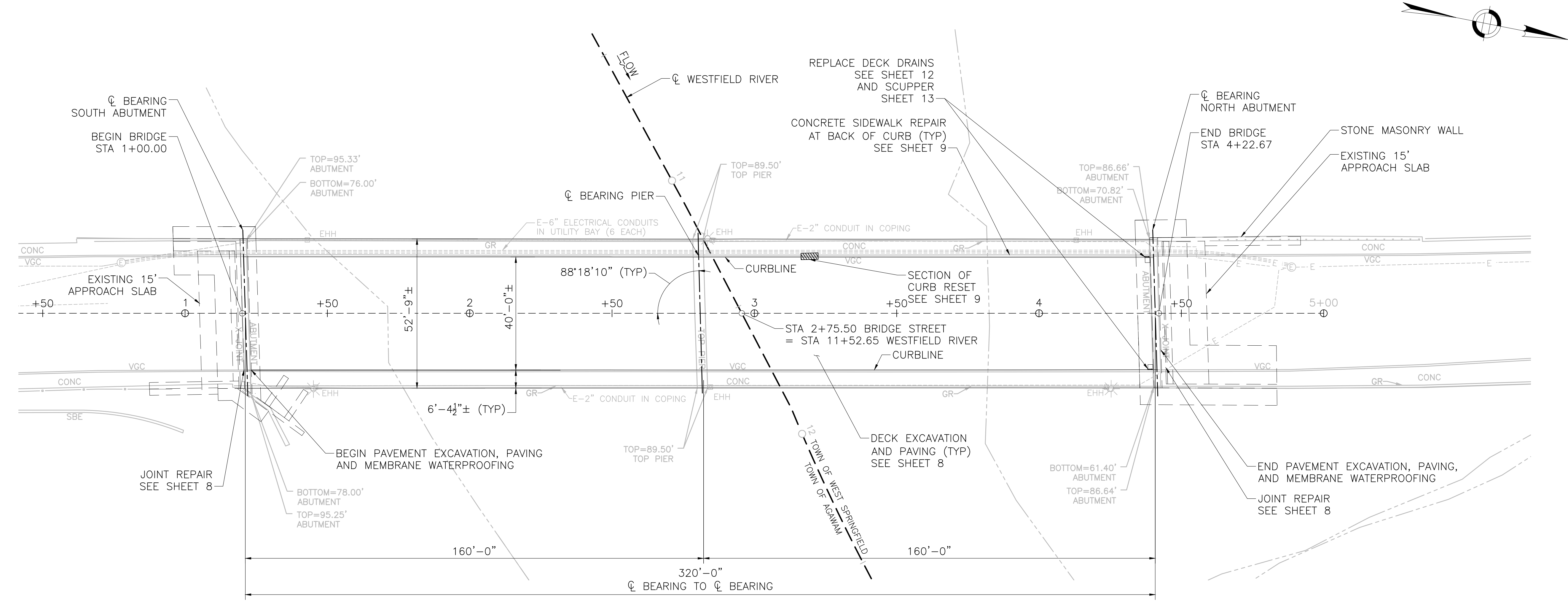
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DATE:	MARCH 2025	
FILE:	W1975-059-50-P2-T-TTCP.dwg	
DRAWN BY:	JHM	
DESIGNED/CHECKED BY:	AML	
APPROVED BY:	JRI	

TEMPORARY TRAFFIC CONTROL PLAN

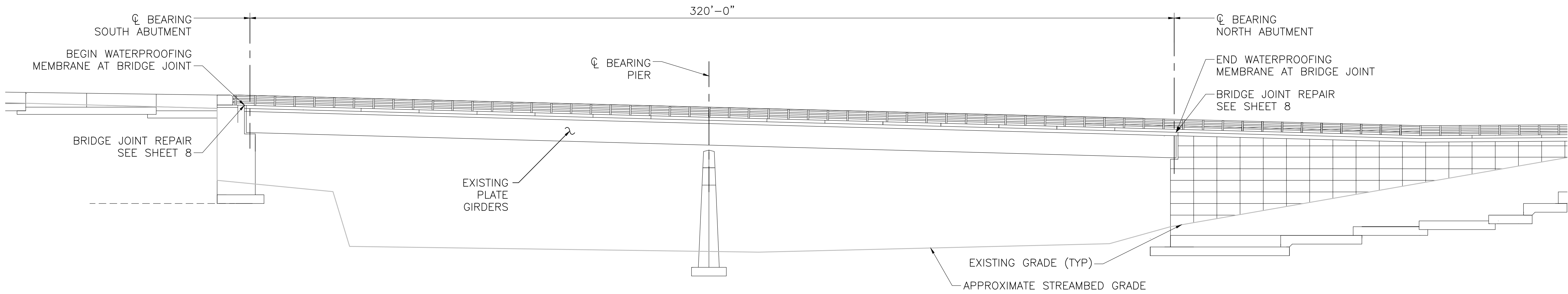
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SHEET 6 OF 14



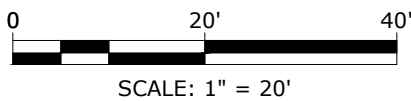
GENERAL BRIDGE PLAN

SCALE: 1" = 20'



EAST ELEVATION

SCALE: 1" = 20'



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DISTRICT 2 BRIDGE ENGINEER

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PROPOSED BRIDGE
PRESERVATION
PHASE 2

AGAWAM /
WEST SPRINGFIELD

VIETNAM VETERANS
MEMORIAL BRIDGE

BRIDGE STREET
OVER
WESTFIELD RIVER
A-05-003 = W-21-013
(OKX)

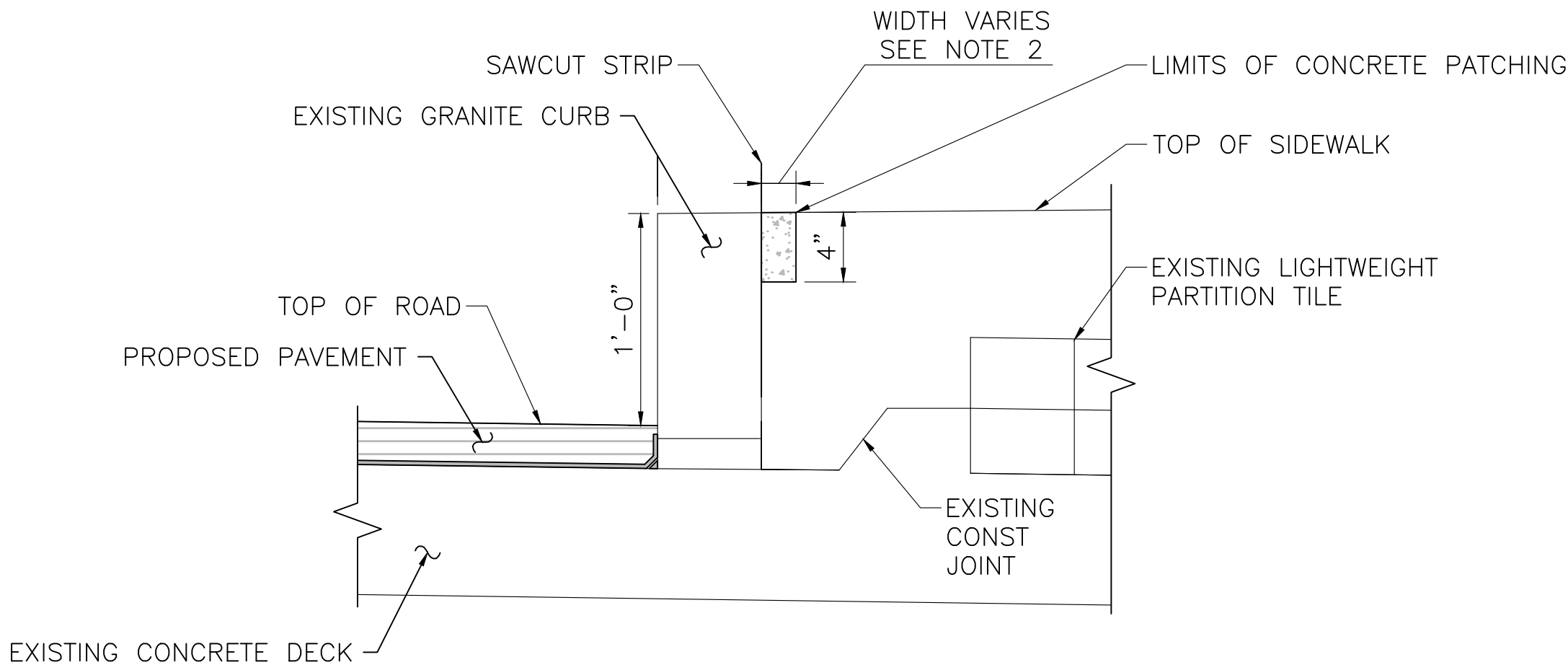
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DATE:	MARCH 2025	
FILE:	W1975-059-60-P2-S-PLAN.dwg	
DRAWN BY:	JHM	
DESIGNED/CHECKED BY:	AML	
APPROVED BY:	JRI	

GENERAL BRIDGE PLAN &
ELEVATION

SCALE: 1" = 20'

SHEET 7 OF 14

Last Saved: 3/5/2025
Plotted On: Rpt 05_2025-1-1 Plot By: JSAK
Title & Content: \\g:\shared\com\data\area\Projects\W1975\059-02-P2-S-SIDEWALK.dwg - Bridge St. over Westfield River\Drawings- Figures\AutoCAD\Sheet\Phase 2\W1975-059-02-P2-S-SIDEWALK.dwg

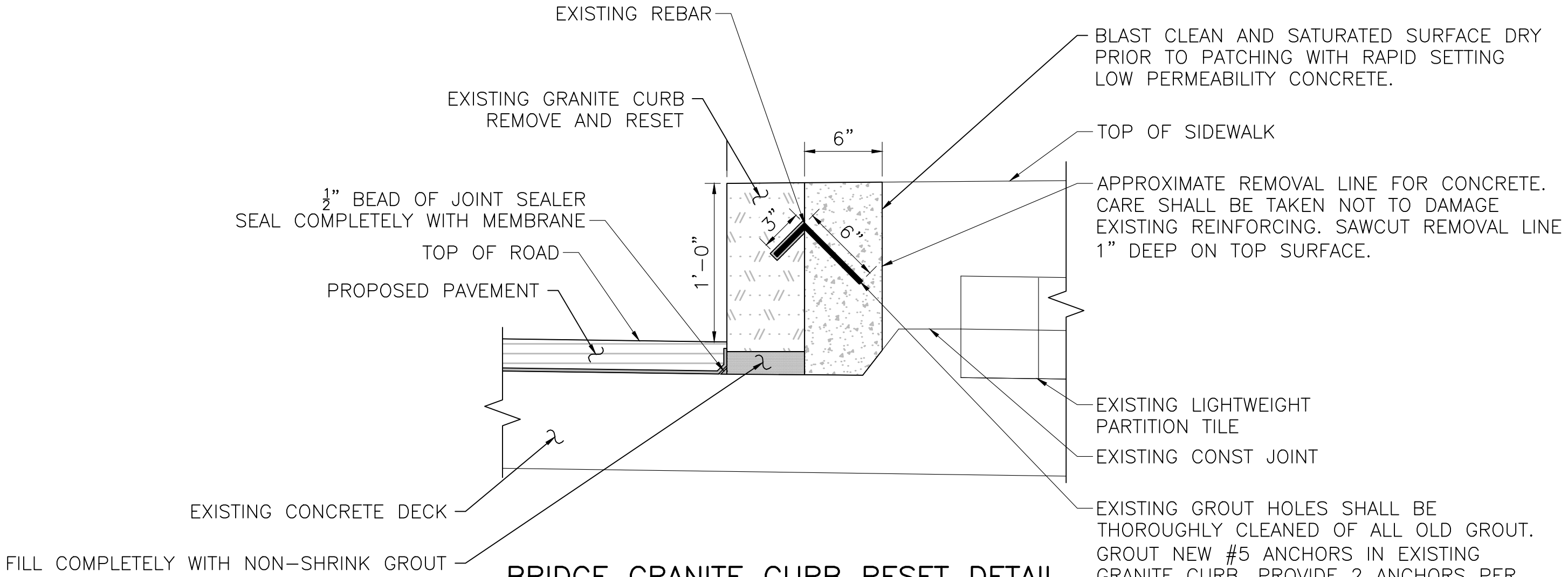


SIDEWALK REPAIR DETAIL AT CURB (TYP)

SCALE: 1½" = 1'-0"

NOTES:

1. CONCRETE PATCHING ON BOTH SIDEWALKS AND FULL LENGTH OF BRIDGE.
2. MINIMUM WIDTH OF SAWCUT SHALL BE ½". AVERAGE WIDTH OF SAWCUT IS APPROXIMATELY 1". LIMITS OF REPAIR SHALL BE DETERMINED IN THE FIELD AND APPROVED BY THE ENGINEER.
3. CONCRETE PATCHING SHALL USE A RAPID SETTING LOW PERMEABILITY CONCRETE AND BE SELECTED FROM MASSDOT'S QUALIFIED CONSTRUCTION MATERIALS LIST.
4. EXISTING GRANITE CURB SHALL BE PROTECTED DURING CONSTRUCTION FROM DAMAGE. ANY DAMAGE TO THE GRANITE CURB INCLUDING BUT NOT LIMITED TO CHIPS, CRACKS, BREAKS, BULGING, DISSOCIATION, PULL AWAY, LEAN OUT, ETC., WILL REQUIRE THAT THE DAMAGED SECTION OF GRANITE CURB TO BE REPLACED BY THE CONTRACTOR. ANY GRANITE CURB THAT REQUIRES TO BE RESET OR REPLACED AS A RESULT OF DAMAGE CAUSED SHALL BE REPAIRED PER THE BRIDGE GRANITE CURB RESET DETAIL ON THIS SHEET AT NO ADDITIONAL COSTS TO THE OWNER.



BRIDGE GRANITE CURB RESET DETAIL

SCALE: 1½" = 1'-0"



BRIDGE GRANITE CURB RESET

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**PROPOSED BRIDGE
PRESERVATION
PHASE 2**

**AGAWAM /
WEST SPRINGFIELD**

**VIETNAM VETERANS
MEMORIAL BRIDGE**

**BRIDGE STREET
OVER
WESTFIELD RIVER
A-05-003 = W-21-013
(0KX)**

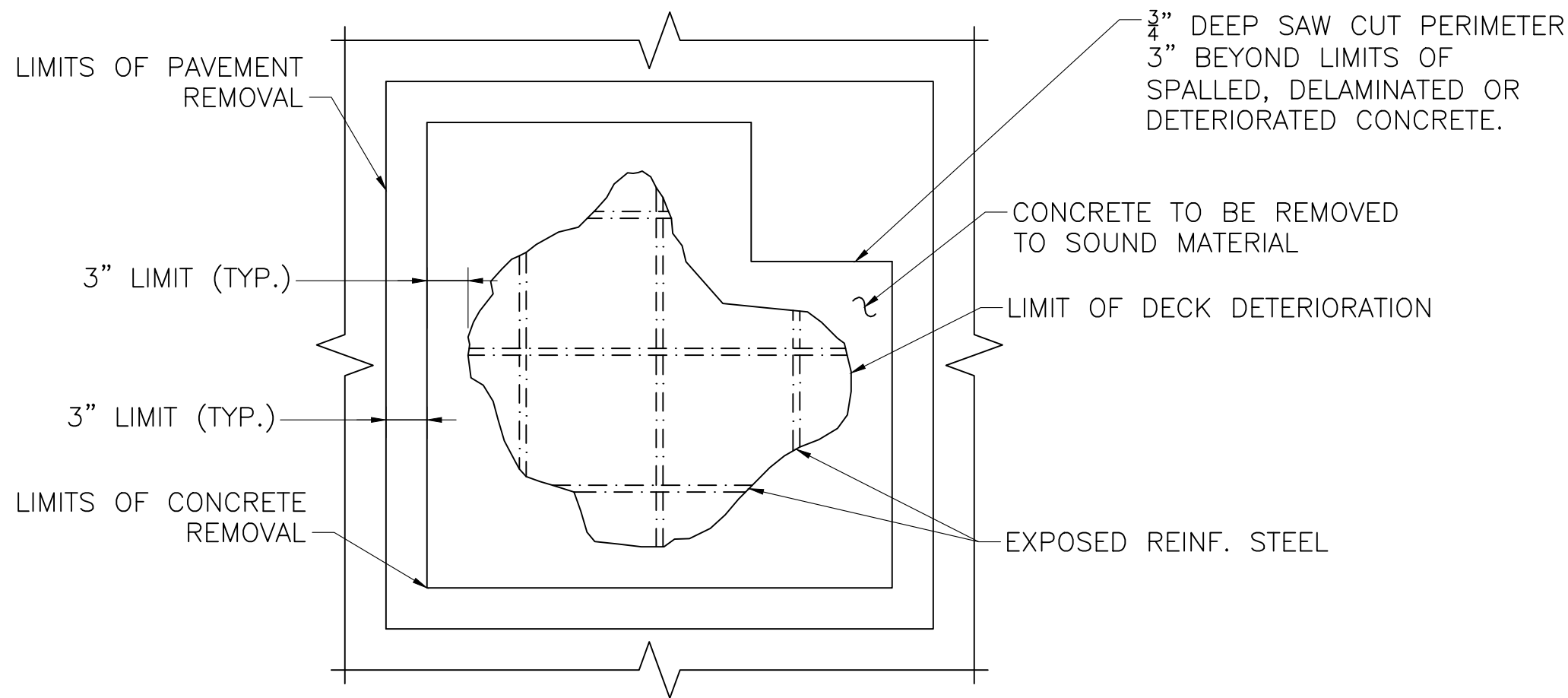
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PROJECT NO:		W1975-059
DATE:		MARCH 2025
FILE:		W1975-059-62-P2-S-SIDEWALK.dwg
DRAWN BY:		JHM
DESIGNED/CHECKED BY:		AML
APPROVED BY:		JRI

SIDEWALK REPAIR DETAILS

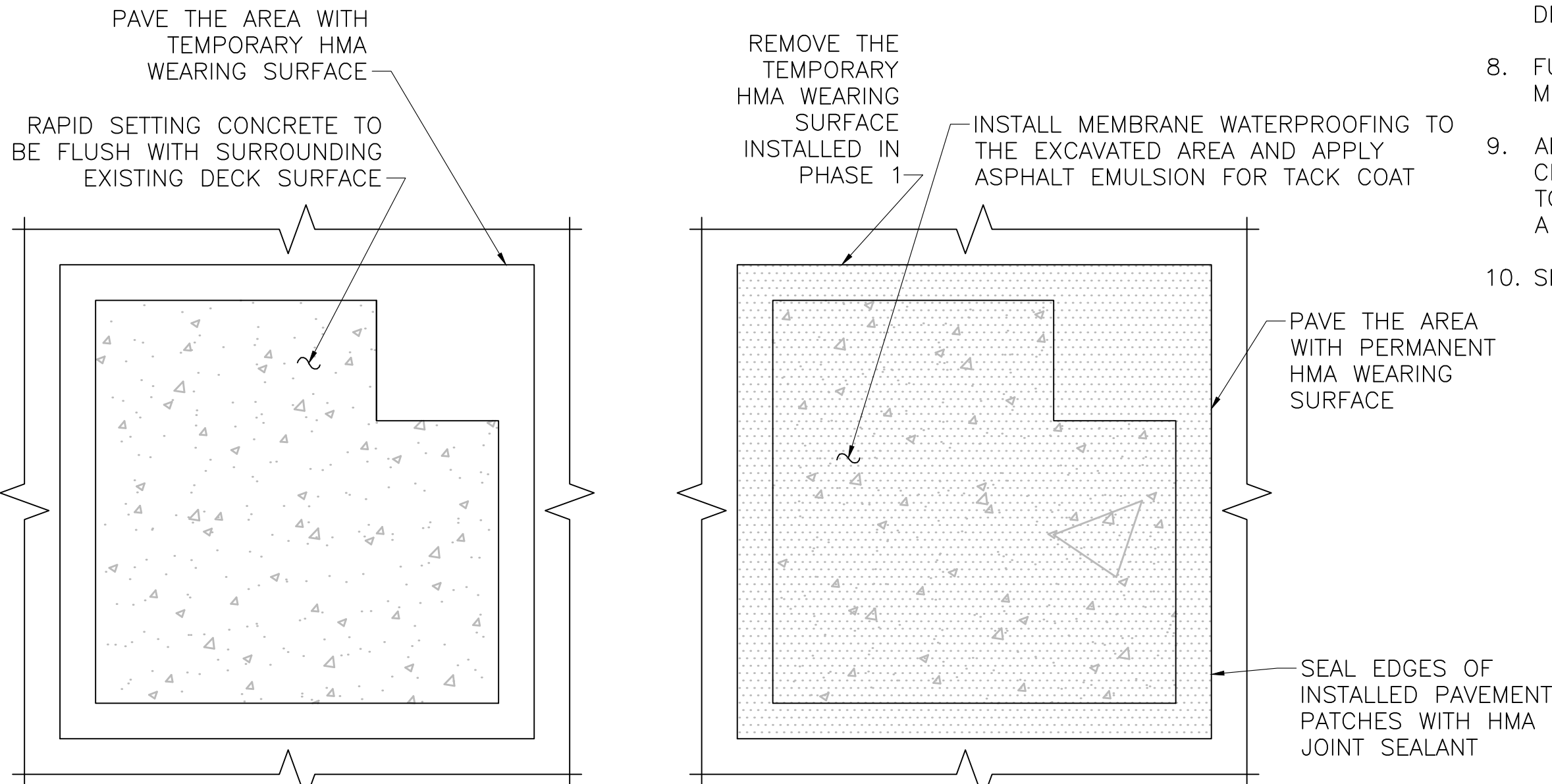
SCALE: AS SHOWN

COMMONWEALTH OF MASSACHUSETTS
MassDOT, Highway Division
**APPROVED UNDER PROVISIONS OF
MASS. GEN. LAWS CH 85 § 35**
DISTRICT 2 BRIDGE ENGINEER DATE

Last Saved: 3/5/2025 10:05:41 PM By: JSAK
Title: Bridge St. over Westfield River Drawings - Figures
Figure: AutoCAD Sheet Phase 2
W1975-059-62-P2-S-CONC DTL.dwg



PHASE 1 – LIMITS OF REPAIR AREA



PHASE 1 – REPAIR

SCALE: 1" = 1'-0"

PHASE 2 – REPAIR

SCALE: 1" = 1'-0"

BRIDGE DECK REPAIR TYPE A SEQUENCE NOTES:

PHASE 1:

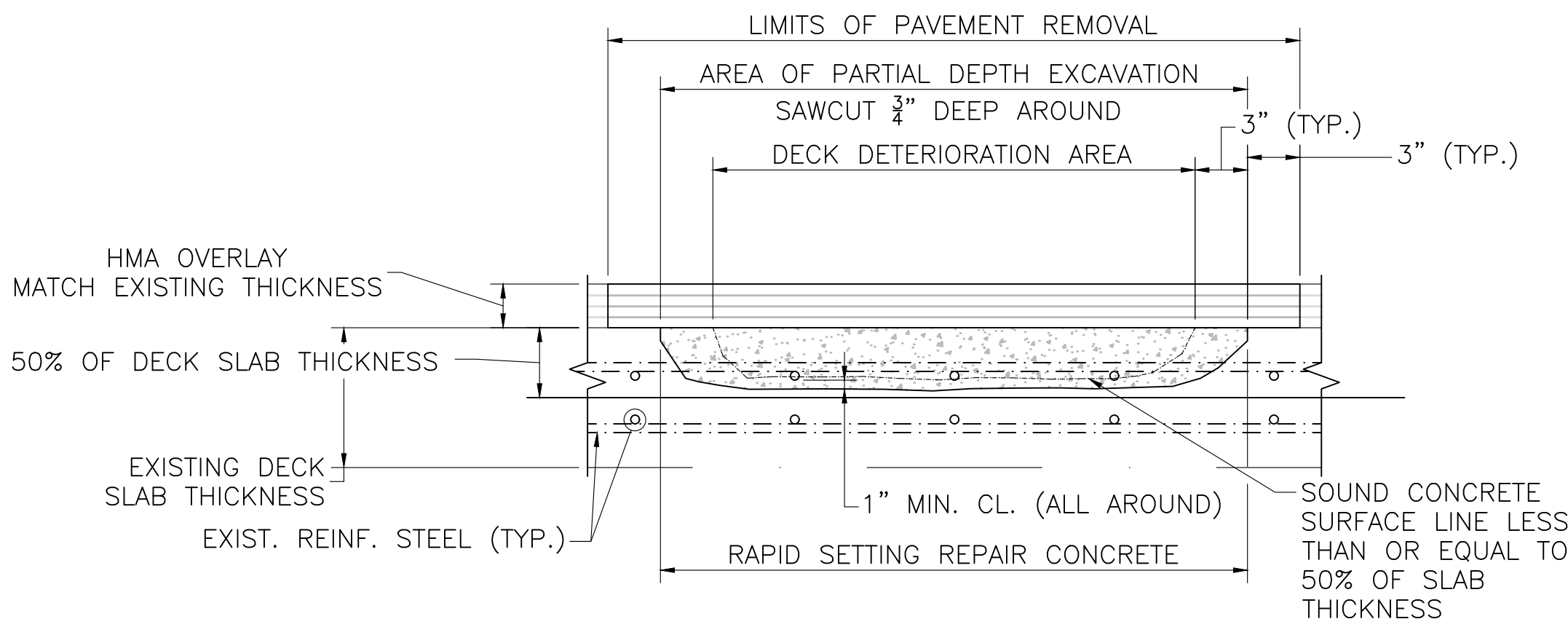
1. REMOVE THE DETERIORATED EXISTING PAVEMENT, WATERPROOFING MEMBRANE FROM THE BRIDGE DECK AREAS TO THE LIMITS DIRECTED BY THE ENGINEER. THE PERIMETERS OF THE EXCAVATED AREAS SHALL BE SAWCUT PRIOR TO PAVEMENT REMOVAL. THE SHAPE OF THE EXCAVATED AREAS SHALL BE RECTANGULAR WITH SQUARE CORNERS. THE PAVEMENT AND MEMBRANE REMOVAL ABOVE THE CONCRETE EXCAVATION AREAS SHALL BE CONSIDERED INCIDENTAL TO THE CONCRETE EXCAVATION.
2. EXCAVATE EXISTING TEMPORARY DECK REPAIR MATERIAL AND/OR DETERIORATED CONCRETE (FULL OR PARTIAL DEPTH) TO THE LIMITS DIRECTED BY THE ENGINEER. CLEAN AND RE-TIE THE EXPOSED STEEL REINFORCEMENT.
3. INSTALL NEW STEEL REINFORCEMENT AS DIRECTED BY THE ENGINEER.
4. MIX AND PLACE RAPID SETTING CONCRETE IN THE EXCAVATED AREAS. THE TOP SURFACE OF THE RAPID SETTING CONCRETE SHALL BE FLUSH WITH THE SURROUNDING EXISTING DECK SURFACE.
5. AFTER THE RAPID SETTING IS SUFFICIENTLY CURED, PAVE THE AREAS TEMPORARILY WITH HOT MIX ASPHALT FOR MISCELLANEOUS WORK.
6. OPEN ROAD TO TRAFFIC AND ALLOW THE RAPID SETTING CONCRETE TO CONTINUE TO CURE UNDER THE TEMPORARY PAVEMENT FOR AT LEAST TWO WEEKS.

PHASE 2:

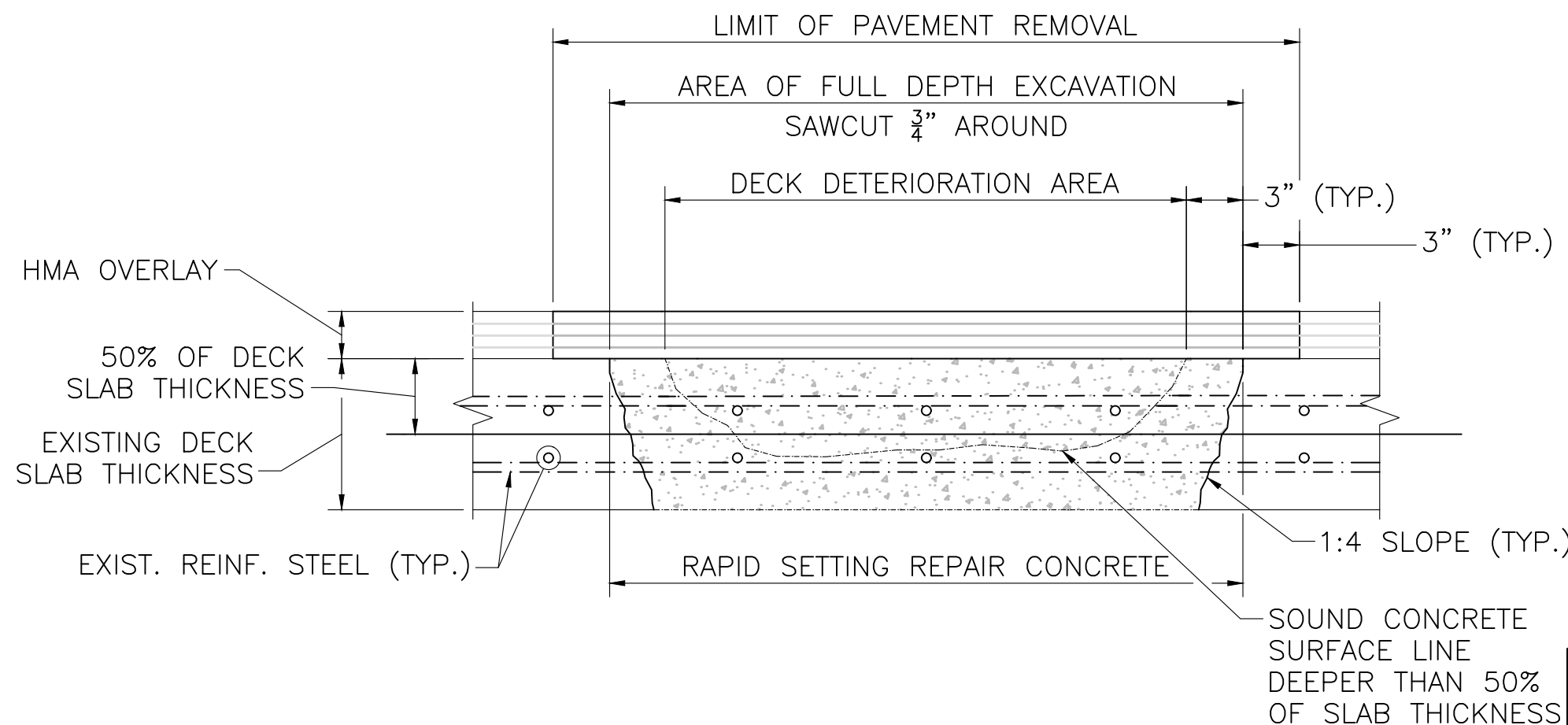
1. REMOVE TEMPORARY HMA PAVEMENT INSTALLED IN PHASE 1.
2. THE PERIMETERS OF EACH TEMPORARY PAVEMENT PATCHES SHALL BE SAWCUT PRIOR TO REMOVAL.
3. APPLY ASPHALT EMULSION FOR TACK COAT TO WATERPROOFING MEMBRANE, AND PAVE THE AREAS WITH HMA FOR PATCHING. SINCE THE HMA PATCHES WILL BE PERMANENT, ALL QUALITY CONTROL ASSOCIATED WITH SUPERPAVE WILL BE REQUIRED.

SURFACE PREPARATION FOR CONCRETE REPAIRS:

1. REPLACE DETERIORATED DECK CONCRETE AND ANY EXISTING TEMPORARY CONCRETE PATCHES, SUCH AS DURACAL PATCHES, WITH NEW CONCRETE.
2. INSPECT THE DECK TO IDENTIFY ADDITIONAL AREAS OF FULL AND PARTIAL DEPTH DECK REPAIRS. THE FINAL LIMITS OF JOINT AND DECK REPAIRS TO BE DETERMINED BY THE ENGINEER.
3. CONCRETE EXCAVATION ASSOCIATED WITH THE BRIDGE DECK REPAIRS SHALL BE PAID FOR UNDER ITEMS 127.4 REINFORCED CONCRETE DECK EXCAVATION (FULL DEPTH) AND/OR ITEM 127.41, REINFORCED CONCRETE DECK EXCAVATION (PARTIAL DEPTH).
4. ALL CONCRETE USED IN THE DECK REPAIRS SHALL BE LOW PERMEABILITY CONCRETE. THE TOP SURFACE OF THE REPAIR MATERIAL SHALL BE FLUSH WITH THE EXISTING CONCRETE DECK.
5. ALL EXISTING STEEL REINFORCEMENT SHALL REMAIN IN PLACE. NEW EPOXY COATED STEEL REINFORCEMENT SHALL BE PLACED TO SUPPLEMENT EXISTING REINFORCEMENT THAT HAS A SECTION LOSS OF 25% OR MORE OF THE ORIGINAL CROSS SECTION AREA OR HAS BROKEN, AS DETERMINED BY THE ENGINEER. NEW REINFORCEMENT SHALL EXTEND 30 BAR DIAMETERS IN EACH DIRECTION FROM WHERE THE SECTION LOSS OR BREAK ENDS. THE LIMITS OF THE REPAIR SHALL BE MODIFIED TO MEET THE REINFORCEMENT STEEL LAP SPLICE REQUIREMENTS. NEW REINFORCING STEEL SHALL BE PLACED AT THE SAME LEVEL ALONGSIDE THE EXISTING DETERIORATED OR BROKEN REINFORCING STEEL.
6. ALL NEW REINFORCING STEEL SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M31 GRADE 60, UNLESS OTHERWISE NOTED ON THE PLANS. ALL NEW REINFORCING STEEL SHALL BE EPOXY COATED.
7. PARTIAL DEPTH REPAIRS: ALL DETERIORATED AND DELAMINATED CONCRETE SHALL BE REMOVED TO A MINIMUM DEPTH OF 1" BELOW THE BOTTOM OF THE TOP LAYER OF EXISTING TRANSVERSE REINFORCEMENT STEEL TO A MAXIMUM OF 50% OF THE THICKNESS OF THE EXISTING CONCRETE DECK.
8. FULL DEPTH REPAIRS: ALL DETERIORATED AND DELAMINATED CONCRETE SHALL BE GREATER THAN 50% OF THE DECK THICKNESS WHEN MEASURED FROM THE TOP OF DECK.
9. ALL EXISTING REINFORCING STEEL AND CONCRETE SURFACES THAT ARE TO BE IN CONTACT WITH REPAIR CONCRETE SHALL BE ABRASIVELY BLAST CLEANED IN ORDER TO REMOVE ALL RUST, OIL, AND DEBRIS THAT IS NOT TIGHTLY ADHERED, FOLLOWED BY APPLICATION OF COMPRESSED AIR TO REMOVE ALL DUST. EXISTING CONCRETE REPAIR SURFACES THAT WILL BE IN CONTACT WITH REPAIR CONCRETE SHALL BE PRE-WETTED FOR A MINIMUM OF 15 MINUTES USING POTABLE WATER IN PLACEMENT OF REPAIR CONCRETE.
10. SHIELDING REQUIREMENTS SHALL FOLLOW SPECIFICATION 994.1.



TYPICAL TYPE A PARTIAL DEPTH DECK REPAIR DETAIL



TYPICAL TYPE A FULL DEPTH DECK REPAIR DETAIL

COMMONWEALTH OF MASSACHUSETTS
MassDOT, Highway Division
APPROVED UNDER PROVISIONS OF
MASS. GEN. LAWS CH 85 § 35
DISTRICT 2 BRIDGE ENGINEER DATE

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PROPOSED BRIDGE PRESERVATION PHASE 2

AGAWAM /
WEST SPRINGFIELD

VIETNAM VETERANS
MEMORIAL BRIDGE

BRIDGE STREET
OVER
WESTFIELD RIVER

A-05-003 = W-21-013
(OKX)

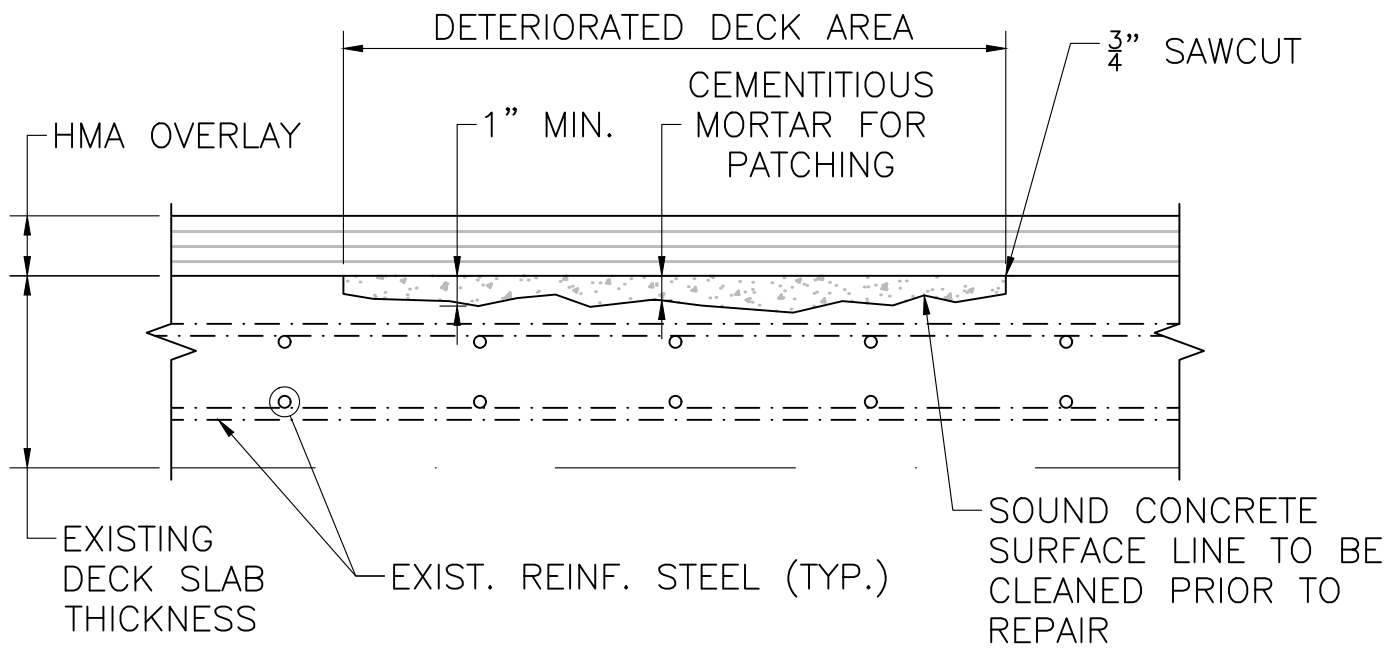
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DATE:	MARCH 2025	
FILE:	W1975-059-62-P2-S-CONC DTL.dwg	
DRAWN BY:	JHM	
DESIGNED/CHECKED BY:	AML	
APPROVED BY:	JRI	

CONCRETE DECK REPAIR
DETAILS (SHEET 1 OF 2)

SCALE: NO SCALE

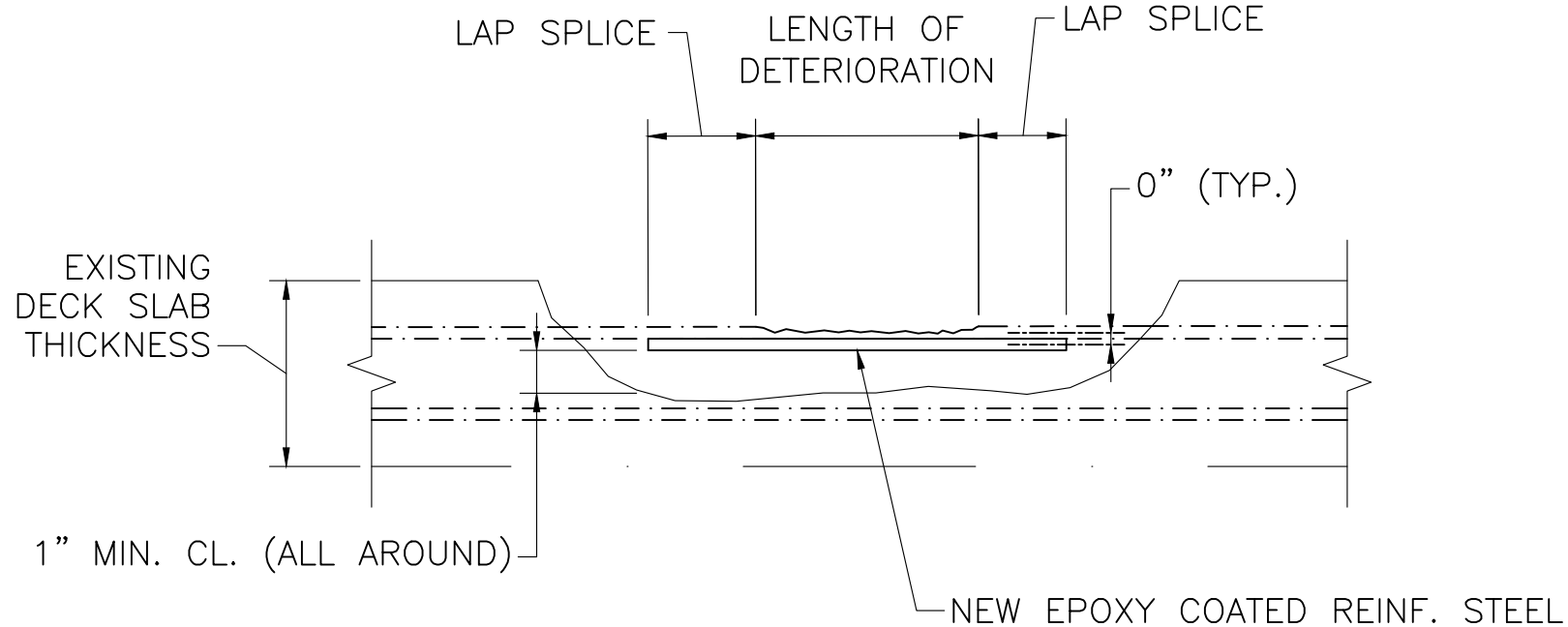
SHEET 10 OF 14

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Project: 059 - Bridge St over Westfield River Drawings - Figures\AutoCAD\Sheet\Phase 2\W1975-059-62-P2-S-CONC DTL.dwg



TYPICAL MINOR SPALL REPAIR

NOTE:
IF REINFORCING BARS ARE EXPOSED, THEN COMPLETE REPAIR AS A
PARTIAL DEPTH REPAIR WITH 1" EXCAVATED BENEATH THE EXPOSED BARS.



TYPICAL DETERIORATED REINFORCEMENT STEEL REPAIR

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PROPOSED BRIDGE
PRESERVATION
PHASE 2

AGAWAM /
WEST SPRINGFIELD

VIETNAM VETERANS
MEMORIAL BRIDGE

BRIDGE STREET
OVER
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A-05-003 = W-21-013
(OKX)

COMMONWEALTH OF MASSACHUSETTS
MassDOT, Highway Division
APPROVED UNDER PROVISIONS OF
MASS. GEN. LAWS CH 85 § 35

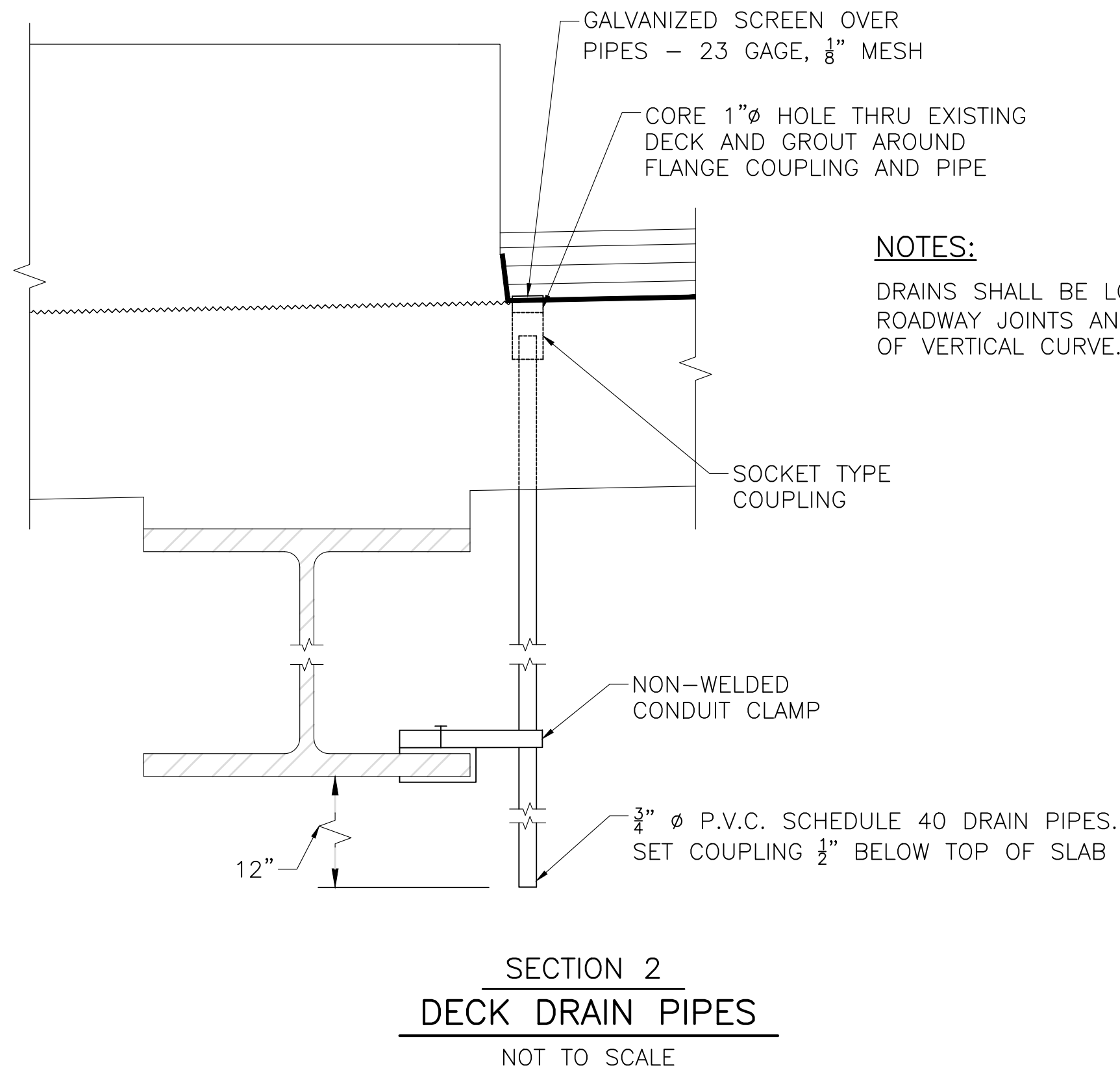
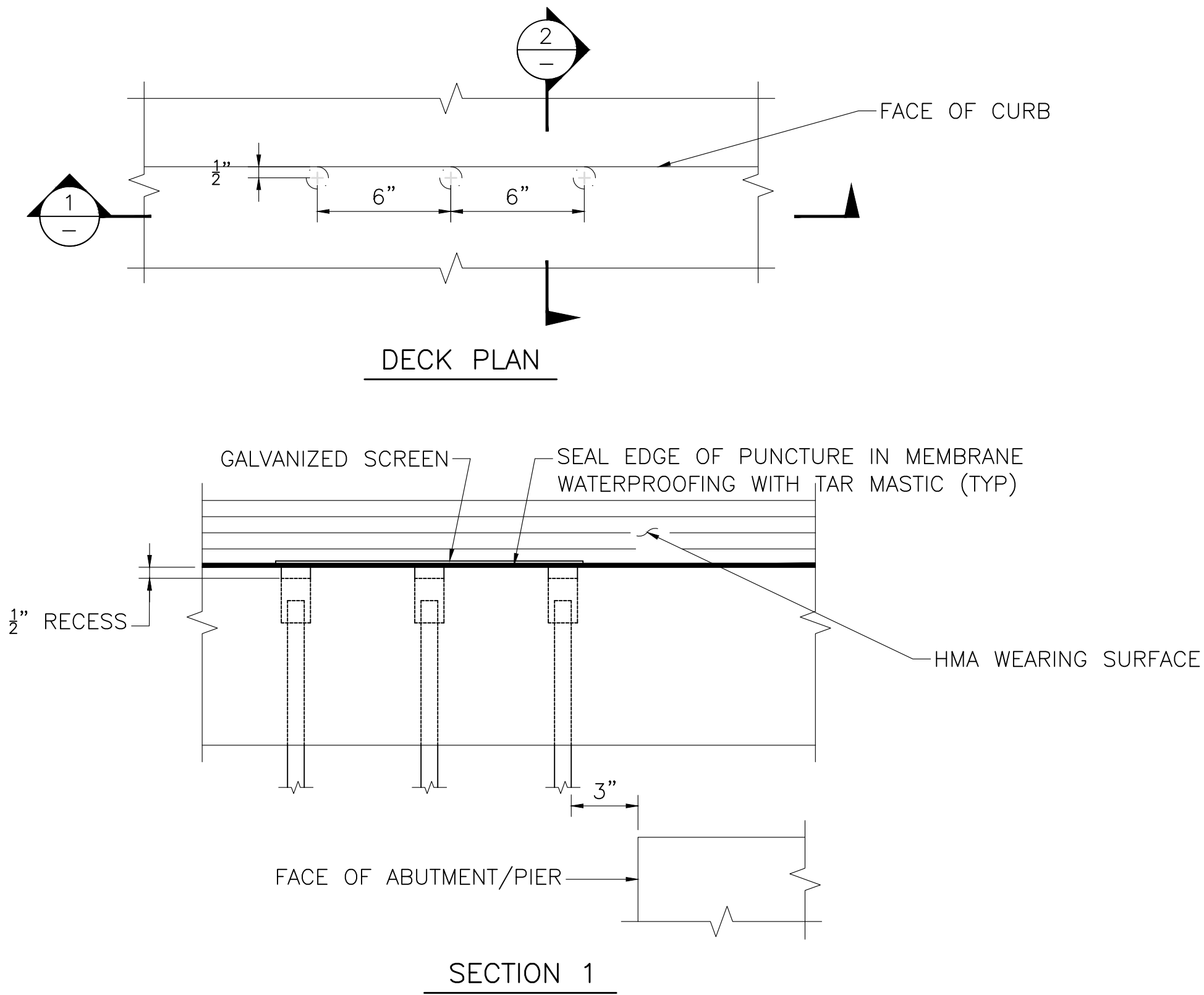
DISTRICT 2 BRIDGE ENGINEER

DATE

CONCRETE DECK REPAIR
DETAILS (SHEET 2 OF 2)

SCALE: NO SCALE

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Project: 059 - Bridge St. over Westfield River Drawings: Figures AutoCAD Sheet Phase 2 W1975-059-63-P2-S DRAINAGE.dwg
Title & Content: W1975-059-63-P2-S DRAINAGE.dwg



- NOTES:**
- SEE LOCATIONS OF PROPOSED DECK WEEPS ON SHEET 7.
 - CONTRACTOR TO LOCATE REINFORCING STEEL PRIOR TO DRILLING. ADJUST SPACING WITH ENGINEER AS NEEDED IN THE FIELD TO AVOID DAMAGE TO DECK REINFORCING.

COMMONWEALTH OF MASSACHUSETTS
MassDOT, Highway Division
**APPROVED UNDER PROVISIONS OF
MASS. GEN. LAWS CH 85 § 35**
DISTRICT 2 BRIDGE ENGINEER DATE

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**PROPOSED BRIDGE
PRESERVATION
PHASE 2**

**AGAWAM /
WEST SPRINGFIELD**

**VIETNAM VETERANS
MEMORIAL BRIDGE**

**BRIDGE STREET
OVER
WESTFIELD RIVER
A-05-003 = W-21-013
(OKX)**

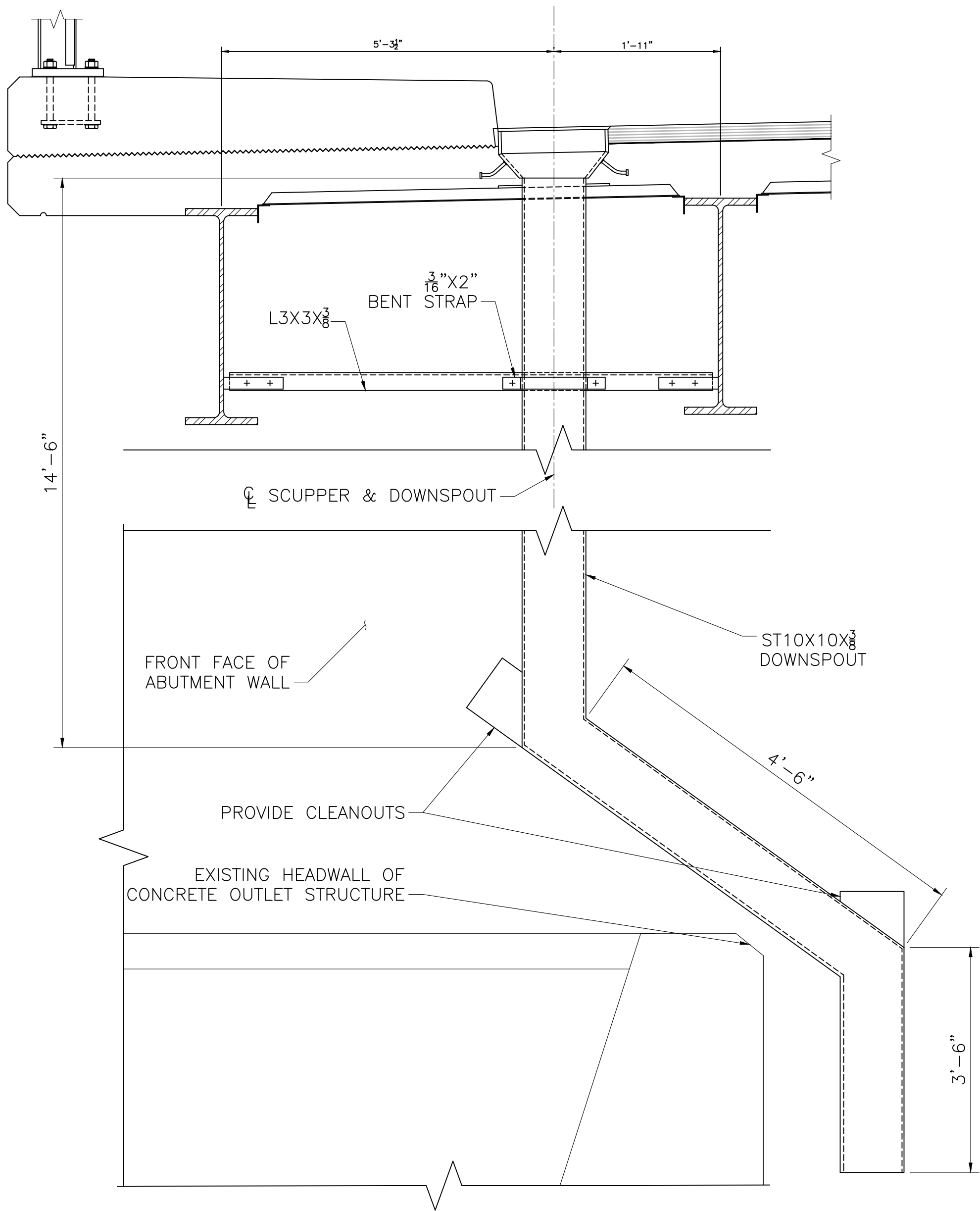
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DATE:		MARCH 2025
FILE:		W1975-059-63-P2-S-DRAINAGE.dwg
DRAWN BY:		JHM
DESIGNED/CHECKED BY:		AML
APPROVED BY:		JRI

DECK DRAIN DETAILS

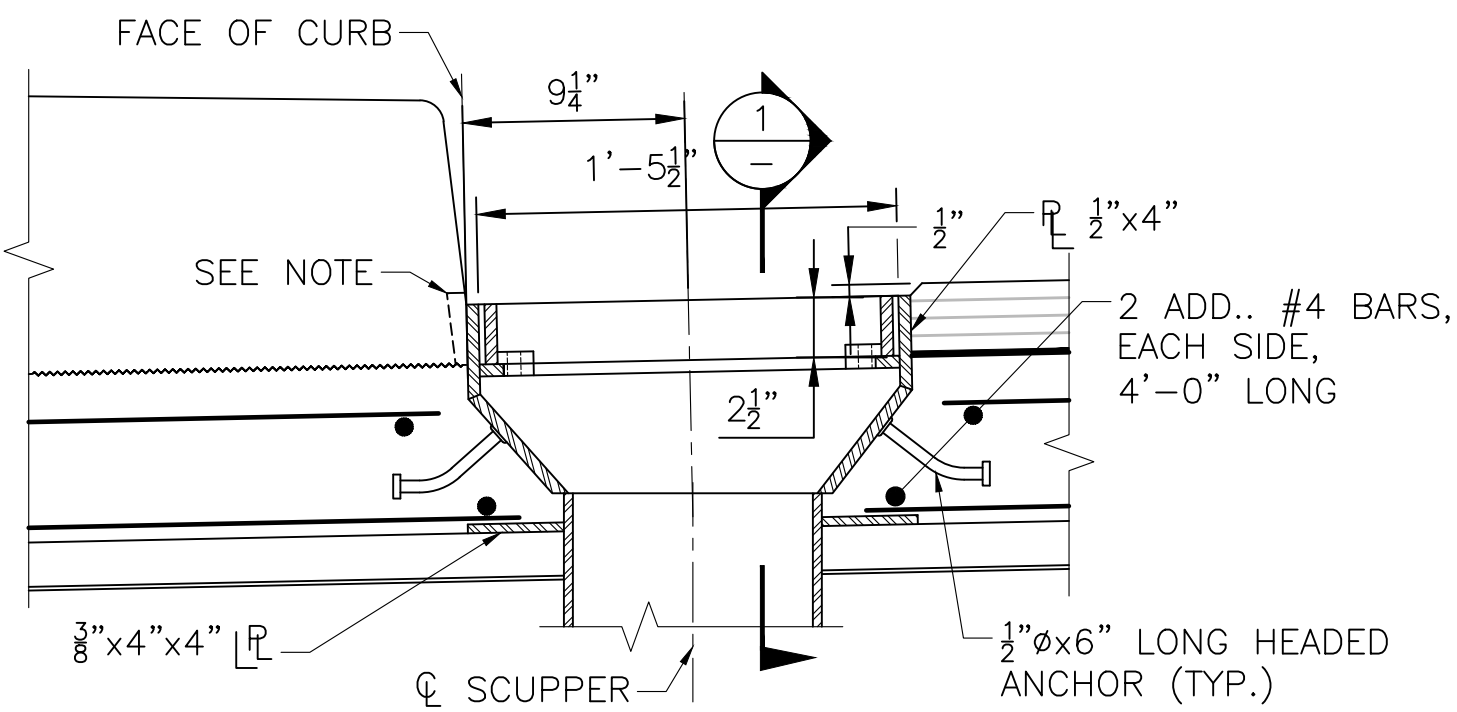
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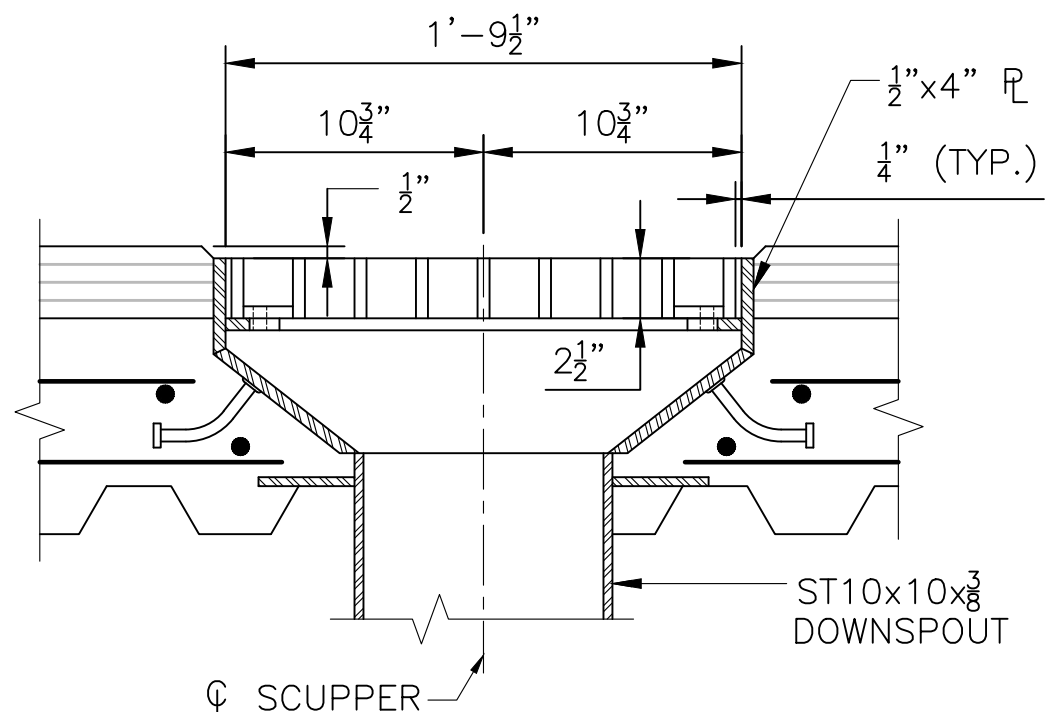
SCUPPER SECTIONS (WEST)
NOT TO SCALE



SECTION

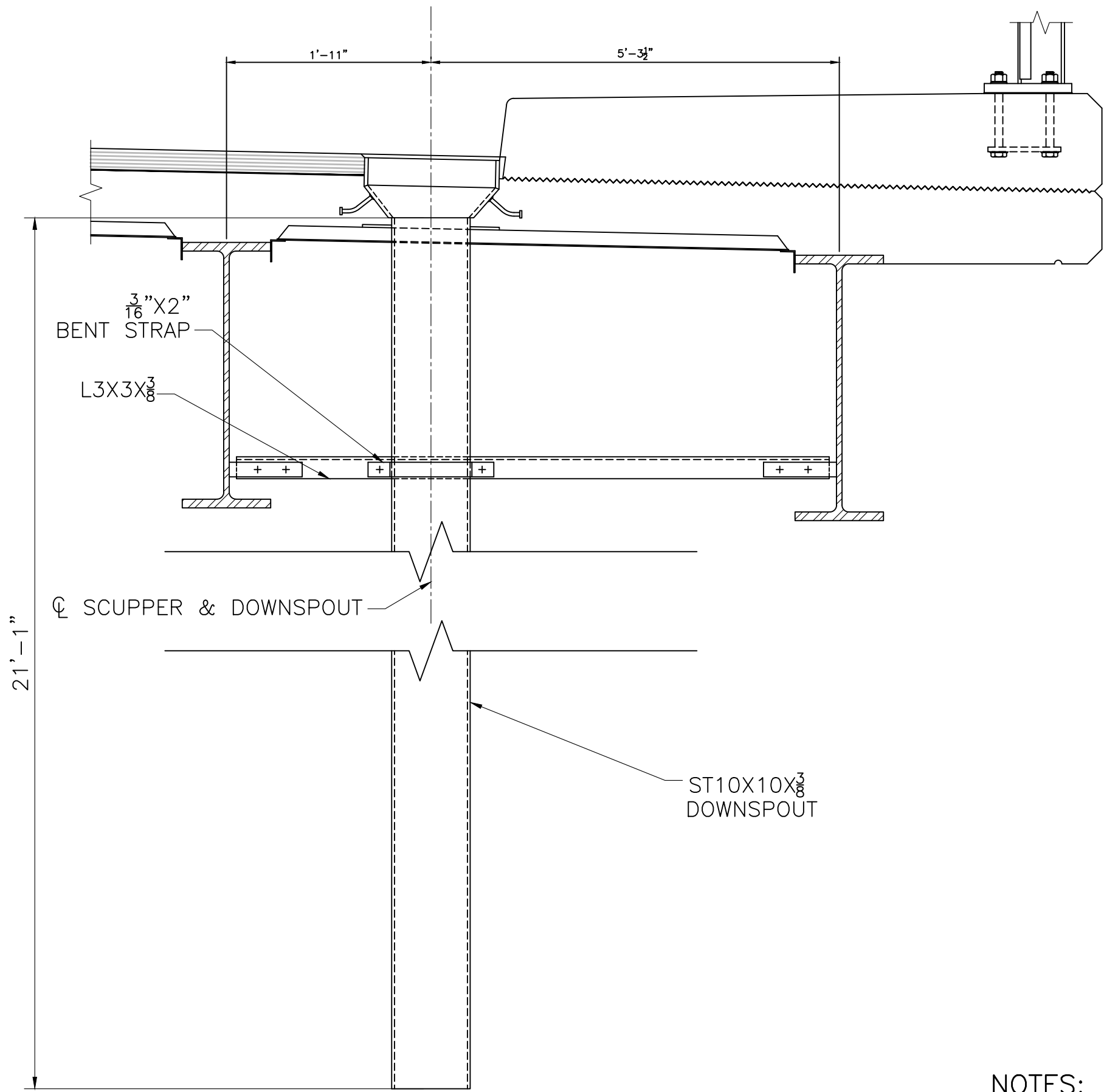
NOTE:

OMIT POCKET AT SCUPPER. FILL AREA WITH JOINT SEALER.



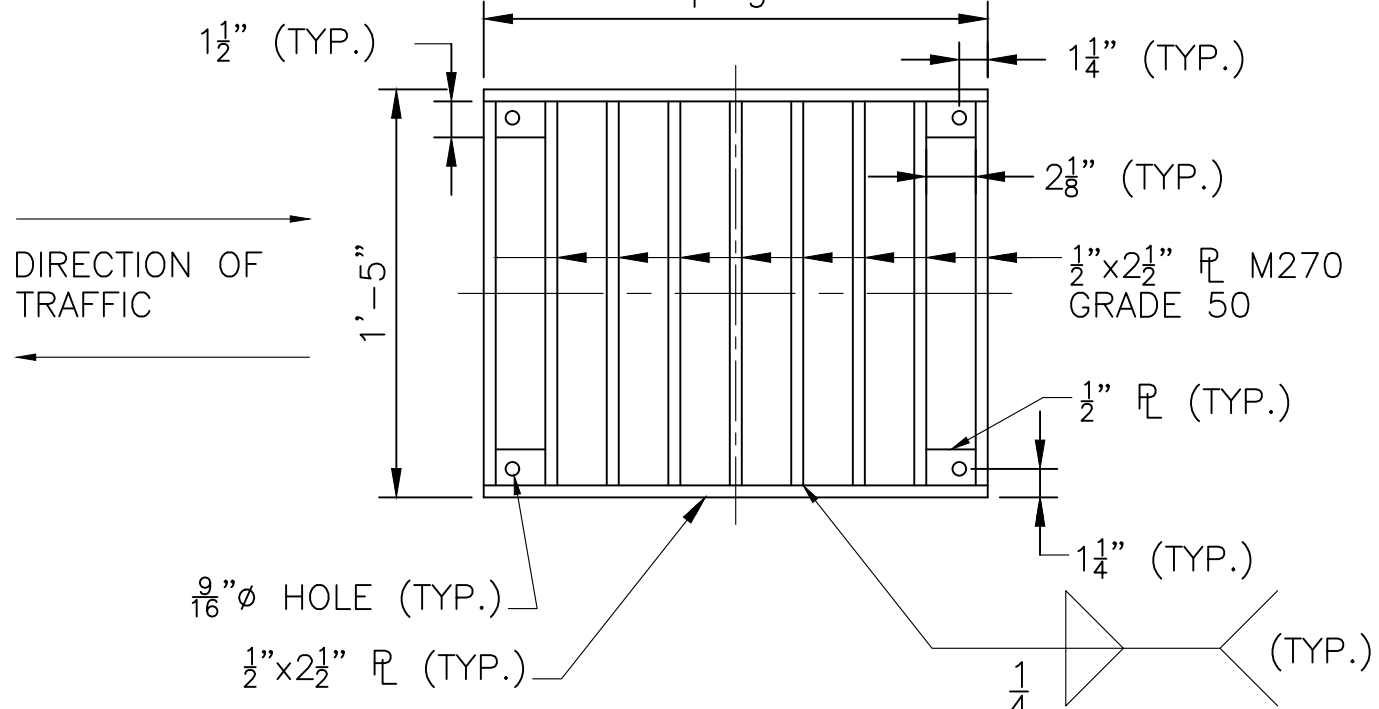
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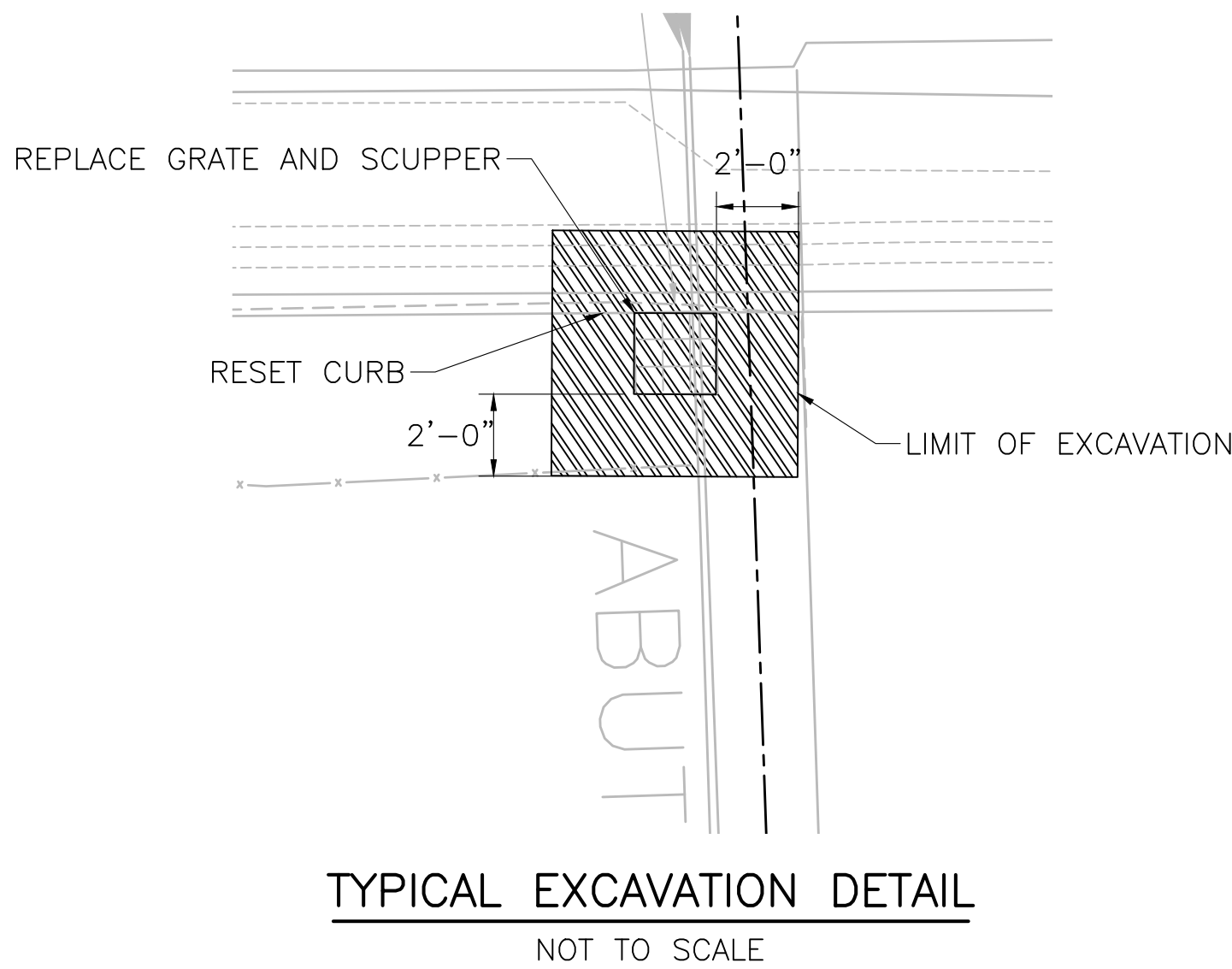


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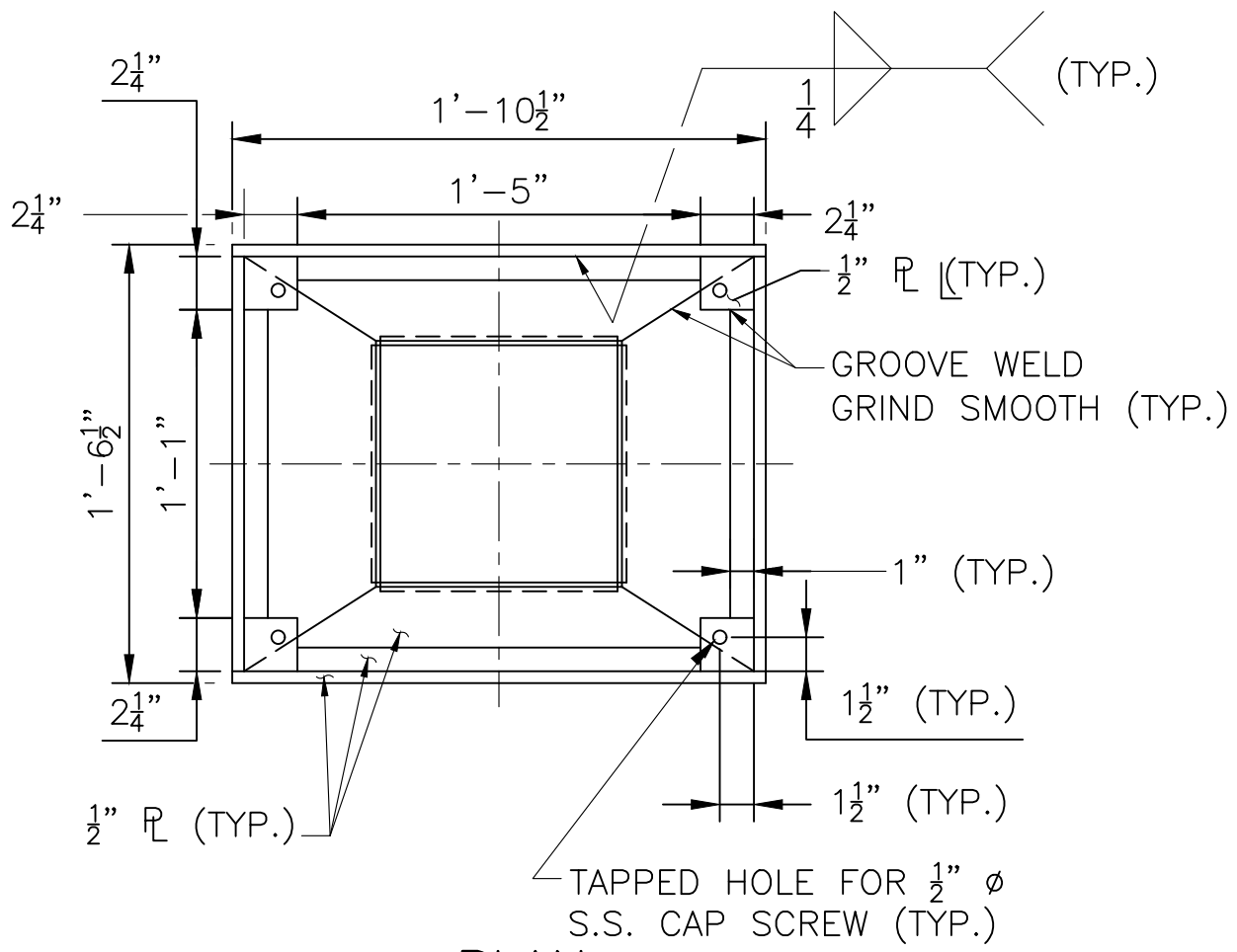
1. ALL STEEL PLATES SHALL BE AASHTO M 270 GRADE 36 AND SQUARE TUBE SHALL BE ASTM A 500 GRADE A OR B.
2. ALL WELDS SHALL BE CONTINUOUS. ALL JOINTS SHALL BE WELDED USING TWO-SIDED 1/4" FILLET WELDS OR 1/4" PJP WELDS WITH A BACKING SEAL WELD, AS APPLICABLE.
3. ALL STEEL TO BE HOT-DIP GALVANIZED. 10" SQUARE TUBE TO BE GALVANIZED AND PAINTED TO MATCH COLOR OF THE STEEL GIRDERS.
4. TEMPORARY SUPPORT IS REQUIRED. SUPPORT DESIGN SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.
5. CONTRACTOR TO VERIFY EXISTING DIMENSION IN FIELD.
6. EXCAVATION OF THE DECK AROUND THE SCUPPERS SHALL BE PAID FOR UNDER ITEM 127.4 REINFORCED CONCRETE DECK EXCAVATION (FULL DEPTH).



PLAN OF GRATING



TYPICAL EXCAVATION DETAIL
NOT TO SCALE



PLAN

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MassDOT, Highway Division
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DISTRICT 2 BRIDGE ENGINEER DATE

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PROPOSED BRIDGE
PRESERVATION
PHASE 2

AGAWAM /
WEST SPRINGFIELD

VIETNAM VETERANS
MEMORIAL BRIDGE

BRIDGE STREET
OVER
WESTFIELD RIVER
A-05-003 = W-21-013
(OKX)

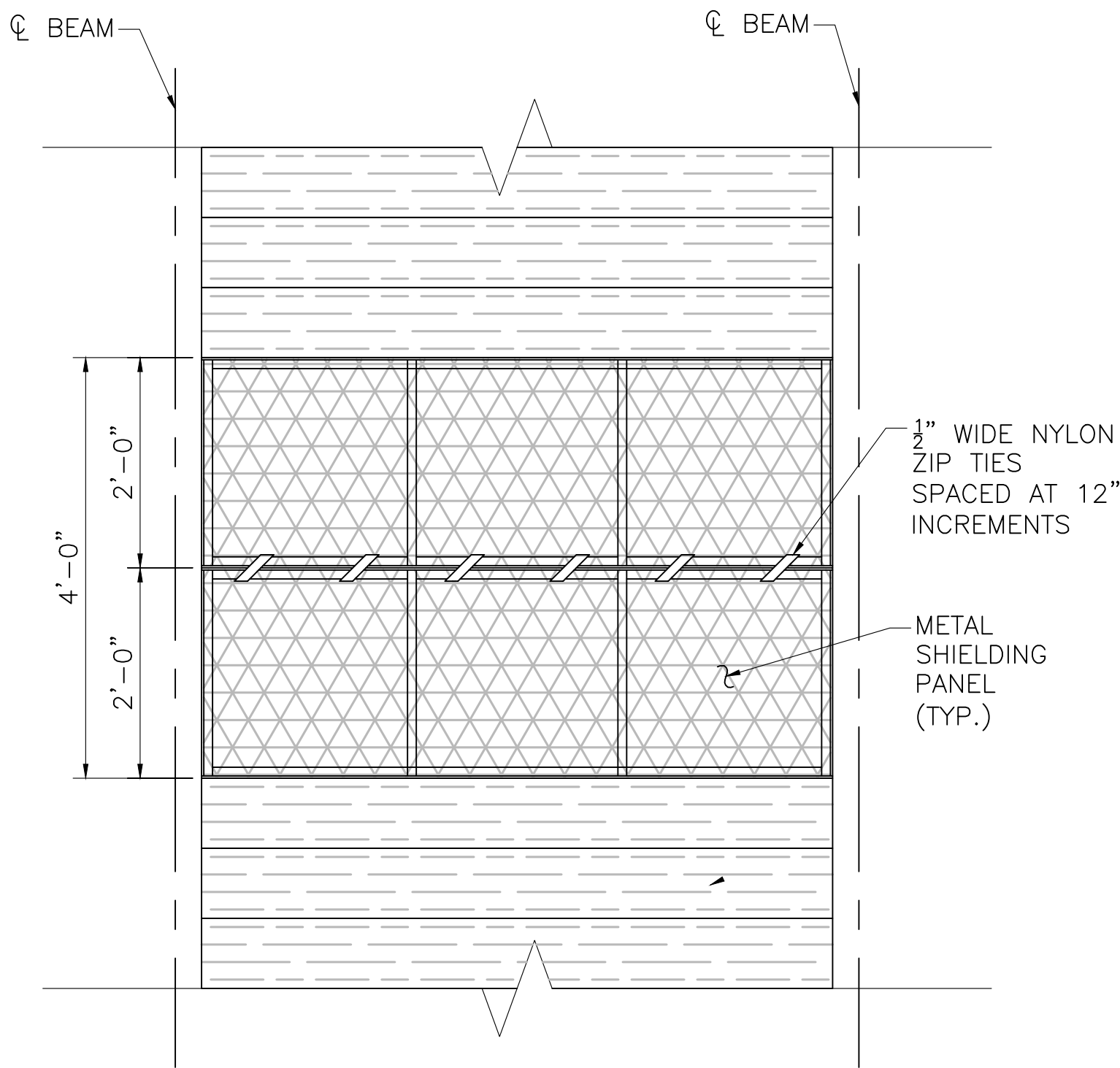
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FILE:	W1975-059-63-P2-S-DRAINAGE.dwg	
DRAWN BY:	JHM	
DESIGNED/CHECKED BY:	AML	
APPROVED BY:	JRI	

SCUPPER REPAIR DETAILS

SCALE: NO SCALE

SHEET 13 OF 14

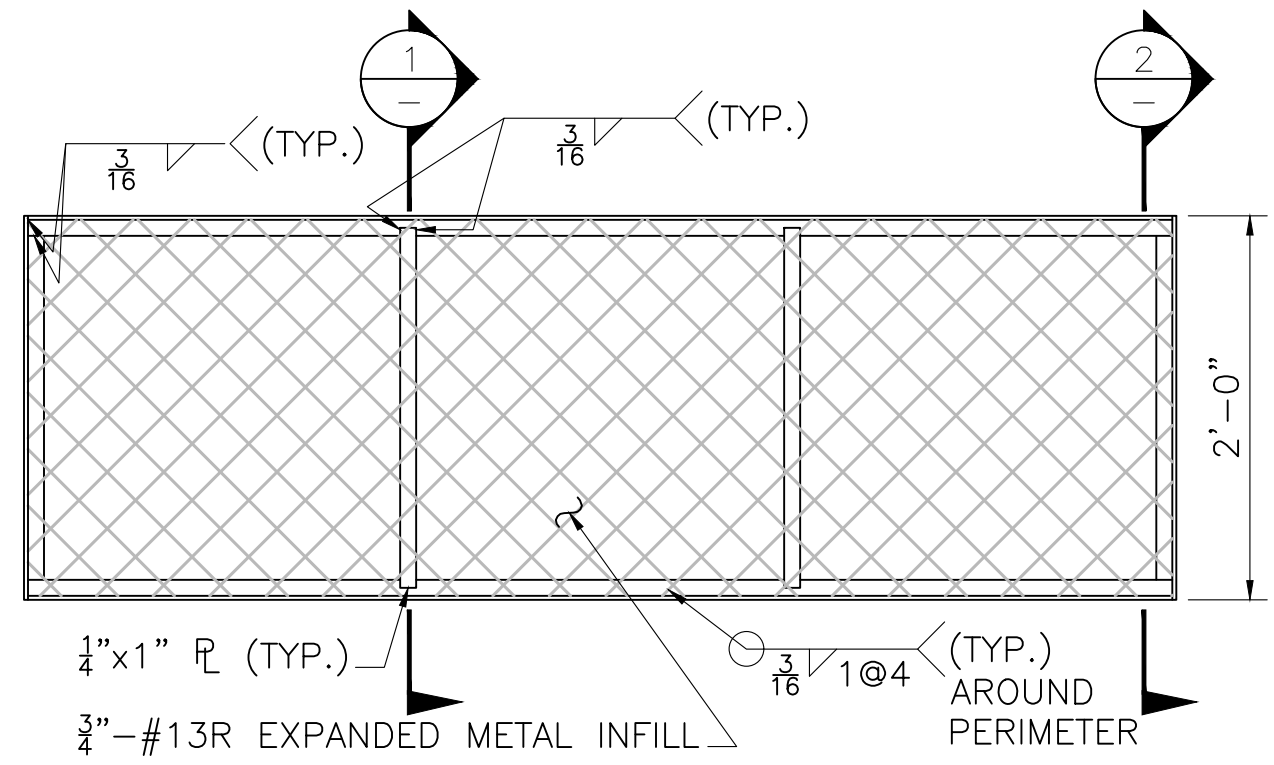
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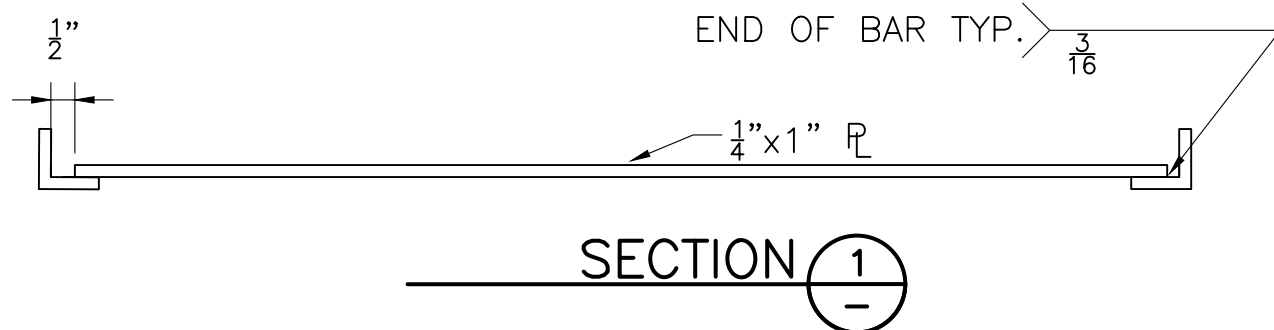
SHIELDING ACCESS PANEL

NOTE:
EXPANDED METAL SHIELDING SHALL BE INSTALL ON BRIDGES USING TIMBER SHIELDING AS FOLLOWS:

- ACCESS POINT(S) AT A MINIMUM SPACING OF 20 FEET ON CENTER IN EACH SHIELDED BAY (MINIMUM OF TWO PER BAY).
- EACH ACCESS POINT(S) SHALL BE INSTALLED OVER THE CENTER LINE OF THE ROADWAY. THIS CONDITION IS TO AVOID THE CLOSING DOWN OF MULTIPLE TRAVEL LANES FOR EASY ACCESS BY INSPECTION PERSONNEL.



STEEL BEAM SHIELDING PANEL
SCALE: 1" = 1'-0"



SECTION 1



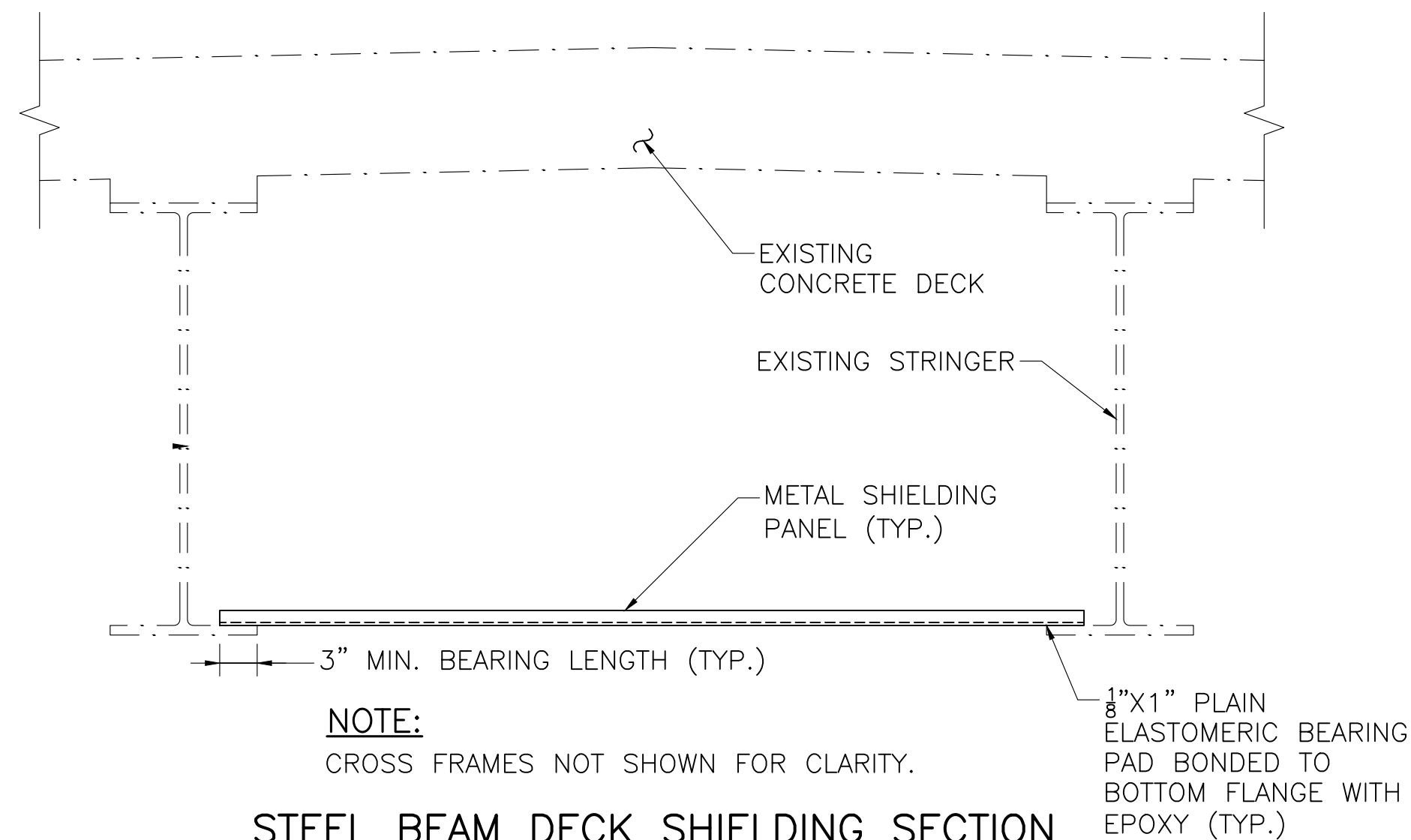
SECTION 2

METAL SHIELDING PANEL NOTES:

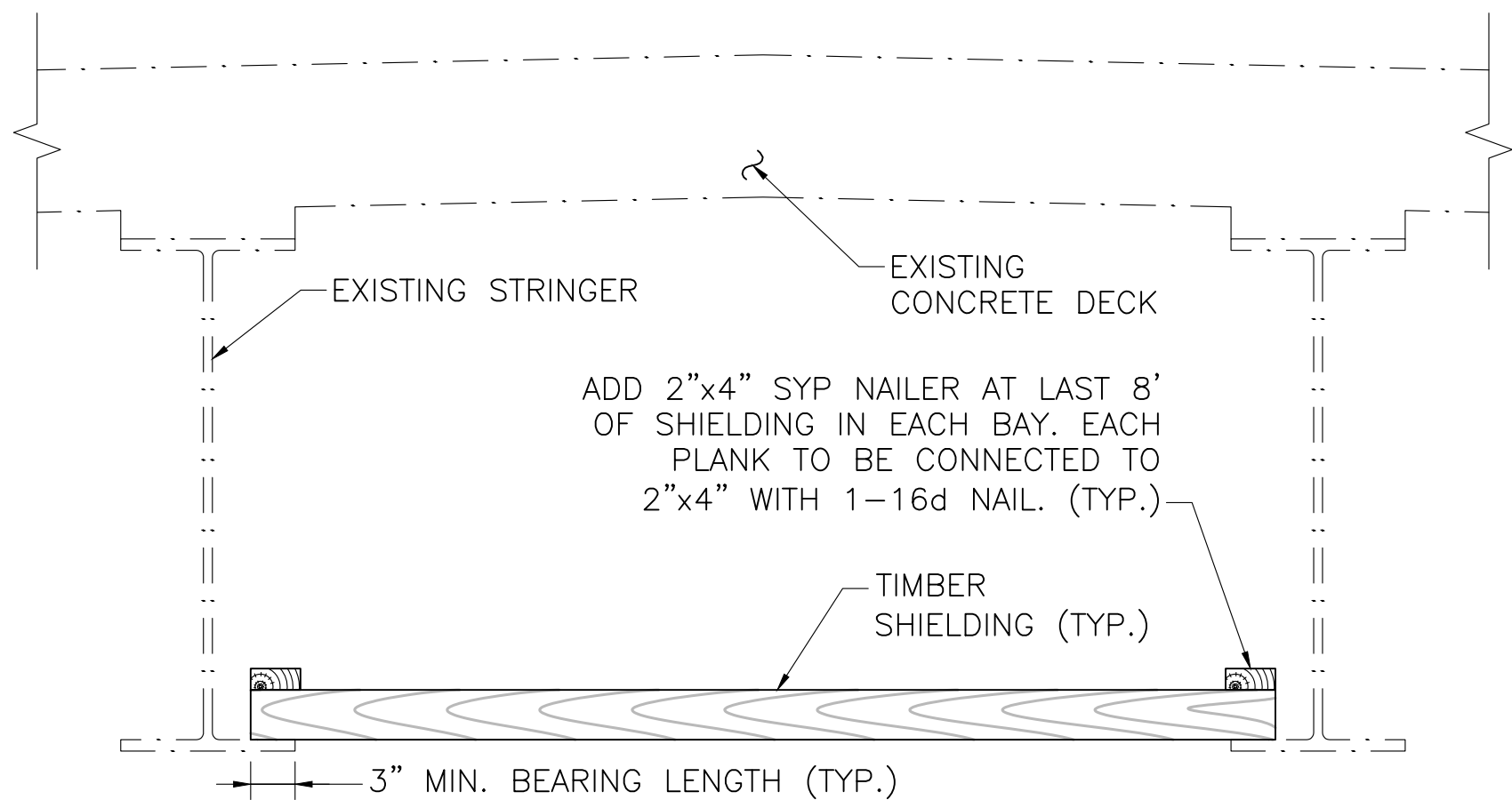
- PANEL LENGTHS ARE BASED ON THE BEAM SPACING SHOWN ON THE EXISTING BRIDGE PLANS. CONTRACTOR SHALL FIELD VERIFY THE AS-BUILT SPACING BETWEEN BEAMS PRIOR TO FABRICATION OF THE SHIELDING TO ENSURE THE SHIELDING LENGTH IS SUFFICIENT.
- MATERIAL FOR INFILL PANELS SHALL BE STEEL 3/4"-13R EXPANDED METAL (ASTM A1011).
- MATERIAL FOR THE METAL FRAME AND BRACE PLATES SHALL BE A36 STRUCTURAL STEEL.
- NYLON TIES SHALL BE UV RESISTANT EXTRA HEAVY DUTY WITH A MINIMUM TENSILE STRENGTH OF 250 POUNDS.
- EACH PANEL SHALL BE HOT DIPPED GALVANIZED IN ACCORDANCE WITH THE RELATED PROVISIONS OF SECTION 960.64 OF THE LATEST VERSION OF THE MASSDOT 2023 STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES.
- INSTALL EXPANDED METAL SHIELDING ACCESS POINT AS REQUIRED OR AS DIRECTED BY THE ENGINEER.
- ACCESS POINTS MUST BE CENTERED OVER THE TRAVEL LANES INCLUDING THE BREAKDOWN LANES.
- EACH ACCESS POINT WILL CONSIST OF (2) METAL SHIELDING PANELS AS SHOWN.

TIMBER SHIELDING NOTES:

- MATERIAL FOR TIMBER SHIELDING SHALL BE EITHER DOUGLAS FIR NO. 2, HEM FIR NO. 2, OR SOUTHERN PINE NO. 2 OR BETTER.
- LIMITS OF SHIELDING SHALL EXTEND A MINIMUM OF 5 FEET BEYOND THE EDGE OF THE ROADWAYS (INCLUDING THE BREAKDOWN LANE).
- SIZE OF TIMBER SHALL BE 3"x8" DRESSED. ACTUAL DIMENSIONS 2 1/2"x7 1/2".
- DEPTH OF DEBRIS BUILDUP SHALL NOT EXCEED 3".
- SHIELDING SHALL BE LINED WITH 6 MIL POLYETHYLENE SHEETING AND SECURED WITH 1/2" THICK PLYWOOD SHEETS ON TOP. POLYETHYLENE SHALL EXTEND 6" UP WEB ON EACH SIDE.
- LEAKAGE OF THE HYDRO-EXCAVATION SLURRY INTO THE WATER BODY BELOW SHALL NOT BE PERMITTED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY LEAKING SLURRY INTO THE WATER BODY BELOW.



STEEL BEAM DECK SHIELDING SECTION
SCALE: 1" = 1'-0"



TIMBER PLANK DECK SHIELDING SECTION
SCALE: 1" = 1'-0"

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PROPOSED BRIDGE
PRESERVATION
PHASE 2

AGAWAM /
WEST SPRINGFIELD

VIETNAM VETERANS
MEMORIAL BRIDGE

BRIDGE STREET
OVER
WESTFIELD RIVER
A-05-003 = W-21-013
(OKX)

MARK	DATE	DESCRIPTION
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DATE:	MARCH 2025	
FILE:	W1975-059-64-P2-S-SHIELDING.dwg	
DRAWN BY:	JHM	
DESIGNED/CHECKED BY:	AML	
APPROVED BY:	JRI	

SHIELDING DETAILS

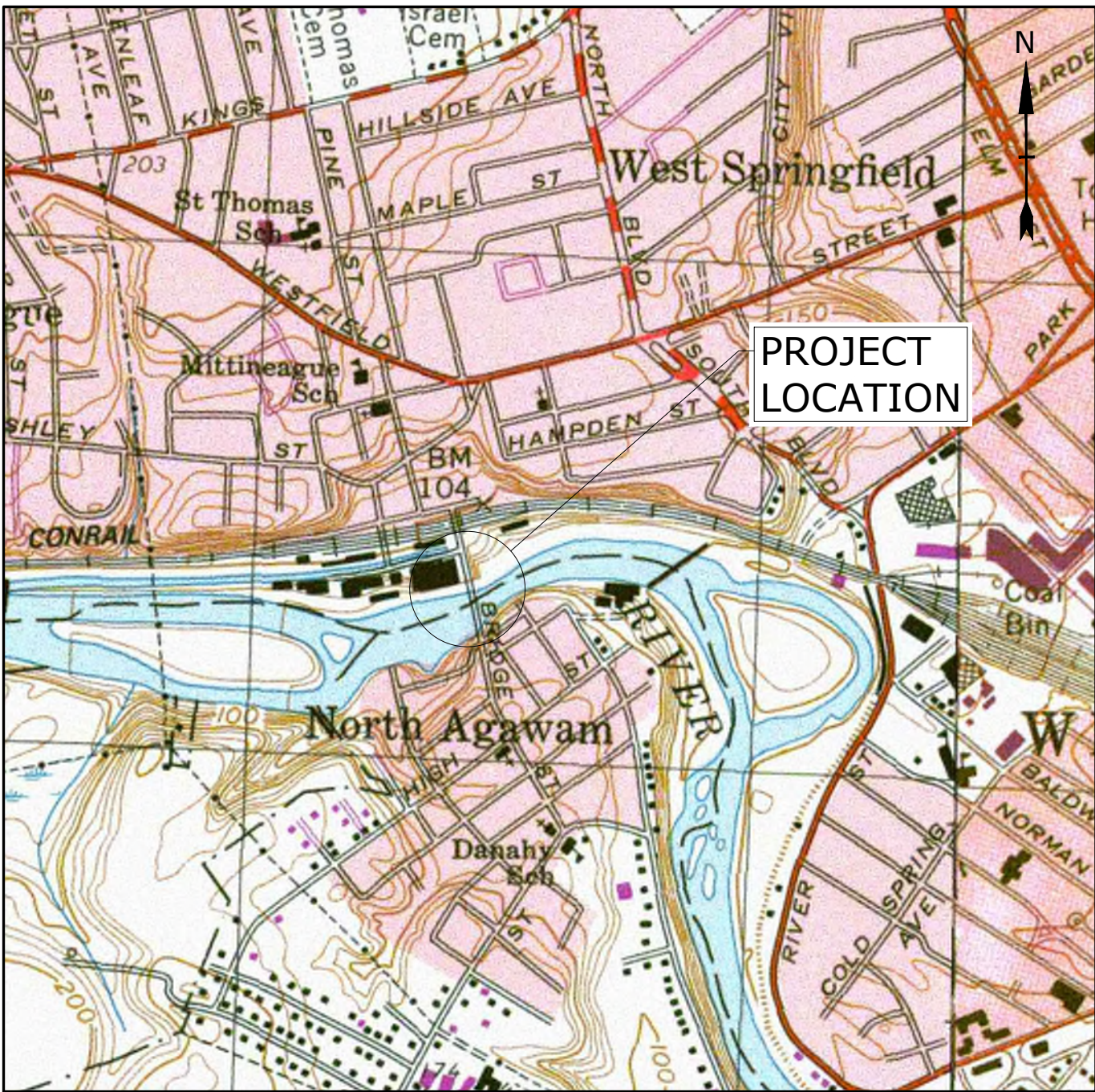
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TOWN OF AGAWAM AND TOWN OF WEST SPRINGFIELD, MASSACHUSETTS

VIETNAM VETERANS MEMORIAL BRIDGE
PROPOSED BRIDGE PRESERVATION
BRIDGE STREET OVER THE WESTFIELD RIVER
A-05-003=W-21-013 (0KX)

PHASE 3
90% SUBMITTAL
MARCH 2025

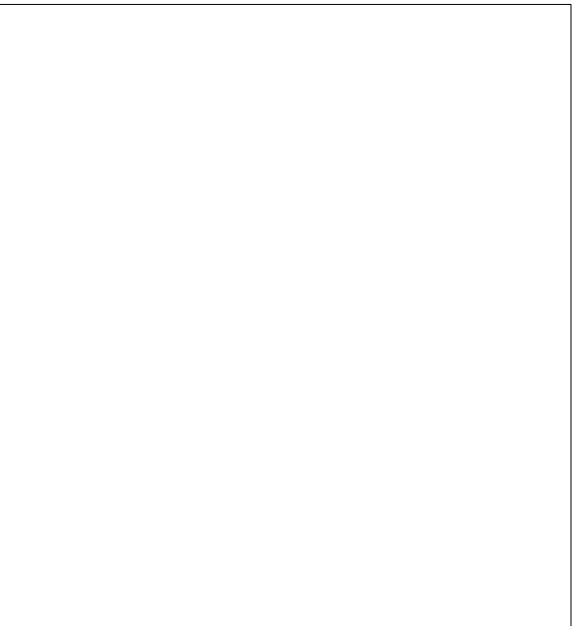
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SHEET NO.	SHEET TITLE
1	COVER
2	BRIDGE KEY PLAN, PROFILES, & LOCUS
3	GENERAL NOTES
4	LEGEND & ABBREVIATIONS
5	EXISTING CONDITIONS & CONSTRUCTION STAGING PLAN
6	EROSION CONTROL DETAILS
7	TEMPORARY TRAFFIC CONTROL PLAN
8	GENERAL BRIDGE PLAN & ELEVATION
9	BRIDGE SEAT DETAILS
10	FRAMING PLAN, ELEVATION, & STEEL BEAM REPAIR DETAILS
11	STEEL REPAIR DETAILS
12	BEAM END DETAILS
13	BEARING DETAILS



LOCATION MAP
SCALE: 1" = 1000'

PREPARED BY:

Tighe&Bond

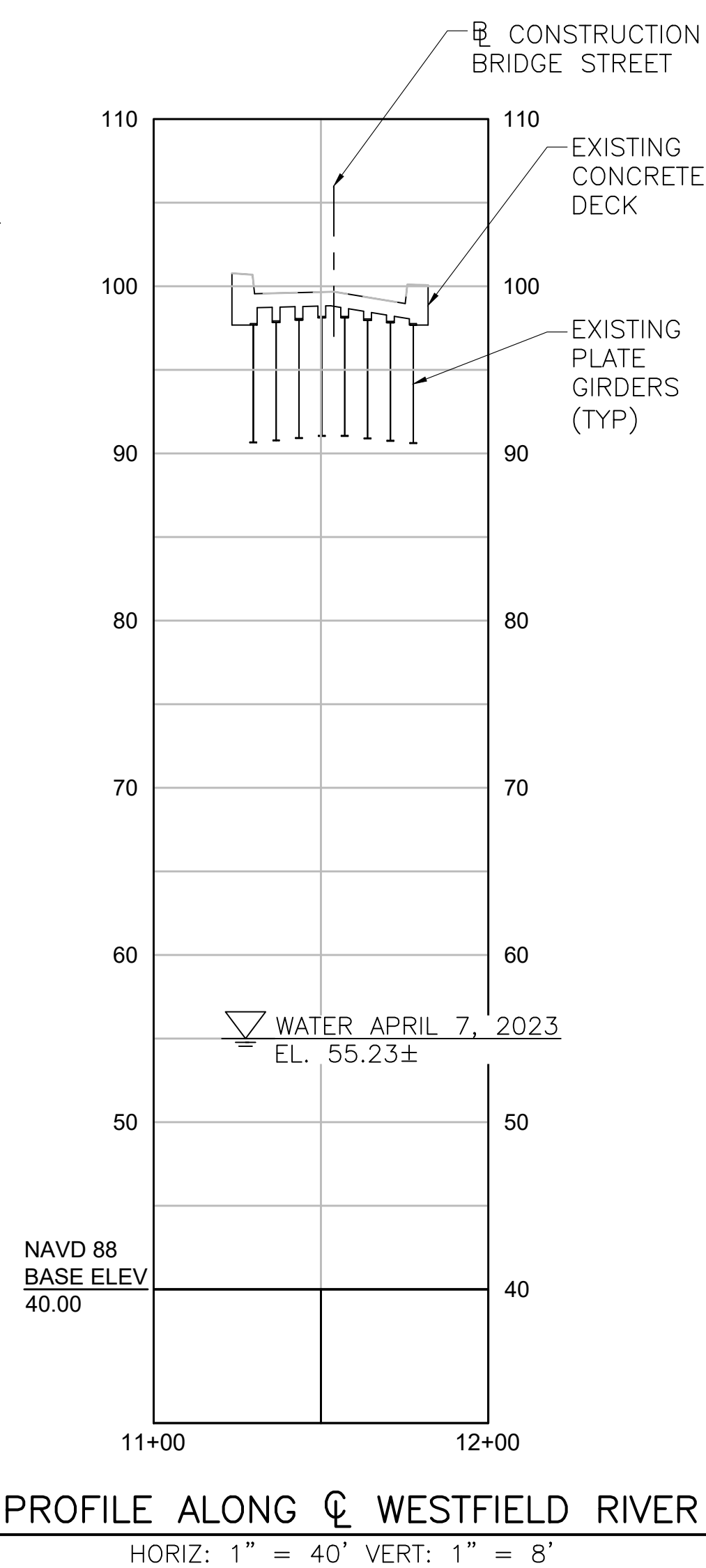
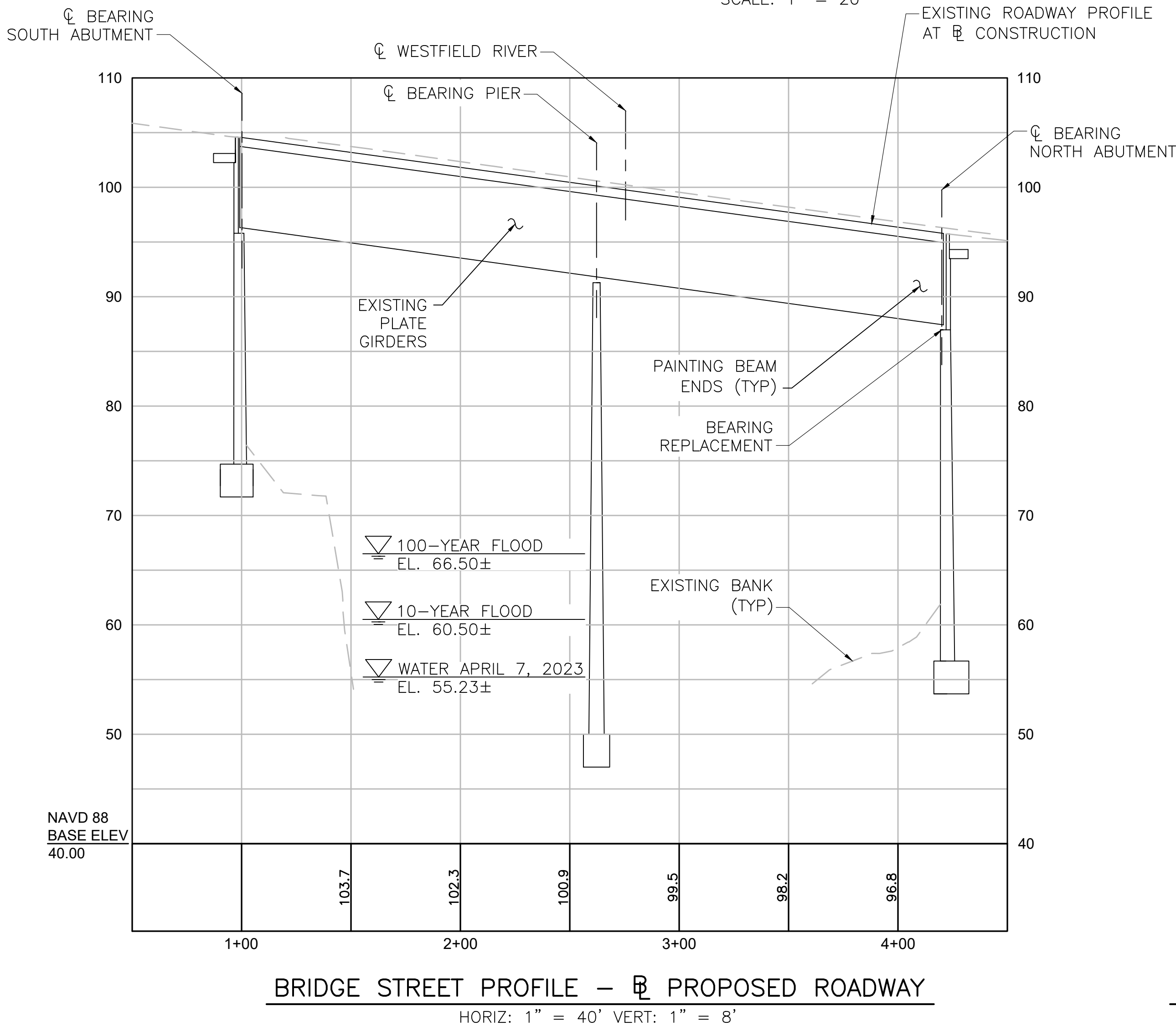
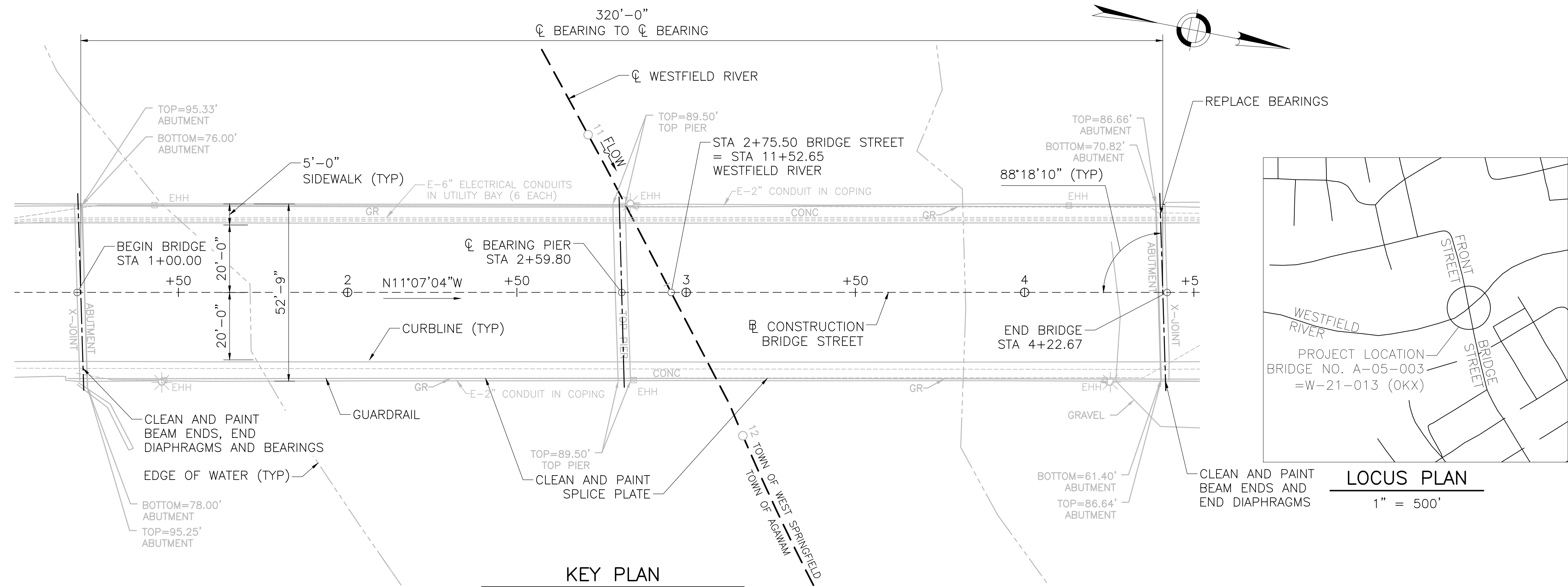


PREPARED FOR:

TOWN OF WEST SPRINGFIELD
DEPARTMENT OF PUBLIC WORKS
ROB COLSON, DPW DIRECTOR
TOWN OF AGAWAM
DEPARTMENT OF PUBLIC WORKS
MARIO MAZZA, DPW SUPERINTENDENT

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NOT FOR CONSTRUCTION
COMPLETE SET 13 SHEETS



ESTIMATED QUANTITIES			
(NOT GUARANTEED)			
ITEM NO.	DESCRIPTION	QTY	UNIT
101.	CLEARING AND GRUBBING	0.30	A
106.88	JACKING AND SHORING	8	EA
107.97	STRUCTURAL STEEL REPAIRS	4300	LB
748.	MOBILIZATION	1	LS
767.121	SEDIMENT CONTROL BARRIER	200	FT
850.	TRAFFIC CONTROLS FOR CONSTRUCTION AND MAINTENANCE OPERATIONS	1	LS
933.	ELASTOMERIC BRIDGE BEARING PAD	8	EA
961.301	CLEAN (FULL REMOVAL) AND PAINT STRUCTURAL STEEL BEAM ENDS	2740	SF
994.01	TEMPORARY PROTECTIVE SHIELDING	2600	SF

COMMONWEALTH OF MASSACHUSETTS
MassDOT, Highway Division
APPROVED UNDER PROVISIONS OF
MASS. GEN. LAWS CH 85 § 35
DISTRICT 2 BRIDGE ENGINEER DATE

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PROPOSED BRIDGE
PRESERVATION
PHASE 3

AGAWAM /
WEST SPRINGFIELD

VIETNAM VETERANS
MEMORIAL BRIDGE

BRIDGE STREET
OVER
WESTFIELD RIVER
A-05-003 = W-21-013
(OKX)

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DATE:	MARCH 2025	
FILE:	W1975-059-11-P3-BR FIRST SHEET.dwg	
DRAWN BY:	JHM	
DESIGNED/CHECKED BY:	AML	
APPROVED BY:	JRI	

BRIDGE KEY PLAN,
PROFILES, & LOCUS

SCALE: AS SHOWN

SHEET 2 OF 13

Last Saved: 3/5/2025 1:50pm By: SS&T
Plotted On: Rpt 12, 2025-1:50pm
Title & Content: Westfield River Drawings - Figures(AutoCAD)Sheet/Phase 3/W1975-059-20-P3-G-GENERAL NOTES.dwg

DESIGN LOADS AND SPECIFICATIONS:

1. DESIGN LOADING:

H20–44
2. DESIGN METHOD:

(1971) DESIGN LOADING
3. SPECIFICATIONS:

AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 9TH ED., 2020 AS AMENDED
MASSDOT LRFD BRIDGE MANUAL, 2013, AS AMENDED BY SUPPLEMENTS
THE MASSACHUSETTS HIGHWAY DEPARTMENT STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES DATED 2024
4. STRUCTURAL STEEL:

AASHTO M270 GRADE 50

BASE PLAN NOTES

1. THE EXISTING CONDITIONS INFORMATION SHOWN ON THE DRAWINGS IS BASED ON SURVEY DRAWINGS PROVIDED BY WSP USA INC. TITLED "MASSACHUSETTS DEPARTMENT OF TRANSPORTATION PLAN OF TOPOGRAPHIC SURVEY OF FRONT STREET & BRIDGE STREET" AND DATED APRIL 7, 2023.
2. UTILITY LOCATIONS SHOWN WERE PLOTTED FROM INFORMATION SUPPLIED BY RESPECTIVE UTILITY COMPANIES AND DATA OBTAINED FROM FIELD SURVEYS AND AS BUILT DRAWINGS. THE ACCURACY AND COMPLETENESS OF SUBSURFACE INFORMATION SHOWN ON THESE DRAWINGS IS NOT GUARANTEED.
3. THE HORIZONTAL COORDINATE SYSTEM IS THE NORTH AMERICAN DATUM OF 1983 (NAD 83), MASSACHUSETTS STATE PLANE, MAINLAND ZONE, US FEET. VERTICAL DATUM IS THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).
4. THE EXISTING CONDITIONS SHOWN ARE APPROXIMATE. CONTRACTOR TO FIELD VERIFY EXISTING CONDITIONS.
5. WETLAND RESOURCE AREAS WERE DELINEATED BY TIGHE & BOND, INC. ON APRIL 13, 2023

GENERAL NOTES

1. NOTIFY DIGSAFE AT 1–888–344–7233 AND OTHER UTILITY OWNERS IN THE AREA NOT ON THE DIGSAFE LIST AT LEAST 72 HOURS PRIOR TO ANY DIGGING, TRENCHING, ROCK REMOVAL, DEMOLITION, BORING, BACKFILLING, GRADING, LANDSCAPING, OR ANY OTHER EARTH MOVING OPERATIONS.
2. LOCATIONS OF EXISTING UTILITIES ARE APPROXIMATE. IN ADDITION, SOME UTILITIES MAY NOT BE SHOWN. DETERMINE THE EXACT LOCATION OF UTILITIES BY TEST PIT OR OTHER METHODS, AS NECESSARY TO PREVENT DAMAGE TO UTILITIES AND/OR INTERRUPTIONS IN UTILITY SERVICE OR CONSTRUCTION OPERATIONS. PERFORM TEST PIT EXCAVATIONS AND OTHER INVESTIGATIONS TO LOCATE UTILITIES, AND PROVIDE THIS INFORMATION TO THE ENGINEER, PRIOR TO CONSTRUCTING THE PROPOSED IMPROVEMENTS. LOCATE ALL EXISTING UTILITIES TO BE CROSSED BY HAND EXCAVATION.
3. NOTIFY THE ENGINEER OF ANY UTILITIES IDENTIFIED DURING CONSTRUCTION THAT ARE NOT SHOWN ON THE DRAWINGS OR THAT DIFFER IN SIZE OR MATERIAL.
4. TIGHE & BOND ASSUMES NO RESPONSIBILITY FOR ANY ISSUES, LEGAL OR OTHERWISE, RESULTING FROM CHANGES MADE TO THESE DRAWINGS WITHOUT WRITTEN AUTHORIZATION FROM TIGHE & BOND.
5. THE CONTRACTOR IS RESPONSIBLE FOR SITE SAFETY; COORDINATION WITH THE OWNER, ALL SUBCONTRACTORS, WITH OTHER CONTRACTORS WORKING WITHIN THE LIMITS OF WORK, AND THE MEANS AND METHODS OF CONSTRUCTING THE PROPOSED WORK.
6. OBTAIN, PAY FOR AND COMPLY WITH PERMITS, NOTICES AND FEES NECESSARY TO COMPLETE THE WORK. ARRANGE AND PAY FOR NECESSARY INSPECTIONS AND APPROVALS FROM THE JURISDICTIONAL AUTHORITIES.
7. FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO CONSTRUCTION. IF FIELD CONDITIONS ARE OBSERVED THAT VARY SIGNIFICANTLY FROM THOSE SHOWN ON THE DRAWINGS, IMMEDIATELY NOTIFY THE ENGINEER IN WRITING FOR RESOLUTION OF THE CONFLICTING INFORMATION.
8. PROTECT AND MAINTAIN ALL UTILITIES IN THE AREAS UNDER CONSTRUCTION DURING THE WORK. LEAVE ALL PIPES AND STRUCTURES WITHIN THE LIMITS OF THE CONTRACT IN A CLEAN AND OPERABLE CONDITION AT THE COMPLETION OF THE WORK. TAKE ALL NECESSARY PRECAUTIONS TO PREVENT SAND AND SILT FROM DISTURBED AREAS FROM ENTERING THE DRAINAGE SYSTEM.
9. NOTIFY THE ENGINEER IN WRITING OF ANY CONFLICT, ERROR, AMBIGUITY, OR DISCREPANCY WITH THE PLANS OR BETWEEN THE PLANS AND ANY APPLICABLE LAW, REGULATION, CODE, STANDARD SPECIFICATION, OR MANUFACTURER’S INSTRUCTIONS.
10. THE CONTRACTOR IS RESPONSIBLE FOR SUPPORT OF EXISTING UTILITIES AND REPAIR OR REPLACEMENT COSTS OF UTILITIES DAMAGED DURING CONSTRUCTION, WHETHER ABOVE OR BELOW GRADE. REPLACE DAMAGED UTILITIES IMMEDIATELY AT NO ADDITIONAL COST TO THE OWNER AND AT NO COST TO THE PROPERTY OWNER.

11. TAKE NECESSARY MEASURES AND PROVIDE CONTINUOUS BARRIERS OF SUFFICIENT TYPE, SIZE, AND STRENGTH TO PREVENT ACCESS TO ALL WORK AND STAGING AREAS AT THE COMPLETION OF EACH DAYS WORK.
12. NO OPEN TRENCHES WILL BE ALLOWED OVERNIGHT. THE USE OF ROAD PLATES TO PROTECT THE EXCAVATION WILL BE CONSIDERED UPON REQUEST, BUT BACKFILLING IS PREFERRED.
13. THE CONTRACTOR IS RESPONSIBLE FOR ALL NECESSARY TRAFFIC CONTROL/SAFETY DEVICES TO ENSURE SAFE VEHICULAR AND PEDESTRIAN ACCESS THROUGH THE WORK AREA, OR FOR SAFELY IMPLEMENTING DETOURS AROUND THE WORK AREA. PERFORM TRAFFIC CONTROL IN ACCORDANCE WITH THE CONTRACTOR’S APPROVED TRAFFIC CONTROL PLAN.
14. MAINTAIN EMERGENCY ACCESS TO ALL PROPERTIES WITHIN THE PROJECT AREA AT ALL TIMES DURING CONSTRUCTION.
15. WHEN WORKING IN THE ROAD, PROVIDE THE OWNER AND LOCAL FIRE/POLICE/SCHOOL AUTHORITIES A DETAILED PLAN OF APPROACH INDICATING METHODS OF PROPOSED TRAFFIC ROUTING ON A DAILY BASIS. PROVIDE COORDINATION TO ENSURE COMMUNICATION AND COORDINATION BETWEEN THE OWNER, CONTRACTOR AND LOCAL FIRE/POLICE/SCHOOL AUTHORITIES THROUGHOUT THE CONSTRUCTION PERIOD.
16. REMOVE AND DISPOSE OF ALL CONSTRUCTION–RELATED WASTE MATERIALS AND DEBRIS IN STRICT ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE, AND FEDERAL LAWS.
17. ALL PROPOSED WORK MAY BE ADJUSTED IN THE FIELD BY THE ENGINEER TO MEET EXISTING CONDITIONS.
18. ALL DEBRIS GENERATED AS A RESULT OF THE WORK IS TO BE CLEANED UP DAILY AND CONTAINERIZED OR STABILIZED BY THE END OF EACH WORKDAY.

STRUCTURAL STEEL

1. HOLES, CUTS AND OTHER MODIFICATIONS TO THE STRUCTURAL STEEL SHALL NOT BE MADE IN THE FIELD EXCEPT WITH THE SPECIFIC PERMISSION OF THE ENGINEER.
2. ALL BOLTED CONNECTIONS SHALL BE SLIP CRITICAL (CLASS–B) MADE WITH 7/8” DIA. HIGH STRENGTH BOLTS IN 15/16” DIA. HOLES. ALL FASTENERS SHALL CONFORM TO REQUIREMENTS FOR AASHTO M164 (ASTM A325) TYPE 3. (IN PAINTED AREAS, BOLTS SHALL BE TYPE 1 GALVANIZED)
3. DIRECT TENSION INDICATORS SHALL BE INSTALLED WITH HIGH STRENGTH BOLTS.
4. BEARING STIFFENERS AND THE ENDS OF GIRDERS SHALL BE VERTICAL UNDER FULL DEAD LOAD DEFLECTION.
5. SHOP DRAWINGS SHALL INDICATE THE METHOD AND SEQUENCE TO BE FOLLOWED IN WELDING THE GIRDER COMPONENTS.
6. CROSS FRAMES SHALL BE FABRICATED IN THE SHOP WITH 1/4” FILLET WELDS, UNLESS NOTED OTHERWISE. GRAVITY AXIS OF THE MEMBER SHALL INTERSECT AS NEARLY PRACTICABLE AT THE CENTERLINE OF THE GIRDER.
7. ANY SHOP OR FIELD WELDING OF ATTACHMENTS TO ANY PORTION OF THE PLATE GIRDERS FOR CONSTRUCTION PURPOSES WILL NOT BE PERMITTED.
8. STRUCTURAL STEEL FRAMING SHALL BE TRUE AND PLUMB BEFORE CONNECTIONS ARE FINALLY BOLTED OR WELDED.
9. ALL WORK CONSISTING OF SURFACE PREPARATION AND PAINTING OF ALL STEEL SHALL COMPLY WITH THE REQUIREMENTS OF PROJECT SPECIFICATIONS AND MASSDOT SUPPLEMENTAL SPECIFICATION SECTION 961.
10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD TOUCH–UP PAINTING OF ALL STRUCTURAL STEEL AFTER THE STEEL ERECTION INCLUDING ALL NUTS, BOLTS, AND WELDS AND ANY DAMAGE TO THE PRIME COAT, INCURRED DURING AND AFTER FIELD ERECTION.
11. STRUCTURAL STEEL DETAILS NOT SPECIFICALLY SHOWN SHALL BE SIMILAR TO THOSE SHOWN FOR MOST NEARLY SIMILAR SITUATIONS AS DETERMINED BY THE STRUCTURAL ENGINEER.
12. TEMPORARY ERECTION BRACING AND SUPPORTS SHALL BE PROVIDED TO HOLD STRUCTURAL STEEL FRAMING SECURELY IN POSITION. SUCH TEMPORARY BRACING AND SUPPORTS SHALL NOT BE REMOVED UNTIL PERMANENT BRACING HAS BEEN INSTALLED.

SUPERSTRUCTURE REHABILITATION NOTES

1. JACKING IS REQUIRED TO REMOVE AND REPLACE BRIDGE BEARINGS AS OUTLINED IN THE PLANS AND SPECIAL PROVISIONS. THE PROPOSED JACKING METHOD SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL. THE MAXIMUM ALLOWABLE DIFFERENCE BETWEEN ADJACENT JACKING POINTS SHALL BE 1/4”. TEMPORARY SHIMS OR BLOCKS SHALL BE PLACED BENEATH GIRDER FLANGES DURING THE TIME THAT JACKS ARE SUPPORTING THE LOADS.
2. SOLE PLATES SHALL BE CENTERED UNDER GIRDER FLANGE AND BEARING STIFFENERS PRIOR TO FIELD WELDING, ADJUSTMENT FOR TEMPERATURE IS NOT REQUIRED.



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PROPOSED BRIDGE
PRESERVATION
PHASE 3

AGAWAM /
WEST SPRINGFIELD

VIETNAM VETERANS
MEMORIAL BRIDGE

BRIDGE STREET
OVER
WESTFIELD RIVER
A-05-003 = W-21-013
(OKX)

MARK	DATE	DESCRIPTION
PROJECT NO:		W1975-059
DATE:		MARCH 2025
FILE:		W1975-059-20-P3-G-GENERAL NOTES.dwg
DRAWN BY:		JHM
DESIGNED/CHECKED BY:		AML
APPROVED BY:		JRI

GENERAL NOTES

SCALE:	NO SCALE
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SHEET 3 OF 13

COMMONWEALTH OF MASSACHUSETTS
MassDOT, Highway Division
APPROVED UNDER PROVISIONS OF
MASS. GEN. LAWS CH 85 § 35

DISTRICT 2 BRIDGE ENGINEER

DATE

Last Saved: 3/5/2025 10:05:42 AM
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Title & Bond: Tighe & Bond\Users\james.lee@tighebond.com\data\usda\projects\W1975-059-20-P3-G-GENERAL NOTES.dwg

GENERAL SYMBOLS

EXISTING	PROPOSED	DESCRIPTION
BM #		BENCHMARK
		BOUND (CONC, STONE, LAND COURT, ETC.)
		CATCH BASIN - SQUARE
		DISK (CA/T, USC&GS, LAND COURT, ETC.)
		DRAIN MANHOLE
		ELECTRIC MANHOLE
		ELECTRIC METER
		FLASHING BEACON
		GAS GATE
		GAS METER
		GUY WIRE ANCHOR
		RAILROAD SIGNAL
		RAILROAD SWITCH
		SEWER MANHOLE
		TRAVERSE POINT
		TREE
		SIGN
		SIGN - DOUBLE POST
		UTILITY POLE W/ LIGHT
		UTILITY POLE
		WATER MANHOLE
		WATER GATE
		WETLAND FLAG
		OVERHEAD CABLE/WIRE
		CURBING
		CONTOURS (ON-THE-GROUND SURVEY DATA)
		UNDERGROUND DRAIN PIPE (DOUBLE LINE 24 INCH AND OVER)
		UNDERGROUND ELECTRIC DUCT (DOUBLE LINE 24 INCH AND OVER)
		UNDERGROUND GAS MAIN (DOUBLE LINE 24 INCH AND OVER)
		BALANCED STONE WALL
		GUARD RAIL - STEEL POSTS
		EROSION CONTROL BARRIER
		TREE LINE
		BANK OF RIVER
		MHW (MEAN HIGH WATER)
		100-FT BUFFER ZONE
		200-FT RIVERFRONT AREA
		TOWN OR CITY BOUNDARY LINE
		PROPERTY LINE OR APPROXIMATE PROPERTY LINE
		EASEMENT
		LIMITS OF NATURAL HERITAGE
		10-YEAR FLOOD ELEVATION
		100-YEAR FLOOD ELEVATION

ABBREVIATIONS

GENERAL	
ABAN	ABANDON
APPROX.	APPROXIMATE
A.C.	ASPHALT CONCRETE
AC	ASBESTOS CEMENT
ASB	ASBESTOS
BOMO	BOLT OVER MAIN OUTLET
BIT.	BITUMINOUS
BC	BOTTOM OF CURB
BD.	BOUND
BL	BASELINE
BLDG	BUILDING
BM	BENCHMARK
BR	BRIDGE
CB	CATCH BASIN
CC	CEMENT CONCRETE CURB
CCM	CEMENT CONCRETE MASONRY
CEM	CEMENT
CI	CURB INLET
CIP	CAST IRON PIPE
CLF	CHAIN LINK FENCE
CL	CENTERLINE
CLF	CHAIN LINK FENCE
CONC	CONCRETE
CPP	CORRUGATED PLASTIC PIPE
CRW	CONCRETE RETAINING WALL
DBYL	DOUBLE YELLOW LINE
DI	DUCTILE IRON
DMH	DRAIN MANHOLE
DSK	DISK
DIA.	DIAMETER
ELEV (or EL.)	ELEVATION
EMH	ELECTRIC MANHOLE
EOP (or EP)	EDGE OF PAVEMENT
EHH	ELECTRICAL HANDHOLE
FM	FORCED MAIN
FOD	FULL OF DEBRIS
GR	GUARDRAIL
GRAV	GRAVEL
HMA	HOT MIX ASPHALT
HS	HIGH STRENGTH
HYD	HYDRANT
INV	INVERT
MAG	MAG NAIL
MH	MANHOLE
MHW	MEAN HIGH WATER
N/F	NOW OR FORMERLY
MPV	NO PIPE VISIBLE
OHW	OVERHEAD WIRE
PK	PK NAIL
PL	PROPERTY LINE
RCP	REINFORCED CONCRETE PIPE
RET	RETAINING
RRS	RAILROAD SPIKE
R&D	REMOVE AND DISPOSE
SGE	SLOPED GRANITE EDGING
UTO	UNABLE TO OBSERVE
SMH	SEWER MANHOLE
SPK	SPIKE
SRW	STONE RETAINING WALL
STA	STATION
SWL	SOLID WHITE LINE
VC	VITRIFIED CLAY PIPE
VGC	VERTICAL GRANITE CURB
WDP	WARNING DETECTION PAD

WL

WATER LEVEL

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PROPOSED BRIDGE
PRESERVATION
PHASE 3

AGAWAM /
WEST SPRINGFIELD

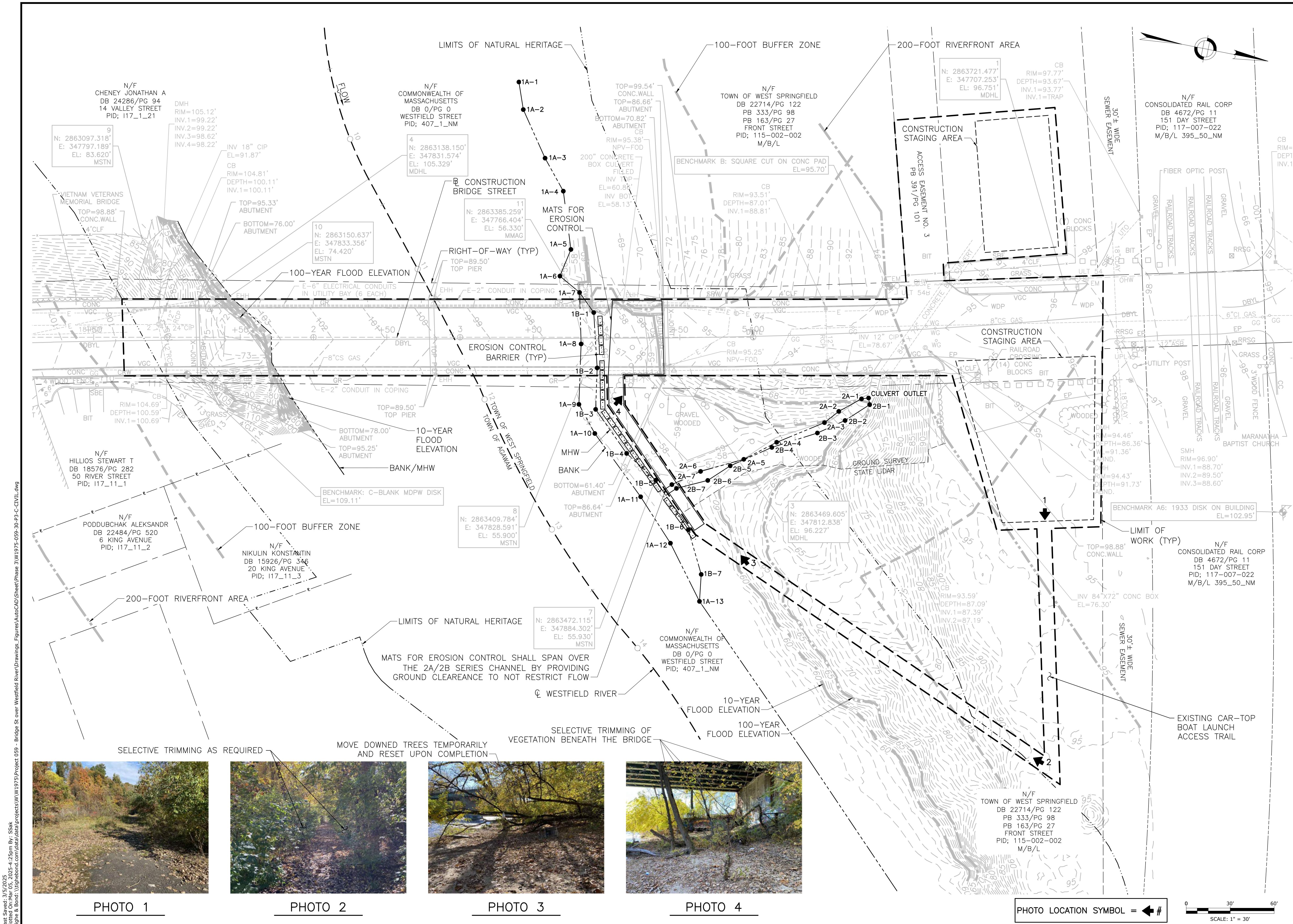
VIETNAM VETERANS
MEMORIAL BRIDGE

BRIDGE STREET
OVER
WESTFIELD RIVER
A-05-003 = W-21-013
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LEGEND & ABBREVIATIONS

SCALE: NO SCALE



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PROPOSED BRIDGE PRESERVATION PHASE 3

AGAWAM / WEST SPRINGFIELD

VIETNAM VETERANS MEMORIAL BRIDGE

BRIDGE STREET OVER WESTFIELD RIVER
A-05-003 = W-21-013 (OKX)

MARK	DATE	DESCRIPTION
PROJECT NO:	W1975-059	
DATE:	MARCH 2025	
FILE:	W1975-059-30-P3-C-CIVIL.dwg	
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DESIGNED/CHECKED BY:	AML	
APPROVED BY:	JRI	

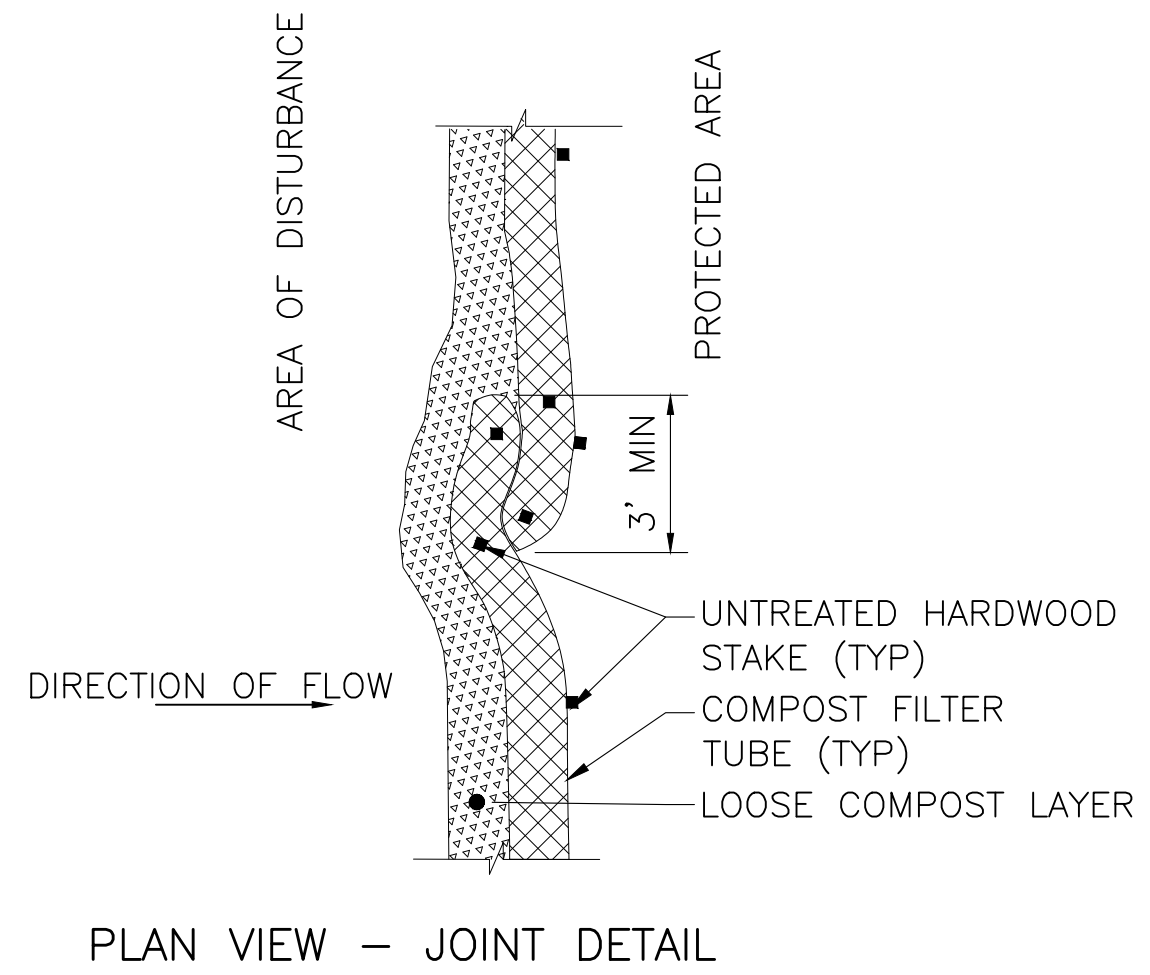
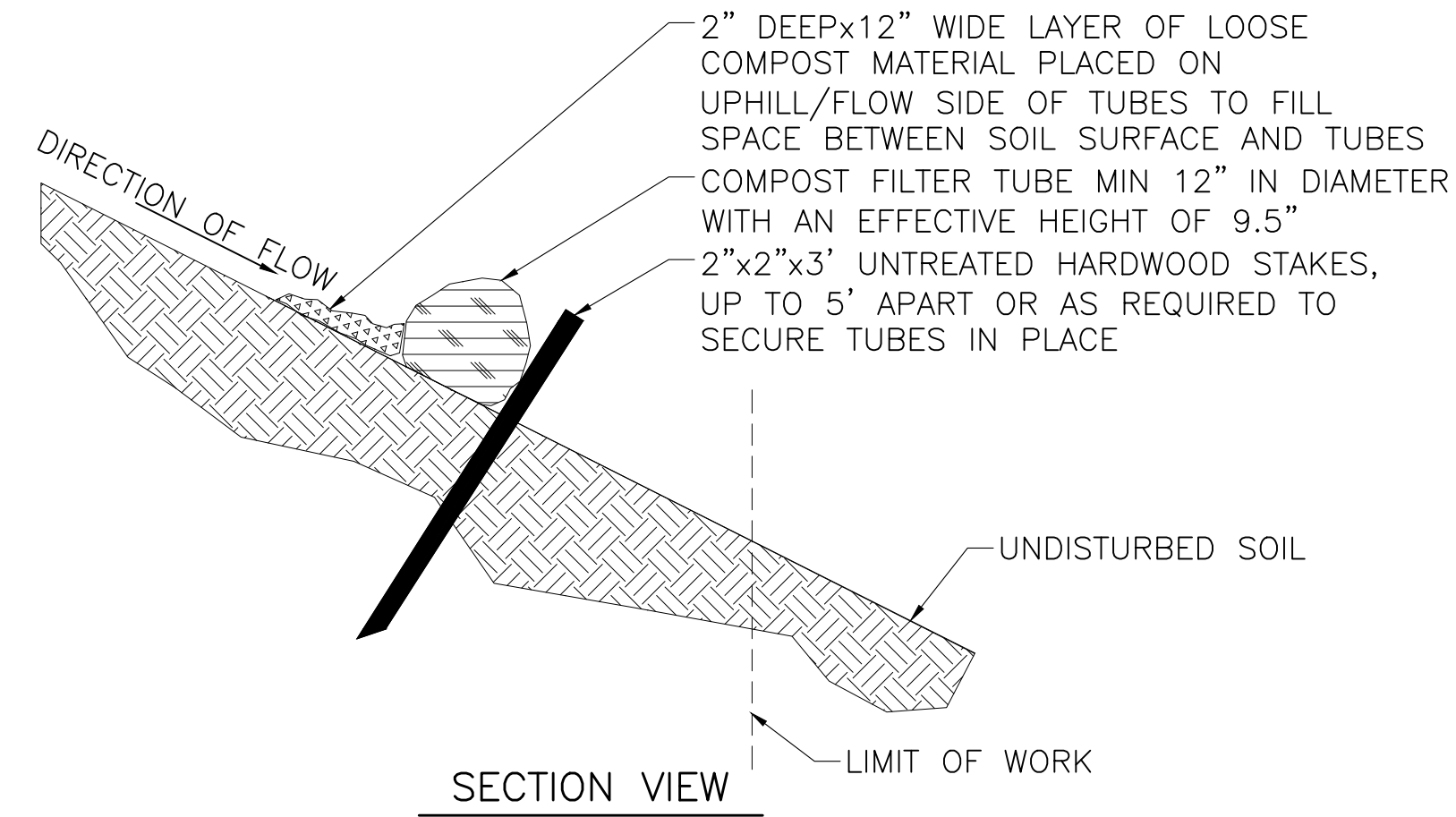
EXISTING CONDITIONS & CONSTRUCTION STAGING PLAN

SCALE: 1" = 30'

SHEET 5 OF 13

1. ALL EROSION CONTROL MEASURES SHOWN, SPECIFIED AND REQUIRED BY THE ENGINEER SHALL BE INSTALLED PRIOR TO ANY CONSTRUCTION OR IMMEDIATELY UPON REQUEST. MAINTAIN ALL SUCH CONTROL MEASURES UNTIL FINAL SURFACE TREATMENTS ARE IN PLACE AND/OR UNTIL PERMANENT VEGETATION IS ESTABLISHED.
2. MAINTAIN AN ADDITIONAL SUPPLY OF EROSION CONTROL MEASURES THROUGHOUT THE CONSTRUCTION PERIOD.
3. PRIOR TO STARTING WORK, CLEARLY STAKE WORK LIMIT LINE(S). DO NOT DISTURB VEGETATION AND TOPSOIL BEYOND THE NEW LIMIT LINE. COORDINATE WITH THE ENGINEER THE LOCATIONS FOR THE TEMPORARY STOCKPILING OF TOPSOIL DURING CONSTRUCTION.
4. SIDE SLOPES, AND DISTURBED VEGETATED AREAS, SHALL BE A MAXIMUM GRADE OF 2:1 COMPACTED, STABILIZED, LOAMED AND SEEDED AS SHOWN ON DRAWINGS. SIDE SLOPES SHALL BE IMMEDIATELY FINE GRADED AND SEEDED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS.
5. SILT TRAPPED AT BARRIERS SHALL BE REMOVED AND DISPOSED OF IN UPLAND AREAS OUTSIDE BUFFER ZONES. MATERIALS DEPOSITED IN ANY TEMPORARY SETTLING BASIN SHALL BE REMOVED AT THE COMPLETION OF THE PROJECT. ALL DISTURBED AREAS SHALL BE RESTORED.
6. INSTALL EROSION CONTROLS AT THE EDGE OF NEW WORK. EROSION CONTROLS SHALL ACT AS LIMIT OF WORK LINE TO HELP ENSURE THAT EQUIPMENT DOES NOT DISTURB ADJACENT PROPERTIES.
7. ADDITIONAL EROSION CONTROLS MAY BE REQUIRED TO LIMIT SEDIMENTS FROM DISCHARGING TO ADJACENT PROPERTIES OR WATERWAYS.
8. PROPERLY STABILIZE AND PROTECT TEMPORARY STOCKPILES OF MATERIALS RELATED TO THE CONSTRUCTION ACTIVITIES TO LIMIT MOVEMENT OF MATERIAL ONTO ADJACENT PARCELS, OR INTO THE STREAM.
9. STABILIZE THE AREAS OF CONSTRUCTION ACTIVITIES AT THE CLOSE OF EACH CONSTRUCTION DAY. CHECK EROSION CONTROLS AT THIS TIME AND MAINTAIN OR REINFORCE IF NECESSARY
10. PROTECT NEW WORK FROM FLOODING. PROPERLY SLOPE GRADING IN THE AREAS SURROUNDING ALL EXCAVATIONS TO LIMIT WATER FROM RUNNING INTO THE EXCAVATED AREA OR TO ADJACENT PROPERTIES. UPON COMPLETION OF THE WORK, RESTORE ALL AREAS IN A SATISFACTORY MANNER.
11. ALL SILT-LADEN WATER MUST BE SETTLED OR FILTERED TO REMOVE ALL SEDIMENTS PRIOR TO RELEASE TO AN UPLAND AREA, IN A SEDIMENTATION OR FILTER BAG LOCATED DOWN GRADIENT.
12. DEWATER AS NECESSARY TO KEEP CONSTRUCTION AREAS FREE OF WATER, DISCHARGE WATER FROM DEWATERING TO APPROPRIATE UPLAND LOCATION AND WITHOUT SEDIMENT (SEE DEWATERING REQUIREMENTS).
13. AT THE END OF EACH WORK DAY, ANY SEDIMENTS TRACKED ONTO PUBLIC RIGHTS-OF-WAY BEYOND THE PROJECT LIMITS SHALL BE SWEEPED.

1. PROVIDE A MINIMUM TUBE DIAMETER OF 12" FOR SLOPES UP TO 50' IN LENGTH WITH A SLOPE RATIO OF 3H:1V OR STEEPER. LONGER SLOPES OF 3H:1V MAY REQUIRE LARGER TUBE DIAMETER OR ADDITIONAL COURSING OF FILTER TUBES TO CREATE A FILTER BERM. REFER TO MANUFACTURER'S RECOMMENDATIONS FOR SITUATION WITH LONGER SLOPES OR STEEPER SLOPES.
2. INSTALL TUBES ALONG CONTOURS AND PERPENDICULAR TO SHEET OR CONCENTRATED FLOW.
3. DO NOT INSTALL IN PERENNIAL, EPHEMERAL OR INTERMITTENT STREAMS.
4. CONFIGURE TUBES AROUND EXISTING SITE FEATURES TO MINIMIZE SITE DISTURBANCE AND MAXIMIZE CAPTURE AREA OF STORMWATER RUN-OFF.
5. TUBES FOR COMPOST FILTERS SHALL BE JUTE MESH OR APPROVED BIODEGRADABLE MATERIAL. ADDITIONAL TUBES SHALL BE USED AT THE DIRECTION OF THE ENGINEER.
6. TAMP TUBES IN PLACE TO ENSURE GOOD CONTACT WITH SOIL SURFACE. IT IS NOT NECESSARY TO TRENCH TUBES INTO EXISTING GRADE.
7. WHEN STAKING IS NOT POSSIBLE, SUCH AS WHEN TUBES MUST BE PLACED ON PAVEMENT, HEAVY CONCRETE OR CINDER BLOCKS CAN BE USED BEHIND TUBES UP TO 5' APART OR AS REQUIRED TO SECURE TUBES IN PLACE.
8. PROVIDE 3' MINIMUM OVERLAP AT ENDS OF TUBES TO JOIN IN A CONTINUOUS BARRIER AND MINIMIZE UNIMPEDED FLOW.
9. STAKE JOINING TUBES SNUGLY AGAINST EACH OTHER TO PREVENT UNFILTERED FLOW BETWEEN THEM.
10. SECURE ENDS OF TUBES WITH STAKES SPACED 18" APART THROUGH TOPS OF TUBES.



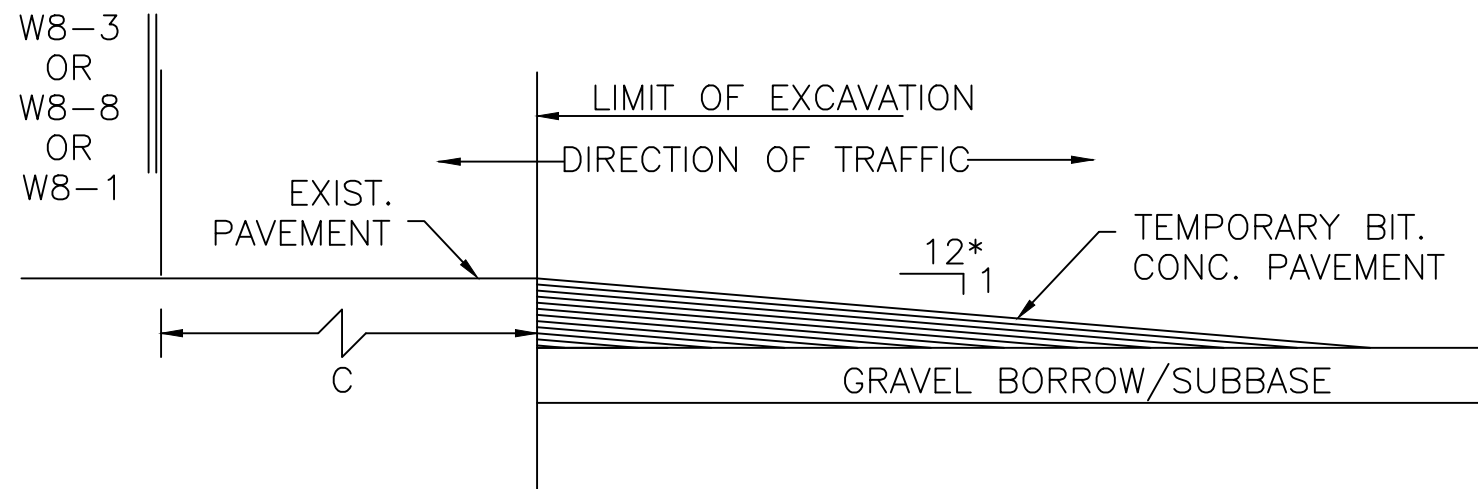
COMPOST FILTER TUBES

NOT TO SCALE

Last Saved: 3/5/2025
 Printed On: 3/5/2025 4:25pm By: JSAK
 Title & Content: \\g:\external\com\data\area\Projects\WV\W1975\Project_059 - Bridge St. over Westfield River\Drawings - Figures\AutoCAD\Sheet\Phase 3\W1975-059-50-P3-T-TTCP.dwg

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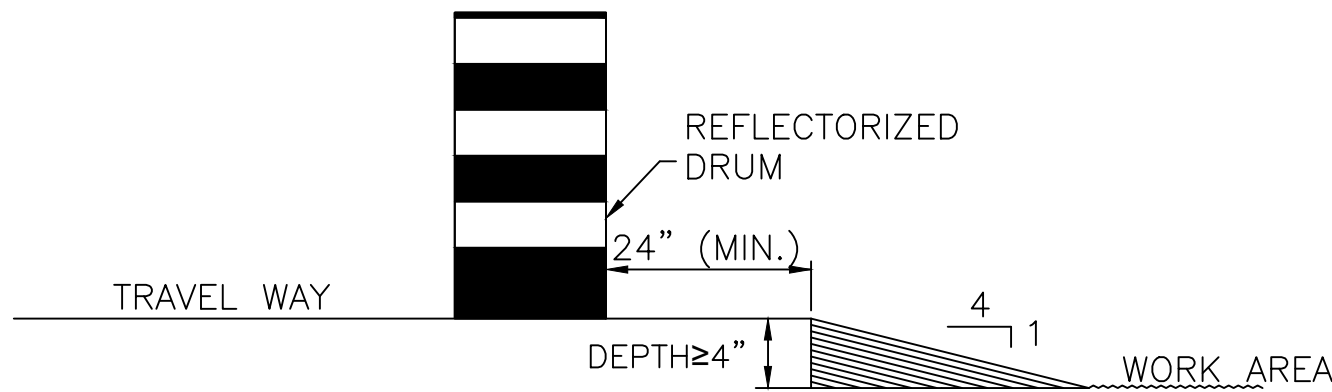
- ALL TEMPORARY TRAFFIC CONTROL WORK SHALL CONFORM TO THE LATEST EDITION OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD) AND ALL REVISIONS.
- ALL SIGN LEGENDS, BORDERS, AND MOUNTING SHALL BE IN ACCORDANCE WITH THE MUTCD.
- SIGNS AND SIGN SUPPORTS LOCATED ON OR NEAR THE TRAVELED WAY, CHANNELIZING DEVICES, BARRIERS, AND CRASH ATTENUATORS MUST PASS THE CRITERIA SET FORTH IN NCHRP REPORT 350, "RECOMMENDED PROCEDURES FOR THE SAFETY PERFORMANCE EVALUATION OF HIGHWAY FEATURES" AND/OR "MANUAL FOR ASSESSING SAFETY HARDWARE" (MASH).
- PORTABLE CHANGEABLE MESSAGE SIGN TO BE IN PLACE TWO WEEKS PRIOR TO ROAD CLOSURE TO PROVIDE ADVANCED NOTICE.
- THE CONTRACTOR SHALL PROVIDE ALL SIGNATURE, BARRICADES, POLICE DETAILS AND OTHER CONTROLS AS REQUIRED FOR TRAFFIC CONTROL.
- TEMPORARY CONSTRUCTION SIGNING AND ALL OTHER TRAFFIC CONTROL DEVICES SHALL BE IN PLACE PRIOR TO THE START OF ANY WORK.
- TEMPORARY CONSTRUCTION SIGNING, BARRICADES, AND ALL OTHER NECESSARY WORK ZONE TRAFFIC CONTROL DEVICES SHALL BE REMOVED FROM THE HIGHWAY OR COVERED WHEN THEY ARE NOT REQUIRED FOR CONTROL OF TRAFFIC.
- THE FIRST FIVE PLASTIC DRUMS OF A TAPER SHALL BE MOUNTED WITH TYPE A LIGHTS.
- THE ADVISORY SPEED LIMIT, IF REQUIRED, SHALL BE DETERMINED BY THE ENGINEER.
- DISTANCES ARE A GUIDE AND MAY BE ADJUSTED IN THE FIELD BY THE ENGINEER.
- MAXIMUM SPACING OF TRAFFIC DEVICES IN A TAPER (DRUMS OR CONES) IS EQUAL IN FEET TO THE SPEED LIMIT IN MPH.
- MINIMUM LANE WIDTH IS TO BE 10 FEET UNLESS OTHERWISE SHOWN. MINIMUM LANE WIDTH TO BE MEASURED FROM THE EDGE OF DRUMS OR MEDIAN BARRIER.
- ALL SIGNS SHALL BE MOUNTED ON THEIR OWN STANDARD SIGN SUPPORTS.
- CONTACT THE TOWN OF SPRINGFIELD AND AGAWAM AT LEAST TWO WEEKS PRIOR TO PLANNED IMPLEMENTATION OF THE ROAD CLOSURE.
- NOTIFY EACH ABUTTER AT LEAST 24 HOURS IN ADVANCE OF THE START OF ANY WORK THAT WILL REQUIRE THE TEMPORARY CLOSURE OF ACCESS, SUCH AS CONDUIT INSTALLATION, EXISTING PAVEMENT EXCAVATION, TEMPORARY DRIVEWAY PAVEMENT PLACEMENT, AND SIMILAR OPERATIONS.
- DURING ALL CONSTRUCTION ACTIVITIES ON THE ROADWAYS, ONE LANE ALTERNATING TRAFFIC FLOW SHALL BE MAINTAINED.
- FULL ROADWAY WIDTH MUST BE RETURNED AT THE END OF EACH ROAD DAY.
- THE NUMBER OF POLICE OFFICERS AT ANY LOCATION IS TO BE DETERMINED BY THE TOWNS OF WEST SPRINGFIELD AND AGAWAM.
- ONE LANE TRAFFIC FLOW SHALL BE REQUIRED DURING ALL OPERATIONS WHICH REDUCE DRIVE LANE(S) LESS THAN 12'.
- HALF WIDTH CONSTRUCTION METHODS SHALL BE UTILIZED FOR ROAD EXCAVATION. BASE PREPARATION, AND PAVING OPERATIONS.
- AS CONSTRUCTION OPERATIONS CHANGE, SO SHALL WARNING SIGNS. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING AND ARRANGING SIGNS AS CONSTRUCTION VARIES AND PROCEEDS.



LONGITUDINAL DROP-OFF DETAIL

NOT TO SCALE

* - INCREASE SLOPE RATIO FOR HIGHER SPEEDS



LATERAL DROP-OFF DETAIL

NOT TO SCALE

LEGEND:

- REFLECTORIZED PLASTIC DRUM OR 36" CONE
- P/F POLICE/FLAGGER DETAIL
- TYPE III BARRICADE
- PORTABLE CHANGEABLE MESSAGE SIGN (PCMS)
- ARROW BOARD
- WORK ZONE
- DIRECTION OF TRAFFIC
- IMPACT ATTENUATOR
- MEDIAN BARRIER
- MEDIAN BARRIER WITH WARNING LIGHTS
- WORK VEHICLE
- TRUCK MOUNTED ATTENUATOR
- TRAFFIC OR PEDESTRIAN SIGNAL
- SIGN

FORMULAS FOR DETERMINING TAPER LENGTHS:

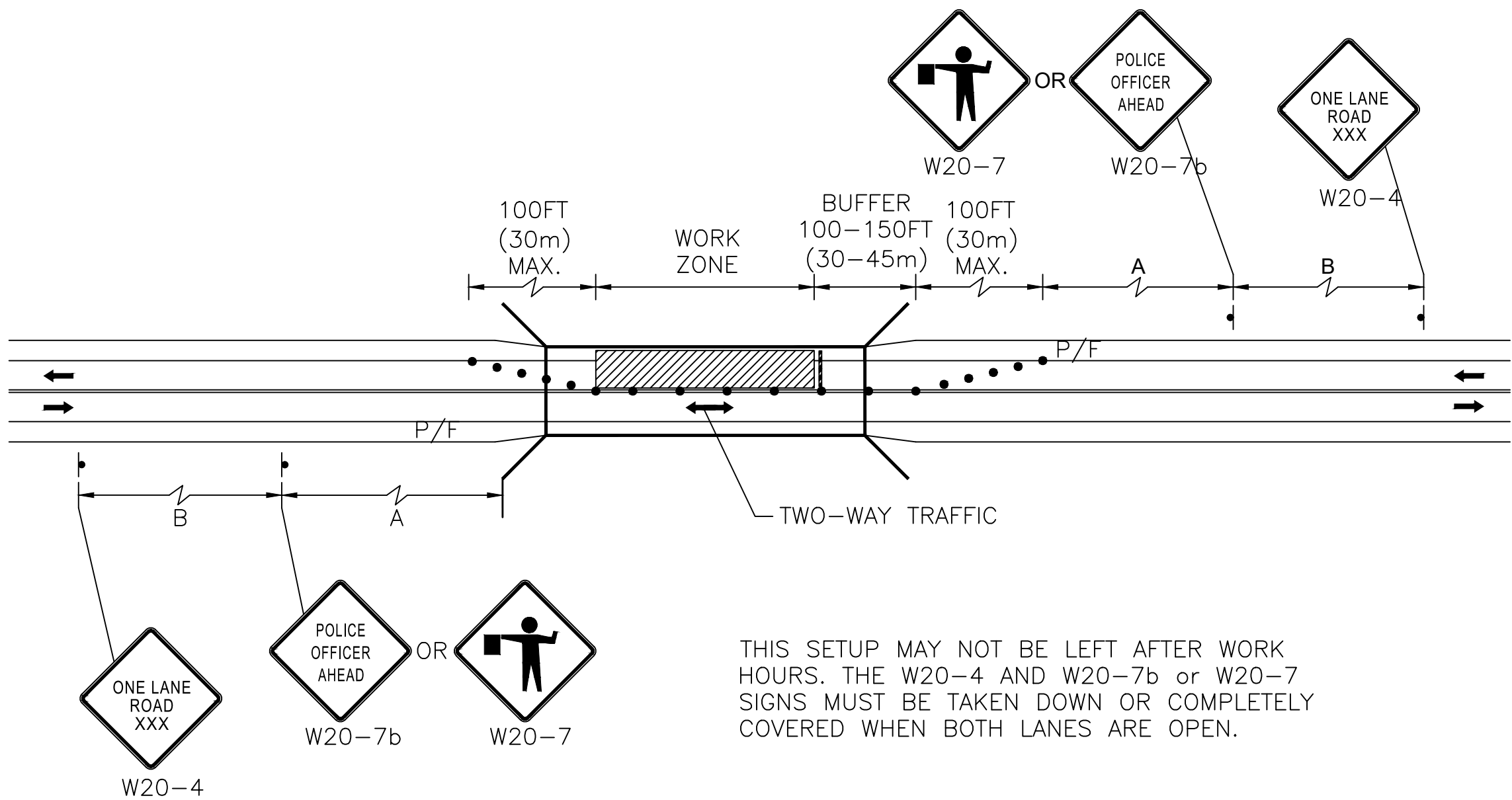
SPEED LIMIT (S)	
40 MPH OR LESS	$L = \frac{WS^2}{60}$
45 MPH OR MORE	$L = WS$

WHERE:

L = TAPER LENGTH IN FEET
W = WIDTH OF OFFSET IN FEET

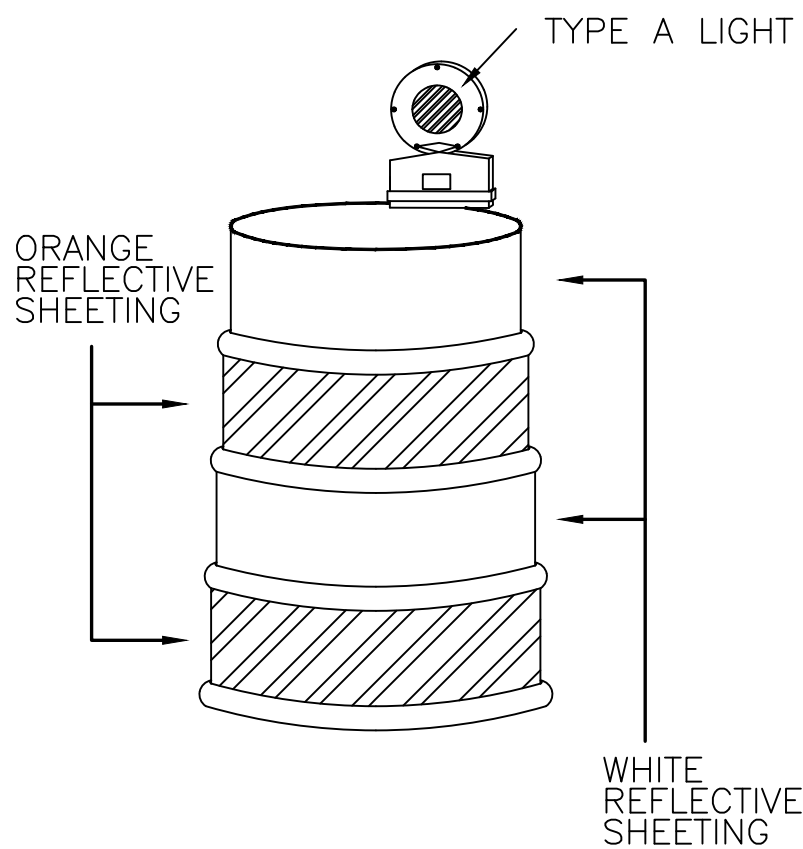
S = POSTED SPEED LIMIT, OR OFF-PEAK 85TH-PERCENTILE SPEED PRIOR TO WORK STARTING, OR THE ANTICIPATED OPERATING SPEED IN MPH

TAPER LENGTH (L)
FEET



SINGLE LANE ALTERNATIVE TRAFFIC

NOT TO SCALE



PLASTIC DRUMS

NOTES:

- DRUM DESIGN AND APPLICATION SHALL BE AS PER THE CURRENT EDITION OF THE MUTCD.
- DRUMS SHALL BE APPROXIMATELY 36" IN HEIGHT, HAVING A MINIMUM WALL THICKNESS OF 3/32" AND A MINIMUM DIAMETER OF 18" REGARDLESS OF ORIENTATION.
- DRUM MATERIAL MUST BE APPROVED UV RESISTANT, LOW DENSITY, IMPACT RESISTANT, LINEAR POLYETHYLENE (OR APPROVED EQUIVALENT).
- SHEETING SHALL BE APPROVED ORANGE AND WHITE TYPE IV REFLECTORIZED SHEETING CONFORMING TO M9.30.0.
- ALL DRUMS SHALL BE WELL MAINTAINED INCLUDING REMOVAL OF DUST OR ROAD FILM, SO AS NOT TO REDUCE REFLECTIVE EFFICIENCY. WHEN A DRUM LOSES TARGET VALUE IT SHALL BE REPLACED.
- STORE UNUSED DRUMS IN ONE LOCATION, AWAY FROM ALL TRAFFIC, OR REMOVE FROM SITE ENTIRELY.

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PROPOSED BRIDGE PRESERVATION PHASE 3

AGAWAM / WEST SPRINGFIELD

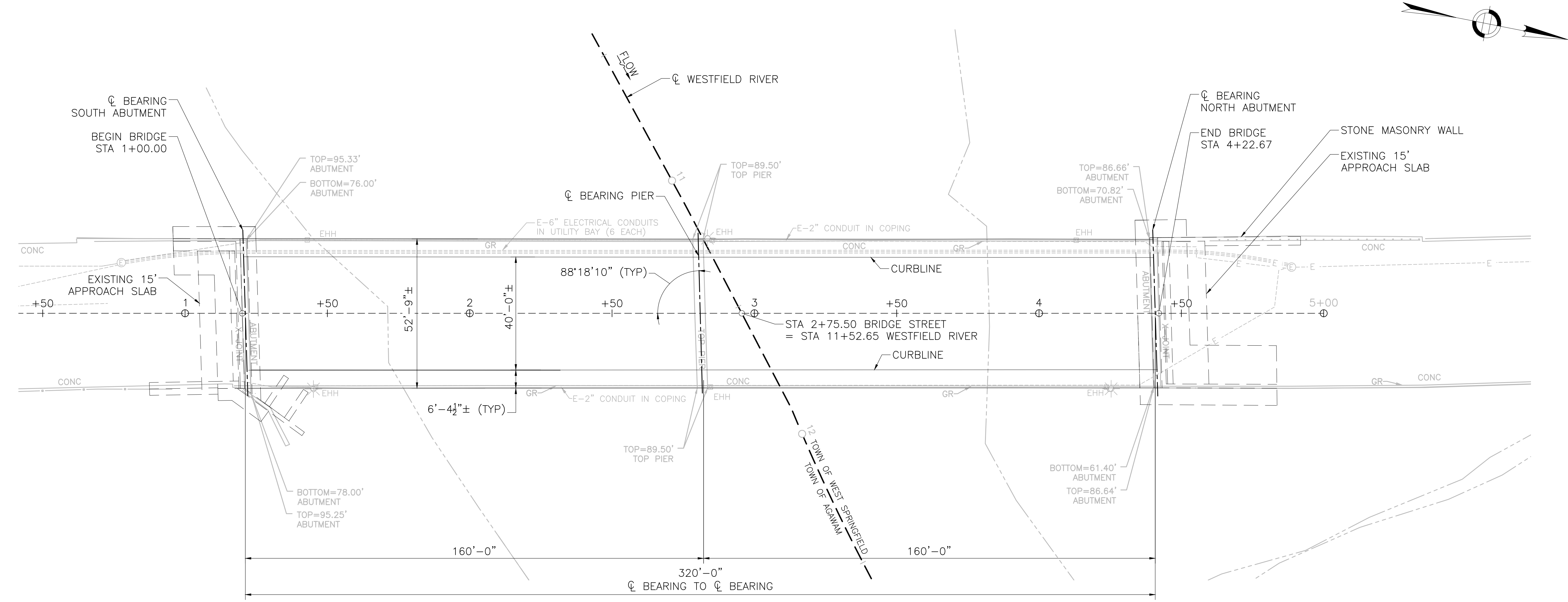
VIETNAM VETERANS MEMORIAL BRIDGE

BRIDGE STREET OVER WESTFIELD RIVER
A-05-003 = W-21-013 (OKX)

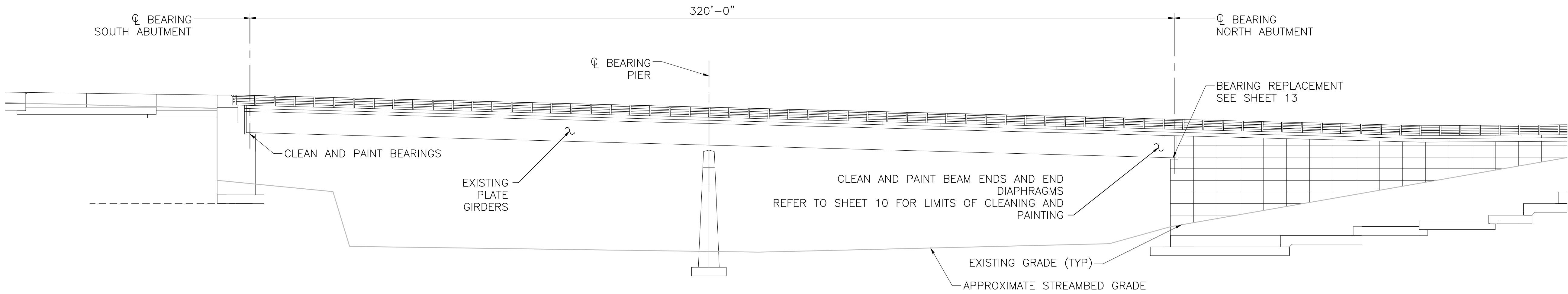
MARK	DATE	DESCRIPTION
PROJECT NO:	W1975-059	
DATE:	MARCH 2025	
FILE:	W1975-059-50-P3-T-TTCP.dwg	
DRAWN BY:	JHM	
DESIGNED/CHECKED BY:	AML	
APPROVED BY:	JRI	

TEMPORARY TRAFFIC CONTROL PLAN

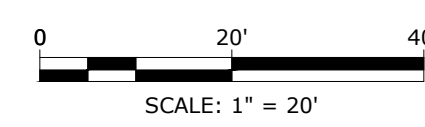
SCALE: NO SCALE



GENERAL BRIDGE PLAN
SCALE: 1" = 20'



EAST ELEVATION
SCALE: 1" = 20'



COMMONWEALTH OF MASSACHUSETTS
MassDOT, Highway Division
**APPROVED UNDER PROVISIONS OF
MASS. GEN. LAWS CH 85 § 35**
DISTRICT 2 BRIDGE ENGINEER DATE

90% SUBMITTAL

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PROPOSED BRIDGE
PRESERVATION
PHASE 3

AGAWAM /
WEST SPRINGFIELD

VIETNAM VETERANS
MEMORIAL BRIDGE

BRIDGE STREET
OVER
WESTFIELD RIVER
A-05-003 = W-21-013
(OKX)

MARK	DATE	DESCRIPTION
PROJECT NO:	W1975-059	
DATE:	MARCH 2025	
FILE:	W1975-059-60-P3-S-PLAN.dwg	
DRAWN BY:	JHM	
DESIGNED/CHECKED BY:	AML	
APPROVED BY:	JRI	

GENERAL BRIDGE PLAN &
ELEVATION

SCALE: 1" = 20'

AGAWAM /
WEST SPRINGFIELD

BRIDGE STREET
OVER
WESTFIELD RIVER
A-05-003 = W-21-011
(0KX)

[illegible]

MARK	DATE	DESCRIPTION
PROJECT NO:	W1975-059	
DATE:	MARCH 2025	
FILE:	W1975-059-60-P3-S-BRIDGE SEAT.d	
DRAWN BY:	JHM	
DESIGNED/CHECKED BY:	AML	
APPROVED BY:	JRI	

SCALE: AS SHOW

SHEET 9 OF 13



SCALE: $1\frac{1}{2}" = 1'-0"$

1. ALL BEARINGS ON SOUTH ABUTMENT SHALL BE CLEANED AND PAINTED.



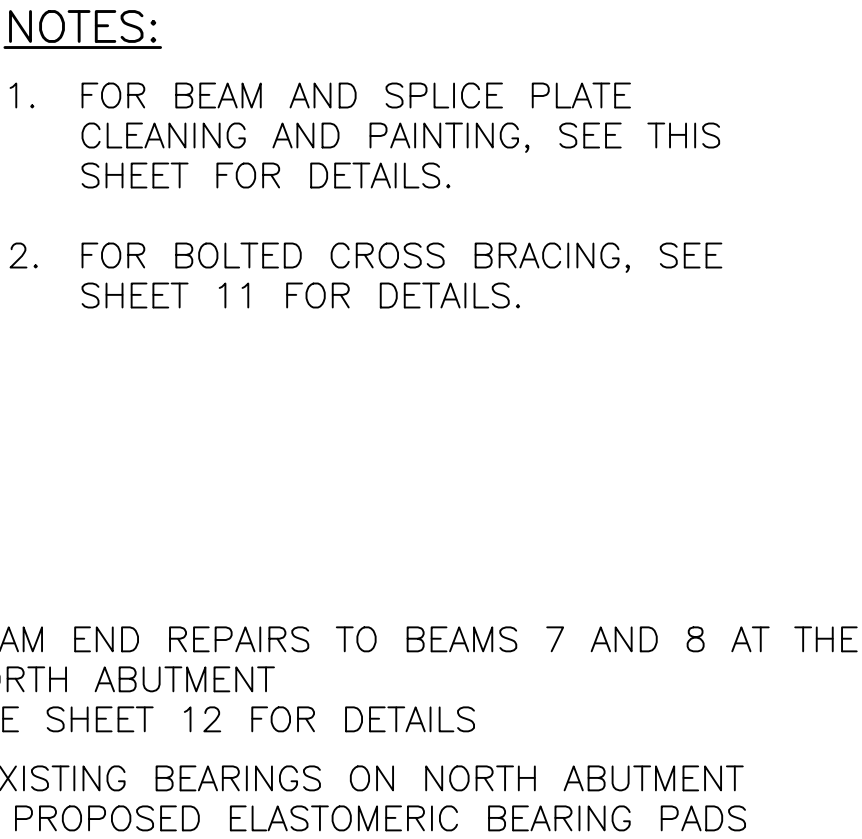
SCALE: 3" = 1'-0"

1. ALL BEARINGS ON NORTH ABUTMENT ONLY ARE TO BE REPLACED.

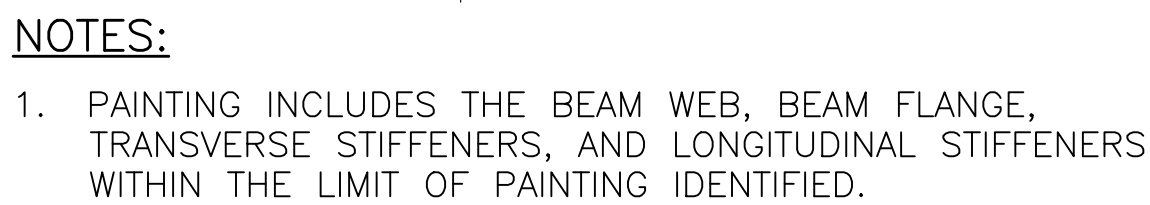
COMMONWEALTH OF MASSACHUSETTS
MassDOT, Highway Division
APPROVED UNDER PROVISIONS OF
MASS. GEN. LAWS CH 85 S 35

DISTRICT 2 BRIDGE ENGINEER

DAT



SCALE: $\frac{1}{16}" = 1'-0"$



SCALE: $\frac{3}{8}" = 1'-0"$



SCALE: $\frac{3}{8}" = 1'-0"$

FRAMING PLAN,
ELEVATION, & STEEL BEAM
REPAIR DETAILS

SCALE: AS SHOWN

SCALE: AS SHOWN

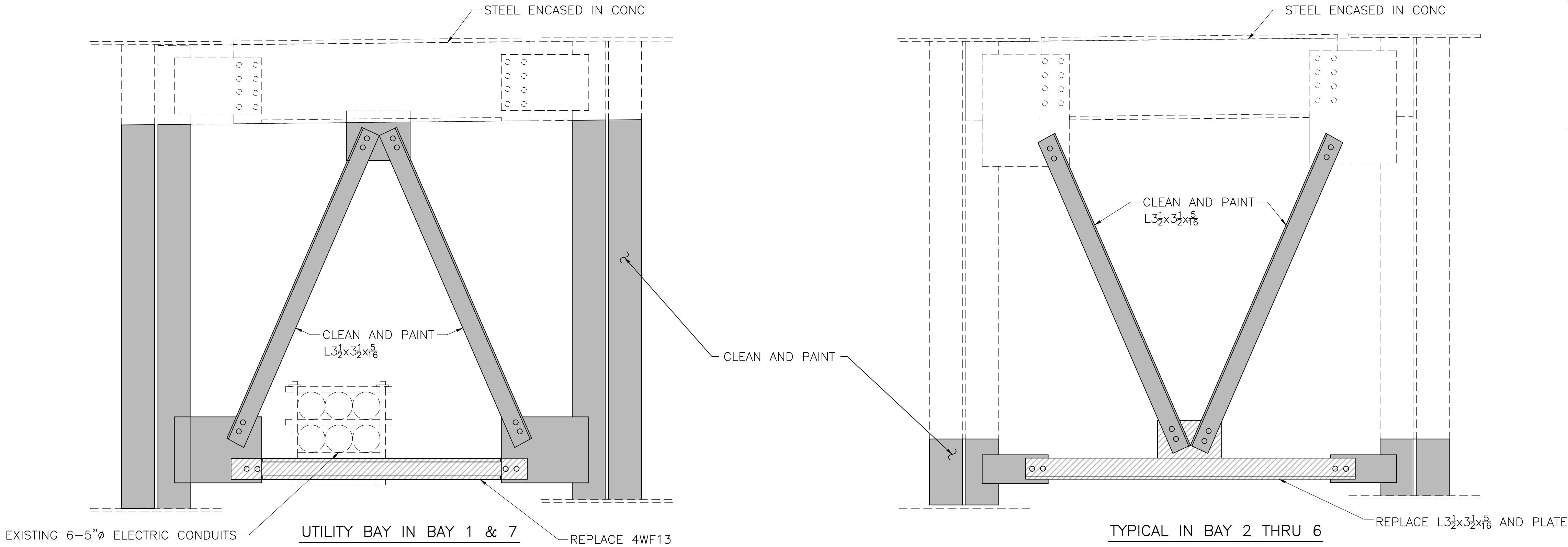
Page 83 of 104

LEGEND:

1.  INDICATES STEEL TO BE DEMOLISHED AND REPLACED.
2.  INDICATES APPROXIMATE AREAS OF STEEL TO BE CLEANED AND PAINTED.

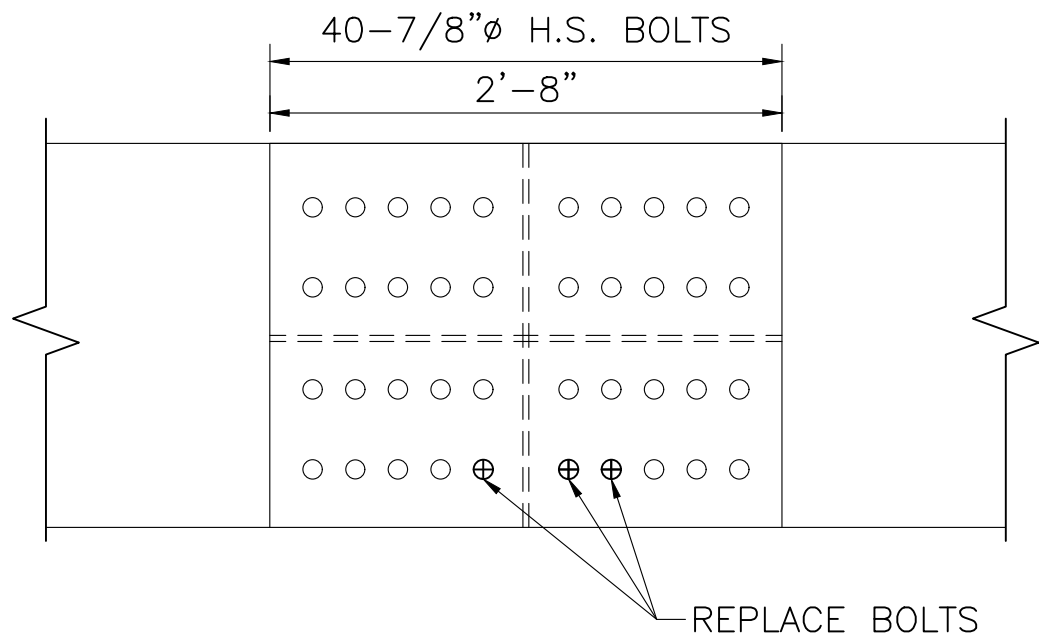
NOTES:

1. CONTRACTOR TO FIELD VERIFY AND COORDINATE PLATES TO BE REPLACED WITH ENGINEER ON SITE.



BOLTED CROSS BRACING DETAILS (END DIAPHRAGM)

NOT TO SCALE



PLAN (BOTTOM)

FIELD SPLICE DETAIL

SCALE: 1" = 1'-0"

LEGEND:

- EXIST 7/8"Ø H.S. BOLTS TO REMAIN
- ⊕ EXIST 7/8"Ø H.S.BOLTS TO BE REPLACED

NOTES:

1. REPAIR LOCATED AT SPAN 1, BEAM 8 AND SPAN 2, BEAM 1.
2. ONE AT A TIME REMOVE EXISTING BOLTS AND REPLACE WITH 7/8"Ø H.S. BOLTS.
3. STEEL REPAIRS BEING EVALUATED FOR FINAL DESIGN.
4. EXACT LOCATION OF BOLTS TO BE VERIFIED IN THE FIELD WITH THE ENGINEER.

90% SUBMITTAL

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PROPOSED BRIDGE PRESERVATION PHASE 3

AGAWAM / WEST SPRINGFIELD

VIETNAM VETERANS MEMORIAL BRIDGE

BRIDGE STREET OVER WESTFIELD RIVER
A-05-003 = W-21-013 (OKX)

MARK	DATE	DESCRIPTION
PROJECT NO: W1975-059		
DATE: MARCH 2025		
FILE: W1975-059-62-P3-S-STEEL DTL.dwg		
DRAWN BY: JHM		
DESIGNED/CHECKED BY: AML		
APPROVED BY: JRI		

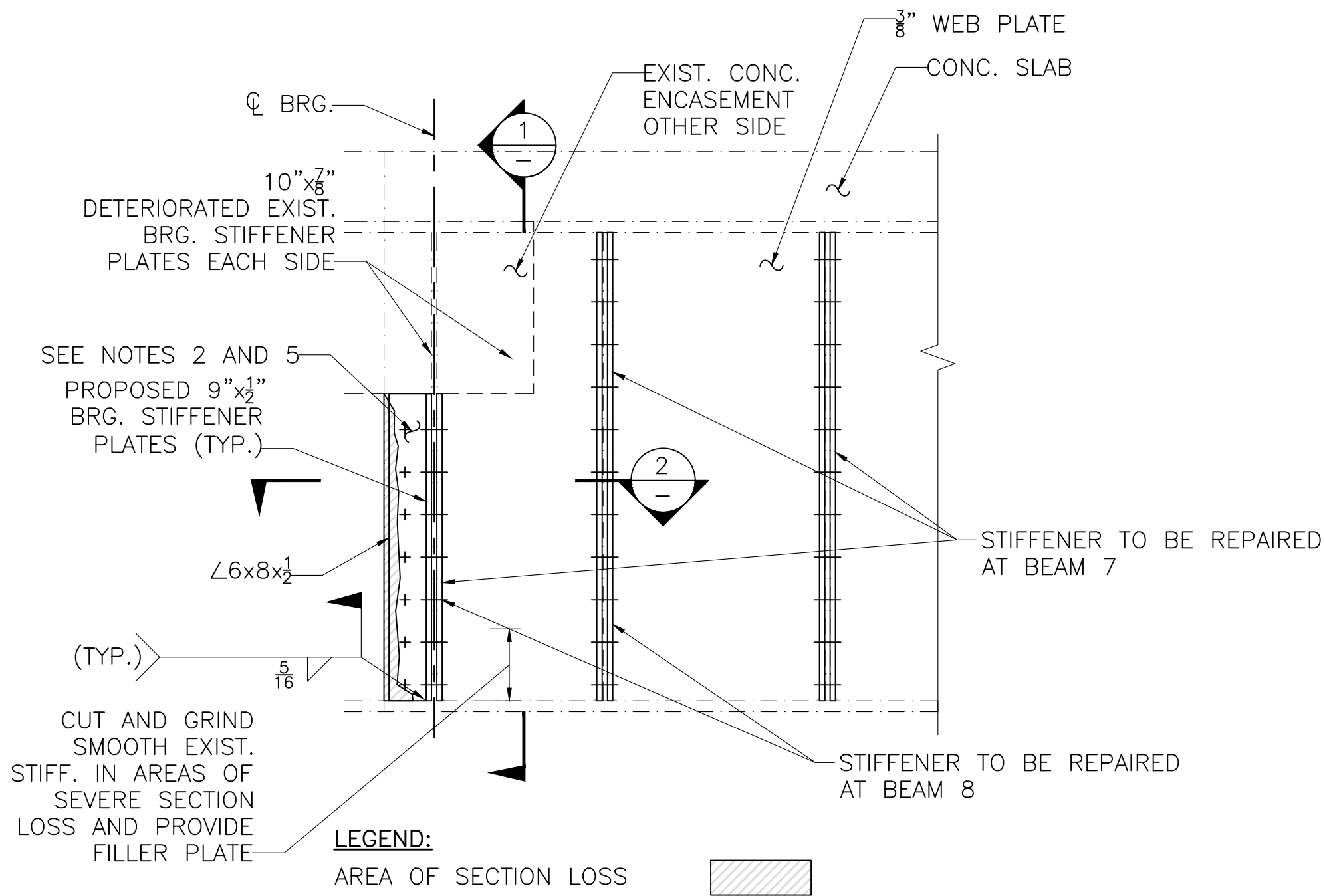
STEEL REPAIR DETAILS

SCALE: AS SHOWN

COMMONWEALTH OF MASSACHUSETTS
MassDOT, Highway Division
APPROVED UNDER PROVISIONS OF
MASS. GEN. LAWS CH 85 § 35

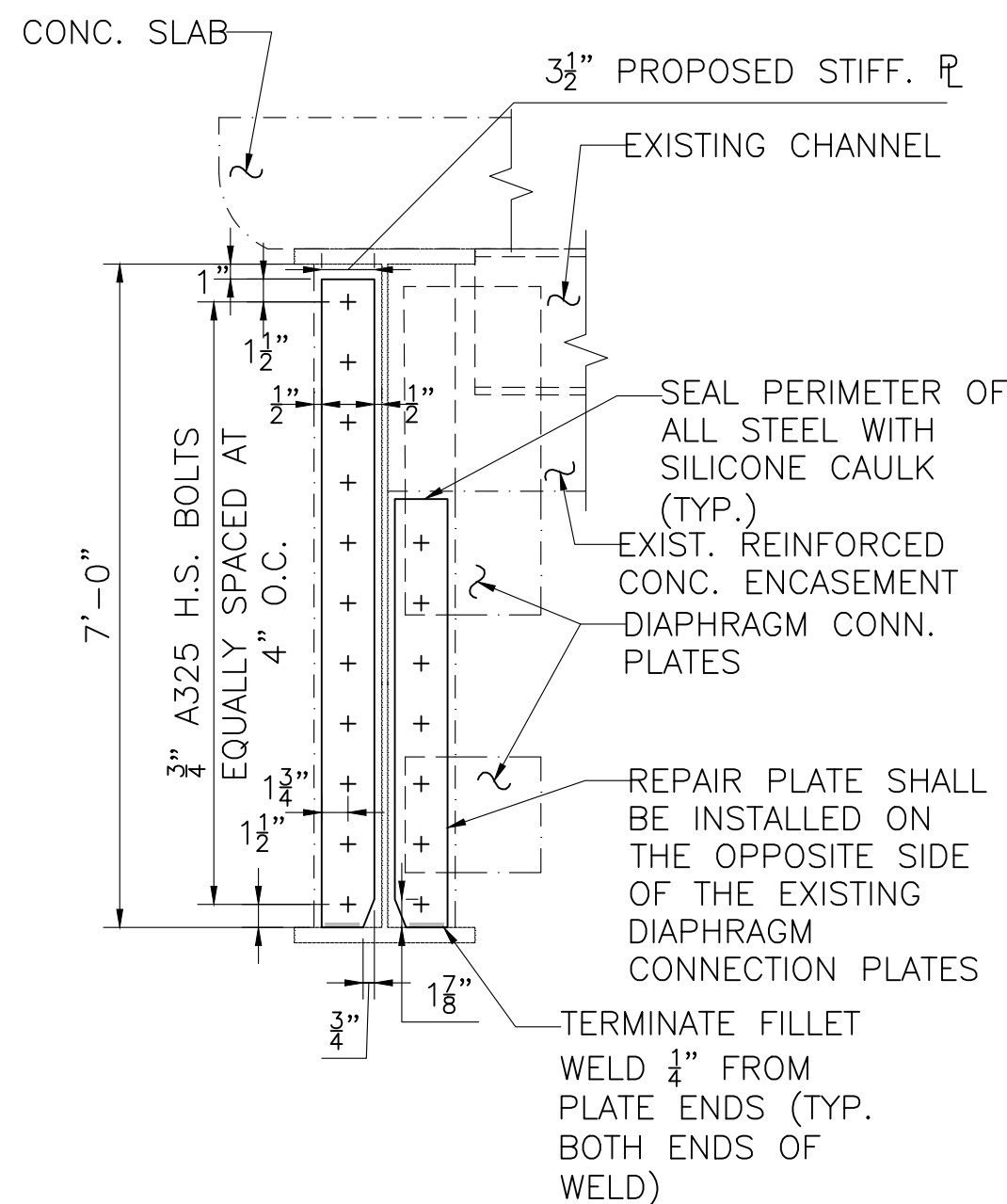
DISTRICT 2 BRIDGE ENGINEER

DATE



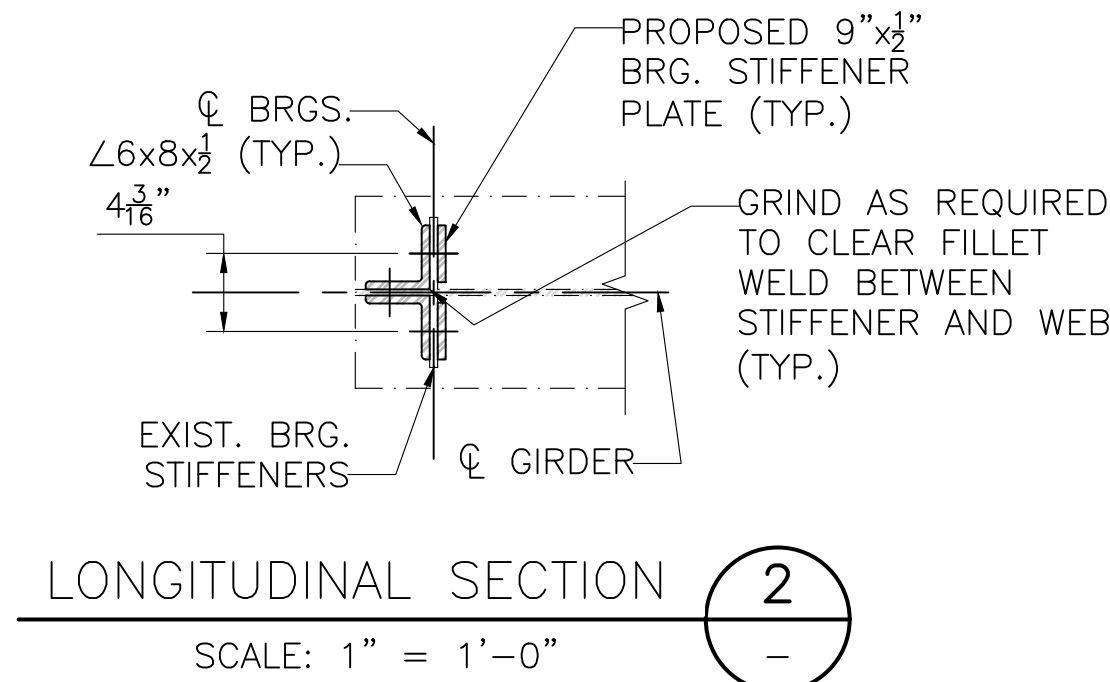
EXTERIOR GIRDER END REPAIR

SCALE: 1" = 1'-0"



GIRDER SECTION WITH PROP. STIFF. PLATE

SCALE: 1" = 1'-0"

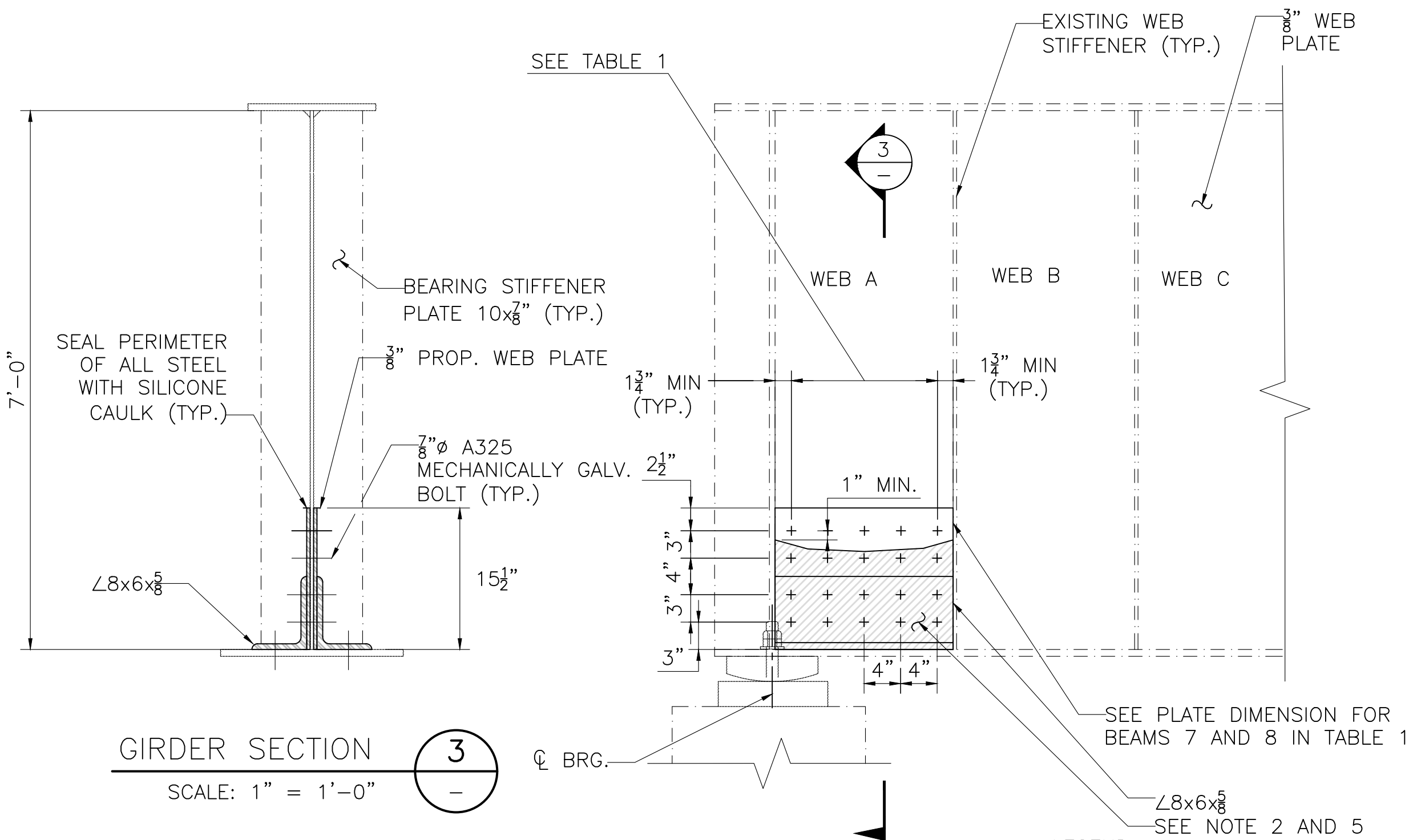


LONGITUDINAL SECTION

SCALE: 1" = 1'-0"

NOTES:

- CLEAN THE CONTACT SURFACES OF EXISTING STEEL IN ACCORDANCE WITH SPECIAL PROVISIONS. THE CONTACT SURFACES SHALL BE FREE OF PAINT, OIL, AND GREASE, AND SHALL PROVIDE THE NECESSARY SLIP RESISTANCE FOR CLASS A SLIP CRITICAL CONNECTIONS.
- ENGINEER TO INSPECT CLEANED REPAIR AREA AND VERIFY REPAIR LIMITS BASED ON CONDITIONS EXPOSED BY CLEANING.
- THE BEAM SHALL BE INSPECTED FOR DAMAGE DUE TO CONTRACTOR OPERATIONS. ANY DAMAGE CAUSED BY THE CONTRACTOR SHALL BE REPAIRED AT THE CONTRACTORS' EXPENSE.
- IN LOCATIONS WHERE HEAVY DETERIORATION HAS OCCURRED OR AS DIRECTED BY THE ENGINEER, EPOXY REPAIR FAIRING COMPOUND SHALL BE APPLIED OVER THE PRIME COAT AS FOLLOWS:
 - THE EPOXY REPAIR COMPOUND SHALL BE APPLIED TO THE DETERIORATED AREAS IN STRICT ACCORDANCE WITH THE MANUFACTURER'S WRITTEN INSTRUCTIONS. THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER OF RECORD FOR REVIEW AND APPROVAL THE METHODS, PROCEDURES, AND MATERIALS TO BE USED FOR THE WORK.
 - THE REPAIR COMPOUND SHALL ONLY BE APPLIED TO THOSE OF THE EXISTING STEEL THAT EXHIBIT SEVERE SECTION LOSS TO COMPLETELY FILL THE IRREGULARITIES IN THE EXISTING STEEL SURFACES SUCH THAT NO VOIDS REMAIN BETWEEN THE PLIES OF THE EXISTING STEEL AND THE PROPOSED STRENGTHENING STEEL IN THE FINAL REPAIRED CONDITION.
 - THE PROPOSED REPAIR STEEL SHALL BE PROPERLY POSITIONED AND BROUGHT INTO FIRM CONTACT WITHIN THE WORKING TIME LIMITS OF THE EPOXY REPAIR COMPOUND. THE REPAIR STEEL SHALL BE SECURED IN PLACE USING POSITIONING BOLTS TENSIONED TO A SNUG TIGHT CONDITION AND CLAMPS OR OTHER MECHANICAL MEANS TO BRING THE PLIES OF THE EXISTING STEEL AND NEW STEEL INTO FIRM CONTACT. WELDING IS NOT ALLOWED.
 - ONCE THE PROPOSED STEEL HAS BEEN SECURED INTO POSITION WITH THE POSITIONING BOLTS, AND THE EPOXY COMPOUND HAS CURED, THE REMAINING H.S BOLTS SHALL BE INSTALLED FOLLOWING THE PROCEDURE OUTLINED IN THE GENERAL NOTES.
 - EPOXY COMPOUND FOR STRUCTURAL STEEL REPAIRS SHALL BE A SOLVENT FREE, MOISTURE TOLERANT, EPOXY PASTE ADHESIVE SYSTEM. THE EPOXY PASTE SHALL BE DEVELOPED SPECIFICALLY FOR FILLING, SMOOTHING, SEALING, OR FAIRING APPLICATIONS ON METALS. THE PASTE SHALL BE APPLIED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S LATEST WRITTEN INSTRUCTIONS. AND ACCEPTABLE PRODUCE SHALL BE ONE OF THE FOLLOWING OR AN APPROVED EQUAL: ITW PHILADELPHIA RESINS REPAIR COMPOUND MANUFACTURED BY: ITW PHILADELPHIA RESINS, SIKADUR 31, HI-MOD GEL MANUFACTURED BY: SIKA CORPORATION, DEVCON PLASTIC STEEL PUTTY (A) MANUFACTURED BY: ITW DEVCON, FX-738 METAL FILLED EPOXY MANUFACTURED BY: SIMPSON STRONG-TIE.
- STEEL ELEMENTS FOR REPAIR SHALL BE BOLTED TO EXISTING STEEL SURFACES.
- STEEL SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M270 GRADE 36. IT SHALL BE CONSIDERED A MAIN MEMBER AND CONFORM TO THE CHARPY V-NOTCH REQUIREMENTS OF AASHTO M270 ZONE T2.
- IN THE CASE THAT ANY STEEL REPAIR ANGLE INTERFERES WITH THE EXISTING ANCHOR BOLT, A LEG OF THE ANGLE CAN BE COPED TO PROVIDE CLEARANCE AROUND THE EXISTING ANCHOR BOLT.
- CLEAN AND PAINT REPAIRED AREA PER SPECIAL PROVISIONS.
- SEAL PERIMETER OF ALL STEEL WITH SILICONE CAULK.
- APPLY CEMENTITIOUS MORTAR TO ANY ROUGH CONCRETE FROM PARTIAL END DIAPHRAGM REMOVAL PER SPECIAL PROVISIONS.



GIRDER SECTION

SCALE: 1" = 1'-0"

TABLE 1

BEAM	WEB	WEB PLATE DIMENSION	BOLT NO AND BOLT SPACING
7	A	15 1/2" X 26 9/16" X 3/8"	6 SPA. @ 4" = 24"
7	B	15 1/2" X 28" X 3/8"	6 SPA. @ 4" = 24"
7	C	15 1/2" X 56" X 3/8"	13 SPA. @ 4" = 52"
8	A	15 1/2" X 29" X 3/8"	6 SPA. @ 4" = 24"

REPAIR GIRDER END

SCALE: 1" = 1'-0"

COMMONWEALTH OF MASSACHUSETTS
MassDOT, Highway Division
APPROVED UNDER PROVISIONS OF
MASS. GEN. LAWS CH 85 § 35

DISTRICT 2 BRIDGE ENGINEER

DATE

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90% SUBMITTAL

PROPOSED BRIDGE
PRESERVATION
PHASE 3

AGAWAM /
WEST SPRINGFIELD

VIETNAM VETERANS
MEMORIAL BRIDGE

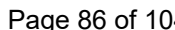
BRIDGE STREET
OVER
WESTFIELD RIVER
A-05-003 = W-21-013
(OKX)

MARK	DATE	DESCRIPTION
PROJECT NO:	W1975-059	
DATE:	MARCH 2025	
FILE:	W1975-059-62-P3-S-STEEL DTL.dwg	
DRAWN BY:	JHM	
DESIGNED/CHECKED BY:	AML	
APPROVED BY:	JRI	

BEAM END DETAILS

SCALE: AS SHOWN

SHEET 12 OF 13



APPENDIX C

Photographic Log

Client: Town of Agawam

Job Number: W-1975-059

Site: Vietnam Veterans Memorial Bridge over the Westfield River



Photographic Log

Client: Town of Agawam

Job Number: W-1975-059

Site: Vietnam Veterans Memorial Bridge over the Westfield River

Photograph No.: 3	Date: 3/8/2023	Direction Taken: South/Southwest
--------------------------	-----------------------	---

Description: View of the bridge abutment.



Photograph No.: 4	Date: 3/8/2023	Direction Taken: South/Southwest
--------------------------	-----------------------	---

Description: View of the existing conditions of the bridge deck and sidewalks.



APPENDIX D

Notification to Abutters

By Hand Delivery, Certified Mail (return receipt requested), or Certificates of Mailing

This is a notification required by law. You are receiving this notification because you have been identified as the owner of land abutting another parcel of land for which certain activities are proposed. Those activities require a permit under the Massachusetts Wetlands Protection Act (M.G.L. c. 131, § 40).

In accordance with the second paragraph of the Massachusetts Wetlands Protection Act, and 310 CMR 10.05(4)(a) of the Wetlands Regulations, you are hereby notified that:

- A. A Notice of Intent was filed with the Agawam Conservation Commission on March 14, 2025, seeking permission to remove, fill, dredge, or alter an area subject to protection under M.G.L. c. 131 §40. The following is a description of the proposed activity/activities:

This project proposes the rehabilitation and repair of the Vietnam Veterans Memorial Bridge (Bridge Street over Westfield River).

- B. The name of the applicant is: Agawam Department of Public Works
- C. The address of the land where the activity is proposed is: Bridge Street, Agawam, MA 01001 (Public Right-of-Way)
- D. Copies of the Notice of Intent may be examined or obtained at the office of the Agawam Conservation Commission, located at 36 Main Street, Agawam, MA 01001. The regular business hours of the Commission are Monday through Friday 8:30am to 4:30pm, and the Commission may be reached at 413-726-9737.
- E. Copies of the Notice of Intent may be obtained from the applicant's representative by calling Chad Raimer at 413-672-7296. An administrative fee may be applied for providing copies of the NOI and plans.
- F. Information regarding the date, time, and location of the public hearing regarding the Notice of Intent may be obtained from the Agawam Conservation Commission. Notice of the public hearing will be published at least five business days in advance, in the Agawam Advertisers News.

Notification provided pursuant to the above requirement does not automatically confer standing to the recipient to request Departmental Action for the underlying matter. See 310 CMR 10.05(7)(a)4.

Parcel ID	Owner	Owner Address	Owner City	Owner State	Owner Zip	Address
I17 1 21	CHENEY JONATHAN A	14 VALLEY ST	AGAWAM	MA	01001	14 VALLEY ST
I17 11 4	GAUDREAU CHRIS	12 KING AV	AGAWAM	MA	01001	KING AV
I17 11 2	GERENA DIONISIO	6 KING AV	AGAWAM	MA	01001	6 KING AV
I17 11 1	HILLIOS STEWART T	PO BOX 1174	WEST SPRINGFIELD	MA	01090	50 RIVER ST
I17 11 3	NIKULIN KONSTANTIN	20 KING AV	AGAWAM	MA	01001	20 KING AV

APPENDIX E



MASSWILDLIFE

DIVISION OF FISHERIES & WILDLIFE

1 Rabbit Hill Road, Westborough, MA 01581

p: (508) 389-6300 | f: (508) 389-7890

MASS.GOV/MASSWILDLIFE

May 31, 2023

Melissa Coady
Tighe & Bond
53 Southampton Road
Westfield, Massachusetts 01085

RE: Project Location: Bridge Street over Westfield River
Town: Agawam, West Springfield
Heritage Hub Form ID: IR-63267
NHESP Tracking No.: -

To Whom It May Concern:

Thank you for contacting the Natural Heritage and Endangered Species Program (NHESP) of the MA Division of Fisheries & Wildlife (the "Division") for information regarding state-listed species in the vicinity of the above referenced site. Based on the information provided, this project site or a portion thereof is located **within** the current *Massachusetts Natural Heritage Atlas*. The following state-listed species are mapped for either *Priority Habitat (PH)* alone, or for both *Priority Habitat (PH)* and *Estimated Habitat (EH)*, as indicated in the following table:

<u>Scientific Name</u>	<u>Common Name</u>	<u>Taxonomic Group</u>	<u>State Status</u>	<u>EH</u>	<u>PH</u>
<i>Strophitus undulatus</i>	Creeper	Mussel	Special Concern	764	1038

The species listed above is protected under the Massachusetts Endangered Species Act (MESA) (M.G.L. c. 131A) and its implementing regulations (321 CMR 10.00). State-listed wildlife are also protected under the Massachusetts Wetlands Protection Act (WPA) (M.G.L. c. 131, s. 40) and its implementing regulations (310 CMR 10.00). Fact sheets for most state-listed species can be found on our website (www.mass.gov/nhesp).

Please note that projects and activities located within Priority and/or Estimated Habitat **must** be reviewed by the Division for compliance with the state-listed species protection provisions of MESA (321 CMR 10.00) and/or the WPA (310 CMR 10.00).

Wetlands Protection Act (WPA)

If the project site is within Estimated Habitat and a Notice of Intent (NOI) is required, then a copy of the NOI must be submitted to the Division so that it is received at the same time as the local conservation commission. If the Division determines that the proposed project will adversely affect the actual Resource Area

MASSWILDLIFE

habitat of state-protected wildlife, then the proposed project may not be permitted (310 CMR 10.37, 10.58(4)(b) & 10.59). In such a case, the project proponent may request a consultation with the Division to discuss potential project design modifications that would avoid adverse effects to state-listed wildlife habitat.

A streamlined joint MESA/WPA review process is available. When filing an NOI, the applicant may file concurrently under the MESA and qualify for a 30-day streamlined joint review. Please visit our website for filing instructions: www.mass.gov/regulatory-review.

MA Endangered Species Act (MESA)

If the proposed project is located within Priority Habitat and is not exempt from review (see 321 CMR 10.14), then project plans, a fee, and other required materials must be submitted to the Division to determine whether a Take under the MA Endangered Species Act would occur (321 CMR 10.18). Please note that all proposed and anticipated development must be disclosed, as MESA does not allow project segmentation (321 CMR 10.16). Please visit our website for filing instructions: www.mass.gov/regulatory-review.

We recommend that state-listed species habitat concerns be addressed during the project design phase prior to submission of a formal MESA filing, as avoidance and minimization of impacts to state-listed species and their habitats is likely to expedite regulatory review. Please visit our website for more information on how to request a pre-filing consultation with the Division: www.mass.gov/how-to/request-a-pre-filing-consultation

This evaluation is based on the most recent information available in the NHESP database, which is constantly being expanded and updated through ongoing research and inventory. If the purpose of your inquiry is to generate a species list to fulfill the federal Endangered Species Act (16 U.S.C. 1531 et seq.) information requirements for a permit, proposal, or authorization of any kind from a federal agency, we recommend that you use the NOAA Fisheries Greater Atlantic Region ESA Section 7 Mapper (<https://noaa.maps.arcgis.com/apps/webappviewer/index.html?id=1bc332edc5204e03b250ac11f9914a27>) and the U.S. Fish and Wildlife Service's Information for Planning and Conservation website (<https://ecos.fws.gov/ipac>). If you have any questions regarding this letter please contact Melany Cheeseman, Endangered Species Review Assistant, at Melany.Cheeseman@mass.gov.

Sincerely,



Everose Schlüter, Ph.D.
Assistant Director



Stefanie Kesecker

From: Michael Albro
Sent: Monday, March 24, 2025 11:07 AM
To: Taryn Egerton
Cc: Stefanie Kesecker; Michelle Chase
Subject: RE: Notice of Intent

Taryn,

Engineering has no comments at this time regarding the Notice of Intent for the Veterans Memorial Bridge project.

Michael F. Albro, P.E.
Assistant Town Engineer
Department of Public Works
1000 Suffield Street
Agawam, MA 01001
Phone: 413.726.2803
Fax: 413.821.0631

From: Taryn Egerton <TEgerton@agawam.ma.us>
Sent: Friday, March 14, 2025 9:42 AM
To: All_Engineering Department <All_Eng_Dept@agawam.ma.us>
Cc: Stefanie Kesecker <SKesecker@agawam.ma.us>
Subject: Notice of Intent

Good morning,
Please review and comment prior to the Conservation March 27th meeting.

Thank you

Taryn Egerton
Planning Director & Conservation Agent
Office of Planning and Community Development

413.726.9737 | tegerton@agawam.ma.us



TOWN OF
Agawam
MASSACHUSETTS

Confidentiality/Public Record Statement

Under Massachusetts Law, any email created or received by an employee of The Town of Agawam is considered a public record. All email correspondence is subject to the requirements of M.G.L. Chapter 66. This email may contain confidential and

privileged material for the sole use of the intended recipient. Any review or distribution by others is strictly prohibited. If you are not the intended recipient please contact the sender and delete all copies.

City of Agawam.



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

Agawam

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.

1. Signature of Applicant

Mario Mazza, Superintendent, Agawam DPW

2. Date

3/14/25

3. Signature of Property Owner (if different)

Andrea M. Lacasse

4. Date

3/13/2025

5. Signature of Representative (if any)

Andrea M. Lacasse PE, Tighe & Bond, Inc.

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.



COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF ENERGY & ENVIRONMENTAL AFFAIRS
DEPARTMENT OF ENVIRONMENTAL PROTECTION
WESTERN REGIONAL OFFICE
436 DWIGHT STREET, SPRINGFIELD, MA 01103 413-784-1100

MAURA T. HEALEY
Governor

REBECCA L. TEPPER
Secretary

KIMBERLEY DRISCOLL
Lieutenant Governor

BONNIE HEIPLE
Commissioner

DATE: March 19, 2025

Municipality AGAWAM
(city/town)

RE: NOTIFICATION OF WETLANDS PROTECTION ACT FILE NUMBER

The Department of Environmental Protection has received a Notice of Intent filed in accordance with the Wetlands Protection Act (M.G.L. c. 131, §40):

Applicant: TOWN OF AGAWAM DPW
Address: 1000 SUFFIELD STREET
AGAWAM, MA 01001

Owner:
Address:

LOCUS: BRIDGE STREET

This project has been assigned the following file # : WE 087-0705

A FILE NUMBER ONLY INDICATES THAT THE APPLICATION CONTAINS THE MINIMAL SUBMITTAL REQUIREMENTS AND IS ADMINISTRATIVELY COMPLETE - NOT THAT THE INFORMATION IN THE APPLICATION IS ADEQUATE FOR ISSUANCE OF AN ORDER OF CONDITIONS.

Although a file # is being issued, please note the following:

- [1] The applicant needs to propose an improvement over existing conditions, per 310 CMR 10.58(5)(a). The improvement is over and above the project purpose.
- [2] The commission needs to wait to close the public hearing until NHESP has issued its determination.
- [3] It may be that some of the south abutment work is located on property that is not in the right of way. If that is the case, then that owner needs to sign the NOI or a temporary construction easement needs to be acquired by the applicant.

If you have any questions regarding this letter, please contact: MARK STINSON @ (413)-961-9583

Cc: Agawam Conservation Commission, TOWN HALL, 36 MAIN STREET, Agawam, MA, 01001
Natural Heritage & Endangered Species Program, Div of Fisheries & Wildlife Route 135, North Drive,
Westborough, MA, 01581
Representative: TIGHE & BOND, INC., 53 SOUTHAMPTON ROAD, WESTFIELD, MA, 01085

This information is available in alternate format. Call Donald M. Gomes, ADA Coordinator at 617-556-1057. TDD# 1-866-539-7622 or 1-617-574-6868.



Printed on Recycled Paper

TOWN OF AGAWAM DPW
1000 SUFFIELD STREET
AGAWAM, MA 01001

AGAWAM CONSERVATION COMMISSION
March 27, 2025

MEMBERS PRESENT:

Henry Kozloski, Chair
Keven Brown
S Page Fallon
Sheryl Becker
Frank Meagher
Jill Ward
Magda Galiatsos

MEMBERS ABSENT:

ALSO PRESENT:
Stefanie Kesecker

Mr. Kozloski called the meeting to order at 6:00pm.

1. 6:00PM REQUEST FOR DETERMINATION-202 River Road-Lomax

Engineer Gary Weiner was present for this agenda item as well as the petitioners Heather and Pat Lomax. He stated they are requesting to remove the existing septic system and to connect to the existing sewer on River Road. He stated he has spoken to the Board of Health in regards to abandoning the septic tank. He went on to say they have applied with DPW for a connection permit, and to Mass Highway because River Road is a State road that requires an access permit. He stated there will be no changes made to the elevation.

Mr. Kozloski stated this is an exempt activity. He asked what would happen to the septic tank. Mr. Weiner stated in normal abandonment the tank is pumped, and either holes are punched into the bottom of the concrete so no water accumulates, or the tank is crushed. He stated in this case it will be removed due to where the new construction will take place.

There was no input from the public.

Motion was made by Mr. Brown and seconded by Ms. Ward to issue a Negative Determination for 202 River Road-Lomax.

VOTE 7-0-0

2. 6:05PM PUBLIC HEARING-NOTICE OF INTENT-Bridge Street-Town of
Agawam DPW

Andrea Lacasse, with Tighe & Bond was present for this agenda item. She states she has been working with Towns of Agawam and West Springfield on a preservation project for the Veterans Memorial Bridge. She stated a 2021 Mass DOT inspection revealed numerous deficiencies. She stated the proposed improvements include: repairs to drainage, sidewalk and guardrail repairs, concrete repairs to the substructure of the bridge, repairs to steel and bearings below the deck, and waterproofing and repaving the top deck. She stated the work will take place in 3 phases. Phase 1 will include, south abutment concrete repairs, guardrail repair, pier repairs, sidewalk repair, and drainage/scupper repair. Phase 2 will include, bridge joint repair, pavement exaction and waterproofing, and curbing repairs. Phase 3 will include, replace and paint bearings, exterior girder repairs, and any sections that can be cleaned, painted, and sealed. She stated no work will take place within the water, but from decks or a platform.

Ms. Lacasse stated they are waiting to hear from National Heritage and Endangered Species Program NHESP, and they have also coordinated with MASS DEP. She stated the proposed alterations impact 1,900 sq. ft. of riverfront area.

Mr. Kozloski asked what work would occur in the abutment. Ms. Lacasse stated repair work for areas in which the concrete is or has deteriorated. She stated the contractor would collect any debris this work creates. Mr. Kozloski asked if a mat would be used. Ms. Lacasse stated they are trying to be more proactive to keep debris to a minimum, and have the debris catchment closer to the work.

Ms. Ward asked when the projected start date would be. Ms. Lacasse stated the first phase would start in July/August and be completed by November. She stated the contractor recognizes traffic during the Big E and construction may not occur during the Expo.

Mr. Meagher asked if the bridge would be closed during repairs. Ms. Lacasse stated the bridge would be open.

Mr. Fallon asked if most of the work would be done while suspended or on ladders. Ms. Lacasse stated yes. Mr. Fallon asked if the existing footprint would change. Ms. Lacasse stated no.

Mr. Brown asked if there would be any tree clearing. Ms. Lacasse stated no.

Ms. Galiatsos asked if most of the work was occurring on the West Springfield side. Ms. Lacasse stated yes as that side of the bridge has more structural issues.

There was no public comment.

Ms. Lacasse requested to continue this public hearing to the April 10, 2025 meeting.

Motion was made by Ms. Ward and seconded by Mr. Meagher to continue PUBLIC HEARING-NOTICE OF INTENT-Bridge Street-Town of Agawam DPW, to the April 10, 2025 meeting, as requested.

VOTE 7-0-0

1. REQUEST FOR DETERMINATION CONT-409, 411, 421, 427 Southwick Street-Cascio & Metz.

The Conservation Commission received a request from the petitioner to withdraw without prejudice the Request for Determination- 409,411, 421, 427 Southwick Street.

Motion was made by Ms. Ward and seconded by Mr. Meagher to accept the request to withdraw, without prejudice the Request for Determination- 409, 411, 421, 427 Southwick Street-Cascio & Metz.

VOTE 7-0-0

2. PUBLIC HEARING CONT.-NOTICE OF INTENT-1014 North St Ext-VIP Homes & Associates, LLC (continued to April 24, 2025)

This agenda item was previously continued.

3. Discussion-32 Shoemaker Lane

Michael Riley was present for this agenda item. He stated he was seeking to put about 7,000 to 9,000 sq. ft. of dirt in a non-jurisdictional wetland, rather than take it offsite per the Order of Conditions. He also would like to amend the silt sock fence line. He stated this would be a cost saving measure for him. Ms. Kesecker informed the Commission that Ms. Egerton had spoken to Michael McHugh with MASS DEP and he strongly discourages filling the isolated wetland. He stated it may trigger a 401 water quality certification. He suggested storage adjacent to the wetland. The Commission held discussion and the applicant decided against using the non-jurisdictional wetland as a temporary fill area, and he will continue to haul fill offsite, as required in the Order of Conditions.

4. ENFORCEMENT ORDER UPDATES

None

5. APPROVAL OF MINUTES-February 13, 2025 & March 13, 2025

Motion was made by Mr. Brown and seconded by Ms. Ward to approve the February 13, 2025 minutes, as amended.

VOTE 7-0-0

Motion was made by Ms. Ward and seconded by Mr. Brown to approve the March 13, 2025 minutes, as written.

VOTE 6-0-1(Galiatsos)

6. Correspondence and Complaints

The Commission received a complaint regarding dumping of woodchips and lawn debris in the pond on the property that abuts 131 North West Street. A letter was sent to the property owner to contact the office to set up a site visit.

Motion was made by Mr. Brown and seconded by Ms. Galiatsos to adjourn the meeting.

VOTE 7-0-0

Meeting adjourned at 6:50pm.

DRAFT