



City of Bristol
Inland/Wetland Commission

**Conservation Commission/Inland Wetlands and
Watercourses Agency - Revision 1**

INFORMATION FOR THE PUBLIC TO ACCESS THIS MEETING

Zoom Meeting link:

[https://bristolct-
gov.zoom.us/j/85139538536?pwd=PyXTwKZQTtZfqZzTS8CmZE6bzdU0Hj.1](https://bristolct-gov.zoom.us/j/85139538536?pwd=PyXTwKZQTtZfqZzTS8CmZE6bzdU0Hj.1)

Meeting ID:

851 3953 8536

Meeting Passcode:

309188

Join by phone

1-929-205-6099

REGULAR MEETING OF MONDAY, FEBRUARY 5, 2024
MEETING ONLINE VIA ZOOM AND
BRISTOL CITY HALL – COUNCIL CHAMBERS – 111 NORTH MAIN STREET
6:30 PM

1. Call to Order
2. Pledge of Allegiance
3. Introductions and Seating of Alternate Commissioners
4. Public Participation
5. Approval of Minutes
 - a. On-Site Meeting - January 6, 2024
 - b. Regular Meeting - January 8, 2024
6. Public Hearings

- a. Application #2018 – Wetlands application for the replacement of Bridge No. 04487 on East Street and over the Pequabuck River; City of Bristol right-of-way; City of Bristol, Public Works Department, applicant.
- b. Application #23-466F-302 – Floodplain application for the replacement of Bridge No. 04487 on East Street and over the Pequabuck River; City of Bristol right-of-way; City of Bristol, Public Works Department, applicant.
- c. Application #23-466F-303 – Floodplain application for cuts and fills for an above grade storage tank facility and floodplain compensatory storage area at 340 Broad Street; Assessor's Map 39, Lot 100D; Ron Oddo of Combined Metals Company, LLC, applicant.
- d. Application #2019 – Wetlands boundary change application for the restoration of the White Bridge Waterworks facility at Maltby Street; Assessor's Map 52 & 53, Lots 11, 15, 16B16A, 17, 145, 147, 149, 150 & 151; New Britain Water Department, Ramon Esponda, Deputy Director, applicant.
- e. Application #2020 – Wetlands application for the restoration of the White Bridge Waterworks facility at Maltby Street; Assessor's Map 52 & 53, Lots 11, 15, 16B16A, 17, 145, 147, 149, 150 & 151; New Britain Water Department, Ramon Esponda, Deputy Director, applicant.
- f. Application #23-458F-305 – Floodplain application for the restoration of the White Bridge Waterworks facility at Maltby Street; Assessor's Map 52 & 53, Lots 11, 15, 16B16A, 17, 145, 147, 149, 150 & 151; New Britain Water Department, Ramon Esponda, Deputy Director, applicant.

7. New Applications

- a. Application #2021 – Wetlands application for the replacement of a drainage pipe from Collins Road to the Coppermine Brook at 87 Collins Road, Collins Road and Stafford Avenue; Assessor's Map 53, Lots 51B, 50 & 147; City of Bristol, Public Works Department, applicant.
- b. Application #24-458F-306 – Floodplain application for the replacement of a drainage pipe from Collins Road to the Coppermine Brook at 87 Collins Road, Collins Road and Stafford Avenue; Assessor's Map 53, Lots 51B, 50 & 147; City of Bristol, Public Works Department, applicant.

8. Staff-Approved Applications/Published

a	App.#			
.	Approved			
	Administrative	Street No.	Address	Purpose of App.
	102099	159	Redstone Hill Road	Shed
	102100	159	Mountain View Ave	Fence
	102101	159	East Main Street	Generator

102102	47	Mountain View Ave	Pre-built garage
Administrative Floodplain Applications			
23-467F-304	159	East Main Street	Generator

9. Staff Reports
 - a. IWWC Monthly Report – January 2024
10. Conservation Commission
 - a. CAWS Newsletter
11. Communications
 - a. IWWC Appointment Letters
12. Adjournment

Saturday, January 06, 2024, 8:00 AM

Attendees

- Zachary Fisk, Chairman
- James Ritchie, Commissioner
- Greg A. Klimek
- Faye Duquette, Alternate
- Nancy Levesque, Bristol City Engineer
- Bill Stango, Bristol Civil Engineer
- Raymond Rogozinski, Director of Public Works
- John Higginbotham, Property owner
- Brian Smoloski, neighbor

The site conditions were observed. Easement and property corner were staked and flagged. Limit of encroachment from stream erosion noted. Trees within easement/original watercourse path pointed out with removal discussed. Proposed relocated stream location and restoration of stream bank (w/partial wall) suggested by DPW director as solution. Application to Commission to be submitted for March meeting.

Meeting ended at approximately 8:08 AM

**BRISTOL INLAND WETLANDS COMMISSION
MINUTES
REGULAR MEETING OF MONDAY JANUARY 8, 2024**

CALL TO ORDER:

By: Chairman Fisk

Time: 6:30 P.M.

Place: City Hall
Council chambers
111 North Main Street

ROLL CALL:

Chairman Fisk called the meeting to order at 6:44 P.M.

MEMBERS	NAME:	PRESENT	ABSENT
REGULAR MEMBERS	Zachary Fisk (Chairman)	X	
	Michael Robinson (Vice Chairman)		X
	David Rooks (Secretary)	X	
	James Carros	X	
	Daniel Massaro, Jr.	X	
	James Ritchie	X	
ALTERNATE MEMBERS			
	Greg Klimek		X
	Faye Duquette		X
	Anthony Pellerin	X	
STAFF	Nancy Levesque, P.E., City Engineer	X	

PLEDGE OF ALLEGIANCE:

INTRODUCTIONS AND SEATING OF ALTERNATES:

Chairman Fisk designated regular Commissioners Carros, Massaro, Ritchie, Rooks and Fisk as voting members this evening. Chairman Fisk designated alternate Commissioner Pellerin to vote this evening.

PUBLIC PARTICIPATION (NON-PENDING APPLICATIONS):

ACCEPTANCE OF MINUTES:

1. On-Site Meeting – December 2, 2023
2. Conservation Commission – December 4, 2023
3. Regular Meeting – December 4, 2023

MOTION: Move to approve the December 2, 2023, minutes of the On-Site meeting, as amended.

By: Carros

Seconded: Rooks

For: Carros, Massaro, Rooks, Pellerin and Fisk.

Against: None.

Abstained: None.

MOTION: Move to approve the Conservation Commission December 4, 2023, minutes, as amended.

By: Carros

Seconded: Rooks

For: Carros, Massaro, Rooks, Pellerin and Fisk.

Against: None.

Abstained: None.

MOTION: Move to approve the December 4, 2023, regular minutes, as amended.

By: Carros

Seconded: Rooks

For: Carros, Massaro, Rooks, Pellerin and Fisk.

Against: None.

Abstained: None.

NEW APPLICATIONS:

4. Application #2017 – Wetlands application for a breezeway and garage addition at 143 Jacqueline Drive; Assessor's Map 49, Lot 3; Brenda Carl, applicant.

The Commission received the following items in their electronic packets:

- a. Assessor's Map with Inland Wetlands Watercourse Layers
- b. Applications
- c. Plan (Electronic Copy Only)

MOTION: Move to receive Application #2017.

By: Carros

Seconded: Rooks

For: Carros, Massaro, Rooks, Pellerin and Fisk.

Against: None.

Abstained: None.

The application is received.

Brenda Carl, 143 Jacqueline Dr. and Daniel Parker, 143 Jacqueline Dr., applicants, reviewed the plans to build a garage and breezeway. He stated it will be on the left-hand side on the property. He described the lot and area where the building will be done.

Nancy Levesque explained the area of the wetlands on the lot and stated that this wetland property will eventually be taken off the wetland maps.

MOTION: Move to declare Application #2017 a non-significant activity.

By: Carros

Seconded: Rooks

For: Carros, Massaro, Rooks, Pellerin and Fisk.

Against: None.

Abstained: None.

The application was declared a non-significant activity.

MOTION: Move to approve Application #2017 – Wetlands application for a breezeway and garage addition at 143 Jacqueline Drive; Assessor's Map 49, Lot 3; Brenda Carl, applicant, in accordance with the plot plan and information submitted with standard stipulations.

By: Massaro

Seconded: Carros

For: Carros, Massaro, Rooks, Pellerin and Fisk.

Against: None.

Abstained: None.

The application is approved.

5. Application #2018 – Wetlands application for the replacement of Bridge No. 04487 on East Street and over the Pequabuck River; City of Bristol right-of-way; City of Bristol, Public Works Department, applicant.

The Commission received the following items in their electronic packets:

- a. Assessor's Map with Inland Wetlands Watercourse Layers
- b. Application
- c. Report dated October 2023 from GM2
- d. Wetlands Delineation report dated 30, 2020, from Soil Science and Environmental Services, Inc.
- e. Federal Wetlands report, undated
- f. Statewide Inland Wetlands & Watercourses Activity Reporting from City of Bristol, regarding additional soil investigation for wetland determination, East Street Bridge No. 04487, Bristol, CT (attached report dated April 12, 2023; attached Report A and B)
- g. Plan (Electronic Copy Only)

MOTION: Move to receive Application #2018.

By: Carros

Seconded: Massaro

For: Carros, Massaro, Rooks, Pellerin and Fisk.

Against: None.

Abstained: None.

The application is received.

Nancy Levesque, P.E., City Engineer, representing the applicant addressed the Commission regarding the project. She stated that the applicant recognizes this is a significant activity and would like a public hearing and a site walk scheduled if the commission agrees.

MOTION: Move to declare Application #2018 a significant activity and set a public hearing for the February 5, 2024, meeting and schedule an onsite inspection.

By: Carros

Seconded: Massaro

For: Carros, Massaro, Rooks, Pellerin and Fisk.

Against: None.

Abstained: None.

The application was declared a non-significant activity.

- 6 Application #23-466F-302 – Floodplain application for the replacement of Bridge No. 04487 on East Street and over the Pequabuck River; City of Bristol right-of-way; City of Bristol, Public Works Department, applicant.

The Commission received the following items in their electronic packets:

- a. Assessor's Map with Inland Wetlands Watercourse Layers
- b. FEMA Map
- c. Application (attached narrative)
- d. Letter dated April 12, 2023, from State of CT, regarding Flood Management Certification
- e. Plan (Electronic Copy Only)

MOTION: Move to receive #Application #23-466F-302.

By: Carros

Seconded: Rooks

For: Carros, Massaro, Rooks, Pellerin and Fisk.

Against: None.

Abstained: None.

The application is received.

MOTION: Move to declare Application #23-466F-302 a significant activity and set a public hearing for the February 5, 2024, meeting and schedule an onsite inspection.

By: Carros

Seconded: Massaro

For: Carros, Massaro, Rooks, Pellerin and Fisk.

Against: None.

Abstained: None.

The application was declared a non-significant activity.

7. Application #23-466F-303 – Floodplain application for cuts and fills for an above grade storage tank facility and floodplain compensatory storage area at 340 Broad Street; Assessor's Map 39, Lot 100D; Ron Oddo of Combined Metals Company, LLC, applicant.

The Commission received the following items in their electronic packets:

- a. Assessor's Map with Inland Wetlands Watercourse Layers
- b. FEMA Map
- c. Application (attached narrative)
- d. Plan (Electronic Copy Only)

Commissioner James Ritchie entered the meeting via Zoom.

MOTION: Move to receive # Application #23-466F-303.

By: Massaro

Seconded: Carros

For: Carros, Massaro, Ritchie, Rooks and Fisk.

Against: None.

Abstained: None.

The application is received.

Rock Edmund, 99 Realty Drive, SLR International, representing the applicant, reviewed the application and site plan. He explained that there is an existing building just north of the parking lot, they want to provide 110 x 41.6 foot above grade storage tanks. The fills will be raised and provide additional detention storage. 950 cubic yards of storage will be available when complete.

Nancy Levesque, City Engineer, stated the plans are compensating by an additional 20 yards and ½ foot of the entire basin area.

MOTION: Move to declare Application #23-466F-303 a significant activity and set a public hearing for the February 5, 2024, meeting and schedule an onsite inspection.

By: Massaro

Seconded: Carros

For: Carros, Massaro, Ritchie, Rooks and Fisk.

Against: None.

Abstained: None.

The application was declared a significant activity.

8. Application #2019 – Wetland's boundary change application for the restoration of the White Bridge Waterworks facility at Maltby Street; Assessor's Map 52 & 53, Lots 11, 15, 16B16A, 17, 145, 147, 149, 150 & 151; New Britain Water Department, Ramon Esponda, Deputy Director, applicant.
9. Application #2020 – Wetlands application for the restoration of the White Bridge Waterworks facility at Maltby Street; Assessor's Map 52 & 53, Lots 11, 15, 16B16A, 17, 145, 147, 149, 150 & 151; New Britain Water Department, Ramon Esponda, Deputy Director, applicant.
10. Application #23-458F-305 – Floodplain application for the restoration of the White Bridge Waterworks facility at Maltby Street; Assessor's Map 52 & 53, Lots 11, 15, 16B16A, 17, 145, 147, 149, 150 & 151; New Britain Water Department, Ramon Esponda, Deputy Director, applicant.

Chairman Fisk explained that Applications #2019, #2020 and #23-466F-305 would be heard concurrently, but voted on separately.

The Commission received the following items in their electronic packets for Application #2019:

- a. Assessor's Map with Inland Wetlands Watercourse Layers
- b. Application (Attachments: Project Site Map; Additional Information; Project Drawings; Property Map; Wetland Replication Areas; Soil Scientist Report; and Stormwater Management Report.
- c. report dated September 29, 2022, regarding Wetland Delineation Report 2022 (attached maps and photographs), from C. Webb & Associates, LLC Environmental Consulting Services
- d. White Bridge Waterworks, Data Form Plot reports dated September 2022
- e. Wetland Survey Photos September 28, 2023, NBWC – Maltby Street – Mix Street Sewer Extension Project
(Attached Wetland Restoration & Mitigation Plan Sheets; Proposed NBWC – Bristol Facility Plantings Sheets; and City of Bristol GIS Wetland Boundary maps (Electronic Copy Only)
- f. Plan (Electronic Copy Only)

The Commission received the following items in their electronic packets for Application #2020:

- a. Assessor's Map with Inland Wetlands Watercourse Layers
- b. Application (attached narrative)
- c. Application (Attachments: Project Site Map; Additional Information; Project Drawings; Property Map; Wetland Replication Areas; Soil Scientist Report; and Stormwater Management Report
- d. report dated September 29, 2022, regarding Wetland Delineation Report 2022 (attached maps and photographs), from C. Webb & Associates, LLC Environmental Consulting Services
- e. White Bridge Waterworks, Data Form Plot reports dated September 2022
- f. Wetland Survey Photos September 28, 2023, NBWC – Maltby Street – Mix Street Sewer Extension Project
(Attached Wetland Restoration & Mitigation Plan Sheets, undated; Proposed NBWC – Bristol Facility Plantings Sheets, undated; and City Of Bristol GIS Wetland Boundary maps, undated. (Electronic Copy Only)
- g. Appendixes, Rainfall Data; Resources and Glossary
- h. CDM Smith Geotechnical Laboratory Testing Summary Sheet
- i. Appendixes C to F
- j. Plan (Electronic Copy Only)

The Commission received the following items in their electronic packets for Application #23-458F-305:

- a. Assessor's Map with Inland Wetlands Watercourse Layers
- b. Application (attached Project Site Map; Additional Information; Narrative; Flood Map; Floodway & Flood Fringe Encroachment Areas and Project Drawings.
- c. Plan (Electronic Copy Only)

MOTION: Move to receive Application #2019.

By: Carros

Seconded: Rooks

For: Carros, Massaro, Ritchie, Rooks and Fisk.
Against: None.
Abstained: None.

The application is received.

Sebastian Amenta, 1 Hartford Square, New Britain, spoke regarding the New Britain Water Departments request to make upgrades to the water property on Maltby Street. He gave a history of the facility and stated there are 23 wells and 2 buildings on the property. The pump stations are in need of repair and they cannot get parts due to the age of the facility. This would be a total refurbishment, a new pump house, wells will have submersible pumps, with three new wells in the upper field and six in the lower field. The driveway into the building will be paved and is part of the application.

Chairman Zachary Fisk, did state that even though this is not a public hearing, he will let the public have an opportunity to address the board tonight and stated there will be a public hearing next month.

Mary Rydingsward, 176 Marcia Dr, Bristol, from the Pequabuck Watershed Association spoke regarding the application. She wants to ensure that the mouth of the Coppermine Brook does not dry up as it has in the past due to this project. She also voiced her concerns over the long-term impact on the eco system that is established there as well and believes that a long-term impact study should be done.

MOTION: Move to declare Application #2019 a significant activity and set a public hearing for the February 5, 2024, meeting and schedule an onsite inspection.

By: Rooks

Seconded: Carros

For: Carros, Massaro, Ritchie, Rooks and Fisk.
Against: None.
Abstained: None.

The application was declared a non-significant activity.

9. Application #2020 – Wetlands application for the restoration of the White Bridge Waterworks facility at Maltby Street; Assessor's Map 52 & 53, Lots 11, 15, 16B16A, 17, 145, 147, 149, 150 & 151; New Britain Water Department, Ramon Esponda, Deputy Director, applicant.

MOTION: Move to receive Application #2020.

By: Carros

Seconded: Rooks

For: Carros, Massaro, Ritchie, Rooks and Fisk.
Against: None.
Abstained: None.

The application is received.

MOTION: Move to declare Application #2020 a significant activity and set a public hearing for the February 5, 2024, meeting and schedule an onsite inspection

By: Carros

Seconded: Massaro

For: Carros, Massaro, Ritchie, Rooks and Fisk.
Against: None.
Abstained: None.

The application was declared a significant activity.

10. Application #23-458F-305 – Floodplain application for the restoration of the White Bridge Waterworks facility at Maltby Street; Assessor's Map 52 & 53, Lots 11, 15, 16B16A, 17, 145, 147, 149, 150 & 151; New Britain Water Department, Ramon Esponda, Deputy Director, applicant.

MOTION: Move to receive Application #23-458F-305.

By: Carros

Seconded: Rooks

For: Carros, Massaro, Ritchie, Rooks and Fisk.

Against: None.

Abstained: None.

The application is received.

MOTION: Move to declare Application #23-458F-305 a significant activity and set a public hearing for the February 5, 2024, meeting and schedule an onsite inspection.

By: Rooks

Seconded: Carros

For: Carros, Massaro, Ritchie, Rooks and Fisk.

Against: None.

Abstained: None.

The application is declared a significant activity.

STAFF-APPROVED APPLICATIONS/PUBLISHED:

Administrative Applications Approved

App.# Approved Administrative	Street No.	Address	Purpose of App.
102093	n/a	Memorial Blvd.	Remove material from existing landscape bed
102094	92	Dino Rd.	New deck
102097	234	Riverside Ave.	Demolish building and foundation
Admin. Floodplain Apps			
23-467F-304	159	East Main Street	Generator

MOTION Move to file the report.

By: Carros

Seconded: Massaro

For: Carros, Massaro, Ritchie, Rooks and Fisk.

Against: None.

Abstained: None.

The application is filed.

STAFF REPORTS:

7. IWWC Report – December 2023

The Commission received the following item in their electronic packets:

- a. IWEO report for December 2023, dated December 29, 2023

Nancy Levesque, City Engineer, stated that 50 Terryville Ave is still being looked at. A reminder will be sent to the construction company to see what is the delay in completion.

MOTION Move to file the report.

By: Carros

Seconded: Rooks

For: Carros, Massaro, Ritchie, Rooks and Fisk.

Against: None.

Abstained: None.

The report is filed.

COMMUNICATIONS:

8. NVCOG Regional Open Space Inventory Stakeholder Kickoff

The Commission received the following items in their electronic packets:

- a. Flyer of the Regional Open Space Inventory Stakeholder Kickoff on December 4, 2023

MOTION Move to file the report.

By: Massaro

Seconded: Rooks

For: Carros, Massaro, Ritchie, Rooks and Fisk.

Against: None.

Abstained: None.

The report is filed.

Motion: to schedule onsite inspection for application #2018 for January 27, 2024 at 8:00 a.m. with a snow day of February 3, 2024 at 8:00 a.m.

By: Carros

Seconded: Massaro

For: Carros, Massaro, Ritchie, Rooks and Fisk.

Against: None.

Abstained: None.

The sire walk is scheduled.

Motion: to schedule onsite inspection for application #23-466F-302 for January 27, 2024 at 8:00 a.m. with a snow day of February 3, 2024 at 8:30 a.m.

By: Carros

Seconded: Massaro

For: Carros, Massaro, Ritchie, Rooks and Fisk.

Against: None.

Abstained: None.

The site walk is scheduled.

Motion: to schedule onsite inspection for application #23-466F-303 for January 27, 2024 at 8:30 a.m. with a snow day of February 3, 2024 at 8:30 a.m.

By: Carros

Seconded: Massaro

For: Carros, Massaro, Ritchie, Rooks and Fisk.

Against: None.

Abstained: None

The site walk is scheduled.

Motion: to schedule onsite inspection for application #2019 for January 27, 2024 at 9:00 a.m. with a snow day of February 3, 2024 at 8:00 a.m.

By: Carros

Seconded: Massaro

For: Carros, Massaro, Ritchie, Rooks and Fisk.
Against: None.
Abstained: None.

The site walk is scheduled.

Motion: to schedule onsite inspection for application #2020 for January 27, 2024 at 9:00 a.m. with a snow day of February 3, 2024 at 8:00 a.m.

By: Carros

Seconded: Massaro

For: Carros, Massaro, Ritchie, Rooks and Fisk.
Against: None.
Abstained: None.

The site walk is scheduled.

Motion: to schedule onsite inspection for application #23-458F-305 for January 27, 2024 at 9:00 a.m. with a snow day of February 3, 2024 at 8:00 a.m.

By: Carros

Seconded: Massaro

For: Carros, Massaro, Ritchie, Rooks and Fisk.
Against: None.
Abstained: None.

The site walk is scheduled.

ADJOURNMENT:

MOTION: Move to adjourn at 7:35 P.M.

By: Rooks

Seconded: Carros

For: Carros, Massaro, Ritchie, Rooks and Fisk.
Against: None.
Abstained: None.

This meeting was taped.

Respectfully submitted,
Laura Leger

Zachary Fisk, Chairman
Inland Wetlands Commission

David Rooks, Secretary

**BRISTOL CONSERVATION COMMISSION
INLAND WETLANDS AGENCY
FORM IW-1 (Application for a Wetlands Permit)**

<i>For Office Use Only</i>	
APPLICATION NO.	<u>2018</u>
DATE FILED:	<u>12/19/23</u>
DECISION DATE:	_____
DECISION:	_____

1. APPLICANT:

Name: City of Bristol DPW - Nancy Levesque, PE City Engineer Signature: 
Address: 111 North Main Street City: Bristol State: CT Zip 06010
Telephone No.: 860-584-6105 ☐ home ☒ work Email: NancyLevesque@bristol.gov

2. PROPERTY OWNER(S):

Name: City of Bristol - Jeffrey Caggiano, Mayor Signature: 
Address: 111 North Main Street City: Bristol State: CT Zip 06010
Telephone No.: 860-584-6250 ☐ home ☒ work Email: mayorsoffice@bristol.gov

3. DESCRIBE THE SUBJECT PROPERTY:

Address or Location: Bridge No. 04487 East Street over Pequabuck River
Assessor's Map No.: N/A Assessor's Lot No.(s): N/A
Description of wetlands (location, approximate area to be disturbed, vegetation, etc.): See attached Wetlands
Delineation Report and Permit Plan Drawing No. PMT-03, Wetland Impact Plan.

4. DESCRIBE THE PROPOSED ACTIVITY AND ITS PURPOSE:

The proposed activity is for the replacement
of Bridge No. 04487 to address structural deficiencies. See supplemental narrative.

5. CHECK THE STATEMENT WHICH APPLIES TO THE PROPOSED ACTIVITY:

- ☐ a. The proposed activity is either a use permitted as of right or a non-regulated use, under subsection of Section 4 of the Inland Wetlands Regulations. *See instructions for submission requirements.*
- ☐ b. The proposed activity is not regulated because it is greater than 100 feet from a wetlands or watercourse or will not
- ☒ c. The proposed activity is a regulated activity and will occur:
- | | |
|---|---|
| ☒ in a wetlands or watercourse; | area of impact: <u>2,939</u> SF (0.067 acres) |
| ☒ within 100 feet of a wetlands or watercourse; | area of impact: _____ SF (____ acres) |
| ☒ beyond 100 feet of a wetlands or watercourse; | area of impact: _____ SF (____ acres) |

6. FLOW CALCULATIONS:

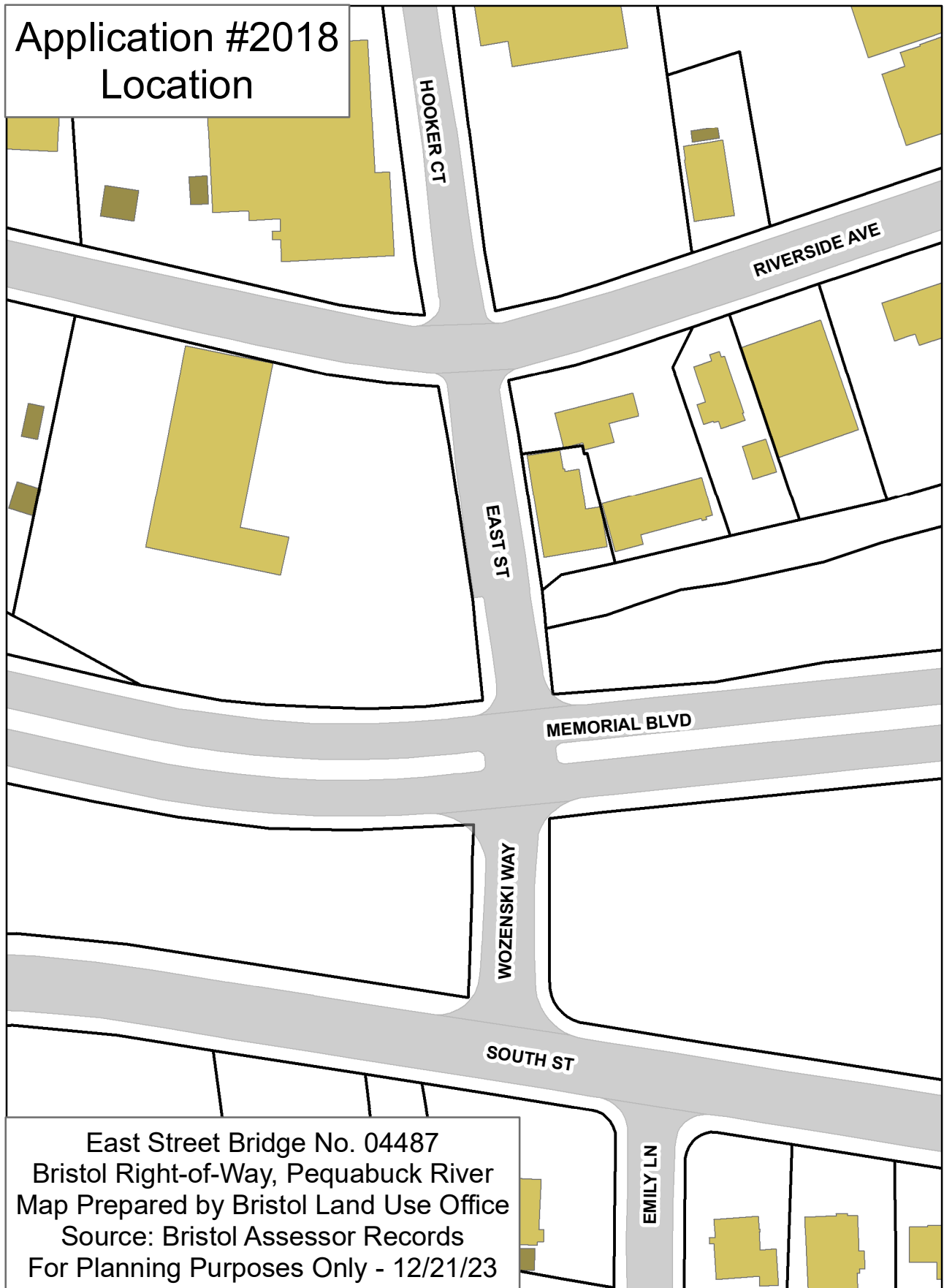
Does a watercourse flow through the subject property?

☒ yes ☐ no

If "yes", see instructions for submission requirements.

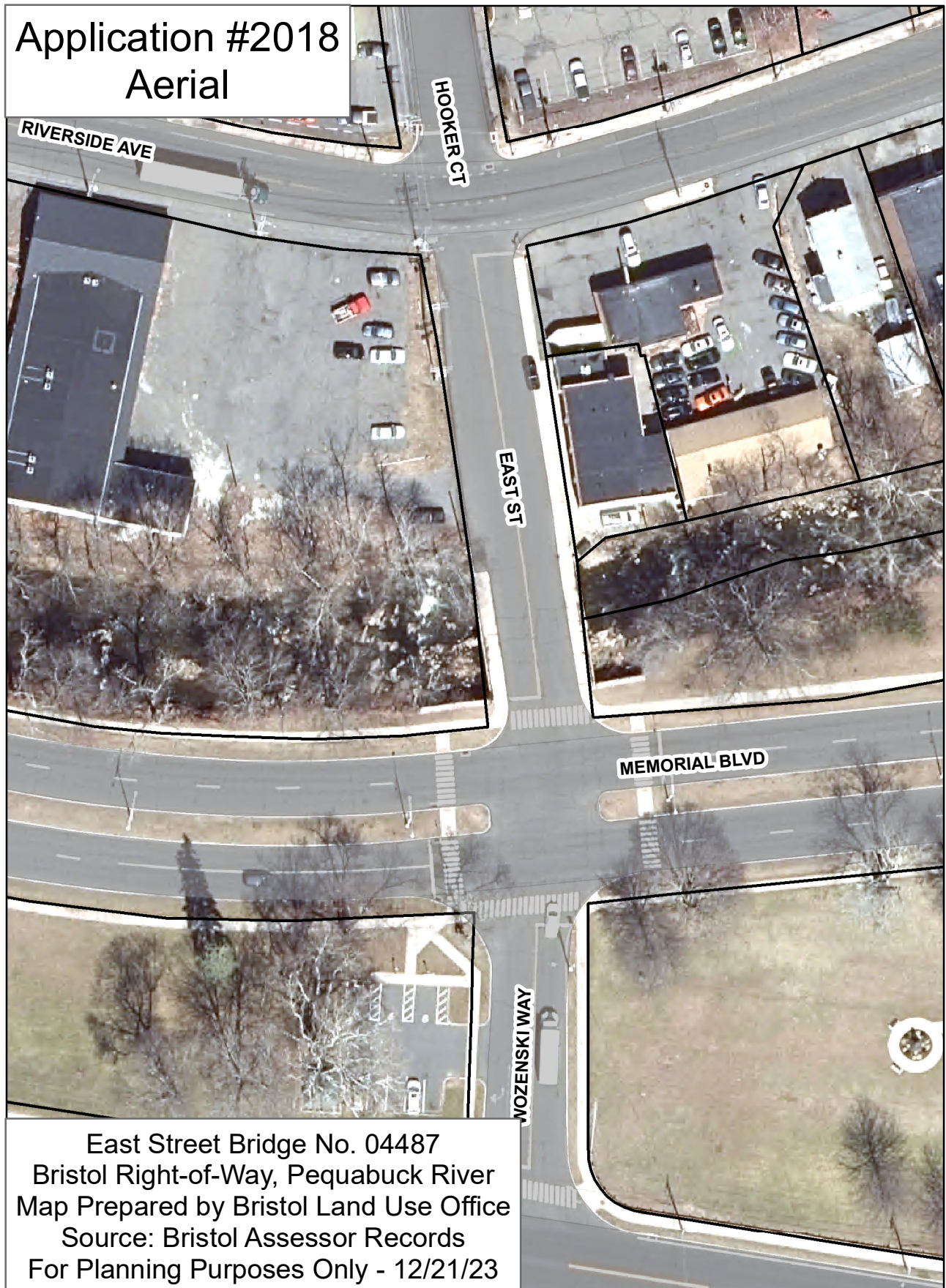
The proposed project will not change the rate of flow during the 50 year storm.

Application #2018
Location



East Street Bridge No. 04487
Bristol Right-of-Way, Pequabuck River
Map Prepared by Bristol Land Use Office
Source: Bristol Assessor Records
For Planning Purposes Only - 12/21/23

Application #2018
Aerial

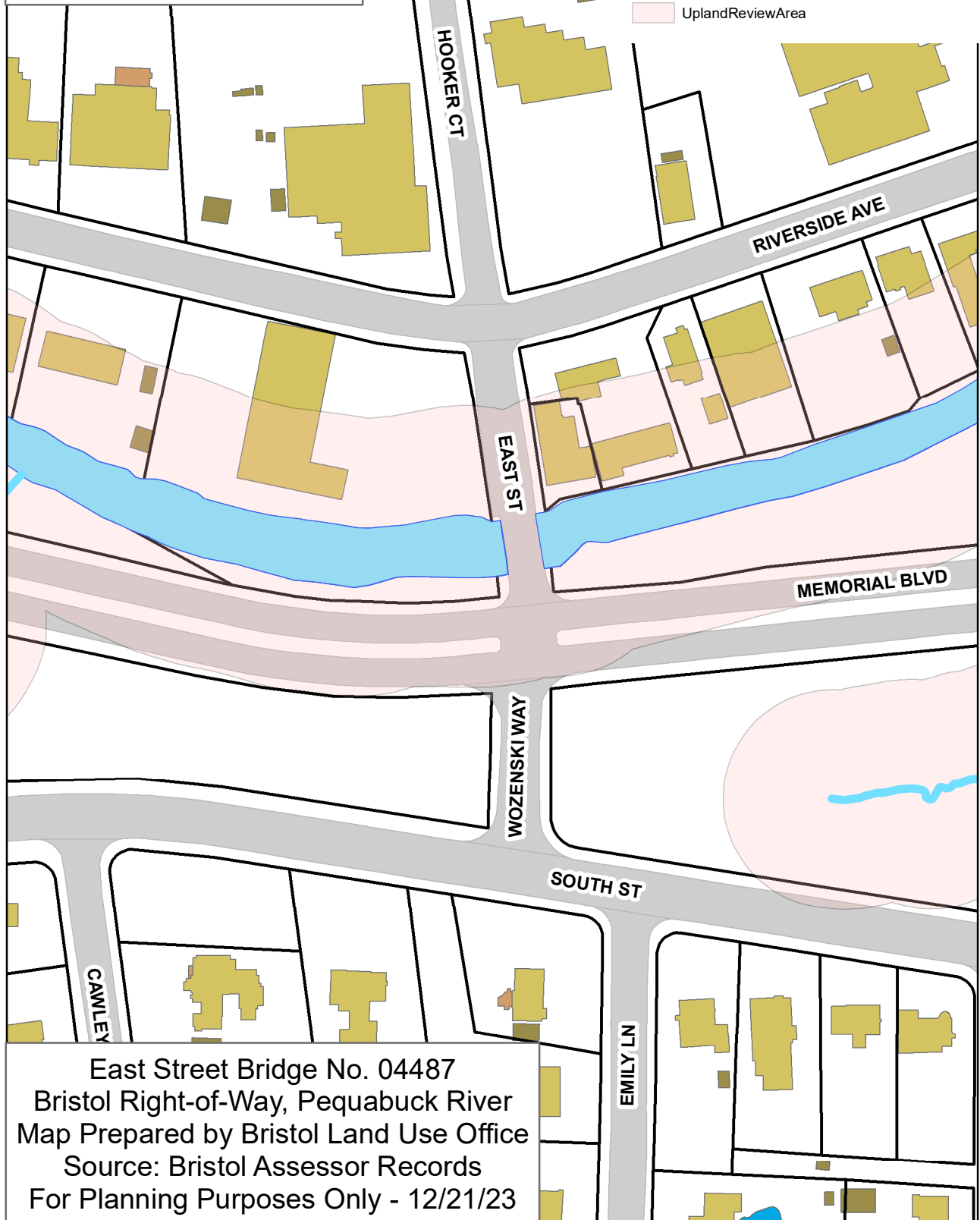


East Street Bridge No. 04487
Bristol Right-of-Way, Pequabuck River
Map Prepared by Bristol Land Use Office
Source: Bristol Assessor Records
For Planning Purposes Only - 12/21/23

Application #2018
IWWC

Legend

- BRISTOL_GIS.DBO.Bristol_Waterbodies
- BRISTOL_GIS.DBO.Bristol_Watercourse_lines
- WETLANDS
- UplandReviewArea





**Replacement of Bridge No. 04487
East Street over the Pequabuck River
Bristol, Connecticut
State Project Number 0017-0192**

Application for a Wetlands Permit

Prepared by:

GM2 Associates Inc.
115 Glastonbury Boulevard
Glastonbury, CT 06033
869.659.1415 | gm2inc.com

Date: October, 2023

Revised: N/A

Attachments

1. Application Form
2. Supplemental Narrative
3. Wetlands and Watercourses Investigation Report
4. Hydraulic Report – *separate cover*
5. Statewide Inland Wetlands and Watercourses Activity Reporting Form
6. CT DOT Flood Management Certification
7. Permit Plans

**BRISTOL CONSERVATION COMMISSION
INLAND WETLANDS AGENCY
FORM IW-1 (Application for a Wetlands Permit)**

<i>For Office Use Only</i>	
APPLICATION NO.	_____
DATE FILED:	_____
DECISION DATE:	_____
DECISION:	_____

1. APPLICANT:

Name: City of Bristol DPW - Nancy Levesque, PE City Engineer Signature: _____

Address: 111 North Main Street City: Bristol State: CT Zip 06010

Telephone No.: 860-584-6105 ☐ home ☒ work Email: NancyLevesque@bristol.gov

2. PROPERTY OWNER(S):

Name: City of Bristol - Jeffrey Caggiano, Mayor Signature: _____

Address: 111 North Main Street City: Bristol State: CT Zip 06010

Telephone No.: 860-584-6250 ☐ home ☒ work Email: mayorsoffice@bristol.gov

3. DESCRIBE THE SUBJECT PROPERTY:

Address or Location: Bridge No. 04487 East Street over Pequabuck River

Assessor's Map No.: N/A Assessor's Lot No.(s): N/A

Description of wetlands (location, approximate area to be disturbed, vegetation, etc.): See attached Wetlands

Delineation Report and Permit Plan Drawing No. PMT-03, Wetland Impact Plan.

4. DESCRIBE THE PROPOSED ACTIVITY AND ITS PURPOSE:

The proposed activity is for the replacement
of Bridge No. 04487 to address structural deficiencies. See supplemental narrative.

5. CHECK THE STATEMENT WHICH APPLIES TO THE PROPOSED ACTIVITY:

☐ a. The proposed activity is either a use permitted as of right or a non-regulated use, under subsection of Section 4 of the Inland Wetlands Regulations. *See instructions for submission requirements.*

☐ b. The proposed activity is not regulated because it is greater than 100 feet from a wetlands or watercourse or will not

☒ c. The proposed activity is a regulated activity and will occur:

☒ in a wetlands or watercourse;	area of impact: <u>2,939</u> SF (0.067 acres)
☒ within 100 feet of a wetlands or watercourse;	area of impact: _____ SF (____ acres)
☒ beyond 100 feet of a wetlands or watercourse;	area of impact: _____ SF (____ acres)

6. FLOW CALCULATIONS:

Does a watercourse flow through the subject property?

☒ yes ☐ no

If "yes", see instructions for submission requirements.

The proposed project will not change the rate of flow during the 50 year storm.

BRISTOL CONSERVATION COMMISSION
INLAND WETLANDS AGENCY
FORM IW-1/Page 2

7. AUTHORIZATIONS AND CERTIFICATIONS:

- a. I/we hereby authorize the commissioners and agents of the Bristol Inland Wetlands Agency to inspect the subject property at reasonable times, both before and after a final decision has been made regarding this application or request.
- b. I/we hereby certify that, if a portion of the subject property is located within 500 feet of the boundary of an adjoining municipality, I/we have caused written notice of the proposed activity to be sent to the Inland Wetlands and Watercourses Agency of such municipality by certified mail, return receipt requested, on the date that I/we submitted this application to the City of Bristol. Refer to Section 7.5 of the Bristol Inland Wetland Regulations.
- c. I/we hereby certify that I/we am/are familiar with the information included in this application and am/are aware that the law provides that any person who commits, takes part in, or assists in any violation of any provision of Sections 22a-36 through 22a-45, inclusive, of the Connecticut General Statutes, including regulations adopted by the Commissioner of Environmental Protection and ordinances and regulations of the City of Bristol through its Inland Wetlands Agency, shall be assessed a civil penalty of not more than one thousand dollars for each offense. I/we further certify that I/we am/are aware that it is a violation of law to obtain a wetlands permit or ruling through deception or through inaccurate or misleading information.

8. SUBMISSION REQUIREMENTS:

The following shall be included as part of this application:

- filing fee – make checks payable to "City of Bristol"

Wetlands Permit

total project size: one acre or less – \$185

total project size: more than one acre – \$185 *plus* \$40 per additional acre or portion thereof

Extension of Unexpired Permit

total project size: one acre or less – \$110

total project size: more than one acre – \$135

Modification of Existing Permit

total project size: one acre or less – \$135

total project size: more than one acre – \$160

NOTE: Application filing fees include \$60 state fee.

- electronic copies of all information, plus one copy of final Plan showing existing and proposed conditions in relation to the wetlands and/or watercourses, prepared in accordance with Section 7.8 of the Regulations
- any other information as may be required by the Agency



Project Activity:

Bridge No. 04487 carries East Street over the Pequabuck River in Bristol, Connecticut. Constructed in 1900, and rehabilitated in 1929, the bridge is a two-span structure comprised of concrete cast-in-place tee beam superstructure supported by stone stub abutment and a central pier with a bituminous wearing surface. The bridge has an overall length of 63-feet, a max. clear span of ± 28 -feet, and an out-to-out width of 50-feet. The bridge is located 160-feet south of Riverside Avenue (SR 72) and 22-feet north of Memorial Boulevard.

Based on the most recent Connecticut Department of Transportation (CTDOT) Routine Inspection Report dated 9/15/2020 the bridge was assigned an overall structure rating of 4. The bridge deck and superstructure are rated 4 (poor) with numerous large hollow areas and spalls with exposed rusted rebars, punky concrete, efflorescence and areas of water leakage. Concrete T-Beams have gunite coating, which has cracked and spalled off at random locations, exposing the concrete of the T-Beams. These beams show large spalls, some with the exposed main longitudinal reinforcement and exposed stirrups, large areas of moderate scale and areas of efflorescence build up. The substructures are rated 6 (satisfactory) and are also covered with gunite coating, which exhibits cracking, with and without efflorescence and hollow areas. The gunite coating along the south abutment has settled and is displaced in areas exposing the masonry. At the pier, 95% of the gunite is missing on the south side and 50% is missing on the north side.

The bridge is currently rated 6 for channel scour, with minor scour holes between ledge and boulders. There is a 15' long by 5' wide by 3' deep area of scour along the pier. This observed scour hole has not changed in recent routine inspections. The Pequabuck River is characterized by gravel, boulders and some cobbles with a high potential for self-armoring and is laterally stable, however flow favors the northern span.

The existing bridge has functioned adequately for about 92-years and is in need of major rehabilitation or full replacement. From the latest inspection report on September 15, 2020, it is evident that the entire existing bridge should be replaced due to significant deterioration and a poor condition rating.

Four replacement alternatives were considered for Bridge No. 04487:

- Alternative 1A: New 2-span bridge consisting of adjacent prestressed deck units topped with concrete slab, supported by new concrete abutments and concrete pier on spread footings.
- Alternative 1B: New 2-span bridge consisting of adjacent prestressed deck units without concrete slab, supported by new concrete abutments and concrete pier on spread footings.

- Alternative 2: New single span bridge consisting of Northeast Extreme Tee, Type D (NEXT D) beams with concrete deck, supported by new concrete abutments on spread footings.
- Alternative 3: New single span bridge consisting of spread prestressed concrete box beams with concrete deck, supported by new concrete abutments on spread footings.

All alternatives include the removal of the existing abutments and pier. All of the alternatives will have similar environmental impacts on the river below. The work in the channel is required for removal of the existing substructures and construction of the new one. Cofferdams will be installed around the existing substructures and ground water will be pumped away from the construction area to dewatering basins.

Alternative 1A was chosen which involves the full replacement of the existing bridge with a 2 span 60'-2" long structure consisting of adjacent prestressed concrete deck units and cast-in-place topping slab, supported by spread footings founded on concrete fill or directly on bedrock. This alternative achieves the project goal of providing a 75-year design life.

The proposed sequence of construction is:

Pre-stage 1

- Close East Street off from vehicular and pedestrian traffic and implement a detour plan
- Cut off and cap existing water main for duration of construction
- Install sediment and erosion controls
- Install debris shield above elevation 272' and remove existing superstructure
- Remove debris shield

Stage 1

- Install temporary water handling cofferdams around bridge pier
- Remove existing pier
- Construct proposed pier footing, stem and pier cap
- Remove temporary water handling cofferdams

Stage 2

- Install temporary water handling cofferdams around bridge abutments
- Remove existing abutments and wingwalls
- Construct proposed abutments, wingwalls footings, and stems
- Backfill new bridge abutments and remove temporary water handling cofferdams
- Install boulder clusters in river

Post--stage 2

- Install prestressed concrete deck units
- Construct approach slabs, sidewalks, pilasters, barrier walls and metal bridge rails
- Apply membrane waterproofing and first lift of bituminous overlay
- Construct roadway approaches to bridge

- Apply final lift of bituminous overlay to the entire project
- Saw and seal overlay at the ends of the bridge deck
- Open road to traffic and pedestrians and complete miscellaneous work
- Install proposed water main
- Remove erosion and sedimentation controls upon permanent stabilization

The bridge replacement is being funded by 80 percent federal funds and 20 percent local funds.

Regulated Activity:

The Pequabuck River and wetlands in the project area are depicted on the enclosed plans and described in the attached Wetlands Delineation Report. Activity within the watercourse and wetlands is required for the bridge replacement.

Project elements that result in permanent impacts to wetlands include:

- Installation of center pier with a footing that is slightly larger than the existing center pier
- Grading for the bridge abutments and wingwalls and embankments
- Installation of riprap slope stabilization
- Installation of boulder clusters per recommendations of CT DEEP Fisheries

Project elements that result in temporary impacts to wetlands include:

- Installation of temporary water-handling cofferdam for the center pier replacement
- Installation of temporary water-handling cofferdam for the construction of the new bridge abutments and wingwalls

All impact items will be able to be removed in a timely manner from the site in case of a flood warning, except for items designed as temporary structures in accordance with the guidelines outlined in the CTDOT Drainage Manual for Temporary Hydraulic Structures. Activities within the regulated upland review area are necessary for the installation of erosion and sedimentation control devices, removal of the existing superstructure, rehabilitation of the existing abutments, installation of the new superstructure and abutments, drainage improvements, sidewalk installation, and associated roadway improvements. All work will be completed in accordance with CTDOT Standard Specifications for Roads, Bridges and Incidental Construction, Form 818, as revised. All temporary wetland/watercourse impacts will be restored to pre-construction conditions.

Floodplain Activity:

Bridge No. 04487 is located within FEMA Zone AE and a regulatory floodway as depicted on Flood Insurance Rate Map (FIRM) Panel No. 09003C0466F. Work within the floodplain and floodway is required for the bridge replacement. A regulatory analysis was completed to demonstrate no adverse effects from the proposed project to the regulatory water surface elevations, 100-year floodplain, floodway, surrounding properties, and the Pequabuck River. A separate Floodplain

Permit Application has been submitted to the City of Bristol. A *Flood Management Certification (FMC) for Municipalities* was applied for from the CTDOT since state funding is involved with the project. The CTDOT FMC has been received and is attached.

November 30, 2020

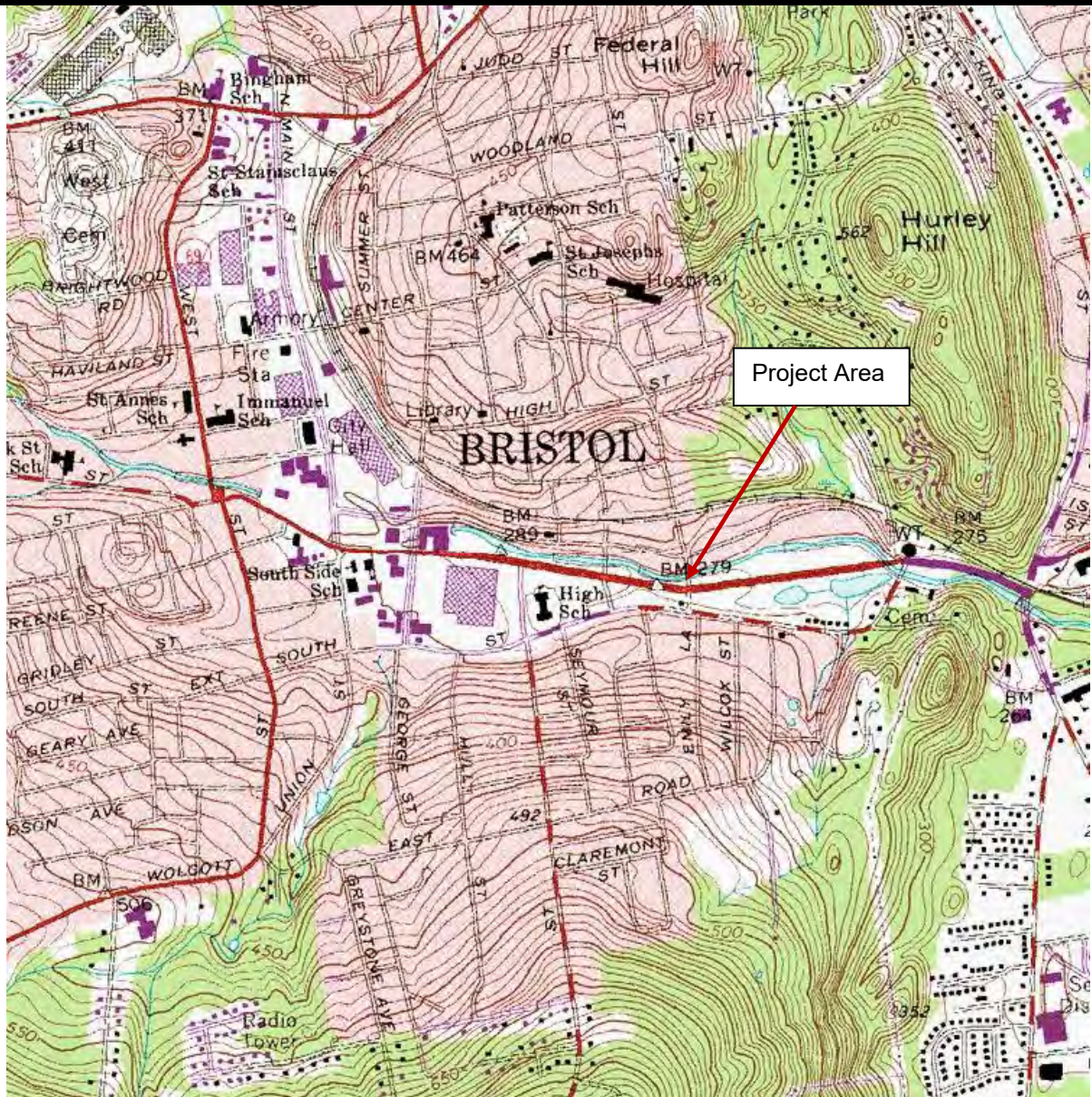
ATTN: Paul Brand
GM2 Associates, Inc.
115 Glastonbury Boulevard
Glastonbury, CT 06033

**Re: Wetlands Delineation Report
East Street Bridge Over Pequabuck River, Bristol, CT**

Dear Mr. Brand:

In accordance with your request, Scott D. Stevens, Registered Professional Soil Scientist and Jennifer L. Beno, Biologist/Wetland Scientist, with Soil Science And Environmental Services, Inc. (SSES) inspected the project area on November 19, 2020. The purpose of the inspection was to identify regulated wetlands and watercourses within the designated project area under the existing conditions encountered during the site inspection. The estimated ordinary high water level along the Pequabuck River watercourse channel also was identified within the project area during the inspection. The project site is situated in the south-central portion of Bristol (Figure 1).

Regulated waters and wetlands present in and near the project area include Pequabuck River and associated CT inland wetlands. Definitions of waters and wetlands that are regulated by the State of Connecticut and Federal Government are presented in Appendix I. Rivers and streams are regulated by the State of CT as watercourses, according to the Inland Wetlands and Watercourses Act. Rivers and streams are regulated by the Federal Government as "Waters of the U.S." Wetlands are defined differently by the State of CT and the Federal Government. CT Inland Wetlands are defined by soil types that are either poorly drained, very poorly drained, floodplain or alluvial. Federal Wetlands consist of areas that are inundated or saturated by ground or surface water at a frequency and duration sufficient to support, and that under normal conditions do support, a prevalence of vegetation typically adapted for life in saturated soil conditions.



**SOIL SCIENCE and
ENVIRONMENTAL
SERVICES, INC.**

USGS Topography Map – Bristol, CT
East Street Bridge
Over Pequabuck River,
Bristol, CT

Date 11/20/2020

Figure No. 1

A spade and auger were used to dig test holes for soils identification during the investigation. The vegetation communities and any physical indicators of hydrology in the project area were also examined. The CT inland wetland boundaries were delineated with consecutively numbered orange survey tapes. No Federal wetlands exist within the project area. A sketch map of the delineated wetland boundaries is included as Figure 2.

CONNECTICUT INLAND WETLANDS & SOIL TYPES

CT inland wetlands dominated by a very narrow palustrine forested wetland community were delineated within and near the project area. See Figure 2.

The wetland soils within and near the project area include:

109 Fluvaquents-Udfluvents This soil map unit consists of well drained to very poorly drained, nearly level soils that formed in very recent alluvium deposited by rivers and streams. The soils are occasionally to frequently flooded, which often results in stream scouring, lateral erosion and shifting of soil from place to place. Soil characteristics, such as texture and stoniness, are usually highly variable within short distances.

The non-wetland soils within and near the project area include:

306 Udorthents-Urban land complex This map unit consists of extensive areas where soils have been disturbed from land development along with large areas of impervious surfaces associated with streets, parking lots, buildings and other structures.

307 Urban land This map unit consists of land which is mostly covered with streets, parking lots, buildings and other structures. Generally, more than 75% of the map unit consists of impervious surface.

308 Udorthents, smoothed This is a well drained to moderately well drained soil area that has had two or more feet of the original soil surface altered by filling, excavation or grading activities. Udorthents, smoothed soils commonly occur on leveled land and fill landforms.



**Figure No. 2 – Sketch of CT Wetland Boundaries (approx.)
(base map from CT ECO site)**



Looking up-stream at narrow palustrine forested wetland along Pequabuck River (11/19/2020).



Looking down-stream at narrow palustrine forested wetland along Pequabuck River (11/19/2020).

FEDERAL WETLANDS

No Federal wetlands exist within the project area.

ORDINARY HIGH WATER MARK IDENTIFICATION

The lateral limits of U.S. Army Corps jurisdiction for non-tidal rivers, streams and water bodies extends to the ordinary high water mark (OHW), in the absence of adjacent wetlands. The Corps defines the term “ordinary high water mark” as the following: “means the line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas.” 33 CFR 328.3(e). The Corps recommends that whenever possible the investigator should consider the former indicators along with a number of others, that include: wracking; vegetation matted down, bent or absent; sediment sorting; leaf litter disturbed or washed away; scour; deposition; multiple observed flow events; beds and banks; water staining; and change in plant community.

The above-listed indicators were utilized during the November 19, 2020 inspection to determine the estimated ordinary high water (OHW) along Pequabuck River within the project area based on existing conditions observed during the inspection. Blue survey tapes were tied onto plant material at several locations within the project area in order to identify the OHW elevation. The knot of the tied survey tape marks the estimated OHW elevation. A sketch map showing the approximate locations of the OHW survey tapes is included in Figure 3.

Respectfully submitted,

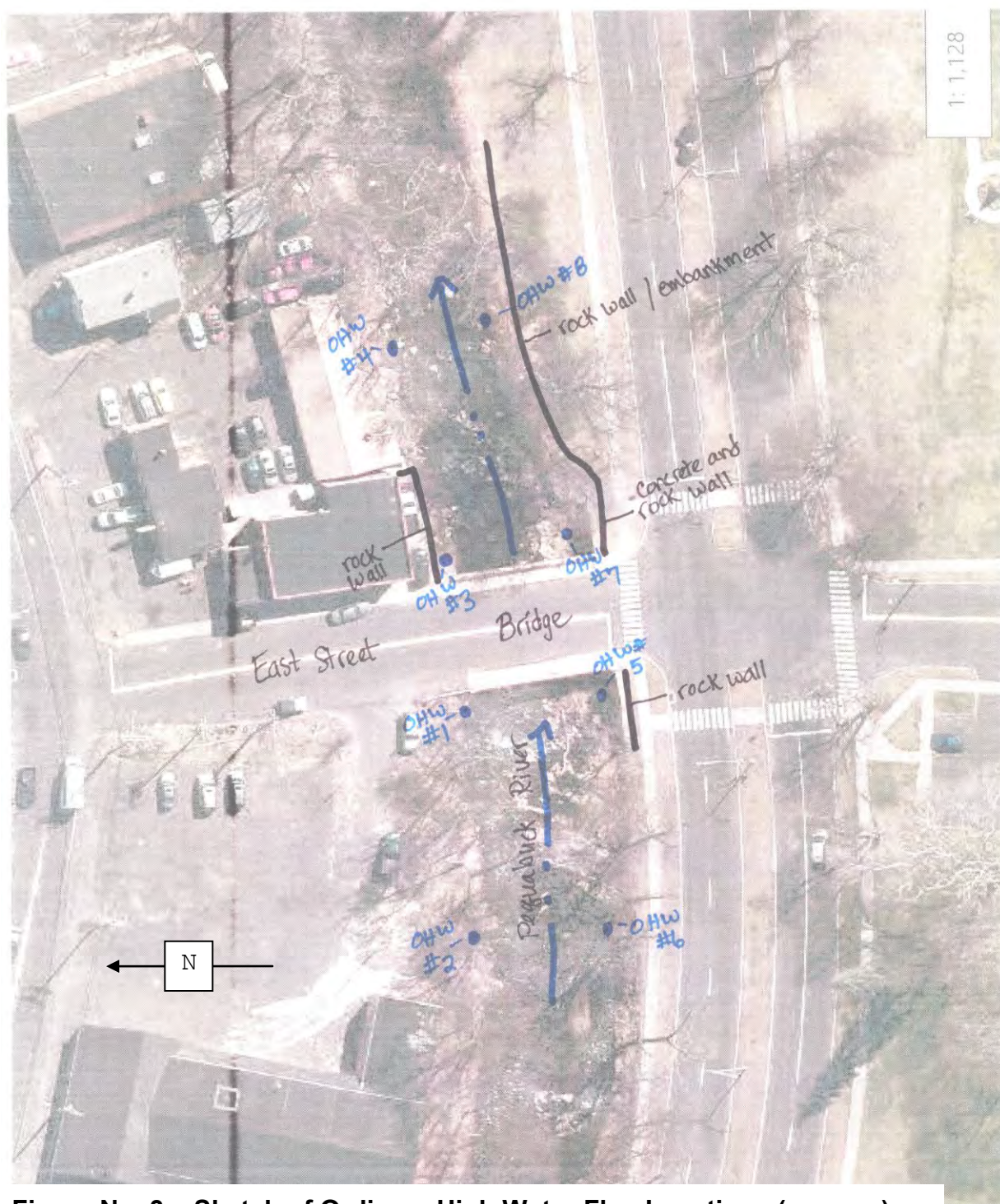
SOIL SCIENCE AND ENVIRONMENTAL SERVICES, INC.



Scott D. Stevens
Registered Professional Soil Scientist



Jennifer L. Beno
Biologist/Wetland Scientist



**Figure No. 3 – Sketch of Ordinary High Water Flag Locations (approx.)
(base map from CT ECO site)**

APPENDIX I

REGULATED WATERS AND WETLANDS BY THE STATE OF CT AND FEDERAL GOVERNMENT

I. State of Connecticut

Wetlands and watercourses are regulated in the State of Connecticut by the Connecticut General Statutes, Chapter 440, section 22a-28 to 22a-45. These Statutes are divided into the Inland Wetlands and Watercourses Act (sections 22a-36 to 22a-45) and the Tidal Wetlands Act (sections 22a-28 to 22a-35). Definitions of the resources are provided in the statutes.

Inland Wetlands, "means land, including submerged land, not regulated pursuant to sections 22a-28 to 22a-35, inclusive, which consist of any of the soil types designated as poorly drained, very poorly drained, alluvial, and floodplain by the National Cooperative Soils Survey, as may be amended from time to time, of the Natural Resources Conservation Service of the United States Department of Agriculture" section 22a-38(15).

Watercourses "means rivers, streams, brooks, waterways, lakes, ponds, marshes, swamps, bogs and all other bodies of water, natural or artificial, vernal or intermittent, public or private which are contained within, flow through or border upon this state or any portion thereof, not regulated pursuant to sections 22a-28 to 22a-35, inclusive. Intermittent watercourses shall be delineated by a defined permanent channel and bank and the occurrence of two or more of the following characteristics: (A) Evidence of scour or deposits of alluvium or detritus, (B) the presence of standing or flowing water for a duration longer than a particular storm incident, and (C) the presence of hydrophytic vegetation" section 22a-38(16).

Tidal Wetlands are defined as "those areas which border on or lie beneath tidal waters, such as, but not limited to banks, bogs, salt marsh, swamps, meadows, flats, or other low lands subject to tidal action, including those areas now or formerly connected to tidal waters, and whose surface is at or below an elevation of one foot above local extreme high water; and upon which may grow or be capable of growing some but not necessarily all, of the following:" (includes plant list) section 22a-29(2).

II. Federal Government

The Federal Government regulates waters and wetlands in accordance with the Code of Federal Regulations, Title 33, Parts 320 through 330 (33 CFR parts 320 to 330). Regulated areas include navigable waters; interstate waters; tributaries to navigable and interstate waters, including adjacent wetlands; and certain other waters and wetlands of the U.S. The United States Army Corps of Engineers has been authorized to regulate these waters and wetlands by Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act of 1899. Definitions of wetlands and watercourses that are regulated by the Corps are found in Parts 328 and 329 of the Code.

Waters of the United States as defined in Part 328 means, " (1) all waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide; (2) all interstate waters including interstate wetlands; (3) all other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect interstate or foreign commerce; (4) all impoundments of waters otherwise defined as waters of the U.S. under the definition; (5) tributaries of waters identified in 1 thru 4; (6) territorial seas; and (7) wetlands adjacent to waters that were identified in 1 thru 6. Waters of the United States do not include prior converted cropland" (33 CFR Part 328.3 (a)).

Wetlands are a subset of waters of the United States and are defined as "those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas" (33CFR Part 328.3(b)). The 1987 U.S. Corps of Engineers Delineation Manual and the Draft Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region (dated July 2008) provide information and procedures for conducting Federal Wetland delineation. The methodology established by the Federal Government uses a three parameter approach utilizing hydrologic indicators, hydrophytic vegetation and hydric soils for identifying Federal Wetlands.

Navigable waters of the United States as defined in Part 329 mean "those waters that are subject to the ebb and flow of the tide and/or are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce" (33CFR Part 329.2).

Statewide Inland Wetlands & Watercourses Activity Reporting Form

Please complete this form in accordance with the instructions on pages 2 and 3 and mail to:

DEEP Land & Water Resources Division, Inland Wetlands Management Program, 79 Elm Street, 3rd Floor, Hartford, CT 06106

Incomplete or incomprehensible forms will be mailed back to the inland wetlands agency.

PART I: Must Be Completed By The Inland Wetlands Agency

1. DATE ACTION WAS TAKEN: year: _____ month: _____
2. ACTION TAKEN (see instructions - one code only): _____
3. WAS A PUBLIC HEARING HELD (check one)? yes ☐ no ☐
4. NAME OF AGENCY OFFICIAL VERIFYING AND COMPLETING THIS FORM:
(print name) _____ (signature) _____

PART II: To Be Completed By The Inland Wetlands Agency Or The Applicant

5. TOWN IN WHICH THE ACTIVITY IS OCCURRING (print name): Bristol
does this project cross municipal boundaries (check one)? yes ☐ no ☒
if yes, list the other town(s) in which the activity is occurring (print name(s)): _____
6. LOCATION (see instructions for information): USGS quad name: Bristol or number: 50
subregional drainage basin number: 4315
7. NAME OF APPLICANT, VIOLATOR OR PETITIONER (print name): City of Bristol
8. NAME & ADDRESS OF ACTIVITY / PROJECT SITE (print information): East Street Bridge No. 04487
briefly describe the action/project/activity (check and print information): temporary ☒ permanent ☐ description: _____
Replacement of bridge carrying East Street over the Pequabuck River (Bridge No. 04487)
9. ACTIVITY PURPOSE CODE (see instructions - one code only): E
10. ACTIVITY TYPE CODE(S) (see instructions for codes): 1, 2, 9, 12
11. WETLAND / WATERCOURSE AREA ALTERED (see instructions for explanation, must provide acres or linear feet):
wetlands: 0.07 acres open water body: _____ acres stream: _____ linear feet
12. UPLAND AREA ALTERED (must provide acres): 0.4 acres
13. AREA OF WETLANDS / WATERCOURSES RESTORED, ENHANCED OR CREATED (must provide acres): 0.00 acres

DATE RECEIVED:

PART III: To Be Completed By The DEEP

DATE RETURNED TO DEEP:

FORM COMPLETED: YES NO

FORM CORRECTED / COMPLETED: YES NO



STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION



2800 BERLIN TURNPIKE, P.O. BOX 317546
NEWINGTON, CONNECTICUT 06131-7546

April 12, 2023

The Honorable Jeffrey Caggiano
Mayor
City of Bristol
111 North Main Street
Bristol, Connecticut 06010

Dear Mayor Caggiano:

Subject: Flood Management Certification (FMC)
State Project No. 0017-0192
Rehabilitation of Bridge No. 04487, East Street over Pequabuck River
City of Bristol

In accordance with the Memorandum of Understanding (MOU) between the Connecticut Department of Transportation (Department) and the Connecticut Department of Energy and Environmental Protection (DEEP) regarding flood management certifications for municipal projects, the Department has completed the review of the flood management certification prepared and submitted for the city of Bristol for the subject project. The certification states that the proposed activity is consistent with all applicable standards and criteria established in Section 25-68d(b) of the Connecticut General Statutes and Sections 25-68h-1 through 25-68h-3, inclusive, of the Regulations of Connecticut State Agencies.

The proposed project involves the rehabilitation of Bridge No. 04487, East Street over Pequabuck River, in Bristol, Connecticut, as shown on the Environmental Permit Plans dated February 3, 2023, and as documented in the Final Hydraulic Report dated February 2, 2023, and the Final Floodway Report dated February 2, 2023. The project is located within the 100-year Flood Zone AE of the Pequabuck River.

The certification is complete and approved, subject to the following standard conditions:

Standard Conditions:

1. Time of Year Restriction on In-water Construction
 - a. Between September 30th and May 31st, the municipality shall not place fill, excavate material, or conduct any other construction activity in any watercourse unless such activity is confined by a cofferdam or other device which isolates such activity from the watercourse, unless the DEEP Inland Fisheries Division has given written authorization otherwise.

- b. The municipality shall not place fill, excavate material, or conduct any other activity in any watercourse stocked with fish by the Commissioner or any other person, or in any tributary to such watercourse, from 12:01 a.m. on the Monday preceding the third Saturday in April through 12 midnight on the Sunday preceding the fourth Saturday in April.
- c. The municipality shall not place fill, excavate material, or conduct any other construction activity in or adjacent to any watercourse, which activity may adversely affect anadromous fish, during the time period when anadromous fish are known or reasonably believed to be migrating in the watercourse.

2. Pollution Prevention/Best Management Practices

The municipality shall not cause or allow the authorized activity, including any construction associated therewith, to result in pollution or other environmental damage and shall employ best management practices to prevent such damage. The municipality shall, in addition to employing any other best management practices necessary to prevent such damage, do the following:

a. Controlling Erosion

The municipality shall install and maintain in optimal condition erosion and sedimentation controls to prevent erosion and discharge of material into any waters of the state, including wetlands, as a result of the authorized activity or any construction associated therewith. Such controls shall be installed and maintained in conformance with the *Connecticut Guidelines for Soil Erosion and Sediment Control*, as revised, published by the Connecticut Council on Soil and Water Conservation pursuant to Section 22a-328 of the Connecticut General Statutes.

b. Proper Disposal of Material

All material and solid waste generated during any construction associated with such activity shall be disposed of in accordance with applicable federal, state, and local law.

- 3. Storage of equipment/material within the floodplain should be avoided; but, if absolutely necessary, the municipality will require the contractor to remove equipment and materials from the 100-year floodplain during periods when flood warnings have been issued or are anticipated by a responsible federal, state or local agency. It shall be the contractor's responsibility to be knowledgeable of such warnings when flooding is anticipated.
- 4. Work shall not be conducted in or adjacent to watercourses and reservoirs used as public drinking water supply sources without coordination with the water supply utility and the Department of Public Health.
- 5. All temporary structures, cofferdams, and fill shall not impede the movement of flood flows and shall be removed at the completion of their use. The design of such temporary structures, cofferdams and fill shall be based on the DOT Drainage Manual, where applicable. Sheet piling that is cut 1 foot below existing grade shall be considered removed.

The Honorable Jeffrey Caggiano

-3-

April 12, 2023

6. All fill shall be clean material, free of stumps, rubbish, hazardous, and toxic material.
7. Once work is initiated, it shall proceed rapidly and steadily until completed and stabilized in order to minimize use of temporary structures and to minimize soil erosion.

Please be advised of the following project specific information:

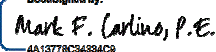
1. Pursuant to Standard Condition 1.c, coordination with DEEP Inland Fisheries Division concluded that there were no anadromous fish of concern within the project area.
2. The Contractor must contact DEEP Fisheries Biologist Matt Goclowski of DEEP Fisheries at matthew.goclowski@ct.gov ten days before the installation of the boulder cluster.

A copy of the completed certification forms is attached for your records. No revisions or alterations to the approved plans are allowed without first obtaining written approval from the Department for such alterations.

This letter and certification forms must be attached to any subsequent permit applications for the municipal project that are submitted to the DEEP or the U.S. Army Corps of Engineers.

If there are any questions, please contact Mr. Michael Hogan, Transportation Principal Engineer for the Hydraulics and Drainage Section, at 860-594-3241 or Michael.Hogan@ct.gov.

Very truly yours,

DocuSigned by:

4A13778C34394C9

Mark F. Carlino, P. E.
Engineering Administrator
Bureau of Engineering and Construction

The Honorable Jeffrey Caggiano

-4-

April 12, 2023

Enclosures

cc: Mr. Jeff Caiola, DEEP

**Statewide Flood Management Certification for
Federally and State Funded Municipal Projects**

Attachment A: DOT

A-1: Engineering Certification

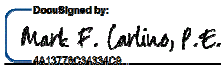
Name of Subject Facility and DOT Project Number:

Bridge No. 04487, East Street over Pequabuck River, Bristol
State Project No. 0017-0192

Name of floodplain and watercourse:

Zone AE and Floodway
Pequabuck River

I hereby certify, in reliance on the Municipal Official Certification, the Town Engineer / Consultant-Professional Certification, the DOT Hydraulics and Drainage Section and the DOT Environmental Planning reviews, that the above referenced project qualifies for the DEP Commissioner's approval pursuant to Section 25-68d of the General Statutes, and that the proposed activity described in this application is consistent with all applicable standards and criteria established in Sections 25-68d(b) of the General Statutes and Sections 25-68h-1 through 25-68h-3, inclusive, of the Regulations of Connecticut State Agencies.

Signature:  _____
DocuSigned by:
Mark F. Carlino, P.E.
AA137726C34334C2

4/11/2023

Date

Print/Type: Mark F. Carlino
Transportation Engineering Administrator
Bureau of Engineering and Construction

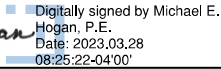
**Statewide Flood Management Certification for
Federally and State Funded Municipal Projects**

Attachment A: DOT

DOT Project No. 0017-0192

A-2: Hydraulics and Drainage Section Review

Based on my review and reasonable investigation, including my inquiry of those individuals responsible for obtaining the information, the proposed activity described in this application is consistent with all applicable standards and criteria established in Sections 25-68d(b) of the General Statutes and Sections 25-68h-1 through 25-68h-3, inclusive, of the Regulations of Connecticut State Agencies.

Signature:  

_____ Date

Print/Type: Michael E. Hogan
Transportation Principal Engineer
Hydraulics and Drainage Section

A-3: Environmental Planning Review

Based on my review and reasonable investigation, including my inquiry of those individuals responsible for obtaining the information, the proposed activity described in this application is consistent with all applicable standards found in the 2004 Connecticut Stormwater Manual, 2002 Erosion and Sedimentation Control Guidelines (as amended) and that there has been proper coordination with the Inland Fisheries Division and the Natural Diversity Database.

Signature: Andrew H Davis 

_____ Date

Print/Type: Andrew H. Davis
Transportation Supervising Planner
Office of Environmental Planning

**Statewide Flood Management Certification for
Federally and State Funded Municipal Projects**

Attachment B: Municipality

B-1: Municipal Official Certification

Name of Applicant / Municipality: City of Bristol

DOT Project No.: 0017-0192

Description of Proposed Project: Replacement of Bridge No. 04487, East Street over Pequabuck River.
Work includes full abutment and pier replacement and construction of new two-span structure with adjacent prestressed deck units.

1. The recipient of federal and/or state funding will be:

Name: City of Bristol

Mailing Address: 111 North Main Street

City/Town: Bristol

State: CT

Zip Code: 06010

Phone: 860-584-6100 ext.

Fax:

Based on my review and reasonable investigation, including my inquiry of those individuals responsible for preparing the information, the proposed activity described in this application is consistent with all applicable standards and criteria established in Sections 25-68d(b) of the General Statutes and Sections 25-68h-1 through 25-68h-3, inclusive, of the Regulations of Connecticut State Agencies.

I understand that a false statement made in the submitted information may, pursuant to Section 22a-6 of the General Statutes, be punishable as a criminal offense under Section 53a-157b of the General Statutes, and may also be punishable under Section 22a-438 of the General Statutes.

Signature:



2/10/2023
Date

Print/Type:

Mayor, City of Bristol

Chief Elected Official
First Selectman

**Statewide Flood Management Certification for
Federally and State Funded Municipal Projects**

Attachment B: Municipality

B-2: Town Engineer / Consultant - Professional Certification

DOT Project No.: 0017-0192

Description of Proposed Project: Replacement of Bridge No. 04487, East Street over Pequabuck River. Work includes full abutment and pier replacement and construction of new two-span structure with adjacent prestressed deck units.

Plan Dated and Revised Through: 02/03/2023

Hydrologic and Hydraulic Study Dated: Hydrology Report: 03/10/2021
Hydraulic Report: 02/02/2023
Floodway Report: 02/02/2023

I hereby certify that the prepared information and the proposed activity described in this application is consistent with all applicable standards and criteria established in Sections 25-68d(b) of the General Statutes and Sections 25-68h-1 through 25-68h-3, inclusive, of the Regulations of Connecticut State Agencies.

I understand that a false statement made in the submitted information may, pursuant to Section 22a-6 of the General Statutes, be punishable as a criminal offense under Section 53a-157b of the General Statutes, and may also be punishable under Section 22a-438 of the General Statutes.

Signature: _____

Jagdeesh Gopal

2/13/2023

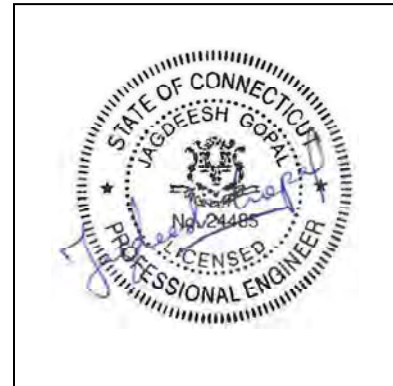
Date

Print/Type: _____

JAGDEESH GOPAL

Professional Engineer

P.E. Number: 24485

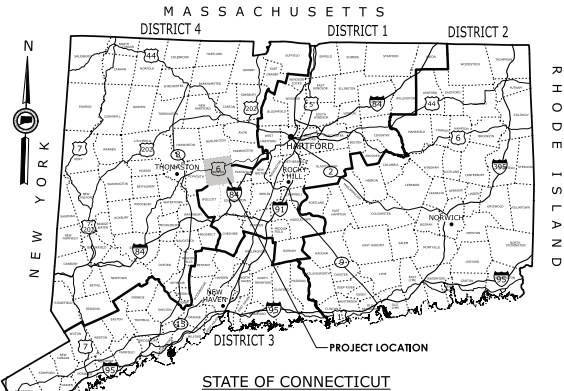


Affix P.E. Stamp Here

ENVIRONMENTAL PERMIT PLANS

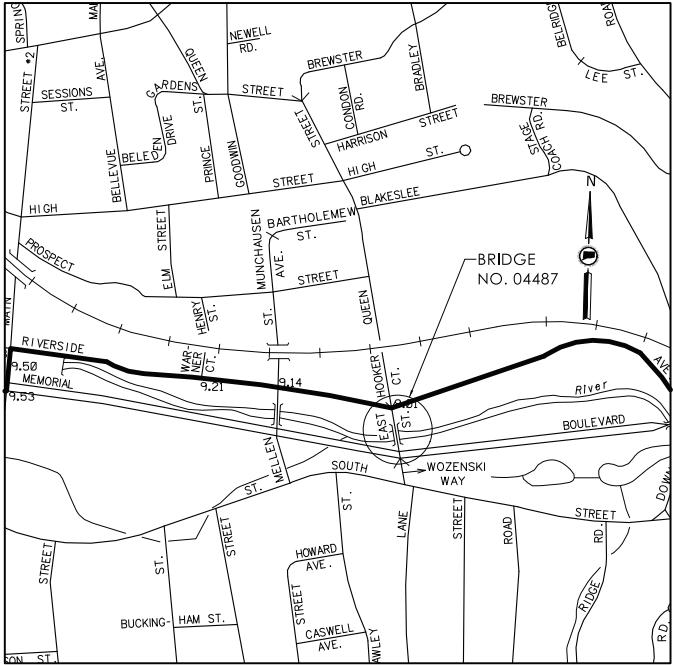
STATE PROJECT NO. 0017-0192 REPLACEMENT OF BRIDGE NO. 04487 EAST STREET OVER PEQUABUCK RIVER

Town(s)/City of
BRISTOL, CT



GENERAL NOTES:

1. FEDERAL AID PROJECT NO.
2. THESE PLANS ARE NOT INTENDED FOR CONSTRUCTION AND ARE INTENDED ONLY FOR ENVIRONMENTAL PERMITTING PURPOSES. THESE PLANS HOLD AUTHORITY FOR ALL ACTIVITIES CONCERNING THE REGULATED AREA. FOR DETAILED PLANIMETRIC INFORMATION AND PAYMENT, REFER TO THE APPLICABLE CONTRACT DOCUMENTS.
3. FOR A DESCRIPTION OF THE WATERCOURSES, WETLANDS, AND WETLAND SOILS, SEE RELEVANT SECTIONS OF THE PERMIT APPLICATION.
4. 400 FOOT GRID BASED ON CONNECTICUT COORDINATE SYSTEM N.A.D. 1983 VERTICAL DATUM BASED ON NAVD 2020
5. ALL CONSTRUCTION ACTIVITIES WILL BE CONDUCTED IN ACCORDANCE WITH THE DEPARTMENT'S STANDARD SPECIFICATIONS FOR ROADS, BRIDGE, FACILITIES AND INCIDENTAL CONSTRUCTION, FORM 818, DATED 2020, SECTION 1.10, AND SUPPLEMENTAL SPECIFICATIONS, DATED JULY 2022, AND WILL ALSO FOLLOW REQUIRED BEST MANAGEMENT PRACTICES (BMPs) AND SEDIMENT AND EROSION CONTROL MEASURES IN ACCORDANCE WITH THE 2002 EROSION & SEDIMENTATION CONTROL GUIDELINES AND THE 2004 STORMWATER QUALITY MANUAL.



LOCATION PLAN
NOT TO SCALE

LIST OF DRAWINGS

SHEET NO.	DRAWING TITLE
PMT-01	TITLE SHEET
PMT-02	GENERAL SITE PLAN
PMT-03	WETLAND IMPACT PLAN
PMT-04	100-YEAR FLOODPLAIN IMPACT PLAN
PMT-05	GENERAL BRIDGE PLAN
PMT-06	WATER HANDLING PLAN

ENVIRONMENTAL PERMIT PLANS - 02/03/2023

FINAL DESIGN REVIEW

DESIGNER/DRAWER: NAB CHECKED BY: PWB

NOT TO SCALE

SIGNATURE:

BLOCK:



GME ASSOCIATES, INC.
115 GLASTONBURY BLVD
GLASTONBURY, CT 06033

CITY OF BRISTOL

PROJECT NUMBER: 0017-0192

PROJECT DESCRIPTION: REPLACEMENT OF BRIDGE NO. 04487, EAST STREET OVER PEQUABUCK RIVER

TOWNSHIP: BRISTOL

DRAWING TITLE: TITLE SHEET

DRAWING NO.

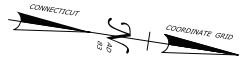
PMT-01

SHEET NO.

LASTED SAVED BY: NAB FILE NAME: M:\017_192_East Street_Ltrid\300_Permi_Development\Permi Plans\HW_CP_0017_0192_01.dgn
PLOTTED DATE: 2/3/2023

**BEGIN PROJECT NO. 0017-0192
LIMIT OF FULL DEPTH RECONSTRUCTION
BL STATION 10+89.30
MATCH EXISTING PAVEMENT**

**END PROJECT NO. 0017-0192
LIMIT OF FULL DEPTH RECONSTRUCTION
BL STATION 13+20.00
MATCH EXISTING PAVEMENT**



LEGEND

- 100YR FEMA 100-YR FLOOD (CALCULATED)
- SEDIMENTATION CONTROL SYSTEM
- FLOODWAY
- OHW ORDINARY HIGH WATER LINE
- STATE WETLANDS
- PROPOSED FILL LINE
- PROPOSED CUT LINE

ROW LEGEND

- (A) PARTIAL TAKE REQUIRED
- (B) CONSTRUCTION EASEMENT REQUIRED
- (C) RIGHT TO GRADE REQUIRED
- (D) RIGHT TO INSTALL SEDIMENTATION CONTROL SYSTEM REQUIRED

ENVIRONMENTAL PERMIT PLANS - 02/03/2023

FINAL DESIGN REVIEW

DESIGNER/DRAWER: NAB CHECKED BY: PMB



SIGNATURE BLOCK



CITY OF BRISTOL

PROJECT NUMBER: 0017-0192

PROJECT DESCRIPTION: REPLACEMENT OF BRIDGE NO. 04487, EAST STREET OVER PEQUABUCK RIVER

TOWNSHIP: BRISTOL

DRAWING TITLE: GENERAL SITE PLAN

DRAWING NO.

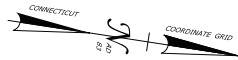
PMT-02

SHEET NO.

LASTED SAVED BY: NAB FILE NAME: M:\017_192_East Street_Retitled\300_Permits\Development\Permit Plans\HW_CP_0017_0192_Roadway\Plan.dgn
PLOTTED DATE: 2/3/2023

1. ROUNDED BOULDERS APPROXIMATELY 2-3 FT. MIN. DIAMETER SHALL BE PLACED IN CLUSTERS, AS DIRECTED IN THE FIELD BY THE ENGINEER OR THEIR AUTHORIZED DELEGATE. SEE SPECIAL PROVISION "PLACEMENT OF CHANNEL BOULDER"
2. FOR MULTIPLE CLUSTERS, THE DISTANCE BETWEEN CLUSTERS WILL BE BASED ON FIELD CONDITIONS

2. FOR MULTIPLE CLUSTERS, THE DISTANCE BETWEEN CLUSTERS WILL BE BASED ON FIELD CONDITIONS



BEGIN PROJECT NO. 0017-0192
LIMIT OF FULL DEPTH RECONSTRUCTION
BL STATION 10+89.30
MATCH EXISTING PAVEMENT

NOTE
1. AREAS OF TEMPORARY DISTURBANCE WITHIN WETLANDS
SHALL BE RESTORED FOLLOWING CONSTRUCTION ACTIVITIES
WITH WETLAND SEED MIX.

2. THE CONTRACTOR SHALL NOT WORK WITHIN THE LIMITS OF THE WETLANDS AND WATERCOURSES WITH THE EXCEPTION OF THOSE AREAS DELINEATED AS TEMPORARY AND PERMANENT IMPACTS TO THE WETLANDS AND WATERCOURSE.

3. ALL UNCONFINED INSTREAM WORK IS RESTRICTED TO THE PERIOD FROM JUNE 1st THROUGH SEPTEMBER 30th, INCLUSIVE.

4. LOCATION OF THE BOULDER CLUSTERS TO BE DETERMINED IN THE FIELD BY DEEP FISHERIES STAFF.

100-YR FEMA 100-YR FLOOD (CALCULATED)
 SEDIMENTATION CONTROL SYSTEM
 FLOODWAY
 ORHW ORDINARY HIGH WATER LINE
 STATE WETLANDS
 PROPOSED FILL LINE
 PROPOSED CUT LINE
 PERMANENT WETLAND/WATERCOURSE IMPACTS
 TEMPORARY WETLAND/WATERCOURSE IMPACTS



SIGNATURE
BLOCK:



GM2 ASSOCIATES, INC.
115 GLASTONBURY BLVD.
GLASTONBURY, CT 06033

CITY OF BRISTOL

PROJECT NUMBER: 0017-0192

PROJECT DESCRIPTION: REPLACEMENT OF BRIDGE NO. 04487, EAST STREET OVER PEQUABUCK RIVER

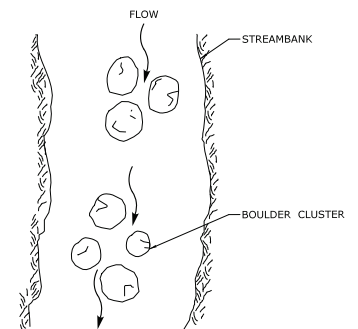
TOWN(S): BRISTOL

DRAWING TITLE: WETLAND IMPACT PLAN

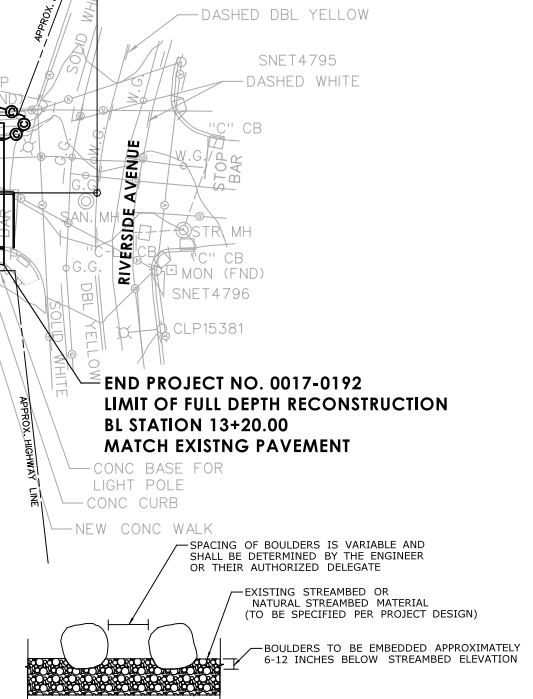
WETLAND IMPACT TABLE			
	WETLAND IMPACTS	WATERCOURSE IMPACTS	TOTAL
PERMANENT	730 SF	746 SF	1476 SF
TEMPORARY	34 SF	1429 SF	1463 SF
TOTAL	764 SF	2175 SF	2939 SF

NOTE: THERE ARE NO FEDERAL WETLANDS WITHIN THE PROJECT LIMITS.

N/F
SACHEM CAPITAL CORP
VOL. 2085 PAGE 265



PLACEMENT OF CHANNEL BOULDERS
PLAN VIEW
 N.T.S.



PLACEMENT OF CHANNEL BOULDERS
SECTION VIEW
N.T.S.

ENVIRONMENTAL PERMIT PLANS - 02/03/2023

FINAL DESIGN REVIEW

DESIGNER/DRAFTER: NAB CHECKED BY: PMB

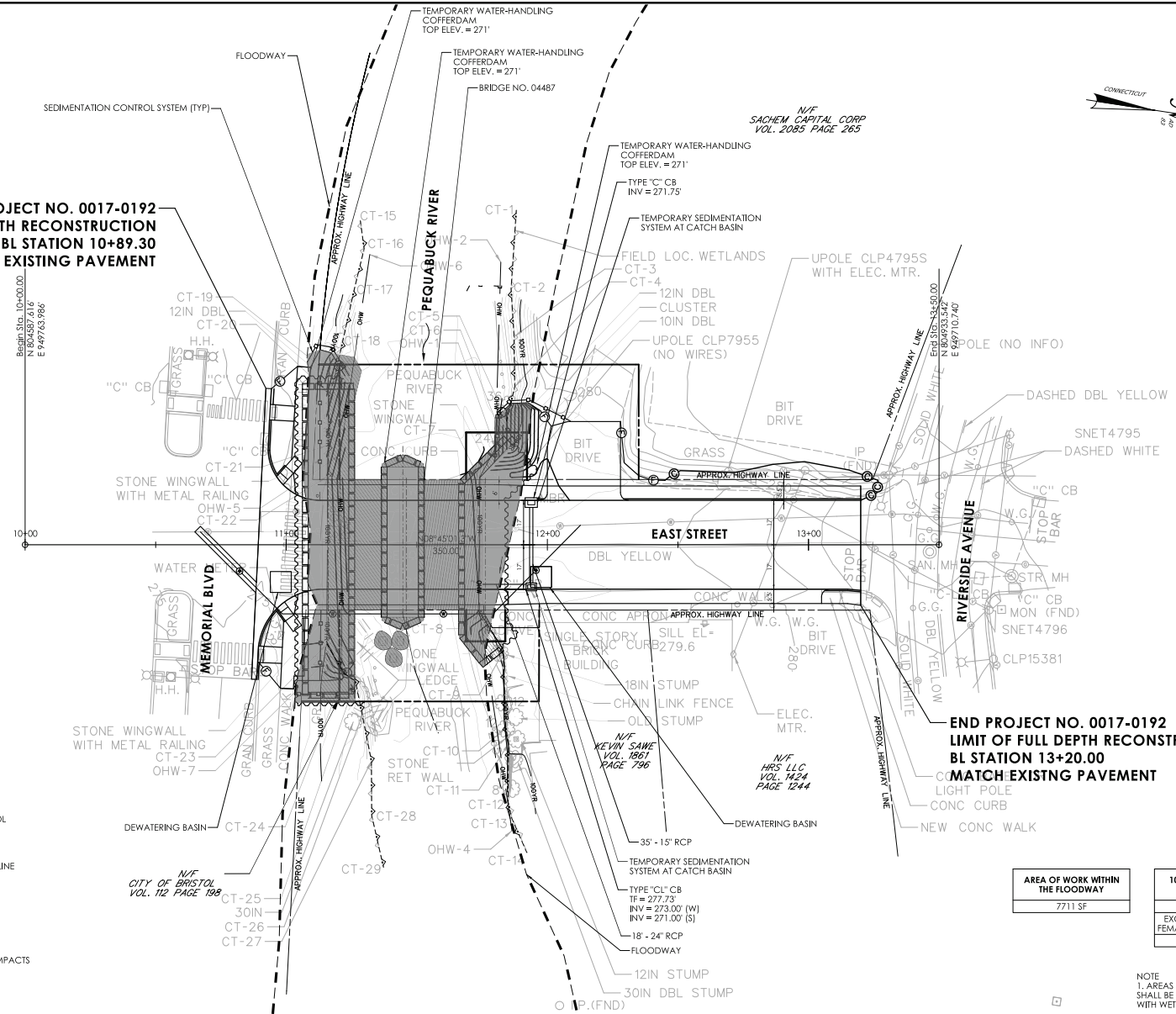
LASTED SAVED BY: PBrand FILE NAME: M:\017_192_East Street Bristol\320_Permitt_Development\Permitt Plans\HW_CP_0017_0192_Impact Plan.dgn
PLOTTED DATE: 2/3/2023

**BEGIN PROJECT NO. 0017-0192
LIMIT OF FULL DEPTH RECONSTRUCTION
BL STATION 10+89.30
MATCH EXISTING PAVEMENT**

**END PROJECT NO. 0017-0192
LIMIT OF FULL DEPTH RECONSTRUCTION
BL STATION 13+20.00
MATCH EXISTING PAVEMENT**

LEGEND

- 100YR FEMA 100-YR FLOOD (CALCULATED)
- SEDIMENTATION CONTROL SYSTEM
- FLOODWAY
- ORDINARY HIGH WATER LINE
- STATE WETLANDS
- PROPOSED FILL LINE
- PROPOSED CUT LINE
- FLOODWAY IMPACTS
- 100-YEAR FLOODPLAIN IMPACTS



AREA OF WORK WITHIN THE FLOODWAY
7711 SF

100-YEAR FLOODPLAIN AREA IMPACTS, CUT & FILL INFORMATION	
VOLUME IMPACTS	
EXCAVATION IN FEMA FLOODPLAIN	FILL IN FEMA FLOODPLAIN
152 CY	589 CY

NOTE:
1. AREAS OF TEMPORARY DISTURBANCE WITHIN WETLANDS SHALL BE RESTORED FOLLOWING CONSTRUCTION ACTIVITIES WITH WETLAND SEED MIX.

ENVIRONMENTAL PERMIT PLANS - 02/03/2023

FINAL DESIGN REVIEW



SIGNATURE BLOCK

GMP
GMP ASSOCIATES, INC.
115 GLASTONBURY BLVD
GLASTONBURY, CT 06033

CITY OF BRISTOL

PROJECT NUMBER: 0017-0192

PROJECT DESCRIPTION: REPLACEMENT OF BRIDGE NO. 04487, EAST STREET OVER PEQUABUCK RIVER

TOWNSHIP: BRISTOL

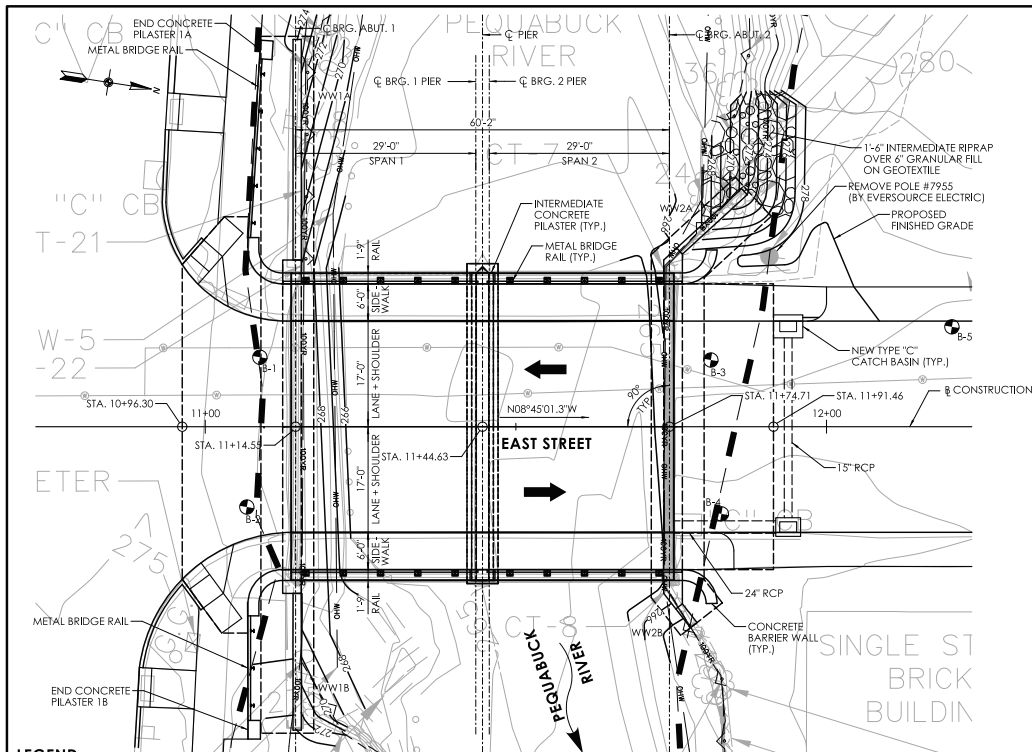
DRAWING TITLE: 100-YEAR FLOODPLAIN IMPACT PLAN

DRAWING NO.

PMT-04

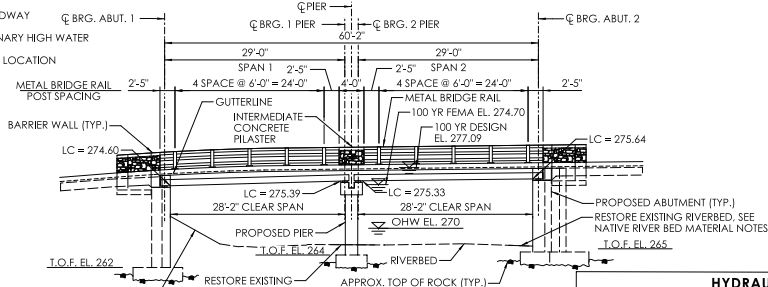
SHEET NO.

DESIGNER/DRAWN: NAB
CHECKED BY: PMB
LASTED SAVED BY: Nibeaou
FILE NAME: M:\017_192_East Street_Limited\300_Permits\Development\Permit Plans\HW_CP_0017_0192_100 YR Impact Plan.dgn
PLOTTED DATE: 2/3/2023



LEGEND

- STATE/FEDERAL WETLANDS
- FEMA 100-YEAR FLOOD (CALCULATED)
- FLOODWAY
- ORDINARY HIGH WATER
- SOIL BORING LOCATION



ELEVATION

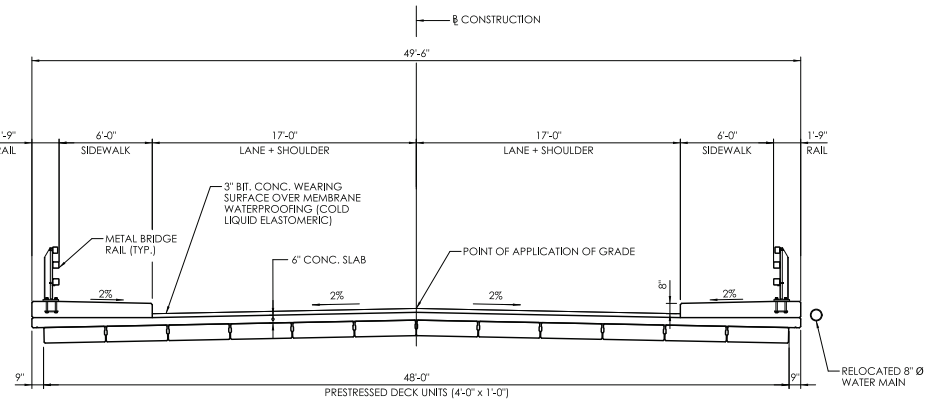
SCALE: 1" = 10'

NATIVE RIVERBED MATERIAL NOTES:

- NATIVE RIVERBED MATERIAL EXCAVATED DURING PROPOSED ABUTMENTS AND PIER INSTALLATION SHALL BE STOCKPILED AND THEN REPLACED WITHIN DISTURBED AREAS OF RIVERBED TO THE DEPTH SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER IN ACCORDANCE WITH THE SPECIAL PROVISION FOR THE ITEM "REUSE OF EXISTING CHANNEL BOTTOM MATERIAL".
- ADDITIONAL RIVERBED MATERIAL, IF REQUIRED, SHALL BE IN ACCORDANCE WITH THE SPECIAL PROVISION FOR THE ITEM "REUSE OF EXISTING CHANNEL BOTTOM MATERIAL".
- THE STOCKPILE SHALL BE LOCATED OUTSIDE THE WETLAND LIMITS AND PROTECTED WITH SEDIMENTATION CONTROL SYSTEM.

HYDRAULIC DATA

DRAINAGE AREA	24.60 SQ. MI.
DESIGN FLOOD	100 YEAR
DESIGN DISCHARGE	6260 CFS
AVERAGE DAILY FLOW ELEVATION	267.49 FT.
UPSTREAM DESIGN WATER SURFACE ELEVATION	277.09 FT.
DOWNSTREAM DESIGN WATER SURFACE ELEVATION	273.95 FT.
MAXIMUM SCOUR ELEVATION	262.49 FT.
FREQUENCY	200 YEAR
DISCHARGE	2270 CFS
WORST CASE SCOUR SUBSTRUCTURE UNIT	SAME



PROPOSED TYPICAL SECTION

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

INSPECTION OF FIELD WELDS

METHOD	UNIT	QUANTITY
ULTRASONIC	IN	0
MAGNETIC PARTICLE	IN	0

CONCRETE DISTRIBUTION

SUBSTRUCTURE	C.Y.	105
FOOTINGS	C.Y.	153
TOTAL	C.Y.	666

NOTICE TO BRIDGE INSPECTORS

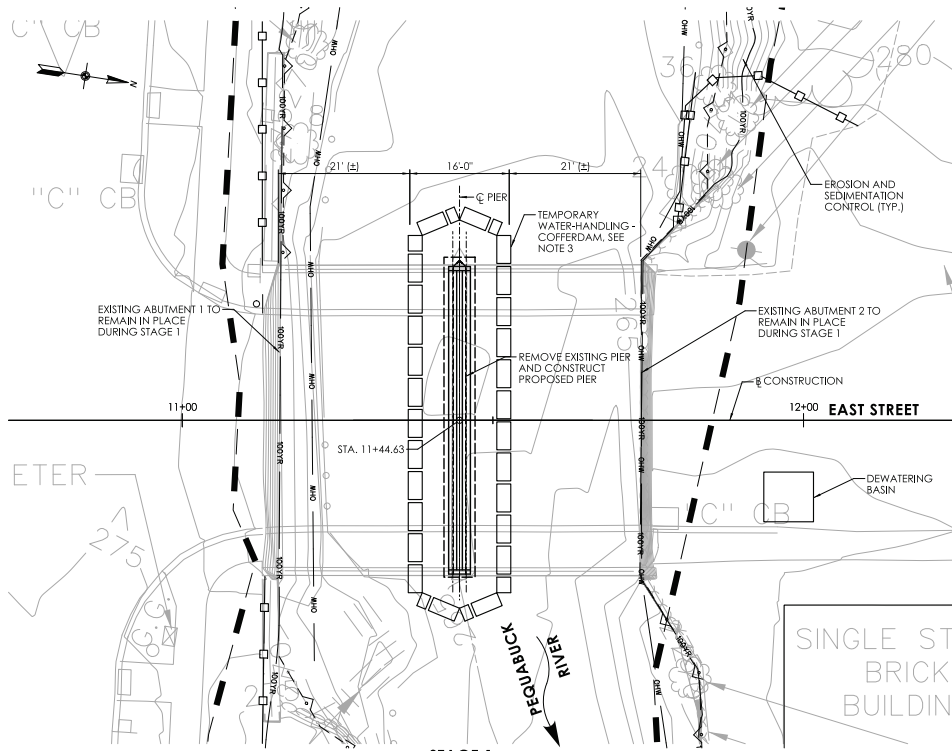
THE DEPARTMENT'S BRIDGE SAFETY PROCEDURES REQUIRE THIS BRIDGE TO BE INSPECTED FOR, BUT NOT LIMITED TO, ALL APPROPRIATE COMPONENTS INDICATED IN THE GOVERNING MANUAL FOR BRIDGE INSPECTION. ATTENTION MUST BE GIVEN TO THE FOLLOWING SPECIFIC ITEMS: THE LISTING FOR SPECIFIC ATTENTION SHALL NOT BE CONSTRUED TO REDUCE THE IMPORTANCE OF INSPECTION OF ANY OTHER COMPONENT OF THE STRUCTURE. THE FREQUENCY OF INSPECTION OF THIS STRUCTURE SHALL BE IN ACCORDANCE WITH THE GOVERNING MANUALS FOR BRIDGE INSPECTION, UNLESS OTHERWISE DIRECTED BY THE MANAGER OF SAFETY AND EVALUATION.

COMPONENT OR DETAIL	STRUCTURE SHEET REFERENCE
FOLLOW NORMAL INSPECTION PROCEDURES	

ENVIRONMENTAL PERMIT PLANS - 02/03/2023

DESIGNER/DRAWN BY: J.S.	CHECKED BY: VIL	SCALE AS NOTED	CITY OF BRISTOL	PROJECT NUMBER: 0017-0192	PROJECT DESCRIPTION: REPLACEMENT OF BRIDGE NO. 04487, EAST STREET OVER PEQUOTUCK RIVER	TOWNSHIP: BRISTOL	DRAWING TITLE: GENERAL PLAN, TYPICAL SECTION AND ELEVATION	DATE: 02/03/2023	SHEET NO. PMT-05
-------------------------	-----------------	----------------	-----------------	---------------------------	--	-------------------	--	------------------	------------------

LASTED SAVED BY: Soohol FILE NAME: M:\017-192_East Street_Bristol\330_Design Data\Structure_Bridge\Main\Contract_Sheet_Plan\0017-0192_East Street_04487_GPR_PMT.dgn
PLOT DATE: 2/3/2023



STAGE 1
SCALE: 1"=10'

SUGGESTED SEQUENCE OF CONSTRUCTION

THE FOLLOWING IS THE SUGGESTED SEQUENCE OF CONSTRUCTION THAT MAY BE FOLLOWED. THE CONTRACTOR SHALL SUBMIT HIS SEQUENCE OF CONSTRUCTION TO THE ENGINEER FOR APPROVAL.

PRE-STAGE 1

1. INSTALL DETOUR SIGNS AND PLACE TEMPORARY PRECAST CONCRETE BARRIER CURB, CLOSING EAST STREET TO THROUGH TRAFFIC. PRIOR TO ANY ROAD CLOSURE, THE CONTRACTOR SHALL COORDINATE WITH THE CITY OF BRISTOL, SEE SPECIAL PROVISIONS FOR THE ITEM "MAINTENANCE AND PROTECTION OF TRAFFIC" AND THE DETOUR PLAN FOR ADDITIONAL REQUIREMENTS.
2. CUT OFF AND CAP EXISTING WATER MAIN FOR THE DURATION OF CONSTRUCTION.
3. INSTALL NECESSARY EROSION AND SEDIMENTATION CONTROLS.
4. INSTALL DEBRIS SHIELD ABOVE EL. 272 AND REMOVE EXISTING SUPERSTRUCTURE.
5. REMOVE DEBRIS SHIELD.

STAGE 1

1. INSTALL TEMPORARY WATER HANDLING COFFERDAMS FOR STAGE 1 TO THE LIMITS SHOWN ON THIS PLAN. SEE WATER HANDLING NOTES FOR ADDITIONAL INFORMATION.
2. REMOVE THE EXISTING PIER IN ITS ENTIRETY.
3. CONSTRUCT PROPOSED PIER FOOTING, STEM AND PIER CAP.
4. REMOVE TEMPORARY WATER HANDLING COFFERDAMS FOR STAGE 1.

STAGE 2

1. INSTALL TEMPORARY WATER HANDLING COFFERDAMS FOR STAGE 2 TO THE LIMITS SHOWN ON THIS PLAN. SEE WATER HANDLING NOTES FOR ADDITIONAL INFORMATION.
2. REMOVE THE EXISTING ABUTMENTS AND WINGWALLS IN THEIR ENTIRETY.
3. CONSTRUCT PROPOSED ABUTMENTS AND WINGWALLS FOOTINGS, AND STREAMS.
4. BACKFILL PROPOSED BRIDGE AND REMOVE TEMPORARY WATER HANDLING COFFERDAMS FOR STAGE 2.
5. INSTALL BOULDER CLUSTERS.

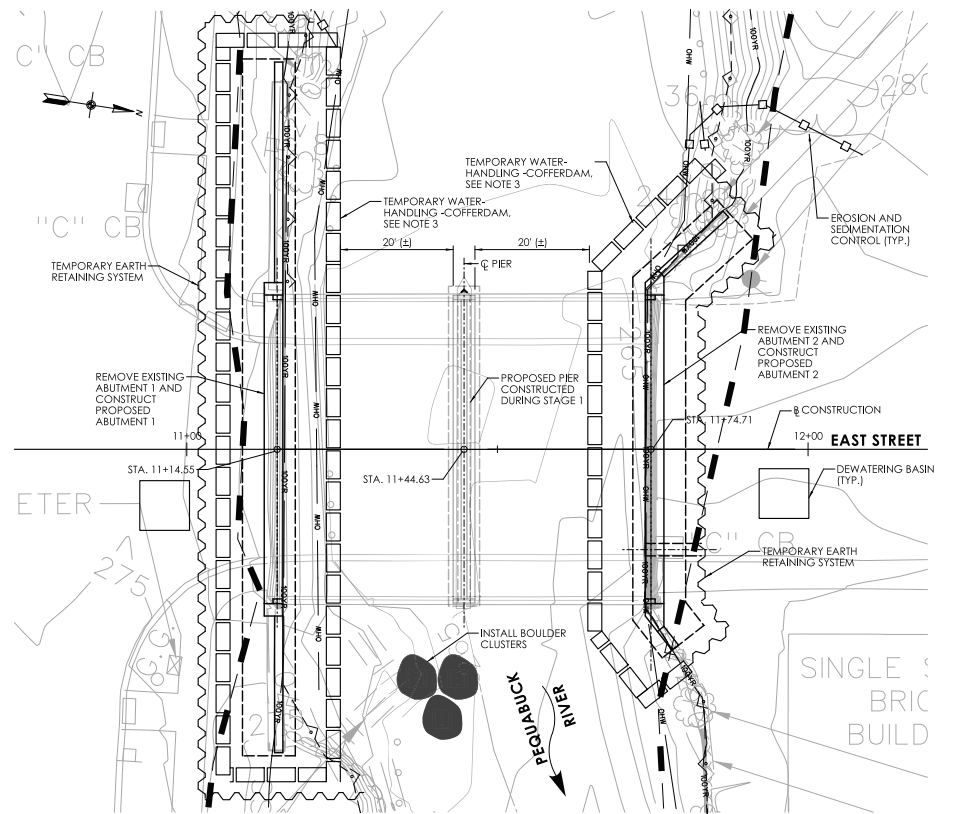
POST-STAGE 2

1. INSTALL PRESTRESSED CONCRETE DECK UNITS.

2. POUR CONCRETE DECK.
3. CONSTRUCT APPROACH SLABS, SIDEWALKS, PLASTERS AND BARRIER WALLS. INSTALL METAL BRIDGE RAILS.
4. APPLY MEMBRANE WATERPROOFING AND FIRST LIFT OF BITUMINOUS OVERLAY.
5. CONSTRUCT ROADWAY APPROACHES TO THE BRIDGE.
6. APPLY FINAL LIFT OF THE BITUMINOUS OVERLAY TO THE ENTIRE PROJECT.
7. SAW AND SEAL OVERLAY AT THE ENDS OF THE BRIDGE DECK.
8. OPEN ROAD TO TRAFFIC AND PEDESTRIANS AND COMPLETE MISCELLANEOUS WORK.
9. INSTALL PROPOSED WATERMAIN.
10. REMOVE EROSION AND SEDIMENTATION CONTROLS UPON PERMANENT STABILIZATION.

TEMPORARY HYDRAULIC DATA

AVERAGE DAILY FLOW	43.1 CFS
AVERAGE SPRING FLOW	85.7 CFS
TEMPORARY DESIGN DISCHARGE	194 CFS
TEMPORARY DESIGN FREQUENCY	2 YEAR
STAGE 1	
TEMPORARY WATER SURFACE ELEVATION UPSTREAM	270.44 FT
TEMPORARY WATER SURFACE ELEVATION DOWNSTREAM	267.94 FT
STAGE 2	
TEMPORARY WATER SURFACE ELEVATION UPSTREAM	270.45 FT
TEMPORARY WATER SURFACE ELEVATION DOWNSTREAM	267.74 FT



STAGE 2
SCALE: 1"=10'

WATER HANDLING NOTES

1. THE SUGGESTED METHOD OF CONTROLLING WATER DURING CONSTRUCTION CONSISTS OF A TEMPORARY WATER-HANDLING-COFFERDAM, AS SHOWN ON THIS DRAWING AND SHALL BE PAID FOR UNDER THE ITEM "COFFERDAM AND DEWATERING".
2. THIS SUGGESTED WATER HANDLING SCHEME IS FOR THE CONSTRUCTION OF PROPOSED ABUTMENTS, PIER, AND WINGWALLS. THE INSTALLATION OF TEMPORARY WATER-HANDLING-COFFERDAM TO HANDLE WATER FOR ANY OTHER CONSTRUCTION ACTIVITIES IS NOT PERMITTED.
3. TOP OF THE TEMPORARY WATER-HANDLING-COFFERDAM SHALL BE EL. 271.00 (MNNL).
4. THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER FOR REVIEW AND APPROVAL HIS PROPOSED PLAN FOR "WATER HANDLING, INCLUDING METHODS NECESSARY FOR THE CONSTRUCTION OF SUBSTRUCTURE TO BE COMPLETED IN REASONABLY DRY CONDITIONS. REFER TO THE SPECIAL PROVISION FOR THE ITEM "COFFERDAM AND DEWATERING".
5. IN ADDITION TO THE PROPOSED METHODS OF HANDLING WATER, THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER HIS PROPOSED METHODS OF REMOVING THE EXISTING SUPERSTRUCTURE AND EXISTING SUBSTRUCTURES. EXISTING SUPERSTRUCTURE REMOVAL SHALL BE PAID FOR UNDER THE ITEM "REMOVAL OF SUPERSTRUCTURE". REMOVAL OF EXISTING SUBSTRUCTURES SHALL BE PAID FOR UNDER THE ITEM "REMOVAL OF EXISTING MASONRY". SEE SPECIAL PROVISIONS.
6. NO WORK SHALL BEGIN UNTIL ALL APPROVALS HAVE BEEN OBTAINED FROM THE ENGINEER.

TIME-OF-YEAR RESTRICTION

ALL UNCONFINED INSTREAMWORK IS RESTRICTED TO THE PERIOD FROM JUNE 1ST THROUGH SEPTEMBER 30TH, INCLUSIVE.

LEGEND

- SEDIMENTATION CONTROL SYSTEM
- - - - - STATE WETLANDS
- - - - - FEMA 100-YEAR FLOOD (CALCULATED)
- - - - - FLOODWAY
- ORDINARY HIGH WATER

REVISIONS	DATE	BY	DESCRIPTION

DESIGNER/DRAWER: SD	CHECKED BY: VLL	SCALE AS NOTED	SIGNATURE BLOCK
LASTED SAVED BY: Soohol FILE NAME: M:\1017_192_East Street_Bristol\330_Design Data\Structure_Bridge\Notes\Contract_Sheet_Plan\CB_0017_20192_East Street_04487_WH.dgn		PROJECT NUMBER: 0017-0192	
PROJECT DESCRIPTION: REPLACEMENT OF BRIDGE NO. 04487, EAST STREET OVER PEQUABUCK RIVER		TOWN: BRISTOL	
DRAWING TITLE: WATER HANDLING PLAN		DRAWING NO. PMT-06	
DRAWING DATE: 2/3/2023		SHEET NO.	

ENVIRONMENTAL PERMIT PLANS - 02/03/2023

DATE FILED: 12-19-23

APPROVED: _____

DENIED: _____

**BRISTOL FLOOD & EROSION COMMISSION
FLOOD PLAIN APPLICATION
PERMIT FOR FLOOD PLAIN DEVELOPMENT**

1. APPLICANT:

Name: City of Bristol DPW - Nancy Levesque, PE, City Engineer Signature: 
 Address: 111 North Main Street City: Bristol State: CT Zip 06010
 Telephone No.: 860-584-6105 [] home [x] work

2. PROPERTY OWNER(S):

Name: City of Bristol - Jeffrey Caggiano, Mayor Signature: 
 Address: 111 North Main Street City: Bristol State: CT Zip 06010
 Telephone No.: 860-584-6250 [] home [x] work

3. DESCRIBE THE SUBJECT PROPERTY:

Address or Location: Bridge No. 04487 East Street over Pequabuck River
 Assessor's Map No.: N/A Assessor's Lot No.(s): N/A
 Street of Access: East Street
 Name of Watercourse or Water Body: Pequabuck River
 FIRM Panel Number: 09003C0466F Total Area of Lot(s): N/A

4. PROJECT DESCRIPTION:

Flood Plain use for which the applicant is seeking a permit. (check one)

[] a. Permitted Use [] b. Regulated Use [x] c. Special Exception

Describe the proposed activity and its purpose: Replacement of Bridge No. 04487. See attached narrative.Proposed encroachment of Flood fringe area (S.F. or acres): SF (acres)Proposed encroachment of Regulated Floodway (S.F. or acres): 7,711 SF (0.18 acres)Proposed alteration of Watercourse (L.F., S.F. or acres): 0 acresFlood proofing techniques proposed: cofferdamsDisturbance of designated wetland area: [] No [x] Yes: Permit Number: PendingDate applied for: _____ Disposition: Pending

**BRISTOL FLOOD & EROSION COMMISSION
FLOOD PLAIN APPLICATION
PERMIT FOR FLOOD PLAIN DEVELOPMENT**

Page 2

5. TECHNICAL & PLANNING DATA:

Project Specifics: Provide the following information from official sources or submitted documentation.

All elevations are to be relative to mean sea level.

Existing base flood flow rate: 5594 CFS Source: FEMA Original Back-up Data (HEC-2)
Existing base flood elevation: 285.0' Source: FEMA FIRM
Lowest floor elevation of existing buildings including garage or basements: N/A
Lowest floor elevation of proposed building including garage or basements: N/A
Will there be dry access to the structure(s) during the 100 year flood? N/A

Floodplain Alterations Proposed:

Volume of displaced Flood Plain: cut = 152 cy, fill = 589 cy, net fill = 437 cy
Volume of mitigated Flood Plain: N/A

Floodway Alterations Proposed:

Length of reconstructed or altered floodway: 0 feet
Proposed base flood flow rate: 5594 CFS (No proposed flow change)
Proposed base flood elevation: 285.0' (No proposed BFE change)

6. AUTHORIZATIONS AND CERTIFICATIONS:

- a. I/we hereby authorize the commissioners and agents of the Bristol Flood and Erosion Agency to inspect the subject property at reasonable times, both before and after a final decision has been made regarding this application or request.
- b. I/we hereby certify that I/we am/are familiar with the information included in this application and am/are aware that the law provides that any person who commits, takes part in, or assists in any violation of any provision of the Connecticut General Statutes, including regulations adopted by the Commissioner of Environmental Protection and ordinances and regulations of the City of Bristol through its Flood and Erosion Agency and Inland Wetlands Agency, shall be assessed a civil penalty of not more than one thousand dollars for each offense. I/we further certify that I/we am/are aware that it is a violation of law to obtain a flood plain permit or ruling through deception or through inaccurate or misleading information.
- c. I/we hereby certify that this application shall be considered complete only when all information and documents required by the Administrator have been submitted.

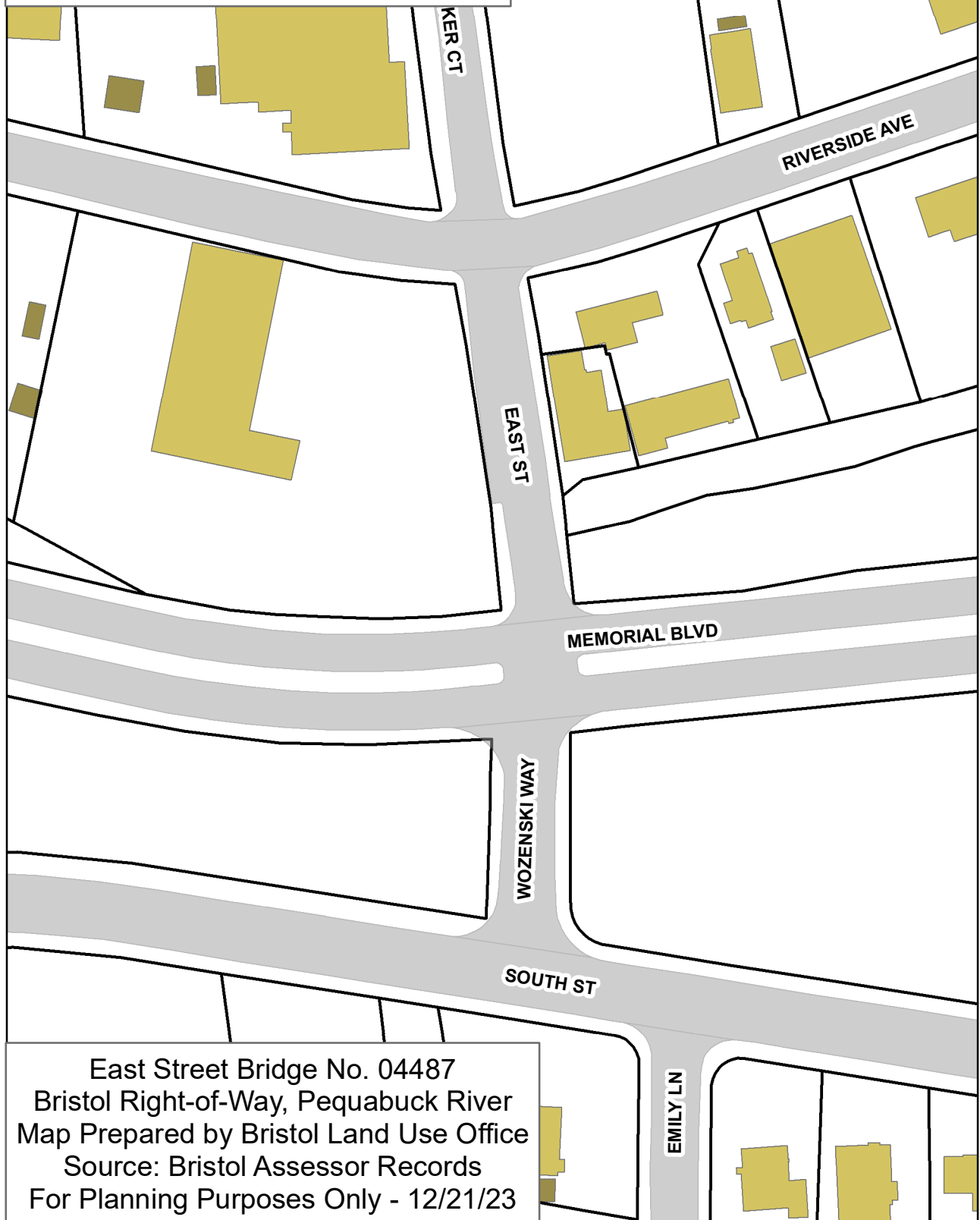
7. SUBMISSION REQUIREMENTS:

The following shall be included as part of this application:

- filing fee – make checks payable to "City of Bristol,"
\$5.00 Permitted Use, \$50.00 for Regulated Use, and \$100.00 for Special Exception
 - ten copies of a Site Plan showing existing and proposed conditions in relation to the flood plain, floodway, watercourses, and/or wetlands prepared in accordance with the Regulations,
 - any other information as may be required by the Agency
- ☐ Site Plans ☐ Detail Plans ☐ Construction Specifications
☐ Drainage Computations ☐ Flood Proofing Details ☐ Flood Proofing Certification

BFEC-12/01

Application #23-466F-302
Location



East Street Bridge No. 04487
Bristol Right-of-Way, Pequabuck River
Map Prepared by Bristol Land Use Office
Source: Bristol Assessor Records
For Planning Purposes Only - 12/21/23

Application #23-466F-302
Aerial



East Street Bridge No. 04487
Bristol Right-of-Way, Pequabuck River
Map Prepared by Bristol Land Use Office
Source: Bristol Assessor Records
For Planning Purposes Only - 12/21/23

Application #23-466F-302 FEMA

Legend

S_BFE_EX

FEMA_draft_Fall2023

FLD_ZONE

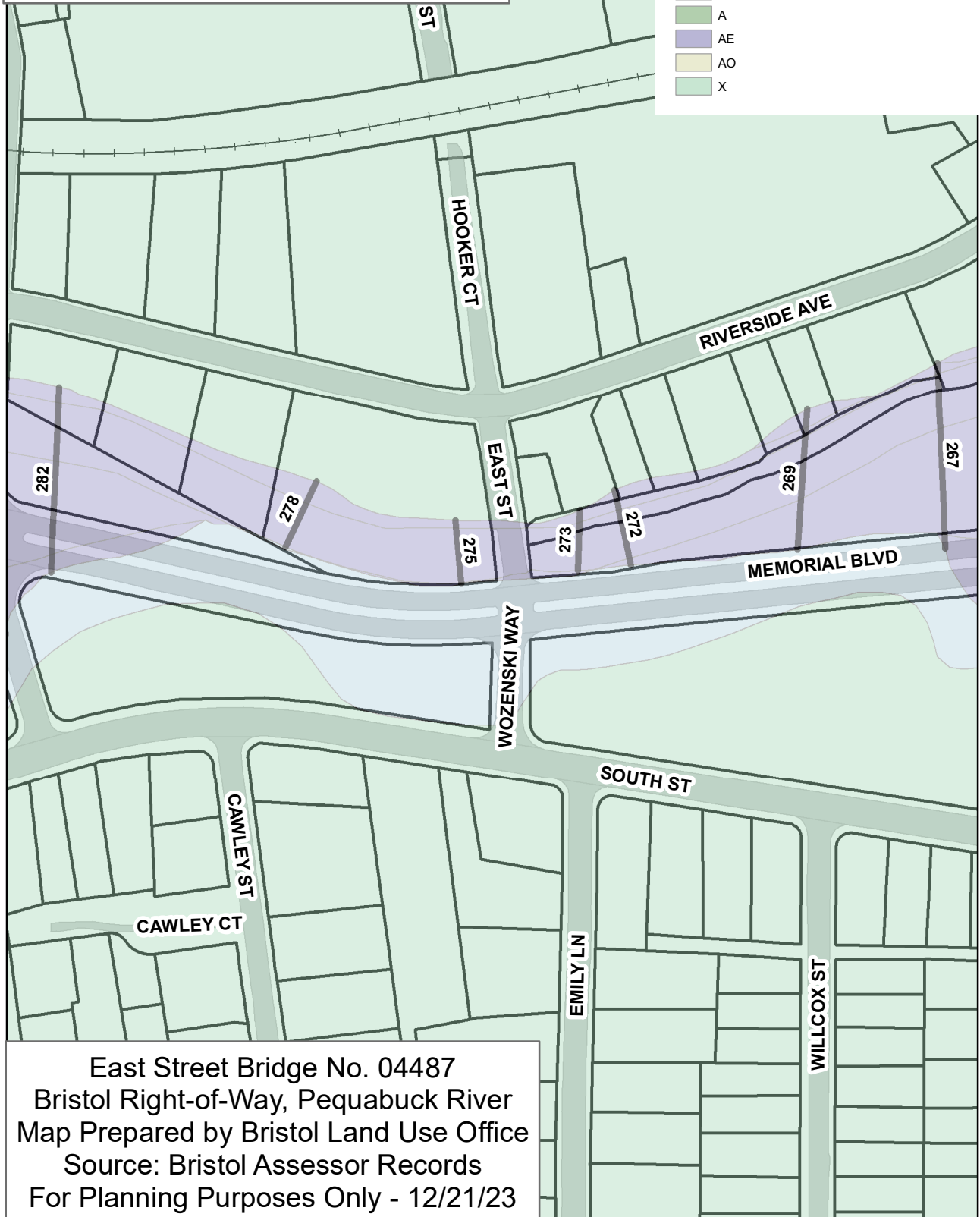
0.2 PCT ANNUAL CHANCE FLOOD HAZARD

A

AE

AO

X



East Street Bridge No. 04487
Bristol Right-of-Way, Pequabuck River
Map Prepared by Bristol Land Use Office
Source: Bristol Assessor Records
For Planning Purposes Only - 12/21/23



**Replacement of Bridge No. 04487
East Street over the Pequabuck River
Bristol, Connecticut
State Project Number 0017-0192**

Floodplain Permit Application

Prepared by:

GM2 Associates Inc.
115 Glastonbury Boulevard
Glastonbury, CT 06033
869.659.1415 | gm2inc.com

Date: October, 2023

Revised: N/A

Attachments

1. Application Form
2. Floodplain Narrative
3. Hydraulic Report – *separate cover*
4. CT DOT Flood Management Certification
5. Permit Plans

**BRISTOL FLOOD & EROSION COMMISSION
FLOOD PLAIN APPLICATION
PERMIT FOR FLOOD PLAIN DEVELOPMENT**

APPLICATION NO. _____

DATE FILED: _____

APPROVED: _____

DENIED: _____

1. APPLICANT:

Name: City of Bristol DPW - Nancy Levesque, PE, City Engineer Signature: _____

Address: 111 North Main Street City: Bristol State: CT Zip 06010

Telephone No.: 860-584-6105 [] home [x] work

2. PROPERTY OWNER(S):

Name: City of Bristol - Jeffrey Caggiano, Mayor Signature: _____

Address: 111 North Main Street City: Bristol State: CT Zip 06010

Telephone No.: 860-584-6250 [] home [x] work

3. DESCRIBE THE SUBJECT PROPERTY:

Address or Location: Bridge No. 04487 East Street over Pequabuck River

Assessor's Map No.: N/A Assessor's Lot No.(s): N/A

Street of Access: East Street

Name of Watercourse or Water Body: Pequabuck River

FIRM Panel Number: 09003C0466F Total Area of Lot(s): N/A

4. PROJECT DESCRIPTION:

Flood Plain use for which the applicant is seeking a permit. (check one)

[] a. Permitted Use [] b. Regulated Use [x] c. Special Exception

Describe the proposed activity and its purpose: Replacement of Bridge No. 04487. See attached narrative.

Proposed encroachment of Flood fringe area (S.F. or acres): SF (acres)

Proposed encroachment of Regulated Floodway (S.F. or acres): 7,711 SF (0.18 acres)

Proposed alteration of Watercourse (L.F., S.F. or acres): 0 acres

Flood proofing techniques proposed: cofferdams

Disturbance of designated wetland area: [] No [x] Yes: Permit Number: Pending

Date applied for: _____ Disposition: Pending

**BRISTOL FLOOD & EROSION COMMISSION
FLOOD PLAIN APPLICATION
PERMIT FOR FLOOD PLAIN DEVELOPMENT**

Page 2

5. TECHNICAL & PLANNING DATA:

Project Specifics: Provide the following information from official sources or submitted documentation.

All elevations are to be relative to mean sea level.

Existing base flood flow rate: 5594 CFS Source: FEMA Original Back-up Data (HEC-2)
Existing base flood elevation: 285.0' Source: FEMA FIRM
Lowest floor elevation of existing buildings including garage or basements: N/A
Lowest floor elevation of proposed building including garage or basements: N/A
Will there be dry access to the structure(s) during the 100 year flood? N/A

Floodplain Alterations Proposed:

Volume of displaced Flood Plain: cut = 152 cy, fill = 589 cy, net fill = 437 cy
Volume of mitigated Flood Plain: N/A

Floodway Alterations Proposed:

Length of reconstructed or altered floodway: 0 feet
Proposed base flood flow rate: 5594 CFS (No proposed flow change)
Proposed base flood elevation: 285.0' (No proposed BFE change)

6. AUTHORIZATIONS AND CERTIFICATIONS:

- a. I/we hereby authorize the commissioners and agents of the Bristol Flood and Erosion Agency to inspect the subject property at reasonable times, both before and after a final decision has been made regarding this application or request.
- b. I/we hereby certify that I/we am/are familiar with the information included in this application and am/are aware that the law provides that any person who commits, takes part in, or assists in any violation of any provision of the Connecticut General Statutes, including regulations adopted by the Commissioner of Environmental Protection and ordinances and regulations of the City of Bristol through its Flood and Erosion Agency and Inland Wetlands Agency, shall be assessed a civil penalty of not more than one thousand dollars for each offense. I/we further certify that I/we am/are aware that it is a violation of law to obtain a flood plain permit or ruling through deception or through inaccurate or misleading information.
- c. I/we hereby certify that this application shall be considered complete only when all information and documents required by the Administrator have been submitted.

7. SUBMISSION REQUIREMENTS:

The following shall be included as part of this application:

- filing fee – make checks payable to "City of Bristol,"
\$5.00 Permitted Use, \$50.00 for Regulated Use, and \$100.00 for Special Exception
- ten copies of a Site Plan showing existing and proposed conditions in relation to the flood plain, floodway, watercourses, and/or wetlands prepared in accordance with the Regulations,
- any other information as may be required by the Agency

☐ Site Plans ☐ Detail Plans ☐ Construction Specifications
☐ Drainage Computations ☐ Flood Proofing Details ☐ Flood Proofing Certification

BFEC-12/01



Floodplain Narrative

Project Description:

Bridge No. 04487 carries East Street over the Pequabuck River in Bristol, Connecticut. Constructed in 1900, and rehabilitated in 1929, the bridge is a two-span structure comprised of concrete cast-in-place tee beam superstructure supported by stone stub abutment and a central pier with a bituminous wearing surface. The bridge has an overall length of 63-feet, a max. clear span of ± 28 -feet, and an out-to-out width of 50-feet. The bridge is located 160-feet south of Riverside Avenue (SR 72) and 22-feet north of Memorial Boulevard.

Based on the most recent Connecticut Department of Transportation (CTDOT) Routine Inspection Report dated 9/15/2020 the bridge was assigned an overall structure rating of 4. The bridge deck and superstructure are rated 4 (poor) with numerous large hollow areas and spalls with exposed rusted rebars, punky concrete, efflorescence and areas of water leakage. Concrete T-Beams have gunite coating, which has cracked and spalled off at random locations, exposing the concrete of the T-Beams. These beams show large spalls, some with the exposed main longitudinal reinforcement and exposed stirrups, large areas of moderate scale and areas of efflorescence build up. The substructures are rated 6 (satisfactory) and are also covered with gunite coating, which exhibits cracking, with and without efflorescence and hollow areas. The gunite coating along the south abutment has settled and is displaced in areas exposing the masonry. At the pier, 95% of the gunite is missing on the south side and 50% is missing on the north side.

The bridge is currently rated 6 for channel scour, with minor scour holes between ledge and boulders. There is a 15' long by 5' wide by 3' deep area of scour along the pier. This observed scour hole has not changed in recent routine inspections. The Pequabuck River is characterized by gravel, boulders and some cobbles with a high potential for self-armoring and is laterally stable, however flow favors the northern span.

The existing bridge has functioned adequately for about 92-years and is in need of major rehabilitation or full replacement. From the latest inspection report on September 15, 2020, it is evident that the entire existing bridge should be replaced due to significant deterioration and a poor condition rating.

Four replacement alternatives were considered for Bridge No. 04487:

- Alternative 1A: New 2-span bridge consisting of adjacent prestressed deck units topped with concrete slab, supported by new concrete abutments and concrete pier on spread footings.
- Alternative 1B: New 2-span bridge consisting of adjacent prestressed deck units without concrete slab, supported by new concrete abutments and concrete pier on spread footings.

- Alternative 2: New single span bridge consisting of Northeast Extreme Tee, Type D (NEXT D) beams with concrete deck, supported by new concrete abutments on spread footings.
- Alternative 3: New single span bridge consisting of spread prestressed concrete box beams with concrete deck, supported by new concrete abutments on spread footings.

All alternatives include the removal of the existing abutments and pier. All of the alternatives will have similar environmental impacts on the river below. The work in the channel is required for removal of the existing substructures and construction of the new one. Cofferdams will be installed around the existing substructures and ground water will be pumped away from the construction area to dewatering basins.

Alternative 1A was chosen which involves the full replacement of the existing bridge with a 2 span 60'-2" long structure consisting of adjacent prestressed concrete deck units and cast-in-place topping slab, supported by spread footings founded on concrete fill or directly on bedrock. This alternative achieves the project goal of providing a 75-year design life.

The bridge replacement is being funded by 80 percent federal funds and 20 percent local funds.

Floodplain Activity:

The Pequabuck River has been studied in detail in the Hartford County Flood Insurance Study (FIS), revised 5/16/17, and is designated Zone AE with a regulatory floodway at the subject bridge. Bridge No. 04487 is located within FEMA Zone AE and a regulatory floodway as depicted on Flood Insurance Rate Map (FIRM) Panel No. 09003C0466F (Figure 1).

5



Figure 1: Hartford County FIRM Panel No. 09003C0466F

Work within the floodplain and floodway is required for the bridge replacement. The floodplain and floodway of the Pequabuck River in the project area are depicted on the enclosed Environmental Permit Plan sheet PMT-04. Included on this sheet are the areas of impacts in the floodplain and floodway.

A summary of work within the floodplain and floodway is as follows:

Pre-stage 1

- Close East Street off from vehicular and pedestrian traffic and implement a detour plan
- Cut off and cap existing water main for duration of construction
- Install sediment and erosion controls
- Install debris shield above elevation 272' and remove existing superstructure
- Remove debris shield

Stage 1

- Install temporary water handling cofferdams around bridge pier
- Remove existing pier
- Construct proposed pier footing, stem and pier cap
- Remove temporary water handling cofferdams

Stage 2

- Install temporary water handling cofferdams around bridge abutments
- Remove existing abutments and wingwalls
- Construct proposed abutments, wingwalls footings, and stems
- Backfill new bridge abutments and remove temporary water handling cofferdams
- Install boulder clusters in river

Post--stage 2

- Install prestressed concrete deck units
- Construct approach slabs, sidewalks, pilasters, barrier walls and metal bridge rails
- Apply membrane waterproofing and first lift of bituminous overlay
- Construct roadway approaches to bridge
- Apply final lift of bituminous overlay to the entire project
- Saw and seal overlay at the ends of the bridge deck
- Open road to traffic and pedestrians and complete miscellaneous work
- Install proposed water main
- Remove erosion and sedimentation controls upon permanent stabilization

All work will be completed in accordance with CTDOT Standard Specifications for Roads, Bridges and Incidental Construction, Form 818, as revised. All temporary structures in the floodplain and floodway will be able to be removed in a timely manner from the site in case of a flood warning,

except for items designed as temporary structures in accordance with the guidelines outlined in the CTDOT Drainage Manual for Temporary Hydraulic Structures. All temporary impacts within the watercourse will be restored.

Most of the project area is within the FEMA floodway. The area of work within the floodway is 7,711 sf. Cut and fill activities are proposed within the FEMA 100-year floodplain. Excavation in the 100-year floodplain is 152 cy and fill within the 100-year floodplain is 589 cy. A regulatory analysis was completed to demonstrate no adverse effects from the proposed project to the regulatory water surface elevations, 100-year floodplain, floodway, surrounding properties, and the Pequabuck River.



STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION



2800 BERLIN TURNPIKE, P.O. BOX 317546
NEWINGTON, CONNECTICUT 06131-7546

April 12, 2023

The Honorable Jeffrey Caggiano
Mayor
City of Bristol
111 North Main Street
Bristol, Connecticut 06010

Dear Mayor Caggiano:

Subject: Flood Management Certification (FMC)
State Project No. 0017-0192
Rehabilitation of Bridge No. 04487, East Street over Pequabuck River
City of Bristol

In accordance with the Memorandum of Understanding (MOU) between the Connecticut Department of Transportation (Department) and the Connecticut Department of Energy and Environmental Protection (DEEP) regarding flood management certifications for municipal projects, the Department has completed the review of the flood management certification prepared and submitted for the city of Bristol for the subject project. The certification states that the proposed activity is consistent with all applicable standards and criteria established in Section 25-68d(b) of the Connecticut General Statutes and Sections 25-68h-1 through 25-68h-3, inclusive, of the Regulations of Connecticut State Agencies.

The proposed project involves the rehabilitation of Bridge No. 04487, East Street over Pequabuck River, in Bristol, Connecticut, as shown on the Environmental Permit Plans dated February 3, 2023, and as documented in the Final Hydraulic Report dated February 2, 2023, and the Final Floodway Report dated February 2, 2023. The project is located within the 100-year Flood Zone AE of the Pequabuck River.

The certification is complete and approved, subject to the following standard conditions:

Standard Conditions:

1. Time of Year Restriction on In-water Construction
 - a. Between September 30th and May 31st, the municipality shall not place fill, excavate material, or conduct any other construction activity in any watercourse unless such activity is confined by a cofferdam or other device which isolates such activity from the watercourse, unless the DEEP Inland Fisheries Division has given written authorization otherwise.

- b. The municipality shall not place fill, excavate material, or conduct any other activity in any watercourse stocked with fish by the Commissioner or any other person, or in any tributary to such watercourse, from 12:01 a.m. on the Monday preceding the third Saturday in April through 12 midnight on the Sunday preceding the fourth Saturday in April.
- c. The municipality shall not place fill, excavate material, or conduct any other construction activity in or adjacent to any watercourse, which activity may adversely affect anadromous fish, during the time period when anadromous fish are known or reasonably believed to be migrating in the watercourse.

2. Pollution Prevention/Best Management Practices

The municipality shall not cause or allow the authorized activity, including any construction associated therewith, to result in pollution or other environmental damage and shall employ best management practices to prevent such damage. The municipality shall, in addition to employing any other best management practices necessary to prevent such damage, do the following:

a. Controlling Erosion

The municipality shall install and maintain in optimal condition erosion and sedimentation controls to prevent erosion and discharge of material into any waters of the state, including wetlands, as a result of the authorized activity or any construction associated therewith. Such controls shall be installed and maintained in conformance with the *Connecticut Guidelines for Soil Erosion and Sediment Control*, as revised, published by the Connecticut Council on Soil and Water Conservation pursuant to Section 22a-328 of the Connecticut General Statutes.

b. Proper Disposal of Material

All material and solid waste generated during any construction associated with such activity shall be disposed of in accordance with applicable federal, state, and local law.

- 3. Storage of equipment/material within the floodplain should be avoided; but, if absolutely necessary, the municipality will require the contractor to remove equipment and materials from the 100-year floodplain during periods when flood warnings have been issued or are anticipated by a responsible federal, state or local agency. It shall be the contractor's responsibility to be knowledgeable of such warnings when flooding is anticipated.
- 4. Work shall not be conducted in or adjacent to watercourses and reservoirs used as public drinking water supply sources without coordination with the water supply utility and the Department of Public Health.
- 5. All temporary structures, cofferdams, and fill shall not impede the movement of flood flows and shall be removed at the completion of their use. The design of such temporary structures, cofferdams and fill shall be based on the DOT Drainage Manual, where applicable. Sheet piling that is cut 1 foot below existing grade shall be considered removed.

The Honorable Jeffrey Caggiano

-3-

April 12, 2023

6. All fill shall be clean material, free of stumps, rubbish, hazardous, and toxic material.
7. Once work is initiated, it shall proceed rapidly and steadily until completed and stabilized in order to minimize use of temporary structures and to minimize soil erosion.

Please be advised of the following project specific information:

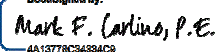
1. Pursuant to Standard Condition 1.c, coordination with DEEP Inland Fisheries Division concluded that there were no anadromous fish of concern within the project area.
2. The Contractor must contact DEEP Fisheries Biologist Matt Goclowski of DEEP Fisheries at matthew.goclowski@ct.gov ten days before the installation of the boulder cluster.

A copy of the completed certification forms is attached for your records. No revisions or alterations to the approved plans are allowed without first obtaining written approval from the Department for such alterations.

This letter and certification forms must be attached to any subsequent permit applications for the municipal project that are submitted to the DEEP or the U.S. Army Corps of Engineers.

If there are any questions, please contact Mr. Michael Hogan, Transportation Principal Engineer for the Hydraulics and Drainage Section, at 860-594-3241 or Michael.Hogan@ct.gov.

Very truly yours,

DocuSigned by:

4A13778C34394C9

Mark F. Carlino, P. E.
Engineering Administrator
Bureau of Engineering and Construction

The Honorable Jeffrey Caggiano

-4-

April 12, 2023

Enclosures

cc: Mr. Jeff Caiola, DEEP

**Statewide Flood Management Certification for
Federally and State Funded Municipal Projects**

Attachment A: DOT

A-1: Engineering Certification

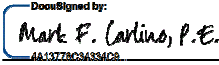
Name of Subject Facility and DOT Project Number:

Bridge No. 04487, East Street over Pequabuck River, Bristol
State Project No. 0017-0192

Name of floodplain and watercourse:

Zone AE and Floodway
Pequabuck River

I hereby certify, in reliance on the Municipal Official Certification, the Town Engineer / Consultant-Professional Certification, the DOT Hydraulics and Drainage Section and the DOT Environmental Planning reviews, that the above referenced project qualifies for the DEP Commissioner's approval pursuant to Section 25-68d of the General Statutes, and that the proposed activity described in this application is consistent with all applicable standards and criteria established in Sections 25-68d(b) of the General Statutes and Sections 25-68h-1 through 25-68h-3, inclusive, of the Regulations of Connecticut State Agencies.

Signature:  _____
DocuSigned by:
Mark F. Carlino, P.E.
AA13772AC34334C2

4/11/2023

Date

Print/Type: Mark F. Carlino
Transportation Engineering Administrator
Bureau of Engineering and Construction

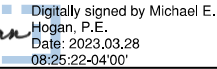
Statewide Flood Management Certification for
Federally and State Funded Municipal Projects

Attachment A: DOT

DOT Project No. 0017-0192

A-2: Hydraulics and Drainage Section Review

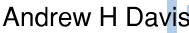
Based on my review and reasonable investigation, including my inquiry of those individuals responsible for obtaining the information, the proposed activity described in this application is consistent with all applicable standards and criteria established in Sections 25-68d(b) of the General Statutes and Sections 25-68h-1 through 25-68h-3, inclusive, of the Regulations of Connecticut State Agencies.

Signature:   _____ Date _____

Print/Type: _____
Michael E. Hogan
Transportation Principal Engineer
Hydraulics and Drainage Section

A-3: Environmental Planning Review

Based on my review and reasonable investigation, including my inquiry of those individuals responsible for obtaining the information, the proposed activity described in this application is consistent with all applicable standards found in the 2004 Connecticut Stormwater Manual, 2002 Erosion and Sedimentation Control Guidelines (as amended) and that there has been proper coordination with the Inland Fisheries Division and the Natural Diversity Database.

Signature:   _____ Date _____

Print/Type: _____
Andrew H. Davis
Transportation Supervising Planner
Office of Environmental Planning

**Statewide Flood Management Certification for
Federally and State Funded Municipal Projects**

Attachment B: Municipality

B-1: Municipal Official Certification

Name of Applicant / Municipality: City of Bristol

DOT Project No.: 0017-0192

Description of Proposed Project: Replacement of Bridge No. 04487, East Street over Pequabuck River.
Work includes full abutment and pier replacement and construction of new two-span structure with adjacent prestressed deck units.

1. The recipient of federal and/or state funding will be:

Name: City of Bristol

Mailing Address: 111 North Main Street

City/Town: Bristol

State: CT

Zip Code: 06010

Phone: 860-584-6100 ext.

Fax:

Based on my review and reasonable investigation, including my inquiry of those individuals responsible for preparing the information, the proposed activity described in this application is consistent with all applicable standards and criteria established in Sections 25-68d(b) of the General Statutes and Sections 25-68h-1 through 25-68h-3, inclusive, of the Regulations of Connecticut State Agencies.

I understand that a false statement made in the submitted information may, pursuant to Section 22a-6 of the General Statutes, be punishable as a criminal offense under Section 53a-157b of the General Statutes, and may also be punishable under Section 22a-438 of the General Statutes.

Signature:



2/10/2023
Date

Print/Type:

Mayor, City of Bristol

Chief Elected Official
First Selectman

**Statewide Flood Management Certification for
Federally and State Funded Municipal Projects**

Attachment B: Municipality

B-2: Town Engineer / Consultant - Professional Certification

DOT Project No.: 0017-0192

Description of Proposed Project: Replacement of Bridge No. 04487, East Street over Pequabuck River. Work includes full abutment and pier replacement and construction of new two-span structure with adjacent prestressed deck units.

Plan Dated and Revised Through: 02/03/2023

Hydrologic and Hydraulic Study Dated: Hydrology Report: 03/10/2021
Hydraulic Report: 02/02/2023
Floodway Report: 02/02/2023

I hereby certify that the prepared information and the proposed activity described in this application is consistent with all applicable standards and criteria established in Sections 25-68d(b) of the General Statutes and Sections 25-68h-1 through 25-68h-3, inclusive, of the Regulations of Connecticut State Agencies.

I understand that a false statement made in the submitted information may, pursuant to Section 22a-6 of the General Statutes, be punishable as a criminal offense under Section 53a-157b of the General Statutes, and may also be punishable under Section 22a-438 of the General Statutes.

Signature: _____

Jagdeesh Gopal

2/13/2023

Date

Print/Type: _____

JAGDEESH GOPAL

Professional Engineer

P.E. Number: 24485

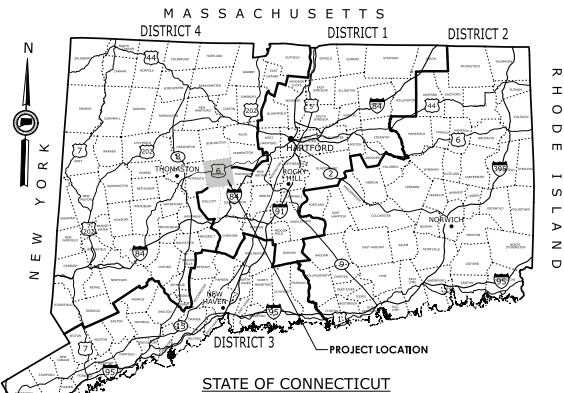


Affix P.E. Stamp Here

ENVIRONMENTAL PERMIT PLANS

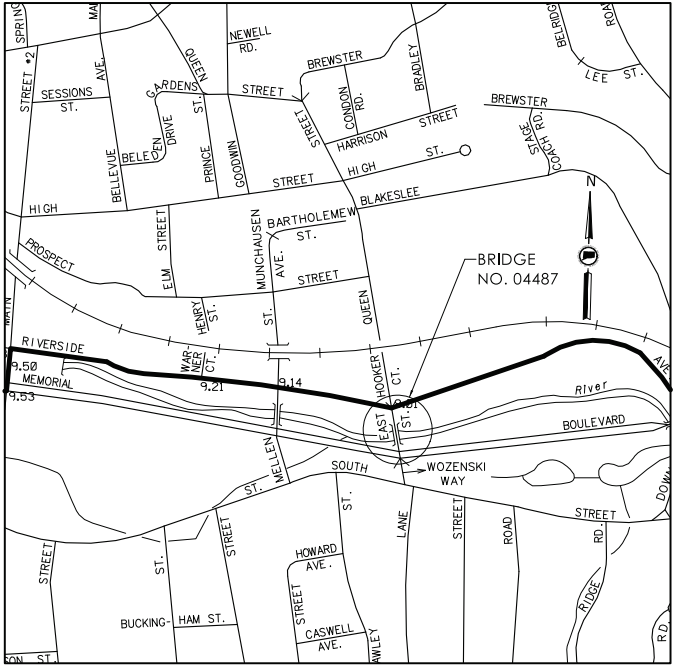
STATE PROJECT NO. 0017-0192 REPLACEMENT OF BRIDGE NO. 04487 EAST STREET OVER PEQUABUCK RIVER

Town(s)/City of
BRISTOL, CT



GENERAL NOTES:

1. FEDERAL AID PROJECT NO.
2. THESE PLANS ARE NOT INTENDED FOR CONSTRUCTION AND ARE INTENDED ONLY FOR ENVIRONMENTAL PERMITTING PURPOSES. THESE PLANS HOLD AUTHORITY FOR ALL ACTIVITIES CONCERNING THE REGULATED AREA. FOR DETAILED PLANIMETRIC INFORMATION AND PAYMENT, REFER TO THE APPLICABLE CONTRACT DOCUMENTS.
3. FOR A DESCRIPTION OF THE WATERCOURSES, WETLANDS, AND WETLAND SOILS, SEE RELEVANT SECTIONS OF THE PERMIT APPLICATION.
4. 400 FOOT GRID BASED ON CONNECTICUT COORDINATE SYSTEM N.A.D. 1983 VERTICAL DATUM BASED ON NAVD 2020
5. ALL CONSTRUCTION ACTIVITIES WILL BE CONDUCTED IN ACCORDANCE WITH THE DEPARTMENT'S STANDARD SPECIFICATIONS FOR ROADS, BRIDGE, FACILITIES AND INCIDENTAL CONSTRUCTION, FORM 818, DATED 2020, SECTION 1.10, AND SUPPLEMENTAL SPECIFICATIONS, DATED JULY 2022, AND WILL ALSO FOLLOW REQUIRED BEST MANAGEMENT PRACTICES (BMPs) AND SEDIMENT AND EROSION CONTROL MEASURES IN ACCORDANCE WITH THE 2002 EROSION & SEDIMENTATION CONTROL GUIDELINES AND THE 2004 STORMWATER QUALITY MANUAL.



LOCATION PLAN
NOT TO SCALE

LIST OF DRAWINGS

SHEET NO.	DRAWING TITLE
PMT-01	TITLE SHEET
PMT-02	GENERAL SITE PLAN
PMT-03	WETLAND IMPACT PLAN
PMT-04	100-YEAR FLOODPLAIN IMPACT PLAN
PMT-05	GENERAL BRIDGE PLAN
PMT-06	WATER HANDLING PLAN

ENVIRONMENTAL PERMIT PLANS - 02/03/2023

DESIGNER/DRAPER: NAB	CHECKED BY: PWB
LASTED SAVED BY: NAB	FILE NAME: M:\017_192_East Street_Ltrid\300_Permi_Development\Permi Plans\HW_CP_0017_0192_01.dgn
PLOTTED DATE: 2/3/2023	

FINAL DESIGN REVIEW

NOT TO SCALE

SIGNATURE

BLOCK



CITY OF BRISTOL

PROJECT NUMBER: 0017-0192

PROJECT DESCRIPTION: REPLACEMENT OF BRIDGE NO. 04487, EAST STREET OVER PEQUABUCK RIVER

TOWNSHIP: BRISTOL

DRAWING TITLE: TITLE SHEET

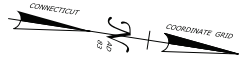
DRAWING NO.

PMT-01

SHEET NO.

**BEGIN PROJECT NO. 0017-0192
LIMIT OF FULL DEPTH RECONSTRUCTION
BL STATION 10+89.30
MATCH EXISTING PAVEMENT**

**END PROJECT NO. 0017-0192
LIMIT OF FULL DEPTH RECONSTRUCTION
BL STATION 13+20.00
MATCH EXISTING PAVEMENT**



LEGEND

- 100YR FEMA 100-YR FLOOD (CALCULATED)
- SEDIMENTATION CONTROL SYSTEM
- FLOODWAY
- OHW ORDINARY HIGH WATER LINE
- STATE WETLANDS
- PROPOSED FILL LINE
- PROPOSED CUT LINE

ROW LEGEND

- (A) PARTIAL TAKE REQUIRED
- (B) CONSTRUCTION EASEMENT REQUIRED
- (C) RIGHT TO GRADE REQUIRED
- (D) RIGHT TO INSTALL SEDIMENTATION CONTROL SYSTEM REQUIRED

FINAL DESIGN REVIEW

DESIGNER/DRAWER: NAB CHECKED BY: PMB



SIGNATURE BLOCK



CITY OF BRISTOL

PROJECT NUMBER: 0017-0192

PROJECT DESCRIPTION: REPLACEMENT OF BRIDGE NO. 04487, EAST STREET OVER PEQUABUCK RIVER
TOWNSHIP: BRISTOL
DRAWING TITLE: GENERAL SITE PLAN

ENVIRONMENTAL PERMIT PLANS - 02/03/2023

DRAWING NO.

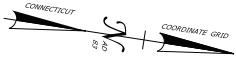
PMT-02

SHEET NO.

LASTED SAVED BY: NAB FILE NAME: M:\017_192_East Street_Retitled\300_Permits\Development\Permit Plans\HW_CIP_0017_0192_Roadway\Plan.dgn
PLOTTED DATE: 2/3/2023

NOTES

1. ROUNDED BOULDERS APPROXIMATELY 2-3 FT. MIN. DIAMETER SHALL BE PLACED IN CLUSTERS, AS DIRECTED IN THE FIELD BY THE ENGINEER OR THEIR AUTHORIZED DELEGATE. SEE SPECIAL PROVISION "PLACEMENT OF CHANNEL BOULDER"
2. FOR MULTIPLE CLUSTERS, THE DISTANCE BETWEEN CLUSTERS WILL BE BASED ON FIELD CONDITIONS

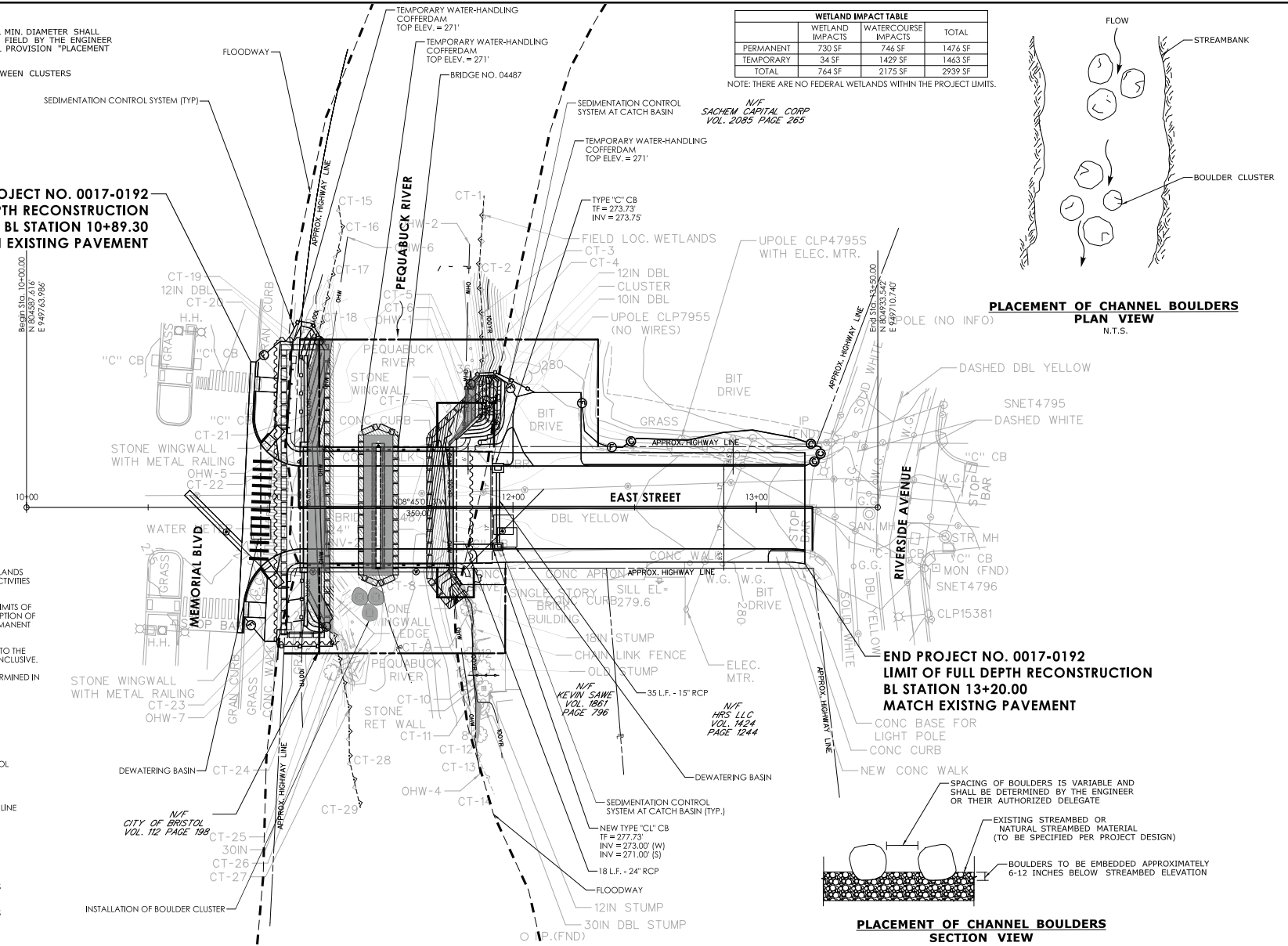


**BEGIN PROJECT NO. 0017-0192
LIMIT OF FULL DEPTH RECONSTRUCTION
BL STATION 10+89.30
MATCH EXISTING PAVEMENT**

- NOTE
1. AREAS OF TEMPORARY DISTURBANCE WITHIN WETLANDS SHALL BE RESTORED FOLLOWING CONSTRUCTION ACTIVITIES WITH WETLAND SEED MIX.
 2. THE CONTRACTOR SHALL NOT WORK WITHIN THE LIMITS OF THE WETLANDS AND WATERCOURSES WITH THE EXCEPTION OF THOSE AREAS DELINEATED AS TEMPORARY AND PERMANENT IMPACTS TO THE WETLANDS AND WATERCOURSE.
 3. ALL UNCONFINED INSTREAM WORK IS RESTRICTED TO THE PERIOD FROM JUNE 1st THROUGH SEPTEMBER 30th, INCLUSIVE.
 4. LOCATION OF THE BOULDER CLUSTERS TO BE DETERMINED IN THE FIELD BY DEEP FISHERIES STAFF.

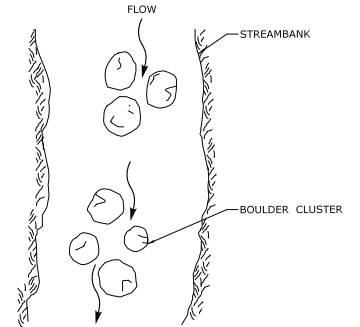
LEGEND

- 100YR FEMA 100-YR FLOOD (CALCULATED)
- SEDIMENTATION CONTROL SYSTEM
- FLOODWAY
- ORDINARY HIGH WATER LINE
- STATE WETLANDS
- PROPOSED FILL LINE
- PROPOSED CUT LINE
- PERMANENT WETLAND/ WATERCOURSE IMPACTS
- TEMPORARY WETLAND/ WATERCOURSE IMPACTS



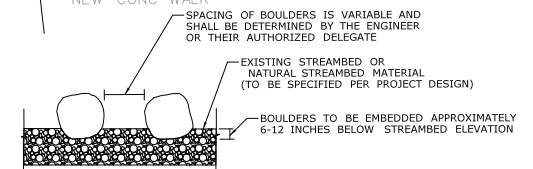
WETLAND IMPACT TABLE			
	WETLAND IMPACTS	WATERCOURSE IMPACTS	TOTAL
PERMANENT	730 SF	746 SF	1476 SF
TEMPORARY	34 SF	1429 SF	1463 SF
TOTAL	764 SF	2175 SF	2939 SF

NOTE: THERE ARE NO FEDERAL WETLANDS WITHIN THE PROJECT LIMITS.



**PLACEMENT OF CHANNEL BOULDERS
PLAN VIEW**
N.T.S.

**END PROJECT NO. 0017-0192
LIMIT OF FULL DEPTH RECONSTRUCTION
BL STATION 13+20.00
MATCH EXISTING PAVEMENT**



**PLACEMENT OF CHANNEL BOULDERS
SECTION VIEW**
N.T.S.

FINAL DESIGN REVIEW

DESIGNER/DRAWER: NAB CHECKED BY: PMB

0 20' 40'
HORIZONTAL SCALE
1" = 20'

SIGNATURE BLOCK

GMP
GMP ASSOCIATES, INC.
115 GLASTONBURY BLVD
GLASTONBURY, CT 06033

CITY OF BRISTOL

PROJECT NUMBER: 0017-0192

PROJECT DESCRIPTION: REPLACEMENT OF BRIDGE NO. 04487, EAST STREET OVER PEQUABUCK RIVER

TOWNSHIP: BRISTOL

DRAWING TITLE: WETLAND IMPACT PLAN

ENVIRONMENTAL PERMIT PLANS - 02/03/2023

DRAWING NO.

PMT-03

SHEET NO.

LASTED SAVED BY: Pmbat FILE NAME: M:\017_192_East Street_Bridg\020_Permits\Development\Permit Plans\Wetland\0017_0192_Impact Plan.dgn
PLOT DATE: 2/3/2023

**BEGIN PROJECT NO. 0017-0192
LIMIT OF FULL DEPTH RECONSTRUCTION
BL STATION 10+89.30
MATCH EXISTING PAVEMENT**

**END PROJECT NO. 0017-0192
LIMIT OF FULL DEPTH RECONSTRUCTION
BL STATION 13+20.00
MATCH EXISTING PAVEMENT**

LEGEND

- 100YR FEMA 100-YR FLOOD (CALCULATED)
- SEDIMENTATION CONTROL SYSTEM
- FLOODWAY
- ORDINARY HIGH WATER LINE
- STATE WETLANDS
- PROPOSED FILL LINE
- PROPOSED CUT LINE
- FLOODWAY IMPACTS
- 100-YEAR FLOODPLAIN IMPACTS

AREA OF WORK WITHIN THE FLOODWAY
7711 SF

100-YEAR FLOODPLAIN AREA IMPACTS, CUT & FILL INFORMATION	
VOLUME IMPACTS	
EXCAVATION IN FEMA FLOODPLAIN	FILL IN FEMA FLOODPLAIN
152 CY	589 CY

NOTE:
1. AREAS OF TEMPORARY DISTURBANCE WITHIN WETLANDS SHALL BE RESTORED FOLLOWING CONSTRUCTION ACTIVITIES WITH WETLAND SEED MIX.

ENVIRONMENTAL PERMIT PLANS - 02/03/2023

FINAL DESIGN REVIEW



SIGNATURE BLOCK



CITY OF BRISTOL

PROJECT NUMBER: 0017-0192

PROJECT DESCRIPTION: REPLACEMENT OF BRIDGE NO. 04487, EAST STREET OVER PEQUABUCK RIVER

TOWNSHIP: BRISTOL

DRAWING TITLE: 100-YEAR FLOODPLAIN IMPACT PLAN

DRAWING NO.

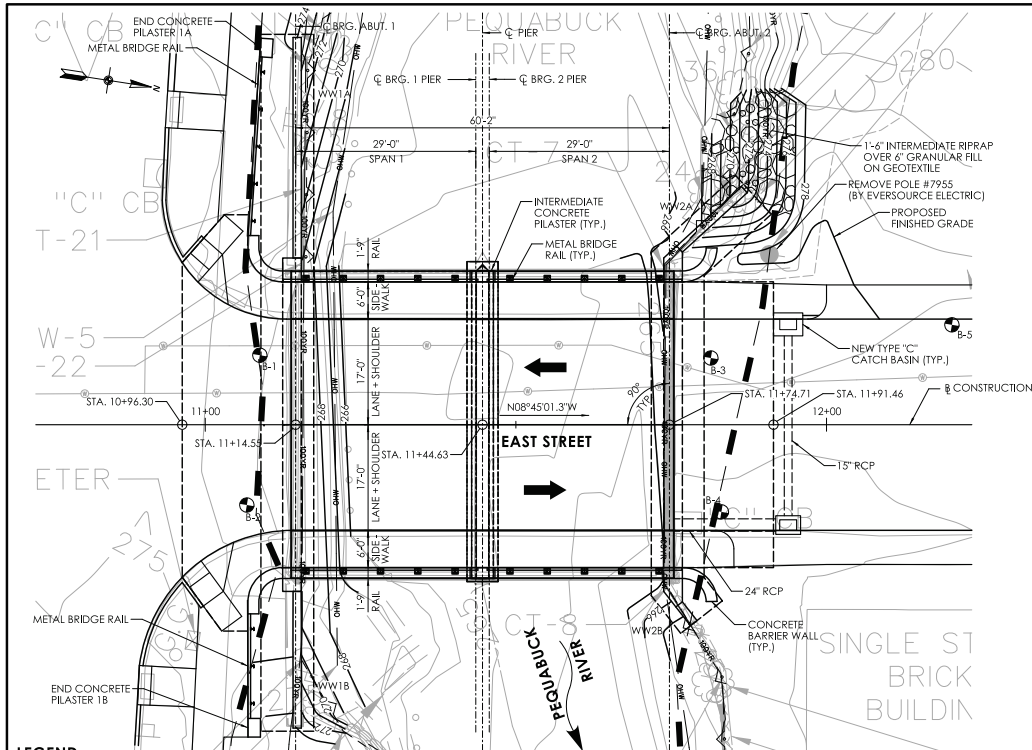
PMT-04

SHEET NO.

DESIGNER/DRAWER: NAB

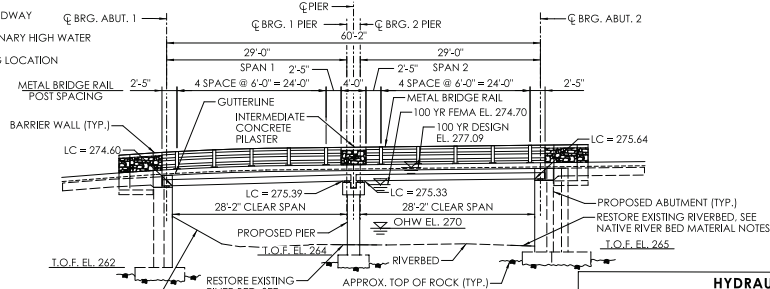
CHECKED BY: PMB

LASTED SAVED BY: Nibeaou FILE NAME: M:\017_192_East Street_Limited\300_Permits\Development\Permit Plans\HW_CP_0017_0192_100 YR Impact Plan.dgn
PLOTTED DATE: 2/3/2023



LEGEND

- STATE/FEDERAL WETLANDS
- FEMA 100-YEAR FLOOD (CALCULATED)
- FLOODWAY
- ORDINARY HIGH WATER
- SOIL BORING LOCATION



NATIVE RIVERBED MATERIAL NOTES:

- NATIVE RIVERBED MATERIAL EXCAVATED DURING PROPOSED ABUTMENTS AND PIER INSTALLATION SHALL BE STOCKPILED AND THEN REPLACED WITHIN DISTURBED AREAS OF RIVERBED TO THE DEPTH SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER IN ACCORDANCE WITH THE SPECIAL PROVISION FOR THE ITEM "REUSE OF EXISTING CHANNEL BOTTOM MATERIAL".
- ADDITIONAL RIVERBED MATERIAL, IF REQUIRED, SHALL BE IN ACCORDANCE WITH THE SPECIAL PROVISION FOR THE ITEM "REUSE OF EXISTING CHANNEL BOTTOM MATERIAL".
- THE STOCKPILE SHALL BE LOCATED OUTSIDE THE WETLAND LIMITS AND PROTECTED WITH SEDIMENTATION CONTROL SYSTEM.

HYDRAULIC DATA

DRAINAGE AREA	24.60 SQ. MI.
DESIGN FLOOD FREQUENCY	100 YEAR
DESIGN DISCHARGE	6260 CFS
AVERAGE DAILY FLOW ELEVATION	267.49 FT.
UPSTREAM DESIGN WATER SURFACE ELEVATION	277.09 FT.
DOWNSTREAM DESIGN WATER SURFACE ELEVATION	273.95 FT.
MAXIMUM SCOUR ELEVATION	262.49 FT.
FREQUENCY DISCHARGE	200 YEAR
DISCHARGE	2270 CFS
WORST CASE SCOUR SUBSTRUCTURE UNIT	SAME

ELEVATION

SCALE: 1" = 10'

GENERAL NOTES:

SPECIFICATIONS: CONNECTICUT DEPARTMENT OF TRANSPORTATION FORM 818 DATED 2020; SUPPLEMENTAL SPECIFICATION DATED JULY 2022 AND SPECIAL PROVISIONS.

DESIGN SPECIFICATIONS: AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS (9TH EDITION - 2020), AS SUPPLEMENTED BY THE CONNECTICUT DEPARTMENT OF TRANSPORTATION BRIDGE DESIGN MANUAL (2003), WITH THE LATEST REVISIONS.

MATERIAL STRENGTHS:

CONCRETE:
CLASS PCC 03340 $f_c = 3,000$ PSI
CLASS PCC 04460 $f_c = 4,000$ PSI
CLASS PCC 04462 $f_c = 4,000$ PSI
PRESTRESSED DECK UNITS $f_c = 8,000$ PSI

THE CONCRETE STRENGTH, f_c , USED IN DESIGN OF THE CONCRETE COMPONENTS IS NOTED ABOVE. THE COMPRESSIVE STRENGTH OF THE CONCRETE IN THE CONSTRUCTED COMPONENTS SHALL CONFORM TO THE REQUIREMENTS OF 6.01- CONCRETE FOR STRUCTURES AND M.03- PORTLAND CEMENT CONCRETE.

REINFORCEMENT: (ASTM A615 GRADE 60) $f_y = 60,000$ PSI

LIVE LOAD: HL-93, LEGAL AND PERMIT VEHICLES.

FUTURE PAVING ALLOWANCE: NONE.

BITUMINOUS CONCRETE OVERLAY: THIS SHALL CONSIST OF TWO LIFTS: THE FIRST (BOTTOM LIFT) SHALL BE "HMA 50.25 TRAFFIC LEVEL 2" (1" THICK) AND THE SECOND (TOP LIFT) SHALL BE "HMA 50.5 TRAFFIC LEVEL 2" (2" THICK).

FOUNDATION PRESSURES: THE LIMIT STATES NOTED ON THE SUBSTRUCTURE PLAN SHEETS REFER TO LOAD COMBINATIONS AS GIVEN IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS.

DIMENSIONS: WHEN DECIMAL DIMENSIONS ARE GIVEN LESS THAN THREE DECIMAL PLACES, THE OMITTED DIGITS SHALL BE ASSUMED TO BE ZEROS.

EXISTING DIMENSIONS: DIMENSIONS OF THE EXISTING STRUCTURE SHOWN ON THESE PLANS ARE FOR GENERAL REFERENCE ONLY. THEY HAVE BEEN TAKEN FROM THE LIMITED SURVEY AND ARE NOT GUARANTEED. THE CONTRACTOR SHALL TAKE ALL FIELD MEASUREMENTS NECESSARY TO ASSURE PROPER FIT OF THE FINISHED WORK AND SHALL ASSUME FULL RESPONSIBILITY FOR THEIR ACCURACY. WHEN SHOP DRAWINGS BASED ON FIELD MEASUREMENTS ARE SUBMITTED FOR REVIEW, THE FIELD MEASUREMENTS SHALL ALSO BE SUBMITTED FOR REFERENCE BY THE REVIEWER.

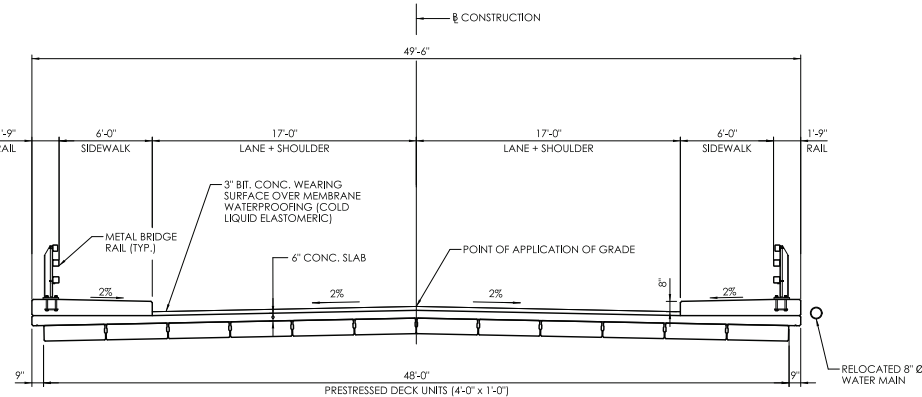
EXISTING BRIDGE: THE WORK FOR REMOVAL OF THE EXISTING SUPERSTRUCTURE SHALL BE INCLUDED AND PAID FOR UNDER THE ITEM "REMOVAL OF SUPERSTRUCTURE". THE WORK FOR REMOVAL OF EXISTING ABUTMENTS, PIER, AND WINGWALLS SHALL BE PAID FOR UNDER ITEM "REMOVAL OF EXISTING MASONRY".

UTILITIES: THE FOLLOWING UTILITIES ARE LOCATED WITHIN THE PROJECT LIMITS AND SHALL BE PROTECTED DURING CONSTRUCTION: 12 INCH WATER MAIN OWNED BY CITY OF BRISTOL WATER AND SEWER DEPARTMENT, AND ELECTRIC DISTRIBUTION UTILITY POLE OWNED BY EVERSOURCE ELECTRIC. THE CONTRACTOR SHALL COORDINATE ALL WORK RELATED TO UTILITY RELOCATION WITH THE RESPECTIVE UTILITY COMPANIES.

BRIDGE IDENTIFICATION PLACARDS: THE CONTRACTOR SHALL PROVIDE AND INSTALL NEW BRIDGE IDENTIFICATION SIGNS AT THE LEADING END OF EACH TIMBER END BLOCK ON THE TRAFFIC SIDE. THE SIGNS SHALL BE FABRICATED WITH 40 GAUGE ALUMINUM SHEET METAL. THE SIGNS SHALL BE 4' X 12' WITH 3" WHITE RETROREFLECTIVE BLOCK LETTERS ON GREEN RETROREFLECTIVE SHEETING. EACH SIGN SHALL READ 04487. ALL COSTS ASSOCIATED WITH PROVIDING AND INSTALLING THE BRIDGE SIGNS SHALL BE COVERED UNDER ITEM #1208931- SIGN FACE SHEET ALUMINUM (TYPE B RETROREFLECTIVE SHEETING). THE FINAL LOCATION AND ATTACHMENT METHOD FOR THE SIGNS SHALL BE APPROVED BY THE ENGINEER PRIOR TO ATTACHMENT.

CONCRETE NOTES:

FOR CONCRETE NOTES SEE NEXT SHEET.



PROPOSED TYPICAL SECTION

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

INSPECTION OF FIELD WELDS

METHOD	UNIT	QUANTITY
ULTRASONIC	IN	0
MAGNETIC PARTICLE	IN	0

CONCRETE DISTRIBUTION

SUBSTRUCTURE	C.Y.	105
FOOTINGS	C.Y.	153
TOTAL	C.Y.	666

NOTICE TO BRIDGE INSPECTORS

THE DEPARTMENT'S BRIDGE SAFETY PROCEDURES REQUIRE THIS BRIDGE TO BE INSPECTED FOR, BUT NOT LIMITED TO, ALL APPROPRIATE COMPONENTS INDICATED IN THE GOVERNING MANUAL FOR BRIDGE INSPECTION. ATTENTION MUST BE GIVEN TO THE IMPORTANCE OF THE FOLLOWING SPECIFIC DETAILS: THE LISTING FOR SPECIFIC ATTENTION SHALL NOT BE CONSTRUED TO REDUCE THE IMPORTANCE OF INSPECTION OF ANY OTHER COMPONENT OF THE STRUCTURE. THE FREQUENCY OF INSPECTION OF THIS STRUCTURE SHALL BE IN ACCORDANCE WITH THE GOVERNING MANUALS FOR BRIDGE INSPECTION, UNLESS OTHERWISE DIRECTED BY THE MANAGER OF SAFETY AND EVALUATION.

COMPONENT OR DETAIL	STRUCTURE SHEET REFERENCE
FOLLOW NORMAL INSPECTION PROCEDURES	

ENVIRONMENTAL PERMIT PLANS - 02/03/2023

(SEALING)

PMT-05

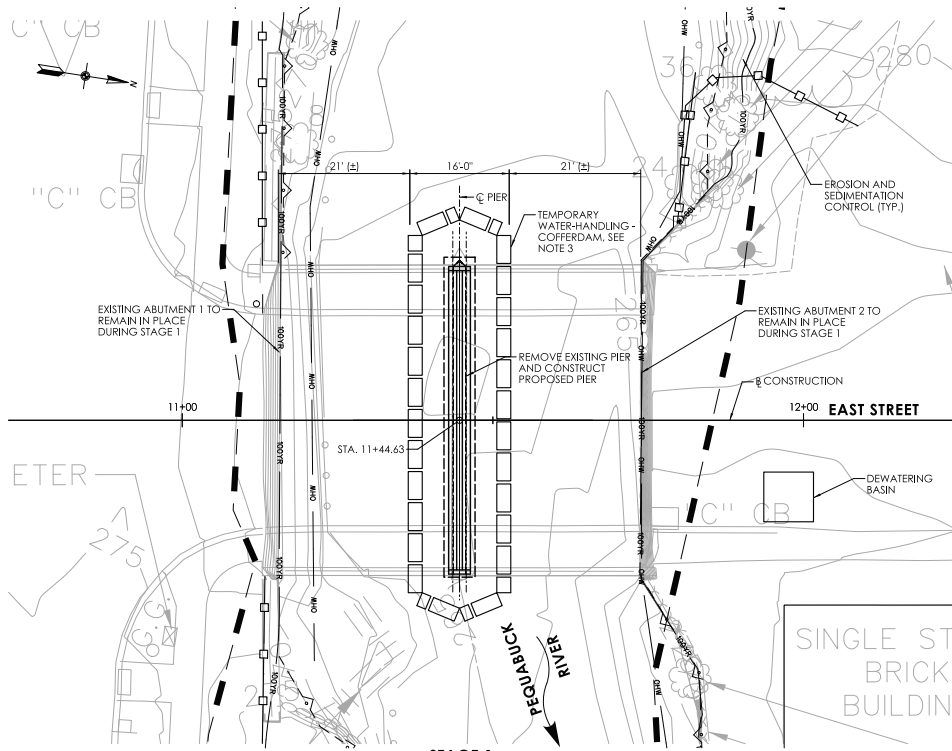
SHEET NO.

DESIGNER/DRAWN BY: J.S. CHECKED BY: VIL
LASTED SAVED BY: Soohol FILE NAME: M:\017-192-East Street_Bristol\330_Design Data\Structure_Bridge\Main\Contract_Sheet_Plan\017-192-East Street_04487_GPR_Plan.dgn
PLOTTED DATE: 2/23/2023

SCALE AS NOTED

CITY OF BRISTOL

PROJECT NUMBER: 0017-0192
PROJECT DESCRIPTION: REPLACEMENT OF BRIDGE NO. 04487, EAST STREET OVER PEQUABUCK RIVER
TOWNSHIP: BRISTOL
DRAWING TITLE: GENERAL PLAN, TYPICAL SECTION AND ELEVATION



STAGE 1
SCALE: 1"=10'

SUGGESTED SEQUENCE OF CONSTRUCTION

THE FOLLOWING IS THE SUGGESTED SEQUENCE OF CONSTRUCTION THAT MAY BE FOLLOWED. THE CONTRACTOR SHALL SUBMIT HIS SEQUENCE OF CONSTRUCTION TO THE ENGINEER FOR APPROVAL.

PRE-STAGE 1

1. INSTALL DETOUR SIGNS AND PLACE TEMPORARY PRECAST CONCRETE BARRIER CURBS, CLOSING EAST STREET TO THROUGH TRAFFIC. PRIOR TO ANY ROAD CLOSURE, THE CONTRACTOR SHALL COORDINATE WITH THE CITY OF BRISTOL, SEE SPECIAL PROVISIONS FOR THE ITEM "MAINTENANCE AND PROTECTION OF TRAFFIC" AND THE DETOUR PLAN FOR ADDITIONAL REQUIREMENTS.
2. CUT OFF AND CAP EXISTING WATER MAIN FOR THE DURATION OF CONSTRUCTION.
3. INSTALL NECESSARY EROSION AND SEDIMENTATION CONTROLS.
4. INSTALL DEBRIS SHIELD ABOVE EL. 272 AND REMOVE EXISTING SUPERSTRUCTURE.
5. REMOVE DEBRIS SHIELD.

STAGE 1

1. INSTALL TEMPORARY WATER HANDLING COFFERDAMS FOR STAGE 1 TO THE LIMITS SHOWN ON THIS PLAN. SEE WATER HANDLING NOTES FOR ADDITIONAL INFORMATION.
2. REMOVE THE EXISTING PIER IN ITS ENTIRETY.
3. CONSTRUCT PROPOSED PIER FOOTING, STEM AND PIER CAP.
4. REMOVE TEMPORARY WATER HANDLING COFFERDAMS FOR STAGE 1.

STAGE 2

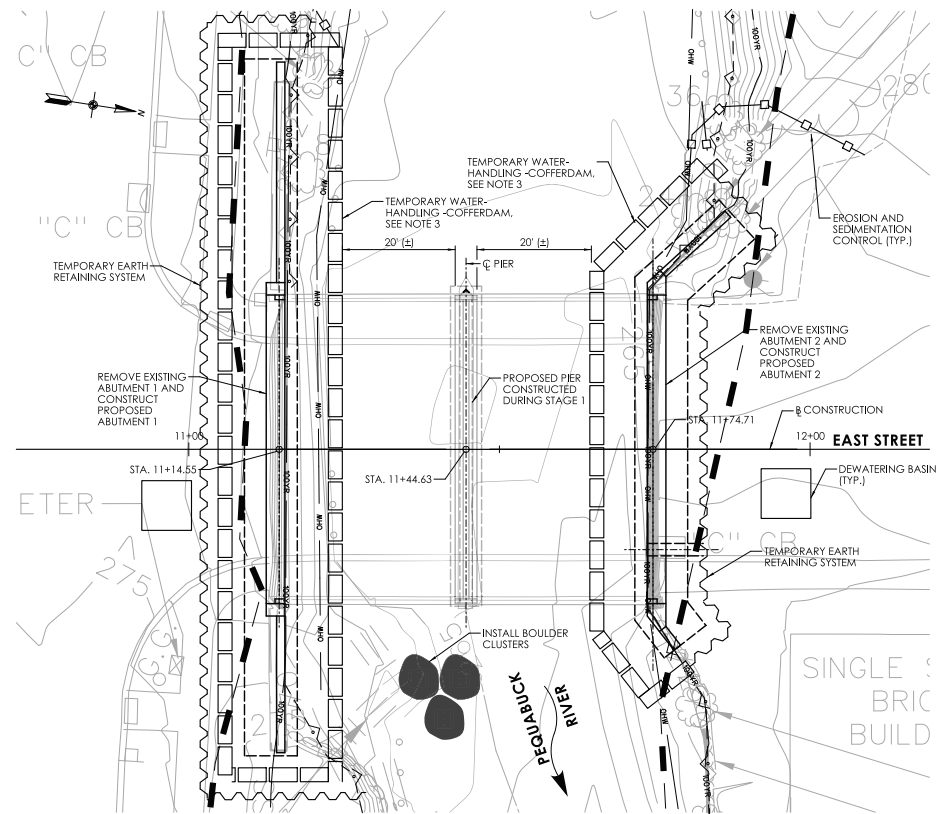
1. INSTALL TEMPORARY WATER HANDLING COFFERDAMS FOR STAGE 2 TO THE LIMITS SHOWN ON THIS PLAN. SEE WATER HANDLING NOTES FOR ADDITIONAL INFORMATION.
2. REMOVE THE EXISTING ABUTMENTS AND WINGWALLS IN THEIR ENTIRETY.
3. CONSTRUCT PROPOSED ABUTMENTS AND WINGWALLS FOOTINGS, AND STREAMS.
4. BACKFILL PROPOSED BRIDGE AND REMOVE TEMPORARY WATER HANDLING COFFERDAMS FOR STAGE 2.
5. INSTALL BOULDER CLUSTERS.

POST-STAGE 2

1. INSTALL PRESTRESSED CONCRETE DECK UNITS.
2. POUR CONCRETE DECK.
3. CONSTRUCT APPROACH SLABS, SIDEWALKS, PLASTERS AND BARRIER WALLS. INSTALL METAL BRIDGE RAILS.
4. APPLY MEMBRANE WATERPROOFING AND FIRST LIFT OF BITUMINOUS OVERLAY.
5. CONSTRUCT ROADWAY APPROACHES TO THE BRIDGE.
6. APPLY FINAL LIFT OF THE BITUMINOUS OVERLAY TO THE ENTIRE PROJECT.
7. SAW AND SEAL OVERLAY AT THE ENDS OF THE BRIDGE DECK.
8. OPEN ROAD TO TRAFFIC AND PEDESTRIANS AND COMPLETE MISCELLANEOUS WORK.
9. INSTALL PROPOSED WATERMAIN.
10. REMOVE EROSION AND SEDIMENTATION CONTROLS UPON PERMANENT STABILIZATION.

TEMPORARY HYDRAULIC DATA

AVERAGE DAILY FLOW	43.1 CFS
AVERAGE SPRING FLOW	85.7 CFS
TEMPORARY DESIGN DISCHARGE	194 CFS
TEMPORARY DESIGN FREQUENCY	2 YEAR
STAGE 1	
TEMPORARY WATER SURFACE ELEVATION UPSTREAM	270.44 FT
TEMPORARY WATER SURFACE ELEVATION DOWNSTREAM	267.94 FT
STAGE 2	
TEMPORARY WATER SURFACE ELEVATION UPSTREAM	270.45 FT
TEMPORARY WATER SURFACE ELEVATION DOWNSTREAM	267.74 FT



STAGE 2
SCALE: 1"=10'

WATER HANDLING NOTES

1. THE SUGGESTED METHOD OF CONTROLLING WATER DURING CONSTRUCTION CONSISTS OF A TEMPORARY WATER-HANDLING-COFFERDAM, AS SHOWN ON THIS DRAWING AND SHALL BE PAID FOR UNDER THE ITEM "COFFERDAM AND DEWATERING".
2. THIS SUGGESTED WATER HANDLING SCHEME IS FOR THE CONSTRUCTION OF PROPOSED ABUTMENTS, PIER, AND WINGWALLS. THE INSTALLATION OF TEMPORARY WATER-HANDLING-COFFERDAM TO HANDLE WATER FOR ANY OTHER CONSTRUCTION ACTIVITIES IS NOT PERMITTED.
3. TOP OF THE TEMPORARY WATER-HANDLING-COFFERDAM SHALL BE EL. 271.00 (MNN).
4. THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER FOR REVIEW AND APPROVAL HIS PROPOSED PLAN FOR "WATER HANDLING, INCLUDING METHODS NECESSARY FOR THE CONSTRUCTION OF SUBSTRUCTURE TO BE COMPLETED IN REASONABLY DRY CONDITIONS. REFER TO THE SPECIAL PROVISION FOR THE ITEM "COFFERDAM AND DEWATERING".
5. IN ADDITION TO THE PROPOSED METHODS OF HANDLING WATER, THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER HIS PROPOSED METHODS OF REMOVING THE EXISTING SUPERSTRUCTURE AND EXISTING SUBSTRUCTURES. EXISTING SUPERSTRUCTURE REMOVAL SHALL BE PAID FOR UNDER THE ITEM "REMOVAL OF SUPERSTRUCTURE". REMOVAL OF EXISTING SUBSTRUCTURES SHALL BE PAID FOR UNDER THE ITEM "REMOVAL OF EXISTING MASONRY". SEE SPECIAL PROVISIONS.
6. NO WORK SHALL BEGIN UNTIL ALL APPROVALS HAVE BEEN OBTAINED FROM THE ENGINEER.

TIME-OF-YEAR RESTRICTION

ALL UNCONFINED INSTREAMWORK IS RESTRICTED TO THE PERIOD FROM JUNE 1ST THROUGH SEPTEMBER 30TH, INCLUSIVE.

LEGEND

- SEDIMENTATION CONTROL SYSTEM
- - - - - STATE WETLANDS
- - - - - FEMA 100-YEAR FLOOD (CALCULATED)
- - - - - FLOODWAY
- ORDINARY HIGH WATER

REVISIONS	DATE	BY	DESCRIPTION

DESIGNER/DRAWER: SD	CHECKED BY: VLL	SCALE AS NOTED	SIGNATURE BLOCK
LASTED SAVED BY: Soohol FILE NAME: M:\1017_192_East Street_Bristol\330_Design Data\Structure_Bridge\Notes\CB_CB_2017_2019_2_East Street_04487_WH.dgn		CITY OF BRISTOL	
PLOT DATE: 2/3/2023		GMAZ ASSOCIATES INC. 115 GLASTONBURY BLVD. GLASTONBURY, CT 06033	

PROJECT NUMBER: 0017-0192	PROJECT DESCRIPTION: REPLACEMENT OF BRIDGE NO. 04487, EAST STREET OVER PEQUABUCK RIVER
TOWN: BRISTOL	DRAWING TITLE: WATER HANDLING PLAN

ENVIRONMENTAL PERMIT PLANS - 02/03/2023

DRAWING NO.	PMT-06
SHEET NO.	

**BRISTOL FLOOD & EROSION COMMISSION
FLOOD PLAIN APPLICATION
PERMIT FOR FLOOD PLAIN DEVELOPMENT**

APPLICATION NO. 23-466F-303
DATE FILED: 12-22-23
APPROVED: _____
DENIED: _____

1. APPLICANT:

Name: Ron Oddo - Combined Metals Company, LLC Signature: Ron Oddo
Address: One Hauk Road City: Hampshire State: IL Zip 60140
Telephone No.: (847)214-5559 [] home [] work

2. PROPERTY OWNER(S):

Name: CM Properties LLC Signature: Ron Oddo
Address: One Hauk Road City: Hampshire State: IL Zip 60140
Telephone No.: (847)214-5559 [] home [] work

3. DESCRIBE THE SUBJECT PROPERTY:

Address or Location: 340 Broad Street
Assessor's Map No.: 39 Assessor's Lot No.(s): 100D
Street of Access: Broad Street
Name of Watercourse or Water Body: Pequabuck River
FIRM Panel Number: 09003C0466F Total Area of Lot(s): 5.2 AC

4. PROJECT DESCRIPTION:

Flood Plain use for which the applicant is seeking a permit. (check one)

[] a. Permitted Use [X] b. Regulated Use [] c. Special Exception

Describe the proposed activity and its purpose: Cuts and fills associated with the construction of an above grade storage tank facility with associated floodplain compensatory storage area

Proposed encroachment of Flood fringe area (S.F. or acres): 0
Proposed encroachment of Regulated Floodway (S.F. or acres): 0.4 AC - Floodplain compensation area
Proposed alteration of Watercourse (L.F., S.F. or acres): 0
Flood proofing techniques proposed: Constructing proposed structure above floodplain elevation

Disturbance of designated wetland area: [X] No [] Yes: Permit Number: _____
Date applied for: _____ Disposition: _____

BFEC-12/01

**BRISTOL FLOOD & EROSION COMMISSION
FLOOD PLAIN APPLICATION
PERMIT FOR FLOOD PLAIN DEVELOPMENT**

Page 2

5. TECHNICAL & PLANNING DATA:

Project Specifics: Provide the following information from official sources or submitted documentation.
All elevations are to be relative to mean sea level.

Existing base flood flow rate: 8720 cfs Source: FEMA Insurance study at Confluence of Copper Mine Brook and Pequabuck River
Existing base flood elevation: 220 Source: FEMA Firm 09003C0466F
Lowest floor elevation of existing buildings including garage or basements: _____
Lowest floor elevation of proposed building including garage or basements: _____
Will there be dry access to the structure(s) during the 100 year flood? _____

Floodplain Alterations Proposed:

Volume of displaced Flood Plain: 930 cu.yds
Volume of mitigated Flood Plain: 950 cu.yds

Floodway Alterations Proposed:

Length of reconstructed or altered floodway: N/A
Proposed base flood flow rate: No change
Proposed base flood elevation: No change

6. AUTHORIZATIONS AND CERTIFICATIONS:

- a. I/we hereby authorize the commissioners and agents of the Bristol Flood and Erosion Agency to inspect the subject property at reasonable times, both before and after a final decision has been made regarding this application or request.
- b. I/we hereby certify that I/we am/are familiar with the information included in this application and am/are aware that the law provides that any person who commits, takes part in, or assists in any violation of any provision of the Connecticut General Statutes, including regulations adopted by the Commissioner of Environmental Protection and ordinances and regulations of the City of Bristol through its Flood and Erosion Agency and Inland Wetlands Agency, shall be assessed a civil penalty of not more than one thousand dollars for each offense. I/we further certify that I/we am/are aware that it is a violation of law to obtain a flood plain permit or ruling through deception or through inaccurate or misleading information.
- c. I/we hereby certify that this application shall be considered complete only when all information and documents required by the Administrator have been submitted.

7. SUBMISSION REQUIREMENTS:

The following shall be included as part of this application:

- filing fee – make checks payable to "City of Bristol,"
\$5.00 Permitted Use, \$50.00 for Regulated Use, and \$100.00 for Special Exception
 - ten copies of a Site Plan showing existing and proposed conditions in relation to the flood plain, floodway, watercourses, and/or wetlands prepared in accordance with the Regulations,
 - any other information as may be required by the Agency
- ☐ Site Plans ☐ Detail Plans ☐ Construction Specifications
☐ Drainage Computations ☐ Flood Proofing Details ☐ Flood Proofing Certification

BFEC-12/01

ESM Bristol

340 Broad Street

Bristol, CT 06010-6636

Tank Yard Narrative

We are looking for an alternative location on our 340 Broad Street property to place our tank yard. The initial location was just west of the southwest corner of our building. The new location desired would be just south of the southwest corner of our building. The tanks in our tank yard are used to store the process gases utilized in the manufacturing of our stainless-steel strip products. Please see the attached drawing for the proposed site location. The alternative location is favorable as it minimizes the construction footprint necessary to install the tank yard due to the limited amount of real estate available for this installation and is further south from the FEMA floodway.

Application #23-466F-303
Location



340 Broad Street

Map Prepared by Bristol Land Use Office

Source: Bristol Assessor Records

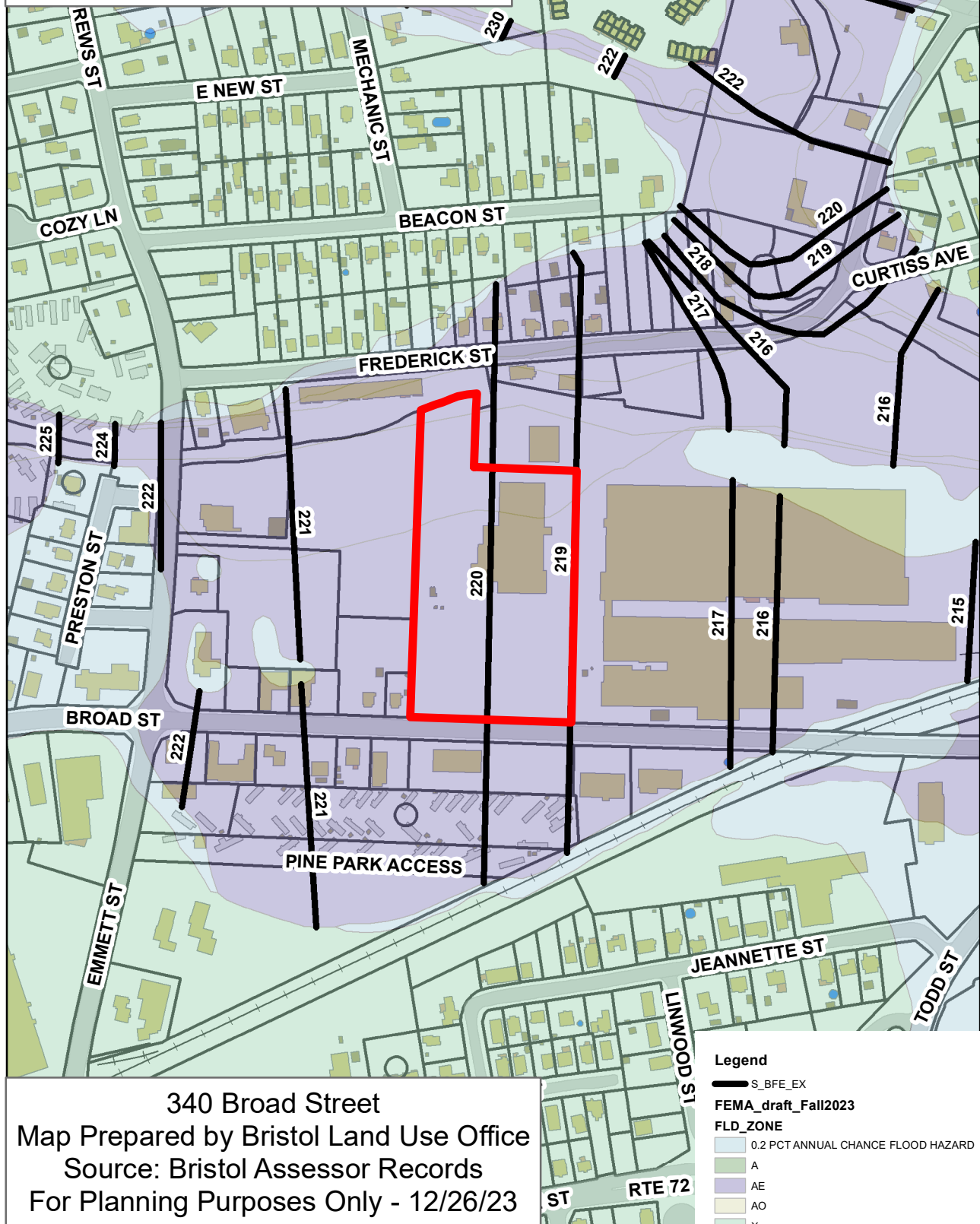
For Planning Purposes Only - 12/26/23

Application #23-466F-303
Aerial

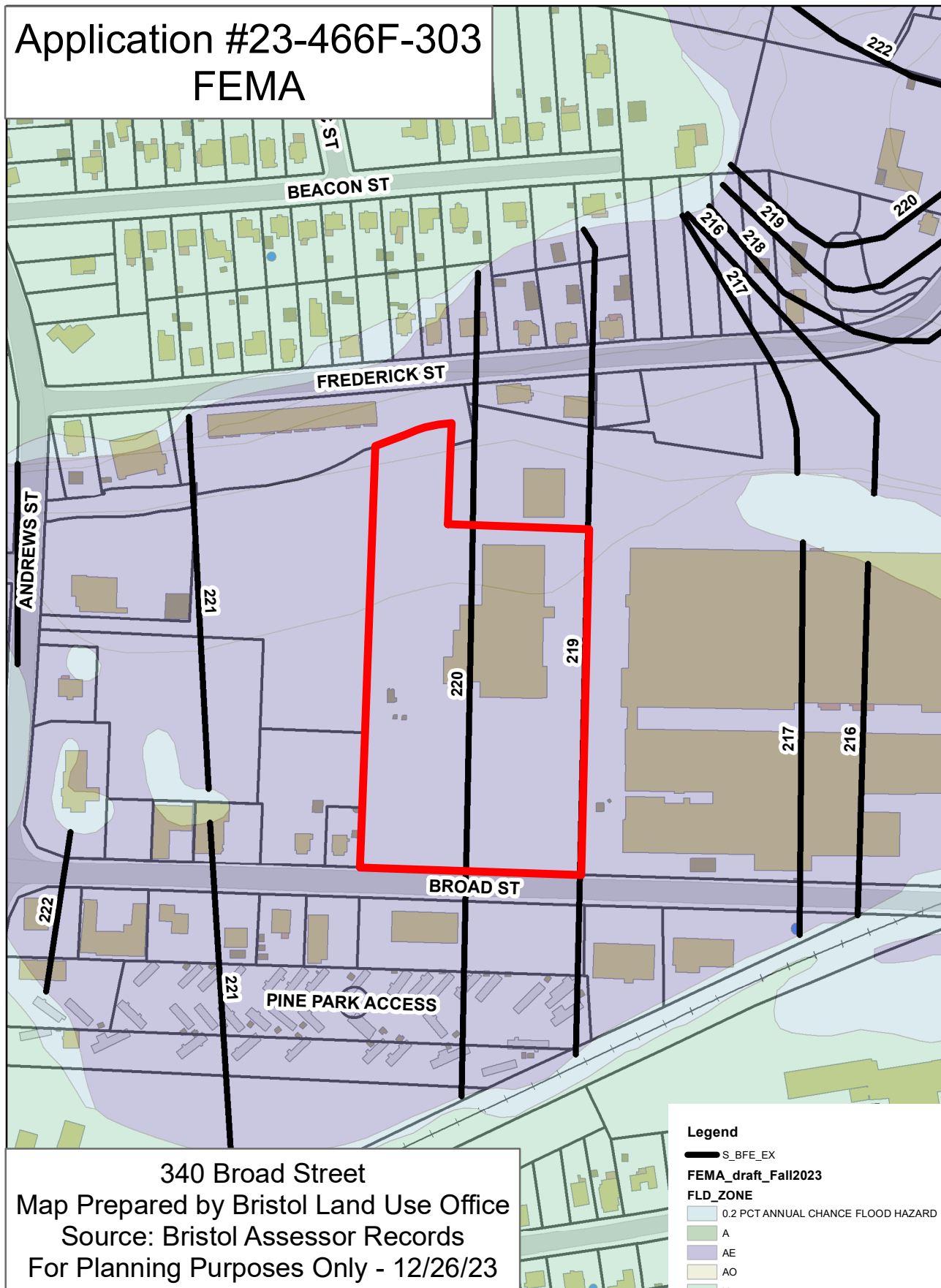


340 Broad Street
Map Prepared by Bristol Land Use Office
Source: Bristol Assessor Records
For Planning Purposes Only - 12/26/23

Application #23-466F-303 FEMA



Application #23-466F-303
FEMA



1. PROPERTY INFORMATION COMPILED FROM A MAP ENTITLED "LOTS 39-100A, 39-100E AND 39-100D, #340 BROAD STREET, CONNECTICUT, PREPARED FOR, CM PROPERTIES, LLC," SCALE: 1"=40', DATED: JUNE 16, 2021, PREPARED BY: SLR INTERNATIONAL CORPORATION.
2. TOPOGRAPHIC INFORMATION COMPILED FROM THE CITY OF BRISTOL GIS LIDAR AND SHOULD BE CONSIDERED APPROXIMATE.
3. NORTH ARROW, BEARINGS AND COORDINATES ARE BASED UPON THE CONNECTICUT COORDINATE SYSTEM (NAD 1983). ELEVATIONS, CONTOURS AND BENCH MARK ARE BASED UPON (NAVD 1988).
4. INFORMATION REGARDING THE LOCATION OF EXISTING UTILITIES HAS BEEN BASED UPON AVAILABLE INFORMATION AND MAY BE INCOMPLETE, AND WHERE SHOWN SHOULD BE CONSIDERED APPROXIMATE. THE LOCATION OF ALL EXISTING UTILITIES SHOULD BE CONFIRMED PRIOR TO BEGINNING CONSTRUCTION. CALL "CALL BEFORE YOU DIG," 1-800-922-4455. ALL UTILITY LOCATIONS THAT DO NOT MATCH THE VERTICAL OR HORIZONTAL CONTROL SHOWN ON THE PLANS SHALL IMMEDIATELY BE BROUGHT TO THE ATTENTION OF THE ENGINEER FOR RESOLUTION.
5. SLR INTERNATIONAL CORPORATION ACCEPTS NO RESPONSIBILITY FOR THE ACCURACY OF MAPS AND DATA WHICH HAVE BEEN SUPPLIED BY OTHERS.
6. ALL UTILITY SERVICES ARE TO BE UNDERGROUND. THE EXACT LOCATION, MEANS OF CONSTRUCTION, AND SIZE OF ELECTRIC, TELEPHONE, AND CABLE TELEVISION ARE TO BE DETERMINED BY THE RESPECTIVE UTILITY COMPANIES.
7. ALL DIMENSIONS AND ELEVATIONS SHALL BE VERIFIED IN THE FIELD PRIOR TO CONSTRUCTION. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER.
8. SEDIMENT AND EROSION CONTROL MEASURES AS DEPICTED ON THESE PLANS AND DESCRIBED WITHIN THE SEDIMENT AND EROSION CONTROL NARRATIVE SHALL BE IMPLEMENTED AND MAINTAINED UNTIL PERMANENT COVER AND STABILIZATION IS ESTABLISHED. ALL SEDIMENT AND EROSION CONTROL MEASURES SHALL CONFORM TO THE "GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL, CONNECTICUT - 2002", AND IN ALL CASES BEST MANAGEMENT PRACTICES SHALL PREVAIL.
9. ALL DISTURBED AREAS SHALL RECEIVE A MINIMUM OF 6" TOPSOIL, AND BE SEEDED WITH GRASS, AS SHOWN ON THE PLANS.
10. ALL PROPOSED CONTOURS AND SPOT ELEVATIONS INDICATE FINISHED GRADE.
11. ALL CONSTRUCTION MATERIALS AND METHODS SHALL CONFORM TO THE CITY OF BRISTOL REQUIREMENTS AND TO THE APPLICABLE SECTIONS OF THE STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROADS, BRIDGES, AND INCIDENTAL CONSTRUCTION, FORM 818 AND ADDENDUMS.
12. THE PLANS REQUIRE A CONTRACTOR'S WORKING KNOWLEDGE OF LOCAL, MUNICIPAL, WATER AUTHORITY, AND STATE CODES FOR UTILITY SYSTEMS. ANY CONFLICTS BETWEEN MATERIALS AND LOCATIONS SHOWN, AND LOCAL REQUIREMENTS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO THE EXECUTION OF WORK. THE ENGINEER WILL NOT BE HELD LIABLE FOR COSTS INCURRED TO IMPLEMENT OR CORRECT WORK WHICH DOES NOT CONFORM TO LOCAL CODE.
13. ALL FUEL, OIL, PAINT, OR OTHER HAZARDOUS MATERIALS USED DURING CONSTRUCTION SHOULD BE STORED IN A SECONDARY CONTAINER AND REMOVED TO A LOCKED INDOOR AREA WITH AN IMPERVIOUS FLOOR DURING NON-WORK HOURS.
14. COMPLIANCE WITH THE PERMIT CONDITIONS IS THE RESPONSIBILITY OF BOTH THE CONTRACTOR AND THE PERMITTEE.
15. THE PROPOSED SITE FALLS IN FLOOD ZONE PER FEMA FLOOD MAPPING PANEL 09003C4066F.

SEDIMENT AND EROSION CONTROL MEASURES AS DEPICTED ON THESE PLANS AND DESCRIBED WITHIN THE SEDIMENT AND EROSION CONTROL NARRATIVE SHALL BE IMPLEMENTED AND MAINTAINED UNTIL PERMANENT COVER AND STABILIZATION IS ESTABLISHED. ALL SEDIMENT AND EROSION CONTROL MEASURES SHALL CONFORM TO THE "GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL, CONNECTICUT - 2002, CITY OF BRISTOL STANDARDS, AND IN ALL CASES BEST MANAGEMENT PRACTICES SHALL PREVAIL.

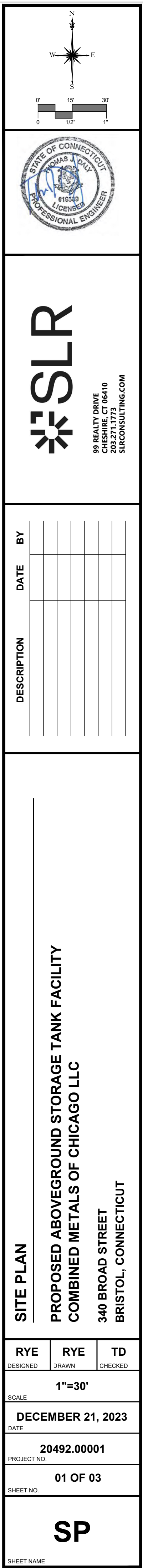
1. PURPOSE AND DESCRIPTION OF PROJECT
A.) CONSTRUCTION OF AN ABOVEGROUND STORAGE TANK FACILITY
B.) DISTURBED AREA: ±0.9 ACRES
2. IDENTIFICATION OF EROSION AND SEDIMENT CONTROL CONCERNS
A.) WORK CONDUCTED IN A FLOOD ZONE

4. RESPONSIBLE PARTY
MR. RON ODDO
COMBINED METALS OF CHICAGO, LLC
1 HAUK DRIVE
HAMPSHIRE, IL 60140

		CONSTRUCTION ENTRANCE
		INLET PROTECTION (TYP. OF ALL INLETS)
		SEDIMENT FILTER FENCE

1. SEDIMENT AND EROSION CONTROLS SHALL BE INSPECTED AT LEAST ONCE A WEEK AND WITHIN 24 HOURS OF THE END OF A STORM WITH A RAINFALL AMOUNT OF 0.5 INCH OR GREATER. A LOG OF SUCH INSPECTIONS SHALL BE MAINTAINED AT THE SITE.
2. THE SEDIMENT AND EROSION CONTROL PLAN SHALL BE MODIFIED BY THE CONTRACTOR AT THE DIRECTION OF THE ENGINEER OR THE CITY'S DESIGNATED REPRESENTATIVE AS NECESSITATED BY CHANGING SITE CONDITIONS
3. INSPECTION OF THE SITE FOR EROSION SHALL CONTINUE FOR A PERIOD OF THREE MONTHS AFTER COMPLETION WHEN RAINFALLS OF ONE INCH OR MORE OCCUR.
4. ALL DEWATERING WASTE WATERS SHALL BE DISCHARGED IN A MANNER WHICH MINIMIZES THE DISCOLORATION OF THE RECEIVING WATERS.
5. THE SITE SHOULD BE KEPT CLEAN OF LOOSE DEBRIS, LITTER, AND BUILDING MATERIALS SUCH THAT NONE OF THE ABOVE ENTER WATERS OR WETLANDS.
6. A COPY OF ALL PLANS AND REVISIONS, AND THE SEDIMENT AND EROSION CONTROL PLAN SHALL BE MAINTAINED ON-SITE AT ALL TIMES DURING CONSTRUCTION.
7. ALL CATCH BASIN SUMPS SHOULD BE INSPECTED AFTER CONSTRUCTION COMPLETION AND SEDIMENT REMOVED. THE SEDIMENT SHALL BE DISPOSED OF IN AN APPROVED LOCATION.
8. MONITORING REPORTS SHALL BE PROVIDED TO THE CITY OF BRISTOL AND CONTRACTOR EVERY TWO WEEKS AND FOR ANY STORM OVER $\frac{1}{2}$ INCH. REPAIRS SHALL BE MADE WITHIN 24 HOURS AFTER REPORTING.

FILL IN FLOODPLAIN (ELEV. 220.0) =	±930 CU.YDS
EXCAVATION IN FLOODPLAIN (ELEV. 220.0) =	±950 CU.YDS
NET EXCAVATION =	±20 CU.YDS



SLR INTERNATIONAL CORPORATION
1000 WEST 10TH AVENUE, SUITE 100
DENVER, COLORADO 80202
TEL: 303.733.1100 FAX: 303.733.1101
WWW.SLR-INTL.COM

SEDIMENT AND EROSION CONTROL SPECIFICATIONS

GENERAL:

THESE GUIDELINES SHALL APPLY TO ALL WORK CONSISTING OF ANY AND ALL TEMPORARY AND/OR PERMANENT MEASURES TO CONTROL WATER POLLUTION AND SOIL EROSION, AS MAY BE REQUIRED, DURING THE CONSTRUCTION OF THE PROJECT. IN GENERAL, ALL CONSTRUCTION ACTIVITIES SHALL PROCEED IN SUCH A MANNER SO AS NOT TO POLLUTE ANY WETLANDS, WATERCOURSE, WATERBODY, AND CONDUIT CARRYING WATER, ETC. THE CONTRACTOR SHALL LIMIT, INsofar AS POSSIBLE, THE SURFACE AREA OF EARTH MATERIALS EXPOSED BY CONSTRUCTION METHODS AND IMMEDIATELY PROVIDE PERMANENT AND TEMPORARY POLLUTION CONTROL MEASURES TO PREVENT CONTAMINATION OF ADJACENT WETLANDS, WATERCOURSES, AND WATERBODIES, AND TO PREVENT, INsofar AS POSSIBLE, EROSION ON THE SITE.

LAND GRADING

GENERAL:

- THE RESHAPING OF THE GROUND SURFACE BY EXCAVATION AND FILLING OR A COMBINATION OF BOTH, TO OBTAIN PLANNED GRADES, SHALL PROCEED IN ACCORDANCE WITH THE FOLLOWING CRITERIA:
 - THE CUT FACE OF EARTH EXCAVATION SHALL NOT BE STEEPER THAN TWO HORIZONTAL TO ONE VERTICAL (2:1).
 - THE PERMANENT EXPOSED FACES OF FILLS SHALL NOT BE STEEPER THAN TWO HORIZONTAL TO ONE VERTICAL (2:1).
 - THE CUT FACE OF ROCK EXCAVATION SHALL NOT BE STEEPER THAN ONE HORIZONTAL TO FOUR VERTICAL (1:4).
 - PROVISION SHOULD BE MADE TO CONDUCT SURFACE WATER SAFELY TO STORM DRAINS TO PREVENT SURFACE RUNOFF FROM DAMAGING CUT FACES AND FILL SLOPES.
 - EXCAVATIONS SHOULD NOT BE MADE SO CLOSE TO PROPERTY LINES AS TO ENDANGER ADJOINING PROPERTY WITHOUT PROTECTING SUCH PROPERTY FROM EROSION, SLIDING, SETTling, OR CRACKING.
 - NO FILL SHOULD BE PLACED WHERE IT WILL SLIDE OR WASH UPON THE PREMISES OF ANOTHER OWNER OR UPON ADJACENT WETLANDS, WATERCOURSES, OR WATERBODIES.
 - PRIOR TO ANY REGRADING, A STABILIZED CONSTRUCTION ENTRANCE SHALL BE PLACED AT THE ENTRANCE TO THE WORK AREA IN ORDER TO REDUCE MUD AND OTHER SEDIMENTS FROM LEAVING THE SITE.

TOPSOILING

GENERAL:

- TOPSOIL SHALL BE SPREAD OVER ALL EXPOSED AREAS IN ORDER TO PROVIDE A SOIL MEDIUM HAVING FAVORABLE CHARACTERISTICS FOR THE ESTABLISHMENT, GROWTH, AND MAINTENANCE OF VEGETATION.
- UPON ATTAINING FINAL SUBGRADES, SCARIFY SURFACE TO PROVIDE A GOOD BOND WITH TOPSOIL.
- REMOVE ALL LARGE STONES, TREE LIMBS, ROOTS AND CONSTRUCTION DEBRIS.
- APPLY SOIL AMENDMENTS AS FOLLOWS:

LIME: ACCORDINGS TO SOIL TEST OR AT THE RATE OF 2 TONS PER ACRE.

ROCK DUST: ACCORDING TO SOIL TEST OR AT THE RATE OF 2 TONS PER ACRE

MATERIAL:

- TOPSOIL SHOULD HAVE PHYSICAL, CHEMICAL, AND BIOLOGICAL CHARACTERISTICS FAVORABLE TO THE GROWTH OF PLANTS.
- TOPSOIL SHOULD HAVE A SANDY OR LOAMY TEXTURE.
- TOPSOIL SHOULD BE RELATIVELY FREE OF SUBSOIL MATERIAL AND MUST BE FREE OF LARGE STONES, LUMPS OF SOIL, ROOTS, TREE LIMBS, TRASH, OR CONSTRUCTION DEBRIS. IT SHOULD BE FREE OF ROOTS OR RHIZOMES SUCH AS THISTLE, NUTGRASS, AND QUACKGRASS.
- AN ORGANIC MATTER CONTENT OF SIX PERCENT (6%) IS REQUIRED. AVOID LIGHT COLORED SUBSOIL MATERIAL.
- SOLUBLE SALT CONTENT OF LESS THAN 400 PPM IS REQUIRED.
- THE TOPSOIL SHALL BE WARRANTED BY SELLER TO BE FREE OF DETECTABLE RESIDUES OF CHEMICAL PESTICIDES, HERBICIDES, PETROLEUM PRODUCTS, OR OTHER UNSUITABLE TOXINS.

APPLICATION:

- AVOID SPREADING WHEN TOPSOIL IS WET OR FROZEN.
- SPREAD TOPSOIL UNIFORMLY TO A DEPTH OF AT LEAST FOUR INCHES (4"), OR TO THE DEPTH SHOWN ON THE LANDSCAPING PLANS.

TEMPORARY VEGETATIVE COVER

TEMPORARY VEGETATIVE COVER SHALL BE ESTABLISHED ON ALL UNPROTECTED AREAS THAT PRODUCE SEDIMENT, AREAS WHERE FINAL GRADING HAS BEEN COMPLETED, AND AREAS WHERE THE ESTIMATED PERIOD OF BARE SOIL EXPOSURE IS LESS THAN 12 MONTHS. TEMPORARY VEGETATIVE COVER SHALL BE APPLIED IF AREAS WILL NOT BE PERMANENTLY SEEDED BY SEPTEMBER 1.

GENERAL:

- INSTALL REQUIRED SURFACE WATER CONTROL MEASURES.
- REMOVE LOOSE ROCK, STONE, AND CONSTRUCTION DEBRIS FROM AREA.
- APPLY SOIL AMENDMENTS AS FOLLOWS:

LIME: ACCORDING TO SOIL TEST OR AT THE RATE OF 1 TONS PER ACRE.

ROCK DUST: ACCORDING TO SOIL TEST OR AT THE RATE OF 1 TONS PER ACRE

UNLESS HYDROSEEDED, WORK IN LIME TO A DEPTH OF 4 INCHES WITH A DISK OR ANY SUITABLE EQUIPMENT. DO NOT WORK FINISHED COMPOST INTO THE SOIL - APPLY IT EVENLY TO SOIL SURFACE AS A SEED BED.
- TILLAGE SHOULD ACHIEVE A REASONABLY UNIFORM LOOSE SEEDBED. WORK ON CONTOUR IF SITE IS SLOPING.

SITE PREPARATION:

- SELECT APPROPRIATE SPECIES FOR THE SITUATION. NOTE RATES AND SEEDING DATES (SEE VEGETATIVE COVER SELECTION & MULCHING)
- APPLY SEED UNIFORMLY ACCORDING TO THE RATE INDICATED BY BROADCASTING, DRILLING, OR HYDRAULIC APPLICATION.
- UNLESS HYDROSEEDED, COVER RYEGRASS SEEDS WITH NOT MORE THAN 1/4 INCH OF SOIL USING SUITABLE EQUIPMENT.
- MULCH IMMEDIATELY AFTER SEEDING IF REQUIRED. (SEE VEGETATIVE COVER SELECTION & MULCHING SPECIFICATION BELOW.) APPLY STRAW AND ANCHOR TO SLOPES GREATER THAN 3% OR WHERE NEEDED.

PERMANENT VEGETATIVE COVER

GENERAL:

PERMANENT VEGETATIVE COVER SHALL BE ESTABLISHED AS VARIOUS SECTIONS OF THE PROJECT ARE COMPLETED IN ORDER TO STABILIZE THE SOIL, REDUCE DOWNSTREAM DAMAGE FROM SEDIMENT AND RUNOFF, AND TO ENHANCE THE AESTHETIC NATURE OF THE SITE. IT WILL BE APPLIED TO ALL CONSTRUCTION AREAS SUBJECT TO EROSION WHERE FINAL GRADING HAS BEEN COMPLETED AND A PERMANENT COVER IS NEEDED.

SITE PREPARATION:

- INSTALL REQUIRED SURFACE WATER CONTROL MEASURES.
- REMOVE LOOSE ROCK, STONE, AND CONSTRUCTION DEBRIS FROM AREA.
- PERFORM ALL PLANTING OPERATIONS PARALLEL TO THE CONTOURS OF THE SLOPE.
- APPLY TOPSOIL AS INDICATED ELSEWHERE HEREIN.
- APPLY SOIL AMENDMENTS AS FOLLOWS:

LIME: ACCORDING TO SOIL TEST OR AT THE RATE OF 1 TONS PER ACRE.

ROCK DUST: ACCORDING TO SOIL TEST OR AT THE RATE OF 1 TONS PER ACRE

UNLESS HYDROSEEDED, WORK IN LIME TO A DEPTH OF 4 INCHES WITH A DISK OR ANY SUITABLE EQUIPMENT. DO NOT WORK FINISHED COMPOST

VEGETATED COVER SELECTION AND MULCHING

TEMPORARY VEGETATIVE COVER:

PERENNIAL RYEGRASS 5 LBS./1,000 SQ.FT. (LOLIUM PERENNE)
DUTCH WHITE CLOVER (TRIFOLIUM REPENS) 1/4 LBS PER 1000 SF. OR 6LBS/AC.

* PERMANENT VEGETATIVE COVER:

DUTCH WHITE CLOVER 30%
BARON KENTUCKY BLUEGRASS 30%
JAMESTOWN II CHEWINGS FESCUE 20%
PALMER PERENNIAL RYEGRASS 20%

NEW ENGLAND EROSION CONTROL/R3ESOTRATION MIX FOR MOIST SITES AT 1/8 LB PER 1000 S.F. FOR 5 LBS/AC.

NEW ENGLAND SHOWY WILD FLOW MIX AT 1/16 LB PER 1000 S.F. OR 2 LBS/AC

* LOFTS - "TRIPLEX GENERAL" MIX OR APPROVED EQUAL. RECOMMENDED RATE/TIME SEEDING.
SPRING SEEDING: 4/1 to 5/31
FALL SEEDING: 8/16 to 10/15

TEMPORARY MULCHING:

STRAY 70-90 LBS./1,000 SQ.FT. (TEMPORARY VEGETATIVE AREAS) WOOD FIBER IN HYDROMULCH SLURRY 25-50 LBS./1,000 SQ. FT.

ESTABLISHMENT:

- SMOOTH AND FIRM SEEDBED WITH CULTIPACKER OR OTHER SIMILAR EQUIPMENT PRIOR TO SEEDING (EXCEPT WHEN HYDROSEEDING).
- SELECT ADAPTED SEED MIXTURE FOR THE SPECIFIC SITUATION. NOTE RATES AND THE SEEDING DATES (SEE VEGETATIVE COVER SELECTION & MULCHING SPEC. BELOW).
- APPLY SEED UNIFORMLY ACCORDING TO RATE INDICATED, BY BROADCASTING, DRILLING, OR HYDRAULIC APPLICATION.
- COVER GRASS AND LEGUME SEED WITH NOT MORE THAN 1/4 INCH OF SOIL WITH SUITABLE EQUIPMENT (EXCEPT WHEN HYDROSEEDING).
- MULCH IMMEDIATELY AFTER SEEDING, IF REQUIRED, ACCORDING TO TEMPORARY MULCHING SPECIFICATIONS. (SEE VEGETATIVE COVER SELECTION & MULCHING SPECIFICATION BELOW).
- USE PROPER INOCULANT ON ALL LEGUME SEEDLINGS, USE FOUR (4) TIMES NORMAL RATES WHEN HYDROSEEDING.
- USE SOD WHERE THERE IS A HEAVY CONCENTRATION OF WATER AND IN CRITICAL AREAS WHERE IT IS IMPORTANT TO GET A QUICK VEGETATIVE COVER TO PREVENT EROSION.

MAINTENANCE:

- TEST FOR SOIL ACIDITY EVERY THREE (3) YEARS AND LIME AS REQUIRED.

EROSION CHECKS

GENERAL:

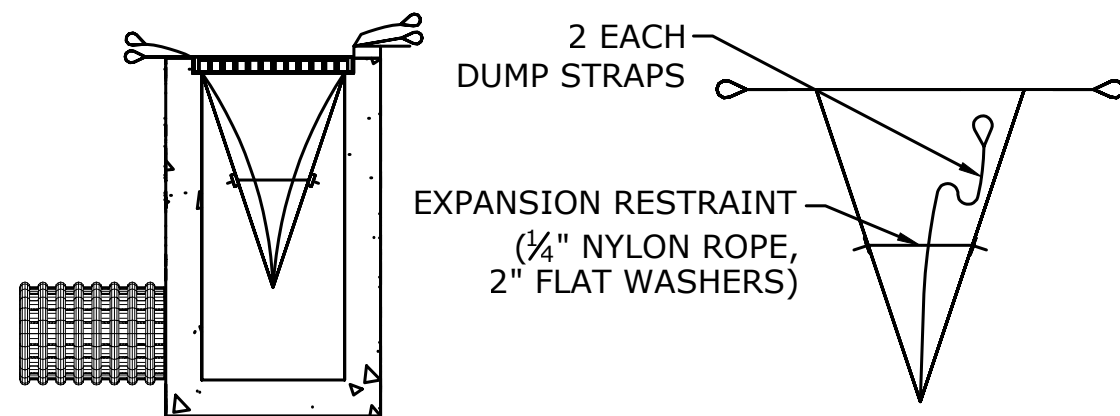
- TEMPORARY PERVIOUS BARRIERS USING BALES OF HAY OR STRAW, HELD IN PLACE WITH STAKES DRIVEN THROUGH THE BALES AND INTO THE GROUND OR GEOTEXTILE FABRIC FASTENED TO A FENCE POST AND BURIED INTO THE GROUND, SHALL BE INSTALLED AND MAINTAINED AS REQUIRED TO CHECK EROSION AND REDUCE SEDIMENTATION.

CONSTRUCTION:

- BALES SHOULD BE PLACED IN A ROW WITH ENDS TIGHTLY ABUTTING THE ADJACENT BALES.
- EACH BALE SHALL BE EMBEDDED INTO THE SOIL A MINIMUM OF FOUR (4) INCHES.
- BALES SHALL BE SECURELY ANCHORED IN PLACE BY WOOD STAKES OR REINFORCEMENT BARS DRIVEN THROUGH THE BALES AND INTO THE GROUND. THE FIRST STAKE IN EACH BALE SHALL BE ANGLED TOWARD THE PREVIOUSLY LAID BALE TO FORCE BALES TOGETHER.
- GEOTEXTILE FABRIC SHALL BE SECURELY ANCHORED AT THE TOP OF A THREE FOOT (3') HIGH FENCE AND BURIED A MINIMUM OF FOUR INCHES (4") TO THE SOIL. SEAMS BETWEEN SECTIONS OF FILTER FABRIC SHALL OVERLAP A MINIMUM OF TWO FEET (2').

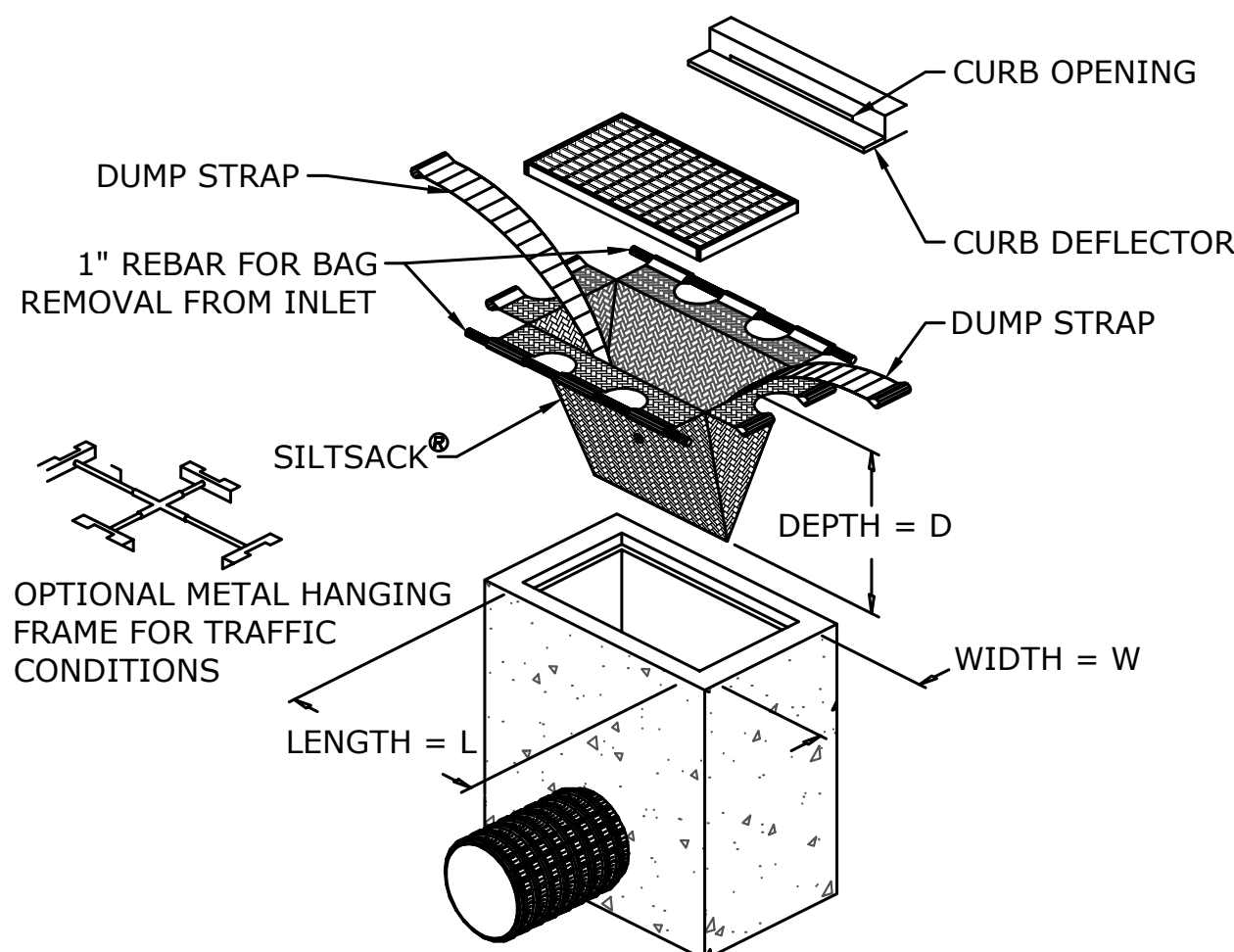
INSTALLATION AND MAINTENANCE:

- BALED HAY EROSION BARRIERS SHALL BE INSTALLED AT ALL STORM SEWER INLETS.
- BALED HAY EROSION BARRIERS AND GEOTEXTILE FENCE SHALL BE INSTALLED AT THE LOCATION INDICATED ON THE PLAN AND IN ADDITIONAL AREAS AS MAY BE DEEMED APPROPRIATE DURING CONSTRUCTION.
- ALL EROSION CHECKS SHALL BE MAINTAINED UNTIL ADJACENT AREAS ARE STABILIZED.
- INSPECTION SHALL BE FREQUENT (AT MINIMUM MONTHLY AND BEFORE AND AFTER HEAVY RAIN) AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.
- EROSION CHECKS SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFULNESS SO AS NOT TO BLOCK OR IMPEDE STORMWATER FLOW OR DRAINAGE.



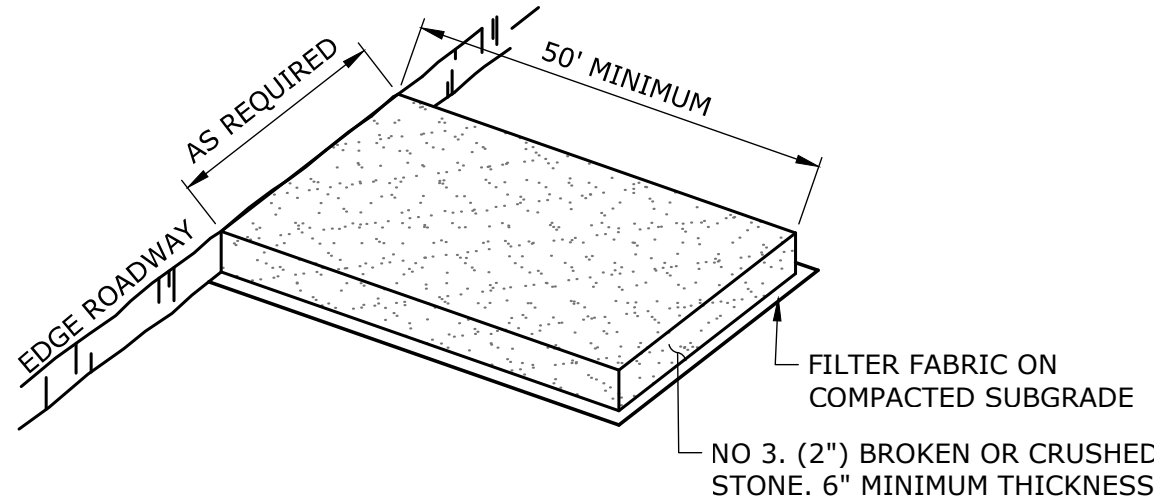
INSTALLATION DETAIL

BAG DETAIL



INLET PROTECTION

NOT TO SCALE

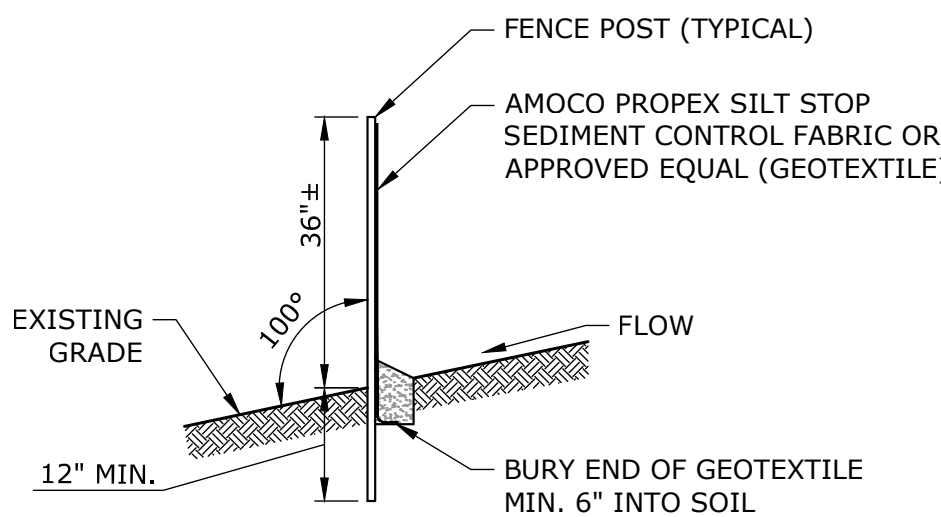


NOTES:

- CONSTRUCTION ENTRANCE PAD SHALL BE INSTALLED AND MAINTAINED DURING OPERATIONS WHICH GENERATE VEHICULAR TRACKING OF MUD.

CONSTRUCTION ENTRANCE PAD

NOT TO SCALE

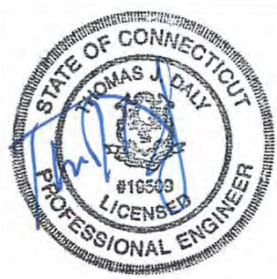


SEDIMENT FILTER FENCE

NOT TO SCALE

EROSION CONTROL MAINTENANCE INTERVALS

EROSION CONTROL MEASURE	CONTROL OBJECTIVE	INSPECTION/MAINTENANCE	FAILURE INDICATORS	REMOVAL
SILT FENCE (SF) (RELATED: IP, STK)	- INTERCEPT, AND REDIRECT/DETAIN SMALL AMOUNTS OF SEDIMENT FROM SMALL DISTURBED AREAS. - DECREASE VELOCITY OF SHEET FLOW. - PROTECT SENSITIVE SLOPES OR SOILS FROM EXCESSIVE WATER FLOW.	INSPECT AT LEAST ONCE A WEEK AND WITHIN 24 HOURS OF THE END OF A STORM WITH A RAINFALL OF 0.5 INCHES OR MORE. ACCUMULATED SEDIMENT MUST BE REMOVED ONCE ITS DEPTH IS EQUAL TO 1/2 THE TRENCH HEIGHT. INSPECT FREQUENTLY DURING PUMPING OPERATIONS IF USED FOR DEWATERING OPERATIONS.	- PHYSICAL DAMAGE OR DECOMPOSITION - EVIDENCE OF OVERTOPPED OR UNDERCUT FENCE - EVIDENCE OF SIGNIFICANT FLOWS EVADING CAPTURE - REPETITIVE FAILURE	SILT FENCE MAY BE REMOVED AFTER UPHILL AND SENSITIVE AREAS HAVE BEEN PERMANENTLY STABILIZED.
CONSTRUCTION ENTRANCE (CE)	- REDUCE THE TRACKING OF SEDIMENT OFF-SITE ONTO PAVED SURFACES.	INSPECT AT THE END OF EACH WORK DAY AND IMMEDIATELY REPAIR DAMAGES. PERIODIC ADDITION OF STONE, OR LENGTHENING OF ENTRANCE MAY BE REQUIRED AS CONDITIONS DEMAND. ALL SEDIMENT SKILLED, DROPPED, WASHED, OR TRACKED ONTO PAVED SURFACES AS A RESULT OF INEFFICIENCY OF CONSTRUCTION ENTRANCE SHALL BE IMMEDIATELY REMOVED.	- SEDIMENT IN ROADWAY ADJACENT TO SITE	CONSTRUCTION ENTRANCE MAY BE REMOVED ONCE THE SITE HAS BEEN PERMANENTLY STABILIZED, AND ALL OTHER SECTIONS OF ROADWAY HAVE BEEN PERMANENTLY PAVED.
INLET PROTECTION (IP)	- PROHIBIT SILT IN CONSTRUCTION-RELATED RUNOFF FROM ENTERING STORM DRAINAGE SYSTEM.	INSPECT AFTER ANY RAIN EVENT. IF FILTER BAG INSIDE CATCH BASIN CONTAINS MORE THAN 6" OF SEDIMENT, REMOVE SEDIMENT FROM BAG. CHECK SURROUNDING SILT FENCE AND HAY BALES PER NOTED ABOVE.	- RIPPED BAG - FAILED HAY BALES / SILT FENCE - SIGNIFICANT SILT PRESENCE IN STORM DRAINAGE SYSTEM OUTFLOW.	INLET PROTECTION MAY BE REMOVED ONCE THE SITE HAS BEEN PERMANENTLY STABILIZED, AND ALL SECTIONS OF ROADWAY HAVE BEEN PERMANENTLY PAVED.



SLR
INTERNATIONAL CORPORATION
69 REALTY DRIVE
SUITE 100
283-271-1773
SLRCONSULTING.COM

DESCRIPTION	DATE	BY

SEDIMENT AND EROSION CONTROL DETAILS AND SPECIFICATIONS

PROPOSED ABOVEGROUND STORAGE TANK FACILITY
COMBINED METALS OF CHICAGO LLC
340 BROAD STREET
BRISTOL, CONNECTICUT

RH	RH	TD
DESIGNED	DRAWN	CHECKED

AS NOTED

DECEMBER 21, 2023
DATE

20492.00001
PROJECT NO.

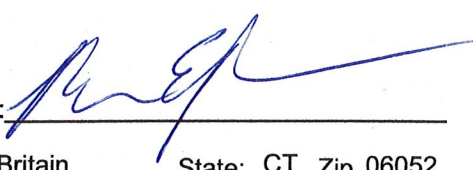
02 OF 03
SHEET NO.

SE-1
SHEET NAME

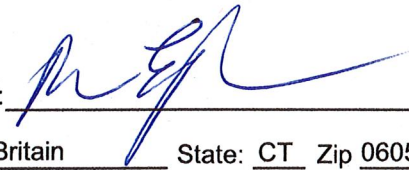
APPLICATION NO. 2019
DATE FILED: 12-28-23
APPROVED: _____
DENIED: _____

**BRISTOL CONSERVATION COMMISSION
INLAND WETLANDS AGENCY
FORM IW-2 (Application for a Wetlands Boundary Change)**

1. APPLICANT:

Name: New Britain Water Department Ramon Esponda Signature: 
Address: 1000 Shuttle Meadow Ave. City: New Britain State: CT Zip 06052
Telephone No.: (860) 826-3535 [] home [x] work

2. PROPERTY OWNER(S):

Name: New Britain Water Department Ramon Esponda Signature: 
Address: 1000 Shuttle Meadow Ave. City: New Britain State: CT Zip 06052
Telephone No.: (860) 826-3535 [] home [x] work

3. DESCRIBE THE SUBJECT PROPERTY:

Address or Location: Parcels North and South of Maltby Street, Bristol, CT.

Assessor's Map No.: 52, 53 Assessor's Lot No.(s): 11, 15, 16B16A, 17, 145, 147, 149, 150, 151

Description of wetlands (see instructions):

Freshwater Forested/Shrub, Freshwater Emergent, Freshwater Pond & Riverine wetlands. Wetlands are located centrally within the property parcels. The wetlands have been delineated by Ian Cole, Soil Scientist #2006.

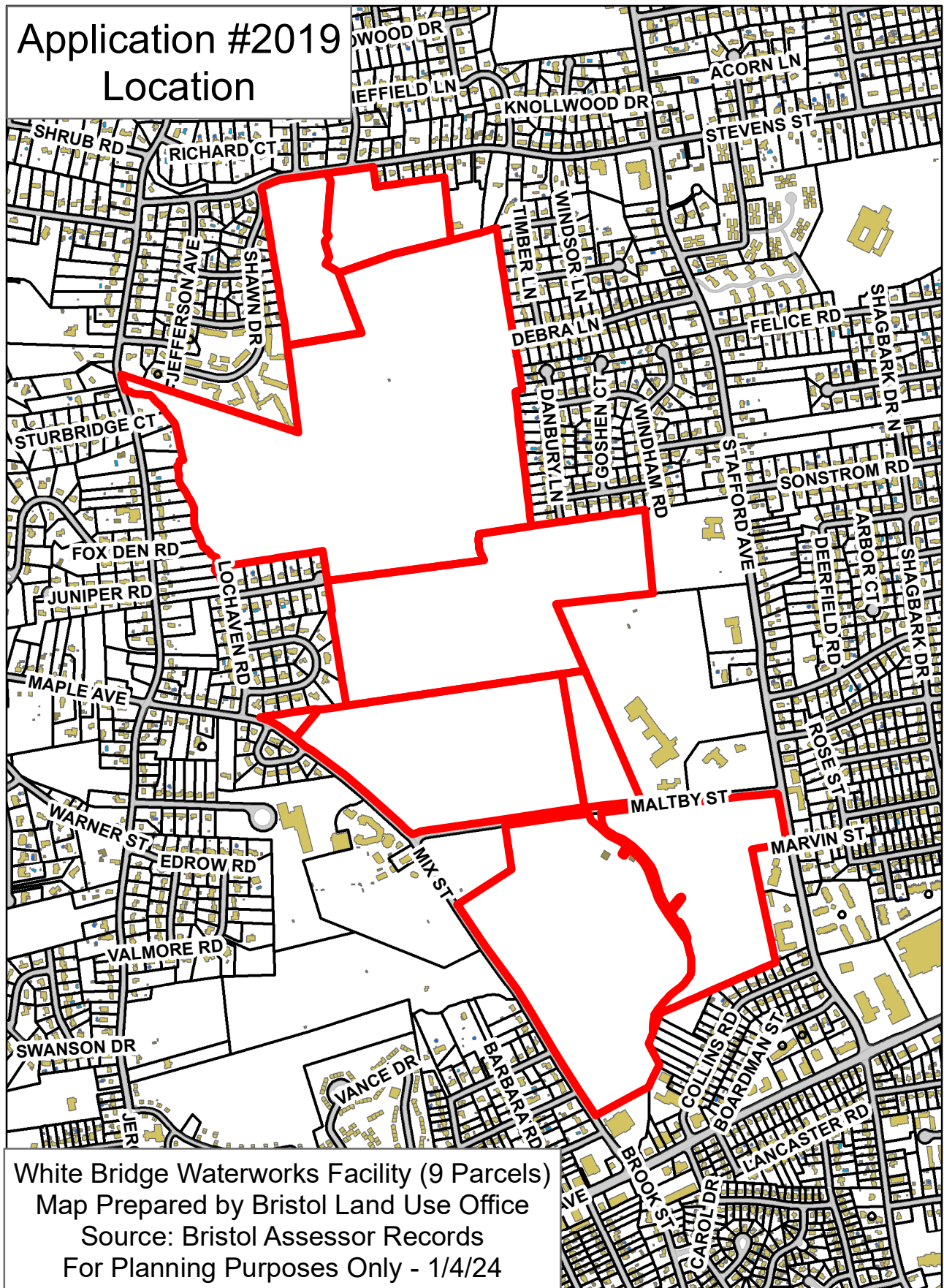
4. DESCRIBE THE REASON FOR THE PROPOSED BOUNDARY CHANGE:

As part of the proposed project, portions of project site will be cut to provide for compensatory storage. Many of these portions are located contiguously with the current wetland marker flags. Since the cuts will bring the elevations of those areas down (see attached maps) these areas will become wetlands and the boundary of the wetlands will change. The compensatory storage is necessary to prevent current flood elevation levels from increasing.

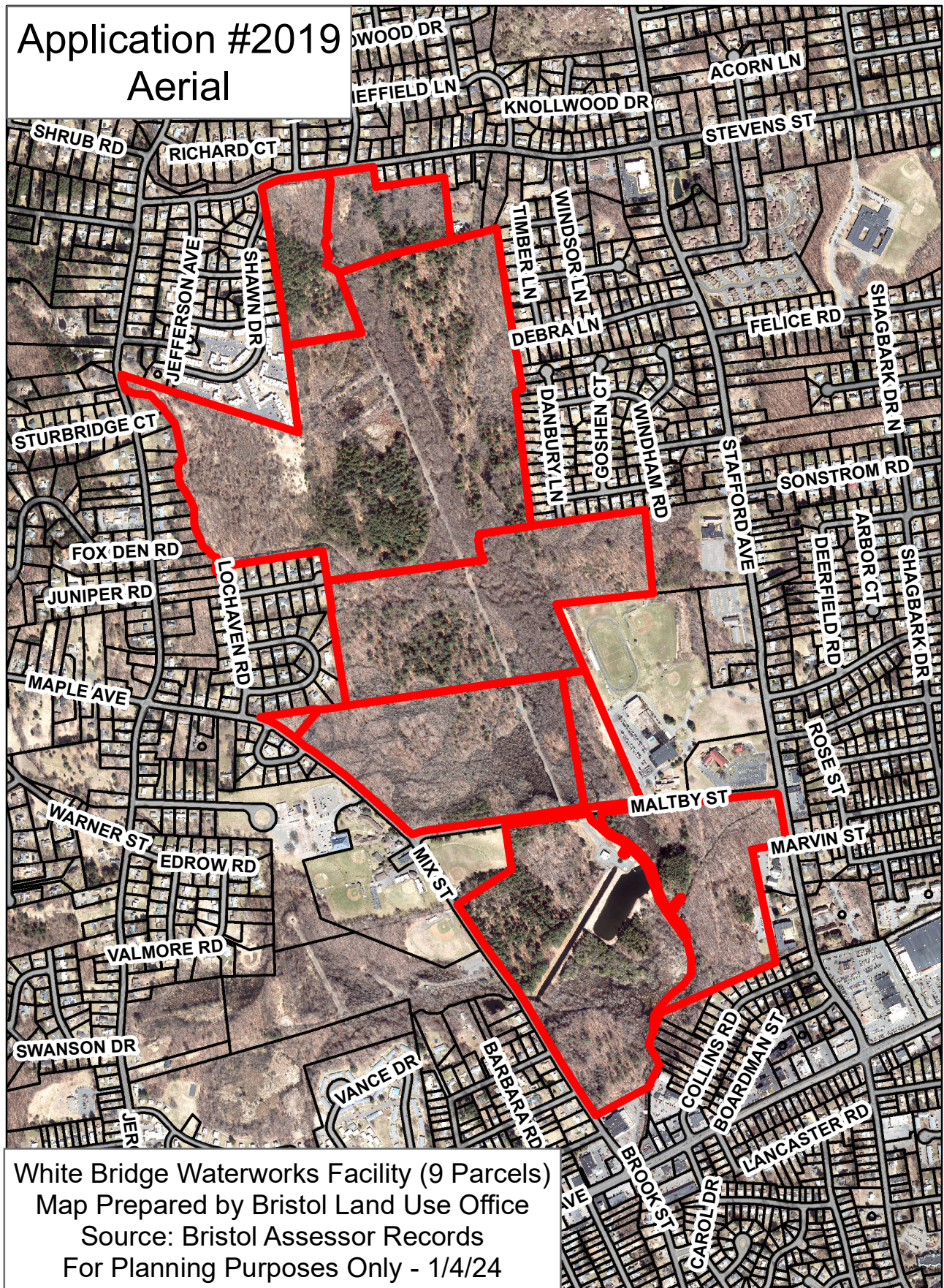
5. AUTHORIZATIONS AND CERTIFICATIONS:

- a. I/we hereby authorize the commissioners and agents of the Bristol Inland Wetlands Agency to inspect the subject property at reasonable times, both before and after a final decision has been made regarding this application.
- b. I/we hereby certify that I/we am/are familiar with the information included in this application and am/are aware that the law provides that any person who commits, takes part in, or assists in any violation of any provision of Sections 22a-36 through 22a-45, inclusive, of the Connecticut General Statutes, including regulations adopted by the Commissioner of Environmental Protection and ordinances and regulations of the City of Bristol through its Inland Wetlands Agency, shall be assessed a civil penalty of not more than one thousand dollars for each offense. I/we further certify that I/we am/are aware that it is a violation of law to obtain a wetlands ruling through deception or through inaccurate or misleading information.

Application #2019 Location

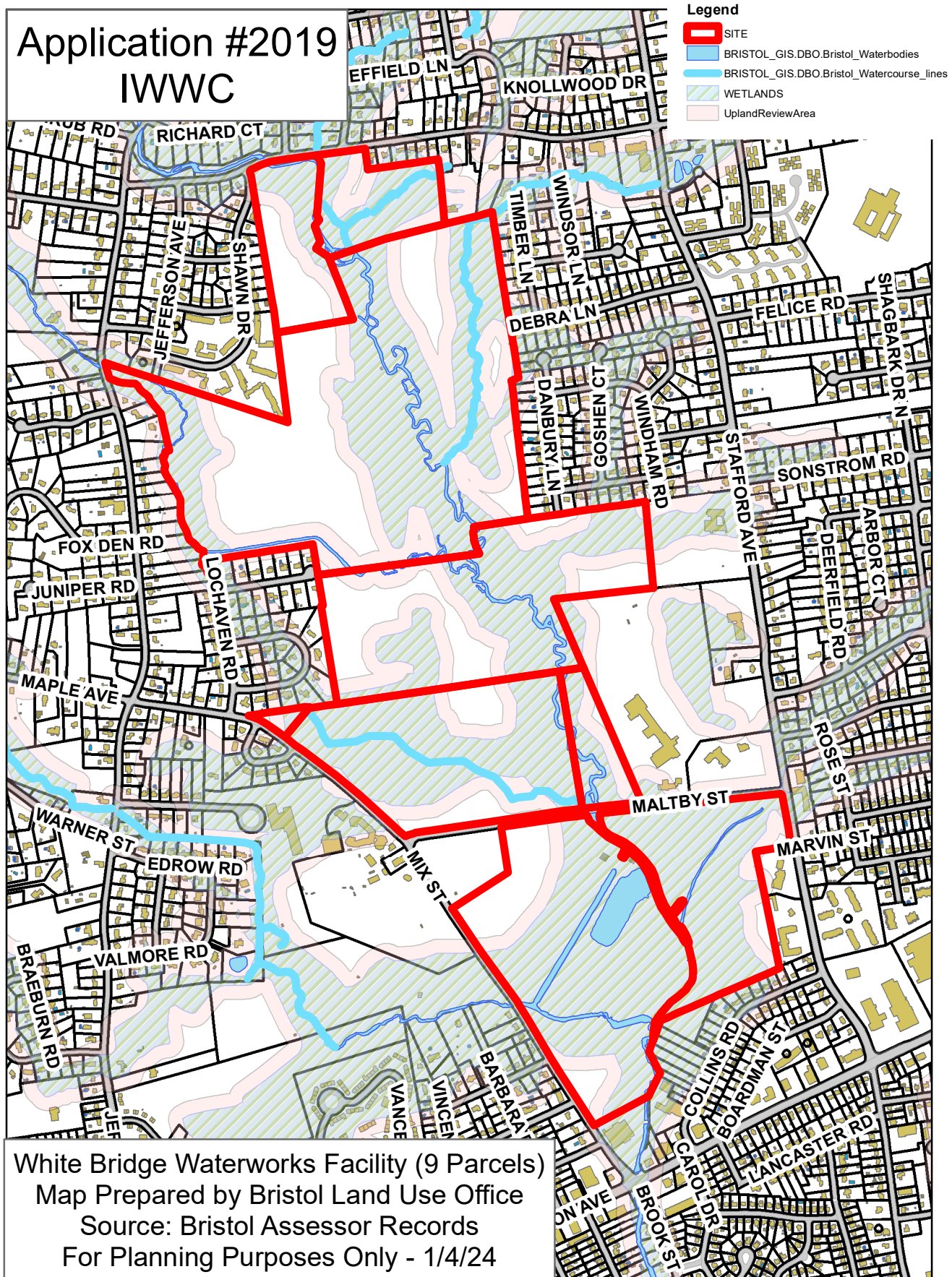


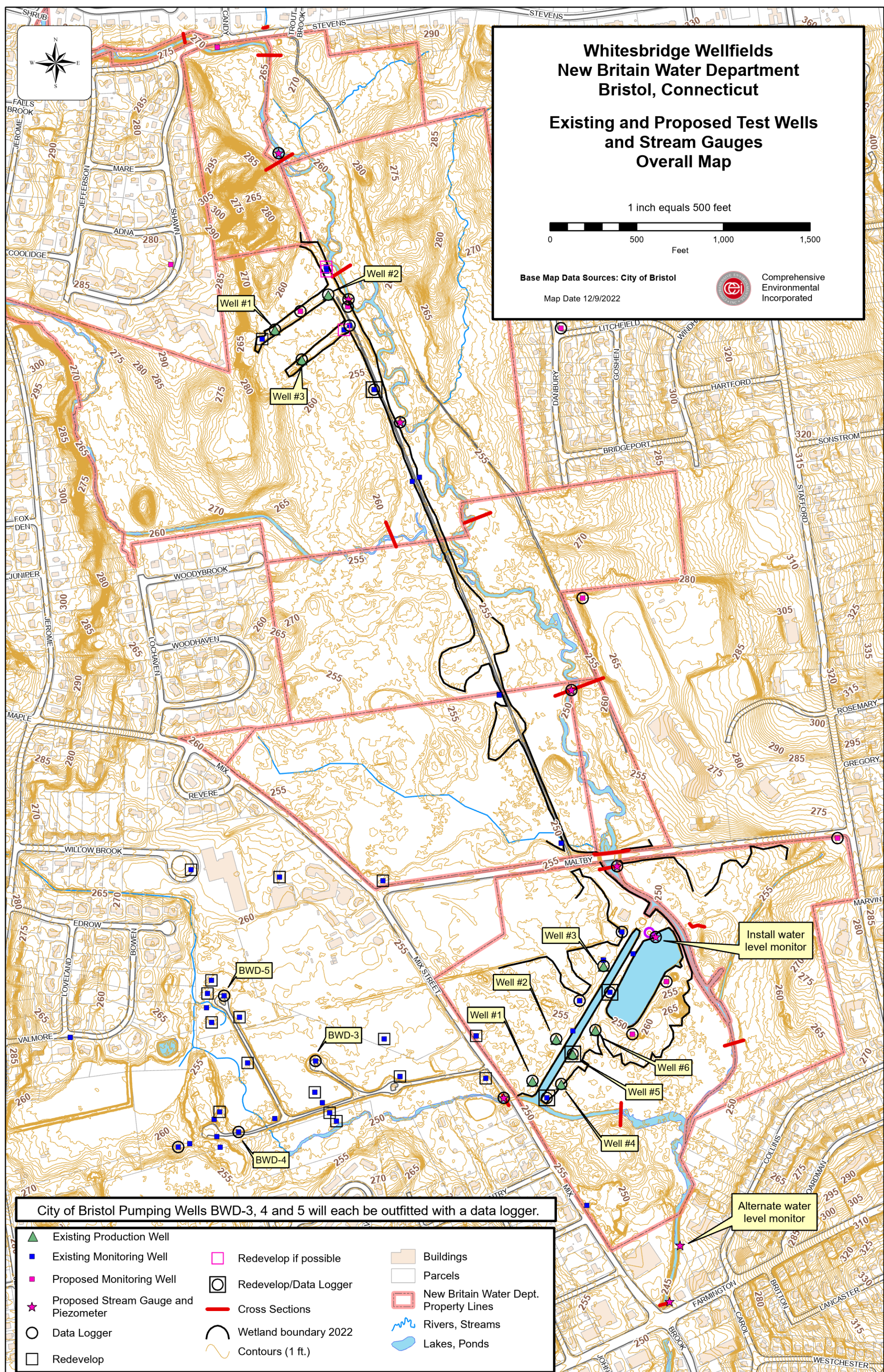
Application #2019 Aerial



White Bridge Waterworks Facility (9 Parcels)
Map Prepared by Bristol Land Use Office
Source: Bristol Assessor Records
For Planning Purposes Only - 1/4/24

Application #2019 IWWC





CT DEEP Letter

May 6, 2022

May 6, 2022

Magdalena Lofstedt
CDM Smith Inc
77 Hartland St, Suite 201
East Hartford, CT 06108
LOFSTEDTMH@CDMSMITH.COM

NDDB DETERMINATION NUMBER: 202205409

Project: (City of New Britain) Replace existing groundwater wells, Upper & Lower Wellfields, White Bridge Waterworks Facility, off Maltby St, Bristol

Expiration: May 6, 2024

I have reviewed Natural Diversity Database (NDDB) maps and files regarding this project. According to our records, there are State-listed species (RCSA Sec. 26-306) documented nearby and within the watershed of your project area. Recommendations to minimize impacts are included below.

- **Spotted turtle (*Clemmys guttata*) State Special Concern**
- **Wood turtle (*Glyptemys insculpta*) State Special Concern**

Spotted turtle: Individuals of this species are associated with wetlands and vernal pools. Over the course of a season and lifetime, individuals will travel large distances (up to 1km) over upland forest and fields between multiple wetlands. They overwinter burrowed into the mud in wetlands between Nov 1-March 15. They do not begin to reproduce until 7-10 years old and adults can live at least 30 years. This species is threatened most by any activities that reduce adult survivorship including road kills, commercial and casual collection, increased predation in areas around commercial and residential development, mortality and injury from agricultural equipment or other mechanical equipment.

Wood turtle: Individuals of this species are riverine and riparian obligates, overwintering and mating in clear, cold, primarily sand-gravel and rock bottomed streams and foraging in riparian zones, fields and upland forests during the late spring and summer. They hibernate in the banks of the river in submerged tree roots between November 1 and March 31. Their summer habitat focuses within 90m (300ft of rivers) and they regularly travel 300m (0.2 mile) from rivers during this time. During summer they seek out early successional habitat: pastures, old fields, woodlands, powerline cuts and railroad beds bordering or adjacent to streams and rivers. Their habitat in Connecticut is already severely threatened by fragmentation of riverine, instream, riparian, and upland habitats, but is exacerbated by heavy adult mortality from machinery, cars, and collection. This is compounded by the species late maturity, low reproductive potential, and high nest and hatchling depredation rates.

Land disturbance activities that will crush active turtles or unearth/or crush hibernating turtles or nests need to consider local habitat features and apply fencing and/or time of year restrictions as appropriate. We recommend you consult with a herpetologist familiar with preferred habitats to assist you with proper techniques to ensure the best protection strategies are employed for your site.

- Land disturbance and excavation confined to the upland (greater than 10 meters from a wetland) can be done without risk for impact if it is restricted to the dormant season (November 1- March 15).

If land disturbance activity will include significant areas within and around wetlands, you will need to take precautions to avoid crushing or killing hibernating adults.

- Do not conduct land disturbance activities within a wetland during the turtle's dormant period (November 1- March 15).

Additionally, when working in the upland between March 15- November 1:

- Exclusionary practices will be required to prevent any turtle access into construction areas. These measures will need to be installed at the limits of disturbance as shown on the plans.
- Exclusionary fencing be at least 20 inches tall and must be secured to and remain in contact with the ground and be regularly maintained (at least bi-weekly and after major weather events) to secure any gaps or openings at ground level that may let animal pass through.
- Prior to construction, all turtles occurring within fencing work area will be relocated to suitable habitat outside disturbance area. This should be performed by a qualified professional familiar with habitat requirements and behavior of the species.
- The Contractor must search the work area each morning prior to any work being done.
- All construction personnel working within the turtle habitat must be apprised of the species description and the possible presence of a listed species.
- Any turtles encountered within the immediate work area shall be carefully moved to an adjacent area outside of the excluded area and fencing should be inspected to identify and remove access point. These animals are protected by law and no turtles should be relocated from the site.
- In areas where silt fence is used for exclusion, it shall be removed as soon as the area is stable to allow for reptile and amphibian passage to resume.
- No heavy machinery or vehicles may be parked in any turtle habitat.
- Special precautions must be taken to avoid degradation of wetland habitats including any wet meadows and seasonal vernal pools.

Natural Diversity Database information includes all information regarding critical biological resources available to us at the time of the request. This information is a compilation of data collected over the years by the Department of Energy and Environmental Protection's Bureau of Natural Resources and cooperating units of DEEP, independent conservation groups, and the scientific community. This information is not necessarily the result of comprehensive or site-specific field investigations. Consultations with the NDDDB should not be substituted for on-site surveys required for environmental assessments. Current research projects and new contributors continue to identify additional populations of species and locations of habitats of concern, as well as, enhance existing data. Such new information is incorporated in the NDDDB as it becomes available.

Please contact me if you have any questions (shannon.kearney@ct.gov). Thank you for consulting with the Natural Diversity Database and continuing to work with us to protect State-listed species.

Sincerely,

/s/ Shannon B. Kearney
Wildlife Biologist

Email from Mary Rydingsward
January & February 2024

Fwd: White Bridge Well rehabilitation project

Nancy Levesque

Thu 2/1/2024 12:55 PM

To: Andrew Armstrong <AndrewArmstrong@bristolct.gov>;

Correspondence for wetlands

Begin forwarded message:

From: PRWA-CT <pequabuckriverct@gmail.com>
Date: February 1, 2024 at 11:38:00 AM EST
To: Ray.Esponda@newbritainct.gov
Subject: Re: White Bridge Well rehabilitation project

Hello Ray,

I am writing to follow up on the FOIA request below. Please provide a time frame for receipt of the documents.

Kind regards,
~Mary
Kind regards,
Mary Rydingsward, President
Pequabuck River Watershed Association
860.670.4761

On Thu, Jan 25, 2024, 11:39 AM PRWA-CT <pequabuckriverct@gmail.com> wrote:

Hello Ray,

Per our conversation yesterday, I am writing on behalf of the Pequabuck River Watershed Association to request all plans, studies, and reports related to the White Bridge Well Rehabilitation project. We specifically request information pertaining to current withdrawals and anticipated future withdrawals with the proposed wells.

I recognize that the project has been ongoing for many years. However, we expected the engineering study to be sent to the city of Bristol years back and I have not yet seen it.

Please let me know an expected time to either review or receive these reports electronically.

Kind regards,
Mary Rydingsward, President
Pequabuck River Watershed Association
860.670.4761

Letter from Carol Noble

February 2, 2024

February 2, 2024

Zach Fisk, Chair
Bristol Inland Wetland Commission
c/o Bristol Land Use Division
Via email:

RE: **Application #2019, Application #2020, Application #23-458F-305** Application for the restoration of the White Bridge Waterworks facility at Maltby Street; Assessors Map 52 & 53, Lots 11, 15, 16B16A, 17, 145, 147, 149, 150 & 151; New Britain Water Department, Ramon Esponda, Deputy Director, applicant.

Dear Chair Fisk and Bristol IWW Commissioners:

This letter is written in response to the subject application, with a request that it be included in the public hearing record.

The City of New Britain Water Department, as a large property owner in Bristol, has been a good neighbor. We can all agree that reliable water sources, treatment and distribution systems are vital to our communities. Certainly, the works of our water departments are appreciated and should be fully supported. However, it's my opinion as a CT Professional Engineer (retired Bristol Environmental Engineer), Certified Floodplain Manager (CFM), and Bristol property owner that the application for the expansion of the White Bridge facility in Bristol does not provide enough information to warrant approval as currently submitted. This complex technical proposal (with three separate applications before you), is central to the well-being of the community and protection of Bristol's natural resources. **Please consider a third party review of the subject application materials to help address the complex surface and groundwater interactions involved for this application.**

The application does not address how much additional water is anticipated to be withdrawn from the White bridge facility expansion. Therefore it does not completely address potential wetland watercourse impacts. These resources are not of unlimited supply.

What are the proposed volumes? How much is the increase from the existing system withdrawals? How does this interact with City of Bristol supply? Which areas of the streams and potentially the wetland systems act to recharge the aquifer? What are the seasonal changes when the stream systems may gain water and how does the proposed project fill affect localized storage? Please provide records of the historical use and the tabulation of proposed changes at each well location, as it relates to the Coppermine Brook, Polkville Brook, and Freemans Brook and surrounding wetland systems.

The project report rejected project alternatives (2A (existing agreement for Napaug reservoir water of 7.5 MGD-no impact to Bristol wetlands), 2B (similar agreement for 7.5 MGD at Napaug with new treatment at Whitebridge-no or smaller impact to Bristol wetlands), and 2C (addition 3 MGD in Farmington with interconnection improvements-no impact to Bristol wetlands). More discussion of alternatives is warranted, to address no or minimal wetland impact to the Bristol wetland and floodplain areas at the White Bridge facility. The rejected options are listed as able to provide 3 to 7.5 MGD of water into the New Britain system. What daily volumes goals are expected from the Whitebridge facility expansion? What monitoring has been and will be done to assure streamflow and wetland protections? What restrictions may be necessary during drought conditions?

It's not clear from the application materials that the proposed project (with their associated substantial wetland impacts) can even reliably deliver the water source goals for New Britain. These goals have not been clearly stated, with respect to both water quantity and water quality. Generally, it appears that the existing well locations are being reconfigured into wetland areas and filled, in order to meet the public health criteria, including the requirement to eliminate the ground water under direct influence (GWUDI) of surface water **public health** issue. Yet, this infiltration consideration appears to have been central to the initial 1920's design, construction, and operation; that is, that the surface waters would act as source/infiltration source for the wells. The report indicates that the reconfiguration of the wells into the wetlands may not solve the current regulatory requirements. The reports indicate the GWUDI success will not be established until after the wetland and floodplain impacts are constructed. This **risk** needs further explanation, as the regulated forested wetland impacts of nearly 5 acres should not be a gamble enterprise.

In order have an understanding of minimization of potential impacts related to the project, please address the following: Why is the sewer work proposed on Maltby Street (new main and liner)? What is the clearing impact for the gas service from Mix Street? Are all well meter vaults proposed at grade? Why can't the proposed driveway for the lower wellfield be located, at least partially, at the existing gravel drive in lieu of the proposed location with substantial wetland impacts? Please explain the proposed future work related to the existing 1200 feet of water main through the wetland and the water main work on Stafford and Maltby Streets. Was all previous work completed, including compensatory work, in substantial completion of the existing permits? Do any of the existing wetland boundaries differ from the previous approved application? On a survey plan, please clarify where the proposed wetland mitigation areas are located compared to existing wetland boundaries. Official wetland boundary changes for proposed compensatory areas should not be approved until after approved mitigation work has been constructed and deemed substantially compete.

Last but not least, how will the potential impacts during seasonal and drought changes affect the Coppermine watershed with respect to imperiled species. **An in-depth wildlife assessment is warranted to assess and address protections of the imperiled species as part of the project proposal.** Show all clearing limits and address the number/size of trees removed in the regulated wetlands for all proposed new utility related and compensatory work areas within regulated wetlands.

Clarification and understanding of these complex interactions should be addressed prior to approval of the expansion of the New Britain water source; and potential restrictions placed thereon. The project should not be approved at the expense of our communities' vital natural resources when other more viable sources are available. As conditions of any approval, mitigation and monitoring measures should be completed PRIOR to project impact, preferably with a lead time period to measure/establish the success of the mitigation goals.

Understanding and clarification of these complex interactions for your thoughtful decision is very much appreciated.

Sincerely,
Carol Noble, PE, CFM

Letter from John Correia

February 3, 2024

February 3, 2024

Zachary Fisk

Chairman, Bristol Inland Wetland and Watercourses Commission

Please consider the following letter sent via email during the public hearing scheduled for February 5, 2024 regarding:

Application #2020 Wetlands application for the restoration of the White Bridge Waterworks facility at Maltby Street; Assessors Map 52 & 53, Lots 11, 15, 16B16A, 17, 145, 147, 149, 150 & 151; New Britain Water Department, Ramon Esponda, Deputy Director, applicant.

and the associated

Application #23-458F-305 Floodplain application for the restoration of the White Bridge Waterworks facility at Maltby Street; Assessors Map 52 & 53, Lots 11, 15, 16B16A, 17, 145, 147, 149, 150 & 151; New Britain Water Department, Ramon Esponda, Deputy Director, applicant.

Dear Chairman and Commissioners,

Consider the White Bridge property as an urban forest. Though it is not a public park, it is the second largest open space of contiguous land after the Indian Rock, South Mountain, and Jacklin Rod & Gun Club complex. This means that projects on the property should consider its importance as one of the few oases in Bristol for wildlife as it is the largest area without regular human disturbances.

As with any major project in our increasingly imperiled wetlands, there are bound to be some concerns about the impacts to wildlife. With this White Bridge project there are potential impacts to both species listed as Endangered, Threatened, and of Special Concern and non-listed species who make this area home. In this letter, I would like to bring forth some of the potential issues with the White Bridge application which grossly outweigh the marketed environmental benefits. I feel it is important to view this project on a much larger scale and to look beyond (or below) the surface level facility improvements.

Potential Benefits to the Floodplain

Urban forests are becoming increasingly rare, yet studies have found they can be extremely valuable for human health and wildlife. Even vacant lots of only a few acres have been found to refuel migrating birds with native foods while providing much needed woody cover. I believe this wetlands permit application successfully identified the property's value for fruit-eating and shrub-marsh-visiting birds. In this proposal, over 170,000 square feet of uplands will be impacted in part to replicate wetlands with native plantings. Mostly "seasonally flooded/saturated broad-leaf deciduous wetlands" at the forest edge will be converted into shrub marsh matching the adjacent wetlands. While altering a habitat sounds negative, the plan, if successful, will probably yield a net ecosystem benefit and actually appears quite interesting (In this case, increases in wildlife food resources and plant diversity outweigh the loss of habitat, carbon sequestration, and water uptake of the older trees being removed).

The life histories of many birds involve visiting seasonally wet, densely vegetated wetlands or riparian areas at some point in the year. That means, as an isolated urban forest in a valuable migratory path, this property will be used year round for spring migration, summer breeding, fall migration, and winter cover. The native plant species selected for the wetland replication and replacement will aid this fact by providing food and cover in all seasons. Often there is a concern of introducing invasive species during a project that involves clearing land, but by quickly replacing lost vegetation with plantings, this will hopefully be avoided.

It should be noted that *Deschampsia cespitosa* is a species of special concern in Hartford County and is one of the grasses listed in the seed mix. If it does end up being planted, that information should be added to DEEP's Natural Diversity Database.

These benefits conflict, however, with the major issue that was inadequately evaluated in the permit application: changes to the amount of water on the property and in the Coppermine Brook as a whole.

Potential Negative Impacts Not Considered by the Applicant

Having an expertly crafted wetland and highly efficient wells becomes obsolete if the increased drawdown of groundwater from the White Bridge property completely unbalances the Coppermine system. The applicant has not fully explained or predicted how these major changes in well output or alterations to the floodplain will have "no effect" on stream flows. "No effect" seems unlikely since the Coppermine is an impaired water source and has dried up and become a trickle in recent years. Below are some of the potential risks to wildlife should this project impact the amount of water present.

Freshwater fish surveys on the White Bridge property from 1988 and 2008 found 12 species of wild fish, one of which was the species of Special Concern: the Slimy Sculpin (see map below). The fish identified all share a preference for smaller, cool, *flowing*, headwater streams with cobble bottoms. If this project were to affect the amount of water or flow of water, it could drastically change the amount of space, the temperature of the water, or the amount of oxygen available to these fish both upstream and downstream. These changes would be a degradation of water quality and habitat quality. The section of the Coppermine running through the property is one of the last water sources designated by the DEEP Water Quality and Stormwater Summary to be "fully supporting" of aquatic life in Bristol; it deserves protection. It is easy to understand that removing trees that are shading the Coppermine, as in the two lower compensatory storage areas, will likely increase the brook's temperature. The project is designed not to increase flooding or run-off above ground, however, the increased removal of water below ground has not been described and that is information that must be known prior to making a decision on this application. Will not a reduced level of groundwater also alter the amount of wetlands and flowing water for fish, amphibians, and aquatic invertebrates?

Additionally, NDDDB maps show a population of an imperiled species along the Coppermine. The species may be a fish or Box Turtles, either way it clearly requires a healthy, flowing river. Box Turtles currently have all habitats required for their life cycle on the property (forest, wetlands, wet meadow). If the wetlands on this property were to dry up significantly, turtles would be forced to migrate off the property leading to mortality at road crossings. With the sexual maturity of Box Turtles being 10 years, these vulnerable species must be heavily

protected in order to breed another generation. If we extract too much out of this system near the headwaters of the Coppermine, we could dry up the river and affect everything downstream. Not to mention, without water the proposed wetland replication would fail and basically turn into a clear-cut. Edge habitat is a complex ecotone highly sought after by some wildlife and avoided by others. This proposal solely works in these edges and changes the amount and type of edges present. There is no doubt that wildlife will respond to the changes, but it is difficult to say if the response will be purely positive.

In 2020, I was gratefully allowed the opportunity to confirm that a Great Blue Heron rookery exists on the property for the Connecticut Bird Atlas. I counted 37 herons (adults and young) on multiple nests in pine snags near the pond (see aerial photo below). This count of Great Blue Herons was the highest I could find on ebird checklists (a robust citizen science database) across the state and the total number probably would have been higher as many adults would have been absent, hunting elsewhere. It is extremely rare to find a Great Blue Heron rookery, let alone more than one or two herons at a time. I only know of two other rookeries in the state. Now consider we are in central Connecticut and in a city; it's quite special. On the site visit on January 27, 2024 it was apparent that the original heronry no longer existed as all of the nest snags had broken or fallen, but we were informed that some herons had begun to nest in other areas of the property and we flushed multiple herons that were foraging in the wetlands. This project would have been a significant disturbance to the herons had they still been using the original heronry, but the property is still clearly important to them. The fact that this permit can affect the amount of water on the property which supports the herons' food resource and removes large trees adjacent to wetlands which are potential nesting sites means the Great Blue Herons are yet another piece of the ecosystem that will be impacted by this work. While Great Blue Herons are not a listed species, the uniqueness of White Bridge as the potentially largest breeding ground in Connecticut should elicit some kind of precaution or even a mention in the permit application.

It is important for the IWWC to prevent the destruction or alteration of wetlands which are an irreplaceable public resource. Carefully weigh the need to draw more water from the Coppermine watershed and compare it to the possible result of the project: the loss of the entire wetland ecosystem. At this time we have no way of knowing what will happen after this project is completed, but proceeding just to find out without further studies seems risky. **Therefore, it would be pertinent to acquire a third-party review** of not just the wildlife impacts, but the effects of drawing more groundwater and creating more wetlands.

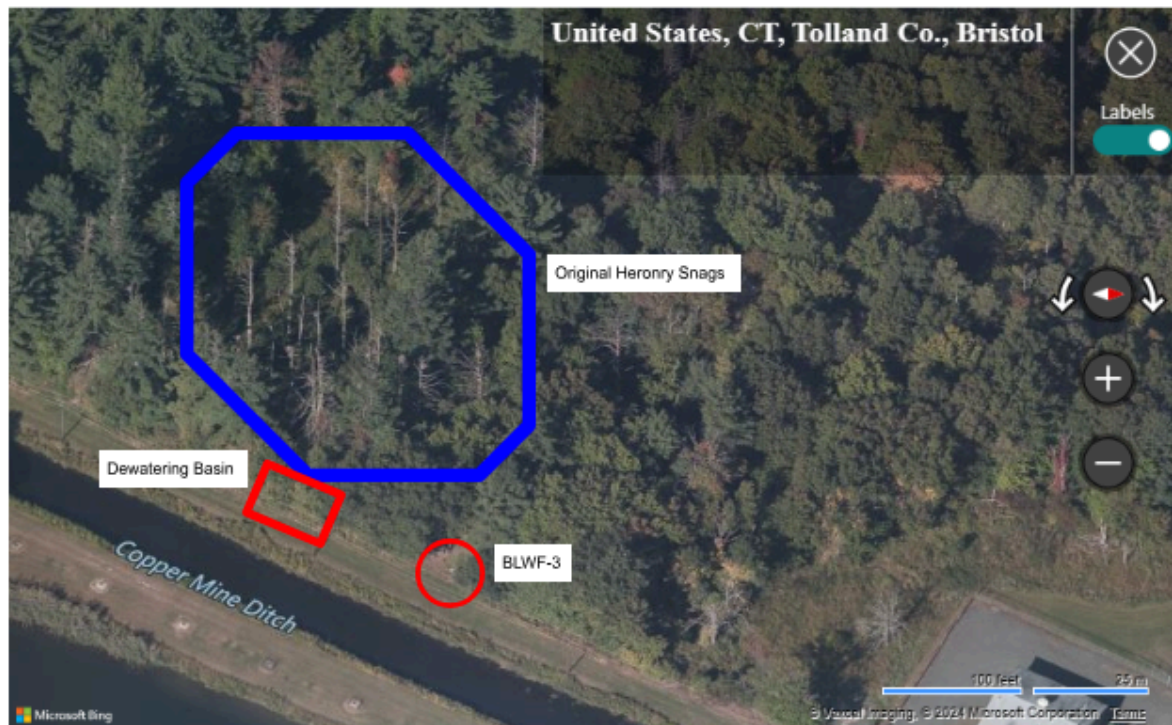
Consulting the NDDB is simply not enough to protect wildlife. I have seen in other development projects that a lack of listed species reported by the NDDB in the human delineated "project area" can downgrade the importance of protecting habitat to contractors. Even in this case, because the Slimy Sculpin was detected just north of Stevens Street in the past which is outside the White Bridge project area, it is not going to receive any best management practices during this project. Does a river fish not require water both upstream and downstream? This problem alludes to the fact that we need newer data, collected in a standardized way that considers Connecticut as a whole to improve our conservation efforts.

If there is one take away from this letter it is that, as Commissioners, you should always think of the bigger picture. Some projects have larger ramifications than expected. This project has a landscape level effect on the environment; and is certainly relevant on the state level and maybe even beyond.

Sincerely,

John Correia

7 years experience as a wildlife field scientist for DEEP, land trusts, non-profits, and universities



Location of heronry snags before 2024 (above)
Bristol GIS

Location of freshwater fish counts and their year (left)
CT ECO - DEEP Fish Community Data - Inland Waters

Letter from Rivers Alliance

February 5, 2024



February 5, 2023

Zach Fisk, Chair
Bristol Inland Wetlands and Watercourses Agency and Conservation Commission
c/o Bristol Land Use Division
Via Email:

RE: **Application #2019** - Wetlands boundary change application for the restoration of the White Bridge Waterworks facility at Maltby Street; Assessor's Map 52 & 53, Lots 11, 15, 16B16A, 17, 145, 147, 149, 150 & 151; New Britain Water Department, Ramon Esponda, Deputy Director, applicant.

And

Application #2020 – Wetlands application for the restoration of the White Bridge Waterworks facility at Maltby Street; Assessor's Map 52 & 53, Lots 11, 15, 16B16A, 17, 145, 147, 149, 150 & 151; New Britain Water Department, Ramon Esponda, Deputy Director, applicant.

And

Application #23-458F-305 – Floodplain application for the restoration of the White Bridge Waterworks facility at Maltby Street; Assessor's Map 52 & 53, Lots 11, 15, 16B16A, 17, 145, 147, 149, 150 & 151; New Britain Water Department, Ramon Esponda, Deputy Director, applicant.

Dear Chair Fisk and the Bristol IWW Commissioners:

Rivers Alliance of Connecticut, Inc. (RA) respectfully submits to the Bristol Inland Wetlands and Watercourses Agency/Conservation Commission (Agency) the following comments on the above applications before the Agency. RA does not oppose the work that needs to be done by New Britain Water Department (NBWD) in order to rehabilitate its wellfields and to come into compliance with the Connecticut Department of Public Health (DPH) and the Federal Emergency Management Agency (FEMA), so long as the reasonably foreseeable environmental

threats posed by this activity are appropriately conditioned to protect important natural resources comprised of waters of the State under the stewardship of the City of Bristol.

RA is a non-profit environmental organization, founded in 1992, and dedicated to the protection and preservation of the water resources of the State. Its membership includes, primarily, river and watershed groups in the state, civic and business groups, municipal commissions, and individuals concerned with water health, thus representing a network of thousands of members statewide. The mission of RA is to protect the quality and availability of surface and ground waters of Connecticut and Long Island Sound and the associated recreational uses and habitat values. RA advocates for the protection of ample, healthy sources of water for drinking and other vital societal uses. RA brings expertise in policy, law, and science to participation in policy-making entities and to its extensive educational program. The goal is to bring people together to protect our state waters for current and future generations. Numerous RA members are residents of Bristol or customers of NBWD.

Withdrawals and Impact on Coppermine Brook

Any diversion of water that exceeds 50,000 gallons per day (ground or surface) must apply for a permit from the Department of Energy and Environmental Protection (DEEP). The duration of a water diversion permit can be anywhere from 5-25 years and “is established by DEEP based on its consideration of existing uses and allocations of the water resources within the watershed and pertinent facts and circumstances particular to the proposed project.” **However**, for diversions registered prior to 1983, **the registrant has rights to divert the amount of water originally registered in perpetuity**. These are referred to as “registered” diversions and were never and currently not subject to any environmental review.

NBWD has several registered diversions in the White Bridge Waterworks facility area that give them the authorization to divert 23.78 million gallons of water per day (mgd) in perpetuity. It is important to note that, due to decreased well performance, NBWD has been able to withdraw only a portion of the 23.78 mgd it is authorized under its registration.

Bristol Water Department (BWD) also owns or manages water supply facilities within the same drainage basin as the White Bridge Waterworks Facility. BWD is authorized to divert 3.87 mgd in perpetuity.

Coppermine Brook is listed in Connecticut Department of Energy and Environmental Protection’s (DEEP) 2022 Integrated Water Quality Report to Congress under Nonpollutant Impairments (EPA Category 4c) for Flow Regime Modification. DEEP has developed a methodology for assessing flow impairments when sufficient information is available. The term

flow regime modification is used to reflect the impairments which are predominantly due to flow alterations that serve public needs and safety. Sections of Coppermine Brook below and adjacent to the NBWD and BWD were completely dry during the 2016-2017 drought and **DEEP has documented impairment due to low flow for periods following the 2016-2017 drought.**



DEEP's Hands are Tied on Low Flow Intervention

DEEP cannot intervene on impairments from low flow as the withdrawal activity is in compliance with CGS §22a-365 through 22a-379 as well as [Sections 22a-372-1, 22a-377\(b\)-1 and 22a-377\(c\)-1 to 22a-377\(c\)-2](#) of the Regulations of Connecticut State Agencies and impacts on streams from groundwater withdrawals are not included in DEEP's Streamflow Standards and Regulations pursuant to CGS §26-141(a) and (b) and [§26-141b-7\(a\) of the Regulations of Connecticut State Agencies](#).

Increase in Withdrawals and Complicated Application

NBWD has stated in Application #2020 that **"The NBWD has registered diversions and those withdrawals will be increased."** It also stated that **"The proposed wetland disturbances activity will not affect the nearby watercourse flow rate."**

RA has valid and serious concerns that Coppermine Brook will be further impaired for regime flow modification due to increase in withdrawals which is not addressed in the application (the

claim states that the proposed *wetland disturbances* won't affect flow rate) and would also like to ensure that the Agency has all information needed to make an informed decision on all aspects of this complicated proceeding. There are still many questions that are left unanswered by the application. Comments submitted by Carol Noble, PE, CFM, do a very good job of identifying the many aspects of these applications that remain unclear and asks many questions that the Agency should have answers to prior to making a decision.

It is imperative that conditions to protect critical natural resources of the State, threatened with increased uncertainty of climate change, are required in order to protect the waters of the State in which the City of Bristol has been entrusted. In respect to low flows due to increased withdrawal, this can be accomplished by requiring monitoring of streamflow above and below the wellfields and requiring that NBWD work with DEEP to determine a threshold at which NBWD would have to work with DEEP to find an operational mode that would not impair Coppermine Brook as per the NBWD agreement with DPH for funds procured through DPH's Drinking Water State Revolving Fund for the project.

Rivers Alliance has submitted a verified petition to intervene on these applications under CEPA. We look forward to working with the Agency and NBWD going forward and are available and eager to answer any questions.

Respectfully submitted,

A handwritten signature in blue ink, appearing to read 'Alicea Charamut', with a stylized, cursive script.

Alicea Charamut, Executive Director

Letter from Trout Unlimited

February 5, 2024



John DiVenere, President
Farmington Valley Chapter of Trout Unlimited
www.fvtu.org

February 5, 2024

Zach Fisk, Chair
Bristol Inland Wetlands and Watercourses Agency and Conservation Commission
c/o Bristol Land Use Division
Via Email:

RE: **Application #2019** - Wetlands boundary change application for the restoration of the White Bridge Waterworks facility at Maltby Street; Assessor's Map 52 & 53, Lots 11, 15, 16B16A, 17, 145, 147, 149, 150 & 151; New Britain Water Department, Ramon Esponda, Deputy Director, applicant.

And

Application #2020 – Wetlands application for the restoration of the White Bridge Waterworks facility at Maltby Street; Assessor's Map 52 & 53, Lots 11, 15, 16B16A, 17, 145, 147, 149, 150 & 151; New Britain Water Department, Ramon Esponda, Deputy Director, applicant.

And

Application #23-458F-305 – Floodplain application for the restoration of the White Bridge Waterworks facility at Maltby Street; Assessor's Map 52 & 53, Lots 11, 15, 16B16A, 17, 145, 147, 149, 150 & 151; New Britain Water Department, Ramon Esponda, Deputy Director, applicant.

Dear Chair Fisk and the Bristol IWW Commissioners:

During the 2016 & 2017 drought, a fly angler who was taking a stroll along Artisan Street noticed that there was no water in sections of Coppermine Brook that passes under the bridge. It is true that most rivers and streams in Connecticut were in low flow conditions due to below average rainfall but there are public drinking water wells adjacent to Coppermine Brook that have the right to withdraw approximately 25 million gallons of water a day from basin. Yet, even if the information was readily available to determine if the groundwater withdrawals are significantly contributing to the dewatering of Coppermine Brook at that time, there is very little anyone can do about it because streamflow regulations do not take groundwater withdrawals into consideration.

FVTU has approximately 600 members within our home waters – which includes both cities of Bristol and New Britain. Numerous members live in the City of Bristol and enjoy the trout fishing opportunities available in their city.

The application submitted by the New Britain Water Department states that they will be increasing withdrawals from their wellfields once rehabilitation work is finished. We have serious concerns that this will exacerbate low flows in Coppermine Brook.

Sections of Coppermine Brook are designated as a Trout Management Area (TMA). Trout are one of the most sought after fish species by anglers, who spend approximately 2.1 million fishing trips a year seeking them. Connecticut's TMAs have special regulations in place to provide high-quality opportunity to catch trout. The City of Bristol is very fortunate to have both Coppermine Brook and the Pequabuck River as designated as TMAs to provide an opportunity for trout fishing in a relatively urbanized area.

But trout, and all living things, need water to survive. They also need continuous flows in order to find cooler water during hot dry months and scarce rainfall.

We urge the Agency to ensure that it has all of the information it needs to understand how increased withdrawals will impact downstream flows and to condition the permit as to ensure that Coppermine Brook does not run dry once more. We encourage the Agency to utilize its authority to hire outside experts that can review the application and provide information on how these increased flows will impact downstream flows.

Sincerely,

John DiVenere

John DiVenere, President, Farmington Valley Chapter of Trout Unlimited.

Verified Petition to Intervene
February 5, 2024

**BRISTOL INLAND WETLANDS AND WATERCOURSES AGENCY/CONSERVATION
COMMISSION**

Application #2019 - Wetlands boundary change application for the restoration of the White Bridge Waterworks facility at Maltby Street; Assessor's Map 52 & 53, Lots 11, 15, 16B16A, 17, 145, 147, 149, 150 & 151; New Britain Water Department, Ramon Esponda, Deputy Director, applicant.

Application #2020 – Wetlands application for the restoration of the White Bridge Waterworks facility at Maltby Street; Assessor's Map 52 & 53, Lots 11, 15, 16B16A, 17, 145, 147, 149, 150 & 151; New Britain Water Department, Ramon Esponda, Deputy Director, applicant.

Application #23-458F-305 – Floodplain application for the restoration of the White Bridge Waterworks facility at Maltby Street; Assessor's Map 52 & 53, Lots 11, 15, 16B16A, 17, 145, 147, 149, 150 & 151; New Britain Water Department, Ramon Esponda, Deputy Director, applicant.

February 5, 2024

VERIFIED PETITION TO INTERVENE UNDER CGS §22a-19

Rivers Alliance of Connecticut, Inc. (RA) requests that the Bristol Inland Wetlands and Watercourses Agency/Conservation Commission (Agency) grant it intervenor status in the above captioned proceedings, pursuant to the Connecticut Environmental Protection Act, CGS section 22a-19(a)(1) (CEPA). RA does not oppose the work that is proposed by New Britain Water Department (NBWD) in the above-referenced applications to purportedly rehabilitate its wellfields and to come into compliance with Connecticut Department of Public Health (DPH) and Federal Emergency Management Agency (FEMA) requirements, so long as the reasonably foreseeable environmental threats posed by these activities are appropriately conditioned to protect the important natural resources comprised of waters of the State under the stewardship of

the City of Bristol. RA's participation in this matter is in the interests of justice and will not impair the orderly conduct of the proceedings.

In support of its petition, RA represents the following:

1. CEPA provides in pertinent part at General Statutes Section 22a-19(a) that

In any administrative, . . . proceeding, and in any judicial review thereof made available by law, . . . any person, . . . corporation . . . or other legal entity may intervene as a party on the filing of a verified pleading asserting that the proceeding or action for judicial review involves conduct which has, or which is reasonably likely to have, the effect of unreasonably polluting, impairing or destroying the public trust in the air, water or other natural resources of the state.

2. The Agency is the town agency authorized to administer the statutory provisions regulating the use of inland wetlands and watercourses pursuant to General Statutes Section 22a-36, et seq., and of its own duly enacted Inland Wetlands and Watercourses Regulations of the City of Bristol (Regulations).

3. RA is a 501(c)(3) non-profit environmental organization, founded in 1992, and dedicated to the protection and preservation of the water resources of the State. Its membership includes, primarily, river and watershed groups in the state, civic and business groups, municipal commissions, and individuals concerned with water health, thus representing a network of thousands of members statewide. RA's mission is to protect the quality and availability of surface and ground waters of Connecticut and Long Island Sound and associated recreational uses and habitat values. RA advocates for the protection of ample, healthy sources of water for drinking and other vital societal uses. RA brings expertise in policy, law, and science to participation in policy-making entities and to its extensive educational program. RA's goal is to bring people together to protect our state waters for current and future generations. Numerous

RA members are residents of Bristol or customers of NBWD. RA's offices are located at 28 Russel Street, P.O. Box 1797, Litchfield, Connecticut, 06759.

4. The Agency's decision in this matter will specifically affect RA, its members, and important natural resources of the State. NBWD owns or manages water supply facilities in the City of Bristol. Pursuant to CGS §22a-365 through 22a-379 as well as Sections 22a-372-1, 22a-377(b)-1 and 22a-377(c)-1 to 22a-377(c)-2 of the Regulations of Connecticut State Agencies, NBWD is authorized to divert 23.78 million gallons of water per day (mgd) in perpetuity.

5. Bristol Water Department (BWD) also owns or manages water supply facilities within the same drainage basin as the White Bridge Waterworks Facility. Pursuant to CGS §22a-365 through 22a-379 as well as Sections 22a-372-1, 22a-377(b)-1 and 22a-377(c)-1 to 22a-377(c)-2 of the Regulations of Connecticut State Agencies, BWD is authorized to divert 3.87 million gallons of water per day (mgd) in perpetuity.

6. Coppermine Brook is listed in Connecticut Department of Energy and Environmental Protection's (DEEP) 2022 Integrated Water Quality Report to Congress under Nonpollutant Impairments (EPA Category 4c) for Flow Regime Modification. DEEP has developed a methodology for assessing flow impairments when sufficient information is available. The term "flow regime modification" is used to reflect the impairments which are predominantly due to flow alterations that serve public needs and safety.

7. Sections of Coppermine Brook below and adjacent to the NBWD and BWD were effectively dry during the 2016-2017 drought and DEEP has documented impairment due to low flow for periods following the 2016-2017 drought. Due to decreased well performance, NBWD has been able to withdraw only a portion of the 23.78 mgd it is authorized pursuant to

CGS §22a-365 through 22a-379 as well as Sections 22a-372-1, 22a-377(b)-1 and 22a-377(c)-1 to 22a-377(c)-2 of the Regulations of Connecticut State Agencies.

8. NBWD has stated in Application #2020 that “The NBWD has registered diversions and those withdrawals will be increased.” It also stated that “The proposed wetland disturbances activity will not affect the nearby watercourse flow rate.”

9. RA seeks to intervene in this proceeding for the purposes of assuring that Coppermine Brook is not further impaired for regime flow modification due to an increase in withdrawals by the NBWD. The potential for such further impairment is not adequately addressed in the Application. RA further seeks to ensure that the Agency has a complete record on which to make an informed decision on all aspects of this complicated proceeding. As DEEP cannot intervene on impairments from low flow (as this activity is purportedly in compliance with CGS §22a-365 through 22a-379 as well as Sections 22a-372-1, 22a-377(b)-1 and 22a-377(c)-1 to 22a-377(c)-2 of the Regulations of Connecticut State Agencies), it is reasonable for the Agency to inquire into potential impacts to downstream flow from NBWD withdrawals. In addition, impacts on streams from groundwater withdrawals are not included in DEEP’s Streamflow Standards and Regulations pursuant to CGS §26-141(a) and (b) and §26-141b-7(a) of the Regulations of Connecticut State Agencies. Appropriate regulation and oversight of potential impacts to downstream flow can be accomplished by requiring monitoring of streamflow above and below the wellfields and requiring that NBWD work with DEEP to determine a threshold at which NBWD would have to work with DEEP to find an operational mode that would not impair Coppermine Brook, as per the NBWD agreement with DPH for funds procured through DPH’s Drinking Water State Revolving Fund for the project. This regulation and oversight clearly falls

within the Agency's jurisdiction in this proceeding pursuant to CGS section 22a-41, 22a-42, and the city's Inland Wetlands and Watercourses Regulations.

10. It is RA's position that prudent conditions to protect critical natural resources of the State, which are threatened by the increased uncertainty of climate change, are necessary and appropriate. RA is focused on a narrow but important set of natural resources that receive limited, but critical, protections under state statute. RA's intervention in this matter is in the interests of justice and will not impair the orderly conduct of the proceedings.

11. RA is not aware of any other intervening party to this proceeding whose focus is to ensure that the water resources of the state under the care of the City of Bristol are protected from undue impairment.

12. RA intends to offer brief and pertinent direct testimony from Connecticut water conservation experts with personal knowledge of wetlands and hydrology, as it applies to the Applications.

13. RA requests that the following individuals be listed on the Service List in this proceeding:

Alicea Charamut, Executive Director
Rivers Alliance of Connecticut, Inc.
28 Russel Street, P.O. Box 1797
Litchfield, CT 06759
(860) 416-7859
alicea@riversalliance.org

and

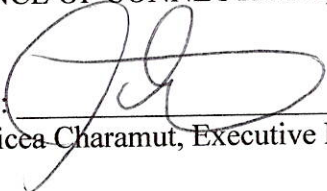
Mary Ridingsward, Executive Director
Pequabuck River Watershed Association
PO Box 1461
Bristol, CT 06011-1461
pequabuckriverct@gmail.com

Copies of filings and notices should be sent to alicea@riversalliance.org.

WHEREFORE, Rivers Alliance of Connecticut, Inc. respectfully requests intervention status in this proceeding pursuant to CEPA upon the filing of this verified pleading for intervention.

Respectfully submitted,

INTERVENOR
RIVERS ALLIANCE OF CONNECTICUT, INC.

By: 
Alicea Charamut, Executive Director

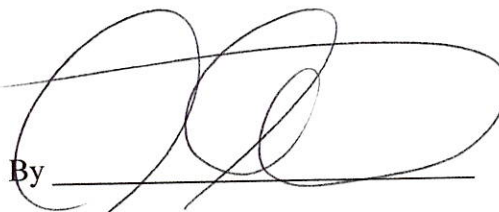
VERIFICATION OF PETITION FOR INTERVENTION
UNDER GENERAL STATUTES SECTION 22a-19(a)

I, the undersigned, being duly sworn, depose and say that (i) I am the Executive Director of Rivers Alliance of Connecticut; (ii) I have the authority to execute this Petition for Intervention on behalf of Rivers Alliance of Connecticut; and (iii) I have read the foregoing Petition for Intervention and verify that the facts stated therein are true and correct to the best of my knowledge, information and belief based on my personal knowledge, and the records which I have reviewed in this matter.

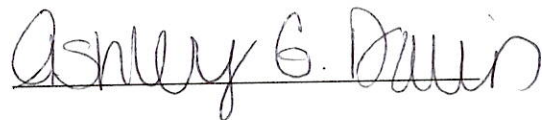
Dated at Newington Connecticut, this 5th day of February, 2024.

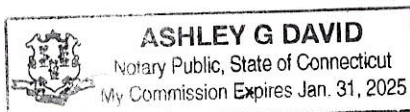
INTERVENOR

RIVERS ALLIANCE OF CONNECTICUT

By 
Alicea Charamut, Executive Director

Subscribed and sworn to before me the undersigned this 5th day of February, 2024.





Notary Public: Ashley G. David
My Commission Expires: 01/31/2025

Link to State Historic Preservation Office Application, Letter, Response (April 2022)

Link to Document:

https://www.bristolct.gov/DocumentCenter/View/45992/NBWD-SHPO_Letter_Response-and-Application-April-27-2022

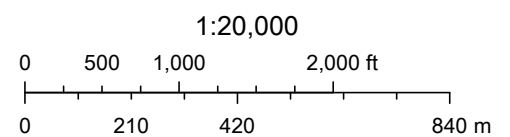
ATTACHMENT 1

PROJECT SITE MAP

White Bridge Waterworks Facility



2/22/2023, 3:28:12 PM



USGS The National Map: Orthoimagery and US Topo. Data refreshed December, 2022.

ATTACHMENT 2

ADDITIONAL INFORMATION

Wetlands Permit Application – IW-2

This attachment to the IW-2 application serves to provide the additional information required for changes to wetlands boundaries application submittals, including:

- Site plans
- Proposed project activities related to changes in wetlands boundaries
- Description and delineation of wetlands

Proposed Project Activities:

A rehabilitative/restorative project will be conducted at the Upper and Lower Wellfields of the White Bridge Waterworks Facility owned by the New Britain Water Department (NBWD). The purpose of this project is to redevelop the existing Upper and Lower Wellfields, which were constructed in 1955 and 1921, respectively. This will allow the NBWD to optimize the volume of water collected from this resource and potentially utilize it as a backup source of potable water since the NBWD only has one water treatment plant and no other wells. Presently, these wellfields serve as a raw water supply only and cannot serve as a backup in their present condition. In order to become a potable water supply, any new wells must be located 50 feet from any water bodies or wetland limits per Department of Public Health (DPH) requirements. In addition, the wells must be raised 2' above the one-hundred-year flood elevation. Because of these requirements, the existing wells cannot be redrilled or rehabilitated in their present location. All currently existing wells will be abandoned in accordance with DPH requirements.

Compensatory flood storage areas will be created so as to not increase the current flood elevation levels as given by FEMA guidelines. These compensatory storage areas will also create additional wetland areas and, as such, will change relatively small portions of the wetlands boundaries as were mapped and flagged by professional soil and wetlands scientists in August/September 2022. See the attached maps for further information on the extent of the boundary flagging as well as the areas of interest with respect to changes in wetlands boundaries.

Category of Proposed Activity:

The proposed activity, which will occur in a wetlands area, is requested to be permitted as an “as of right” use. This activity falls under Subsection 4.1.e of the Inland Wetlands and Watercourses Regulations of the Conservation Commission of the City of Bristol, CT, because it involves the operation by a municipal water supply system of facilities necessary for the withdrawal of water in connection with public water supplies.

Significant Activity:

The proposed activity constitutes a “significant activity” because it has the potential to have a major effect or substantial impact to a wetlands regulated area, due to the deposit of material in a regulated area. Erosion control cautionary measures will be in place to reduce the impact of the project.

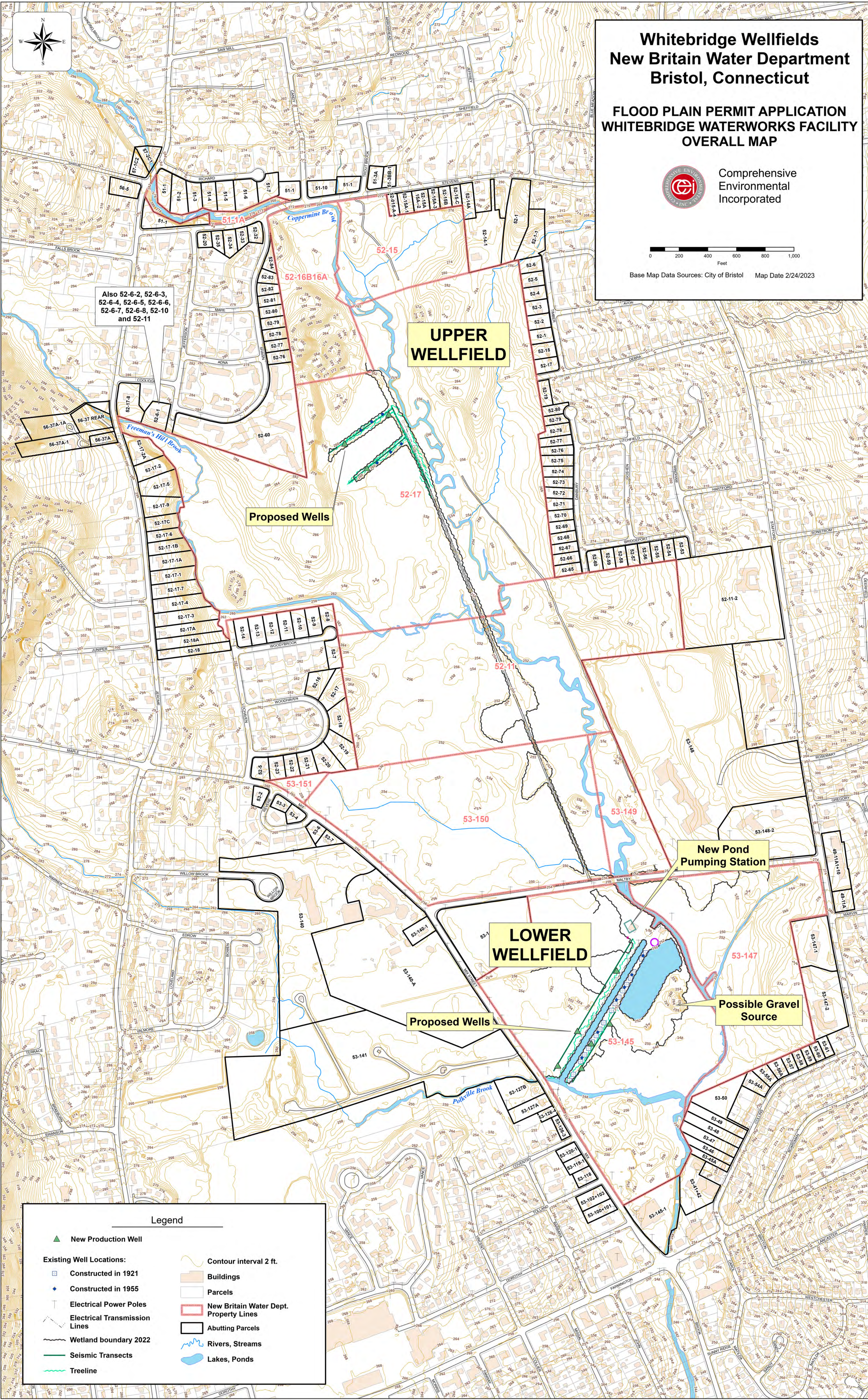
Description of Property and Wetlands:

This property spans a total of 303.7 acres, which includes the following parcels (by Map/Lot number): 52-15, 52-16B16A, 52-17, 52-11, 53-149, 53-150, 53-151, 53-145 and 53-147. Copper Mine Brook travels through the entirety of the property from north to south. The Upper Wellfield is located on parcel 52-17, which is 104.6 acres and has PFO1E and PEM1E wetland areas. PFO1E areas are seasonally flooded/saturated broad-leaved deciduous wetlands. PEM1E areas are seasonally flood/saturated persistent emergent wetlands. Soils in this project area consist mostly of Scarboro muck, with some Saco silt loam located closer to Copper Mine Brook. Soil scientist Ian Cole located all the wetland boundaries in the vicinity of the test well explorations. These boundaries are shown on the plans provided.

The Lower Wellfield is located on parcel 53-145, which is 50.3 acres and also has PFO1E and PEM1E wetland areas. Polkville Brook travels west to east, then southerly through this parcel before flowing into Copper Mine Brook. Onsite vehicular transport, between the Upper and Lower Wellfield areas will use existing travel ways on the site not within any wetland boundaries. Soils in the Lower Wellfield project area consist mostly of Raypol silt loam, with some Hinckley loamy sand located closer to Polkville Brook. Detailed wetlands mapping is provided on the plans.

ATTACHMENT 3

ABUTTING PROPERTY AND OWNERS

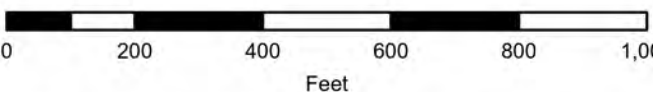


Whitebridge Wellfields
New Britain Water Department
Bristol, Connecticut

FLOOD PLAIN PERMIT APPLICATION
WHITEBRIDGE WATERWORKS FACILITY
OVERALL MAP



Comprehensive
Environmental
Incorporated



Base Map Data Sources: City of Bristol Map Date 2/24/2023

Also 52-6-2, 52-6-3,
52-6-4, 52-6-5, 52-6-6,
52-6-7, 52-6-8, 52-10
and 52-11

**UPPER
WELLFIELD**

Proposed Wells

**New Pond
Pumping Station**

**LOWER
WELLFIELD**

Proposed Wells

**Possible Gravel
Source**

Legend

- New Production Well
- Existing Well Locations:**
 - Constructed in 1921
 - Constructed in 1955
 - Electrical Power Poles
 - Electrical Transmission Lines
 - Wetland boundary 2022
 - Seismic Transects
 - Treeline
- Contour interval 2 ft.
- Buildings
- Parcels
- New Britain Water Dept. Property Lines
- Abutting Parcels
- Rivers, Streams
- Lakes, Ponds

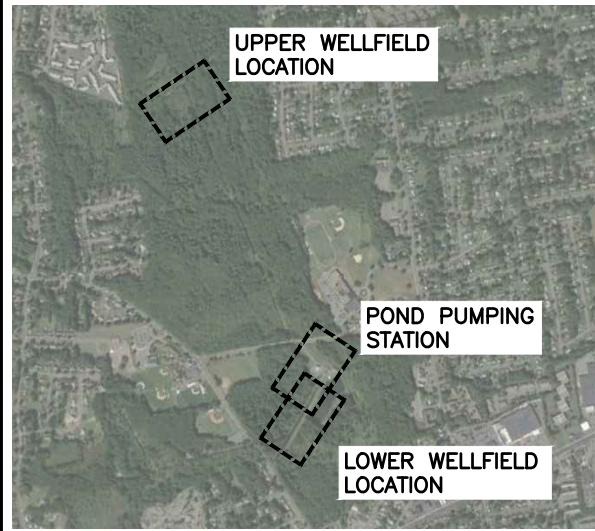
ABUTTING PROPERTY OWNERS

Parcel ID	MAP	BLOCK	LOT	UNIT	OWNER NAME	LOCATION	MUNI	ACRES	ZONING	LAND USE	COMMENT	MAIL_ADDR	MAIL_CITY	MAIL_STATE	MAIL_ZIP
49-11A	49	11A-10	1		STARFORD COMMONS LLC	916 STARFORD AVE	BRISTOL	0.32 R 15		Appt		1253 BURNINGHAM AVE	BRISTOL	CT	06010
49-11A-10	49	11A-10	1		STARFORD COMMONS LLC	916 STARFORD AVE	BRISTOL	1.33 Bn		Ndml Ctr		200 SUMNER ST	BRISTOL	CT	06010
51-1	51	1			ORRIN CRISTAL	3 STEVENS ST	BRISTOL	0.72 R 15		Single Family		3 STEVENS ST	BRISTOL	CT	06010
51-1	51	1			ROSDEN RICHARD	108 CANDY LA	BRISTOL	0.28 R 15		Single Family		108 CANDY LA	BRISTOL	CT	06010
51-1	51	1			BENSTON JANICE	135 STEVENS ST	BRISTOL	0.39 R 15		Single Family		135 STEVENS ST	BRISTOL	CT	06010
51-1	51	1			HARRIS BIRECCA C	8 RICHARD CT	BRISTOL	0.34 R 15		Single Family		8 RICHARD CT	BRISTOL	CT	06010
51-10	51	10			STUART WILLIAM G + RITA M INT TENANTS	107 CANDY LA	BRISTOL	0.49 R 15		Single Family		107 CANDY LA	BRISTOL	CT	06010
51-2	51	2			DONAHOWA FRANK G + CARRIE M	16 RICHARD CT	BRISTOL	0.66 R 15		Single Family		16 RICHARD CT	BRISTOL	CT	06010
51-3	51	3			BARTLEY DAVID + ANANDA SURV	26 RICHARD CT	BRISTOL	0.46 R 15		Single Family		26 RICHARD CT	BRISTOL	CT	06010
51-3A	51	3A			CALLAHAN JOSHUA	165 STEVENS ST	BRISTOL	0.37 R 15		Single Family		15 PINNACLE RIDGE FARM CANTON	BRISTOL	CT	06019
51-3B-1	51	3B-1			COMBS CAMERON	167 STEVENS ST	BRISTOL	0.35 R 15		Single Family		167 STEVENS ST	BRISTOL	CT	06010
51-4	51	4			REBEZ JESY + WIOLETA	36 RICHARD CT	BRISTOL	0.43 R 15		Single Family		36 RICHARD CT	BRISTOL	CT	06010
51-5	51	5			HARVEY BEATA + MATTHEW J	46 RICHARD CT	BRISTOL	0.6 R 15		Single Family		46 RICHARD CT	BRISTOL	CT	06010
51-6	51	6			LAPLANTE ZACHARY C	60 RICHARD CT	BRISTOL	0.76 R 15		Single Family		60 RICHARD CT	BRISTOL	CT	06010
51-7	51	7			MCGILLIN WILLIAM E + GRACE	72 RICHARD CT	BRISTOL	0.49 R 15		Single Family		72 RICHARD CT	BRISTOL	CT	06010
51-015-A-4	52	015-A-4			D'AMATO MICHAEL + LISA SURV	176 STEVENS ST	BRISTOL	0.25 R 15		Single Family		176 STEVENS ST	BRISTOL	CT	06010
52-1	52	1			SIMONE JOSEPH WILLIAM	25 TIMBER LA	BRISTOL	0.39 R 15		Single Family		25 TIMBER LA	BRISTOL	CT	06010
52-1	52	1			CONTINUUM OF CARE INC	276 STEVENS ST	BRISTOL	2.1 R 15		Single Family		109 LEGION AVE	NEW HAVEN	CT	06519
52-10	52	10			DEFLUO SHERI L	45 WOODBROOK RD	BRISTOL	0.46 R 15		Single Family		45 WOODBROOK RD	BRISTOL	CT	06010
52-10	52	10			CURRENT OWNER	76 JEFFERSON AVE	BRISTOL	0.32							
52-11	52	11			MORELLI MICHAEL + MICHELLE L	35 WOODBROOK RD	BRISTOL	0.46 R 15		Single Family		35 WOODBROOK RD	BRISTOL	CT	06010
52-11	52	11			CURRENT OWNER	68 JEFFERSON AVE	BRISTOL	0.31							
52-1-1	52	1-1			NEWMAN KAREN E	87 TIMBER LA	BRISTOL	1 R 15		Single Family		87 TIMBER LA	BRISTOL	CT	06010
52-1-2	52	1-2			ST ANDREW EVANGELICAL LUTHERAN	1125 STARFORD AVE	BRISTOL	10 R 40		Church B4		1125 STARFORD AVE	BRISTOL	CT	06010
52-12	52	12			AKADOWN ESSE	25 WOODBROOK RD	BRISTOL	0.46 R 15		Single Family		25 WOODBROOK RD	BRISTOL	CT	06010
52-13	52	13			MADSEN ALLEN E AND CATHERINE M	15 WOODBROOK RD	BRISTOL	0.46 R 15		Single Family		15 WOODBROOK RD	BRISTOL	CT	06010
52-14	52	14			RUGHTON SUSAN M	5 WOODBROOK RD	BRISTOL	0.44 R 15		Single Family		5 WOODBROOK RD	BRISTOL	CT	06010
52-14-1	52	14-1			RAMSEY LASON M + STEPHANIE	250 STEVENS ST	BRISTOL	2.41 R 15		Single Family		250 STEVENS ST	BRISTOL	CT	06010
52-14A	52	14A			LOHR AARON S + JESSICA L	236 STEVENS ST	BRISTOL	0.5 R 15		Single Family		236 STEVENS ST	BRISTOL	CT	06010
52-15A-15A-2	52	15A-15A-2			SCHNEIDER ERNEST W JR	186 STEVENS ST	BRISTOL	0.39 R 15		Single Family	MERGED BY USE IN ORDER TO MATCH ASSESSOR RECORDS	186 STEVENS ST	BRISTOL	CT	06010
52-15A-1	52	15A-1			BYRNE SABRINA	186 STEVENS ST	BRISTOL	0.35 R 15		Single Family		186 STEVENS ST	BRISTOL	CT	06010
52-15A-3	52	15A-3			CASTONGIAY BERNARD D	206 STEVENS ST	BRISTOL	0.26 R 15		Single Family		206 STEVENS ST	BRISTOL	CT	06010
52-15B	52	15B			BROUSSAL DAVID R	214 STEVENS ST	BRISTOL	0.28 R 15		Single Family		214 STEVENS ST	BRISTOL	CT	06010
52-15-C	52	15-C			WASKO PAMELA D	222 STEVENS ST	BRISTOL	0.28 R 15		Single Family		222 STEVENS ST	BRISTOL	CT	06010
52-16	52	16			WHEELER MARGARET R + JOHN H SR	84 WOODHAVEN RD	BRISTOL	0.61 R 15		Single Family		84 WOODHAVEN RD	BRISTOL	CT	06010
52-17	52	17			JANE STEVEN + SHARON M	64 WOODHAVEN RD	BRISTOL	0.71 R 15		Single Family		64 WOODHAVEN RD	BRISTOL	CT	06010
52-17	52	17			ZIGLE ANDREW + LUMLEY LISA TRUSTEES	5 TIMBER LA	BRISTOL	0.37 R 15		Single Family		112 MADISON DR	BRISTOL	CT	06010
52-17-1	52	17-1			NEUMANN DAVID LIFE USE	634 JEROME AVE	BRISTOL	0.56 R 15		Single Family		634 JEROME AVE	BRISTOL	CT	06010
52-17-1A	52	17-1A			BENTLEY HENRY G JR + TAFFIE A SURV LIFE	624 JEROME AVE	BRISTOL	0.46 R 15		Single Family		624 JEROME AVE	BRISTOL	CT	06010
52-17-1B	52	17-1B			RUCHAS JESOP A + JOAN M	636 JEROME AVE	BRISTOL	0.38 R 15		Single Family		636 JEROME AVE	BRISTOL	CT	06010
52-17-2	52	17-2			BAILEY BARBARA L	602 JEROME AVE	BRISTOL	0.19 R 15		Single Family		602 JEROME AVE	BRISTOL	CT	06010
52-17-2A	52	17-2A			OLSON DIANE M	690 JEROME AVE	BRISTOL	0.5 R 15		Single Family		690 JEROME AVE	BRISTOL	CT	06010
52-17-3	52	17-3			JOHNSON JEREMIAH R + ROY LINDA L	326 JEROME AVE	BRISTOL	0.32 R 15		Single Family		326 JEROME AVE	BRISTOL	CT	06010
52-17-4	52	17-4			HATCHCOCK CHARLES + MARISA L SURV	588 JEROME AVE	BRISTOL	0.48 R 15		Single Family		588 JEROME AVE	BRISTOL	CT	06010
52-17-5	52	17-5			LOMBARD ANTHONY G + MARCIA M	682 JEROME AVE	BRISTOL	0.88 R 15		Single Family		682 JEROME AVE	BRISTOL	CT	06010
52-17-6	52	17-6			WILLIAMS THOMAS D + KASE	644 JEROME AVE	BRISTOL	0.21 R 15		Single Family		644 JEROME AVE	BRISTOL	CT	06010
52-17-7	52	17-7			KIRSCHNER JAMES R +	606 JEROME AVE	BRISTOL	0.78 R 15		Single Family		606 JEROME AVE	BRISTOL	CT	06010
52-17-8	52	17-8			PALMISANO CORY JAMES + ABRAMS EDEN P +	746 JEROME AVE	BRISTOL	0.5 R 15		Single Family		746 JEROME AVE	BRISTOL	CT	06010
52-17-9	52	17-9			LOMBARD ANTHONY G + MARCIA M SURV	636 JEROME AVE	BRISTOL	0.71 R 15		Single Family		636 JEROME AVE	BRISTOL	CT	06010
52-17A	52	17A			RICH VICTOR SEAN B	578 JEROME AVE	BRISTOL	0.41 R 15		Single Family		578 JEROME AVE	BRISTOL	CT	06010
52-17C	52	17C			MURRAY JAC	636 JEROME AVE	BRISTOL	0.45 R 15		Single Family		636 JEROME AVE	BRISTOL	CT	06010
52-18	52	18			BICK JENNIFER J	56 WOODHAVEN RD	BRISTOL	0.72 R 15		Single Family		56 WOODHAVEN RD	BRISTOL	CT	06010
52-18	52	18			HURLOS LINDA F	562 JEROME AVE	BRISTOL	0.41 R 15		Single Family		562 JEROME AVE	BRISTOL	CT	06010
52-18	52	18			MICCICI BARBARA	15 TIMBER LA	BRISTOL	0.26 R 15		Single Family		15 FAULKNR RD	FORESTVILLE	CT	06010
52-18A	52	18A			568 JEROME AVE LLC	568 JEROME AVE	BRISTOL	0.41 R 15		Retail		133 CHESTNUT RD	NEWINGTON	CT	06111
52-19	52	19			MCDONOUGH JEFFREY T + MARCIA B SURV	48 WOODHAVEN RD	BRISTOL	0.81 R 15		Single Family		48 WOODHAVEN RD	BRISTOL	CT	06010
52-19	52	19			SUTULA DANIEL P	135 DEBRA LA	BRISTOL	0.71 R 15		Single Family		135 DEBRA LA	BRISTOL	CT	06010
52-2	52	2			GIANNINI JOHN D JR	35 TIMBER LA	BRISTOL	0.35 R 15		Single Family		35 TIMBER LA	BRISTOL	CT	06010
52-20	52	20			MARRAS SAM J	42 WOODHAVEN RD	BRISTOL	0.22 R 15		Single Family		42 WOODHAVEN RD	BRISTOL	CT	06010
52-20	52	20			SLEDONIA BRIAN J + JENNIFER J	44 STEVENS ST	BRISTOL	0.28 R 10		Single Family		44 STEVENS ST	BRISTOL	CT	06010
52-21	52	21			NORMAN JOHN + ANNE SURV	34 WOODHAVEN RD	BRISTOL	0.4 R 15		Single Family		34 WOODHAVEN RD	BRISTOL	CT	06010
52-22	52	22			LEWANDOWSKI EDWARD +	24 WOODHAVEN RD	BRISTOL	0.35 R 15		Single Family		24 WOODHAVEN RD	BRISTOL	CT	06010
52-23	52	23			BEATON STEPHEN W	14 WOODHAVEN RD	BRISTOL	0.38 R 15		Single Family		14 WOODHAVEN RD	BRISTOL	CT	06010
52-3	52	3			CURRENT RESIDENT	45 TIMBER LA	BRISTOL	0.34 R 15		Single Family		45 TIMBER LA	BRISTOL	CT	06010
52-32	52	32			DOODY MAREE B	6 SHAWN DR	BRISTOL	0.22 R 10		Single Family		6 SHAWN DR	BRISTOL	CT	06010
52-33	52	33			TRUDLO KVIN F	68 STEVENS ST	BRISTOL	0.24 R 10		Single Family		68 STEVENS ST	BRISTOL	CT	06010
52-34	52	34			ARCHAMBAULT RYAN + TABARA	60 STEVENS ST	BRISTOL	0.22 R 10		Single Family		60 STEVENS ST	BRISTOL	CT	06010
52-35	52	35			VARRONE JOSEPH L	52 STEVENS ST	BRISTOL	0.27 R 10		Single Family		52 STEVENS ST	BRISTOL	CT	06010
52-4	52	4			DECARDO MARY L	55 TIMBER LA	BRISTOL	0.34 R 15		Single Family		55 TIMBER LA	BRISTOL	CT	06010
52-5	52	5			MARTINELLI LINDA S	81 WOODHAVEN RD	BRISTOL	0.35 R 15		Single Family		81 WOODHAVEN RD	BRISTOL	CT	06010
52-5	52	5			ANGELLO DAVID + MOTTASAMATHAJOINT	165 TIMBER LA	BRISTOL	0.34 R 15		Single Family		65 TIMBER LA	BRISTOL	CT	06010
52-5	52	5			HARRINGTON CAROLE D	5 BRIDGEPORT AVE	BRISTOL	0.39 R 15		Single Family		5 BRIDGEPORT AVE	BRISTOL	CT	06010
52-54	52	54			CLARK DA + TODD R	13 BRIDGEPORT AVE	BRISTOL	0.29 R 15		Single Family		13 BRIDGEPORT AVE	BRISTOL	CT	06010
52-55	52	55			RAVIA JOSEPH + ELIZABETH W TRUSTEES LUT	21 BRIDGEPORT AVE	BRISTOL	0.29 R 15		Single Family		21 BRIDGEPORT AVE	BRISTOL	CT	06010
52-56	52	56			COSTELLO GREGORY	31 BRIDGEPORT AVE	BRISTOL	0.29 R 15		Single Family		31 BRIDGEPORT AVE	BRISTOL	CT	06010
52-57	52	57			CARPENTER NANCY P	39 BRIDGEPORT AVE	BRISTOL	0.29 R 15		Single Family		39 BRIDGEPORT AVE	BRISTOL	CT	06010
52-58	52	58			DAKES VERNIE A JR ESTATE OF + BETTY L	47 BRIDGEPORT AVE	BRISTOL	0.28 R 15		Single Family		47 BRIDGEPORT AVE	BRISTOL	CT	06010
52-59	52	59			WIMAN JEFFREY + KATHLEEN M SURV	45 BRIDGEPORT AVE	BRISTOL	0.28 R 15		Single Family		45 BRIDGEPORT AVE	BRISTOL	CT	06010
52-6	52	6			ANDERSON DAVID G + SHARON S SURV	75 TIMBER LA	BRISTOL	0.34 R 15		Single Family		75 TIMBER LA	BRISTOL	CT	06010
52-60	52	60			AUGUST BENJAMIN	67 BRIDGEPORT AVE	BRISTOL	0.28 R 15		Single Family		67 BRIDGEPORT AVE	BRISTOL	CT	06010
52-60	52	60			COPPERHINE HOUSING ASSOCIATES LLC	135 SHAWN DR	BRISTOL	7.1 A		Apartments		2 CENTER PLAZA SUITE 700 BOSTON	MA	02108	
52-61	52	61		1	CURRENT OWNER	130 JEFFERSON AVE #1	BRISTOL	0 A		Condo Res.					
52-62	52	62		2	CURRENT OWNER	130 JEFFERSON AVE #2	BRISTOL	0 A							
52-63	52	63		3	CURRENT OWNER	130 JEFFERSON AVE #3	BRISTOL	0 A							
52-64	52	64		4	CURRENT OWNER	130 JEFFERSON AVE #4	BRISTOL	0 A							
52-65	52	65		5	CURRENT OWNER	130 JEFFERSON AVE #5	BRISTOL	0.72 R 15		Single Family		102 DANBURY LA	BRISTOL	CT	06010
52-65	52	65		6	CURRENT OWNER	130 JEFFERSON AVE #6	BRISTOL	0 A							
52-66	52	66		5	CURRENT OWNER	92 DANBURY LA	BRISTOL	0.28 R 15		Single Family		92 DANBURY LA	BRISTOL	CT	06010
52-67	52	67		7	CURRENT OWNER	84 DANBURY LA	BRISTOL	0.28 R 15		Single Family		84 DANBURY LA	BRISTOL	CT	06010
52-67	52	67		7	CURRENT OWNER	130 JEFFERSON AVE #7	BRISTOL	0 A							
52-68	52	68		8	CURRENT OWNER	76 DANBURY LA	BRISTOL	0.29 R 15		Single Family		76 DANBURY LA	BRISTOL	CT	06010
52-68	52	68		8	CURRENT OWNER	130 JEFFERSON AVE									

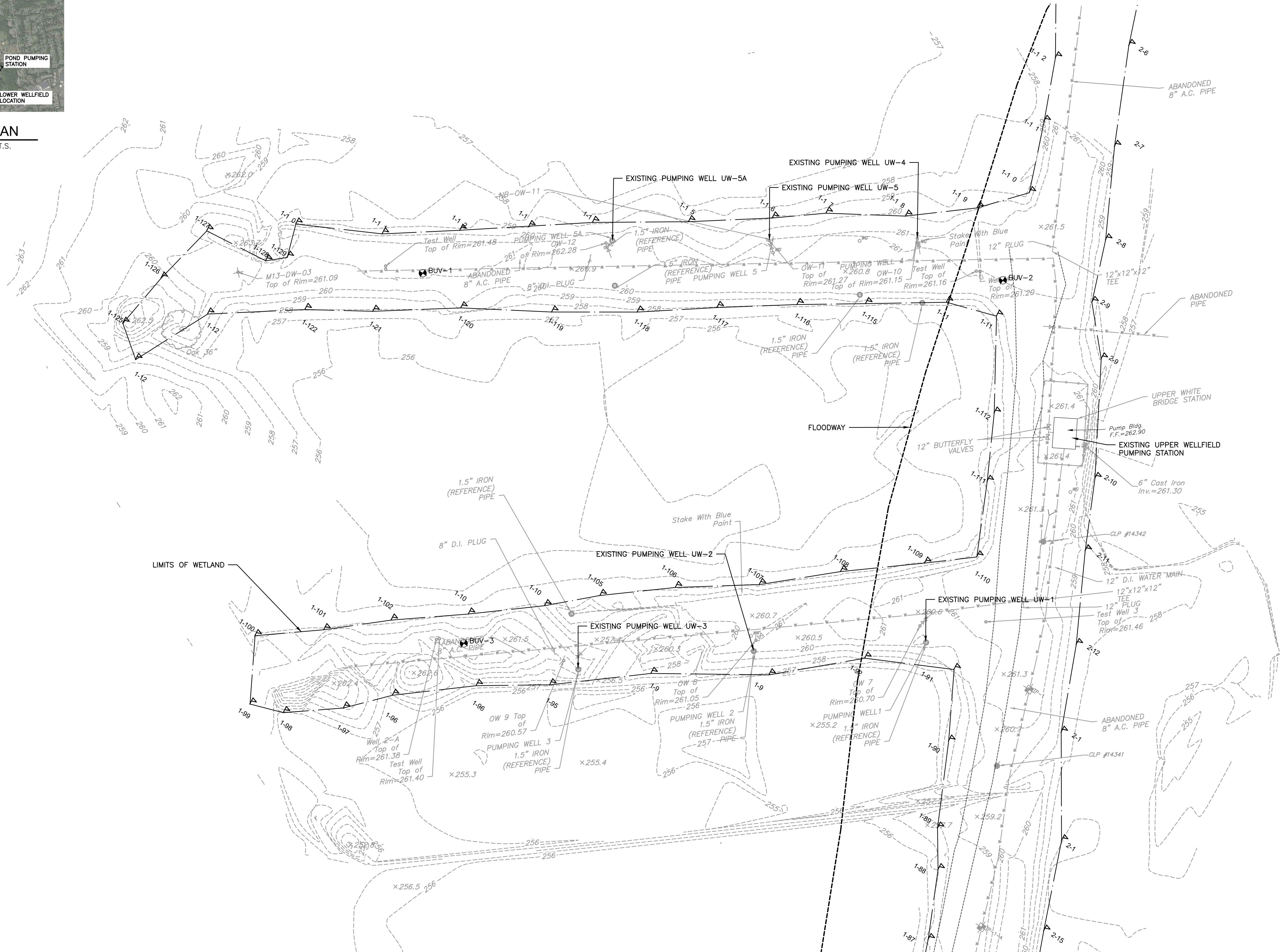
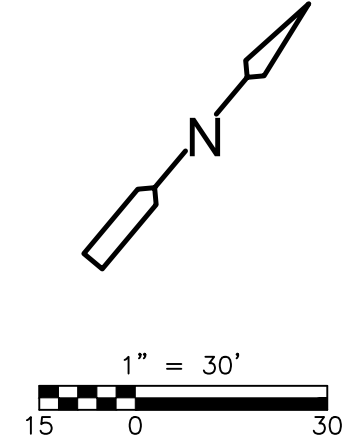
ATTACHMENT 4

**PROJECT DRAWINGS-EXISTING AND PROPOSED WETLAND
BOUNDARIES.**

XREFs: [CDMS-2436_XSWP000_2022-17_Floodway-Floodplain_BORING LOCATIONS] Images: [Base Image]
Last saved by: BRONENKANTUL Time: 12/15/2022 9:20:57 AM
C:\Users\bronenk\OneDrive\CDM Smith Inc\10739-264571 - New Britain CT White Bridge Well Fields and PS\Project Files\02 Civil (C)\10 CADD\CD03STPL.dwg
© 2022 CDM SMITH. ALL RIGHTS RESERVED.
REUSE OF DOCUMENTS: THESE DOCUMENTS AND DESIGNS PROVIDED BY PROFESSIONAL SERVICE, INCORPORATED HEREIN, ARE THE PROPERTY OF CDM SMITH AND ARE NOT TO BE USED, IN WHOLE OR PART, FOR ANY OTHER PROJECT WITHOUT THE WRITTEN AUTHORIZATION OF CDM SMITH.



PLAN
N.T.S.



REV. NO.	DATE	DRWN	CHKD	REMARKS

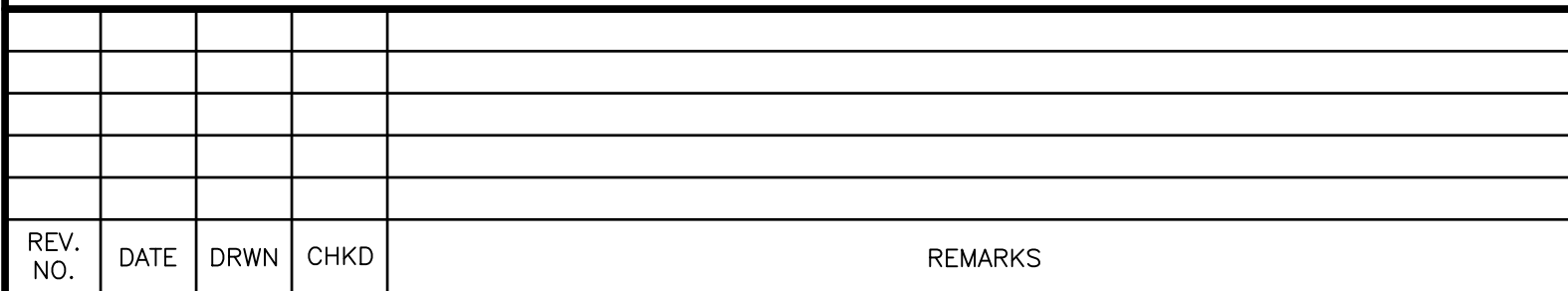
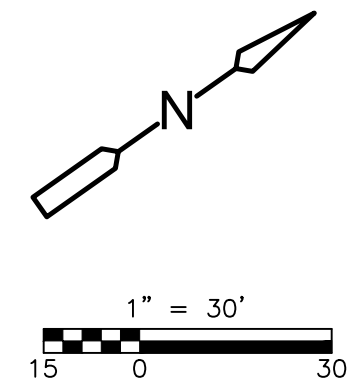
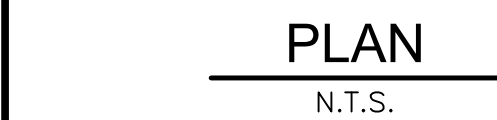
DESIGNED BY:	G. HOWARD
DRAWN BY:	J. BRONENKANT
SHEET CHK'D BY:	
CROSS CHK'D BY:	
APPROVED BY:	
DATE:	DECEMBER 2022

CDM Smith
77 Hartland Street, Suite 200
East Hartford, CT 06108
Tel: (860) 529-7615

CITY OF NEW BRITAIN, CONNECTICUT
WHITE BRIDGE WATERWORKS FACILITIES
UPPER AND LOWER WELLFIELDS
AND POND PUMPING STATION

UPPER WELLFIELD
EXISTING CONDITIONS PLAN

PROJECT NO.	10739-264571
FILE NAME:	CD03STPL.DWG
SHEET NO.	1 of 3



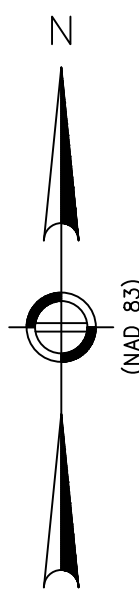
DESIGNED BY: _____ G. HOWARD
DRAWN BY: _____ J. BRONENKANT
SHEET CHK'D BY: _____
CROSS CHK'D BY: _____
APPROVED BY: _____
DATE: _____ DECEMBER 2022



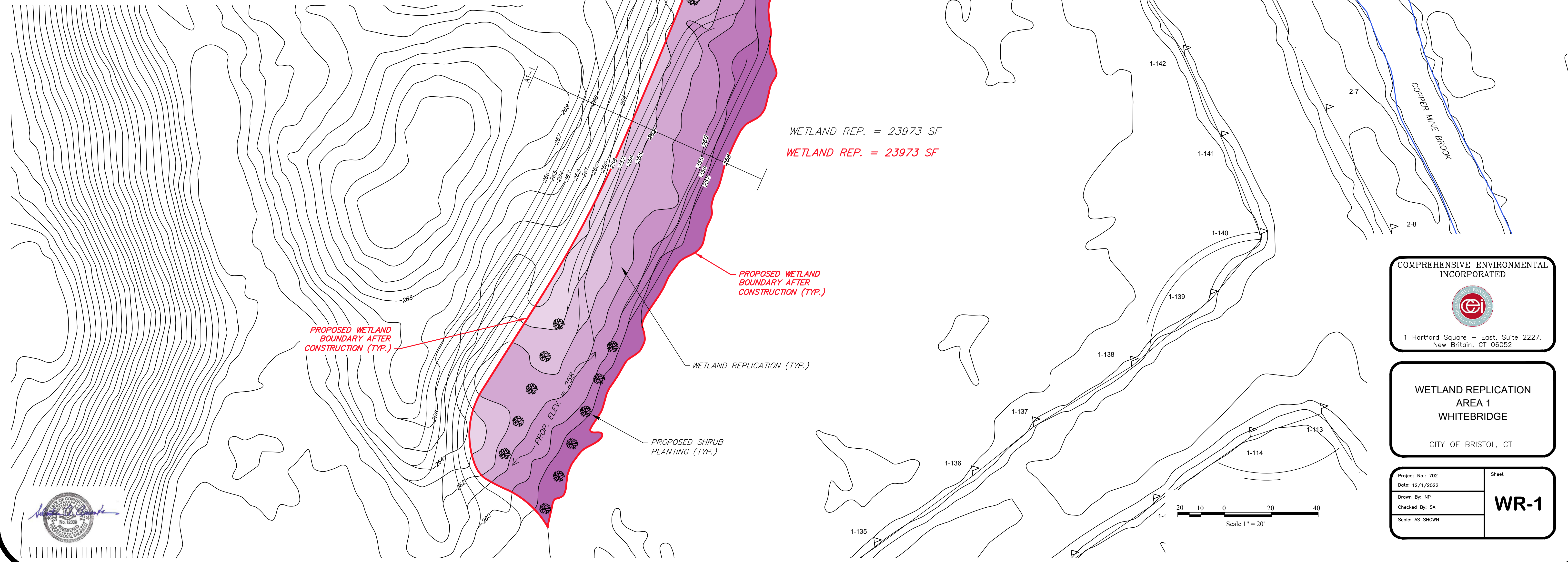
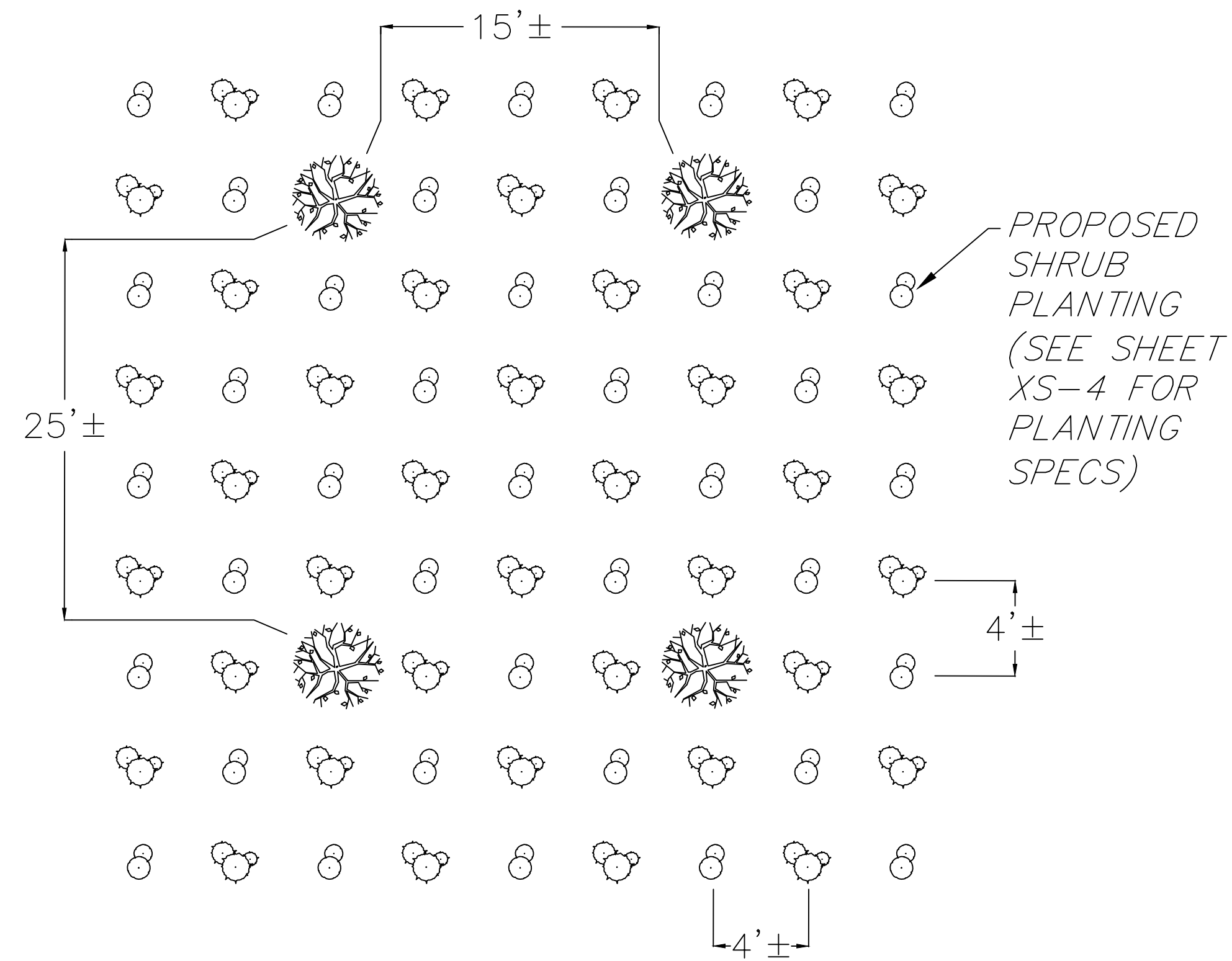
CITY OF NEW BRITAIN, CONNECTICUT
WHITE BRIDGE WATERWORKS FACILITIES
UPPER AND LOWER WELLFIELDS
AND POND PUMPING STATION

POND PUMPING STATIONS EXISTING CONDITIONS PLAN

PROJECT NO.	10739-264571
FILE NAME:	C004STPL.DWG
SHEET NO. 2 of 3	



PLANTING PLAN



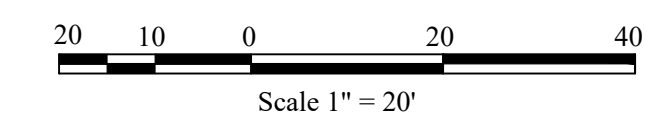
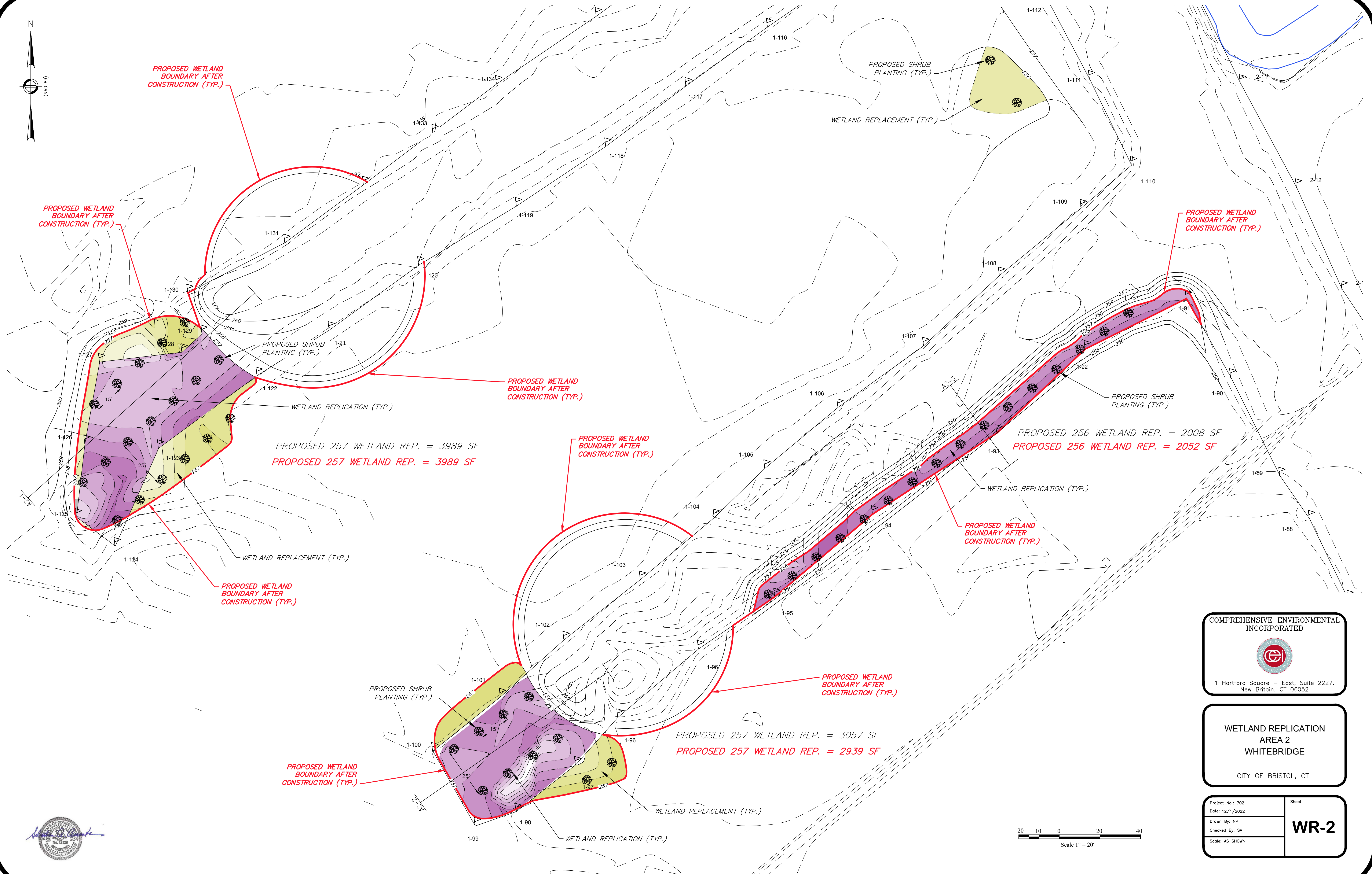
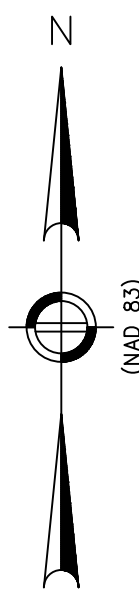
COMPREHENSIVE ENVIRONMENTAL
INCORPORATED

1 Hartford Square - East, Suite 2227.
New Britain, CT 06052

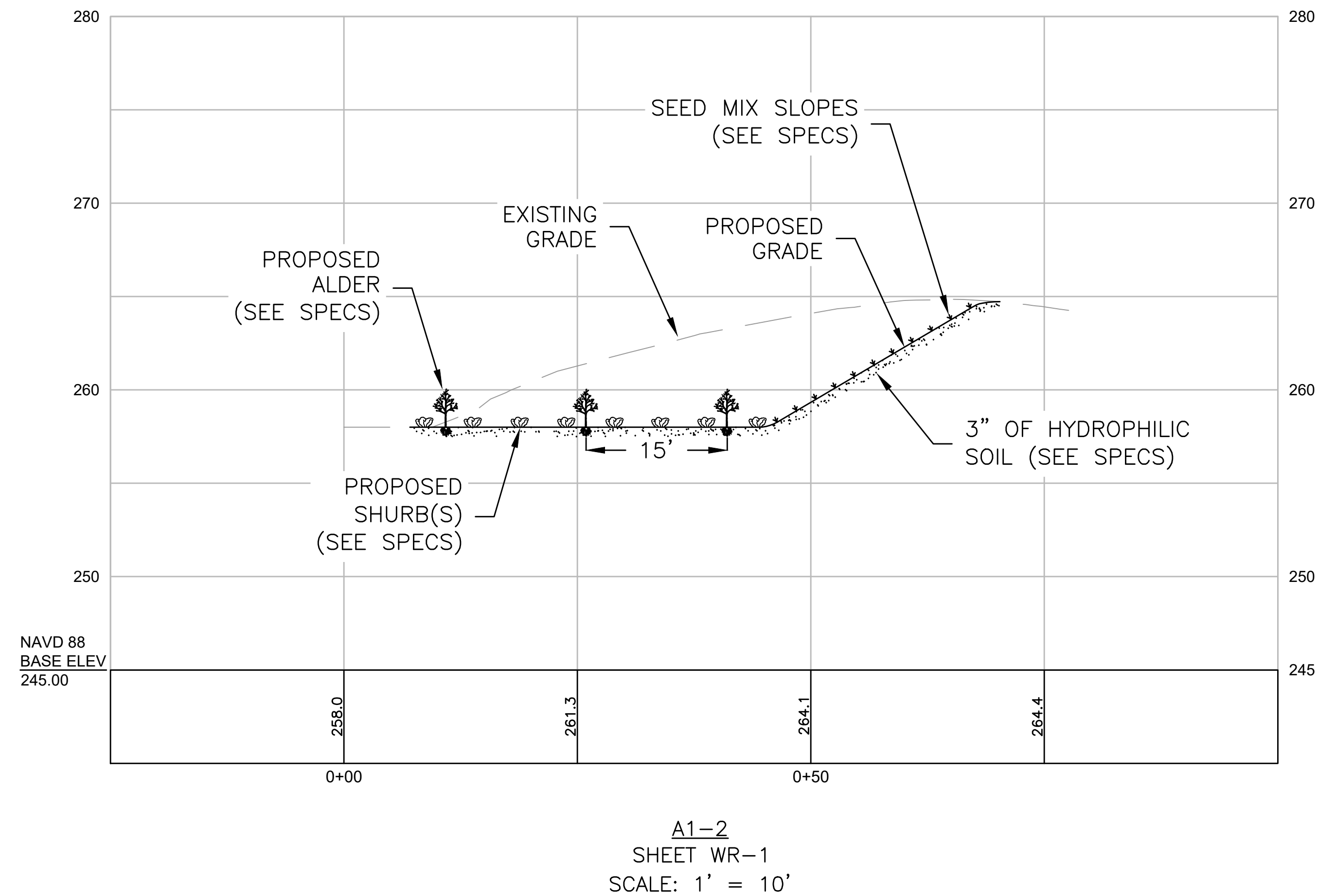
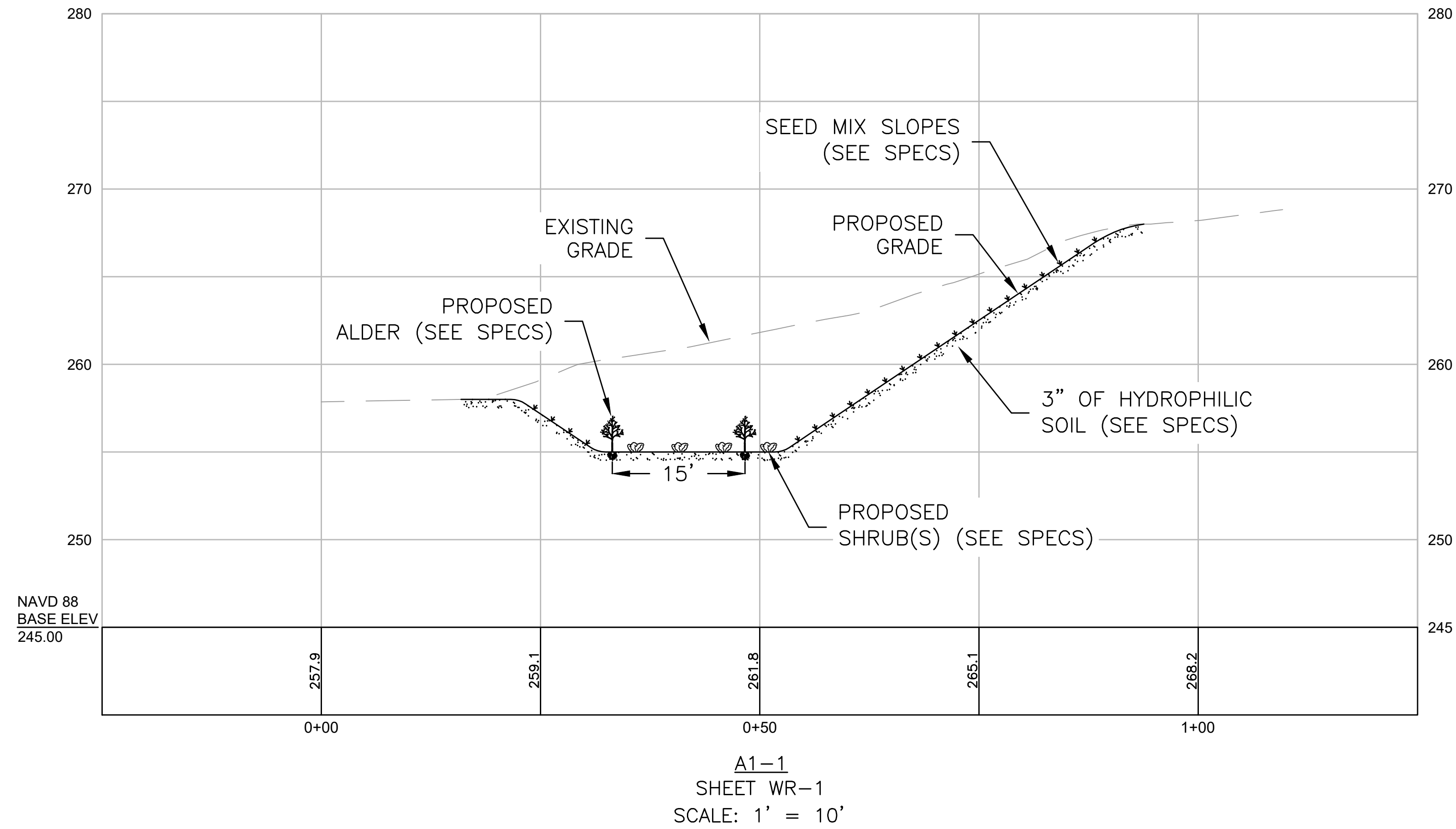
WETLAND REPLICATION
AREA 1
WHITEBRIDGE

CITY OF BRISTOL, CT

Project No.: 702	Sheet
Date: 12/1/2022	WR-1
Drawn By: NP	
Checked By: SA	
Scale: AS SHOWN	



COMPREHENSIVE ENVIRONMENTAL INCORPORATED	
	
1 Hartford Square — East, Suite 2227. New Britain, CT 06052	
WETLAND REPLICATION AREA 2 WHITEBRIDGE	
CITY OF BRISTOL, CT	
Project No.: 702 Date: 12/1/2022 Drawn By: NP Checked By: SA Scale: AS SHOWN	Sheet WR-2



NOTE: ALL SLOPES SHALL BE SEEDED WITH THE 'NEW ENGLAND EROSION CONTROL/RESTORATION MIX', AS DESCRIBED ON SHEET XS-4.

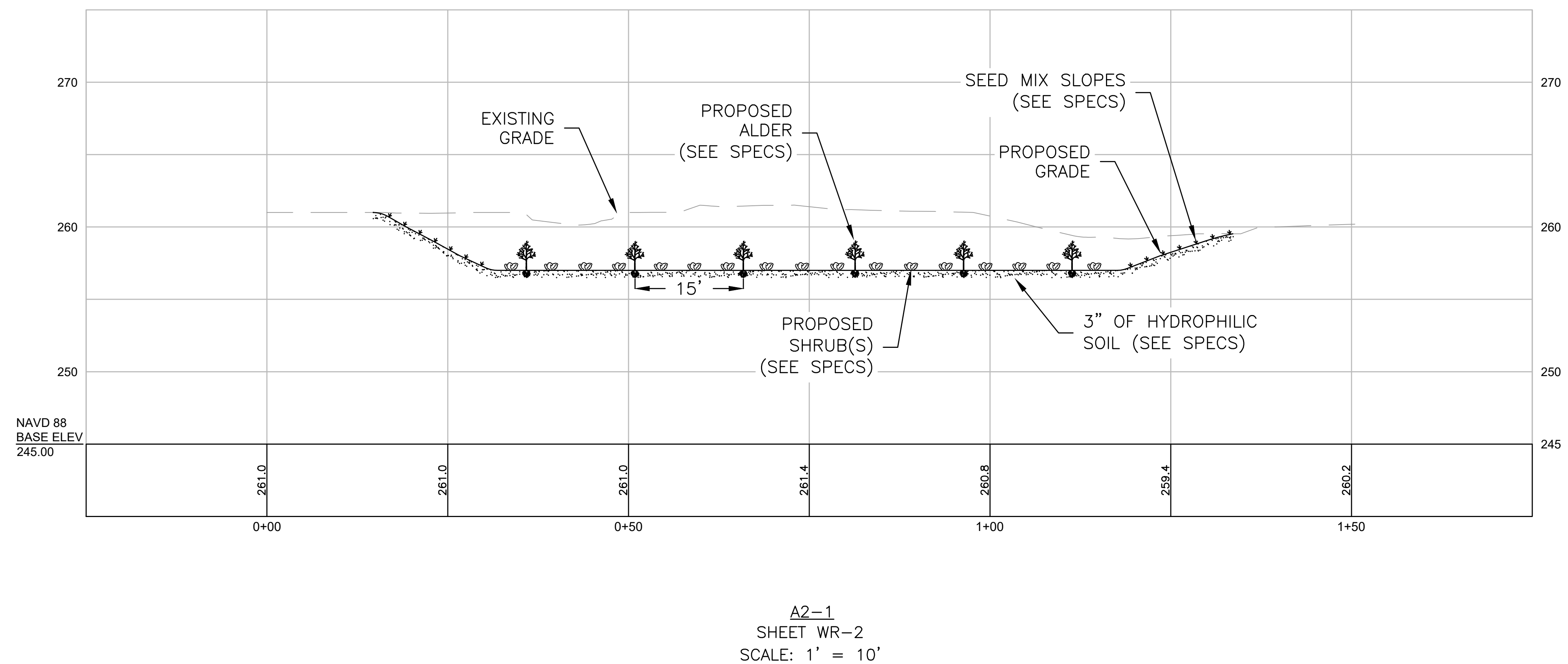
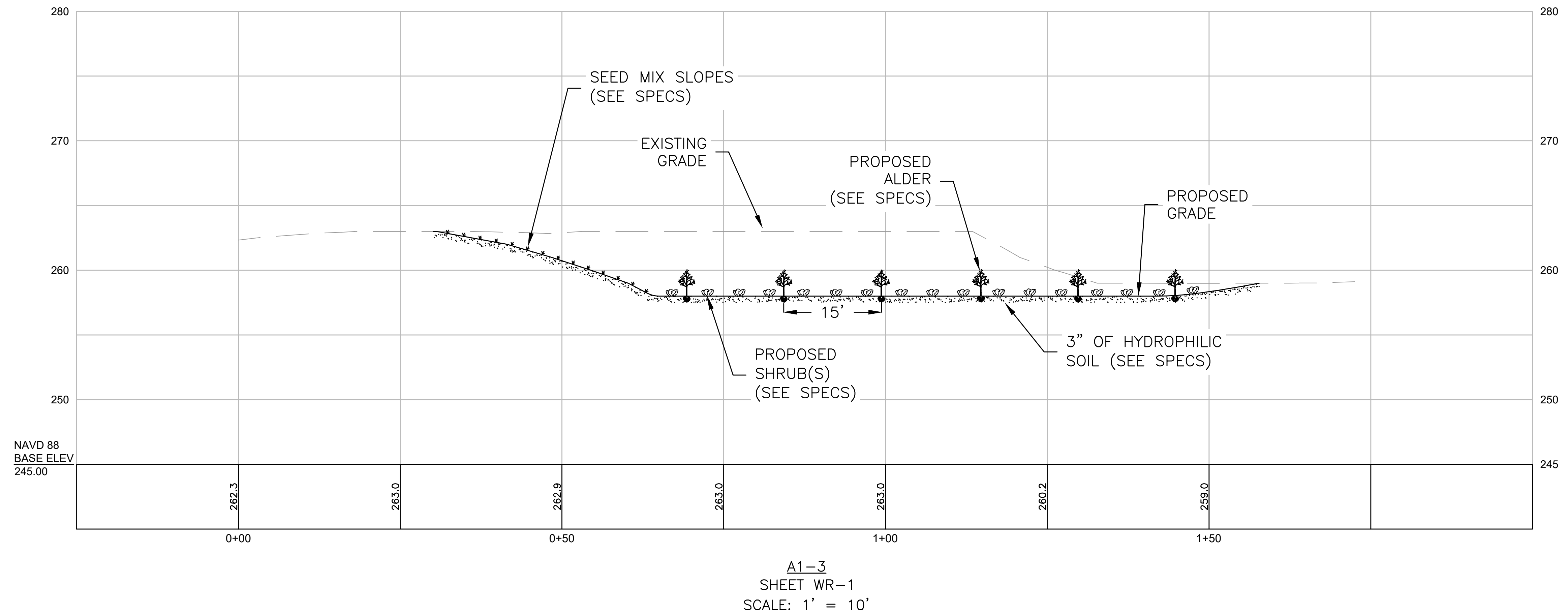


CROSS-SECTIONS
WHITEBRIDGE

CITY OF BRISTOL, CT

Project No.: 702	Sheet
Date: 12/1/2022	XS-1
Drawn By: NP	
Checked By: SA	
Scale: AS SHOWN	





NOTE: ALL SLOPES SHALL BE
SEEDED WITH THE 'NEW ENGLAND
EROSION CONTROL/RESTORATION
MIX', AS DESCRIBED ON SHEET
XS-4.

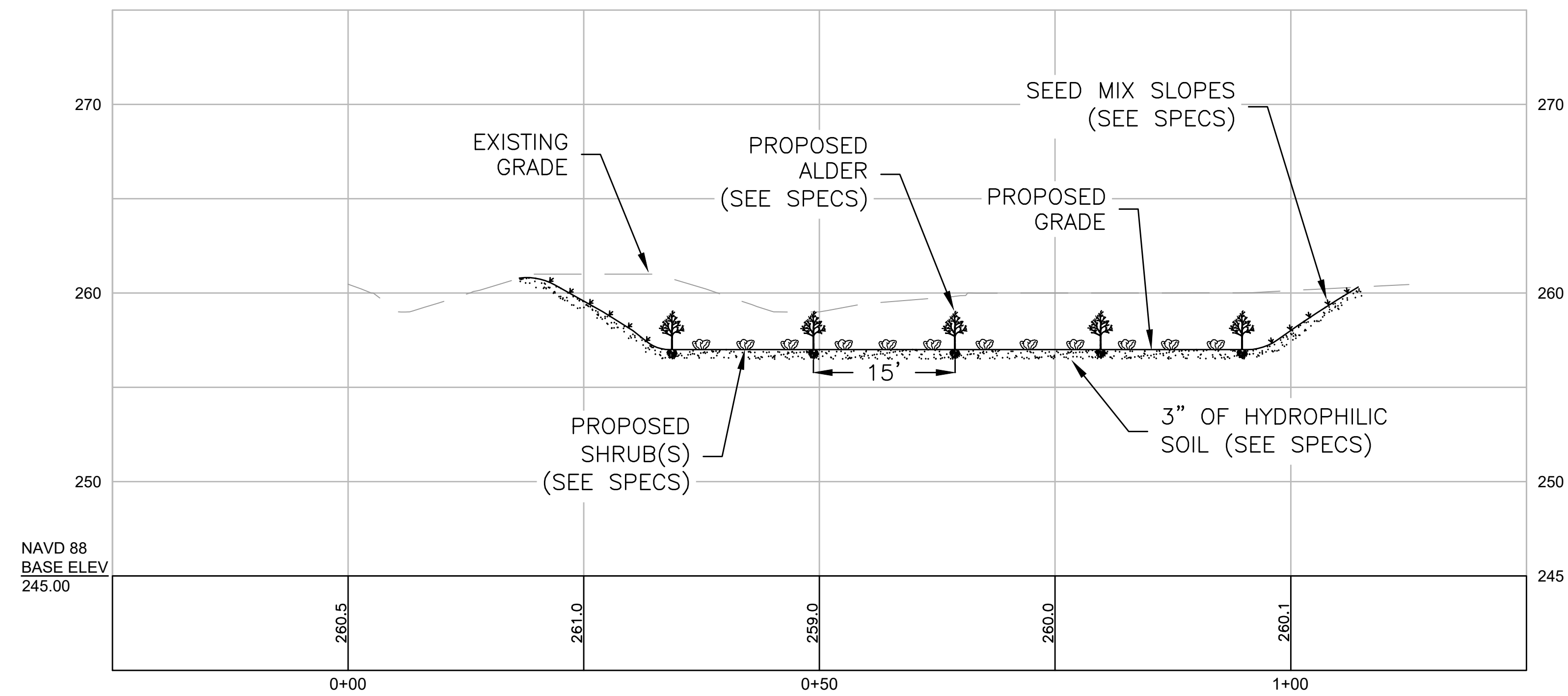


CROSS-SECTIONS
WHITEBRIDGE

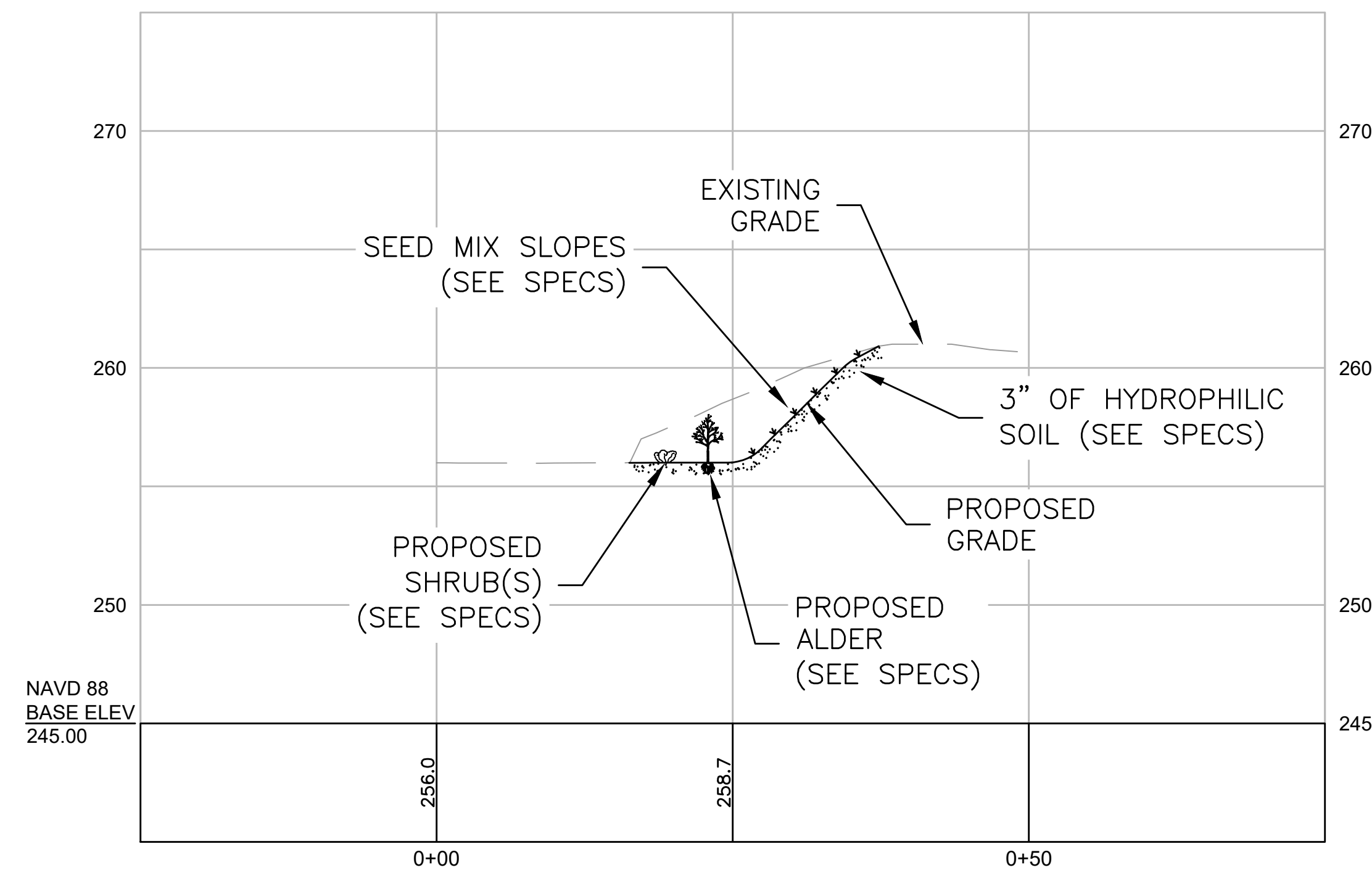
CITY OF BRISTOL, CT

Project No.: 702	Sheet
Date: 12/1/2022	
Drawn By: NP	
Checked By: SA	
Scale: AS SHOWN	XS-2





A2-2
SHEET WR-2
SCALE: 1' = 10'



A2-3
SHEET WR-2
SCALE: 1' = 10'

NOTE: ALL SLOPES SHALL BE SEEDED WITH THE 'NEW ENGLAND EROSION CONTROL/RESTORATION MIX', AS DESCRIBED ON SHEET XS-4.



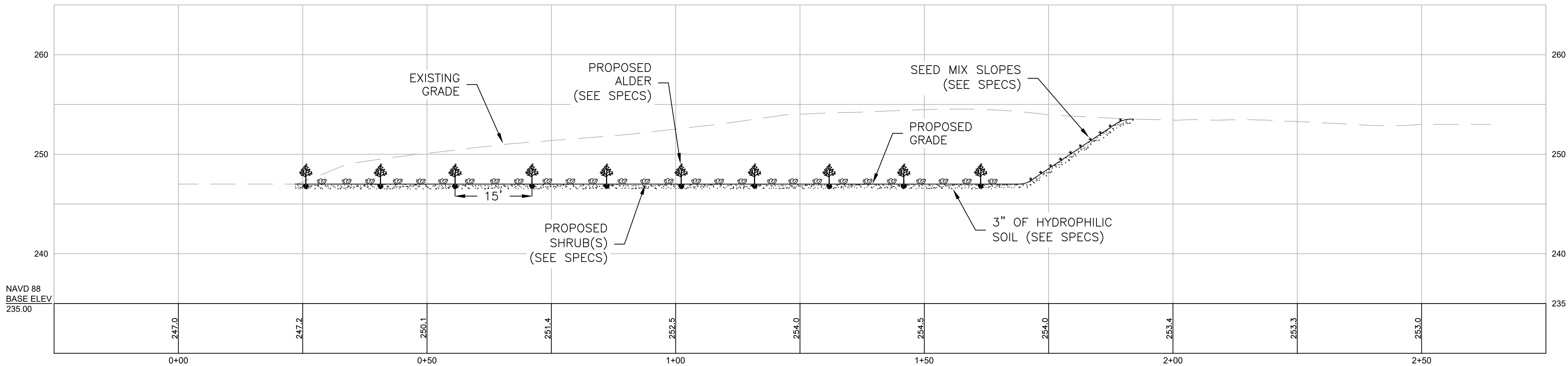
CROSS-SECTIONS
WHITEBRIDGE

CITY OF BRISTOL, CT

Project No.: 702	Sheet
Date: 12/1/2022	
Drawn By: NP	
Checked By: SA	
Scale: AS SHOWN	

XS-3





A4-1
SHEET WR-4
SCALE: 1' = 10'

THE FOLLOWING LIST OF SHRUB AND HERBACEOUS PLANTS IS PROPOSED FOR THE RESTORATION OF DISTURBED AREAS ON THE SUBJECT PROJECT. THIS LIST CONTAINS A VARIETY OF SPECIES SO THAT THE APPLICANT HAS SOME FLEXIBILITY WHEN PURCHASING THEM. ANY PROPOSED CHANGES TO THE PLANT LIST SHOULD BE APPROVED BY THE TOWN.

RECOMMENDED SHRUB PLANT LIST

THE SHRUBS SHOULD BE CONTAINER PLANTS (NO BAREROOT PLANTS), APPROXIMATELY 3 TO 4 FEET TALL, THAT INCLUDE A MIX OF THESE SPECIES, TY AFTER THE FILL MATERIAL IS REMOVED. THE SHRUBS SHOULD BE INSTALLED IN CLUMPS OF THREE (3) TO FIVE (5) PLANTS TO CREATE A "THICKET" TYPE OF WILDLIFE HABITAT. SPACING BETWEEN THE ROOT BALLS CAN BE APPROXIMATELY 4+/- FEET APART AT THE LOCATIONS IDENTIFIED ON THE ATTACHED LAYOUT PLAN.

ALNUS INCANA (RUGOSA) – SPECKLED ALDER

A LARGE SHRUB (15') THAT GROWS ALONG STREAM EDGES AND SWAMPS. HAS ABILITY TO FIX NITROGEN. CLUMPS OF ALDER FORM EXCELLENT WILDLIFE COVER. GOOD FOR BANK STABILIZATION. ONE OF THE MOST ADAPTABLE SHRUBS FOR DIFFICULT SITES. GOOD FOR SHORES, WET MEADOWS AND WETLAND FORESTS. RECOMMENDED PLANT SIZE 3 TO 4 FEET.

ARONIA ARBUTIFOLIA/PHOTINIA PYRIFOLIA – RED CHOKEBERRY

A MEDIUM-SIZED SHRUB (6-10') WITH SMALL WHITE TO PINKISH FLOWERS IN THE SPRING. PERSISTENT RED BERRIES ARE EATEN BY WILDLIFE IN WINTER. VERY SOIL ADAPTABLE. GOOD FOR SHORES, WET MEADOWS AND WETLAND FORESTS. RECOMMENDED PLANT SIZE 3 TO 4 FEET.

CORNUS AMOMUM – SILKY DOGWOOD

A FAST-GROWING, CLUMP-FORMING, MEDIUM SHRUB (5-8'). REDDISH WINTER COLOR ON YOUNG STEMS. BLUE FRUIT IN THE FALL EATEN BY MANY ANIMALS. PROVIDES NESTING AND COVER FOR BIRDS. GOOD FOR SHORES, WET MEADOWS AND WETLAND FORESTS. RECOMMENDED PLANT SIZE 3 TO 4 FEET.

CORNUS SERICEA – RED-OSIER DOGWOOD

FORMERLY C. STOLONIFERA, THIS RAPIDLY GROWING, SPREADING SHRUB REACHES 6-10'. SHOWY RED STEMS IN WINTER. BERRIES AND TWIGS PROVIDE FOOD FOR A WIDE VARIETY OF WILDLIFE. GOOD FOR STREAM BANK STABILIZATION. RECOMMENDED PLANT SIZE 3 TO 4 FEET.

ILEX VERTICILLATA – WINTERBERRY HOLLY

MEDIUM TO TALL SHRUB FOUND IN A VARIETY OF WETLANDS. SHADE TO FULL SUN. BRIGHT RED BERRIES PERSIST INTO WINTER AND ARE IMPORTANT WILDLIFE FOOD. GOOD FOR SHORES, WET OPEN AREAS AND WETLAND FORESTS. RECOMMENDED PLANT SIZE 3 TO 4 FEET.

LINDERA BENZOIN – COMMON SPICEBUSH

MEDIUM SHRUB FOUND IN SEASONAL WETLANDS AND MOIST WOODS. RED FRUIT IMPORTANT FOOD SOURCE FOR MANY BIRDS. THE PRIMARY FOOD OF LARVAL SPICEBUSH SWALLOWTAIL BUTTERFLIES. FALL FOLIAGE. GOOD FOR SHORES AND WET OPEN AREAS. RECOMMENDED PLANT SIZE 3 TO 4 FEET.

NEMOPANTHUS (ILEX) MUCRONATUS – MOUNTAIN HOLLY

A MEDIUM-SIZED SHRUB (5-10'). VELVETY RED BERRIES PROVIDE EXCELLENT WILDLIFE FOOD. FRUIT RIPENS JULY-AUGUST AND MAY PERSIST UNTIL OCTOBER. GOOD FOR SHORES AND WETLAND FORESTS. RECOMMENDED PLANT SIZE 3 TO 4 FEET.

RESTORATION SEED MIXES

THE FOLLOWING SEED MIXES SHOULD BE PLANTED ON THE OPEN AREAS BETWEEN THE SHRUB THICKETS AFTER ALL THE SHRUBS HAVE BEEN INSTALLED.

NEW ENGLAND WETMIX (WETLAND SEED MIX)

THE NEW ENGLAND WETMIX (WETLAND SEED MIX) CONTAINS A WIDE VARIETY OF NATIVE SEEDS WHICH ARE SUITABLE FOR MOST WETLAND RESTORATION SITES THAT ARE NOT PERMANENTLY FLOODED. ALL SPECIES ARE BEST SUITED TO MOIST GROUND AS FOUND IN MOST WET MEADOWS, SCRUB SHRUB, OR FORESTED WETLAND RESTORATION AREAS. THE MIX IS WELL SUITED FOR DETENTION BASIN BORDERS AND THE BOTTOM OF DETENTION BASINS NOT FREQUENTLY UNDER STANDING WATER. THE SEEDS WILL NOT GERMINATE UNDER INUNDATED CONDITIONS. IF PLANTED DURING THE FALL MONTHS, THE SEED MIX WILL GERMINATE THE FOLLOWING SPRING. DURING THE FIRST SEASON OF GROWTH, SEVERAL SPECIES WILL PRODUCE SEEDS WHILE OTHER SPECIES WILL PRODUCE SEEDS AFTER THE SECOND GROWING SEASON. NOT ALL SPECIES WILL GROW IN ALL WETLAND SITUATIONS. THIS MIX IS COMPRISED OF THE WETLAND SPECIES MOST LIKELY TO GROW IN CREATED/RESTORED WETLANDS. PLANT SPECIES CONTAINED IN THIS MIX INCLUDE THE FOLLOWING:

LURID SEDGE, (CAREX LURIDA), BLUNT BROOM SEDGE, (CAREX SCOPARIA), BLUE VERVAIN, (VERBENA HASTATA), HOP SEDGE, (CAREX LUPULINA), GREEN BULRUSH, (SCIRPUS ATROVIRENS), REDTOP PANIC GRASS, (PANICUM RIGIDULUM), TUFTED HAIRGRASS, (DESCHAMPSIA CESPITOSA), TICKSEED SUNFLOWER/BUR MARIGOLD, (BIDENS ARISTOSA), CREEPING SPIKE RUSH, (ELEOCHARIS PALUSTRIS), SOFT RUSH, (JUNCUS EFFUSUS), FRINGED SEDGE, (CAREX CRINITA), SQUARE STEMMED MONKEY FLOWER, (MIMULUS RINGENS), SWAMP ASTER, (ASTER PUNICEUS), BONESET, (EUPATORIUM PERFOLIATUM), RATTLESNAKE GRASS, (GLYCERIA CANADENSIS), SWAMP MILKWEED, (ASCLEPIAS INCARNATA), COMMON SNEEZEWEED, (HELENIUM AUTUMNALE), DITCH STONECROP, (PENTHURUM SEDOIDES).

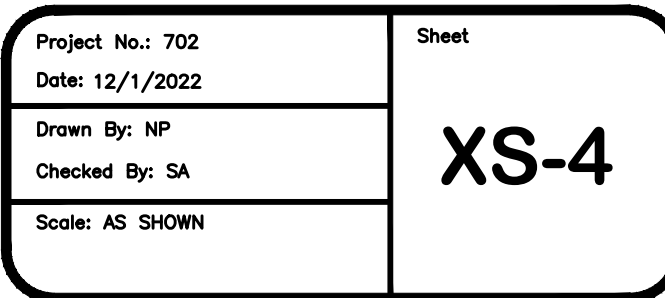
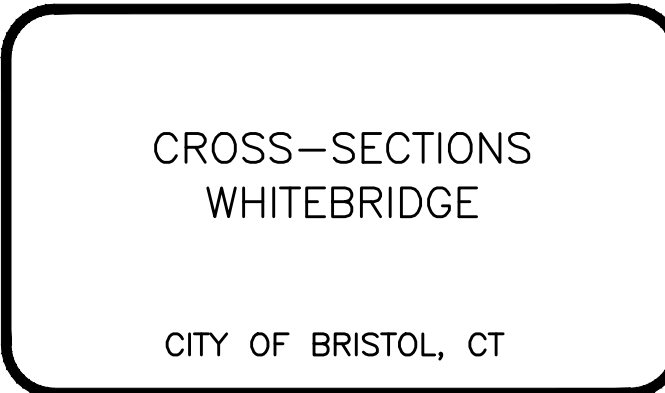
NEW ENGLAND EROSION CONTROL/RESTORATION MIX FOR THE DETENTION BASINS AND MOIST SITES

THE NEW ENGLAND EROSION CONTROL/RESTORATION MIX FOR DETENTION BASINS AND MOIST SITES CONTAINS A SELECTION OF NATIVE GRASSES AND WILDFLOWERS DESIGNED TO COLONIZE GENERALLY MOIST, RECENTLY DISTURBED SITES WHERE QUICK GROWTH OF VEGETATION IS DESIRED TO STABILIZE THE SOIL SURFACE. IT IS AN APPROPRIATE SEED MIX FOR ECOLOGICALLY SENSITIVE RESTORATIONS THAT REQUIRE STABILIZATION AS WELL AS LONG-TERM ESTABLISHMENT OF NATIVE VEGETATION. THIS MIX IS PARTICULARLY APPROPRIATE FOR DETENTION BASINS THAT DO NOT HOLD STANDING WATER. MANY OF THE PLANTS IN THIS MIX CAN TOLERATE INFREQUENT INUNDATION, BUT NOT CONSTANT FLOODING. THE MIX MAY BE APPLIED BY HAND, BY MECHANICAL SPREADER, OR BY HYDRO-SEEDER. AFTER SOWING THE SEED, LIGHTLY RAKE, ROLL OR CULTIPACK INTO THE SOIL TO INSURE GOOD SEED-TO-SOIL CONTACT. BEST RESULTS ARE OBTAINED WITH A SPRING OR LATE SUMMER SEEDING. SOWING SEED IN THE LATE FALL AND/OR WINTER DORMANT SEEDING REQUIRES AN INCREASE IN THE APPLICATION RATE. A LIGHT MULCHING OF CLEAN, WEED-FREE STRAW IS RECOMMENDED. PLANT SPECIES CONTAINED IN THIS MIX INCLUDE THE FOLLOWING:

VIRGINIA WILD RYE, (ELYMUS VIRGINICUS), CREEPING RED FESCUE, (FESTUCA RUBRA), LITTLE BLUESTEM, (SCHIZACHYRIUM SCOPARIUM), BIG BLUESTEM, (ANDROPOGON GERARDII), FOX SEDGE, (CAREX VULPINOIDEA), SWITCH GRASS, (PANICUM VIRGATUM), ROUGH BENTGRASS, (AGROSTIS SCABRA), NEW ENGLAND ASTER, (ASTER NOVAE-ANGLIAE), BONESET, (EUPATORIUM PERFOLIATUM), GRASS LEAVED GOLDENROD, (EUTHAMIA GRAMINIFOLIA), GREEN BULRUSH, (SCIRPUS ATROVIRENS), BLUE VERVAIN, (VERBENA HASTATA), SOFT RUSH, (JUNCUS EFFUSUS), WOOL GRASS, (SCIRPUS CYPERINUS).



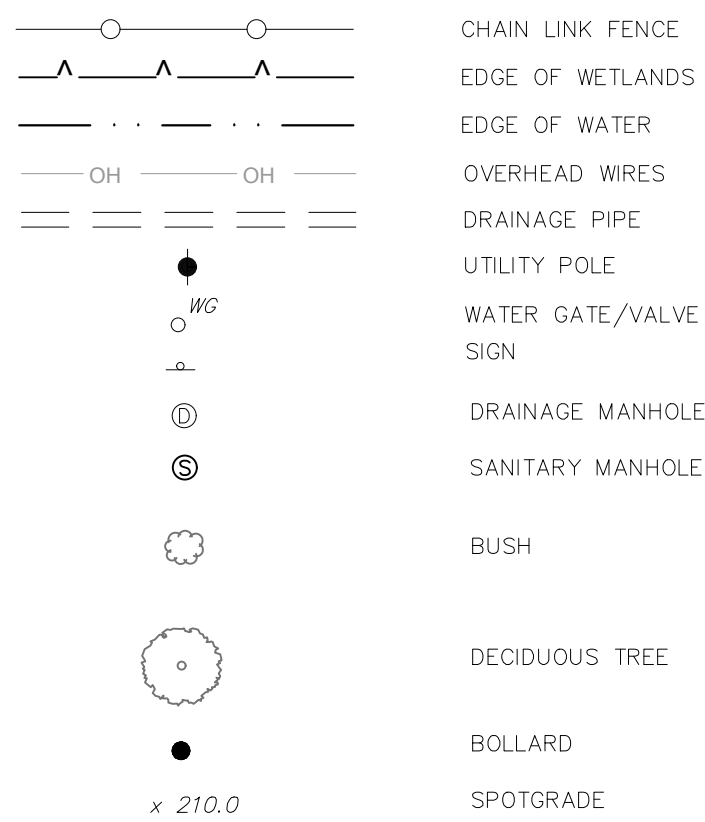
NOTE: ALL SLOPES SHALL BE SEEDED WITH THE 'NEW ENGLAND EROSION CONTROL/RESTORATION MIX'



ATTACHMENT 5

SITE SURVEY

LEGEND

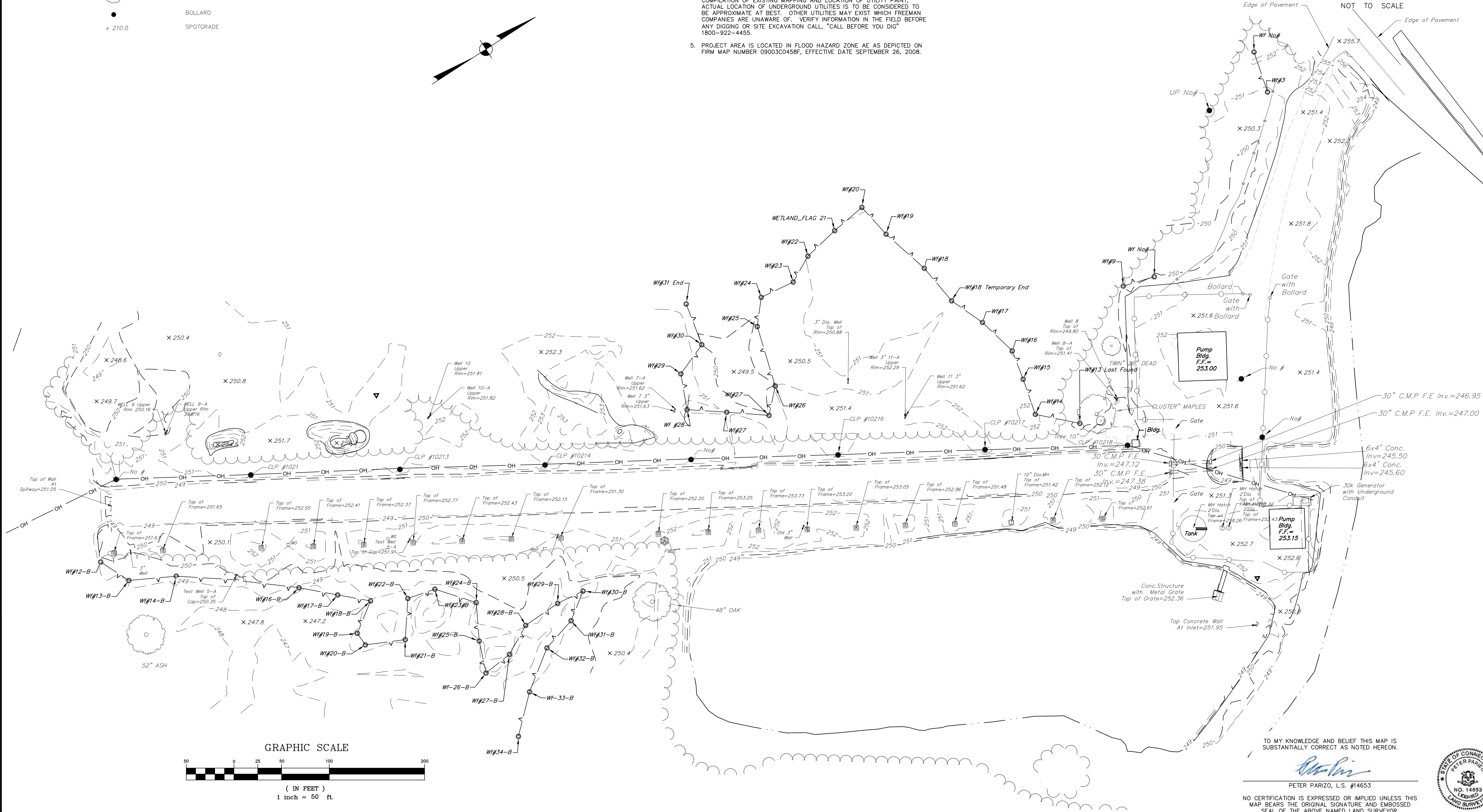


GENERAL NOTES

- THIS SURVEY HAS BEEN PREPARED BY FREEMAN COMPANIES, LLC. IN ACCORDANCE WITH THE REGULATIONS OF CONNECTICUT STATE AGENCIES, SECTIONS 20-300b-1 THRU 20-300b-20 AND THE "STANDARDS FOR SURVEYS AND MAPS IN THE STATE OF CONNECTICUT" ADOPTED BY THE CONNECTICUT ASSOCIATION OF LAND SURVEYORS, INC. ON SEPTEMBER 26,1996
- 1.1. THIS PLAN CONFORMS TO HORIZONTAL ACCURACY CLASS A-2 AND TOPOGRAPHIC ACCURACY CLASS 1-2.
- 1.2. THE TYPE OF SURVEY PERFORMED IS A TOPOGRAPHIC SURVEY.
2. NORTH ARROW AND BEARINGS REFER TO THE CONNECTICUT STATE PLANE COORDINATE SYSTEM (NAD83) AND IS BASED UPON GPS OBSERVATIONS PERFORMED BY FREEMAN COMPANIES).
3. ELEVATIONS REFER TO NAVD88 AND ARE BASED ON GPS OBSERVATIONS PERFORMED BY FREEMAN COMPANIES).
4. THE UNDERGROUND FEATURES DEPICTED HEREON ARE THE RESULT OF COMPILATION OF EXISTING MAPPING AND LOCATION OF UTILITY PAINT. ACTUAL LOCATION OF UNDERGROUND UTILITIES IS TO BE CONSIDERED TO BE APPROXIMATE AT BEST. OTHER UTILITIES MAY EXIST WHICH FREEMAN COMPANIES ARE UNAWARE OF. VERIFY INFORMATION IN THE FIELD BEFORE ANY DIGGING OR SITE EXCAVATION CALL, "CALL BEFORE YOU DIG" 1800-922-4455.
5. PROJECT AREA IS LOCATED IN FLOOD HAZARD ZONE AE AS DEPICTED ON FIRM MAP NUMBER 09003C0458F, EFFECTIVE DATE SEPTEMBER 26, 2008.

LOCATION MAP

NOT TO SCALE



FREEMAN
COMPANIES
INCORPORATED
ONE | SBE | MBE | SBA | DBA CERTIFIED
LAND DEVELOPMENT
ENGINEERING DESIGN
CONSTRUCTION SERVICES

FREEMAN COMPANIES, LLC
36 JOHN STREET
HARTFORD, CT 06106
WWW.FREEMANCO.COM
(860) 251-9500
FAX: (860) 986-7161

LAND OF
NEW BRITAIN WATER DEPARTMENT
LOWER WELL FIELD
MIX STREET
BRISTOL, CONNECTICUT

SURVEYED: R.A.C.
DRAFTED: R.L.C.
APPROVED: L.K.
SCALE: 1" = 50'
PROJECT NO.: 2019-0901
DATE: 08/20/2019
CAD FILE: 2018-0901-SRV

TITLE:
EXISTING
CONDITIONS
SURVEY

SHEET NUMBER:

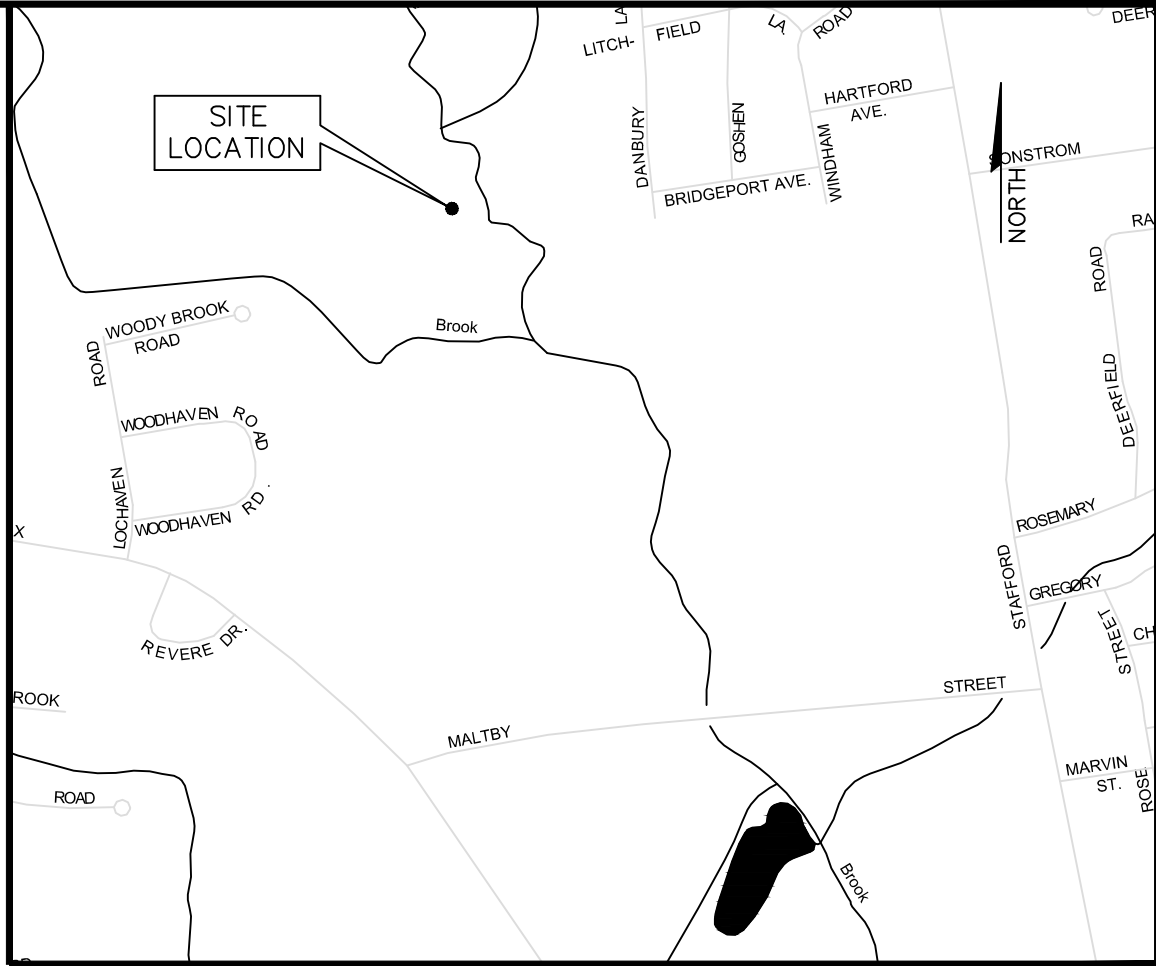
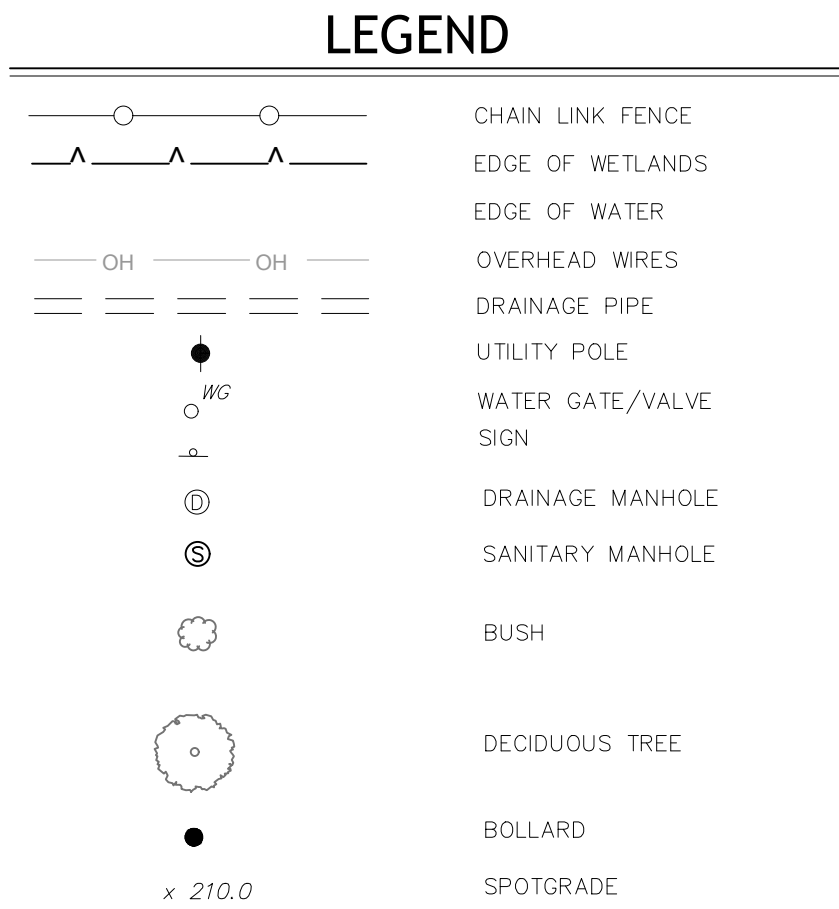
EX-1

TO MY KNOWLEDGE AND BELIEF THIS MAP IS
SUBSTANTIALLY CORRECT AS NOTED HEREON.

Peter Parizo
PETER PARIZO, L.S. #14653

NO CERTIFICATION IS EXPRESSED OR IMPLIED UNLESS THIS
MAP BEARS THE ORIGINAL SIGNATURE AND EMBOSSED
SEAL OF THE ABOVE NAMED LAND SURVEYOR.





GENERAL NOTES

1. THIS SURVEY HAS BEEN PREPARED BY FREEMAN COMPANIES, LLC, IN ACCORDANCE WITH THE REGULATIONS OF CONNECTICUT STATE AGENCIES, SECTION 20-302a OF THE CONN. GEN. STAT. AND THE STANDARDS FOR SURVEYS AND MAPS IN THE STATE OF CONNECTICUT ADOPTED BY THE CONNECTICUT ASSOCIATION OF LAND SURVEYORS, INC. ON SEPTEMBER 26, 1996.
- 1.1. THIS PLAN CONFORMS TO HORIZONTAL ACCURACY CLASS A-2 AND TOPOGRAPHIC ACCURACY CLASS 1-2.
2. THE TYPE OF SURVEY PERFORMED IS A TOPOGRAPHIC SURVEY.
3. NORTH ARROW AND BEARINGS REFER TO THE CONNECTICUT STATE PLANE COORDINATE SYSTEM (NAD83) AND IS BASED UPON GPS OBSERVATIONS PERFORMED BY FREEMAN COMPANIES).
3. ELEVATIONS REFER TO NAVD83 AND ARE BASED ON GPS OBSERVATIONS PERFORMED BY FREEMAN COMPANIES).
4. THE UNDERGROUND FEATURES DEPICTED HEREON ARE THE RESULT OF COMPILATION OF EXISTING MAPPING AND LOCATION OF UTILITY PAINT, AND ARE NOT A REPRESENTATION OF THE UTILITIES TO BE CONSIDERED TO BE APPROXIMATE AT BEST. OTHER UTILITIES MAY EXIST WHICH FREEMAN COMPANIES ARE UNAWARE OF. VERIFY INFORMATION IN THE FIELD BEFORE ANY DIGGING OR SITE EXCAVATION CALL, "CALL BEFORE YOU DIG 1800-922-4455.
5. PROJECT AREA IS LOCATED IN FLOOD HAZARD ZONE AE AS DEPICTED ON FIRM MAP NUMBER 0903C0458F, EFFECTIVE DATE SEPTEMBER 26, 2009.

[illegible]

FREEMAN
COMPANIES
LAND DEVELOPMENT | ENGINEERING DESIGN | CONSTRUCTION SERVICES
DBE | SBE | MBE | SBA (8)(a) CERTIFIED
LAND DEVELOPMENT
ENGINEERING DESIGN
CONSTRUCTION SERVICES

FREEMAN COMPANIES, LLC
36 JOHN STREET
HARTFORD, CT 06106
WWW.FREEMANCOS.COM
(860)251-9550
FAX:(860)986-7161

LAND OF
NEW BRITAIN WATER DEPARTMENT
UPPER WELL FIELD
JEROME AVENUE
BRISTOL, CONNECTICUT

SURVEYED: R.A.C.
DRAFTED: R.L.C.
APPROVED: L.K.
SCALE: 1" = 50'
PROJECT NO.: 2019-0901
DATE: 08/20/2019
CAD FILE: 2018-0901-SRV

TITLE:
EXISTING
CONDITIONS
SURVEY

EX-1

TO MY KNOWLEDGE AND BELIEF THIS MAP IS
SUBSTANTIALLY CORRECT AS NOTED HEREON.

PETER PARIZO, L.S. #14653

NO CERTIFICATION IS EXPRESSED OR IMPLIED UNLESS THIS
MAP BEARS THE ORIGINAL SIGNATURE AND EMBOSSED
SEAL OF THE ABOVE NAMED LAND SURVEYOR.



Link to Soil Scientist Report

<https://www.bristolct.gov/DocumentCenter/View/45995/Soil-Scientist-Report-Extracted-2019>

ATTACHMENT 6
SOIL SCIENTIST
REPORT

ATTACHMENT 7

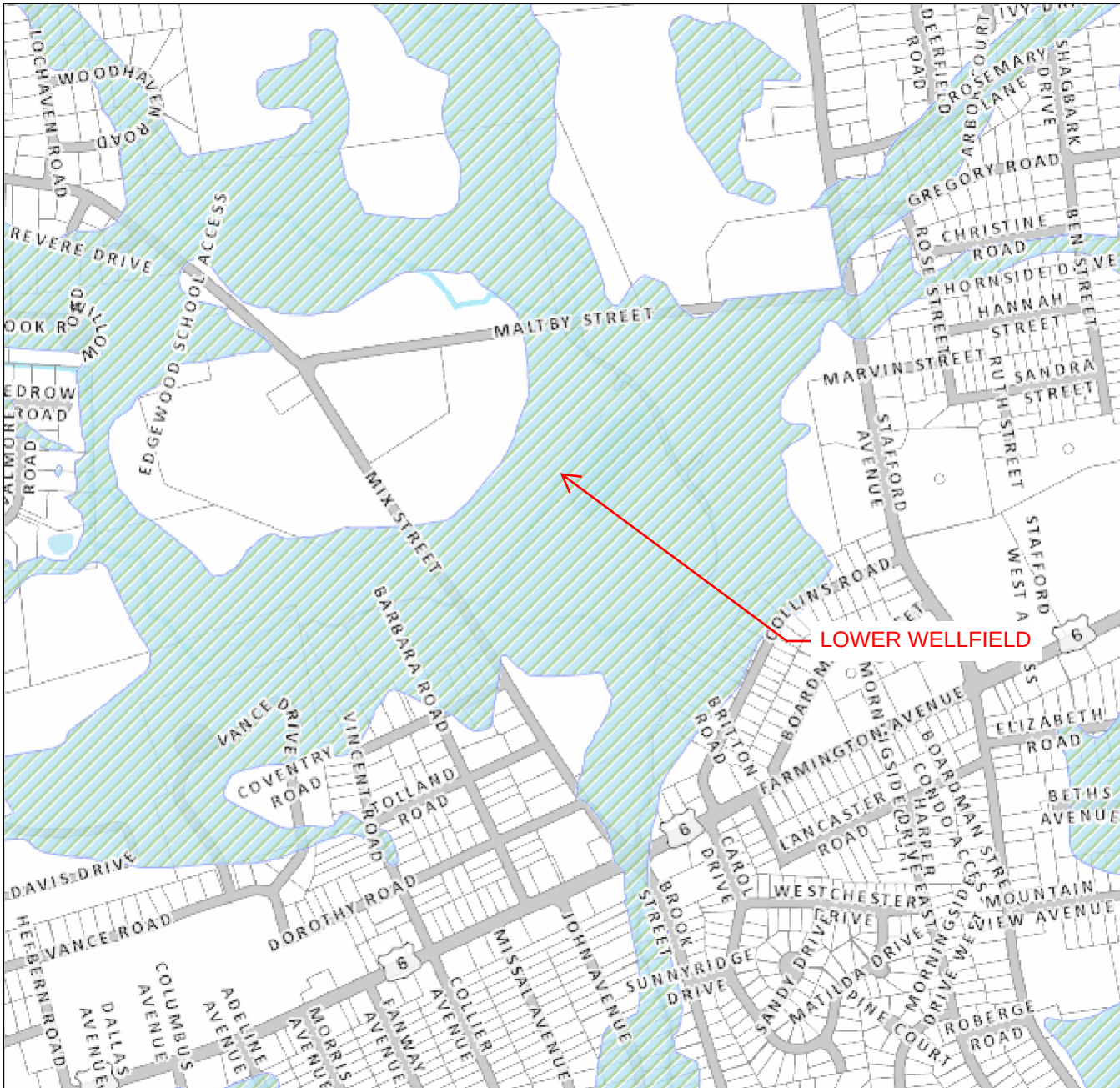
CITY OF BRISTOL GIS WETLAND BOUNDARY

City of Bristol

Geographic Information System (GIS)



Date Printed: 12/20/2023

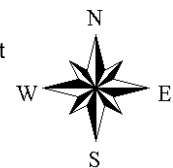


LOWER WELLFIELD

MAP DISCLAIMER - NOTICE OF LIABILITY

This map is for assessment purposes only. It is not for legal description or conveyances. All information is subject to verification by any user. The City of Bristol and its mapping contractors assume no legal responsibility for the information contained herein.

Approximate Scale: 1 inch = 800 feet

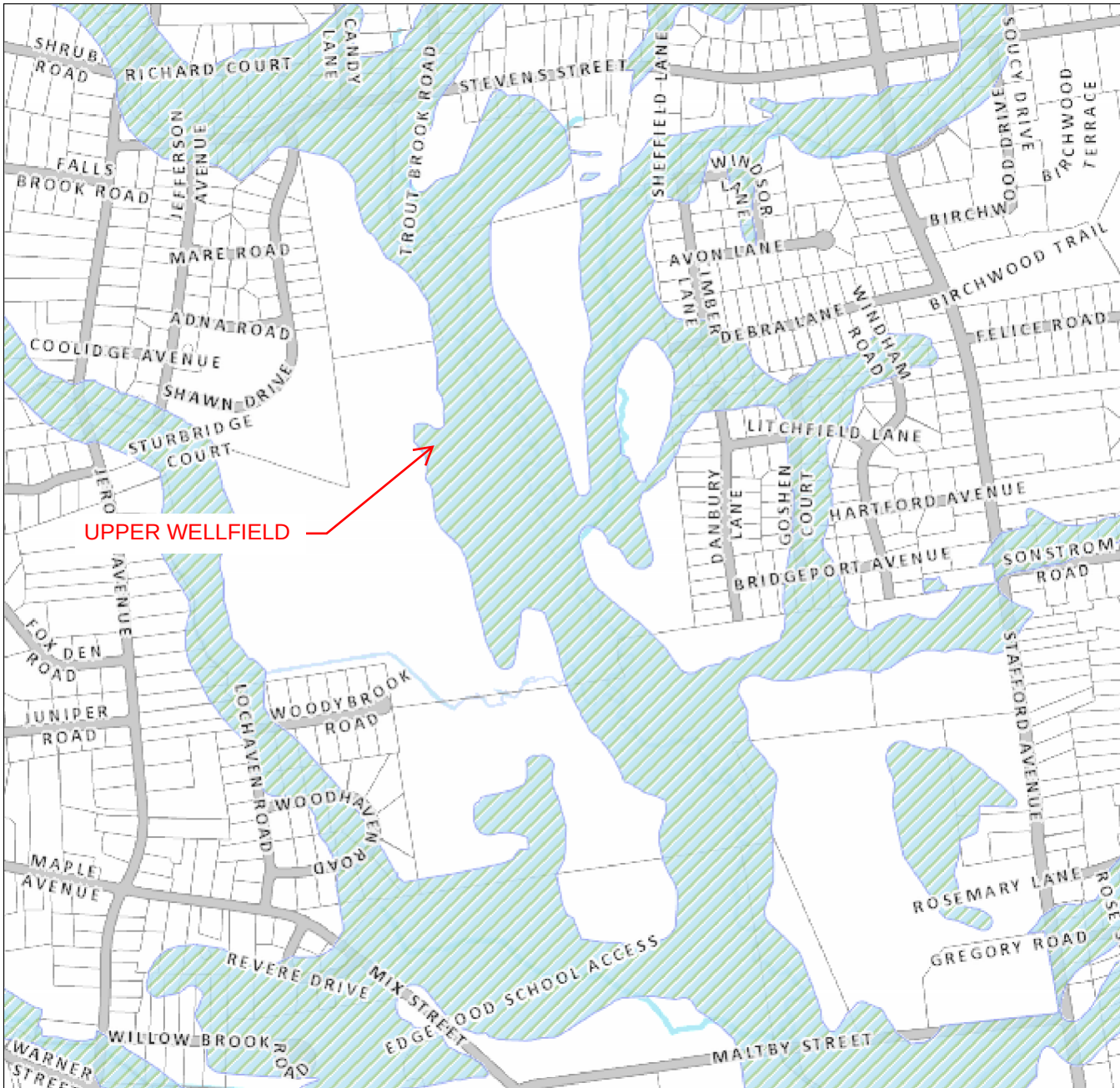


City of Bristol

Geographic Information System (GIS)



Date Printed: 12/20/2023



MAP DISCLAIMER - NOTICE OF LIABILITY

This map is for assessment purposes only. It is not for legal description or conveyances. All information is subject to verification by any user. The City of Bristol and its mapping contractors assume no legal responsibility for the information contained herein.

Approximate Scale: 1 inch = 800 feet



**BRISTOL CONSERVATION COMMISSION
INLAND WETLANDS AGENCY
FORM IW-1 (Application for a Wetlands Permit)**

For Office Use Only	
APPLICATION NO.	<u>2020</u>
DATE FILED:	<u>12-28-23</u>
DECISION DATE:	_____
DECISION:	_____

1. APPLICANT:

Name: New Britain Water Department, Ramon Esponda

Address: 1000 Shuttle Meadow Ave. City: New Britain State: CT Zip 06052

Telephone No.: (860) 826-3535 [] home [x] work E-Mail: Ray.Esponda@NewBritainCT.gov

Signature: [Signature] Signature - (Printed/Typed) Ramon Esponda

CHECK ONE: [x] owner [] other (specify): _____

2. PROPERTY OWNER(S):

Name: New Britain Water Department, Ramon Esponda

Address: 1000 Shuttle Meadow Ave. City: New Britain State: CT Zip 06052

Telephone No.: (860) 826-3535 [] home [x] work E-Mail: Ray.Esponda@NewBritainCT.gov

Signature: [Signature] Signature - (Printed/Typed) Ray Esponda

3. DESCRIBE THE SUBJECT PROPERTY:

Address or Location: Maltby Street, Bristol CT

Assessor's Map No.: 52, 53 Assessor's Lot No.(s): 11, 15, 16B16A, 17, 145, 147, 149, 150, 151

Description of wetlands (location, approximate area to be disturbed, vegetation, etc.): Freshwater Forested/Shrub, Freshwater Emergent, Freshwater Pond & Riverine wetlands. Wetlands are located centrally within the property parcels.

Approximate area to be disturbed = 31,291 SQ. FT. (0.72 Acres).

4. DESCRIBE THE PROPOSED ACTIVITY AND ITS PURPOSE: Restoration of the White Bridge Waterworks Facility.

Proposed activities include the demolition of existing structures in addition to the construction of new groundwater wells, a pump house and underground piping. Project will provide a potable backup water supply to New Britain and update the facilities.

5. CHECK THE STATEMENT WHICH APPLIES TO THE PROPOSED ACTIVITY:

[] a. The proposed activity is either a use permitted as of right or a non-regulated use, under subsection _____ of Section 4 of the Inland Wetlands Regulations. See instructions for submission requirements.

[] b. The proposed activity is not regulated because it is greater than 100 feet from a wetlands or watercourse or will not adversely affect the wetlands or watercourse. See instructions for submission requirements.

[x] c. The proposed activity is a regulated activity and will occur:

[x] in a wetlands or watercourse

area: 31,291 SQ. FT.

[x] within the upland review area

area: 177,924 SQ. FT.

6. FLOW CALCULATIONS:

Does a watercourse flow through the subject property?

[x] yes [] no

If "yes", see instructions for submission requirements.

**CITY OF BRISTOL, CONNECTICUT
SUPPLEMENTARY INFORMATION**

For Office Use Only
APPLICATION NO. _____

Address or location of property: Maltby Street, Bristol CT

ADDITIONAL INFORMATION/COMMENTS (click inside the box below and begin typing)

Permanent and temporary wetland impact areas have been broken down and are included on the attached maps. Temporarily impacted wetlands will be cared for according to a predetermined plan provided by the contractor (TBD). Matted areas may be necessary to reach some of the compensatory storage areas for the purposes of cutting the terrain at those locations to create the compensatory storage. By creating compensatory storage areas new wetland areas will also be created at a ratio of more than 2:1. Due to the creation of wetlands, an IW-2 form has been filed with the City concurrently with this application. The flood elevation will not be increased as a result of this work but may decrease due to the compensatory storage areas. See attached documents for further information.

No flow calculations are provided due the zero impact to flow as a result of the proposed work. All water drawn by the wells and other utilities are part of a registered diversion, which will not be exceeded as a result of this project.

ADDITIONAL APPLICANT

Name: _____ CHECK ONE: ☐ owner ☐ other: _____

Address: _____ City: _____ State: _____ Zip: _____

Telephone No.: _____ E-Mail: _____

Signature: _____ Signature – (Printed/Typed) _____

ADDITIONAL OWNER(S) OF RECORD

Name: _____

Address: _____ City: _____ State: _____ Zip: _____

Telephone No.: _____ E-Mail: _____

Signature: _____ Signature – (Printed/Typed) _____

Name: _____

Address: _____ City: _____ State: _____ Zip: _____

Telephone No.: _____ E-Mail: _____

Signature: _____ Signature – (Printed/Typed) _____

(OPTIONAL) SEND COPIES OF ALL CORRESPONDENCE TO:

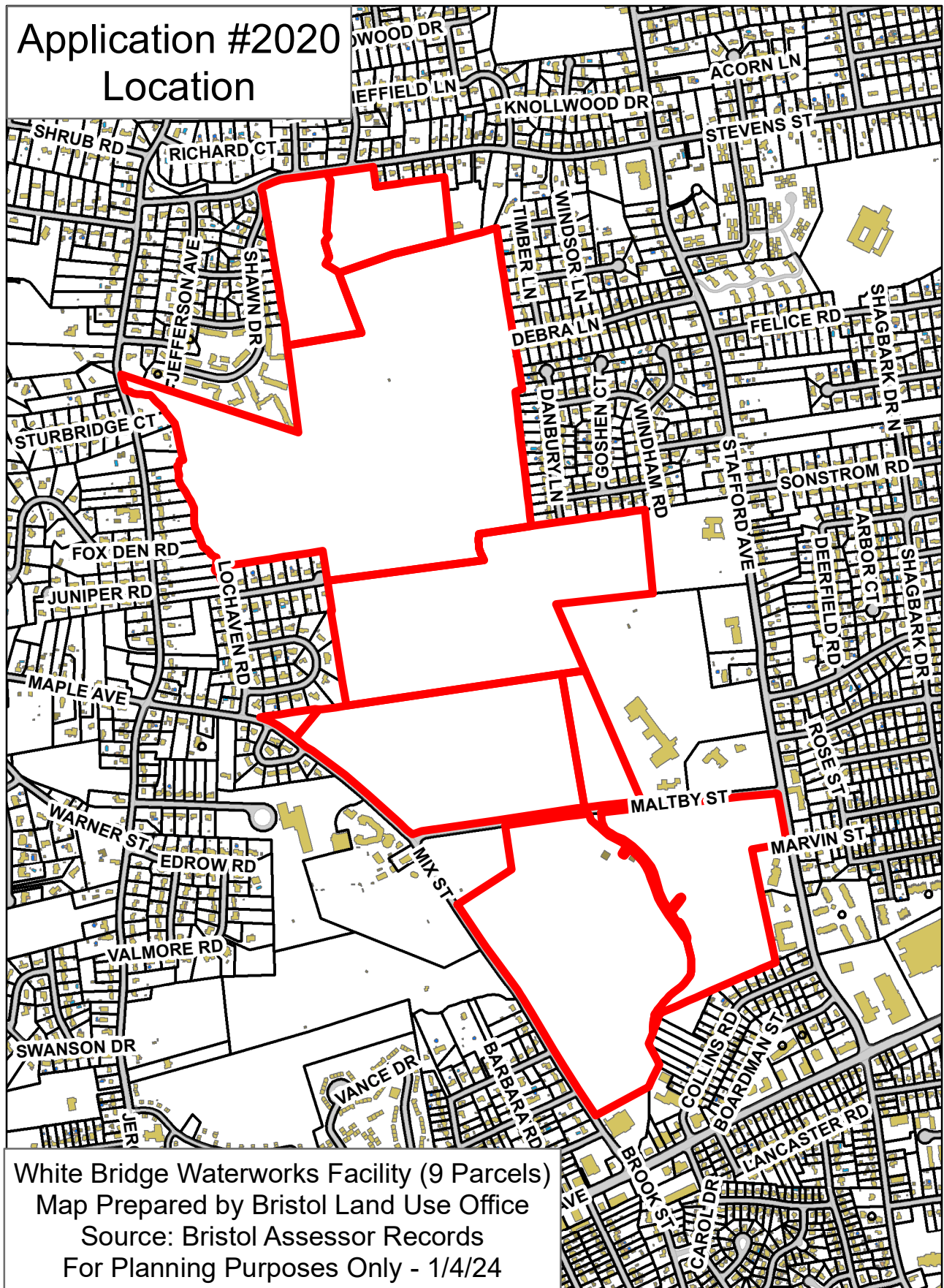
Name: Sebastian Amenta, PE

Address: 1 Hartford Square, Suite 227 City: New Britain State: CT Zip: 06052

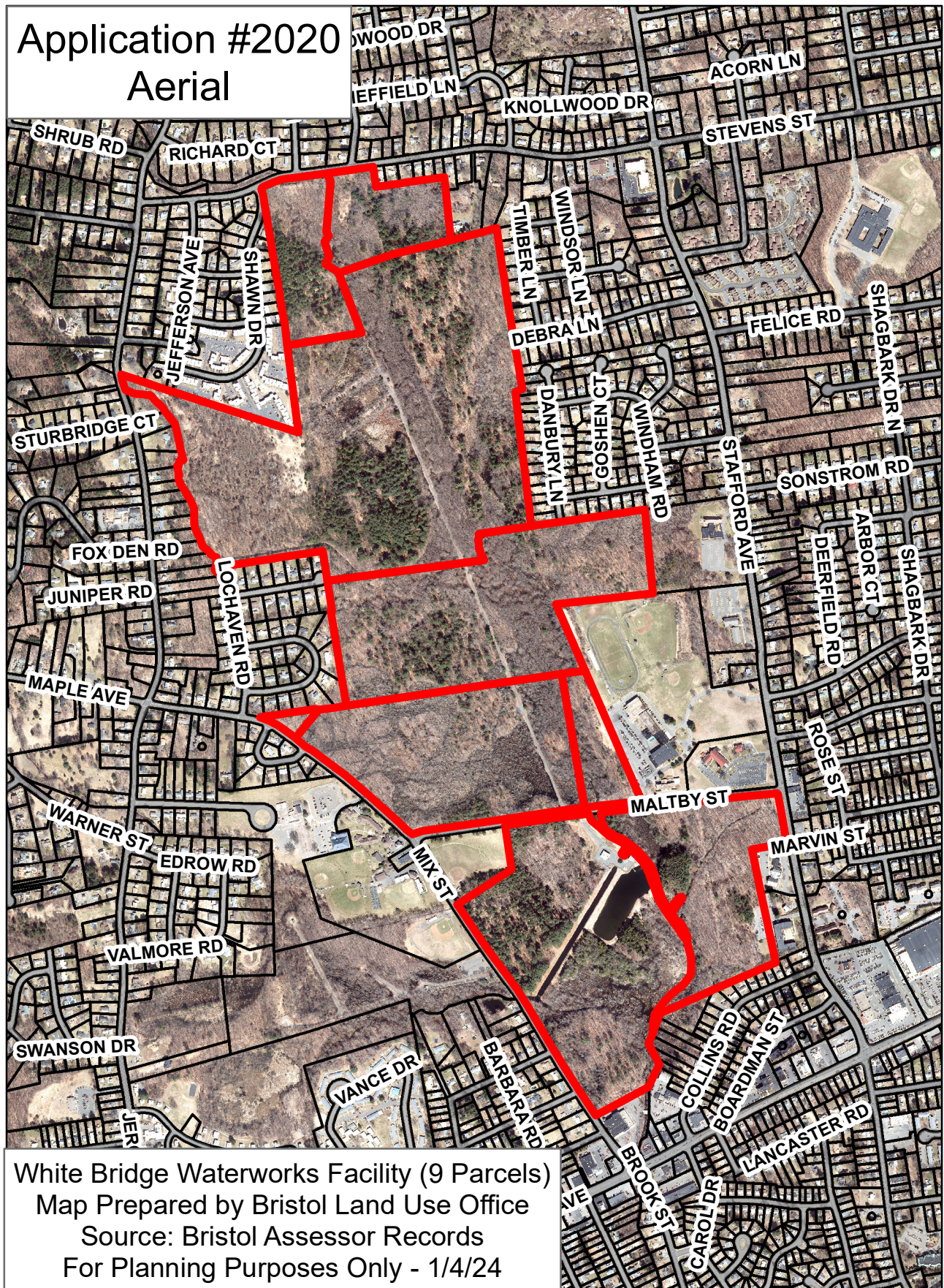
Telephone No.: (860) 224-0442/860 620 3673 E-Mail: samenta@ceiengineers.com

08/17 - LUO

Application #2020 Location



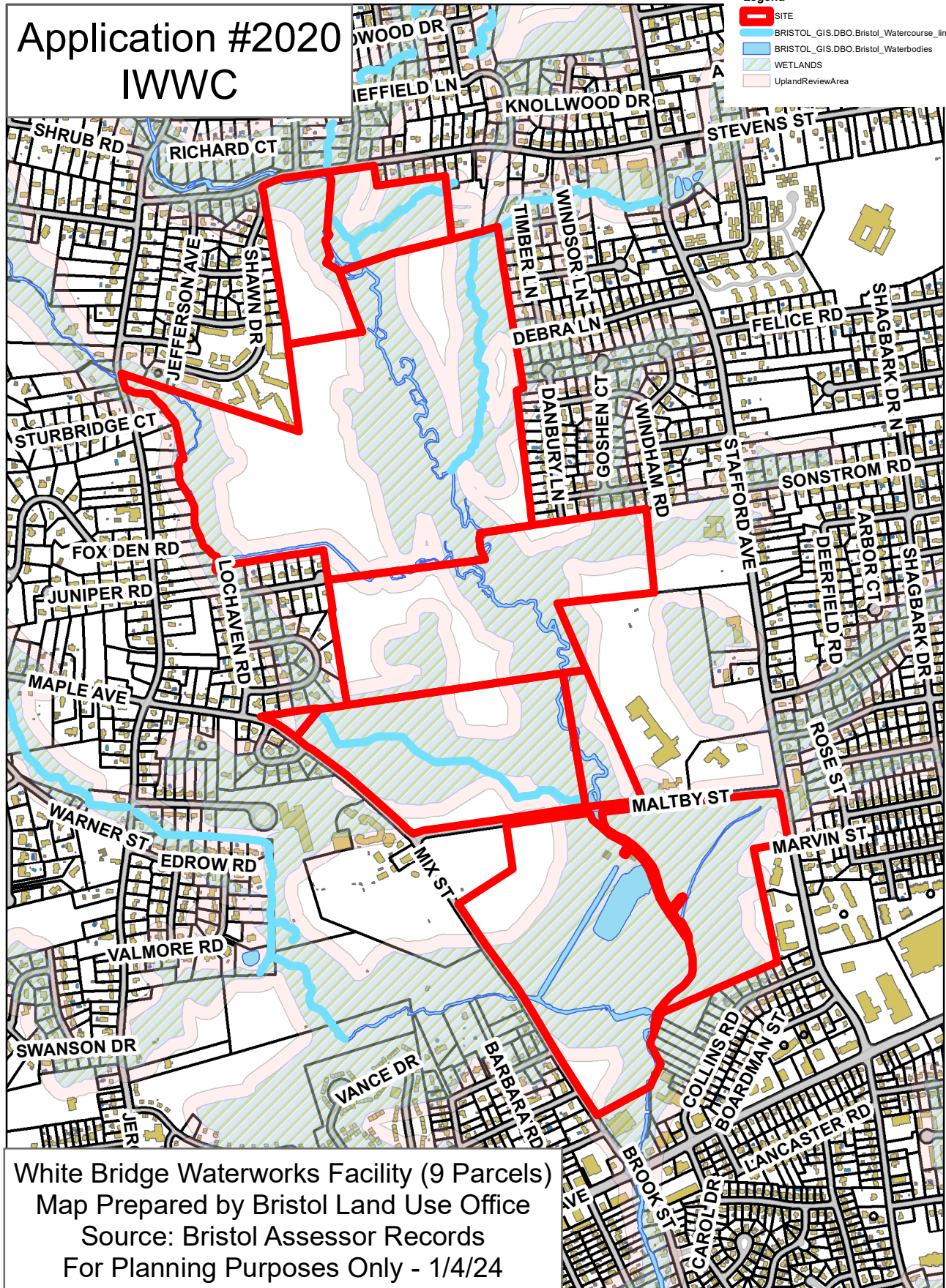
Application #2020 Aerial



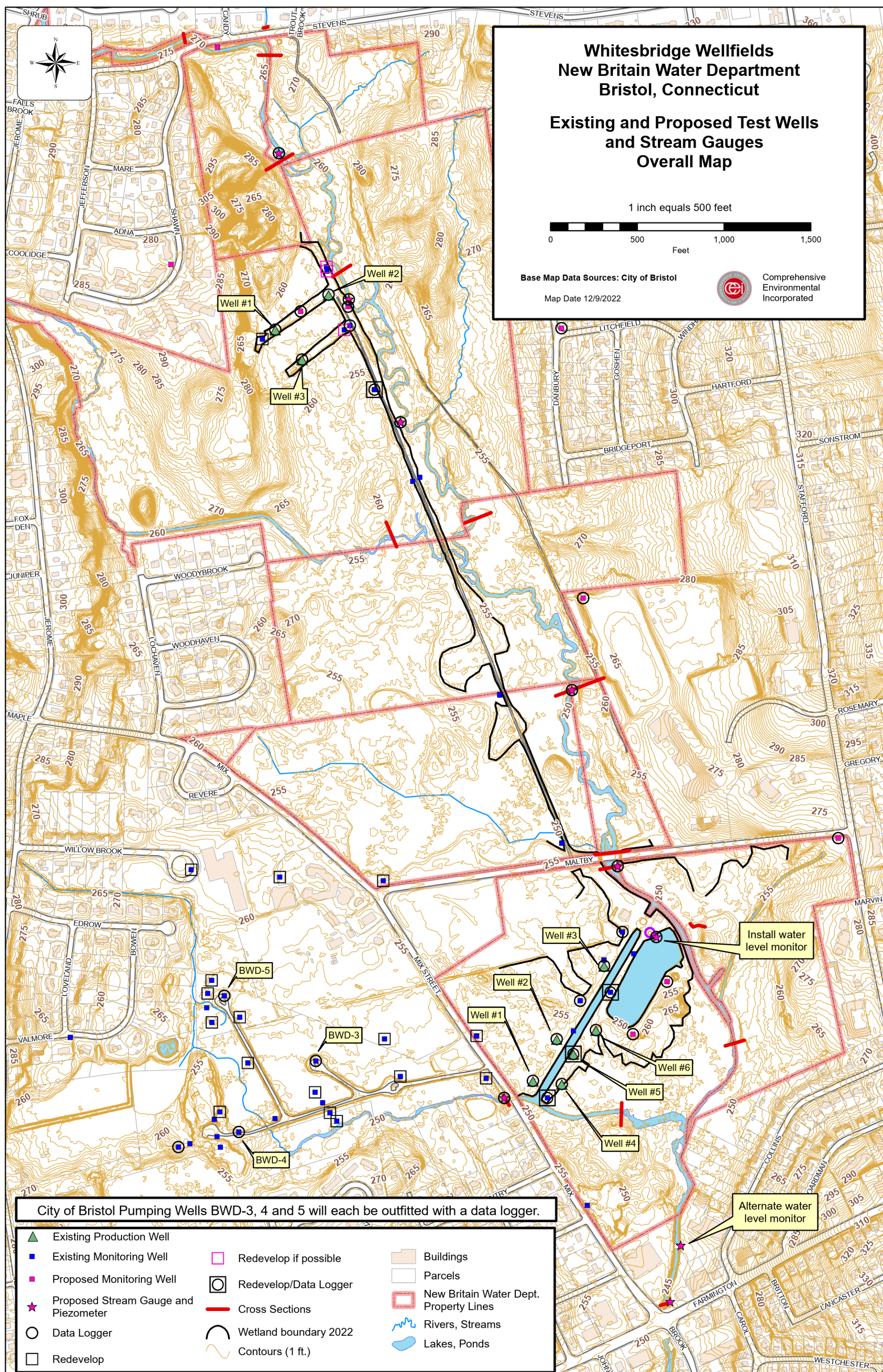
White Bridge Waterworks Facility (9 Parcels)
Map Prepared by Bristol Land Use Office
Source: Bristol Assessor Records
For Planning Purposes Only - 1/4/24

Application #2020 IWWC

- Legend**
-  SITE
 -  BRISTOL_GIS.DBO.Bristol_Watercourse_lines
 -  BRISTOL_GIS.DBO.Bristol_Waterbodies
 -  WETLANDS
 -  UplandReviewArea



White Bridge Waterworks Facility (9 Parcels)
Map Prepared by Bristol Land Use Office
Source: Bristol Assessor Records
For Planning Purposes Only - 1/4/24



CT DEEP Letter

May 6, 2022

May 6, 2022

Magdalena Lofstedt
CDM Smith Inc
77 Hartland St, Suite 201
East Hartford, CT 06108
LOFSTEDTMH@CDMSMITH.COM

NDDB DETERMINATION NUMBER: 202205409

Project: (City of New Britain) Replace existing groundwater wells, Upper & Lower Wellfields, White Bridge Waterworks Facility, off Maltby St, Bristol

Expiration: May 6, 2024

I have reviewed Natural Diversity Database (NDDB) maps and files regarding this project. According to our records, there are State-listed species (RCSA Sec. 26-306) documented nearby and within the watershed of your project area. Recommendations to minimize impacts are included below.

- **Spotted turtle (*Clemmys guttata*) State Special Concern**
- **Wood turtle (*Glyptemys insculpta*) State Special Concern**

Spotted turtle: Individuals of this species are associated with wetlands and vernal pools. Over the course of a season and lifetime, individuals will travel large distances (up to 1km) over upland forest and fields between multiple wetlands. They overwinter burrowed into the mud in wetlands between Nov 1-March 15. They do not begin to reproduce until 7-10 years old and adults can live at least 30 years. This species is threatened most by any activities that reduce adult survivorship including road kills, commercial and casual collection, increased predation in areas around commercial and residential development, mortality and injury from agricultural equipment or other mechanical equipment.

Wood turtle: Individuals of this species are riverine and riparian obligates, overwintering and mating in clear, cold, primarily sand-gravel and rock bottomed streams and foraging in riparian zones, fields and upland forests during the late spring and summer. They hibernate in the banks of the river in submerged tree roots between November 1 and March 31. Their summer habitat focuses within 90m (300ft of rivers) and they regularly travel 300m (0.2 mile) from rivers during this time. During summer they seek out early successional habitat: pastures, old fields, woodlands, powerline cuts and railroad beds bordering or adjacent to streams and rivers. Their habitat in Connecticut is already severely threatened by fragmentation of riverine, instream, riparian, and upland habitats, but is exacerbated by heavy adult mortality from machinery, cars, and collection. This is compounded by the species late maturity, low reproductive potential, and high nest and hatchling depredation rates.

Land disturbance activities that will crush active turtles or unearth/or crush hibernating turtles or nests need to consider local habitat features and apply fencing and/or time of year restrictions as appropriate. We recommend you consult with a herpetologist familiar with preferred habitats to assist you with proper techniques to ensure the best protection strategies are employed for your site.

- Land disturbance and excavation confined to the upland (greater than 10 meters from a wetland) can be done without risk for impact if it is restricted to the dormant season (November 1- March 15).

If land disturbance activity will include significant areas within and around wetlands, you will need to take precautions to avoid crushing or killing hibernating adults.

- Do not conduct land disturbance activities within a wetland during the turtle's dormant period (November 1- March 15).

Additionally, when working in the upland between March 15- November 1:

- Exclusionary practices will be required to prevent any turtle access into construction areas. These measures will need to be installed at the limits of disturbance as shown on the plans.
- Exclusionary fencing be at least 20 inches tall and must be secured to and remain in contact with the ground and be regularly maintained (at least bi-weekly and after major weather events) to secure any gaps or openings at ground level that may let animal pass through.
- Prior to construction, all turtles occurring within fencing work area will be relocated to suitable habitat outside disturbance area. This should be performed by a qualified professional familiar with habitat requirements and behavior of the species.
- The Contractor must search the work area each morning prior to any work being done.
- All construction personnel working within the turtle habitat must be apprised of the species description and the possible presence of a listed species.
- Any turtles encountered within the immediate work area shall be carefully moved to an adjacent area outside of the excluded area and fencing should be inspected to identify and remove access point. These animals are protected by law and no turtles should be relocated from the site.
- In areas where silt fence is used for exclusion, it shall be removed as soon as the area is stable to allow for reptile and amphibian passage to resume.
- No heavy machinery or vehicles may be parked in any turtle habitat.
- Special precautions must be taken to avoid degradation of wetland habitats including any wet meadows and seasonal vernal pools.

Natural Diversity Database information includes all information regarding critical biological resources available to us at the time of the request. This information is a compilation of data collected over the years by the Department of Energy and Environmental Protection's Bureau of Natural Resources and cooperating units of DEEP, independent conservation groups, and the scientific community. This information is not necessarily the result of comprehensive or site-specific field investigations. Consultations with the NDDB should not be substituted for on-site surveys required for environmental assessments. Current research projects and new contributors continue to identify additional populations of species and locations of habitats of concern, as well as, enhance existing data. Such new information is incorporated in the NDDB as it becomes available.

Please contact me if you have any questions (shannon.kearney@ct.gov). Thank you for consulting with the Natural Diversity Database and continuing to work with us to protect State-listed species.

Sincerely,

/s/ Shannon B. Kearney
Wildlife Biologist

Email from Mary Rydingsward
January & February 2024

Fwd: White Bridge Well rehabilitation project

Nancy Levesque

Thu 2/1/2024 12:55 PM

To: Andrew Armstrong <AndrewArmstrong@bristolct.gov>;

Correspondence for wetlands

Begin forwarded message:

From: PRWA-CT <pequabuckriverct@gmail.com>
Date: February 1, 2024 at 11:38:00 AM EST
To: Ray.Esponda@newbritainct.gov
Subject: Re: White Bridge Well rehabilitation project

Hello Ray,

I am writing to follow up on the FOIA request below. Please provide a time frame for receipt of the documents.

Kind regards,
~Mary
Kind regards,
Mary Rydingsward, President
Pequabuck River Watershed Association
860.670.4761

On Thu, Jan 25, 2024, 11:39 AM PRWA-CT <pequabuckriverct@gmail.com> wrote:

Hello Ray,

Per our conversation yesterday, I am writing on behalf of the Pequabuck River Watershed Association to request all plans, studies, and reports related to the White Bridge Well Rehabilitation project. We specifically request information pertaining to current withdrawals and anticipated future withdrawals with the proposed wells.

I recognize that the project has been ongoing for many years. However, we expected the engineering study to be sent to the city of Bristol years back and I have not yet seen it.

Please let me know an expected time to either review or receive these reports electronically.

Kind regards,
Mary Rydingsward, President
Pequabuck River Watershed Association
860.670.4761

Letter from Carol Noble

February 2, 2024

February 2, 2024

Zach Fisk, Chair
Bristol Inland Wetland Commission
c/o Bristol Land Use Division
Via email:

RE: **Application #2019, Application #2020, Application #23-458F-305** Application for the restoration of the White Bridge Waterworks facility at Maltby Street; Assessors Map 52 & 53, Lots 11, 15, 16B16A, 17, 145, 147, 149, 150 & 151; New Britain Water Department, Ramon Esponda, Deputy Director, applicant.

Dear Chair Fisk and Bristol IWW Commissioners:

This letter is written in response to the subject application, with a request that it be included in the public hearing record.

The City of New Britain Water Department, as a large property owner in Bristol, has been a good neighbor. We can all agree that reliable water sources, treatment and distribution systems are vital to our communities. Certainly, the works of our water departments are appreciated and should be fully supported. However, it's my opinion as a CT Professional Engineer (retired Bristol Environmental Engineer), Certified Floodplain Manager (CFM), and Bristol property owner that the application for the expansion of the White Bridge facility in Bristol does not provide enough information to warrant approval as currently submitted. This complex technical proposal (with three separate applications before you), is central to the well-being of the community and protection of Bristol's natural resources. **Please consider a third party review of the subject application materials to help address the complex surface and groundwater interactions involved for this application.**

The application does not address how much additional water is anticipated to be withdrawn from the White bridge facility expansion. Therefore it does not completely address potential wetland watercourse impacts. These resources are not of unlimited supply.

What are the proposed volumes? How much is the increase from the existing system withdrawals? How does this interact with City of Bristol supply? Which areas of the streams and potentially the wetland systems act to recharge the aquifer? What are the seasonal changes when the stream systems may gain water and how does the proposed project fill affect localized storage? Please provide records of the historical use and the tabulation of proposed changes at each well location, as it relates to the Coppermine Brook, Polkville Brook, and Freemans Brook and surrounding wetland systems.

The project report rejected project alternatives (2A (existing agreement for Napaug reservoir water of 7.5 MGD-no impact to Bristol wetlands), 2B (similar agreement for 7.5 MGD at Napaug with new treatment at Whitebridge-no or smaller impact to Bristol wetlands), and 2C (addition 3 MGD in Farmington with interconnection improvements-no impact to Bristol wetlands). More discussion of alternatives is warranted, to address no or minimal wetland impact to the Bristol wetland and floodplain areas at the White Bridge facility. The rejected options are listed as able to provide 3 to 7.5 MGD of water into the New Britain system. What daily volumes goals are expected from the Whitebridge facility expansion? What monitoring has been and will be done to assure streamflow and wetland protections? What restrictions may be necessary during drought conditions?

It's not clear from the application materials that the proposed project (with their associated substantial wetland impacts) can even reliably deliver the water source goals for New Britain. These goals have not been clearly stated, with respect to both water quantity and water quality. Generally, it appears that the existing well locations are being reconfigured into wetland areas and filled, in order to meet the public health criteria, including the requirement to eliminate the ground water under direct influence (GWUDI) of surface water **public health** issue. Yet, this infiltration consideration appears to have been central to the initial 1920's design, construction, and operation; that is, that the surface waters would act as source/infiltration source for the wells. The report indicates that the reconfiguration of the wells into the wetlands may not solve the current regulatory requirements. The reports indicate the GWUDI success will not be established until after the wetland and floodplain impacts are constructed. This **risk** needs further explanation, as the regulated forested wetland impacts of nearly 5 acres should not be a gamble enterprise.

In order have an understanding of minimization of potential impacts related to the project, please address the following: Why is the sewer work proposed on Maltby Street (new main and liner)? What is the clearing impact for the gas service from Mix Street? Are all well meter vaults proposed at grade? Why can't the proposed driveway for the lower wellfield be located, at least partially, at the existing gravel drive in lieu of the proposed location with substantial wetland impacts? Please explain the proposed future work related to the existing 1200 feet of water main through the wetland and the water main work on Stafford and Maltby Streets. Was all previous work completed, including compensatory work, in substantial completion of the existing permits? Do any of the existing wetland boundaries differ from the previous approved application? On a survey plan, please clarify where the proposed wetland mitigation areas are located compared to existing wetland boundaries. Official wetland boundary changes for proposed compensatory areas should not be approved until after approved mitigation work has been constructed and deemed substantially compete.

Last but not least, how will the potential impacts during seasonal and drought changes affect the Coppermine watershed with respect to imperiled species. **An in-depth wildlife assessment is warranted to assess and address protections of the imperiled species as part of the project proposal.** Show all clearing limits and address the number/size of trees removed in the regulated wetlands for all proposed new utility related and compensatory work areas within regulated wetlands.

Clarification and understanding of these complex interactions should be addressed prior to approval of the expansion of the New Britain water source; and potential restrictions placed thereon. The project should not be approved at the expense of our communities' vital natural resources when other more viable sources are available. As conditions of any approval, mitigation and monitoring measures should be completed PRIOR to project impact, preferably with a lead time period to measure/establish the success of the mitigation goals.

Understanding and clarification of these complex interactions for your thoughtful decision is very much appreciated.

Sincerely,
Carol Noble, PE, CFM

Letter from John Correia

February 3, 2024

February 3, 2024

Zachary Fisk

Chairman, Bristol Inland Wetland and Watercourses Commission

Please consider the following letter sent via email during the public hearing scheduled for February 5, 2024 regarding:

Application #2020 Wetlands application for the restoration of the White Bridge Waterworks facility at Maltby Street; Assessors Map 52 & 53, Lots 11, 15, 16B16A, 17, 145, 147, 149, 150 & 151; New Britain Water Department, Ramon Esponda, Deputy Director, applicant.

and the associated

Application #23-458F-305 Floodplain application for the restoration of the White Bridge Waterworks facility at Maltby Street; Assessors Map 52 & 53, Lots 11, 15, 16B16A, 17, 145, 147, 149, 150 & 151; New Britain Water Department, Ramon Esponda, Deputy Director, applicant.

Dear Chairman and Commissioners,

Consider the White Bridge property as an urban forest. Though it is not a public park, it is the second largest open space of contiguous land after the Indian Rock, South Mountain, and Jacklin Rod & Gun Club complex. This means that projects on the property should consider its importance as one of the few oases in Bristol for wildlife as it is the largest area without regular human disturbances.

As with any major project in our increasingly imperiled wetlands, there are bound to be some concerns about the impacts to wildlife. With this White Bridge project there are potential impacts to both species listed as Endangered, Threatened, and of Special Concern and non-listed species who make this area home. In this letter, I would like to bring forth some of the potential issues with the White Bridge application which grossly outweigh the marketed environmental benefits. I feel it is important to view this project on a much larger scale and to look beyond (or below) the surface level facility improvements.

Potential Benefits to the Floodplain

Urban forests are becoming increasingly rare, yet studies have found they can be extremely valuable for human health and wildlife. Even vacant lots of only a few acres have been found to refuel migrating birds with native foods while providing much needed woody cover. I believe this wetlands permit application successfully identified the property's value for fruit-eating and shrub-marsh-visiting birds. In this proposal, over 170,000 square feet of uplands will be impacted in part to replicate wetlands with native plantings. Mostly "seasonally flooded/saturated broad-leaf deciduous wetlands" at the forest edge will be converted into shrub marsh matching the adjacent wetlands. While altering a habitat sounds negative, the plan, if successful, will probably yield a net ecosystem benefit and actually appears quite interesting (In this case, increases in wildlife food resources and plant diversity outweigh the loss of habitat, carbon sequestration, and water uptake of the older trees being removed).

The life histories of many birds involve visiting seasonally wet, densely vegetated wetlands or riparian areas at some point in the year. That means, as an isolated urban forest in a valuable migratory path, this property will be used year round for spring migration, summer breeding, fall migration, and winter cover. The native plant species selected for the wetland replication and replacement will aid this fact by providing food and cover in all seasons. Often there is a concern of introducing invasive species during a project that involves clearing land, but by quickly replacing lost vegetation with plantings, this will hopefully be avoided.

It should be noted that *Deschampsia cespitosa* is a species of special concern in Hartford County and is one of the grasses listed in the seed mix. If it does end up being planted, that information should be added to DEEP's Natural Diversity Database.

These benefits conflict, however, with the major issue that was inadequately evaluated in the permit application: changes to the amount of water on the property and in the Coppermine Brook as a whole.

Potential Negative Impacts Not Considered by the Applicant

Having an expertly crafted wetland and highly efficient wells becomes obsolete if the increased drawdown of groundwater from the White Bridge property completely unbalances the Coppermine system. The applicant has not fully explained or predicted how these major changes in well output or alterations to the floodplain will have "no effect" on stream flows. "No effect" seems unlikely since the Coppermine is an impaired water source and has dried up and become a trickle in recent years. Below are some of the potential risks to wildlife should this project impact the amount of water present.

Freshwater fish surveys on the White Bridge property from 1988 and 2008 found 12 species of wild fish, one of which was the species of Special Concern: the Slimy Sculpin (see map below). The fish identified all share a preference for smaller, cool, *flowing*, headwater streams with cobble bottoms. If this project were to affect the amount of water or flow of water, it could drastically change the amount of space, the temperature of the water, or the amount of oxygen available to these fish both upstream and downstream. These changes would be a degradation of water quality and habitat quality. The section of the Coppermine running through the property is one of the last water sources designated by the DEEP Water Quality and Stormwater Summary to be "fully supporting" of aquatic life in Bristol; it deserves protection. It is easy to understand that removing trees that are shading the Coppermine, as in the two lower compensatory storage areas, will likely increase the brook's temperature. The project is designed not to increase flooding or run-off above ground, however, the increased removal of water below ground has not been described and that is information that must be known prior to making a decision on this application. Will not a reduced level of groundwater also alter the amount of wetlands and flowing water for fish, amphibians, and aquatic invertebrates?

Additionally, NDDDB maps show a population of an imperiled species along the Coppermine. The species may be a fish or Box Turtles, either way it clearly requires a healthy, flowing river. Box Turtles currently have all habitats required for their life cycle on the property (forest, wetlands, wet meadow). If the wetlands on this property were to dry up significantly, turtles would be forced to migrate off the property leading to mortality at road crossings. With the sexual maturity of Box Turtles being 10 years, these vulnerable species must be heavily

protected in order to breed another generation. If we extract too much out of this system near the headwaters of the Coppermine, we could dry up the river and affect everything downstream. Not to mention, without water the proposed wetland replication would fail and basically turn into a clear-cut. Edge habitat is a complex ecotone highly sought after by some wildlife and avoided by others. This proposal solely works in these edges and changes the amount and type of edges present. There is no doubt that wildlife will respond to the changes, but it is difficult to say if the response will be purely positive.

In 2020, I was gratefully allowed the opportunity to confirm that a Great Blue Heron rookery exists on the property for the Connecticut Bird Atlas. I counted 37 herons (adults and young) on multiple nests in pine snags near the pond (see aerial photo below). This count of Great Blue Herons was the highest I could find on ebird checklists (a robust citizen science database) across the state and the total number probably would have been higher as many adults would have been absent, hunting elsewhere. It is extremely rare to find a Great Blue Heron rookery, let alone more than one or two herons at a time. I only know of two other rookeries in the state. Now consider we are in central Connecticut and in a city; it's quite special. On the site visit on January 27, 2024 it was apparent that the original heronry no longer existed as all of the nest snags had broken or fallen, but we were informed that some herons had begun to nest in other areas of the property and we flushed multiple herons that were foraging in the wetlands. This project would have been a significant disturbance to the herons had they still been using the original heronry, but the property is still clearly important to them. The fact that this permit can affect the amount of water on the property which supports the herons' food resource and removes large trees adjacent to wetlands which are potential nesting sites means the Great Blue Herons are yet another piece of the ecosystem that will be impacted by this work. While Great Blue Herons are not a listed species, the uniqueness of White Bridge as the potentially largest breeding ground in Connecticut should elicit some kind of precaution or even a mention in the permit application.

It is important for the IWWC to prevent the destruction or alteration of wetlands which are an irreplaceable public resource. Carefully weigh the need to draw more water from the Coppermine watershed and compare it to the possible result of the project: the loss of the entire wetland ecosystem. At this time we have no way of knowing what will happen after this project is completed, but proceeding just to find out without further studies seems risky. **Therefore, it would be pertinent to acquire a third-party review** of not just the wildlife impacts, but the effects of drawing more groundwater and creating more wetlands.

Consulting the NDDB is simply not enough to protect wildlife. I have seen in other development projects that a lack of listed species reported by the NDDB in the human delineated "project area" can downgrade the importance of protecting habitat to contractors. Even in this case, because the Slimy Sculpin was detected just north of Stevens Street in the past which is outside the White Bridge project area, it is not going to receive any best management practices during this project. Does a river fish not require water both upstream and downstream? This problem alludes to the fact that we need newer data, collected in a standardized way that considers Connecticut as a whole to improve our conservation efforts.

If there is one take away from this letter it is that, as Commissioners, you should always think of the bigger picture. Some projects have larger ramifications than expected. This project has a landscape level effect on the environment; and is certainly relevant on the state level and maybe even beyond.

Sincerely,

John Correia

7 years experience as a wildlife field scientist for DEEP, land trusts, non-profits, and universities

Letter from Rivers Alliance

February 5, 2024



February 5, 2023

Zach Fisk, Chair
Bristol Inland Wetlands and Watercourses Agency and Conservation Commission
c/o Bristol Land Use Division
Via Email:

RE: **Application #2019** - Wetlands boundary change application for the restoration of the White Bridge Waterworks facility at Maltby Street; Assessor's Map 52 & 53, Lots 11, 15, 16B16A, 17, 145, 147, 149, 150 & 151; New Britain Water Department, Ramon Esponda, Deputy Director, applicant.

And

Application #2020 – Wetlands application for the restoration of the White Bridge Waterworks facility at Maltby Street; Assessor's Map 52 & 53, Lots 11, 15, 16B16A, 17, 145, 147, 149, 150 & 151; New Britain Water Department, Ramon Esponda, Deputy Director, applicant.

And

Application #23-458F-305 – Floodplain application for the restoration of the White Bridge Waterworks facility at Maltby Street; Assessor's Map 52 & 53, Lots 11, 15, 16B16A, 17, 145, 147, 149, 150 & 151; New Britain Water Department, Ramon Esponda, Deputy Director, applicant.

Dear Chair Fisk and the Bristol IWW Commissioners:

Rivers Alliance of Connecticut, Inc. (RA) respectfully submits to the Bristol Inland Wetlands and Watercourses Agency/Conservation Commission (Agency) the following comments on the above applications before the Agency. RA does not oppose the work that needs to be done by New Britain Water Department (NBWD) in order to rehabilitate its wellfields and to come into compliance with the Connecticut Department of Public Health (DPH) and the Federal Emergency Management Agency (FEMA), so long as the reasonably foreseeable environmental

threats posed by this activity are appropriately conditioned to protect important natural resources comprised of waters of the State under the stewardship of the City of Bristol.

RA is a non-profit environmental organization, founded in 1992, and dedicated to the protection and preservation of the water resources of the State. Its membership includes, primarily, river and watershed groups in the state, civic and business groups, municipal commissions, and individuals concerned with water health, thus representing a network of thousands of members statewide. The mission of RA is to protect the quality and availability of surface and ground waters of Connecticut and Long Island Sound and the associated recreational uses and habitat values. RA advocates for the protection of ample, healthy sources of water for drinking and other vital societal uses. RA brings expertise in policy, law, and science to participation in policy-making entities and to its extensive educational program. The goal is to bring people together to protect our state waters for current and future generations. Numerous RA members are residents of Bristol or customers of NBWD.

Withdrawals and Impact on Coppermine Brook

Any diversion of water that exceeds 50,000 gallons per day (ground or surface) must apply for a permit from the Department of Energy and Environmental Protection (DEEP). The duration of a water diversion permit can be anywhere from 5-25 years and “is established by DEEP based on its consideration of existing uses and allocations of the water resources within the watershed and pertinent facts and circumstances particular to the proposed project.” **However**, for diversions registered prior to 1983, **the registrant has rights to divert the amount of water originally registered in perpetuity**. These are referred to as “registered” diversions and were never and currently not subject to any environmental review.

NBWD has several registered diversions in the White Bridge Waterworks facility area that give them the authorization to divert 23.78 million gallons of water per day (mgd) in perpetuity. It is important to note that, due to decreased well performance, NBWD has been able to withdraw only a portion of the 23.78 mgd it is authorized under its registration.

Bristol Water Department (BWD) also owns or manages water supply facilities within the same drainage basin as the White Bridge Waterworks Facility. BWD is authorized to divert 3.87 mgd in perpetuity.

Coppermine Brook is listed in Connecticut Department of Energy and Environmental Protection’s (DEEP) 2022 Integrated Water Quality Report to Congress under Nonpollutant Impairments (EPA Category 4c) for Flow Regime Modification. DEEP has developed a methodology for assessing flow impairments when sufficient information is available. The term

flow regime modification is used to reflect the impairments which are predominantly due to flow alterations that serve public needs and safety. Sections of Coppermine Brook below and adjacent to the NBWD and BWD were completely dry during the 2016-2017 drought and **DEEP has documented impairment due to low flow for periods following the 2016-2017 drought.**



DEEP's Hands are Tied on Low Flow Intervention

DEEP cannot intervene on impairments from low flow as the withdrawal activity is in compliance with CGS §22a-365 through 22a-379 as well as [Sections 22a-372-1, 22a-377\(b\)-1 and 22a-377\(c\)-1 to 22a-377\(c\)-2](#) of the Regulations of Connecticut State Agencies and impacts on streams from groundwater withdrawals are not included in DEEP's Streamflow Standards and Regulations pursuant to CGS §26-141(a) and (b) and [§26-141b-7\(a\) of the Regulations of Connecticut State Agencies](#).

Increase in Withdrawals and Complicated Application

NBWD has stated in Application #2020 that **"The NBWD has registered diversions and those withdrawals will be increased."** It also stated that **"The proposed wetland disturbances activity will not affect the nearby watercourse flow rate."**

RA has valid and serious concerns that Coppermine Brook will be further impaired for regime flow modification due to increase in withdrawals which is not addressed in the application (the

claim states that the proposed *wetland disturbances* won't affect flow rate) and would also like to ensure that the Agency has all information needed to make an informed decision on all aspects of this complicated proceeding. There are still many questions that are left unanswered by the application. Comments submitted by Carol Noble, PE, CFM, do a very good job of identifying the many aspects of these applications that remain unclear and asks many questions that the Agency should have answers to prior to making a decision.

It is imperative that conditions to protect critical natural resources of the State, threatened with increased uncertainty of climate change, are required in order to protect the waters of the State in which the City of Bristol has been entrusted. In respect to low flows due to increased withdrawal, this can be accomplished by requiring monitoring of streamflow above and below the wellfields and requiring that NBWD work with DEEP to determine a threshold at which NBWD would have to work with DEEP to find an operational mode that would not impair Coppermine Brook as per the NBWD agreement with DPH for funds procured through DPH's Drinking Water State Revolving Fund for the project.

Rivers Alliance has submitted a verified petition to intervene on these applications under CEPA. We look forward to working with the Agency and NBWD going forward and are available and eager to answer any questions.

Respectfully submitted,

A handwritten signature in blue ink, appearing to read 'Alicea Charamut', with a stylized, cursive script.

Alicea Charamut, Executive Director

Letter from Trout Unlimited

February 5, 2024



John DiVenere, President
Farmington Valley Chapter of Trout Unlimited
www.fvtu.org

February 5, 2024

Zach Fisk, Chair
Bristol Inland Wetlands and Watercourses Agency and Conservation Commission
c/o Bristol Land Use Division
Via Email:

RE: **Application #2019** - Wetlands boundary change application for the restoration of the White Bridge Waterworks facility at Maltby Street; Assessor's Map 52 & 53, Lots 11, 15, 16B16A, 17, 145, 147, 149, 150 & 151; New Britain Water Department, Ramon Esponda, Deputy Director, applicant.

And

Application #2020 – Wetlands application for the restoration of the White Bridge Waterworks facility at Maltby Street; Assessor's Map 52 & 53, Lots 11, 15, 16B16A, 17, 145, 147, 149, 150 & 151; New Britain Water Department, Ramon Esponda, Deputy Director, applicant.

And

Application #23-458F-305 – Floodplain application for the restoration of the White Bridge Waterworks facility at Maltby Street; Assessor's Map 52 & 53, Lots 11, 15, 16B16A, 17, 145, 147, 149, 150 & 151; New Britain Water Department, Ramon Esponda, Deputy Director, applicant.

Dear Chair Fisk and the Bristol IWW Commissioners:

During the 2016 & 2017 drought, a fly angler who was taking a stroll along Artisan Street noticed that there was no water in sections of Coppermine Brook that passes under the bridge. It is true that most rivers and streams in Connecticut were in low flow conditions due to below average rainfall but there are public drinking water wells adjacent to Coppermine Brook that have the right to withdraw approximately 25 million gallons of water a day from basin. Yet, even if the information was readily available to determine if the groundwater withdrawals are significantly contributing to the dewatering of Coppermine Brook at that time, there is very little anyone can do about it because streamflow regulations do not take groundwater withdrawals into consideration.

FVTU has approximately 600 members within our home waters – which includes both cities of Bristol and New Britain. Numerous members live in the City of Bristol and enjoy the trout fishing opportunities available in their city.

The application submitted by the New Britain Water Department states that they will be increasing withdrawals from their wellfields once rehabilitation work is finished. We have serious concerns that this will exacerbate low flows in Coppermine Brook.

Sections of Coppermine Brook are designated as a Trout Management Area (TMA). Trout are one of the most sought after fish species by anglers, who spend approximately 2.1 million fishing trips a year seeking them. Connecticut's TMAs have special regulations in place to provide high-quality opportunity to catch trout. The City of Bristol is very fortunate to have both Coppermine Brook and the Pequabuck River as designated as TMAs to provide an opportunity for trout fishing in a relatively urbanized area.

But trout, and all living things, need water to survive. They also need continuous flows in order to find cooler water during hot dry months and scarce rainfall.

We urge the Agency to ensure that it has all of the information it needs to understand how increased withdrawals will impact downstream flows and to condition the permit as to ensure that Coppermine Brook does not run dry once more. We encourage the Agency to utilize its authority to hire outside experts that can review the application and provide information on how these increased flows will impact downstream flows.

Sincerely,

John DiVenere

John DiVenere, President, Farmington Valley Chapter of Trout Unlimited.

Verified Petition to Intervene

February 5, 2024

**BRISTOL INLAND WETLANDS AND WATERCOURSES AGENCY/CONSERVATION
COMMISSION**

Application #2019 - Wetlands boundary change application for the restoration of the White Bridge Waterworks facility at Maltby Street; Assessor's Map 52 & 53, Lots 11, 15, 16B16A, 17, 145, 147, 149, 150 & 151; New Britain Water Department, Ramon Esponda, Deputy Director, applicant.

Application #2020 – Wetlands application for the restoration of the White Bridge Waterworks facility at Maltby Street; Assessor's Map 52 & 53, Lots 11, 15, 16B16A, 17, 145, 147, 149, 150 & 151; New Britain Water Department, Ramon Esponda, Deputy Director, applicant.

Application #23-458F-305 – Floodplain application for the restoration of the White Bridge Waterworks facility at Maltby Street; Assessor's Map 52 & 53, Lots 11, 15, 16B16A, 17, 145, 147, 149, 150 & 151; New Britain Water Department, Ramon Esponda, Deputy Director, applicant.

February 5, 2024

VERIFIED PETITION TO INTERVENE UNDER CGS §22a-19

Rivers Alliance of Connecticut, Inc. (RA) requests that the Bristol Inland Wetlands and Watercourses Agency/Conservation Commission (Agency) grant it intervenor status in the above captioned proceedings, pursuant to the Connecticut Environmental Protection Act, CGS section 22a-19(a)(1) (CEPA). RA does not oppose the work that is proposed by New Britain Water Department (NBWD) in the above-referenced applications to purportedly rehabilitate its wellfields and to come into compliance with Connecticut Department of Public Health (DPH) and Federal Emergency Management Agency (FEMA) requirements, so long as the reasonably foreseeable environmental threats posed by these activities are appropriately conditioned to protect the important natural resources comprised of waters of the State under the stewardship of

the City of Bristol. RA's participation in this matter is in the interests of justice and will not impair the orderly conduct of the proceedings.

In support of its petition, RA represents the following:

1. CEPA provides in pertinent part at General Statutes Section 22a-19(a) that

In any administrative, . . . proceeding, and in any judicial review thereof made available by law, . . . any person, . . . corporation . . . or other legal entity may intervene as a party on the filing of a verified pleading asserting that the proceeding or action for judicial review involves conduct which has, or which is reasonably likely to have, the effect of unreasonably polluting, impairing or destroying the public trust in the air, water or other natural resources of the state.

2. The Agency is the town agency authorized to administer the statutory provisions regulating the use of inland wetlands and watercourses pursuant to General Statutes Section 22a-36, et seq., and of its own duly enacted Inland Wetlands and Watercourses Regulations of the City of Bristol (Regulations).

3. RA is a 501(c)(3) non-profit environmental organization, founded in 1992, and dedicated to the protection and preservation of the water resources of the State. Its membership includes, primarily, river and watershed groups in the state, civic and business groups, municipal commissions, and individuals concerned with water health, thus representing a network of thousands of members statewide. RA's mission is to protect the quality and availability of surface and ground waters of Connecticut and Long Island Sound and associated recreational uses and habitat values. RA advocates for the protection of ample, healthy sources of water for drinking and other vital societal uses. RA brings expertise in policy, law, and science to participation in policy-making entities and to its extensive educational program. RA's goal is to bring people together to protect our state waters for current and future generations. Numerous

RA members are residents of Bristol or customers of NBWD. RA's offices are located at 28 Russel Street, P.O. Box 1797, Litchfield, Connecticut, 06759.

4. The Agency's decision in this matter will specifically affect RA, its members, and important natural resources of the State. NBWD owns or manages water supply facilities in the City of Bristol. Pursuant to CGS §22a-365 through 22a-379 as well as Sections 22a-372-1, 22a-377(b)-1 and 22a-377(c)-1 to 22a-377(c)-2 of the Regulations of Connecticut State Agencies, NBWD is authorized to divert 23.78 million gallons of water per day (mgd) in perpetuity.

5. Bristol Water Department (BWD) also owns or manages water supply facilities within the same drainage basin as the White Bridge Waterworks Facility. Pursuant to CGS §22a-365 through 22a-379 as well as Sections 22a-372-1, 22a-377(b)-1 and 22a-377(c)-1 to 22a-377(c)-2 of the Regulations of Connecticut State Agencies, BWD is authorized to divert 3.87 million gallons of water per day (mgd) in perpetuity.

6. Coppermine Brook is listed in Connecticut Department of Energy and Environmental Protection's (DEEP) 2022 Integrated Water Quality Report to Congress under Nonpollutant Impairments (EPA Category 4c) for Flow Regime Modification. DEEP has developed a methodology for assessing flow impairments when sufficient information is available. The term "flow regime modification" is used to reflect the impairments which are predominantly due to flow alterations that serve public needs and safety.

7. Sections of Coppermine Brook below and adjacent to the NBWD and BWD were effectively dry during the 2016-2017 drought and DEEP has documented impairment due to low flow for periods following the 2016-2017 drought. Due to decreased well performance, NBWD has been able to withdraw only a portion of the 23.78 mgd it is authorized pursuant to

CGS §22a-365 through 22a-379 as well as Sections 22a-372-1, 22a-377(b)-1 and 22a-377(c)-1 to 22a-377(c)-2 of the Regulations of Connecticut State Agencies.

8. NBWD has stated in Application #2020 that “The NBWD has registered diversions and those withdrawals will be increased.” It also stated that “The proposed wetland disturbances activity will not affect the nearby watercourse flow rate.”

9. RA seeks to intervene in this proceeding for the purposes of assuring that Coppermine Brook is not further impaired for regime flow modification due to an increase in withdrawals by the NBWD. The potential for such further impairment is not adequately addressed in the Application. RA further seeks to ensure that the Agency has a complete record on which to make an informed decision on all aspects of this complicated proceeding. As DEEP cannot intervene on impairments from low flow (as this activity is purportedly in compliance with CGS §22a-365 through 22a-379 as well as Sections 22a-372-1, 22a-377(b)-1 and 22a-377(c)-1 to 22a-377(c)-2 of the Regulations of Connecticut State Agencies), it is reasonable for the Agency to inquire into potential impacts to downstream flow from NBWD withdrawals. In addition, impacts on streams from groundwater withdrawals are not included in DEEP’s Streamflow Standards and Regulations pursuant to CGS §26-141(a) and (b) and §26-141b-7(a) of the Regulations of Connecticut State Agencies. Appropriate regulation and oversight of potential impacts to downstream flow can be accomplished by requiring monitoring of streamflow above and below the wellfields and requiring that NBWD work with DEEP to determine a threshold at which NBWD would have to work with DEEP to find an operational mode that would not impair Coppermine Brook, as per the NBWD agreement with DPH for funds procured through DPH’s Drinking Water State Revolving Fund for the project. This regulation and oversight clearly falls

within the Agency's jurisdiction in this proceeding pursuant to CGS section 22a-41, 22a-42, and the city's Inland Wetlands and Watercourses Regulations.

10. It is RA's position that prudent conditions to protect critical natural resources of the State, which are threatened by the increased uncertainty of climate change, are necessary and appropriate. RA is focused on a narrow but important set of natural resources that receive limited, but critical, protections under state statute. RA's intervention in this matter is in the interests of justice and will not impair the orderly conduct of the proceedings.

11. RA is not aware of any other intervening party to this proceeding whose focus is to ensure that the water resources of the state under the care of the City of Bristol are protected from undue impairment.

12. RA intends to offer brief and pertinent direct testimony from Connecticut water conservation experts with personal knowledge of wetlands and hydrology, as it applies to the Applications.

13. RA requests that the following individuals be listed on the Service List in this proceeding:

Alicea Charamut, Executive Director
Rivers Alliance of Connecticut, Inc.
28 Russel Street, P.O. Box 1797
Litchfield, CT 06759
(860) 416-7859
alicea@riversalliance.org

and

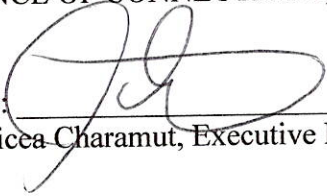
Mary Ridingsward, Executive Director
Pequabuck River Watershed Association
PO Box 1461
Bristol, CT 06011-1461
pequabuckriverct@gmail.com

Copies of filings and notices should be sent to alicea@riversalliance.org.

WHEREFORE, Rivers Alliance of Connecticut, Inc. respectfully requests intervention status in this proceeding pursuant to CEPA upon the filing of this verified pleading for intervention.

Respectfully submitted,

INTERVENOR
RIVERS ALLIANCE OF CONNECTICUT, INC.

By: 
Alicea Charamut, Executive Director

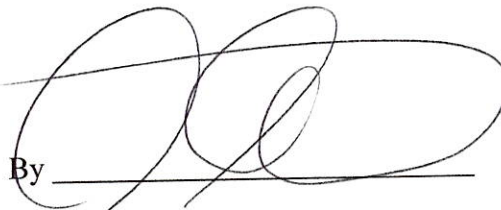
VERIFICATION OF PETITION FOR INTERVENTION
UNDER GENERAL STATUTES SECTION 22a-19(a)

I, the undersigned, being duly sworn, depose and say that (i) I am the Executive Director of Rivers Alliance of Connecticut; (ii) I have the authority to execute this Petition for Intervention on behalf of Rivers Alliance of Connecticut; and (iii) I have read the foregoing Petition for Intervention and verify that the facts stated therein are true and correct to the best of my knowledge, information and belief based on my personal knowledge, and the records which I have reviewed in this matter.

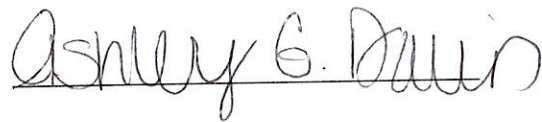
Dated at Newington Connecticut, this 5th day of February, 2024.

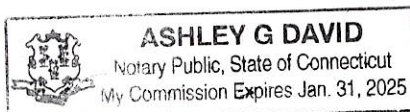
INTERVENOR

RIVERS ALLIANCE OF CONNECTICUT

By 
Alicea Charamut, Executive Director

Subscribed and sworn to before me the undersigned this 5th day of February, 2024.





Notary Public: Ashley G. David
My Commission Expires: 01/31/2025

Link to State Historic Preservation Office Application, Letter, Response (April 2022)

Link to Document:

https://www.bristolct.gov/DocumentCenter/View/45992/NBWD-SHPO_Letter_Response-and-Application-April-27-2022

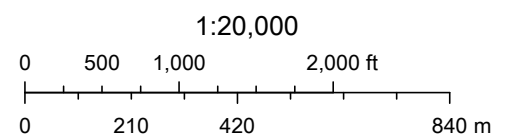
ATTACHMENT 1

PROJECT SITE MAP

White Bridge Waterworks Facility



2/22/2023, 3:28:12 PM



USGS The National Map: Orthoimagery and US Topo. Data refreshed December, 2022.

ATTACHMENT 2

ADDITIONAL INFORMATION

Wetlands Permit Application – IW-1

This attachment to the IW-1 application serves to provide the additional information required for significant activity application submittals, including:

- Site plans
- Proposed project activities
- Description and delineation of wetlands (Wetland Delineation Report)
- Impact on watercourse & flowrate
- Project alternatives
- Measures to mitigate the impact of the proposed activity

Proposed Project Activities:

A rehabilitative project will be conducted at the Upper and Lower Wellfields of the White Bridge Waterworks Facility owned by the New Britain Water Department (NBWD) accessed via Maltby Street. The purpose of this project is to redevelop the existing Upper and Lower Wellfields, which were constructed in the 1940s and 1921, respectively. Presently, these wellfields serve as a raw water supply only and cannot serve as a backup in their present condition. The age of the wellfields is such that they have come to the end of their useful life and repair and replacement equipment is no longer available. The NBWD needs to upgrade the facilities and modernize the equipment.

To become a potable water supply, any new wells must be located 50 feet from any water bodies or wetland limits per Department of Public Health (DPH) requirements. In addition, the wells must be raised 2' above the one-hundred-year flood plain elevation. Because of these requirements, the existing wells cannot be redrilled or rehabilitated in their present location. All currently existing wells will be abandoned in accordance with DPH requirements. The Lower Wellfield may but suitable as a public water supply subject to the ground water under the direct influence of surface water testing which will be done once the project is completed in a future phase of construction.

Numerous studies have been performed in preparation for this project including:

- A detailed test well program
- A seismic refraction study
- Wetlands mapping

The project will be executed according to a predetermined schedule prepared by the design consultant (CDM Smith) in coordination with the contractor (TBD). A 2-year duration from start of construction to completion is anticipated. A total of nine wells will be installed at the Upper and Lower Wellfields (three at the Upper Wellfield and six at the Lower Wellfield). A new pumphouse will be constructed at the Lower Wellfield along with all the necessary underground piping related to the new wells and pump house. The new pump house will house chemical treatment facilities. The pump house will be constructed 2' above the 100-year flood elevation per DPH regulation.

Compensatory flood storage areas will be created so as to not increase the current flood elevation levels as given by FEMA guidelines. These compensatory storage areas will also create additional wetland

areas and, as such, an IW-2 permit application has been submitted for review. See the attached maps for further information on the locations of these affected areas.

The proposed project also includes the removal of sediment from both the existing supply pond and canal located to the north. See a detailed drawing of the sediment removal attached. Over the years sediment has accumulated significantly in these water bodies and has decreased the capacity of both. The benefit of sediment removal will be an increased capacity of readily available surface water.

Description of Property and Wetlands:

This property spans a total of 303.7 acres, which includes the following parcels (by Map/Lot number): 52-15, 52-16B16A, 52-17, 52-11, 53-149, 53-150, 53-151, 53-145 and 53-147. Copper Mine Brook travels through the entirety of the property from north to south. The Upper Wellfield is located on parcel 52-17, which is 104.6 acres and has PFO1E and PEM1E wetland areas. PFO1E areas are seasonally flooded/saturated broad-leaved deciduous wetlands. PEM1E areas are seasonally flood/saturated persistent emergent wetlands. Soils in this project area consist mostly of Scarboro muck, with some Saco silt loam located closer to Copper Mine Brook. Soil scientist Ian Cole located all the wetland boundaries in the vicinity of the test well explorations. These boundaries are shown on the plans provided.

The Lower Wellfield is located on parcel 53-145, which is 50.3 acres and also has PFO1E and PEM1E wetland areas. Polkville Brook travels west to east, then southerly through this parcel before flowing into Copper Mine Brook. Onsite vehicular transport, between the Upper and Lower Wellfield areas will use existing travel ways on the site not within any wetland boundaries. Soils in the Lower Wellfield project area consist mostly of Raypol silt loam, with some Hinckley loamy sand located closer to Polkville Brook. Detailed wetlands mapping is provided on the plans.

Impact on Watercourse & Flowrate:

The proposed wetland disturbances activity will not affect the nearby watercourse flow rate.

The subject project includes the following watercourses that flow through the project site:

- Copper Mine Brook
- Polkville Ave Brook
- Freeman's Brook

The NBWD has registered diversions and those withdrawals will be increased.

Project Alternatives:

The following project alternatives were considered in selecting the preferred option for this project:

- Alternative 1 – No Action – The City would continue to run the existing White Bridge facilities at their current capacity without capital improvements.
- Alternative 2 – Purchasing water from The Metropolitan District (MDC) supply – Multiple alternatives were established to purchase raw or finished water from the MDC.
 - Alternative 2A – Raw Water to WTP/Shuttle Meadow Reservoir – Through existing agreements with MDC, the City has the ability to pump up to 7.5 mgd of raw water from MDC's Nepaug Reservoir, through the City's Nepaug pumping station, to the City's WTP or Shuttle Meadow Reservoir.
 - Alternative 2B – Raw Water to a new treatment plant – This alternative is similar to 2A, but would pump raw water to a new treatment facility near the existing White Bridge facilities to provide a redundant finished water source for New Britain customers.
 - Alternative 2C – Finished Water - There are also two existing interconnections with MDC's potable water distribution system. At the intersection of Fienemann and Farm Springs Road in Farmington, there is a hydrant-to-hydrant connection and at Hartford Road, just south of Westfarms Mall, there is a 12-inch meter pit connection. These are emergency-only interconnections and would need to be upgraded to become regularly-utilized sources. Once upgraded, these interconnections would provide up to 3 mgd of finished water to the City's distribution system.
- Alternative 3 – New Pond Pump Station Phased Approach – A new Pond Pump Station providing pumping of the surface water and Upper Wellfield water to the Shuttle Meadow Reservoir as raw water, as is currently the case for those supply sources. The facility will also include space for chemical addition, installed under a subsequent phase, to treat the Lower Wellfield water. A conceptual plan for the chemical addition would be included in this alternative. All wells would be replaced, and new pumps installed. The foregoing work constitutes Phase 1. Design and construction of the chemical addition for the subsequent Phase 2 would be dependent on the results of GWUDI (groundwater under the direct influence of surface water) testing.
- Alternative 4 - New Pond Pump Station / Lower Wellfield Chemical Addition Building - A combined facility providing pumping of the surface water and Upper Wellfield water to the Shuttle Meadow Reservoir as raw water, as is currently the case for those supply sources. The facility would also include chemical treatment facilities for sequestering manganese in the Lower Wellfield water. The finished Lower Wellfield water would be pumped directly to the City's water distribution system. Treatment of the Lower Wellfield water is dependent on the results of a GWUDI study. All wells would be replaced, and new pumps installed. Alternative 4 differs from Alternative 3 only in the timing of construction of the chemical addition facilities. In Alternative 4, they would be built at the same time as the rest of the facilities, not in a subsequent phase.

The following improvements were identified to be common to Alternatives 3 and 4:

- New wells at the Lower and Upper Wellfields to increase their production to levels closer to the Diversion Registrations.
- Supply Pond and Canal Restoration to remove sediment and restore these facilities back to their original intent.
- Intake Upgrade to replace the existing screens and piping up to the intake structure. The bridge from the bank of the supply pond to the intake structure would be repaired as well.
- Abandonment of the existing wells, caisson, and associated piping.

An initial screening of alternatives was performed, which eliminated Alternatives 1, 2A, 2B, and 2C as these alternatives did not meet the needs of the project or had high capital cost. Alternatives 3 and 4 were carried forward to additional evaluation and represent the proposed activity for this permit application.

Measures to Mitigate Project Impact – Erosion Control Measures:

The erosion and sedimentation control measures at the White Bridge facility focus on the protection of wetlands and waterways during and following construction since the work includes land disturbances, excavation dewatering, supply pond and canal sediment removal activities, and other associated construction activities. Several methods are included on the Drawings to slow the flow of runoff and protect disturbed land during construction activities. Please refer to the project plans for typical details of measures to protect wetlands and waterways during and after construction. The following summary presents typical mitigation measures that will be implemented to avoid and minimize wetland impacts during construction.

Construction Period

- During construction, the limit of land disturbances will be kept to a minimum, where possible, and the construction will be sequenced so the entire site will not be disturbed at the same time.
- Clearing and grubbing will be limited to only the areas necessary for work to be performed, specifically in areas at the Upper and Lower Wellfields (Sheet C-9 and C-11) where wells and piping will be installed, at the Maltby Street 16" pipe crossing (Sheet C-18), at areas where wetlands and compensatory storage will be created (Sheet C-13 and C-14), and areas around the Supply Pond for access during sediment removal activities (Sheet C-23).
- Sedimentation barriers (i.e., silt fence and/or compost logs/straw wattles installed per industry standards) will be installed at the down gradient limits of work and construction access roadways prior to the commencement of work to prevent the transport of sediment to the downgradient wetlands and waterways during construction (see Sheets C-6 thru C-8). Specifically, at the Upper Wellfield this includes compost logs/straw wattles along the facility driveway from Maltby Street to the existing Pumping Station and down each of the well field laterals. At the Lower Wellfield, this includes along the wetlands to the north and west of proposed work, along the Coppermine

Brook to the east, around the Supply Pond, and along both sides of the Canal to the Polkville Avenue Brook. These barriers will be inspected at least once per week and within 24 hours of rainfall events ½-inch or greater and repaired as needed. These barriers will remain in place until all disturbed soils are stabilized. A stockpile of compost logs/straw wattles and silt fence will be maintained on site for routine maintenance and emergency repairs. Barriers will be replaced as necessary due to sediment build-up and degradation.

- Sedimentation barriers (i.e., silt fence and/or compost logs/straw wattles installed per industry standards) will be installed surrounding temporary stockpile areas.
- For all slopes 4:1 or steeper, an erosion control blanket will be required, including at the Upper and Lower Wellfield wells (see Sheet C-9 and C-11). Temporary erosion control blankets will be inspected at least once per week and within 24 hours of rainfall events.
- A turbidity curtain will be installed to prevent sedimentation and turbidity disturbances in the Coppermine Brook during canal and supply pond sediment removal activities (see Sheet C-23 and Detail Sheet C-24). Turbidity curtains will be inspected daily during Supply Pond and canal sediment removal activities. The turbidity curtain will not be removed before sediment removal activities have ended and clarity of water has returned.
- Catch basin filters will be installed on catch basins near all excavation work on Maltby Street, Stafford Avenue, and Mix Street (See Sheet C-18 and Detail Sheet C-24).
- In the event that excavation dewatering is necessary, water will be pumped and discharged to one of the temporary sedimentation basins in designated areas of the site (see Sheet C-6 thru C-8 and Detail Sheet C-24). Temporary sedimentation basins will be inspected at least once per week and cleaned as needed to remove accumulated sediments. Temporary portable sediment tanks may also be used to handle significant amounts of excavation dewatering. All water to be discharged from dewatering activities will be filtered or otherwise treated prior to discharge to prevent siltation to adjacent areas. Best management practices will be used by the Contractor in order to prevent siltation to adjacent areas during dewatering activities.
- A temporary sediment dewatering and stockpiling area has been designated within the Supply Pond to dewater removed sediments during restoration activities (see Sheet C-23 and Detail Sheet C-24). Stockpiled materials and containment area will be inspected daily during dewatering activities, weekly during non-dewatering activities, and within 24 hours of rainfall events of ½-inch or greater.
- A stabilized construction entrance is also being required for the site to prevent tire tracked soils to onsite and offsite locations (see Sheet C-23 and Detail Sheet C-24). The stabilized construction entrance will be inspected periodically and additional top dressing or length will be added, as necessary, to continue capturing sediment tracked on vehicles.
- The silt fence and/or compost log/straw wattle barrier will not be removed until the site areas are vegetated, paved or otherwise permanently stabilized to prevent erosion of exposed soils. Work

will proceed as rapidly as possible, limiting the exposure time of disturbed soils to wind and precipitation.

- The sedimentation barriers will not be removed until the site areas are vegetated, paved or otherwise permanently stabilized to prevent erosion of exposed soils. Work will proceed as rapidly as possible, limiting the exposure time of disturbed soils to wind and precipitation.
- Periodic inspections will be made by the applicant to ensure compliance with the permit conditions.

Spill Control Measures

- Spill containment equipment (e.g. oil absorbent pads, oil absorbent materials, containment booms, shovels, etc.) will be stored in the equipment storage and refueling area in an easily accessible manner for use in the clean-up of accidental releases of fuel or other hazardous materials. Should there be an accidental release the proper authorities will be notified in accordance with all applicable federal, state, and local laws; and
- To minimize the possibility of leakage of hydraulic fluid, all hydraulic lines on all construction equipment and vehicles will be inspected at the end of each workday. If any excessive wear or leakage is observed, the line will be repaired prior to further use. In addition, a supply of oil absorbent materials (i.e. pads, "speedy dry," and/or booms) will be maintained with the equipment at the work area for immediate deployment in the event of an accidental release of fuel, hydraulic fluid, oil, etc.

Post-Construction Period

The following summary of mitigation measures will be implemented to restore any areas affected by short-term impacts that occur in or adjacent to wetlands.

- The final site is designed to have a 3-foot wide gravel infiltration trench with 1.5"-3" diameter washed aggregate covered with 6" pea gravel running along the facility driveway to collect and slow the flow of runoff from impervious surfaces (see Sheet C-10 and Detail Sheet C-26).
- All areas disturbed during construction activities are to be loamed and seeded to provide vegetated soil cover protection against sheet runoff and wind erosion (see Sheet C-9 thru C-12). Seeded areas will be inspected at least once per week and within 24 hours of rainfall events of ½-inch or greater.
- Once established, seeded areas will be mowed and maintained as appropriate.
- The Pond Pumping Station building roof drain leader will outlet to a riprap apron (See Sheet C-10 and Detail Sheet C-26). Riprap used in the roof drain apron will be inspected periodically to determine if high flows have caused scour beneath riprap or if vegetation removal is required. On the northeast side of the Pond Pumping Station building, a retaining wall will be utilized to prevent steep slopes.

- The wetland replication and restoration areas will be planted with trees and shrubs per the planting plans, and seeded with a wetland seed mixture.
- If seeding occurs outside of the growing season, temporary stabilization measures (i.e., mulching or erosion control blankets) will be used to prevent erosion until the area can be seeded during the following growing season.
- Reseeding and mulching disturbed areas. These areas will be maintained and re-seeded to ensure that grass cover is adequate to stabilize the exposed soil, and
- Sedimentation and erosion control barriers will not be removed until a vegetative cover dense enough to prevent erosion is established.

Selections from Figure 3-2 of the 2002 Connecticut Guidelines for Soil Erosion and Sediment Control:

Figure 3-2 Measure Selection Matrix					
Identify Problem Areas	Identify Control Problems	Identify Strategy	Select Specific Measure		Plan Key
			Functional Group	Measure	
Disturbed Areas	Control Soil Detachment	Preserve and Conserve Existing Site Resources	Protect Vegetation	Tree Protection	TP
			Preserve and Conserve Soil	Topsoiling	TO
Short or Shallow Slopes	Raindrop Splash	Protect Surface	Vegetative Soil Cover	Land Grading	LG
				Surface Roughening	SR
Steep Slopes	Sheet & Rill Erosion	Protect Surface	Vegetative Soil Cover	Dust Control	DC
				Temporary Seeding	TS
Long Slopes	Wind Erosion	Protect Surface	Vegetative Soil Cover	Permanent Seeding	PS
				Sodding	SO
Stockpile Areas	Control Water Movement	Protect Surface and/or Convey Runoff	Non-Living Soil Protection	Landscape Planting	LP
				Temporary Soil Protection	TSP
Borrow Areas	Gully Erosion	Protect Surface and/or Convey Runoff	Non-Living Soil Protection	Mulch for Seed	MS
			Non-Living Soil Protection	Landscape Mulch	LM
Drainage Ways	Channel & Stream Erosion	Convey Runoff	Stabilization Structures	Temporary Erosion Control Blanket	ECB
			Stabilization Structures	Permanent Turf Reinforcement Mat	TRM
Wetlands and Watercourses	Channel & Stream Erosion	Convey Runoff	Stabilization Structures	Stone Slope Protection	SSP
	Channel & Stream Erosion	Convey Runoff	Stabilization Structures	Retaining Walls	RW
Waterbodies	Natural Resource Degradation	Diffuse Runoff	Energy Dissipators	Riprap	RR
	Natural Resource Degradation	Diffuse Runoff	Energy Dissipators	Logjams	G
Areas of Flooding and Existing Erosion	Control Sediment Deposition	Detain Sediments	Sediment Impoundments, Barriers, and Filters	Permanent Slope Drain	PSD
	Control Sediment Deposition	Detain Sediments	Sediment Impoundments, Barriers, and Filters	Channel Grade Stabilization Structure	CSS
Drainage Outlets	Protect Onsite and Offsite Areas	Control Mechanically Moved Waters and Soils	Dewatering	Temporary Lined Chute	TC
	Protect Onsite and Offsite Areas	Control Mechanically Moved Waters and Soils	Dewatering	Temporary Pipe Slope Drain	TSD
Travel Areas	Control Mechanically Moved Waters and Soils	Control Mechanically Moved Waters and Soils	Dewatering	Vegetated Waterway	VW
	Control Mechanically Moved Waters and Soils	Control Mechanically Moved Waters and Soils	Dewatering	Temporary Lined Channel	TLC
Dewatering	Control Mechanically Moved Waters and Soils	Control Mechanically Moved Waters and Soils	Dewatering	Permanent Lined Waterway	PW
	Control Mechanically Moved Waters and Soils	Control Mechanically Moved Waters and Soils	Dewatering	Temporary Stream Crossing	TSC
				Temporary Fill Berm	TFB
				Water Bar	WB
				Temporary Diversion	TD
				Permanent Diversion	PD
				Subsurface Drains	SD
				Detention Structures	DB
				Level Spreader	LS
				Outlet Protection	OP
				Stone Check Dam	SCD
				Temporary Sediment Basin	SB
				Temporary Sediment Trap	TST
				Hay Bale Barrier	HB
				Geotextile Silt Fence	GSF
				Turbidity Curtain	TC
				Vegetative Filter	VF
				Construction Entrance	CE
				Pump Intake and Outlet Protection	PuP
				Pumping Settling Basin	PSB
				Portable Sediment Tank	PST
				Dewatering of Earth Materials	DWM

LINK TO PROJECT PLAN SET:

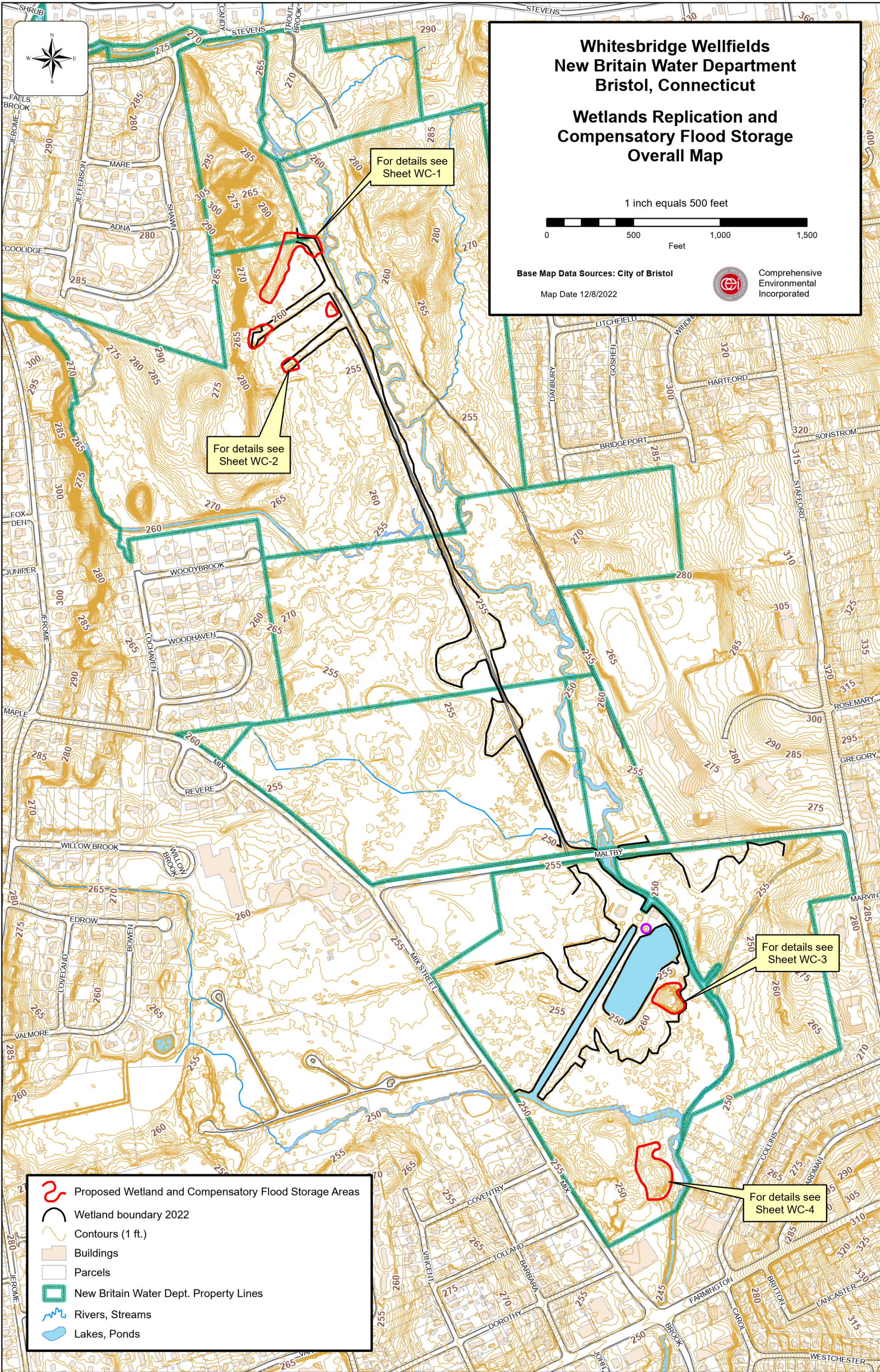
<https://www.bristolct.gov/DocumentCenter/View/44645/202-Plan-Set-Extracted>

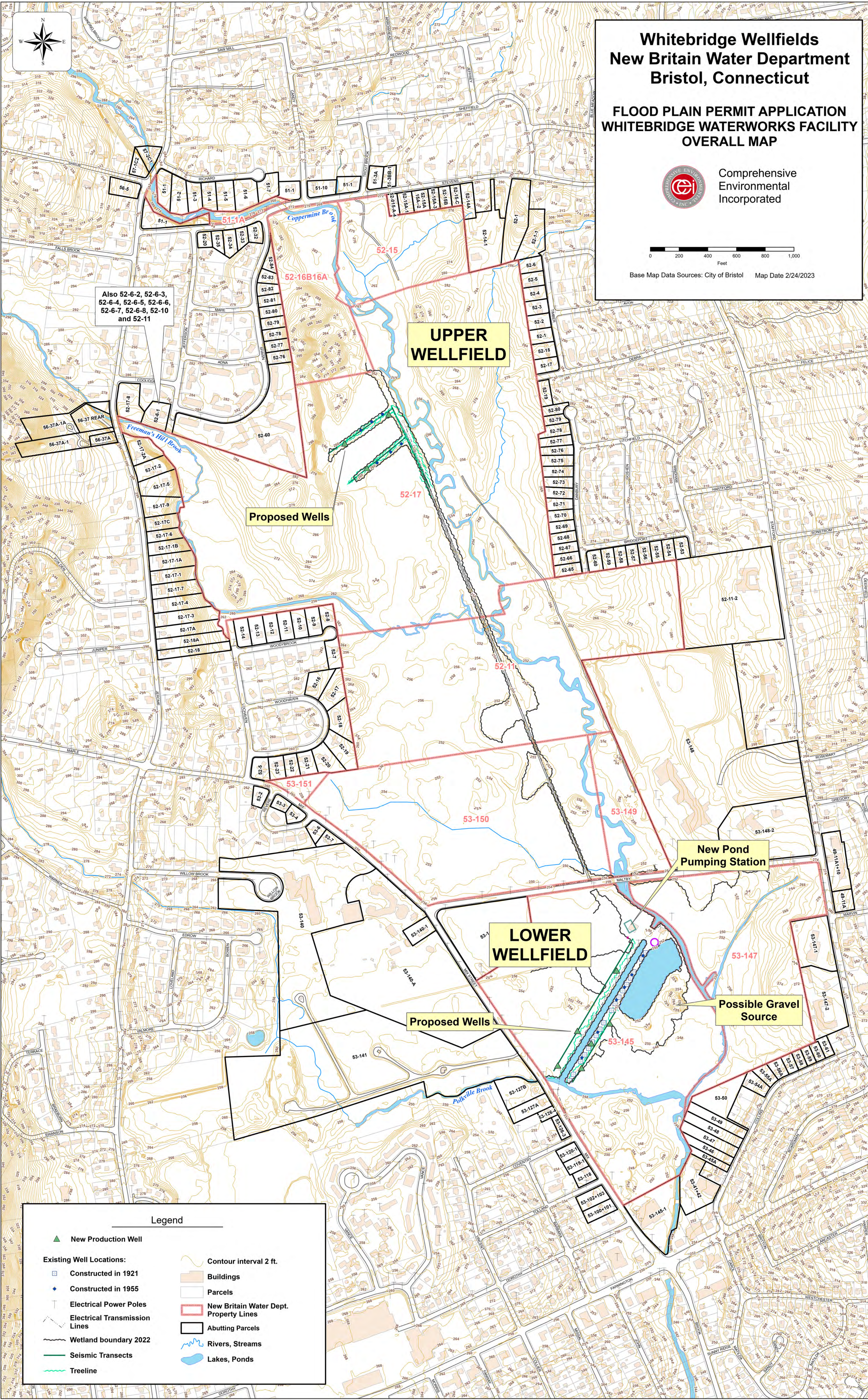
ATTACHMENT 3

PROJECT DRAWINGS

ATTACHMENT 4

PROPERTY MAP



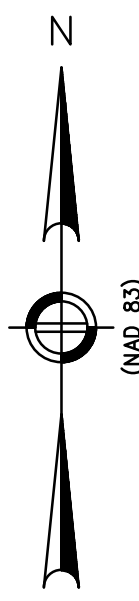


ABUTTING PROPERTY OWNERS

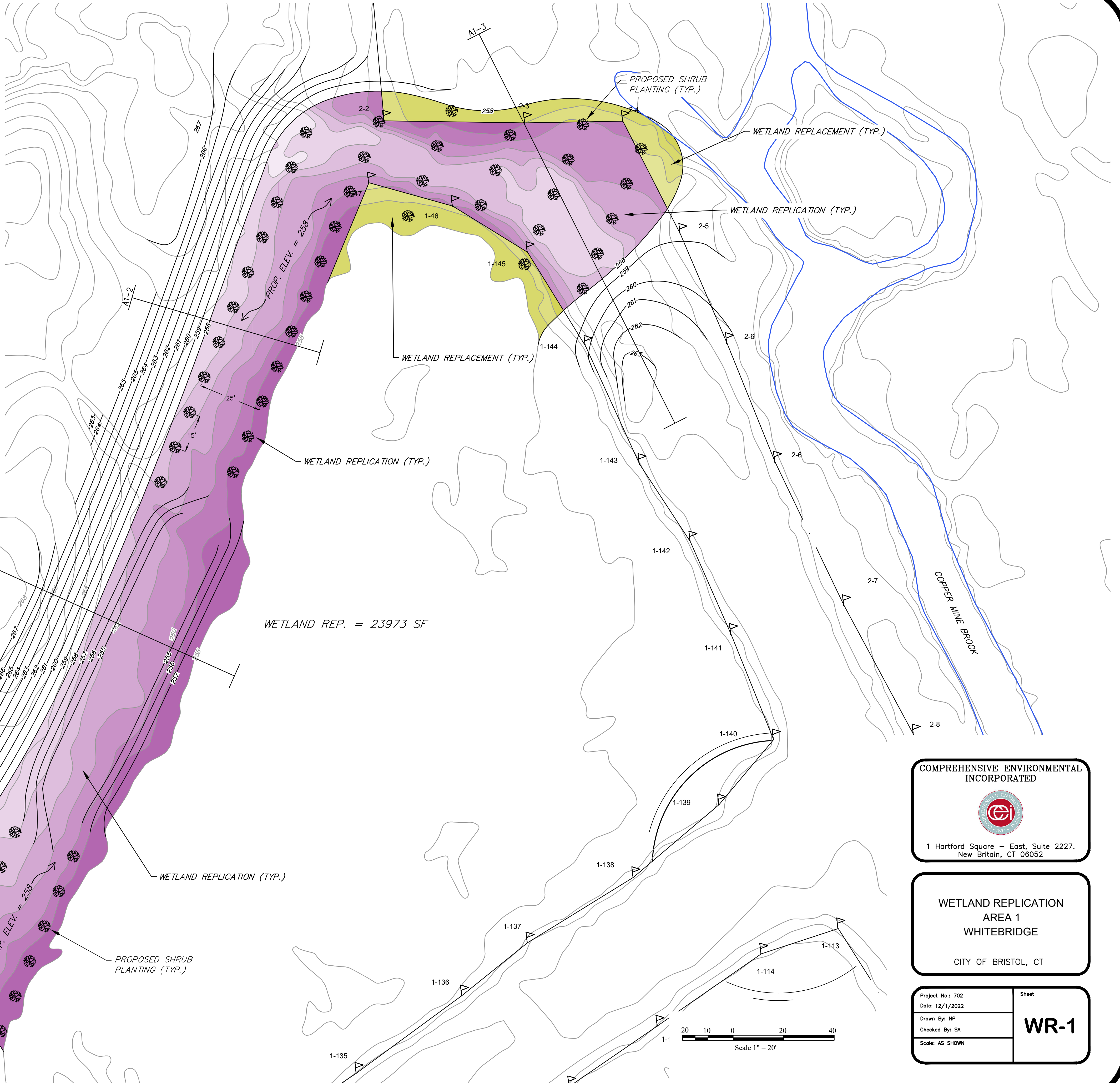
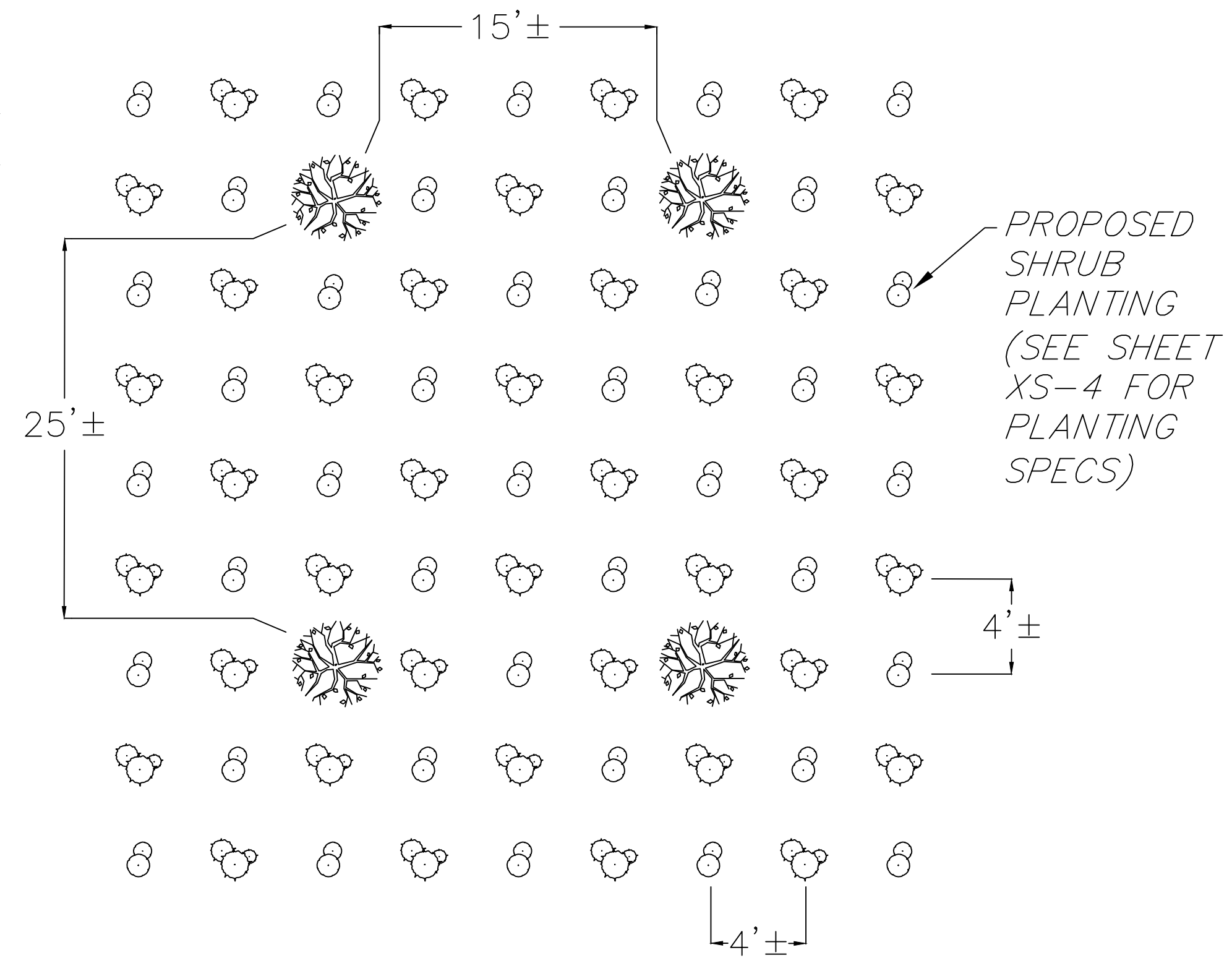
PARENT ID	MAP	BLOCK	LOT	UNIT	OWNER NAME	LOCATION	MUNI	ACRES	ZONING	LAND USE	COMMENT	MAIL_ADDR	MAIL_CITY	MAIL_STATE	MAIL_ZIP
49-11A	49	11A-10	1		STAFFORD HARTON LLC	916 STAFFORD AVE	BRISTOL	0.32 R 15		Appt		1253 BURLINGTON AVE	BRISTOL	CT	06010
49-11A-10	49	11A-10	1		STAFFORD COMMONS LLC	916 STAFFORD AVE	BRISTOL	1.33 Bn		Ndml Ctr		200 SUMNER ST	BRISTOL	CT	06010
51-1	51	1			ORRIN CRISTAL	3 STEVENS ST	BRISTOL	0.72 R 15		Single Family		3 STEVENS ST	BRISTOL	CT	06010
51-1	51	1			ROSDEN RICHARD	108 CANDY LA	BRISTOL	0.28 R 15		Single Family		108 CANDY LA	BRISTOL	CT	06010
51-1	51	1			BENSTON JANICE	135 STEVENS ST	BRISTOL	0.39 R 15		Single Family		135 STEVENS ST	BRISTOL	CT	06010
51-1	51	1			HARRIS BRUCE C	8 RICHARD CT	BRISTOL	0.34 R 15		Single Family		8 RICHARD CT	BRISTOL	CT	06010
51-10	51	10			STUART WILLIAM G + RITA M INT TENANTS	107 CANDY LA	BRISTOL	0.49 R 15		Single Family		107 CANDY LA	BRISTOL	CT	06010
51-2	51	2			DONAHUE FRANK G + CARRIE M	16 RICHARD CT	BRISTOL	0.66 R 15		Single Family		16 RICHARD CT	BRISTOL	CT	06010
51-3	51	3			BARTLEY DAVID + ANANDA SURV	26 RICHARD CT	BRISTOL	0.46 R 15		Single Family		26 RICHARD CT	BRISTOL	CT	06010
51-3A	51	3A			CALLAHAN JOSHUA	165 STEVENS ST	BRISTOL	0.37 R 15		Single Family		15 PINNACLE RIDGE FARM CANTON	BRISTOL	CT	06019
51-3B-1	51	3B-1			COMBS CAMERON	167 STEVENS ST	BRISTOL	0.35 R 15		Single Family		167 STEVENS ST	BRISTOL	CT	06010
51-4	51	4			REBEZ JESY + WIOLETA	36 RICHARD CT	BRISTOL	0.43 R 15		Single Family		36 RICHARD CT	BRISTOL	CT	06010
51-5	51	5			HARVEY BEATA + MATTHEW J	46 RICHARD CT	BRISTOL	0.6 R 15		Single Family		46 RICHARD CT	BRISTOL	CT	06010
51-6	51	6			LAPLANTE ZACHARY C	60 RICHARD CT	BRISTOL	0.76 R 15		Single Family		60 RICHARD CT	BRISTOL	CT	06010
51-7	51	7			MCGLOULIN WILLIAM E + GRACE	72 RICHARD CT	BRISTOL	0.49 R 15		Single Family		72 RICHARD CT	BRISTOL	CT	06010
015-4-4	52	015-4-4			D'AMATO MICHAEL + LISA SURV	176 STEVENS ST	BRISTOL	0.25 R 15		Single Family		176 STEVENS ST	BRISTOL	CT	06010
52-1	52	1			SIMONE JOSEPH WILLIAM	25 TIMBER LA	BRISTOL	0.39 R 15		Single Family		25 TIMBER LA	BRISTOL	CT	06010
52-1	52	1			CONTINUUM OF CARE INC	276 STEVENS ST	BRISTOL	2.1 R 15		Single Family		109 LEGION AVE	NEW HAVEN	CT	06519
52-10	52	10			DEFLUO SHERI L	45 WOODBROOK RD	BRISTOL	0.46 R 15		Single Family		45 WOODBROOK RD	BRISTOL	CT	06010
52-10	52	10			CURRENT OWNER	76 JEFFERSON AVE	BRISTOL	0.32							
52-11	52	11			MORELLI MICHAEL + MICHELLE L	35 WOODBROOK RD	BRISTOL	0.46 R 15		Single Family		35 WOODBROOK RD	BRISTOL	CT	06010
52-11	52	11			CURRENT OWNER	68 JEFFERSON AVE	BRISTOL	0.31							
52-11	52	1-1			NEWMAN KAREN E	87 TIMBER LA	BRISTOL	1 R 15		Single Family		87 TIMBER LA	BRISTOL	CT	06010
52-12	52	1-2			ST ANDREW EVANGALICAL LUTHERAN	1125 STAFFORD AVE	BRISTOL	10 R 40		Church B4		1125 STAFFORD AVE	BRISTOL	CT	06010
52-12	52	12			AKAGOW ESSE	25 WOODBROOK RD	BRISTOL	0.46 R 15		Single Family		25 WOODBROOK RD	BRISTOL	CT	06010
52-13	52	13			MADSEN ALLEN E AND CATHERINE M	15 WOODBROOK RD	BRISTOL	0.46 R 15		Single Family		15 WOODBROOK RD	BRISTOL	CT	06010
52-14	52	14			RUGHTON SUSAN M	5 WOODBROOK RD	BRISTOL	0.44 R 15		Single Family		5 WOODBROOK RD	BRISTOL	CT	06010
52-14-1	52	14-1			RANKY LASON M + STEPHANIE	250 STEVENS ST	BRISTOL	2.41 R 15		Single Family		250 STEVENS ST	BRISTOL	CT	06010
52-14A	52	14A			LOHR AARON S + JESSICA L	236 STEVENS ST	BRISTOL	0.5 R 15		Single Family		236 STEVENS ST	BRISTOL	CT	06010
52-15A-15A-2	52	15A-15A-2			SCHMIDT ERNEST W JR	186 STEVENS ST	BRISTOL	0.39 R 15		Single Family	MERGED BY USE IN ORDER TO MATCH ASSESSOR RECORDS	186 STEVENS ST	BRISTOL	CT	06010
52-15A	52	15A-1			BYRNE SABRINA	186 STEVENS ST	BRISTOL	0.35 R 15		Single Family		186 STEVENS ST	BRISTOL	CT	06010
52-15A-3	52	15A-3			CASTONGIAY BERNARD D	206 STEVENS ST	BRISTOL	0.26 R 15		Single Family		206 STEVENS ST	BRISTOL	CT	06010
52-15B	52	15B			BROUSAL DAVID R	214 STEVENS ST	BRISTOL	0.28 R 15		Single Family		214 STEVENS ST	BRISTOL	CT	06010
52-15-C	52	15-C			WASKO PAMELA D	222 STEVENS ST	BRISTOL	0.28 R 15		Single Family		222 STEVENS ST	BRISTOL	CT	06010
52-16	52	16			WHEELER MARGARET R + JOHN H SR	84 WOODHAVEN RD	BRISTOL	0.61 R 15		Single Family		84 WOODHAVEN RD	BRISTOL	CT	06010
52-17	52	17			JANE STEVEN + SHARON M	135 DEBRA LA	BRISTOL	0.71 R 15		Single Family		135 DEBRA LA	BRISTOL	CT	06010
52-17	52	17			ZIGLE ANDREW + LUMLEY LISA TRUSTEES	5 TIMBER LA	BRISTOL	0.37 R 15		Single Family		112 MADISON DR	BRISTOL	CT	06010
52-17-1	52	17-1			NEUMANN DAVID LIFE USE	634 JEROME AVE	BRISTOL	0.26 R 15		Single Family		634 JEROME AVE	BRISTOL	CT	06010
52-17-1A	52	17-1A			BENTLEY HENRY G JR + TAFFIE A SURV LIFE	624 JEROME AVE	BRISTOL	0.46 R 15		Single Family		624 JEROME AVE	BRISTOL	CT	06010
52-17-1B	52	17-1B			RUCHAS JESHA A + JOAN M	636 JEROME AVE	BRISTOL	0.38 R 15		Single Family		636 JEROME AVE	BRISTOL	CT	06010
52-17-2	52	17-2			BAILEY BARBARA L	602 JEROME AVE	BRISTOL	0.19 R 15		Single Family		602 JEROME AVE	BRISTOL	CT	06010
52-17-2A	52	17-2A			OLSON DIANE M	690 JEROME AVE	BRISTOL	0.5 R 15		Single Family		690 JEROME AVE	BRISTOL	CT	06010
52-17-3	52	17-3			JOHNSON JEREMIAH R + ROY LINDA L	538 JEROME AVE	BRISTOL	0.32 R 15		Single Family		538 JEROME AVE	BRISTOL	CT	06010
52-17-4	52	17-4			HATCHCOCK CHARLES + MARISA L SURV	598 JEROME AVE	BRISTOL	0.48 R 15		Single Family		598 JEROME AVE	BRISTOL	CT	06010
52-17-5	52	17-5			LOMBARD ANTHONY G + MARCIA M	682 JEROME AVE	BRISTOL	0.88 R 15		Single Family		682 JEROME AVE	BRISTOL	CT	06010
52-17-6	52	17-6			WILLIAMS THOMAS D + KASE	644 JEROME AVE	BRISTOL	0.21 R 15		Single Family		644 JEROME AVE	BRISTOL	CT	06010
52-17-7	52	17-7			KIRSCHNER JAMES R +	606 JEROME AVE	BRISTOL	0.78 R 15		Single Family		606 JEROME AVE	BRISTOL	CT	06010
52-17-8	52	17-8			PALMSAND CORY JAMES + ABRAMS EDEEN P +	746 JEROME AVE	BRISTOL	0.5 R 15		Single Family		746 JEROME AVE	BRISTOL	CT	06010
52-17-9	52	17-9			LOMBARD ANTHONY G + MARCIA M SURV	636 JEROME AVE	BRISTOL	0.7 R 15		Single Family		636 JEROME AVE	BRISTOL	CT	06010
52-17A	52	17A			RICH VICTOR SEAN B	578 JEROME AVE	BRISTOL	0.41 R 15		Single Family		578 JEROME AVE	BRISTOL	CT	06010
52-17C	52	17C			MURRAY JAC	536 JEROME AVE	BRISTOL	0.26 R 15		Single Family		536 JEROME AVE	BRISTOL	CT	06010
52-18	52	18			BICK JENNIFER J	56 WOODHAVEN RD	BRISTOL	0.72 R 15		Single Family		56 WOODHAVEN RD	BRISTOL	CT	06010
52-18	52	18			HURGES LILLIAN F	562 JEROME AVE	BRISTOL	0.41 R 15		Single Family		562 JEROME AVE	BRISTOL	CT	06010
52-18	52	18			MICCICI BARBARA	15 TIMBER LA	BRISTOL	0.26 R 15		Single Family		15 FAULKN RD	FORESTVILLE	CT	06010
52-18A	52	18A			568 JEROME AVE LLC	568 JEROME AVE	BRISTOL	0.41 R 15		Retail		133 CHESTNUT RD	NEWINGTON	CT	06111
52-19	52	19			MCDONOUGH JEFFREY T + MARCIA B SURV	48 WOODHAVEN RD	BRISTOL	0.81 R 15		Single Family		48 WOODHAVEN RD	BRISTOL	CT	06010
52-19	52	19			SUTULA DANIEL P	135 DEBRA LA	BRISTOL	0.71 R 15		Single Family		135 DEBRA LA	BRISTOL	CT	06010
52-2	52	2			GIANNINI JOHN D JR	35 TIMBER LA	BRISTOL	0.35 R 15		Single Family		35 TIMBER LA	BRISTOL	CT	06010
52-20	52	20			MARRAS SAM J	42 WOODHAVEN RD	BRISTOL	0.21 R 15		Single Family		42 WOODHAVEN RD	BRISTOL	CT	06010
52-20	52	20			SLEDONIA BRIAN J + JENNIFER J	44 STEVENS ST	BRISTOL	0.28 R 10		Single Family		44 STEVENS ST	BRISTOL	CT	06010
52-21	52	21			NORMOYE JOHN + ANNE SURV	34 WOODHAVEN RD	BRISTOL	0.4 R 15		Single Family		34 WOODHAVEN RD	BRISTOL	CT	06010
52-22	52	22			LEWANDOWSKI EDWARD +	24 WOODHAVEN RD	BRISTOL	0.36 R 15		Single Family		24 WOODHAVEN RD	BRISTOL	CT	06010
52-23	52	23			BEATON STEPHEN W	14 WOODHAVEN RD	BRISTOL	0.38 R 15		Single Family		14 WOODHAVEN RD	BRISTOL	CT	06010
52-3	52	3			CURRENT RESIDENT	45 TIMBER LA	BRISTOL	0.34 R 15		Single Family		45 TIMBER LA	BRISTOL	CT	06010
52-32	52	32			DOODY MAREE B	6 SHAWN DR	BRISTOL	0.22 R 10		Single Family		6 SHAWN DR	BRISTOL	CT	06010
52-33	52	33			TRULIER KEVIN F	68 STEVENS ST	BRISTOL	0.24 R 10		Single Family		68 STEVENS ST	BRISTOL	CT	06010
52-34	52	34			ARCHAMBAULT RYAN + TABARA	60 STEVENS ST	BRISTOL	0.22 R 10		Single Family		60 STEVENS ST	BRISTOL	CT	06010
52-35	52	35			VARRONE JOSEPH L	52 STEVENS ST	BRISTOL	0.27 R 10		Single Family		52 STEVENS ST	BRISTOL	CT	06010
52-4	52	4			DECARDO MARY L	55 TIMBER LA	BRISTOL	0.34 R 15		Single Family		55 TIMBER LA	BRISTOL	CT	06010
52-5	52	5			MARTINELLI LINDA S	81 WOODHAVEN RD	BRISTOL	0.36 R 15		Single Family		81 WOODHAVEN RD	BRISTOL	CT	06010
52-5	52	5			ANGELLO DAVID + MOTTASAMANTHA JOINT	165 TIMBER LA	BRISTOL	0.34 R 15		Single Family		65 TIMBER LA	BRISTOL	CT	06010
52-5	52	5			HARRINGTON CAROLE D	5 BRIDGEPORT AVE	BRISTOL	0.29 R 15		Single Family		5 BRIDGEPORT AVE	BRISTOL	CT	06010
52-54	52	54			CLARK DA + TODD R	13 BRIDGEPORT AVE	BRISTOL	0.29 R 15		SFR w/ACC Apt		13 BRIDGEPORT AVE	BRISTOL	CT	06010
52-55	52	55			RAVIA JOSEPH + ELIZABETH W TRUSTEES LUT	21 BRIDGEPORT AVE	BRISTOL	0.29 R 15		Single Family		21 BRIDGEPORT AVE	BRISTOL	CT	06010
52-56	52	56			COSTALI GREGORY	31 BRIDGEPORT AVE	BRISTOL	0.29 R 15		Single Family		31 BRIDGEPORT AVE	BRISTOL	CT	06010
52-57	52	57			CARPENTER NANCY P	39 BRIDGEPORT AVE	BRISTOL	0.29 R 15		Single Family		39 BRIDGEPORT AVE	BRISTOL	CT	06010
52-58	52	58			DAKES VERNIE A JR ESTATE OF + BETTY L	47 BRIDGEPORT AVE	BRISTOL	0.28 R 15		Single Family		47 BRIDGEPORT AVE	BRISTOL	CT	06010
52-59	52	59			WIMAN JEFFREY + KATHLEEN M SURV	47 BRIDGEPORT AVE	BRISTOL	0.28 R 15		Single Family		47 BRIDGEPORT AVE	BRISTOL	CT	06010
52-6	52	6			ANDERSON DAVID G + SHARON L SURV	75 TIMBER LA	BRISTOL	0.34 R 15		Single Family		75 TIMBER LA	BRISTOL	CT	06010
52-60	52	60			AUGUST BENJAMIN	67 BRIDGEPORT AVE	BRISTOL	0.29 R 15		Single Family		67 BRIDGEPORT AVE	BRISTOL	CT	06010
52-60	52	60			COPPERHINE HOUSING ASSOCIATES LLC	135 SHAWN DR	BRISTOL	7.1 A		Apartments		2 CENTER PLAZA SUITE 700 BOSTON	MA	02108	
52-61	52	61		1	CURRENT OWNER	130 JEFFERSON AVE #1	BRISTOL	0 A		Condo Res.					
52-62	52	62		2	CURRENT OWNER	130 JEFFERSON AVE #2	BRISTOL	0 A							
52-63	52	63		3	CURRENT OWNER	130 JEFFERSON AVE #3	BRISTOL	0 A							
52-64	52	64		4	CURRENT OWNER	130 JEFFERSON AVE #4	BRISTOL	0 A							
52-65	52	65		4	CURRENT OWNER	102 DANBURY LA	BRISTOL	0.27 R 15		Single Family		102 DANBURY LA	BRISTOL	CT	06010
52-65	52	65		5	CURRENT OWNER	130 JEFFERSON AVE #5	BRISTOL	0 A							
52-66	52	66		6	CURRENT OWNER	92 DANBURY LA	BRISTOL	0.28 R 15		Single Family		92 DANBURY LA	BRISTOL	CT	06010
52-66	52	66		6	CURRENT OWNER	130 JEFFERSON AVE #6	BRISTOL	0 A							
52-67	52	67		7	CURRENT OWNER	84 DANBURY LA	BRISTOL	0.28 R 15		Single Family		84 DANBURY LA	BRISTOL	CT	06010
52-67	52	67		7	CURRENT OWNER	130 JEFFERSON AVE #7	BRISTOL	0 A							
52-68	52	68		8	CURRENT OWNER	76 DANBURY LA	BRISTOL	0.29 R 15		Single Family		76 DANBURY LA	BRISTOL	CT	06010
52-68	52	68		8	CURRENT OWNER	130 JEFFERSON AVE #8	BRISTOL	0 A							
52-69	52	69		9	CURRENT OWNER										

ATTACHMENT 5

WETLAND REPLICATION AREAS



PLANTING PLAN



COMPREHENSIVE ENVIRONMENTAL
INCORPORATED



1 Hartford Square — East, Suite 2227.
New Britain, CT 06052

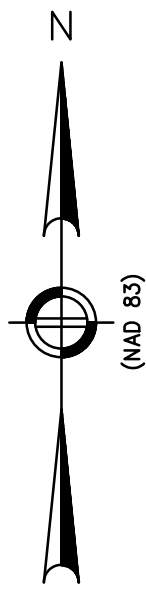
WETLAND REPLICATION
AREA 1
WHITEBRIDGE

CITY OF BRISTOL, CT

Project No.: 702
Date: 12/1/2022
Drawn By: NP
Checked By: SA
Scale: AS SHOWN

Sheet
WR-1





COMPREHENSIVE ENVIRONMENTAL
INCORPORATED

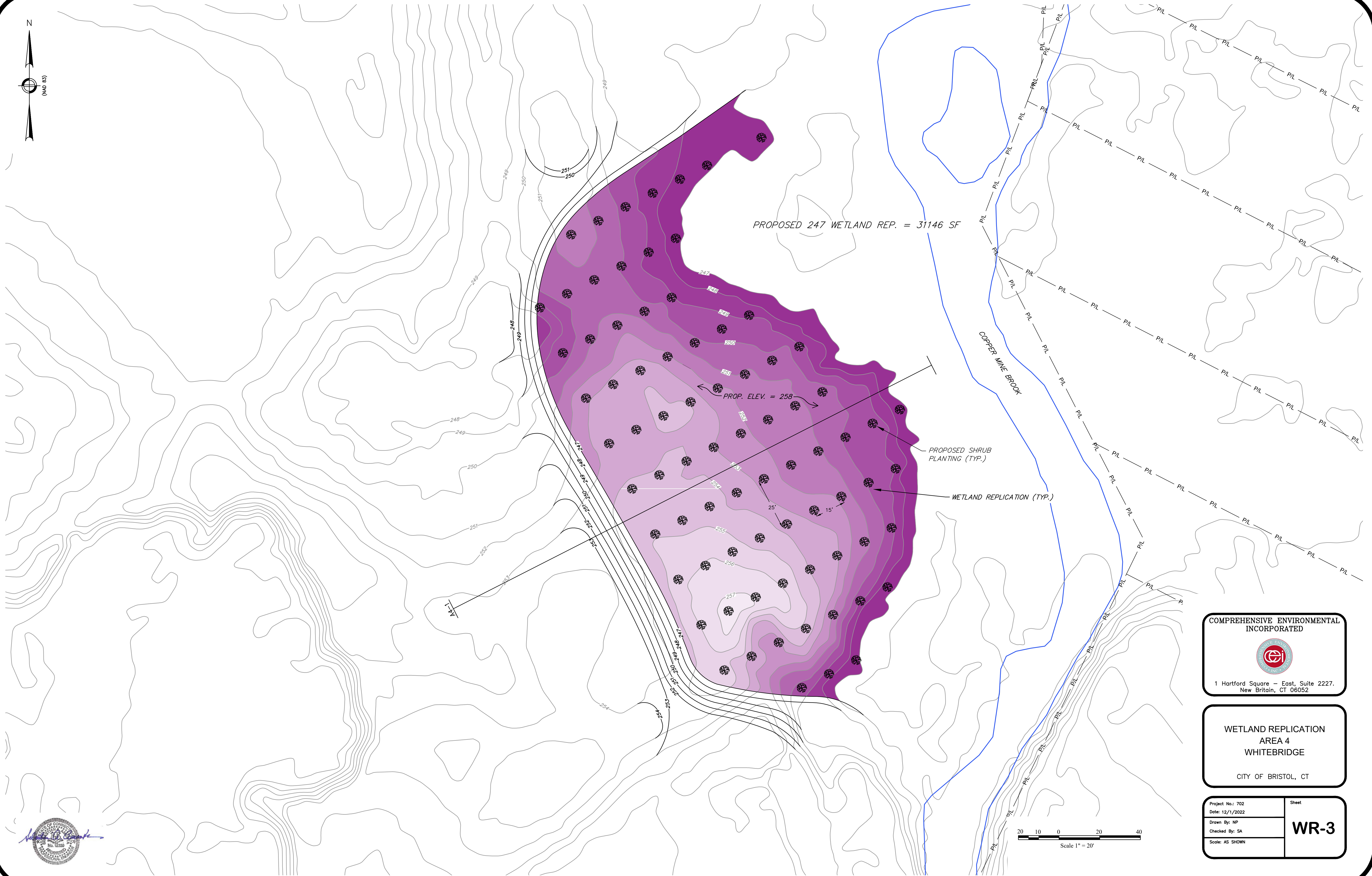
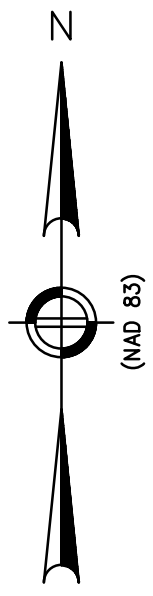


1 Hartford Square - East, Suite 2227.
New Britain, CT 06052

WETLAND REPLICATION
AREA 2
WHITEBRIDGE

CITY OF BRISTOL, CT

Project No.: 702	Sheet
Date: 12/1/2022	WR-2
Drawn By: NP	
Checked By: SA	
Scale: AS SHOWN	



COMPREHENSIVE ENVIRONMENTAL
INCORPORATED

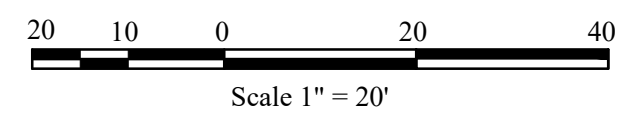


1 Hartford Square — East, Suite 2227.
New Britain, CT 06052

WETLAND REPLICATION
AREA 4
WHITEBRIDGE

CITY OF BRISTOL, CT

Project No.: 702	Sheet
Date: 12/1/2022	WR-3
Drawn By: NP	
Checked By: SA	
Scale: AS SHOWN	



LINK TO SOIL SCIENTIST REPORT:

<https://www.bristolct.gov/DocumentCenter/View/45918/Soil-Scientist-Report-Extracted>

ATTACHMENT 6
SOIL SCIENTIST
REPORT

LINK TO STORMWATER MANAGEMENT REPORT:

<https://www.bristolct.gov/DocumentCenter/View/45917/SW-Report-Extracted>

ATTACHMENT 7

STORMWATER MANAGEMENT REPORT

FW: NBWD White Bridge Rehabilitation

Nancy Levesque

Fri 1/26/2024 1:20 PM

To: Andrew Armstrong <AndrewArmstrong@bristolct.gov>;

correspondence

From: Nancy Levesque
Sent: Friday, January 26, 2024 12:52 PM
To: 'Mary Rydingsward' <maryrydingsward@gmail.com>
Subject: RE: NBWD White Bridge Rehabilitation

Their plans and applications can be found in the following link:

https://www.bristolct.gov/AgendaCenter/ViewFile/Agenda/_01082024-6564

They will also be linked with the agenda for February 5 meeting.

From: Mary Rydingsward <maryrydingsward@gmail.com>
Sent: Thursday, January 25, 2024 10:23 AM
To: Nancy Levesque <NancyLevesque@bristolct.gov>
Subject: NBWD White Bridge Rehabilitation

Hello Nancy,

I spoke with Ray Esponda yesterday about reports associated with this project. He indicated he's very busy and doesn't know when he'd be able to get them to me. However, some have been sent to Bristol IWWC. Do you have the study report for this property? Any other related reports?

Kind regards,
Mary
860.670.4761

RE: Water dept property

Nancy Levesque

Fri 1/26/2024 1:19 PM

To: Tom Leveque <tomnlisa01@att.net>;

Cc: Andrew Armstrong <AndrewArmstrong@bristolct.gov>;

Good morning,

The New Britain Water Department has applications currently in front of the Inlands Wetlands Commission to update the facility and wells located on that property, change the wetlands boundary in accordance with soil scientist delineation and a flood plain application to mitigate the disturbance that is proposed as part of their proposal.

Their plans and applications can be found in the following link:

https://www.bristolct.gov/AgendaCenter/ViewFile/Agenda/_01082024-6564

They are scheduled for a Public Hearing on the project on Monday, February 5th. At this time they will have their design team go into detail about the project, proposed disturbance and project goals.

The February meeting agenda will also be posted with project information and a new link shortly. <https://www.bristolct.gov/agendacenter>

This is a brief summary as provided by the consultant that is part of the application.

Proposed Project Activities:

A rehabilitative project will be conducted at the Upper and Lower Wellfields of the White Bridge Waterworks Facility owned by the New Britain Water Department (NBWD) accessed via Maltby Street.

The purpose of this project is to redevelop the existing Upper and Lower Wellfields, which were constructed in the 1940s and 1921, respectively. Presently, these wellfields serve as a raw water supply only and cannot serve as a backup in their present condition. The age of the wellfields is such that they have come to the end of their useful life and repair and replacement equipment is no longer available. The NBWD needs to upgrade the facilities and modernize the equipment.

To become a potable water supply, any new wells must be located 50 feet from any water bodies or wetland limits per Department of Public Health (DPH) requirements. In addition, the wells must be raised 2' above the one-hundred-year flood plain elevation. Because of these requirements, the existing wells cannot be redrilled or rehabilitated in their present location. All currently existing wells will be abandoned in accordance with DPH requirements. The Lower Wellfield may but suitable as a public water supply subject to the ground water under the direct influence of surface water testing which will be done once the project is completed in a future phase of construction.

Numerous studies have been performed in preparation for this project including:

 A detailed test well program

 A seismic refraction study

 Wetlands mapping

The project will be executed according to a predetermined schedule prepared by the design consultant

(CDM Smith) in coordination with the contractor (TBD). A 2-year duration from start of construction to completion is anticipated. A total of nine wells will be installed at the Upper and Lower Wellfields (three at the Upper Wellfield and six at the Lower Wellfield). A new pumphouse will be constructed at the Lower Wellfield along with all the necessary underground piping related to the new wells and pump house. The new pump house will house chemical treatment facilities. The pump house will be constructed 2' above the 100-year flood elevation per DPH regulation.

Compensatory flood storage areas will be created so as to not increase the current flood elevation levels as given by FEMA guidelines. These compensatory storage areas will also create additional wetland areas and, as such, an IW-2 permit application has been submitted for review. See the attached maps for further information on the locations of these affected areas.

The proposed project also includes the removal of sediment from both the existing supply pond and canal located to the north. See a detailed drawing of the sediment removal attached. Over the years sediment has accumulated significantly in these water bodies and has decreased the capacity of both. The benefit of sediment removal will be an increased capacity of readily available surface water.

I will be able to answer emails next week but I will be out of the office at training.

-----Original Message-----

From: Tom Leveque <tomnlisa01@att.net>

Sent: Wednesday, January 24, 2024 7:46 PM

To: Nancy Levesque <NancyLevesque@bristolct.gov>

Subject: Water dept property

Hi Nancy

My house backs up to the New Britain Watershed area on Maltby/Mix St area. Im on Danbury Ln. I noticed signs posted all around the property and was wondering if you could tell me what it's for?

Thanks for your time

Lisa Levesque

Sent from my iPhone

23-458F-305

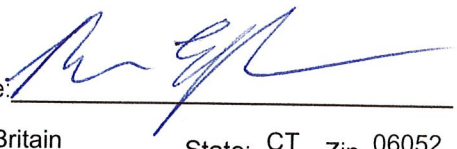
APPLICATION NO. _____

DATE FILED: 12-28-23

APPROVED: _____

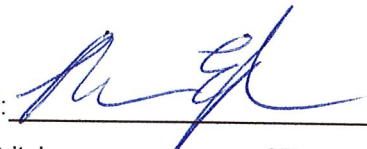
DENIED: _____

**BRISTOL FLOOD & EROSION COMMISSION
FLOOD PLAIN APPLICATION
PERMIT FOR FLOOD PLAIN DEVELOPMENT**

1. APPLICANT:Name: New Britain Water Department, Ramon Esponda Signature: 

Address: 1000 Shuttle Meadow Ave City: New Britain State: CT Zip 06052

Telephone No.: (860) 826-3535 [] home [X] work

2. PROPERTY OWNER(S):Name: New Britain Water Department, Ramon Esponda Signature: 

Address: 1000 Shuttle Meadow Ave City: New Britain State: CT Zip 06052

Telephone No.: (860) 826-3535 [] home [X] work

3. DESCRIBE THE SUBJECT PROPERTY:

Address or Location: Upper and Lower Wellfields via Maltby Street

Assessor's Map No.: 52, 53 Assessor's Lot No.(s): 11, 15, 16B16A, 17, 145, 147, 149, 150, 151

Street of Access: Maltby Street

Name of Watercourse or Water Body: Copper Mine Brook, Polkville Ave Brook

FIRM Panel Number: 458 of 675 Total Area of Lot(s): 303.7 acres

4. PROJECT DESCRIPTION:

Flood Plain use for which the applicant is seeking a permit. (check one)

[] a. Permitted Use [X] b. Regulated Use [] c. Special Exception

Describe the proposed activity and its purpose: The White Bridge Wellfield Rehabilitation project includes the replacement and restoration of the White Bridge Waterworks Facility located in Bristol, CT. This project involves the demolition and removal of existing structures in addition to the construction of new groundwater wells, a new pump house and underground piping.

Proposed encroachment of Flood fringe area (S.F. or acres): 94,660 SQ. FT.

Proposed encroachment of Regulated Floodway (S.F. or acres): 28,619 SF

Proposed alteration of Watercourse (L.F., S.F. or acres): 0 SF

Flood proofing techniques proposed: Wellheads and New Structures built 2 feet above 100yr flood elevation.

Disturbance of designated wetland area: [] No [X] Yes: Permit Number: Pending

Date applied for: 12/28/2023 Disposition: Pending

**BRISTOL FLOOD & EROSION COMMISSION
FLOOD PLAIN APPLICATION
PERMIT FOR FLOOD PLAIN DEVELOPMENT**

Page 2

5. TECHNICAL & PLANNING DATA:

Project Specifics: Provide the following information from official sources or submitted documentation.

All elevations are to be relative to mean sea level.

Existing base flood flow rate: 2710 CFS & 4230 CFS Source: StreamStats 1%, Upper and Lower Wellfields
Existing base flood elevation: 259.0' & 255.9' NAVD88 Source: FEMA FIRM, Upper and Lower Wellfields
Lowest floor elevation of existing buildings including garage or basements: 253' @ Lower Wellfield
Lowest floor elevation of proposed building including garage or basements: 258' @ Lower Wellfield
Will there be dry access to the structure(s) during the 100 year flood? Yes

Floodplain Alterations Proposed:

Volume of displaced Flood Plain: 7,305 CU. YDS.

Volume of mitigated Flood Plain: 17,616 CU. YDS.

Floodway Alterations Proposed:

Length of reconstructed or altered floodway: 85 FT & 325 FT; Upper and Lower

Proposed base flood flow rate: 2710 CFS & 4230 CFS; Upper and Lower

Proposed base flood elevation: 259.0' & 255.9' NAVD88; Upper and Lower

6. AUTHORIZATIONS AND CERTIFICATIONS:

- a. I/we hereby authorize the commissioners and agents of the Bristol Flood and Erosion Agency to inspect the subject property at reasonable times, both before and after a final decision has been made regarding this application or request.
- b. I/we hereby certify that I/we am/are familiar with the information included in this application and am/are aware that the law provides that any person who commits, takes part in, or assists in any violation of any provision of the Connecticut General Statutes, including regulations adopted by the Commissioner of Environmental Protection and ordinances and regulations of the City of Bristol through its Flood and Erosion Agency and Inland Wetlands Agency, shall be assessed a civil penalty of not more than one thousand dollars for each offense. I/we further certify that I/we am/are aware that it is a violation of law to obtain a flood plain permit or ruling through deception or through inaccurate or misleading information.
- c. I/we hereby certify that this application shall be considered complete only when all information and documents required by the Administrator have been submitted.

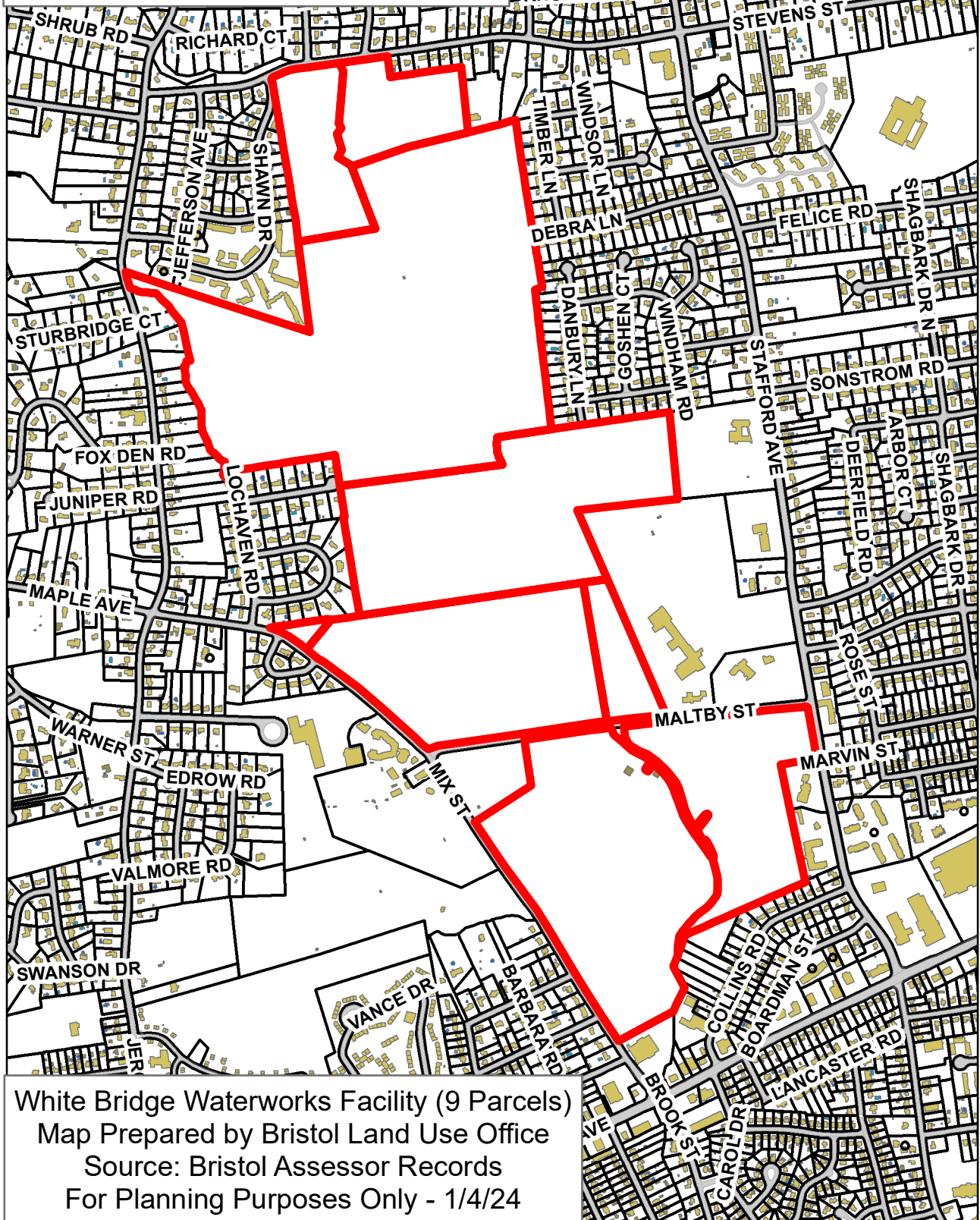
7. SUBMISSION REQUIREMENTS:

The following shall be included as part of this application:

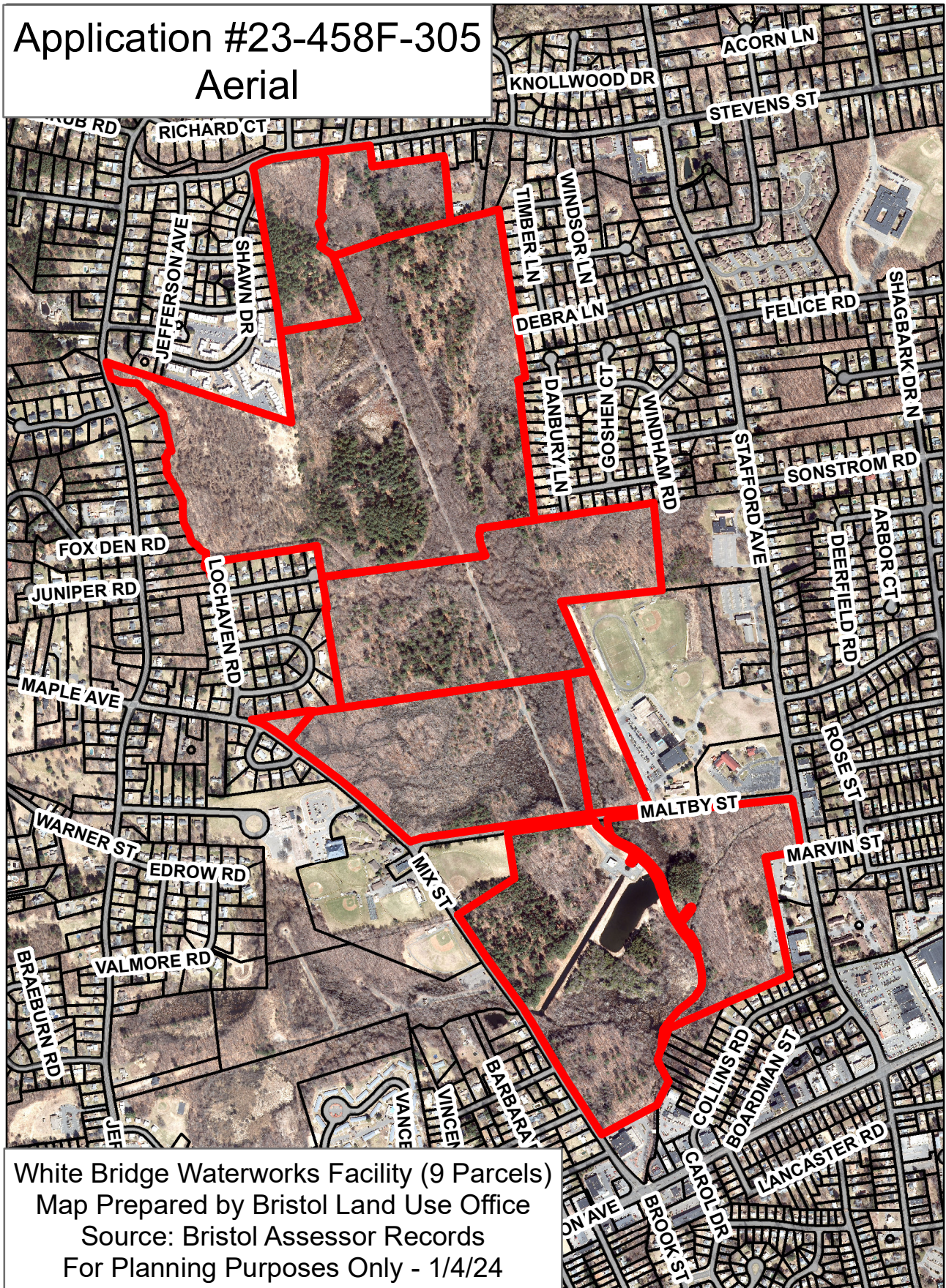
- filing fee – make checks payable to "City of Bristol,"
\$5.00 Permitted Use, \$50.00 for Regulated Use, and \$100.00 for Special Exception
- ten copies of a Site Plan showing existing and proposed conditions in relation to the flood plain, floodway, watercourses, and/or wetlands prepared in accordance with the Regulations,
- any other information as may be required by the Agency
 - ☐ Site Plans ☐ Detail Plans ☐ Construction Specifications
 - ☐ Drainage Computations ☐ Flood Proofing Details ☐ Flood Proofing Certification

BFEC-12/01

Application #23-458F-305 Location

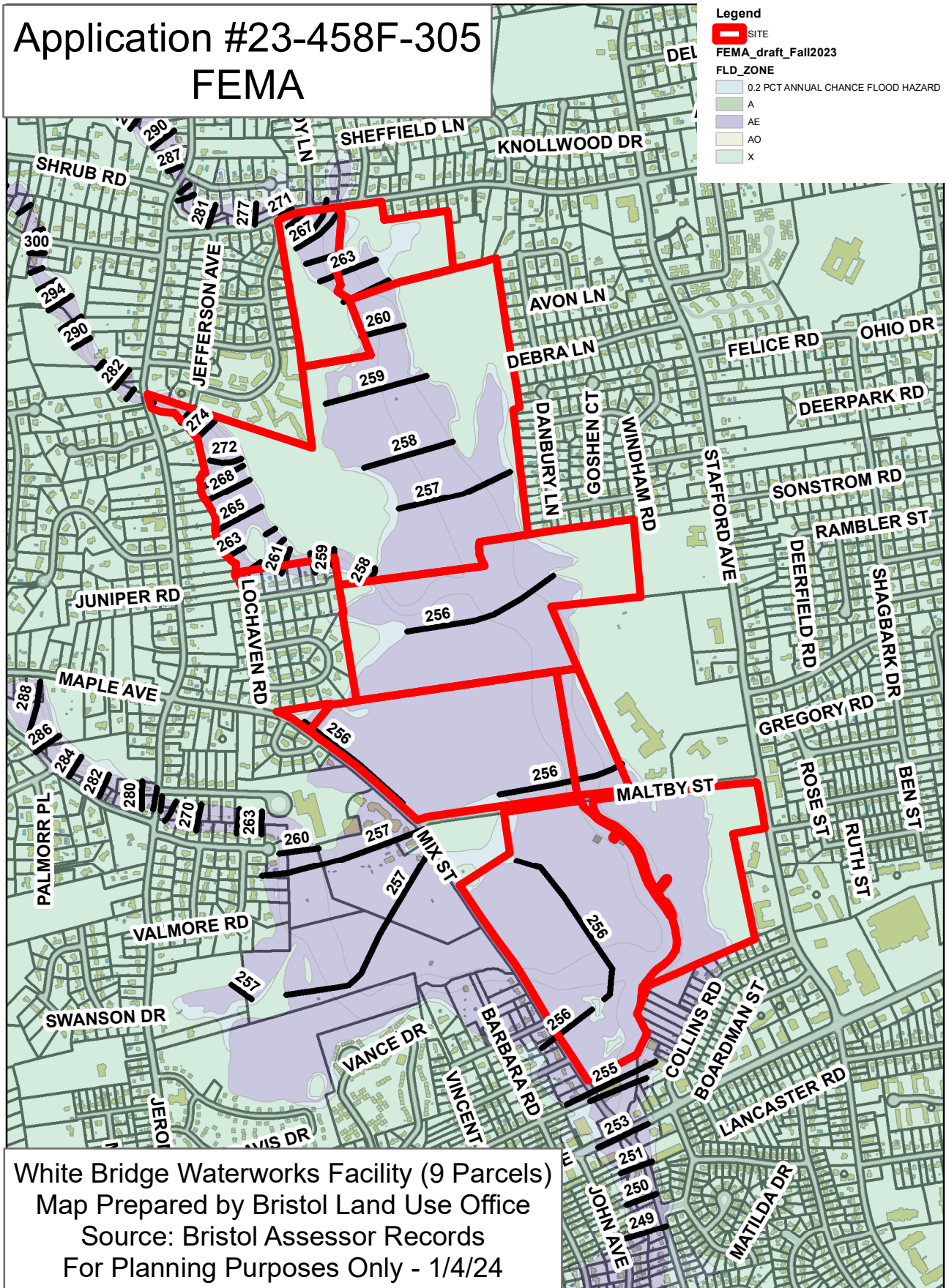


Application #23-458F-305 Aerial



White Bridge Waterworks Facility (9 Parcels)
Map Prepared by Bristol Land Use Office
Source: Bristol Assessor Records
For Planning Purposes Only - 1/4/24

Application #23-458F-305 FEMA



CT DEEP Letter

May 6, 2022

May 6, 2022

Magdalena Lofstedt
CDM Smith Inc
77 Hartland St, Suite 201
East Hartford, CT 06108
LOFSTEDTMH@CDMSMITH.COM

NDDB DETERMINATION NUMBER: 202205409

Project: (City of New Britain) Replace existing groundwater wells, Upper & Lower Wellfields, White Bridge Waterworks Facility, off Maltby St, Bristol

Expiration: May 6, 2024

I have reviewed Natural Diversity Database (NDDB) maps and files regarding this project. According to our records, there are State-listed species (RCSA Sec. 26-306) documented nearby and within the watershed of your project area. Recommendations to minimize impacts are included below.

- **Spotted turtle (*Clemmys guttata*) State Special Concern**
- **Wood turtle (*Glyptemys insculpta*) State Special Concern**

Spotted turtle: Individuals of this species are associated with wetlands and vernal pools. Over the course of a season and lifetime, individuals will travel large distances (up to 1km) over upland forest and fields between multiple wetlands. They overwinter burrowed into the mud in wetlands between Nov 1-March 15. They do not begin to reproduce until 7-10 years old and adults can live at least 30 years. This species is threatened most by any activities that reduce adult survivorship including road kills, commercial and casual collection, increased predation in areas around commercial and residential development, mortality and injury from agricultural equipment or other mechanical equipment.

Wood turtle: Individuals of this species are riverine and riparian obligates, overwintering and mating in clear, cold, primarily sand-gravel and rock bottomed streams and foraging in riparian zones, fields and upland forests during the late spring and summer. They hibernate in the banks of the river in submerged tree roots between November 1 and March 31. Their summer habitat focuses within 90m (300ft of rivers) and they regularly travel 300m (0.2 mile) from rivers during this time. During summer they seek out early successional habitat: pastures, old fields, woodlands, powerline cuts and railroad beds bordering or adjacent to streams and rivers. Their habitat in Connecticut is already severely threatened by fragmentation of riverine, instream, riparian, and upland habitats, but is exacerbated by heavy adult mortality from machinery, cars, and collection. This is compounded by the species late maturity, low reproductive potential, and high nest and hatchling depredation rates.

Land disturbance activities that will crush active turtles or unearth/or crush hibernating turtles or nests need to consider local habitat features and apply fencing and/or time of year restrictions as appropriate. We recommend you consult with a herpetologist familiar with preferred habitats to assist you with proper techniques to ensure the best protection strategies are employed for your site.

- Land disturbance and excavation confined to the upland (greater than 10 meters from a wetland) can be done without risk for impact if it is restricted to the dormant season (November 1- March 15).

If land disturbance activity will include significant areas within and around wetlands, you will need to take precautions to avoid crushing or killing hibernating adults.

- Do not conduct land disturbance activities within a wetland during the turtle's dormant period (November 1- March 15).

Additionally, when working in the upland between March 15- November 1:

- Exclusionary practices will be required to prevent any turtle access into construction areas. These measures will need to be installed at the limits of disturbance as shown on the plans.
- Exclusionary fencing be at least 20 inches tall and must be secured to and remain in contact with the ground and be regularly maintained (at least bi-weekly and after major weather events) to secure any gaps or openings at ground level that may let animal pass through.
- Prior to construction, all turtles occurring within fencing work area will be relocated to suitable habitat outside disturbance area. This should be performed by a qualified professional familiar with habitat requirements and behavior of the species.
- The Contractor must search the work area each morning prior to any work being done.
- All construction personnel working within the turtle habitat must be apprised of the species description and the possible presence of a listed species.
- Any turtles encountered within the immediate work area shall be carefully moved to an adjacent area outside of the excluded area and fencing should be inspected to identify and remove access point. These animals are protected by law and no turtles should be relocated from the site.
- In areas where silt fence is used for exclusion, it shall be removed as soon as the area is stable to allow for reptile and amphibian passage to resume.
- No heavy machinery or vehicles may be parked in any turtle habitat.
- Special precautions must be taken to avoid degradation of wetland habitats including any wet meadows and seasonal vernal pools.

Natural Diversity Database information includes all information regarding critical biological resources available to us at the time of the request. This information is a compilation of data collected over the years by the Department of Energy and Environmental Protection's Bureau of Natural Resources and cooperating units of DEEP, independent conservation groups, and the scientific community. This information is not necessarily the result of comprehensive or site-specific field investigations. Consultations with the NDDB should not be substituted for on-site surveys required for environmental assessments. Current research projects and new contributors continue to identify additional populations of species and locations of habitats of concern, as well as, enhance existing data. Such new information is incorporated in the NDDB as it becomes available.

Please contact me if you have any questions (shannon.kearney@ct.gov). Thank you for consulting with the Natural Diversity Database and continuing to work with us to protect State-listed species.

Sincerely,

/s/ Shannon B. Kearney
Wildlife Biologist

Email from Mary Rydingsward
January & February 2024

Fwd: White Bridge Well rehabilitation project

Nancy Levesque

Thu 2/1/2024 12:55 PM

To: Andrew Armstrong <AndrewArmstrong@bristolct.gov>;

Correspondence for wetlands

Begin forwarded message:

From: PRWA-CT <pequabuckriverct@gmail.com>
Date: February 1, 2024 at 11:38:00 AM EST
To: Ray.Esponda@newbritainct.gov
Subject: Re: White Bridge Well rehabilitation project

Hello Ray,

I am writing to follow up on the FOIA request below. Please provide a time frame for receipt of the documents.

Kind regards,
~Mary
Kind regards,
Mary Rydingsward, President
Pequabuck River Watershed Association
860.670.4761

On Thu, Jan 25, 2024, 11:39 AM PRWA-CT <pequabuckriverct@gmail.com> wrote:

Hello Ray,

Per our conversation yesterday, I am writing on behalf of the Pequabuck River Watershed Association to request all plans, studies, and reports related to the White Bridge Well Rehabilitation project. We specifically request information pertaining to current withdrawals and anticipated future withdrawals with the proposed wells.

I recognize that the project has been ongoing for many years. However, we expected the engineering study to be sent to the city of Bristol years back and I have not yet seen it.

Please let me know an expected time to either review or receive these reports electronically.

Kind regards,
Mary Rydingsward, President
Pequabuck River Watershed Association
860.670.4761

Letter from Carol Noble

February 2, 2024

February 2, 2024

Zach Fisk, Chair
Bristol Inland Wetland Commission
c/o Bristol Land Use Division
Via email:

RE: **Application #2019, Application #2020, Application #23-458F-305** Application for the restoration of the White Bridge Waterworks facility at Maltby Street; Assessors Map 52 & 53, Lots 11, 15, 16B16A, 17, 145, 147, 149, 150 & 151; New Britain Water Department, Ramon Esponda, Deputy Director, applicant.

Dear Chair Fisk and Bristol IWW Commissioners:

This letter is written in response to the subject application, with a request that it be included in the public hearing record.

The City of New Britain Water Department, as a large property owner in Bristol, has been a good neighbor. We can all agree that reliable water sources, treatment and distribution systems are vital to our communities. Certainly, the works of our water departments are appreciated and should be fully supported. However, it's my opinion as a CT Professional Engineer (retired Bristol Environmental Engineer), Certified Floodplain Manager (CFM), and Bristol property owner that the application for the expansion of the White Bridge facility in Bristol does not provide enough information to warrant approval as currently submitted. This complex technical proposal (with three separate applications before you), is central to the well-being of the community and protection of Bristol's natural resources. **Please consider a third party review of the subject application materials to help address the complex surface and groundwater interactions involved for this application.**

The application does not address how much additional water is anticipated to be withdrawn from the White bridge facility expansion. Therefore it does not completely address potential wetland watercourse impacts. These resources are not of unlimited supply.

What are the proposed volumes? How much is the increase from the existing system withdrawals? How does this interact with City of Bristol supply? Which areas of the streams and potentially the wetland systems act to recharge the aquifer? What are the seasonal changes when the stream systems may gain water and how does the proposed project fill affect localized storage? Please provide records of the historical use and the tabulation of proposed changes at each well location, as it relates to the Coppermine Brook, Polkville Brook, and Freemans Brook and surrounding wetland systems.

The project report rejected project alternatives (2A (existing agreement for Napaug reservoir water of 7.5 MGD-no impact to Bristol wetlands), 2B (similar agreement for 7.5 MGD at Napaug with new treatment at Whitebridge-no or smaller impact to Bristol wetlands), and 2C (addition 3 MGD in Farmington with interconnection improvements-no impact to Bristol wetlands). More discussion of alternatives is warranted, to address no or minimal wetland impact to the Bristol wetland and floodplain areas at the White Bridge facility. The rejected options are listed as able to provide 3 to 7.5 MGD of water into the New Britain system. What daily volumes goals are expected from the Whitebridge facility expansion? What monitoring has been and will be done to assure streamflow and wetland protections? What restrictions may be necessary during drought conditions?

It's not clear from the application materials that the proposed project (with their associated substantial wetland impacts) can even reliably deliver the water source goals for New Britain. These goals have not been clearly stated, with respect to both water quantity and water quality. Generally, it appears that the existing well locations are being reconfigured into wetland areas and filled, in order to meet the public health criteria, including the requirement to eliminate the ground water under direct influence (GWUDI) of surface water **public health** issue. Yet, this infiltration consideration appears to have been central to the initial 1920's design, construction, and operation; that is, that the surface waters would act as source/infiltration source for the wells. The report indicates that the reconfiguration of the wells into the wetlands may not solve the current regulatory requirements. The reports indicate the GWUDI success will not be established until after the wetland and floodplain impacts are constructed. This **risk** needs further explanation, as the regulated forested wetland impacts of nearly 5 acres should not be a gamble enterprise.

In order have an understanding of minimization of potential impacts related to the project, please address the following: Why is the sewer work proposed on Maltby Street (new main and liner)? What is the clearing impact for the gas service from Mix Street? Are all well meter vaults proposed at grade? Why can't the proposed driveway for the lower wellfield be located, at least partially, at the existing gravel drive in lieu of the proposed location with substantial wetland impacts? Please explain the proposed future work related to the existing 1200 feet of water main through the wetland and the water main work on Stafford and Maltby Streets. Was all previous work completed, including compensatory work, in substantial completion of the existing permits? Do any of the existing wetland boundaries differ from the previous approved application? On a survey plan, please clarify where the proposed wetland mitigation areas are located compared to existing wetland boundaries. Official wetland boundary changes for proposed compensatory areas should not be approved until after approved mitigation work has been constructed and deemed substantially compete.

Last but not least, how will the potential impacts during seasonal and drought changes affect the Coppermine watershed with respect to imperiled species. **An in-depth wildlife assessment is warranted to assess and address protections of the imperiled species as part of the project proposal.** Show all clearing limits and address the number/size of trees removed in the regulated wetlands for all proposed new utility related and compensatory work areas within regulated wetlands.

Clarification and understanding of these complex interactions should be addressed prior to approval of the expansion of the New Britain water source; and potential restrictions placed thereon. The project should not be approved at the expense of our communities' vital natural resources when other more viable sources are available. As conditions of any approval, mitigation and monitoring measures should be completed PRIOR to project impact, preferably with a lead time period to measure/establish the success of the mitigation goals.

Understanding and clarification of these complex interactions for your thoughtful decision is very much appreciated.

Sincerely,
Carol Noble, PE, CFM

Letter from John Correia

February 3, 2024

February 3, 2024

Zachary Fisk

Chairman, Bristol Inland Wetland and Watercourses Commission

Please consider the following letter sent via email during the public hearing scheduled for February 5, 2024 regarding:

Application #2020 Wetlands application for the restoration of the White Bridge Waterworks facility at Maltby Street; Assessors Map 52 & 53, Lots 11, 15, 16B16A, 17, 145, 147, 149, 150 & 151; New Britain Water Department, Ramon Esponda, Deputy Director, applicant.

and the associated

Application #23-458F-305 Floodplain application for the restoration of the White Bridge Waterworks facility at Maltby Street; Assessors Map 52 & 53, Lots 11, 15, 16B16A, 17, 145, 147, 149, 150 & 151; New Britain Water Department, Ramon Esponda, Deputy Director, applicant.

Dear Chairman and Commissioners,

Consider the White Bridge property as an urban forest. Though it is not a public park, it is the second largest open space of contiguous land after the Indian Rock, South Mountain, and Jacklin Rod & Gun Club complex. This means that projects on the property should consider its importance as one of the few oases in Bristol for wildlife as it is the largest area without regular human disturbances.

As with any major project in our increasingly imperiled wetlands, there are bound to be some concerns about the impacts to wildlife. With this White Bridge project there are potential impacts to both species listed as Endangered, Threatened, and of Special Concern and non-listed species who make this area home. In this letter, I would like to bring forth some of the potential issues with the White Bridge application which grossly outweigh the marketed environmental benefits. I feel it is important to view this project on a much larger scale and to look beyond (or below) the surface level facility improvements.

Potential Benefits to the Floodplain

Urban forests are becoming increasingly rare, yet studies have found they can be extremely valuable for human health and wildlife. Even vacant lots of only a few acres have been found to refuel migrating birds with native foods while providing much needed woody cover. I believe this wetlands permit application successfully identified the property's value for fruit-eating and shrub-marsh-visiting birds. In this proposal, over 170,000 square feet of uplands will be impacted in part to replicate wetlands with native plantings. Mostly "seasonally flooded/saturated broad-leaf deciduous wetlands" at the forest edge will be converted into shrub marsh matching the adjacent wetlands. While altering a habitat sounds negative, the plan, if successful, will probably yield a net ecosystem benefit and actually appears quite interesting (In this case, increases in wildlife food resources and plant diversity outweigh the loss of habitat, carbon sequestration, and water uptake of the older trees being removed).

The life histories of many birds involve visiting seasonally wet, densely vegetated wetlands or riparian areas at some point in the year. That means, as an isolated urban forest in a valuable migratory path, this property will be used year round for spring migration, summer breeding, fall migration, and winter cover. The native plant species selected for the wetland replication and replacement will aid this fact by providing food and cover in all seasons. Often there is a concern of introducing invasive species during a project that involves clearing land, but by quickly replacing lost vegetation with plantings, this will hopefully be avoided.

It should be noted that *Deschampsia cespitosa* is a species of special concern in Hartford County and is one of the grasses listed in the seed mix. If it does end up being planted, that information should be added to DEEP's Natural Diversity Database.

These benefits conflict, however, with the major issue that was inadequately evaluated in the permit application: changes to the amount of water on the property and in the Coppermine Brook as a whole.

Potential Negative Impacts Not Considered by the Applicant

Having an expertly crafted wetland and highly efficient wells becomes obsolete if the increased drawdown of groundwater from the White Bridge property completely unbalances the Coppermine system. The applicant has not fully explained or predicted how these major changes in well output or alterations to the floodplain will have "no effect" on stream flows. "No effect" seems unlikely since the Coppermine is an impaired water source and has dried up and become a trickle in recent years. Below are some of the potential risks to wildlife should this project impact the amount of water present.

Freshwater fish surveys on the White Bridge property from 1988 and 2008 found 12 species of wild fish, one of which was the species of Special Concern: the Slimy Sculpin (see map below). The fish identified all share a preference for smaller, cool, *flowing*, headwater streams with cobble bottoms. If this project were to affect the amount of water or flow of water, it could drastically change the amount of space, the temperature of the water, or the amount of oxygen available to these fish both upstream and downstream. These changes would be a degradation of water quality and habitat quality. The section of the Coppermine running through the property is one of the last water sources designated by the DEEP Water Quality and Stormwater Summary to be "fully supporting" of aquatic life in Bristol; it deserves protection. It is easy to understand that removing trees that are shading the Coppermine, as in the two lower compensatory storage areas, will likely increase the brook's temperature. The project is designed not to increase flooding or run-off above ground, however, the increased removal of water below ground has not been described and that is information that must be known prior to making a decision on this application. Will not a reduced level of groundwater also alter the amount of wetlands and flowing water for fish, amphibians, and aquatic invertebrates?

Additionally, NDDDB maps show a population of an imperiled species along the Coppermine. The species may be a fish or Box Turtles, either way it clearly requires a healthy, flowing river. Box Turtles currently have all habitats required for their life cycle on the property (forest, wetlands, wet meadow). If the wetlands on this property were to dry up significantly, turtles would be forced to migrate off the property leading to mortality at road crossings. With the sexual maturity of Box Turtles being 10 years, these vulnerable species must be heavily

protected in order to breed another generation. If we extract too much out of this system near the headwaters of the Coppermine, we could dry up the river and affect everything downstream. Not to mention, without water the proposed wetland replication would fail and basically turn into a clear-cut. Edge habitat is a complex ecotone highly sought after by some wildlife and avoided by others. This proposal solely works in these edges and changes the amount and type of edges present. There is no doubt that wildlife will respond to the changes, but it is difficult to say if the response will be purely positive.

In 2020, I was gratefully allowed the opportunity to confirm that a Great Blue Heron rookery exists on the property for the Connecticut Bird Atlas. I counted 37 herons (adults and young) on multiple nests in pine snags near the pond (see aerial photo below). This count of Great Blue Herons was the highest I could find on ebird checklists (a robust citizen science database) across the state and the total number probably would have been higher as many adults would have been absent, hunting elsewhere. It is extremely rare to find a Great Blue Heron rookery, let alone more than one or two herons at a time. I only know of two other rookeries in the state. Now consider we are in central Connecticut and in a city; it's quite special. On the site visit on January 27, 2024 it was apparent that the original heronry no longer existed as all of the nest snags had broken or fallen, but we were informed that some herons had begun to nest in other areas of the property and we flushed multiple herons that were foraging in the wetlands. This project would have been a significant disturbance to the herons had they still been using the original heronry, but the property is still clearly important to them. The fact that this permit can affect the amount of water on the property which supports the herons' food resource and removes large trees adjacent to wetlands which are potential nesting sites means the Great Blue Herons are yet another piece of the ecosystem that will be impacted by this work. While Great Blue Herons are not a listed species, the uniqueness of White Bridge as the potentially largest breeding ground in Connecticut should elicit some kind of precaution or even a mention in the permit application.

It is important for the IWWC to prevent the destruction or alteration of wetlands which are an irreplaceable public resource. Carefully weigh the need to draw more water from the Coppermine watershed and compare it to the possible result of the project: the loss of the entire wetland ecosystem. At this time we have no way of knowing what will happen after this project is completed, but proceeding just to find out without further studies seems risky. **Therefore, it would be pertinent to acquire a third-party review** of not just the wildlife impacts, but the effects of drawing more groundwater and creating more wetlands.

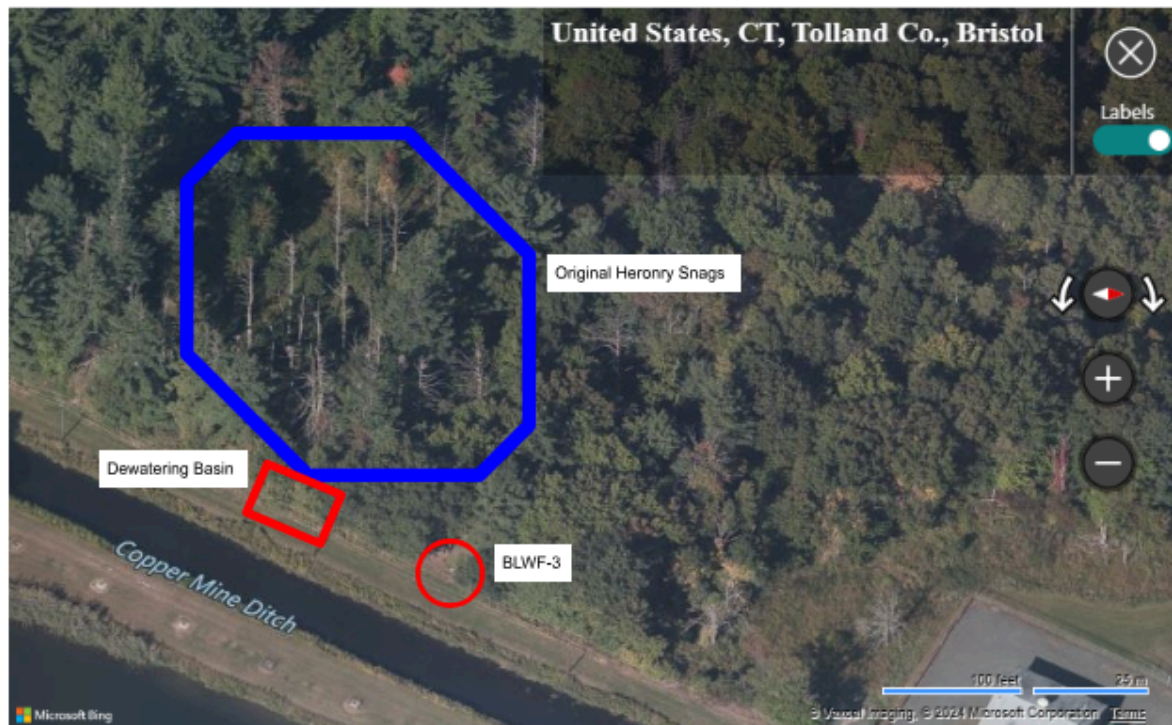
Consulting the NDDB is simply not enough to protect wildlife. I have seen in other development projects that a lack of listed species reported by the NDDB in the human delineated "project area" can downgrade the importance of protecting habitat to contractors. Even in this case, because the Slimy Sculpin was detected just north of Stevens Street in the past which is outside the White Bridge project area, it is not going to receive any best management practices during this project. Does a river fish not require water both upstream and downstream? This problem alludes to the fact that we need newer data, collected in a standardized way that considers Connecticut as a whole to improve our conservation efforts.

If there is one take away from this letter it is that, as Commissioners, you should always think of the bigger picture. Some projects have larger ramifications than expected. This project has a landscape level effect on the environment; and is certainly relevant on the state level and maybe even beyond.

Sincerely,

John Correia

7 years experience as a wildlife field scientist for DEEP, land trusts, non-profits, and universities



Location of heronry snags before 2024 (above)
Bristol GIS

Location of freshwater fish counts and their year (left)
CT ECO - DEEP Fish Community Data - Inland Waters

Letter from Rivers Alliance

February 5, 2024



February 5, 2023

Zach Fisk, Chair
Bristol Inland Wetlands and Watercourses Agency and Conservation Commission
c/o Bristol Land Use Division
Via Email:

RE: **Application #2019** - Wetlands boundary change application for the restoration of the White Bridge Waterworks facility at Maltby Street; Assessor's Map 52 & 53, Lots 11, 15, 16B16A, 17, 145, 147, 149, 150 & 151; New Britain Water Department, Ramon Esponda, Deputy Director, applicant.

And

Application #2020 – Wetlands application for the restoration of the White Bridge Waterworks facility at Maltby Street; Assessor's Map 52 & 53, Lots 11, 15, 16B16A, 17, 145, 147, 149, 150 & 151; New Britain Water Department, Ramon Esponda, Deputy Director, applicant.

And

Application #23-458F-305 – Floodplain application for the restoration of the White Bridge Waterworks facility at Maltby Street; Assessor's Map 52 & 53, Lots 11, 15, 16B16A, 17, 145, 147, 149, 150 & 151; New Britain Water Department, Ramon Esponda, Deputy Director, applicant.

Dear Chair Fisk and the Bristol IWW Commissioners:

Rivers Alliance of Connecticut, Inc. (RA) respectfully submits to the Bristol Inland Wetlands and Watercourses Agency/Conservation Commission (Agency) the following comments on the above applications before the Agency. RA does not oppose the work that needs to be done by New Britain Water Department (NBWD) in order to rehabilitate its wellfields and to come into compliance with the Connecticut Department of Public Health (DPH) and the Federal Emergency Management Agency (FEMA), so long as the reasonably foreseeable environmental

threats posed by this activity are appropriately conditioned to protect important natural resources comprised of waters of the State under the stewardship of the City of Bristol.

RA is a non-profit environmental organization, founded in 1992, and dedicated to the protection and preservation of the water resources of the State. Its membership includes, primarily, river and watershed groups in the state, civic and business groups, municipal commissions, and individuals concerned with water health, thus representing a network of thousands of members statewide. The mission of RA is to protect the quality and availability of surface and ground waters of Connecticut and Long Island Sound and the associated recreational uses and habitat values. RA advocates for the protection of ample, healthy sources of water for drinking and other vital societal uses. RA brings expertise in policy, law, and science to participation in policy-making entities and to its extensive educational program. The goal is to bring people together to protect our state waters for current and future generations. Numerous RA members are residents of Bristol or customers of NBWD.

Withdrawals and Impact on Coppermine Brook

Any diversion of water that exceeds 50,000 gallons per day (ground or surface) must apply for a permit from the Department of Energy and Environmental Protection (DEEP). The duration of a water diversion permit can be anywhere from 5-25 years and “is established by DEEP based on its consideration of existing uses and allocations of the water resources within the watershed and pertinent facts and circumstances particular to the proposed project.” **However**, for diversions registered prior to 1983, **the registrant has rights to divert the amount of water originally registered in perpetuity**. These are referred to as “registered” diversions and were never and currently not subject to any environmental review.

NBWD has several registered diversions in the White Bridge Waterworks facility area that give them the authorization to divert 23.78 million gallons of water per day (mgd) in perpetuity. It is important to note that, due to decreased well performance, NBWD has been able to withdraw only a portion of the 23.78 mgd it is authorized under its registration.

Bristol Water Department (BWD) also owns or manages water supply facilities within the same drainage basin as the White Bridge Waterworks Facility. BWD is authorized to divert 3.87 mgd in perpetuity.

Coppermine Brook is listed in Connecticut Department of Energy and Environmental Protection’s (DEEP) 2022 Integrated Water Quality Report to Congress under Nonpollutant Impairments (EPA Category 4c) for Flow Regime Modification. DEEP has developed a methodology for assessing flow impairments when sufficient information is available. The term

flow regime modification is used to reflect the impairments which are predominantly due to flow alterations that serve public needs and safety. Sections of Coppermine Brook below and adjacent to the NBWD and BWD were completely dry during the 2016-2017 drought and **DEEP has documented impairment due to low flow for periods following the 2016-2017 drought.**



DEEP's Hands are Tied on Low Flow Intervention

DEEP cannot intervene on impairments from low flow as the withdrawal activity is in compliance with CGS §22a-365 through 22a-379 as well as [Sections 22a-372-1, 22a-377\(b\)-1 and 22a-377\(c\)-1 to 22a-377\(c\)-2](#) of the Regulations of Connecticut State Agencies and impacts on streams from groundwater withdrawals are not included in DEEP's Streamflow Standards and Regulations pursuant to CGS §26-141(a) and (b) and [§26-141b-7\(a\) of the Regulations of Connecticut State Agencies](#).

Increase in Withdrawals and Complicated Application

NBWD has stated in Application #2020 that **"The NBWD has registered diversions and those withdrawals will be increased."** It also stated that **"The proposed wetland disturbances activity will not affect the nearby watercourse flow rate."**

RA has valid and serious concerns that Coppermine Brook will be further impaired for regime flow modification due to increase in withdrawals which is not addressed in the application (the

claim states that the proposed *wetland disturbances* won't affect flow rate) and would also like to ensure that the Agency has all information needed to make an informed decision on all aspects of this complicated proceeding. There are still many questions that are left unanswered by the application. Comments submitted by Carol Noble, PE, CFM, do a very good job of identifying the many aspects of these applications that remain unclear and asks many questions that the Agency should have answers to prior to making a decision.

It is imperative that conditions to protect critical natural resources of the State, threatened with increased uncertainty of climate change, are required in order to protect the waters of the State in which the City of Bristol has been entrusted. In respect to low flows due to increased withdrawal, this can be accomplished by requiring monitoring of streamflow above and below the wellfields and requiring that NBWD work with DEEP to determine a threshold at which NBWD would have to work with DEEP to find an operational mode that would not impair Coppermine Brook as per the NBWD agreement with DPH for funds procured through DPH's Drinking Water State Revolving Fund for the project.

Rivers Alliance has submitted a verified petition to intervene on these applications under CEPA. We look forward to working with the Agency and NBWD going forward and are available and eager to answer any questions.

Respectfully submitted,

A handwritten signature in blue ink, appearing to read 'Alicea Charamut', with a stylized, cursive script.

Alicea Charamut, Executive Director

Letter from Trout Unlimited

February 5, 2024



John DiVenere, President
Farmington Valley Chapter of Trout Unlimited
www.fvtu.org

February 5, 2024

Zach Fisk, Chair
Bristol Inland Wetlands and Watercourses Agency and Conservation Commission
c/o Bristol Land Use Division
Via Email:

RE: **Application #2019** - Wetlands boundary change application for the restoration of the White Bridge Waterworks facility at Maltby Street; Assessor's Map 52 & 53, Lots 11, 15, 16B16A, 17, 145, 147, 149, 150 & 151; New Britain Water Department, Ramon Esponda, Deputy Director, applicant.

And

Application #2020 – Wetlands application for the restoration of the White Bridge Waterworks facility at Maltby Street; Assessor's Map 52 & 53, Lots 11, 15, 16B16A, 17, 145, 147, 149, 150 & 151; New Britain Water Department, Ramon Esponda, Deputy Director, applicant.

And

Application #23-458F-305 – Floodplain application for the restoration of the White Bridge Waterworks facility at Maltby Street; Assessor's Map 52 & 53, Lots 11, 15, 16B16A, 17, 145, 147, 149, 150 & 151; New Britain Water Department, Ramon Esponda, Deputy Director, applicant.

Dear Chair Fisk and the Bristol IWW Commissioners:

During the 2016 & 2017 drought, a fly angler who was taking a stroll along Artisan Street noticed that there was no water in sections of Coppermine Brook that passes under the bridge. It is true that most rivers and streams in Connecticut were in low flow conditions due to below average rainfall but there are public drinking water wells adjacent to Coppermine Brook that have the right to withdraw approximately 25 million gallons of water a day from basin. Yet, even if the information was readily available to determine if the groundwater withdrawals are significantly contributing to the dewatering of Coppermine Brook at that time, there is very little anyone can do about it because streamflow regulations do not take groundwater withdrawals into consideration.

FVTU has approximately 600 members within our home waters – which includes both cities of Bristol and New Britain. Numerous members live in the City of Bristol and enjoy the trout fishing opportunities available in their city.

The application submitted by the New Britain Water Department states that they will be increasing withdrawals from their wellfields once rehabilitation work is finished. We have serious concerns that this will exacerbate low flows in Coppermine Brook.

Sections of Coppermine Brook are designated as a Trout Management Area (TMA). Trout are one of the most sought after fish species by anglers, who spend approximately 2.1 million fishing trips a year seeking them. Connecticut's TMAs have special regulations in place to provide high-quality opportunity to catch trout. The City of Bristol is very fortunate to have both Coppermine Brook and the Pequabuck River as designated as TMAs to provide an opportunity for trout fishing in a relatively urbanized area.

But trout, and all living things, need water to survive. They also need continuous flows in order to find cooler water during hot dry months and scarce rainfall.

We urge the Agency to ensure that it has all of the information it needs to understand how increased withdrawals will impact downstream flows and to condition the permit as to ensure that Coppermine Brook does not run dry once more. We encourage the Agency to utilize its authority to hire outside experts that can review the application and provide information on how these increased flows will impact downstream flows.

Sincerely,

John DiVenere

John DiVenere, President, Farmington Valley Chapter of Trout Unlimited.

Verified Petition to Intervene
February 5, 2024

**BRISTOL INLAND WETLANDS AND WATERCOURSES AGENCY/CONSERVATION
COMMISSION**

Application #2019 - Wetlands boundary change application for the restoration of the White Bridge Waterworks facility at Maltby Street; Assessor's Map 52 & 53, Lots 11, 15, 16B16A, 17, 145, 147, 149, 150 & 151; New Britain Water Department, Ramon Esponda, Deputy Director, applicant.

Application #2020 – Wetlands application for the restoration of the White Bridge Waterworks facility at Maltby Street; Assessor's Map 52 & 53, Lots 11, 15, 16B16A, 17, 145, 147, 149, 150 & 151; New Britain Water Department, Ramon Esponda, Deputy Director, applicant.

Application #23-458F-305 – Floodplain application for the restoration of the White Bridge Waterworks facility at Maltby Street; Assessor's Map 52 & 53, Lots 11, 15, 16B16A, 17, 145, 147, 149, 150 & 151; New Britain Water Department, Ramon Esponda, Deputy Director, applicant.

February 5, 2024

VERIFIED PETITION TO INTERVENE UNDER CGS §22a-19

Rivers Alliance of Connecticut, Inc. (RA) requests that the Bristol Inland Wetlands and Watercourses Agency/Conservation Commission (Agency) grant it intervenor status in the above captioned proceedings, pursuant to the Connecticut Environmental Protection Act, CGS section 22a-19(a)(1) (CEPA). RA does not oppose the work that is proposed by New Britain Water Department (NBWD) in the above-referenced applications to purportedly rehabilitate its wellfields and to come into compliance with Connecticut Department of Public Health (DPH) and Federal Emergency Management Agency (FEMA) requirements, so long as the reasonably foreseeable environmental threats posed by these activities are appropriately conditioned to protect the important natural resources comprised of waters of the State under the stewardship of

the City of Bristol. RA's participation in this matter is in the interests of justice and will not impair the orderly conduct of the proceedings.

In support of its petition, RA represents the following:

1. CEPA provides in pertinent part at General Statutes Section 22a-19(a) that

In any administrative, . . . proceeding, and in any judicial review thereof made available by law, . . . any person, . . . corporation . . . or other legal entity may intervene as a party on the filing of a verified pleading asserting that the proceeding or action for judicial review involves conduct which has, or which is reasonably likely to have, the effect of unreasonably polluting, impairing or destroying the public trust in the air, water or other natural resources of the state.

2. The Agency is the town agency authorized to administer the statutory provisions regulating the use of inland wetlands and watercourses pursuant to General Statutes Section 22a-36, et seq., and of its own duly enacted Inland Wetlands and Watercourses Regulations of the City of Bristol (Regulations).

3. RA is a 501(c)(3) non-profit environmental organization, founded in 1992, and dedicated to the protection and preservation of the water resources of the State. Its membership includes, primarily, river and watershed groups in the state, civic and business groups, municipal commissions, and individuals concerned with water health, thus representing a network of thousands of members statewide. RA's mission is to protect the quality and availability of surface and ground waters of Connecticut and Long Island Sound and associated recreational uses and habitat values. RA advocates for the protection of ample, healthy sources of water for drinking and other vital societal uses. RA brings expertise in policy, law, and science to participation in policy-making entities and to its extensive educational program. RA's goal is to bring people together to protect our state waters for current and future generations. Numerous

RA members are residents of Bristol or customers of NBWD. RA's offices are located at 28 Russel Street, P.O. Box 1797, Litchfield, Connecticut, 06759.

4. The Agency's decision in this matter will specifically affect RA, its members, and important natural resources of the State. NBWD owns or manages water supply facilities in the City of Bristol. Pursuant to CGS §22a-365 through 22a-379 as well as Sections 22a-372-1, 22a-377(b)-1 and 22a-377(c)-1 to 22a-377(c)-2 of the Regulations of Connecticut State Agencies, NBWD is authorized to divert 23.78 million gallons of water per day (mgd) in perpetuity.

5. Bristol Water Department (BWD) also owns or manages water supply facilities within the same drainage basin as the White Bridge Waterworks Facility. Pursuant to CGS §22a-365 through 22a-379 as well as Sections 22a-372-1, 22a-377(b)-1 and 22a-377(c)-1 to 22a-377(c)-2 of the Regulations of Connecticut State Agencies, BWD is authorized to divert 3.87 million gallons of water per day (mgd) in perpetuity.

6. Coppermine Brook is listed in Connecticut Department of Energy and Environmental Protection's (DEEP) 2022 Integrated Water Quality Report to Congress under Nonpollutant Impairments (EPA Category 4c) for Flow Regime Modification. DEEP has developed a methodology for assessing flow impairments when sufficient information is available. The term "flow regime modification" is used to reflect the impairments which are predominantly due to flow alterations that serve public needs and safety.

7. Sections of Coppermine Brook below and adjacent to the NBWD and BWD were effectively dry during the 2016-2017 drought and DEEP has documented impairment due to low flow for periods following the 2016-2017 drought. Due to decreased well performance, NBWD has been able to withdraw only a portion of the 23.78 mgd it is authorized pursuant to

CGS §22a-365 through 22a-379 as well as Sections 22a-372-1, 22a-377(b)-1 and 22a-377(c)-1 to 22a-377(c)-2 of the Regulations of Connecticut State Agencies.

8. NBWD has stated in Application #2020 that “The NBWD has registered diversions and those withdrawals will be increased.” It also stated that “The proposed wetland disturbances activity will not affect the nearby watercourse flow rate.”

9. RA seeks to intervene in this proceeding for the purposes of assuring that Coppermine Brook is not further impaired for regime flow modification due to an increase in withdrawals by the NBWD. The potential for such further impairment is not adequately addressed in the Application. RA further seeks to ensure that the Agency has a complete record on which to make an informed decision on all aspects of this complicated proceeding. As DEEP cannot intervene on impairments from low flow (as this activity is purportedly in compliance with CGS §22a-365 through 22a-379 as well as Sections 22a-372-1, 22a-377(b)-1 and 22a-377(c)-1 to 22a-377(c)-2 of the Regulations of Connecticut State Agencies), it is reasonable for the Agency to inquire into potential impacts to downstream flow from NBWD withdrawals. In addition, impacts on streams from groundwater withdrawals are not included in DEEP’s Streamflow Standards and Regulations pursuant to CGS §26-141(a) and (b) and §26-141b-7(a) of the Regulations of Connecticut State Agencies. Appropriate regulation and oversight of potential impacts to downstream flow can be accomplished by requiring monitoring of streamflow above and below the wellfields and requiring that NBWD work with DEEP to determine a threshold at which NBWD would have to work with DEEP to find an operational mode that would not impair Coppermine Brook, as per the NBWD agreement with DPH for funds procured through DPH’s Drinking Water State Revolving Fund for the project. This regulation and oversight clearly falls

within the Agency's jurisdiction in this proceeding pursuant to CGS section 22a-41, 22a-42, and the city's Inland Wetlands and Watercourses Regulations.

10. It is RA's position that prudent conditions to protect critical natural resources of the State, which are threatened by the increased uncertainty of climate change, are necessary and appropriate. RA is focused on a narrow but important set of natural resources that receive limited, but critical, protections under state statute. RA's intervention in this matter is in the interests of justice and will not impair the orderly conduct of the proceedings.

11. RA is not aware of any other intervening party to this proceeding whose focus is to ensure that the water resources of the state under the care of the City of Bristol are protected from undue impairment.

12. RA intends to offer brief and pertinent direct testimony from Connecticut water conservation experts with personal knowledge of wetlands and hydrology, as it applies to the Applications.

13. RA requests that the following individuals be listed on the Service List in this proceeding:

Alicea Charamut, Executive Director
Rivers Alliance of Connecticut, Inc.
28 Russel Street, P.O. Box 1797
Litchfield, CT 06759
(860) 416-7859
alicea@riversalliance.org

and

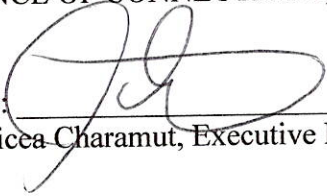
Mary Ridingsward, Executive Director
Pequabuck River Watershed Association
PO Box 1461
Bristol, CT 06011-1461
pequabuckriverct@gmail.com

Copies of filings and notices should be sent to alicea@riversalliance.org.

WHEREFORE, Rivers Alliance of Connecticut, Inc. respectfully requests intervention status in this proceeding pursuant to CEPA upon the filing of this verified pleading for intervention.

Respectfully submitted,

INTERVENOR
RIVERS ALLIANCE OF CONNECTICUT, INC.

By: 
Alicea Charamut, Executive Director

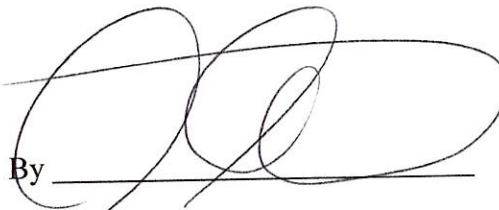
VERIFICATION OF PETITION FOR INTERVENTION
UNDER GENERAL STATUTES SECTION 22a-19(a)

I, the undersigned, being duly sworn, depose and say that (i) I am the Executive Director of Rivers Alliance of Connecticut; (ii) I have the authority to execute this Petition for Intervention on behalf of Rivers Alliance of Connecticut; and (iii) I have read the foregoing Petition for Intervention and verify that the facts stated therein are true and correct to the best of my knowledge, information and belief based on my personal knowledge, and the records which I have reviewed in this matter.

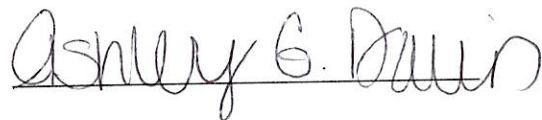
Dated at Newington Connecticut, this 5th day of February, 2024.

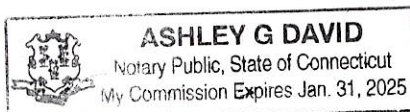
INTERVENOR

RIVERS ALLIANCE OF CONNECTICUT

By 
Alicea Charamut, Executive Director

Subscribed and sworn to before me the undersigned this 5th day of February, 2024.





Notary Public: Ashley G. David
My Commission Expires: 01/31/2025

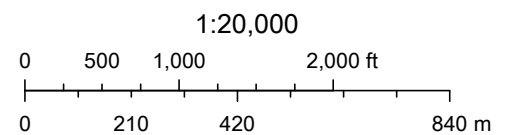
ATTACHMENT 1

PROJECT SITE MAP

White Bridge Waterworks Facility



2/22/2023, 3:28:12 PM



USGS The National Map: Orthoimagery and US Topo. Data refreshed December, 2022.

ATTACHMENT 2
ADDITIONAL INFORMATION
NARRATIVE

Wetlands Permit Application – Flood & Erosion Control

Project Narrative:

A rehabilitative project will be conducted at the Upper and Lower Wellfields of the White Bridge Waterworks Facility owned by the New Britain Water Department (NBWD) accessed via Maltby Street. The purpose of this project is to redevelop the existing Upper and Lower Wellfields, which were constructed in the 1940s and 1921, respectively. Presently, these wellfields serve as a raw water supply only. The age of the wellfields is such that they have come to the end of their useful life and repair and replacement equipment is no longer available. The NBWD needs to upgrade the facilities and modernize the equipment.

To become a potable water supply, any new wells must be located 50 feet from any water body or wetlands boundary per Department of Public Health (DPH) requirements. In addition, the wells must be raised 2' above the one-hundred-year flood plain elevation. The majority of the NBWD owned property related to this project is within the 100-year floodplain. Because of these requirements, the existing wells cannot be redrilled or rehabilitated in their present location. All currently existing wells will be abandoned in accordance with DPH requirements. The Lower Wellfield may but suitable as a public water supply subject to the ground water under the direct influence of surface water testing which will be done once the project is completed in a future phase of construction.

Proposed activities for the project include the demolition of pre-existing structures in addition to the construction of new groundwater wells, a pump house and underground piping. Pre-existing structures include the Upper Wellfield pump station, Pond pump station and Well pump station. Two of those pre-existing buildings are within the floodway. The new pump house structure will be outside of the floodway. Compensatory flood storage areas will be created so as to not increase the current flood elevation levels as given by FEMA guidelines. These compensatory storage areas will also create additional wetland areas.

The project will impact approximately 31,000 square feet of wetlands. As part of the project, wetlands replication will be done at a ratio of greater than two to one. The new structure and facilities will add approximately 7,000 cubic yards of fill within the floodplain. As part of the project, over 17,000 cubic yards of material will be removed from the flood plain.

As part of the scope of work of this project various areas within both the flood fringe and floodway will be encroached upon. See attached maps for the extent of the encroachment within both areas.

Erosion & Sedimentation Control:

The erosion and sedimentation control measures at the White Bridge facility focus on the protection of wetlands and waterways during and following construction since the work includes land disturbances, excavation dewatering, supply pond and canal sediment removal activities, and other associated construction activities. Several methods are included on the Drawings to slow the flow of runoff and protect disturbed land during construction activities. Please refer to the project plans for typical details of measures to protect wetlands and waterways during and after construction. The following summary

presents typical mitigation measures that will be implemented to avoid and minimize wetland impacts during construction.

Construction Period

- During construction, the limit of land disturbances will be kept to a minimum, where possible, and the construction will be sequenced so the entire site will not be disturbed at the same time.
- Clearing and grubbing will be limited to only the areas necessary for work to be performed, specifically in areas at the Upper and Lower Wellfields (Sheet C-9 and C-11) where wells and piping will be installed, at the Maltby Street 16" pipe crossing (Sheet C-18), at areas where wetlands and compensatory storage will be created (Sheet C-13 and C-14), and areas around the Supply Pond for access during sediment removal activities (Sheet C-23).
- Sedimentation barriers (i.e., silt fence and/or compost logs/straw wattles installed per industry standards) will be installed at the down gradient limits of work and construction access roadways prior to the commencement of work to prevent the transport of sediment to the downgradient wetlands and waterways during construction (see Sheets C-6 thru C-8). Specifically, at the Upper Wellfield this includes compost logs/straw wattles along the facility driveway from Maltby Street to the existing Pumping Station and down each of the well field laterals. At the Lower Wellfield, this includes along the wetlands to the north and west of proposed work, along the Coppermine Brook to the east, around the Supply Pond, and along both sides of the Canal to the Polkville Avenue Brook. These barriers will be inspected at least once per week and within 24 hours of rainfall events ½-inch or greater and repaired as needed. These barriers will remain in place until all disturbed soils are stabilized. A stockpile of compost logs/straw wattles and silt fence will be maintained on site for routine maintenance and emergency repairs. Barriers will be replaced as necessary due to sediment build-up and degradation.
- Sedimentation barriers (i.e., silt fence and/or compost logs/straw wattles installed per industry standards) will be installed surrounding temporary stockpile areas.
- For all slopes 4:1 or steeper, an erosion control blanket will be required, including at the Upper and Lower Wellfield wells (see Sheet C-9 and C-11). Temporary erosion control blankets will be inspected at least once per week and within 24 hours of rainfall events.
- A turbidity curtain will be installed to prevent sedimentation and turbidity disturbances in the Coppermine Brook during canal and supply pond sediment removal activities (see Sheet C-23 and Detail Sheet C-24). Turbidity curtains will be inspected daily during Supply Pond and canal sediment removal activities. The turbidity curtain will not be removed before sediment removal activities have ended and clarity of water has returned.
- Catch basin filters will be installed on catch basins near all excavation work on Maltby Street, Stafford Avenue, and Mix Street (See Sheet C-18 and Detail Sheet C-24).
- In the event that excavation dewatering is necessary, water will be pumped and discharged to one of the temporary sedimentation basins in designated areas of the site (see Sheet C-6 thru C-8).

and Detail Sheet C-24). Temporary sedimentation basins will be inspected at least once per week and cleaned as needed to remove accumulated sediments. Temporary portable sediment tanks may also be used to handle significant amounts of excavation dewatering. All water to be discharged from dewatering activities will be filtered or otherwise treated prior to discharge to prevent siltation to adjacent areas. Best management practices will be used by the Contractor in order to prevent siltation to adjacent areas during dewatering activities.

- A temporary sediment dewatering and stockpiling area has been designated within the Supply Pond to dewater removed sediments during restoration activities (see Sheet C-23 and Detail Sheet C-24). Stockpiled materials and containment area will be inspected daily during dewatering activities, weekly during non-dewatering activities, and within 24 hours of rainfall events of ½-inch or greater.
- A stabilized construction entrance is also being required for the site to prevent tire tracked soils to onsite and offsite locations (see Sheet C-23 and Detail Sheet C-24). The stabilized construction entrance will be inspected periodically and additional top dressing or length will be added, as necessary, to continue capturing sediment tracked on vehicles.
- The silt fence and/or compost log/straw wattle barrier will not be removed until the site areas are vegetated, paved or otherwise permanently stabilized to prevent erosion of exposed soils. Work will proceed as rapidly as possible, limiting the exposure time of disturbed soils to wind and precipitation.
- The sedimentation barriers will not be removed until the site areas are vegetated, paved or otherwise permanently stabilized to prevent erosion of exposed soils. Work will proceed as rapidly as possible, limiting the exposure time of disturbed soils to wind and precipitation.
- Periodic inspections will be made by the applicant to ensure compliance with the permit conditions.

Spill Control Measures

- Spill containment equipment (e.g. oil absorbent pads, oil absorbent materials, containment booms, shovels, etc.) will be stored in the equipment storage and refueling area in an easily accessible manner for use in the clean-up of accidental releases of fuel or other hazardous materials. Should there be an accidental release the proper authorities will be notified in accordance with all applicable federal, state, and local laws; and
- To minimize the possibility of leakage of hydraulic fluid, all hydraulic lines on all construction equipment and vehicles will be inspected at the end of each workday. If any excessive wear or leakage is observed, the line will be repaired prior to further use. In addition, a supply of oil absorbent materials (i.e. pads, "speedy dry," and/or booms) will be maintained with the equipment at the work area for immediate deployment in the event of an accidental release of fuel, hydraulic fluid, oil, etc.

Post-Construction Period

The following summary of mitigation measures will be implemented to restore any areas affected by short-term impacts that occur in or adjacent to wetlands.

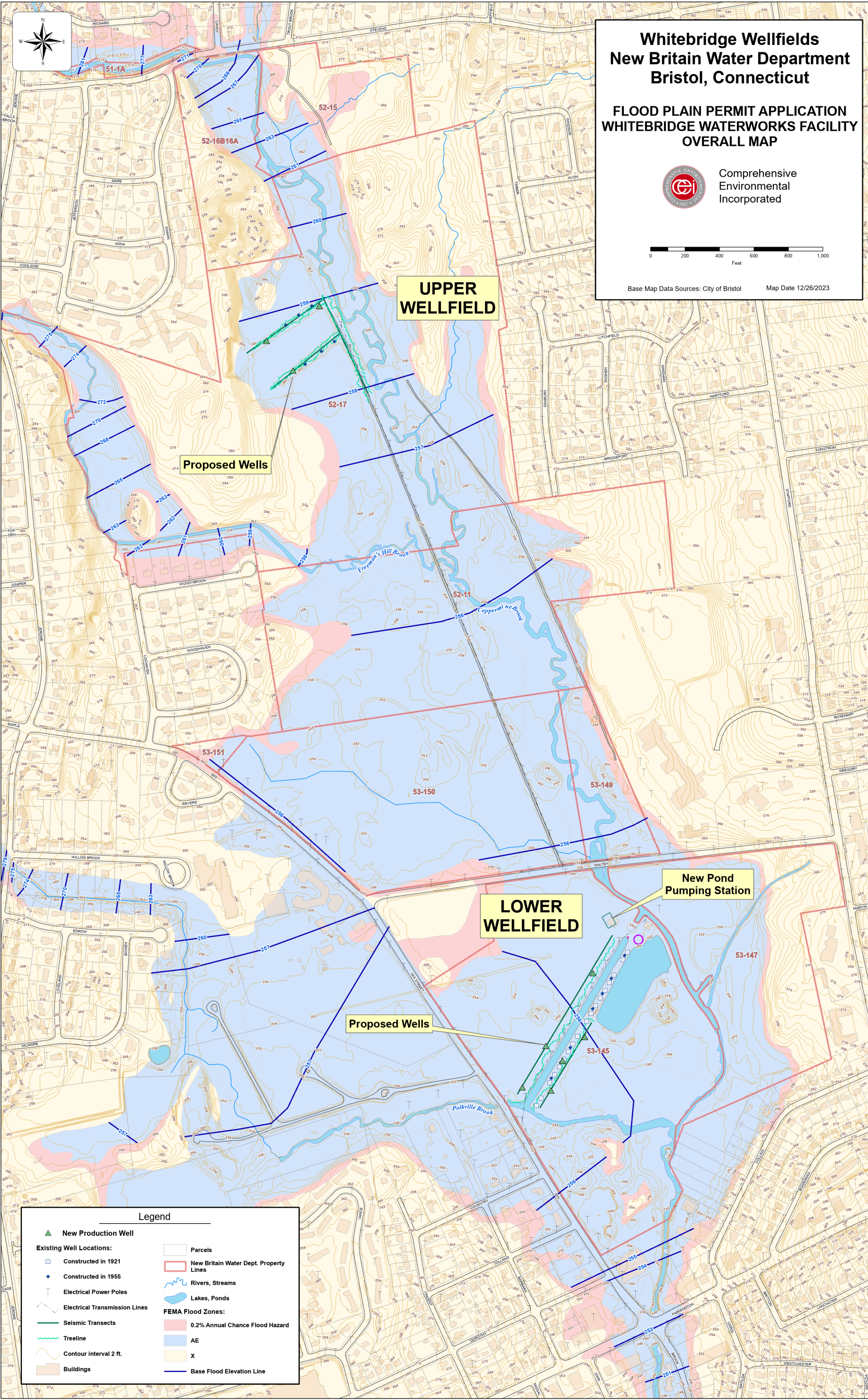
- The final site is designed to have a 3-foot wide gravel infiltration trench with 1.5"-3" diameter washed aggregate covered with 6" pea gravel running along the facility driveway to collect and slow the flow of runoff from impervious surfaces (see Sheet C-10 and Detail Sheet C-26).
- All areas disturbed during construction activities are to be loamed and seeded to provide vegetated soil cover protection against sheet runoff and wind erosion (see Sheet C-9 thru C-12). Seeded areas will be inspected at least once per week and within 24 hours of rainfall events of ½-inch or greater.
- Once established, seeded areas will be mowed and maintained as appropriate.
- The Pond Pumping Station building roof drain leader will outlet to a riprap apron (See Sheet C-10 and Detail Sheet C-26). Riprap used in the roof drain apron will be inspected periodically to determine if high flows have caused scour beneath riprap or if vegetation removal is required. On the northeast side of the Pond Pumping Station building, a retaining wall will be utilized to prevent steep slopes.
- The wetland replication and restoration areas will be planted with trees and shrubs per the planting plans, and seeded with a wetland seed mixture.
- If seeding occurs outside of the growing season, temporary stabilization measures (i.e., mulching or erosion control blankets) will be used to prevent erosion until the area can be seeded during the following growing season.
- Reseeding and mulching disturbed areas. These areas will be maintained and re-seeded to ensure that grass cover is adequate to stabilize the exposed soil, and
- Sedimentation and erosion control barriers will not be removed until a vegetative cover dense enough to prevent erosion is established.

Selections from Figure 3-2 of the 2002 Connecticut Guidelines for Soil Erosion and Sediment Control:

Figure 3-2 Measure Selection Matrix					
Identify Problem Areas	Identify Control Problems	Identify Strategy	Select Specific Measure		Plan Key
			Functional Group	Measure	
Disturbed Areas	Control Soil Detachment	Preserve and Conserve Existing Site Resources	Protect Vegetation	Tree Protection	TP
			Preserve and Conserve Soil	Topsoiling	TO
				Land Grading	LG
				Surface Roughening	SR
Short or Shallow Slopes	Raindrop Splash	Protect Surface		Dust Control	DC
			Vegetative Soil Cover	Temporary Seeding	TS
				Permanent Seeding	PS
				Sodding	SO
Steep Slopes	Sheet & Rill Erosion		Non-Living Soil Protection	Landscape Planting	LP
				Temporary Soil Protection	TSP
				Mulch for Seed	MS
				Landscape Mulch	LM
Long Slopes	Wind Erosion			Temporary Erosion Control Blanket	ECB
				Permanent Lurf Reinforcement Mat	TRM
				Stone Slope Protection	SSP
Stockpile Areas	Control Water Movement	Protect Surface and/or Convey Runoff	Stabilization Structures	Retaining Walls	RW
				Riprap	RR
				Cabions	G
				Permanent Slope Drain	PSD
Borrow Areas	Gully Erosion			Channel Grade Stabilization Structure	CSS
				Temporary Lined Chute	TC
				Temporary Pipe Slope Drain	TSD
Drainage Ways	Channel & Stream Erosion	Convey Runoff	Drainageways and Watercourses	Vegetated Waterway	VW
				Temporary Lined Channel	TLC
				Permanent Lined Waterway	PW
				Temporary Stream Crossing	TSC
Wetlands and Watercourses		Direct Runoff	Diversions	Temporary Fill Berm	TFB
				Water Bar	WB
				Temporary Diversion	TD
				Permanent Diversion	PD
Waterbodies		Intercept Gmd. Water	Subsurface Drains	Subsurface Drain	SD
Areas of Flooding and Existing Erosion	Natural Resource Degradation	Diffuse Runoff	Detention Structures	Detention Basin	DB
				Level Spreader	LS
				Outlet Protection	OP
				Stone Check Dam	SCD
Drainage Outlets	Control Sediment Deposition	Detain Sediments	Sediment Impoundments, Barriers, and Filters	Temporary Sediment Basin	SB
				Temporary Sediment Trap	TST
				Hay Bale Barrier	HB
				Geotextile Silt Fence	GSF
Travel Areas	Protect Onsite and Offsite Areas			Turbidity Curtain	TC
				Vegetative Filter	VF
				Construction Entrance	CE
				Pump Intake and Outlet Protection	PuP
Dewatering		Control Mechanically Moved Waters and Soils	Dewatering	Pumping Settling Basin	PSB
				Portable Sediment Tank	PST
				Dewatering of Earth Materials	DWM

ATTACHMENT 3

FLOOD MAP



**Whitebridge Wellfields
New Britain Water Department
Bristol, Connecticut**

**FLOOD PLAIN PERMIT APPLICATION
WHITEBRIDGE WATERWORKS FACILITY
OVERALL MAP**



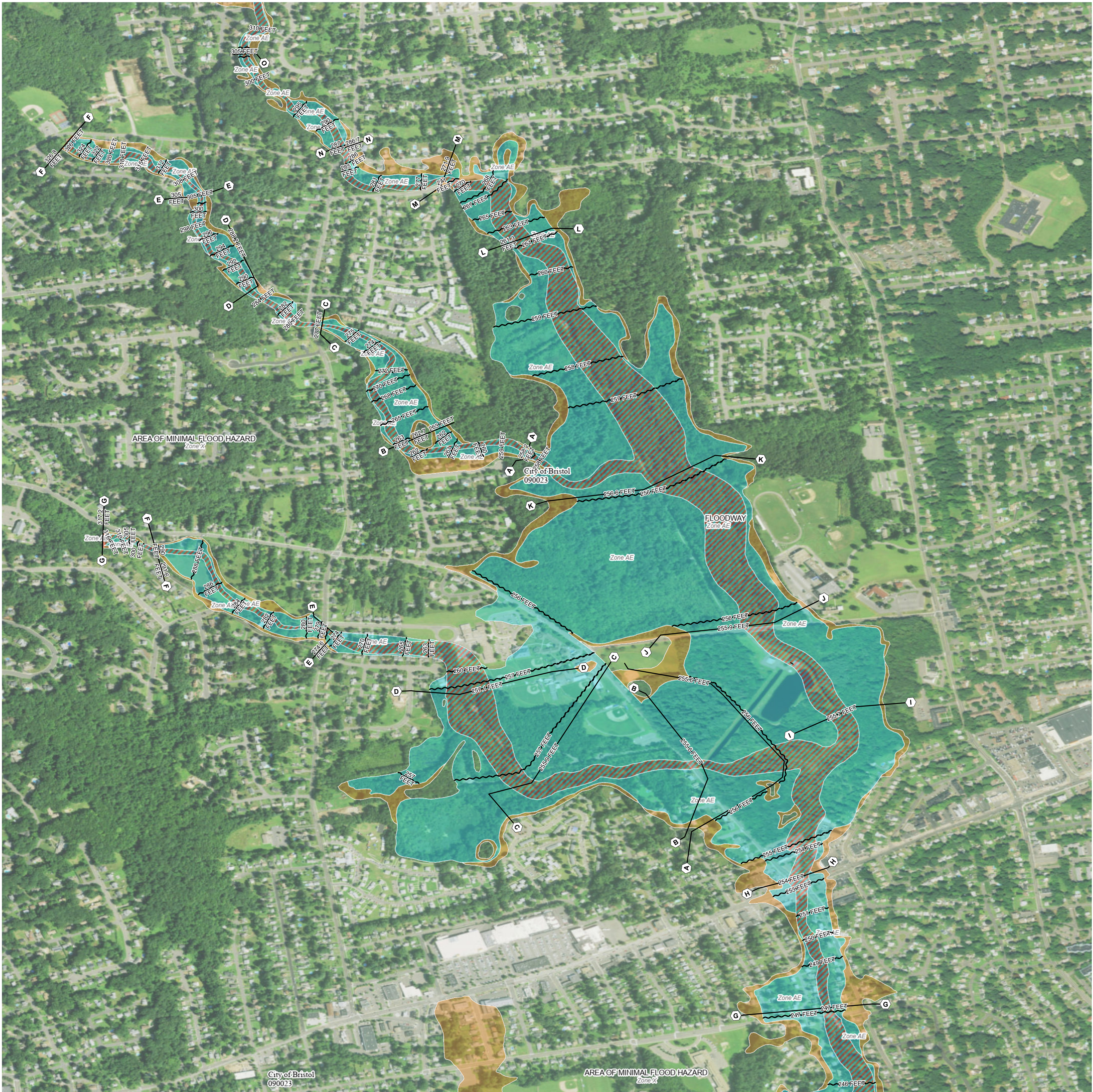
Comprehensive
Environmental
Incorporated

0 200 400 600 800 1,000
Feet

Base Map Data Sources: City of Bristol Map Date 12/26/2023

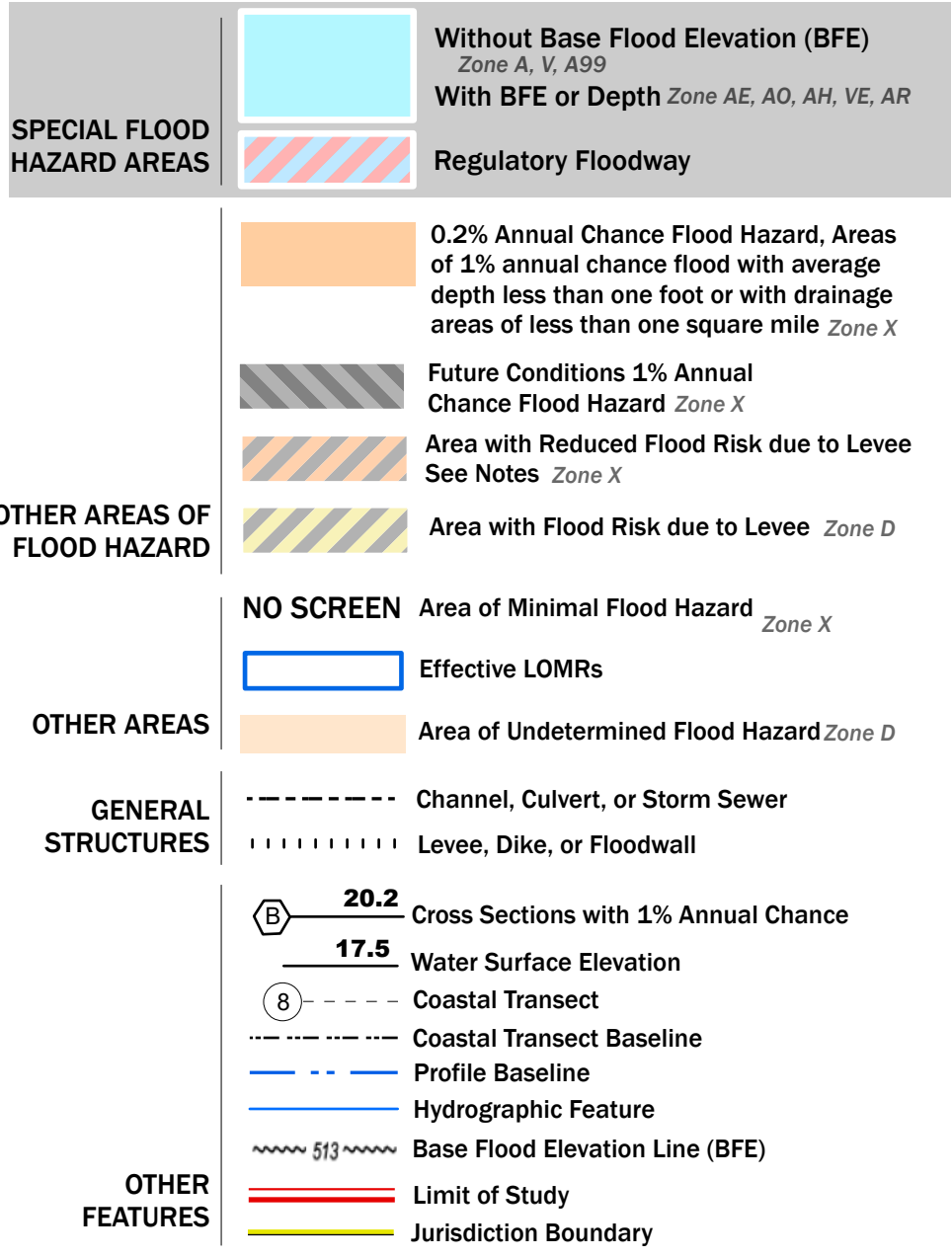
Legend

- | | |
|---|--|
| New Production Well | Parcels |
| Existing Well Locations:
Constructed in 1921 | New Britain Water Dept. Property Lines |
| Constructed in 1955 | Rivers, Streams |
| Electrical Power Poles | Lakes, Ponds |
| Electrical Transmission Lines | FEMA Flood Zones:
0.2% Annual Chance Flood Hazard |
| Seismic Transects | AE |
| Treeline | X |
| Contour interval 2 ft. | Base Flood Elevation Line |
| Buildings | |



FLOOD HAZARD INFORMATION

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



NOTES TO USERS

For information and questions about this Flood Insurance Rate Map (FIRM), available products associated with this FIRM, including historic versions, the current map date for each FIRM panel, how to order products, or the National Flood Insurance Program (NFIP) in general, please call the FEMA Map Information eXchange at 1-877-FEMA-MAP (1-877-336-6627) or visit the FEMA Flood Map Service Center website at <https://msc.fema.gov>. Available products may include previously issued Letters of Map Change, a Flood Insurance Study Report, and/or digital versions of this map. Many of these products can be ordered or obtained directly from the website.

Communities annexing land on adjacent FIRM panels must obtain a current copy of the adjacent panel as well as the current FIRM Index. These may be ordered directly from the Flood Map Service Center at the number listed above.

For community and countywide map dates, refer to the Flood Insurance Study Report for this jurisdiction.

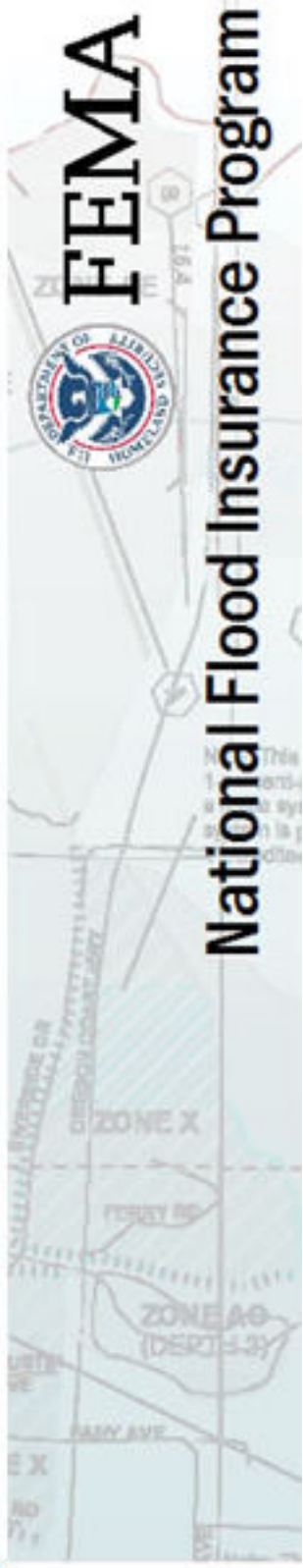
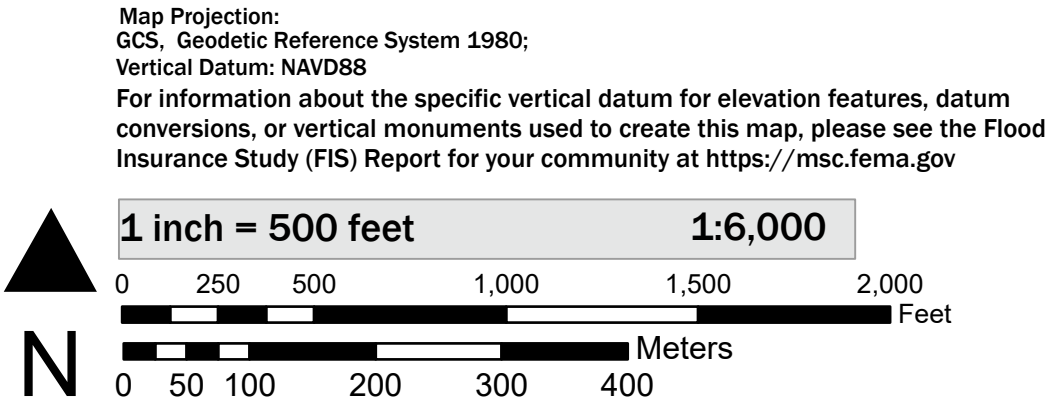
To determine if flood insurance is available in this community, contact your Insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

Basemap information shown on this FIRM was provided in digital format by the United States Geological Survey (USGS). The basemap shown is the USGS National Map: Orthoimagery. Last refreshed October, 2020.

This map was exported from FEMA's National Flood Hazard Layer (NFHL) on **10/1/2021 10:57 AM** 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. For additional information, please see the Flood Hazard Mapping Updates Overview Fact Sheet at <https://www.fema.gov/media-library/assets/documents/118418>

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. 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.

SCALE



NATIONAL FLOOD INSURANCE PROGRAM
FLOOD INSURANCE RATE MAP

PANEL	458	OF	658
Panel Contains:			
COMMUNITY	NUMBER	PANEL	
CITY OF BRISTOL	090023	0458	

Link to Attachment #4:

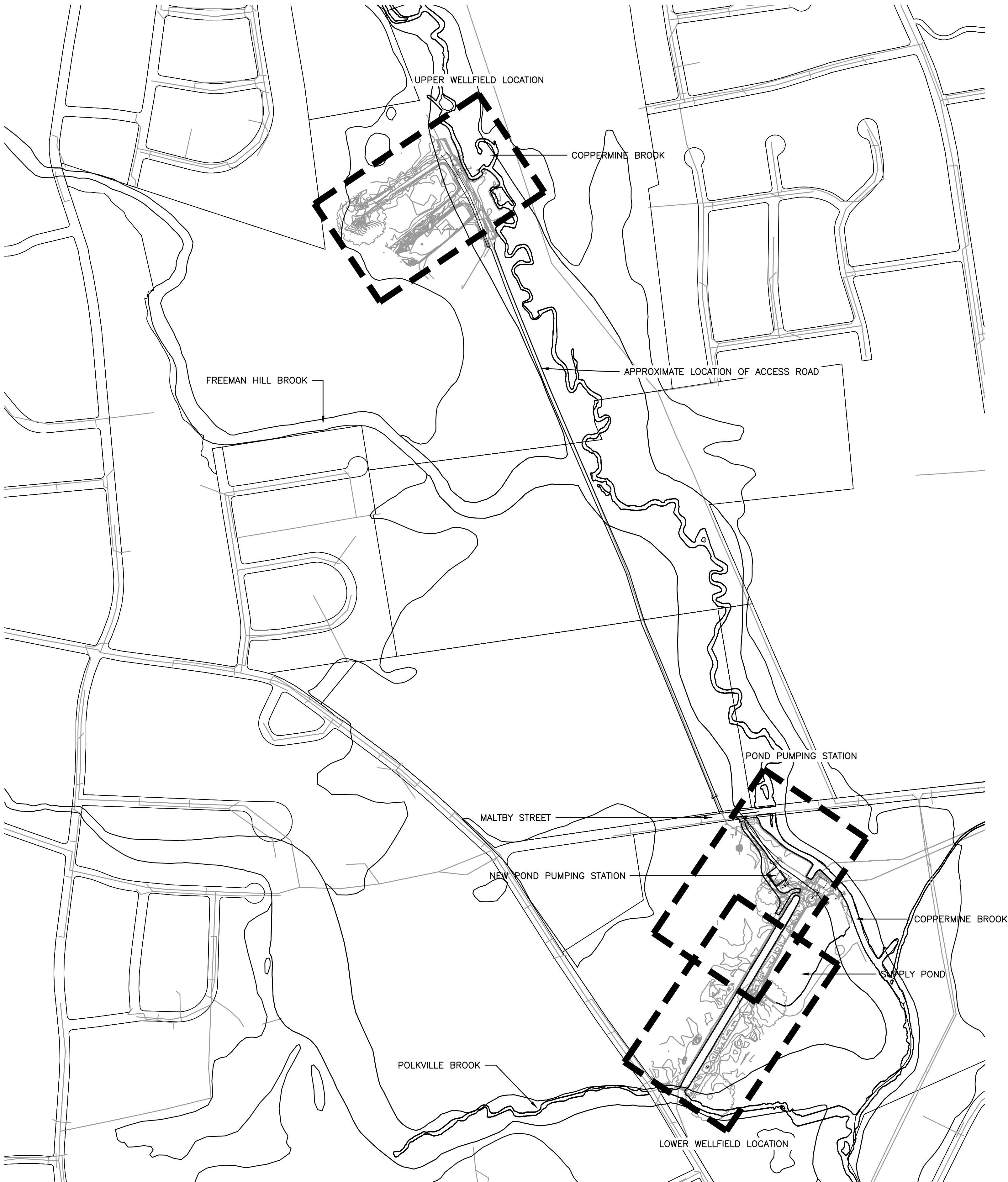
<https://www.bristolct.gov/DocumentCenter/View/45996/Attachment-4-Extracted---Floodway-Areas>

ATTACHMENT 4

FLOODWAY & FLOOD FRINGE ENCROACHMENT AREAS

ATTACHMENT 5
PROJECT DRAWINGS

XREFs: [CDMS-2436_CYPWP001_XSVPLO00_CWP0000ST_Floodway_Floodplain_AWZ001PS - 2D Process Export] Images: [Base Image]
Last saved by: ENGELSB Time: 3/24/2023 11:19:40 AM
C:\Users\engelsb\ACCDocs\CDM Smith Inc\10739-264571 - New Britain CT White Bridge Well Fields and PS\Project Files\02 Civil (C)\10 CADD\C002STPL.dwg
© 2023 CDM SMITH. ALL RIGHTS RESERVED.
REUSE OF DOCUMENTS: THESE DOCUMENTS AND DESIGNS PROVIDED BY PROFESSIONAL SERVICE, INCORPORATED HEREIN, ARE THE PROPERTY OF CDM SMITH AND ARE NOT TO BE USED, IN WHOLE OR PART, FOR ANY OTHER PROJECT WITHOUT THE WRITTEN AUTHORIZATION OF CDM SMITH.



FLOOD	LOWER WELLFIELD & POND PUMPING STATION	UPPER WELLFIELD
	ELEVATION (ft)	ELEVATION (ft)
0.2% ANNUAL CHANCE FLOOD (500 - YR FLOOD)	256.7	259.7
1% ANNUAL CHANCE FLOOD (100 - YR FLOOD)	255.9	259.0
2% ANNUAL CHANCE FLOOD (50 - YR FLOOD)	255.6	258.6
10% ANNUAL CHANCE FLOOD (10 - YR FLOOD)	253.0	258.0

NOTE: ELEVATIONS SHOWN ARE IN FEET AND ARE REFERENCED
USGS DATUM NAVD88

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: G. HOWARD
DRAWN BY: J. BRONENKANT
SHEET CHK'D BY: G. HOWARD
CROSS CHK'D BY: K. WAGNER
APPROVED BY: K. WAGNER
DATE: APRIL 2023

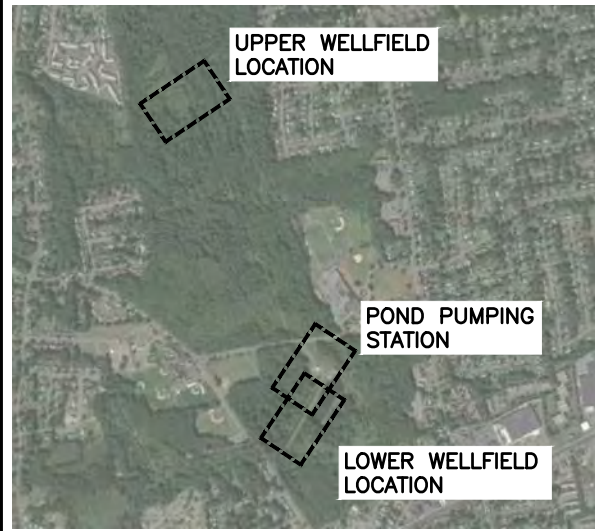
**CDM
Smith**
77 Hartland Street, Suite 200
East Hartford, CT 06108
Tel: (860) 529-7615

CITY OF NEW BRITAIN, CONNECTICUT
WHITE BRIDGE WATERWORKS FACILITIES
UPPER AND LOWER WELLFIELDS
AND POND PUMPING STATION

OVERALL SITE PLAN

SHEET NO.
C-2

PROJECT NO. 10739-264571
FILE NAME: C002STPL.DWG



PLAN

N.T.S.

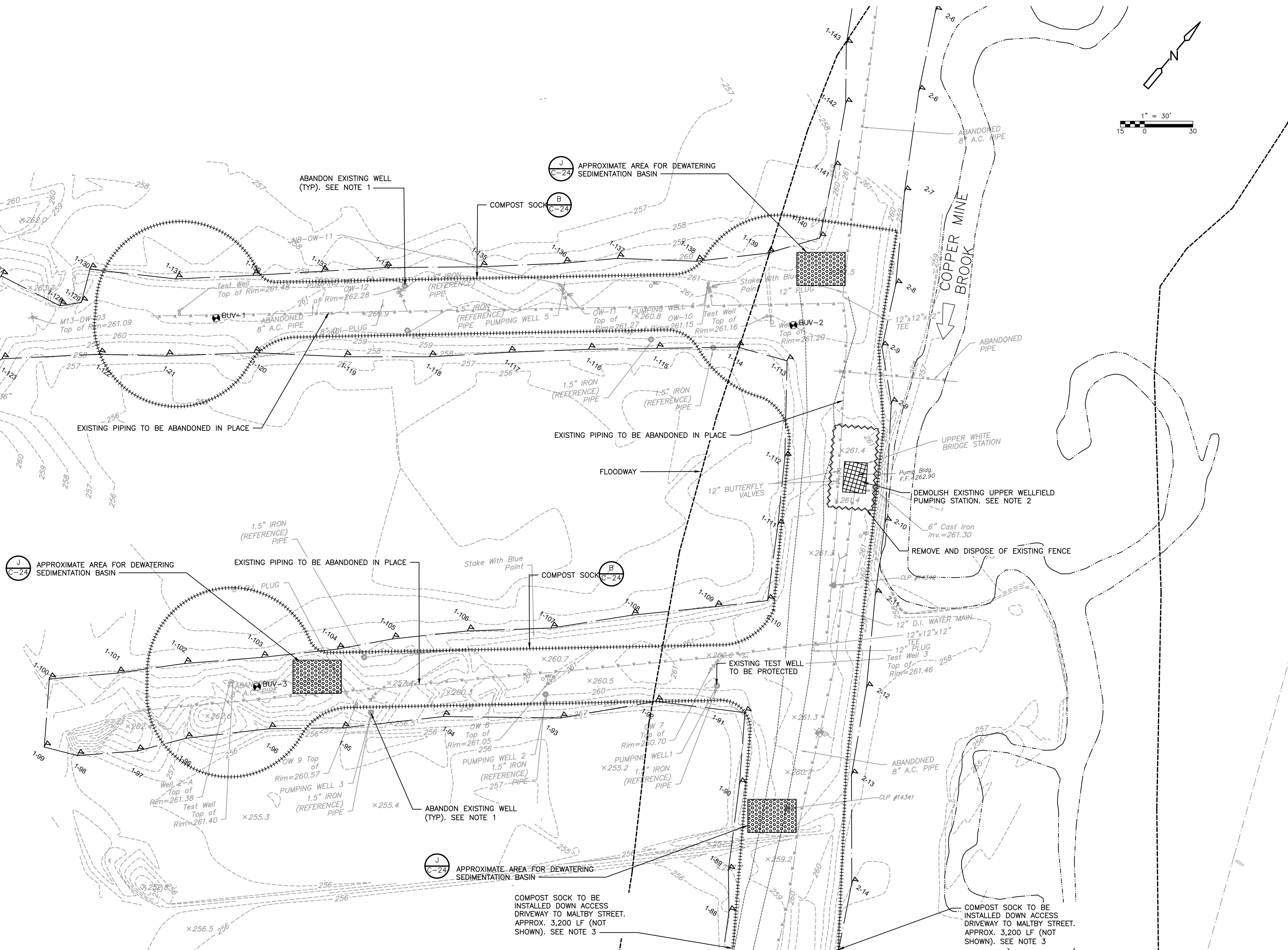
LEGEND

- COMPOST SOCK
- BUILDING REMOVAL
- WETLAND FLAG
- BORING

1" = 30'

NOTES:

- EXISTING WELLS TO HAVE THE WELL HEAD REMOVED TO 5 FEET BELOW FINISHED GRADE, LATERAL DISCHARGE PIPING REMOVED TO THE HEADER PIPE AND A CAP OR CONCRETE PLUG INSTALLED ON THE ABANDONED HEADER PIPE. SEE SECTION 019416, APPENDED TO THE SPECIFICATIONS, FOR MORE DECOMMISSIONING AND ABANDONMENT REQUIREMENTS OF EXISTING WELLS.
- THE EXISTING UPPER WELLFIELD PUMPING STATION BUILDING TO BE DEMOLISHED TO AT LEAST 2 FEET BELOW FINISHED GRADE. THE WESTERN WALL SHALL REMAIN TO AT LEAST 2 FEET BELOW GRADE. BUILDING FOUNDATION TO BE FILLED AND COMPACTED TO EXISTING GRADE. OWNER TO TAG ITEMS AND EQUIPMENT TO BE SAVED PRIOR TO DEMOLITION. CONTRACTOR TO REMOVE AND RETURN TO OWNER ANY TAGGED ITEM OR EQUIPMENT. SEE SPECIFICATION SECTION 024116 FOR ADDITIONAL BUILDING DEMOLITION REQUIREMENTS.
- CONTRACTOR TO INSTALL COMPOST SOCK ON BOTH SIDES OF THE UPPER WELLFIELD ACCESS DRIVEWAY (APPROX. 3,200 LF EACH, NOT SHOWN) TO MALTBY STREET. THE EXISTING ACCESS DRIVEWAY BRIDGE CROSSING OF THE FREEMAN HILL BROOK TO BE PROTECTED DURING CONSTRUCTION.
- HAZARDOUS BUILDING MATERIALS WERE FOUND IN SAMPLES TAKEN FROM SELECT LOCATIONS IN EXISTING BUILDINGS. PRIOR TO COMMENCING WITH ANY MODIFICATIONS OR DEMOLITION WORK, REFER TO SPECIFICATIONS FOR KNOW LOCATIONS OF HAZARDOUS BUILDING MATERIALS AND EQUIPMENT, PROPOSED ABATEMENT AND DISTURBANCE WORK, REQUIREMENTS FOR ADDITIONAL SAMPLING AND TESTING TO BE PERFORMED AS PART OF THE WORK, MONITORING REQUIREMENTS, AND WASTE HANDLING AND DISPOSAL REQUIREMENTS.



REV. NO.	DATE	DRWN	CHKD	REMARKS

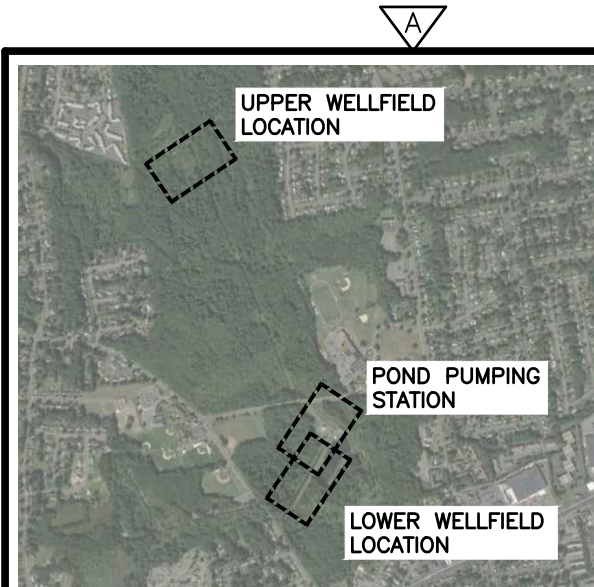
DESIGNED BY:	G. HOWARD
DRAWN BY:	J. BRONENKANT
SHEET CHK'D BY:	G. HOWARD
CROSS CHK'D BY:	K. WAGNER
APPROVED BY:	K. WAGNER
DATE:	APRIL 2023



CITY OF NEW BRITAIN, CONNECTICUT
WHITE BRIDGE WATERWORKS FACILITIES
UPPER AND LOWER WELLFIELDS
AND POND PUMPING STATION

UPPER WELLFIELD
DEMOLITION AND REMOVALS PLAN

PROJECT NO.	10739-264571
FILE NAME:	C006STPL.DWG
SHEET NO.	C-6



PLAN

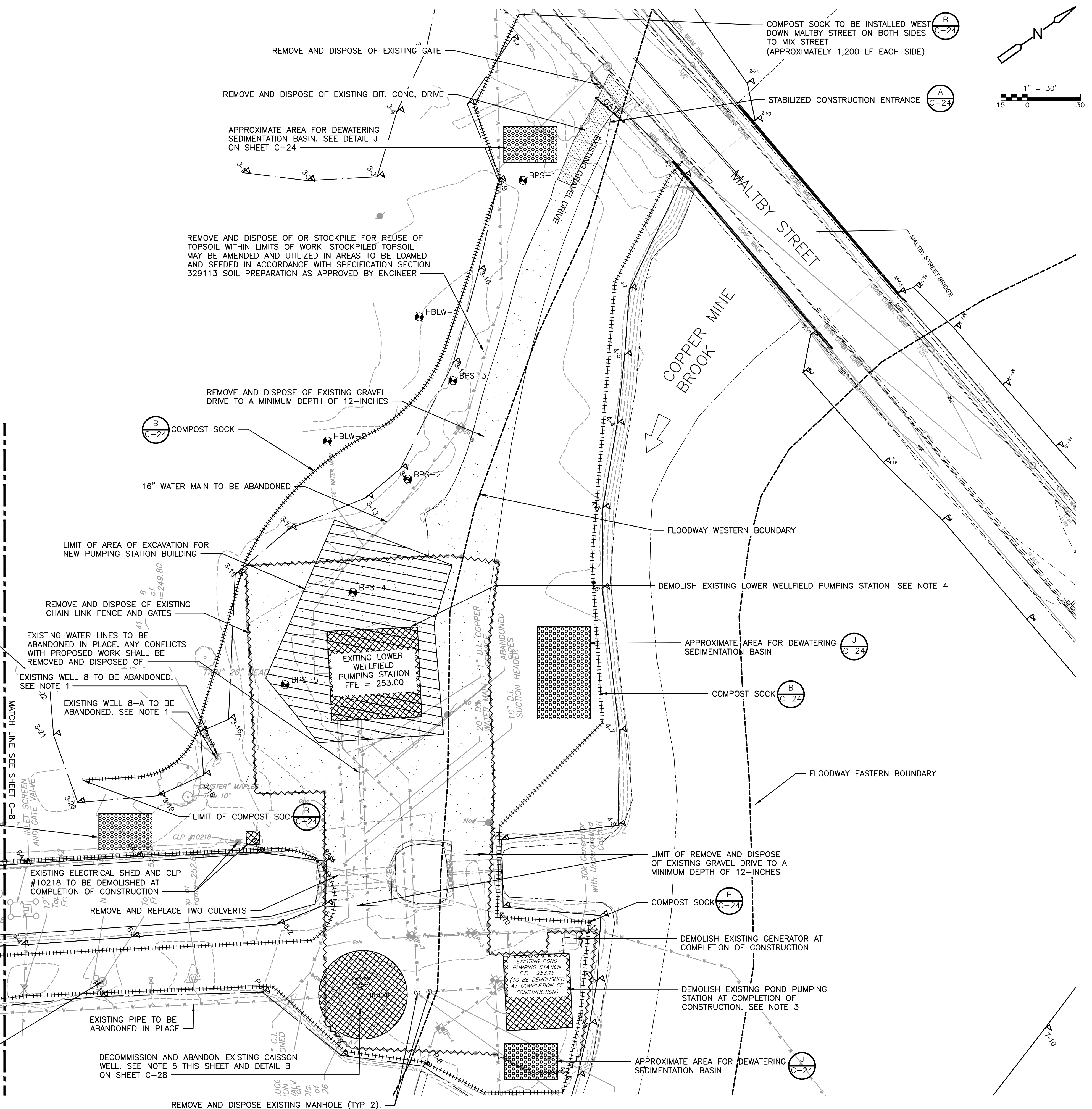
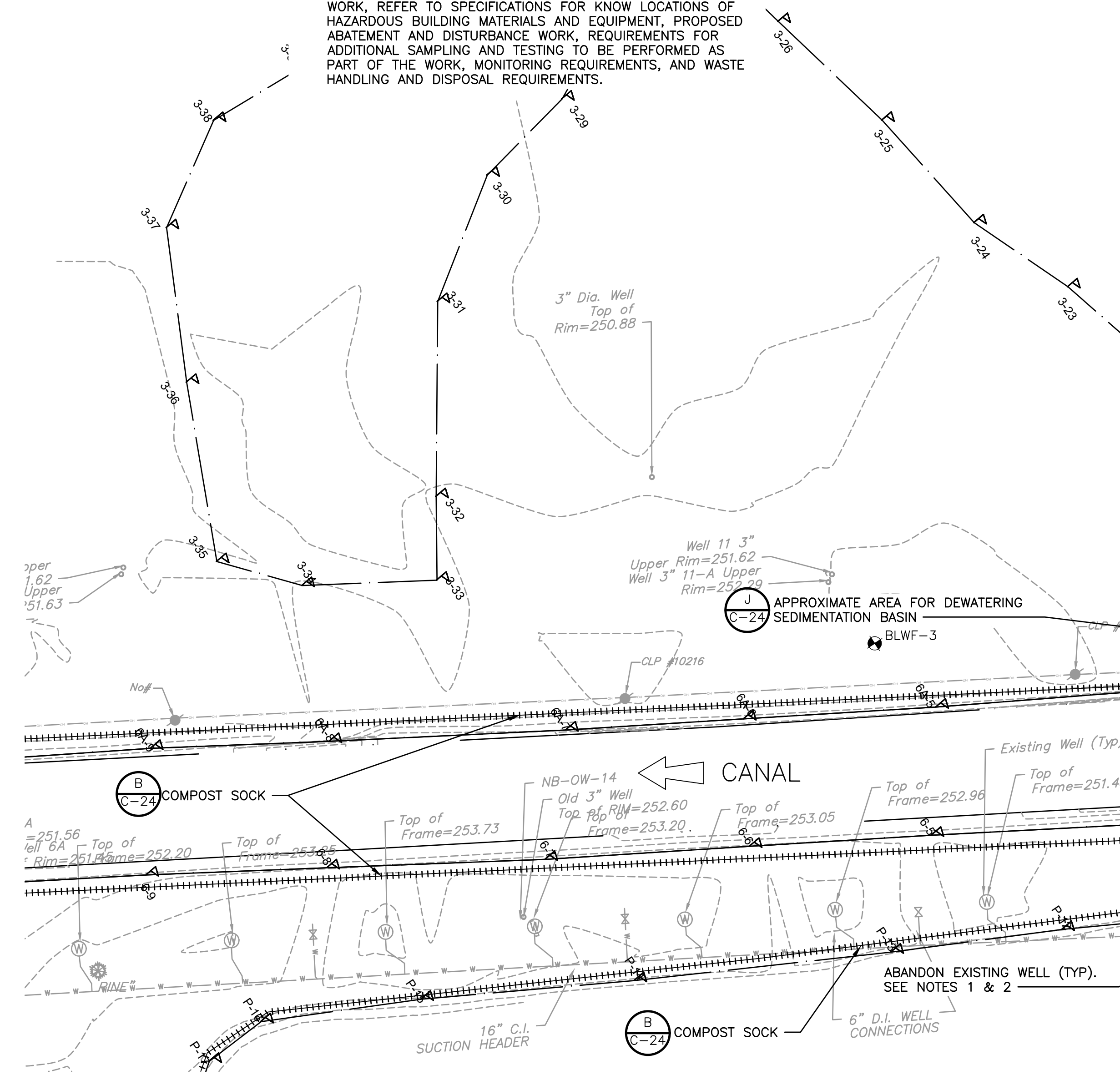
N.T.S.

LEGEND

-  COMPOST SOCK
 BUILDING REMOVAL
 WETLAND FLAG
 BORING

- NOTES:

1. EXISTING WELLS TO HAVE THE WELL HEAD REMOVED TO 5 FEET BELOW FINISHED GRADE, LATERAL DISCHARGE PIPING REMOVED TO THE EXISTING 16" CI SUCTION HEADER PIPE, AND A CAP OR CONCRETE PLUG INSTALLED ON THE ABANDONED HEADER PIPE. SEE SECTION 019416, APPENDED TO THE SPECIFICATIONS, FOR MORE DECOMMISSIONING AND ABANDONMENT REQUIREMENTS OF EXISTING WELLS.
2. EXISTING WELLS WITH WELL HEAD LOCATED IN A VAULT TO HAVE VAULT DEMOLISHED AND REMOVED, WELL HEAD REMOVE TO 5 FEET BELOW BOTTOM OF VAULT, LATERAL DISCHARGE PIPING REMOVED TO THE EXISTING 16" CI SUCTION HEADER PIPE, AND A CAP OR CONCRETE PLUG INSTALLED ON THE ABANDONED HEADER PIPE. SEE SECTION 019416, APPENDED TO THE SPECIFICATIONS, FOR MORE DECOMMISSIONING AND ABANDONMENT REQUIREMENTS OF EXISTING WELLS.
3. THE EXISTING POND PUMPING STATION BUILDING TO BE DEMOLISHED AT COMPLETION OF NEW POND PUMPING STATION TO AT LEAST 2 FEET BELOW FINISHED GRADE. THE WESTERN WALL SHALL REMAIN TO AT LEAST 2 FEET BELOW GRADE. BUILDING FOUNDATION TO BE FILLED AND COMPACTED TO EXISTING GRADE. OWNER TO TAG ITEMS AND EQUIPMENT TO BE SAVED PRIOR TO DEMOLITION. CONTRACTOR TO REMOVE AND RETURN TO OWNER ANY TAGGED ITEM OR EQUIPMENT. SEE SPECIFICATION SECTION 024116 FOR ADDITIONAL BUILDING DEMOLITION REQUIREMENTS.
4. THE EXISTING LOWER WELLFIELD PUMPING STATION BUILDING EXCAVATION TO BE DEMOLISHED TO SECTION 0241.2 FT. EXCAVATION LIMITS FOR THE NEW POND PUMPING STATION BUILDING TO APPROXIMATE MIN ELEVATION 241.2 FT. OWNER TO TAG ITEMS AND EQUIPMENT TO BE SAVED PRIOR TO DEMOLITION. CONTRACTOR TO REMOVE AND RETURN TO OWNER ANY TAGGED ITEM OR EQUIPMENT. SEE DETAIL B ON SHEET C-26 AND SPECIFICATIONS SECTION 024116 FOR ADDITIONAL BUILDING DEMOLITION REQUIREMENTS.
5. THE EXISTING CAISSON WELL TO BE DECOMMISSIONED AND ABANDONED IN PLACE. THE CONE OF THE EXISTING CAISSON WELL TO BE DEMOLISHED TO AT LEAST 2 FEET BELOW FINISH GRADE. SEE DETAIL B ON SHEET C-28 AND SECTION 019416, APPENDED TO THE SPECIFICATIONS, FOR MORE DECOMMISSIONING AND ABANDONMENT REQUIREMENTS OF THE EXISTING CAISSON WELL.
6. HAZARDOUS BUILDING MATERIALS WERE FOUND IN SAMPLES TAKEN FROM SELECT LOCATIONS IN EXISTING BUILDINGS. PRIOR TO COMMENCING WITH ANY MODIFICATIONS OR DEMOLITION WORK, REFER TO SPECIFICATIONS FOR KNOW LOCATIONS OF HAZARDOUS BUILDING MATERIALS AND EQUIPMENT. PROPOSED ABANDONMENT AND DEMOLITION REQUIREMENTS FOR ADDITIONAL SAMPLING AND TESTING TO BE PERFORMED AS PART OF THE WORK, MONITORING REQUIREMENTS, AND WASTE HANDLING AND DISPOSAL REQUIREMENTS.



REV. NO.	DATE	DRWN	CHKD		REMARKS

DESIGNED BY: _____ G. HOWARD
DRAWN BY: _____ J. BRONENKANT
SHEET CHK'D BY: _____ G. HOWARD
CROSS CHK'D BY: _____ K. WAGNER
APPROVED BY: _____ K. WAGNER
DATE: _____ DECEMBER 2023

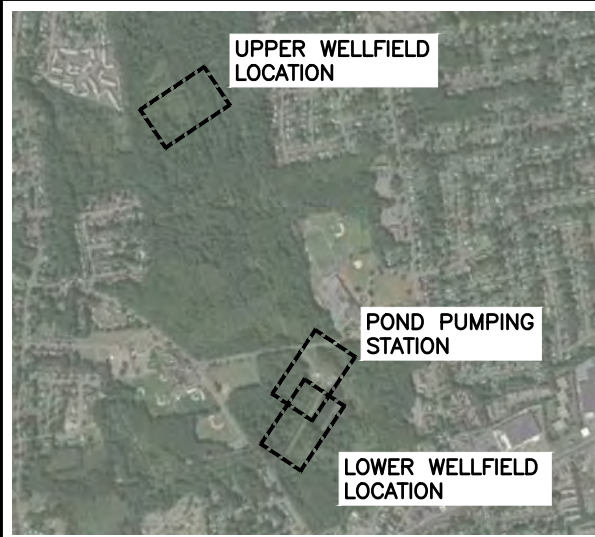


CITY OF NEW BRITAIN, CONNECTICUT
WHITE BRIDGE WATERWORKS FACILITIES
UPPER AND LOWER WELLFIELDS
AND POND PUMPING STATION

POND PUMPING STATIONS DEMOLITION AND REMOVALS PLAN

PROJECT NO.	10739-264571
FILE NAME:	C007STPL.DWG
SHEET NO.	
C-7	

XREFs: [CDMS-2436, CWP0000ST, Floodway, Floodplain, ANZ001PS - 2D Process Export, CEP0000ST, XSVPL000, BORING LOCATIONS, 2022-17] Images: [Base Image]
Last saved by: ENGELSB Time: 3/23/2023 11:27:53 AM
C:\Users\engelsb\OneDrive\CDM Smith Inc\10739-264571 - New Britain CT White Bridge Well Fields and PS\Project Files\02 Civil (C)\10 CAD\CD08GDPL.dwg
© 2023 CDM SMITH. ALL RIGHTS RESERVED.
REUSE OF DOCUMENTS: THESE DOCUMENTS AND DESIGNS PROVIDED BY PROFESSIONAL SERVICE, INCORPORATED HEREIN, ARE THE PROPERTY OF CDM SMITH AND ARE NOT TO BE USED, IN WHOLE OR PART, FOR ANY OTHER PROJECT WITHOUT THE WRITTEN AUTHORIZATION OF CDM SMITH.



PLAN

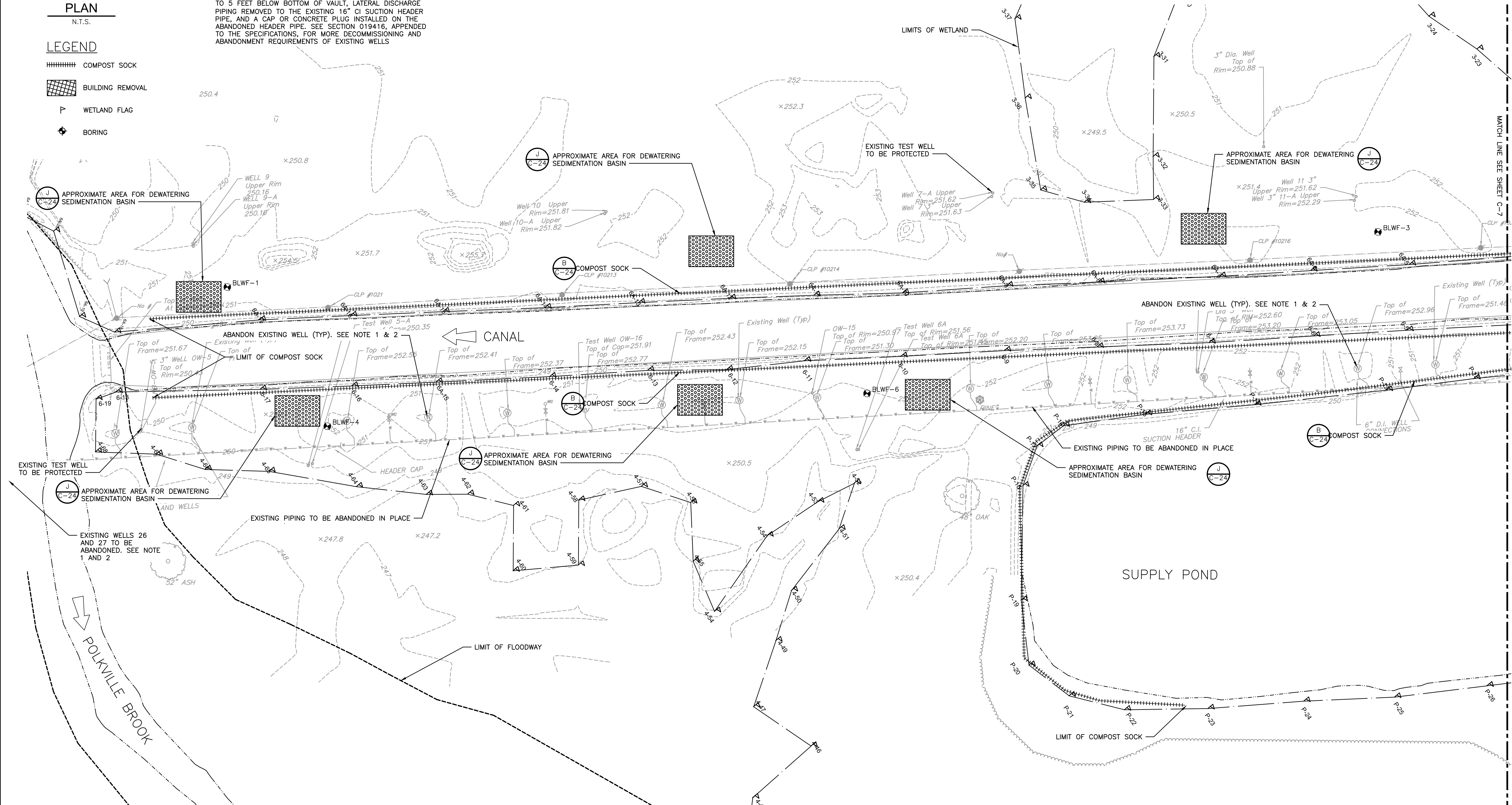
N.T.S.

LEGEND

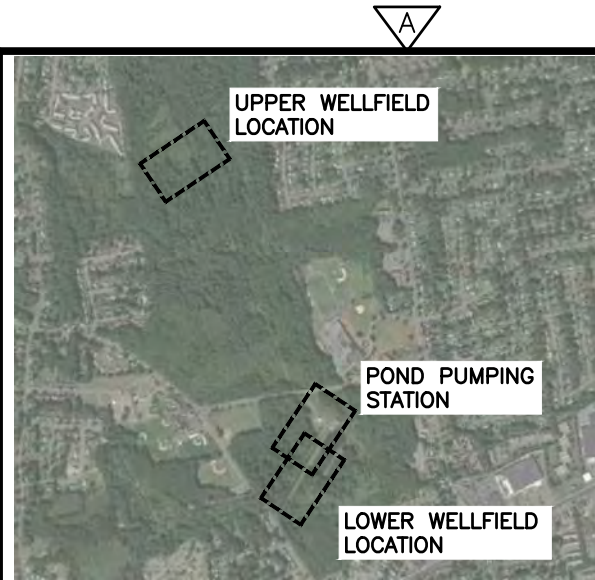
- COMPOST SOCK
- BUILDING REMOVAL
- WETLAND FLAG
- BORING

NOTES:

- EXISTING WELLS TO HAVE THE WELL HEAD REMOVED TO 5 FEET BELOW FINISHED GRADE, LATERAL DISCHARGE PIPING REMOVED TO THE EXISTING 16" CI SUCTION HEADER PIPE, AND A CAP OR CONCRETE PLUG INSTALLED ON THE ABANDONED HEADER PIPE. SEE SECTION 019416, APPENDED TO THE SPECIFICATIONS, FOR MORE DECOMMISSIONING AND ABANDONMENT REQUIREMENTS OF EXISTING WELLS.
- EXISTING WELLS WITH WELL HEAD LOCATED IN A VAULT TO HAVE VAULT DEMOLISHED AND REMOVED, WELL HEAD REMOVED TO 5 FEET BELOW BOTTOM OF VAULT, LATERAL DISCHARGE PIPING REMOVED TO THE EXISTING 16" CI SUCTION HEADER PIPE, AND A CAP OR CONCRETE PLUG INSTALLED ON THE ABANDONED HEADER PIPE. SEE SECTION 019416, APPENDED TO THE SPECIFICATIONS, FOR MORE DECOMMISSIONING AND ABANDONMENT REQUIREMENTS OF EXISTING WELLS.



XREFs: [CDMS-2436_XSVPLO00_Floodway_Floodplain_2022-17_BORING LOCATIONS, CWP000ST, ANZ001PS - 2D Process Export, CYPWP001] Images: [Base Image]
Last saved by: ENGELSB, Time: 3/24/2023 12:48:51 PM
C:\Users\engelsb\OneDrive\CDM Smith Inc\10739-264571 - New Britain CT White Bridge Well Fields and PS\Project Files\02 Civil (C)\10 CADD\CD09STPL.dwg
© 2023 CDM SMITH. ALL RIGHTS RESERVED.
REUSE OF DOCUMENTS: THESE DOCUMENTS AND DESIGNS PROVIDED BY PROFESSIONAL SERVICE, INCORPORATED HEREIN, ARE THE PROPERTY OF CDM SMITH AND ARE NOT TO BE USED, IN WHOLE OR PART, FOR ANY OTHER PROJECT WITHOUT THE WRITTEN AUTHORIZATION OF CDM SMITH.

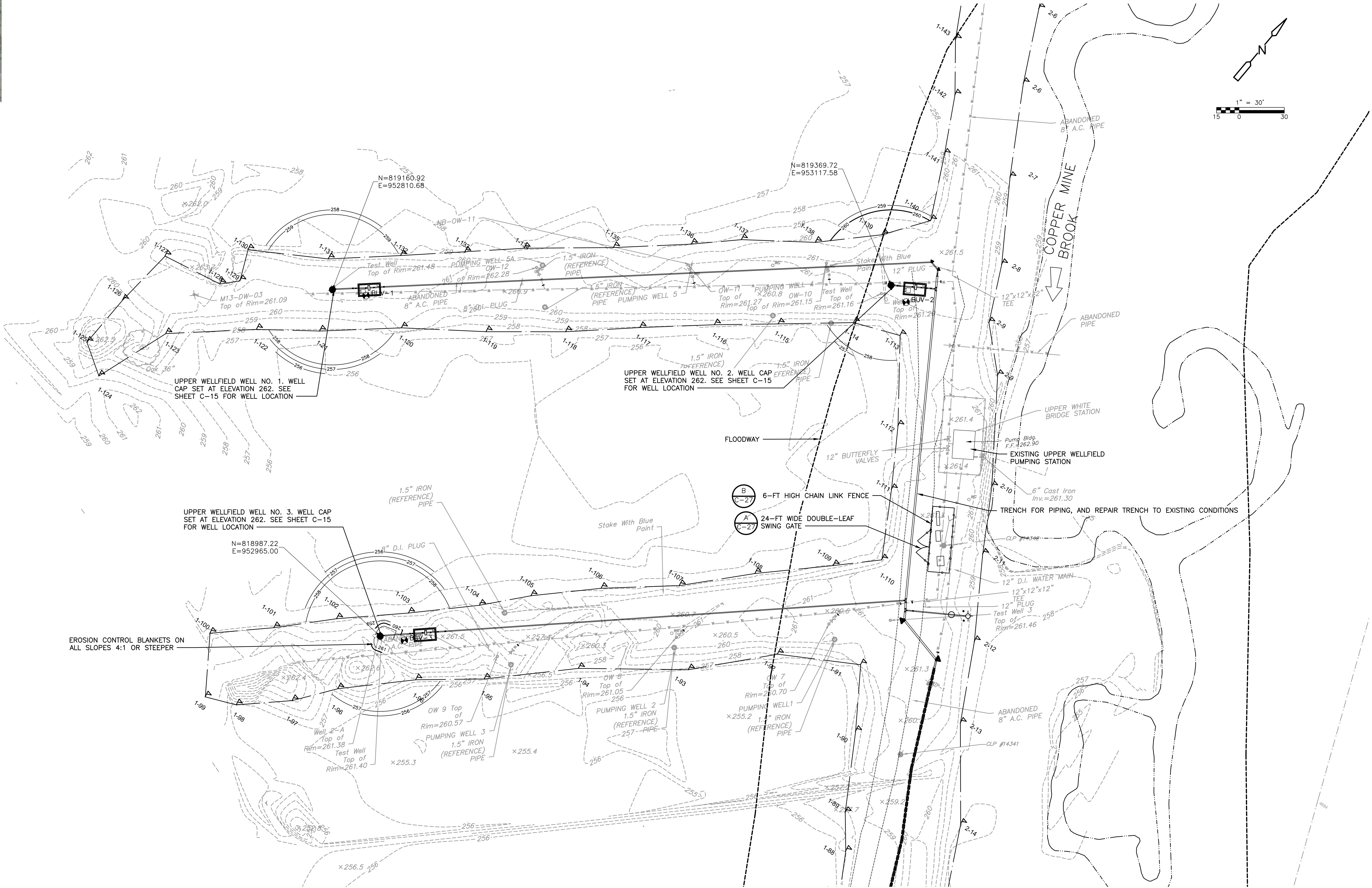


PLAN
N.T.S.

LEGEND

- WETLAND FLAG
- BORING

1" = 30'
15 0 30



REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: G. HOWARD
DRAWN BY: J. BRONENKANT
SHEET CHK'D BY: G. HOWARD
CROSS CHK'D BY: K. WAGNER
APPROVED BY: K. WAGNER
DATE: APRIL 2023

CDM Smith
77 Hartland Street, Suite 200
East Hartford, CT 06108
Tel: (860) 529-7615

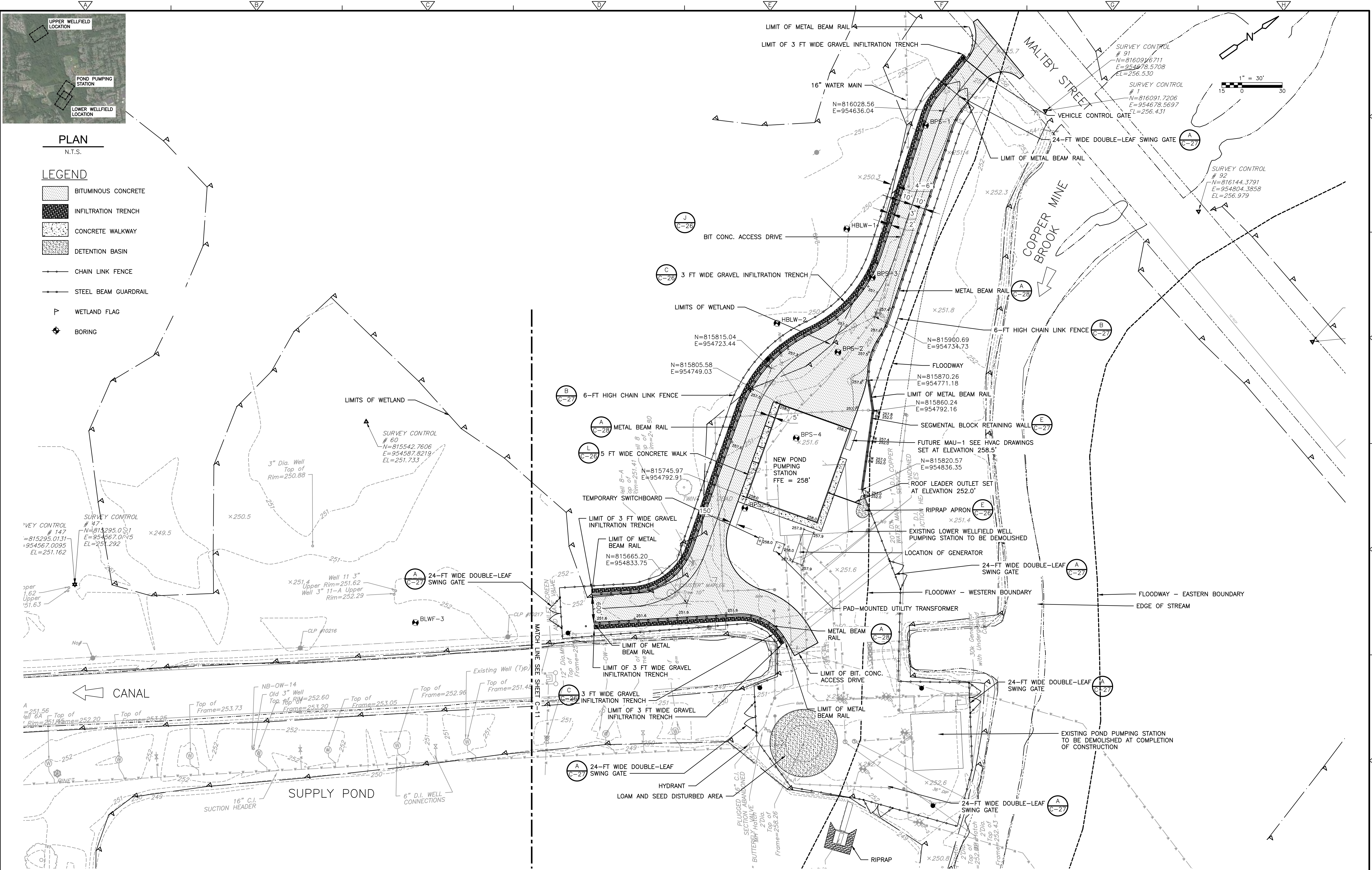


CITY OF NEW BRITAIN, CONNECTICUT
WHITE BRIDGE WATERWORKS FACILITIES
UPPER AND LOWER WELLFIELDS
AND POND PUMPING STATION

UPPER WELLFIELD
LAYOUT, MATERIALS, AND GRADING PLAN

PROJECT NO. 10739-264571
FILE NAME: CD09STPL.DWG
SHEET NO.
C-9

XREFs: [CDMS-2436, CWP000ST, Floodway, Floodplain, ANZ001PS - 2D Process Export, CEP000ST, XSVPL000, BORING LOCATIONS, 2022-17, CYPWP001] Images: [Base Image]
Last saved by: ENGELSB Time: 3/24/2023 12:41:30 PM
C:\Users\engelsb\OneDrive\CDM Smith Inc\10739-264571 - New Britain CT White Bridge Well Fields and PS\Project Files\02 Civil (C)\10 CADD\010GDP.LDW
© 2023 CDM SMITH. ALL RIGHTS RESERVED. THESE DOCUMENTS AND DESIGNS PROVIDED BY PROFESSIONAL SERVICE, INCORPORATED HEREIN, ARE THE PROPERTY OF CDM SMITH AND ARE NOT TO BE USED, IN WHOLE OR PART, FOR ANY OTHER PROJECT WITHOUT THE WRITTEN AUTHORIZATION OF CDM SMITH.



REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: G. HOWARD
DRAWN BY: J. BRONENKANT
SHEET CHK'D BY: G. HOWARD
CROSS CHK'D BY: K. WAGNER
APPROVED BY: K. WAGNER
DATE: APRIL 2023

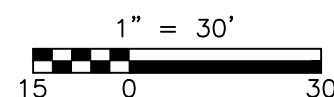
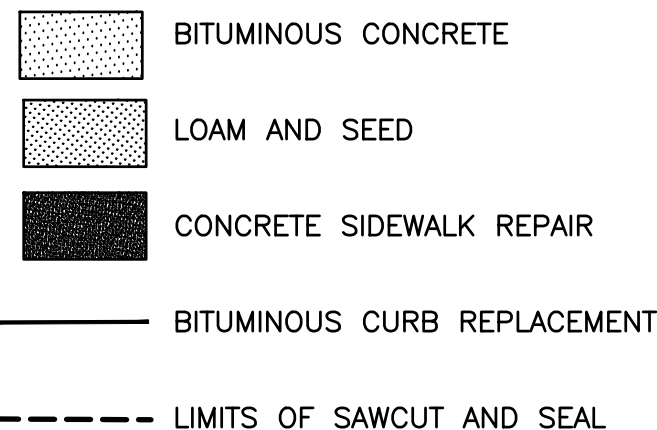
CDM Smith
77 Hartland Street, Suite 200
East Hartford, CT 06108
Tel: (860) 529-7615

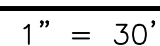


CITY OF NEW BRITAIN, CONNECTICUT
WHITE BRIDGE WATERWORKS FACILITIES
UPPER AND LOWER WELLFIELDS
AND POND PUMPING STATION

POND PUMPING STATION
LAYOUT AND MATERIALS PLAN

PROJECT NO. 10739-264571
FILE NAME: C010GDP.LDW
SHEET NO.
C-10



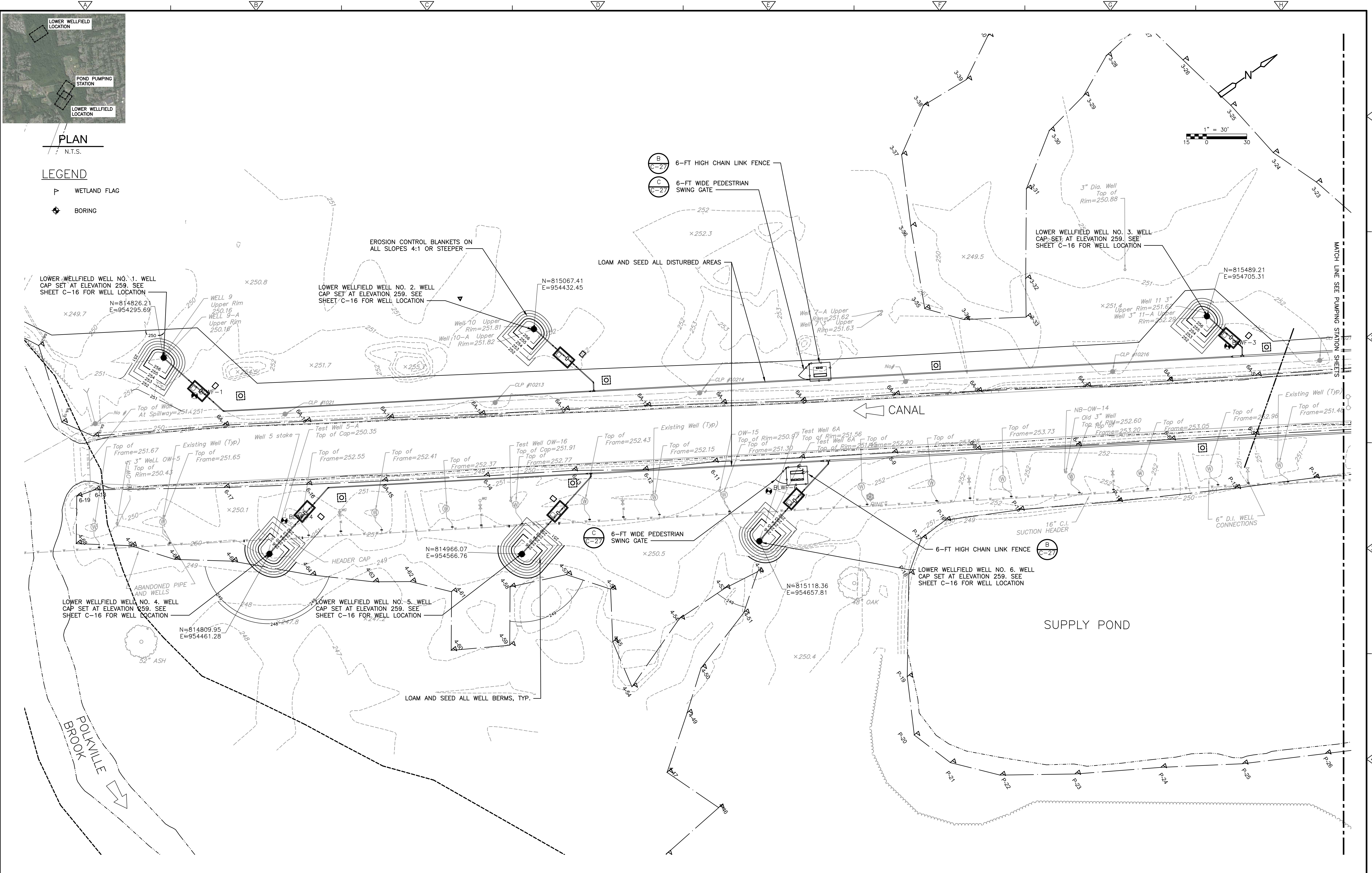
$$1'' = 30'$$


DESIGNED BY: G. HOWARD
DRAWN BY: J. BRONENKANT
SHEET CHK'D BY: G. HOWARD
CROSS CHK'D BY: K. WAGNER
APPROVED BY: K. WAGNER
DATE: DECEMBER 2023

MAILTBY STREET SURFACE RESTORATION

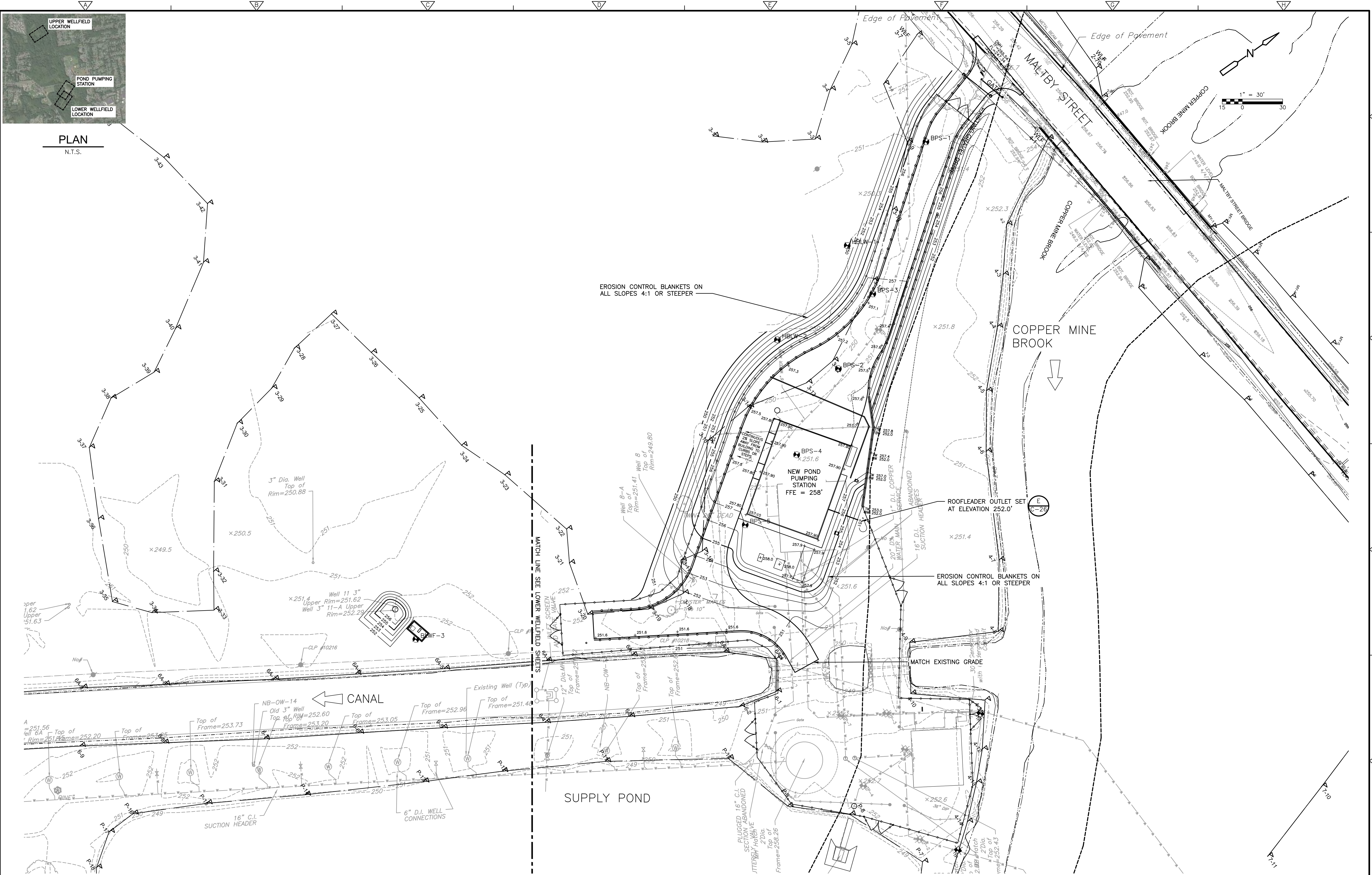
PROJECT NO. 10739-264571
FILE NAME: C010BGDPL.DWG
SHEET NO.
C-10B

XREFs: [CDMS-2436, CWP0000ST, Floodway, Floodplain, ANZ001PS - 2D Process Export, CEP0000ST, XSVPL000, BORING LOCATIONS, 2022-17, CYPWP001, EWP001ST] Images: [Base Image]
Last saved by: ENGELSB Time: 3/24/2023 12:56:49 PM
C:\Users\engelsb\OneDrive\CDM Smith Inc\10739-264571 - New Britain CT White Bridge Well Fields and PS\Project Files\02 Civil (C)\10 CADD\CD1GDPL.dwg
©2023 CDM SMITH. ALL RIGHTS RESERVED. THESE DOCUMENTS AND DESIGNS PROVIDED BY PROFESSIONAL SERVICE, INCORPORATED HEREIN, ARE THE PROPERTY OF CDM SMITH AND ARE NOT TO BE USED, IN WHOLE OR PART, FOR ANY OTHER PROJECT WITHOUT THE WRITTEN AUTHORIZATION OF CDM SMITH.



				DESIGNED BY: G. HOWARD	CDM Smith 77 Hartland Street, Suite 200 East Hartford, CT 06108 Tel: (860) 529-7615	CITY OF NEW BRITAIN, CONNECTICUT WHITE BRIDGE WATERWORKS FACILITIES UPPER AND LOWER WELLFIELDS AND POND PUMPING STATION		LOWER WELLFIELD LAYOUT, MATERIALS, AND GRADING PLAN		PROJECT NO. 10739-264571 FILE NAME: C011GDPL.DWG
				DRAWN BY: J. BRONENKANT						SHEET NO.
				SHEET CHK'D BY: G. HOWARD						C-11
				CROSS CHK'D BY: K. WAGNER						
				APPROVED BY: K. WAGNER						
REV. NO.	DATE	DRWN	CHKD	REMARKS	DATE: APRIL 2023					REGULATORY REVIEW SUBMITTAL - NOT FOR CONSTRUCTION Page 262 of 307

XREFs: [CDMS-2436, CWP000ST, Floodway, Floodplain, AWZ001PS - 2D Process Export, CEP000ST, XSVPL000, 2022-17, BORING LOCATIONS, CYPWP001] Images: [Base Image]
Last saved by: ENGELSB Time: 5/1/2023 11:20:10 AM
C:\Users\engelsb\OneDrive\CDM Smith Inc\10739-264571 - New Britain CT White Bridge Well Fields and PS\Project Files\02 Civil (C)\10 CADD\012GDPL.dwg
© 2023 CDM SMITH. ALL RIGHTS RESERVED. THESE DOCUMENTS AND DESIGNS PROVIDED BY PROFESSIONAL SERVICE, INCORPORATED HEREIN, ARE THE PROPERTY OF CDM SMITH AND ARE NOT TO BE USED, IN WHOLE OR PART, FOR ANY OTHER PROJECT WITHOUT THE WRITTEN AUTHORIZATION OF CDM SMITH.



				DESIGNED BY: <u>G. HOWARD</u>				 101 East River Drive, Suite 1A East Hartford, CT 06108 Tel: (860) 529-7615		CITY OF NEW BRITAIN, CONNECTICUT WHITE BRIDGE WATERWORKS FACILITIES UPPER AND LOWER WELLFIELDS AND POND PUMPING STATION				POND PUMPING STATION GRADING AND DRAINAGE PLAN				PROJECT NO. 10739-264571			
				DRAWN BY: <u>J. BRONENKANT</u>														FILE NAME: C012GDPL.DWG			
				SHEET CHK'D BY: <u>K. GERLACH</u>														SHEET NO.			
				CROSS CHK'D BY: <u>K. WAGNER</u>														C-12			
				APPROVED BY: <u>K. WAGNER</u>																	
				DATE: <u>DECEMBER 2023</u>																	
REV. NO.	DATE	DRWN	CHKD	REMARKS																	

XREFs: [CDMS-2436_XSPL000_Floodway_Floodplain_CEP0000ST_CWP0001PS - 2D Process Export, 2022-17, BORING LOCATIONS, BristolTops, CYPWP001] Images: []
Last saved by: ENGELSB, Time: 3/24/2023 1:04:24 PM
C:\Users\engelsh\Documents\CDM Smith Inc\10739-264571 - New Britain CT White Bridge Well Fields and PS\Project Files\02 Civil (C)\10 CAD\013STPL.dwg
© 2023 CDM SMITH. ALL RIGHTS RESERVED.
REUSE OF DOCUMENTS: THESE DOCUMENTS AND DESIGNS PROVIDED BY PROFESSIONAL SERVICE, INCORPORATED HEREIN, ARE THE PROPERTY OF CDM SMITH AND ARE NOT TO BE USED, IN WHOLE OR PART, FOR ANY OTHER PROJECT WITHOUT THE WRITTEN AUTHORIZATION OF CDM SMITH.



NOTES:
1. REFER TO SPECIFICATIONS FOR MORE DETAILS AND REQUIREMENTS FOR WETLANDS REPLICATION AND COMPENSATORY FLOOD STORAGE REQUIREMENTS.

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: K. GARLACH
DRAWN BY: J. BRONENKANT
SHEET CHK'D BY: K. GERLACH
CROSS CHK'D BY: K. WAGNER
APPROVED BY: K. WAGNER
DATE: APRIL 2023

CDM Smith
77 Hartland Street, Suite 200
East Hartford, CT 06108
Tel: (860) 529-7615

CITY OF NEW BRITAIN, CONNECTICUT
WHITE BRIDGE WATERWORKS FACILITIES
UPPER AND LOWER WELLFIELDS
AND POND PUMPING STATION

WETLAND REPLICATION PLAN I
C-13

PROJECT NO. 10739-264571
FILE NAME: C013STPL.DWG
SHEET NO. C-13

XREFs: [CDMS-2436_XSWPL000_Floodway_Floodplain_CEP0000ST_CWP0001PS - 2D Process Export, 2022-17, BORING LOCATIONS, BristolTopo, CYPWP001] Images: []
Last saved by: ENGELSB Time: 3/23/2023 11:49:14 AM
C:\Users\engelsb\OneDrive\CDM Smith Inc\10739-264571 - New Britain CT White Bridge Well Fields and PS\Project Files\02 Civil (C)\10 CAD\CD14STPL.dwg
©2023 CDM SMITH ALL RIGHTS RESERVED. THESE DOCUMENTS AND DESIGNS PROVIDED BY PROFESSIONAL SERVICE, INCORPORATED HEREIN, ARE THE PROPERTY OF CDM SMITH AND ARE NOT TO BE USED, IN WHOLE OR PART, FOR ANY OTHER PROJECT WITHOUT THE WRITTEN AUTHORIZATION OF CDM SMITH.

NOTES:

1. REFER TO SPECIFICATIONS FOR MORE DETAILS AND REQUIREMENTS FOR WETLANDS REPLICATION AND COMPENSATORY FLOOD STORAGE REQUIREMENTS.

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: K. GERLACH
DRAWN BY: J. BRONENKANT
SHEET CHK'D BY: K. GERLACH
CROSS CHK'D BY: K. WAGNER
APPROVED BY: K. WAGNER
DATE: APRIL 2023

CDM Smith
77 Hartland Street, Suite 200
East Hartford, CT 06108
Tel: (860) 529-7615



CITY OF NEW BRITAIN, CONNECTICUT
WHITE BRIDGE WATERWORKS FACILITIES
UPPER AND LOWER WELLFIELDS
AND POND PUMPING STATION

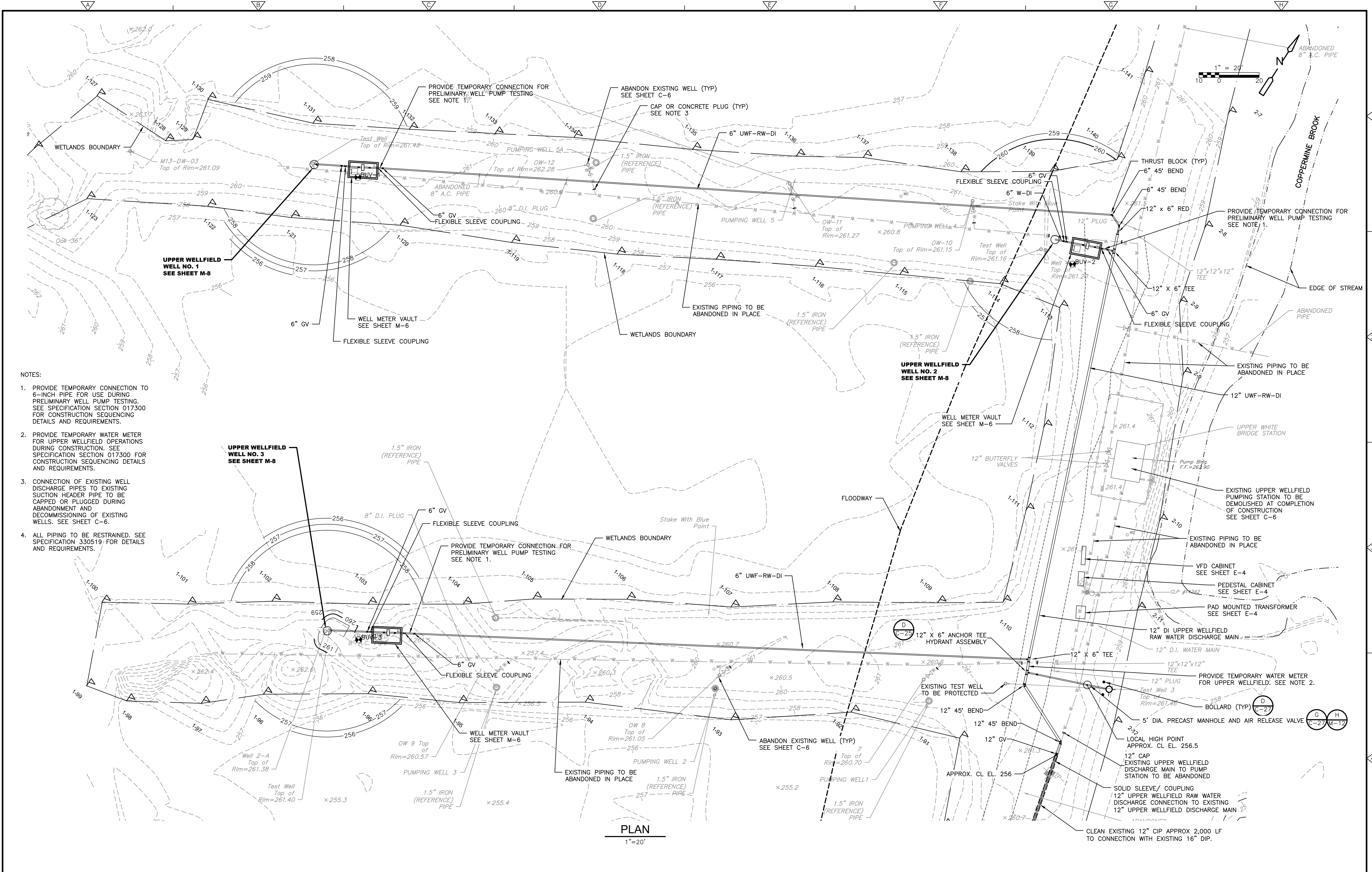
WETLAND REPLICATION PLAN II

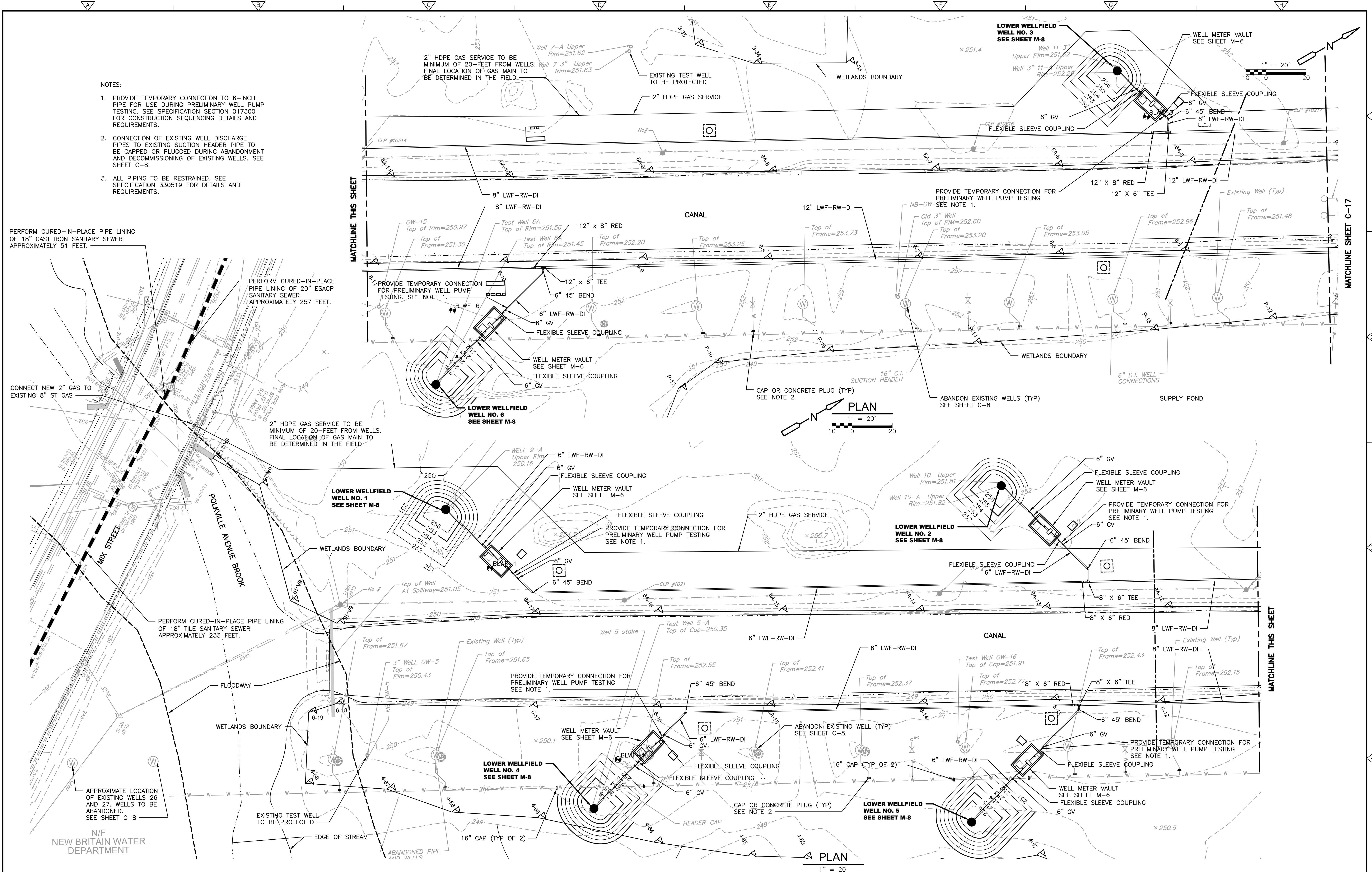
PROJECT NO. 10739-264571
FILE NAME: C014STPL.DWG

SHEET NO.

C-14

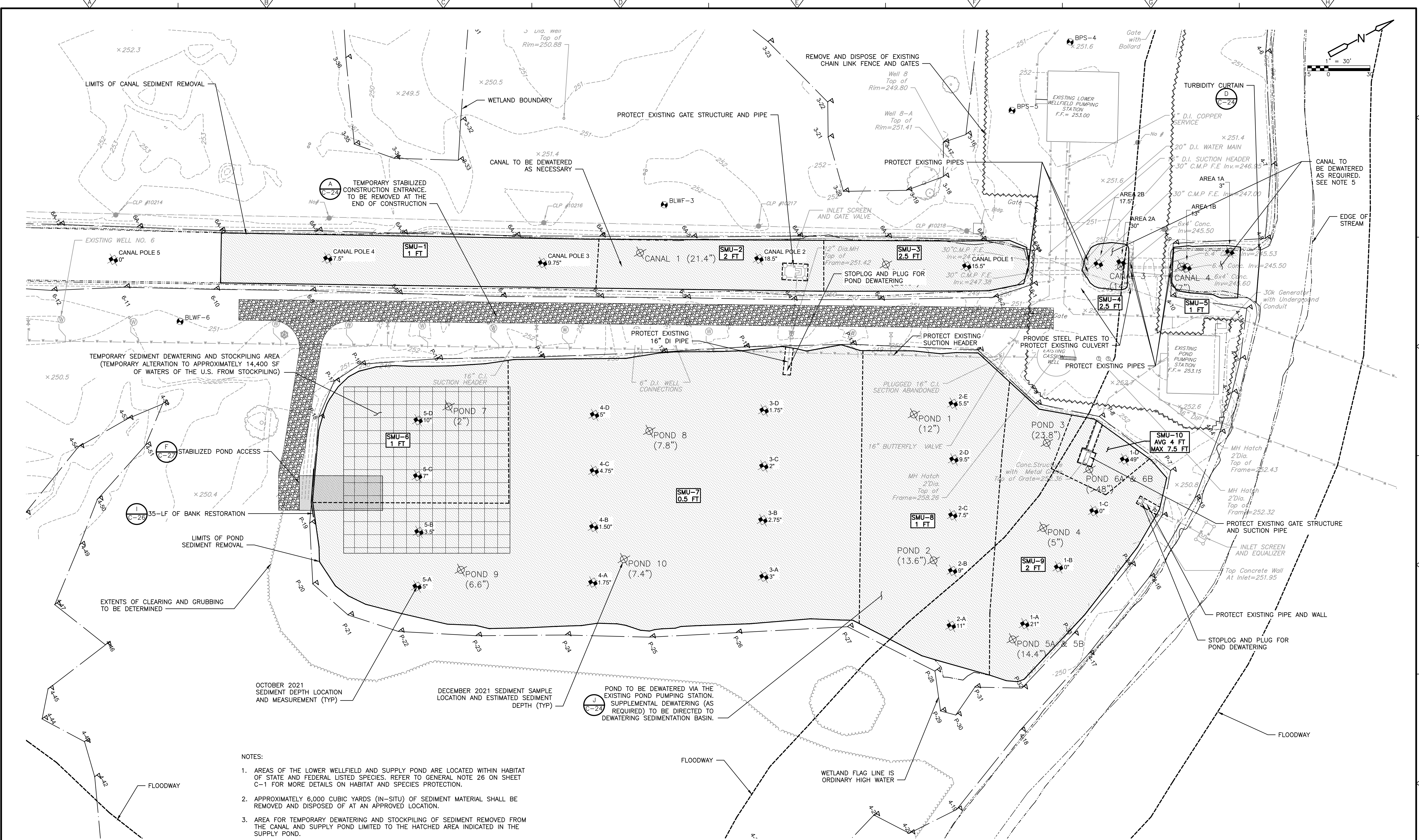
XREFs: [CDWS-2436, CYPWP001, XSVPL000, CMP0000ST, AWZ001PS - 2D Process Export, 2022-17, BORING LOCATIONS, Floodway_Floodplain, EMP001ST] Images: []
Last saved by: ENGELSB Time: 3/23/2023 12:16:26 PM
C:\Users\engelsb\OneDrive\CDM Smith Inc\10739-264571 - New Britain CT White Bridge Well Fields and PS\Project Files\02 Civil (C)\10 CAD\015YPPL.dwg
© 2023 CDM SMITH. ALL RIGHTS RESERVED. THESE DOCUMENTS AND DESIGNS PROVIDED BY PROFESSIONAL SERVICE, INCORPORATED HEREIN, ARE THE PROPERTY OF CDM SMITH AND ARE NOT TO BE USED, IN WHOLE OR PART, FOR ANY OTHER PROJECT WITHOUT THE WRITTEN AUTHORIZATION OF CDM SMITH.





					DESIGNED BY: K. GERLACH	CDM Smith 101 East River Drive, Suite 1A East Hartford, CT 06108 Tel: (860) 529-7615 	CITY OF NEW BRITAIN, CONNECTICUT WHITE BRIDGE WATERWORKS FACILITIES UPPER AND LOWER WELLFIELDS AND POND PUMPING STATION	LOWER WELLFIELD YARD PIPING PLAN	PROJECT NO. 10739-264571
				DRAWN BY: S. ENGEL	FILE NAME: C016YPPL.DWG				
				SHEET CHK'D BY: K. WAGNER	SHEET NO.				
				CROSS CHK'D BY: K. GERLACH	C-16				
REV. NO.	DATE	DRWN	CHKD	REMARKS	APPROVED BY: K. WAGNER				
					DATE: DECEMBER 2023				

XREFs: [TEST HOLE POINTS, CDMS 2436, XSVRLO40, 2022-17, BORING LOCATIONS, Floodway, Floodplain] Images: []
Last saved by: ENGELS.B, Time: 2/28/2023 11:25:29 AM
C:\Users\engelsb\Documents\CDM Smith Inc\10739-264571 - New Britain CT White Bridge Well Fields and PS\Project Files\02 Civil (C)\10 CADD\C023SDRM.dwg
© 2023 CDM SMITH. ALL RIGHTS RESERVED. THESE DOCUMENTS AND DESIGNS PROVIDED BY PROFESSIONAL SERVICE, INCORPORATED HEREIN, ARE THE PROPERTY OF CDM SMITH AND ARE NOT TO BE USED, IN WHOLE OR PART, FOR ANY OTHER PROJECT WITHOUT THE WRITTEN AUTHORIZATION OF CDM SMITH.



PLAN

1" = 30'

NOTES:

- AREAS OF THE LOWER WELLFIELD AND SUPPLY POND ARE LOCATED WITHIN HABITAT OF STATE AND FEDERAL LISTED SPECIES. REFER TO GENERAL NOTE 26 ON SHEET C-1 FOR MORE DETAILS ON HABITAT AND SPECIES PROTECTION.
- APPROXIMATELY 6,000 CUBIC YARDS (IN-SITU) OF SEDIMENT MATERIAL SHALL BE REMOVED AND DISPOSED OF AT AN APPROVED LOCATION.
- AREA FOR TEMPORARY DEWATERING AND STOCKPILING OF SEDIMENT REMOVED FROM THE CANAL AND SUPPLY POND LIMITED TO THE HATCHED AREA INDICATED IN THE SUPPLY POND.
- STABILIZED CONSTRUCTION ENTRANCES SHALL BE REMOVED UPON COMPLETION OF PROJECT. DISTURBED AREAS TO BE LOAMED AND SEEDED.
- CONTRACTOR TO DEWATER CANAL AS NECESSARY. PLUG OR INSTALL STOP LOGS IN EXISTING CULVERTS OR INSTALL COFFERDAM. SUPPLEMENTAL DEWATERING (AS REQUIRED) TO BE DIRECTED TO DEWATERING SEDIMENTATION BASINS.

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY:	T. BURKE
DRAWN BY:	S. ENGEL
SHEET CHK'D BY:	K. GERLACH
CROSS CHK'D BY:	T. BURKE
APPROVED BY:	K. WAGNER
DATE:	APRIL 2023

CDM Smith
77 Hartland Street, Suite 200
East Hartford, CT 06108
Tel: (860) 529-7615

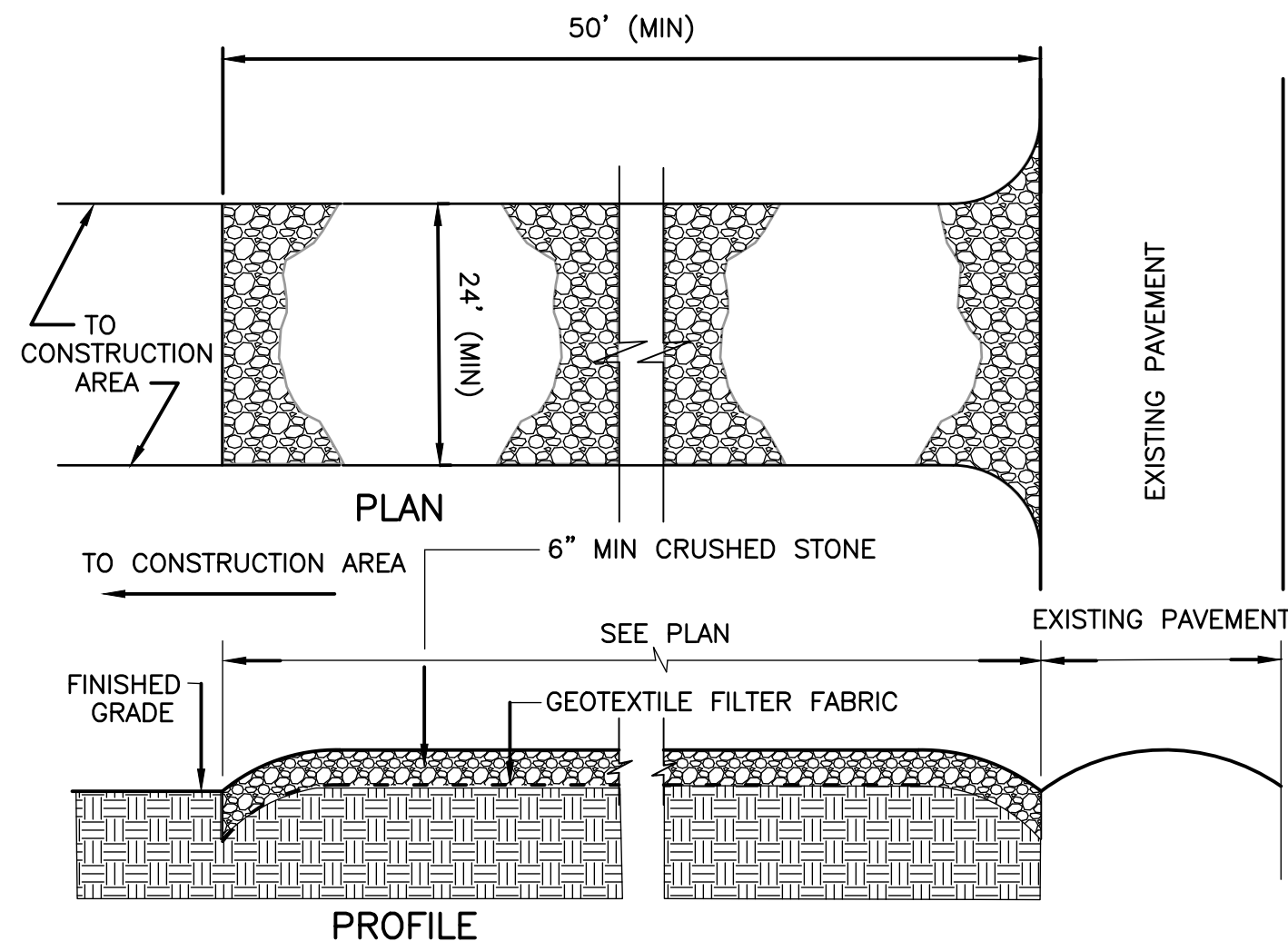


CITY OF NEW BRITAIN, CONNECTICUT
WHITE BRIDGE WATERWORKS FACILITIES
UPPER AND LOWER WELLFIELDS
AND POND PUMPING STATION

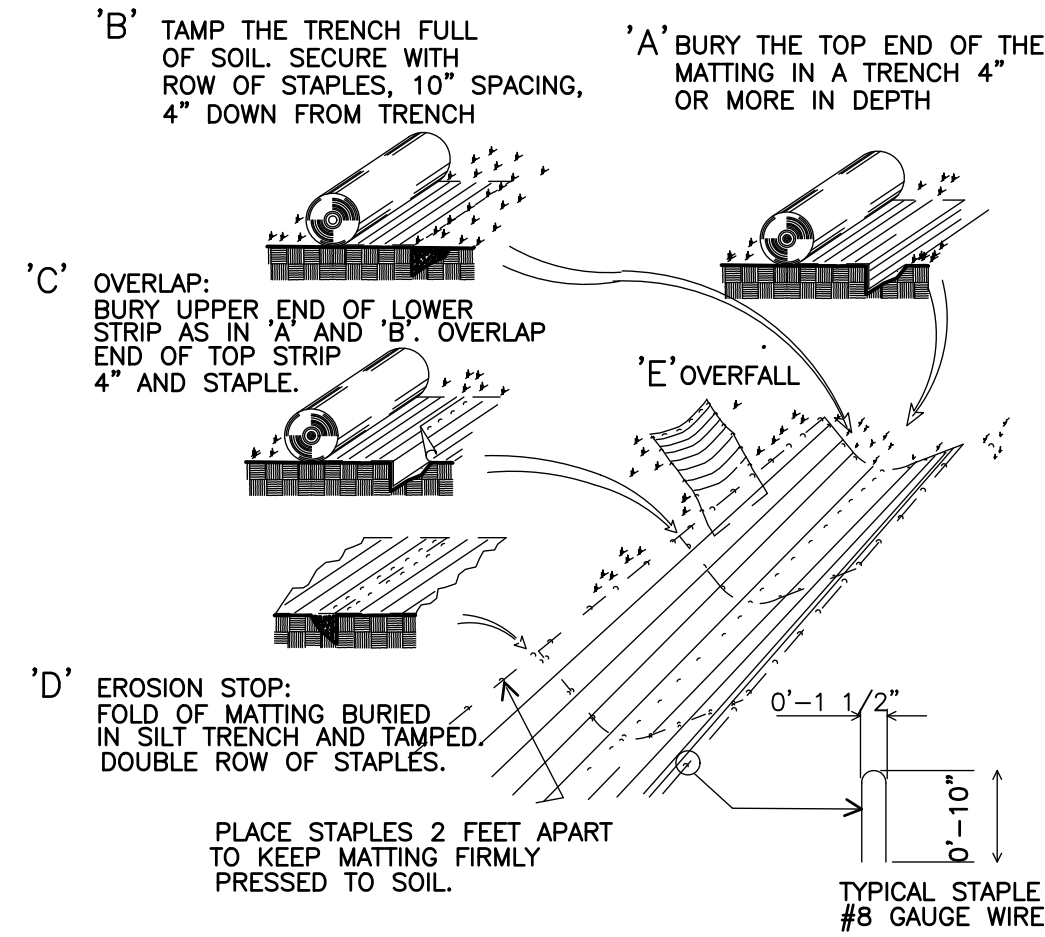
SUPPLY POND AND CANAL
SEDIMENT REMOVAL PLAN

PROJECT NO.	10739-264571
FILE NAME:	C023SDRM.DWG
SHEET NO.	C-23

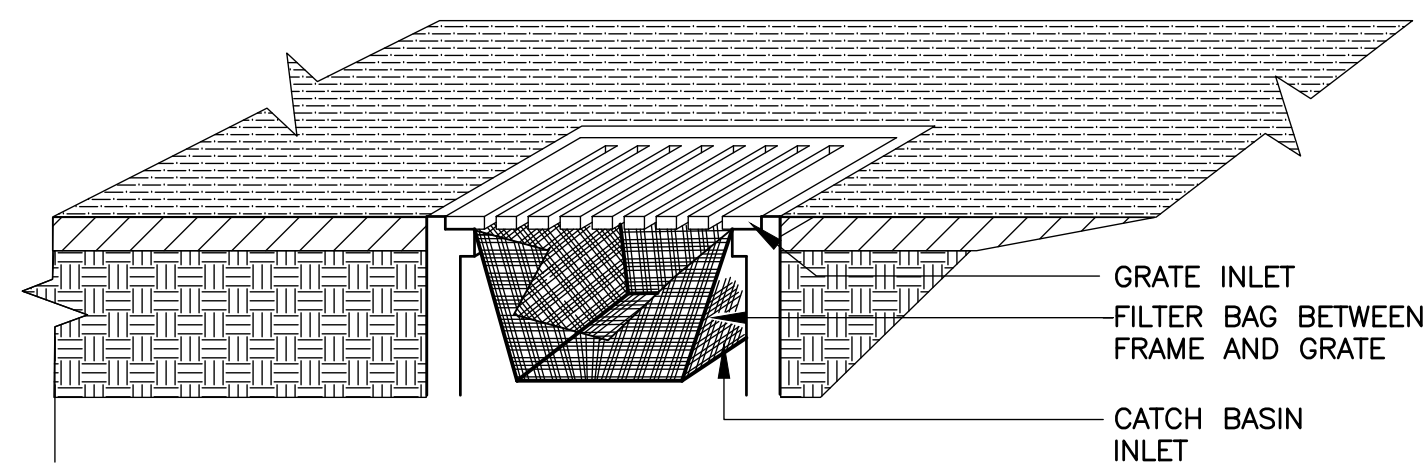
XREFs: [CDMS-2436_XSWPL000_CWP00001_Floodway_Floodplain_AW2001PS - 2D Process Export] Images: []
Last saved by: ENGELSB Time: 2/28/2023 11:28:15 AM
C:\Users\engelsb\OneDrive\CDMS\CDMS Smith Inc\10739-264571 - New Britain CT White Bridge Well Fields and PS\Project Files\02 Civil (C)\10 CADD\CD001CSDT.dwg
© 2023 CDM SMITH. ALL RIGHTS RESERVED.
REUSE OF DOCUMENTS: THESE DOCUMENTS AND DESIGNS PROVIDED BY PROFESSIONAL SERVICE, INCORPORATED HEREIN, ARE THE PROPERTY OF CDM SMITH AND ARE NOT TO BE USED, IN WHOLE OR PART, FOR ANY OTHER PROJECT WITHOUT THE WRITTEN AUTHORIZATION OF CDM SMITH.



STABILIZED CONSTRUCTION ENTRANCE
DETAIL A
NOT TO SCALE



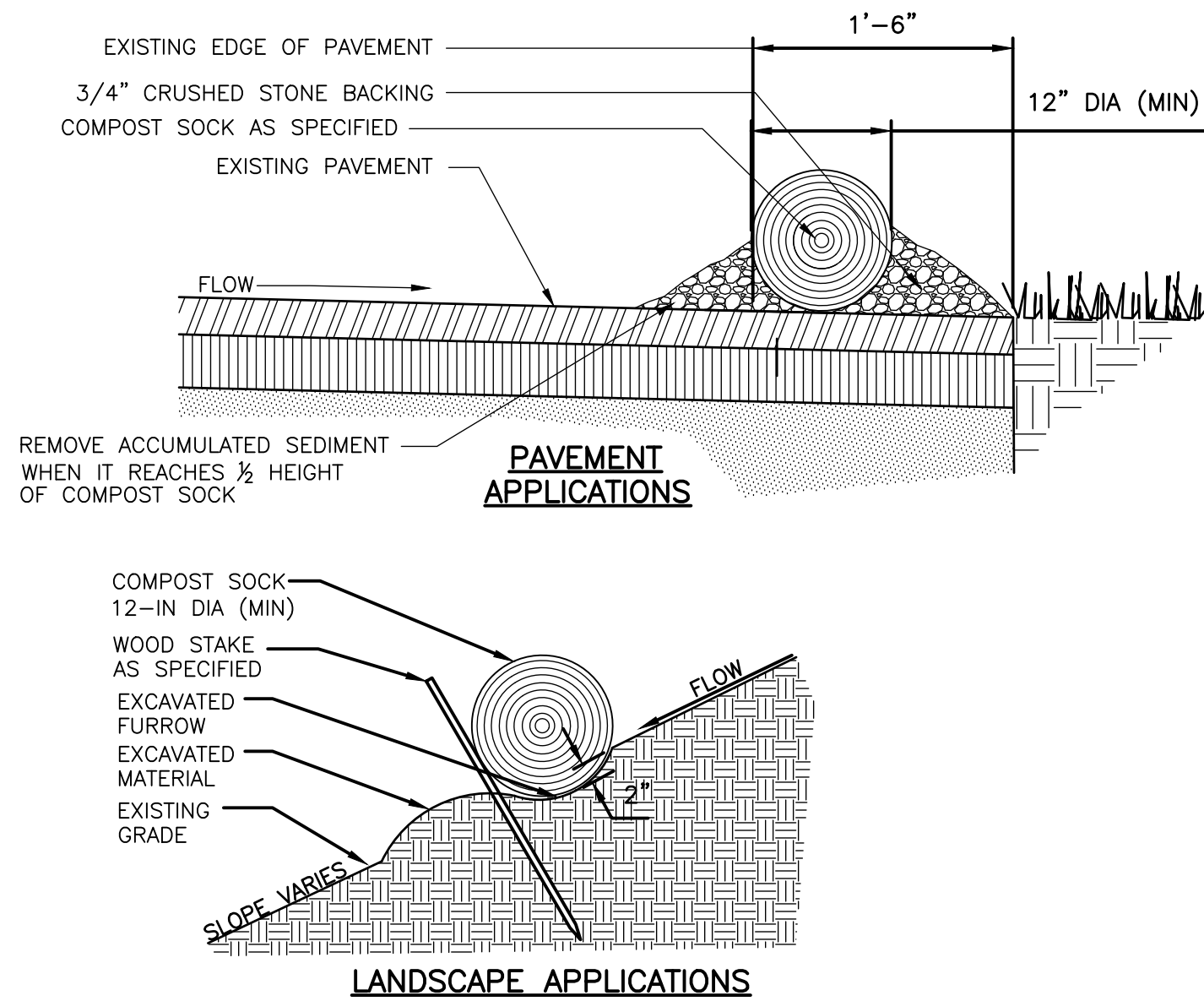
EROSION CONTROL BLANKET
DETAIL E
NOT TO SCALE



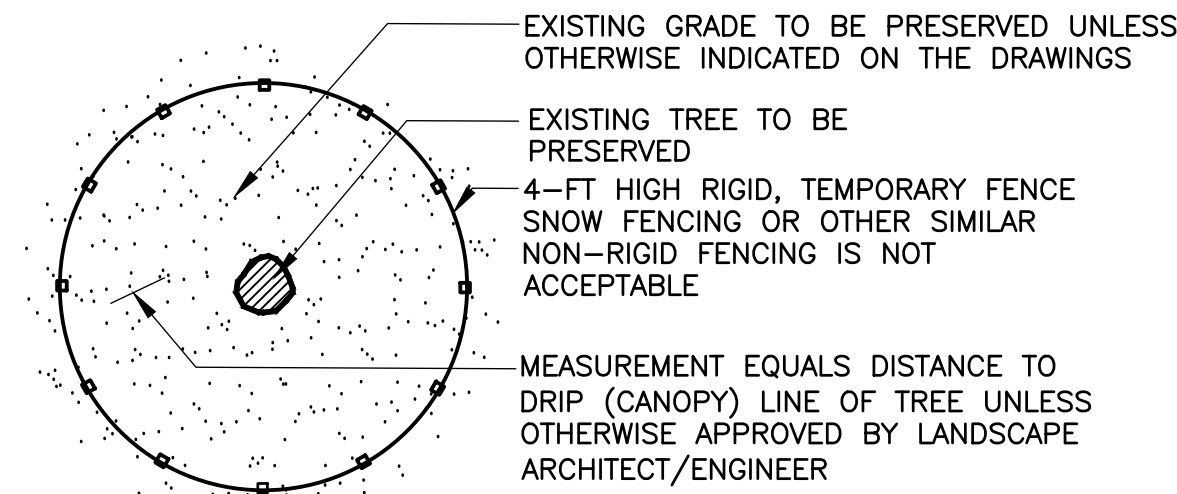
CATCH BASIN FILTER
DETAIL H
NOT TO SCALE

NOTES:

- 1.) PROVIDE APPROPRIATE TRANSITION BETWEEN STABILIZED CONSTRUCTION ENTRANCE AND EXISTING PAVEMENT.
- 2.) LIMITS OF STABILIZED CONSTRUCTION ENTRANCE SHALL BE AS DIRECTED BY THE ENGINEER.
- 3.) THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO EXISTING PAVEMENT. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE OR ADDING STONE TO THE LENGTH OF THE ENTRANCE.
- 4.) REPAIR AND CLEANOUT MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED, OR TRACKED ONTO EXISTING PAVEMENT SHALL BE REMOVED AS DIRECTED BY THE ENGINEER.

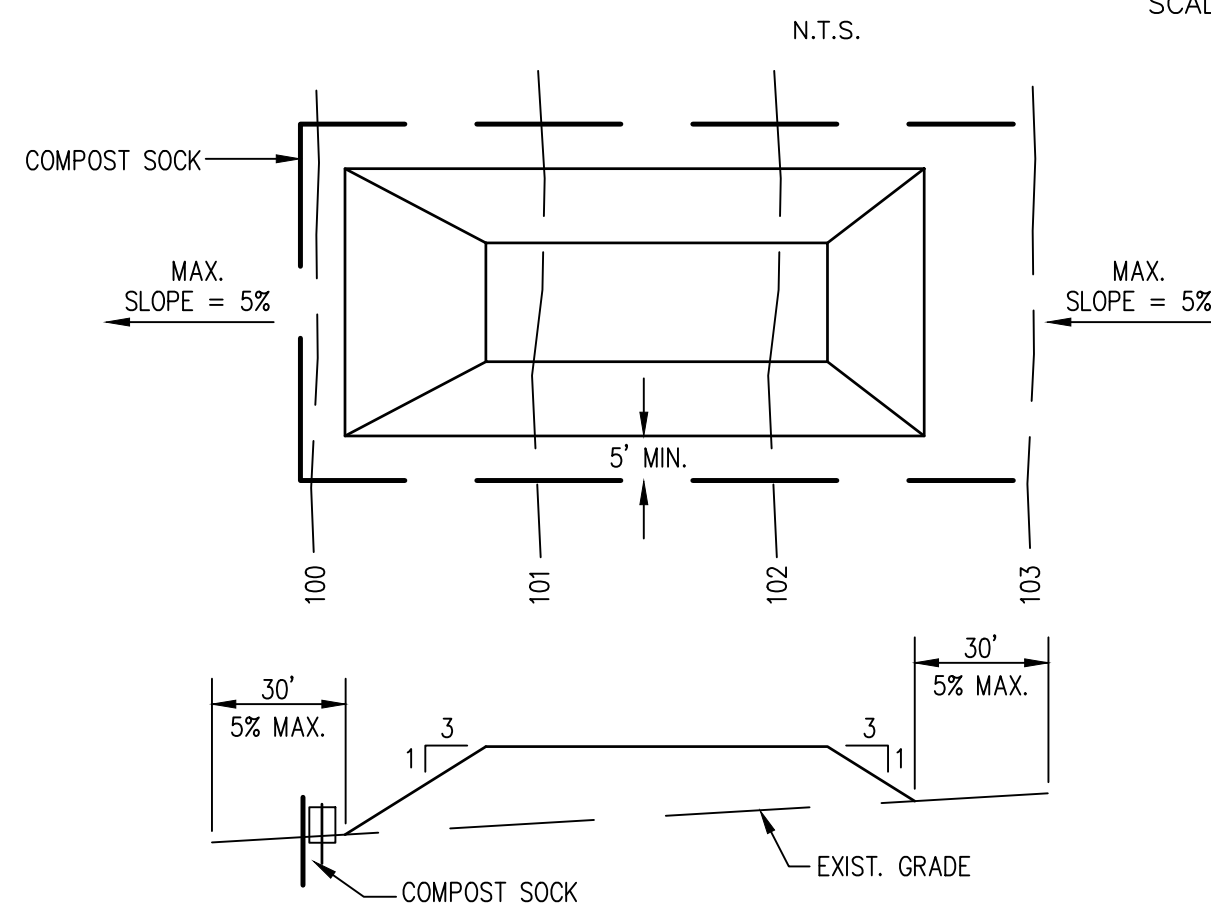


PAVEMENT APPLICATIONS
LANDSCAPE APPLICATIONS
COMPOST SOCK
DETAIL B
SCALE: NTS



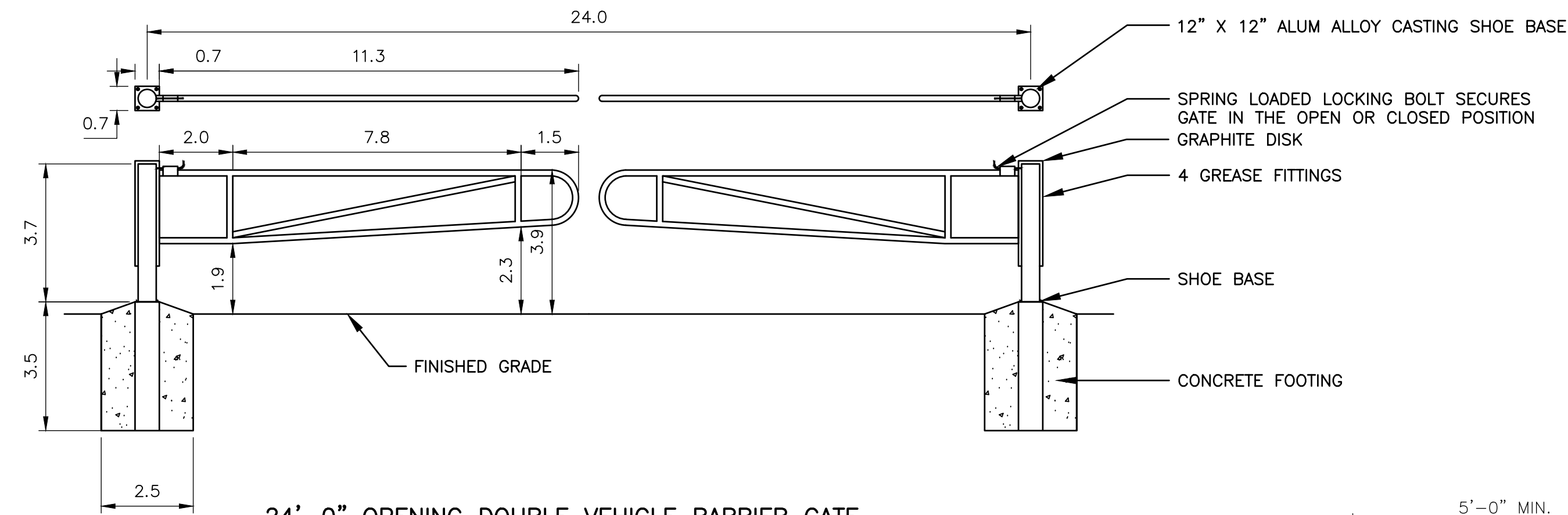
- NOTES:
1. FENCING SHALL BE INSTALLED AROUND PERIMETER OF ALL EXISTING TREES TO BE PRESERVED WITHIN THE LIMIT OF WORK.
 2. FENCING MAY BE REMOVED TEMPORARILY, ONLY AS REQUIRED TO PERFORM THE WORK SHOWN ON THE DRAWINGS.
 3. FENCING SHALL REMAIN IN PLACE & BE MAINTAINED THROUGHOUT CONSTRUCTION AND THEN REMOVED COMPLETELY.

TREE PROTECTION
DETAIL C
NOT TO SCALE

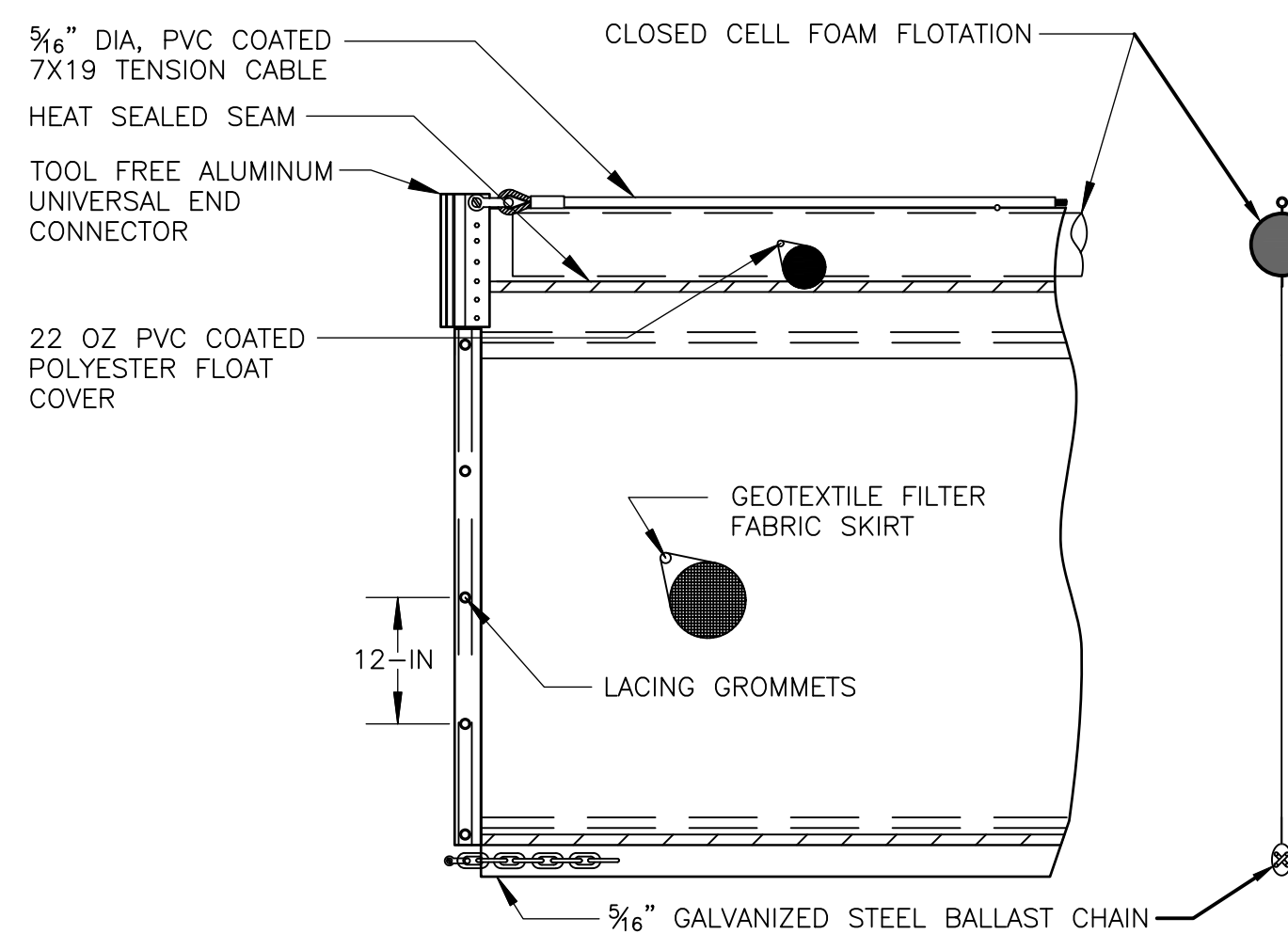


- NOTES:
1. PLACE STOCKPILES AT LOCATIONS AS SHOWN ON THE SOIL EROSION AND SEDIMENT CONTROL PLAN.
 2. ALL SIDE SLOPES SHALL BE 3 TO 1 OR FLATTER.
 3. STOCKPILE SHALL RECEIVE A VEGETATIVE COVER IN ACCORDANCE WITH MINIMUM STABILIZATION REQ.
 4. COMPOST SHALL BE INSTALLED AS DETAILED HEREON.

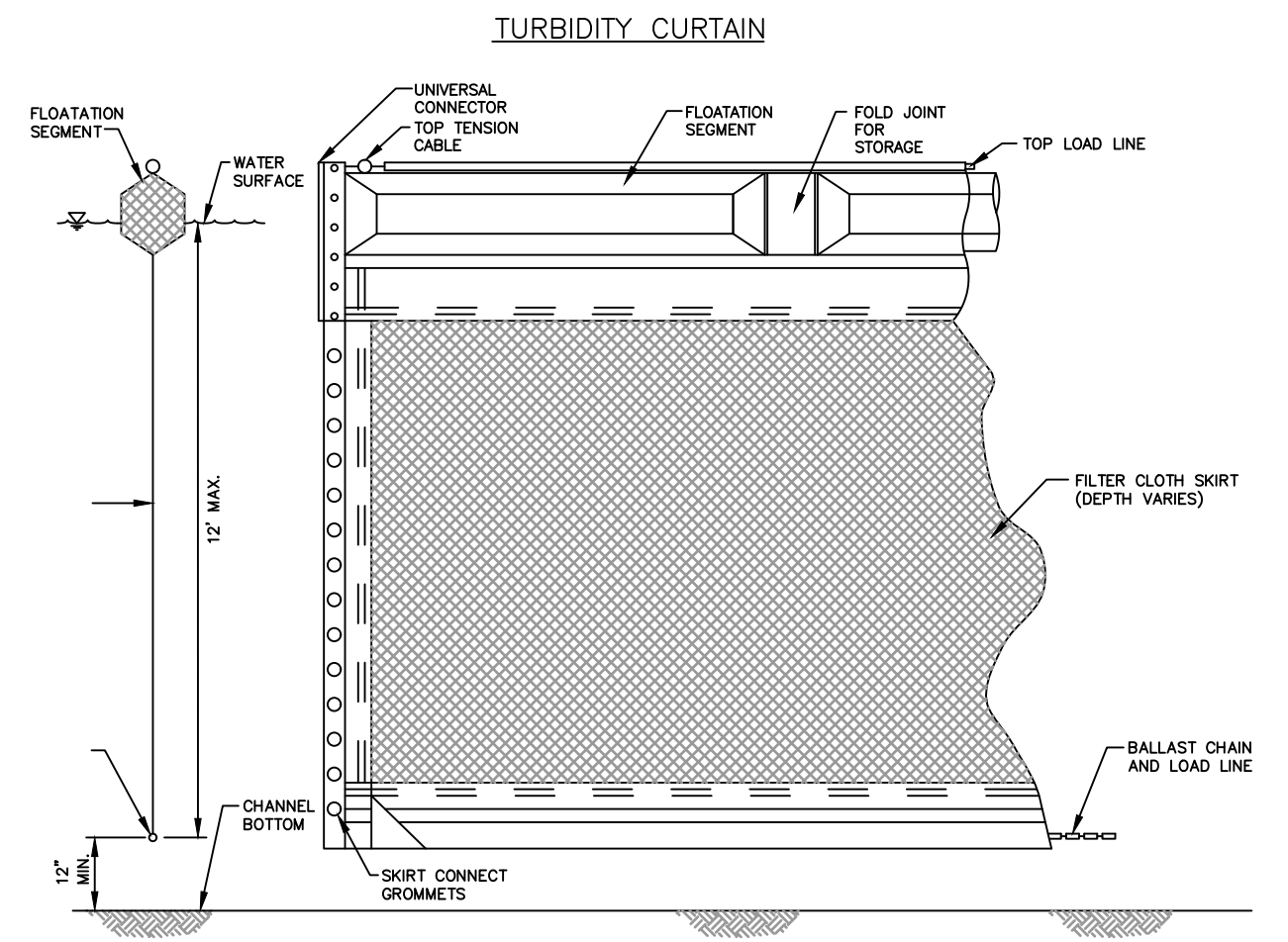
SOIL STOCKPILE
DETAIL F
NOT TO SCALE



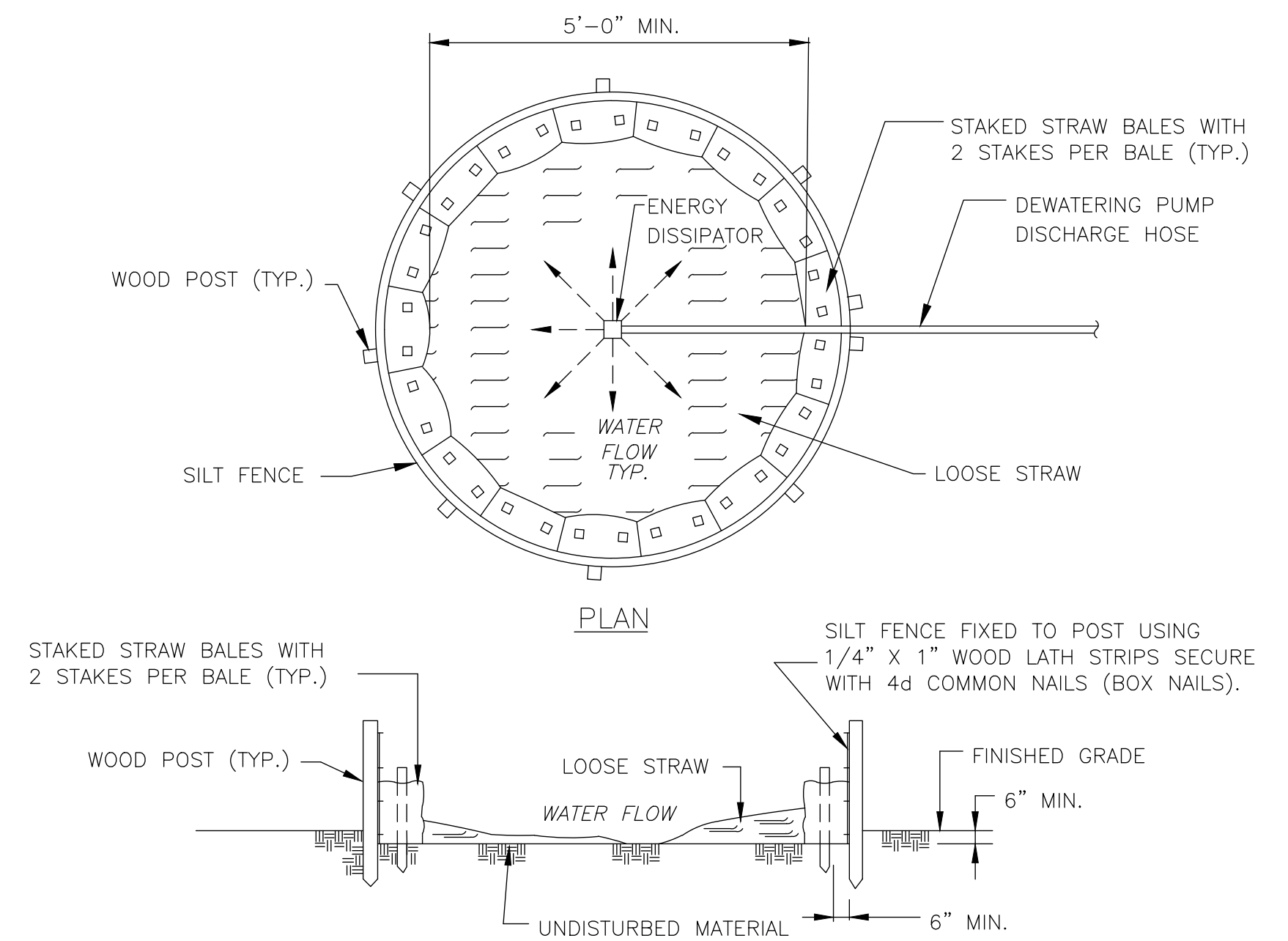
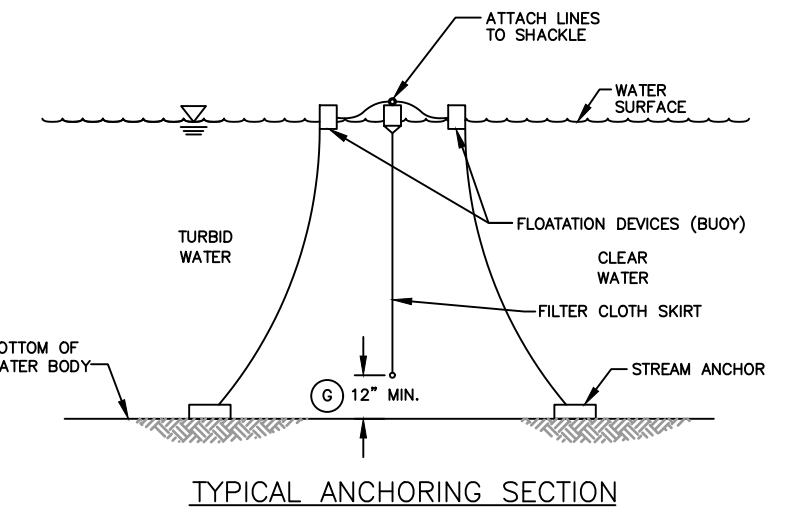
24'-0" OPENING DOUBLE VEHICLE BARRIER GATE
DETAIL G
NOT TO SCALE



FLOATING TURBIDITY BARRIER
DETAIL I
NOT TO SCALE



TURBIDITY CURTAIN
DETAIL D
NOT TO SCALE



DEWATERING SEDIMENTATION BASIN
DETAIL J
NOT TO SCALE

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY:	K. GERLACH
DRAWN BY:	J. BRONENKANT
SHEET CHK'D BY:	K. WAGNER
CROSS CHK'D BY:	K. GERLACH
APPROVED BY:	K. WAGNER
DATE:	APRIL 2023

CDM Smith
77 Hartland Street, Suite 200
East Hartford, CT 06108
Tel: (860) 529-7615

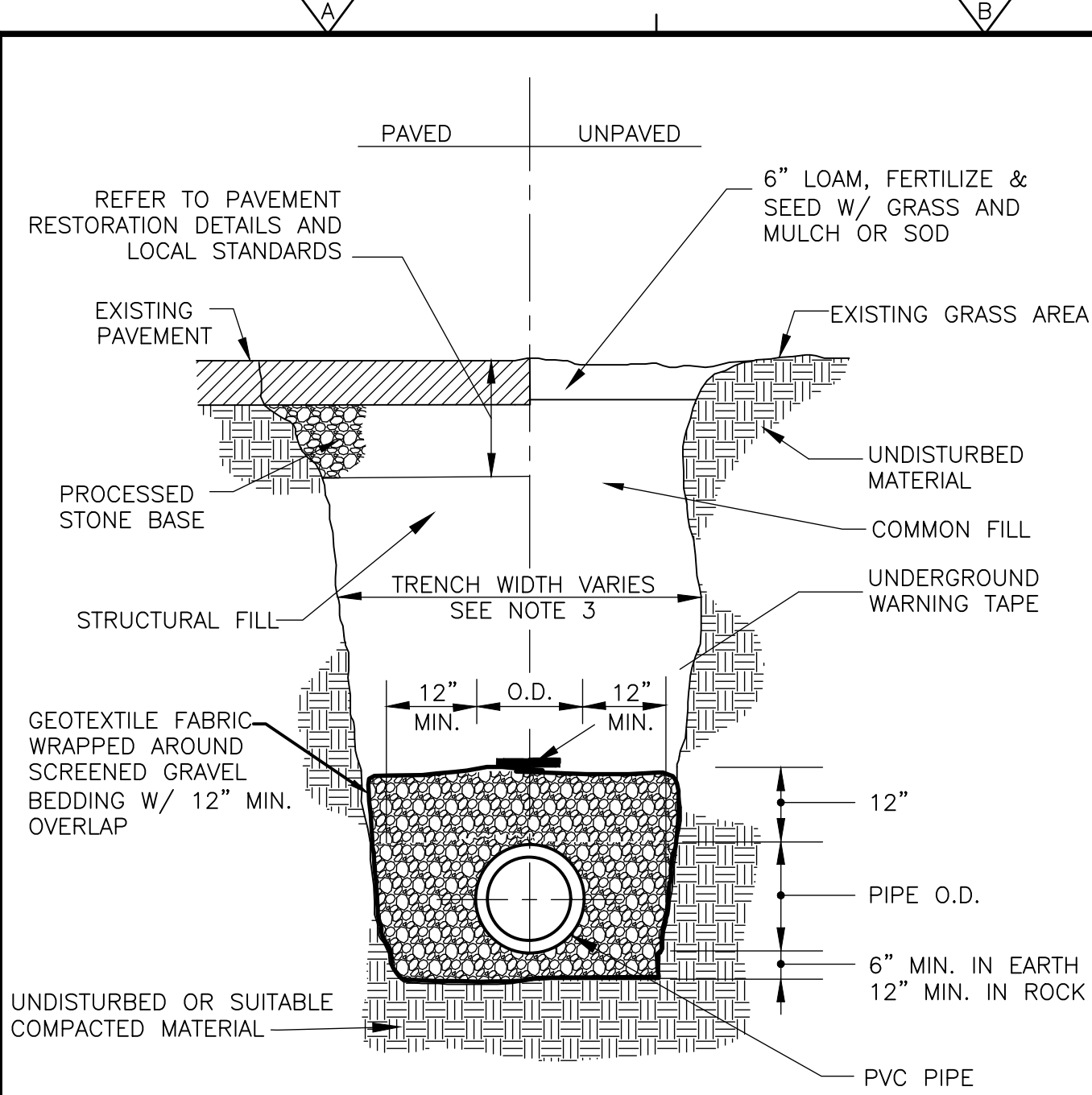


CITY OF NEW BRITAIN, CONNECTICUT
WHITE BRIDGE WATERWORKS FACILITIES
UPPER AND LOWER WELLFIELDS
AND POND PUMPING STATION

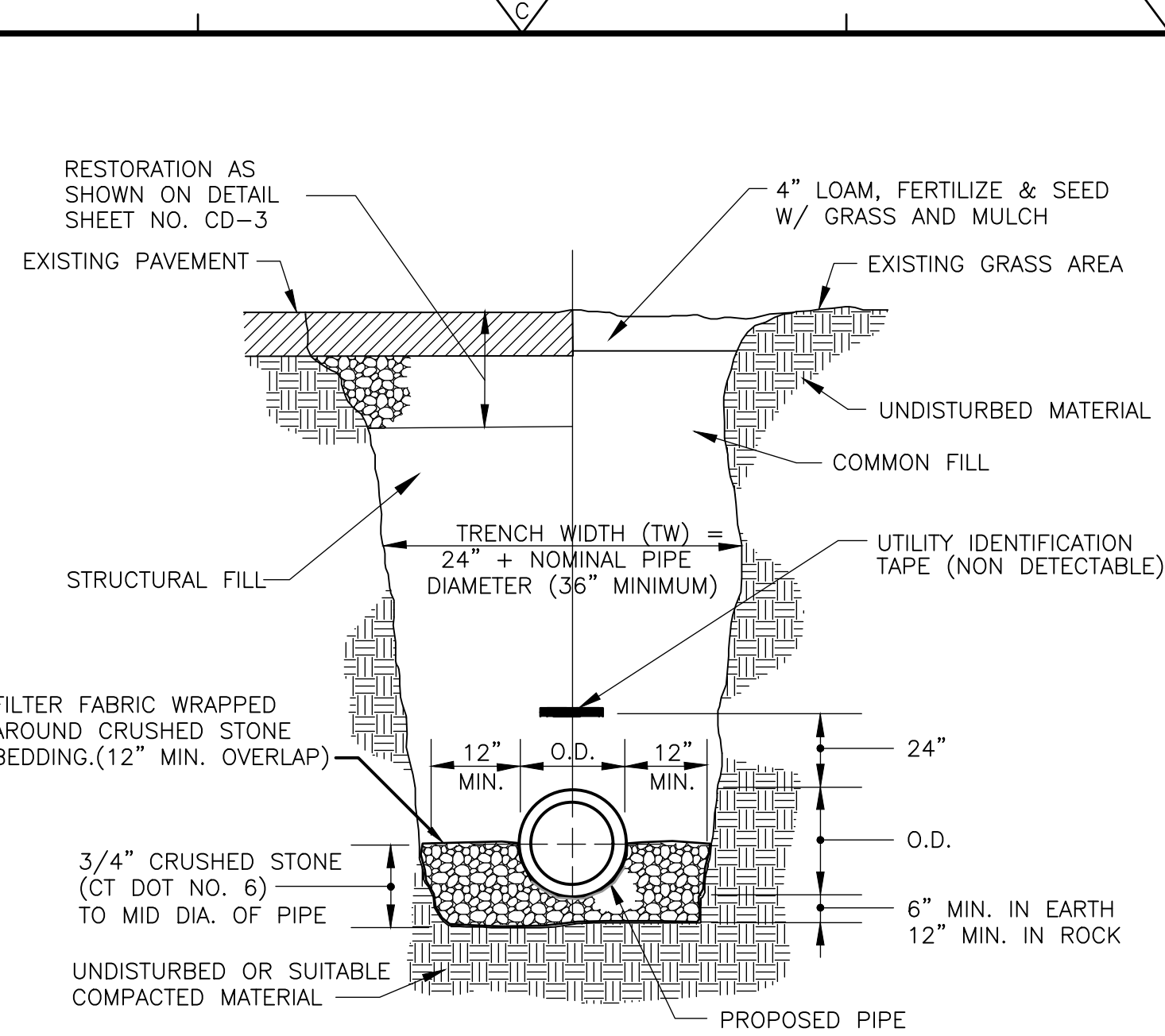
CIVIL DETAILS I

PROJECT NO.	10739-264571
FILE NAME:	CD001CSDT.DWG
SHEET NO.	C-24

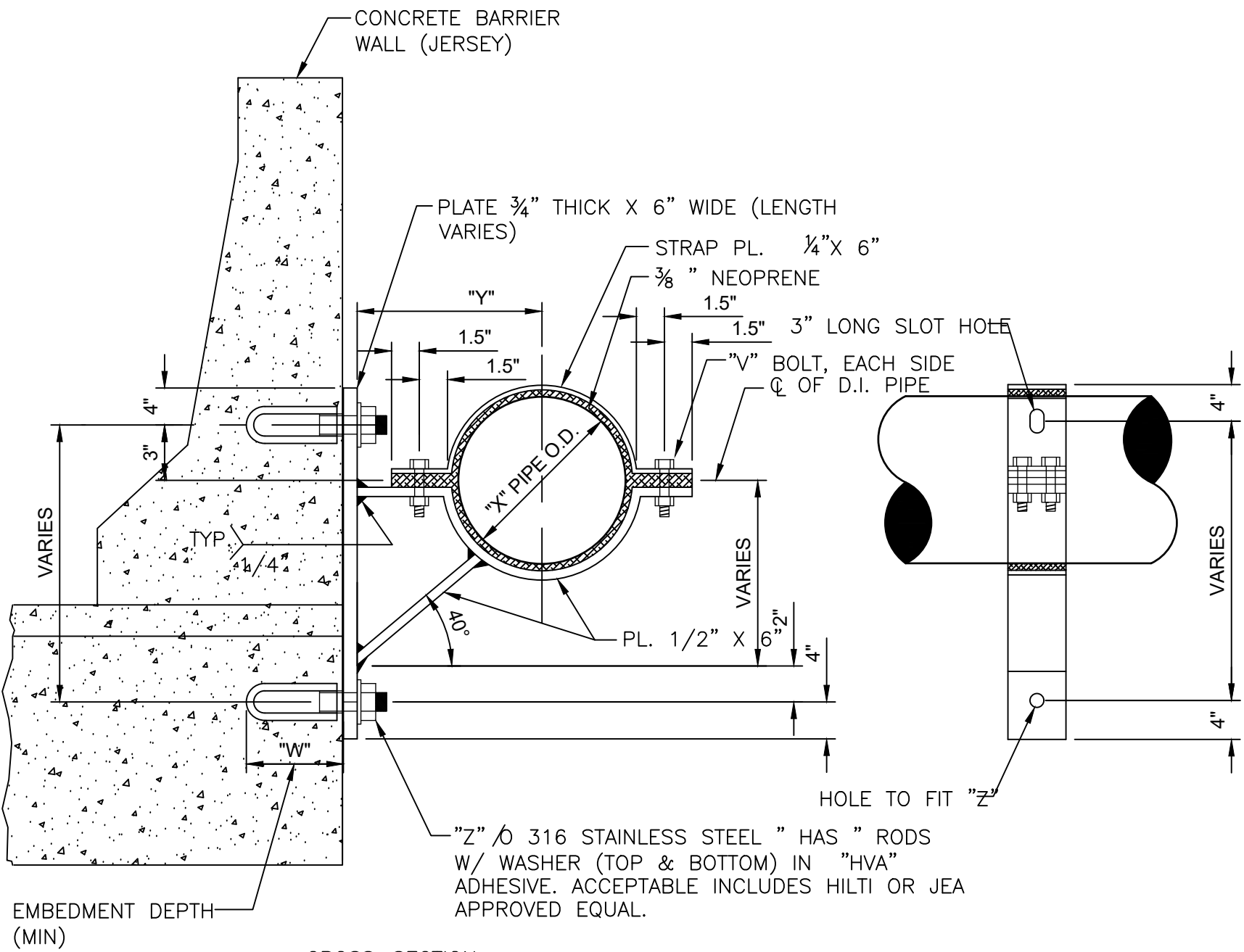
XREFs: [CDWS-2436_XSWPL000_CWP000ST_Floodplain_AWZ001PS - 2D Process Export]
Last saved by: ENGELSB Time: 3/23/2023 4:36:52 PM
C:\Users\engelsb\OneDrive\CDM Smith Inc\10739-264571 - New Britain CT White Bridge Well Fields and PS\Project Files\02_Civil (C)\10 CAD\CD002CSDT.dwg
©2023 CDM SMITH. ALL RIGHTS RESERVED.
REUSE OF DOCUMENTS: THESE DOCUMENTS AND DESIGNS PROVIDED BY PROFESSIONAL SERVICE, INCORPORATED HEREIN, ARE THE PROPERTY OF CDM SMITH AND ARE NOT TO BE USED, IN WHOLE OR PART, FOR ANY OTHER PROJECT WITHOUT THE WRITTEN AUTHORIZATION OF CDM SMITH.



PVC PIPE TRENCH
DETAIL A
NOT TO SCALE



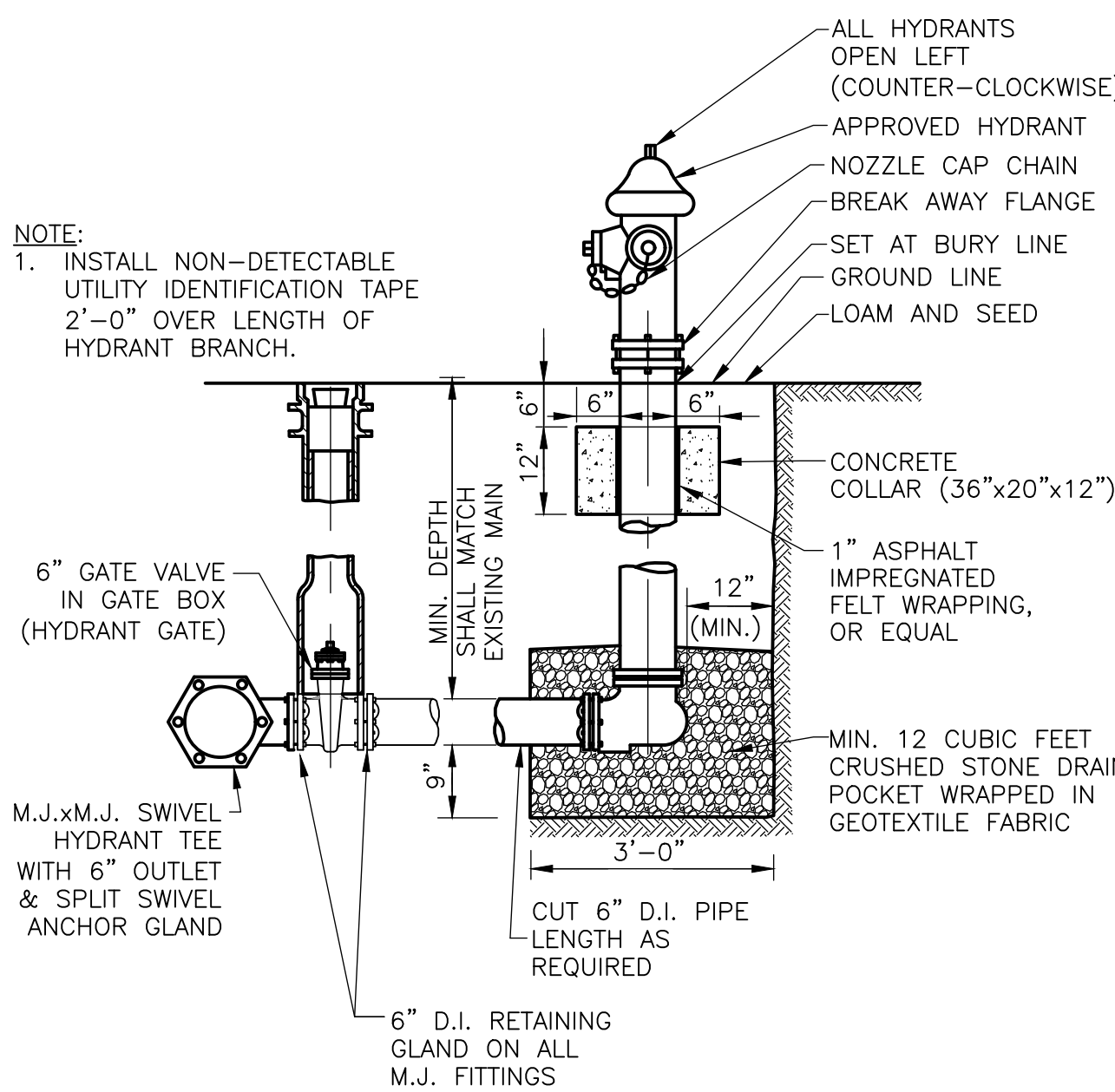
DI PIPE TRENCH
DETAIL B
NOT TO SCALE



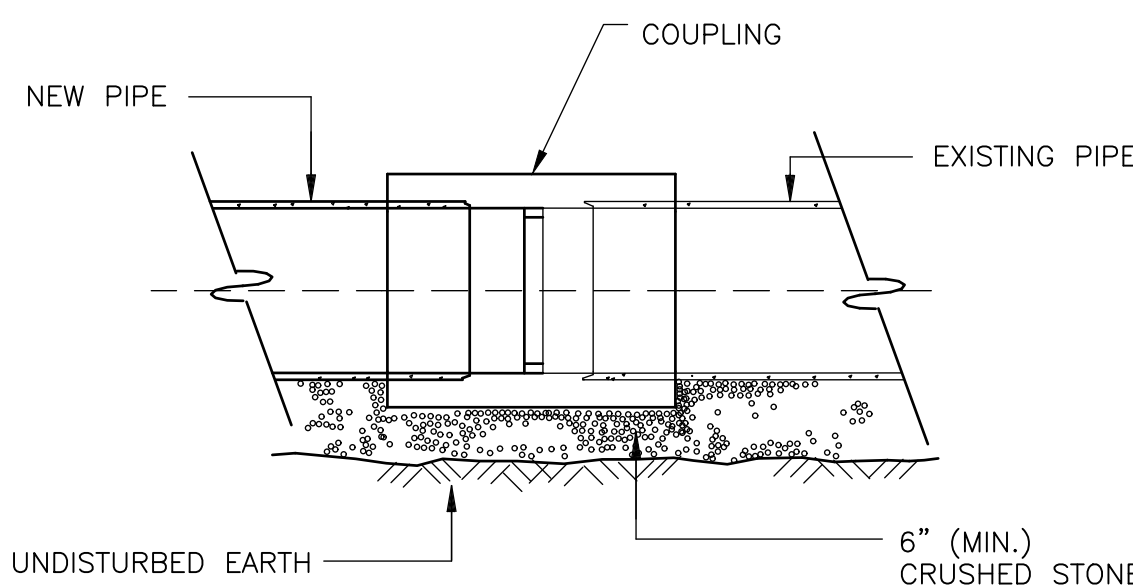
PIPE SIZE	4"	6"	8"	10"	12"	16"	20"	24"
X	4.80"	6.90"	9.05"	11.10"	13.20"	17.40"	21.60"	25.80"
Y	8"	9"	10"	12"	13"	15"	17"	19"
Z	3/4"	3/4"	3/4"	1"	1"	1 1/4"	1 1/4"	1 1/4"
W	6.625"	6.625"	6.625"	8.25"	8.25"	8.25"	12"	12"
V	1/2"	1/2"	1/2"	1/2"	1/2"	3/4"	3/4"	3/4"

- NOTES:
- ALL WELDS TO BE PERFORMED BY A CERTIFIED STRUCTURAL WELDER.
 - ALL SUPPORT BRACKET MEMBERS SHALL BE HOT DIPPED GALVANIZED AFTER FABRICATION.
 - ALL NUTS, BOLTS, AND WASHERS SHALL BE 316 STAINLESS STEEL.
 - THE SPACING OF SIDEWALL PIPE SUPPORTS SHALL BE SPECIFICALLY DESIGNED BASED UPON MANY FACTS INCLUDING PIPE SIZE AND MATERIAL EMBEDMENT LIMITATIONS. UNLESS APPROVED OTHERWISE BY THE ENGINEER, IN NO CASE SHALL THE SPACING OF PIPE SUPPORTS EXCEED TWENTY (20) FEET ON-CENTER FOR PIPE SIZES TWELVE (12) INCH AND SMALLER AND TEN (10) FEET ON-CENTER FOR PIPE SIZES GREATER THAN TWELVE (12) INCHES.

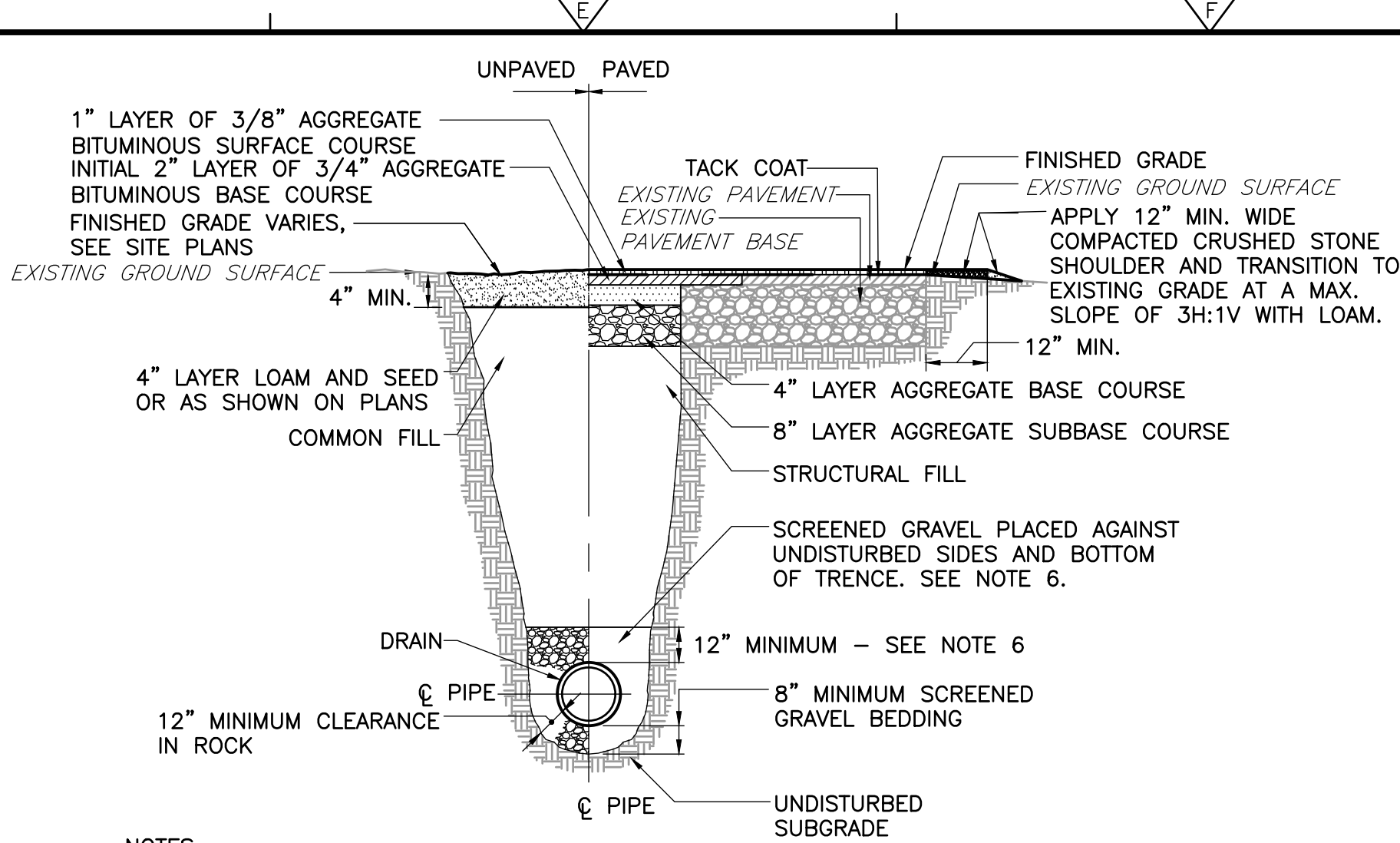
SIDEWALL PIPE HANGER
DETAIL E
NOT TO SCALE



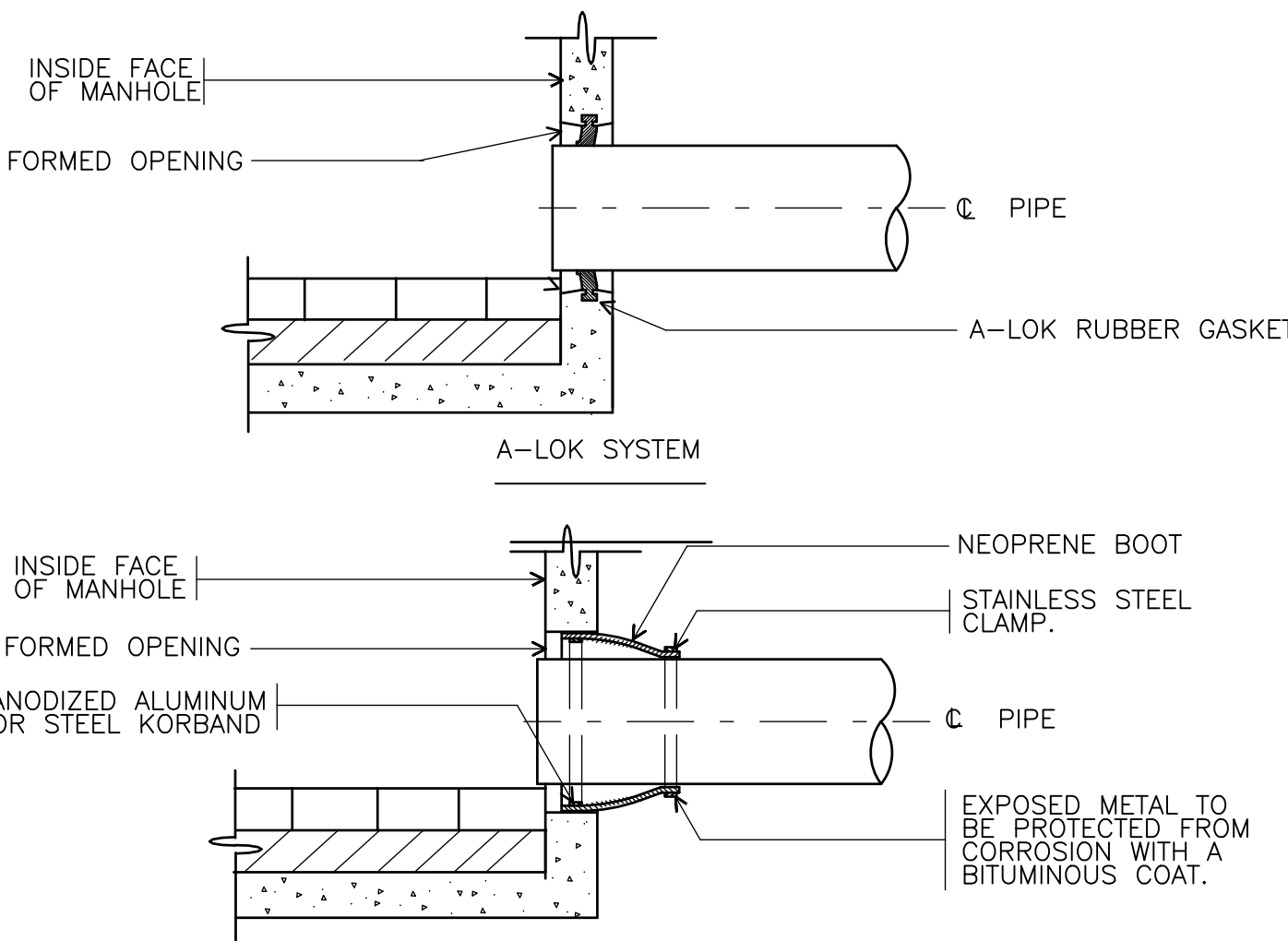
FIRE HYDRANT ASSEMBLY
DETAIL D
NOT TO SCALE



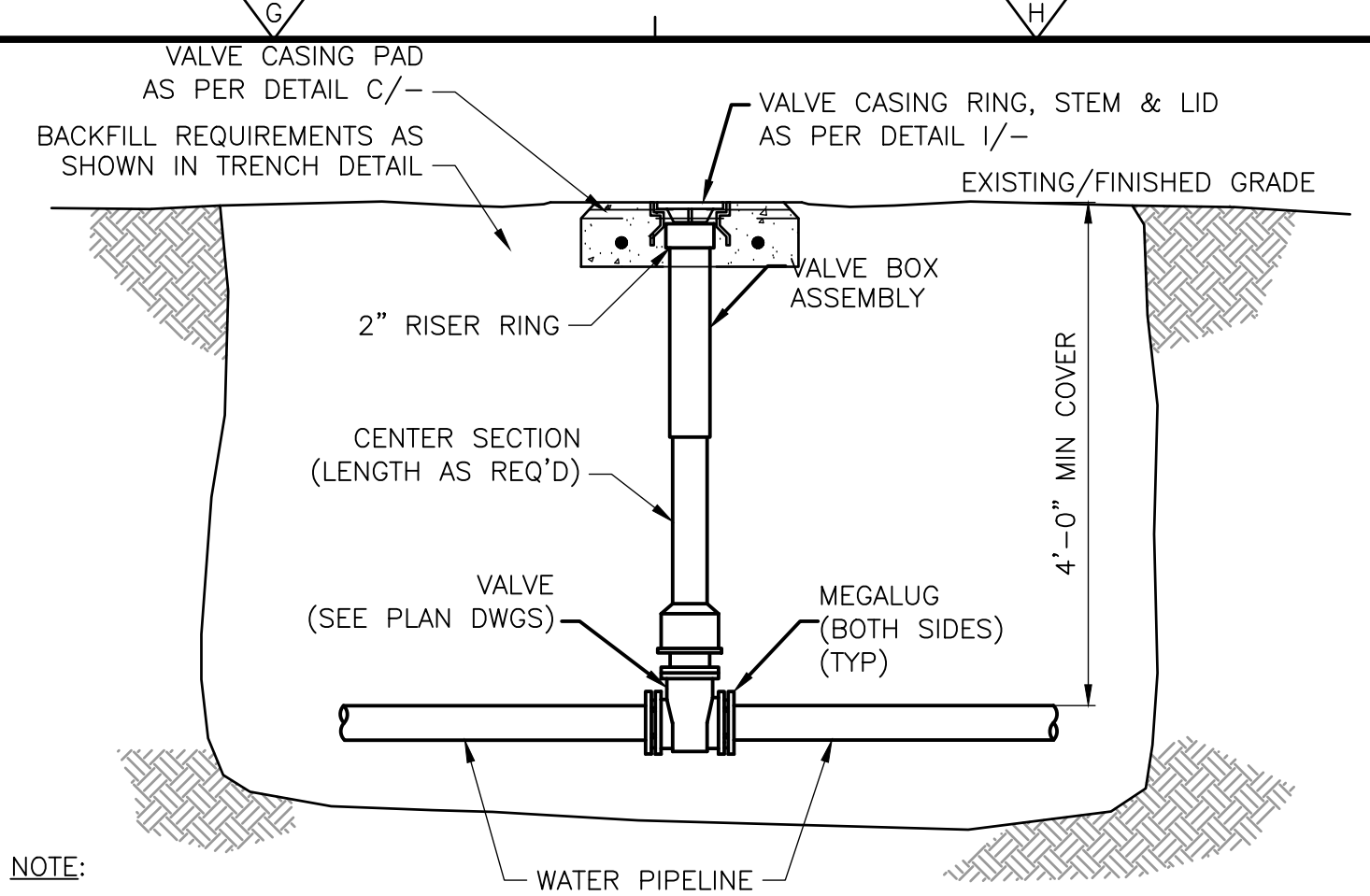
COUPLING CONNECTION TO EXISTING PIPE
DETAIL F
NOT TO SCALE



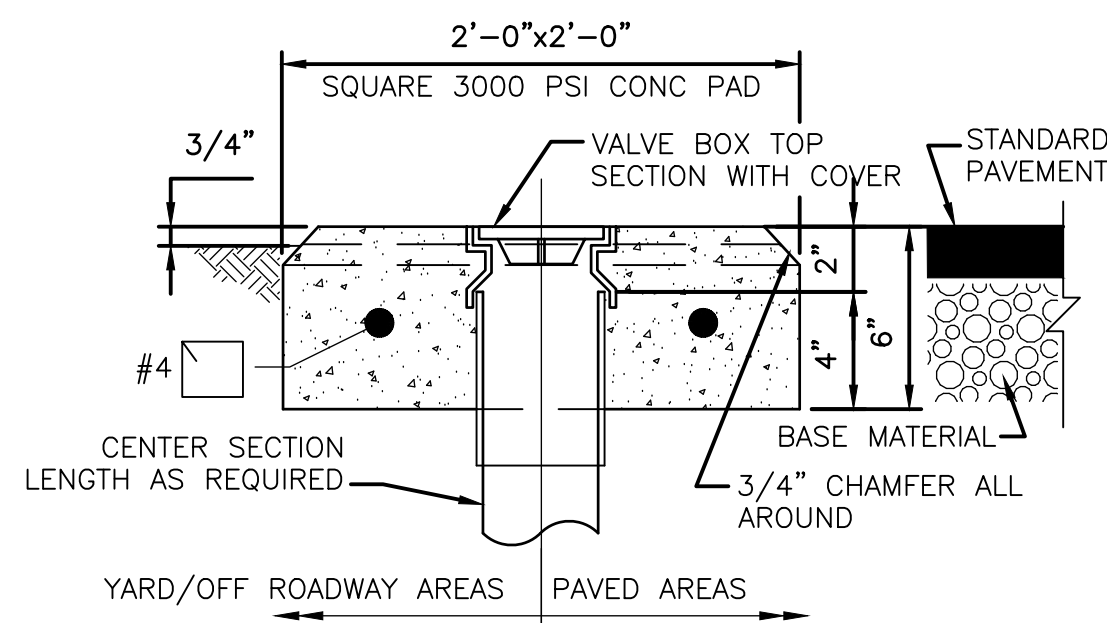
TRENCHING AND REPAIRS
DETAIL C
NTS



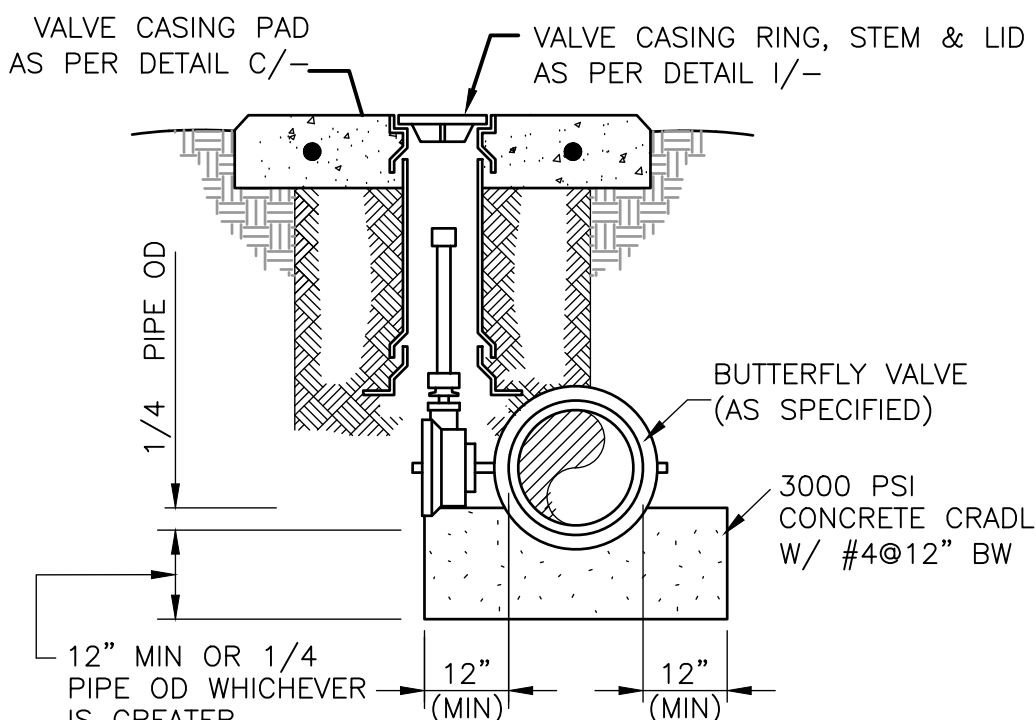
PIPE CONNECTION DETAILS
DETAIL G
NOT TO SCALE



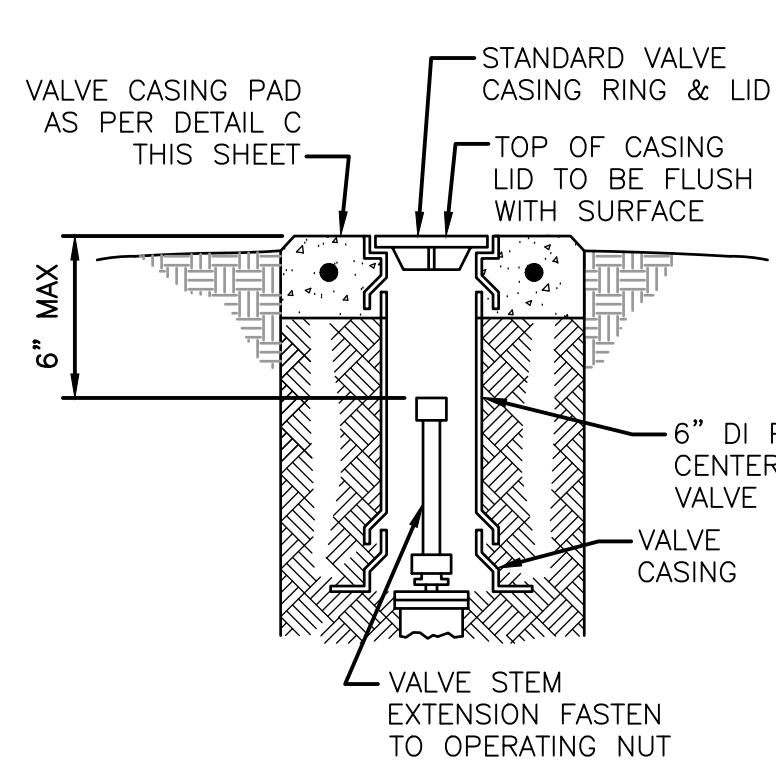
VALVE BOX (PIPE 12" DIAMETER AND SMALLER)
DETAIL H
NTS



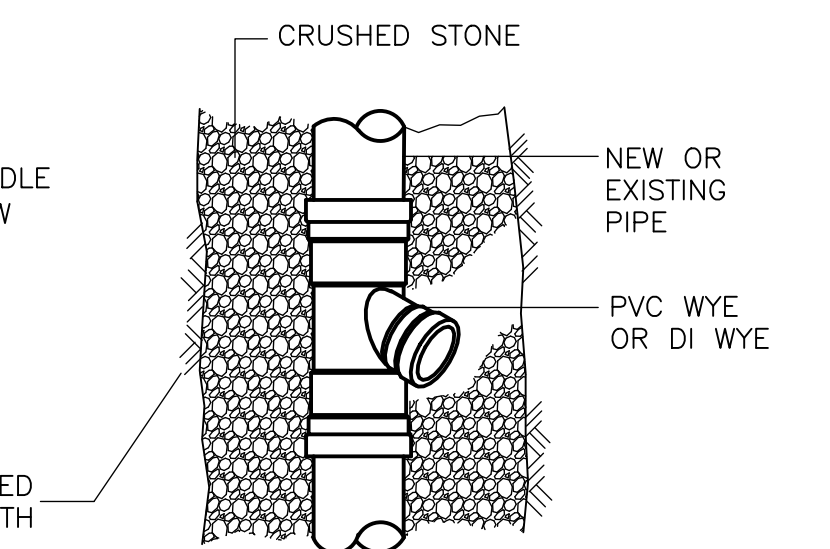
VALVE CASING PAD
DETAIL I
NTS



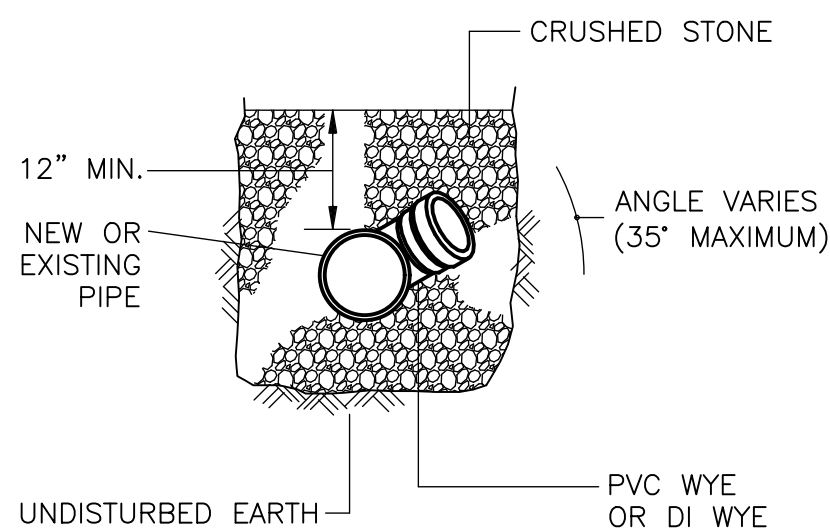
DIRECT BURIED BUTTERFLY VALVE
(FOR 16"-36" BUTTERFLY VALVES)
DETAIL J
NTS



VALVE BOX
DETAIL K
NTS



PLAN



SECTION

PVC OR DI WYE BRANCH
DETAIL L
NTS

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: K. GERLACH
DRAWN BY: J. BRONENKANT
SHEET CHK'D BY: K. WAGNER
CROSS CHK'D BY: K. GERLACH
APPROVED BY: K. WAGNER
DATE: DECEMBER 2023

CDM Smith
101 East River Drive, Suite 1A
East Hartford, CT 06108
Tel: (860) 529-7615

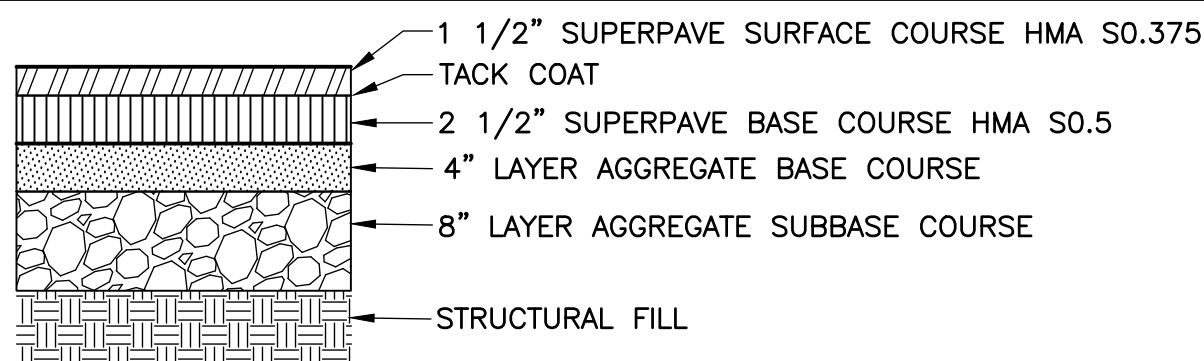
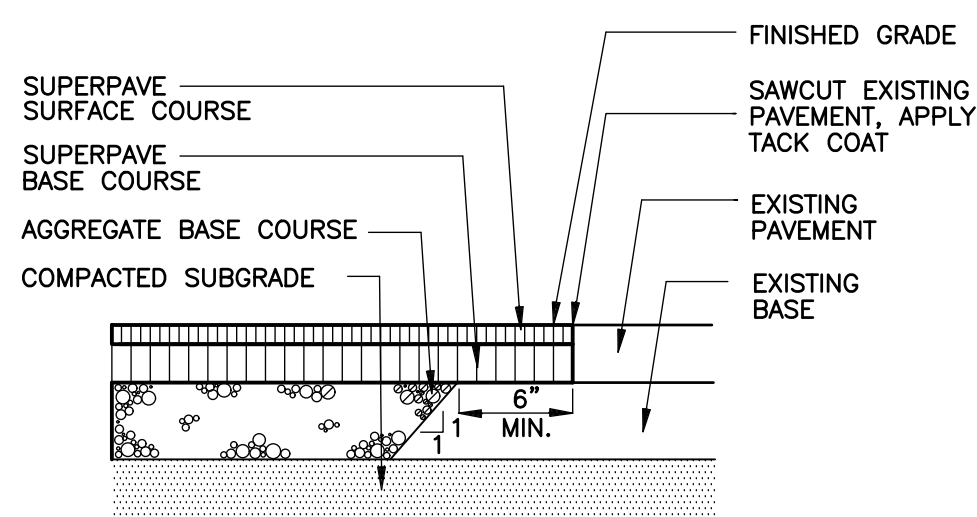
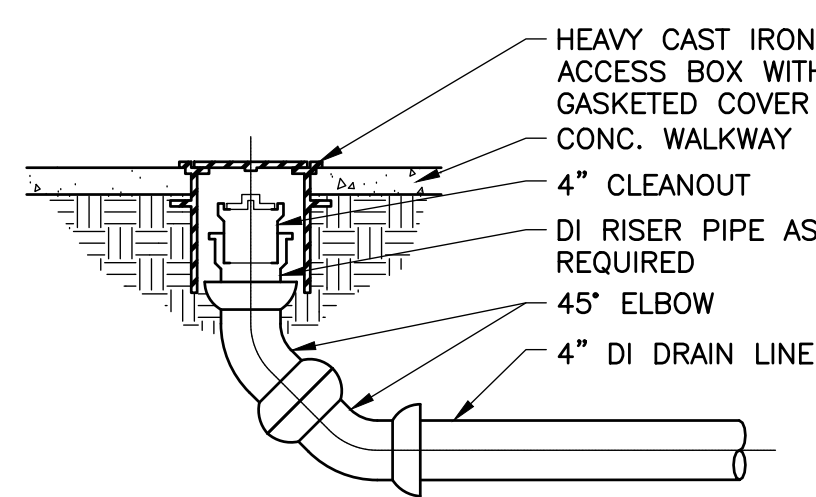
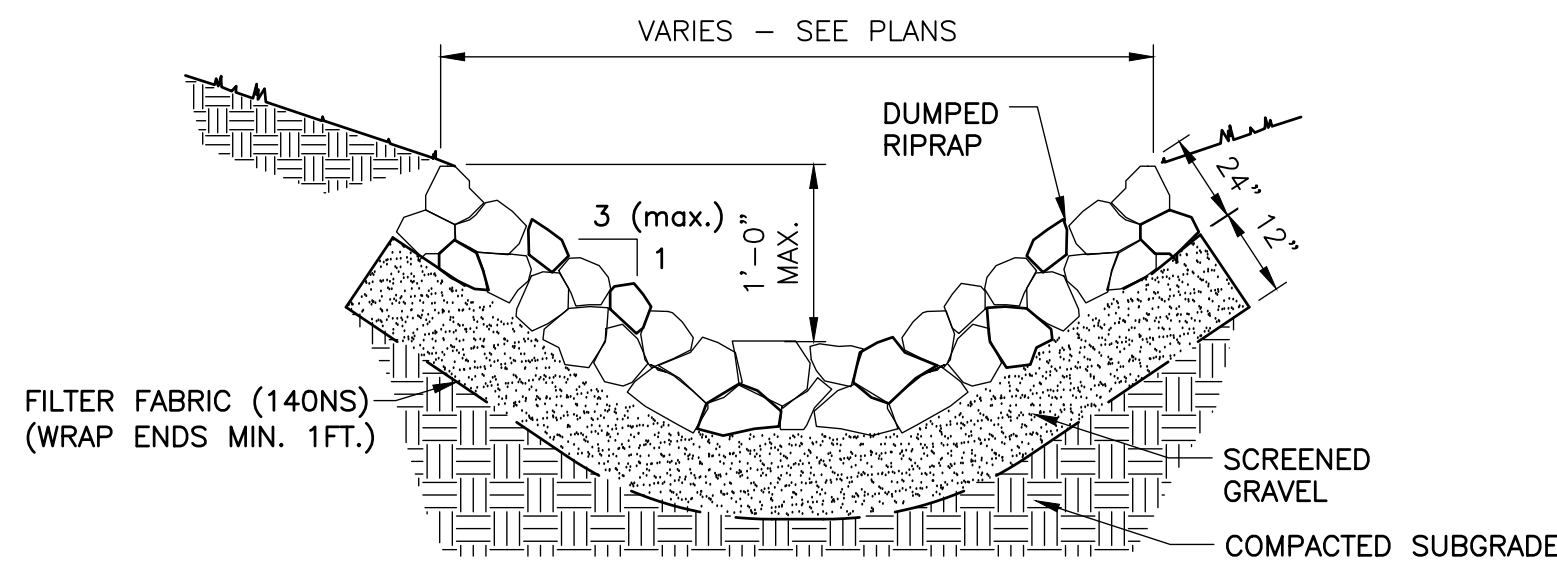


CITY OF NEW BRITAIN, CONNECTICUT
WHITE BRIDGE WATERWORKS FACILITIES
UPPER AND LOWER WELLFIELDS
AND POND PUMPING STATION

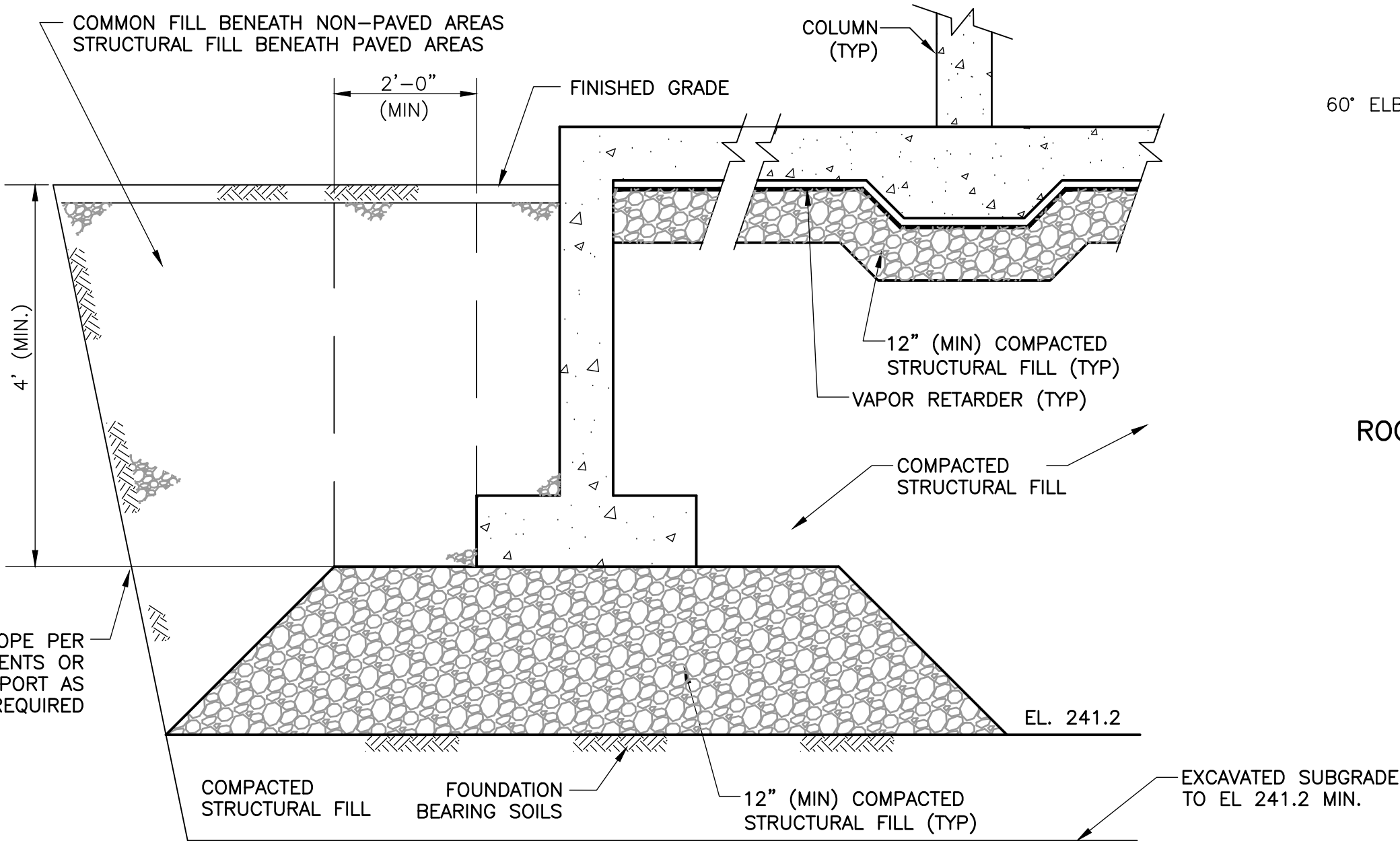
CIVIL DETAILS II

PROJECT NO. 10739-264571
FILE NAME: CD002CSDT.DWG
SHEET NO. C-25

XREFs: [CDMS-2436_XSWPL000_CWP00001_Floodway_Floodplain_AWZ001PS - 2D Process Export] Images: []
Last saved by: ENGELSB, Time: 12/4/2023 12:47:40 PM
C:\Users\engelsb\OneDrive\CDM Smith Inc\10739-264571 - New Britain CT White Bridge Well Fields and PS\Project Files\02 Civil (C)\10 CADD\CD003CSDT.dwg
©2023 CDM SMITH. ALL RIGHTS RESERVED.
REUSE OF DOCUMENTS: THESE DOCUMENTS AND DESIGNS PROVIDED BY PROFESSIONAL SERVICE, INCORPORATED HEREIN, ARE THE PROPERTY OF CDM SMITH AND ARE NOT TO BE USED, IN WHOLE OR PART, FOR ANY OTHER PROJECT WITHOUT THE WRITTEN AUTHORIZATION OF CDM SMITH.

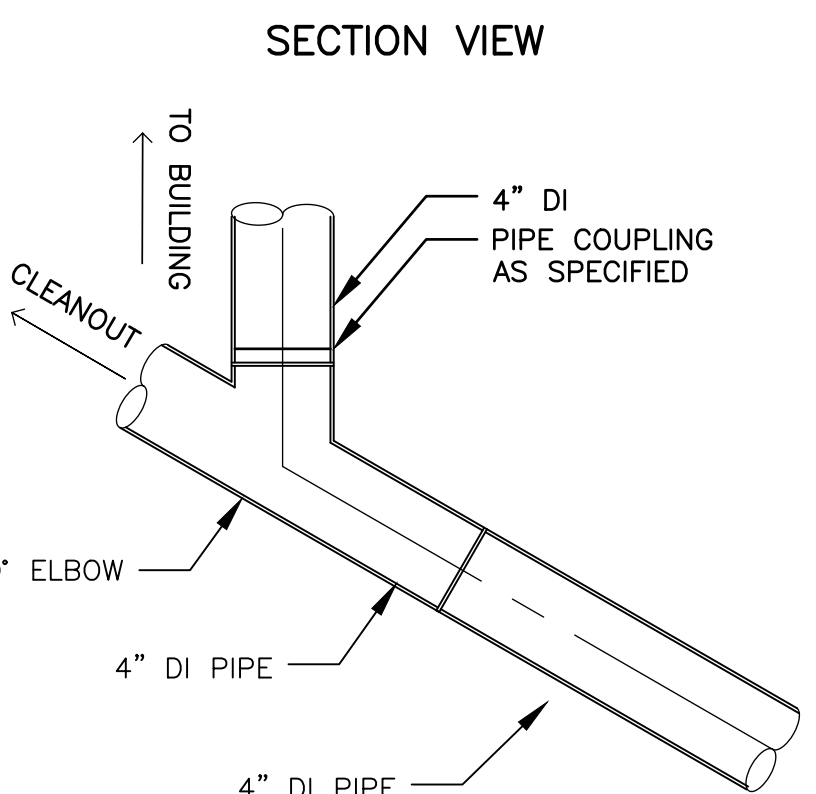
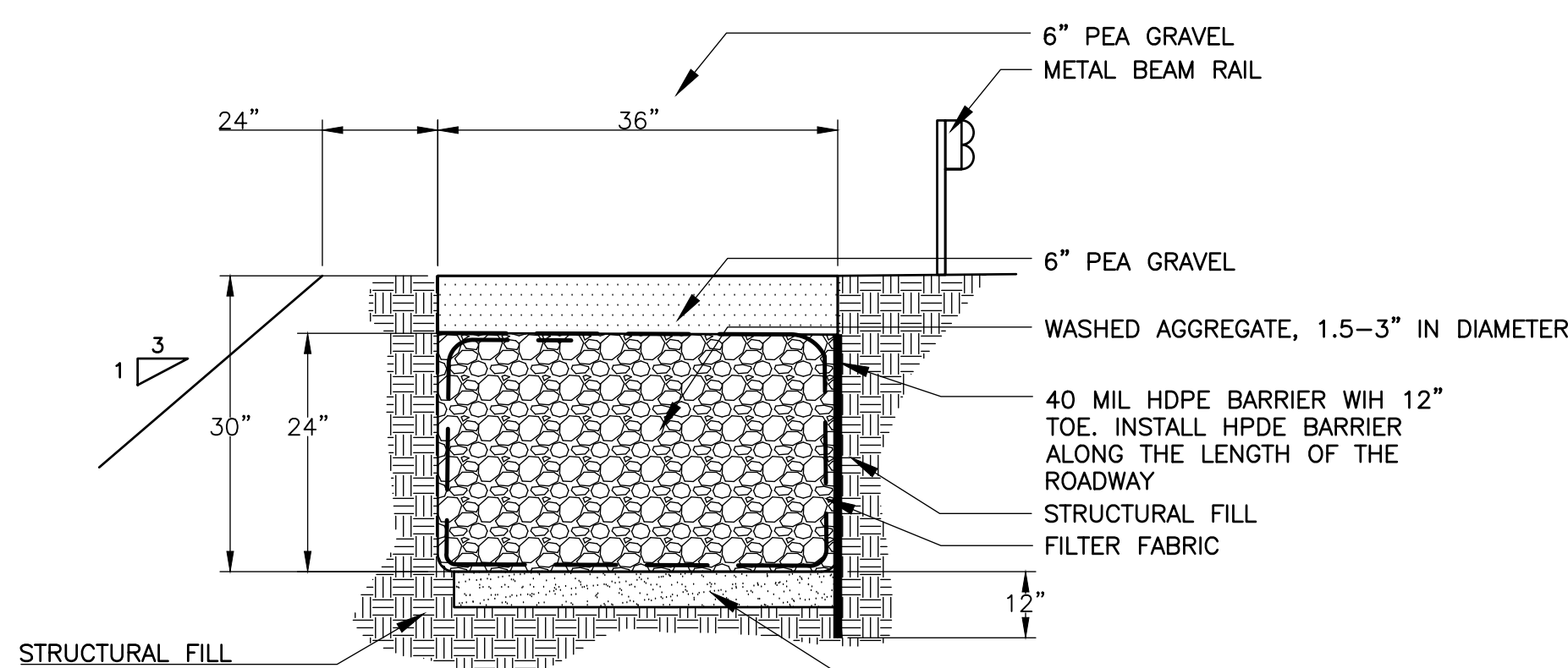


NOTES:
1. BASE COURSE SHALL EXTEND 3" MIN. BEYOND EDGE OF PAVEMENT. DEPTH VARIES SEE GRADING AND DRAINAGE PLAN

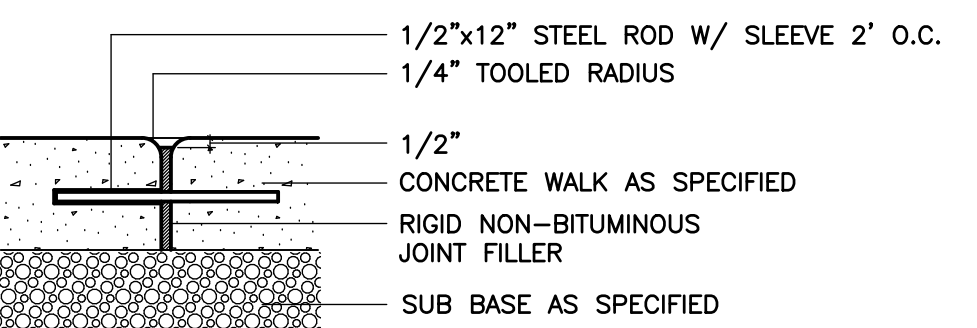
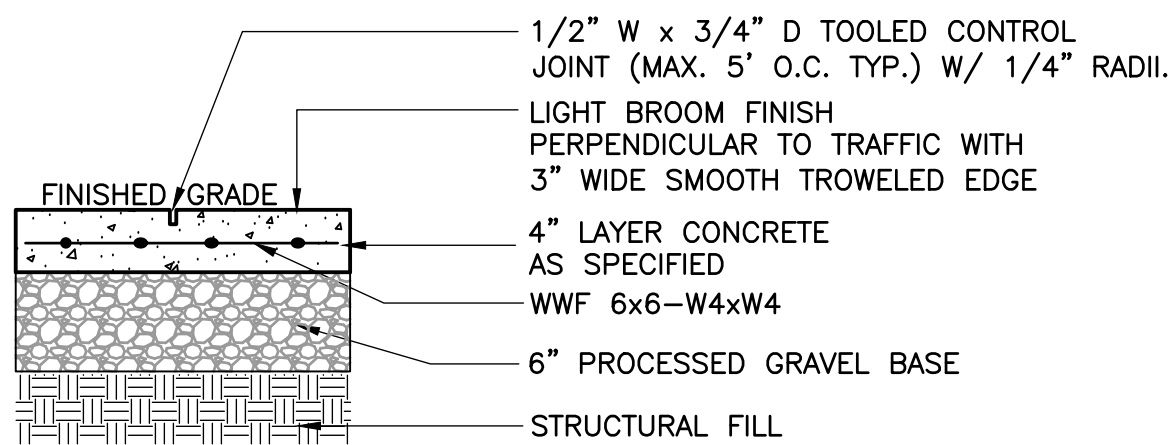
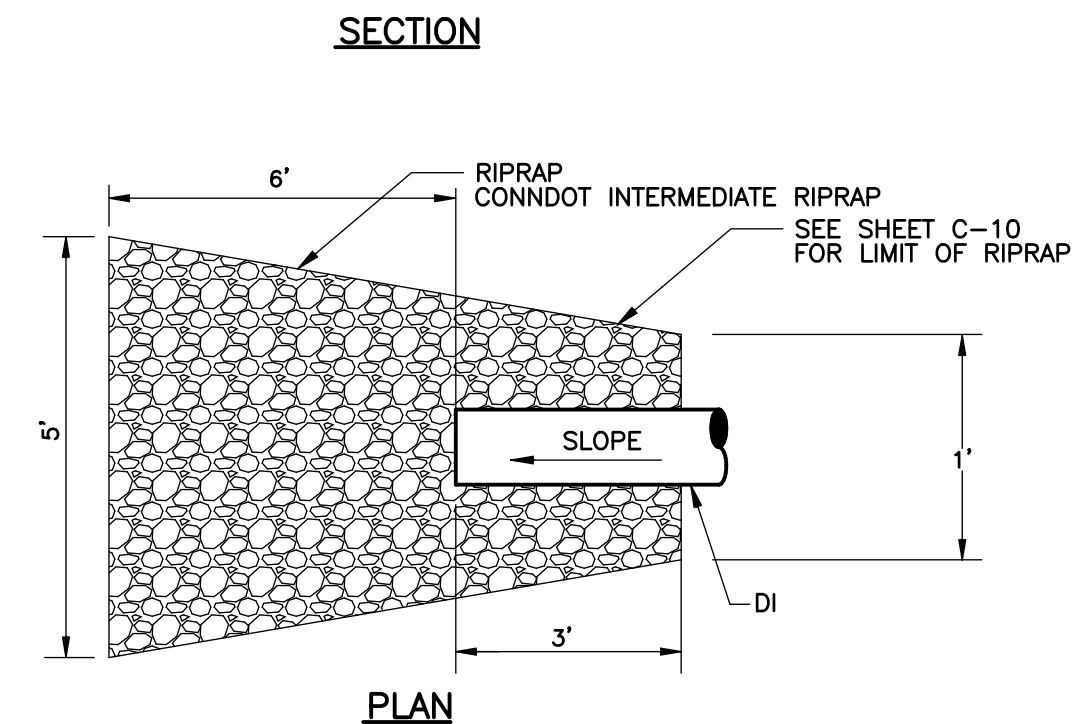
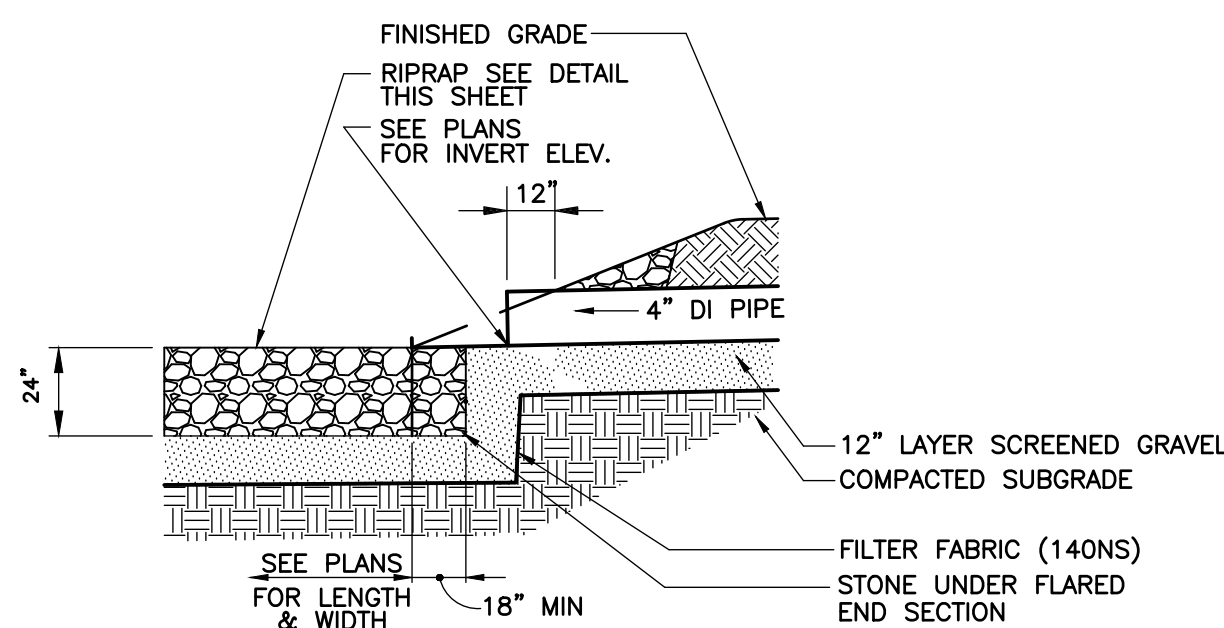


- NOTES:
1. THE SUITABILITY OF THE FOUNDATION SUB-GRADE TO BE VERIFIED BY CONTRACTOR'S GEOTECHNICAL ENGINEER PRIOR TO THE PLACEMENT OF CONCRETE.
 2. SEE SPECIFICATION SECTION 312000 FOR SUBGRADE PREPARATION REQUIREMENTS AND COMPACTION REQUIREMENTS.
 3. STRUCTURES INCLUDE TANK, BUILDING, OR SHALLOW FOOTINGS. SEE SITE PLANS.

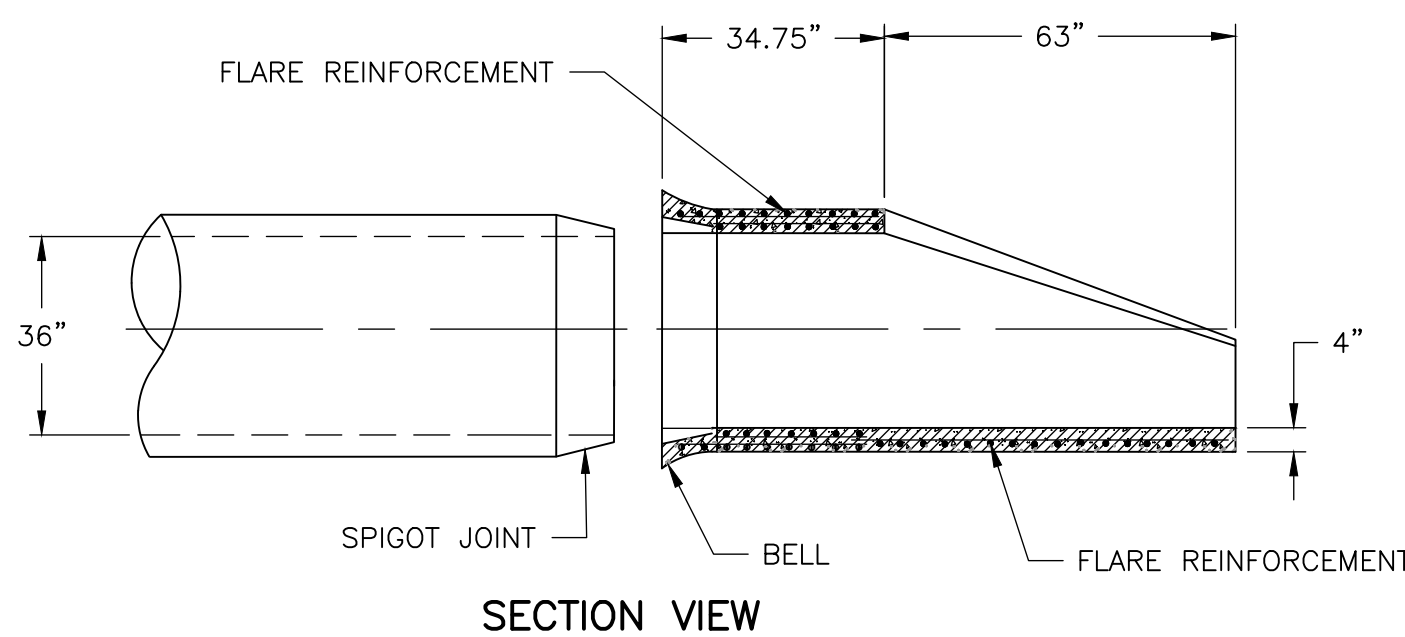
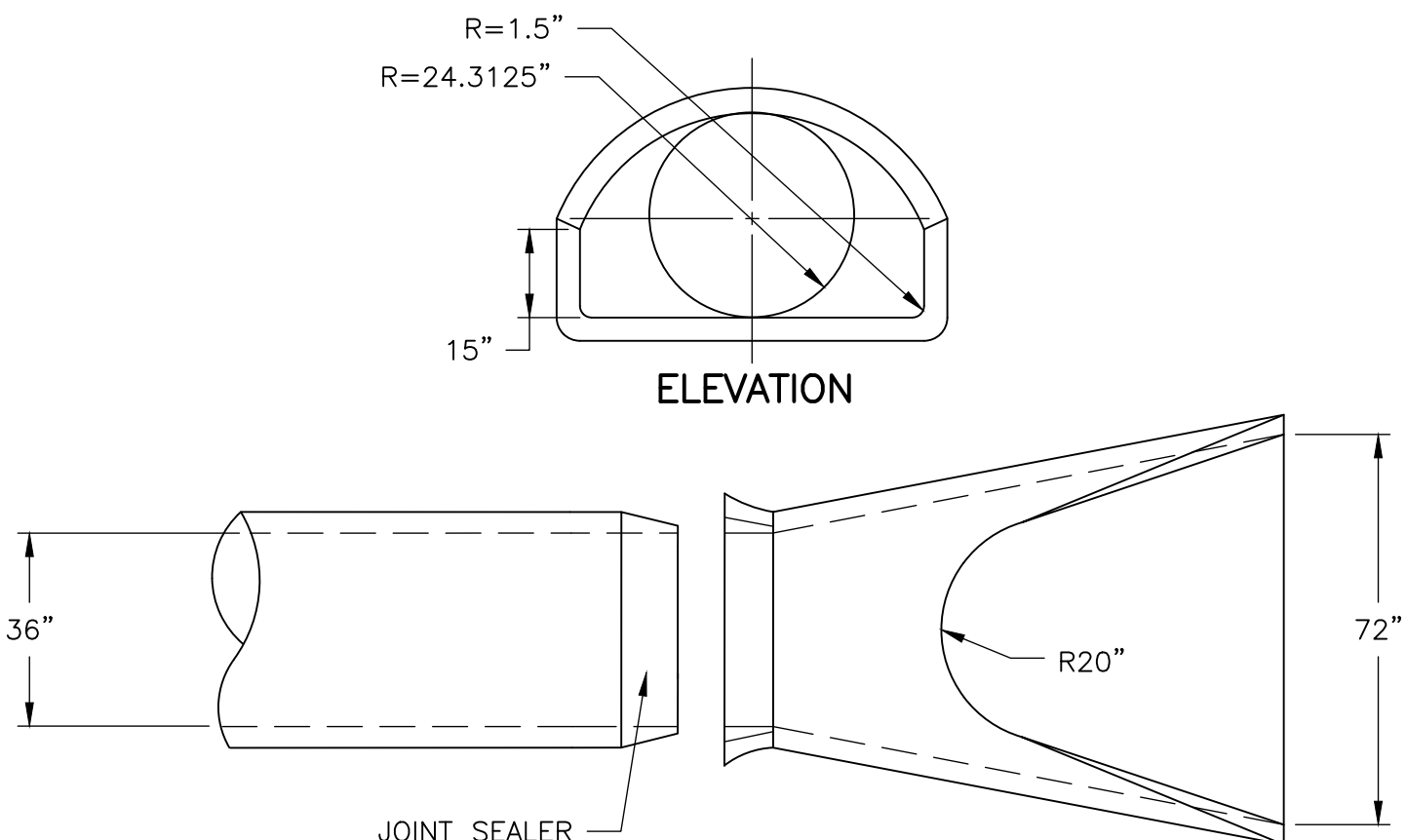
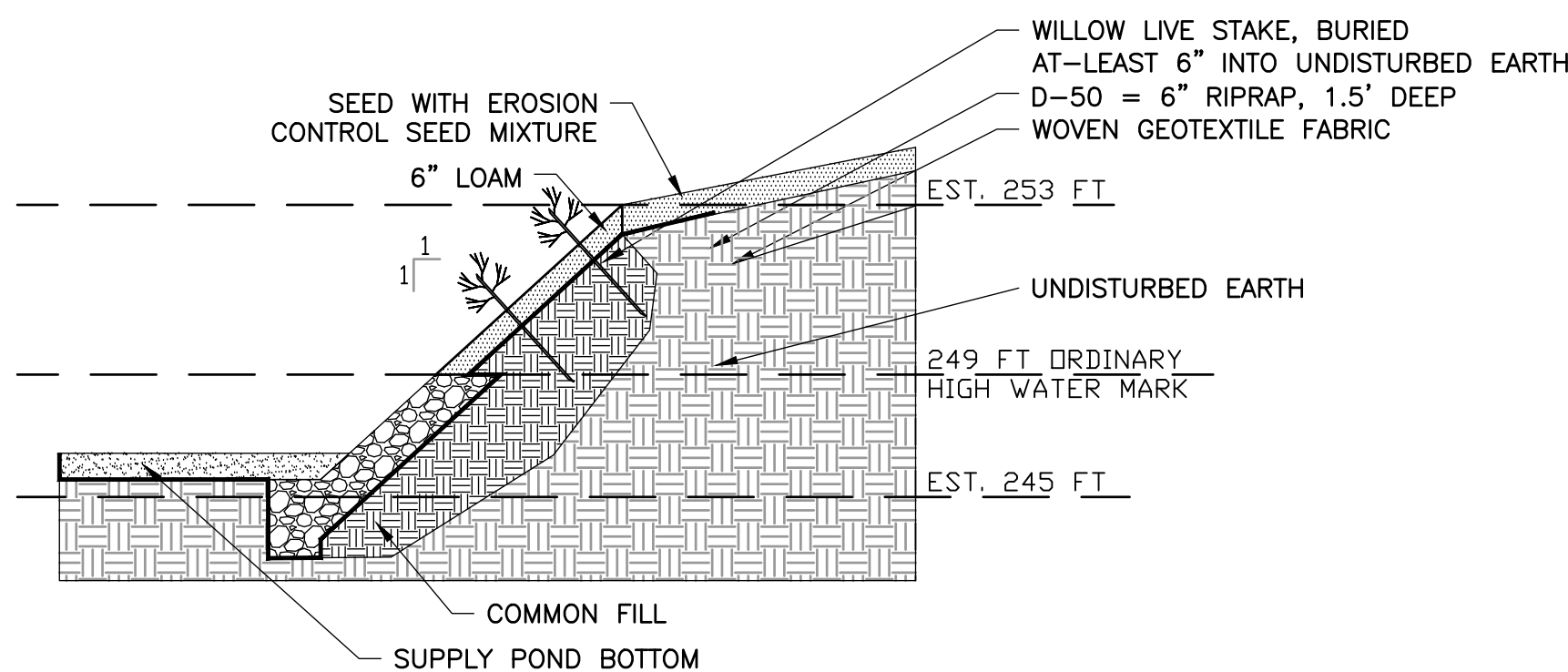
BACKFILL
DETAIL B
NTS



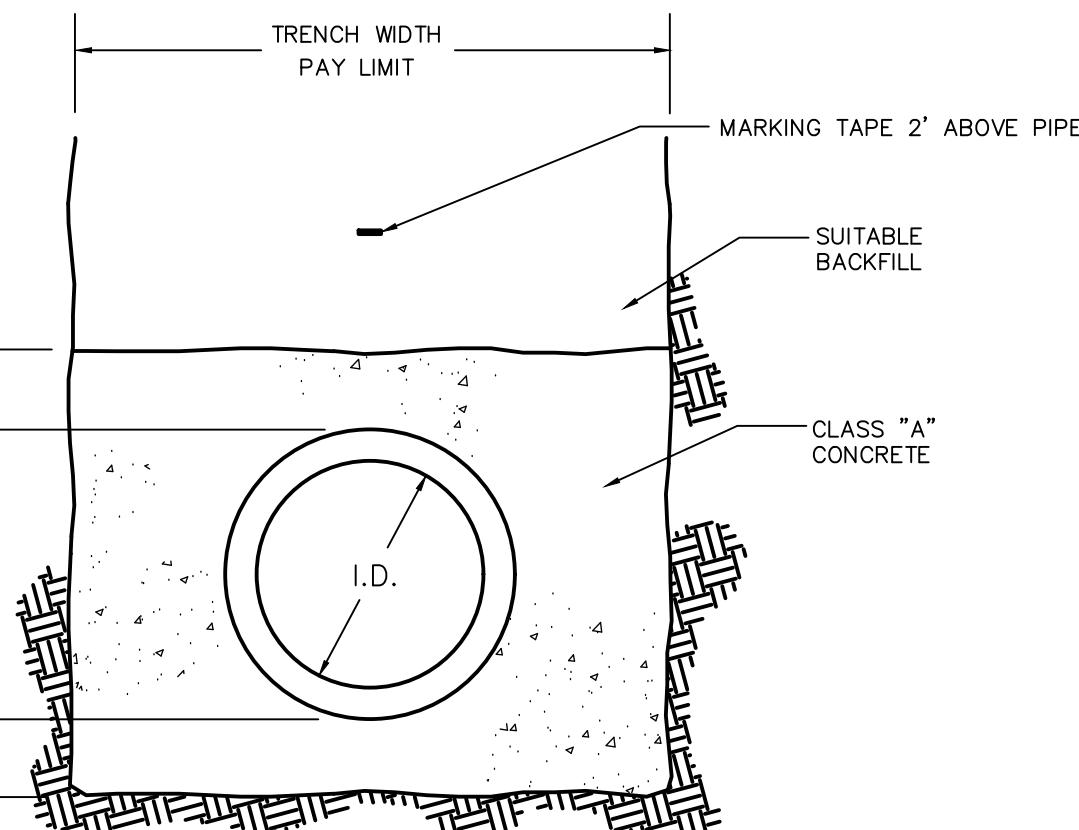
ROOF DRAIN CONNECTION WITH CLEANOUT
DETAIL D
NTS



- NOTE:
1. CONC. WALK SHALL HAVE 3 STEEL RODS MIN.
 2. EXPANSION JOINTS SHALL BE LOCATED 30 FT. MIN. O.C. AND AT THE END OF EACH DAYS POUR.



CONCRETE ENCASEMENT
DETAIL L
NOT TO SCALE



REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY:	K. GERLACH
DRAWN BY:	J. BRONENKANT
SHEET CHK'D BY:	K. WAGNER
CROSS CHK'D BY:	K. GERLACH
APPROVED BY:	K. WAGNER
DATE:	DECEMBER 2023

CDM Smith
101 East River Drive, Suite 1A
East Hartford, CT 06108
Tel: (860) 529-7615

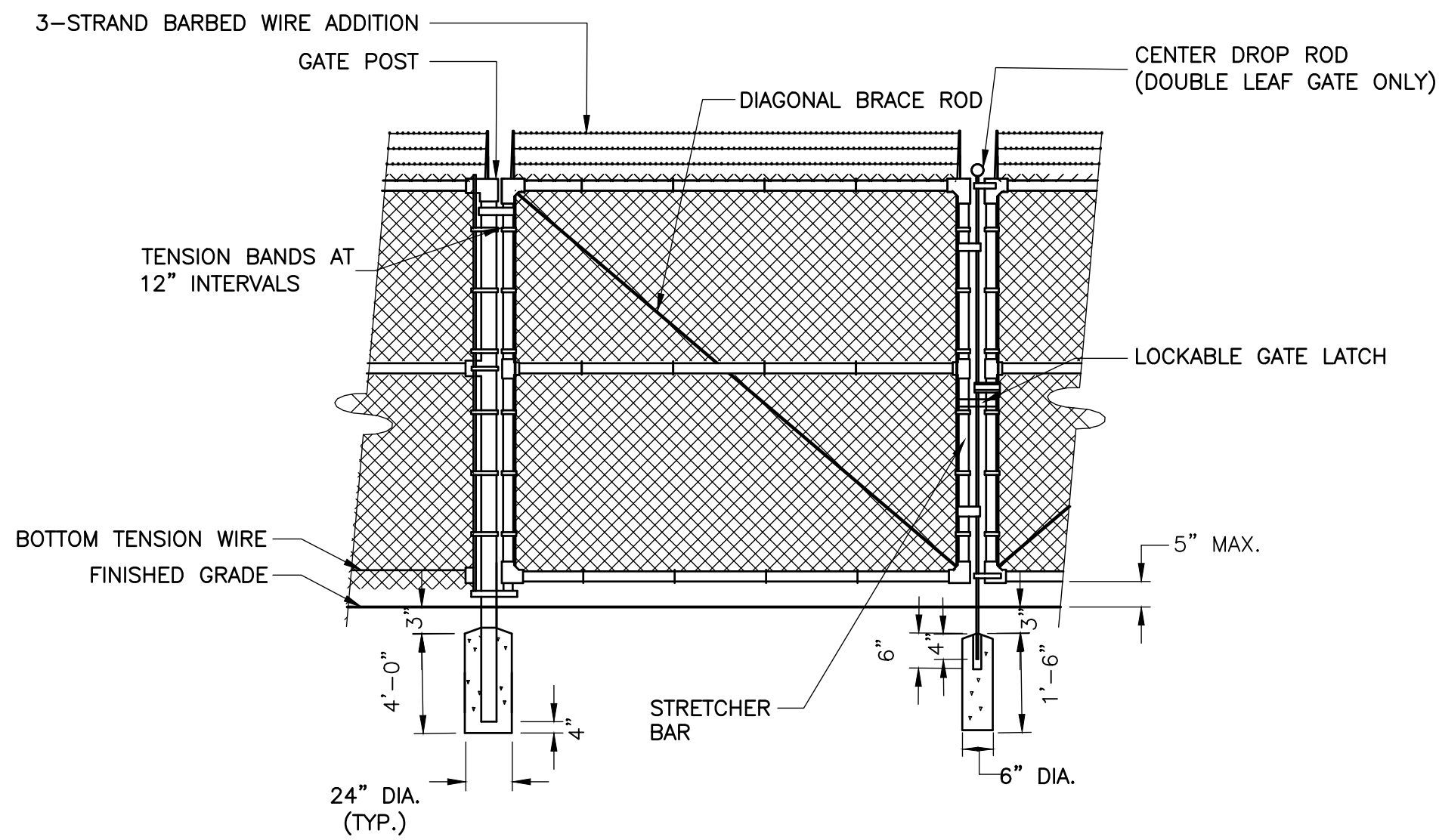


CITY OF NEW BRITAIN, CONNECTICUT
WHITE BRIDGE WATERWORKS FACILITIES
UPPER AND LOWER WELLFIELDS
AND POND PUMPING STATION

CIVIL DETAILS III

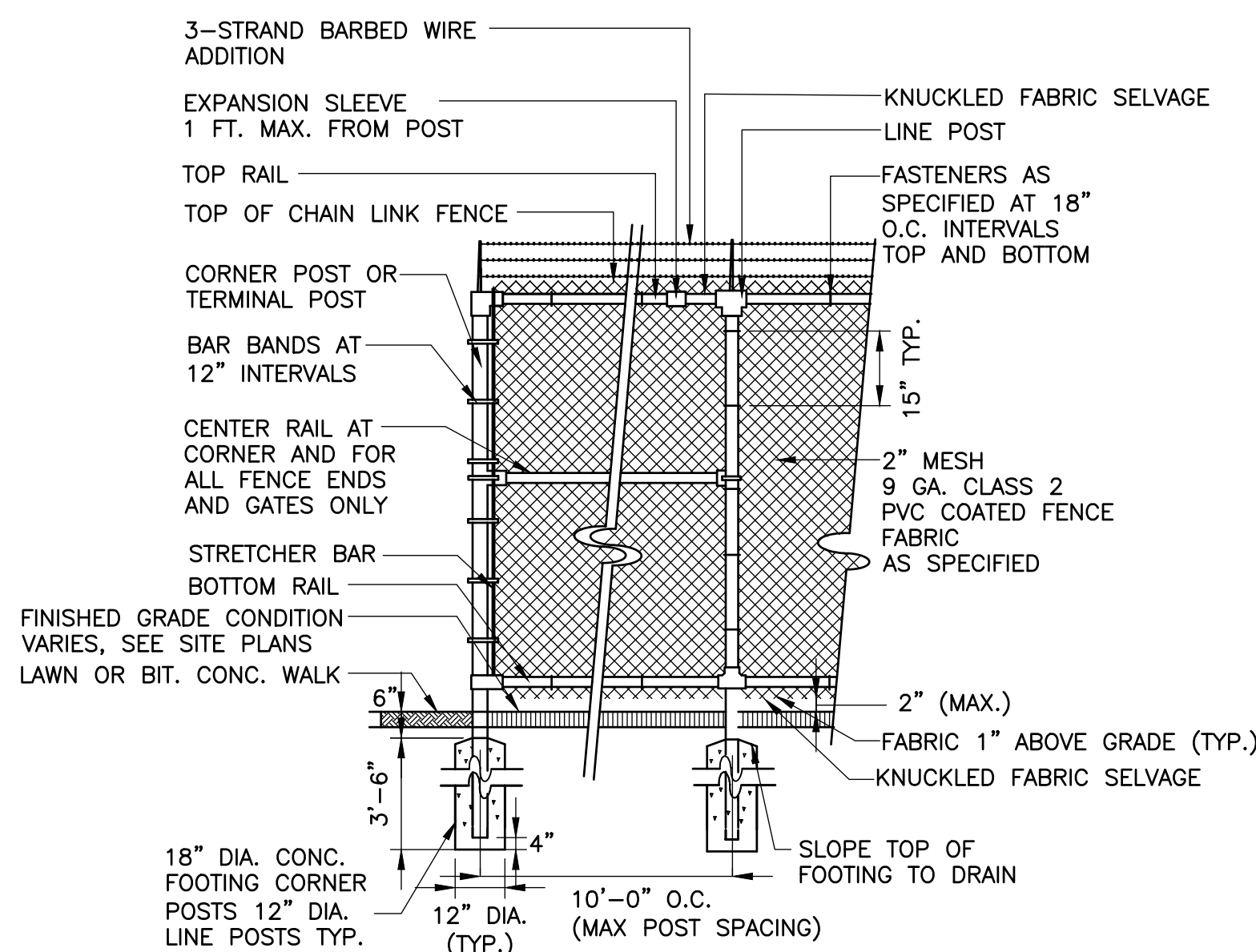
PROJECT NO.	10739-264571
FILE NAME:	CD003CSDT.DWG
SHEET NO.	C-26

XREFs: [CDMS-2436_XSWPL000_CWP00001_Floodway_Floodplain_AW2001PS - 2D Process Export]
Last saved by: ENGLESB Time: 3/24/2023 11:13:49 AM
C:\Users\englesb\Documents\CDM Smith Inc\10739-264571 - New Britain CT White Bridge Well Fields and PS\Project Files\02 Civil (C)\10 CADD\CD004CSDT.dwg
© 2023 CDM SMITH. ALL RIGHTS RESERVED.
REUSE OF DOCUMENTS: THESE DOCUMENTS AND DESIGNS PROVIDED BY PROFESSIONAL SERVICE, INCORPORATED HEREIN, ARE THE PROPERTY OF CDM SMITH AND ARE NOT TO BE USED, IN WHOLE OR PART, FOR ANY OTHER PROJECT WITHOUT THE WRITTEN AUTHORIZATION OF CDM SMITH.



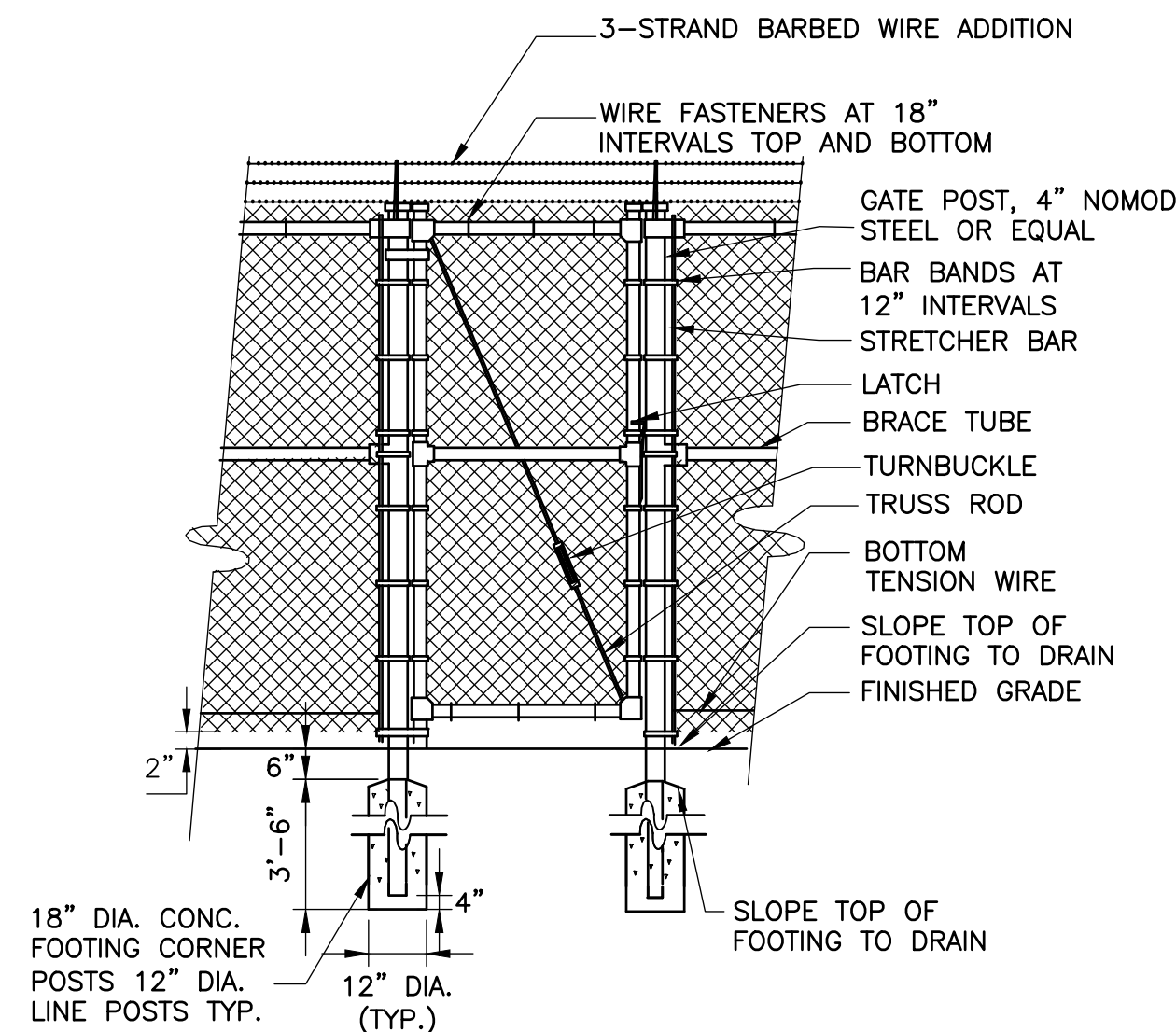
CHAIN LINK DOUBLE LEAF SWING GATE

DETAIL A
NOT TO SCALE



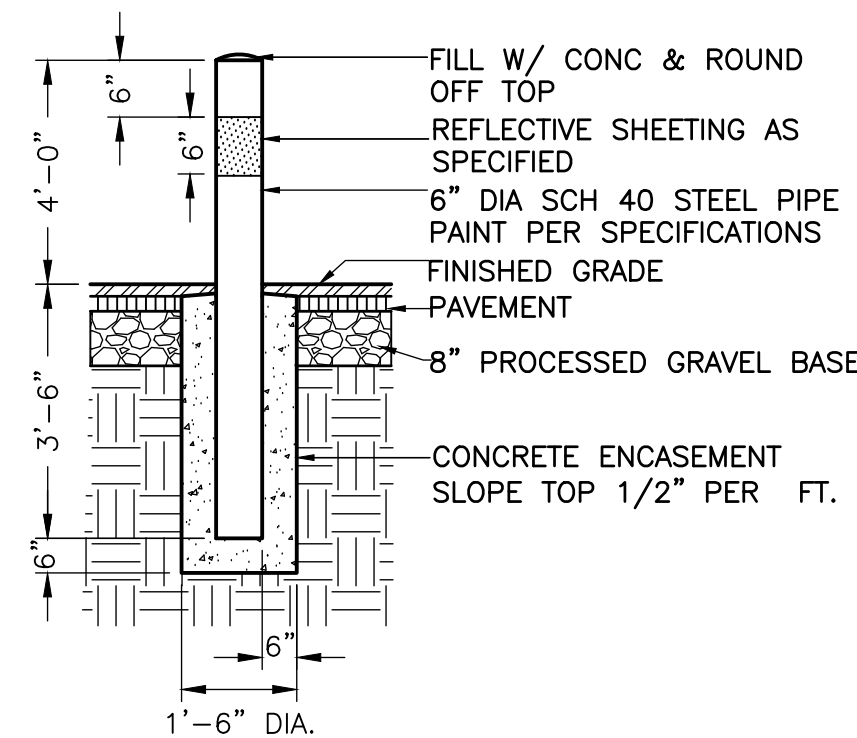
6-FT HIGH CHAIN LINK FENCE

DETAIL B
NOT TO SCALE

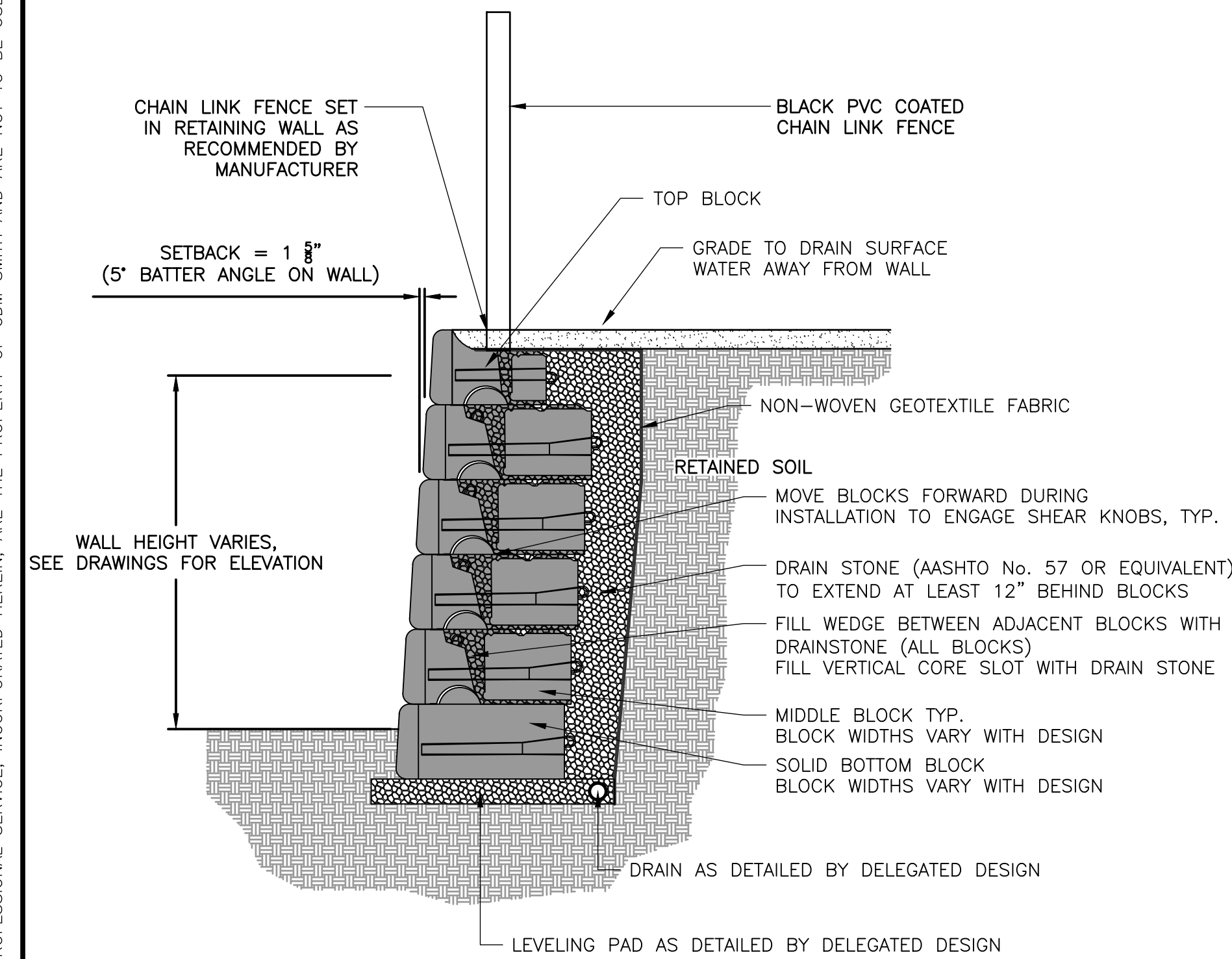


PEDESTRIAN CHAIN LINK FENCE GATE

DETAIL C
NOT TO SCALE

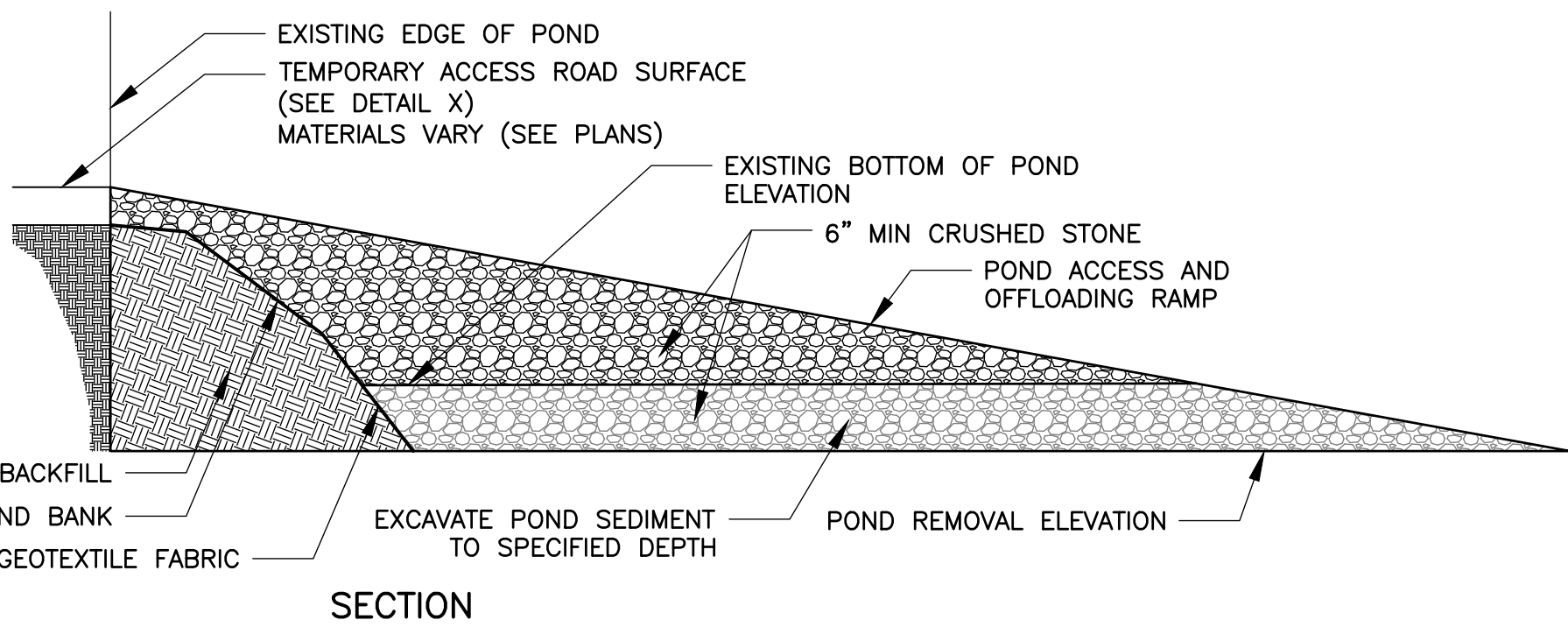
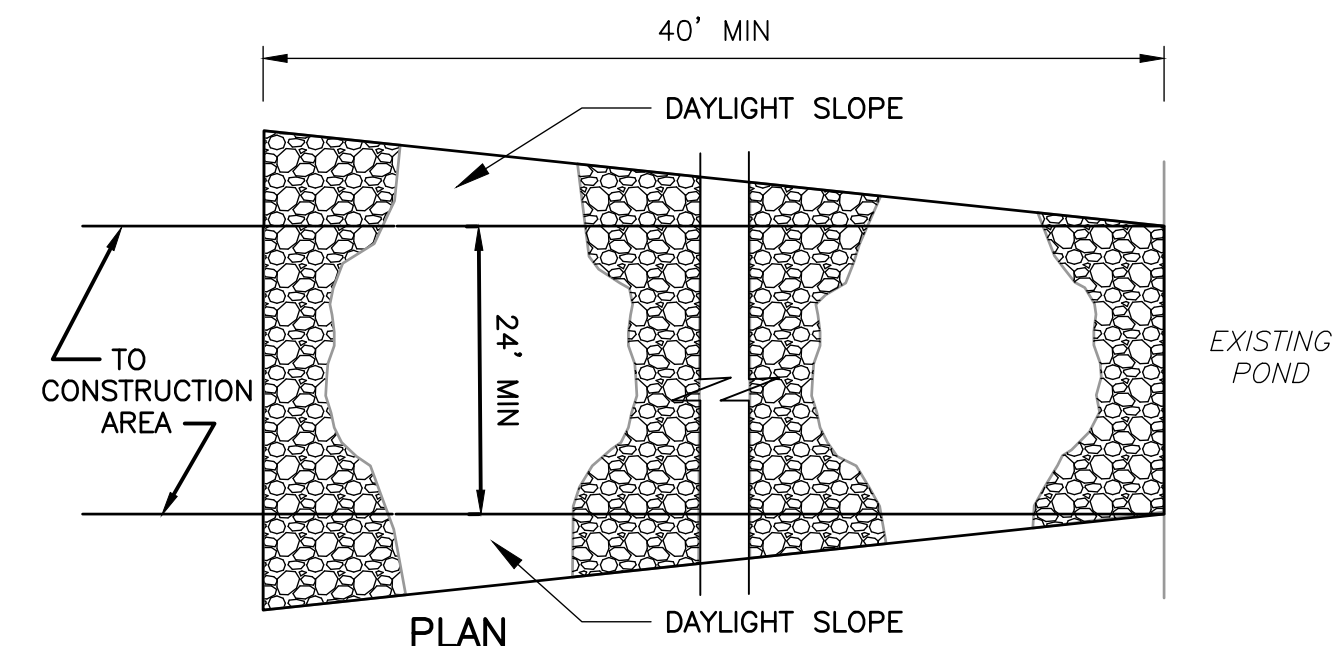


STEEL BOLLARD
DETAIL D
NOT TO SCALE



SEGMENTAL UNIT RETAINING WALL

DETAIL E
SCALE: NTS

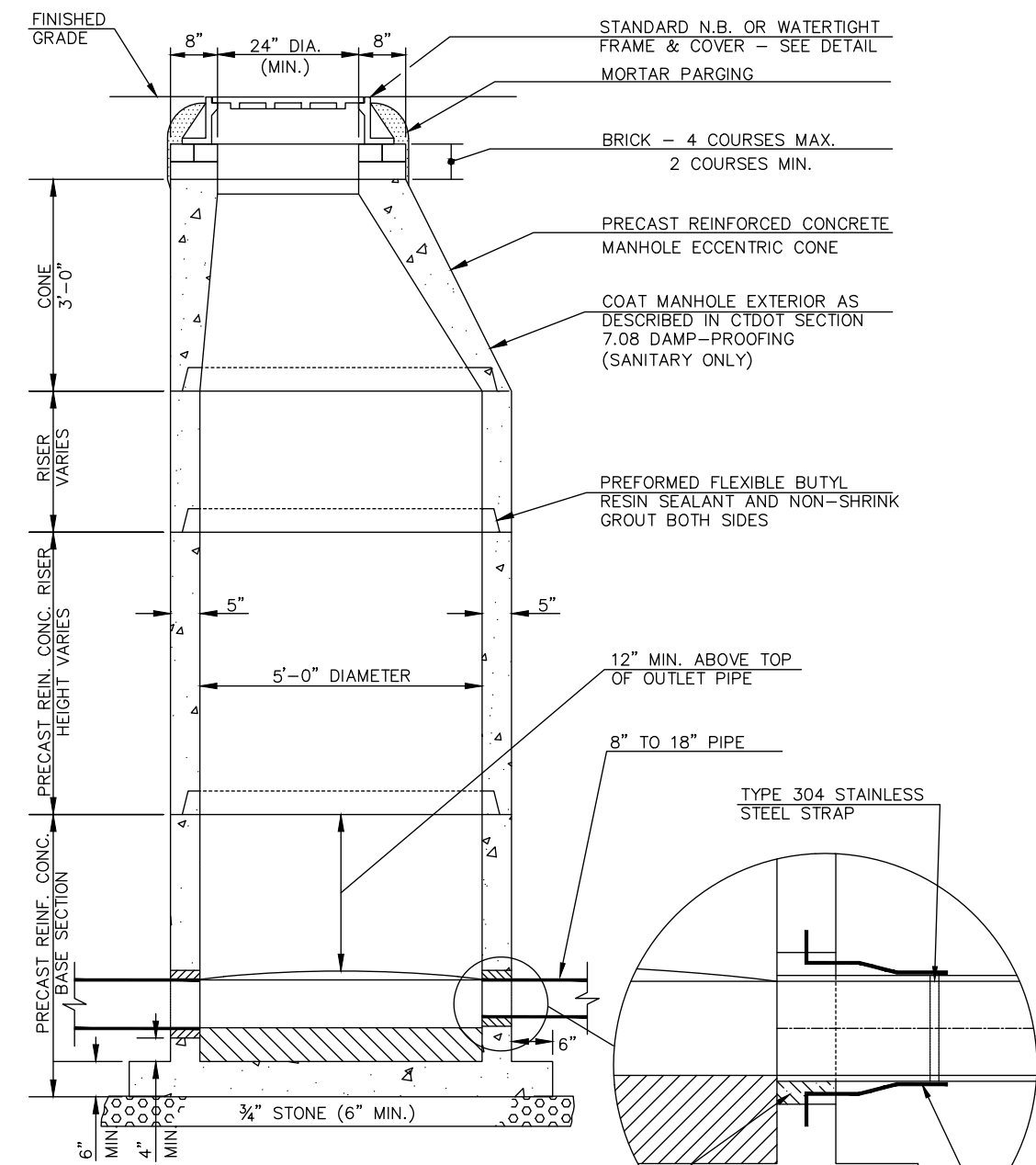


NOTES:

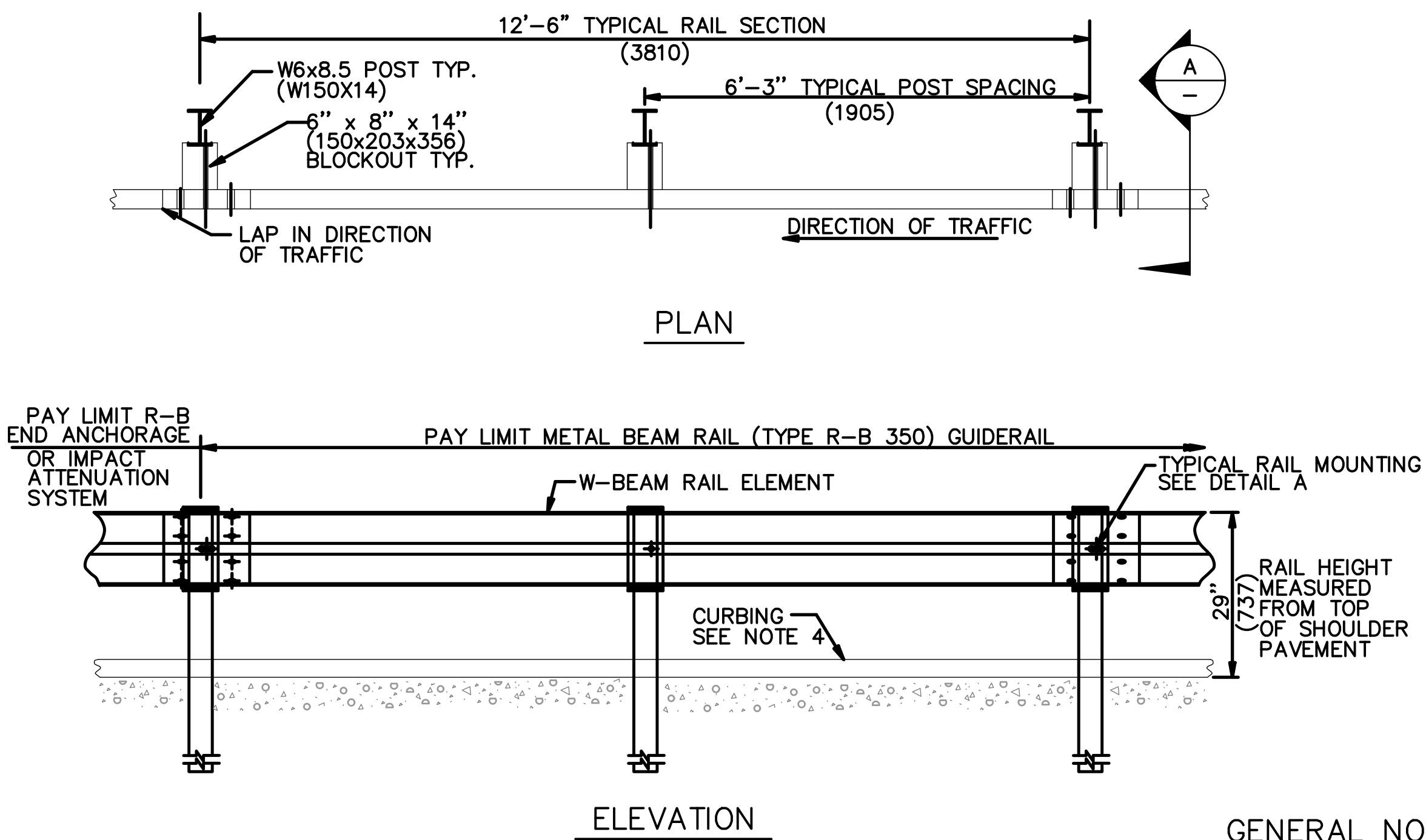
1. PROVIDE APPROPRIATE TRANSITION BETWEEN STABILIZED POND ACCESS/TRUCK OFFLOADING RAMP AND EXISTING GROUND SURFACE
2. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO GROUND SURFACE.
3. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE OR ADDING STONE TO THE LENGTH OF THE ENTRANCE.
4. REPAIR AND CLEANOUT MEASURES USED TO TRAP SEDIMENT.
5. ALL SEDIMENT SPILLED, DROPPED, WASHED, OR TRACKED SHALL BE REMOVED AS DIRECTED BY THE ENGINEER.
6. THE SLOPE OF THE POND ACCESS AND OFFLOADING RAMP TO BE DETERMINED BY CONTRACTOR BASED ON SELECTED EQUIPMENT, MEANS AND METHODS, AND APPROVED BY THE ENGINEER.
7. DAYLIGHT SLOPES OF THE RAMP WILL BE INSTALLED AS NEEDED BASED ON THE EXCAVATION DEPTH AND BANK HEIGHT TO MAINTAIN STABILITY OF THE POND ACCESS/OFFLOADING RAMP.
8. ALL MATERIAL FOR POND ACCESS/OFFLOADING RAMP IS TEMPORARY AND WILL BE REMOVED AFTER SEDIMENT REMOVAL COMPLETED. POND BANK TO BE RESTORED PER SPECIFICATIONS.

POND ACCESS AND TRUCK OFFLOADING RAMP

DETAIL F
SCALE: NTS

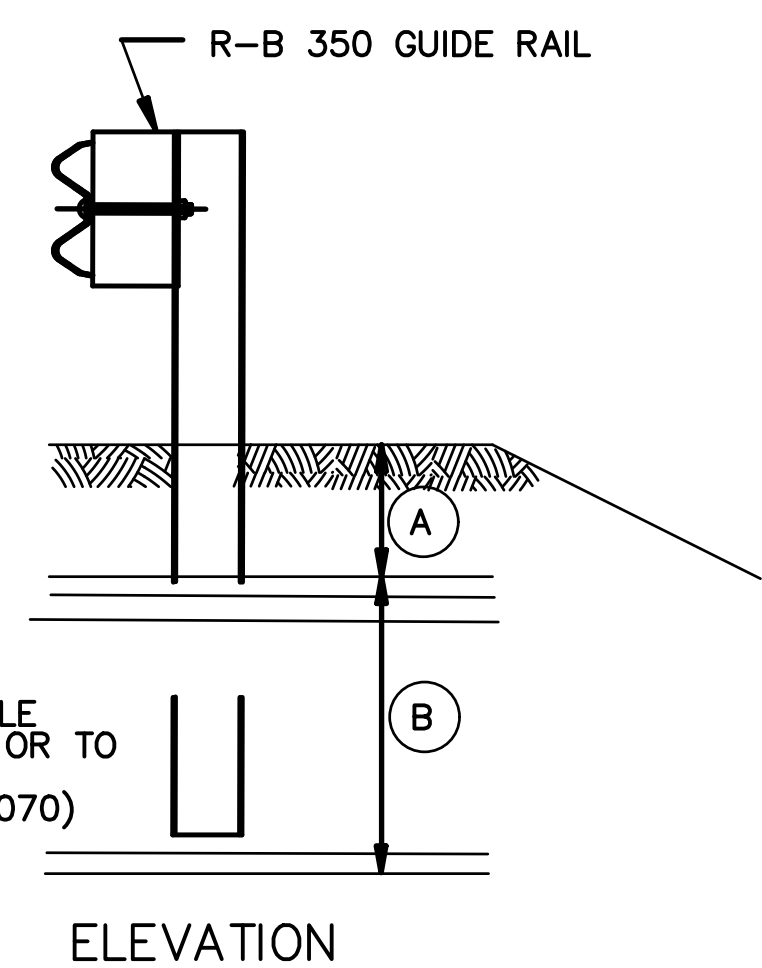


XREFs: [CDMS-2436_XSVLP000_CWP000ST_Floodway_Floodplain_AWZ001PS - 2D Process Export] Images: []
Last saved by: ENGELSB. Time: 2/28/2023 11:30:00 AM
C:\Users\engelsb\ACCDocs\CDM Smith Inc\10739-264571 - New Britain CT White Bridge Well Fields and PS\Project Files\02 Civil (C)\10 CAD\CD005CSDT.dwg
©2023 CDM SMITH. ALL RIGHTS RESERVED.
REUSE OF DOCUMENTS: THESE DOCUMENTS AND DESIGNS PROVIDED BY PROFESSIONAL SERVICE, INCORPORATED HEREIN, ARE THE PROPERTY OF CDM SMITH AND ARE NOT TO BE USED, IN WHOLE OR PART, FOR ANY OTHER PROJECT WITHOUT THE WRITTEN AUTHORIZATION OF CDM SMITH.



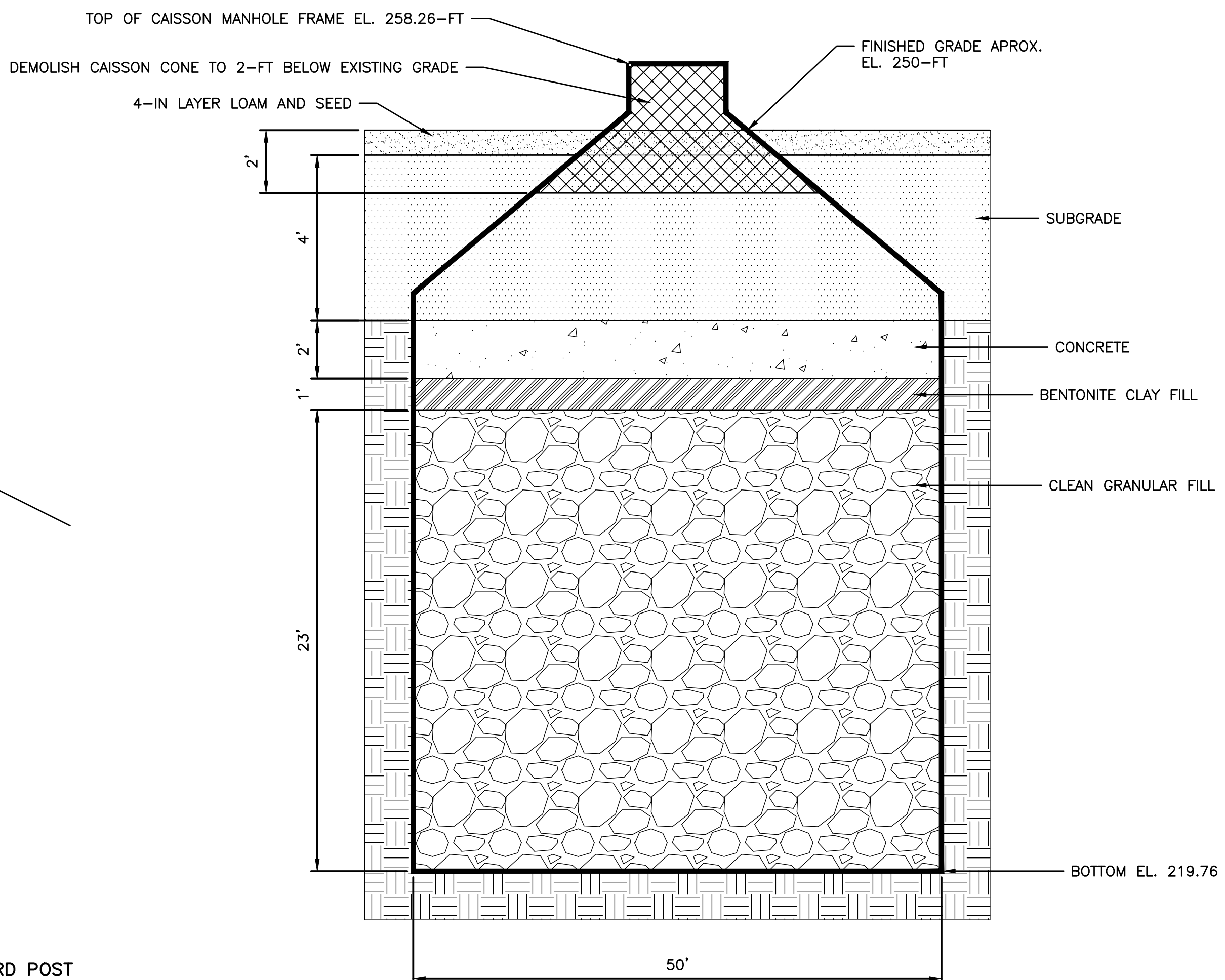
CONDITION 1 :
IF SOIL DEPTH IS < 18" (457) DEEP A
DRILL 20" (507) DIA. HOLE 24" (610) INTO LEDGE. B

CONDITION 2 :
IF SOIL DEPTH IS > 18" (457) DEEP A
DRILL 8" (203) DIA. HOLE 1' (305) INTO LEDGE B OR TO THE DEPTH OF FULL EMBEDMENT OF 42" (1070) WHICHEVER IS LESS.



GENERAL NOTES:

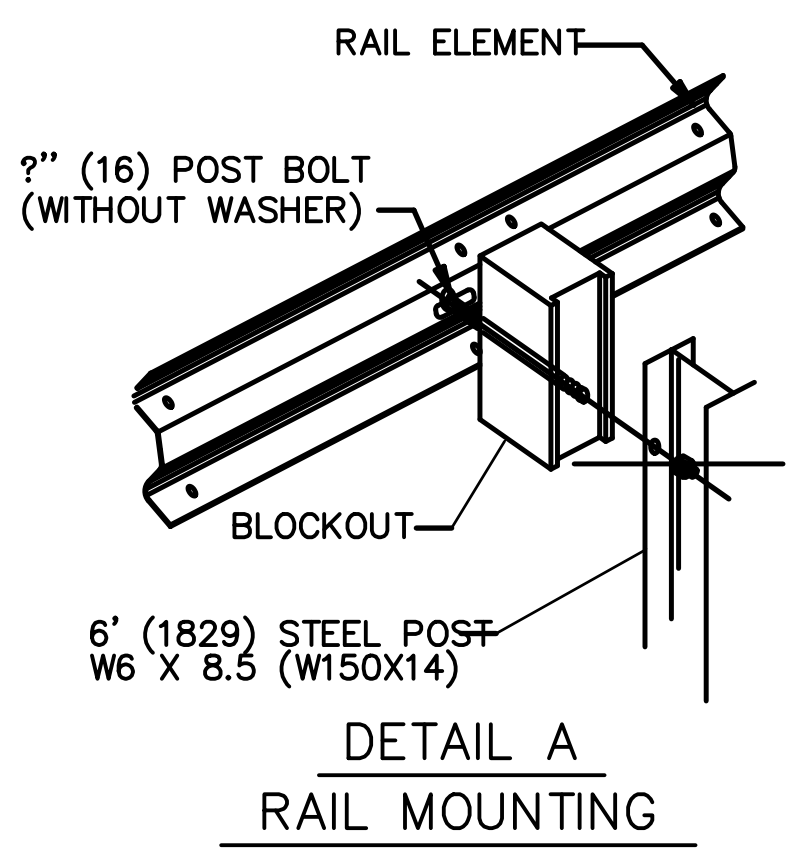
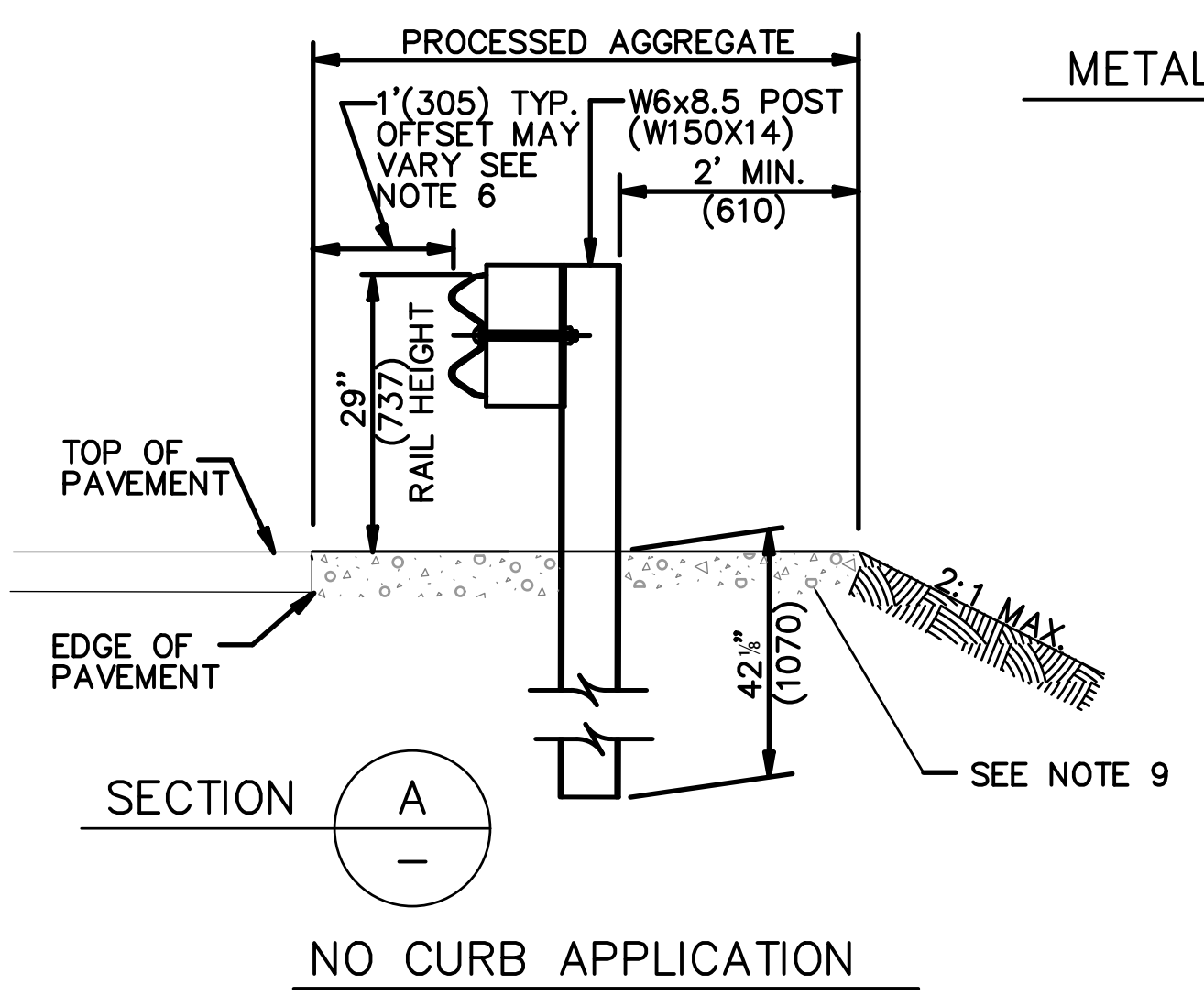
1. SEE CTDOT STANDARDS FOR HARDWARE AND DELINEATOR DETAILS.
2. MAXIMUM DESIGN DEFLECTION FOR R-B 350 GUIDERAIL AT THE STANDARD POST SPACING OF 6'-3" IS 4'-3". DEFLECTION REQUIREMENT IS MEASURED FROM THE BACK OF POST TO THE FACE OF OBJECT.
3. FOR CURVES WITH RADII OF 150'(45.7m) OR LESS, ALL RAIL ELEMENTS SHALL BE SHOP FABRICATED TO THE PROPER RADIUS AND GALVANIZED AFTER FABRICATION. RADIUS RAIL WHEN REQUIRED AND NOTED ON THE PLANS, IS INCLUDED IN THE PAY ITEM FOR GUIDERAIL.
4. RAIL HEIGHT WITH CURBING SHALL BE MEASURED FROM THE TOP OF PAVEMENT. ON HIGH SPEED ROADWAYS (>45mph 72.4kph), 4" CURBING MAY BE USED IN CONJUNCTION WITH GUIDERAIL AND THE RAIL ELEMENT SHALL BE PLACED FLUSH WITH THE FACE OF CURB. ON LOW SPEED ROADWAYS (<45mph 72.4kph), 6" CURBING MAY BE USED IN CONJUNCTION WITH GUIDERAIL AND THE RAIL ELEMENT SHALL BE PLACED A MAXIMUM OF 9" BEHIND THE FACE OF CURB.
5. THREE BLOCKOUTS MAY BE USED FOR ONE POST ONLY. TWO BLOCKOUTS MAY BE USED FOR A SERIES OF POSTS. THE COST OF ADDITIONAL BLOCKOUTS AND LONGER BOLTS SHALL BE INCLUDED IN THE BID PRICE PER FOOT OF GUIDERAIL. EXTRA BLOCKOUTS AT TRANSITION TO BRIDGE PARAPETS SHOULD BE AVOIDED.
6. W-BEAM GUIDERAIL MAY BE PLACED 1' OR MORE FROM THE EDGE OF PAVEMENT ONLY ON SLOPES 10:1 OR FLATTER AND WITHOUT CURBING. IF THE RAIL IS INSTALLED WITHIN 2' OF THE EDGE OF PAVEMENT, THE RAIL HEIGHT IS MEASURED FROM THE SHOULDER SLOPE EXTENDED TO THE RAIL. IF THE RAIL IS INSTALLED BEYOND 2' FROM THE EDGE OF PAVEMENT, THE RAIL HEIGHT IS MEASURED FROM THE GROUND DIRECTLY BELOW THE RAIL.
7. ALL R-B 350 GUIDERAIL TYPES INSTALLED ON EXPRESSWAYS AND RAMPS SHALL USE CLASS B, TYPE-II (10 GAUGE) W-BEAM RAIL ELEMENTS.
8. 20" DIA. EXCAVATED HOLE SHALL BE BACKFILLED WITH SUITABLE MATERIAL, OR GRANULAR FILL COMPACTED IN 6" LIFTS BEFORE DRIVING POST OR POSTS MAY BE SET IN EXCAVATED HOLE AND BACKFILLED WITH CONTROLLED LOW STRENGTH MATERIAL (CLSM). 8" DIA. HOLE SHALL BE BACKFILLED WITH SUITABLE MATERIAL.
9. AS DIRECTED BY THE ENGINEER AND WHERE PAVEMENT FOR RAILING IS NOT BEING INSTALLED, A MIN. 6" DEPTH OF PROCESSED AGGREGATE SHALL BE INSTALLED FROM THE PAVEMENT EDGE OR BACK OF CURB TO A MINIMUM OF 2' BEHIND THE GUIDERAIL POST AND COMPACTED IN 6" LIFTS.
10. MINIMUM RAIL HEIGHT FOR NEW CONSTRUCTION SHALL BE 29" + 1".



NOTES:
1. EXISTING CAISSON WELL TO BE DECOMMISSIONED AND ABANDONED AS REQUIRED IN SECTION 019416, APPENDED TO THE SPECIFICATIONS.
2. CAISSON TOP CONE TO BE DEMOLISHED TO AT LEAST 2 FEET BELOW FINISH GRADE.

CAISSON DECOMMISSIONING AND ABANDONMENT

DETAIL B
NOT TO SCALE



METAL BEAM RAIL
DETAIL A
NOT TO SCALE

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: K. GERLACH
DRAWN BY: J. BRONENKANT
SHEET CHK'D BY: K. WAGNER
CROSS CHK'D BY: K. GERLACH
APPROVED BY: K. WAGNER
DATE: APRIL 2023

77 Hartland Street, Suite 200
East Hartford, CT 06108
Tel: (860) 529-7615

CITY OF NEW BRITAIN, CONNECTICUT
WHITE BRIDGE WATERWORKS FACILITIES
UPPER AND LOWER WELLFIELDS
AND POND PUMPING STATION

CIVIL DETAILS V
SHEET NO. C-28

PROJECT NO. 10739-264571
FILE NAME: CD005CSDT.DWG
SHEET NO. C-28

1. IF A TRAFFIC STOPPAGE OCCURS IN ADVANCE OF SIGN (A), THEN AN ADDITIONAL SIGN (A) SHALL BE INSTALLED IN ADVANCE OF THE STOPPAGE.
2. SIGNS (A), (A), (A), AND (D) SHOULD BE OMITTED WHEN THESE SIGNS HAVE ALREADY BEEN INSTALLED TO DESIGNATE A LARGER WORK ZONE THAN THE WORK ZONE THAT IS ENCOMPASSED ON THIS PLAN.
3. SEE TABLE 1 FOR ADJUSTMENT OF TAPERS IF NECESSARY.
4. IF THIS PLAN REMAINS IN CONTINUOUS OPERATION FOR MORE THAN 36 HOURS, THEN TRAFFIC DRUMS SHALL BE USED IN PLACE OF TRAFFIC CONES.
5. ANY LEGAL SPEED LIMIT SIGNS WITHIN THE LIMITS OF A ROADWAY / LANE CLOSURE AREA SHALL BE COVERED WITH AN OPAQUE MATERIAL WHILE THE CLOSURE IS IN EFFECT, AND UNCOVERED WHEN THE ROADWAY / LANE CLOSURE IS RE-OPENED TO ALL LANES OF TRAFFIC.
6. IF THIS PLAN REMAINS IN CONTINUOUS OPERATION FOR MORE THAN 36 HOURS, THEN ANY EXISTING CONFLICTING PAVEMENT MARKINGS SHALL BE ERADICATED OR COVERED, AND TEMPORARY PAVEMENT MARKINGS THAT DELINEATE THE PROPER TRAVEL PATHS SHALL BE INSTALLED.
7. DISTANCES BETWEEN SIGNS IN THE ADVANCE WARNING AREA MAY BE REDUCED TO 100' ON LOW-SPEED URBAN ROADS (SPEED LIMIT < 40 MPH).
8. IF THIS PLAN IS TO REMAIN IN OPERATION DURING THE HOURS OF DARKNESS, INSTALL BARRICADE WARNING LIGHTS - HIGH INTENSITY ON ALL POST-MOUNTED DIAMOND SIGNS IN THE ADVANCE WARNING AREA.
9. A CHANGEABLE MESSAGE SIGN SHALL BE INSTALLED ONE HALF TO ONE MILE IN ADVANCE OF THE LANE CLOSURE TAPER.
10. SIGN (P) SHALL BE MOUNTED A MINIMUM OF 7 FEET FROM THE PAVEMENT SURFACE TO THE BOTTOM OF THE SIGN.

POSTED SPEED LIMIT (MILES PER HOUR)	MINIMUM TAPER LENGTH FOR A SINGLE LANE CLOSURE
30 OR LESS	180' (55m)
35	250' (75m)
40	320' (100m)
45	540' (165m)
50	600' (180m)
55	660' (200m)
65	780' (240m)



SCALE: NONE

DENOTES APPROXIMATE LOCATION OF UNIFORMED FLAGGER, TRAFFICPERSON OTHER THAN POLICE OFFICERS SHALL USE SIGN 80-9950 MOUNTED ON A 6' MIN. STAFF.

SHOULDER

SHOULDER

ADVANCE WARNING AREA

ACTIVITY AREA

TERMINATION AREA 500'

WORK AREA

ADVANCE WARNING AREA

ROAD WORK AHEAD

200'

500'

500'

500'

400'

40' BUFFER AREA

5 TRAFFIC CONES/DRUMS - 100' MAX

40' BUFFER AREA

5 TRAFFIC CONES/DRUMS - 100' MAX

SEE TABLE 6E-1

500'

500'

500'

200'

FROM THE MUTCD (2009 EDITION)

Table 6E-1 Stopping Sight Distance as a Function of Speed

Speed (mph)	Distance (ft)
20	115
25	155
30	200
35	250
40	305
45	360
50	425
55	495

80-9950 SIDE A SIDE B

STOP 15' SLOW

80-9803

80-9834

ONE LANE ROAD AHEAD

80-9603

31-1906

ROAD WORK AHEAD FINES DOUBLED



SCALE: NONE

THE FOLLOWING METHODS FROM SECTION 6E.07, FLAGGER PROCEDURES, IN THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES," SHALL BE USED BY UNIFORMED FLAGGERS WHEN DIRECTING TRAFFIC THROUGH A WORK AREA. THE STOP/SLOW SIGN PADDLE (SIGN NO. 80-9950) SHOWN ON THE TRAFFIC STANDARD SHEET TR-1220 01 ENTITLED, "SIGNS FOR CONSTRUCTION AND PERMIT OPERATIONS" SHALL BE USED.

TO STOP ROAD USERS, THE FLAGGER SHALL FACE ROAD USERS AND AIM THE STOP PADDLE FACE TOWARD ROAD USERS IN A STATIONARY POSITION WITH THE ARM EXTENDED HORIZONTALLY AWAY FROM THE BODY. THE FREE ARM SHALL BE HELD WITH THE PALM OF THE HAND ABOVE SHOULDER LEVEL TOWARD APPROACHING TRAFFIC.

TO DIRECT STOPPED ROAD USERS TO PROCEED, THE FLAGGER SHALL FACE ROAD USERS WITH THE SLOW PADDLE FACE AIMED TOWARD ROAD USERS IN A STATIONARY POSITION WITH THE ARM EXTENDED HORIZONTALLY AWAY FROM THE BODY. THE FLAGGER SHALL MOTION WITH THE FREE HAND FOR ROAD USERS TO PROCEED.

TO ALERT OR SLOW TRAFFIC, THE FLAGGER SHALL FACE ROAD USERS WITH THE SLOW PADDLE FACE AIMED TOWARD ROAD USERS IN A STATIONARY POSITION WITH THE ARM EXTENDED HORIZONTALLY AWAY FROM THE BODY. TO FURTHER ALERT OR SLOW TRAFFIC, THE FLAGGER HOLDING THE SLOW PADDLE FACE TOWARD ROAD USERS MAY MOTION UP AND DOWN WITH THE FREE HAND, PALM DOWN.



SCALE: NONE

The diagram illustrates a two-lane road construction zone. The road is divided into a left lane, a center buffer area, and a right lane. The right lane is closed for work, and the shoulder is also used for work. The diagram shows the sequence of areas from the start of the work zone to the end.

Key Areas and Distances:

- Advance Warning Area:** 200' (before the work zone start).
- Activity Area:** 500' (within the work zone).
- Termination Area:** 100' (at the end of the work zone).
- Work Area:** 80' (the closed lane).
- Buffer Area:** 80' (between the work area and the transition area).
- Transition Area:** 20' (between the buffer area and the advance warning area).
- Shoulder Work Area:** 200' (on the shoulder, adjacent to the work area).

Signage and Markings:

- Advance Warning Sign (A):** 4' x 4' sign with "END ROAD WORK" text.
- Shoulder Closed Sign (N):** Diamond-shaped sign with "SHOULDER CLOSED" text.
- Road Work Ahead Sign (A):** Diamond-shaped sign with "ROAD WORK AHEAD" text.
- Road Work Ahead Sign (AA):** 31-1906 sign with "ROAD WORK AHEAD FINES DOUBLED" text.

Speed and Lane Markings:

- Speed Limit:** 40 mph.
- Cones/Orlums:** Installed in the buffer area and transition area.
- Cones/Orlums Spacing:** 40' and 80'.
- Cones/Orlums Length:** 100' and 20'.
- Cones/Orlums Width:** 40' and 20'.



SCALE: NONE

The diagram illustrates a two-lane road with a center turn lane, showing traffic control for a single-lane advance warning. The road is divided into several sections for both directions of travel (indicated by arrows).

Advance Warning Area: 200' and 500'.

Transition Area: 120'.

Buffer Area: 120'.

Work Area: 120'.

Termination Area: 120'.

Activity Area: 120'.

Speed Limits and Cone/Drum Spacing:

SPEED	TAPER	CONES/DRUMS
<40 mph	160'	20'
40-60 mph	320'	40'

Signage:

- 80-9612: END ROAD WORK (Rectangular sign, 4' wide, 2' high).
- 80-9603: ROAD WORK AHEAD (Diamond sign, 3' wide, 3' high).
- 31-1906: ROAD WORK AHEAD FINES DOUBLED (Rectangular sign, 4' wide, 3.5' high).

Other Details:

- Shoulder width: 11' MIN.
- Work area width: 11' MIN.
- Signage codes: AA, A, D.



SCALE: NONE

The diagram illustrates a two-lane road construction zone with lane closure and lane shifting. It shows the layout for both directions of travel, including advance warning, transition, work, and termination areas. Key dimensions and components include:

- Advance Warning Area:** 200' for both directions.
- Transition Area:** 500' for both directions.
- Work Area:** 120' for both directions.
- Buffer Area:** 120' for both directions.
- Termination Area:** 120' for both directions.
- Shoulder:** 11' MIN for both directions.
- Signs:**
 - 80-9612: END ROAD WORK (4' x 4')
 - 31-1526: Right turn arrow (2' x 2.5')
 - 80-9603: ROAD AHEAD (3' x 3')
 - 31-1906: ROAD WORK AHEAD FINES DOUBLED (3.5' x 4')
- Installation Details:**
 - INSTALL 8 CONES/DRUMS: SPEED LIMIT, TAPER LENGTH, CONE/DRUM SPACING.
 - <40 mph: 160' TAPER, 20' SPACING
 - >40 mph: 320' TAPER, 40' SPACING
 - INSTALL 8 CONES/DRUMS: SPEED LIMIT, TAPER LENGTH, CONE/DRUM SPACING.
 - <40 mph: 160' TAPER, 20' SPACING
 - >40 mph: 320' TAPER, 40' SPACING

SCALE: NONE

The diagram illustrates a four-way intersection with various traffic control and road work details. Key elements include:

- Intersection Details:**
 - Top Approach:** Features a 200' segment followed by a 500' segment, with a 11' MIN clearance. A sign (A) is located at the 200' mark, and a sign (AA) is at the 500' mark.
 - Right Approach:** Features a 500' segment followed by a 200' segment, with a 11' MIN clearance. A sign (A) is located at the 200' mark, and a sign (AA) is at the 500' mark.
 - Bottom Approach:** Features a 200' segment followed by a 500' segment, with a 11' MIN clearance. A sign (AA) is located at the 200' mark, and a sign (A) is at the 500' mark.
 - Left Approach:** Features a 200' segment followed by a 500' segment, with a 11' MIN clearance. A sign (AA) is located at the 200' mark, and a sign (A) is at the 500' mark.
- Central Work Area:** A rectangular area labeled "WORK AREA" is located in the center of the intersection. It is surrounded by a 11' MIN clearance. Signs (H) are placed at the corners of the work area.
- Signage and Markings:**
 - Sign (D):** 80-9612, "END ROAD WORK".
 - Sign (H):** 31-1526, "ROAD WORK AHEAD".
 - Sign (A):** 80-9603, "ROAD WORK AHEAD".
 - Sign (AA):** 31-1906, "ROAD WORK AHEAD".
- Dimensions and Spacing:**
 - Dimensions of 200' and 500' are shown for the approach segments.
 - Dimensions of 11' MIN are shown for the clearance around the work area.
 - Dimensions of 2' and 2.5' are shown for the sign placement.
 - Dimensions of 3' and 3.5' are shown for the sign placement.
 - Dimensions of 4' and 4.5' are shown for the sign placement.
- Table:**

TYP. TAPER			
INSTALL 6 CONES/DUMPS			
SPEED	TAPER	CONES/DUMPS	SPACING
<40 mph	260'	20'	60'
40-60 mph	320'	20'	60'
>60 mph	320'	20'	60'



SCALE: NONE

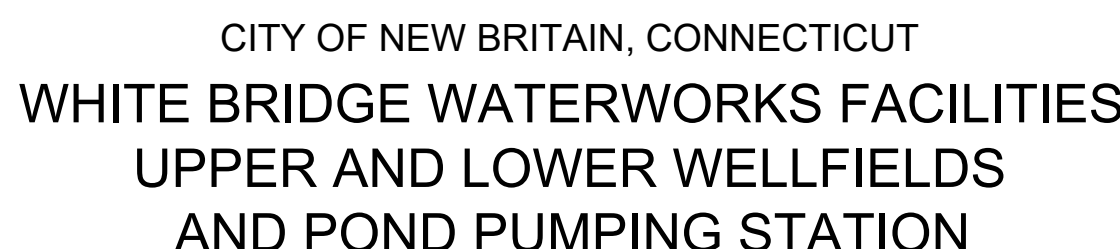
The diagram illustrates a single-lane road work zone layout. Key components include:

- Advance Warning Area:** Located at both ends of the zone, featuring a series of 'A' (Advance Warning) signs with dimensions of 200', 500', 500', 500', and 20'.
- Activity Area:** The central area where work is performed, flanked by 40' buffer areas.
- Work Area:** The specific area where construction or maintenance is taking place, marked with a 'W' sign.
- Termination Area:** Located at the end of the work area, featuring a series of 'D' (End of Road Work) signs with dimensions of 120' and 100'.
- Signage:** Various signs are used throughout the zone, including 'STOP' signs, 'ONE LANE ROAD AHEAD' signs, and 'ROAD WORK AHEAD' signs.
- Dimensions:** Specific dimensions are provided for various areas, such as 120' for the termination area, 40' for the buffer area, and 24' for the stop bar.
- Sign Numbers:** Sign numbers are provided for several signs, including 31-0557, 80-9050, 80-9834, 80-9603, and 31-1906.



SCALE: NGSE

**CDM
Smith**
101 East River Drive, Suite 1A
East Hartford, CT 06108
Tel: (860) 529-7615



PROJECT NO.	10739-264571
FILE NAME:	C029TRFC.DWG
SHEET NO.	C-29

Pumping Station					
Fill			Cut		
Contour	Volume C.F.		Contour	Volume C.F.	Net C.F.
250	8,622		250	0	8,622
251	17,313		251	183	17,130
252	29,777		252	4,202	25,575
253	28,376		253	4,202	24,175
254	25,800		254	4,202	21,598
255	23,466		255	4,202	19,264
256	21,270		256	4,202	17,069
257	14,512		257	4,202	10,311

143,745 Fill C.F.

Upper Wellfield					
Fill			Cut		
Contour	Volume C.F.		Contour	Volume C.F.	Net C.F.
256	2,257		256	0	2,257
257	3,806		257	0	3,806
258	5,733		258	0	5,733
259	2,045		259	0	2,045

13,840 Fill C.F.

Lower Wellfield					
Fill			Cut		
Contour	Volume C.F.		Contour	Volume C.F.	Net C.F.
248	914		248	0	914
249	3,932		249	0	3,932
250	0		250	0	0
251	0		251	112	-112
252	6,011		252	635	5,376
253	4,374		253	416	3,958
254	2,994		254	324	2,670
255	1,859		255	251	1,609
256	991		256	151	840
257	0		257	107	-107

19,077 Fill C.F.

Total Project Fill
176,662 Fill C.F.
6,543 Fill C.Y.

Complying Quantity Reference Sheet	UWF Total Needed (C.F.)
CS-1/2	2,257
CS-1/2	3,806
CS-1/2	5,733
CS-1/2	2,045

Complying Quantity Reference Sheet	LWF Total Needed Including Pumping Station (C.F.)
CS-4	914
CS-4	3,932
CS-4	8,622
CS-4	17,019
CS-3/4	30,951
CS-3/4	28,132
CS-3/4	24,268
CS-1/3/4	20,873
CS-3/4	17,908
CS-3/4	10,204

Contour	CS-1	CS-2	CS-3	CS-4	Total (C.F.)	Difference (C.F.)	Over or Need
256	3,903	1,493			5,396	3,139	OVER
257	4,859	6,077			10,936	7,130	OVER
258	23,973	3,689	11,977		39,639	33,906	OVER
259	21,846	1,469	10,447		33,762	31,717	OVER

89,733 C.F. Storage

Note: 1,397 C.F. of this total applied to the Lower Wellfield at contour 256'.

Contour	CS-1	CS-2	CS-3	CS-4	Total (C.F.)	Difference (C.F.)	Over or Need
248				29,192	29,192	28,278	OVER
249				27,921	27,921	23,989	OVER
250				24,902	24,902	16,280	OVER
251				20,309	20,309	3,290	OVER
252			32,168	16,115	48,283	17,332	OVER
253			47,369	13,469	60,838	32,706	OVER
254			20,100	7,973	28,073	3,805	OVER
255	3,004		17,436	3,387	23,827	2,954	OVER
256			15,162	1,349	16,511	-1,397	EVEN
257			13,541	205	13,746	3,542	OVER

293,602 C.F. Storage

Note: Short fall of 1,397 C.F. has been applied from compensatory storage contour 256' at Upper Wellfield.

Total Project CS
383,335 C.F. Storage
14,198 C.Y. Storage

APPLICATION NO. #24-458F-306

DATE FILED: 1/25/24

APPROVED: _____

DENIED: _____

**BRISTOL FLOOD & EROSION COMMISSION
FLOOD PLAIN APPLICATION
PERMIT FOR FLOOD PLAIN DEVELOPMENT**

1. APPLICANT:

Name: City of Bristol - DPW Signature: [Signature]

Address: 111 North Main Street City: Bristol State: CT Zip: 06010

Telephone No.: (860) 584 - 6125 ☐ home ☒ work

2. PROPERTY OWNER(S):

Name: See "Attachment A" Signature: [Signature]

Address: (1) 87 Collins Road, (2) ~~77 Collins Road~~ ^{53-50 Collins Rd. W.R.S.}, (3) Stafford Ave. City: Bristol State: CT Zip: 06010

Telephone No.: _____ ☐ home ☐ work

3. DESCRIBE THE SUBJECT PROPERTY: 53-50 Collins Rd. W.R.S.

Address or Location: (1) 87 Collins Road, (2) ~~77 Collins Road~~, (3) New Britain Water Property off Stafford Ave.

Assessor's Map No.: (1)53,(2)53,(3)53 Assessor's Lot No.(s): (1)51B, (2)50, (3)147

Street of Access: 87 Collins Road

Name of Watercourse or Water Body: Copper Mine Brook

FIRM Panel Number: 458 Total Area of Lot(s): _____

4. PROJECT DESCRIPTION:

Flood Plain use for which the applicant is seeking a permit. (check one)

☐ a. Permitted Use ☒ b. Regulated Use ☐ c. Special Exception

Describe the proposed activity and its purpose: Installation of a new drainage pipe approximately 495 ft in length which will run from Collins Road to an existing stream to the northwest. The purpose of this project is to replace an existing drainage pipe which is currently undersized.

Proposed encroachment of Flood fringe area (S.F. or acres): 0.115 ac

Proposed encroachment of Regulated Floodway (S.F. or acres): ~~0.000 ac~~ 0.023 ac W.R.S.

Proposed alteration of Watercourse (L.F., S.F. or acres): 0.000 ac

Flood proofing techniques proposed: N/A

Disturbance of designated wetland area: ☐ No ☒ Yes: Permit Number: _____

Date applied for: _____ Disposition: _____

BFEC-12/01

**BRISTOL FLOOD & EROSION COMMISSION
FLOOD PLAIN APPLICATION
PERMIT FOR FLOOD PLAIN DEVELOPMENT**

Page 2

5. TECHNICAL & PLANNING DATA:

Project Specifics: Provide the following information from official sources or submitted documentation.

All elevations are to be relative to mean sea level.

Existing base flood flow rate: NA Source: NA
Existing base flood elevation: 255.5 Source: Flood Insurance Rate Map
Lowest floor elevation of existing buildings including garage or basements: 87 Collins Basement EL. 253.33
Lowest floor elevation of proposed building including garage or basements: N/A
Will there be dry access to the structure(s) during the 100 year flood? N/A

Floodplain Alterations Proposed:

Volume of displaced Flood Plain: 0.00 AC
Volume of mitigated Flood Plain: 0.00 AC

Floodway Alterations Proposed:

Length of reconstructed or altered floodway: N/A
Proposed base flood flow rate: N/A
Proposed base flood elevation: N/A

6. AUTHORIZATIONS AND CERTIFICATIONS:

- a. I/we hereby authorize the commissioners and agents of the Bristol Flood and Erosion Agency to inspect the subject property at reasonable times, both before and after a final decision has been made regarding this application or request.
- b. I/we hereby certify that I/we am/are familiar with the information included in this application and am/are aware that the law provides that any person who commits, takes part in, or assists in any violation of any provision of the Connecticut General Statutes, including regulations adopted by the Commissioner of Environmental Protection and ordinances and regulations of the City of Bristol through its Flood and Erosion Agency and Inland Wetlands Agency, shall be assessed a civil penalty of not more than one thousand dollars for each offense. I/we further certify that I/we am/are aware that it is a violation of law to obtain a flood plain permit or ruling through deception or through inaccurate or misleading information.
- c. I/we hereby certify that this application shall be considered complete only when all information and documents required by the Administrator have been submitted.

7. SUBMISSION REQUIREMENTS:

The following shall be included as part of this application:

- filing fee – make checks payable to "City of Bristol,"
\$5.00 Permitted Use, \$50.00 for Regulated Use, and \$100.00 for Special Exception
 - ten copies of a Site Plan showing existing and proposed conditions in relation to the flood plain, floodway, watercourses, and/or wetlands prepared in accordance with the Regulations,
 - any other information as may be required by the Agency
- ☐ Site Plans ☐ Detail Plans ☐ Construction Specifications
☐ Drainage Computations ☐ Flood Proofing Details ☐ Flood Proofing Certification

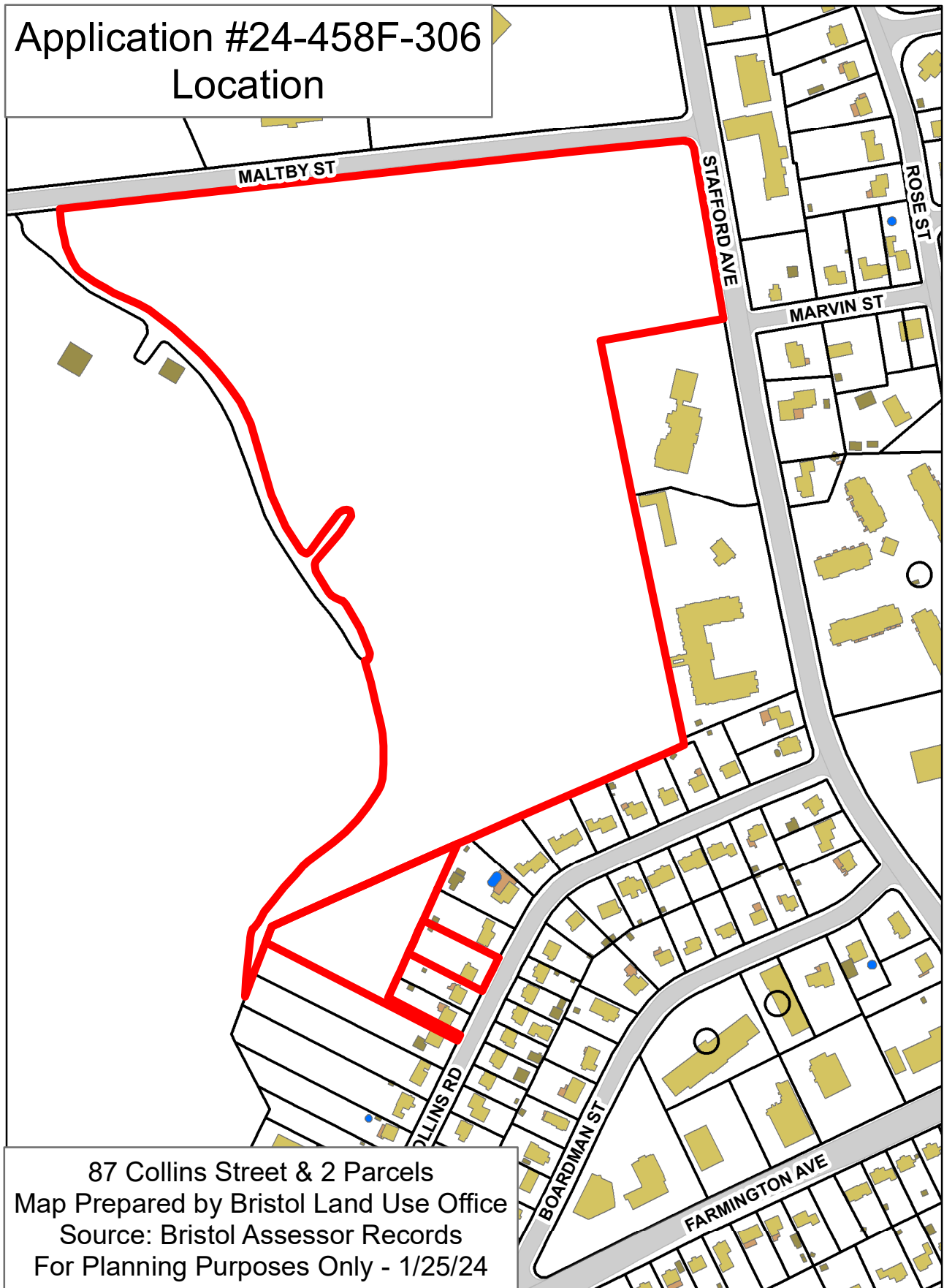
BFEC-12/01

ATTACHMENT A

Property Owner(s): All proposed work will take place within existing or proposed easements in favor of The City of Bristol. The owners of the properties in which the easement exists are as follows.

- (1) Michelle McKenney – 87 Collins Road, Bristol CT
- (2) Gary Hoxha – 53-50 Collins Road, Bristol CT
- (3) New Britain Water Dept – 53-147 Vacant Water Department Land Off of Stafford Ave.

Application #24-458F-306
Location



87 Collins Street & 2 Parcels
Map Prepared by Bristol Land Use Office
Source: Bristol Assessor Records
For Planning Purposes Only - 1/25/24

Application #24-458F-306
Aerial



87 Collins Street & 2 Parcels
Map Prepared by Bristol Land Use Office
Source: Bristol Assessor Records
For Planning Purposes Only - 1/25/24

Application #24-458F-306 FEMA

Legend

 SITE

FEMA_draft_Fall2023

FLD_ZONE

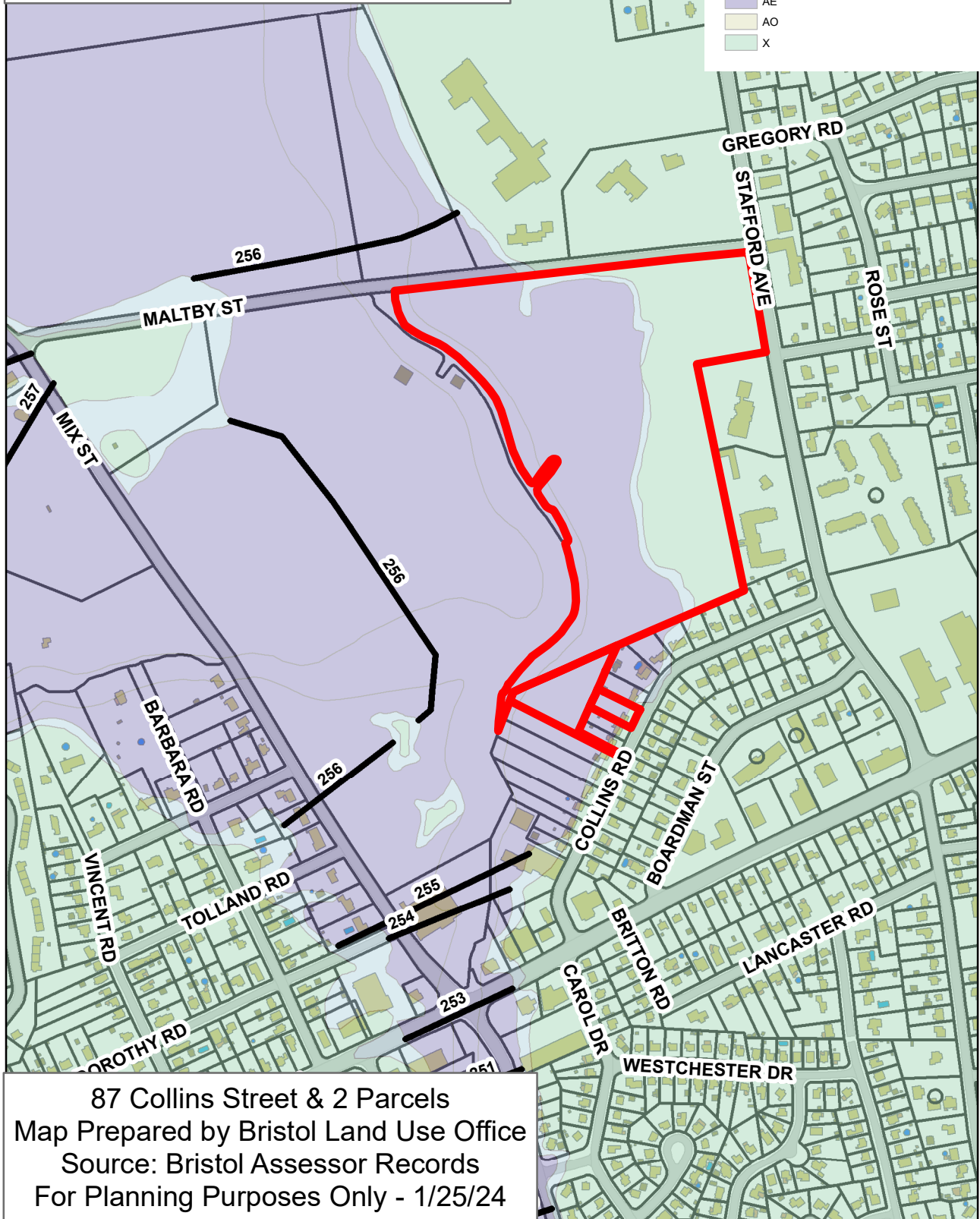
 0.2 PCT ANNUAL CHANCE FLOOD HAZARD

 A

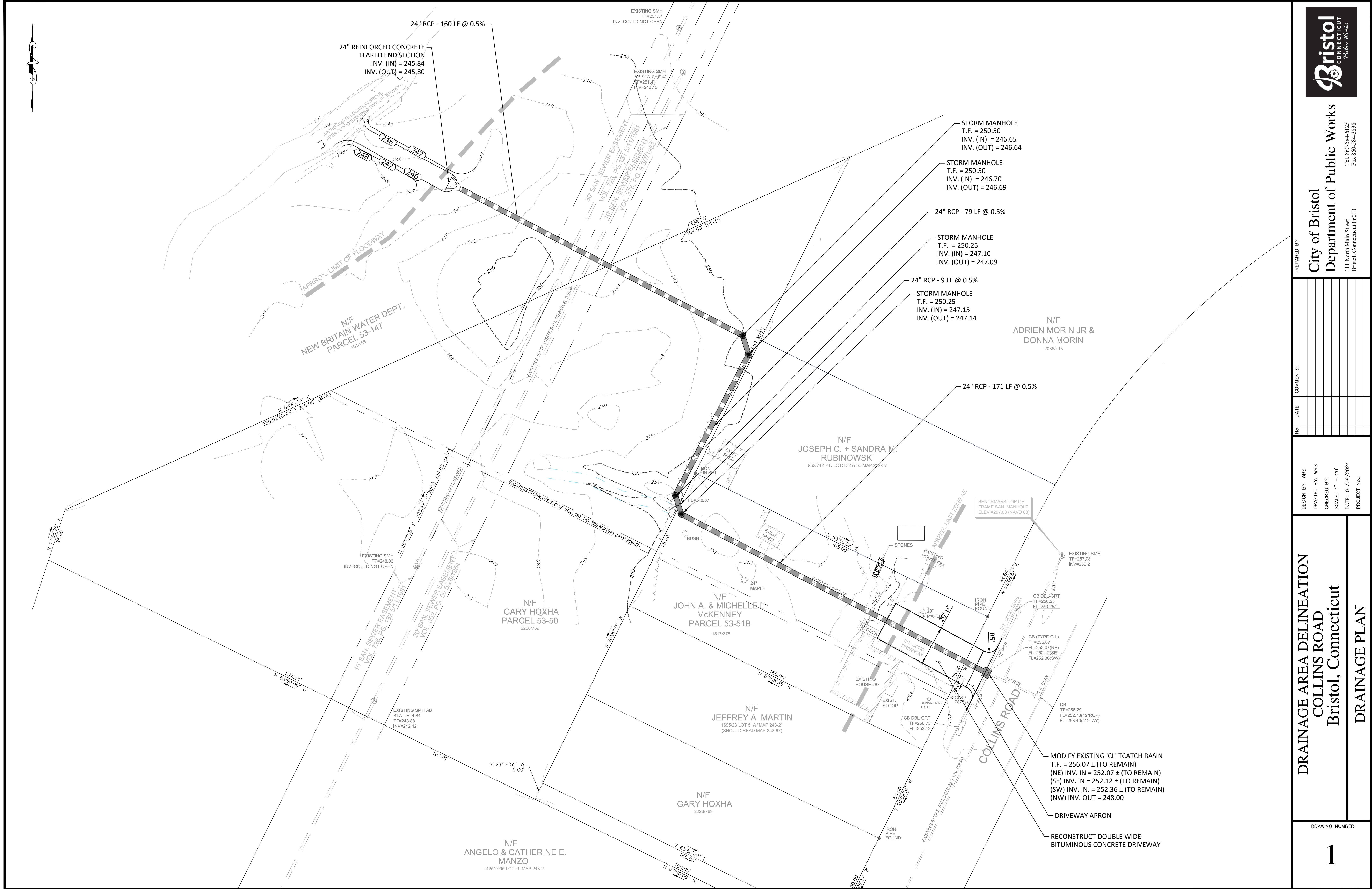
 AE

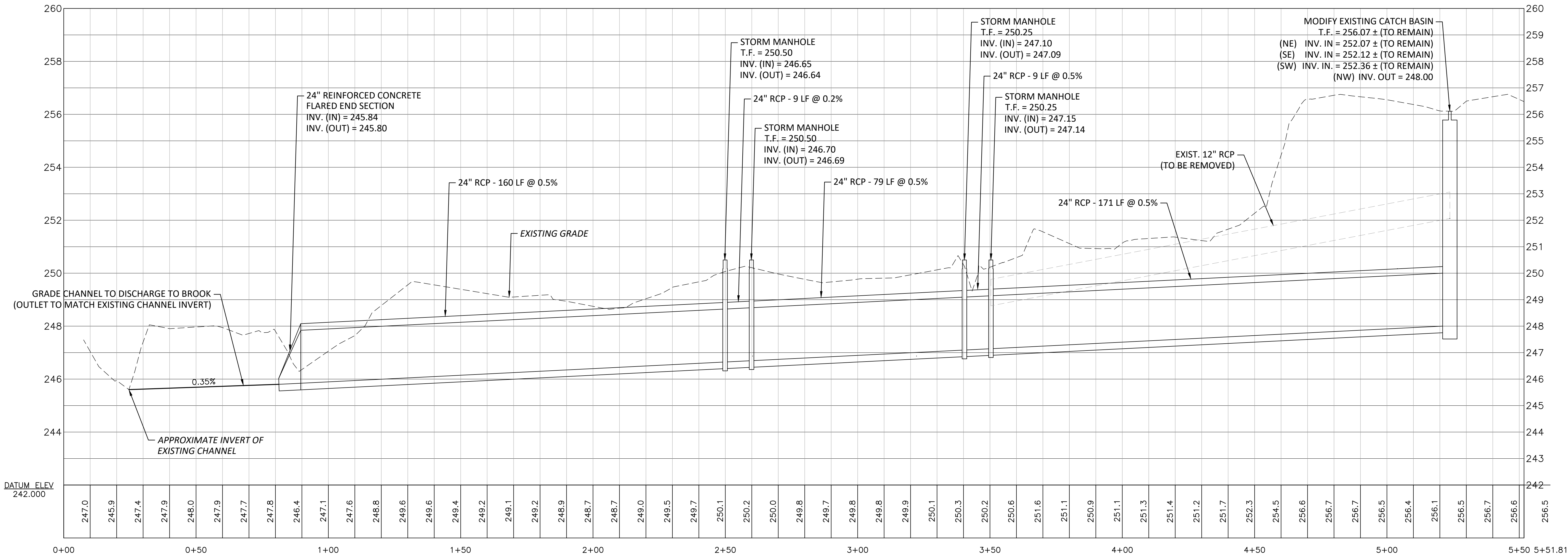
 AO

 X



87 Collins Street & 2 Parcels
Map Prepared by Bristol Land Use Office
Source: Bristol Assessor Records
For Planning Purposes Only - 1/25/24





DRAINAGE AREA DELINEATION
COLLINS ROAD
Bristol, Connecticut

PROFILE

DRAWING NUMBER:

2

DESIGN BY: WRS

DRAFTED BY: WRS

CHECKED BY: WRS

SCALE: 1" = 20'

DATE: 9/13/2023

PROJECT No.:

NO. DATE COMMENTS:

PREPARED BY:

City of Bristol
Department of Public Works

111 North Main Street
Bristol, Connecticut 06010

Tel. 860-584-0125
Fax 860-584-3838



**BRISTOL CONSERVATION COMMISSION
INLAND WETLANDS AGENCY
FORM IW-1 (Application for a Wetlands Permit)**

APPLICATION NO. #2021

DATE FILED: 1/25/24

APPROVED: _____

DENIED: _____

1. APPLICANT:

Name: City of Bristol - DPW

Signature: _____

Address: 111 North Main Street

City: Bristol

State: CT Zip 06010

Telephone No.: (860) 584 - 6125

[] home [] work

2. PROPERTY OWNER(S):

Name: See "Attachment A"

Signature: _____

Address: (1) 87 Collins Road, (2) 77 Collins Road, (3) Stafford Ave.

City: Bristol

State: CT Zip 06010

Telephone No.: _____ [] home [] work

3. DESCRIBE THE SUBJECT PROPERTY: 53-50 Collins Rd. W.R.S.

Address or Location: (1) 87 Collins Road, (2) 77 Collins Road, (3) New Britain Water Property off Stafford Ave.

Assessor's Map No.: (1)53,(2)53,(3)53 Assessor's Lot No.(s): (1)51B, (2)50, (3)147

Description of wetlands (location, approximate area to be disturbed, vegetation, etc.): The location to be disturbed is a wooded swamp located northwest of 87 Collins Road. Approximate area to be disturbed = 0.115 AC

Disturbance area assumes approx 10' wide work area along alignment of new drainage pipe.

4. DESCRIBE THE PROPOSED ACTIVITY AND ITS PURPOSE: Installation of a new drainage pipe approximately 495 ft in length which will run from Collins Road to an existing stream to the northwest. The purpose of this project is to replace an existing drainage pipe which is currently undersized.

5. CHECK THE STATEMENT WHICH APPLIES TO THE PROPOSED ACTIVITY:

- ☐ a. The proposed activity is either a use permitted as of right or a non-regulated use, under subsection _____ of Section 4 of the Inland Wetlands Regulations. *See instructions for submission requirements.*
- ☐ b. The proposed activity is not regulated because it is greater than 100 feet from a wetlands or watercourse or will not adversely affect the wetlands or watercourse. *See instructions for submission requirements.*
- ☒ c. The proposed activity is a regulated activity and will occur:
- ☒ in a wetlands or watercourse
 - ☐ within 100 feet of a wetlands or watercourse
 - ☐ beyond 100 feet of a wetlands or watercourse

6. FLOW CALCULATIONS:

Does a watercourse flow through the subject property?

☒ yes ☐ no

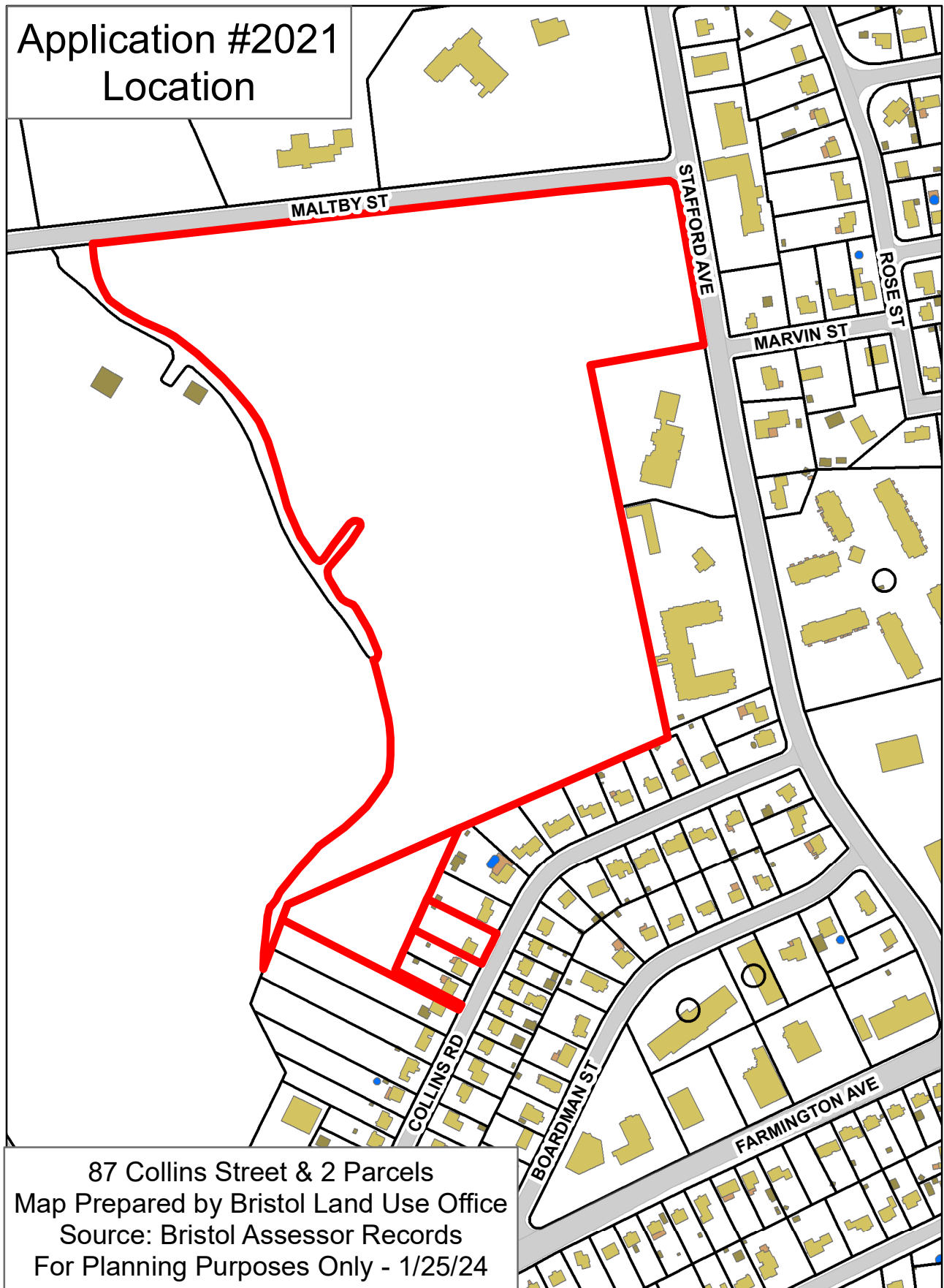
If "yes", see instructions for submission requirements.

ATTACHMENT A

Property Owner(s): All proposed work will take place within existing or proposed easements in favor of The City of Bristol. The owners of the properties in which the easement exists are as follows.

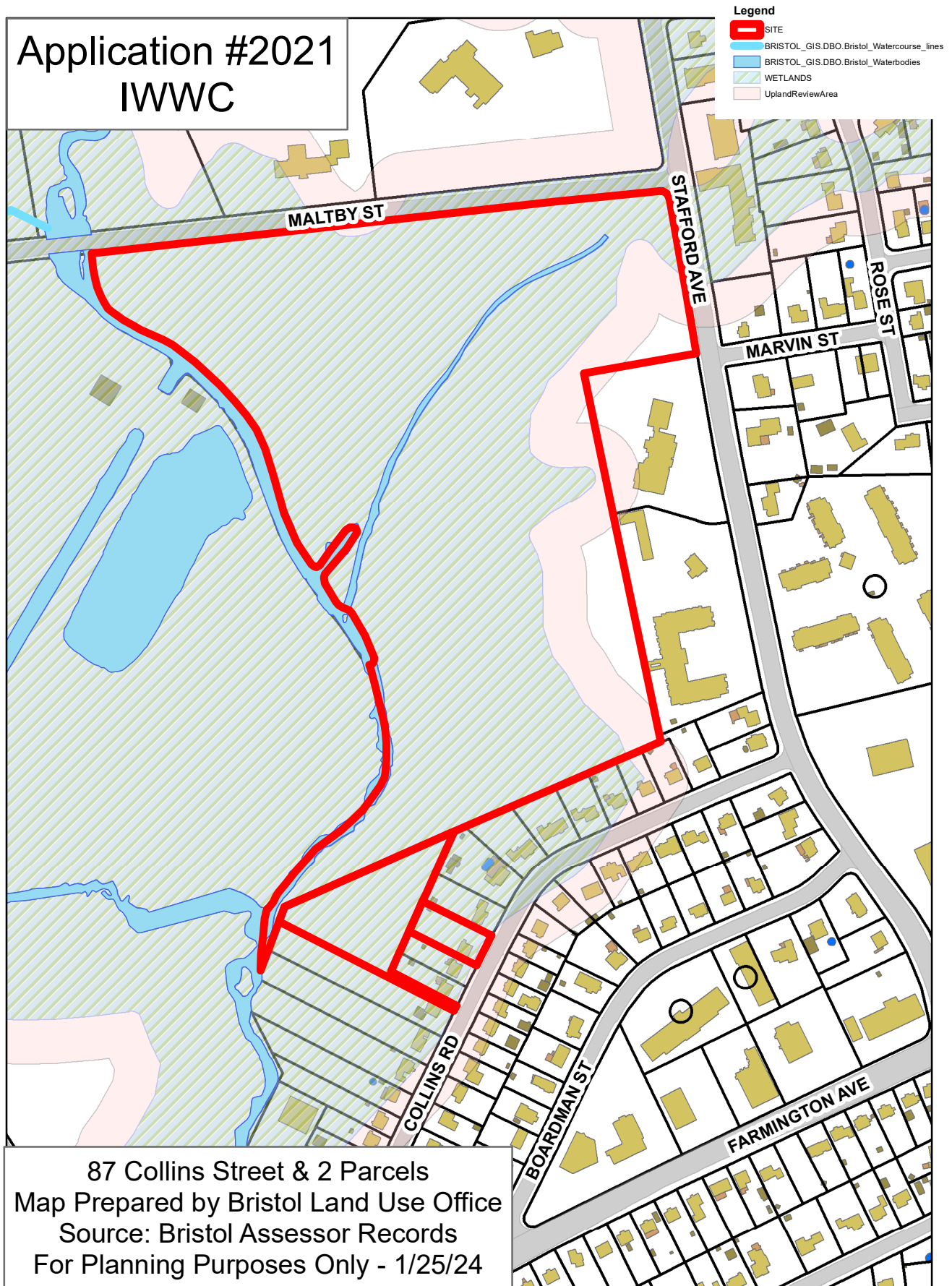
- (1) Michelle McKenney – 87 Collins Road, Bristol CT
- (2) Gary Hoxha – 53-50 Collins Road, Bristol CT
- (3) New Britain Water Dept – 53-147 Vacant Water Department Land Off of Stafford Ave.

Application #2021
Location



87 Collins Street & 2 Parcels
Map Prepared by Bristol Land Use Office
Source: Bristol Assessor Records
For Planning Purposes Only - 1/25/24

Application #2021 IWWC



Application #2021
Aerial

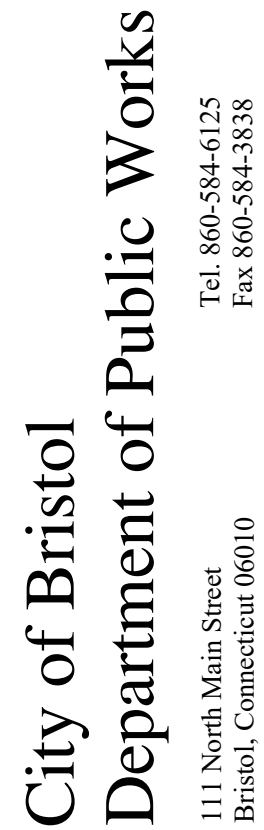
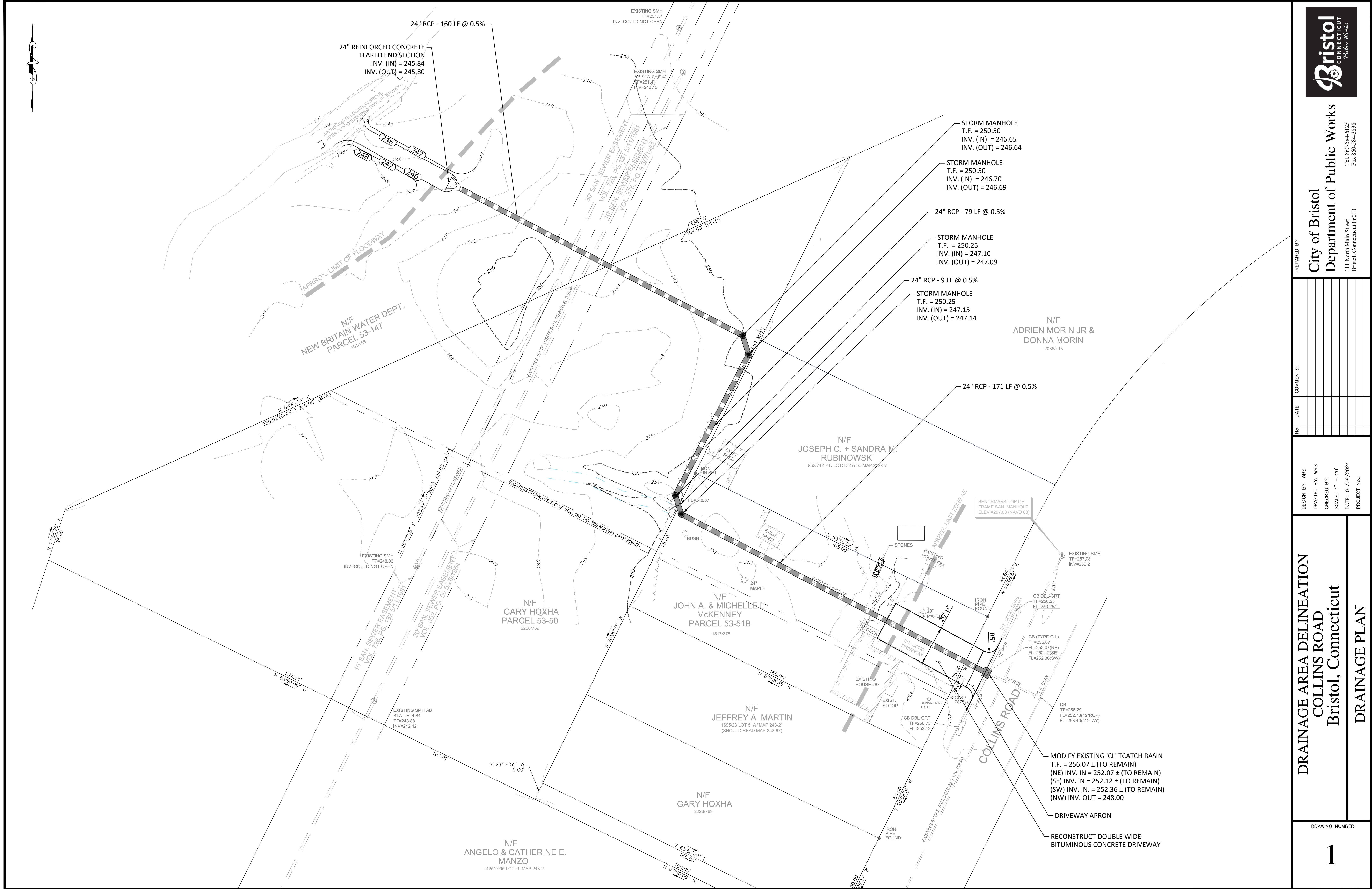


87 Collins Street & 2 Parcels
Map Prepared by Bristol Land Use Office
Source: Bristol Assessor Records
For Planning Purposes Only - 1/25/24

Application #2021
Aerial



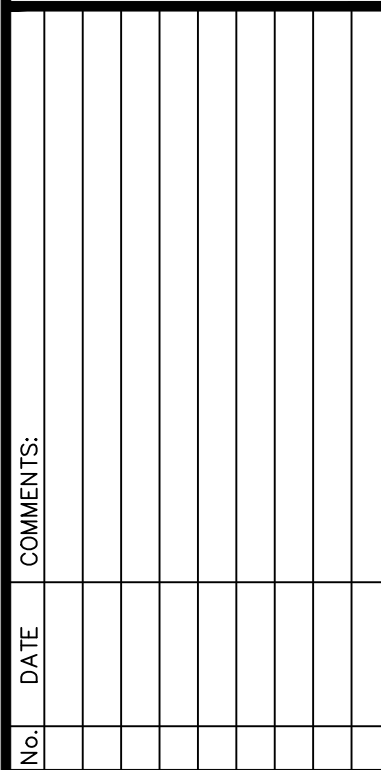
87 Collins Street & 2 Parcels
Map Prepared by Bristol Land Use Office
Source: Bristol Assessor Records
For Planning Purposes Only - 1/25/24

[illegible]

DESIGN BY: WRS
DRAFTED BY: WRS
CHECKED BY:
SCALE: 1" = 20'
DATE: 01/08/2024
PROJECT No.:

DRAINAGE AREA DELINEATION
COLLINS ROAD
Bristol, Connecticut
DRAINAGE PLAN

DRAWING NUMBER:	
1	



DESIGN BY: WRS
DRAFTED BY: WRS
CHECKED BY: WRS
SCALE: 1" = 20'
DATE: 9/13/2023
PROJECT No.:

**DRAINAGE AREA DELINEATION
COLLINS ROAD
Bristol, Connecticut
PROFILE**

DRAWING NUMBER:

2



City of Bristol
DEPARTMENT OF PUBLIC WORKS
BRISTOL, CONNECTICUT 06010

Inland Wetlands
Environmental Protection Technician
Monthly Report

January 29, 2024

Approved Applications Inspections

No.	Location	Description	Inspection Dates	Status
#1593	Cedar Hill Lots 12-42	Open space subdivision - Residential building lots (Exp. 20270519)	01/4, 01/11, 01/18	Inact
#1567	Allentown Road (Wood shire)	Wetland crossing with residential community (Exp. 20260919)	01/4, 01/11, 01/18	Inact
#1819	Allentown Road (Saddlebrook)	Grading and water lateral installation (Exp. 20270417)	01/4, 01/11, 01/18	Inact
#1827	894 Middle Street	Environmental remediation (Exp. 20270717)	01/3, 01/10, 01/17	Inact
#1844	208 Jerome Avenue	Construction of driveway and utilities; new home (20230521)	01/3, 01/10, 01/17	EXPIRED
#1865	Muzzy Field - Downs Street	Repair sidewalks and ramp upgrades (Exp. 20240501)	01/4, 01/11, 01/18	Inact
#1868	Lot 21 Waterbury Road	Maintenance to existing haul road (Exp. 20240610)	01/4, 01/11, 01/18	Inact
#1878	134 Terryville Road	Regrade and establish parking area (20241002)	01/4, 01/11, 01/18	Inact
#1883	40 Janice Lane	Construct of 2 car garage (20240904)	01/4, 01/11, 01/18	Inact
#1889	35 Kory Lane	Remove and replace existing dock (20241106)	01/4, 01/11, 01/18	Inact
#1890	20 Beechwood Street	Construct addition, pool, and infiltration system (20250205)	01/4, 01/11, 01/18	Inact
#1891	Barnum Road	Clean detention ponds and existing debris piles (20250205)	01/4, 01/11, 01/18	Act
#1893	150 Century Drive	Construct drainage area and parking (20250304)	01/3, 01/10, 01/17	Act
#1894	315 Shrub Road	Reconstruct road for earth removal (20250304)	01/3, 01/10, 01/17	Inact

No.	Location	Description	Inspection Dates	Status
#1896	50 Terryville Avenue	Construct Gas Station (20250506)	01/4, 01/11, 01/18	Act
#1897	7 Royal Drive	Install shed, basketball court, above ground pool (20251007)	01/4, 01/11, 01/18	Inact
#1898	132 Marcia Drive	Grade, install patio, and fence (20250506)	01/3, 01/10, 01/17	Inact
#1901	105 Maxine Drive	Install pipe, fence, and bridge (20250902)	01/3, 01/10, 01/17	Inact
#1902	44 Nelson Farm Road	Addition 22x12 w/ Bioswale (20250805)	01/3, 01/10, 01/17	Inact
#1903	16 Great Pyrenees Way	Construct in ground pool (20250805)	01/3, 01/10, 01/17	Inact
#1904	Huntington Woods	Replace 60" CMP with HDPE (20250805)	01/4, 01/11, 01/18	Inact
#1905	Pine Lake West Bank	Replace sedimentation basin (20250805)	01/3, 01/10, 01/17	Inact
#1907	115 Lakewood Circle	Construct 20x40 addition (20251007)	01/4, 01/11, 01/18	Inact
#1908	351 Minor Street	Construct Oil/Propane facility (20251202)	01/4, 01/11, 01/18	Act
#1909	21 Sonstrom Road	Construct Garage (20251202)	01/3, 01/10, 01/17	Inact
#1910	172-176 East Main Street	Construct new Dunkin Donuts (20260303)	01/3, 01/10, 01/17	Inact
#1915	505-545 Redstone Hill Road	18 Lot Subdivision (20260505)	01/4, 01/11, 01/18	Act
#1919	258 Brook Street	Demo existing garage, replace with 3 car garage (20260407)	01/3, 01/10, 01/17	Inact
#1922	71 Horizon Drive	Parking lot construction. Modification of #1848 (20260505)	01/3, 01/10, 01/17	Inact
#1925	66 Vermont Avenue	Removal of smaller trees and grading (20260505)	01/3, 01/10, 01/17	Inact
#1927	Lot 44 Valmore Road	Construct house and grade for wetlands mitigation (20260505)	01/3, 01/10, 01/17	Complete
#1929	35 Oaken Road	Install in ground swimming pool (20260505)	01/3, 01/10, 01/17	Inact
#1933	Lot 2 Business Park Drive	Filling & grading for parking area to new building (20260707)	01/3, 01/10, 01/17	Act
#1934	Glenn Street	Harding a section to allow passage of woodland machinery (20260707)	01/3, 01/10, 01/17	Inact
#1936	52 Shelia Court	Construct 20 new spaces with related storm water management (20260707)	01/3, 01/10, 01/17	Inact
#1937	Lot 18 Donovan Court	Construct new house (20260901)	01/4, 01/11, 01/18	Inact
#1940	Lot 42 & 46 Mill Pond Drive	Construct new residential homes (20211006)	01/3, 01/10, 01/17	Act

No.	Location	Description	Inspection Dates	Status
#1944	47 Kory Lane	Addition to existing house (20260901)	01/4, 01/11, 01/18	Inact
#1945	Lake Avenue Bridge 017005	Bridge replacement (20261006)	01/3, 01/10, 01/17	Inact
#1946	175 Century Drive	28,875 SF addition to existing facility (20261006)	01/3, 01/10, 01/17	Inact
#1949	23 Columbus Avenue	Install in-ground pool (20261103)	01/3, 01/10, 01/17	Act
#1950	801 Burlington Avenue	Construct single family home (20261103)	01/3, 01/10, 01/17	Inact
#1951	Lot 7B 1-2 Marsh	Construct single family home (20261103)	01/4, 01/11, 01/18	Act
#1966	183 Foxden Road	Extend sanitary sewer to service two lots (20270202)	01/3, 01/10, 01/17	Act
#1968	175 Shrub Road	One mile Hiking Trail elevated boardwalks (20270202)	01/3, 01/10, 01/17	Act
#1970	16 Andrews Street	paved parking lot and area of grading (20270406)	01/3, 01/10, 01/17	Act
#1972	34 Climbing Street	New deck and in-ground swimming pool (20270406)	01/3, 01/10, 01/17	Act
#1974	Memorial Blvd	Removal of tennis courts and planting of a new urban garden(20270406)	01/3, 01/10, 01/17	Inact
#1977	Wolcott Street	installation of temporary bypass pipe in culvert for repairs (20270406)	01/4, 01/11, 01/18	Inact
#1979	27 Cherry Hill Drive	Addition of a 30 x 30 attached garage(20270406)	01/3, 01/10, 01/17	Inact
#1982	Lot #13 Village Street	Construct single family home (20270711)	01/3, 01/10, 01/17	Act
#1983	243 Jacobs Street	Regrade River at Rockwell Park (20270801)	01/4, 01/11, 01/18	Inact
#1984	Jerome Ave Bridge	Replace Pedestrian Bridge (20270711)	01/3, 01/10, 01/17	Inact
#1986	85 Buckley Ave	Construct Garage Addition (20270711)	01/4, 01/11, 01/18	Inact
#1988	Lot# 7-1 Terryville Road	Commercial Building (20270801)	01/4, 01/11, 01/18	Act
#1989	177 Corbin Ridge	Retaining Wall, Above Ground Pool, And Deck (20270711)	01/4, 01/11, 01/18	Inact
#1990	29 Woodside Way	Inground Pool (20270711)	01/3, 01/10, 01/17	Inact
#1991	62 Litchfield Lane	Inground Pool (20270711)	01/4, 01/11, 01/18	Inact
#1993	21 Royal Drive	Grading and Drainage in Rear Yard (20270801)	01/4, 01/11, 01/18	Inact
#1998	76 Mountain View Ave	Inground Pool (20270912)	01/3, 01/10, 01/17	Inact

No.	Location	Description	Inspection Dates	Status
#1999	724 Wolcott Road	New Home Construction (20271107)	01/4, 01/11, 01/18	Act
#2000	Shrub Rd/ Jerome Ave	Sidewalk Improvement, and pedestrian Bridge (20280109)	01/3, 01/10, 01/17	Inact
#2002	1261 & 1265 Farmington Ave	Construct Medical Office, Restaurant, and Car Wash (20280109)	01/4, 01/11, 01/18	Inact
#2003	50 Terryville Rd	Pond Maintenance (20280109)	01/4, 01/11, 01/18	Act
#2004	Mellen Street Bridge	Bridge replacement (20280206)	01/3, 01/10, 01/17	Act
#2005	71 Minnesota Lane	Construct a 20x30 Garage (20280306)	01/4, 01/11, 01/18	Inact
#2007	109 Moody Street	Construction Of A Plate Arch Spanning The Watercourse (20280501)	01/3, 01/10, 01/17	Inact
#2008	205 Pennwood Place	Install 20x40 Inground Pool (20280501)	01/4, 01/11, 01/18	Inact
#2010	Clark Ave Lot 271-1A	Mixed use development (20280710)	01/4, 01/11, 01/18	Inact
#2011	152 Beths Ave	Construct Single Family House (20280710)	01/4, 01/11, 01/18	Act
#2012	812 Redstone Hill Road	New In-Ground Pool (20280710)	01/3, 01/10, 01/17	Inact
#2013	54 Merrill Court	Repair of Septic System (20280710)	01/4, 01/11, 01/18	Inact
#2015	Page Park	Park Renovations and Improvements (20281205)	01/4, 01/11, 01/18	Inact
#2016	Downs Street Bridge	Replacement of Bridge (20281205)	01/3, 01/10, 01/17	Inact

SPECIAL INSPECTION:

Lot 13-1 Waterbury Road- 20220417 - During a drive by of the property, it was discovered that clearing of trees was being done in a regulated area, EPT called the current property owner and set up a meeting. 20220418 - EPT met with the property owners and explained that their property was in a regulated area, P/O agreed to install temporary silt fence at the bottom of the slope, and then immediately stop all work until they obtain a wetlands permit- **Pending**

32 Colonial Road- 20231012- A site inspection was conducted due to complaints of work being done in a regulated area. Upon inspection it was discovered that trees were being removed, and grading was being done in the upland review area. - **Notice.** 20231019- P/O contacted EPT and stated that he would stop all work in the regulated area, and obtain proper permits for any future plans.- **Pending.**

15 Vantana Drive- 20231212- A site inspection was conducted due to complaints of a tree being down, and causing a potential blockage to the stream. Upon inspection it was discovered that a tree had fallen across the stream causing potential to restrict flow to the stream.- **Notice.** 20231220- P/O contacted EPT and is in the process of hiring a tree removal company to take the tree out of the stream-**Pending**

11 Eastwood Road- 20231205 A site inspection was conducted due to complaints of leaves being blown into the city road. Upon inspection it was discovered that leaves were intentionally being blown into the city street causing potentially hazardous conditions.- **Notice.** 20231220- A reinspection was conducted and it was discovered that no progress had been made on removing the leaves from the City ROW.- **NOV-** 20240102- Leaves have been removed from City street.- **Complete**

151 Blakeslee Street- 20240124- A site inspection was conducted due to a complaint from the police department of Illicit discharge causing icing in the road, and causing accidents. Upon inspection it was discovered that a rain leader from the property had been tied in to a pipe underground, and was directly discharging into the City street.- **Notice- Pending.**

C. O. INSPECTIONS:

49 Laurentide Glen

3 Gino Drive

NOTICE AND NOTICE OF VIOLATION LETTERS:

FW: 2024 Wetlands Conference, Winter Field Workshop, and more!

Nancy Levesque

Tue 1/9/2024 11:12 AM

To: Andrew Armstrong <AndrewArmstrong@bristolct.gov>;

For February communications. Please distribute earlier.

From: CAWS <info@ctwetlands.org>

Sent: Tuesday, January 9, 2024 11:07 AM

To: Nancy Levesque <NancyLevesque@bristolct.gov>

Subject: 2024 Wetlands Conference, Winter Field Workshop, and more!



Happy New Year!! The **Connecticut Association of Wetland Scientists** (CAWS) has some fun-filled events coming up to welcome in the New Year. See more information below and check out our website at www.ctwetlands.org for the latest news and opportunities.

- Sign up for our **2024 Annual Meeting** (March 7, 2024)
- Sign up for the CAWS **Winter Plant ID Workshop and Eagle Viewing** (February 7, 2024) – for CAWS members only
- **GRANTS AVAILABLE!**

We encourage our members to [renew their membership](#) in CAWS for 2024 to take advantage of discounted pricing and other benefits. Not a member yet? [Learn more about membership](#).

CAWS 2024 Annual Meeting to offer a full day of engaging technical presentations on wetlands and watercourses

The [CAWS Annual Meeting and Environmental Conference](#) will take place on Thursday, **March 7, 2024** (8:00 a.m. to 4:00 p.m.). We welcome ecologists, designers, and other land use professionals, government officials, municipal commission members, and other interested parties to join us.

Location:

The Heritage Hotel Golf, Spa & Conference Center

[522 Heritage Road, Southbury, CT 06488](#)

Tel: (203) 264-8200



Presentations will include:

- Project Spotlight: Strong Pond Dam Removal — Collaboration Restores Aquatic Connectivity in the Norwalk River — *Alex Krofta (Save the Sound), Michael Chelminski (Stantec)*
- Project Spotlight — A Special Wetland, Eversource Energy's Atlantic White Cedar Mitigation Project, The 1st Year — *Melissa Kaplan, PWS (BSC Group)*
- Town of Fairfield Vernal Pool Mapping — *Timothy Bishop (Town of Fairfield Conservation Department)*
- 2024 Wetland In-lieu Fee Program Update — *Anthony Zemba (LandTech Consultants)*
- Presentations from the Connecticut Siting Council, CT DEEP, and the U.S. Fish & Wildlife Service
- 2023 CAWS Grant Recipient reports

- And more to be announced!

PLUS an **exhibitor hall** featuring displays by product and service suppliers and conservation organizations. CEUs (TBA) and Certificates of Completion will be provided.

Cost is **\$75 for members** and **\$100 for non-members (students \$50.00** with ID) and includes continental breakfast and lunch.

[Register online](#) (you may also pay by check through the mail, but please use the online form to reserve your spot).

Join CAWS today and pay the member rate! Learn more about [CAWS membership](#).

Exhibitors and Sponsors Welcome!

Make an impression on those involved in the study and management of wetlands and other conservation lands (more than 200 people attended last year's Annual Meeting). Exhibitor tables are \$300 and include two registrations. 501c3 organizations and government agencies may exhibit for the discounted rate of \$75, which includes one registration. A six-foot table, table cloth, chairs, and electric connection will be provided. Learn more about [exhibiting and additional sponsor opportunities](#)!

[Register for the Annual Meeting](#)

CAWS 2024 Winter Plant ID Workshop and Eagle Viewing

Grab your binoculars, cameras, and spotting scopes! CAWS invites its members to attend an exclusive winter



plant ID workshop Instructed by Daniel Hageman (FHI Studio) on Wednesday **February 7, 2024** (9 a.m. to 3 p.m.) at:

Shepaug Dam Eagle Observatory

2225 River Rd, Southbury, CT

The day will consist of a winter walk through the grounds to identify common trees and shrubs utilizing the *Winter Tree Finder: A Manual for Identifying Deciduous Trees in Winter (Eastern U.S.)* by May and Tom Watts. Following the outdoor portion, we will warm up and grab a bite to eat at the Shepaug Dam Eagle observation facility while watching the wintering eagles.

The cost for this event will be \$30.00 per person (includes a copy of the field book and lunch). Sign up on our website here today. **NOTE that this event is open to CAWS members only** and will be limited to 20 people.

[Register for the Winter Workshop](#)

CAWS 2024 Grants

- CAWS offers a \$1,500 **Les Mehrhoff Grant** each year for on-the-ground preservation efforts or invasive control projects conducted by non-profit, community groups, or individuals directed at preserving plant biodiversity within Connecticut. The recipient/group need not be a member of CAWS in order to apply. See the [Les Mehrhoff Grant page](#) for more information and downloadable application form.

- Similarly, the \$1,500 **Michael Lefor Grant** supports wetland-related research conducted by a qualified undergraduate or graduate student from an accredited college or university in Connecticut. See the [Michael Lefor Grant page](#) for more information and downloadable application form.

Both applications are open year-round with a **February 23 deadline**. Please help us spread the word to those who may be able to take advantage! Email wetlands@ctwetlands.org with any questions.

THANK YOU for your support of CAWS! Please forward this email to others who may be interested!



CT Association of Wetland Scientists

info@ctwetlands.org

www.ctwetlands.org



CT Chapter of ASLA | P.O. Box 209197, New Haven, CT 06520

[Unsubscribe nancylevesque@bristolct.gov](mailto:nancylevesque@bristolct.gov)

[Constant Contact Data Notice](#)

Sent by info@ctwetlands.org



City of Bristol
Office of Town and City Clerk
111 North Main Street
Bristol, Connecticut 06010
(860)584-6200 ext. 0

January 11, 2024

Faye L. Duquette
6 Apple Rd.
Bristol, Connecticut 06010

Dear Ms. Duquette:

This is to officially notify you that at a meeting of the City Council on January 9, 2024 you were appointed as a regular member to the Inland/Wetlands Commission for a term to May, 2024.

It is necessary to take your oath of office when you are appointed. At your earliest convenience, kindly stop by the Town Clerk's Office to take your oath.

I have enclosed copies of Section 2-9 of the Bristol Code of Ordinances regarding attendance at meetings, a listing of members, and a copy of the Ethics Ordinance. You should read the Ethics Ordinance carefully since it pertains to board members.

Should your address or political affiliation change, or you resign from this appointment, you must notify the Town Clerk's Office.

Congratulations!

Very truly yours,

A handwritten signature in black ink, reading "Erica Cabiya".

Erica L.N. Cabiya, CCTC
Town and City Clerk

EC/cmoc

cc: City Planner

Enclosure: Section 2-9 of the Bristol Code of Ordinances
List of Members
Ethics Ordinance



City of Bristol
Office of Town and City Clerk
111 North Main Street
Bristol, Connecticut 06010
(860)584-6200 ext. 0

January 11, 2024

Anthony Pellerin
6 Holden St.
Bristol, Connecticut 06010

Dear Mr. Pellerin:

This is to officially notify you that at a meeting of the City Council on January 9, 2024 you were reappointed as an alternate member to the Inland/Wetlands Commission, for a term to January, 2027.

It is necessary to take your oath of office when you are reappointed. At your earliest convenience, kindly stop by the Town Clerk's Office to take your oath.

Should you change your address, or resign from this appointment, you must notify the Town Clerk's Office.

Very truly yours,

A handwritten signature in black ink, reading "Erica Cabiya".

Erica L.N. Cabiya, CCTC
Town and City Clerk

EC/cmoc

cc: City Planner