



*City of Bristol
Inland/Wetland Commission*

Meeting Agenda

INFORMATION FOR THE PUBLIC TO ACCESS THIS MEETING

Zoom Meeting link:

<https://bristolct-gov.zoom.us/j/82757787994?pwd=RTBvWw2RSaGbeX0MYROaSRsMiGW097.1>

Meeting ID:

827 5778 7994

Meeting Passcode:

773066

Join by phone

1-929-205-6099

REGULAR MEETING OF MONDAY, APRIL 1, 2024
MEETING ONLINE VIA ZOOM AND
BRISTOL CITY HALL – 111 NORTH MAIN STREET
6:30 PM

1. Pledge of Allegiance
2. Introductions and Seating of Alternates
3. Public Participation
4. Approval of Minutes
 - a. Regular Meeting - March 4, 2024
5. Public Hearings
 - a. 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.
 - b. 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.

- c. 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.
- d. Application #2022 – Wetlands application for piping of existing channel from culvert at Perkins Street east to collecting stream at 120 Perkins Street; Assessor's Map 60, Lot 14B; City of Bristol, Public Works Department, applicant.

6. New Applications

- a. Application #2023 – Wetlands application to revise outfall piping and stabilize outfall area at Vine Road and Brace Avenue within an existing easement; Assessor's Map 46, Lot 81-3; City of Bristol, Public Works Department, applicant.

7. Zoning Commission Referrals

- a. Referral from Zoning Commission – Applications #2489 & #2490

8. Staff Reports

- a. IWWC Report - March 2024

9. Communications

- a. Wallace Barnes Nature Trail Fundraiser

10. Adjournment

NOTE: This meeting will be held in-person and online (Via Zoom).

Please contact the Land Use Office at 860-584-6225 for further information.

REMINDER: The next Regular Meeting of the Inland Wetland Commission is Monday, May 6, 2024

**BRISTOL INLAND WETLANDS COMMISSION
MINUTES
REGULAR MEETING OF WEDNESDAY MARCH 4, 2024
Council Chambers, 111 North Main Street**

ROLL CALL:

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	
	Faye Duquette	X	
ALTERNATE MEMBERS	Anthony Pellerin		X
STAFF	Nancy Levesque, P.E., City Engineer	X	

1. Call to Order

Chairman Fisk called the meeting to order at 6:30 p.m.

2. Pledge of Allegiance**INTRODUCTIONS AND SEATING OF ALTERNATES:**

Chairman Fisk designated regular Commissioners Robinson, Carros, Massaro, Duquette, Richie, Rooks and Fisk as voting members tonight.

Chairman Fisk reminded the Commission the next Regular Meeting of the Inland Wetland Commission Monday, April 1, 2024.

3. Public Participation

None

4. Approval of Minutes

- a. On-Site Meeting – January 27, 2024
- b. Regular Meeting – February 5, 2024

MOTION: Move to approve the On-Site Meeting of the January 27, 2024, special meeting, as amended.

By: Robinson

Seconded: Massaro

For: Ritchie, Robinson, Carros, Massaro, Ministro, Duquette, Rooks and Fisk.

Against: None.

Abstained: None.

MOTION: Move to approve the minutes of the February 5, 2024, regular meeting, as amended.

By: Robinson

Seconded: Carros

For: Ritchie, Robinson, Carros, Massaro, Ministro, Duquette, Rooks and Fisk.

Against: None.

Abstained: None.

5. Public Hearings

- a. 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.
- b. 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.
- c. 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 Application #2019, #2020 and #23-458F-305 would be heard concurrently but voted on concurrently.

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 1 to 5: Project Site Map; Additional Information; Project Drawings; Abutting Property Map and Property Owners Map; Site Survey (Wetland Replication Areas.)
- c. Letter from Rivers Alliance of Connecticut, submitted by Alicia Charamut, Executive Director
- d. Verified Petition to Intervene Under CGS 22a-19, submitted by Rivers Alliance of Connecticut
- e. Soil Scientist Report, dated September 29, 2023 (Attachment 6)
- f. Stormwater Management Report dated December 18, 2023, regarding Supplemental Wetland Delineation Report 2023 (attached)
- g. maps and photographs), from C. Webb & Associates, LLC Environmental Consulting Services
- h. White Bridge Waterworks, Data Form Plot reports dated September 2022
- i. 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)
- j. Letter dated May 6, 2022, from ConnDEEP, regarding Natural Diversity Database (NDDDB) maps and files
- k. Form dated April 27, 2022, from ConnDECD, regarding White Bridge Waterworks Facilities
- l. Letter dated April 27, 2022, from CDM to the CT State Historic Preservation Office, regarding 106 Review, Replacement of White Bridge Waterworks Facilities Applicant: City of New Britain
- m. Form dated April 27, 2022, from ConnDECD, regarding White Bridge Waterworks Facilities (10 attached maps)

- n. Existing and Proposed Test Wells and Stream Gauges Overall Map, dated December 9, 2022
- o. Plan (Electronic Copy Only)
- p. Map entitled Whites Bridge Wellfields, NBWD, Bristol, CT, Existing and Proposed Test Wells and Stream Gauges, Overall Map
- q. CT DEEP Form, dated April 27, 2022, regarding White Bridge Waterworks Facilities
- r. Letter dated May 6, 2022, from ConnDEEP, regarding NDDB Determination #202205409, Replace existing groundwater wells, Upper & Lower Wellfields, White Bridge Waterworks Facility, off Maltby St., Bristol
- s. Letter dated February 2, 2024, from Carol Noble, P.E., CFM, to Chairman Zachary Fisk, regarding Applications #2019, #2020 and #23-569F-305
- t. Letter dated February 5, 2023 (2024), from Alicia Charamut, Executive Director of River Alliance of CT, regarding Applications #2019, #2020 and #23-569F-305
- u. PowerPoint Presentation, entitled White Bridge Waterworks Facilities, Application #2019, #2020 and #23-458F-305, Inland Wetlands and Watercourses & conservation Commission Public Hearing, dated February 5, 2024

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. Letter from Rivers Alliance of Connecticut, submitted by Alicia Charamut, Executive Director
- d. Verified Petition to Intervene Under CGS 22a-19, submitted by Rivers Alliance of Connecticut
- e. Inland Wetlands Staff comments, undated
- f. Application (Attachments 1 to 5: Project Site Map; Additional Information; Project Drawings; Abutting Property Map and Property Owners Map; Wetland Replication Areas;
- g. Soil Scientist Report, dated September 29, 2023 (Attachment 6)
- h. report dated December 18, 2023, regarding Wetland Delineation Report 2022 (attached maps and photographs), from C. Webb & Associates, LLC Environmental Consulting Services
- i. White Bridge Waterworks, Data Form Plot reports dated September 2022
- j. 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)
- k. Stormwater Management Report
- l. Appendixes, Rainfall Data; Resources and Glossary (definitions)
- m. CDM Smith Geotechnical Laboratory Testing Summary Sheet, review date August 11, 2022
- n. Appendixes C to F
- o. Letter dated May 6, 2022, from ConnDEEP, regarding Natural Diversity Database (NDDB) maps and files
- p. Form dated April 27, 2022, from ConnDECD, regarding White Bridge Waterworks Facilities
- q. Letter dated April 27, 2022, from CDM to the CT State Historic Preservation Office, regarding 106 Review, Replacement of White Bridge Waterworks Facilities Applicant: City of New Britain
- r. Form dated April 27, 2022, from ConnDECD, regarding White Bridge Waterworks Facilities (10 attached maps)
- s. Existing and Proposed Test Wells and Stream Gauges Overall Map, dated December 9, 2022
- t. Plan (Electronic Copy Only)
- u. Letter dated February 3, 2024, from John Correia to Chairman Zachary Fisk, regarding Apps. #2020 and #23-458F-305 (attachments)
- v. Map entitled Whites Bridge Wellfields, NBWD, Bristol, CT, Existing and Proposed Test Wells and Stream Gauges, Overall Map
- w. CT DEEP Form, dated April 27, 2022, regarding White Bridge Waterworks Facilities
- x. Letter dated May 6, 2022, from ConnDEEP, regarding NDDB Determination #202205409, Replace existing groundwater wells, Upper & Lower Wellfields, White Bridge Waterworks Facility, off Maltby St., Bristol

- y. Letter dated February 2, 2024, from Carol Noble, P.E., CFM, to Chairman Zachary Fisk, regarding Application #2019, #2020 and #23-569F-305
- z. Letter dated February 3, 2024, from John Correia to Chairman Zachary Fisk, regarding Apps. #2020 and #23-458F-305 (attachments)
- aa. Letter dated February 5, 2023 (2024), from Alicia Charamut, Executive Director of River Alliance of CT, regarding Applications #2019, #2020 and #23-569F-305
- bb. PowerPoint Presentation, entitled White Bridge Waterworks Facilities, Application #2019, #2020 and #23-458F-305, Inland Wetlands and Watercourses & conservation Commission Public Hearing, dated February 5, 2024

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
- c. Project Site Map
- d. Additional Information Narrative
- e. Flood Map
- f. Floodway & Flood Encroachment Areas and Project Drawings
- g. Letter from Rivers Alliance of Connecticut, submitted by Alicia Charamut, Executive Director
- h. Verified Petition to Intervene Under CGS 22a-19, submitted by Rivers Alliance of Connecticut
- i. Stormwater Report
- j. Updated Cut Fill Calculations dated January 24, 2024
- k. Plan (Electronic Copy Only)
- l. Map entitled Whites Bridge Wellfields, NBWD, Bristol, CT, Existing and Proposed Test Wells and Stream Gauges, Overall Map
- m. CT DEEP Form, dated April 27, 2022, regarding White Bridge Waterworks Facilities
- n. Chart, entitled, Pumping Station Fill, Cut,
- o. Letter dated May 6, 2022, from ConnDEEP, regarding NDDB Determination #202205409, Replace existing groundwater wells, Upper & Lower Wellfields, White Bridge Waterworks Facility, off Maltby St., Bristol
- p. Letter dated February 2, 2024, from Carol Noble, P.E., CFM, to Chairman Zachary Fisk, regarding Application #2019, #2020 and #23-569F-305
- q. Letter dated February 3, 2024, from John Correia to Chairman Zachary Fisk, regarding Apps. #2020 and #23-458F-305 (attachments)
- r. Letter dated February 5, 2023 (2024), from Alicia Charamut, Executive Director of River Alliance of CT, regarding Applications #2019, #2020 and # 23-458F-305
- s. PowerPoint Presentation, entitled White Bridge Waterworks Facilities, Application #2019, #2020 and #23-458F-305, Inland Wetlands and Watercourses & conservation Commission Public Hearing, dated February 5, 2024

Nancy Levesque, City of Bristol Engineer, stated that the applicant has filed some modifications to the permit, a couple of corrections and additional information they will go over. A third- party review was requested and North Central Conservation District will be performing a review of the application. A request for a proposal from an engineering firm to review the wetland boundary as well as to review this from an environmental standpoint. Four firms were contacted and the proposals are due back on Wednesday the 13th.

Joseph Hammer, MacDermin, Reynolds & Glissman, stated their understanding from staff is that the public hearing will not conclude tonight and we have submitted an extension of the application. There is new information that we will be reviewing since the last hearing. The first item update is the Department of Energy & Environmental protection, they have provided information that the water diversions will still apply post project and that no water diversion permit is needed as long as we stay in the guideline volumes. The second update is the floodplain mitigation- post project improvements will increase due to the project decrease in the impervious area.

Joe Laliberte, CDM Smith, reviewed a presentation which hilted the purpose of the project. He hilted the New Britain Whitebridge facilities last upgrade was in the 80's. Everything that is being done complies with all standards. The wells will be within 50 feet from wetlands and watercourses. The wells and building will be raised two feet above flood elevation. There are 35 existing wells that will all be decommissioned and abandoned and are being replaced with nine new wells. Three structures on the property will all be removed and replaced with new one structure. The new building will be outside of the current floodplain. There will be a net increase in flood storage and understands that there is a lot of flooding, but flooding is everywhere and understands the resident's issues with this, but it is not New Britain's responsibility to solve all the flooding issues in Bristol. The storage onsite, the road and Building are higher and will replicate the area of filling in and cause more storage. There will be a new increase in the wetlands and a decrease of the impervious area. There is no work on or near the Coppermine Brook at all. This project will provide drinking water resiliency for all New Britain customers.

Sebastian Amenta, One Hartford Square, continued with the presentation. The wellfield diversion is registered with CT DEEP and they confirmed that no diversion permit is required provided the project stays within the acceptable limits. Regarding floodplain and mitigation-we understand that people in the area are very concerned about and everything will be done to make sure this project does not increase the flood elevation in any way. Compensatory storage areas will have a net increase by over 2800 cubic yards. There is a great amount of fill being put in which is a Net increase of 4844 cubic yards of compensatory storage. We are filling is over 6,500 cubic yards and providing over 14,198 cubic yards of compensatory storage which is an extra 7,600 plus cubic yards of additional storage. There will be a net decrease of impervious area from 27,550 cubic yards to 22,450 cubic yards. 9,912 sq. ft. wetland impacted due to the filling being done. There is 33,027 sq ft mitigation addition. We superimposed the cities wetlands on the overall map and it shows of the 303 acres there are 176 acres of wetlands on site. The impact of this project is .32% of the wetlands on site which is a very small.

Chairman Fisk asked about the impact of the flow of flood water going thru the driveway area. Will it affect any properties offsite or adjacent to this? Is the diversion rate split between the upper wells? Chairman Fisk stated he recognizes that this proposal should be a benefit to the flooding in the area, but is not the applicant's responsibility to fix flooding on properties in the area and that this looks like it should be an improvement in the area. He also asked what kind of impact will we see on the wetland with the well heads?

Sebastian Amenta- stated that regarding the driveway there should be no difference as it is west of the Coppermine and outside of the floodway. No impact to any areas to the south or west. These are two separate numbers which are provided in the documents. He stated that their intention is to provide a no rise certificate and are working on the protocol with FEMA on how to do it. We have to provide 50 feet away from seasonal high water.

Commissioner Massaro asked what is the registered volumes of water from those well fields, when was the last time those volumes were hit that were talked about, and how ow long can these volumes be met?

Sebastian Amenta, stated the new equipment will hit those volumes, but not every day. This is for emergency and back up for New Britain. The high volume can only be met for a very short period of time. It is 2.16 from the upper and 6.62 from the lower and the pond pump station is 15 million gallons. They were met maybe 7-10 years ago. With new equipment these volumes can be hit easily. Generally, there is a sustainable volume for the upper and lower between 3 and 6 mgds.

Alisha Charmnut, Rivers Alliance, reviewed her experience with water and the numerous boards she has been associated with. She explained how groundwater supplies the rivers and streams. She stated that Coppermine Brook is on DEEP's list of impaired water low flows because of modifications done. Because it is a registered diversion and because stream flow regulations do not apply to groundwater, if Coppermine ends up drying up there is nothing DEEP can do about it. This is why I am concerned. We cannot let Coppermine dry up. Because the aquifer cannot support what the registration says it can. When you have a registered diversion, residents don't have a say in the matter.

Chairman Fisk stated it is our responsibility to ensure that the proposed changes are not going to impact the flooding around the people in this area or make it worse, this will be looked at in the peer review. In your example with the Fenton River, what happened there?

Alisha Charmnut stated it was a registered diversion. The problem was there was no process to ensure the amount of water was even there to sustain the registered diversion. The Fenton River was an over allocation it was registered for more than the aquifer and stream could handle and it dried it up. My concern is that it could happen here again if this increases efficiency and I would bet it will dry up the Coppermine. This is why I am asking for it to be monitored. The commission has the authority to have New Britain Water Department monitor the Brook. There is no separation from groundwater and surface water. This should be monitored with stream flow gauges; DEEP has trail cameras and the facilities would monitor this as well as the US Geological Survey. She also asked about the petition that was submitted and what action was taken with it.

Commissioner Rooks asked if she is asking us to regulate ground water?

Alisha Charmnut, answered, No I am asking to condition the permit to ensure that that groundwater withdrawals are not impacting the Coppermine brook, I also wanted to ask about the position to intervene, was that approved by the commission?

Peter Olsen, Land Use & Conservation Counsel, responded to the petition question. Intervention petitions are accepted when submitted, but it doesn't mean the allegations are determined to be sufficient, or that proof has been present. My advice is to defer that determination until ready to make a decision. Basically, not yet is the answer to the question.

Joe Laliberte, responded comments from Alisha. He stated he has worked with Alisha on another projects and understand the concern over the Coppermine Brook. We are putting monitoring during construction during the drawn down test to look at any impact to the Coppermine and Bristol well field. New Britain is not the only well field that is pulling from the Coppermine brook. Bristol also has a well field that pulls from the Coppermine brook. I don't think there should be a contingency on New Britain's well field that isn't applied to anybody else pulling from the same brook. I am not disagreeing that there is a major concern, and I think there might be talks and conversation as to how best to address that, but to tie it to what New Britain is trying to do, which is just to upgrade the existing facility that they have a registered diversion for isn't appropriate.

Carl Swanson, representing Farmington Valley Chapter of Trout Unlimited, spoke regarding the watersheds concerns about the Coppermine as well as the concern of the environment aspect and the aquatic life in the rivers and how will they be affected. There is a lot of water being pulled from the system from Coppermine, especially in a drought. For this reason, Farmington Valley TU feels that it should be a net zero increase in water extraction from Coppermine Brook. Because of this we are asking Bristol Inland/Wetland and Watercourse Agency to deny the New Britain Water department's application to increase the depth of the current wells.

Sebastina Amenta, responded, saying that as part of the DEEP approval and the documents submitted, we had to provide the information and the wells are not any deeper. If they went deeper then New Britain water would have been subject to an urgent permit. We are in the same aquifer and same depths, just a different withdrawal system.

Robert Longo, Bristol Water Department, spoke regarding his concerns about this project. I have personally witnessed drawdowns that effected our wells during summer months to the point where we had to reduce demands or shut down our well field. The original 72-hour pump test shows a reduction versus the registered diversions. The numbers talked about tonight don't necessarily include the 15 million of the ponds. The Bristol Water Department is concerned about the resiliency of the aquifer as it is the supply to our city. If there was a problem, they still have the at Shuttle Meadow facility. There are also many private wells on Stafford Ave and Stevens Street that could be impacted. We do support a third-party review. We are concerned to make sure that supply for the residents of the city is well protected.

Sebastian Amenta, stated that Mr. Longo raised some good points. The state health department was adamant that we did not impact the City of Bristol supplies from the volume and water quality aspect. There will be a test on the wells as well as real time monitoring Bristol wells as well.

Raymond Esponda, New Britain Water Department Director, stated that during the 2015 drought in Connecticut, yes, we used the facility to supply all our customers. The water levels at Shuttle Meadow were gone. We were down to less than 20 % of the water supply. These wells can be used straight out and supply the people of New Britain with water that will not have any potential dangers to them.

Carol Noble, Certified Wetlands engineer, spoke about her concerns with potable wells. It was determined from one of the earlier studies, that did not use those aquifer numbers, because it was determined that the aquifer could not support the max registration diversion of the New Britain upper, lower and Bristol Mix Street well fields. These are red flags that the aquifer cannot support this. The consultant should talk about how the drawdown will be occurring. I feel its important we establish what those impacts are before they are allowed to do the this.

Chairman Fisk asked if other alternatives were looked at?

Sebastian Amenta, stated that various alternatives were looked at. New Britain looked at interconnections with the NDC, and others, but the water quality is drastically different so that all interconnections would require a treatment plant at point of transfer and would become very expensive. Also, there was no one connection that could provide that volume of water, if would be two or possibly three. That was the major point why. But, as stated by Mr. Esponda if the treatment plant goes down, he has nowhere to go.

Carol Noble, spoke again, I was wondering if the consultant could talk about the safe yield from the past study that determined the aquifer could not support the max registered divergent rates. The Bristol aquifer protection boundary was based on this and if the proposal rate is larger that this boundary, should that boundary be reevaluated. Also, what protections will be put on operations so that they will not be pulling during a drought period to dry up the Coppermine because it didn't work before, as now would be the time to make improvements so that never happens again.

Sebastian Amenta, stated that at the time of the test, they were limited to using whatever wells were available and the pumping system available. The safe yield and pumping capacities are different numbers and you can pump more water for a short period and less water for a longer period of time

Rob Longo, spoke again. In 2007 there was a level A decline in Bristol's supply. The PH of New Britain's water is chemically changed by choice and are very concerned if nothing can be done afterwards. Mr. Amenta mentioned that the department of public health has mandated that our supplies be monitored as well, but that is only for ground water under the direct influence and did not include volume. If it does include volume, then we would like to see that and be part of the record.

Sebastian Amenta, spoke again, stating the monitoring system, is volume also and was clear to us in discussion with the DPH, and we say that because the city of Bristol Mix St. wells draws from the Polkville Brook before it gets to the Coppermine Brook. There are wells that are planned near the intersection of the Polkville Brook and Coppermine Brook, and with the better technology during any situation, those wells could be turned off which is the whole reason for this extensive monitoring program. There will be 50 monitoring wells. The streamflow monitoring is to make sure there are no issues.

Ramon Esponda, New Britain Water Department, 1000 Shuttle Meadow Ave., New Britain, stated that the PH is required by the Department of Public Health because of Copper concerns. After 20 years it has created a scale

on those pipes and if the PH is changed, all the metal that has been captured will be released and that is my big concern.

Carol Noble, stated, this is tied in with surface water, and when the review of safe yields is done, they don't consider environmental impacts. It is important from a wetland standpoint, what the pump systems will do to the wetlands and watercourses and what these drought protections are going to be.

Joseph Hammer, spoke and stated that they are aware this will be continued until next month, which will be April 1, 2024 at 6:30 p.m. and they will be ready to answer any more questions and any new data.

MOTION: Move to schedule a site walk for app# 2019

By: Robinson

Seconded: Rooks

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

Against: None.

Abstained: None.

Motion passed.

MOTION: Move to continue the public hearing for Application #2019 to the April 1, 2024 meeting at 6:30 p.m.

By: Robinson

Seconded: Carros

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

Against: None.

Abstained: None.

The public hearing is continued.

MOTION: Move to continue the public hearing for Application #2020 to April 1, 2024 meeting at 6:30 p.m.

By: Robinson

Seconded: Carros

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

Against: None.

Abstained: None.

The public hearing is continued.

MOTION: Move to continue the public hearing for Application #23-458F-305 to the April 1, 2024 meeting at 6:30 p.m.

By: Robinson

Seconded: Carros

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

Against: None.

Abstained: None.

The public hearing is continued.

Chairman Fisk called for a recess at 8:15 p.m.

Chairman Robinson called to resume the meeting at 8:17 p.m.

- d. 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 – Withdrawn by applicant.
- e. 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 – Withdrawn by applicant.

The Commission received the following items in their electronic packets for Application #2021:

- a. Assessor's Map with Inland Wetlands Watercourse Layers
- b. Application (attached narrative from EMS Bristol)
- c. Attachment A, undated
- d. Drainage Plan
- e. Drainage Area Delineation Map
- f. Plan (Electronic Copy Only)

Nancy Levesque, City of Bristol Engineer, stated that the applicant has withdrawn the application.

MOTION: Move to file application # 2021.

By: Robinson

Seconded: Rooks

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

Against: None.

Abstained: None.

The Application #2021 was filed.

The Commission received the following items in their electronic packets for Application #24-458F-306:

- a. Assessor's Map with Inland Wetlands Watercourse Layers
- b. FEMA Map
- c. Application (attached narrative from EMS Bristol)
- d. Attachment A, undated
- e. Drainage Area Delineation Map
- f. Plan (Electronic Copy Only)

MOTION: Move to file Application #24-458F-306.

By: Robinson

Seconded: Ritchie

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

Against: None.

Abstained: None.

The application is filed.

6. Receipt of New Applications

Application #2022 – Wetlands application for piping of existing channel from culvert at Perkins Street east to collecting stream at 120 Perkins Street; Assessor's Map 60, Lot 14B; City of Bristol, Public Works Department, applicant.

- a. Assessor's Map with Inland Wetlands Watercourse Layers
- b. Application
- c. Report dated February 21, 2024, from Bristol Dept. of Public Works, regarding Analysis of Existing Hydrology During 25 Year Storm
- d. Plan (Electronic Copy Only)
- g. NOAA Report, dated October 17, 2023, regarding Point Participation Frequency Estimates

MOTION: Move to receive Application #2022.

By: Robinson

Seconded: Rooks

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

Against: None.

Abstained: None.

The application is received.

Nancy Levesque, City Engineer, stated Public Works recognizes that this is a significant activity and request a site walk and public hearing to be scheduled.

MOTION: To schedule a public hearing for Application # 2022.

By: Robinson

Second: Rooks

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

Against: None.

Abstained: None.

Motion passed.

MOTION: Move to declare Application #2022 a significant activity and set a public hearing for April 1, 2024 and schedule an onsite inspection on March 23, 2024 at 8:00 am. with a backup date of March 31, 2024 at 8:30 a.m.

By: Robinson

Seconded: Rooks

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

Against: None.

Abstained: None.

The application #2022 was declared a significant activity.

MOTION: Move to schedule a site walk for March 23, 2024 at 8:30 am. With a backup date of March 31, 2024 at 8:30 a.m. for Application # 2019.

By: Robinson

Seconded: Rooks

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

Against: None.

Abstained: None.

A site walk was scheduled.

7. Staff Reports

a. IWWC Report – February 2024

The Commission received the following items in their electronic packets:

aa. Inland Wetlands Zoning Enforcement Officer report dated February 27, 2024

MOTION Move to file the report.

By: Robinson

Seconded: Massaro

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

Against: None.

Abstained: None.

The report is filed.

8. Communications

a. Pesticide Notification

The Commission received the following items in their electronic packets:

aa. Permit Application for the Use of Pesticides, State Waters, from the ConnDEEP, for Indian Rock Pond

MOTION Move to file the report.

By: Robinson

Seconded: Carros

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

Against: None.

Abstained: None.

The report is filed.

9. **Adjournment**

MOTION: Move to adjourn at 8:36 P.M.

By: Robinson

Seconded: Carros

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

Against: None.

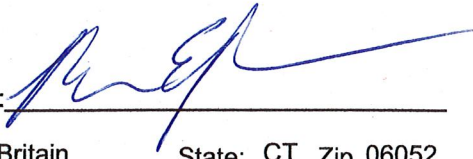
Abstained: None.

DRAFT

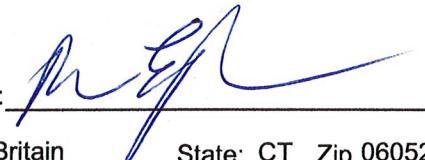
APPLICATION NO. 2019
DATE FILED: 12-28-23
APPROVED: _____
DENIED: _____

**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.

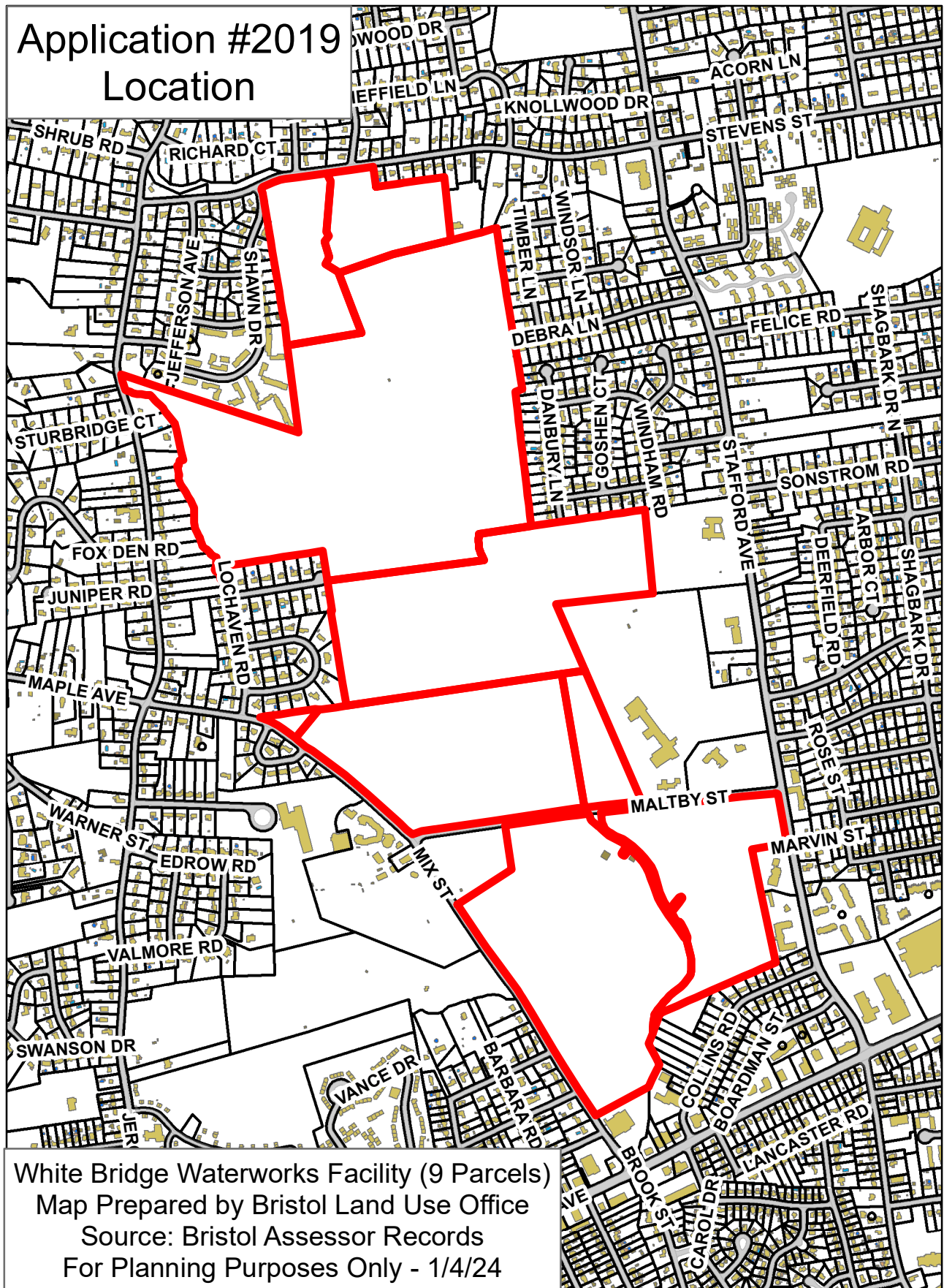
4. DESCRIBE THE REASON FOR THE PROPOSED BOUNDARY CHANGE:

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.

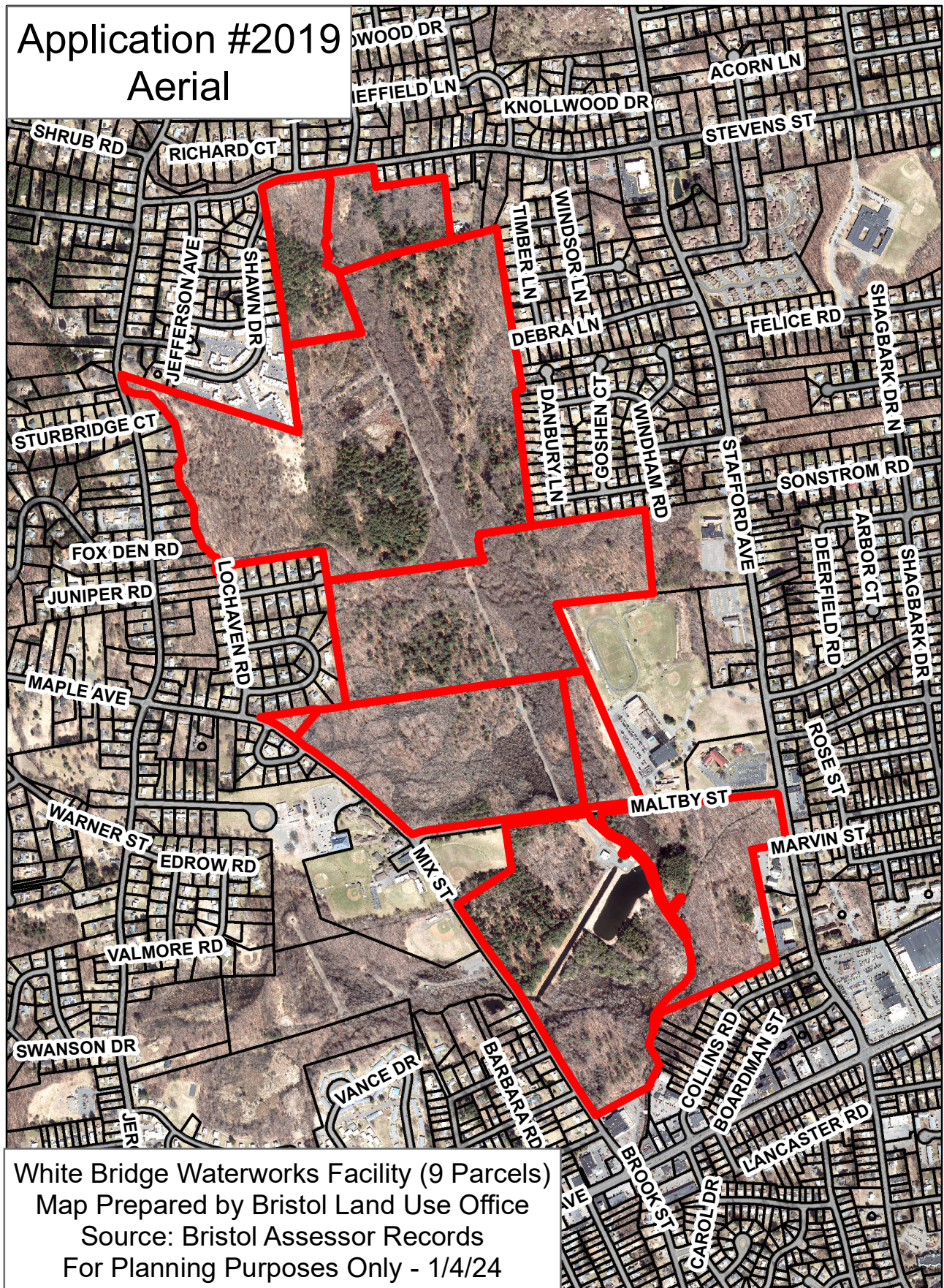
5. AUTHORIZATIONS AND CERTIFICATIONS:

- 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

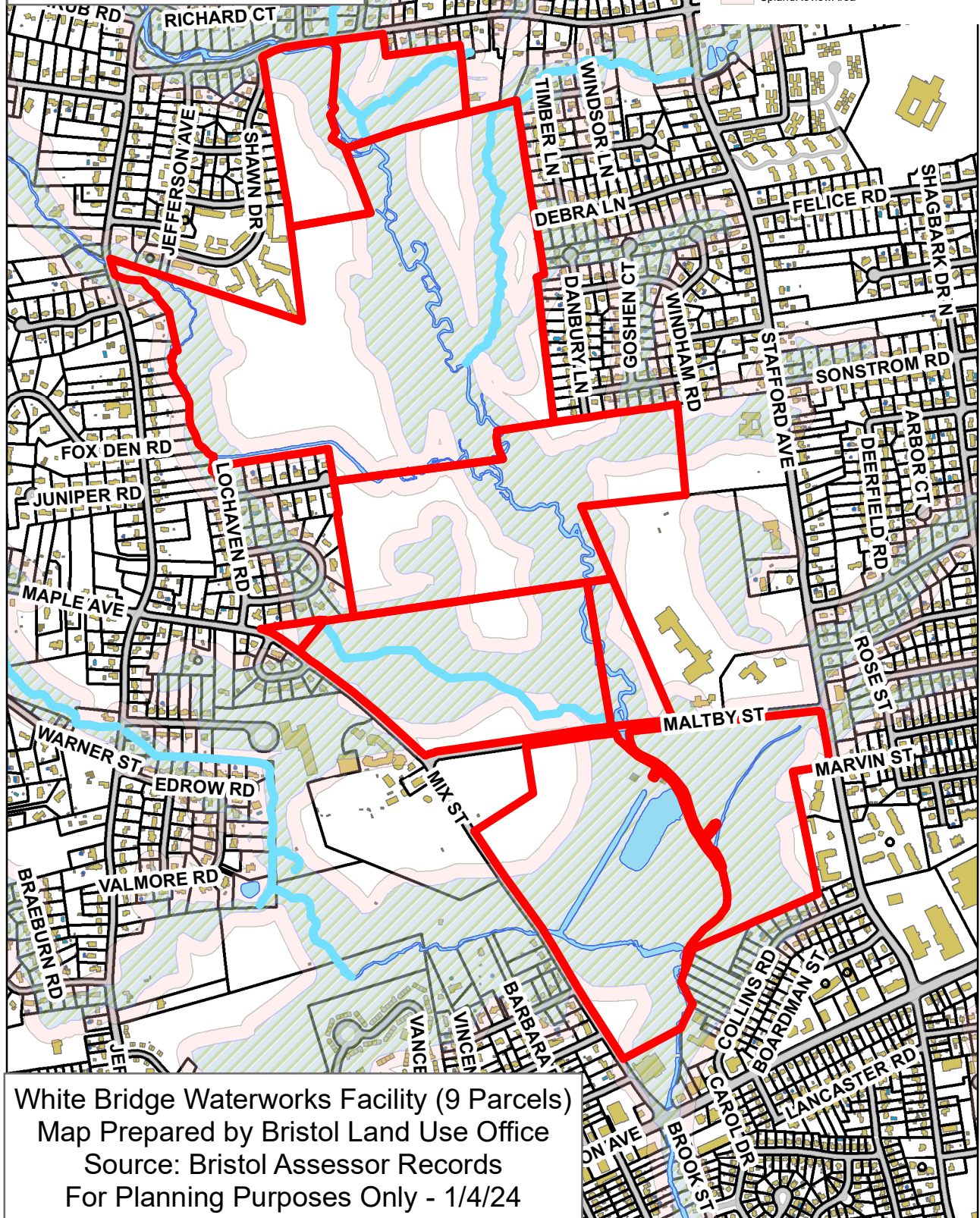


White Bridge Waterworks Facility (9 Parcels)
Map Prepared by Bristol Land Use Office
Source: Bristol Assessor Records
For Planning Purposes Only - 1/4/24

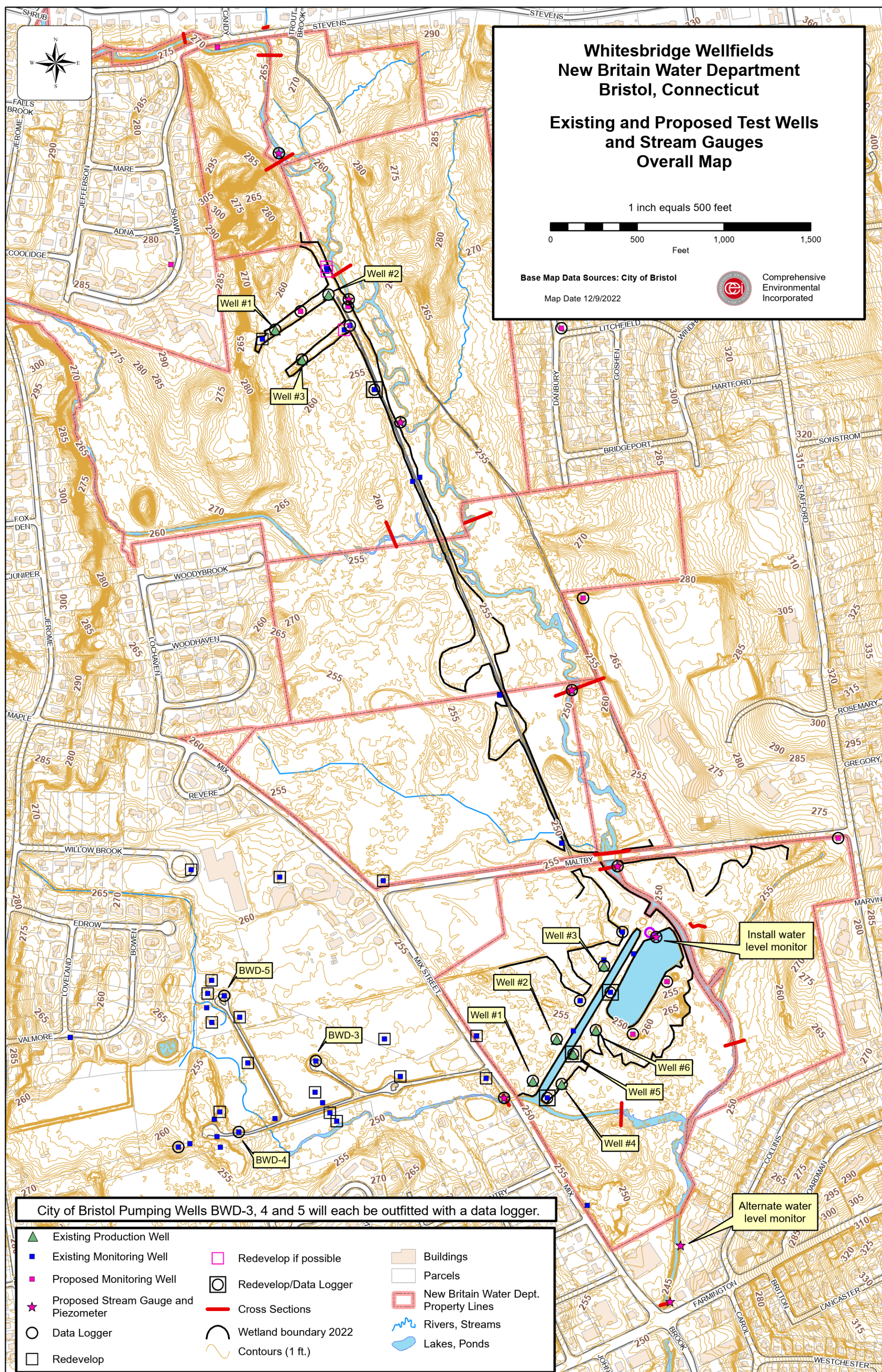
Application #2019 IWWC

Legend

- SITE
- BRISTOL_GIS.DBO.Bristol_Waterbodies
- BRISTOL_GIS.DBO.Bristol_Watercourse_lines
- 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



March 28, 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:

Thank you for your decision last month to have the subject project reviewed by 3rd party experts and continue the public hearing. This complex project needs more study/explanation before allowing taxpayer money to be spent for expansion in this precious area of Bristol's limited aquifer/surface water and wetland resources.

The application has not identified all the likely wetland and surface water impacts that would result from the proposed expanded well/pumping operations. The application also does not provide enough information on operational protocols to help minimize the surface water and wetland impacts. Without clarification of the likely impacts, how can an adequate mitigation plan be properly assessed and implemented?

At the North Whitebridge wellfield, the reported test monitoring data (as submitted in Figure 2 of the hydrogeologic report (attached)) indicates with only **one pump operational at 200 gpm, the drawdown of the water is significant, extending hundreds of feet into the surrounding wetlands/surface water area.**

- What are the proposed groundwater drawdown effects for the three proposed 24" wells, operating simultaneously at 470 gpm each (totaling over 7 times the pump capacity of the existing 8" well 5A test performed for the drawdown data provided in Figure 2)?
- What is the wetland/surface water area (in SF or acres) within the drawdown zone resulting from the proposed pumps? What is the assessment and mitigation plan for these areas' impacts?
- How will the simultaneous pumping operation of the three new 24" wells impact the adjacent wetland and surface water elevations?
- How will the lowered groundwater elevation impact wetland biology; flora and fauna?
- What surface water monitoring is currently being done or has been done to understand the existing surface water level fluctuations relative to withdrawals and seasonal changes?
- Will there be any operational controls or protocol that restrict use? Without operational protocols, structural controls, reporting and restrictions, the wetlands and impaired Coppermine Brook will not be protected.

Similarly, at the South Whitebridge wellfield, the 2019 pump test monitoring of 5 wells at a total discharge of approximately 900 – 1,100 gpm resulted in the drawdowns shown in the attached Figure 5. The report notes significant drawdown of the canal, pond and adjacent wetlands, even with the limited data provided.

- What are the proposed groundwater drawdown effects for the six proposed 24” wells, operating simultaneously at 470 gpm each (totaling approximately 4 times the pump capacity of the existing five 8” well (3, 6, 13, 14, 18) testing performed for the drawdown data provided in Figure 5)?
- What will be the influence with the proposed pond pumps on the surface and groundwater drawdown, where the existing pond pumps are reportedly drawing 3 MGD, versus the 15 MGD proposal (proposed four 3,500 gpm pumps)
- What is the wetland/surface area (in SF or acres) within the drawdown zone resulting from the proposed pond and well pumps operating simultaneously? What is the assessment and mitigation plan for these impacts?
- How will the operation of the six new 24” wells, simultaneously operating with the pond pumps, impact the adjacent wetland and surface water elevations?
- How will the lowered groundwater elevation impact wetland and brook biology; flora and fauna?
- What surface water monitoring is currently being done or has been done to understand the surface water level fluctuations relative to withdrawals and seasonal changes?
- Will there be any operational controls or protocol that restrict use? Without operational protocols, structural controls, reporting and restrictions, the wetlands and impaired Coppermine Brook will not be protected.

Note that the 2007 Level A study used pump rate data in the model much lower than the wellfield registrations/proposed use. The Lenard Study stated “It was determined that the aquifer could not support the maximum registered diversion of the New Britain upper, lower and Bristol Mix Street wellfields”. The study reassigned “agreed upon” reduced flow rates to simulate a safe yield for each of the wellfields.

Operations and/or the established drought safe yields model did not protect the drying out of the Coppermine in 2016 (photo credit Rivers Alliance).



How can the Bristol Inland Wetland Commission protect the flow-impaired Coppermine and surrounding wetlands? Please consider the following:

- a. North wellfield: Applicant should model the effects of the groundwater and surface water drawdown resulting from the proposed wells' pump rate capacities, operating simultaneously. Clearly show the extents of the drawdown relative to regulated wetlands and surface waters. Tabulate the impacted area and provide a flora and fauna assessment of the impacts. Address surface water fluctuations relative to operational and seasonal changes. Address operational protocols to protect Copper Mine and associated wetland areas. Address mitigation plan, including monitoring, for all unavoidable impacts.
- b. South wellfield/pond: Restrict relocation of wells that further impact wetlands. (The wells not need be relocated if they remain raw water wells. Their potable reliability has not been established). Applicant should model the effects of the groundwater and surface water withdrawal capacities simultaneously to clearly show the extents of the drawdown relative to regulated wetlands and surface waters. Tabulate the impacted area and provide a flora and fauna assessment of the impacts. Address surface water fluctuations relative to operational and seasonal changes. Address operational protocols to protect Coppermine and associated wetland areas. Address mitigation plan, including monitoring, for all unavoidable impacts.

The well and pond withdrawals have been documented to affect and to rely on the adjacent surface water natural system. These surface water sources and wetland storage areas serve valuable water quality, quantity and wildlife functions. Thank you for your consideration.

Carol Noble, P.E., CFM (ret)

Attachment 1:

Tables of the rates and the study references are compiled below for informational purposes.

White Bridge Upper Wellfield:

	DEEP Diversion Registration (2)	Existing Withdrawal (3)	Proposed Withdrawal (2)	Level A Study Withdrawal (4)	Safe Yield Ave (4)	Safe Yield Drought (4)	Pump test (2, 3)
gpm	1,500	~200	3@470=1,400	840	694	600	200 (Well 5A)
MGD (1)	2.16	~0.3	2.0	1.2	1.0	0.86	0.3

Notes:

(1) Conversion 1 MGD = 694.44 gpm

(2) Preliminary Engineering Study, CEI CDE Smith, Feb 2021

(3) Existing withdrawal assumed from the April 2020 CEI Hydrogeologic report estimating the most current working well pump

(4) Level A Study Withdrawal taken from Dec 2007 Lenard Hydrogeologic Level A Study Executive Summary. Note the Lenard Study states ““It was determined that the aquifer could not support the maximum registered diversion of the New Britain upper, lower and Bristol Mix Street wellfields”. The study reassigned “agreed upon” reduced flow rates to simulate a safe yield for each of the wellfields.

White Bridge Lower Wellfield:

	DEEP Diversion Registration (2)	Existing Withdrawal (3)	Proposed Withdrawal (2)	Level A Study Withdrawal (4)	Safe Yield Ave (4)	Safe Yield Drought (4)	Pump test (2, 3)
gpm	4,333	700 - 1250	6@470=2,800	2,190	1,958	611	850-1080 (meas at caisson (3,4))
MGD ⁽¹⁾	6.24	1 - 1.8	4.0	3.15	2.82	0.88	1.2 – 1.6 (meas at caisson ^(3,4))

Notes:

(1) Conversion 1 MGD = 694.44 gpm

(2) Preliminary Engineering Study, CEI CDE Smith, Feb 2021

(3) Existing withdrawal taken from the April 2020 CEI Hydrogeologic report inferring test well pump rates based on 1985 pump test.

(4) Level A Study Withdrawal taken from Dec 2007 Lenard Hydrogeologic Level A Study Executive Summary. Note the Lenard Study states ““It was determined that the aquifer could not support the maximum registered diversion of the New Britain upper, lower and Bristol Mix Street wellfields”. The study reassigned “agreed upon” reduced flow rates to simulate a safe yield for each of the wellfields. No pond pump withdrawal was considered in the evaluation.

White Bridge Pond System:

	DEEP Diversion Registration (2)	Existing Withdrawal	Proposed Withdrawal	Level A Study Withdrawal (4)	Safe Yield Ave (4)	Safe Yield Drought (4)	Pump test (4)
gpm	10,400	~2,000	3@3,500=10,500	NSE	NSE	NSE	NSE
MGD ⁽¹⁾	15	~3	20.2 (4 pumps) 15 (3 pumps)	NSE	NSE	NSE	NSE

Notes:

(1) 1 MGD = 694.44 gpm

(2) Preliminary Engineering Study, CEI CDE Smith, Feb 2021

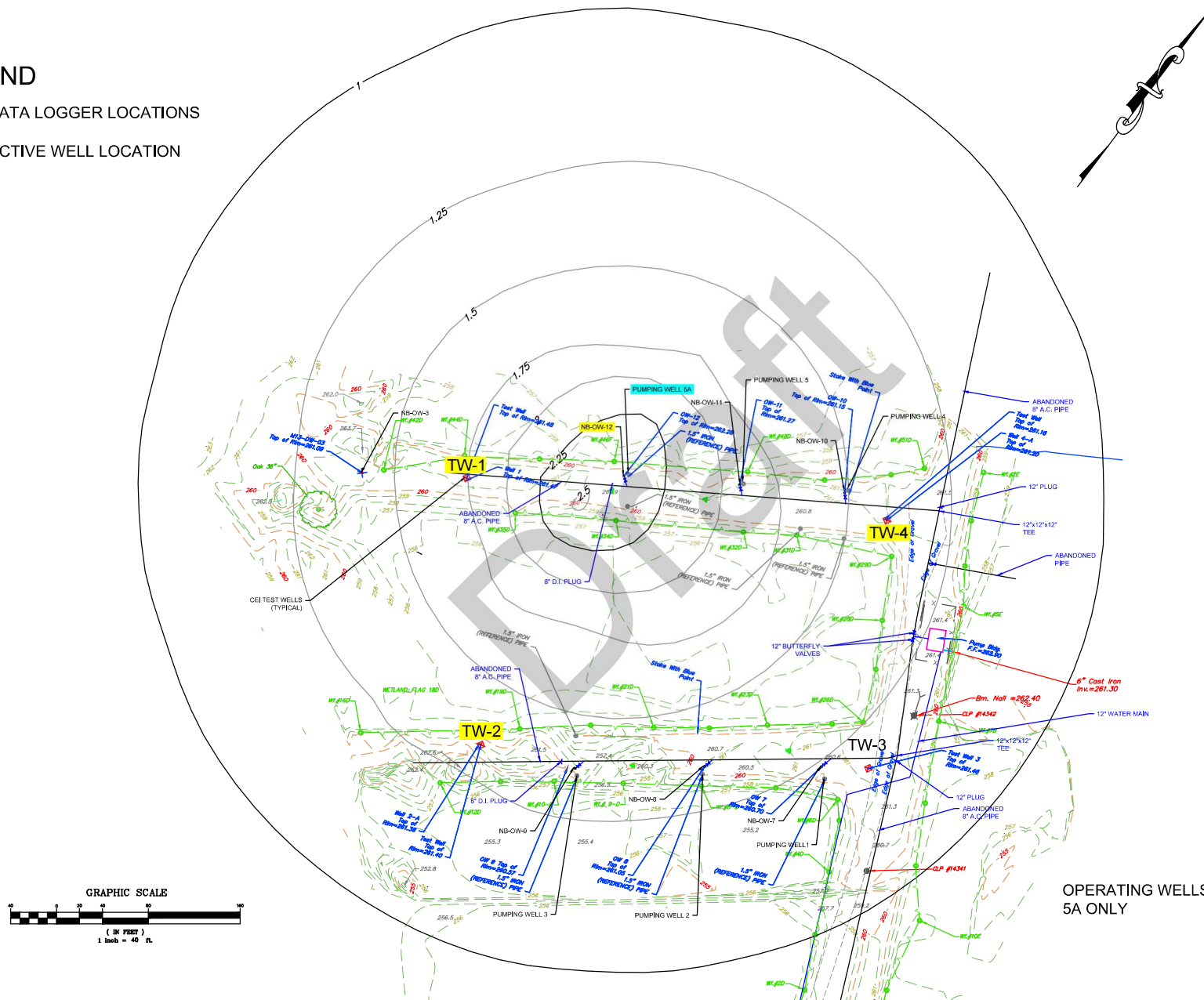
(3) Existing withdrawal assumed from the April 2020 CEI Hydrogeologic report reference

(4) NSE = Not Specifically evaluated

Although the engineering reports document the influence of the pond pumping on the lower wellfield pump tests, simultaneous pond pumping influence was not evaluated.

LEGEND

- DATA LOGGER LOCATIONS
- ACTIVE WELL LOCATION



General Notes

OBSERVED GROUNDWATER CONTOURS WERE DEVELOPED AFTER 12 HOURS OF CONTINUOUS PUMPING AT 200 GPM

NOT FOR CONSTRUCTION

Revision/Issue	Date



**FIGURE 2
UPPER WHITE BRIDGE
WELLFIELD**

GROUNDWATER CONTOURS

BRISTOL, CT

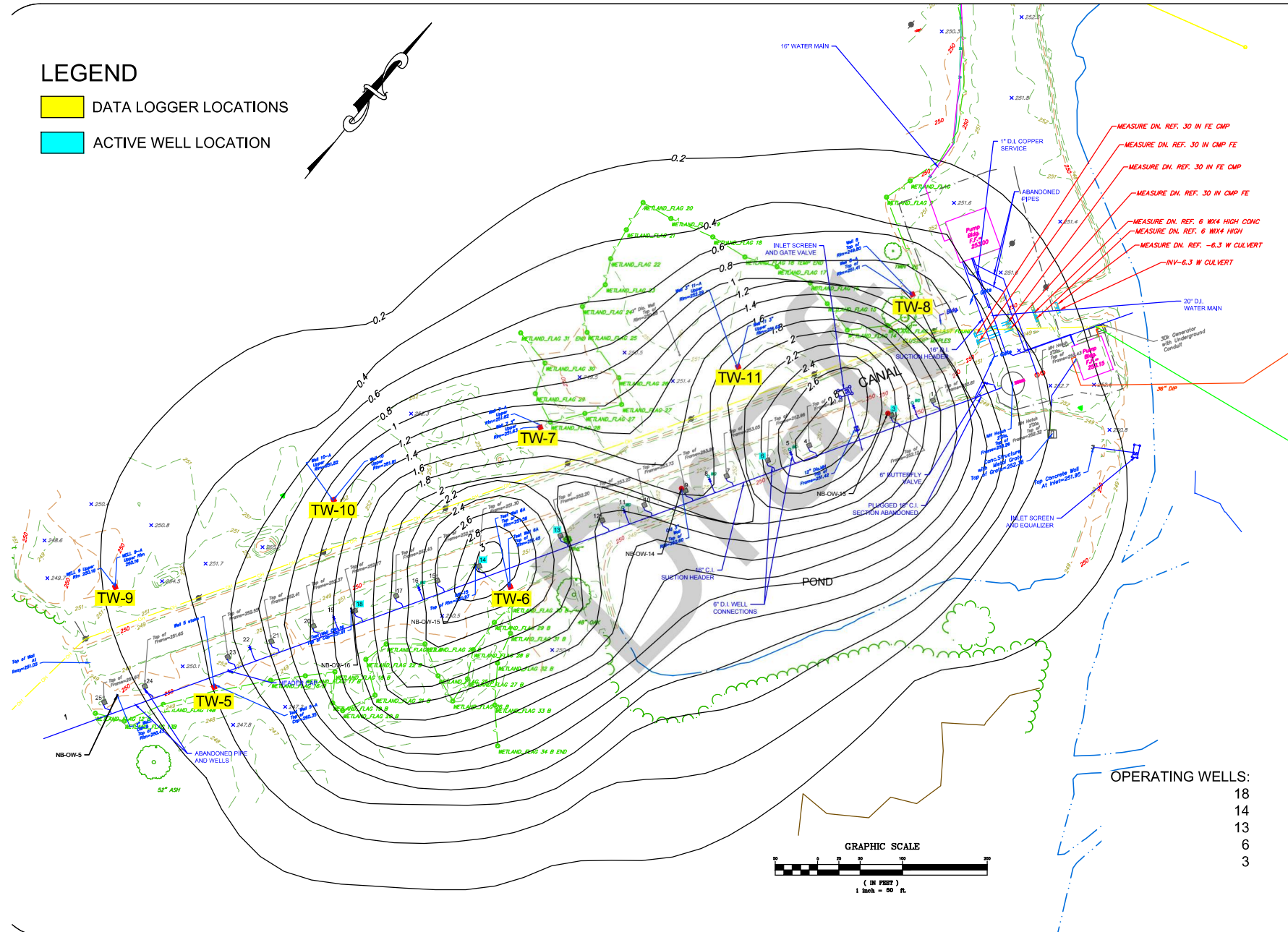
Project No.: 702-4
Date: APRIL 2020
Drawn By: NBS
Checked By: SA

Sheet

**OPERATING WELLS:
5A ONLY**

LEGEND

- DATA LOGGER LOCATIONS
- ACTIVE WELL LOCATION



General Notes

OBSERVED GROUNDWATER CONTOURS WERE DEVELOPED AFTER 20 HOURS OF CONTINUOUS PUMPING AT 1.5 MGD

NOT FOR CONSTRUCTION

Revision/Issue

Date



FIGURE 5
LOWER WHITE BRIDGE
WELLFIELD
GROUNDWATER CONTOURS
BRISTOL, CT

Project No.: 702-4
Date: APRIL, 2020
Drawn By: NBS
Checked By: SA

Sheet

March 27, 2024

To Zachary Fisk
Chairman, Bristol Inland Wetland and Watercourses Commission

Re: Public hearing for the White Bridge Project scheduled for April 1, 2024

Dear Commissioners,

We have collectively made progress - through this extended public hearing process - towards accepting the three White Bridge applications (**#2019, #2020, and #23-458F-305**) in a fully informed manner. We have learned how the project will benefit the region by providing emergency potable water in times of drought and protect the neighborhood in times of heavy rain with compensatory storage. However, critical questions about unstudied potential impacts have yet to be answered. In this letter, I wish to reiterate some crucial pieces that are still missing from the bigger picture in terms of environmental impacts as we await the results of the third party review. I hope you see the importance, as do I, of continuing this public evaluation of the White Bridge project so we can reach the best possible solution.

My greatest concern is that the direct and indirect impacts of all aspects of this project have not been sufficiently explored. There is no doubt that drawing *any amount* of water from the new wells is going to ***alter the amount and flow of surface and subsurface water***. I feel that the eight, 2.5-inch test wells do not provide enough information to safely determine that nine, 24-inch high-efficiency wells will not impact the wetlands and the Coppermine Brook. If the New Britain Water Department will truly only extract large amounts of water in times of emergency, then this wetland system will surely be strained. Straining the Coppermine can lead to its collapse.

Because the new wells will alter the recharge of surrounding wetlands (and because more wetlands will be constructed), the habitats on the property will drastically change. This is why the environmental review must go ***beyond simply locating wildlife, it needs to predict where changes in habitat quality will occur***. How and where will species be affected? How will species respond to increased human activity, wetlands replication, and changes in water levels? Where do they live now and where will they potentially move to? Should some areas be avoided?

Wood Turtles are very sensitive to disturbances. If they are found to be present, special care should be taken to protect their isolated population. A study by Steven Garber and Joanna Burger in 1995 monitored a Wood Turtle population for 20 years in a wildlife reserve in Connecticut, but when hikers were allowed to enter the property the number of turtles quickly declined to zero. Other species like the Slimy Sculpin and Great Blue Heron deserve to receive some kind of survey because of their proximity to the project area. At a minimum, getting a count of re-nesting Great Blue Herons will tell us if the White Bridge wetlands are still the largest heronry in Connecticut.

Even with the third party review, we cannot predict all the possible impacts. This is why ***continuous monitoring of the Coppermine's water level and surface waters in the wetlands are vital to the sustainability of White Bridge as a water source***. Should disastrous, unpredicted events occur, the New Britain Water Department could adjust their withdrawals to preserve the health and longevity of the aquifer and brook. Monitoring will also protect wildlife habitat. Therefore, water level monitors *must* be included in the proposal and monitoring *must* continue even after the construction phase.

We need more data; we cannot assume the typical test results are going to give us the full picture. I am looking forward to seeing the results of the environmental review.

Thank you again for hearing my concerns,

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

FW: inland wetlands app. # 2019,2020,2022

Nancy Levesque

Mon 3/25/2024 1:36 PM

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

For the file

From: Nancy Levesque
Sent: Monday, March 25, 2024 1:36 PM
To: 'MICHAEL SIMMONS' <mrsimm29@gmail.com>
Subject: RE: inland wetlands app. # 2019,2020,2022

[Inland Wetlands Agency/Conservation Commission](#) • [City of Bristol Meetings](#) • [CivicClerk](#)

This is a copy of the agenda from last month's meeting – April's will be posted soon. The plans and narrative describe the proposed activities. They are planning a rehabilitation of the facility including the abandonment of existing wells, replacement with new wells and the demolition of multiple buildings with a proposed new pump house facility that will potentially provide water treatment at the end of a year's testing. Withdrawal rates for the wells are determined by DEEP and their permit is not increasing that permitted rate.

From: MICHAEL SIMMONS <mrsimm29@gmail.com>
Sent: Monday, March 25, 2024 1:19 PM
To: Nancy Levesque <NancyLevesque@bristolct.gov>
Subject: inland wetlands app. # 2019,2020,2022

Hi Nancy-My name is Mike Simmons, a member of the non-profit Friends of the Hoppers Birge Pond organization. Trying to find out the purpose of these applications in order to see if they present any conflicts with our need and want to keep the Hoppers in its pristine natural state. Thank you for any assistance you can provide.

Sincerely Michael Simmons P.S. I also left a voice message.

FW: Intervenor

Nancy Levesque

Mon 3/4/2024 2:43 PM

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

From: Olson, Peter S. <polson@luacc.com>
Sent: Monday, March 4, 2024 2:41 PM
To: Nancy Levesque <NancyLevesque@bristolct.gov>
Cc: Robert Flanagan <RobertFlanagan@bristolct.gov>
Subject: RE: Intervenor

Nancy-

Thank you for the note. The statutes allow any person to file an intervention pleading in an administrative proceeding and thereby become a party. As such, there is no need for the Board to formally "accept" the intervention, the act of filing it is sufficient.

Under CGS Sec. 22a-19, a valid intervention pleading requires that the commission consider the alleged unreasonable pollution, impairment or destruction of the public trust in the air, water or other natural resources of the state.

Further, the commission may not approve any conduct which does, or is reasonably likely to, have such effect if there are feasible and prudent alternatives.

These requirements are generally addressed at the time of decision on the application, in the Commission's decision.

However, at that time, and before proceeding to those decision elements, the Commission should also decide whether the intervention pleading is sufficient under the statutes, specifically CGS 22a-19 (b), which requires that "[t]he verified pleading shall contain specific factual allegations setting forth the nature of the alleged unreasonable pollution, impairment or destruction of the public trust in air, water or other natural resources of the state and should be sufficient to allow the reviewing authority to determine from verified pleading whether the intervention implicates an issue within the reviewing authority's jurisdiction.

The Supreme Court has held that "a petition for intervention filed under § 22a-19 must contain specific factual allegations setting forth the environmental issue that the intervenor intends to raise." *Nizzardo v. State Traffic Comm'n*, 259 Conn. 131, 164-65, 788 A.2d 1158, 1178 (2002).

Thus, while any person can file an intervention pleading, before the Commission's obligations are triggered, the Commission should review the intervention pleading and determine whether the specific factual allegations are sufficient to identify issues within the Commission's jurisdiction. The Commission need only consider alternate plans if it finds the likelihood of unreasonable pollution. *Paige v. Town Plan & Zoning Commission*, 235 Conn. 448, 668 A.2d 340 (1995)

I hope this is helpful. Please add this email to the public record in this matter and distribute to Commission members.



Peter S. Olson
Land Use & Conservation Counsel
275 Greenwood Avenue

Bethel, CT 06801
203.297.6070 - Facsimile 203.297.6071
Mobile 203.521.6789
polson@luacc.com

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From: Nancy Levesque <NancyLevesque@bristolct.gov>
Sent: Monday, March 4, 2024 12:22 PM
To: Olson, Peter S. <polson@luacc.com>
Cc: Robert Flanagan <RobertFlanagan@bristolct.gov>
Subject: Intervenor

Good afternoon,

The Bristol IWWC is requesting counsel with regards to an intervention petition that was recently filed in accordance with section 22a19 for application 2019, 2020 and 23-458F-305.

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.
<https://bristolct.portal.civicclerk.com/event/603/overview>

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.
<https://bristolct.portal.civicclerk.com/event/603/files/attachment/389>

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.
<https://bristolct.portal.civicclerk.com/event/603/files/attachment/390>

Best regards,
Nancy Levesque, PE
Department of Public Works
City Engineer
860.584.6105
nancylevesque@bristolct.gov





March 4, 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:

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.

I serve as Co-chair of the Water Planning Council Advisory group, served on the Policy Subcommittee during the development of the Connecticut State Water Plan, and served as chair of the Rivers Sub-working group of the Working and Natural Land Workgroup of the Governor's Council on Climate Change. I also recently served a six-year term as a member of the Connecticut Council on Environmental Quality as an appointee of the governor and currently serve on the advisory board of the Connecticut Institute of Water Resources.

I do not offer these credentials to be boastful, I offer them so you can understand that water policy and understanding of the statutes and regulations that govern our decision-making when it comes to water is a significant part of my job here at Rivers Alliance as well as in my previous position at the Connecticut River Conservancy.

Based on statements (some of them misleading) made by a member of the applicant's team at the February 5th public hearing, I feel it is important for this commission to understand their role so as not to be swayed by misleading statements.

The Department of Energy and Environmental Protection (DEEP) is responsible for regulating diversions of water of more than 50,000 gallons per day. As I elaborated in previous testimony, 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.

DEEP regulates flows through streamflow regulations. But these regulations only apply to surface water impoundments. Groundwater withdrawals are not subject to streamflow regulation.

If one holds a registered groundwater diversion and uses the up to the registered amount (but no more) then dries up the adjacent stream, DEEP cannot do anything. So when someone on the applicant's team tells you that downstream flows are DEEP's jurisdiction, they are mistaken. DEEP cannot ask NBWD to decrease their withdrawals as long as these withdrawals are under the registered amount.

Please note – The applicant's correction to Application #2020 only clarifies that their withdrawals will remain within their registered diversion. Low flows have been documented on Coppermine Brook with current operations at a portion of the withdrawal NBWD has right to under their registration.

Also, please note that New Britain Water Company holds registered groundwater diversions for quantities that exceed what the aquifer can provide. A 2007 hydrologic study of the upper and lower wellfields found that the wellfields could not support the maximum registered diversion for these wellfields.

The member of the applicant's team was right when he said the commission does not regulate drinking water. However, **the power to protect the wetlands and watercourses in Bristol has been delegated to you by the State of Connecticut. The commission has the authority to regulate any activity which substantially diminishes the natural capacity of an inland wetland or watercourse to: support aquatic, plant or animal life and habitats; prevent flooding; supply water; assimilate waste; facilitate drainage; provide recreation or open space; or perform other functions.**

There is already diminishment of downstream flows on Coppermine Brook. **The Bristol Inland Wetlands and Watercourses Agency and Conservation Commission has the power to condition these applications to ensure flows on the brook that support aquatic life.**

If the applicant contests any of this information on withdrawals and operations, I encourage the commission to request information and data to back up their assertions.

Respectfully submitted,



Alicea Charamut, Executive Director



Joseph L. Hammer
Attorney at Law

jhammer@mrglaw.com
T: 203.777.1001
C: 860.992.3130
F: 860.547.1191

February 26, 2024

VIA EMAIL

Robert Flanagan
City Planner
City of Bristol
111 North Main Street
Bristol, CT 06010

Re: Inland Wetlands & Watercourses Agency/Conservation Commission - Applications #2019, #2020, #23-458F-305; Applicant - City of New Britain, Public Works Department

Dear Mr. Flanagan:

We are writing to you on behalf of the applicant, the City of New Britain, Public Works Department, in order to confirm that the applicant consents to an extension of time to April 1, 2024 for purposes of completing the public hearings on the above-referenced applications. It is the applicant's understanding that the hearings will remain open following the March 4 hearing session and be resumed at the Inland Wetlands & Watercourses Agency's April 1 meeting.

The public hearing was opened on February 5, 2024. The statutory time period of 35 days to complete the hearing will expire on March 11, and an extension of 21 days is therefore needed to keep the hearing open through the Agency's April 1 meeting. The applicant consents to a 21 day extension.

Very truly yours,

A handwritten signature in blue ink, appearing to read 'J. Hammer', with a circular flourish at the end.

Joseph L. Hammer

JLH/sbo



February 26, 2024

Mr. Robert M. Flanagan, AICP-City Planner
City Hall
111 North Main Street
Bristol, CT 06010

RE: UPDATES TO PERMIT APPLICATIONS
#2019, #2020, AND #23-458F-305
FOR THE NEW BRITAIN WATER DEPARTMENT

Dear Mr. Flanagan

The following correspondence is provided to make corrections to the above applications and provide supplemental information for each application.

The attached summary details the documents submitted and the relative application location for submitted correction.

Some of this information was previously submitted, but we wish to formally send it for clarity.

- The major items include correcting the text in Application #2020 to make clear that water withdrawals will remain within the registered diversion volumes. In addition CT DEEP has confirmed the registrations will remain in effect and no diversion permits are required. A letter from CT DEEP is included in the information.
- The Flood Plain permit application has been revised to reflect the updated fill and compensatory storage numbers presented at the February 5th hearing, along with a supporting spreadsheet.

We are working with the NBWD to formalize an operations and maintenance plan for canal/pond and related activities which will be submitted shortly.

We will also be contacting FEMA as to the protocol in submitting a certificate of no rise in flood elevation to the commission.

Please contact me if you have any questions at 860 224 0442 or 860 620 3673.

Sincerely,

COMPREHENSIVE ENVIRONMENTAL INC

Sebastian A Amenta, P.E.
Regional Program Director

CC. Nancy Levesque, City Engineer
Andrew Armstrong, Assistant Planner
Ray Esponda, Deputy Director NBWD
Joseph Hammer, Esquire
Vinta Varghese, CDM Smith

Enclosures: Summary of Attachments-#2019, #2020, and #23-458F-305

Summary of Updates
to
Applications #2019, #2020 and #23-458F-305

#2019-1) Please add the attached map to Attachment 4. It is an overlay of scientist wetlands flagging on the City's wetlands map for the project area.

#2020-1) Please insert the corrected page and substitute it for the page on file.

2) Please add the NDDB and SHPO documents to the filing

3) Map showing Monitor well locations and stream gauge locations.

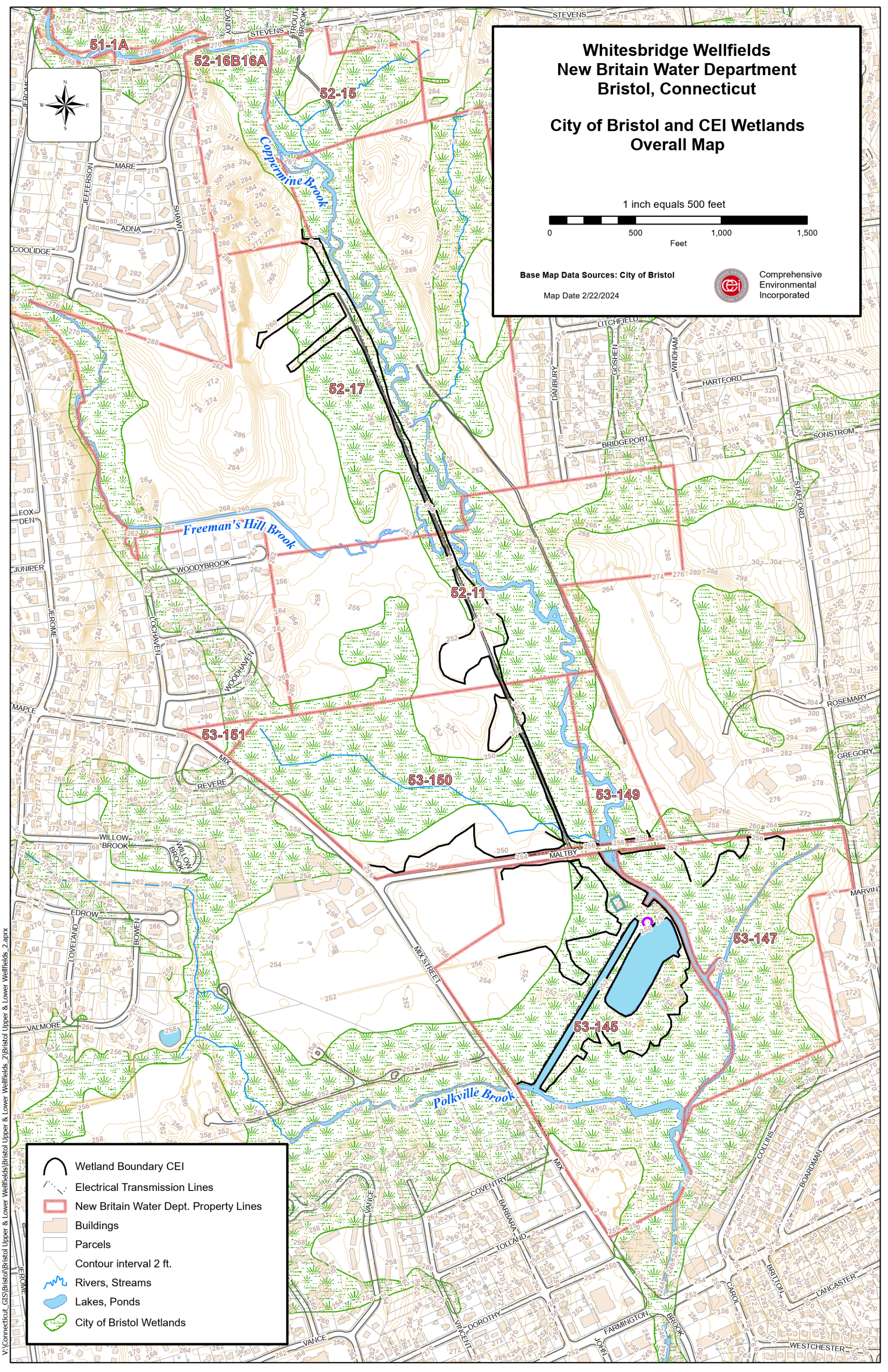
4) Please add the CT DEEP letter which confirms the Diversion Registrations will remain in force and no permit is required.

#23-458F-305-1) Please insert substitute page 2 of the Application PDF which indicates updated volumes for fill and compensatory storage.

2) Please insert page 9 of the PDF which indicates the revised volumes.

3) Please add the attached spreadsheet summary for cut/fill and compensatory storage volume.

#2019 Update



**Whitesbridge Wellfields
New Britain Water Department
Bristol, Connecticut**

**City of Bristol and CEI Wetlands
Overall Map**

1 inch equals 500 feet



Base Map Data Sources: City of Bristol

Map Date 2/22/2024



Comprehensive
Environmental
Incorporated

- Wetland Boundary CEI
- Electrical Transmission Lines
- New Britain Water Dept. Property Lines
- Buildings
- Parcels
- Contour interval 2 ft.
- Rivers, Streams
- Lakes, Ponds
- City of Bristol Wetlands



Mr. Sebastian Amenta, P.E.
Comprehensive Environmental, Inc.
1 Hartford Square, Suite 227
New Britain, CT 06052
samenta@ceiengineers.com

RE: Request for Diversion Permit Need Determination
Whites Bridge Wellfield Improvements
New Britain Water Department
Bristol, CT

Dear Mr. Amenta:

This letter is in response to your November 8, 2023 request for Water Diversion permit need determination regarding your proposal to modify certain registered water diversions. The proposed activities are documented in the report you submitted on behalf of the New Britain Water Department (NBWD) entitled “Negative Declaration of Diversion / White Bridge Wellfield Improvements / Bristol, Connecticut,” dated November 2023 (“the report”), as well as other information provided in a subsequent email dated December 5, 2023. The project involves the replacement of several public water supply wells that make up two separate, but nearby wellfields registered to the NBWD pursuant to Section 22a-368 Connecticut General Statutes (CGS) as described in the table below.

REGISTRATION NUMBER	NAME OF DIVERSION	REGISTERED WITHDRAWAL (million gallons per day)	BASIN NAME
4314-007-PWS-GR	Upper White Bridge Wells	2.1600	Copper Mine River
4314-008-PWS-GR	Lower White Bridge Wells	6.6240	Copper Mine River

The report states that these “wellfields are unable to be used in accordance with their original design intent and drastic improvements are needed due to poor groundwater well performance caused by clogged well screens and an antiquated suction withdrawal system.” The proposed redevelopment includes the abandonment of all existing wells in these two wellfields, replacing them with new wells, all within the extent of the existing wellfields as registered. The proposed wells, as described in the report, will be withdrawing from the same stratified drift aquifer wherein the existing wells are located.

Based on our review of your submittal, it has been determined that this proposal as presented in the submitted materials conforms with Section 22a-377(c)-1(c)(1) of the Regulations of Connecticut State Agencies (RCSA) included below in its entirety:

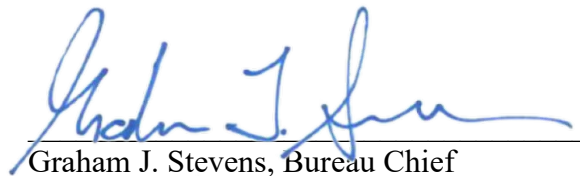
Any person or municipality which registered a diversion pursuant to section 22a-368 of the General Statutes may maintain such diversion only in accordance with the information provided in the registration form filed with the Commissioner. Any person or municipality which registered a diversion pursuant to section 22a-368 of the General Statutes may not cause or allow any modification of such diversion, including but not limited to an increase in withdrawal capacity, without having first obtained a permit under sections 22a-365 to 22a-378, inclusive, of the General Statutes and 22a-377(c)-2 of the Regulations of Connecticut State Agencies, unless such modification is exempt under section 22a-377 of the General Statutes or section 22a-377 (b)-1 of the Regulations of Connecticut State Agencies.

As such, this department finds that the proposed diversion modifications, comprising of the wellfields identified on page 1 of this determination, **will not** require a water diversion permit pursuant to Section 22a-368(a) CGS, provided the total combined withdrawal from the respective wellfields does not exceed the registered withdrawal as indicated in the above table. However, it is requested that you keep us informed as the project develops, particularly on matters relating to aquifer response modeling and induced infiltration studies.

If you should have any additional questions regarding this matter, please contact Doug Hoskins at 860-424-4192 or douglas.hoskins@ct.gov.

February 21, 2024

Date



Graham J. Stevens, Bureau Chief
Water Protection and Land Resources

GS/dh

Cc:

Ray Esponda, New Britain Water Dept., Ray.Esponds@NewBritainCT.gov

Raul Tejada, CT DPH, raul.tejada@ct.gov

Lori Mathieu, CT DPH, Lori.Mathieu@ct.gov

Brendan Schain, CT DEEP brendan.schain@ct.gov

Shalyn Zappulla, CT DEEP shalyn.zappulla@ct.org

Alicia Charamut, Rivers Alliance, alicea@riversalliance.org

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.

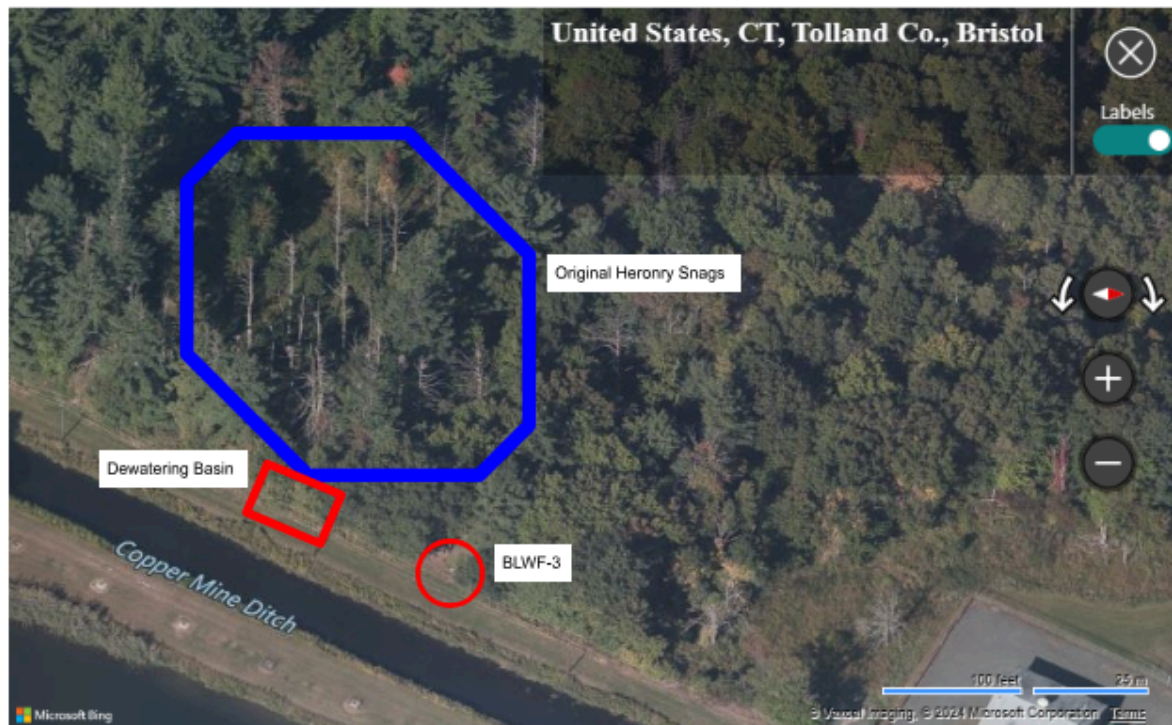
Consulting the NDDDB is simply not enough to protect wildlife. I have seen in other development projects that a lack of listed species reported by the NDDDB in the human delineated "project area" can downgrade the importance of protecting habitat to contractors. Even in this case, because the Slimy Sculpin 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.

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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

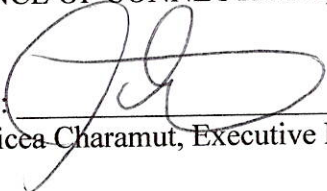
Mary Ridingsward, Executive Director
Pequabuck River Watershed Association
PO Box 1461
Bristol, CT 06011-1461
pequabuckriverct@gmail.com

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

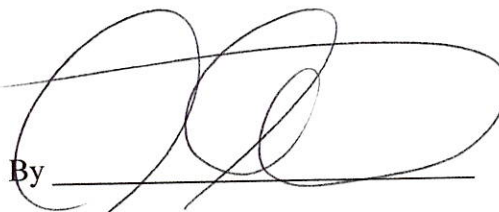
VERIFICATION OF PETITION FOR INTERVENTION
UNDER GENERAL STATUTES SECTION 22a-19(a)

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.

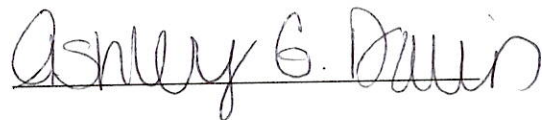
Dated at Newington Connecticut, this 5th day of February, 2024.

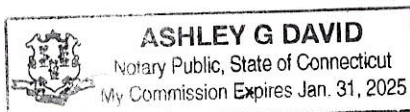
INTERVENOR

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



Photos submitted by Daniel Sutula - 3/11/24

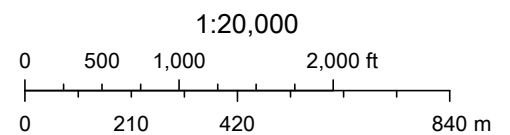
ATTACHMENT 1

PROJECT SITE MAP

White Bridge Waterworks Facility



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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.

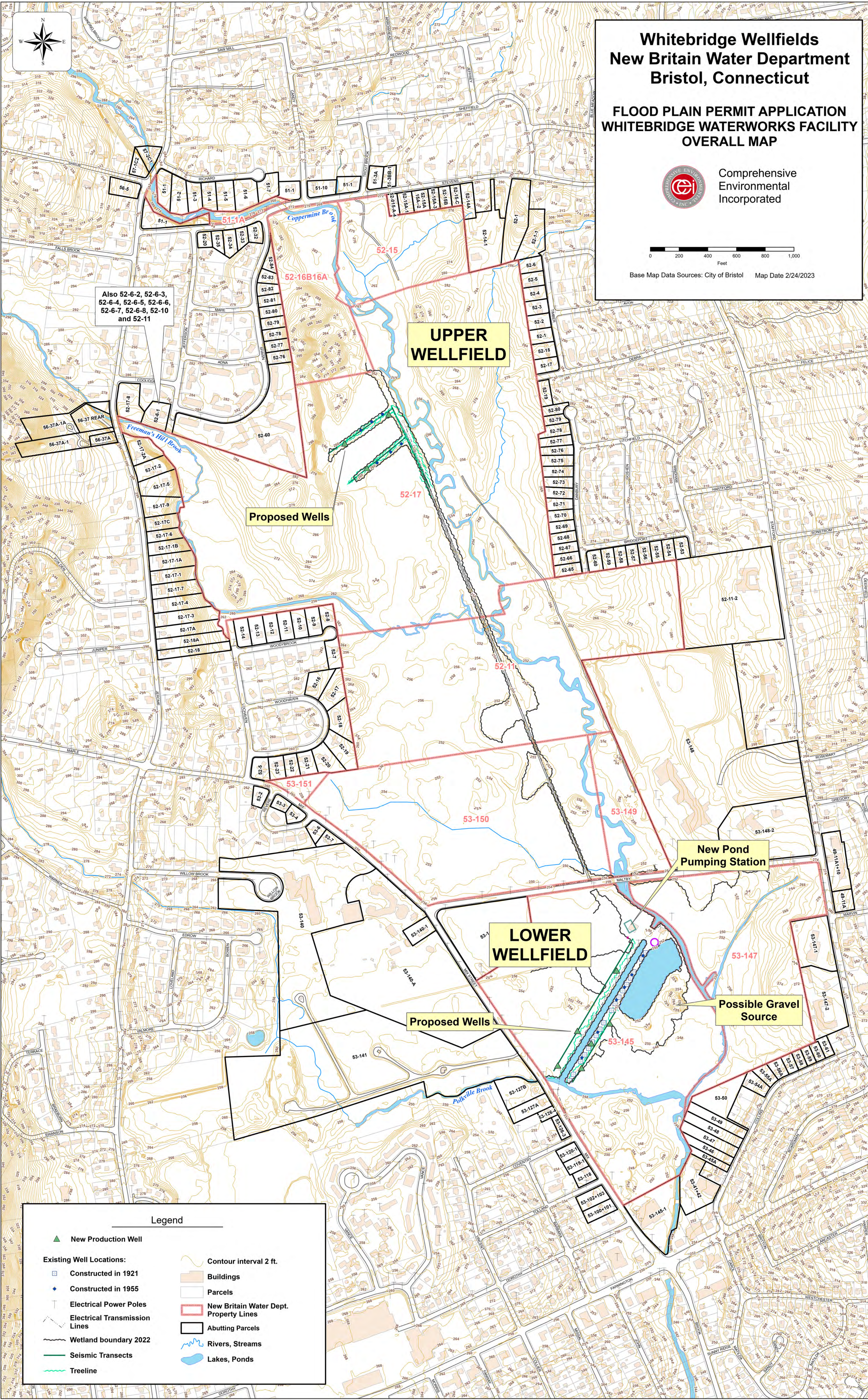
Description of Property and Wetlands:

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



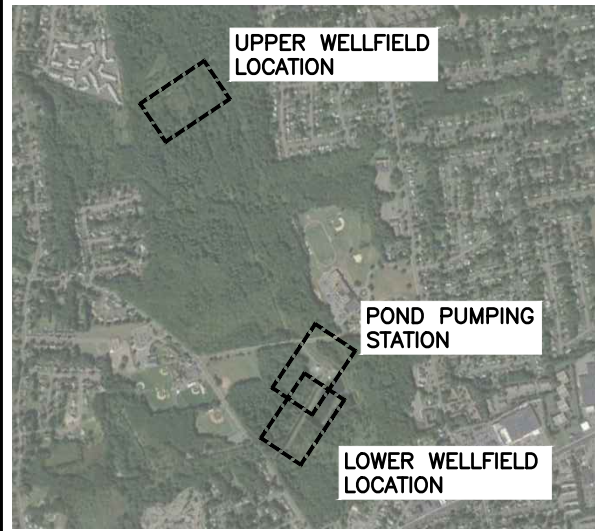
ABUTTING PROPERTY OWNERS

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		STARFORD COMMONS LLC	915 STARFORD AVE	BRISTOL	0.32 R 15		Appt		1253 BURLINGTON AVE	BRISTOL	CT	06010
49-11A-10	49	11A-10	1		STARFORD COMMONS LLC	915 STARFORD AVE	BRISTOL	1.33 Bn		Ndnd 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			ROCKON 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 JNT 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			MCGILVER 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 EVANGALICAL 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 JASON 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-10A-2	52	15A-10A-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-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			CASTONGUAY BERNARD D	206 STEVENS ST	BRISTOL	0.26 R 15		Single Family		206 STEVENS ST	BRISTOL	CT	06010
52-15B	52	15B			BROUSSEAU 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 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			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		Vacant Land		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			MURPHY MICHAEL	636 JEROME AVE	BRISTOL	0.26 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			36 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
52-21	52	21			SELEDONIA 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			TRUDEL 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		165 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 UTY	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	17 SHAWN DR	BRISTOL	0.28 R 15		Single Family		17 SHAWN DR	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	0.26 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							
52-64	52	64		4	CURRENT OWNER	130 JEFFERSON AVE #4	BRISTOL	0							
52-65	52	65		5	CURRENT OWNER	102 DANBURY LA	BRISTOL	0.27 R 15		Single Family		102 DANBURY LA	BRISTOL	CT	06010
52-65	52	65		6	CURRENT OWNER	130 JEFFERSON AVE #5	BRISTOL	0							
52-66	52	66		5	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							
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		8	CURRENT OWNER	130 JEFFERSON AVE #7	BRISTOL	0							
52-68	52	68		8	CURRENT OWNER	76 DANBURY LA	BRISTOL	0.29 R 15		Single Family					

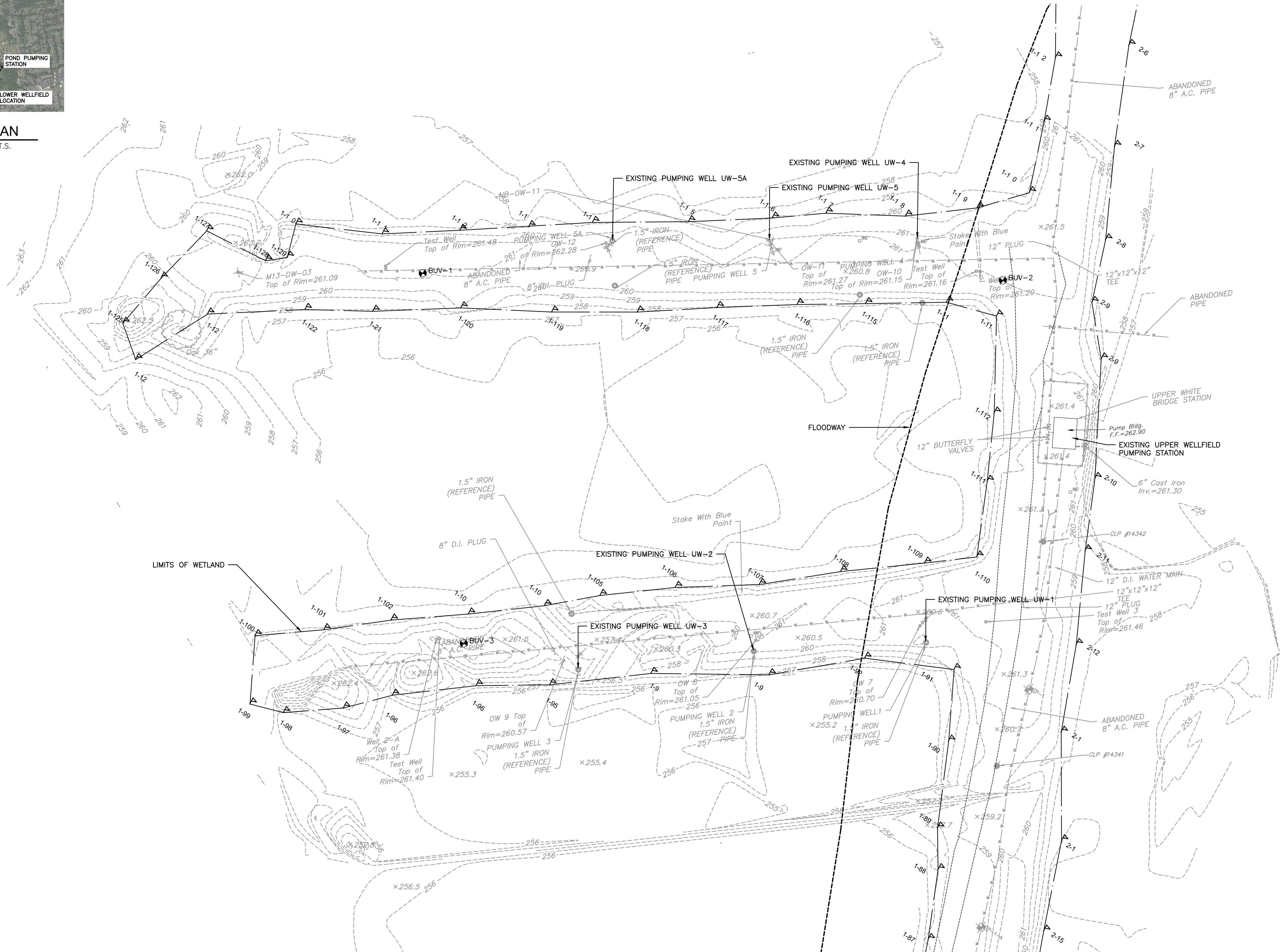
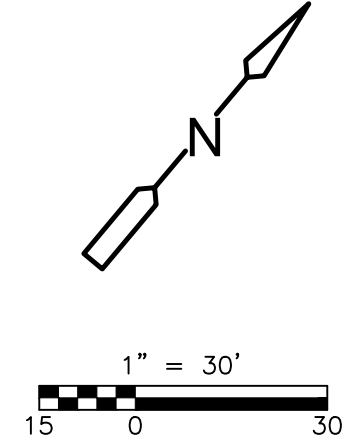
ATTACHMENT 4

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

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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

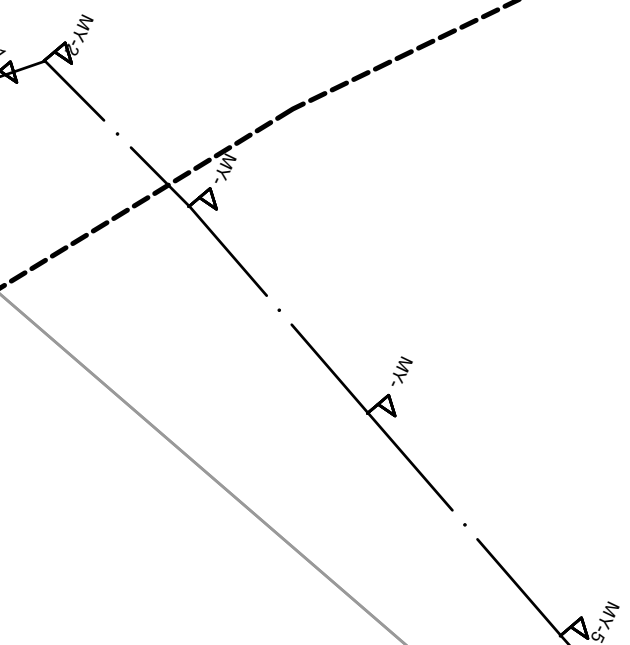
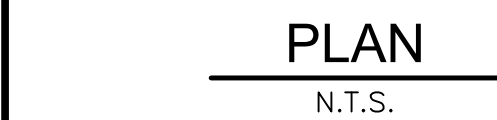
**CDM
Smith**

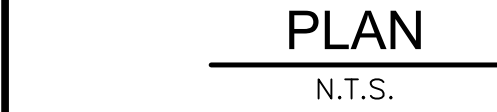
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East Hartford, CT 06108
Tel: (860) 529-7615

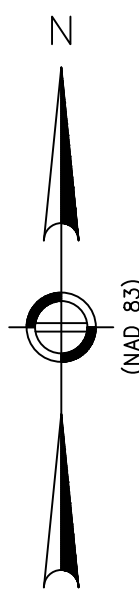
CITY OF NEW BRITAIN, CONNECTICUT
WHITE BRIDGE WATERWORKS FACILITIES
UPPER AND LOWER WELLFIELDS
AND POND PUMPING STATION

UPPER WELLFIELD
EXISTING CONDITIONS PLAN

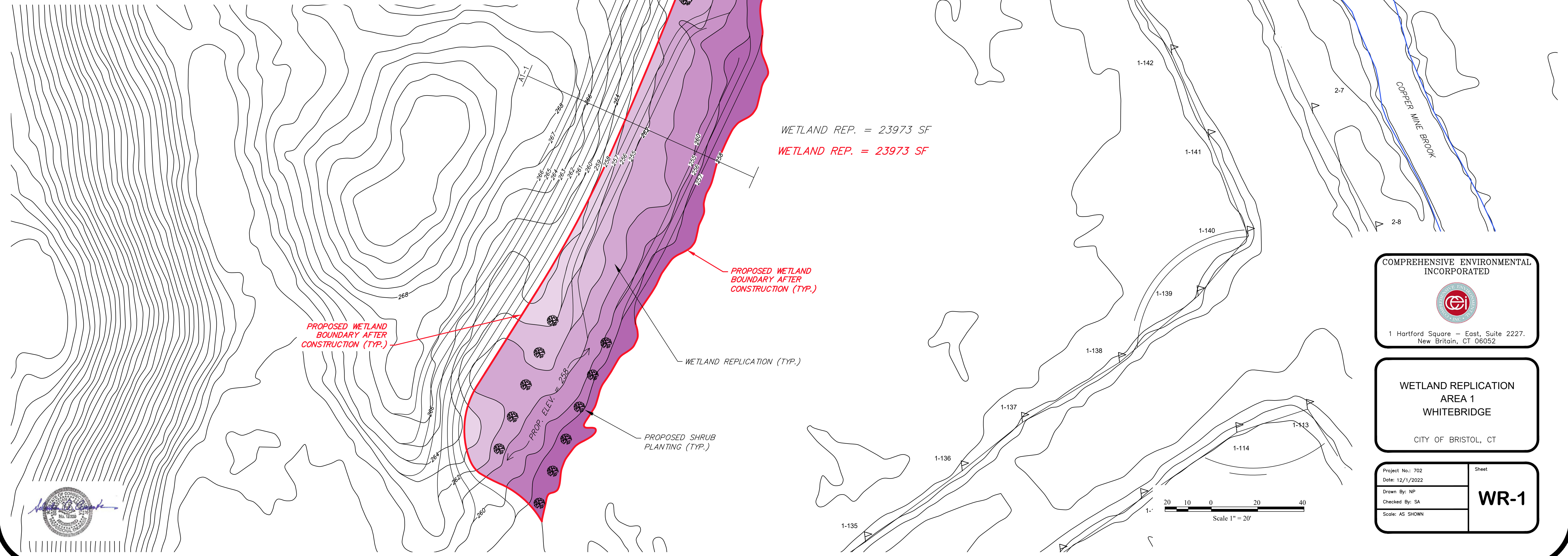
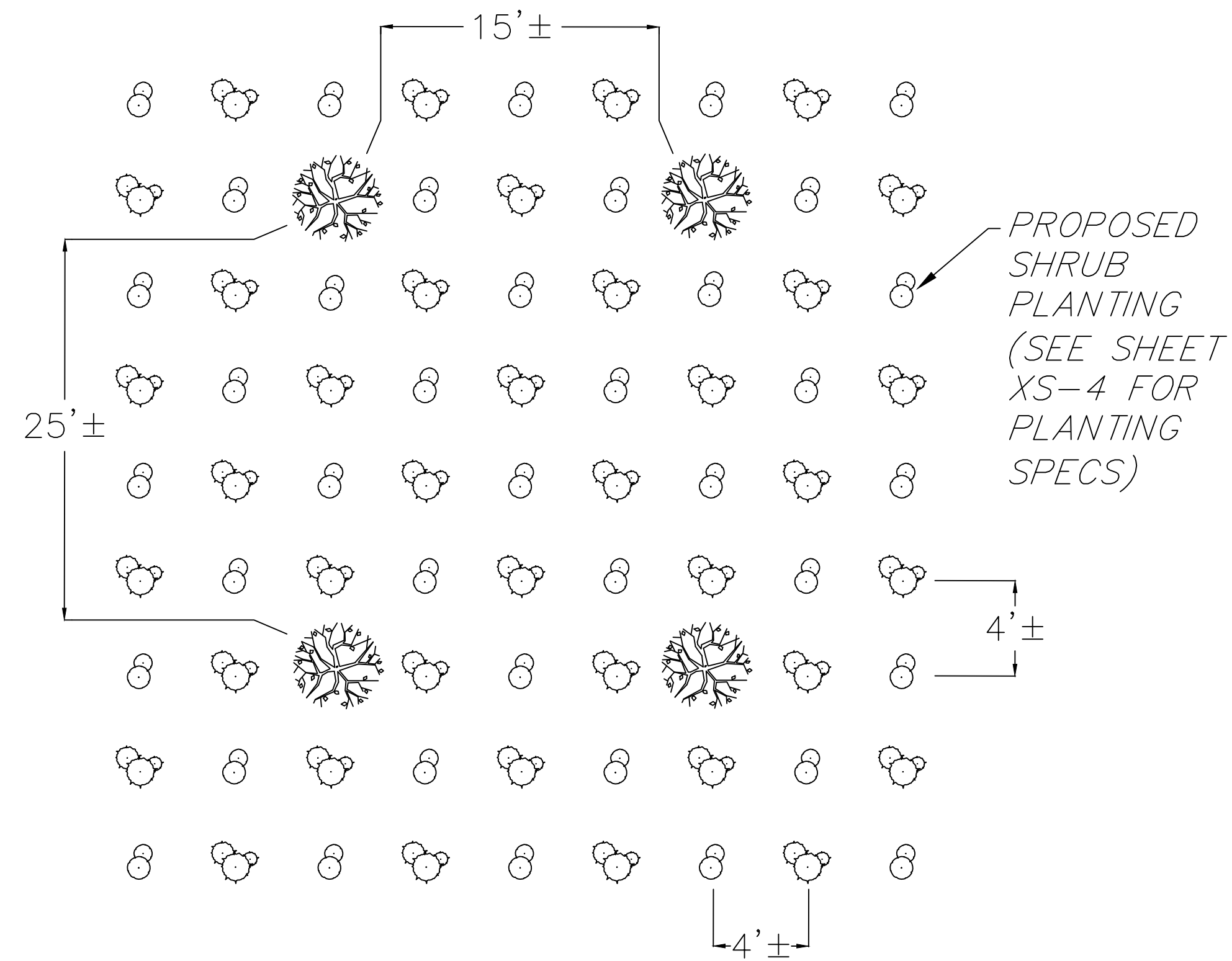
PROJECT NO. 10739-264571
FILE NAME: C003STPL.DWG
SHEET NO. **1 of 3**







PLANTING PLAN



COMPREHENSIVE ENVIRONMENTAL
INCORPORATED

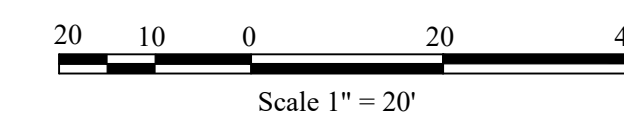
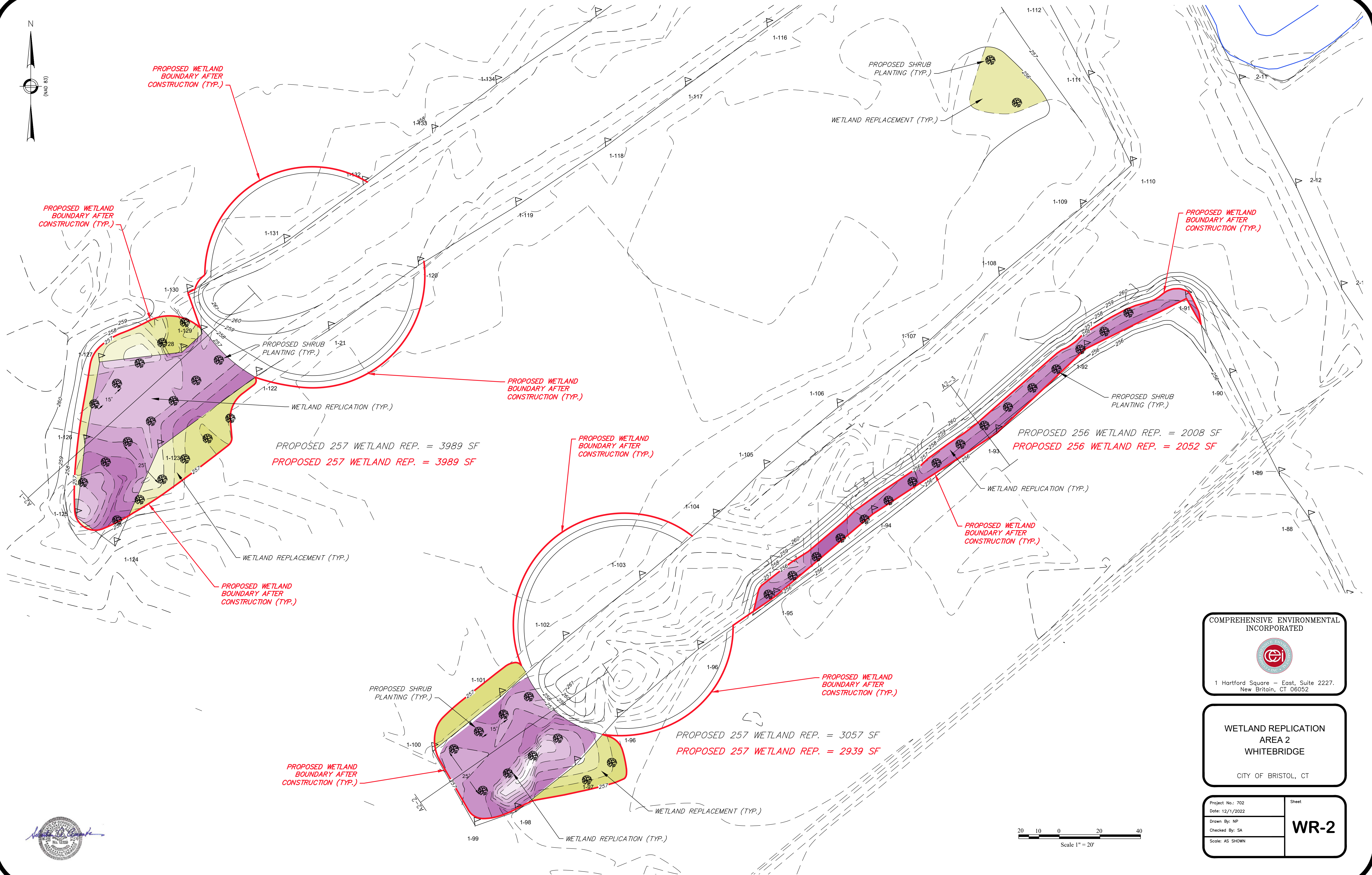
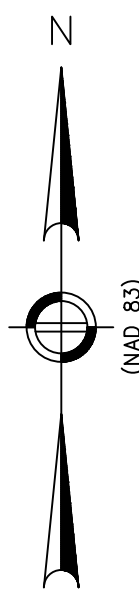


1 Hartford Square - East, Suite 2227.
New Britain, CT 06052

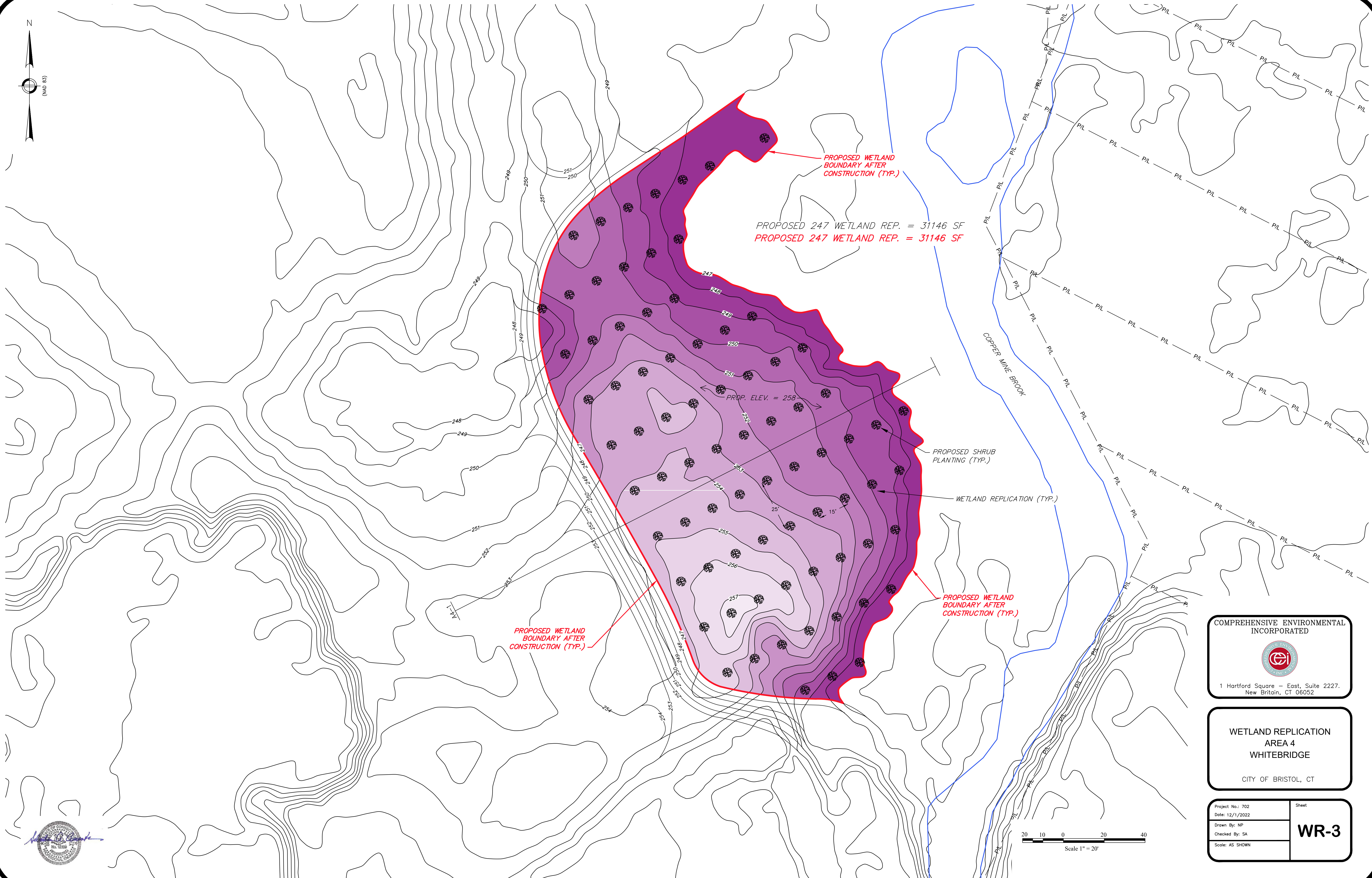
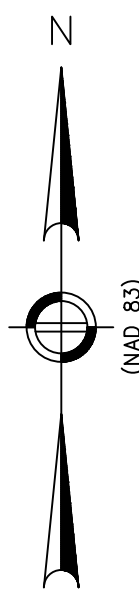
WETLAND REPLICATION
AREA 1
WHITEBRIDGE

CITY OF BRISTOL, CT

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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



COMPREHENSIVE ENVIRONMENTAL
INCORPORATED



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

WETLAND REPLICATION
AREA 4
WHITEBRIDGE

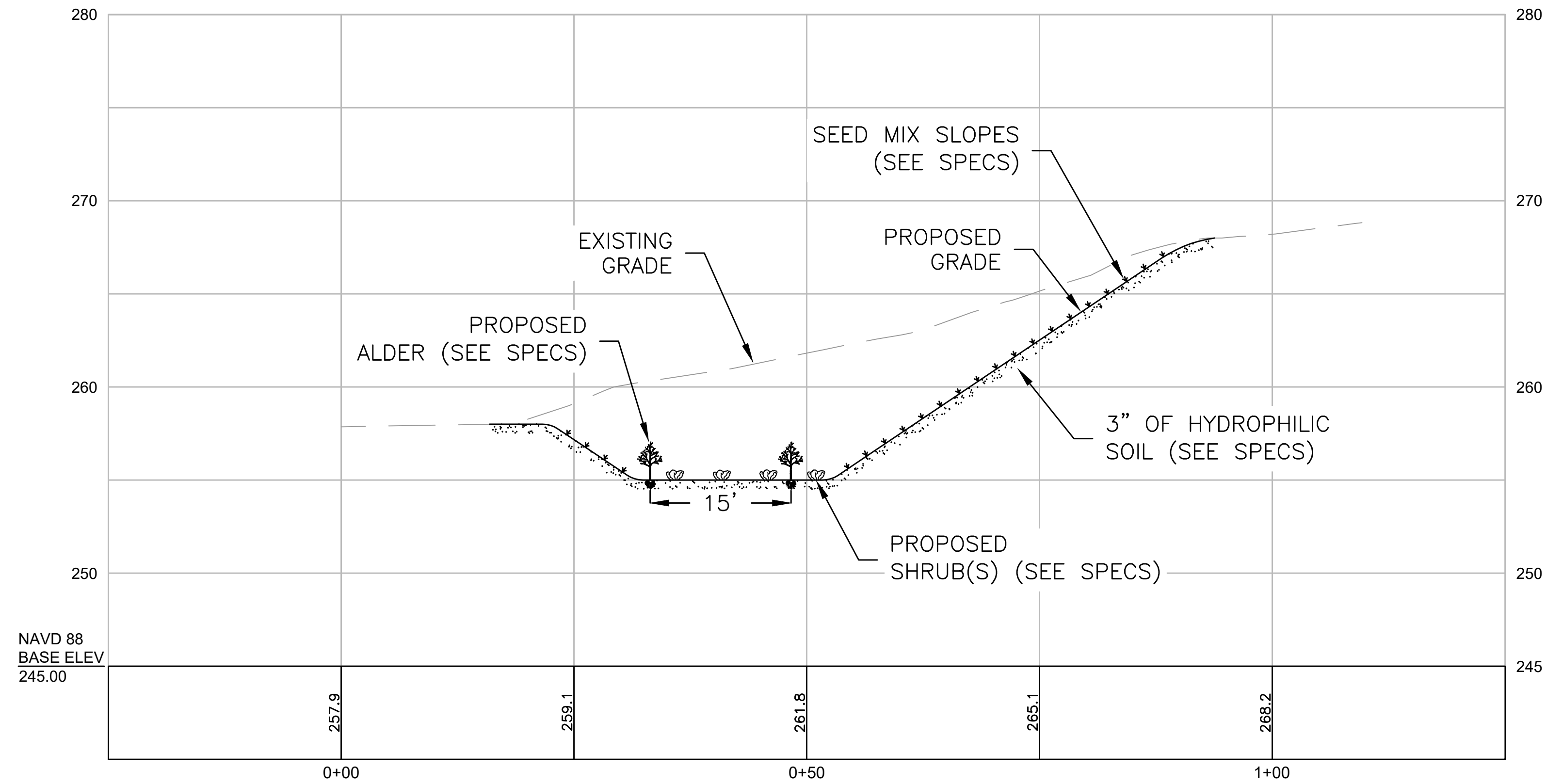
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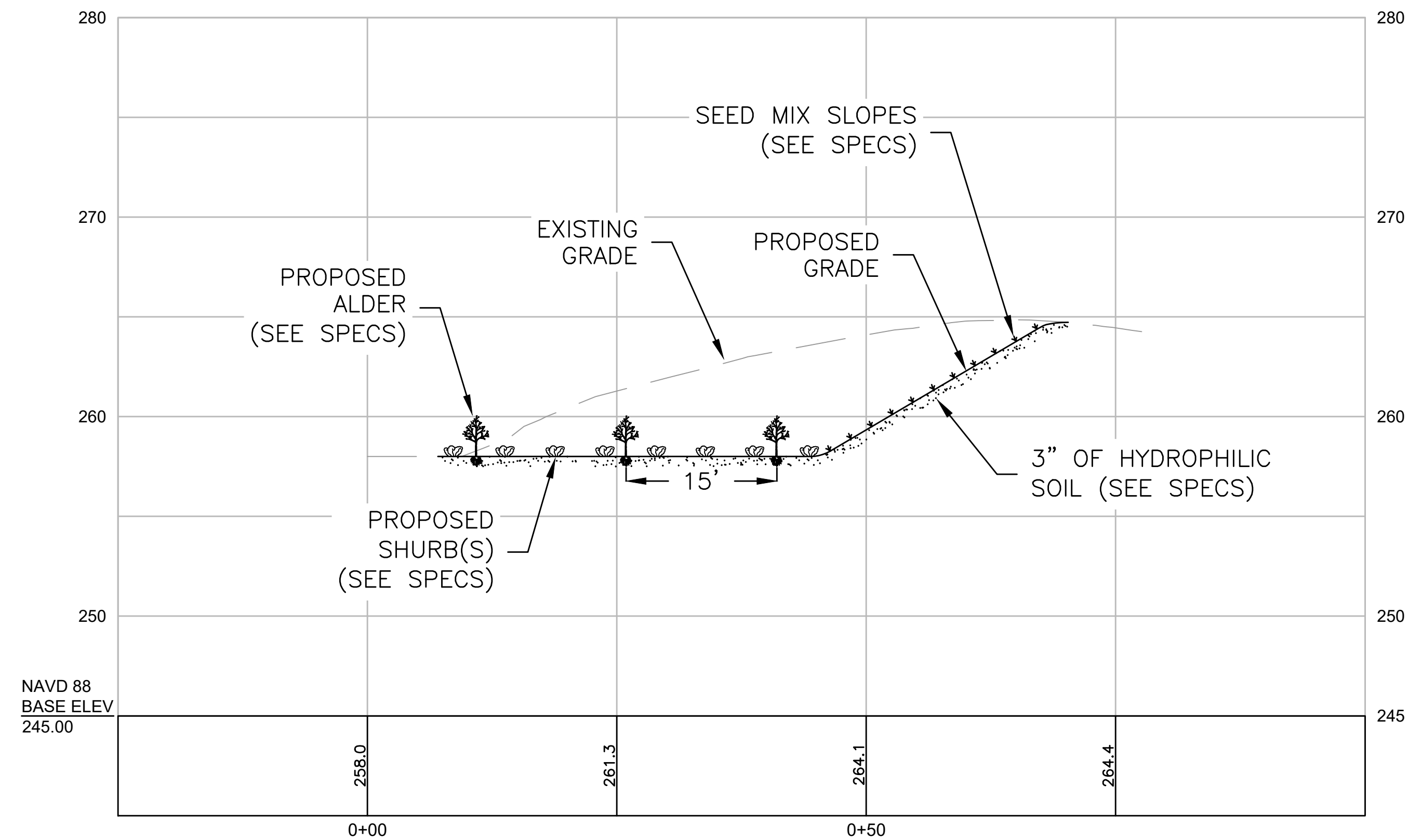
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WR-3





A1-1
SHEET WR-1
SCALE: 1' = 10'



A1-2
SHEET WR-1
SCALE: 1' = 10'

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



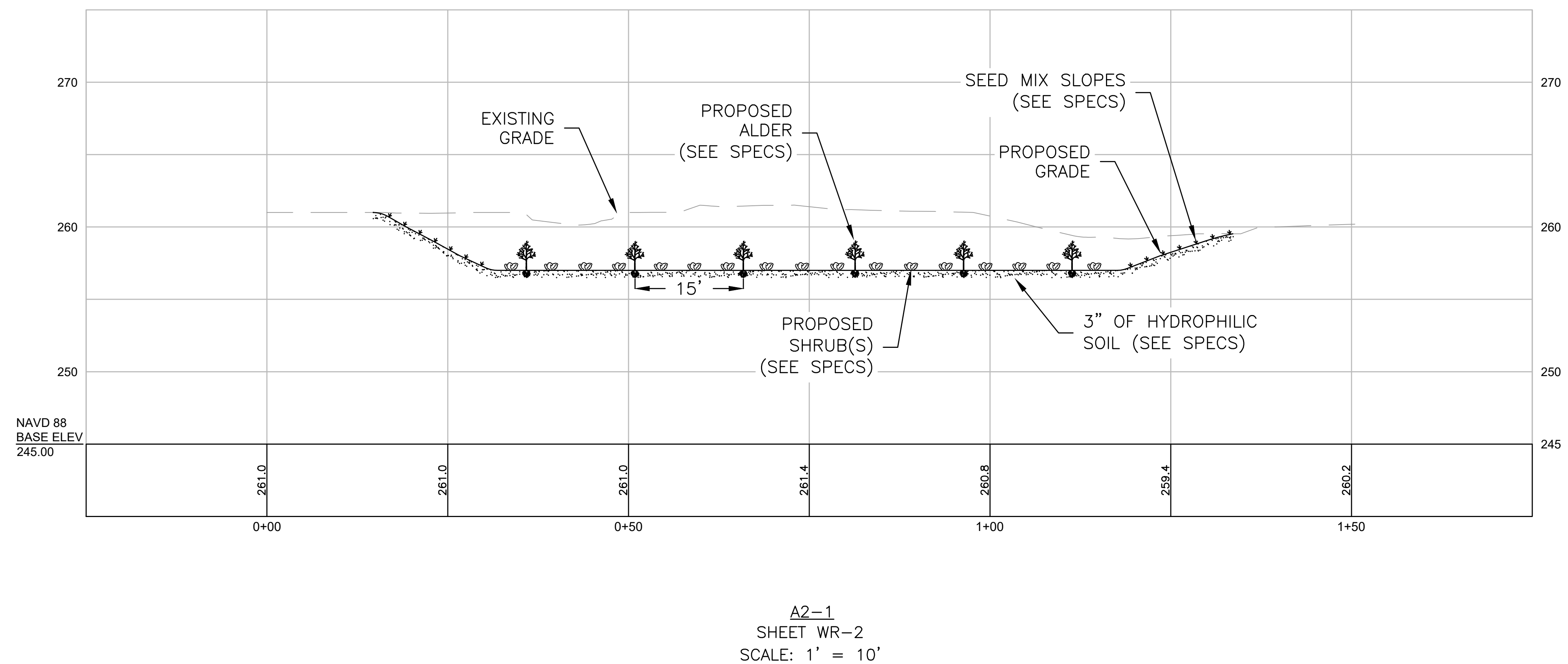
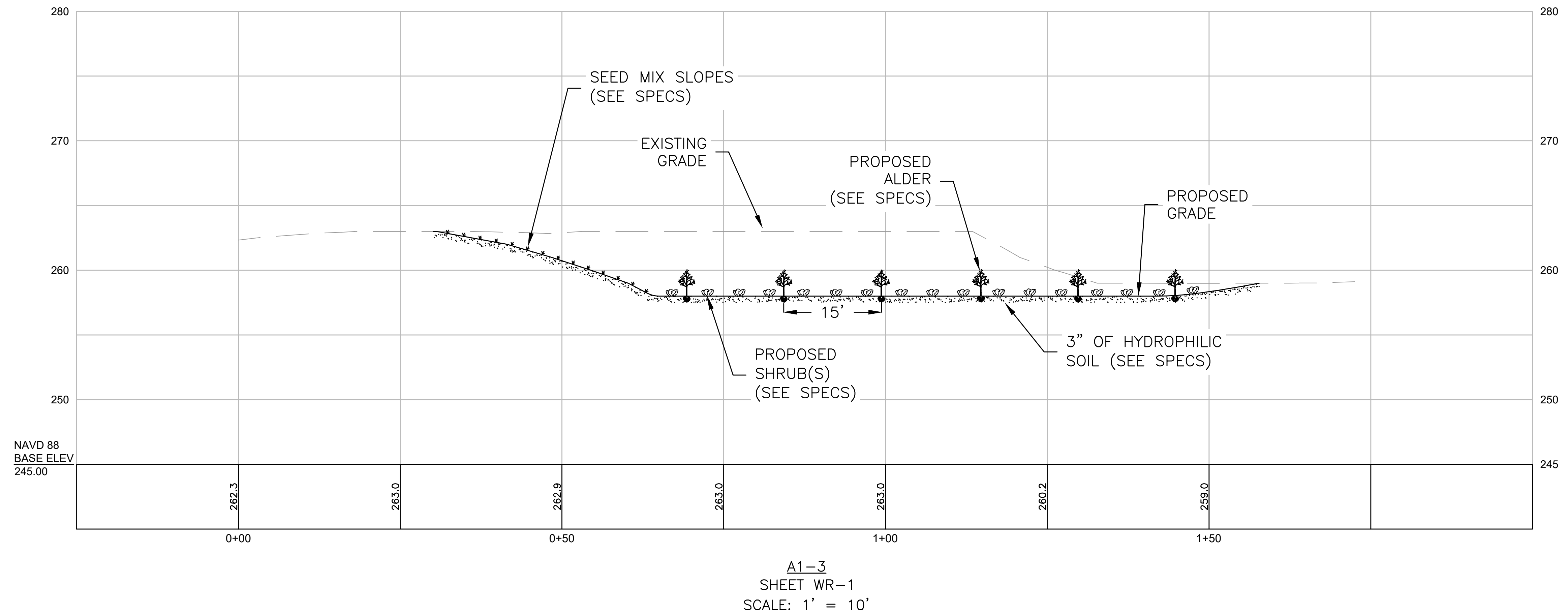
CROSS-SECTIONS
WHITEBRIDGE

CITY OF BRISTOL, CT

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Date: 12/1/2022	
Drawn By: NP	
Checked By: SA	
Scale: AS SHOWN	

XS-1





NOTE: ALL SLOPES SHALL BE
SEEDED WITH THE 'NEW ENGLAND
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XS-4.

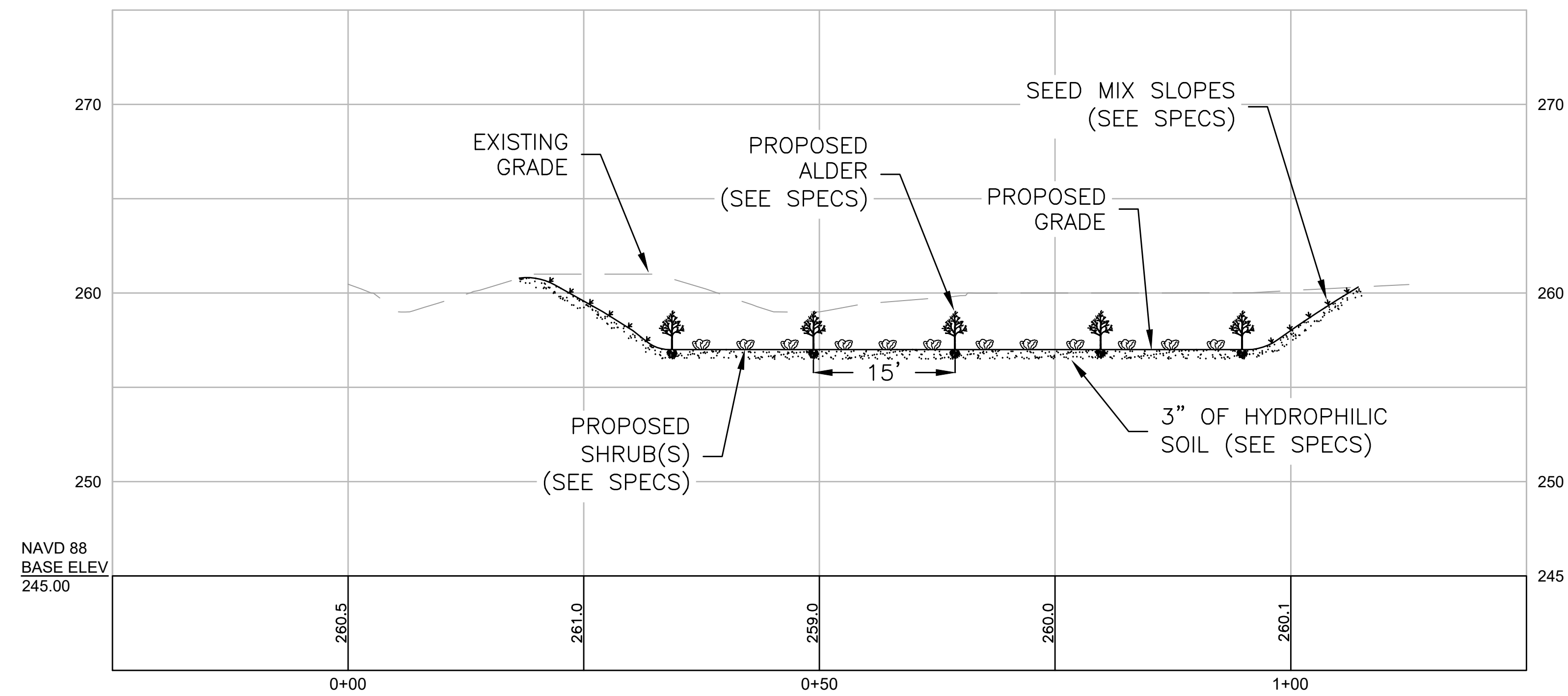


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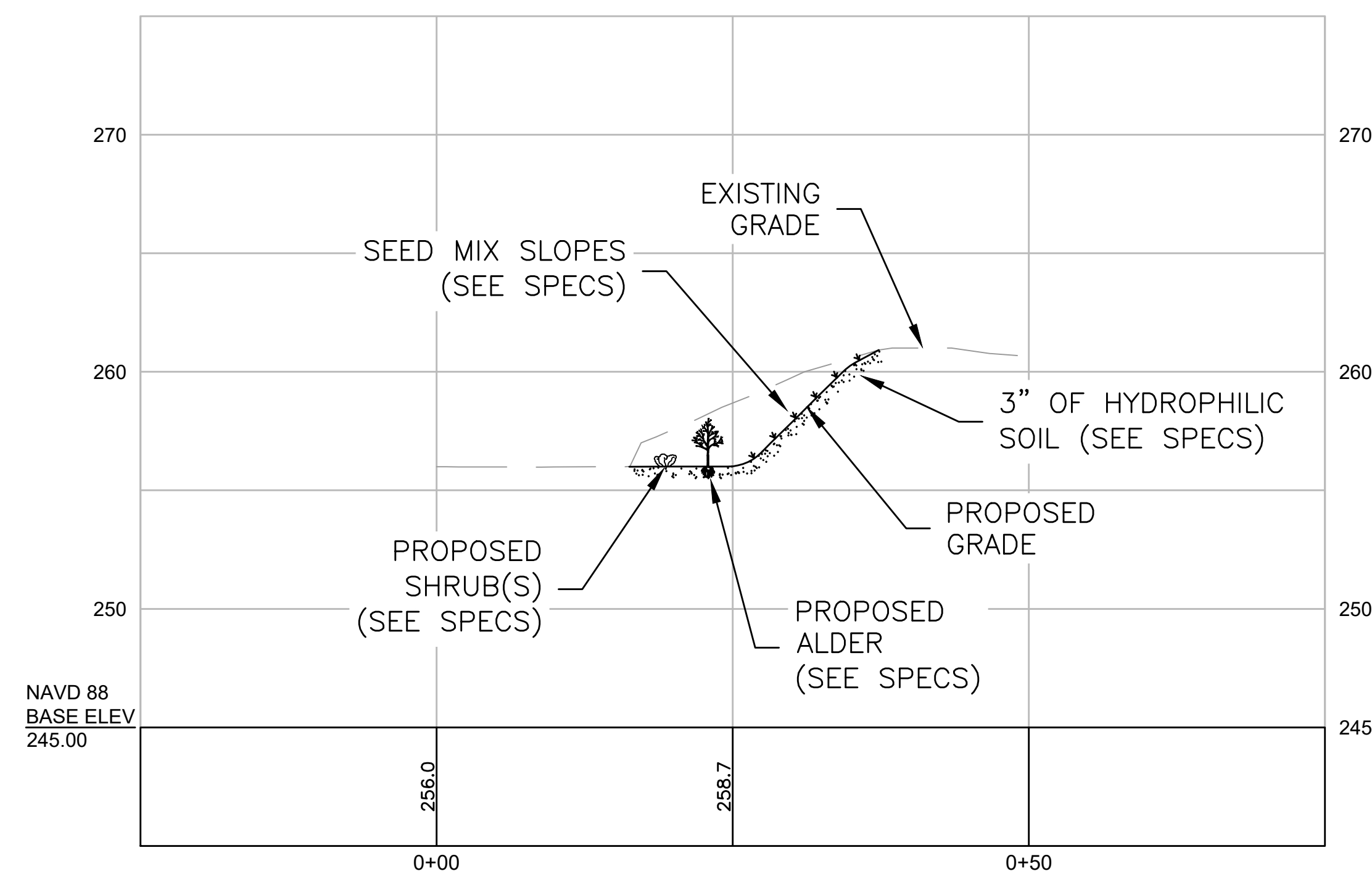
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Checked By: SA	
Scale: AS SHOWN	XS-2





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.



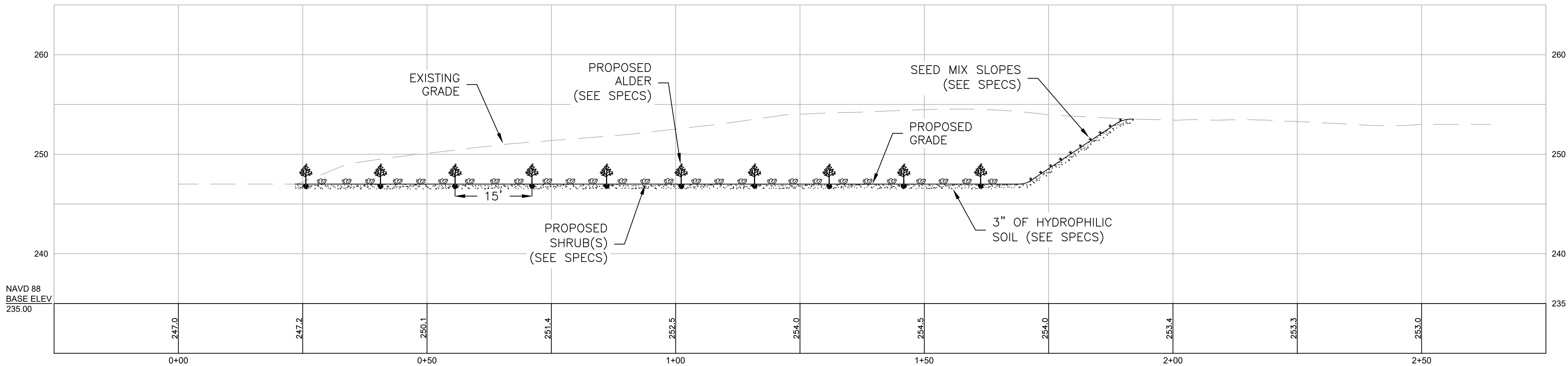
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WHITEBRIDGE

CITY OF BRISTOL, CT

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Date: 12/1/2022	
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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).

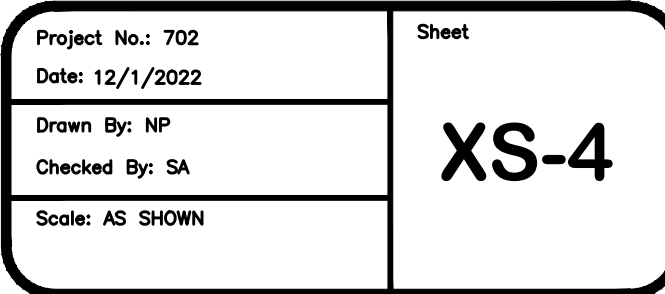
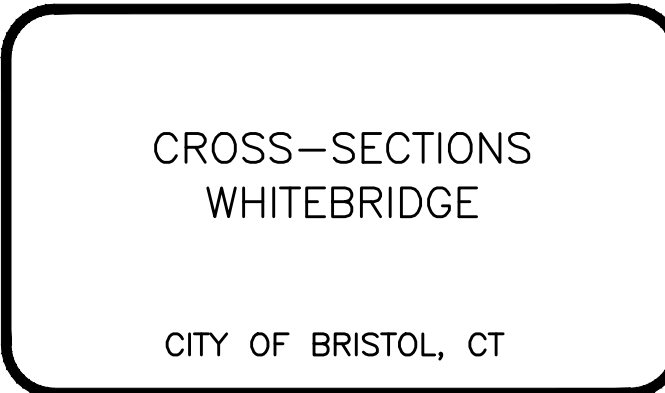
NEW ENGLAND EROSION CONTROL/RESTORATION MIX FOR THE DETENTION BASINS AND MOIST SITES

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

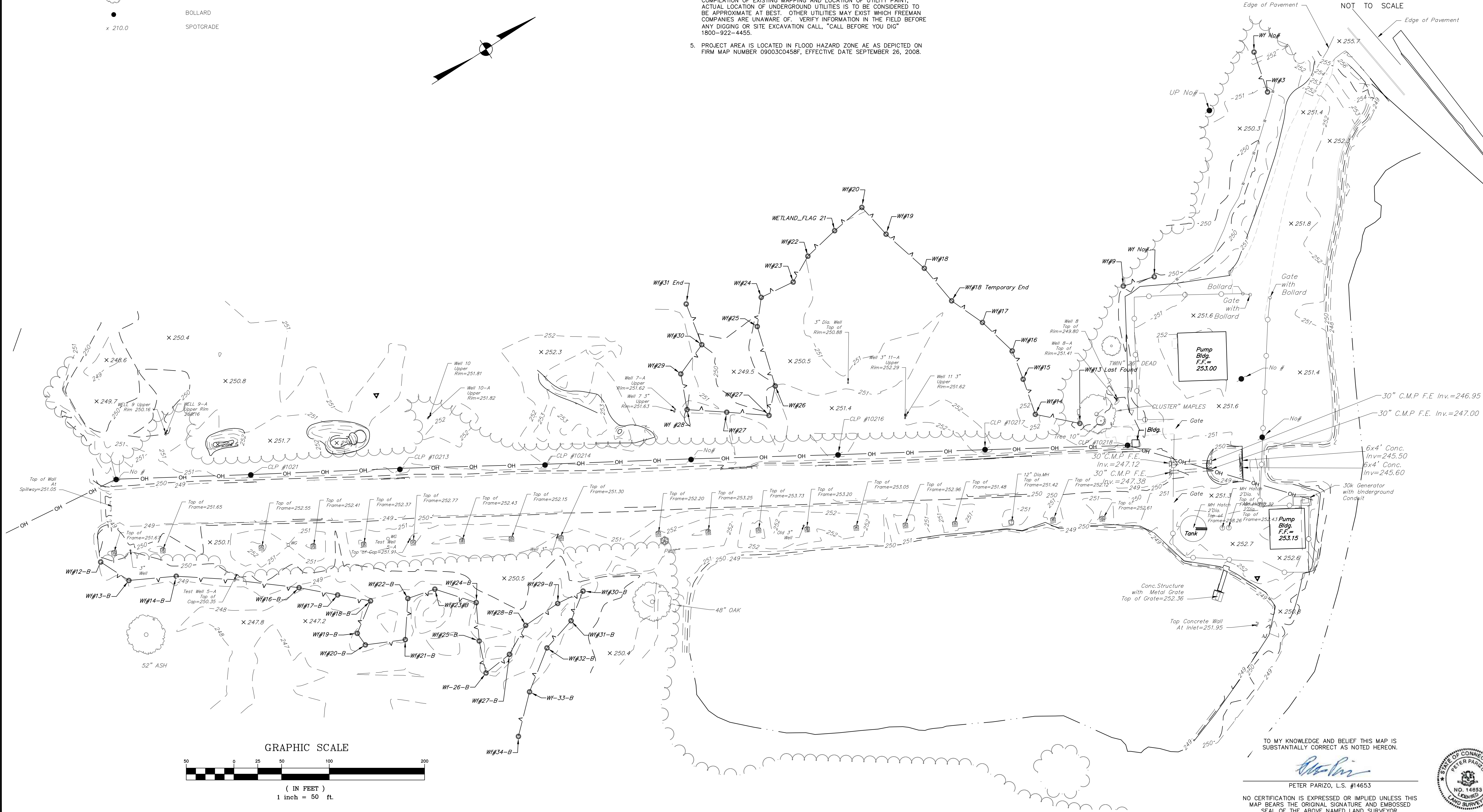
- CHAIN LINK FENCE
- EDGE OF WETLANDS
- EDGE OF WATER
- OVERHEAD WIRES
- DRAINAGE PIPE
- UTILITY POLE
- WATER GATE/VALVE SIGN
- DRAINAGE MANHOLE
- SANITARY MANHOLE
- BUSH
- DECIDUOUS TREE
- BOLLARD
- SPOTGRADE

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 1 SBE 1 MBE 1 SBA 1B1a 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:

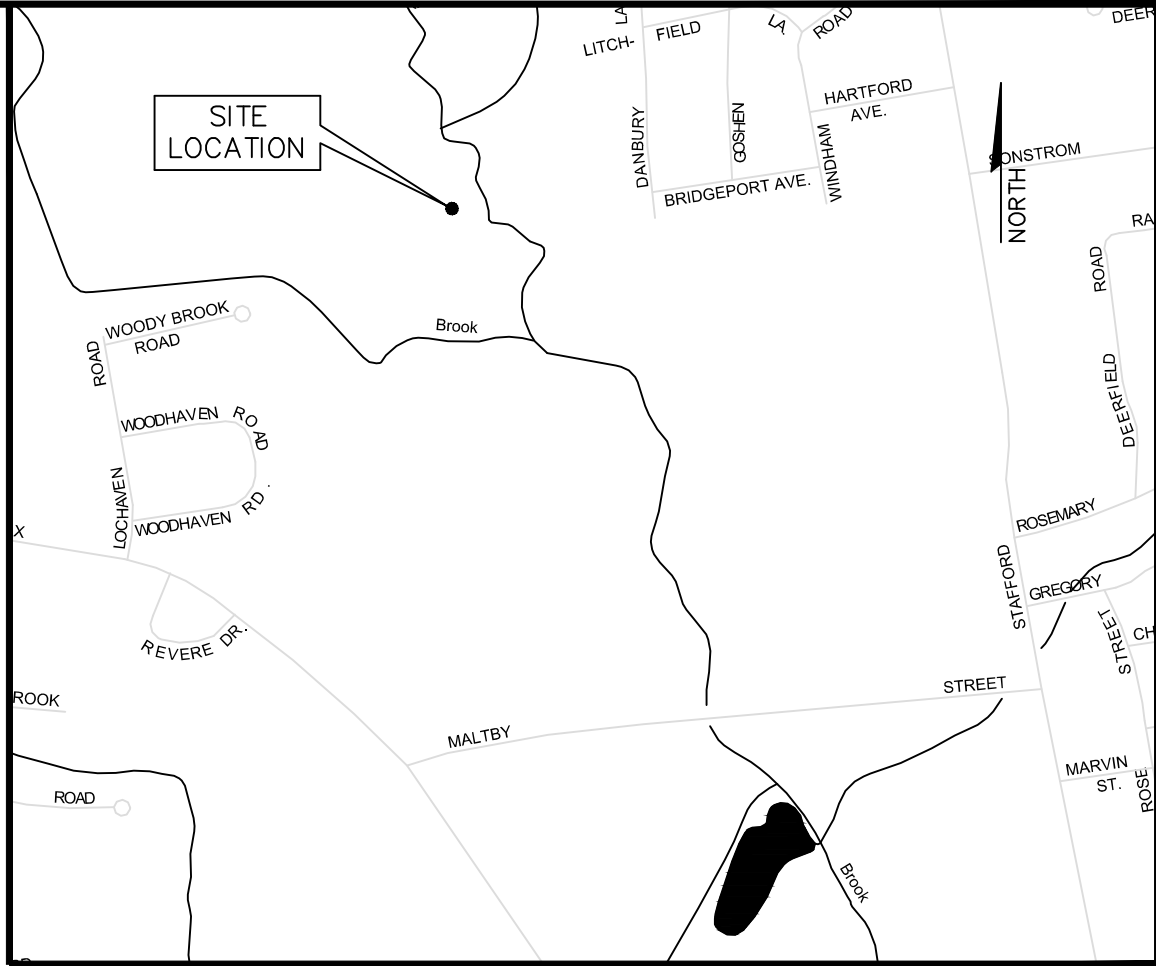
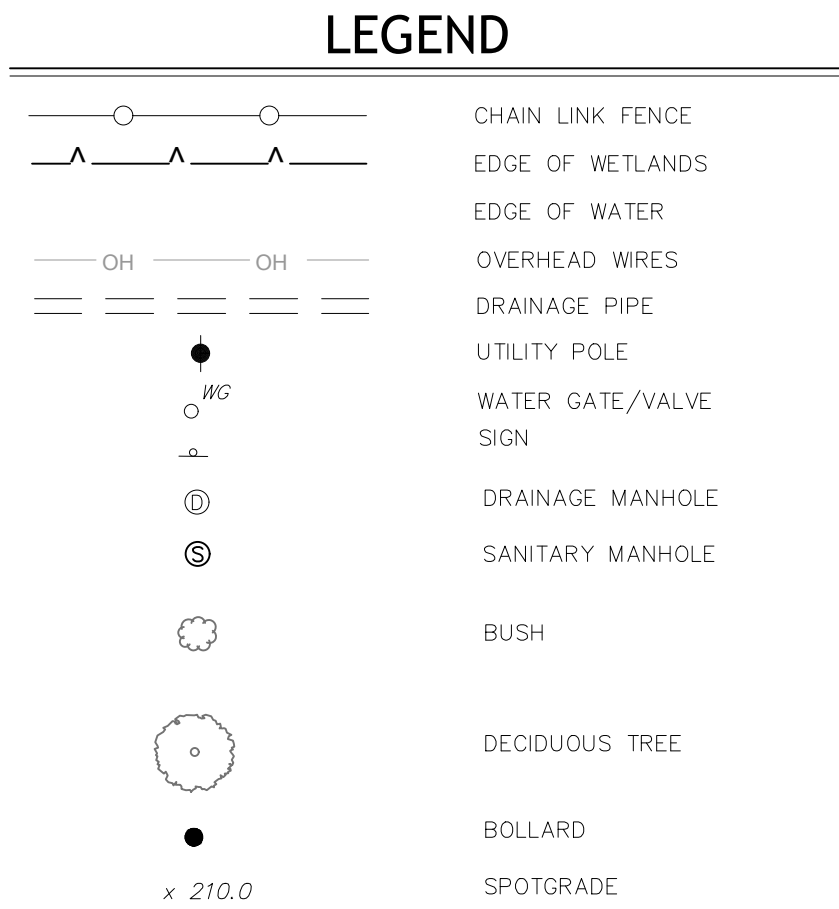
EX-1

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

PETER PARIZO, 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.
- 1.2. THE TYPE OF SURVEY PERFORMED IS A TOPOGRAPHIC SURVEY.
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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
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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

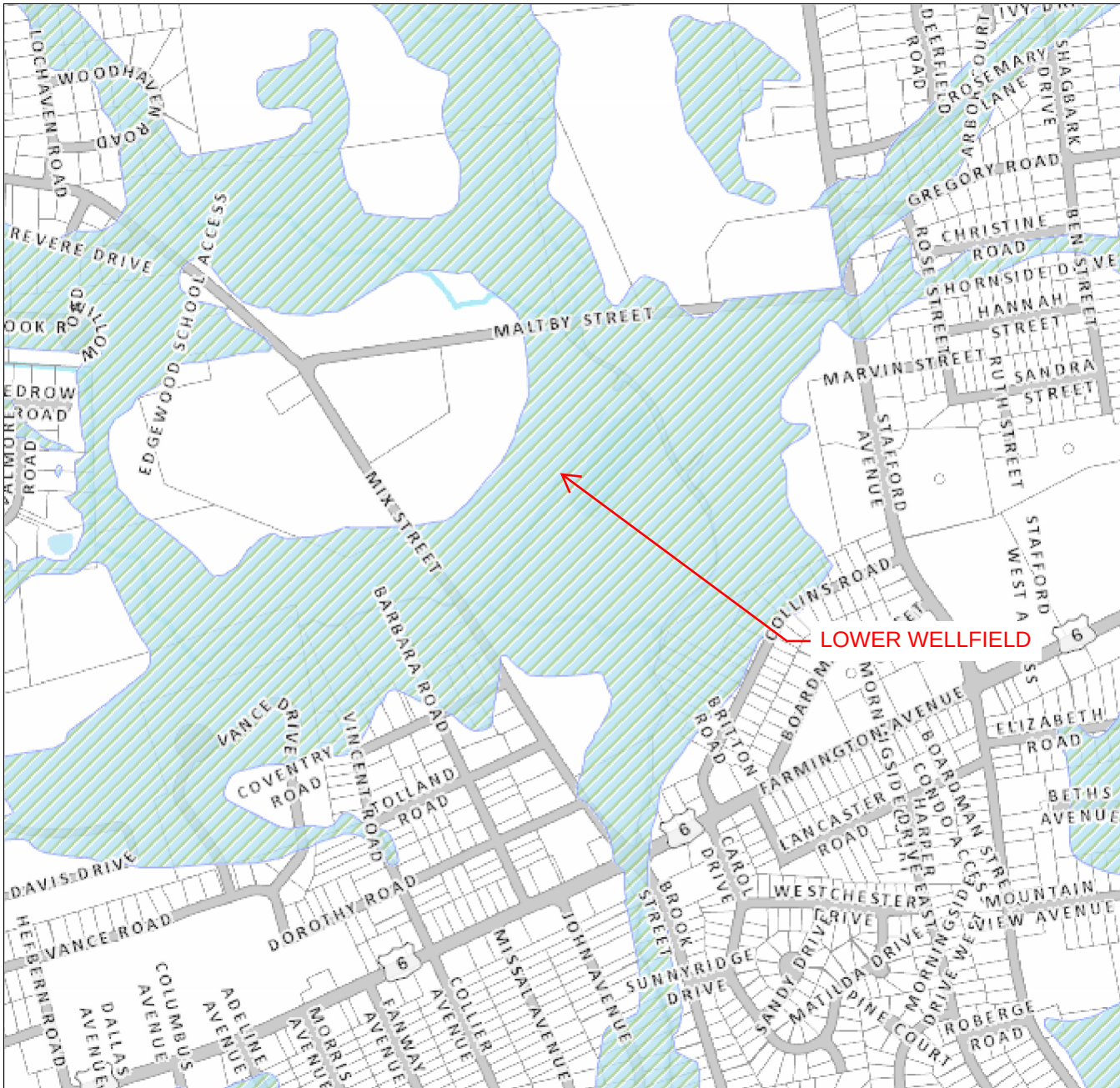
CITY OF BRISTOL GIS WETLAND BOUNDARY

City of Bristol

Geographic Information System (GIS)



Date Printed: 12/20/2023

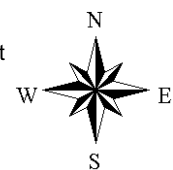


LOWER WELLFIELD

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

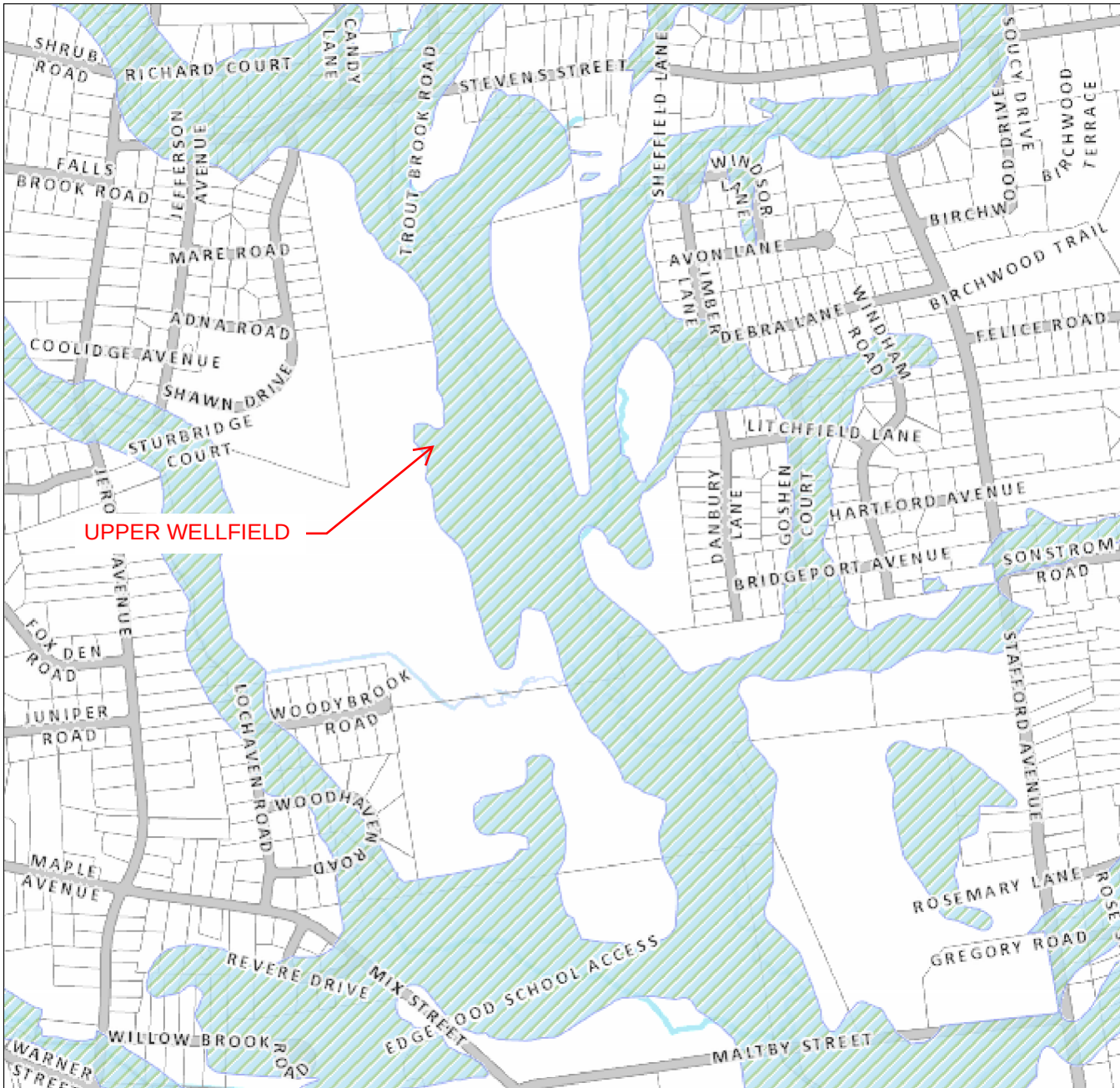


City of Bristol

Geographic Information System (GIS)



Date Printed: 12/20/2023



MAP DISCLAIMER - NOTICE OF LIABILITY

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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:

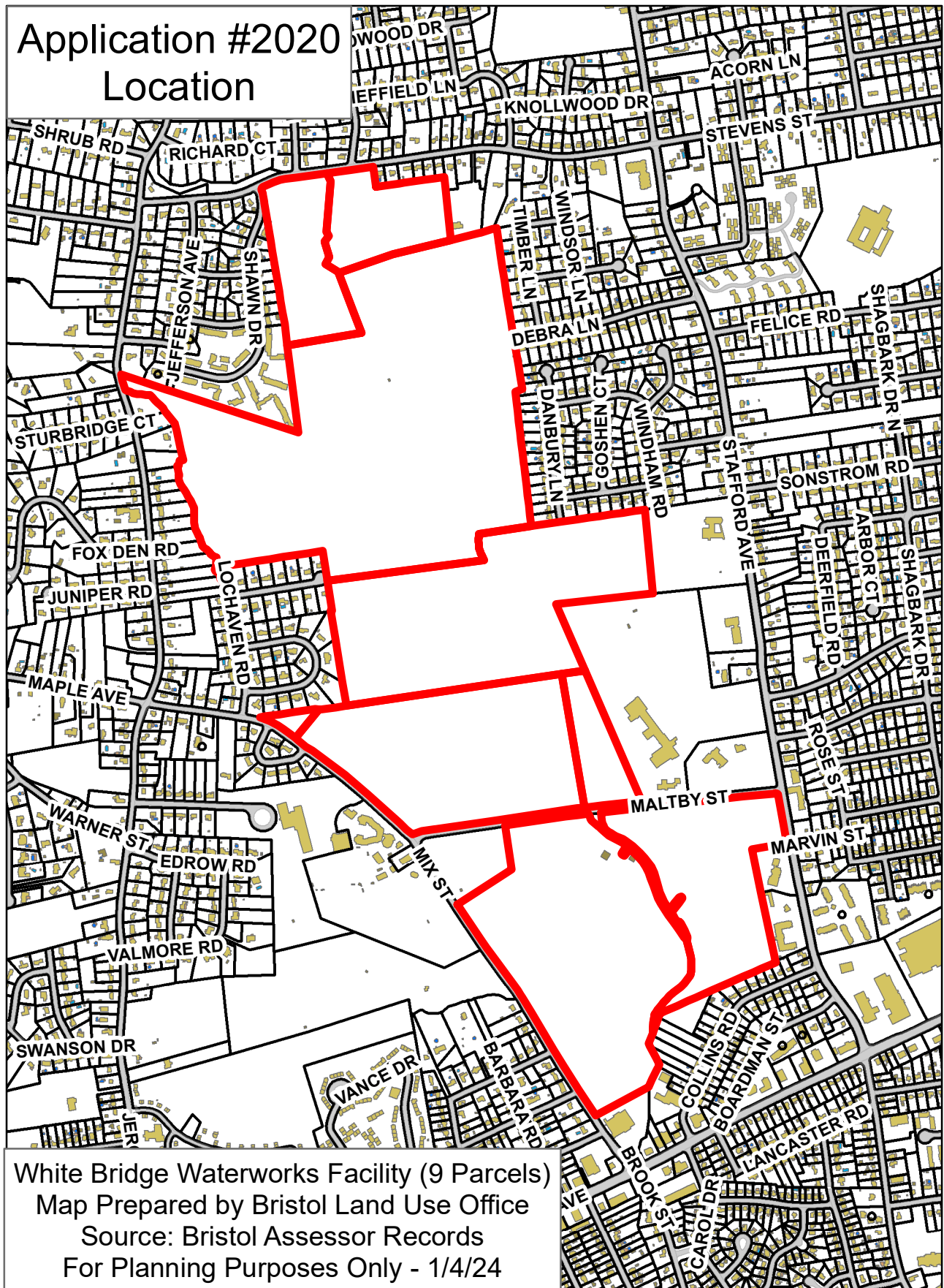
Name: Sebastian Amenta, PE

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

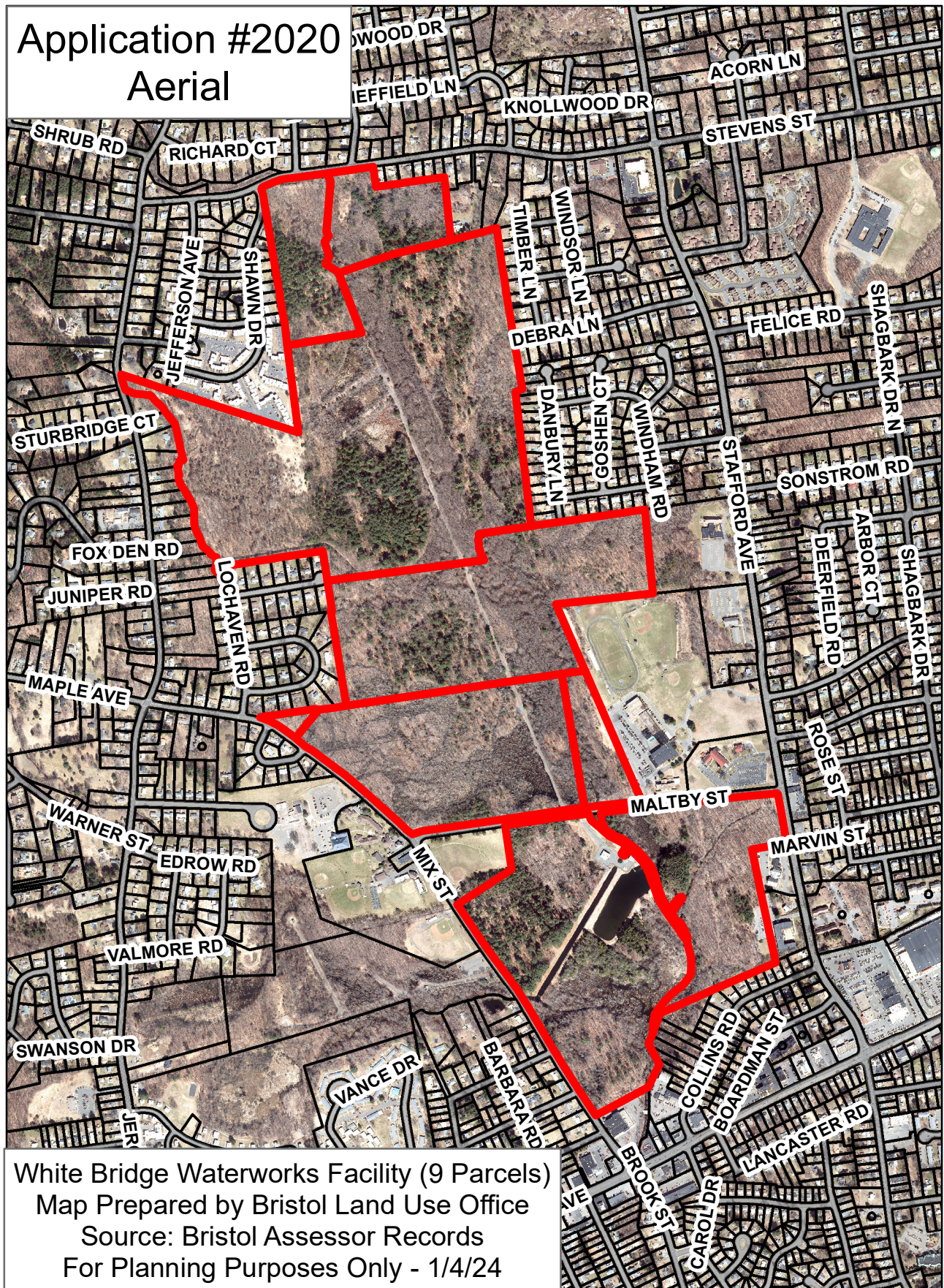
Telephone No.: (860) 224-0442/860 620 3673 E-Mail: samenta@ceiengineers.com

08/17 - LUO

Application #2020 Location

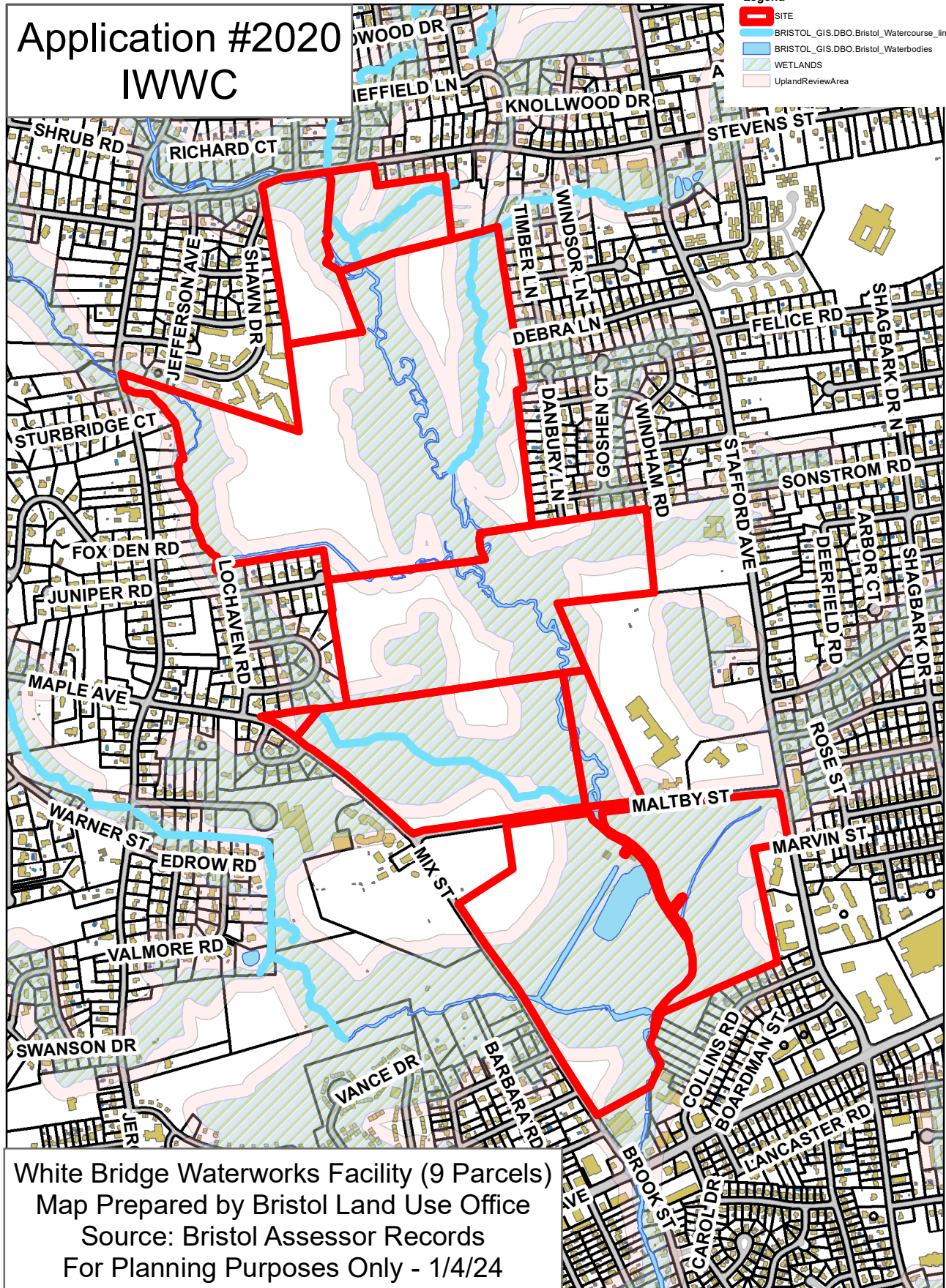


Application #2020 Aerial

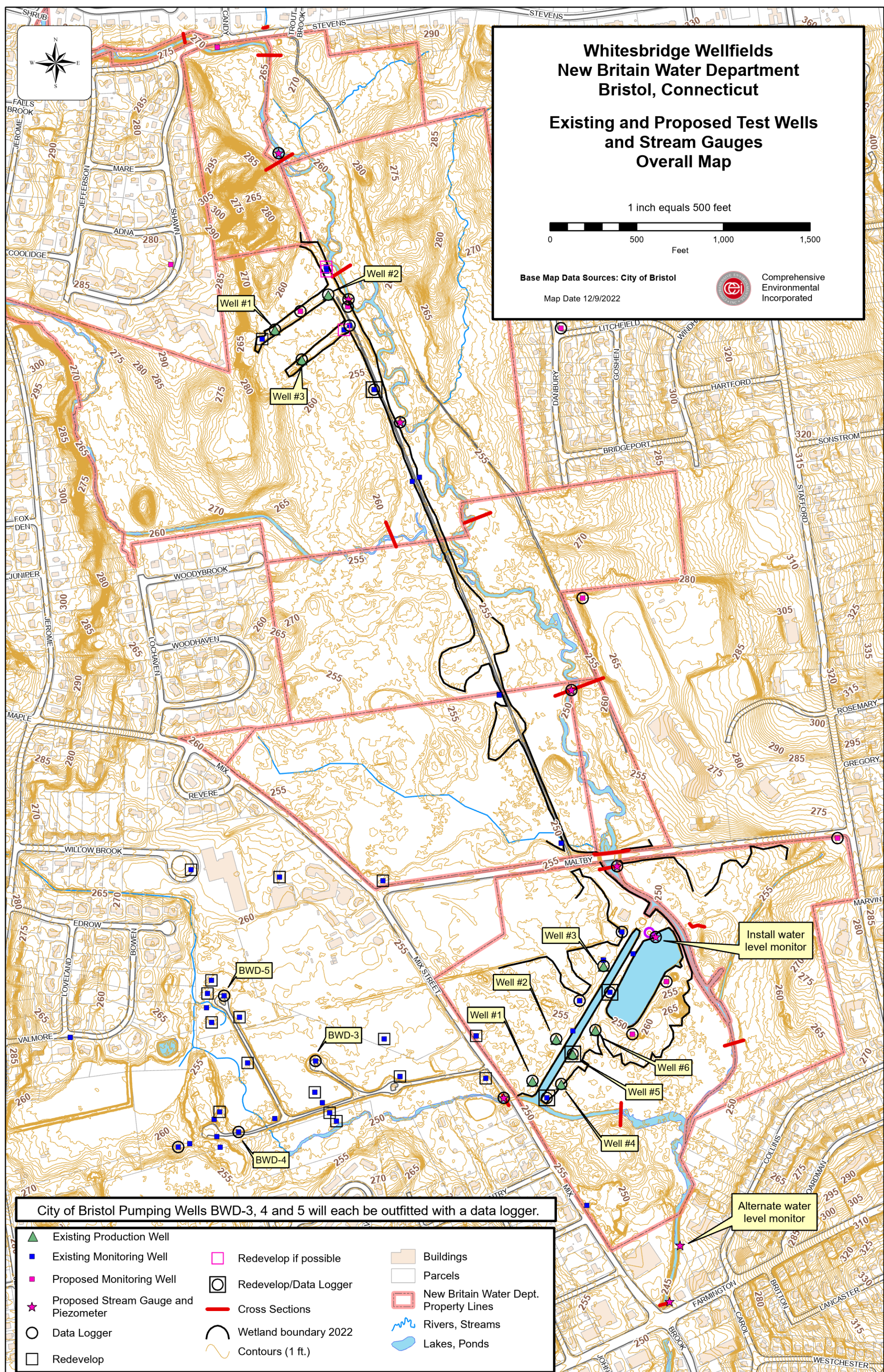


Application #2020 IWWC

- 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



March 28, 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:

Thank you for your decision last month to have the subject project reviewed by 3rd party experts and continue the public hearing. This complex project needs more study/explanation before allowing taxpayer money to be spent for expansion in this precious area of Bristol's limited aquifer/surface water and wetland resources.

The application has not identified all the likely wetland and surface water impacts that would result from the proposed expanded well/pumping operations. The application also does not provide enough information on operational protocols to help minimize the surface water and wetland impacts. Without clarification of the likely impacts, how can an adequate mitigation plan be properly assessed and implemented?

At the North Whitebridge wellfield, the reported test monitoring data (as submitted in Figure 2 of the hydrogeologic report (attached)) indicates with only **one pump operational at 200 gpm, the drawdown of the water is significant, extending hundreds of feet into the surrounding wetlands/surface water area.**

- What are the proposed groundwater drawdown effects for the three proposed 24" wells, operating simultaneously at 470 gpm each (totaling over 7 times the pump capacity of the existing 8" well 5A test performed for the drawdown data provided in Figure 2)?
- What is the wetland/surface water area (in SF or acres) within the drawdown zone resulting from the proposed pumps? What is the assessment and mitigation plan for these areas' impacts?
- How will the simultaneous pumping operation of the three new 24" wells impact the adjacent wetland and surface water elevations?
- How will the lowered groundwater elevation impact wetland biology; flora and fauna?
- What surface water monitoring is currently being done or has been done to understand the existing surface water level fluctuations relative to withdrawals and seasonal changes?
- Will there be any operational controls or protocol that restrict use? Without operational protocols, structural controls, reporting and restrictions, the wetlands and impaired Coppermine Brook will not be protected.

Similarly, at the South Whitebridge wellfield, the 2019 pump test monitoring of 5 wells at a total discharge of approximately 900 – 1,100 gpm resulted in the drawdowns shown in the attached Figure 5. The report notes significant drawdown of the canal, pond and adjacent wetlands, even with the limited data provided.

- What are the proposed groundwater drawdown effects for the six proposed 24” wells, operating simultaneously at 470 gpm each (totaling approximately 4 times the pump capacity of the existing five 8” well (3, 6, 13, 14, 18) testing performed for the drawdown data provided in Figure 5)?
- What will be the influence with the proposed pond pumps on the surface and groundwater drawdown, where the existing pond pumps are reportedly drawing 3 MGD, versus the 15 MGD proposal (proposed four 3,500 gpm pumps)
- What is the wetland/surface area (in SF or acres) within the drawdown zone resulting from the proposed pond and well pumps operating simultaneously? What is the assessment and mitigation plan for these impacts?
- How will the operation of the six new 24” wells, simultaneously operating with the pond pumps, impact the adjacent wetland and surface water elevations?
- How will the lowered groundwater elevation impact wetland and brook biology; flora and fauna?
- What surface water monitoring is currently being done or has been done to understand the surface water level fluctuations relative to withdrawals and seasonal changes?
- Will there be any operational controls or protocol that restrict use? Without operational protocols, structural controls, reporting and restrictions, the wetlands and impaired Coppermine Brook will not be protected.

Note that the 2007 Level A study used pump rate data in the model much lower than the wellfield registrations/proposed use. The Lenard Study stated “It was determined that the aquifer could not support the maximum registered diversion of the New Britain upper, lower and Bristol Mix Street wellfields”. The study reassigned “agreed upon” reduced flow rates to simulate a safe yield for each of the wellfields.

Operations and/or the established drought safe yields model did not protect the drying out of the Coppermine in 2016 (photo credit Rivers Alliance).



How can the Bristol Inland Wetland Commission protect the flow-impaired Coppermine and surrounding wetlands? Please consider the following:

- a. North wellfield: Applicant should model the effects of the groundwater and surface water drawdown resulting from the proposed wells' pump rate capacities, operating simultaneously. Clearly show the extents of the drawdown relative to regulated wetlands and surface waters. Tabulate the impacted area and provide a flora and fauna assessment of the impacts. Address surface water fluctuations relative to operational and seasonal changes. Address operational protocols to protect Copper Mine and associated wetland areas. Address mitigation plan, including monitoring, for all unavoidable impacts.
- b. South wellfield/pond: Restrict relocation of wells that further impact wetlands. (The wells not need be relocated if they remain raw water wells. Their potable reliability has not been established). Applicant should model the effects of the groundwater and surface water withdrawal capacities simultaneously to clearly show the extents of the drawdown relative to regulated wetlands and surface waters. Tabulate the impacted area and provide a flora and fauna assessment of the impacts. Address surface water fluctuations relative to operational and seasonal changes. Address operational protocols to protect Coppermine and associated wetland areas. Address mitigation plan, including monitoring, for all unavoidable impacts.

The well and pond withdrawals have been documented to affect and to rely on the adjacent surface water natural system. These surface water sources and wetland storage areas serve valuable water quality, quantity and wildlife functions. Thank you for your consideration.

Carol Noble, P.E., CFM (ret)

Attachment 1:

Tables of the rates and the study references are compiled below for informational purposes.

White Bridge Upper Wellfield:

	DEEP Diversion Registration (2)	Existing Withdrawal (3)	Proposed Withdrawal (2)	Level A Study Withdrawal (4)	Safe Yield Ave (4)	Safe Yield Drought (4)	Pump test (2, 3)
gpm	1,500	~200	3@470=1,400	840	694	600	200 (Well 5A)
MGD (1)	2.16	~0.3	2.0	1.2	1.0	0.86	0.3

Notes:

(1) Conversion 1 MGD = 694.44 gpm

(2) Preliminary Engineering Study, CEI CDE Smith, Feb 2021

(3) Existing withdrawal assumed from the April 2020 CEI Hydrogeologic report estimating the most current working well pump

(4) Level A Study Withdrawal taken from Dec 2007 Lenard Hydrogeologic Level A Study Executive Summary. Note the Lenard Study states ““It was determined that the aquifer could not support the maximum registered diversion of the New Britain upper, lower and Bristol Mix Street wellfields”. The study reassigned “agreed upon” reduced flow rates to simulate a safe yield for each of the wellfields.

White Bridge Lower Wellfield:

	DEEP Diversion Registration (2)	Existing Withdrawal (3)	Proposed Withdrawal (2)	Level A Study Withdrawal (4)	Safe Yield Ave (4)	Safe Yield Drought (4)	Pump test (2, 3)
gpm	4,333	700 - 1250	6@470=2,800	2,190	1,958	611	850-1080 (meas at caisson (3,4))
MGD ⁽¹⁾	6.24	1 - 1.8	4.0	3.15	2.82	0.88	1.2 – 1.6 (meas at caisson ^(3,4))

Notes:

(1) Conversion 1 MGD = 694.44 gpm

(2) Preliminary Engineering Study, CEI CDE Smith, Feb 2021

(3) Existing withdrawal taken from the April 2020 CEI Hydrogeologic report inferring test well pump rates based on 1985 pump test.

(4) Level A Study Withdrawal taken from Dec 2007 Lenard Hydrogeologic Level A Study Executive Summary. Note the Lenard Study states ““It was determined that the aquifer could not support the maximum registered diversion of the New Britain upper, lower and Bristol Mix Street wellfields”. The study reassigned “agreed upon” reduced flow rates to simulate a safe yield for each of the wellfields. No pond pump withdrawal was considered in the evaluation.

White Bridge Pond System:

	DEEP Diversion Registration (2)	Existing Withdrawal	Proposed Withdrawal	Level A Study Withdrawal (4)	Safe Yield Ave (4)	Safe Yield Drought (4)	Pump test (4)
gpm	10,400	~2,000	3@3,500=10,500	NSE	NSE	NSE	NSE
MGD ⁽¹⁾	15	~3	20.2 (4 pumps) 15 (3 pumps)	NSE	NSE	NSE	NSE

Notes:

(1) 1 MGD = 694.44 gpm

(2) Preliminary Engineering Study, CEI CDE Smith, Feb 2021

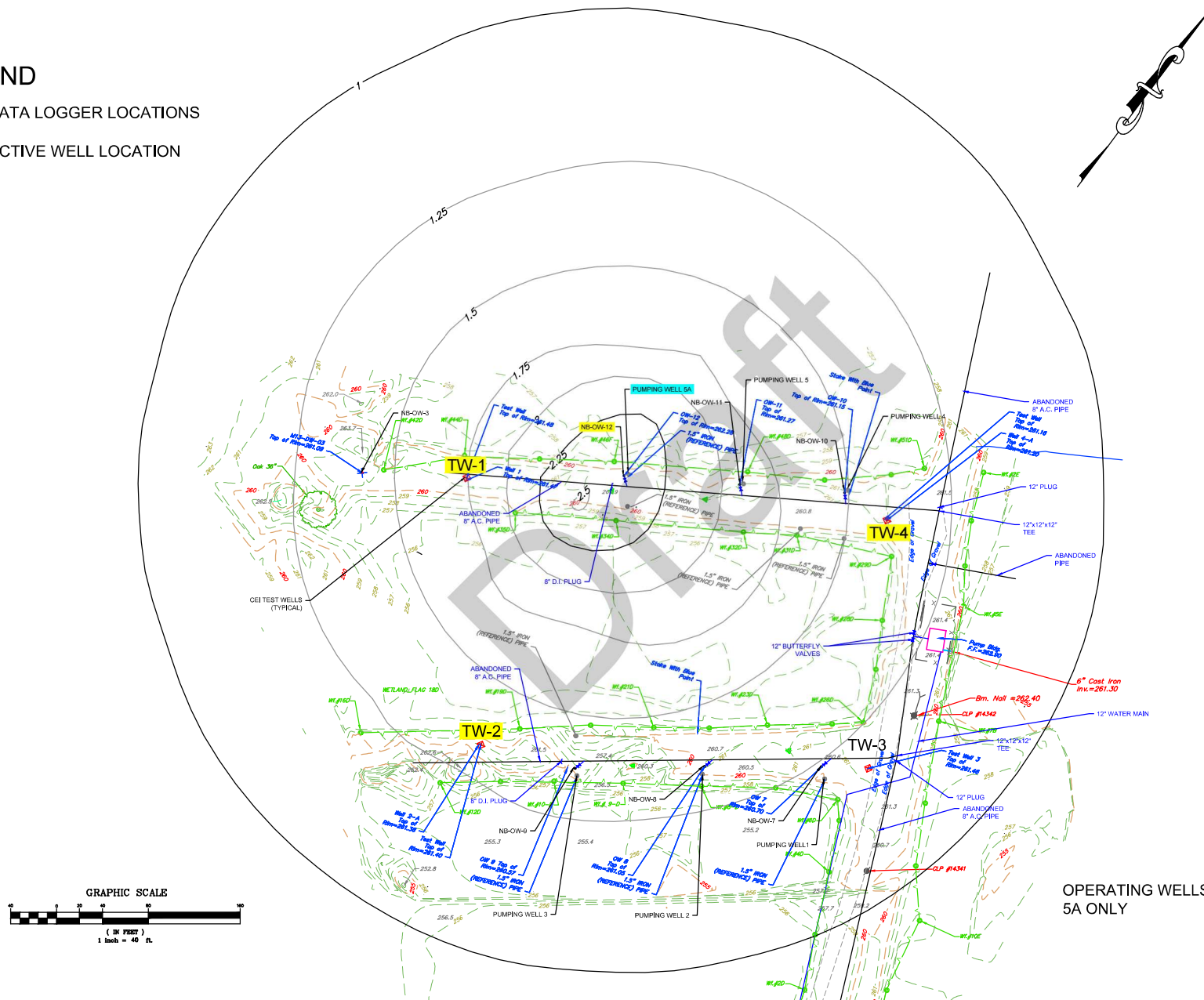
(3) Existing withdrawal assumed from the April 2020 CEI Hydrogeologic report reference

(4) NSE = Not Specifically evaluated

Although the engineering reports document the influence of the pond pumping on the lower wellfield pump tests, simultaneous pond pumping influence was not evaluated.

LEGEND

- DATA LOGGER LOCATIONS
- ACTIVE WELL LOCATION



General Notes

OBSERVED GROUNDWATER CONTOURS WERE DEVELOPED AFTER 12 HOURS OF CONTINUOUS PUMPING AT 200 GPM

NOT FOR CONSTRUCTION

Revision/Issue	Date



FIGURE 2
UPPER WHITE BRIDGE
WELLFIELD

GROUNDWATER CONTOURS

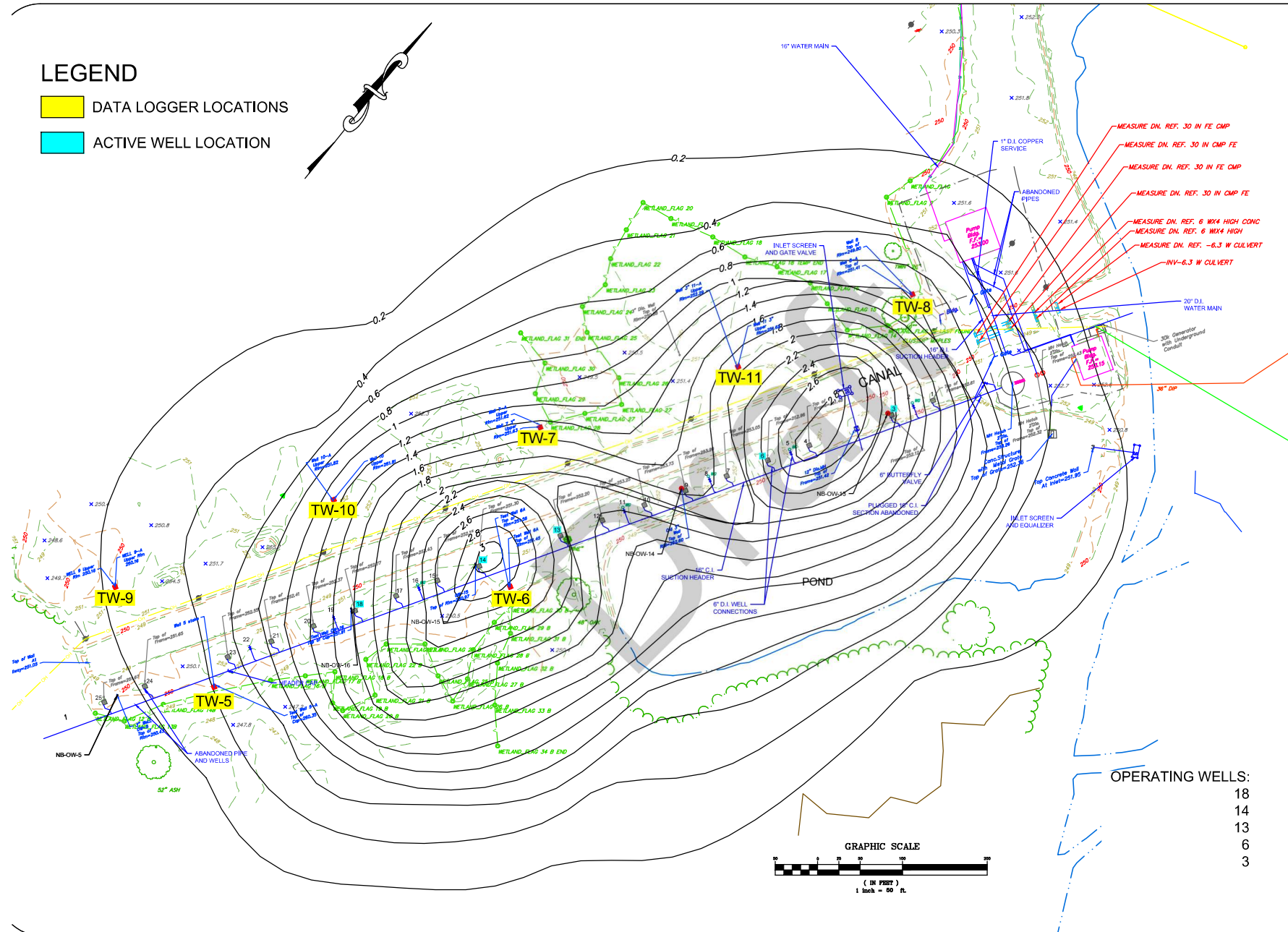
BRISTOL, CT

Project No.: 702-4	Sheet
Date: APRIL 2020	
Drawn By: NBS	
Checked By: SA	

OPERATING WELLS:
5A ONLY

LEGEND

- DATA LOGGER LOCATIONS
- ACTIVE WELL LOCATION



General Notes

OBSERVED GROUNDWATER CONTOURS WERE DEVELOPED AFTER 20 HOURS OF CONTINUOUS PUMPING AT 1.5 MGD

NOT FOR CONSTRUCTION

Revision/Issue

Date



FIGURE 5
LOWER WHITE BRIDGE
WELLFIELD
GROUNDWATER CONTOURS
BRISTOL, CT

Project No.: 702-4
Date: APRIL, 2020
Drawn By: NBS
Checked By: SA

Sheet

March 27, 2024

To Zachary Fisk
Chairman, Bristol Inland Wetland and Watercourses Commission

Re: Public hearing for the White Bridge Project scheduled for April 1, 2024

Dear Commissioners,

We have collectively made progress - through this extended public hearing process - towards accepting the three White Bridge applications (**#2019, #2020, and #23-458F-305**) in a fully informed manner. We have learned how the project will benefit the region by providing emergency potable water in times of drought and protect the neighborhood in times of heavy rain with compensatory storage. However, critical questions about unstudied potential impacts have yet to be answered. In this letter, I wish to reiterate some crucial pieces that are still missing from the bigger picture in terms of environmental impacts as we await the results of the third party review. I hope you see the importance, as do I, of continuing this public evaluation of the White Bridge project so we can reach the best possible solution.

My greatest concern is that the direct and indirect impacts of all aspects of this project have not been sufficiently explored. There is no doubt that drawing *any amount* of water from the new wells is going to ***alter the amount and flow of surface and subsurface water***. I feel that the eight, 2.5-inch test wells do not provide enough information to safely determine that nine, 24-inch high-efficiency wells will not impact the wetlands and the Coppermine Brook. If the New Britain Water Department will truly only extract large amounts of water in times of emergency, then this wetland system will surely be strained. Straining the Coppermine can lead to its collapse.

Because the new wells will alter the recharge of surrounding wetlands (and because more wetlands will be constructed), the habitats on the property will drastically change. This is why the environmental review must go ***beyond simply locating wildlife, it needs to predict where changes in habitat quality will occur***. How and where will species be affected? How will species respond to increased human activity, wetlands replication, and changes in water levels? Where do they live now and where will they potentially move to? Should some areas be avoided?

Wood Turtles are very sensitive to disturbances. If they are found to be present, special care should be taken to protect their isolated population. A study by Steven Garber and Joanna Burger in 1995 monitored a Wood Turtle population for 20 years in a wildlife reserve in Connecticut, but when hikers were allowed to enter the property the number of turtles quickly declined to zero. Other species like the Slimy Sculpin and Great Blue Heron deserve to receive some kind of survey because of their proximity to the project area. At a minimum, getting a count of re-nesting Great Blue Herons will tell us if the White Bridge wetlands are still the largest heronry in Connecticut.

Even with the third party review, we cannot predict all the possible impacts. This is why ***continuous monitoring of the Coppermine's water level and surface waters in the wetlands are vital to the sustainability of White Bridge as a water source***. Should disastrous, unpredicted events occur, the New Britain Water Department could adjust their withdrawals to preserve the health and longevity of the aquifer and brook. Monitoring will also protect wildlife habitat. Therefore, water level monitors *must* be included in the proposal and monitoring *must* continue even after the construction phase.

We need more data; we cannot assume the typical test results are going to give us the full picture. I am looking forward to seeing the results of the environmental review.

Thank you again for hearing my concerns,

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

FW: inland wetlands app. # 2019,2020,2022

Nancy Levesque

Mon 3/25/2024 1:36 PM

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

For the file

From: Nancy Levesque
Sent: Monday, March 25, 2024 1:36 PM
To: 'MICHAEL SIMMONS' <mrsimm29@gmail.com>
Subject: RE: inland wetlands app. # 2019,2020,2022

[Inland Wetlands Agency/Conservation Commission](#) • [City of Bristol Meetings](#) • [CivicClerk](#)

This is a copy of the agenda from last month's meeting – April's will be posted soon. The plans and narrative describe the proposed activities. They are planning a rehabilitation of the facility including the abandonment of existing wells, replacement with new wells and the demolition of multiple buildings with a proposed new pump house facility that will potentially provide water treatment at the end of a year's testing. Withdrawal rates for the wells are determined by DEEP and their permit is not increasing that permitted rate.

From: MICHAEL SIMMONS <mrsimm29@gmail.com>
Sent: Monday, March 25, 2024 1:19 PM
To: Nancy Levesque <NancyLevesque@bristolct.gov>
Subject: inland wetlands app. # 2019,2020,2022

Hi Nancy-My name is Mike Simmons, a member of the non-profit Friends of the Hoppers Birge Pond organization. Trying to find out the purpose of these applications in order to see if they present any conflicts with our need and want to keep the Hoppers in its pristine natural state. Thank you for any assistance you can provide.

Sincerely Michael Simmons P.S. I also left a voice message.

FW: Intervenor

Nancy Levesque

Mon 3/4/2024 2:43 PM

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

From: Olson, Peter S. <polson@luacc.com>
Sent: Monday, March 4, 2024 2:41 PM
To: Nancy Levesque <NancyLevesque@bristolct.gov>
Cc: Robert Flanagan <RobertFlanagan@bristolct.gov>
Subject: RE: Intervenor

Nancy-

Thank you for the note. The statutes allow any person to file an intervention pleading in an administrative proceeding and thereby become a party. As such, there is no need for the Board to formally "accept" the intervention, the act of filing it is sufficient.

Under CGS Sec. 22a-19, a valid intervention pleading requires that the commission consider the alleged unreasonable pollution, impairment or destruction of the public trust in the air, water or other natural resources of the state.

Further, the commission may not approve any conduct which does, or is reasonably likely to, have such effect if there are feasible and prudent alternatives.

These requirements are generally addressed at the time of decision on the application, in the Commission's decision.

However, at that time, and before proceeding to those decision elements, the Commission should also decide whether the intervention pleading is sufficient under the statutes, specifically CGS 22a-19 (b), which requires that "[t]he verified pleading shall contain specific factual allegations setting forth the nature of the alleged unreasonable pollution, impairment or destruction of the public trust in air, water or other natural resources of the state and should be sufficient to allow the reviewing authority to determine from verified pleading whether the intervention implicates an issue within the reviewing authority's jurisdiction.

The Supreme Court has held that "a petition for intervention filed under § 22a-19 must contain specific factual allegations setting forth the environmental issue that the intervenor intends to raise." *Nizzardo v. State Traffic Comm'n*, 259 Conn. 131, 164-65, 788 A.2d 1158, 1178 (2002).

Thus, while any person can file an intervention pleading, before the Commission's obligations are triggered, the Commission should review the intervention pleading and determine whether the specific factual allegations are sufficient to identify issues within the Commission's jurisdiction. The Commission need only consider alternate plans if it finds the likelihood of unreasonable pollution. *Paige v. Town Plan & Zoning Commission*, 235 Conn. 448, 668 A.2d 340 (1995)

I hope this is helpful. Please add this email to the public record in this matter and distribute to Commission members.



Peter S. Olson
Land Use & Conservation Counsel
275 Greenwood Avenue

Bethel, CT 06801
203.297.6070 - Facsimile 203.297.6071
Mobile 203.521.6789
polson@luacc.com

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If you suspect that you have received this communication in error, please notify us immediately by telephone at 203.297.6070, or e-mail at polson@luacc.com and immediately delete this message and all its attachments.

From: Nancy Levesque <NancyLevesque@bristolct.gov>
Sent: Monday, March 4, 2024 12:22 PM
To: Olson, Peter S. <polson@luacc.com>
Cc: Robert Flanagan <RobertFlanagan@bristolct.gov>
Subject: Intervenor

Good afternoon,

The Bristol IWWC is requesting counsel with regards to an intervention petition that was recently filed in accordance with section 22a19 for application 2019, 2020 and 23-458F-305.

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.
<https://bristolct.portal.civicclerk.com/event/603/overview>

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.
<https://bristolct.portal.civicclerk.com/event/603/files/attachment/389>

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.
<https://bristolct.portal.civicclerk.com/event/603/files/attachment/390>

Best regards,
Nancy Levesque, PE
Department of Public Works
City Engineer
860.584.6105
nancylevesque@bristolct.gov





March 4, 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:

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.

I serve as Co-chair of the Water Planning Council Advisory group, served on the Policy Subcommittee during the development of the Connecticut State Water Plan, and served as chair of the Rivers Sub-working group of the Working and Natural Land Workgroup of the Governor's Council on Climate Change. I also recently served a six-year term as a member of the Connecticut Council on Environmental Quality as an appointee of the governor and currently serve on the advisory board of the Connecticut Institute of Water Resources.

I do not offer these credentials to be boastful, I offer them so you can understand that water policy and understanding of the statutes and regulations that govern our decision-making when it comes to water is a significant part of my job here at Rivers Alliance as well as in my previous position at the Connecticut River Conservancy.

Based on statements (some of them misleading) made by a member of the applicant's team at the February 5th public hearing, I feel it is important for this commission to understand their role so as not to be swayed by misleading statements.

The Department of Energy and Environmental Protection (DEEP) is responsible for regulating diversions of water of more than 50,000 gallons per day. As I elaborated in previous testimony, 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.

DEEP regulates flows through streamflow regulations. But these regulations only apply to surface water impoundments. Groundwater withdrawals are not subject to streamflow regulation.

If one holds a registered groundwater diversion and uses the up to the registered amount (but no more) then dries up the adjacent stream, DEEP cannot do anything. So when someone on the applicant's team tells you that downstream flows are DEEP's jurisdiction, they are mistaken. DEEP cannot ask NBWD to decrease their withdrawals as long as these withdrawals are under the registered amount.

Please note – The applicant's correction to Application #2020 only clarifies that their withdrawals will remain within their registered diversion. Low flows have been documented on Coppermine Brook with current operations at a portion of the withdrawal NBWD has right to under their registration.

Also, please note that New Britain Water Company holds registered groundwater diversions for quantities that exceed what the aquifer can provide. A 2007 hydrologic study of the upper and lower wellfields found that the wellfields could not support the maximum registered diversion for these wellfields.

The member of the applicant's team was right when he said the commission does not regulate drinking water. However, **the power to protect the wetlands and watercourses in Bristol has been delegated to you by the State of Connecticut. The commission has the authority to regulate any activity which substantially diminishes the natural capacity of an inland wetland or watercourse to: support aquatic, plant or animal life and habitats; prevent flooding; supply water; assimilate waste; facilitate drainage; provide recreation or open space; or perform other functions.**

There is already diminishment of downstream flows on Coppermine Brook. **The Bristol Inland Wetlands and Watercourses Agency and Conservation Commission has the power to condition these applications to ensure flows on the brook that support aquatic life.**

If the applicant contests any of this information on withdrawals and operations, I encourage the commission to request information and data to back up their assertions.

Respectfully submitted,



Alicea Charamut, Executive Director



Joseph L. Hammer
Attorney at Law

jhammer@mrglaw.com
T: 203.777.1001
C: 860.992.3130
F: 860.547.1191

February 26, 2024

VIA EMAIL

Robert Flanagan
City Planner
City of Bristol
111 North Main Street
Bristol, CT 06010

Re: Inland Wetlands & Watercourses Agency/Conservation Commission - Applications
#2019, #2020, #23-458F-305; Applicant - City of New Britain, Public Works Department

Dear Mr. Flanagan:

We are writing to you on behalf of the applicant, the City of New Britain, Public Works Department, in order to confirm that the applicant consents to an extension of time to April 1, 2024 for purposes of completing the public hearings on the above-referenced applications. It is the applicant's understanding that the hearings will remain open following the March 4 hearing session and be resumed at the Inland Wetlands & Watercourses Agency's April 1 meeting.

The public hearing was opened on February 5, 2024. The statutory time period of 35 days to complete the hearing will expire on March 11, and an extension of 21 days is therefore needed to keep the hearing open through the Agency's April 1 meeting. The applicant consents to a 21 day extension.

Very truly yours,

A handwritten signature in blue ink, appearing to read 'J. Hammer', with a circular flourish at the end.

Joseph L. Hammer

JLH/sbo



February 26, 2024

Mr. Robert M. Flanagan, AICP-City Planner
City Hall
111 North Main Street
Bristol, CT 06010

RE: UPDATES TO PERMIT APPLICATIONS
#2019, #2020, AND #23-458F-305
FOR THE NEW BRITAIN WATER DEPARTMENT

Dear Mr. Flanagan

The following correspondence is provided to make corrections to the above applications and provide supplemental information for each application.

The attached summary details the documents submitted and the relative application location for submitted correction. Some of this information was previously submitted, but we wish to formally send it for clarity.

- The major items include correcting the text in Application #2020 to make clear that water withdrawals will remain within the registered diversion volumes. In addition CT DEEP has confirmed the registrations will remain in effect and no diversion permits are required. A letter from CT DEEP is included in the information.
- The Flood Plain permit application has been revised to reflect the updated fill and compensatory storage numbers presented at the February 5th hearing, along with a supporting spreadsheet.

We are working with the NBWD to formalize an operations and maintenance plan for canal/pond and related activities which will be submitted shortly.

We will also be contacting FEMA as to the protocol in submitting a certificate of no rise in flood elevation to the commission.

Please contact me if you have any questions at 860 224 0442 or 860 620 3673.

Sincerely,

COMPREHENSIVE ENVIRONMENTAL INC

Sebastian A Amenta, P.E.
Regional Program Director

CC. Nancy Levesque, City Engineer
Andrew Armstrong, Assistant Planner
Ray Esponda, Deputy Director NBWD
Joseph Hammer, Esquire
Vinta Varghese, CDM Smith

Enclosures: Summary of Attachments-#2019, #2020, and #23-458F-305

Summary of Updates
to
Applications #2019, #2020 and #23-458F-305

#2019-1) Please add the attached map to Attachment 4. It is an overlay of scientist wetlands flagging on the City's wetlands map for the project area.

#2020-1) Please insert the corrected page and substitute it for the page on file.

2) Please add the NDDB and SHPO documents to the filing

3) Map showing Monitor well locations and stream gauge locations.

4) Please add the CT DEEP letter which confirms the Diversion Registrations will remain in force and no permit is required.

#23-458F-305-1) Please insert substitute page 2 of the Application PDF which indicates updated volumes for fill and compensatory storage.

2) Please insert page 9 of the PDF which indicates the revised volumes.

3) Please add the attached spreadsheet summary for cut/fill and compensatory storage volume.



Mr. Sebastian Amenta, P.E.
Comprehensive Environmental, Inc.
1 Hartford Square, Suite 227
New Britain, CT 06052
samenta@ceiengineers.com

RE: Request for Diversion Permit Need Determination
Whites Bridge Wellfield Improvements
New Britain Water Department
Bristol, CT

Dear Mr. Amenta:

This letter is in response to your November 8, 2023 request for Water Diversion permit need determination regarding your proposal to modify certain registered water diversions. The proposed activities are documented in the report you submitted on behalf of the New Britain Water Department (NBWD) entitled “Negative Declaration of Diversion / White Bridge Wellfield Improvements / Bristol, Connecticut,” dated November 2023 (“the report”), as well as other information provided in a subsequent email dated December 5, 2023. The project involves the replacement of several public water supply wells that make up two separate, but nearby wellfields registered to the NBWD pursuant to Section 22a-368 Connecticut General Statutes (CGS) as described in the table below.

REGISTRATION NUMBER	NAME OF DIVERSION	REGISTERED WITHDRAWAL (million gallons per day)	BASIN NAME
4314-007-PWS-GR	Upper White Bridge Wells	2.1600	Copper Mine River
4314-008-PWS-GR	Lower White Bridge Wells	6.6240	Copper Mine River

The report states that these “wellfields are unable to be used in accordance with their original design intent and drastic improvements are needed due to poor groundwater well performance caused by clogged well screens and an antiquated suction withdrawal system.” The proposed redevelopment includes the abandonment of all existing wells in these two wellfields, replacing them with new wells, all within the extent of the existing wellfields as registered. The proposed wells, as described in the report, will be withdrawing from the same stratified drift aquifer wherein the existing wells are located.

Based on our review of your submittal, it has been determined that this proposal as presented in the submitted materials conforms with Section 22a-377(c)-1(c)(1) of the Regulations of Connecticut State Agencies (RCSA) included below in its entirety:

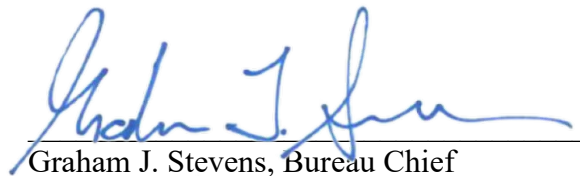
Any person or municipality which registered a diversion pursuant to section 22a-368 of the General Statutes may maintain such diversion only in accordance with the information provided in the registration form filed with the Commissioner. Any person or municipality which registered a diversion pursuant to section 22a-368 of the General Statutes may not cause or allow any modification of such diversion, including but not limited to an increase in withdrawal capacity, without having first obtained a permit under sections 22a-365 to 22a-378, inclusive, of the General Statutes and 22a-377(c)-2 of the Regulations of Connecticut State Agencies, unless such modification is exempt under section 22a-377 of the General Statutes or section 22a-377 (b)-1 of the Regulations of Connecticut State Agencies.

As such, this department finds that the proposed diversion modifications, comprising of the wellfields identified on page 1 of this determination, **will not** require a water diversion permit pursuant to Section 22a-368(a) CGS, provided the total combined withdrawal from the respective wellfields does not exceed the registered withdrawal as indicated in the above table. However, it is requested that you keep us informed as the project develops, particularly on matters relating to aquifer response modeling and induced infiltration studies.

If you should have any additional questions regarding this matter, please contact Doug Hoskins at 860-424-4192 or douglas.hoskins@ct.gov.

February 21, 2024

Date



Graham J. Stevens, Bureau Chief
Water Protection and Land Resources

GS/dh

Cc:

Ray Esponda, New Britain Water Dept., Ray.Esponds@NewBritainCT.gov

Raul Tejada, CT DPH, raul.tejada@ct.gov

Lori Mathieu, CT DPH, Lori.Mathieu@ct.gov

Brendan Schain, CT DEEP brendan.schain@ct.gov

Shalyn Zappulla, CT DEEP shalyn.zappulla@ct.org

Alicia Charamut, Rivers Alliance, alicea@riversalliance.org

#2020 Update

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.~~

The NBWD withdrawals WILL NOT exceed its registered diversions.

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



PROJECT REVIEW COVER FORM

This is: ☒ a new submittal ☐ supplemental information ☐ other Date Submitted: April 27, 2022

PROJECT INFORMATION

Project Name: White Bridge Waterworks Facilities

Project Proponent: City of Bristol

The individual or group sponsoring, organizing, or proposing the project.

Project Street Address: off Maltby Street

Include street number, street name, and or Route Number. If no street address exists give closest intersection.

City or Town: Bristol

Please use the municipality name and **not** the village or hamlet.

County: Hartford

PROJECT DESCRIPTION (REQUIRED)

Please summarize the project below. In a separate attachment, describe the project in detail. As applicable, provide any information regarding past land use, project area size, renovation plans, demolitions, and/or new construction.

Replace existing groundwater wells, demolish three existing pumping stations (Upper Wellfield, Lower Wellfield, and Pond),

construct new pumping station and new access road at the Lower Wellfield (see attached letter).

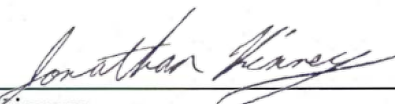
List all state and federal agencies involved in the project and indicate the funding, permit, license or approval program pertaining to the proposed project:

Agency Type	Agency Name	Program Name
☒ State ☐ Federal	CT DEEP, Div. of Land Resources	401 Water Quality Certification
☒ State ☐ Federal	CT Dept. Public Health	Drinking State Revolving Funding (DWSRF)
☐ State ☒ Federal	U.S. Army Corps of Engineers	PreConstruction Notification (PCN)
☐ State ☐ Federal		

If there is no state or federal agency involvement, please state the reason for your review request:

FOR SHPO USE ONLY

Based on the information submitted to our office for the above named property and project, it is the opinion of the Connecticut State Historic Preservation Office that no historic properties will be affected by the proposed activities.*


Jonathan Kinney

June 14, 2022

Date

~~Deputy~~ State Historic Preservation Officer

*All other determinations of effect will result in a formal letter from this office

PROJECT REVIEW COVER FORM

CULTURAL RESOURCES IDENTIFICATION

Background research for previously identified historic properties within a project area may be undertaken at the SHPO's office. To schedule an appointment, please contact Catherine Labadia, 860-500-2329 or Catherine.labadia@ct.gov. Some applicants may find it advantageous to hire a qualified historic preservation professional to complete the identification and evaluation of historic properties.

Are there any historic properties listed on the State or National Register of Historic Places within the project area? (Select one)

☐ Yes ☐ No ☒ Do Not Know **If yes, please identify:** _____

Architecture

Are there any buildings, structures, or objects within the Area of Potential Effects (houses, bridges, barns, walls, etc.)? The area of potential effects means the geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties. If you're not sure, check "I don't know."

- ☐ Yes (attach clearly labeled photographs of each resource and applicable property cards from the municipality assessor)
☐ No (proceed to next section)
☒ I don't know (proceed to next section)

Date the existing building/structures/objects were constructed: 1923

If the project involves rehabilitation, demolition, or alterations to existing buildings older than 50 years, provide a work plan (If window replacements are proposed, provide representative photographs of existing windows).

Archeology

Does the proposed project involve ground disturbing activities?

- ☒ Yes (provide below or attach a description of current and prior land use and disturbances. Attach an excerpt of the soil survey map for the project area. These can be created for free at: <https://websoilsurvey.nrcs.usda.gov>
Soil survey attached.

☐ No

CHECKLIST (Did you attach the following information?)

Required for all Projects	Required for Projects with architectural resources
☒ Completed Form	☐ Work plans for rehabilitation or renovation
☒ Map clearly labelled depicting project area	☐ Assessor's Property Card
☒ Photographs of current site conditions	Required for Projects with ground disturbing activities
☒ Site or project plans for new construction	☒ Soil survey map
Suggested Attachments, as needed	
☒ Supporting documents needed to explain project	☐ Supporting documents identifying historic properties
☐ Historic maps or aerials (available at http://magic.lib.uconn.edu or https://www.historicaerials.com/)	

PROJECT CONTACT

Name: Magdalena Lofstedt Firm/Agency: CDM Smith Inc.

Address: 75 State Street, Suite 701

City: Boston State: MA Zip: 02109

Phone: 617-452-6597 Email: lofstedtmh@cdmsmith.com

Federal and state laws exist to ensure that agencies, or their designated applicants, consider the impacts of their projects on historic resources. At a minimum, submission of this completed form with its attachments constitutes a request for review by the Connecticut SHPO. The responsibility for preparing documentation, including the identification of historic properties and the assessment of potential effects resulting from the project, rests with the federal or state agency, or its designated applicant. The role of SHPO is to review, comment, and consult. SHPO's ability to complete a timely project review largely depends on the quality of the materials submitted. Please mail the completed form with all attachments to the attention of: Environmental Review, State Historic Preservation Office, 450 Columbus Boulevard, Suite 5, Hartford, CT. **Electronic submissions are not accepted at this time.**



77 Hartland Street, Suite 201
East Hartford, CT 06108
tel: 860-529-7615

April 27, 2022

CT State Historic Preservation Office
Attn: Environmental Review
450 Columbus Boulevard, Suite 5
Hartford, CT 06103

Subject: Section 106 Review
Replacement of White Bridge Waterworks Facilities
Applicant: City of New Britain

Dear Mr. Kinney:

On behalf of the City of New Britain, CDM Smith Inc. (CDM Smith) is requesting your review of significant historical and archeological resources within the Phase 1 project limits of the White Bridge Waterworks Facilities Replacement Project. The proposed project is a 2 Phase project to replace existing groundwater wells at both the Upper and Lower Wellfields. Phase 1 is described in detail in this letter. Phase 2 consists of modifications to the new Pond Pumping Station to be constructed in Phase 1.

There are approximately 30 total wells in the Lower Wellfield, but only five are online and the maximum pumping capability of the wellfield is currently approximately 1.8 million gallons per day (mgd). The existing Diversion Registration for the Lower Wellfield is 6.624 mgd. Similar to the Lower Wellfield, the Upper Wellfield is not currently performing at its intended capacity. There are approximately six total wells in the Upper Wellfield, but only one is operational. The maximum pumping capability of the Upper Wellfield is currently approximately 0.3 mgd. The existing Diversion Registration for the Upper Wellfield is 2.16 mgd.

Existing Facilities

The White Bridge Facilities currently consist of pumping systems for groundwater and surface water supplies including the Lower Wellfield, Upper Wellfield, and Pond Pumping Station. These facilities are located off Maltby Street in the city of Bristol, Connecticut and are shown on **Figure 1: USGS Location Map**. Currently, both of the Upper and Lower Wellfields and the Pond Pumping Station convey raw water to the Shuttle Meadow Reservoir for treatment at the City of New Britain (City)'s Shuttle Meadow Water Treatment Plant (WTP). The total Diversion Registration for the White Bridge Facilities is 23.784 mgd, including registrations for up to 6.624 mgd from the Lower Wellfield, 2.16 mgd from the Upper Wellfield, and 15.0 mgd from the Pond Pumping Station (surface water).



Lower Wellfield

The original White Bridge Facilities consisted of one pumping station, which drew water from approximately 22 8-inch-diameter groundwater wells and from one 50-foot-diameter caisson well. This system was constructed between 1920 and 1923 and featured suction lift pumps located at the eastern end of the system. The original building from 1923 still exists today but was reworked to become a surface water pumping station in the 1950s. In the 1940s, a new building was constructed to provide electric power to all on-site facilities and to draw water from the Lower Wellfield wells. In the 1950s, seven additional gravel-packed wells were drilled to expand the capacity of the facility. In the 1980s, new suction lift pumps were installed at the Lower Wellfield and piping adjustments were made so that the pumps took supply directly from the wells and not from the caisson.



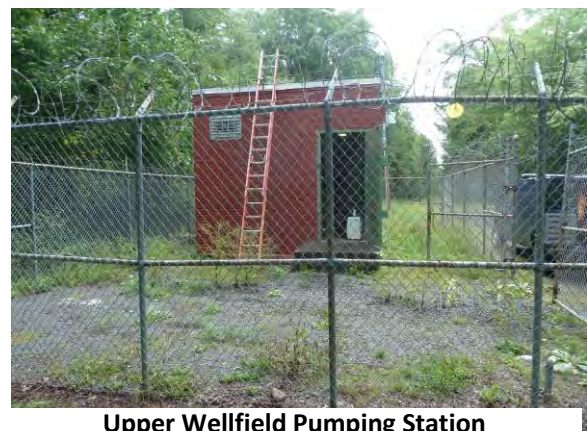
Lower Wellfield Pumping Station lower level

The Lower Wellfield pumping system was intended to deliver approximately 3 mgd, less than the Diversion Registration of 6.624 mgd. However, currently there is generally only one pump in operation at a time because of issues with loss of prime and the difficulty in obtaining repair parts. Currently the system can pump up to approximately 1.5 to 1.8 mgd from up to five wells before loss of prime. There has been no redevelopment of any well screens, so it is likely all the wells are heavily encrusted.

Upper Wellfield

In the 1940s, the White Bridge groundwater supply system was expanded to include the Upper Wellfield. It originally included 66 driven wells, each 2.5 inches in diameter and connected in series. The wells originally yielded about 1 mgd, less than the diversion registration of 2.16 mgd, but the production declined because of clogging. In 1955, six 8-inch-diameter drilled wells about 25 feet deep were constructed. In the 1980s, the Upper Wellfield facilities were updated to provide six new wells in the Upper Wellfield and upgrade the piping and the suction lift pumping system.

The existing facilities at the Upper Wellfield remain essentially unchanged from the 1980s, except for



Upper Wellfield Pumping Station

SHPO

April 27, 2022

Page 3

pump and motor replacement and equipment upkeep. Historical records indicate that there has been a degradation of flow quantities from the Upper Wellfield over time; a recent test indicated a capacity of approximately 0.3 mgd and only one well able to be pumped at a time. This degradation is likely from clogging of well screens, piping system air entrainment, and possible collapse of one or more well screens.

Pond Supply and Pumping Station

In the 1950s, the original Lower Wellfield Pumping Station from 1923 was converted into a surface water pumping station (now termed the Pond Pumping Station) that takes its water from an adjacent man-made pond via suction lift. This pond features a 24-inch screened intake structure and two interconnecting piping systems that allow water to flow freely from the Copper Mine Brook or from the canal adjacent to the wells. This canal is also hydraulically connected to Copper Mine Brook on the east and Polkville Avenue Brook on the west, so that the canal and pond are supplemented by brook flows. There are weir structures in both the Copper Mine Brook and Polkville Avenue Brook to hinder water flow and direct flow to the canal. The Pond Pumping Station, with a Diversion Registration of up to 15 mgd, typically pumps approximately 5 mgd when in operation.



Pond Pumping Station internal pump and piping

Supply Pond and Canal

The Supply Pond is located adjacent to the Lower Wellfield, south of Maltby Road. The Supply Pond, which is man-made and approximately 2.56 acres, serves as a raw surface water source. The Canal, also man-made, is 1,120 feet long and connects the Copper Mine Brook to the Polkville Avenue Brook; the Canal is hydraulically connected to the Supply Pond. Over the many decades of operation, both the Canal and Supply Pond have experienced accumulation of sediment associated with pumping operations.



Pond Intake Structure Rehabilitation

There is an existing concrete Pond Intake Structure located near the eastern end of the Supply Pond. Water enters the Pond Intake Structure through sides and is conveyed to the Pond Pumping Station via a 24-inch-diameter cast iron pipe. The structure includes stationary steel mesh screen panels on two sides to keep debris out of the flow to the Pond Pumping Station. Each of the steel screen panels is 9-feet wide and 9.5-feet high. The screens are manually cleaned by operators in place using rakes and other handheld tools; the need for screen cleaning is infrequent.

Phase 1 Proposed Work

Under Phase 1, the New Britain Water Department is proposing to:

- Replace six (6) water supply wells at the Lower Wellfield and three (3) water supply wells at the Upper Wellfield; all wells will include submersible well pumps with variable frequency drives (VFDs). Wells will be connected directly to the raw water conveyance system. Install new yard piping as required for the new facilities and remove/abandon some existing piping (see Sheets C-6 and C-7).
- Construct new Pond Pumping Station building including flood protection (lowest floor elevation elevated at least 1 foot above the 100-yr flood elevation), modern electrical and control systems, sampling space, standby power, operator restroom, and space for a designated chemical room with provisions for potential future chemical addition (see Sheet C-5)
- Demolish the three existing pumping stations including appropriate disposal of hazardous materials and abandon the existing wells and caisson (see Sheets C-5 and C-6). Some hazardous materials including asbestos, lead paint, and polychlorinated biphenyls are present in certain locations of the existing buildings. The demolition will be completed in accordance with applicable state and federal removal and disposal requirements.
- New driveway to the Lower Wellfield and new Pond Pumping Station graded to be above the 100-year flood elevation of 256 feet (NAVD 88).
- Remove sediment from both the Supply Pond and Canal to restore their operating capacity as well as provide for unhindered flow into the Pond Intake Structure.
- Repair concrete cracks in the Pond Intake Structure, replace existing screens with stainless steel screens, and add a 6-ft wide riprap protection at the Supply Pond Intake Structure.



SHPO

April 27, 2022

Page 5

Please review the enclosed USGS Location Map and Project Plans of the proposed water works replacement project and advise us in writing of any significant historical or archeological resources within the project areas.

You may contact me at (617) 452-6597 if you have any questions regarding this correspondence.

Very truly yours,

A handwritten signature in black ink, appearing to read 'Magdalena Lofstedt'.

Magdalena Lofstedt, PWS
Environmental Scientist
CDM Smith Inc.

Enclosures:

Project Notification Form

Figure 1: USGS Project Location Map

Soil Survey

Project Plans Sheets C-2, C-3, C-4, C-5, C-6, C-7, and C-8

cc: V. Varghese, CDM Smith Inc.

K. Wagner, CDM Smith Inc.





PROJECT REVIEW COVER FORM

This is: ☒ a new submittal ☐ supplemental information ☐ other Date Submitted: April 27, 2022

PROJECT INFORMATION

Project Name: White Bridge Waterworks Facilities

Project Proponent: City of Bristol
The individual or group sponsoring, organizing, or proposing the project.

Project Street Address: off Maltby Street
Include street number, street name, and or Route Number. If no street address exists give closest intersection.

City or Town: Bristol County: Hartford
Please use the municipality name and **not** the village or hamlet.

PROJECT DESCRIPTION (REQUIRED)

Please summarize the project below. In a separate attachment, describe the project in detail. As applicable, provide any information regarding past land use, project area size, renovation plans, demolitions, and/or new construction.

Replace existing groundwater wells, demolish three existing pumping stations (Upper Wellfield, Lower Wellfield, and Pond),
construct new pumping station and new access road at the Lower Wellfield (see attached letter).

List all state and federal agencies involved in the project and indicate the funding, permit, license or approval program pertaining to the proposed project:

Agency Type	Agency Name	Program Name
☒ State ☐ Federal	CT DEEP, Div. of Land Resources	401 Water Quality Certification
☒ State ☐ Federal	CT Dept. Public Health	Drinking State Revolving Funding (DWSRF)
☐ State ☒ Federal	U.S. Army Corps of Engineers	PreConstruction Notification (PCN)
☐ State ☐ Federal		

If there is no state or federal agency involvement, please state the reason for your review request:

FOR SHPO USE ONLY

Based on the information submitted to our office for the above named property and project, it is the opinion of the Connecticut State Historic Preservation Office that no historic properties will be affected by the proposed activities.*

Jonathan Kinney
Deputy State Historic Preservation Officer

Date

*All other determinations of effect will result in a formal letter from this office

PROJECT REVIEW COVER FORM

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Background research for previously identified historic properties within a project area may be undertaken at the SHPO's office. To schedule an appointment, please contact Catherine Labadia, 860-500-2329 or Catherine.labadia@ct.gov. Some applicants may find it advantageous to hire a qualified historic preservation professional to complete the identification and evaluation of historic properties.

Are there any historic properties listed on the State or National Register of Historic Places within the project area? (Select one)

☐ Yes ☐ No ☒ Do Not Know

If yes, please identify: _____

Architecture

Are there any buildings, structures, or objects within the Area of Potential Effects (houses, bridges, barns, walls, etc.)? The area of potential effects means the geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties. If you're not sure, check "I don't know."

☐ Yes (attach clearly labeled photographs of each resource and applicable property cards from the municipality assessor)

☐ No (proceed to next section)

☒ I don't know (proceed to next section)

Date the existing building/structures/objects were constructed: 1923

If the project involves rehabilitation, demolition, or alterations to existing buildings older than 50 years, provide a work plan

(If window replacements are proposed, provide representative photographs of existing windows).

Archeology

Does the proposed project involve ground disturbing activities?

☒ Yes (provide below or attach a description of current and prior land use and disturbances. Attach an excerpt of the soil survey map for the project area. These can be created for free at: <https://websoilsurvey.nrcs.usda.gov>

Soil survey attached.

☐ No

CHECKLIST (Did you attach the following information?)

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☒ Completed Form	☐ Work plans for rehabilitation or renovation
☒ Map clearly labelled depicting project area	☐ Assessor's Property Card
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Suggested Attachments, as needed	
☒ Supporting documents needed to explain project	☐ Supporting documents identifying historic properties
☐ Historic maps or aerials (available at http://magic.lib.uconn.edu or https://www.historicaerials.com/)	

PROJECT CONTACT

Name: Magdalena Lofstedt

Firm/Agency: CDM Smith Inc.

Address: 75 State Street, Suite 701

City: Boston

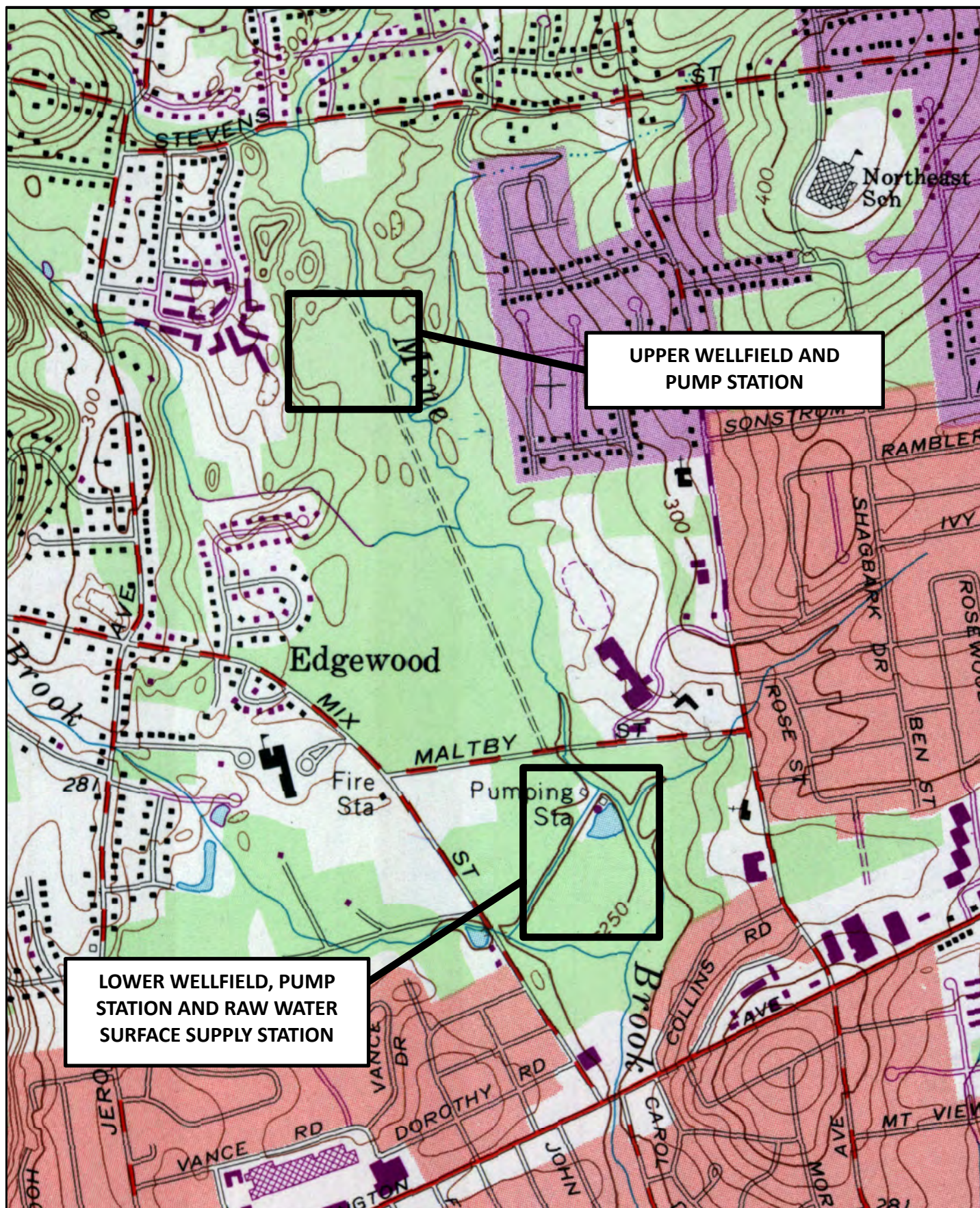
State: MA

Zip: 02109

Phone: 617-452-6597

Email: lofstedtmh@cdmsmith.com

Federal and state laws exist to ensure that agencies, or their designated applicants, consider the impacts of their projects on historic resources. At a minimum, submission of this completed form with its attachments constitutes a request for review by the Connecticut SHPO. The responsibility for preparing documentation, including the identification of historic properties and the assessment of potential effects resulting from the project, rests with the federal or state agency, or its designated applicant. The role of SHPO is to review, comment, and consult. SHPO's ability to complete a timely project review largely depends on the quality of the materials submitted. Please mail the completed form with all attachments to the attention of: Environmental Review, State Historic Preservation Office, 450 Columbus Boulevard, Suite 5, Hartford, CT. **Electronic submissions are not accepted at this time.**



1 in = 1,000 ft

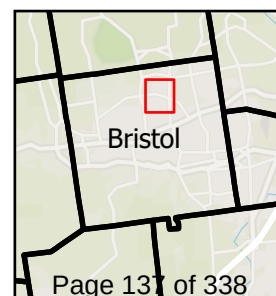
0 500 1,000 1,500 2,000 Feet

**CDM
Smith**



**Figure 1: USGS Project Location Map
New Britain Water Department
Bristol, Connecticut**

April 2020



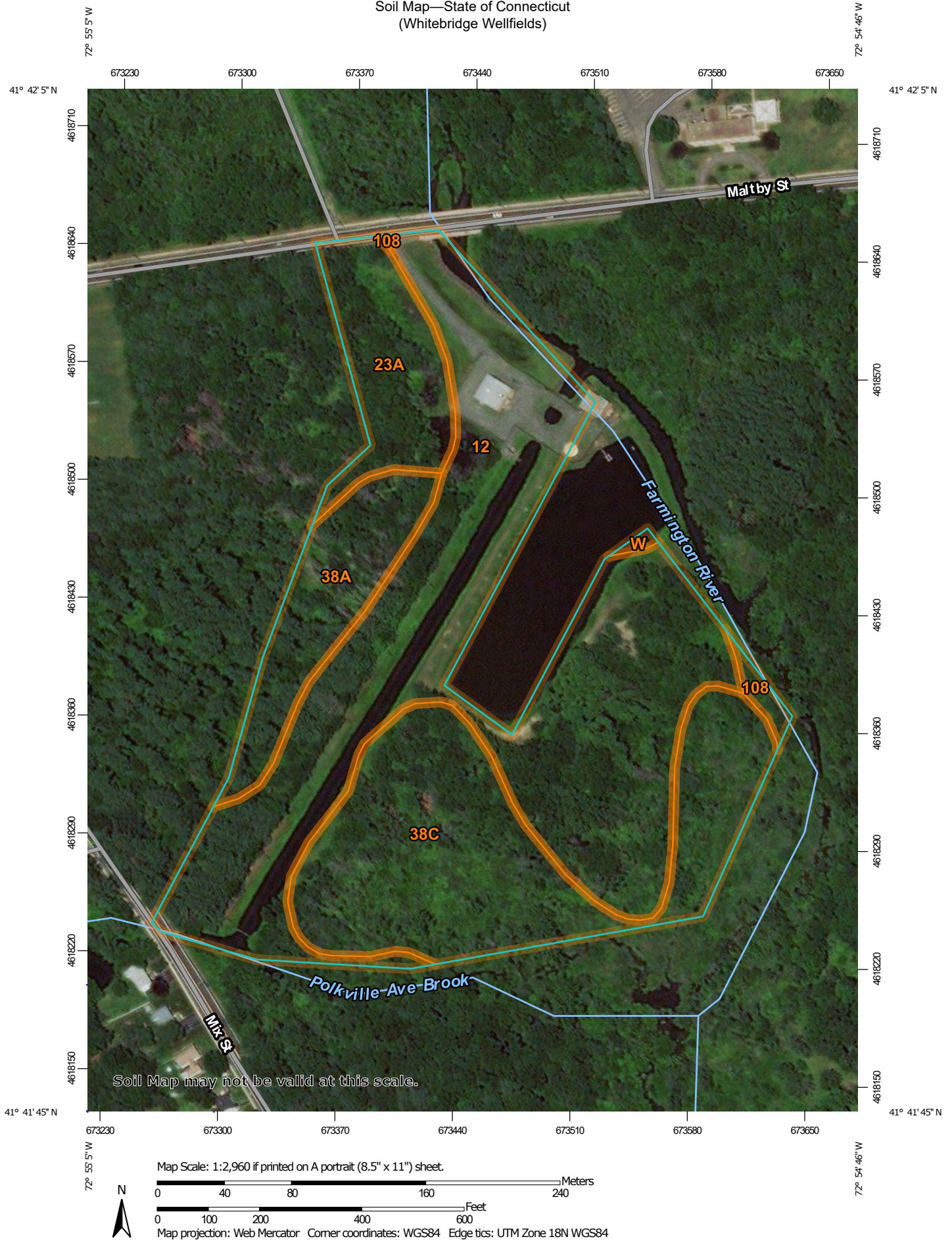
Soil Map—State of Connecticut (Upper Well-Fields)



**Natural Resources
Conservation Service**

Web Soil Survey
National Cooperative Soil Survey

Soil Map—State of Connecticut
(Whitebridge Wellfields)



Natural Resources
Conservation Service

Web Soil Survey
National Cooperative Soil Survey

MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

 Soil Map Unit Polygons

 Soil Map Unit Lines

 Soil Map Unit Points

Special Point Features



Blowout



Borrow Pit



Clay Spot



Closed Depression



Gravel Pit



Gravelly Spot



Landfill



Lava Flow



Marsh or swamp



Mine or Quarry



Miscellaneous Water



Perennial Water



Rock Outcrop



Saline Spot



Sandy Spot



Severely Eroded Spot



Sinkhole



Slide or Slip



Sodic Spot



Spoil Area



Stony Spot



Very Stony Spot



Wet Spot



Other



Special Line Features

Water Features



Streams and Canals

Transportation



Rails



Interstate Highways



US Routes



Major Roads



Local Roads

Background



Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:12,000.

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

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

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

Source of Map: Natural Resources Conservation Service

Web Soil Survey URL:

Coordinate System: Web Mercator (EPSG:3857)

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

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

Soil Survey Area: State of Connecticut

Survey Area Data: Version 16, Sep 15, 2017

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

Date(s) aerial images were photographed: Sep 29, 2013—Oct 16, 2016

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

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
12	Raypol silt loam	0.3	2.9%
15	Scarboro muck, 0 to 3 percent slopes	8.6	76.5%
21A	Ninigret and Tisbury soils, 0 to 5 percent slopes	0.4	3.5%
37C	Manchester gravelly sandy loam, 3 to 15 percent slopes	0.1	0.6%
37E	Manchester gravelly sandy loam, 15 to 45 percent slopes	1.2	10.4%
108	Saco silt loam	0.7	6.1%
Totals for Area of Interest		11.3	100.0%

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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:	MARCH 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

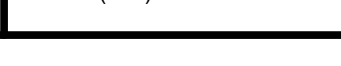
OVERALL SITE PLAN

SHEET NO.
C-2

PROJECT NO.	10739-264571
FILE NAME:	C002STPL.DWG
SHEET NO.	C-2

NO.	DATE	DRIVER	GRADE	REMARKS
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DATE: _____ MARCH 2022

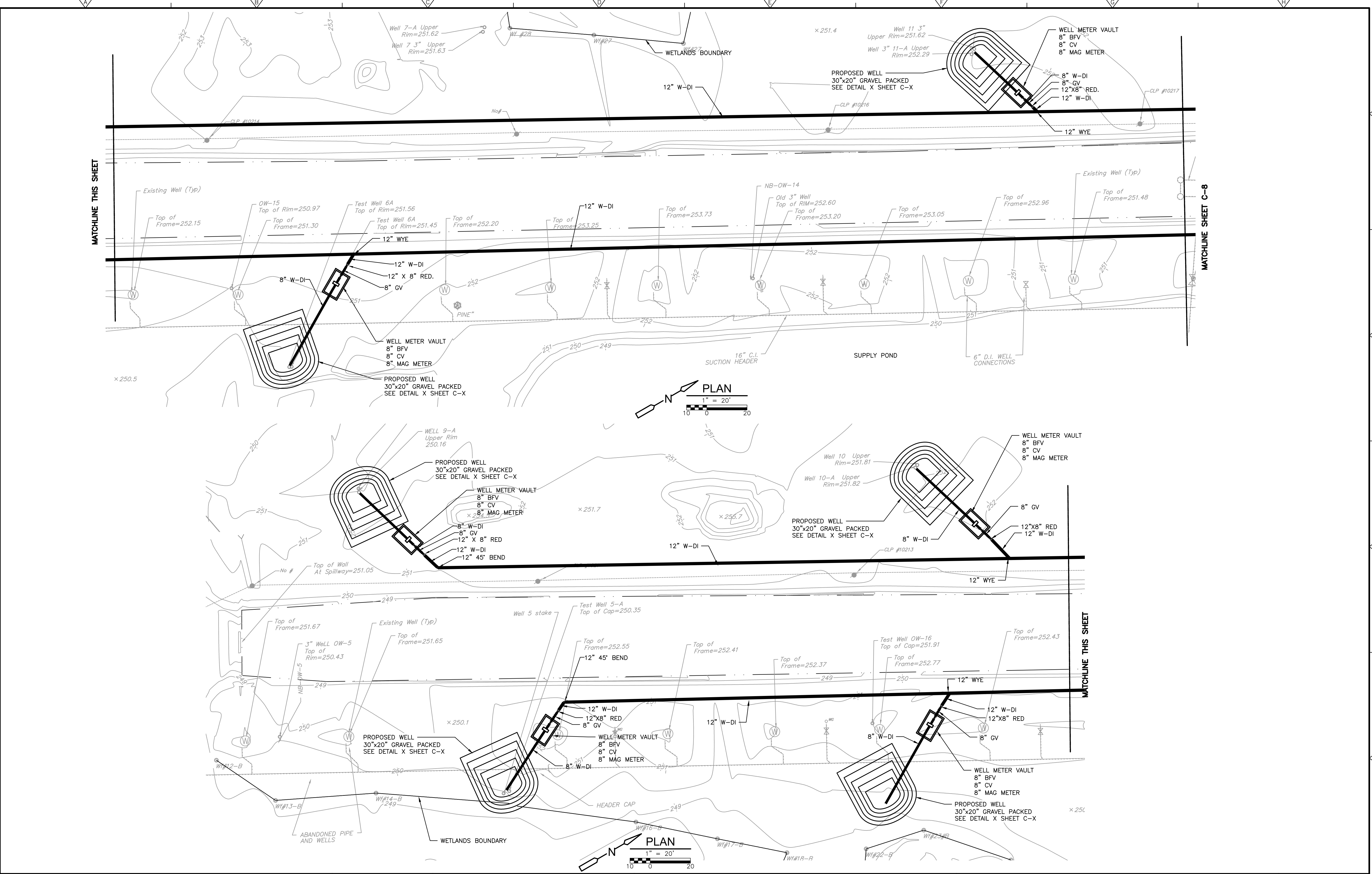


AND POND PUMPING STATION

SITE PLAN & GRADING

NOT FOR CONSTRUCTION

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REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY:	K. GERLACH
DRAWN BY:	S. ENGEL
SHEET CHK'D BY:	K. WAGNER
CROSS CHK'D BY:	
APPROVED BY:	
DATE:	MARCH 2022

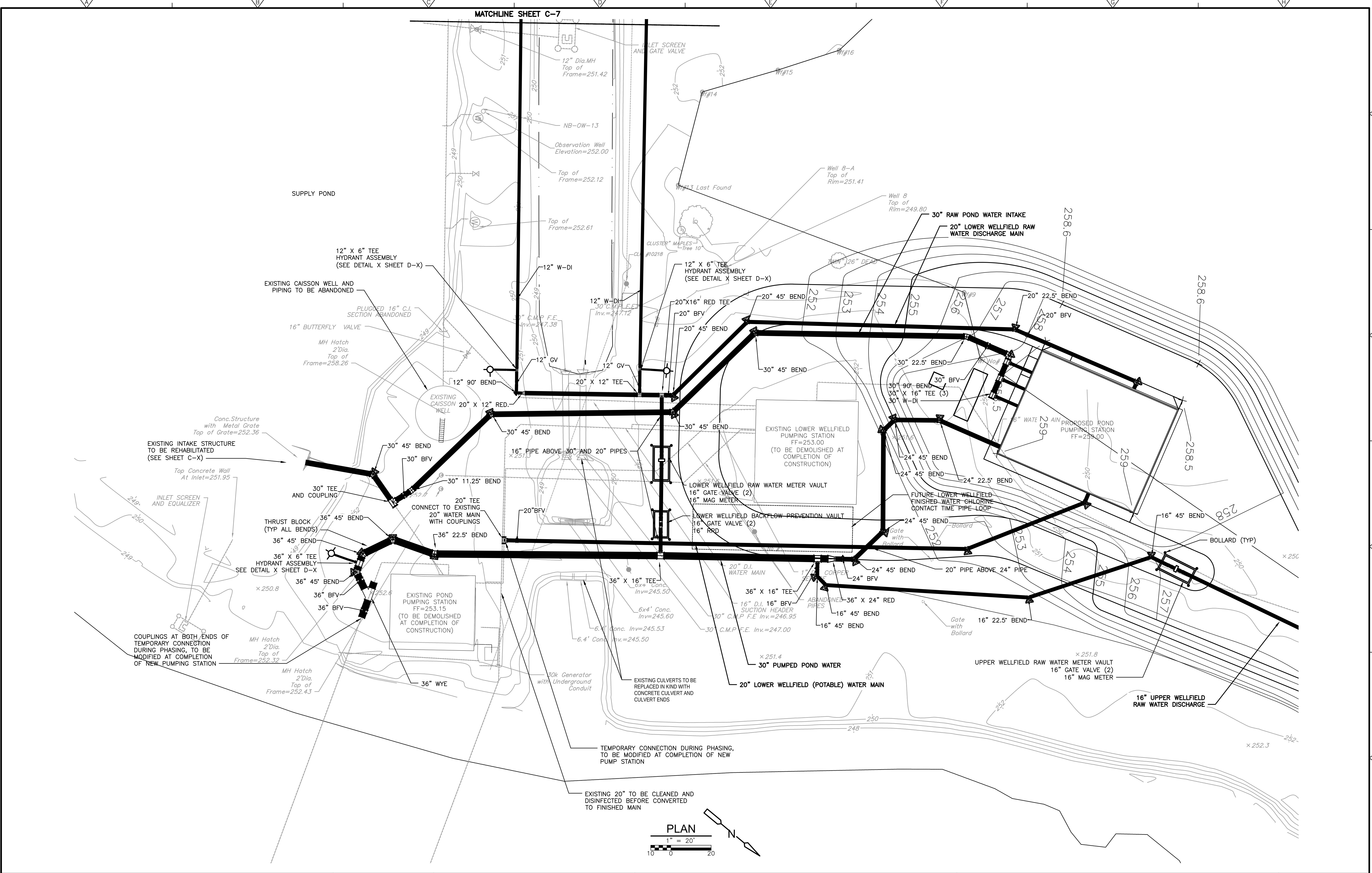
CDM Smith
 77 Hartland Street, Suite 200
 East Hartford, CT 06108
 Tel: (860) 529-7615

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

LOWER WELLFIELD
 YARD PIPING PLAN
 SHEET NO.
C-7

PROJECT NO.	10739-264571
FILE NAME:	CO07YPPL.DWG
SHEET NO.	C-7

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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.



REV.	NO.	DATE	DRWN	CHKD	REMARKS

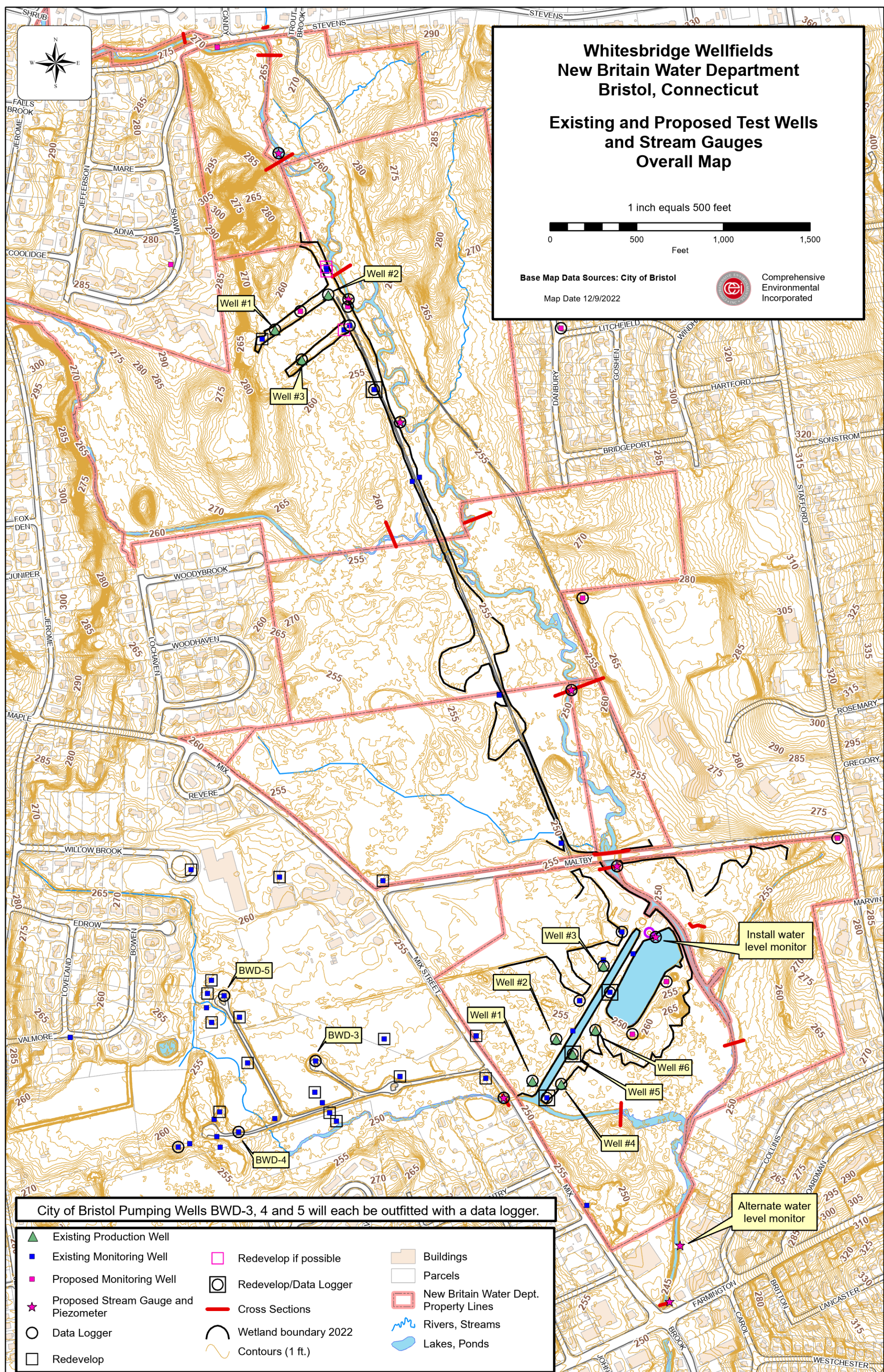
DESIGNED BY:	K. GERLACH
DRAWN BY:	S. ENGEL
SHEET CHK'D BY:	K. WAGNER
CROSS CHK'D BY:	
APPROVED BY:	
DATE:	MARCH 2022

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**

**POND PUMPING STATION
YARD PIPING PLAN**

PROJECT NO.	10739-264571
FILE NAME:	CO08YPPL.DWG
SHEET NO.	C-8





Mr. Sebastian Amenta, P.E.
Comprehensive Environmental, Inc.
1 Hartford Square, Suite 227
New Britain, CT 06052
samenta@ceiengineers.com

RE: Request for Diversion Permit Need Determination
Whites Bridge Wellfield Improvements
New Britain Water Department
Bristol, CT

Dear Mr. Amenta:

This letter is in response to your November 8, 2023 request for Water Diversion permit need determination regarding your proposal to modify certain registered water diversions. The proposed activities are documented in the report you submitted on behalf of the New Britain Water Department (NBWD) entitled “Negative Declaration of Diversion / White Bridge Wellfield Improvements / Bristol, Connecticut,” dated November 2023 (“the report”), as well as other information provided in a subsequent email dated December 5, 2023. The project involves the replacement of several public water supply wells that make up two separate, but nearby wellfields registered to the NBWD pursuant to Section 22a-368 Connecticut General Statutes (CGS) as described in the table below.

REGISTRATION NUMBER	NAME OF DIVERSION	REGISTERED WITHDRAWAL (million gallons per day)	BASIN NAME
4314-007-PWS-GR	Upper White Bridge Wells	2.1600	Copper Mine River
4314-008-PWS-GR	Lower White Bridge Wells	6.6240	Copper Mine River

The report states that these “wellfields are unable to be used in accordance with their original design intent and drastic improvements are needed due to poor groundwater well performance caused by clogged well screens and an antiquated suction withdrawal system.” The proposed redevelopment includes the abandonment of all existing wells in these two wellfields, replacing them with new wells, all within the extent of the existing wellfields as registered. The proposed wells, as described in the report, will be withdrawing from the same stratified drift aquifer wherein the existing wells are located.

Based on our review of your submittal, it has been determined that this proposal as presented in the submitted materials conforms with Section 22a-377(c)-1(c)(1) of the Regulations of Connecticut State Agencies (RCSA) included below in its entirety:

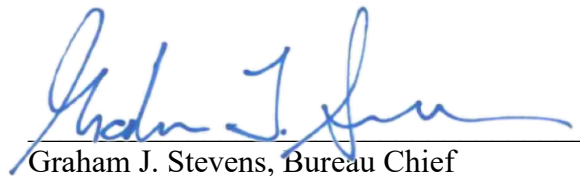
Any person or municipality which registered a diversion pursuant to section 22a-368 of the General Statutes may maintain such diversion only in accordance with the information provided in the registration form filed with the Commissioner. Any person or municipality which registered a diversion pursuant to section 22a-368 of the General Statutes may not cause or allow any modification of such diversion, including but not limited to an increase in withdrawal capacity, without having first obtained a permit under sections 22a-365 to 22a-378, inclusive, of the General Statutes and 22a-377(c)-2 of the Regulations of Connecticut State Agencies, unless such modification is exempt under section 22a-377 of the General Statutes or section 22a-377 (b)-1 of the Regulations of Connecticut State Agencies.

As such, this department finds that the proposed diversion modifications, comprising of the wellfields identified on page 1 of this determination, **will not** require a water diversion permit pursuant to Section 22a-368(a) CGS, provided the total combined withdrawal from the respective wellfields does not exceed the registered withdrawal as indicated in the above table. However, it is requested that you keep us informed as the project develops, particularly on matters relating to aquifer response modeling and induced infiltration studies.

If you should have any additional questions regarding this matter, please contact Doug Hoskins at 860-424-4192 or douglas.hoskins@ct.gov.

February 21, 2024

Date



Graham J. Stevens, Bureau Chief
Water Protection and Land Resources

GS/dh

Cc:

Ray Esponda, New Britain Water Dept., Ray.Esponds@NewBritainCT.gov

Raul Tejada, CT DPH, raul.tejada@ct.gov

Lori Mathieu, CT DPH, Lori.Mathieu@ct.gov

Brendan Schain, CT DEEP brendan.schain@ct.gov

Shalyn Zappulla, CT DEEP shalyn.zappulla@ct.org

Alicia Charamut, Rivers Alliance, alicea@riversalliance.org



Mr. Sebastian Amenta, P.E.
Comprehensive Environmental, Inc.
1 Hartford Square, Suite 227
New Britain, CT 06052
samenta@ceiengineers.com

RE: Request for Diversion Permit Need Determination
Whites Bridge Wellfield Improvements
New Britain Water Department
Bristol, CT

Dear Mr. Amenta:

This letter is in response to your November 8, 2023 request for Water Diversion permit need determination regarding your proposal to modify certain registered water diversions. The proposed activities are documented in the report you submitted on behalf of the New Britain Water Department (NBWD) entitled “Negative Declaration of Diversion / White Bridge Wellfield Improvements / Bristol, Connecticut,” dated November 2023 (“the report”), as well as other information provided in a subsequent email dated December 5, 2023. The project involves the replacement of several public water supply wells that make up two separate, but nearby wellfields registered to the NBWD pursuant to Section 22a-368 Connecticut General Statutes (CGS) as described in the table below.

REGISTRATION NUMBER	NAME OF DIVERSION	REGISTERED WITHDRAWAL (million gallons per day)	BASIN NAME
4314-007-PWS-GR	Upper White Bridge Wells	2.1600	Copper Mine River
4314-008-PWS-GR	Lower White Bridge Wells	6.6240	Copper Mine River

The report states that these “wellfields are unable to be used in accordance with their original design intent and drastic improvements are needed due to poor groundwater well performance caused by clogged well screens and an antiquated suction withdrawal system.” The proposed redevelopment includes the abandonment of all existing wells in these two wellfields, replacing them with new wells, all within the extent of the existing wellfields as registered. The proposed wells, as described in the report, will be withdrawing from the same stratified drift aquifer wherein the existing wells are located.

Based on our review of your submittal, it has been determined that this proposal as presented in the submitted materials conforms with Section 22a-377(c)-1(c)(1) of the Regulations of Connecticut State Agencies (RCSA) included below in its entirety:

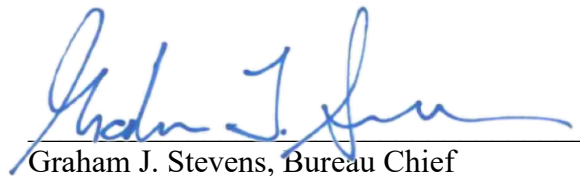
Any person or municipality which registered a diversion pursuant to section 22a-368 of the General Statutes may maintain such diversion only in accordance with the information provided in the registration form filed with the Commissioner. Any person or municipality which registered a diversion pursuant to section 22a-368 of the General Statutes may not cause or allow any modification of such diversion, including but not limited to an increase in withdrawal capacity, without having first obtained a permit under sections 22a-365 to 22a-378, inclusive, of the General Statutes and 22a-377(c)-2 of the Regulations of Connecticut State Agencies, unless such modification is exempt under section 22a-377 of the General Statutes or section 22a-377 (b)-1 of the Regulations of Connecticut State Agencies.

As such, this department finds that the proposed diversion modifications, comprising of the wellfields identified on page 1 of this determination, **will not** require a water diversion permit pursuant to Section 22a-368(a) CGS, provided the total combined withdrawal from the respective wellfields does not exceed the registered withdrawal as indicated in the above table. However, it is requested that you keep us informed as the project develops, particularly on matters relating to aquifer response modeling and induced infiltration studies.

If you should have any additional questions regarding this matter, please contact Doug Hoskins at 860-424-4192 or douglas.hoskins@ct.gov.

February 21, 2024

Date



Graham J. Stevens, Bureau Chief
Water Protection and Land Resources

GS/dh

Cc:

Ray Esponda, New Britain Water Dept., Ray.Esponds@NewBritainCT.gov

Raul Tejada, CT DPH, raul.tejada@ct.gov

Lori Mathieu, CT DPH, Lori.Mathieu@ct.gov

Brendan Schain, CT DEEP brendan.schain@ct.gov

Shalyn Zappulla, CT DEEP shalyn.zappulla@ct.org

Alicia Charamut, Rivers Alliance, alicea@riversalliance.org

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.

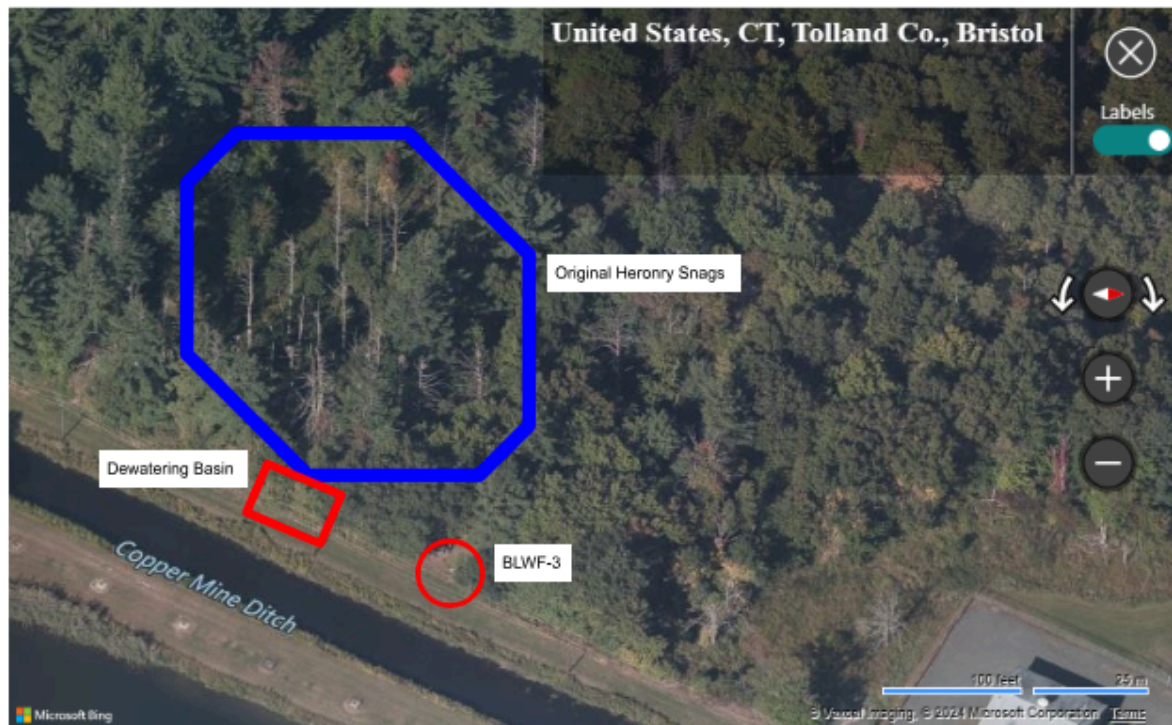
Withdrawals and Impact on Coppermine Brook

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



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

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

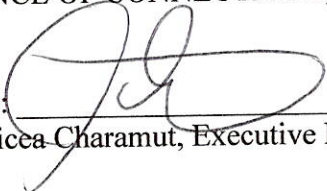
Mary Ridingsward, Executive Director
Pequabuck River Watershed Association
PO Box 1461
Bristol, CT 06011-1461
pequabuckriverct@gmail.com

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

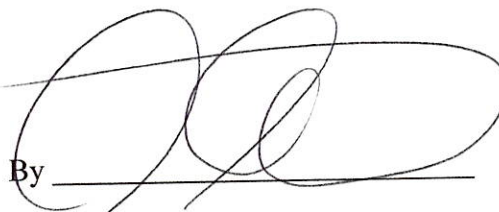
VERIFICATION OF PETITION FOR INTERVENTION
UNDER GENERAL STATUTES SECTION 22a-19(a)

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.

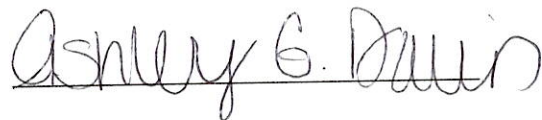
Dated at Newington Connecticut, this 5th day of February, 2024.

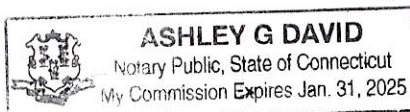
INTERVENOR

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



Photos submitted by Daniel Sutula - 3/11/24

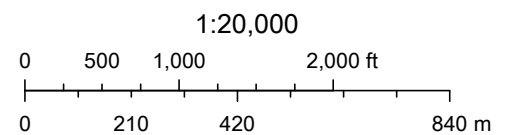
ATTACHMENT 1

PROJECT SITE MAP

White Bridge Waterworks Facility



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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:

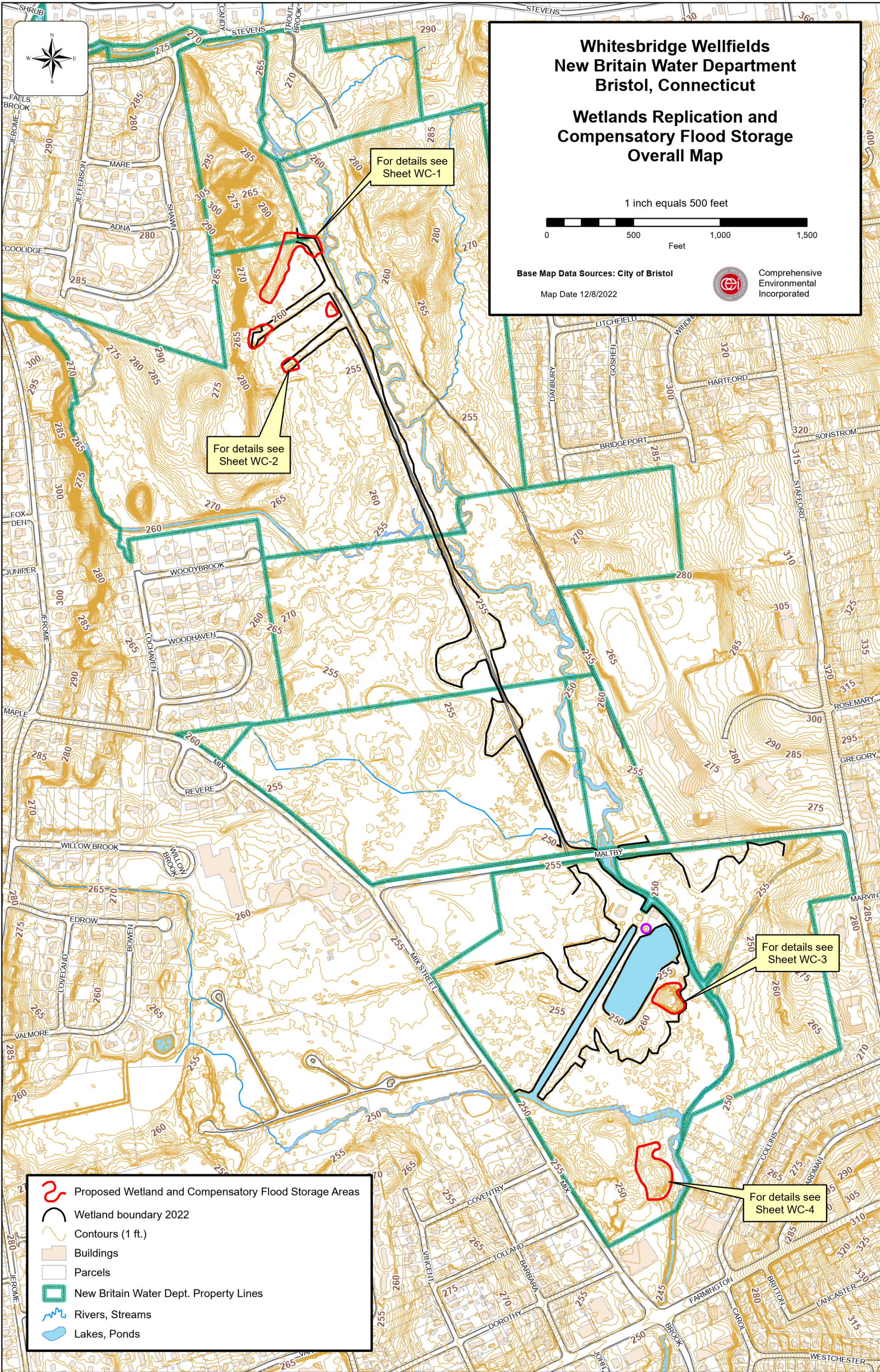
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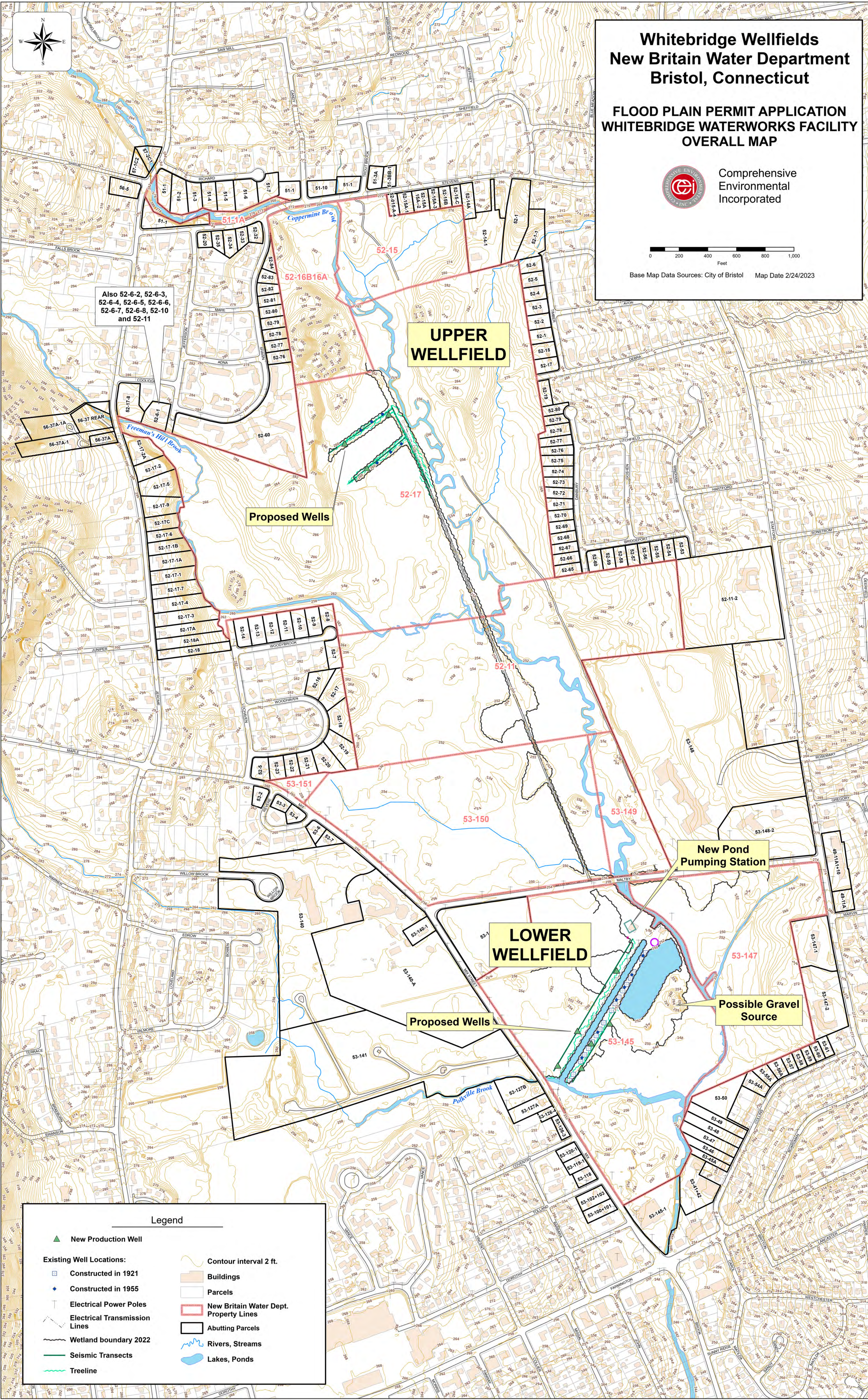
ATTACHMENT 3

PROJECT DRAWINGS

ATTACHMENT 4

PROPERTY MAP



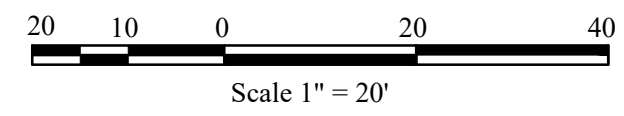
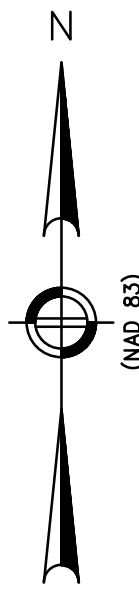


ABUTTING PROPERTY OWNERS

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		STARFORD COMMONS LLC	916 STARFORD AVE	BRISTOL	0.32 R-15		Appt		1253 BURLINGTON AVE	BRISTOL	CT	06010
49-11A-10	49	11A-10			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				ROCKON RICHARD	108 CANDY LA	BRISTOL	0.28 R-15		Single Family		108 CANDY LA	BRISTOL	CT	06010
51-1	51				BENSTON JANICE	135 STEVENS ST	BRISTOL	0.39 R-15		Single Family		135 STEVENS ST	BRISTOL	CT	06010
51-1	51				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			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				REBEZ JESSY + WIOLETA	36 RICHARD CT	BRISTOL	0.43 R-15		Single Family		36 RICHARD CT	BRISTOL	CT	06010
51-5	51				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				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 34		1125 STARFORD AVE	BRISTOL	CT	06010
52-12	52	12			AKAGROW 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			RANKER JASON 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	134 STEVENS ST	BRISTOL	0.28 R-15		Single Family		134 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			PALMISTO 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	0.78 R-15		Vacant Land		636 JEROME AVE	BRISTOL	CT	06010
52-17A	52	17A			RICH VICTOR SEAN B	634 JEROME AVE	BRISTOL	0.41 R-15		Single Family		634 JEROME AVE	BRISTOL	CT	06010
52-17C	52	17C			MURRAY JAC	636 JEROME AVE	BRISTOL	0.46 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			HURGES JASON L	562 JEROME AVE	BRISTOL	0.41 R-15		Single Family		562 JEROME AVE	BRISTOL	CT	06010
52-18B	52	18B			MICCICI BARBARA	15 TIMBER LA	BRISTOL	0.26 R-15		Single Family		15 FAULKNR RD	FORESTVILLE	CT	06010
52-18A	52	18A			588 JEROME AVE LLC	588 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
52-21	52	21			SELEDONIA 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			TRUDEL 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	0.35 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		61 TIMBER LA	BRISTOL	CT	06010
52-53	52	53			HARRINGTON CAROLE D	5 BRIDGEPORT AVE	BRISTOL	0.35 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 UTY	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	17 BRIDGEPORT AVE	BRISTOL	0.28 R-15		Single Family		17 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	0.29 R-15		Single Family		67 BRIDGEPORT AVE	BRISTOL	CT	06010
52-61	52	61			COPPERHINE HOUSING ASSOCIATES LLC	135 SHAWN DR	BRISTOL	7.1 A		Apartments		2 CENTER PLAZA SUITE 700 BOSTON	MA	02108	
52-62	52	62			CURRENT OWNER	130 JEFFERSON AVE #1	BRISTOL	0 A		Condo Res.					
52-63	52	63			CURRENT OWNER	130 JEFFERSON AVE #2	BRISTOL	0 A							
52-64	52	64			CURRENT OWNER	130 JEFFERSON AVE #3	BRISTOL	0							
52-65	52	65			CURRENT OWNER	130 JEFFERSON AVE #4	BRISTOL	0.27 R-15		Single Family		102 DANBURY LA	BRISTOL	CT	06010
52-65	52	65			CURRENT OWNER	130 JEFFERSON AVE #5	BRISTOL	0							
52-66	52	66			CURRENT OWNER	92 DANBURY LA	BRISTOL	0.28 R-15		Single Family		92 DANBURY LA	BRISTOL	CT	06010
52-67	52	67			CURRENT OWNER	130 JEFFERSON AVE #6	BRISTOL	0							
52-67	52	67			FORAVANTI STEPHANIE	84 DANBURY LA	BRISTOL	0.28 R-15		Single Family		84 DANBURY LA	BRISTOL	CT	06010
52-68	52	68			CURRENT OWNER	130 JEFFERSON AVE #7	BRISTOL	0							
52-68	52	68			PICARO ANNA MAE	76 DANBURY LA	BRISTOL	0.29 R-15		Single Family		76 DANBURY LA	BRISTOL	CT	06010
52-69	52	69			CURRENT OWNER	130 JEFFERSON AVE #8	BRISTOL	0							

ATTACHMENT 5

WETLAND REPLICATION AREAS



COMPREHENSIVE ENVIRONMENTAL
INCORPORATED

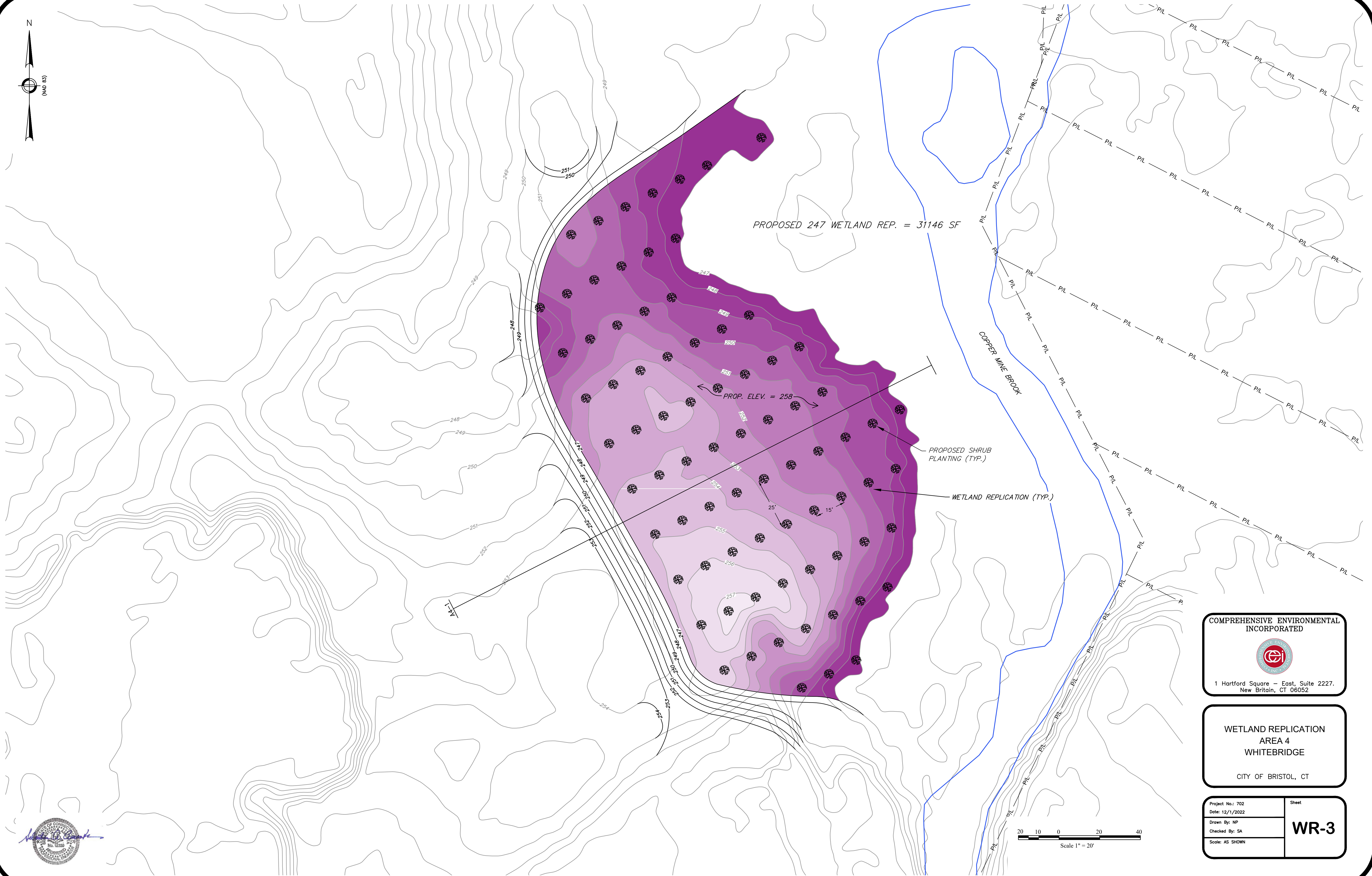
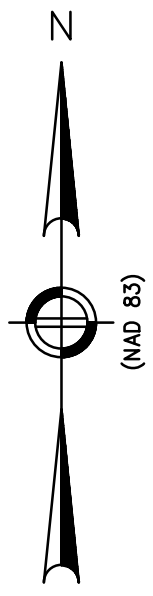


1 Hartford Square - East, Suite 2227.
New Britain, CT 06052

WETLAND REPLICATION
AREA 2
WHITEBRIDGE

CITY OF BRISTOL, CT

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



COMPREHENSIVE ENVIRONMENTAL
INCORPORATED

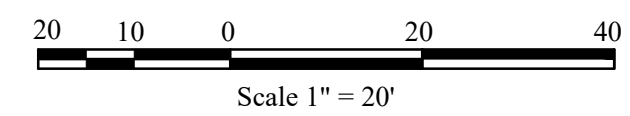


1 Hartford Square - East, Suite 2227.
New Britain, CT 06052

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

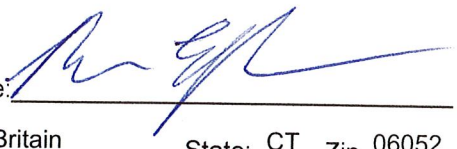
APPLICATION NO. _____

DATE FILED: 12-28-23

APPROVED: _____

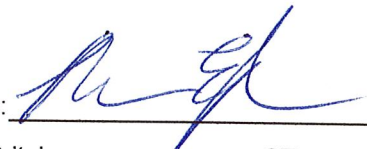
DENIED: _____

**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

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.		6,643 Cubic Yards
Volume of mitigated Flood Plain:	17,616-CU. YDS.		14,198 Cubic Yards

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

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~~ 6,543 cubic yards of fill within the floodplain. As part of the project, over ~~17,000~~ 14,198 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

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

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.

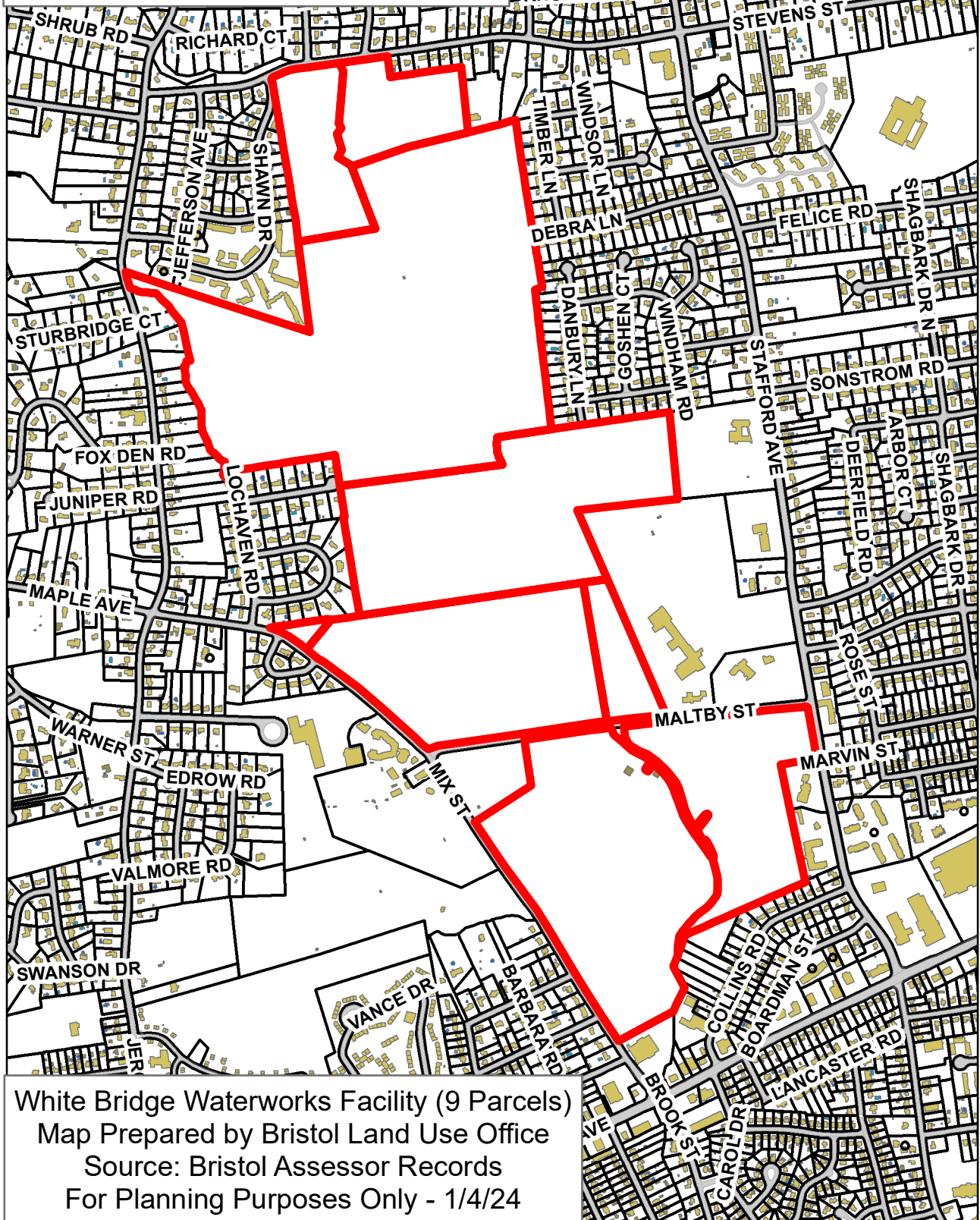
7. SUBMISSION REQUIREMENTS:

The following shall be included as part of this application:

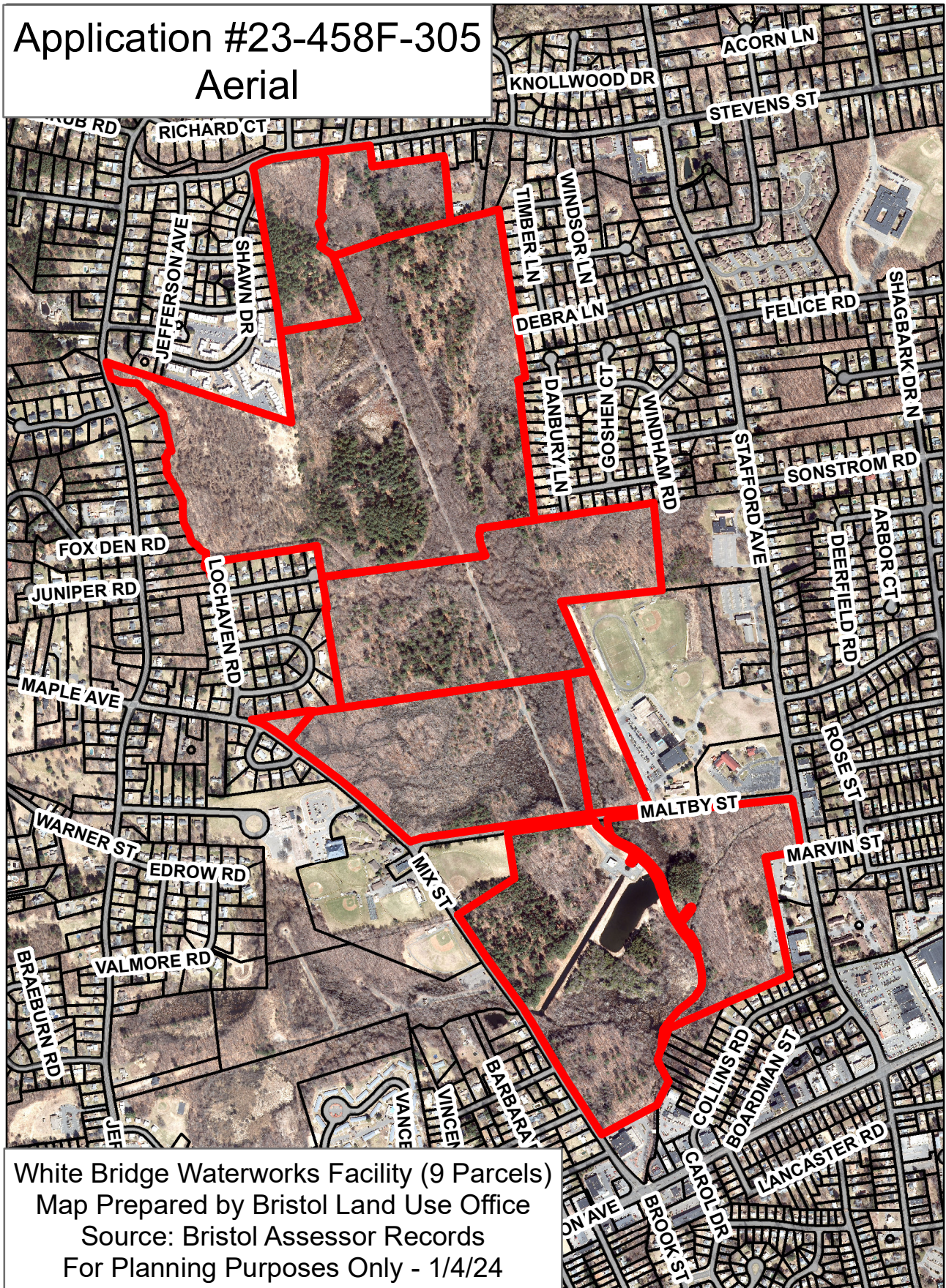
- filing fee – make checks payable to "City of Bristol,"
\$5.00 Permitted Use, \$50.00 for Regulated Use, and \$100.00 for Special Exception
- ten copies of a Site Plan showing existing and proposed conditions in relation to the flood plain, floodway, watercourses, and/or wetlands prepared in accordance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

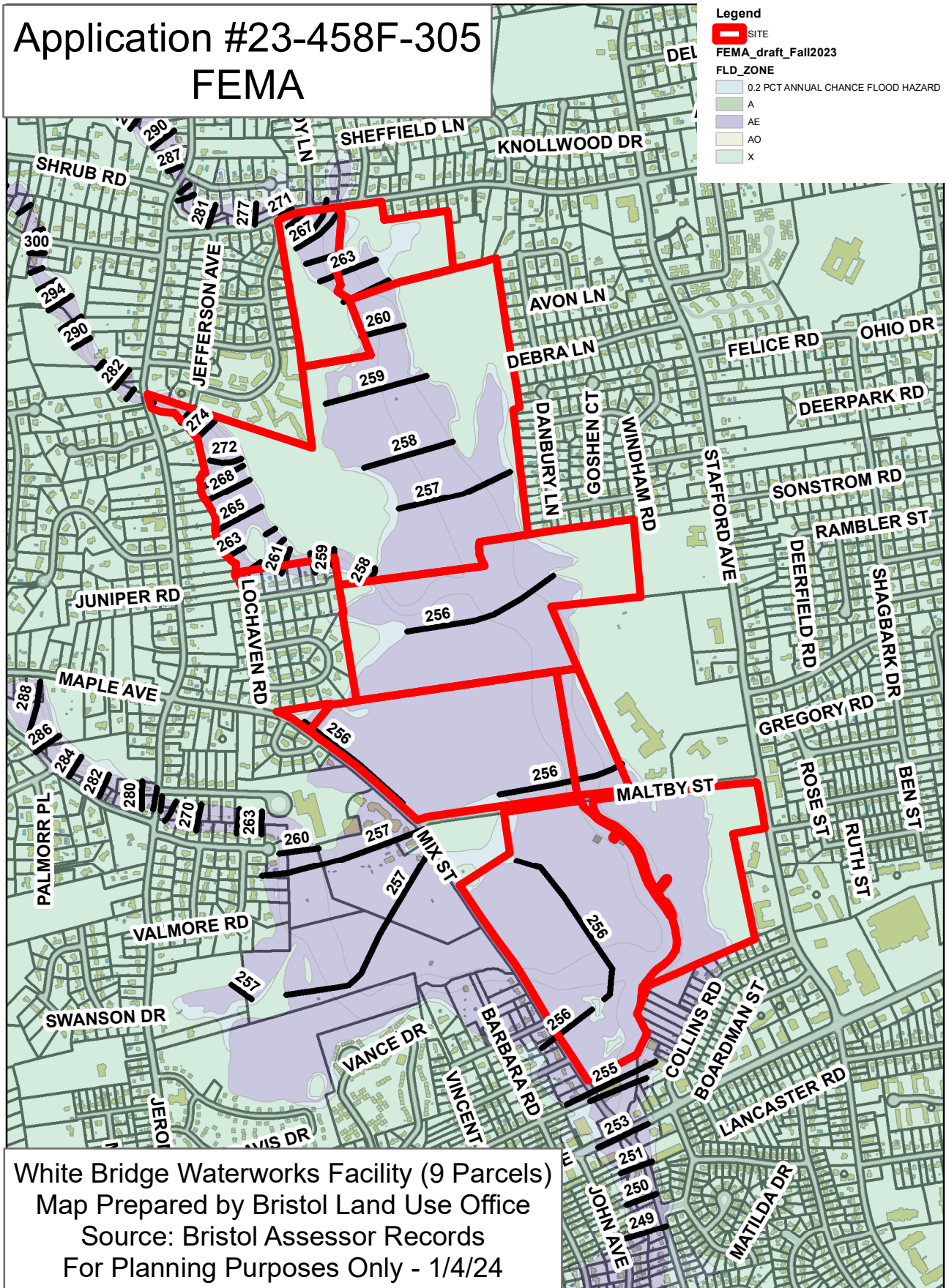


Application #23-458F-305 Aerial



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



March 28, 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:

Thank you for your decision last month to have the subject project reviewed by 3rd party experts and continue the public hearing. This complex project needs more study/explanation before allowing taxpayer money to be spent for expansion in this precious area of Bristol's limited aquifer/surface water and wetland resources.

The application has not identified all the likely wetland and surface water impacts that would result from the proposed expanded well/pumping operations. The application also does not provide enough information on operational protocols to help minimize the surface water and wetland impacts. Without clarification of the likely impacts, how can an adequate mitigation plan be properly assessed and implemented?

At the North Whitebridge wellfield, the reported test monitoring data (as submitted in Figure 2 of the hydrogeologic report (attached)) indicates with only **one pump operational at 200 gpm, the drawdown of the water is significant, extending hundreds of feet into the surrounding wetlands/surface water area.**

- What are the proposed groundwater drawdown effects for the three proposed 24" wells, operating simultaneously at 470 gpm each (totaling over 7 times the pump capacity of the existing 8" well 5A test performed for the drawdown data provided in Figure 2)?
- What is the wetland/surface water area (in SF or acres) within the drawdown zone resulting from the proposed pumps? What is the assessment and mitigation plan for these areas' impacts?
- How will the simultaneous pumping operation of the three new 24" wells impact the adjacent wetland and surface water elevations?
- How will the lowered groundwater elevation impact wetland biology; flora and fauna?
- What surface water monitoring is currently being done or has been done to understand the existing surface water level fluctuations relative to withdrawals and seasonal changes?
- Will there be any operational controls or protocol that restrict use? Without operational protocols, structural controls, reporting and restrictions, the wetlands and impaired Coppermine Brook will not be protected.

Similarly, at the South Whitebridge wellfield, the 2019 pump test monitoring of 5 wells at a total discharge of approximately 900 – 1,100 gpm resulted in the drawdowns shown in the attached Figure 5. The report notes significant drawdown of the canal, pond and adjacent wetlands, even with the limited data provided.

- What are the proposed groundwater drawdown effects for the six proposed 24” wells, operating simultaneously at 470 gpm each (totaling approximately 4 times the pump capacity of the existing five 8” well (3, 6, 13, 14, 18) testing performed for the drawdown data provided in Figure 5)?
- What will be the influence with the proposed pond pumps on the surface and groundwater drawdown, where the existing pond pumps are reportedly drawing 3 MGD, versus the 15 MGD proposal (proposed four 3,500 gpm pumps)
- What is the wetland/surface area (in SF or acres) within the drawdown zone resulting from the proposed pond and well pumps operating simultaneously? What is the assessment and mitigation plan for these impacts?
- How will the operation of the six new 24” wells, simultaneously operating with the pond pumps, impact the adjacent wetland and surface water elevations?
- How will the lowered groundwater elevation impact wetland and brook biology; flora and fauna?
- What surface water monitoring is currently being done or has been done to understand the surface water level fluctuations relative to withdrawals and seasonal changes?
- Will there be any operational controls or protocol that restrict use? Without operational protocols, structural controls, reporting and restrictions, the wetlands and impaired Coppermine Brook will not be protected.

Note that the 2007 Level A study used pump rate data in the model much lower than the wellfield registrations/proposed use. The Lenard Study stated “It was determined that the aquifer could not support the maximum registered diversion of the New Britain upper, lower and Bristol Mix Street wellfields”. The study reassigned “agreed upon” reduced flow rates to simulate a safe yield for each of the wellfields.

Operations and/or the established drought safe yields model did not protect the drying out of the Coppermine in 2016 (photo credit Rivers Alliance).



How can the Bristol Inland Wetland Commission protect the flow-impaired Coppermine and surrounding wetlands? Please consider the following:

- a. North wellfield: Applicant should model the effects of the groundwater and surface water drawdown resulting from the proposed wells' pump rate capacities, operating simultaneously. Clearly show the extents of the drawdown relative to regulated wetlands and surface waters. Tabulate the impacted area and provide a flora and fauna assessment of the impacts. Address surface water fluctuations relative to operational and seasonal changes. Address operational protocols to protect Copper Mine and associated wetland areas. Address mitigation plan, including monitoring, for all unavoidable impacts.
- b. South wellfield/pond: Restrict relocation of wells that further impact wetlands. (The wells not need be relocated if they remain raw water wells. Their potable reliability has not been established). Applicant should model the effects of the groundwater and surface water withdrawal capacities simultaneously to clearly show the extents of the drawdown relative to regulated wetlands and surface waters. Tabulate the impacted area and provide a flora and fauna assessment of the impacts. Address surface water fluctuations relative to operational and seasonal changes. Address operational protocols to protect Coppermine and associated wetland areas. Address mitigation plan, including monitoring, for all unavoidable impacts.

The well and pond withdrawals have been documented to affect and to rely on the adjacent surface water natural system. These surface water sources and wetland storage areas serve valuable water quality, quantity and wildlife functions. Thank you for your consideration.

Carol Noble, P.E., CFM (ret)

Attachment 1:

Tables of the rates and the study references are compiled below for informational purposes.

White Bridge Upper Wellfield:

	DEEP Diversion Registration (2)	Existing Withdrawal (3)	Proposed Withdrawal (2)	Level A Study Withdrawal (4)	Safe Yield Ave (4)	Safe Yield Drought (4)	Pump test (2, 3)
gpm	1,500	~200	3@470=1,400	840	694	600	200 (Well 5A)
MGD (1)	2.16	~0.3	2.0	1.2	1.0	0.86	0.3

Notes:

(1) Conversion 1 MGD = 694.44 gpm

(2) Preliminary Engineering Study, CEI CDE Smith, Feb 2021

(3) Existing withdrawal assumed from the April 2020 CEI Hydrogeologic report estimating the most current working well pump

(4) Level A Study Withdrawal taken from Dec 2007 Lenard Hydrogeologic Level A Study Executive Summary. Note the Lenard Study states ““It was determined that the aquifer could not support the maximum registered diversion of the New Britain upper, lower and Bristol Mix Street wellfields”. The study reassigned “agreed upon” reduced flow rates to simulate a safe yield for each of the wellfields.

White Bridge Lower Wellfield:

	DEEP Diversion Registration (2)	Existing Withdrawal (3)	Proposed Withdrawal (2)	Level A Study Withdrawal (4)	Safe Yield Ave (4)	Safe Yield Drought (4)	Pump test (2, 3)
gpm	4,333	700 - 1250	6@470=2,800	2,190	1,958	611	850-1080 (meas at caisson (3,4))
MGD ⁽¹⁾	6.24	1 - 1.8	4.0	3.15	2.82	0.88	1.2 – 1.6 (meas at caisson ^(3,4))

Notes:

(1) Conversion 1 MGD = 694.44 gpm

(2) Preliminary Engineering Study, CEI CDE Smith, Feb 2021

(3) Existing withdrawal taken from the April 2020 CEI Hydrogeologic report inferring test well pump rates based on 1985 pump test.

(4) Level A Study Withdrawal taken from Dec 2007 Lenard Hydrogeologic Level A Study Executive Summary. Note the Lenard Study states ““It was determined that the aquifer could not support the maximum registered diversion of the New Britain upper, lower and Bristol Mix Street wellfields”. The study reassigned “agreed upon” reduced flow rates to simulate a safe yield for each of the wellfields. No pond pump withdrawal was considered in the evaluation.

White Bridge Pond System:

	DEEP Diversion Registration (2)	Existing Withdrawal	Proposed Withdrawal	Level A Study Withdrawal (4)	Safe Yield Ave (4)	Safe Yield Drought (4)	Pump test (4)
gpm	10,400	~2,000	3@3,500=10,500	NSE	NSE	NSE	NSE
MGD ⁽¹⁾	15	~3	20.2 (4 pumps) 15 (3 pumps)	NSE	NSE	NSE	NSE

Notes:

(1) 1 MGD = 694.44 gpm

(2) Preliminary Engineering Study, CEI CDE Smith, Feb 2021

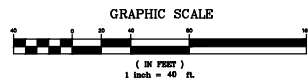
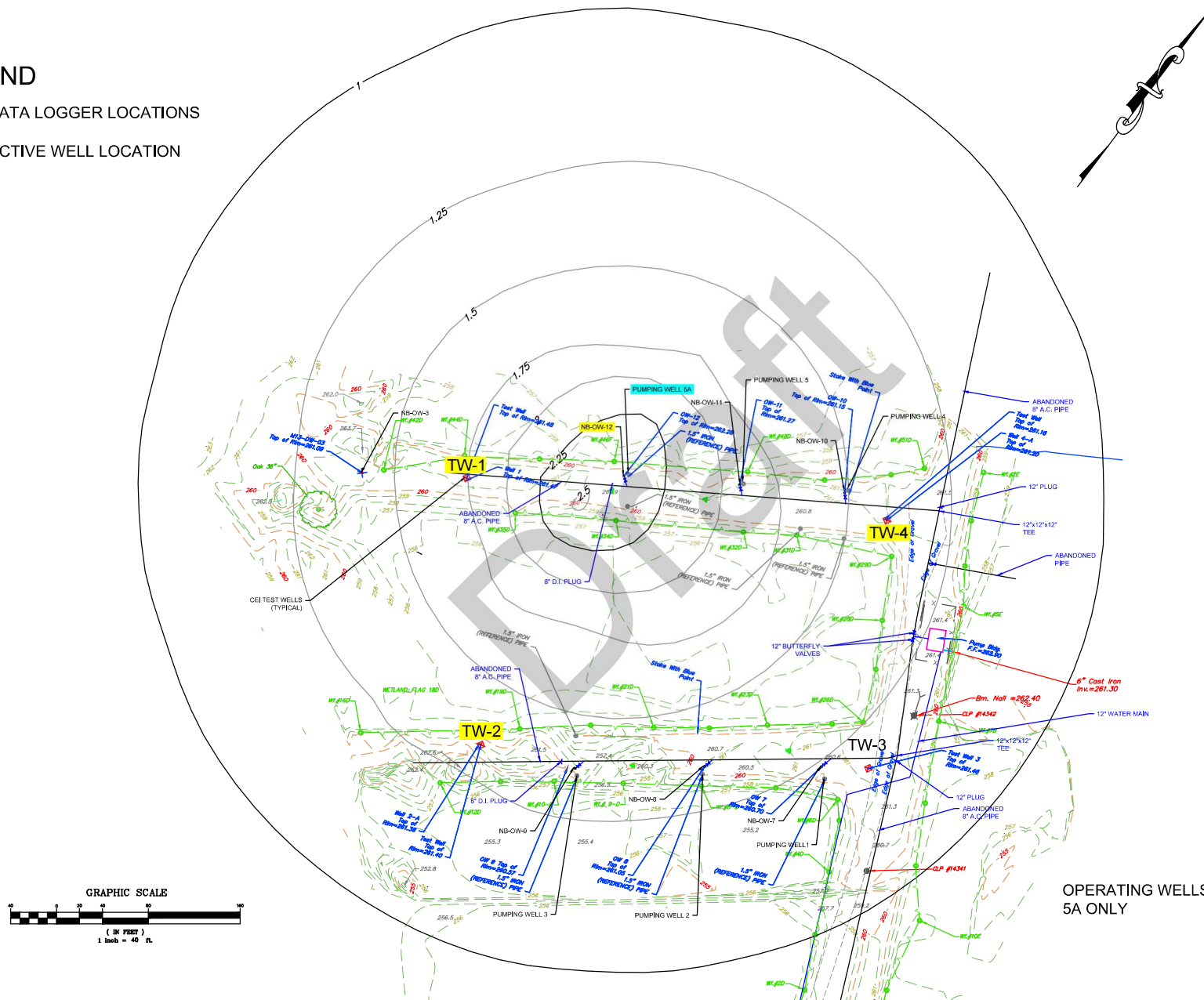
(3) Existing withdrawal assumed from the April 2020 CEI Hydrogeologic report reference

(4) NSE = Not Specifically evaluated

Although the engineering reports document the influence of the pond pumping on the lower wellfield pump tests, simultaneous pond pumping influence was not evaluated.

LEGEND

- DATA LOGGER LOCATIONS
- ACTIVE WELL LOCATION



General Notes

OBSERVED GROUNDWATER CONTOURS WERE DEVELOPED AFTER 12 HOURS OF CONTINUOUS PUMPING AT 200 GPM

NOT FOR CONSTRUCTION

Revision/Issue Date



FIGURE 2
UPPER WHITE BRIDGE
WELLFIELD
GROUNDWATER CONTOURS
BRISTOL, CT

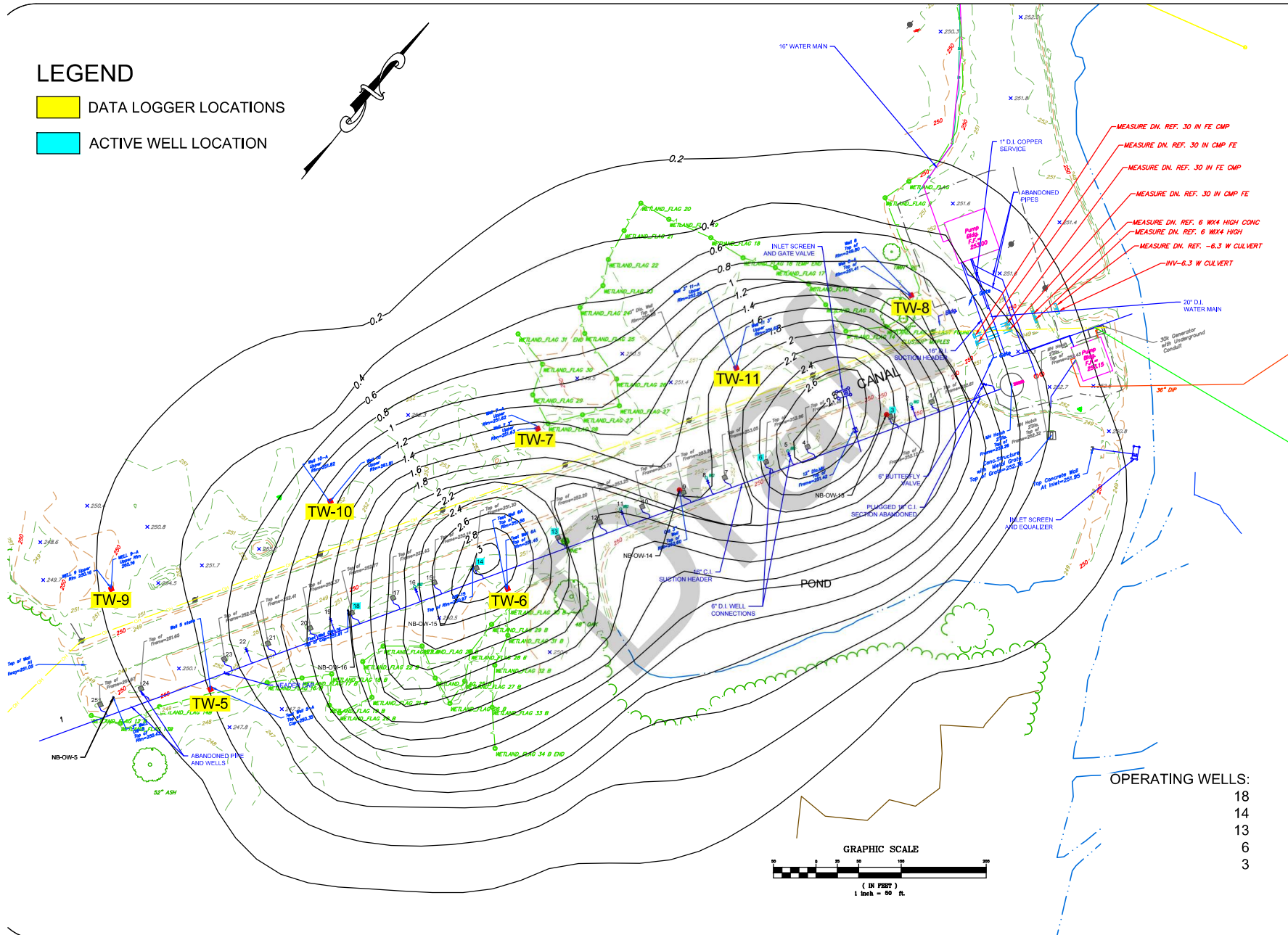
Project No.: 702-4
Date: APRIL 2020
Drawn By: NBS
Checked By: SA

Sheet

OPERATING WELLS:
5A ONLY

LEGEND

- DATA LOGGER LOCATIONS
- ACTIVE WELL LOCATION



General Notes

OBSERVED GROUNDWATER CONTOURS WERE DEVELOPED AFTER 20 HOURS OF CONTINUOUS PUMPING AT 1.5 MGD

NOT FOR CONSTRUCTION

Revision/Issue	Date

COMPREHENSIVE ENVIRONMENTAL INCORPORATED

1 HARTFORD SQ. SUITE 227
NEW BRITAIN, CT 06053

FIGURE 5
LOWER WHITE BRIDGE
WELLFIELD

GROUNDWATER CONTOURS

BRISTOL, CT

Project No.: 702-4	Sheet
Date: APRIL 2020	
Drawn By: NBS	
Checked By: SA	

March 27, 2024

To Zachary Fisk
Chairman, Bristol Inland Wetland and Watercourses Commission

Re: Public hearing for the White Bridge Project scheduled for April 1, 2024

Dear Commissioners,

We have collectively made progress - through this extended public hearing process - towards accepting the three White Bridge applications (#2019, #2020, and #23-458F-305) in a fully informed manner. We have learned how the project will benefit the region by providing emergency potable water in times of drought and protect the neighborhood in times of heavy rain with compensatory storage. However, critical questions about unstudied potential impacts have yet to be answered. In this letter, I wish to reiterate some crucial pieces that are still missing from the bigger picture in terms of environmental impacts as we await the results of the third party review. I hope you see the importance, as do I, of continuing this public evaluation of the White Bridge project so we can reach the best possible solution.

My greatest concern is that the direct and indirect impacts of all aspects of this project have not been sufficiently explored. There is no doubt that drawing *any amount* of water from the new wells is going to ***alter the amount and flow of surface and subsurface water***. I feel that the eight, 2.5-inch test wells do not provide enough information to safely determine that nine, 24-inch high-efficiency wells will not impact the wetlands and the Coppermine Brook. If the New Britain Water Department will truly only extract large amounts of water in times of emergency, then this wetland system will surely be strained. Straining the Coppermine can lead to its collapse.

Because the new wells will alter the recharge of surrounding wetlands (and because more wetlands will be constructed), the habitats on the property will drastically change. This is why the environmental review must go ***beyond simply locating wildlife, it needs to predict where changes in habitat quality will occur***. How and where will species be affected? How will species respond to increased human activity, wetlands replication, and changes in water levels? Where do they live now and where will they potentially move to? Should some areas be avoided?

Wood Turtles are very sensitive to disturbances. If they are found to be present, special care should be taken to protect their isolated population. A study by Steven Garber and Joanna Burger in 1995 monitored a Wood Turtle population for 20 years in a wildlife reserve in Connecticut, but when hikers were allowed to enter the property the number of turtles quickly declined to zero. Other species like the Slimy Sculpin and Great Blue Heron deserve to receive some kind of survey because of their proximity to the project area. At a minimum, getting a count of re-nesting Great Blue Herons will tell us if the White Bridge wetlands are still the largest heronry in Connecticut.

Even with the third party review, we cannot predict all the possible impacts. This is why ***continuous monitoring of the Coppermine's water level and surface waters in the wetlands are vital to the sustainability of White Bridge as a water source***. Should disastrous, unpredicted events occur, the New Britain Water Department could adjust their withdrawals to preserve the health and longevity of the aquifer and brook. Monitoring will also protect wildlife habitat. Therefore, water level monitors *must* be included in the proposal and monitoring *must* continue even after the construction phase.

We need more data; we cannot assume the typical test results are going to give us the full picture. I am looking forward to seeing the results of the environmental review.

Thank you again for hearing my concerns,

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

FW: inland wetlands app. # 2019,2020,2022

Nancy Levesque

Mon 3/25/2024 1:36 PM

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

For the file

From: Nancy Levesque
Sent: Monday, March 25, 2024 1:36 PM
To: 'MICHAEL SIMMONS' <mrsimm29@gmail.com>
Subject: RE: inland wetlands app. # 2019,2020,2022

[Inland Wetlands Agency/Conservation Commission](#) • [City of Bristol Meetings](#) • [CivicClerk](#)

This is a copy of the agenda from last month's meeting – April's will be posted soon. The plans and narrative describe the proposed activities. They are planning a rehabilitation of the facility including the abandonment of existing wells, replacement with new wells and the demolition of multiple buildings with a proposed new pump house facility that will potentially provide water treatment at the end of a year's testing. Withdrawal rates for the wells are determined by DEEP and their permit is not increasing that permitted rate.

From: MICHAEL SIMMONS <mrsimm29@gmail.com>
Sent: Monday, March 25, 2024 1:19 PM
To: Nancy Levesque <NancyLevesque@bristolct.gov>
Subject: inland wetlands app. # 2019,2020,2022

Hi Nancy-My name is Mike Simmons, a member of the non-profit Friends of the Hoppers Birge Pond organization. Trying to find out the purpose of these applications in order to see if they present any conflicts with our need and want to keep the Hoppers in its pristine natural state. Thank you for any assistance you can provide.

Sincerely Michael Simmons P.S. I also left a voice message.

FW: Intervenor

Nancy Levesque

Mon 3/4/2024 2:43 PM

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

From: Olson, Peter S. <polson@luacc.com>
Sent: Monday, March 4, 2024 2:41 PM
To: Nancy Levesque <NancyLevesque@bristolct.gov>
Cc: Robert Flanagan <RobertFlanagan@bristolct.gov>
Subject: RE: Intervenor

Nancy-

Thank you for the note. The statutes allow any person to file an intervention pleading in an administrative proceeding and thereby become a party. As such, there is no need for the Board to formally "accept" the intervention, the act of filing it is sufficient.

Under CGS Sec. 22a-19, a valid intervention pleading requires that the commission consider the alleged unreasonable pollution, impairment or destruction of the public trust in the air, water or other natural resources of the state.

Further, the commission may not approve any conduct which does, or is reasonably likely to, have such effect if there are feasible and prudent alternatives.

These requirements are generally addressed at the time of decision on the application, in the Commission's decision.

However, at that time, and before proceeding to those decision elements, the Commission should also decide whether the intervention pleading is sufficient under the statutes, specifically CGS 22a-19 (b), which requires that "[t]he verified pleading shall contain specific factual allegations setting forth the nature of the alleged unreasonable pollution, impairment or destruction of the public trust in air, water or other natural resources of the state and should be sufficient to allow the reviewing authority to determine from verified pleading whether the intervention implicates an issue within the reviewing authority's jurisdiction.

The Supreme Court has held that "a petition for intervention filed under § 22a-19 must contain specific factual allegations setting forth the environmental issue that the intervenor intends to raise." *Nizzardo v. State Traffic Comm'n*, 259 Conn. 131, 164-65, 788 A.2d 1158, 1178 (2002).

Thus, while any person can file an intervention pleading, before the Commission's obligations are triggered, the Commission should review the intervention pleading and determine whether the specific factual allegations are sufficient to identify issues within the Commission's jurisdiction. The Commission need only consider alternate plans if it finds the likelihood of unreasonable pollution. *Paige v. Town Plan & Zoning Commission*, 235 Conn. 448, 668 A.2d 340 (1995)

I hope this is helpful. Please add this email to the public record in this matter and distribute to Commission members.



Peter S. Olson
Land Use & Conservation Counsel
275 Greenwood Avenue

Bethel, CT 06801
203.297.6070 - Facsimile 203.297.6071
Mobile 203.521.6789
polson@luacc.com

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If you suspect that you have received this communication in error, please notify us immediately by telephone at 203.297.6070, or e-mail at polson@luacc.com and immediately delete this message and all its attachments.

From: Nancy Levesque <NancyLevesque@bristolct.gov>
Sent: Monday, March 4, 2024 12:22 PM
To: Olson, Peter S. <polson@luacc.com>
Cc: Robert Flanagan <RobertFlanagan@bristolct.gov>
Subject: Intervenor

Good afternoon,

The Bristol IWWC is requesting counsel with regards to an intervention petition that was recently filed in accordance with section 22a19 for application 2019, 2020 and 23-458F-305.

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.
<https://bristolct.portal.civicclerk.com/event/603/overview>

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.
<https://bristolct.portal.civicclerk.com/event/603/files/attachment/389>

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.
<https://bristolct.portal.civicclerk.com/event/603/files/attachment/390>

Best regards,
Nancy Levesque, PE
Department of Public Works
City Engineer
860.584.6105
nancylevesque@bristolct.gov





March 4, 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:

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.

I serve as Co-chair of the Water Planning Council Advisory group, served on the Policy Subcommittee during the development of the Connecticut State Water Plan, and served as chair of the Rivers Sub-working group of the Working and Natural Land Workgroup of the Governor's Council on Climate Change. I also recently served a six-year term as a member of the Connecticut Council on Environmental Quality as an appointee of the governor and currently serve on the advisory board of the Connecticut Institute of Water Resources.

I do not offer these credentials to be boastful, I offer them so you can understand that water policy and understanding of the statutes and regulations that govern our decision-making when it comes to water is a significant part of my job here at Rivers Alliance as well as in my previous position at the Connecticut River Conservancy.

Based on statements (some of them misleading) made by a member of the applicant's team at the February 5th public hearing, I feel it is important for this commission to understand their role so as not to be swayed by misleading statements.

The Department of Energy and Environmental Protection (DEEP) is responsible for regulating diversions of water of more than 50,000 gallons per day. As I elaborated in previous testimony, 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.

DEEP regulates flows through streamflow regulations. But these regulations only apply to surface water impoundments. Groundwater withdrawals are not subject to streamflow regulation.

If one holds a registered groundwater diversion and uses the up to the registered amount (but no more) then dries up the adjacent stream, DEEP cannot do anything. So when someone on the applicant's team tells you that downstream flows are DEEP's jurisdiction, they are mistaken. DEEP cannot ask NBWD to decrease their withdrawals as long as these withdrawals are under the registered amount.

Please note – The applicant's correction to Application #2020 only clarifies that their withdrawals will remain within their registered diversion. Low flows have been documented on Coppermine Brook with current operations at a portion of the withdrawal NBWD has right to under their registration.

Also, please note that New Britain Water Company holds registered groundwater diversions for quantities that exceed what the aquifer can provide. A 2007 hydrologic study of the upper and lower wellfields found that the wellfields could not support the maximum registered diversion for these wellfields.

The member of the applicant's team was right when he said the commission does not regulate drinking water. However, **the power to protect the wetlands and watercourses in Bristol has been delegated to you by the State of Connecticut. The commission has the authority to regulate any activity which substantially diminishes the natural capacity of an inland wetland or watercourse to: support aquatic, plant or animal life and habitats; prevent flooding; supply water; assimilate waste; facilitate drainage; provide recreation or open space; or perform other functions.**

There is already diminishment of downstream flows on Coppermine Brook. **The Bristol Inland Wetlands and Watercourses Agency and Conservation Commission has the power to condition these applications to ensure flows on the brook that support aquatic life.**

If the applicant contests any of this information on withdrawals and operations, I encourage the commission to request information and data to back up their assertions.

Respectfully submitted,



Alicea Charamut, Executive Director



MacDermid
Reynolds
Glissman

Joseph L. Hammer
Attorney at Law

jhammer@mrglaw.com
T: 203.777.1001
C: 860.992.3130
F: 860.547.1191

February 26, 2024

VIA EMAIL

Robert Flanagan
City Planner
City of Bristol
111 North Main Street
Bristol, CT 06010

Re: Inland Wetlands & Watercourses Agency/Conservation Commission - Applications
#2019, #2020, #23-458F-305; Applicant - City of New Britain, Public Works Department

Dear Mr. Flanagan:

We are writing to you on behalf of the applicant, the City of New Britain, Public Works Department, in order to confirm that the applicant consents to an extension of time to April 1, 2024 for purposes of completing the public hearings on the above-referenced applications. It is the applicant's understanding that the hearings will remain open following the March 4 hearing session and be resumed at the Inland Wetlands & Watercourses Agency's April 1 meeting.

The public hearing was opened on February 5, 2024. The statutory time period of 35 days to complete the hearing will expire on March 11, and an extension of 21 days is therefore needed to keep the hearing open through the Agency's April 1 meeting. The applicant consents to a 21 day extension.

Very truly yours,

Joseph L. Hammer

JLH/sbo



February 26, 2024

Mr. Robert M. Flanagan, AICP-City Planner
City Hall
111 North Main Street
Bristol, CT 06010

RE: UPDATES TO PERMIT APPLICATIONS
#2019, #2020, AND #23-458F-305
FOR THE NEW BRITAIN WATER DEPARTMENT

Dear Mr. Flanagan

The following correspondence is provided to make corrections to the above applications and provide supplemental information for each application.

The attached summary details the documents submitted and the relative application location for submitted correction.

Some of this information was previously submitted, but we wish to formally send it for clarity.

- The major items include correcting the text in Application #2020 to make clear that water withdrawals will remain within the registered diversion volumes. In addition CT DEEP has confirmed the registrations will remain in effect and no diversion permits are required. A letter from CT DEEP is included in the information.
- The Flood Plain permit application has been revised to reflect the updated fill and compensatory storage numbers presented at the February 5th hearing, along with a supporting spreadsheet.

We are working with the NBWD to formalize an operations and maintenance plan for canal/pond and related activities which will be submitted shortly.

We will also be contacting FEMA as to the protocol in submitting a certificate of no rise in flood elevation to the commission.

Please contact me if you have any questions at 860 224 0442 or 860 620 3673.

Sincerely,

COMPREHENSIVE ENVIRONMENTAL INC

Sebastian A Amenta, P.E.
Regional Program Director

CC. Nancy Levesque, City Engineer
Andrew Armstrong, Assistant Planner
Ray Esponda, Deputy Director NBWD
Joseph Hammer, Esquire
Vinta Varghese, CDM Smith

Enclosures: Summary of Attachments-#2019, #2020, and #23-458F-305

Summary of Updates
to
Applications #2019, #2020 and #23-458F-305

#2019-1) Please add the attached map to Attachment 4. It is an overlay of scientist wetlands flagging on the City's wetlands map for the project area.

#2020-1) Please insert the corrected page and substitute it for the page on file.

2) Please add the NDDB and SHPO documents to the filing

3) Map showing Monitor well locations and stream gauge locations.

4) Please add the CT DEEP letter which confirms the Diversion Registrations will remain in force and no permit is required.

#23-458F-305-1) Please insert substitute page 2 of the Application PDF which indicates updated volumes for fill and compensatory storage.

2) Please insert page 9 of the PDF which indicates the revised volumes.

3) Please add the attached spreadsheet summary for cut/fill and compensatory storage volume.

#23-458F-305 Update



Mr. Sebastian Amenta, P.E.
Comprehensive Environmental, Inc.
1 Hartford Square, Suite 227
New Britain, CT 06052
samenta@ceiengineers.com

RE: Request for Diversion Permit Need Determination
Whites Bridge Wellfield Improvements
New Britain Water Department
Bristol, CT

Dear Mr. Amenta:

This letter is in response to your November 8, 2023 request for Water Diversion permit need determination regarding your proposal to modify certain registered water diversions. The proposed activities are documented in the report you submitted on behalf of the New Britain Water Department (NBWD) entitled “Negative Declaration of Diversion / White Bridge Wellfield Improvements / Bristol, Connecticut,” dated November 2023 (“the report”), as well as other information provided in a subsequent email dated December 5, 2023. The project involves the replacement of several public water supply wells that make up two separate, but nearby wellfields registered to the NBWD pursuant to Section 22a-368 Connecticut General Statutes (CGS) as described in the table below.

REGISTRATION NUMBER	NAME OF DIVERSION	REGISTERED WITHDRAWAL (million gallons per day)	BASIN NAME
4314-007-PWS-GR	Upper White Bridge Wells	2.1600	Copper Mine River
4314-008-PWS-GR	Lower White Bridge Wells	6.6240	Copper Mine River

The report states that these “wellfields are unable to be used in accordance with their original design intent and drastic improvements are needed due to poor groundwater well performance caused by clogged well screens and an antiquated suction withdrawal system.” The proposed redevelopment includes the abandonment of all existing wells in these two wellfields, replacing them with new wells, all within the extent of the existing wellfields as registered. The proposed wells, as described in the report, will be withdrawing from the same stratified drift aquifer wherein the existing wells are located.

Based on our review of your submittal, it has been determined that this proposal as presented in the submitted materials conforms with Section 22a-377(c)-1(c)(1) of the Regulations of Connecticut State Agencies (RCSA) included below in its entirety:

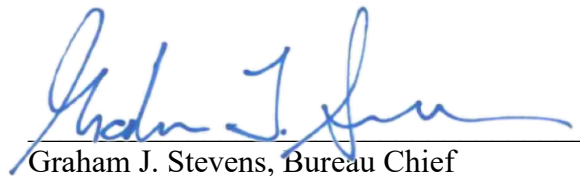
Any person or municipality which registered a diversion pursuant to section 22a-368 of the General Statutes may maintain such diversion only in accordance with the information provided in the registration form filed with the Commissioner. Any person or municipality which registered a diversion pursuant to section 22a-368 of the General Statutes may not cause or allow any modification of such diversion, including but not limited to an increase in withdrawal capacity, without having first obtained a permit under sections 22a-365 to 22a-378, inclusive, of the General Statutes and 22a-377(c)-2 of the Regulations of Connecticut State Agencies, unless such modification is exempt under section 22a-377 of the General Statutes or section 22a-377 (b)-1 of the Regulations of Connecticut State Agencies.

As such, this department finds that the proposed diversion modifications, comprising of the wellfields identified on page 1 of this determination, **will not** require a water diversion permit pursuant to Section 22a-368(a) CGS, provided the total combined withdrawal from the respective wellfields does not exceed the registered withdrawal as indicated in the above table. However, it is requested that you keep us informed as the project develops, particularly on matters relating to aquifer response modeling and induced infiltration studies.

If you should have any additional questions regarding this matter, please contact Doug Hoskins at 860-424-4192 or douglas.hoskins@ct.gov.

February 21, 2024

Date



Graham J. Stevens, Bureau Chief
Water Protection and Land Resources

GS/dh

Cc:

Ray Esponda, New Britain Water Dept., Ray.Esponds@NewBritainCT.gov

Raul Tejada, CT DPH, raul.tejada@ct.gov

Lori Mathieu, CT DPH, Lori.Mathieu@ct.gov

Brendan Schain, CT DEEP brendan.schain@ct.gov

Shalyn Zappulla, CT DEEP shalyn.zappulla@ct.org

Alicia Charamut, Rivers Alliance, alicea@riversalliance.org

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 complete.

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

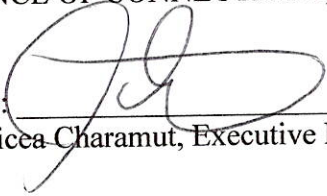
Mary Ridingsward, Executive Director
Pequabuck River Watershed Association
PO Box 1461
Bristol, CT 06011-1461
pequabuckriverct@gmail.com

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

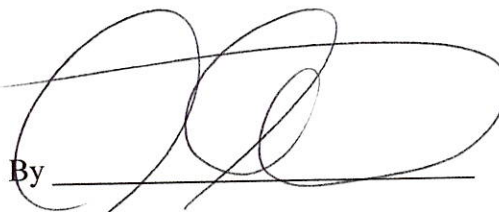
VERIFICATION OF PETITION FOR INTERVENTION
UNDER GENERAL STATUTES SECTION 22a-19(a)

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.

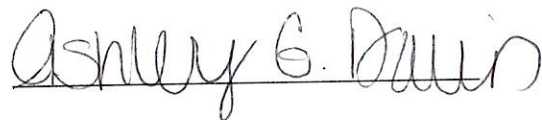
Dated at Newington Connecticut, this 5th day of February, 2024.

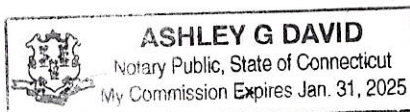
INTERVENOR

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



Photos submitted by Daniel Sutula - 3/11/24

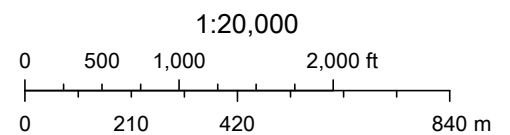
ATTACHMENT 1

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.

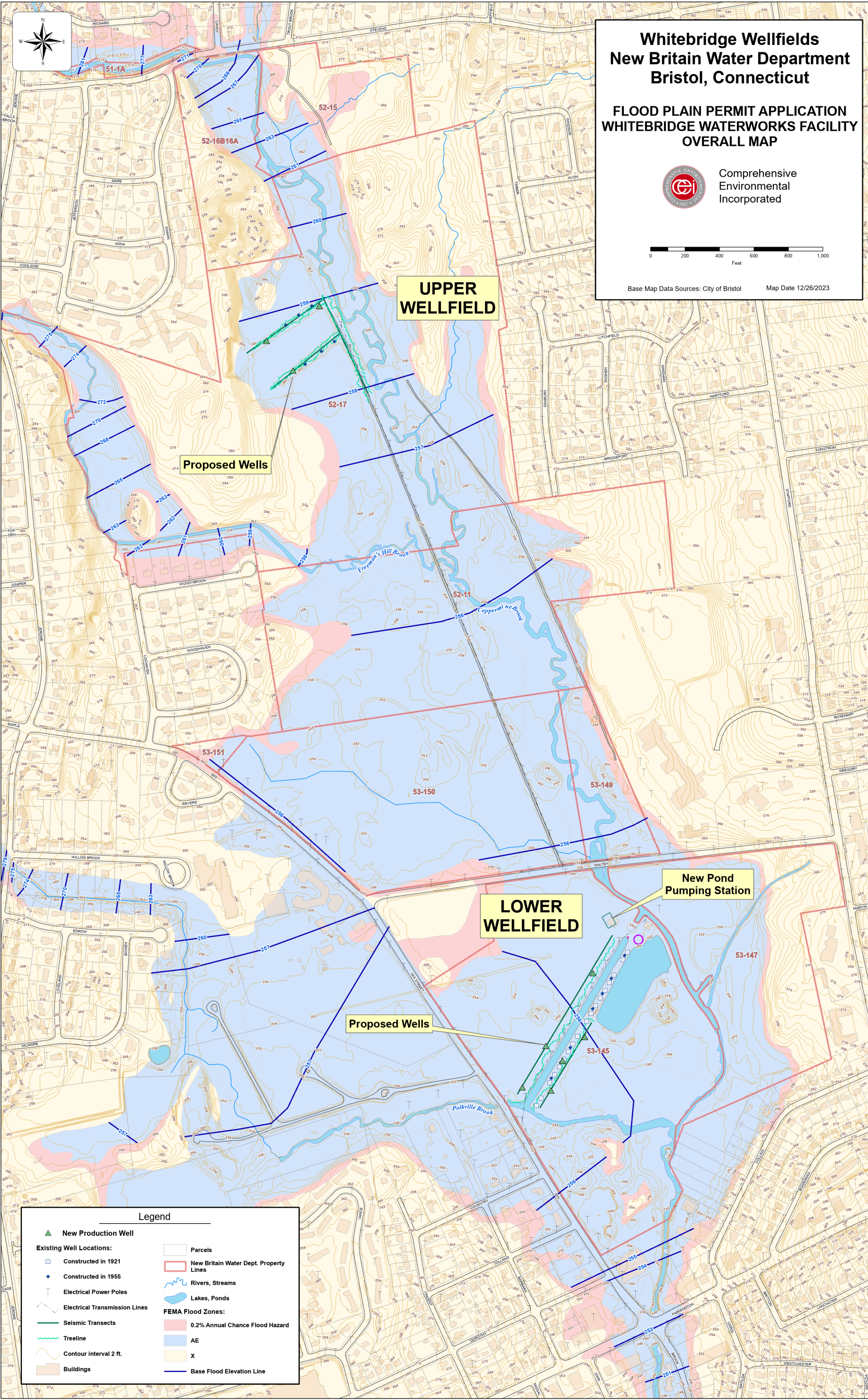
- The final site is designed to have a 3-foot wide gravel infiltration trench with 1.5"-3" diameter washed aggregate covered with 6" pea gravel running along the facility driveway to collect and slow the flow of runoff from impervious surfaces (see Sheet C-10 and Detail Sheet C-26).
- All areas disturbed 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 Luff 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 Gnd. 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**



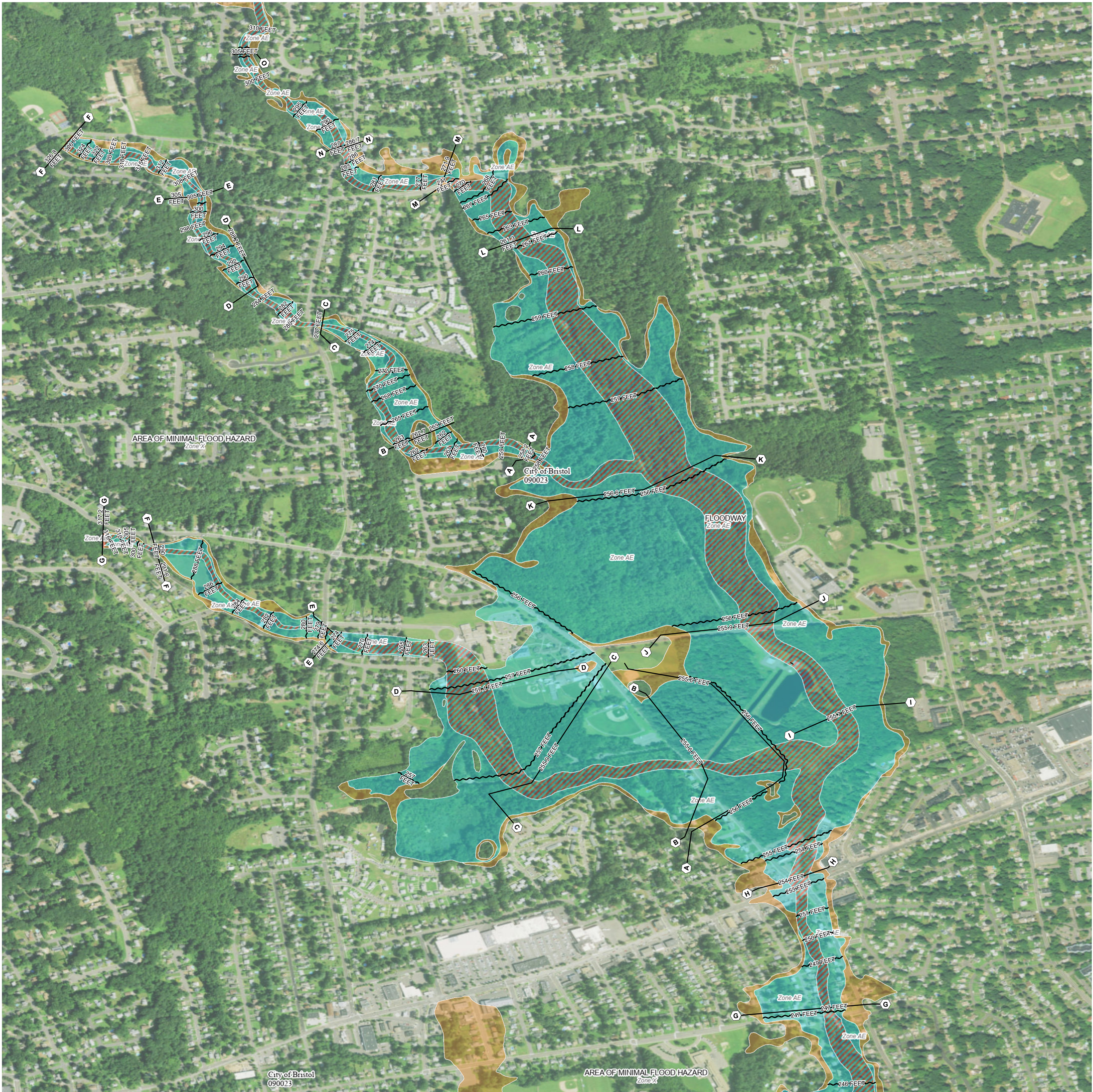
Comprehensive
Environmental
Incorporated

0 200 400 600 800 1,000
Feet

Base Map Data Sources: City of Bristol Map Date 12/26/2023

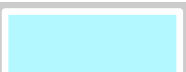
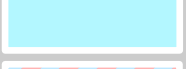
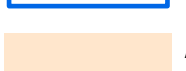
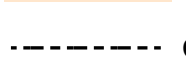
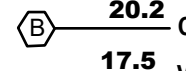
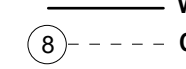
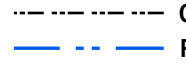
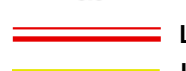
Legend

- | | |
|--------------------------------------|---|
| New Production Well | Parcels |
| Existing Well Locations: | New Britain Water Dept. Property Lines |
| Constructed in 1921 | Rivers, Streams |
| Constructed in 1955 | Lakes, Ponds |
| Electrical Power Poles | FEMA Flood Zones: |
| Electrical Transmission Lines | 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

SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE)
		With BFE or Depth Zone AE, AO, AH, VE, AR
		Regulatory Floodway
OTHER AREAS OF FLOOD HAZARD		0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
		Future Conditions 1% Annual Chance Flood Hazard Zone X
		Area with Reduced Flood Risk due to Levee See Notes Zone X
		Area with Flood Risk due to Levee Zone D
OTHER AREAS		NO SCREEN Area of Minimal Flood Hazard Zone X
		Effective LOMRs
GENERAL STRUCTURES		Area of Undetermined Flood Hazard Zone D
		Channel, Culvert, or Storm Sewer
		Levee, Dike, or Floodwall
OTHER FEATURES		Cross Sections with 1% Annual Chance
		Water Surface Elevation
		Coastal Transect
		Coastal Transect Baseline
		Profile Baseline
		Hydrographic Feature
		Base Flood Elevation Line (BFE)
		Limit of Study
		Jurisdiction Boundary

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.

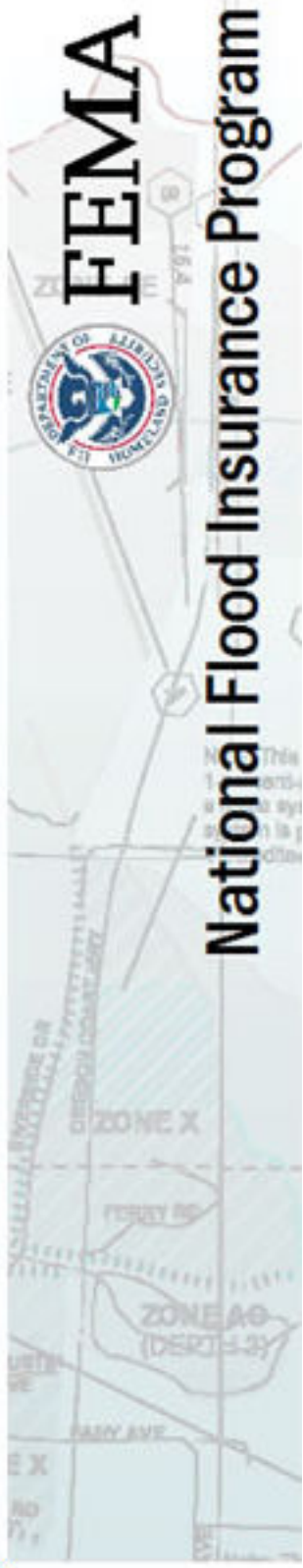
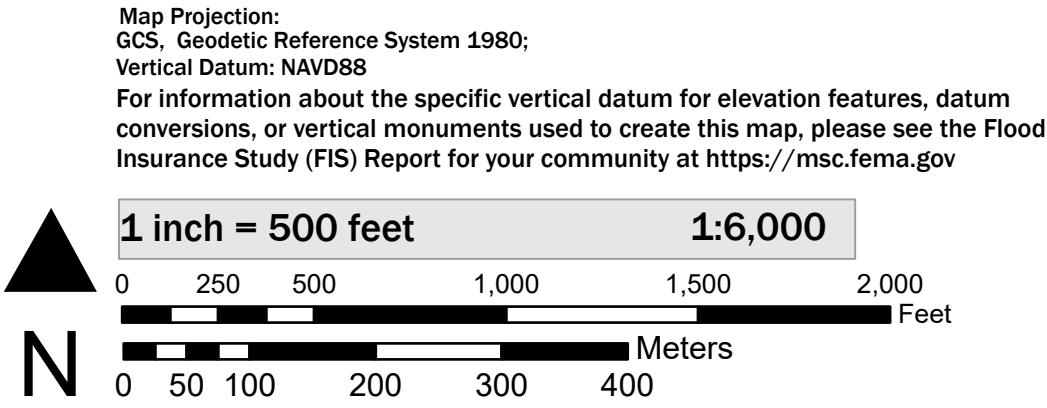
To determine if flood insurance is available in this community, contact your Insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

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:	NUMBER	PANEL
COMMUNITY CITY OF BRISTOL	090023	0458

Link to Attachment #4:

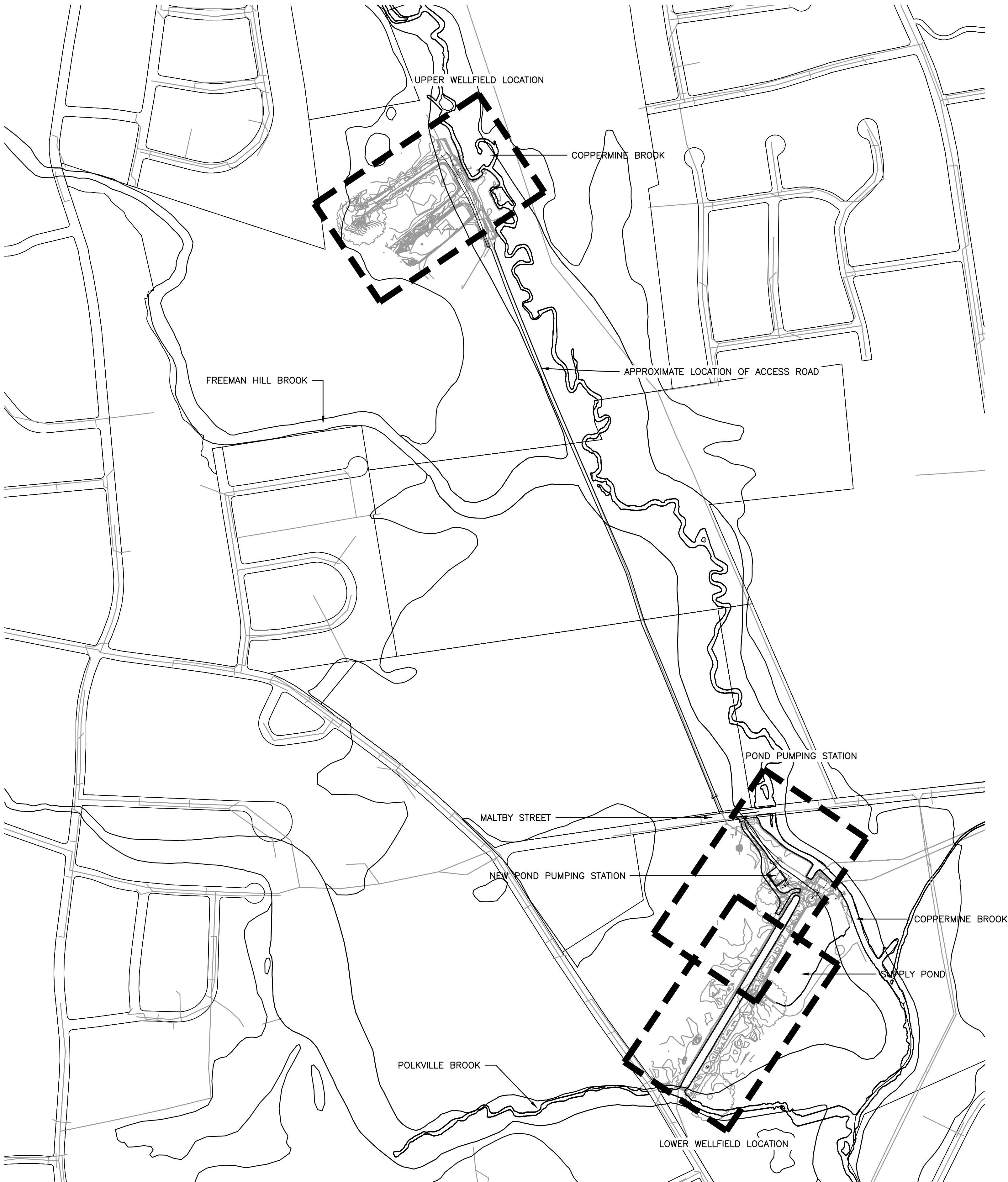
<https://www.bristolct.gov/DocumentCenter/View/45996/Attachment-4-Extracted---Floodway-Areas>

ATTACHMENT 4

FLOODWAY & FLOOD FRINGE ENCROACHMENT AREAS

ATTACHMENT 5
PROJECT DRAWINGS

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PLAN
1" = 300'



PLAN
N.T.S.

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**

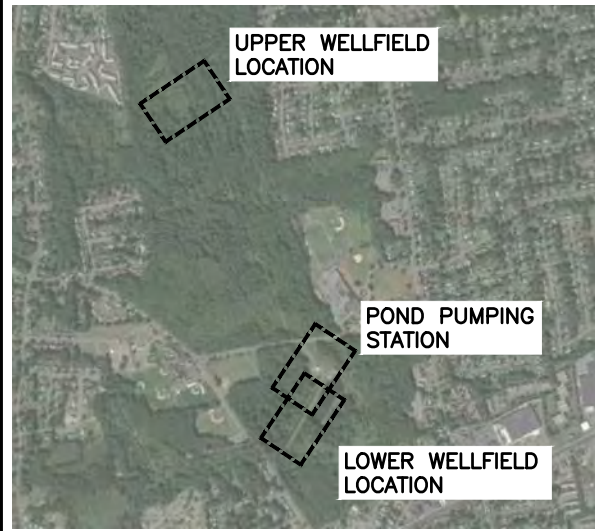
77 Hartland Street, Suite 200
East Hartford, CT 06108
Tel: (860) 529-7615

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

OVERALL SITE PLAN

C-2

PROJECT NO. 10739-264571
FILE NAME: C002STPL.DWG
SHEET NO.



PLAN

N.T.S.

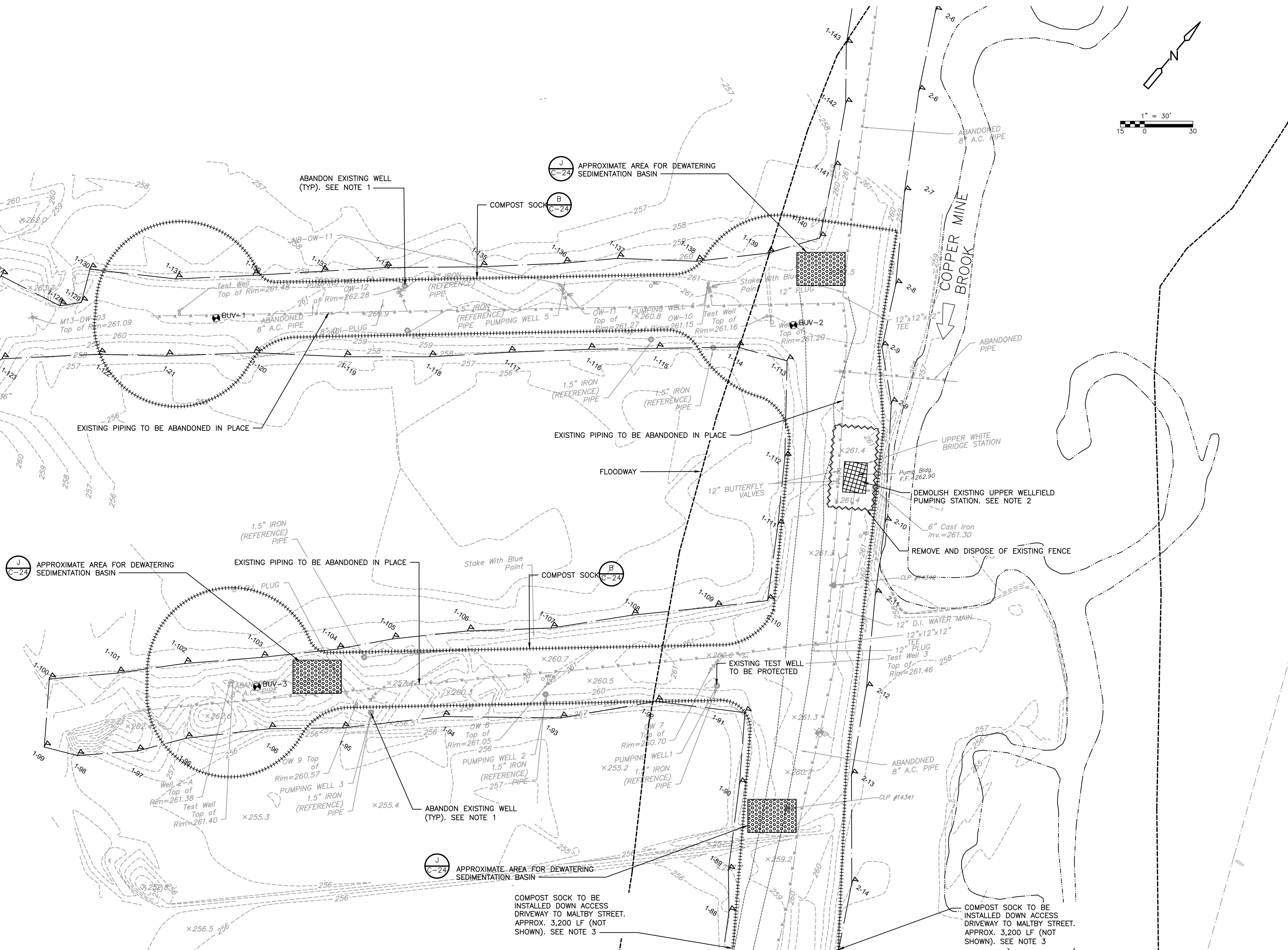
LEGEND

- COMPOST SOCK
- BUILDING REMOVAL
- WETLAND FLAG
- BORING

1" = 30'

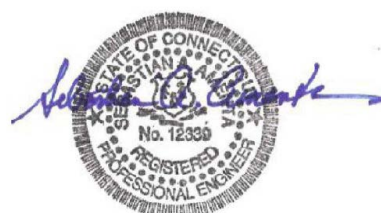
NOTES:

- 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

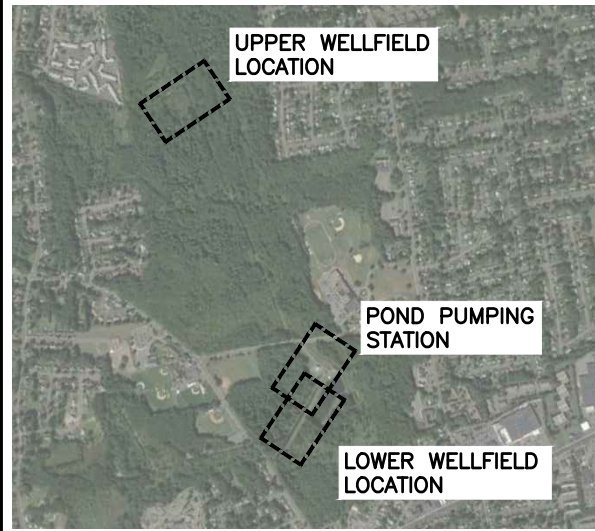


CITY OF NEW BRITAIN, CONNECTICUT
WHITE BRIDGE WATERWORKS FACILITIES
UPPER AND LOWER WELLFIELDS
AND POND PUMPING STATION

UPPER WELLFIELD
DEMOLITION AND REMOVALS PLAN

PROJECT NO.	10739-264571
FILE NAME:	C006STPL.DWG
SHEET NO.	C-6

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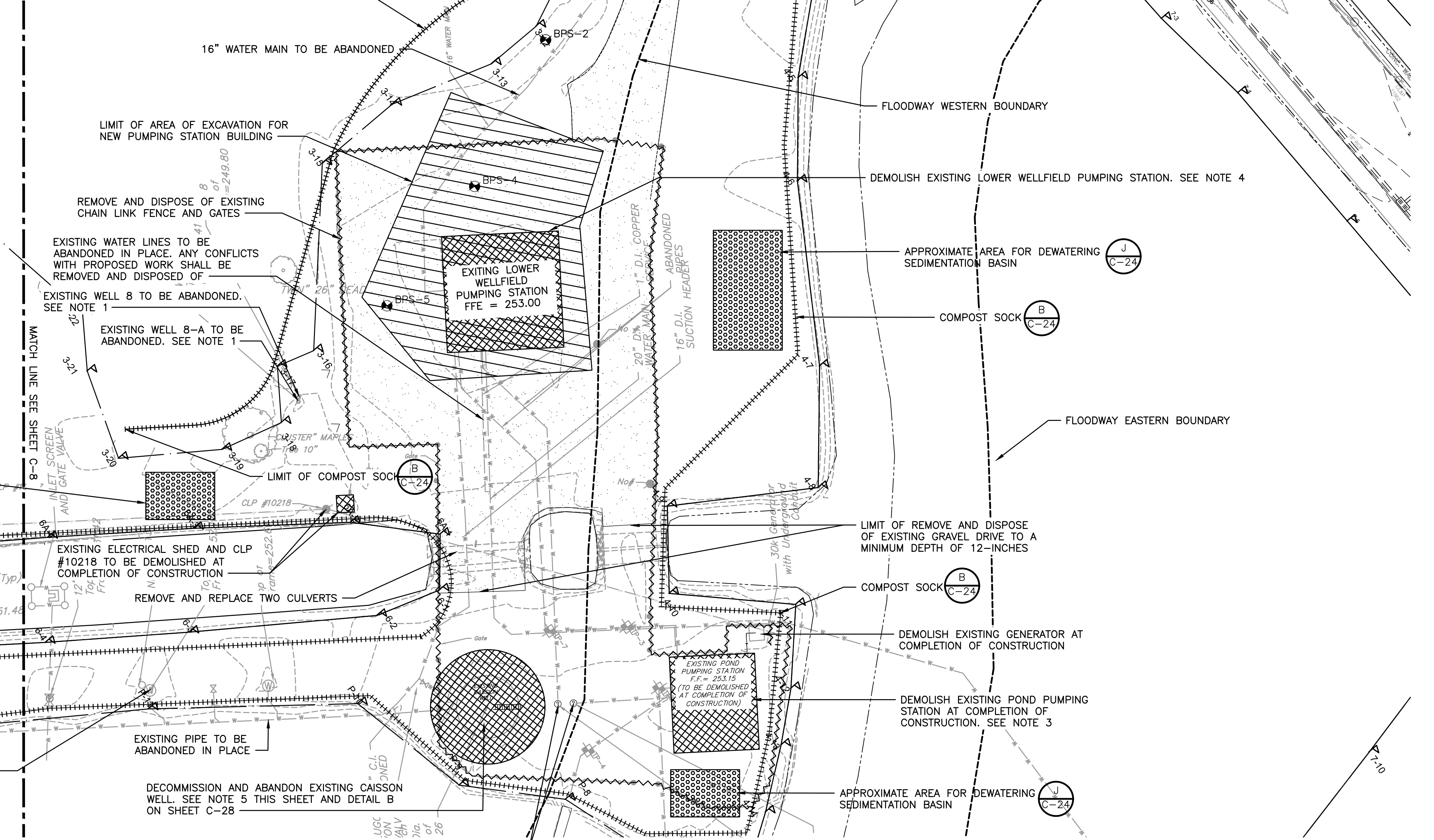
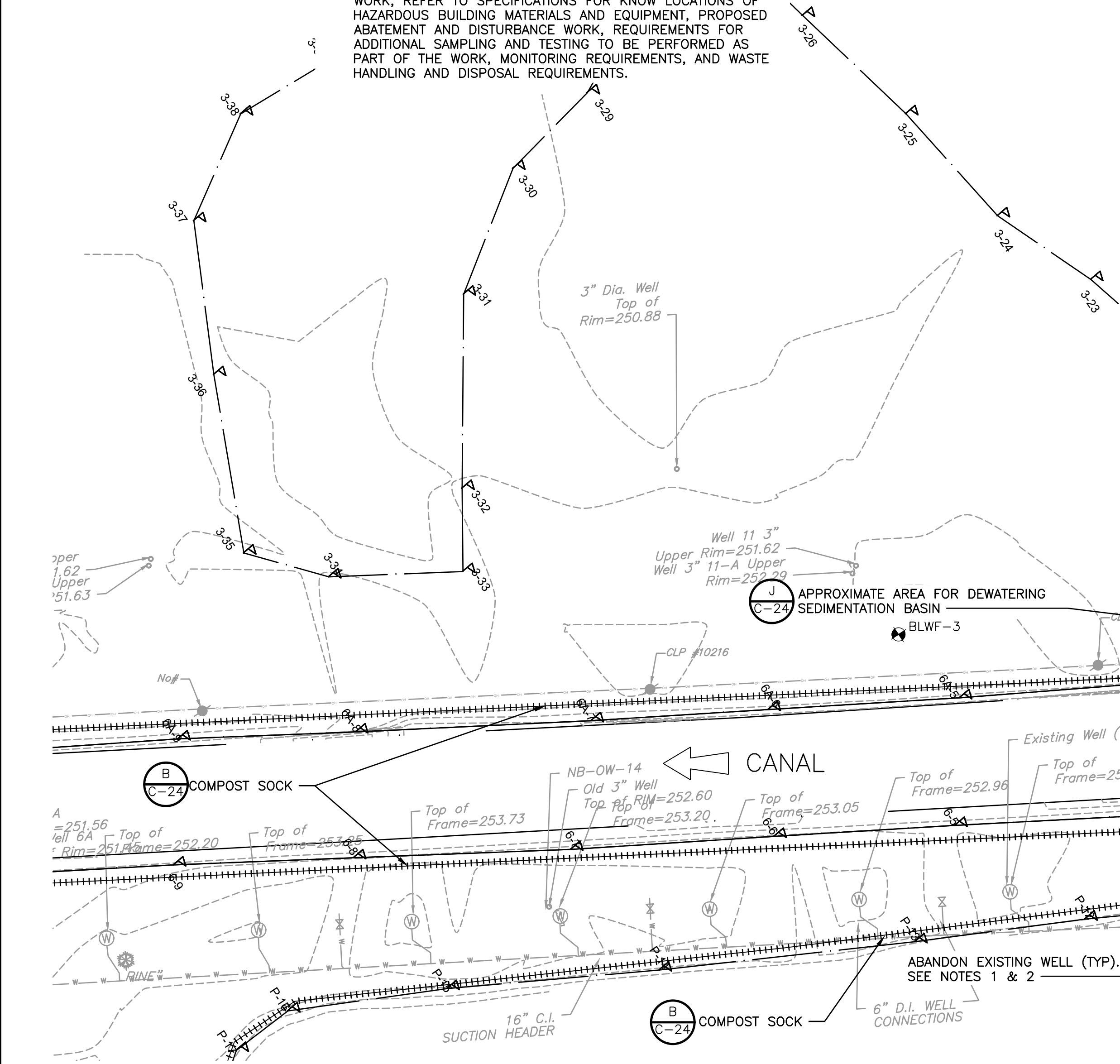


PLAN
N.T.S.

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.
 - 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.
 - THE EXISTING LOWER WELLFIELD PUMPING STATION BUILDING AND FOUNDATION TO BE DEMOLISHED TO ELEVATION 241.2 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.
 - 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.
 - 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

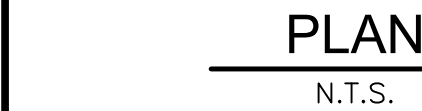
DESIGNED BY: G. HOWARD
DRAWN BY: J. BRONENKANT
SHEET CHK'D BY: G. HOWARD
CROSS CHK'D BY: K. WAGNER
APPROVED BY: K. WAGNER
DATE: DECEMBER 2023

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

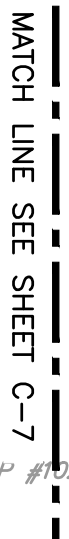
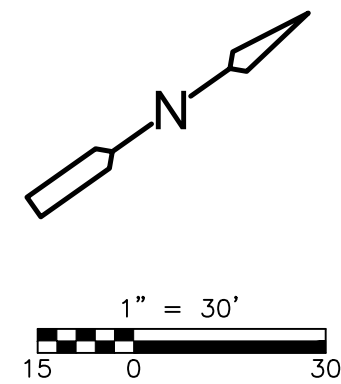
POND PUMPING STATIONS
DEMOLITION AND REMOVALS PLAN
C-7

PROJECT NO. 10739-264571
FILE NAME: C007STPL.DWG
SHEET NO.
C-7



 COMPOST SOCK
 BUILDING REMOVAL
 WETLAND FLAG
 BORING

1. EXISTING WELLS TO HAVE THE WELL HEAD REMOVED TO 5 FEET BELOW FINEST 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 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



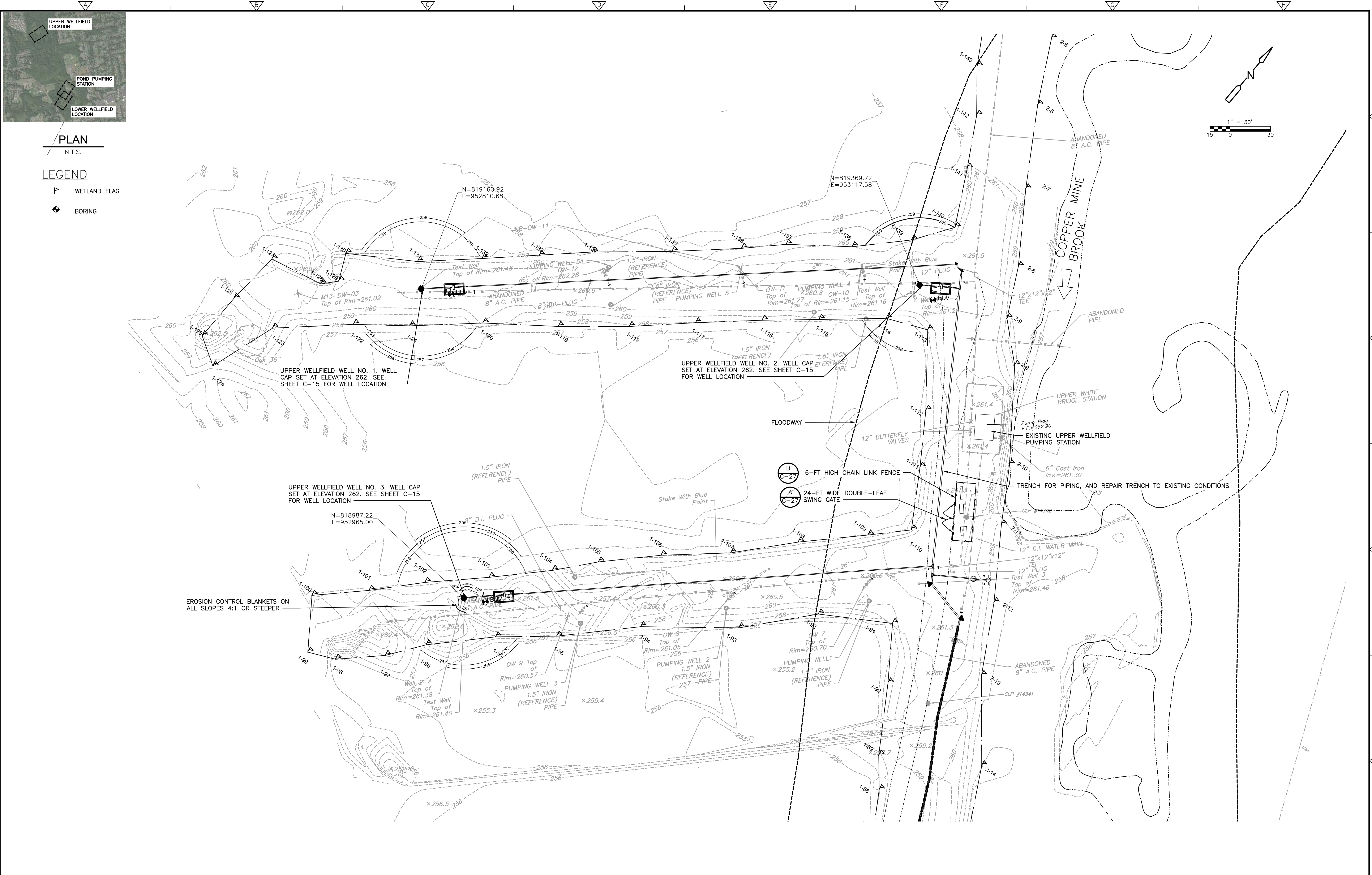
DESIGNED BY: G. HOWARD
DRAWN BY: J. BRONENKANT
SHEET CHK'D BY: G. HOWARD
CROSS CHK'D BY: K. WAGNER
APPROVED BY: K. WAGNER
DATE: APRIL 2023



LOWER WELLFIELD DEMOLITION AND REMOVALS PLAN

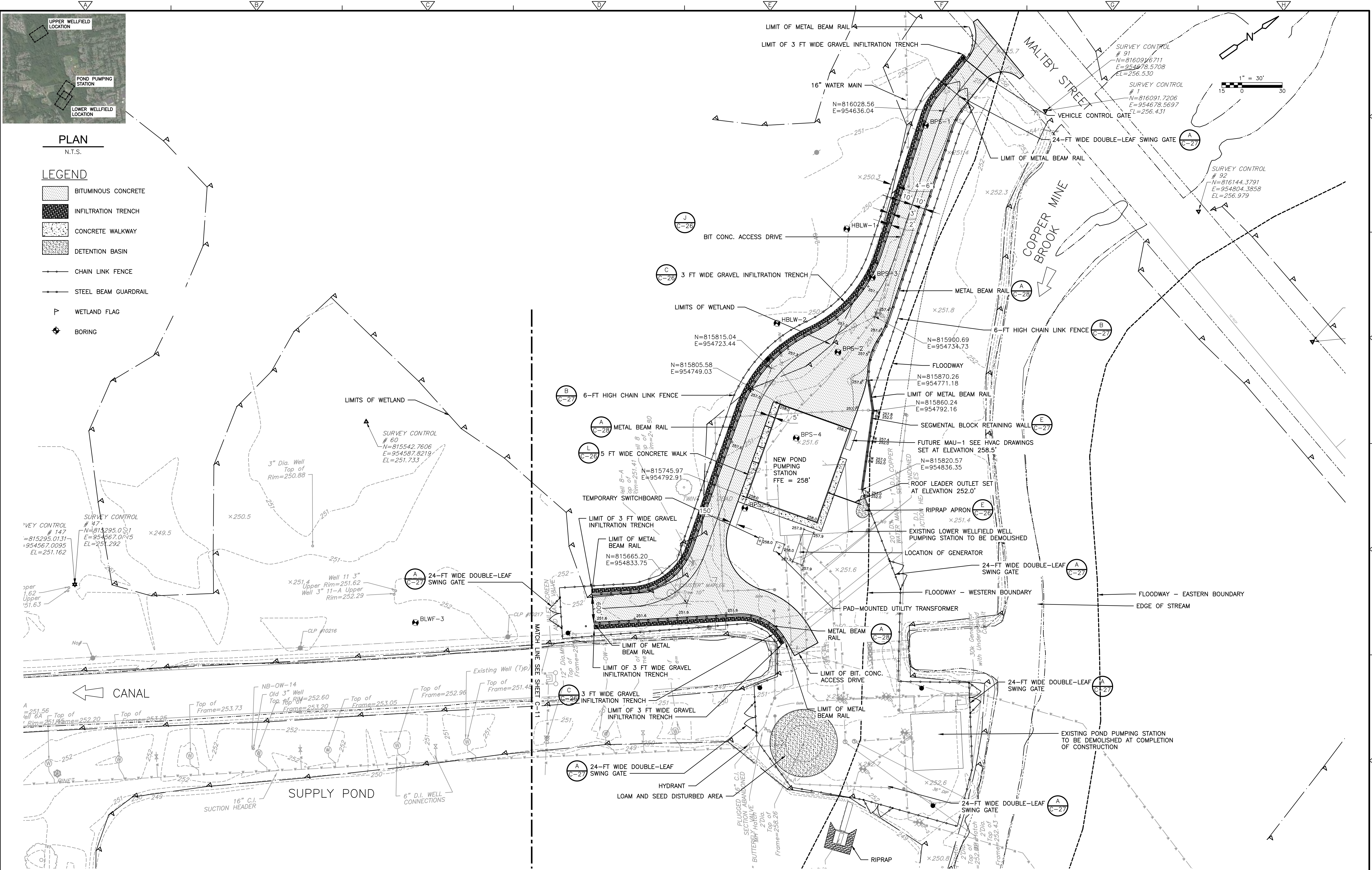
PROJECT NO.	10739-264571
FILE NAME:	C008GDPL.DWG
SHEET NO.	
C-8	

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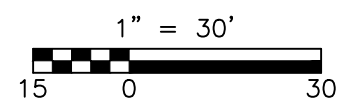
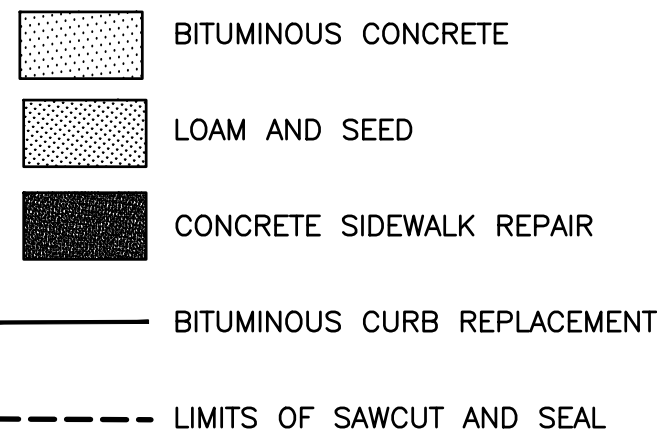


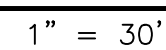
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				DRAWN BY: J. BRONENKANT				FILE NAME: C009STPL.DWG		SHEET NO. C-9	
				SHEET CHK'D BY: G. HOWARD							
				CROSS CHK'D BY: K. WAGNER							
				APPROVED BY: K. WAGNER							
REV. NO.	DATE	DRWN	CHKD	REMARKS	DATE: APRIL 2023					Page 284 of 338	

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				SHEET CHK'D BY: <u>G. HOWARD</u>								SHEET NO.
				CROSS CHK'D BY: <u>K. WAGNER</u>								C-10
				APPROVED BY: <u>K. WAGNER</u>								
REV. NO.	DATE	DRWN	CHKD	REMARKS				DATE: <u>APRIL 2023</u>				



$$1'' = 30'$$


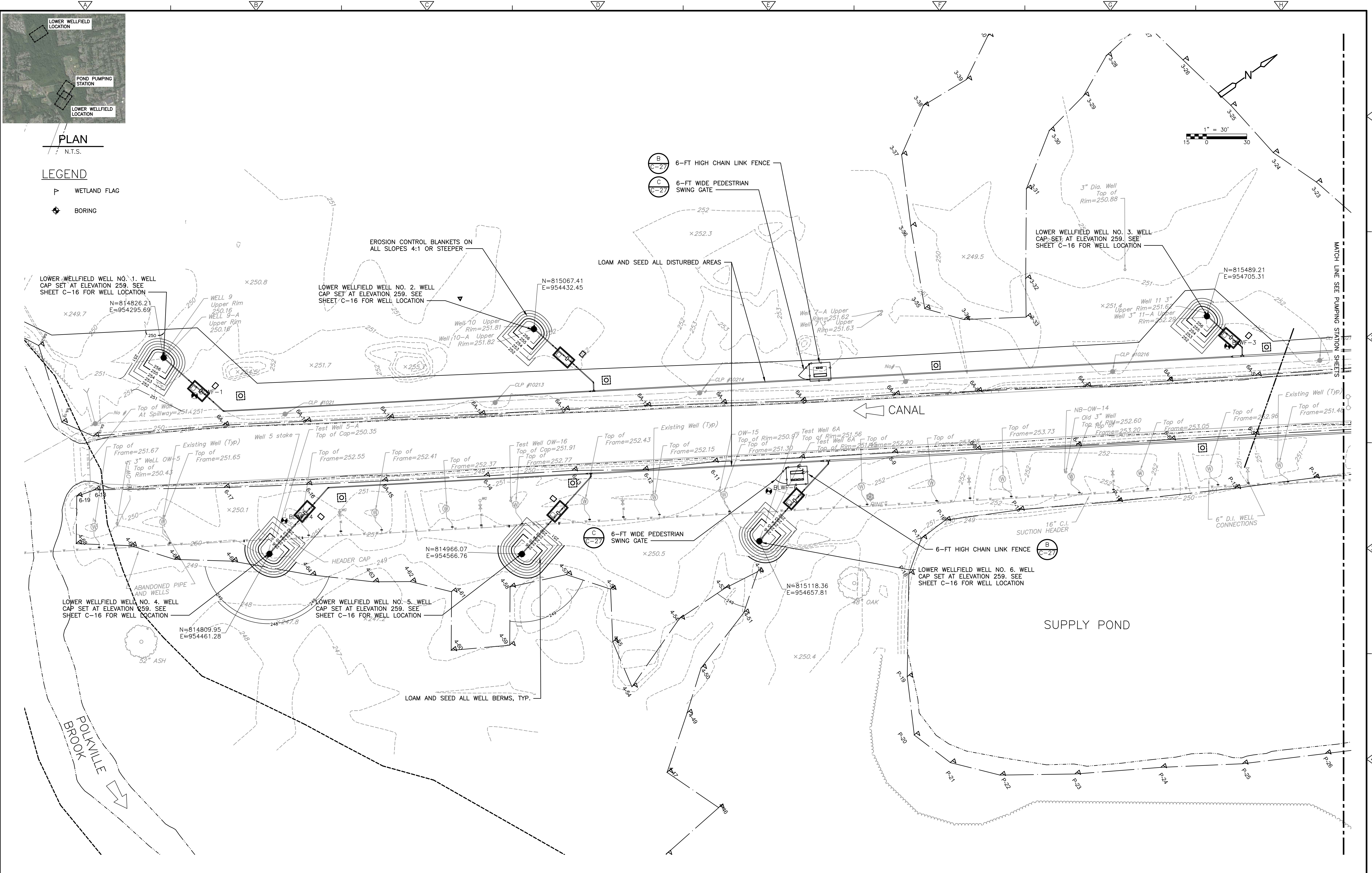
DESIGNED BY: G. HOWARD
DRAWN BY: J. BRONENKANT
SHEET CHK'D BY: G. HOWARD
CROSS CHK'D BY: K. WAGNER
APPROVED BY: K. WAGNER
DATE: DECEMBER 2023



MAILTBY STREET SURFACE RESTORATION

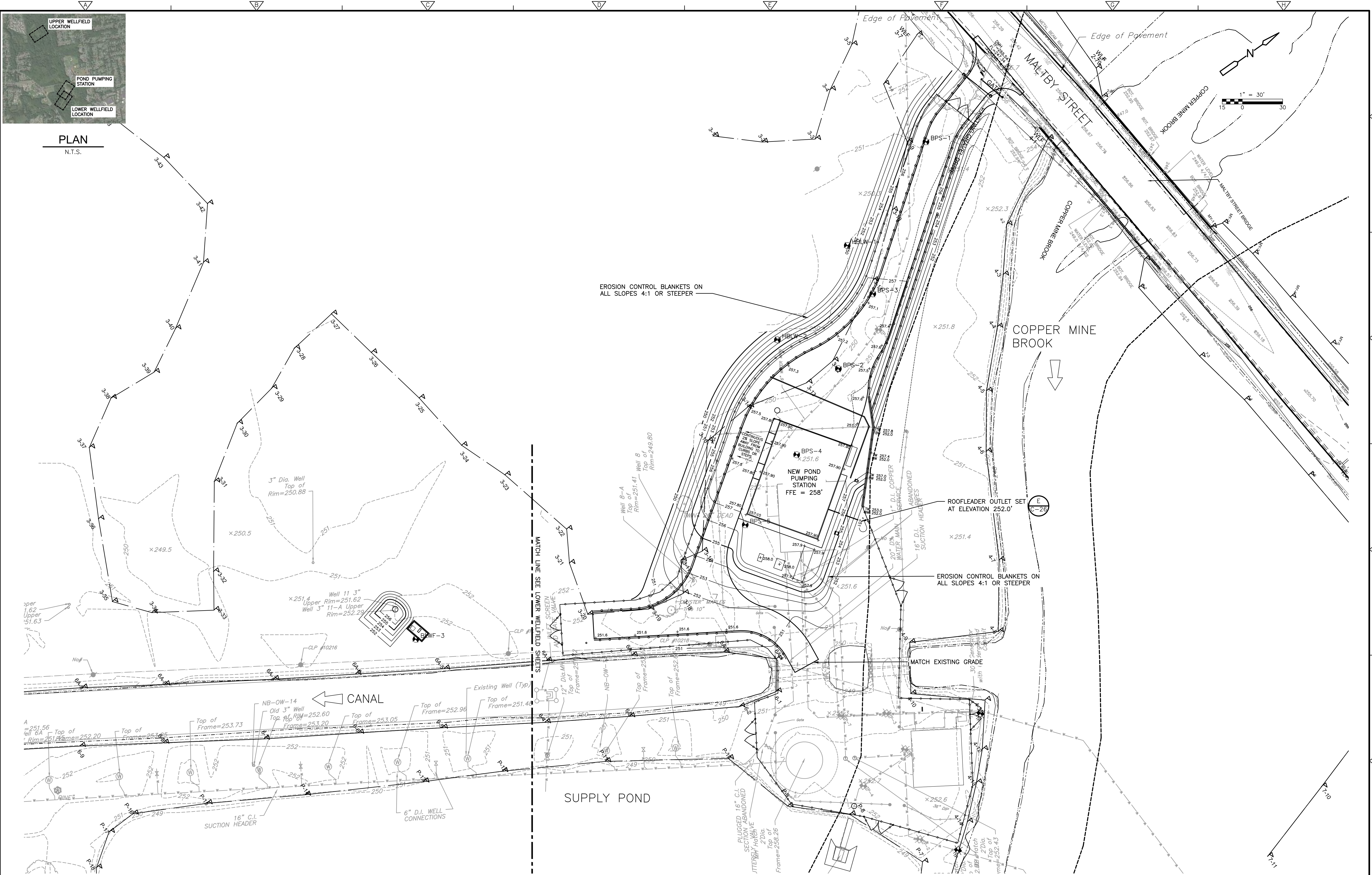
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				CROSS CHK'D BY: K. WAGNER						
				APPROVED BY: K. WAGNER						
REV.	DATE	DRWN	CHKD	REMARKS	DATE: APRIL 2023					REGULATORY REVIEW SUBMITTAL - NOT FOR CONSTRUCTION Page 287 of 338

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				SHEET CHK'D BY: <u>K. GERLACH</u>								SHEET NO.
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REV. NO.	DATE	DRWN	CHKD	REMARKS				DATE: <u>DECEMBER 2023</u>				

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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

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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

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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

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

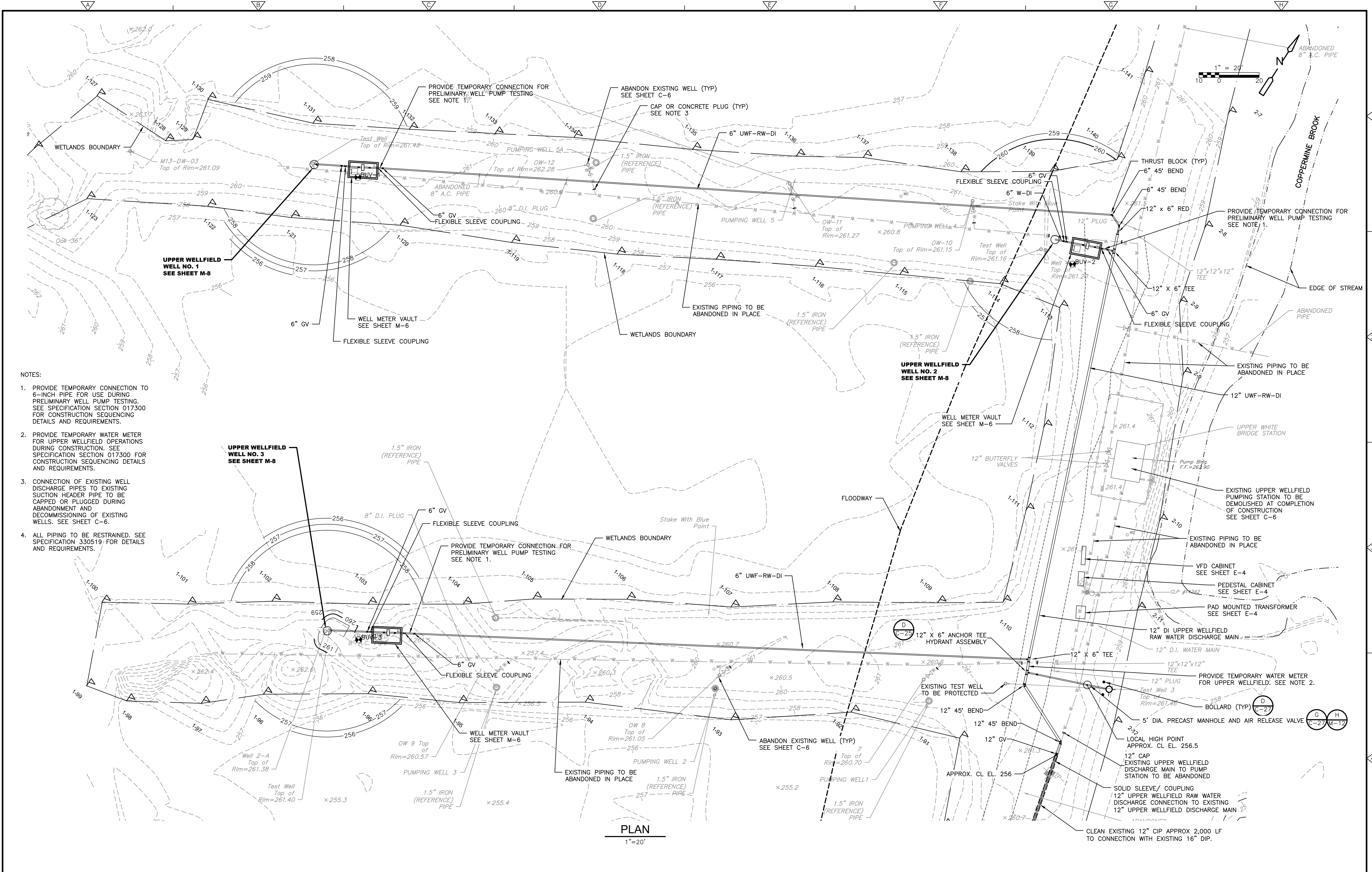
WETLAND REPLICATION PLAN II

PROJECT NO. 10739-264571
FILE NAME: CO14STPL.DWG

SHEET NO.

C-14

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DESIGNED BY:	K. GERLACH
DRAWN BY:	S. ENGEL
SHEET CHK'D BY:	K. WAGNER
CROSS CHK'D BY:	K. GERLACH
APPROVED BY:	K. WAGNER
DATE:	APRIL 2023

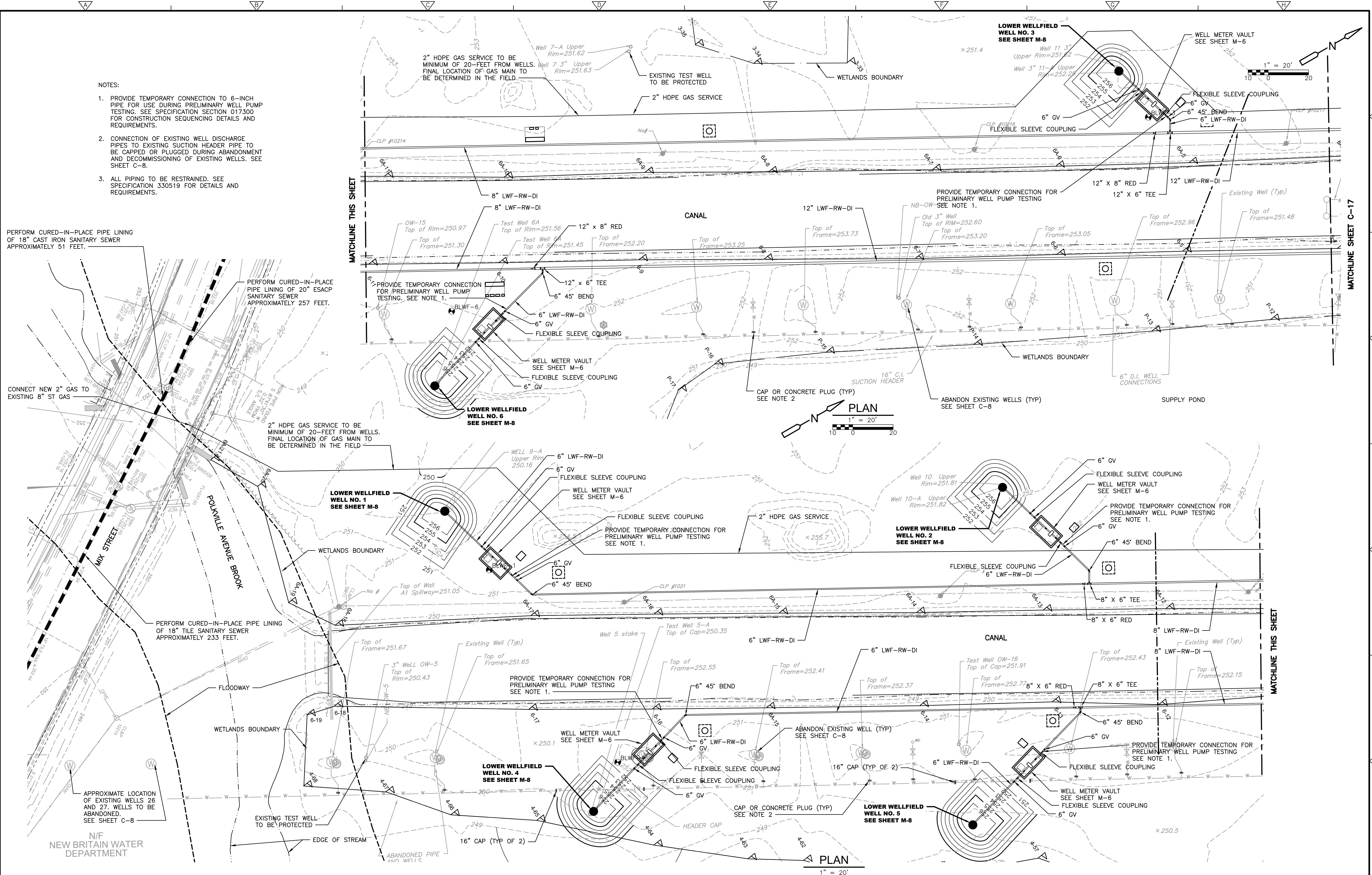
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CITY OF NEW BRITAIN, CONNECTICUT
**WHITE BRIDGE WATERWORKS FACILITIES
UPPER AND LOWER WELLFIELDS
AND POND PUMPING STATION**

**UPPER WELLFIELD
YARD PIPING PLAN**

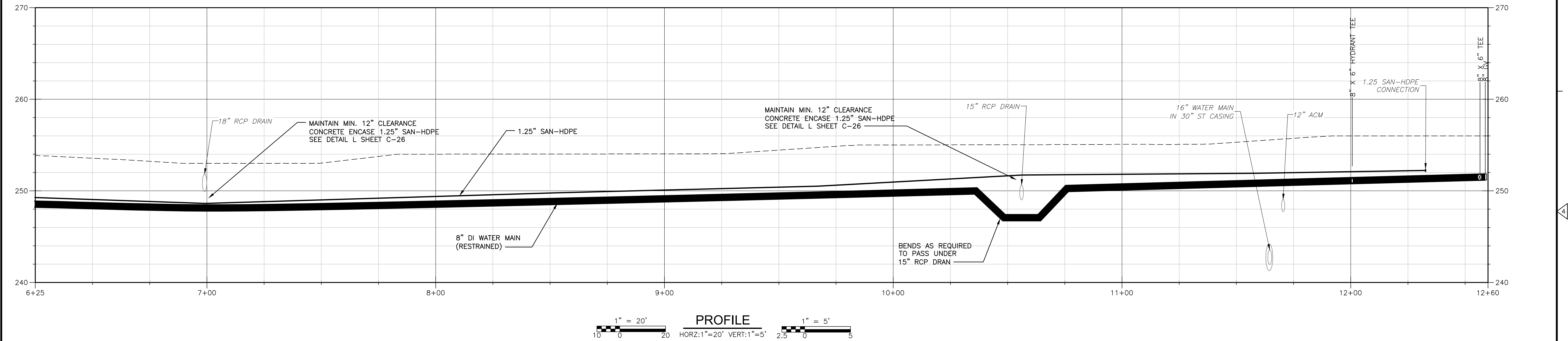
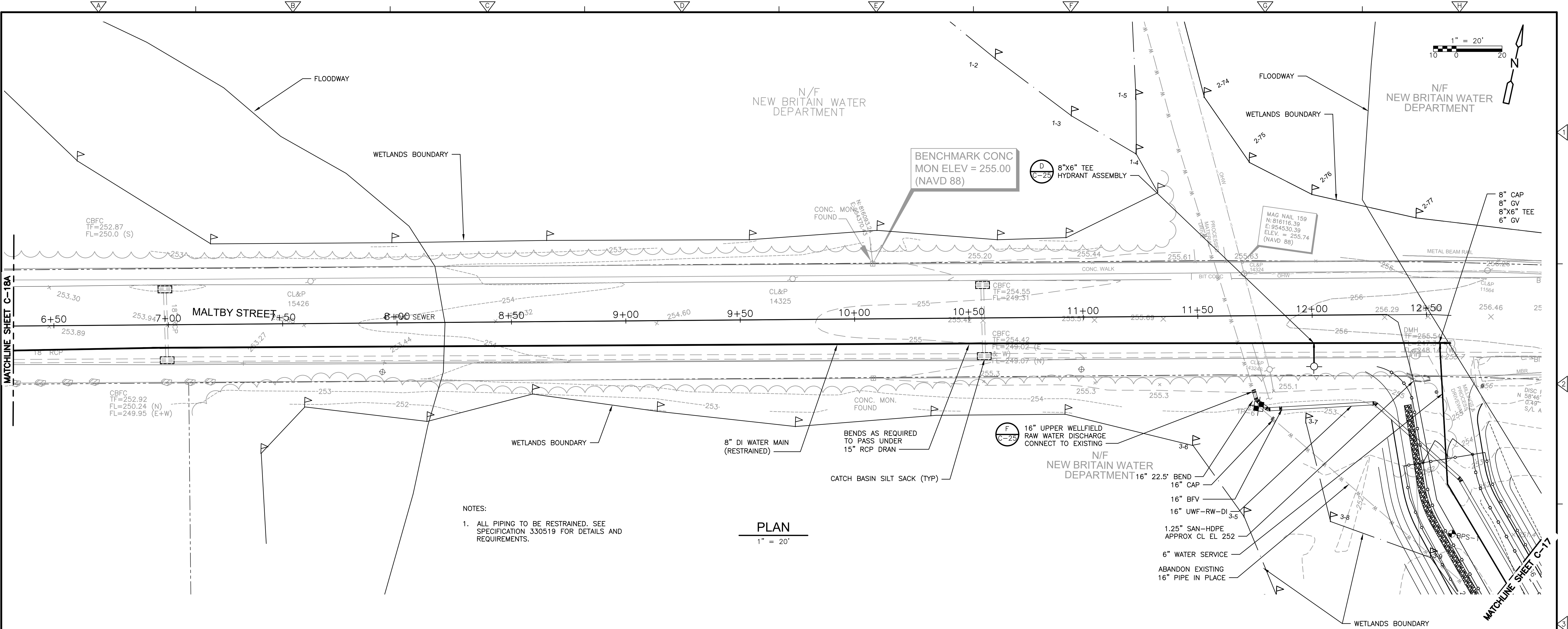
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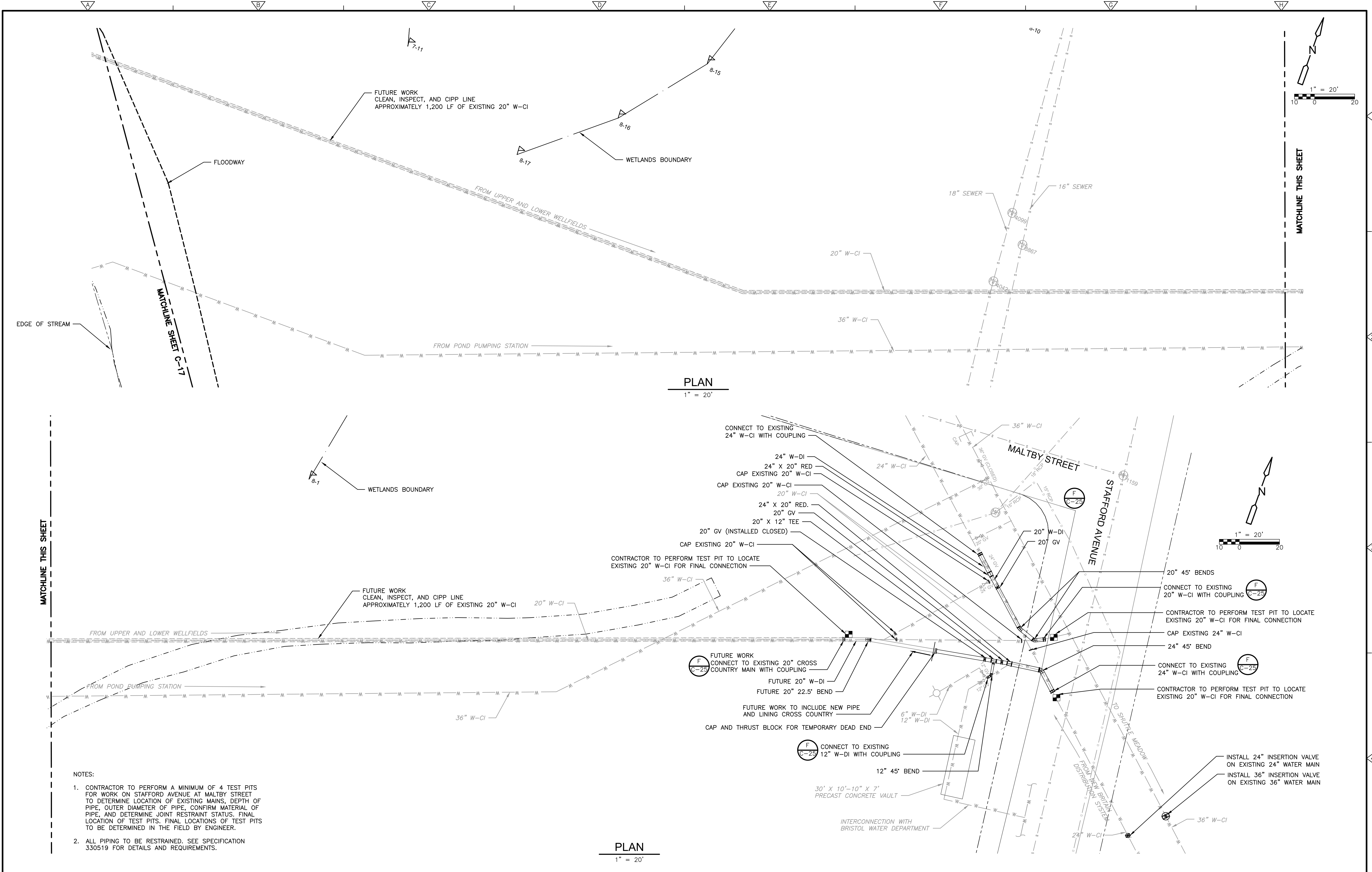
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REV.	NO.	DATE	DRWN	CHKD	REMARKS																														

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NOTES:				
1. CONTRACTOR TO PERFORM A MINIMUM OF 4 TEST PITS FOR WORK ON STAFFORD AVENUE AT MALTBY STREET TO DETERMINE LOCATION OF EXISTING MAINS, DEPTH OF PIPE, OUTER DIAMETER OF PIPE, CONFIRM MATERIAL OF PIPE, AND DETERMINE JOINT RESTRAINT STATUS. FINAL LOCATION OF TEST PITS, FINAL LOCATIONS OF TEST PITS TO BE DETERMINED IN THE FIELD BY ENGINEER.				
2. ALL PIPING TO BE RESTRAINED. SEE SPECIFICATION 330519 FOR DETAILS AND REQUIREMENTS.				
REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: K. GERLACH
DRAWN BY: S. ENGEL
SHEET CHK'D BY: K. WAGNER
CROSS CHK'D BY: K. GERLACH
APPROVED BY: K. WAGNER
DATE: DECEMBER 2023

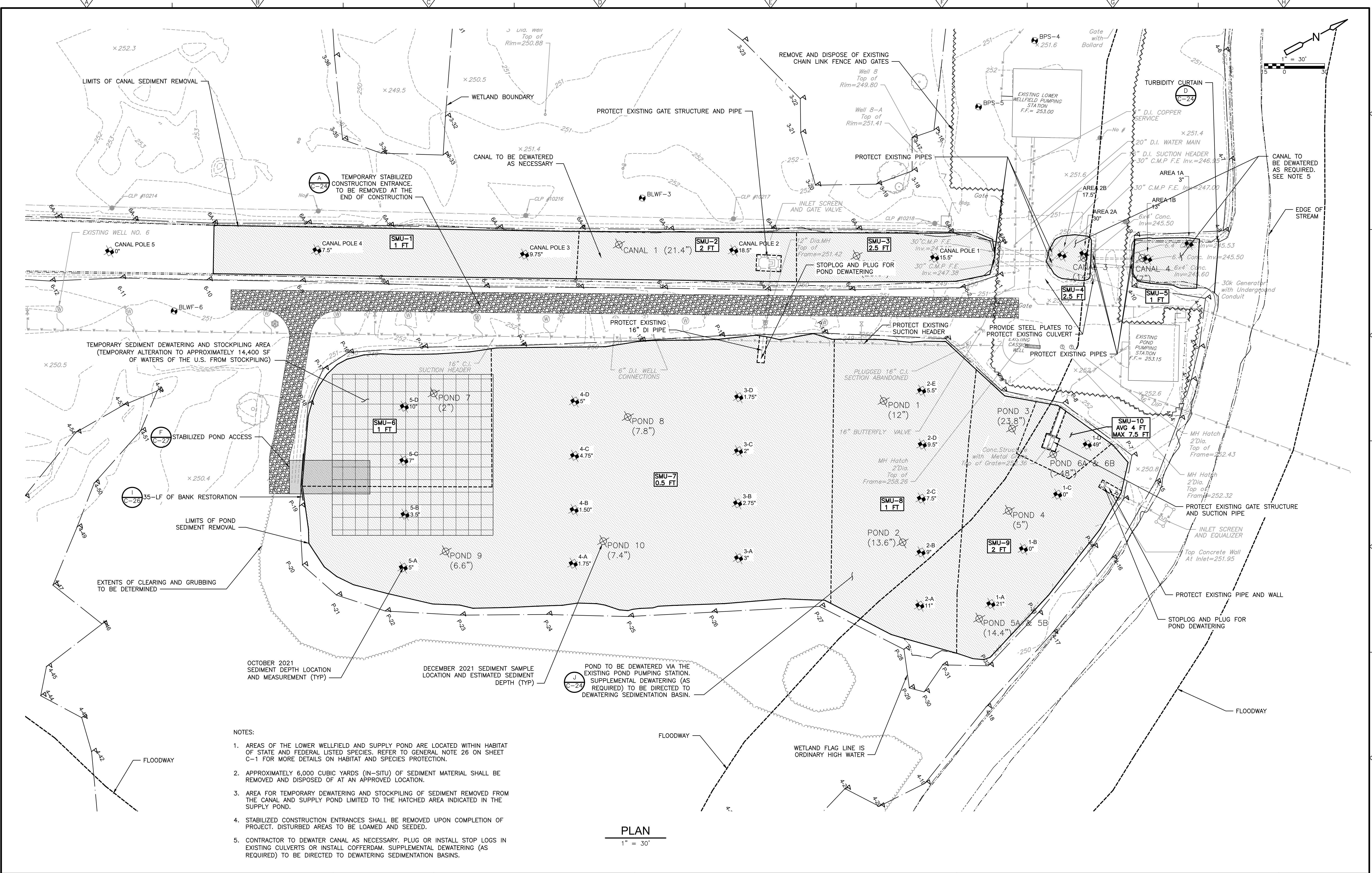
CDM Smith
101 East River Drive, Suite 1A
East Hartford, CT 06108
Tel: (860) 529-7615

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

STAFFORD AVENUE
AND CROSS COUNTRY
PLAN
C-19

PROJECT NO. 10739-264571
FILE NAME: C019YPPL.DWG
SHEET NO. C-19

XREFs: [TEST HOLE POINTS, CDMS 2436, XSVPL040, 2022-17, BORING LOCATIONS, Floodway_Floodplain] Images: []
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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

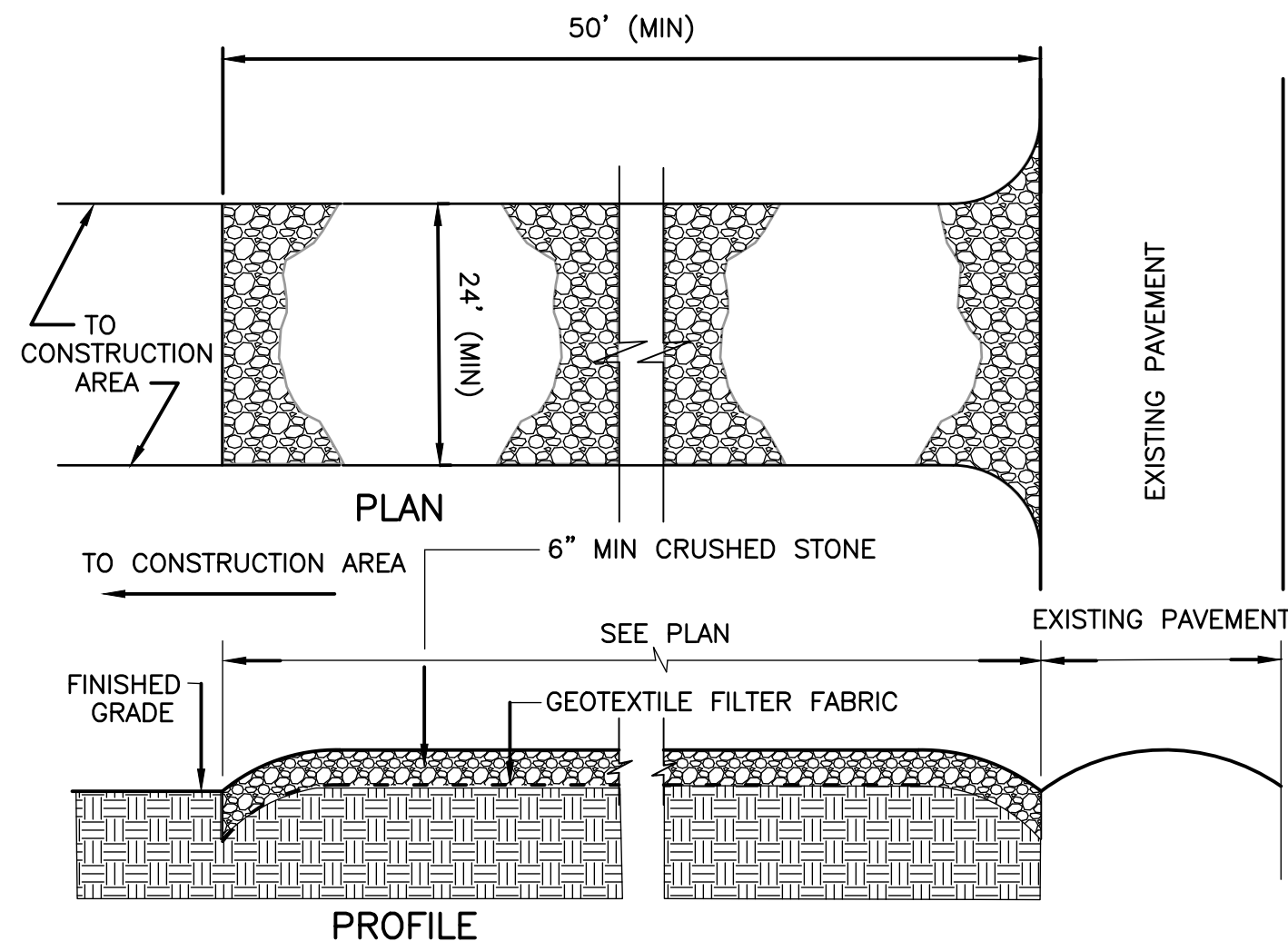


CITY OF NEW BRITAIN, CONNECTICUT
WHITE BRIDGE WATERWORKS FACILITIES
UPPER AND LOWER WELLFIELDS
AND POND PUMPING STATION

SUPPLY POND AND CANAL
SEDIMENT REMOVAL PLAN

PROJECT NO.	10739-264571
FILE NAME:	C023SDRM.DWG
SHEET NO.	C-23

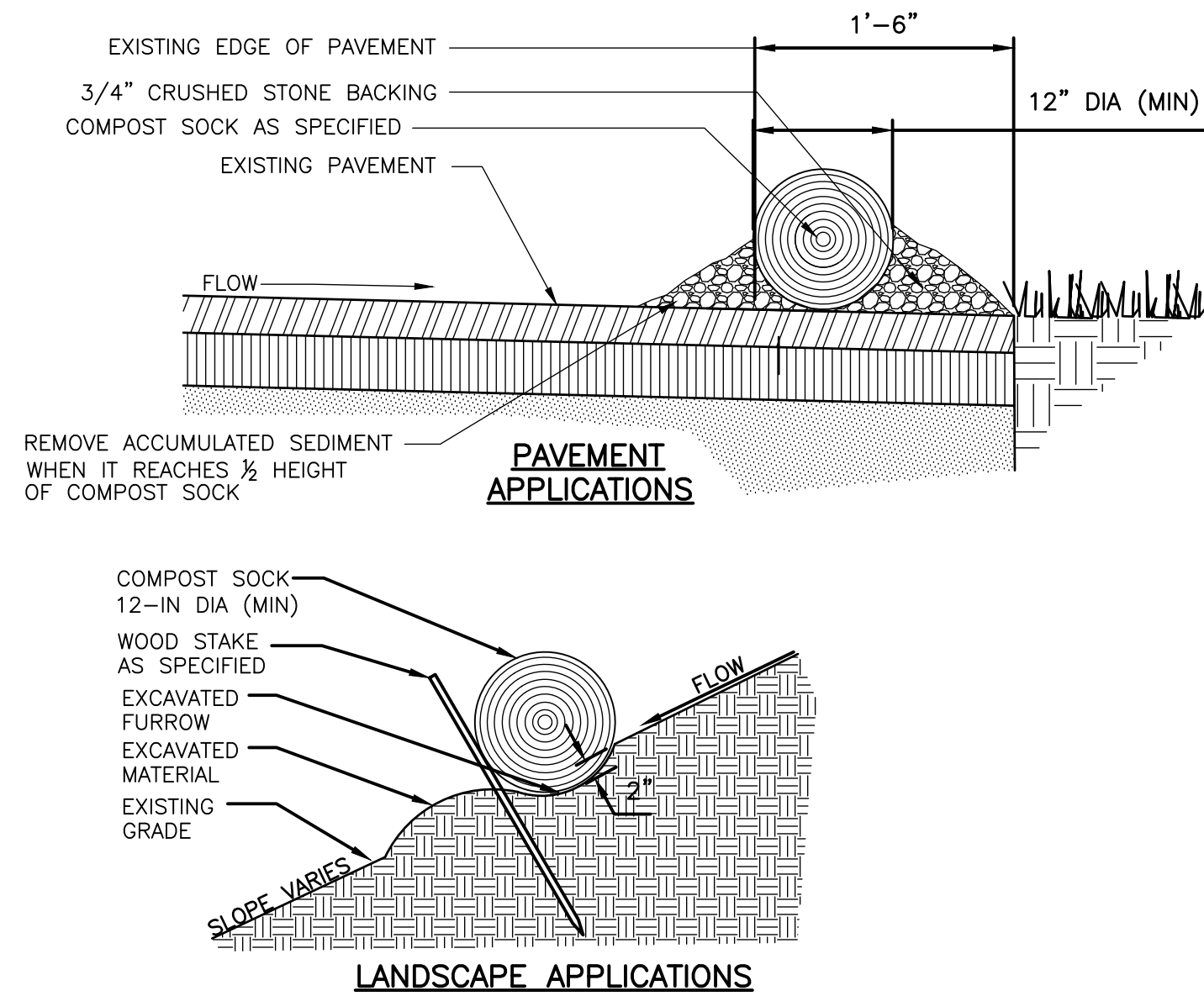
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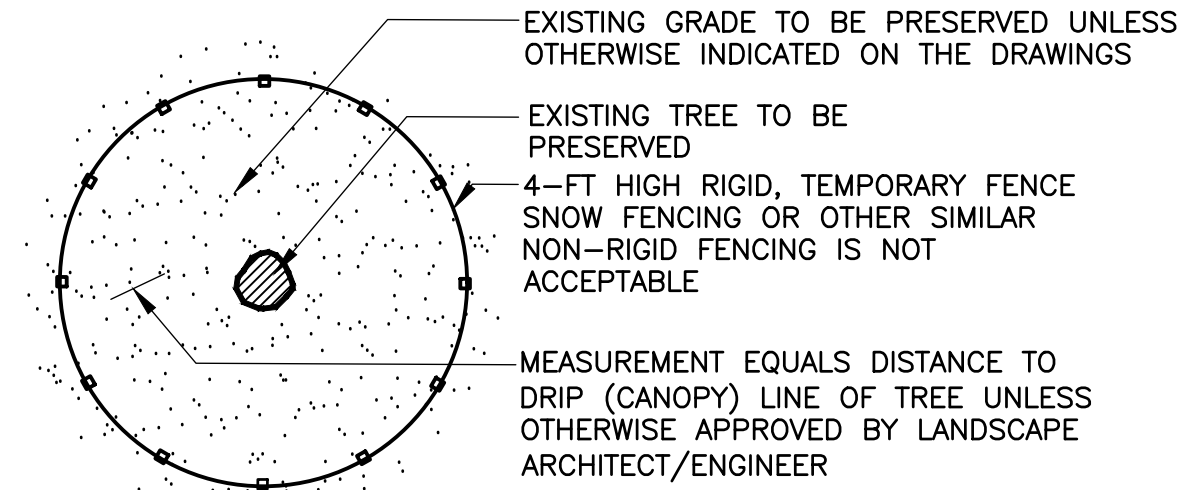
STABILIZED CONSTRUCTION ENTRANCE
DETAIL A
NOT TO SCALE

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.



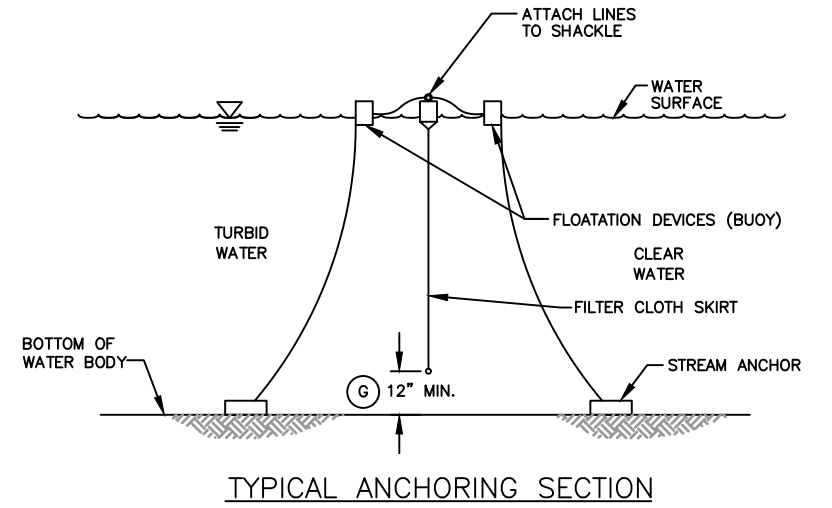
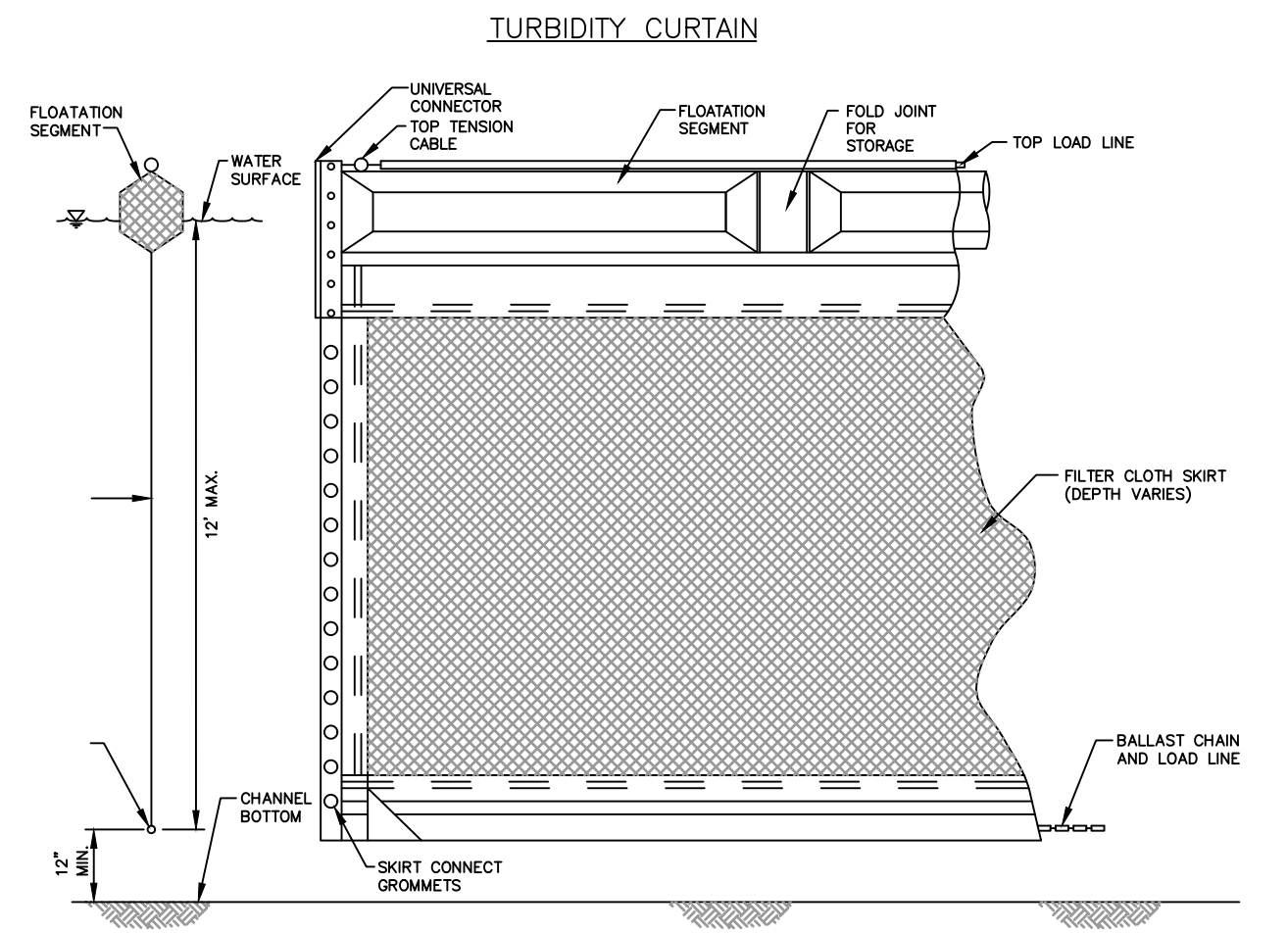
COMPOST SOCK
DETAIL B
SCALE: NTS



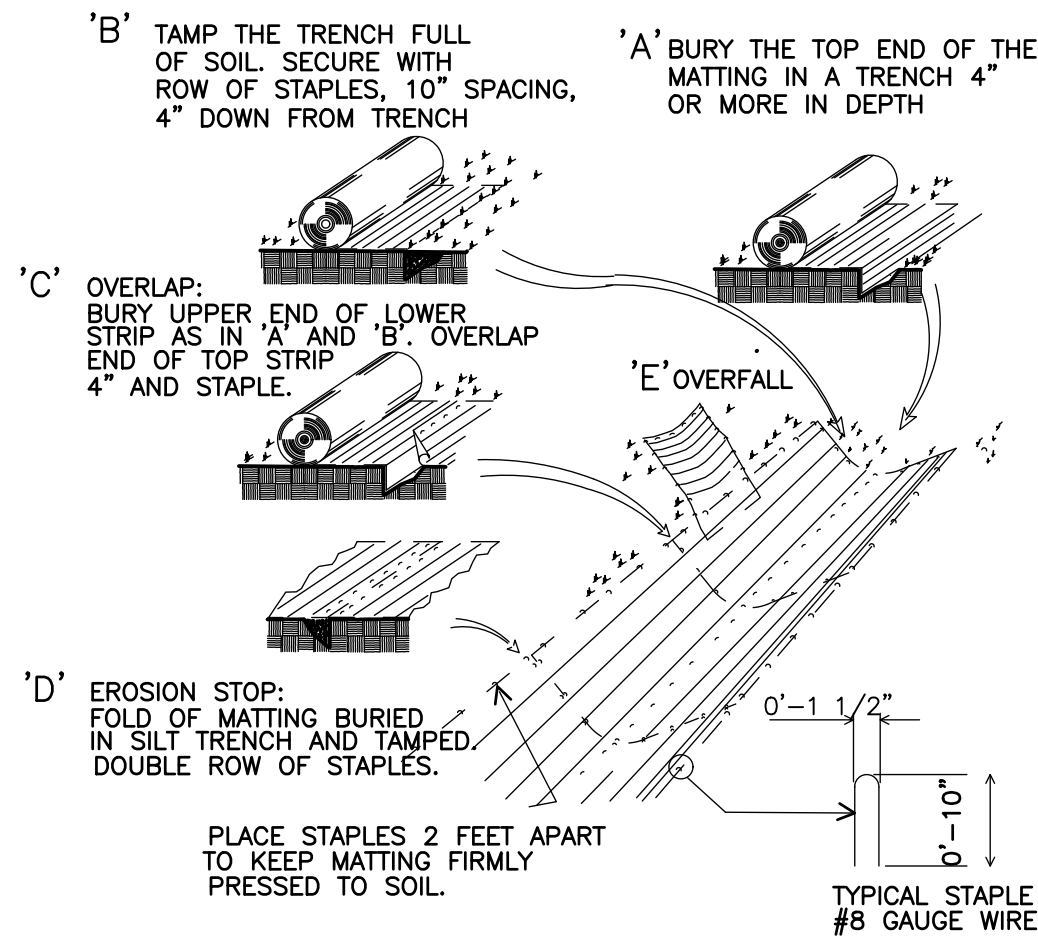
NOTES:

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.

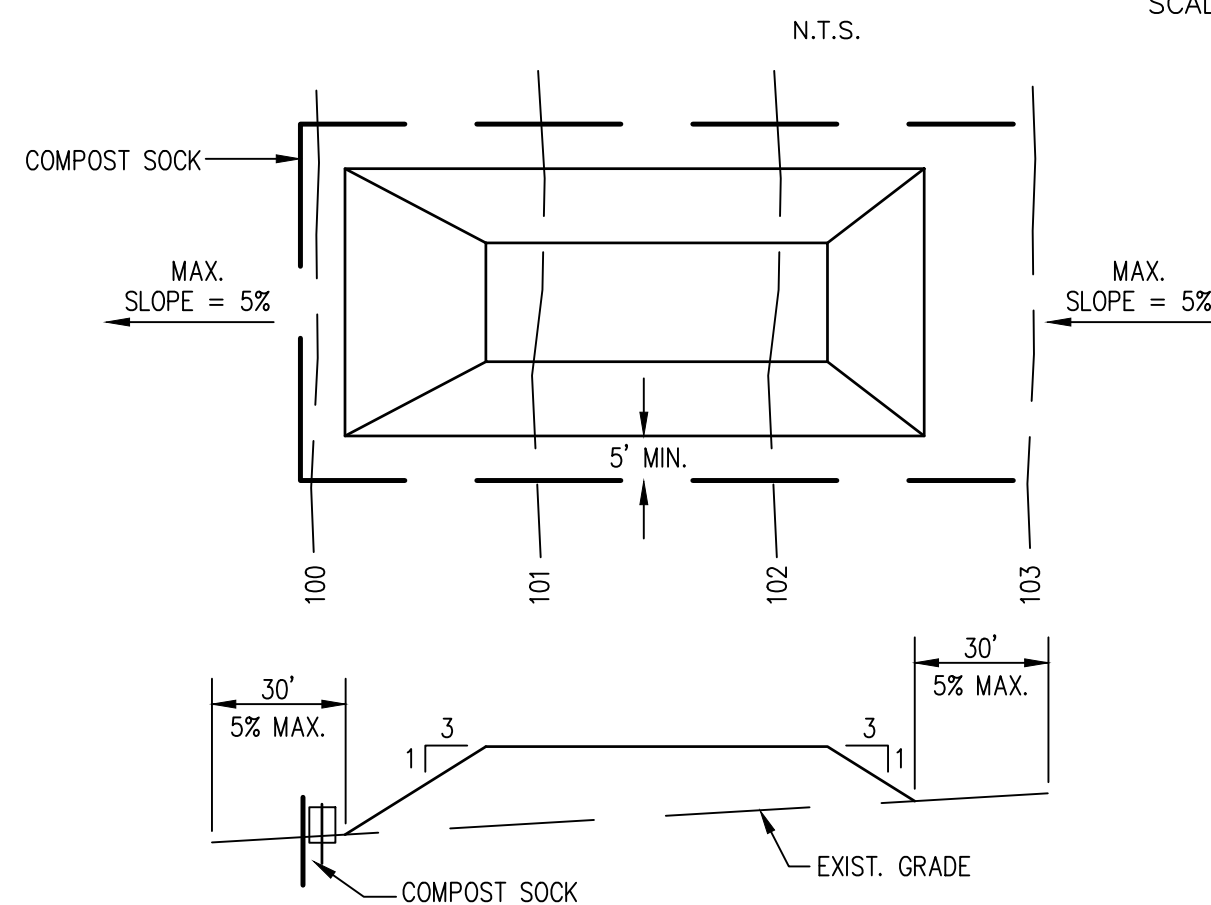
TREE PROTECTION
DETAIL C
NOT TO SCALE



TURBIDITY CURTAIN
DETAIL D
NOT TO SCALE



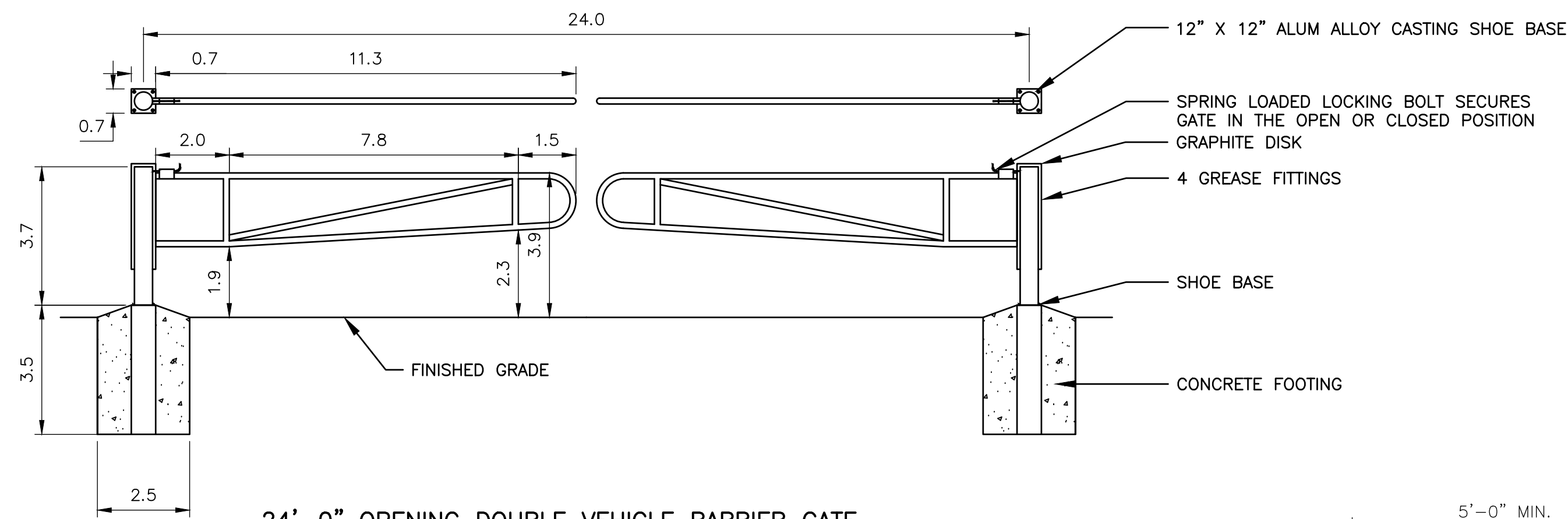
EROSION CONTROL BLANKET
DETAIL E
NOT TO SCALE



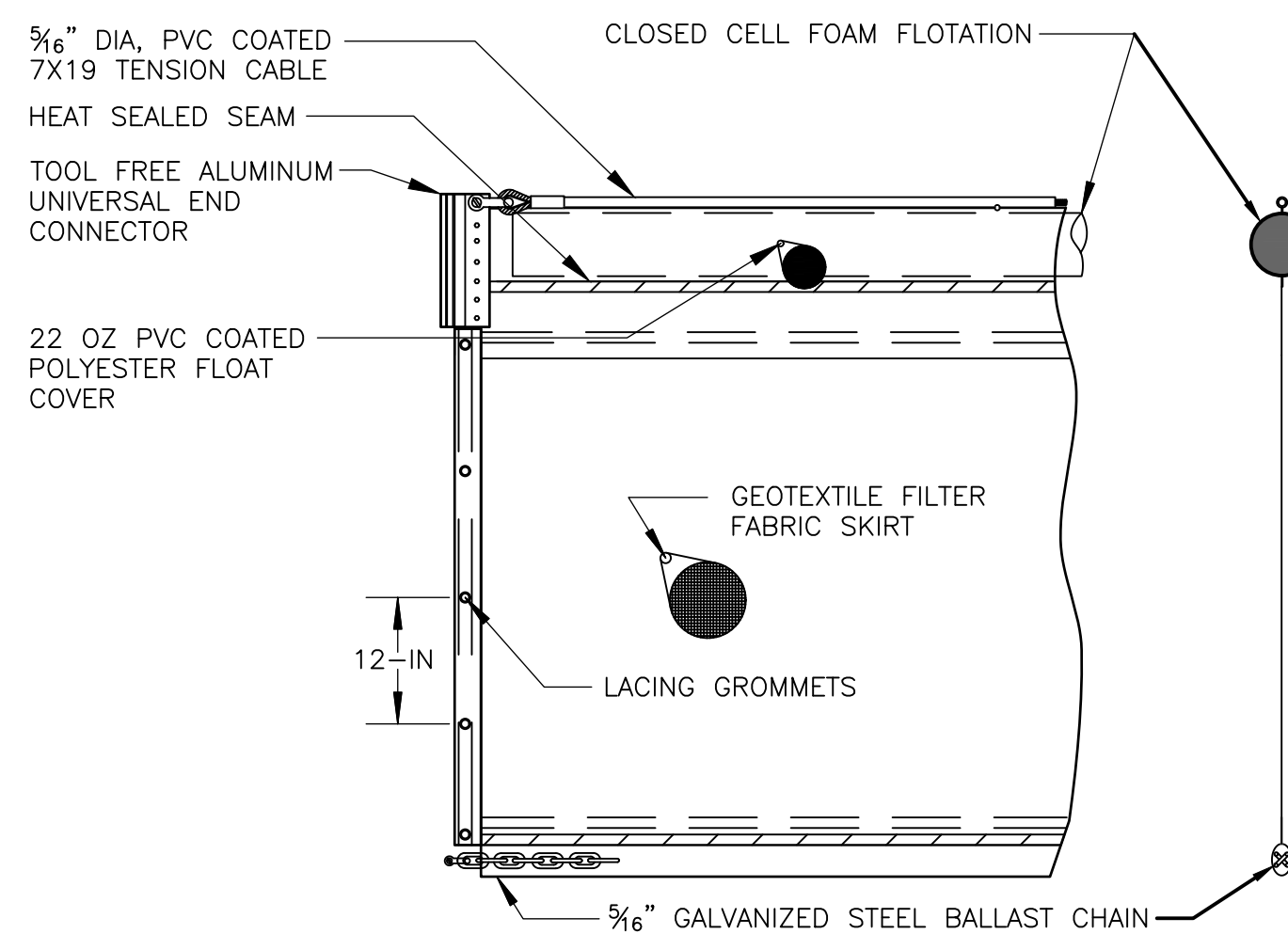
NOTES:

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.

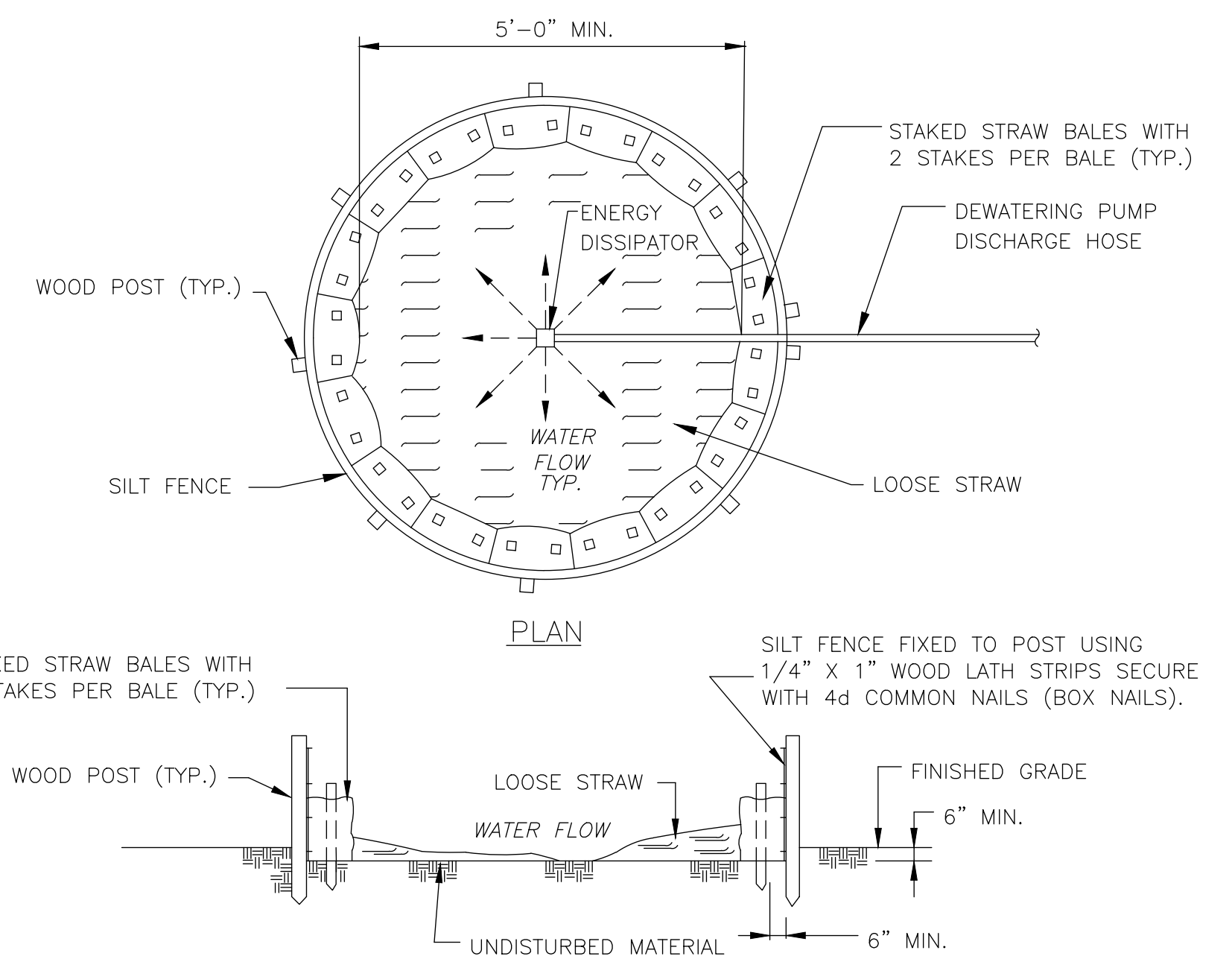
SOIL STOCKPILE
DETAIL F
NOT TO SCALE



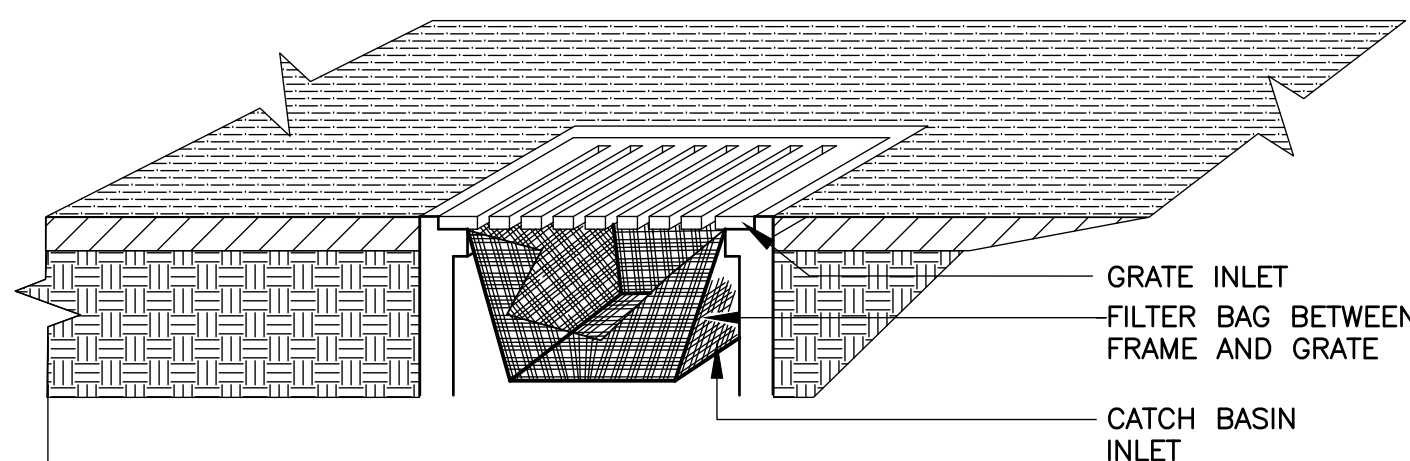
24'-0" OPENING DOUBLE VEHICLE BARRIER GATE
DETAIL G
NOT TO SCALE



FLOATING TURBIDITY BARRIER
DETAIL I
NOT TO SCALE



DEWATERING SEDIMENTATION BASIN
DETAIL J
NOT TO SCALE



CATCH BASIN FILTER
DETAIL H
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

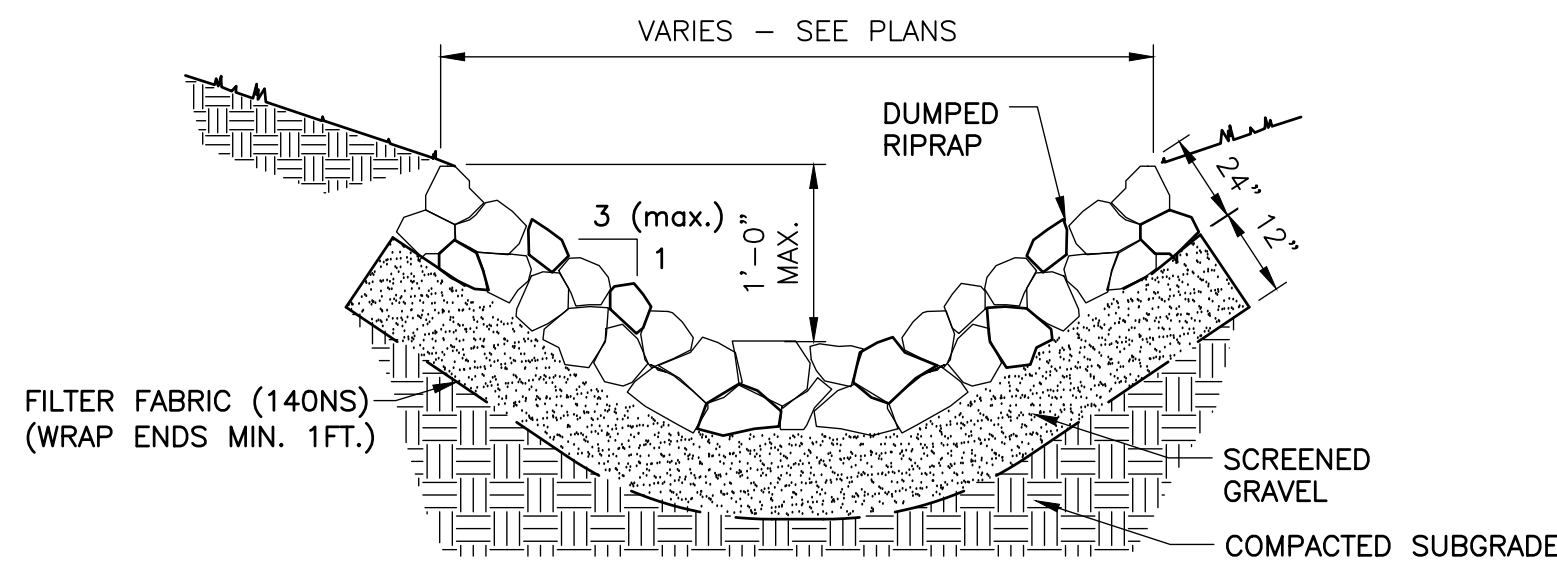


CITY OF NEW BRITAIN, CONNECTICUT
WHITE BRIDGE WATERWORKS FACILITIES
UPPER AND LOWER WELLFIELDS
AND POND PUMPING STATION

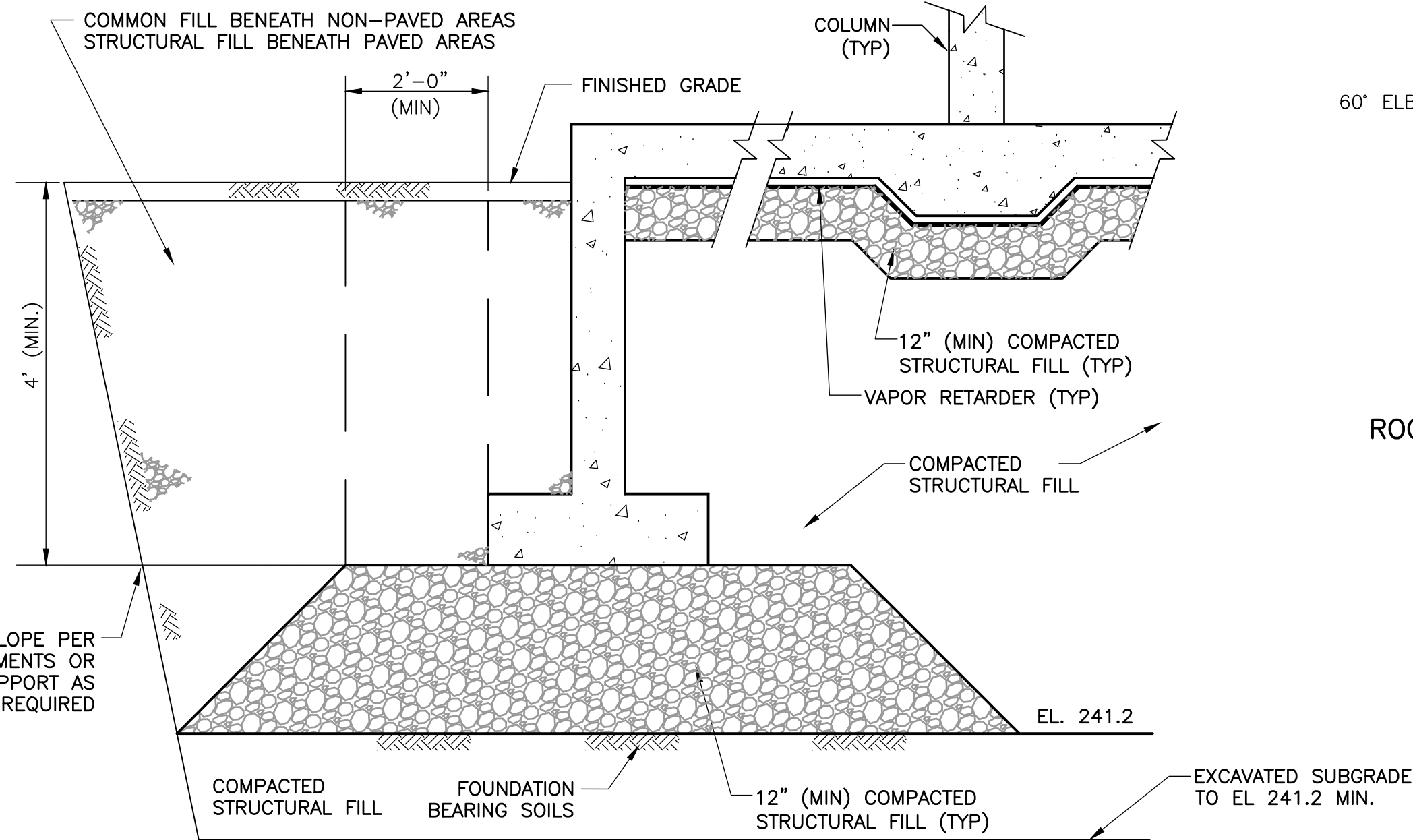
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PROJECT NO. 10739-264571
FILE NAME: CD001CSDT.DWG
SHEET NO.
C-24

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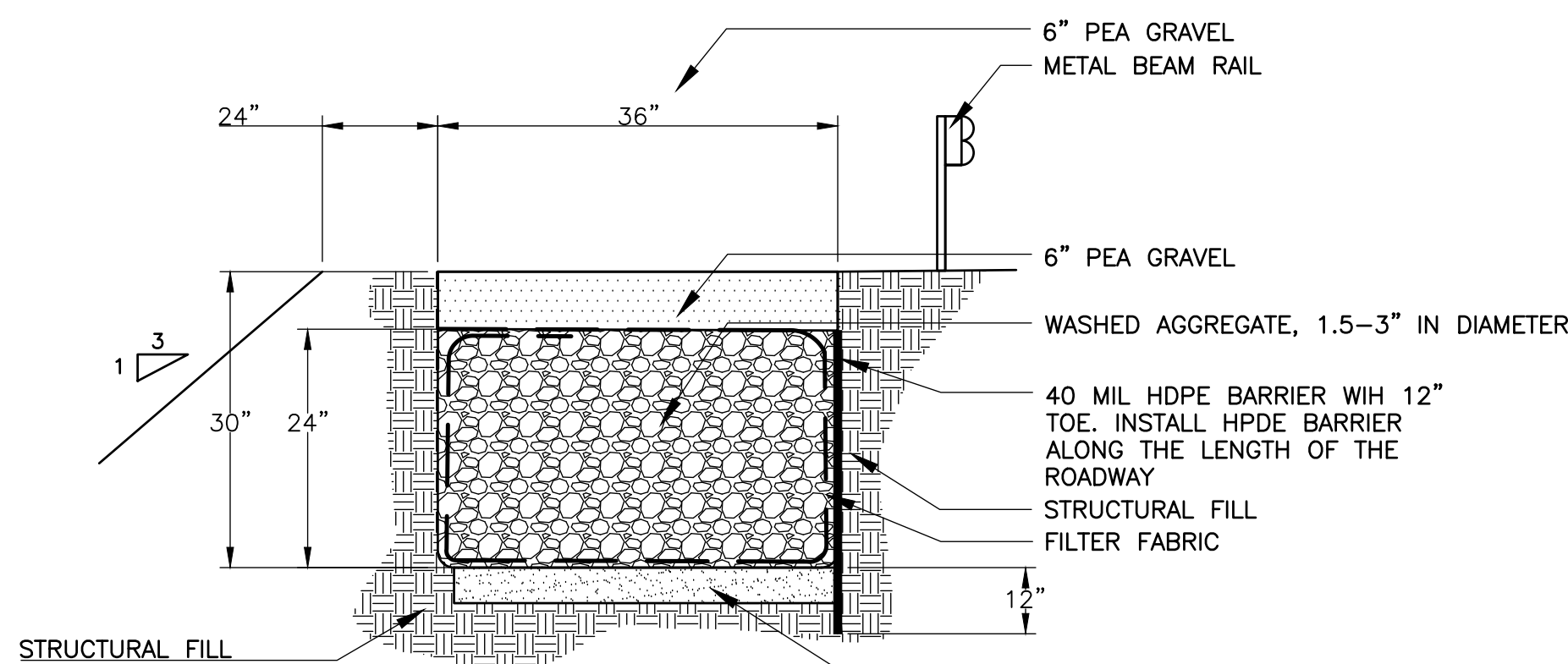


SECTION
RIPRAP SWALE
DETAIL A
SCALE: NTS

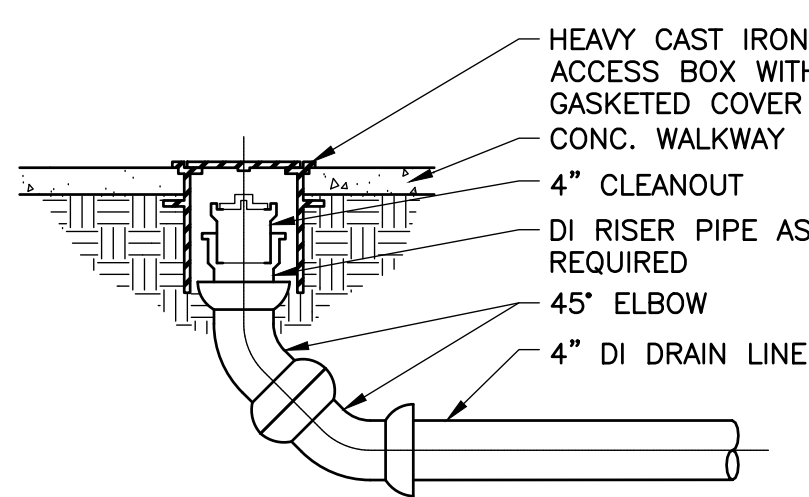


- NOTES:
1. THE SUITABILITY OF THE FOUNDATION SUB-GRADE TO BE VERIFIED BY CONTRACTOR'S GEOTECHNICAL ENGINEER PRIOR TO THE PLACEMENT OF CONCRETE.
 2. SEE SPECIFICATION SECTION 312000 FOR SUBGRADE PREPARATION REQUIREMENTS AND COMPACTION REQUIREMENTS.
 3. STRUCTURES INCLUDE TANK, BUILDING, OR SHALLOW FOOTINGS. SEE SITE PLANS.

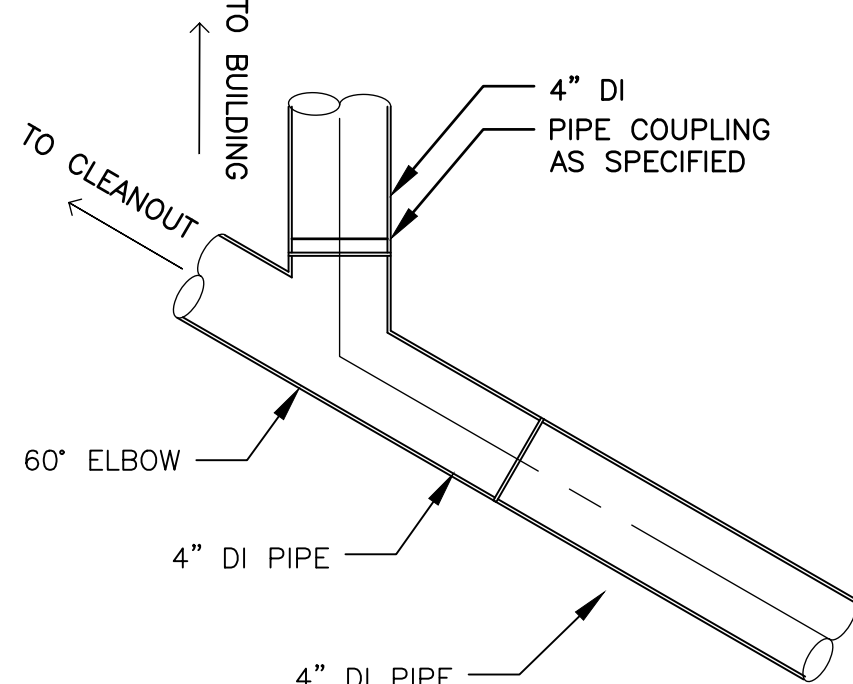
BACKFILL
DETAIL B
NTS



GRAVEL INFILTRATION TRENCH
DETAIL C
NOT TO SCALE

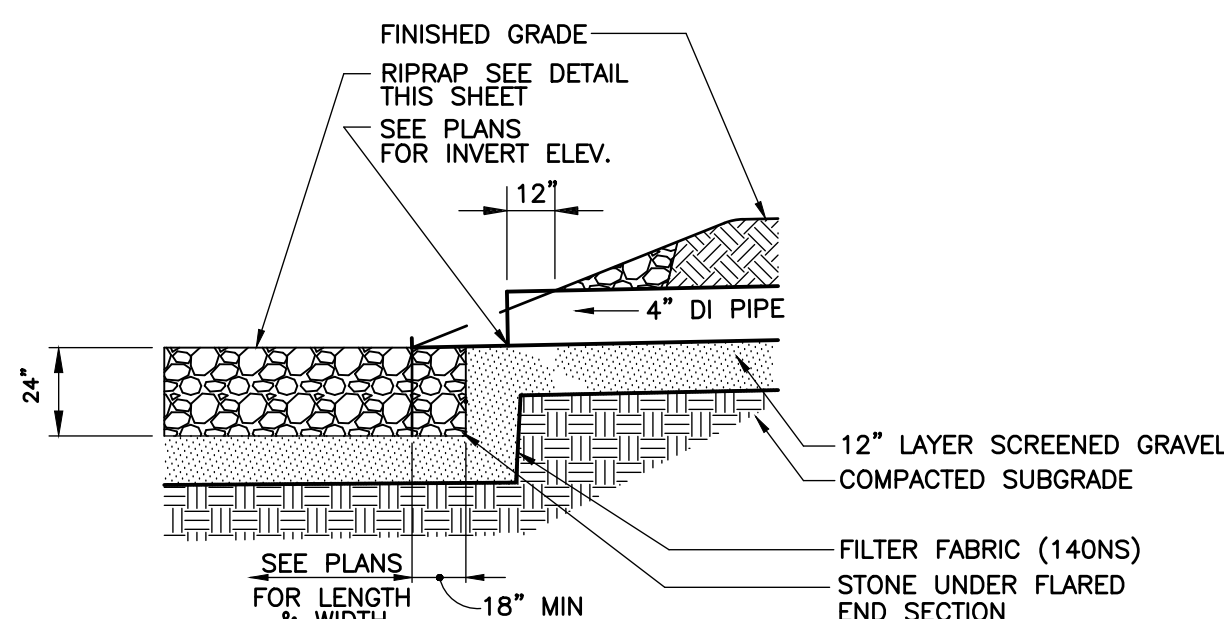


SECTION VIEW

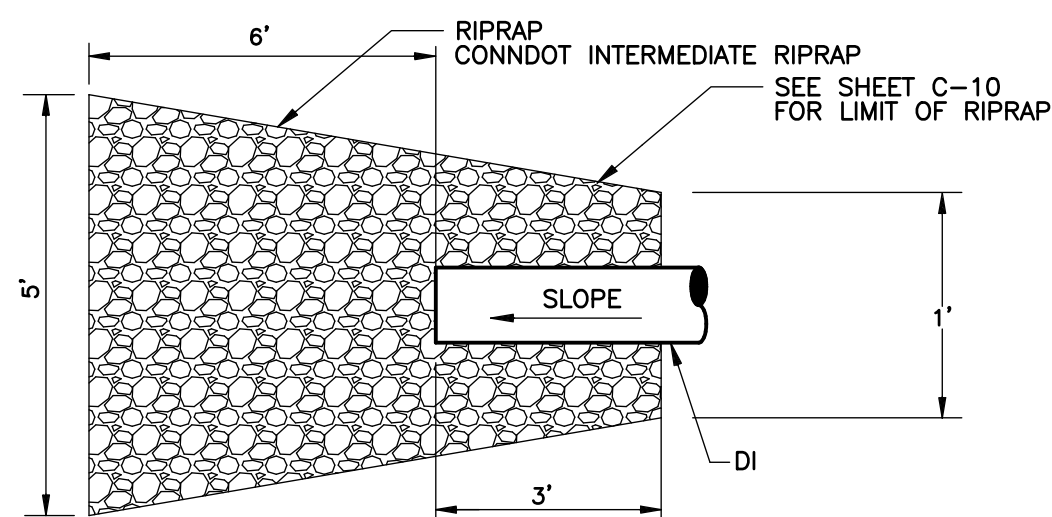


PLAN VIEW

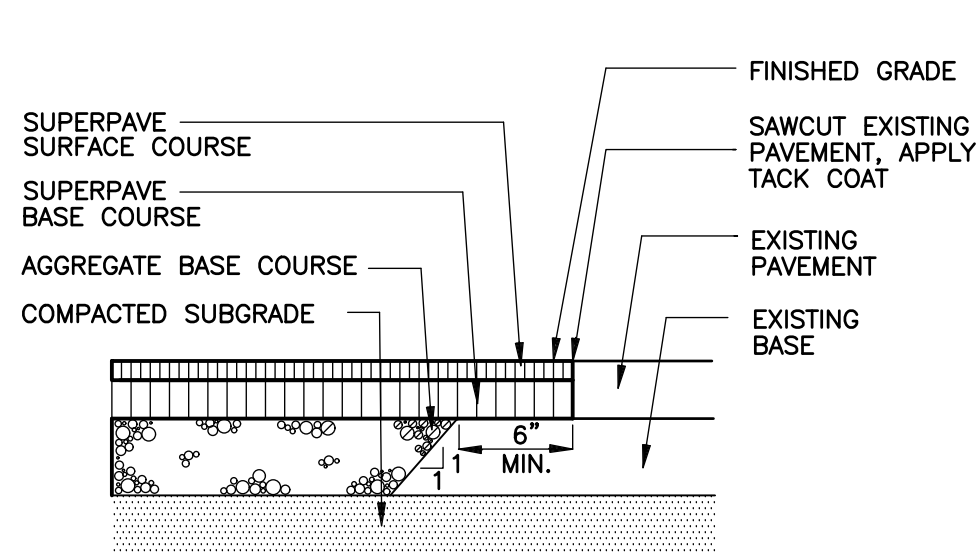
ROOF DRAIN CONNECTION WITH CLEANOUT
DETAIL D
NTS



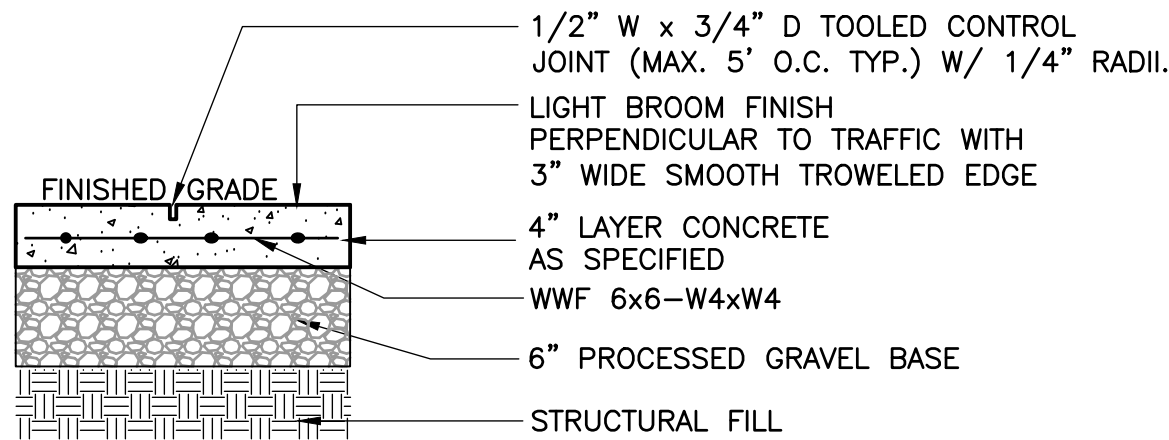
SECTION



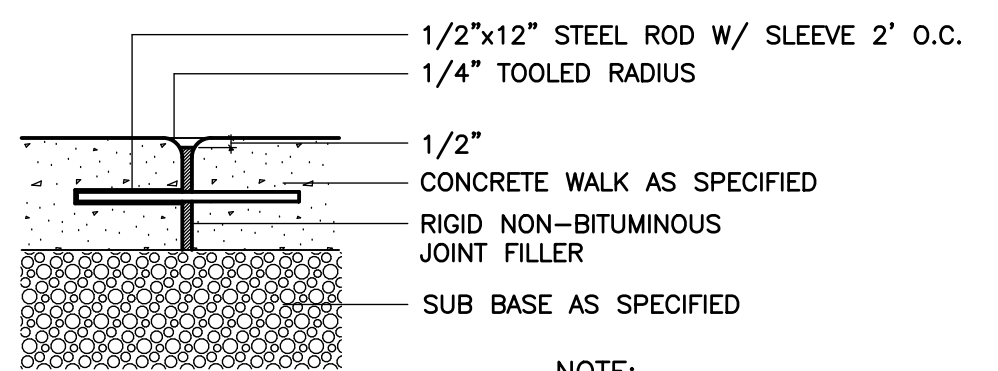
PIPE END SECTION & RIPRAP APRON
DETAIL E
NOT TO SCALE



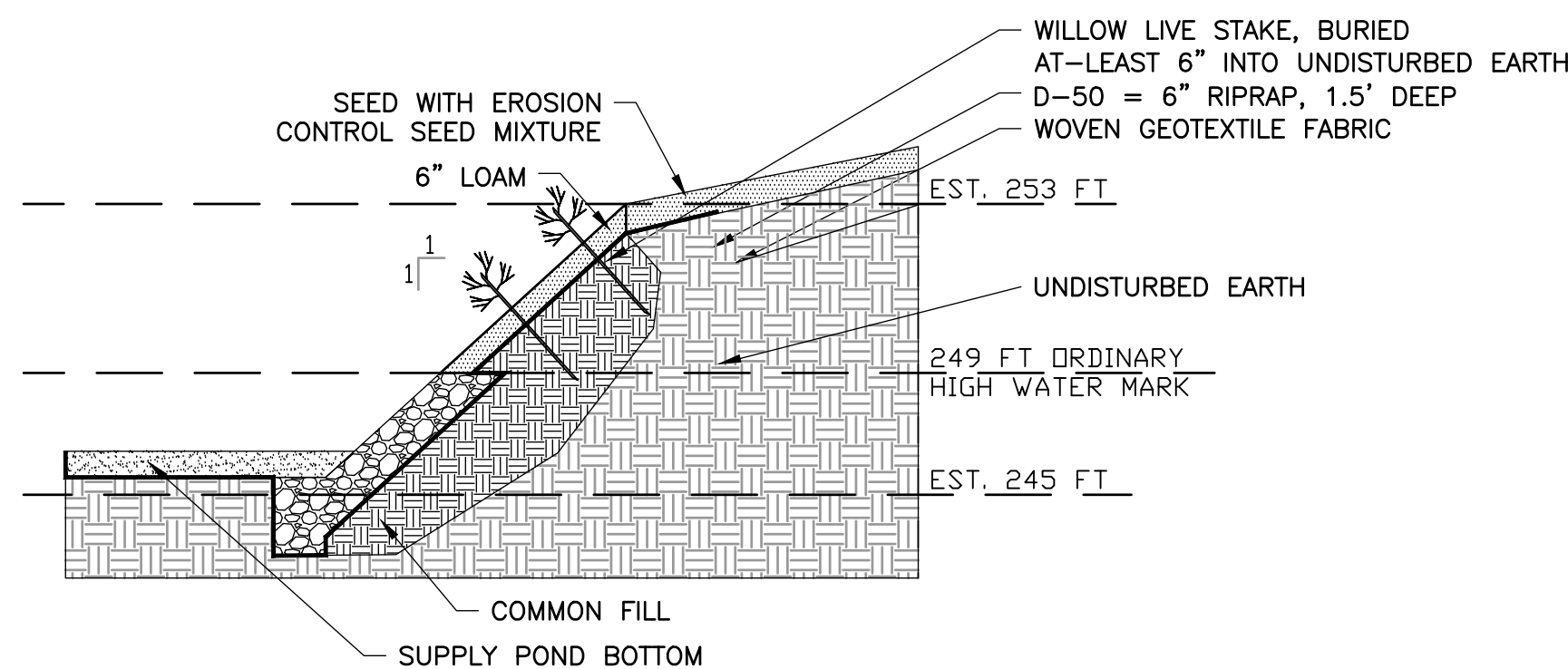
PAVEMENT MATCH
DETAIL F
NOT TO SCALE



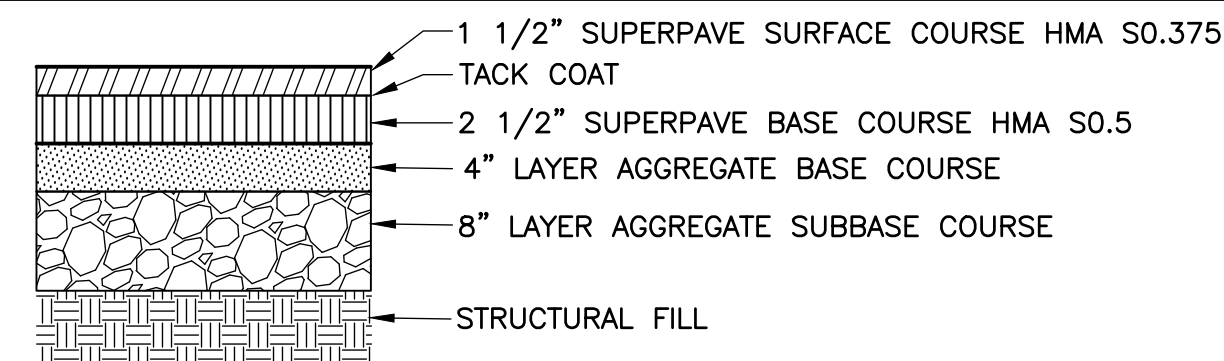
CONCRETE WALKWAY
DETAIL G
NOT TO SCALE



EXPANSION JOINT
DETAIL H
NOT TO SCALE

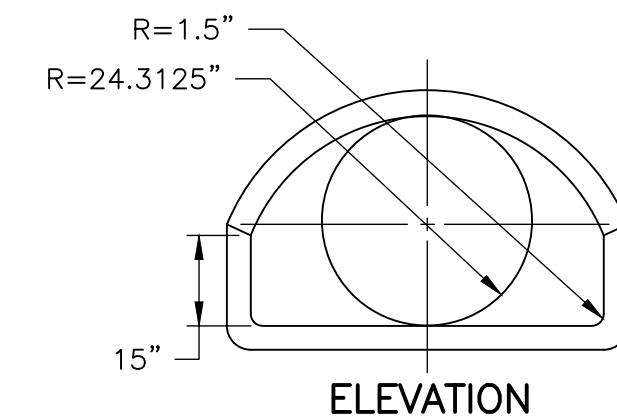


BANK RESTORATION
DETAIL I
NOT TO SCALE

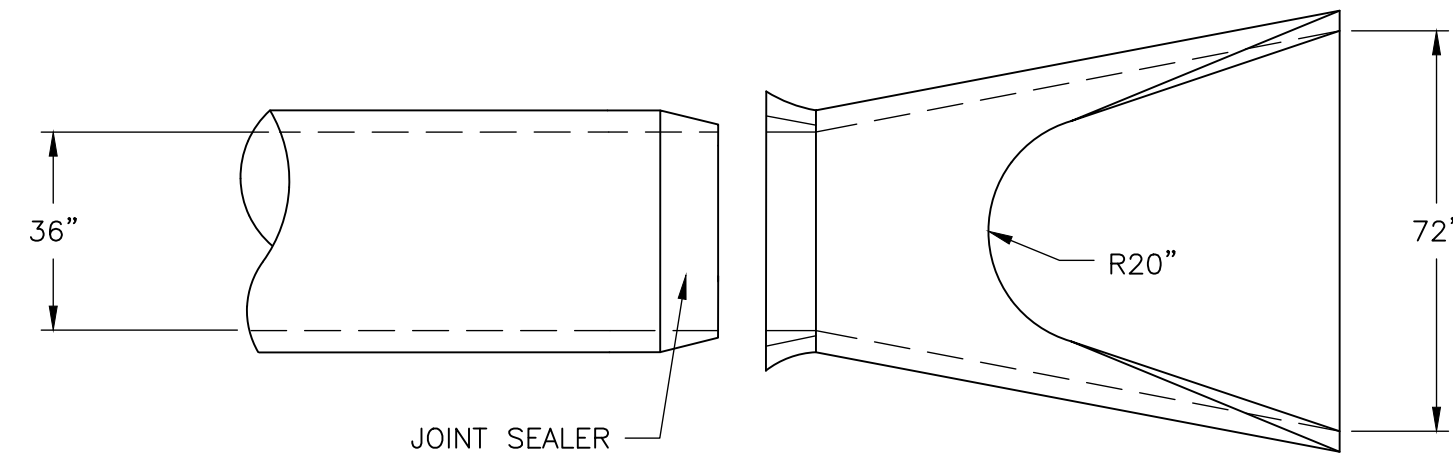


- NOTES:
1. BASE COURSE SHALL EXTEND 3" MIN. BEYOND EDGE OF PAVEMENT. DEPTH VARIES SEE GRADING AND DRAINAGE PLAN

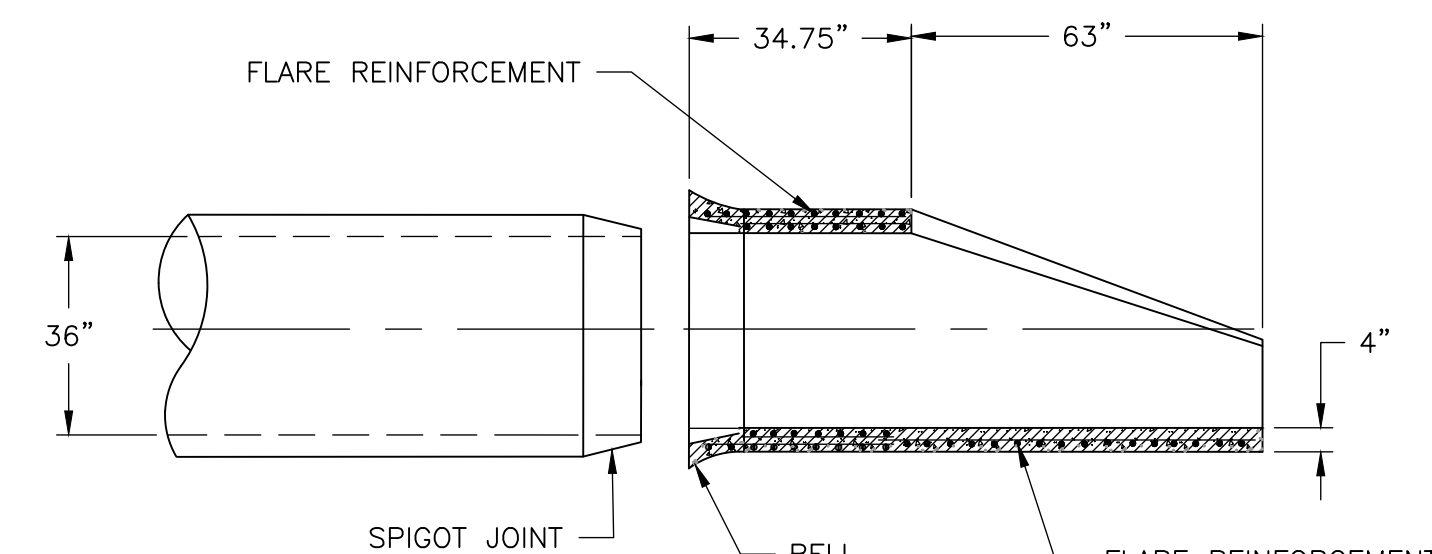
BITUMINOUS CONCRETE PAVEMENT
DETAIL J
NOT TO SCALE



ELEVATION

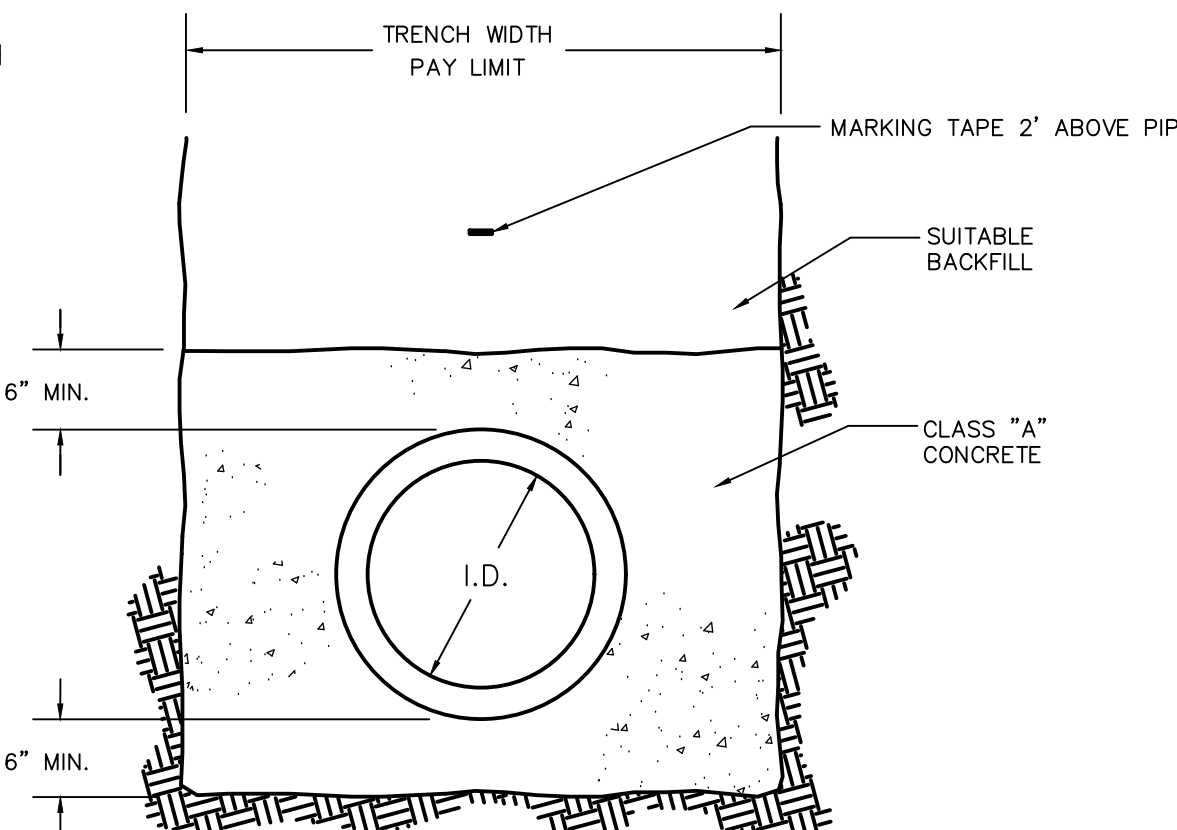


PLAN VIEW



SECTION VIEW

RCP CULVERT PIPE END
DETAIL K
NOT TO SCALE



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

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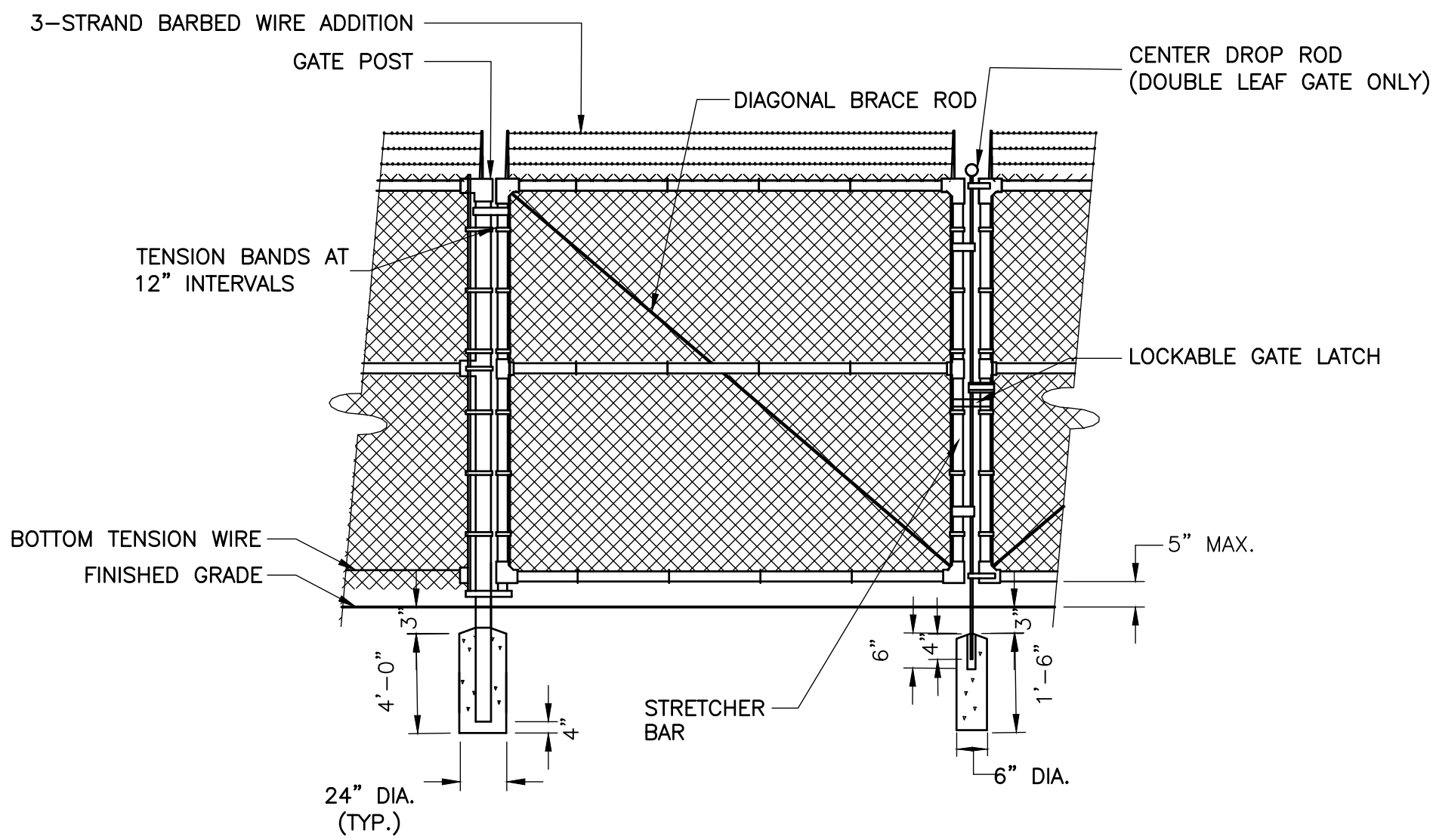


CITY OF NEW BRITAIN, CONNECTICUT
WHITE BRIDGE WATERWORKS FACILITIES
UPPER AND LOWER WELLFIELDS
AND POND PUMPING STATION

CIVIL DETAILS III

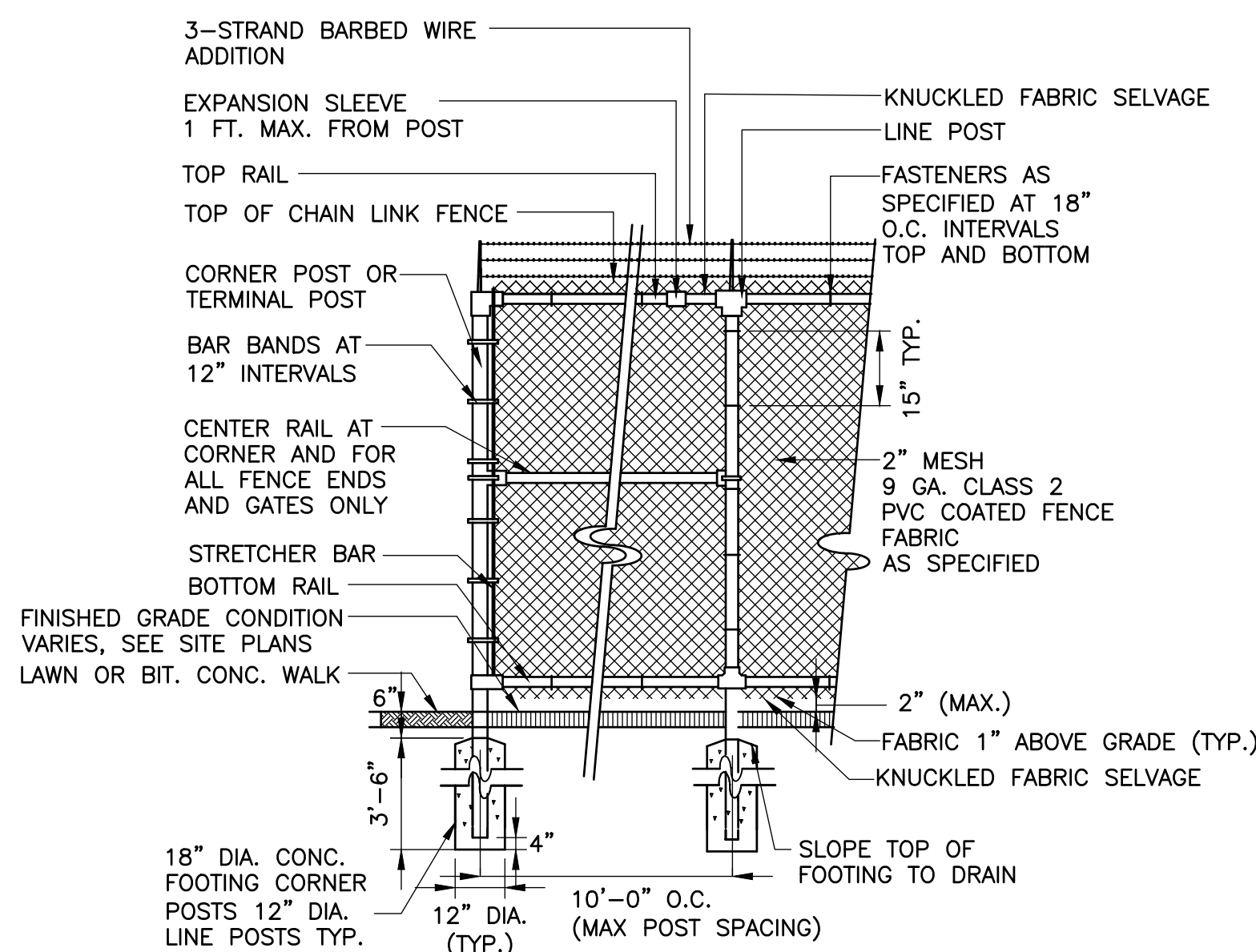
PROJECT NO.	10739-264571
FILE NAME:	CD003CSDT.DWG
SHEET NO.	C-26

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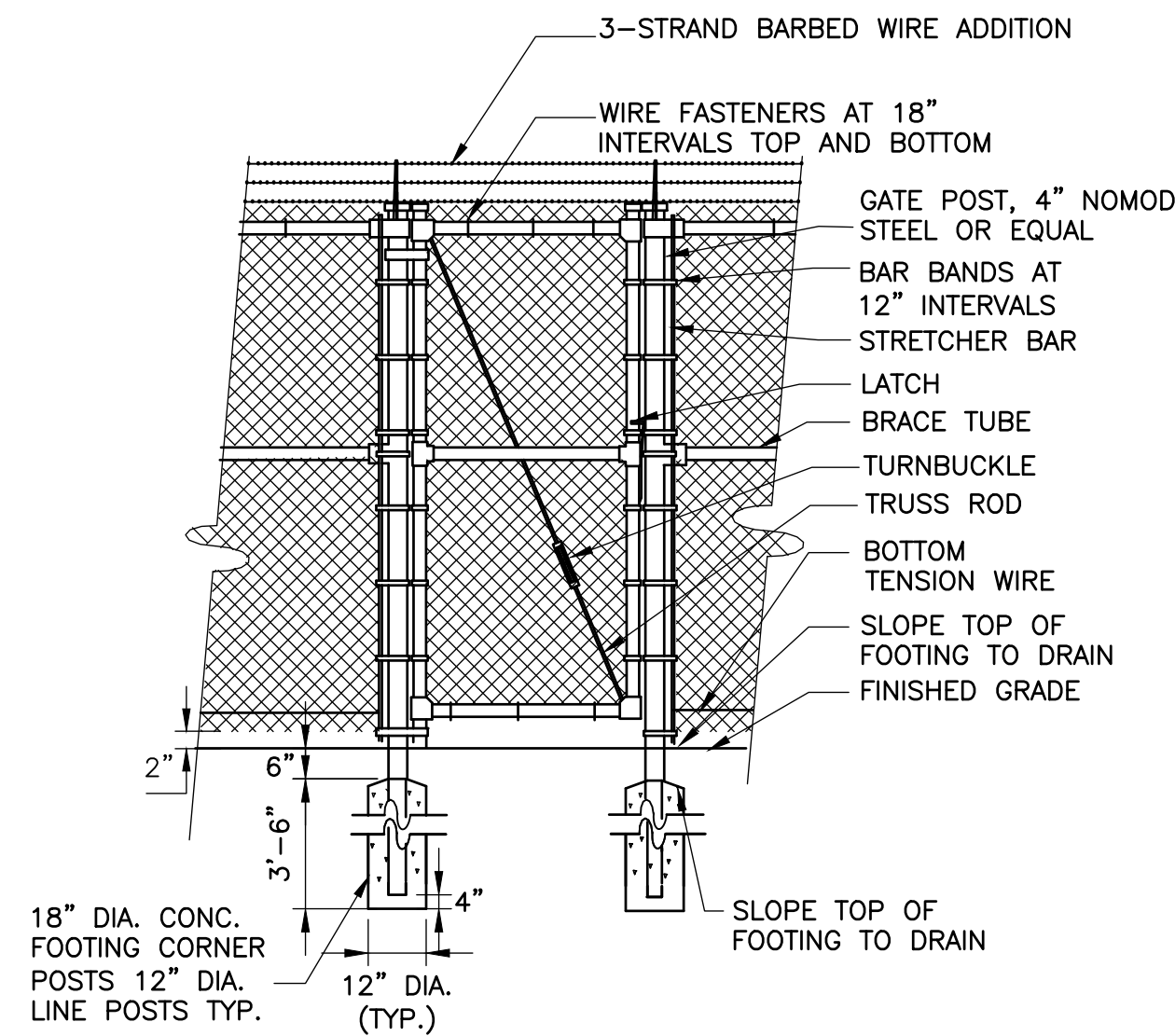
CHAIN LINK DOUBLE LEAF SWING GATE

DETAIL A
NOT TO SCALE



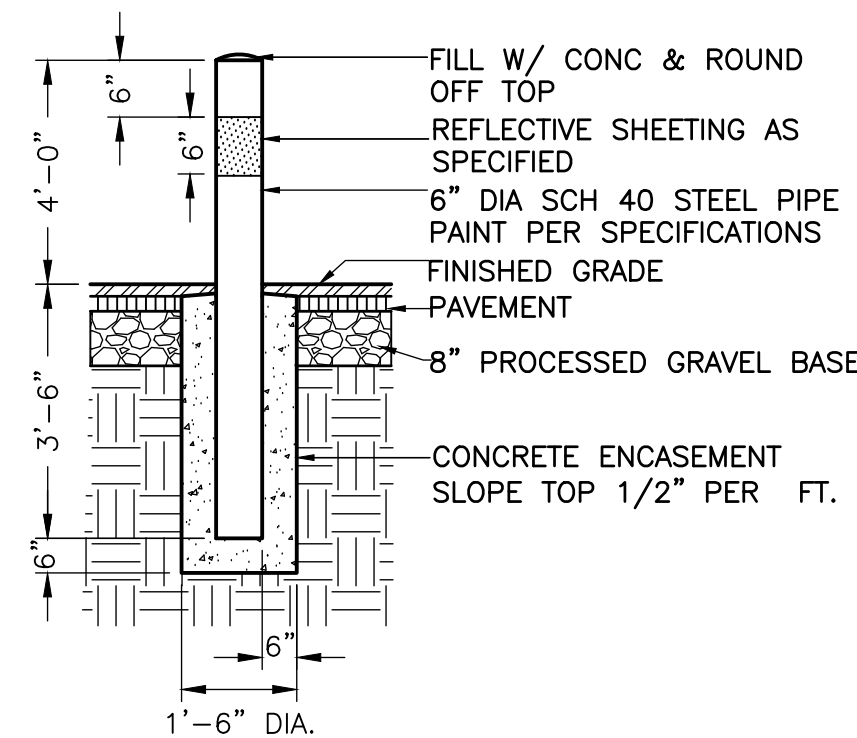
6-FT HIGH CHAIN LINK FENCE

DETAIL B
NOT TO SCALE

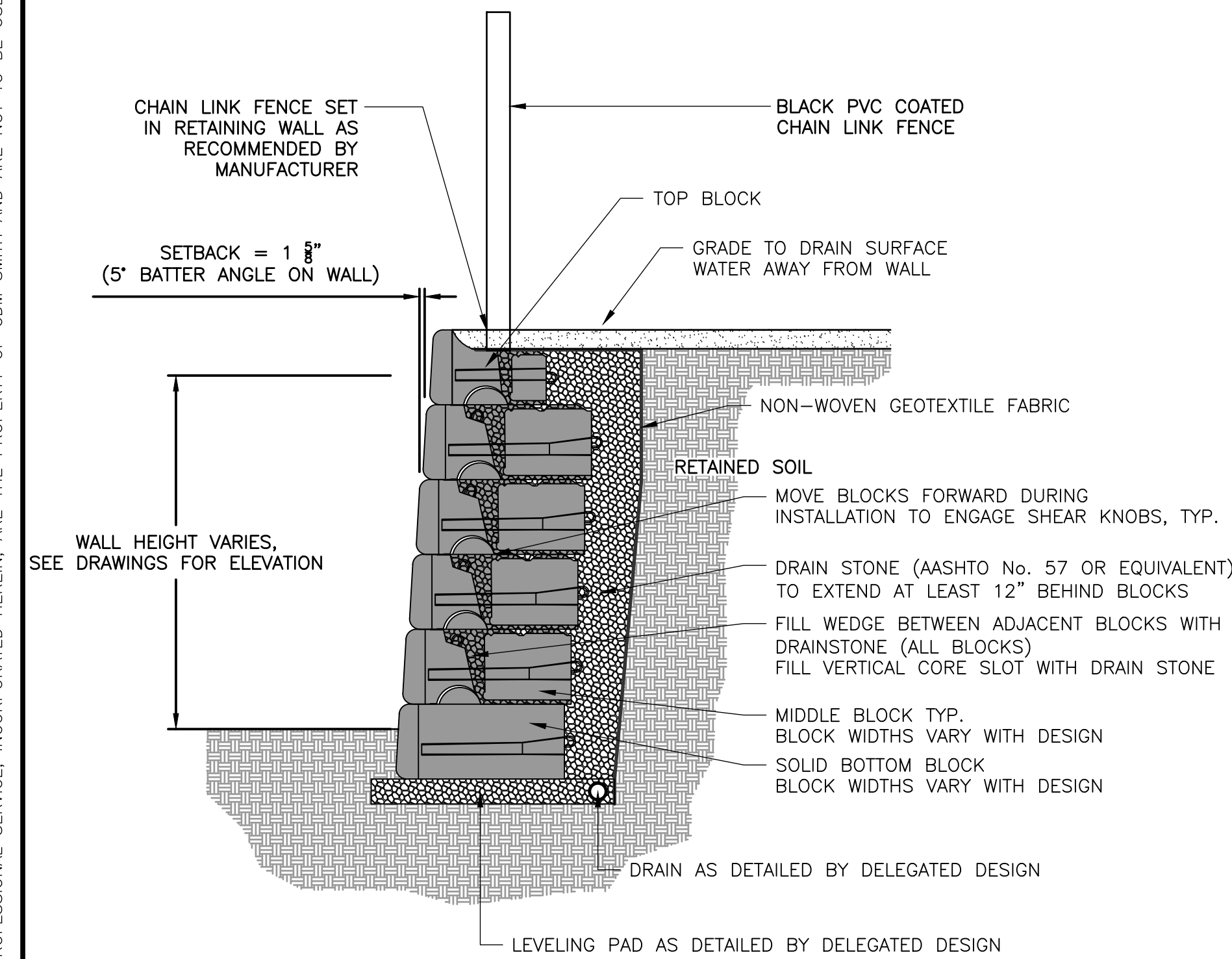


PEDESTRIAN CHAIN LINK FENCE GATE

DETAIL C
NOT TO SCALE

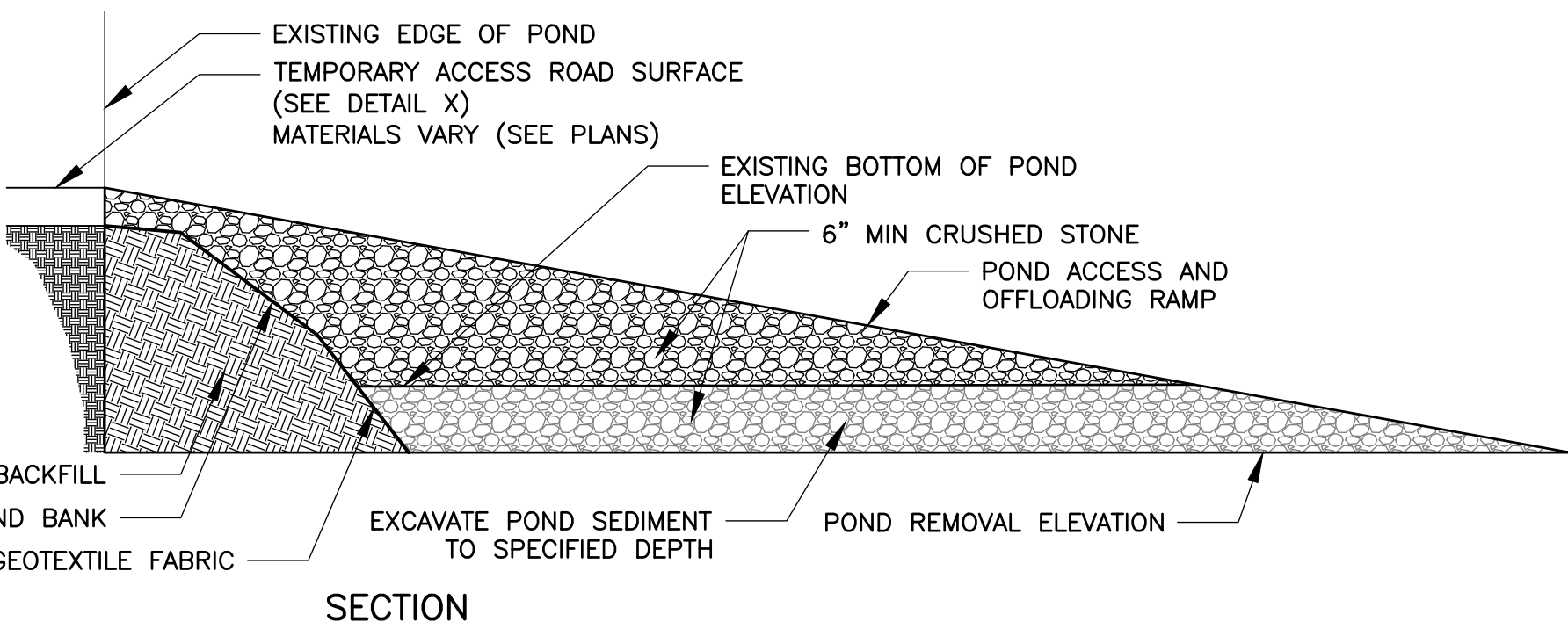
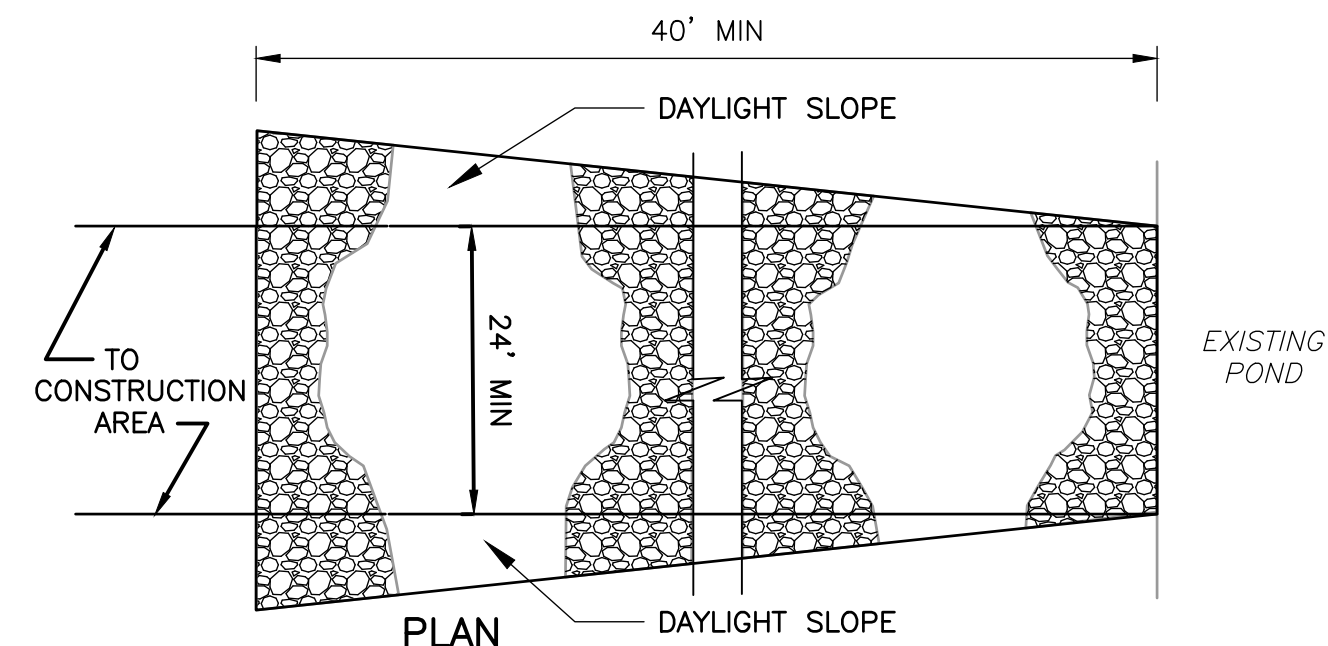


STEEL BOLLARD
DETAIL D
NOT TO SCALE



SEGMENTAL UNIT RETAINING WALL

DETAIL E
SCALE: NTS

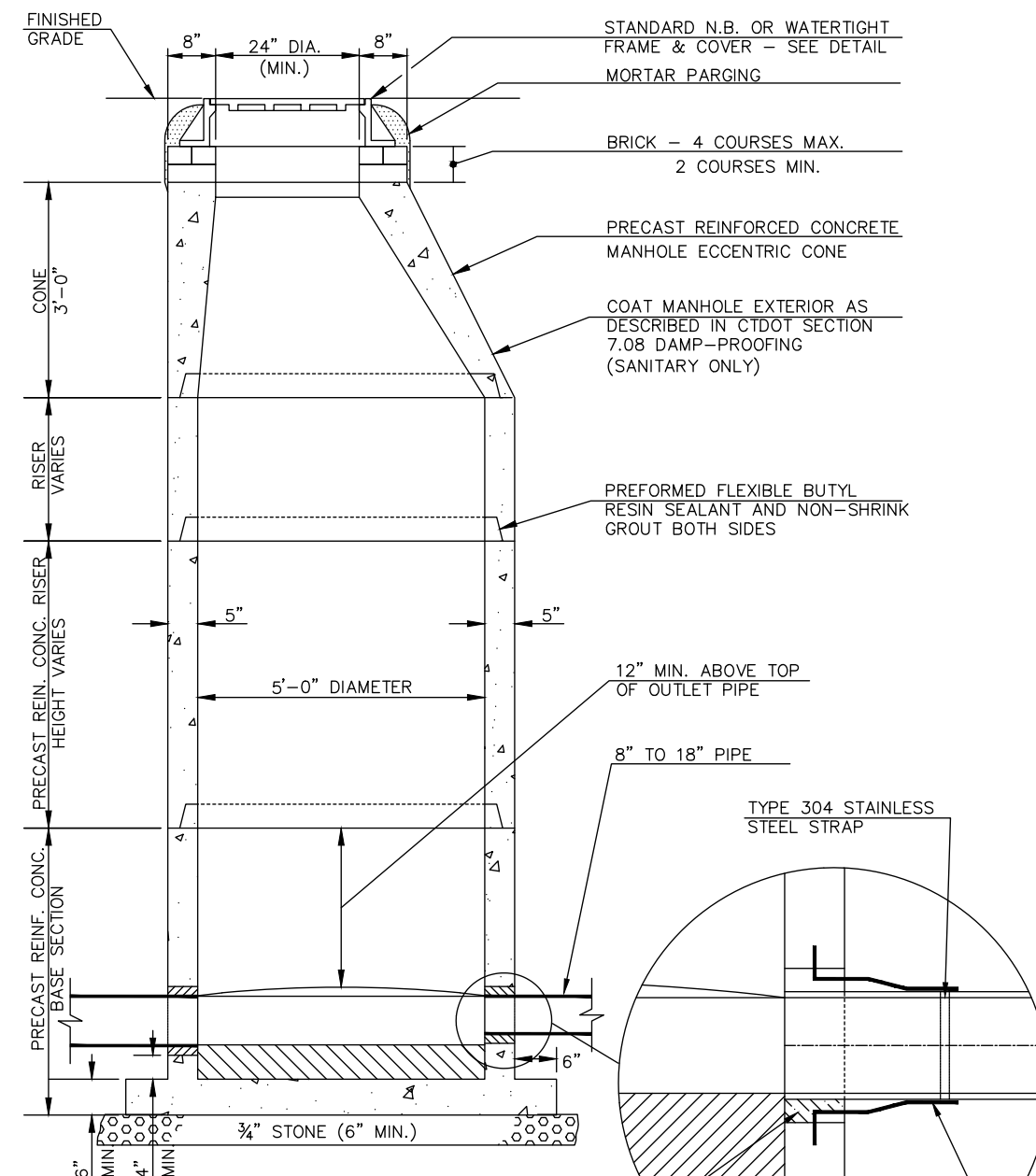


NOTES:

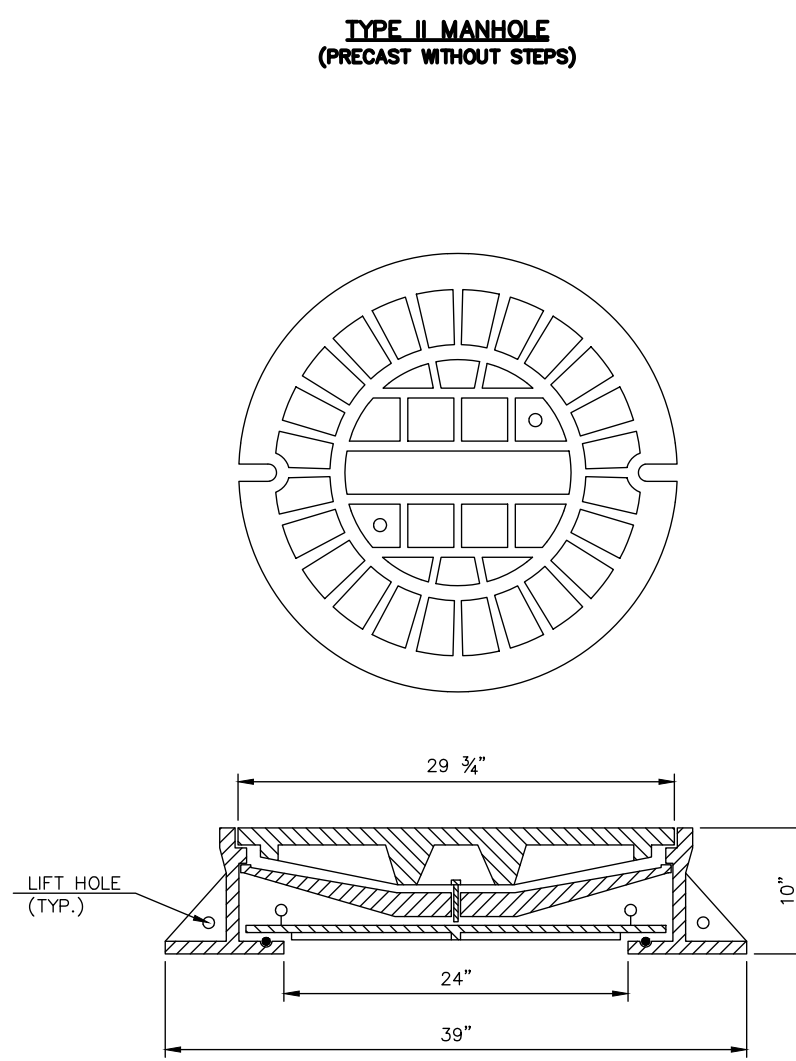
1. PROVIDE APPROPRIATE TRANSITION BETWEEN STABILIZED POND ACCESS/TRUCK OFFLOADING RAMP AND EXISTING GROUND SURFACE
2. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO GROUND SURFACE.
3. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE 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



TYPE I MANHOLE
(PRECAST WITHOUT STEPS)



NEW BRITAIN STANDARD
WATERTIGHT MANHOLE CASTING

MANHOLE

DETAIL G
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

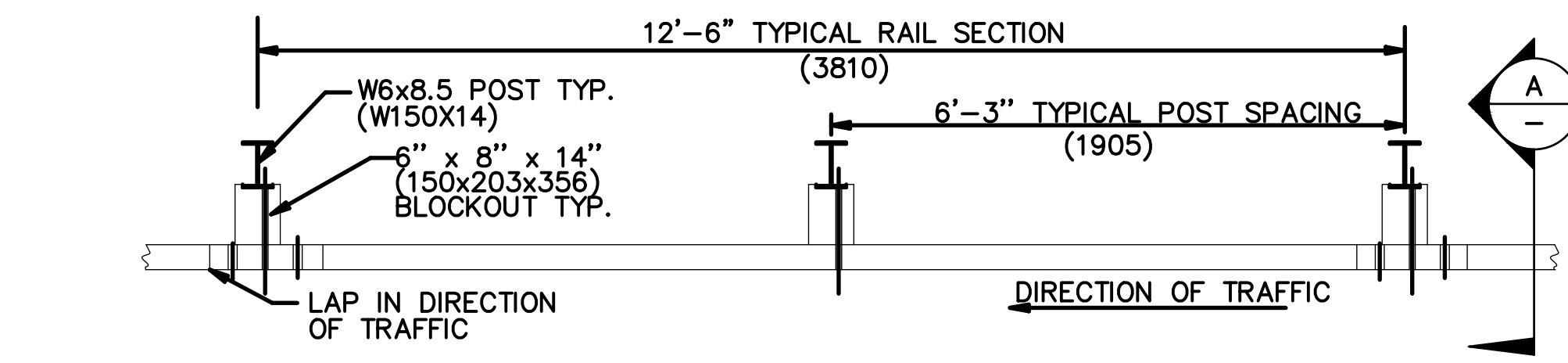


CITY OF NEW BRITAIN, CONNECTICUT
WHITE BRIDGE WATERWORKS FACILITIES
UPPER AND LOWER WELLFIELDS
AND POND PUMPING STATION

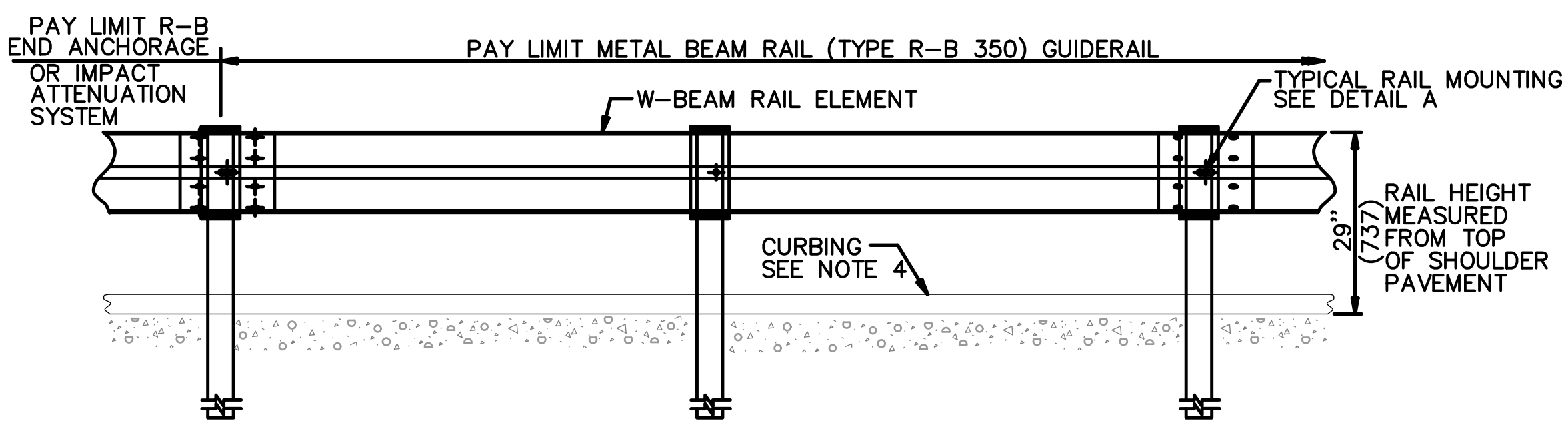
CIVIL DETAILS IV

PROJECT NO. 10739-264571 FILE NAME: CD004CSDT.DWG
SHEET NO. C-27

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PLAN



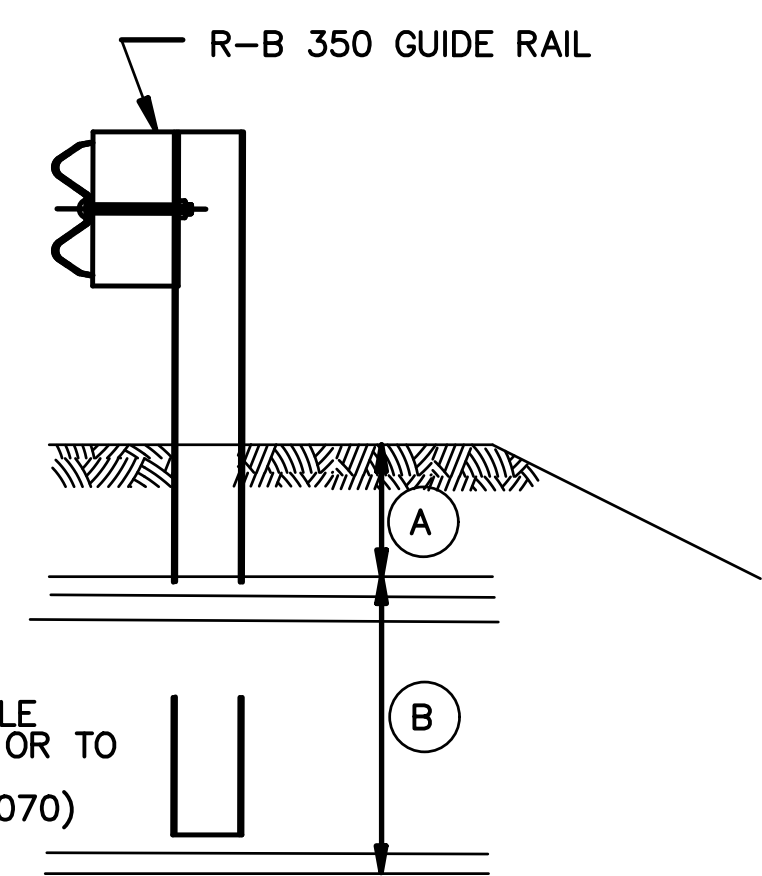
ELEVATION

CONDITION 1 :

IF SOIL DEPTH IS < 18" (457) DEEP
DRILL 20" (507) DIA. HOLE 24" (610) INTO LEDGE. (B)

CONDITION 2 :

IF SOIL DEPTH IS > 18" (457) DEEP
DRILL 8" (203) DIA. HOLE 1' (305) INTO LEDGE (B) OR TO THE DEPTH OF FULL EMBEDMENT OF 42" (1070) WHICHEVER IS LESS.

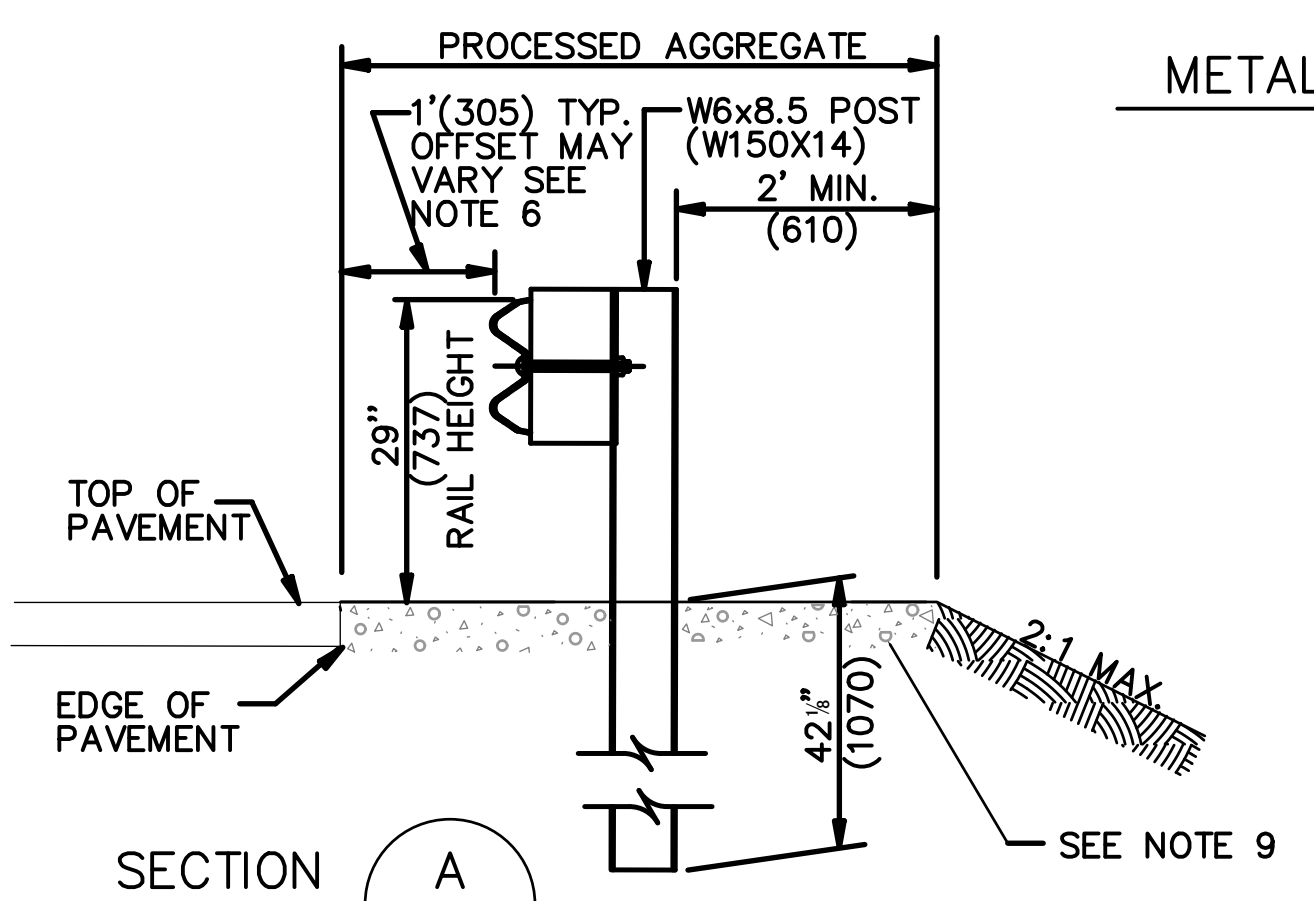


ELEVATION

GENERAL NOTES:

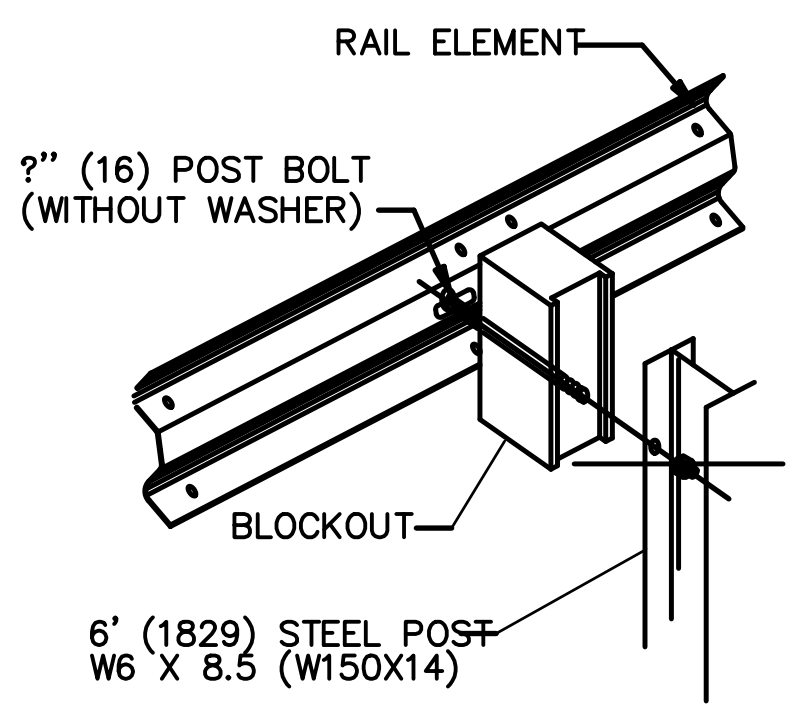
- SEE CTDOT STANDARDS FOR HARDWARE AND DELINEATOR DETAILS.
- MAXIMUM DESIGN DEFLECTION FOR R-B 350 GUIDERAIL AT THE STANDARD POST SPACING OF 6'-3" IS 4'-3". DEFLECTION REQUIREMENT IS MEASURED FROM THE BACK OF POST TO THE FACE OF OBJECT.
- FOR CURVES WITH RADII OF 150'(45.7m) OR LESS, ALL RAIL ELEMENTS 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.
- 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.
- 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.
- 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.
- ALL R-B 350 GUIDERAIL TYPES INSTALLED ON EXPRESSWAYS AND RAMPS SHALL USE CLASS B, TYPE-II (10 GAUGE) W-BEAM RAIL ELEMENTS.
- 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.
- 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.
- MINIMUM RAIL HEIGHT FOR NEW CONSTRUCTION SHALL BE 29" + 1".

METAL BEAM RAIL (TYPE R-B 350)



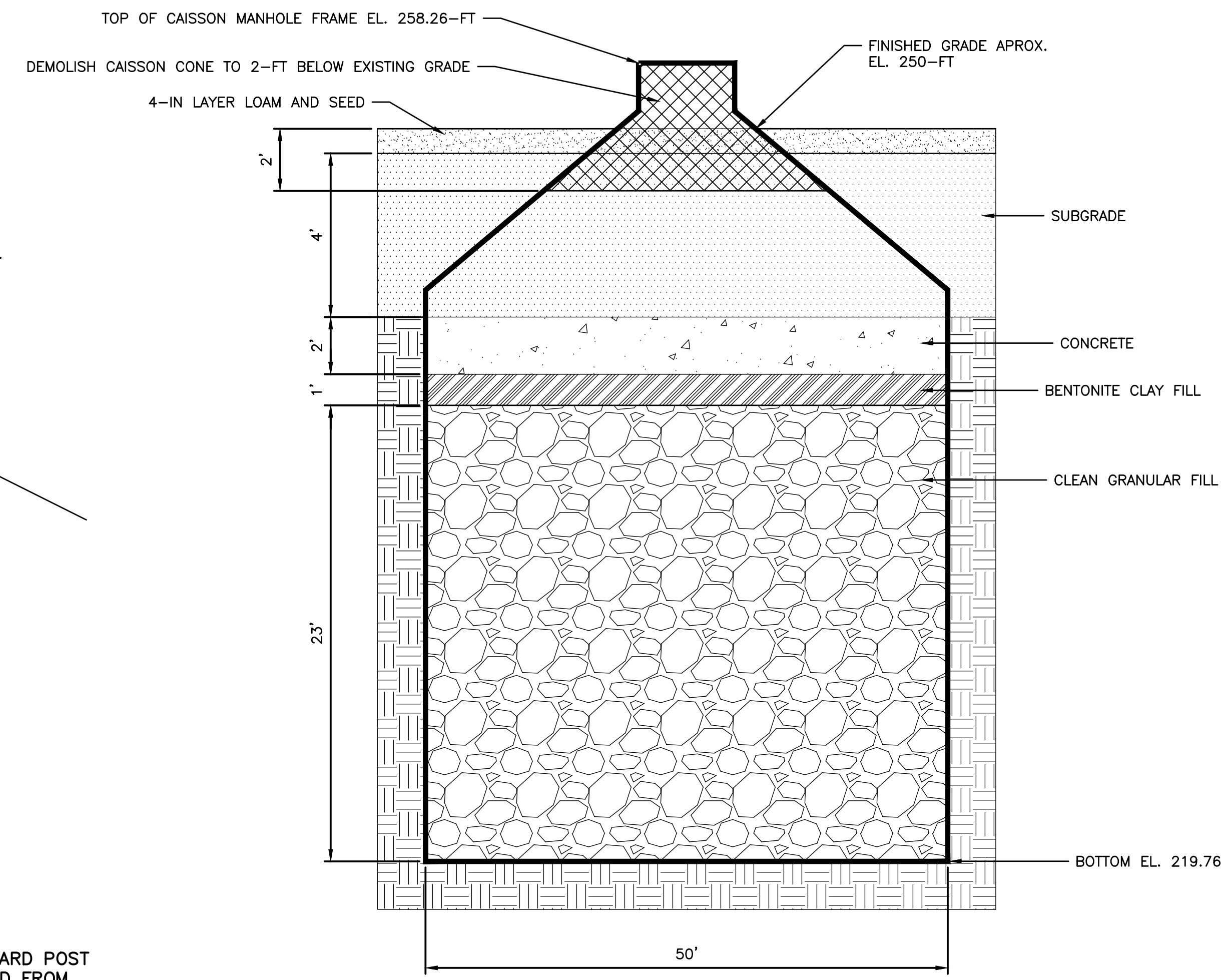
SECTION A

NO CURB APPLICATION



DETAIL A
RAIL MOUNTING

METAL BEAM RAIL
DETAIL A
NOT TO SCALE



- NOTES:
- EXISTING CAISSON WELL TO BE DECOMMISSIONED AND ABANDONED AS REQUIRED IN SECTION 019416, APPENDED TO THE SPECIFICATIONS.
 - CAISSON TOP CONE TO BE DEMOLISHED TO AT LEAST 2 FEET BELOW FINISH GRADE.

CAISSON DECOMMISSIONING AND ABANDONMENT

DETAIL B
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

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77 Hartland Street, Suite 200
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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)

ENGLISH	METRIC	ENGLISH	METRIC	ENGLISH	METRIC
12"	300mm	42"	1050mm	72"	1800mm
18"	450mm	48"	1200mm	78"	1950mm
24"	600mm	54"	1350mm	84"	2100mm
30"	750mm	60"	1500mm	90"	2250mm
36"	900mm	66"	1650mm	96"	2400mm



SCALE: NONE

[illegible]

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

Diagram illustrating a two-lane road with a 12-foot shoulder, showing various work zones and traffic flow. The diagram is divided into sections labeled with circled letters: AA, A, D, N, A, AA.

SHOULDER

ADVANCE WARNING AREA

ACTIVITY AREA

TERMINATION AREA

WORK AREA

80' BUFFER AREA

TRANSITION AREA

ROAD WORK AHEAD

ROAD WORK AHEAD FINES DOUBLED

ACTIVITY AREA SPEED CONVERSION LIMIT SPACING

SPEED	CONVERSION	LIMIT	SPACING
<40 mph	80'	40'	80'
≥40 mph	80'	40'	80'

INSTALL 5 CONES/DRUMS SPEED TAPER CONE/DRUM LIMIT SPACING

SPEED	TAPER	CONE/DRUM	LIMIT	SPACING
<40 mph	100'	20'	40'	
≥40 mph	200'	40'		



SCALE: NONE

The diagram illustrates the required safety zones and signage for a two-lane road construction zone. It shows two directions of travel, each with a shoulder and a work area. The zones are defined by specific distances and signs.

Direction 1 (Top):

- Advance Warning Area:** 200' (Sign: 80-9612)
- Transition Area:** 500' (Sign: 80-9612)
- Buffer Area:** 120' (Sign: 80-9612)
- Work Area:** 120' (Sign: 80-9612)
- Termination Area:** 100' (Sign: 80-9612)

Direction 2 (Bottom):

- Advance Warning Area:** 200' (Sign: 80-9612)
- Transition Area:** 500' (Sign: 80-9612)
- Buffer Area:** 120' (Sign: 80-9612)
- Work Area:** 120' (Sign: 80-9612)
- Termination Area:** 100' (Sign: 80-9612)

Signage:

- 80-9612:** END ROAD WORK (Rectangular sign)
- 80-9603:** ROAD WORK AHEAD (Diamond sign)
- 31-1906:** ROAD WORK AHEAD FINES DOUBLED (Rectangular sign)

Work Area Details:

- INSTALL 8 CONES/DRUMS**
- SPEED TAPER CONE/DRUM**
- LIMIT LENGTH SPACING**
- <40 mph:** 160' 20' 40'
- 40-60 mph:** 320' 20' 40'
- >60 mph:** 320' 20' 40'

Activity Area:

- SPEED CONE/DRUM**
- LIMIT LENGTH SPACING**
- <40 mph:** 40' 80'
- 40-60 mph:** 80' 80'
- >60 mph:** 80' 80'

Other Details:

- SHOULDER:** 11' MIN
- WORK AREA:** 11' MIN
- Sign 80-9612:** 4' wide, 2' high
- Sign 80-9603:** 3' wide, 3' high
- Sign 31-1906:** 4' wide, 3.5' high



SCALE: NONE

The diagram illustrates the layout of a two-lane road construction zone, showing the sequence of areas and their dimensions for two different scenarios: Lane Closure and Lane Shift.

Scenario 1: Lane Closure (Left Side)

- Advance Warning Area:** 500' (with 200' sub-section).
- Transition Area:** 120'.
- Buffer Area:** 120'.
- Work Area:** 11' MIN.
- Activity Area:** 11' MIN.
- Termination Area:** 120'.

Scenario 2: Lane Shift (Right Side)

- Advance Warning Area:** 500' (with 200' sub-section).
- Transition Area:** 120'.
- Buffer Area:** 120'.
- Work Area:** 11' MIN.
- Activity Area:** 11' MIN.
- Termination Area:** 120'.

Key Symbols and Dimensions:

- AA:** Advance Warning Area.
- A:** Transition Area.
- D:** Lane Closure.
- H:** Lane Shift.
- SHOULDER:** Indicated on both sides of the road.
- CONES/DRUMS:** Used for lane closure and lane shift.
- TABLES:**
 - INSTALL 8 CONES/DRUMS:**

SPEED LIMIT	TAPER LENGTH	CONES/DRUMS SPACING
<40 mph	160'	20'
40-60 mph	320'	40'
 - ACTIVITY AREA:**

SPEED LIMIT	CONES/DRUMS SPACING
<40 mph	40'
40-60 mph	80'
- Signs:**
 - END ROAD WORK:** 4' wide, 2' high.
 - ROAD WORK AHEAD:** 3' wide, 3' high diamond.
 - ROAD WORK AHEAD FINES DOUBLED:** 3.5' high, 4' wide.

SCALE: NONE

Diagram illustrating a four-way intersection with traffic flow, lane markings, and various traffic signs and markers.

Intersection Details:

- Top Approach:** Lane width 200' (marked AA), 500' (marked A), 11' MIN (marked D). Lane markings include a dashed center line and solid edge lines.
- Bottom Approach:** Lane width 200' (marked AA), 500' (marked A), 11' MIN (marked D). Lane markings include a dashed center line and solid edge lines.
- Left Approach:** Lane width 200' (marked AA), 500' (marked A), 11' MIN (marked D). Lane markings include a dashed center line and solid edge lines.
- Right Approach:** Lane width 200' (marked AA), 500' (marked A), 11' MIN (marked D). Lane markings include a dashed center line and solid edge lines.

Central Work Area:

- WORK AREA:** A rectangular area in the center of the intersection.
- TYP. TAPER:** A table showing typical taper dimensions for different traffic control methods.

SPEED	TAPER	CONES/DRUM
400 mph	150'	20'
340 mph	320'	40'

Traffic Signs and Markers:

- 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).
- 31-1526:** Right turn arrow sign (Rectangular sign, 2' wide, 2.5' high).
- AA, A, D, H, I:** Various markers and signs indicating lane boundaries, work area, and traffic flow.

Dimensions and Markings:

- 200', 500', 11' MIN:** Lane width dimensions.
- 4', 2', 3', 3.5':** Sign and marker dimensions.
- 11' MIN:** Minimum clearance dimension for the work area.



SCALE: NONE

The diagram illustrates a road construction zone layout for a lane closure and shoulder work. Key components include:

- Advance Warning Area:** 200' (AA), 500' (A), 500' (U), 500' (Y), 500' (X), 20'.
- Activity Area:** 40' TYP.
- Termination Area:** 120'.
- Work Area:** 40' BUFFER AREA, 5 TRAFFIC CONES/DRUMS - 100' MAX, 40' BUFFER AREA.
- Transition Area:** 20'.
- Advance Warning Area:** 500' (X), 500' (Y), 500' (U), 200' (A), 200' (AA).
- Signs and Codes:**
 - END ROAD WORK (4' x 2')
 - STOP (31-0557)
 - ONE LANE ROAD AHEAD (80-9050)
 - ONE LANE ROAD AHEAD (80-9834)
 - ROAD WORK AHEAD (80-9603)
 - ROAD WORK AHEAD FINES DOUBLED (31-1906)



SCALE: NONE

REV. NO.	DATE	DRWN	CHKD	REMARKS	

DESIGNED BY: _____ K. GERLACH
DRAWN BY: _____ S. ENGEL
SHEET CHK'D BY: _____ K. WAGNER
CROSS CHK'D BY: _____ K. GERLACH
APPROVED BY: _____ K. WAGNER
DATE: _____ DECEMBER 2023



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

TRAFFIC CONTROL NOTES AND PLANS

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

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

For Office Use Only	
APPLICATION NO.	<u>2022</u>
DATE FILED:	<u>2-22-24</u>
DECISION DATE:	_____
DECISION:	_____

1. APPLICANT:

Name: City of Bristol - DPW
Address: 111 North Main Street City: Bristol State: CT Zip 06010
Telephone No.: (860) 584-6125 [] home [x] work E-Mail: williamstango@bristolct.gov
Signature: _____ Signature -- (Printed/Typed) Raymond Rogozinski
CHECK ONE: [] owner [x] other (specify): Director of Public Works

2. PROPERTY OWNER(S):

Name: Deslauriers Susan + Richard
Address: 120 Perkins Street City: Bristol State: CT Zip 06010
Telephone No.: (860) 395-6916 [x] home [] work E-Mail: desicorgi@gmail.com
Signature: _____ Signature -- (Printed/Typed) Richard Deslauriers

3. DESCRIBE THE SUBJECT PROPERTY:

Address or Location: 120 Perkins Street, Bristol Connecticut 06010
Assessor's Map No.: 60 Assessor's Lot No.(s): 14B
Description of wetlands (location, approximate area to be disturbed, vegetation, etc.): The regulated area includes an unnamed stream located along the north property line of 120 Perkins Street. The stream collects water from a 0.1 sq.mi drainage area. Based on the current GIS mapping, wetlands are not indicated to be located within the project limits .

4. DESCRIBE THE PROPOSED ACTIVITY AND ITS PURPOSE: This project involves piping the existing channel from the culvert at Perkins Street, 250 ft east to an unnamed collecting stream. The purpose of this project is to address the substantial erosion of the existing channel and to prevent any future erosion.

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

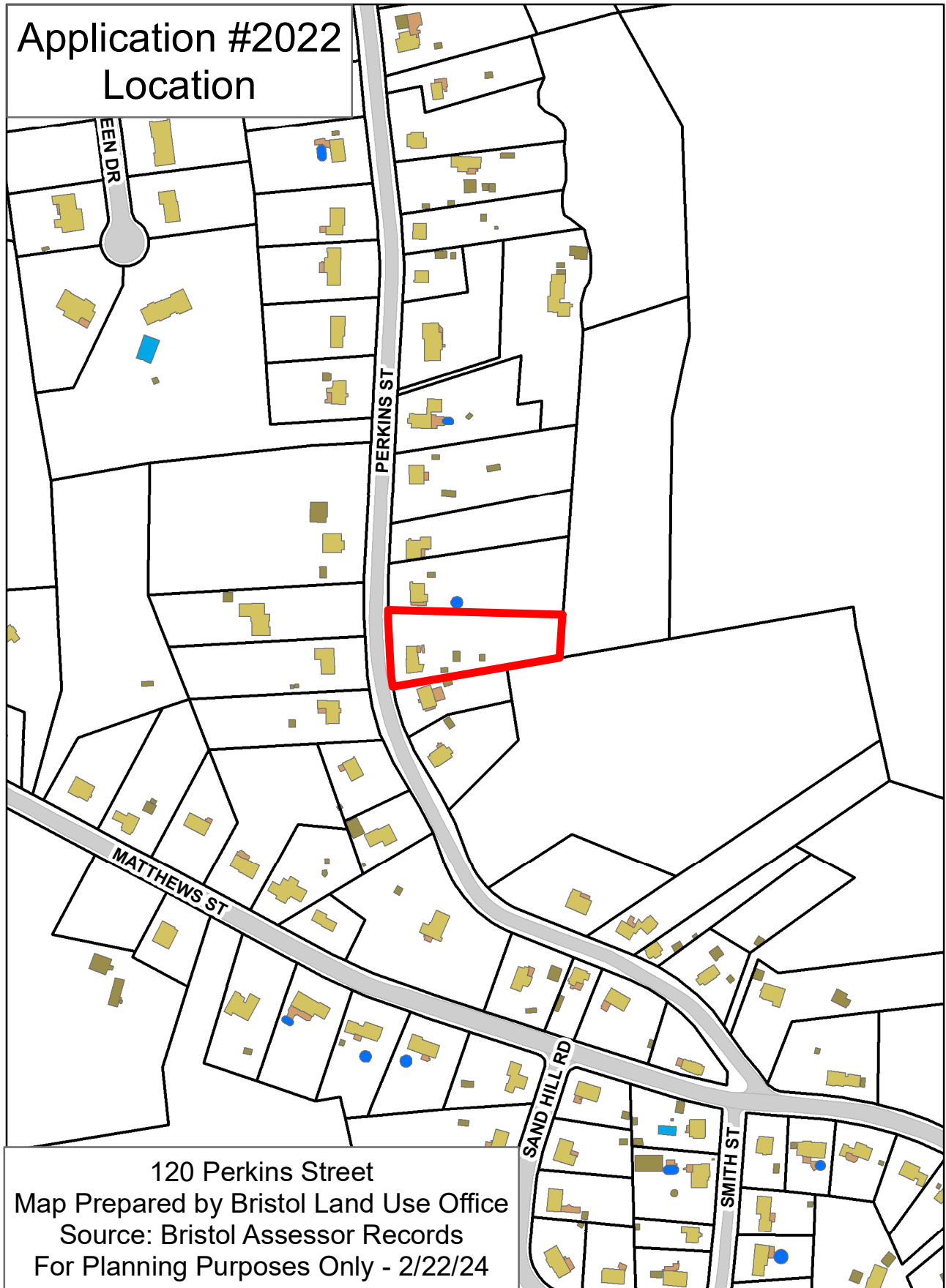
- [] a. The proposed activity is either a use permitted as of right or a non-regulated use, under subsection _____ of Section 4 of the Inland Wetlands Regulations. *See instructions for submission requirements.*
- [] b. The proposed activity is not regulated because it is greater than 100 feet from a 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: <u>1,100 sf</u> |
| [x] within the upland review area | area: <u>2,735 sf</u> |

6. FLOW CALCULATIONS:

Does a watercourse flow through the subject property?
[x] yes [] no

If "yes", see instructions for submission requirements.

Application #2022
Location

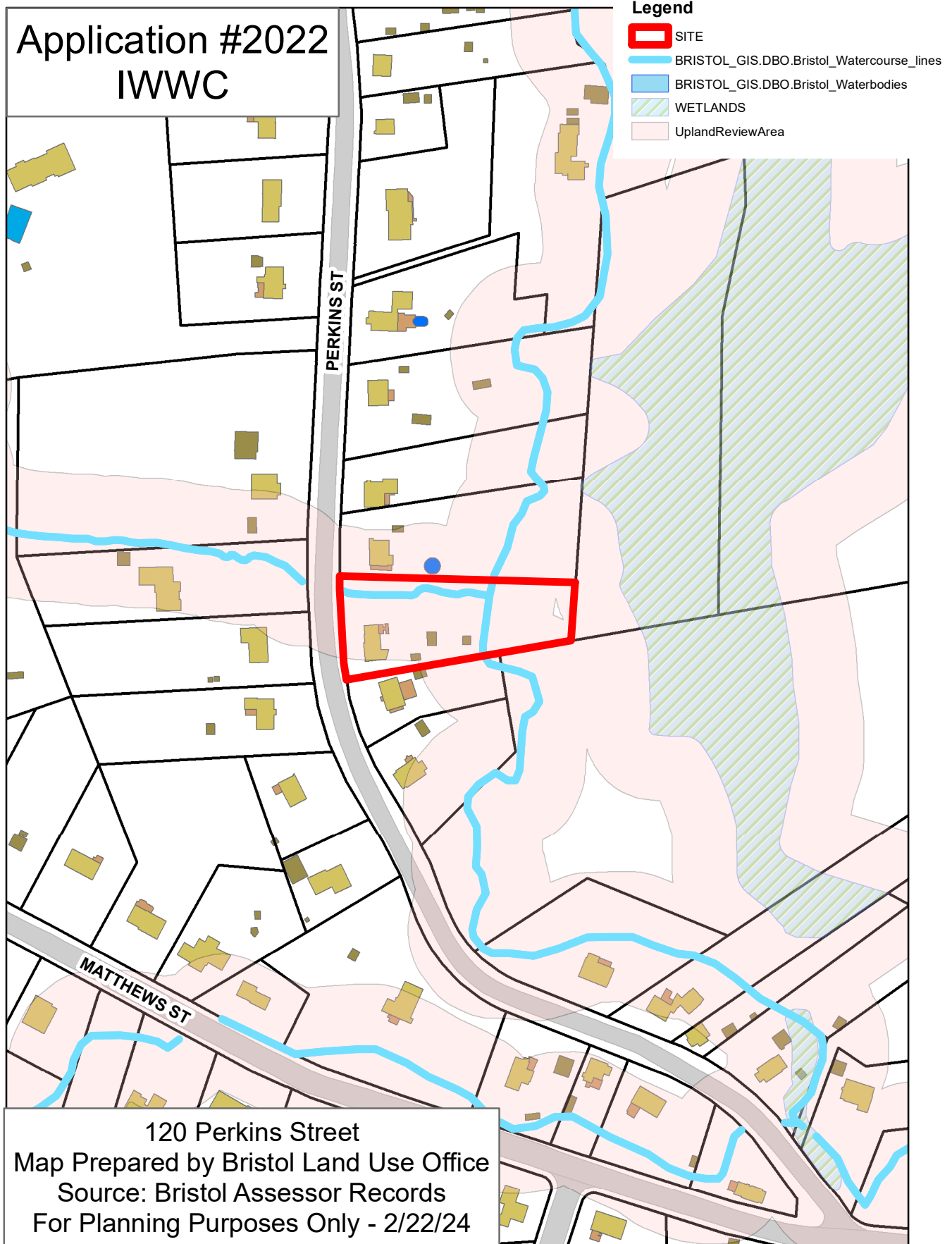


120 Perkins Street
Map Prepared by Bristol Land Use Office
Source: Bristol Assessor Records
For Planning Purposes Only - 2/22/24

Application #2022
Aerial



120 Perkins Street
Map Prepared by Bristol Land Use Office
Source: Bristol Assessor Records
For Planning Purposes Only - 2/22/24



ANALYSIS OF EXISTING HYDROLOGY DURING 25 YR STORM

GIVEN: DRAINAGE AREA = 0.1 SQ. MI

ASSUMED RUNOFF COEFFICIENT = 0.4 (TABLE 6-4 CONNDOT DRAINAGE MANUAL)

ASSUMED CRITICAL STORM DURATION = 2 HR

TOTAL ACCUMULATION DURING 25 YR STORM = 2.8 IN

SKETCH: SEE ATTACHED "DRAINAGE AREA SKETCH"

DETERMINE: BASE FLOW DURING 25 YR STORM

THEORY:

RATIONAL METHOD $Q = CIA$

Q = FLOW ft^3/s

C = RUNOFF COEFFICIENT

I = AVERAGE RAINFALL INTENSITY (IN/HR)

A = DRAINAGE AREA (AC)

CALCULATIONS

$$I = 2.8 \text{ IN} / 2 \text{ HR} = 1.4 \text{ IN/HR}$$

$$A = 0.1 \text{ SQ MI} = 64 \text{ AC}$$

$$Q_B = 0.4 \times 1.4 \frac{\text{IN}}{\text{HR}} \times 64 \text{ AC} = 35.84 \text{ CFS}$$

SAY

$$Q_B = 36 \text{ CFS}$$

PROPOSED HYDRAULIC CAPACITY CALCULATIONS

GIVEN: SLOPE @ OUTFALL = 0.5%

PIPE DIA = 36"

MANNINGS = 0.013 - REINFORCED CONCRETE PIPE (NEW)

THEORY:

MANNINGS EQUATION FOR ROUND PIPE FLOWING FULL

$$Q = \frac{0.464}{n} D^{8/3} S^{1/2} \quad (\text{EQ 11.17 CONN DOT DRAINAGE MANUAL})$$

Q = FLOW CFS

D = INSIDE PIPE DIAMETER (FT)

n = MANNINGS COEFFICIENT

S = SLOPE OF PIPE

DETERMINE: MAX CAPACITY

CALCULATIONS

$$Q_p = \frac{0.464}{0.013} (3)^{8/3} \left(\frac{0.5}{100}\right)^{1/2} = 47.25 \text{ CFS}$$

CONCLUSION:

PROPOSED FLOW CAPACITY > EXISTING FLOW DURING 25 YR STORM

47.25 CFS > 36 CFS OK

NOAA Atlas 14, Volume 10, Version 3 WHIGVILLE

RSVR

Station ID: 06-9508

Location name: Burlington, Connecticut, USA*

Latitude: 41.7333°, Longitude: -72.95°

Elevation:

Elevation (station metadata): 581 ft**

* source: ESRI Maps

** source: USGS



POINT PRECIPITATION FREQUENCY ESTIMATES

Sanja Perica, Sandra Pavlovic, Michael St. Laurent, Carl Trypaluk, Dale Unruh, Orlan Wilhite

NOAA, National Weather Service, Silver Spring, Maryland

PF tabular | PF graphical | Maps & aerials

PF tabular

PDS-based point precipitation frequency estimates with 90% confidence intervals (in inches) ¹										
Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
5-min	0.365 (0.277-0.479)	0.435 (0.329-0.571)	0.549 (0.415-0.724)	0.643 (0.483-0.852)	0.773 (0.564-1.07)	0.872 (0.625-1.23)	0.973 (0.679-1.42)	1.08 (0.723-1.62)	1.23 (0.797-1.91)	1.35 (0.855-2.13)
10-min	0.517 (0.392-0.679)	0.616 (0.467-0.809)	0.777 (0.587-1.02)	0.910 (0.685-1.21)	1.09 (0.799-1.51)	1.23 (0.885-1.74)	1.38 (0.962-2.01)	1.53 (1.02-2.29)	1.74 (1.13-2.70)	1.91 (1.21-3.02)
15-min	0.609 (0.462-0.799)	0.724 (0.549-0.952)	0.913 (0.691-1.20)	1.07 (0.805-1.42)	1.29 (0.940-1.78)	1.45 (1.04-2.04)	1.62 (1.13-2.36)	1.80 (1.20-2.70)	2.05 (1.33-3.18)	2.25 (1.42-3.56)
30-min	0.824 (0.625-1.08)	0.981 (0.743-1.29)	1.24 (0.935-1.63)	1.45 (1.09-1.92)	1.74 (1.27-2.41)	1.97 (1.41-2.77)	2.19 (1.53-3.19)	2.44 (1.63-3.65)	2.78 (1.80-4.30)	3.04 (1.93-4.81)
60-min	1.04 (0.789-1.36)	1.24 (0.938-1.63)	1.56 (1.18-2.06)	1.83 (1.38-2.42)	2.20 (1.61-3.03)	2.48 (1.78-3.49)	2.77 (1.93-4.03)	3.08 (2.06-4.60)	3.50 (2.26-5.42)	3.84 (2.43-6.07)
2-hr	1.36 (1.04-1.78)	1.61 (1.22-2.10)	2.01 (1.52-2.64)	2.34 (1.77-3.09)	2.80 (2.06-3.85)	3.14 (2.27-4.41)	3.50 (2.46-5.09)	3.90 (2.62-5.81)	4.46 (2.89-6.88)	4.90 (3.11-7.72)
3-hr	1.58 (1.21-2.06)	1.87 (1.43-2.43)	2.34 (1.78-3.05)	2.72 (2.06-3.58)	3.26 (2.40-4.47)	3.66 (2.65-5.13)	4.08 (2.88-5.93)	4.55 (3.06-6.77)	5.23 (3.40-8.06)	5.79 (3.68-9.11)
6-hr	2.00 (1.54-2.59)	2.39 (1.83-3.10)	3.03 (2.32-3.94)	3.56 (2.71-4.65)	4.29 (3.18-5.87)	4.83 (3.52-6.77)	5.41 (3.86-7.90)	6.10 (4.11-9.05)	7.12 (4.64-10.9)	7.99 (5.10-12.5)
12-hr	2.45 (1.89-3.15)	3.00 (2.31-3.86)	3.89 (2.99-5.03)	4.64 (3.54-6.02)	5.66 (4.22-7.74)	6.41 (4.71-8.99)	7.23 (5.21-10.6)	8.24 (5.57-12.2)	9.81 (6.41-15.0)	11.2 (7.15-17.5)
24-hr	2.86 (2.21-3.65)	3.58 (2.77-4.58)	4.76 (3.68-6.12)	5.74 (4.41-7.42)	7.10 (5.33-9.70)	8.08 (5.99-11.4)	9.18 (6.69-13.5)	10.6 (7.18-15.6)	12.9 (8.42-19.7)	14.9 (9.54-23.2)
2-day	3.19 (2.49-4.06)	4.08 (3.17-5.20)	5.53 (4.29-7.07)	6.74 (5.20-8.66)	8.40 (6.35-11.5)	9.60 (7.17-13.5)	11.0 (8.08-16.2)	12.8 (8.68-18.8)	15.8 (10.4-24.1)	18.5 (11.9-28.8)
3-day	3.47 (2.71-4.40)	4.45 (3.47-5.64)	6.05 (4.70-7.70)	7.38 (5.71-9.45)	9.21 (6.99-12.6)	10.5 (7.89-14.8)	12.0 (8.90-17.8)	14.1 (9.57-20.7)	17.5 (11.5-26.6)	20.6 (13.3-31.9)
4-day	3.73 (2.92-4.71)	4.77 (3.73-6.04)	6.48 (5.05-8.23)	7.90 (6.12-10.1)	9.85 (7.49-13.4)	11.3 (8.46-15.8)	12.9 (9.54-19.0)	15.0 (10.2-22.1)	18.7 (12.3-28.4)	22.0 (14.2-34.1)
7-day	4.45 (3.49-5.59)	5.62 (4.41-7.08)	7.54 (5.90-9.53)	9.14 (7.11-11.6)	11.3 (8.64-15.3)	12.9 (9.72-18.0)	14.7 (10.9-21.6)	17.1 (11.7-25.0)	21.1 (13.9-32.0)	24.7 (16.0-38.2)
10-day	5.18 (4.08-6.49)	6.41 (5.04-8.05)	8.44 (6.61-10.6)	10.1 (7.88-12.8)	12.4 (9.48-16.7)	14.1 (10.6-19.5)	16.0 (11.8-23.3)	18.5 (12.7-26.9)	22.6 (14.9-34.1)	26.2 (17.0-40.4)
20-day	7.49 (5.92-9.34)	8.76 (6.93-10.9)	10.9 (8.55-13.6)	12.6 (9.86-15.9)	15.0 (11.4-19.9)	16.7 (12.6-22.9)	18.6 (13.7-26.8)	21.1 (14.5-30.6)	25.0 (16.6-37.6)	28.4 (18.5-43.7)
30-day	9.41 (7.47-11.7)	10.7 (8.48-13.3)	12.8 (10.1-16.0)	14.5 (11.4-18.3)	16.9 (13.0-22.4)	18.7 (14.1-25.4)	20.6 (15.1-29.2)	23.0 (15.9-33.2)	26.5 (17.7-39.8)	29.6 (19.3-45.4)
45-day	11.8 (9.36-14.6)	13.1 (10.4-16.2)	15.2 (12.1-18.9)	17.0 (13.4-21.3)	19.5 (14.9-25.5)	21.3 (16.0-28.6)	23.2 (16.9-32.4)	25.4 (17.6-36.5)	28.5 (19.0-42.6)	31.0 (20.2-47.4)
60-day	13.7 (10.9-16.9)	15.1 (12.0-18.6)	17.3 (13.7-21.4)	19.1 (15.1-23.9)	21.6 (16.6-28.2)	23.6 (17.7-31.4)	25.5 (18.5-35.2)	27.5 (19.2-39.5)	30.2 (20.2-45.1)	32.2 (21.1-49.3)

¹ Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS).

Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and average recurrence interval) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper bounds are not checked against probable maximum precipitation (PMP) estimates and may be higher than currently valid PMP values.

Please refer to NOAA Atlas 14 document for more information.

[Back to Top](#)

[PF graphical](#)

DRAINAGE IMPROVEMENTS PROJECT

120 PERKINS STREET TO UNNAMED STREAM

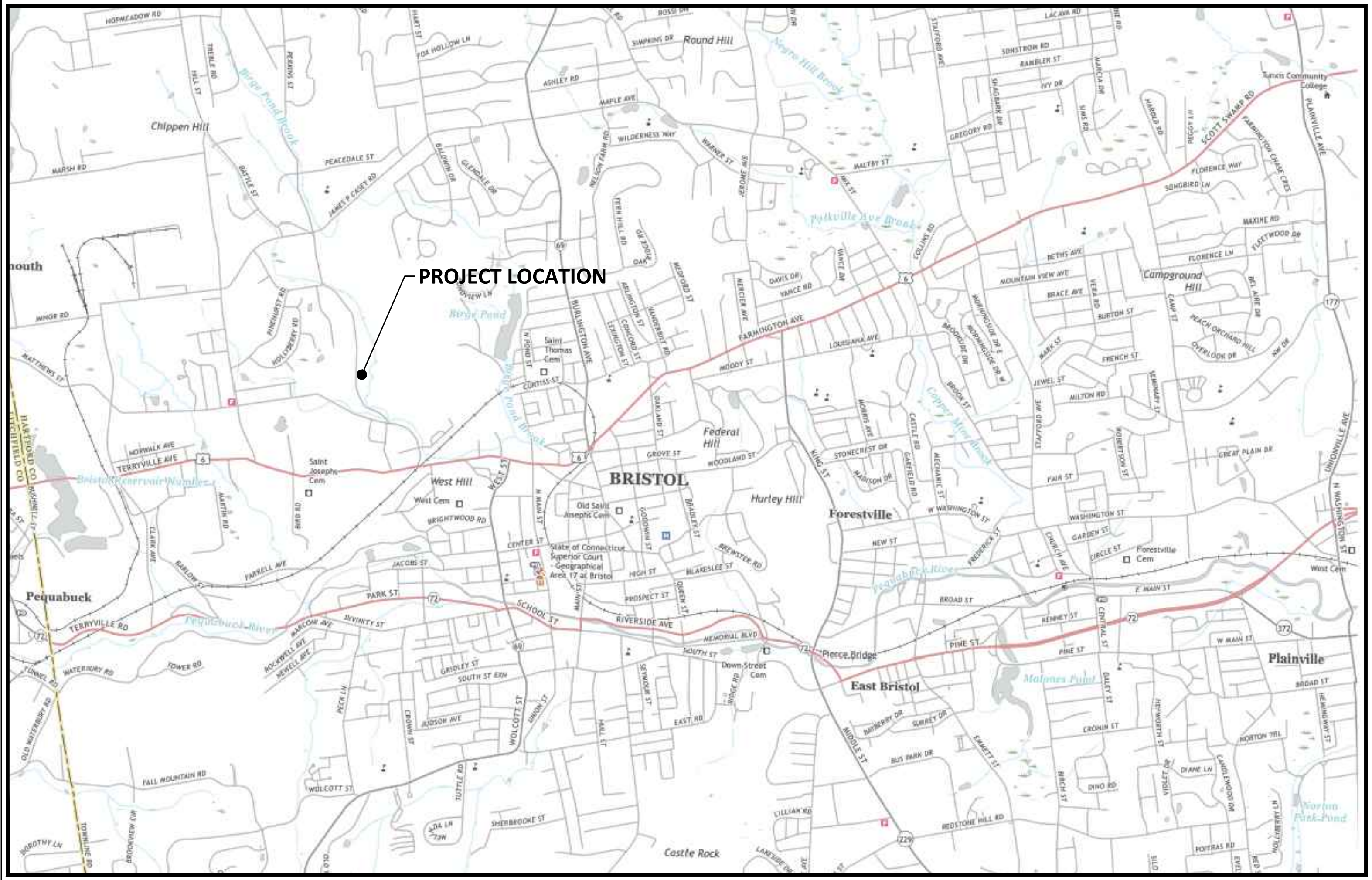
PERMIT DRAWINGS

BRISTOL, CONNECTICUT

FEBRUARY 22, 2024

LIST OF DRAWINGS

NO.	NAME	TITLE
00	TITLE	TITLE SHEET
01	EX-01	EXISTING CONDITIONS
02	DRN-01	DRAINAGE PLAN
03	PRO-01	DRAINAGE RROFILE
04	RES-01	RESTORATION PLAN

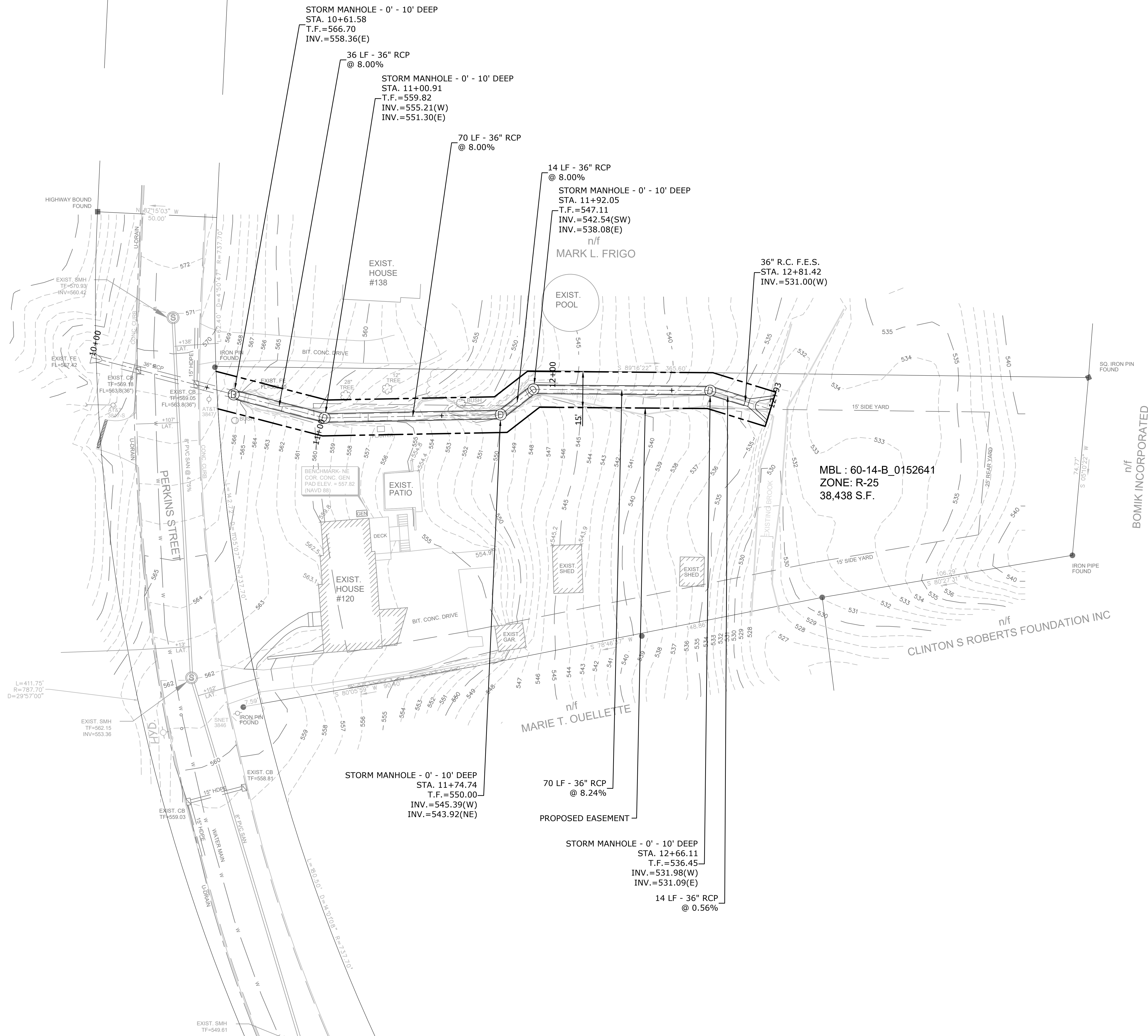


BOARD OF PUBLIC WORKS
MAYOR JEFFREY CAGGIANO, CHAIRMAN

DIRECTOR OF PUBLIC WORKS
RAYMOND A. ROGOZINSKI, P.E.

CITY ENGINEER
NANCY LEVESQUE, P.E.





DESIGN BY: WRS
DRAFTED BY: WRS
CHECKED BY:
SCALE: 1" = 20'
FEBRUARY 22, 2024
PROJECT No.:

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City of Bristol
Department of Public Works
111 North Main Street
Bristol, Connecticut 06010
Tel. 860-584-6125
Fax 860-584-3838

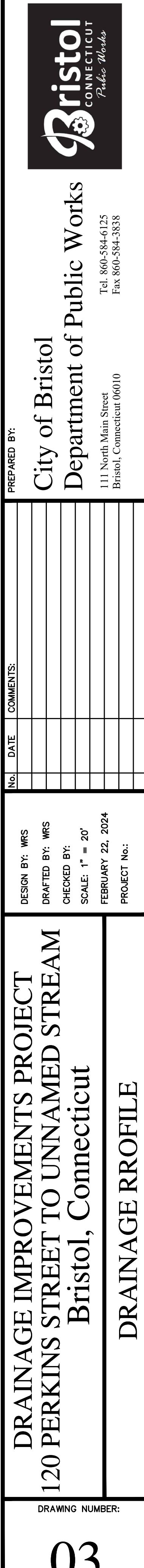
Tel. 860-584-6125
Fax 860-584-3838

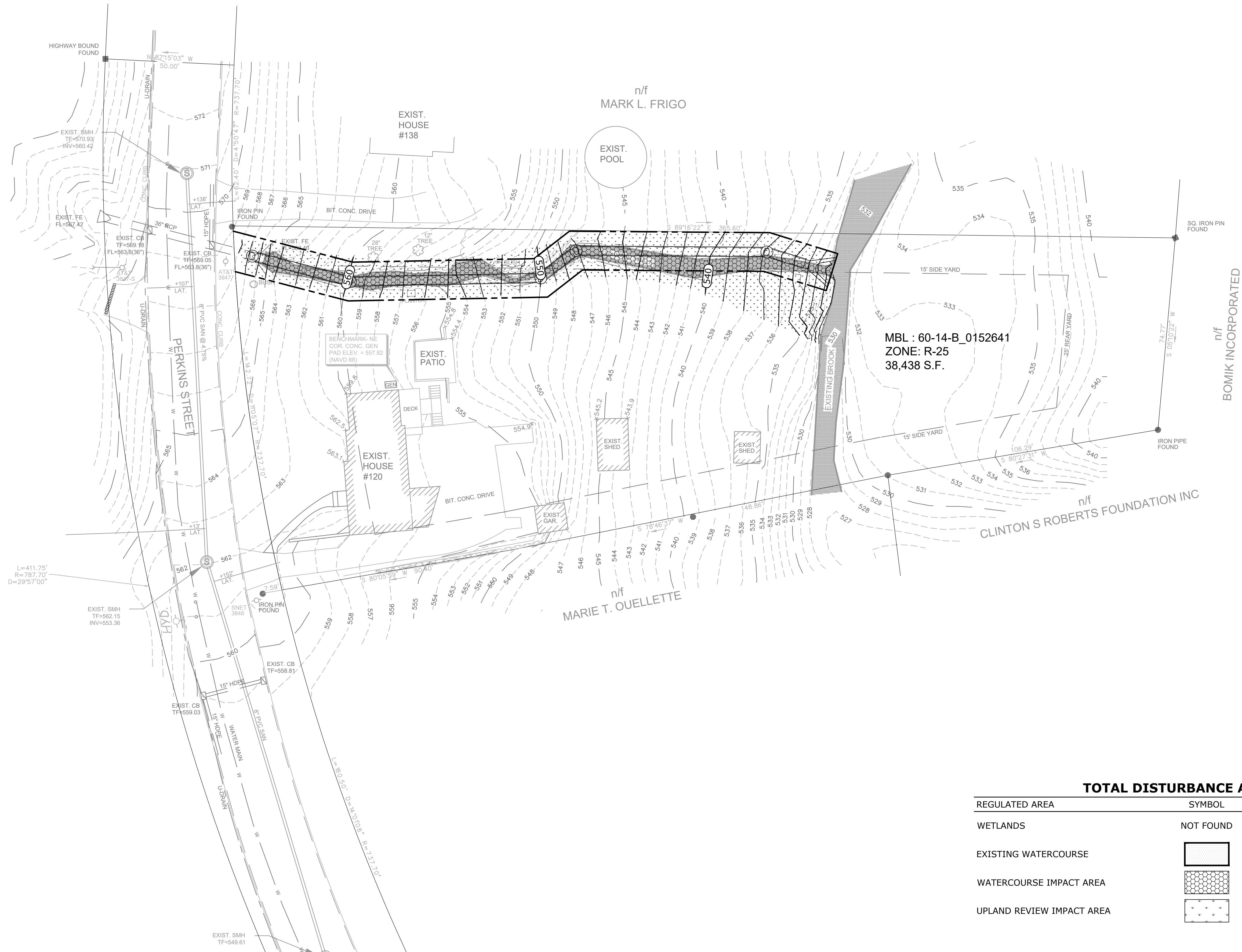


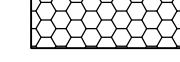
Bristol
CONNECTICUT
Public Works

DRAWING NUMBER:

02





TOTAL DISTURBANCE AREA		
REGULATED AREA	SYMBOL	AREA (SF)
WETLANDS	NOT FOUND	
EXISTING WATERCOURSE		
WATERCOURSE IMPACT AREA		1,100
UPLAND REVIEW IMPACT AREA		2,735

**DRAINAGE IMPROVEMENTS PROJECT
120 PERKINS STREET TO UNNAMED STREAM
Bristol, Connecticut
RESTORATION PLAN**

DRAWING NUMBER:

04

DESIGN BY: WRS
DRAFTED BY: WRS
CHECKED BY:
SCALE: 1" = 20'
FEBRUARY 22, 2024
PROJECT No.:

[illegible]**PREPARED BY:**

**City of Bristol
Department of Public Works**

111 North Main Street
Bristol, Connecticut 06010

Tel. 860-584-6125
Fax 860-584-3838

Tel. 860-584-6125
Fax 860-584-3838

Fax 860-584-3838



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

For Office Use Only
APPLICATION NO. 2023
DATE FILED: 03-21-2024
DECISION DATE: _____
DECISION: _____

1. APPLICANT:

Name: City of Bristol - Public Works Signature: _____
Address: 111 North Main Street City: Bristol State: CT Zip 06010
Telephone No.: 860-584-6125 ☐ home ☐ work Email: RaymondRogozinski@BristolCT.gov

2. PROPERTY OWNER(S):

Name: William P & Thomas Delfino LLC Signature: _____
Address: 785 Middle Street City: Bristol State: CT Zip 06010
Telephone No.: _____ ☐ home ☐ work Email: _____

3. DESCRIBE THE SUBJECT PROPERTY:

Address or Location: O'Sullivan & Brace Ave to outfall west of Vine Street at unnamed brook
Assessor's Map No.: 46 Assessor's Lot No.(s): 81-3

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

Narrow band of wetlands adjacent to brook. Area to be disturbed is <200 SF. Subject to agreement and design of temporary protection of raw water supply for City of New Britain on parcel. Remainder of work to be on City of Bristol ROW, with no wetland impacts.
Area of impact is second growth mature trees and understory of brush, with narrow grassed path along existing outfall path. Parcel is 0.84 Ac vacant land. Easements in favor of City of New Britain for large water pipes running N/S through parcel. Easement for drainage outfall in favor of Bristol also on property.

4. DESCRIBE THE PROPOSED ACTIVITY AND ITS PURPOSE:

Revised outfall piping to accommodate increase in flow and to stabilize outfall area (riprap, etc. for energy dissipation at outfall)

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; | area of impact: <u>200</u> SF (<u>0.005</u> 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) |

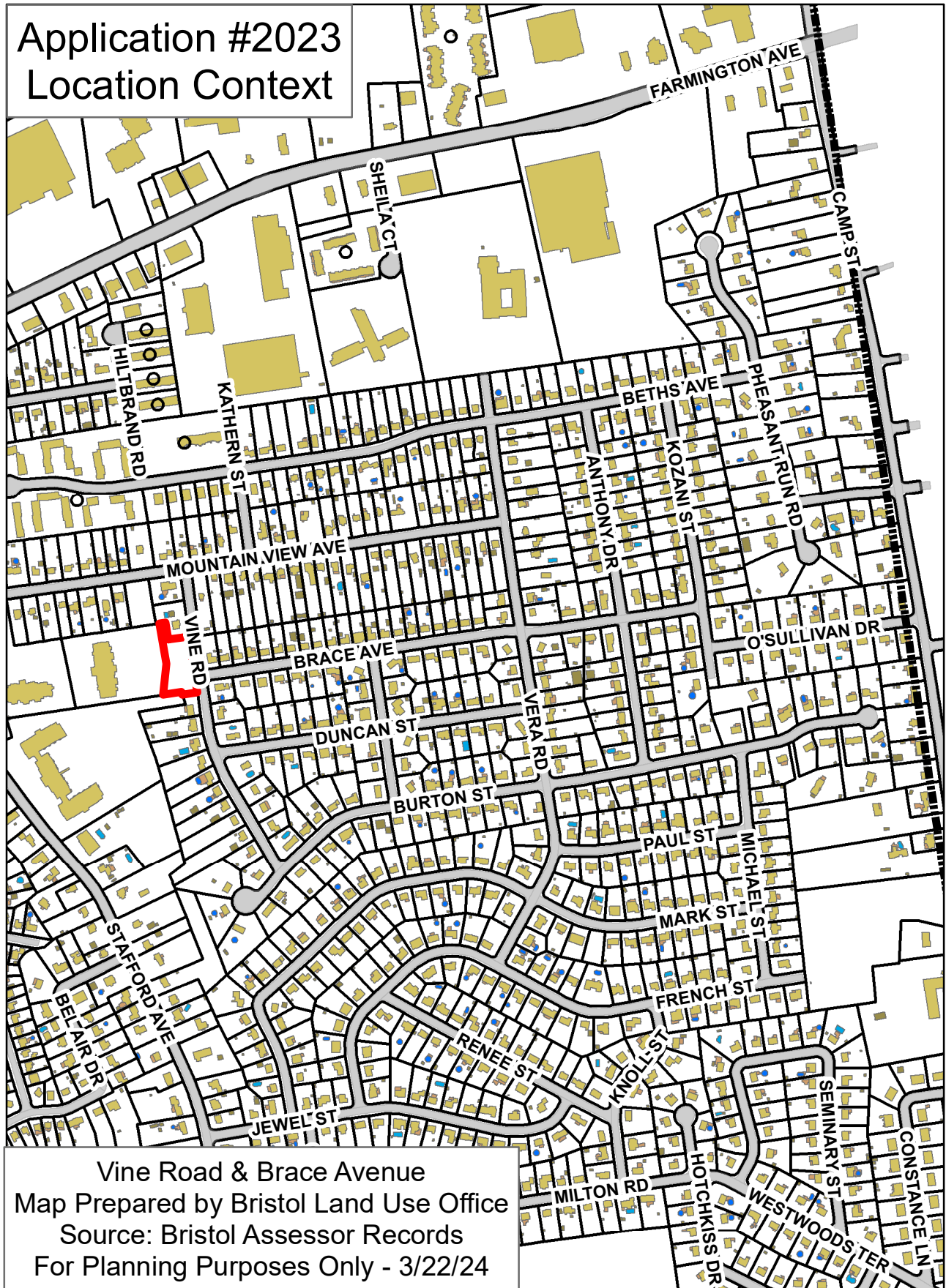
6. FLOW CALCULATIONS:

Does a watercourse flow through the subject property?

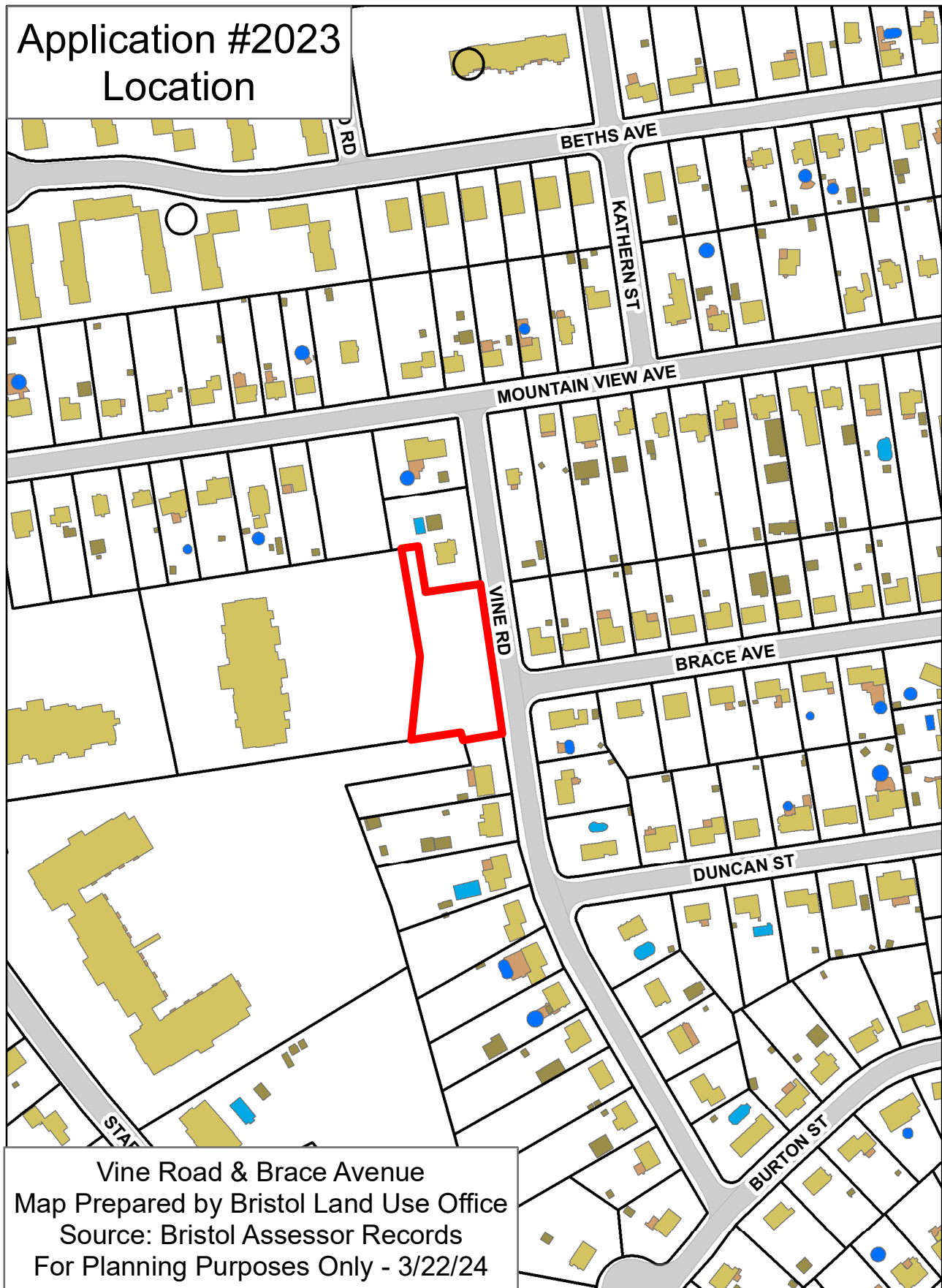
☐ yes ☐ no

If "yes", see instructions for submission requirements.

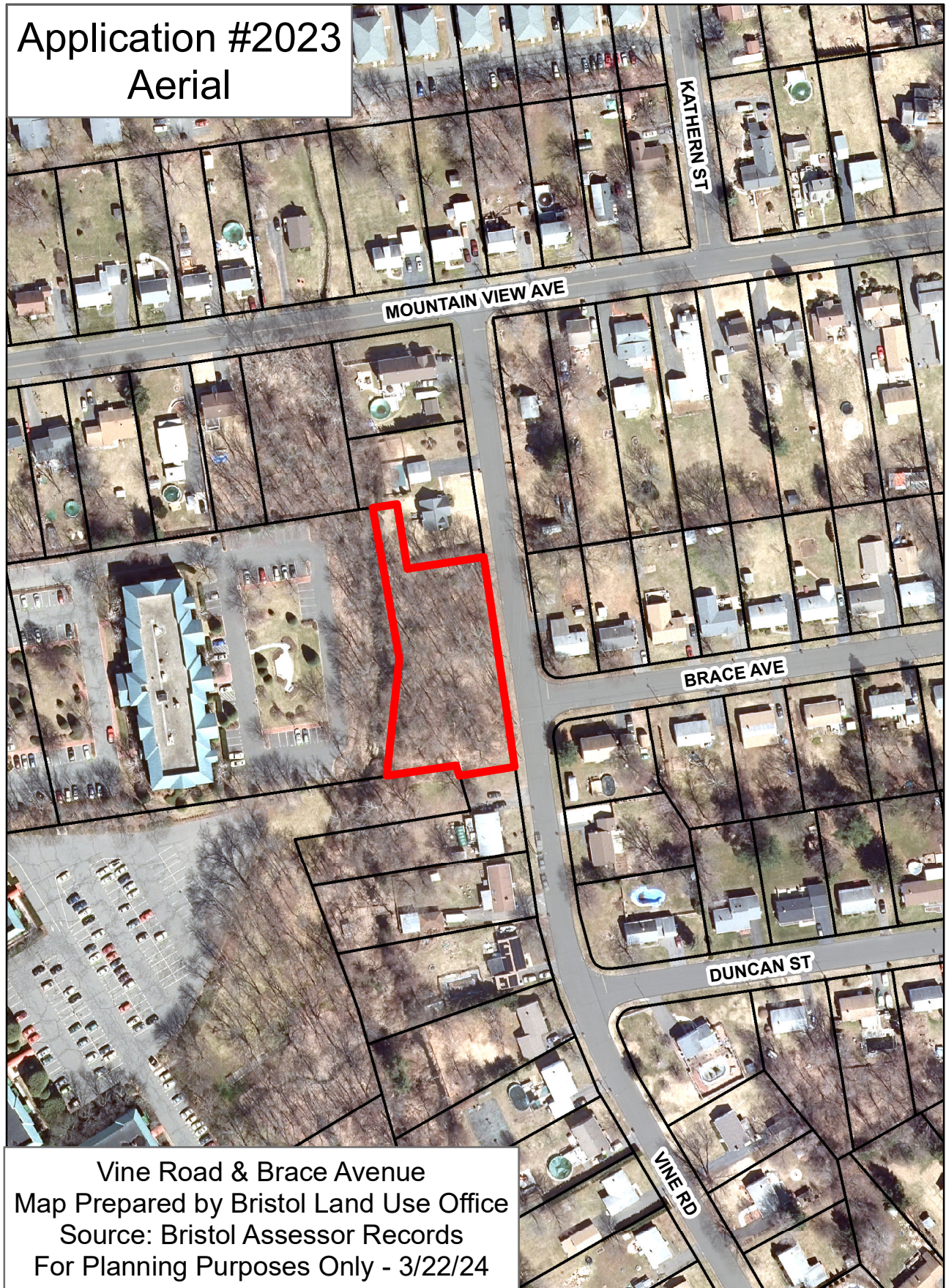
Application #2023 Location Context



Vine Road & Brace Avenue
Map Prepared by Bristol Land Use Office
Source: Bristol Assessor Records
For Planning Purposes Only - 3/22/24



Application #2023
Aerial

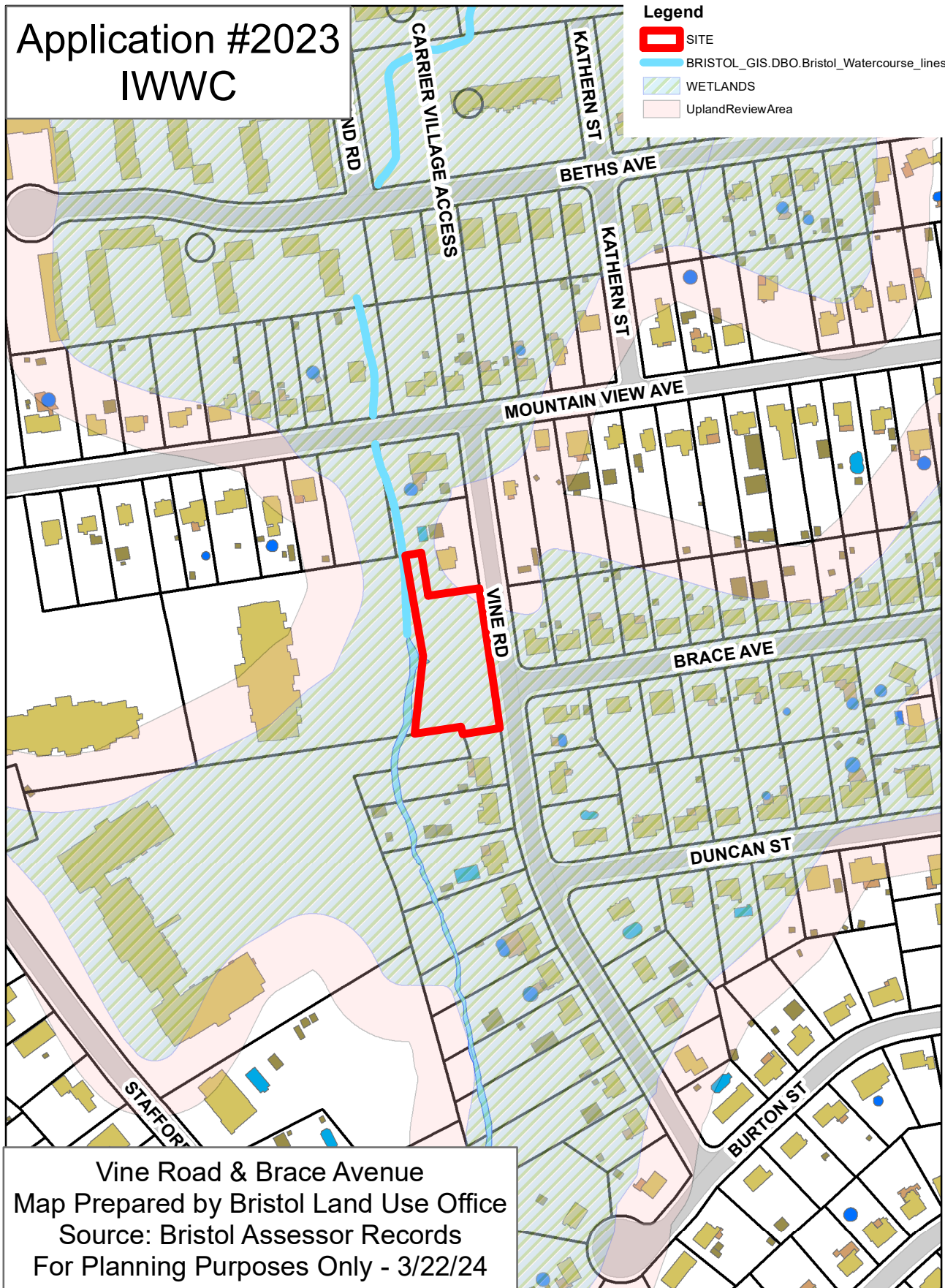


Vine Road & Brace Avenue
Map Prepared by Bristol Land Use Office
Source: Bristol Assessor Records
For Planning Purposes Only - 3/22/24

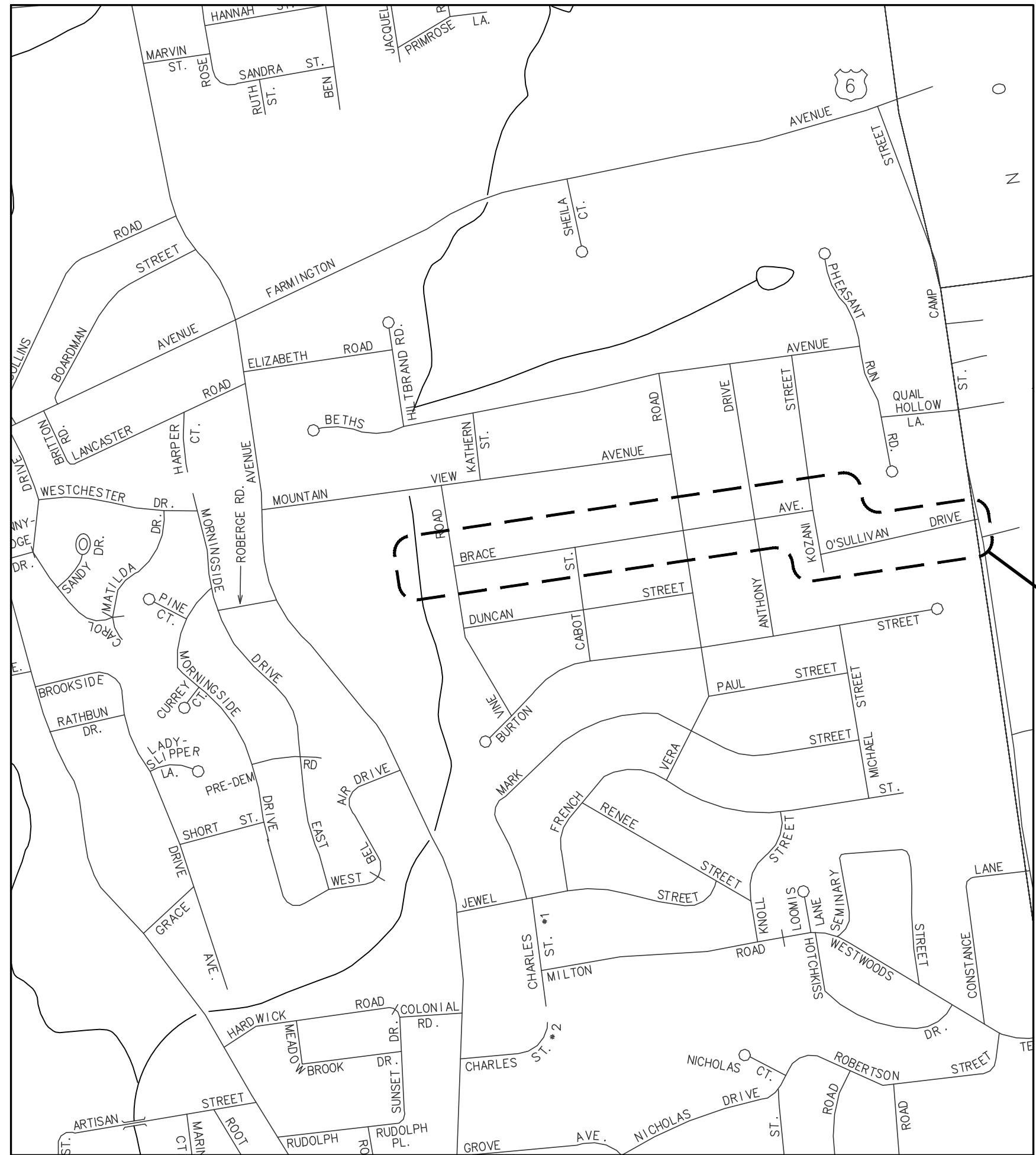
Application #2023 IWWC

Legend

-  SITE
-  BRISTOL_GIS.DBO.Bristol_Watercourse_lines
-  WETLANDS
-  UplandReviewArea



Vine Road & Brace Avenue
Map Prepared by Bristol Land Use Office
Source: Bristol Assessor Records
For Planning Purposes Only - 3/22/24

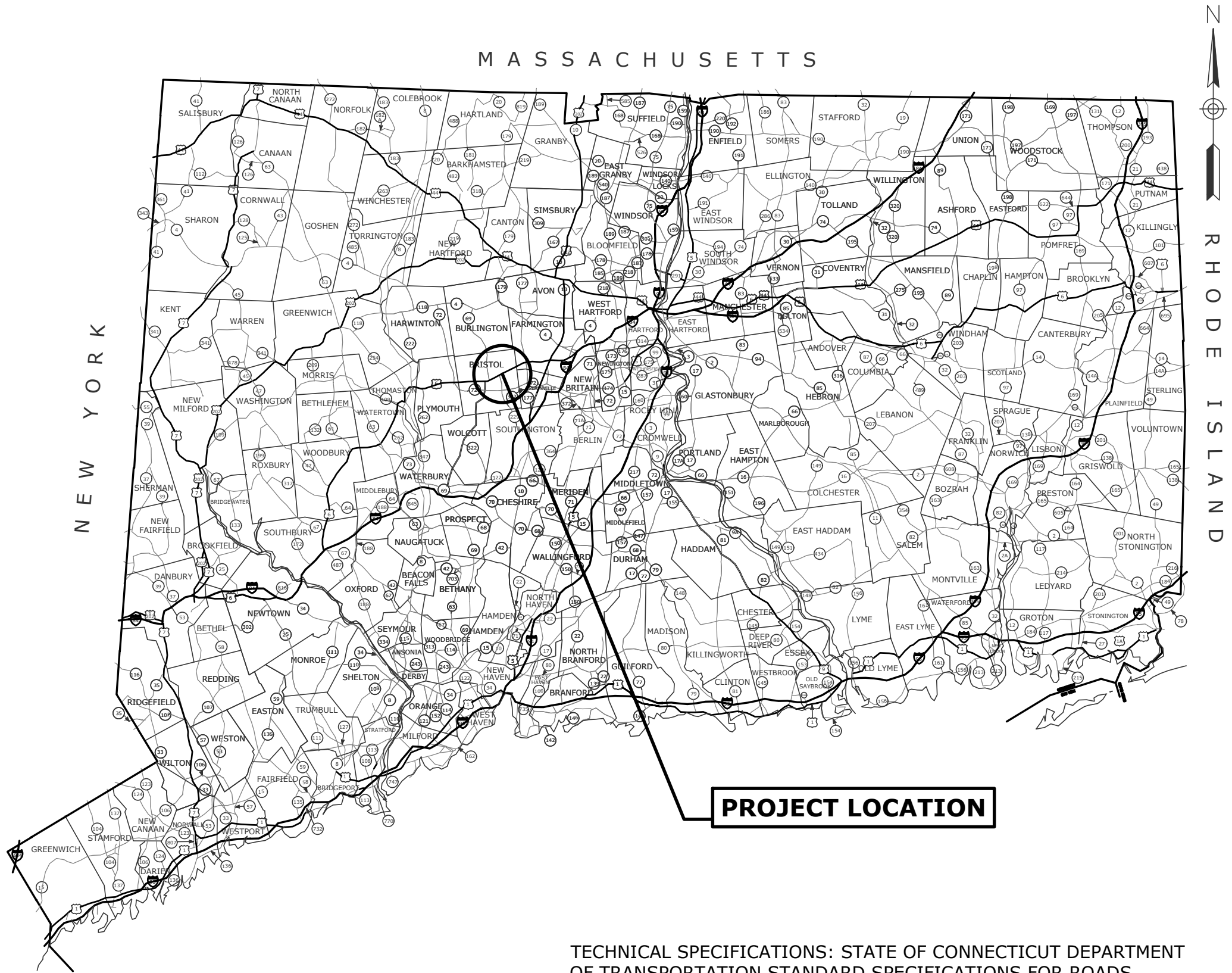


LOCATION MAP
SCALE: 1" = 500'

CITY OF BRISTOL, CONNECTICUT

PLAN FOR BRACE AVENUE DRAINAGE IMPROVEMENTS

PROJECT LOCATION



PROJECT LOCATION

TECHNICAL SPECIFICATIONS: STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROADS, BRIDGES, FACILITIES, AND INCIDENTAL CONSTRUCTION (FORM 818 DATED 2020) AND ALL LATEST SUPPLEMENTAL SPECIFICATIONS DATED JULY 2023 OR LATEST AT THE TIME OF BID THERETO, AS WELL AS ANY SPECIAL PROVISIONS BY THE TOWN OF GREENWICH.

DESIGN STANDARDS: AASHTO POLICY ON THE GEOMETRIC DESIGN OF HIGHWAYS AND STREETS, DATED 2004 AND THE CONNECTICUT DEPARTMENT OF TRANSPORTATION HIGHWAY DESIGN MANUAL DATED 2003. AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS (AASHTO NINTH EDITION), DATED 2020, AS SUPPLEMENTED BY THE CONNECTICUT DEPARTMENT OF TRANSPORTATION BRIDGE DESIGN MANUAL DATED 2003.

SURVEY: ALL COORDINATES ON THE PROJECT ARE BASED ON 1983 N.A.D. ALL ELEVATIONS ARE BASED ON 1988 N.A.V.D.

CONNECTICUT DEPARTMENT OF TRANSPORTATION OR TOWN OF GREENWICH BIDDING AND OTHER INFORMATION AND DOCUMENTS WHICH ARE OBTAINED THROUGH THE INTERNET, WORLD WIDE WEB SITES OR OTHER SOURCES ARE NOT TO BE CONSTRUED TO BE OFFICIAL INFORMATION FOR THE PURPOSES OF BIDDING OR CONDUCTING OTHER BUSINESS WITH THE TOWN OF GREENWICH.

IT IS THE RESPONSIBILITY OF EACH BIDDER AND ALL OTHER INTERESTED PARTIES TO OBTAIN ALL BIDDING RELATED INFORMATION AND DOCUMENTS FROM OFFICIAL SOURCES WITHIN THE TOWN OF GREENWICH.

PERSONS AND/OR ENTITIES WHICH REPRODUCE AND/OR MAKE SUCH INFORMATION AVAILABLE BY ANY MEANS ARE NOT AUTHORIZED BY THE TOWN FO GREENWICH TO DO SO AND MAY BE LIABLE FOR CLAIMS RESULTING FROM THE DISSEMINATION OF UNOFFICIAL, INCOMPLETE AND/OR INACCURATE INFORMATION.

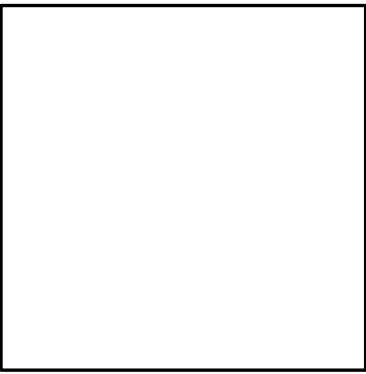
LIST OF DRAWINGS	
SHEET NO.	TITLE
1	TITLE SHEET
2-4	DRAINAGE LAYOUTS
5-8	DRAINAGE PROFILES
9	SEDIMENTATION CONTROL
7-10	STAGING PLANS & SECTIONS
11	STRUCTURE, ELEVATION & SECTION

DESIGNED BY WMC CONSULTING ENGINEERS

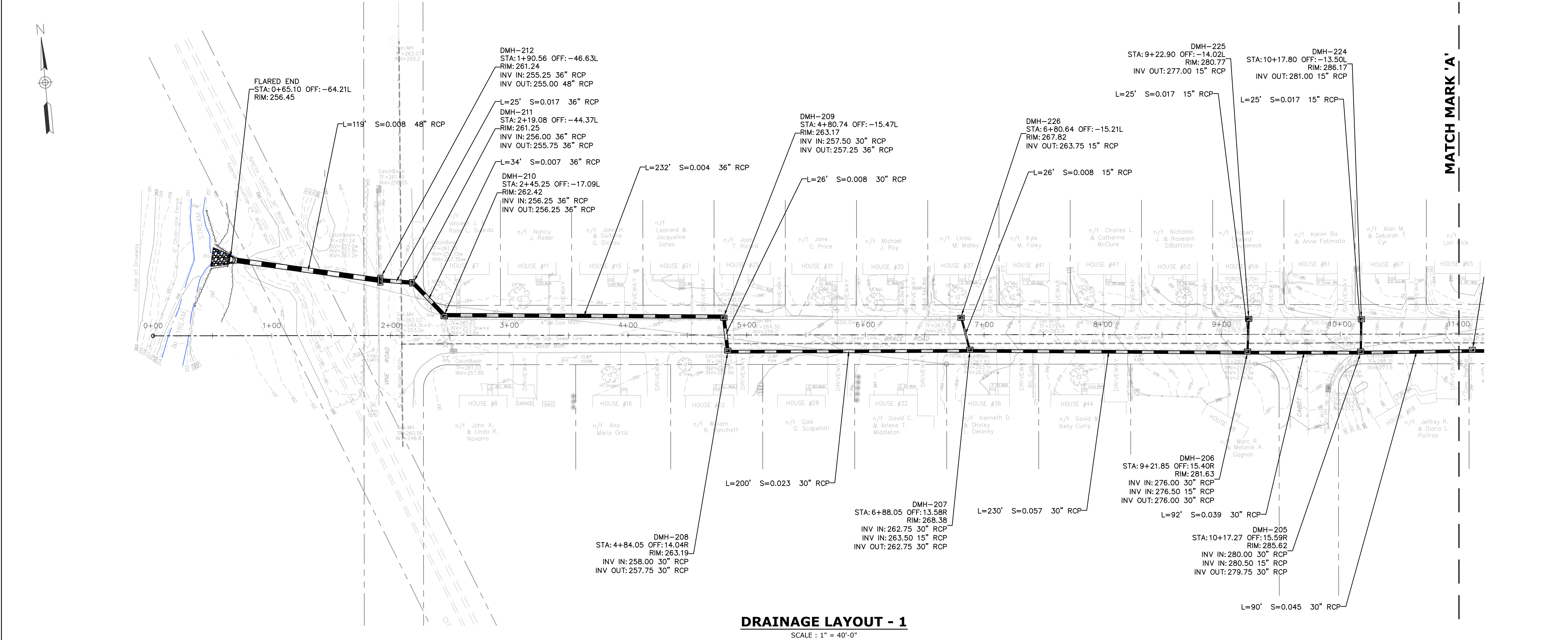
SUBMITTED BY _____ DATE _____

DIRECTOR OF PUBLIC WORKS - CITY OF BRISTOL

RAYMOND ROGOZINSKI



P.D. SUBMITTAL



THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE TOWN AND IS IN NO WAY WARRANTED TO INDICATE THE TRUE CONDITIONS OR ACTUAL QUANTITIES OR DISTRIBUTION OF QUANTITIES OF WORK WHICH WILL BE REQUIRED.

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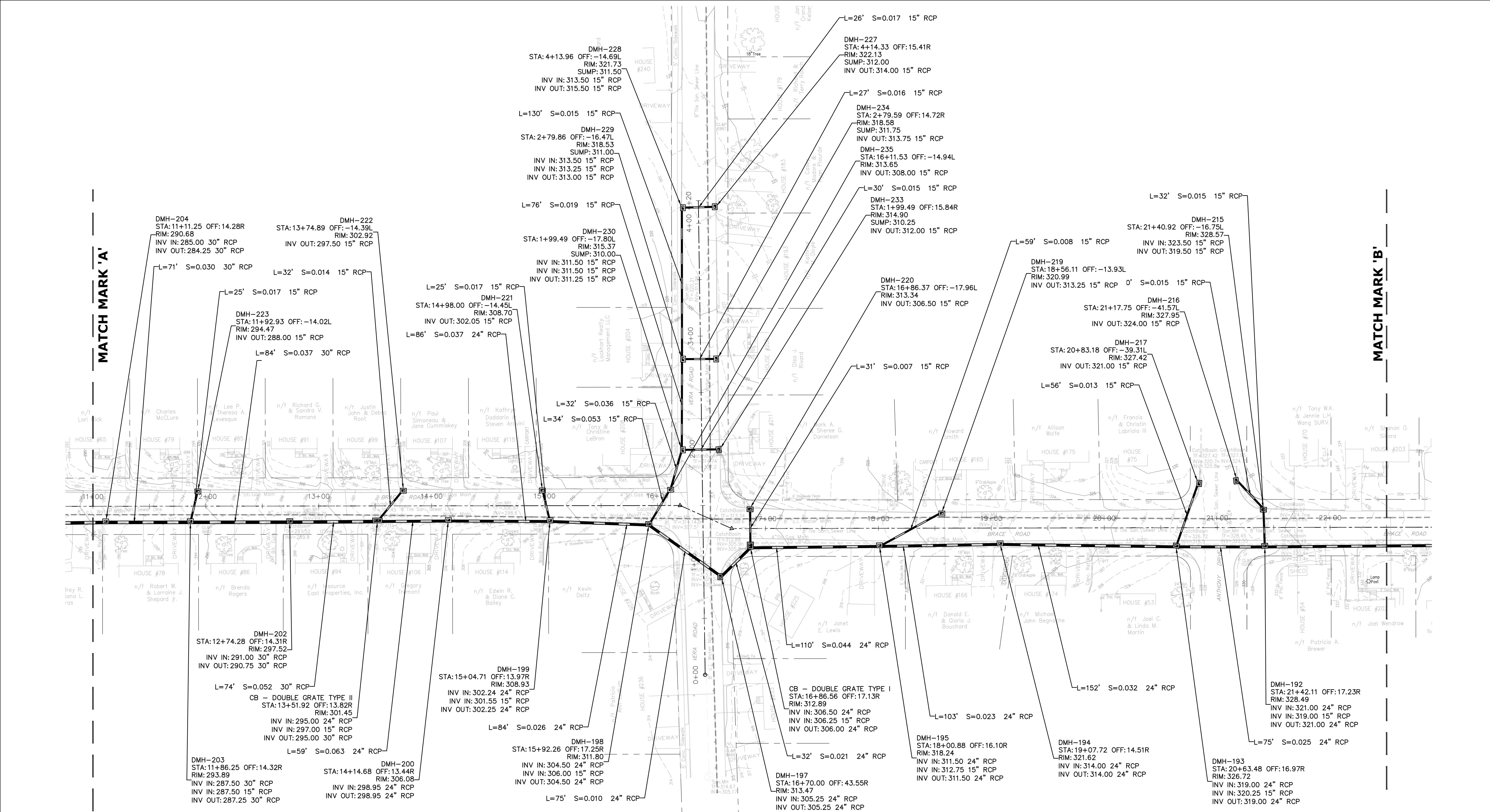


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NEWINGTON, CT 06111
(860) 667-9624

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CITY OF BRISTOL
150 MAIN STREET
BRISTOL, CT 06010

BRACE AVENUE DRAINAGE IMPROVEMENTS BRISTOL, CONNECTICUT DRAINAGE LAYOUT - 1					SHEET	-
D	BRACE AVE	PD	22071.10			
SIZE	PROJECT	FILE NAME	NUMBER	REV.	OF	



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DRAINAGE LAYOUT - 2

SCALE : 1" = 40'-0"

			SUPV.	J.A.C.
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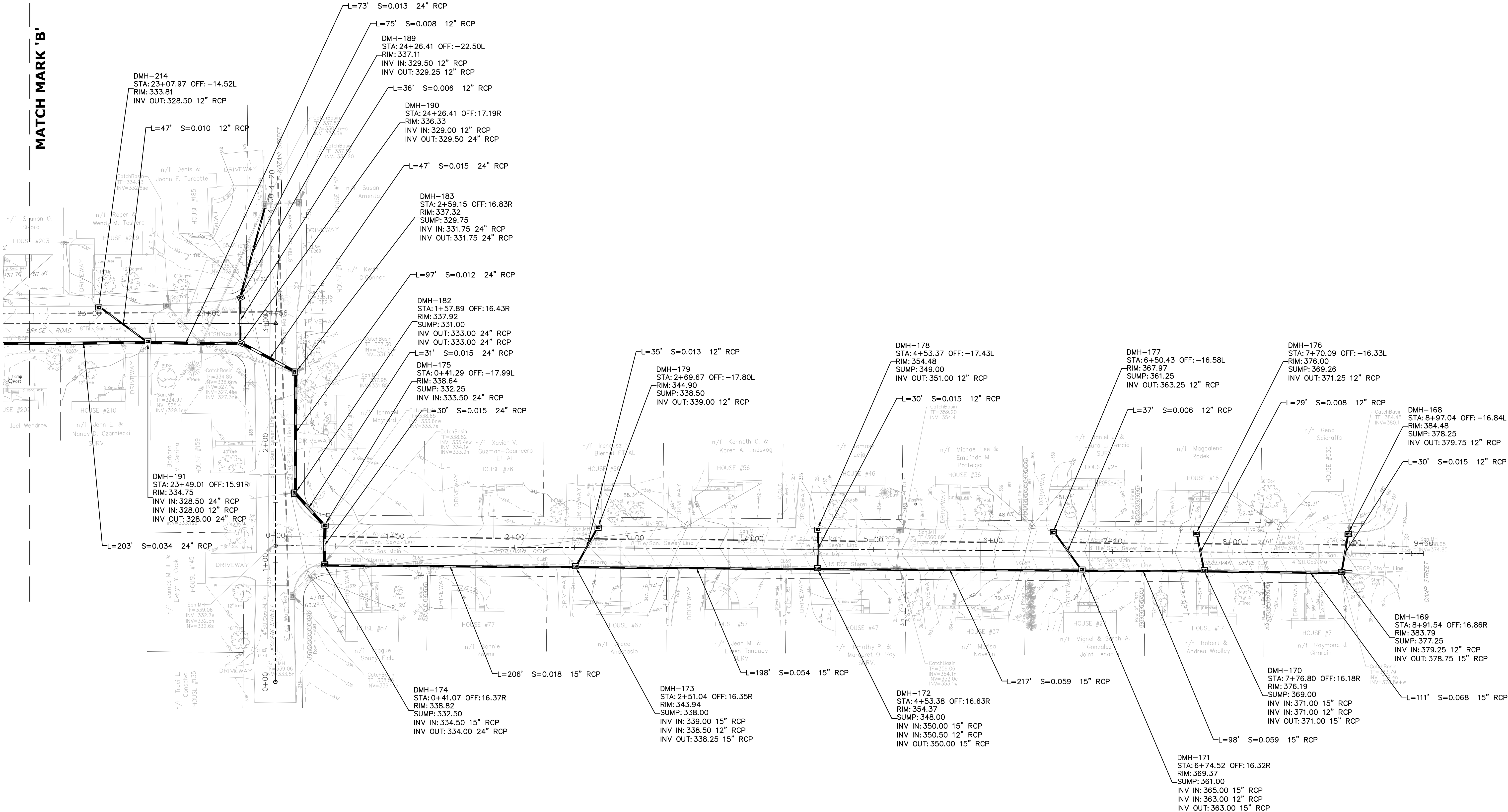
CITY OF BRISTOL
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BRISTOL, CT 06010

BRACE AVENUE DRAINAGE IMPROVEMENTS
BRISTOL, CONNECTICUT
DRAINAGE LAYOUT - 2

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SIZE	PROJECT		FILE NAME		NUMBER		REV.	OF



MATCH MARK 'B'



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DRAINAGE LAYOUT - 3

SCALE : 1" = 40'-0"

			SUPV.	J.A.C.
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NO.	DATE	DESCRIPTION	DATE	
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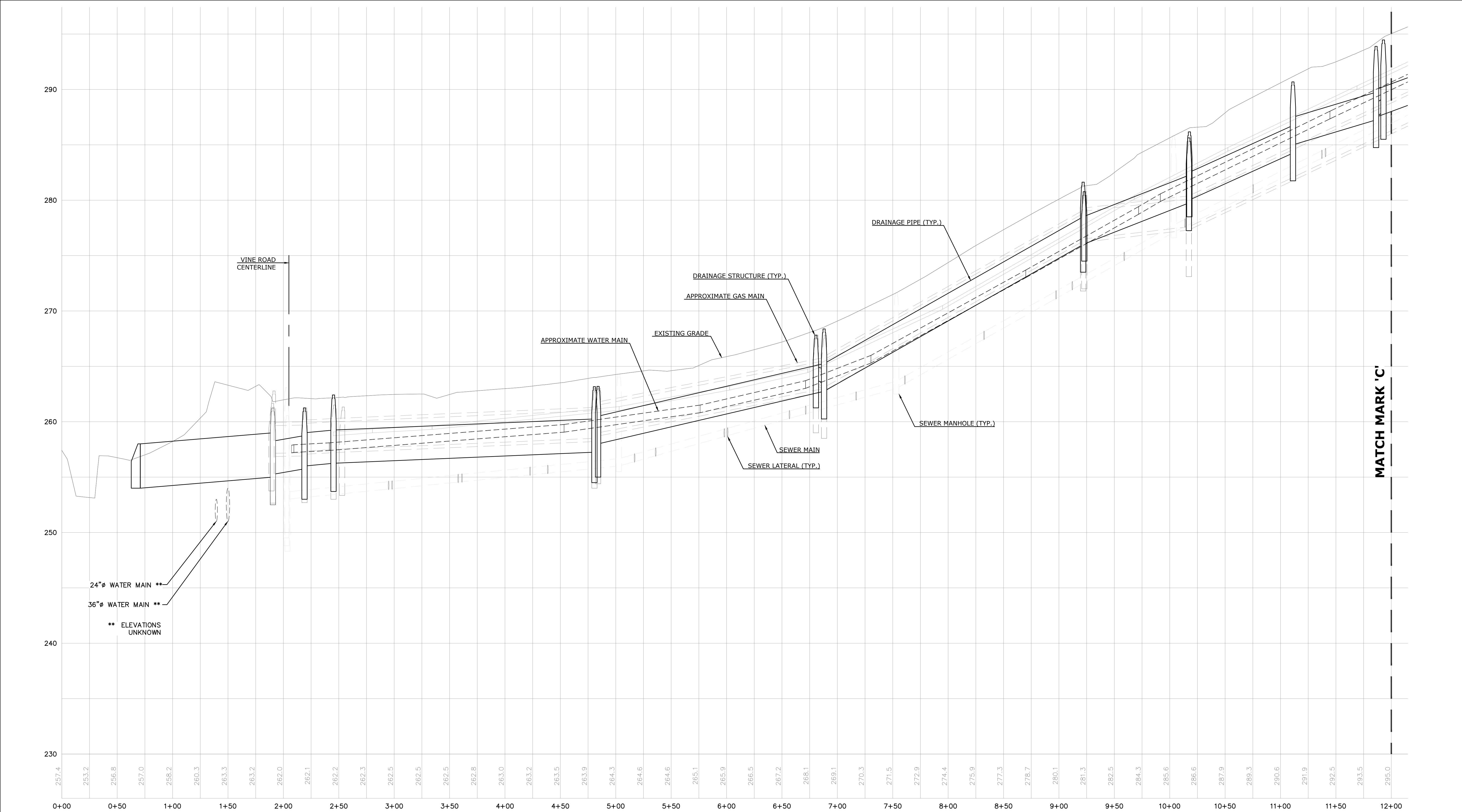
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BRACE AVENUE DRAINAGE IMPROVEMENTS
 BRISTOL, CONNECTICUT
 DRAINAGE LAYOUT - 3

D -	BRACE AVE	-	PD	-	22071.10	-	SHEET	-
SIZE	PROJECT		FILE NAME		NUMBER		REV.	OF



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PROFILE 1 -BRACE AVE

SCALE : 1" = 40'-0"

			SUPV.	J.A.C.
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NO.	DATE	DESCRIPTION	DATE	
REVISIONS				

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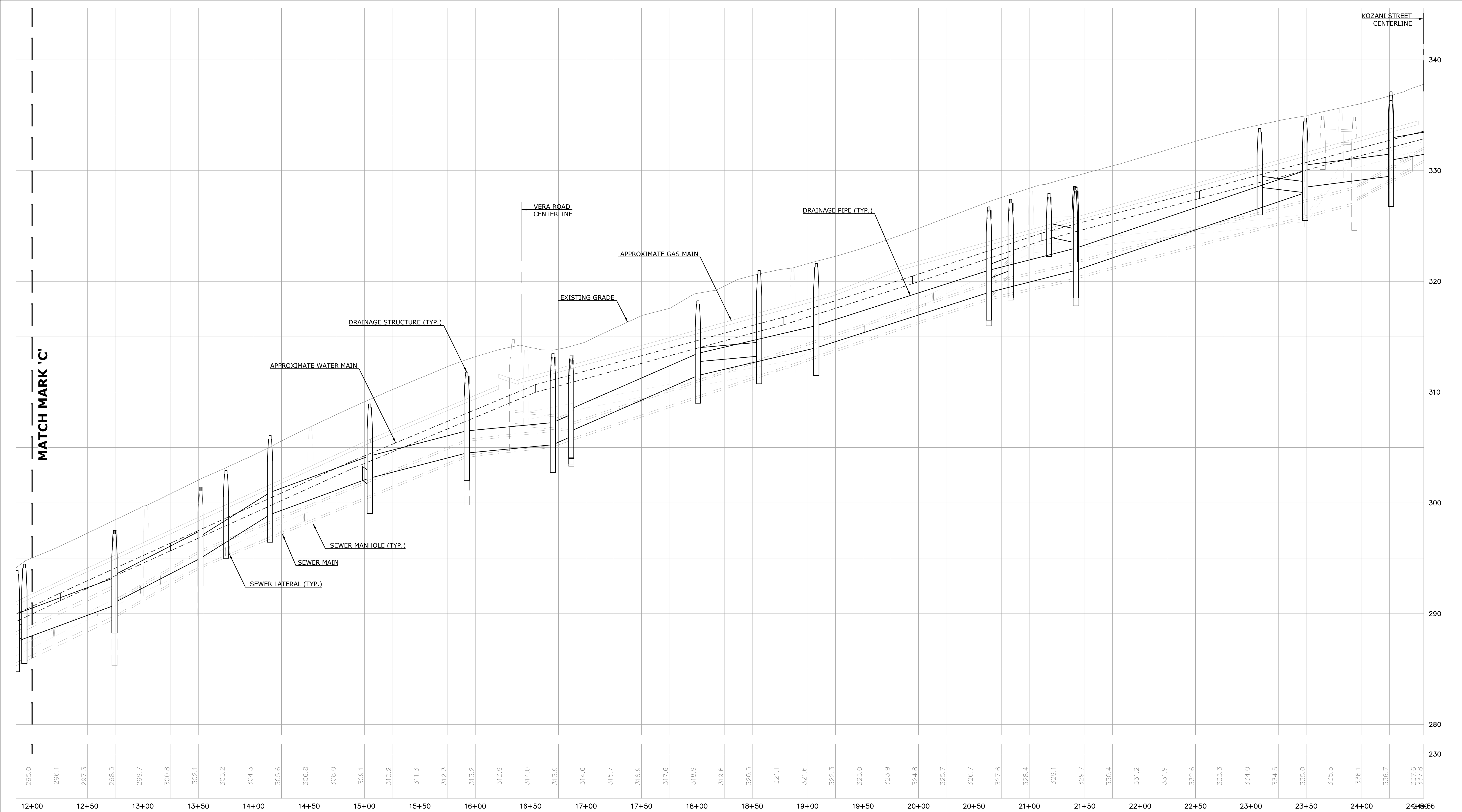
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BRACE AVENUE DRAINAGE IMPROVEMENTS
BRISTOL, CONNECTICUT
PROFILE

D — BRACE AVE — PD — 22071.10 —
SIZE PROJECT FILE NAME NUMBER REV.

SHEET —
OF —



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PROFILE 2 -BRACE AVE

SCALE : 1" = 40'-0"

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REVISIONS				



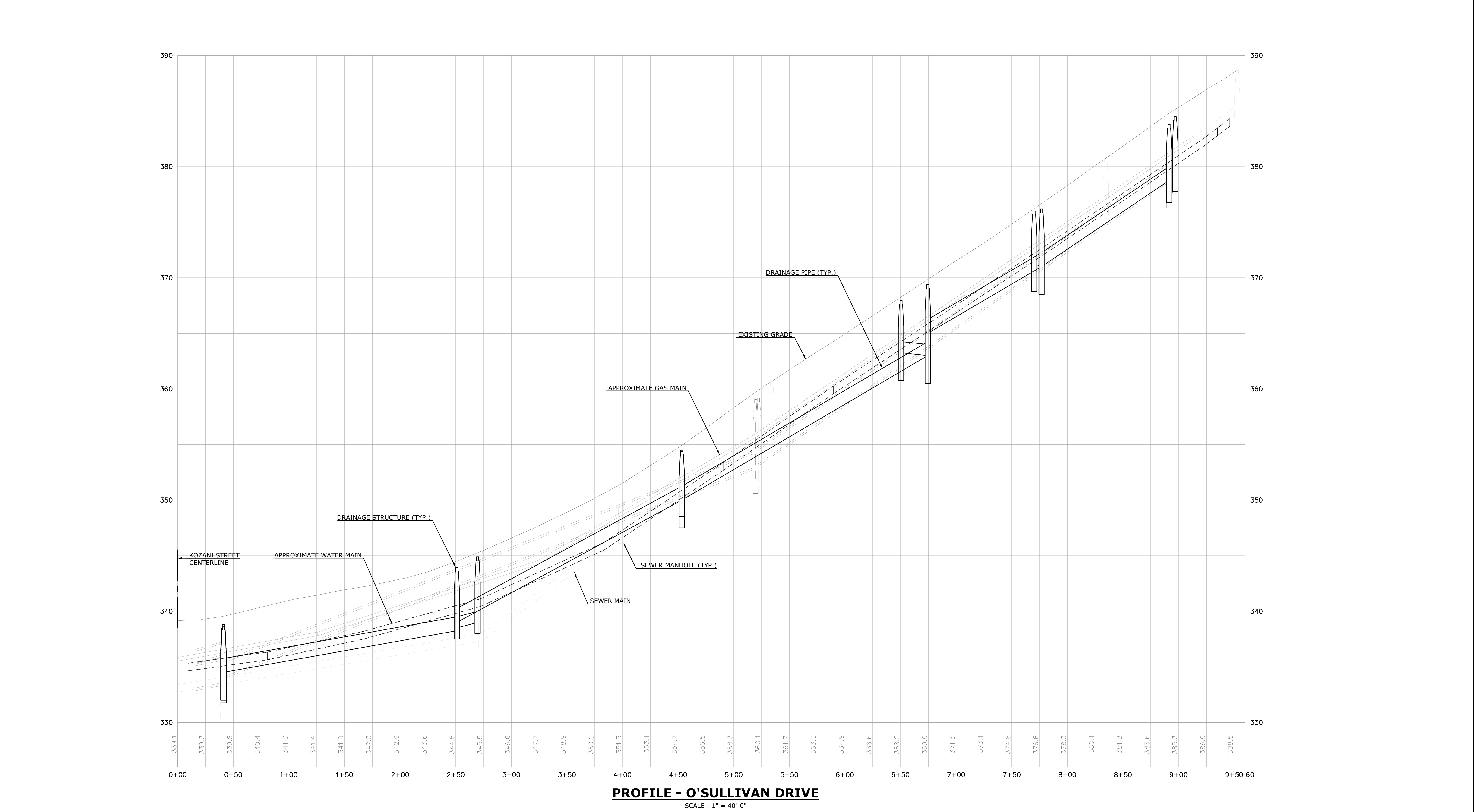
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BRACE AVENUE DRAINAGE IMPROVEMENTS
BRISTOL, CONNECTICUT
PROFILE

D	BRACE AVE	PD	22071.10	SHEET	-
SIZE	PROJECT	FILE NAME	NUMBER	REV.	OF



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NO.	DATE	DESCRIPTION	DATE	
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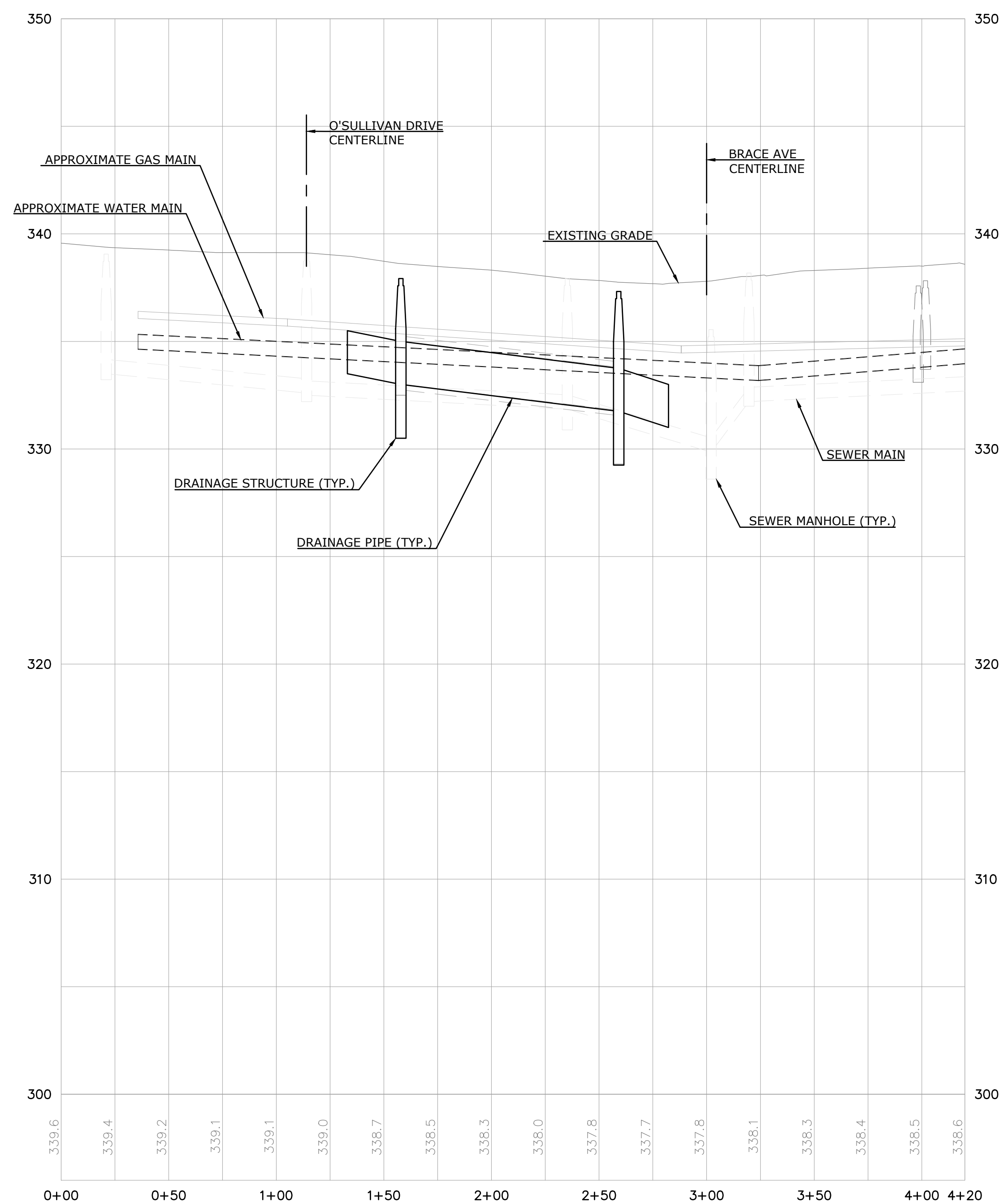
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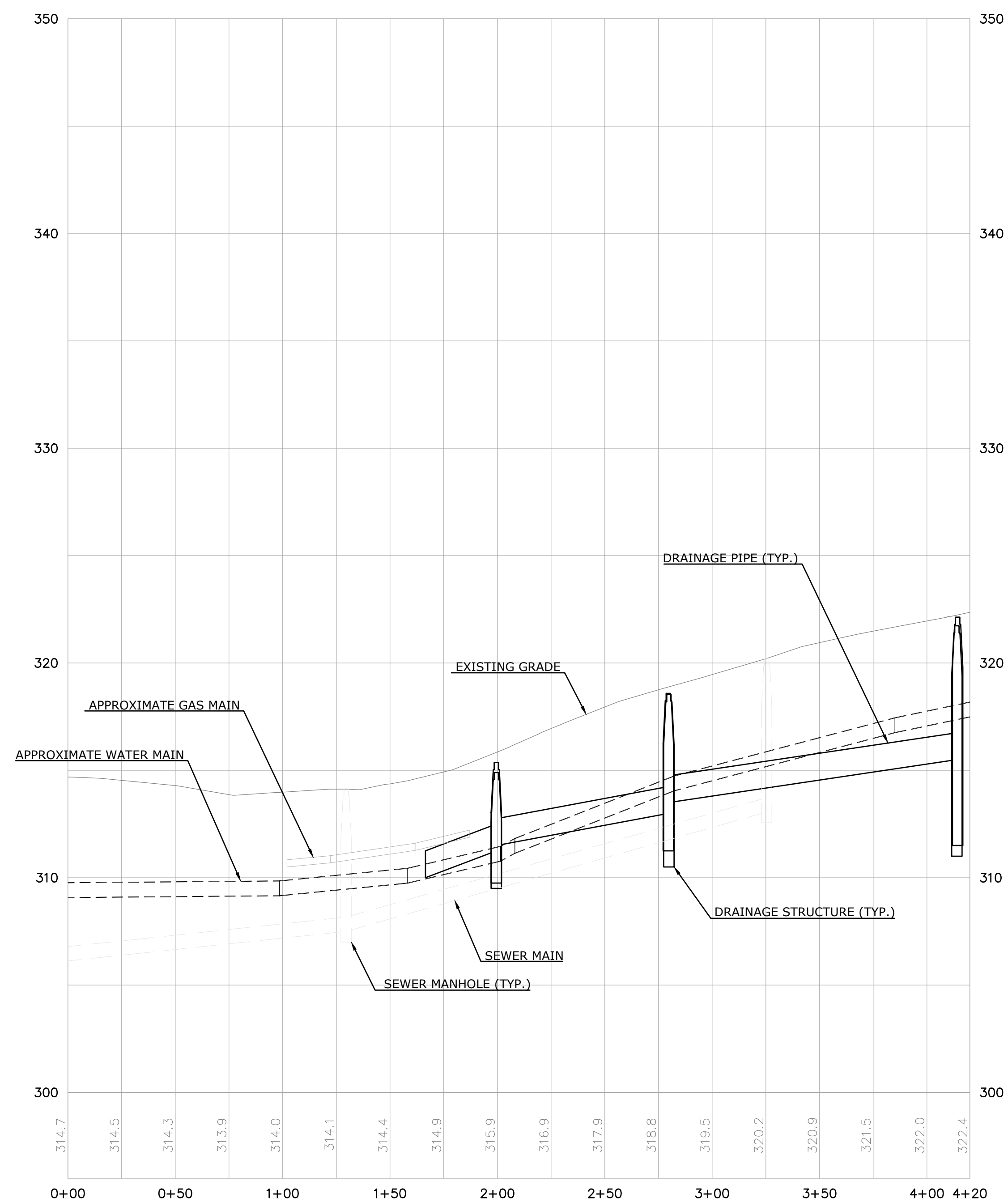
BRACE AVENUE DRAINAGE IMPROVEMENTS
BRISTOL, CONNECTICUT
PROFILE

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SIZE	PROJECT	FILE NAME	NUMBER	REV.	OF	-



PROFILE - KOZANI STREET

SCALE : 1" = 40'-0"



PROFILE - VERA ROAD

SCALE : 1" = 40'-0"

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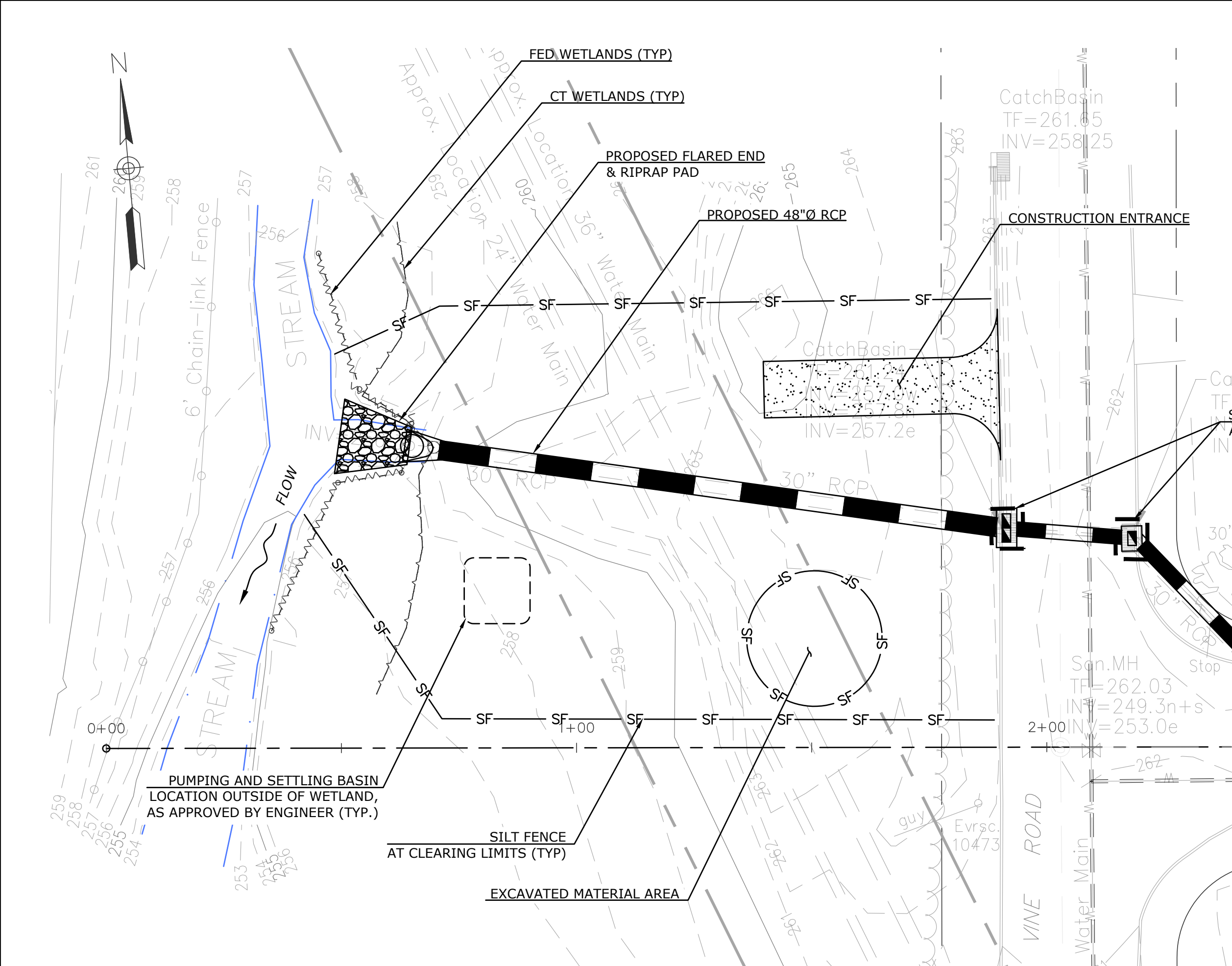
CITY OF BRISTOL

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BRISTOL, CT 06010

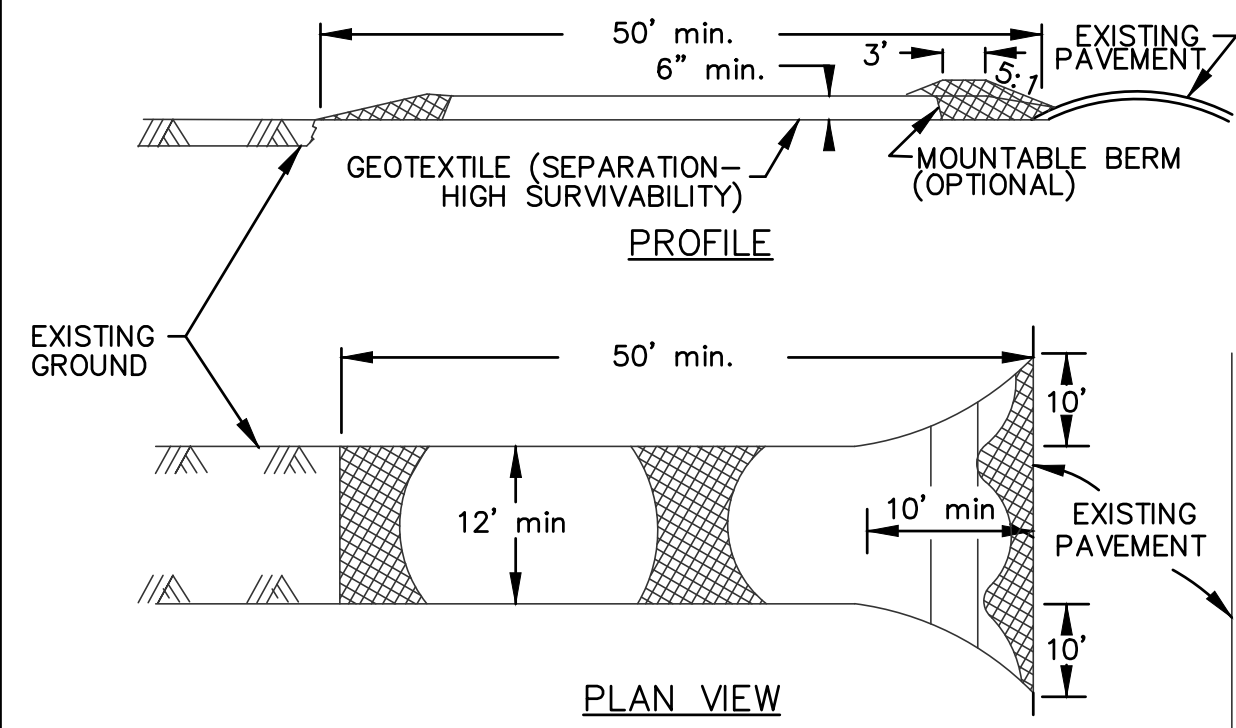
BRACE AVENUE DRAINAGE IMPROVEMENTS BRISTOL, CONNECTICUT PROFILE

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EROSION & SEDIMENTATION CONTROL LAYOUT

SCALE : 1" = 20'-0"



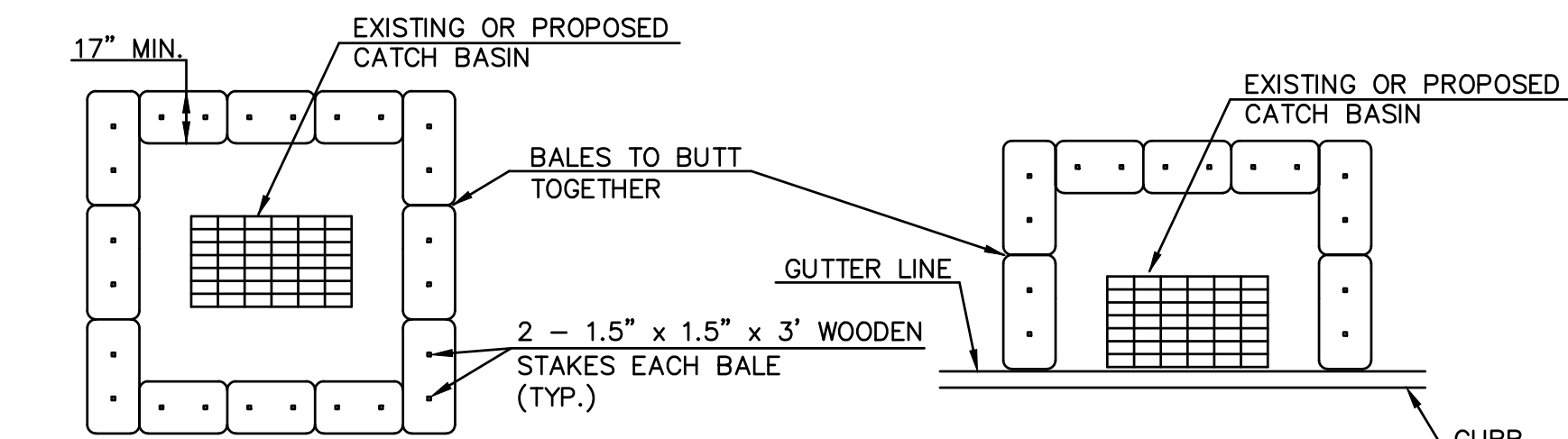
REFER TO PAGE 5-12-2 "CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENTATION CONTROL" AND PAGE 50 "ON-SITE MITIGATION FOR CONSTRUCTION ACTIVITIES".

STABILIZED CONSTRUCTION ENTRANCE

N.T.S.

CONSTRUCTION SPECIFICATION:

1. STONE SIZE - USE 2" STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
2. LENGTH - AS REQUIRED, BUT NOT LESS THAN 50 FT (EXCEPT ON A SINGLE RESIDENCE LOT WHERE A 30' MINIMUM LENGTH WOULD APPLY).
3. THICKNESS - NOT LESS THAN 6".
4. WIDTH - 12' MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS.
5. GEOTEXTILE - WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE. GEOTEXTILE WILL NOT BE REQUIRED ON A SINGLE FAMILY RESIDENCE LOT.
6. SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
7. MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAYS. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHT-OF-WAYS MUST BE REMOVED IMMEDIATELY.
8. WASHING - WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SETTLING AREA SIZED TO HOLD THE VOLUME OF WATER USED DURING ANY 2-HOUR PERIOD.
9. PERIODIC INSPECTION AND NECESSARY MAINTENANCE SHALL BE PROVIDED AFTER EACH RAINFALL.



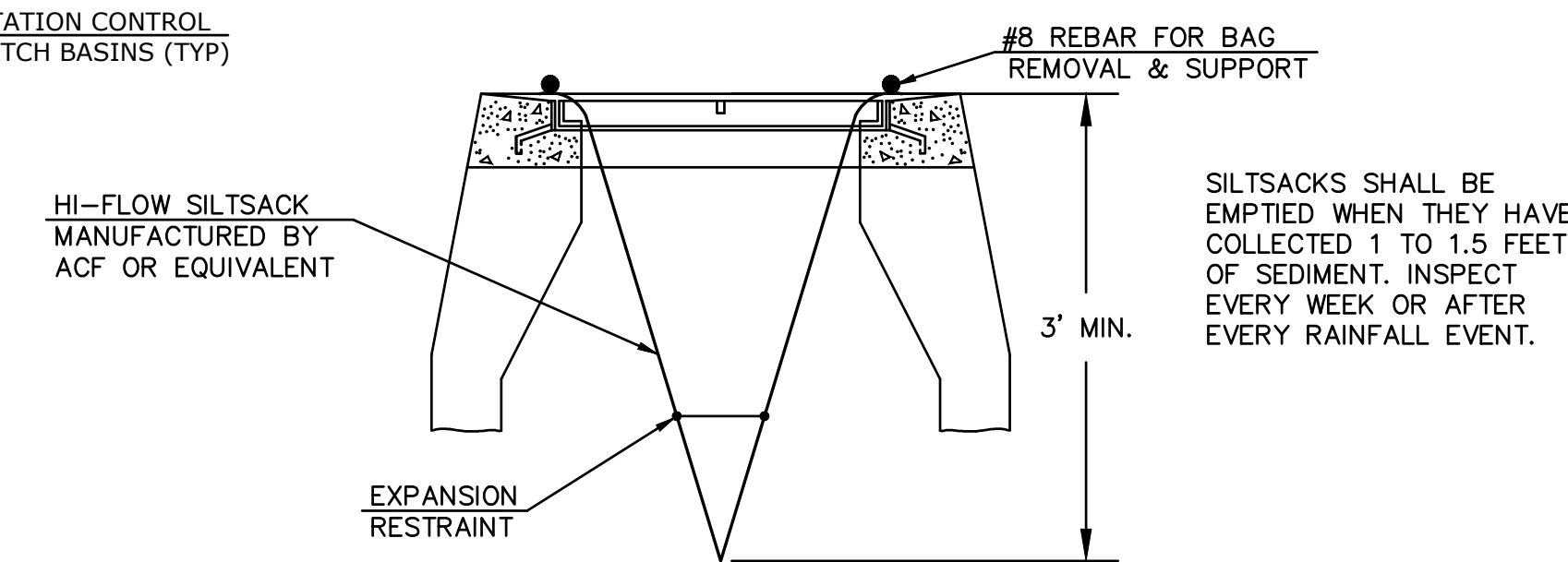
CATCH BASIN WITHOUT CURB IN SAG

CATCH BASIN WITH CURB

REFER TO PAGE 5-11-33 "CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENTATION CONTROL" AND PAGE 40 "ON-SITE MITIGATION FOR CONSTRUCTION ACTIVITIES".

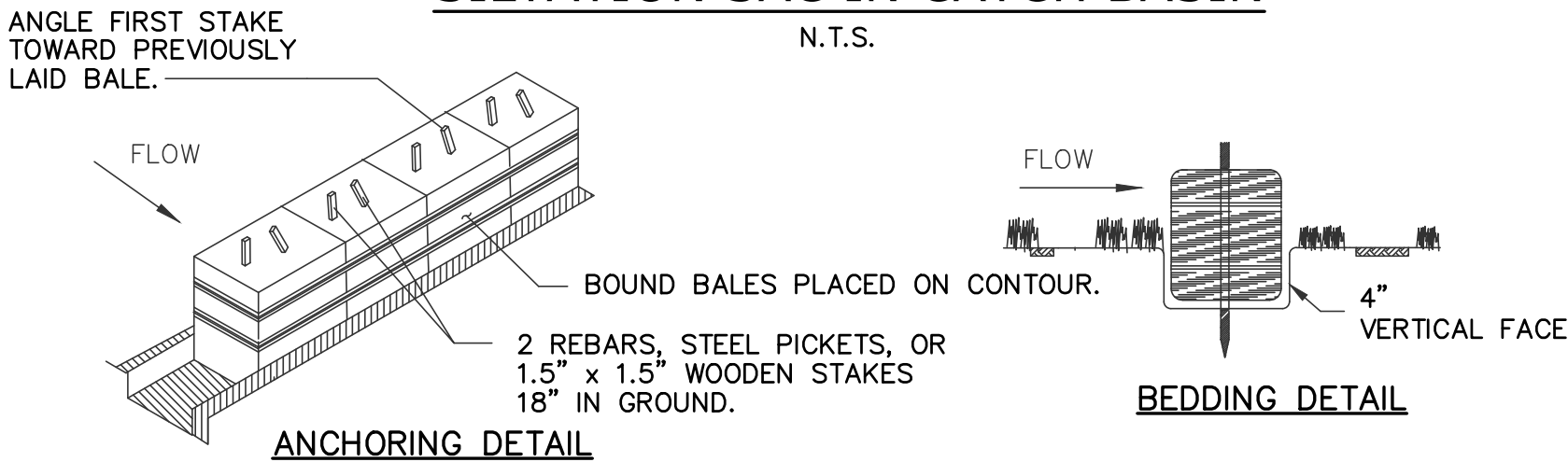
SEDIMENTATION CONTROL AT CATCH BASINS

N.T.S.



SILTATION SAC IN CATCH BASIN

N.T.S.



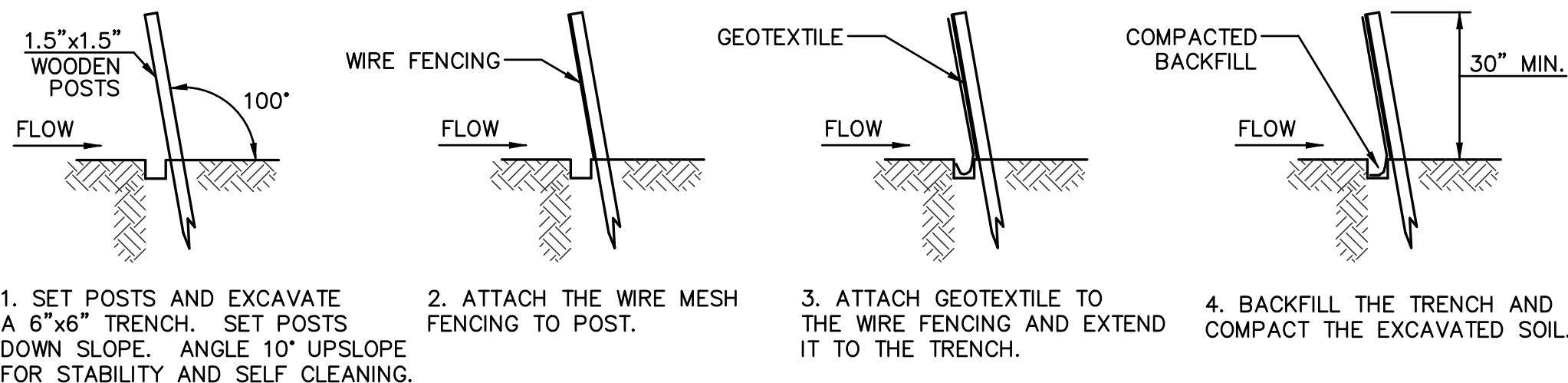
HAY BALE CONSTRUCTION SPECIFICATIONS:

1. HAY BALES SHALL BE PLACED AROUND NEWLY INSTALLED CATCH BASINS IN SAGS AND DROP INLETS TO PREVENT SEDIMENTATION AND OTHER DEBRIS FROM ACCUMULATING ON THE GRATE OR IN THE SUMP. HAY BALES SHOULD BE KEPT CLEAN AND FREE OF DEBRIS TO FACILITATE FLOW.
2. EACH BALE SHALL BE EMBEDDED IN THE SOIL A MINIMUM OF 4", AND PLACED SO THE BINDINGS ARE HORIZONTAL.
3. BALES SHALL BE SECURELY ANCHORED IN PLACE BY EITHER TWO STAKES OR REBARS DRIVEN THROUGH THE BALE. THE FIRST STAKE SHALL BE DRIVEN TOWARD THE PREVIOUSLY LAID BALE AT AN ANGLE TO FORCE THE BALES TOGETHER. STAKES SHALL BE DRIVEN FLUSH WITH THE BALE.
4. INSPECTION SHALL BE FREQUENT AND REPAIR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.
5. BALES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFULNESS SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.

REFER TO PAGE 5-11-30 "CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENTATION CONTROL" AND PAGE 53 "ON-SITE MITIGATION FOR CONSTRUCTION ACTIVITIES".

HAY BALE DETAIL

N.T.S.



GEOTEXTILE FENCE SYSTEM

REFER TO PAGE 5-11-35 "CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENTATION CONTROL" AND PAGE 55 "ON-SITE MITIGATION FOR CONSTRUCTION ACTIVITIES".

SEDIMENTATION CONTROL SYSTEM INSTALLATION

N.T.S.

GENERAL

THIS PLAN PROPOSES EROSION CONTROL MEASURES TO HELP CONTROL ACCELERATED EROSION AND SEDIMENTATION AND REDUCE THE DANGER FROM STORM WATER RUNOFF AT THE SITE. THE RUNOFF SHALL BE CONTROLLED BY THE INTERCEPTION, DIVERSION, AND SAFE DISPOSAL OF PRECIPITATION. RUNOFF SHALL ALSO BE CONTROLLED BY STAGING CONSTRUCTION ACTIVITY AND PRESERVING NATURAL VEGETATION WHENEVER POSSIBLE. EXISTING VEGETATION SHALL BE PROTECTED AND ONLY THAT CLEARING AND GRUBBING ABSOLUTELY NECESSARY FOR THE PROPOSED CONSTRUCTION SHALL BE PERFORMED. ALL DISTURBED AREAS SHALL BE RESTORED TO THEIR ORIGINAL CONDITION AND CONTOUR, UNLESS OTHERWISE INDICATED ON THE PLANS. THE CONTRACTOR SHALL TAKE SPECIAL CARE WITH HIS CONSTRUCTION METHODS AND SHALL COMPLY WITH THE FOLLOWING GUIDELINES. REFERENCE IS MADE TO THE "CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENTATION CONTROL" (2002), AS AMENDED. THE GUIDELINES ARE OBTAINABLE FROM THE CONNECTICUT DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION, 79 ELM STREET, HARTFORD, CONNECTICUT 06106, AND SHOULD BE USED AS A REFERENCE IN CONSTRUCTING THE EROSION AND SEDIMENTATION CONTROLS INDICATED ON THESE PLANS.

EROSION CONTROL

ALL AREAS SHALL BE PROTECTED FROM EROSION DURING AND AFTER CONSTRUCTION, PARTICULARLY THE STORAGE OF EXCAVATED OR STOCKPILED MATERIAL. THE CONTRACTOR SHALL CAREFULLY STRIP ALL TOPSOIL, LOAM, OR ORGANIC MATTER PRIOR TO TRENCHING OR OTHER OPERATIONS AND SHALL STORE THEM SEPARATELY FROM ALL OTHER MATERIALS DURING EXCAVATION. EACH STOCKPILE MUST BE ADEQUATELY RINGED WITH SEDIMENTATION CONTROL SYSTEM (I.E. HAY BALES AND/OR GEOTEXTILE FENCE). DEBRIS AND OTHER WASTE RESULTING FROM EQUIPMENT MAINTENANCE AND CONSTRUCTION WILL NOT BE DISCARDED ON SITE. STABILIZING OF SLOPES SHALL BE DONE IMMEDIATELY AFTER CONSTRUCTION OF SLOPES. SLOPES STEEPER THAN 3:1 SHALL BE PROTECTED WITH EROSION CONTROL MATTING. THIS MATTING IS MANUFACTURED COMBINATIONS OF MULCH AND NETTING AND SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. ALL OTHER AREAS SHALL BE MULCHED WITH HAY OR STRAW AT A RATE OF 2 TO 3 TONS PER ACRE. STRAW OR HAY MULCH MUST BE ANCHORED IMMEDIATELY AFTER SPREADING TO PREVENT WINDBLOWING. THE METHODS RECOMMENDED BY THE "CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENTATION CONTROL" SHALL BE USED FOR THE ANCHORING OF MULCH OR NETTING.

EROSION AND SEDIMENTATION CONTROL PLAN

AN EROSION AND SEDIMENTATION CONTROL PLAN MUST BE SUBMITTED IN WRITING TO THE ENGINEER AND APPROVED BY THE ENGINEER PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION ACTIVITIES. SEDIMENTATION CONTROL SYSTEM - THE SEDIMENTATION CONTROL SYSTEM SHALL CONSIST OF A GEOTEXTILE BARRIER FENCE. THE SEDIMENTATION CONTROL SYSTEM SHALL BE INSTALLED IMMEDIATELY AFTER A CUT SLOPE HAS BEEN GRADED, BEFORE A FILL SLOPE HAS BEEN CREATED AND AS INDICATED ON THE PLANS. THE SYSTEM IS DESIGNED TO INTERCEPT SILT AND SEDIMENT BEFORE IT REACHES THE WETLANDS OR WATERCOURSES. DEPOSITS OF SEDIMENT AND SILT ARE TO BE PERIODICALLY REMOVED FROM THE UPSTREAM SIDE OF THE FENCE. THIS MATERIAL IS TO BE SPREAD AND STABILIZED IN AREAS NOT SUBJECT TO EROSION, OR IN AREAS WHICH ARE NOT TO BE PAVED OR BUILT ON. THE SEDIMENTATION CONTROL SYSTEM IS TO BE REPLACED AS NECESSARY TO PROVIDE PROPER FILTERING ACTION. THE SYSTEM IS TO REMAIN IN PLACE AND BE MAINTAINED TO INSURE EFFICIENT SILTATION CONTROL UNTIL ALL AREAS ABOVE THE FENCE ARE STABILIZED AND VEGETATION HAS BEEN ESTABLISHED.

STACKED HAY BALES - HAY OR STRAW BALES USED FOR EROSION CONTROL SHALL BE STACKED AT CATCH BASINS WHERE SEDIMENT MAY ENTER THE CATCH BASIN OR AS DIRECTED BY THE ENGINEER. DEPOSITS OF SEDIMENT AND SILT ARE TO BE PERIODICALLY REMOVED FROM THE UPSTREAM SIDE OF THE EROSION CHECKS. THIS MATERIAL IS TO BE SPREAD AND STABILIZED IN AREAS NOT SUBJECT TO EROSION, OR IN AREAS WHICH ARE NOT TO BE PAVED OR BUILT ON. HAY OR STRAW BALES ARE TO BE REPLACED AS NECESSARY TO PROVIDE PROPER FILTERING ACTION. THE SYSTEM IS TO REMAIN IN PLACE AND BE MAINTAINED TO INSURE EFFICIENT SILTATION CONTROL UNTIL ALL AREAS ABOVE THE EROSION CHECKS ARE STABILIZED AND VEGETATION HAS BEEN ESTABLISHED.

IN ALL AREAS, REMOVAL OF TREES, BUSHES, AND OTHER VEGETATION, AND DISTURBANCE OF THE SOIL, IS TO BE KEPT TO AN ABSOLUTE MINIMUM WHILE ALLOWING PROPER DEVELOPMENT OF THE SITE.

DURING CONSTRUCTION, AS SMALL AN AREA OF SOIL AS POSSIBLE SHOULD BE EXPOSED FOR AS SHORT A TIME AS POSSIBLE. AFTER CONSTRUCTION, GRADE, RESPREAD TOPSOIL, AND STABILIZE SOIL BY SEEDING AND MULCHING AS TO PREVENT EROSION.

EROSION AND SEDIMENTATION CONTROL MAINTENANCE PROCEDURES

ALL EROSION AND SEDIMENTATION CONTROL DEVICES SHALL BE INSPECTED DURING CONSTRUCTION ON A DAILY BASIS AND FOLLOWING ALL STORMS BY THE RESIDENT ENGINEER. THE CONTRACTOR SHALL MAINTAIN AND MAKE REPAIRS AND REMOVE SEDIMENT AS REQUESTED BY THE ENGINEER. THIS WORK SHALL BE PERFORMED WITHIN 24 HOURS OF THE REQUEST AND THERE SHALL BE NO SEPARATE PAYMENT FOR THIS WORK.

THE CONTRACTOR SHALL CLEAN SEDIMENT AND DEBRIS FROM ALL DRAINAGE STRUCTURES, AND PIPES AT THE COMPLETION OF CONSTRUCTION, AND AS REQUESTED BY THE ENGINEER TO KEEP THE SYSTEM FUNCTIONING PROPERLY DURING CONSTRUCTION.

FOLLOWING COMPLETION OF CONSTRUCTION, THE CONTRACTOR SHALL REPAIR ALL ERODED AREAS AND ENSURE A GOOD STAND OF TURF IS ESTABLISHED THROUGHOUT. THE CONTRACTOR SHALL REPAIR ALL ERODED OR DISPLACED RIPRAP, AND CLEAN SEDIMENT COVERED STONES.

ALL APPROPRIATE EROSION AND SEDIMENT CONTROL MEASURES SHOULD BE ESTABLISHED PRIOR TO AND BE MAINTAINED THROUGH ALL CONSTRUCTION PHASES.

WETLAND IMPACTS & DISTURBANCE

EQUIPMENT OPERATING IN WETLANDS: OPERATION OF EQUIPMENT IN WETLAND AREAS IS GENERALLY NOT ALLOWED AND MUST BE APPROVED IN ADVANCE. ANY EQUIPMENT OPERATING IN WETLAND AREAS SHALL BE LOW GROUND PRESSURE (LESS THAN 3 PSI) OR SHALL BE SET ON TEMPORARY FILL OR MATTING. TEMPORARY FILL, TIMBER MATTING OR OTHER MATTING MUST BE APPROVED IN ADVANCE AND WILL NOT BE PAID SEPARATELY, BUT SHALL BE INCLUDED IN THE GENERAL COST OF OTHER RELATED WORK ITEMS.

TEMPORARY FILL: PLACEMENT OF TEMPORARY FILL (SOIL, RIP RAP, ETC.) IN WETLAND AREAS THAT IS NOT SPECIFICALLY SHOWN ON THE CONTRACT DRAWINGS IS GENERALLY NOT ALLOWED AND MUST BE APPROVED IN ADVANCE. ANY TEMPORARY FILL APPROVED FOR PLACEMENT, SHALL BE PLACED ON GEOTEXTILE LAID ON THE PRE-CONSTRUCTION WETLAND GRADE. UNCONFINED TEMPORARY FILL THAT IS PLACED IN FLOWING WATER SHALL BE ONLY CLEAN WASHED STONE.

WETLAND DISTURBANCE: ONLY THOSE WETLAND AREAS SPECIFICALLY SHOWN ON THE CONTRACT DRAWINGS OR INCLUDED IN APPROVED PERMITS TO BE DISTURBED, OR ADDITIONAL AREAS SPECIFICALLY APPROVED AS ABSOLUTELY NECESSARY TO COMPLETE THE PROPOSED WORK, SHALL BE DISTURBED.

WETLAND & WETLAND FRINGE AREA RESTORATION: ALL DISTURBED WETLAND AND WETLAND FRINGE AREAS SHALL BE RESTORED WITH A WETLAND SEED MIX OR WETLAND TRANSITIONAL SEED MIX CONTAINING ONLY SPECIES NATIVE TO CONNECTICUT. ALL SEED MIX FOR WETLAND OR WETLAND FRINGE (TRANSITIONAL) AREAS MUST BE SUBMITTED AND APPROVED IN ADVANCE. THIS WORK SHALL NOT BE PAID SEPARATELY, BUT SHALL BE INCLUDED IN THE GENERAL COST OF OTHER RELATED WORK ITEMS.

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			SUPV.	S.R.M.
			DESIGN	M.F.
			DRAWN	P.W.S.
			CHECKED	K.O.E.
NO.	DATE	DESCRIPTION	DATE	
REVISIONS				



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(860) 667-9624

PREPARED FOR

CITY OF BRISTOL
150 MAIN STREET
BRISTOL, CT 06010

BRACE AVENUE DRAINAGE IMPROVEMENTS BRISTOL, CONNECTICUT EROSION & SEDIMENTATION CONTROL

D -	BRACE AVE	PD	22071.10	SHEET	-
SIZE	PROJECT	FILE NAME	NUMBER	REV.	OF



City of Bristol

BRISTOL, CONNECTICUT 06010
Zoning Commission

DATE: March 6, 2024

TO: Bristol Inland Wetlands and Watercourses Agency

FROM: Bristol Land Use Office

Re: Referral of Zoning Applications #2489 & #2490
560, 594 & 644 Redstone Hill Road – Map 1, Lots B-1, 9B-2, 11, 11-2, 11-3 & 10B-1

The Zoning Commission will be receiving the above referenced applications at its next Regular Meeting on March 11, 2024, and the applications will be scheduled for a Public Hearing on April 8, 2024.

The applications are for the proposed site development of 84 units of senior housing located at 560, 594 & 644 Redstone Hill Road. The Site Plan for the applications are being referred to your agency for review and comment.

A digital copy of the Site Plan can be found at this link here:
<https://www.bristolct.gov/DocumentCenter/View/46198/2120>

For questions or additional information, please contact:
City Planner – Robert M. Flanagan, AICP – City of Bristol Land Use Office at 860-584-6225.



City of Bristol
DEPARTMENT OF PUBLIC WORKS
BRISTOL, CONNECTICUT 06010

Inland Wetlands
Environmental Protection Technician
Monthly Report

March 25, 2024

Approved Applications Inspections

No.	Location	Description	Inspection Dates	Status
#1593	Cedar Hill Lots 12-42	Open space subdivision - Residential building lots (Exp. 20270519)	3/8, 3/15, 3/22	Inact
#1567	Allentown Road (Wood shire)	Wetland crossing with residential community (Exp. 20260919)	3/8, 3/15, 3/22	Inact
#1819	Allentown Road (Saddlebrook)	Grading and water lateral installation (Exp. 20270417)	3/8, 3/15, 3/22	Inact
#1827	894 Middle Street	Environmental remediation (Exp. 20270717)	3/7, 3/14, 3/21	Inact
#1844	208 Jerome Avenue	Construction of driveway and utilities; new home (20230521)	3/7, 3/14, 3/21	EXPIRED
#1865	Muzzy Field - Downs Street	Repair sidewalks and ramp upgrades (Exp. 20240501)	3/8, 3/15, 3/22	Inact
#1868	Lot 21 Waterbury Road	Maintenance to existing haul road (Exp. 20240610)	3/8, 3/15, 3/22	Inact
#1878	134 Terryville Road	Regrade and establish parking area (20241002)	3/8, 3/15, 3/22	Inact
#1883	40 Janice Lane	Construct of 2 car garage (20240904)	3/8, 3/15, 3/22	Inact
#1889	35 Kory Lane	Remove and replace existing dock (20241106)	3/8, 3/15, 3/22	Inact
#1890	20 Beechwood Street	Construct addition, pool, and infiltration system (20250205)	3/8, 3/15, 3/22	Inact
#1891	Barnum Road	Clean detention ponds and existing debris piles (20250205)	3/8, 3/15, 3/22	Act
#1893	150 Century Drive	Construct drainage area and parking (20250304)	3/7, 3/14, 3/21	Act
#1894	315 Shrub Road	Reconstruct road for earth removal (20250304)	3/7, 3/14, 3/21	Inact

No.	Location	Description	Inspection Dates	Status
#1896	50 Terryville Avenue	Construct Gas Station (20250506)	3/8, 3/15, 3/22	Act
#1897	7 Royal Drive	Install shed, basketball court, above ground pool (20251007)	3/7, 3/14, 3/21	Inact
#1898	132 Marcia Drive	Grade, install patio, and fence (20250506)	3/7, 3/14, 3/21	Inact
#1901	105 Maxine Drive	Install pipe, fence, and bridge (20250902)	3/7, 3/14, 3/21	Inact
#1902	44 Nelson Farm Road	Addition 22x12 w/ Bioswale (20250805)	3/7, 3/14, 3/21	Inact
#1903	16 Great Pyrenees Way	Construct in ground pool (20250805)	3/7, 3/14, 3/21	Inact
#1904	Huntington Woods	Replace 60" CMP with HDPE (20250805)	3/8, 3/15, 3/22	Inact
#1905	Pine Lake West Bank	Replace sedimentation basin (20250805)	3/7, 3/14, 3/21	Complete
#1907	115 Lakewood Circle	Construct 20x40 addition (20251007)	3/8, 3/15, 3/22	Inact
#1908	351 Minor Street	Construct Oil/Propane facility (20251202)	3/8, 3/15, 3/22	Act
#1909	21 Sonstrom Road	Construct Garage (20251202)	3/7, 3/14, 3/21	Inact
#1910	172-176 East Main Street	Construct new Dunkin Donuts (20260303)	3/7, 3/14, 3/21	Inact
#1915	505-545 Redstone Hill Road	18 Lot Subdivision (20260505)	3/7, 3/14, 3/21	Act
#1919	258 Brook Street	Demo existing garage, replace with 3 car garage (20260407)	3/7, 3/14, 3/21	Inact
#1922	71 Horizon Drive	Parking lot construction. Modification of #1848 (20260505)	3/7, 3/14, 3/21	Inact
#1925	66 Vermont Avenue	Removal of smaller trees and grading (20260505)	3/7, 3/14, 3/21	Inact
#1927	Lot 44 Valmore Road	Construct house and grade for wetlands mitigation (20260505)	3/7, 3/14, 3/21	Complete
#1929	35 Oaken Road	Install in ground swimming pool (20260505)	3/7, 3/14, 3/21	Inact
#1933	Lot 2 Business Park Drive	Filling & grading for parking area to new building (20260707)	3/7, 3/14, 3/21	Act
#1934	Glenn Street	Harding a section to allow passage of woodland machinery (20260707)	3/7, 3/14, 3/21	Inact
#1936	52 Shelia Court	Construct 20 new spaces with related storm water management (20260707)	3/7, 3/14, 3/21	Inact
#1937	Lot 18 Donovan Court	Construct new house (20260901)	3/8, 3/15, 3/22	Inact
#1940	Lot 42 & 46 Mill Pond Drive	Construct new residential homes (20211006)	3/7, 3/14, 3/21	Act

No.	Location	Description	Inspection Dates	Status
#1944	47 Kory Lane	Addition to existing house (20260901)	3/8, 3/15, 3/22	Inact
#1945	Lake Avenue Bridge 017005	Bridge replacement (20261006)	3/7, 3/14, 3/21	Inact
#1946	175 Century Drive	28,875 SF addition to existing facility (20261006)	3/7, 3/14, 3/21	Inact
#1949	23 Columbus Avenue	Install in-ground pool (20261103)	3/7, 3/14, 3/21	Act
#1950	801 Burlington Avenue	Construct single family home (20261103)	3/7, 3/14, 3/21	Inact
#1951	Lot 7B 1-2 Marsh	Construct single family home (20261103)	3/8, 3/15, 3/22	Act
#1966	183 Foxden Road	Extend sanitary sewer to service two lots (20270202)	3/7, 3/14, 3/21	Act
#1968	175 Shrub Road	One mile Hiking Trail elevated boardwalks (20270202)	3/7, 3/14, 3/21	Act
#1970	16 Andrews Street	paved parking lot and area of grading (20270406)	3/7, 3/14, 3/21	Act
#1972	34 Climbing Street	New deck and in-ground swimming pool (20270406)	3/7, 3/14, 3/21	Act
#1974	Memorial Blvd	Removal of tennis courts and planting of a new urban garden(20270406)	3/7, 3/14, 3/21	Inact
#1977	Wolcott Street	installation of temporary bypass pipe in culvert for repairs (20270406)	3/8, 3/15, 3/22	Inact
#1979	27 Cherry Hill Drive	Addition of a 30 x 30 attached garage(20270406)	3/7, 3/14, 3/21	Complete
#1982	Lot #13 Village Street	Construct single family home (20270711)	3/7, 3/14, 3/21	Act
#1983	243 Jacobs Street	Regrade River at Rockwell Park (20270801)	3/8, 3/15, 3/22	Inact
#1984	Jerome Ave Bridge	Replace Pedestrian Bridge (20270711)	3/7, 3/14, 3/21	Inact
#1986	85 Buckley Ave	Construct Garage Addition (20270711)	3/8, 3/15, 3/22	Inact
#1988	Lot# 7-1 Terryville Road	Commercial Building (20270801)	3/8, 3/15, 3/22	Act
#1989	177 Corbin Ridge	Retaining Wall, Above Ground Pool, And Deck (20270711)	3/8, 3/15, 3/22	Inact
#1990	29 Woodside Way	Inground Pool (20270711)	3/7, 3/14, 3/21	Inact
#1991	62 Litchfield Lane	Inground Pool (20270711)	3/7, 3/14, 3/21	Inact
#1993	21 Royal Drive	Grading and Drainage in Rear Yard (20270801)	3/7, 3/14, 3/21	Inact
#1998	76 Mountain View Ave	Inground Pool (20270912)	3/7, 3/14, 3/21	Inact

No.	Location	Description	Inspection Dates	Status
#1999	724 Wolcott Road	New Home Construction (20271107)	3/8, 3/15, 3/22	Act
#2000	Shrub Rd/ Jerome Ave	Sidewalk Improvement, and pedestrian Bridge (20280109)	3/7, 3/14, 3/21	Inact
#2002	1261 & 1265 Farmington Ave	Construct Medical Office, Restaurant, and Car Wash (20280109)	3/8, 3/15, 3/22	Inact
#2003	50 Terryville Rd	Pond Maintenance (20280109)	3/8, 3/15, 3/22	Act
#2004	Mellen Street Bridge	Bridge replacement (20280206)	3/7, 3/14, 3/21	Act
#2005	71 Minnesota Lane	Construct a 20x30 Garage (20280306)	3/8, 3/15, 3/22	Inact
#2007	109 Moody Street	Construction Of A Plate Arch Spanning The Watercourse (20280501)	3/7, 3/14, 3/21	Inact
#2008	205 Pennwood Place	Install 20x40 Inground Pool (20280501)	3/8, 3/15, 3/22	Inact
#2010	Clark Ave Lot 271-1A	Mixed use development (20280710)	3/8, 3/15, 3/22	Inact
#2011	152 Beths Ave	Construct Single Family House (20280710)	3/7, 3/14, 3/21	Act
#2012	812 Redstone Hill Road	New In-Ground Pool (20280710)	3/7, 3/14, 3/21	Inact
#2013	54 Merrill Court	Repair of Septic System (20280710)	3/8, 3/15, 3/22	Inact
#2015	Page Park	Park Renovations and Improvements (20281205)	3/8, 3/15, 3/22	Inact
#2016	Downs Street Bridge	Replacement of Bridge (20281205)	3/7, 3/14, 3/21	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**

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. 20240312- P/O called, tree has been removed from the stream.- **Complete.**

C. O. INSPECTIONS:

70 Gino Drive

252 Silo Road

NOTICE AND NOTICE OF VIOLATION LETTERS:



Fundraising for the *Wallace Barnes Accessible Nature Trail*

Daylight is lengthening, snow is melting, and the *Wallace Barnes Accessible Nature Trail* is coming soon! People of all ages and abilities can now be immersed in nature as it comes back to life this spring.

There is still more to be done, and you can help! We need to raise the last \$200,000 to complete the trail. The final phase includes the connection of the 1-mile loop to the ADA accessible Visitor Center, and the construction of two platforms around the pond for relaxing views and educational programs.

Once done, the Wallace Barnes Accessible Trail will be open for everyone's enjoyment all year from dawn-to-dusk for FREE! The local community has done so much for the Harry C. Barnes Memorial Nature Center and the Environmental Learning Centers of Connecticut. This new addition will allow those who support us to continue experiencing these woods with all members of their family for the rest of their lives.

If you or a loved one has benefited from the BNC trails, educational programs, or special events, please consider donating via the attached form or online at elcct.org/donations/accessible-trail-fund/.



Thank you for making this possible! We hope to see you there soon.

Sincerely,

Scott Heth
Executive Director

Harry C. Barnes Memorial Nature Center ■ Indian Rock Nature Preserve ■ Pigeon Hill Preserve ■ Hurley Hill Preserve
Lishman Preserve ■ Ernest and Ruth Hart Nature Preserve ■ Minor Preserve ■ Toffolon Preserve ■ Fox Hollow Preserve
Shepard Nature Preserve ■ Shangri-La Preserve ■ Simard Sanctuary ■ South Mountain Preserve ■ Sunnysdale Preserve



Environmental Learning Centers
of Connecticut

501 Wolcott Road
Bristol, CT 06010

☐ Yes, I would love to make nature accessible for all!

☐ \$2,500

☐ \$1,500

☐ \$500

☐ \$250

☐ \$100

☐ Other: \$ _____

☐ My check made payable to ELCCT is enclosed. ☐ Please charge my credit card.

Name(s) _____

Telephone _____

Email _____

Address _____

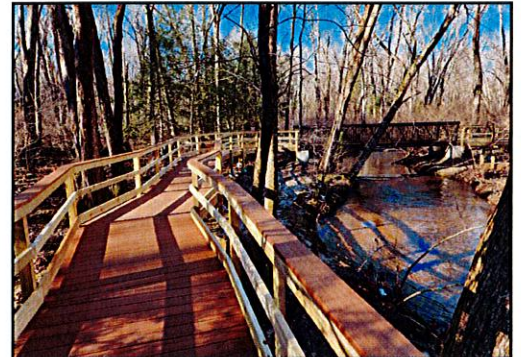
Town _____ State _____ Zip _____

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☐ AMEX ☐ MC ☐ VISA

Signature _____



Or donate online at elcct.org/donations/accessible-trail-fund/



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