City of Bristol
Conservation Commission/ Inland Wetlands and Watercourses Agency

REGULAR MEETING - MONDAY, MAY 6, 2024
CITY HALL COUNCIL CHAMBERS
111 NORTH MAIN STREET
6:30 P.M.

INFORMATION FOR THE PUBLIC TO ACCESS THIS MEETING
Zoom Meeting link:
https://bristolct-gov.zoom.us/j/81623893056?pwd=QbJSiSiFet1nDFydouXgvnY93IjiH6.1
Meeting ID:
816 2389 3056
Meeting Passcode:
123456
Join by phone
1-929-205-6099

AGENDA

1. Call to Order
2. Pledge of Allegiance
3. Introductions and Seating of Alternates
4. Conservation Commission
    a. Presentation by Friends of the Hoppers
5. Inland Wetlands and Watercourses Agency
6. Introductions and Seating of Alternates
7. Public Participation
8. Approval of Minutes
    a. March 30, 2024 - On-Site Meeting

b. April 1, 2024 - Regular Meeting

9. 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 #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.

10. Receipt of New Applications

a. Application #2024 – Wetlands application for a single-family residential home to replace previous home at Lot 4A, Burlington Avenue; Assessor's Map 58, Lot 4A; William Delfino, applicant.

b. Application #2025 – Wetlands application as part of a cease and correct order to level ground and slope away from home, clean brush, and new landscaping or fence at 465 Emmett Street; Assessor's Map 3, Lot 9-1; Peter Plewa, applicant.

c. Application #2026 – Wetlands application for a new addition at 54 Litchfield Lane; Assessor's Map 52, Lot 16; Brendan Till, applicant.

d. Application #2027 – Wetlands application for remediation of drainage swale and contaminants including excavation of channel and restoration of riprap along channel bed and banks at 300 Broad Street; Assessor's Map 43, Lot 100; 300 Broad Street Property LLC, applicant.

e. Application #2028 – Wetlands application for a new 4 bay garage at 41 Stafford Avenue; Assessor's Map 44, Lot 71; Harold Etherington, applicant.

f. Application #2029 – Wetlands application for the replacement of the Divinity Street culvert over an unnamed Brook within Divinity Street Right-of-Way within an existing

easement and City of Bristol Right-of-Way; City of Bristol, Department of Public Works, applicant.

g. Application #2030 – Wetlands application to restore, stabilize, realign, and maintain the existing channel and bank within an existing easement at 108 Marlene Street; assessor's Map 60, Lot 24; City of Bristol, Department of Public Works, applicant.

11. New Business

12. Old Business

13. Staff Approved Applications

a.

App.# Approved Administrative	Street No.	Address	Purpose of App.
102103	80	Redwood Drive	Shed
102106	55	Lacava Road	Demolish & remove structure after fir
102107	77	Winding Brook Road	Split rail fence
102109	58	Marlene Street	Replace existing deck
102110	352	Witches Rock Road	Covered porch
102111	69	Beechwood Lane	Vinyl fence
102112	58	Claire Street	Shed
102113	42	Marlene Street	Fence

14. Staff Reports

a. IWWC Report - April 2024

15. Communications

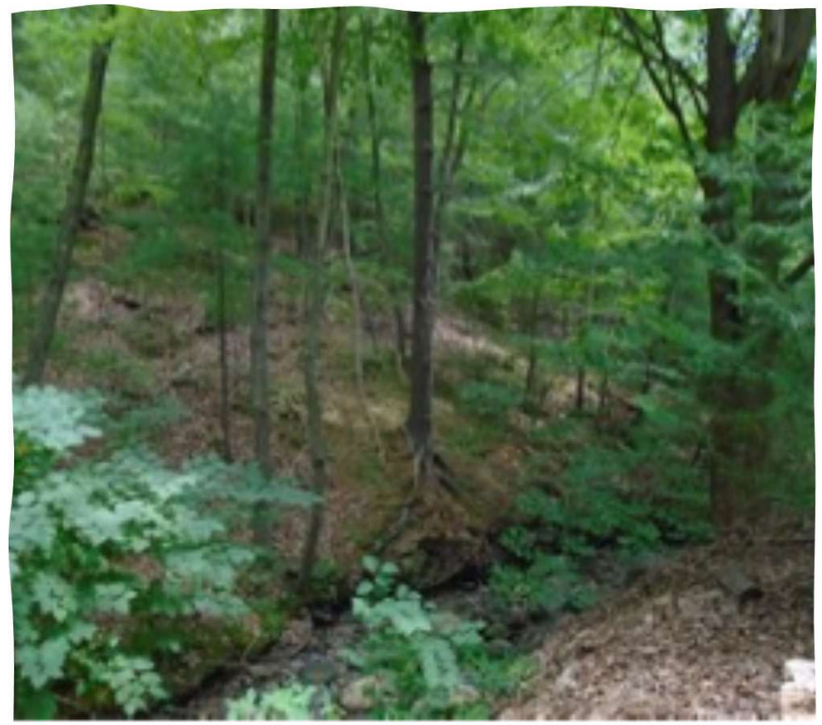
a. Permit Application for the Use of Pesticides in State Waters - Sunnydale Basin

b. DEEP Permit – Cedar Lake

16. Adjournment

REMINDER: The next Regular Meeting of the Inland Wetland Commission is Monday, June 3, 2024

THE HOPPERS AND THE SCHAFFRICK PROPERTIES



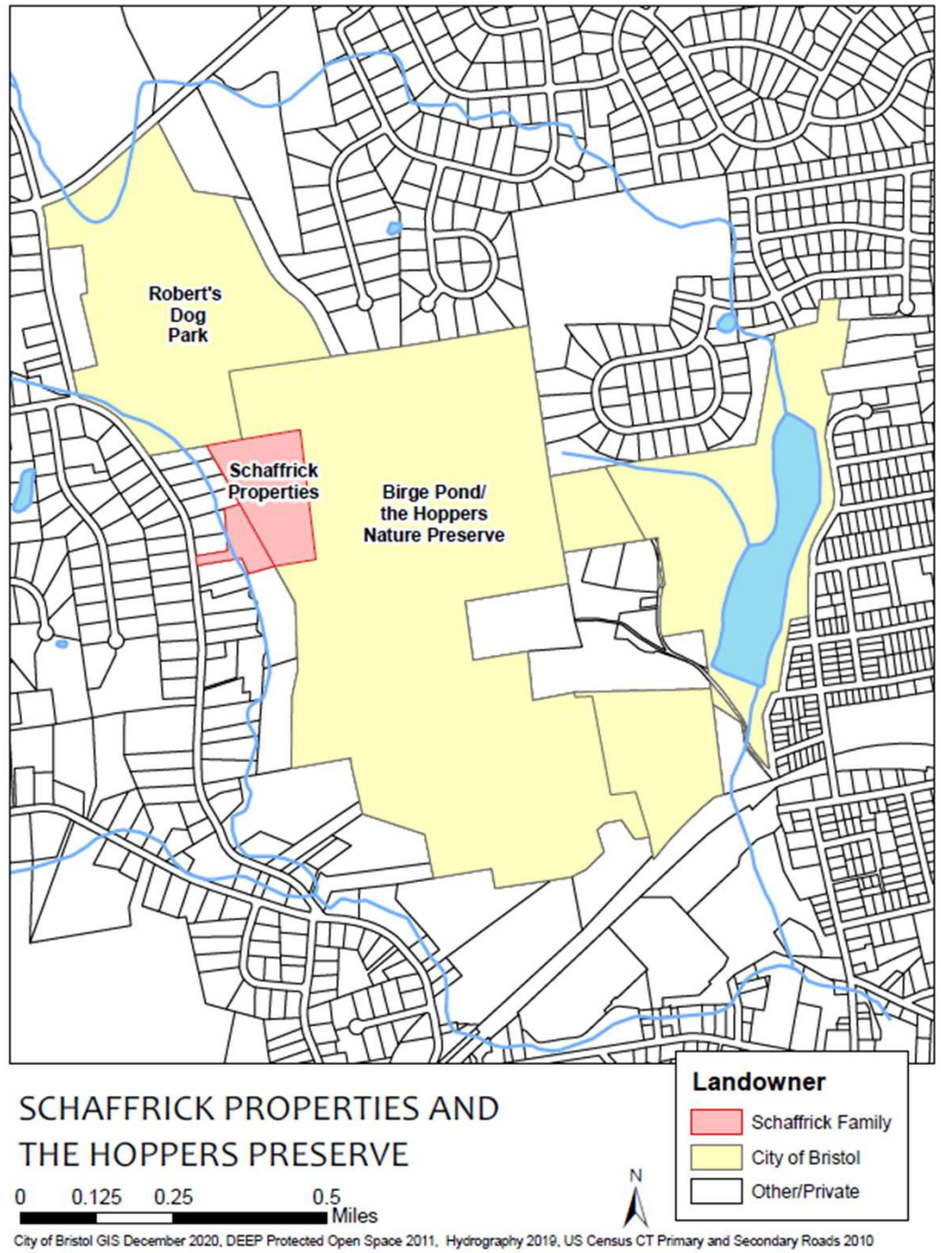
THE HOPPERS-BIRGE POND

185 acres of forested nature preserve surrounded by suburbia, located in Bristol, Connecticut. The adjacent dog park adds 85 acres of grass and shrubland for a total of 270 acres of open space.

THE SCHAFFRICK PROPERTIES

10 acres of privately held land adjacent to the nature preserve that are currently under threat of mining and development.

So why should we care about 10 acres when we already have 270?

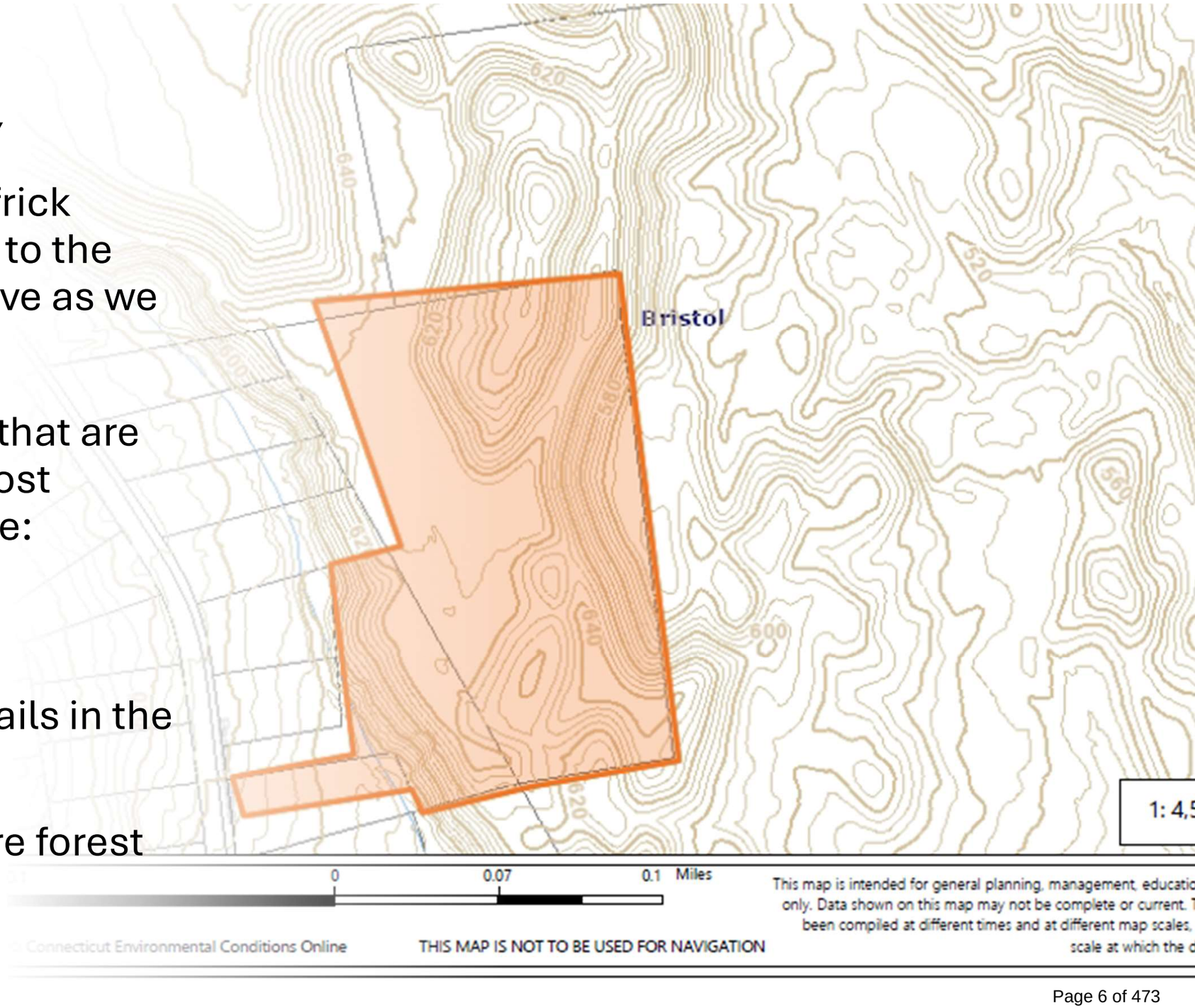


SMALL BUT MIGHTY

Just 10 acres, the Schaffrick properties hold the keys to the experience of the preserve as we know it.

The features of the land that are irreplaceable and are most important to preserve are:

- the unique geological formations
- the most important trails in the system
- the integrity of the core forest



OTHER CONSIDERATIONS INCLUDE:

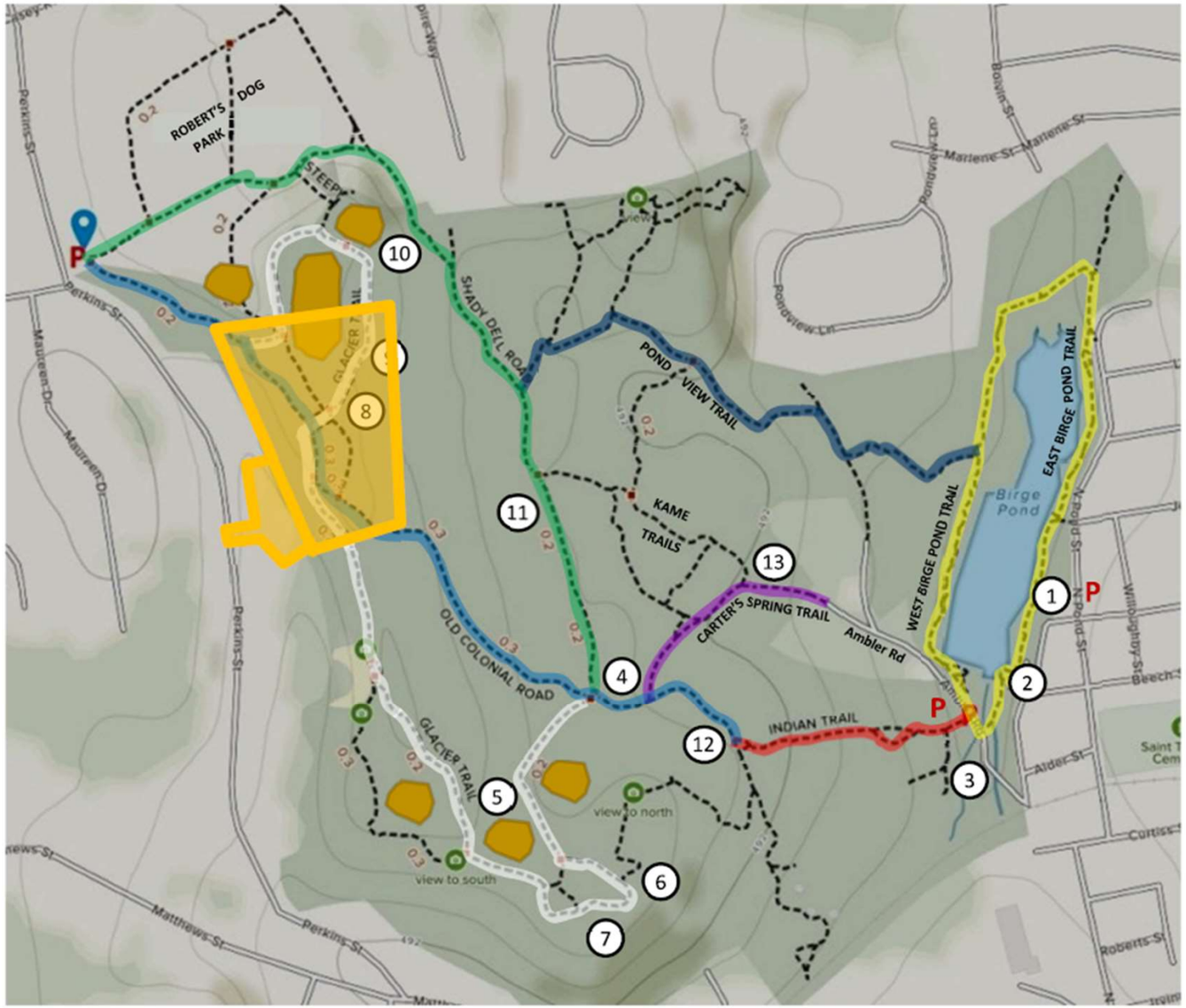
- the presence of endangered species on the larger property
- the integrity of the riparian area along Perkins Street
- the potential presence of native American artifacts

GEOLOGICAL FEATURES

The Schaffrick properties are shaded in orange. From the shaded relief map you can see the features:

- One-half of the Great (oblong) Kettle is within the boundary
- Two smaller kettles can be seen to the south of the property
- An esker, or ridge, divides east and west sides of the property

There is a history of destruction of glacial features on the land. This kettle, known as the Robert's Kettle was almost destroyed by mining interests in the 1990s. Because of an outcry by naturalists and lots of publicity, the kettle was saved, but was nicked by an errant bulldozer and lost its perfectly round shape. It survived, though marred,
but sadly, others did not. The mining completely decimated the "mother and daughter" kettles where the dog park is now. These beloved kettles were a large and a small side-by-side. They can never be replaced.



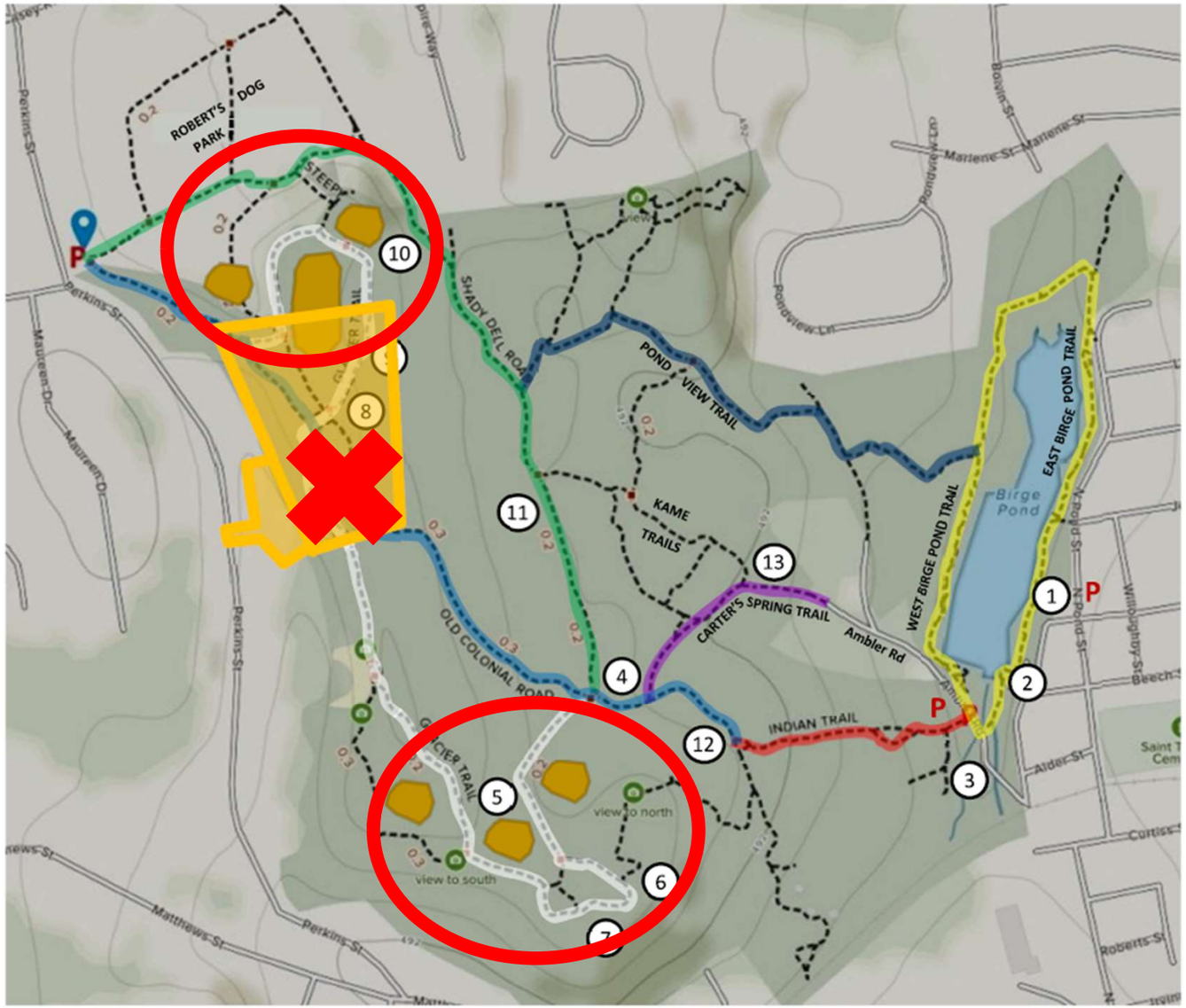
The Schaffrick Properties are shaded in orange.

TRAIL SYSTEM

The Blue Colonial Road Trail and the White Glacial Trail both run through the Schaffrick property. The public has been using these trails for decades.

The Blue Trail is the most efficient connection between the dog park and the pond area.

Though the Green Shady Dell Trail also connects north to east, it circumvents the glacial features due to topography, and has no spectacular views



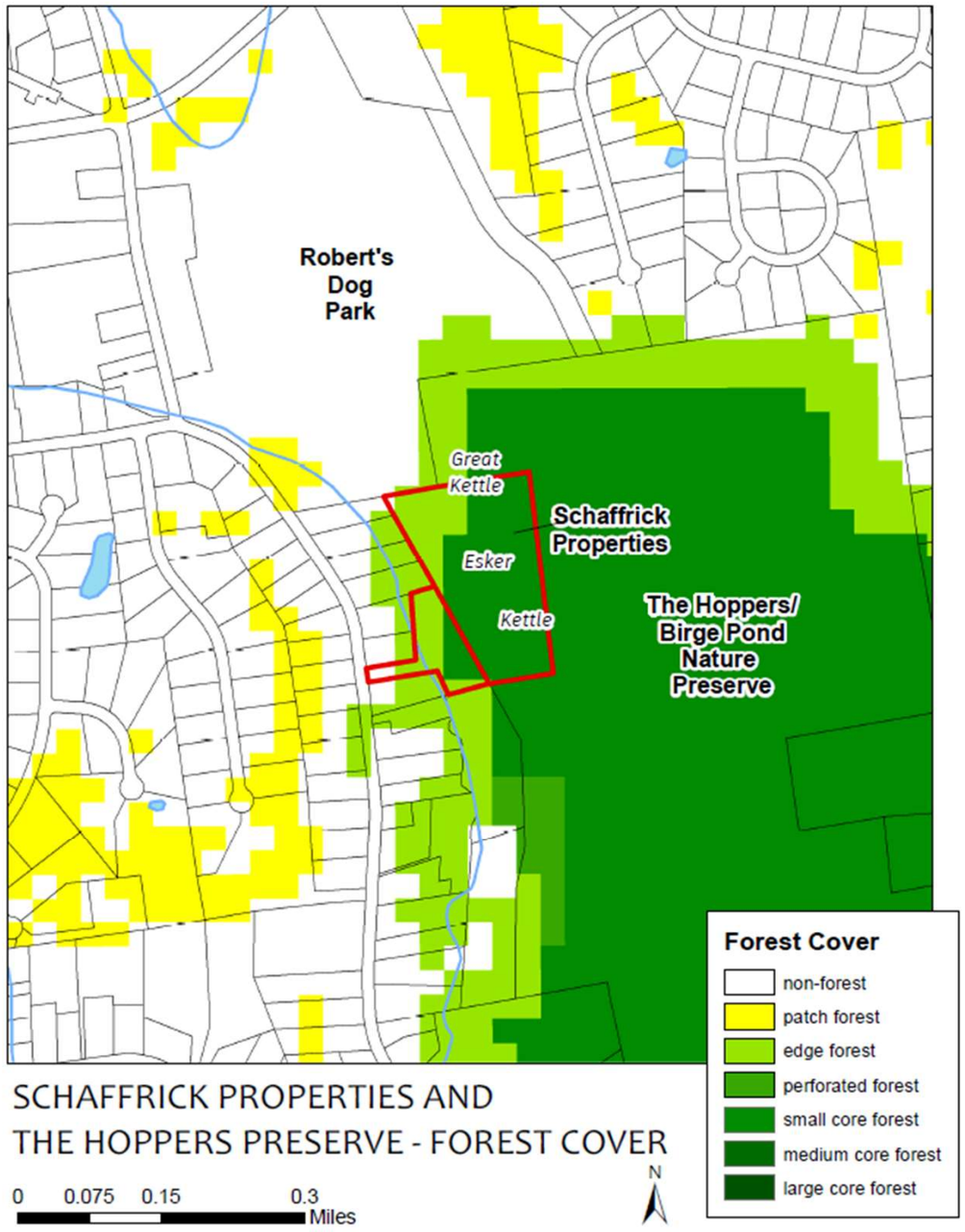
The Schaffrick Property is shaded in orange.

TRAIL SYSTEM

The White trail is the crowning glory of the Hoppers. It winds around each of the glacial features and ridge views, creating a showcase of the best of the Hopper's natural landscapes.

If this trail were to be cut off by housing, the remnants of the glacial features to the north and the features to the south would be separated.

With marketing, the trail as a whole could be a prime tourist stop for hikers visiting the Bristol area. If developed, it will be utterly ruined.

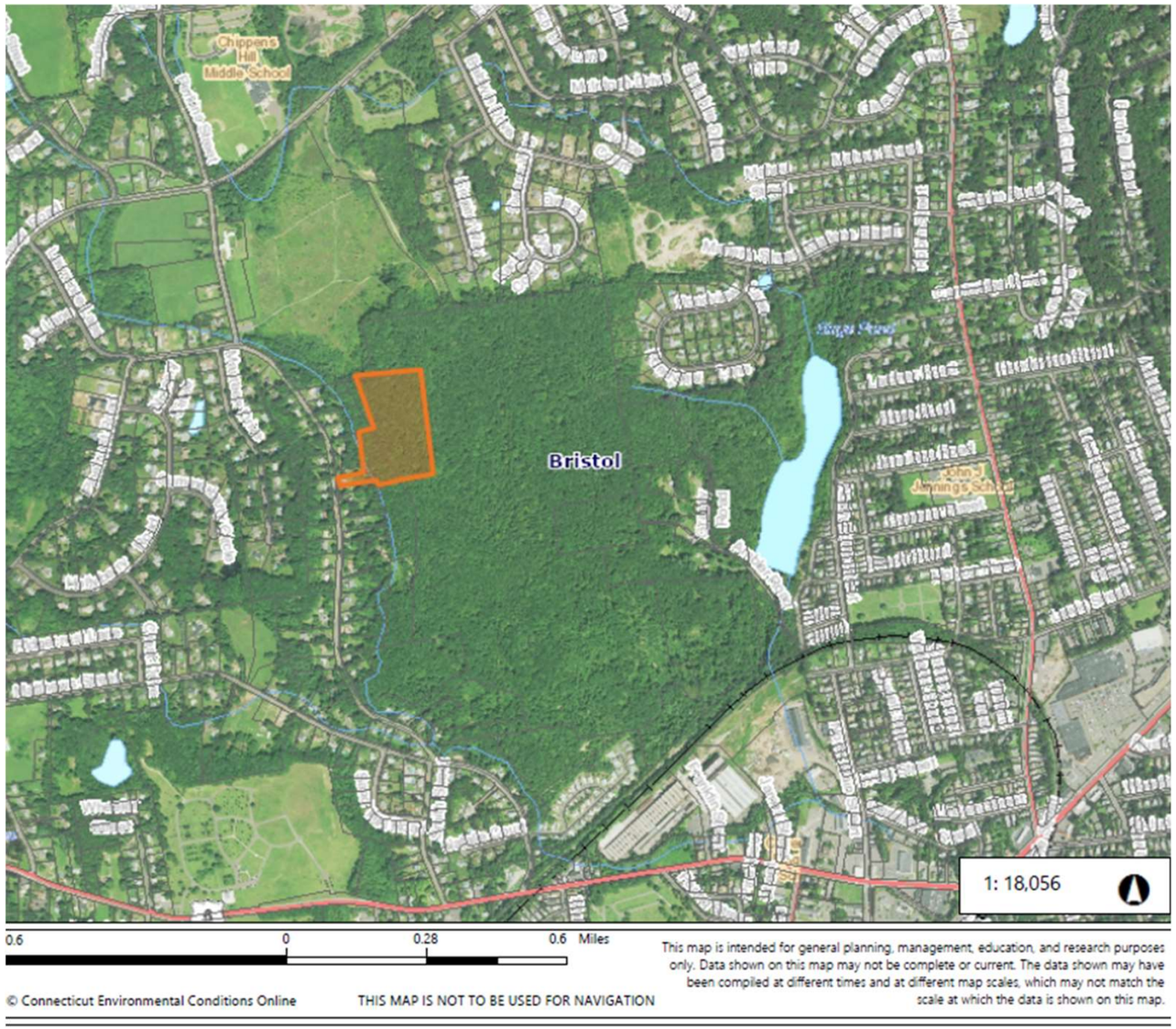


CORE FOREST

Core forest is a rare resource in suburban areas across Connecticut both for wildlife, flora and humans alike.

The Hoppers is a small core forest, meaning that it is a continuous forested area under 250 acres in size.

Compared to “fringe” forests or habitats —those surrounded by human development such as towns or roads — core forests provide a much more stable home for species, protecting biodiversity. The continuity of the ecosystem allows individual members of a species to have a wider range in which to search for food and shelter.



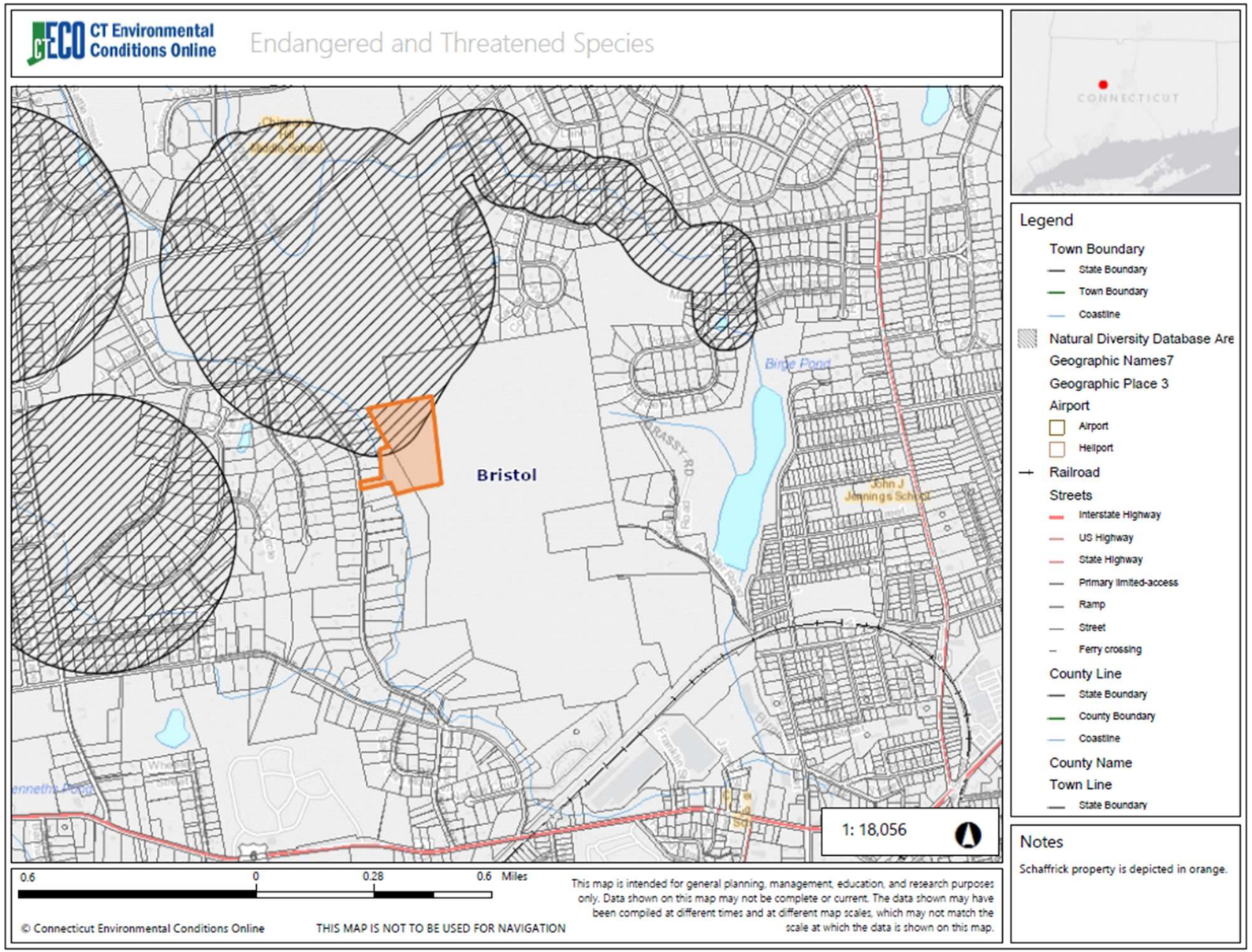
The Schaffrick Properties are shaded in orange.

CORE FOREST

Rare native plants and animals still remain in the heart of the Hoppers. One example is the American Chestnut tree, which resides on the Schaffrick properties. Though the great trunks have been dead for over a century, the shoots remain.

In only a very few places do the shoots grow to a size where they can reproduce to make fertile chestnuts. The Hoppers is one of those places.

Once the forest is razed for development, the roots that feed the shoots will be gone forever.



The Schaffrick Properties are shaded in orange.

ENDANGERED SPECIES

The habitat for at least one endangered species is found in the edge forest that covers the northern part of the Schaffrick property.

DEEP will need to be consulted to find out the exact species, but it is thought to be a bird that lives in grassland and edge forest, as the range of the species is centered on the dog park. It will likely be greatly disturbed by the construction and loss of habitat.

The Schaffrick Properties are outlined in pink.

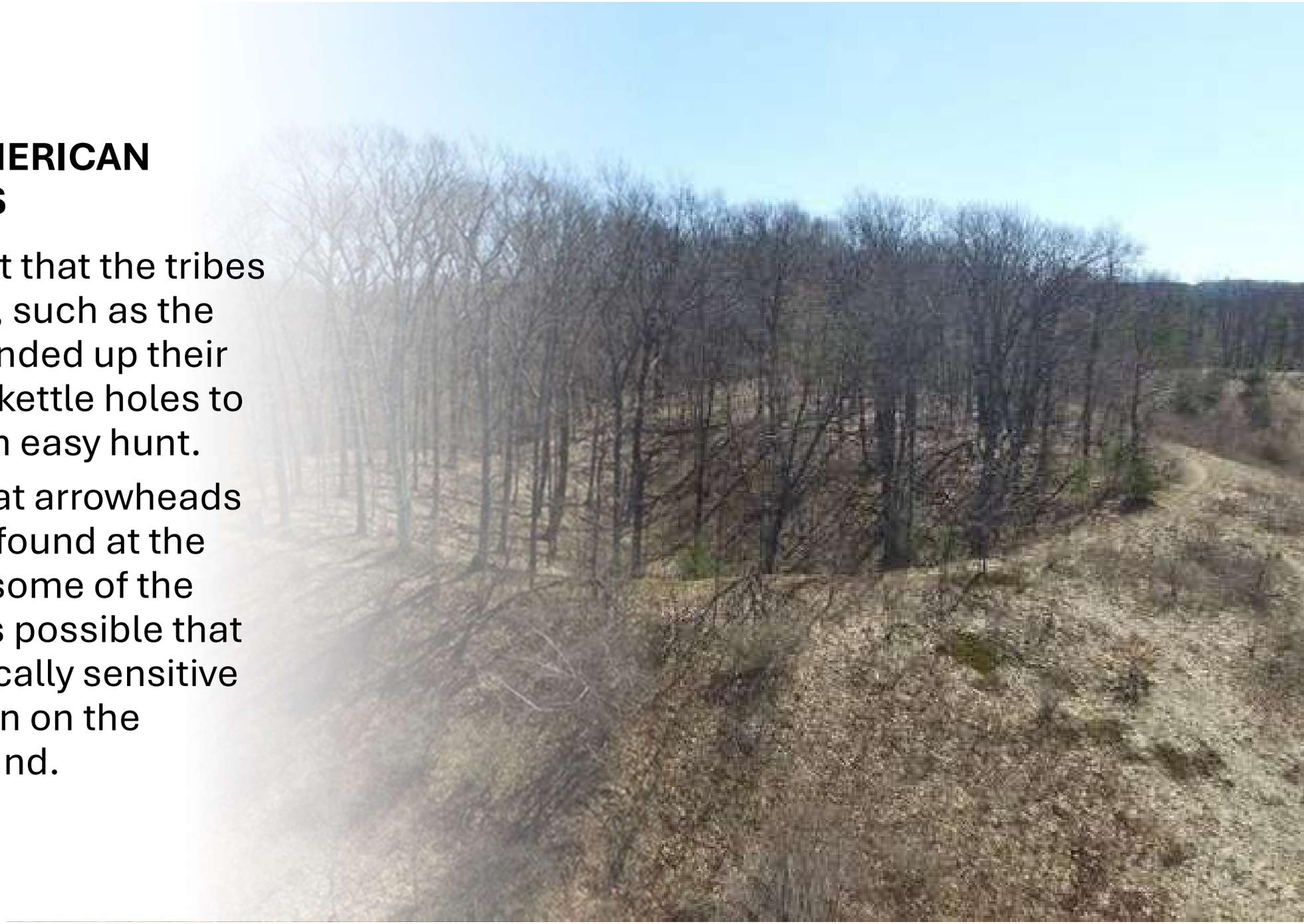
RIPARIAN INTEGRITY

As you can see from this scale model, there is a stream running at the base of the cliff, where they will have to drastically regrade in order to get a road into the property from the street. The sides of the cliff will have to be removed. It will be almost impossible to prevent erosion as the stream isn't even on the Schaffrick property for the majority of the length of the area where they need to remove the cliff.

NATIVE AMERICAN ARTIFACTS

It is thought that the tribes of the area, such as the Tunxis, rounded up their prey in the kettle holes to make for an easy hunt.

It is true that arrowheads have been found at the bottom of some of the kettles. It is possible that archeologically sensitive sites remain on the Shaffrick land.



A little history...

Hoppers in the Spotlight: Bristol Press 1967

Natural Beauty

By DAVID GREENLEAF

The "Hoppers", a large tract of land between Peacedale Street and Terryville Avenue, is one of the richest geological fields in the state. The region is virtually unknown to most Bristolites, but efforts are being made by some to bring the area greater recognition.

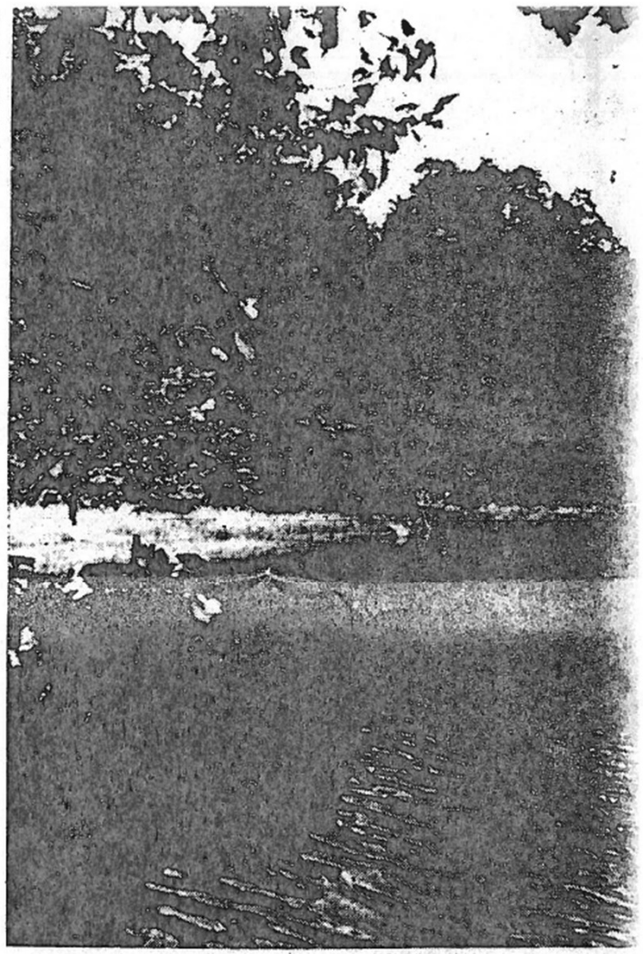
Parts of the Hoppers are fast disappearing. Already the power shovels have taken huge bites into the rich gravel beds off Peacedale Street. There has been some discussion of making the Hoppers into a park area and some steps have been taken along this line. The Happy Wanderers, the local chapter of the National Campers and Hikers Association, has taken steps to interest its members and other prominent people in saving the natural beauty of the Hoppers.

The "Hoppers" is the local terminology for huge "kettle holes" that were formed when the great glaciers covered the area some 12,000 years ago. At that time huge pieces of ice broke off and became buried in the gravel of the region. When the ice slowly melted and the meltwater percolated through the gravelly soil, the huge depressions or "Hoppers" remained to show where they had been.

Holes Very Deep

The Kettle Holes are very large, sometimes running to several hundred feet in depth and breadth.

The Kettle Holes, while they are the most prominent, are not the only features of the region. Under the tremendous pressures of the glaciers ran rushing rivers carrying silts and gravels through deep crevasses and forming eskers and drumlins. Eskers are narrow ridges or mounds of glacial drift. Drumlins are low, rounded hills also made up of glacial deposits. An excellent example of an esker can be found between two of the larger Kettle Holes. Here a river ran between the two blocks of ice which eventually formed the Kettle Holes and deposited silt which developed into a high ridge. A good drumlin can be seen on the northeast corner of the Pequabuck.



East Side Of "Hoppers" Area Viewed From Birge's Pon

Peacedale-Perkins Street intersection. The area is also a part of a series of glacial lake terraces which stretches from Burlington to the southern side of the Pequabuck. These terraces are features of the sandhills show that at the time of the glaciers, drainage in the region was not along the course presently followed by the Pequabuck, but to the southwest in the area of the Hancock Brook Dam in Plymouth and Thomaston.

The sandhills behind Rockwell Park and along Terryville Road on both sides of the river are the highest hills of this type in the state of Connecticut. Other similar hills are located throughout the Hoppers, and especially in the Peacedale Street area, are being destroyed by gravel seekers. These hills are made up almost entirely of sand and are among the best examples of such deposits in the state.

Historical Area

Geological features are not the only outstanding aspects of the Hoppers. The area abounds in the history of Bristol's Pioneer days. The Hoppers is crossed by many old roads and Indian trails which were the main thoroughfares in the past. One of the old roads, a continuation of Lewis and Curtiss Streets, enters the Hoppers near Birge's Pond and continues to Chippens Hill.

Old maps of Bristol show that Lewis Street is older than the present Farmington Avenue. This was the main road between Hartford and Litchfield in Colonial times and it is assumed that the road through the Hoppers was part of this thoroughfare. This is one of the few east-west roads in the area.

The old road parallels what is believed to be one of the major Indian trails through the area. The trail is wider than most footpaths but narrower than the roads and was most likely used by the Indians. The Indians in the Bristol-Farmington area were members of the Wappinger group which had its headquarters near Poughkeepsie, N.Y. The trail through the Hoppers was probably the main route to and from Poughkeepsie for local tribes and visitors.

Another road through the Hoppers, Shady Dell Road, runs north-south from Peacedale Street to Perkins Street. Except for a stretch which runs through New Departure property and is fenced off, the road is virtually intact and passable though unpaved.

Ambler Road and Grassy Road, still on city maps, enter the Hoppers near Birge's Pond and join with and become part of the east-west road. Grassy Road continues east-west but is direction behind property on Burlington Avenue. Ambler not part of the through road. Many surveyor's paths and wood roads can also be found throughout the area.

View of City

Ambler Road degenerates into a steep and narrow roadway leading to a grassy outlook where the whole city of Bristol and much of Connecticut can be seen. There is a clearing on the outlook where there was probably once a cabin belonging to one of the early owners.

There are many other roads and hiking trails which afford excellent views of the scenery in the area. One of the smaller roads is an extension of Franklin Street and passes right through the New Departure buildings. From another trail one can look down on Jennings School and the Burlington Avenue area.

A walk through the Hoppers reveals many interesting things about the area. Wildlife abounds in the region. Deer tracks and even an occasional deer have been spotted throughout the area. Birds are evident everywhere, ranging from the beautiful Baltimore Oriole to the common Grackle. Chipmunks and squirrels scurry about on all sides.

Plant life is predominant along the roads and pathways. Unknown to most Bristolites there is a laurel hill in the Hoppers where the state flower is the only plant to be seen. Laurel and wild blueberries have overgrown many of the old wood roads. Chestnut stumps, left by the early Bristolites, leave evidence of the former abundance of that tree in the region. A chesnut tree with rare chestnut burrs on it has been observed in the Hoppers.

One of the most evident features of the Hoppers is the variety and abundance of fungus growths. Mushrooms of every shape, size, and color can be found everywhere. Bright reds, yellows, oranges, and browns make a veritable fungus rainbow.

Mosses and lichens on the roadways have been cited as the reason that the roads are still clear today. These growths prevent trees and underbrush from growing on the roadway.

Old Wood Road

Every so often, while walking along one of the main roads, one can spot a wood road, now grown in with low-lying brush but once well travelled. Along these roads the Colonials dragged logs cut in the woods to the main roads. One of these wood roads goes around and through the largest of the Kettle Holes.

The Hoppers was one of the greatest sources of lumber in Colonial times. The woods was once a pine forest, but most of the pine wood has been cut down for building purposes. Chestnut wood was harvested for its use in making charcoal to be used by local industries. Its rapid growth also made it one of the best woods for harvest.

The kettle holes are by far the most awe-inspiring feature of the area. The tremendous depth and steepness of the sides of some of them makes it possible to look over the tops of the trees in the bottom of the hole to the other side. One of the holes which is rimmed by a wood road, is believed to be one of the largest holes of the type in the state.

Sand terraces, which make up the entire area, can be seen in several places. Excellent examples of glacial striation appear in some of the sandbanks. Glacial debris - rocks and boulders - can be found throughout the region.

The view from the outlook on a clear day includes not only a tremendous view of the city and the state but also a good picture of the geological history of the area. All three geological regions, the eastern highlands, Connecticut Valley, and western highlands are visible.

The Bristol Basin, a granite base surrounded by hills of sand and mica-schist, can be clearly distinguished. Part of the city, east of Federal Hill, is in the Connecticut Valley and the rest in the Western Highland. Rattlesnake Mountain, higher than Federal Hill, is nevertheless in the Connecticut Valley since it is made of volcanic traprock which does not

(Continued on Page 16)

BRISTOL PRESS SEPT. 13, 1967

London Fog's

LAND'S

Schaffricks in the Hoppers-Birge Pond Development Plan:

State of Connecticut 1977

HOPPERS-BIRGE POND DEVELOPMENT DESCRIPTION

Land Acquisition:* Phases I and II--1978-82

William J. Barry and Morris J. Webster Property, 28.3 acres, Lot #7:

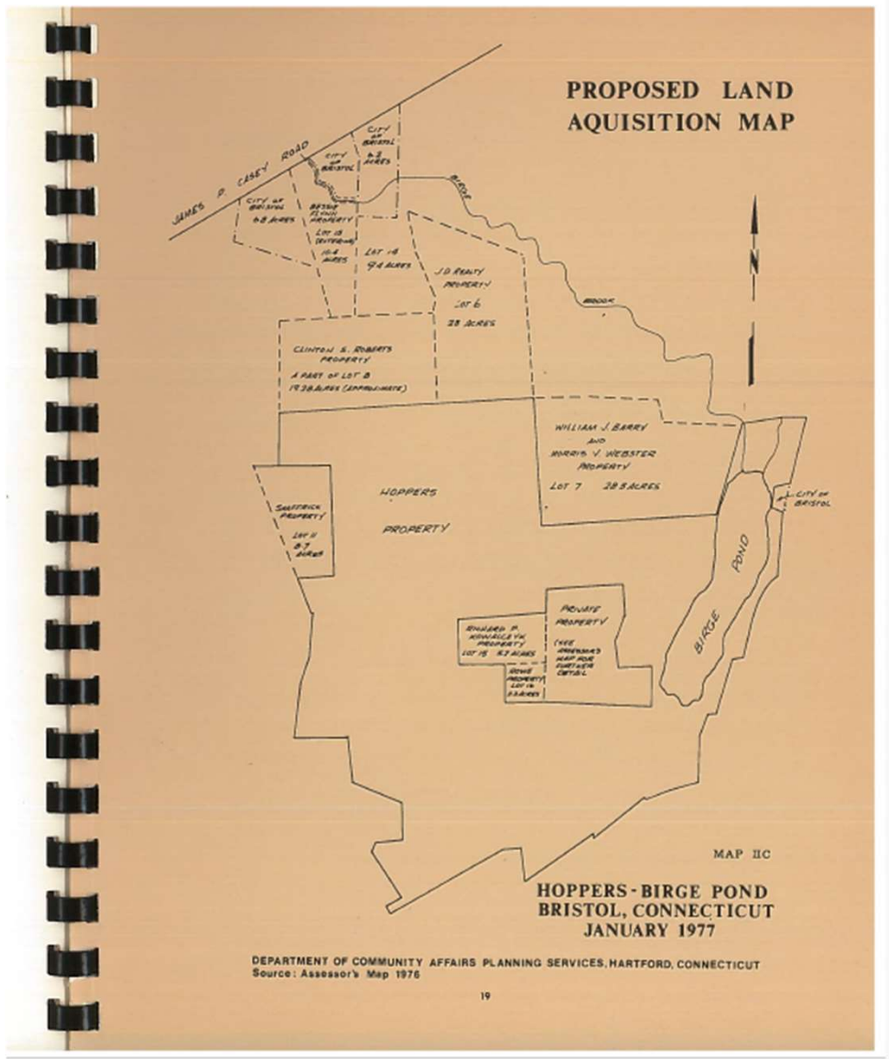
The Barry-Webster property should be purchased for the following reasons: First, it is the only private parcel on Birge Pond. In order to maintain the natural environment of the pond and to prevent residential development on the shoreline, the city should purchase it. By the purchase of this property the city will have complete ownership of the Birge Pond shoreline. Second, the property should be purchased to allow the plan and development of an active recreation area to include but not be limited to tennis courts, baseball field, basketball court, sledding hill, parking lots, indoor ice skating rink, and picnic areas with tot lots.

Donald A. Schaffrick Property, 8.7 acres, Lot #11:

The Schaffrick property should be purchased for the following reasons: When the City made its original purchase of the Hoppers from the New Departure-General Motors Corporation, it did not include all of the hoppers or kettles as so described. A portion of one large hopper is on the Schaffrick property. Purchase of this parcel will assist the City in preserving the geological kettle formations left by the glaciers. Also, part of the present natural trail system of the Hoppers property passes through the Schaffrick property. The trail system would be difficult

*See Proposed Land Aquisition Map IIC, p. 19.

-17-



Save the Kettles: Bristol Press 1988

City, state to cooperate in saving glacial kettles

By KATHY RIVARD
Bristol Press

A meeting between DEP and city officials resulted Thursday in a commitment to work together to try to save glacial kettle holes adjacent to the Hoppers.

Mayor John Leone said they talked about various parcels containing the kettle holes and problems in acquiring them. Also attending the meeting was Councilman Christopher Ziogas, acting chairman of the Ad Hoc Hoppers Committee.

"They (DEP) understand the whole scene now," Leone said. "We will try to work out a mutually beneficial plan."

Sidney Quarrier, a supervising geologist with the Department of Environmental Protection, said he and state archaeologist Nicholas Bellantoni plan to walk through the tract with members of the Ad Hoc Hoppers Committee Saturday.

The group will also tour adjacent parcels that contain kettle holes, primarily, the Schaffrick and Roberts properties.

"We want to determine whether there are additional parcels we would recommend to DEP and the community to acquire and to pinpoint the geological potential for education," Quarrier said.

He said his goal is to explain the geological significance of the area to the community.

"It was important that we get together and talk rather than talk at each other through the newspaper," Quarrier said.

Also attending the Thursday morning meeting was Chuck Reed, who is in charge of DEP's land acquisition unit.

> 'It was important that we get together and talk rather than talk at each other through the newspaper.'
>
> Sidney Quarrier
> State geologist

Leone termed Reed "neutral" as to the availability of state funding to acquire any of the adjacent parcels.

"Chuck Reed said they will go out and do an analysis, especially with regard to the Schaffrick kettle," Leone said.

Two months ago, DEP turned down a request to pay 80 percent of the cost of purchasing a kettle hole that straddles city land and property owned by Donald Schaffrick.

Quarrier has said DEP was still under the assumption the city planned to develop a golf course on the Hoppers. Since that plan has been scuttled now, he believes DEP might reverse the decision, but Quarrier says DEP must look at the whole area and not just a single kettle hole.

A primary focus in recent weeks is a small, deep, bowl-shaped kettle on property owned by Clinton Roberts. The kettle is in the path of a city right-of-way into the Hoppers, but Roberts has the right to remove the sand and gravel.

Quarrier has termed it "the best-developed example of these features" left by melting glaciers approximately 10,000 years ago.

Bellantoni described the same hopper as "a magnificent kettle."

Sand and gravel excavation by Aiudi and Sons has come close to the edge of the kettle, but Elmo Aiudi confirmed this week they will try to skirt the kettle for the time being.

Leone stressed, "We will look at the whole area and not just one significant kettle, and come up with a coperative effort. DEP will do an analysis and get back to Chuck Reed. We will cooperate and work together to look at our options."

NIS

Geologist wants second look at buying kettles

By ROY WOOD, Bristol Press

A state geologist is suggesting it take another look at buying private property in Bristol to preserve glacial kettles on the land, Mayor John J. Leone said today.

Sidney Quarrier, a state geologist, took that stand in a letter to Department of Environmental Protection Commissioner Leslie Carothers. Quarrier, who has surveyed glacial features on land in northwest Bristol, has suggested the state look into helping Bristol buy land owned by Donald Schafferick to save a large galcial kettle or hopper on his property, according to Leone. He also suggests looking at a smaller kettle on property owned by Clinton Roberts, Leone said.

Neither Quarrier nor Carothers could be reached this morning.

Nov. 2, 1988

Save the Kettles: Bristol Press 1988

Phoenix: Best kettle at risk

By KATHY RIVARD
Bristol Press

Hoppers activist James Phoenix is hoping a public outcry can save an endangered kettle hole that he regards as the best example of the unique glacial formations that give the Hoppers its name.

"Literally within days, it will be destroyed. I'm just heartsick that nothing is being done to save it and the city doesn't seem to care," Phoenix said.

Urging area residents to write letters and call council members and Mayor John Leone, Phoenix said he believes people would be concerned if they knew a 12,000-year-old glacial formation was about to be destroyed.

"Only a groundswell of support will help," he said.

The debate over development versus conservation of the hoppers was one portion of the CPTV documentary "Connecticut for Sale" Wednesday night.

The kettle hole Phoenix most wants to save is in the path of a right-of-way the city holds from James P. Casey Road into the Hoppers. That right-of-way is on private property belonging to Clinton Roberts.

Roberts donated the strip in exchange for the right to excavate sand and gravel.

Phoenix laments the fact that two closely connected kettle holes, a large and small one which he named "the Mother and Child," already were destroyed in the sand and gravel excavation this spring.

Now, he said this week, trees are being cut near the perfectly bowl-shaped kettle he wants to save so badly.

"It's the nicest kettle hole, about 40 feet deep. It's so steep you can barely walk down. It's been there 12,000 years and you can't replace it," Phoenix said.

The kettle hole "is so beautiful, I don't know what to name it. It's just gorgeous," he said.

Phoenix came up with a plan he thought would save the hopper this summer: He wanted the city to move the access road around the prime kettle hole and launch a fund-raising campaign to reimburse Roberts if he would agree not to excavate the kettles on his property.

That plan turned out to be a one-man show, he said, and he does not have the time or energy to tackle it alone.

Phoenix said there are no plans now to save any of the hoppers on Roberts property or the pathway.

"It will take a public outcry," he said, to save them.

Save the Hoppers Association, a group that formed in response to a proposal to develop a golf course on the city-owned property, has concentrated on the 201 acres the city owns, according to Phoenix.

The group managed to get a binding referendum question on the ballot which seeks to save the Hoppers from development or sand and gravel excavation.

According to member Tom Doyle, the association has completed the second phase of its petition drive — securing an additional thousand signatures in addition to the 4,455 needed to put the question on the ballot for November.

Phoenix said a Save the Hoppers Committee has been formed as a political fund-raising committee for the November campaign on the referendum question. Phoenix is the treasurer and spokesman, Joe Zang Jr. the chairman and John Schissler the vice chairman.

Phoenix said volunteers will be needed to pass out fliers on the Hoppers referendum question on Election Day Nov. 8.

Sept. 29, 1988

Bristol Press
Dec. 27, 1988 (1)

Early Hoppers plan pushed acquisition

Roberts, Schaffrick targeted

By KATHY RIVARD
Bristol Press

Kettle holes on the Roberts and Schaffrick properties were key acquisition targets of the Hoppers-Birge Pond Development Plan nearly a decade ago.

The report prepared by the Connecticut Department of Community Affairs and the Hoppers-Birge Pond Committee strongly urged that several parcels of private property next to the newly purchased Hoppers land be bought.

Mayor John Leone has criticized neglect of the Hoppers since it was bought from New Departure. The 1977 Hoppers-Birge Pond Development Plan, however, was designed "to meet the immediate and short-range recreation and conservation needs of the residents" over a period of 10 to 15 years.

The plan was never carried out, however, due to a combination of apathy and economics.

Beryl Josephson, a member of the Planning Commission who headed the Hoppers-Birge Pond Committee, recalled there were active negotiations with some property owners, "But in the end, no one from City Council wanted to purchase anything. We did try to get Clinton's (Clinton Roberts), but it just never got done."

The committee's recommendation was to preserve the kettles, Josephson said. At the time, she recalled, "The only person in the city who thought the Hoppers should be used for anything other than passive recreation was Donald Schaffrick, who thought it would be an ideal golf course."

It was the recent golf course proposal of Maguire Group Inc. that rallied Hoppers activists to form the Save the Hoppers Association. Some members are working to save the Roberts kettle, where sand and gravel excavation has come close to the walls.

If the kettle is destroyed, "There's no way you can ever restore it. It think it (the Roberts kettle) is the best of the bunch. That's why we pushed so hard to buy it," Josephson said.

Josephson expressed concern for the Roberts kettle at a Planning Commission meeting on Dec. 22, 1986, when members were asked to vote on the access road arrangement with Roberts.

In the tape of that meeting, Josephson can he heard saying, "On a part of the parcel to the west (of the proposed access road) is one of the best hoppers. I know this is a step forward, but the most finely defined hopper is Clinton's."

"Obviously I have tremendous regrets," Josephson says today. "Some days I avoid going down that street (James P. Casey Road) so I can't see the digging."

The report recommended buying 8.7 acres of Schaffrick prop-

Save the Kettles: Bristol Press 1988

Vol. CXVIII, No. 117, 24 PAGES,BRISTOL, CONN., TUESDAY, MAY 17, 1988 30¢

State has funds for kettles

Might pay 80% toward buying land near Hoppers

By BOB BROWN
Bristol Press

State government is interested in using its funds to buy two kettle holes on private property near the city-owned Hoppers.

Leslie Carothers, commissioner of the state Department of Environmental Protection, has told Mayor John J. Leone Jr. that the state may be willing to pay up to 80 percent of the cost for buying the property.

Now, Leone said, the city will have to determine whether the owners are interested in selling.

In a letter that Leone received Monday, Carothers said DEP is interested in any property that would add to the state's store of significant acquisitions.

"If the property owners are indeed interested in selling the kettle hole area, I would be pleased to ask the DEP land acquisition and management staff to assist," Carothers said.

"Basically, she's thrown the ball back to me," said Leone.

Leone wrote last month to Carothers, asking whether the state would be willing to acquire the property under its Recreational and Natural Heritage Trust Fund.

The trust fund would provide 80 percent of the cost, with the city contributing the remaining 20 percent, Leone said. Ownership of the land would revert to the state.

Carothers also mentioned another program under which the state would pay 60 percent of the cost, Leone said.

After receiving the letter, Leone said he would contact the owners "to see if they have any fondness for selling their property." If they are interested, Leone said, he will refer matters to the City Council's Real Estate Committee.

One piece of land is owned by Clayton Roberts. Donald Schaffrick, co-owner of one kettle that straddles private property and

See HOPPERS, Page 4

BRISTOL PRESS – MAY 17, 1988

DEP asked to move on buying kettles

July 6, 1988

By BOB BROWN
Bristol Press

Connecticut's Department of Environmental Protection has been asked to take a leading role in buying two pieces of property near the Hoppers.

Mayor John J. Leone Jr. said Tuesday that he has written to DEP Commissioner Leslie Carothers, asking for the department to look at the property and determine the level of state interest.

The two pieces of property contain large kettle holes — geologically distinctive indentations in the ground left several thousand years ago by receding glaciers.

Leone has asked DEP to consider taking ownership of the property under a program by which the state pays 80 percent of the cost. The remaining cost would be borne by the city, Leone has said.

"We're looking at our own appraisals," Leone said. "But independent of that, they can send their own people out to see whether it's something they're interested in and whether they'll help us to fund it."

Carothers already has written to Leone, stating that the land appears to be eligible for state funding under a program that preserves historic locations.

However, the DEP has yet to commit to participating — or to providing staff that could analyze the project. Leone said the time has come for the department to make such a commitment.

"We'd like to hear from her formally," said Leone. "The letter we're looking for would indicate that she's at least at a point where she'll consider assisting us."

The letter to Carothers will be mailed today, according to Leone.

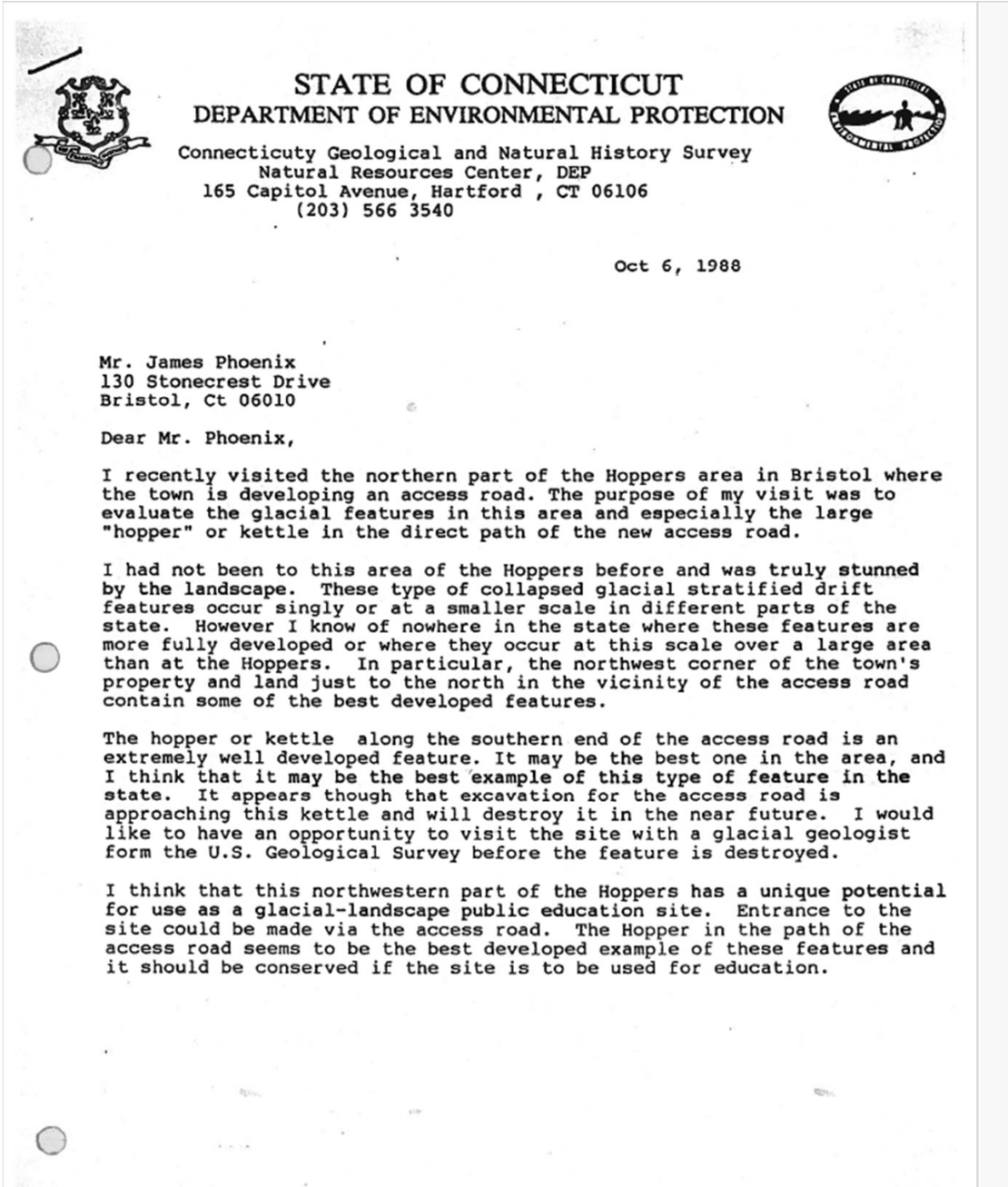
Leone has met with both Clinton Roberts and Donald Schaffrick, owners of the two properties. Both have said they want to preserve the land and would be willing to sell.

Schaffrick provided a 10-year-old appraisal of the property.

The City Council's Real Estate Committee is considering the proposal to buy the land. Leone has said the city will conduct an updated appraisal to come up with a possible cost.

Geological Formations:

Review by DEP Natural Resources Center 1988



STATE OF CONNECTICUT
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Connecticuty Geological and Natural History Survey
Natural Resources Center, DEP
165 Capitol Avenue, Hartford , CT 06106
(203) 566 3540

Oct 6, 1988

Mr. James Phoenix
130 Stonecrest Drive
Bristol, Ct 06010

Dear Mr. Phoenix,

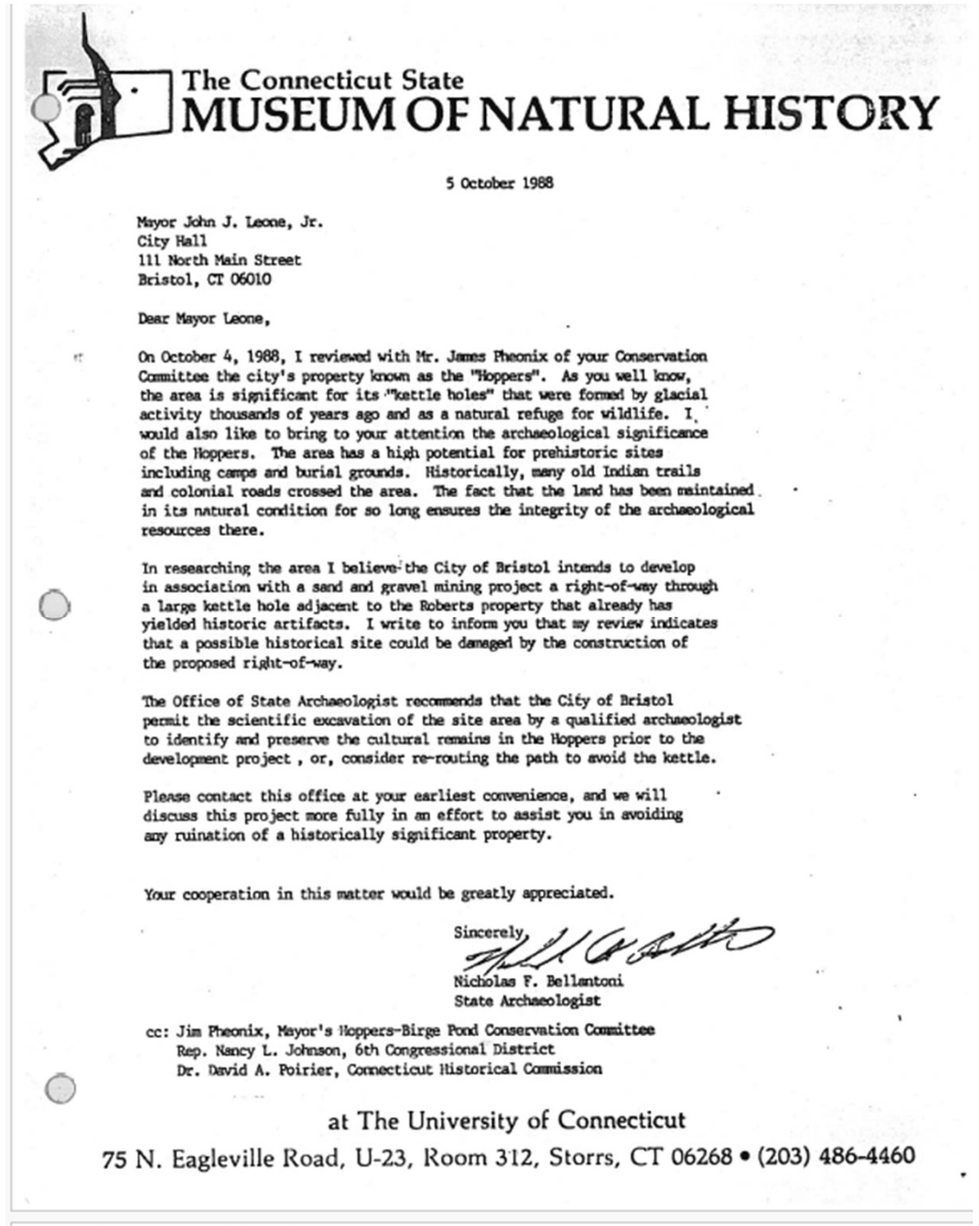
I recently visited the northern part of the Hoppers area in Bristol where the town is developing an access road. The purpose of my visit was to evaluate the glacial features in this area and especially the large "hopper" or kettle in the direct path of the new access road.

I had not been to this area of the Hoppers before and was truly stunned by the landscape. These type of collapsed glacial stratified drift features occur singly or at a smaller scale in different parts of the state. However I know of nowhere in the state where these features are more fully developed or where they occur at this scale over a large area than at the Hoppers. In particular, the northwest corner of the town's property and land just to the north in the vicinity of the access road contain some of the best developed features.

The hopper or kettle along the southern end of the access road is an extremely well developed feature. It may be the best one in the area, and I think that it may be the best example of this type of feature in the state. It appears though that excavation for the access road is approaching this kettle and will destroy it in the near future. I would like to have an opportunity to visit the site with a glacial geologist form the U.S. Geological Survey before the feature is destroyed.

I think that this northwestern part of the Hoppers has a unique potential for use as a glacial-landscape public education site. Entrance to the site could be made via the access road. The Hopper in the path of the access road seems to be the best developed example of these features and it should be conserved if the site is to be used for education.

Native American Artifacts: Review by Nicholas Bellantoni, State Archaeologist 1988



The Connecticut State
MUSEUM OF NATURAL HISTORY

5 October 1988

Mayor John J. Leone, Jr.
City Hall
111 North Main Street
Bristol, CT 06010

Dear Mayor Leone,

On October 4, 1988, I reviewed with Mr. James Pheonix of your Conservation Committee the city's property known as the "Hoppers". As you well know, the area is significant for its "kettle holes" that were formed by glacial activity thousands of years ago and as a natural refuge for wildlife. I would also like to bring to your attention the archaeological significance of the Hoppers. The area has a high potential for prehistoric sites including camps and burial grounds. Historically, many old Indian trails and colonial roads crossed the area. The fact that the land has been maintained in its natural condition for so long ensures the integrity of the archaeological resources there.

In researching the area I believe the City of Bristol intends to develop in association with a sand and gravel mining project a right-of-way through a large kettle hole adjacent to the Roberts property that already has yielded historic artifacts. I write to inform you that my review indicates that a possible historical site could be damaged by the construction of the proposed right-of-way.

The Office of State Archaeologist recommends that the City of Bristol permit the scientific excavation of the site area by a qualified archaeologist to identify and preserve the cultural remains in the Hoppers prior to the development project , or, consider re-routing the path to avoid the kettle.

Please contact this office at your earliest convenience, and we will discuss this project more fully in an effort to assist you in avoiding any ruination of a historically significant property.

Your cooperation in this matter would be greatly appreciated.

Sincerely,

Nicholas F. Bellantoni
State Archaeologist

cc: Jim Pheonix, Mayor's Hoppers-Birge Pond Conservation Committee
Rep. Nancy L. Johnson, 6th Congressional District
Dr. David A. Poirier, Connecticut Historical Commission

at The University of Connecticut
75 N. Eagleville Road, U-23, Room 312, Storrs, CT 06268 • (203) 486-4460

Hoppers may qualify as National Landmark

By KATHY RIVARD
Bristol Press

A process has been set in motion that could lead to designation of the Hoppers area as a National Landmark of the National Park Service, according to an environmental activist.

B.R. Alexsavich, president of the Connecticut Natural History Foundation, said Joan Welch expects to visit Connecticut within the next two weeks to inspect both the Hoppers area and the boulder train and kettle moraine in Ledyard.

Alexsavich met with Welch in Boston Thursday.

The purpose of the meeting, Alexsavich said, "Was to explain the importance of the site and the urgency of viewing it as quickly as possible."

Alexsavich and his organization are particularly concerned about a choice kettle hole on private property adjacent to the city-owned Hoppers. The kettle, which is deep and nearly bowl-shaped, lies in the path of a city access road into the Hoppers, from which sand and gravel is being excavated. Both the state archaeologist and a state geologist have urged its preservation.

Alexsavich said there is only one other preserved kettle site with National Landmark status in the country. It is in New York state.

If Welch decides the Bristol site is worthy of National Landmark status, a National Park study will be initiated to make a final determination.

Alexsavich also said the National Park Service has a historical division which will be contacted later to look at the historical significance of the Hoppers, such as the possible link to Connecticut Indian history and a pathway said to have been established in the colonial era.

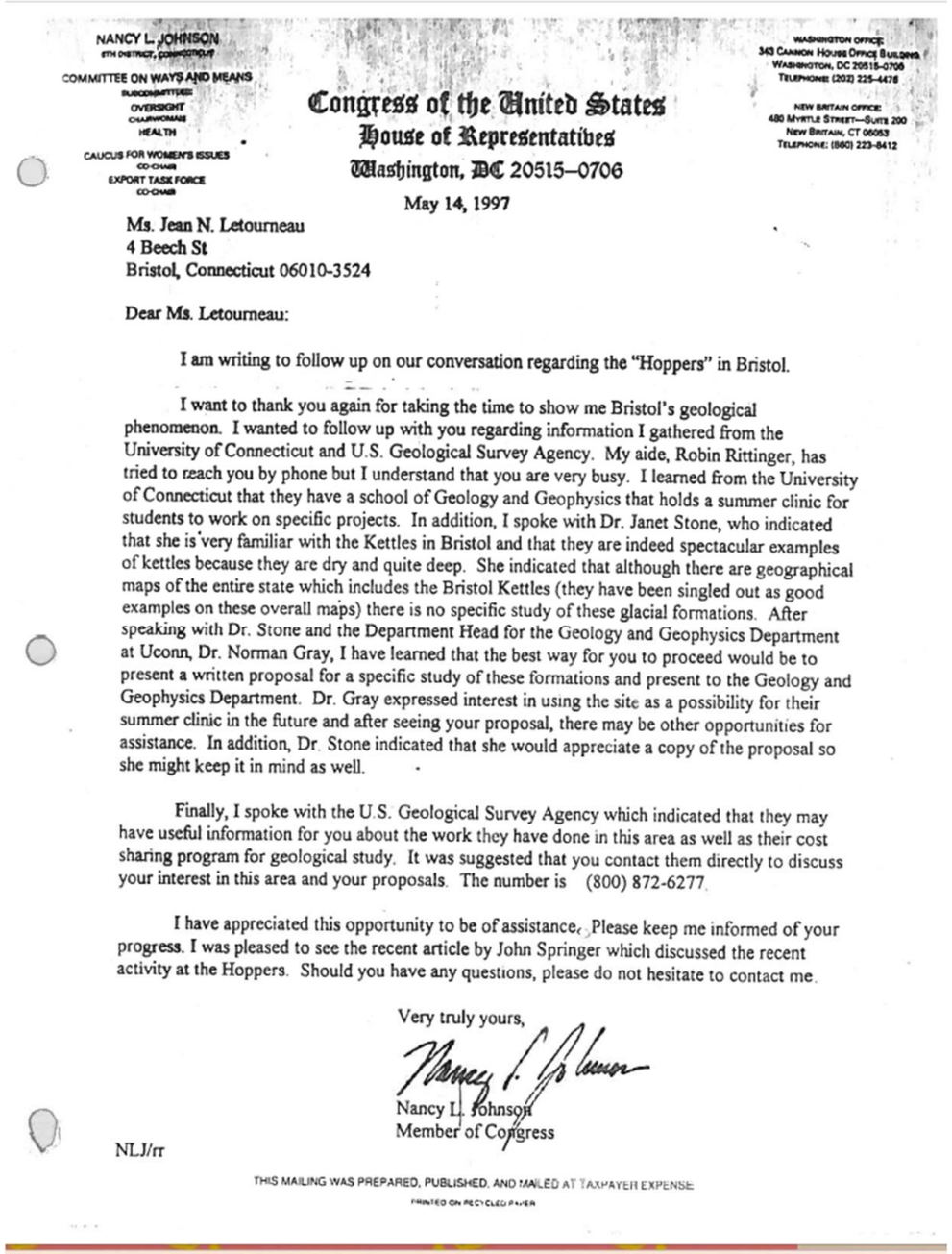
He said state archaeologist Nicholas Bellantoni, who is serving on the board of the Connecticut Natural History Foundation, will be visiting the Hoppers this week, weather permitting.

Alexsavich said he urged Welch to come as soon as possible, because he fears the kettle on Roberts property might be destroyed by the sand and gravel excavation.

JAN. 9, 1989

Geological Formations as a Tourist Attraction:

Bristol Press 1989



NANCY L. JOHNSON
5TH DISTRICT, CONNECTICUT

COMMITTEE ON WAYS AND MEANS
SUBCOMMITTEES:
OVERSIGHT
CHAIRWOMAN
HEALTH

CAUCUS FOR WOMEN'S ISSUES
CO-CHAIR
EXPORT TASK FORCE
CO-CHAIR

WASHINGTON OFFICE:
343 CANNON HOUSE OFFICE BUILDING
WASHINGTON, DC 20515-0706
TELEPHONE: (202) 225-4476

NEW BRITAIN OFFICE:
480 MYRTLE STREET—SUITE 200
NEW BRITAIN, CT 06053
TELEPHONE: (860) 223-8412

Congress of the United States
House of Representatives
Washington, DC 20515–0706

May 14, 1997

Ms. Jean N. Letourneau
4 Beech St
Bristol, Connecticut 06010-3524

Dear Ms. Letourneau:

I am writing to follow up on our conversation regarding the "Hoppers" in Bristol.

I want to thank you again for taking the time to show me Bristol's geological phenomenon. I wanted to follow up with you regarding information I gathered from the University of Connecticut and U.S. Geological Survey Agency. My aide, Robin Rittinger, has tried to reach you by phone but I understand that you are very busy. I learned from the University of Connecticut that they have a school of Geology and Geophysics that holds a summer clinic for students to work on specific projects. In addition, I spoke with Dr. Janet Stone, who indicated that she is very familiar with the Kettles in Bristol and that they are indeed spectacular examples of kettles because they are dry and quite deep. She indicated that although there are geographical maps of the entire state which includes the Bristol Kettles (they have been singled out as good examples on these overall maps) there is no specific study of these glacial formations. After speaking with Dr. Stone and the Department Head for the Geology and Geophysics Department at Uconn, Dr. Norman Gray, I have learned that the best way for you to proceed would be to present a written proposal for a specific study of these formations and present to the Geology and Geophysics Department. Dr. Gray expressed interest in using the site as a possibility for their summer clinic in the future and after seeing your proposal, there may be other opportunities for assistance. In addition, Dr. Stone indicated that she would appreciate a copy of the proposal so she might keep it in mind as well.

Finally, I spoke with the U.S. Geological Survey Agency which indicated that they may have useful information for you about the work they have done in this area as well as their cost sharing program for geological study. It was suggested that you contact them directly to discuss your interest in this area and your proposals. The number is (800) 872-6277.

I have appreciated this opportunity to be of assistance. Please keep me informed of your progress. I was pleased to see the recent article by John Springer which discussed the recent activity at the Hoppers. Should you have any questions, please do not hesitate to contact me.

Very truly yours,

Nancy L. Johnson
Member of Congress

NLJ/rr

THIS MAILING WAS PREPARED, PUBLISHED, AND MAILED AT TAXPAYER EXPENSE
PRINTED ON RECYCLED PAPER

Glacial Features Endorsed:

Rep. Nancy Johnson 1997

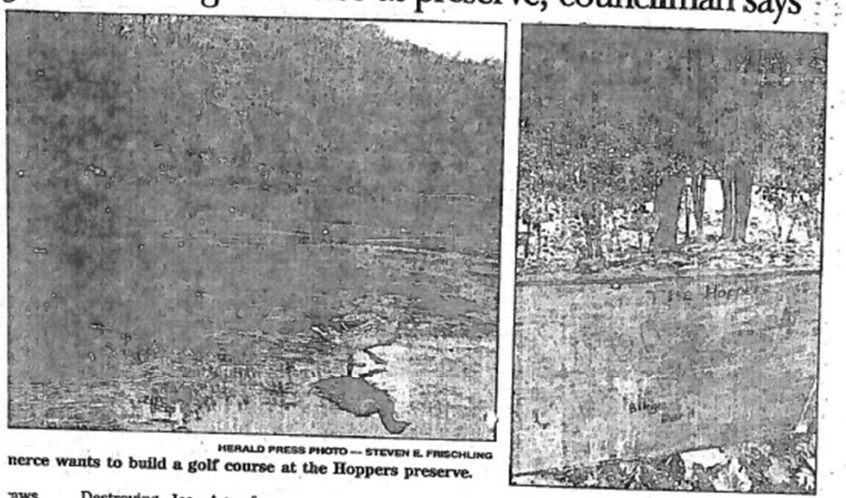
Save the Kettles:

Bristol Press, Herald Press 1997

istolNews (2)

odel for Hoppers' potential?

ge instead of golf course at preserve, councilman says



HERALD PRESS PHOTO — STEVEN E. FRISCHLING

nerce wants to build a golf course at the Hoppers preserve.

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Destroying Ice Age formations, she said, would be like "bulldozing part of history."

Scharfenberg said the Ice Age formations are a vital part "of our landscape, our culture and tourism."

At her state park, located about an hour and a half northwest of Milwaukee, "thousands if not millions come through every year" to eyeball the landscape, Scharfenberg said. She said the amount of general interest in the subject is "phenomenal."

There are at least four Ice Age-related museums and information centers in Wisconsin that seek to educate tourists about the formations they see, including the one where Scharfenberg works.

Nearly all of the features that Wisconsin has turned into a major tourist draw also exist in Connecticut, including the kettles at the Hoppers.

The state was covered with ice from a glacier that reached all the way south to Long Island, geologists say.

But little has been done to show off the state's geological heritage — and some of Bristol's may not last much longer.

Greater Bristol Chamber of Commerce leaders have said the Hoppers is the best place to build a municipal golf course and other recreation facilities the city lacks.

They say the proposed project would turn a little-used park into a popular attraction.

But Hoppers backers say a golf course or other major development would destroy the kettles and wipe out both an important historical artifact and a potential tourist gold mine.

Yet chamber officials have said they intend to ask the public next year to overturn a decade-old referendum that overwhelmingly called on the city to drop golf course dreams and leave the park in its natural state. They say they can make a convincing case for the project.

Golf course supporters point to a vote in Bloomfield this month in which voters easily backed a $7 million, 18-hole town golf course at a reservoir area.

There have been hints that other locations in town may be looked into rather than trying to plunk a golf course at the Hoppers. But so far details are scant.

Wilson said the city has a responsibility to hang on to its shrinking open area.

"We have to think like the Rockwells and the Pages" who donated the city's major parks decades ago, Wilson said. "We need to enlarge that for another generation."

Nov. 23, 1997 (1) BristolNew

Wisconsin: a model

City should be thinking Ice Age instead

By Steve Collins
HERALD PRESS STAFF

BRISTOL — The city should showcase the Hoppers nature preserve and its spectacular Ice Age era kettles instead of eyeing the parcel for a municipal golf course, says a key councilman.

Four-term Democrat Joe Wilson said recently that the city needs to hire a Hoppers' manager, "sort of like a park ranger," to patrol the preserve and put together programs to showcase it.

Setting the pace for the successful exploitation of the Ice Age, and perhaps setting an example for Bristol, Wisconsin has found great success in luring tourists with a string of state parks highlighting glacial formations, including kettles of the type found in Bristol.

The city's 200-acre park includes Birge Pond and several kettles — massive, cone-shaped depressions in the sand — formed as the last Ice Age came to an end some 10,000 years ago.

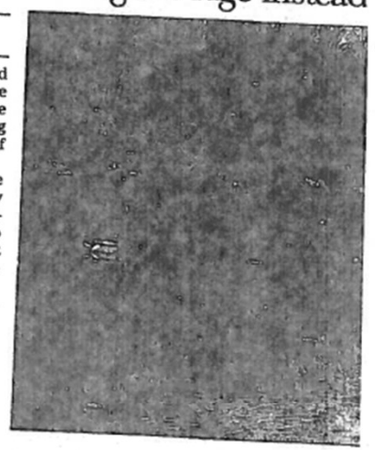
Wilson and other Hoppers supporters say the area could draw visitors if the city would put enough money and effort into the park to make it viable.

Wilson said the park could be "an open classroom" to teach children about nature and the Ice Age. He said that he's taken hundreds of kids there and none came away disappointed.

Jackie Scharfenberg, park naturalist for the Henry S. Reuss Ice Age Visitor Center in Cambellsport, Wisc., said that geology and history can entice the public.

"Here in Wisconsin there is a lot of emphasis on the Ice Age. It is one of the major tourist attractions," said Scharfenberg.

The most popular of Wisconsin's Ice Age preserves, Devil's Lake State Park, draws about 1.5 million tourists to gawk at its kettles, a moraine, a glacial lake and massive bluffs created by glaciers.



The area chamber of commerce wants to bu

Along with the National Park Service, Wisconsin created the Ice Age National Reserve a quarter century ago to preserve glacial landforms threatened by development. It includes five public parks totalling about 40,000 acres.

A new Ice Age Trail that is nearing completion will wind through 1,000 miles of Wisconsin landscape to let hikers see kettles, eskers (snake-like ridges), drumlins (rounded hills) and other eye-popping scenery that's survived to mark the furthest advance of the glaciers.

Scharfenberg said her state has set aside millions of dollars to buy more land to make sure that subdivisions don't destroy Wisconsin's geological history.

Destroyir tions, she s "bulldozing Scharfenb formations our landsca tourism."

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There are Age-related n mation cent that seek to about the fo including t Scharfenberg

Nearly all Wisconsin ha major tourist Connecticut, tles at the Ho

HERALD PRESS

Save the Kettles: Bristol Press 2000

■ Sand removal issue may temper city's desire to acquire site for addition to Hoppers Preserve.

Biggest 'Kettle' MAY Top Buy List

B.P. (1) MAY 8, 2000

By JACKIE MAJERUS and STEVE COLLINS
The Bristol Press

BRISTOL — Enlarging the Hoppers-Birge Pond Nature Preserve to include the biggest "kettle" in the city may become one of the city's top open space goals.

The city's real estate committee is considering whether to make the purchase of land surrounding the Hoppers its top target, other than the preservation of undeveloped property atop South Mountain.

City officials have had extra land for the nature preserve listed as their fifth highest priority, but the targeted land apparently did not include the monster kettle on the neighboring Schaffrick property.

"This should be one of the top priorities for open space land acquisition," said Jon Guglietta, chairman of the city's inland wetlands commission. He said he's in favor of trying to buy the Schaffrick property before it is mined.

The parcel is loaded with sand, and the owners are proposing to mine the sand and then donate the land to the city. But Hoppers advocates — and Guglietta — say mining would destroy the kettle, and strip the property of geological value.

"I would welcome the inclusion of the Schaffrick property in its natural state," said Guglietta. "It would be valuable to include it."

Guglietta said he's walked the property. He said the glacial topography and the fact that it is adjacent to city-owned open space weigh heavily in its favor.

"It has value as a buffering property," said Guglietta, "and it has value for its own geologic features."

Guglietta said the 8.7-acre parcel might be picked for a state program to preserve open space. Under the program, the state would pay for 65 percent of the fair

See KETTLE, Page A2

2 More Parcels Eyed As Open Space

HTFD Courant June 13, 2000 (1)

Kettle Hole Added To Town's List Of Possible Acquisitions

By JOHN SPRINGER
Courant Staff Writer

BRISTOL — A city council committee voted Monday night to add two parcels containing one of the city's largest kettle holes to a list of properties that may be acquired for open space.

City conservation commission Chairman Jon Guglietta told the real estate committee that the kettle hole on Schaffrick family property off Perkins Street would have little value from a conservation standpoint if it were mined for sand and gravel. But if proposed mining could be averted, the land should be considered a top priority for acquisition under a state grant program that pays up to 65 percent toward the purchase of parcels deemed important for conservation

BRISTOL

...was predeceased by a daughter, Leah Marie Joslyn, and a brother, Frank Joslyn. Funeral services will be held Tuesday at 7:30 p.m. at Woodtick Memorial, 420 Woodtick Road, Wolcott. Family and friends may call at the funeral home from 6 p.m. until the time of the service. Committal services will be held Wednesday at 9 a.m. at Peacedale Cemetery, Bristol.

NORA FORSHAW
(Neilan Funeral Home)

FORSHAW, Nora, 94, of Waterford, died Friday, May 5, 2000. She is survived by her daughters, Barbara Savino of Fruitland, Fla. and Marie Aulenti of Waterford. Calling hours will be held Tuesday from 4 to 8 p.m. at Thomas L. Neilan and Sons East Lyme Funeral Home, 48 Grand St., Niantic. A celebration of her life will be held Wednesday at 11 a.m. at First Baptist Church of Waterford, Rope Ferry Road. Burial will follow in Jordan Cemetery. In lieu of flowers, the family request contributions be sent to the Nora Forshaw Scholarship Fund, at Waterford High School, 20 Rope Ferry Road, Waterford, CT 06385.

86 In Memoriam

IN LOVING MEMORY OF MICHALENE MIKKI BOSADO
5/8/99-5/8/00

God created this world to be
our temporary home.
Am I being selfish for
feeling so all alone?
I know all of your hours in this world
were unselfishly spent,
and that is why the Angels
He sent.
I often ask myself on days
such as this,
and then I take some quiet time

86 In Memoriam

DEAR MIKKI

needs.

When Councilman Art Ward asked if a dog that barked

...important societal

...drop the policy — and finding someone to issue another would be "very difficult" given the dangers involved in dirt biking.

KETTLE: Preservation sought

From Page A1

market value of the property.

"It's definitely something that should be applied for," Guglietta said.

Before mining, the Schaffrick property "would rank high" for the state's program, Guglietta said. But if it were mined first, he said, there isn't much chance of a state grant, which are based on a property's conservation value.

Councilman Joe Wilson, who heads the city's real estate panel, said officials need to figure out whether to add the Schaffrick land to the open space acquisition list and also determine if it should be moved higher on the priority list.

Wilson suggested the Hoppers' addition could reach the number two spot on the list.

"Sounds like a plan," said Patricia White, who co-chairs the city's Hoppers-Birge Pond committee.

But Councilman Gerard Couture warned about the cost of buying the land before it's mined, "We're going to pay a lot of money."

"It does have a high value for its sand," said Guglietta.

With an application for state help, the city will need affirmations from the town conservation and planning boards, the regional planning agency, two appraisals and a pledge from the owner to sell at fair market value, according to Guglietta.

White said the Hoppers panel, which is a city-sponsored board, has sought to get state open space grant money to acquire the Schaffrick property for the past two years. But, she said, she doesn't think the applications ever left City Hall.

Wilson said his real estate committee never heard anything from anyone about a desire to purchase the property.

Mike Saman, a Hoppers panel member, said the idea has been on the drawing board for almost a quarter century and was included in reports that Wilson helped prepare more than a decade ago.

"There was no follow through," Saman said.

Guglietta said a filing deadline just passed in late April, and the next one is in October. He said the city ought to make sure it has an application in for the Schaffrick property this fall.

Wilson said he's had little to do with Hoppers issues for the past seven years, though he remains a supporter of the park. He said he has "no problem" with adding the Schaffrick land to the open space wish list.

Couture said that Hoppers advocates should also approach U.S. Rep. Nancy Johnson, the New Britain Republican who represents Bristol. He said that Johnson may be able to provide some federal help for the preservationist effort.

B.P. MAY 8, 2000 (2)

What will the future bring?

Application #2022 *– Wetlands application for piping of existing channel from culvert at Perkins Street east to collecting stream at 120 Perkins Street; City of Bristol, Public Works Department, applicant.*

Saturday, March 30, 2024, 8:00 AM

Application #2022

120 Perkins Street

Attendees

- Zachary Fisk, Chairman
- Michael Robinson, Vice Chairman
- Dan Massaro, Commissioner
- James Ritchie, Commissioner
- Faye Duquette, Alternate
- Nancy Levesque, Bristol City Engineer
- Bill Stango, Bristol Civil Engineer
- Richard Deslauriers, Property owner

The site conditions were observed. Location of proposed pipe and manholes indicated by Bill Stango. Slope erosion and scour indicated by Bill Stango.

Meeting ended at approximately 8:10 AM

Saturday, March 30, 2024, 8:30 AM

Application #2019

Maltby Street

(IW boundary change)

Upper and Lower Wellfields

Attendees

- Michael Robinson, Vice Chairman
- Dan Massaro, Commissioner
- James Ritchie, Commissioner
- Faye Duquette, Alternate
- Nancy Levesque, Bristol City Engineer
- Ian Cole, Soil Scientist, CEI
- Sebastian Amenta, CEI
- Raymond Esponda, NBWD
- Nick Gammel, NBWD
- Kory Pope, NBWD
- Adrian Morin, NBWD
- Dave Camden, NBWD

Site conditions were observed. Proposed delineation map reviewed. Auger taken behind well 11 and west of pond behind pump house for lower wellfields. Limits viewed at upper wellfield and another auger taken. Method of determining wetlands delineation by soil type discussed.

Meeting ended at approximately 9:20 AM

BRISTOL INLAND WETLANDS COMMISSION
MINUTES
REGULAR MEETING OF MONDAY APRIL 1, 2024

CALL TO ORDER:

By: Chairman Fisk Time: 6:30 P.M. Place: City Hall
Council Chambers
111 North Main Street
First Floor

ROLL CALL:

Chairman Fisk reminded the Commission the next Regular Meeting of the Inland Wetland Commission Monday, May 6, 2024.

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	
ALTERNAME MEMBERS			
	Anthony Pellerin		X
STAFF			
	Nancy Levesque, P.E., City Engineer	X	

Per order of Chairman Fisk, the meeting was called to order at 6:30 P.M.

1. **Pledge of Allegiance**

2. **Introductions and Seating of Alternate Commissioners**

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

3. **Public Participation**

Lucy Cushman, 189 Redstone Hill Road, Chimney Crest Condominium Association, spoke for the condo association regarding the retention pond they have on their property. This retention pond is located in a designated wetlands watercourse. New construction at 50 Field Rock has been adding an excessive amount of fill on their property which is washing into and causing damage to the pond. The pond was recently dredged and restored to wetland standards. The continuing silt runoff is preventing this balance to be maintained as well as the maintenance work to be done. They are asking the city of help in getting a cease and assist to try to resolve the issues it is causing.

Randy Lindstrom, 261 Mark St, spoke regarding flooding and water issue he is having due to a neighbor that has an active permit to add fill to create a horseshoe pit on his property. He stated that there has been an extra amount of fill added over the permit approved and it has caused tremendous flooding and water on his property. He spoke to Nancy Leveque's at the city and sent photos and videos of the water that is occurring on his property.

Nancy Levesque, city engineer, stated she does have all the photos and videos as well, but had no chance to add to the agenda. She has spoken to the enforcement officer regarding having the applicant come to the next meeting.

Dan Strahowski, 253 Mark St, spoke to the same issue that 261 Mark St is having. We have a very high-water table that we all struggle with. We all have sump pumps and it's a constant issue with the water. I have 2 sumps and the whole side of my foundation has been channeled out with pipes. I have 3 outside drains next to the hatchway. I did leave a message for the neighbor to contact me about the water diversion, but I never heard back from him, so I called the town I have sent photos and videos to show how deep he has dug and the addition of corrugated drain pipes he added, which are aimed at my yard. The video shows how it flows like a river now. It has never been like this before., I have had to put surface water pumps in my yard to avoid it from going to my hatchway stairs. I have never had to do this and I have lived there 32 years. I understand it is a 5-year permit, and I would like the permit stopped and have the city rectify the issue for us.

Carol Kallberg, 29 Richard Ct., spoke to the board regarding why her property she has lived in for over 20 years, and is now being told she has to get flood insurance. She doesn't know why as she states that her property has never had a water or flooding issues since she has lived.

Nancy Levesque, City Engineer, gave the resident her business card and explained that FEMA has been upgrading their flood mapping, and told the resident to contact her for more information.

4. Approval of Minutes

a. Regular Meeting – March 4, 2024

MOTION: Move to approve the minutes of March 4, 2024, regular meeting, as amended.

By: Robinson Seconded: Rooks

For: Robinson, Carros, Massaro, Duquette, Richie, 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 Applications #2019, #2020 and #23-458F-305 would be heard concurrently but voted on separately.

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

a. Assessor's Map with Inland Wetlands Watercourse Layers
b. Application (Attachments 1 to 5: Project Site Map; Additional Information; Project Drawings; Abutting Property Map and Property Owners Map; Site Survey (Wetland Replication Areas.)
c. Letter dated March 28, 2024, from Attorney Joseph Hammer, to Attorney Peter Olson, regarding continuing Bristol Wetlands Application – New Britain.
d. E-Mail from Carol Noble, P.E., dated March 28, 2024, regarding White Bridge – Aquifer Protection (attached report and maps)
e. E-Mail from Carol Noble, P.E., Dated March 26, 2024, regarding RFP White Bridge 3rd Party Review
f. Letter dated March 27, 2024, from John Correia, Wildlife Field Scientist, DEEP, Land Trusts, Non-Profits and Universities, regarding Applications #2019, #2020 and #23-458F-305.
g. Soil Scientist Consultants report dated March 26, 2024, from David Lord, CSS & EC to Attorney Timothy Furey
h. Photo dated March 11, 2024, from Daniel Sutula
i. Letter from Rivers Alliance of Connecticut, submitted by Alicia Charamut, Executive Director
j. Verified Petition to Intervene Under CGS 22a-19, submitted by Rivers Alliance of Connecticut
k. Soil Scientist Report, dated September 29, 2023 (Attachment 6)
l. Stormwater Management Report dated December 18, 2023, regarding Supplemental Wetland Delineation Report 2023 (attached)
m. maps and photographs), from C. Webb & Associates, LLC Environmental Consulting Services
n. White Bridge Waterworks, Data Form Plot reports dated September 2022
o. 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)
p. Letter dated May 6, 2022, from ConnDEEP, regarding Natural Diversity Database (NDDB) maps and files
q. Form dated April 27, 2022, from ConnDECD, regarding White Bridge Waterworks Facilities
r. 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
s. Form dated April 27, 2022, from ConnDECD, regarding White Bridge Waterworks Facilities (10 attached maps)
t. Existing and Proposed Test Wells and Stream Gauges Overall Map, dated December 9, 2022
u. Plan (Electronic Copy Only)
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 Applications #2019, #2020 and #23-569F-305
z. Letter dated February 5, 2023 (2024), from Alicia Charamut, Executive Director of River Alliance of CT, regarding Applications #2019, #2020 and #23-569F-305
aa. 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 dated March 28, 2024, from Attorney Joseph Hammer, to Attorney Peter Olson, regarding continuing Bristol Wetlands Application – New Britain.
d. E-Mail from Carol Noble, P.E., dated March 28, 2024, regarding White Bridge – Aquifer Protection (attached report and maps)
e. E-Mail from Carol Noble, P.E., Dated March 26, 2024, regarding RFP White Bridge 3rd Party Review
f. Letter dated March 27, 2024, from John Correia, Wildlife Field Scientist, DEEP, Land Trusts, Non-Profits and Universities, regarding Applications #2019, #2020 and #23-458F-305.
g. Soil Scientist Consultants report dated March 26, 2024, from David Lord, CSS & EC to Attorney Timothy Furey
h. Photo dated March 11, 2024, from Daniel Sutula
i. Letter from Rivers Alliance of Connecticut, submitted by Alicia Charamut, Executive Director
j. Verified Petition to Intervene Under CGS 22a-19, submitted by Rivers Alliance of Connecticut
k. Inland Wetlands Staff comments, undated
l. Application (Attachments 1 to 5: Project Site Map; Additional Information; Project Drawings; Abutting Property Map and Property Owners Map; Wetland Replication Areas;
m. Soil Scientist Report, dated September 29, 2023 (Attachment 6)
n. report dated December 18, 2023, regarding Wetland Delineation Report 2022 (attached maps and photographs), from C. Webb & Associates, LLC Environmental Consulting Services
o. White Bridge Waterworks, Data Form Plot reports dated September 2022
p. 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)
q. Stormwater Management Report
r. Appendixes, Rainfall Data; Resources and Glossary (definitions)
s. CDM Smith Geotechnical Laboratory Testing Summary Sheet, review date August 11, 2022
t. Appendixes C to F
u. Letter dated May 6, 2022, from ConnDEEP, regarding Natural Diversity Database (NDDB) maps and files
v. Form dated April 27, 2022, from ConnDECD, regarding White Bridge Waterworks Facilities
w. 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
x. Form dated April 27, 2022, from ConnDECD, regarding White Bridge Waterworks Facilities (10 attached maps)
y. Existing and Proposed Test Wells and Stream Gauges Overall Map, dated December 9, 2022
z. Plan (Electronic Copy Only)
aa. Letter dated February 3, 2024, from John Correia to Chairman Zachary Fisk, regarding Apps. #2020 and #23-458F-305 (attachments)
bb. Map entitled Whites Bridge Wellfields, NBWD, Bristol, CT, Existing and Proposed Test Wells and Stream Gauges, Overall Map
cc. CT DEEP Form, dated April 27, 2022, regarding White Bridge Waterworks Facilities
dd. 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
ee. Letter dated February 2, 2024, from Carol Noble, P.E., CFM, to Chairman Zachary Fisk, regarding Application #2019, #2020 and #23-569F-305
ff. Letter dated February 3, 2024, from John Correia to Chairman Zachary Fisk, regarding Apps. #2020 and #23-458F-305 (attachments)
gg. Letter dated February 5, 2023 (2024), from Alicia Charamut, Executive Director of River Alliance of CT, regarding Applications #2019, #2020 and #23-569F-305
hh. 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 dated March 28, 2024, from Attorney Joseph Hammer, to Attorney Peter Olson, regarding continuing Bristol Wetlands Application – New Britain.
h. E-Mail from Carol Noble, P.E., dated March 28, 2024, regarding White Bridge – Aquifer Protection (attached report and maps)
i. E-Mail from Carol Noble, P.E., Dated March 26, 2024, regarding RFP White Bridge 3rd Party Review
j. Letter dated March 27, 2024, from John Correia, Wildlife Field Scientist, DEEP, Land Trusts, Non-Profits and Universities, regarding Applications #2019, #2020 and #23-458F-305.
k. Soil Scientist Consultants report dated March 26, 2024, from David Lord, CSS & EC to Attorney Timothy Furey
l. Photo dated March 11, 2024, from Daniel Sutula
m. Letter from Rivers Alliance of Connecticut, submitted by Alicia Charamut, Executive Director
n. Verified Petition to Intervene Under CGS 22a-19, submitted by Rivers Alliance of Connecticut
o. Stormwater Report
p. Updated Cut Fill Calculations dated January 24, 2024
q. Plan (Electronic Copy Only)
r. Map entitled Whites Bridge Wellfields, NBWD, Bristol, CT, Existing and Proposed Test Wells and Stream Gauges, Overall Map
s. CT DEEP Form, dated April 27, 2022, regarding White Bridge Waterworks Facilities
t. Chart, entitled, Pumping Station Fill, Cut,
u. 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
v. Letter dated February 2, 2024, from Carol Noble, P.E., CFM, to Chairman Zachary Fisk, regarding Application #2019, #2020 and #23-569F-305
w. Letter dated February 3, 2024, from John Correia to Chairman Zachary Fisk, regarding Apps. #2020 and #23-458F-305 (attachments)
x. Letter dated February 5, 2023 (2024), from Alicia Charamut, Executive Director of River Alliance of CT, regarding Applications #2019, #2020 and # 23-458F-305
y. 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 Engineer, stated that the applicant is requesting that public hearing be continued until the next meeting.

MOTION: to continue Application # 2019 to the May 6, 2024 meeting

By: Robinson Seconded: Rooks

For: Robinson, Carros, Massaro, Duquette, Richie, Rooks and Fisk.
Against: None.
Abstained: None.

MOTION: to continue Application # 2020 to the May 6, 2024 meeting

By: Robinson Seconded: Carros

For: Robinson, Carros, Massaro, Duquette, Richie, Rooks and Fisk.
Against: None.
Abstained: None.

MOTION: to continue Application # 23-458F-305 to the May 6, 2024 meeting

By: Robinson Seconded: Carros

For: Robinson, Carros, Massaro, Duquette, Richie, Rooks and Fisk.
Against: None.
Abstained: None.

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.

The Commission received the following items in their electronic packets:

a. Assessor's Map with Inland Wetlands Watercourse Layers
b. Street plan set
c. Site Plan Map (electronic only)

MOTION: to open the public hearing for application # 2022

By: Robinson Seconded: Carros

For: Robinson, Carros, Massaro, Duquette, Richie, Rooks and Fisk.
Against: None.
Abstained: None.

William Stango, Civil Engineer City of Bristol, reviewed the application regarding how the existing piping of the existing channel at 120 Perkins Street will be corrected. The removal of the existing flared end section, the installation of five manholes, pipe the channel approximately 200 feet down along the side of the property and restore the area with seed and planting. Due to the impact of the existing watercourse, we will be filling the area with 1100 sq. feet of fill and within the upland review area will be impacting 2700 sq. feet.

The commission asked if there was any consideration for other options for corrections using a lined channel or having looked up the hill for other options? If debris is caught in there what is the maintenance involved.?

William Stango, Civil Engineer, responded stating due to the sloping issue this was not an option due to the velocity and trying to reduce the erosion of occurring. The calculations for the amount of water during the design storm that the system will see, is roughly 36 cubic feet per second and by extending the 36-inch RCP will be delivering approximately 47 cubic feet per second of capacity so we are not expecting any backing up of the existing system. The maintenance is a standard procedure. We do have an existing catch basin at the street and five manhole structures along the line from 120 Perkins Street to the bottom. This would be standard procedure, put a camera down the lines, jet the lines from top to bottom or send a truck out there and back out the sediment and clear out the debris.

The commission asked if there is a scheduled maintenance plan.

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William Stango, stated, we can incorporate that into our maintenance schedule. The city will be taking an easement for the structures and they will be city infrastructure and can be incorporated into regular maintenance.

Bruce Porrini, 135 Perkins St, stated he likes the plan submitted. He lives on the inlet of the culvert and has noticed the walls are being wiped out that he put on his property. The three ponds generate water and mud that come down and clog the culvert. He stated that at Hill St and Pinehurst there is a pond with a dock and he said they have been clearing out the land around it which is causing issues as well.

Nancy Levesque, City engineer, stated they are looking Hill and Pinehurst and they are looking at a lot of the basins to see if they are functioning as they are meant to. Public Works may contact the residents as well with a request for a possible easement and maybe to prevent some of the boulders we can look at a possible trash rack of some sort to help prevent some of the larger ones from coming down and through. They are checking all the basins to see if they are functioning like they should be and cleaning and maintenance will be done to keep them clear.

MOTION: to close public hearing for application # 2022

By: Robinson Seconded: Carros

For: Robinson, Carros, Massaro, Duquette, Richie, Rooks and Fisk.
Against: None.
Abstained: None.

MOTION: Move to approve 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, in accordance with the plot plan and information submitted with standard stipulations, a maintenance plan, locking manholes and the easement is granted.

By: Robinson Seconded: Rooks

For: Robinson, Carros, Massaro, Duquette, Richie, Rooks and Fisk.
Against: None.
Abstained: None.

The application is approved.

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.

The Commission received the following items in their electronic packets:

a. Assessor's Map with Inland Wetlands Watercourse Layers
b. Street plan set
c. Site Plan Map (electronic only)

MOTION: Move to receive Application #2023.

By: Robinson Seconded: Carros

For: Robinson, Carros, Massaro, Duquette, Richie, Rooks and Fisk.
Against: None.
Abstained: None.

The application is received.

Nancy Levesque, City Engineer, stated the Public Works agrees that this application is a significant activity and would request a site walk and public hearing be scheduled for this application.

MOTION: Move to declare Application #2023 a significant activity and set a public hearing for May 6, 2024 meeting.

By: Robinson Seconded: Rooks

For: Robinson, Carros, Massaro, Duquette, Richie, Rooks and Fisk.
Against: None.
Abstained: None.

The application was declared a significant activity.

7. Zoning Commission Referrals

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

The Commission received the following items in their electronic packets:

aa. Referral memorandum from Bristol Land Use Office – Applications #2489 & #2490 dated March 6, 2024.

Chairman Fisk read the Zoning Commission referral into record.

Attorney Fury, stated that the report has been submitted with the amended plans. The site has been modified and all activity will be outside of the 100-foot jurisdiction of wetlands area. He is asking the commission for an affirmative acknowledgement by the commission that the commission has no jurisdiction in this matter.

Nancy Levesque, City Engineer, stated that the zoning meeting is next Monday night and that staff would like to work with the chairman to draft a letter acknowledging and determining that this application does not require an approval from the inland wetlands commission since there is no activity proposed within the inland wetland area. The chairman will sign the letter of referral with the commissions to do so.

MOTION: to draft and submit a letter to the Zoning Commission

By: Robinson Seconded: Ritchie

For: Robinson, Carros, Massaro, Duquette, Richie, Rooks and Fisk.
Against: None.
Abstained: None.

A few residents present asked about the Maltby Street Project and asked why it is being pushed out.

Chairman Fisk stated that the applicant requested the extension as well as the commission and the details are not ready yet. The commission voted to continue earlier this meeting and will continue on May 6, 2024.

8. Staff Reports

a. IWWC Report – March 2024

The Commission received the following item in their electronic packets:

aa. Zoning Enforcement Officer report dated March 25, 2024.

The commission asked for a status update on Waterbury Road and Moody St.

Nancy Levesque, City Engineer, the report stated that the environmental tech is going to meet with the property owner for Waterbury Road. People don't recognize that their lots are within wetlands or regulated areas. We investigate calls and go out, but it sometimes gets complicated. Regarding Moody Street, we will follow up on Moody Street and give an update at the next meeting.

MOTION Move to file the report.

By: Robinson Seconded: Rooks

For: Robinson, Carros, Massaro, Duquette, Richie, Rooks and Fisk.
Against: None.
Abstained: None.

The report is filed.

Chairman Fisk asked that Old Business and New Business be added to the agendas for each meeting.

Chairman Fisk also asked that the Commission Elections be added to next month's agenda.

10. New Business

a. Chimney Crest

Nancy Levesque, City Engineer, stated that complaints were made and investigated. We had the owner bulk up the silt fence. The enforcement officer is out there on a regular basis and she also goes out regularly. They have recently cleaned out the pond and this does cost a large amount of money and we understand the concern. We are doing what we can to address it without actually shutting them down, which we are not recommending at this time. Monitoring is being done twice a week to make sure debris is not getting off the property.

b. Sherman Street

Nancy Levesque, City Engineer, stated she has received photos and videos. Engineering will be meeting with the property owners regarding the active permit. The applicant described it as a horseshoe pit but it looks like a Bocci court and it was installed at the low point of the yard and may have modified some of the drainage. Also, the pipes that were mentioned were supposed to be capped in accordance with the plans, but don't know if the cap disappeared at some point. This was a staff approved application.

The commission asked if he brought in over the staff approved, what is the recourse?

Nancy Levesque, stated that the recourse would be a cease and correct and get the material removed if it is over. Because the application is active and open, Engineering will put together a package and get it to the commission for review. This may mean having the property owner come in as well as potentially having the commission go out there and take a look at what happened. We could schedule a site walk the same night as Vera Road and Brace Avenue.

MOTION: to Cease and Correct after city staff review and makes a recommendation and request the property owner to be present on May 6, 2024 meeting.

By: Robinson Seconded: Carros

For: Robinson, Carros, Massaro, Duquette, Richie, Rooks and Fisk.
Against: None.
Abstained: None.

MOTION: to schedule on onsite inspection for application #2023 on May 2, 2024 at 6:00 p.m.

By: Rooks Seconded: Robinson

For: Robinson, Carros, Massaro, Duquette, Richie, Rooks and Fisk.
Against: None.
Abstained: None.

MOTION: to schedule on onsite inspection for Admin. Application for 42 Paul Street on May 2, 2024 at 6:15 p.m.

By: Rooks Seconded: Robinson

For: Robinson, Carros, Massaro, Duquette, Richie, Rooks and Fisk.
Against: None.
Abstained: None.

8. Old Business

NONE

9. Communications

a. Wallace Barnes Nature Trail Fundraiser

The Commission received the following items in their electronic packets:

aa. Wallace Barnes Nature Trail Fundraiser donation sheet, undated

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11. Adjournment

MOTION: Move to adjourn at 7:42 P.M.

By: Robinson Seconded: Carros

For: Robinson, Carros, Massaro, Duquette, Richie, Rooks and Fisk.
Against: None.
Abstained: None.

Zachary Fisk, Chairman
Inland Wetlands Commission

David Rooks, Secretary

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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: [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: [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.

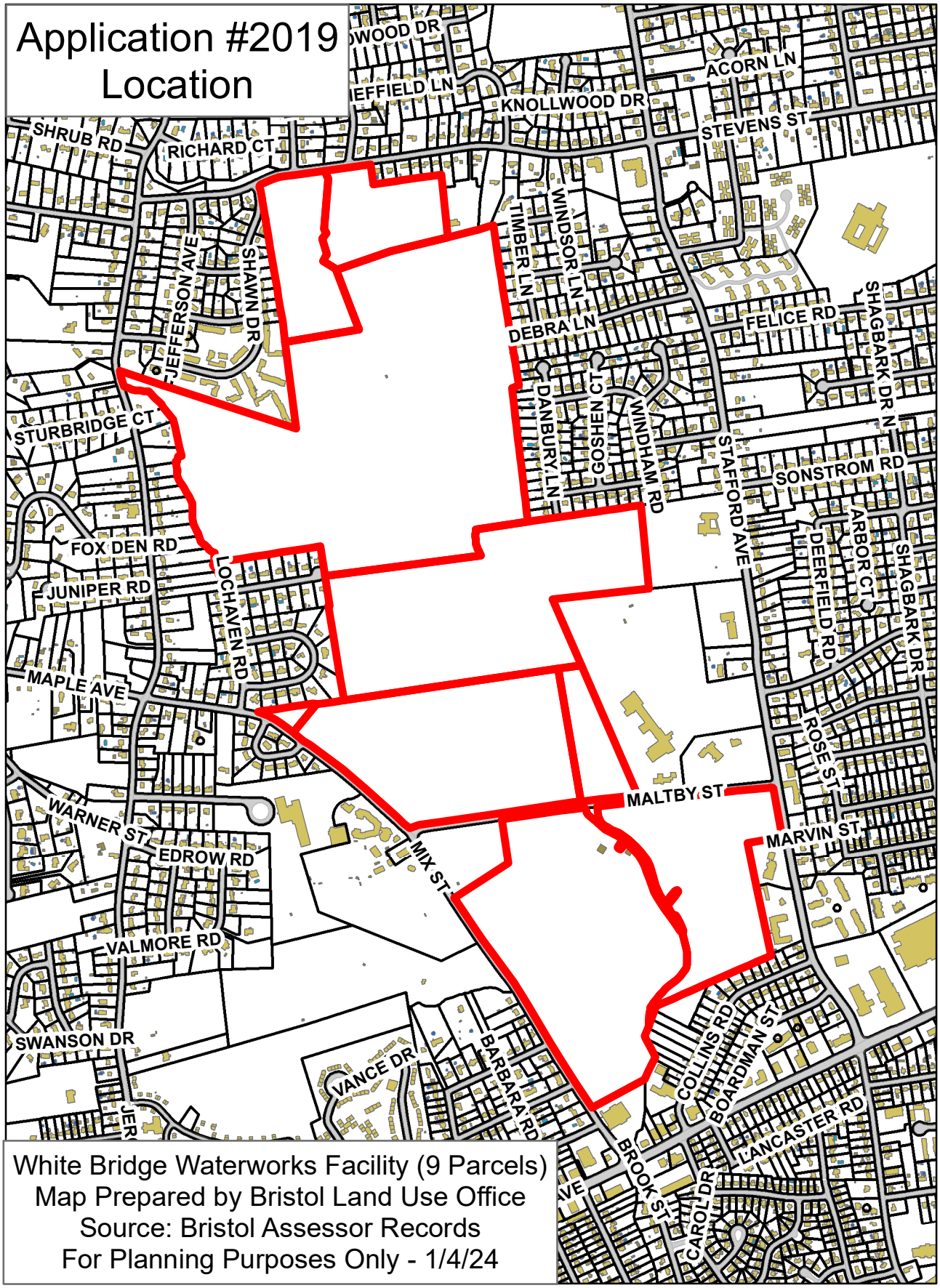
4. DESCRIBE THE REASON FOR THE PROPOSED BOUNDARY CHANGE:

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:

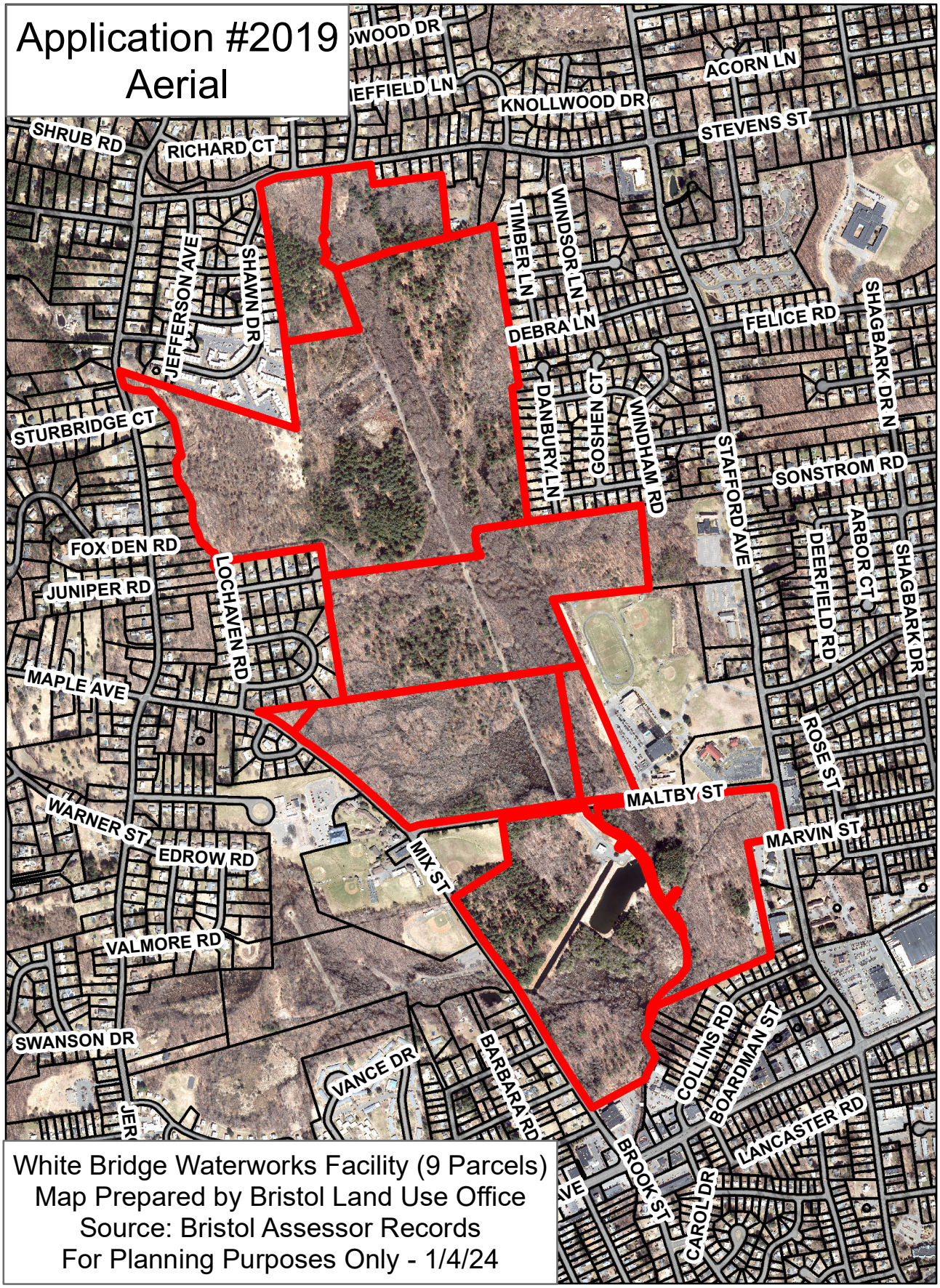
a. I/we hereby authorize the commissioners and agents of the Bristol Inland Wetlands Agency to inspect the subject property at reasonable times, both before and after a final decision has been made regarding this application.

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.



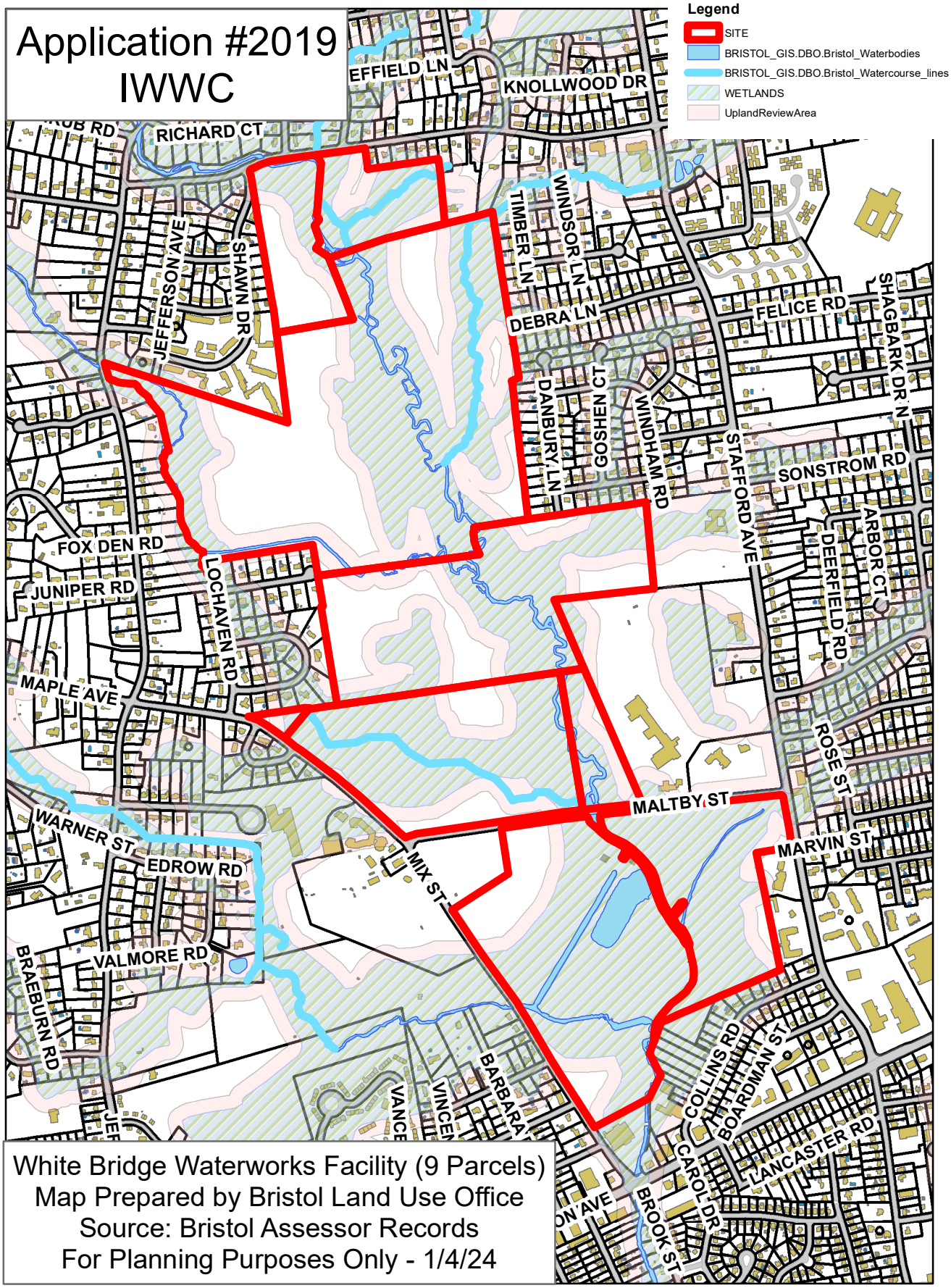
White Bridge Waterworks Facility (9 Parcels)
Map Prepared by Bristol Land Use Office
Source: Bristol Assessor Records
For Planning Purposes Only - 1/4/24

Application #2019
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



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

Whitesbridge Wellfields
New Britain Water Department
Bristol, Connecticut

Existing and Proposed Test Wells and Stream Gauges
Overall Map

1 inch equals 500 feet

0 500 1,000 1,500
Feet

Base Map Data Sources: City of Bristol

Map Date 12/9/2022

Comprehensive Environmental Incorporated

Well #1
Well #2
Well #3
BWD-3
BWD-4
BWD-5
Well #4
Well #5
Well #6
Install water level monitor
Alternate water level monitor

City of Bristol Pumping Wells BWD-3, 4 and 5 will each be outfitted with a data logger.

- Existing Production Well
- Existing Monitoring Well
- Proposed Monitoring Well
- Proposed Stream Gauge and Piezometer
- Data Logger
- Redevelop
- Redevelop if possible
- Redevelop/Data Logger
- Cross Sections
- Wetland boundary 2022
- Contours (1 ft.)
- Buildings
- Parcels
- New Britain Water Dept. Property Lines
- Rivers, Streams
- Lakes, Ponds

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.

COMPREHENSIVE
ENVIRONMENTAL
INCORPORATED

Gateway Crossing
1 Hartford Square East, Suite 227
New Britain, CT 06052
860.224.0442

May 1, 2024

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

RE: Wetlands and Flood Commission Permits- Applications #2019, #2020 & #23-458F-305
Submission of Response to Staff Comments and Supplemental Information

Dear Mr. Flanagan,

On behalf of the Applicant, the New Britain Water Department, Comprehensive Environmental Inc. (CEI) is providing in this document responses to comments and supplemental information regarding the above referenced applications.

Responses to City Staff Comments:

Comment #1. *Proposed construction wetland "replication" appears to consist of excavation adjacent to existing wetland and installation of 3 inches of hydrophilic soil. Provide additional information associated with the hydrophilic soil specification and post development groundwater depth to support wetland "replication" areas. DPW Engineering Division proposes a min of 12-inch depth of hydrophilic soil within wetland "replication" area. On adjacent 2:1 slopes 6 inches of hydrophilic soil is sufficient. Detail/document short and long term monitoring and wetland "replication" area management plan to ensure long-term viability of area.*

Response #1. The wetland replication and compensatory storage plans and sections have been revised to address the above comments. Please note that due to the presence of a vernal pool in the upper wellfield area the compensatory storage and wetland replication area was moved further north. In addition, the United States Army Corp of Engineers (USACE) has requested a 3:1 wetlands replication as part of their permit review. These changes are reflected in revised sheets WR-1 to WR-5, CS-1 to CS-5, XS-1 to XS-5, C-14 and C-14A which are attached herein as **Attachment 1.A**. Also attached as **Attachment 1.B**. are the calculations for the compensatory storage. More information about the vernal pool can be found in the NBWD Supplemental Environmental/Wetlands Permit Information prepared by C. Webb and Associates, LLC., which is also attached to this document as **Attachment 1.C**. Sheet XS-5 and Section 4 of the NBWD Supplemental Environmental/Wetlands Permit Information detail the short term and long term monitoring for wetland replication.

Comment #2. *Plan indicates dewater sedimentation basin, however provide anticipated/ proposed discharge rates with sizing of sedimentation basins. In addition, indicate controls / monitoring of turbidity discharge from sedimentation basin.*

Response #2. Temporary dewatering sedimentation basins are intended to be used in the event high groundwater is encountered during excavation activities. Anticipated/proposed discharges will vary depending on the required amount of excavation dewatering but typically can range from 20-50 gpm, intermittently. As shown in Detail J of Drawing Sheet C-24 (included herein as **Attachment 2**), the dewatering sedimentation basin size may vary depending on necessity with a 5-foot diameter being the minimum diameter of the basin. Sedimentation basins will be inspected at least once per week and cleaned as needed to remove accumulated sediments. The Contractor may also elect to install permeable geotextile dewatering bags in addition to the dewatering sedimentation basins for sediment filtration.

Comment #3. *Provide construction sequence with durations along with staging plan, areas of stockpile storage and refueling areas.*

Response #3. See the Proposed Construction Sequence Memorandum included in **Attachment 3.A.** for more information, and the associated Drawing Sheets C-20, C-21, and C-22 in Attachment 3.B. Additionally, see Sheet C-1 and C-7 of **Attachment 3.B.** for notes and depiction of Contractor staging, stockpiling, and refueling areas.

Comment #4. *Clarify proposed location of floating turbidity curtain.*

Response #4. Floating turbidity curtains are to be located within the canal, east and west of the proposed sediment removal areas. See revised Sheet C-23 in **Attachment 4**.

Comment #5. *Include installation line of silt fence along the toe of ALL proposed slopes. Silt fence shall be installed prior to construction, be monitored during construction and removed once slopes are stabilized.*

Response #5. Notes requiring the installation of silt fence has been included throughout drawings. See revised sheets C-1, C-6, C-7, C-8, C-13, C-14, C-14A in **Attachment 5**.

Comment #6. *Provide additional detail associated with compensation storage area 3. The plans indicate excavation to elevation 252, however indicate proposed access to area, erosion control and restoration.*

Response #6. The revised plans referenced in Comment Response #1 address these comments.

Comment #7. *Provide additional detail associated with compensation area 4, including additional elevation east of the area between the compensation area and the Coppermine. Detail cross section AA-1 and indicate erosion control measures and proposed access to area.*

Response #7. The revised plans referenced in Comment Response #1 address this comment.

Comment #8. *The Storm Water Management Report is prepared in accordance with the CT Storm Water Quality Manual. As indicated in your report the manual requires maintaining the pre-*

development annual groundwater recharge volume. The report indicates recharge is achieved through reduction in impervious area; however, please indicate impact of additional well withdrawal will have on wetlands.

Response #8. See Section 3 of the NBWD Supplemental Environmental/Wetlands Permit Information prepared by C. Webb and Associates, LLC., which is included in **Attachment 1.C.**

Comment #9. *Proposed plans indicate flood plain mitigation measures (excavation within flood plain to offset the placement of fill within flood plain). However, Bristol DPW recommends a CLOMR prior to work and will require a LOMR as condition of approval (if approved).*

Response #9. See No Rise Certification included in **Attachment 9**. No objection to coordinating with FEMA for CLOMR/LOMR as a condition of approval.

Responses to North Central Conservation District (Letter Dated March 28, 2024):

1. See the Letter from CT DEEP in **Attachment 10**, which confirms the continued applicability of the Diversion Registration to the facilities and that no diversion permit is required for continued operation of the facilities as proposed with this project.
2. See Section 3 of the NBWD Supplemental Environmental/Wetlands Permit Information, included in **Attachment 1.C.,** concluding no permanent impacts from withdrawals.
3. See Section 5 of the NBWD Supplemental Environmental/Wetlands Permit Information and the related Supplemental Alternatives Evaluation contained therein, detailing alternatives considered for this project. There are no feasible and prudent alternatives to the proposed plan.
4. See Section 5 of the NBWD Supplemental Environmental/Wetlands Permit Information concluding no permanent impacts to wetlands functions and values.

Additional Information Submitted:

1. Detailed Groundwater and Stream Flow Monitoring Plan, as required by CT DPH, is included in **Attachment 11**.
2. Letter confirming hydrogeologic information for project site remains valid. See **Attachment 12**.
3. Proposed wetlands boundary line change map is submitted for consideration. See **Attachment 13**.
4. Resumes of Engineers and Soil Scientist are included in **Attachment 14**.

Attachments Includes:

- Response 1 – Attachments
  - 1.A. Drawings: WR-1 to WR-5, CS-1 to CS-5, XS-1 to XS-5, C-14 to and C-14A
  - 1.B. Calculations: Compensatory Storage
  - 1.C. NBWD Supplemental Environmental/Wetlands Permit Information prepared by C. Webb and Associates, LLC
- Response 2 – Attachment
  - 2. Drawing: C-24
- Response 3 – Attachments
  - 3.A. Proposed Construction Sequence Memorandum
  - 3.B. Drawings: C-1 and C-7; C-20, C-21, and C-22
- Response 4 – Attachment

- 4. Drawing: C-23
- Response 5 – Attachment
  - 5. Drawings: C-1, C-6, C-7, C-8, C-13, C-14, C-14A
- Response 9 – Attachment
  - 9. No Rise Certification
- Attachment 10
  - 10. CT DEEP Permit Need Determination
- Attachment 11
  - 11. Detailed Groundwater and Stream Flow Monitoring Plan
- Attachment 12
  - 12. Letter confirming hydrogeologic information for project site remains valid
- Attachment 13
  - 13. Proposed wetlands boundary line change map
- Attachment 14
  - 14. Resumes of Engineers and Soil Scientist
    - Sebastian Amenta, P.E.
    - Ian T. Cole - Professional Soil Scientist
    - Joseph L. Laliberte, PE, BCEE, PM
    - Clinton L. Webb Jr. – Senior Environmental Scientist/Ecologist

If you have any questions or require any additional information, please do not hesitate to contact me at 860.224.0442 or samenta@ceiengineers.com.

Sincerely,
Comprehensive Environmental Inc.

Sebastian Amenta, PE
Regional Program Director

Ray Rogozinski Review Comments

April 22, 2024

&

Applicant Responses

May 2, 2024

Bristol Department of Public Works has completed the review of the following materials submitted as part of Applications #2019, #2020 & #23-458F-305.

i. Central Conservation District review letter, dated March 28, 2024.

ii. CDM Smith Stormwater Management Report for the White Bridge Waterworks Facilities Pond Pumping Station.

iii. C. Webb & Associates, LLC Wetland Delineation Report, dated September 29, 2022. iv. CDM Smith Plan Set, dated December 2022: Existing Conditions sheets 1-3, Wetlands replication areas sheets 1-3, Cross-Sections sheets 1-4.

v. Freeman Companies Existing Conditions Survey Upper & Lower Wellfield, topography survey.

vi. CDM Smith Plan Set: C-2,6-10, 10B, 11-17, 18A, 18B, 2, 19, 23-29, 9, 11-14, 18 A, 18 B. vii. CDM Smith Plan Set: Attachment 4: Floodway & Flood Fringe Encroachment Areas 60% Submittal C9, 5, 11, 13, 14, 9, 9, 9, 9, 11 (10 sheets), 5 (8 sheets), CS1-CS4. Based on the review the following comments are provided:

1. Proposed construction wetland "replication" appears to consist of excavation adjacent to existing wetland and installation of 3 inches of hydrophic soil. Provide additional information associated with the hydrophic soil specification and post development groundwater depth to support wetland "replication" areas. DPW Engineering Division proposes a min of 12 inch depth of hydrophic soil within wetland "replication" area. On adjacent 2:1 slopes 6 inches of hydrophic soil is sufficient. Detail/document short and long term monitoring and wetland "replication" area management plan to ensure long-term viability of area.

   4/22/24 Applicant Response: The wetland replication and compensatory storage plans and sections have been revised to address the above comments. Please note that due to the presence of a vernal pool in the upper wellfield area the compensatory storage and wetland replication area was moved further north. In addition, the United States Army Corp of Engineers (USACE) has requested a 3:1 wetlands replication as part of their permit review. These changes are reflected in revised sheets WR-1 to WR-5, CS-1 to CS-5, XS-1 to XS-5, C-14 and C-14A which are attached herein as Attachment 1.A. Also attached as Attachment 1.B. are the calculations for the compensatory storage. More information about the vernal pool can be found in the NBWD Supplemental Environmental/Wetlands Permit Information prepared by C. Webb and Associates, LLC., which is also attached to this document as Attachment 1.C. Sheet XS-5 and Section 4 of the NBWD Supplemental Environmental/Wetlands Permit Information detail the short term and long term monitoring for wetland replication.

   5/2/24 City Response: Depth of hydrophilic soil revised in wetland "replication" detail". Please have the Cert Soil Scientist available to address the Commission with the post development groundwater depth to support the wetland "replication", the additional wetland replication requested by the USACE and specification for the hydrophilic soil.

2. Plan indicates dewater sedimentation basin, however provide anticipated/ proposed discharge rates with sizing of sedimentation basins. In addition, indicate controls / monitoring of turbidity discharge from sedimentation basin.

   4/22/24 Applicant Response: Temporary dewatering sedimentation basins are intended to be used in the event high groundwater is encountered during excavation activities. Anticipated/proposed discharges will vary depending on the required amount of excavation dewatering but typically can range from 20-50 gpm, intermittently. As shown in Detail J of Drawing Sheet C-24 (included herein as Attachment 2), the dewatering sedimentation basin size may vary depending on necessity with a 5-foot diameter being the minimum diameter of the basin. Sedimentation basins will be inspected at least once per week and cleaned as needed to remove accumulated sediments. The Contractor may also elect to install permeable geotextile dewatering bags in addition to the dewatering sedimentation basins for sediment filtration.

   5/2/24 City Response: Please provide additional details/procedures to prevent sediment/ discharge of dewatering water from being discharges with a high turbidity.

3. Provide construction sequence with durations along with staging plan, areas of stockpile storage and refueling areas.

   4/22/24 Applicant Response: See the Proposed Construction Sequence Memorandum included in Attachment 3.A. for more information, and the associated Drawing Sheets C-20, C-21, and C-22 in Attachment 3.B. Additionally, see Sheet C-1 and C-7 of Attachment 3.B. for notes and depiction of Contractor staging, stockpiling, and refueling areas.

   5/2/24 City Response: Construction sequence provided. Please have a representative available to review the sequence and anticipated duration of construction with the Commission.

4. Clarify proposed location of floating turbidity curtain.

   4/22/24 Applicant Response: Floating turbidity curtains are to be located within the canal, east and west of the proposed sediment removal areas. See revised Sheet C-23 in Attachment 4.

   5/2/24 City Response: Turbidity curtain location clarified.

5. Include installation line of silt fence along the toe of ALL proposed slopes. Silt fence shall be installed prior to construction, be monitored during construction and removed once slopes are stabilized.

   4/22/24 Applicant Response: Notes requiring the installation of silt fence has been included throughout drawings. See revised sheets C-1, C-6, C-7, C-8, C-13, C-14, C-14A in Attachment 5.

   5/2/24 City Response: No additional comments.

6. Provide additional detail associated with compensation storage area 3. The plans indicate excavation to elevation 252, however indicate proposed access to area, erosion control and restoration.

   4/22/24 Applicant Response: The revised plans referenced in Comment Response #1 address these comments.

   5/2/24 City Response: No additional comments, please be prepared to address any questions the commission may have at the meeting.

7. Provide additional detail associated with compensation area 4, including additional elevation east of the area between the compensation area and the Coppermine. Detail cross section AA-1 and indicate erosion control measures and proposed access to area.

   4/22/24 Applicant Response: The revised plans referenced in Comment Response #1 address this comment.

   5/2/24 City Response: 9. No additional comments, please be prepared to address any questions the commission may have at the meeting.

8. The Storm Water Management Report is prepared in accordance with the CT Storm Water Quality Manual. As indicated in your report the manual requires maintaining the pre- development annual groundwater recharge volume. The report indicates recharge is achieved through reduction in impervious area, however please indicate impact of additional well withdrawal will have a wetlands.

   4/22/24 Applicant Response: See Section 3 of the NBWD Supplemental Environmental/Wetlands Permit Information prepared by C. Webb and Associates, LLC., which is included in Attachment 1.C.

   5/2/24 City Response: Please have a representative available address any questions the Commission may have regarding section 3 and 4 (Impact to Wetlands Associated with Well Drawdown & Wetland Creation) of the Supplemental Env/Wetland Permit Information.

9. Proposed plans indicate flood plain mitigation measures (excavation within flood plain to offset the placement of fill within flood plain). However, Bristol DPW recommends a CLOMR prior to work and will require a LOMR as condition of approval (if approved).

4/22/24 Applicant Response: See No Rise Certification included in **Attachment 9**. No objection to coordinating with FEMA for CLOMR/LOMR as a condition of approval.

5/2/24 City Response: Comment received, please plan on submitting a LOMAR to FEMA.

Responses to North Central Conservation District (Letter Dated March 28, 2024):

1. See the Letter from CT DEEP in **Attachment 10**, which confirms the continued applicability of the Diversion Registration to the facilities and that no diversion permit is required for continued operation of the facilities as proposed with this project.
2. See Section 3 of the NBWD Supplemental Environmental/Wetlands Permit Information, included in **Attachment 1.C.,** concluding no permanent impacts from withdrawals.
3. See Section 5 of the NBWD Supplemental Environmental/Wetlands Permit Information and the related Supplemental Alternatives Evaluation contained therein, detailing alternatives considered for this project. There are no feasible and prudent alternatives to the proposed plan.
4. See Section 5 of the NBWD Supplemental Environmental/Wetlands Permit Information concluding no permanent impacts to wetlands functions and values.

Additional Information Submitted:

1. Detailed Groundwater and Stream Flow Monitoring Plan, as required by CT DPH, is included in **Attachment 11**.
2. Letter confirming hydrogeologic information for project site remains valid. See **Attachment 12**.
3. Proposed wetlands boundary line change map is submitted for consideration. See **Attachment 13**.
4. Resumes of Engineers and Soil Scientist are included in **Attachment 14**.

Attachments Includes:

Response 1 – Attachments
- 1.A. Drawings: WR-1 to WR-5, CS-1 to CS-5, XS-1 to XS-5, C-14 to and C-14A
- 1.B. Calculations: Compensatory Storage
- 1.C. NBWD Supplemental Environmental/Wetlands Permit Information prepared by C. Webb and Associates, LLC

Response 2 – Attachment
- 2. Drawing: C-24

Response 3 – Attachments
- 3.A. Proposed Construction Sequence Memorandum
- 3.B. Drawings: C-1 and C-7; C-20, C-21, and C-22

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Attachment 14

- 14. Resumes of Engineers and Soil Scientist
  - Sebastian Amenta, P.E.
  - Ian T. Cole - Professional Soil Scientist
  - Joseph L. Laliberte, PE, BCEE, PM
  - Clinton L. Webb Jr. – Senior Environmental Scientist/Ecologist

If you have any questions or require any additional information, please do not hesitate to contact me at 860.224.0442 or samenta@ceiengineers.com.

Link to City of Bristol 3rd Party Environmental Review Agreement:

https://www.bristolct.gov/DocumentCenter/View/46665/N-PRP-2401017-City-of-Bristol-WhiteBridge-Well-Field-Review--04162024

Link to Response 1 - Attachments: https://www.bristolct.gov/DocumentCenter/View/46659/Response-1-Attachments

Response 1 – Attachments

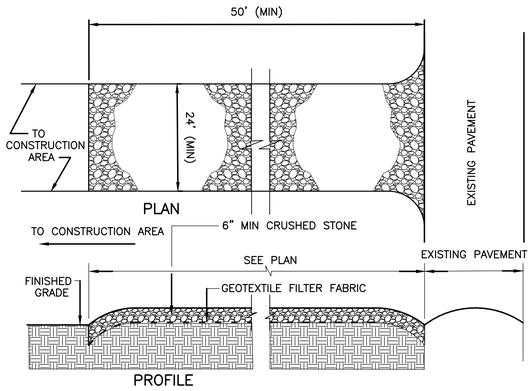
1.A. Drawings: WR-1 to WR-5, CS-1 to CS-5, XS-1 to XS-5, C-14 to and C-14A

1.B. Calculations: Compensatory Storage

1.C. NBWD Supplemental Environmental/Wetlands Permit Information prepared by C.Webb and Associates, LLC

Response 2 – Attachment

2. Drawing: C-24



NOTES:

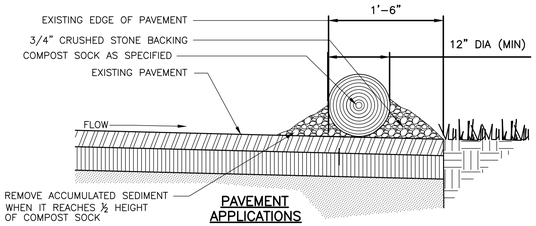
1.) PROVIDE APPROPRIATE TRANSITION BETWEEN STABILIZED CONSTRUCTION ENTRANCE AND EXISTING PAVEMENT.

2.) LIMITS OF STABILIZED CONSTRUCTION ENTRANCE SHALL BE AS DIRECTED BY THE ENGINEER.

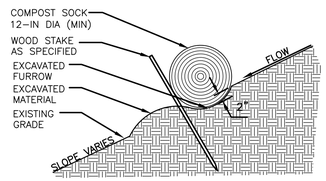
3.) THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO EXISTING PAVEMENT. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE OR ADDING STONE TO THE LENGTH OF THE ENTRANCE.

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.

STABILIZED CONSTRUCTION ENTRANCE
DETAIL A
NOT TO SCALE

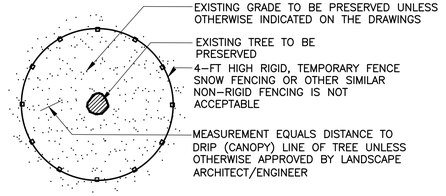


PAVEMENT APPLICATIONS



LANDSCAPE APPLICATIONS

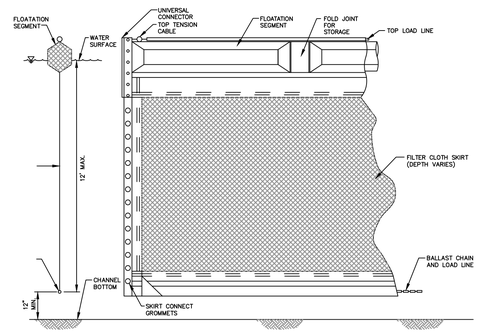
COMPOST SOCK
DETAIL B
SCALE: NTS

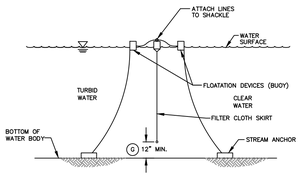


NOTES:
1. FENCING SHALL BE INSTALLED AROUND PERIMETER OF ALL EXISTING TREES TO BE PRESERVED WITHIN THE LIMIT OF WORK.
2. FENCING MAY BE REMOVED TEMPORARILY, ONLY AS REQUIRED TO PERFORM THE WORK SHOWN ON THE DRAWINGS.
3. FENCING SHALL REMAIN IN PLACE & BE MAINTAINED THROUGHOUT CONSTRUCTION AND THEN REMOVED COMPLETELY.

TREE PROTECTION
DETAIL C
NOT TO SCALE

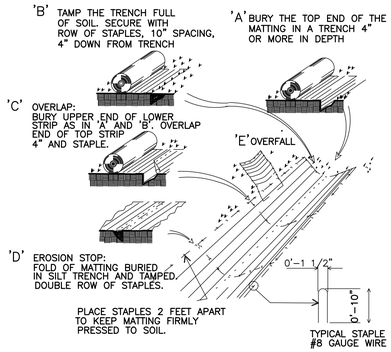
TURBIDITY CURTAIN





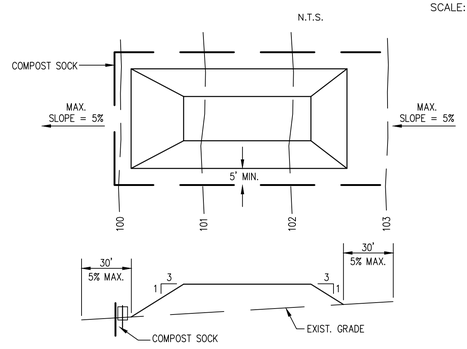
TYPICAL ANCHORING SECTION

TURBIDITY CURTAIN
DETAIL D
NOT TO SCALE



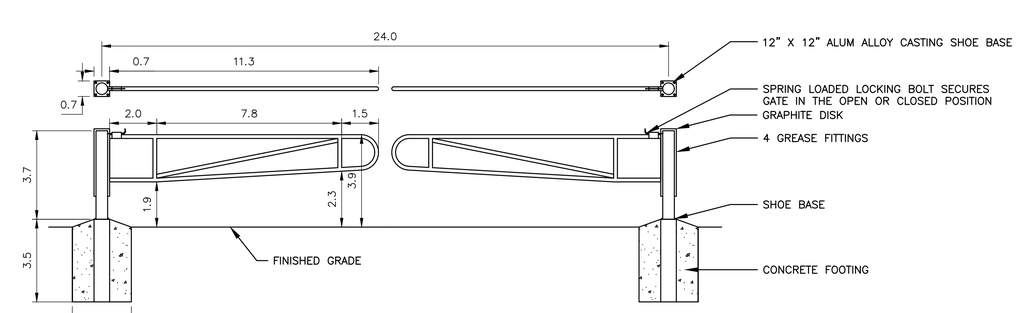
NOTE:
1.) APPLY ON ALL NEW SLOPES 3(H):1(V) AND STEEPER.

EROSION CONTROL BLANKET
DETAIL E
NOT TO SCALE

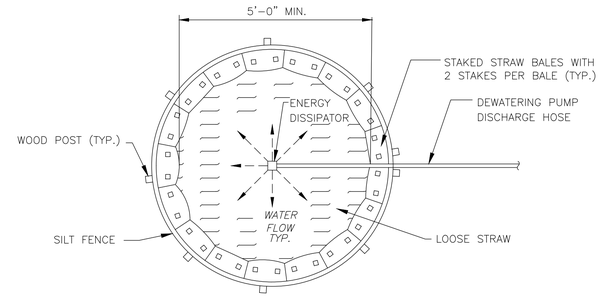


NOTES:
1. PLACE STOCKPILES AT LOCATIONS AS SHOWN ON THE SOIL EROSION AND SEDIMENT CONTROL PLAN.
2. ALL SIDE SLOPES SHALL BE 3 TO 1 OR FLATTER.
3. STOCKPILE SHALL RECEIVE A VEGETATIVE COVER IN ACCORDANCE WITH MINIMUM STABILIZATION REQ.
4. COMPOST SHALL BE INSTALLED AS DETAILED HEREON.

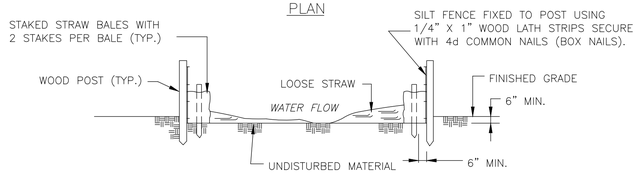
SOIL STOCKPILE
DETAIL F
NOT TO SCALE



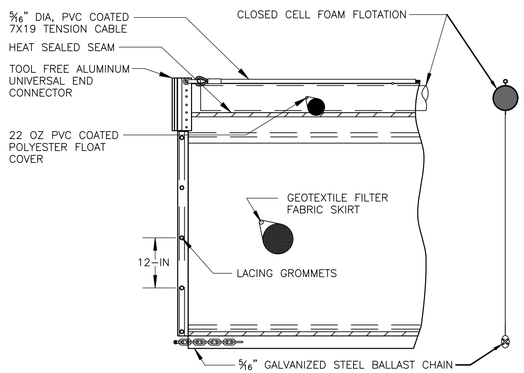
24'-0" OPENING DOUBLE VEHICLE BARRIER GATE
DETAIL G
NOT TO SCALE



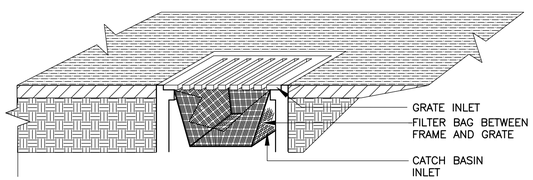
PLAN



DEWATERING SEDIMENTATION BASIN
DETAIL J
NOT TO SCALE



FLOATING TURBIDITY BARRIER
DETAIL I
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

CIVIL DETAILS I

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

XREFs: [CDMS_2436_XSVPL000, CWP000ST, Floodway_Floodplain, AWZ001PS - 2D Process Export] Images: []
Last saved by: ENGELSB Time: 2/28/2023 11:28:15 AM
C:\Users\engelsb\ACCDocs\CDM Smith Inc\10739-264571 - New Britain CT White Bridge Well Fields and PS\Project Files\02 Civil (C)\10 CADD\CD001CSDT.dwg
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Link to Response 3 Attachments:
https://www.bristolct.gov/DocumentCenter/View/46660/Response-3-Attachments

Response 3 – Attachments

3.A. Proposed Construction Sequence Memorandum

3.B. Drawings: C-1 and C-7; C-20, C-21, and C-22

Response 4 – Attachment

4. Drawing: C-23

LIMITS OF CANAL SEDIMENT REMOVAL

WETLAND BOUNDARY

PROTECT EXISTING GATE STRUCTURE AND PIPE

REMOVE AND DISPOSE OF EXISTING CHAIN LINK FENCE AND GATES

PROTECT EXISTING PIPES

CANAL TO BE DEWATERED AS NECESSARY

D C-24 TURBIDITY CURTAIN

A C-24 TEMPORARY STABILIZED CONSTRUCTION ENTRANCE. TO BE REMOVED AT THE END OF CONSTRUCTION

INLET SCREEN AND GATE VALVE

CANAL TO BE DEWATERED AS REQUIRED. SEE NOTE 5

EDGE OF STREAM

TURBIDITY CURTAIN D C-24

EXISTING WELL NO. 6

CANAL POLE 5 0"

CANAL POLE 4 7.5"

CANAL POLE 3 9.75"

CANAL 1 (21.4")

CANAL POLE 2 18.5"

CANAL POLE 1 15.5"

CANAL 3 (12")

CANAL 4 (7")

SMU-1 1 FT

SMU-2 2 FT

SMU-3 2.5 FT

SMU-4 2.5 FT

SMU-5 1 FT

12" Dia.MH Top of Frame=251.42

30"C.M.P. F.E. Inv.=247.38

30" C.M.P. F.E. Inv.=247.00

AREA 1A 3"

AREA 1B 13"

AREA 2A 30"

AREA 2B 17.5"

6x4' Conc. Inv=245.50

6x4' Conc. Inv=245.60

8"x8" Inv=245.53

6x4' Conc. Inv=245.50

30k Generator with Underground Conduit

STOPLOG AND PLUG FOR POND DEWATERING

PROVIDE STEEL PLATES TO PROTECT EXISTING CULVERT

EXISTING CASTOR WELL

EXISTING POND PUMPING STATION F.F.= 253.15

PROTECT EXISTING PIPES

PROTECT EXISTING 16" DI PIPE

PROTECT EXISTING SUCTION HEADER

TEMPORARY SEDIMENT DEWATERING AND STOCKPILING AREA

16" C.I. SUCTION HEADER

6" D.I. WELL CONNECTIONS

PLUGGED 16" C.I. SECTION ABANDONED

16" BUTTERFLY VALVE

POND 7 (2")

POND 8 (7.8")

POND 1 (12")

POND 3 (23.8")

POND 6A & 6B (48")

POND 4 (5")

POND 2 (13.6")

POND 5A & 5B (14.4")

POND 9 (6.6")

POND 10 (7.4")

SMU-6 1 FT

SMU-7 0.5 FT

SMU-8 1 FT

SMU-9 2 FT

SMU-10 AVG 4 FT MAX 7.5 FT

F C-27 STABILIZED POND ACCESS

I C-26 35-LF OF BANK RESTORATION

LIMITS OF POND SEDIMENT REMOVAL

EXTENTS OF CLEARING AND GRUBBING TO BE DETERMINED

TEMPORARY ALTERATION TO APPROXIMATELY 30,900 SF OF WATERS OF THE U.S.

OCTOBER 2021 SEDIMENT DEPTH LOCATION AND MEASUREMENT (TYP)

DECEMBER 2021 SEDIMENT SAMPLE LOCATION AND ESTIMATED SEDIMENT DEPTH (TYP)

J C-24 POND TO BE DEWATERED VIA THE EXISTING POND PUMPING STATION. SUPPLEMENTAL DEWATERING (AS REQUIRED) TO BE DIRECTED TO DEWATERING SEDIMENTATION BASIN.

FLOODWAY

WETLAND FLAG LINE IS ORDINARY HIGH WATER

PROTECT EXISTING GATE STRUCTURE AND SUCTION PIPE

INLET SCREEN AND EQUALIZER

Top Concrete Wall At Inlet=251.95

PROTECT EXISTING PIPE AND WALL

STOPLOG AND PLUG FOR POND DEWATERING

MH Hatch 2'Dia. Top of Frame=252.43

MH Hatch 2'Dia. Top of Frame=252.32

MH Hatch 2'Dia. Top of Frame=258.26

Conc.Struct with Metal Top of Grate=254.36

BPS-4 251.6

BPS-5

EXISTING LOWER WELLFIELD PUMPING STATION F.F.= 253.00

Well 8 Top of Rim=249.80

Well 8-A Top of Rim=251.41

3' Dia. Well Top of Rim=250.88

Gate with Bollard

BLWF-3

BLWF-6

CLP #10214

CLP #10216

CLP #10217

CLP #10218

NOTES:

1. APPROXIMATELY 6,000 CUBIC YARDS (IN-SITU) OF SEDIMENT MATERIAL SHALL BE REMOVED AND DISPOSED OF AT AN APPROVED LOCATION.
2. 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.
3. STABILIZED CONSTRUCTION ENTRANCES SHALL BE REMOVED UPON COMPLETION OF PROJECT. DISTURBED AREAS TO BE LOAMED AND SEEDED.
4. 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.

PLAN
1" = 30'

N
1" = 30'
15 0 30

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: JANUARY 2024

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

SUPPLY POND AND CANAL
SEDIMENT REMOVAL PLAN

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

REGULATORY REVIEW SUBMITTAL - NOT FOR CONSTRUCTION

XREFs: [TEST HOLE POINTS, CDMS_2436, XSVPL040, 2022-17, BORING LOCATIONS, Floodway_Floodplain] Images: []
Last saved by: ENGELSB Time: 3/1/2024 3:37:31 PM
C:\Users\engelsb\ACCDocs\CDM Smith Inc\10739-264571 - New Britain CT White Bridge Well Fields and PS\Project Files\02 Civil (C)\10 CADD\C023SDRM.dwg
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Link to Response 5 Attachments:
https://www.bristolct.gov/DocumentCenter/View/46664/Response-5-Attachments

Response 5 – Attachment

5. Drawings: C-1, C-6, C-7, C-8, C-13, C-14, C-14A

Link to Response 9 Attachments:
https://www.bristolct.gov/DocumentCenter/View/46661/Response-9-Attachments

Response 9 – Attachment

9. No Rise Certification

Attachment 10

10. CT DEEP Permit Need Determination

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

Link to Attachment 11:
https://www.bristolct.gov/DocumentCenter/View/46662/Response-11-Attachments

Attachment 11

11. Detailed Groundwater and Stream Flow Monitoring Plan

Attachment 12

12. Letter confirming hydrogeologic information for project site remains valid

COMPREHENSIVE
ENVIRONMENTAL
INCORPORATED

Gateway Crossing
1 Hartford Square East, Suite 227
New Britain, CT 06052
860.224.0442

April 30, 2024

Robert Flanigan, City Planner
City Hall
111 North Main Street
Bristol, CT 06010

RE: White Bridge Wellfield Improvements -Applications #2019, #2020 & #23-458F-305
Confirmation of Hydrogeologic Report

Pursuant to City Staff request Comprehensive Environmental Inc. is confirming by way of this letter that the hydrogeologic studies and report (*Hydrogeology Report of Upper and Lower White Bridge Wellfield Bristol, Connecticut* dated April 6, 2020) submitted to CT DPH for the above project site is still valid and relevant for the intended use.

Feel free to contact me with any questions or comments at 860-620-3673 or samenta@ceiengineers.com.

Sincerely,

COMPREHENSIVE ENVIRONMENTAL INC.

Sebastian A Amenta, P.E.
Northeast Program Manager

Attachment 13

13. Proposed wetlands boundary line change map

Whitebridge Wellfields
New Britain Water Department
Bristol, Connecticut

City of Bristol and CEI Wetlands
Proposed Boundary Change Map
Overall Map

1 inch equals 500 feet

0 500 1,000 1,500

Feet

Base Map Data Sources: City of Bristol

Map Date 4/30/2024

Comprehensive Environmental Incorporated

Wetland to be Created

Presumed Wetland to be Delineated

Wetland to be Filled

Presumed Wetland to be Delineated

Wetland Limits to be Delineated

Wetland Limits to be Delineated

Wetland to be Filled

Presumed Uplands to be Confirmed

Wetland to be Created

Wetland to be Filled

Wetland to be Created

UL

UL

UL

Coppermine Brook

Freeman's Hill Brook

Polkville Brook

- Wetland to be Created
- Wetland to be Filled
- Wetland Bundary CEI
- Wetland Limits to be Delineated
- Electrical Transmission Lines
- New Britain Water Dept. Property Lines
- Buildings
- Parcels
- Contour interval 2 ft.
- Rivers, Streams
- Lakes, Ponds
- City of Bristol Wetlands
- Presumed Wetlands to be Delineated
- UL Presumed Uplands to be Confirmed

V:\Connecticut_GIS\Bristol\Bristol Upper & Lower Wellfields\Bristol Upper & Lower Wellfields_3.aprx

Link to Attachment 14:
https://www.bristolct.gov/DocumentCenter/View/46663/Response-14-Attachments

Attachment 14

14. Resumes of Engineers and Soil Scientist

Date: March 28, 2024

To: Nancy Levesque, Bristol City Engineer
Bristol Inland Wetlands and Watercourses Commission

From: Covill, Natural Resources Specialist
Joanna Shapiro, Executive Director

Re: Review of Wetland Application, New Britain Water

****

This review is limited to a desktop review of the wetland application and related materials, with general recommendations based on the proposed activities. A site walk and wetland boundary review were not completed within the given timeframe.

If the Commission still deems it necessary following their site walk, a limited wetland boundary review can be performed before a subsequent meeting. Based on the size of the site and time limitations, a field review of all wetland boundaries on site by our staff is not feasible, but rather the Commission can direct the District to specific areas they feel require further review.

Background

District staff reviewed the 10-sheet site plan entitled "White Bridge Waterworks Facilities Upper and Lower Wellfields and Pond Pumping Station" prepared by CDM Smith dated December 2022, as well as Attachment 3, "Project Drawings" and Attachment 4, "Floodway and Flood Fringe Encroachment Areas" (hereto forth referred to as "the Plans"). Staff also reviewed the materials submitted for applications #23-458F-305, #2019 and #2020 along with previous meeting minutes, relevant imagery, topographic, soil, and other maps.

The Plans propose construction of a new single building to house surface water pumping facilities with space for future groundwater treatment facilities, well replacement at Lower and Upper Wellfields, dewatering and sediment removal from the existing pond and canal, new utility connections, culvert replacement, paving an existing gravel access road, and associated work to ultimately bring an aging facility up to current requirements. In order to become a potable water supply, any new wells must be located 50 feet from any water bodies or wetland limits per CT Department of Public Health requirements. The wells must be raised 2' above the one-hundred-year flood elevation. Due to these requirements, existing wells cannot be used and the new wells are proposed. Wetland resources are proposed to be filled in order to comply with these DPH regulations. Wetland replication, replacement, and enhancements are proposed to mitigate or offset the loss of these wetland areas, and compensatory flood storage areas are proposed to offset the activities which may raise the flood elevation, per FEMA requirements.

Comments/Recommendations

Withdrawals/Flow Calculations

Discussion on the record has included concern related to groundwater withdrawals. While groundwater withdrawals are regulated by CT DEEP and are not explicitly in the purview of the Inland Wetlands and Watercourses Commission, they may be considered if the Commission has reason to believe that such withdrawal may impact wetlands or watercourses. Review of aquifer withdrawals, resiliency, and recharge, and their impacts to wetlands and watercourses are outside the area of expertise of the North Central Conservation District.

- The Commission may request additional information from the applicant or intervenor regarding the potential impact of withdrawals on wetlands and watercourses, including their functions and values, if deemed a concern of the Commission necessary to render a decision and/or to rule on the claims of the petition to intervene.
- If additional information from the applicant or intervenor is deemed insufficient to make these rulings, the Town may consider further 3rd party review from a hydrogeologist or similarly qualified individual or firm, to review the proposed withdrawals from the aquifer as it pertains to impacts to the wetlands and watercourses in the project area.

In the comments submitted by Rivers Alliance on February 5th, 2024, they note that for diversions registered prior to 1983, registrants have rights to divert the amount of water originally registered in perpetuity, and that they were never and are not currently subject to any environmental review.

- Recommend that the Town request information from the applicant and CT DEEP on the accuracy of this statement, and whether any environmental review or impact analysis has ever been completed for this project location.

In Application #2020, the applicant states in the Additional Comments/Information section, "No flow calculations are provided due to zero impact as a result of the proposed work".

- If the Commission has concerns about potential wetland/watercourse impacts related to potential flow alteration as a result of this application, recommend requesting flow calculations from the applicant to determine the average and seasonal flows of the brook, the average and/or seasonal withdrawals proposed, and any historical withdrawal information the applicant can provide.
- Recommend that the Commission require the applicant to develop an action plan to be submitted to and approved by the Commission, outlining under which circumstances withdrawals would be limited or stopped to ensure adequate flows, both for the benefit of future withdrawals and to reduce or prevent negative impacts to wetlands, watercourses, and dependent flora and fauna. To develop this action plan, recommend that the applicant use historical flow data from stream gauges or similar methods, predicted future flow calculations, and average rainfall data, contrasted with proposed withdrawal amounts and frequencies. This action plan can be required as part of the application, or this can potentially be a condition of approval of a Wetland Permit.

Functions and Values Assessment

Functions and values were assessed within the applicant's soil scientist's report, and replication/replacement of wetlands is proposed. However, it was not made clear in the application materials or the meeting minutes whether those functions and values of the existing wetlands will be preserved or replicated.

- Recommend that the Commission request testimony from the project soil scientist regarding whether functions and values assessed for existing wetlands will be preserved and/or replicated through proposed wetland replications, replacements, or enhancements.

Alternatives Analysis

Per section 10.3 of the Bristol Inland Wetlands and Watercourses Regulations, "In the case of an application which received a public hearing pursuant to a finding by the Inland Wetlands Agency that the proposed activity may have a significant impact on wetlands or watercourses, a permit shall not be issued unless the Agency finds on the basis of the record that a feasible and prudent alternative does not exist. In making the finding, the Agency shall consider the facts and circumstances set forth in subsection 10.2. The finding and the reasons therefore shall be stated on the record in writing". Section 10.2 outlines the considerations for assessment by the Commission of Prudent and Feasible alternatives.

- While alternatives assessments were discussed upon the record of the March 4, 2024 meeting minutes, the District recommends that the Commissioners review Sections 10.2 and 10.3 of the Bristol Inland Wetlands and Watercourses Regulations, and state upon the record in their decision whether alternatives were adequately assessed to the extent required by the regulations.

Thank you for the opportunity to comment.

Link to Hydrology Report:
https://www.bristolct.gov/DocumentCenter/View/46559/Hydrology-Report-Extracted

HYDROGEOLOGIC STUDY

UPPER AND LOWER WHITE BRIDGE WELL FIELDS CITY OF NEW BRITAIN WATER DEPTARTMENT AND MIX STREET WELL FIELD (WELLS 3, 4, &5) CITY OF BRISTOL WATER DEPARTMENT

PREPARED FOR:

CITY OF NEW BRITAIN WATER DEPARTMENT AND CITY OF BRISTOL WATER DEPARTMENT

DECEMBER 2007

Prepared by:

LENARD ENGINEERING, INC.

CIVIL, ENVIRONMENTAL & HYDROGEOLOGICAL CONSULTANTS

1768 STORRS ROAD, P.O. BOX 580

STORRS, CT 06268-0580

Link to Application #2019

Letters, Emails & Correspondence:

https://www.bristolct.gov/DocumentCenter/View/46560/Extracted-Correspondence-041224

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

0 500 1,000 1,500

Feet

Base Map Data Sources: City of Bristol

Map Date 2/22/2024

Comprehensive Environmental Incorporated

51-1A
52-16B16A
52-15
52-17
52-11
53-151
53-150
53-149
53-147
53-145

Coppermine Brook
Freeman's Hill Brook
Polkville Brook

STEVENS
TROUT BROOK
CANDY
JEROME
JEFFERSON
MARE
SHAWN
ADNA
COOLIDGE
FOX DEN
JUNIPER
WOODYBROOK
LOCHAVEN
WOODHAVEN
MAPLE
MIX
REVERE
WILLOW BROOK
WILLOW BROOK
EDROW
LOVELAND
BOWEN
VALMORE
VANCE
COVENTRY
BARBARA
TOLLAND
VINCENT
DOROTHY
FARMINGTON
JOHN
BROOK
WESTCHESTER
LANCASTER
BRITTON
CAROL
COLLINS
BOARDMAN
MIX STREET
MALTBY
LITCHFIELD
DANBURY
GOSHEN
WINDHAM
HARTFORD
BRIDGEPORT
SONSTROM
STAFFORD
ROSEMARY
GREGORY
MARVIN

- 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

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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.

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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:

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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

Connecticut Department of
ENERGY &
ENVIRONMENTAL
PROTECTION

79 Elm Street • Hartford, CT 06106-5127 www.ct.gov/deep Affirmative Action/Equal Opportunity Employer

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

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.

Ashley G. David

ASHLEY G DAVID
Notary Public, State of Connecticut
My Commission Expires Jan. 31, 2025

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

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

1:20,000

0 500 1,000 2,000 ft

0 210 420 840 m

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

USGS

ATTACHMENT 2

ADDITIONAL INFORMATION

Wetlands Permit Application – IW-2

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

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

Proposed Project Activities:

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

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

Category of Proposed Activity:

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

Significant Activity:

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

Description of Property and Wetlands:

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

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

ATTACHMENT 3

ABUTTING PROPERTY AND OWNERS

Whitebridge Wellfields
New Britain Water Department
Bristol, Connecticut

FLOOD PLAIN PERMIT APPLICATION
WHITEBRIDGE WATERWORKS FACILITY
OVERALL MAP

Comprehensive Environmental Incorporated

0 200 400 600 800 1,000
Feet

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

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

UPPER WELLFIELD

Proposed Wells

LOWER WELLFIELD

New Pond Pumping Station

Possible Gravel Source

Proposed Wells

Legend

- New Production Well

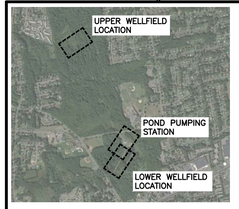
Existing Well Locations:
- Constructed in 1921
- Constructed in 1955
- Electrical Power Poles
- Electrical Transmission Lines
- Wetland boundary 2022
- Seismic Transects
- Treeline
- Contour interval 2 ft.
- Buildings
- Parcels
- New Britain Water Dept. Property Lines
- Abutting Parcels
- Rivers, Streams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

ABUTTING PROPERTY OWNERS

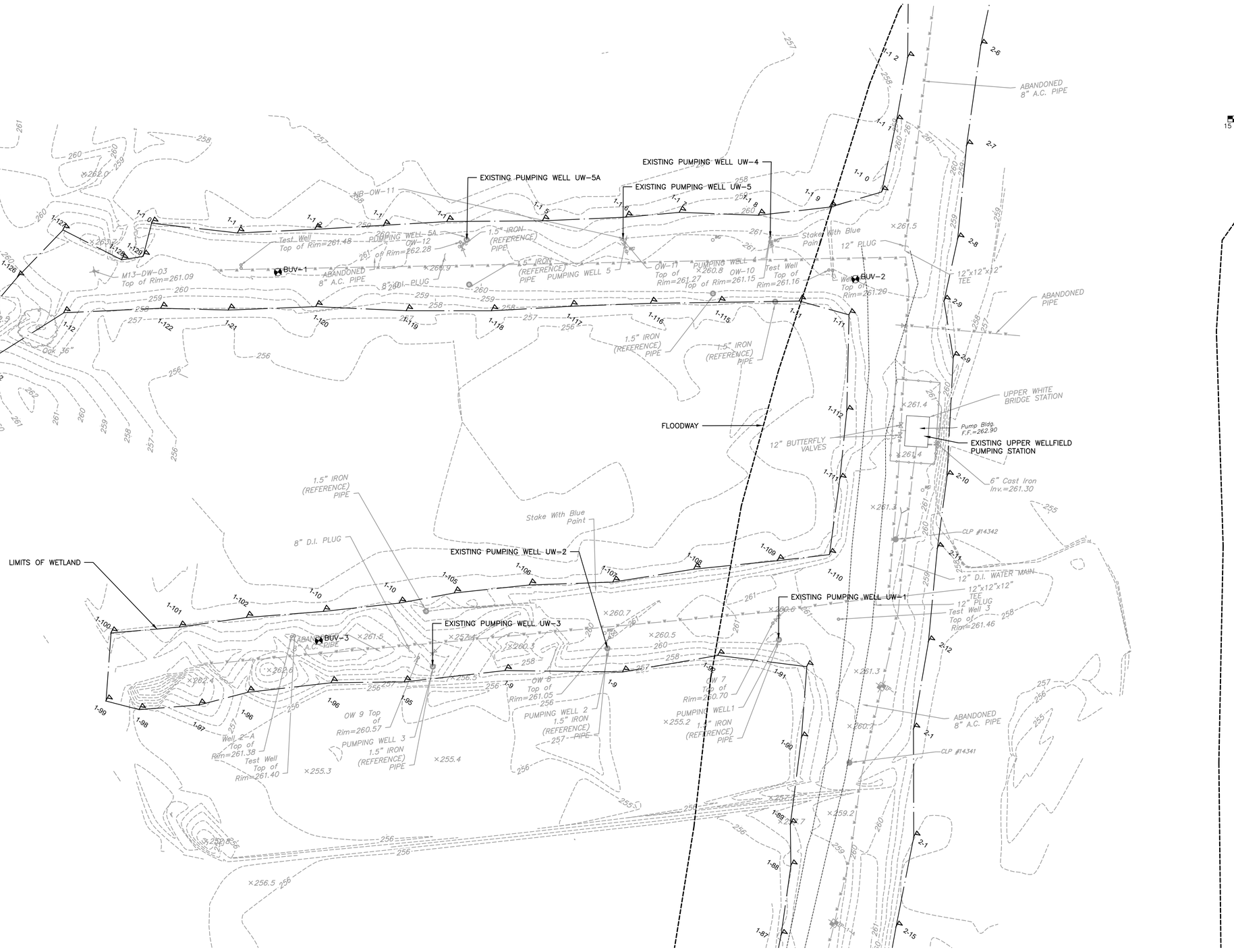
Parcel ID	MAP	BLOCK	LOT	UNIT	OWNER_NAME	LOCATION	MUNI	ACRES	ZONING	LAND_USE	COMMNT	MAIL_ADDR	MAIL_CITY	MAIL_STATE	MAIL_ZIP
49-11A	49		11A		FRINGE HAIR SALON LLC	884 STAFFORD AVE	BRISTOL		0.52 R-15	Retail		1253 BURLINGTON AVE	BRISTOL	CT	06010
49-11A1+10	49		11A1+10		STAFFORD COMMONS LLC	916 STAFFORD AVE	BRISTOL		1.33 BN	Nbhd Ctr		200 SUMMER ST	BRISTOL	CT	06010
51-1	51		1		OBRIEN CRYSTAL +	3 STEVENS ST	BRISTOL		0.72 R-15	Single Family		3 STEVENS ST	BRISTOL	CT	06010
51-1	51		1		ROSHON RICHARD	106 CANDY LA	BRISTOL		0.35 R-15	Single Family		106 CANDY LA	BRISTOL	CT	06010
51-1	51		1		BENGTSON JANICE	155 STEVENS ST	BRISTOL		0.39 R-15	Single Family		155 STEVENS ST	BRISTOL	CT	06010
51-1	51		1		HARRIS REBECCA C	6 RICHARD CT	BRISTOL		0.54 R-15	Single Family		6 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		DONAROMA 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 + AMANDA 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	CT	06019
51-3BB-1	51		3BB-1		COMBS CAMERON	167 STEVENS ST	BRISTOL		0.35 R-15	Single Family		167 STEVENS ST	BRISTOL	CT	06010
51-4	51		4		REBISZ JERZY + 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		MCLOUGHLIN WILLIAM G + GRACE	72 RICHARD CT	BRISTOL		0.49 R-15	Single Family		72 RICHARD CT	BRISTOL	CT	06010
52-015-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		0.36 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		DEHLIO SHERI L	45 WOODYBROOK RD	BRISTOL		0.46 R-15	Single Family		45 WOODYBROOK RD	BRISTOL	CT	06010
52-10					CURRENT OWNER	76 JEFFERSON AVE	BRISTOL		0.32						
52-11	52		11		MORELLI MICHAEL T + MICHELLE L	35 WOODYBROOK RD	BRISTOL		0.46 R-15	Single Family		35 WOODYBROOK RD	BRISTOL	CT	06010
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
52-11-2	52		11-2		ST ANDREW EVANGELICAL LUTHERAN	1125 STAFFORD AVE	BRISTOL		10 R-40	Church 94		1125 STAFFORD AVE	BRISTOL	CT	06010
52-12	52		12		ASADOW JESSE	25 WOODYBROOK RD	BRISTOL		0.46 R-15	Single Family		25 WOODYBROOK RD	BRISTOL	CT	06010
52-13	52		13		MADDEN ALLEN E AND CATHERINE M	15 WOODYBROOK RD	BRISTOL		0.46 R-15	Single Family		15 WOODYBROOK RD	BRISTOL	CT	06010
52-14	52		14		RUSHTON SUSAN M	5 WOODYBROOK RD	BRISTOL		0.44 R-15	Single Family		5 WOODYBROOK 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 15A--2	52	15A 15A	-2		SCHNEIDER ERNEST W JR	198 STEVENS ST	BRISTOL		0.39 R-15	Single Family	MERGED BY USE IN ORDER TO MATCH ASSESSOR RECORDS	198 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		BILODEAU DAVID R	214 STEVENS ST	BRISTOL		0.28 R-15	Single Family		214 STEVENS ST	BRISTOL	CT	06010
52-15-C	52		15-C		WASSIK 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		0.63 R-15	Single Family		84 WOODHAVEN RD	BRISTOL	CT	06010
52-17	52		17		JABS STEVEN P + SHARON M	64 WOODHAVEN RD	BRISTOL		0.71 R-15	Single Family		64 WOODHAVEN RD	BRISTOL	CT	06010
52-17	52		17		ZYGIEL 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 +	614 JEROME AVE	BRISTOL		0.46 R-15	Single Family		614 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		BUCHAS JOSEPH 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		BAJURNY BARBARA L	692 JEROME AVE	BRISTOL		0.5 R-15	Single Family		692 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 + RIOS ELYCIA L	588 JEROME AVE	BRISTOL		0.52 R-15	Single Family		588 JEROME AVE	BRISTOL	CT	06010
52-17-4	52		17-4		HATHCOCK CHARLES + MARSHA L SURV	598 JEROME AVE	BRISTOL		0.48 R-15	Single Family		598 JEROME AVE	BRISTOL	CT	06010
52-17-5	52		17-5		LOMBARDI 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 + KASIE L	644 JEROME AVE	BRISTOL		0.42 R-15	Single Family		644 JEROME AVE	BRISTOL	CT	06010
52-17-7	52		17-7		KIRSCHNER JAMES R +	606 JEROME AVE	BRISTOL		0.76 R-15	Single Family		606 JEROME AVE	BRISTOL	CT	06010
52-17-8	52		17-8		PALMISANO CORY JAMES + ABRAMS EDEN P +	746 JEROME AVE	BRISTOL		0.5 R-15	Single Family		746 JEROME AVE	BRISTOL	CT	06010
52-17-9	52		17-9		LOMBARDI ANTHONY G + MARCIA M SURV	JEROME AVE	BRISTOL		0.7 R-15	Vacant Land		682 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		MURELLI SUSAN A	656 JEROME AVE	BRISTOL		0.48 R-15	Single Family		656 JEROME AVE	BRISTOL	CT	06010
52-18	52		18		HICK JENNIFER J	56 WOODHAVEN RD	BRISTOL		0.72 R-15	Single Family		56 WOODHAVEN RD	BRISTOL	CT	06010
52-18	52		18		BURGOS LILLIAN F	562 JEROME AVE	BRISTOL		0.41 R-15	Single Family		562 JEROME AVE	BRISTOL	CT	06010
52-18	52		18		MICUCCI BARBARA	15 TIMBER LA	BRISTOL		0.36 R-15	Single Family		84 EVELYN RD	FORESTVILLE	CT	06010
52-18A	52		18A		568 JEROME AVE LLC	568 JEROME AVE	BRISTOL		0.41 R-15	Retail		133 CHESTNUT RD	NEWINGTON	CT	06111
52-19	52		19		MCDONOUGH JEFFREY T + MARCIA B SURV	48 WOODHAVEN RD	BRISTOL		0.83 R-15	Single Family		48 WOODHAVEN RD	BRISTOL	CT	06010
52-19	52		19		SUTULA DANIEL P	135 DEBRA LA	BRISTOL		0.31 R-15	Single Family		135 DEBRA LA	BRISTOL	CT	06010
52-2	52		2		GIANNINNI JOHN D JR	35 TIMBER LA	BRISTOL		0.35 R-15	Single Family		35 TIMBER LA	BRISTOL	CT	06010
52-20	52		20		MARINAK SAM J	42 WOODHAVEN RD	BRISTOL		0.62 R-15	Single Family		42 WOODHAVEN RD	BRISTOL	CT	06010
52-20	52		20		SLEDZIONA BRIAN J + JENNIFER J	44 STEVENS ST	BRISTOL		0.28 R-10	Single Family		44 STEVENS ST	BRISTOL	CT	06010
52-21	52		21		NORMOYLE 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 IV	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 MARIE B	6 SHAWN DR	BRISTOL		0.32 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 + TAMARA	60 STEVENS ST	BRISTOL		0.32 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		DECARLO 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	8 LOCHAVEN RD	BRISTOL		0.34 R-15	Single Family		8 LOCHAVEN RD	BRISTOL	CT	06010
52-5	52		5		ANGELILLO DAVID + MOTTA SAMANTHA JOINT T	65 TIMBER LA	BRISTOL		0.34 R-15	Single Family		65 TIMBER LA	BRISTOL	CT	06010
52-53	52		53		HARRINGTON CAROLE D	5 BRIDGEPORT AVE	BRISTOL		0.33 R-15	Single Family		5 BRIDGEPORT AVE	BRISTOL	CT	06010
52-54	52		54		CLARK IDA + TODD R	13 BRIDGEPORT AVE	BRISTOL		0.29 R-15	SFR w/Acc Apt		13 BRIDGEPORT AVE	BRISTOL	CT	06010
52-55	52		55		RAVITA JOSEPH + ELIZABETH W TRUSTEES U/T	21 BRIDGEPORT AVE	BRISTOL		0.29 R-15	Single Family		21 BRIDGEPORT AVE	BRISTOL	CT	06010
52-56	52		56		CISTULLI 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		OAKEFORD E 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		NIMAN JEFFREY + RAYMOND M SURV	55 BRIDGEPORT AVE	BRISTOL		0.28 R-15	Single Family		55 BRIDGEPORT AVE	BRISTOL	CT	06010
52-6	52		6		ANDERSON DAVID G + SHARON L SURV	75 TIMBER LA	BRISTOL		0.34 R-15	Single Family		75 TIMBER LA	BRISTOL	CT	06010
52-60	52		60		AUDIBERT DERNICE	67 BRIDGEPORT AVE	BRISTOL		0.31 R-15	Single Family		67 BRIDGEPORT AVE	BRISTOL	CT	06010
52-60	52		60		COPPERMINE HOUSING ASSOCIATES LLC	135 SHAWN DR	BRISTOL		7.1 A	Apartments		2 CENTER PLAZA SUITE 7(	BOSTON	MA	02108
52-6-1	52		6	1	CURRENT OWNER	130 JEFFERSON AVE #1	BRISTOL		0 A	Condo Res.					
52-6-2				2	CURRENT OWNER	130 JEFFERSON AVE #2	BRISTOL		0						
52-6-3				3	CURRENT OWNER	130 JEFFERSON AVE #3	BRISTOL		0						
52-6-4				4	CURRENT OWNER	130 JEFFERSON AVE #4	BRISTOL		0						
52-65	52		65		KARVOSKI STEPHEN C + JANE K SURV	102 DANBURY LA	BRISTOL		0.27 R-15	Single Family		102 DANBURY LA	BRISTOL	CT	06010
52-6-5				5	CURRENT OWNER	130 JEFFERSON AVE #5	BRISTOL		0						
52-66	52		66		LESTORTI KEITH A + GAIL W SURV	92 DANBURY LA	BRISTOL		0.28 R-15	Single Family		92 DANBURY LA	BRISTOL	CT	06010
52-6-6				6	CURRENT OWNER	130 JEFFERSON AVE #6	BRISTOL		0						
52-67	52		67		FIORAVANTI STEPHANIE	84 DANBURY LA	BRISTOL		0.28 R-15	Single Family		84 DANBURY LA	BRISTOL	CT	06010
52-6-7				7	CURRENT OWNER	130 JEFFERSON AVE #7	BRISTOL		0						
52-68	52		68		PICARD ANNA MAE	76 DANBURY LA	BRISTOL		0.29 R-15	Single Family		76 DANBURY LA	BRISTOL	CT	06010
52-6-8				8	CURRENT OWNER	130 JEFFERSON AVE #8	BRISTOL		0						
52-69	52		69		MILLER ELEANOR	68 DANBURY LA	BRISTOL		0.31 R-15	Single Family		68 DANBURY LA	BRISTOL	CT	06010
52-7	52		7		WINIARCZYK IZABELA H + MAREK SURV	64 WOODYBROOK RD	BRISTOL		0.43 R-15	Single Family		64 WOODYBROOK RD	BRISTOL	CT	06010
52-70	52		70		ARELMICHAEL A AND	62 DANBURY LA	BRISTOL		0.33 R-15	Single Family		62 DANBURY LA	BRISTOL	CT	06010
52-71	52		71		AYOTTE ALYSON M	54 DANBURY LA	BRISTOL		0.34 R-15	Single Family		54 DANBURY LA	BRISTOL	CT	06010
52-72	52		72		THOMPSON EVERETT TRUSTEE	48 DANBURY LA	BRISTOL		0.34 R-15	Single Family		5 TOWN HILL RD	TERRYVILLE	CT	06786
52-73	52		73		ROY PAULINE D LIFE USE + ALLAIRE S O TR	40 DANBURY LA	BRISTOL		0.35 R-15	Single Family		40 DANBURY LA	BRISTOL	CT	06010
52-74	52		74		OREN BRUCE S SR	34 DANBURY LA	BRISTOL		0.37 R-15	Single Family		34 DANBURY LA	BRISTOL	CT	06010
52-75	52		75		LEVESQUE THOMAS	26 DANBURY LA	BRISTOL		0.36 R-15	Single Family		26 DANBURY LA	BRISTOL	CT	06010
52-76	52		76		BELIVEAU CATHY + CAFORA BARBARA	20 DANBURY LA	BRISTOL		0.36 R-15	Single Family		P O BOX 2052	BRISTOL	CT	06011-2052
52-76	52		76		KISZKA JOSEPH STANISLAW +	99 SHAWN DR	BRISTOL		0.32 A	3 Family		69 COPE FARMS RD	FARMINGTON	CT	06032
52-77	52		77		COUCH SUSAN	12 DANBURY LA	BRISTOL		0.35 R-15	Single Family		12 DANBURY LA	BRISTOL	CT	06010
52-77	52		77		THOMPSON RALPH + JUDITH JNT TENANTS	89 SHAWN DR	BRISTOL		0.32 A	Two Family		91 SHAWN DR	BRISTOL	CT	06010
52-78	52		78		LAMAR THOMAS W + LAURA J SURV	4 DANBURY LA	BRISTOL		0.36 R-15	Single Family		4 DANBURY LA	BRISTOL	CT	06010
52-78	52		78		BILOSZ MATTHEW R	81 SHAWN DR	BRISTOL		0.32 A	3 Family		PO BOX 343	BRISTOL	CT	06011-0343
52-79	52		79		MCGINLEY JAMES V +	2 DANBURY LA	BRISTOL		0.28 R-15	Single Family		2 DANBURY LA	BRISTOL	CT	06010
52-79	52		79		WELLS FARGO BANK NA	73 SHAWN DR	BRISTOL		0.33 R-10	3 Family		7495 NEW HORIZON WAY	FREDERICK	MD	21701
52-8	52		8		DIMAURO SALVATORE + LYNELL	65 WOODYBROOK RD	BRISTOL		0.37 R-15	Single Family		65 WOODYBROOK RD	BRISTOL	CT	06010
52-80	52		80		LEON-SOLANO MARIA	65 SHAWN DR	BRISTOL		0.32 R-10	Single Family		65 SHAWN DR	BRISTOL	CT	06010
52-80	52		80		DICKENS ZACHARY P	1 DANBURY LA	BRISTOL		0.29 R-15	Single Family		1 DANBURY LA	BRISTOL	CT	06010
52-81	52		81		FARINEAU ARTHUR J	57 SHAWN DR	BRISTOL		0.31 R-10	Single Family		57 SHAWN DR	BRISTOL	CT	06010
52-82	52		82		PLEWA KATHY K	49 SHAWN DR	BRISTOL		0.28 R-10	Single Family		49 SHAWN DR	BRISTOL	CT	06010
52-83	52		83		DOTY ROBERT THOMAS + FRANCES C	37 SHAWN DR	BRISTOL		0.28 R-10	Single Family		37 SHAWN DR	BRISTOL	CT	06010
52-84	52		84		COLEMAN LESLIE M	25 SHAWN DR	BRISTOL		0.29 R-10	Single Family		25 SHAWN DR	BRISTOL	CT	06010
52-9	52		9		LAMBO VICTORIA E	55 WOODYBROOK RD	BRISTOL		0.46 R-15	Single Family		55 WOODYBROOK RD	BRISTOL	CT	06010
53-100+101	53		100+101		PECHILLIS WANDA A LIFE USE +	49 MIX ST	BRISTOL		0.48 R-10	Single Family		49 MIX ST	BRISTOL	CT	06010
53-102+103	53		102+103		MARTINEZ CATALINA A	59 MIX ST	BRISTOL		0.54 R-10	Single Family		59 MIX ST	BRISTOL	CT	06010
53-118	53		118		SOUCY JOSEPH F	75 MIX ST	BRISTOL		0.35 R-10	Single Family		75 MIX ST	BRISTOL	CT	06010
53-119-1	53		119-1		PUSHKAREWICZ MONIKA M + KAMELA MAREK	85 MIX ST	BRISTOL		0.35 R-10	Single Family		136 W MAIN ST	HEBRON	CT	06248
53-120-1	53		120-1		POROWSKI ANTONI + IRENA SURV	95 MIX ST	BRISTOL		0.35 R-10	Single Family		95 MIX ST	BRISTOL	CT	06010
53-126-3	53		126-3		KNOX DOUGLAS C +	111 MIX ST	BRISTOL		0.28 R-10	Single Family		111 MIX ST	BRISTOL	CT	06010
53-126-4	53		126-4		SLATE JOHN R + JANET A	123 MIX ST	BRISTOL		0.26 R-10	Single Family		123 MIX ST	BRISTOL	CT	06010
53-127A	53		127A		OLESAK PAUL K + LINDA L SURV	135 MIX ST	BRISTOL		0.7 R-10	Single Family		135 MIX ST	BRISTOL	CT	06010
53-127B	53		127B		GENOVA CHERISH L + MARK L	147 MIX ST	BRISTOL		1.13 R-10	Single Family		147 MIX ST	BRISTOL	CT	06010
53-140	53		140		CITY OF BRISTOL	345 MIX ST	BRISTOL		16.5 R-40	Education 96		111 NORTH MAIN ST	BRISTOL	CT	06010
53-140-1	53		140-1		CITY OF BRISTOL	285 MIX ST	BRISTOL		0.57 R-40	Fire Vol		111 NORTH MAIN ST	BRISTOL	CT	06010
53-140-A	53		140-A		LITTLE LEAGUE BASEBALL INC	301 MIX ST	BRISTOL		17.1 R-40	Charitable 96		P O BOX 3485	WILLIAMSPORT	PA	17701
53-141	53		141		CITY OF BRISTOL	181 MIX ST	BRISTOL		25.6 R-40	Municipal 94		111 NORTH MAIN ST	BRISTOL	CT	06010
53-145-1	53		145-1		JN 305 LLC + JN 474 LLC	871 FARMINGTON AVE	BRISTOL		2.9 BG	Shopping Ctr		1263 EAST 21ST ST	BROOKLYN	NY	11210
53-145-2	53		145-2		CITY OF BRISTOL THE	MIX ST	BRISTOL		5.7 R-40	Public Utility Lnd	CHANGED ACCOUNT TYPE FROM MISMATCH TO SINGLE	111 NORTH MAIN ST	BRISTOL	CT	06010
53-147-1	53		147-1		MISSIONARY SOCIETY OF THE DIOCES	851 STAFFORD AVE	BRISTOL		2.04 R-15	Church 94	PORTION OF THIS LOT CUT AND GIVEN TO ACCT 0044628	851 STAFFORD AVE	BRISTOL	CT	06010
53-147-2	53		147-2		DELFINO WILLIAM + DELFINO KAREN +	815 STAFFORD AVE	BRISTOL		2.61 A	Apartments	PORTION OF ACCT 0242993 CUT AND GIVEN TO THIS LOT	785 MIDDLE ST	BRISTOL	CT	06010
53-148	53		148		HARTFORD RC DIOCESAN CORP	1001 STAFFORD AVE	BRISTOL		30.4 R-40	Church School		STAFFORD AVE	BRISTOL	CT	06010
53-148-2	53		148-2		HARTFORD ROMAN CATHOLIC DIOCESAN CORP.	235 MALTBY ST	BRISTOL		6.5 R-40	Church 94		235 MALTBY ST	BRISTOL	CT	06010
53-2	53		2		LAVIGNE SONIA M + WILLIAM E SURV	435 MIX ST	BRISTOL		0.3 R-15	Single Family		435 MIX ST	BRISTOL	CT	06010
53-3	53		3		MACRI NUNZIO + GISELDA SURV	417 MIX ST	BRISTOL		0.26 R-15	Single Family		417 MIX STREET	BRISTOL	CT	06010
53-4	53		4		MELANSON DANIEL J +	405 MIX ST	BRISTOL		0.29 R-15	Single Family		405 MIX ST	BRISTOL	CT	06010
53-41+42	53		41+42		BROOKSIDE MEDICAL OFFICES LLC	25 COLLINS RD	BRISTOL		1.66 BG	Prof Bldg		PO BOX 3255	BRISTOL	CT	06010
53-45A	53		45A		COE RONALD V + LOWANZA O	43 COLLINS RD	BRISTOL		0.19 R-10	Single Family		43 COLLINS RD	BRISTOL	CT	06010
53-46	53		46		SPAULDING RANDY P + CAROL A JNT TENANTS	49 COLLINS RD	BRISTOL		0.56 R-10	Single Family		49 COLLINS RD	BRISTOL	CT	06010
53-47	53		47		CUMMINGS CHARLES A JR + DOMENICA C	57 COLLINS RD	BRISTOL		0.67 R-10	Single Family		57 COLLINS RD	BRISTOL	CT	06010
53-48	53		48		COLBURN LINDA A	65 COLLINS RD	BRISTOL		0.68 R-10	Single Family		65 COLLINS ROAD	BRISTOL	CT	06010
53-49	53		49		MANZO ANGELO + CATHERINE E SURV	71 COLLINS RD	BRISTOL		0.7 R-10	Single Family		71 COLLINS RD	BRISTOL	CT	06010
53-50	53		50		PERRY THOMAS	COLLINS RD	BRISTOL		1.25 R-10	Vacant Land		77 COLLINS RD	BRISTOL	CT	06010
53-54A	53		54A		MORIN ADRIEN JR + MORIN DONNA	103 COLLINS RD	BRISTOL		0.35 R-10	Single Family		103 COLLINS RD	BRISTOL	CT	06010
53-55A	53		55A		CURTISS CLAUDIA	111 COLLINS RD	BRISTOL		0.33 R-10	Single Family	PARCEL LINE ADJUSTED TO CORRECT ORIGINAL GIS DIGITIZING	111 COLLINS RD	BRISTOL	CT	06010
53-56A	53		56A		VERARDI JOSEPH	117 COLLINS RD	BRISTOL		0.27 R-10	Single Family	PARCEL LINE ADJUSTED TO CORRECT ORIGINAL GIS DIGITIZING	117 COLLINS RD	BRISTOL	CT	06010
53-57	53		57		DEVOID STEVEN	125 COLLINS RD	BRISTOL		0.2 R-10	Single Family	PARCEL LINE ADJUSTED TO CORRECT ORIGINAL GIS DIGITIZING	125 COLLINS RD	BRISTOL	CT	06010
53-58	53		58		PAWLICKI MARK J	131 COLLINS RD	BRISTOL		0.2 R-10	Single Family	PARCEL LINE ADJUSTED TO CORRECT ORIGINAL GIS DIGITIZING	131 COLLINS RD	BRISTOL	CT	06010
53-59	53		59		DEGROS JOYCE	139 COLLINS RD	BRISTOL		0.2 R-10	Single Family	PARCEL LINE ADJUSTED TO CORRECT ORIGINAL GIS DIGITIZING	139 COLLINS RD	BRISTOL	CT	06010
53-6	53		6		GRANT EDDIE W + JOSIE M SURV	397 MIX ST	BRISTOL		0.28 R-15	Single Family		581 CROWN ST #48	MERIDEN	CT	06450-6440
53-60	53		60		LUSSIER BARRY +	145 COLLINS RD	BRISTOL		0.2 R-10	Single Family	PARCEL LINE ADJUSTED TO CORRECT ORIGINAL GIS DIGITIZING	145 COLLINS RD	BRISTOL	CT	06010
53-61	53		61		COVALESKI FRANCES H	153 COLLINS RD	BRISTOL		0.22 R-10	Single Family	PARCEL LINE ADJUSTED TO CORRECT ORIGINAL GIS DIGITIZING	153 COLLINS RD	BRISTOL	CT	06010
53-7	53		7		ROBERTS SHARI +	387 MIX ST	BRISTOL		0.3 R-15	Single Family		387 MIX ST	BRISTOL	CT	06010
56-37 REAR	56		37 REAR		NEAULT LEAH BOUCHER	733 JEROME AVE	BRISTOL		0.75 R-15	Single Family		733 JEROME AVE	BRISTOL	CT	06010
56-37A	56		37A		BOUCHER-NEAULT LEAH	717 JEROME AVE	BRISTOL		0.23 R-15	Single Family		717 JEROME AVE	BRISTOL	CT	06010
56-37A-1	56		37A-1		BOUCHER TERRY DONALD	721 JEROME AVE	BRISTOL		1.27 R-15	Single Family		733 JEROME AVENUE	BRISTOL	CT	06010
56-37A-1A	56		37A-1A		BARBIERI JAMES W JR +	735 JEROME AVE	BRISTOL		1.6 R-15	Single Family		735 JEROME AVE	BRISTOL	CT	06010
56-5	56		5		COTE D

ATTACHMENT 4

PROJECT DRAWINGS-EXISTING AND PROPOSED WETLAND BOUNDARIES.



PLAN
N.T.S.



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REV. NO.	DATE	DRWN	CHKD	REMARKS

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

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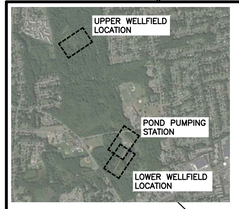
CITY OF NEW BRITAIN, CONNECTICUT

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**

90% SUBMITTAL - NOT FOR CONSTRUCTION



PLAN
N.T.S.

LIMITS OF WETLAND

MATCH LINE SEE SHEET C-5

MALTBY STREET

COPPER MINE BROOK

SUPPLY POND

FLOODWAY WESTERN BOUNDARY

FLOODWAY EASTERN BOUNDARY

EXISTING LOWER WELLFIELD PUMPING STATION F.F.= 253.20 (TO BE DEMOLISHED AT COMPLETION OF CONSTRUCTION)

EXISTING POND PUMPING STATION F.F.= 253.15 (TO BE DEMOLISHED AT COMPLETION OF CONSTRUCTION)

BPS-1
BPS-2
BPS-3
BPS-4
BPS-5
HBLW-1
HBLW-2
BLWF-3

3" Dia. Well Top of Rim=250.88

Well 11 3" Upper Rim=251.62
Well 3" 11-A Upper Rim=252.29

Well 8 Top of Rim=249.80

Well 8-A Top of Rim=251.41

Existing Well (Typ) Top of Frame=251.48

NB-OW-14 Old 3" Well Top of Rim=252.60 Frame=253.20

Top of Frame=253.73

Top of Frame=253.05

Top of Frame=252.96

Top of Frame=252.20

Top of Frame=253.85

12" Dia. Well Top of Frame=252.12

Top of Frame=252.13

Top of Frame=252.6

16" C.I. SUCTION HEADER

6" D.I. WELL CONNECTIONS

16" WATER MAIN

20" D.I. COPPER WATER MAIN

1" D.I. COPPER SERVICE

ABANDONED 16" D.I. SUCTION HEADERS

UGGED 16" C.I. ON ABANDONED VALVE

30k Generator with Underground Fuel Tank

INLET SCREEN AND GATE VALVE

"TWIN" 26" DEAD

"CLUSTER" MAPLES 18" 10"

EXISTING CASSON WELL

Bldg.

Gate

CLP #10216

CLP #10218

×250.3
×249.5
×250.5
×251.4
×251.6
×252.3
×251.8
×251.4
×252.6
×251.7

1" = 30'
15 0 30

XREFs: [CDMS_2436_XSVPL000_ Floodway_Floodplain_CEPG000ST_ CWP000ST_ AWZ001PS - 2D Process Export, 2022-17, BORING LOCATIONS] Images: [Base Image]
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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: DECEMBER 2022

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

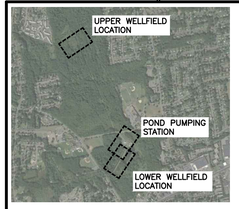
CITY OF NEW BRITAIN, CONNECTICUT

WHITE BRIDGE WATERWORKS FACILITIES UPPER AND LOWER WELLFIELDS AND POND PUMPING STATION

POND PUMPING STATIONS EXISTING CONDITIONS PLAN

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

90% SUBMITTAL - NOT FOR CONSTRUCTION



PLAN
N.T.S.

APPROXIMATE LOCATION OF EXISTING GREAT BLUE HERON ROOKERY. SEE GENERAL NOTES #25 ON SHEET C-1 FOR MORE DETAILS

LIMIT OF WETLAND

1" = 30'
15 0 30

MATCH LINE SEE SHEET C-4

CANAL

SUPPLY POND

POLKVILLE BROOK

FLOODWAY

ABANDONED PIPE AND WELLS

HEADER CAP

16" C.I. SUCTION HEADER

6" D.I. WELL CONNECTIONS

BLWF-1
BLWF-2
BLWF-3
BLWF-4
BLWF-6

WELL 9 Upper Rim 250.16
WELL 9-A Upper Rim 250.18
Well 10 Upper Rim=251.81
Well 10-A Upper Rim=251.82
Well 7-A Upper Rim=251.62
Well 7 Upper Rim=251.63
3" Dia. Well Top of Rim=250.88
Well 11 3" Upper Rim=251.62
Well 3" 11-A Upper Rim=252.29
CLP #1021
CLP #10213
CLP #10214
CLP #10216
Top of Wall At Spillway=251.4
Test Well 5-A Top of Cap=250.35
Test Well OW-16 Top of Cap=251.91
OW-15 Top of Rim=250.97
Test Well 6A Top of Rim=251.56
Test Well 6A Top of Rim=251.44
NB-OW-14 Old 3" Well Top of Rim=252.60
3" WELL OW-5 Top of Rim=250.43
Well 5 stake
Existing Well (Typ)
Top of Frame=251.67
Top of Frame=251.65
Top of Frame=252.55
Top of Frame=252.41
Top of Frame=252.37
Top of Frame=252.77
Top of Frame=252.43
Top of Frame=252.15
Top of Frame=251.30
Top of Frame=252.20
Top of Frame=253.65
Top of Frame=253.73
Top of Frame=253.20
Top of Frame=253.05
Top of Frame=252.96
Top of Frame=251.42
Top of Frame=251.43
No #
"PINE"
48" OAK
52" ASH

REV. NO.	DATE	DRWN	CHKD	REMARKS

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

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

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

LOWER WELLFIELD
EXISTING CONDITIONS PLAN

PROJECT NO. 10739-264571
FILE NAME: C005GDPL.DWG
SHEET NO. **3 of 3**

90% SUBMITTAL - NOT FOR CONSTRUCTION

XREFs: [CDMS_2436_CWP000ST_Floodway_Floodplain_AWZ001PS - 2D Process Export, CEP000ST, XSVPL000, BORING LOCATIONS, 2022-17] Images: [Base Image]
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C:\Users\bronenkantj\ACCDocs\CDM Smith Inc\10739-264571 - New Britain CT White Bridge Well Fields and PS\Project Files\02 Civil (C)\10 CADD\C005GDPL.dwg
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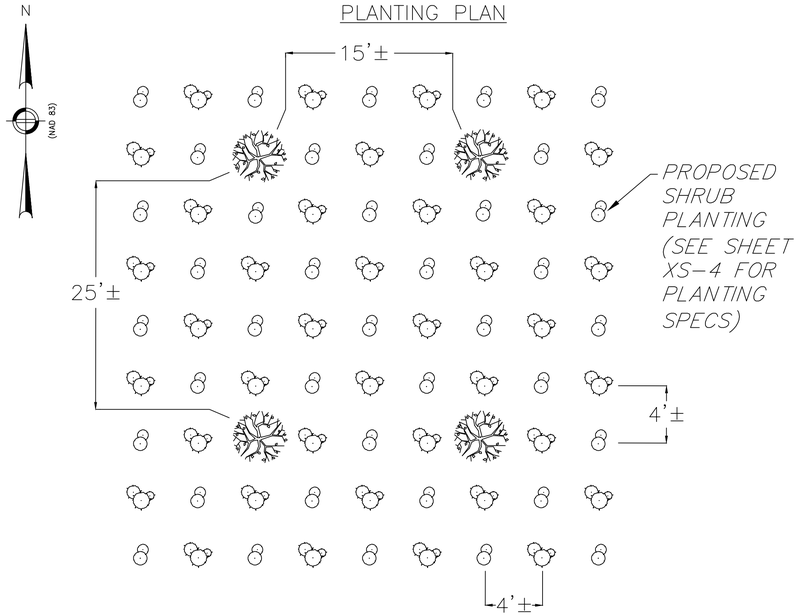
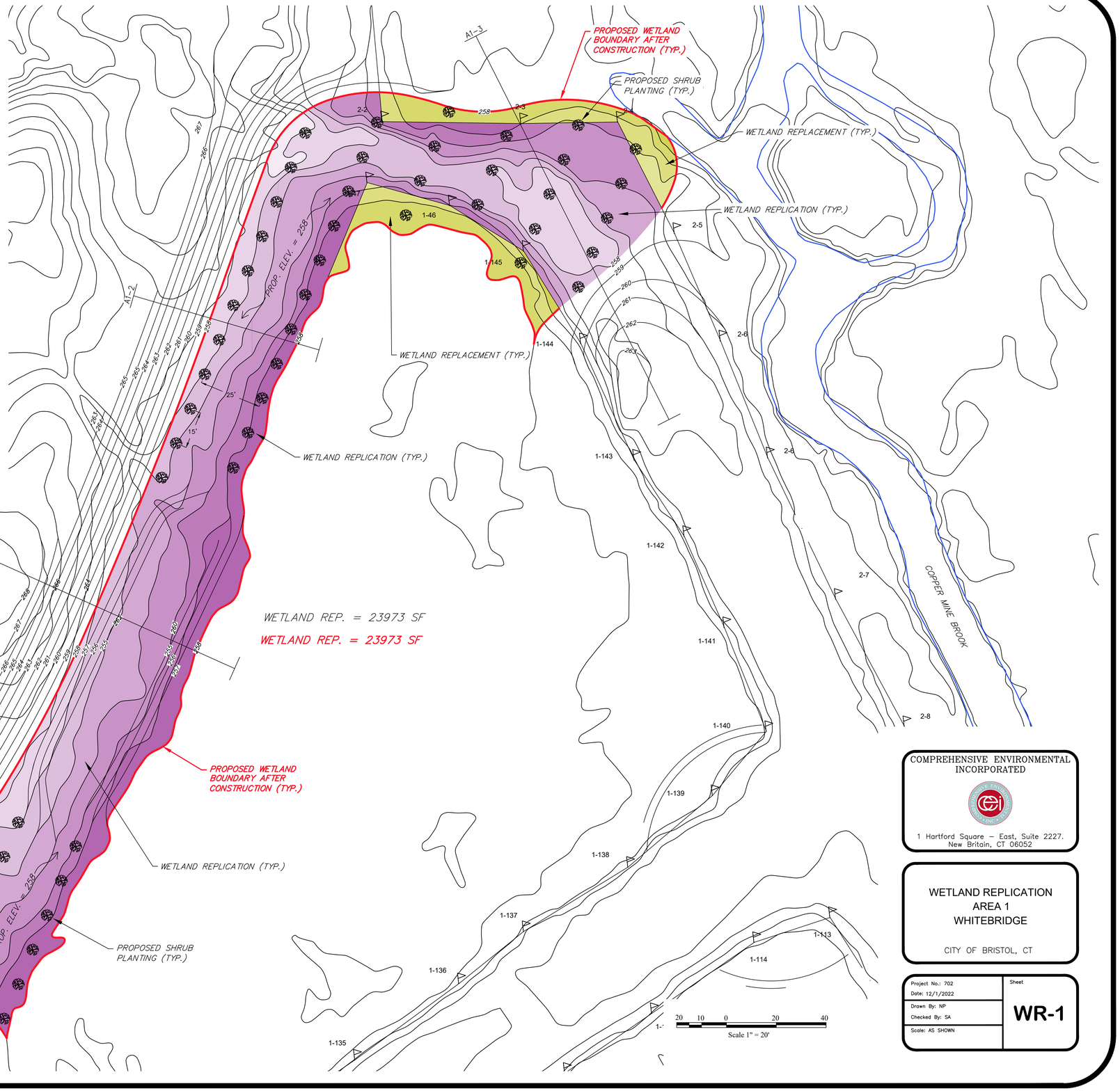
PLANTING PLAN





COMPREHENSIVE ENVIRONMENTAL INCORPORATED

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

WETLAND REPLICATION AREA 1 WHITEBRIDGE

CITY OF BRISTOL, CT

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

N

(NAD 83)

PROPOSED WETLAND BOUNDARY AFTER CONSTRUCTION (TYP.)

PROPOSED WETLAND BOUNDARY AFTER CONSTRUCTION (TYP.)

PROPOSED SHRUB PLANTING (TYP.)

PROPOSED WETLAND BOUNDARY AFTER CONSTRUCTION (TYP.)

WETLAND REPLICATION (TYP.)

PROPOSED 257 WETLAND REP. = 3989 SF

PROPOSED 257 WETLAND REP. = 3989 SF

WETLAND REPLACEMENT (TYP.)

PROPOSED WETLAND BOUNDARY AFTER CONSTRUCTION (TYP.)

PROPOSED SHRUB PLANTING (TYP.)

WETLAND REPLACEMENT (TYP.)

PROPOSED WETLAND BOUNDARY AFTER CONSTRUCTION (TYP.)

PROPOSED WETLAND BOUNDARY AFTER CONSTRUCTION (TYP.)

PROPOSED 257 WETLAND REP. = 3057 SF

PROPOSED 257 WETLAND REP. = 2939 SF

WETLAND REPLACEMENT (TYP.)

WETLAND REPLICATION (TYP.)

PROPOSED SHRUB PLANTING (TYP.)

PROPOSED WETLAND BOUNDARY AFTER CONSTRUCTION (TYP.)

PROPOSED 256 WETLAND REP. = 2008 SF

PROPOSED 256 WETLAND REP. = 2052 SF

WETLAND REPLICATION (TYP.)

PROPOSED WETLAND BOUNDARY AFTER CONSTRUCTION (TYP.)

20 10 0 20 40

Scale 1" = 20'

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New Britain, CT 06052

WETLAND REPLICATION
AREA 2
WHITEBRIDGE

CITY OF BRISTOL, CT

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

N

(NAD 83)

PROPOSED WETLAND BOUNDARY AFTER CONSTRUCTION (TYP.)

PROPOSED 247 WETLAND REP. = 31146 SF

PROPOSED 247 WETLAND REP. = 31146 SF

PROP. ELEV. = 258

PROPOSED SHRUB PLANTING (TYP.)

WETLAND REPLICATION (TYP.)

PROPOSED WETLAND BOUNDARY AFTER CONSTRUCTION (TYP.)

PROPOSED WETLAND BOUNDARY AFTER CONSTRUCTION (TYP.)

COPPER MINE BROOK

A4-1

247 248 249 250 251 252 253 254 255 256 257

25'

15'

P/L

20 10 0 20 40

Scale 1" = 20'

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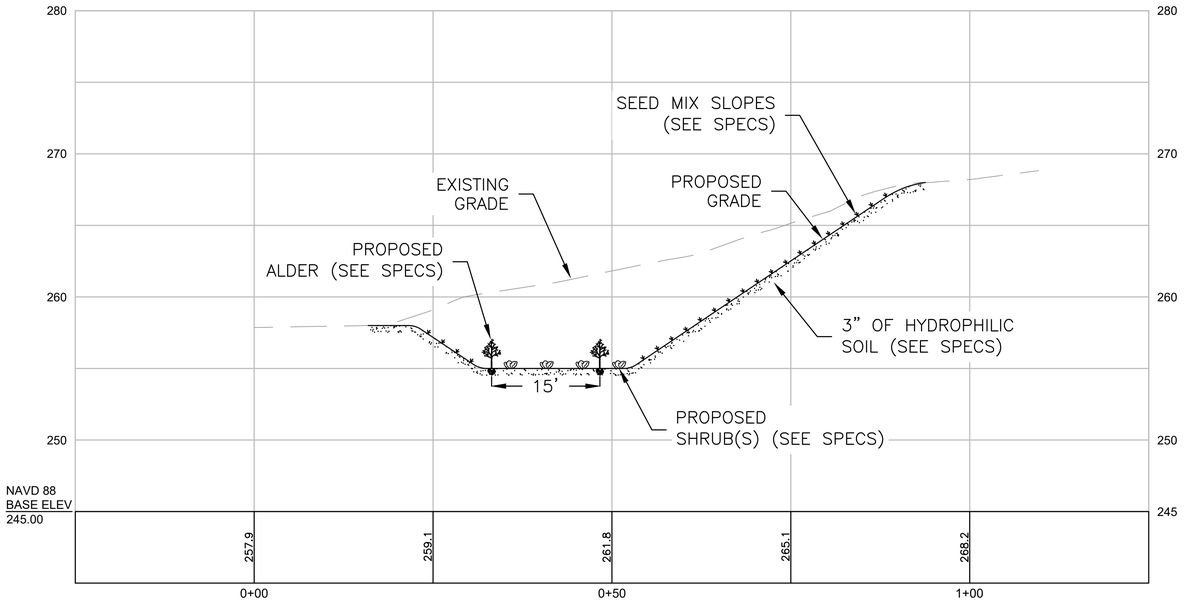
New Britain, CT 06052

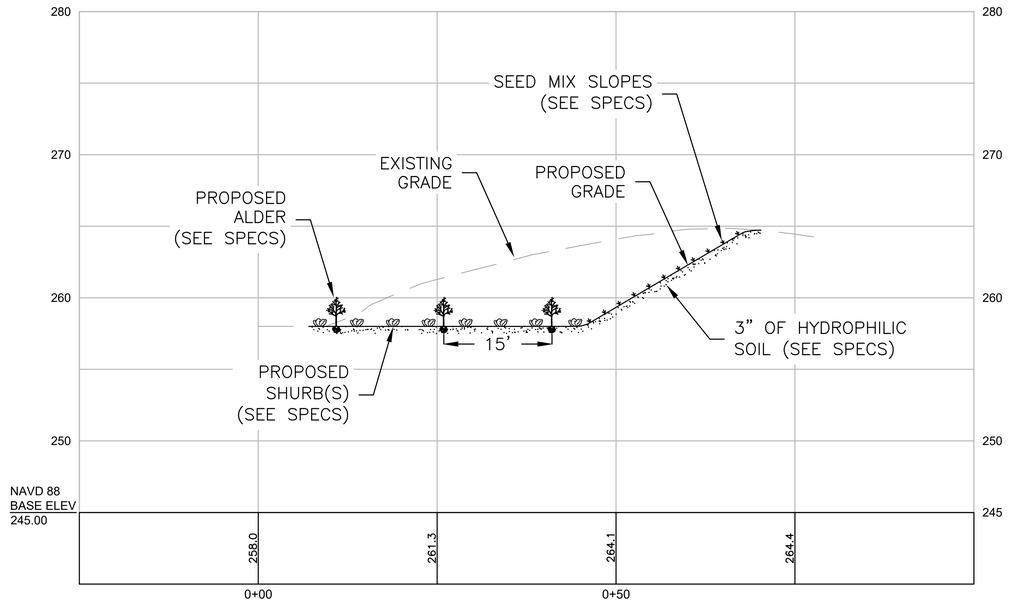
WETLAND REPLICATION AREA 4 WHITEBRIDGE

CITY OF BRISTOL, CT

Project No.: 702 Date: 12/1/2022	Sheet
Drawn By: NP Checked By: SA	WR-3
Scale: AS SHOWN	



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.

COMPREHENSIVE ENVIRONMENTAL INCORPORATED

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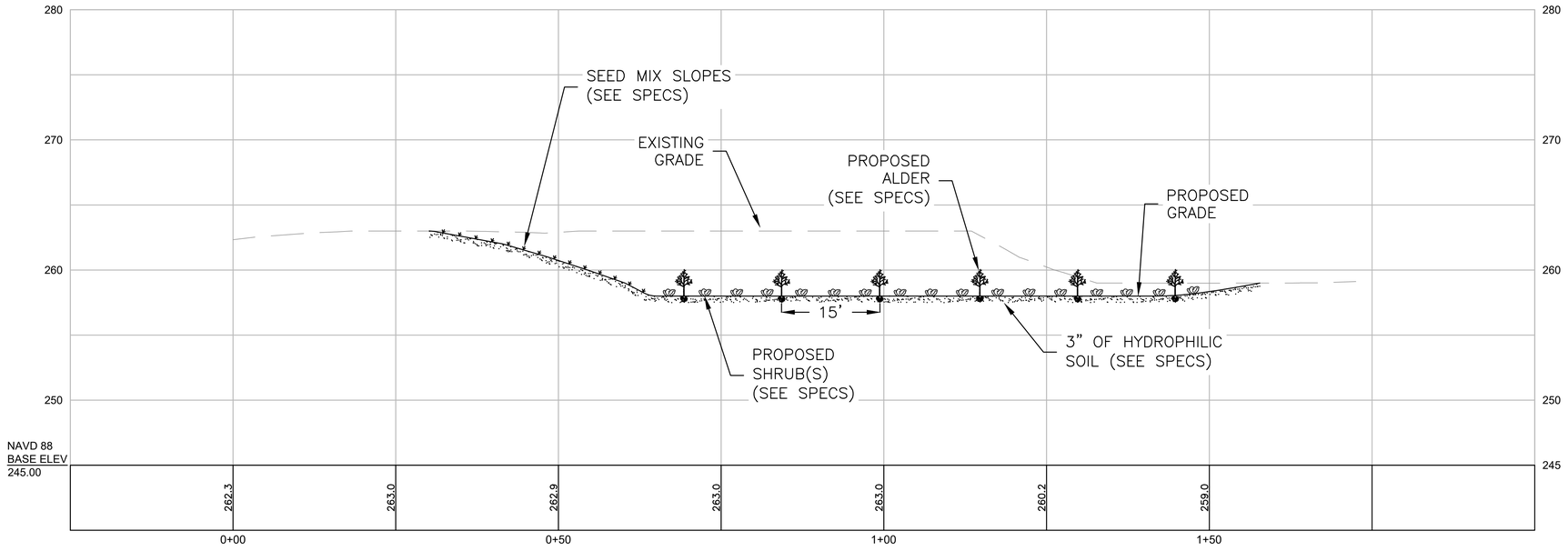
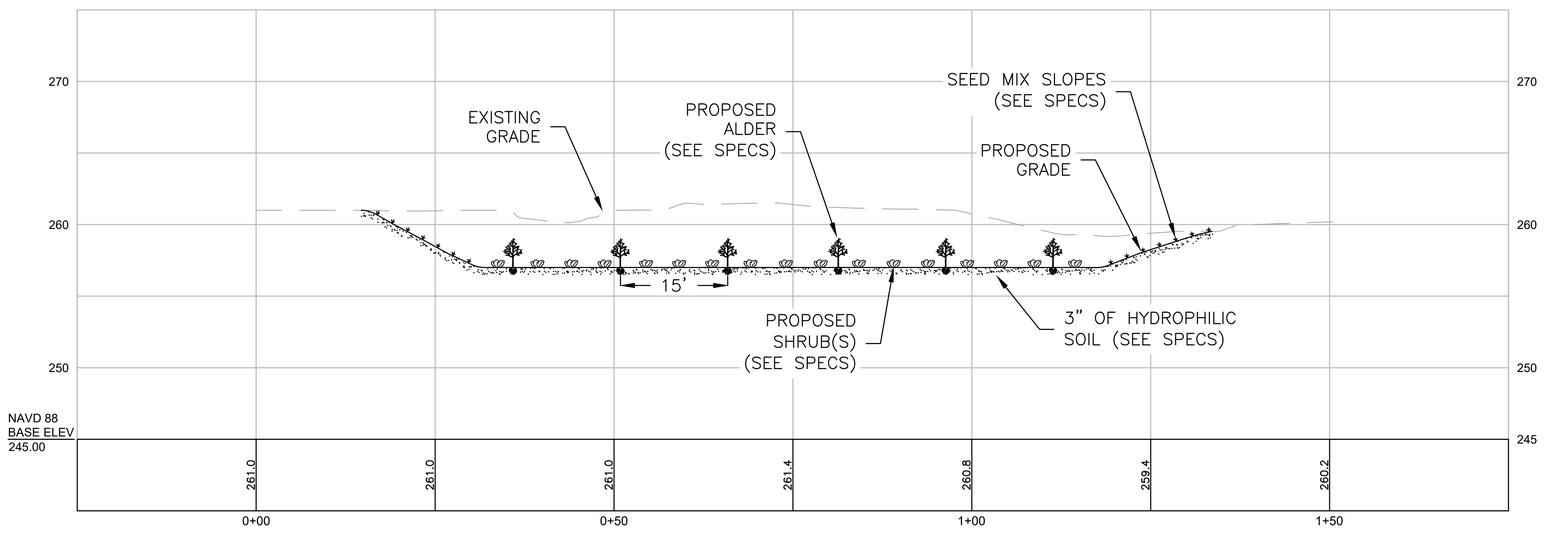
CROSS–SECTIONS
WHITEBRIDGE

CITY OF BRISTOL, CT

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



A1–3
SHEET WR–1
SCALE: 1' = 10'



A2–1
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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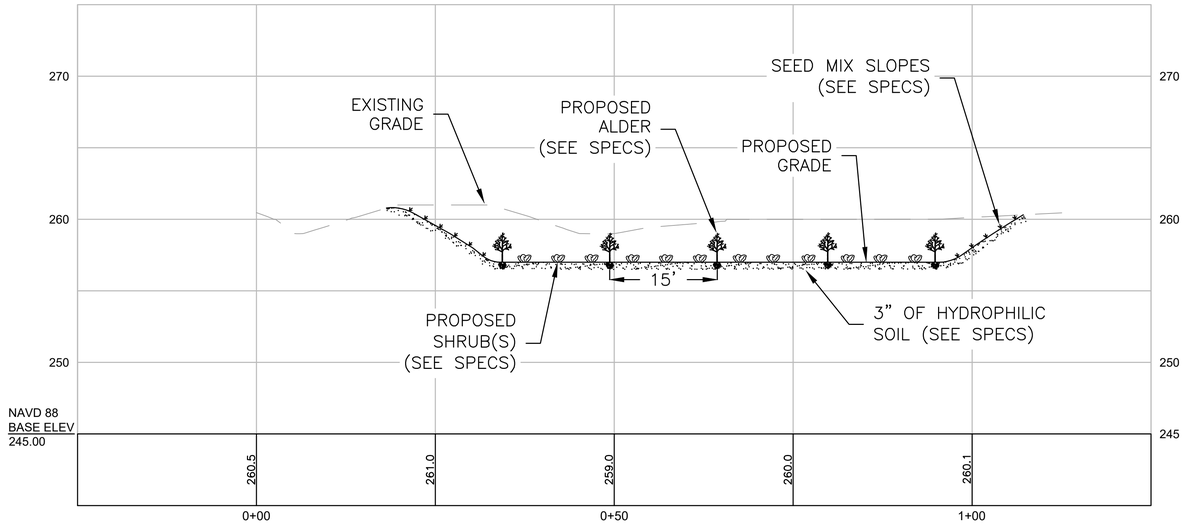
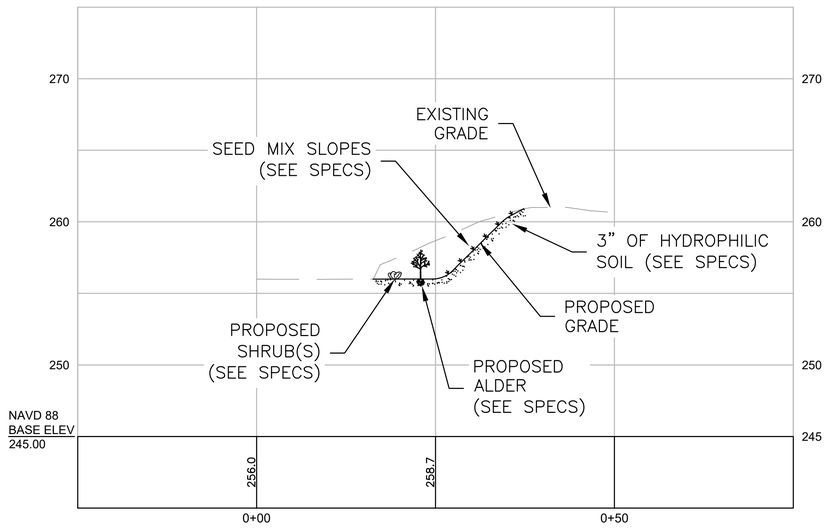
CROSS–SECTIONS
WHITEBRIDGE

CITY OF BRISTOL, CT

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



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.

COMPREHENSIVE ENVIRONMENTAL INCORPORATED

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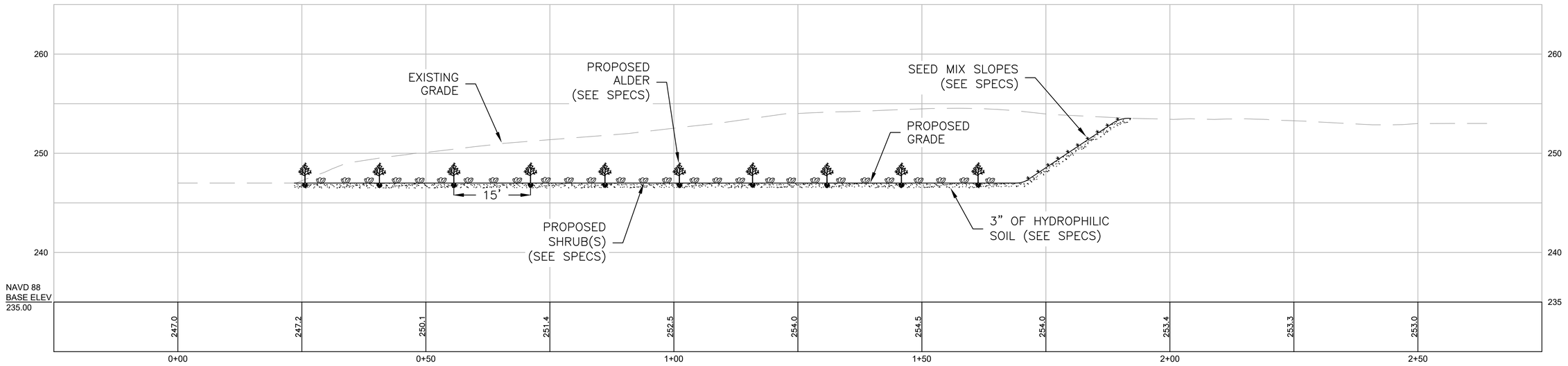
New Britain, CT 06052

CROSS–SECTIONS
WHITEBRIDGE

CITY OF BRISTOL, CT

Project No.: 702 Date: 12/1/2022	Sheet
Drawn By: NP Checked By: SA	XS-3
Scale: AS SHOWN	



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, (PENTHORUM 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'

COMPREHENSIVE ENVIRONMENTAL INCORPORATED

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

CROSS–SECTIONS
WHITEBRIDGE

CITY OF BRISTOL, CT

Project No.: 702 Date: 12/1/2022	Sheet
Drawn By: NP Checked By: SA	XS-4
Scale: AS SHOWN	

ATTACHMENT 5

SITE SURVEY

LEGEND

- CHAIN LINK FENCE
- EDGE OF WETLANDS
- EDGE OF WATER
- OVERHEAD WIRES
- DRAINAGE PIPE
- UTILITY POLE
- WG — WATER GATE/VALVE
- SIGN
- DRAINAGE MANHOLE
- SANITARY MANHOLE
- BUSH
- DECIDUOUS TREE
- BOLLARD
- x 210.0 — SPOTGRADE

GENERAL NOTES

1. 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 T-2.

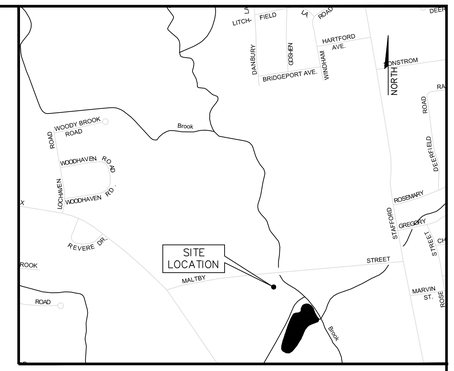
   1.2. THE TYPE OF SURVEY PERFORMED IS A TOPOGRAPHIC SURVEY.

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).

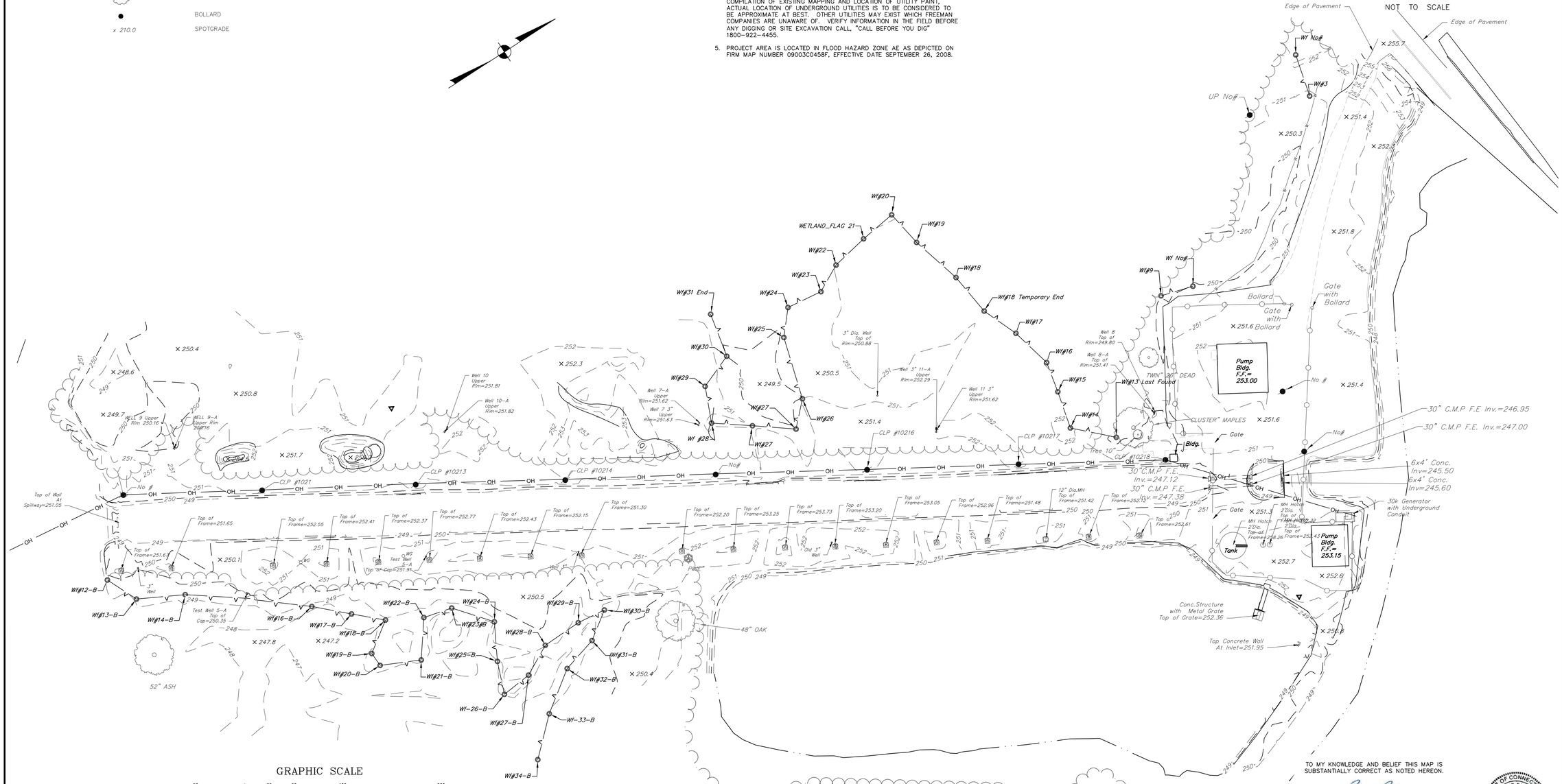
4. THE UNDERGROUND FEATURES DEPICTED HEREON ARE THE RESULT OF COMPILATION OF EXISTING MAPPING AND LOCATION OF UTILITY PAINT, ACTUAL LOCATION OF UNDERGROUND UTILITIES IS TO BE CONSIDERED TO BE APPROXIMATE AT BEST. OTHER UTILITIES MAY EXIST WHICH FREEMAN COMPANIES ARE UNAWARE OF. VERIFY INFORMATION IN THE FIELD BEFORE ANY DIGGING OR SITE EXCAVATION CALL, "CALL BEFORE YOU DIG" 1800-922-4455.

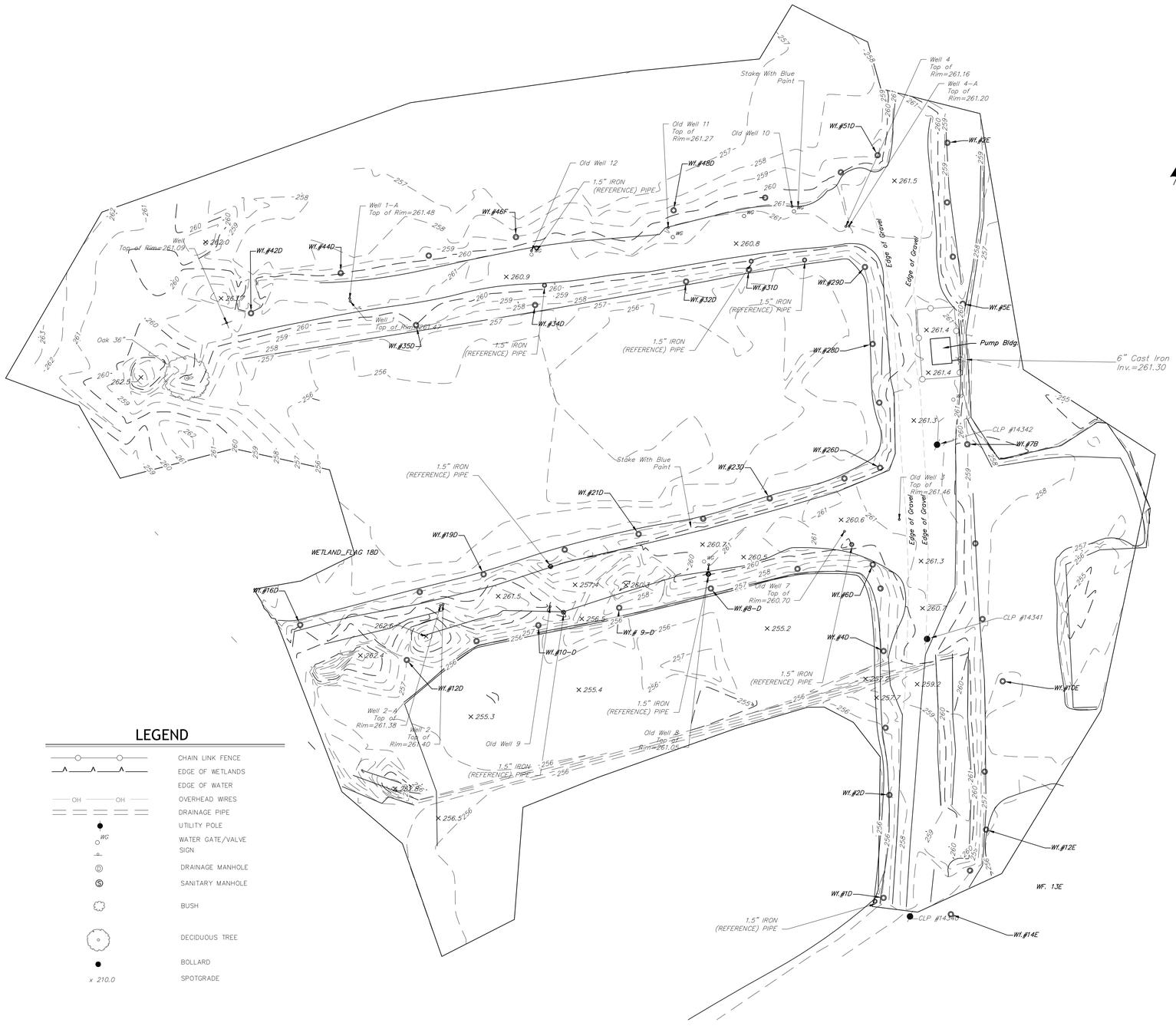
5. PROJECT AREA IS LOCATED IN FLOOD HAZARD ZONE AE AS DEPICTED ON FIRM MAP NUMBER 09003C0458F, EFFECTIVE DATE SEPTEMBER 26, 2008.

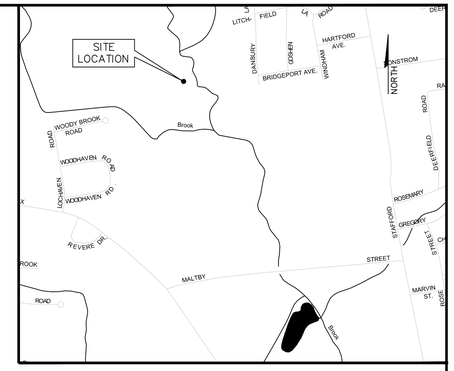


LOCATION MAP

NOT TO SCALE


Wf#20
WETLAND_FLAG 21
Wf#19
Wf#22
Wf#23
Wf#18
Wf#18 Temporary End
Wf#24
Wf#31 End
Wf#25
Wf#30
Wf#29
Wf#17
Wf#16
Wf#15
Wf#14
Wf#26
Wf#27
Wf #28
Wf#9
Wf#13 Lost Found
Well 10 Upper Rim=251.81
Well 10-A Upper Rim=251.82
Well 7-A Upper Rim=251.62
Well 7 3" Upper Rim=251.63
3" Dia. Well Top of Rim=250.88
Well 3" 11-A Upper Rim=252.29
Well 11 3" Upper Rim=251.62
Well 8 Top of Rim=249.80
Well 8-A Top of Rim=251.41
WELL 9 Upper Rim 250.16
WELL 9-A Upper Rim 250.16
CLP #10213
CLP #1021
CLP #10214
CLP #10216
CLP #10217
CLP #10218
No #
Top of Wall At Spillway=251.05
Top of Frame=251.65
Top of Frame=252.55
Top of Frame=252.41
Top of Frame=252.37
Top of Frame=252.77
Top of Frame=252.43
Top of Frame=252.15
Top of Frame=251.30
Top of Frame=252.20
Top of Frame=253.25
Top of Frame=253.73
Top of Frame=253.20
Top of Frame=253.05
Top of Frame=252.96
Top of Frame=251.48
Top of Frame=251.42
Top of Frame=252.32
Top of Frame=252.61
Top of Frame=251.6
Test Well 5-A Top of Cap=250.35
Test Well 2-A Top of Cap=251.91
3" Well
Old 3" Well
Plate
Wall 3"
Wf#12-B
Wf#13-B
Wf#14-B
Wf#16-B
Wf#17-B
Wf#18-B
Wf#19-B
Wf#20-B
Wf#21-B
Wf#22-B
Wf#23-B
Wf#24-B
Wf#25-B
Wf#26-B
Wf#27-B
Wf#28-B
Wf#29-B
Wf#30-B
Wf#31-B
Wf#32-B
Wf-33-B
Wf#34-B
48" OAK
52" ASH
Pump Bldg. F.F.= 253.00
Pump Bldg. F.F.= 253.15
Tank
Bollard
Gate with Bollard
Gate
Bldg.
TWIN "46" DEAD CLUSTER" MAPLES
Tree 10"
30" C.M.P F.E Inv.=246.95
30" C.M.P F.E. Inv.=247.00
30" C.M.P F.E. Inv.=247.12
30" C.M.P F.E. Inv.=247.38
6x4' Conc. Inv=245.50
6x4' Conc. Inv=245.60
30k Generator with Underground Conduit
MH Hatch 2'Dia. Top of Frame=252.43
MH Hatch 2'Dia. Top of Frame=252.26
Conc.Structure with Metal Grate Top of Grate=252.36
Top Concrete Wall At Inlet=251.95
Edge of Pavement
Edge of Pavement
UP No#
Wf No#
Wf No#
No #
No#
No #
Gate
Gate
Gate





LOCATION MAP

NOT TO SCALE

LEGEND

- CHAIN LINK FENCE
- EDGE OF WETLANDS
- EDGE OF WATER
- OH OH — OVERHEAD WIRES
- DRAINAGE PIPE
- UTILITY POLE
- WG — WATER GATE/VALVE
- SIGN
- DRAINAGE MANHOLE
- SANITARY MANHOLE
- BUSH
- DECIDUOUS TREE
- BOLLARD
- x 210.0 — SPOTGRADE

GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)
1 inch = 50 ft.

GENERAL NOTES

1. 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
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5. PROJECT AREA IS LOCATED IN FLOOD HAZARD ZONE AE AS DEPICTED ON FIRM MAP NUMBER 09003C0458F, EFFECTIVE DATE SEPTEMBER 26, 2008.

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.

STATE OF CONNECTICUT · PETER PARIZO · NO. 14653 · LICENSED LAND SURVEYOR

NO.	DATE	DESCRIPTION
1		

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

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

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

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

TITLE:
EXISTING CONDITIONS SURVEY

SHEET NUMBER:
EX-1

THESE DRAWINGS SHALL NOT BE UTILIZED BY ANY PERSON, FIRM OR CORPORATION WITHOUT THE SPECIFIC WRITTEN PERMISSION OF FREEMAN COMPANIES, LLC

Link to Soil Scientist Report

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

ATTACHMENT 6

SOIL SCIENTIST

REPORT

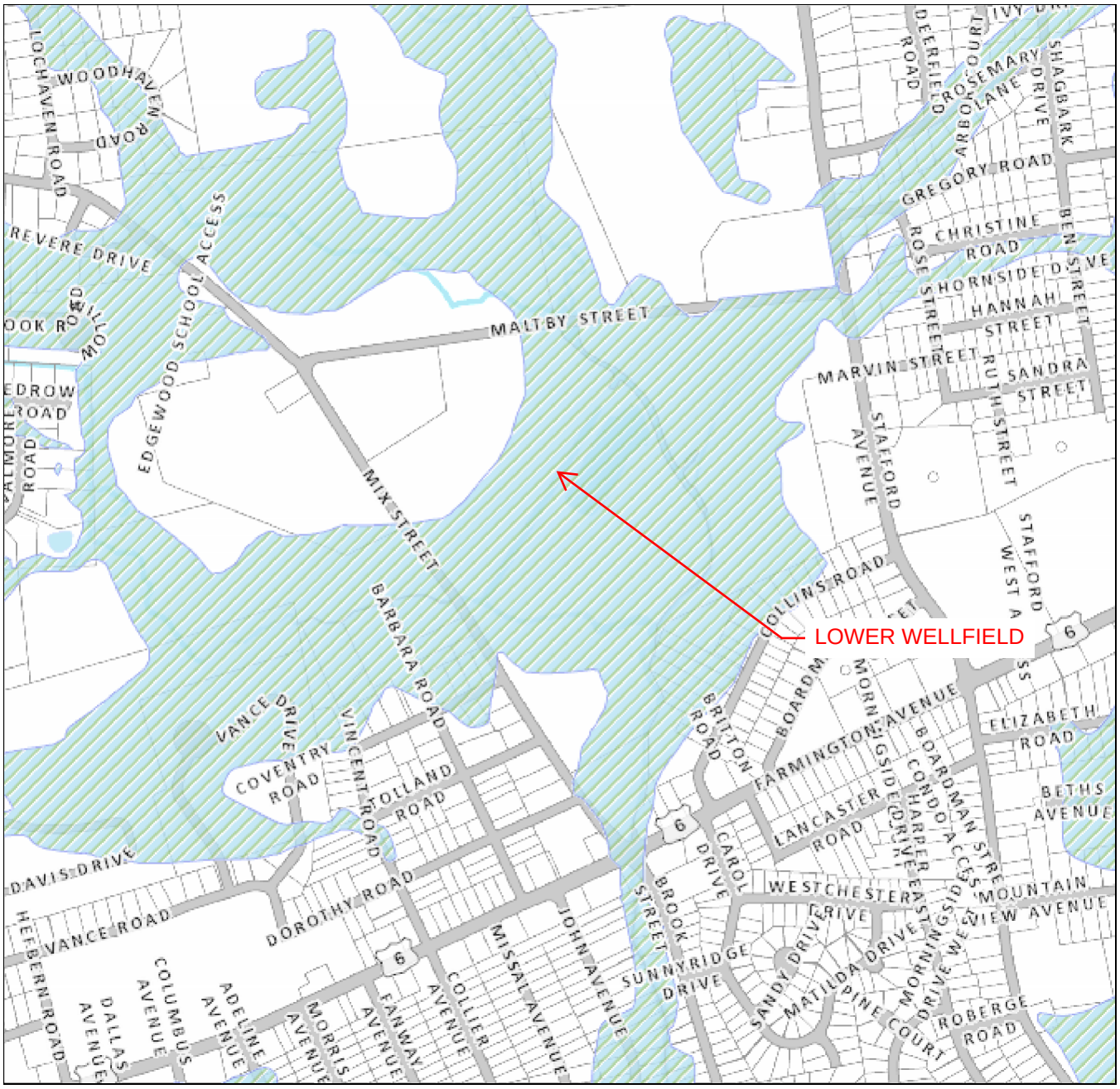
ATTACHMENT 7

CITY OF BRISTOL GIS WETLAND BOUNDARY

City of Bristol

Geographic Information System (GIS)

Date Printed: 12/20/2023



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

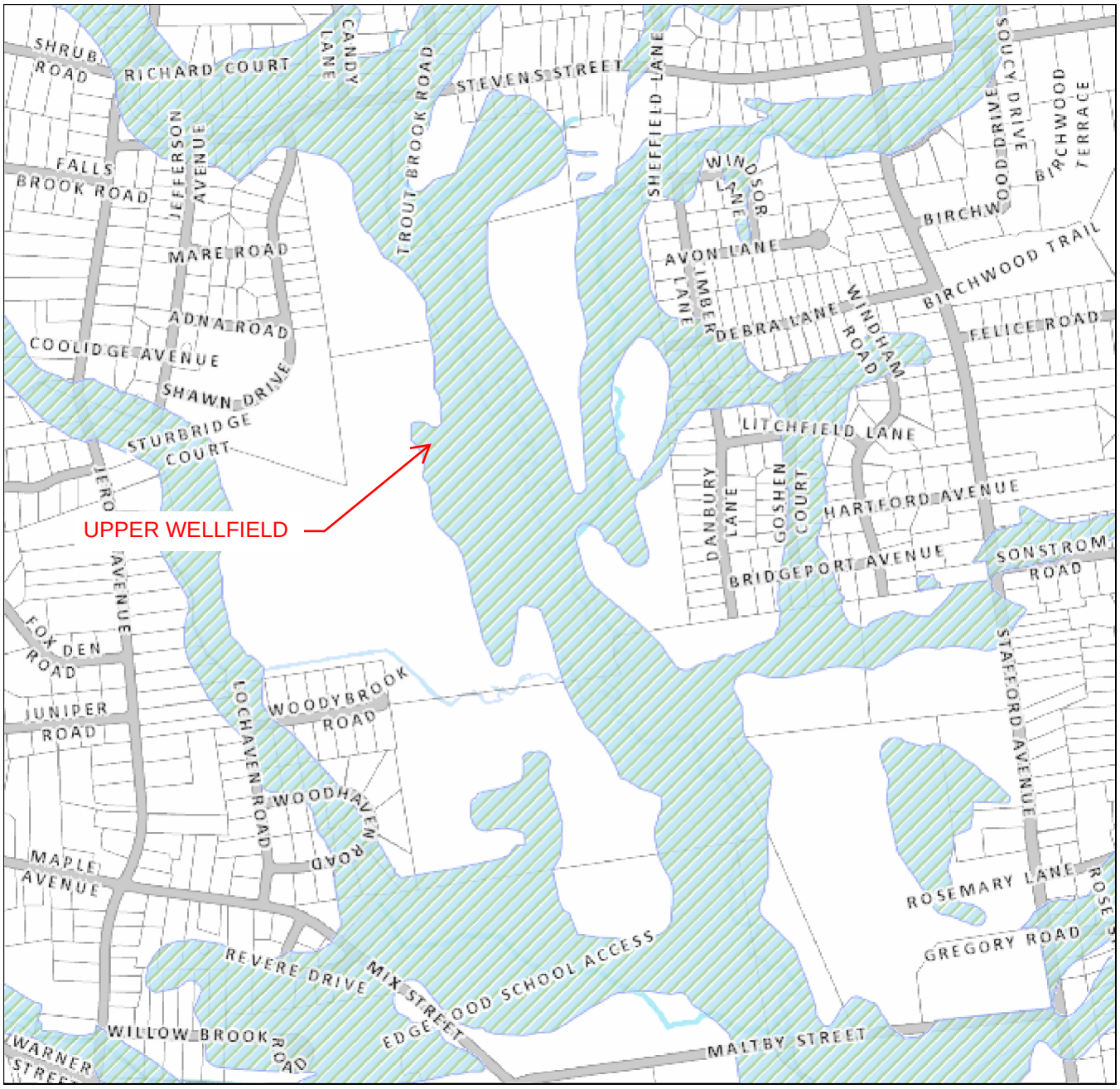
0 800 Feet

N W E S

City of Bristol

Geographic Information System (GIS)

Date Printed: 12/20/2023



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Approximate Scale: 1 inch = 800 feet

0 800 Feet

N W E S

For Office Use Only
APPLICATION NO. 2020
DATE FILED: 12-28-23
DECISION DATE:
DECISION:

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

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 [✓] work E-Mail: Ray.Esponda@NewBritainCT.gov

Signature: *Signature – (Printed/Typed)* Ramon Esponda

CHECK ONE: [✓] 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 [✓] work E-Mail: Ray.Esponda@NewBritainCT.gov

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.*

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

[✓] in a wetlands or watercourse area: 31,291 SQ. FT.

[✓] within the upland review area area: 177,924 SQ. FT.

6. FLOW CALCULATIONS:

Does a watercourse flow through the subject property?

[✓] yes [ ] no

If "yes", see instructions for submission requirements.

BCC – 06/18

For Office Use Only
APPLICATION NO. _____

CITY OF BRISTOL, CONNECTICUT
SUPPLEMENTARY INFORMATION

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) _____

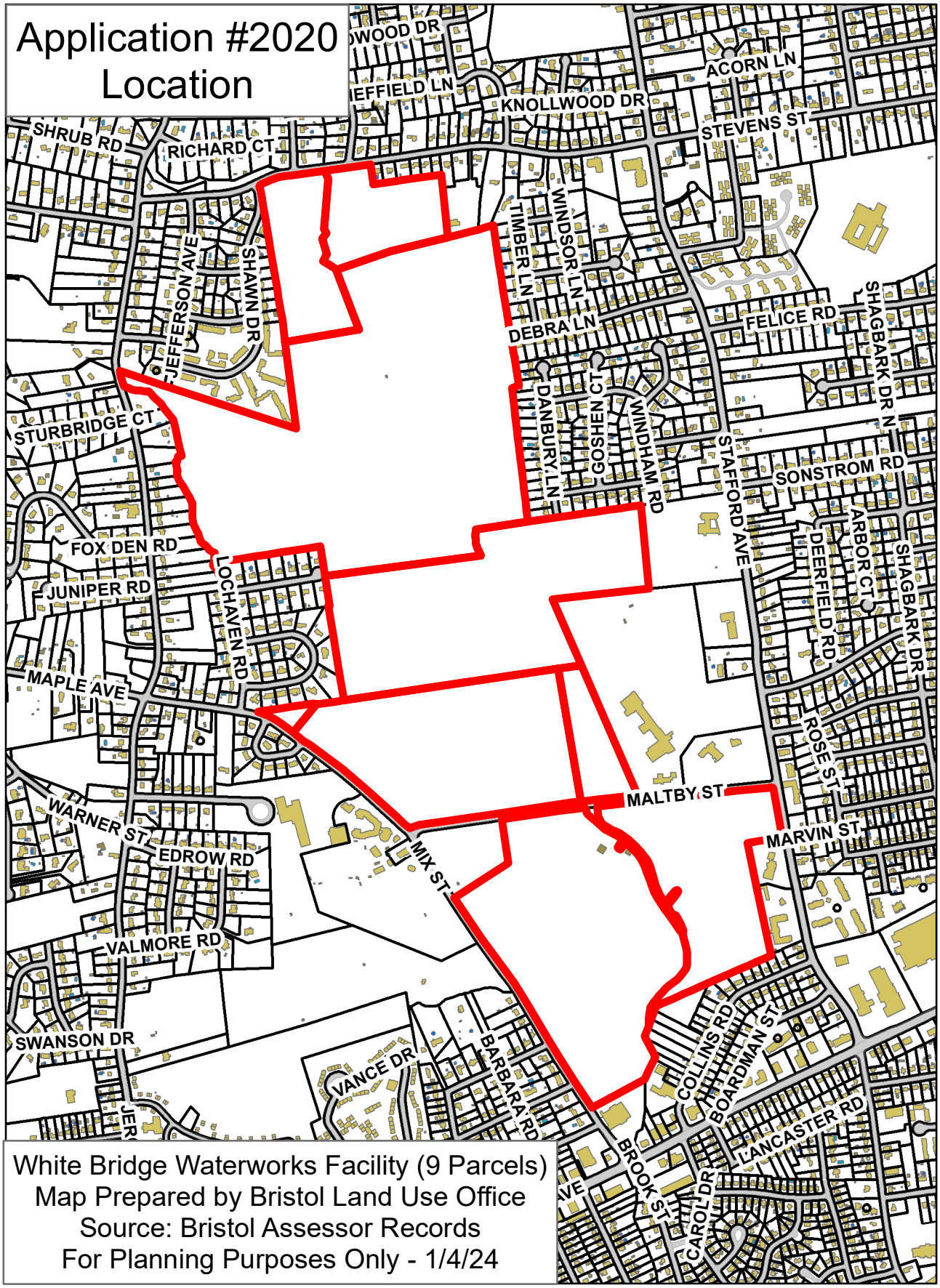
(OPTIONAL) SEND COPIES OF ALL CORRESPONDENCE TO:

Name: Sebastian Amenta, PE

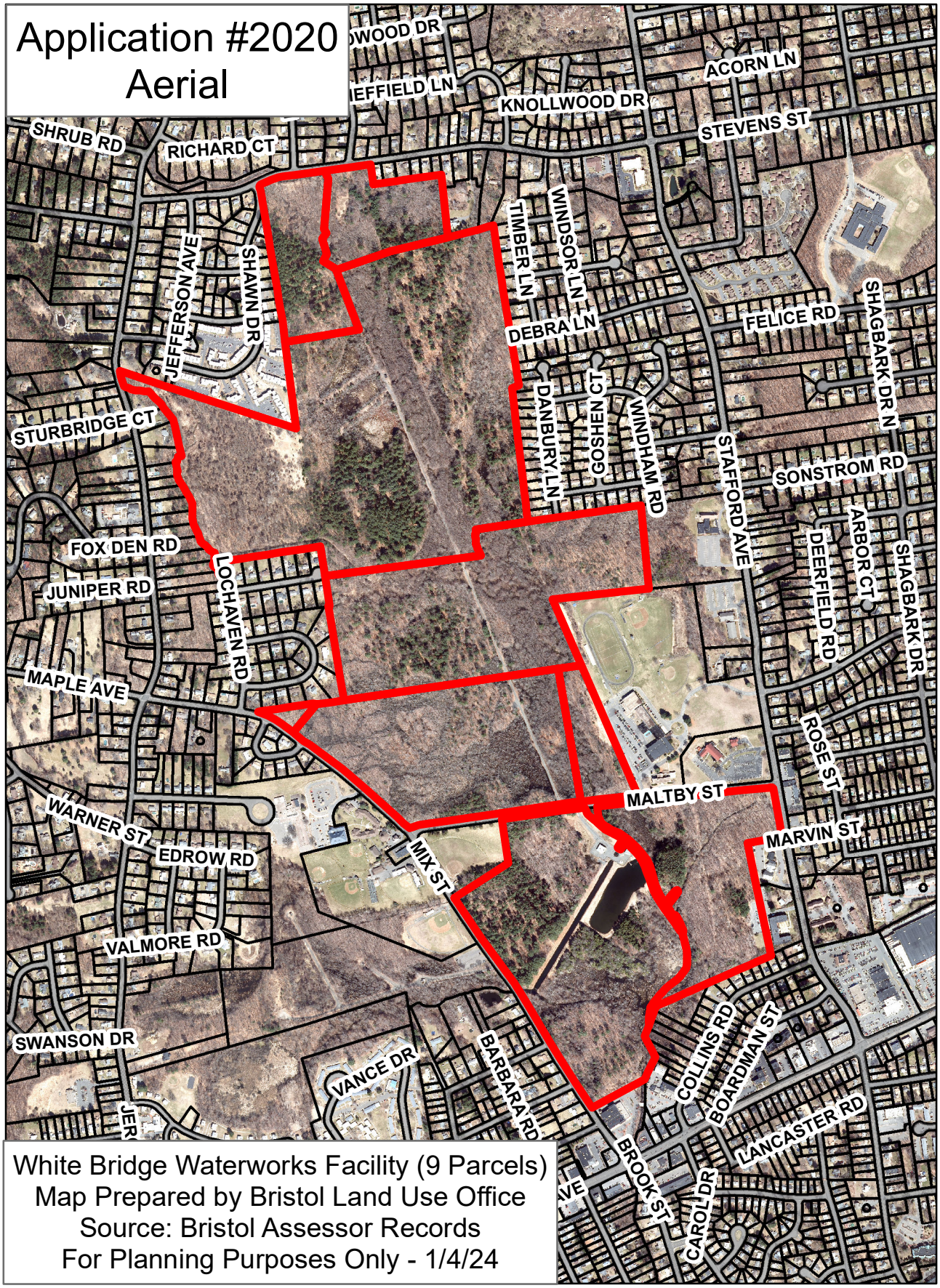
Address: 1 Hartford Square, Suite 227 City: New Britain State: CT Zip: 06052

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

08/17 - LUO

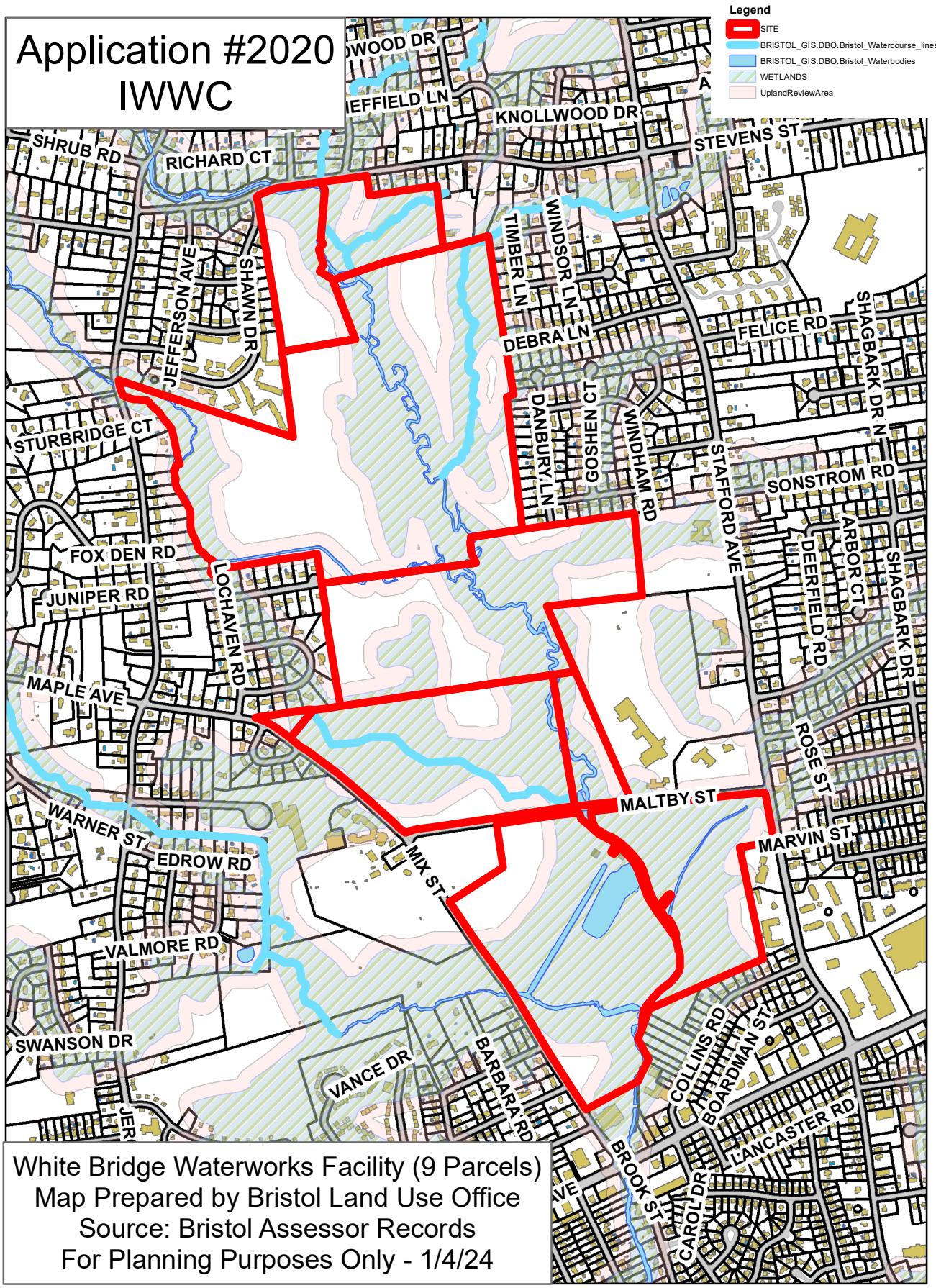

Application #2020
Location
KNOLLWOOD DR
ACORN LN
STEVENS ST
SHRUB RD
RICHARD CT
TIMBER LN
WINDSOR LN
DEBRA LN
FELICE RD
SHAGBARK DR N
JEFFERSON AVE
SHAWN DR
STURBRIDGE CT
DANBURY LN
GOSHEN CT
WINDHAM RD
STAFFORD AVE
SONSTROM RD
FOX DEN RD
JUNIPER RD
LOCHAVEN RD
DEERFIELD RD
ARBOR CT
SHAGBARK DR
MAPLE AVE
ROSE ST
MALTBY ST
MARVIN ST
WARNER ST
EDROW RD
MIX ST
VALMORE RD
SWANSON DR
VANCE DR
BARBARA RD
COLLINS RD
BOARDMAN ST
LANCASTER RD
BROOK ST
CAROL DR
White Bridge Waterworks Facility (9 Parcels)
Map Prepared by Bristol Land Use Office
Source: Bristol Assessor Records
For Planning Purposes Only - 1/4/24

Application #2020 Aerial



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

Application #2020 IWWC



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

Whitesbridge Wellfields
New Britain Water Department
Bristol, Connecticut

Existing and Proposed Test Wells and Stream Gauges
Overall Map

1 inch equals 500 feet

0 500 1,000 1,500
Feet

Base Map Data Sources: City of Bristol

Map Date 12/9/2022

Comprehensive Environmental Incorporated

Well #1
Well #2
Well #3
BWD-3
BWD-4
BWD-5
Well #4
Well #5
Well #6
Install water level monitor
Alternate water level monitor

City of Bristol Pumping Wells BWD-3, 4 and 5 will each be outfitted with a data logger.

- Existing Production Well
- Existing Monitoring Well
- Proposed Monitoring Well
- Proposed Stream Gauge and Piezometer
- Data Logger
- Redevelop
- Redevelop if possible
- Redevelop/Data Logger
- Cross Sections
- Wetland boundary 2022
- Contours (1 ft.)
- Buildings
- Parcels
- New Britain Water Dept. Property Lines
- Rivers, Streams
- Lakes, Ponds

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	
	Control Soil Detachment	Preserve and Conserve Existing Site Resources	Protect Vegetation	Tree Protection	TP
Disturbed Areas			Preserve and Conserve Soil	Topsoiling	TO
	Raindrop Splash			Land Grading	LG
				Surface Roughening	SR
				Dust Control	DC
Short or Shallow Slopes	Sheet & Rill Erosion	Protect Surface	Vegetative Soil Cover	Temporary Seeding	TS
				Permanent Seeding	PS
	Wind Erosion			Sodding	SO
				Landscape Planting	LP
Steep Slopes			Non-Living Soil Protection	Temporary Soil Protection	TSP
				Mulch for Seed	MS
				Landscape Mulch	LM
Long Slopes				Temporary Erosion Control Blanket	ECB
				Permanent Turf Reinforcement Mat	TRM
				Stone Slope Protection	SSP
Stockpile Areas		Protect Surface and/or Convey Runoff	Stabilization Structures	Retaining Walls	RW
				Riprap	RR
	Control Water Movement			Gabions	G
Borrow Areas				Permanent Slope Drain	PSD
	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
Wetlands and Watercourses				Temporary Stream Crossing	TSC
		Direct Runoff	Diversions	Temporary Fill Berm	TFB
				Water Bar	WB
				Temporary Diversion	TD
Waterbodies				Permanent Diversion	PD
		Intercept Grnd.Water	Subsurface Drains	Subsurface Drain	SD
		Detain Runoff	Detention Structures	Detention Basin	DB
Areas of Flooding and Existing Erosion	Natural Resource Degradation	Diffuse Runoff	Energy Dissipators	Level Spreader	LS
				Outlet Protection	OP
				Stone Check Dam	SCD
	Control Sediment Deposition	Detain Sediments	Sediment Impoundments, Barriers, and Filters	Temporary Sediment Basin	SB
				Temporary Sediment Trap	TST
Drainage Outlets				Hay Bale Barrier	HB
	Protect Onsite and Offsite Areas			Geotextile Silt Fence	GSF
				Turbidity Curtain	TC
				Vegetative Filter	VF
Travel Areas		Control Mechanically Moved Waters and Soils	Tire Tracked Soils Dewatering	Construction Entrance	CE
				Pump Intake and Outlet Protection	PuP
				Pumping Settling Basin	PSB
				Portable Sediment Tank	PST
Dewatering				Dewatering of Earth Materials	DWM

COMPREHENSIVE
ENVIRONMENTAL
INCORPORATED

Gateway Crossing
1 Hartford Square East, Suite 227
New Britain, CT 06052
860.224.0442

May 1, 2024

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

RE: Wetlands and Flood Commission Permits- Applications #2019, #2020 & #23-458F-305
Submission of Response to Staff Comments and Supplemental Information

Dear Mr. Flanagan,

On behalf of the Applicant, the New Britain Water Department, Comprehensive Environmental Inc. (CEI) is providing in this document responses to comments and supplemental information regarding the above referenced applications.

Responses to City Staff Comments:

Comment #1. *Proposed construction wetland "replication" appears to consist of excavation adjacent to existing wetland and installation of 3 inches of hydrophilic soil. Provide additional information associated with the hydrophilic soil specification and post development groundwater depth to support wetland "replication" areas. DPW Engineering Division proposes a min of 12-inch depth of hydrophilic soil within wetland "replication" area. On adjacent 2:1 slopes 6 inches of hydrophilic soil is sufficient. Detail/document short and long term monitoring and wetland "replication" area management plan to ensure long-term viability of area.*

Response #1. The wetland replication and compensatory storage plans and sections have been revised to address the above comments. Please note that due to the presence of a vernal pool in the upper wellfield area the compensatory storage and wetland replication area was moved further north. In addition, the United States Army Corp of Engineers (USACE) has requested a 3:1 wetlands replication as part of their permit review. These changes are reflected in revised sheets WR-1 to WR-5, CS-1 to CS-5, XS-1 to XS-5, C-14 and C-14A which are attached herein as **Attachment 1.A**. Also attached as **Attachment 1.B**. are the calculations for the compensatory storage. More information about the vernal pool can be found in the NBWD Supplemental Environmental/Wetlands Permit Information prepared by C. Webb and Associates, LLC., which is also attached to this document as **Attachment 1.C**. Sheet XS-5 and Section 4 of the NBWD Supplemental Environmental/Wetlands Permit Information detail the short term and long term monitoring for wetland replication.

Comment #2. *Plan indicates dewater sedimentation basin, however provide anticipated/ proposed discharge rates with sizing of sedimentation basins. In addition, indicate controls / monitoring of turbidity discharge from sedimentation basin.*

Response #2. Temporary dewatering sedimentation basins are intended to be used in the event high groundwater is encountered during excavation activities. Anticipated/proposed discharges will vary depending on the required amount of excavation dewatering but typically can range from 20-50 gpm, intermittently. As shown in Detail J of Drawing Sheet C-24 (included herein as **Attachment 2**), the dewatering sedimentation basin size may vary depending on necessity with a 5-foot diameter being the minimum diameter of the basin. Sedimentation basins will be inspected at least once per week and cleaned as needed to remove accumulated sediments. The Contractor may also elect to install permeable geotextile dewatering bags in addition to the dewatering sedimentation basins for sediment filtration.

Comment #3. *Provide construction sequence with durations along with staging plan, areas of stockpile storage and refueling areas.*

Response #3. See the Proposed Construction Sequence Memorandum included in **Attachment 3.A.** for more information, and the associated Drawing Sheets C-20, C-21, and C-22 in Attachment 3.B. Additionally, see Sheet C-1 and C-7 of **Attachment 3.B.** for notes and depiction of Contractor staging, stockpiling, and refueling areas.

Comment #4. *Clarify proposed location of floating turbidity curtain.*

Response #4. Floating turbidity curtains are to be located within the canal, east and west of the proposed sediment removal areas. See revised Sheet C-23 in **Attachment 4**.

Comment #5. *Include installation line of silt fence along the toe of ALL proposed slopes. Silt fence shall be installed prior to construction, be monitored during construction and removed once slopes are stabilized.*

Response #5. Notes requiring the installation of silt fence has been included throughout drawings. See revised sheets C-1, C-6, C-7, C-8, C-13, C-14, C-14A in **Attachment 5**.

Comment #6. *Provide additional detail associated with compensation storage area 3. The plans indicate excavation to elevation 252, however indicate proposed access to area, erosion control and restoration.*

Response #6. The revised plans referenced in Comment Response #1 address these comments.

Comment #7. *Provide additional detail associated with compensation area 4, including additional elevation east of the area between the compensation area and the Coppermine. Detail cross section AA-1 and indicate erosion control measures and proposed access to area.*

Response #7. The revised plans referenced in Comment Response #1 address this comment.

Comment #8. *The Storm Water Management Report is prepared in accordance with the CT Storm Water Quality Manual. As indicated in your report the manual requires maintaining the pre-*

development annual groundwater recharge volume. The report indicates recharge is achieved through reduction in impervious area; however, please indicate impact of additional well withdrawal will have on wetlands.

Response #8. See Section 3 of the NBWD Supplemental Environmental/Wetlands Permit Information prepared by C. Webb and Associates, LLC., which is included in **Attachment 1.C.**

Comment #9. *Proposed plans indicate flood plain mitigation measures (excavation within flood plain to offset the placement of fill within flood plain). However, Bristol DPW recommends a CLOMR prior to work and will require a LOMR as condition of approval (if approved).*

Response #9. See No Rise Certification included in **Attachment 9**. No objection to coordinating with FEMA for CLOMR/LOMR as a condition of approval.

Responses to North Central Conservation District (Letter Dated March 28, 2024):

1. See the Letter from CT DEEP in **Attachment 10**, which confirms the continued applicability of the Diversion Registration to the facilities and that no diversion permit is required for continued operation of the facilities as proposed with this project.
2. See Section 3 of the NBWD Supplemental Environmental/Wetlands Permit Information, included in **Attachment 1.C.,** concluding no permanent impacts from withdrawals.
3. See Section 5 of the NBWD Supplemental Environmental/Wetlands Permit Information and the related Supplemental Alternatives Evaluation contained therein, detailing alternatives considered for this project. There are no feasible and prudent alternatives to the proposed plan.
4. See Section 5 of the NBWD Supplemental Environmental/Wetlands Permit Information concluding no permanent impacts to wetlands functions and values.

Additional Information Submitted:

1. Detailed Groundwater and Stream Flow Monitoring Plan, as required by CT DPH, is included in **Attachment 11**.
2. Letter confirming hydrogeologic information for project site remains valid. See **Attachment 12**.
3. Proposed wetlands boundary line change map is submitted for consideration. See **Attachment 13**.
4. Resumes of Engineers and Soil Scientist are included in **Attachment 14**.

Attachments Includes:

- Response 1 – Attachments
  - 1.A. Drawings: WR-1 to WR-5, CS-1 to CS-5, XS-1 to XS-5, C-14 to and C-14A
  - 1.B. Calculations: Compensatory Storage
  - 1.C. NBWD Supplemental Environmental/Wetlands Permit Information prepared by C. Webb and Associates, LLC
- Response 2 – Attachment
  - 2. Drawing: C-24
- Response 3 – Attachments
  - 3.A. Proposed Construction Sequence Memorandum
  - 3.B. Drawings: C-1 and C-7; C-20, C-21, and C-22
- Response 4 – Attachment

- 4. Drawing: C-23
- Response 5 – Attachment
  - 5. Drawings: C-1, C-6, C-7, C-8, C-13, C-14, C-14A
- Response 9 – Attachment
  - 9. No Rise Certification
- Attachment 10
  - 10. CT DEEP Permit Need Determination
- Attachment 11
  - 11. Detailed Groundwater and Stream Flow Monitoring Plan
- Attachment 12
  - 12. Letter confirming hydrogeologic information for project site remains valid
- Attachment 13
  - 13. Proposed wetlands boundary line change map
- Attachment 14
  - 14. Resumes of Engineers and Soil Scientist
    - Sebastian Amenta, P.E.
    - Ian T. Cole - Professional Soil Scientist
    - Joseph L. Laliberte, PE, BCEE, PM
    - Clinton L. Webb Jr. – Senior Environmental Scientist/Ecologist

If you have any questions or require any additional information, please do not hesitate to contact me at 860.224.0442 or samenta@ceiengineers.com.

Sincerely,
Comprehensive Environmental Inc.

Sebastian Amenta, PE
Regional Program Director

Ray Rogozinski Review Comments

April 22, 2024

&

Applicant Responses

May 2, 2024

Bristol Department of Public Works has completed the review of the following materials submitted as part of Applications #2019, #2020 & #23-458F-305.

i. Central Conservation District review letter, dated March 28, 2024.

ii. CDM Smith Stormwater Management Report for the White Bridge Waterworks Facilities Pond Pumping Station.

iii. C. Webb & Associates, LLC Wetland Delineation Report, dated September 29, 2022. iv. CDM Smith Plan Set, dated December 2022: Existing Conditions sheets 1-3, Wetlands replication areas sheets 1-3, Cross-Sections sheets 1-4.

v. Freeman Companies Existing Conditions Survey Upper & Lower Wellfield, topography survey.

vi. CDM Smith Plan Set: C-2,6-10, 10B, 11-17, 18A, 18B, 2, 19, 23-29, 9, 11-14, 18 A, 18 B. vii. CDM Smith Plan Set: Attachment 4: Floodway & Flood Fringe Encroachment Areas 60% Submittal C9, 5, 11, 13, 14, 9, 9, 9, 9, 11 (10 sheets), 5 (8 sheets), CS1-CS4. Based on the review the following comments are provided:

1. Proposed construction wetland "replication" appears to consist of excavation adjacent to existing wetland and installation of 3 inches of hydrophic soil. Provide additional information associated with the hydrophic soil specification and post development groundwater depth to support wetland "replication" areas. DPW Engineering Division proposes a min of 12 inch depth of hydrophic soil within wetland "replication" area. On adjacent 2:1 slopes 6 inches of hydrophic soil is sufficient. Detail/document short and long term monitoring and wetland "replication" area management plan to ensure long-term viability of area.

   4/22/24 Applicant Response: The wetland replication and compensatory storage plans and sections have been revised to address the above comments. Please note that due to the presence of a vernal pool in the upper wellfield area the compensatory storage and wetland replication area was moved further north. In addition, the United States Army Corp of Engineers (USACE) has requested a 3:1 wetlands replication as part of their permit review. These changes are reflected in revised sheets WR-1 to WR-5, CS-1 to CS-5, XS-1 to XS-5, C-14 and C-14A which are attached herein as Attachment 1.A. Also attached as Attachment 1.B. are the calculations for the compensatory storage. More information about the vernal pool can be found in the NBWD Supplemental Environmental/Wetlands Permit Information prepared by C. Webb and Associates, LLC., which is also attached to this document as Attachment 1.C. Sheet XS-5 and Section 4 of the NBWD Supplemental Environmental/Wetlands Permit Information detail the short term and long term monitoring for wetland replication.

   5/2/24 City Response: Depth of hydrophilic soil revised in wetland "replication" detail". Please have the Cert Soil Scientist available to address the Commission with the post development groundwater depth to support the wetland "replication", the additional wetland replication requested by the USACE and specification for the hydrophilic soil.

2. Plan indicates dewater sedimentation basin, however provide anticipated/ proposed discharge rates with sizing of sedimentation basins. In addition, indicate controls / monitoring of turbidity discharge from sedimentation basin.

   4/22/24 Applicant Response: Temporary dewatering sedimentation basins are intended to be used in the event high groundwater is encountered during excavation activities. Anticipated/proposed discharges will vary depending on the required amount of excavation dewatering but typically can range from 20-50 gpm, intermittently. As shown in Detail J of Drawing Sheet C-24 (included herein as Attachment 2), the dewatering sedimentation basin size may vary depending on necessity with a 5-foot diameter being the minimum diameter of the basin. Sedimentation basins will be inspected at least once per week and cleaned as needed to remove accumulated sediments. The Contractor may also elect to install permeable geotextile dewatering bags in addition to the dewatering sedimentation basins for sediment filtration.

   5/2/24 City Response: Please provide additional details/procedures to prevent sediment/ discharge of dewatering water from being discharges with a high turbidity.

3. Provide construction sequence with durations along with staging plan, areas of stockpile storage and refueling areas.

   4/22/24 Applicant Response: See the Proposed Construction Sequence Memorandum included in Attachment 3.A. for more information, and the associated Drawing Sheets C-20, C-21, and C-22 in Attachment 3.B. Additionally, see Sheet C-1 and C-7 of Attachment 3.B. for notes and depiction of Contractor staging, stockpiling, and refueling areas.

   5/2/24 City Response: Construction sequence provided. Please have a representative available to review the sequence and anticipated duration of construction with the Commission.

4. Clarify proposed location of floating turbidity curtain.

   4/22/24 Applicant Response: Floating turbidity curtains are to be located within the canal, east and west of the proposed sediment removal areas. See revised Sheet C-23 in Attachment 4.

   5/2/24 City Response: Turbidity curtain location clarified.

5. Include installation line of silt fence along the toe of ALL proposed slopes. Silt fence shall be installed prior to construction, be monitored during construction and removed once slopes are stabilized.

   4/22/24 Applicant Response: Notes requiring the installation of silt fence has been included throughout drawings. See revised sheets C-1, C-6, C-7, C-8, C-13, C-14, C-14A in Attachment 5.

   5/2/24 City Response: No additional comments.

6. Provide additional detail associated with compensation storage area 3. The plans indicate excavation to elevation 252, however indicate proposed access to area, erosion control and restoration.

   4/22/24 Applicant Response: The revised plans referenced in Comment Response #1 address these comments.

   5/2/24 City Response: No additional comments, please be prepared to address any questions the commission may have at the meeting.

7. Provide additional detail associated with compensation area 4, including additional elevation east of the area between the compensation area and the Coppermine. Detail cross section AA-1 and indicate erosion control measures and proposed access to area.

   4/22/24 Applicant Response: The revised plans referenced in Comment Response #1 address this comment.

   5/2/24 City Response: 9. No additional comments, please be prepared to address any questions the commission may have at the meeting.

8. The Storm Water Management Report is prepared in accordance with the CT Storm Water Quality Manual. As indicated in your report the manual requires maintaining the pre- development annual groundwater recharge volume. The report indicates recharge is achieved through reduction in impervious area, however please indicate impact of additional well withdrawal will have a wetlands.

   4/22/24 Applicant Response: See Section 3 of the NBWD Supplemental Environmental/Wetlands Permit Information prepared by C. Webb and Associates, LLC., which is included in Attachment 1.C.

   5/2/24 City Response: Please have a representative available address any questions the Commission may have regarding section 3 and 4 (Impact to Wetlands Associated with Well Drawdown & Wetland Creation) of the Supplemental Env/Wetland Permit Information.

9. Proposed plans indicate flood plain mitigation measures (excavation within flood plain to offset the placement of fill within flood plain). However, Bristol DPW recommends a CLOMR prior to work and will require a LOMR as condition of approval (if approved).

4/22/24 Applicant Response: See No Rise Certification included in **Attachment 9**. No objection to coordinating with FEMA for CLOMR/LOMR as a condition of approval.

5/2/24 City Response: Comment received, please plan on submitting a LOMAR to FEMA.

Responses to North Central Conservation District (Letter Dated March 28, 2024):

1. See the Letter from CT DEEP in **Attachment 10**, which confirms the continued applicability of the Diversion Registration to the facilities and that no diversion permit is required for continued operation of the facilities as proposed with this project.
2. See Section 3 of the NBWD Supplemental Environmental/Wetlands Permit Information, included in **Attachment 1.C.,** concluding no permanent impacts from withdrawals.
3. See Section 5 of the NBWD Supplemental Environmental/Wetlands Permit Information and the related Supplemental Alternatives Evaluation contained therein, detailing alternatives considered for this project. There are no feasible and prudent alternatives to the proposed plan.
4. See Section 5 of the NBWD Supplemental Environmental/Wetlands Permit Information concluding no permanent impacts to wetlands functions and values.

Additional Information Submitted:

1. Detailed Groundwater and Stream Flow Monitoring Plan, as required by CT DPH, is included in **Attachment 11**.
2. Letter confirming hydrogeologic information for project site remains valid. See **Attachment 12**.
3. Proposed wetlands boundary line change map is submitted for consideration. See **Attachment 13**.
4. Resumes of Engineers and Soil Scientist are included in **Attachment 14**.

Attachments Includes:

Response 1 – Attachments
- 1.A. Drawings: WR-1 to WR-5, CS-1 to CS-5, XS-1 to XS-5, C-14 to and C-14A
- 1.B. Calculations: Compensatory Storage
- 1.C. NBWD Supplemental Environmental/Wetlands Permit Information prepared by C. Webb and Associates, LLC

Response 2 – Attachment
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- 14. Resumes of Engineers and Soil Scientist
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  - Joseph L. Laliberte, PE, BCEE, PM
  - Clinton L. Webb Jr. – Senior Environmental Scientist/Ecologist

If you have any questions or require any additional information, please do not hesitate to contact me at 860.224.0442 or samenta@ceiengineers.com.

Link to City of Bristol 3rd Party Environmental Review Agreement:

https://www.bristolct.gov/DocumentCenter/View/46665/N-PRP-2401017-City-of-Bristol-WhiteBridge-Well-Field-Review--04162024

Link to Response 1 - Attachments: https://www.bristolct.gov/DocumentCenter/View/46659/Response-1-Attachments

Response 1 – Attachments

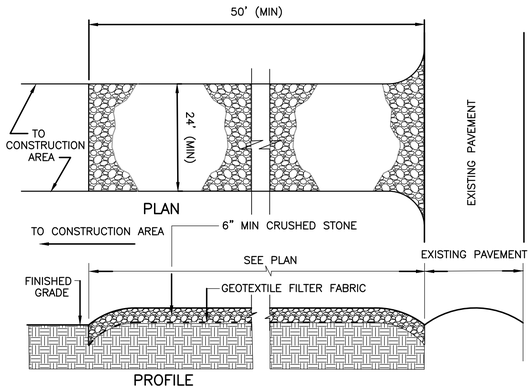
1.A. Drawings: WR-1 to WR-5, CS-1 to CS-5, XS-1 to XS-5, C-14 to and C-14A

1.B. Calculations: Compensatory Storage

1.C. NBWD Supplemental Environmental/Wetlands Permit Information prepared by C.Webb and Associates, LLC

Response 2 – Attachment

2. Drawing: C-24



NOTES:

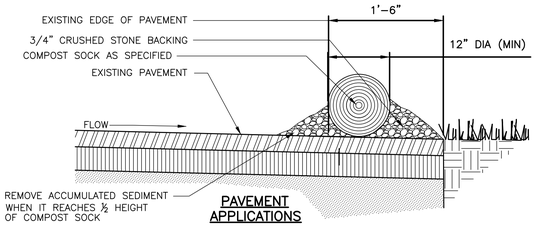
1.) PROVIDE APPROPRIATE TRANSITION BETWEEN STABILIZED CONSTRUCTION ENTRANCE AND EXISTING PAVEMENT.

2.) LIMITS OF STABILIZED CONSTRUCTION ENTRANCE SHALL BE AS DIRECTED BY THE ENGINEER.

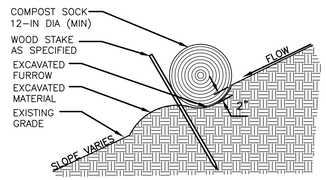
3.) THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO EXISTING PAVEMENT. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE OR ADDING STONE TO THE LENGTH OF THE ENTRANCE.

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.

STABILIZED CONSTRUCTION ENTRANCE
DETAIL A
NOT TO SCALE

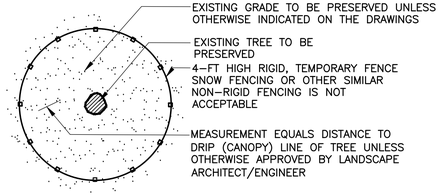


PAVEMENT APPLICATIONS



LANDSCAPE APPLICATIONS

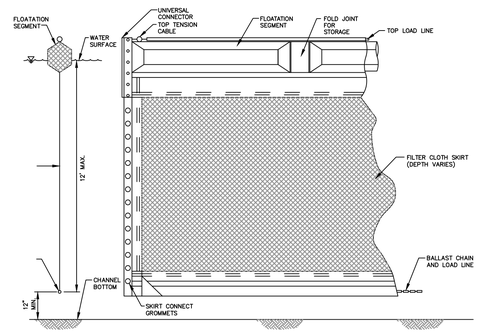
COMPOST SOCK
DETAIL B
SCALE: NTS

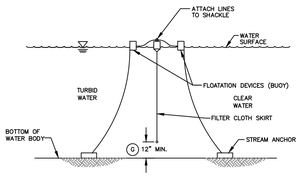


NOTES:
1. FENCING SHALL BE INSTALLED AROUND PERIMETER OF ALL EXISTING TREES TO BE PRESERVED WITHIN THE LIMIT OF WORK.
2. FENCING MAY BE REMOVED TEMPORARILY, ONLY AS REQUIRED TO PERFORM THE WORK SHOWN ON THE DRAWINGS.
3. FENCING SHALL REMAIN IN PLACE & BE MAINTAINED THROUGHOUT CONSTRUCTION AND THEN REMOVED COMPLETELY.

TREE PROTECTION
DETAIL C
NOT TO SCALE

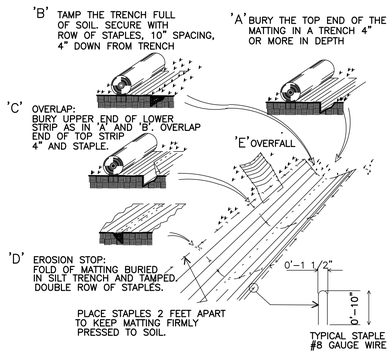
TURBIDITY CURTAIN





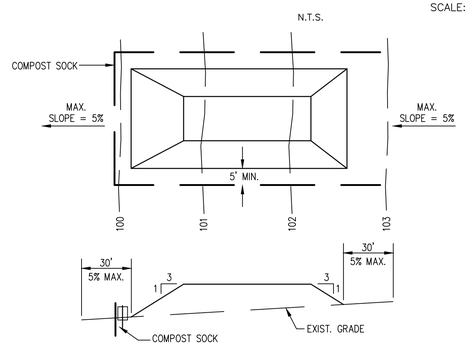
TYPICAL ANCHORING SECTION

TURBIDITY CURTAIN
DETAIL D
NOT TO SCALE



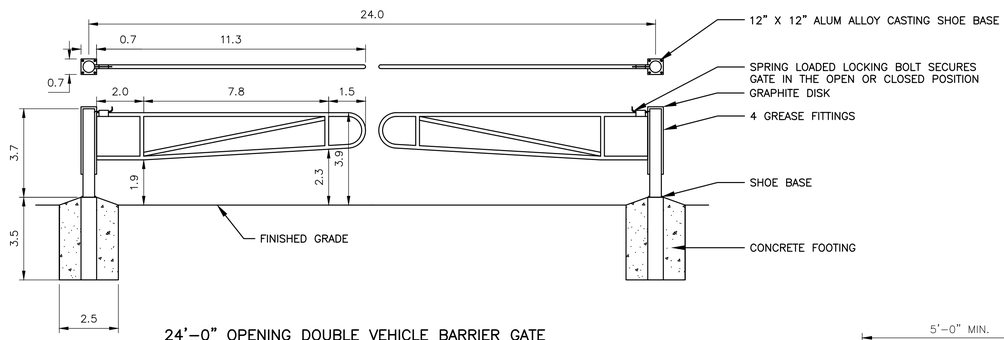
NOTE:
1.) APPLY ON ALL NEW SLOPES 3(H):1(V) AND STEEPER.

EROSION CONTROL BLANKET
DETAIL E
NOT TO SCALE

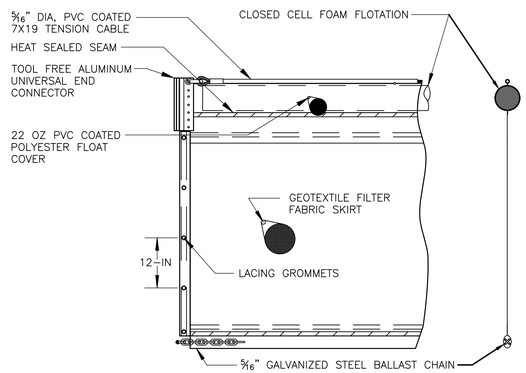


NOTES:
1. PLACE STOCKPILES AT LOCATIONS AS SHOWN ON THE SOIL EROSION AND SEDIMENT CONTROL PLAN.
2. ALL SIDE SLOPES SHALL BE 3 TO 1 OR FLATTER.
3. STOCKPILE SHALL RECEIVE A VEGETATIVE COVER IN ACCORDANCE WITH MINIMUM STABILIZATION REQ.
4. COMPOST SHALL BE INSTALLED AS DETAILED HEREON.

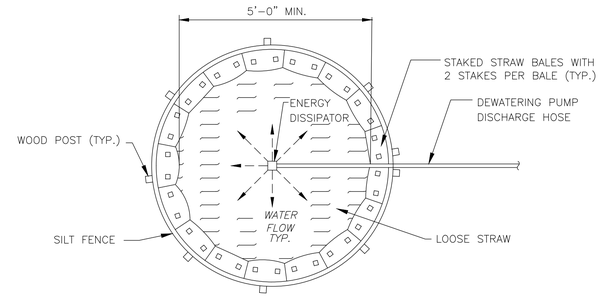
SOIL STOCKPILE
DETAIL F
NOT TO SCALE



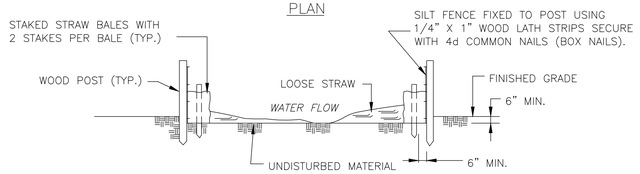
24'-0" OPENING DOUBLE VEHICLE BARRIER GATE
DETAIL G
NOT TO SCALE



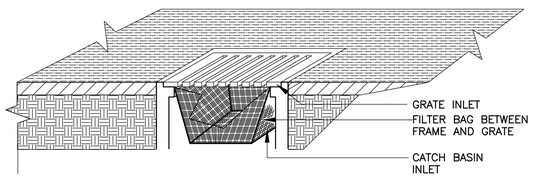
FLOATING TURBIDITY BARRIER
DETAIL I
NOT TO SCALE



PLAN



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

CIVIL DETAILS I

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

REGULATORY REVIEW SUBMITTAL - NOT FOR CONSTRUCTION

XREFs: [CDMS_2436_XSVPL000, CWP000ST, Floodway_Floodplain, AWZ001PS - 2D Process Export] Images: []
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Link to Response 3 Attachments:
https://www.bristolct.gov/DocumentCenter/View/46660/Response-3-Attachments

Response 3 – Attachments

3.A. Proposed Construction Sequence Memorandum

3.B. Drawings: C-1 and C-7; C-20, C-21, and C-22

Response 4 – Attachment

4. Drawing: C-23

XREFs: [TEST HOLE POINTS, CDMS_2436, XSVPL040, 2022-17, BORING LOCATIONS, Floodway_Floodplain] Images: []
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LIMITS OF CANAL SEDIMENT REMOVAL

WETLAND BOUNDARY

PROTECT EXISTING GATE STRUCTURE AND PIPE

REMOVE AND DISPOSE OF EXISTING CHAIN LINK FENCE AND GATES

PROTECT EXISTING PIPES

CANAL TO BE DEWATERED AS NECESSARY

CANAL TO BE DEWATERED AS REQUIRED. SEE NOTE 5

EDGE OF STREAM

D C-24 TURBIDITY CURTAIN

A C-24 TEMPORARY STABILIZED CONSTRUCTION ENTRANCE. TO BE REMOVED AT THE END OF CONSTRUCTION

TEMPORARY SEDIMENT DEWATERING AND STOCKPILING AREA

F C-27 STABILIZED POND ACCESS

I C-26 35-LF OF BANK RESTORATION

LIMITS OF POND SEDIMENT REMOVAL

EXTENTS OF CLEARING AND GRUBBING TO BE DETERMINED

TEMPORARY ALTERATION TO APPROXIMATELY 30,900 SF OF WATERS OF THE U.S.

OCTOBER 2021 SEDIMENT DEPTH LOCATION AND MEASUREMENT (TYP)

DECEMBER 2021 SEDIMENT SAMPLE LOCATION AND ESTIMATED SEDIMENT DEPTH (TYP)

J C-24 POND TO BE DEWATERED VIA THE EXISTING POND PUMPING STATION. SUPPLEMENTAL DEWATERING (AS REQUIRED) TO BE DIRECTED TO DEWATERING SEDIMENTATION BASIN.

STOPLOG AND PLUG FOR POND DEWATERING

PROTECT EXISTING 16" DI PIPE

PROTECT EXISTING SUCTION HEADER

PROVIDE STEEL PLATES TO PROTECT EXISTING CULVERT

PROTECT EXISTING PIPES

PROTECT EXISTING GATE STRUCTURE AND SUCTION PIPE

INLET SCREEN AND EQUALIZER

PROTECT EXISTING PIPE AND WALL

STOPLOG AND PLUG FOR POND DEWATERING

TURBIDITY CURTAIN

FLOODWAY

WETLAND FLAG LINE IS ORDINARY HIGH WATER

SMU-1 1 FT

SMU-2 2 FT

SMU-3 2.5 FT

SMU-4 2.5 FT

SMU-5 1 FT

SMU-6 1 FT

SMU-7 0.5 FT

SMU-8 1 FT

SMU-9 2 FT

SMU-10 AVG 4 FT MAX 7.5 FT

CANAL 1 (21.4")

CANAL 2 (7")

CANAL 3 (12")

CANAL 4 (7")

POND 1 (12")

POND 2 (13.6")

POND 3 (23.8")

POND 4 (5")

POND 5A & 5B (14.4")

POND 6A & 6B (48")

POND 7 (2")

POND 8 (7.8")

POND 9 (6.6")

POND 10 (7.4")

EXISTING WELL NO. 6

EXISTING LOWER WELLFIELD PUMPING STATION F.F.= 253.00

EXISTING POND PUMPING STATION F.F.= 253.15

Well 8 Top of Rim=249.80

Well 8-A Top of Rim=251.41

3" Dia. Well Top of Rim=250.88

BLWF-3

BLWF-6

CLP #10214

CLP #10216

CLP #10217

CLP #10218

BPS-4

BPS-5

INLET SCREEN AND GATE VALVE

12" Dia.MH Top of Frame=251.42

30"C.M.P. F.E. Inv.=247.38

30" C.M.P F.E. Inv.=247.00

20" D.I. WATER MAIN

" D.I. SUCTION HEADER

30" C.M.P F.E. Inv.=246.95

" D.I. COPPER SERVICE

6'x4' Conc. Inv=245.50

6'x4' Conc. Inv=245.60

30k Generator with Underground Conduit

16" C.I. SUCTION HEADER

" D.I. WELL CONNECTIONS

PLUGGED 16" C.I. SECTION ABANDONED

16" BUTTERFLY VALVE

MH Hatch 2'Dia. Top of Frame=258.26

MH Hatch 2'Dia. Top of Frame=252.43

MH Hatch 2'Dia. Top of Frame=252.32

Conc.Struct. with Metal Top of Grate=254.36

Gate with Bollard

Gate

Bldg.

CANAL POLE 1 15.5"

CANAL POLE 2 18.5"

CANAL POLE 3 9.75"

CANAL POLE 4 7.5"

CANAL POLE 5 0"

AREA 1A 3"

AREA 1B 13"

AREA 2A 30"

AREA 2B 17.5"

1" = 30'

NOTES:

1. APPROXIMATELY 6,000 CUBIC YARDS (IN-SITU) OF SEDIMENT MATERIAL SHALL BE REMOVED AND DISPOSED OF AT AN APPROVED LOCATION.
2. 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.
3. STABILIZED CONSTRUCTION ENTRANCES SHALL BE REMOVED UPON COMPLETION OF PROJECT. DISTURBED AREAS TO BE LOAMED AND SEEDED.
4. 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.

PLAN
1" = 30'

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: JANUARY 2024

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

SUPPLY POND AND CANAL
SEDIMENT REMOVAL PLAN

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

REGULATORY REVIEW SUBMITTAL - NOT FOR CONSTRUCTION

Link to Response 5 Attachments:
https://www.bristolct.gov/DocumentCenter/View/46664/Response-5-Attachments

Response 5 – Attachment

5. Drawings: C-1, C-6, C-7, C-8, C-13, C-14, C-14A

Link to Response 9 Attachments:
https://www.bristolct.gov/DocumentCenter/View/46661/Response-9-Attachments

Response 9 – Attachment

9. No Rise Certification

Attachment 10

10. CT DEEP Permit Need Determination

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

Link to Attachment 11:
https://www.bristolct.gov/DocumentCenter/View/46662/Response-11-Attachments

Attachment 11

11. Detailed Groundwater and Stream Flow Monitoring Plan

Attachment 12

12. Letter confirming hydrogeologic information for project site remains valid

COMPREHENSIVE
ENVIRONMENTAL
INCORPORATED

Gateway Crossing
1 Hartford Square East, Suite 227
New Britain, CT 06052
860.224.0442

April 30, 2024

Robert Flanigan, City Planner
City Hall
111 North Main Street
Bristol, CT 06010

RE: White Bridge Wellfield Improvements -Applications #2019, #2020 & #23-458F-305
Confirmation of Hydrogeologic Report

Pursuant to City Staff request Comprehensive Environmental Inc. is confirming by way of this letter that the hydrogeologic studies and report (*Hydrogeology Report of Upper and Lower White Bridge Wellfield Bristol, Connecticut* dated April 6, 2020) submitted to CT DPH for the above project site is still valid and relevant for the intended use.

Feel free to contact me with any questions or comments at 860-620-3673 or samenta@ceiengineers.com.

Sincerely,

COMPREHENSIVE ENVIRONMENTAL INC.

Sebastian A Amenta, P.E.
Northeast Program Manager

Attachment 13

13. Proposed wetlands boundary line change map

Whitebridge Wellfields
New Britain Water Department
Bristol, Connecticut

City of Bristol and CEI Wetlands
Proposed Boundary Change Map
Overall Map

1 inch equals 500 feet

0 500 1,000 1,500

Feet

Base Map Data Sources: City of Bristol

Map Date 4/30/2024

Comprehensive Environmental Incorporated

Wetland to be Created

Presumed Wetland to be Delineated

Wetland to be Filled

Presumed Wetland to be Delineated

Wetland Limits to be Delineated

Wetland Limits to be Delineated

Wetland to be Filled

Presumed Uplands to be Confirmed

Wetland to be Created

Wetland to be Filled

Wetland to be Created

Coppermine Brook

Freeman's Hill Brook

Polkville Brook

UL

UL

UL

- Wetland to be Created
- Wetland to be Filled
- Wetland Bundary CEI
- Wetland Limits to be Delineated
- Electrical Transmission Lines
- New Britain Water Dept. Property Lines
- Buildings
- Parcels
- Contour interval 2 ft.
- Rivers, Streams
- Lakes, Ponds
- City of Bristol Wetlands
- Presumed Wetlands to be Delineated
- UL Presumed Uplands to be Confirmed

V:\Connecticut_GIS\Bristol\Bristol Upper & Lower Wellfields\Bristol Upper & Lower Wellfields_3.aprx

Link to Attachment 14:
https://www.bristolct.gov/DocumentCenter/View/46663/Response-14-Attachments

Attachment 14

14. Resumes of Engineers and Soil Scientist

NORTH CENTRAL CONSERVATION DISTRICT, INC.
AVON ▪ BLOOMFIELD ▪ BOLTON ▪ BRISTOL ▪ BURLINGTON ▪ CANTON ▪ COVENTRY ▪ EAST GRANBY ▪ EAST WINDSOR ▪ EAST HARTFORD ▪ ELLINGTON
ENFIELD ▪ FARMINGTON ▪ GLASTONBURY ▪ GRANBY ▪ HARTFORD ▪ MANCHESTER ▪ PLAINVILLE ▪ SIMSBURY ▪ SOMERS ▪ SOUTH WINDSOR
STAFFORD ▪ SUFFIELD ▪ WEST HARTFORD ▪ WETHERSFIELD ▪ TOLLAND ▪ VERNON ▪ WILLINGTON ▪ WINDSOR ▪ WINDSOR LOCKS

Date: March 28, 2024

To: Nancy Levesque, Bristol City Engineer
Bristol Inland Wetlands and Watercourses Commission

From: Covill, Natural Resources Specialist
Joanna Shapiro, Executive Director

Re: Review of Wetland Application, New Britain Water

****

This review is limited to a desktop review of the wetland application and related materials, with general recommendations based on the proposed activities. A site walk and wetland boundary review were not completed within the given timeframe.

If the Commission still deems it necessary following their site walk, a limited wetland boundary review can be performed before a subsequent meeting. Based on the size of the site and time limitations, a field review of all wetland boundaries on site by our staff is not feasible, but rather the Commission can direct the District to specific areas they feel require further review.

Background

District staff reviewed the 10-sheet site plan entitled "White Bridge Waterworks Facilities Upper and Lower Wellfields and Pond Pumping Station" prepared by CDM Smith dated December 2022, as well as Attachment 3, "Project Drawings" and Attachment 4, "Floodway and Flood Fringe Encroachment Areas" (hereto forth referred to as "the Plans"). Staff also reviewed the materials submitted for applications #23-458F-305, #2019 and #2020 along with previous meeting minutes, relevant imagery, topographic, soil, and other maps.

The Plans propose construction of a new single building to house surface water pumping facilities with space for future groundwater treatment facilities, well replacement at Lower and Upper Wellfields, dewatering and sediment removal from the existing pond and canal, new utility connections, culvert replacement, paving an existing gravel access road, and associated work to ultimately bring an aging facility up to current requirements. In order to become a potable water supply, any new wells must be located 50 feet from any water bodies or wetland limits per CT Department of Public Health requirements. The wells must be raised 2' above the one-hundred-year flood elevation. Due to these requirements, existing wells cannot be used and the new wells are proposed. Wetland resources are proposed to be filled in order to comply with these DPH regulations. Wetland replication, replacement, and enhancements are proposed to mitigate or offset the loss of these wetland areas, and compensatory flood storage areas are proposed to offset the activities which may raise the flood elevation, per FEMA requirements.

Comments/Recommendations

Withdrawals/Flow Calculations

Discussion on the record has included concern related to groundwater withdrawals. While groundwater withdrawals are regulated by CT DEEP and are not explicitly in the purview of the Inland Wetlands and Watercourses Commission, they may be considered if the Commission has reason to believe that such withdrawal may impact wetlands or watercourses. Review of aquifer withdrawals, resiliency, and recharge, and their impacts to wetlands and watercourses are outside the area of expertise of the North Central Conservation District.

- The Commission may request additional information from the applicant or intervenor regarding the potential impact of withdrawals on wetlands and watercourses, including their functions and values, if deemed a concern of the Commission necessary to render a decision and/or to rule on the claims of the petition to intervene.
- If additional information from the applicant or intervenor is deemed insufficient to make these rulings, the Town may consider further 3rd party review from a hydrogeologist or similarly qualified individual or firm, to review the proposed withdrawals from the aquifer as it pertains to impacts to the wetlands and watercourses in the project area.

In the comments submitted by Rivers Alliance on February 5th, 2024, they note that for diversions registered prior to 1983, registrants have rights to divert the amount of water originally registered in perpetuity, and that they were never and are not currently subject to any environmental review.

- Recommend that the Town request information from the applicant and CT DEEP on the accuracy of this statement, and whether any environmental review or impact analysis has ever been completed for this project location.

In Application #2020, the applicant states in the Additional Comments/Information section, "No flow calculations are provided due to zero impact as a result of the proposed work".

- If the Commission has concerns about potential wetland/watercourse impacts related to potential flow alteration as a result of this application, recommend requesting flow calculations from the applicant to determine the average and seasonal flows of the brook, the average and/or seasonal withdrawals proposed, and any historical withdrawal information the applicant can provide.
- Recommend that the Commission require the applicant to develop an action plan to be submitted to and approved by the Commission, outlining under which circumstances withdrawals would be limited or stopped to ensure adequate flows, both for the benefit of future withdrawals and to reduce or prevent negative impacts to wetlands, watercourses, and dependent flora and fauna. To develop this action plan, recommend that the applicant use historical flow data from stream gauges or similar methods, predicted future flow calculations, and average rainfall data, contrasted with proposed withdrawal amounts and frequencies. This action plan can be required as part of the application, or this can potentially be a condition of approval of a Wetland Permit.

Functions and Values Assessment

Functions and values were assessed within the applicant's soil scientist's report, and replication/replacement of wetlands is proposed. However, it was not made clear in the application materials or the meeting minutes whether those functions and values of the existing wetlands will be preserved or replicated.

- Recommend that the Commission request testimony from the project soil scientist regarding whether functions and values assessed for existing wetlands will be preserved and/or replicated through proposed wetland replications, replacements, or enhancements.

Alternatives Analysis

Per section 10.3 of the Bristol Inland Wetlands and Watercourses Regulations, "In the case of an application which received a public hearing pursuant to a finding by the Inland Wetlands Agency that the proposed activity may have a significant impact on wetlands or watercourses, a permit shall not be issued unless the Agency finds on the basis of the record that a feasible and prudent alternative does not exist. In making the finding, the Agency shall consider the facts and circumstances set forth in subsection 10.2. The finding and the reasons therefore shall be stated on the record in writing". Section 10.2 outlines the considerations for assessment by the Commission of Prudent and Feasible alternatives.

- While alternatives assessments were discussed upon the record of the March 4, 2024 meeting minutes, the District recommends that the Commissioners review Sections 10.2 and 10.3 of the Bristol Inland Wetlands and Watercourses Regulations, and state upon the record in their decision whether alternatives were adequately assessed to the extent required by the regulations.

Thank you for the opportunity to comment.

HYDROGEOLOGIC STUDY

UPPER AND LOWER WHITE BRIDGE WELL FIELDS CITY OF NEW BRITAIN WATER DEPTARTMENT AND MIX STREET WELL FIELD (WELLS 3, 4, &5) CITY OF BRISTOL WATER DEPARTMENT

PREPARED FOR:

CITY OF NEW BRITAIN WATER DEPARTMENT AND CITY OF BRISTOL WATER DEPARTMENT

DECEMBER 2007

Prepared by:

LENARD ENGINEERING, INC.

CIVIL, ENVIRONMENTAL & HYDROGEOLOGICAL CONSULTANTS

1768 STORRS ROAD, P.O. BOX 580

STORRS, CT 06268-0580

Executive Summary

In accordance with Level "A" Mapping Regulations, Lenard Engineering, Inc. (LEI) conducted a Level "A" study of The City of New Britain's Lower White Bridge and Upper White Bridge, and The City Bristol's Mix Street well fields, the purpose of delineating the aquifer protection area. The White Bridge Upper well field consists of six well points which travel to a common pump station in the Upper well field. The White Bridge Lower well field consists of 17 gravel packed wells and a caisson well. All of the Lower well field well points travel to a common pump station located in the Lower well field. The Mix Street well field consists of three gravel packed wells (#3, #4, and #5).

Prior to initiating the Level "A" study, LEI prepared a Plan for Data Collection detailing the methodologies to be used during the aquifer testing and ground water modeling portions of the study. The Plan for Data Collection was submitted to and subsequently approved by the DEP.

Between October 21 and October 24, 2004, LEI conducted a 3 day aquifer parameter pump test on the New Britain Upper White Bridge well field. New Britain's Upper White Bridge well field was pumped at 400 gpm. During this test, Bristol's Mix Street well field was pumped at 850 gpm, and New Britain's Lower White Bridge and surface water pumping station (the pond station) were turned off during this pumping test.

Between November 1 and November 8, 2004, LEI conducted a 7 day induced infiltration pump test of the New Britain Upper and Lower White Bridge well fields and on Bristol's Mix Street well field. New Britain's Upper White Bridge and Lower White Bridge well fields were pumped at 400 gpm and 600 gpm, respectively. While, Bristol's Mix Street well field was pumped at 1,240 gpm. New Britain's White Bridge surface water pumping station (the pond station) was turned off during the pumping test.

The above information was reduced, and input to create a 3-D aquifer model. Waterloo Hydrogeologic, Inc. Visual Modflow Version 4.1 software was used to create a 3-D model of the aquifer. The information collected from the pump tests conducted in the fall of 2004 was used to create and calibrate the aquifer model for transient flow conditions. Ground water and surface water elevations and stream flows were entered, and the model calibrated to Level "A" aquifer mapping standards. A sensitivity analysis was conducted on the resulting data.

To verify the accuracy of our aquifer model two previous pump tests were simulated.

The first verification test was a pump test conducted by LEI between June 24 and June 27, 2002, simultaneously pumping the New Britain Upper and Lower White Bridge well field, and the White Bridge surface water pumping station (the pond station). New Britain's Upper White Bridge well field, Lower White Bridge well field and Lower White Bridge pond station were pumped at 600 gpm, 400 gpm and 5.0 MGD, respectively.

White Bridge pond station were pumped at 600 gpm, 400 gpm and 5.0 MGD, respectively.

The second verification test was a pump test conducted by the Center for Engineering between September 11, 1992 and September 18, 1992, pumping the Bristol Mix Street well field well field.

The calibrated model was then used to delineate the aquifer protection area to the well fields. A steady state aquifer model simulation was created using fifty percent duration stream flow rates and mean annual recharge rates for the drainage basin. During the steady state simulation it was determined that the aquifer could not support the maximum registered diversions of the New Britain Upper White Bridge, New Britain Lower White Bridge and Bristol Mix Street well fields. Lenard Engineering, Inc., the City of New Britain Water Department and the City of Bristol Water Department agreed upon pumping rates which would best suit the needs of both water departments. Based on this it was determined to model the aquifer using the maximum pumping rates of the New Britain Upper White Bridge, New Britain Lower White Bridge and Bristol Mix Street well fields as follows:

New Britain Upper White Bridge well field: 840 gpm

New Britain Lower White Bridge well field: 2,190 gpm

Bristol Mix Street well field: 900 gpm

Using these pumping rates, a particle tracking simulation was applied to the aquifer model and groundwater contours were generated. The particle tracking simulation helped to delineate the area of contributions and the groundwater contours were used to determine the recharge areas of the well fields. Based upon these results **Figures 1-3** were generated which depict the area of contributions, recharge areas and indirect recharge areas within a 5 mile radius of the well fields.

Link to Application #2020

Letters, Emails & Correspondence:

https://www.bristolct.gov/DocumentCenter/View/46561/App-2020-Correspondence-Extracted

COMPREHENSIVE
ENVIRONMENTAL
INCORPORATED

www.ceiengineers.com

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 Amstrong, 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.

CT DEEP Letter

May 6, 2022

Connecticut Department of
ENERGY &
ENVIRONMENTAL
PROTECTION

79 Elm Street • Hartford, CT 06106-5127 www.ct.gov/deep Affirmative Action/Equal Opportunity Employer

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

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

Connecticut
Department of Economic and Community Development
State Historic Preservation Office
450 Columbus Boulevard, Suite 5 | Hartford, CT 06103 | 860.500.2300 | ct.gov/historic-preservation

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

Jonathan Kinney — Date

~~Deputy~~ State Historic Preservation Officer

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

Connecticut
Department of Economic and Community Development
State Historic Preservation Office
450 Columbus Boulevard, Suite 5 | Hartford, CT 06103 | 860.500.2300 | DECD.org

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.

Upper Wellfield Pumping Station

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

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.

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.

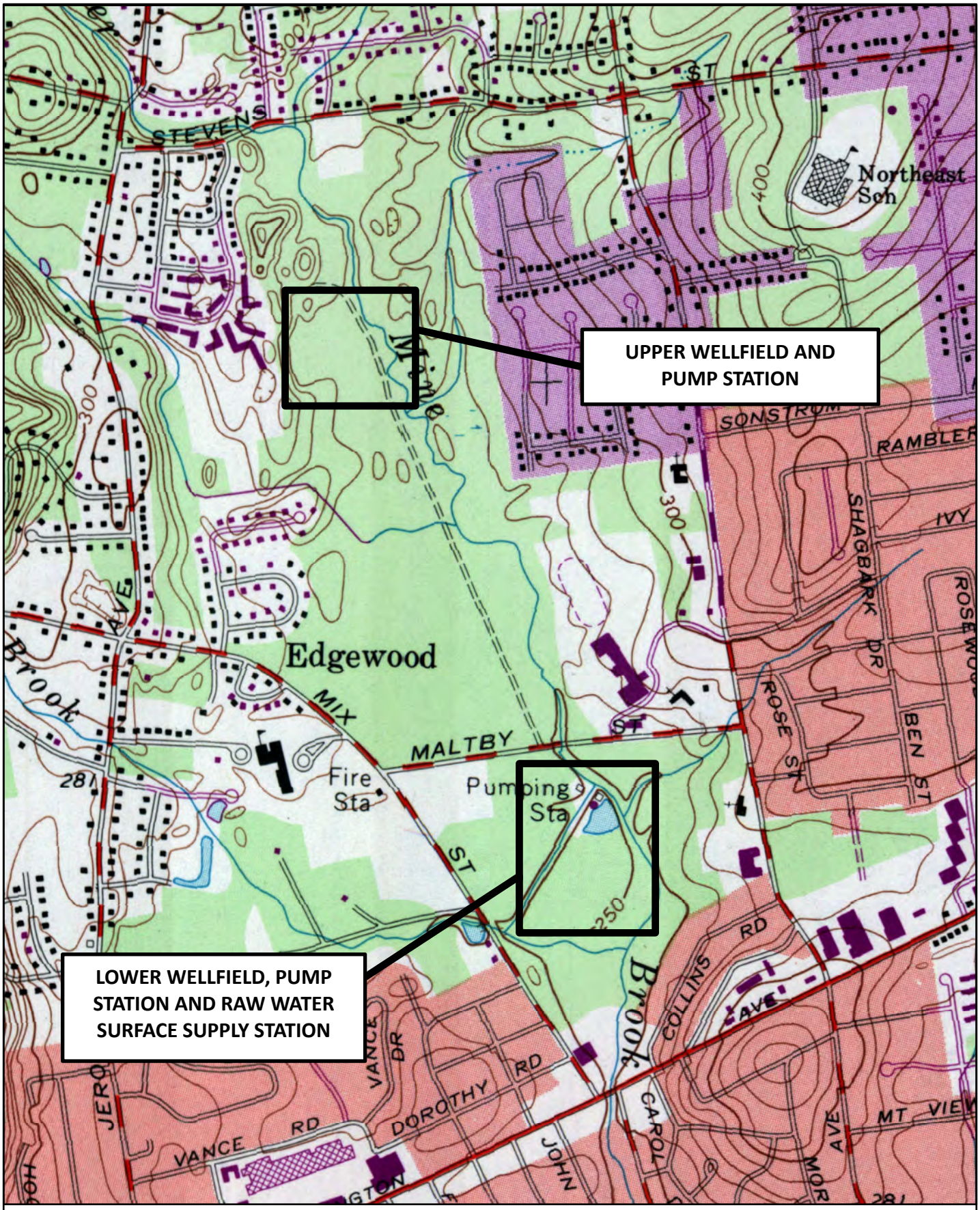
Very truly yours,

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.



1 in = 1,000 ft

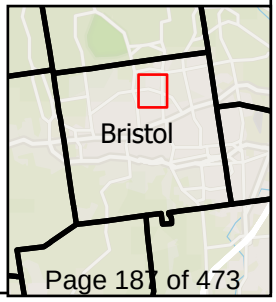
0 500 1,000 1,500 2,000 Feet

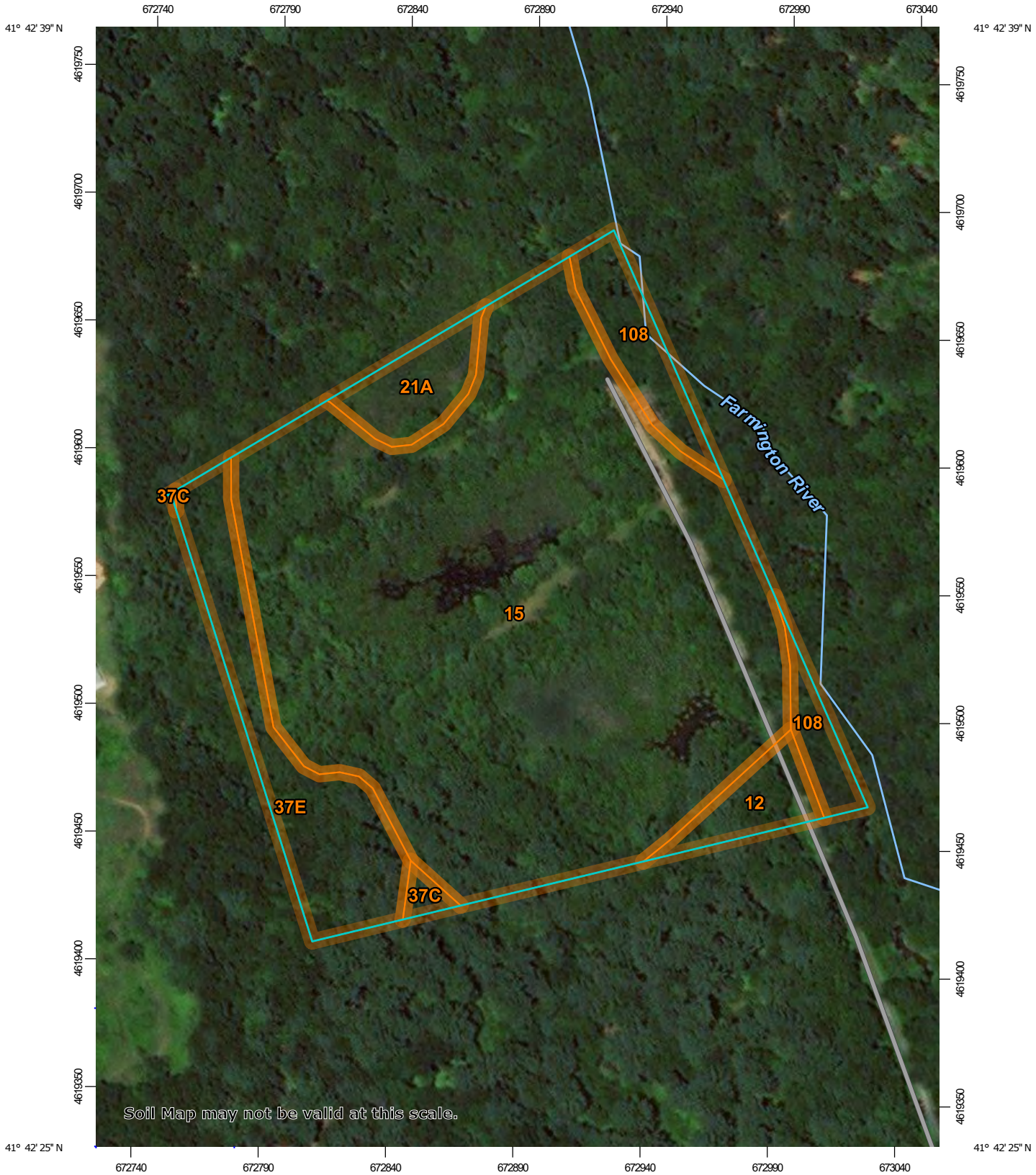
CDM Smith

N

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

April 2020





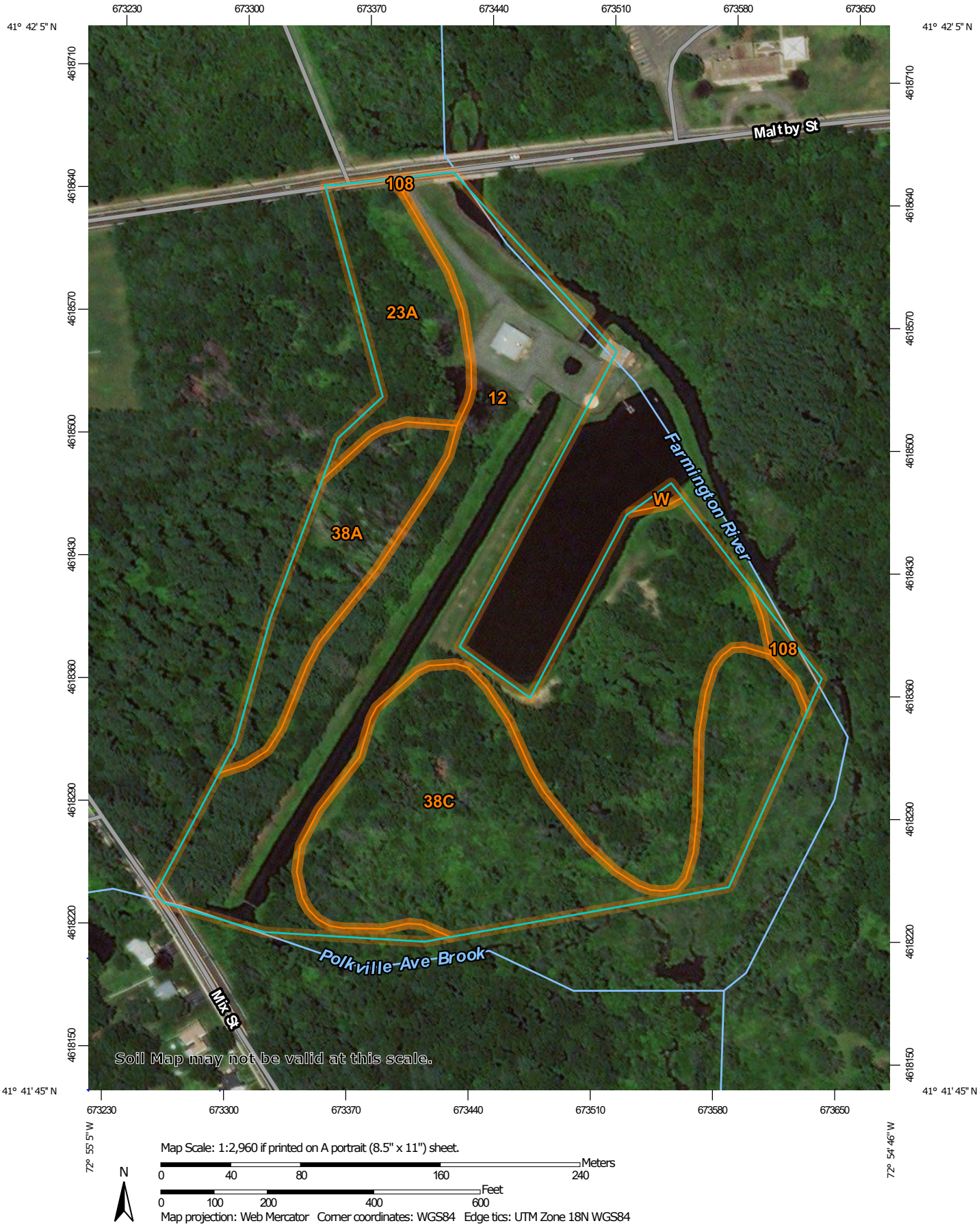
Map Scale: 1:2,140 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 30 60 120 180

Feet: 0 100 200 400 600

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 18N WGS84



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N

Meters
0 40 80 160 240

Feet
0 100 200 400 600

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 18N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

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

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

Water Features
- Streams and Canals

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

Background
- Aerial Photography

MAP INFORMATION

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

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%**

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

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

SHEET NO.
C-2

30% SUBMITTAL - NOT FOR CONSTRUCTION

XREFs: [CDMS_2436, CYPWP001, XSVPL000, CWP000ST, Floodway_Floodplain, AWZ001PS - 2D Process Export] Images: [Base Image]
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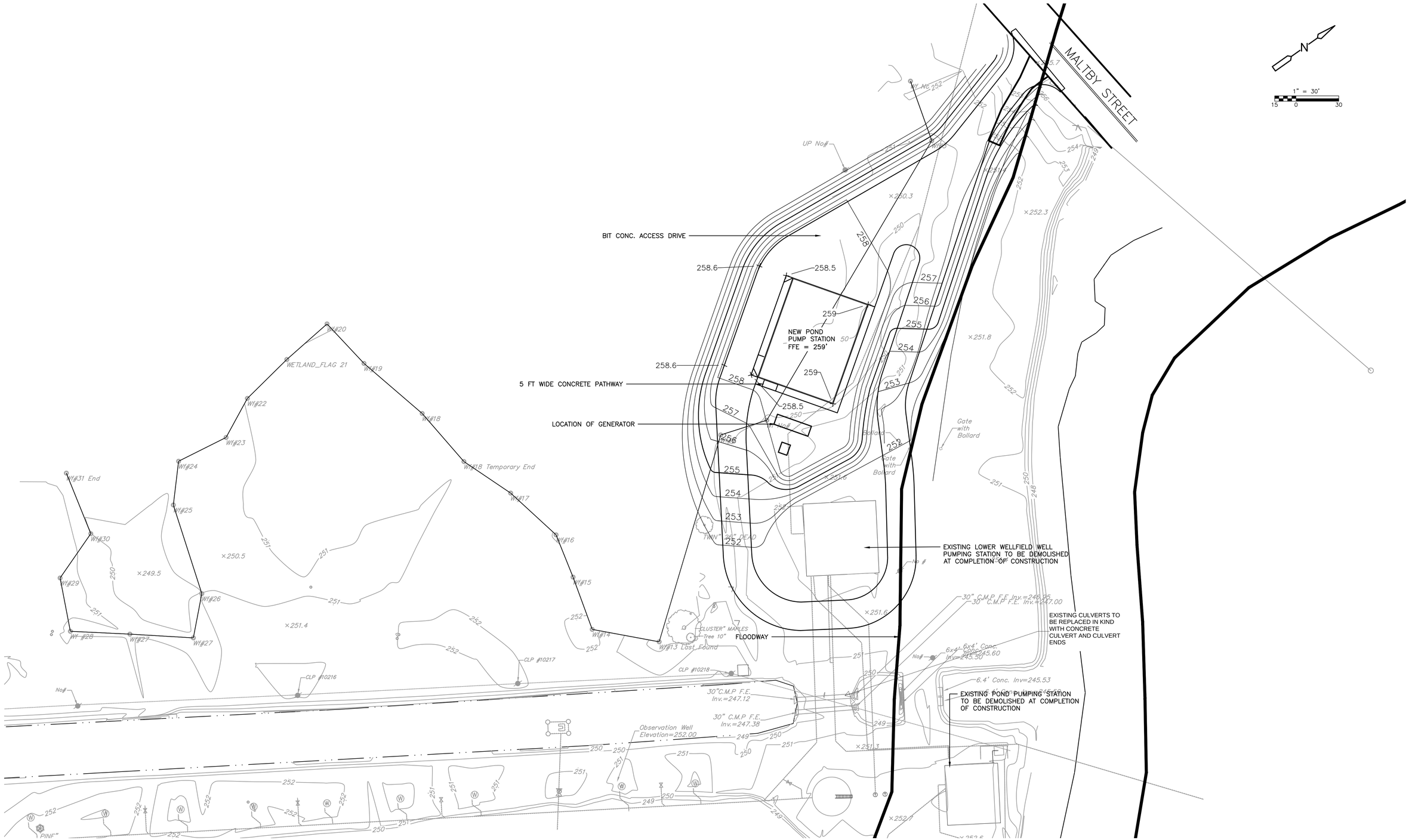

REV. NO.	DATE	DRWN	CHKD	REMARKS

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

POND PUMPING STATION
SITE PLAN & GRADING

PROJECT NO. 10739-264571
FILE NAME: C005GDPL.DWG
SHEET NO.
C-5

30% SUBMITTAL - NOT FOR CONSTRUCTION

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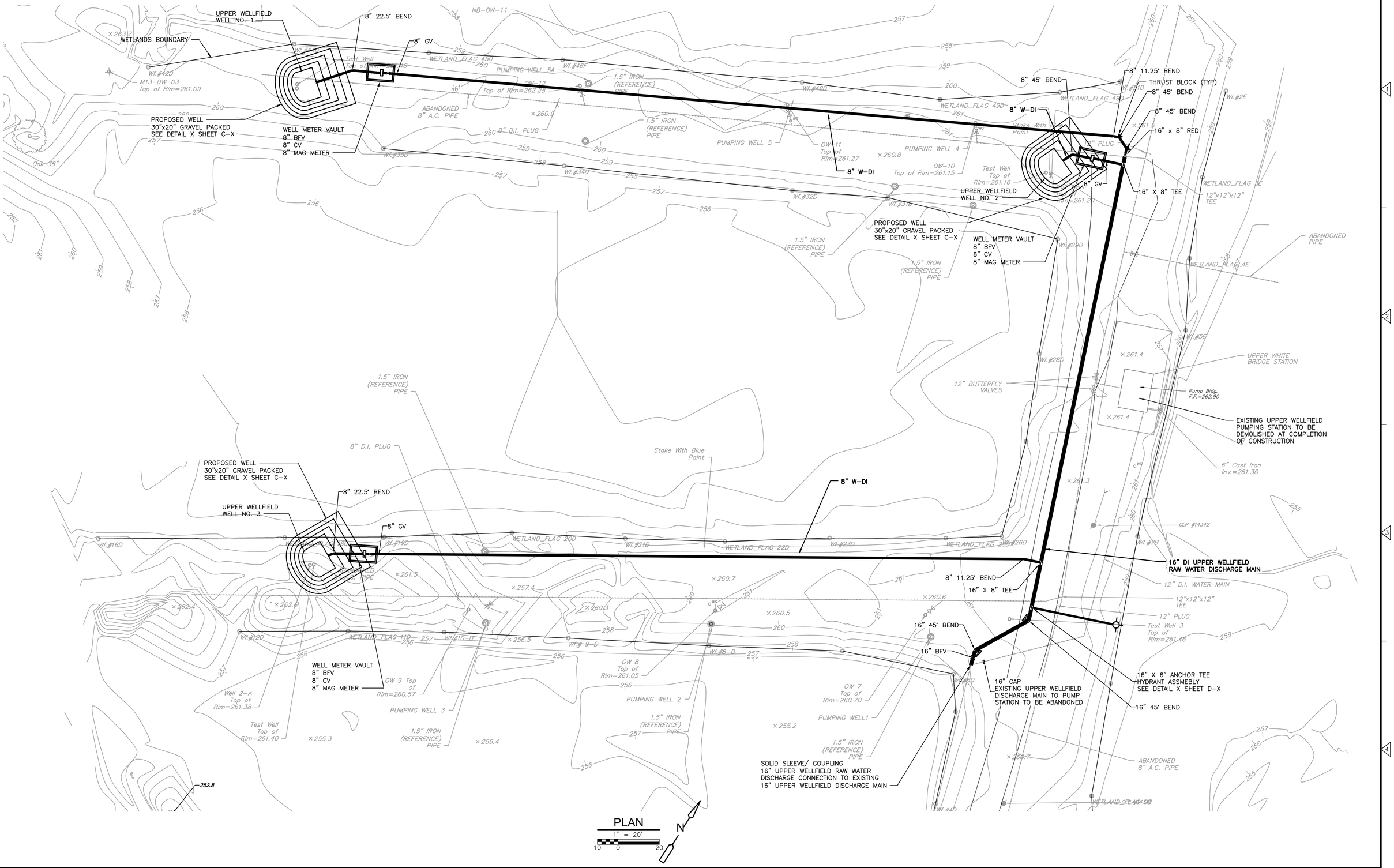

REV. NO.	DATE	DRWN	CHKD	REMARKS

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

UPPER WELLFIELD YARD PIPING PLAN

PROJECT NO. 10739-264571
FILE NAME: C006YPPL.DWG

SHEET NO.
C-6

30% SUBMITTAL - NOT FOR CONSTRUCTION

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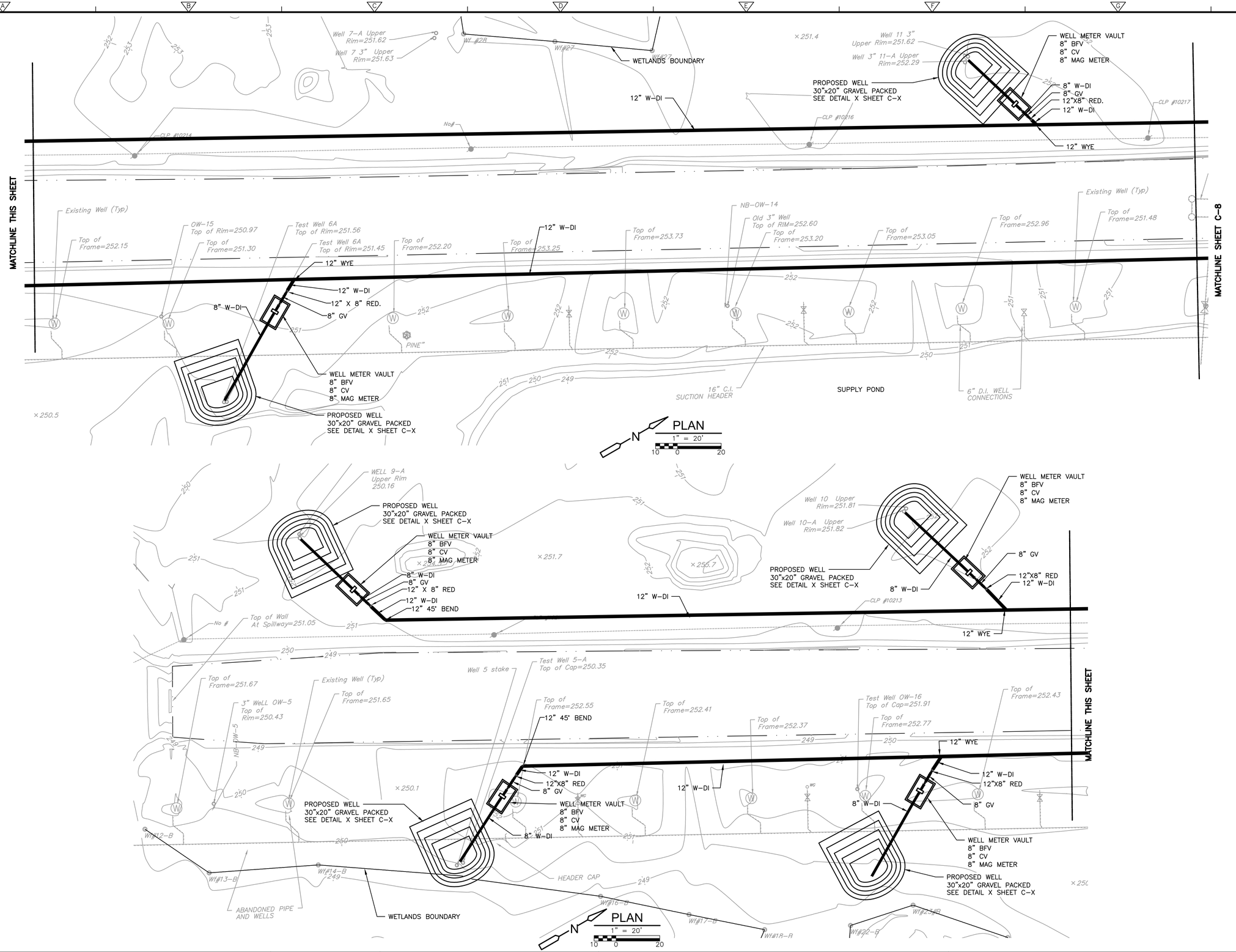

REV. NO.	DATE	DRWN	CHKD	REMARKS

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

PROJECT NO. 10739-264571
FILE NAME: C007YPPL.DWG
SHEET NO.
C-7

MATCHLINE SHEET C-7

SUPPLY POND

12" Dia.MH Top of Frame=251.42

INLET SCREEN AND GATE VALVE

NB-OW-13

Observation Well Elevation=252.00

Top of Frame=252.12

Top of Frame=252.61

Wt#16

Wt#15

Wt#14

Wt#13 Last Found

Well 8-A Top of Rim=251.41

Well 8 Top of Rim=249.80

CLUSTER MAPLES Tree 10"

CL Wt#10218

TWIN 26" DEAD

Wt#9

Wt No#

12" X 6" TEE HYDRANT ASSEMBLY (SEE DETAIL X SHEET D-X)

EXISTING CAISSON WELL AND PIPING TO BE ABANDONED

PLUGGED 16" C.I. SECTION ABANDONED

16" BUTTERFLY VALVE

MH Hatch 2'Dia. Top of Frame=258.26

12" W-DI

12" GV

12" 90° BEND

EXISTING CAISSON WELL

20" X 12" RED.

20" X 12" TEE

12" W-DI 30" C.M.P F.E. Inv.=247.12

30" C.M.P F.E. Inv.=247.38

12" X 6" TEE HYDRANT ASSEMBLY (SEE DETAIL X SHEET D-X)

20"X16" RED TEE

20" BFV

20" 45° BEND

20" 45° BEND

30" 45° BEND

30" RAW POND WATER INTAKE

20" LOWER WELLFIELD RAW WATER DISCHARGE MAIN

20" 22.5° BEND

20" BFV

30" 22.5° BEND

30" BFV

30" 90° BEND

30" X 16" TEE (3)

30" W-DI

16" WATER MAIN

PROPOSED POND PUMPING STATION FF=258.00

EXISTING LOWER WELLFIELD PUMPING STATION FF=253.00 (TO BE DEMOLISHED AT COMPLETION OF CONSTRUCTION)

24" 45° BEND

24" 45° BEND

24" 22.5° BEND

FUTURE LOWER WELLFIELD FINISHED WATER CHLORINE CONTACT TIME PIPE LOOP

Gate with Bollard

BOLLARD (TYP)

16" 45° BEND

Conc.Structure with Metal Grate Top of Grate=252.36

EXISTING INTAKE STRUCTURE TO BE REHABILITATED (SEE SHEET C-X)

Top Concrete Wall At Inlet=251.95

INLET SCREEN AND EQUALIZER

30" 45° BEND

30" BFV

30" 11.25° BEND

30" TEE AND COUPLING

16" PIPE ABOVE 30" AND 20" PIPES

30" 45° BEND

LOWER WELLFIELD RAW WATER METER VAULT
16" GATE VALVE (2)
16" MAG METER

LOWER WELLFIELD BACKFLOW PREVENTION VAULT
16" GATE VALVE (2)
16" RPD

20" TEE CONNECT TO EXISTING 20" WATER MAIN WITH COUPLINGS

20"BFV

36" 45° BEND

36" 22.5° BEND

THRUST BLOCK (TYP ALL BENDS)

36" 45° BEND

36" X 6" TEE HYDRANT ASSEMBLY SEE DETAIL X SHEET D-X

36" 45° BEND

36" BFV

36" BFV

EXISTING POND PUMPING STATION FF=253.15 (TO BE DEMOLISHED AT COMPLETION OF CONSTRUCTION)

20" D.I. WATER MAIN

1" COPPER

24" BFV

24" 45° BEND

20" PIPE ABOVE 24" PIPE

36" X 16" TEE

6x4' Conc. Inv=245.50

36" X 16" TEE

16" D.I. 16" BFV SUCTION HEADER

ABANDONED PIPES

36" X 24" RED

16" 45° BEND

16" 45° BEND

16" 22.5° BEND

6x4' Conc. Inv=245.60

6.4' Conc. Inv=245.53

6.4' Conc. Inv.=245.50

30" C.M.P F.E. Inv.=246.95

30" C.M.P F.E. Inv.=247.00

COUPLINGS AT BOTH ENDS OF TEMPORARY CONNECTION DURING PHASING, TO BE MODIFIED AT COMPLETION OF NEW PUMPING STATION

MH Hatch 2'Dia. Top of Frame=252.32

MH Hatch 2'Dia. Top of Frame=252.43

36" WYE

30k Generator with Underground Conduit

EXISTING CULVERTS TO BE REPLACED IN KIND WITH CONCRETE CULVERT AND CULVERT ENDS

30" PUMPED POND WATER

20" LOWER WELLFIELD (POTABLE) WATER MAIN

UPPER WELLFIELD RAW WATER METER VAULT
16" GATE VALVE (2)
16" MAG METER

16" UPPER WELLFIELD RAW WATER DISCHARGE

TEMPORARY CONNECTION DURING PHASING, TO BE MODIFIED AT COMPLETION OF NEW PUMP STATION

EXISTING 20" TO BE CLEANED AND DISINFECTED BEFORE CONVERTED TO FINISHED MAIN

PLAN
1" = 20'
10 0 20

N

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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

POND PUMPING STATION YARD PIPING PLAN

PROJECT NO. 10739-264571
FILE NAME: C008YPPL.DWG

SHEET NO.
C-8

30% SUBMITTAL - NOT FOR CONSTRUCTION

Whitesbridge Wellfields
New Britain Water Department
Bristol, Connecticut

Existing and Proposed Test Wells and Stream Gauges
Overall Map

1 inch equals 500 feet

0 500 1,000 1,500
Feet

Base Map Data Sources: City of Bristol

Map Date 12/9/2022

Comprehensive Environmental Incorporated

Well #1
Well #2
Well #3
Well #4
Well #5
Well #6
BWD-3
BWD-4
BWD-5
Install water level monitor
Alternate water level monitor

City of Bristol Pumping Wells BWD-3, 4 and 5 will each be outfitted with a data logger.

- Existing Production Well
- Existing Monitoring Well
- Proposed Monitoring Well
- Proposed Stream Gauge and Piezometer
- Data Logger
- Redevelop
- Redevelop if possible
- Redevelop/Data Logger
- Cross Sections
- Wetland boundary 2022
- Contours (1 ft.)
- Buildings
- Parcels
- New Britain Water Dept. Property Lines
- Rivers, Streams
- Lakes, Ponds

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.

Ashley G. David

ASHLEY G DAVID
Notary Public, State of Connecticut
My Commission Expires Jan. 31, 2025

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

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

1:20,000

0 500 1,000 2,000 ft

0 210 420 840 m

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

USGS

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	
	Control Soil Detachment	Preserve and Conserve Existing Site Resources	Protect Vegetation	Tree Protection	TP
Disturbed Areas			Preserve and Conserve Soil	Topsoiling	TO
	Raindrop Splash			Land Grading	LG
				Surface Roughening	SR
Short or Shallow Slopes	Sheet & Rill Erosion	Protect Surface	Vegetative Soil Cover	Dust Control	DC
				Temporary Seeding	TS
	Wind Erosion			Permanent Seeding	PS
				Sodding	SO
				Landscape Planting	LP
Steep Slopes			Non-Living Soil Protection	Temporary Soil Protection	TSP
				Mulch for Seed	MS
				Landscape Mulch	LM
Long Slopes				Temporary Erosion Control Blanket	ECB
				Permanent Turf Reinforcement Mat	TRM
				Stone Slope Protection	SSP
Stockpile Areas		Protect Surface and/or Convey Runoff	Stabilization Structures	Retaining Walls	RW
				Riprap	RR
	Control Water Movement			Gabions	G
Borrow Areas				Permanent Slope Drain	PSD
	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
Wetlands and Watercourses				Temporary Stream Crossing	TSC
		Direct Runoff	Diversions	Temporary Fill Berm	TFB
				Water Bar	WB
				Temporary Diversion	TD
Waterbodies				Permanent Diversion	PD
		Intercept Grnd.Water	Subsurface Drains	Subsurface Drain	SD
		Detain Runoff	Detention Structures	Detention Basin	DB
Areas of Flooding and Existing Erosion	Natural Resource Degradation	Diffuse Runoff	Energy Dissipators	Level Spreader	LS
				Outlet Protection	OP
				Stone Check Dam	SCD
	Control Sediment Deposition	Detain Sediments	Sediment Impoundments, Barriers, and Filters	Temporary Sediment Basin	SB
				Temporary Sediment Trap	TST
Drainage Outlets				Hay Bale Barrier	HB
	Protect Onsite and Offsite Areas			Geotextile Silt Fence	GSF
				Turbidity Curtain	TC
				Vegetative Filter	VF
Travel Areas		Control Mechanically Moved Waters and Soils	Tire Tracked Soils Dewatering	Construction Entrance	CE
				Pump Intake and Outlet Protection	PuP
				Pumping Settling Basin	PSB
				Portable Sediment Tank	PST
Dewatering				Dewatering of Earth Materials	DWM

LINK TO PROJECT PLAN SET:

https://www.bristolct.gov/DocumentCenter/View/44645/202-Plan-Set-Extracted

ATTACHMENT 3

PROJECT DRAWINGS

ATTACHMENT 4

PROPERTY MAP

Whitesbridge Wellfields
New Britain Water Department
Bristol, Connecticut

Wetlands Replacement and Compensatory Flood Storage Overall Map

1 inch equals 500 feet

0 500 1,000 1,500

Feet

Base Map Data Sources: City of Bristol

Map Date 12/8/2022

Comprehensive Environmental Incorporated

For details see Sheet WC-1

For details see Sheet WC-2

For details see Sheet WC-3

For details see Sheet WC-4

Proposed Wetland and Compensatory Flood Storage Areas

Wetland boundary 2022

Contours (1 ft.)

Buildings

Parcels

New Britain Water Dept. Property Lines

Rivers, Streams

Lakes, Ponds

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 2/24/2023

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

UPPER WELLFIELD

Proposed Wells

LOWER WELLFIELD

New Pond Pumping Station

Possible Gravel Source

Proposed Wells

Legend

- New Production Well

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

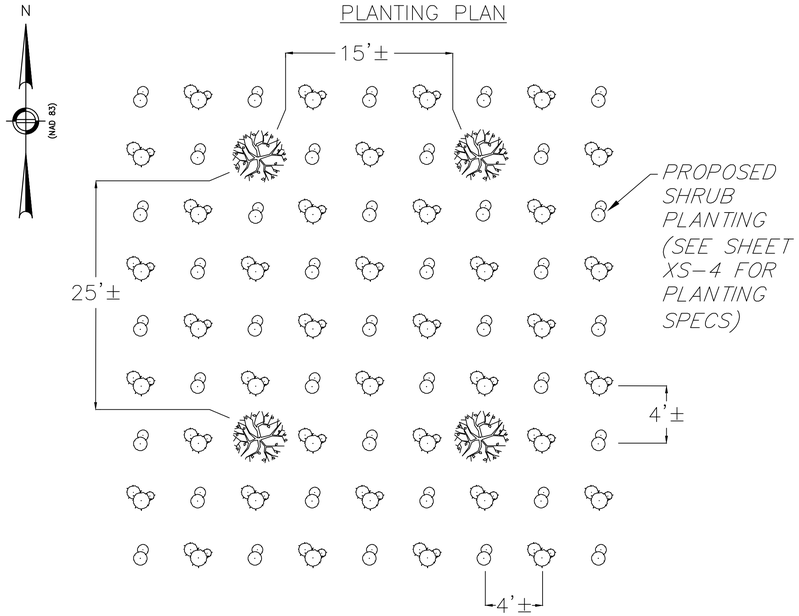
ABUTTING PROPERTY OWNERS

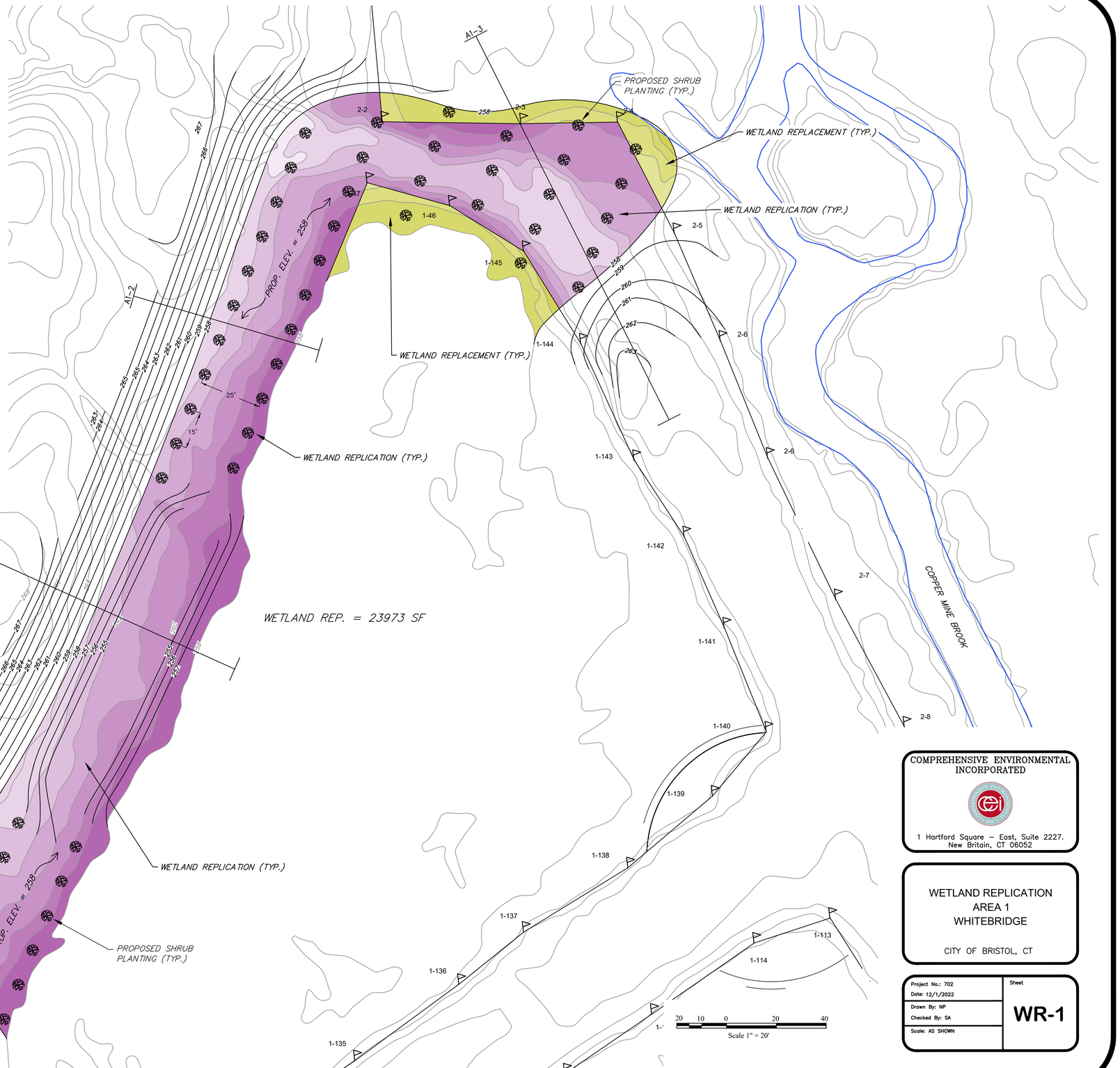
Parcel ID	MAP	BLOCK	LOT	UNIT	OWNER_NAME	LOCATION	MUNI	ACRES	ZONING	LAND_USE	COMMNT	MAIL_ADDR	MAIL_CITY	MAIL_STATE	MAIL_ZIP
49-11A	49		11A		FRINGE HAIR SALON LLC	884 STAFFORD AVE	BRISTOL		0.52 R-15	Retail		1253 BURLINGTON AVE	BRISTOL	CT	06010
49-11A1+10	49		11A1+10		STAFFORD COMMONS LLC	916 STAFFORD AVE	BRISTOL		1.33 BN	Nbhd Ctr		200 SUMMER ST	BRISTOL	CT	06010
51-1	51		1		OBRIEN CRYSTAL +	3 STEVENS ST	BRISTOL		0.72 R-15	Single Family		3 STEVENS ST	BRISTOL	CT	06010
51-1	51		1		ROSHON RICHARD	106 CANDY LA	BRISTOL		0.35 R-15	Single Family		106 CANDY LA	BRISTOL	CT	06010
51-1	51		1		BENGTSON JANICE	155 STEVENS ST	BRISTOL		0.39 R-15	Single Family		155 STEVENS ST	BRISTOL	CT	06010
51-1	51		1		HARRIS REBECCA C	6 RICHARD CT	BRISTOL		0.54 R-15	Single Family		6 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		DONAROMA 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 + AMANDA 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	CT	06019
51-3BB-1	51		3BB-1		COMBS CAMERON	167 STEVENS ST	BRISTOL		0.35 R-15	Single Family		167 STEVENS ST	BRISTOL	CT	06010
51-4	51		4		REBISZ JERZY + 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		MCLOUGHLIN WILLIAM G + GRACE	72 RICHARD CT	BRISTOL		0.49 R-15	Single Family		72 RICHARD CT	BRISTOL	CT	06010
52-015-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		0.36 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		DEHLIO SHERI L	45 WOODYBROOK RD	BRISTOL		0.46 R-15	Single Family		45 WOODYBROOK RD	BRISTOL	CT	06010
52-10					CURRENT OWNER	76 JEFFERSON AVE	BRISTOL		0.32						
52-11	52		11		MORELLI MICHAEL T + MICHELLE L	35 WOODYBROOK RD	BRISTOL		0.46 R-15	Single Family		35 WOODYBROOK RD	BRISTOL	CT	06010
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
52-11-2	52		11-2		ST ANDREW EVANGELICAL LUTHERAN	1125 STAFFORD AVE	BRISTOL		10 R-40	Church 94		1125 STAFFORD AVE	BRISTOL	CT	06010
52-12	52		12		ASADOW JESSE	25 WOODYBROOK RD	BRISTOL		0.46 R-15	Single Family		25 WOODYBROOK RD	BRISTOL	CT	06010
52-13	52		13		MADDEN ALLEN E AND CATHERINE M	15 WOODYBROOK RD	BRISTOL		0.46 R-15	Single Family		15 WOODYBROOK RD	BRISTOL	CT	06010
52-14	52		14		RUSHTON SUSAN M	5 WOODYBROOK RD	BRISTOL		0.44 R-15	Single Family		5 WOODYBROOK 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 15A--2	52	15A 15A	-2		SCHNEIDER ERNEST W JR	198 STEVENS ST	BRISTOL		0.39 R-15	Single Family	MERGED BY USE IN ORDER TO MATCH ASSESSOR RECORDS	198 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		BILODEAU DAVID R	214 STEVENS ST	BRISTOL		0.28 R-15	Single Family		214 STEVENS ST	BRISTOL	CT	06010
52-15-C	52		15-C		WASSIK 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		0.63 R-15	Single Family		84 WOODHAVEN RD	BRISTOL	CT	06010
52-17	52		17		JABS STEVEN P + SHARON M	64 WOODHAVEN RD	BRISTOL		0.71 R-15	Single Family		64 WOODHAVEN RD	BRISTOL	CT	06010
52-17	52		17		ZYGIEL 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 +	614 JEROME AVE	BRISTOL		0.46 R-15	Single Family		614 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		BUCHAS JOSEPH 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		BAJURNY BARBARA L	692 JEROME AVE	BRISTOL		0.5 R-15	Single Family		692 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 + RIOS ELYCIA L	588 JEROME AVE	BRISTOL		0.52 R-15	Single Family		588 JEROME AVE	BRISTOL	CT	06010
52-17-4	52		17-4		HATHCOCK CHARLES + MARSHA L SURV	598 JEROME AVE	BRISTOL		0.48 R-15	Single Family		598 JEROME AVE	BRISTOL	CT	06010
52-17-5	52		17-5		LOMBARDI 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 + KASIE L	644 JEROME AVE	BRISTOL		0.42 R-15	Single Family		644 JEROME AVE	BRISTOL	CT	06010
52-17-7	52		17-7		KIRSCHNER JAMES R +	606 JEROME AVE	BRISTOL		0.76 R-15	Single Family		606 JEROME AVE	BRISTOL	CT	06010
52-17-8	52		17-8		PALMISANO CORY JAMES + ABRAMS EDEN P +	746 JEROME AVE	BRISTOL		0.5 R-15	Single Family		746 JEROME AVE	BRISTOL	CT	06010
52-17-9	52		17-9		LOMBARDI ANTHONY G + MARCIA M SURV	JEROME AVE	BRISTOL		0.7 R-15	Vacant Land		682 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		MURELLI SUSAN A	656 JEROME AVE	BRISTOL		0.48 R-15	Single Family		656 JEROME AVE	BRISTOL	CT	06010
52-18	52		18		HICK JENNIFER J	56 WOODHAVEN RD	BRISTOL		0.72 R-15	Single Family		56 WOODHAVEN RD	BRISTOL	CT	06010
52-18	52		18		BURGOS LILLIAN F	562 JEROME AVE	BRISTOL		0.41 R-15	Single Family		562 JEROME AVE	BRISTOL	CT	06010
52-18	52		18		MICUCCI BARBARA	15 TIMBER LA	BRISTOL		0.36 R-15	Single Family		84 EVELYN RD	FORESTVILLE	CT	06010
52-18A	52		18A		568 JEROME AVE LLC	568 JEROME AVE	BRISTOL		0.41 R-15	Retail		133 CHESTNUT RD	NEWINGTON	CT	06111
52-19	52		19		MCDONOUGH JEFFREY T + MARCIA B SURV	48 WOODHAVEN RD	BRISTOL		0.83 R-15	Single Family		48 WOODHAVEN RD	BRISTOL	CT	06010
52-19	52		19		SUTULA DANIEL P	135 DEBRA LA	BRISTOL		0.31 R-15	Single Family		135 DEBRA LA	BRISTOL	CT	06010
52-2	52		2		GIANNINNI JOHN D JR	35 TIMBER LA	BRISTOL		0.35 R-15	Single Family		35 TIMBER LA	BRISTOL	CT	06010
52-20	52		20		MARINAK SAM J	42 WOODHAVEN RD	BRISTOL		0.62 R-15	Single Family		42 WOODHAVEN RD	BRISTOL	CT	06010
52-20	52		20		SLEDZIONA BRIAN J + JENNIFER J	44 STEVENS ST	BRISTOL		0.28 R-10	Single Family		44 STEVENS ST	BRISTOL	CT	06010
52-21	52		21		NORMOYLE 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 IV	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 MARIE B	6 SHAWN DR	BRISTOL		0.32 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 + TAMARA	60 STEVENS ST	BRISTOL		0.32 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		DECARLO 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	8 LOCHAVEN RD	BRISTOL		0.34 R-15	Single Family		8 LOCHAVEN RD	BRISTOL	CT	06010
52-5	52		5		ANGELILLO DAVID + MOTTA SAMANTHA JOINT T	65 TIMBER LA	BRISTOL		0.34 R-15	Single Family		65 TIMBER LA	BRISTOL	CT	06010
52-53	52		53		HARRINGTON CAROLE D	5 BRIDGEPORT AVE	BRISTOL		0.33 R-15	Single Family		5 BRIDGEPORT AVE	BRISTOL	CT	06010
52-54	52		54		CLARK IDA + TODD R	13 BRIDGEPORT AVE	BRISTOL		0.29 R-15	SFR w/Acc Apt		13 BRIDGEPORT AVE	BRISTOL	CT	06010
52-55	52		55		RAVITA JOSEPH + ELIZABETH W TRUSTEES U/T	21 BRIDGEPORT AVE	BRISTOL		0.29 R-15	Single Family		21 BRIDGEPORT AVE	BRISTOL	CT	06010
52-56	52		56		CISTULLI 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		OAKES PAUL 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		NIMAN JEFFREY + RAYMOND M SURV	55 BRIDGEPORT AVE	BRISTOL		0.28 R-15	Single Family		55 BRIDGEPORT AVE	BRISTOL	CT	06010
52-6	52		6		ANDERSON DAVID G + SHARON L SURV	75 TIMBER LA	BRISTOL		0.34 R-15	Single Family		75 TIMBER LA	BRISTOL	CT	06010
52-60	52		60		AUDIBERT DERNICE	67 BRIDGEPORT AVE	BRISTOL		0.31 R-15	Single Family		67 BRIDGEPORT AVE	BRISTOL	CT	06010
52-60	52		60		COPPERMINE HOUSING ASSOCIATES LLC	135 SHAWN DR	BRISTOL		7.1 A	Apartments		2 CENTER PLAZA SUITE 7(	BOSTON	MA	02108
52-6-1	52		6	1	CURRENT OWNER	130 JEFFERSON AVE #1	BRISTOL		0 A	Condo Res.					
52-6-2				2	CURRENT OWNER	130 JEFFERSON AVE #2	BRISTOL		0						
52-6-3				3	CURRENT OWNER	130 JEFFERSON AVE #3	BRISTOL		0						
52-6-4				4	CURRENT OWNER	130 JEFFERSON AVE #4	BRISTOL		0						
52-65	52		65		KARVOSKI STEPHEN C + JANE K SURV	102 DANBURY LA	BRISTOL		0.27 R-15	Single Family		102 DANBURY LA	BRISTOL	CT	06010
52-6-5				5	CURRENT OWNER	130 JEFFERSON AVE #5	BRISTOL		0						
52-66	52		66		LESTORTI KEITH A + GAIL W SURV	92 DANBURY LA	BRISTOL		0.28 R-15	Single Family		92 DANBURY LA	BRISTOL	CT	06010
52-6-6				6	CURRENT OWNER	130 JEFFERSON AVE #6	BRISTOL		0						
52-67	52		67		FIORAVANTI STEPHANIE	84 DANBURY LA	BRISTOL		0.28 R-15	Single Family		84 DANBURY LA	BRISTOL	CT	06010
52-6-7				7	CURRENT OWNER	130 JEFFERSON AVE #7	BRISTOL		0						
52-68	52		68		PICARD ANNA MAE	76 DANBURY LA	BRISTOL		0.29 R-15	Single Family		76 DANBURY LA	BRISTOL	CT	06010
52-6-8				8	CURRENT OWNER	130 JEFFERSON AVE #8	BRISTOL		0						
52-69	52		69		MILLER ELEANOR	68 DANBURY LA	BRISTOL		0.31 R-15	Single Family		68 DANBURY LA	BRISTOL	CT	06010
52-7	52		7		WINIARCZYK IZABELA H + MAREK SURV	64 WOODYBROOK RD	BRISTOL		0.43 R-15	Single Family		64 WOODYBROOK RD	BRISTOL	CT	06010
52-70	52		70		ARELMICHAEL A AND	62 DANBURY LA	BRISTOL		0.33 R-15	Single Family		62 DANBURY LA	BRISTOL	CT	06010
52-71	52		71		AYOTTE ALYSON M	54 DANBURY LA	BRISTOL		0.34 R-15	Single Family		54 DANBURY LA	BRISTOL	CT	06010
52-72	52		72		THOMPSON EVERETT TRUSTEE	48 DANBURY LA	BRISTOL		0.34 R-15	Single Family		5 TOWN HILL RD	TERRYVILLE	CT	06786
52-73	52		73		ROY PAULINE D LIFE USE + ALLAIRE S O TR	40 DANBURY LA	BRISTOL		0.35 R-15	Single Family		40 DANBURY LA	BRISTOL	CT	06010
52-74	52		74		OREN BRUCE S SR	34 DANBURY LA	BRISTOL		0.37 R-15	Single Family		34 DANBURY LA	BRISTOL	CT	06010
52-75	52		75		LEVESQUE THOMAS	26 DANBURY LA	BRISTOL		0.36 R-15	Single Family		26 DANBURY LA	BRISTOL	CT	06010
52-76	52		76		BELIVEAU CATHY + CAFORA BARBARA	20 DANBURY LA	BRISTOL		0.36 R-15	Single Family		P O BOX 2052	BRISTOL	CT	06011-2052
52-76	52		76		KISZKA JOSEPH STANISLAW +	99 SHAWN DR	BRISTOL		0.32 A	3 Family		69 COPE FARMS RD	FARMINGTON	CT	06032
52-77	52		77		COUCH SUSAN	12 DANBURY LA	BRISTOL		0.35 R-15	Single Family		12 DANBURY LA	BRISTOL	CT	06010
52-77	52		77		THOMPSON RALPH + JUDITH JNT TENANTS	89 SHAWN DR	BRISTOL		0.32 A	Two Family		91 SHAWN DR	BRISTOL	CT	06010
52-78	52		78		LAMAR THOMAS W + LAURA J SURV	4 DANBURY LA	BRISTOL		0.36 R-15	Single Family		4 DANBURY LA	BRISTOL	CT	06010
52-78	52		78		BILOSZ MATTHEW R	81 SHAWN DR	BRISTOL		0.32 A	3 Family		PO BOX 343	BRISTOL	CT	06011-0343
52-79	52		79		MCGINLEY JAMES V +	2 DANBURY LA	BRISTOL		0.28 R-15	Single Family		2 DANBURY LA	BRISTOL	CT	06010
52-79	52		79		WELLS FARGO BANK NA	73 SHAWN DR	BRISTOL		0.33 R-10	3 Family		7495 NEW HORIZON WAY	FREDERICK	MD	21701
52-8	52		8		DIMAURO SALVATORE + LYNELL	65 WOODYBROOK RD	BRISTOL		0.37 R-15	Single Family		65 WOODYBROOK RD	BRISTOL	CT	06010
52-80	52		80		LEON-SOLANO MARIA	65 SHAWN DR	BRISTOL		0.32 R-10	Single Family		65 SHAWN DR	BRISTOL	CT	06010
52-80	52		80		DICKENS ZACHARY P	1 DANBURY LA	BRISTOL		0.29 R-15	Single Family		1 DANBURY LA	BRISTOL	CT	06010
52-81	52		81		FARINEAU ARTHUR J	57 SHAWN DR	BRISTOL		0.31 R-10	Single Family		57 SHAWN DR	BRISTOL	CT	06010
52-82	52		82		PLEWA KATHY K	49 SHAWN DR	BRISTOL		0.28 R-10	Single Family		49 SHAWN DR	BRISTOL	CT	06010
52-83	52		83		DOTY ROBERT THOMAS + FRANCES C	37 SHAWN DR	BRISTOL		0.28 R-10	Single Family		37 SHAWN DR	BRISTOL	CT	06010
52-84	52		84		COLEMAN LESLIE M	25 SHAWN DR	BRISTOL		0.29 R-10	Single Family		25 SHAWN DR	BRISTOL	CT	06010
52-9	52		9		LAMBO VICTORIA E	55 WOODYBROOK RD	BRISTOL		0.46 R-15	Single Family		55 WOODYBROOK RD	BRISTOL	CT	06010
53-100+101	53		100+101		PECHILLIS WANDA A LIFE USE +	49 MIX ST	BRISTOL		0.48 R-10	Single Family		49 MIX ST	BRISTOL	CT	06010
53-102+103	53		102+103		MARTINEZ CATALINA A	59 MIX ST	BRISTOL		0.54 R-10	Single Family		59 MIX ST	BRISTOL	CT	06010
53-118	53		118		SOUCY JOSEPH F	75 MIX ST	BRISTOL		0.35 R-10	Single Family		75 MIX ST	BRISTOL	CT	06010
53-119-1	53		119-1		PUSHKAREWICZ MONIKA M + KAMELA MAREK	85 MIX ST	BRISTOL		0.35 R-10	Single Family		136 W MAIN ST	HEBRON	CT	06248
53-120-1	53		120-1		POROWSKI ANTONI + IRENA SURV	95 MIX ST	BRISTOL		0.35 R-10	Single Family		95 MIX ST	BRISTOL	CT	06010
53-126-3	53		126-3		KNOX DOUGLAS C +	111 MIX ST	BRISTOL		0.28 R-10	Single Family		111 MIX ST	BRISTOL	CT	06010
53-126-4	53		126-4		SLATE JOHN R + JANET A	123 MIX ST	BRISTOL		0.26 R-10	Single Family		123 MIX ST	BRISTOL	CT	06010
53-127A	53		127A		OLESAK PAUL K + LINDA L SURV	135 MIX ST	BRISTOL		0.7 R-10	Single Family		135 MIX ST	BRISTOL	CT	06010
53-127B	53		127B		GENOVA CHERISH L + MARK L	147 MIX ST	BRISTOL		1.13 R-10	Single Family		147 MIX ST	BRISTOL	CT	06010
53-140	53		140		CITY OF BRISTOL	345 MIX ST	BRISTOL		16.5 R-40	Education 96		111 NORTH MAIN ST	BRISTOL	CT	06010
53-140-1	53		140-1		CITY OF BRISTOL	285 MIX ST	BRISTOL		0.57 R-40	Fire Vol		111 NORTH MAIN ST	BRISTOL	CT	06010
53-140-A	53		140-A		LITTLE LEAGUE BASEBALL INC	301 MIX ST	BRISTOL		17.1 R-40	Charitable 96		P O BOX 3485	WILLIAMSPORT	PA	17701
53-141	53		141		CITY OF BRISTOL	181 MIX ST	BRISTOL		25.6 R-40	Municipal 94		111 NORTH MAIN ST	BRISTOL	CT	06010
53-145-1	53		145-1		JN 305 LLC + JN 474 LLC	871 FARMINGTON AVE	BRISTOL		2.9 BG	Shopping Ctr		1263 EAST 21ST ST	BROOKLYN	NY	11210
53-145-2	53		145-2		CITY OF BRISTOL THE	MIX ST	BRISTOL		5.7 R-40	Public Utility Lnd	CHANGED ACCOUNT TYPE FROM MISMATCH TO SINGLE	111 NORTH MAIN ST	BRISTOL	CT	06010
53-147-1	53		147-1		MISSIONARY SOCIETY OF THE DIOCES	851 STAFFORD AVE	BRISTOL		2.04 R-15	Church 94	PORTION OF THIS LOT CUT AND GIVEN TO ACCT 0044628	851 STAFFORD AVE	BRISTOL	CT	06010
53-147-2	53		147-2		DELFINO WILLIAM + DELFINO KAREN +	815 STAFFORD AVE	BRISTOL		2.61 A	Apartments	PORTION OF ACCT 0242993 CUT AND GIVEN TO THIS LOT	785 MIDDLE ST	BRISTOL	CT	06010
53-148	53		148		HARTFORD RC DIOCESAN CORP	1001 STAFFORD AVE	BRISTOL		30.4 R-40	Church School		STAFFORD AVE	BRISTOL	CT	06010
53-148-2	53		148-2		HARTFORD ROMAN CATHOLIC DIOCESAN CORP.	235 MALTBY ST	BRISTOL		6.5 R-40	Church 94		235 MALTBY ST	BRISTOL	CT	06010
53-2	53		2		LAVIGNE SONIA M + WILLIAM E SURV	435 MIX ST	BRISTOL		0.3 R-15	Single Family		435 MIX ST	BRISTOL	CT	06010
53-3	53		3		MACRI NUNZIO + GISELDA SURV	417 MIX ST	BRISTOL		0.26 R-15	Single Family		417 MIX STREET	BRISTOL	CT	06010
53-4	53		4		MELANSON DANIEL J +	405 MIX ST	BRISTOL		0.29 R-15	Single Family		405 MIX ST	BRISTOL	CT	06010
53-41+42	53		41+42		BROOKSIDE MEDICAL OFFICES LLC	25 COLLINS RD	BRISTOL		1.66 BG	Prof Bldg		PO BOX 3255	BRISTOL	CT	06010
53-45A	53		45A		COE RONALD V + LOWANZA O	43 COLLINS RD	BRISTOL		0.19 R-10	Single Family		43 COLLINS RD	BRISTOL	CT	06010
53-46	53		46		SPAULDING RANDY P + CAROL A JNT TENANTS	49 COLLINS RD	BRISTOL		0.56 R-10	Single Family		49 COLLINS RD	BRISTOL	CT	06010
53-47	53		47		CUMMINGS CHARLES A JR + DOMENICA C	57 COLLINS RD	BRISTOL		0.67 R-10	Single Family		57 COLLINS RD	BRISTOL	CT	06010
53-48	53		48		COLBURN LINDA A	65 COLLINS RD	BRISTOL		0.68 R-10	Single Family		65 COLLINS ROAD	BRISTOL	CT	06010
53-49	53		49		MANZO ANGELO + CATHERINE E SURV	71 COLLINS RD	BRISTOL		0.7 R-10	Single Family		71 COLLINS RD	BRISTOL	CT	06010
53-50	53		50		PERRY THOMAS	COLLINS RD	BRISTOL		1.25 R-10	Vacant Land		77 COLLINS RD	BRISTOL	CT	06010
53-54A	53		54A		MORIN ADRIEN JR + MORIN DONNA	103 COLLINS RD	BRISTOL		0.35 R-10	Single Family		103 COLLINS RD	BRISTOL	CT	06010
53-55A	53		55A		CURTISS CLAUDIA	111 COLLINS RD	BRISTOL		0.33 R-10	Single Family	PARCEL LINE ADJUSTED TO CORRECT ORIGINAL GIS DIGITIZING	111 COLLINS RD	BRISTOL	CT	06010
53-56A	53		56A		VERARDI JOSEPH	117 COLLINS RD	BRISTOL		0.27 R-10	Single Family	PARCEL LINE ADJUSTED TO CORRECT ORIGINAL GIS DIGITIZING	117 COLLINS RD	BRISTOL	CT	06010
53-57	53		57		DEVOID STEVEN	125 COLLINS RD	BRISTOL		0.2 R-10	Single Family	PARCEL LINE ADJUSTED TO CORRECT ORIGINAL GIS DIGITIZING	125 COLLINS RD	BRISTOL	CT	06010
53-58	53		58		PAWLICKI MARK J	131 COLLINS RD	BRISTOL		0.2 R-10	Single Family	PARCEL LINE ADJUSTED TO CORRECT ORIGINAL GIS DIGITIZING	131 COLLINS RD	BRISTOL	CT	06010
53-59	53		59		DEGROS JOYCE	139 COLLINS RD	BRISTOL		0.2 R-10	Single Family	PARCEL LINE ADJUSTED TO CORRECT ORIGINAL GIS DIGITIZING	139 COLLINS RD	BRISTOL	CT	06010
53-6	53		6		GRANT EDDIE W + JOSIE M SURV	397 MIX ST	BRISTOL		0.28 R-15	Single Family		581 CROWN ST #48	MERIDEN	CT	06450-6440
53-60	53		60		LUSSIER BARRY +	145 COLLINS RD	BRISTOL		0.2 R-10	Single Family	PARCEL LINE ADJUSTED TO CORRECT ORIGINAL GIS DIGITIZING	145 COLLINS RD	BRISTOL	CT	06010
53-61	53		61		COVALESKI FRANCES H	153 COLLINS RD	BRISTOL		0.22 R-10	Single Family	PARCEL LINE ADJUSTED TO CORRECT ORIGINAL GIS DIGITIZING	153 COLLINS RD	BRISTOL	CT	06010
53-7	53		7		ROBERTS SHARI +	387 MIX ST	BRISTOL		0.3 R-15	Single Family		387 MIX ST	BRISTOL	CT	06010
56-37 REAR	56		37 REAR		NEAULT LEAH BOUCHER	733 JEROME AVE	BRISTOL		0.75 R-15	Single Family		733 JEROME AVE	BRISTOL	CT	06010
56-37A	56		37A		BOUCHER-NEAULT LEAH	717 JEROME AVE	BRISTOL		0.23 R-15	Single Family		717 JEROME AVE	BRISTOL	CT	06010
56-37A-1	56		37A-1		BOUCHER TERRY DONALD	721 JEROME AVE	BRISTOL		1.27 R-15	Single Family		733 JEROME AVENUE	BRISTOL	CT	06010
56-37A-1A	56		37A-1A		BARBIERI JAMES W JR +	735 JEROME AVE	BRISTOL		1.6 R-15	Single Family		735 JEROME AVE	BRISTOL	CT	06010
56-5	56		5		COTE

ATTACHMENT 5

WETLAND REPLICATION AREAS

PLANTING PLAN





COMPREHENSIVE ENVIRONMENTAL INCORPORATED

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

WETLAND REPLICATION
AREA 1
WHITEBRIDGE

CITY OF BRISTOL, CT

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

N

(NAD 83)

PROPOSED SHRUB PLANTING (TYP.)

WETLAND REPLACEMENT (TYP.)

PROPOSED 257 WETLAND REP. = 3989 SF

WETLAND REPLICATION (TYP.)

WETLAND REPLACEMENT (TYP.)

PROPOSED SHRUB PLANTING (TYP.)

PROPOSED 256 WETLAND REP. = 2008 SF

WETLAND REPLICATION (TYP.)

PROPOSED SHRUB PLANTING (TYP.)

PROPOSED 257 WETLAND REP. = 3057 SF

WETLAND REPLACEMENT (TYP.)

WETLAND REPLICATION (TYP.)

Scale 1" = 20'

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	Sheet
Drawn By: NP Checked By: SA	WR-2
Scale: AS SHOWN	

N

(NAD 83)

PROPOSED 247 WETLAND REP. = 31146 SF

PROP. ELEV. = 258

PROPOSED SHRUB PLANTING (TYP.)

WETLAND REPLICATION (TYP.)

25'

15'

M-1

COPPER MINE BROOK

P/L

Scale 1" = 20'

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 Date: 12/1/2022	Sheet
Drawn By: NP Checked By: SA	WR-3
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

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: [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: [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

REVISED

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

ORIGINAL

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.

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

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 Contour	Fill Volume C.F.		Cut Contour	Cut 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 Contour	Fill Volume C.F.		Cut Contour	Cut Volume C.F.	Net C.F.	Complying Quantity Reference Sheet	UWF Total Needed (C.F.)
256	2,257		256	0	2,257	CS-1/2	2,257
257	3,806		257	0	3,806	CS-1/2	3,806
258	5,733		258	0	5,733	CS-1/2	5,733
259	2,045		259	0	2,045	CS-1/2	2,045
					13,840 Fill C.F.		

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'.

Lower Wellfield

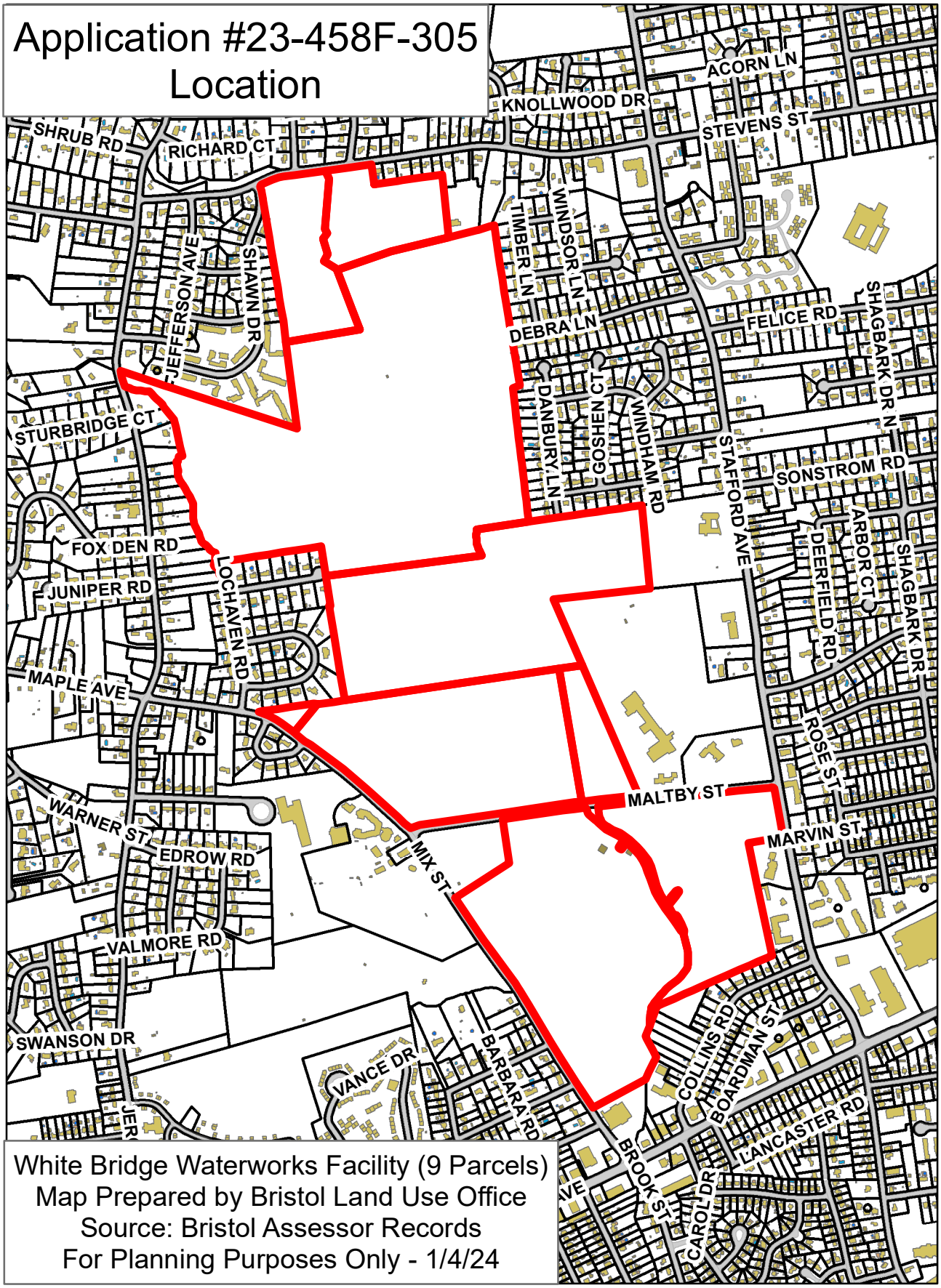
Fill Contour	Fill Volume C.F.		Cut Contour	Cut Volume C.F.	Net C.F.	Complying Quantity Reference Sheet	LWF Total Needed Including Pumping Station (C.F.)
248	914		248	0	914	CS-4	914
249	3,932		249	0	3,932	CS-4	3,932
250	0		250	0	0	CS-4	8,622
251	0		251	112	-112	CS-4	17,019
252	6,011		252	635	5,376	CS-3/4	30,951
253	4,374		253	416	3,958	CS-3/4	28,132
254	2,994		254	324	2,670	CS-3/4	24,268
255	1,859		255	251	1,609	CS-1/3/4	20,873
256	991		256	151	840	CS-3/4	17,908
257	0		257	107	-107	CS-3/4	10,204
					19,077 Fill C.F.		

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.

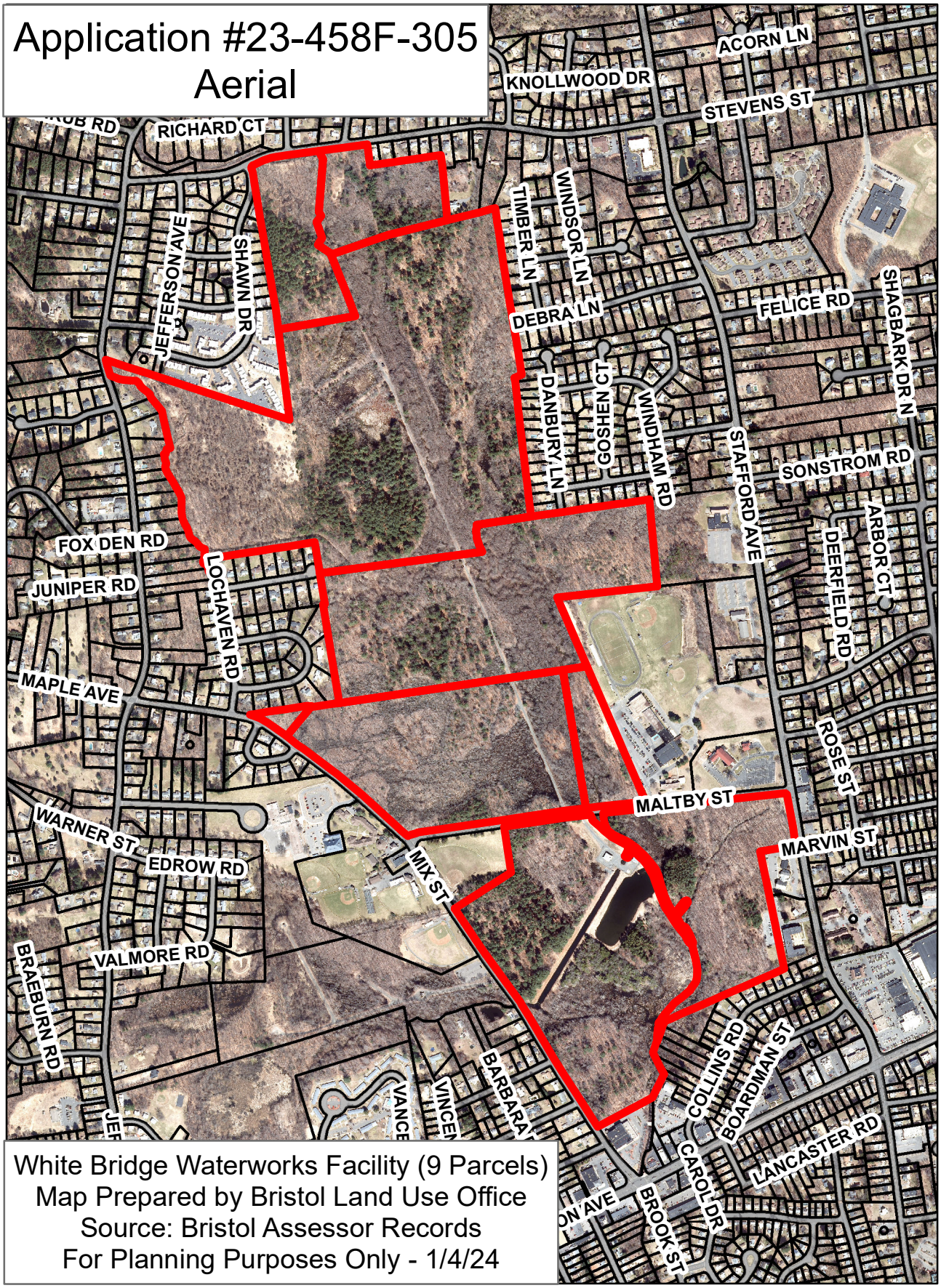
Total Project Fill	176,662 Fill C.F.	Total Project CS	383,335 C.F. Storage
	6,543 Fill C.Y.		14,198 C.Y. Storage

Application #23-458F-305 Location



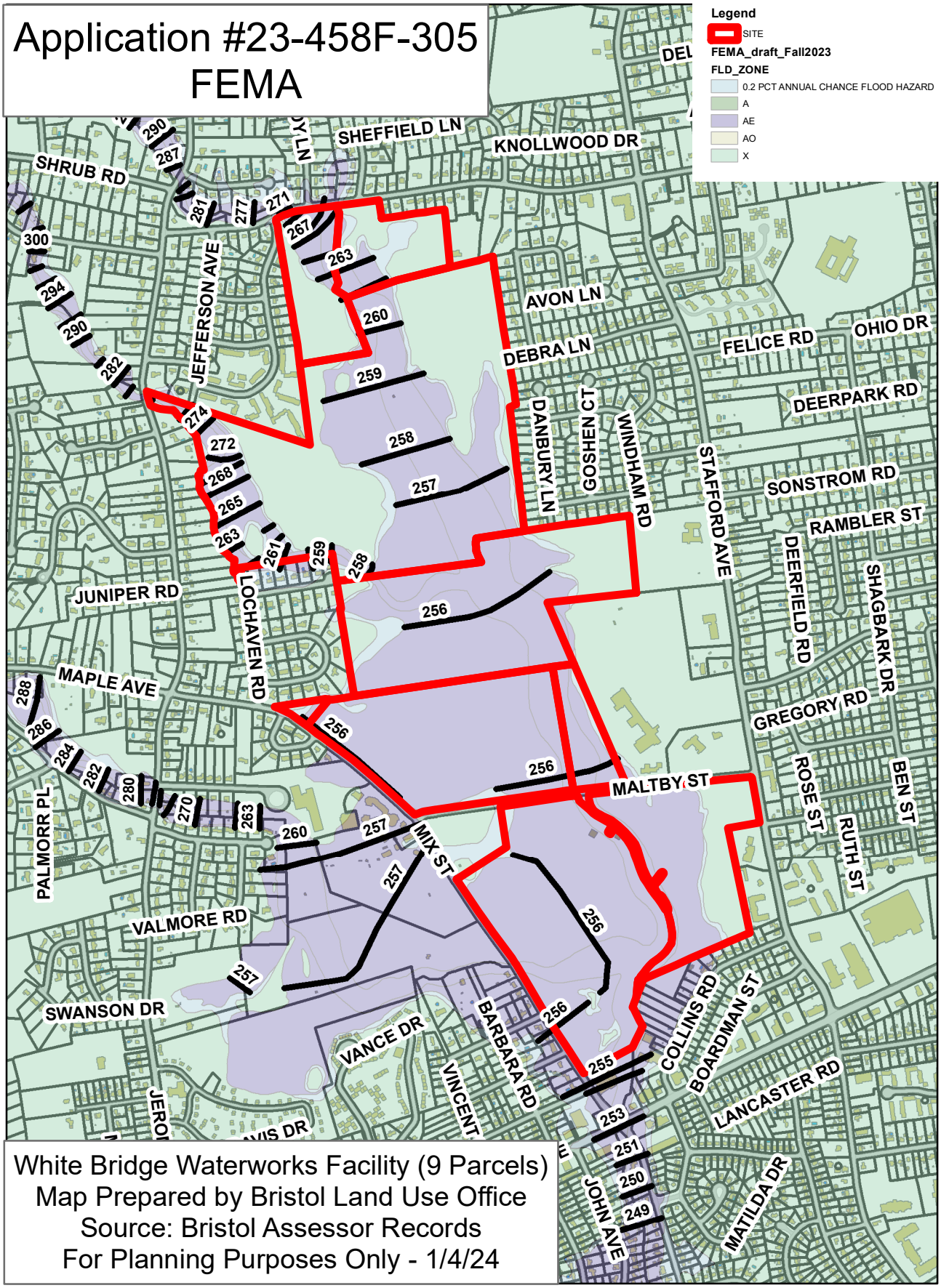
White Bridge Waterworks Facility (9 Parcels)
Map Prepared by Bristol Land Use Office
Source: Bristol Assessor Records
For Planning Purposes Only - 1/4/24

Application #23-458F-305
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



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

COMPREHENSIVE
ENVIRONMENTAL
INCORPORATED

Gateway Crossing
1 Hartford Square East, Suite 227
New Britain, CT 06052
860.224.0442

May 1, 2024

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

RE: Wetlands and Flood Commission Permits- Applications #2019, #2020 & #23-458F-305
Submission of Response to Staff Comments and Supplemental Information

Dear Mr. Flanagan,

On behalf of the Applicant, the New Britain Water Department, Comprehensive Environmental Inc. (CEI) is providing in this document responses to comments and supplemental information regarding the above referenced applications.

Responses to City Staff Comments:

Comment #1. *Proposed construction wetland "replication" appears to consist of excavation adjacent to existing wetland and installation of 3 inches of hydrophilic soil. Provide additional information associated with the hydrophilic soil specification and post development groundwater depth to support wetland "replication" areas. DPW Engineering Division proposes a min of 12-inch depth of hydrophilic soil within wetland "replication" area. On adjacent 2:1 slopes 6 inches of hydrophilic soil is sufficient. Detail/document short and long term monitoring and wetland "replication" area management plan to ensure long-term viability of area.*

Response #1. The wetland replication and compensatory storage plans and sections have been revised to address the above comments. Please note that due to the presence of a vernal pool in the upper wellfield area the compensatory storage and wetland replication area was moved further north. In addition, the United States Army Corp of Engineers (USACE) has requested a 3:1 wetlands replication as part of their permit review. These changes are reflected in revised sheets WR-1 to WR-5, CS-1 to CS-5, XS-1 to XS-5, C-14 and C-14A which are attached herein as **Attachment 1.A**. Also attached as **Attachment 1.B**. are the calculations for the compensatory storage. More information about the vernal pool can be found in the NBWD Supplemental Environmental/Wetlands Permit Information prepared by C. Webb and Associates, LLC., which is also attached to this document as **Attachment 1.C**. Sheet XS-5 and Section 4 of the NBWD Supplemental Environmental/Wetlands Permit Information detail the short term and long term monitoring for wetland replication.

Comment #2. *Plan indicates dewater sedimentation basin, however provide anticipated/ proposed discharge rates with sizing of sedimentation basins. In addition, indicate controls / monitoring of turbidity discharge from sedimentation basin.*

Response #2. Temporary dewatering sedimentation basins are intended to be used in the event high groundwater is encountered during excavation activities. Anticipated/proposed discharges will vary depending on the required amount of excavation dewatering but typically can range from 20-50 gpm, intermittently. As shown in Detail J of Drawing Sheet C-24 (included herein as **Attachment 2**), the dewatering sedimentation basin size may vary depending on necessity with a 5-foot diameter being the minimum diameter of the basin. Sedimentation basins will be inspected at least once per week and cleaned as needed to remove accumulated sediments. The Contractor may also elect to install permeable geotextile dewatering bags in addition to the dewatering sedimentation basins for sediment filtration.

Comment #3. *Provide construction sequence with durations along with staging plan, areas of stockpile storage and refueling areas.*

Response #3. See the Proposed Construction Sequence Memorandum included in **Attachment 3.A.** for more information, and the associated Drawing Sheets C-20, C-21, and C-22 in Attachment 3.B. Additionally, see Sheet C-1 and C-7 of **Attachment 3.B.** for notes and depiction of Contractor staging, stockpiling, and refueling areas.

Comment #4. *Clarify proposed location of floating turbidity curtain.*

Response #4. Floating turbidity curtains are to be located within the canal, east and west of the proposed sediment removal areas. See revised Sheet C-23 in **Attachment 4**.

Comment #5. *Include installation line of silt fence along the toe of ALL proposed slopes. Silt fence shall be installed prior to construction, be monitored during construction and removed once slopes are stabilized.*

Response #5. Notes requiring the installation of silt fence has been included throughout drawings. See revised sheets C-1, C-6, C-7, C-8, C-13, C-14, C-14A in **Attachment 5**.

Comment #6. *Provide additional detail associated with compensation storage area 3. The plans indicate excavation to elevation 252, however indicate proposed access to area, erosion control and restoration.*

Response #6. The revised plans referenced in Comment Response #1 address these comments.

Comment #7. *Provide additional detail associated with compensation area 4, including additional elevation east of the area between the compensation area and the Coppermine. Detail cross section AA-1 and indicate erosion control measures and proposed access to area.*

Response #7. The revised plans referenced in Comment Response #1 address this comment.

Comment #8. *The Storm Water Management Report is prepared in accordance with the CT Storm Water Quality Manual. As indicated in your report the manual requires maintaining the pre-*

development annual groundwater recharge volume. The report indicates recharge is achieved through reduction in impervious area; however, please indicate impact of additional well withdrawal will have on wetlands.

Response #8. See Section 3 of the NBWD Supplemental Environmental/Wetlands Permit Information prepared by C. Webb and Associates, LLC., which is included in **Attachment 1.C.**

Comment #9. *Proposed plans indicate flood plain mitigation measures (excavation within flood plain to offset the placement of fill within flood plain). However, Bristol DPW recommends a CLOMR prior to work and will require a LOMR as condition of approval (if approved).*

Response #9. See No Rise Certification included in **Attachment 9**. No objection to coordinating with FEMA for CLOMR/LOMR as a condition of approval.

Responses to North Central Conservation District (Letter Dated March 28, 2024):

1. See the Letter from CT DEEP in **Attachment 10**, which confirms the continued applicability of the Diversion Registration to the facilities and that no diversion permit is required for continued operation of the facilities as proposed with this project.
2. See Section 3 of the NBWD Supplemental Environmental/Wetlands Permit Information, included in **Attachment 1.C.,** concluding no permanent impacts from withdrawals.
3. See Section 5 of the NBWD Supplemental Environmental/Wetlands Permit Information and the related Supplemental Alternatives Evaluation contained therein, detailing alternatives considered for this project. There are no feasible and prudent alternatives to the proposed plan.
4. See Section 5 of the NBWD Supplemental Environmental/Wetlands Permit Information concluding no permanent impacts to wetlands functions and values.

Additional Information Submitted:

1. Detailed Groundwater and Stream Flow Monitoring Plan, as required by CT DPH, is included in **Attachment 11**.
2. Letter confirming hydrogeologic information for project site remains valid. See **Attachment 12**.
3. Proposed wetlands boundary line change map is submitted for consideration. See **Attachment 13**.
4. Resumes of Engineers and Soil Scientist are included in **Attachment 14**.

Attachments Includes:

- Response 1 – Attachments
  - 1.A. Drawings: WR-1 to WR-5, CS-1 to CS-5, XS-1 to XS-5, C-14 to and C-14A
  - 1.B. Calculations: Compensatory Storage
  - 1.C. NBWD Supplemental Environmental/Wetlands Permit Information prepared by C. Webb and Associates, LLC
- Response 2 – Attachment
  - 2. Drawing: C-24
- Response 3 – Attachments
  - 3.A. Proposed Construction Sequence Memorandum
  - 3.B. Drawings: C-1 and C-7; C-20, C-21, and C-22
- Response 4 – Attachment

- 4. Drawing: C-23
- Response 5 – Attachment
  - 5. Drawings: C-1, C-6, C-7, C-8, C-13, C-14, C-14A
- Response 9 – Attachment
  - 9. No Rise Certification
- Attachment 10
  - 10. CT DEEP Permit Need Determination
- Attachment 11
  - 11. Detailed Groundwater and Stream Flow Monitoring Plan
- Attachment 12
  - 12. Letter confirming hydrogeologic information for project site remains valid
- Attachment 13
  - 13. Proposed wetlands boundary line change map
- Attachment 14
  - 14. Resumes of Engineers and Soil Scientist
    - Sebastian Amenta, P.E.
    - Ian T. Cole - Professional Soil Scientist
    - Joseph L. Laliberte, PE, BCEE, PM
    - Clinton L. Webb Jr. – Senior Environmental Scientist/Ecologist

If you have any questions or require any additional information, please do not hesitate to contact me at 860.224.0442 or samenta@ceiengineers.com.

Sincerely,
Comprehensive Environmental Inc.

Sebastian Amenta, PE
Regional Program Director

Ray Rogozinski Review Comments

April 22, 2024

&

Applicant Responses

May 2, 2024

Bristol Department of Public Works has completed the review of the following materials submitted as part of Applications #2019, #2020 & #23-458F-305.

i. Central Conservation District review letter, dated March 28, 2024.

ii. CDM Smith Stormwater Management Report for the White Bridge Waterworks Facilities Pond Pumping Station.

iii. C. Webb & Associates, LLC Wetland Delineation Report, dated September 29, 2022. iv. CDM Smith Plan Set, dated December 2022: Existing Conditions sheets 1-3, Wetlands replication areas sheets 1-3, Cross-Sections sheets 1-4.

v. Freeman Companies Existing Conditions Survey Upper & Lower Wellfield, topography survey.

vi. CDM Smith Plan Set: C-2,6-10, 10B, 11-17, 18A, 18B, 2, 19, 23-29, 9, 11-14, 18 A, 18 B. vii. CDM Smith Plan Set: Attachment 4: Floodway & Flood Fringe Encroachment Areas 60% Submittal C9, 5, 11, 13, 14, 9, 9, 9, 9, 11 (10 sheets), 5 (8 sheets), CS1-CS4. Based on the review the following comments are provided:

1. Proposed construction wetland "replication" appears to consist of excavation adjacent to existing wetland and installation of 3 inches of hydrophic soil. Provide additional information associated with the hydrophic soil specification and post development groundwater depth to support wetland "replication" areas. DPW Engineering Division proposes a min of 12 inch depth of hydrophic soil within wetland "replication" area. On adjacent 2:1 slopes 6 inches of hydrophic soil is sufficient. Detail/document short and long term monitoring and wetland "replication" area management plan to ensure long-term viability of area.

   4/22/24 Applicant Response: The wetland replication and compensatory storage plans and sections have been revised to address the above comments. Please note that due to the presence of a vernal pool in the upper wellfield area the compensatory storage and wetland replication area was moved further north. In addition, the United States Army Corp of Engineers (USACE) has requested a 3:1 wetlands replication as part of their permit review. These changes are reflected in revised sheets WR-1 to WR-5, CS-1 to CS-5, XS-1 to XS-5, C-14 and C-14A which are attached herein as Attachment 1.A. Also attached as Attachment 1.B. are the calculations for the compensatory storage. More information about the vernal pool can be found in the NBWD Supplemental Environmental/Wetlands Permit Information prepared by C. Webb and Associates, LLC., which is also attached to this document as Attachment 1.C. Sheet XS-5 and Section 4 of the NBWD Supplemental Environmental/Wetlands Permit Information detail the short term and long term monitoring for wetland replication.

   5/2/24 City Response: Depth of hydrophilic soil revised in wetland "replication" detail". Please have the Cert Soil Scientist available to address the Commission with the post development groundwater depth to support the wetland "replication", the additional wetland replication requested by the USACE and specification for the hydrophilic soil.

2. Plan indicates dewater sedimentation basin, however provide anticipated/ proposed discharge rates with sizing of sedimentation basins. In addition, indicate controls / monitoring of turbidity discharge from sedimentation basin.

   4/22/24 Applicant Response: Temporary dewatering sedimentation basins are intended to be used in the event high groundwater is encountered during excavation activities. Anticipated/proposed discharges will vary depending on the required amount of excavation dewatering but typically can range from 20-50 gpm, intermittently. As shown in Detail J of Drawing Sheet C-24 (included herein as Attachment 2), the dewatering sedimentation basin size may vary depending on necessity with a 5-foot diameter being the minimum diameter of the basin. Sedimentation basins will be inspected at least once per week and cleaned as needed to remove accumulated sediments. The Contractor may also elect to install permeable geotextile dewatering bags in addition to the dewatering sedimentation basins for sediment filtration.

   5/2/24 City Response: Please provide additional details/procedures to prevent sediment/ discharge of dewatering water from being discharges with a high turbidity.

3. Provide construction sequence with durations along with staging plan, areas of stockpile storage and refueling areas.

   4/22/24 Applicant Response: See the Proposed Construction Sequence Memorandum included in Attachment 3.A. for more information, and the associated Drawing Sheets C-20, C-21, and C-22 in Attachment 3.B. Additionally, see Sheet C-1 and C-7 of Attachment 3.B. for notes and depiction of Contractor staging, stockpiling, and refueling areas.

   5/2/24 City Response: Construction sequence provided. Please have a representative available to review the sequence and anticipated duration of construction with the Commission.

4. Clarify proposed location of floating turbidity curtain.

   4/22/24 Applicant Response: Floating turbidity curtains are to be located within the canal, east and west of the proposed sediment removal areas. See revised Sheet C-23 in Attachment 4.

   5/2/24 City Response: Turbidity curtain location clarified.

5. Include installation line of silt fence along the toe of ALL proposed slopes. Silt fence shall be installed prior to construction, be monitored during construction and removed once slopes are stabilized.

   4/22/24 Applicant Response: Notes requiring the installation of silt fence has been included throughout drawings. See revised sheets C-1, C-6, C-7, C-8, C-13, C-14, C-14A in Attachment 5.

   5/2/24 City Response: No additional comments.

6. Provide additional detail associated with compensation storage area 3. The plans indicate excavation to elevation 252, however indicate proposed access to area, erosion control and restoration.

   4/22/24 Applicant Response: The revised plans referenced in Comment Response #1 address these comments.

   5/2/24 City Response: No additional comments, please be prepared to address any questions the commission may have at the meeting.

7. Provide additional detail associated with compensation area 4, including additional elevation east of the area between the compensation area and the Coppermine. Detail cross section AA-1 and indicate erosion control measures and proposed access to area.

   4/22/24 Applicant Response: The revised plans referenced in Comment Response #1 address this comment.

   5/2/24 City Response: 9. No additional comments, please be prepared to address any questions the commission may have at the meeting.

8. The Storm Water Management Report is prepared in accordance with the CT Storm Water Quality Manual. As indicated in your report the manual requires maintaining the pre- development annual groundwater recharge volume. The report indicates recharge is achieved through reduction in impervious area, however please indicate impact of additional well withdrawal will have a wetlands.

   4/22/24 Applicant Response: See Section 3 of the NBWD Supplemental Environmental/Wetlands Permit Information prepared by C. Webb and Associates, LLC., which is included in Attachment 1.C.

   5/2/24 City Response: Please have a representative available address any questions the Commission may have regarding section 3 and 4 (Impact to Wetlands Associated with Well Drawdown & Wetland Creation) of the Supplemental Env/Wetland Permit Information.

9. Proposed plans indicate flood plain mitigation measures (excavation within flood plain to offset the placement of fill within flood plain). However, Bristol DPW recommends a CLOMR prior to work and will require a LOMR as condition of approval (if approved).

4/22/24 Applicant Response: See No Rise Certification included in **Attachment 9**. No objection to coordinating with FEMA for CLOMR/LOMR as a condition of approval.

5/2/24 City Response: Comment received, please plan on submitting a LOMAR to FEMA.

Responses to North Central Conservation District (Letter Dated March 28, 2024):

1. See the Letter from CT DEEP in **Attachment 10**, which confirms the continued applicability of the Diversion Registration to the facilities and that no diversion permit is required for continued operation of the facilities as proposed with this project.
2. See Section 3 of the NBWD Supplemental Environmental/Wetlands Permit Information, included in **Attachment 1.C.,** concluding no permanent impacts from withdrawals.
3. See Section 5 of the NBWD Supplemental Environmental/Wetlands Permit Information and the related Supplemental Alternatives Evaluation contained therein, detailing alternatives considered for this project. There are no feasible and prudent alternatives to the proposed plan.
4. See Section 5 of the NBWD Supplemental Environmental/Wetlands Permit Information concluding no permanent impacts to wetlands functions and values.

Additional Information Submitted:

1. Detailed Groundwater and Stream Flow Monitoring Plan, as required by CT DPH, is included in **Attachment 11**.
2. Letter confirming hydrogeologic information for project site remains valid. See **Attachment 12**.
3. Proposed wetlands boundary line change map is submitted for consideration. See **Attachment 13**.
4. Resumes of Engineers and Soil Scientist are included in **Attachment 14**.

Attachments Includes:

Response 1 – Attachments
- 1.A. Drawings: WR-1 to WR-5, CS-1 to CS-5, XS-1 to XS-5, C-14 to and C-14A
- 1.B. Calculations: Compensatory Storage
- 1.C. NBWD Supplemental Environmental/Wetlands Permit Information prepared by C. Webb and Associates, LLC

Response 2 – Attachment
- 2. Drawing: C-24

Response 3 – Attachments
- 3.A. Proposed Construction Sequence Memorandum
- 3.B. Drawings: C-1 and C-7; C-20, C-21, and C-22

Response 4 – Attachment
- 4. Drawing: C-23

Response 5 – Attachment
- 5. Drawings: C-1, C-6, C-7, C-8, C-13, C-14, C-14A

Response 9 – Attachment
- 9. No Rise Certification

Attachment 10
- 10. CT DEEP Permit Need Determination

Attachment 11
- 11. Detailed Groundwater and Stream Flow Monitoring Plan

Attachment 12
- 12. Letter confirming hydrogeologic information for project site remains valid

Attachment 13
- 13. Proposed wetlands boundary line change map

Attachment 14

- 14. Resumes of Engineers and Soil Scientist
  - Sebastian Amenta, P.E.
  - Ian T. Cole - Professional Soil Scientist
  - Joseph L. Laliberte, PE, BCEE, PM
  - Clinton L. Webb Jr. – Senior Environmental Scientist/Ecologist

If you have any questions or require any additional information, please do not hesitate to contact me at 860.224.0442 or samenta@ceiengineers.com.

Link to City of Bristol 3rd Party Environmental Review Agreement:

https://www.bristolct.gov/DocumentCenter/View/46665/N-PRP-2401017-City-of-Bristol-WhiteBridge-Well-Field-Review--04162024

Link to Response 1 - Attachments: https://www.bristolct.gov/DocumentCenter/View/46659/Response-1-Attachments

Response 1 – Attachments

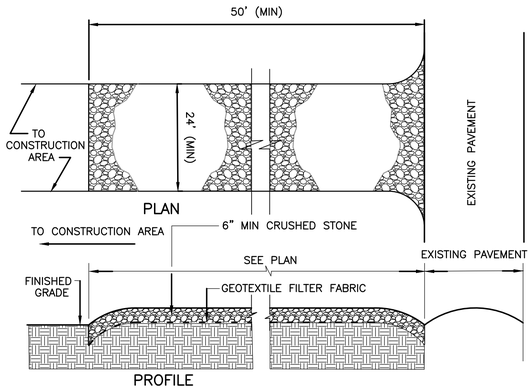
1.A. Drawings: WR-1 to WR-5, CS-1 to CS-5, XS-1 to XS-5, C-14 to and C-14A

1.B. Calculations: Compensatory Storage

1.C. NBWD Supplemental Environmental/Wetlands Permit Information prepared by C.Webb and Associates, LLC

Response 2 – Attachment

2. Drawing: C-24



NOTES:

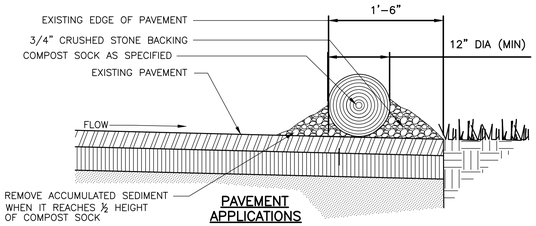
1.) PROVIDE APPROPRIATE TRANSITION BETWEEN STABILIZED CONSTRUCTION ENTRANCE AND EXISTING PAVEMENT.

2.) LIMITS OF STABILIZED CONSTRUCTION ENTRANCE SHALL BE AS DIRECTED BY THE ENGINEER.

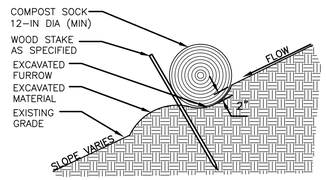
3.) THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO EXISTING PAVEMENT. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE OR ADDING STONE TO THE LENGTH OF THE ENTRANCE.

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.

STABILIZED CONSTRUCTION ENTRANCE
DETAIL A
NOT TO SCALE

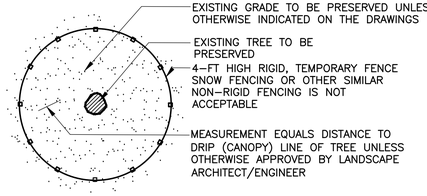


PAVEMENT APPLICATIONS



LANDSCAPE APPLICATIONS

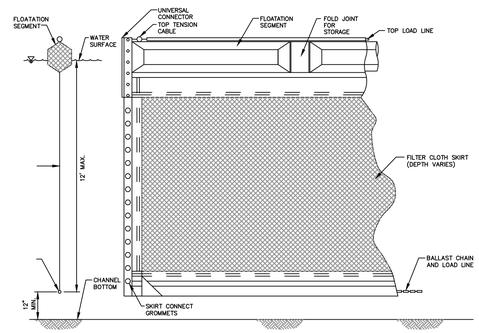
COMPOST SOCK
DETAIL B
SCALE: NTS

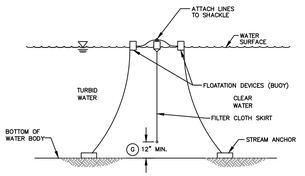


NOTES:
1. FENCING SHALL BE INSTALLED AROUND PERIMETER OF ALL EXISTING TREES TO BE PRESERVED WITHIN THE LIMIT OF WORK.
2. FENCING MAY BE REMOVED TEMPORARILY, ONLY AS REQUIRED TO PERFORM THE WORK SHOWN ON THE DRAWINGS.
3. FENCING SHALL REMAIN IN PLACE & BE MAINTAINED THROUGHOUT CONSTRUCTION AND THEN REMOVED COMPLETELY.

TREE PROTECTION
DETAIL C
NOT TO SCALE

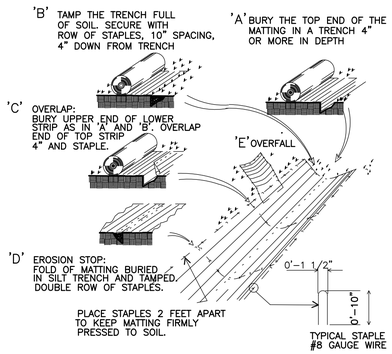
TURBIDITY CURTAIN





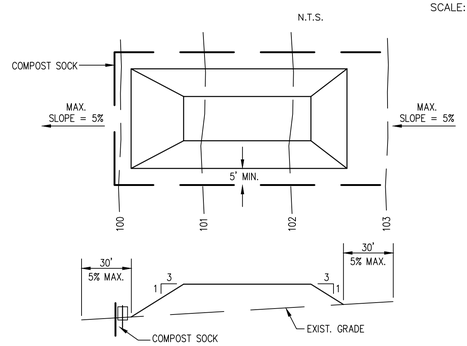
TYPICAL ANCHORING SECTION

TURBIDITY CURTAIN
DETAIL D
NOT TO SCALE



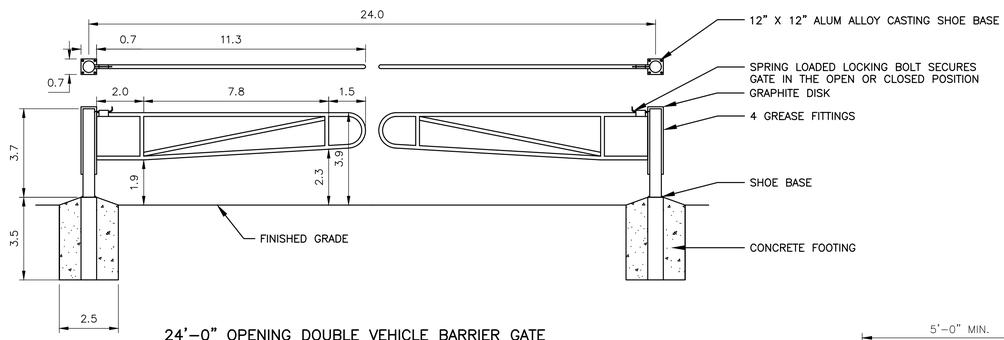
NOTE:
1.) APPLY ON ALL NEW SLOPES 3(H):1(V) AND STEEPER.

EROSION CONTROL BLANKET
DETAIL E
NOT TO SCALE

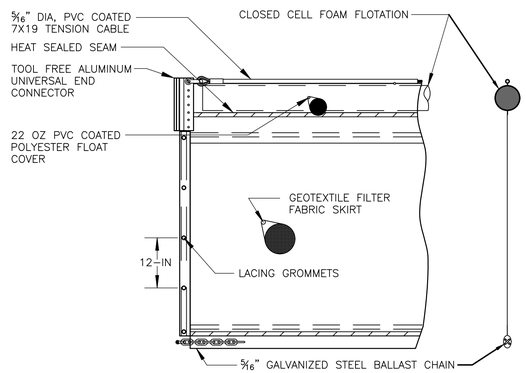


NOTES:
1. PLACE STOCKPILES AT LOCATIONS AS SHOWN ON THE SOIL EROSION AND SEDIMENT CONTROL PLAN.
2. ALL SIDE SLOPES SHALL BE 3 TO 1 OR FLATTER.
3. STOCKPILE SHALL RECEIVE A VEGETATIVE COVER IN ACCORDANCE WITH MINIMUM STABILIZATION REQ.
4. COMPOST SHALL BE INSTALLED AS DETAILED HEREON.

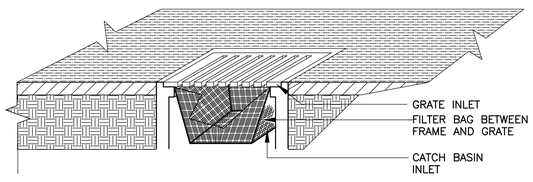
SOIL STOCKPILE
DETAIL F
NOT TO SCALE



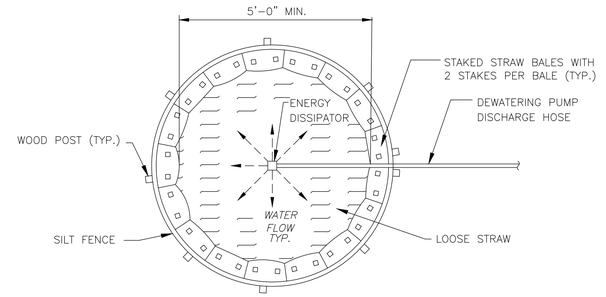
24'-0" OPENING DOUBLE VEHICLE BARRIER GATE
DETAIL G
NOT TO SCALE



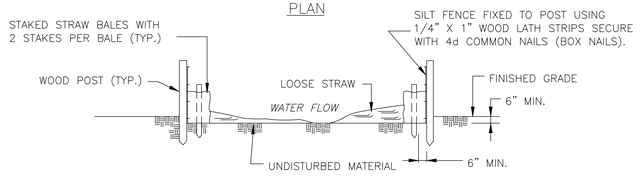
FLOATING TURBIDITY BARRIER
DETAIL I
NOT TO SCALE



CATCH BASIN FILTER
DETAIL H
NOT TO SCALE



PLAN



DEWATERING SEDIMENTATION BASIN
DETAIL J
NOT TO SCALE

XREFs: [CDMS_2436_XSVPL000, CWP000ST, Floodway_Floodplain, AWZ001PS - 2D Process Export] Images: []
Last saved by: ENGELSB Time: 2/28/2023 11:28:15 AM
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REV. NO.	DATE	DRWN	CHKD	REMARKS

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

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

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

CIVIL DETAILS I

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

Link to Response 3 Attachments:
https://www.bristolct.gov/DocumentCenter/View/46660/Response-3-Attachments

Response 3 – Attachments

3.A. Proposed Construction Sequence Memorandum

3.B. Drawings: C-1 and C-7; C-20, C-21, and C-22

Response 4 – Attachment

4. Drawing: C-23

LIMITS OF CANAL SEDIMENT REMOVAL

WETLAND BOUNDARY

PROTECT EXISTING GATE STRUCTURE AND PIPE

REMOVE AND DISPOSE OF EXISTING CHAIN LINK FENCE AND GATES

PROTECT EXISTING PIPES

CANAL TO BE DEWATERED AS NECESSARY

D C-24 TURBIDITY CURTAIN

A C-24 TEMPORARY STABILIZED CONSTRUCTION ENTRANCE. TO BE REMOVED AT THE END OF CONSTRUCTION

INLET SCREEN AND GATE VALVE

STOPLOG AND PLUG FOR POND DEWATERING

CANAL TO BE DEWATERED AS REQUIRED. SEE NOTE 5

EDGE OF STREAM

TURBIDITY CURTAIN D C-24

EXISTING WELL NO. 6

TEMPORARY SEDIMENT DEWATERING AND STOCKPILING AREA

PROTECT EXISTING 16" DI PIPE

PROTECT EXISTING SUCTION HEADER

PROVIDE STEEL PLATES TO PROTECT EXISTING CULVERT

PROTECT EXISTING PIPES

F C-27 STABILIZED POND ACCESS

I C-26 35-LF OF BANK RESTORATION

LIMITS OF POND SEDIMENT REMOVAL

PROTECT EXISTING GATE STRUCTURE AND SUCTION PIPE

EXTENTS OF CLEARING AND GRUBBING TO BE DETERMINED

PROTECT EXISTING PIPE AND WALL

TEMPORARY ALTERATION TO APPROXIMATELY 30,900 SF OF WATERS OF THE U.S.

STOPLOG AND PLUG FOR POND DEWATERING

OCTOBER 2021 SEDIMENT DEPTH LOCATION AND MEASUREMENT (TYP)

DECEMBER 2021 SEDIMENT SAMPLE LOCATION AND ESTIMATED SEDIMENT DEPTH (TYP)

J C-24 POND TO BE DEWATERED VIA THE EXISTING POND PUMPING STATION. SUPPLEMENTAL DEWATERING (AS REQUIRED) TO BE DIRECTED TO DEWATERING SEDIMENTATION BASIN.

FLOODWAY

WETLAND FLAG LINE IS ORDINARY HIGH WATER

FLOODWAY

FLOODWAY

CANAL 1 (21.4")

CANAL 2

CANAL 3 (12")

CANAL 4 (7")

POND 7 (2")

POND 8 (7.8")

POND 9 (6.6")

POND 10 (7.4")

POND 1 (12")

POND 3 (23.8")

POND 6A & 6B (48")

POND 4 (5")

POND 2 (13.6")

POND 5A & 5B (14.4")

SMU-1 1 FT

SMU-2 2 FT

SMU-3 2.5 FT

SMU-4 2.5 FT

SMU-5 1 FT

SMU-6 1 FT

SMU-7 0.5 FT

SMU-8 1 FT

SMU-9 2 FT

SMU-10 AVG 4 FT MAX 7.5 FT

EXISTING LOWER WELLFIELD PUMPING STATION F.F.= 253.00

EXISTING POND PUMPING STATION F.F.= 253.15

EXISTING CASTING WELL

PLUGGED 16" C.I. SECTION ABANDONED

16" BUTTERFLY VALVE

Conc.Struct. with Metal Top of Grate=254.36

MH Hatch 2'Dia. Top of Frame=258.26

MH Hatch 2'Dia. Top of Frame=252.43

MH Hatch 2'Dia. Top of Frame=252.32

Gate with Bollard

Gate

Bldg.

No #

30" C.M.P F.E. Inv.=247.00

30" C.M.P F.E. Inv.=246.95

20" D.I. WATER MAIN

" D.I. COPPER SERVICE

" D.I. SUCTION HEADER

12" Dia.MH Top of Frame=251.42

30"C.M.P. F.E. Inv.=247.38

30"C.M.P. F.E. Inv.=247.24

6'x4' Conc. Inv.=245.50

6'x4' Conc. Inv.=245.60

8'x4' Conc. Inv.=245.53

6'x4' Conc. Inv.=245.50

30k Generator with Underground Conduit

16" C.I. SUCTION HEADER

" D.I. WELL CONNECTIONS

3' Dia. Well Top of Rim=250.88

Well 8 Top of Rim=249.80

Well 8-A Top of Rim=251.41

CLP #10214

CLP #10216

CLP #10217

CLP #10218

BLWF-3

BLWF-6

CANAL POLE 1 15.5"

CANAL POLE 2 18.5"

CANAL POLE 3 9.75"

CANAL POLE 4 7.5"

CANAL POLE 5 0"

AREA 1A 3"

AREA 1B 13"

AREA 2A 30"

AREA 2B 17.5"

1-A 21"

1-B 0"

1-C 0"

1-D 49"

2-A 11"

2-B 9"

2-C 7.5"

2-D 9.5"

2-E 5.5"

3-A 3"

3-B 2.75"

3-C 2"

3-D 1.75"

4-A 1.75"

4-B 1.50"

4-C 4.75"

4-D 5"

5-A 5"

5-B 3.5"

5-C 7"

5-D 10"

NOTES:

1. APPROXIMATELY 6,000 CUBIC YARDS (IN-SITU) OF SEDIMENT MATERIAL SHALL BE REMOVED AND DISPOSED OF AT AN APPROVED LOCATION.
2. 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.
3. STABILIZED CONSTRUCTION ENTRANCES SHALL BE REMOVED UPON COMPLETION OF PROJECT. DISTURBED AREAS TO BE LOAMED AND SEEDED.
4. 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.

PLAN
1" = 30'

N
1" = 30'
15 0 30

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: JANUARY 2024

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

SUPPLY POND AND CANAL
SEDIMENT REMOVAL PLAN

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

REGULATORY REVIEW SUBMITTAL - NOT FOR CONSTRUCTION

XREFs: [TEST HOLE POINTS, CDMS_2436, XSVPL040, 2022-17, BORING LOCATIONS, Floodway_Floodplain] Images: []
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C:\Users\engelsb\ACCDocs\CDM Smith Inc\10739-264571 - New Britain CT White Bridge Well Fields and PS\Project Files\02 Civil (C)\10 CADD\C023SDRM.dwg
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Link to Response 5 Attachments:
https://www.bristolct.gov/DocumentCenter/View/46664/Response-5-Attachments

Response 5 – Attachment

5. Drawings: C-1, C-6, C-7, C-8, C-13, C-14, C-14A

Link to Response 9 Attachments:
https://www.bristolct.gov/DocumentCenter/View/46661/Response-9-Attachments

Response 9 – Attachment

9. No Rise Certification

Attachment 10

10. CT DEEP Permit Need Determination

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

Link to Attachment 11:
https://www.bristolct.gov/DocumentCenter/View/46662/Response-11-Attachments

Attachment 11

11. Detailed Groundwater and Stream Flow Monitoring Plan

Attachment 12

12. Letter confirming hydrogeologic information for project site remains valid

COMPREHENSIVE
ENVIRONMENTAL
INCORPORATED

Gateway Crossing
1 Hartford Square East, Suite 227
New Britain, CT 06052
860.224.0442

April 30, 2024

Robert Flanigan, City Planner
City Hall
111 North Main Street
Bristol, CT 06010

RE: White Bridge Wellfield Improvements -Applications #2019, #2020 & #23-458F-305
Confirmation of Hydrogeologic Report

Pursuant to City Staff request Comprehensive Environmental Inc. is confirming by way of this letter that the hydrogeologic studies and report (*Hydrogeology Report of Upper and Lower White Bridge Wellfield Bristol, Connecticut* dated April 6, 2020) submitted to CT DPH for the above project site is still valid and relevant for the intended use.

Feel free to contact me with any questions or comments at 860-620-3673 or samenta@ceiengineers.com.

Sincerely,

COMPREHENSIVE ENVIRONMENTAL INC.

Sebastian A Amenta, P.E.
Northeast Program Manager

Attachment 13

13. Proposed wetlands boundary line change map

Whitebridge Wellfields
New Britain Water Department
Bristol, Connecticut

City of Bristol and CEI Wetlands
Proposed Boundary Change Map
Overall Map

1 inch equals 500 feet

0 500 1,000 1,500

Feet

Base Map Data Sources: City of Bristol

Map Date 4/30/2024

Comprehensive Environmental Incorporated

Wetland to be Created

Presumed Wetland to be Delineated

Wetland to be Filled

Presumed Wetland to be Delineated

Wetland Limits to be Delineated

Wetland Limits to be Delineated

Wetland to be Filled

Presumed Uplands to be Confirmed

Wetland to be Created

Wetland to be Filled

Wetland to be Created

Coppermine Brook

Freeman's Hill Brook

Polkville Brook

UL

UL

UL

- Wetland to be Created
- Wetland to be Filled
- Wetland Bundary CEI
- Wetland Limits to be Delineated
- Electrical Transmission Lines
- New Britain Water Dept. Property Lines
- Buildings
- Parcels
- Contour interval 2 ft.
- Rivers, Streams
- Lakes, Ponds
- City of Bristol Wetlands
- Presumed Wetlands to be Delineated
- UL Presumed Uplands to be Confirmed

V:\Connecticut_GIS\Bristol\Bristol Upper & Lower Wellfields\Bristol Upper & Lower Wellfields_3.aprx

Link to Attachment 14:
https://www.bristolct.gov/DocumentCenter/View/46663/Response-14-Attachments

Attachment 14

14. Resumes of Engineers and Soil Scientist

Date: March 28, 2024

To: Nancy Levesque, Bristol City Engineer
Bristol Inland Wetlands and Watercourses Commission

From: Covill, Natural Resources Specialist
Joanna Shapiro, Executive Director

Re: Review of Wetland Application, New Britain Water

****

This review is limited to a desktop review of the wetland application and related materials, with general recommendations based on the proposed activities. A site walk and wetland boundary review were not completed within the given timeframe.

If the Commission still deems it necessary following their site walk, a limited wetland boundary review can be performed before a subsequent meeting. Based on the size of the site and time limitations, a field review of all wetland boundaries on site by our staff is not feasible, but rather the Commission can direct the District to specific areas they feel require further review.

Background

District staff reviewed the 10-sheet site plan entitled "White Bridge Waterworks Facilities Upper and Lower Wellfields and Pond Pumping Station" prepared by CDM Smith dated December 2022, as well as Attachment 3, "Project Drawings" and Attachment 4, "Floodway and Flood Fringe Encroachment Areas" (hereto forth referred to as "the Plans"). Staff also reviewed the materials submitted for applications #23-458F-305, #2019 and #2020 along with previous meeting minutes, relevant imagery, topographic, soil, and other maps.

The Plans propose construction of a new single building to house surface water pumping facilities with space for future groundwater treatment facilities, well replacement at Lower and Upper Wellfields, dewatering and sediment removal from the existing pond and canal, new utility connections, culvert replacement, paving an existing gravel access road, and associated work to ultimately bring an aging facility up to current requirements. In order to become a potable water supply, any new wells must be located 50 feet from any water bodies or wetland limits per CT Department of Public Health requirements. The wells must be raised 2' above the one-hundred-year flood elevation. Due to these requirements, existing wells cannot be used and the new wells are proposed. Wetland resources are proposed to be filled in order to comply with these DPH regulations. Wetland replication, replacement, and enhancements are proposed to mitigate or offset the loss of these wetland areas, and compensatory flood storage areas are proposed to offset the activities which may raise the flood elevation, per FEMA requirements.

Comments/Recommendations

Withdrawals/Flow Calculations

Discussion on the record has included concern related to groundwater withdrawals. While groundwater withdrawals are regulated by CT DEEP and are not explicitly in the purview of the Inland Wetlands and Watercourses Commission, they may be considered if the Commission has reason to believe that such withdrawal may impact wetlands or watercourses. Review of aquifer withdrawals, resiliency, and recharge, and their impacts to wetlands and watercourses are outside the area of expertise of the North Central Conservation District.

- The Commission may request additional information from the applicant or intervenor regarding the potential impact of withdrawals on wetlands and watercourses, including their functions and values, if deemed a concern of the Commission necessary to render a decision and/or to rule on the claims of the petition to intervene.
- If additional information from the applicant or intervenor is deemed insufficient to make these rulings, the Town may consider further 3rd party review from a hydrogeologist or similarly qualified individual or firm, to review the proposed withdrawals from the aquifer as it pertains to impacts to the wetlands and watercourses in the project area.

In the comments submitted by Rivers Alliance on February 5th, 2024, they note that for diversions registered prior to 1983, registrants have rights to divert the amount of water originally registered in perpetuity, and that they were never and are not currently subject to any environmental review.

- Recommend that the Town request information from the applicant and CT DEEP on the accuracy of this statement, and whether any environmental review or impact analysis has ever been completed for this project location.

In Application #2020, the applicant states in the Additional Comments/Information section, "No flow calculations are provided due to zero impact as a result of the proposed work".

- If the Commission has concerns about potential wetland/watercourse impacts related to potential flow alteration as a result of this application, recommend requesting flow calculations from the applicant to determine the average and seasonal flows of the brook, the average and/or seasonal withdrawals proposed, and any historical withdrawal information the applicant can provide.
- Recommend that the Commission require the applicant to develop an action plan to be submitted to and approved by the Commission, outlining under which circumstances withdrawals would be limited or stopped to ensure adequate flows, both for the benefit of future withdrawals and to reduce or prevent negative impacts to wetlands, watercourses, and dependent flora and fauna. To develop this action plan, recommend that the applicant use historical flow data from stream gauges or similar methods, predicted future flow calculations, and average rainfall data, contrasted with proposed withdrawal amounts and frequencies. This action plan can be required as part of the application, or this can potentially be a condition of approval of a Wetland Permit.

Functions and Values Assessment

Functions and values were assessed within the applicant's soil scientist's report, and replication/replacement of wetlands is proposed. However, it was not made clear in the application materials or the meeting minutes whether those functions and values of the existing wetlands will be preserved or replicated.

- Recommend that the Commission request testimony from the project soil scientist regarding whether functions and values assessed for existing wetlands will be preserved and/or replicated through proposed wetland replications, replacements, or enhancements.

Alternatives Analysis

Per section 10.3 of the Bristol Inland Wetlands and Watercourses Regulations, "In the case of an application which received a public hearing pursuant to a finding by the Inland Wetlands Agency that the proposed activity may have a significant impact on wetlands or watercourses, a permit shall not be issued unless the Agency finds on the basis of the record that a feasible and prudent alternative does not exist. In making the finding, the Agency shall consider the facts and circumstances set forth in subsection 10.2. The finding and the reasons therefore shall be stated on the record in writing". Section 10.2 outlines the considerations for assessment by the Commission of Prudent and Feasible alternatives.

- While alternatives assessments were discussed upon the record of the March 4, 2024 meeting minutes, the District recommends that the Commissioners review Sections 10.2 and 10.3 of the Bristol Inland Wetlands and Watercourses Regulations, and state upon the record in their decision whether alternatives were adequately assessed to the extent required by the regulations.

Thank you for the opportunity to comment.

HYDROGEOLOGIC STUDY

UPPER AND LOWER WHITE BRIDGE WELL FIELDS CITY OF NEW BRITAIN WATER DEPTARTMENT AND MIX STREET WELL FIELD (WELLS 3, 4, &5) CITY OF BRISTOL WATER DEPARTMENT

PREPARED FOR:

CITY OF NEW BRITAIN WATER DEPARTMENT AND CITY OF BRISTOL WATER DEPARTMENT

DECEMBER 2007

Prepared by:

LENARD ENGINEERING, INC.

CIVIL, ENVIRONMENTAL & HYDROGEOLOGICAL CONSULTANTS

1768 STORRS ROAD, P.O. BOX 580

STORRS, CT 06268-0580

Executive Summary

In accordance with Level "A" Mapping Regulations, Lenard Engineering, Inc. (LEI) conducted a Level "A" study of The City of New Britain's Lower White Bridge and Upper White Bridge, and The City Bristol's Mix Street well fields, the purpose of delineating the aquifer protection area. The White Bridge Upper well field consists of six well points which travel to a common pump station in the Upper well field. The White Bridge Lower well field consists of 17 gravel packed wells and a caisson well. All of the Lower well field well points travel to a common pump station located in the Lower well field. The Mix Street well field consists of three gravel packed wells (#3, #4, and #5).

Prior to initiating the Level "A" study, LEI prepared a Plan for Data Collection detailing the methodologies to be used during the aquifer testing and ground water modeling portions of the study. The Plan for Data Collection was submitted to and subsequently approved by the DEP.

Between October 21 and October 24, 2004, LEI conducted a 3 day aquifer parameter pump test on the New Britain Upper White Bridge well field. New Britain's Upper White Bridge well field was pumped at 400 gpm. During this test, Bristol's Mix Street well field was pumped at 850 gpm, and New Britain's Lower White Bridge and surface water pumping station (the pond station) were turned off during this pumping test.

Between November 1 and November 8, 2004, LEI conducted a 7 day induced infiltration pump test of the New Britain Upper and Lower White Bridge well fields and on Bristol's Mix Street well field. New Britain's Upper White Bridge and Lower White Bridge well fields were pumped at 400 gpm and 600 gpm, respectively. While, Bristol's Mix Street well field was pumped at 1,240 gpm. New Britain's White Bridge surface water pumping station (the pond station) was turned off during the pumping test.

The above information was reduced, and input to create a 3-D aquifer model. Waterloo Hydrogeologic, Inc. Visual Modflow Version 4.1 software was used to create a 3-D model of the aquifer. The information collected from the pump tests conducted in the fall of 2004 was used to create and calibrate the aquifer model for transient flow conditions. Ground water and surface water elevations and stream flows were entered, and the model calibrated to Level "A" aquifer mapping standards. A sensitivity analysis was conducted on the resulting data.

To verify the accuracy of our aquifer model two previous pump tests were simulated.

The first verification test was a pump test conducted by LEI between June 24 and June 27, 2002, simultaneously pumping the New Britain Upper and Lower White Bridge well field, and the White Bridge surface water pumping station (the pond station). New Britain's Upper White Bridge well field, Lower White Bridge well field and Lower White Bridge pond station were pumped at 600 gpm, 400 gpm and 5.0 MGD, respectively.

White Bridge pond station were pumped at 600 gpm, 400 gpm and 5.0 MGD, respectively.

The second verification test was a pump test conducted by the Center for Engineering between September 11, 1992 and September 18, 1992, pumping the Bristol Mix Street well field well field.

The calibrated model was then used to delineate the aquifer protection area to the well fields. A steady state aquifer model simulation was created using fifty percent duration stream flow rates and mean annual recharge rates for the drainage basin. During the steady state simulation it was determined that the aquifer could not support the maximum registered diversions of the New Britain Upper White Bridge, New Britain Lower White Bridge and Bristol Mix Street well fields. Lenard Engineering, Inc., the City of New Britain Water Department and the City of Bristol Water Department agreed upon pumping rates which would best suit the needs of both water departments. Based on this it was determined to model the aquifer using the maximum pumping rates of the New Britain Upper White Bridge, New Britain Lower White Bridge and Bristol Mix Street well fields as follows:

New Britain Upper White Bridge well field: 840 gpm

New Britain Lower White Bridge well field: 2,190 gpm

Bristol Mix Street well field: 900 gpm

Using these pumping rates, a particle tracking simulation was applied to the aquifer model and groundwater contours were generated. The particle tracking simulation helped to delineate the area of contributions and the groundwater contours were used to determine the recharge areas of the well fields. Based upon these results **Figures 1-3** were generated which depict the area of contributions, recharge areas and indirect recharge areas within a 5 mile radius of the well fields.

Link to Application #23-458F-305

Letters, Emails & Correspondence:

https://www.bristolct.gov/DocumentCenter/View/46565/NB-Floodplain-App-Extracted-Correspondence

COMPREHENSIVE
ENVIRONMENTAL
INCORPORATED

www.ceiengineers.com

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 Amstrong, 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

Connecticut Department of
ENERGY &
ENVIRONMENTAL
PROTECTION

79 Elm Street • Hartford, CT 06106-5127 www.ct.gov/deep Affirmative Action/Equal Opportunity Employer

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

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.

Ashley G. David

ASHLEY G DAVID
Notary Public, State of Connecticut
My Commission Expires Jan. 31, 2025

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

1:20,000

0 500 1,000 2,000 ft

0 210 420 840 m

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

USGS

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
	Raindrop Splash			Land Grading	LG
				Surface Roughening	SR
Short or Shallow Slopes	Sheet & Rill Erosion	Protect Surface		Dust Control	DC
			Vegetative Soil Cover	Temporary Seeding	TS
	Wind Erosion			Permanent Seeding	PS
				Sodding	SO
				Landscape Planting	LP
Steep Slopes			Non-Living Soil Protection	Temporary Soil Protection	TSP
				Mulch for Seed	MS
Long Slopes				Landscape Mulch	LM
				Temporary Erosion Control Blanket	ECB
				Permanent Turf Reinforcement Mat	TRM
				Stone Slope Protection	SSP
Stockpile Areas		Protect Surface and/or Convey Runoff	Stabilization Structures	Retaining Walls	RW
				Riprap	RR
	Control Water Movement			Gabions	G
Borrow Areas				Permanent Slope Drain	PSD
	Gully Erosion			Channel Grade Stabilization Structure	CSS
				Temporary Lined Chute	TC
				Temporary Pipe Slope Drain	TSD
	Channel & Stream Erosion		Drainageways and Watercourses	Vegetated Waterway	VW
Drainage Ways		Convey Runoff		Temporary Lined Channel	TLC
				Permanent Lined Waterway	PW
Wetlands and Watercourses				Temporary Stream Crossing	TSC
		Direct Runoff	Diversions	Temporary Fill Berm	TFB
				Water Bar	WB
				Temporary Diversion	TD
Waterbodies				Permanent Diversion	PD
		Intercept Grnd.Water	Subsurface Drains	Subsurface Drain	SD
		Detain Runoff	Detention Structures	Detention Basin	DB
Areas of Flooding and Existing Erosion	Natural Resource Degradation	Diffuse Runoff	Energy Dissipators	Level Spreader	LS
				Outlet Protection	OP
				Stone Check Dam	SCD
	Control Sediment Deposition	Detain Sediments	Sediment Impoundments, Barriers, and Filters	Temporary Sediment Basin	SB
				Temporary Sediment Trap	TST
Drainage Outlets				Hay Bale Barrier	HB
	Protect Onsite and Offsite Areas			Geotextile Silt Fence	GSF
				Turbidity Curtain	TC
				Vegetative Filter	VF
Travel Areas		Control Mechanically Moved Waters and Soils	Tire Tracked Soils Dewatering	Construction Entrance	CE
				Pump Intake and Outlet Protection	PuP
				Pumping Settling Basin	PSB
				Portable Sediment Tank	PST
Dewatering				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

UPPER WELLFIELD

LOWER WELLFIELD

Proposed Wells

Proposed Wells

New Pond Pumping Station

51-1A
52-15
52-16B16A
52-17
52-11
53-151
53-150
53-149
53-147
53-145

Freeman's Hill Brook
Coppermine Brook
Polkville Brook

RICHARD
CANDY
TROUT BROOK
SHEFFIELD
STEVENS
JEROME
FALLS BROOK
MARE
JEFFERSON
SHAWN
ADNA
COOLIDGE
WINDSOR
AVON
TIMBER
LITCHFIELD
GOSHEN
WINDHAM
DANBURY
HARTFORD
BRIDGEPORT
SONSTROM
STAFFORD
ROSEMARY
GREGORY
MARVIN
FOX DEN
JUNIPER
WOODYBROOK
WOODHAVEN
LOCHAVEN
MAPLE
MIX
REVERE
WILLOW BROOK
EDROW
LOVELAND
BOWEN
VALMORE
MALTBY
MIX STREET
COVENTRY
VANCE
TOLLAND
BARBARA
VINCENT
DOROTHY
MISSAL
JOHN
FARMINGTON
BROOK
WESTCHESTER
MATILDA
CAROL
BRITTON
LANCASTER
COLLINS
BOARDMAN
CASE

Legend

- New Production Well

Existing Well Locations:

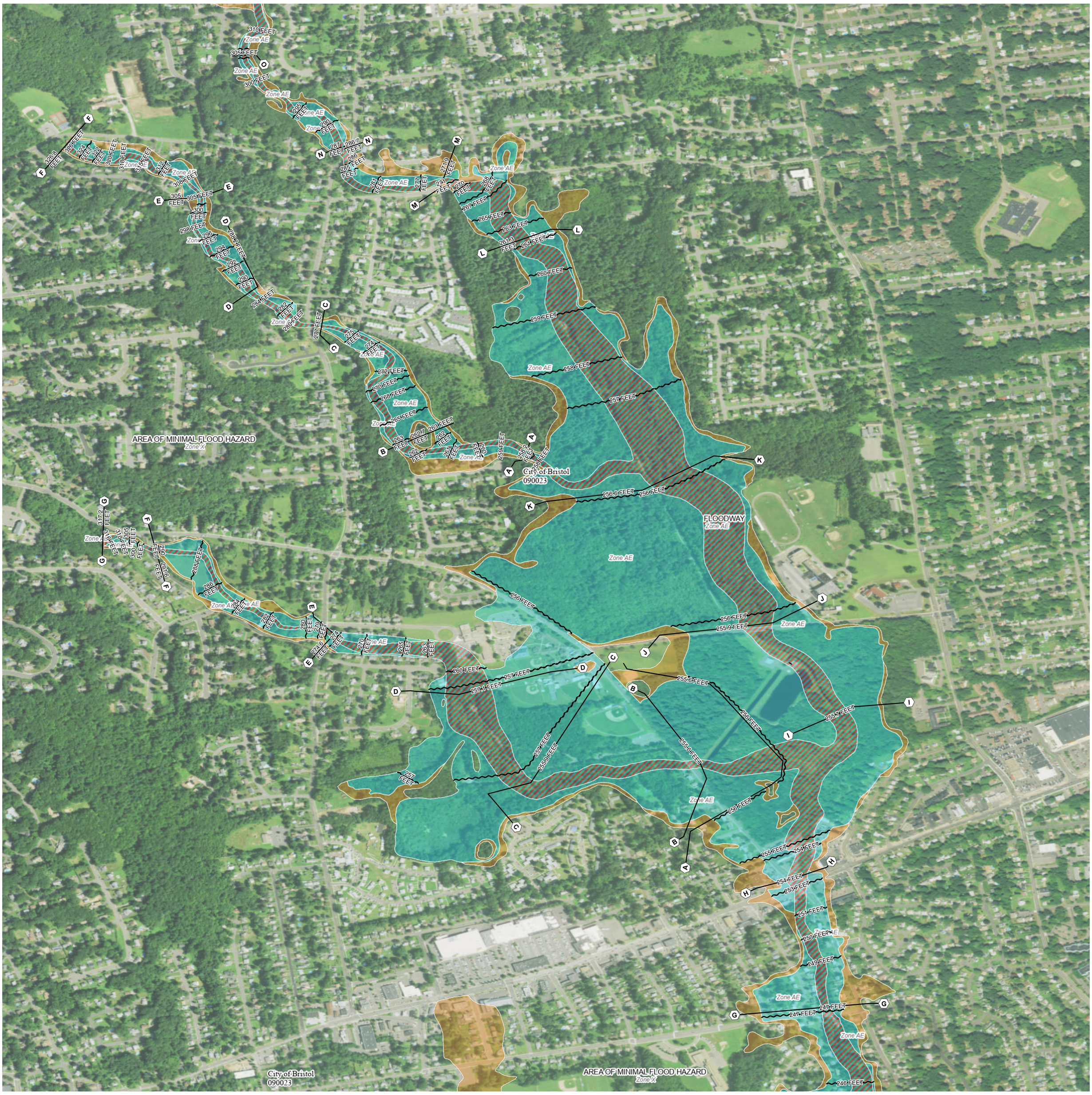
- Constructed in 1921
- Constructed in 1955
- Electrical Power Poles
- Electrical Transmission Lines
- Seismic Transects
- Treeline
- Contour interval 2 ft.
- Buildings
- Parcels
- New Britain Water Dept. Property Lines
- Rivers, Streams
- Lakes, Ponds

FEMA Flood Zones:

- 0.2% Annual Chance Flood Hazard
- AE
- X
- Base Flood Elevation Line

V:\Connecticut_GIS\Bristol\Bristol Upper & Lower Wellfields\Bristol Upper & Lower Wellfields_2\Bristol Upper & Lower Wellfields_2.aprx

72°56'15.43"W 41°43'14.12"N



72°54'22.08"W 41°41'8.44"N

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) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

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

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

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

OTHER FEATURES
- 20.2 Cross Sections with 1% Annual Chance
- 17.5 Water Surface Elevation
- Coastal Transect
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature
- 513 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 (1-877-336-2627) 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

Map Projection:
GCS, Geodetic Reference System 1980;
Vertical Datum: NAVD88
For information about the specific vertical datum for elevation features, datum conversions, or vertical monuments used to create this map, please see the Flood Insurance Study (FIS) Report for your community at https://msc.fema.gov

N

1 inch = 500 feet 1:6,000

0 250 500 1,000 1,500 2,000 Feet

0 50 100 200 300 400 Meters

NATIONAL FLOOD INSURANCE PROGRAM

FLOOD INSURANCE RATE MAP

PANEL **458** OF **658**

Panel Contains:

COMMUNITY	NUMBER	PANEL
CITY OF BRISTOL	090023	0458

MAP NUMBER
09003C0458F
EFFECTIVE DATE
September 26, 2008

Link to Attachment #4:

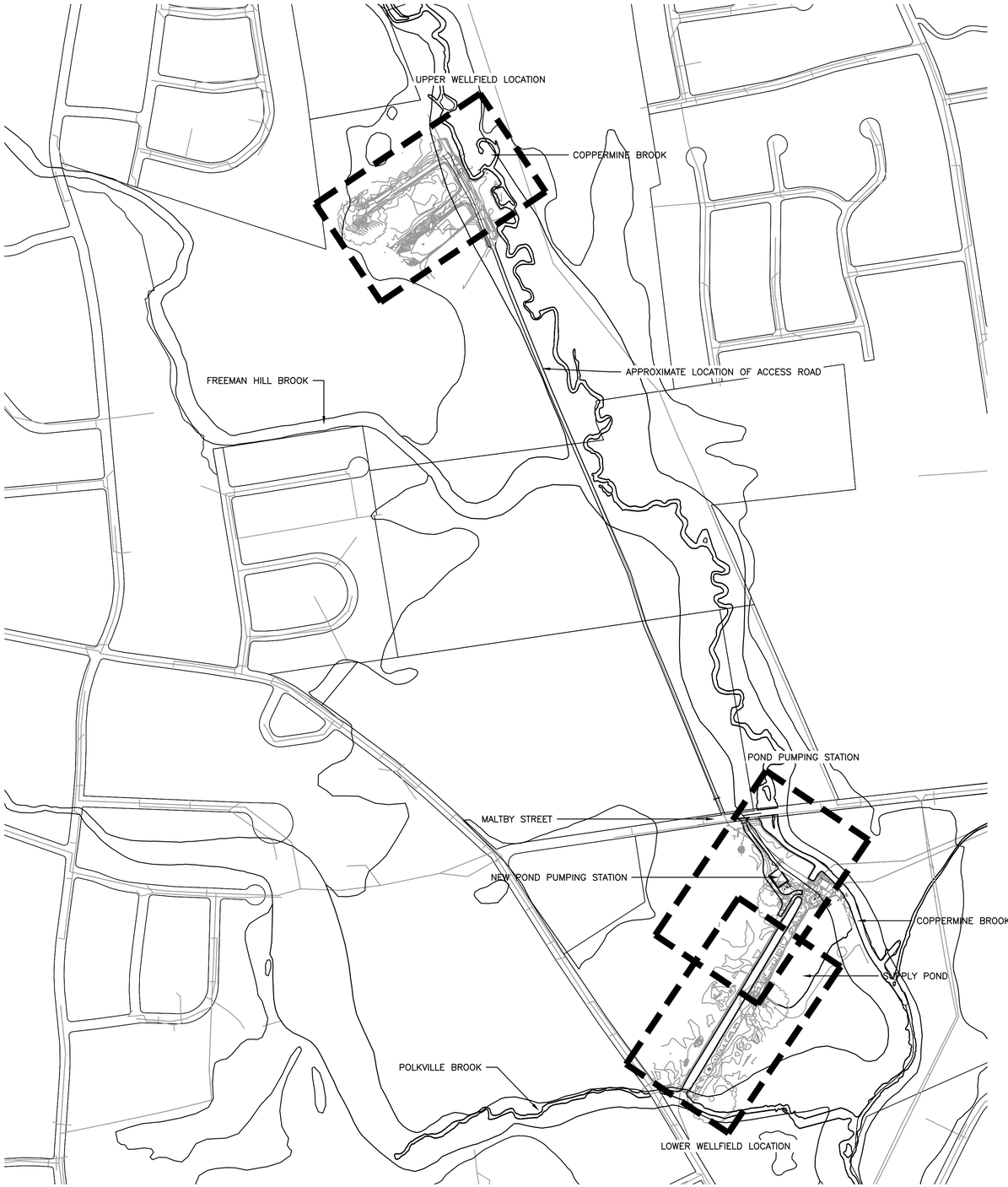
https://www.bristolct.gov/DocumentCenter/View/45996/Attachment-4-Extracted---Floodway-Areas

ATTACHMENT 4

FLOODWAY & FLOOD FRINGE ENCROACHMENT AREAS

ATTACHMENT 5

PROJECT DRAWINGS



PLAN
1" : 300'

PLAN
N.T.S.

	LOWER WELLFIELD & POND PUMPING STATION	UPPER WELLFIELD
FLOOD	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

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

REGULATORY REVIEW SUBMITTAL - NOT FOR CONSTRUCTION

XREFs: [CDMS_2436, CYPWP001, XSVPL000, CWP000ST, Floodway_Floodplain, AWZ001PS – 2D Process Export] Images: [Base Image]
Last saved by: ENGELSB Time: 3/24/2023 11:19:40 AM
C:\Users\engelsb\ACCDocs\CDM Smith Inc\10739-264571 – New Britain CT White Bridge Well Fields and PS\Project Files\02 Civil (C)\10 CADD\C002STPL.dwg
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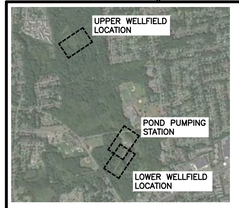
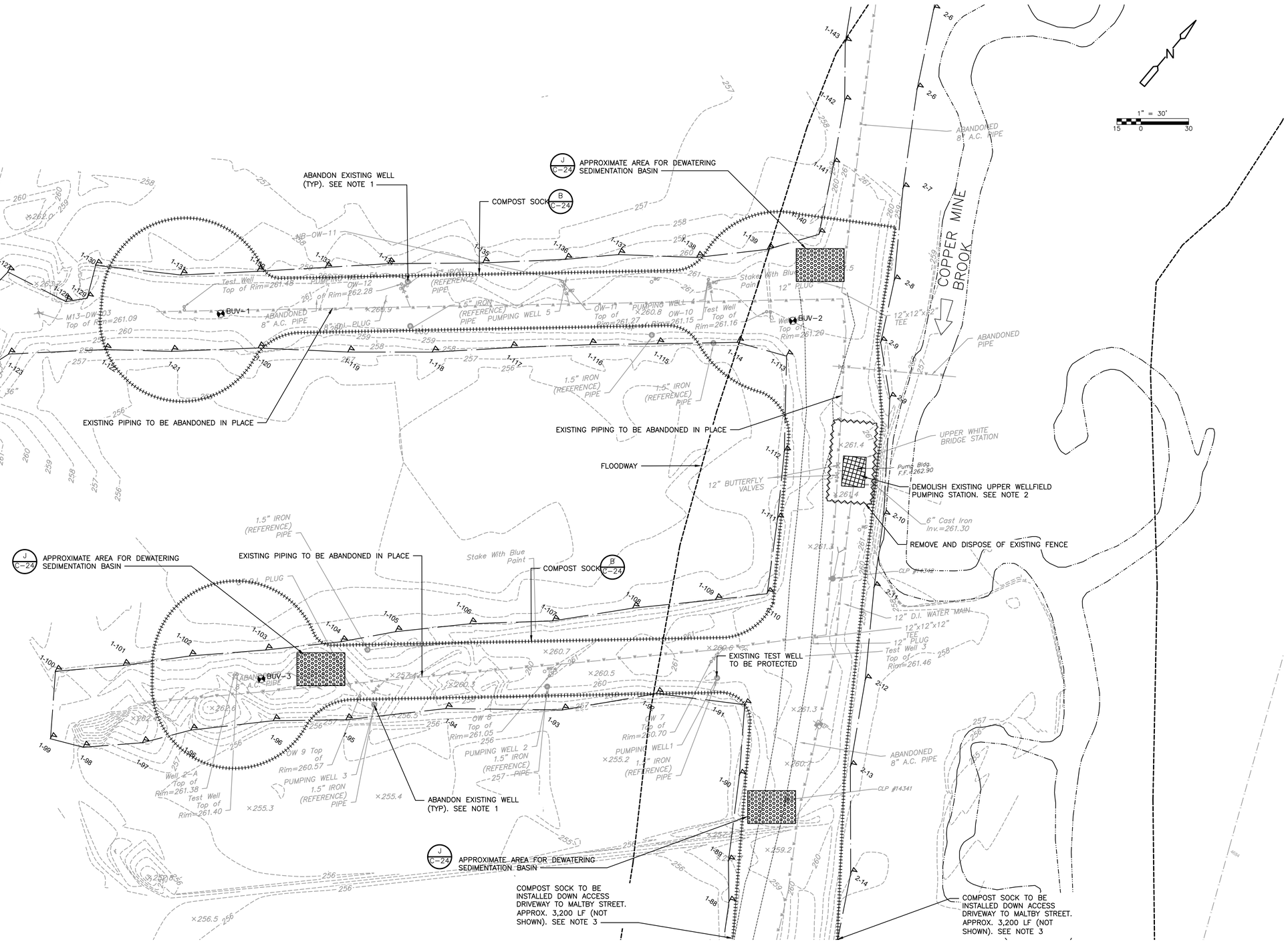


PLAN
N.T.S.

LEGEND
- COMPOST SOCK
- BUILDING REMOVAL
- WETLAND FLAG
- BORING

NOTES:

1. EXISTING WELLS TO HAVE THE WELL HEAD REMOVED TO 5 FEET BELOW FINISHED GRADE, LATERAL DISCHARGE PIPING REMOVED TO THE 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. 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.
3. 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.
4. 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.



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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

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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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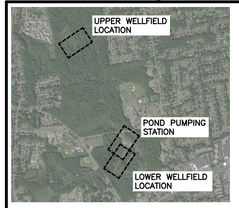

PLAN

N.T.S.

LEGEND

- COMPOST SOCK
- BUILDING REMOVAL
- WETLAND FLAG
- BORING

NOTES:

1. EXISTING WELLS TO HAVE THE WELL HEAD REMOVED TO 5 FEET BELOW FINISHED GRADE, LATERAL DISCHARGE PIPING REMOVED TO THE EXISTING 16" CI SUCTION HEADER PIPE, AND A CAP OR CONCRETE PLUG INSTALLED ON THE ABANDONED HEADER PIPE. SEE SECTION 019416, APPENDED TO THE SPECIFICATIONS, FOR MORE DECOMMISSIONING AND ABANDONMENT REQUIREMENTS OF EXISTING WELLS.
2. EXISTING WELLS WITH WELL HEAD LOCATED IN A VAULT TO HAVE VAULT DEMOLISHED AND REMOVED, WELL HEAD 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.
3. THE EXISTING POND PUMPING STATION BUILDING TO BE DEMOLISHED AT COMPLETION OF NEW POND PUMPING STATION TO AT LEAST 2 FEET BELOW FINISHED GRADE. THE WESTERN WALL SHALL REMAIN TO AT LEAST 2 FEET BELOW GRADE. BUILDING FOUNDATION TO BE FILLED AND COMPACTED TO EXISTING GRADE. OWNER TO TAG ITEMS AND EQUIPMENT TO BE SAVED PRIOR TO DEMOLITION. CONTRACTOR TO REMOVE AND RETURN TO OWNER ANY TAGGED ITEM OR EQUIPMENT. SEE SPECIFICATION SECTION 024116 FOR ADDITIONAL BUILDING DEMOLITION REQUIREMENTS.
4. THE EXISTING LOWER WELLFIELD PUMPING STATION BUILDING 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.
5. THE EXISTING CAISSON WELL TO BE DECOMMISSIONED AND ABANDONED IN PLACE. THE CONE OF THE EXISTING CAISSON WELL TO BE DEMOLISHED TO AT LEAST 2 FEET BELOW FINISH GRADE. SEE DETAIL B ON SHEET C-28 AND SECTION 019416, APPENDED TO THE SPECIFICATIONS, FOR MORE DECOMMISSIONING AND ABANDONMENT REQUIREMENTS OF THE EXISTING CAISSON WELL.
6. HAZARDOUS BUILDING MATERIALS WERE FOUND IN SAMPLES TAKEN FROM SELECT LOCATIONS IN EXISTING BUILDINGS. PRIOR TO COMMENCING WITH ANY MODIFICATIONS OR DEMOLITION WORK, REFER TO SPECIFICATIONS FOR KNOW LOCATIONS OF HAZARDOUS BUILDING MATERIALS AND EQUIPMENT, PROPOSED 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.

REMOVE AND DISPOSE OF EXISTING GATE
REMOVE AND DISPOSE OF EXISTING BIT. CONC. DRIVE
APPROXIMATE AREA FOR DEWATERING SEDIMENTATION BASIN. SEE DETAIL J ON SHEET C-24
REMOVE AND DISPOSE OF OR STOCKPILE FOR REUSE OF TOPSOIL WITHIN LIMITS OF WORK. STOCKPILED TOPSOIL MAY BE AMENDED AND UTILIZED IN AREAS TO BE LOAMED AND SEEDED IN ACCORDANCE WITH SPECIFICATION SECTION 329113 SOIL PREPARATION AS APPROVED BY ENGINEER
REMOVE AND DISPOSE OF EXISTING GRAVEL DRIVE TO A MINIMUM DEPTH OF 12-INCHES
B C-24 COMPOST SOCK
16" WATER MAIN TO BE ABANDONED
LIMIT OF AREA OF EXCAVATION FOR NEW PUMPING STATION BUILDING
REMOVE AND DISPOSE OF EXISTING CHAIN LINK FENCE AND GATES
EXISTING WATER LINES TO BE ABANDONED IN PLACE. ANY CONFLICTS WITH PROPOSED WORK SHALL BE REMOVED AND DISPOSED OF
EXISTING WELL 8 TO BE ABANDONED. SEE NOTE 1
EXISTING WELL 8-A TO BE ABANDONED. SEE NOTE 1
J C-24 APPROXIMATE AREA FOR DEWATERING SEDIMENTATION BASIN
EXISTING ELECTRICAL SHED AND CLP #10218 TO BE DEMOLISHED AT COMPLETION OF CONSTRUCTION
REMOVE AND REPLACE TWO CULVERTS
B C-24 COMPOST SOCK
ABANDON EXISTING WELL (TYP). SEE NOTES 1 & 2
B C-24 COMPOST SOCK
EXISTING PIPE TO BE ABANDONED IN PLACE
DECOMMISSION AND ABANDON EXISTING CAISSON WELL. SEE NOTE 5 THIS SHEET AND DETAIL B ON SHEET C-28
REMOVE AND DISPOSE EXISTING MANHOLE (TYP 2).
B C-24 COMPOST SOCK TO BE INSTALLED WEST DOWN MALTBY STREET ON BOTH SIDES TO MIX STREET (APPROXIMATELY 1,200 LF EACH SIDE)
A C-24 STABILIZED CONSTRUCTION ENTRANCE
FLOODWAY WESTERN BOUNDARY
DEMOLISH EXISTING LOWER WELLFIELD PUMPING STATION. SEE NOTE 4
J C-24 APPROXIMATE AREA FOR DEWATERING SEDIMENTATION BASIN
B C-24 COMPOST SOCK
FLOODWAY EASTERN BOUNDARY
LIMIT OF REMOVE AND DISPOSE OF EXISTING GRAVEL DRIVE TO A MINIMUM DEPTH OF 12-INCHES
B C-24 COMPOST SOCK
DEMOLISH EXISTING GENERATOR AT COMPLETION OF CONSTRUCTION
DEMOLISH EXISTING POND PUMPING STATION AT COMPLETION OF CONSTRUCTION. SEE NOTE 3
J C-24 APPROXIMATE AREA FOR DEWATERING SEDIMENTATION BASIN
MATCH LINE SEE SHEET C-8
CANAL
COPPER MINE BROOK
MALTBY STREET
MALTBY STREET BRIDGE
EXISTING GRAVEL DRIVE
EXITING LOWER WELLFIELD PUMPING STATION FFE = 253.00
EXISTING POND PUMPING STATION F.F.= 255.15 (TO BE DEMOLISHED AT COMPLETION OF CONSTRUCTION)
3" Dia. Well Top of Rim=250.88
Well 11 3" Upper Rim=251.62
Well 3" 11-A Upper Rim=252.29
NB-OW-14 Old 3" Well Top of Rim=252.60
BPS-1
BPS-2
BPS-3
BPS-4
BPS-5
BLWF-3
HBLW-1
HBLW-2
N
1" = 30'
15 0 30

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REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: G. HOWARD
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CROSS CHK'D BY: K. WAGNER
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CITY OF NEW BRITAIN, CONNECTICUT

WHITE BRIDGE WATERWORKS FACILITIES UPPER AND LOWER WELLFIELDS AND POND PUMPING STATION

POND PUMPING STATIONS DEMOLITION AND REMOVALS PLAN

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

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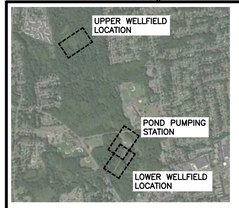

PLAN
N.T.S.

NOTES:

1. EXISTING WELLS TO HAVE THE WELL HEAD REMOVED TO 5 FEET BELOW FINISHED GRADE, LATERAL DISCHARGE PIPING REMOVED TO THE EXISTING 16" CI SUCTION HEADER PIPE, AND A CAP OR CONCRETE PLUG INSTALLED ON THE ABANDONED HEADER PIPE. SEE SECTION 019416, APPENDED TO THE SPECIFICATIONS, FOR MORE DECOMMISSIONING AND ABANDONMENT REQUIREMENTS OF EXISTING WELLS.
2. EXISTING WELLS WITH WELL HEAD LOCATED IN A VAULT TO HAVE VAULT DEMOLISHED AND REMOVED, WELL HEAD 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

LEGEND

- COMPOST SOCK
- BUILDING REMOVAL
- WETLAND FLAG
- BORING

N

1" = 30'
15 0 30

LIMITS OF WETLAND

APPROXIMATE AREA FOR DEWATERING SEDIMENTATION BASIN (J/C-24)

EXISTING TEST WELL TO BE PROTECTED

BLWF-1

BLWF-3

BLWF-4

BLWF-6

COMPOST SOCK (B/C-24) CLP #10213

COMPOST SOCK (B/C-24) CLP #10214

COMPOST SOCK (B/C-24) CLP #10216

LIMIT OF COMPOST SOCK

ABANDON EXISTING WELL (TYP). SEE NOTE 1 & 2

CANAL

EXISTING PIPING TO BE ABANDONED IN PLACE

EXISTING WELLS 26 AND 27 TO BE ABANDONED. SEE NOTE 1 AND 2

HEADER CAP AND WELLS

16" C.I. SUCTION HEADER

6" D.I. WELL CONNECTIONS

LIMIT OF FLOODWAY

POLKVILLE BROOK

SUPPLY POND

MATCH LINE SEE SHEET C-7

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CROSS CHK'D BY: K. WAGNER
APPROVED BY: K. WAGNER
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CITY OF NEW BRITAIN, CONNECTICUT

WHITE BRIDGE WATERWORKS FACILITIES UPPER AND LOWER WELLFIELDS AND POND PUMPING STATION

LOWER WELLFIELD DEMOLITION AND REMOVALS PLAN

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

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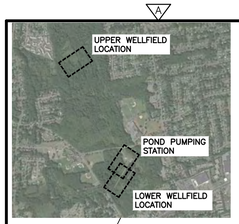

PLAN
N.T.S.

LEGEND

- WETLAND FLAG
- BORING

N=819160.92
E=952810.68

N=819369.72
E=953117.58

N=818987.22
E=952965.00

UPPER WELLFIELD WELL NO. 1. WELL CAP SET AT ELEVATION 262. SEE SHEET C-15 FOR WELL LOCATION

UPPER WELLFIELD WELL NO. 2. WELL CAP SET AT ELEVATION 262. SEE SHEET C-15 FOR WELL LOCATION

UPPER WELLFIELD WELL NO. 3. WELL CAP SET AT ELEVATION 262. SEE SHEET C-15 FOR WELL LOCATION

EROSION CONTROL BLANKETS ON ALL SLOPES 4:1 OR STEEPER

FLOODWAY

B C-27 6-FT HIGH CHAIN LINK FENCE

A C-27 24-FT WIDE DOUBLE-LEAF SWING GATE

TRENCH FOR PIPING, AND REPAIR TRENCH TO EXISTING CONDITIONS

EXISTING UPPER WELLFIELD PUMPING STATION

COPPER MINE BROOK

N

1" = 30'
15 0 30

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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

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CITY OF NEW BRITAIN, CONNECTICUT

WHITE BRIDGE WATERWORKS FACILITIES UPPER AND LOWER WELLFIELDS AND POND PUMPING STATION

UPPER WELLFIELD LAYOUT, MATERIALS, AND GRADING PLAN

PROJECT NO. 10739-264571
FILE NAME: C009STPL.DWG
SHEET NO. C-9

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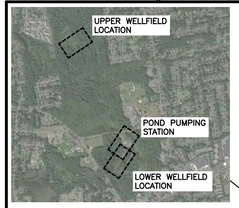

PLAN
N.T.S.

LEGEND

- BITUMINOUS CONCRETE
- INFILTRATION TRENCH
- CONCRETE WALKWAY
- DETENTION BASIN
- CHAIN LINK FENCE
- STEEL BEAM GUARDRAIL
- WETLAND FLAG
- BORING

LIMITS OF WETLAND
SURVEY CONTROL # 60 N=815542.7606 E=954587.8219 EL=251.733
3" Dia. Well Top of Rim=250.88
SURVEY CONTROL # 147 N=815295.0131 E=954567.0095 EL=251.292
SURVEY CONTROL # 147 N=815295.0131 E=954567.0095 EL=251.162
×250.5
×249.5
A C-27 24-FT WIDE DOUBLE-LEAF SWING GATE
Well 11 3" Upper Rim=251.62
Well 3" 11-A Upper Rim=252.29
×251.4
BLWF-3
CLP #10217
CLP #10216
MATCH LINE SEE SHEET C-11
CANAL
Top of Frame=253.73
Top of Frame=253.05
Top of Frame=252.96
Top of Frame=251.48
NB-OW-14 Old 3" Well Top of Rim=252.60 Top of Frame=253.20
Existing Well (Typ.)
SUPPLY POND
16" C.I. SUCTION HEADER
6" D.I. WELL CONNECTIONS

LIMIT OF METAL BEAM RAIL
LIMIT OF 3 FT WIDE GRAVEL INFILTRATION TRENCH
16" WATER MAIN
N=816028.56 E=954636.04
BPS-1
VEHICLE CONTROL GATE
24-FT WIDE DOUBLE-LEAF SWING GATE A C-27
LIMIT OF METAL BEAM RAIL
MALTBY STREET
SURVEY CONTROL # 91 N=816096.711 E=954678.5708 EL=256.530
SURVEY CONTROL # 1 N=816091.7206 E=954678.5697 EL=256.431
SURVEY CONTROL # 92 N=816144.3791 E=954804.3858 EL=256.979
1" = 30'
15 0 30
×251.4
×250.3
×252.3
4'-6" 10' 10' 3' 2'
J C-26 BIT CONC. ACCESS DRIVE
HBLW-1
C C-26 3 FT WIDE GRAVEL INFILTRATION TRENCH
BPS-3
METAL BEAM RAIL A C-28
LIMITS OF WETLAND
HBLW-2
×251.8
6-FT HIGH CHAIN LINK FENCE B C-27
N=815815.04 E=954723.44
BPS-2
N=815900.69 E=954734.73
FLOODWAY
N=815805.58 E=954749.03
N=815870.26 E=954771.18
B C-27 6-FT HIGH CHAIN LINK FENCE
LIMIT OF METAL BEAM RAIL
N=815860.24 E=954792.16
A C-28 METAL BEAM RAIL
SEGMENTAL BLOCK RETAINING WALL E C-27
BPS-4
×251.6
L C-26 5 FT WIDE CONCRETE WALK
FUTURE MAU-1 SEE HVAC DRAWINGS SET AT ELEVATION 258.5'
NEW POND PUMPING STATION FFE = 258'
N=815745.97 E=954792.91
N=815820.57 E=954836.35
ROOF LEADER OUTLET SET AT ELEVATION 252.0'
TEMPORARY SWITCHBOARD
RIPRAP APRON E C-26
LIMIT OF 3 FT WIDE GRAVEL INFILTRATION TRENCH
EXISTING LOWER WELLFIELD WELL PUMPING STATION TO BE DEMOLISHED
LIMIT OF METAL BEAM RAIL
N=815665.20 E=954833.75
LOCATION OF GENERATOR
24-FT WIDE DOUBLE-LEAF SWING GATE A C-27
×251.6
FLOODWAY – WESTERN BOUNDARY
FLOODWAY – EASTERN BOUNDARY
EDGE OF STREAM
PAD-MOUNTED UTILITY TRANSFORMER
METAL BEAM RAIL A C-28
LIMIT OF METAL BEAM RAIL
LIMIT OF 3 FT WIDE GRAVEL INFILTRATION TRENCH
LIMIT OF BIT. CONC. ACCESS DRIVE
24-FT WIDE DOUBLE-LEAF SWING GATE A C-27
C C-26 3 FT WIDE GRAVEL INFILTRATION TRENCH
LIMIT OF 3 FT WIDE GRAVEL INFILTRATION TRENCH
LIMIT OF METAL BEAM RAIL
EXISTING POND PUMPING STATION TO BE DEMOLISHED AT COMPLETION OF CONSTRUCTION
A C-27 24-FT WIDE DOUBLE-LEAF SWING GATE
HYDRANT
LOAM AND SEED DISTURBED AREA
24-FT WIDE DOUBLE-LEAF SWING GATE A C-27
RIPRAP
×252.6
×250.8

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

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

POND PUMPING STATION
LAYOUT AND MATERIALS PLAN

PROJECT NO. 10739-264571
FILE NAME: C010GDPL.DWG
SHEET NO. C-10

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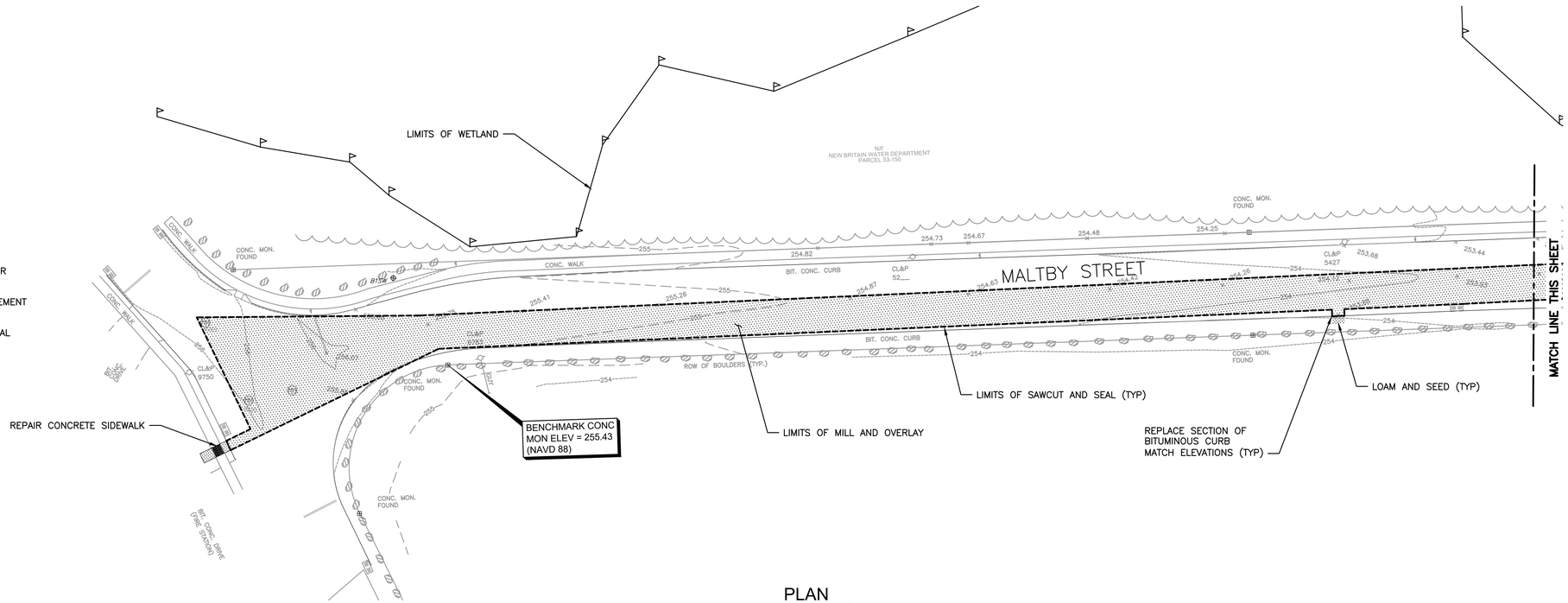
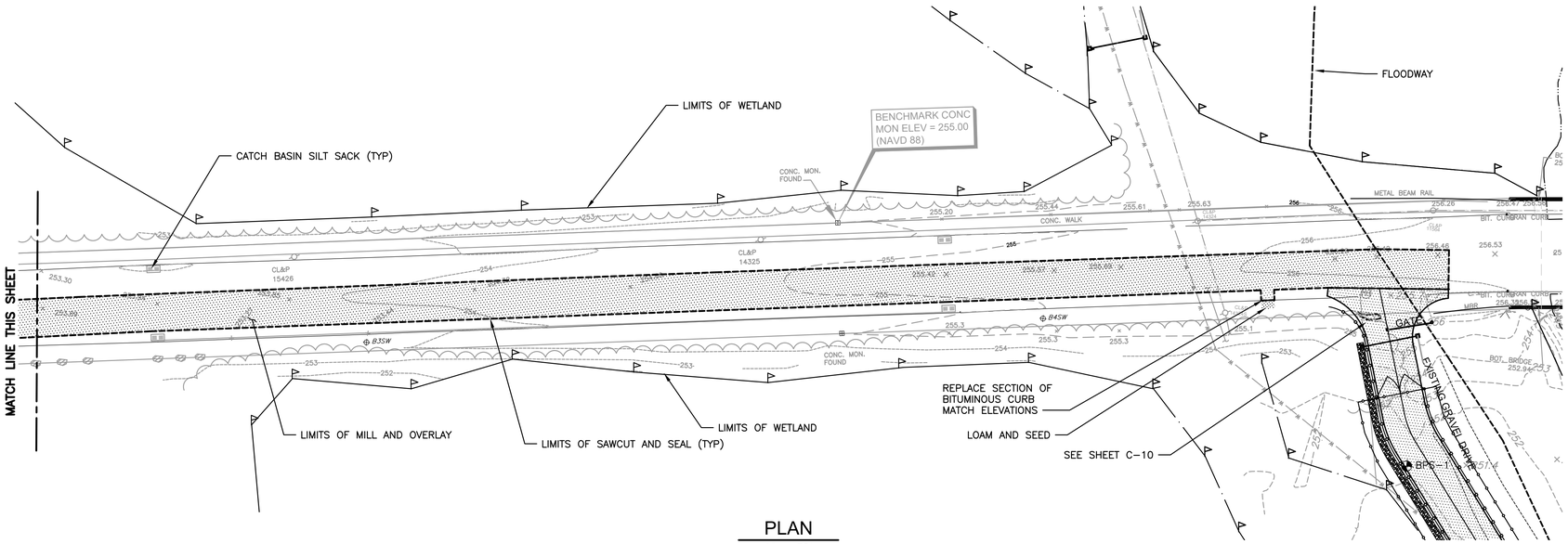
LEGEND

- BITUMINOUS CONCRETE
- LOAM AND SEED
- CONCRETE SIDEWALK REPAIR
- BITUMINOUS CURB REPLACEMENT
- LIMITS OF SAWCUT AND SEAL



PLAN
1" = 30'



PLAN
1" = 30'

REV. NO.	DATE	DRWN	CHKD	REMARKS

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

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101 East River Drive, Suite 1A
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Tel: (860) 529-7615

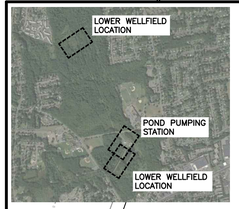
CITY OF NEW BRITAIN, CONNECTICUT

WHITE BRIDGE WATERWORKS FACILITIES UPPER AND LOWER WELLFIELDS AND POND PUMPING STATION

MAILTBY STREET SURFACE RESTORATION

PROJECT NO. 10739-264571
FILE NAME: C010BGDPL.DWG
SHEET NO.
C-10B

REGULATORY REVIEW SUBMITTAL - NOT FOR CONSTRUCTION



PLAN

N.T.S.

LEGEND

- WETLAND FLAG
- BORING

B C-27 — 6-FT HIGH CHAIN LINK FENCE

C C-27 — 6-FT WIDE PEDESTRIAN SWING GATE

EROSION CONTROL BLANKETS ON ALL SLOPES 4:1 OR STEEPER

LOAM AND SEED ALL DISTURBED AREAS

LOWER WELLFIELD WELL NO. 1. WELL CAP SET AT ELEVATION 259. SEE SHEET C-16 FOR WELL LOCATION
N=814826.21
E=954295.69

LOWER WELLFIELD WELL NO. 2. WELL CAP SET AT ELEVATION 259. SEE SHEET C-16 FOR WELL LOCATION
N=815067.41
E=954432.45

LOWER WELLFIELD WELL NO. 3. WELL CAP SET AT ELEVATION 259. SEE SHEET C-16 FOR WELL LOCATION
N=815489.21
E=954705.31

LOWER WELLFIELD WELL NO. 4. WELL CAP SET AT ELEVATION 259. SEE SHEET C-16 FOR WELL LOCATION
N=814809.95
E=954461.28

LOWER WELLFIELD WELL NO. 5. WELL CAP SET AT ELEVATION 259. SEE SHEET C-16 FOR WELL LOCATION
N=814966.07
E=954566.76

LOWER WELLFIELD WELL NO. 6. WELL CAP SET AT ELEVATION 259. SEE SHEET C-16 FOR WELL LOCATION
N=815118.36
E=954657.81

LOAM AND SEED ALL WELL BERMS, TYP.

CANAL

SUPPLY POND

POLKVILLE BROOK

ABANDONED PIPE AND WELLS

HEADER CAP

16" C.I. SUCTION HEADER

6" D.I. WELL CONNECTIONS

MATCH LINE SEE PUMPING STATION SHEETS

1" = 30'

REV. NO.	DATE	DRWN	CHKD	REMARKS

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

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CITY OF NEW BRITAIN, CONNECTICUT

WHITE BRIDGE WATERWORKS FACILITIES
UPPER AND LOWER WELLFIELDS
AND POND PUMPING STATION

LOWER WELLFIELD
LAYOUT, MATERIALS, AND GRADING PLAN

PROJECT NO. 10739-264571
FILE NAME: C011GDPL.DWG
SHEET NO. C-11

REGULATORY REVIEW SUBMITTAL - NOT FOR CONSTRUCTION

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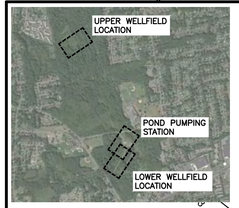
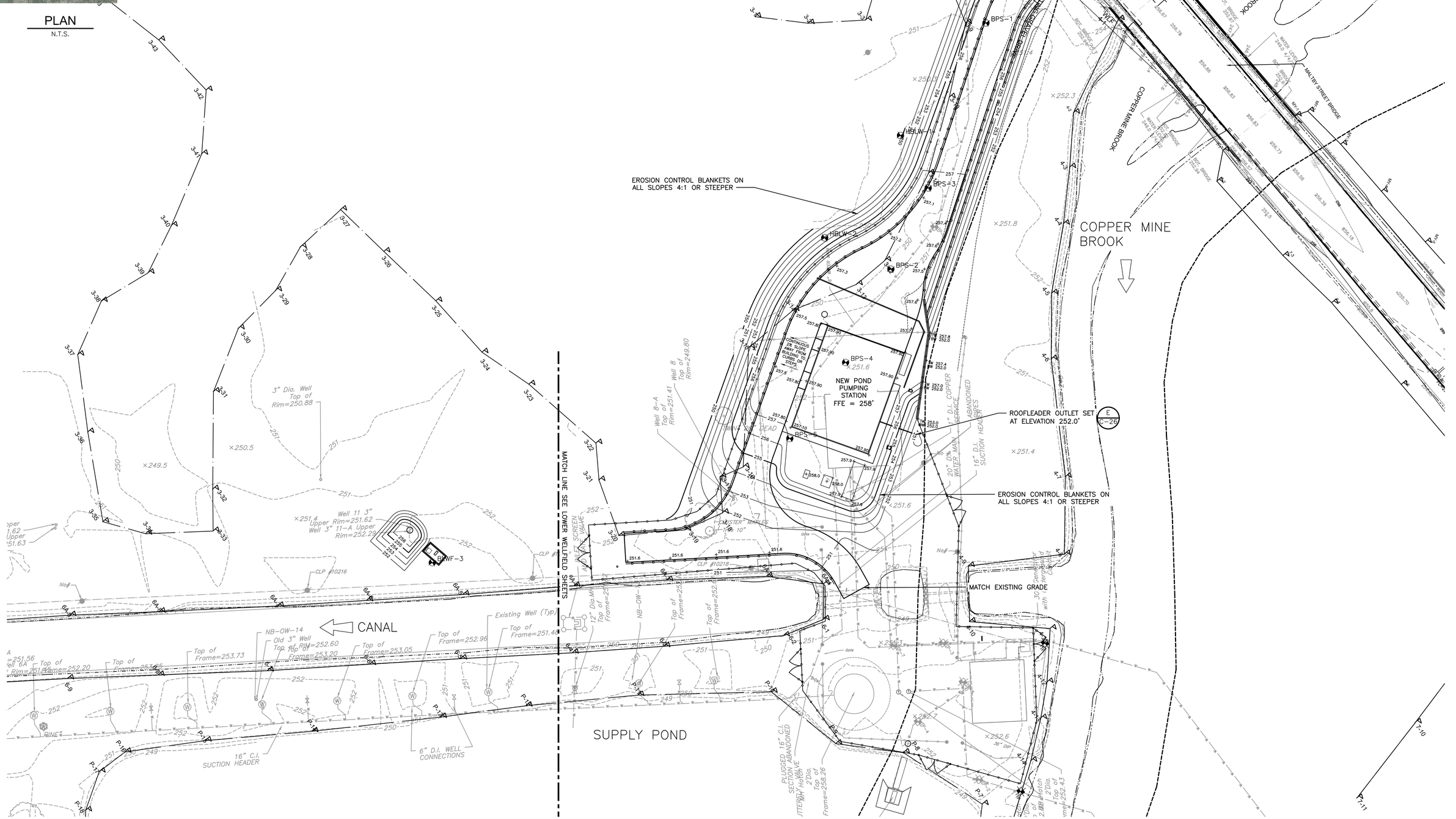


PLAN
N.T.S.



REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: G. HOWARD
DRAWN BY: J. BRONENKANT
SHEET CHK'D BY: K. GERLACH
CROSS CHK'D BY: K. WAGNER
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

POND PUMPING STATION
GRADING AND DRAINAGE PLAN

PROJECT NO. 10739-264571
FILE NAME: C012GDPL.DWG
SHEET NO.
C-12

REGULATORY REVIEW SUBMITTAL - NOT FOR CONSTRUCTION

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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

PROJECT NO. 10739-264571
FILE NAME: C013STPL.DWG

SHEET NO.
C-13

REGULATORY REVIEW SUBMITTAL - NOT FOR CONSTRUCTION

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

CDM Smith
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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

WETLAND REPLICATION PLAN II

PROJECT NO. 10739-264571
FILE NAME: C014STPL.DWG
SHEET NO. C-14

REGULATORY REVIEW SUBMITTAL - NOT FOR CONSTRUCTION

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NOTES:

1. PROVIDE TEMPORARY CONNECTION TO 6-INCH PIPE FOR USE DURING PRELIMINARY WELL PUMP TESTING. SEE SPECIFICATION SECTION 017300 FOR CONSTRUCTION SEQUENCING DETAILS AND REQUIREMENTS.
2. PROVIDE TEMPORARY WATER METER FOR UPPER WELLFIELD OPERATIONS DURING CONSTRUCTION. SEE SPECIFICATION SECTION 017300 FOR CONSTRUCTION SEQUENCING DETAILS AND REQUIREMENTS.
3. CONNECTION OF EXISTING WELL DISCHARGE PIPES TO EXISTING SUCTION HEADER PIPE TO BE CAPPED OR PLUGGED DURING ABANDONMENT AND DECOMMISSIONING OF EXISTING WELLS. SEE SHEET C-6.
4. ALL PIPING TO BE RESTRAINED. SEE SPECIFICATION 330519 FOR DETAILS AND REQUIREMENTS.

PLAN
1"=20'

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: APRIL 2023

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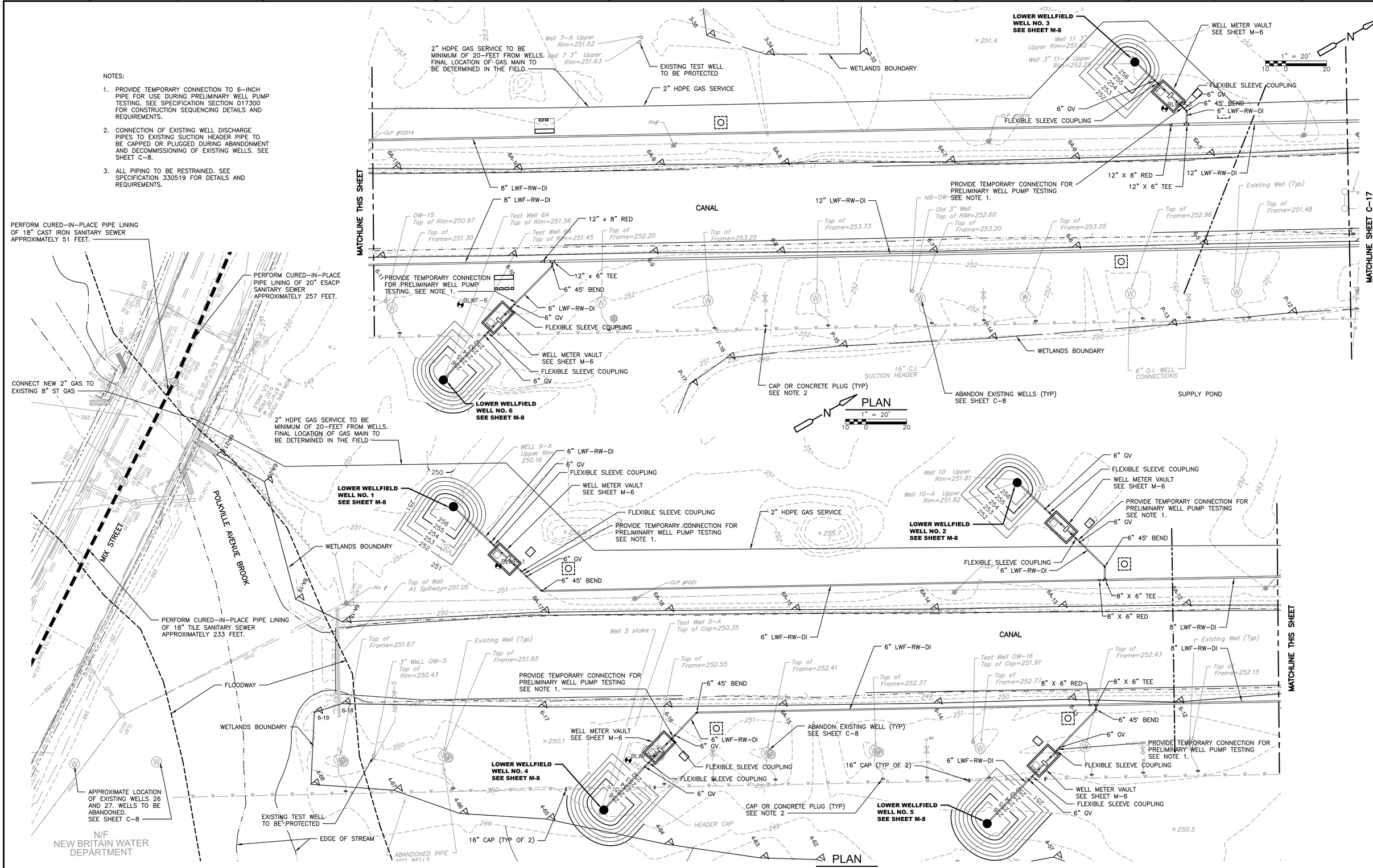
CITY OF NEW BRITAIN, CONNECTICUT
WHITE BRIDGE WATERWORKS FACILITIES
UPPER AND LOWER WELLFIELDS
AND POND PUMPING STATION

UPPER WELLFIELD
YARD PIPING PLAN

PROJECT NO. 10739-264571
FILE NAME: C015YPPL.DWG
SHEET NO. C-15

NOTES:

1. PROVIDE TEMPORARY CONNECTION TO 6–INCH PIPE FOR USE DURING PRELIMINARY WELL PUMP TESTING. SEE SPECIFICATION SECTION 017300 FOR CONSTRUCTION SEQUENCING DETAILS AND REQUIREMENTS.
2. CONNECTION OF EXISTING WELL DISCHARGE PIPES TO EXISTING SUCTION HEADER PIPE TO BE CAPPED OR PLUGGED DURING ABANDONMENT AND DECOMMISSIONING OF EXISTING WELLS. SEE SHEET C–8.
3. 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

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CITY OF NEW BRITAIN, CONNECTICUT

WHITE BRIDGE WATERWORKS FACILITIES UPPER AND LOWER WELLFIELDS AND POND PUMPING STATION

LOWER WELLFIELD YARD PIPING PLAN

PROJECT NO. 10739–264571
FILE NAME: C016YPPL.DWG
SHEET NO. C–16

REGULATORY REVIEW SUBMITTAL - NOT FOR CONSTRUCTION

XREFs: [CDMS_2436, CYPWP001, XSVPL000, CWP000ST, AWZ001PS – 2D Process Export, 2022–17, BORING LOCATIONS, Floodway_Floodplain, EWP001ST] Images: []
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MATCHLINE SHEET C-16

NOTES:

1. PROVIDE TEMPORARY CONNECTION TO 16-INCH PIPE FOR USE DURING PRELIMINARY WELL PUMP TESTING. SEE SPECIFICATION SECTION 017300 FOR CONSTRUCTION SEQUENCING DETAILS AND REQUIREMENTS.
2. REFER TO SPECIFICATION APPENDICES FOR ADDITIONAL TEST PIT AND BORING LOG INFORMATION.
3. CONNECTION OF EXISTING WELL DISCHARGE PIPES TO EXISTING SUCTION HEADER PIPE TO BE CAPPED OR PLUGGED DURING ABANDONMENT AND DECOMMISSIONING OF EXISTING WELLS. SEE SHEET C-7.
4. ALL PIPING TO BE RESTRAINED. SEE SPECIFICATION 330519 FOR DETAILS AND REQUIREMENTS.

PROTECT EXISTING 12" WATER MAIN
ABANDON EXISTING WELLS (TYP) SEE SHEET C-7
WETLANDS BOUNDARY
EXISTING PIPING TO BE ABANDONED IN PLACE
CAP OR CONCRETE PLUG (TYP) SEE NOTE 3
D C-25 12" X 6" ANCHOR TEE HYDRANT ASSEMBLY
SUPPLY POND
12" 45° VERTICAL BEND (TYP OF 4)
12" LW-RW-DI TO BE INSTALLED BELOW NEW CONCRETE CULVERTS
30" 45° VERTICAL BEND (TYP OF 4)
30" P-RW-DI TO BE INSTALLED BELOW NEW CONCRETE CULVERTS
FLOODWAY WESTERN BOUNDARY
16" CAP (TYP OF 3)
16" BFV TO BE REMOVED
EXISTING MAIN TO BE CAPPED
EXISTING CAISSON WELL AND PIPING TO BE ABANDONED
30" P-RW-DI (℄ EL. 237.52)
REMOVE AND DISPOSE EXISTING MANHOLE (TYP OF 2)
G C-27 5' DIAMETER PRECAST MANHOLE
H M-12 AIR RELEASE VALVE
CONNECT TO EXISTING PIPING
30" X 24" RED
INSTALL RIPRAP APRON AROUND INTAKE STRUCTURE APPROXIMATELY 2-FT TALL BY 5-FT WIDE
EXISTING STEEL INTAKE STRUCTURE SCREENS TO BE REPLACED WITH STAINLESS STEEL SCREENS. MATCH EXISTING DIMENSIONS, SCREEN OPENINGS, AND REINFORCING BARS. MOUNT IN EXISTING SPACE WITH SIMILAR HARDWARE. APPROXIMATELY 9-FT HIGH BY 9.5-FT WIDE; CLEAR SCREEN OPENINGS APPROXIMATELY 0.5-IN SPACING. TYP 2 SIDES.
Top Concrete Wall At Inlet=251.95
INLET SCREEN AND EQUALIZER APPROX CL EL 244.6 (MATCH EXISTING)
30" P-RW-DI
30" TEE (℄ EL. 238.05)
30"X24" RED
24" CAP
(TO BE INSTALLED WHEN EXISTING POND PUMPING STATION IS DEMOLISHED)
COPPERMINE BROOK
D C-25 36" X 6" ANCHOR TEE HYDRANT ASSEMBLY
36" CAP
36" TEE APPROX CL EL 243.8 (MATCH EXISTING)
F C-25 SOLID SLEEVE/COUPLING CONNECTION TO EXISTING 36" WATER MAIN
CONTRACTOR TO PERFORM TEST PIT TO LOCATE EXISTING 36" W-CI FOR FINAL CONNECTION
WETLANDS BOUNDARY
EXISTING POND PUMPING STATION FF=253.15 (TO BE DEMOLISHED AT COMPLETION OF CONSTRUCTION)
FLOODWAY EASTERN BOUNDARY
36" W-CI (TO STAFFORD AVE)
MATCHLINE SHEET C-19
FUTURE WORK CLEAN, INSPECT, AND CIPP LINE EXISTING 20" PIPE TO STAFFORD AVENUE (APPROX. 1,200 LF) (TO STAFFORD AVE)
36" CAP (TO BE INSTALLED WHEN EXISTING POND PUMPING STATION IS DEMOLISHED)
TEMPORARY SOLID SLEEVE/COUPLING CONNECTION TO EXISTING 36" PUMP STATION DISCHARGE MAIN
CAP EXISTING 20" WATER MAIN
CAP AND THRUST BLOCK FOR TEMPORARY DEAD END
FUTURE WORK 20" X 6" ANCHOR TEE HYDRANT ASSEMBLY
CONTRACTOR TO PERFORM TEST PIT TO LOCATE EXISTING 20" W-CI FOR FINAL CONNECTION
12" X 6" ANCHOR TEE HYDRANT ASSEMBLY
D C-25
2" HDPE GAS SERVICE
BOLLARD (TYP) D C-27
CANAL
12" Dia.MH Top of Frame=251.42
INLET SCREEN AND GATE VALVE
NB-OW-13
Observation Well Elevation=252.00
Top of Frame=252.12
Top of Frame=252.61
12" LWF-RW-DI
12" LWF-RW-DI
16" X 12" TEE
16" LWF-RW-DI APPROX CL EL 245
12" GV
12" LWF-RW-DI
30" P-RW-DI (℄ E. 240)
16" GV WITH POST INDICATOR (TYP OF 3)
16" LWF-RW-DI TO BE INSTALLED ABOVE 30" P-RW-DI
CAP
20" DI WATER MAIN
1" DI COPPER SERVICE
ABANDONED PIPE
16"45° BEND
16" BFV
16" D.I. SUCTION HEADER
30" C.M.P. F.E. Inv.=247.00
6x4' Conc. Inv=245.50
6x4' Conc. Inv=245.60
6x4' Conc. Inv=245.53
6.4' Conc. Inv=245.50
30" C.M.P. F.E. Inv=247.38
MH Hatch 2'Dia. Top of Frame=252.32
MH Hatch 2'Dia. Top of Frame=252.43
30k Generator with Underground Conduit
PLUGGED 16" C.I. SECTION ABANDONED
TERFLY VALVE
MH Hatch 2'Dia. Top of Frame=258.26
Conc.Structure with Metal Grate Top of Grate=252.36
Well 8-A Top of Rim=254.41
Well 8 Top of Rim=244.84
FOSTER MAPLES Trees
Bollard
Gate with Bollard
36" PUMPED POND AND UPPER WELLFIELD RAW WATER (℄ EL. 245.50)
16" LOWER WELLFIELD (APPROX. ℄ EL. 246.33) (FUTURE TREATED POTABLE) WATER MAIN
LOWER WELLFIELD RAW WATER BACKFLOW PREVENTION ASSEMBLY (SEE SHEET M-7)
BOLLARD (TYP) D C-27
PROVIDE TEMPORARY CONNECTION FOR PRELIMINARY WELL PUMP TESTING. SEE NOTE 1.
SPACE FOR FUTURE LOWER WELLFIELD FINISHED WATER CHLORINE CONTACT TIME PIPE LOOP
36" X 16" TEE
EXISTING CORRUGATED METAL PIPE CULVERTS TO BE REPLACED WITH CONCRETE CULVERT AND CULVERT ENDS (MATCH EXISTING INVERTS) K C-26
36" 45° VERTICAL BEND (TYP OF 4)
16" 45° VERTICAL BEND (TYP OF 4)
36" W-DI AND 16" W-DI TO BE INSTALLED BELOW EXISTING CONCRETE CULVERTS
EXISTING OBSERVATION WELLS 8 AND 8A TO BE ABANDONED SEE SHEET C-7
16" 45° BEND (℄ EL. 250.20)
6" 45° BEND (TYP OF 4)
2" W-CU
6" W-DI
30" POND RAW WATER INTAKE (℄ EL. 234.44)
30" 90° BEND
30" X 20" TEE (3)
30" W-DI
16" 22.5° BEND (℄ EL. 250.20)
PREFABRICATED SANITARY SEWER GRINDER PUMPING STATION
TOP ELEV APPROX 258; TANK INVERT ELEV APPROX 248.5
4" INLET APPROX INV 251.5; 1.25" SAN-HDPE PUMPED OUTLET APPROX CL 252.5
20" MJ BFV WITH EXTENDED NECK AND HANDWHEEL OPERATOR (3)
16" BFV
16" 45° BEND (℄ EL. 250.20)
16" LWF-RW-DI (LOWER WELLFIELD RAW WATER MAIN) (APPROX. ℄ EL. 250.20)
EXISTING LOWER WELLFIELD PUMPING STATION FF=253.00 (TO BE DEMOLISHED) SEE SHEET C-7
EXISTING 16" DI WATER MAIN TO BE REMOVED SEE SHEET C-7
6" 45° BEND
1.25" SAN-HDPE LOCAL HIGH POINT, APPROX. CL EL 253
4' DIA. MANHOLE G C-27 AND AIR RELEASE VALVE AS SPECIFIED
WETLANDS BOUNDARY
PROPOSED POND PUMPING STATION FFE 258.00 SEE SHEET M-2
HYDRANT ASSEMBLY D C-25
16" CAP
EXISTING 16" DI WATER MAIN TO BE ABANDONED IN PLACE
BORING LOCATION (TYP) SEE NOTE 2 THIS SHEET
SEGMENTAL BLOCK RETAINING WALL E C-27
6" 45° BEND
1.25" SAN-HDPE (APPROX. ℄ EL. 252.5)
6" GAS TO EMERGENCY GENERATOR
24" PUMPED POND RAW WATER (APPROX. ℄ EL. 252.17)
24" 22.5° BEND (DN)
4" DI ROOF DRAIN D C-26
16" LOWER WELLFIELD (FUTURE TREATED POTABLE) WATER MAIN (APPROX. ℄ EL. 250.20)
16" BFV
16" 90° BEND (DN)
16" 45° BEND
16"-LOWER WELLFIELD (FUTURE TREATED POTABLE) WATER MAIN TO BE INSTALLED ABOVE 16"-UWF-RW-DI
TEST PIT LOCATION (TYP) SEE NOTE 2 THIS SHEET
16" UWF-RW-DI
6" W-DI
2" W-CU
WETLANDS BOUNDARY
EDGE OF STREAM
COPPERMINE BROOK
MATCHLINE SHEET C-18C

PLAN
1" = 20'

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

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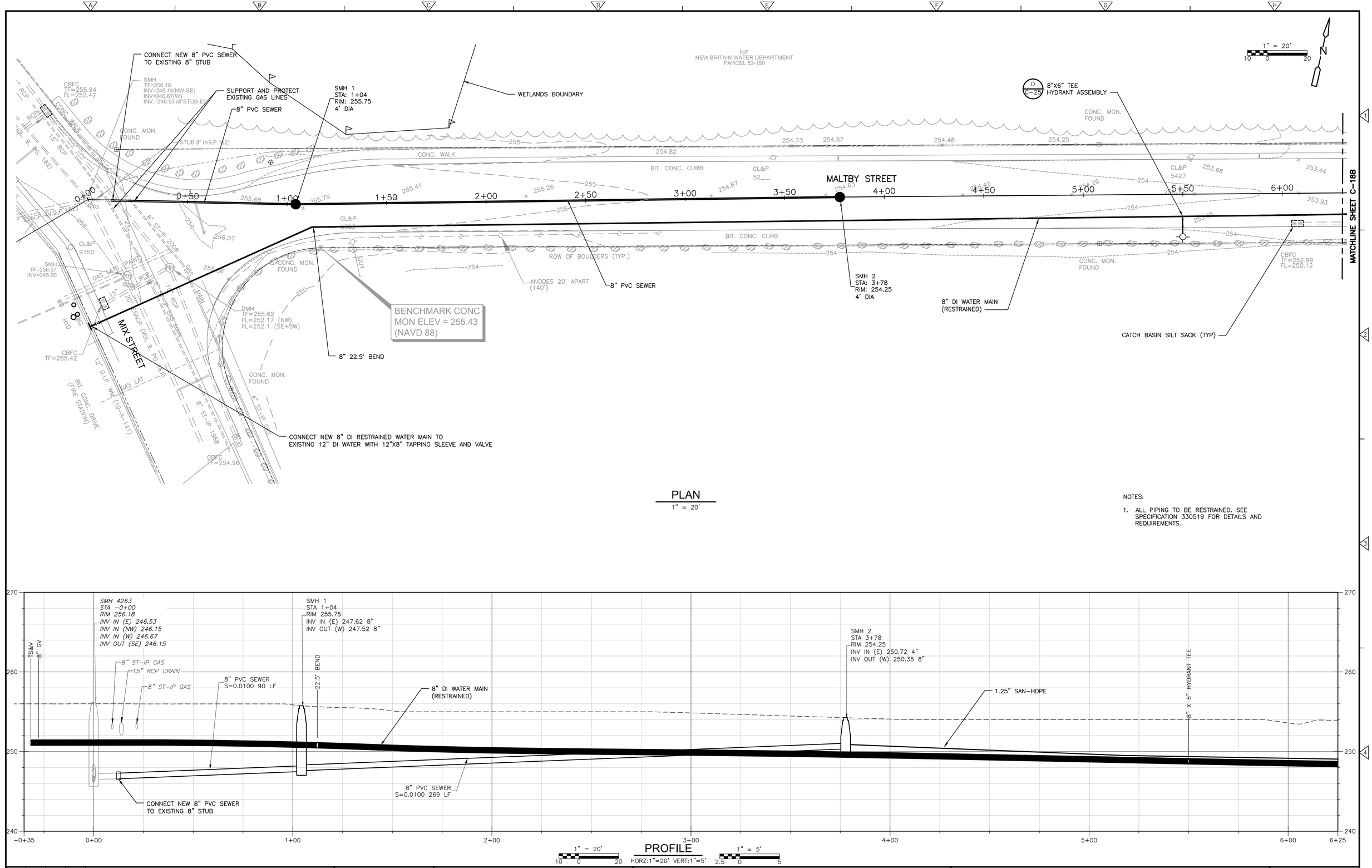
Tel: (860) 529-7615

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: C017YPPL.DWG
SHEET NO. C-17

REGULATORY REVIEW SUBMITTAL - NOT FOR CONSTRUCTION



PLAN
1" = 20'

NOTES:

1. ALL PIPING TO BE RESTRAINED. SEE SPECIFICATION 330519 FOR DETAILS AND REQUIREMENTS.

PROFILE
1" = 20' HORZ:1"=20' VERT:1"=5' 1" = 5'
10 0 20 2.5 0 5

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

MALTBY STREET
PLAN AND PROFILE I

PROJECT NO. 10739-264571
FILE NAME: C018AYPPL.DWG
SHEET NO. C-18A

REGULATORY REVIEW SUBMITTAL - NOT FOR CONSTRUCTION

XREFs: [CDMS_2436, XSVPL000, CWP000ST, AWZ001PS - 2D Process Export, 2022-17, BORING LOCATIONS-CEI Edits, Floodway_Floodplain, CYPWP002] Images: []
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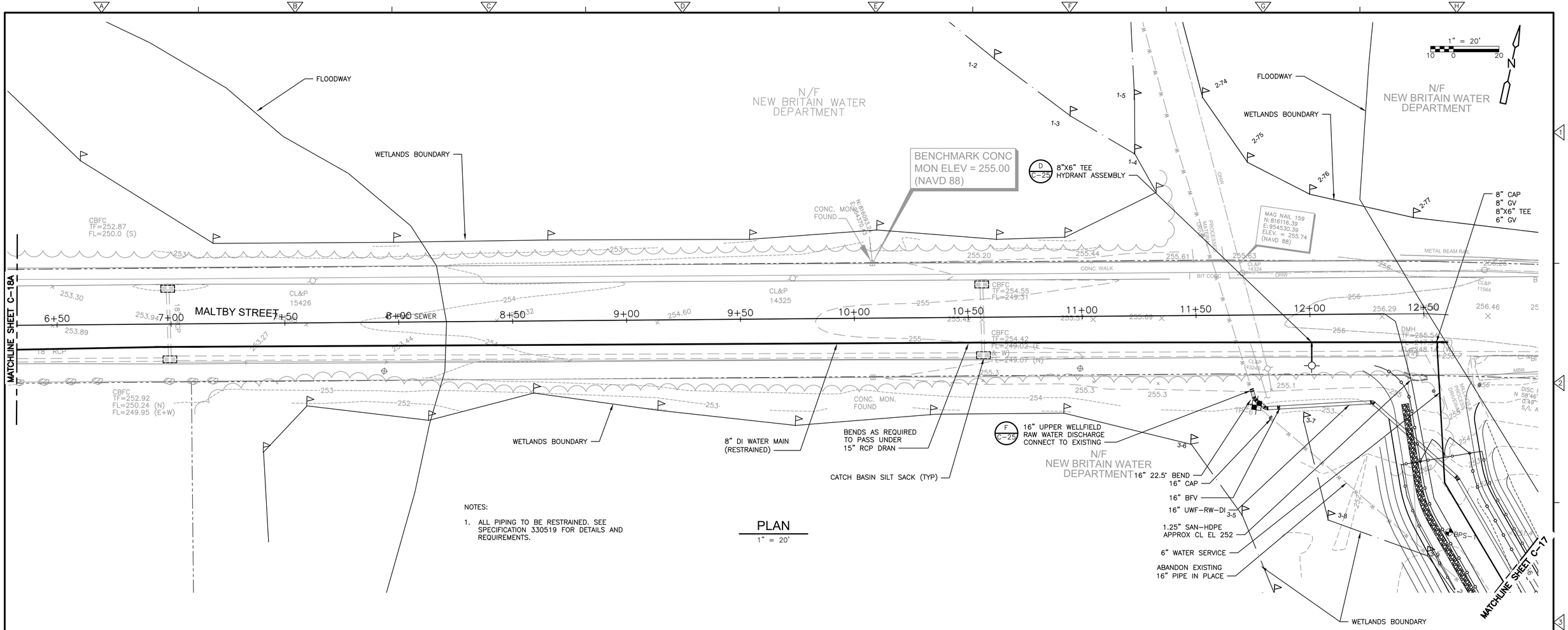
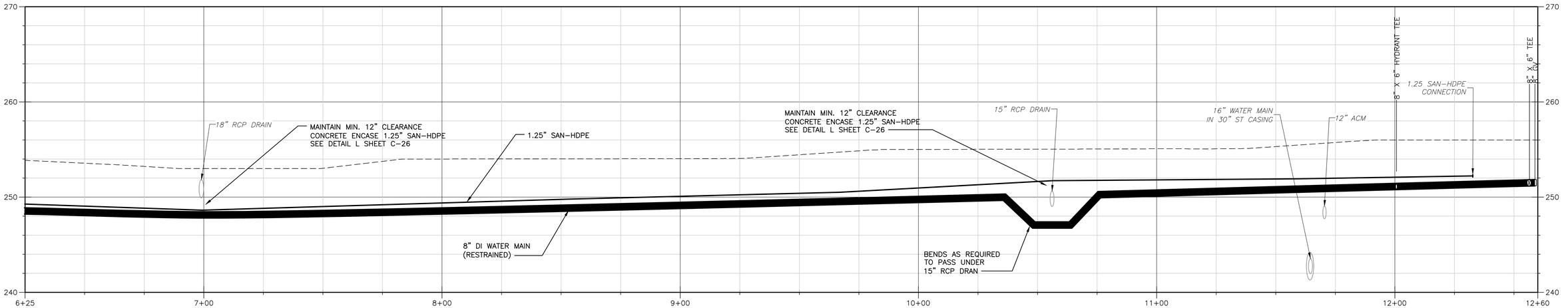


NOTES:

1. ALL PIPING TO BE RESTRAINED. SEE SPECIFICATION 330519 FOR DETAILS AND REQUIREMENTS.

PLAN
1" = 20'



1" = 20'
10 0 20

PROFILE
HORZ:1"=20' VERT:1"=5'

1" = 5'
2.5 0 5

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

MALTBY STREET
PLAN AND PROFILE II

PROJECT NO. 10739-264571
FILE NAME: C018BYPPL.DWG
SHEET NO.
C-18B

REGULATORY REVIEW SUBMITTAL - NOT FOR CONSTRUCTION

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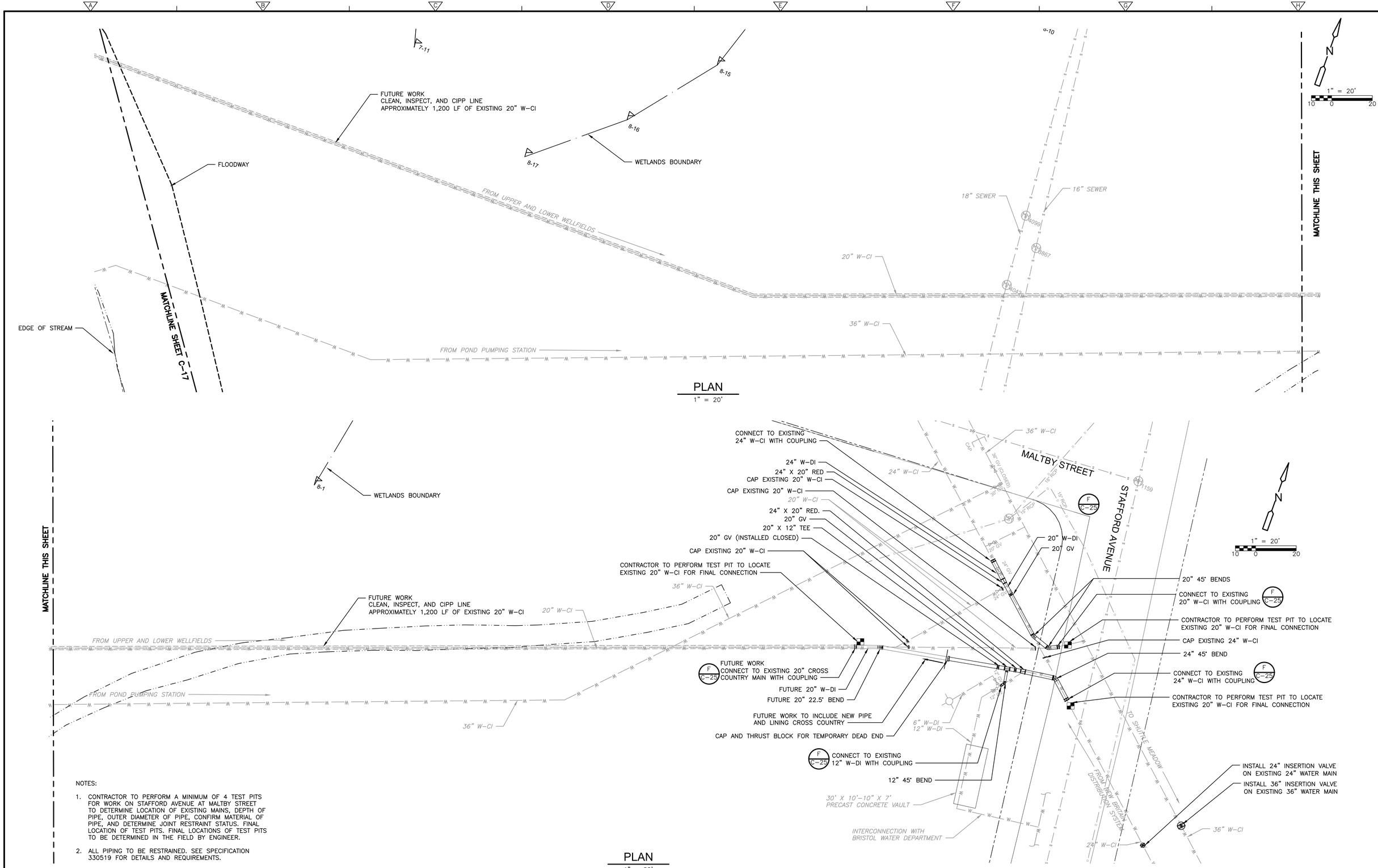

NOTES:

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

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

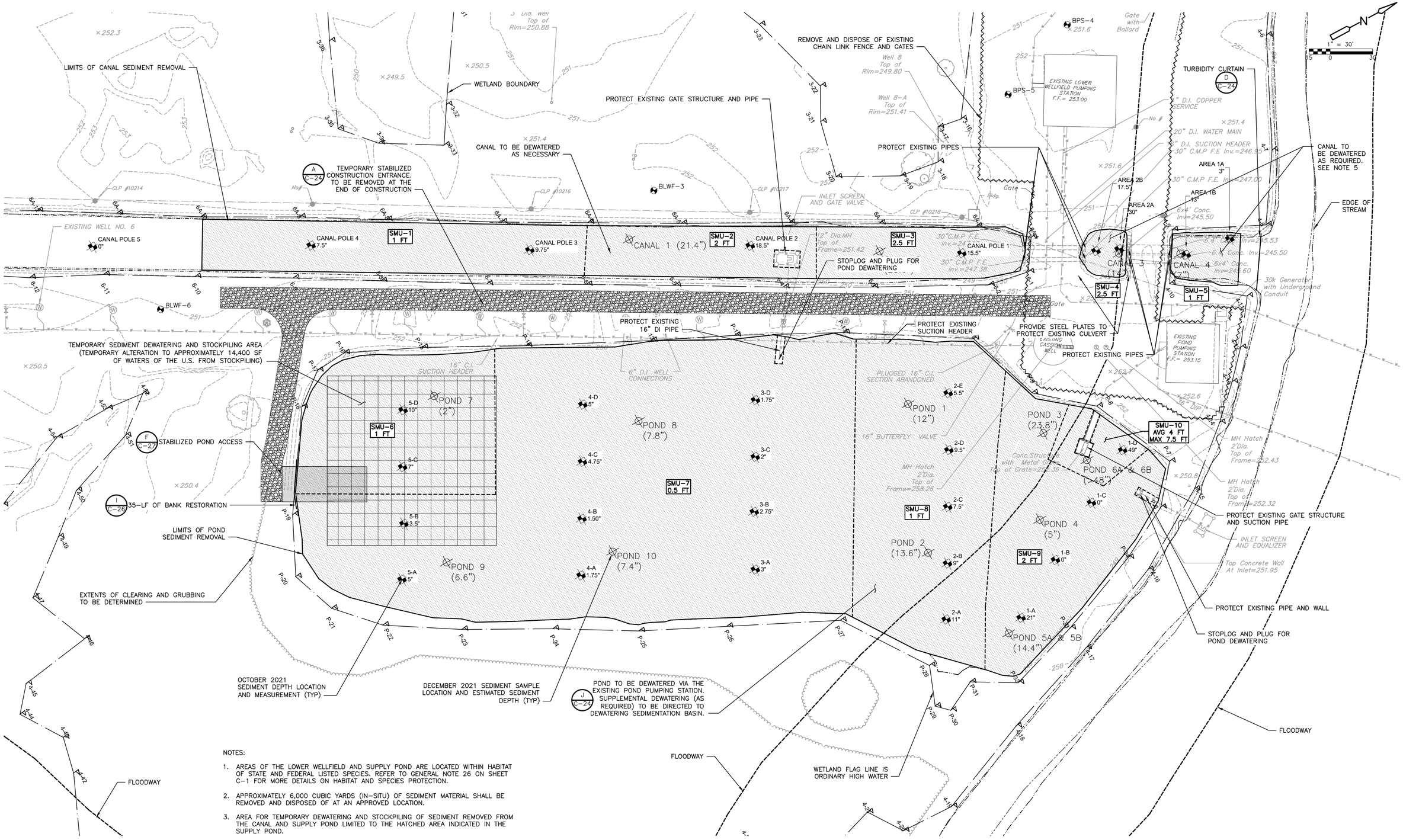
CITY OF NEW BRITAIN, CONNECTICUT

WHITE BRIDGE WATERWORKS FACILITIES UPPER AND LOWER WELLFIELDS AND POND PUMPING STATION

STAFFORD AVENUE AND CROSS COUNTRY PLAN

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

REGULATORY REVIEW SUBMITTAL - NOT FOR CONSTRUCTION



NOTES:

1. 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.
2. APPROXIMATELY 6,000 CUBIC YARDS (IN-SITU) OF SEDIMENT MATERIAL SHALL BE REMOVED AND DISPOSED OF AT AN APPROVED LOCATION.
3. 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.
4. STABILIZED CONSTRUCTION ENTRANCES SHALL BE REMOVED UPON COMPLETION OF PROJECT. DISTURBED AREAS TO BE LOAMED AND SEEDED.
5. 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.

PLAN
1" = 30'

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

REGULATORY REVIEW SUBMITTAL - NOT FOR CONSTRUCTION

XREFs: [TEST HOLE POINTS, CDMS_2436, XSVPL040, 2022-17, BORING LOCATIONS, Floodway_Floodplain] Images: []
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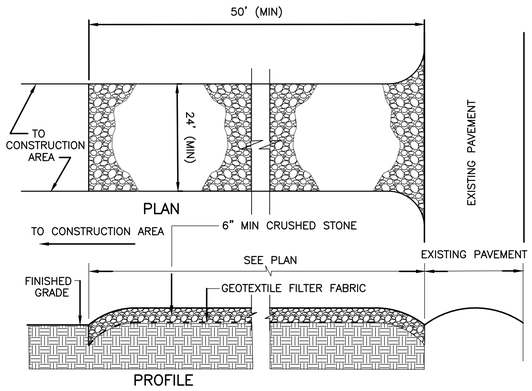


NOTES:

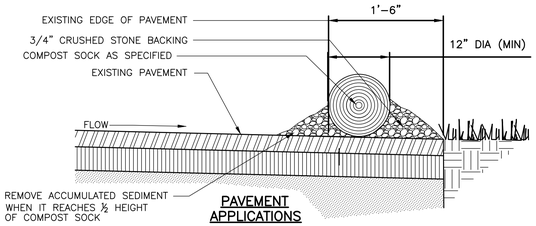
1.) PROVIDE APPROPRIATE TRANSITION BETWEEN STABILIZED CONSTRUCTION ENTRANCE AND EXISTING PAVEMENT.

2.) LIMITS OF STABILIZED CONSTRUCTION ENTRANCE SHALL BE AS DIRECTED BY THE ENGINEER.

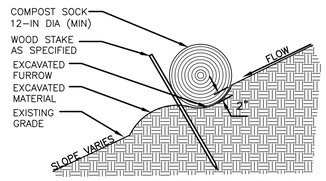
3.) THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO EXISTING PAVEMENT. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE OR ADDING STONE TO THE LENGTH OF THE ENTRANCE.

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.

STABILIZED CONSTRUCTION ENTRANCE
DETAIL A
NOT TO SCALE

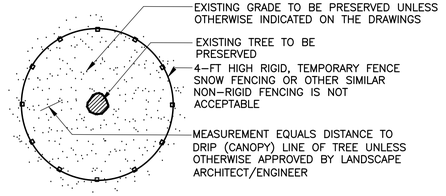


PAVEMENT APPLICATIONS



LANDSCAPE APPLICATIONS

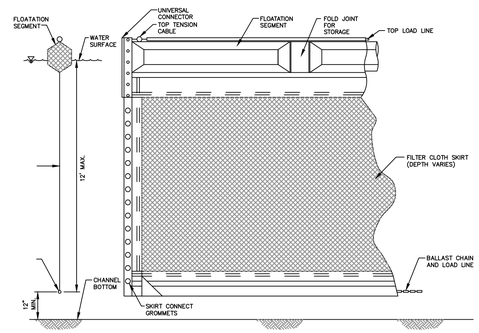
COMPOST SOCK
DETAIL B
SCALE: NTS

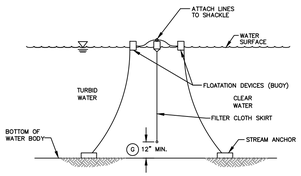


NOTES:
1. FENCING SHALL BE INSTALLED AROUND PERIMETER OF ALL EXISTING TREES TO BE PRESERVED WITHIN THE LIMIT OF WORK.
2. FENCING MAY BE REMOVED TEMPORARILY, ONLY AS REQUIRED TO PERFORM THE WORK SHOWN ON THE DRAWINGS.
3. FENCING SHALL REMAIN IN PLACE & BE MAINTAINED THROUGHOUT CONSTRUCTION AND THEN REMOVED COMPLETELY.

TREE PROTECTION
DETAIL C
NOT TO SCALE

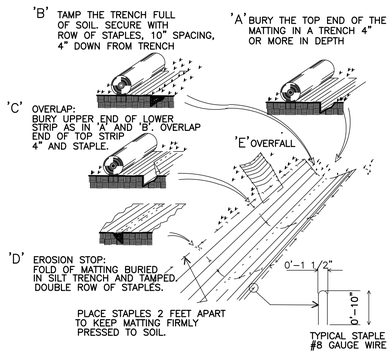
TURBIDITY CURTAIN





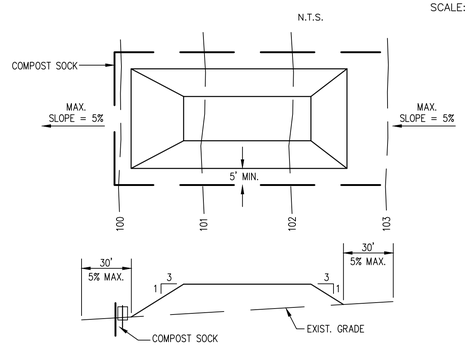
TYPICAL ANCHORING SECTION

TURBIDITY CURTAIN
DETAIL D
NOT TO SCALE



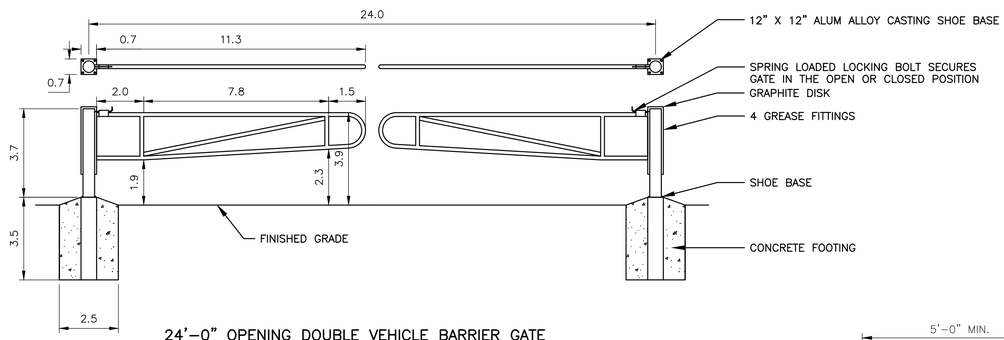
NOTE:
1.) APPLY ON ALL NEW SLOPES 3(H):1(V) AND STEEPER.

EROSION CONTROL BLANKET
DETAIL E
NOT TO SCALE

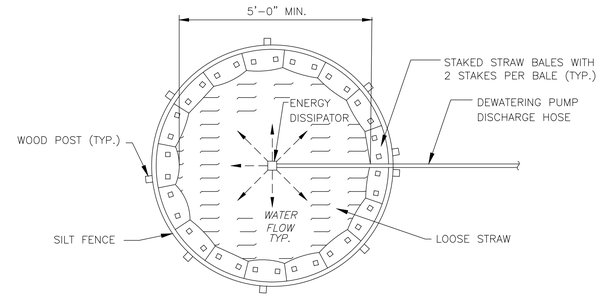


NOTES:
1. PLACE STOCKPILES AT LOCATIONS AS SHOWN ON THE SOIL EROSION AND SEDIMENT CONTROL PLAN.
2. ALL SIDE SLOPES SHALL BE 3 TO 1 OR FLATTER.
3. STOCKPILE SHALL RECEIVE A VEGETATIVE COVER IN ACCORDANCE WITH MINIMUM STABILIZATION REQ.
4. COMPOST SHALL BE INSTALLED AS DETAILED HEREON.

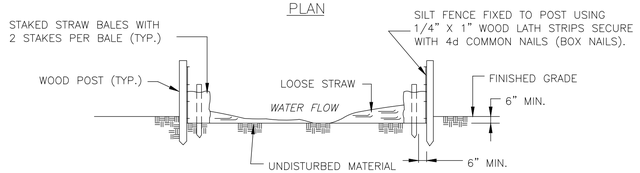
SOIL STOCKPILE
DETAIL F
NOT TO SCALE



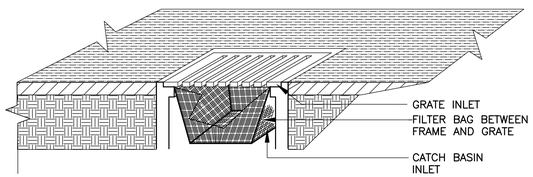
24'-0" OPENING DOUBLE VEHICLE BARRIER GATE
DETAIL G
NOT TO SCALE



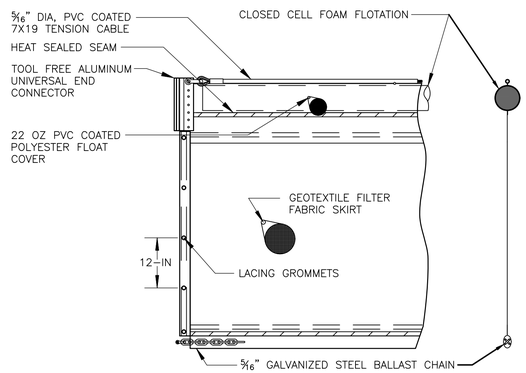
PLAN



DEWATERING SEDIMENTATION BASIN
DETAIL J
NOT TO SCALE



CATCH BASIN FILTER
DETAIL H
NOT TO SCALE



FLOATING TURBIDITY BARRIER
DETAIL I
NOT TO SCALE

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REV. NO.	DATE	DRWN	CHKD	REMARKS

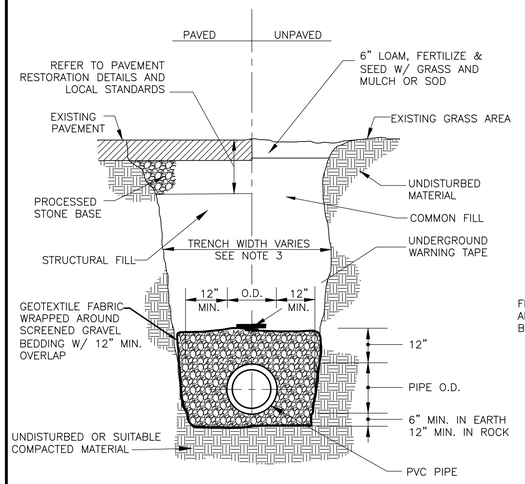
DESIGNED BY: K. GERLACH
DRAWN BY: J. BRONENKANT
SHEET CHK'D BY: K. WAGNER
CROSS CHK'D BY: K. GERLACH
APPROVED BY: K. WAGNER
DATE: APRIL 2023

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

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

CIVIL DETAILS I

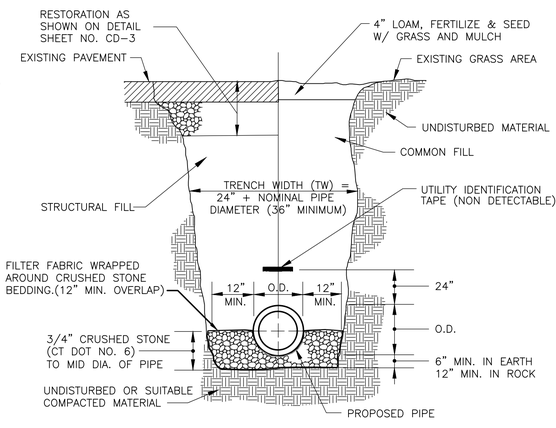
PROJECT NO. 10739-264571
FILE NAME: CD001CSDT.DWG
SHEET NO.
C-24



PVC PIPE TRENCH

DETAIL A

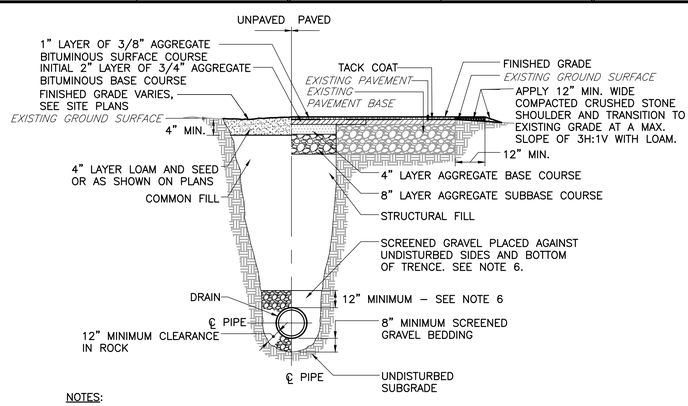
NOT TO SCALE



DI PIPE TRENCH

DETAIL B

NOT TO SCALE



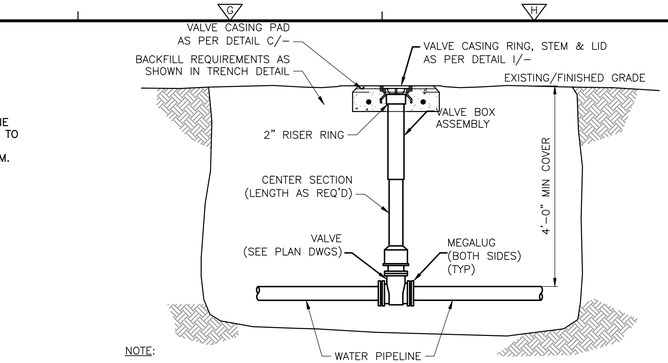
NOTES:

1. THE CONTRACTOR SHALL MAINTAIN INITIAL 2" LAYER OF 3/4" AGGREGATE BITUMINOUS BASE COURSE FOR 60–90 DAYS MINIMUM.
2. IF INITIAL PAVEMENT IS PLACED AFTER OCTOBER 1ST, THEN IT SHALL BE MAINTAINED UNTIL PAVEMENT OVERLAY IS PLACED.
3. PAVEMENT OVERLAY SHALL BE PLACED BETWEEN APRIL 15 AND NOVEMBER 15 OF EACH CALENDAR YEAR.
4. THE CONTRACTOR SHALL SAW CUT 12–INCHES OUTSIDE OF INITIAL TRENCH EXCAVATION. INITIAL PAVEMENT SHALL BE REMOVED AND DISPOSED OF.
5. INITIAL 2" LAYER OF 3/4" AGGREGATE BITUMINOUS BASE COURSE SHALL MATCH EXISTING ROADWAY GRADES.
6. FOR PIPES OTHER THAN PVC AND HDPE, SELECT COMMON FILL MAY BE USED FROM MID–DIAMETER OF PIPE TO 12" ABOVE TOP OF PIPE.
7. PROVIDE AT LEAST ONE IMPERVIOUS DAM IN GRAVEL BEDDING BETWEEN EACH MANHOLE OR EVERY 300 FEET, WHICHEVER IS LESS.
8. PRIOR TO INSTALLATION OF 1" LAYER OF 3/8" AGGREGATE BITUMINOUS SURFACE COURSE, SHIM EXISTING ROAD AS REQUIRED TO PROVIDE A SMOOTH FINISHED GRADE WITH NO PUDDLING.
9. IN LOCATIONS WHERE TRENCH PAVING MEETS EXISTING BITUMINOUS CONCRETE, MATCH FINISHED GRADE.

TRENCHING AND REPAIRS

DETAIL C

NTS



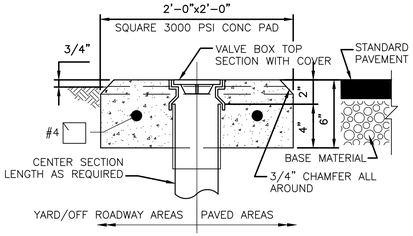
NOTE:

THE VALVE BOX SHALL BE PLUMB AND CENTERED OVER THE VALVE OPERATING NUT IN SUCH A MANNER THAT IT CAN BE FREELY OPERATED WITH A VALVE KEY. THE CONTRACTOR PERFORMING WORK SHALL ASSURE THAT THE VALVE BOX IS FREE OF DEBRIS BEFORE RESETTING.

VALVE BOX (PIPE 12" DIAMETER AND SMALLER)

DETAIL H

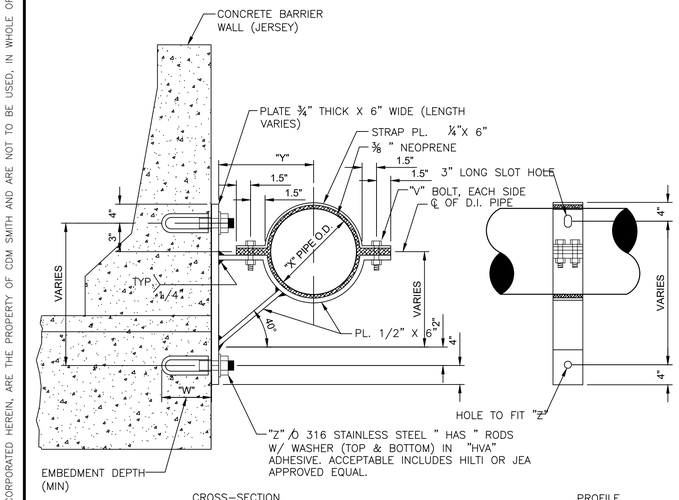
NTS



VALVE CASING PAD

DETAIL I

NTS



CROSS–SECTION PROFILE

PIPE SIZE	4"	6"	8"	10"	12"	16"	20"	24"
X	4.80"	6.90"	9.05"	11.10"	13.20"	17.40"	21.60"	25.80"
Y	8"	9"	10"	12"	13"	15"	17"	19"
Z	¾"	¾"	¾"	1"	1"	1"	1¼"	1¼"
W	6.625"	6.625"	6.625"	8.25"	8.25"	8.25"	12"	12"
V	1/2"	1/2"	1/2"	1/2"	1/2"	3/4"	3/4"	3/4"

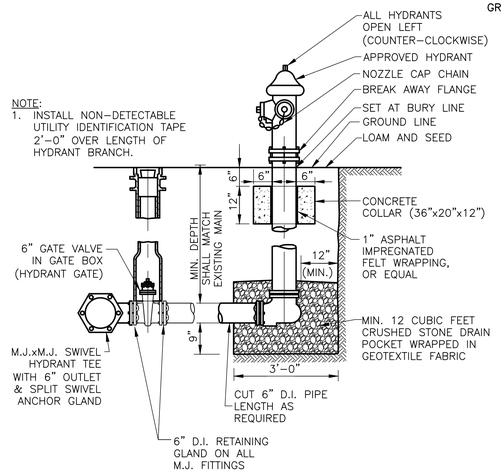
NOTES :

1. ALL WELDS TO BE PERFORMED BY A CERTIFIED STRUCTURAL WELDER.
2. ALL SUPPORT BRACKET MEMBERS SHALL BE HOT DIPPED GALVANIZED AFTER FABRICATION.
3. ALL NUTS, BOLTS, AND WASHERS SHALL BE 316 STAINLESS STEEL.
4. THE SPACING OF SIDEWALL PIPE SUPPORTS SHALL BE SPECIFICALLY DESIGNED BASED UPON MANY FACTS INCLUDING PIPE SIZE AND MATERIAL EMBEDMENT LIMITATIONS. UNLESS APPROVED OTHERWISE BY THE ENGINEER, IN NO CASE SHALL THE SPACING OF PIPE SUPPORTS EXCEED TWENTY (20) FEET ON–CENTER FOR PIPE SIZES TWELVE (12) INCH AND SMALLER AND TEN (10) FEET ON–CENTER FOR PIPE SIZES GREATER THAN TWELVE (12) INCHES.

SIDEWALL PIPE HANGER

DETAIL E

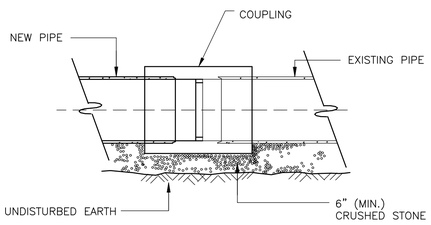
NOT TO SCALE



FIRE HYDRANT ASSEMBLY

DETAIL D

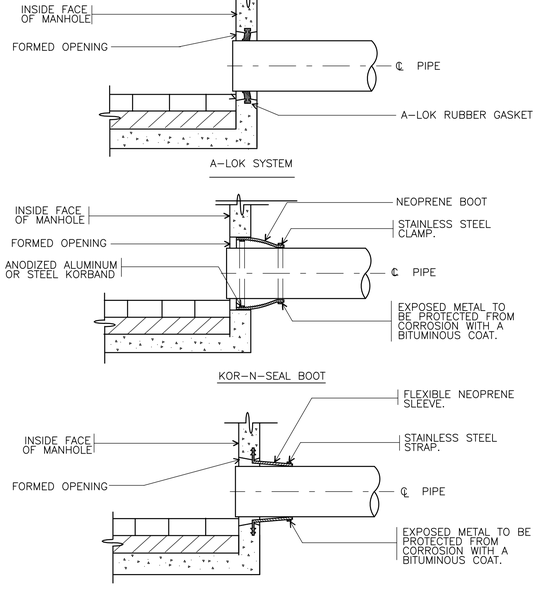
NOT TO SCALE



COUPLING CONNECTION TO EXISTING PIPE

DETAIL F

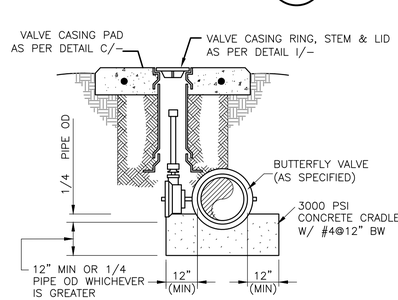
NOT TO SCALE



PIPE CONNECTION DETAILS

DETAIL G

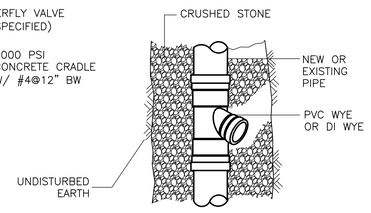
NOT TO SCALE



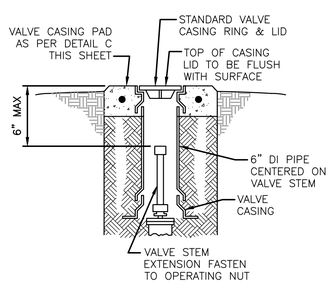
DIRECT BURIED BUTTERFLY VALVE (FOR 16"–36" BUTTERFLY VALVES)

DETAIL J

NTS



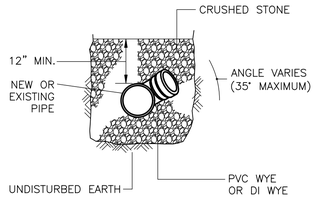
PLAN



VALVE BOX

DETAIL K

NTS



SECTION

PVC OR DI WYE BRANCH

DETAIL L

NTS

REV. NO.	DATE	DRWN	CHKD	REMARKS

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

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

CITY OF NEW BRITAIN, CONNECTICUT

WHITE BRIDGE WATERWORKS FACILITIES
UPPER AND LOWER WELLFIELDS
AND POND PUMPING STATION

CIVIL DETAILS II

PROJECT NO. 10739–264571
FILE NAME: CD002CSDT.DWG

SHEET NO.
C-25

XREFs: [CDMS_2436_XSVPL000, CWP000ST, Floodway_Floodplain, AWZ001PS – 2D Process Export] Images: []
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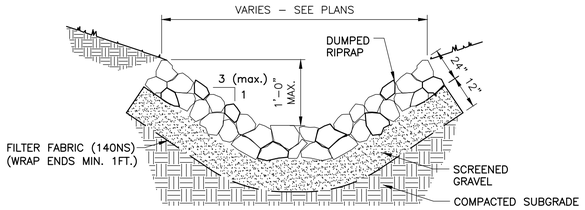
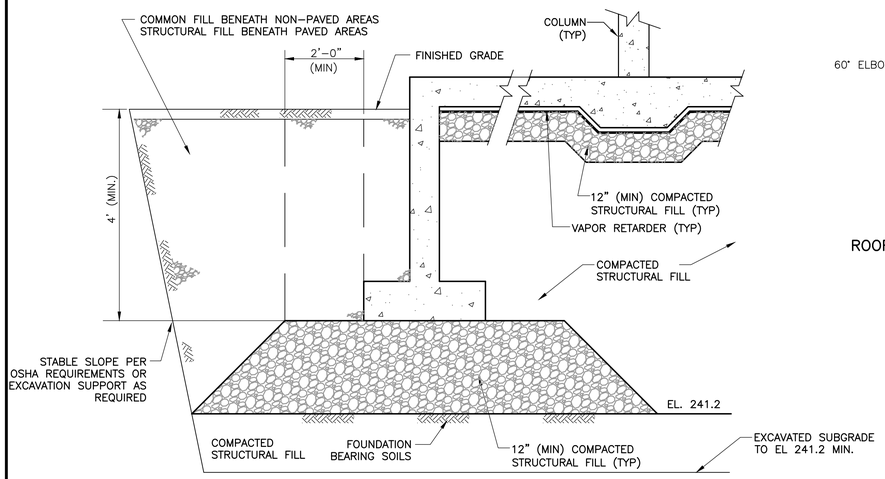


SECTION

RIPRAP SWALE

DETAIL A

SCALE: NTS



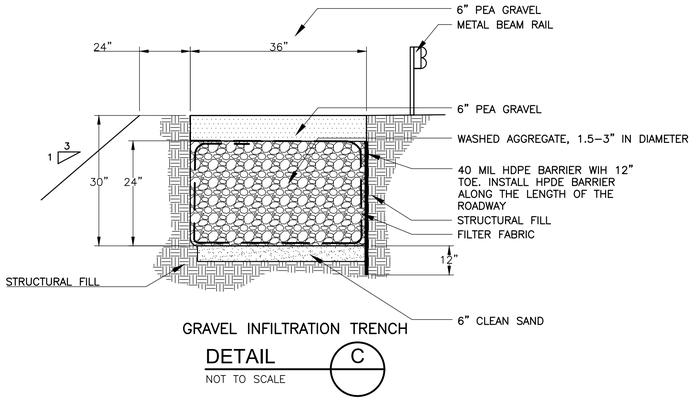
NOTES:

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

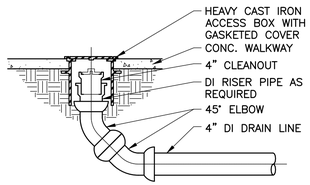
NTS



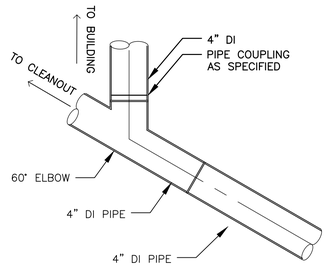
GRAVEL INFILTRATION TRENCH

DETAIL C

NOT TO SCALE



SECTION VIEW

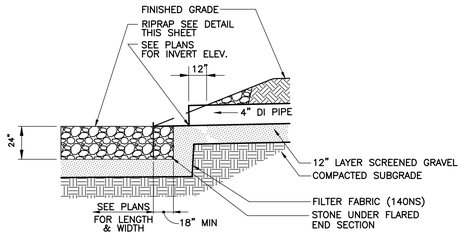


PLAN VIEW

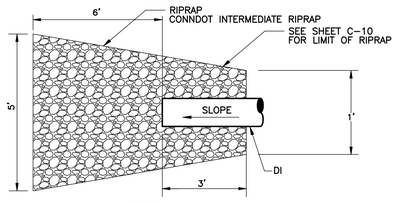
ROOF DRAIN CONNECTION WITH CLEANOUT

DETAIL D

NTS



SECTION

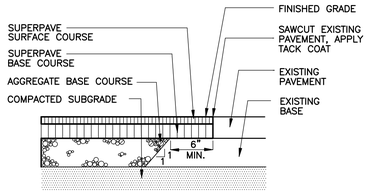


PLAN

PIPE END SECTION & RIPRAP APRON

DETAIL E

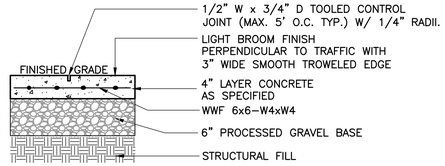
NOT TO SCALE



PAVEMENT MATCH

DETAIL F

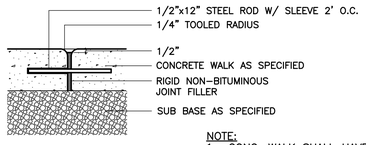
NOT TO SCALE



CONCRETE WALKWAY

DETAIL G

NOT TO SCALE



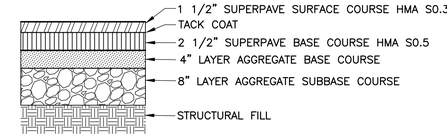
NOTE:

1. CONC. WALK SHALL HAVE 3 STEEL RODS MIN.
2. EXPANSION JOINTS SHALL BE LOCATED 30 FT. MIN. O.C. AND AT THE END OF EACH DAYS POUR.

EXPANSION JOINT

DETAIL H

NOT TO SCALE



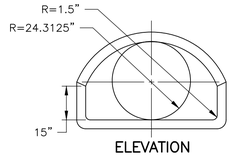
NOTES:

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

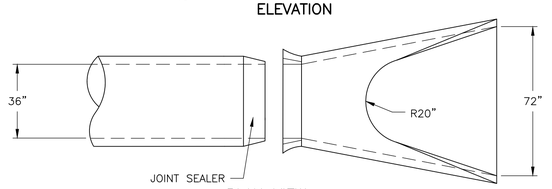
BITUMINOUS CONCRETE PAVEMENT

DETAIL J

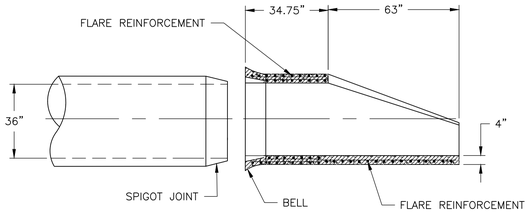
NOT TO SCALE



ELEVATION



PLAN VIEW

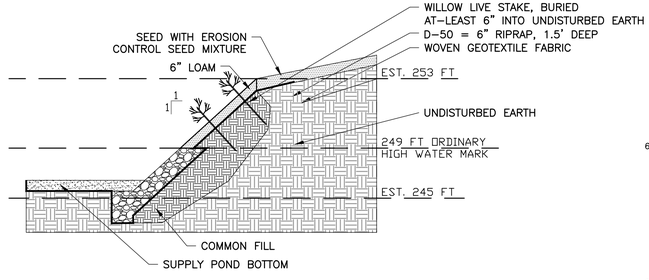


SECTION VIEW

RCP CULVERT PIPE END

DETAIL K

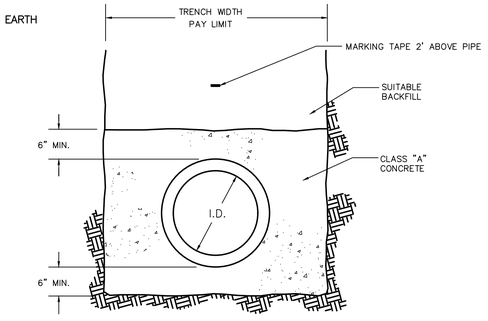
NOT TO SCALE



BANK RESTORATION

DETAIL I

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

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

CITY OF NEW BRITAIN, CONNECTICUT

WHITE BRIDGE WATERWORKS FACILITIES
UPPER AND LOWER WELLFIELDS
AND POND PUMPING STATION

CIVIL DETAILS III

PROJECT NO. 10739-264571
FILE NAME: CD003CSDT.DWG

SHEET NO.
C-26

REGULATORY REVIEW SUBMITTAL - NOT FOR CONSTRUCTION

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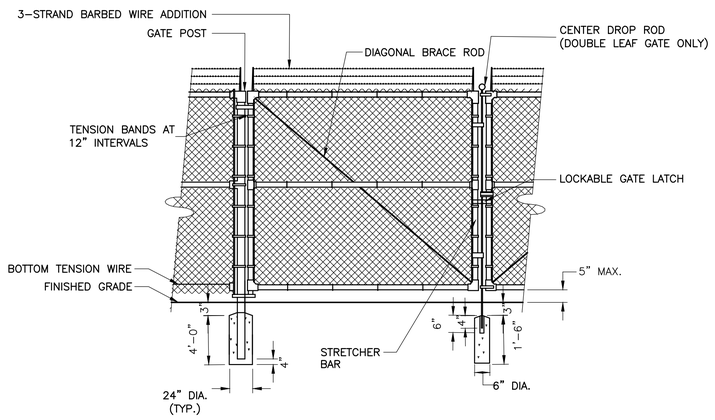
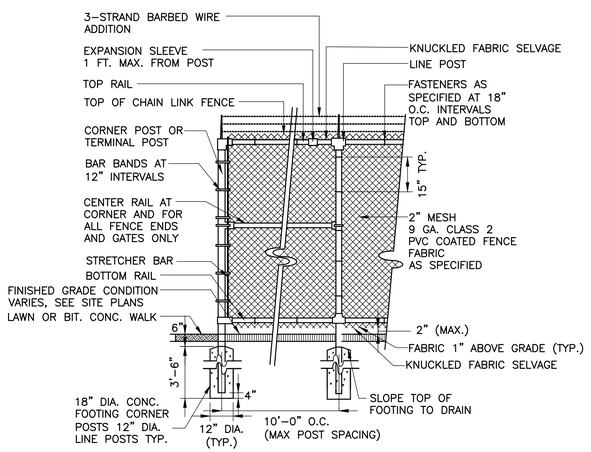


CHAIN LINK DOUBLE LEAF SWING GATE

DETAIL A

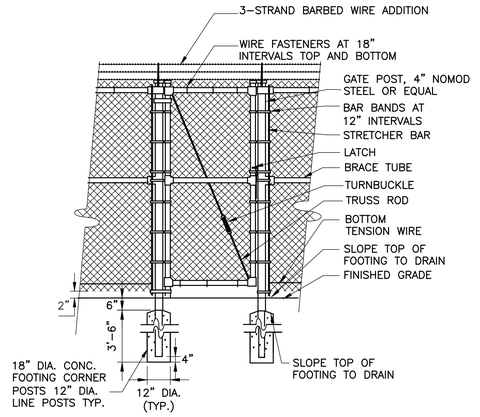
NOT TO SCALE



6–FT HIGH CHAIN LINK FENCE

DETAIL B

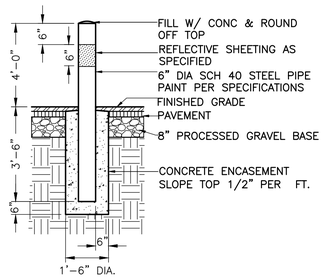
NOT TO SCALE



PEDESTRIAN CHAIN LINK FENCE GATE

DETAIL C

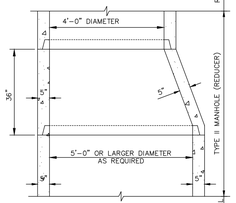
NOT TO SCALE



STEEL BOLLARD

DETAIL D

NOT TO SCALE



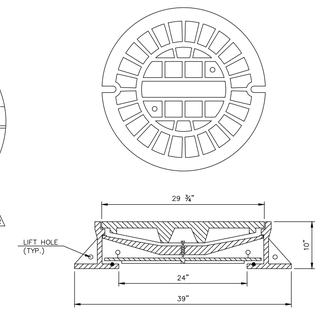
REDUCER SECTION

NOTES:
1) THIS MANHOLE TO BE USED WHEN TOTAL DEPTH IS GREATER THAN 12' OR ANY PIPE SIZE IS GREATER THAN 18".
2) ALL NEW SANITARY AND STORM SEWER INSTALLATIONS SHALL BE TELEVISED.

TYPE II MANHOLE
(PRECAST WITHOUT STEPS)

NOTES:
1) THIS MANHOLE TO BE USED WHEN TOTAL DEPTH IS 12' OR LESS AND LARGEST PIPE SIZE IS 18" OR SMALLER.
2) ALL NEW SANITARY AND STORM SEWER INSTALLATIONS SHALL BE TELEVISED.

TYPE I MANHOLE
(PRECAST WITHOUT STEPS)

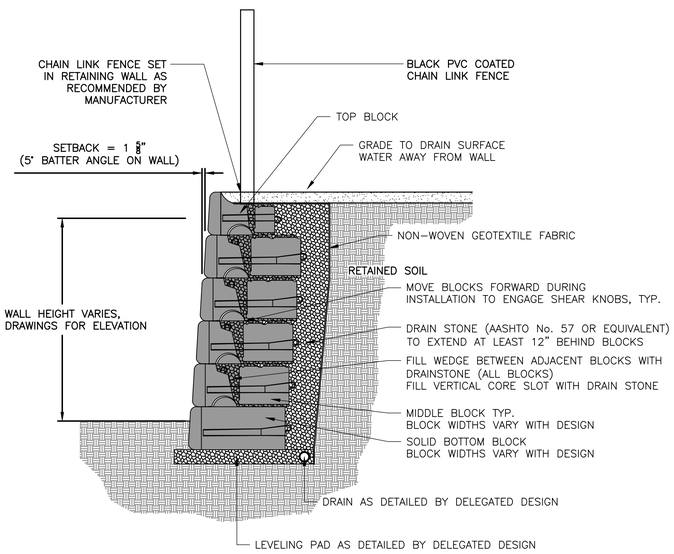


NEW BRITAIN STANDARD WATERTIGHT MANHOLE CASTING

MANHOLE

DETAIL G

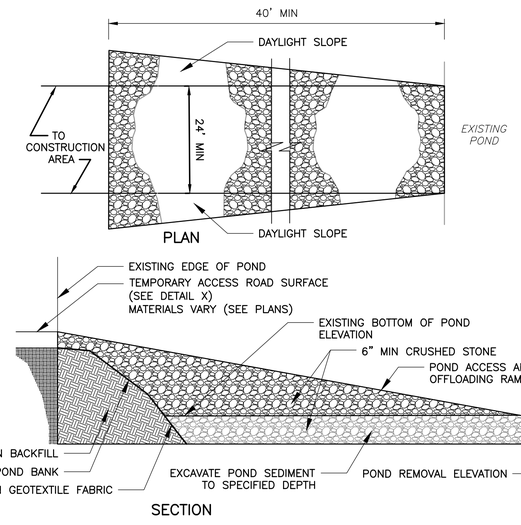
NOT TO SCALE



SEGMENTAL UNIT RETAINING WALL

DETAIL E

SCALE: NTS



SECTION

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

REV. NO.	DATE	DRWN	CHKD	REMARKS

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

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

CITY OF NEW BRITAIN, CONNECTICUT

WHITE BRIDGE WATERWORKS FACILITIES
UPPER AND LOWER WELLFIELDS
AND POND PUMPING STATION

CIVIL DETAILS IV

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

REGULATORY REVIEW SUBMITTAL - NOT FOR CONSTRUCTION

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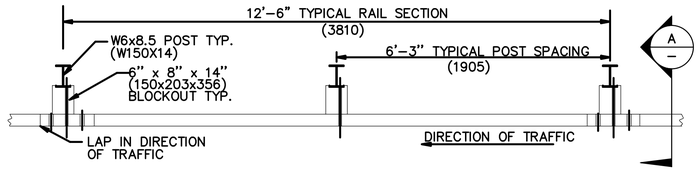
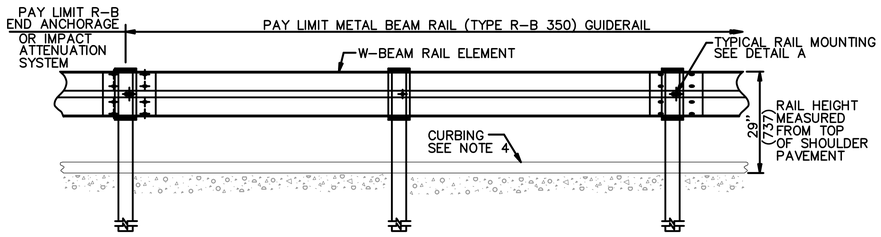
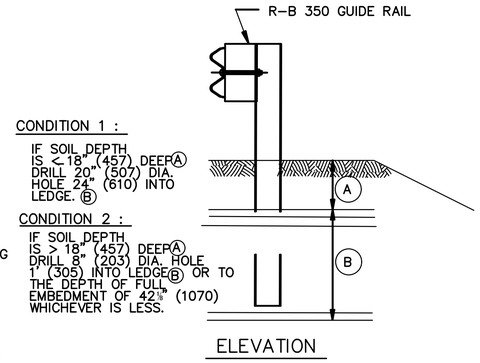


PLAN



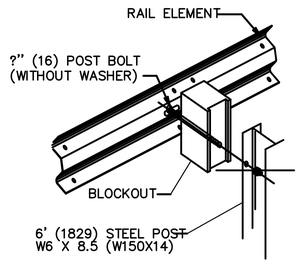
ELEVATION



ELEVATION

METAL BEAM RAIL (TYPE R-B 350)

NO CURB APPLICATION

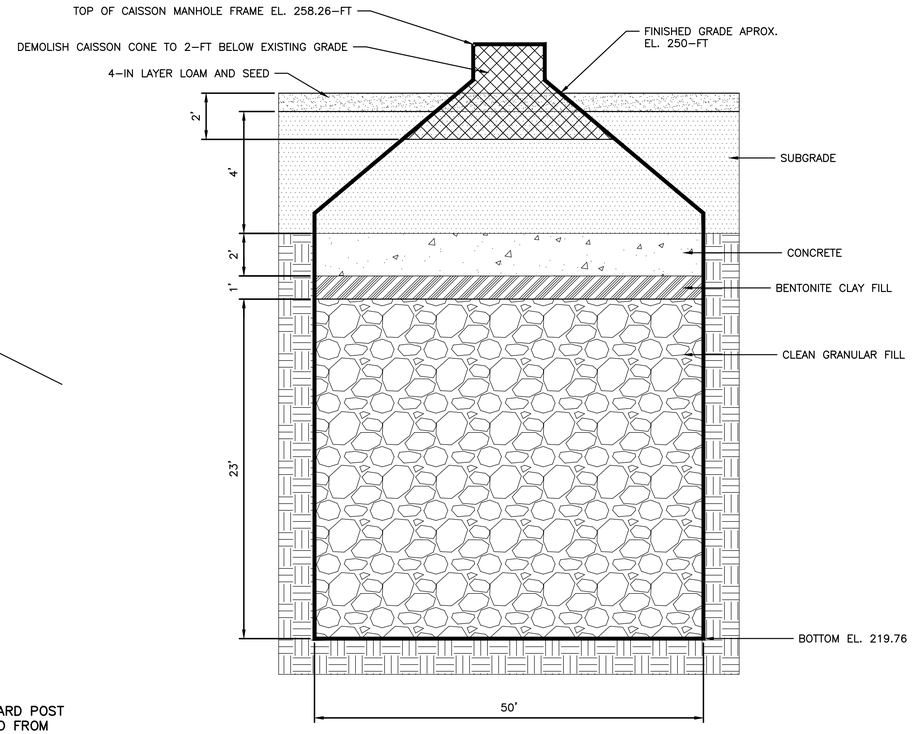


DETAIL A
RAIL MOUNTING

METAL BEAM RAIL
DETAIL A
NOT TO SCALE

GENERAL NOTES:

1. SEE CTDOT STANDARDS FOR HARDWARE AND DELINEATOR DETAILS.
2. MAXIMUM DESIGN DEFLECTION FOR R-B 350 GUIDERAIL AT THE STANDARD POST SPACING OF 6'-3" IS 4'-3". DEFLECTION REQUIREMENT IS MEASURED FROM THE BACK OF POST TO THE FACE OF OBJECT.
3. FOR CURVES WITH RADII OF 150'(45.7m) OR LESS, ALL RAIL ELEMENTS SHALL BE SHOP FABRICATED TO THE PROPER RADIUS AND GALVANIZED AFTER FABRICATION. RADIUS RAIL WHEN REQUIRED AND NOTED ON THE PLANS, IS INCLUDED IN THE PAY ITEM FOR GUIDERAIL.
4. RAIL HEIGHT WITH CURBING SHALL BE MEASURED FROM THE TOP OF PAVEMENT. ON HIGH SPEED ROADWAYS (>45mph 72.4kph), 4" CURBING MAY BE USED IN CONJUNCTION WITH GUIDERAIL AND THE RAIL ELEMENT SHALL BE PLACED FLUSH WITH THE FACE OF CURB. ON LOW SPEED ROADWAYS (<45mph 72.4kph), 6" CURBING MAY BE USED IN CONJUNCTION WITH GUIDERAIL AND THE RAIL ELEMENT SHALL BE PLACED A MAXIMUM OF 9" BEHIND THE FACE OF CURB.
5. THREE BLOCKOUTS MAY BE USED FOR ONE POST ONLY. TWO BLOCKOUTS MAY BE USED FOR A SERIES OF POSTS. THE COST OF ADDITIONAL BLOCKOUTS AND LONGER BOLTS SHALL BE INCLUDED IN THE BID PRICE PER FOOT OF GUIDERAIL. EXTRA BLOCKOUTS AT TRANSITION TO BRIDGE PARAPETS SHOULD BE AVOIDED.
6. W-BEAM GUIDERAIL MAY BE PLACED 1' OR MORE FROM THE EDGE OF PAVEMENT ONLY ON SLOPES 10:1 OR FLATTER AND WITHOUT CURBING. IF THE RAIL IS INSTALLED WITHIN 2' OF THE EDGE OF PAVEMENT, THE RAIL HEIGHT IS MEASURED FROM THE SHOULDER SLOPE EXTENDED TO THE RAIL. IF THE RAIL IS INSTALLED BEYOND 2' FROM THE EDGE OF PAVEMENT, THE RAIL HEIGHT IS MEASURED FROM THE GROUND DIRECTLY BELOW THE RAIL.
7. ALL R-B 350 GUIDERAIL TYPES INSTALLED ON EXPRESSWAYS AND RAMPS SHALL USE CLASS B, TYPE-II (10 GAUGE) W-BEAM RAIL ELEMENTS.
8. 20" DIA. EXCAVATED HOLE SHALL BE BACKFILLED WITH SUITABLE MATERIAL, OR GRANULAR FILL COMPACTED IN 6" LIFTS BEFORE DRIVING POST OR POSTS MAY BE SET IN EXCAVATED HOLE AND BACKFILLED WITH CONTROLLED LOW STRENGTH MATERIAL (CLSM). 8" DIA. HOLE SHALL BE BACKFILLED WITH SUITABLE MATERIAL.
9. AS DIRECTED BY THE ENGINEER AND WHERE PAVEMENT FOR RAILING IS NOT BEING INSTALLED, A MIN. 6" DEPTH OF PROCESSED AGGREGATE SHALL BE INSTALLED FROM THE PAVEMENT EDGE OR BACK OF CURB TO A MINIMUM OF 2' BEHIND THE GUIDERAIL POST AND COMPACTED IN 6" LIFTS.
10. MINIMUM RAIL HEIGHT FOR NEW CONSTRUCTION SHALL BE 29" + 1".



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

CAISSON DECOMMISSIONING AND ABANDONMENT
DETAIL B
NOT TO SCALE

REV. NO.	DATE	DRWN	CHKD	REMARKS

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

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

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

CIVIL DETAILS V

PROJECT NO. 10739-264571
FILE NAME: CD005CSDT.DWG
SHEET NO. C-28

REGULATORY REVIEW SUBMITTAL - NOT FOR CONSTRUCTION

XREFs: [CDMS_2436, XSVPL000, CWP000ST, Floodway, Floodplain, AWZ001PS - 2D Process Export] Images: []
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NOTES FOR TRAFFIC CONTROL PLANS

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 (AA), (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 TRAVELPATHS 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.

TABLE 1 - MINIMUM TAPER LENGTHS

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)

METRIC CONVERSION CHART (1" = 25mm)

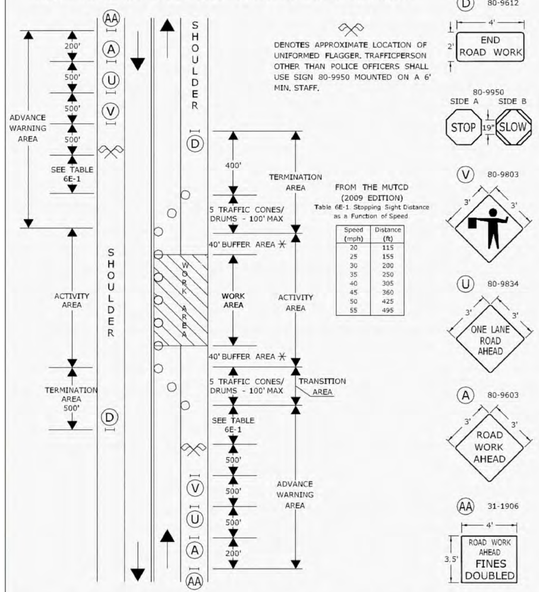
ENGLISH	METRIC	ENGLISH	METRIC	ENGLISH	METRIC
12"	300mm	42"	1050mm	72"	1800mm
18"	450mm	48"	1200mm	78"	1950mm
24"	600mm	54"	1350mm	84"	2100mm
30"	750mm	60"	1500mm	90"	2250mm
36"	900mm	66"	1650mm	96"	2400mm

SCALE: NONE

CONSTRUCTION TRAFFIC CONTROL PLAN
NOTES

WORK IN TRAVEL LANE AND SHOULDER TWO LANE HIGHWAY ALTERNATING ONE-WAY TRAFFIC OPERATIONS

SIGN FACE 108 SQ. FT (MIN.)



TRAFFIC CONE **OR** TRAFFIC DRUM
OPTIONAL TRAFFIC DRUM PORTABLE SIGN SUPPORT
HIGH MOUNTED INTERNALLY ILLUMINATED FLASHING ARROW

SCALE: NONE

CONSTRUCTION TRAFFIC CONTROL PLAN
PLAN 13 - SHEET 1 OF 2
SEE NOTES 1, 2, 4, 6, 7, 8

WORK IN TRAVEL LANE AND SHOULDER TWO LANE HIGHWAY ALTERNATING ONE-WAY TRAFFIC OPERATIONS

SIGN FACE 108 SQ. FT (MIN.)

HAND SIGNAL METHODS TO BE USED BY UNIFORMED FLAGGERS

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.

A. TO STOP TRAFFIC

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.

B. TO DIRECT TRAFFIC TO PROCEED

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.

C. TO ALERT OR SLOW TRAFFIC

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.

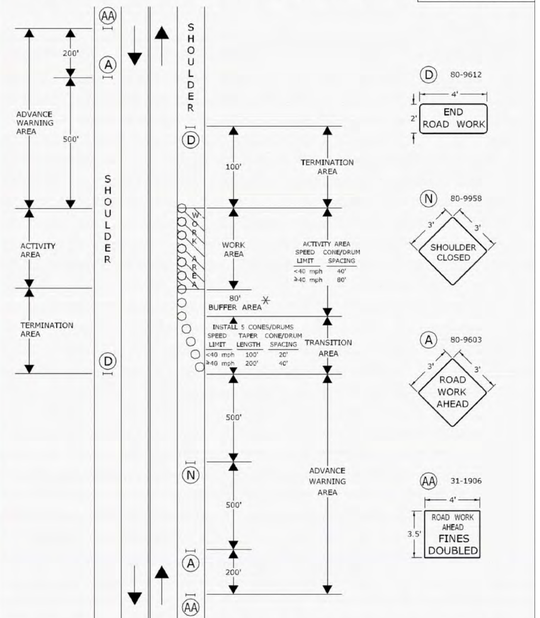
TRAFFIC CONE **OR** TRAFFIC DRUM
OPTIONAL TRAFFIC DRUM PORTABLE SIGN SUPPORT
HIGH MOUNTED INTERNALLY ILLUMINATED FLASHING ARROW

SCALE: NONE

CONSTRUCTION TRAFFIC CONTROL PLAN
PLAN 13 - SHEET 2 OF 2
SEE NOTES 1, 2, 4, 6, 7, 8

WORK IN SHOULDER - TWO LANE HIGHWAY

SIGN FACE 71 SQ. FT (MIN.)



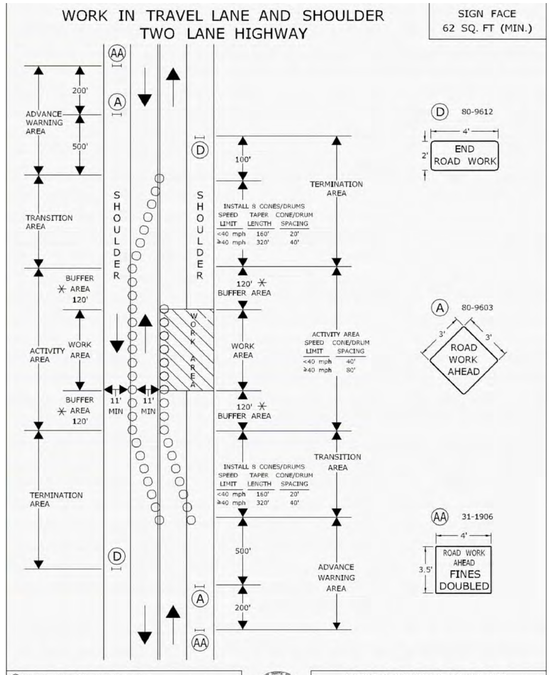
TRAFFIC CONE **OR** TRAFFIC DRUM
OPTIONAL TRAFFIC DRUM PORTABLE SIGN SUPPORT
HIGH MOUNTED INTERNALLY ILLUMINATED FLASHING ARROW

SCALE: NONE

CONSTRUCTION TRAFFIC CONTROL PLAN
PLAN 14
SEE NOTES 1, 2, 4, 7, 8

WORK IN TRAVEL LANE AND SHOULDER TWO LANE HIGHWAY

SIGN FACE 62 SQ. FT (MIN.)



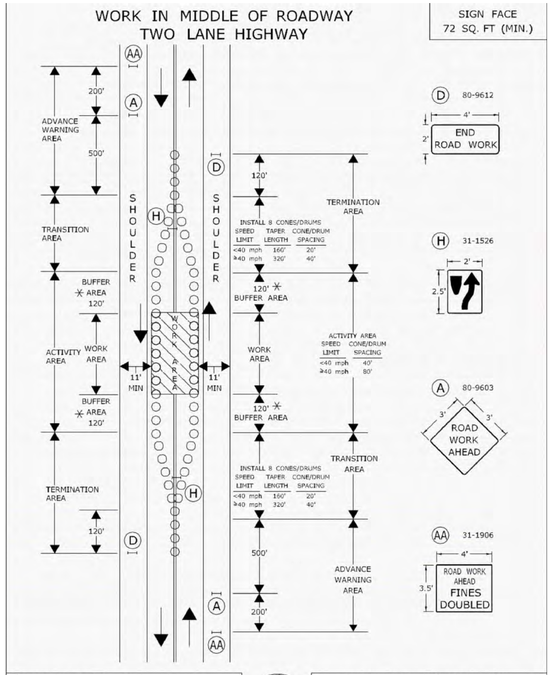
TRAFFIC CONE **OR** TRAFFIC DRUM
OPTIONAL TRAFFIC DRUM PORTABLE SIGN SUPPORT
HIGH MOUNTED INTERNALLY ILLUMINATED FLASHING ARROW

SCALE: NONE

CONSTRUCTION TRAFFIC CONTROL PLAN
PLAN 15
SEE NOTES 1, 2, 4, 6, 7, 8

WORK IN MIDDLE OF ROADWAY TWO LANE HIGHWAY

SIGN FACE 72 SQ. FT (MIN.)



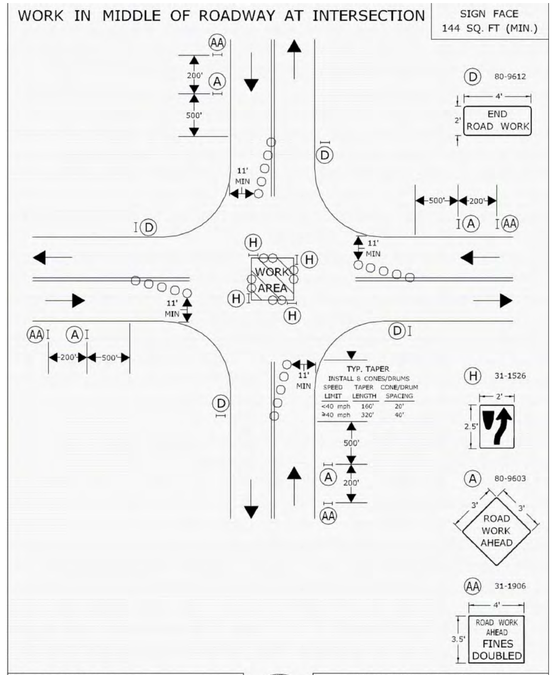
TRAFFIC CONE **OR** TRAFFIC DRUM
OPTIONAL TRAFFIC DRUM PORTABLE SIGN SUPPORT
HIGH MOUNTED INTERNALLY ILLUMINATED FLASHING ARROW

SCALE: NONE

CONSTRUCTION TRAFFIC CONTROL PLAN
PLAN 16
SEE NOTES 1, 2, 4, 6, 7, 8

WORK IN MIDDLE OF ROADWAY AT INTERSECTION

SIGN FACE 144 SQ. FT (MIN.)



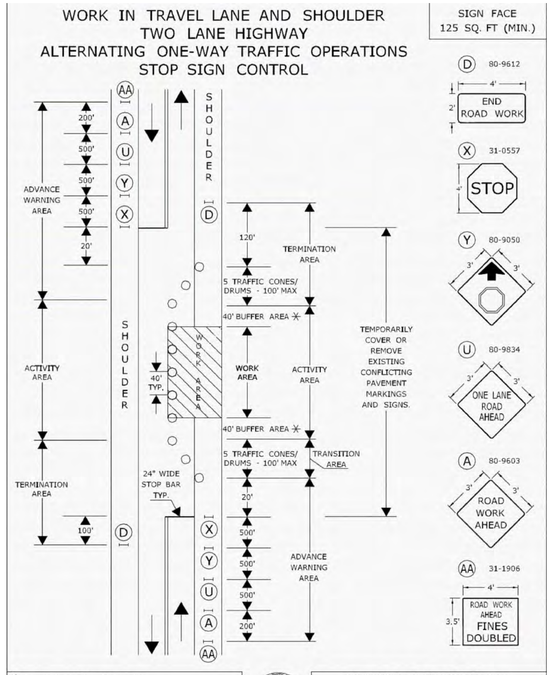
TRAFFIC CONE **OR** TRAFFIC DRUM
OPTIONAL TRAFFIC DRUM PORTABLE SIGN SUPPORT
HIGH MOUNTED INTERNALLY ILLUMINATED FLASHING ARROW

SCALE: NONE

CONSTRUCTION TRAFFIC CONTROL PLAN
PLAN 17
SEE NOTES 1, 2, 4, 6, 7, 8

WORK IN TRAVEL LANE AND SHOULDER TWO LANE HIGHWAY ALTERNATING ONE-WAY TRAFFIC OPERATIONS STOP SIGN CONTROL

SIGN FACE 125 SQ. FT (MIN.)



TRAFFIC CONE **OR** TRAFFIC DRUM
OPTIONAL TRAFFIC DRUM PORTABLE SIGN SUPPORT
HIGH MOUNTED INTERNALLY ILLUMINATED FLASHING ARROW

SCALE: NONE

CONSTRUCTION TRAFFIC CONTROL PLAN
PLAN 18
SEE NOTES 1, 2, 4, 7, 8

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

TRAFFIC CONTROL NOTES AND PLANS

PROJECT NO. 10739-264571
FILE NAME: C029TRFC.DWG
SHEET NO. C-29

REGULATORY REVIEW SUBMITTAL - NOT FOR CONSTRUCTION

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Pumping Station

Fill Contour	Fill Volume C.F.		Cut Contour	Cut 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 Contour	Fill Volume C.F.		Cut Contour	Cut Volume C.F.	Net C.F.	Complying Quantity Reference Sheet	UWF Total Needed (C.F.)
256	2,257		256	0	2,257	CS-1/2	2,257
257	3,806		257	0	3,806	CS-1/2	3,806
258	5,733		258	0	5,733	CS-1/2	5,733
259	2,045		259	0	2,045	CS-1/2	2,045
					13,840 Fill C.F.		

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'.

Lower Wellfield

Fill Contour	Fill Volume C.F.		Cut Contour	Cut Volume C.F.	Net C.F.	Complying Quantity Reference Sheet	LWF Total Needed Including Pumping Station (C.F.)
248	914		248	0	914	CS-4	914
249	3,932		249	0	3,932	CS-4	3,932
250	0		250	0	0	CS-4	8,622
251	0		251	112	-112	CS-4	17,019
252	6,011		252	635	5,376	CS-3/4	30,951
253	4,374		253	416	3,958	CS-3/4	28,132
254	2,994		254	324	2,670	CS-3/4	24,268
255	1,859		255	251	1,609	CS-1/3/4	20,873
256	991		256	151	840	CS-3/4	17,908
257	0		257	107	-107	CS-3/4	10,204
					19,077 Fill C.F.		

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 Fill	176,662 Fill C.F.	Total Project CS	383,335 C.F. Storage
	6,543 Fill C.Y.		14,198 C.Y. Storage

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

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

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.*

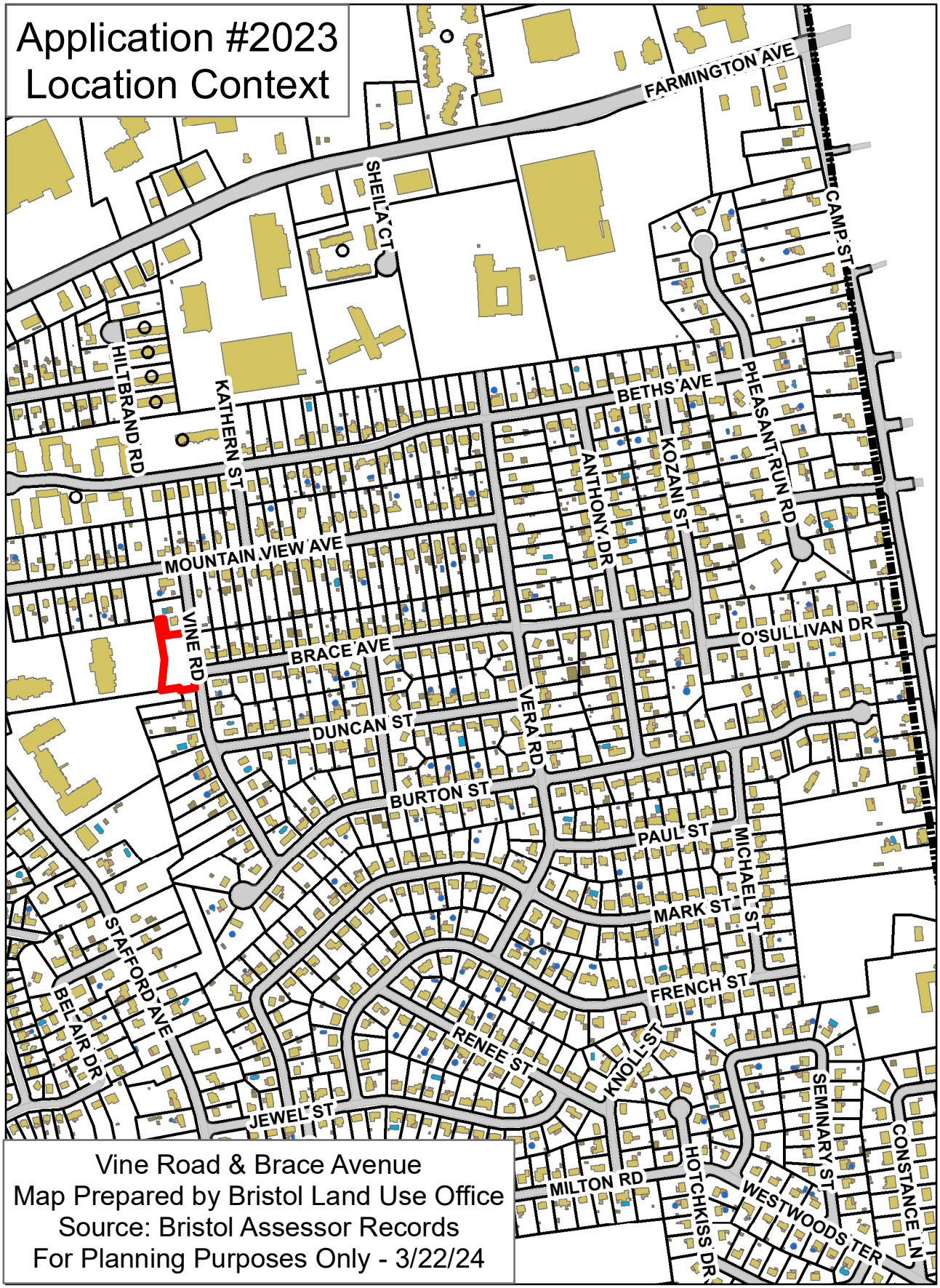
☐ b. The proposed activity is not regulated because it is greater than 100 feet from a wetlands or watercourse or will not adversely affect the wetlands or watercourse. *See instructions for submission requirements.*

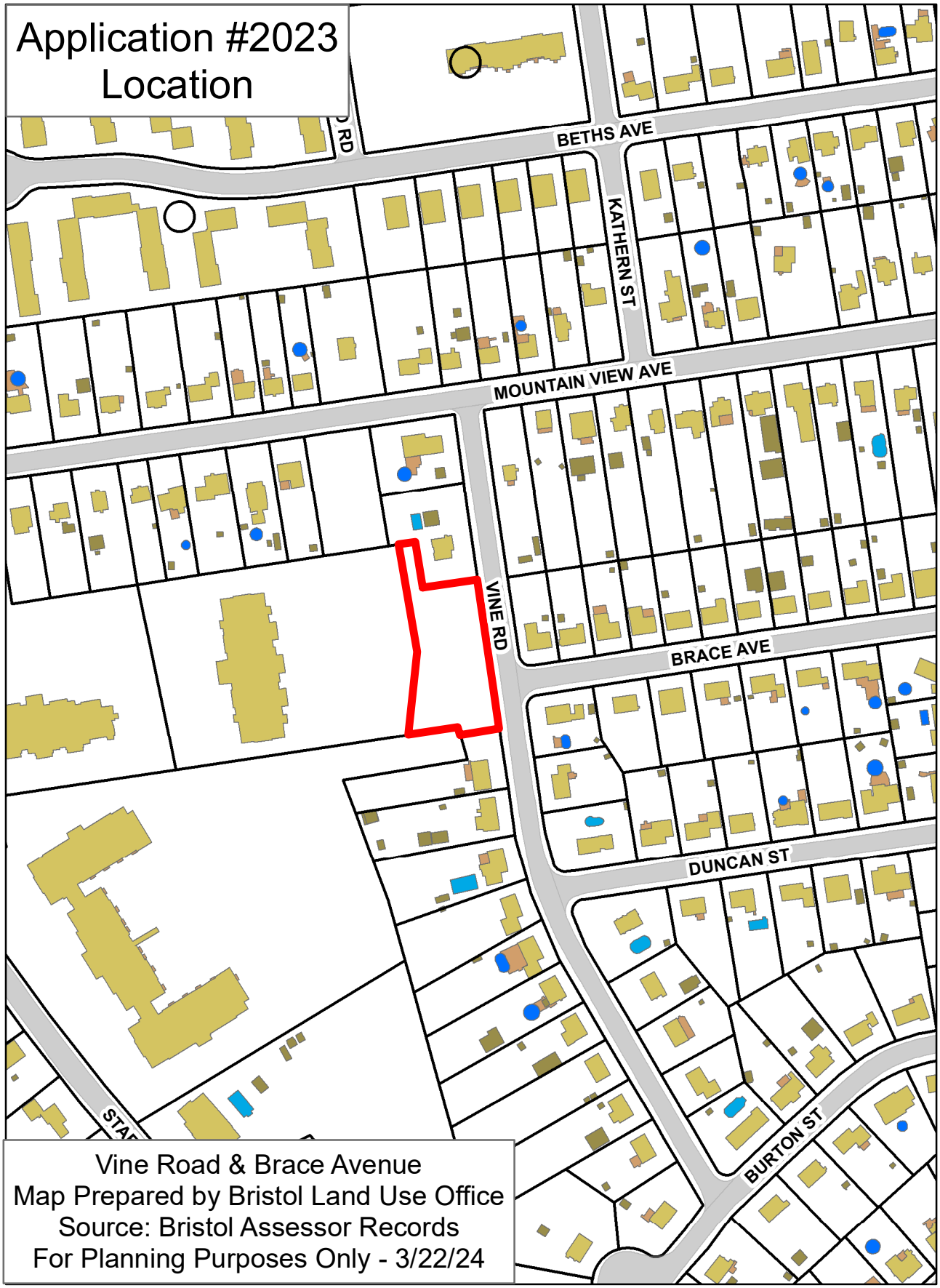
☐ c. The proposed activity is a regulated activity and will occur:

☑ in a wetlands or watercourse;	area of impact: 200 SF	(0.005 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)

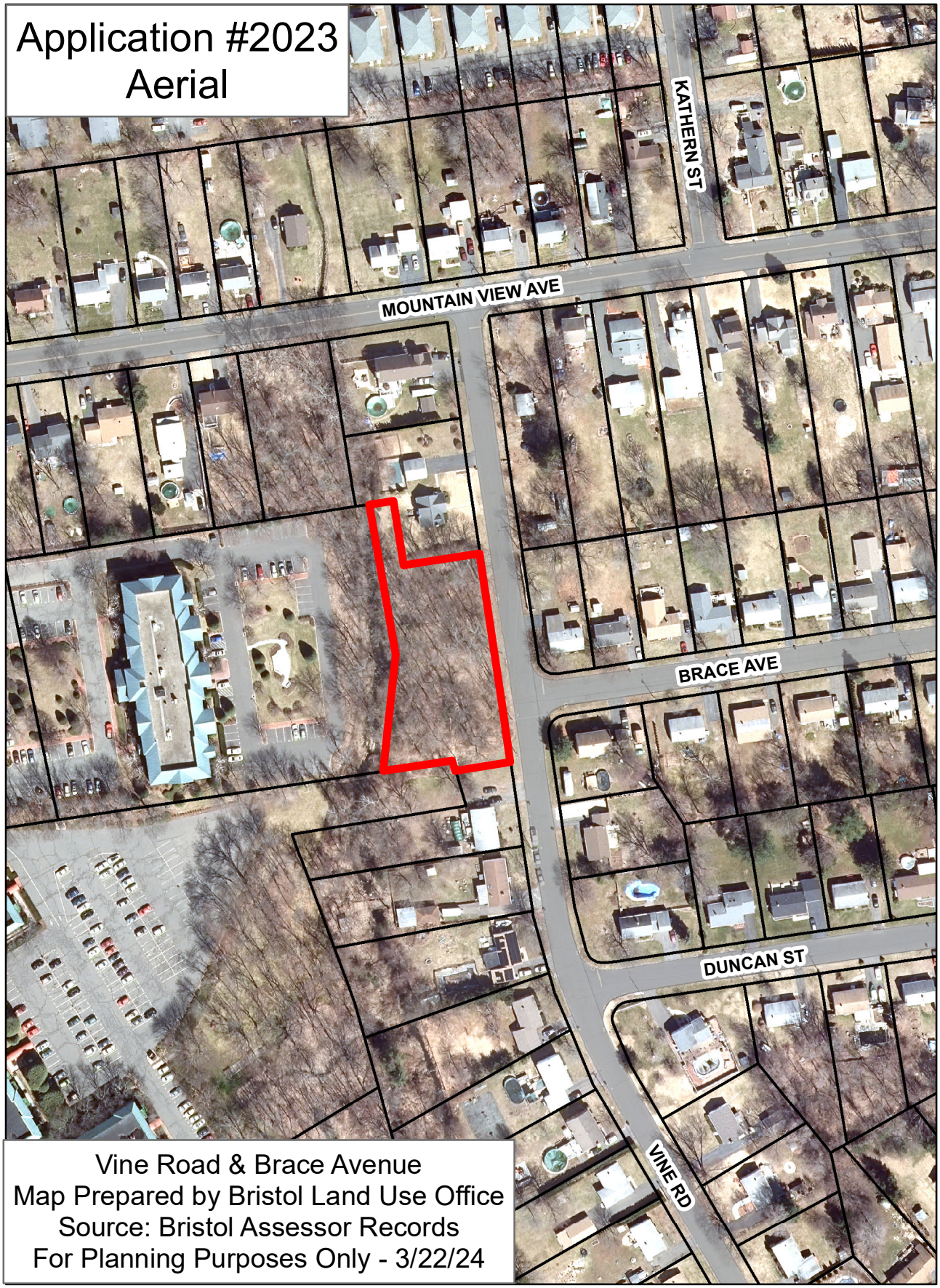
6. FLOW CALCULATIONS:

Does a watercourse flow through the subject property?
☐ yes ☐ no
If "yes", see instructions for submission requirements.


Application #2023
Location Context
FARMINGTON AVE
SHEILA CT
CAMP ST
HILTBRAND RD
KATHERN ST
BETHS AVE
PHEASANT RUN RD
KOZANI ST
ANTHONY DR
MOUNTAIN VIEW AVE
VINE RD
BRACE AVE
O'SULLIVAN DR
DUNCAN ST
VERA RD
BURTON ST
PAUL ST
MICHAEL ST
MARK ST
FRENCH ST
STAFFORD AVE
BEL AIR DR
RENEE ST
KNOLL ST
JEWEL ST
MILTON RD
HOTCHKISS DR
SEMINARY ST
WESTWOODS TER
CONSTANCE LN
Vine Road & Brace Avenue
Map Prepared by Bristol Land Use Office
Source: Bristol Assessor Records
For Planning Purposes Only - 3/22/24


Application #2023
Location
BETHS AVE
KATHERN ST
MOUNTAIN VIEW AVE
VINE RD
BRACE AVE
DUNCAN ST
BURTON ST
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
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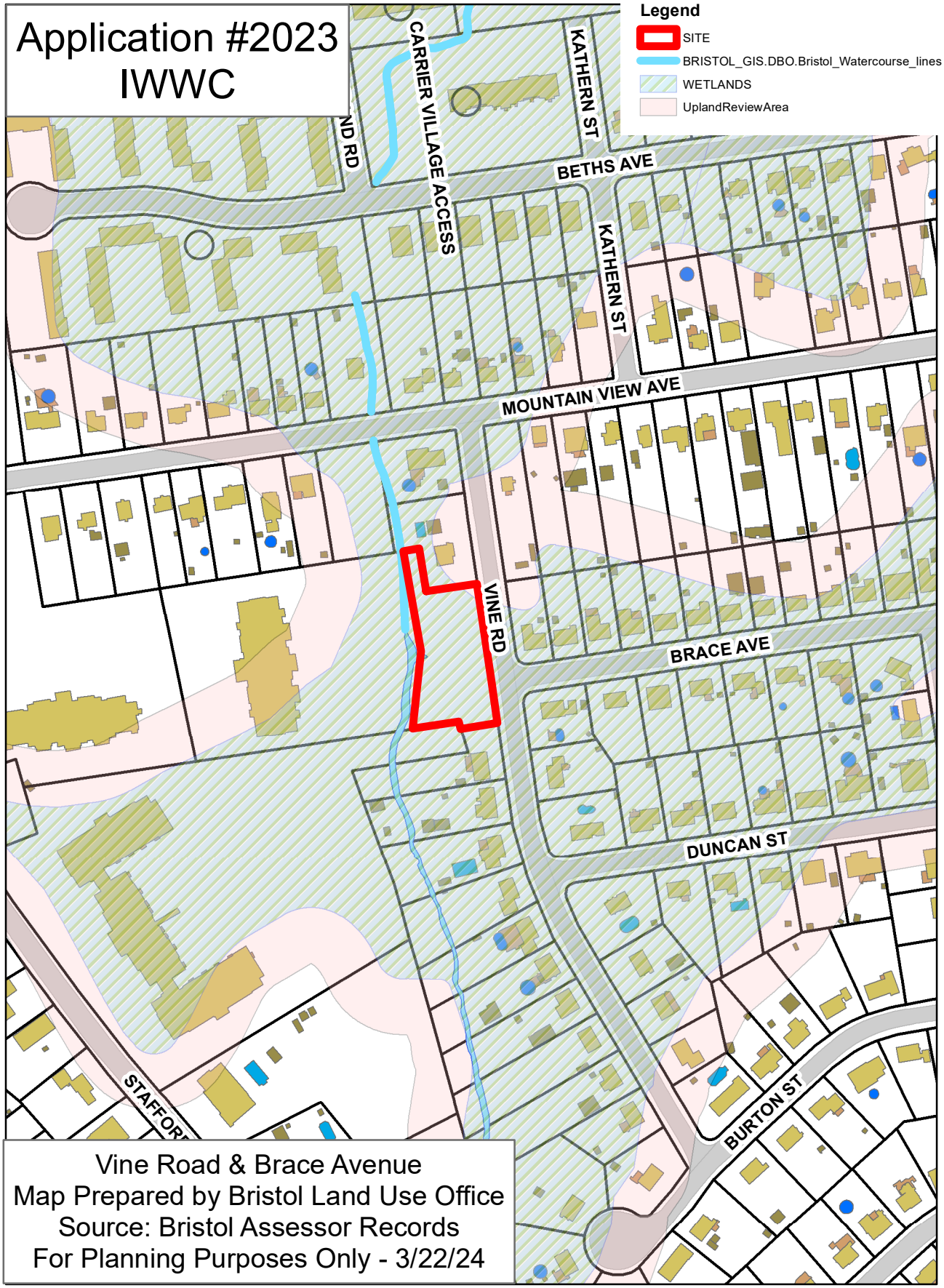
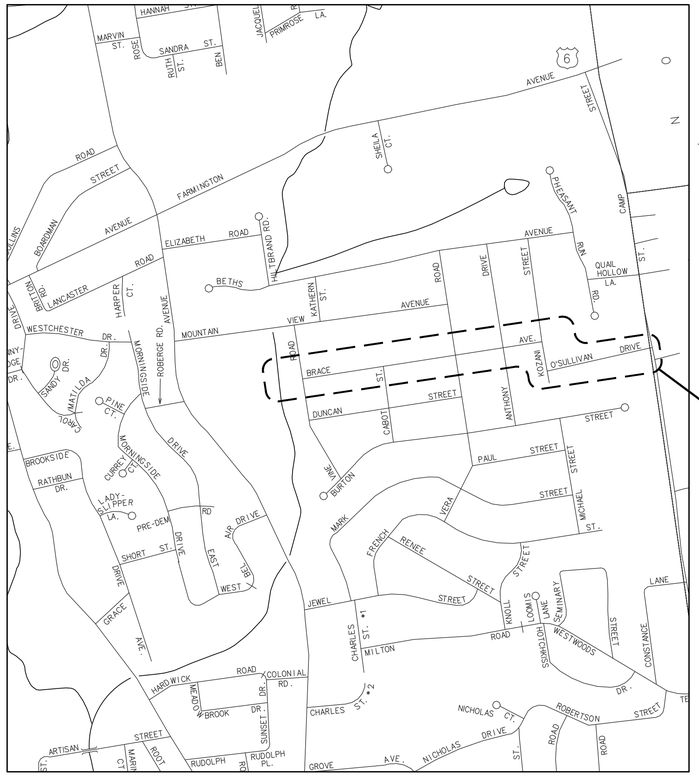
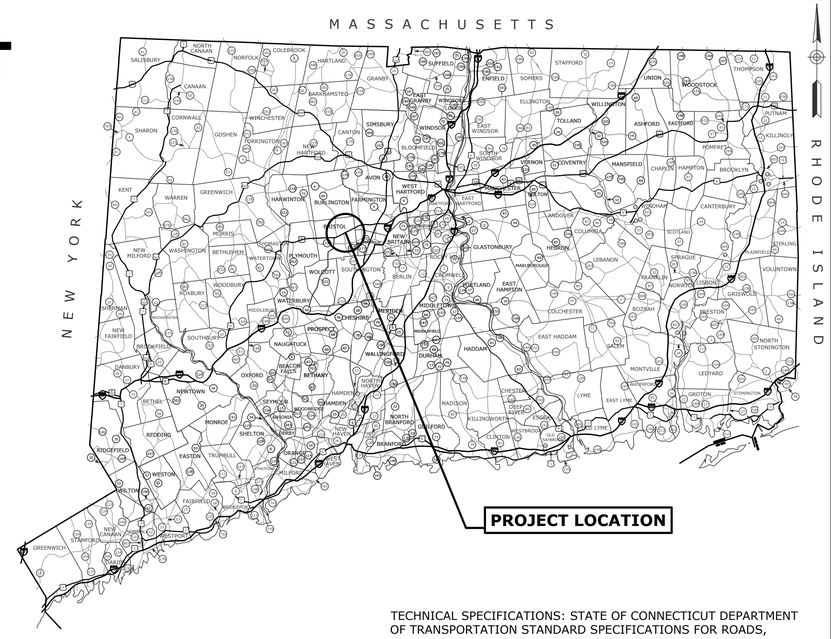

Application #2023
IWWC
Legend
SITE
BRISTOL_GIS.DBO.Bristol_Watercourse_lines
WETLANDS
UplandReviewArea
CARRIER VILLAGE ACCESS
KATHERN ST
BETHS AVE
KATHERN ST
MOUNTAIN VIEW AVE
VINE RD
BRACE AVE
DUNCAN ST
BURTON ST
Vine Road & Brace Avenue
Map Prepared by Bristol Land Use Office
Source: Bristol Assessor Records
For Planning Purposes Only - 3/22/24

CITY OF BRISTOL, CONNECTICUT

PLAN FOR
BRACE AVENUE DRAINAGE IMPROVEMENTS



LOCATION MAP
SCALE: 1" = 500'



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

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 NINETH 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.

DESIGNED BY WMC CONSULTING ENGINEERS

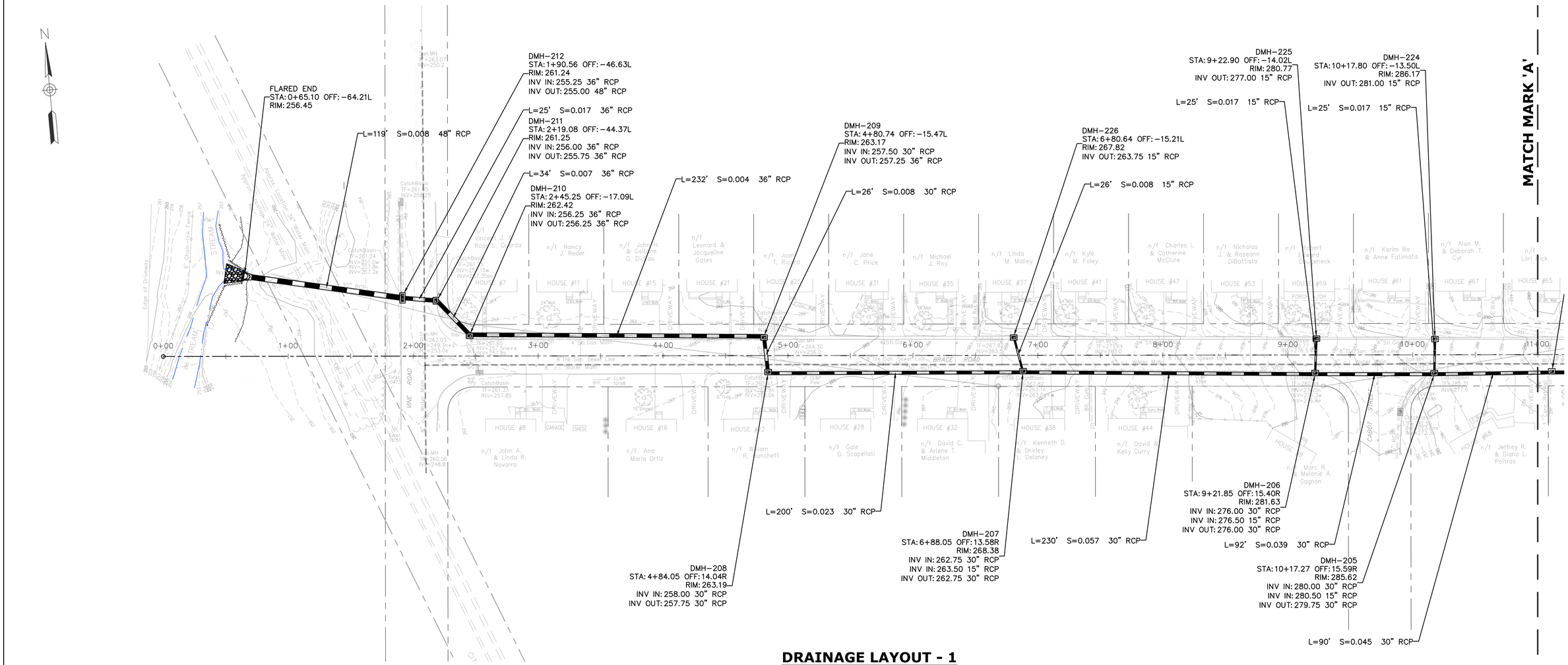
SUBMITTED BY _____ DATE _____

DIRECTOR OF PUBLIC WORKS - CITY OF BRISTOL

_____ DATE _____
RAYMOND ROGOZINSKI

DATE: ??/??/????

P.D. SUBMITTAL



DRAINAGE LAYOUT - 1

SCALE : 1" = 40'-0"

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.

NO.	DATE	DESCRIPTION

REVISIONS

SUPV. J.A.C.
DESIGN
DRAWN
CHECKED K.O.E.
DATE

WMC CONSULTING ENGINEERS
• WENGELL, McDONNELL & COSTELLO •
87 HOLMES ROAD
NEWINGTON, CT 06111
(860) 667-9624

PREPARED FOR

CITY OF BRISTOL
150 MAIN STREET
BRISTOL, CT 06010

BRACE AVENUE DRAINAGE IMPROVEMENTS
BRISTOL, CONNECTICUT
DRAINAGE LAYOUT - 1

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

MATCH MARK 'A'

MATCH MARK 'B'

DMH–204
STA: 11+11.25 OFF: 14.28R
RIM: 290.68
INV IN: 285.00 30" RCP
INV OUT: 284.25 30" RCP

L=71' S=0.030 30" RCP

DMH–222
STA: 13+74.89 OFF: –14.39L
RIM: 302.92
INV OUT: 297.50 15" RCP

L=32' S=0.014 15" RCP

L=25' S=0.017 15" RCP

DMH–223
STA: 11+92.93 OFF: –14.02L
RIM: 294.47
INV OUT: 288.00 15" RCP

L=84' S=0.037 30" RCP

DMH–228
STA: 4+13.96 OFF: –14.69L
RIM: 321.73
SUMP: 311.50
INV IN: 313.50 15" RCP
INV OUT: 315.50 15" RCP

L=130' S=0.015 15" RCP

DMH–229
STA: 2+79.86 OFF: –16.47L
RIM: 318.53
SUMP: 311.00
INV IN: 313.50 15" RCP
INV IN: 313.25 15" RCP
INV OUT: 313.00 15" RCP

L=76' S=0.019 15" RCP

DMH–230
STA: 1+99.49 OFF: –17.80L
RIM: 315.37
SUMP: 310.00
INV IN: 311.50 15" RCP
INV IN: 311.50 15" RCP
INV OUT: 311.25 15" RCP

L=25' S=0.017 15" RCP

DMH–221
STA: 14+98.00 OFF: –14.45L
RIM: 308.70
INV OUT: 302.05 15" RCP

L=86' S=0.037 24" RCP

L=32' S=0.036 15" RCP

L=34' S=0.053 15" RCP

L=26' S=0.017 15" RCP

DMH–227
STA: 4+14.33 OFF: 15.41R
RIM: 322.13
SUMP: 312.00
INV OUT: 314.00 15" RCP

L=27' S=0.016 15" RCP

DMH–234
STA: 2+79.59 OFF: 14.72R
RIM: 318.58
SUMP: 311.75
INV OUT: 313.75 15" RCP

DMH–235
STA: 16+11.53 OFF: –14.94L
RIM: 313.65
INV OUT: 308.00 15" RCP

L=30' S=0.015 15" RCP

DMH–233
STA: 1+99.49 OFF: 15.84R
RIM: 314.90
SUMP: 310.25
INV OUT: 312.00 15" RCP

DMH–220
STA: 16+86.37 OFF: –17.96L
RIM: 313.34
INV OUT: 306.50 15" RCP

L=31' S=0.007 15" RCP

L=32' S=0.015 15" RCP

DMH–215
STA: 21+40.92 OFF: –16.75L
RIM: 328.57
INV IN: 323.50 15" RCP
INV OUT: 319.50 15" RCP

L=59' S=0.008 15" RCP

DMH–219
STA: 18+56.11 OFF: –13.93L
RIM: 320.99
INV OUT: 313.25 15" RCP

0' S=0.015 15" RCP

DMH–216
STA: 21+17.75 OFF: –41.57L
RIM: 327.95
INV OUT: 324.00 15" RCP

DMH–217
STA: 20+83.18 OFF: –39.31L
RIM: 327.42
INV OUT: 321.00 15" RCP

L=56' S=0.013 15" RCP

DMH–202
STA: 12+74.28 OFF: 14.31R
RIM: 297.52
INV IN: 291.00 30" RCP
INV OUT: 290.75 30" RCP

L=74' S=0.052 30" RCP

CB – DOUBLE GRATE TYPE II
STA: 13+51.92 OFF: 13.82R
RIM: 301.45
INV IN: 295.00 24" RCP
INV IN: 297.00 15" RCP
INV OUT: 295.00 30" RCP

L=59' S=0.063 24" RCP

DMH–203
STA: 11+86.25 OFF: 14.32R
RIM: 293.89
INV IN: 287.50 30" RCP
INV IN: 287.50 15" RCP
INV OUT: 287.25 30" RCP

DMH–200
STA: 14+14.68 OFF: 13.44R
RIM: 306.08
INV IN: 298.95 24" RCP
INV OUT: 298.95 24" RCP

DMH–199
STA: 15+04.71 OFF: 13.97R
RIM: 308.93
INV IN: 302.24 24" RCP
INV IN: 301.55 15" RCP
INV OUT: 302.25 24" RCP

L=84' S=0.026 24" RCP

DMH–198
STA: 15+92.26 OFF: 17.25R
RIM: 311.80
INV IN: 304.50 24" RCP
INV IN: 306.00 15" RCP
INV OUT: 304.50 24" RCP

L=75' S=0.010 24" RCP

L=110' S=0.044 24" RCP

CB – DOUBLE GRATE TYPE I
STA: 16+86.56 OFF: 17.13R
RIM: 312.89
INV IN: 306.50 24" RCP
INV IN: 306.25 15" RCP
INV OUT: 306.00 24" RCP

L=32' S=0.021 24" RCP

DMH–197
STA: 16+70.00 OFF: 43.55R
RIM: 313.47
INV IN: 305.25 24" RCP
INV OUT: 305.25 24" RCP

L=103' S=0.023 24" RCP

DMH–195
STA: 18+00.88 OFF: 16.10R
RIM: 318.24
INV IN: 311.50 24" RCP
INV IN: 312.75 15" RCP
INV OUT: 311.50 24" RCP

L=152' S=0.032 24" RCP

DMH–194
STA: 19+07.72 OFF: 14.51R
RIM: 321.62
INV IN: 314.00 24" RCP
INV OUT: 314.00 24" RCP

DMH–193
STA: 20+63.48 OFF: 16.97R
RIM: 326.72
INV IN: 319.00 24" RCP
INV IN: 320.25 15" RCP
INV OUT: 319.00 24" RCP

L=75' S=0.025 24" RCP

DMH–192
STA: 21+42.11 OFF: 17.23R
RIM: 328.49
INV IN: 321.00 24" RCP
INV IN: 319.00 15" RCP
INV OUT: 321.00 24" RCP

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DRAINAGE LAYOUT - 2

SCALE : 1" = 40'-0"

NO.	DATE	DESCRIPTION

REVISIONS

SUPV. J.A.C.
DESIGN
DRAWN
CHECKED K.O.E.
DATE

WMC CONSULTING ENGINEERS

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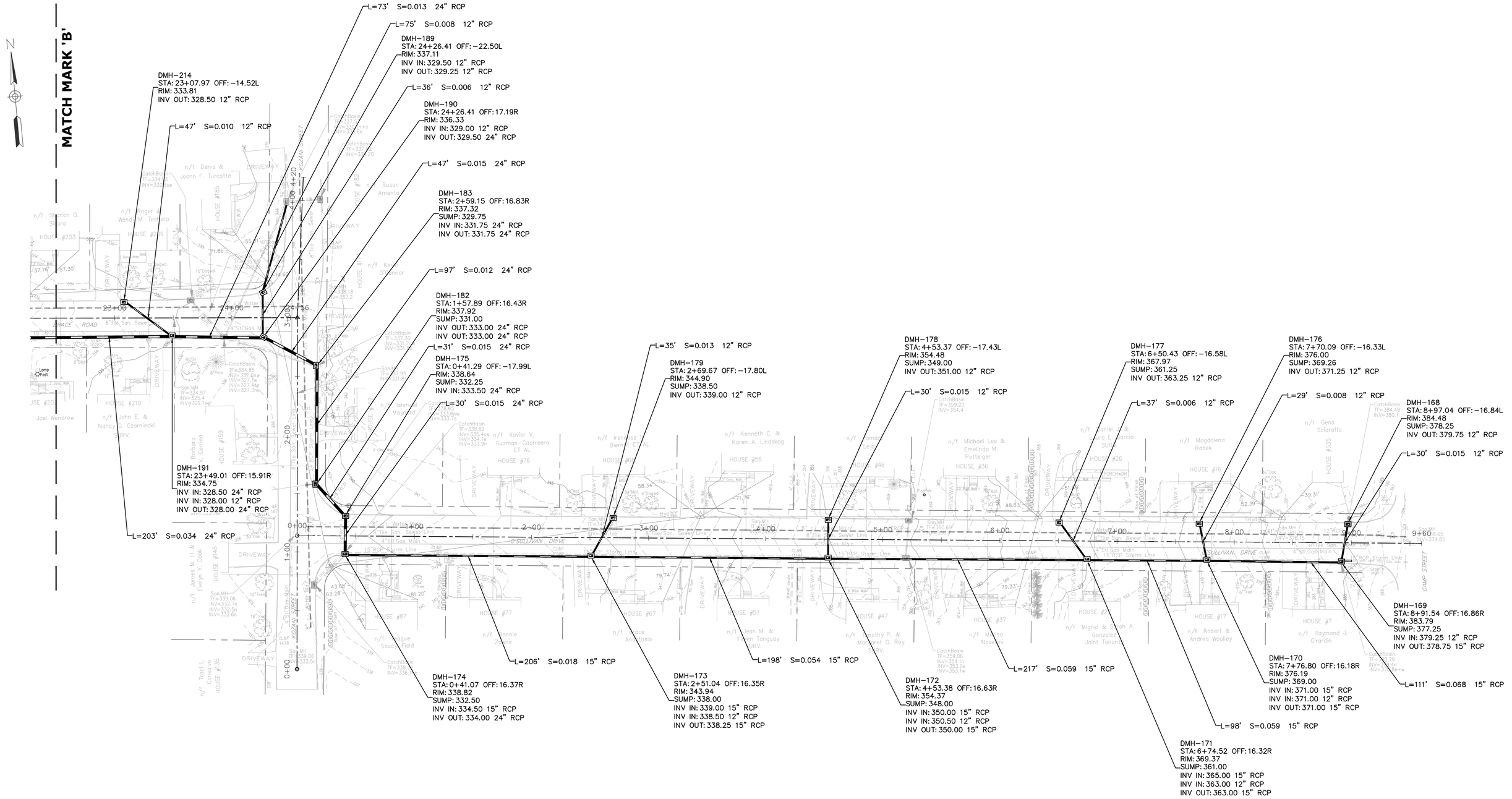
PREPARED FOR

CITY OF BRISTOL
150 MAIN STREET
BRISTOL, CT 06010

BRACE AVENUE DRAINAGE IMPROVEMENTS
BRISTOL, CONNECTICUT
DRAINAGE LAYOUT - 2

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



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DRAINAGE LAYOUT - 3

SCALE : 1" = 40'-0"

NO.	DATE	DESCRIPTION

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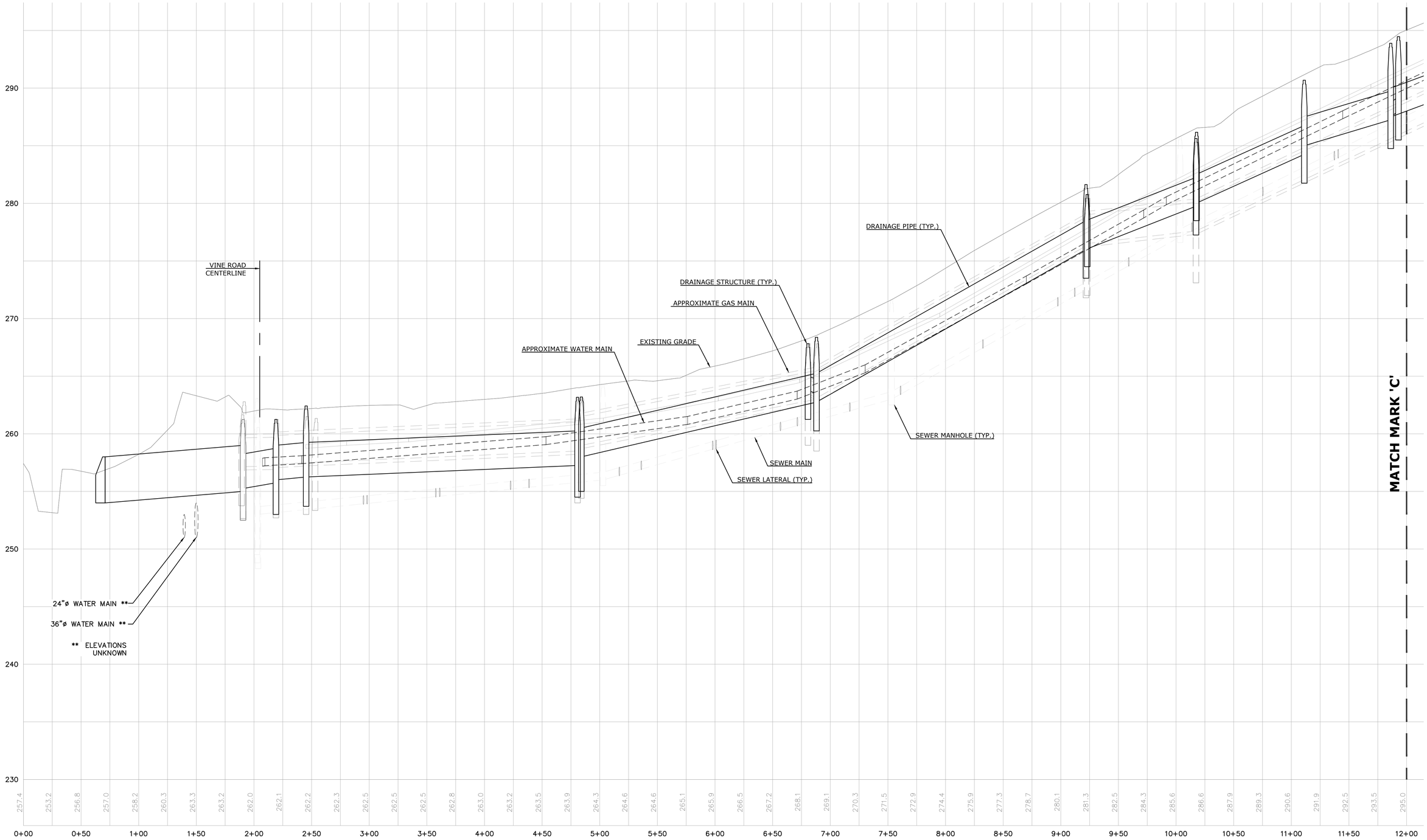
150 MAIN STREET
BRISTOL, CT 06010

BRACE AVENUE DRAINAGE IMPROVEMENTS
BRISTOL, CONNECTICUT
DRAINAGE LAYOUT - 3

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



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PROFILE 1 -BRACE AVE

SCALE : 1" = 40'-0"

NO.	DATE	DESCRIPTION

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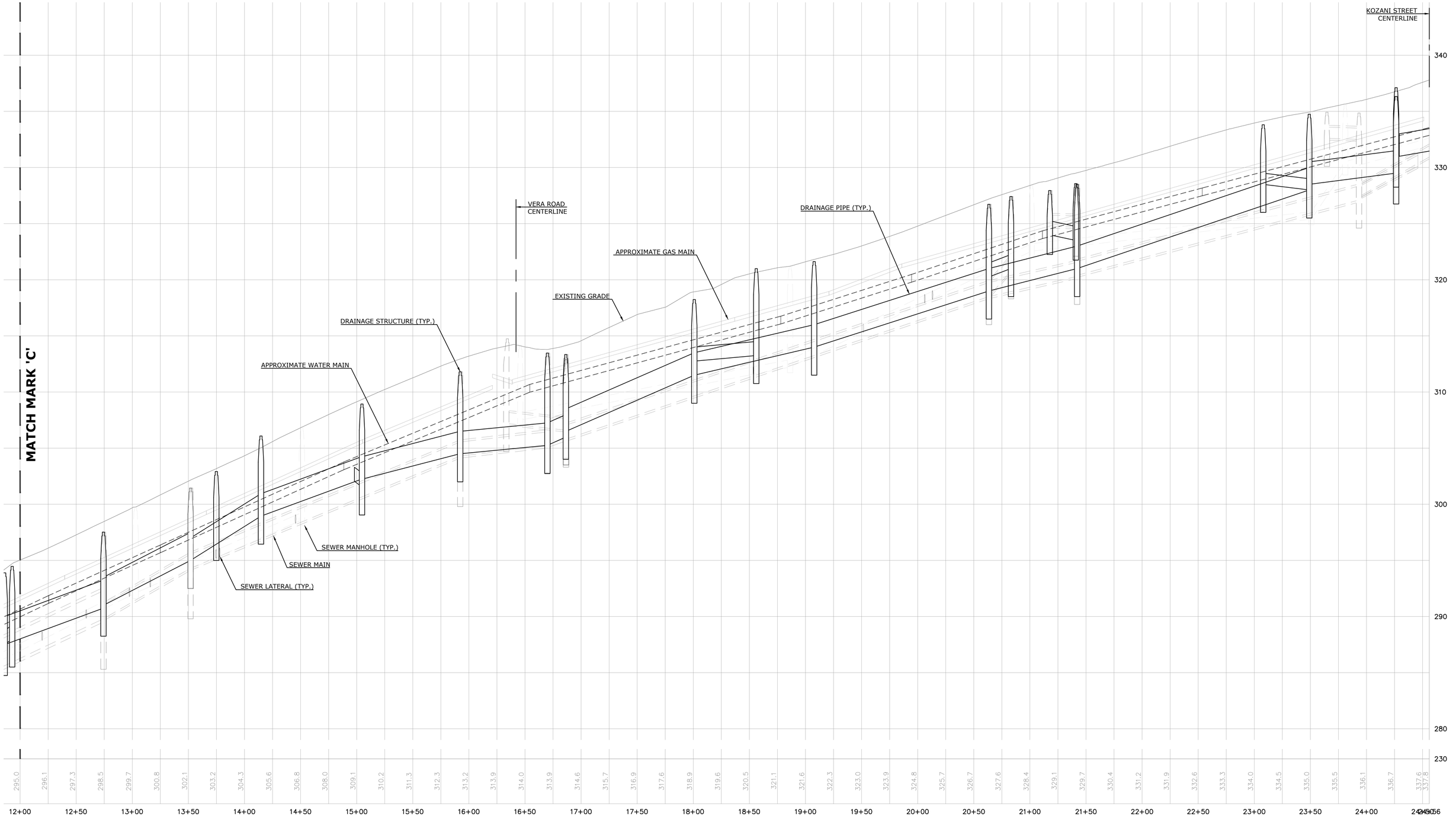
BRISTOL, CT 06010

BRACE AVENUE DRAINAGE IMPROVEMENTS
BRISTOL, CONNECTICUT
PROFILE

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



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PROFILE 2 -BRACE AVE

SCALE : 1" = 40'-0"

NO.	DATE	DESCRIPTION

REVISIONS

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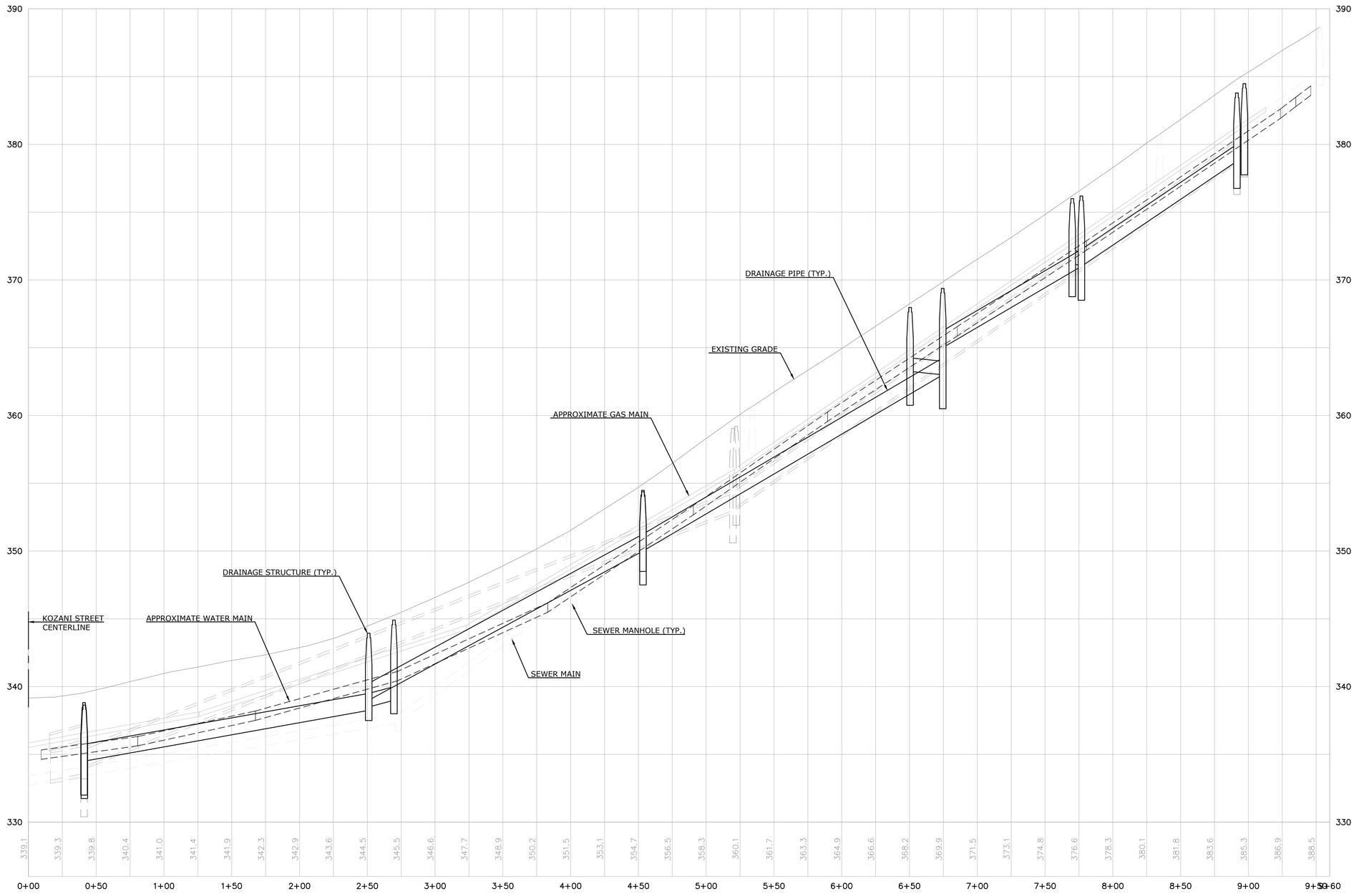
CITY OF BRISTOL
150 MAIN STREET
BRISTOL, CT 06010

BRACE AVENUE DRAINAGE IMPROVEMENTS
BRISTOL, CONNECTICUT
PROFILE

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



PROFILE - O'SULLIVAN DRIVE

SCALE : 1" = 40'-0"

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REVISIONS

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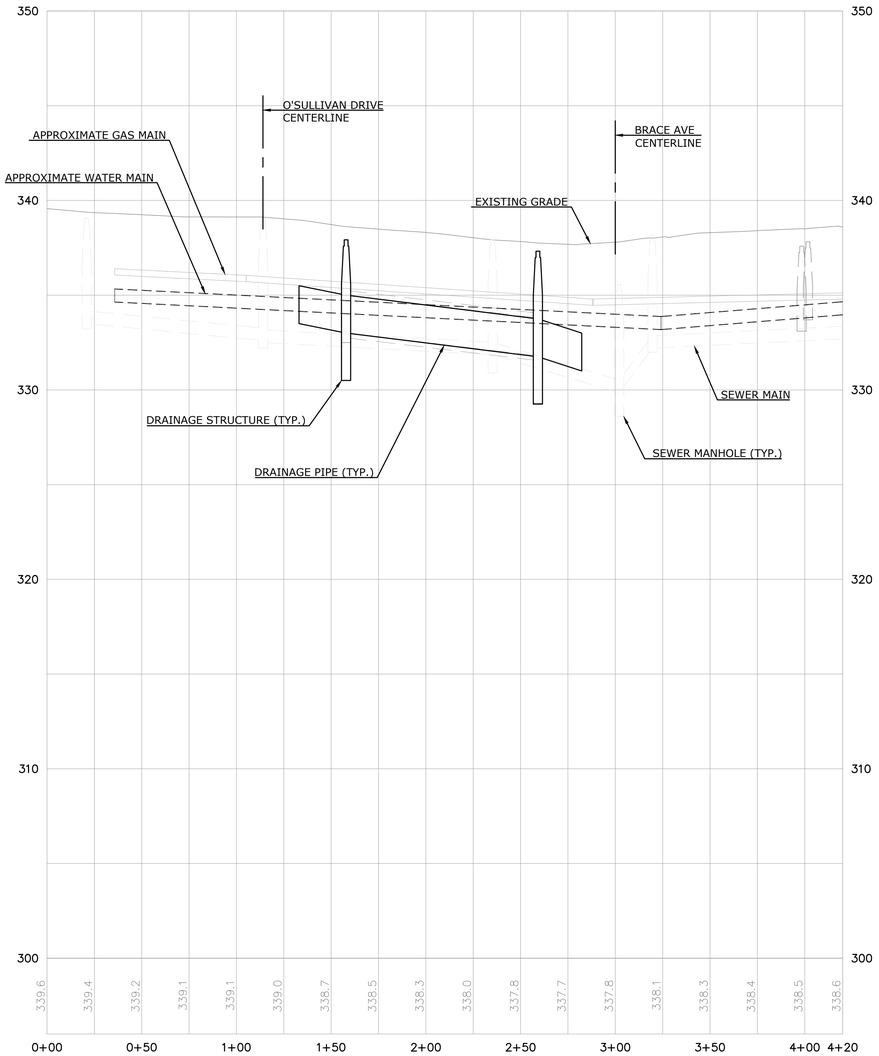
150 MAIN STREET
BRISTOL, CT 06010

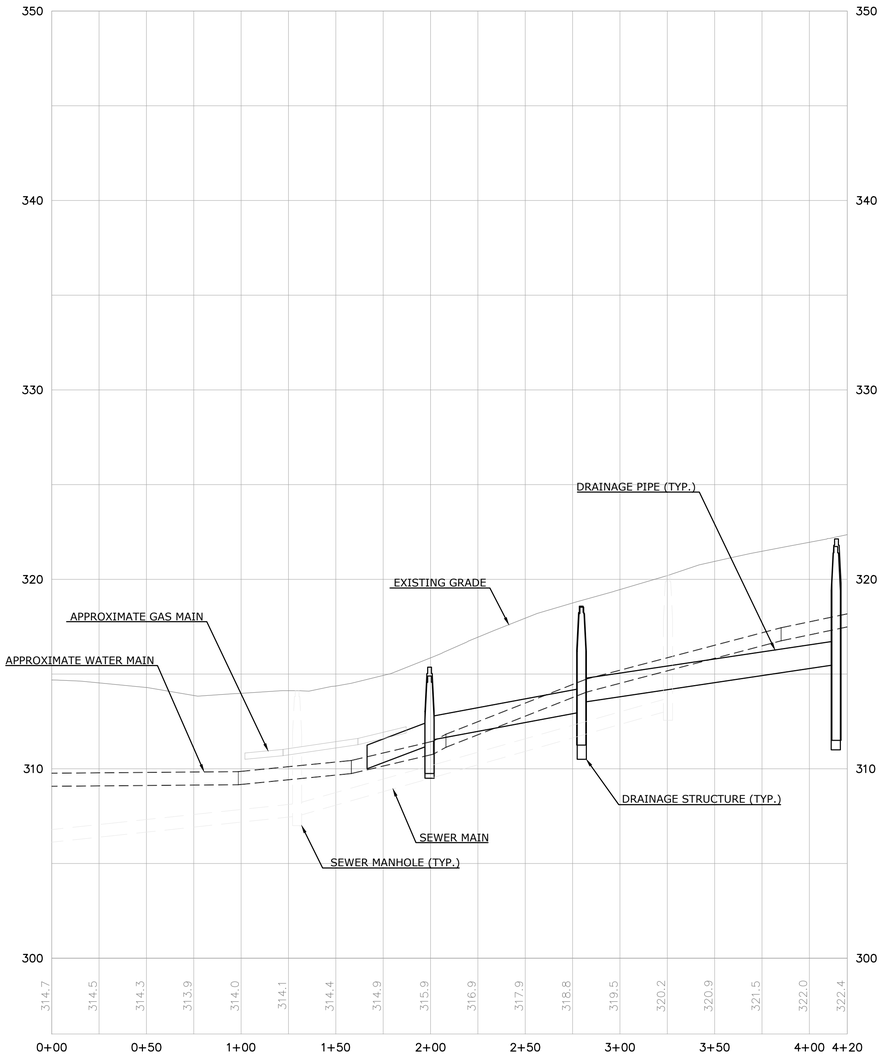
BRACE AVENUE DRAINAGE IMPROVEMENTS
BRISTOL, CONNECTICUT
PROFILE

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



PROFILE - KOZANI STREET

SCALE : 1" = 40'-0"



PROFILE - VERA ROAD

SCALE : 1" = 40'-0"

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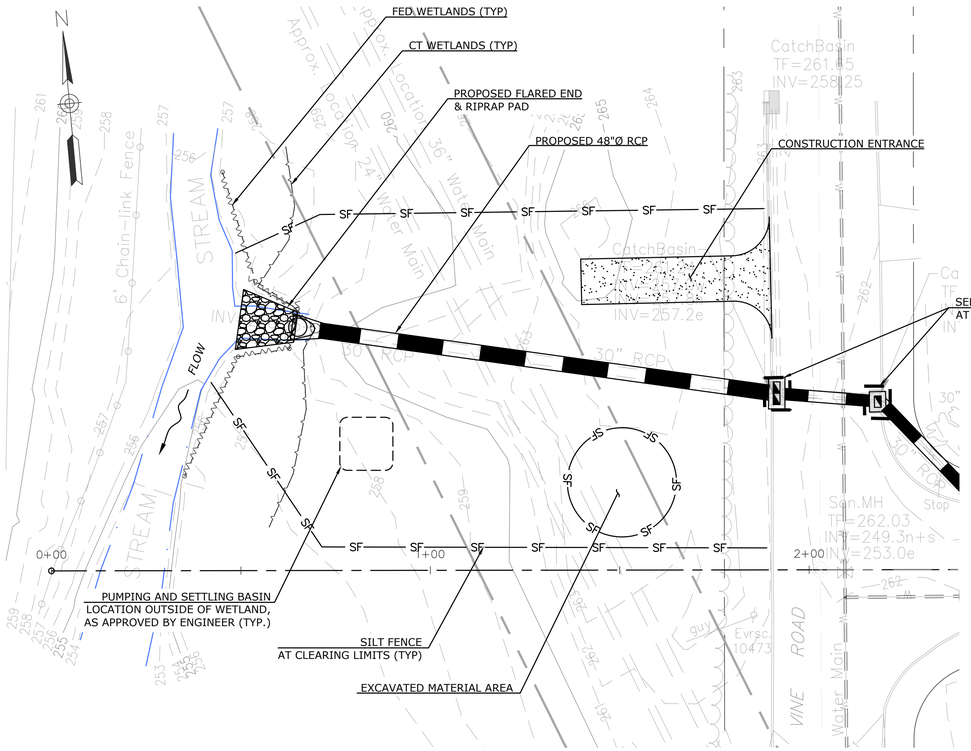
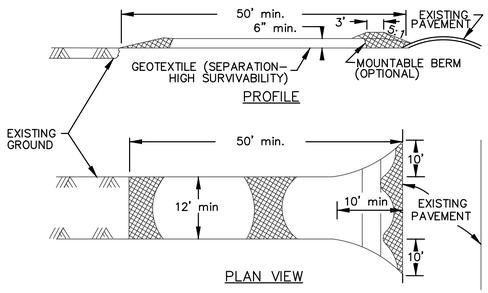
BRISTOL, CONNECTICUT
PROFILE

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



EROSION & SEDIMENTATION CONTROL LAYOUT

SCALE : 1" = 20'-0"



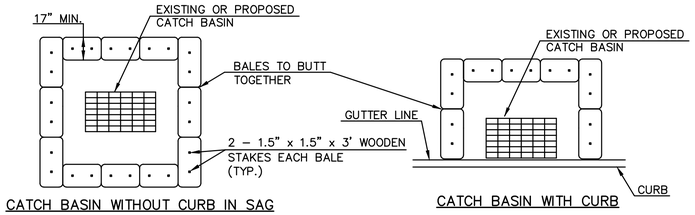
REFER TO PAGE 5-12-2 "CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENTATION CONTROL" AND PAGE 50 "ON-SITE MITIGATION FOR CONSTRUCTION ACTIVITIES".

STABILIZED CONSTRUCTION ENTRANCE

N.T.S.

CONSTRUCTION SPECIFICATION:

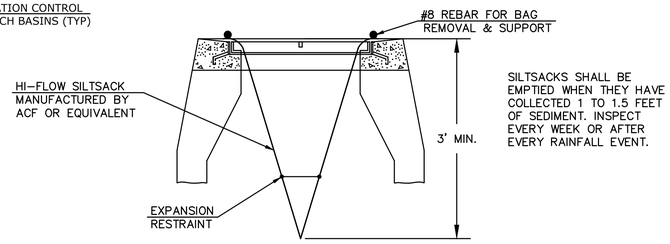
1. STONE SIZE – USE 2" STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
2. LENGTH – AS REQUIRED, BUT NOT LESS THAN 50 FT (EXCEPT ON A SINGLE RESIDENCE LOT WHERE A 30' MINIMUM LENGTH WOULD APPLY).
3. THICKNESS – NOT LESS THAN 6".
4. WIDTH – 12' MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE 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.



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

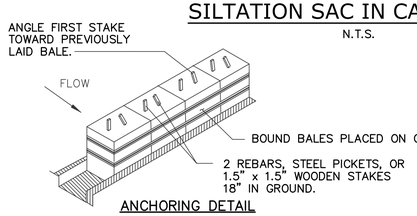
SEDIMENTATION CONTROL AT CATCH BASINS

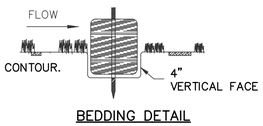
N.T.S.



SILTATION SAC IN CATCH BASIN

N.T.S.





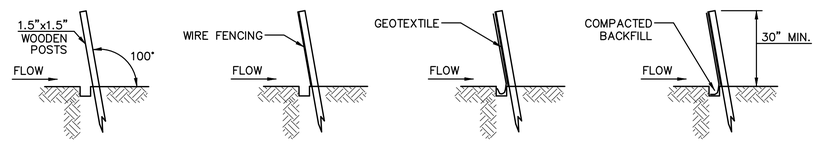
HAY BALE CONSTRUCTION SPECIFICATIONS:

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.



1. SET POSTS AND EXCAVATE A 6"x6" TRENCH. SET POSTS DOWN SLOPE. ANGLE 10° UPSLOPE FOR STABILITY AND SELF CLEANING.
2. ATTACH THE WIRE MESH FENCING TO POST.
3. ATTACH GEOTEXTILE TO THE WIRE FENCING AND EXTEND IT TO THE TRENCH.
4. BACKFILL THE TRENCH AND COMPACT THE EXCAVATED SOIL.

* WHEN INSTALLATION OF TRENCH IS IMPRACTICAL, ALTERNATE INSTALLATION SHALL BE TO LAY 6" FLAP HORIZONTALLY ON GROUND AND BURY FLAP BY RAMP SOIL OR STONE UP TO CONTROL FENCE. DEPTH OF RAMP SHALL BE AS REQUIRED TO HOLD DOWN FLAP WITHOUT LEAKAGE UNDER CONTROL FENCE WHILE MAINTAINING MINIMUM HEIGHT.

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.

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.

NO.	DATE	DESCRIPTION

REVISIONS

SUPV.	S.R.M.
DESIGN	M.F.
DRAWN	P.W.S.
CHECKED	K.O.E.
DATE	

WMC
CONSULTING ENGINEERS
• WENGELL, McDONNELL & COSTELLO •
87 HOLMES ROAD
NEWINGTON, CT 06111
(860) 667-9624

PREPARED FOR

CITY OF BRISTOL

150 MAIN STREET

BRISTOL, CT 06010

BRACE AVENUE DRAINAGE IMPROVEMENTS
BRISTOL, CONNECTICUT
EROSION & SEDIMENTATION CONTROL

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

For Office Use Only
APPLICATION NO. 2024
DATE FILED: 4-2-2024
DECISION DATE:
DECISION:

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

1. APPLICANT:

Name: William Delfino et al. Signature: William Delfino

Address: 785 Middle Street City: Bristol State: _____ Zip _____

Telephone No.: 860 583 2430 ☐ home ☐ work Email: JZIOGAS@ZIOGASLAW.COM

2. PROPERTY OWNER(S):

Name: William Delfino et al Signature: William Delfino

Address: 785 Middle Street City: Bristol State: CT Zip 06010

Telephone No.: 860 583 2430 ☐ home ☐ work Email: Jziogas@ziogaslaw.com

3. DESCRIBE THE SUBJECT PROPERTY:

Address or Location: Lot 4A BURLINGTON AVE.

Assessor's Map No.: 58 Assessor's Lot No.(s): Lot 4A

Description of wetlands (location, approximate area to be disturbed, vegetation, etc.):
No wetlands disturbance will occur, impervious surface in the upland review area will be reduced by 1,580 s. f.

4. DESCRIBE THE PROPOSED ACTIVITY AND ITS PURPOSE:
one single family home in area where previous home existed.

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: _____ SF (_____ acres)
☑ within 100 feet of a wetlands or watercourse;	area of impact: 0 SF (.4 acres)
☐ beyond 100 feet of a wetlands or watercourse;	area of impact: _____ SF (_____ acres)

6. FLOW CALCULATIONS:

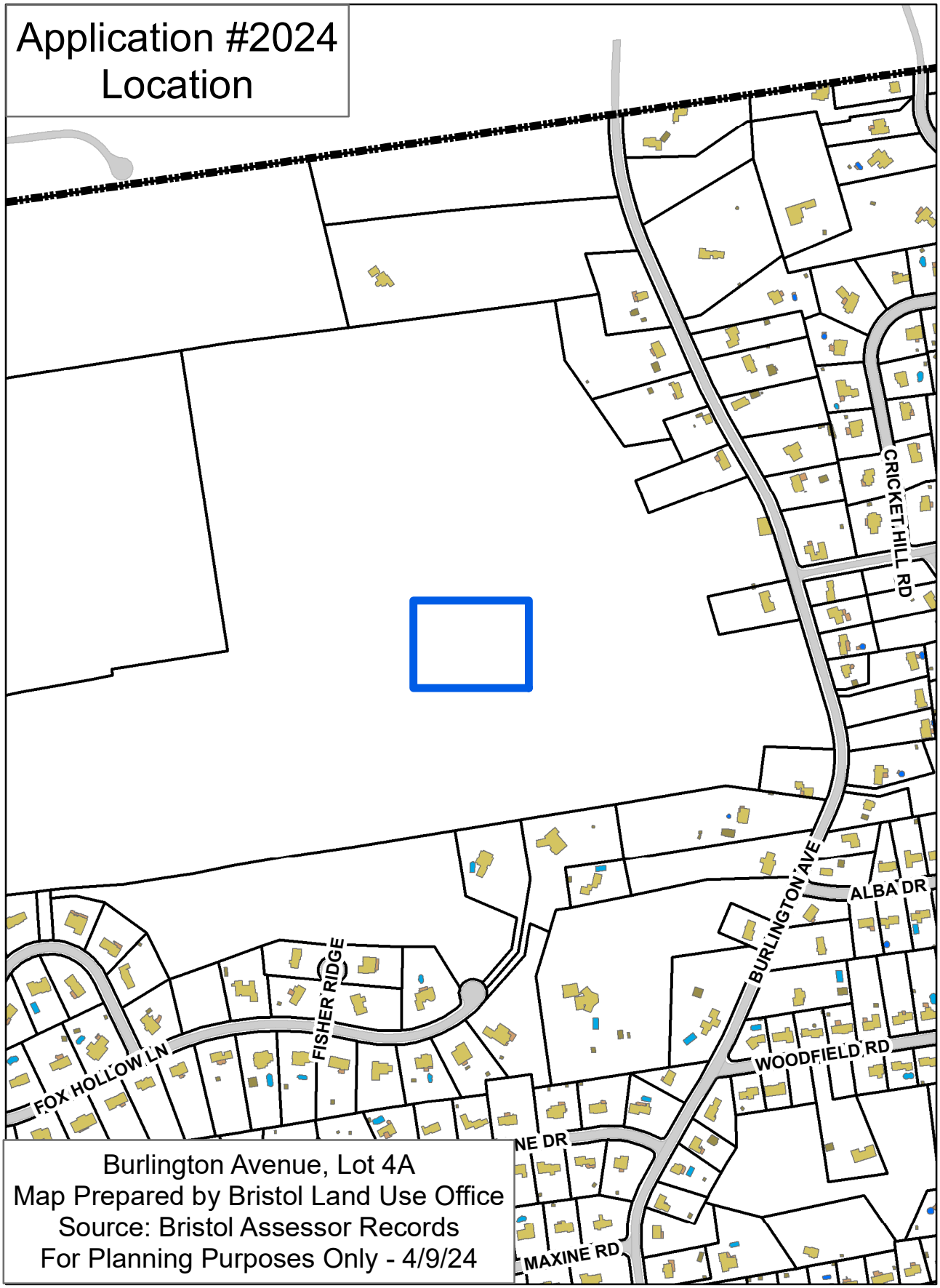
Does a watercourse flow through the subject property?
☐ yes ☐ no
If "yes", see instructions for submission requirements.

Current Property Owners

William Delfino, Marilyn Delfino & Karen Delfino and Staffordshire Trust.

785 Middle Street, Bristol, Ct 06010

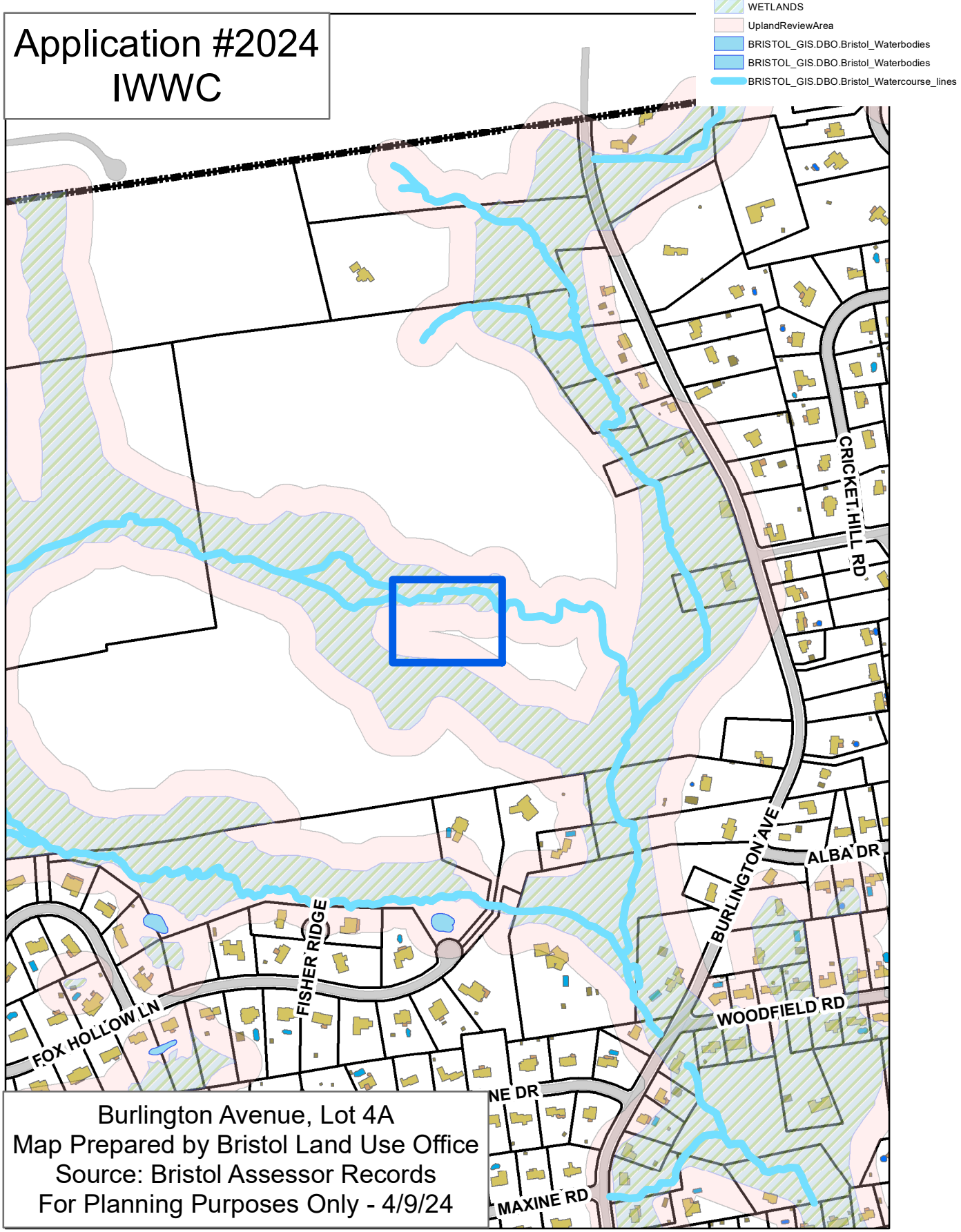
860729-9930


Application #2024
Location
CRICKET HILL RD
BURLINGTON AVE
ALBA DR
WOODFIELD RD
FISHER RIDGE
FOX HOLLOW LN
MAXINE RD
Burlington Avenue, Lot 4A
Map Prepared by Bristol Land Use Office
Source: Bristol Assessor Records
For Planning Purposes Only - 4/9/24

Application #2024
Aerial

Burlington Avenue, Lot 4A
Map Prepared by Bristol Land Use Office
Source: Bristol Assessor Records
For Planning Purposes Only - 4/9/24

Application #2024
IWWC



Burlington Avenue, Lot 4A
Map Prepared by Bristol Land Use Office
Source: Bristol Assessor Records
For Planning Purposes Only - 4/9/24

North

NOTES:

1. Zone = R-25
2. Basis for North is Map Reference No. 1.
3. Inland wetlands flagged by David Lord - Soil Scientist in May 2023

MAP REFERENCE:

1. "Map of Lots #3 & #4, Burlington Avenue, Bristol, Conn., to be Purchased By, Angelo and William Delfino.", Scale: 1"=100', Date: Dec. 9, 1976, Prepared By: A.F. Lepore, Jr. & Associates, Civil Engineers.

OTHER LAND N/F WILLIAM DELFINO

CITY OF BRISTOL WETLANDS LIMIT (TYPICAL)

LIMIT OF FLAGGED INLAND WETLANDS (TYPICAL)

WF 77 WF 78 WF 79 WF 80 WF 81 WF 82 WF 83 WF 84 WF 85 WF 86 WF 87 WF 88 WF 89 WF 90 WF 91 WF 92 WF 93 WF 94 WF 97 WE 98

N78° 15' 07"E 410.00'

EXISTING BITUMINOUS DRIVEWAY TO REMAIN

60" RCP FL - 444.79

60" RCP FL - 442.91

WF 40 WF 41 WF 42 WF 43 WF 44 WF 45 WF 46 WF 47 WF 48 WF 49 WF 50 WF 51

48" OAK

EXISTING SILT FENCE

PROPOSED SILT FENCE

15' SIDE YARD

REMOVE EXISTING BITUMINOUS

OTHER LAND N/F WILLIAM DELFINO

LIMIT OF FLAGGED INLAND WETLANDS (TYPICAL)

100' UPLAND REVIEW DELINEATION

EXISTING TAILINGS STOCKPILE

PROPOSED DRIVEWAY

PROPOSED WELL W/ STAKED HAYBALES AND SUMP FOR WELL TAILINGS CONTAINMENT

NO PIPES WITHIN 25'

75.0' MIN. WELL RADIUS

ORIGINAL HOUSE LOCATION

EXISTING WELL SHALL BE ABANDONED AS PER CT DPH REGULATIONS

GARAGE FINISH FLOOR ELEVATION 485.00

PROPOSED (3) BEDROOM DWELLING TOP FOUNDATION ELEVATION 485.30 (SEE ARCHITECTURALS FOR DIMENSIONS)

Covered Porch

6" PVC SDR-35 ROOF LEADER

6" PVC SDR-35 H.L.O. FL - 478.00

2 EACH - 4'x4'x8' CONCRETE GALLEYS

36" OAK IN TREE WELL

PROPOSED FOOTING DRAIN OUTLET PIPE. FL - 476.00 COVER WITH VERMIN SCREEN AND OUTLET ONTO 2' x 2' CRUSHED STONE PAD

TOP OF EMBANKMENT OF SELECT SEPTIC FILL MATERIAL WHERE REQUIRED FOR COVER

TOP OF EMBANKMENT OF CLEAN NATIVE COMMON FILL (NO BOULDERS OR STUMPS)

INSTALL 12" HIGH PRECAST CONCRETE LEACHING CHAMBERS @ 12' ON CENTER (TYP.)

INSTALL 4"Ø PVC PERFORATED PIPE WITH CAPPED ENDS EACH WAY (TYP.)

DP 1 DP 2 DP 3 DP 4 PT A PT B

56 L.F. - 28 L.F. (7 UNITS) B.I. 476.10

56 L.F. (7 UNITS) B.I. 474.70

LEACHING AREA

100% RESERVE AREA

ORIGINAL HOUSE LOCATION

22.5° BEND 45° BEND

PROPOSED 1,250 GALLON SEPTIC TANK

DB #1 DB #2

6" PVC SDR-35 ROOF LEADER

2 EACH - 4'x4'x8' CONCRETE GALLEYS

6" PVC SDR-35 H.L.O. FL - 477.50

EXISTING EDGE OF CLEARING

PROPOSED SILT FENCE

BENCHMARK SURVEYOR'S CONTROL POINT ELEV. = 471.66

EXISTING CURTAIN DRAIN

EXISTING CURTAIN DRAIN OUTLET - 470.05

S78° 15' 07"W 410.00'

15' SIDE YARD

40' REAR YARD

40' FRONT YARD

100' UPLAND REVIEW DELINEATION

N13° 45' 53"W 320.00'

90.0' 60.1' 100.0' 254.0' 119.0' 104.5' 85.0'

OTHER LAND N/F WILLIAM DELFINO

LOT 4A N/F WILLIAM DELFINO

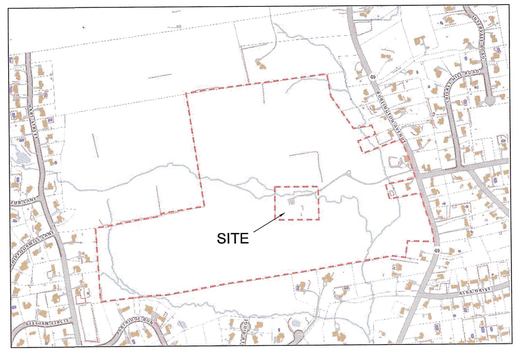
CITY OF BRISTOL WETLANDS LIMIT (TYPICAL)

WF 12 WF 13 WF 14 WF 15 WF 16 WF 17 WF 18 WF 19 WF 20 WF 21 WF 61 WF 62 WF 63 WF 64 WF 65 WF 66 WF 67 WF 68 WF 69 WF 70 WF 71

GRAPHIC SCALE

20 10 0 20 40

1 Inch = 20 Feet



SITE LOCATION PLAN
N.T.S.

IMPERVIOUS CALCULATIONS:

ORIGINAL HOUSE AND DRIVEWAY = 15,226 S.F.

PROPOSED HOUSE AND DRIVEWAY = 13,646 S.F.

(REDUCTION OF 1,580 S.F.)

S.S.D.S. PIPE SCHEDULE

1. 42' - 4" Ø PVC SCH40 ASTM D1785 @ 2.1% (MIN.)
2. 22' - 4" Ø PVC SDR35 ASTM D3034 @ 1.4%
3. 12' - 4" Ø PVC SDR35 ASTM D3034 @ 10.8%

S.S.D.S. DESIGN DATA TABLE

1. PERCOLATION RATE = 10.1 – 20 MIN./INCH
2. FOR A 3 BEDROOM DWELLING, 675 SQUARE FEET OF LEACHING AREA IS REQUIRED.
3. TYPE OF LEACHING SYSTEM PROPOSED:

112 L.F. – 12" HIGH PRECAST CONCRETE LEACHING CHAMBERS (2 ROWS OF 56 L.F. @ 12' O.C.)
E.L.A. INCLUDES 1' OF STONE AT EACH END FOR 58 L.F.

RESERVE AREA SIZED FOR SAME TYPE SYSTEM

4. 116 LINEAR FEET x 5.9 SQUARE FEET PER LINEAR FOOT = 684.4 SQUARE FEET OF EFFECTIVE LEACHING AREA IS PROVIDED.
5. WELL SEPARATION DISTANCE REQUIRED IS 75 FEET.

* H.L.O. – HIGH LEVEL OVERFLOW IN D–BOX (SEE DETAIL).

6. SYSTEM ELEVATIONS:
HOUSE INVERT = 478.15
SEPTIC TANK IN = 477.25
OUT = 477.00
D–BOX #1 IN = 476.70
OUT = 477.10*
TO CHAMBERS OUT = 476.60
B.O.T. Min. EL. = 476.10
D–BOX #2 IN = 475.30
OUT = –
TO CHAMBERS OUT = 475.20
B.O.T. Min. EL. = 474.70

M.L.S.S.
HYDRAULIC GRADIENT – 11.4% (AVG.)
RESTRICTIVE LAYER – 34" (COMPACT LAYER)
H.F. – 20
F.F. – 1.5
P.F. – 1.25
H.F. x F.F. x P.F.= 37.5 L.F. (MIN) REQUIRED
(58 L.F. M.L.S.S. PROVIDED)

REV. 10/17/2011

UTILITY NOTE:
LOCATION OF UNDERGROUND UTILITIES DEPICTED HEREON ARE BASED UPON FIELD SURVEY OF VISIBLE SURFACE STRUCTURES SUCH AS CATCH BASINS AND MANHOLES, TOGETHER WITH RECORD MAPPING OBTAINED FROM UTILITY COMPANIES AND GOVERNMENTAL AGENCIES AS NOTED UNDER MAP REFERENCES. THESE LOCATIONS MUST BE CONSIDERED APPROXIMATE IN NATURE. IN ADDITION, OTHER UTILITIES MAY ALSO EXIST, UNKNOWN TO THE SURVEYOR. THE SIZE, LOCATION AND EXISTENCE OF ALL SUCH FEATURES MUST BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. CALL BEFORE YOU DIG 1-800-922-4455.

REVISED: 11-28-23 WETLANDS FLAGS

PREPARED FOR:
William Delfino
785 Middle Street
Bristol, CT 06010
860-583-2430

R. R. HILTBRAND Engineers and Surveyors

PROPOSED SITE PLAN
Lot 4A
#1155 Burlington Avenue
Bristol, Connecticut

August 7, 2023

R. R. HILTBRAND ENGINEERS and SURVEYORS
575 NORTH MAIN STREET BRISTOL, CONNECTICUT 06010 (860) 582 4548

For Office Use Only
APPLICATION NO. 2025
DATE FILED: 04-25-24
DECISION DATE:
DECISION:

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

1. APPLICANT:

Name: Peter Plewa Signature:

Address: 465 emmett st City: Bristol State: CT Zip 06010

Telephone No.: 860-839-9933 [ ] home [ ] work Email: Peterplewa@outlook.com

2. PROPERTY OWNER(S):

Name: Peter plewa Signature:

Address: 465 emmett st City: Bristol State: CT Zip 06010

Telephone No.: 860-839-9933 [ ] home [ ] work Email: Peterplewa@outlook.com

3. DESCRIBE THE SUBJECT PROPERTY:

Address or Location: Same as above

Assessor's Map No.: Map 3 Assessor's Lot No.(s): 9-1

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

10 feet from property line of owner
According to our map, 30 feet from rear left corner of the house is property line of owner and the water(creek) is 30 feet from that on the side closer to street.
On the far side its well over 75 feet because of the angle.

4. DESCRIBE THE PROPOSED ACTIVITY AND ITS PURPOSE:

Not building anything just leveling ground and sloping away from home.
Cleaning brush on owner side of property.
Possibly planting some green hedges, if not building fence on property line,
depends on budget and what the town allows, currently leaning towards the hedges. (Green giants, colorado blue spruce) havent decided, this is all on side closer to creek.

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:

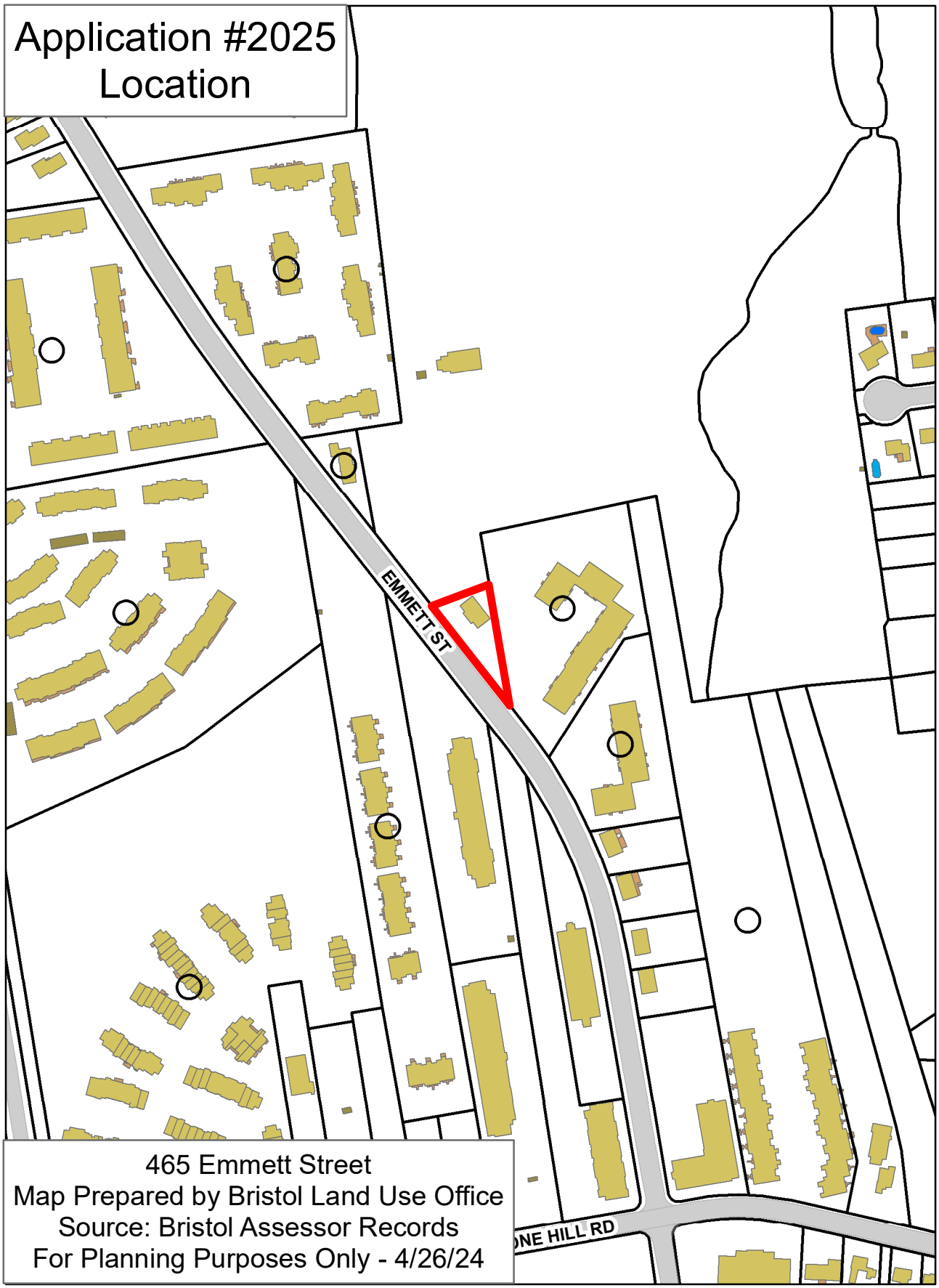
- [ ] in a wetlands or watercourse; area of impact: SF (acres)
- [x] within 100 feet of a wetlands or watercourse; area of impact: 1000 SF (acres)
- [ ] beyond 100 feet of a wetlands or watercourse; area of impact: SF (acres)

6. FLOW CALCULATIONS:

Does a watercourse flow through the subject property?

[ ] yes [x] no

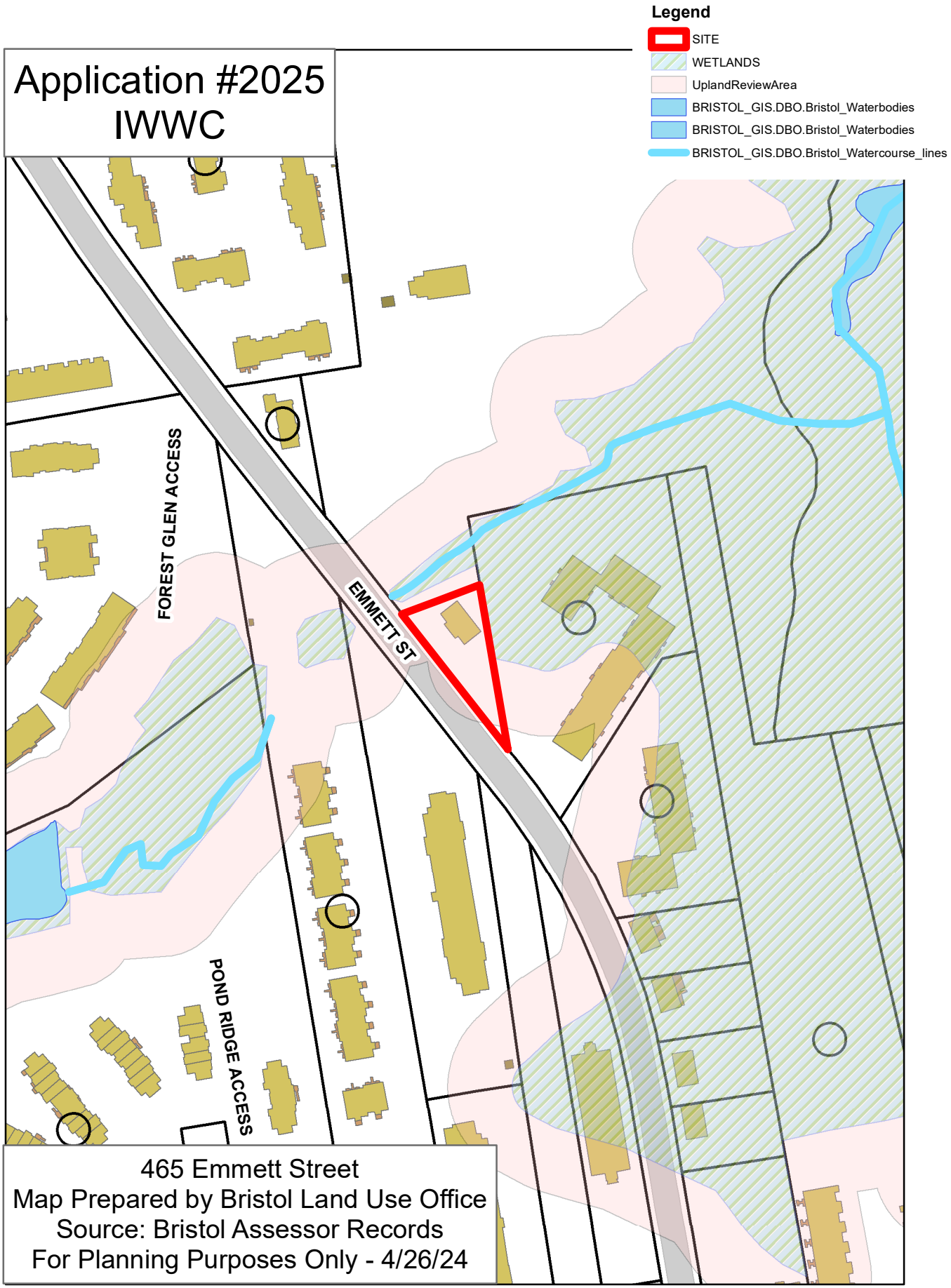
If "yes", see instructions for submission requirements.


Application #2025
Location
EMMETT ST
ONE HILL RD
465 Emmett Street
Map Prepared by Bristol Land Use Office
Source: Bristol Assessor Records
For Planning Purposes Only - 4/26/24

Application #2025
Aerial

465 Emmett Street
Map Prepared by Bristol Land Use Office
Source: Bristol Assessor Records
For Planning Purposes Only - 4/26/24

Application #2025
IWWC



465 Emmett Street
Map Prepared by Bristol Land Use Office
Source: Bristol Assessor Records
For Planning Purposes Only - 4/26/24

For Office Use Only
APPLICATION NO. _____
DATE FILED: _____
DECISION DATE: _____
DECISION: _____

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

1. APPLICANT:

Name: Brendan Till Signature: Brendan Till

Address: 54 Litchfield Ln City: Bristol State: ____ Zip ____

Telephone No.: 8608823413 ☐ home ☐ work Email: tillelectric@gmail.com

2. PROPERTY OWNER(S):

Name: Brendan Till Signature: Brendan Till

Address: 54 Litchfield Ln City: Bristol State: CT Zip 06010

Telephone No.: 8608823413 ☐ home ☐ work Email: tillelectric@gmail.com

3. DESCRIBE THE SUBJECT PROPERTY:

Address or Location: 54 Litchfield Ln

Assessor's Map No.: 75.0 Assessor's Lot No.(s): 52-16

Description of wetlands (location, approximate area to be disturbed, vegetation, etc.):
We will be approximately 67' from the edge of the wetlands

4. DESCRIBE THE PROPOSED ACTIVITY AND ITS PURPOSE:

There will be a new foundation attached to the existing foundation to create a larger basement with new kitchen above

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: ____ SF (____ acres)
- ☒ within 100 feet of a wetlands or watercourse; area of impact: 440 SF (.0101 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.

IW-1, Effective 5-3-2021

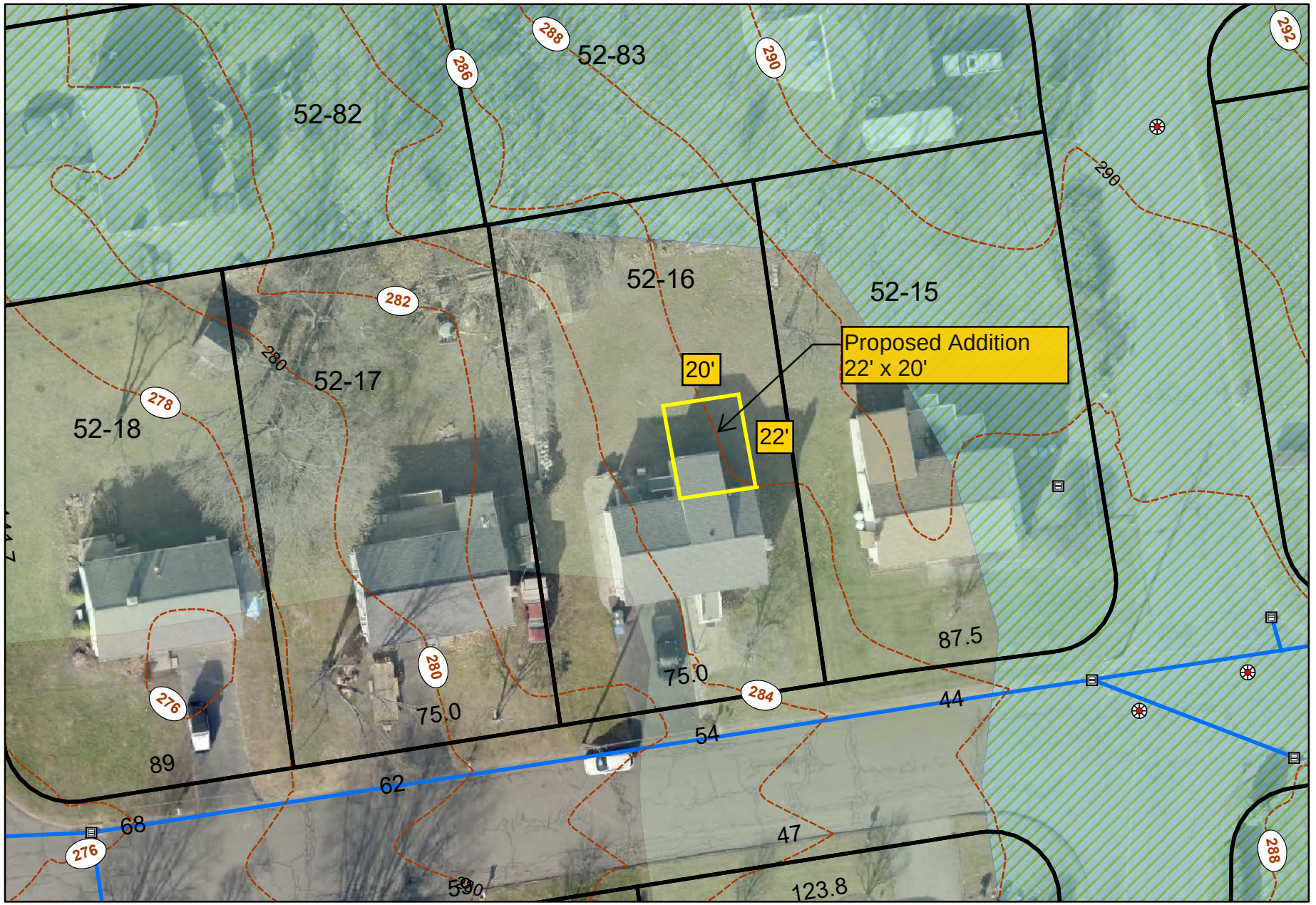
Application #2026
Location
DEBRA LN
LITCHFIELD LN
DANBURY LN
GOSHEN CT
54 Litchfield Lane
Map Prepared by Bristol Land Use Office
Source: Bristol Assessor Records
For Planning Purposes Only - 4/26/24

Application #2026
Aerial

54 Litchfield Lane
Map Prepared by Bristol Land Use Office
Source: Bristol Assessor Records
For Planning Purposes Only - 4/26/24

Application #2026
IWWC

54 Litchfield Lane
Map Prepared by Bristol Land Use Office
Source: Bristol Assessor Records
For Planning Purposes Only - 4/26/24



Disclaimer: This map was produced from the City of Bristol Geographic Information System. Due to the differing quality of source documents, the City cannot accept responsibility for errors or omissions, and therefore, there are no warranties which accompany this material. The City expressly disclaims any liability that may result from the use of this map. This map is not a survey and is subject to any changes an actual land survey discloses.

40 20 0 40 80 120 Feet

Legend

- Bristol Wetlands
- BRISTOL_GIS.DBO.UplandReviewArea

Application for a Wetlands Permit

300 Broad Street (Former Theis Precision Steel Inc.) Channel Remediation

300 Broad Street Property LLC

Prepared by:

SLR International Corporation

99 Realty Drive, Cheshire, Connecticut, 06410

SLR Project No.: 126.20476.00001

April 25, 2024

Making Sustainability Happen

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Part I. Application Forms

For Office Use Only
APPLICATION NO. 2027
DATE FILED: 04-25-24
DECISION DATE:
DECISION:

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

1. APPLICANT:

Name: 300 Broad Street Property LLC Signature:

Address: 534 Hudson Street, Suite 3A City: New York State: NY Zip 10014

Telephone No.: 212-686-5650 ☐ home ☑ work Email: 300BroadStreet@stillmandevelopment.com

2. PROPERTY OWNER(S):

Name: 300 Broad Street Property LLC Signature:

Address: 534 Hudson Street, Suite 3A City: New York State: NY Zip 10014

Telephone No.: 212-686-5650 ☐ home ☑ work Email: 300BroadStreet@stillmandevelopment.com

3. DESCRIBE THE SUBJECT PROPERTY:

Address or Location: 300 Broad Street, Bristol, CT

Assessor's Map No.: 43 Assessor's Lot No.(s): 100

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

The wetland to be disturbed consists of a narrow (approximately 4-foot-wide to 12-foot-wide) drainage swale located in the southeastern extent of the site which receives stormwater from catch basins on site prior to discharge east to the Pequabuck River. The channel bottom is primarily riprap and fine sediment, and it is contained by low and shallow to moderately steep banks primarily stabilized with riprap and vegetated with Japanese knotweed and several small diameter black locust trees. See attached report for additional details.

4. DESCRIBE THE PROPOSED ACTIVITY AND ITS PURPOSE:

The project aims to remediate the drainage swale of contaminants including ETPH, PAHs, and PCBs by excavating the soil within the channel to a depth of two feet and disposing of contaminated material off-site. The existing conditions will be restored by placing clean material and riprap along the channel bed and banks. This work is being funded in part by the Connecticut Department of Economic and Community Development (CT DECD) Municipal Brownfield Grant Program. See attached report for additional details.

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.*

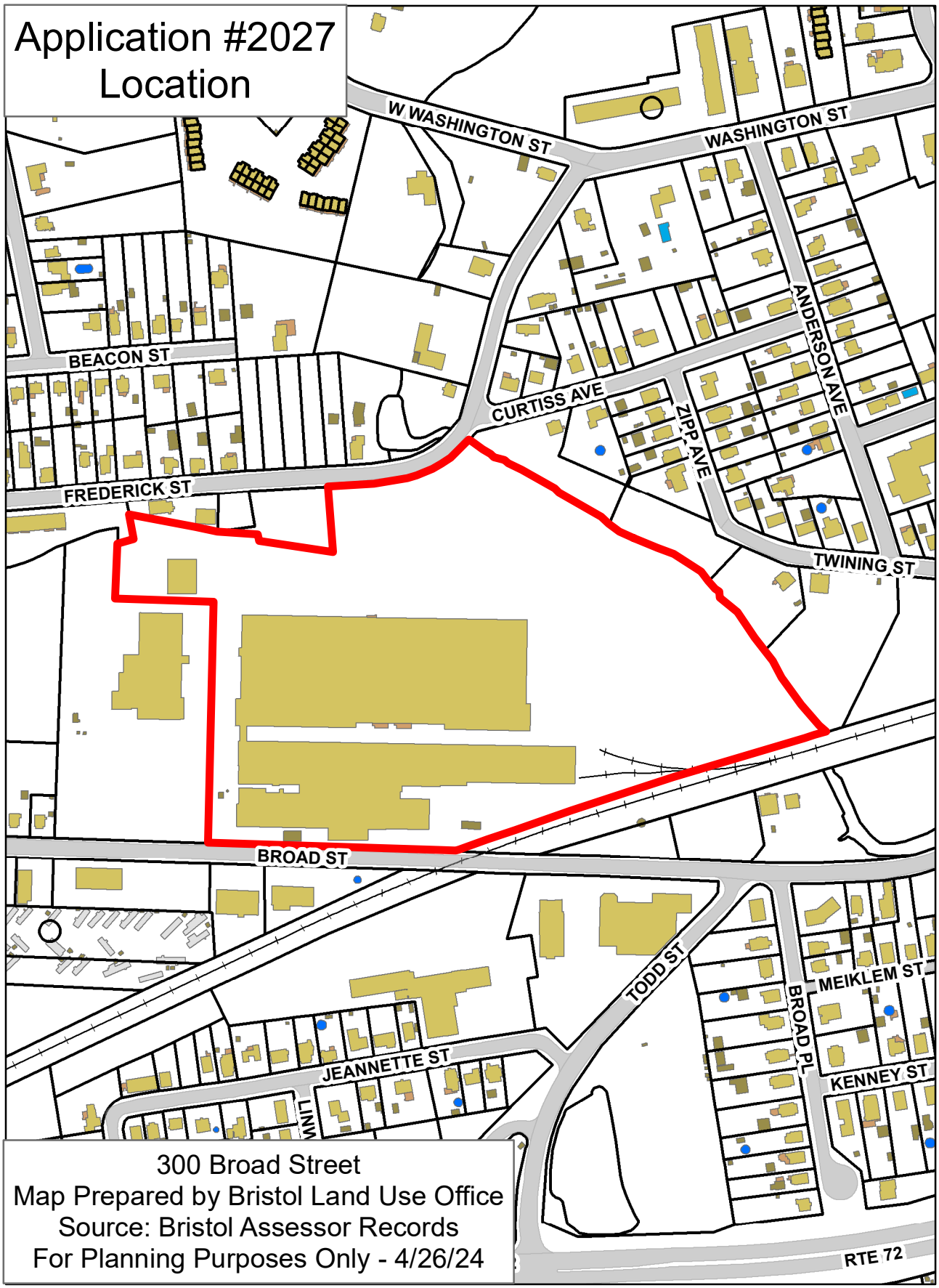
☐ b. The proposed activity is not regulated because it is greater than 100 feet from a wetlands or watercourse or will not adversely affect the wetlands or watercourse. *See instructions for submission requirements.*

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

- ☒ in a wetlands or watercourse; area of impact: 1,239 SF (0.03 acres)
- ☒ within 100 feet of a wetlands or watercourse; area of impact: 11,357 SF (0.26 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 #2027
Location
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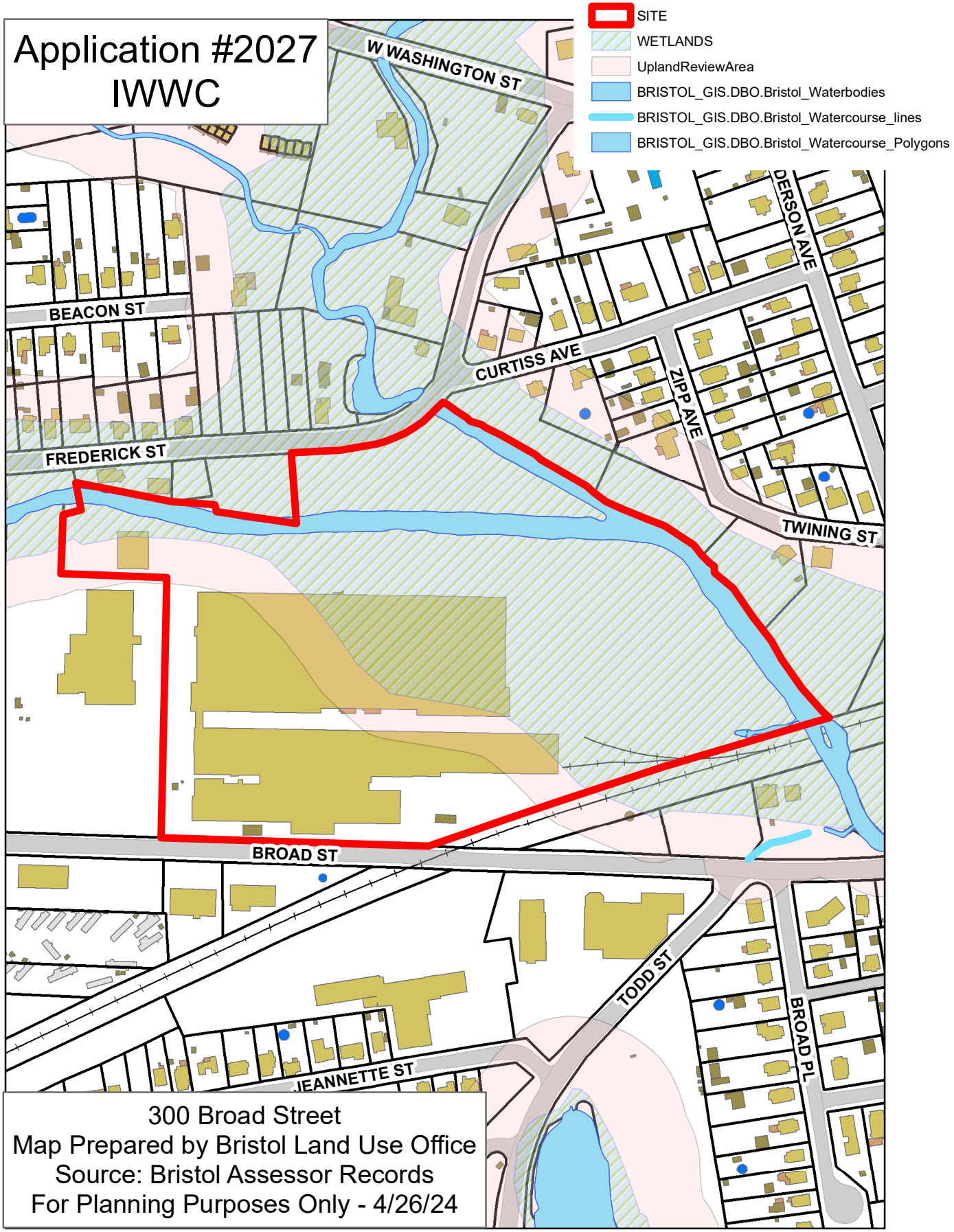
WASHINGTON ST
BEACON ST
CURTISS AVE
ANDERSON AVE
ZIPP AVE
FREDERICK ST
TWINING ST
BROAD ST
TODD ST
MEIKLEM ST
BROAD PL
JEANNETTE ST
KENNEY ST
RTE 72
300 Broad Street
Map Prepared by Bristol Land Use Office
Source: Bristol Assessor Records
For Planning Purposes Only - 4/26/24

Application #2027
Aerial

300 Broad Street
Map Prepared by Bristol Land Use Office
Source: Bristol Assessor Records
For Planning Purposes Only - 4/26/24

Application #2027
IWWC



300 Broad Street
Map Prepared by Bristol Land Use Office
Source: Bristol Assessor Records
For Planning Purposes Only - 4/26/24

Connecticut Department of
ENERGY & ENVIRONMENTAL PROTECTION

79 Elm Street • Hartford, CT 06106-5127 www.ct.gov/deep Affirmative Action/Equal Opportunity Employer

GIS CODE #: ___ ___ ___ ___ ___ ___ ___ ___ ___
For DEEP Use Only

Statewide Inland Wetlands & Watercourses Activity Reporting Form

Please complete this form in accordance with the instructions on pages 2 and 3 and mail to:
DEEP Land & Water Resources Division, Inland Wetlands Management Program, 79 Elm Street, 3rd Floor, Hartford, CT 06106
Incomplete or incomprehensible forms will be mailed back to the inland wetlands agency.

PART I: Must Be Completed By The Inland Wetlands Agency

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

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

5. TOWN IN WHICH THE ACTIVITY IS OCCURRING (print name): Bristol
   does this project cross municipal boundaries (check one)? yes ☐ no ☒
   if yes, list the other town(s) in which the activity is occurring (print name(s)): _____, _____
6. LOCATION (see instructions for information): USGS quad name: Bristol, CT or number: _____
   subregional drainage basin number: 4314
7. NAME OF APPLICANT, VIOLATOR OR PETITIONER (print name): 300 Broad Street Property LLC
8. NAME & ADDRESS OF ACTIVITY / PROJECT SITE (print information): 300 Broad Street
   briefly describe the action/project/activity (check and print information): temporary ☒ permanent ☐ description: Remediation of contaminated sediments in man-made drainage channel
9. ACTIVITY *PURPOSE* CODE (see instructions - one code only): E
10. ACTIVITY *TYPE* CODE(S) (see instructions for codes): 2, 5, _____, _____
11. WETLAND / WATERCOURSE AREA ALTERED (see instructions for explanation, must provide acres or linear feet):
    wetlands: _____ acres open water body: _____ acres stream: 115 linear feet
12. UPLAND AREA ALTERED (must provide acres): 0.26 acres
13. AREA OF WETLANDS / WATERCOURSES RESTORED, ENHANCED OR CREATED (must provide acres): 0.03 acres

PART III: To Be Completed By The DEEP

DATE RECEIVED: DATE RETURNED TO DEEP:

FORM COMPLETED: YES NO FORM CORRECTED / COMPLETED: YES NO

Part II. Project Narrative

1.0 Introduction

On behalf of 300 Broad Street Property LLC (the Applicant), SLR International Corporation (SLR) has prepared this Wetlands Permit application for proposed remediation activities within an inland watercourse located on 300 Broad Street (former Theis Precision Steel Inc.) in Bristol. The proposed regulated activity is part of a larger remediation project on site to be funded partially by the State of Connecticut Department of Economic and Community Development (DECD) Municipal Brownfield Grant Program. The funding was presented to the Naugatuck Valley Council of Governments (NVCOG) and is being structured as a pass-through to the Applicant, a private entity.

The proposed remediation will take place within a small, man-made drainage channel in the southeastern portion of the parcel. Levels of hazardous substances including extractable total petroleum hydrocarbon (ETPH), polynuclear aromatic hydrocarbons (PAHs) and polychlorinated biphenyls (PCBs) that exceed the State Remediation Standard Regulations (RSRs) have been identified within the channel sediments. The project proposes to excavate the channel and safely dispose of the contaminated soil and sediments at an approved off-site location. Following remediation, the channel will be restored to existing bed and bank conditions using clean fill and riprap material. As shown in Table 1, below, the proposed work will result in approximately 1,300 square feet (SF) of permanent impacts to a regulated watercourse, which will include the excavation and restoration of the drainage channel as well as temporary impacts from water control and sedimentation and erosion control measures. Approximately 11,400 SF of temporary impact will occur within the 100-foot regulated upland review area (URA) to the watercourse resulting from temporary site access. There will be no net fill placed within a regulated area or floodplain.

The primary goal of the project is to remediate soil and groundwater within specified areas of concern (AOCs) on site to achieve compliance with the RSRs. This will in turn reduce potential harm to the environment and human health, and return the property to a productive, occupiable state. Ultimately, the Applicant would like to renovate the existing buildings to redevelop the site for light industrial use by a future tenant. Additionally included in the project scope is the placement of Environmental Use Restrictions (EUR) limiting the property to non-residential use and rendering soil environmentally isolated and inaccessible.

Table 1. Drainage Channel Remediation Regulated Resource Impacts

	Drainage Channel Impact Area (SF)	Drainage Channel Impact Area (acres)	100’ Upland Review Area Impact Area (SF)	100’ Upland Review Area Impact Area (acres)
Permanent Impacts	1,300	0.03	0	0
Temporary Impacts	0	0	11,400	0.26
Total Impacts	1,300	0.03	11,400	0.26

1.1 Background

The Site was initially developed in 1915 by Wallace Barnes Company (also known as Associated Spring Corporation) for the manufacturing of cold rolled steel. In 1976, Associated Spring Company changed its name to Barnes Group Inc. Barnes continued to operate at the Site until 1986, when it was sold to Theis Precision Steel Inc (Theis). Theis continued to operate the facility until 2019. The Applicant obtained the title to the vacant property in 2022 through a debt purchase and foreclosure. The site is currently underutilized with three of the four existing buildings unoccupied and containing evidence of vandalism. Rehabilitation of the existing facilities on site has not occurred due to the presence of pollution in the buildings and soil in the surrounding parts of the site requiring remediation, as documented by existing Phase I, II, and III Environmental Site Assessments (ESAs) conducted on site. All pollution releases occurred during the previous site ownership.

2.0 Existing Conditions

The regulated activity will occur within a small area near the southeasternmost point of the approximately 25-acre parcel (**Figures 1 and 2**). The property is located north of Broad Street with site access from Broad Street in the southwestern portion of the parcel. The northern and eastern boundaries of the site are bordered by the Pequabuck River, which flows east along the northern site boundary before turning south and following the eastern site boundary. A small portion of the parcel is located north of the Pequabuck River and bound to the northwest by Frederick Street and to the northeast by Copper Mine Brook, which flows into the Pequabuck River at the northeastern corner of the property. The majority of the site is occupied by large, industrial buildings and paved surfaces with the exception of a narrow strip of grass with several trees along the northern property boundary, and a forested upland area comprising the eastern portion of the site.

2.1 Federal Emergency Management Agency (FEMA)

According to the FEMA flood zone mapping (Map Number 09003C0466F, effective 9/26/2008), the project area is located within a mapped floodway and Zone AE 100-Year Flood Zone (**Figure 3**). The FEMA-documented 100-year base flood elevation (BFE) ranges from 213 to 215 feet within the project area. The proposed remediation activities will occur below the 100-year BFE; however, as described further in Section 3 and the project plans (under separate cover), the project will take all necessary measures to mitigate flood risk including dewatering the channel, working during a low flow period and under dry weather conditions, and storing all equipment securely and outside of the 100-year floodplain. Further, the project is anticipated to be completed over the course of two weeks, after which existing stream conditions will be restored. There will be no net fill placed within the floodplain associated with the proposed activities.

2.2 Wetlands and Watercourses

Wetland resources were delineated on site by an SLR Registered Soil Scientist (RSS) on August 9, 2021 and reaffirmed on April 9, 2024. As described in the attached soil scientist report dated December 9, 2021 (**Appendix A**), wetland resources on site consist of the ordinary high water (OHW) lines along 0.5-mile of two perennial watercourses (the Pequabuck River and Copper Mine Brook), bordered by narrow, forested fringe banks, as well as the 115-foot-long drainage channel in the southeastern extent of the site. No additional areas of wetland or poorly drained, very poorly drained, floodplain, or alluvial soils were identified on site. Soils across the site consist of well drained udorthents and fill material (**Figure 3 of Appendix A**). Although the City of Bristol official Inland Wetlands Map depicts a large portion of the eastern side of the parcel as containing City wetlands, SLR suggests that this broadscale mapping is less accurate than our on-site investigation, especially as much of the site mapped as City wetlands contains paved surfaces and buildings. The entire site has been disturbed with fill material over the past century and neither wetlands nor their functions exist on the site, outside of the boundaries of the regulated watercourses.

The small (approximately 4-foot-wide to 12-foot-wide), trapezoidal drainage channel in the southeastern portion of the site is primarily fed by stormwater collected in catch basins on site that is discharged first to a concrete stilling pool before flowing through twin 10-inch steel pipes at the upstream end of the channel (**Appendix B**). The channel conveys this flow approximately 115 feet to the east to discharge directly to the Pequabuck River. During high flow conditions

the channel also fills with backwater from the Pequabuck River. The bed substrate is mainly comprised of riprap and fine sediment, and the channel is contained by low, shallow to moderately steep banks stabilized primarily with riprap. Significant bank erosion has displaced much of the riprap in steeper locations and brush is piled high at one section along the southern bank. The vegetated portions of the banks are dominated by Japanese knotweed (*Fallopia japonica*) and patches of small diameter black locust (*Robinia pseudoacacia*) trees with several individual gray birch (*Betula populifolia*) and red maple (*Acer rubrum*) cloaked with poison ivy (*Toxicodendron radicans*) and Oriental bittersweet (*Celastrus orbiculatus*) vines. A large portion of the southern bank was covered in woody debris on the day of the April 2024 site investigation. Surface water depth levels on the day of the site visit ranged between one to three feet deep, and the water surface contained an oily, odorous sheen. Macroalgae are abundant in the channel, and this plant growth, in addition to floating debris such as abandoned silt sacks, inhibit a clear view of the channel bed.

The 100-foot URA in this area of the site shows evidence of both former and recent disturbance. An approximately 25-foot-wide former access road is cleared of most woody vegetation and contains a dense nonnative invasive herbaceous groundcover of common mugwort (*Artemisia vulgaris*). The dead stalks from the previous season had been recently flattened on the day of the site visit, indicating some type of vehicular crossing of the area. The remainder of the wooded area surrounding the channel contains upland deciduous forest species including red and black oak (*Quercus rubra, velutina*) and Norway maple (*Acer platanoides*) cloaked in vines of Oriental bittersweet and with a disturbed understory with autumn olive (*Eleagnus umbellata*) and multiflora rose (*Rosa multiflora*).

According to SLR's investigation, the drainage channel wetland resource performs the following wetland functions and values: groundwater recharge/discharge, floodflow alteration, sediment/toxicant retention, nutrient removal/retention, and sediment/watercourse bank stabilization.

2.3 State Natural Resource Consultations

2.3.1 Natural Diversity Data Base

According to results of a Connecticut Department of Energy & Environmental Protection (CTDEEP) Natural Diversity Data Base (NDDB) final determination request from April 16, 2024 (**Appendix C**), the drainage channel has been mapped as potential impact for the common crayfish (*Cambarus bartonii*), a species of state special concern (SC). However, the habitat requirements indicated by NDDB (fast flowing water bodies with high water quality) do not currently exist within the specific project location. In accordance with the NDDB approval (and as further described in Section 3 of this report) the project will take protective measures to minimize water quality impacts downstream. Additionally, the project aims to improve water quality both within the channel and downstream receiving waters, and as such is likely to improve habitat for the common crayfish as well as other wildlife species.

3.0 Proposed Project

3.1 Proposed Conditions

All proposed activities are depicted on the attached site plans titled *300 Broad Street – Assessment and Remediation Remedial Activities*, dated April 4, 2024, prepared by SLR (**Appendix D**). Approximately 1,300 square feet of impact will occur within the drainage channel from the excavation work. All impacts are necessary to remediate the channel sediment and bank soils of harmful substances. Small construction equipment such as an excavator, loader, dump truck and compactor will be used to perform the channel excavation and all excavated material and other debris such as brush will be transported outside of the regulated area using a loader, bobcat or similar equipment to the secured stockpile location. As shown on the project plans, the stockpile location will be located outside of the 100-year floodplain, along the eastern outer wall of the northern building on site and fully contained with polyethylene sheeting placed above and below the stockpile. Work within the 100-foot URA will consist of minor site clearing to construct a temporary access route to reach the channel and to haul material to the stockpile location for pickup and offsite disposal.

Based upon soil sample analytical results, the impacted sediments reach a depth of up to two feet below the channel bed and approximately one foot deep in the lower portion of the banks lining the channel. These depths will dictate the depth of excavation within the channel bed and along the banks. An estimated 100 total cubic yards (CY) of material will be removed from the channel and stockpiled outside of the regulated area and 100-year floodplain. No more than 100 CY of material is to be excavated and stockpiled on the project parcel at any one time. No equipment or material is to be stored within the regulated area at any time.

Excavated material will be sorted when it reaches the upland stockpile location. Excavated soil with ETPH, PAH and PCB concentrations exceeding applicable state and federal regulations will be disposed of off-site. Salvageable riprap will be separated and stockpiled for reuse within the channel. Following excavation of the full channel length to the appropriate depth, the channel conditions will be restored to in-kind by placing clean fill within the channel bed to match existing elevation and topping with clean riprap. The channel banks will be recontoured to match existing grades, stabilized with clean fill, and uniformly covered with riprap. All disturbed areas above the banks will be restabilized with clean topsoil and seeded with an invasive-free, approved seed mix.

Following excavation, the remedial strategy entails performing post-excavation compliance sampling in accordance with current guidance. SLR will review the analytical results from the post-excavation to determine if RSR criteria have been met prior to backfilling. Additional excavation may be required if analytical results indicate an exceedance of the applicable criteria.

3.2 Alternatives Analysis

Based upon the site history and contamination levels, no alternatives have been considered to the proposed project other than the do-nothing alternative. This alternative would leave contaminants in the sediments within the channel which may potentially be released to the Pequabuck River during scour-producing, high velocity flow events. In addition, the cleanup is required under the RSRs. Therefore, the proposed remediation, which will be carried out in accordance with all applicable local and state regulations and using industry-standard procedures, is the preferred alternative.

3.3 Construction Timing and Sequence

It is anticipated that the channel remediation will take approximately 2 weeks to complete, with approximately one week required for the active remediation phases (channel excavation and restoration) and approximately one week between excavation and restoration where the contractor will await analytical results of the sediment sampling to ensure compliance with remediation goals prior to backfilling. The project will be timed to coincide with low flow conditions in the drainage channel and downstream Pequabuck River, likely during the late summer/early fall.

The work will be conducted in three stages, as depicted on sheets CP-1 and CP-2 of the project plans. Phase I will include the installation of temporary site access and S&E controls; Phase II will consist of dewatering and excavation/sediment removal in the upstream concrete stilling area; and Phase III will include the dewatering of the downstream drainage channel, excavation and sediment removal, and restoration of channel existing geometry followed by stabilization of banks.

3.4 Water Controls

The channel will be dewatered prior to commencement of activities and will remain dry for the duration of the channel remediation by closing the 10” diameter pipes at the upstream end of the channel and using a combination of bypass and gravity pumps to divert channel flow to the Pequabuck River via a temporary riprap pump discharge settling area, to be placed above the ordinary high water (OHW) mark to the river and north of the drainage channel/work area. (Dewatering discharge will flow through a filter sock or other turbidity reduction device before entering the pump discharge settling area). The work area is to remain dry until channel conditions are restored and the banks are stabilized. The channel and banks will be stabilized using standard riprap. Riprap will be extended to the top of the banks. Bypass pumps and pipes will be sized accordingly to convey baseflow. Baseflow calculations were based on streamflow measurements obtained during seasonally high hydrologic conditions and are assumed to be a conservative representation of conditions on site. It is expected that all in-channel work will be performed during forecasted dry conditions, and a contingency plan to rapidly stabilize the excavation will be in place should unexpected rainfall occur during construction.

3.5 Impact Avoidance and Minimization

The project has been designed to minimize wetland and watercourses impacts and minimize vegetation clearing. Appropriate sediment and erosion control measures have been incorporated in project plans to protect water quality, wetlands and watercourses, and wildlife resources. To protect water quality downstream of the drainage channel project area, cofferdam will be installed across the downstream end of the channel, upstream of its connection to the Pequabuck River.

Sedimentation and erosion control (S&E) best management practices (BMPs) in accordance with the 2002 *Connecticut Guidelines for Soil Erosion and Sediment Control* will be employed including the placement of haybale-lined silt fencing downgradient of areas to be disturbed where they border regulated areas. Tree clearing in the project area will be minimized to the greatest extent practicable. Areas disturbed by construction will be seeded to restore habitat and prevent erosion.

3.6 Flood Risk Mitigation

According to the FEMA floodplain mapping, the proposed project will be located within a floodway and 100-year AE Flood Zone (Appendix A). The proposed project will result in activities below the 100-year BFE; however, these activities will be of a short duration and will have no adverse impact on flooding in the area. No rise in the BFE is proposed.

To minimize risk of flood damage during in-channel work, the contractor shall monitor weather reports and be prepared to stop work and stabilize the site if more than 1" of rainfall is predicted by the National Weather Service (70 percent chance or higher). Work shall be halted until precipitation stops and chances of further rainfall fall below 50 percent. As the area is prone to flooding, all in-channel remediation work must be performed during low flow conditions and only when dry weather conditions are forecasted for an extended period (3 to 5 days). If rain begins to fall during excavation and/or restoration of the channel, the contractor must stop work and immediately stabilize the channel by covering exposed channel bottom material with polyethelyne and securing the sheeting in place.

All work will be performed in the dry. In addition to dewatering pumps in the drainage channel and upstream stilling pool, the use of a cofferdam at the downstream extent of the drainage channel will both prevent the movement of material into the Pequabuck River and the backflow of water from the Pequabuck into the drainage channel, which could overwork the bypass pumps in the channel.

4.0 Conclusions

The contaminated sediments within the drainage channel on site require remediation, which will necessarily result in permanent impacts to a regulated resource. Based on the means and methods as presented on the plans, the long-term impact to the drainage channel should be minimal. The work will be conducted in the dry, thereby protecting water quality downstream of the channel, which flows to the Pequabuck River. Moreover, given the relatively short duration of proposed remediation activities and the installation/maintenance of S&E measures, it is our professional opinion that the project as described will not adversely impact wetlands and watercourses.

Site Mapping

Figure 1: Site Location
Figure 2: Wetlands and Watercourses
Figure 3: FEMA Floodplain

N

0 60 120 180
Feet

SLR

195 CHURCH STREET
7TH FLOOR
NEW HAVEN, CT 06511
203.344.7887

SITE LOCATION
300 BROAD STREET PROPERTY LLC
SITE ASSESSMENT AND REMEDIATION
300 BROAD STREET
BRISTOL, CONNECTICUT

SCALE 1:24,000

DATE 4/22/2024

126.20476.00001
PROJ. NO.

FIG. 1

Copyright SLR Consulting - 2024

Date Saved: 4/22/2024

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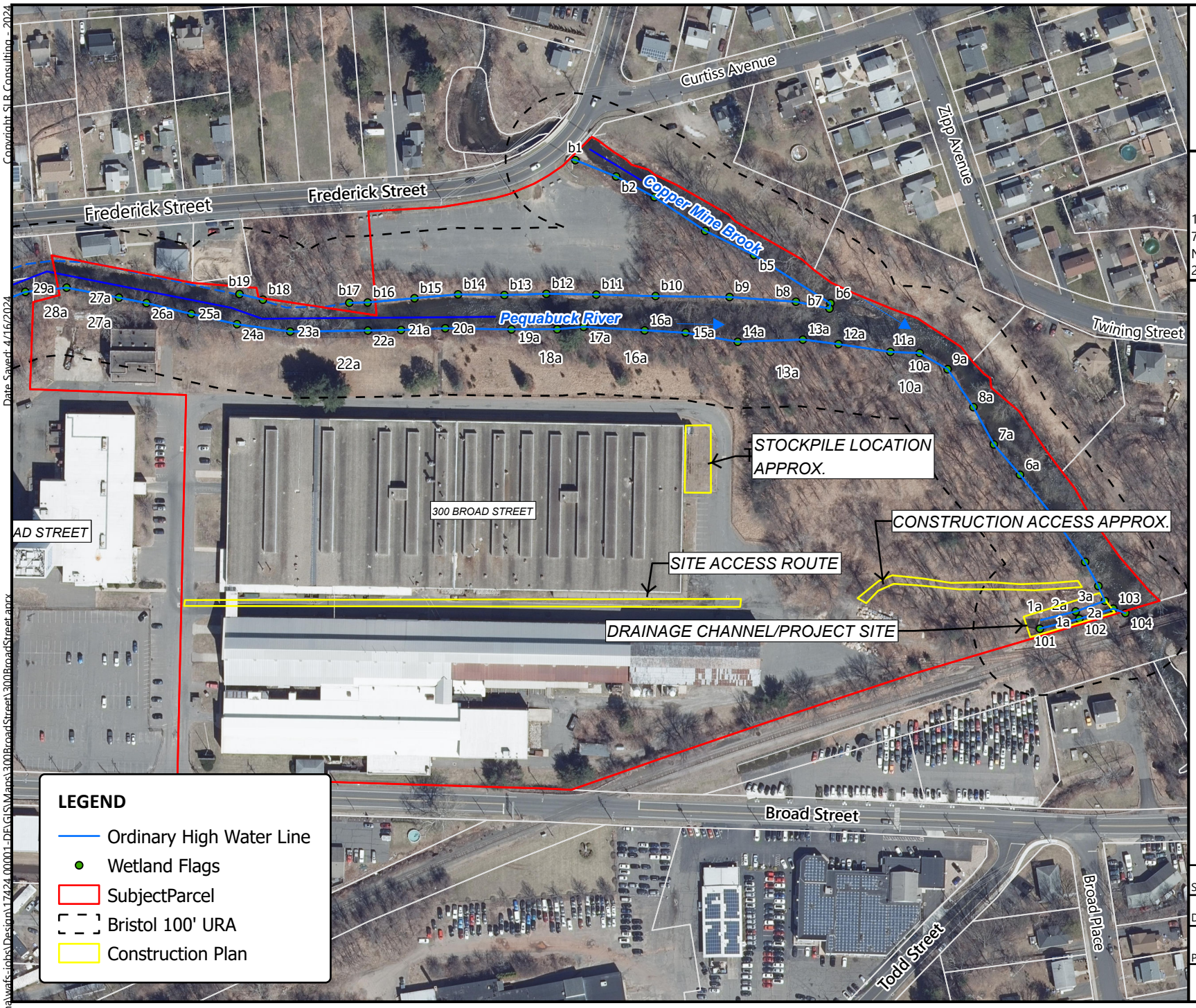

SLR
195 CHURCH STREET
7TH FLOOR
NEW HAVEN, CT 06511
203.344.7887

REGULATED AREAS AND PROPOSED ACTIVITIES

300 BROAD STREET PROPERTY LLC
SITE ASSESSMENT AND REMEDIATION
300 BROAD STREET
BRISTOL, CONNECTICUT

SCALE 1:2,400

DATE 4/16/2024

126.20476.00001
PROJ. NO.

FIG. 2

Copyright SLR Consulting - 2024

Date Saved: 4/16/2024

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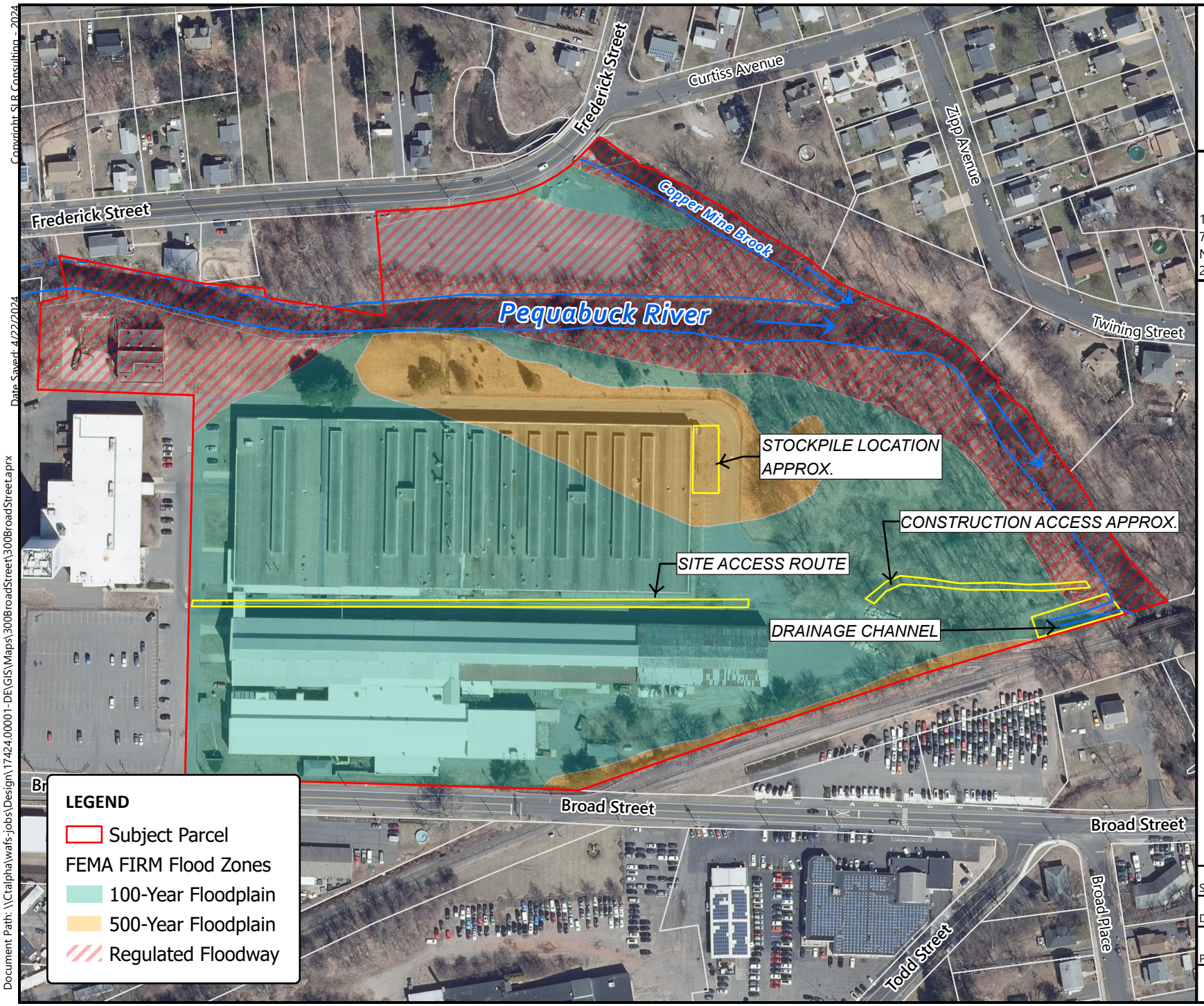

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Date Saved: 4/22/2024

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N

0 60 120 180
Feet

SLR
195 CHURCH STREET
7TH FLOOR
NEW HAVEN, CT 06511
203.344.7887

FEMA 100-YEAR FLOODPLAIN

300 BROAD STREET PROPERTY LLC
SITE ASSESSMENT AND REMEDIATION
300 BROAD STREET
BRISTOL, CONNECTICUT

SCALE 1:2,400

DATE 4/22/2024

126.20476.00001
PROJ. NO.

FIG. 3

Appendix A Wetland Delineation Report

Application for a Wetlands Permit

300 Broad Street Remediation

300 Broad Street Property LLC

April 25, 2024

SLR

December 9, 2021

Mr. Peter Gersky
Theis Precision Steel USA, Inc
300 and 340 Broad Street
Bristol, CT 06010

Re: Wetland Delineation and Assessment
300 Broad Street
Bristol, Connecticut
SLR# 141.17424.00001

Dear Peter,

On August 9, 2021, SLR International Corporation (SLR) registered soil scientist Megan Raymond, MS, PWS, CFM, and Wetland Professional in Training Aidan Barry, MS, visited the 30.68-acre parcels on 300 and 340 Broad Street and Andrew Street in Bristol, Connecticut to determine the presence or absence of wetlands and/or watercourses, demarcate (flag) boundaries of wetlands and watercourses identified, identify potential vernal pools, and identify on-site soil types. This letter includes the methods and results of the investigation. In summary, the ordinary high water (OHW) line along 0.5-mile of two perennial watercourses consisting of the Pequabuck River and Copper Mine Brook, bordered by narrow forested fringe banks, was delineated within the subject site. A description of the field methods and findings follows.

Regulatory Definitions

The Inland Wetlands and Watercourses Act (Connecticut General Statutes §22a-38) defines inland wetlands as "land, including submerged land...which consists of any soil types designated as poorly drained, very poorly drained, alluvial, and floodplain." Watercourses are defined in the act as "rivers, streams, brooks, waterways, lakes, ponds, marshes, swamps, bogs and all other bodies of water, natural or artificial, vernal or intermittent, public or private, which are contained within, flow through or border upon the state or any portion thereof." The act defines intermittent watercourses as having a defined permanent channel and bank and the occurrence of two or more of the following characteristics: (A) evidence of scour or deposits of recent alluvium or detritus, (B) the presence of standing or flowing water for a duration longer than a particular storm incident, and (C) the presence of hydrophytic vegetation.

The Tidal Wetlands Act (Connecticut General Statutes §22a-28) defines wetlands as "those areas which border on or lie beneath tidal waters, such as, but not limited to banks, bogs, salt marsh, swamps, meadows, flats, or other low lands subject to tidal action, including those areas now or formerly connected to tidal waters and whose surface is at or below an elevation of 1 foot above local extreme high water; and upon which may grow or be capable of growing hydrophytic vegetation as identified in the Statutes."

Regulated Activity, per the City of Bristol Inland Wetland and Watercourses Commission Regulations, means any area within 100 feet of wetlands or watercourses or within 200 feet of a watercourse as defined by a pond or lake with a surface area greater than 5 acres.

Methodology

A second-order soil survey in accordance with the principles and practices noted in the United States Department of Agriculture (USDA) publication *Soil Survey Manual* (1993) was completed at the subject site. The classification system of the National Cooperative Soil Survey (NRCS) was used in this investigation. Soil map units identified at the project site generally correspond to those included in the *Soil Survey of the State of Connecticut* (USDA, 2005).

Wetland determinations were completed based on the presence of poorly drained, very poorly drained, alluvial, or floodplain soils and submerged land (e.g., a pond). Soil types were identified by observation of soil morphology (soil texture, color, structure, etc.). To observe the morphology of the property's soils, test pits and/or borings (maximum depth of 2 feet) were completed at this site.

Intermittent watercourse determinations were made based on the presence of a defined permanent channel and bank and the occurrence of two or more of the following characteristics: (A) evidence of scour or deposits of recent alluvium or detritus; (B) the presence of standing or flowing water for a duration longer than a particular storm incident; and (C) the presence of hydrophytic vegetation.

Wetland boundaries were demarcated (flagged) with pink surveyor's tape (hung from vegetation) or small flags (on wire stakes) that are generally spaced at a maximum of every 30 feet. Complete boundaries are located along the lines that connect these sequentially numbered flags. The wetland boundaries are subject to change until adopted by local, state, or federal regulatory agencies. The wetland area consists of one unconsolidated bottom riverine watercourse and surrounding palustrine broad-leaved deciduous forest fringe wetland. The wetland boundaries are depicted by flag series:

Pequabuck River and Palustrine Broad-leaved Deciduous Forest Fringe Wetland

- 1a through 35a; 101 through 104; b7 through b19

Copper Mine Brook and Palustrine Broad-leaved Deciduous Forest Fringe Wetland

- B1 through b6

On the day of the review, the weather was overcast and temperature was 80° Fahrenheit. The conditions were suitable for wetland delineation.

Site Description and Existing Soils

The project area is comprised of three parcels with a total area of 30.86 acres. The subject property is accessed to the north from Broad Street and contains several buildings in the center of the site. The site is

comprised of impervious surface (approximately 20.28 acres), upland forest (approximately 8.40 acres), open meadow (approximately 1.20-acres), and 0.80 acres of on-site wetlands.

300 Broad Street (24.85 acres) is the eastern parcel. This parcel features approximately 850 feet of frontage on Broad Street and 375 feet on Frederick Street. The Pequabuck River flows east through this parcel, partitioning the northern 2.2 acres of the parcel from the remainder to the south, before turning south and flowing along the southeastern boundary. Copper Mine Brook crosses beneath Frederick Street to the north and flows southeast along the northeastern boundary of the parcel before confluencing with Pequabuck River to the south. The majority of the parcel is comprised of impervious features including existing industrial facility buildings in the southern portion of the parcel totaling approximately 341,000 square feet and surrounded by paved parking lots and accessways totaling approximately 8 acres, including an approximately 1-acre abandoned paved lot north of the Pequabuck River. A narrow section of open meadow habitat separates the existing improvements to the south from the southern bank of the Pequabuck River to the north. The eastern one-third of the parcel contains undeveloped upland forested land extending to the riparian zone along both watercourses.

340 Broad Street (3.38 acres) is the center parcel with approximately 125 feet of frontage along Broad Street. An existing building occupies approximately 34,000 square feet in the eastern portion of the parcel with impervious paved areas to the south and west. The Pequabuck River and forested fringe wetlands exist along the northern boundary of the parcel. The western third of the parcel consists of upland hardwood deciduous forested and scrub shrub areas.

The western parcel, Andrew Street (2.63 acres), contains upland forested and scrub shrub land with no existing impervious areas. The Pequabuck River and its fringe wetland form the northern boundary of the parcel, which is bound to the west and south by existing lots off of Andrew Street and Broad Street. A narrow finger extends approximately 250 feet to the west providing approximately 25 feet of frontage along Andrew Street.

The majority of the project area has been disturbed. Anthropogenic debris (i.e., garbage, displaced concrete, and asphalt) are present throughout the surrounding forest and meadow. The open meadow area south of Pequabuck River is comprised of little blue stem (*Schizachyrium scoparium*) and various grasses. Within the upland forest, the canopy is comprised of black oak (*Quercus velutina*), white pine (*Pinus strobus*), sugar maple (*Acer saccharum*), Norway maple (*Acer platanoides*), and catalpa (*Catalpa speciosa*). The understory consists of numerous non-native species including autumn olive (*Elaeagnus umbellata*), Japanese barberry (*Berberis thunbergii*), Japanese knotweed (*Fallopia japonica*), greenbriar (*Smilax glauca*), multiflora rose (*Rosa multiflora*), Asiatic bittersweet (*Celastrus orbiculatus*), burning bush (*Euonymus alatus*), and poison ivy (*Toxicodendron radicans*).

The project area is located in the central portion of its local watershed. The local watershed drains an area of approximately 12.5 square miles. The project area drains into the Pequabuck River, which flows to the east within the site. Copper Mine Brook drains into the Pequabuck River from the north. Both watercourses are mapped within the Federal Emergency Management Agency (FEMA) 100-year floodplain (09003C0466F, effective 9/26/2008). The Pequabuck River drains into the Farmington River approximately

8.5 miles downstream in the town of Farmington, Connecticut. The local watershed is within the Connecticut Major Watershed Basin. This stretch of Pequabuck River and Copper Mine Brook are designated as Connecticut Department of Energy & Environmental Protection (CTDEEP) Trout Management Areas.

One soil map united was identified on the property according to NRCS soil mapping (Figure 2). Each map unit represents a specific area on the landscape and consists of one or more soils for which the unit is named. Other soils (inclusions that are generally too small to be delineated separately) may account for 10 to 15 percent of each map unit. The mapped units are by name, symbol, and typical characteristics (parent material, drainage class, high water table, depth to bedrock, and slope). These characteristics are generally the primary characteristics to be considered in land use planning and management. A description of each characteristic can be found in the *Soil Survey of the State of Connecticut* (USDA, 2005).

Wetland Delineation

In total, one wetland system comprised of two unconsolidated riverine watercourses and surrounding palustrine broad-leaved deciduous forested fringe wetland was identified (Figure 3). The primary watercourse, Pequabuck River, flows west to east for approximately 0.3-mile in the northern portion of the project area before turning approximately 90 degrees to the south at the confluence point with Copper Mine Brook and flowing approximately 500 feet along the eastern site boundary. The watercourse has an unconsolidated bottom comprised of small rocks and cobbles with diameters of 1 to 2 feet. Within the limits of the project area, the watercourse is comprised of riffles with water depths approximately 0.5 to 2 feet and several pools with depths reaching 4 feet. The width of the watercourse varies between 40 and 50 feet.

Copper Mine Brook drains into Pequabuck River off site near the northeastern portion of the project area. Copper Mine Brook extends approximately 500 feet southeast from Frederick Street before its confluence with Pequabuck River. The channel is linear and comprised of small rocks and cobbles 1 to 2 feet in diameter. The brook is approximately 30 feet wide.

The steep banks of both Pequabuck River and Copper Mine Brook are vegetated with a narrow fringe of broad-leaved deciduous riparian trees. The canopy is comprised of pin oak (*Quercus palustris*), red maple (*Acer rubrum*), white ash (*Fraxinus americana*), and American elm (*Ulmus americana*). The understory along the banks is sparse as the majority of the banks are steep and largely consisting of riprap. However, herbaceous vegetation including Japanese knotweed, jewel weed (*Impatiens capensis*), and boneset (*Eupatorium perfoliatum*) exists in this area.

A functional evaluation of the on-site watercourses and forested banks based on SLR field observations is summarized in Table 1. The first column lists the functions generally ascribed to wetlands; the second column summarizes the rationale used to determine whether these functions are being performed within the subject wetland.

TABLE 1
Functions and Values Assessment – Pequabuck River Corridor

	Functions and Values	Comments
	Groundwater Recharge/Discharge	Yes – This wetland system is supported by groundwater discharge.
	Flood Flow Alteration (Storage & Desynchronization)	Yes – This wetland system exists within a FEMA-mapped 100-year floodplain.
	Fish & Shellfish Habitat	Yes – Portions of the watercourses are mapped as a Trout Management Area.
	Sediment/Toxicant Retention	No – The watercourse has high water velocities and residence time is limited; thus it does not provide retention.
	Nutrient Removal/Retention/ Transformation	Yes – This wetland system provides nutrient removal.
	Production Export (Nutrient)	Yes – The wetland system permits potential for production/export.
	Sediment/Shoreline/Watercourse Bank Stabilization	Yes – The banks of the watercourses are well-defined and vegetated.
	Wildlife Habitat	Yes – This wetland system displays a forested canopy and understory.
	Recreation (Consumptive & Non-Consumptive)	No – This wetland system does not provide recreational opportunities.
	Educational Scientific Value	No – This wetland system does not provide recreational opportunities.
	Uniqueness/Heritage	No – This wetland system does not present unique attributes.
	Visual Quality/Aesthetics	No – This wetland system does not contain inherent visual quality or aesthetic value.
ES	Endangered Species	Potential – The site is located within a mapped polygon of the latest June 2021 Natural Diversity Data Base (NDDB) by CTDEEP.

The principal functions and values of the Pequabuck River corridor include the following:

- Groundwater discharge
- Flood flow alteration
- Fish habitat
- Nutrient removal

Conclusion

On August 9, 2021, SLR delineated one wetland system within the three contiguous parcels comprising the 30.68-acre subject site located at 300 and 340 Broad Street and Andrew Street in Bristol, Connecticut. On-site wetland resources consist of approximately 0.5-linear-mile of unconsolidated riverine watercourses, including the OHW lines to the Pequabuck River and Copper Mine Brook, and narrow, palustrine hardwood deciduous forested banks.

Thank you for the opportunity to assist you. If you should have any questions or comments, please do not hesitate to contact me at (203) 344-7887.

Sincerely,

SLR International Corporation

Megan B. Raymond, MS, PWS, CFM
Principal Scientist, U.S. Wetlands and Waterways Lead

Marlee Antill, MS
Project Environmental Scientist

Enclosures

141.17424.00001.d921.ltr

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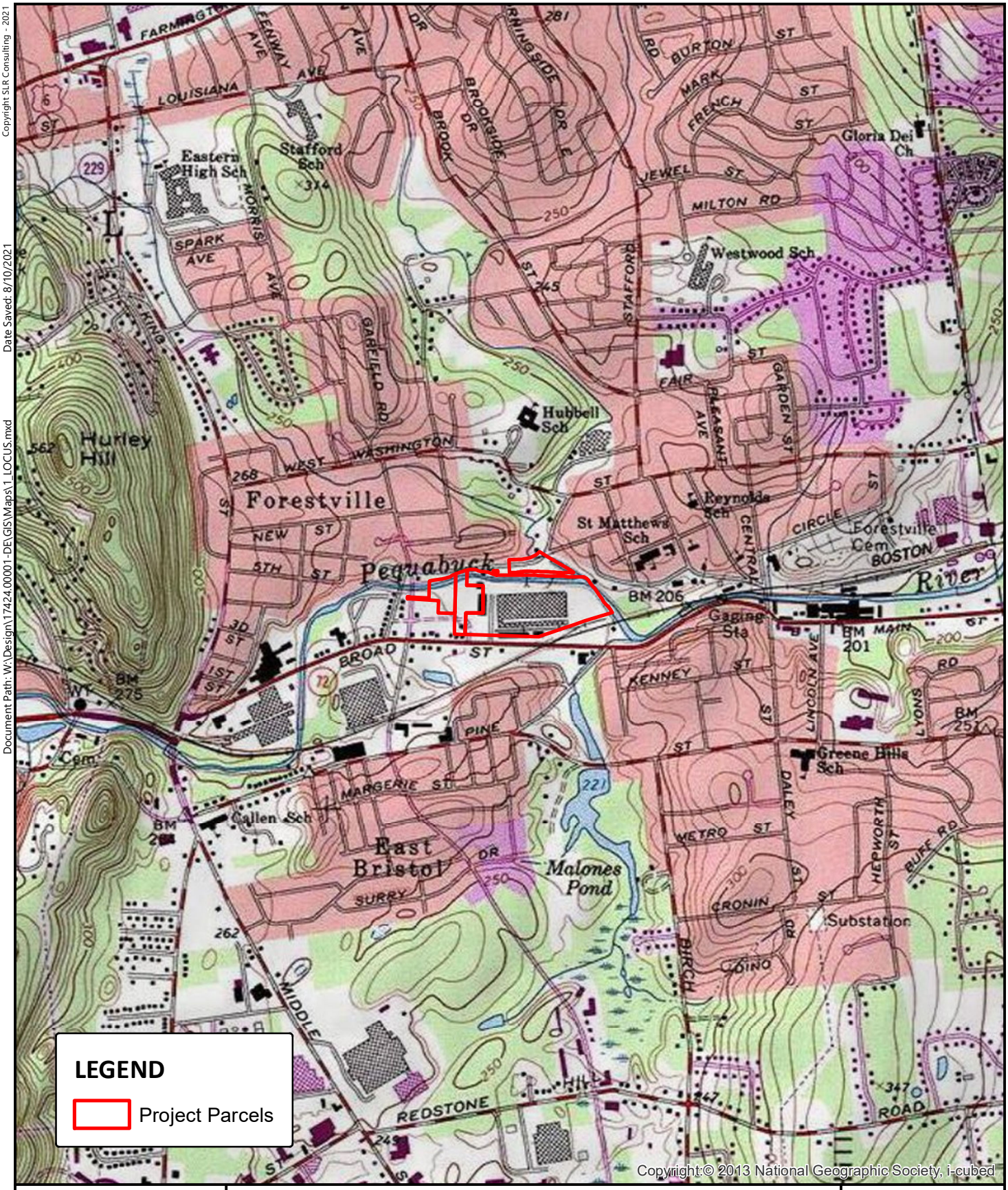

SLR

195 CHURCH STREET
7TH FLOOR
NEW HAVEN, CT 06511
203.344.7887

USGS LOCATION MAP

PARKING STUDY
THEIS PRECISION STELL SITE
300 BROAD STREET
BRISTOL, CONNECTICUT

N

0 500 1,000
Feet

SCALE 1 " = 2,000 '

DATE 8/10/2021

141.17424.00001
PROJ. NO.

FIG. 1

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Date Saved: 8/10/2021

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Feet

SLR
195 CHURCH STREET
7TH FLOOR
NEW HAVEN, CT 06511
203.344.7887

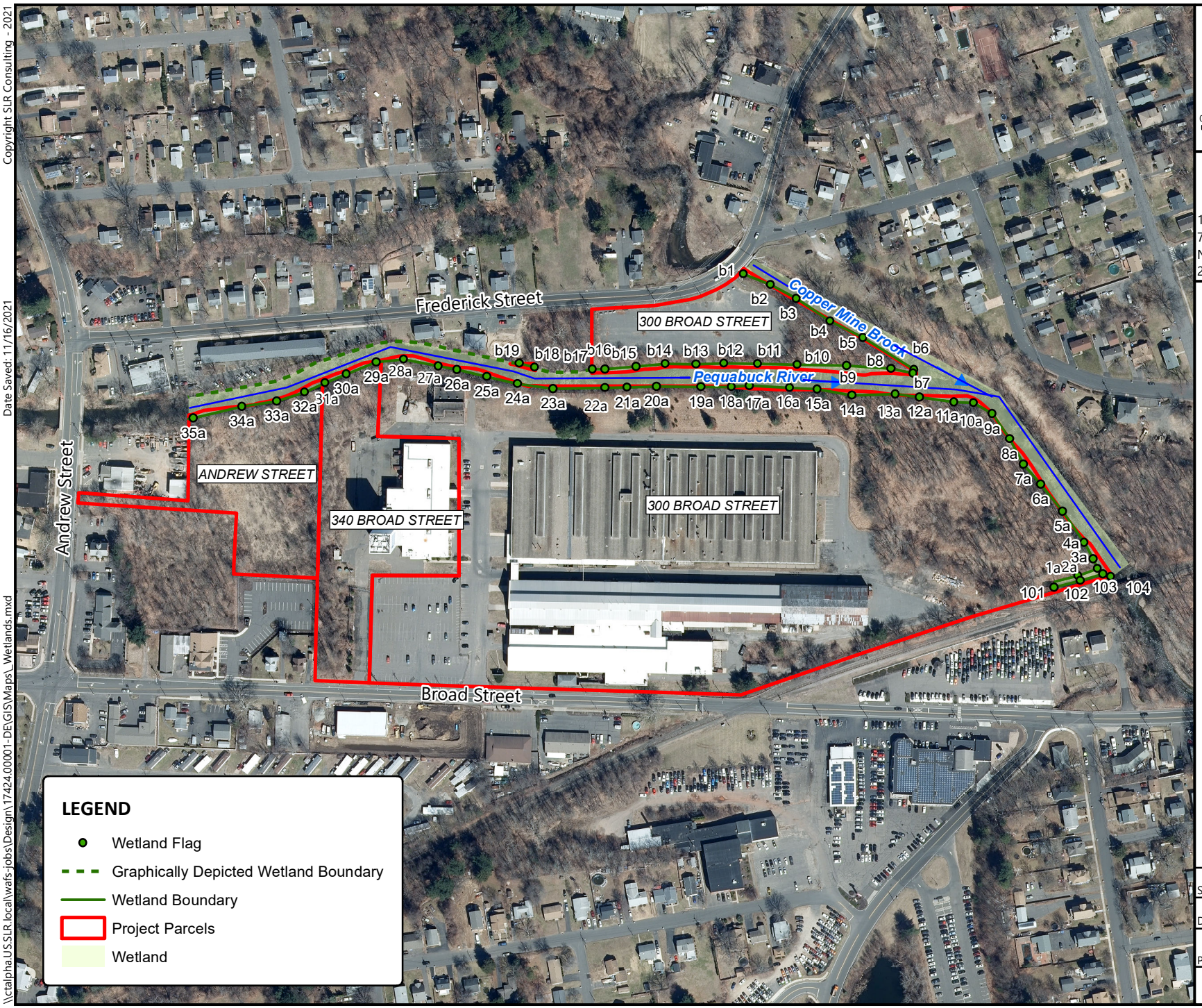
NRCS SOILS
PARKING STUDY
THEIS PRECISION STEEL SITE
300 BROAD STREET
BRISTOL, CONNECTICUT

SCALE 1 " = 400 '

DATE 8/10/2021

141.17424.00001
PROJ. NO.

FIG. 2



SLR
195 CHURCH STREET
7TH FLOOR
NEW HAVEN, CT 06511
203.344.7887

WETLAND DELINEATION
PARKING STUDY
THEIS PRECISION STEEL SITE
300 BROAD STREET
BRISTOL, CONNECTICUT

SCALE 1 " = 300 '
DATE 11/16/2021
141.17424.00001
PROJ. NO.

FIG. 3

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Appendix B Site Photos

Application for a Wetlands Permit

300 Broad Street Remediation

300 Broad Street Property LLC

April 25, 2024

SLR

PHOTOGRAPHIC LOG

Client Name:	**Site Location:**	**Project No.**
300 Broad Street Property LLC	300 Broad Street Bristol, CT	141.20476.00001

Photo No.	**Date:**
1	4/9/2024

Direction Photo Taken:
North

Description:
Twin 10” pipes discharging to the head of the drainage channel (photo right) from the stilling pool (photo left). Photo taken from southern bank of channel looking at northern bank.

Photo No.	**Date:**
2	4/9/2024

Direction Photo Taken:
Northeast

Description:
View from southern drainage channel bank, looking downstream.

SLR

PHOTOGRAPHIC LOG

Client Name:	**Site Location:**	**Project No.**
300 Broad Street Property LLC	300 Broad Street Bristol, CT	141.20476.00001

Photo No.	**Date:**
3	4/9/2024

Direction Photo Taken:
Northwest

Description:
View from northern bank of drainage channel, looking upstream at stilling pool and twin discharge pipes.

Photo No.	**Date:**
4	4/9/2024

Direction Photo Taken:
Southeast

Description:
View from northern drainage channel bank, looking downstream. Note large woody debris pile along southern bank.

SLR

PHOTOGRAPHIC LOG

Client Name:	**Site Location:**	**Project No.**
300 Broad Street Property LLC	300 Broad Street Bristol, CT	141.20476.00001

Photo No.	**Date:**
5	4/9/2024

Direction Photo Taken:
South

Description:
Pequabuck River, looking downstream from western bank just upstream of the drainage channel discharge point into the river.

Photo No.	**Date:**
6	4/9/2024

Direction Photo Taken:
South

Description:
Proposed construction access and bypass pump discharge point, north of drainage channel and west of Pequabuck River.

SLR

PHOTOGRAPHIC LOG

Client Name:	**Site Location:**	**Project No.**
300 Broad Street Property LLC	300 Broad Street Bristol, CT	141.20476.00001

Photo No.	**Date:**
7	4/9/2024

Direction Photo Taken:
West

Description:
Proposed/former access road north of drainage channel, looking towards buildings on site.

Photo No.	**Date:**
8	4/9/2024

Direction Photo Taken:
East

Description:
Proposed/former access road north of drainage channel, looking towards Pequabuck River.

SLR

PHOTOGRAPHIC LOG

Client Name:	**Site Location:**	**Project No.**
300 Broad Street Property LLC	300 Broad Street Bristol, CT	141.20476.00001

Photo No.	**Date:**
9	4/9/2024

Direction Photo Taken:
North

Description:
Potential stockpile area east of northern building on site.

Appendix C NDDB Final Determination

Application for a Wetlands Permit

300 Broad Street Remediation

300 Broad Street Property LLC

April 25, 2024

Connecticut Department of
ENERGY &
ENVIRONMENTAL
PROTECTION

79 Elm Street • Hartford, CT 06106-5127 www.ct.gov/deep Affirmative Action/Equal Opportunity Employer

Generated by eNDDB on:
4/16/2024

Marlee Antill
SLR CONSULTING US LLC
195 Church St - 7TH FL
NEW HAVEN, CT 06510
mantill@slrconsulting.com

Subject: Former Theis Steel Property Drainage Channel Remediation
Filing # 110357
NDDB – New Determination Number: 202405378
300 BROAD ST
BRISTOL

Expiration Date: 4/16/2026

Current data maintained by the Natural Diversity Database (NDDB) and housed in the DEEP ezFile portal indicates that populations of the following State Endangered, Threatened, or Special Concern species (RCA Sec. 26-306) have been documented within the project area or in close proximity to the proposed Remediation/Contaminated soil remediation, Former Theis Steel Property Drainage Channel Remediation.

Common crayfish (*Cambarus bartonii*)

In accordance with the project information provided in your request submittal, implementation of the following Best Management Practices will avoid negative impacts to listed species:

Common Name	Common crayfish
Scientific Name	*Cambarus bartonii*
Taxa	invertebrate
Status[1]	SC
General Ecology	This freshwater crustacean can be found in fast flowing streams, brooks, rivers and occasionally in ponds. The species has a life span of three to four years. Its burrows are often found in gravel and sand under larger rocks and along the edges of streams. Burrows have been known to be as deep as 1 m. Localized declines are attributed to general habitat destruction and loss. Spring to autumn delineates the period of reproduction with the offspring hatching in July and August. Low pH values and other water quality deterioration have been demonstrated to threaten juvenile and molting crayfish.
Best Management Practice	**Impact from this project can be minimized if you follow any applicable Best Practices and monitoring associated with your project activities and/or permit requirements, minimize impact to and loss of preferred habitat, and include any protection measures included here in the Species General Ecology that relate to your project activities before, during, and after completion.**

[1]E = State Endangered, T = State Threatened, SC = State Special Concern, FE = Federally Endangered, FT = Federally Threatened, NA = Not applicable.

Your submission information indicates that your project requires a state permit, license, registration, or authorization, or utilizes state funding or involves state agency action. This NDDB – New determination may be utilized to fulfill the Endangered and Threatened Species requirements for state-issued permit applications, licenses, registration submissions, and authorizations.

Please be aware of the following limitations and conditions:

Natural Diversity Database information includes all information regarding listed species 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 Natural History Survey and cooperating units of DEEP, land owners, private conservation groups and the scientific community. This information is not necessarily the result of comprehensive or site-specific field investigations. 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 into the Database and accessed through the ezFile portal as it becomes available. New information may result in additional review, and new or modified restrictions or conditions may be necessary to remain in compliance with certain state permits.

- During your work listed species may be encountered on site. A report must be submitted by the observer to the Natural Diversity Database promptly and additional review and restrictions or conditions may be necessary to remain in compliance with certain state permits. Please fill out the appropriate survey form and follow the instructions for submittal.
- Your project involves the state permit application process or other state involvement, including state funding or state agency actions; please note that consultations with your permit analyst or the agency may result in modifications or additional requirements. In this situation, additional evaluation of the proposal by the DEEP Wildlife Division may be necessary and additional information, including but not limited to species-specific site surveys, may be required.
- If your project involves preparing an Environmental Impact Assessment, this NDDB consultation and determination should not be substituted for conducting biological field surveys assessing on-site habitat and species presence.
- This determination applies only to the project as described in the submission and summarized at the end of this letter. Please re-submit an updated Request for Review if the project's scope of work and/or timeframe changes, including if work has not begun by 4/16/2026.
- If biological surveys have been conducted in accordance with Best Management Practices provided, please forward a copy of the results to the address listed at the end of this letter. Include the Project Name and Determination Number on all correspondence.

The NDDB – New determination for the Former Theis Steel Property Drainage Channel Remediation at 300 BROAD ST, BRISTOL, as described in the submitted information and summarized at the end of this document is valid until 4/16/2026. This determination applies only to the project as described in the submission and summarized at the end of this letter. Please re-submit an updated Request for Review if the project's scope of work and/or timeframe changes, including if work has not begun by 4/16/2026.

This letter is computer generated and carries no signature. If however, any clarification is needed, or, if you have further questions, please contact the following:

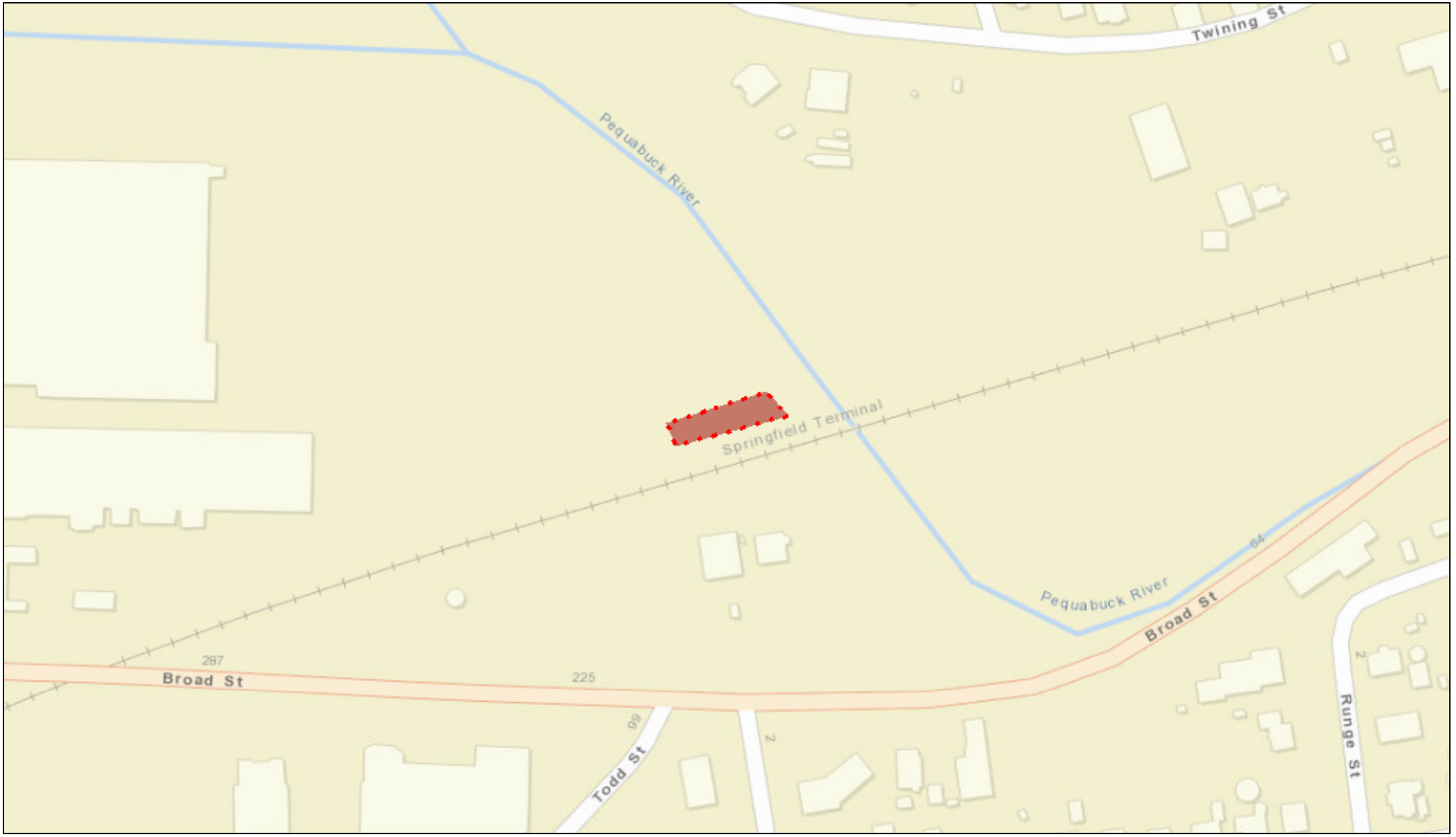
CT DEEP Bureau of Natural Resources
Wildlife Division
Natural Diversity Database, 6th floor
79 Elm Street,
Hartford, CT 06106-5127
(860) 424-3011
deep.nddbrequest@ct.gov

Please reference the Determination Number provided in this letter when you e-mail or write. Thank you for submitting your project through DEEP's ezFile portal for Natural Diversity Database reviews.

Application Details:

Project involves federal funds or federal permit:	No
Project involves state funds, state agency action, or relates to CEPA request:	Yes
Project requires state permit, license, registration, or authorization:	Yes
DEEP enforcement action related to project:	
Project Type:	Remediation
Project Sub-type:	Contaminated soil remediation
Project Name:	Former Theis Steel Property Drainage Channel Remediation
Project Description:	

Former Theis Steel Property Drainage Channel Remediation Map



April 16, 2024

1:2,399

0 0.02 0.04 0.08 mi

0 0.0325 0.065 0.13 km

Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community

Appendix D Project Site Plans

Application for a Wetlands Permit

300 Broad Street Remediation

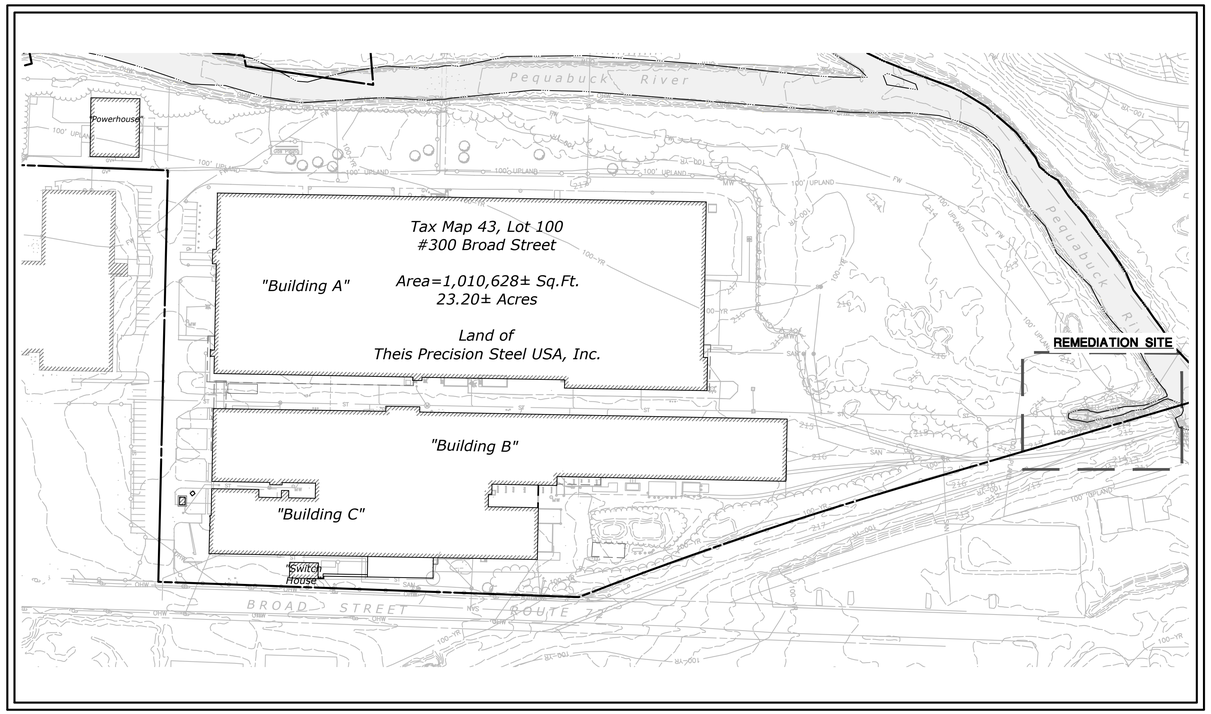
300 Broad Street Property LLC

April 25, 2024

300 BROAD STREET - ASSESSMENT AND REMEDIATION
REMEDIAL ACTIVITIES

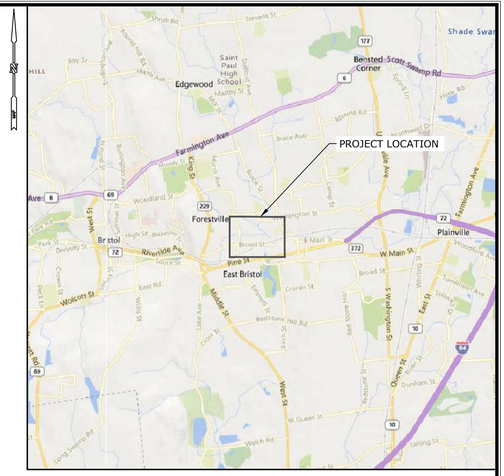
300 BROAD STREET
BRISTOL, CT

126.V20476.00001
APRIL 4, 2024



PROJECT SITE VICINITY MAP:

0' 50' 100'
0 1/2" 1"
SCALE 1" = 100'



LOCATION MAP:

0' 2500' 5000'
0 1/2" 1"
SCALE 1" = 5000'

PREPARED FOR:

300 BROAD STREET PROPERTY LLC
534 HUDSON STREET SUITE 3A
NEW YORK, NY 10010

LIST OF DRAWINGS

NO.	NAME	TITLE
1	--	TITLE
2	EX-1	EXISTING CONDITIONS
3	CP-1	CONSTRUCTION PLAN
4	CP-2	CONSTRUCTION PLAN
5	RS-1	GRADING AND RESTORATION PLAN
6	RR-1	REGULATED RESOURCES
7	DE-1	DETAILS

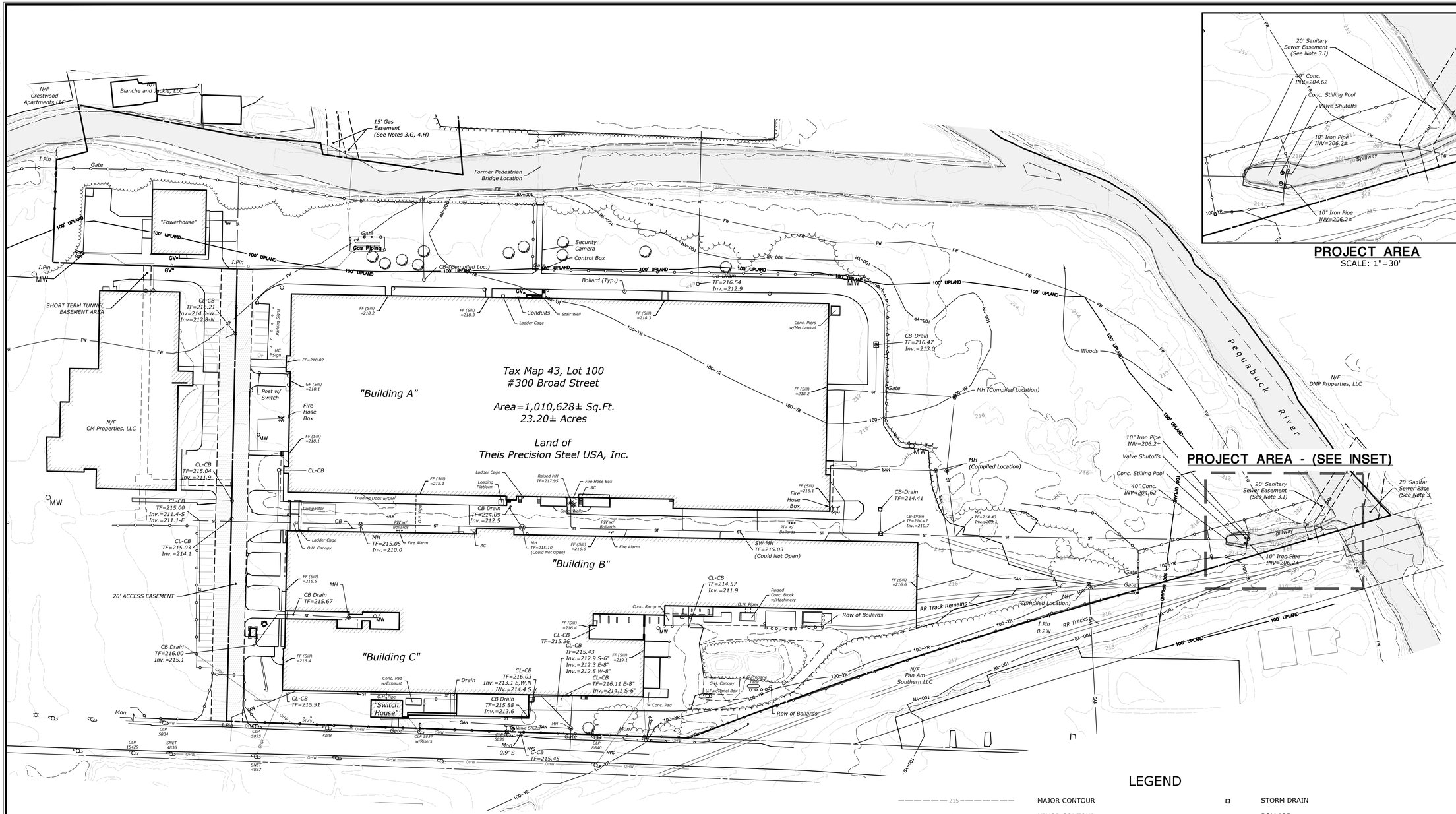
PREPARED BY:

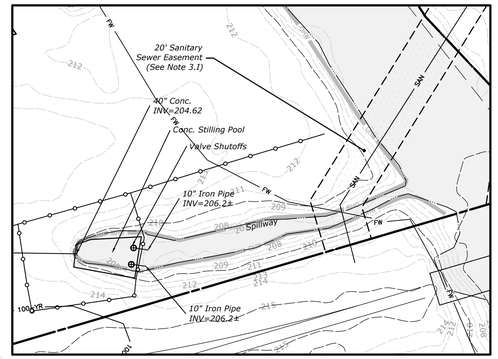
SLR

45 GLASTONBURY BOULEVARD
GLASTONBURY, CT 06033
860.400.5680
SLRCONSULTING.COM

811
Know what's **below.**
Call before you dig.
www.cbyd.com

NOT FOR CONSTRUCTION





PROJECT AREA
SCALE: 1"=30'

PROJECT AREA - (SEE INSET)

MAPPING AND SURVEY NOTES:

1. TOPOGRAPHIC SURVEY BASED ON "PROPERTY & TOPOGRAPHIC SURVEY" MAP OF LOT 43-100, #300 BROAD STREET BRISTOL, CT PREPARED FOR 300 BROAD STREET PROPERTY LLC AND PERFORMED BY SLR INTERNATIONAL CORPORATION (SLR) ON SEPTEMBER 28, 2021.
2. HORIZONTAL MAPPING IS REFERENCED TO THE NORTH AMERICAN DATUM OF 1983 (NAD83), IN THE CONNECTICUT ZONE.
3. ELEVATION DATA IS REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).
4. REGULATED RESOURCES, INCLUDING MEAN ANNUAL HIGH WATER (MAHW)/ORDINARY HIGH WATER (OHW) DELINEATED BY PROFESSIONAL WETLAND SCIENTISTS ON AUGUST 9, 2021
5. PROPERTY LINES AND UTILITY INFORMATION PROVIDED BY CITY OF BRISTOL GIS AND AS-BUILT CONSTRUCTION MAPPING, AND SHOULD BE CONSIDERED APPROXIMATE.
6. PROPERTY BOUNDARY INFORMATION WAS PROVIDED IN GIS FORMAT, AND IS FOR INFORMATIONAL PURPOSES ONLY. ASSESSORS INFORMATION IS APPROXIMATE, AND SHOULD NOT BE CONSIDERED COMPLETE OR CURRENT FOR PURPOSES OF CONSTRUCTION.
7. EXISTING FEATURES OUTSIDE THE LIMITS OF SLR SUVEY, INCLUDING BUT NOT LIMITED TO EDGE OF PAVEMENT, UTILITIES, TREE LINES, BUILDNGS, AND STOCKPILE AREAS HAVE BEEN DIGITIZED FROM AERIAL IMAGERY. LOCATIONS OF EXISTING FEATURES ARE APPROXIMATE AND SHOULD BE VERIFIED PRIOR TO CONSTRUCTION.
8. THE LOCATION OF THE UTILITIES AS SHOWN HEREON HAVE BEEN COMPILED FROM VISIBLE STRUCTURES AND INFORMATION OBTAINED FROM VARIOUS SOURCES. THE ACTUAL LOCATION OF ALL UTILITIES AND UNDERGROUND STRUCTURES SHALL BE CONSIDERED APPROXIMATE AND SHALL BE VERIFIED BY THE OWNER PRIOR TO ANY CONSTRUCTION. THE SURVEYOR MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED.
9. FLOOD HAZARD INFORMATION IS AN APPROXIMATE DEPICTION OF THE FLOODWAY, 100 - YEAR FLOOD BOUNDARY, AND 500 - YEAR BOUNDARY, DERIVED FROM THE FEMA DIGITAL FLOOD INSURANCE RATE MAP 09003C0466F DATED SEPTEMBER 25, 2008.
10. TOPOGRAPHIC INFORMATION DEPICTED HEREIN IS SHOWN AS A REPRESENTATION OF THE PROJECT SITE AT THE TIME IT WAS SURVEYED, AND IS SUBJECT TO CHANGE BASED UPON HIGH FLOWS, FLOOD, EROSION AND/OR CHANGING SITE CONDITIONS.
11. ALL DIMENSIONS AND ELEVATIONS SHALL BE VERIFIED IN THE FIELD PRIOR TO CONSTRUCTION. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER FOR DETERMINATION.
12. SLR ACCEPTS NO RESPONSIBILITY FOR THE ACCURACY OF MAPS AND DATA WHICH HAVE BEEN SUPPLIED BY OTHERS.

LEGEND

215	MAJOR CONTOUR		STORM DRAIN
216	MINOR CONTOUR		BOLLARD
OHW	ORDINARY HIGH WATER		SIGN
FW	FEMA FLOODWAY	GV	GAS VALVE
100-YR	FEMA 100 YEAR FLOOD ZONE (ZONE AE)		TREE
	EDGE OF WATER		SEWER MANHOLE
100' UPLAND	100' UPLAND REVIEW AREA		HYDRANT
	PROPERTY BOUNDARY		STORM DRAIN MANHOLE
	CLEARING LIMITS	MW	MONITORING WELL
	FENCE		UTILITY POLE
ST	STORM SEWER		LIGHT POLE
SAN	SANITARY SEWER		
	EDGE OF PAVEMENT		
	EDGE OF BUILDING		

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DESCRIPTION	DATE	BY

PERMITTING SET - NOT FOR CONSTRUCTION

EXISTING CONDITIONS
300 BROAD STREET - ASSESSMENT AND REMEDIATION
REMEDIAL ACTIVITIES
300 BROAD STREET
BRISTOL, CT

JF	MER	JF
DESIGNED	DRAWN	CHECKED

1"=60'
SCALE

APRIL 4, 2024
DATE

126.V20476.00001
PROJECT NO.

2 OF 7
SHEET NO.

EX-1
SHEET NAME

LEGEND

- SITE ACCESS ROAD
- LIMIT OF CLEARING
- STRAW WATTLE PERIMETER PROTECTION
- LIMIT OF CONSTRUCTION
- STONE TRACKING PAD
- TO BE STABILIZED WITH EROSION CONTROL MATTING POST-COMPLETION
- STORM DRAIN INLET PROTECTION

GENERAL NOTES:

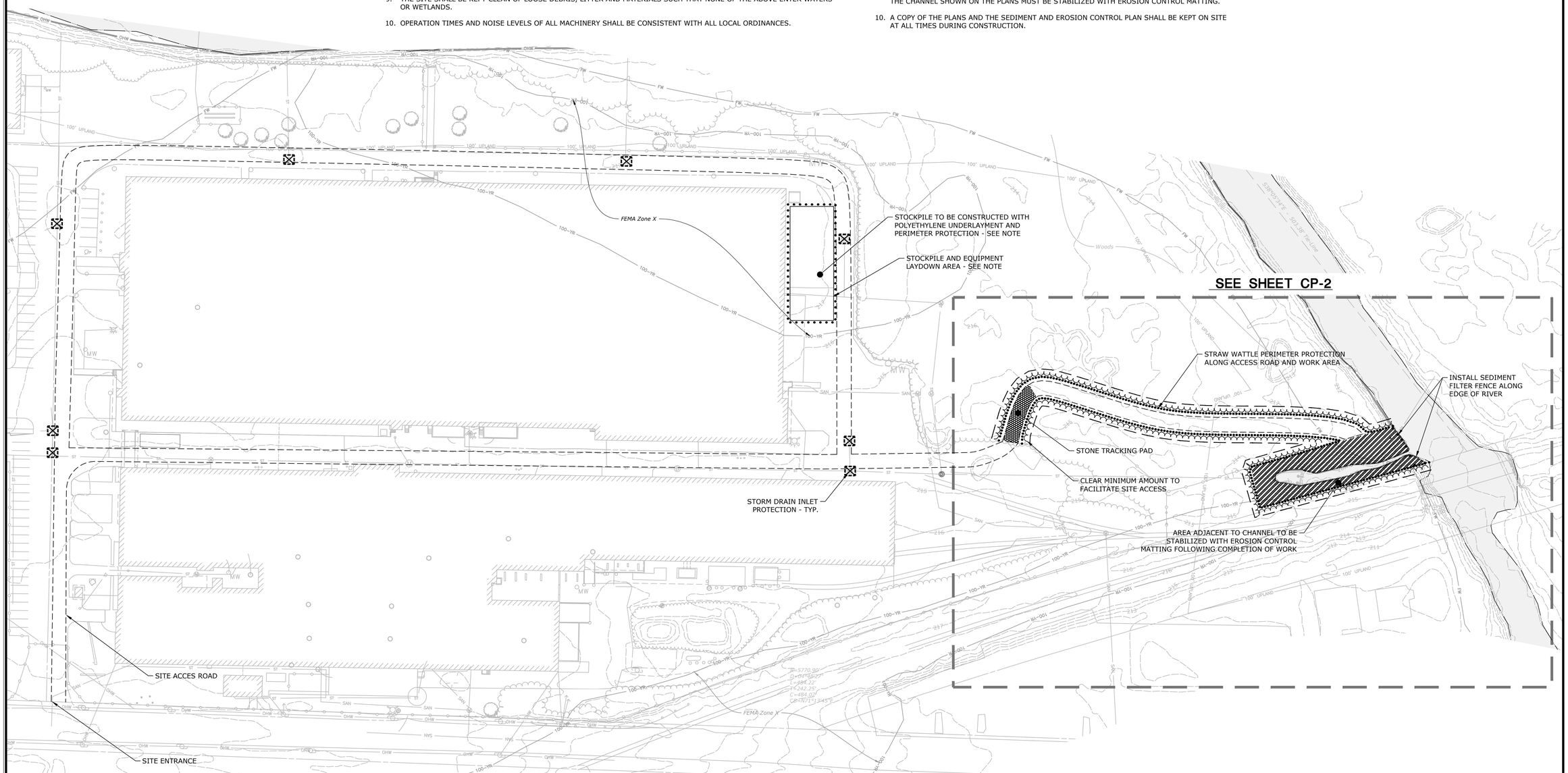
1. THE CONSTRUCTION SEQUENCING PRESENTED ON THIS PLAN IS THE SUGGESTED MEANS OF CONSTRUCTION. MODIFICATIONS TO THIS PLAN SHALL OCCUR IF SITE CONDITIONS NECESSITATE.
2. THE SITE ABUTS AN ACTIVE RAILROAD EASEMENT. THE CONTRACTOR MUST ENSURE THAT TREE CLEARING, EXCAVATING, OR OTHER SITE ACTIVITIES DO NOT INFRINGE UPON THE EASEMENT. THE CONTRACTOR SHALL CONTACT THE RAILROAD OPERATOR BEFORE BEGINNING WORK.
3. OTHER SITE REMEDIATION ACTIVITIES WILL BE OCCURRING ALONG WITH THE ACTIVITIES DESCRIBED IN THIS PLAN SET, ALTHOUGH THEY WILL BE PERFORMED OUTSIDE OF THE 100-FT UPLAND REVIEW AREA.
4. SEDIMENT AT THIS SITE IS KNOWN TO CONTAIN LEVELS OF SEVERAL CHEMICALS INCLUDING EXTRACTABLE TOTAL PETROLEUM HYDROCARBONS, POLYCYCLIC AROMATIC HYDROCARBONS, AND POLYCHLORINATED BIPHENYLS WHICH EXCEED CONNECTICUT REMEDIATION STANDARD REGULATIONS CRITERIA. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT ALL WORKERS ARE AWARE OF PRESENCE OF THESE CONTAMINANTS, AND ARE USING ALL APPLICABLE PERSONAL PROTECTIVE EQUIPMENT ON SITE.
5. THE CONTRACTOR IS RESPONSIBLE FOR THE PROPER MANAGEMENT OF ALL MATERIAL EXCAVATED FROM THE WORK AREA. ALL MATERIAL EXCAVATED SHALL BE STORED IN STOCKPILE LOCATIONS APPROVED BY THE ENGINEER.
6. EXISTING TREES AND VEGETATION OUTSIDE OF THE PROJECT LIMITS SHALL BE PROTECTED AT ALL TIMES DURING CONSTRUCTION.
7. THE CONTRACTOR SHALL TAKE CARE TO AVOID DAMAGE TO AREAS ADJACENT TO OR OUTSIDE OF THE CONSTRUCTION LIMITS SPECIFIED ON THE PLANS. REPAIRS TO EXISTING PAVED, GRAVEL, OR OTHER AREAS TO REMAIN SHALL BE MADE TO THE SATISFACTION OF THE CLIENT.
8. ALL FUEL, OIL, PAINT OR OTHER HAZARDOUS MATERIALS SHALL BE STORED OUTSIDE OF THE 100 YEAR FLOOD PLAIN IN THE EQUIPMENT LAYDOWN AREA AS SHOWN ON THE PLANS.
9. THE SITE SHALL BE KEPT CLEAN OF LOOSE DEBRIS, LITTER AND MATERIALS SUCH THAT NONE OF THE ABOVE ENTER WATERS OR WETLANDS.
10. OPERATION TIMES AND NOISE LEVELS OF ALL MACHINERY SHALL BE CONSISTENT WITH ALL LOCAL ORDINANCES.

EROSION AND SEDIMENT CONTROL NOTES:

1. SEDIMENTATION AND EROSION CONTROLS SHALL BE INSTALLED PRIOR TO THE START OF CONSTRUCTION UNLESS OTHERWISE NOTED.
2. SEDIMENTATION AND EROSION CONTROL MEASURES AS DEPICTED ON THESE PLANS SHALL BE IMPLEMENTED AND MAINTAINED UNTIL PERMANENT VEGETATIVE COVER AND STABILIZATION IS ESTABLISHED. ALL SEDIMENT AND EROSION CONTROL MEASURES SHALL CONFORM TO THE "GUIDELINES FOR SOIL EROSION SEDIMENT CONTROL, CONNECTICUT - REVISED 2002" AND IN ALL CASES BEST MANAGEMENT PRACTICES SHALL PREVAIL.
3. SEDIMENT MUST BE SUFFICIENTLY DEWATERED PRIOR TO REMOVAL TO ALLOW FOR TRANSPORTATION IN ON-ROAD VEHICLES WITHOUT LEAKAGE. SEDIMENT DEWATERING WILL ONLY OCCUR WITHIN THE DESIGNATED TEMPORARY SEDIMENT STOCKPILE AREAS AS SHOWN.
4. ALL SEDIMENT MUST BE STOCKPILED OUTSIDE OF THE 100-YEAR FLOODPLAIN.
5. TEMPORARY SEDIMENT STOCKPILE AREAS MUST BE CONSTRUCTED SO THAT ALL MATERIAL IS ENTIRELY CONTAINED. MATERIAL MUST BE STORED ON MINIMUM 10 MIL POLYETHYLENE SHEETING, WITH THE ENTIRE PERIMETER OF THE SHEETING DRAPED OVER STRAW WATTLES OR SANDBAGS AS TO CREATE A MEANS OF CONTAINMENT - SEE DETAIL.
6. AT THE END OF EACH WORKDAY, THE STOCKPILE MUST BE COVERED WITH MINIMUM 10 MIL POLYETHYLENE SHEETING, WHICH MUST BE SECURED TO PREVENT MOBILIZATION.
7. NO MORE THAN 100 CY OF MATERIAL MAY BE STOCKPILED ON SITE CONCURRENTLY.
8. ALL STORM DRAINS WITHIN OR DOWNGRADIENT OF THE WORK AREA AND SITE ACCESS ROAD MUST BE PROTECTED WITH INLET PROTECTION.
9. BEFORE REMOVAL OF THE COFFERDAM IN PHASE III OF CONSTRUCTION, THE AREA ADJACENT TO THE CHANNEL SHOWN ON THE PLANS MUST BE STABILIZED WITH EROSION CONTROL MATTING.
10. A COPY OF THE PLANS AND THE SEDIMENT AND EROSION CONTROL PLAN SHALL BE KEPT ON SITE AT ALL TIMES DURING CONSTRUCTION.

PHASE I: INSTALLATION OF SITE ACCESS AND PRE-CONSTRUCTION S&E CONTROLS

1. CONTACT THE CITY OF BRISTOL INLAND WETLANDS ENFORCEMENT OFFICER BEFORE BEGINNING WORK.
2. DESIGNATE ALL LIMITS OF DISTURBANCE WITH GRADE STAKES.
3. INSTALL ALL SITE ACCESS AND S&E CONTROLS INCLUDING THE STOCKPILE CONTAINMENT AREA AND PERIMETER PROTECTION, STORM DRAIN INLET PROTECTION, STRAW WATTLES, SEDIMENT FILTER FENCING, STONE TRACKING PAD, AND PUMP DISCHARGE DEWATERING AREA.
4. CLEAR TREES AND BRUSH ONLY AS NEEDED TO PERFORM WORK.



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DESCRIPTION	DATE	BY

CONSTRUCTION PLAN

300 BROAD STREET - ASSESSMENT AND REMEDIATION
REMEDIAL ACTIVITIES

300 BROAD STREET
BRISTOL, CT

PERMITTING SET - NOT FOR CONSTRUCTION

JF DESIGNED	MER DRAWN	JF CHECKED

SCALE	1"=50'
DATE	APRIL 4, 2024
PROJECT NO.	126.V20476.00001
SHEET NO.	3 OF 7
SHEET NAME	CP-1

LEGEND

- SITE ACCESS ROAD
- LIMIT OF CLEARING
- STRAW WATTLE PERIMETER PROTECTION
- LIMIT OF CONSTRUCTION
- STONE TRACKING PAD
- DEWATERING PIPE
- (P) BYPASS PUMP

PHASE II: SEDIMENT AND DEBRIS REMOVAL IN THE CONCRETE STILLING AREA

1. WORK IN THIS PHASE MUST NOT COMMENCE UNLESS THREE OR MORE CONSECUTIVE DAYS WITHOUT RAINFALL ARE FORECAST.
2. BASEFLOW BYPASS AROUND THE CONCRETE STILLING AREA MUST BE INITIATED VIA AN UPGRADIENT MANHOLE. PUMP MUST BE CAPABLE OF FULLY BYPASSING BASEFLOW AS SHOWN IN TABLE BELOW.
3. BYPASS WATER SHOULD BE DIRECTED INTO PUMP DISCHARGE SETTLING AREA AS SHOWN ON PLANS.
4. CONCRETE STILLING AREA MUST BE DEWATERED, WITH DISCHARGE DIRECTED INTO THE PUMP DISCHARGE SETTLING AREA.
5. REMOVE SEDIMENT IN STILLING AREA AND STORE EXCAVATED SEDIMENT IN STOCKPILE CONTAINMENT AREA FOR OFFSITE DISPOSAL.

EXPECTED FLOW RATES

	OUTFALL FROM 300 BROAD STREET STORM DRAINAGE
EXPECTED BASE FLOW (CFS)	0.25
EXPECTED BASE FLOW (GPM)	115
RANGE OF PREDICTED FLOWS (CFS)	0.1-0.3
RANGE OF PREDICTED FLOWS (GPM)	45-135

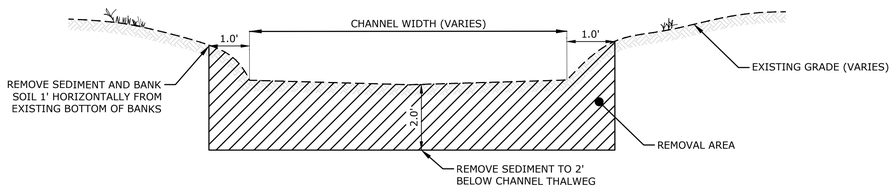
NOTE: EXPECTED BASEFLOW BASED UPON STREAMFLOW MEASUREMENTS PERFORMED ON 4/15/2024 DURING NEAR-SEASONALLY HIGH WATER TABLE CONDITIONS ACCORDING TO USGS WELL CT-SB 42 412916073121701.

PHASE III: SEDIMENT REMOVAL IN CHANNEL

1. INSTALL BASEFLOW DEWATERING (GRAVITY OR PUMPED) IN CONCRETE STILLING BASIN. DIRECT DISCHARGE TO PUMP DISCHARGE SETTLING AREA.
2. CONSTRUCT COFFERDAM AT DOWNSTREAM END OF DRAINAGE CHANNEL AT EDGE OF PEQUABUCK RIVER.
3. CONCRETE STILLING AREA MUST BE DEWATERED, WITH DISCHARGE DIRECTED INTO THE PUMP DISCHARGE SETTLING AREA.
4. EXCAVATE CHANNEL AS SHOWN ON THE PLANS. STORE EXISTING RIP RAP SEPARATELY FROM EXCAVATED SEDIMENT BENEATH FOR ON-SITE RE-USE.
5. INSTALL GROUNDWATER AND SEEPAGE SUMP IN CHANNEL AND PUMP AS NECESSARY TO KEEP AREA DEWATERED. DISCHARGE TO TURBIDITY REDUCTION DEVICE AND INTO THE PUMP DISCHARGE SETTLING AREA.
6. STORE EXCAVATED SEDIMENT IN DESIGNATED STOCKPILE AREA FOR OFFSITE DISPOSAL.
7. RESTORE CHANNEL TO EXISTING GEOMETRY USING EXISTING AND IMPORTED RIPRAP.
8. INSTALL TEMPORARY EROSION CONTROL MATTING AROUND CHANNEL AS SHOWN ON SHEET CP-2 TO PROVIDE SHORT TERM STABILIZATION.
9. REMOVE BYPASS PUMPING AND COFFERDAM.
10. STABILIZE ALL DISTURBED AREAS ACCORDING TO RESTORATION NOTES.

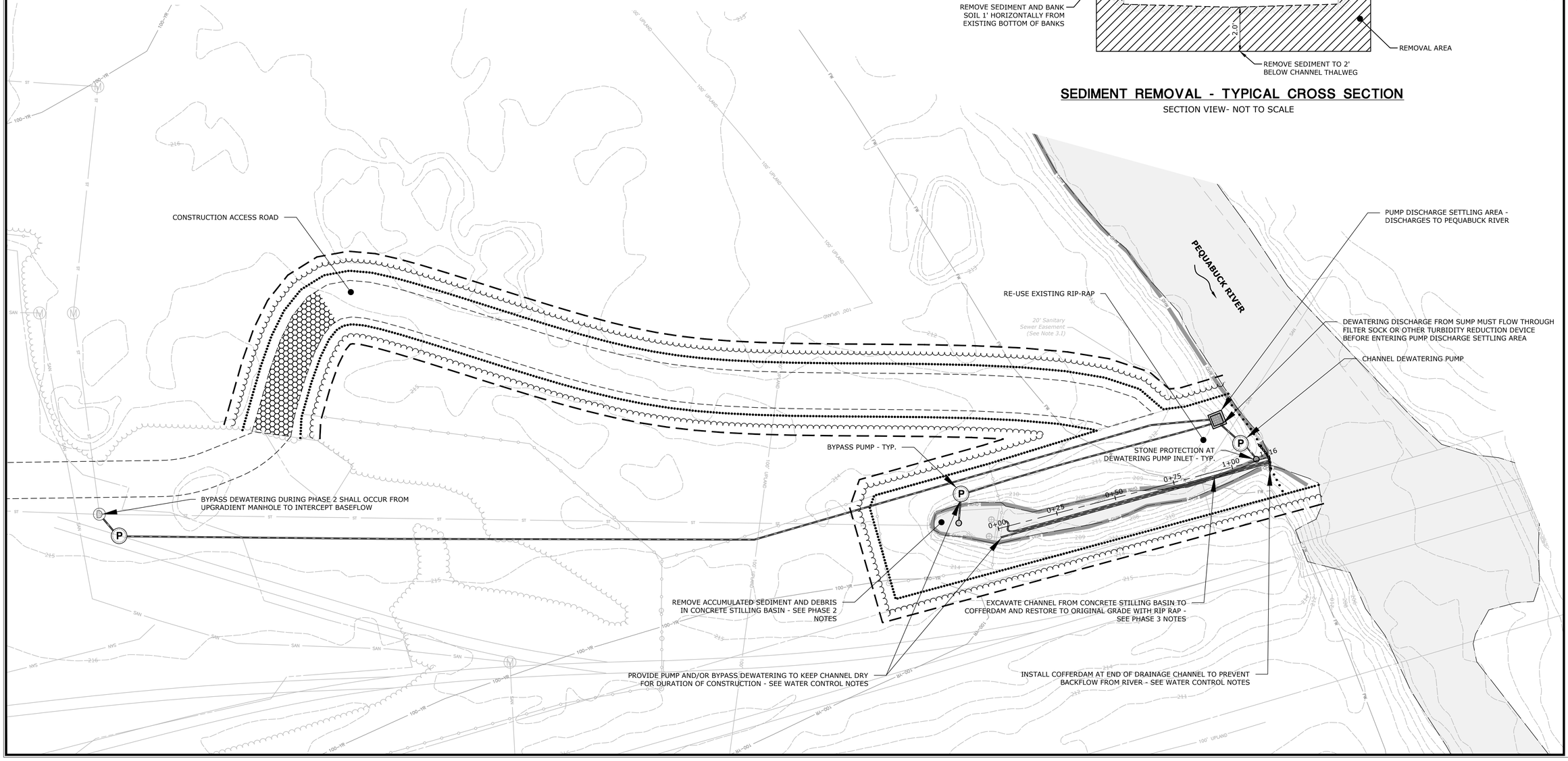
WATER CONTROL NOTES:

1. ALL WORK IN PHASE II AND PHASE III SHALL OCCUR WITHIN FULLY DEWATERED CONDITIONS. WORK IN THESE PHASES SHALL NOT COMMENCE IF ANY RAINFALL IS FORECAST DURING THE DURATION OF THE PHASE. IF RAIN BEGINS TO FALL DURING EXCAVATION OF THE CHANNEL, THE CONTRACTOR MUST STOP WORK AND IMMEDIATELY STABILIZE THE CHANNEL BY COVERING EXPOSED CHANNEL BOTTOM MATERIAL WITH 10 MIL POLYETHELYNE AND SECURING THE SHEETING IN PLACE.
2. CLEAN WATER BYPASS SHALL OCCUR THROUGH THE MEANS OF A TEMPORARY BYPASS PUMP OR GRAVITY BYPASS IN THE CONCRETE STILLING POOL TO INTERCEPT BASEFLOW. TEMPORARY BYPASS MEASURES SHOULD BE CAPABLE OF PASSING THE EXPECTED FLOW RATES SHOWN ON THIS SHEET. THESE FLOW RATES REFLECT BASEFLOW CONDITIONS.
3. A COFFERDAM SHALL BE CONSTRUCTED AT THE DOWNSTREAM END OF THE CHANNEL IN ORDER TO PREVENT BACKFLOW FROM THE PEQUABUCK RIVER FROM ENTERING THE EXCAVATION. THE COFFERDAM SHALL NOT EXCEED FOUR FEET IN HEIGHT, BUT SHALL BE OF SUFFICIENT SIZE TO ALLOW FOR DEWATERING OF THE CHANNEL DURING EXCAVATION.
4. THE CONTRACTOR SHALL INSTALL A TURBID WATER SUMP AND PUMP WITHIN THE ACTIVE DREDGE AREA TO MANAGE GROUNDWATER AND COFFERDAM SEEPAGE. WATER FROM THIS PUMP MUST BE DISCHARGED TO A FILTER SOCK OR OTHER APPROVED TURBIDITY REDUCTION DEVICE BEFORE ENTERING THE PUMP DISCHARGE SETTLING AREA.
5. BYPASS AND DEWATERING DISCHARGE PIPES SHALL BE ROUTED AROUND THE ACTIVE WORK AREA AS NEEDED. CLEAN WATER BYPASS (WATER FROM BEHIND THE CONCRETE STILLING BASIN OR FROM UPGRADIENT MANHOLES) MAY DISCHARGE DIRECTLY TO THE PUMP DISCHARGE SETTLING AREA.
6. SEE SEDIMENT AND EROSION CONTROL NOTES ON SHEET CP-1 FOR MANAGEMENT OF BYPASS AND DEWATERING DISCHARGE.



SEDIMENT REMOVAL - TYPICAL CROSS SECTION

SECTION VIEW- NOT TO SCALE



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DESCRIPTION	DATE	BY

CONSTRUCTION PLAN

300 BROAD STREET - ASSESSMENT AND REMEDIATION
REMEDIAL ACTIVITIES

300 BROAD STREET
BRISTOL, CT

PERMITTING SET - NOT FOR CONSTRUCTION

JF DESIGNED	MER DRAWN	JF CHECKED

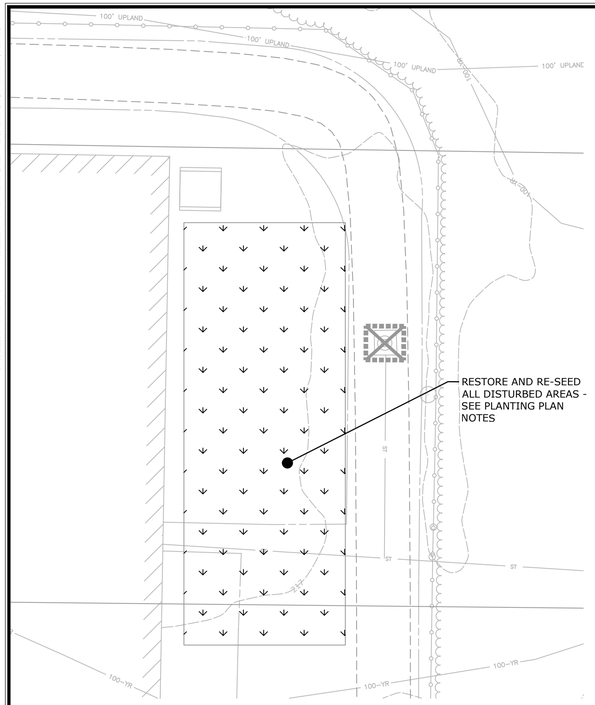
SCALE: 1"=20'

DATE: APRIL 4, 2024

PROJECT NO.: 126.V20476.00001

SHEET NO.: 4 OF 7

SHEET NAME: CP-2



STOCKPILE AREA

PLAN VIEW - SCALE: 1" = 20'

LAWN SEED MIX

	PERCENT BY WEIGHT	MIN. PURITY	MIN. GERMINATION
LIBERATOR KENTUCKY BLUE GRASS	40	98	98
*VICTORY II CHEWING FESCUE	20	98	85
*EPIC STRONG CREEPING RED FESCUE	20	98	85
SPARTAN HARD FESCUE	20	96	85

* HIGH ENDOPHYTE

SEEDING RATE - 220 POUNDS PER ACRE (1 LB PER 200 SF)

THE SEED MIXTURE IS TO HAVE NO NOXIOUS WEEDS. OTHER CULTIVARS OF PERENNIAL RYEGRASS, CHEWING FESCUE AND CREEPING FESCUE WITH HIGH ENDOPHYTE, HARD FESCUE, AND KENTUCKY BLUEGRASS MAY BE SUBSTITUTED FOR THE ABOVE LISTED CULTIVARS WITH THE APPROVAL OF THE OWNER.

RESTORATION AREA SEED MIX

NEW ENGLAND CONSERVATION / WILDLIFE MIX FROM
NEW ENGLAND WETLAND PLANTS - 14 PEARL LANE
SOUTH HADLEY, MA 01075 OR APPROVED EQUAL

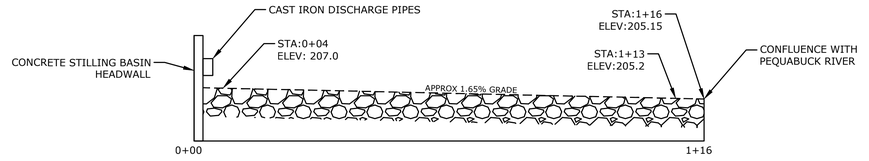
SEED MIX AT A RATE OF 25LBS/ACRE (1 LB/1750 SF)

TOPSOIL AND SEEDING QUANTITIES

TOTAL TOPSOIL AREA - APPROX. 19,500 SQ. FT. AS SHOWN

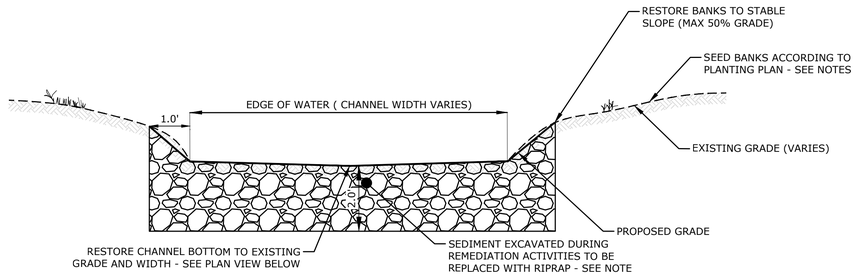
TOTAL LAWN SEEDING AREA - APPROX. 6,500 SQ. FT. AS SHOWN

TOTAL CONSERVATION MIX - APPROX. 13,000 SQ. FT. AS SHOWN



RESTORATION AND GRADING - PROFILE

PROFILE VIEW- NOT TO SCALE



RESTORATION AND GRADING - TYPICAL CROSS SECTION

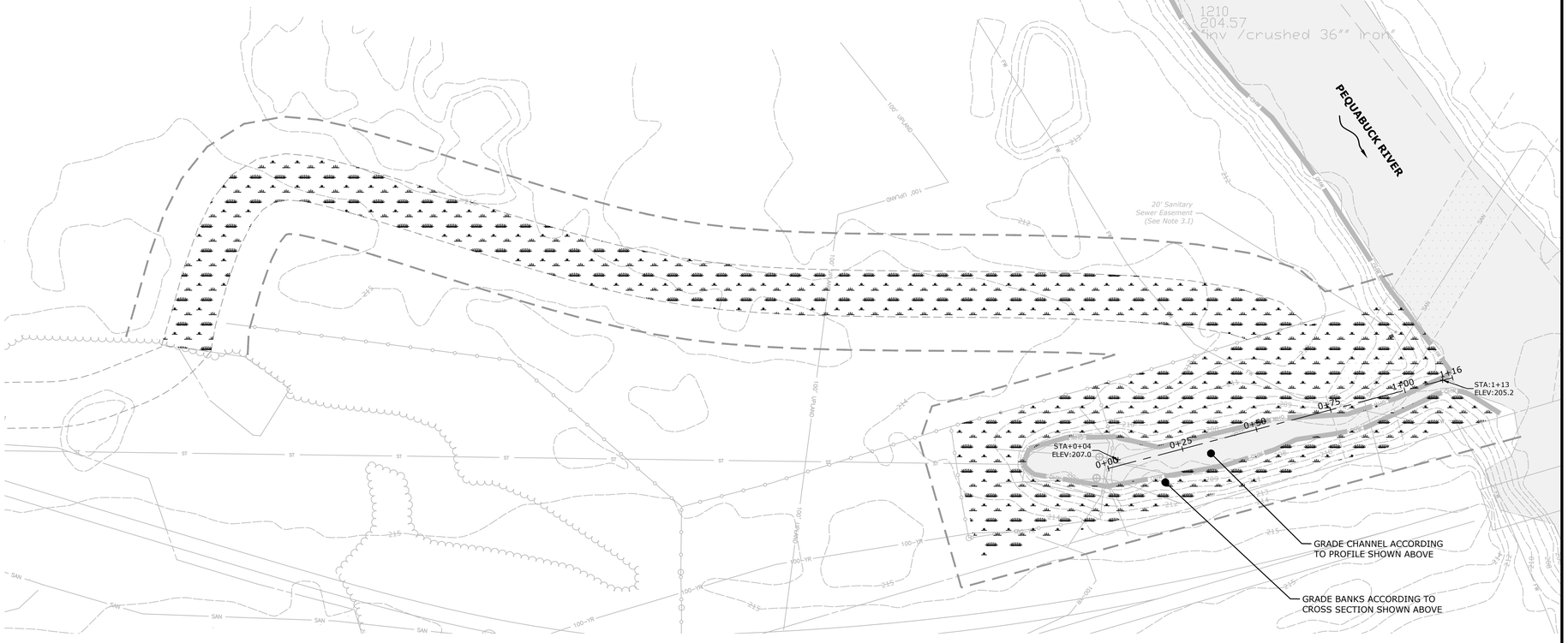
SECTION VIEW- NOT TO SCALE

LEGEND

LAWN SEED MIX

CONSERVATION SEED MIX

1. RESTORATION AREAS DEPICTED ARE THE MINIMUM ANTICIPATED AREAS OF DISTURBANCE. CONTRACTOR IS RESPONSIBLE FOR RESTORING ALL AREAS DISTURBED DURING DREDGING AND WATER CONTROL OPERATIONS TO EXISTING CONDITIONS AS APPROVED BY THE ENGINEER.



RESTORATION AND GRADING - CONSTRUCTION ACCESS AND REMEDIATION AREAS

PLAN VIEW - SCALE: 1" = 20'

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DESCRIPTION	DATE	BY

GRADING AND RESTORATION PLAN

300 BROAD STREET - ASSESSMENT AND REMEDIATION
REMEDIAL ACTIVITIES

300 BROAD STREET
BRISTOL, CT

PERMITTING SET - NOT FOR CONSTRUCTION

JF DESIGNED	MER DRAWN	JF CHECKED

AS NOTED — SCALE

APRIL 4, 2024 — DATE

126.V20476.00001 — PROJECT NO.

5 OF 7 — SHEET NO.

RS-1 — SHEET NAME

LEGEND

- LIMITS OF CLEARING
- LIMITS OF CONSTRUCTION
- EXISTING ORDINARY HIGH WATER (OHW)
- 100-FT UPLAND REVIEW AREA
- FEMA FLOODWAY
- IMPACTS WITHIN THE 100-FT UPLAND REVIEW AREA
- IMPACTS WITHIN THE DRAINAGE CHANNEL

REGULATED ACTIVITIES: DIRECT IMPACTS

	DRAINAGE CHANNEL IMPACTS (SQ. FT.)	DRAINAGE CHANNEL IMPACTS (ACRES)	100 FT UPLAND REVIEW AREA IMPACTS (SQ. FT.)	100 FT UPLAND REVIEW AREA IMPACTS (ACRES)
PERMANENT IMPACTS	1,239	0.03	0.00	0.00
TEMPORARY IMPACTS	0.00	0.00	11,357	0.26
TOTAL IMPACTS	1,239	0.03	11,357	0.26

NOTE: CLEARING WITHIN THE UPLAND REVIEW AREA WILL DEPEND ON EXACT CONSTRUCTION ACCESS AND CLEARING REQUIREMENTS AS DETERMINED DURING CONSTRUCTION. THE CONTRACTOR WILL MINIMIZE CLEARING TO THE EXTENT PRACTICABLE TO COMPLETE WORK. ALL DISTURBED AREAS WILL BE REGRADED AND RESTORED TO EXISTING CONDITIONS AS NECESSARY.

EXCAVATED VOLUME

	CUT (CY)	FILL (CY)	NET (CY)
DRAINAGE CHANNEL	100	100	0.00

NOTE: CY = CUBIC YARDS

PEQUABUCK RIVER

DRAINAGE CHANNEL

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DESCRIPTION | DATE | BY

PERMITTING SET - NOT FOR CONSTRUCTION

REGULATED RESOURCES

300 BROAD STREET - ASSESSMENT AND REMEDIATION
REMEDIAL ACTIVITIES

300 BROAD STREET
BRISTOL, CT

JF	MER	JF
DESIGNED	DRAWN	CHECKED

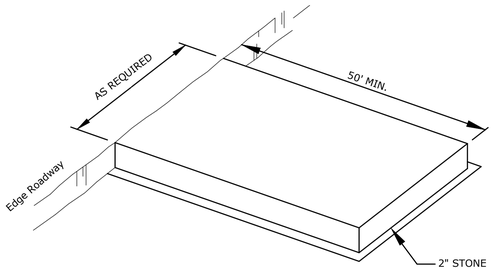
SCALE: 1"=10'

DATE: APRIL 4, 2024

PROJECT NO.: 126.V20476.00001

SHEET NO.: 6 OF 7

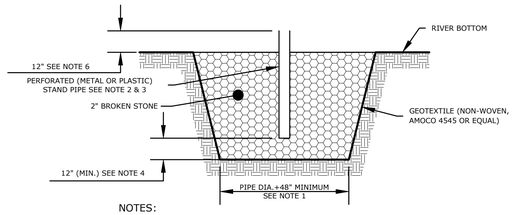
SHEET NAME: RR-1



NOTES:
1. STABILIZED CONSTRUCTION ENTRANCE SHALL BE INSTALLED AND MAINTAINED DURING OPERATIONS WHICH PROMOTE VEHICULAR TRACKING OF MUD.
2. ENTRANCE PAD WILL BE PLACED ABOVE GRADE AND NO EXISTING MATERIAL SHALL BE EXCAVATED TO PLACE ENTRANCE PAD.

STONE TRACKING PAD

NOT TO SCALE

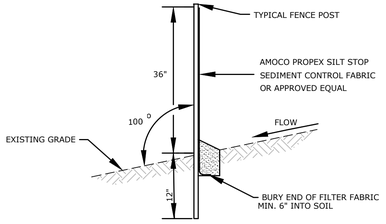


NOTES:

1. OVERALL SUMP PIT DIMENSIONS TO BE COMPATIBLE WITH ANTICIPATED SEEPAGE RATES AND PUMP TO BE USED.
2. THE STAND PIPE DIAMETER AND NUMBER OF PERFORATIONS TO BE COMPATIBLE WITH THE PUMP SIZE BEING USED.
3. PERFORATIONS IN THE STANDPIPE TO BE EITHER CIRCULAR OR SLOTS, PERFORATION SIZE SHALL NOT EXCEED 1/2" DIAMETER.
4. 2" BROKEN STONE SHALL EXTEND A MINIMUM OF 12" BELOW THE BOTTOM OF THE STANDPIPE.
5. A PROPERLY DESIGNED GEOTEXTILE TO BE PLACED BETWEEN THE EXISTING SOILS AND THE CRUSHED STONE BACKFILL.
6. THE STANDPIPE SHALL EXTEND A MINIMUM OF 12" ABOVE THE SURROUNDING GROUND.

STONE PROTECTION AT DEWATERING PUMP INLET

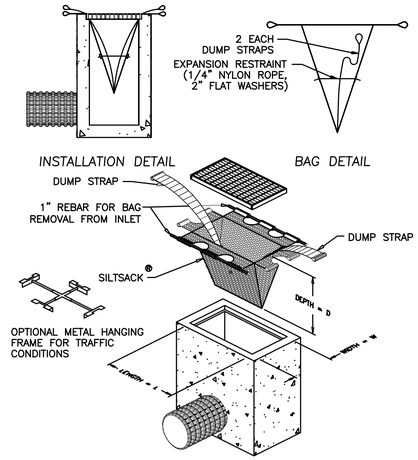
NOT TO SCALE



NOTE:
1. CONTRACTOR SHALL HAVE AVAILABLE ON-SITE A MIN. OF 300 LINEAR FEET OF SILT FENCE FOR USE IF REQUIRED BY FIELD CONDITIONS.

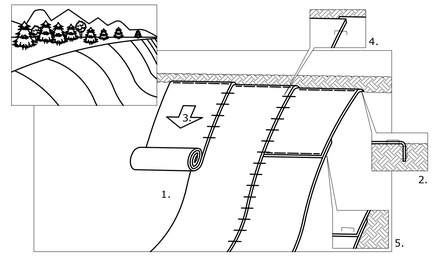
SILT FENCE

NOT TO SCALE



INLET PROTECTION (SILT SACK)

NOT TO SCALE

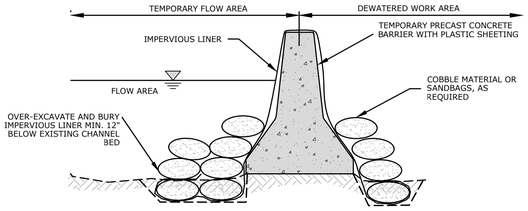


1. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING APPLICATION OF LIME, FERTILIZER, AND SEED. NOTE: WHEN USING SCC225, DO NOT SEED PREPARED AREA. SCC225 MUST BE INSTALLED WITH PAPER SIDE DOWN.
2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE BLANKET IN A 6" DEEP BY 6" WIDTH TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.
3. ROLL THE BLANKETS DOWN THE SLOPE IN THE DIRECTION OF THE WATER FLOW.
4. THE EDGES OF PARALLEL BLANKETS MUST BE STAPLED WITH APPROXIMATELY 2" OVERLAP.
5. WHEN BLANKETS MUST BE SPLICED DOWN THE SLOPE, PLACE BLANKETS END OVER END (SHINGLE STYLE) WITH APPROXIMATELY 6" OVERLAP. STAPLE THROUGH OVERLAP AREA, APPROXIMATELY 12" APART.

REFER TO GENERAL STAPLE PATTERN GUIDE IN NORTH AMERICAN GREEN CATALOG FOR CORRECT STAPLE PATTERN RECOMMENDATIONS FOR SLOPE INSTALLATIONS.

APPLICATION OF EROSION CONTROL BLANKET ON SLOPES

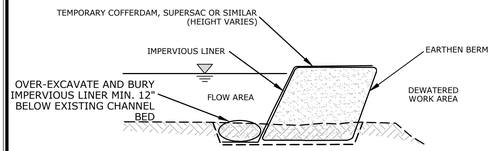
NOT TO SCALE



TEMPORARY COFFERDAM - ALT. A

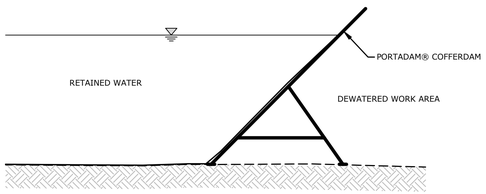
NOT TO SCALE

NOTES:
1. TOP ELEVATION OF COFFERDAM SHALL BE SUFFICIENT TO ISOLATE WORK AREA FROM STREAM FLOWS AND PROVIDE MIN. 0.5' FREEBOARD. HEIGHT OF COFFERDAM NOT TO EXCEED 5.5 FEET ABOVE THE CHANNEL BED.



TEMPORARY COFFERDAM - ALT. B

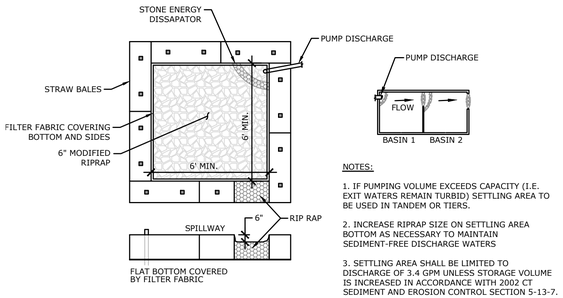
NOT TO SCALE



NOTE:
PORTADAM® TO BE DESIGNED BY OTHERS AND APPROVED BY THE ENGINEER.

TEMPORARY COFFERDAM - ALT. C

NOT TO SCALE

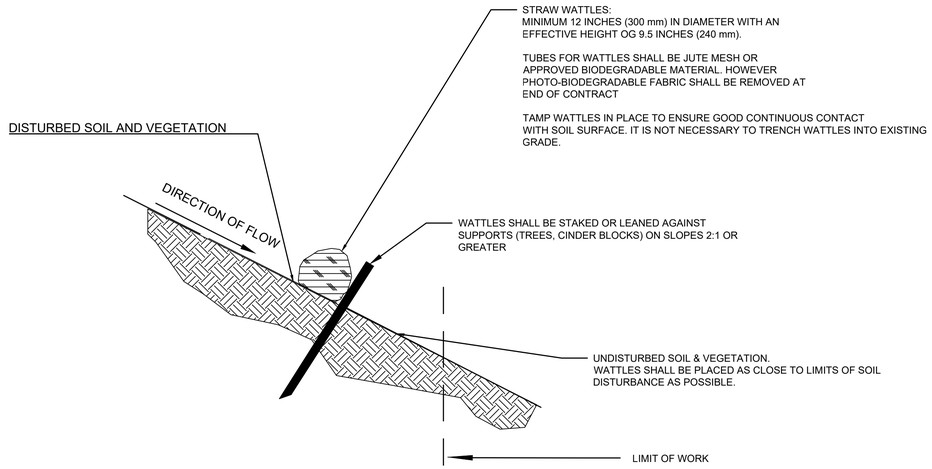


NOTES:

1. IF PUMPING VOLUME EXCEEDS CAPACITY (I.E. EXIT WATERS REMAIN TURBID) SETTLING AREA TO BE USED IN TANDEM OR TIERS.
2. INCREASE RIPRAP SIZE ON SETTLING AREA BOTTOM AS NECESSARY TO MAINTAIN SEDIMENT-FREE DISCHARGE WATERS
3. SETTLING AREA SHALL BE LIMITED TO DISCHARGE OF 3.4 GPM UNLESS STORAGE VOLUME IS INCREASED IN ACCORDANCE WITH 2002 CT SEDIMENT AND EROSION CONTROL SECTION 5-13-7.

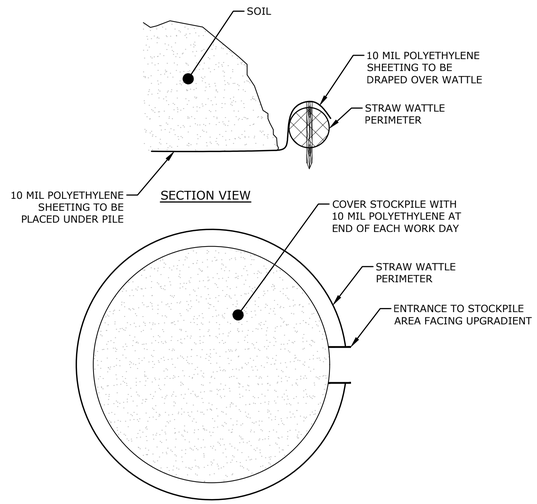
PUMP DISCHARGE SETTLING AREA

NOT TO SCALE



STRAW WATTLES

NOT TO SCALE



TEMPORARY SOIL STOCKPILE

NOT TO SCALE

SLR
45 GLASTONBURY BOULEVARD
GLASTONBURY, CT 06033
860.430.3980
SLRCONSULTING.COM

DESCRIPTION | DATE | BY

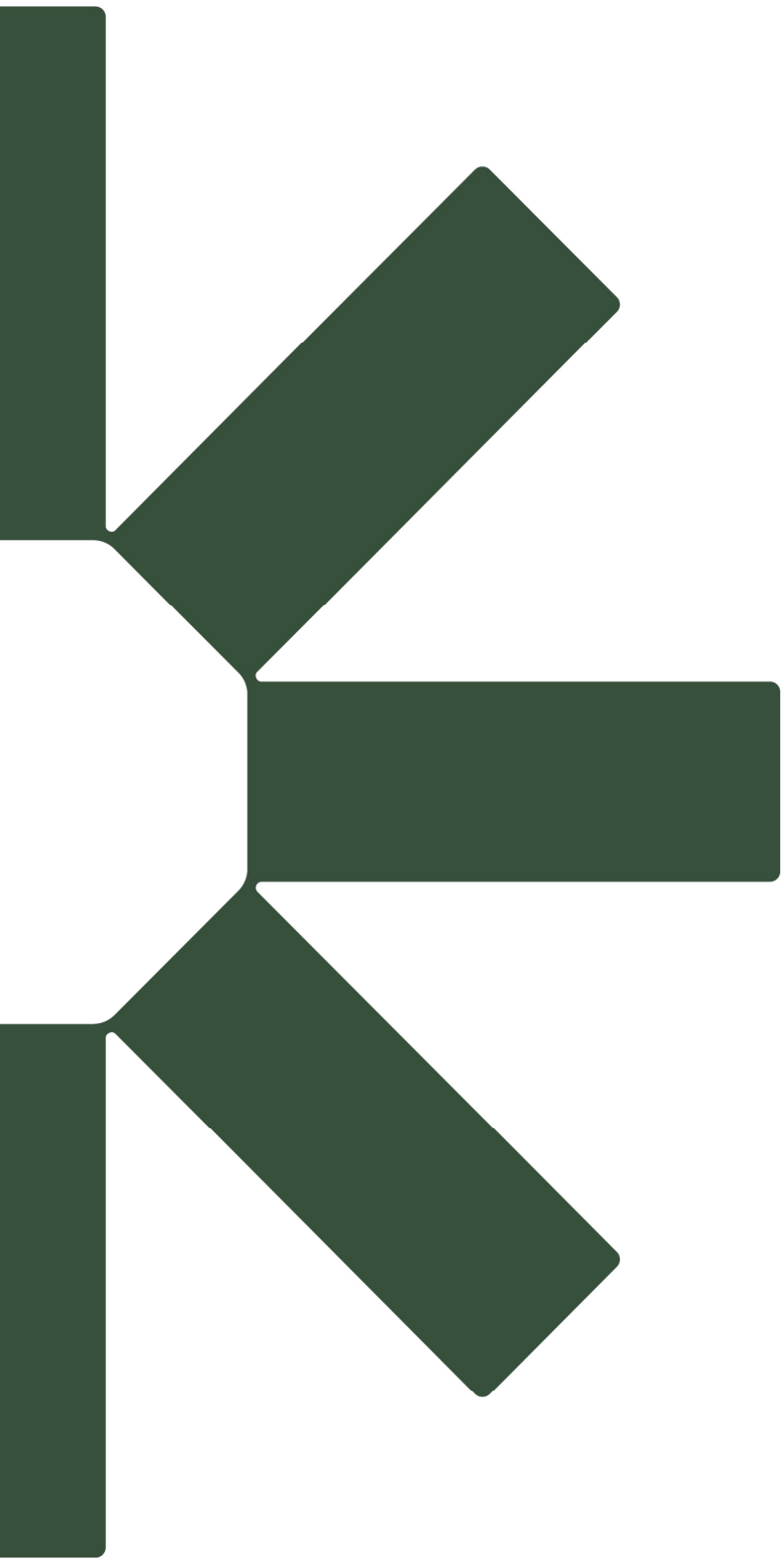
PERMITTING SET - NOT FOR CONSTRUCTION

300 BROAD STREET - ASSESSMENT AND REMEDIATION
REMEDIAL ACTIVITIES
300 BROAD STREET
BRISTOL, CT

DETAILS

---	GAB	MER
DESIGNED	DRAWN	CHECKED

SCALE: AS NOTED
DATE: APRIL 4, 2024
PROJECT NO.: 126.V20476.00001
SHEET NO.: 7 OF 7
SHEET NAME: DE-1



Making Sustainability Happen

For Office Use Only	
APPLICATION NO.	2028
DATE FILED:	4-25-24
DECISION DATE:	
DECISION:	

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

1. APPLICANT:

Name: Harold Fetherington Signature:

Address: 33 Stafford Ave City: Bristol State: CT Zip 06010

Telephone No.: 860 582 9541 EXT 206 ☐ home ☒ work Email: h.fetherington@adcomponents.com

2. PROPERTY OWNER(S):

Name: In Industrial Components INC Signature:

Address: 33 Stafford Ave City: Bristol State: CT Zip 06010

Telephone No.: 860 582 9541 EXT 206 ☐ home ☒ work Email: h.fetherington@adcomponents.com

3. DESCRIBE THE SUBJECT PROPERTY:

Address or Location:

Assessor's Map No.: Assessor's Lot No.(s):

Description of wetlands (location, approximate area to be disturbed, vegetation, etc.): NONE

4. DESCRIBE THE PROPOSED ACTIVITY AND ITS PURPOSE: Build A 4 BAY GARAGE

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.*

☐ 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:

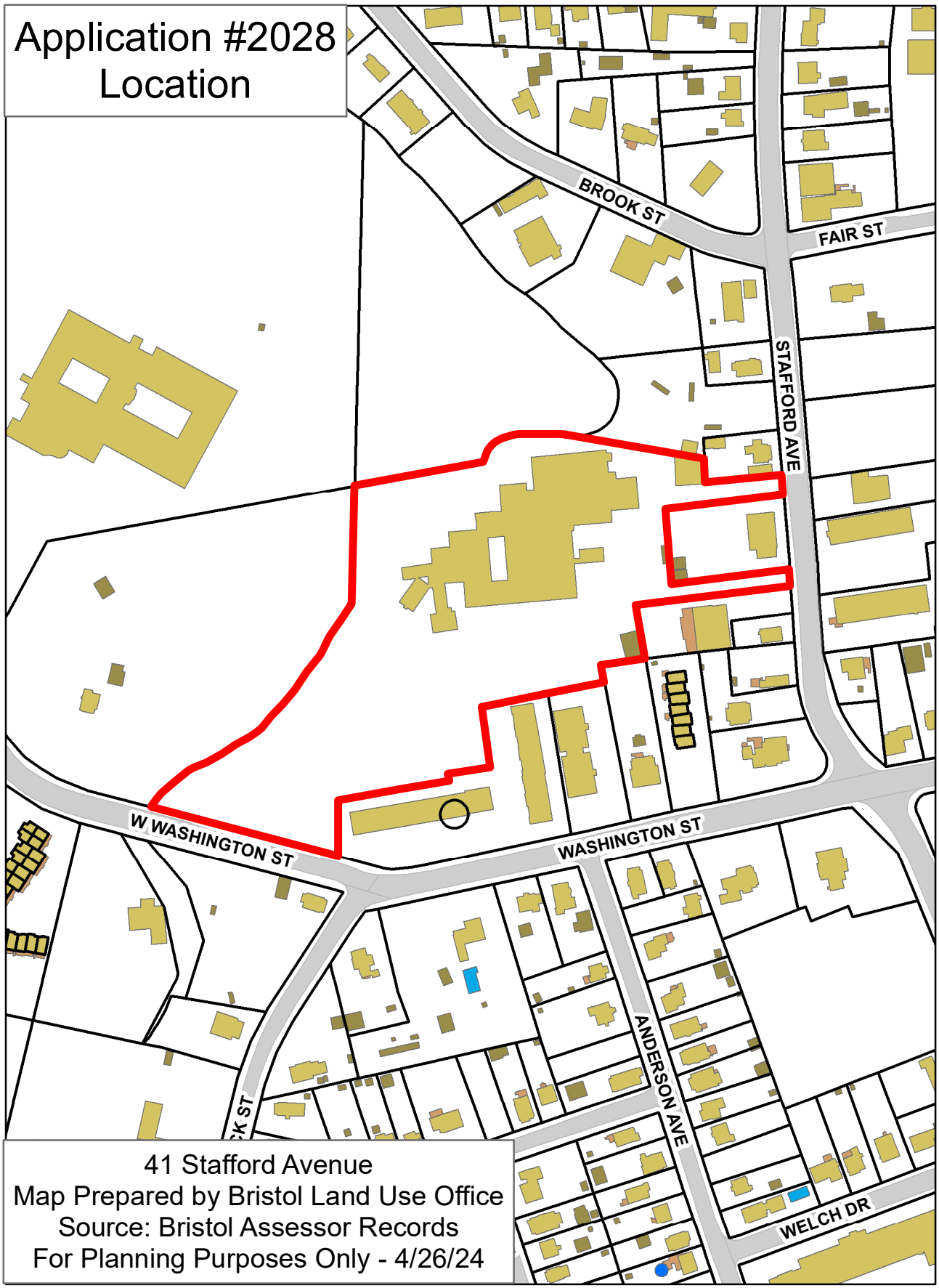
- ☐ in a wetlands or watercourse; area of impact: _____ SF (_____ acres)
- ☑ within 100 feet of a wetlands or watercourse; area of impact: _____ SF (_____ acres)
- ☐ beyond 100 feet of a wetlands or watercourse; area of impact: _____ SF (_____ acres)

6. FLOW CALCULATIONS:

Does a watercourse flow through the subject property?

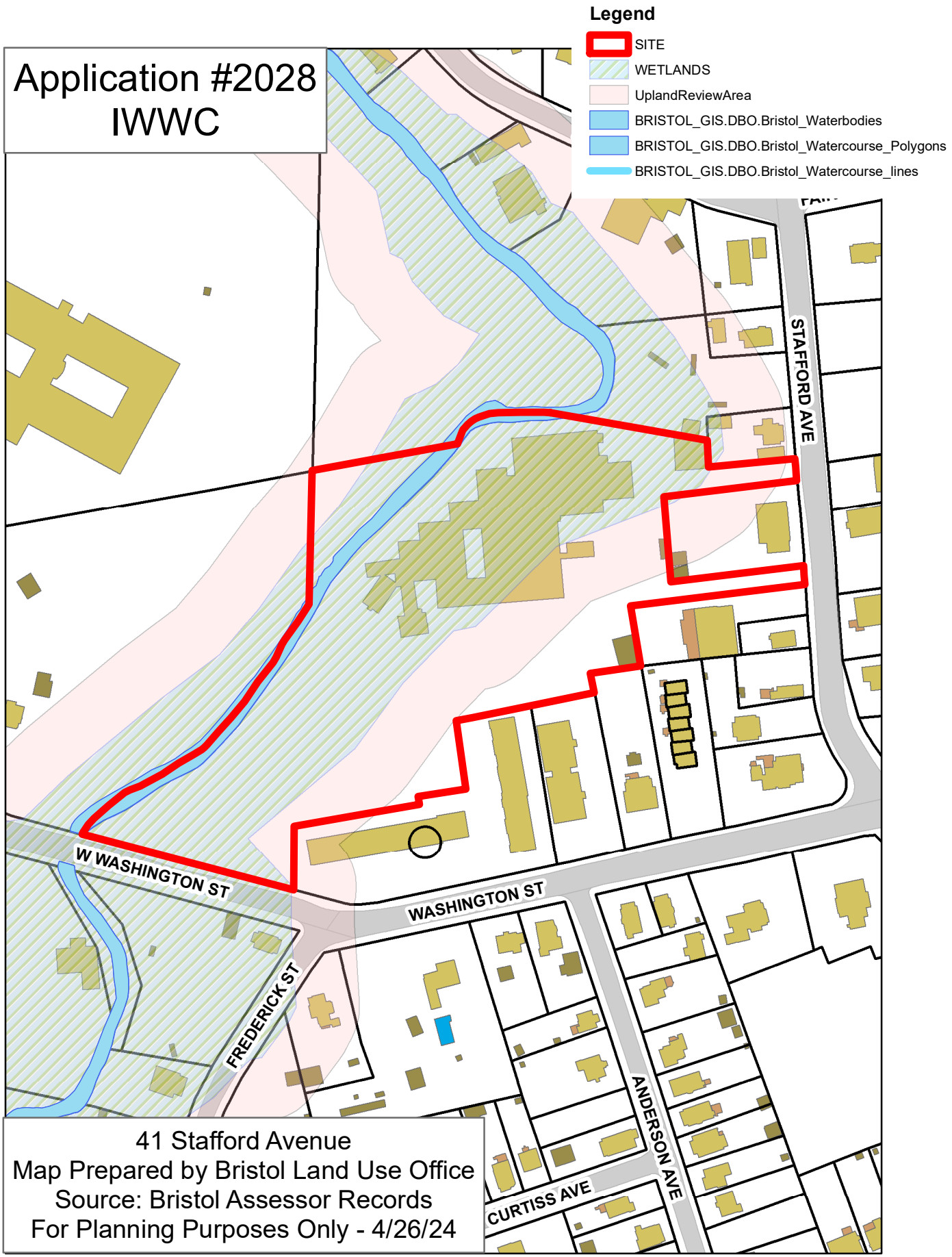
☑ yes ☐ no

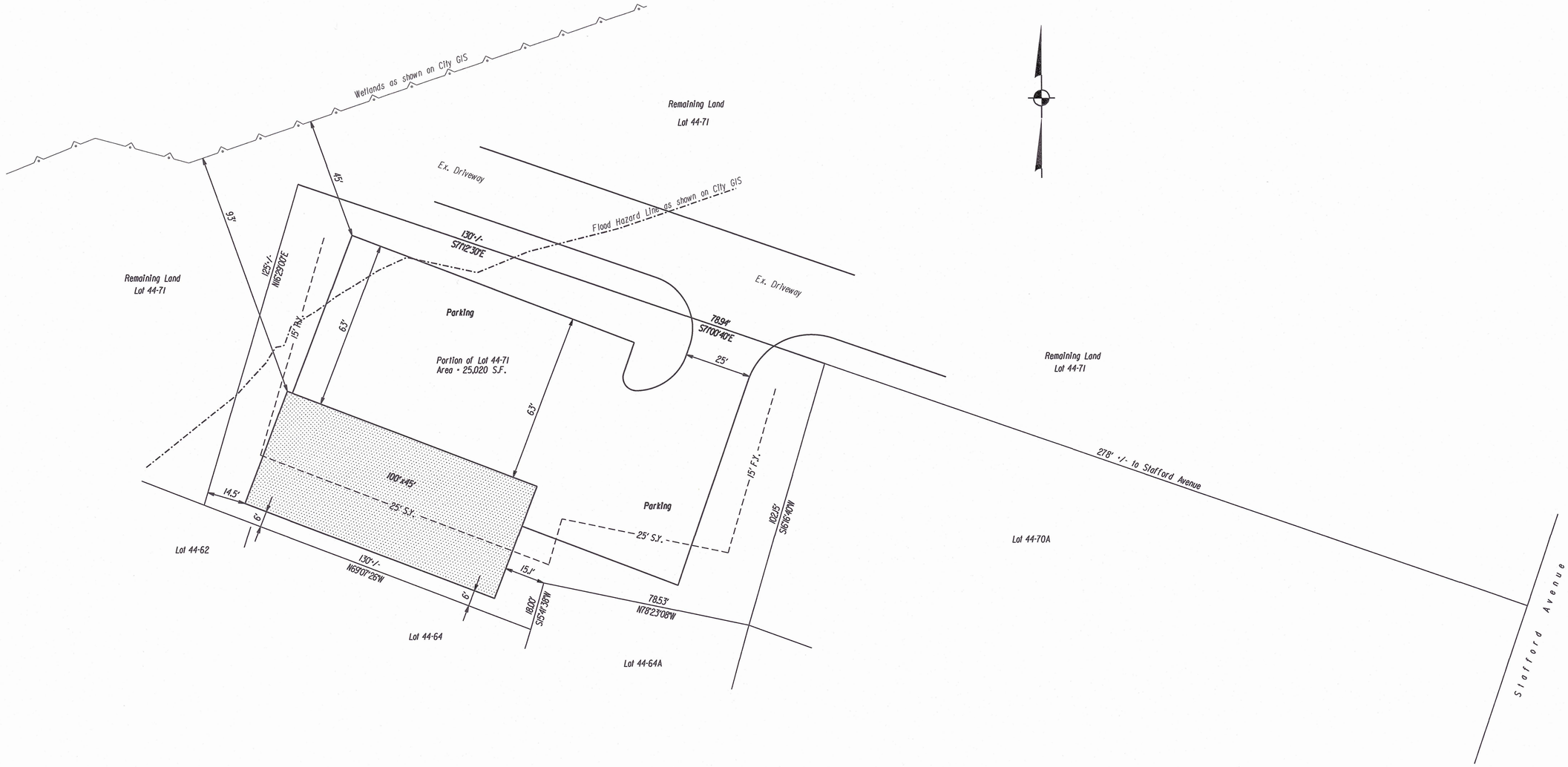
If "yes", see instructions for submission requirements.


Application #2028
Location
BROOK ST
FAIR ST
STAFFORD AVE
W WASHINGTON ST
WASHINGTON ST
ANDERSON AVE
WELCH DR
41 Stafford Avenue
Map Prepared by Bristol Land Use Office
Source: Bristol Assessor Records
For Planning Purposes Only - 4/26/24

Application #2028
Aerial

41 Stafford Avenue
Map Prepared by Bristol Land Use Office
Source: Bristol Assessor Records
For Planning Purposes Only - 4/26/24


Application #2028
IWWC
Legend
SITE
WETLANDS
UplandReviewArea
BRISTOL_GIS.DBO.Bristol_Waterbodies
BRISTOL_GIS.DBO.Bristol_Watercourse_Polygons
BRISTOL_GIS.DBO.Bristol_Watercourse_lines
STAFFORD AVE
W WASHINGTON ST
WASHINGTON ST
FREDERICK ST
ANDERSON AVE
CURTISS AVE
41 Stafford Avenue
Map Prepared by Bristol Land Use Office
Source: Bristol Assessor Records
For Planning Purposes Only - 4/26/24



REV.	DATE	REVISION DESCRIPTION

SURVEYOR SIGNATURE/BLOCK:

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

Robert Green Associates L.L.C.
Surveyors and Engineers
6 Old Waterbury Rd. Terryville, CT. 06786
Phone: (860)-589-0135 Fax: (860)-589-1342

ENGINEER SIGNATURE/BLOCK:

PROJECT TITLE:
PRELIMINARY PLAN FOR COLD STORAGE BUILDINGS
PORTION OF PROPERTY
OWNED BY
INDUSTRIAL COMPONENTS DIV. Inc
41 STAFFORD AVENUE
BRISTOL, CONNECTICUT

DATE: January 24. 2024

DRAWING NO.

SHEET NO.

For Office Use Only
APPLICATION NO. 2029
DATE FILED: 04-25-2024
DECISION DATE:
DECISION:

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

1. APPLICANT:

Name: Jeffrey Caggiano Signature:

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

Telephone No.: 860-584-6250 [ ] home [ ] work Email: mayorsoffice@bristolct.gov

2. PROPERTY OWNER(S):

Name: City of Bristol Signature:

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

Telephone No.: 860-584-6100 [ ] home [ ] work Email:

3. DESCRIBE THE SUBJECT PROPERTY:

Address or Location: Right of Way adjacent to 315-350 Divinity Street

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

Description of wetlands (location, approximate area to be disturbed, vegetation, etc.):
CT inland wetlands and a perennial watercourse are present within the Divinity Street culvert project limits. No Federal wetlands are present within the project area. The project is proposed to permanently impact 700 SF of watercourse and 420 SF of CT inland wetlands and temporarily impact 450 SF of watercourse and 360 SF of CT inland wetlands for a total of 1930 SF of activity in wetlands or watercourse. Further description of vegetation provided within attached Wetlands Report.

4. DESCRIBE THE PROPOSED ACTIVITY AND ITS PURPOSE:
The purpose of this project is to address the stuctural deficiency of the existing Divinity Street culvert which will be fully replaced. The project includes the replacement of existing Divinity Street culvert over Unnamed Brook and approximatly 140 ft of roadway reconstuction. The culvert will be competely removed and replaced with a precast box culvert buried with 18" of natural streambed material infilled through the full length.

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*.

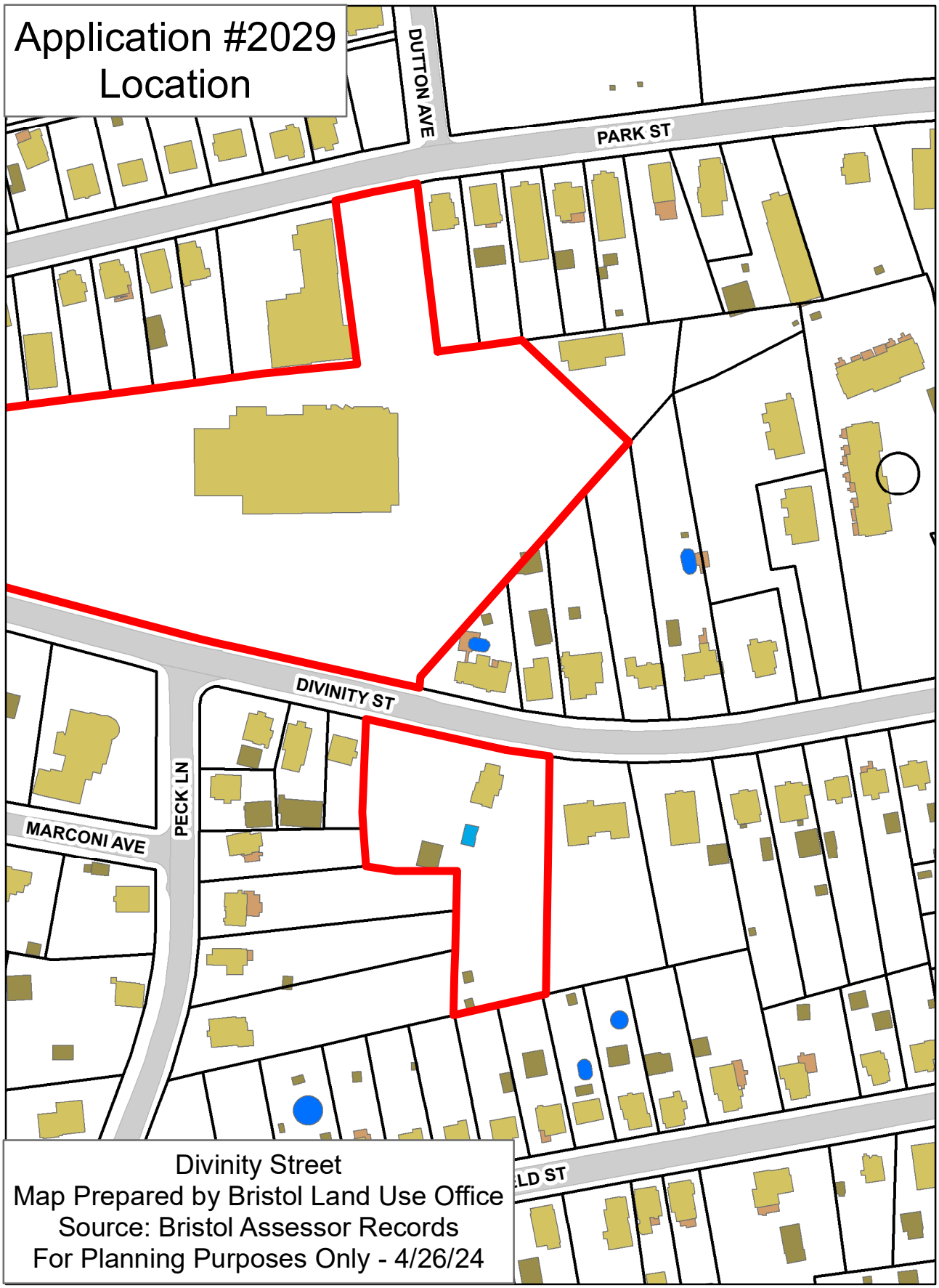
[ ] b. The proposed activity is not regulated because it is greater than 100 feet from a wetlands or watercourse or will not adversely affect the wetlands or watercourse. *See instructions for submission requirements*.

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

[X]	in a wetlands or watercourse;	area of impact:	1930	SF	0.045 acres)
[X]	within 100 feet of a wetlands or watercourse;	area of impact:	8870	SF	0.204 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?
[X] yes [ ] no
If "yes", see instructions for submission requirements.


Application #2029
Location
DUTTON AVE
PARK ST
DIVINITY ST
PECK LN
MARCONI AVE
Divinity Street
Map Prepared by Bristol Land Use Office
Source: Bristol Assessor Records
For Planning Purposes Only - 4/26/24

Application #2029
Aerial

Divinity Street
Map Prepared by Bristol Land Use Office
Source: Bristol Assessor Records
For Planning Purposes Only - 4/26/24

Application #2029
IWWC
Legend
WETLANDS
UplandReviewArea
BRISTOL_GIS.DBO.Bristol_Waterbodies
BRISTOL_GIS.DBO.Bristol_Watercourse_Polygons
BRISTOL_GIS.DBO.Bristol_Watercourse_lines
DUTTON AVE
DIVINITY ST
PECK LN
MARCONI AVE
Divinity Street
Map Prepared by Bristol Land Use Office
Source: Bristol Assessor Records
For Planning Purposes Only - 4/26/24

DIVINITY STREET CULVERT REPLACEMENT

CITY OF BRISTOL, CONNECTICUT

ADDITIONAL INFORMATION FOR: CITY OF BRISTOL CONSERVATION COMMISSION INLAND WETLANDS AGENCY

DATE: APRIL 2024

500 WINDING BROOK DRIVE
GLASTONBURY, CT 06033

TEL.: +1 860 633-8117
WSP.COM

Additional Information for
City of Bristol Conservation Commission Inland Wetlands Agency
Property Address: Divinity St over Unnamed Brook

Inland Wetlands and Watercourses Regulations of the Conservation Commission of the City of Bristol, CT
Section 7 Application Requirements

7.4 If the proposed activity involves a significant activity as defined in Section 2.1 of these regulations, additional information, based on the nature and anticipated effects of the activity, including but not limited to the following may be required.

a. Site plans for the proposed use or operation and the property which will be affected, which show existing and proposed conditions, wetland and watercourse boundaries, land contours, boundaries of land ownership, proposed alterations and uses of the wetlands and watercourses, and other pertinent features of the development drawn by a licensed surveyor, professional engineer or architect registered in the State of Connecticut or by such other person acceptable to the Agency;

Environmental Permit Plans titled "Replacement of Divinity Street Culvert Over Unnamed Brook"
Prepared by: WSP, Dated: March 2024.

b. Engineering reports and analyses and additional drawings to fully describe the proposed project and any filling, excavation, drainage or hydraulic modifications to watercourses;

Hydrology and Hydraulics Analysis Report, Prepared by: WSP, Dated: March 2024

c. Mapping of soil types consistent with the categories established by the National Cooperative Soil Survey of the U.S. Soil Conservation Service;

See Hydrology and Hydraulics Analysis Report, Prepared by: WSP, Dated: March 2024
Soil Map titled "Hydrologic Soil Group – State of Connecticut"

d. Description of the ecological communities and functions of the wetlands or watercourses involved with the application and the effects of the proposed regulated activities on these communities and wetland functions;

Wetland Report, Prepared by: Soil Science and Environmental Services, Inc., Dated: August 2, 2022

7.5 The applicant shall certify whether:

a. Any portion of the property on which the regulated activity is proposed is located within 500 feet of the boundary of an adjoining municipality;

NO

b. Traffic attributable to the completed project on the site will use streets within an adjoining municipality to enter or exit the site;

NO

c. Sewer or water drainage from the project site will flow through and impact the sewage or drainage system within the adjoining municipality; or,

NO

d. Water run-off from the improved site will impact streets or other municipal or private property within the adjoining
municipality.

NO

Executive Summary

State Project No. L-017-0004
Replacement of Divinity Street Culvert over Unnamed Brook
Bristol, Connecticut

Project Description

WSP USA Inc. (WSP) was engaged by the City of Bristol (City) to provide engineering services for the complete replacement of the Divinity Street Culvert which carries an unnamed brook. The structure that is estimated to have been built in 1913 is scheduled to be replaced under the Divinity Street Culvert Replacement ("the Project"). The project limits start approximately 200 feet east of the intersection of Divinity Street and Peck Lane and extend approximately 140 feet east.

Figure 1- Aerial image with 1-foot contours of site

The overall project consists of reconstructing a portion of Divinity Street over the culvert. The improvements include replacement of the existing culvert at the unnamed brook; revised stormwater drainage system including catch basins, manholes, and outlets; full-depth roadway reconstruction; new concrete sidewalk on the north side of the roadway; and signing and pavement markings.

The existing open-bottomed culvert is a reinforced concrete slab supported by masonry walls providing approximately five feet by five feet opening, estimated to have been built in 1913. During a storm event in September 2021 the culvert overtopped and a large portion of the northeast embankment (downstream right side) eroded away. There are existing sanitary and water utilities which run under the existing culvert which are exposed in the streambed and an existing gas utility which runs over the existing culvert. There are existing stormwater drainage networks located to the east and to the west of the culvert which discharge directly into the culvert and catch basins on the north and south gutterlines which discharge into the roof of the culvert.

The proposed structure type is a 6 feet by 8 feet precast box culvert that will be buried and infilled with an 18-inch minimum depth of natural streambed material throughout its length for a hydraulic waterway opening of 4.5 feet by 8 feet. Headwalls and wingwalls will be constructed of reinforced cast in place concrete. The existing sanitary and water utilities will be relocated below the proposed culvert. The gas

utility will be reconstructed over the proposed culvert. The existing stormwater drainage networks will be slightly reconfigured and discharge through outlet pipes in the downstream northeast and northwest wingwalls. The final catch basin in the new eastern system will include a four foot deep sump.

The total project length along the roadway is 140 feet. During the culvert demolition and reconstruction activities, the roadway will be closed with public access restricted between the Peck Lane and View Street intersections.

The total project length along the centerline of the unnamed brook is approximately 150 feet, including the 52 feet of culvert. At the northeast corner (downstream right embankment) the collapsed northeast embankment will be supported with an extended wingwall. All other corners will be regraded to a maximum of 1.5H:1 and consist of modified riprap topped with 12” depth of natural streambed material upstream of the culvert and standard riprap topped with 12" depth of natural streambed material downstream of the culvert. During the culvert demolition and reconstruction activities, temporary water-handling-cofferdams are proposed with temporary bypass pumping around the construction site.

At the Project, Divinity Street is generally an east-west roadway and is classified as an urban local road with an average daily traffic of approximately 4,600 vehicles and a posted speed limit of 25 mph. For the length of the project, Divinity Street will be constructed to a 30-foot-wide roadway with one 11-foot lane and a four-foot shoulder in each direction. The widths slightly vary at the project limits to tie into the existing roadway geometry.

Hydraulic Considerations

At the Project, the Unnamed Brook flows generally south to north. The watershed area for the Unnamed Brook at the Divinity Street culvert is 0.71± square miles (457± acres). Since the culvert drainage area is less than 1 square mile, the CTDOT Drainage Manual, Chapter 8, Table 8-4, classifies this crossing as a Small Structure. The design frequency for a Small Structure is 50-year with a check frequency of 100-year.

As previously discussed, the proposed culvert will increase the span, which in turn will improve the hydraulic capacity. The proposed culvert will improve the hydraulic capacity, however, will not allow for the continuous uninterrupted flow of the 50-year flood event. HEC-RAS calculations indicate that the water surface elevation overtops the road at the proposed culvert during a storm event between a 25-year and 50-year flood event. The 25-year flood is 322 cfs and the 50-year flood is 402 cfs per StreamStats computations.

An existing and proposed model were generated utilizing HEC-RAS. The existing hydraulic model indicates that the road is overtopped with approximate 0.7 feet of water during the 50-year storm (water surface elevation 376.04), whereas the proposed model indicates that the road is overtopped with approximately 0.1 feet of water (water surface elevation 375.39).

The proposed 8' wide hydraulic opening width will provide less than the recommended Best Management Practice of 1.2 times the bank full width (BFW). The bank full width is 7.25'. The proposed 8' width provides 1.1 times the BFW.

The proposed 8' wide hydraulic opening provides 32.8 square feet of open area hydraulic conveyance through the culvert. With a 52 feet length, this results in an openness ration of 0.63 ft which is less than the recommended Best Management Practice of 0.82 ft. In order to provide then 0.82 ft openness ratio while maintaining the proposed length, the width would need to increase to 11 feet or while maintaining the proposed open area, the length would need to decrease to 40 feet. Both of these are not feasible given the site constraints. The width can not be increased due to the adjacent existing driveways and properties and the length can not be decreased due to maintaining the necessary road width with sidewalks and clear zones.

The proposed 8' wide culvert would need to increase to 10' in width in order to convey the 50-year flood frequency. Similar to the openness ratio discussed above this is not feasible given the site constraints.

Included Attachments:

- Wetland Report, Prepared by: Soil Science and Environmental Services, Inc., Dated: August 2, 2022
- Divinity Street Culvert Replacement, City of Bristol, Hydrology and Hydraulics Analysis Report, Prepared by: WSP, Dated: March 2024
- Hydraulics Summary

U.S. Army Corps of Engineers (USACE)

APPLICATION FOR DEPARTMENT OF THE ARMY PERMIT

For use of this form, see 33 CFR 325. The proponent agency is CECW-CO-R.

Form Approved - OMB No. 0710-0003 Expires: 08-31-2023

The public reporting burden for this collection of information, OMB Control Number 0710-0003, is estimated to average 11 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or burden reduction suggestions to the Department of Defense, Washington Headquarters Services, at whs.mc-alex.esd.mbx.dd-dod-information-collections@mail.mil. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number. PLEASE DO NOT RETURN YOUR APPLICATION TO THE ABOVE EMAIL.

PRIVACY ACT STATEMENT

Authorities: Rivers and Harbors Act, Section 10, 33 USC 403; Clean Water Act, Section 404, 33 USC 1344; Marine Protection, Research, and Sanctuaries Act, Section 103, 33 USC 1413; Regulatory Programs of the Corps of Engineers; Final Rule 33 CFR 320-332. Principal Purpose: Information provided on this form will be used in evaluating the application for a permit. Routine Uses: This information may be shared with the Department of Justice and other federal, state, and local government agencies, and the public and may be made available as part of a public notice as required by Federal law. Submission of requested information is voluntary, however, if information is not provided the permit application cannot be evaluated nor can a permit be issued. One set of original drawings or good reproducible copies which show the location and character of the proposed activity must be attached to this application (see sample drawings and/or instructions) and be submitted to the District Engineer having jurisdiction over the location of the proposed activity. An application that is not completed in full will be returned. System of Record Notice (SORN). The information received is entered into our permit tracking database and a SORN has been completed (SORN #A1145b) and may be accessed at the following website: http://dpcld.defense.gov/Privacy/SORNsIndex/DOD-wide-SORN-Article-View/Article/570115/a1145b-ce.aspx

(ITEMS 1 THRU 4 TO BE FILLED BY THE CORPS)

1. APPLICATION NO.	2. FIELD OFFICE CODE	3. DATE RECEIVED	4. DATE APPLICATION COMPLETE

(ITEMS BELOW TO BE FILLED BY APPLICANT)

5. APPLICANT'S NAME	8. AUTHORIZED AGENT'S NAME AND TITLE (agent is not required)
First - Raymond Middle - Last - Rogozinski	First - Jodi Middle - Last - Constant
Company - City of Bristol	Company - WSP USA
E-mail Address - raymondrogozinski@bristolct.gov	E-mail Address - Jodi.Constant@wsp.com
6. APPLICANT'S ADDRESS:	9. AGENT'S ADDRESS:
Address- 111 North Main Street	Address- 500 Winding Brook Drive
City - Bristol State - CT Zip - 06010 Country - USA	City - Glastonbury State - CT Zip - 06033 Country - USA
7. APPLICANT'S PHONE NOs. w/AREA CODE	10. AGENTS PHONE NOs. w/AREA CODE
a. Residence b. Business 860-584-6125 c. Fax	a. Residence b. Business 860-815-0301 c. Fax

STATEMENT OF AUTHORIZATION

11. I hereby authorize, Jodi Constant, P.E. to act in my behalf as my agent in the processing of this application and to furnish, upon request, supplemental information in support of this permit application.

SIGNATURE OF APPLICANT DATE

NAME, LOCATION, AND DESCRIPTION OF PROJECT OR ACTIVITY

12. PROJECT NAME OR TITLE (see instructions)
Replacement of Divinity Street Culvert over Unnamed Brook

13. NAME OF WATERBODY, IF KNOWN (if applicable)	14. PROJECT STREET ADDRESS (if applicable)
Unnamed Brook	Address 315-350 Divinity Street
15. LOCATION OF PROJECT	City - Bristol State- CT Zip- 06010
Latitude: ◦N 41.67047° Longitude: ◦W 72.96144°	

16. OTHER LOCATION DESCRIPTIONS, IF KNOWN (see instructions)

State Tax Parcel ID Municipality

Section - Township - Range -

27. Application is hereby made for permit or permits to authorize the work described in this application. I certify that this information in this application is complete and accurate. I further certify that I possess the authority to undertake the work described herein or am acting as the duly authorized agent of the applicant.

SIGNATURE OF APPLICANT	DATE	SIGNATURE OF AGENT	DATE
		Jodi Constant	3/8/2024

The Application must be signed by the person who desires to undertake the proposed activity (applicant) or it may be signed by a duly authorized agent if the statement in block 11 has been filled out and signed.

18 U.S.C. Section 1001 provides that: Whoever, in any manner within the jurisdiction of any department or agency of the United States knowingly and willfully falsifies, conceals, or covers up any trick, scheme, or disguises a material fact or makes any false, fictitious or fraudulent statements or representations or makes or uses any false writing or document knowing same to contain any false, fictitious or fraudulent statements or entry, shall be fined not more than $10,000 or imprisoned not more than five years or both.

Part VI: Applicant Certification

The applicant(s) *and* any individual(s) responsible for actually preparing the application must sign this section. An application will be considered insufficient unless *all* required signatures are provided.

"I have personally examined and am familiar with the information submitted in the LWRD application and all attachments thereto, and I certify that based on reasonable investigation, including my inquiry of the individuals responsible for obtaining the information, the submitted information is true, accurate and complete to the best of my knowledge and belief.

I understand that a false statement in the submitted information may be punishable as a criminal offense, in accordance with section 22a-6 of the General Statutes, pursuant to section 53a-157b of the General Statutes, and in accordance with any other applicable statute.

I certify that the LWRD application is on complete and accurate forms as prescribed by the commissioner without alteration of the text.

I certify that I have complied with all notice requirements, if applicable, as listed in Section 22a-6g of the General Statutes."

Signature of Applicant	Date
Raymond Rogozinski, City of Bristol	
Name of Applicant (print or type)	Title (if applicable)
Jodi Constant	3/8/2024
Signature of Preparer (if different than above)	Date
Jodi Constant, P.E.	Senior Consultant Structural Engineer
Name of Preparer (print or type)	Title (if applicable)

☒ Check here if additional signatures are required. If so, please reproduce this sheet and attach signed copies to this sheet as Attachment D. You must include signatures of any person preparing any report or parts thereof required in this application (i.e., professional engineers, surveyors, soil scientists, consultants, etc.).

Part VII: Application Submission

Instructions for submitting an application to DEEP LWRD:

1. Please submit a hardcopy of **only** this completed License Application Transmittal Form and fee, to:

   CENTRAL PERMIT PROCESSING UNIT
   DEPARTMENT OF ENERGY & ENVIRONMENTAL PROTECTION
   79 ELM STREET
   HARTFORD, CT 06106-5127

   Applications will not be processed without the fee. Fee shall be non-refundable and shall be paid by check or money order to the Connecticut Department of Energy & Environmental Protection. State Agencies should submit the applicable registration/application package ***without*** the application fee and check the box in Part I to indicate the fee will be paid by Inter-Agency Transfer of Funds.

2. Upon receipt of the Transmittal Form and fee, the Central Permit Processing Unit (CPPU) will e-mail a confirmation receipt letter to you containing the DEEP assigned application number.

3. Upon receipt of the email from CPPU, electronically submit the full application package with the remaining required forms:
   a. Send an empty/blank email to DEEP.LWRDRegulatorySubmittals@ct.gov
   b. An automated email response will contain instructions for uploading this Transmittal Form and applicable Program Forms, management plans, or additional supporting documents of your application to the LWRD File Transfer Protocol (FTP) website.
   c. Follow directions contained in the email for uploading the application sections.

If you are not capable of submitting the application electronically or if you have other questions or concerns regarding application submittals, please contact LWRD staff at 860-424-3019.

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I certify that I have complied with all notice requirements, if applicable, as listed in Section 22a-6g of the General Statutes."

Signature of Applicant	Date
Raymond Rogozinski, City of Bristol Name of Applicant (print or type)	Title (if applicable)
Digitally signed by Kati Mercier DN: C=US, E=kati.mercier@wsp.com, O=WSP USA, CN=Kati Mercier Date: 2024.03.07 18:51:36-05'00' Signature of Preparer (if different than above)	Date
Kati L. Mercier, P.E. Name of Preparer (print or type)	Lead Civil Engineer Title (if applicable)

☒ Check here if additional signatures are required. If so, please reproduce this sheet and attach signed copies to this sheet as Attachment D. You must include signatures of any person preparing any report or parts thereof required in this application (i.e., professional engineers, surveyors, soil scientists, consultants, etc.).

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I certify that I have complied with all notice requirements, if applicable, as listed in Section 22a-6g of the General Statutes."

Signature of Applicant	Date
Raymond Rogozinski, City of Bristol Name of Applicant (print or type)	Title (if applicable)
Thomas R. Laliberte Signature of Preparer (if different than above)	3/1/2024 Date
Thomas R. Laliberte, P.E. Name of Preparer (print or type)	Vice President, Structural Engineering Title (if applicable)

☒ Check here if additional signatures are required. If so, please reproduce this sheet and attach signed copies to this sheet as Attachment D. You must include signatures of any person preparing any report or parts thereof required in this application (i.e., professional engineers, surveyors, soil scientists, consultants, etc.).

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I certify that I have complied with all notice requirements, if applicable, as listed in Section 22a-6g of the General Statutes."

Signature of Applicant	Date
Raymond Rogozinski, City of Bristol Name of Applicant (print or type)	Title (if applicable)
Scott D. Stevens Signature of Preparer (if different than above)	3-8-2024 Date
Scott D. Stevens Name of Preparer (print or type)	Registered Professional Soil Scientist Title (if applicable)

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Signature of Applicant	Date
Raymond Rogozinski, City of Bristol Name of Applicant (print or type)	Title (if applicable)
Allison McCauliffe Signature of Preparer (if different than above)	3/12/2024 Date
Allison M. McCauliffe, P.E. Name of Preparer (print or type)	Senior Geotechnical Engineer/ Project Manager Title (if applicable)

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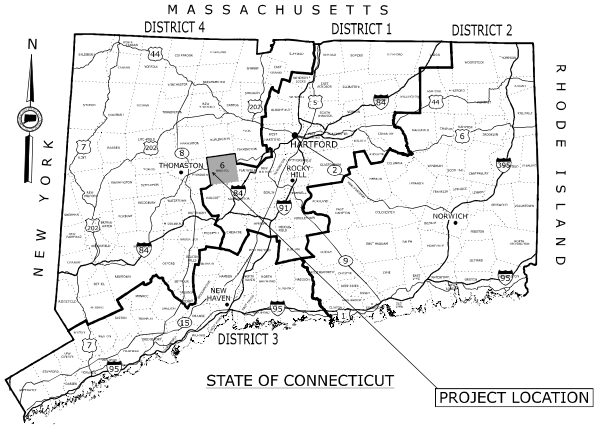
Plans For

REPLACEMENT OF DIVINITY STREET CULVERT OVER UNNAMED BROOK

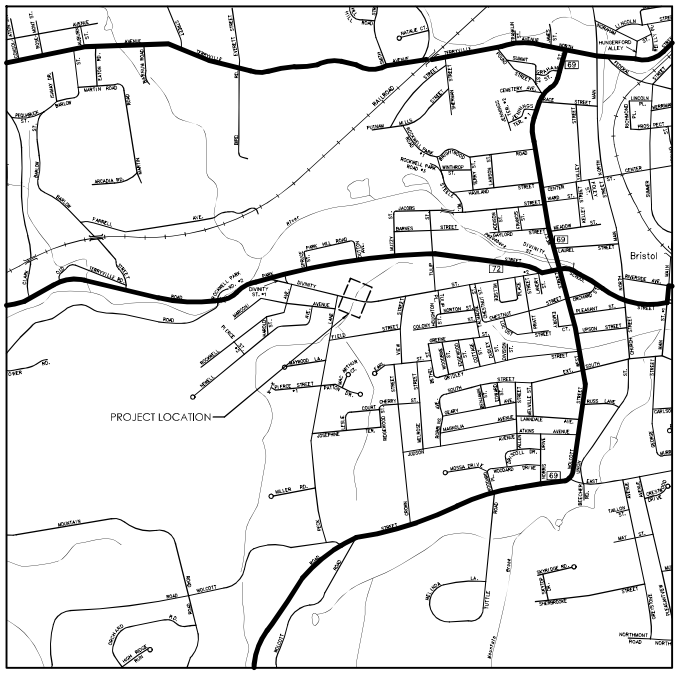


Town(s)/City of

CITY OF BRISTOL

ROAD	MAINTENANCE RESPONSIBILITY	LENGTH
DIVINTY STREET	CITY OF BRISTOL	140 FEET

F.A.P. #	MAINTENANCE RESPONSIBILITY	PROJECT #
####(###)	CITY	L017-0004



LOCATION PLAN
NOT TO SCALE

GENERAL NOTES:

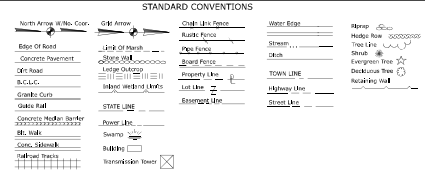
1. THESE PLANS ARE NOT FOR CONSTRUCTION AND ARE INTENDED ONLY FOR ENVIRONMENTAL PERMITTING PURPOSES. THESE PLANS HOLD AUTHORITY FOR ALL ACTIVITIES CONCERNING THE REGULATED AREA. FOR DETAILIED PLANIMETRIC INFORMATION AND PAYMENT, REFER TO THE APPLICABLE CONTRACT DOCUMENTS.
2. REVISIONS WILL ONLY BE SUBMITTED FOR CHANGES TO THE DESIGN THAT WILL AFFECT REGULATED AREAS.
3. FOR A DESCRIPTION OF THE WATERCOURSES, WETLANDS, AND WETLAND SOILS SEE RELAVANT SECTIONS OF THE PERMIT APPLICATION.
4. CONSTRUCTION SPECIFICATIONS: State of Connecticut Department of Transportation, Standard Specifications for Roads, Bridges, Facilities and Incidental Construction, Form 818, dated 2020; Supplemental Specifications, dated July 2023; and Special Provisions
5. 400 FOOT GRID BASED ON CONNECTICUT COORDINATESYSTEM N.A.D. 1983
6. VERTICAL DATUM BASED ON NAVD 1988
7. SURVEYED BY: CLARK LAND SURVEYING, LLC
8. WETLAND FLAGGING BY: SOIL SCIENCE AND ENVIRONMENTAL SERVICES, INC
9. ALL CONSTRUCTION ACTIVITIES WILL BE CONDUCTED IN ACCORDANCE WITH THE DEPARTMENT STANDARD SPECIFICATIONS FOR ROADS, BRIDGES, FACILITIES AND INCIDENTAL CONSTRUCTION, FORM 818, SECTION 1.10 AND WILL ALSO FOLLOW REQUIRED BEST MANAGEMENT PRACTICES (BMPs) AND SEDIMENT AND EROSION CONTROL MEASURES IN ACCORDANCE WITH THE 2024 CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL AND THE 2024 CONNECTICUT STORMWATER QUALITY MANUAL.

ENVIRONMENTAL PERMIT PLANS

LIST OF DRAWINGS

SHEET NO.	DRAWING TITLE
PMT-01	TITLE SHEET
PMT-02	GENERAL ROADWAY PLAN
PMT-03	WETLAND/WATERCOURSE IMPACT PLAN
PMT-04	ELEVATION AND SECTION PLAN
PMT-05	STAGING AND WATER HANDLING PLAN
PMT-06	PERMIT PLANTING PLAN

STANDARD CONVENTIONS



Thomas R. Laliberte
WSP USA
2024.03.07 10:26:51-05'00'

SUBMITTED BY: TRANSPORTATION PRINCIPAL ENGINEER -

APPROVAL RECOMMENDED BY: MANAGER OF -

APPROVED BY: TRANSPORTATION ENGINEERING ADMINISTRATOR - Scott A. Hill, P.E.

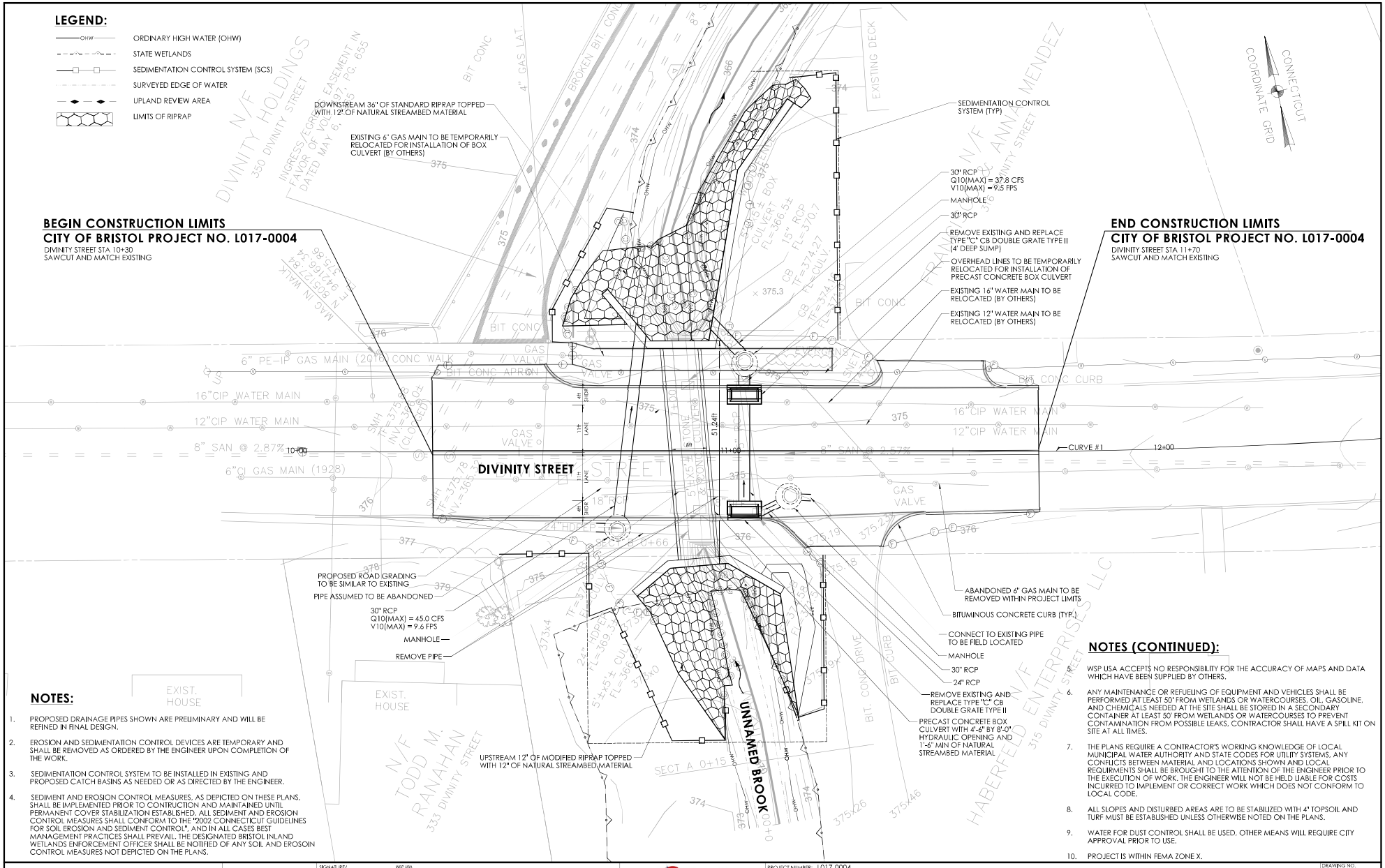
Plans For
REPLACEMENT OF DIVINITY STEET CULVERT OVER UNNAMED BROOK

Town(s)/City
CITY OF BRISTOL

STATE PROJECT NO.
L017-0004

DRAWING NO.
PMT-01

SHEET NO.
1



NOTES:

1. PROPOSED DRAINAGE PIPES SHOWN ARE PRELIMINARY AND WILL BE REFINED IN FINAL DESIGN.
2. EROSION AND SEDIMENTATION CONTROL DEVICES ARE TEMPORARY AND SHALL BE REMOVED AS ORDERED BY THE ENGINEER UPON COMPLETION OF THE WORK.
3. SEDIMENTATION CONTROL SYSTEM TO BE INSTALLED IN EXISTING AND PROPOSED CATCH BASINS AS NEEDED OR AS DIRECTED BY THE ENGINEER.
4. SEDIMENT AND EROSION CONTROL MEASURES, AS DEPICTED ON THESE PLANS, SHALL BE IMPLEMENTED PRIOR TO CONTRUCTION AND MAINTAINED UNTIL PERMANENT COVER STABILIZATION ESTABLISHED. ALL SEDIMENT AND EROSION CONTROL MEASURES SHALL CONFORM TO THE "2002 CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL", AND IN ALL CASES BEST MANAGEMENT PRACTICES SHALL PREVAIL. THE DESIGNATED BRISTOL INLAND WETLANDS ENFORCEMENT OFFICER SHALL BE NOTIFIED OF ANY SOIL AND EROSOIN CONTROL MEASURES NOT DEPICTED ON THE PLANS.

NOTES (CONTINUED):

5. WSP USA ACCEPTS NO RESPONSIBILITY FOR THE ACCURACY OF MAPS AND DATA WHICH HAVE BEEN SUPPLIED BY OTHERS.
6. ANY MAINTENANCE OR REFUELING OF EQUIPMENT AND VEHICLES SHALL BE PERFORMED AT LEAST 50' FROM WETLANDS OR WATERCOURSES. OIL, GASOLINE, AND CHEMICALS NEEDED AT THE SITE SHALL BE STORED IN A SECONDARY CONTAINER AT LEAST 50' FROM WETLANDS OR WATERCOURSES TO PREVENT CONTAMINATION FROM POSSIBLE LEAKS. CONTRACTOR SHALL HAVE A SPILL KIT ON SITE AT ALL TIMES.
7. THE PLANS REQUIRE A CONTRACTOR'S WORKING KNOWLEDGE OF LOCAL MUNICIPAL WATER AUTHORITY AND STATE CODES FOR UTILITY SYSTEMS. ANY CONFLICTS BETWEEN MATERIAL AND LOCATIONS SHOWN AND LOCAL REQUIREMENTS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO THE EXECUTION OF WORK. THE ENGINEER WILL NOT BE HELD LIABLE FOR COSTS INCURRED TO IMPLEMENT OR CORRECT WORK WHICH DOES NOT CONFORM TO LOCAL CODE.
8. ALL SLOPES AND DISTURBED AREAS ARE TO BE STABILIZED WITH 4" TOPSOIL AND TURF MUST BE ESTABLISHED UNLESS OTHERWISE NOTED ON THE PLANS.
9. WATER FOR DUST CONTROL SHALL BE USED. OTHER MEANS WILL REQUIRE CITY APPROVAL PRIOR TO USE.
10. PROJECT IS WITHIN FEMA ZONE X.

ENVIRONMENTAL PERMIT PLANS

DESIGNER/DRAFTER: BH CHECKED BY: KLM

0 10ft 20ft
HORIZONTAL SCALE
1" = 10ft

SIGNATURE/ BLOCK:

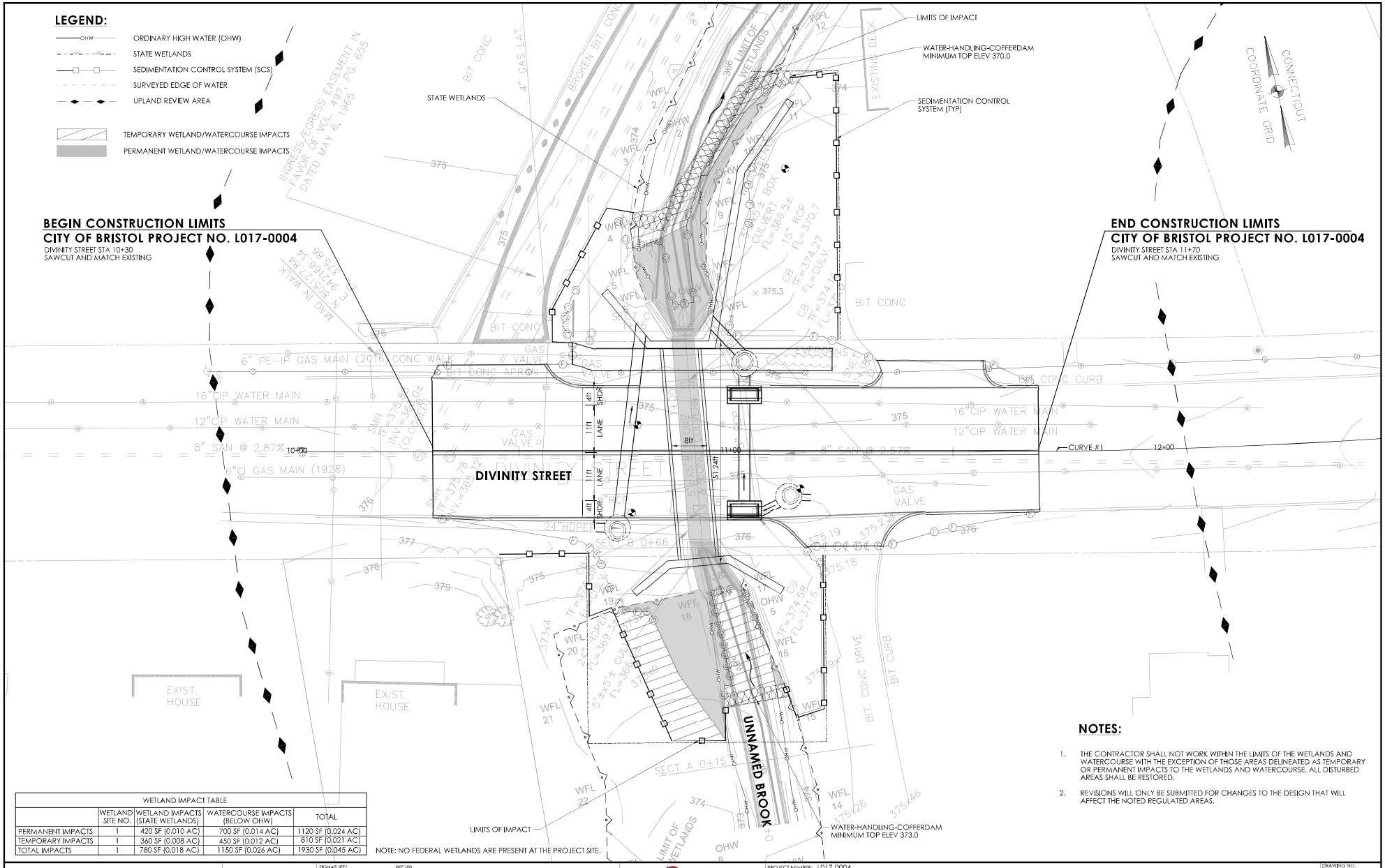
WSP USA
500 WINDING BROOK DR.
GLASTONBURY, CT 06033

Bristol CONNECTICUT Hot Metal

PROJECT NUMBER: L017-0004
PROJECT DESCRIPTION: REPLACEMENT OF DIVINITY STREET CULVERT OVER UNNAMED BROOK
TOWN(S): BRISTOL
DRAWING TITLE: GENERAL ROADWAY PLAN

DRAWING NO. PMT-02
SHEET NO. 2

LASTED SAVED BY: greenej FILE NAME: c:\bmd\wsp-cd-ul-px-02\wsp_jodi.greene\d0285635\HW_MSH_017_0000_HWY-01_Permit.dgn
PLOTTED DATE: 3/6/2024



WETLAND IMPACT TABLE				
	WETLAND SITE NO.	WETLAND IMPACTS (STATE WETLANDS)	WATERCOURSE IMPACTS (BELOW OHW)	TOTAL
PERMANENT IMPACTS	1	420 SF (0.010 AC)	700 SF (0.014 AC)	1120 SF (0.024 AC)
TEMPORARY IMPACTS	1	360 SF (0.008 AC)	450 SF (0.012 AC)	810 SF (0.021 AC)
TOTAL IMPACTS	1	780 SF (0.018 AC)	1150 SF (0.026 AC)	1930 SF (0.045 AC)

ENVIRONMENTAL PERMIT PLANS

DESIGNER/DRAFTER: BH CHECKED BY: KLM

HORIZONTAL SCALE 1" = 10ft

SIGNATURE/ BLOCK:

WSP USA
500 WINDING BROOK DR.
GLASTONBURY, CT 06033

PROJECT NUMBER: L017-0004
PROJECT DESCRIPTION: REPLACEMENT OF DIVINITY STREET CULVERT OVER UNNAMED BROOK
TOWN(S): BRISTOL
DRAWING TITLE: WETLAND/WATERCOURSE IMPACT PLAN

DRAWING NO. PMT-03
SHEET NO. 3

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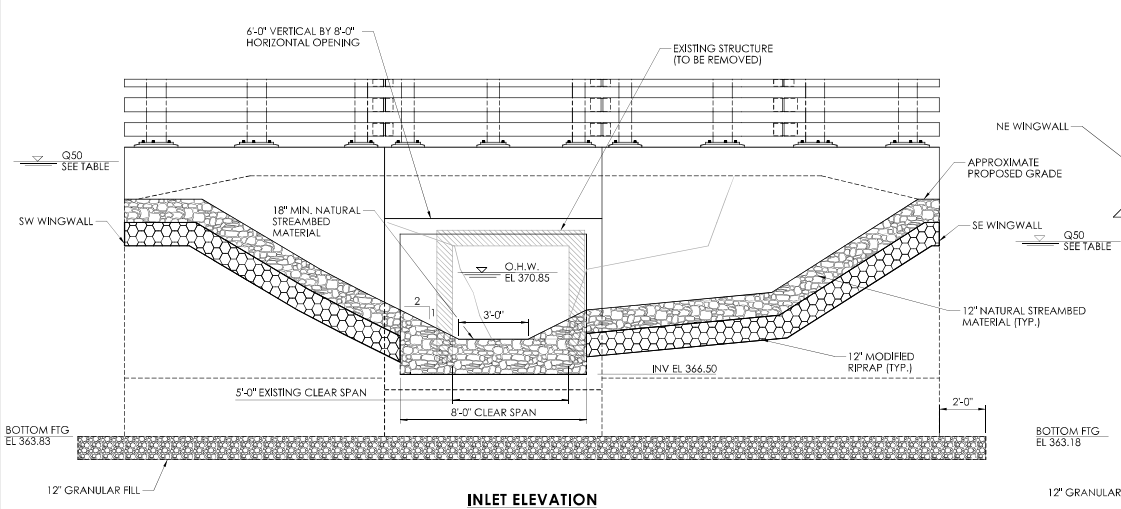
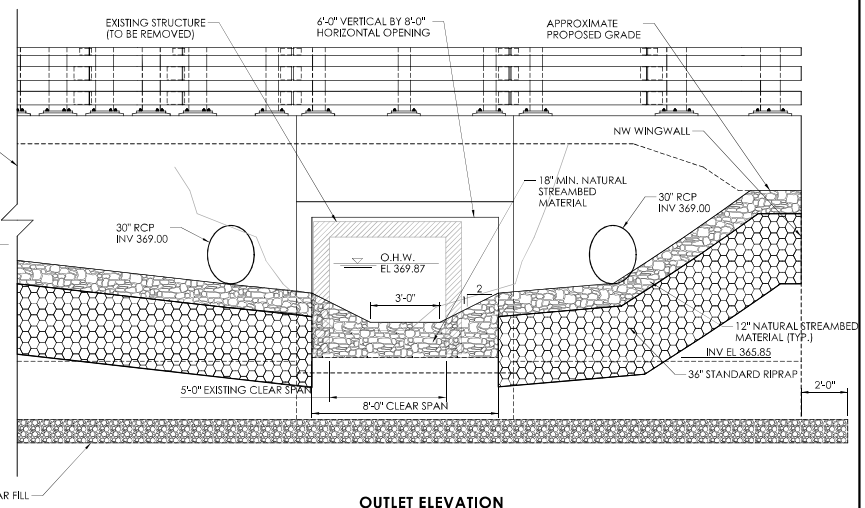
PLOTTED DATE: 3/6/2024



INLET ELEVATION
SCALE: 1" = ⅜"



OUTLET ELEVATION
SCALE: 1" = ⅜"

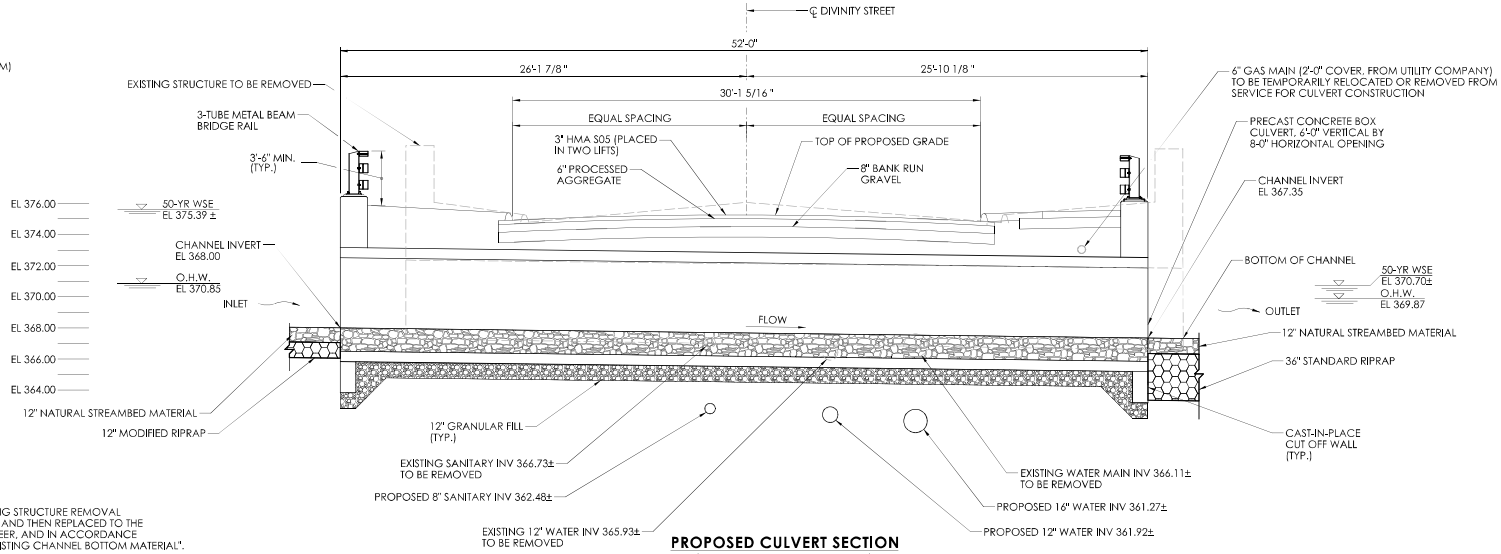
OPENNESS RATIO (OR):

OR = OPEN AREA/ STRUCTURE LENGTH
OR = 32.8 SF / 52 FT = 0.63 FT
0.63FT < 0.82 FT (DOES NOT MEET RECOMMENDED MINIMUM)

BANKFULL WIDTH (BFW):

BFW = 7.25 FT
1.2 X BFW = 8.7 FT
8.7 FT > 8 FT (DOES NOT MEET RECOMMENDED MINIMUM)

HYDRAULIC DATA	
DRAINAGE AREA	0.77± SQ MILE
DRAINAGE FREQUENCY	50 YEAR
DRAINAGE DISCHARGE	705 CFS
AVERAGE DAILY FLOW ELEVATION	368.48 FT±
50-YR UPSTREAM DESIGN WATER SURFACE ELEVATION	375.39 FT±
50-YR DOWNSTREAM DESIGN WATER SURFACE ELEVATION	370.70 FT±



PROPOSED CULVERT SECTION
(SECTION ALONG C.L. OF CULVERT)
SCALE: 1" = ¼"

STREAMBED MATERIAL NOTES:

1. NATIVE STREAMBED MATERIAL EXCAVATED DURING EXISTING STRUCTURE REMOVAL AND NEW STRUCTURE INSTALLATION SHALL BE STOCKPILED AND THEN REPLACED TO THE DEPTH SHOWN ON THE PLANS, AS DIRECTED BY THE ENGINEER, AND IN ACCORDANCE WITH SPECIAL PROVISION "EXCAVATION AND REUSE OF EXISTING CHANNEL BOTTOM MATERIAL".
2. ADDITIONAL STREAMBED MATERIAL, IF REQUIRED, SHALL BE IN ACCORDANCE WITH THE SPECIAL PROVISION "SUPPLEMENTAL CHANNEL MATERIAL".
3. THE STOCKPILE SHALL BE LOCATED OUTSIDE THE WETLAND LIMITS AND PROTECTED WITH SEDIMENTATION CONTROL SYSTEM.

ENVIRONMENTAL PERMIT PLANS

DESIGNER/DRAFTER: BIS CHECKED BY: JGC

SCALE AS NOTED

SIGNATURE/ BLOCK:

WSP USA
500 WINDING BROOK DR.
GLASTONBURY, CT 06033

Bristol CONNECTICUT Next Home

PROJECT NUMBER: L017-0004
PROJECT DESCRIPTION: REPLACEMENT OF DIVINITY STREET CULVERT OVER UNNAMED BROOK
TOWN(S): BRISTOL
DRAWING TITLE: ELEVATION AND SECTION PLAN

DRAWING NO. PMT-04
SHEET NO. 4

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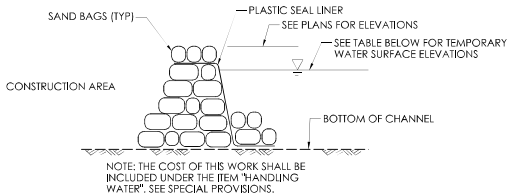
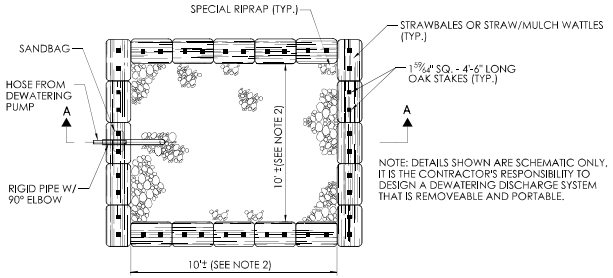
PLOTTED DATE: 3/6/2024

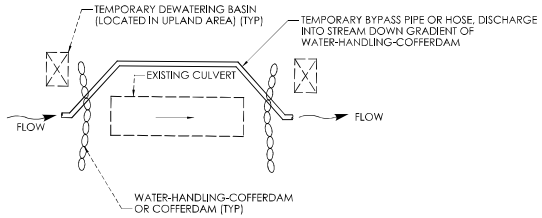


SUGGESTED WATER-HANDLING-COFFERDAM DETAIL - SANDBAGS

NOT TO SCALE

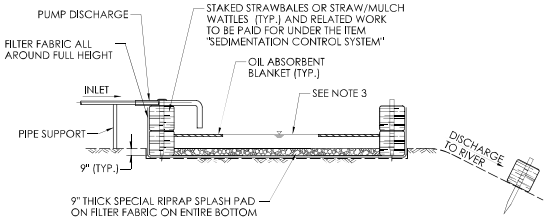


PLAN



TEMPORARY PUMPING

NOT TO SCALE



SECTION A-A

TEMPORARY SEDIMENT BASIN FOR DEWATERING DISCHARGE

NOT TO SCALE

TEMPORARY HYDRAULIC DATA	
AVERAGE DAILY FLOW	1.4 CFS
AVERAGE SPRING FLOW	2.8 CFS
2 YEAR FREQUENCY DISCHARGE	81 CFS
LOW FLOW PUMPING TEMPORARY DESIGN DISCHARGE = 5 x AVERAGE SPRING FLOW	14 CFS
TEMPORARY DESIGN FREQUENCY	5 x ASF
TEMPORARY DESIGN DISCHARGE	14 CFS
TEMPORARY WATER SURFACE ELEVATION UPSTREAM	368.9
TEMPORARY WATER SURFACE ELEVATION DOWNSTREAM	368.1

BASIN NOTES:

1. CONTRACTOR TO BRACE STRAWBALES OR STRAW/MULCH WATTLES AS REQUIRED FOR STABILITY.
2. DIMENSIONS TO VARY DEPENDENT UPON DE-WATERING RATE.
3. VOLUME OF BASIN IS EQUAL TO THE MAXIMUM VOLUME OF WATER CAPABLE OF BEING PUMPED.
4. SPECIAL RIPRAP STONE SHALL CONFORM TO NO. 3 STONE AS SHOWN IN SECTION M.01.01 OF CONNDOT FORM 818.
5. AT THE COMPLETION OF THE WORK, THE BASIN AND ALL RELATED MATERIALS SHALL BE REMOVED FROM THE SITE, AND THE AREA SHALL BE RETURNED TO ITS ORIGINAL CONDITION BY THE CONTRACTOR AS DIRECTED BY THE ENGINEER. THE COST OF THIS WORK WILL BE INCLUDED UNDER EACH ITEM, EXCEPT THE CLEAN-UP WHICH WILL NOT BE MEASURED FOR PAYMENT BUT INCLUDED IN THE GENERAL COST OF THE WORK.
6. THE TEMPORARY SEDIMENT BASIN SHALL BE DESIGNED IN ACCORDANCE WITH 2002 CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL.

UNCONFINED IN-STREAM WORK BMP:

ANY UNCONFINED IN-STREAM WATER WORK WITHIN THE WATERCOURSE SHALL BE RESTRICTED TO THE PERIOD FROM JUNE 1 TO SEPTEMBER 30, INCLUSIVE.

THE DEPARMENT WILL REVIEW AND MAY APPROVE THE METHODS OF UNCONFINED IN-WATER WORK WITH CONSIDERATION OF THE FOLLOWING:

- PROPOSED SCHEDULE FOR WORKING OPERATIONS
- ALL UNCONFINED IN-WATER WORK SHALL BE MINOR IN NATURE
- DISTURBANCE SHALL BE LIMITED TO AREAS THAT HAVE BEEN APPROVED FOR TEMPORARY AND PERMANENT IMPACT
- BEST MANAGEMENT PRACTICES SHALL BE UTILIZED WHEREVER POSSIBLE TO MINIMIZE TURBIDITY/SEDIMENT TRANSPORT DOWNSTREAM
- DISTURBED AREAS AND THE DURATION OF DISTURBANCE SHALL BE MINIMIZED TO THE EXTENT POSSIBLE
- IN-STREAM WORK SHALL BE DONE DURING PERIODS OF LOW FLOW

SUGGESTED SEQUENCE OF CONSTRUCTION:

1. IMPLEMENT DETOUR PLAN.
2. CLOSE DIVINITY STREET AT THE CULVERT CROSSING. MAINTAIN ACCESS TO PRIVATE PROPERTIES.
3. INSTALL SEDIMENTATION CONTROL SYSTEM (SCS), INCLUDING SCS AT CATCH BASIN AS NEEDED, AND PERFORM CLEARING AND GRUBBING.
4. CONSTRUCT TEMPORARY DEWATERING BASIN.
5. INSTALL TEMPORARY WATER-HANDLING-COFFERDAMS AND INSTALL TEMPORARY PUMPING.
6. REMOVE EXISTING CULVERT CROSSING.
7. CONSTRUCT CULVERT CROSSING.
8. REGRADE EXISTING STREAMBED AT THE CULVERT INVERTS WITH STREAMBED MATERIAL.
9. REMOVE TEMPORARY WATER-HANDELING-COFFERDAMS AND TEMPORARY PUMPING.
10. UPON COMPLETION OF CULVERT CONSTRUCTION, ROADWAY TO BE RE-OPENNED TO TRAFFIC.
11. PERFORM FINAL GRADING AND INSTALL PLANTINGS.
12. REMOVE SEDIMENTATION CONTROL SYSTEMS UPON PERMANENT STABILIZATION.

WATER HANDLING NOTES:

1. THE CONTRACTOR SHALL MAINTAIN WATER THROUGH THE TEMPORARY WATER-HANDLING SYSTEM AS REQUIRED DURING THE CONSTRUCTION OF THE NEW STRUCTURE.
2. EQUIPMENT SHALL NOT BE PERMITTED IN THE BROOK WHEN TEMPORARY WATER-HANDLING SYSTEM IS NOT IN PLACE WITHOUT APPROVAL FROM THE ENGINEER.
3. DEWATERING BASIN SHALL BE ESTABLISHED OUTSIDE OF THE WETLAND LIMITS. THE LOCATION OF THE DEWATERING BASIN IS APPROXIMATE. THE EXACT POSITION MAY VARY BASED ON THE PUMPING DESIGN SUBMISSION APPROVED BY THE ENGINEER.
4. WATER-HANDLING MEASURES SHALL NOT EXCEED IMPACT AREAS SHOWN ON THE WETLAND/WATERCOURSE IMPACT PLAN OF THE PERMIT PLANS.
5. IF A PUMP SYSTEM IS PROPOSED DURING LOW FLOW CONDITIONS, THE SYSTEM SHALL BE DESIGNED BY THE CONTRACTOR AND HAVE A MINIMUM CAPACITY AS SHOWN IN THE PEMPORARY HYDRAULIC TABLE. PUMP PLAN SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL BASED UPON FIELD CONDITIONS, WORK DURATION, AND EXPECTED WEATHER CONDITIONS, THE ENGINEER MAY APPROVE A CONSTRUCTION WATER-HANDLING PLAN WITH LOWER PUMPING FLOWS, PROVIDED THAT THIS INCLUDES A CONTINGENCY PLAN, WHICH MINIMIZES NEGATIVE IMPACTS AND SAFELY CONVERYS LARGER FLOWS THROUGH THE WORK AREA.
6. ANY STORM DRAINAGE DISCHARGING INTO A CONFINED WORK AREA FROM EXISTING DRAINAGE SHALL BE DIVERTED OR PUMPED OUTSIDE THE CONFINED AREAS. PUMPS/PIPES SHALL BE SIZED BY THE CONTRACTOR TO HANDLE THE EXPECTED FLOWS AND BE DISCHARGED TO A STABLE LOCATION. THE CONTRACTOR SHALL SUBMIT THE MEANS AND METHODS OF HANDLING STORM DRAINAGE TO THE ENGINEER FOR APPROVAL AND IS INCLUDED AS PART OF THE WATER-HANDLING.

ENVIRONMENTAL PERMIT PLANS

DESIGNER/DRAFTER: BH CHECKED BY: KLM

SIGNATURE/ BLOCK:

WSP USA
500 WINDING BROOK DR.
GLASTONBURY, CT 06033

Bristol CONNECTICUT All Heart

PROJECT NUMBER: L017-0004
PROJECT DESCRIPTION: DIVINITY STREET OVER UNNAMED BROOK
TOWN(S): BRISTOL
DRAWING TITLE: STAGING AND WATER HANDLING PLAN

DRAWING NO. PMT-05
SHEET NO. 5

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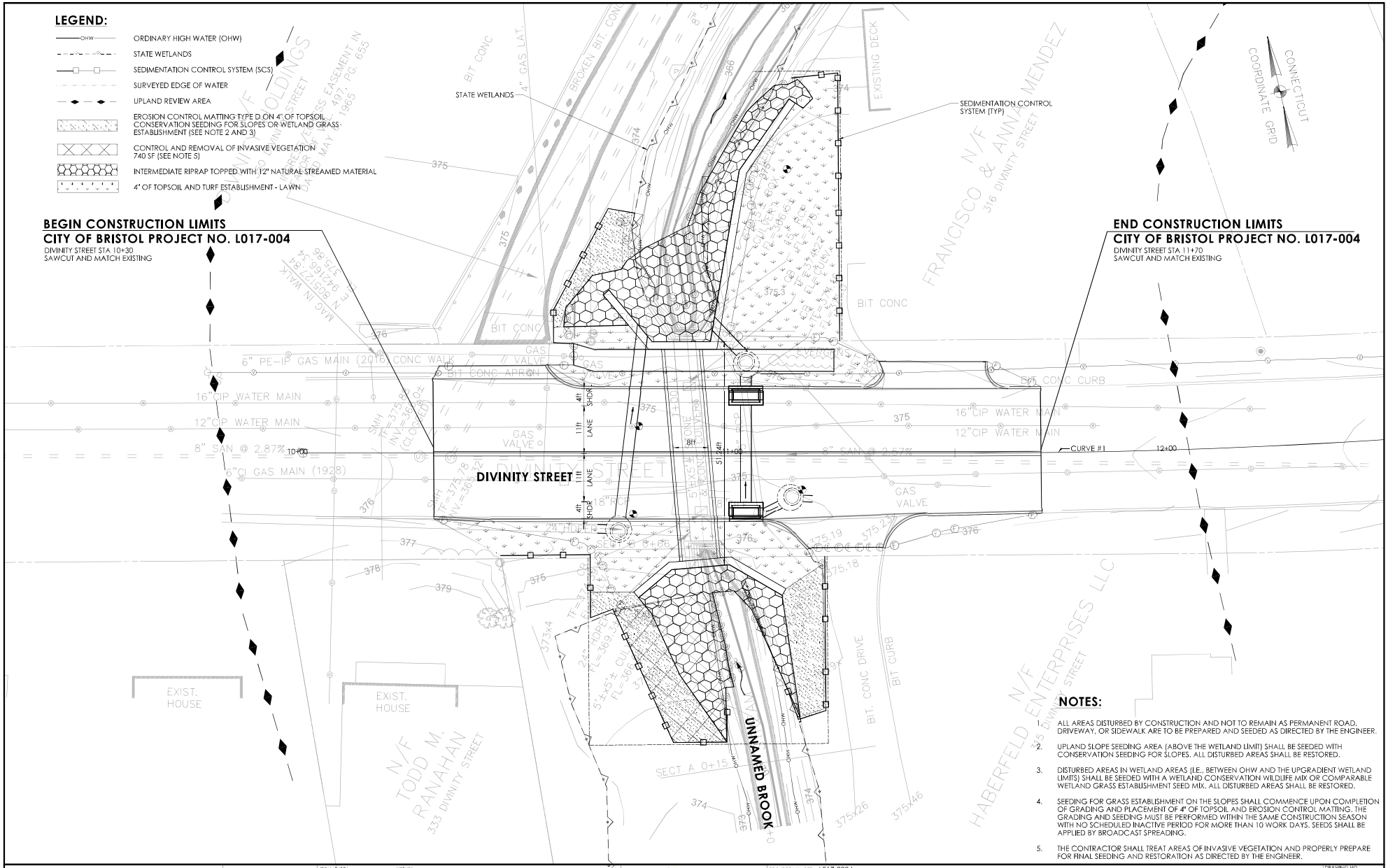

NOTES:

1. ALL AREAS DISTURBED BY CONSTRUCTION AND NOT TO REMAIN AS PERMANENT ROAD, DRIVEWAY, OR SIDEWALK ARE TO BE PREPARED AND SEEDED AS DIRECTED BY THE ENGINEER.
2. UPLAND SLOPE SEEDING AREA (ABOVE THE WETLAND LIMIT) SHALL BE SEEDED WITH CONSERVATION SEEDING FOR SLOPES. ALL DISTURBED AREAS SHALL BE RESTORED.
3. DISTURBED AREAS IN WETLAND AREAS (I.E., BETWEEN OHW AND THE UPGRADIENT WETLAND LIMITS) SHALL BE SEEDED WITH A WETLAND CONSERVATION WILDLIFE MIX OR COMPARABLE WETLAND GRASS ESTABLISHMENT SEED MIX. ALL DISTURBED AREAS SHALL BE RESTORED.
4. SEEDING FOR GRASS ESTABLISHMENT ON THE SLOPES SHALL COMMENCE UPON COMPLETION OF GRADING AND PLACEMENT OF 4" OF TOPSOIL AND EROSION CONTROL MATTING. THE GRADING AND SEEDING MUST BE PERFORMED WITHIN THE SAME CONSTRUCTION SEASON WITH NO SCHEDULED INACTIVE PERIOD FOR MORE THAN 10 WORK DAYS. SEEDS SHALL BE APPLIED BY BROADCAST SPREADING.
5. THE CONTRACTOR SHALL TREAT AREAS OF INVASIVE VEGETATION AND PROPERLY PREPARE FOR FINAL SEEDING AND RESTORATION AS DIRECTED BY THE ENGINEER.

ENVIRONMENTAL PERMIT PLANS

DESIGNER/DRAFTER: BH CHECKED BY: KLM

HORIZONTAL SCALE 1" = 10ft

SIGNATURE/BLOCK:

WSP USA
500 WINDING BROOK DR.
GLASTONBURY, CT 06033

Bristol CONNECTICUT Will Hearst

PROJECT NUMBER: L017-0004
PROJECT DESCRIPTION: REPLACEMENT OF DIVINITY STREET CULVERT OVER UNNAMED BROOK
TOWN(S): BRISTOL
DRAWING TITLE: PERMIT PLANTING PLAN

DRAWING NO. PMT-06
SHEET NO. 6

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PLOTTED DATE: 3/6/2024

Hydrology & Hydraulics Analysis Report

March 2024

Link to Report:

https://www.bristolct.gov/DocumentCenter/View/46648/2029_Hydrology-and-Hydrolics-Analysis-Report

For Office Use Only
APPLICATION NO. 2030
DATE FILED: 04-25-24
DECISION DATE:
DECISION:

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

1. APPLICANT:

Name: City of Bristol - DPW Signature:

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

Telephone No.: (860) 584 - 6125 [ ] home [ ] work Email: williamstango@bristolct.gov

2. PROPERTY OWNER(S):

Name: John P. Higginbotham Signature:

Address: 108 Marlene Street City: Bristol State: CT Zip 06010

Telephone No.: 860-944-2886 [ ] home [ ] work Email: johnh@rowleyspring.com

3. DESCRIBE THE SUBJECT PROPERTY:

Address or Location: 108 Marlene Street

Assessor's Map No.: 60 Assessor's Lot No.(s): 24

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

Perennial stream flowing North to South which runs along the western property line of 108 Marlene Street. Approximate area to be disturbed = 7,584 sf.

4. DESCRIBE THE PROPOSED ACTIVITY AND ITS PURPOSE:

The purpose of this project is to restore and maintain the existing channel which has fallen out of alignment with respect for the existing culvert carrying Marlene Street. Erosion is now impacting private property and will continue to do so until the channel bank has been stabilized. This project will involve temporary bypass, realignment, and stabilization of the existing channel.

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:

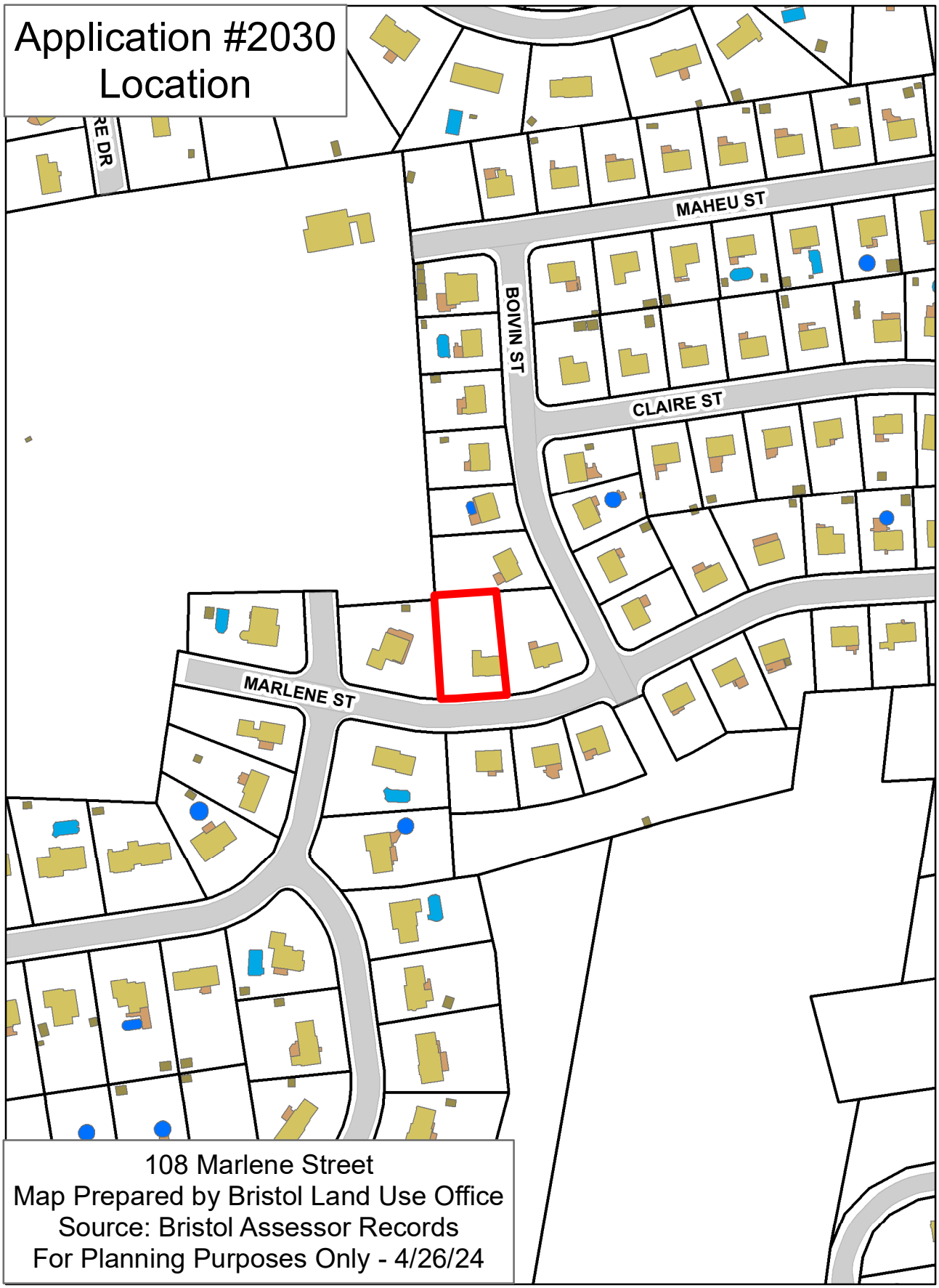
- [ ] in a wetlands or watercourse; area of impact: 2,585 SF (0.059 acres)
- [ ] within 100 feet of a wetlands or watercourse; area of impact: 5,000 SF (0.115 acres)
- [ ] beyond 100 feet of a wetlands or watercourse; area of impact: SF (acres)

6. FLOW CALCULATIONS:

Does a watercourse flow through the subject property?

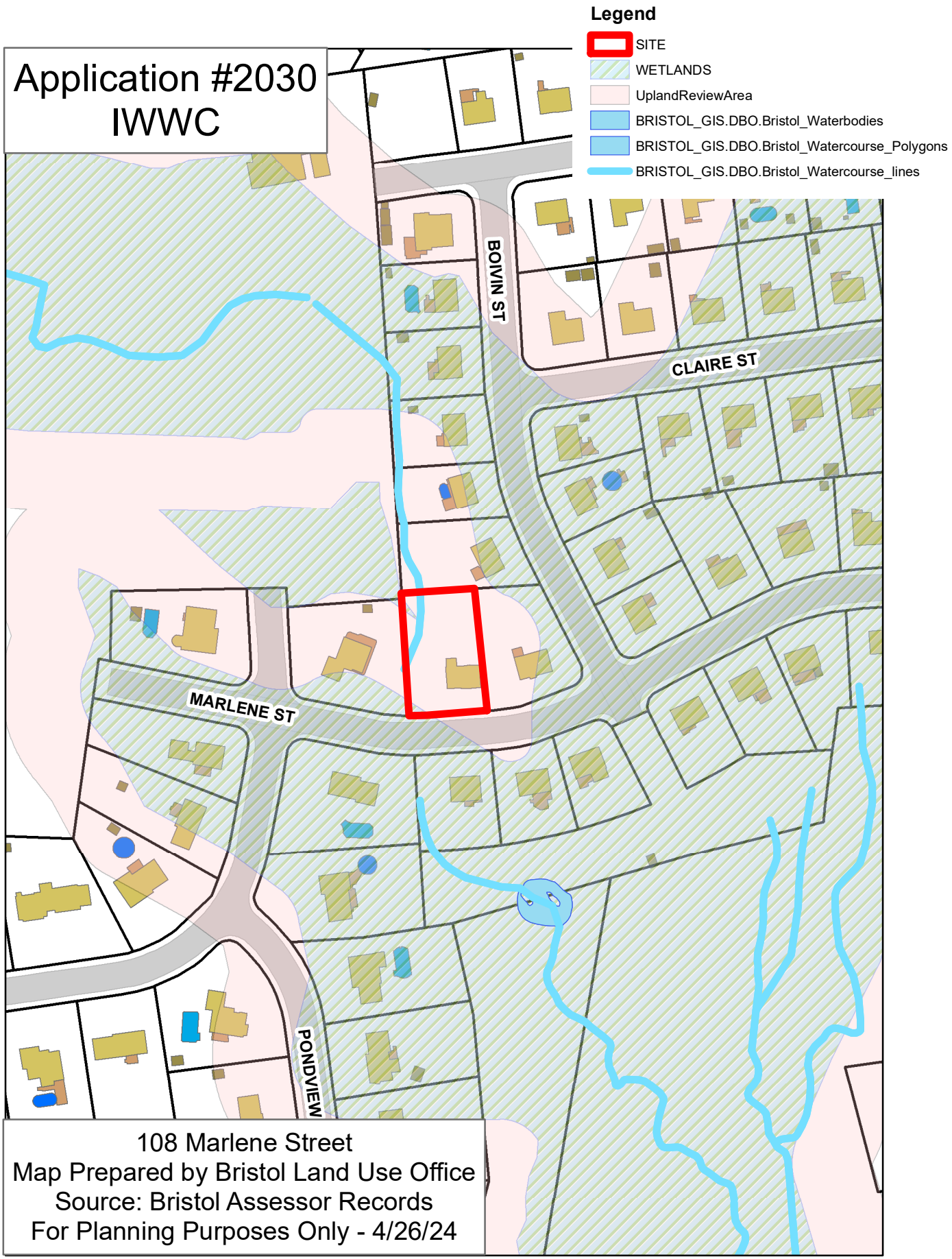
[ ] yes [ ] no

If "yes", see instructions for submission requirements.


Application #2030
Location
MAHEU ST
BOIVIN ST
CLAIRE ST
MARLENE ST
108 Marlene Street
Map Prepared by Bristol Land Use Office
Source: Bristol Assessor Records
For Planning Purposes Only - 4/26/24

Application #2030
Aerial

108 Marlene Street
Map Prepared by Bristol Land Use Office
Source: Bristol Assessor Records
For Planning Purposes Only - 4/26/24


Application #2030
IWWC
Legend
SITE
WETLANDS
UplandReviewArea
BRISTOL_GIS.DBO.Bristol_Waterbodies
BRISTOL_GIS.DBO.Bristol_Watercourse_Polygons
BRISTOL_GIS.DBO.Bristol_Watercourse_lines
BOIVIN ST
CLAIRE ST
MARLENE ST
PONDVIEW
108 Marlene Street
Map Prepared by Bristol Land Use Office
Source: Bristol Assessor Records
For Planning Purposes Only - 4/26/24

REALIGNMENT OF BIRGE POND BROOK

108 MARLENE STREET

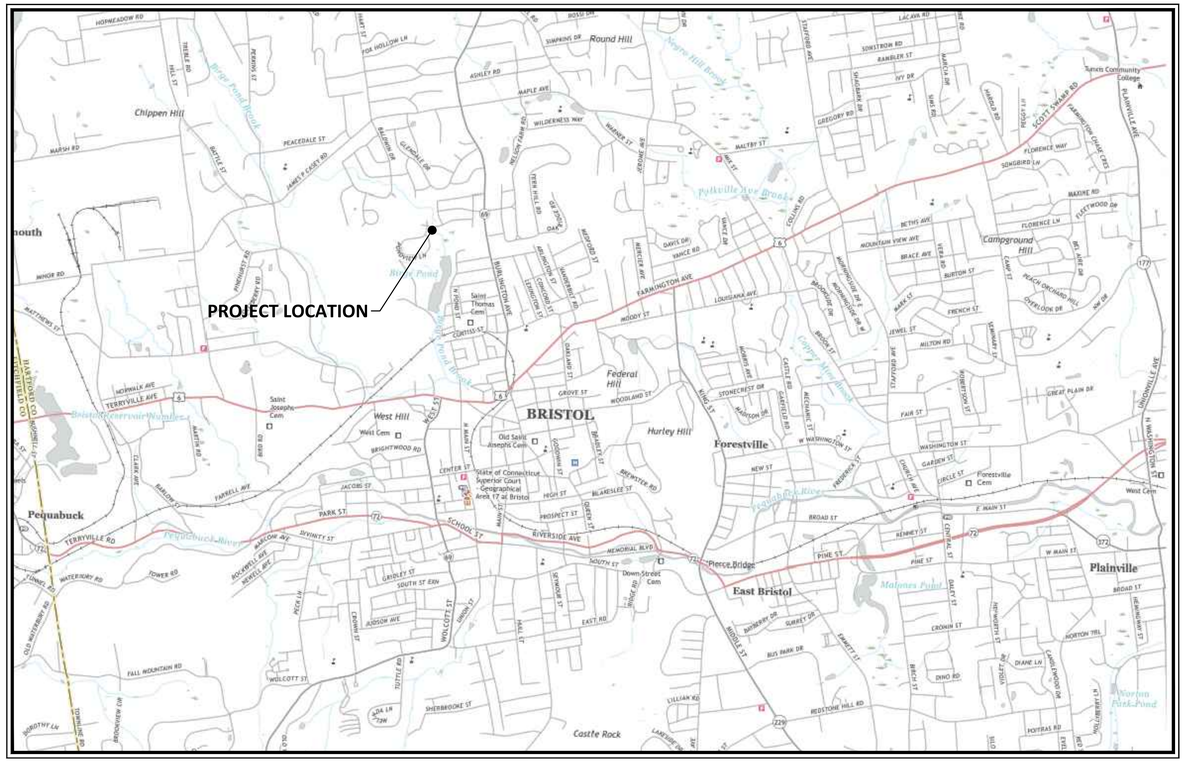
BRISTOL, CONNECTICUT

APRIL 03, 2024

Contract : XXX-XXX

LIST OF DRAWINGS

NO.	NAME	TITLE
01	TITLE-01	TITLE SHEET
02	TYP-01	GENERAL NOTES AND TYPICAL SECTIONS
03	EX-01	EXISTING CONDITIONS
04	PRO-01	ROADWAY PROFILE
05	RWY-01	ROADWAY PLAN
06 - 12	CSX-01 - CSX-07	CHANNEL SECTIONS



BOARD OF PUBLIC WORKS

MAYOR JEFFREY CAGGIANO, CHAIRMAN

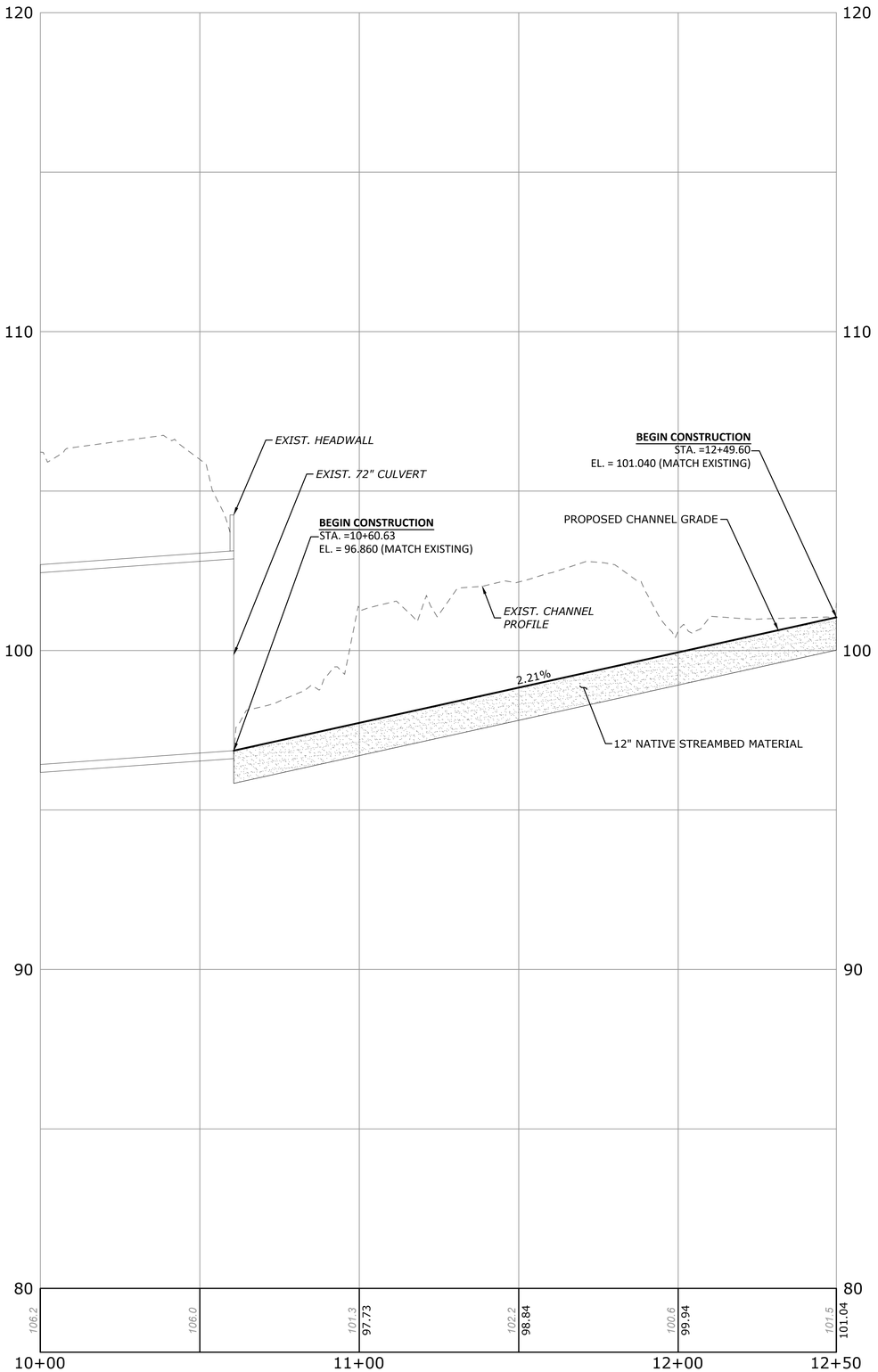
DIRECTOR OF PUBLIC WORKS

RAYMOND A. ROGOZINSKI, P.E.

CITY ENGINEER

NANCY LEVESQUE, P.E.

Bristol CONNECTICUT All Heart ™



PREPARED BY:

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

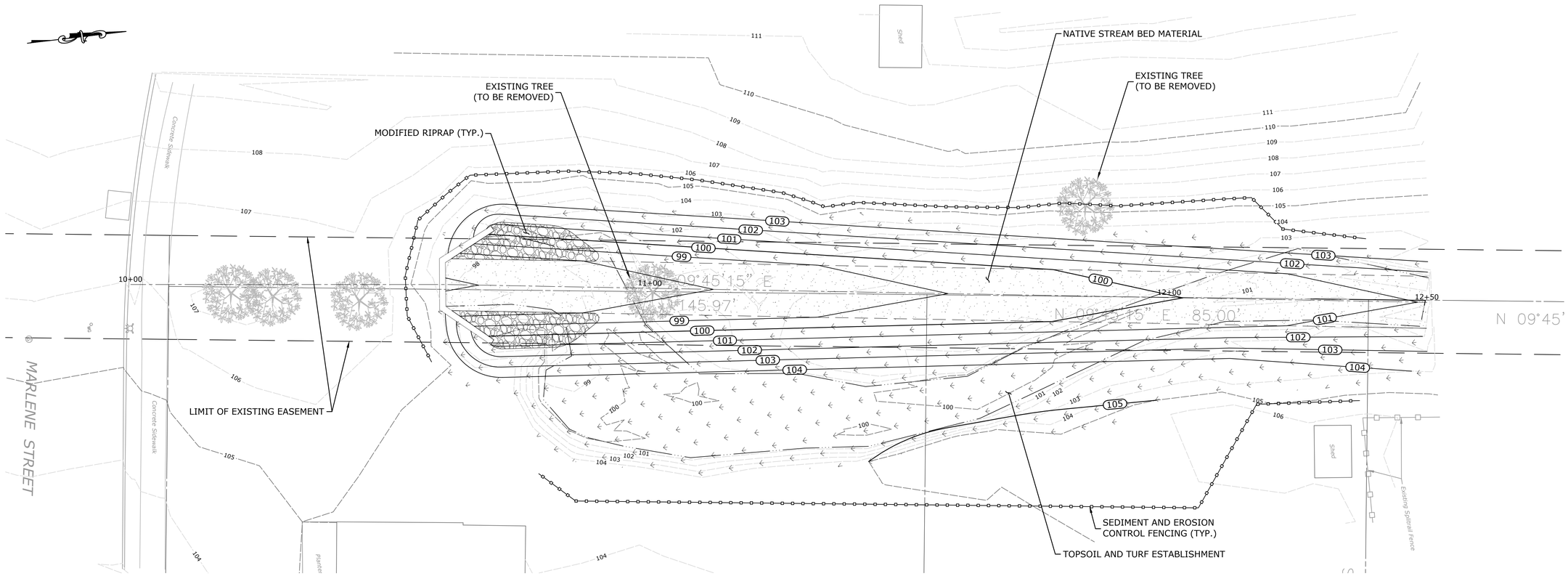
No.	DATE	COMMENTS:

DESIGN BY: WRS
DRAFTED BY: WRS
CHECKED BY: WRS
SCALE: 1" = 5'
APRIL 03, 2024
PROJECT No.:

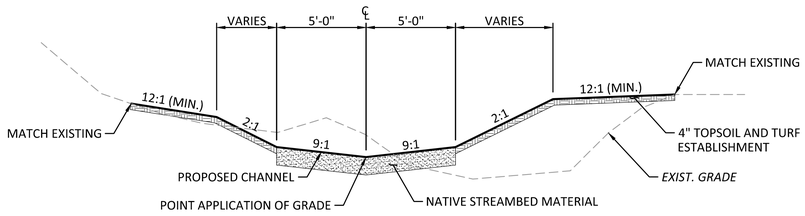
REALIGNMENT OF BIRGE POND BROOK
108 MARLENE STREET
Bristol, Connecticut

CHANNEL PROFILE

DRAWING NUMBER:
04



GRADING PLAN
SCALE: 1" = 10'



TYPICAL CHANNEL SECTION
SCALE: ¼" = 1'-0"

TOTAL DISTURBANCE AREA

REGULATED AREA	SYMBOL	AREA (SF)
RIPRAP		286
TOP SOIL AND TURF ESTABLISHMENT		5,380
NATIVE STREAMBED MATERIAL		1,889
TOTAL IMPACT AREA	-	7,584

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

PREPARED BY:

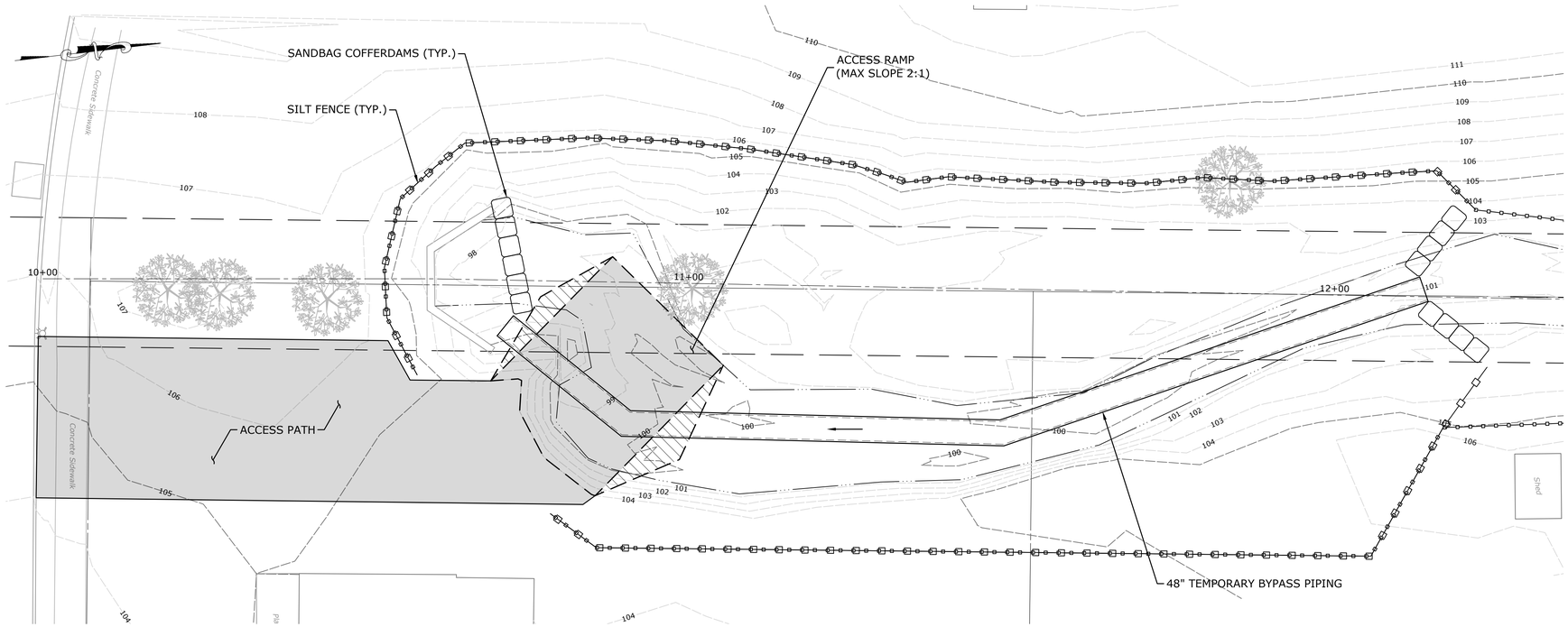
No.	DATE	COMMENTS:

DESIGN BY: WRS
DRAFTED BY: WRS
CHECKED BY: WRS
SCALE: AS SHOWN
APRIL 03, 2024
PROJECT No.:

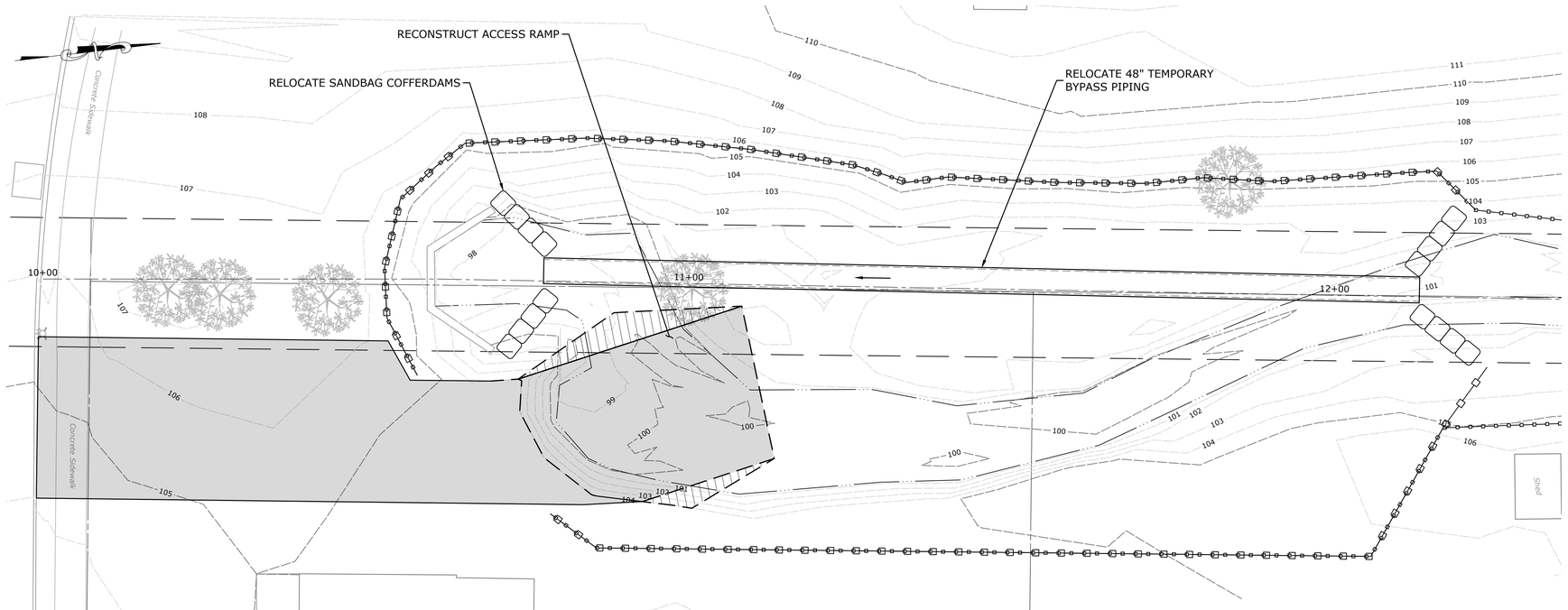
REALIGNMENT OF BIRGE POND BROOK
108 MARLENE STREET
Bristol, Connecticut

SITE PLAN

DRAWING NUMBER:
05



STAGE I
SCALE: 1" = 10'



STAGE II
SCALE: 1" = 10'

RECOMMENDED CONSTRUCTION SEQUENCE

STAGE I

1. INSTALL SEDIMENTATION CONTROL SYSTEM.
2. INSTALL WATER HANDLING COFFERDAM AS SHOWN.
3. INSTALL 48" TEMPORARY BYPASS PIPING.
4. CONSTRUCT ACCESS RAMP OVERTOP TEMPORARY BYPASS PIPING.
5. EXCAVATE AND REMOVE EXCESS MATERIAL FROM CHANNEL PROFILE.
6. GRADE CENTER PORTION OF CHANNEL TO THE LIMITS SHOWN.

STAGE II

1. ADJUST WATER HANDLING COFFERDAM AND 48" BYPASS PIPING AS SHOWN.
2. RECONSTRUCT ACCESS RAMP AS SHOWN.
3. FILL REMAINING CHANNEL SECTION IN LIFTS AND COMPACT MATERIAL.
4. GRADE THE REMAINING SECTION OF CHANNEL TO THE GRADES AND LIMITS AS SHOWN ON THE PROPOSED GRADING PLAN.
5. REMOVE WATER HANDLING COFFERDAMS AND TEMPORARY BYPASS PIPING.
6. RESTORE AND FINALIZE FINISHED GRADES.
7. PLACE TOPSOIL AND ESTABLISH TURF.
8. REMOVE SEDIMENT AND EROSION CONTROLS.

GENERAL NOTES

1. CONTRACTOR MAY PROPOSE ALTERNATE CONSTRUCTION SEQUENCE FOR APPROVAL BY ENGINEER.
2. CONTRACTOR SHALL MAINTAIN ACCESS TO THE RESIDENTIAL DRIVEWAYS THROUGH CONSTRUCTION.
3. UNCONFINED IN-STREAM WORK IS LIMITED TO THE PERIOD OF JUNE 1 THROUGH SEPTEMBER 30.
4. THE CONTRACTOR SHALL DEWATER THE SITE TO CONSTRUCT THE WORK IN THE DRY.
5. IT IS THE CONTRACTOR'S RESPONSIBILITY FOR THE SUCCESS OF THE WATER HANDLING AND WATER COFFERDAM. THE SUCCESSFUL COMPLETION OF THE WORK, AND SAFETY.
6. THE CONTRACTOR SHALL MONITOR WEATHER REPORTS AND BE PREPARED TO STOP WORK AND STABILIZE THE SITE IF MORE THAN 1.5 INCHES OF RAINFALL WITH A 70-PERCENT OR GREATER CHANCE OF OCCURRENCE IS PREDICTED BY THE NATIONAL WEATHER SERVICE (NWS). WORK SHALL BE HALTED UNTIL PRECIPITATION STOPS AND CHANGES OF FURTHER RAINFALL FALL BELOW 50-PERCENT.
7. THE FOLLOWING CONSTITUTE EMERGENCY FLOOD CONDITIONS:
   - THE NWS PREDICTS A HURRICANE OR OTHER SEVERE STORM EVENT SUCH AS RAINFALL IN EXCESS OF 3-INCHES PER 24-HOUR PERIOD.
   - THE NWS ISSUES A "FLOOD WATCH" FOR HARTFORD COUNTY.
8. IMMEDIATELY FOLLOWING DECLARATION OF EMERGENCY CONDITIONS, THE CONTRACTOR SHALL REMOVE ALL CONSTRUCTION EQUIPMENT, MATERIALS, OR OTHER HAZARDOUS MATERIAL BEING TEMPORARILY STORED IN THE WORK AREA TO AN EQUIPMENT STAGING AREA OUT OF WAY OF HIGH FLOOD WATERS.

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

No.	DATE	COMMENTS:

DESIGN BY: WRS
DRAFTED BY: WRS
CHECKED BY: WRS
SCALE: 1" = 10'
APRIL 03, 2024
PROJECT No.:

REALIGNMENT OF BIRGE POND BROOK
108 MARLENE STREET
Bristol, Connecticut

CONSTRUCTION STAGING

DRAWING NUMBER:
06

City of Bristol

DEPARTMENT OF PUBLIC WORKS
BRISTOL, CONNECTICUT 06010

Inland Wetlands
Environmental Protection Technician
Monthly Report

April 29, 2024

Approved Applications Inspections

No.	Location	Description	Inspection Dates	Status
#1593	Cedar Hill Lots 12-42	Open space subdivision - Residential building lots (Exp. 20270519)	4/4, 4/11, 4/18, 4/25	Act
#1567	Allentown Road (Wood shire)	Wetland crossing with residential community (Exp. 20260919)	4/4, 4/11, 4/18, 4/25	Inact
#1819	Allentown Road (Saddlebrook)	Grading and water lateral installation (Exp. 20270417)	4/4, 4/11, 4/18, 4/25	Inact
#1827	894 Middle Street	Environmental remediation (Exp. 20270717)	4/3, 4/10, 4/17, 4/24	Inact
#1844	208 Jerome Avenue	Construction of driveway and utilities; new home (20230521)	4/3, 4/10, 4/17, 4/24	EXPIRED
#1865	Muzzy Field - Downs Street	Repair sidewalks and ramp upgrades (Exp. 20240501)	4/4, 4/11, 4/18, 4/25	Inact
#1868	Lot 21 Waterbury Road	Maintenance to existing haul road (Exp. 20240610)	4/4, 4/11, 4/18, 4/25	Inact
#1878	134 Terryville Road	Regrade and establish parking area (20241002)	4/4, 4/11, 4/18, 4/25	Inact
#1883	40 Janice Lane	Construct of 2 car garage (20240904)	4/3, 4/10, 4/17, 4/24	Inact
#1889	35 Kory Lane	Remove and replace existing dock (20241106)	4/4, 4/11, 4/18, 4/25	Inact
#1890	20 Beechwood Street	Construct addition, pool, and infiltration system (20250205)	4/4, 4/11, 4/18, 4/25	Inact
#1891	Barnum Road	Clean detention ponds and existing debris piles (20250205)	4/4, 4/11, 4/18, 4/25	Act
#1893	150 Century Drive	Construct drainage area and parking (20250304)	4/3, 4/10, 4/17, 4/24	Inact
#1894	315 Shrub Road	Reconstruct road for earth removal (20250304)	4/3, 4/10, 4/17, 4/24	Inact

No.	Location	Description	Inspection Dates	Status
#1896	50 Terryville Avenue	Construct Gas Station (20250506)	4/4, 4/11, 4/18, 4/25	Act
#1897	7 Royal Drive	Install shed, basketball court, above ground pool (20251007)	4/4, 4/11, 4/18, 4/25	Inact
#1898	132 Marcia Drive	Grade, install patio, and fence (20250506)	4/3, 4/10, 4/17, 4/24	Inact
#1901	105 Maxine Drive	Install pipe, fence, and bridge (20250902)	4/3, 4/10, 4/17, 4/24	Inact
#1902	44 Nelson Farm Road	Addition 22x12 w/ Bioswale (20250805	4/3, 4/10, 4/17, 4/24	Inact
#1903	16 Great Pyrenees Way	Construct in ground pool (20250805)	4/3, 4/10, 4/17, 4/24	Inact
#1904	Huntington Woods	Replace 60" CMP with HDPE (20250805)	4/3, 4/10, 4/17, 4/24	Inact
#1905	Pine Lake West Bank	Replace sedimentation basin (20250805)	4/3, 4/10, 4/17, 4/24	Complete
#1907	115 Lakewood Circle	Construct 20x40 addition (20251007)	4/4, 4/11, 4/18, 4/25	Inact
#1908	351 Minor Street	Construct Oil/Propane facility (20251202)	4/4, 4/11, 4/18, 4/25	Act
#1909	21 Sonstrom Road	Construct Garage (20251202)	4/3, 4/10, 4/17, 4/24	Inact
#1910	172-176 East Main Street	Construct new Dunkin Donuts (20260303)	4/3, 4/10, 4/17, 4/24	Complete
#1915	505-545 Redstone Hill Road	18 Lot Subdivision (20260505)	4/3, 4/10, 4/17, 4/24	Act
#1919	258 Brook Street	Demo existing garage, replace with 3 car garage (20260407)	4/3, 4/10, 4/17, 4/24	Inact
#1922	71 Horizon Drive	Parking lot construction. Modification of #1848 (20260505)	4/3, 4/10, 4/17, 4/24	Inact
#1925	66 Vermont Avenue	Removal of smaller trees and grading (20260505)	4/4, 4/11, 4/18, 4/25	Inact
#1927	Lot 44 Valmore Road	Construct house and grade for wetlands mitigation (20260505)	4/3, 4/10, 4/17, 4/24	Complete
#1929	35 Oaken Road	Install in ground swimming pool (20260505)	4/3, 4/10, 4/17, 4/24	Complete
#1933	Lot 2 Business Park Drive	Filling & grading for parking area to new building (20260707)	4/3, 4/10, 4/17, 4/24	Act
#1934	Glenn Street	Harding a section to allow passage of woodland machinery (20260707)	4/3, 4/10, 4/17, 4/24	Inact
#1936	52 Shelia Court	Construct 20 new spaces with related storm water management (20260707)	4/3, 4/10, 4/17, 4/24	Inact
#1937	Lot 18 Donovan Court	Construct new house (20260901)	4/3, 4/10, 4/17, 4/24	Inact
#1940	Lot 42 & 46 Mill Pond Drive	Construct new residential homes (20211006)	4/3, 4/10, 4/17, 4/24	Complete

No.	Location	Description	Inspection Dates	Status
#1944	47 Kory Lane	Addition to existing house (20260901)	4/4, 4/11, 4/18, 4/25	Complete
#1945	Lake Avenue Bridge 017005	Bridge replacement (20261006)	4/3, 4/10, 4/17, 4/24	Inact
#1946	175 Century Drive	28,875 SF addition to existing facility (20261006)	4/3, 4/10, 4/17, 4/24	Inact
#1949	23 Columbus Avenue	Install in-ground pool (20261103)	4/3, 4/10, 4/17, 4/24	Inact
#1950	801 Burlington Avenue	Construct single family home (20261103)	4/3, 4/10, 4/17, 4/24	Inact
#1951	Lot 7B 1-2 Marsh	Construct single family home (20261103)	4/4, 4/11, 4/18, 4/25	Act
#1966	183 Foxden Road	Extend sanitary sewer to service two lots (20270202)	4/3, 4/10, 4/17, 4/24	Act
#1968	175 Shrub Road	One mile Hiking Trail elevated boardwalks (20270202)	4/3, 4/10, 4/17, 4/24	Act
#1970	16 Andrews Street	paved parking lot and area of grading (20270406)	4/3, 4/10, 4/17, 4/24	Inact
#1972	34 Climbing Street	New deck and in-ground swimming pool (20270406)	4/3, 4/10, 4/17, 4/24	Act
#1974	Memorial Blvd	Removal of tennis courts and planting of a new urban garden(20270406)	4/3, 4/10, 4/17, 4/24	Inact
#1977	Wolcott Street	installation of temporary bypass pipe in culvert for repairs (20270406)	4/4, 4/11, 4/18, 4/25	Inact
#1979	27 Cherry Hill Drive	Addition of a 30 x 30 attached garage(20270406)	4/3, 4/10, 4/17, 4/24	Complete
#1982	Lot #13 Village Street	Construct single family home (20270711)	4/3, 4/10, 4/17, 4/24	Act
#1983	243 Jacobs Street	Regrade River at Rockwell Park (20270801)	4/4, 4/11, 4/18, 4/25	Inact
#1984	Jerome Ave Bridge	Replace Pedestrian Bridge (20270711)	4/3, 4/10, 4/17, 4/24	Act
#1986	85 Buckley Ave	Construct Garage Addition (20270711)	4/4, 4/11, 4/18, 4/25	Inact
#1988	Lot# 7-1 Terryville Road	Commercial Building (20270801)	4/4, 4/11, 4/18, 4/25	Act
#1989	177 Corbin Ridge	Retaining Wall, Above Ground Pool, And Deck (20270711)	4/4, 4/11, 4/18, 4/25	Inact
#1990	29 Woodside Way	Inground Pool (20270711)	4/3, 4/10, 4/17, 4/24	Inact
#1991	62 Litchfield Lane	Inground Pool (20270711)	4/4, 4/11, 4/18, 4/25	Inact
#1993	21 Royal Drive	Grading and Drainage in Rear Yard (20270801)	4/4, 4/11, 4/18, 4/25	Inact
#1998	76 Mountain View Ave	Inground Pool (20270912)	4/3, 4/10, 4/17, 4/24	Inact

No.	Location	Description	Inspection Dates	Status
#1999	724 Wolcott Road	New Home Construction (20271107)	4/4, 4/11, 4/18, 4/25	Act
#2000	Shrub Rd/ Jerome Ave	Sidewalk Improvement, and pedestrian Bridge (20280109)	4/3, 4/10, 4/17, 4/24	Inact
#2002	1261 & 1265 Farmington Ave	Construct Medical Office, Restaurant, and Car Wash (20280109)	4/4, 4/11, 4/18, 4/25	Act
#2003	50 Terryville Rd	Pond Maintenance (20280109)	4/4, 4/11, 4/18, 4/25	Act
#2004	Mellen Street Bridge	Bridge replacement (20280206)	4/3, 4/10, 4/17, 4/24	Act
#2005	71 Minnesota Lane	Construct a 20x30 Garage (20280306)	4/4, 4/11, 4/18, 4/25	Inact
#2007	109 Moody Street	Construction Of A Plate Arch Spanning The Watercourse (20280501)	4/3, 4/10, 4/17, 4/24	Inact
#2008	205 Pennwood Place	Install 20x40 Inground Pool (20280501)	4/4, 4/11, 4/18, 4/25	Inact
#2010	Clark Ave Lot 271-1A	Mixed use development (20280710)	4/4, 4/11, 4/18, 4/25	Inact
#2011	152 Beths Ave	Construct Single Family House (20280710)	4/3, 4/10, 4/17, 4/24	Act
#2012	812 Redstone Hill Road	New In-Ground Pool (20280710)	4/3, 4/10, 4/17, 4/24	Inact
#2013	54 Merrill Court	Repair of Septic System (20280710)	4/4, 4/11, 4/18, 4/25	Inact
#2015	Page Park	Park Renovations and Improvements (20281205)	4/3, 4/10, 4/17, 4/24	Inact
#2016	Downs Street Bridge	Replacement of Bridge (20281205)	4/3, 4/10, 4/17, 4/24	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**

42 Paul Street- A site inspection was conducted due to complaints of excessive runoff from the above mentioned property due to work that had recently been completed, upon inspection it appeared that the property owner may have went over the 10 cubic yard limit that was allowed under a previously obtained administrative wetlands permit.- **Cease and Correct**

465-467 Emmett Street- 20230418- A site inspection was conducted due to complaints of work being done in a regulated area, as well as sediment entering the City right of way. Upon inspection it was discovered that he yard was in the process of being regraded, trees had been cut down on City property, fill was placed on City property, and sediments were entering the right of way due to lack of proper erosion control- **Cease and Correct.**

C. O. INSPECTIONS:

82 Gino Drive

90 Gino Drive

NOTICE AND NOTICE OF VIOLATION LETTERS:

Bristol
CONNECTICUT
Public Works

April 15, 2024

Douglas Towne
42 Paul Street
Bristol, CT 06010

Re: Cease and Correct – Working Beyond The Scope Of The Approved Admin Permit – 42 Paul Street Bristol, CT 06010

Based on a recent inspection of 42 Paul Street, it appears that more material than allowed has been brought onto the above-mentioned property causing excess runoff into neighboring properties, the administrative wetland permit that was obtained is only valid for up to 10 cubic yards. This activity is not allowed.

You are required to take the following actions and repairs.

- Immediately cease all work in the regulated area

You are required to attend the next scheduled Inland Wetlands meeting on **May 6, 2024** at 6:30 pm at **111 North Main Street** Bristol, CT 06010 or via Zoom. Please contact the Engineering Department with questions or concerns at 860-584-6115. The failure to comply with the above request will subject you to further regulatory action, including but not limited to, legal fines and/or penalties by the City.

Sincerely,

ZN

Zachary Norton
Environmental Protection Technician

cc: Inland Wetlands Commission
Environmental Engineer

Bristol
CONNECTICUT
Public Works

April 18, 2024

Peter Plewa
465-467 Emmett Street
Bristol, CT 06010

Re: Cease and Correct – Digging And Grading within A Regulated Area Without A Permit & Sediment Entering The Stream & Right Of Way– 465-467 Emmett Street Bristol, CT 06010

Based on a recent inspection of 465-467 Emmett Street, it appears that there are current activities on the above referenced property that are in violation of the City's Inland Wetlands and Flood Plain Regulations. Based on the city records, you own this property. It appears that the entire yard has been dug up, and regrading has begun. Additionally, sediments have begun to enter the stream adjacent to the property, and the right of way, due to a lack of proper erosion control. This activity is not allowed.

You are required to take the following actions and repairs.

- Immediately cease all work in the regulated area
- Immediately install proper erosion control measures
- Submit a plan, and obtain a wetlands permit for all work in the regulated area

You are required to attend the next scheduled Inland Wetlands meeting on **May 6, 2024** at 6:30 pm at 111 North Main Street Bristol, CT 06010 or via Zoom. Please contact the Engineering Department with questions or concerns at 860-584-6115. The failure to comply with the above request will subject you to further regulatory action, including but not limited to, legal fines and/or penalties by the City.

Sincerely,

ZN

Zachary Norton
Environmental Protection Technician

cc: Inland Wetlands Commission
Environmental Engineer

Connecticut Department of
Energy & Environmental Protection
Bureau of Materials Management & Compliance Assurance
Engineering & Enforcement Division

Permit Application for the Use of Pesticides in State Waters

Affiliations:

Description: **Sunnydale Basin**

Filed By: **John Bennett**

E-mail: **john@thepondandlake.com**

Affiliations

Type	Name	Mailing Address	Business Phone	Contact
Applicant	STAHL HOLDINGS, LLC	1112 Federal Rd Brookfield, CT 06804, US	203-885-0184	LISA MARIAKAKIS 203-885-0184 LISA@THEPONDANDLAKE.COM
Billing Contact	STAHL HOLDINGS, LLC	1112 Federal Rd Brookfield, CT 06804, US	203-885-0184	LISA MARIAKAKIS 203-885-0184 LISA@THEPONDANDLAKE.COM
Primary Contact	STAHL HOLDINGS, LLC	1112 Federal Rd Brookfield, CT 06804, US	203-885-0184	NICK MCMAHON 203-885-0184 NICK@THEPONDANDLAKE.COM
Owner	BRISTOL	111 N MAIN ST BRISTOL, CT 06010, US	860-584-6105	Nancy Levesque 860-584-6125 nancylevesque@bristolct.gov
Pesticide Applicator	STAHL HOLDINGS, LLC	1112 Federal Rd Brookfield, CT 06804, US	203-885-0184	NICK MCMAHON 203-885-0184 NICK@THEPONDANDLAKE.COM

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Part I: Application Type and Description

Application Type

This application is to request (check one):

☐ One year permit

☐ Two year permit

☒ Three year permit

Note: Multi-year permits will be issued at the Department of Energy and Environmental Protection's (DEEP) discretion.

☐ Check here if DEEP has previously issued an Aquatic Pesticide Permit for this site.

Town where site is located: **Bristol**

Brief Description of Project: **Application of Aquatic Pesticides to Sunnydale Basin**

Part II: Fee Information

An application fee of $200.00 [#1009] is to be submitted with each permit that you are applying for. Each site requires a separate permit. The application will not be processed without payment of the fee. If you are applying for a multi-year permit, see Part II of the instructions for information on fee payment. There is no discount for municipalities. The fee shall be non-refundable and shall be paid by e-check or credit card to the Department of Energy and Environmental Protection.

Part III: Site Location

Name of Waterbody **Sunnydale Basin**

SITE LOCATION

316 Sunnydale Ave, Bristol, CT 060100410, [Bristol]

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Part IV: Applicant Information

☒ Additional information is required for applicant

Please indicate the type of business

☐ corporation

☒ limited liability company

☐ limited partnership

☐ limited liability partnership

☐ statutory trust

☐ other

ii) provide Pesticide Application Business Registration Number: **B2764**

Registration Expiration Date **08/31/2024**

b) Applicant's relationship to the property at which the proposed activity is to be located:

☐ site owner
☐ option holder
☐ lessee
☐ easement holder
☐ operator
☒ pesticide applicator
☐ other

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2. Owner Information

a. If known, list the name and address of all owners of the area(s) to be treated. If unsure, go to item #2b.

Name of Owner	Address
BRISTOL	111 N MAIN ST BRISTOL, CT 06010, US

b. If the applicant is unsure of who owns an area(s) to be treated, provide the name and address for all shoreline property owners located 200 feet or less from such area. However, if the applicant does know who owns the area to be treated, then return to the 'Companies/Entities/Individuals Associated with the Filing' section by selecting the arrow in the top left corner of this screen and add the Owner(s).

Does the State of Connecticut own any portion of the area to be treated?

☐ Yes

☑ No

**If an area(s) to be treated is owned or controlled by the state of Connecticut, see instructions for submitting an application to the DEEP Land Acquisition and Management Unit (LAM) for review and approval of the proposed treatment on state property. A LAM Authorization letter must be submitted as Attachment G for any application involving treatment of a waterbody that is owned or controlled by the state of Connecticut.*

3. Pesticide Applicator

Is this a Commercial Application?

☑ Yes

☐ No

Pesticide application Certification Number **PMCS.0066050**

Pesticide application Certification Expiration Date **01/31/2029**

Part V: Additional Information

If the applicant is submitting this application on behalf of someone else, identify the person(s) or organization(s) seeking to have pesticides applied to the treatment area(s) and provide the following information. If more than one person or organization is being represented, attach additional sheets providing the information requested below.

Name	Mailing Address	Business Phone	Contact Person
Bristol Public Works	111 North Main Street, Bristol CT 06010	8605846105	Nancy Levesque

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Part VI: Site Information

1. COASTAL AREA

Is this pesticide application located in the municipality within the coastal area? (check town list in the instructions)

☐ Yes
☒ No

For assistance in determining if the water being treated is affected by tidal water as described above or in completing the Coastal Consistency Review form, contact the Office of Long Island Sound Programs (OLISP) at 860-424-3034.

2. NATURAL DIVERSITY DATA BASE (NDDB) - ENDANGERED OR THREATENED SPECIES

According to the most current 'Natural Diversity Data Base Areas Maps', will the activity which is the subject of this application, including all impacted areas, be located within an area identified as, or otherwise known to be, a habitat for state listed endangered, threatened or special concern species?

☐ Yes
☒ No

Date of Map **12/2023**

3. AQUIFER PROTECTION AREAS

Is the site located within a town required to establish Aquifer Protection Areas, as defined in section 22a-354a through 354b of the General Statutes (CGS)?

☒ Yes
☐ No

To view the applicable list of towns and maps visit the DEEP website at http://www.ct.gov/deep/aquiferprotection

If yes, is the site within an area identified on a Level A or Level B map?

☐ Yes
☒ No

4. CONSERVATION OR PRESERVATION RESTRICTION

Is the property subject to a conservation or preservation restriction?

☐ Yes
☒ No

5. TYPE OF AREA TO BE TREATED

Select area type

☐ Tidal Waters
☒ Pond or Lake
☐ Stream

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6. PUBLIC WATER SUPPLY WATERSHED

Is the waterbody located in a public water supply watershed?
(See instructions)

☐ Yes
☒ No

7. WATERBODY LOCATION FROM PUBLIC WATER SUPPLY

Is the waterbody potentially located 200 ft. or less from a public water supply well?

☐ Yes
☒ No

8. Where does the waterbody flow to?

Name of receiving stream or waterbody? **No Flow**

Is the outflow usually flowing?

☐ Yes
☒ No

Can outflow be stopped?

☐ Yes
☒ No

9. SIZE OF WATERBODIES TO BE TREATED

Identify the size of the waterbody(ies) and the portion of the waterbody(ies) to be treated. Refer to the
instructions.

What type of waterbodies will be treated?

☒ Ponds and Lakes
☐ Streams and Rivers

Will more than 80 Acres be treated?

☐ Yes
☒ No

Name of Waterbody	Total Acres	Average Depth ft.	Total Volume Acre ft.	Acres	Volume Acre ft.
Sunnydale Basin	0.65	2	1.3	0.65	1.3

Draft Copy

10. PROPOSED PRODUCT TO BE USED

Identify each proposed product to be used, the amount per treatment, the number of treatments and the surface area (acres) or volume (acre feet) of water to be treated with that product. If more than one waterbody will be treated, provide this information for each waterbody. Provide quantities using only in the units specified in the instructions.

Name of Waterbody	Full Product Name	Active Ingredient	Amount per Treatment	Measurement Units	Number of Treatment	Acres	Volume Acre-ft
Sunnydale Basin	AquaPro	Glyphosate (isopropylamine salt) (53.8%)	1.95	Quarts	2	0.65	0
Sunnydale Basin	Clearcast	Ammonium Salt of Imazamox (12.1%)	0.65	Gallons	2	0.65	0

11. PUBLIC ACCESS

Does the waterbody have public access?

☐ Yes
☒ No

12. STATE-OWNED BOAT LAUNCH

Is there a state-owned boat launch?

☐ Yes
☒ No

13. STOCKED WITH FISH

Is the waterbody stocked with fish by the state?

☐ Yes
☒ No

14. USE OF WATERBODY

Identify use(s) of waterbody:

☐ Domestic Water Supply
☐ Irrigation
☐ Watering Livestock
☐ Swimming
☐ Fishing
☒ None

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15. DOWNSTREAM USERS AFFECTED BY TREATMENT

Are there any downstream users of the water who may be affected by treatment?

☐ Yes

☒ No

16. PRIVATE DRINKING WELLS

Within 200 ft. inclusive of the treatment area are there any private drinking water wells 50 ft. or less from the shoreline?

☐ Yes

☒ No

17. PLANTS OR ANIMALS TO BE CONTROLLED

Identify all plants or animals to be controlled: **Phragmites, Cattails**

18a. FISH PRESENT

Identify all types of fish present: **Bluegill, Bass, Minnow**

18b. ALKALINITY OF WATER

If a copper-based product will be used and there are fish species sensitive to copper, what is the alkalinity of the water to be treated? Please include units.

Value

19. TIME PERIOD OF PESTICIDE USE

Projected Date(s) of Pesticide Use **April- September**

20. PRIOR YEARS CHEMICALS WERE APPLIED TO WATERBODY

List prior years in which chemicals were applied to this waterbody: **N/A**

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Part VII: Supporting Documentation

Be sure to read the instructions (DEEP-PEST-INST-200) to determine whether the attachments listed are applicable to your specific activity. Check the applicable box below for each attachment being submitted with this application form. When submitting any supporting documents, please label the documents as indicated in this part (e.g., Attachment A, etc.) and be sure to include the applicant's name as indicated on this application form.

☒ **Attachment A - Aerial Map**

File name: Sunnydale Basin Aerial Map PDF.pdf

File Update Date: 04/02/2024 09:53:02

☒ **Attachment B - Applicant Compliance Review Form**
File name: compliance_form.doc.pdf
File Update Date: 01/17/2024 13:03:33

Applicant Compliance Information Form
(DEEP-APP-002), if applicable.

☐ **Attachment C - Coastal Consistency Review Form**

Coastal Consistancy Review Form
(DEEP-APP-004), if applicable.

☐ **Attachment D - NDDB Determination Response**

A copy of the NDDB Determination response letter that has not expired, if applicable. Include a copy of any mitigation measures developed for this activity and approved by NDDB. Do not submit any NDDB Preliminary Site Assessments with your application. Be aware that you must renew your NDDB Determination if it expires before project work commences.

☐ **Attachment E - Verification of Notification to Local Inland Wetland Agency**

Verification of Notification to Local Inland Wetland Agency:
Note:
To submit your Verification of Notification to Local Inland Wetland Agency, you must first complete all other portions of this application, select 'Save', then select 'Download PDF' from the bottom of this screen to download a copy of your application.
You must send a copy of your completed application to the local Inland Wetland Agency, and then return to this application page to upload your verification as Attachment E above.
You will then be able to submit your completed application for review.
The following are acceptable forms of Verification of Notification:

- *copy of a certified mail receipt, or*
- *a copy of the application stamped and dated as received by the local inland wetlands agency, or*
- *an e-mail from the local inland wetlands agency verifying that this completed application has been received by such agency. If sending via email, you must first contact the local inland wetlands agency to verify that this method of delivery is acceptable.*

Refer to the
instructions
.

☐ **Attachment F - Conservation or Preservation Restriction Information**

Conservation or Preservation Restriction Information, if applicable.

☐ **Attachment G - DEEP Land Management Unit Authorization**

DEEP Land Management Unit's Authorization letter for treatment of a state-owned or controlled

Draft Copy

☐ **Attachment H - Approval under G.P. for Point Source Dischargers to Waters of the State from Application of Pesticides**

Approval under the
General Permit for Point Source Discharges to Waters of the State from the Application of Pesticides
, if applicable.

☐ **Attachment I - Department of Public Health comments**

Department of Public Health comments if the proposed treatment area(s) is located 200 ft. or less from a public water supply well or if the waterbody is located within a public water supply watershed and the application proposes the use of flumioxazin or triclopyr.

☐ **Attachment J - Other Supporting Documents**

If you have additional documents or information to support your application that are not otherwise specified above, upload them here. This can include recent vegetation surveys, long term management plans, or other information specific to your site that could aid in the review of your application.

Draft Copy

Sunnydale Basin
Sunnydale Avenue,
Bristol CT 06010
Parkview Apartments Bristol, CT
East Rd
Ridge Rd
Bob's Sports Chalet
Pine St
CVS
Dunkin'
Mountain Rd
MG Electric & Construction
Mitchell St
229
Sylvester St
Benham St
Willcox St
Emily Ln
Ridge Rd
La Fleur's Sand & Stone
East Rd
Sunnydale Ave
Sunnydale Basin
Woodmere Rd
Bayberry Dr
Fairview Ave
Casey Field
Casey Sand Volleyball Courts
Dewey Ave
Sunnydale Ave
Hobson Ave
McKinley Ave
Lake Ave
PODS Moving & Storage
Business Park Rd
Bleachers
CubeSmart Self Storage
Battisto Rd
Google Earth
Image Landsat / Copernicus
1000 ft
N

Connecticut Department of Energy & Environmental Protection

DEEP ONLY

App. No. _____

Co./Ind. No. _____

Applicant Compliance Information

Applicant Name: Stahl Holdings LLC: DBA The Pond and Lake Connection

Mailing Address: **1112 Federal Rd.**

City/Town: **Brookfield** State: **CT** Zip Code: **06804**

Business Phone: **203-885-0184** ext.:

Contact Person: **James Gorman** Phone: **845-798-9383** ext.

*E-mail: **james@thepondandlake.com**

If you answer *yes* to any of the questions below, you must complete the Table of Enforcement Actions on the reverse side of this sheet as directed in the instructions for your permit application.

A. During the five years immediately preceding submission of this application, has the applicant been convicted in any jurisdiction of a criminal violation of any environmental law?

☐ Yes ☒ No

B. During the five years immediately preceding submission of this application, has a civil penalty been imposed upon the applicant in any state, including Connecticut, or federal judicial proceeding for any violation of an environmental law?

☐ Yes ☒ No

C. During the five years immediately preceding submission of this application, has a civil penalty exceeding five thousand dollars been imposed on the applicant in any state, including Connecticut, or federal administrative proceeding for any violation of an environmental law?

☐ Yes ☒ No

D. During the five years immediately preceding submission of this application, has any state, including Connecticut, or federal court issued any order or entered any judgement to the applicant concerning a violation of any environmental law?

☐ Yes ☒ No

E. During the five years immediately preceding submission of this application, has any state, including

Connecticut, or federal administrative agency issued any order to the applicant concerning a violation of any environmental law?

☐ Yes ☐ No

Table of Enforcement Actions

(1) Type of Action	(2a) Date Commenced	(2b) Date Terminated	(3) Jurisdiction	(4) Case/Docket/ Order No.	(5) Description of Violation

☐ Check the box if additional sheets are attached. Copies of this form may be duplicated for additional space.

The Pond and Lake Connection
1112 Federal Road
Brookfield CT, 06804

CERTIFIED MAIL®

9589 0710 5270 0742 2805 38

Retail

UNITED STATES POSTAL SERVICE®

06010

RDC 99

City of Bristol Conservation Commission
111 North Main Street
Bristol CT, 06010

Connecticut
Department of Energy &
Environmental Protection
79 Elm Street • Hartford, CT 06106-5127
portal.ct.gov/DEEP

STAHL HOLDINGS, LLC
1112 Federal Rd
Brookfield, CT 06804-1122

4/08/2024

1. This permit is hereby issued pursuant to Section 22a-66z of the General Statutes, and regulations adopted thereunder.

2. This permit AQUA-2024-045 **Is issued to:** STAHL HOLDINGS, LLC
of: 1112 Federal Rd
Brookfield, CT 06804-1122

3.This permit authorizes the application of chemicals at property

located at: WOLCOTT ROAD & SPINDLE HILL WOLCOTT/BRISTOL

4.This permit authorizes the application of chemicals by: STAHL HOLDINGS, LLC

5.This permit is issued on 4/08/2024 **and will expire on** 12/31/2026

6. This permit is subject to the following conditions:

a. Permittee may apply the following chemicals to Cedar Lake **Site ID:** 1505287

Chemical	Amount of chemical		Times applied
Copper EDA/TEA (liquid) 13.2%/14.9%	576.00	Gallons	3
Copper Ethanolamine Mixture (liquid) 27.8% - 28.2%	432.00	Gallons	3
Copper Sulfate (liquid) 16.2%	312.00	Gallons	3
Diquat (liquid) 37.3%	90.00	Gallons	3
Flumioxazin (granular) 51.0%	45.00	Pounds	3
Fluridone (liquid) 41.7%	38.40	Quarts	3
Fluridone (pellet) 5.0%	768.00	Pounds	3
Glyphosphate (isopropylamine salt) liquid 53.8%	15.00	Quarts	1
Imazamox (Liquid) 12.1%	5.00	Gallons	1

b. Permittee may conduct the application described in paragraph 6a, no more than the number times specified above, in each calendar year of the effective term of this permit,

and prior to 12/31/2026.

c. The permittee shall follow all restrictions and directions as instructed on the chemical label.

d. The permittee shall also adhere to the following specific conditions:

1. This permit authorizes the use of the permitted chemicals on or before 12/31/2024. There shall be no use of chemicals in 2025 or 2026 until the permittee submits an Application for the Re-Introduction of Pesticides in State Waters with the required application fee and receives a Confirmation of Receipt from the Central Permits Processing Unit. Such application and fee shall be submitted not later than March 1, 2025 for treatment in 2025 and March 1, 2026 for treatment in 2026. If the permittee will not be treating the waterbody in 2025 or 2026, the permittee shall indicate that this permit is being surrendered when submitting the Application for the Re-Introduction of Pesticides in State Waters and no additional fee will be required. Once surrendered, no further use of chemicals will be authorized under this permit.

2. The permittee shall comply with all applicable DEEP Wildlife Division Natural Diversity Data Base (NDDB) program requirements for the effective term of this permit. Any NDDB Review Request Form required to be submitted to the DEEP Wildlife Division shall also be submitted to the DEEP Pesticide Program (elizabeth.a.clark@ct.gov) at the same time the review request is submitted to the Wildlife Division.

3. No other copper product shall be applied to the same treatment area at the same time as copper sulfate and there shall be at least 14 days between copper treatments.

4. Fluridone amount may be split as needed to maintain an effective concentration. However, the sum of all splits shall not exceed the permitted amount.

5. No more than 1 ppm of copper shall be applied to a treatment area during any single application.

e. The permittee shall notify the DEEP State Parks and Public Outreach Division and the Water Planning and Management Division (email: deep.aquaticherbicides@ct.gov) at least 72 hours prior to each treatment.

f. For any permit to apply chemicals on a lake or pond with any public access owned by the state or a municipality: The permittee shall, prior to any chemical application authorized by this permit, publish notice of such application and post signs in accordance with Section 22a-66a(h) of the Connecticut General Statutes and regulations adopted thereunder.

g. Any pesticide application business prior to making a pesticide application on any private lake or pond with more than one owner of shoreline property shall provide notice of the date of the application to any owner or tenant of such shoreline property that abuts the lake or pond to be treated, in accordance with Section 22a-66a(h) of the Connecticut General Statutes and regulations adopted thereunder.

h. The permittee shall submit a yearend report using this form. The report shall be submitted to deep.pesticideprogram@ct.gov not later than December 31st of each year this permit is active. If no chemicals were applied in any given year during the active term of this permit, a yearend report must be submitted indicating that no chemicals were applied that year

i. In evaluating the application for this permit and any other document submitted pursuant to this permit DEEP relies on information and data provided by the applicant and on the applicant's representations. If such information proves to be false, deceptive, incomplete or inaccurate, this permit may be modified, suspended or revoked in accordance with Section 22a-3a-5(d) of the Regulations of Connecticut State Agencies.

j. Any document which is required to be submitted by the permittee to DEEP under this permit shall be signed by the permittee or applicator and by the individual or individuals responsible for actually preparing such document, each of whom shall certify in writing as follows:

"I have personally examined and am familiar with the information submitted in this document and all attachments thereto, and I certify that based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information, the submitted information is true, accurate, and complete to the best of my knowledge and belief. I understand that any false statement made in the submitted information may be punishable as a criminal offense, in accordance with Section 22a-6 of the Connecticut General Statutes, and in accordance with any other applicable statute."

k. This permit is not transferrable.

l. Issuance of this permit does not relieve the permittee of the obligation to obtain any other authorizations required by applicable federal, state and local law.

m. This permit is subject to and does not derogate any present or future rights or powers of the State of Connecticut and conveys no rights in real or personal property nor any exclusive privileges, and is subject to any and all public and private rights and to any federal, state or local laws pertinent to the property or activity affected by such permit.

n. For an applicator who is not a certified commercial applicator, this permit shall be signed below by the registered pesticide dealer at the time of chemical purchase. Once signed, this permit is invalid for further purchase of chemicals.

4/08/2024
Date of Permit Issuance

Gabrielle Frigon, Director
Waste Engineering & Enforcement Division

AQUA-2024-045
Permit Number

Date of Chemical Purchase

Signature of Registered Pesticide Dealer