



#### Connecticut Department of Energy and Environmental Protection License\*

#### Structures, Dredging & Fill and Tidal Wetlands Permit **Section 401 Water Quality Certification**

Licensee(s): City of Milford

Licensee Address(s): 70 West River Street

Milford, CT 06460

License Number(s): 202309149-SDFTWQ

Municipality: Milford

Project Description: Modify and upgrade stormwater drainage systems for flood and

erosion control

Project Address/Location: Fowler Park - 1 Shipyard Lane

Waters: Milford Harbor

Authorizing CT Statute(s) CGS Section 22a-359 to 363g; Section 401 CWA (33 USC 1341);

and/or Federal Law: CGS Section 22a-28 to 35; CGS Section 22a-90 to 112

Applicable Regulations of 22a-426-1 to 9, 22a-426-1 to 9

**CT State Agencies:** 

Agency Contact: Land & Water Resources Division,

Bureau of Water Protection & Land Reuse, 860-424-3019

**License Expiration:** Five (5) years from the date of issuance of this license.

**Project Site Plan Set:** 15 sheets of plans prepared by Silver, Petrucelli & Associates

dated September 25, 2023 of which sheets C100, C101, C400, C401 and C800 were revised February 19, 2024, and the cover sheet and sheets C500, C501, C502, C601-1, C601-1E, C601-4R, C601-4RE, C601-5, and C601-SE were revised March 8, 2024.







<sup>\*</sup>Connecticut's Uniform Administrative Procedure Act defines License to include, "the whole or part of any agency permit, certificate, approval, registration, charter or similar form of permission required by law . . ."

License Enclosures: LWRD General Conditions; Site Plan Set; Land Record Filing;

LWRD Work Commencement Form; LWRD Compliance

Certification Form

#### **Authorized Activities:**

The Licensee is hereby authorized to conduct the following work as described in application # 202309149-SDFTWQ and as depicted on any site plan sheets / sets cited herein:

- 1. <u>Stormwater outfall #1 Retain an existing 24</u>" diameter CMP outfall and replace it with an outfall comprising:
  - a. a 24" diameter RCP extending approximately 10.2' waterward of the coastal jurisdiction line with an invert elevation of 0.0' NAVD88 and placed atop a 6" layer of bedding stone;
  - b. a 2' wide by 2' high by 3' long concrete foundation;
  - c. a 4.5' wide by 13' long stone riprap anti-scour pad; and
  - d. approximately 2.85 CY of riprap bank stabilization.
- 2. <u>Stormwater outfall #2</u> Remove a 12" diameter PVC pipe having an invert elevation of 4.5' NAVD88 and fill the void with soil and seed.
- 3. Stormwater outfall #3 Retain an existing 18" RCP having an invert elevation of 1.8' NAVD88 and add a backflow preventer.
- 4. Stormwater outfall #4 Abandon in place and disconnect an existing 15" diameter RCP.
- 5. Stormwater outfall #4R Construct a new stormwater outfall comprising:
  - a 30" diameter RCP extending approximately 8.1' waterward of the coastal jurisdiction line with an invert elevation of - 1.0' NAVD88 and placed atop a 6" layer of bedding stone;
  - b. a 2' wide by 2' high by 3.75' long concrete foundation;
  - c. a 7' wide by 18' long stone riprap anti-scour pad; and
  - d. approximately 2.4 CY of riprap bank stabilization.
- 6. Stormwater outfall #5 Retain an existing 24" diameter RCP having an invert elevation of -3.4' NAVD88 and clean out the end of the pipe and surrounding area by removing approximately 2-3 cubic yards of sediment.
- 7. Stormwater outfall #6 Retain a 12" diameter HDPE stormwater outfall.

Failure to comply with the terms and conditions of this license shall subject the Licensee and / or the Licensee's contractor(s) to enforcement actions and penalties as provided by law.

#### This license is subject to the following Terms and Conditions:

1. **License Enclosure(s) and Conditions.** The Licensee shall comply with all applicable terms and conditions as may be stipulated within the License Enclosure(s) listed above.

- 2. **Height of Tide Restriction.** All work authorized herein shall be conducted during periods of lower water to minimize turbidity and sedimentation.
- 3. **Turbidity Curtain.** Prior to the commencement of work authorized in Paragraphs 1 & 5 of the Authorized Activities herein, the Licensee shall install turbidity curtains extending from the water surface to the substrate around the work area. Such erosion and sediment control structures shall be maintained in optimal operating condition until project completion at which time the erosion and sediment controls shall be removed to an upland location.
- 4. Water Quality Protection. The Licensee shall install, regularly inspect, maintain, and replace as necessary, catch basin filter inserts or an equally effective alternative devise as approved in writing by the Commissioner in each of the catch basins identified on sheet C501. Maintenance shall include removing and disposing of properly, accumulated sediment, trash, and organic debris from each filter. Within 45 days of the completion of work authorized herein, the Licensee shall submit documentation demonstrating that the filters have been installed.
- 5. **Tidal Wetlands Mitigation Plan Submission.** At least 45 days prior to the commencement of work, the Licensee shall submit a Tidal Wetland Mitigation Plan (Plan) for the Commissioner's review and written approval. Such plan shall propose a minimium 3:1 mitigation ratio for any wetlands impacted by construction and fill activities. Mitigation shall be completed within the approved timeframe.
- 6. **Tidal Wetlands Mitigation Activities.** The Licensee shall initiate the Plan approved by the Commissioner as required in Paragraph 5. of the Terms and Conditions herein the year following the completion of construction of the Authorized Activities approved herein and maintain and mointor the tidal wetlands plantings for a minimum of three years in accordance with the provisions of the Plan.

Issued under the authority of th	e Commissioner of Energy and Environmental Protection on:
Date	Emma Cimino
	Deputy Commissioner
	Department of Energy & Environmental Protection



79 Elm Street • Hartford, CT 06106-5127

portal.ct.gov/DEEP

Affirmative Action/Equal Opportunity Employer

#### **LWRD General Conditions**

- 1. Land Record Filing (for Structures Dredging & Fill, Tidal Wetlands, Certificate of Permission, and Long Island Sound General Permit Licenses only). The Licensee shall file the Land Record Filing on the land records of the municipality in which the subject property is located not later than thirty (30) days after license issuance pursuant to Connecticut General Statutes (CGS) Section 22a-363g. A copy of the Notice with a stamp or other such proof of filing with the municipality shall be submitted to <a href="mailto:DEEP.LWRDRegulatory@ct.gov">DEEP.LWRDRegulatory@ct.gov</a> no later than sixty (60) days after license issuance. If a Land Record Filing form is not enclosed and the work site is not associated with an upland property, no filing is required.
- 2. Contractor Notification. The Licensee shall give a copy of the license and its attachments to the contractor(s) who will be carrying out the authorized activities prior to the start of construction and shall receive a written receipt for such copy, signed and dated by such contractor(s). The Licensee's contractor(s) shall conduct all operations at the site in full compliance with the license and, to the extent provided by law, may be held liable for any violation of the terms and conditions of the license. At the work site, the contractor(s) shall, whenever work is being performed, have on site and make available for inspection a copy of the license and the authorized plans.
- **3.** Work Commencement<sup>1</sup>. Not later than two (2) weeks prior to the commencement of any work authorized herein, the Licensee shall submit to <a href="DEEP.LWRDRegulatory@ct.gov">DEEP.LWRDRegulatory@ct.gov</a>, on the Work Commencement Form attached hereto, the name(s) and address(es) of all contractor(s) employed to conduct such work and the expected date for commencement and completion of such work, if any.
  - For water diversion activities authorized pursuant to 22a-377(c)-1 of the Regulations of Connecticut State Agencies, the Licensee shall also notify the Commissioner in writing two weeks prior to initiating the authorized diversion.
  - For emergency activities authorized pursuant Connecticut General Statutes Section 22a-6k, the Licensee shall notify the Commissioner, in writing, of activity commencement at least one (1) day prior to construction and of activity completion no later than five (5) days after conclusion.
- **4.** For Coastal Licenses Only License Notice. The Licensee shall post the first page of the License in a conspicuous place at the work area while the work authorized therein is undertaken.
- 5. Unauthorized Activities. Except as specifically authorized, no equipment or material, including but not limited to, fill, construction materials, excavated material or debris, shall be

Revised: October, 2017

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<sup>&</sup>lt;sup>1</sup> The Work Commencement condition and the need for a Work Commencement Form is not applicable to Flood Management Certification approvals.

deposited, placed or stored in any wetland or watercourse on or off-site. The Licensee may not conduct work within wetlands or watercourses other than as specifically authorized, unless otherwise authorized in writing by the Commissioner. Tidal wetlands means "wetland" as defined by section 22a-29 and "freshwater wetlands and watercourses" means "wetlands" and "watercourses" as defined by section 22a-38.

- **6. Management of Materials.** Any materials removed from the site shall be managed in accordance with all federal, state, and local requirements, including Chapter 446K Water Pollution Control, Chapter 445 Hazardous Waste, and Chapter 446d Solid Waste of the Connecticut General Statutes.
- 7. Unconfined Instream Work. Unless otherwise noted in a condition of the license, the following conditions apply to projects in non-coastal waters:
  - Unconfined instream work is limited to the period June 1 through September 30.
  - Confinement of a work area by cofferdam techniques using sand bag placement, sheet pile installation (vibratory method only), portadam, or similar confinement devices is allowed any time of the year. The removal of such confinement devices is allowed any time of the year.
  - Once a work area has been confined, in-water work within the confined area is allowed any time of the year.
  - The confinement technique used shall completely isolate and protect the confined area from all flowing water. The use of silt boom/curtain or similar technique as a means for confinement is prohibited.
- 8. For State Actions Only Material or Equipment Storage in the Floodplain. Unless approved by a Flood Management Exemption, the storage of any materials at the site which are buoyant, hazardous, flammable, explosive, soluble, expansive, radioactive, or which could in the event of a flood be injurious to human, animal or plant life, below the elevation of the five-hundred (500) year flood is prohibited. Any other material or equipment stored at the site below said elevation by the Licensee or the Licensee's contractor must be firmly anchored, restrained or enclosed to prevent flotation. The quantity of fuel stored below such elevation for equipment used at the site shall not exceed the quantity of fuel that is expected to be used by such equipment in one day. In accordance with the licensee's Flood Contingency Plan, the Licensee shall remove equipment and materials from the floodplain during periods when flood warnings have been issued or are anticipated by a responsible federal, state or local agency. It shall be the Licensee's responsibility to obtain such warnings when flooding is anticipated.
- 9. Temporary Hydraulic Facilities for Water Handling. If not reviewed and approved as a part of the license application, temporary hydraulic facilities shall be designed by a qualified professional and in accordance with the Connecticut Guidelines for Soil Erosion and Sediment Control, the 2004 Connecticut Stormwater Quality Manual, or the Department of Transportation's ConnDOT Drainage Manual, as applicable. Temporary hydraulic facilities may include channels, culverts or bridges which are required for haul roads, channel relocations, culvert installations, bridge construction, temporary roads, or detours.

- **10. Excavated Materials.** Unless otherwise authorized, all excavated material shall be staged and managed in a manner which prevents additional impacts to wetlands and watercourses.
- 11. Best Management Practices. The Licensee shall not cause or allow pollution of any wetlands or watercourses, including pollution resulting from sedimentation and erosion. In constructing or maintaining any authorized structure or facility or conducting any authorized activity, or in removing any such structure or facility, the Licensee shall employ best management practices to control storm water discharges, to prevent erosion and sedimentation, and to otherwise prevent pollution of wetlands and other waters of the State. For purposes of the license, "pollution" means "pollution" as that term is defined by CGS section 22a-423. Best Management Practices include, but are not limited, to practices identified in the Connecticut Guidelines for Soil Erosion and Sediment Control as revised, 2004 Connecticut Stormwater Quality Manual, Department of Transportation's ConnDOT Drainage Manual as revised, and the Department of Transportation Standard Specifications as revised.
- 12. In-Water Work Vessel Staging and Storage. (for Structures Dredging & Fill, Tidal Wetlands, Certificate of Permission, and Long Island Sound General Permit Licenses only). For any barge, vessel, skiff or floating work platform ("work vessels") utilized in the execution of the work authorized herein, the Licensee shall ensure that such work vessels:
  - do not rest on, or come in contact with, the substrate at any time, unless specifically authorized in the license.
  - are not stored over intertidal flats, submerged aquatic vegetation or tidal wetland vegetation or in a location that interferes with navigation. In the event any work vessel is grounded, no dragging or prop dredging shall occur to free it.
- 13. Work Site Restoration. Upon completion of any authorized work, the Licensee shall restore all areas impacted by construction, or used as a staging area or accessway in connection with such work, to their condition prior to the commencement of such work.
- **14. Inspection.** The Licensee shall allow any representative of the Commissioner to inspect the project location at reasonable times to ensure that work is being or has been conducted in accordance with the terms and conditions of this license.

#### 15. Change of Use. (Applies only if a use is specified within the License "Project Description")

- a. The work specified in the license is authorized solely for the purpose set forth in the license. No change in purpose or use of the authorized work or facilities as set forth in the license may occur without the prior written approval of the Commissioner. The Licensee shall, prior to undertaking or allowing any change in use or purpose from that which is authorized by this license, request permission from the Commissioner for such change. Said request shall be in writing and shall describe the proposed change and the reason for the change.
- b. A change in the form of ownership of any structure authorized herein from a rental/lease commercial marina to a wholly-owned common interest community or dockominium may constitute a change in purpose as specified in paragraph (a) above.
- 16. De Minimis Alteration. The Licensee shall not deviate from the authorized activity without

prior written approval from the Commissioner. The Licensee may request a de minimis change to any authorized structure, facility, or activity. A de minimis alteration means a change in the authorized design, construction or operation that individually and cumulatively has minimal additional environmental impact and does not substantively alter the project as authorized.

- For diversion activities authorized pursuant to 22a-377(c)-2 of the Regulations of Connecticut State Agencies, a de minimis alteration means an alteration which does not significantly increase the quantity of water diverted or significantly change the capacity to divert water.
- 17. Extension Request. The Licensee may request an extension of the license expiration date. Such request shall be in writing and shall be submitted to <a href="DEEP.LWRDRegulatory@ct.gov">DEEP.LWRDRegulatory@ct.gov</a> at least thirty (30) days prior to the license expiration. Such request shall describe the work done to date, what work still needs to be completed, and the reason for such extension. The Commissioner may extend the expiration date of this license for a period of up to one year, in order for the Licensee to complete the authorized activities. It shall be at the Commissioner's sole discretion to grant or deny such request. No more than three (3) one-year extensions will be granted under this license.
- **18. Compliance Certification.** Not later than 90 days after completion of the authorized work, the Licensee shall prepare and submit to <a href="DEEP.LWRDRegulatory@ct.gov">DEEP.LWRDRegulatory@ct.gov</a>, the attached Compliance Certification Form. Such Compliance Certification shall be completed, signed, and sealed by the Licensee and a Connecticut Licensed Design Professional. If non-compliance is indicated on the form, or the Commissioner has reason to believe the activities and/or structures were conducted in non-compliance with the license, the Commissioner may require the Licensee to submit as-built plans as a condition of this license.
- **19. Maintenance.** The Licensee shall maintain all authorized structures or work in optimal condition or shall remove such structures or facility and restore the affected waters to their prework condition. Any such maintenance or removal activity shall be conducted in accordance with applicable law and any additional approvals required by law.
- **20.** No Work After License Expiration. Work conducted after the license expiration date is a violation of the license and may subject the licensee to enforcement action, including penalties, as provided by law.
- **21. License Transfer.** The license is not transferable without prior written authorization of the Commissioner. A request to transfer a license shall be submitted in writing and shall describe the proposed transfer and the reason for such transfer. The Licensee's obligations under the license shall not be affected by the passage of title to the license site to any other person or municipality until such time as a transfer is approved by the Commissioner.
- **22. Document Submission.** Any document required to be submitted to the Commissioner under the license or any contact required to be made with the Commissioner shall, unless otherwise specified in writing by the Commissioner, be directed to:

DEEP.LWRDRegulatory@ct.gov or

Regulatory Section
Land & Water Resources Division
Department of Energy and Environmental Protection
79 Elm Street
Hartford, Connecticut 06106-5127
860-424-3019

- 23. Date of Document Submission. The date of submission to the Commissioner of any document required by the license shall be the date such document is received by the Commissioner. The date of any notice by the Commissioner under the license, including but not limited to notice of approval or disapproval of any document or other action, shall be the date such notice is personally delivered or the date three (3) days after it is mailed by the Commissioner, whichever is earlier. Except as otherwise specified in the license, the word "day" as used in the license means calendar day. Any document or action which is required by the license to be submitted or performed by a date which falls on a Saturday, Sunday or a Connecticut or federal holiday shall be submitted or performed on or before the next day which is not a Saturday, Sunday, or a Connecticut or federal holiday.
- **24.** Certification of Documents. Any document, including but not limited to any notice, which is required to be submitted to the Commissioner under the license shall be signed by the Licensee 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 and 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, and I understand that any false statement made in this document or its attachments may be punishable as a criminal offense."
- 25. Accuracy of Documentation. In evaluating the application for the license, the Commissioner has relied on information and data provided by the Licensee and on the Licensee's representations concerning site conditions, design specifications and the proposed work, including but not limited to representations concerning the commercial, public or private nature of the work or structures, the water-dependency of said work or structures, its availability for access by the general public, and the ownership of regulated structures or filled areas. If such information proves to be false, deceptive, incomplete or inaccurate, the license may be modified, suspended or revoked, and any unauthorized activities may be subject to enforcement action.
- **26.** Limits of Liability. In granting the license, the Commissioner has relied on all representations of the Licensee, including information and data provided in support of the Licensee's application. Neither the Licensee's representations nor the issuance of the license shall constitute an assurance by the Commissioner as to the structural integrity, the engineering feasibility or the efficacy of such design.
- 27. Reporting of Violations. In the event that the Licensee becomes aware that they did not or may not comply, or did not or may not comply on time, with any provision of this license or of any document incorporated into the license, the Licensee shall immediately notify the

agency contact specified within the license and shall take all reasonable steps to ensure that any noncompliance or delay is avoided or, if unavoidable, is minimized to the greatest extent possible. In so notifying the agency contact, the Licensee shall provide, for the agency's review and written approval, a report including the following information:

- a. the provision(s) of the license that has been violated;
- b. the date and time the violation(s) was first observed and by whom;
- c. the cause of the violation(s), if known;
- d. if the violation(s) has ceased, the duration of the violation(s) and the exact date(s) and times(s) it was corrected;
- e. if the violation(s) has not ceased, the anticipated date when it will be corrected;
- f. steps taken and steps planned to prevent a reoccurrence of the violation(s) and the date(s) such steps were implemented or will be implemented; and
- g. the signatures of the Licensee and of the individual(s) responsible for actually preparing such report.

If the violation occurs outside of normal business hours, the Licensee shall contact the Department of Energy and Environmental Protection Emergency Dispatch at 860-424-3333. The Licensee shall comply with any dates which may be approved in writing by the Commissioner.

- **28. Revocation/Suspension/Modification.** The license may be revoked, suspended, or modified in accordance with applicable law.
- **29. Other Required Approvals.** License issuance does not relieve the Licensee of their obligations to obtain any other approvals required by applicable federal, state and local law.
- **30. Rights.** The license is subject to and does not derogate any present or future property rights or powers of the State of Connecticut, and conveys no property rights in real estate or material nor any exclusive privileges, and is further subject to any and all public and private rights and to any federal, state or local laws or regulations pertinent to the property or activity affected hereby.
- **31. Condition Conflicts.** In the case where a project specific special condition listed on the license differs from, or conflicts with, one of the general conditions listed herein, the project specific special condition language shall prevail. It is the licensee's responsibility to contact the agency contact person listed on the license for clarification if needed prior to conducting any further regulated activities.

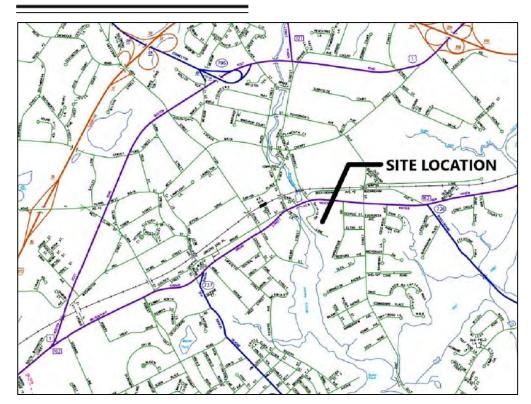
# PROJECT TITLE:

CITY OF MILFORD

# FOUNDER'S WALK, Phase 2B

SHIPYARD LANE MILFORD, CONNECTICUT 06460

### PROJECT LOCATION:





## SILVER PETRUCELLI + ASSOCIATES

3190 WHITNEY AVENUE HAMDEN CT 06518 311 STATE STREET NEW LONDON CT 06320 203 230 9007 silverpetrucelli.com

CTDEEP APPLICATION: 3/8/24

STRUCTURES, DREDGING & FILL - TIDAL WETLANDS

### **DRAWING LIST**

	DATE:	RVSN DATE:	311 STATE STREET NEW LONDON, CT 06320
COVER SHEET	11/13/13	3/8/24	PHONE 203 230 9007 silverpetrucelli.com
CIVIL:			
-SS 1 TOPOGRAPHIC SURVEY - OVERALL PLAN -SS 2 TOPOGRAPHIC SURVEY - PARTIAL PLAN -SS 3 OVERALL PROPERTY PLAN -SS 4 LISTING OF PROPERTY ABUTTERS	6/21/23 6/21/23 9/25/23 9/25/23	DRAWING IS ON-FILE AND DRAWING IS ON-FILE AND	NOT PART OF THIS SUBMITTAL NOT PART OF THIS SUBMITTAL NOT PART OF THIS SUBMITTAL NOT PART OF THIS SUBMITTAL
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DONALD W. SMITH, JR., P.E.

CONSULTING ENGINEER

56 GREENWOOD CIRCLE SEYMOUR, CT 06483

Tel. 203-888-4904 Fax 203-881-3434 dwsjrpe@sbcglobal.net

Stephen Wing, Landscape Architect, ASLA

**ARCHITECT** 

PHONE 203 230 9007

PHONE 203 888 4904

PHONE 203 874 6474

CIVIL ENGINEER DONALD W. SMITH, JR., P.E.

SILVER PETRUCELLI + ASSOCIATES
3190 WHITNEY AVENUE, HAMDEN CT 06518
311 STATE STREET NEW LONDON, CT 06320

56 GREENWOOD CIRCLE, SEYMOUR CT 06483

STEPHEN WING LANDSCAPE ARCHITECTURE

LANDSCAPE ARCHITECT

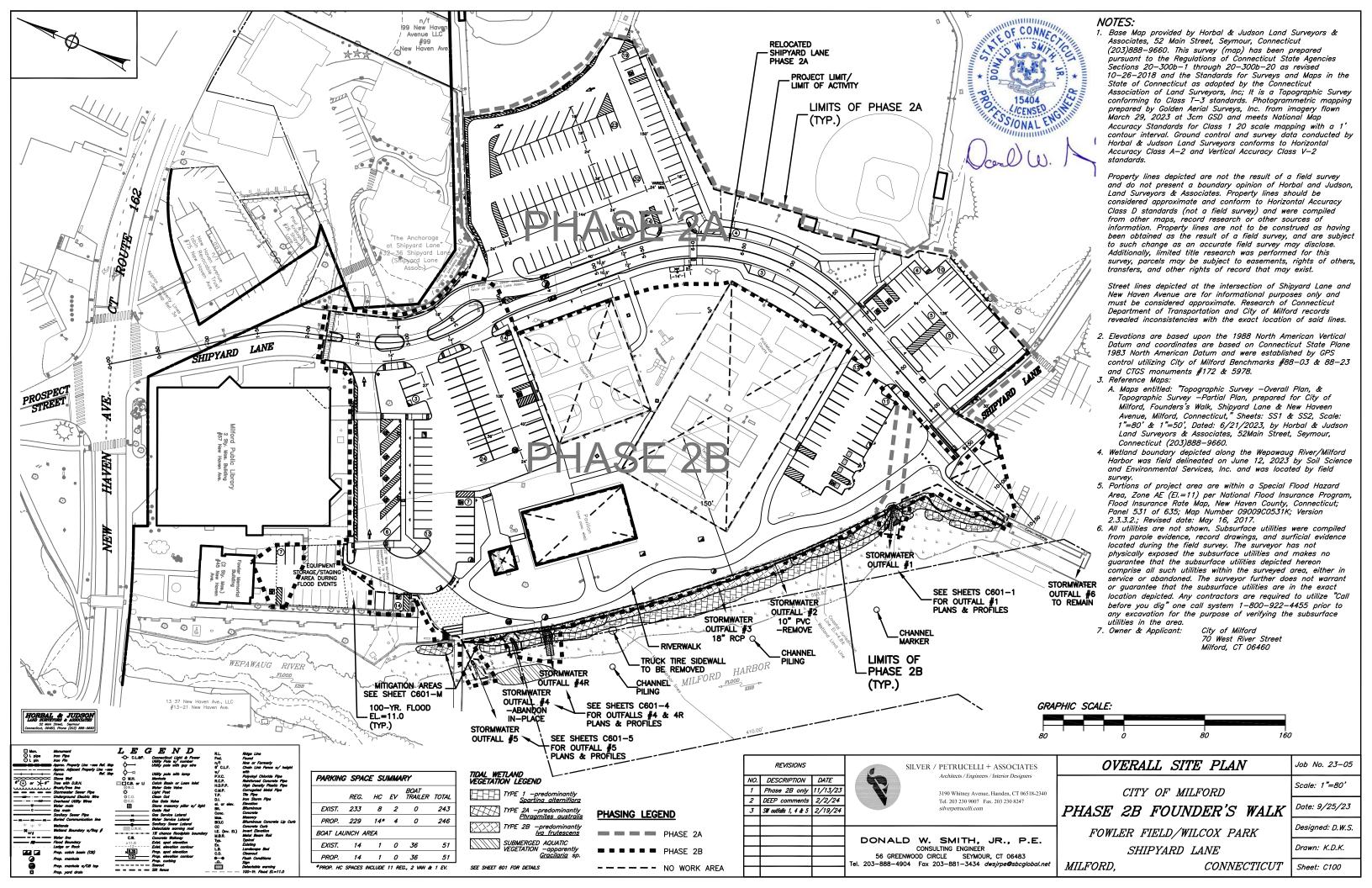
26 CROWN STREET, MILFORD, CT 06460

**ELECTRICAL ENGINEER** 

SILVER PETRUCELLI + ASSOCIATES
3190 WHITNEY AVENUE, HAMDEN CT 06518

silverpetrucelli.com

26 Crown Street, Milford, Ct. 06460-06411 (203) 874-6474 swla@optonline.net



# GENERAL CONSTRUCTION SEQUENCE:

The anticipated time of completion for the Phase 2B improvements is approximately 12 months from the initial start date, following completion of Phase 2A. Construction is expected to start in the fall of 2024 and be completed by the fall of 2025.

Prior to any on-site activity, the Contractor shall be responsible for holding a pre-construction meeting with the design team and appropriate City officials and for notifying "Call Before You Dig" (1-800-922-4455) of the proposed project. (Estimated Time: 3 days)

The general sequence of work will be as follows:

#### PHASE 2A:

STORM DRAINAGE OUTFALL #1, RELOCATED SHIPYARD LANE, RECONSTRUCT EAST AND SOUTH PARKING LOTS

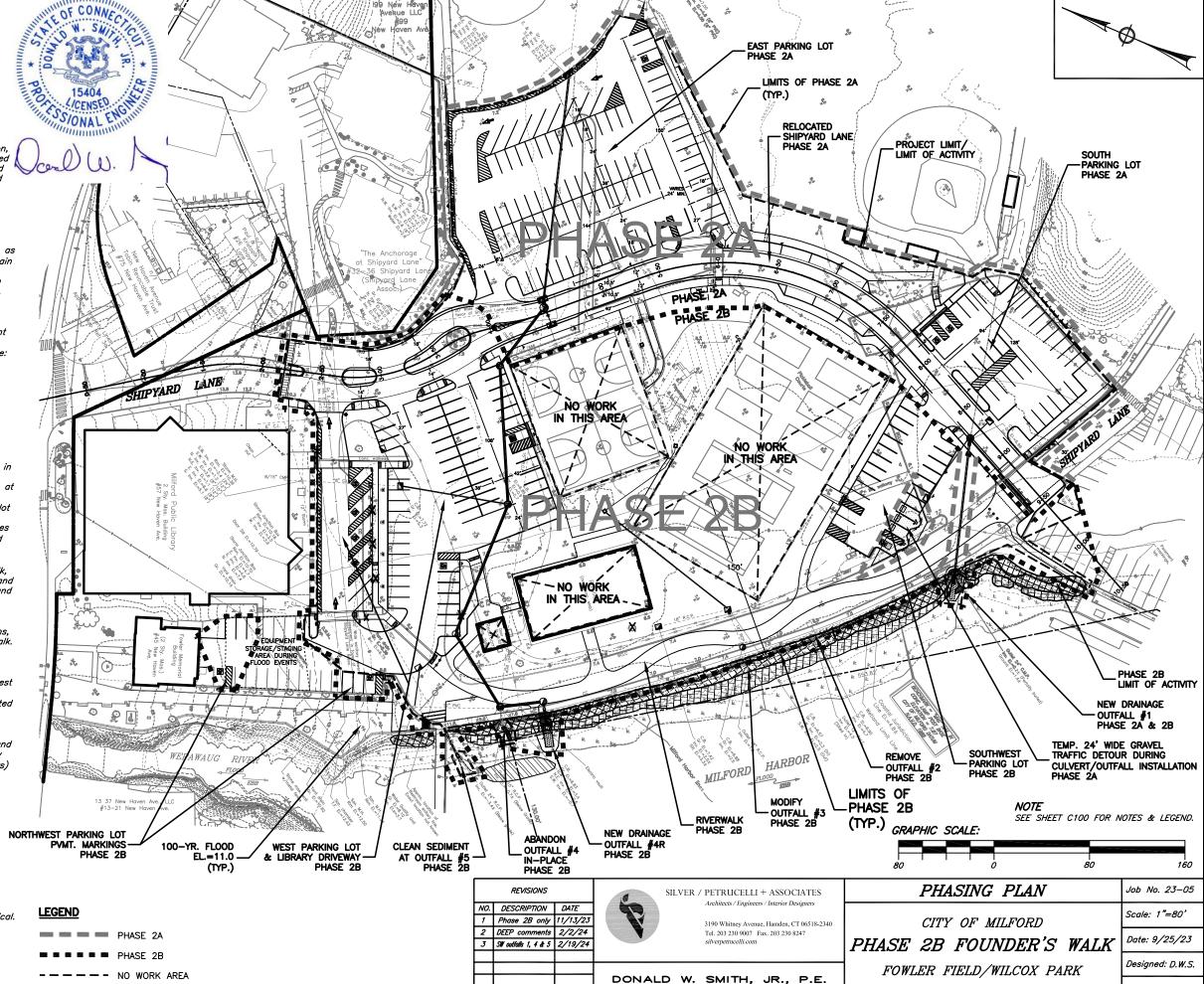
- Stakeout limits of relocated Shipyard Lane and reconstructed parking lots, saw cut and remove the designated portions of bituminous concrete pavement and dispose off-site. (Estimated Time: 5 days)
- Install construction entrances, silt fence and other erosion control measures as shown on plans and as directed by the "Engineer." Maintain all erosion and sediment control measures in an effective condition throughout the construction phase. (Estimated Time: 1 day)
- Strip and stockpile topsoil from limits of relocated Shipyard Land and expanded parking lots. Install silt fence around perimeter of stockpile areas and temporarily seed. (Estimated Time: 5 days)
- Reclaim bituminous pavement in East and South Parking lots (Estimated Time: 5 days)
- 5. Commence rough grading of relocated Shipyard Land and expanded East and South parking lots. Stabilize all cut and fill slopes as soon as practical after formation. (Estimated Time: 2 weeks)
- 6. Install new drainage Outfall #1. Install new drainage system in the East Parking lot and at Sta. 4+50 Shipyard Lane and make temporary connection to existing 15" RCP. Install new drainage system at Sta. 8+71 in Shipyard Lane with stub out for future CB. (Estimated Time: 4 weeks)
- 7. Complete "boxing out" of relocated Shipyard Lane and East and South parking lots. Form shoulders and prepare subgrade for gravel base. (Estimated Time: 2 weeks)
- 8. Install concrete curbing and sidewalks along the relocated Shipyard Lane and in the East and South parking lots.
  (Estimated Time: 4 weeks)
- Install gravel and processed aggregate base courses in the relocated Shipyard Lane and East and South parking lots. (Estimated Time: 10 days)
- Install bituminous concrete pavement in the relocated Shipyard Lane and East and South parking lots. (Estimated Time: 1 week)
- Install pavement markings and signage in the relocated Shipyard Lane and East and South parking lots. (Estimated Time: 1 week)

#### PHASE 2B:

STORM DRAINAGE OUTFALLS, NEW RIVERWALK, RECONSTRUCT WEST AND SOUTHWEST PARKING LOTS AND THE URBARY DRIVEWAY

REQUIRES CT DEEP STRUCTURES, DREDGING & FILL PERMIT.

- Stakeout limits of new construction, saw cut and remove the designated portions of concrete sidewalks and bituminous concrete pavement and legally dispose off-site. Remove storm drainage Outfall #2. (Estimated Time: 2 days)
- Install construction entrance, silt fence and other erosion control measures as shown on plans and as directed by the "Engineer". Maintain all erosion and sediment control measures in an effective condition throughout the construction phase. (Estimated Time: 1 day)
- 3. Clear designated trees and grub stumps from proposed development area and legally dispose of all grubbed materials. (Estimated Time: 1 day)
- Commence rough grading of the Riverwalk, West and Southwest parking lots and Library driveway. Stabilize all cut and fill slopes as soon as practical after formation. (Estimated Time: 1 week)
- 5. Modify Outfall #3, install new drainage systems #3 and #4 and in the West Parking lot, and tie into MH at Sta. 4+50. Clean sediment at Outfall #5. Install new drainage system in the Southwest Parking lot and tie into to MH at Sta. 8+71.Install new drainage structures in the Library Driveway. (Estimated Time: 4 weeks)
- 6. Complete "boxing out" of Riverwalk, West and Southwest parking lots and Library driveway, form shoulders and prepare subgrade for gravel base. (Estimated Time: 2 weeks)
- 7. Install lighting conduits, foundations, wire and Light posts along Riverwalk. (Estimated Time: 2 weeks)
- 8. Install concrete curbing and sidewalks in the West and Southwest parking lots and Library driveway. Install Concrete Riverwalk. (Estimated Time: 4 weeks)
- Install gravel and processed aggregate base courses in West and Southwest parking lots and Library driveway. (Estimated Time: 10 days)
- 10.Install bituminous concrete pavement in West and Southwest parking lots and Library driveway. (Estimated Time: 1 week)
- 11.Remove designated pavement markings and install parking and traffic markings and signage. (Estimated Time: 1 week)
- 12.Install landscape plantings and complete loaming and seeding of grass areas and all remaining disturbed areas as soon as practical. (Estimated Time: 10 days)



CONSULTING ENGINEER
56 GREENWOOD CIRCLE SEYMOUR, CT 06483

el. 203-888-4904 Fax 203-881-3434 dwsjrpe@sbcglobal.ne

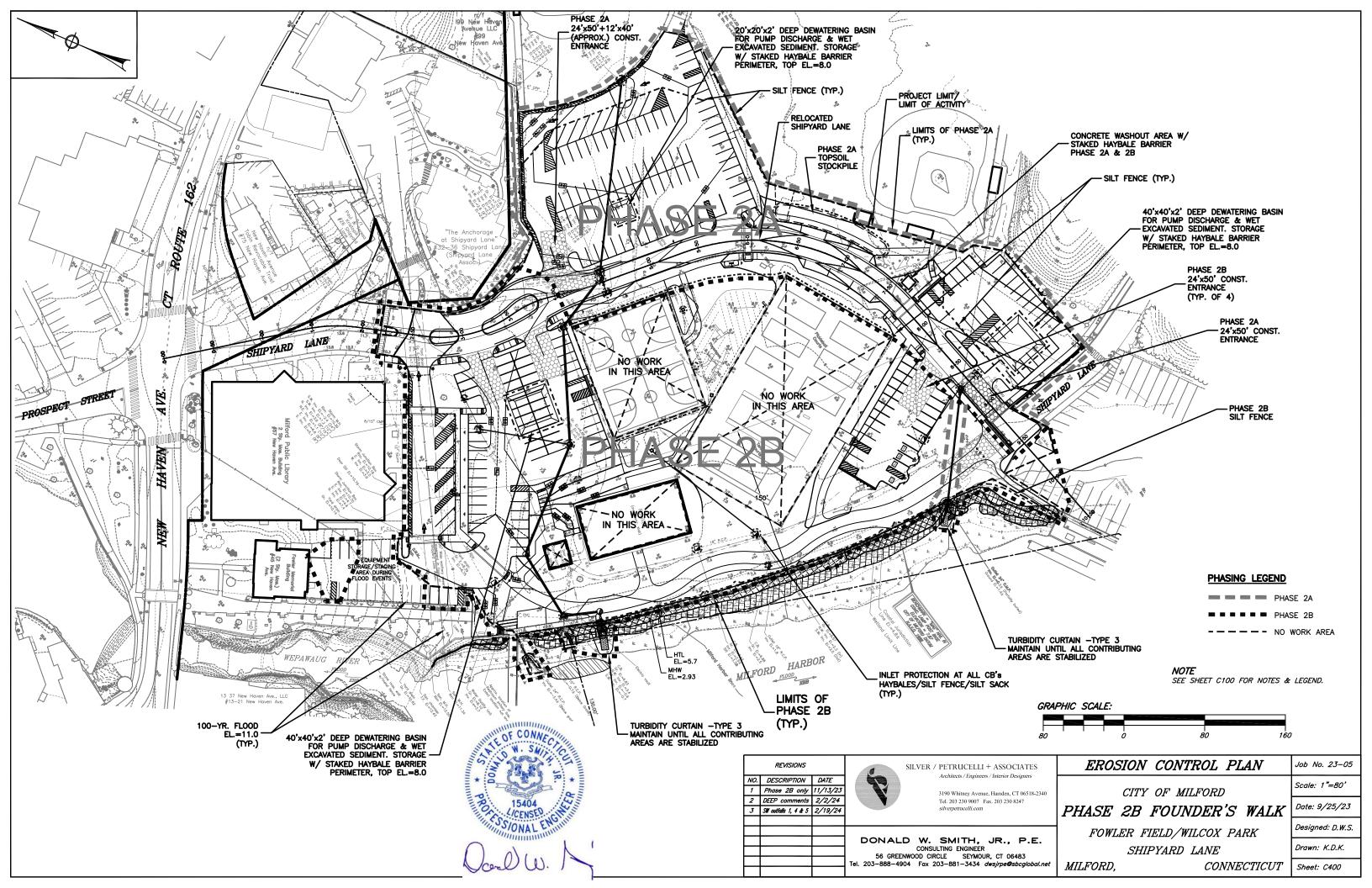
Drawn: K.D.K.

Sheet: C101

SHIPYARD LANE

CONNECTICUT

MILFORD.



#### A. NARRATIVE:

The project involves the relocation of approximately 615 LF of Shipyard Lane and the reconstruction and realignment of the various parking ares in the Fowler Field Recreation Complex. The construction also includes the construction of an approximately 550 foot long concrete walkway in the area of the abnandaned portion foot long concrete walkway in the area of the abnandoned portion of Shipyard Lane. The Project also includes the modification and improvment of the associated storm drainage systems and the various outfalls into the Wepawaug River at the head of Millord Harbor. The subject Parcel encompasses approximately 24.8 ac. per the City's Assessors Map, however, the project site is limited to approximately 5 ac. with the total disturbed area of approximately 4.5 ac. The Site is located on the South side of New Haven Avenue cancelle Prepared Street

Post-Construction runoff coefficient for the site is estimated at

The local soil types are as follows:

#### WETLAND SOILS

- Aq <u>Aguents</u>— This is a poorly to very poorly drained, disturbed soil where two or more feet of the original soil surface has been altered by filling, excavation and/or grading. Aquents are characterized by a seasonal to prolonged high groundwater table (near the ground surface) and are capable of supporting hydrophytic plants.
- 98 Westbrook mucky peat (Terrie Sulfihemists)— This is a deep, very poorly drained, peats and mucks, organic soil that developed over loamy mineral materials. Depth of the peats and mucks is 16 to 51 inches. Westbrook mucky peat soils occur in estuaries near mouths of rivers or major streams or in salt marshes which are subject to tidal inundation twice daily and they are

#### NON-WETLAND SOILS

- 38 Hinckley gravelly sandy loam (Typic Udorthents)— This is a deep, excessively drained, gravelly sandy textured soil that developed over sandy and gravelly, glacial outwash derived from schist, gneiss and granite. Hinckley soils occur in valleys, outwash
- 306 Udorthents-Urban land complex This map unit consists of extensive areas where soils have been disturbed from land development along with large areas of impervious surfaces associated with streets, parking lots, buildings and other
- 307 <u>Urban land</u> This map unit consists of land which is mostly covered with streets, parking lots, buildings and other structures. Generally, more than 75% of the map unit consists of
- 308 Udorthents, smoothed This is a well drained to moderately well drained soil area that has had two or more feet of the original soil surface altered by filling, excavation or grading activities. Udorthents, smoothed soils commonly occur on

Note: On June 12, 2023, SS&ES, Inc. conducted a site inspection Note: On June 12, 2023, SS&ES, Inc. conducted a site inspection on the property to identify any regulated wetlands or watercourses existing on-site. Scott Stevens, Registered Professional Soil Scientist and Jennifer Beno, Biologist/Wetland Scientist performed the inspection. A tidally influenced portion of the Wepawaug River, which is a perennial watercourse, exists along the western to southwestern side of the property. SS&ES inspected the site at low tide. The tidal wetland line was determined based on tidal wetland plants identified and physical markings of the tidal wrackline observed. Tidal wetland species identified along the tidal wetland boundary included common reed grass, hightide bush, saltwater cordgrass, poison ivy and seaside goldenrod. The soils within the tidal wetland were classified as a complex of Aquents and Westbrook mucky peat. The Coastal Jurisdiction Line (CLL) for Milford has been established at elevation 4.7° along Long Island Sound.

#### B. DESIGN CRITERIA:

- Erosion and sedimentation control measures have been located with consideration given to slopes, wetlands, and watercourses, and in accordance with the Connecticut "Guidelines for Soil Erosion and Sediment Control", of the Connecticut Council of Soil and Water Conservation, Latest Edition.
- Temporary sediment traps are located throughout the project site where initial earth disturbance and ground shaping will be performed. These sediment basins have been sized in accordance with the "Guidelines for Soil and Sediment Control", All sediment traps/basins shall provide a minimum of 134 cubic yards of water storage per acre drained and shall be maintained until final stabilization of the contributing area.

#### C. INSTALLATION AND/OR APPLICATION PROCEDURES:

#### D. OPERATION. MAINTENANCE PROGRAM. INSPECTIONS:

- Prior to any construction, a pre construction conference is to be held among the Design Engineer, the Owners, the Contracto the Town Engineer, the Wetlands Enforcement Officer, and the Zoning Enforcement Officer to review the erosion and sedimentation control measures to be taken. The contractor shall be responsible for arranging the pre construction
- All revisions after approval has been granted shall be to the appropriate commissions and the City Engineer.
- The City's zoning & wetlands departments shall receive written notification seventy-two hours before the start of any
- All erosion control measures associated with the construction are to be installed and maintained in accordance with the schedule and requirements. Additional control measures shall be installed
- All soil erosion and sediment control measures must be installed before any construction activities.
- Filter fabric/silt fence will be installed along the toe of all critical cut and fill slopes.
- Sediment removed from control measures must be dispose at a location approved by the design engineer that will not cause additional sedimentation to the surrounding area.

- 8. Qualified personnel (provided by the contractor) shall inspect disturbed areas of the construction activity that have not been disturbed areas of the construction activity that have not been finally stabilized, structure control measures, and locations where vehicles enter or exit the site at least once every seven (7) calendar days within 24 hours of the end of a storm that is 0.1 inches or greater. Where sites have been stabilized, such inspection shall be conducted at least once every month for
- Disturbed areas and areas used for storage of materials that are exposed to precipitation shall be inspected for evidence of, or the potential for, pollutants entering the drainage system. Erosion and sediment control measures shall be observed to ensure that they are operating correctly. Where discharge locations or points are accessible, they shall be inspected to ascertain whether erosion control measures are effective in preventing significant impacts to receiving waters. Locations where vehicles enter or exit the site shall be inspected for evidence of off-site sediment tracking.
- 10. Based on the results of this inspection, the description of potential sources and pollution prevention measures identified in the plan shall be revised as appropriate or as soon as practicable after such inspection. Such modifications shall provide for timely implementation of any changes to the site within 24 hours and implementation of any changes to the plan within three (3) calendar days following the inspection. The plan shall be revised and the site controls updated in accordance with sound engineering practices, the Guideline and Subsections (4) and (6) (c) i 3) of the Storm Water General Permit.
- 11. A report summarizing the scope of the inspection, name(s) and qualifications of personnel making the inspection, the date(s) of the inspection, major observations relating to the implementation of the Storm Water Pollution Control Plan and implementation of the starm water related as part of the plan for at least three (3) years after the date of inspection. The report shall be signed by the contractor, or his authorizing representation.

#### E. <u>BEST\_MANAGEMENT\_PRACTICES:</u>

- Construction shall proceed in accordance with the requirements of the general sequence of grading and construction activities, application of soil erosion and sediment control measures, and final stabilization of site as indicated on the plans.
- Refueling of equipment or machinery within twenty-five (25) feet of any wetland or watercourse shall be allowed only by direction of the Engineer.
- 3. No materials resulting from construction activities shall be placed in or contribute to the degradation of an adjacent wetland or watercourse. Disposal of any material shall be in accordance with Connecticut General Statutes including, but not limited to, Sections 224–207 through 224–209.
- 4. When dewatering is necessary, pumps shall not discharge directly into the wellands or watercourse. Prior to dewatering the contractor must submit to the Engineer a written proposal for specific methods and devices to be used, and obtain the Engineer's approval of such method and devices to be used for dewatering activities including, but not limited to, pumping the dewatering activities including, but not limited to, pumping the water into a temporary sedimentation trap, providing surge protection at the inlet and outlet of pumps or floating the intake of the pump, or other methods to minimize and retain the suspended solids. If the Engineer determines that the pump operation is causing turbitity problems, said operation shall cease until such time as means of controlling turbitity is submitted by the contractor and approved by the Engineer and implemented by
- Dumping of oil, chemicals, or other deleterious materials on the ground is forbidden. The contractor shall provide a means of catching, retaining and properly disposing of drained oil, removed oil filters, or other deleterious material. All spills of such
- Application of Herbicides or Pesticides must be done by a Connecticut licensed applicator. The contractor shall submit to the Engineer the proposed Applicator's name and license number, and must receive the Engineer's approval of the proposed applicator before such application is carried out.

#### F. SOIL STABILIZATION MEASURES:

- All topsoil not to be used for final grading/landscaped area shall be removed from the site immediately, in accordance applicable State and Local laws. All topsoil to be used in landscaped areas shall be stored/stockpiled in accordance with
- All areas within 500 feet of an inhabited dwelling shall be wetted as necessary to provide dust control.
- Sediment disposal areas and topsoil stockpiles not scheduled for construction activities within thirty (30) days shall be stabilized
- Ground limestone at a rate of 135 lbs. per 1,000 s.f.
  Fertilizer at a rate of 14 lbs. per 1,000 s.f. using a
  10-20-10 analysis or an equivalent.
  Annual Rye grass seeding applied at a rate of not less than 1 lb. per 1,000 s.f.
  Mulch all newly seeded areas with 80 lbs. of solt hay or small grain straw per 1,000 s.f.

- All disturbed areas are to be provided with at least 4" of topsoil before final seeding.
- Permanent vegetation is to be seeded or sodded on all exposed areas within ten (10) days after final grading. Mulching as necessary for seed protection and establishment. Lime and fertilize before permanent seeding.

Materials specifications for lawn areas:
(i) Soil: A minimum of 4" topsoil
(ii) Lime: 36 lbs. of ground limestone per 1,000 s.f.
(iii) Fertilizer: 14 lbs. per 1,000 s.f. using a 10-20-10 analysis or an equi

analysis or an equivalent.
(iv) Seed: Permanent Vegetation — Lawn
Proportion Common Name Germ
by weight
45% Kentucky Bluegrass 80
45% Creeping Red Fescue 85
10% Perennial Rye 90

#### G. RESPONSIBLE PARTIES:

2) Site Contractor (to be determined).

is assigned the responsibility for implementing the control measures of this plan. This responsibility includes the installation and maintenance of control measures, informing all parties engaged on the construction site of the requirements and objectives of this plan, and notifying the Planning and Zoning ibility, and for conveying a

#### H. TEMPORARY SEDIMENT TRAP CONSTRUCTION NOTES:

- Clear, grub and strip any vegetation and root mat from any proposed embankment and outlet area.
- Remove stones and rocks whose diameter is greater than  ${\it 3}$  inches and other debris.
- Excavate wet storage and construct the embankment and/or outlet as needed to attain the necessary storage requirements.
- excessive organics, debris, large rocks (over 6 inches) or other unsuitable materials.
- Compact the embankment in 9-inch layers by traversing with equipment while it is being constructed.
- Stabilize the earth embankment using any of the following measures: Temporary Seeding, Permanent Seeding, or Stone Slope Protection immediately after installation.

#### I. TEMPORARY SEDIMENT TRAP MAINTENANCE NOTES:

- pect the temporary sediment trap at least once a week and in 24 hours of the end of a storm with a rainfall amount
- Check the outlet to ensure that it is structurally sound and has not been damaged by erosion or construction equipment.

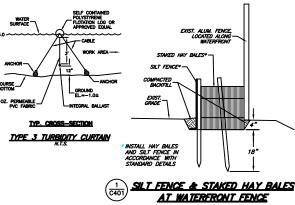
- When sediments have accumulated to one half the minimum required volume of the wet storage, dewater the trap as needed, remove sediments and restore the trap to its original dimensions. Dispose of the sediment removed from the basin in a suitable area and in such a manner that it will not erode and course actionents the problems.
- The temporary sediment trap may be removed after the contributing drainage area is stabilized.

#### J. GENERAL CONSTRUCTION SEQUENCE:

See Sheet C101 for general construction sequence and project phasing.

# BEST MANAGEMENT PRACTICES REQUIRED FOR PROTECTION OF NORTHERN DIAMONDBACK TERRAPIN:

- Work that is confined to the upland can be conducted without risk to Northern diamondback terrapin between October 1- April
- In the event that upland construction cannot be completed during the winter months, for work performed between May 1-September 30, the following protection measures and Best Management
- a. Silt Fencing should be installed around the upland work area. including staging and stockpiling areas, prior to commencement of construction and will be inspected daily.
- A visual inspection should be conducted once silt fencing is in-place and prior to start of any work activity to locate any potential turtles.
- c. All work personnel will be notified to be alert for the potential presence of the turtles and will be provided with a description of the species. Any turtle that may be discovered will be carefully moved, without harm, to a location outside the work area, and positioned in the same orientation that it had been moving. NO turtles will be removed or relocated from the
- d. No vehicles or machinery should be parked in any identified turtle habitat that is unfenced.
- Take special care to avoid harm to basking or foraging individuals during any work conducted in the early morning and evening hours.
- f. Report any observations of these turtles to our DEEP-NDDB Program at deep.nddbrequest@ct.gov as soon as possible.
- To protect hibernating Northern diamondback terrapin conduct your ground disturbance that will affect the bottoms and sides of tidal creeks within salt marshes during the active season (April 1-October 31). This will allow the turtle to move out of harms way.
- Ensure construction activities will not create a barrier to turtle movements. No channels should be completely blocked to
- b. The work crew must be made aware of the species description and possible presence.
- The immediate area where heavy equipment will be used each day should be searched for turtles before starting work using mechanical equipment.
- d. Any turtles found during the construction should be moved out of the way. This animal is protected by law and should never be taken off site.
- e. Work conducted during early morning and evening hours should occur with special care not to harm basking



STAKED HAY BALES

4 - 1 4 4 4 1 **12 12 1** -

PLAN

DEWATERING SETTLING BASIN DETAIL

IF DEWATERING IS NECESSARY DURING CONSTRUCTION A CLEAR WATER DISCHARGE SHALL BE PROVIDED AS FOLLOWS:

A. THE PUMP INLET WILL BE WRAPPED IN FILTER FABRIC AND PLACED IN CRUSHED

B. THE PUMP OUTLET WILL DISCHARGE TO THE DEWATERING ENCLOSURE PER THE DETAIL. FOR DEWATERING SETTLING BASIN TO BE LOCATED OUTSIDE OF THE 100' UPLAND REVIEWZONE.

C. THE DISCHARGE FROM THE DEWATERING ENCLOSURE WILL BE MONITORED AND ADDITIONAL MEASURES EMPLOYED IF NECESSARY.

PUMP DISCHARGE PIPE

SILT FENCE

INSIDE FACE

FLAT BOTTOM -

OR GRAVEL (8" DEPTH

NOTE: DIMENSIONS VARY ACCORDING TO PUMPING RATES, MINIMUM REQUIRED

STORAGE IS CALCULATED FROM CREST OF SPILLWAY WEIR.

DEWATERING PLAN

OUTLET (CT.D.O.T.M.12.02)

RAP AT DISCHARGE

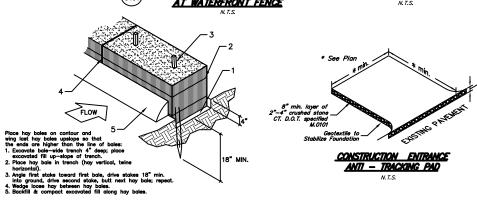
OUTLET SPILLWAY

OUTLET SPILLWAY WEIR

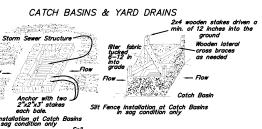
OUTLET SPILLWAY WEIR

OR SWALE

STAKED AND EMBED HAY BALES IN - ACCORDANCE WITH HAY BALE BARRIER STANDARD



ANTI — TRACKING PAD



Filter Fabric CATCH BASIN

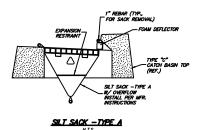
Basins on sloping roads should not be ringed. Bales or silt fence should be placed in a configuration to contain flows without "end runs."

Containments should Wrong

SEDIMENT CONTROL

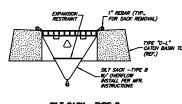
Source: U.S. Department of Agriculture, Soil Co.

#### PLACEMENT OF CONTROL MEASURES AT CATCH BASINS & YARD DRAINS



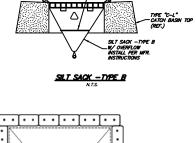
PLACEMENT AND CONSTRUCTION OF

A SYNTHETIC FILTER BARRIER



SURFACE DISCHARGE IS UNACCEPTABLE. THEREFORE, HAY BALES OR OTHER NTROL MEASURES, AS APPROVED BY THE ENGINEER, SHOULD BE USED DUND THE PERIMETER OF THE CONCRETE WASHOUT AREA FOR CONTAINMENT

HARDENED CONCRETE WASTE SHOULD BE REMOVED AND DISPOSED OF EN THE WASTE HAS ACCUMULATED TO HALF OF THE CONCRETE WASHOUT'S IGHT. THE WASTE CAN BE STORED AT AN UPLAND LOCATION, AS ROVED BY THE ENGINEER, ALL CONCRETE WASTE SHALL BE DISPOSED OF A MARNER CONSISTENT WITH ALL APPLICABLE LAWS, REGULATIONS, AND IDELINES.



CATION: WASHOUT AREA(S) ARE TO BE LOCATED AT LEAST 50 FEET FROM Y STREAM, WETLAND, STORM DRAINS, OR OTHER SENSITIVE RESOURCE. E FLOOD CONTINGENCY PLAN MUST ADDRESS THE CONCRETE WASHOUT IF WASHOUT IS TO BE LOCATED WITHIN THE FLOODPLAIN.

SIGNS SHOULD BE PLACED AT THE CONSTRUCTION ENTRANCE, AT THE NCRETE AREA(S) AND ELSEWHERE AS NECESSARY TO CLEARLY INDICATE ELOCATION OF THE CONCRETE WASHOUT TO OPERATIORS OF CONCRETE JCKS AND PUMP RIGS. WASHOUT AREA(S) SHOULD BE FLAGGED WITH FETY FENCING OR OTHER APPROVED METHOU

WASHOUT AREA(S) ARE TO BE INSPECTED AT LEAST ONCE A WEEK FOR ULCTURAL INTEGRITY, ADEQUATE HOLDING CAPACITY AND CHECKED FOR KKS, FEARS, OR OVERFLOWS. (AS REQUIRED BY THE CONSTRUCTION SITE VIRONMENTAL INSPECTION REPORT) WASHOUT AREA(S) SHOULD BE ECKED AFTER HEAVY ARIAN.

SIDE SLOPES (SEE BELOW) SAND BAGS TO SECURE
SHEETING (OR METHOD
AS DIRECTED BY ENGIN

CONCRETE WASHOUT AREA NOT TO SCALE

MILFORD.

ALL SOIL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE COMPLIANT WITH THE STANDARDS OF THE "CONNECTICUT" GUIDELINES FOR SOIL EROSION & SEDIMENT CONTROL.

EROSION CONTROL DETAILS REVISIONS SILVER / PETRUCELLI + ASSOCIATES Architects / Engineers / Interior Designers NO. DESCRIPTION DATE 1 Phase 2B only 11/13/23 CITY OF MILFORD 3 Silt fence & staked 2/19/24 hay bales detail Tel. 203 230 9007 Fax. 203 230 8247 DONALD W. SMITH, JR., P.E. CONSULTING ENGINEER
56 GREENWOOD CIRCLE SEYMOUR, CT 06483 Tel. 203-888-4904 Fax 203-881-3434 dwsjrpe@sbcglobal.net

Job No. 23-05 Scale: As Noted

CONNECTICUT

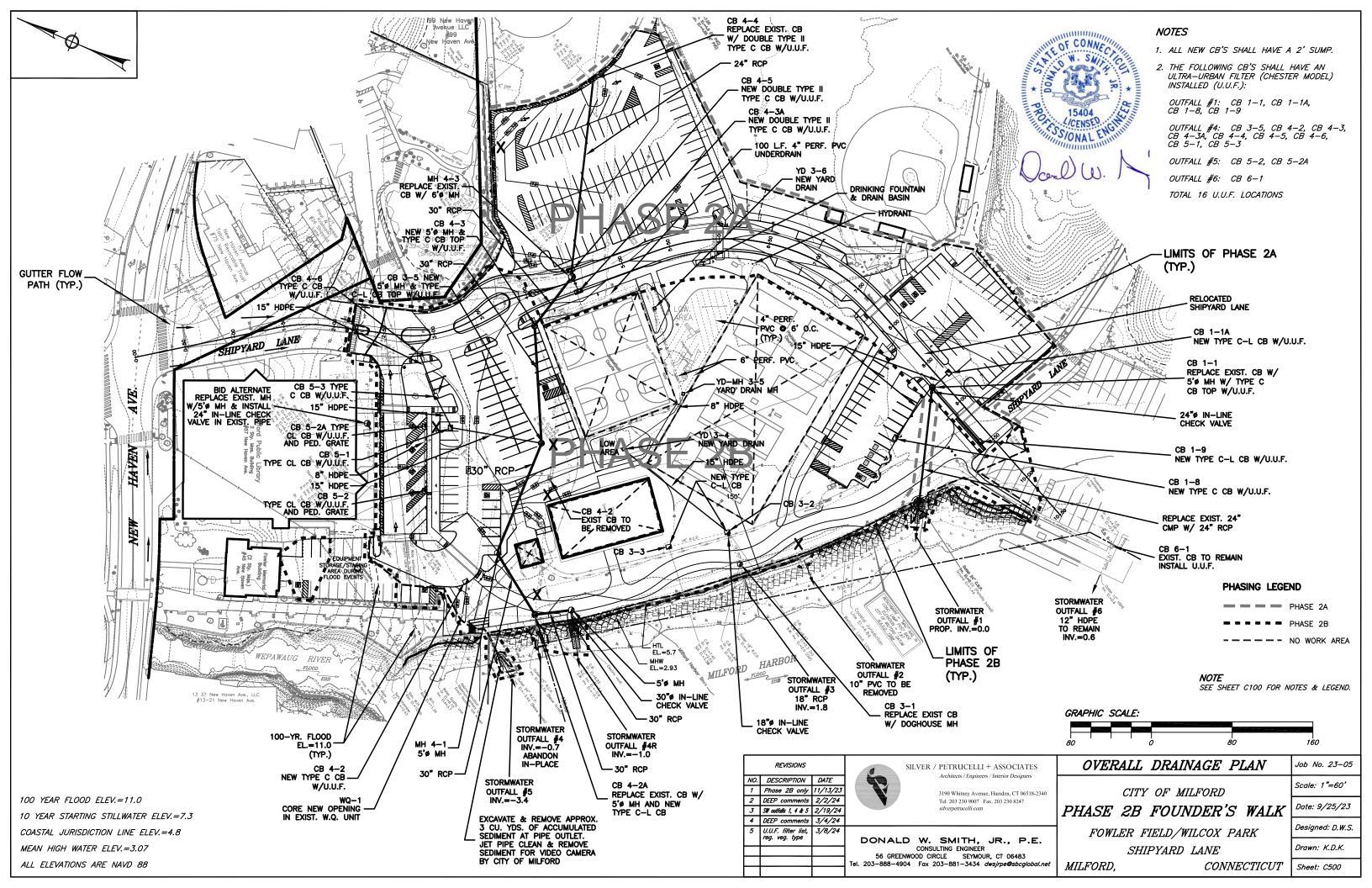
PHASE 2B FOUNDER'S WALK

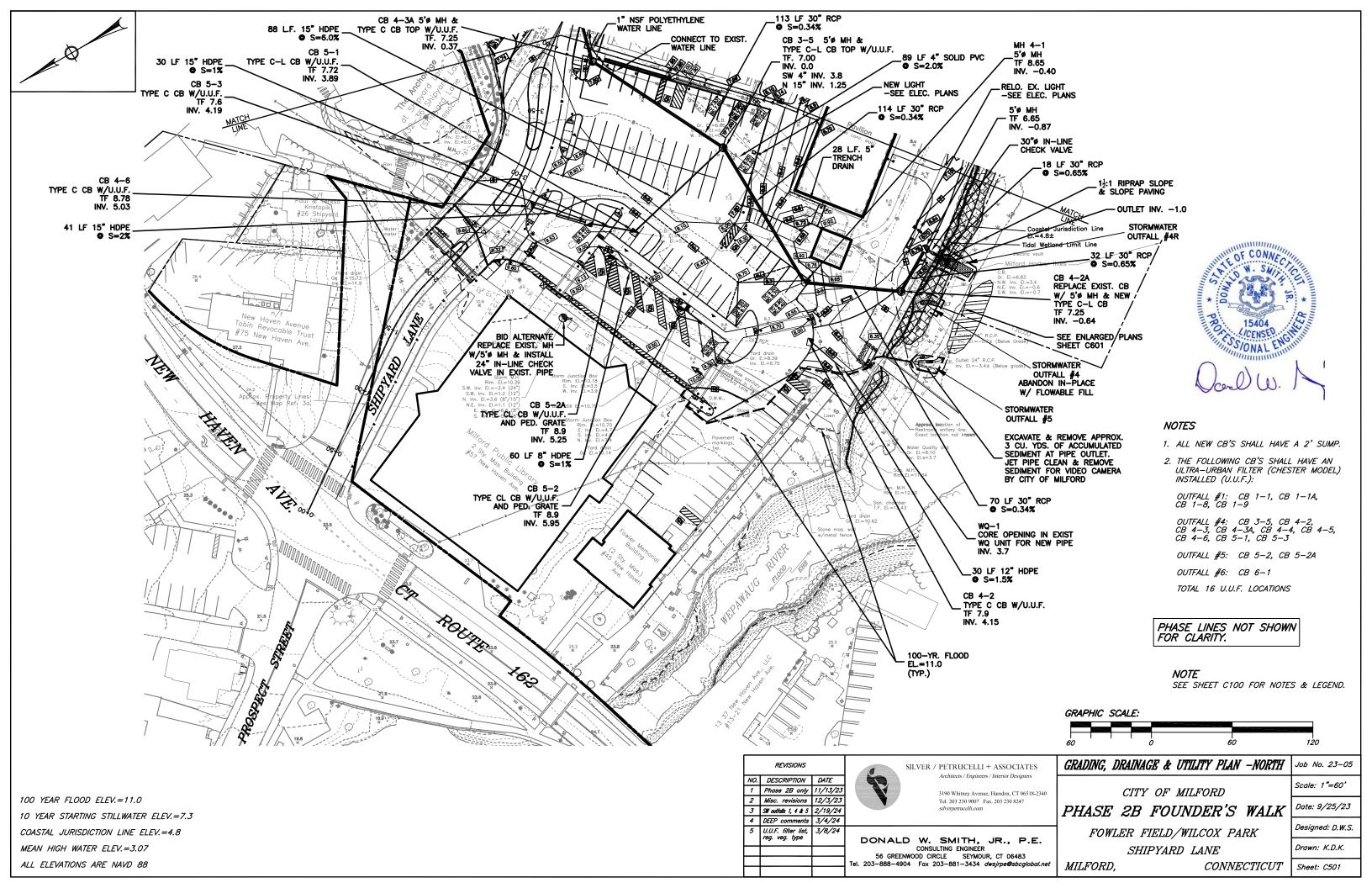
FOWLER FIELD/WILCOX PARK SHIPYARD LANE

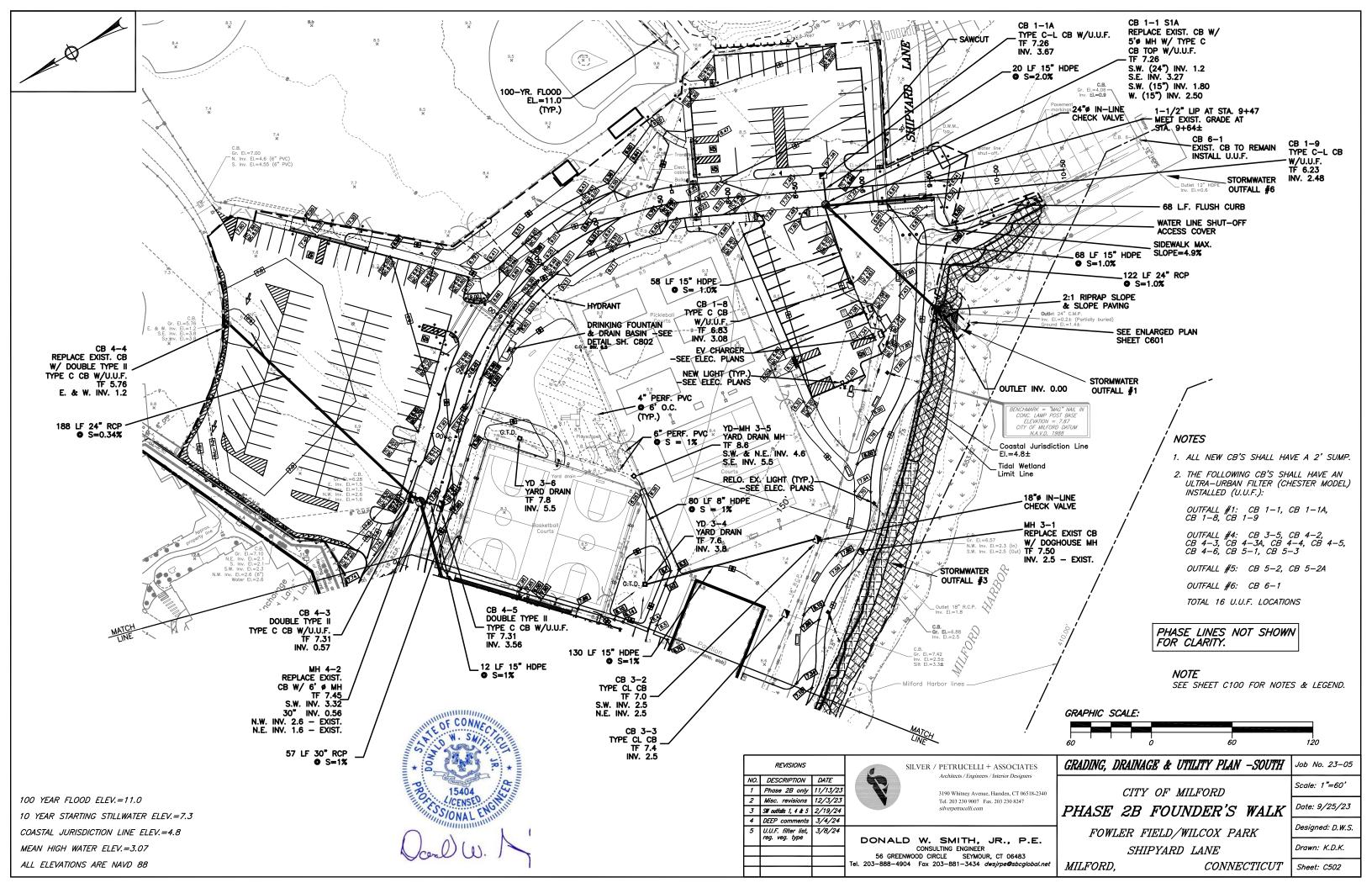
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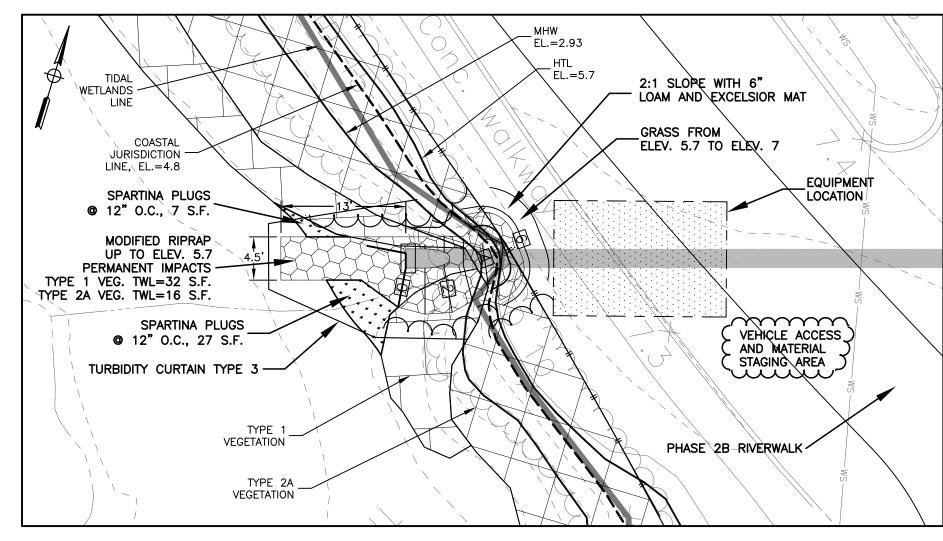
Date: 9/25/23

Designed: D.W.S.









STORMWATER OUTFALL #1 PLAN SCALE: 1"=10'

	WETLAND VEGETATION IMPACT SUMMARY								
	TEMPOR	A DV (CE)	DEDAM	NENT (OF)	EA DEL DA	(ODK (OX)	AUTIOAT	ION (OF)	
	TEIVIPOR	CARY (SF)	PERIVIA	NENT (SF)	EARTHW	ORK (CY)	WITIGAT	ION (SF)	ADJ. NON-
OUTFALL#	Type 1	Type 2A	Type 1	Type 2A	CUT	FILL	Type 1	Type 2A	TWL AREA
#1	20	7	32	16	5.5	5.5	34	0	
#2	0	0	0	0	0	0.25	0	0	
#3	0	0	0	0	0	0	0	0	
#4					0	0	30	0	
#4R	38	33	53	40	14.85	11.05	0	0	
#5	0	0	0	0	3	0	0	0	
#6	0	0	0	0	0	0	0	0	
Mitigation Area	0	0	0	0	0	0	0	385	300
TOTAL	58	40	85	56	23.35	16.8	64	385	300
Vol. Phrag. Maint. Area	0	0	0	0	0	0	0	185	160

RIRPAP QUANTITY SUMMARY									
OUTFALL#	APRON (CY)	SLOPE STABILIZATION (CY)							
#1	2.15	2.85							
#4R	4.67	2.4							
	6.82	5.25							

2:1 PLANTED SLOPE HTL HTL 5.7 9.34 HTL 10.2' TO CJL -CJL 4.8 8.44 CJL CJL 2:1 MODIFIED RIPRAP SLOPE & SLOPE PAVING —6.89 мннw MHW 2.93 6.57 MHW МНW REPLACE EXIST. 24" CMP INV. EL.=0.0 -W/ 121 L.F. 24" RCP @ S=1% MODIFIED RIPRAP 3.64 NAVD 88 0 -3.41 MTL -6" PIPE BEDDING 36"x24"x24" CONC. FOOTING ∕ 0.25 MLW MLW MLW -3.39 O MLLW -0+250+000 + 25-0÷19 END OF EXIST. PIPE NAVD 88 MEAN LOWER -0+06 DATUM LOW WATER END OF NEW 24"Ø PIPE DATUM INV. EL.=0.00 STORMWATER OUTFALL #1 **PROFILE** HORIZONTAL SCALE: 1"=10" VERTICAL SCALE: 1"=2"

REINSTALLED

ALUM. FENCE

-EXIST. GRADE

REGULATED AREA VEGETATION TYPES & LIMITS PER TIDAL WETLAND VEGETATION REPORT DATED 10/5/23 BY SOIL SCIENCE AND ENVIRONMENTAL SERVICES, INC.

REGULATED AREA VEGETATION TYPES

Type 1 vegetation occurs at the lower elevations of the tidal wetland and is dominated by Spartina alterniflora (saltwater cordgrass).

Type 2 occurs at a higher elevation between Type 1 and the existing fence and was broken down into two areas based on dominant vegetation.

Type 2A is dominated by <u>Phragmites australis</u> (common reedgrass) with some seaside goldenrod, hightide bush, and poison ivy.

Type 2B is dominated by <u>Iva frutescens</u> (hightide bush) with poison ivy and seaside goldenrod. At the upper edge, or fence side, of Types 2, I observed several upland species including mugwort, common mullein, <u>Virginia creeper</u>, bindweed, pokeweed, crab apple and cherry trees, tree of heaven saplings, multiflora rose, grape, and bittersweet.

<u>Gracilaria/Red Algae</u> was observed growing within the channel downstream of the



# GRAPHIC SCALE:

SEE SHEET C100 FOR NOTES & LEGEND.

Job No. 23-05 Scale: 1"=10'

Date: 9/25/23

Designed: D.W.S.

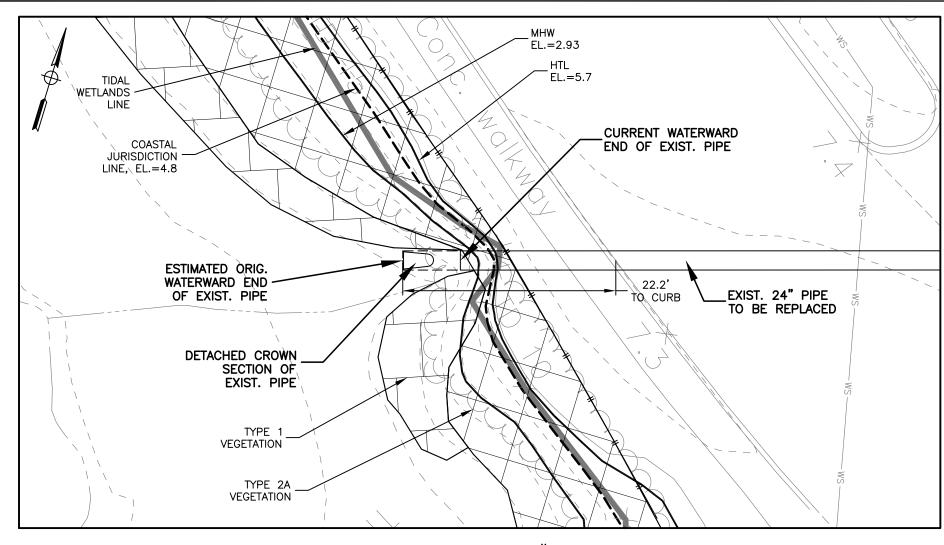
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Sheet: C601-1

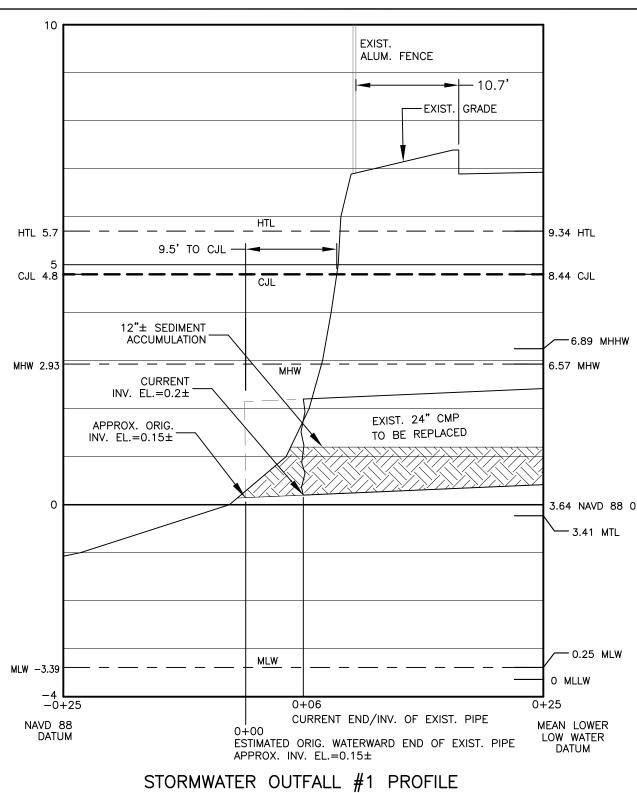
	REVISIONS				STORMWATER OUTF	FALL #1 PLAN & PROFILE
NO.	DESCRIPTION	DATE		Architects / Engineers / Interior Designers		
7	Phase 2B only	12/4/23		3190 Whitney Avenue, Hamden, CT 06518-2340	CITY (	OF MILFORD
2	DEEP comments	2/2/24		Tel. 203 230 9007 Fax. 203 230 8247		
3	SW outfalls 1, 4 & 5	2/19/24			PHASE 2B F	FOUNDER'S WALK
4	DEEP comments					
5	U.U.F. filter list,	3/8/24			☐ FOWLER FIE	ELD/WILCOX PARK
	reg. veg. type		DONALD	W. SMITH, JR., P.E.		,
			SE OPERAIN	CONSULTING ENGINEER OOD CIRCLE SEYMOUR. CT 06483	SHIP	YARD LANE
				Fax 203-881-3434 dwsjrpe@sbcglobal.ne	MILFORD,	CONNECTICUT

100 YEAR FLOOD ELEV.=11.0 10 YEAR STARTING STILLWATER ELEV.=7.3 COASTAL JURISDICTION LINE ELEV.=4.8 MEAN HIGH WATER ELEV.=3.07

ALL ELEVATIONS ARE NAVD 88



STORMWATER OUTFALL #1 PLAN SCALE: 1"=10'



HORIZONTAL SCALE: 1"=10' VERTICAL SCALE: 1"=2"

REGULATED AREA VEGETATION TYPES & LIMITS PER TIDAL WETLAND VEGETATION REPORT DATED 10/5/23 BY SOIL SCIENCE AND ENVIRONMENTAL SERVICES, INC.

REGULATED AREA VEGETATION TYPES

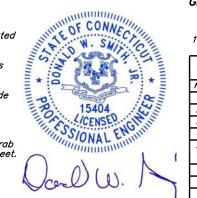
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 $\underline{\textit{Cracilaria/Red Algae}}$  was observed growing within the channel downstream of the pedestrian bridge.



GRAPHIC SCALE:

SEE SHEET C100 FOR NOTES & LEGEND.

Job No. 23-05 Scale: 1"=10'

Date: 9/25/23

Designed: D.W.S.

Sheet: C601-1E

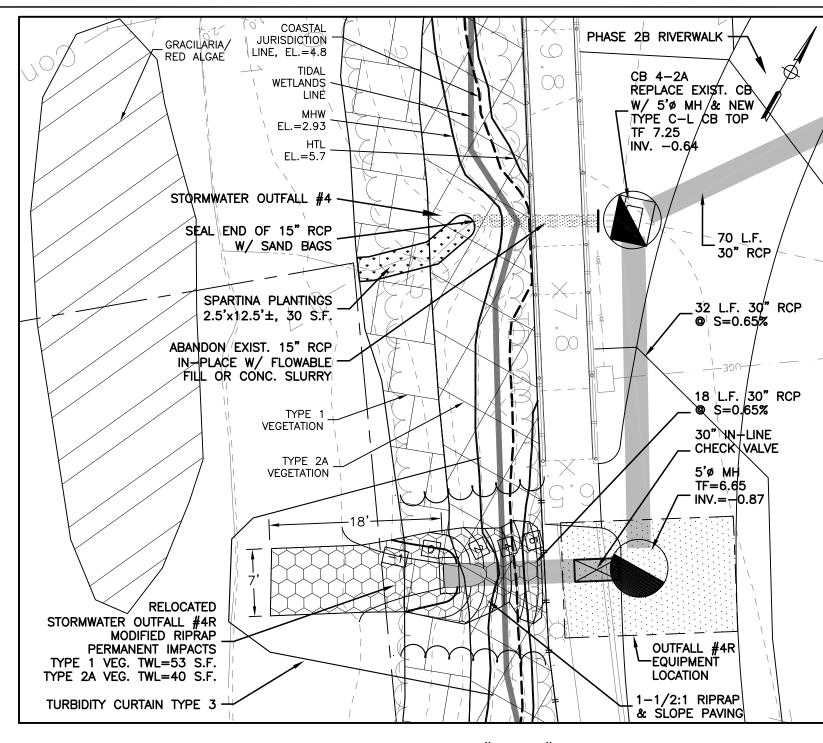
Drawn: K.D.K.

	REVISIONS		SILVER / PETRUCELLI + ASSOCIATES	EXIST. STORMWATER OUTFALL #1 PLAN & PROFILE
NO.	DESCRIPTION	DATE	Architects / Engineers / Interior Designers	
1	Phase 2B only	12/4/23	3190 Whitney Avenue, Hamden, CT 06518-2340	CITY OF MILFORD
2	DEEP comments	2/2/24	Tel. 203 230 9007 Fax. 203 230 8247	
3	SW outfalls 1, 4 & 5	2/19/24	silverpetrucelli.com	PHASE 2B FOUNDER'S WALK
4	DEEP comments	3/4/24		
5	U.U.F. filter list,	3/8/24		FOWLER FIELD/WILCOX PARK
	reg. veg. type		DONALD W. SMITH, JR., P.E.	
			CONSULTING ENGINEER 56 GREENWOOD CIRCLE SEYMOUR. CT 06483	SHIPYARD LANE
			Tel. 203–888–4904 Fax 203–881–3434 dwsjrpe@sbcglobal.net	MILFORD, CONNECTICUT

100 YEAR FLOOD ELEV.=11.0 COASTAL JURISDICTION LINE ELEV.=4.8 MEAN HIGH WATER ELEV.=3.07

ALL ELEVATIONS ARE NAVD 88

10 YEAR STARTING STILLWATER ELEV.=7.3



REGULATED AREA VEGETATION TYPES & LIMITS PER TIDAL WETLAND VEGETATION REPORT DATED 10/5/23 BY SOIL SCIENCE AND ENVIRONMENTAL SERVICES, INC.

#### REGULATED AREA VEGETATION TYPES

Type 1 vegetation occurs at the lower elevations of the tidal wetland and is dominated by Spartina alterniflora (saltwater

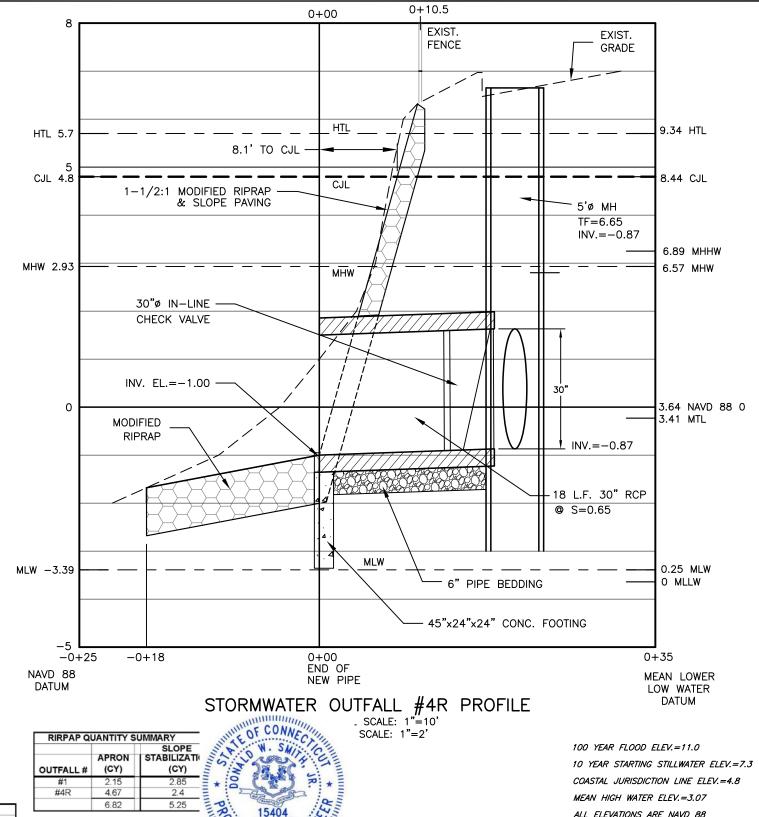
Type 2 occurs at a higher elevation between Type 1 and the existing fence and was broken down into two areas based on dominant vegetation.

Type 2A is dominated by <u>Phragmites australis</u> (common reedgrass) with some seaside goldenrod, hightide bush, and poison ivy.

Type 2B is dominated by <u>Iva frutescens</u> (hightide bush) with poison ivy and seaside goldenrod. At the upper edge, or fence side, of Types 2, I observed several upland species including mugwort, common mullein, Virginia creeper, bindweed, pokeweed, crab apple and cherry trees, tree of heaven saplings, multiflora rose, grape, and bittersweet.

STORMWATER OUTFALL #4 & #4R PLAN SCALE: 1"=10"

		WETLAND	VEGET	ATION IMP	ACT SUM	MARY			
	TEMPOR	RARY (SF)	PERMA	NENT (SF)	EARTHW	ORK (CY)	MITIGAT	ION (SF)	
OUTFALL#	Type 1	Type 2A	Type 1	Type 2A	CUT	FILL	Type 1	Type 2A	ADJ. NON- TWL AREA
#1	20	7	32	16	5.5	5.5	34	0	
#2	0	0	0	0	0	0.25	0	0	
#3	0	0	0	0	0	0	0	0	
#4					0	0	30	0	
#4R	38	33	53	40	14.85	11.05	0	0	
#5	0	0	0	0	3	0	0	0	
#6	0	0	0	0	0	0	0	0	
Mitigation Area	0	0	0	0	0	0	0	385	300
TOTAL	58	40	85	56	23.35	16.8	64	385	300
Vol. Phrag Maint Area	0	0	II 0	0	0	0 1	0	185	160





ALL ELEVATIONS ARE NAVD 88

SEE SHEET C100 FOR NOTES & LEGEND.

	REVISIONS		V Cora	CIATES	STORMWATE	R OUTFALL	L #4 PLAN &	PROFILE
NO.	DESCRIPTION	DATE		Architects / Engineers / Interior Designers				
7	Phase 2B only	12/4/23		3190 Whitney Avenue, Hamden, CT 06518-2340		CITY OF	<i>MILFORD</i>	
2	DEEP comments	2/2/24		Tel. 203 230 9007 Fax. 203 230 8247				
3	SW outfalls 1, 4 & 5	2/19/24		silverpetrucelli.com	PHASE	2B FO	UNDER'S	WALK
4	DEEP comments	3/4/24						
5	U.U.F. filter list,	3/8/24			] FOW	FR FIFID	/WILCOX PA	RK
	reg. veg. type			W. SMITH, JR., P.E.		•		
			CONSULTING ENGINEER 56 GREENWOOD CIRCLE SEYMOUR, CT 06483			SHIPYAF	RD $LANE$	
				O CIRCLE SEYMOUR, CT 06483 ax 203-881-3434 dwsjrpe@sbcglobal.net	MILFORD.		CONNE	CTICUT

Designed: D.W.S. Drawn: K.D.K.

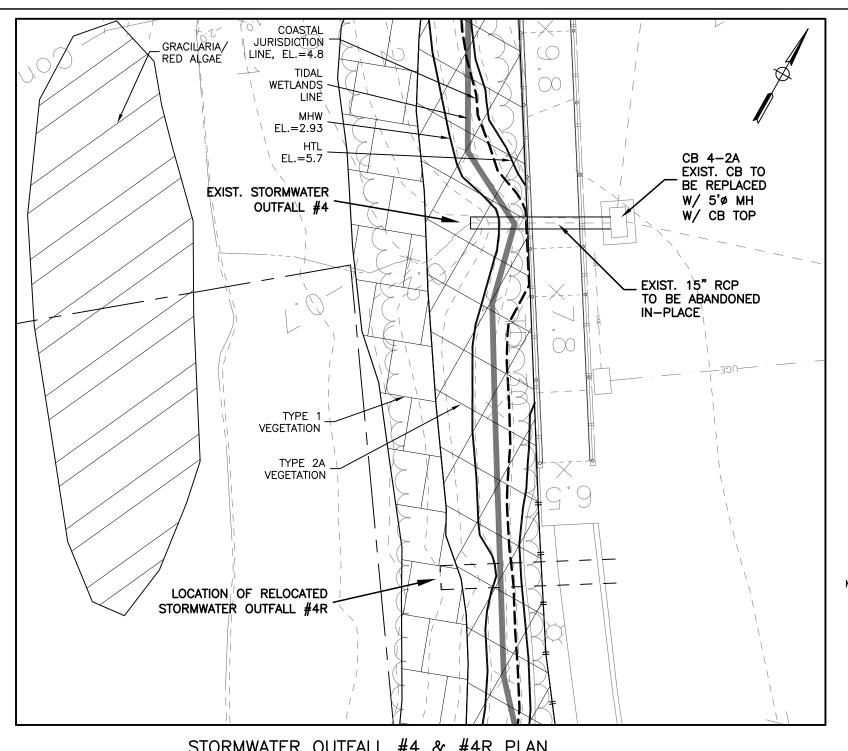
Sheet: C601-4R

Job No. 23-05

Scale: 1"=10'

Date: 9/25/23

<u>Gracilaria/Red Algae</u> was observed growing within the channel downstream of the pedestrian bridge.



0+10.50+00 EXIST. EXIST. **FENCE** GRADE H<u>T</u>L 9.34 HTL 7.4' TO CJL CJL 4.8 8.44 CJL CJL 6.89 MHHW MHW 2.93 6.57 MHW MHW EXIST. GRADE 3.64 NAVD 88 0 3.41 MTL  $\mathsf{MLW}$ 0.25 MLW MLW - 3.390 MLLW -0+250+00 0+35 NAVD 88 MEAN LOWER NEW PIPE DATUM LOW WATER STORMWATER OUTFALL #4R PROFILE
HORIZONTAL SCALE: 1"=10' DATUM VERTICAL SCALE: 1"=2'

STORMWATER OUTFALL #4 & #4R PLAN

REGULATED AREA VEGETATION TYPES & LIMITS PER TIDAL WETLAND VEGETATION REPORT DATED 10/5/23 BY SOIL SCIENCE AND ENVIRONMENTAL SERVICES, INC.

REGULATED AREA VEGETATION TYPES

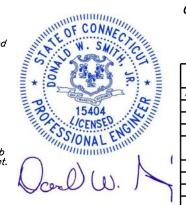
Type 1 vegetation occurs at the lower elevations of the tidal wetland and is dominated by Spartina alterniflora (saltwater cordgrass).

Type 2 occurs at a higher elevation between Type 1 and the existing fence and was broken down into two areas based on dominant vegetation.

Type 2A is dominated by <u>Phragmites australis</u> (common reedgrass) with some seaside goldenrod, hightide bush, and poison ivy.

Type 2B is dominated by <u>Iva frutescens</u> (hightide bush) with poison ivy and seaside goldenrod. At the upper edge, or fence side, of Types 2, I observed several upland species including mugwort, common mullein, <u>Virginia creeper</u>, bindweed, pokeweed, crab apple and cherry trees, tree of heaven saplings, multiflora rose, grape, and bittersweet.

Gracilaria/Red Algae was observed growing within the channel downstream of the



# GRAPHIC SCALE:

SEE SHEET C100 FOR NOTES & LEGEND.

Ė				DONALD W. SMITH, JR., P.E.
ſ	5	U.U.F. filter list, reg. veg. type	3/8/24	
	3	SW outfalls 1, 4 & 5	2/19/24	silverpetrucelli.com
	2	DEEP comments	2/2/24	Tel. 203 230 9007 Fax. 203 230 8247
	1	Phase 2B only	12/4/23	3190 Whitney Avenue, Hamden, CT 06518-2340
	NO.	DESCRIPTION	DATE	Architects / Engineers / Interior Designers
ſ		REVISIONS		SILVER / PETRUCELLI + ASSOCIATES

56 GREENWOOD CIRCLE SEYMOUR, CT 06483 203-888-4904 Fax 203-881-3434 dwsjrpe@sbcgi MILFORD,

EXIST. STORMWATER OUTFALL #4 PLAN & PROFILE Job No. 23-05 Scale: 1"=10' CITY OF MILFORD Date: 9/25/23 PHASE 2B FOUNDER'S WALK Designed: D.W.S. FOWLER FIELD/WILCOX PARK SHIPYARD LANE

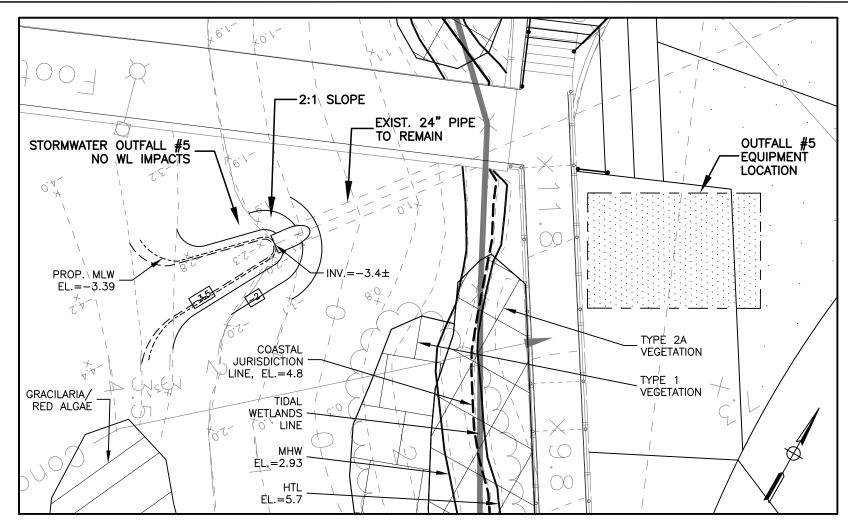
Drawn: K.D.K. CONNECTICUT Sheet: C601-4RE

MEAN HIGH WATER ELEV.=3.07 ALL ELEVATIONS ARE NAVD 88

10 YEAR STARTING STILLWATER ELEV.=7.3

COASTAL JURISDICTION LINE ELEV.=4.8

100 YEAR FLOOD ELEV.=11.0



# STORMWATER OUTFALL #5 PLAN

		WETLAND	VEGET	ATION IMP	ACT SUMI	MARY			
	TEMPOR	RARY (SF)	PERMA	NENT (SF)	EARTHW	ORK (CY)	MITIGAT	ION (SF)	
OUTFALL#	Type 1	Type 2A	Type 1	Type 2A	CUT	FILL	Type 1	Type 2A	ADJ. NON TWL AREA
#1	20	7	32	16	5.5	5.5	34	0	
#2	0	0	0	0	0	0.25	0	0	
#3	0	0	0	0	0	0	0	0	
#4					0	0	30	0	
#4R	38	33	53	40	14.85	11.05	0	0	
#5	0	0	0	0	3	0	0	0	
#6	0	0	0	0	0	0	0	0	
Mitigation Area	0	0	0	0	0	0	0	385	300
TOTAL	58	40	85	56	23.35	16.8	64	385	300
							L .		
Vol. Phrag. Maint. Area	0	0	1 0	1 0 1	0	0	0	185	160

RIRPAP QUANTITY SUMMARY								
		SLOPE						
	APRON	STABILIZATION						
OUTFALL#	(CY)	(CY)						
#1	2.15	2.85						
#4R	4.67	2.4						
	6.82	5.25						

REGULATED AREA VEGETATION TYPES & LIMITS PER TIDAL WETLAND VEGETATION REPORT DATED 10/5/23 BY SOIL SCIENCE AND ENVIRONMENTAL SERVICES, INC.

100 YEAR FLOOD ELEV.=11.0

MEAN HIGH WATER ELEV.=3.07

ALL ELEVATIONS ARE NAVD 88

10 YEAR STARTING STILLWATER ELEV.=7.3

COASTAL JURISDICTION LINE ELEV.=4.8

REGULATED AREA VEGETATION TYPES

Type 1 vegetation occurs at the lower elevations of the tidal wetland and is dominated by <u>Spartina alterniflora</u> (saltwater cordgrass).

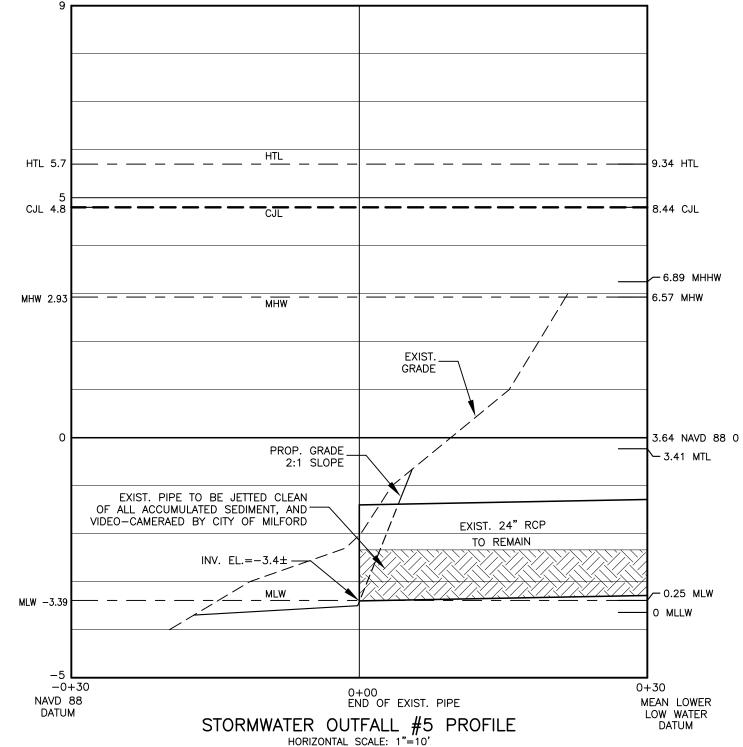
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<u>Gracilaria/Red Algae</u> was observed growing within the channel downstream of the pedestrian bridge.







VERTICAL SCALE: 1"=2"

NOTE SEE SHEET C100 FOR NOTES & LEGEND.

	REVISIONS		SILVER / PETRUCELLI + ASSOCIATES
NO.	DESCRIPTION	DATE	Architects / Engineers / Interior Designers
1	Phase 2B only	12/4/23	3190 Whitney Avenue, Hamden, CT 06518-2340
2	DEEP comments	2/2/24	Tel. 203 230 9007 Fax. 203 230 8247
3	SW outfalls 1, 4 & 5	2/19/24	silverpetrucelli.com
4	DEEP comments	3/4/24	
5	U.U.F. filter list,	3/8/24	
	reg. veg. type		DONALD W. SMITH, JR., P.E.

CITY OF MILFORD

PHASE 2B FOUNDER'S WALK

STORMWATER OUTFALL #5 PLAN & PROFILE

FOWLER FIELD/WILCOX PARK

SHIPYARD LANE

MILFORD, CONNECTICUT

Designed: D.W.S.

Drawn: K.D.K.

Sheet: C601-5

Job No. 23-05 Scale: 1"=10'

Date: 9/25/23

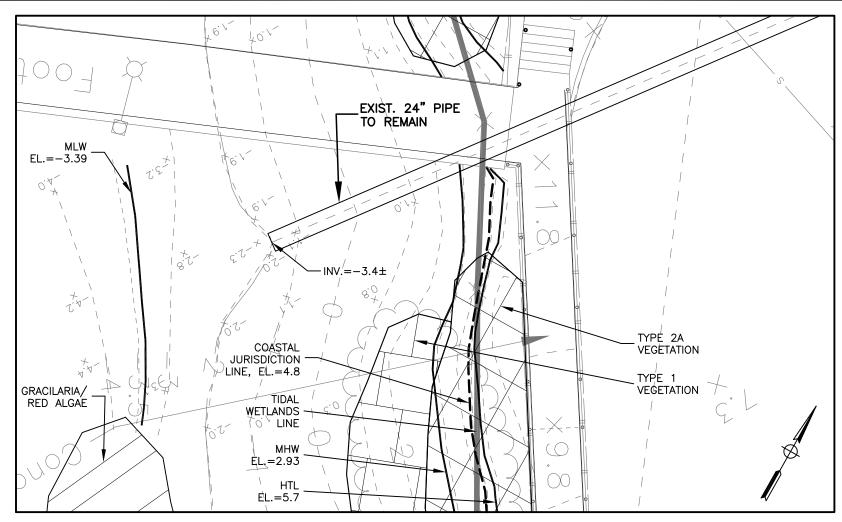
DONALD W. SMITH, JR., P.E

CONSULTING ENGINEER

56 GREENWOOD CIRCLE SEYMOUR, CT 06483

Fel. 203-888-4904 Fax 203-881-3434 dwsjrpe@sbcglob.

of the



STORMWATER OUTFALL #5 PLAN
SCALE: 1"=10"

HTL 9.34 HTL 8.44 CJL ←6.89 MHHW 6.57 MHW MHW 2.93 мHW EXIST. GRADE 3.64 NAVD 88 0 ─ 3.41 MTL **SEDIMENT** ACCUMULATION EXIST. 24" RCP TO REMAIN INV.  $EL.=-3.4\pm$ -0.25 MLW MLW -3.39 0 MLLW -0+300+30 0+00 END OF EXIST. PIPE NAVD 88 MEAN LOWER LOW WATER
DATUM DATUM STORMWATER OUTFALL #5 PROFILE HORIZONTAL SCALE: 1"=10" VERTICAL SCALE: 1"=2"

REGULATED AREA VEGETATION TYPES & LIMITS PER TIDAL WETLAND VEGETATION REPORT DATED 10/5/23 BY SOIL SCIENCE AND ENVIRONMENTAL SERVICES, INC.

100 YEAR FLOOD ELEV.=11.0 10 YEAR STARTING STILLWATER ELEV.=7.3 COASTAL JURISDICTION LINE ELEV.=4.8 MEAN HIGH WATER ELEV.=3.07

ALL ELEVATIONS ARE NAVD 88

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 $\underline{\textit{Gracilaria/Red Algae}}$  was observed growing within the channel downstream of the pedestrian bridge.





SEE SHEET C100 FOR NOTES & LEGEND.

CONNECTICUT

Job No. 23-05 Scale: 1"=10'

Date: 9/25/23

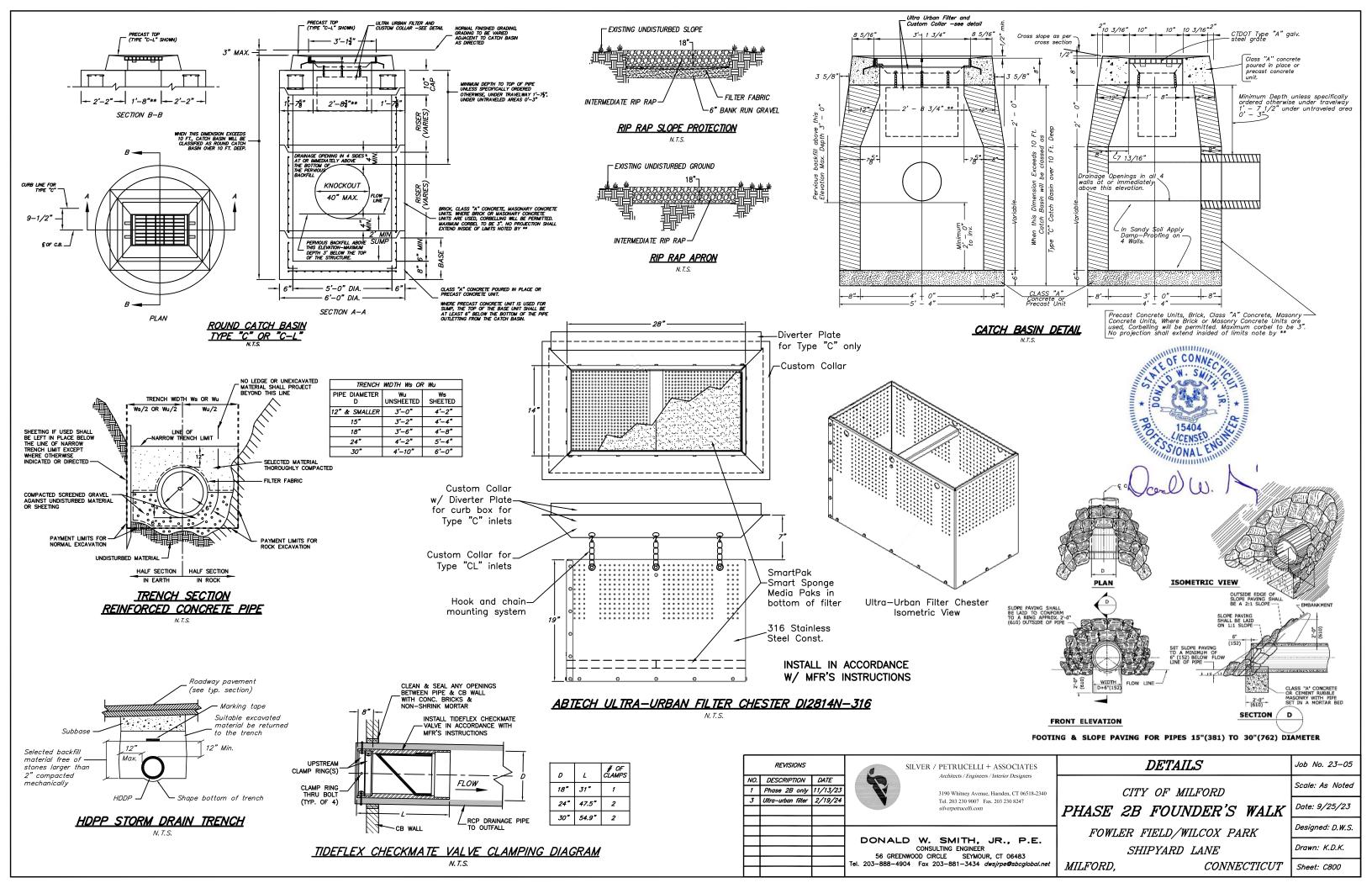
Designed: D.W.S.

Sheet: C601-5E

Drawn: K.D.K.

REVISIONS		SILVEF	ILVER / PETRUCELLI + ASSOCIATES  Architects / Engineers / Interior Designers	EXIST. STOR	MWATE	R OUTFALL	#5 PLAN &	PROFILE		
NO.	DESCRIPTION	DATE		Architects / Engineers / Interior Designers						
7	Phase 2B only	12/4/23		3190 Whitney Avenue, Hamden, CT 06518-2340 Tel. 203 230 9007 Fax. 203 230 8247 silverpetrucelli.com	CITY OF MILFORD					
2	DEEP comments	2/2/24								
3	SW outfalls 1, 4 & 5	2/19/24			PHASE	2 <i>B</i>	FOUN	DER'S	WALK	
4	DEEP comments	3/4/24								
5	U.U.F. filter list, reg. veg. type	3/8/24					FOWLER FIELD/WILCOX PARK			
	reg. veg. type		DONALD	W. SMITH, JR., P.E. CONSULTING ENGINEER	, '					
			SE ODEENIM	SHIPYARD LANE						
				56 GREENWOOD CIRCLE SEYMOUR, CT 06483 I. 203-888-4904 Fax 203-881-3434 dwsjrpe@sbcglobal.net			CONNECTICUT			

MILFORD,





79 Elm Street • Hartford, CT 06106-5127

portal.ct.gov/DEEP

Affirmative Action/Equal Opportunity Employer

### **Land Record Filing\***

<u>To:</u> DO NOT FILE

#### Signature and

NOTE: Due to the electronic delivery of this license and the legal requirement to have a live signature on this document, the "Land Record Filing" as detailed in General Condition #1 will be sent to the Licensee via U.S. Mail for the Licensee to file with the city/town clerk.

<del>Date</del> :	
Subject:	
	License #

If you have any questions pertaining to this matter, please contact the Land & Water Resources Division at 860-424-3019.

#### Return to:

Land & Water Resources Division
State of Connecticut
Department of Energy & Environmental Protection
79 Elm Street
Hartford, CT 06106-5127

<sup>\*</sup>The Licensee shall file the Land Record Filing on the land records of the municipality in which the subject property is located not later than thirty (30) days after license issuance pursuant to Connecticut General Statutes (CGS) Section 22a-363g. A copy of the Notice with a stamp or other such proof of filing with the municipality shall be submitted to the Commissioner no later than sixty (60) days after license issuance.

#### Bureau of Water Protection & Land Reuse Land & Water Resources Division

79 Elm Street • Hartford, CT 06106-5127

LICENSEE:

(Signature)

To: DEEP.LWRDRegulatory@ct.gov or

portal.ct.gov/DEEP

Affirmative Action/Equal Opportunity Employer

#### **LWRD Work Commencement Form**

**Regulatory Section** Department of Energy and Environmental Protection Land & Water Resources Division 79 Elm Street Hartford, CT 06106-5127 Licensee Name: City of Milford Municipality in which the project is occurring: Milford DEEP License No(s): 202309149-SDFTWQ **CONTRACTOR(s):** # 1 Name: Address: Telephone: E-mail: # 2 Name: Address: Telephone: E-mail: # 3 Name: Address: Telephone: E-mail: Date Contractor(s) received a copy of the license and approved plans: EXPECTED DATE OF COMMENCEMENT OF WORK: \_\_\_\_\_ EXPECTED DATE OF COMPLETION OF WORK: \_\_\_\_\_

(Date)

79 Elm Street • Hartford, CT 06106-5127

portal.ct.gov/DEEP

Affirmative Action/Equal Opportunity Employer

# **Compliance Certification Form**

The following certification must be signed by the licensee working in consultation with a Connecticut-licensed design professional and must be submitted to the address indicated at the end of this form within ninety (90) days of completion of the authorized work.

1. Licensee Name:City of Milford							
DEEP License Number(s):202309149-SDFTWQ							
Municipality in which project is occurring:Milford	<u> </u>						
2. Check one:							
(a) If certify that the final site conditions and / or structures are in general conformance with the approved site plans". Identify and describe any deviations and attach to this form.							
(b) The final site conditions and / or structure plans. The enclosed "as-built" plans note the	es are not in general conformance with the approved site he modifications".						
3. "I understand that any false statement in this certificat 157b of the General Statutes and under any other applicab	·						
Signature of Licensee	Date						
Name of Licensee (print or type)							
Signature of CT-Licensed Design Professional	Date						
Name of CT-Licensed Design Professional (print or type)							
Professional License Number (if applicable)	Affix Stamp Here						
<ul> <li>As-built plans shall include: elevations or tidal datums, as applicable, and structures, including any proposed elevation views and cross sections included in the approved license plans. Such as-built plans shall be the original ones and be signed and sealed by an engineer, surveyor or architect, as applicable, who is licensed in the State of Connecticut.</li> </ul>							
• The Licensee will be notified by staff of the Land and Water Resources Division (LWRD) if further compliance review is necessary. Lack of response by LWRD staff does not imply compliance.							
Submit this completed form to :							
DEEP.LWRDRegulatory@ct.gov or							
Regulatory Section Department of Energy and Environmental Protection							
Land & Water Resources Division							
79 Elm Street Hartford, CT, 06106-5127							
H2TTOTA (1 06106-5177							