



Connecticut Department of Energy and Environmental Protection License*

General Permit for Water Resource Construction Activities - Approval of Authorization

Licensee(s): State of Connecticut
Department of Transportation
(CTDOT)

Licensee Address(s): 2800 Berlin Turnpike
Newington CT, 06131

License Number(s): 202411281-GPCST

Municipality: Statewide

Project Description: Statewide drainage maintenance activities for state railroad corridors

Project Address/Location: Statewide

Waters: Statewide

Authorizing CT Statute(s) and/or Federal Law: CGS Section 22a-36 to 45; CGS Section 22a-365 to 379

Applicable Regulations of CT State Agencies: 22a-39-1 to 15, 22a-372-1, 22a-377(b)-1, (c)-1, (c)-2

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.

*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 . . ."

Project Site Plan Set: DOT Highway Standard Drawings:

HW-211_01, Anti-Tracking Pad, plotted 9/21/2022
HW-686_02a, Drainage Pipe Ends 1, plotted 9/21/2022
HW-686_02b, Drainage Pipe Ends 2, plotted 9/21/2022
HW-803_01, Paved Aprons, plotted 9/21/2022
Sheet no. N/A, Sedimentation Control Systems, plotted 11/23/2022
HW-505_01a, Straight Endwalls, plotted 2/9/2024
HW-505_02, Type “D-G” and “L” Endwalls, plotted 1/5/2024
Sheet no. N/A, Concrete Washout Area, plotted 11/25/2022
Sheet no N/A, Erosion Control Matting and Temporary Slope Drain, plotted 1/10/2024
Sheet no. N/A, Erosion Control Measures at Catch Basins – Hay Bale, Fabric Fence and Stone Check Dam, plotted 11/23/2022
Sheet no. N/A, Erosion Control Measures at dCatch Basins – Fiber Roll and Silt Sack, plotted 11/23/2022
Sheet no. N/A, Fiber Roll Check Dam, plotted 11/23/2022
Sheet no. N/A, Temporary Stone Check Dam, plotted 11/23/2022
Sheet no. N/A, Permanent Stone Check Dam for Water Quality Treatment, plotted 11/23/2022
Sheet no. N/A, Track Out Mat System and Anti-Tracking Pad, plotted 11/23/2022
Sheet no. N/A, Wing Endwall Unit, plotted 1/10/2024
Sheet no. N/A, Endwall for Pipe Arch, plotted 1/10/2024
Sheet no. N/A, Paved Ditches and Paved Channels, plotted 11/23/2022

License Enclosures: General Permit - Water Resource Construction Activities; Item 0601995A – Concrete Filled Bags; CTDOT Drainage Maintenance Plan for Railways, received August 15, 2025

Authorized Activities:

The Licensee is hereby authorized to conduct the following work as described in application # 202411281 and as depicted on any site plan sheets / sets cited herein:

1. Excavate accumulated sediment and/or remove brush or debris from a drainage pipe, culvert or bridge, including beaver dams and the associated cut to wetland vegetation (excluding grubbing) and/or install of temporary timber matting;
2. Clean or reshape a man-made drainage way or sediment basin, and the associated cut to wetland vegetation (excluding grubbing) and/or install of temporary timber matting;
3. Install or repair the end wall of a culvert or bridge and, for associated site access and cut wetland vegetation (excluding grubbing) and/or install temporary timber matting;

4. Repair erosion damage including riprap areas at a drainage pipe, culvert, or bridge's inlet or outlet and, for associated site access, and the associated cut to wetland vegetation (excluding grubbing) and/or install of temporary timber matting;
5. Repair a drainage pipe, culvert, or bridge including piers and wingwalls and the associated cut to wetland vegetation (excluding grubbing) and/or install of temporary timber matting;
6. Replace a drainage pipe or culvert and the associated cutting of wetland vegetation (excluding grubbing) and/or installation of temporary timber matting;
7. Extend a drainage pipe and the associated cut to wetland vegetation (excluding grubbing) and/or install of temporary timber matting;
8. Clean drainage pipes or culverts by pipe jetting and associated cut to wetland vegetation (excluding grubbing) and/or install of temporary timber matting.

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. **Limitations.** For all activities authorized herein, the Licensee shall not place more than 50 cubic yards of fill, nor impact more than 400 square feet of wetlands or watercourses (cumulative of temporary and permanent impacts, excluding the use of temporary timber matting when used as described in Condition 6, below), nor conduct any activity beyond 75 feet in length from the respective inlet and outlet sides of a drainage pipe, culvert or bridge. All activities shall be conducted within 5 days or less unless otherwise authorized in writing by the Commissioner.
3. **CTDOT Environmental Compliance.** The Licensee shall undertake all authorized activities in conformance with the Connecticut Department of Transportation Form 819 *Relevant Standard Specifications* and any supplements thereto.
4. **Unconfined Instream Work.** The following conditions apply to activities in non-coastal waters:
 - a. Unconfined instream work is limited to the period June 1 through September 30.
 - b. Confinement of a work area by cofferdam techniques using sandbag 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.
 - c. Once a work area has been confined, in-water work within the confined area is allowed any time of the year.
 - d. The confinement techniques used shall completely isolate and protect the confined area from all flowing water. The use of silt boom/curtain or similar techniques as a means for confinement is prohibited.

5. **Equipment and Stockpile Location Restriction.** At no time shall equipment and/or material stockpiles be staged within wetlands and/or watercourses. Stockpiles shall be stored in upland areas.
6. **Temporary Access to Wetland Areas.** The Licensee shall minimize the use of timber matting to that which is necessary to complete authorized maintenance activities herein. Temporary timber matting shall not remain in place longer than five (5) days, nor exceed 75 ft beyond the inlet and/or outlet of a drainage pipe, culvert, and/or bridge. All temporary access areas shall be restored upon completion of work.
7. **Retention and Removal of Accumulated Sediment Associated with Activity 1.** While conducting Authorized Activity 1, the Licensee shall not excavate below the invert elevation of the pipe, nor last permitted invert elevation (if known), whichever is at greater elevation, to support aquatic habitat and passage, with consideration to design standards for hydraulic capacity. The Licensee shall not create a perched condition.
8. **Grout Bag Installation Associated with Activities 3 & 5:** The Licensee shall conduct grout bag installations with self-sealing bags and admixtures to prevent leakage of grout, in accordance with CT DOT Specification Item #0601995A attached hereto. At no time shall the Licensee allow grout to discharge into any watercourse.
9. **Annual Reporting to Fisheries Associated with Activity 4.** The Licensee shall provide CT DEEP Fisheries (DEEP.FisheriesHCE@ct.gov) an annual report stating the locations where rip rap has been installed below Ordinary High Water as associated with Activity 4 herein. Reporting of such activities shall follow the same guidelines and be subject to the same requirements as written within Section 5(b)(2) of the LWRD General Permit for Water Resource Construction Activities.
10. **Placement of Scour Countermeasures Associated with Activity 4.** The Licensee shall restrict the installation of rip rap to the foundations of piers, abutments, walls, and slopes of embankments/waterways while conducting Authorized Activity 4, in accordance with CT DOT Form 819 Relevant Standard Specifications and any supplementals thereto.
11. **Replacement and/or Extension of Structures Associated with Activities 6 & 7.** Structure replacements and/or extensions conducted pursuant to Authorized Activities 6 & 7 shall be limited to drainage pipes or culverts that receive drainage from a watershed of 1 sq. mi. or less and have a maximum diameter of 42". The Licensee shall accordingly replace in-kind and in-place (to the greatest extent practicable) and/or extend an existing watercourse crossing structure while adhering to the CT DEEP Stream Crossing Guidelines ([Inland Fisheries Division](#)) to minimize impacts to the surrounding waterway. Within a watercourse crossing which conveys a watershed area of 0.5 to 1 square miles, the Licensee shall not install a replacement structure or any structure extension which maintains or creates a perched condition, unless one or both of the following criteria apply as determined by the CT DOT Rail Officer:
 - a. Where the Licensee would create an adverse hydraulic impact to the watercourse; and/or
 - b. Where site constraints deem it unfeasible to lower the structure.

12. **Extension of Structures Associated with Activity 7.** The Licensee shall not extend any watercourse crossing structure greater than a distance of 10' from the inlet and outlet sides of the culvert, respectively.
13. **Fisheries Coordination Associated with Activities 6 & 7.** Prior to conducting Authorized Activities 6 & 7 herein, if one or both of the below criteria are met, the Licensee shall notify CT DEEP Fisheries of the site location by electronic mailing to DEEP.FisheriesHCE@ct.gov, and report the occurrence of such coordination to LWRD within its annual drainage maintenance monitoring reports:
 - a. Where the site contains existing aquatic passage structures or features (e.g., fish ladders, baffle systems), based on the most recent permitted design and/or verified on-site; and/or
 - b. Where the project area conveys a drainage area equal to or greater than 0.5 square miles.
14. **Fisheries Coordination Associated with Activity 8.** Prior to conducting pipe jetting for culverts and pipes conveying a perennial watercourse, the Licensee shall notify CT DEEP Fisheries by electronic mailing to DEEP.FisheriesHCE@ct.gov.
15. **Cleaning of Pipes/Culverts via Jetting within Intermittent Watercourses, Associated with Activity 8:** The Licensee shall only conduct Authorized Activity 8, herein, in the dry and during no flow periods (within intermittent watercourses) unless one or more of the following criteria apply:
 - a. The work area is confined by cofferdams;
 - b. The work area is under an emergency condition; and/or
 - c. Back water conditions (without intervention) are anticipated to have an imminent adverse flooding impact to private properties and/or transportation infrastructure.
16. **Treatment of Wastewaters Associated with Activity 8.** The Licensee shall utilize temporary water-handling cofferdams for all pipe cleanings conducted in either perennial or intermittent watercourses associated with Authorized Activity 8 in order to contain wastewaters and prevent turbid waters/sediment from travelling downstream. All materials generated from the pipe/culvert cleaning shall be removed and disposed of in an appropriate upland location.
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 DEEP.LWRDRegulatory@ct.gov 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.



General Permit for Water Resource Construction Activities

Issuance Date: June 4, 2024
Expiration Date: June 4, 2034

**Bureau of Water Protection and Land Reuse
Land and Water Resources Division**

General Permit for Water Resource Construction Activities

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General Permit for Water Resource Construction Activities

Section 1. Authority

This general permit is issued under the authority of sections 22a-6, 22a-45a and 22a-378a of the General Statutes. For the purposes of this general permit, authorization under 22a-45a is limited to any proposed regulated activity conducted by any department, agency or instrumentality of the state, except any local or regional board of education.

Section 2. Definitions

As used in this general permit the following definitions shall apply:

“Authorized activity” means a regulated activity, including erection, placement, or maintenance of a structure or other facility, conducted or maintained under the authority of section 3 of this general permit.

“Beach Maintenance Plan” means a written plan for maintaining beach facilities. Such plan shall: describe the location of any such facilities; provide detailed maintenance activities to be carried out and typical design specifications and plans for such activities; estimate the quantities of material to be placed or removed in connection with such maintenance activities; describe procedures for disposal of excess material and solid waste generated in connection with such maintenance activities; and, provide the best management practices to be implemented while conducting such maintenance activities, including measures to ensure fish passage and minimize damage to habitat for fish, wildlife, or stream invertebrates.

“Best management practice” means a practice, procedure, activity, structure or facility designed to prevent or minimize pollution or other environmental damage or to maintain or enhance existing environmental quality. Best management practices include, but are not limited to: placement of erosion and sedimentation controls; restrictions on land use or development; construction setbacks from wetlands and watercourses; proper disposal of waste materials; procedures for equipment maintenance that prevent fuel spillage; construction methods to prevent flooding or disturbance of wetlands and watercourses; construction methods to maintain continuous stream flow; and, the confinement of in-stream work to protect fish and wildlife resources.

“Boat Launch Maintenance Plan” means a written plan for maintaining boat launch facilities. Such plan shall: describe the location of any such facilities; provide detailed maintenance activities to be carried out and typical design specifications and plans for such activities; estimate the quantities of material to be placed or removed in connection with such maintenance activities; describe procedures for disposal of excess material and solid waste generated in connection with such maintenance activities; and, provide the best management practices to be implemented while conducting such maintenance activities, including measures to ensure fish passage and minimize damage to habitat for fish, wildlife, or stream invertebrates.

“*CFR*” means Code of Federal Regulations.

“*Commissioner*” means the commissioner as defined by section 22a-2 of the General Statutes.

“*Compensatory mitigation*” means action taken which provides a gain of aquatic resource area and/or improvement of resource functions/values, to compensate for adverse impacts to aquatic resource(s) after avoidance and minimization have been achieved to the greatest extent practicable. Compensatory mitigation actions may include restoration, creation, or enhancement of an aquatic resource, and, in some circumstances, preservation may also be allowed to serve as compensation.

“*Consumptive use*” means any withdrawal or removal of water from the waters of the State, including but not limited to any withdrawal or removal from public or private water supply for industrial use, irrigation, hydropower generation, flood management, water quality management, recreation, landscaping ponds and decorative water fountains, or any other purpose or use.

“*Department*” means the Department of Energy and Environmental Protection.

“*Diversion*” means diversion as defined in section 22a-367 of the General Statutes.

“*Divert*” means divert as defined in section 22a-367 of the General Statutes.

“*Documented Legal Right*” means a written instrument which is recorded on the municipal land records and formalizes an easement, right of way, reserved right, agreement, obligation, or other legally enforceable act.

“*Drainage Maintenance Plan*” means a written plan for maintaining drainage facilities, and may include, without limitation, provision for channels, basins, bridges, culverts or pipes. Such plan shall: describe the location of any such facilities; provide detailed maintenance activities to be carried out and typical design specifications and plans for such activities; estimate the quantities of material to be placed or removed in connection with such maintenance activities; describe procedures for disposal of excess material and solid waste generated in connection with such maintenance activities; and, provide the best management practices to be implemented while conducting such maintenance activities, including measures to ensure fish passage and minimize damage to habitat for fish, wildlife, or stream invertebrates. Where the subject activity involves the construction, erection or maintenance of a structure or other facility, other than a highway or bridge, owned or operated by the State of Connecticut, such plan incorporates the applicable requirements for drainage basin stormwater management plans in section 25-68h-3 of the Regulations of Connecticut State Agencies.

“*Excess material*” means material such as soil, sand, gravel, stone, or debris, produced by the construction of an authorized activity which material is not utilized in such construction.

“*FEMA*” means the Federal Emergency Management Agency.

“Floodplain” means floodplain as defined in section 25-68b of the General Statutes.

“Floodway” means the regulatory floodway as defined in 44 CFR Section 59.1 for a particular watercourse and delineated on a map titled *Floodway & Flood Boundary Map* or *Flood Insurance Rate Map* issued by the FEMA for the municipality wherein such watercourse is located.

“Groundwater” means that portion of waters, as the term waters is defined in section 22a-367 of the General Statutes, located at or below the ground surface.

“Hydrologic and hydraulic design report” means a report consisting of engineering studies, design computations and other documentation as appropriate to fully and clearly describe the design of the proposed activity and the hydrologic and hydraulic effects thereof.

“Individual permit” means a permit issued by the commissioner to a named permittee pursuant to section 22a-39 or 22a-368 of the General Statutes.

“Infrastructure” means physical structures such as roads, bridges, multi-use trails, utilities, railways, and appurtenant structures necessary for the economy and governmental agencies to function.

“LWRD” means Land and Water Resources Division.

“Material” means material as defined in section 22a-38 of the General Statutes.

“Non-consumptive use” means any diversion of waters of the State due to channelizing, damming, collecting, piping, culverting, filling, relocating or dredging such waters or the detaining of stormwater for the purpose of stormwater management.

“Permittee” means any person or municipality whose request for authorization has been approved by the commissioner.

“Person” means person as defined in section 22a-2 of the General Statutes.

“Pollution” means pollution as defined in section 22a-423 of the General Statutes.

“Regulated activity” means any activity regulated by the commissioner under sections 22a-39 or 22a-368 of the General Statutes.

“Requester” means the person who submits to the commissioner a request for authorization.

“Request for authorization” means a request for authorization submitted under Section 4 of this general permit.

“Solid waste” means solid waste as defined in section 22a-207 of the General Statutes.

“State Property Use Plan” means a written plan approved by the commissioner for the

allowance of minor activities conducted on state property. Such plan may be amended from time to time provided such amendments are approved by the commissioner and shall include a process for validating that an entity conducting the activity has a *Documented Legal Right* to conduct such activity on State property. Such plan shall also identify State properties and the types of activities, including, but not limited to: placement of shoreline stabilization measures; installation of seasonal recreational structures; replacement or installation of drainage pipes or culverts for road crossings; replacement or installation of utility infrastructure; and identification of best management practices to be implemented while conducting such activities, including measures to ensure fish passage and minimize damage to habitat for fish, wildlife, or stream invertebrates.

“*Structure*” means any man-made object erected or placed above, on, or in the ground or under water.

“*Surface water*” means that portion of waters, as defined in section 22a-367 of the General Statutes, located above the ground surface.

“*Trail Maintenance Plan*” means a written plan for maintaining recreational trails. Such plan shall: describe the location of any such facilities; provide detailed maintenance activities to be carried out and typical design specifications and plans for such activities; estimate the quantities of material to be placed or removed in connection with such maintenance activities; describe procedures for disposal of excess material and solid waste generated in connection with such maintenance activities; and, provide best management practices to be implemented while conducting such maintenance activities, including measures to ensure fish passage and minimize damage to habitat for fish, wildlife, or stream invertebrates.

“*Watercourses*” means watercourses as defined in section 22a-38 of the General Statutes.

“*Waters*” means waters as defined in section 22a-367 of the General Statutes.

“*Wetlands*” means wetlands as defined in section 22a-38 of the General Statutes.

Section 3. Authorization Under This General Permit

(a) *Eligible Activities*

(1) Drainage Maintenance

Excavate accumulated sediment or remove brush; clean or reshape a sediment basin; install and repair the end wall of a culvert or bridge; repair erosion damage at pipe or culvert inlet or outlet; repair drainage pipe or culvert; replace or extend a drainage pipe or culvert with a maximum diameter of 42 inches and which is no more than ten feet (10) from the inlet and outlet sides of the culvert and receives drainage from a watershed of one (1) square mile or less. Such activities shall be performed pursuant to a Drainage Maintenance Plan that has been approved, in writing, by the commissioner under Section 4 of this general permit provided that any such activity does not involve placement of more than fifty (50) cubic yards of fill; impact more than four hundred

(400) sq. ft of wetlands or watercourses; and is not greater than seventy five (75) feet in length from the inlet and outlet sides of a drainage pipe, culvert or bridge.

(2) Trail Maintenance

Repair or replace existing nature access structures; repair or replace footings, foundations, piers, structural piles, posts or supports for a boardwalk; grade and place fill for the installation of landscape timbers and / or stone walls; place or remove fill for the maintenance of an existing path or trail. Such activities shall be performed pursuant to a Trail Maintenance Plan that has been approved, in writing, by the commissioner under Section 4 of this general permit.

(3) Boat Launch Maintenance

Repair or replace, in-kind, existing boat launch ramps; remove accumulated sediment; remove/replace/repair docks, pilings, bulkheads and associated structures; install fencing and signage; repair culvert potholes; repair ADA walkways and associated ramps; install/relocate concrete wheel stops; fill end of ramp scour holes with stone; and place riprap on side slopes to address erosion. Such activities shall be performed pursuant to a Boat Launch Maintenance Plan that has been approved, in writing, by the commissioner under Section 4 of this general permit.

(4) Beach Maintenance for Inland Beaches

Re-grade existing beaches; replace sand on existing beaches to fill sink holes or eroded areas. Such activities shall be performed pursuant to a Beach Maintenance Plan that has been approved, in writing, by the commissioner under Section 4 of this general permit. This general permit is not intended to authorize the expansion of any beach area beyond existing limits.

(5) Minor Activities Conducted on State Property

Activities such as, but not limited to; shoreline stabilization measures (grading, placement of fill, installation, or maintenance of landscape timbers and/or stone walls); installation or maintenance of structures (docks or swim floats); replacement or installation of drainage pipes or culverts for road crossings; and replacement or installation of utility conduits. Such activities shall be performed pursuant to a State Property Use Plan approved, in writing, by the commissioner under Section 4 of this general permit provided any such activities shall not involve placement of more than twenty-five (25) cubic yards of fill or impact more than 0.15 acres of wetlands or watercourses.

(6) Trail Construction

Construction of a new boardwalk or trail; expansion or extension of an existing boardwalk, trail or nature access structure including the installation of footings,

foundations, piers, structural piles, posts or supports; grading and placement of fill for the installation of landscape timbers and / or stone walls associated with a trail. Such activities shall not involve placement of more than fifty (50) cubic yards of fill or impact more than a total of 0.15 acres of wetlands and watercourses.

(7) State Facility Upgrades for Resilience

Reconstruction of an existing state facility for resilience from flooding and extreme weather events. Activities may include, but are not limited to the following: construction of a dry egress pathway for emergency access to an existing facility; installation of geotextiles or vegetative buffer strips for slope stabilization; elevation of an existing site for the purposes of providing dry floodproofing; raising of an existing structure above the base flood elevation; improvements to existing stormwater management systems; installation of a generator for the purposes of providing emergency backup power and upgrading of facilities in general (including but not limited to sidewalks or parking lots). Such improvements shall have no more than 0.20 acres of permanent and temporary impacts to wetlands & watercourses.

(8) Infrastructure Installation & Repairs

Placement of fill for roadway widening; repair or replacement of a bridge; and placement, repair, or replacement of cables, conduits or pipelines with multiple stream or wetland impact locations. Such improvements shall have no more than 0.20 acres of permanent impacts to wetlands and watercourses and no more than 0.20 acres of temporary impacts to wetlands and watercourses.

Placement of fill for roadway widening; repair or replacement of a bridge; and placement, repair, or replacement of cables, conduits or pipelines with a single wetland or watercourse impact location. Such improvements shall have no more than 0.15 acres of permanent impacts to wetlands and watercourses and no more than 0.15 acres of temporary impacts to wetlands and watercourses.

(9) Conservation Activities

Placement of fill for the enhancement of wetland areas and alteration of existing hydraulic structures associated with conservation of fish and wildlife habitats. Such improvements shall have no more than 0.20 acres of permanent impacts to wetlands and watercourses and no more than 0.20 acres of temporary impacts to wetlands and watercourses.

(10) Infrastructure Projects with Interagency Coordination

Any activity for which an authorization has been granted under a Department of Army (US Army Corps of Engineers) General Permit, Self-Verification, provided: 1) the commissioner has granted a section 401 water quality certification for such Department of the Army General Permit, 2) the activity is consistent with the section 401 water quality certification granted by the commissioner for such Department of the Army General Permit, and 3) the conditions of Section 3(b) of this general permit have been satisfied. *The issuance of a provisional permit or authorization by the Army Corps of*

Engineers for an activity does not satisfy the requirements for authorization under this general permit.

(b) Requirements for Authorization

This general permit authorizes a regulated activity listed in Section 3(a) of this general permit, provided:

(1) For those activities identified under Section 3(a) (10) of this general permit, a completed LWRD License Application Transmittal Form, designated fee has been filed with the commissioner and the commissioner notifies the requestor in writing of the receipt of a completed request and acknowledges such activity is eligible for authorization under this general permit.

(2) For those activities identified under Section 3(a) (1) through (9), inclusive, of this general permit, a completed LWRD License Application Transmittal Form and designated fee has been filed with the commissioner **and** the commissioner subsequently issues a written approval to the requestor.

(3) Flood Management Certification by State Agency

If such activity is maintained or proposed by a Connecticut state agency, such agency has complied with and obtained approval from the commissioner in accordance with sections 25-68b through 25-68h, inclusive, of the General Statutes, and sections 25-68h-1 through 25-68h-3, inclusive, of the Regulations of Connecticut State Agencies.

(4) Floodplain Management

Such activity does not and will not cause or contribute to flooding or flood hazards, permanently obstruct a floodway, or interfere with federal, state or local flood management efforts, and does and will comply with 44 CFR Parts 59 through 79, inclusive.

(5) Coastal Permits

If such activity is located, wholly or in part, waterward of the coastal jurisdiction line in tidal, coastal, or navigable waters of the State or in tidal wetlands, that said activity has been authorized pursuant to sections 22a-359 through 22a-363f, inclusive, or 22a-28 through 22a-35, inclusive of the General Statutes.

(6) Endangered and Threatened Species and Species of Special Concern

Such activity does not threaten the continued existence of any species listed pursuant to section 26-306 of the General Statutes and will not result in the destruction or adverse modification of habitat designated as essential to such species.

(7) Aquifer Protection

Such activity, if located within an aquifer protection area as mapped under section 22a-354b of the General Statutes, complies with sections 22a-354i-1 through 22-354i-10, inclusive, of the Regulations of Connecticut State Agencies.

(8) Conservation and Preservation Restrictions

If such activities are located on or may affect property subject to a conservation or preservation restriction, pursuant to section 47-42d of the General Statutes, proof of written notice to the holder of such restriction of the proposed activity's registration pursuant to this general permit or a letter from the holder of such restriction verifying that the proposed activity is in compliance with the terms of the restriction shall be provided to the commissioner prior to the start of the regulated activity.

(9) Wetland and Watercourse Mitigation

In constructing or maintaining the activities authorized herein, in the event that irreversible or irretrievable loss of wetland or watercourse resources occurs, the commissioner may require compensatory mitigation to be performed pursuant to section 22a-41 of the General Statutes. If mitigation is required to be performed as compensation for loss, the mitigation work shall be consistent with the terms and conditions of an approved mitigation plan, as authorized by the commissioner.

(c) Geographic Area

This general permit shall apply throughout the State of Connecticut.

(d) Effective Date and Expiration Date of This General Permit

This general permit shall be effective on the date it is issued and shall expire on that date ten (10) years thereafter.

(e) Effective Date of Authorization

(1) For those activities eligible for authorization under Section 3(a) (10) of this general permit, an activity is authorized on the date the commissioner notifies the registrant in writing of the receipt of a completed registration, which includes the applicable fee and acknowledges such activity is eligible for authorization under this general permit.

(2) For those activities eligible for authorization under Section 3(a)(1) through (9), inclusive, of this general permit, where an approval from the commissioner is required, the effective date of authorization of such activity shall be the date the commissioner issues a written approval of such request for authorization for such activity.

(f) *Transition to and from an Individual Permit*

No person shall operate or conduct an activity authorized by both an individual permit and this general permit. The requirements for transitioning authorization are as follows:

- (1) *Transition from an Individual Permit to Authorization under this General Permit.*
If an activity meets the requirements for authorization under this general permit and such operation or activity is presently authorized by an individual permit, the entity to whom any such individual permit has been issued (“the Permittee”) may surrender the right to operate or conduct any activity under such individual permit. The Permittee shall acknowledge its intention to surrender its permit in writing on a form prescribed by the commissioner. However, any such surrender shall not take effect, and such Permittee’s individual permit shall continue to apply, until the date that the commissioner issues an authorization for such operation or activity under this general permit.
- (2) *Transition from Authorization under this General Permit to an Individual Permit.*
If the commissioner approves a request for authorization under this general permit and subsequently issues an individual permit for the same activity, then on the date any such individual permit is issued by the commissioner, the authorization issued under this general permit shall automatically expire.

(g) *Activities Not Authorized by This General Permit*

A regulated activity may not lawfully be conducted or maintained unless it is authorized under this general permit or authorized by an individual permit.

- (1) The diversion of water for consumptive use is not authorized by this general permit.
- (2) Any activity for which the commissioner has denied eligibility for federal Clean Water Act section 401 Water Quality Certification or under Department of the Army Regional General Permits for the State of Connecticut is not authorized by this general permit.

Section 4. Request for Authorization

(a) *Who Must File a Request for Authorization*

Any person or municipality seeking to undertake a regulated activity under the authority of this general permit, shall file with the commissioner: 1) a request for authorization which meets the requirements of Section 4 of this general permit; and 2) the applicable fee.

Note: Activities that received authorization under the ***General Permit for Water Resources Construction Activities***, issued April 2, 2014 shall cease if a

registration form is not submitted within one hundred twenty (120) days of the effective date of this general permit. Such activities shall be performed in accordance with the requirements of the ***General Permit for Water Resources Construction Activities***, issued April 2, 2014, until their cessation or until registration with this general permit has been completed.

(b) Scope of Request for Authorization

A requester shall file a request for authorization for each site where an activity or activities are proposed. Where activities are proposed to be conducted at more than one site, a separate request for authorization shall be filed for each site.

(c) Contents of Request for Authorization

(1) Fees

- (A) The filing fee of \$ 5,000 shall be submitted upon each request for authorization for activities pursuant to Sections 3(a)(1) through (8), inclusive, of this general permit except: 1) the request for authorization fee for a municipality for such activities shall be discounted 50% or 2) the request for authorization fee shall be discounted 50% if the filing is done electronically.
- (B) The filing fee of \$ 2,500 shall be submitted with each request for authorization for activities pursuant to Sections 3(a) (9) and (10) of this general permit except: 1) the request for authorization fee for a municipality for such activities shall be discounted 50% or 2) the request for authorization fee shall be discounted 50% if the filing is done electronically.
- (C) In accordance with 22a-6f of the General Statutes, no fee shall be required from any agency, board, commission, council, or department of the state, provided that the agency, board, commission, council or department of the state has compensated the Department in an amount equal to such fee pursuant to a written agreement.
- (D) The filing of any request for authorization shall not be deemed complete and no activity shall be authorized by this general permit unless the filing fee has been paid in full.
- (E) The filing fee shall be paid by check or money order payable to the Department of Energy and Environmental Protection. Filing fees paid by state agencies may be paid by means of a service transfer or invoice.
- (F) All requests for authorization fees are non-refundable.

(2) Information Requirements and Request for Authorization

A request for authorization shall be filed on forms prescribed and provided by the commissioner and shall include but not be limited to the following:

- (A) Legal name, address, email address and telephone number of the requester. If the requester is an entity transacting business in Connecticut and is required to register with the Connecticut Secretary of the State, provide the exact name as registered with the Connecticut Secretary of the State.
- (B) Legal name, address, email address and telephone number of the owner of the property on which the subject activity is to take place.
- (C) Legal name, address, email address and telephone number of the requester's attorney or other representative, if applicable.
- (D) Legal name, address, email address and telephone number of any consultant(s) or engineer(s) retained by the requester to prepare the request for authorization or to design or construct the subject activity.
- (E) Location address of the site with respect to which the request for authorization is submitted.
- (F) Location Map - A depiction, on an 8.5" x 11" copy of the relevant portion of the most recent version of the United States Geologic Survey topographic map (Scale 1:24,000), of the exact location of the property at which such activity will be conducted.
- (G) A description of the present and intended use(s) of the property at which such activity will be conducted and the reason for conducting such activity.
- (H) A description of all natural and manmade features, including wetlands, watercourses, fish and wildlife habitat, floodplains, and structures and appurtenances thereto, potentially affected by the subject activity.
- (I) A plan of the site ("site plan") showing its boundaries, the location of the subject activity and section views, as appropriate, of the property at which such activity will be conducted, depicting the location and design of such activity, existing and proposed topography, the legal boundaries of such property, the location of wetland soil types, the location of tidal wetlands, watercourses, vernal pools, and coastal resources on and immediately adjacent to such property, the sequence of construction or other actions associated with the proposed activities, including placement and removal of any temporary fill or structures, the location of all erosion and sedimentation control measures, the location on such property where any excess materials resulting from construction at such property may be placed, a north arrow and distance scale, and a title block indicating the name of the requester, the name of the individual who prepared the plan,

and the date(s) such plan was prepared or revised. If such property is located in a floodplain, the plan shall also depict the location of any floodway, the elevation of the base flood. The plan may incorporate existing natural resource maps and shall be of sufficient scale and detail to adequately depict the existing and proposed conditions of such property.

- (J) The signature of the requester and of the individual or individuals responsible for preparing the request for authorization, 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 certify that this request for authorization is on complete and accurate forms as prescribed by the commissioner without alteration of their text. I certify that a complete copy of this request for authorization, including all documents attached thereto, was sent by regular or certified mail or was hand delivered to the municipal wetlands agency, zoning commission, planning commission or combined planning and zoning commission, and conservation commission of each municipality which is or may be affected by the subject activity. I understand that a false statement made 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.”

(d) Where to File a Request for Authorization

1. Submit a hardcopy of a completed LWRD License Application Transmittal Form and filing 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. The 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 the requestor containing the Department assigned application number.

3. Upon receipt of the email from CPPU, the requestor is to electronically submit the full application package with the remaining required forms in accordance with the following steps:
 - a. Send an empty/blank email to DEEP.LWRDRegulatorySubmittals@ct.gov
 - b. An automated email response will contain instructions for uploading the 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.

(e) Copy to Municipality

A copy of such LWRD License Application Transmittal Form shall be filed before the date that the activity is proposed to be initiated with the inland wetlands agency, zoning commission, planning commission or combined planning and zoning commission, and conservation commission of each municipality which is or may be affected by the subject activity.

(f) Additional Information

The commissioner may require a requester to submit additional information, which the commissioner reasonably deems necessary to evaluate the consistency of the subject activity with the requirements for authorization under this general permit.

(g) Action by Commissioner

- (1) The commissioner may reject without prejudice a request for authorization if it is determined that it does not satisfy the requirements of Section 4(c) of this general permit, or more than thirty (30) days have elapsed since the commissioner requested that the requester submit additional information or the required fee and the requester has not submitted such information or fee. Any request for authorization refiled after such a rejection shall be accompanied by the fee specified in Section 4(c)(1) of this general permit.
- (2) The commissioner may disapprove a request for authorization if it is found that the subject activity is inconsistent with the requirements for authorization under Section 3 of this general permit, or for any other reason provided by law.

- (3) Disapproval of a request for authorization under this subsection shall constitute notice to the requester that the subject activity may not lawfully be conducted or maintained without the issuance of an individual permit.
- (4) The commissioner may approve a request for authorization with reasonable conditions. If the commissioner approves a request for authorization with conditions, the requester shall be bound by such conditions as if they are a part of this general permit.
- (5) Rejection, disapproval, or approval of a request for authorization shall be in writing.

Section 5. Conditions of This General Permit

(a) Operating Conditions

- (1) A requester shall ensure that each action with respect to the authorization under this general permit is, as applicable, constructed and maintained in accordance with the *Connecticut Guidelines for Soil Erosion and Sediment Control*, published by the Connecticut Council on Soil and Water Conservation pursuant to section 22a-328 of the General Statutes and in accordance with the Connecticut Stormwater Quality Manual.
- (2) A requester shall assure that all excavated or dredged material shall be staged and managed in accordance with all applicable laws including, but not limited to, the provisions of the most recently issued General Permit for Contaminated Soil and/or Sediment Management (Staging and Transfer).

(b) Reporting and Record Keeping Requirements

(1) Contractor Notification

If the authorized activity will be constructed by a person(s) under contract to the requester, the requester shall (A) give a copy of this general permit and of requester's approval of authorization hereunder to such contractor(s) prior to the start of construction, and (B) for one year after completion of the authorized activity, retain a written receipt for such copy, signed and dated by such contractor(s).

(2) Record Keeping and Reporting of Maintenance Activities

With respect to maintenance plans as described in Section 3(a) (1), (2), (3), (4) and (5) of this general permit and authorized hereunder, the requester shall maintain a record of each action undertaken pursuant to such plan. Such record shall include the date(s) each such action was undertaken, a brief description thereof, the quantities of any material placed or removed in connection therewith, and the location of such activity. The requester shall submit a copy of such record

to the commissioner on January 30th of the year after the date the commissioner approved the request for authorization and shall continue every January 30th thereafter to submit to the commissioner a copy of such record, as it applies, to the preceding twelve months.

(c) Recording and Reporting Violations

Within 48 hours after the requester learns of a violation of this general permit, the requester shall report the same in writing to the commissioner. Such report shall be sent to the following e-mail address: DEEP.LWRDRegulatory@ct.gov

And include the following information:

- (1) the provision(s) of this general permit that has been violated;
- (2) the date and time the violation(s) was first discovered and by whom;
- (3) the cause of the violation(s), if known;
- (4) if the violation(s) has ceased, the duration of the violation(s) including exact date(s) and time(s) it was corrected;
- (5) if the violation(s) has not ceased, the anticipated date when it will be corrected;
- (6) 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;
- (7) the signature of the requester and of the individual(s) responsible for preparing such report, each of whom shall certify 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 a false statement made in this document or its attachments 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.”

(d) Modification of Authorized Activity

In conducting and maintaining the activity authorized by this general permit, the requester shall not make any alteration, except a de minimis alteration which does not change the footprint, character and nature of the regulated impacts.

(e) Completion of Authorized Activity

If the requester does not complete the authorized activity within five years after the date of the applicable authorization, said authorization shall be null and void.

Section 6. General Conditions

(a) Reliance on Request for Authorization

When evaluating a request for authorization, the commissioner relies on information provided by the requester. If such information proves to be false or incomplete, the authorization issued under this general permit may be suspended or revoked in accordance with law, and the commissioner may take any other legal action provided by law.

(b) Duty to Correct and Report Violations

Upon learning of a violation of a condition of this general permit, a requester shall immediately take all reasonable action to determine the cause of such violation, correct such violation and mitigate its results, prevent further such violation, and report in writing in accordance with Section 5(c) of this general permit.

(c) Duty to Provide Information

If the commissioner requests any information pertinent to the authorized activity or to determine compliance with this general permit or with the requester's approval of request for authorization, the request shall provide such information in writing within thirty (30) days of such request. Such information shall be certified in accordance with Section 6(d) of this general permit.

(d) Certification of Documents

Any document, including but not limited to any notice, which is submitted to the commissioner under this general permit shall be signed by, as applicable, the requester in accordance with section 22a-430-3(b)(2) of the Regulations of Connecticut State Agencies, 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 a false statement made 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.”

(e) Date of Filing

For purposes of this general permit, the date of filing with the commissioner of any document is the date such document is received by the commissioner. The word "day" as used in this general permit means the calendar day; if any date specified in the general permit falls on a Saturday, Sunday, or legal holiday, such deadline shall be the next business day.

(f) False Statements

Any false statement in any information submitted pursuant to this general permit or the request for authorization may be punishable as a criminal offense, in accordance with section 22a-6 of the General Statutes, section 53a-157b of the General Statutes, and any other applicable statute.

(g) Correction of Inaccuracies

Within fifteen (15) days after the date a requester becomes aware of a change in any information in any material submitted pursuant to this general permit or becomes aware that any such information is inaccurate or misleading or that any relevant information has been omitted, such requester shall correct the inaccurate or misleading information or supply the omitted information in writing to the commissioner. Such information shall be certified in accordance with Section 6(d) of this general permit. The provisions of this subsection shall apply both while a request for authorization is pending and after the commissioner has approved such request.

(h) Transfer of Authorization

Authorization under this general permit is transferable only in accordance with the provisions of section 22a-6o of the General Statutes.

(i) Other Applicable Law

Nothing in this general permit shall relieve the requester of the obligation to comply with any other applicable federal, state, and local law, including but not limited to the obligation to obtain any other authorizations required by such law.

(j) Other Rights

This general 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 all public and private rights and to any federal, state, and local laws pertinent to the property or activity affected by such general permit. In conducting any activity authorized hereunder, the requester may not cause pollution, impairment, or destruction of the air, water, or other natural resources of this state. The issuance of this general permit shall not create any presumption that this general permit should or will be renewed.

Section 7. Commissioner's Powers

(a) Abatement of Violations

The commissioner may take any action provided by law to abate a violation of this general permit, including the commencement of proceedings to collect penalties for such violation. The commissioner may, by summary proceedings or otherwise and for any reason provided by law, including violation of this general permit, revoke a requester's authorization hereunder in accordance with sections 22a-3a-2 through 22a-3a-6, inclusive, of the Regulations of Connecticut State Agencies. Nothing herein shall be construed to affect any remedy available to the commissioner by law.

(b) General Permit Revocation, Suspension, or Modification

The commissioner may, for any reason provided by law, by summary proceedings or otherwise, revoke or suspend this general permit or modify it to establish any appropriate conditions, schedules of compliance, or other provisions which may be necessary to protect human health and the environment.

(c) Filing of an Individual Permit Application

If the commissioner notifies a requester in writing that such requester must obtain an individual permit to continue lawfully conducting the activity authorized by this general permit, the requester may continue conducting such activity only if the requester files an application for an individual permit within sixty (60) days of receiving the commissioner's notice. While such an application is pending before the commissioner, the permittee shall comply with the terms and conditions of this general permit. Nothing herein shall affect the commissioner's power to revoke a requester's authorization under this general permit at any time.

Issued Date: June 4, 2024

Emma Cimino

Emma Cimino
Deputy Commissioner

ITEM 0601995A – CONCRETE FILLED BAGS

Description: This item shall consist of furnishing and installing custom fitted fabric bags and pumping concrete grout into these fabric bags at the specified locations and in accordance with the lines, grades, design, and dimensions shown on the plans and as directed by the Engineer.

This work shall be accomplished underwater to fill voids or create underwater forms under bridge Pier 9. The use of experienced divers shall be required. The Contractor shall have underwater video equipment available at the site to afford the Engineer a clear visual inspection of the work at the end of each workday or completed phase of work.

Debris removal necessary to allow installation of the bags shall be included in this item. This removal shall include any debris found within the void area under the pier or footing which would interfere or prevent specified installation of bag, grout or fill material.

The concrete grout filled fabric bags will be used as a form for grout or fine aggregate fill under a structure therefore work under this item shall include placement of sealable vent and fill tubes during the bag installation.

Materials: All materials to be used in the furnishing of the concrete filled bags shall be subject to inspection and approval prior to their incorporation in the work.

A. Grout Bags:

1. The fabric forms shall be composed of synthetic yarns formed into a woven fabric.
2. Yarns used in the manufacture of the fabric shall be composed of at least 85% by weight of polyamide. Forms shall be woven with a minimum of 50% textured yarns (by weight) to improve adhesion to fine aggregate concrete and to improve filtration.
3. They shall be formed into a network such that the yarns retain dimensional stability relative to each other, including selvages. Each layer of fabric shall conform to the physical, mechanical, and hydraulic requirements shown below.
4. The fabric forms shall be free of defects or flaws which significantly affect their physical, mechanical, or hydraulic properties.
5. Fabric form material shall consist of two layers of woven fabric sewn together. When filled with fine aggregate concrete they shall form a concrete armor unit with finished average unit dimensions as shown on the plans or as directed by the Engineer.

Fiber and Fabric materials for the bags shall meet the following minimum requirements;

Property	Test method	Requirement
Material Composition	--	Nylon
Weight	ASTM D-5261	8 oz/yd
Thickness	ASTM D-5199	30 mils
Grab Tensile Strength	ASTM D-4632	Warp 510 lb, Fill 520 lb
Grab Tensile Elongation	ASTM D-4632	Warp 25 %, Fill 25 %
Wide Width Strip Tensile Strength	ASTM D-4595	Warp 350 lb/in, Fill 350 lb/in
Elongation at Break	ASTM D-4595	Warp 15%, Fill 15%
Trapezoidal Tear Strength	ASTM D-4533	Warp 240 lb, Fill 240 lb
Apparent Opening Size (AOS)	ASTM D-4751	60 US Standard
Flow Rate	ASTM D-4491	30 Gal/min

Notes:

1. Conformance of fabric forms to specification property requirements shall be based on ASTM D4759, "Practice for Determining the Specification Performance of Geotextiles."
2. All numerical values represent minimum average roll values (i.e., average of test results from any sample roll in a lot shall meet or exceed the minimum values). Lots shall be sampled according to ASTM D 4354, "Practice for Sampling of Geosynthetics for Testing."

6. Mill width of fabric rolls shall be a minimum of 76 inches. Each selvage edge of the fabric shall be reinforced for a width of 2 inches by adding a minimum of 15 warp yarns to the selvage construction. Mill width rolls shall be cut to the length required, and two layers of fabric shall be joined, top layer to bottom layer, by means of sewing thread to form the required unit dimensions.
7. Self-sealing filling valves, suitable for use with fine aggregate concrete, shall be installed at predetermined locations. A minimum of two valves shall be provided for bags more than 240 inches long.
8. All seams sewn in the factory shall be not less than 11,580 lb/ft when tested in accordance with ASTM D 4884. All sewn seams shall be made using a Type 401 double-lock stitch or two rows of single-lock stitch. All double-lock stitches shall be sewn simultaneously and be parallel to each other, spaced between ¼ inches to ¾ inches apart. Each row of stitching shall consist of 4 to 7 stitches per 1 inch. Thread used for seaming shall exhibit ultraviolet, chemical, and biological durability.
9. The Contractor shall submit, to the Engineer, a manufacturer's certificate that the supplied fabric forms meet the criteria of these Specifications, as measured in full accordance with the test methods and standards referenced herein. The certificate shall include the following information about each fabric form delivered:

Manufacturer's name and current address;
full product name;
style and product code;
number; form number(s);
polymer types; and
Manufacturer's certification statement.

B. Concrete Grout:

1. The Concrete grout shall comply with the following subsections:
 - a. M.03.01-3(a) Portland Cement Type II
 - b. M.01.04 Fine Aggregate – Aggregate grading shall be reasonably consistent and shall not exceed the maximum size which can be conveniently handled with available pumping equipment.
 - c. M.03.01-5 Admixtures
 - d. M.03.01-3(c) Supplemental Cementitious material
 - e. M.03.01-4 Water
2. Concrete grout shall consist of a mixture of Portland cement, fine aggregate (sand) and water, so proportioned and mixed as to provide a pumpable grout. Pozzolan, grout fluidifier or pumping aid conforming to this Specification may be used at the option of the Contractor. The mix specimen shall exhibit a compressive strength of 2,500 psi at 28 days when made and tested according to ASTM C-31 and ASTM C-39. The Contractor shall submit in writing to the Engineer a mix design showing the mix proportions and results of two test breaks, performed by an independent testing lab, prior to the start of work.
3. Use of Silica fume or Super plasticizers is not recommended. The Engineer shall only approve admixtures and additives that are not detrimental to the waterway.

C. Deformed Bars:

All deformed bars, stirrups, dowels, threaded dowels, and tie wire shall meet the requirements of Section 6.02 and M.06.01-1 of the Standard specifications.

Construction Methods: It is anticipated that most, if not all of the work, will be performed underwater and shall be performed in accordance with the following requirements:

1. Prior to commencing work, the Contractor shall submit a construction procedure, sequence of operation, and equipment list to the Engineer for review and comment. No work shall begin until all comments are addressed to the Engineer's satisfaction.
2. Before placement of the custom fitted fabric bags, all loose material, irregular obstructions such as sharp stones from the surface, and debris shall be removed from the location of

work under the structure and properly disposed of by the Contractor. Material removed shall be disposed of at a location acceptable to the Engineer, provided by the Contractor, off the right-of-way.

3. The grout filled bags shall be placed at the West end of Pier 9, where shown on the plans or where ordered by the Engineer. Bag size and placement shall insure that the void under the structure is filled in its entirety, if so indicated, or that the bags provide a total enclosure extending from the streambed to the underside of the tremie where the bags are to function as a form for separate grout or fill items. Bags shall be positioned to stagger joints between rows, and rows shall be anchored together with reinforcing rod dowels where indicated on the plans. Insert dowel rods by first inserting through the fabric and then onto the bag containing fresh concrete. Care shall be taken such that there is no tear in the bag during installation.
4. The Contractor shall conduct the grout filling operation in a manner that will prevent the possibility of discharge of grout or cement into the water. Grout injection shall be performed in a manner that will avoid rupture of the fabric forms or the formation of cold joints. A cold joint is defined as one in which the pumping of the fine aggregate concrete into a given form is discontinued or interrupted for an interval of forty-five (45) or more minutes.
5. Concrete pumping equipment shall be capable of delivering up to 25 CY/hr. A minimum hose diameter of 2-inches shall be used from the pump to the fabric. Pipes, and/or hoses sufficient to withstand delivery of the grout shall be used to avoid rupture/breaks/failure of the delivery/vent pipes.
6. If the fabric grout filled bags are used as a form, placement of required injection and vent pipes shall be accomplished during bag installation. These pipes shall be positioned to ensure that the enclosed volume can be completely filled, and the enclosed water displaced. A maximum of 4 feet spacing of the vent/fill pipes is recommended.
7. Abutting form units, if placed laterally, may be installed immediately after placement of the preceding unit(s). If a form unit is to bear on previously installed units, the lower units must be allotted a minimum of four hours of cure time before beginning installation of a succeeding, vertically adjacent course of form units.
8. Install floating, full height turbidity curtains prior to commencing any work. The turbidity curtains are not included in this item and shall be paid separately under Item 0210306A "Turbidity Control Curtains". Install barriers as close as practical to the limits of the work area. Ensure the barriers remain in place while all the work around the area is completed and keep turbidity barrier in place one full day after the repair is complete. Remove the barriers in a manner such as to minimize the release of sediment and debris into the waterway.

Working Drawings and Submittals: In accordance with Article 1.05.02, the Contractor shall prepare and submit detailed plans showing materials, sizes, arrangements, geometry, and quality of materials to be used for the concrete filled bags along with a brief narrative describing the complete set up to the Engineer for documentation. The plans shall be designed by a Licensed Professional Engineer licensed in the State of Connecticut and bear the Engineer’s seal and signature.

Method of Measurement: Payment for the placement of the concrete grout filled bags will be measured as the number of cubic yards of concrete grout actually placed into production and used to fill the bags.

Basis of Payment: This work will be paid for at the Contract unit price per cubic yard for “Concrete Filled Bags,” complete in place, which price shall include the cost of furnishing the fabric bags, all materials, equipment, tools, and labor, including underwater video system and divers.

Payment will be made for the cubic yards of grout introduced into the pumping system even though some of it will be used for delivery purposes and not necessarily incorporated in the work. Material required to refill the system due to the Engineer directing that pumping be discontinued through no fault of the Contractor, materials, or equipment, will be paid for by the Department. Stoppages attributable to the Contractor shall be the Contractor's responsibility and the cost of the material required to refill the discharge system shall be borne by the Contractor.

Pay Item	Pay Unit
Concrete Filled Bags	c.y.

CTDOT Drainage Maintenance Plan for Railways - Received August 15, 2025

Part I: Project Information

2. Project Description

Attachment 43

B. Detailed Maintenance Activities To Be Carried Out.

The reason for conducting these activities is to properly maintain the railway drainage system, prevent flooding of and damage to the railway structure, thus ensuring the safety of the traveling public.

Activities will be performed within the CTDOT Drainage Right of Way, under this General Drainage System Maintenance Plan, and in accordance to the General Permit for Water Resource Construction Activities (2024), which requires the following conditions for eligibility: placement of fill material will not exceed 50 cubic yards in volume, impacts associated with any one activity will not exceed 400 square feet for wetlands or watercourses (cumulative of temporary and permanent impacts), and that no activity will be performed beyond 75 feet in length from the inlet and outlet sides of a drainage pipe, culvert or bridge.

Activities include the following:

1. *Excavation of accumulated sediment or removal of brush or debris from within 400 square feet, no greater than 75 feet in length of the inlet and outlet sides of a drainage pipe, culvert or bridge within the CTDOT Drainage Right-of-Way.*

Where deemed necessary by the Rail Officer, accumulated sediment, brush and / or debris shall be removed from within 400 square feet of the inlet and outlet sides of a pipe, culvert or bridge to alleviate or prevent potential flooding situations and/or to allow for the flow of water as was designed for the area. Sediment, brush or debris may be removed by hand, or with equipment, as necessary, with minimal disruption to the wetland, watercourse or drainage way and to prevent degradation of downstream regulated areas. When equipment is deemed necessary for sediment, brush or debris removal, the equipment shall be located as to minimize impacts to the waterway. Sediment and debris from these activities will be disposed of at a CTDOT approved upland disposal site. Required Best Management Practices (BMP) shall be implemented to minimize sedimentation downstream during such operations. In those cases where the structure has been designed to hold substrate, as identified by Rail Officer or Office of Environmental Planning (OEP), accumulated sediment/substrate material will not be removed lower than the last permitted grade or the structure's invert elevation, whichever elevation is higher, in order to maintain a natural substrate for fisheries. Natural substrate will tie into existing grades. The temporary placement of timber mats for work access if deemed necessary can be utilized to perform the work activity.

This activity includes the removal of beaver dams. All beaver dam removals will be coordinated with the Rail Officer.

2. *Cleaning or Reshaping of a man-made drainage way or Stormwater BMP's.*

Cleaning, reshaping, or placement of checkdams to original grades of a man-made drainage way, swales/ditches or Stormwater BMP (detention basins, infiltration systems, bio-retention, raingardens, etc.), that may or may not convey baseflow, to allow for the proper drainage of the

railway shall be undertaken where deemed necessary by the Rail Officer. This work shall be done manually, or with the aid of equipment as necessary, and shall implement BMP's.

3. Installation or repair of a culvert or bridge wingwall, endwall/headwall, abutment or pier.

Installation - All wingwalls and endwalls/headwalls will be built in the locations indicated or directed by the Rail Officer. Construction methods shall be in accordance with the detailed requirements as prescribed (HW-505_01a & 02, HW-686_02a & 02b). Foundations will be excavated to the depths shown on the plan, unless directed by the Rail Officer. Wingwalls or endwalls will be built in the location and to the dimensions shown on the plans or as directed. Pipes will extend to the exposed face of the end wall and the end shall be finished to provide neat, watertight joints. The ends of pipe culverts, which enter endwalls on a skew, shall be cut to the angle of the skew.

Repair - Culvert or Bridge wingwalls, endwalls, abutments or piers in need of repair, including spalling, repointing and regrouting shall be done in a manner which minimizes impacts to the waterway, and prevents debris from entering the water.

Grout Bag Repair - When needed, the use of grout bags will be used to repair scoured areas. Grout bag mixture will follow of the CTDOT Form 819 Section M **03.01-5**. If repairs are needed to be performed in an unconfined watercourse, the work would be performed between June 1st and September 30th unless immediate action is required as determined by the Rail Officer.

In cases where the wingwall or endwall/headwall has separated from the pipe, necessary repairs or replacement shall be made as determined by the Rail Officer.

4. Repair of Erosion Damage (Repair of Riprap Areas).

Material for this item shall consist of sound, tough and angular (riprap) rock free from decomposed stone or other defects impairing its durability. Broken concrete or rounded stones are not to be used.

The area to be protected by riprap shall be accurately shaped prior to placing of any granular fill or riprap. Where granular fill material is called for, it shall be placed on the prepared area and compacted to the depth as required based on the type of riprap. Final grades of placed material shall match the existing as-built/construction legacy plans if available or match the existing invert elevations of the pipe or culvert to adjacent existing grades.

Riprap placed with wetland areas will be limited to the toe of slope and/or installed at the base of an endwall for scour protection and slope stabilization. Riprap shall be placed within any watercourse if the conditions determined by the Rail Officer warrant its placement.

The riprap shall be placed to its full course thickness in a manner as to produce a reasonably well-graded mass of material without causing displacement of the existing underlying material. The finished surface shall be free from pockets of small stones and clusters of larger stones and tie into existing grades as deemed necessary. Placing material by methods likely to cause segregation of the various sizes of stone will not be permitted.

Rearranging of individual stones by mechanical or manual methods will be required to the extent necessary to obtain a reasonably well-graded distribution of the specified stone sizes similar to existing conditions. The complete course shall be of the specified thickness and to the lines and

grades as shown on the existing as-built/construction legacy plans or as ordered by the Rail Officer. This material shall conform to specifications in the CTDOT Form 819 Section M.12.02 Riprap.

Areas of riprap at pipe or culvert inlets/outlets shall be kept to a minimum to provide less disruptions to existing waterways.

Riprap shall be used to protect foundations of piers, abutments, wingwalls, endwalls/headwalls, slopes of embankments, streambanks and waterways from water or scour damage. Placement of riprap shall not exceed 50 cubic yards into wetlands or watercourses and shall tie and match existing grades.

5. Repair of a drainage pipe, culvert or bridge.

Repairs to pipes, culverts or bridges will be carried out as deemed necessary by the Rail Officer. No sleeving of any structure carrying a watercourse will be allowed under this authorization. Minor excavation may be necessary to clear areas of sediment build-up due to pipe separation or failure.

Repairs to culvert or bridges may include spalling, repointing or regrouting of concrete, or repairs to joints within the structure. All activities will be carried out in conformance with BMP to minimize impacts to the waterway. The temporary placement of timber mats for work access can be utilized to perform the work activity. The use of temporary timber matting will not be credited to the 400-sf threshold due to the duration of use (5 days or less), provided that the matting is the minimum necessary to conduct the associated maintenance. Temporary impacts shall be restored according to the relevant work specifications within Form 819. Work under this category may also include temporary fill for temporary access roads up to 50 cubic yards of material (i.e. Riprap), not to exceed 50 feet in length, within a wetland, specifically to access the piers or joints of structures to perform various steel and structural repairs on bridges, including but not limited to work similar in scope to; bearing repairs or replacement, beam end repairs, joint repairs and concrete repairs. All proposed work shall be accomplished within 5 days or less and must be properly confined with appropriate debris shields. All impacts to wetlands will be minimized to those needed to access for repairs. The areas of impact shall be restored upon completion of work. Temporary access roads will be in conformance with the 2024 Connecticut Guidelines for Soil Erosion and Sediment Control.

Grout Bag Repair - When needed, the use of grout bags will be used to repair scoured areas. Grout bag mixture will follow of the Form 819 Section M 03.01-5. If repairs are needed to be performed in an unconfined watercourse the work would be performed between June 1st and September 30th unless immediate action is required as determined by the Rail Officer.

6. Replacement of a drainage pipe or culvert which receives drainage from a watershed of one square mile or less, provided: the activity is accomplished within 5 days or less and does not involve placement of more than 50 cubic yards of fill into wetlands or watercourses.

Replacement of a culvert, which meets the requirements, stated above, shall be undertaken as directed and environmentally screened by the Rail Officer, based on bridge safety inspections which reveal that replacement is warranted. Replacement shall consist of in-kind / in-place replacement, with neither the size nor location of the structure changing significantly. Activities

shall be conducted in accordance with BMP, minimizing any impacts to the surrounding waterway.

Only pipes and culverts draining less than one square mile will be maintained under this general permit application. Replacement of pipes, culverts or bridges draining one square mile or greater, will require Flood Management Certification and will be applied for separately. Note that the activities described in this section are the only activities in this request for authorization restricted to areas draining one square mile or less.

7. *Extend a drainage pipe or culvert with a maximum diameter of 42 inches, which is no more than ten feet (10) from the inlet and outlet sides of the culvert, receives drainage from a watershed of one (1) square mile or less, and the activity is accomplished within 5 days or less.*

This activity will be used in conjunction with the other allowed activities listed in the General Permit to move ravine-type hazards and old headwalls away from the edge of rail. Replacement or extension of a pipe or culvert, which meets the requirements, stated above, shall be undertaken as directed and environmentally screened by the Rail Officer, based on inspections which reveal that replacement or extension is warranted.

8. *Cleaning of pipes or culverts with blockage or debris by pipe jetting*

When deemed necessary the removal of accumulated sediment and debris within culverts or pipes will be needed for conducting certain work activities and to conduct detailed condition inspections of existing infrastructure. Intermittent watercourses would be required to be cleaned only during periods of no flow. Culverts and pipes conveying perennial watercourses will require coordination with CTDEEP fisheries to determine the feasibility of conducting the work. Culvert and pipe cleaning methods will include pipe jetting, vacuuming and mechanical methods. These operations will be limited to our standard BMP of instream work when a watercourse is present from June 1st to September 30th. All methods of pipe cleaning will require a water-handling cofferdam to be in place where needed to contain excess material and to prevent runoff from moving downstream. All excess material will be removed and disposed of in an upland location approved by Rail Officer or OEP.