



# TOWN OF SOUTHAMPTON

Department of Community Preservation  
24 W Montauk Hwy, Hampton Bays, NY 11946  
Ph: 631-287-5720 Fx: 631-728-1920  
WWW.SOUTHAMPTONTOWN.NY.GOV/CPF

CP13107 (rev 01/2019)

## COMMUNITY PRESERVATION FUND (CPF) WATER QUALITY IMPROVEMENT PROGRAM CHECKLIST/APPLICATION INSTRUCTIONS

The CPF Water Quality Improvement Project Plan (WQIPP) Fund follows the objectives in the adopted Water Quality Improvement Project Plan (see <http://www.southamptontownny.gov/DocumentCenter/View/7318>)

To apply for funding, an application must be **COMPLETED** and submitted along with detailed narratives and supporting information as described below. The Water Quality Advisory Committee will rank and score projects based on the Scoring Criteria contained in the application materials. Parcel acquisitions will be considered on an ongoing basis, independent of this application process.

**Note: 7-full sets of plans and one digital submission is required for each application.**

### WATER QUALITY IMPROVEMENT PROJECT MEANS:

#### [1] DEFINITIONS:

- 1. Wastewater Treatment Improvement Project** means the planning, design, construction, acquisition, enlargement, extension, or alteration of a wastewater treatment facility, including alternative systems to a sewage treatment plant or traditional septic system, to treat, neutralize, stabilize, eliminate or partially eliminate sewage or reduce pollutants in treatment facility effluent, including permanent or pilot demonstration wastewater treatment projects, or equipment or furnishings thereof. **Stormwater collecting systems and vessel pumpout stations shall also be included within the definition of a wastewater improvement project.**
- 2. Nonpoint source abatement and control program projects** developed pursuant to section eleven-b of the soil and water conservation districts law, title 14 of article 17 of the environmental conservation law, section 1455b of the federal coastal zone management act, or article forty-two of the executive law;
- 3. Aquatic Habitat Restoration Project** means the planning, design, construction, management, maintenance, reconstruction, revitalization, or rejuvenation activities intended to improve waters of the state of ecological significance or any part thereof, including, but not limited to ponds, bogs, wetlands, bays, sounds, streams, rivers, or lakes and shorelines thereof, to support a spawning, nursery, wintering, migratory, nesting, breeding, feeding, or foraging environment for fish and wildlife and other biota.
- 4. Pollution Prevention Project** means the planning, design, construction, improvement, maintenance or acquisition of facilities, production processes, equipment or buildings owned or operated by municipalities for the reduction, avoidance, or elimination of the use of toxic or hazardous substances or the generation of such substances or pollutants so as to reduce risks to public health or the environment, including changes in production processes or raw materials; such projects shall not include incineration, transfer from one medium of release or discharge to another medium, off-site or out-of-production recycling, end-of-pipe treatment or pollution control.
- 5. The Operation of the Peconic Bay National Estuary Program**, as designated by the United States Environmental Protection Agency. Such projects shall have as their purpose the improvement of existing water quality to meet existing specific water quality standards. Projects which have as a purpose to permit or accommodate new growth shall not be included within this definition.



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## WATER QUALITY IMPROVEMENT PROGRAM PROPOSAL SUMMARY

Project Applicant: Suffolk County Department of Parks, Recreation and Conservation

Project Title: Woodhull Dam Fish Passage and Peconic River Connectivity Project, Little River, Riverhead, NY

Project Manager: Nicholas Gibbons

Name	Nicholas Gibbons
Title	Principal Environmental Analyst
Organization	Suffolk County Department of Parks, Recreation and Conservation
Address	P.O. Box 144 West Sayville, NY 11796
Phone	(631) 854-4949
Email	scparks@suffolkcountyny.gov

### Property Owner (if different from Project Manager organization):

Name	
Affiliation	
Mailing Address	
Phone	
Email	

### Project Location

Address	Peconic Estuary Watershed, Woodhull dam (40.911931°, -72.667496°), Little River, Riverside, NY 11901
SCTM#(s)	0900-13700-0100-014002

### Type of Project (check all that apply):

- Reduction
- Remediation
- Restoration

### Project Summary: (add text 2-3 Sentences only)

Suffolk County (SC) Parks, partnering with the Peconic Estuary Partnership, is seeking to construct a fish passage and eel passage through Woodhull dam to provide diadromous fish access to two miles of river and 95 acres of critical freshwater habitat within the preserved lands of Wildwood Lake and C

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SC Parks will contract with a local company for the construction services. The project will provide permanent fish passage at Woodhull dam and restore aquatic connectivity and access to high quality freshwater habitat for river herring and American eel, more than doubling the spawning habitat for one of the



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## 1. PROJECT TYPE

Must meet at least one of the definitions of "Water Quality Improvement Project" per State Law Chapter 551 cited above. Check all that apply.

- Wastewater Treatment Improvement Project
- Non-point source abatement and control
- Aquatic habitat restoration
- Pollution prevention
- Operation of Peconic Bay National Estuary Program (Grant Match)

Note: Monitoring costs are only potentially eligible for CPF funding within Aquatic habitat restoration projects.

## 2. PRIORITY AREA(S)

Priority areas are defined in the Water Quality Improvement Project Plan (WQIPP).

- High
- 303(d) Impaired
- Medium
- Outside High and Medium priority areas\*

\*If Outside High and Medium priority areas, explain how the project is relevant to WQIPP goals.

## 3. PROJECT DESCRIPTION

### 3a. Existing conditions of applicable groundwater/sub-watershed/waterbody and most recent and relevant data available (provide sources).

Woodhull dam is located on The Little River, a major tributary of the Peconic River. The Little River's headwaters begin at the 64 acre natural kettle pond, Wildwood Lake, and flow downstream through the protected lands of Suffolk County Cranberry Bog Nature Preserve toward the main stem of the Peconic River. According to the most recent Peconic River alewife survey, the majority of river herring that use the Orangebel Fishway, which provides access to the lower reaches of the Peconic River, end up at the next major barrier to diadromous fish passage, Woodhull dam, preventing an estimated 30,000 - 60,000 from reaching 95 acres of spawning and maturation habitat. The preserved lands of Wildwood Lake and tributaries are included as a high priority area for restoration in the Southampton Town CPF WQIPP on p. 46. According to the Suffolk County Subwatersheds Wastewater Plan, Wildwood Lake is groundwater fed waterbody with a majority of the groundwater flow reaching Wildwood Lake between 0 and 10 years (p. 2-166) with a hydraulic flushing time of 315 ± days (Table 2-26) and is included in the highest priority Management Area for nitrogen reductions. Additionally it is listed on the NYSDDEC Impaired/ De-listed Waters NOT Included on the 2016 Section 303(d) List as Wildwood Lake (Great Pond) (W/PSL ID: 1701-0264) - Restricted Passage with a source of Hydro Modification for justification 4c (TMDL is not appropriate because the sole impairment is the result of pollution, rather than a pollutant that can be allocated through a TMDL).

### 3b. How the proposed solution addresses the issue in the context of Reduction, Remediation and/or Restoration as per the CPF Water Quality Project Plan. Note all remediation and restoration projects must assure that reduction measures are also addressed.

The project addresses the issue in the context of Restoration and Reduction as per the CPF WQIPP as it improves and increases access to diadromous fish habitat, supports Peconic Estuary watershed biodiversity, and restores river connectivity and balances in the freshwater and tidal stream corridor with long-term ecological outcomes such as enhancement of water quality and nutrient cycling within the ecosystem in the outlined high priority areas in the WQIPP. Providing permanent fish passage at the Woodhull dam will restore access to 95 acres of high quality freshwater spawning and maturation habitat upstream of the existing dam for river herring and American eel, enhancing their populations and increasing ecosystem resilience. At all stages of their life cycle, river herring and American eel provide many vital ecosystem services: they filter and consume plankton from the water column; they export nutrients from the freshwater environment to the ocean, which reduces freshwater algae blooms and improves water quality in those freshwater systems; they provide an excellent source of forage to marine predators both offshore and nearshore, as well as freshwater, terrestrial, and avian predators found throughout their range; and river herring act as a prey buffer for other species.

### 3c. Describe the proposed technology and its demonstrated efficacy in similar settings. May include published data.

The design and permitting for this project were supported with Suffolk County funding and contracted out to L.K. McLean Associates. Under the supervision of the United States Fish and Wildlife Service (U.S. FWS), Northeast Regional Office, L.K. McLean Associates considered multiple design alternatives to arrive at the final preferred engineering design plan for the fish passage which includes the installation of a fish passage with a combination of Denil passes and step pools and an eel passage. The U.S. FWS reviewed and approved of installing the final design structure for fish passage since the downstream movement of fish through the structure is considered safer for all species and upstream movement is easier for American eels to use. The site has the hydraulic capability to allow various flows and depths to pass down the pool and weir fishway. Dam removal was not possible at this location as the lake created by this dam is now part of the Suffolk County Park system and has important cultural and recreational uses. Fishways have proven to be an effective way to pass river herring and other diadromous fish and provide access to freshwater habitat when dam removal is not possible.



**3d. How the project supports Town of Southampton, Suffolk County, NYSDEC, Long Island Nitrogen Action Plan (LINAP) or other adopted goals/policies (provide references with pages numbers).**

Willwood Lake and tributaries are included as a high priority area for restoration in the Southampton Town CPF WOIPP on p. 46 and the project aligns with Restoration and Reduction priorities as it restores coastal habitats. The project aligns with the PEP Comprehensive Conservation and Management Plan (CCMP), Habitat and Living Resources Management Plan action HLR-12.3: to "Identify, protect, and restore key shellfish and finfish spawning, nursery, and feeding habitats in the Peconic Estuary" (p. 4-94 <https://www.peconicestuary.org/protect-the-peconic/ccmp/>), and aligns with the PEP Habitat Restoration Plan that identifies Woodhull Dam/Willwood Lake Diadromous Fish Passage Restoration as a priority restoration site (p. 11 <https://www.peconicestuary.org/wp-content/uploads/2018/04/FINAL-2017-HABITAT-PLAN.pdf>). The project aligns with the LI Diadromous Fish Restoration Strategy priorities for the Little River (p. 18 [https://www.seaotck.org/images/PEP/Peconic\\_RestorationStrategy\\_v12.pdf](https://www.seaotck.org/images/PEP/Peconic_RestorationStrategy_v12.pdf)). The project also aligns with the NYSDEC's River Herring Management Goals and with Action 1 of the NY Ocean Action Plan: "Evaluate, prioritize and remove or modify known impediments to diadromous fish passage." Woodhull Pond/Willwood Lake is listed as a priority fish passage project in this plan (p.19 [https://www.dec.ny.gov/docs/fish\\_marine\\_pdf/nyoceanactionplan.pdf](https://www.dec.ny.gov/docs/fish_marine_pdf/nyoceanactionplan.pdf)). The project aligns with LINAP as PEP's fish passage and connectivity projects will inform evaluations of hydro-modifications which is a priority in the LINAP scope (p. 30 [https://www.dec.ny.gov/docs/water\\_pdf/linafscope.pdf](https://www.dec.ny.gov/docs/water_pdf/linafscope.pdf)) and aligns with the LINAP Scope environmental data needs for marine life to be used throughout the planning process p. 14.

**3e. Review the following statements and indicate whether they are applicable to your project. For all "Yes" responses, please indicate how your project addresses the requirements indicated.**

- |  |  |
|--|--|
| <p>Yes<br/><input type="checkbox"/></p> <p>N/A<br/><input checked="" type="checkbox"/></p> | <p><b>If stormwater system or drainage is proposed:</b> The project must indicate compliance with the New York State Stormwater Design Manual (2015 and as updated).</p>   |
| <p><input type="checkbox"/></p> <p><input checked="" type="checkbox"/></p>                 | <p><b>If project is related to farmland:</b> Describe any Agricultural Stewardship Plan or other long term strategy for Nitrogen abatement.</p>  |
| <p><input checked="" type="checkbox"/></p> <p><input type="checkbox"/></p>                 | <p><b>If the project is for habitat restoration:</b> The narrative must address how underlying causes are being ameliorated and expected outcomes for local species populations or other ecological considerations are given.</p>  |
| <p><input type="checkbox"/></p> <p><input checked="" type="checkbox"/></p>                 | <p><b>If project is a Sewage Treatment Plant (STP) or cluster treatment system:</b> Fund allocation request is based on cost for reduction of pre-existing conditions and not for purpose of accommodating new density (describe pre-existing density and associated flow (gallons per day) and total projected nitrogen reduction in narrative). Include detailed information on how many homes the system would treat as well as potential for formation of Sewer District, if required by Suffolk County Health Department or Town Law.</p> |
| <p><input type="checkbox"/></p> <p><input checked="" type="checkbox"/></p>                 | <p><b>If the project is requesting grant match for the Peconic Estuary Program:</b> Include information related to funding program source and purpose of application and any relevant items on this checklist. Note: A Town Board resolution will be required in order to encumber matching funds for grant applications.</p>  |



#### 4. WATER QUALITY BENEFIT

**4a. Identify Nitrogen, Pathogen or Pollutant of Concern (POC) including Existing Condition and Target Reduction.**

N/A

**4b. Describe plans for collecting and reporting on water quality over time.**

A USGS Continuous Water Quality Monitoring station located downstream of the project site allows for the comparison of water quality data, pre and post construction. Water quality will be reported on annually.

**4c. Indicate useful life of proposed technology (must meet or exceed five years).**

The construction of the fish passage has required improvements to the Woodhull dam. The dam must meet the Dam Safety Requirements for a 100-year storm which is a specific requirement for a Class A Hazard Dam.

#### 5. COST FACTORS

**5a. Explain how you have confirmed that the proposed budget is reasonable, appropriate and necessary. If available, provide third party estimates or other documentation of how costs were determined.**

L.K. McLean Associates, LLC, developed the final engineering design and completed permitting services for the project and the final engineers estimate from L.K. McLean Associates, LLC, is attached.

**5b. Describe any matching funds to be provided.**

Other funding for the project includes NYSDEC WQIP Grant funds (\$278,964), Suffolk County WQRP Funds (\$330,000), and U.S. Fish and Wildlife Service- National Fish Passage Funds (\$50,000).

**5c. Explain: i. Why project cannot proceed and intended benefits cannot be achieved without external funding. ii. if funds are awarded at a lower level than requested, or if there are cost overruns, explain how the project will proceed.**

1.72% of project costs are secured- see 5b. Remaining 28% of costs are not available with Suffolk County or PSP for this project before listed funding sources expire. ii. Apply to additional external grants.



**6. MANAGEMENT, EXPERIENCE, ABILITY**

**6a. Describe applicant's experience in completing similar projects.**

Involved SC Parks, PEP and SCDPW personnel have many years of experience managing bridge and waterways engineering and maintenance projects, environmental restoration projects and various monitoring projects.

**6b. Describe community support or opposition to project. If there is opposition, explain how this is to be addressed.**

Supported by Suffolk County government and Legislators in District 1 and 2, NY State, local municipalities and residents, Sestuck, Peconic River Fish Restoration Commission, PEP and many other organizations.

**6c. Describe any permits needed and time frame/status of approvals. If permits are approved, indicate same.**

All permits approved and attached to application. United State Army Corps of Engineers, New York State Department of State, Division of Communities and Waterfronts, and various NYSDEC permits.

**7. MAINTENANCE, MONITORING, EVALUATION**

**Estimate ongoing maintenance costs and explain how these will be supported. Explain stewardship and monitoring activities planned for ensuring sustainability of the project.**

Existing staff at SC Parks and SCDPW will be utilized for the maintenance. Effectiveness and sustainability will be determined through water quality and biological monitoring by existing partner and PEP staff.

**8. DURATION OF PROJECT**

**8a. Provide a projected project timeline. Note: The Committee will only make recommendations for shovel-ready projects that can commence this fiscal year.**

Contracting for Construction Services- Anticipated Completion date: August 2021, Construction of the Diadromous Fish Passage- Anticipated Completion date: December 2021.

**8b. If project is multi-year or phased, provide a breakdown of budget and milestones for each year and phase.**

N/A

**9. ATTESTATION**

Allocation of CPF funds will not be for the purpose of accommodating new growth, as this is prohibited by State law.



Check box to certify that funds will not be directed for projects for the purpose of accommodating new growth.

Signature: \_\_\_\_\_

Date \_\_\_\_\_

5/14/21



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## 10. REQUIRED ATTACHMENTS

Confirm that the following required documents are attached to this application:

- Photos of existing conditions
- Location Map
- State Environmental Quality Review Act (SEQRA) Long or Short Environmental Assessment Form (EAF) (<https://www.dec.ny.gov/permits/6191.html>)
- Completed EPA Spreadsheet Tool for Evaluating Pollutant Load (STEPL) <http://it.tetrattech.com/steplweb/> or similar standardized methodology (describe)
- Project budget (see attached template)
- Ownership commitment is provided via letter of intent (LOI) for non-municipal owners or municipal resolution for municipal owners

## 11. OTHER ATTACHMENTS

List other attachments provided, including cost estimates, bids, plans, documentation of matching funds, and other as appropriate to demonstrate project readiness, quality, feasibility, and cost effectiveness.

See attached table of contents for a list of attachments and corresponding application attachments. Note: EPA Spreadsheet Tool for Evaluating Pollutant Load (STEPL) is not attached, deemed N/A for project.

**CPF Application Attachments**

Letter of Intent.....9

Project Description and Rationale.....10

CPF Application Answers.....12

Project Location Map.....17

Photos of Existing Conditions.....18

Project Work Plan and Timeline.....23

Project Team Qualifications.....25

Project Budget.....26

Engineer’s Estimate.....27

Final Engineering Design Plan Set.....28

Permit Letters.....43

SEQRA Determination.....63

Letters of Support .....65

# COUNTY OF SUFFOLK



STEVEN BELLONE  
SUFFOLK COUNTY EXECUTIVE

DEPARTMENT OF PARKS,  
RECREATION AND CONSERVATION

JASON SMAGIN  
ACTING COMMISSIONER

August 17, 2020

Town of Southampton  
Department of Community Preservation  
24 West Montauk Highway  
Hampton Bays, NY 11946

Attn: Janice Scherer, Town Planning and Development Administrator

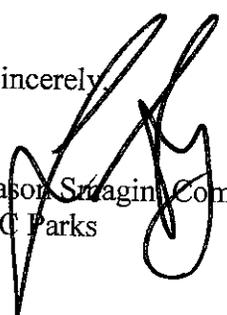
Dear Ms. Scherer:

I am writing on behalf of the Suffolk County Department of Parks, Recreation and Conservation to request grant funds through the Town of Southampton Community Preservation Fund Water Quality Improvement Program Plan (WQIPP) Fund to support the *Woodhull Dam Fish Passage and Peconic River Connectivity Project, Little River, Riverhead, NY.*

The project proposes the construction of a diadromous fish passage and river connectivity project located at Woodhull Dam on the Little River, a major tributary of the Peconic River. Suffolk County Department of Parks, Recreation and Conservation is the owner of the Woodhull Dam. The requested funding will allow for the construction of a permanent fish passage and eel passage at Woodhull Dam and will create access to 95 acres of prime spawning and maturation habitat within the protected lands in the Suffolk County owned Cranberry Bog Nature Preserve and the natural kettle hole pond, Wildwood Lake. This is the critical next step in the overall comprehensive plan to restore 300 acres of spawning and maturation habitat along the Peconic River for diadromous fish.

The proposed project is in alignment with the long term priorities of Suffolk County and is heavily supported by the local community and partner organizations, and the local, state and federal government. We thank you for your consideration to support this important initiative.

Sincerely,

  
Jason Smagin, Commissioner  
SC Parks



## **Woodhull Dam Fish Passage and Peconic River Connectivity Project**

### **Project Description and Rationale**

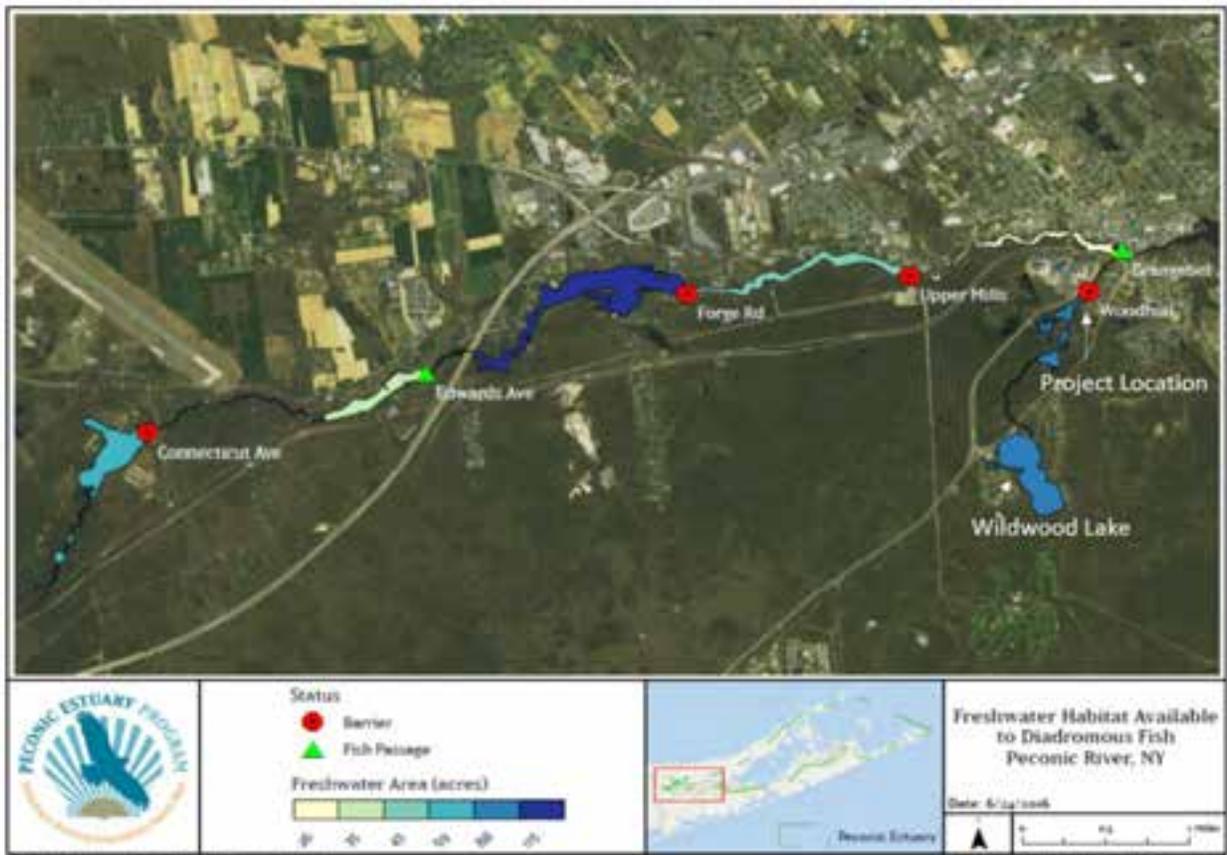
The Woodhull Dam, owned by Suffolk County Parks, is the next major barrier to diadromous fish passage on the Little River, a major tributary of the Peconic River, located in Cranberry Bog County Park, Town of Southampton. For over 100 years, dams have prevented diadromous fish from accessing over 300 acres of critical freshwater habitat on the Peconic River. This has limited the recovery of river herring and American eel, which are considered “depleted at near historic low abundances” by the Atlantic States Marine Fisheries Commission. A fishway was built at the first barrier on the Peconic River, Grangebél Dam, in 2010 but it only provides access to the lower reaches of the river. The majority of river herring that use this fishway end up at the Woodhull Dam in a stalled effort to reach upstream habitat. While river herring can currently spawn in the pool below Woodhull Dam, the habitat is less than ideal and provides very limited maturation habitat.

Suffolk County Parks, partnering with Peconic Estuary Partnership, is seeking to install a fish passage and eel passage through Woodhull dam. The objective of this project is to restore critical spawning and maturation habitat for local diadromous fish, specifically river herring and American eel, and to produce sustainable populations of these fish as they are a critical component of a healthy functioning ecosystem. Dam removal was not possible at this location as the lake created by this dam is now part of the Suffolk County Park system and has important cultural and recreational uses. Fishways have proven to be an effective way to pass river herring and other diadromous fish and provide access to freshwater habitat when dam removal is not possible. Under the supervision of the United States Fish and Wildlife Service, Northeast Regional Office, the preferred design for the fishway includes a combination of Denil passes and step pools, and an eel passage. These structures will bypass the current culvert and be constructed through the existing dam. A video monitoring system will also be installed near the exit of the fishway and used to conduct long-term monitoring to quantify the number of diadromous fish using the fish passage. Providing fish passage at this site will provide 30,000-60,000 river herring and American eel with access to 95 acres of high-quality spawning and maturation within the preserved lands of Wildwood Lake and Cranberry Bog Preserve, and would more than double the amount of spawning and maturation habitat currently available for one of Long Island’s top river herring runs. This project will foster species recovery, nutrient cycling, and contribute to ecosystem resilience.

Currently, seventy-two percent of the construction costs for this project have been secured through external grants. The remaining funds are not available through Suffolk County or Peconic Estuary Partnership before current grant funds expire. We are requesting the remaining twenty-eight percent of the project costs from the Town of Southampton CPF Water Quality Improvement Project Plan (WQIPP) fund. Once the remaining funds are secured, the project will be let through Suffolk County Department of Public Works (SCDPW) through a competitive bidding process and a contract will be established with the selected contractor for construction of the fish passage. Construction is expected to occur in 2021 if the remaining funds are secured. Per the NYSDEC permit requirements, construction must occur outside the river herring spawning season (March-May). Following construction, long-term monitoring of the diadromous fish populations in the Peconic River system will occur annually, led by existing Peconic Estuary

Partnership staff. There is also a USGS Continuous Water Quality Monitoring station located downstream of the project site that will allow for the comparison of water quality data pre and post-construction. Monitoring results will be published in annual reports. If it is determined that the fish passage design is not effective or if the project does not meet the project goals in five years, the fish passage will be redesigned to successfully provide access for target species to the spawning and maturation habitat above Woodhull Dam. Suffolk County will maintain and sustain the fish passage for the life of the structure and the dam.

This project is the next step to achieve an overall goal to restore 300 acres of diadromous fish spawning and maturation habitat within the Peconic River system. Fish passage projects are currently in the engineering design phase at the second and third barriers on the main stem of the Peconic River- Upper Mills Dam and Forge Road Dam. A fish passage at Edwards Avenue Dam, the fourth barrier on the main stem of the Peconic River, was completed in 2016. See Peconic River Barrier Map below.



## COMMUNITY PRESERVATION FUND (CPF) WATER QUALITY IMPROVEMENT PROGRAM PLAN FUND

### Application Responses

#### Project Summary: (add text 2-3 Sentences only)

Suffolk County (SC) Parks, partnering with the Peconic Estuary Partnership (PEP), is seeking to construct a fish passage and eel passage through Woodhull dam to provide diadromous fish access to two miles of river and 95 acres of critical freshwater habitat within the preserved lands of Wildwood Lake and Cranberry Bog Nature Preserve. SC Parks will contract with a local company for the construction services. The project will provide permanent fish passage at Woodhull dam and restore aquatic connectivity and access to high quality freshwater habitat for river herring and American eel, more than doubling the spawning habitat for one of the top river herring runs on Long Island.

### 3. PROJECT DESCRIPTION

#### 3a. Existing conditions of applicable groundwater/sub-watershed/waterbody and most recent and relevant data available (provide sources).

Woodhull dam is located on The Little River, a major tributary of the Peconic River. The Little River's headwaters begin at the 64 acre natural kettle pond, Wildwood Lake, and flow downstream through the protected lands of Suffolk County Cranberry Bog Nature Preserve toward the main stem of the Peconic River. According to the most recent Peconic River alewife survey, the majority of river herring that use the Grangebel Fishway, which provides access to the lower reaches on the Peconic River, end up at the next major barrier to diadromous fish passage, Woodhull dam, preventing an estimated 30,000- 60,000 from reaching 95 acres of spawning and maturation habitat. The preserved lands of Wildwood Lake and tributaries are included as a high priority area for restoration in the Southampton Town CPF WQIPP on p. 46. According to the [Suffolk County Subwatersheds Wastewater Plan](#), Wildwood Lake is a groundwater fed waterbody with a majority of the groundwater flow reaching Wildwood Lake between 0 and 10 years (p. 2-166) with a hydraulic flushing time of 315.8 days (Table 2-26) and is included in the highest priority Management Area for nitrogen reductions. Additionally it is listed on the [NYSDEC Impaired/ DeListed Waters NOT Included on the 2016 Section 303\(d\) List](#) as Wildwood Lake (Great Pond) (WI/PWL ID: 1701-0264) - Restricted Passage with a source of Hydro Modification for justification 4c (TMDL is not appropriate because the sole impairment is the result of pollution, rather than a pollutant that can be allocated through a TMDL).

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The project addresses the issue in the context of Restoration and Reduction as per the CPF WQIPP as it improves and increases access to diadromous fish habitat, supports Peconic Estuary watershed biodiversity, and restores river connectivity and balances in the freshwater and tidal stream corridor

with long-term ecological outcomes such as enhancement of water quality and nutrient cycling within the ecosystem in the outlined high priority areas in the WQIPP. Providing permanent fish passage at the Woodhull dam will restore access to 95 acres of high quality freshwater spawning and maturation habitat upstream of the existing dam for river herring and American eel, enhancing their populations and increasing ecosystem resilience. At all stages of their life cycle, river herring and American eel provide many vital ecosystem services: they filter and consume plankton from the water column; they export nutrients from the freshwater environment to the ocean, which reduces freshwater algae blooms and improves water quality in those freshwater systems; they provide an excellent source of forage to marine predators both offshore and nearshore, as well as freshwater, terrestrial, and avian predators found throughout their range; and river herring act as a prey buffer for other species.

**3c. Describe the proposed technology and its demonstrated efficacy in similar settings. May include published data.**

The design and permitting for this project were supported with Suffolk County funding and contracted out to L.K. McLean Associates. Under the supervision of the United States Fish and Wildlife Service (U.S. FWS), Northeast Regional Office, L.K. McLean Associates considered multiple design alternatives to arrive at the final preferred engineering design plan for the fish passage which includes the installation of a fish passage with a combination of Denil passes and step pools and an eel passage. The U.S. FWS reviewed and approved of installing the final design structure for fish passage since the downstream movement of fish through the structure is considered safer for all species and upstream movement is easier for American eels to use. The site has the hydraulic capability to allow various flows and depths to pass down the pool and weir fishway. Dam removal was not possible at this location as the lake created by this dam is now part of the Suffolk County Park system and has important cultural and recreational uses. Fishways have proven to be an effective way to pass river herring and other diadromous fish and provide access to freshwater habitat when dam removal is not possible.

**3d. How the project supports Town of Southampton, Suffolk County, NYSDEC, Long Island Nitrogen Action Plan (LINAP) or other adopted goals/policies (provide references with pages numbers).**

Wildwood Lake and tributaries are included as a high priority area for restoration in the Southampton Town CPF WQIPP on p. 46 and the project aligns with Restoration and Reduction priorities as it restores coastal habitats. The project aligns with the PEP Comprehensive Conservation and Management Plan (CCMP), Habitat and Living Resources Management Plan action HLR-12.2: to “Identify, protect, and restore key shellfish and finfish spawning, nursery, and feeding habitats in the Peconic Estuary” (p. 4-54 <https://www.peconicestuary.org/protect-the-peconic/ccmp/>), and aligns with the PEP Habitat Restoration Plan that identifies Woodhull Dam/Wildwood Lake Diadromous Fish Passage Restoration as a priority restoration site (p. 31 <https://www.peconicestuary.org/wp-content/uploads/2018/04/FINAL-2017-HABITAT-PLAN.pdf>). The project aligns with the LI Diadromous Fish Restoration Strategy priorities for the Little River (p. 18 [https://www.seatuck.org/images/PDF/Seatuck\\_RestorationStrategy\\_v12.pdf](https://www.seatuck.org/images/PDF/Seatuck_RestorationStrategy_v12.pdf)). The project also aligns with the NYSDEC’s River Herring Management Goals and with Action 1 of The NY Ocean Action Plan: “Evaluate, prioritize and remove or modify known impediments to diadromous fish passage.” Woodhulls Pond/Wildwood Lake is listed as a priority fish passage project in this plan (p.19 [https://www.dec.ny.gov/docs/fish\\_marine\\_pdf/nyoceanactionplan.pdf](https://www.dec.ny.gov/docs/fish_marine_pdf/nyoceanactionplan.pdf)). The project aligns with LINAP as PEP’s fish passage and connectivity projects will inform evaluations of Hydro-modifications which is a priority in the LINAP Scope (p. 30 [https://www.dec.ny.gov/docs/water\\_pdf/linapscope.pdf](https://www.dec.ny.gov/docs/water_pdf/linapscope.pdf)) and aligns with the LINAP Scope environmental data needs for marine life to be used throughout the planning process p. 14.

#### **4.WATER QUALITY BENEFIT**

##### **4a. Identify Nitrogen, Pathogen or Pollutant of Concern (POC) including Existing Condition and Target Reduction.**

N/A

##### **4b. Describe plans for collecting and reporting on water quality over time.**

A USGS Continuous Water Quality Monitoring station located downstream of the project site allows for the comparison of water quality data, pre and post construction. Water quality will be reported on annually.

##### **4c. Indicate useful life of proposed technology (must meet or exceed five years).**

The construction of the fish passage has required improvements to the Woodhull dam. The dam must meet the Dam Safety Requirements for a 100-year storm which is a specific requirement for a Class A Hazard Dam.

#### **5.COST FACTORS**

##### **5a. Explain how you have confirmed that the proposed budget is reasonable, appropriate and necessary. If available, provide third party estimates or other documentation of how costs were determined.**

L.K. McLean Associates, LLC. developed the final engineering design and completed permitting services for the project and the final engineers estimate from L.K. McLean Associates, LLC. is attached.

##### **5b. Describe any matching funds to be provided.**

Other funding for the project includes NYSDEC WQIP Grant funds (\$278,964), Suffolk County WQPRP Funds (\$330,000), and U.S. Fish and Wildlife Service- National Fish Passage Funds (\$50,000).

##### **5c. Explain: i. Why project cannot proceed and intended benefits cannot be achieved without external funding. ii. if funds are awarded at a lower level than requested, or if there are cost overruns, explain how the project will proceed.**

i.72% of project costs are secured- see 5b. Remaining 28% of costs are not available with Suffolk County or PEP for this project before listed funding sources expire. ii. Apply to additional external grants.

#### **6.MANAGEMENT, EXPERIENCE, ABILITY**

##### **6a. Describe applicant's experience in completing similar projects.**

Involved SC Parks, PEP and SCDPW personnel have many years of experience managing bridge and waterways engineering and maintenance projects, environmental restoration projects and various monitoring projects.

**6b. Describe community support or opposition to project. If there is opposition, explain how this is to be addressed.**

Supported by Suffolk County government and Legislators in District 1 and 2, NY State, local municipalities and residents, Seatuck, Peconic River Fish Restoration Commission, PEP and many other organizations.

**6c. Describe any permits needed and time frame/status of approvals. If permits are approved, indicate same.**

All permits approved and attached to application. United State Army Corps of Engineers, New York State Department of State, Division of Communities and Waterfronts, and various NYSDEC permits.

## **7. MAINTENANCE, MONITORING, EVALUATION**

**Estimate ongoing maintenance costs and explain how these will be supported. Explain stewardship and monitoring activities planned for ensuring sustainability of the project.**

Existing staff at SC Parks and SCPDW will be utilized for the maintenance. Effectiveness and sustainability will be determined through water quality and biological monitoring by existing partner and PEP staff.

## **8. DURATION OF PROJECT**

**8a. Provide a projected project timeline. Note: The Committee will only make recommendations for shovel-ready projects that can commence this fiscal year.**

Contracting for Construction Services- Anticipated Completion date: August 2021, Construction of the Diadromous Fish Passage- Anticipated Completion date: December 2021.

**8b. If project is multi-year or phased, provide a breakdown of budget and milestones for each year and phase.**

N/A

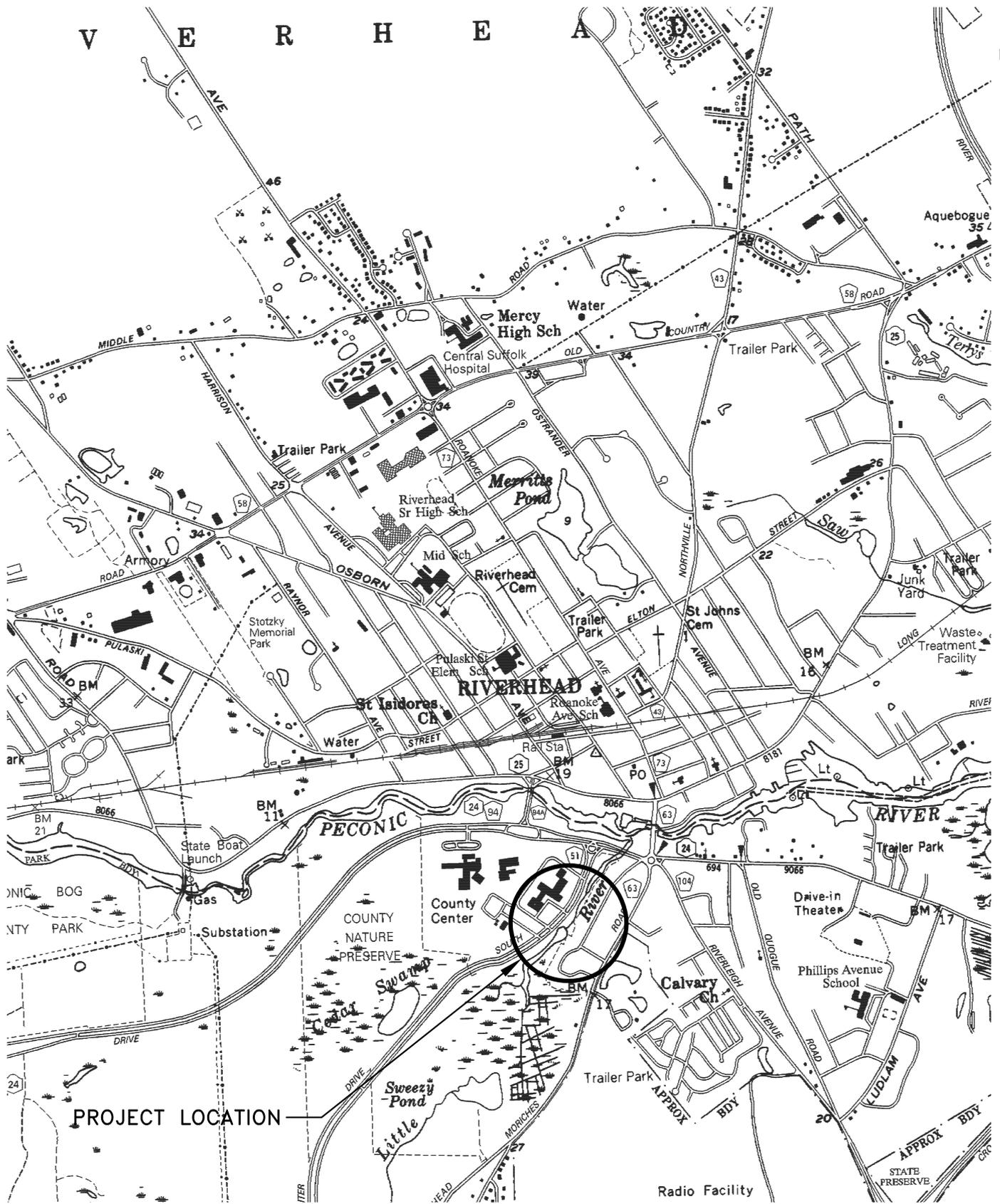
## **11. OTHER ATTACHMENTS**

List other attachments provided, including cost estimates, bids, plans, documentation of matching funds, and other as appropriate to demonstrate project readiness, quality, feasibility, and cost effectiveness.

See attached table of contents for a list of attachments and corresponding application attachments.  
Note: EPA Spreadsheet Tool for Evaluating Pollutant Load (STEPL) is not attached, deemed N/A for project.

V E R H E A

GRID NORTH



PROJECT LOCATION

# WOODHULL'S DAM VICINITY MAP

SUFFOLK COUNTY DPW  
RIVERHEAD, NEW YORK



1" = 2,000'

SEPT. 2019

11084.000



L. K. McLEAN ASSOCIATES, P.C.

Sep 10, 2019 - 10:34am  
P:\15084.000 Woodhull Dam Fish Ladder\Vault Files\Design Files\Contract Drawings\15084.000\_DFF\_CDF\_Vicinity Map\_0.dwg

Woodhull Dam Existing Conditions Photos



*PHOTO 1 - Existing Inlet Structure*

WOODHULL DAM  
EXISTING CONDITIONS PHOTOS



*PHOTO 2 - Photo of the Little River facing north-east (Photo taken from the top of the dam).*

## WOODHULL DAM EXISTING CONDITIONS PHOTOS



*PHOTO 3 - Existing Outlet Structure.*

## WOODHULL DAM EXISTING CONDITIONS PHOTOS



*PHOTO 4 – Photo of Woodhull Pond looking south-east (Photo taken from the top of the dam).*

## WOODHULL DAM EXISTING CONDITIONS PHOTOS



*PHOTO 5 - Existing Earth Berm. Photo taken from top of dam facing north-west.*

Note:

All five photographs contained in this document were taken by Keith J. Masseria, P.E. Keith is an Engineer at L.K. McLean Associates.

## WOODHULL DAM EXISTING CONDITIONS PHOTOS

## **Woodhull Dam Fish Passage and Peconic River Connectivity Project**

### **Project Work Plan and Timeline**

#### **Task 1: Contracting for Construction Services**

Once the grant is awarded and Suffolk County approves the legislative resolution to appropriate the funds to SC Parks, Project Documents will be let through Suffolk County Department of Public Works (SCDPW) through a competitive bidding process for the Construction of a Fish Passage at Woodhull's Dam in Cranberry Bog County Park Town of Southampton. The received bids will be reviewed and a contract between Suffolk County and the selected contractor for the construction services will be established. SCDPW, SC Parks and Peconic Estuary Partnership will coordinate the contracting for construction services. This task is not being funded by requested funds.

**Deliverables:** Executed contract between Suffolk County and selected contractor.

**Anticipated Completion Date:** August 2021

#### **Task 2: Construction of the Diadromous Fish Passage**

The selected contractor will complete the diadromous fish passage construction project outside of the target species migration period (March - May) according to the approved and permitted Engineering Design Plans completed by L.K. McLean Associates (Final Engineering Design Plans and permits are attached separately to the application). Engineering Design and permitting for this project have been completed with previously awarded Suffolk County funding. The diadromous fish passage project includes the construction and installation of a fish passage, a combination Denil pass and step pool design, and an eel passage. These structures will bypass the existing culvert in the dam and be constructed through the existing dam. A video monitoring system will be installed near the exit of the fishway and used to conduct long-term monitoring to quantify the number of diadromous fish using the fish passage. Suffolk County DPW will oversee the construction of the project to ensure it is executed as designed. Implementation monitoring will be conducted to evaluate short-term structural changes to ensure that the diadromous fish passage project was executed as designed, provide quality assurance during project construction, and all permit requirements are followed. During construction, an independent consultant will be hired to evaluate the construction as compared to the final engineering and design plans. The construction of the diadromous fish passage is being funded by the requested funds. The final engineers estimate from L.K. McLean Associates (attached) outlines the project construction costs which include a 12% construction inspection cost. A 5% construction contingency cost has been added on to that total estimate to account for potential cost increases.

**Deliverables:** Completion of the Diadromous Fish Passage

**Anticipated Completion Date:** December 2021

#### **Task 3: Long-Term Monitoring**

Monitoring of the diadromous fish populations in the Peconic River system will occur annually during the river herring migration season (March through May). The long-term monitoring will not be funded by requested funds. Monitoring will be led by Peconic Estuary Partnership (PEP), with assistance from NYSDEC, Suffolk County, and other non-profit partners. A Quality Assurance Project Plan for river herring monitoring and data analysis along the Peconic River

has been reviewed and approved by NYSDEC and EPA. If it is determined that the fish passage design is not effective or if the project does not meet the project goals in five years, the fish passage will be redesigned to successfully provide access for target species to the spawning and maturation habitat above Woodhull Dam.

### **Pre-project monitoring**

A Volunteer Alewife Monitoring Program was initiated on the Peconic River by retired NYSDEC biologist, Byron Young, in 2010 and is ongoing. This monitoring includes visual estimates of total fish numbers attempting to access Woodhull dam and biological sampling, including size measurements, determination of sex, and scale retrieval for age estimates (<https://www.peconicestuary.org/2018-alewife-spawning-report/>). Additionally, in the spring of 2019 and 2020, Peconic Estuary Partnership installed a video monitoring system at the Grangebél fishway on the Peconic River to provide a more robust estimate of the number of alewives using this fishway and coming up the Peconic River and Little River to spawn. Based on analysis of the video data, 35,000 and 57,000 alewives were estimated to have used the Grangebél fishway in spring 2019 and 2020, respectively.

### **Post-Project Effectiveness Monitoring:**

Target 1: Measure number of river herring successfully passing through the fish passage.

As described under Task 2 Construction, a video monitoring system will be installed near the exit of the Woodhull fish passage. Recorded video will allow biologists to identify and enumerate species ascending and descending the fishway, to determine fish passage utilization. Video monitoring is also expected to continue at the Grangebél fishway in the coming years and can be compared with the video data at Woodhull. The collection and analysis of the video monitoring data will be led by existing PEP staff, with assistance from other partners.

Target 2: Assess structure of river herring population using the fish passage

Ongoing biological monitoring of the alewife population, including size measurements, determination of sex, and scale retrieval for age estimates, will continue to occur, as feasible.

Target 3: Assess health of ecosystem as connectivity is restored.

There is a USGS Continuous Water Quality Monitoring station located downstream of the project site [http://waterdata.usgs.gov/nwis/uv/?site\\_no=01304562](http://waterdata.usgs.gov/nwis/uv/?site_no=01304562) that will allow for the comparison of water quality data pre and post-project.

**Deliverables:** Completion of post-construction monitoring and distribution of results.

Completion of long-term monitoring of diadromous fish using the constructed fish passage and distribution of results and reports annually.

**Anticipated Completion Date:** First post-construction report by December 2022. Long-term monitoring will be ongoing and reports will be completed annually.

# **Woodhull Dam Fish Passage and Peconic River Connectivity Project**

## **Project Team Qualifications**

### **Project Team Oversight:**

#### **Nick Gibbons, Principal Environmental Analyst, Suffolk County Parks**

Nick Gibbons is the Principal Environmental Analyst for the Suffolk County Department of Parks, Recreation, and Conservation. He manages projects related to conservation and restoration of County-owned lands, including contracts management, project management and budgeting. He is also responsible for the handling of environmental regulations applicable to all county park projects.

#### **Kyle Swaringen, P.E., Principal Civil Engineer & Director of Bridges & Structures Engineering, Suffolk County Department of Public Works**

The Principal Engineer oversees highway, bridge and waterways engineering and maintenance activities within the Public Works Department. They have the responsibility for planning, organizing and directing engineering functions of the Public Works Laboratory, Survey, Highways, Bridges, and Waterways Divisions.

#### **Dr. Joyce Novak, Peconic Estuary Partnership Director**

Joyce Novak is a coastal oceanographer and the Director of the Peconic Estuary Partnership (PEP), a partnership among federal, state and local government, non-profit, academic and citizens organizations tasked with protecting the Peconic Estuary and its watershed. The Director is responsible for providing leadership and management of program activities, scientific oversight of program activities, budgeting and contracts management, and acts as liaison between program staff, committees, and agency partners.

### **Technical Leads:**

#### **Elizabeth Hornstein, NEIWPC Environmental Analyst – PEP NYSDEC Coordinator**

A NEIWPC employee since 2017, Elizabeth is the Peconic Estuary Partnership Coordinator for New York State Department of Environmental Conservation. Elizabeth serves as the Habitat Restoration Specialist, as well as the Stormwater Specialist for the program. She is co-chair of the Peconic Estuary Program's Natural Resource Subcommittee. Elizabeth oversees several initiatives including fish passage restoration, wetland restoration, and subwatershed management plans.

#### **Sarah Schaefer, NEIWPC Environmental Analyst – PEP Program Coordinator**

Sarah joined NEIWPC and began her role as Peconic Estuary Partnership, Program Coordinator in the Fall of 2015. Sarah works within the Peconic Estuary Partnership Office and assists the PEP Program Director and PEP State Coordinator with contract and project management activities, assists with tracking of CCMP implementation, and provides technical and administrative support to PEP to complete project and grant reports, periodic program evaluations, grant applications and administration of grant funds.

## Woodhull Dam Fish Passage and Peconic River Connectivity Project

### Budget Proposal

<b>Task</b>	<b>Town CPF Request</b>	<b>Other Funding</b>	<b>Estimated Total Project Costs</b>
<b><u>Contractual Services</u></b>			
Task 1 – Contracting for Construction Services	\$0	\$0	\$0
Task 2 – Fish Passage Construction* (includes 12% Construction Inspection and 5% Contingency Costs)	\$260,904	\$658,964	\$919,868
<b><u>Monitoring</u></b>			
Task 3 – Long Term Monitoring (*cost for video monitoring system already included in construction contractual services)	\$0	\$0	\$0
<b>Total Project Cost</b>	<b>260,904</b>	<b>\$658,964</b>	<b>\$919,868</b>

\*See Engineer's Estimate attachment

### Other Funding

<b>Funding Source</b>	<b>Amount</b>
New York State Department of Environmental Conservation-Water Quality Improvement Program Grant	\$278,964.00
U.S. Fish and Wildlife – National Fish Passage Funds	\$50,000.00
Suffolk County - Water Quality Protection and Restoration Program Grant	\$330,000
<b>Total</b>	<b>\$658,964</b>



**FINAL ENGINEER'S ESTIMATE**

L.K. McLean Associates, P.C.

Project Name: Woodhull Dam Fish Passage  
 Location: Southampton, New York  
 Client Name: Suffolk County Department of Public Works

Date: June 25, 2019  
 LKMA Project No: 15084.000

Item	Description	UNIT	QUANTITY	UNIT PRICE	AMOUNT
8EO-A	ENGINEER'S OFFICE	LS	1	\$25,000.00	\$25,000.00
8SS	ENGINEER SUPPORT EQUIPMENT	LS	1	\$1,500.00	\$1,500.00
8OAG	ALUMINUM GRATING	SF	385	\$80.00	\$30,800.00
83PS	MARINE GRADE POLYMER WEIR	SF	175	\$200.00	\$35,000.00
83VW	VINYL BULKHEAD (SG850, 14' SHEETS)	LF	145	\$675.00	\$97,875.00
85GW	GREENHEART TIMBER PILES	VLF	120	\$111.00	\$13,320.00
1029W	CATCH BASINS, MANHOLES, AND DROP INLETS	VLF	14	\$1,340.00	\$18,760.00
108R	PE TIMBER RAILING	LF	55	\$294.00	\$16,170.00
201 08	CLEARING AND GRUBBING	LS	1	\$10,000.00	\$10,000.00
203 01990108	IMPERVIOUS EMBANKMENT IN PLACE (SOIL-BENTONITE MIX)	CY	45	\$520.00	\$23,400.00
203 02	UNCLASSIFIED EXCAVATION AND DISPOSAL	CY	385	\$67.00	\$25,795.00
203 07	SELECT GRANULAR FILL	CY	20	\$70.00	\$1,400.00
206 0201	TRENCH AND CULVERT EXCAVATION	CY	30	\$203.00	\$6,090.00
207 21	GEOTEXTILE FILTER FABRIC	SY	250	\$25.00	\$6,250.00
209 13	SILT FENCE-TEMPORARY	LF	450	\$7.00	\$3,150.00
209 1501	TURBIDITY CURTAIN	LF	120	\$39.00	\$4,680.00
209 1901	ROLLED EROSION CONTROL PRODUCT, CLASS II TYPE A, INTERMEDIATE	SY	331	\$10.00	\$3,310.00
209 20160010	BIO-FIBER ROLLS, 16 INCH	LF	105	\$58.00	\$6,090.00
209 22	CONSTRUCTION ENTRANCE	SY	90	\$81.00	\$5,490.00
304 10119917	SUBBASE COURSE, TYPE 1011-2	CY	60	\$88.00	\$5,280.00
553 02001	COFFERDAMS (TYPE 2)	EA	2	\$77,000.00	\$154,000.00
555 10	CONCRETE FOR STRUCTURES, CLASS D	CY	10	\$1,750.00	\$17,500.00
594 01	TIMBER AND LUMBER (GREENHEART)	CF	90	\$250.00	\$22,500.00
603 6105	REINFORCED CONCRETE PIPE CLASS IV, 24 INCH DIAMETER	LF	28	\$292.00	\$8,176.00
609 0401	CAST-IN-PLACE CONCRETE CURB TYPE VF-150	LF	32	\$88.00	\$2,816.00
610 1401	TOP SOIL - REUSE ON-SITE MATERIAL	CY	200	\$51.00	\$10,200.00
610 1601	TURF ESTABLISHMENT - ROADSIDE	SY	1,200	\$4.10	\$4,920.00
611 0441	UPLAND WOODY SHRUB PLANT SPECIES	EA	200	\$100.00	\$20,000.00
611 0711	HERBACEOUS SUB-EMERGENT PLANT SPECIES	EA	100	\$11.00	\$1,100.00
611 0731	HERBACEOUS EMERGENT PLANT SPECIES	EA	100	\$5.50	\$550.00
614 060203	TREE REMOVAL 6" UP TO AND INCLUDING 12" DIAMETER	EA	6	\$500.00	\$3,000.00
614 060303	TREE REMOVAL 12" UP TO AND INCLUDING 24" DIAMETER	EA	5	\$925.00	\$4,625.00
619 01	BASIC WORK ZONE TRAFFIC CONTROL	LS	1	\$27,000.00	\$27,000.00
620 06	RIP-RAP	CY	26	\$320.00	\$8,320.00
625 01	SURVEY OPERATIONS	LS	1	\$18,000.00	\$18,000.00
699 040001	MOBILIZATION	LS	1	\$30,000.00	\$30,000.00
720	WATERFOWL CANOPY FENCE	LF	125	\$25.20	\$3,150.00

TOTAL \$976,217.88

WITH 12% CONSTRUCTION INSPECTION \$756,243.04

**ADD ALTERNATE 1 - FISH COUNTER**

Item	Description	UNIT	QUANTITY	UNIT PRICE	AMOUNT
83FC	FISH COUNTER (CAMERA, LAPTOP AND WIRING)	LS	1	\$14,000.00	\$14,000.00
201C-100	1" DIAMETER PVC CONDUIT	LF	85	\$26.50	\$2,252.50
201W-B2	2 CONDUCTOR #10 AWG W/ #10 AWG GROUND (TYPE THWN-2)	LF	82	\$13.00	\$1,066.00

TOTAL \$17,318.50

WITH 12% CONSTRUCTION INSPECTION \$19,307.68

**ADD ALTERNATE 2 - EEL PASSAGE**

Item	Description	UNIT	QUANTITY	UNIT PRICE	AMOUNT
3059W	EEL PASSAGE	LS	1	\$30,000.00	\$30,000.00
201C-100	1" DIAMETER PVC CONDUIT	LF	100	\$18.00	\$1,800.00
201C-250	2 1/2" DIAMETER PVC CONDUIT	LF	320	\$19.00	\$6,080.00
201ES	FERRISSH AND INST HALL ONE, 100 AMP ELECTRICAL SERVICE PANEL WITH NEMA 4X ENCLOSURE	LS	1	\$16,000.00	\$16,000.00
201W-B1	3 CONDUCTOR 4/0 AWG (TYPE THWN-2)	LF	300	\$31.00	\$9,300.00
201W-B2	2 CONDUCTOR #10 AWG W/ #10 AWG GROUND (TYPE THWN-2)	LF	100	\$13.00	\$1,300.00
415	24"X24"X6" NEMA 4X ENCLOSURE	EA	1	\$4,000.00	\$4,000.00
594 01	TIMBER AND LUMBER (GREENHEART)	CF	15	\$600.00	\$9,000.00
670 3001	PULL BOX	EA	2	\$2,300.00	\$4,600.00

TOTAL \$82,700.00

WITH 12% CONSTRUCTION INSPECTION \$92,624.00

**ADD ALTERNATE 3 - PROPOSED WETLAND CREATION AREA EXPANSION**

Item	Description	UNIT	QUANTITY	UNIT PRICE	AMOUNT
203 02	UNCLASSIFIED EXCAVATION AND DISPOSAL	CY	40	\$67.00	\$2,680.00
209 20160001	BIO-FIBER ROLLS, 16 INCH	LF	10	\$58.00	\$580.00
611 0441	UPLAND WOODY SHRUB PLANT SPECIES	EA	20	\$100.00	\$2,000.00
611 0711	HERBACEOUS SUB-EMERGENT PLANT SPECIES	EA	80	\$11.00	\$880.00
611 0731	HERBACEOUS EMERGENT PLANT SPECIES	EA	80	\$5.50	\$440.00
720	WATERFOWL CANOPY FENCE	LF	25	\$25.20	\$630.00

TOTAL \$7,045.00

WITH 12% CONSTRUCTION INSPECTION \$7,890.40

Total Base Bid + Add Alternate 1 + Construction Inspection \$775,550.72

Total Base Bid + Add Alternate 2 + Construction Inspection \$848,867.04

Total Base Bid + Add Alternate 3 + Construction Inspection \$764,133.44

Total Base Bid + Add Alternate 1 + Add Alternate 2 + Add Alternate 3 + Construction Inspection \$876,065.12

**INDEX OF DRAWINGS**

DRAWING NAME:	SHEET NO.
COVER SHEET & INDEX	1 OF 15
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EXISTING CONDITIONS	3 OF 15
GENERAL PLAN	4 OF 15
LANDSCAPE DEVELOPMENT PLAN	5 OF 15
MISCELLANEOUS DETAILS-1	6 OF 15
MISCELLANEOUS DETAILS-2	7 OF 15
MISCELLANEOUS DETAILS-3	8 OF 15
SEDIMENT AND EROSION CONTROL DETAILS	9 OF 15
UTILITY PLAN	10 OF 15
UTILITY DETAILS	11 OF 15
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LANDSCAPE DETAILS-1	13 OF 15
LANDSCAPE DETAILS-2	14 OF 15
WORK ZONE TRAFFIC CONTROL	15 OF 15



**COUNTY OF SUFFOLK  
DEPARTMENT OF PUBLIC WORKS**

**THE CONSTRUCTION OF A  
FISH PASSAGE AT WOODHULL'S DAM**

IN CRANBERRY BOG COUNTY PARK  
BETWEEN THE NORTHEAST END OF COUNTY  
ROUTE 51 AND WOODHULL AVENUE

TOWN OF SOUTHAMPTON  
SUFFOLK COUNTY, NEW YORK

PROJECT NO. 7180, 7099 & 8235

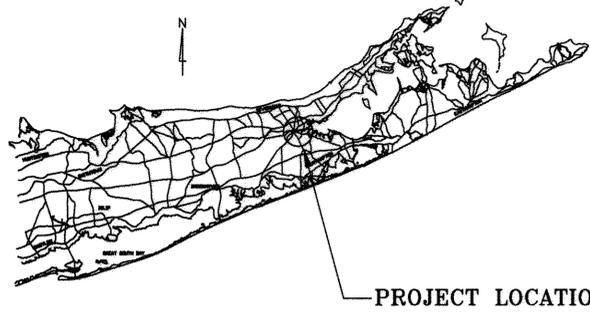
SPECIAL NOTE

THE CONTRACTORS ATTENTION IS DIRECTED TO UTILITIES IN THE AREA. THEIR LOCATION AS SHOWN ON PLAN IS NOT GUARANTEED. THE CONTRACTOR SHALL SATISFY HIMSELF AS TO THE EXACT LOCATION OF ALL UTILITIES AND WILL TAKE EVERY PRECAUTION NOT TO DISTURB THEM.

CONFORMANCE WITH THE NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION STIPULATIONS IS REQUIRED

- ALL WORK SHALL BE IN ACCORDANCE WITH N.Y.S.D.E.C PERMIT NO. 1-4736-06963/00006. COPIES OF THE PERMIT ARE INCLUDED IN THE PROPOSAL. THE COST OF THIS WORK IS TO BE INCLUDED IN ITEMS 209.13, 209.1501 & 209.22.
- TO PROTECT THE SPAWNING RUN OF ALEWIFE AND THE INLAND MIGRATION OF AMERICAN EEL, ALL ACTIVITIES INVOLVING THE DISTURBANCE OF THE BED OR BANKS OF WOODHULL'S POND (A.K.A. LITTLE RIVER), THE PLACEMENT OF FILL IN THE STREAM, OR ANY OTHER ACTIVITY WHICH WILL INCREASE THE TURBIDITY IN THE WATERWAY ARE PROHIBITED BETWEEN THE DATES MARCH 1 AND MAY 31, INCLUSIVE, OF ANY CALENDAR YEAR.

Map of the COUNTY OF SUFFOLK



PROJECT LOCATION

THIS PROJECT IS LOCATED BETWEEN THE NORTHEAST END OF COUNTY ROUTE 51 AND WOODHULL AVENUE; DIRECTLY ACROSS FROM SUFFOLK COUNTY SURROGATE COURTS IN THE TOWN OF RIVERHEAD, NEW YORK.

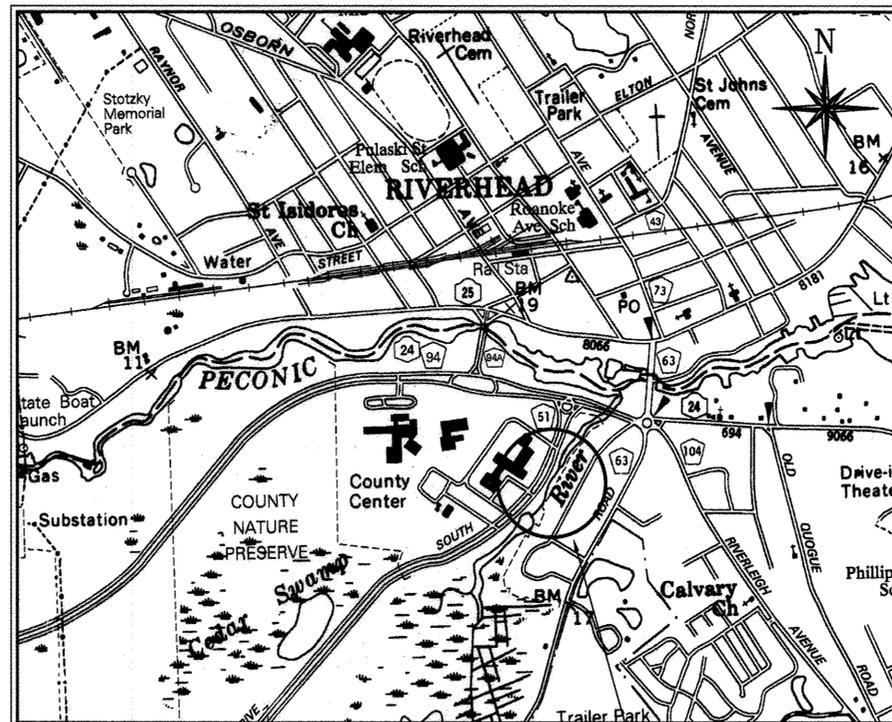
PREPARED AND RECOMMENDED BY: **LKMA L. K. McLEAN ASSOCIATES, P.C.**  
CONSULTING ENGINEERS 437 SOUTH COUNTRY RD., BROOKHAVEN, NEW YORK 11719

APPROVED BY: Raymond Dibiase  
RAYMOND DIBIASE, P.E. - NYSPE Lic. No. 56985

DATE: 7/8/19

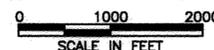


ALL WORK CONTEMPLATED UNDER THIS CONTRACT SHALL BE COVERED BY AND IN CONFORMITY WITH THE LATEST EDITION OF THE NEW YORK STATE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS, EXCEPT AS MODIFIED ON THIS PLAN AND IN THE PROPOSAL.



LOCATION MAP

PREPARED UNDER ARTICLE 6 - SECTION 116 OF THE HIGHWAY LAW.



APPROVED BY: William Hillman DATE: 7/11/19  
WILLIAM HILLMAN, P.E., CHIEF ENGINEER

APPROVED BY: Darnell Tyson DATE: 7/10/19  
DARNELL TYSON, P.E., ACTING COMMISSIONER OF PUBLIC WORKS

PLAN REVIEWED BY		
SECTION	INITIAL	DATE
HIGHWAY DESIGN	<u>AD</u>	<u>7/9/19</u>
TRAFFIC SAFETY	<u>ASP</u>	<u>7/10/19</u>
BRIDGES & STRUCTURES	<u>AD</u>	<u>7-9-19</u>
WATERWAYS	<u>N/A</u>	<u>7-11-19</u>
CONSTRUCTION	<u>J</u>	<u>7/11/19</u>

THE EDUCATION LAW OF THE STATE OF NEW YORK PROHIBITS ANY PERSON FROM ALTERING ANYTHING ON THE DRAWINGS AND/OR THE ACCOMPANYING SPECIFICATIONS, UNLESS IT'S UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, WHERE SUCH ALTERATIONS ARE MADE, THE PROFESSIONAL ENGINEER MUST SIGN AND SEAL, DATE AND DESCRIBE THE FULL EXTENT OF THE ALTERATION ON THE DRAWING AND/OR IN THE SPECIFICATION (NYS ED. LAW SECTION 7209-2).

GENERAL NOTES:

- CONTRACTOR SHALL READ AND FOLLOW ALL PERMIT CONDITIONS AND SPECIAL CONDITIONS CONTAINED IN THE PERMIT (1-4736-06963/00006) TO ENSURE COMPLIANCE DURING THE TERM OF THE PERMIT. A COPY OF THE PERMIT CAN BE FOUND IN THE PROJECT MANUAL.
- ALL CONSTRUCTION SHALL BE COMPLETED WITHIN THE TIME FOR COMPLETION STATED IN THE CONTRACT. FAILURE TO MEET THIS DEADLINE MAY RESULT IN A PENALTY AS DEFINED IN THE CONTRACT AGREEMENT.
- ANY DEBRIS OR EXCESS MATERIAL FROM CONSTRUCTION OF THIS PROJECT SHALL BE COMPLETELY REMOVED FROM THE ADJACENT AREA (UPLAND) AND REMOVED AT AN APPROVED UPLAND AREA FOR DISPOSAL. NO DEBRIS IS PERMITTED IN WETLANDS OR PROTECTED BUFFER AREAS.
- UNLESS SPECIFICALLY CALLED FOR ON PLANS, THERE SHALL BE NO DISTURBANCE TO VEGETATED WETLANDS OR PROTECTED BUFFER AREAS AS A RESULT OF THE PERMITTED ACTIVITY.
- ALL AREAS OF SOIL DISTURBANCE RESULTING FROM THIS PROJECT SHALL BE STABILIZED IMMEDIATELY FOLLOWING NECESSARY EARTHWORK AND GRADING OPERATIONS.
- THE STORAGE OF CONSTRUCTION EQUIPMENT AND MATERIALS SHALL BE AT LOCATIONS AS SHOWN ON THE PLANS OR A.O.B.E.
- ALL DISTURBED AREAS WHERE SOIL WILL BE TEMPORARILY EXPOSED OR STOCKPILED FOR LONGER THAN ONE (1) WEEK SHALL BE CONTAINED BY A CONTINUOUS LINE OF STAKED STRAW BALES/SILT CURTAIN (OR OTHER NYSDEC APPROVED METHOD) PLACED ON THE SEAWARD SIDE BETWEEN THE FILL AND WETLAND OR PROTECTED BUFFER AREA. TARPS ARE AUTHORIZED TO SUPPLEMENT THESE APPROVED METHODS.
- IF SEEDING IS IMPRACTICAL DUE TO THE TIME OF YEAR, A TEMPORARY MULCH MUST BE APPLIED AND FINAL SEEDING PERFORMED AT THE EARLIEST OPPORTUNITY WHEN WEATHER CONDITIONS FAVOR GERMINATION AND GROWTH, BUT NOT MORE THAN SIX MONTHS AFTER PROJECT COMPLETION. (COST TO BE INCLUDED UNDER ITEM 610.1601)
- ANY NECESSARY FILL UNLESS OTHERWISE NOTED ON THE PLANS SHALL CONSIST OF "CLEAN" SAND, GRAVEL, OR SOIL (NOT ASPHALT, FLYASH, BROKEN CONCRETE OR DEMOLITION DEBRIS).
- THE CONTRACTOR IS ADVISED THAT THE PLANS AND OTHER CONTRACT DOCUMENTS HAVE BEEN PREPARED BASED ON THE BEST CURRENTLY AVAILABLE FIELD DATA. HOWEVER, ACTUAL FIELD CONDITIONS MAY VARY REQUIRING MODIFICATIONS TO THE CONSTRUCTION DETAILS AND WORK QUANTITIES. THE CONTRACTOR SHALL ADVISE THE ENGINEER OF VARIATIONS IN FIELD CONDITIONS, AND MODIFY HIS WORK TO CONFORM TO THESE CONDITIONS, AS ORDERED BY THE ENGINEER.
- THE HORIZONTAL DATUM IS REFERENCED TO NAD83 (2011) AND THE VERTICAL DATUM IS NAVD88 (GEOID12A) THROUGH USE OF RTK GPS.
- CLEAR AND GRUB AS SHOWN ON PLANS OR AS DIRECTED BY THE ENGINEER. NO TREES SHALL BE REMOVED UNLESS SO ORDERED BY THE ENGINEER.
- WHENEVER ITEMS IN THE CONTRACT REQUIRE MATERIAL TO BE REMOVED AND DISPOSED OF, THE COST OF SUPPLYING A DISPOSAL AREA AND TRANSPORTATION TO THAT AREA SHALL BE INCLUDED IN THE COST FOR THOSE ITEMS.
- ANY TRENCH, PIT OR OTHER EXCAVATION THAT IS OPEN AND UNATTENDED SHALL BE PROTECTED, AS DIRECTED BY THE ENGINEER, WITH FENCE, BARRICADES OR ANOTHER APPROVED METHOD. NO DIRECT PAYMENT WILL BE MADE FOR THIS WORK, ALL EXCAVATIONS SHALL BE CONDUCTED IN COMPLIANCE WITH NEW YORK INDUSTRIAL CODE RULE NO. 23-1-33, 2-8, 53 AND OSHA SAFETY AND HEALTH STANDARDS (29CFR 1926/1910).
- AT THE COMPLETION OF WORK COVERED BY THE CONTRACT, THE CONTRACTOR SHALL CLEAR ALL AREAS WITHIN THE R.O.W. OF CONSTRUCTION DEBRIS TO THE SATISFACTION OF THE ENGINEER AND LEAVE THE AREA IN A NEAT, ORDERLY CONDITION.
- GRADE, PLACE SELECT MATERIAL, SEED AND MULCH AS SHOWN ON PLANS OR AS DIRECTED. USE MATERIAL AVAILABLE ON SITE UNLESS OTHERWISE STATED IN THE PLAN.
- ALL SLOPES ARE TO BE TRIMMED AND GRADED TO MEET EXISTING GROUND CONDITIONS AS DIRECTED BY THE ENGINEER. ALL AREAS DISTURBED BY THE CONSTRUCTION SHALL BE GRADED AND FINISHED AS INDICATED ON THE TYPICAL SECTIONS OR AS DIRECTED BY THE ENGINEER.
- THE CONTRACTOR'S ATTENTION IS ALSO DIRECTED TO THE POSSIBILITY OF ENCOUNTERING GROUNDWATER DURING EXCAVATION AND WILL PROCEED WITH THEIR WORK HAVING FULL KNOWLEDGE OF THIS FACT.
- THE CONTRACTOR'S ATTENTION IS DIRECTED TO THE VEHICLE AND TRAFFIC LAW OF THE STATE OF NEW YORK IN REGARD TO THE SIZE AND WEIGHT OF VEHICLES. THE CONTRACTOR IS HEREBY NOTIFIED THAT NO VEHICLE IN EXCESS OF THE LIMITS SET BY THE VEHICLE AND TRAFFIC LAW WILL BE ALLOWED ON ANY PUBLIC ROAD.
- WHERE PROPOSED CURB MEETS EXISTING CURB, THE CONTRACTOR SHALL REPLACE THE EXISTING CURB TO THE NEAREST JOINT BEYOND THE LIMIT SHOWN ON THE PLANS.
- THE CONTRACTOR SHALL PERFORM ALL WORK WITH THE CARE SO THAT ANY MATERIALS WHICH ARE TO REMAIN IN PLACE, OR WHICH ARE TO REMAIN THE PROPERTY OF THE COUNTY WILL NOT BE DAMAGED. IF THE CONTRACTOR DAMAGES ANY MATERIALS WHICH ARE TO REMAIN IN PLACE, OR WHICH ARE TO REMAIN THE PROPERTY OF THE COUNTY, THE DAMAGED MATERIALS SHALL BE REPLACED OR REPAIRED IN A MANNER SATISFACTORY TO THE ENGINEER AT THE EXPENSE OF THE CONTRACTOR.
- WATCHMAN SERVICE. THE CONTRACTOR SHALL NOT BE REQUIRED TO PROVIDE A WATCHMAN FOR THIS PROJECT HOWEVER, THIS DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY OF INSURING THAT THE PROJECT AREA IS IN A SAFE CONDITION ALL TIMES DURING THE COURSE OF THIS PROJECT.
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN ANY NECESSARY DEWATERING PERMITS.
- GROUND WATER ELEVATIONS SHOWN ON PLAN WERE MEASURED AND ARE PROVIDED FOR INFORMATIONAL PURPOSES ONLY, CONTRACTOR SHALL BE AWARE THAT GROUND WATER ELEVATIONS CAN SIGNIFICANTLY VARY.
- TYPES AND KIND OF MATERIAL TO BE USED IN CONCRETE ITEMS:  
PORTLAND CEMENT: TYPE II, WITH AN APPROVED AIR-ENTRAINING AGENT SHALL BE USED FOR ALL CONCRETE ITEMS. CEMENT SHALL BE NEW YORK STATE APPROVED.  
FINE AGGREGATE: TYPE A OR B SHALL BE USED IN CONCRETE ITEMS.  
COARSE AGGREGATE: CRUSHED STONE OR CRUSHED GRAVEL TYPE A OR B SHALL BE USED IN ALL CONCRETE ITEMS.  
ADMIXTURES: AN APPROVED RETARDING ADMIXTURE AND IDENTIFIER SHALL BE USED IN ALL CONCRETE ITEMS.
- ALL WORK IS TO BE DONE WITHIN THE RIGHT OF WAY. THE CONTRACTOR SHALL ENSURE THAT NO WORKER ENCROACHES ON TO PRIVATE PROPERTY. IF IT IS DEEMED NECESSARY TO ENCROACH OF WORK ON PRIVATE PROPERTY, THE CONTRACTOR SHALL NOTIFY THE ENGINEER AND MAY BE REQUIRED TO OBTAIN A WORK RELEASE SIGNED BY THE PROPERTY OWNER.
- THE CONTRACTOR'S ATTENTION IS DIRECTED TO THE UTILITIES IN THE AREA. THE CONTRACTOR SHALL SATISFY THEMSELVES AS TO THE EXACT LOCATION OF ALL UTILITIES AND WILL TAKE EVERY PRECAUTION NOT TO DISTURB THEM.
- CONTRACTOR SHALL VERIFY THE EXISTING CONDITIONS PRIOR TO COMMENCEMENT OF THE WORK. ANY CONFLICTS OR OMISSION BETWEEN THE EXISTING CONDITIONS OR THE VARIOUS ELEMENTS OF THE WORKING DRAWINGS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO THE COMMENCEMENT OF THE WORK. CONTRACTOR IS RESPONSIBLE FOR ALL LINES, ELEVATIONS AND MEASUREMENTS IN CONNECTION WITH THEIR WORK.
- ANY REQUIRED MAINTENANCE OF TRAFFIC AND THE ASSOCIATED WARNING DEVICES SHALL BE INSTALLED BY THE CONTRACTOR IN ACCORDANCE WITH THE LATEST EDITION OF THE NEW YORK STATE "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES."
- UPON PROJECT COMPLETION, THE AREA WITHIN THE COUNTY RIGHT OF WAY SHALL BE CLEANED THOROUGHLY AND FREE OF ALL DEBRIS INCLUDING, BUT NOT LIMITED TO PLASTIC BOTTLES, PAPER CUPS, ETC. PAYMENT FOR THIS ITEM SHALL BE INCLUDED IN ITEM 699.040001.

- HIGH-VISIBILITY SAFETY APPAREL SHALL BE WORN BY ALL FOOT TRAFFIC WORKERS TO PROVIDE CONSPICUITY DURING BOTH THE DAYTIME AND NIGHTTIME USAGE. THIS SAFETY APPAREL SHALL MEET PERFORMANCE CLASS 2 OR 3 REQUIREMENTS OF THE ANSI/ISEA 107 2015 PUBLICATION ENTITLED "AMERICAN NATIONAL STANDARD FOR HIGH-VISIBILITY SAFETY APPAREL AND HEADWEAR."
- A CONSTRUCTION ACCESS WILL BE CONSTRUCTED ON THE EAST SIDE OF CR 51 TO ACCESS THE SITE; A DAYTIME LANE CLOSURE WILL BE PERMITTED NORTHBOUND ON CR 51 FROM 9:00 AM TO 3:00 PM DURING THE CONSTRUCTION AND THE REMOVAL OF THIS CONSTRUCTION ACCESS AS PER NYS DOT STANDARD SHEET 619-30.
- DURING CONSTRUCTION ADD CONSTRUCTION ACCESS AHEAD WARNING SIGN FOR NORTHBOUND CR 51, PRIOR TO THE CONSTRUCTION ACCESS
- THERE WILL BE NO ADDITIONAL PAYMENT MADE FOR MOBILIZING OR DEMOBILIZING THE COFFERDAMS SHOWN ON THE PLAN.

LEGEND					
DESCRIPTION		EXISTING	PROPOSED		
ASPHALT PAVEMENT - FULL DEPTH					
CONCRETE SLAB					
DRAINAGE PIPE, MANHOLE & CATCH BASIN					
TOPSOIL AND SEED					
SUB-EMERGENT NATIVE PLANTS					
REPLACE EXISTING WETLAND PLANTS					
EMERGENT PLANTS					
UPLAND SHRUBS					
SILT FENCE					
LIMITS OF CLEARING AND GRUBBING / LIMITS OF DISTURBANCE					
SHEET PILING					
WATERMAIN AND VALVE					
FENCE					
GUIDE RAIL					
ELEVATION IN PLAN		(27.50)	+ 27.52		
BENCH MARK					
BORING LOCATION					
TAKING LINES & EASEMENTS					
CONTOUR LINES					
BUILDING FOUNDATION		DIRT DRIVEWAY OR ROAD		UNDERGROUND ELECTRIC AND MANHOLE	
SIGN; TRAFFIC, RR, ETC.		BUSH AND SHRUBS		UNDERGROUND TELEPHONE DUCT AND MANHOLE	
UTILITY POLE/GUY WIRE		TREE (SIZE & TYPE)		CONCRETE MONUMENT, AND RIGHT OF WAY LINE	
UTILITY POLE/LIGHT		HEDGE		GAS MAIN AND VALVE	
WATER METER & FIRE HYDRANT		EDGE OF WOODS		DRAINAGE LINE AND CATCH BASIN	
LEACHING BASIN		EDGE OF WATER OR STREAM		TREE REMOVAL	

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**COUNTY OF SUFFOLK  
DEPARTMENT OF PUBLIC WORKS  
YAPHANK, NEW YORK**

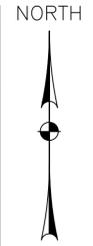
**DARNELL TYSON, P.E., ACTING COMMISSIONER**

**WOODHULL DAM FISH PASSAGE**

**GENERAL NOTES AND LEGEND**

SYMBOL	DESCRIPTION	APPROVED DATE	DATE	PROJECT NO.	SCALE	SHEET NO. 2 OF 15
			JULY 2019	CP #7180	AS NOTED	

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LEGEND

 PHOTOGRAPH LOCATION WITH DIRECTION TAKEN AND NUMBER



PHOTO 5: EXISTING OUTLET STRUCTURE



PHOTO 4: EXISTING INLET STRUCTURE



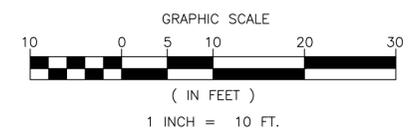
PHOTO 1: EXISTING EARTH BERM



PHOTO 2: UPPER POND



PHOTO 3: LOWER POND



SYMBOL	DESCRIPTION	APPROVED DATE	DATE	PROJECT NO.	SCALE	SHEET NO.
	REVISIONS		JULY 2019	CP #7180	AS NOTED	3 OF 15

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**COUNTY OF SUFFOLK**  
**DEPARTMENT OF PUBLIC WORKS**  
**YAPHANK, NEW YORK**  
**DARNELL TYSON, P.E., ACTING COMMISSIONER**

**WOODHULL DAM FISH PASSAGE**

EXISTING CONDITIONS

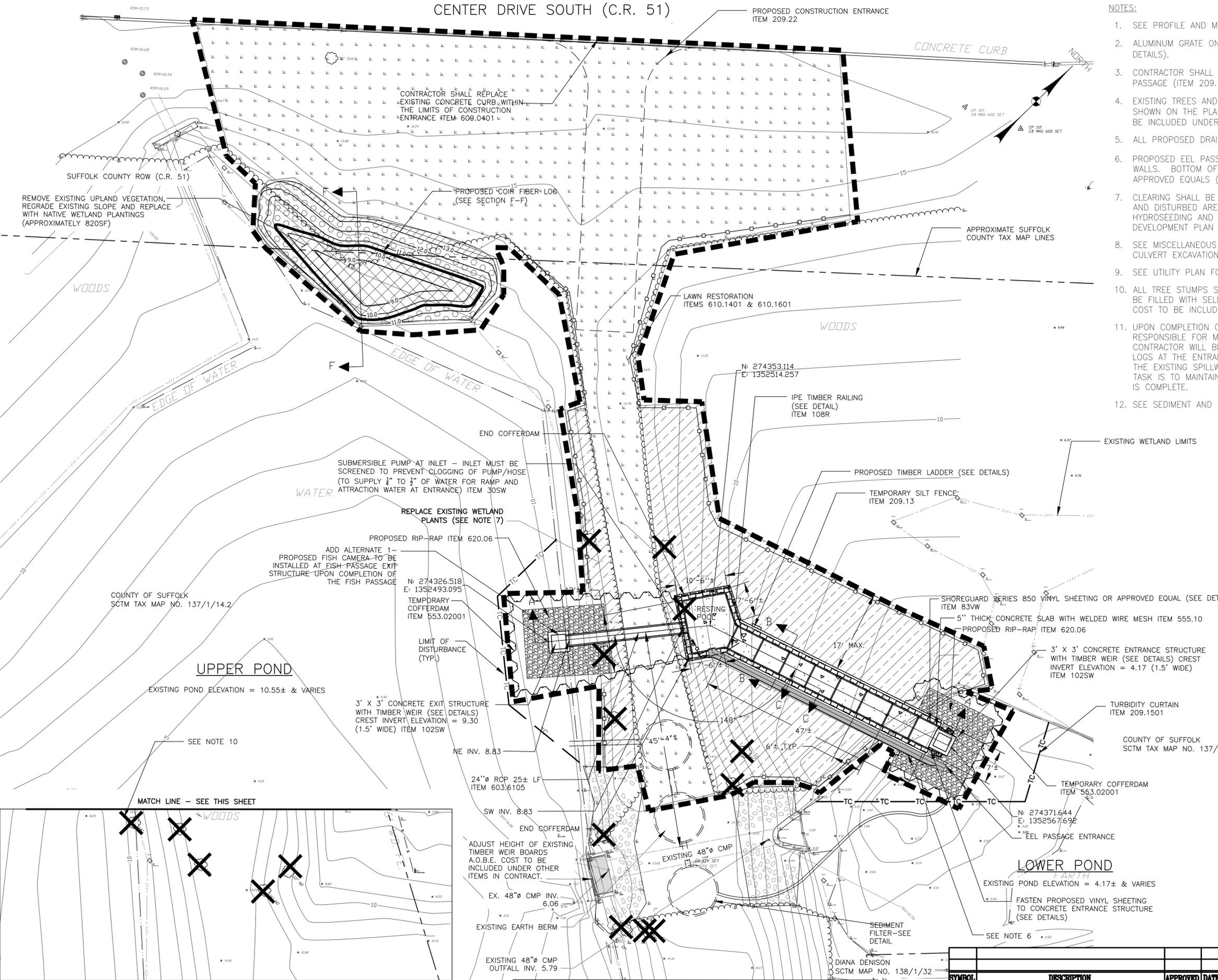
CENTER DRIVE SOUTH (C.R. 51)

PROPOSED CONSTRUCTION ENTRANCE  
ITEM 209.22

CONCRETE CURB

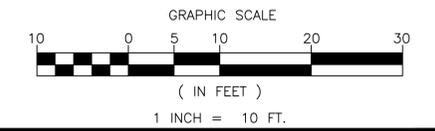
NOTES:

1. SEE PROFILE AND MISCELLANEOUS DETAILS FOR INFORMATION NOT SHOWN.
2. ALUMINUM GRATE ON TOP OF FISH PASSAGE NOT SHOWN FOR CLARITY (SEE DETAILS).
3. CONTRACTOR SHALL USE TURBIDITY CURTAIN DURING CONSTRUCTION OF THE FISH PASSAGE (ITEM 209.1501).
4. EXISTING TREES AND BRUSH SHALL BE REMOVED FROM THE DAM AT THE LOCATIONS SHOWN ON THE PLANS. REMOVAL OF ALL TREES LESS THAN 6" IN DIAMETER SHALL BE INCLUDED UNDER ITEM 201.06 - CLEARING AND GRUBBING.
5. ALL PROPOSED DRAINAGE PIPE SHALL HAVE WATER TIGHT JOINTS.
6. PROPOSED EEL PASSAGE SHALL BE AN 18" WIDE, 3/8" ALUMINUM BOX W/4" HIGH WALLS. BOTTOM OF EEL PASSAGE TO BE LINED WITH AKWADRIN AND ENKAMAT OR APPROVED EQUALS (SEE DETAILS).
7. CLEARING SHALL BE MINIMIZED TO THE GREATEST EXTENT POSSIBLE. ALL CLEARED AND DISTURBED AREAS AS SHOWN ON THE PLAN SHALL BE REPLANTED WITH HYDROSEEDING AND UPLAND SHRUBS AT 4 FEET ON CENTER. SEE LANDSCAPE DEVELOPMENT PLAN AND LANDSCAPE DETAILS FOR INFORMATION NOT SHOWN.
8. SEE MISCELLANEOUS DETAILS FOR LIMITS OF UNCLASSIFIED EXCAVATION, TRENCH AND CULVERT EXCAVATION.
9. SEE UTILITY PLAN FOR SUBMERSIBLE PUMP AND FISH CAMERA WIRING.
10. ALL TREE STUMPS SHALL BE COMPLETELY REMOVED. THE REMAINING VOID SHALL BE FILLED WITH SELECT FILL AND THE DISTURBED AREA SHALL BE RESTORED. COST TO BE INCLUDED UNDER TREE REMOVAL ITEMS AND TURF RESTORATION ITEMS.
11. UPON COMPLETION OF THE PROPOSED FISH PASSAGE, THE CONTRACTOR WILL BE RESPONSIBLE FOR MONITORING THE EXISTING WATER SURFACE ELEVATION. THE CONTRACTOR WILL BE REQUIRED TO ADJUST THE ELEVATION OF THE WEIR AND STOP LOGS AT THE ENTRANCE AND EXIT STRUCTURES AS WELL AS THE WEIR BOARDS AT THE EXISTING SPILLWAY AS ORDERED BY THE ENGINEER. THE PURPOSE OF THIS TASK IS TO MAINTAIN THE EXISTING WATER SURFACE ELEVATION AFTER CONSTRUCTION IS COMPLETE.
12. SEE SEDIMENT AND EROSION CONTROL DETAILS FOR INFORMATION NOT SHOWN.



LEGEND

- LIMIT OF CLEARING AND GRUBBING/LIMIT OF DISTURBANCE ITEM 201.06
- TURF RESTORATION ITEMS 610.1401 & 610.1601
- REPLACE EXISTING WETLAND PLANTS ITEMS 610.1601 & 611.0441 (SEE NOTE 7)
- EXISTING TREE TO BE REMOVED ITEMS 614.060203 & 614.060303
- EXISTING WOODLINE
- SUB-EMERGENT PLANTS (SEE LANDSCAPE DEVELOPMENT PLAN)
- EMERGENT PLANTS (SEE LANDSCAPE DEVELOPMENT PLAN)
- UPLAND SHRUBS (SEE LANDSCAPE DEVELOPMENT PLAN)
- TEMPORARY SILT FENCE ITEM 209.13
- IPE TIMBER RAILING ITEM 108R
- TURBIDITY CURTAIN ITEM 209.1501



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**COUNTY OF SUFFOLK  
DEPARTMENT OF PUBLIC WORKS  
YAPHANK, NEW YORK**

**DARNELL TYSON, P.E., ACTING COMMISSIONER**

**WOODHULL DAM FISH PASSAGE**

**GENERAL PLAN**

SYMBOL	DESCRIPTION	APPROVED DATE	DATE	PROJECT NO.	SCALE	SHEET NO. 4 OF 15
			JULY 2019	CP #7180	AS NOTED	

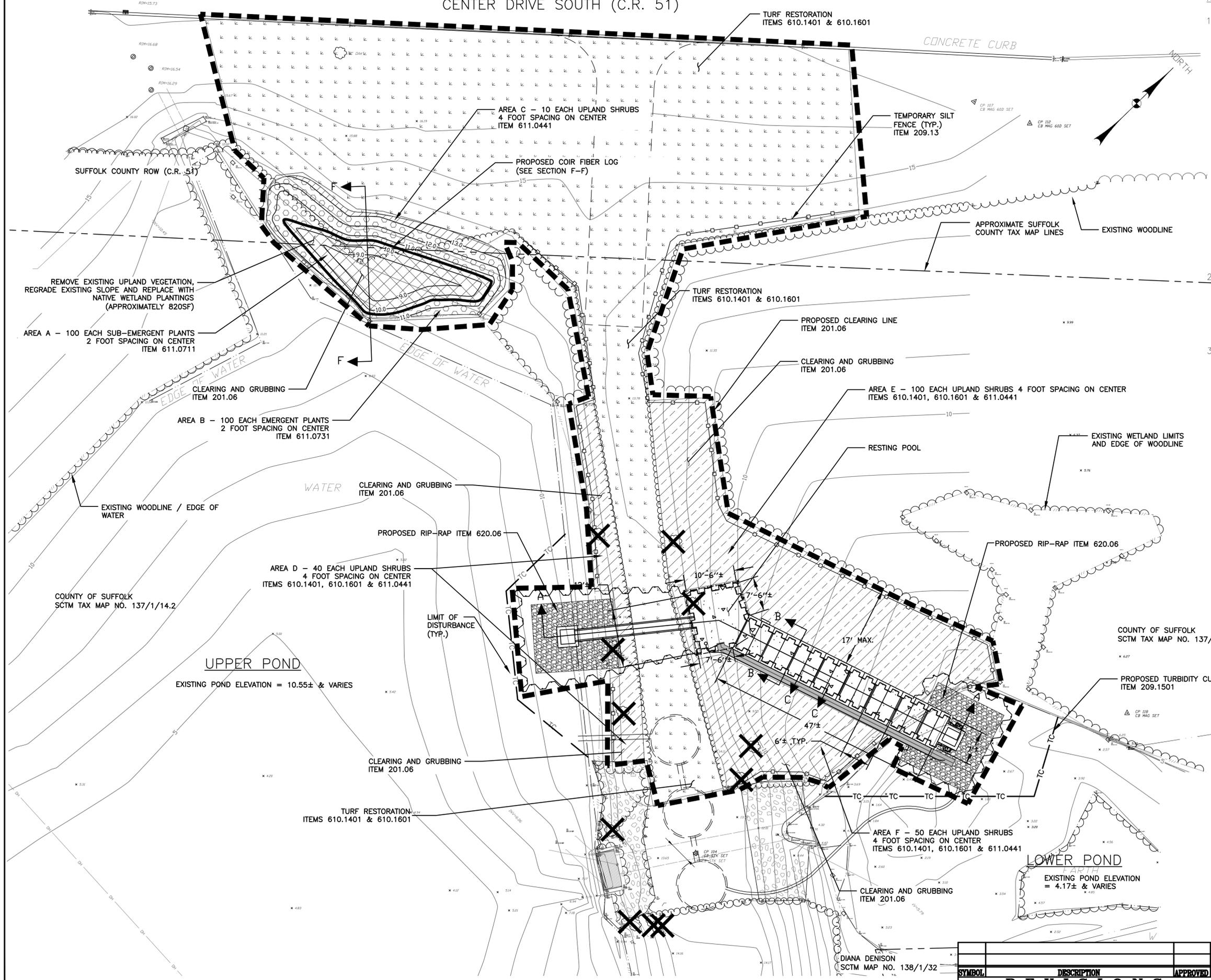
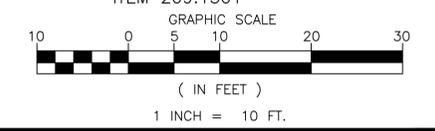
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CENTER DRIVE SOUTH (C.R. 51)

NOTES:

- THE CONTRACTOR SHALL INSTALL ORANGE BARRIER CONSTRUCTION FENCING AS FOLLOWS:
  - A: ALONG UPPER POND, TO PROTECT THE SHRUBS AND HERBACEOUS PLANT SPECIES, BETWEEN ELEVATIONS 10.55 (EDGE OF WATER) AND IN VICINITY OF ELEVATION 13.00, AS DIRECTED BY THE ENGINEER.
  - B: ALONG LOWER POND TO PROTECT THE SHRUBS AND HERBACEOUS PLANT SPECIES, BETWEEN ELEVATIONS 4.17 (EDGE OF WATER) AND IN THE VICINITY OF ELEVATION 6.00, AS DIRECTED BY THE ENGINEER.
  - C: THE COST OF THE FENCING AND INSTALLATION SHALL BE INCLUDED IN VARIOUS CONTRACT LANDSCAPE ITEMS. WHEN ALL OF THE WORK IS COMPLETED, THE CONTRACTOR SHALL BE DIRECTED BY THE ENGINEER-IN-CHARGE TO REMOVE THE FENCING WITHOUT DAMAGE TO THE EXISTING WETLAND VEGETATION. UNDER THE SUPERVISION OF THE LANDSCAPE ARCHITECT/ ENGINEER-IN-CHARGE, THE CONTRACTOR SHALL CUT THE FENCING AROUND THE WOODY SHRUBS TO MINIMIZE DAMAGE TO THE PROTECTED PLANT MATERIALS.
- THE CONTRACTOR SHALL REPLACE ALL DAMAGED AND/OR BADLY IMPAIRED LANDSCAPE MATERIALS, WITHIN THE ORANGE FENCING PROTECTED AREA, AS NOTED BY THE ENGINEER-IN-CHARGE OR NYSDEC. THIS WORK SHALL BE THE CONTRACTOR'S RESPONSIBILITY, AND NO ADDITIONAL PAYMENT SHALL BE MADE.
- ALL DOCUMENTED DAMAGED AREAS OUTSIDE THE LIMITS OF WORK, SHALL BE PLANTED WITH SPECIES LISTED ON THE CONTRACT DOCUMENTS AND/OR AS DETERMINED BY NYSDEC STAFF. ALL RESTORATION WORK REQUIRED FOR REMEDIATION OF THE CONTRACTOR'S CONSTRUCTION IMPACTS, SHALL BE THE CONTRACTOR'S RESPONSIBILITY. NO ADDITIONAL PAYMENTS SHALL BE MADE FOR THIS WORK REQUIRED TO ACCOMPLISH WETLAND RESTORATIONS AND/OR UPLAND RESTORATIONS.

- LEGEND**
- LIMIT OF DISTURBANCE
  - TURF RESTORATION ITEMS 610.1401 & 610.1601
  - REPLACE EXISTING WETLAND PLANTS (SEE NOTE 7 ON SHEET 4)
  - EXISTING TREE TO BE REMOVED ITEMS 614.060203 & 614.060303
  - EXISTING WOODLINE
  - AREA A SUB-EMERGENT PLANT 2 FEET SPACING ON CENTER (SEE DETAILS) ITEM 611.0711
  - AREA B EMERGENT PLANT 2 FEET SPACING ON CENTER (SEE DETAILS) ITEM 611.0731
  - AREA C UPLAND SHRUBS 4 FEET SPACING ON CENTER (SEE DETAILS) ITEM 611.0441
  - TEMPORARY SILT FENCE ITEM 209.13
  - TC TURBIDITY CURTAIN ITEM 209.1501



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**COUNTY OF SUFFOLK  
DEPARTMENT OF PUBLIC WORKS  
YAPHANK, NEW YORK**  
DARNELL TYSON, P.E., ACTING COMMISSIONER

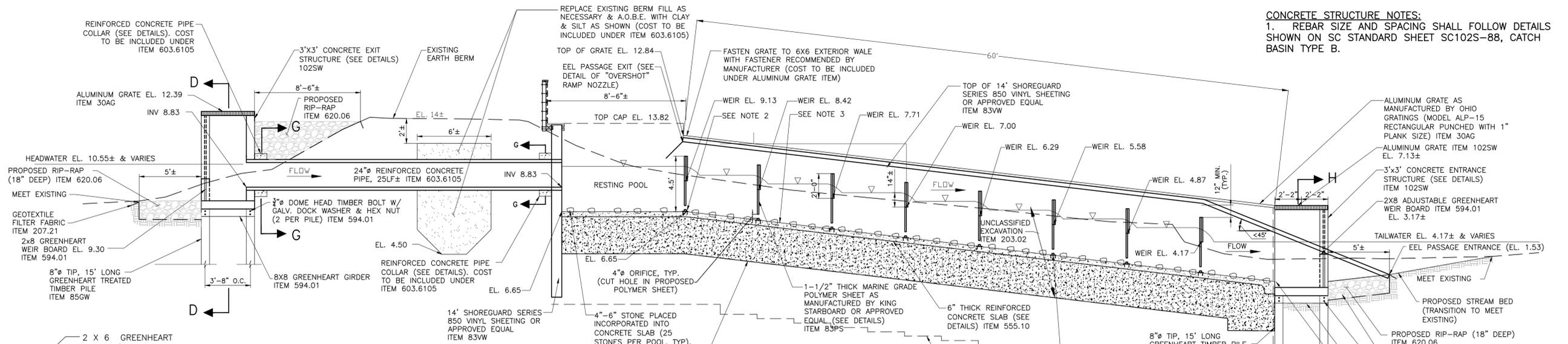
**WOODHULL DAM FISH PASSAGE**

**LANDSCAPE DEVELOPMENT PLAN**

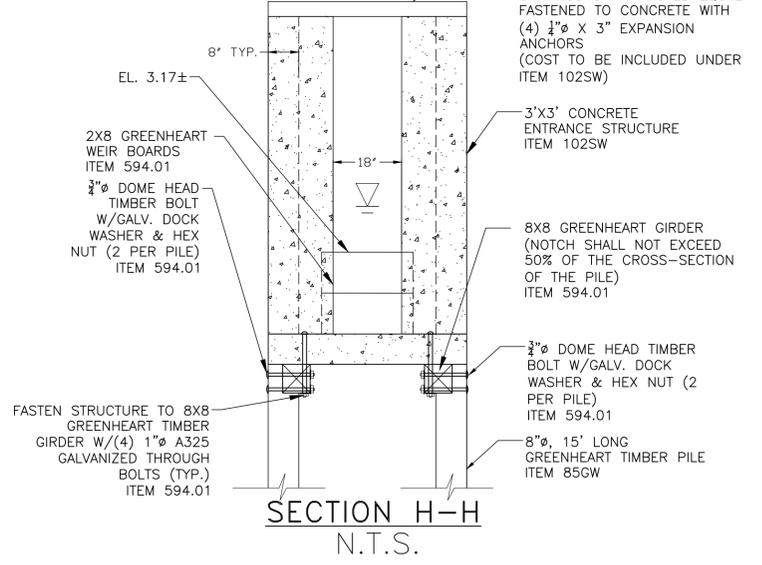
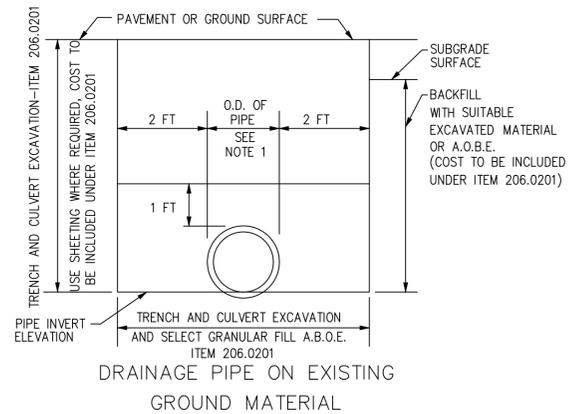
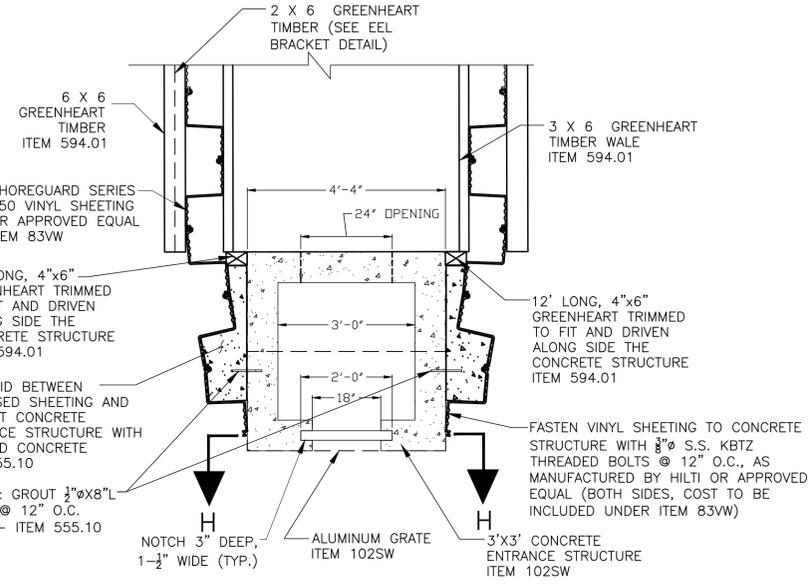
SYMBOL	DESCRIPTION	APPROVED DATE	DATE	PROJECT NO.	SCALE	SHEET NO. 5 OF 15
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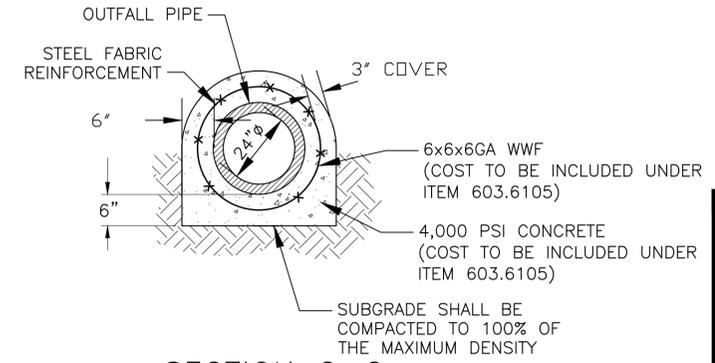
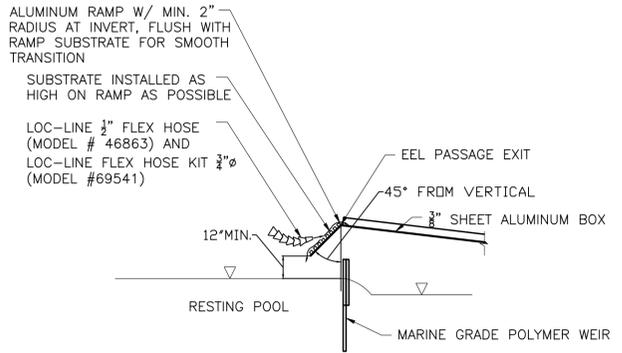
**CONCRETE STRUCTURE NOTES:**  
 1. REBAR SIZE AND SPACING SHALL FOLLOW DETAILS SHOWN ON SC STANDARD SHEET SC102S-88, CATCH BASIN TYPE B.



- GREENHEART LUMBER NOTES:**
- ALL PROPOSED STRUCTURAL LUMBER SHALL BE GREENHEART "DEMERARA GREENHEART"
  - GREENHEART LUMBER SHALL BE OBTAINED FROM AN APPROVED COMMERCIAL DISTRIBUTOR
  - WOOD GENERAL CHARACTERISTICS: HEARTWOOD MAY VARY FROM LIGHT TO DARK OLIVE GREEN OR BLACKISH, OFTEN WITH INTERMINGLING LIGHTER AND DARKER AREAS; NOT SHARPLY DEFINED PALE YELLOW OR GREENISH SAPWOOD. TEXTURE FINE AND UNIFORM; GRAIN STRAIGHT; LUSTROUS; ODORLESS AND TASTELESS WHEN DRY.
  - WEIGHT: BASIC SPECIFIC GRAVITY (OVEN-DRY WEIGHT/ GIVEN VOLUME) 0.80 TO 0.91; AIR-DRY DENSITY 62 TO 70 PCF.
  - MECHANICAL PROPERTIES: (FIRST SET OF DATA BASED ON THE 2-CM STANDARD; SECOND ON THE 2-IN. STANDARD.) JANKA SIDE HARDNESS 1,880 LB. FOR GREEN MATERIAL AND 2,360 LB. AT 12% MOISTURE CONTENT.
  - DRYING AND SHRINKAGE: THE WOOD SHALL BE DRIED VERY SLOWLY TO LIMIT THE MARKED TENDENCY TO CHECK AND END SPLIT.

MOISTURE CONTENT	BENDING STRENGTH (PSI)	MODULUS OF ELASTICITY (1,000 PSI)	MAXIMUM CRUSHING STRENGTH (PSI)
Green (42)	20,300	2,310	9,770
12%	26,200	3,040	13,040
Green (40)	20,900	3,040	10,690
12%	25,500	3,700	13,040

- LUMBER SHOULD BE AIR-SEASON PRIOR TO KILN-DRYING
- PILES SHALL CONFORM TO NYSDOT SECTION 720-01 FOR UNTREATED TIMBER PILES



**DETAIL OF "OVERSHOT" RAMP NOZZLE**  
 N.T.S.

**SECTION G-G**  
 N.T.S.

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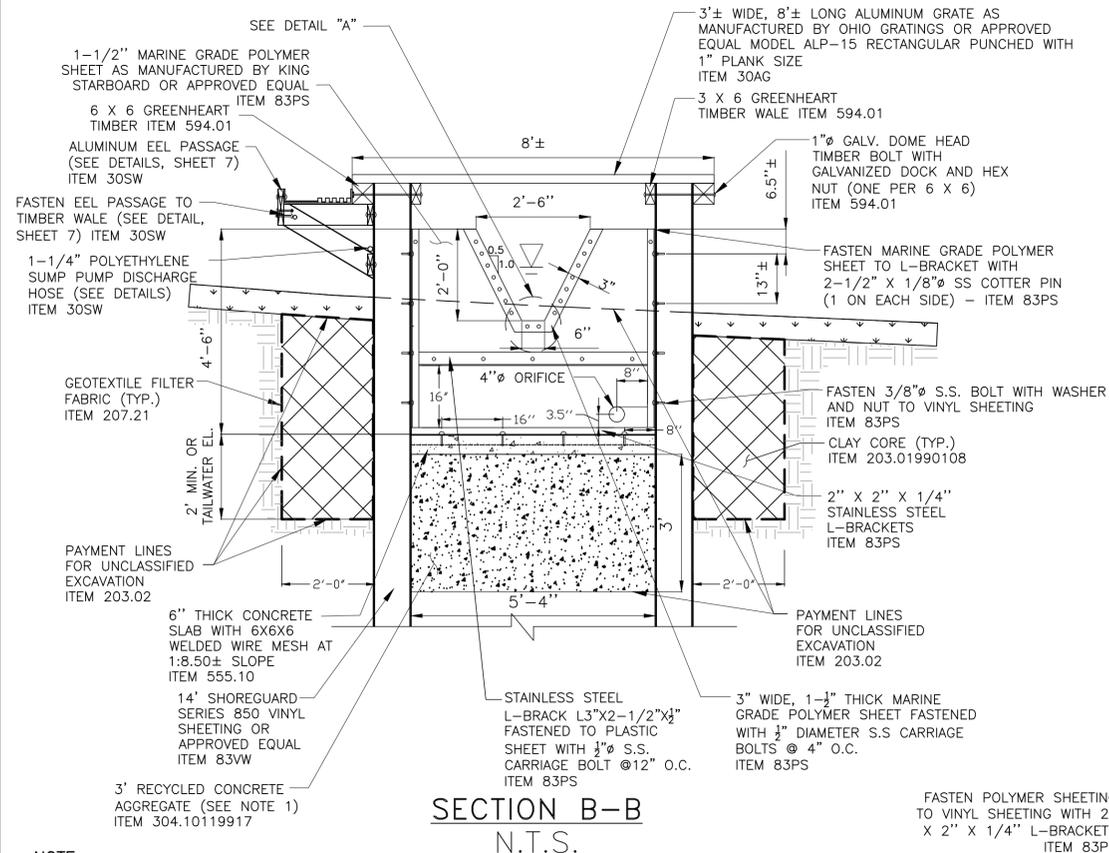
**COUNTY OF SUFFOLK**  
**DEPARTMENT OF PUBLIC WORKS**  
**YAPHANK, NEW YORK**  
**DARNELL TYSON, P.E., ACTING COMMISSIONER**

**WOODHULL DAM FISH PASSAGE**

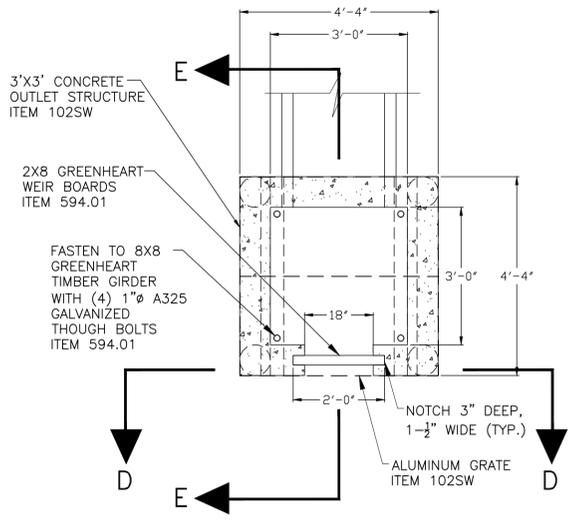
MISCELLANEOUS DETAILS - 1

SYMBOL	DESCRIPTION	APPROVED DATE	DATE	PROJECT NO.	SCALE	SHEET NO.
			JULY 2019	CP #7180	AS NOTED	6 OF 15

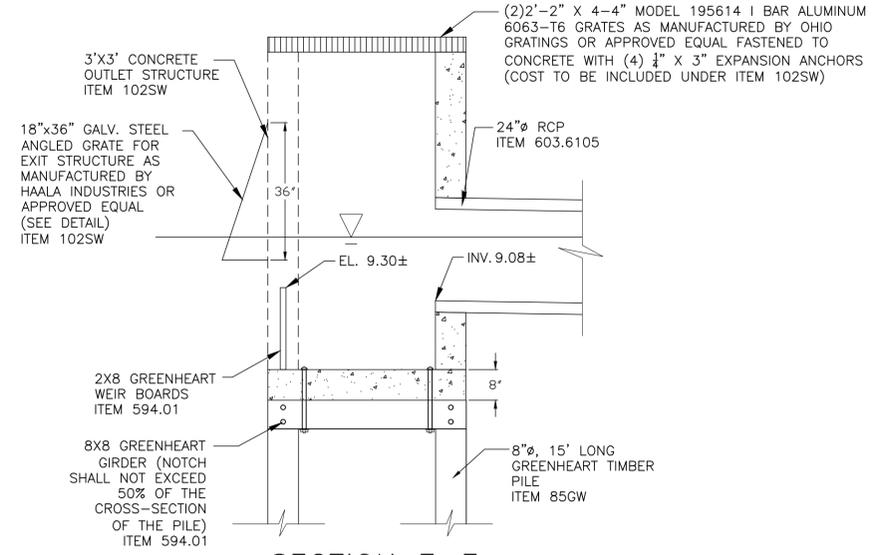
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**SECTION B-B**  
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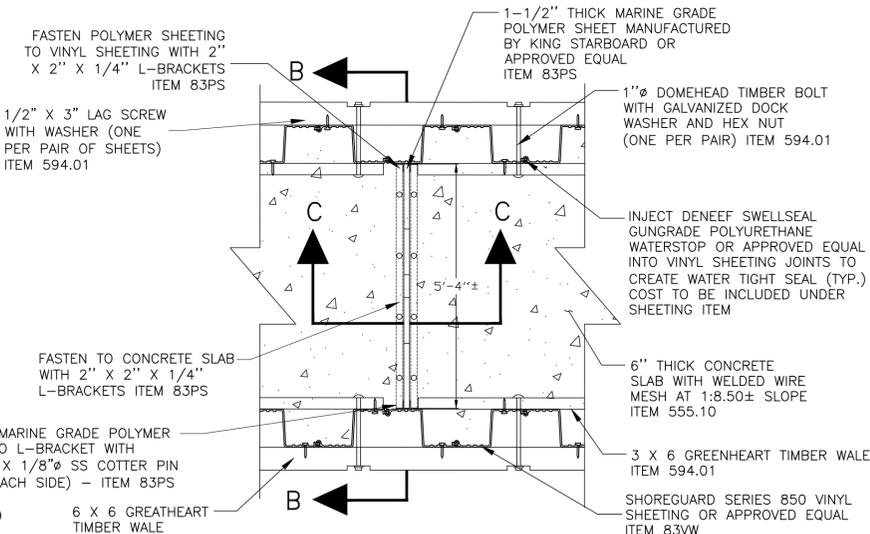


**3'X3' OUTLET STRUCTURE**  
N.T.S.

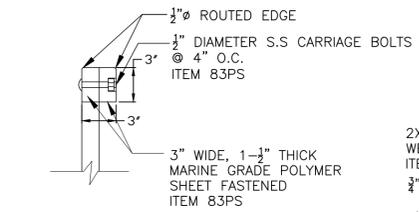


**SECTION E-E**  
N.T.S.

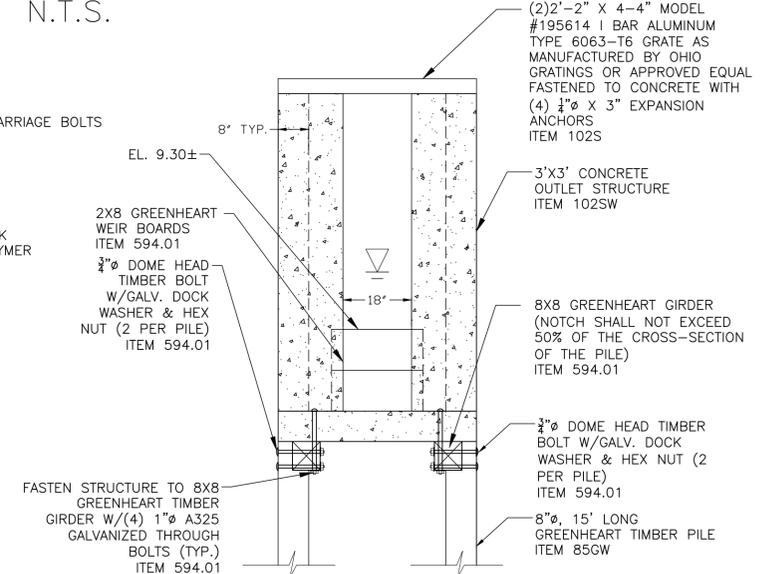
- NOTE:**
- RCA (RECYCLED CONCRETE AGGREGATE) SHALL BE COMPACTED IN 6 INCH LIFTS TO AT LEAST 95% PROCTOR DENSITY.
  - CONTRACTOR SHALL INSTALL A HEAT WELDED WATER JOINT OR RX-101 WHERE THE RESTING HEEL MEETS THE FISH LADDER.
  - CONTRACTOR SHALL CONSTRUCT THREE JOINTS, SPACED EQUALLY ACROSS THE LADDER SLAB. THEY SHALL BE FILLED WITH AN ELASTOMERIC URETHANE SEALANT SPECIFIED FOR CONTINUOUS IMMERSION IN WATER.
  - CONCRETE STRUCTURES - REBAR SIZE AND SPACING SHALL FOLLOW DETAILS SHOWN ON SC STANDARD SHEET SC102S-88, CATCH BASIN TYPE B.



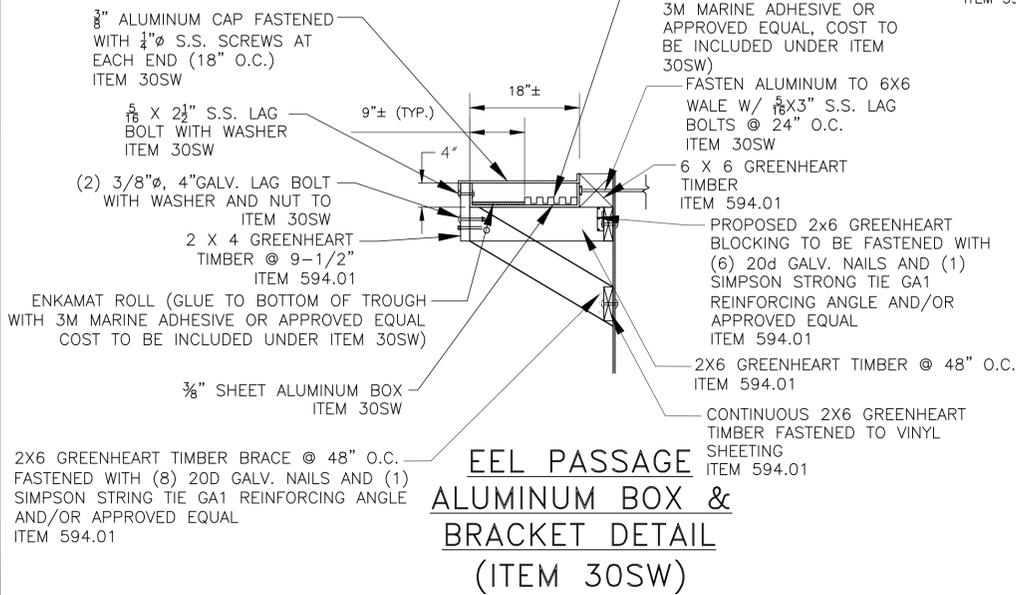
**PARTIAL PLAN VIEW**  
N.T.S.



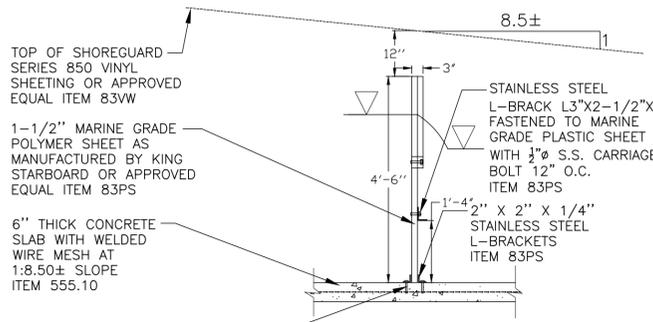
**DETAIL "A"**  
N.T.S.



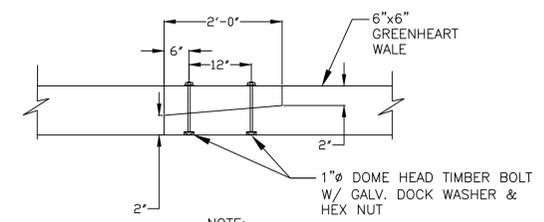
**SECTION D-D**  
N.T.S.



**EEL PASSAGE ALUMINUM BOX & BRACKET DETAIL**  
(ITEM 30SW)



**SECTION C-C**  
N.T.S.



**PLAN VIEW - TYPICAL WALE SPLICE**  
N.T.S.

SYMBOL	DESCRIPTION	APPROVED DATE	DATE	PROJECT NO.	SCALE	SHEET NO. 7 OF 15
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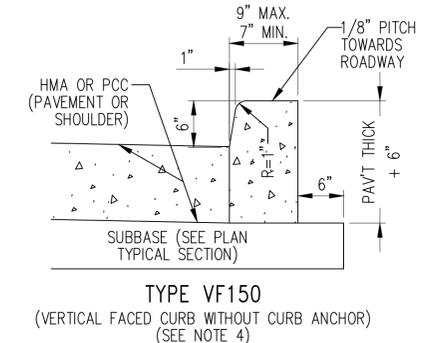
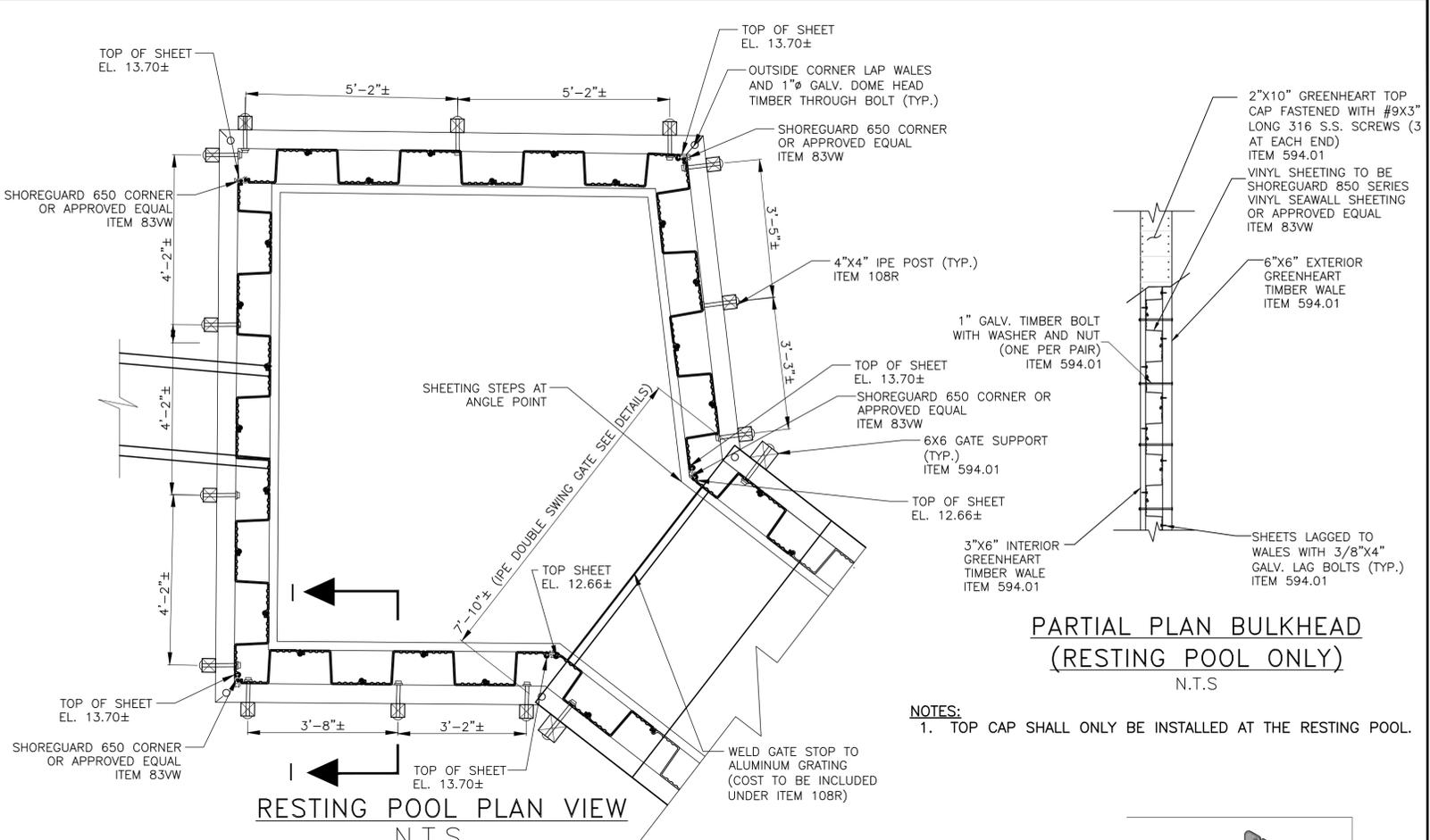
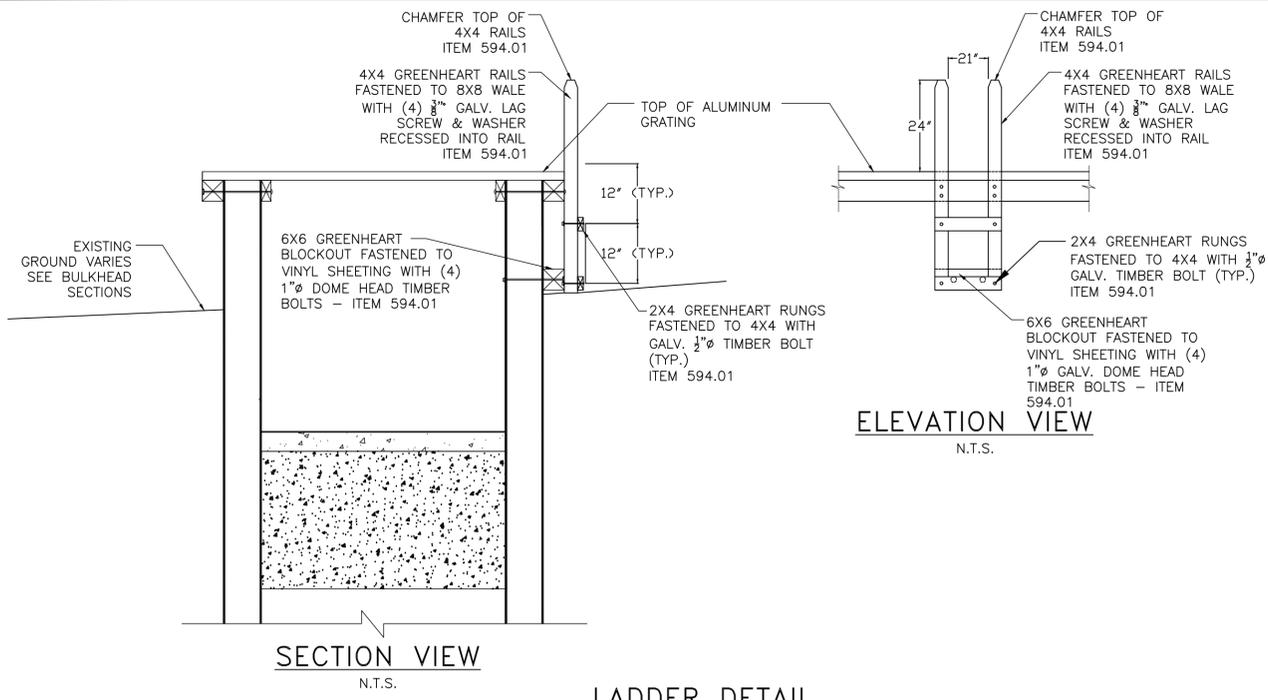
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**DEPARTMENT OF PUBLIC WORKS**  
**YAPHANK, NEW YORK**

**DARNELL TYSON, P.E., ACTING COMMISSIONER**

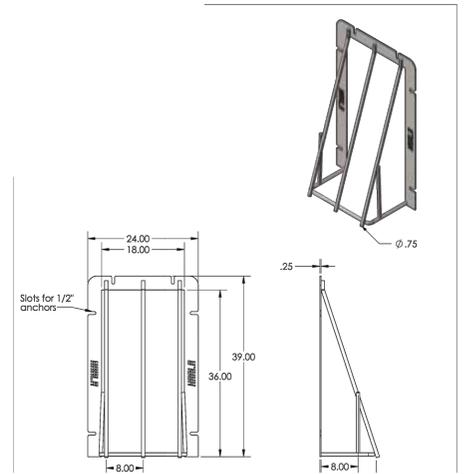
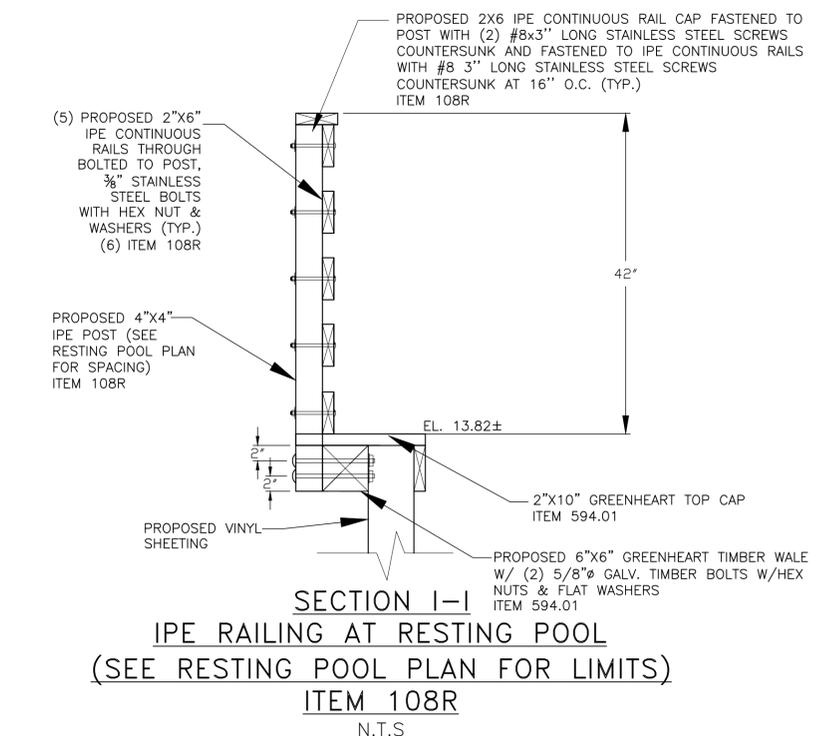
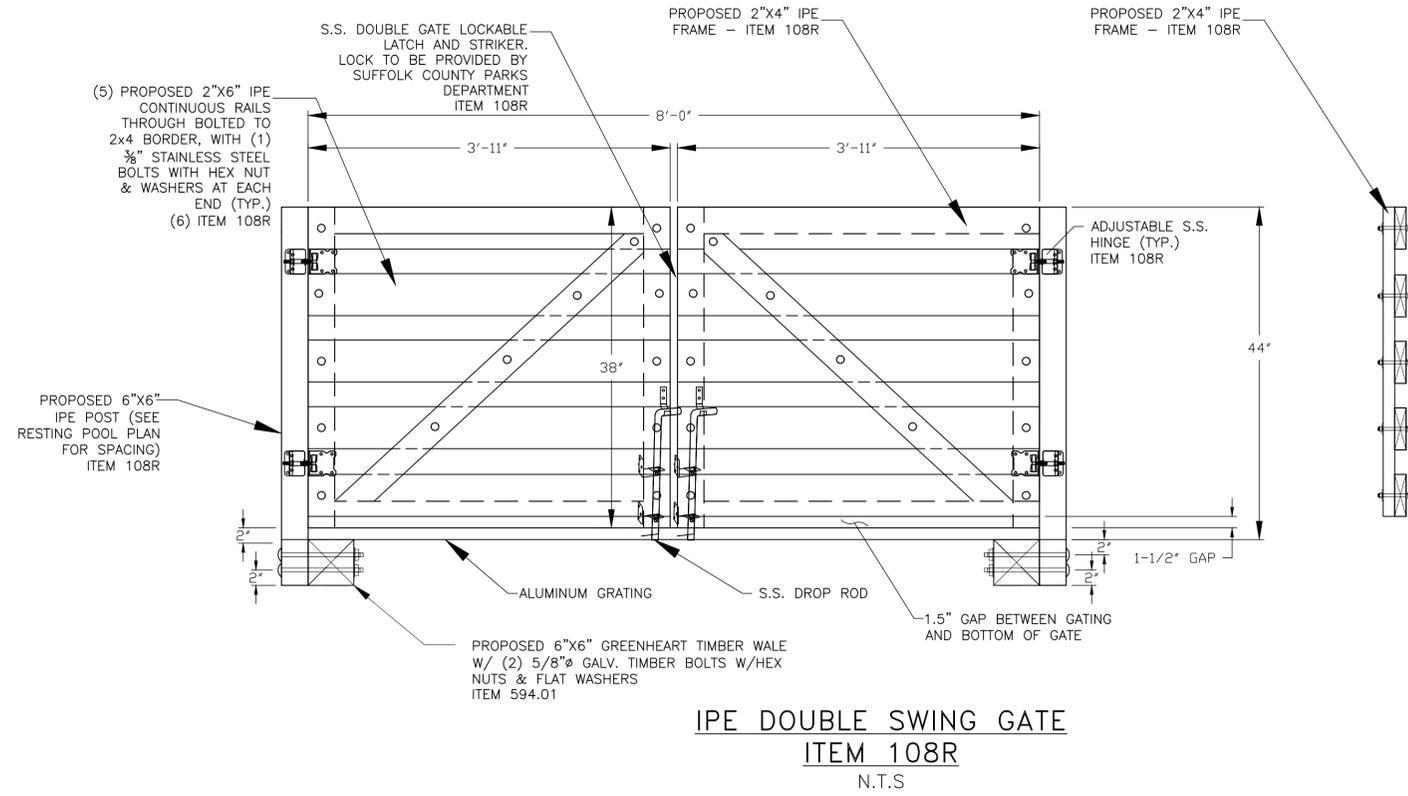
**WOODHULL DAM FISH PASSAGE**

MISCELLANEOUS DETAILS - 2

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- CURB NOTES:**
- USE CURB AND CURB AND GUTTER MEETING THE MATERIAL AND CONSTRUCTION REQUIREMENTS OF SECTION 609 OF THE STANDARD SPECIFICATIONS
  - CURB ANCHOR (NEW CONSTRUCTION). THIS DETAIL SHOWS PLACEMENT OF CURB ANCHORS. PUSH-IN TYPE ANCHORS MAY BE USED (SHOWN ON THE STANDARD SHEET FOR LONGITUDINAL TIES).
  - CURB TYPES M150A, VF150A AND M100A REQUIRE CURB ANCHOR. CURB AND GUTTER TYPES VF150G AND M100G REQUIRE ANCHORS WHEN PLACED ADJACENT TO CONCRETE PAVEMENT OR SHOULDER.
  - WHEN VERTICAL FACED CURB LESS THAN 9" WIDE IS USED WITH CURB BOXES CU1, CU2, AND CU3 AND CONCRETE SIDEWALK IS PLACED ADJACENT TO THIS CURB, SEE STANDARD SHEET MISCELLANEOUS CURB DETAILS FOR CURB BOX JOINTS.
  - USE WITH CURB BOXES, CM1, CM2, AND CM3.



- NOTES:**
- ANGLE GRATE SHALL BE MADE FROM A36 STEEL AND SHALL BE HOT DIP GALVANIZED AS PER ASTM A123.
  - ANGLE GRATE SHALL BE AS MANUFACTURED BY HAALA INDUSTRIES OR APPROVED EQUAL.

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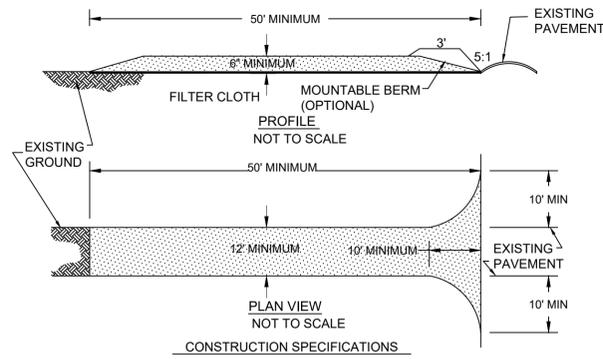
**COUNTY OF SUFFOLK**  
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**YAPHANK, NEW YORK**  
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**WOODHULL DAM FISH PASSAGE**

MISCELLANEOUS DETAILS - 3

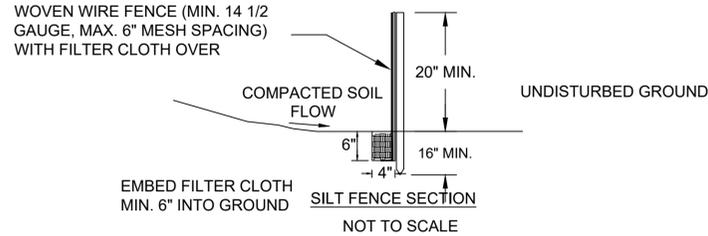
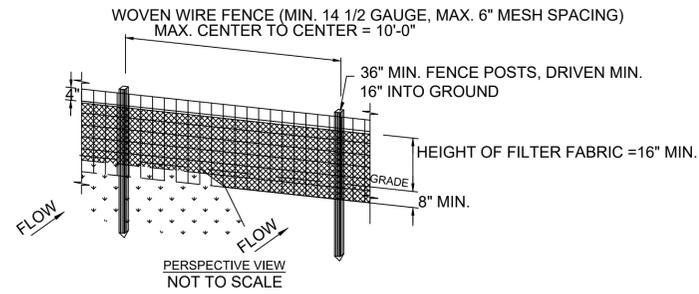
SYMBOL	DESCRIPTION	APPROVED DATE	DATE	PROJECT NO.	SCALE	SHEET NO.
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- AGGREGATE SIZE - USE 2 INCH STONE OR RECYCLED CONCRETE EQUIVALENT.
- LENGTH: AS REQUIRED, BUT NOT LESS THAN 50 FEET (EXCEPT ON A SINGLE RESIDENCE LOT WHERE A 30 FOOT MINIMUM WOULD APPLY).
- THICKNESS: NOT LESS THAN SIX (6) INCHES.
- WIDTH: 12 FOOT MINIMUM BUT NOT LESS THAN THE FULL WIDTH OF POINTS WHERE INGRESS OR EGRESS OCCURS. 24 FOOT MINIMUM IF THERE IS ONLY ONE ACCESS TO THE SITE.
- FILTER CLOTH: TO BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.
- SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
- THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAY OR STREETS. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL AGGREGATE. ALL SEDIMENT SPILLED, DROPPED, OR WASHED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
- WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
- PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.

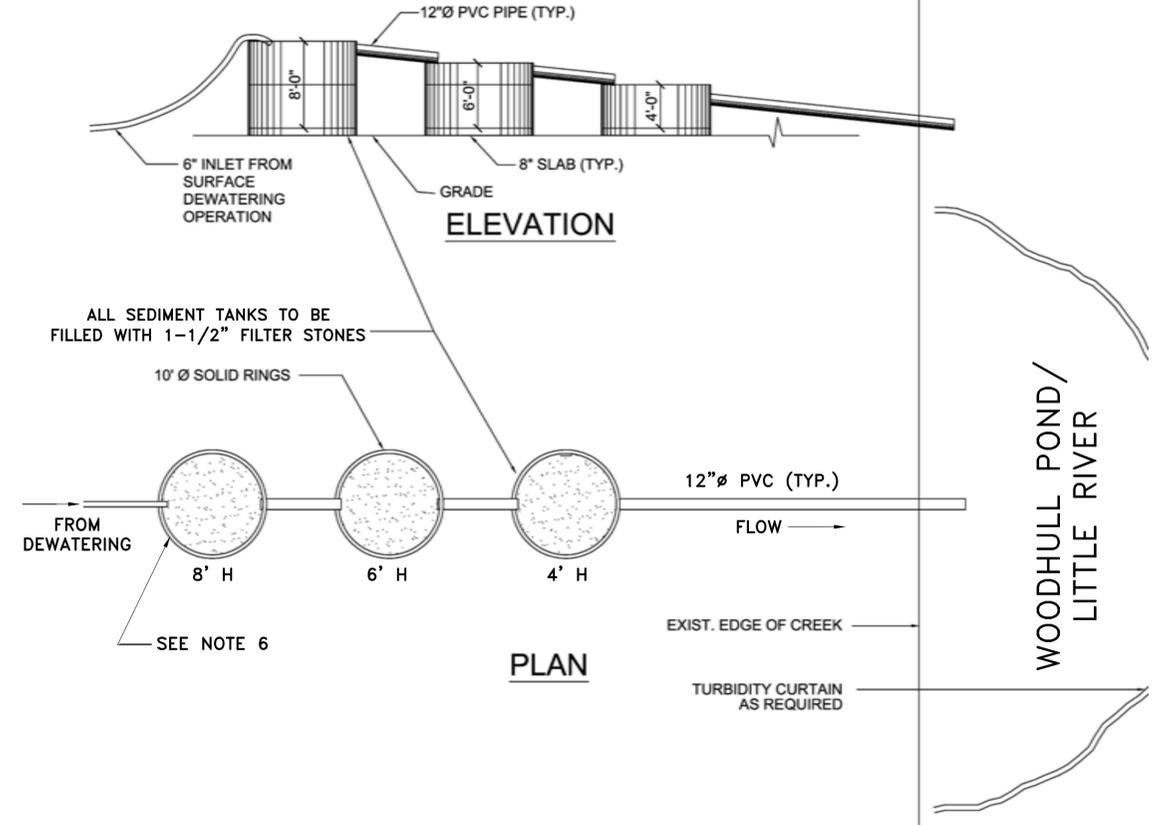
**STABILIZED CONSTRUCTION ENTRANCE DETAILS**  
**ITEM 209.22**  
 N.T.S.



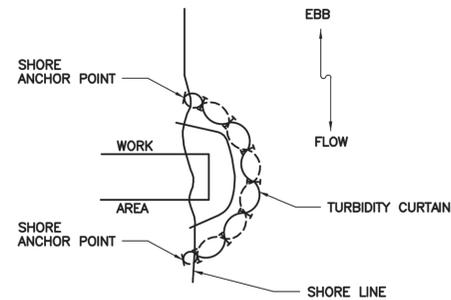
**CONSTRUCTION NOTES FOR FABRICATED SILT FENCE**

- WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES.
  - FILTER CLOTH TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION.
  - WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY SIX INCHES AND FOLDED.
  - MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE.
- POST: STEEL EITHER 'T' OR 'U' TYPE OR 2" HARDWOOD  
 FENCE: WOVEN WIRE, 14-1/2 GAGE, 6" MAX. MESH OPENING  
 FILTER CLOTH: FILTER X, MIRAFI 100X, STABILINKA T140N OR APPROVED EQUAL.  
 PREFABRICATED UNIT: GEOFAB. ENVIROFENCE OR APPROVED EQUAL.

**SILT FENCE DETAILS**  
**ITEM 209.13**  
 N.T.S.



**SEDIMENT FILTER DETAIL**  
 (COST TO BE INCLUDED UNDER ITEM 553.02001)  
 N.T.S.



**TURBIDITY CURTAIN**  
 ITEM 209.1501  
 N.T.S.

**TURBIDITY CURTAIN NOTES:**

- VERTICAL SUPPORTS SHALL BE PLACED A MAXIMUM OF 100 FEET ON CENTER TO MAINTAIN THE STRUCTURAL INTEGRITY OF THE CURTAIN, OR AS ORDERED BY THE ENGINEER.
- TURBIDITY CURTAINS SHALL BE IN PLACE ONLY DURING ACTIVE CONSTRUCTION WORK IN THE WATER AS SHOWN ON PLANS, AND SHALL BE REMOVED IMMEDIATELY AFTER REQUIRED WORK.
- THE TURBIDITY CURTAIN SHALL OVERLAP THE SILT FENCE A MINIMUM OF 5 FEET AS ORDERED BY THE ENGINEER AND THE COST OF SUCH WORK SHALL BE INCLUDED IN THE PRICE BID FOR ITEM 209.1501, TURBIDITY CURTAIN.
- THE CONTRACTOR SHALL SUBMIT A PROPOSED PLAN AND/OR SCHEDULE OF OPERATION OUTLINING HOW THE WORK WILL BE ACCOMPLISHED TO THE ENGINEER PRIOR TO INSTALLATION.
- FOR FLOW VELOCITIES > 5ft/s, INSTALL A REDIRECTION BARRIER PRIOR TO CURTAIN INSTALLATION SUCH THAT FLOW EXPANDING AT 20" FROM THE BARRIER WILL REACH THE CURTAIN AT A POINT WHERE THE CURTAIN IS ESSENTIALLY PARALLEL TO STREAM FLOW.
- THE REDIRECTION BARRIER MAY CONSIST OF CONCRETE BARRIER, PLANKING OR OTHER MATERIAL SUCH THAT IT CAN BE QUICKLY REMOVED OR WASHED OUT IN THE EVENT OF HIGH FLOWS. IT SHOULD NOT BE SUCH THAT IT WILL REMAIN IN PLACE AND OVERTOPPED.
- CONCENTRATED FLOW OUTLETS SUCH AS CULVERT OUTLETS, DITCHES, ETC. SHALL NOT BE LOCATED BEHIND TURBIDITY CURTAIN.
- THE TURBIDITY CURTAIN SHALL BE PLACED AS CLOSE TO THE WORK AS POSSIBLE WITHOUT INTERFERING WITH CONSTRUCTION OPERATIONS.
- THE CONTRACTOR SHALL CONTINUALLY MONITOR THE INSTALLATION, TAKING INTO ACCOUNT WEATHER PATTERNS AND PREVAILING WIND DIRECTIONS THAT MAY AFFECT WATER LEVELS, VELOCITY AND MOVEMENT OF THE TURBIDITY CURTAIN.
- THE TURBIDITY CURTAIN SHALL BE REMOVED BY PULLING TOWARD THE SHORE TO MINIMIZE ESCAPE OF SEDIMENTS INTO THE WATERWAY.
- THE WEIGHTED ANCHOR SYSTEM SHALL BE A TYPE THAT ALLOWS THE CURTAIN TO CONFORM TO THE CONTOUR OF THE BOTTOM ON THE WATERWAY.

- NOTES:**
- TIGHT SHEETING WILL BE REQUIRED TO SEPARATE THE AREAS OF EXCAVATION FROM THE EXISTING STREAM. THE COST OF ALL TEMPORARY SHEETING SHALL BE INCLUDED UNDER ITEM 553.02001.
  - THE ACTUAL CONFIGURATION OF THE TEMPORARY SHEETING ON THE PLAN MAY VARY. THERE WILL BE NO ADDITIONAL PAYMENT MADE FOR CHANGE IN CONFIGURATION, MOBILIZING, OR DEMOBILIZING THE SHEETING.
  - WHEN EXCAVATED SOILS ARE SATURATED WITH WATER, THE CONTRACTOR SHALL STAGE HIS OPERATIONS AND STOCKPILE SOIL FOR DRYING WITH A HAY BALE/SILT FENCE PERIMETER OR AN ALTERNATIVE METHOD APPROVED BY THE ENGINEER. NO TRUCKING OF SATURATED SOILS WILL BE ALLOWED.
  - THE CONTRACTOR IS RESPONSIBLE FOR THE DESIGN OF THE TEMPORARY SHEETING AND SHALL SUBMIT THE DESIGN TO THE ENGINEER FOR APPROVAL PRIOR TO INSTALLATION.
  - ALL NYSDEC PERMIT SPECIAL CONDITIONS SHALL BE MET AND INCLUDED IN THE COST OF THE UNIT PRICES IN THIS CONTRACT.
  - LOCATIONS OF POOLS SHALL BE A.O.B.E.

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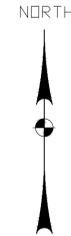
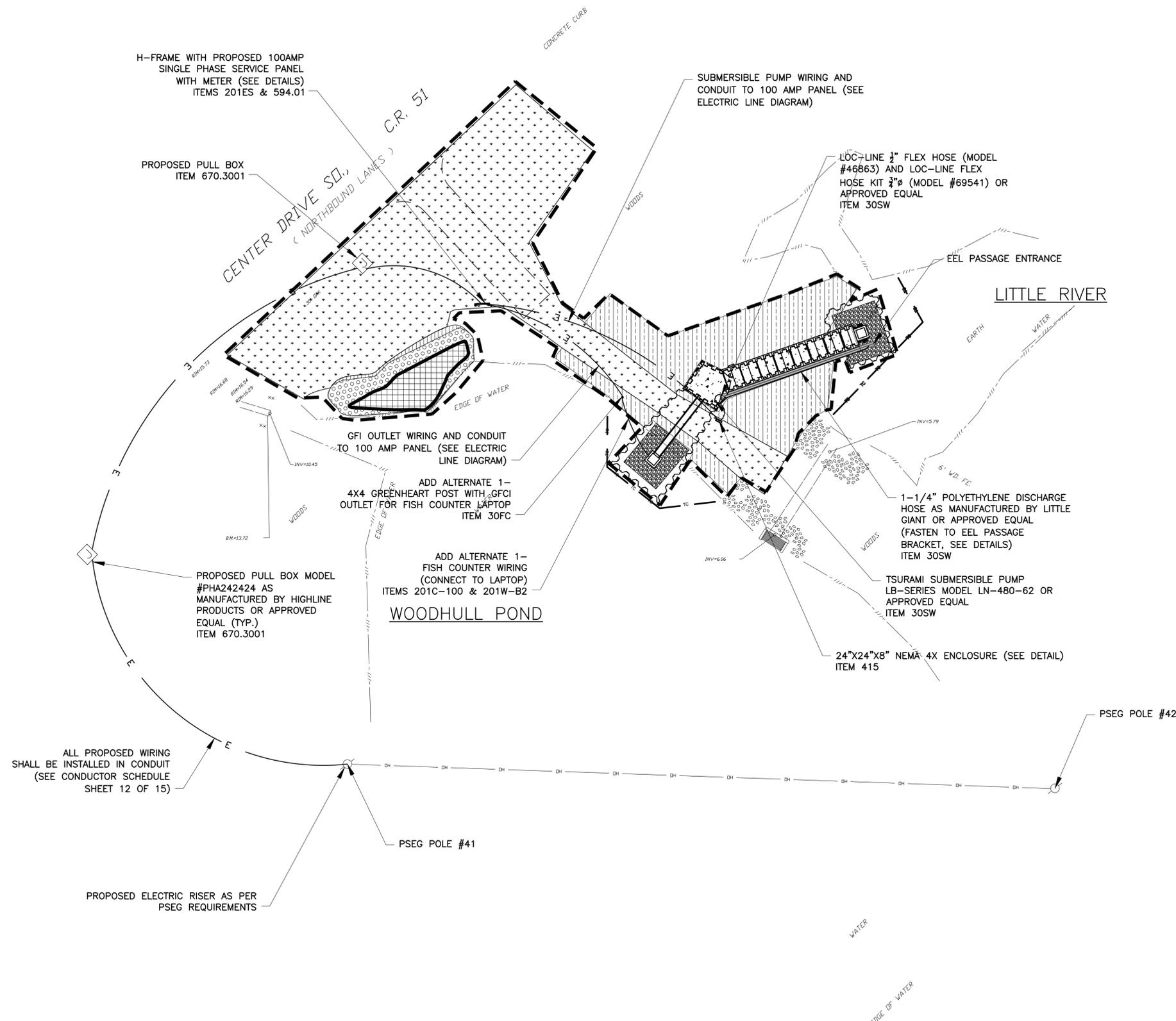
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**DARNELL TYSON, P.E., ACTING COMMISSIONER**

**WOODHULL DAM FISH PASSAGE**

**SEDIMENT AND EROSION CONTROL**  
**DETAILS**

SYMBOL	DESCRIPTION	APPROVED DATE	DATE	PROJECT NO.	SCALE	SHEET NO. 9 OF 15
<b>REVISIONS</b>						
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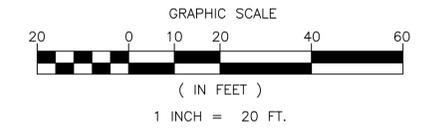
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- NOTES:
1. SEE SHEET 10 FOR UTILITY DETAILS.
  2. IF THE FISH CAMERA ADD ALTERNATE IS CHOSEN THEN THE FISH CAMERA CONDUIT AND THE SUBMERSIBLE PUMP CONDUIT SHALL BE INSTALLED IN THE SAME TRENCH.
  3. PULL BOX AND COVER SHALL BE RATED FOR H-20 LOADING. THE COVER SHALL BE LABELED WITH THE TEXT "ELECTRIC" ON THE LOGO AREA.
  4. CLEARING AND GRUBBING REQUIRED ACCESS TO PSEG POLE #41 TO BE INCLUDED UNDER ITEM 201.06.

**LEGEND**

- E— PROPOSED SECONDARY POWER SUPPLY
- ☐ PROPOSED PULL BOX - ITEM 670.3001



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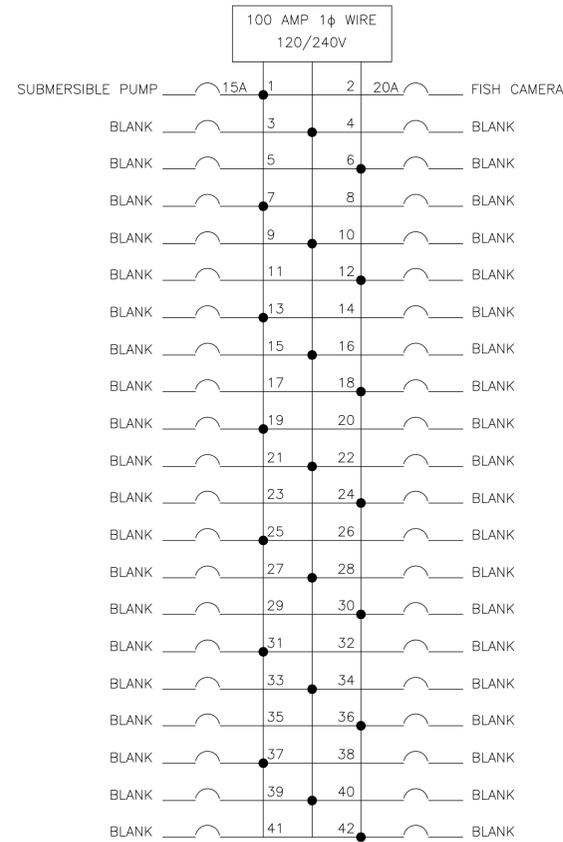
**WOODHULL DAM FISH PASSAGE**

SYMBOL	DESCRIPTION	APPROVED DATE	DATE	PROJECT NO.	SCALE	SHEET NO. 10 OF 15
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**PROPOSED BREAKER  
PANEL LAYOUT**



NOTE: CIRCUIT BREAKERS ABOVE TO BE INCLUDED IN COST OF ITEM 201ES

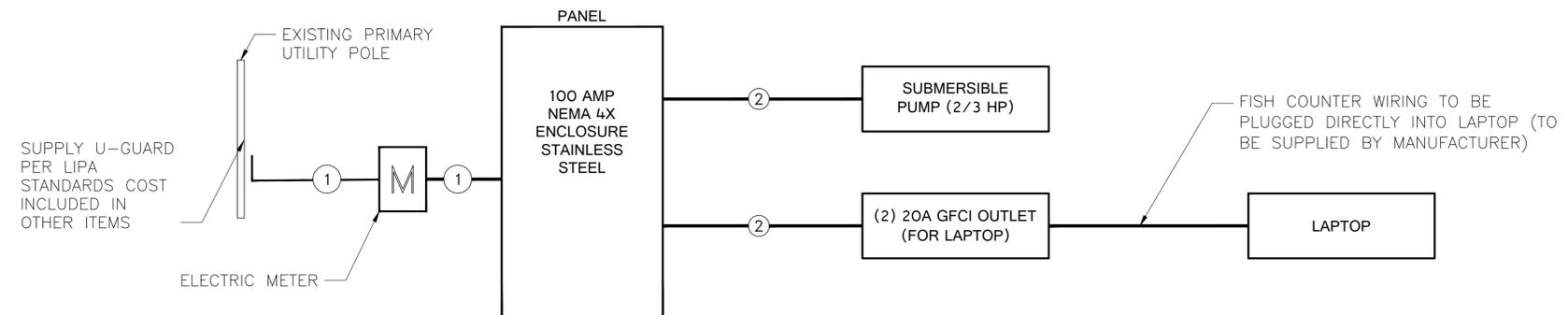
NOTES:  
1. PROPOSED SERVICE PANEL AND METER SHALL BE MOUNTED ON GREENHEART H-FRAME AS PER NEC REQUIREMENTS AT LOCATION SHOWN ON THE PLAN (SEE DETAILS).

**CONDUCTOR SCHEDULE**

①	3-4/0 AWG (TYPE THWN-2) (ITEM 201W-B1) 2-1/2"Ø SCH 80 PVC CONDUIT (ITEM 201C-250)
②	2-#10 AWG WITH #10 GROUND (TYPE THWN-2) (ITEM 201W-B2) 1"Ø SCH 80 PVC CONDUIT (ITEM 201C-100)

**LEGEND**

① CONDUCTOR SCHEDULE



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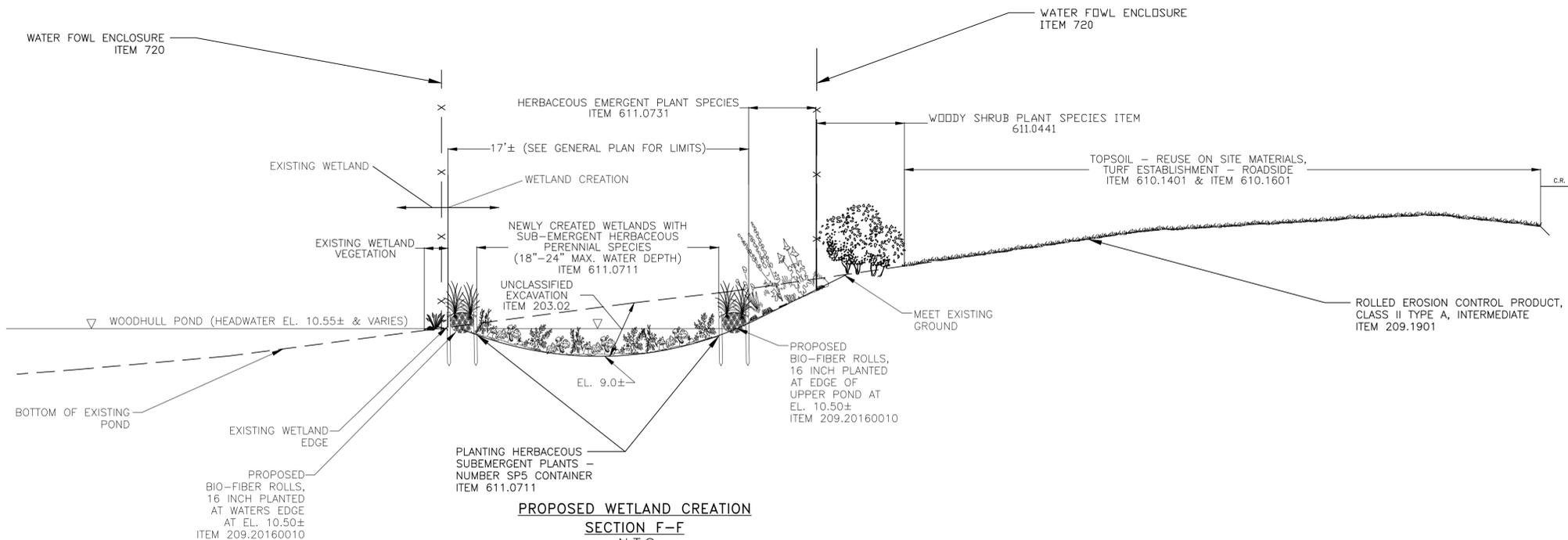
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WOODHULL DAM FISH PASSAGE

ELECTRIC LINE DIAGRAM

SYMBOL	DESCRIPTION	APPROVED DATE	DATE	PROJECT NO.	SCALE	SHEET NO. 12 OF 15
	<b>REVISIONS</b>		JULY 2019	CP #7180	AS NOTED	



HERBACEOUS SUB-EMERGENT PLANT SPECIES (AREA A) - ITEM 611.0711  
\* NO MORE THAN 20% PER SPECIES AND SHALL BE PLANTED IN GROUPS OF 3, 5, 7'S ETC.

BOTANICAL NAME	COMMON NAME	SIZE
1 CAREX COMOSA	ONG HAIR SEDGE	PLUG SP 5 (5'x2')
2 CAREX LURIDA	SHALLOW SEDGE	PLUG SP 5 (5'x2')
3 ACORUS AMERICANUS	SWEET FLAG IRIS	PLUG SP 5 (5'x2')
4 ASCLEPIAS INCARNATA	SWAMP MILKWEED	PLUG SP 5 (5'x2')
5 HISBICUS MOSCHEUTOS	ROSE MALLOW	PLUG SP 5 (5'x2')
6 IRIS VERSICOLOR	HARLEQUIN BLUE FLAG IRIS	PLUG SP 5 (5'x2')
7 SCIRPUS CYPERIMUS	WOOLGRASS	PLUG SP 5 (5'x2')
8 CHELONE LYONII	PINK TURTLE HEAD	PLUG SP 5 (5'x2')
9 LOBELIA CARDINALIS	CARDINAL FLOWER	PLUG SP 5 (5'x2')
10 EUPATORIUM DUBIUM	COASTAL PLAIN JOE PYE WEED	PLUG SP 5 (5'x2')

HERBACEOUS EMERGENT PLANT SPECIES (AREA B) - ITEM 611.0731  
\* NO MORE THAN 30% PER SPECIES AND SHALL BE PLANTED IN GROUPS OF 3, 5, 7'S ETC.

BOTANICAL NAME	COMMON NAME	SIZE
1 RUDBECKIA LACINATA	CUTLEAF CONEFLOWER	PLUG SP 5 (5'x2')
2 SOLIDAGO SEMPERVIRENS	SEASIDE GOLDENROD	PLUG SP 5 (5'x2')
3 ASTER NOVI-BELGII	NEW YORK ASTER	PLUG SP 5 (5'x2')
4 PYCNANTHEMUM FLEXUOSUM	APPALACHIAN MOUNTAIN MINT	PLUG SP 5 (5'x2')
5 DESCHAMPSIA CESPITOSA	TUFTED HAIRGRASS	PLUG SP 5 (5'x2')
6 ELYMUS VIRGINICUS	VIRGINIA WILD RYE	PLUG SP 5 (5'x2')
7 MONARDA BRADBURIANA	EASTERN BEEBALM	PLUG SP 5 (5'x2')
8 RUDBECKIA TRILOBA	BROWNEYED SUSAN	PLUG SP 5 (5'x2')
9 TELYPTERIS NOVEBORACENSIS	NEW YORK FERN	PLUG SP 5 (5'x2')
10 SCHIZACHYRIUM SCOPARIUM	LITTLE BLUESTEM	PLUG SP 5 (5'x2')

UPLAND WOODY SHRUB PLANT SPECIES (AREAS C, D, E, & F) - ITEM 611.0441  
\* NO MORE THAN 20% PER SPECIES AND SHALL BE PLANTED IN GROUPS OF 3, 5, 7'S ETC.

BOTANICAL NAME	COMMON NAME	SIZE
1 ARONIA ARBUTIFOLRA	RED CHOKEBERRY	3 GAL CONTAINER MIN HEIGHT 24" TO 36"
2 CEPHALANTHUS OCCIDENTALIS	BUTTON BUSH	3 GAL CONTAINER MIN HEIGHT 24" TO 36"
3 CLETHRA ALNIFOLIA	SUMMER SWEET	3 GAL CONTAINER MIN HEIGHT 24" TO 36"
4 CORNUS SERICA	RED TWIG DOGWOOD	3 GAL CONTAINER MIN HEIGHT 24" TO 36"
5 ILEX GLABRA	INKBERRY HOLLY	3 GAL CONTAINER MIN HEIGHT 24" TO 36"
6 LINDERA BENZOIN	SPICE BUSH	3 GAL CONTAINER MIN HEIGHT 24" TO 36"
7 MYRICA PENNSYLVANICA	NORTHERN BAYBERRY	3 GAL CONTAINER MIN HEIGHT 24" TO 36"
8 PRUNUS MARITIMA	BEACH PLUM	3 GAL CONTAINER MIN HEIGHT 24" TO 36"
9 ROSA PALUSTRIS	SWAMP ROSE	3 GAL CONTAINER MIN HEIGHT 24" TO 36"
10 SAMBUCUS CANADENSIS	ELDERBERRY	3 GAL CONTAINER MIN HEIGHT 24" TO 36"
11 SPIREA TOMENTOSA	STEEPLE BUSH	3 GAL CONTAINER MIN HEIGHT 24" TO 36"
12 VACCINIUM CORYMBOSUM	HIGH BUSH BLUEBERRY	3 GAL CONTAINER MIN HEIGHT 24" TO 36"

610 - 2.03 TURF ESTABLISHMENT:

610 - 2.03 HYDRO -SEEDING:

1. DESCRIPTION:

THE CONTRACTOR SHALL FURNISH ALL LABOR AND MATERIALS NECESSARY FOR SEED PLACEMENT/BROADCASTING, HYDRO -SEEDING, LIMING, FERTILIZING, MULCHING AND MAINTENANCE AS PER TRADE STANDARDS TO INSURE A SATISFACTORY STAND OF TURF/WILDFLOWERS.

2. MATERIALS:

- A. SEED - SEED SHALL BE VARIETIES AS SPECIFIED AS FOLLOWS:
  - 50% INFERNO TALL FESCUE
  - 30% BEACON HARD FESCUE
  - 10% FULTS ALKALIGRASS
  - 10% VIRGINIA WILD RYE
- B. SUBSTITUTIONS MUST BE APPROVED BY THE ENGINEER PRIOR TO THE START OF WORK. THE SEED RATE SHALL BE 300 POUNDS OF BULK SEED PER ACRE, AND SHALL BE DELIVERED IN UNOPENED BAGS WITH THE LABEL SPECIFICATION SEWED ACROSS THE TOP OF THE BAG. ALL OPEN BAGS SHALL BE REJECTED FOR USE ON THE SITE. SEED SHALL BE INCORPORATED INTO A BONDED FIBER MATRIX FOR APPLICATION IN ACCORDANCE WITH THE PRODUCT MANUFACTURER'S SPECIFICATIONS
- C. TOPSOIL - SHALL BE A 4" DEPTH FROM AN APPROVED SOURCE, WITH TESTING DOCUMENTATION REQUIRED. THE ENGINEER SHALL APPROVE SAMPLES THREE WEEKS PRIOR TO BRINGING THE MATERIAL UNTO THE SITE.
- D. LIME - THE CONTRACTOR SHALL APPLY LIME AT AN ADEQUATE RATE, BASED ON THE PH TEST RESULTS, TO ACHIEVE A PH OF BETWEEN 5.5 TO 6.4. LIME SHALL BE INCORPORATED INTO THE BONDED FIBER MATRIX FOR APPLICATION IN ACCORDANCE WITH THE PRODUCT MANUFACTURER'S SPECIFICATIONS.
- E. MULCH - HYDRO -MULCH SHALL BE "FLEX TERRA" BONDED FIBER MATRIX (BFM) OR AN APPROVE EQUAL, APPLIED AT A RATE OF 3,000 POUNDS PER ACRE. TACKIFIER IS NOT REQUIRED WHEN USING FLEX TERRA.
- F. FERTILIZER - ORGANIC STARTER FERTILIZER 18 -24 -12 AT 200 LBS. PER ACRE.

3. CONSTRUCTION DETAILS:

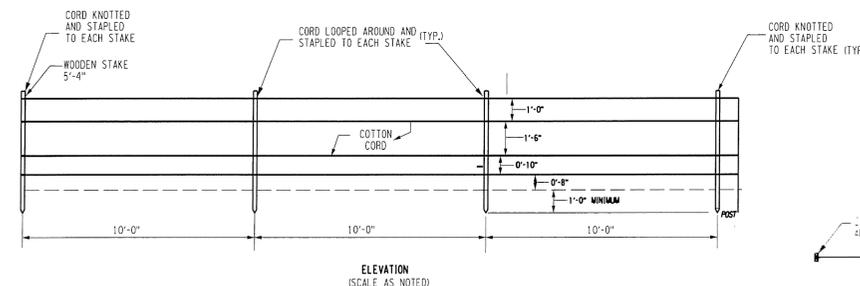
- A. THE CONTRACTOR SHALL VERIFY THAT THE SUB-GRADE IS PREPARED TO THE SATISFACTION OF THE COUNTY'S ENGINEER AND IS READY TO RECEIVE THE FINAL SUB-GRADE ELEVATIONS.
- B. CONTRACTOR SHALL GRADE TOPSOIL TO THE LINES AND GRADES AS SHOWN ON THE PLANS TO PROVIDE POSITIVE DRAINAGE. ALL AREAS IN THE WETLAND BUFFER/MITIGATION AREAS SHALL NOT BE ROLLED OR COMPACTED.
- C. TEMPORARY HYDRO SEEDING SHALL BE APPLIED TO ALL IMMEDIATE COVER MATERIALS THAT WILL BE EXPOSED IN EXCESS OF TWO WEEKS AND TO FINAL COVER MATERIALS ONLY OUTSIDE THE PLANTING DATES FOR THE PERMANENT SEEDING AND PENDING PRIOR APPROVAL BY THE ENGINEER. CONTRACTOR SHALL AVOID APPLICATION DURING PERIODS OF RAIN OR WITHIN TWENTY FOUR (24) HOURS PRECEDING EXPECTED RAINFALL.
- D. THE BONDED FIBER MATRIX (BFM) SHALL BE APPLIED BY A CONTRACTOR CERTIFIED BY THE PRODUCT MANUFACTURER TO HAVE BEEN TRAINED IN THE PROPER PROCEDURES FOR THE MIXING AND APPLICATION OF THE PRODUCT.
- E. THE CONTRACTOR SHALL HYDRO-SEED THE WETLAND SEEDING AREAS IN THE SPRING BETWEEN MARCH 15 THROUGH JUNE 15 OR IN THE FALL BETWEEN SEPTEMBER 15 AND OCTOBER 31.
- F. CONTRACTOR SHALL MAINTAIN ALL SEEDED AREAS IMMEDIATELY AFTER SOWING/PLACEMENT UNTIL VEGETATION IS SUFFICIENTLY ESTABLISHED AND EXHIBITS A VIGOROUS GROWING CONDITION.

4. MAINTENANCE:

- A. THE CONTRACTOR SHALL MAINTAIN ALL SEEDED AREAS IMMEDIATELY AFTER SOWING/PLACEMENT UNTIL VEGETATION IS SUFFICIENTLY ESTABLISHED AND EXHIBITS A VIGOROUS GROWING CONDITION.
- B. CONTRACTOR SHALL IMMEDIATELY REPAIR ANY SEEDED AREA DAMAGED BY EROSION. THE CONTRACTOR IN REPAIRING ANY SEEDED AREAS DAMAGED BY EROSION SHALL RESEED AREAS WHICH FAILED TO GERMINATE AND WITHIN THE NEXT CONSECUTIVE SPECIFIED PLANTING DATE. ALL SUCH WORK SHALL BE COMPLETED A MINIMUM OF ONE MONTH PRIOR TO THE PROJECT CLOSE -OUT.

5. PAYMENT:

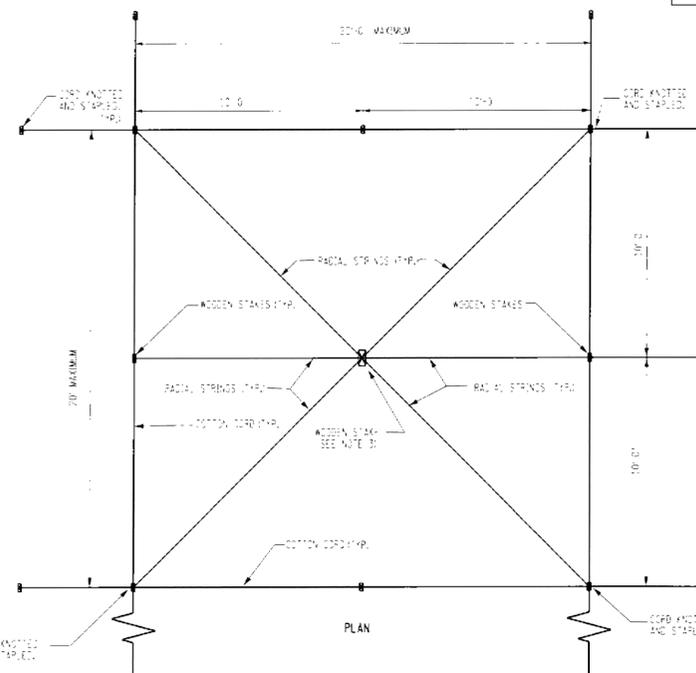
- A. QUANTITY OF SEEDING TO BE PAID FOR UNDER THIS ITEM SHALL BE THE NUMBER OF SQUARE YARDS SEEDED AND MAINTAINED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.



WATERFOWL FENCE DETAILS  
ITEM 720

NOTES:

- 1. CONTRACTOR SHALL REPAIR FENCE AS NECESSARY AND SHALL ADD ADDITIONAL CORDING AS NECESSARY TO PREVENT ENTRANCE BY WATERFOWL.
- 2. PAYMENT FOR MATERIALS INSTALLATION AND REPAIRS UNDER ITEM 720.
- 3. RADIAL STRINGS SHALL BE ATTACHED TO NAIL IN TOP OF WOODEN STRINGS



SYMBOL	DESCRIPTION	APPROVED DATE	DATE	PROJECT NO.	SCALE	SHEET NO. 13 OF 15
			JULY 2019	CP #7180	AS NOTED	

**LKMA** L. K. McLEAN ASSOCIATES, P.C.  
CONSULTING ENGINEERS 437 SOUTH COUNTRY RD., BROOKHAVEN, NY 11719

**COUNTY OF SUFFOLK  
DEPARTMENT OF PUBLIC WORKS  
YAPHANK, NEW YORK**

**DARNELL TYSON, P.E., ACTING COMMISSIONER**

**WOODHULL DAM FISH PASSAGE**

LANDSCAPING DETAILS 1

**611 LANDSCAPE SPECIFICATIONS:**

**611 - 2.02 PLANTING:**

ALL PLANT LOCATION SHOWN ON THE PLANS ARE APPROXIMATE AND THE EXACT LOCATION WILL BE DETERMINED BY THE CONSULTING LANDSCAPE ARCHITECT AND THE ENGINEER -IN -CHARGE, WHEN ALL AREAS ARE BACKFILLED AND FINAL GRADES ESTABLISHED.

**611 - 3 CONSTRUCTION**

**611 - 3.01 GENERAL:**

**PLANTING:**  
SEE THE LANDSCAPE PLANT LIST ON THE PLANS. ALL PLANTS SHALL BE CONTAINER GROWN. CONTAINER GROWN PLANTS WITH ROOT BALL 25% LESS IN DIAMETER AND DEPTH THAN THAT SPECIFIED F OR B&B MATERIAL WILL BE ACCEPTABLE FOR PLANTS SPECIFIED AS B&B. A 15% TOLERANCE WILL BE ALLOWED IN DIAMETER AND DEPTH PROVIDING THAT THE VOLUME OF THE RESULTANT ROOT BALL IS NOT LESS THAN THE VOLUME OF THE ROOT BALL SPECIFIED.

THE CONTRACTOR SHALL SUBMIT ALL SOURCES OF NURSERY STOCK PRIOR TO THE START OF WORK TO THE CONSULTING LANDSCAPE ARCHITECT, AND THE ENGINEER -IN -CHARGE.

ALL PLANT MATERIAL SHALL BE SUBJECT TO INSPECTION AND REJECTION BY THE EIC / CONSULTING LANDSCAPE ARCHITECT, BEFORE SHIPMENT TO THE PROJECT SITE AND/OR UPON ARRIVAL AT THE PROJECT SITE IF PLANT MATERIAL DOES NOT MEET THE SPECIFICATIONS, INVOICES FOR THE MATERIAL ARE NOT PROVIDED, AND IF WATER IS NOT APPLIED IMMEDIATELY FOLLOWING PLANTING, AS PER THE WATERING SPECIFICATIONS. NO PLANTS SHALL BE STORED ON SITE LONGER THAN 24 HOURS, AND IF NOT PLANTED THE CONTRACTOR SHALL WATER AND PROTECT PLANT MATERIALS OFFSITE. THOSE PLANTS NOT INSTALLED WITHIN THE 24 HOURS SHALL BE MARKED BY THE ENGINEER/LANDSCAPE ARCHITECT TO DOCUMENT THE PERIOD BETWEEN DELIVERY AND INSTALLATION. ALL PLANTS MARKED AND SHOWING SYMPTOMS OF STRESS SHALL BE REJECTED BY THE ENGINEER/LANDSCAPE ARCHITECT AND REMOVED FROM THE PROJECT. IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN ALL PLANT MATERIAL IN A STATE OF GOOD HEALTH AT ALL TIMES BEFORE AND AFTER INSTALLATION.

**PLANTING MATERIALS:**

**WETLAND BACKFILL:**

APPROVED WETLAND BACKFILL MATERIAL (NYS DOT APPROVED SUPPLIER) SHALL BE SUBMITTED FOR APPROVALS PRIOR TO DELIVERY TO THE SITE. CONTAINER GROWN SHRUBS SHALL BE PLANTED IN APPROVED WETLAND BACKFILL SOIL, WITH THE INCORPORATION OF AN APPROVED ORGANIC MATERIAL EQUAL TO ONE QUARTER (1/4) THE PIT VOLUME A.O.B.E. WETLAND SP5 PLUGS SHALL BE PLANTED INTO THE APPROVED WETLAND BACKFILL MATERIAL AS PER THE PROJECT DETAILS.

PLANTING SEASON:	MARCH 1 TO MAY 1
UPLAND DECIDUOUS B&B MATERIAL:	OCTOBER 15 TO DECEMBER 15
SUB -EMERGENT AND EMERGENT HERBACEOUS C.G. MATERIAL: SP5 PLUGS	MARCH 1 TO JUNE 15 AUGUST 15 TO DECEMBER 15

ALL LANDSCAPE PLANTING INSTALLED OUTSIDE THE CONTRACT PLANTING DATES, NOT DIRECTED IN WRITING BY THE ENGINEER -IN -CHARGE / CONSULTING LANDSCAPE ARCHITECT, SHALL BE AT THE CONTRACTOR'S OWN RISK AND WATERED WITH A BIO STIMULANT LIQUID COMPLEX OF SEAWEED EXTRACT, HUMIC ACID EXTRACT ENZYMES, AND NON -IONIC WETTING AGENTS OR AN APPROVED EQUAL. ALL RATES ARE AS SPECIFIED BY THE MANUFACTURER.

PLANTS THAT ARE NOT PROTECTED AS SPECIFIED OR THAT HAVE NOT BEEN PLANTED WITHIN TWO (2) CALENDAR DAYS OF DELIVERY SHALL BE REJECTED AS ORDERED BY THE ENGINEER (A.O.B.E). ALL 2" PLUGS SHALL BE MOIST AT ALL TIMES PRIOR TO PLANTING; AND PLANTS THAT ARE VISIBLY DRY SHALL BE REJECTED AND REMOVED FROM THE SITE IMMEDIATELY.

**LAYOUT - SETBACK RESTRICTIONS:**

LAYOUT SHALL BE PERFORMED BY THE CONTRACTOR WITH FINAL REVIEW AND/OR APPROVAL BY THE ENGINEER -IN -CHARGE/CONSULTING LANDSCAPE ARCHITECT. ALL SHRUB BEDS SHALL BE LAID OUT, OUTLINED IN THE FIELD USING SPRAY PAINT, AS APPROVED BY THE ENGINEER IN CHARGE. ALL PLANTS SHALL BE PLANTED IN IRREGULAR PATTERNS TO SIMULATE A NATURALISTIC SETTING OR AS DIRECTED BY THE CONSULTING LANDSCAPE ARCHITECT.

**PLANT PIT DIAMETER:**

THE MINIMUM PLANT PIT DIAMETER SHALL BEAR THE FOLLOWING RELATIONSHIP TO THE DIAMETER OF THE ROOT SPREAD OR ROOT BALLS OF THE PLANTS TO BE PLANTED IN THEM UNLESS OTHERWISE SPECIFIED IN THE CONTRACT DOCUMENTS.

<b>ROOT BALL DIAMETER</b>	<b>PLANT PIT DIAMETER</b>
0 - 24"	TWICE THE ROOT/BALL DIAMETER
24" - 48"	EQUAL TO THE ROOT/BALL DIAMETER + 24"
> 48"	1 -1/2 TIMES THE ROOT/BALL DIAMETER

ALL AREAS OF PAVEMENT REMOVAL TO BE PLANTED SHALL HAVE THE SOIL MADE LOOSE AND FRIABLE TO A DEPTH OF 36"

**PLANTING BEDS:**

ALL SHRUB PLANTING AREAS ARE CONSIDERED PLANTING BEDS AND SHALL BE MULCHED. PLANTING BED AREAS SHALL BE LOOSE AND FRIABLE A MINIMUM DEPTH OF 8 INCHES. ALL BEDS SHALL BE MADE WEED FREE PRIOR TO PLANTING THROUGH REPEATED METHODS AS APPROVED BY THE LANDSCAPE ARCHITECT.

**DISPOSAL OF EXCESS SOIL:**

AS MATERIAL IS EXCAVATED FROM TREE PITS, IT SHALL BE IMMEDIATELY REMOVED FROM THE PLANTING AREAS AND DISPOSED OF IN A MANNER ACCEPTABLE TO THE ENGINEER.

**SETTING PLANTS:**

THE CONTRACTOR SHALL SUBMIT A WORK ORDER TO ESTABLISH THE NUMBER OF DAYS TO OBTAIN MATERIALS, START DATES, COMPLETION SCHEDULE, SCHEDULE OF PLANTING OPERATIONS, WITHIN 10 WORKING DAYS PRIOR TO THE START OF WORK. ALL SUBSTITUTIONS AND CHANGES SHALL BE IN WRITING BY THE CONTRACTOR TO THE ENGINEER -IN -CHARGE / CONSULTING LANDSCAPE ARCHITECT. THE CONTRACTOR SHALL NOT BE ALLOWED TO PLANT UNLESS THE PLANTING SCHEDULE AND WATERING SCHEDULE AREA APPROVED AND ALL MATERIALS, INVOICES ARE APPROVED BY ENGINEER -IN -CHARGE / CONSULTING LANDSCAPE ARCHITECT.

**GENERAL:**

FOR ALL SHRUBS, SAUCERS SHALL BE CONSTRUCTED 3 INCHES LARGER THAN THE PIT SIZES. SAUCERS SHALL REMAIN IN PLACE FOR THE DURATION OF THE CONTRACT. AT LEAST THREE WATERINGS FOR THE COMPACTION OF THE PLANTING SOIL, AFTER SETTING PLANTS AND BEFORE APPLYING MULCH SHALL BE PROVIDED BY THE ENGINEER -IN -CHARGE/ CONSULTING LANDSCAPE ARCHITECT. ALL THE PROVISIONS FOR PLANTING PLANTS SHALL BE ACCOMPLISHED WITHIN FIVE (5) CALENDAR DAYS AFTER THE PLANT IS SET IN THE PIT EXCEPT THAT THE ENGINEER -IN -CHARGE(EIC) SHALL TAKE INTO CONSIDERATION UNEXPECTED INTERRUPTIONS IN WORK DUE TO EMERGENCIES, STORMS, ETC. SEVERE ENOUGH TO STOP WORK. SCHEDULED NON -WORK DAYS SUCH AS WEEKENDS, HOLIDAYS, ETC. SHALL NOT BE A REASON FOR EXTENDING THE FIVE (5) DAY LIMITATION. IF THIS SEQUENCE IS NOT ADHERED TO AND AS A RESULT THE OPERATIONS SUBSEQUENT TO SETTING AND BACKFILLING ARE NOT BEING ACCOMPLISHED WITHIN THE SPECIFIED TIME, THE ENGINEER -IN -CHARGE MAY STOP ALL SETTING AND BACKFILLING OF PLANTS, AND ANY OTHER PLANTING OPERATIONS HE MAY DEEM NECESSARY, UNTIL SUCH TIME AS HE IS SATISFIED THAT THE SEQUENCE OF PLANTING OPERATIONS IS AGAIN ON SCHEDULE.

**PRUNING:**

NO LANDSCAPE PLANT MATERIAL SHALL BE PRUNED PRIOR TO SHIPMENT TO THE SITE, UNLESS INSPECTED IN THE NURSERY BY THE CONSULTING LANDSCAPE ARCHITECT. ALL PLANT MATERIAL SHALL MEET SPECIFIED SIZES AFTER PRUNING.

**MULCHING:** A FOUR (4) INCH LAYER OF MULCH SHALL BE UNIFORMLY PLACED IN THE AREA OF ALL SHRUB BEDS. AFTER MULCHING, ORGANIC FERTILIZER (10 - 6 - 4) SHALL BE EVENLY APPLIED TO ALL MULCHED AREAS AT A RATE OF 3 OZ. OF FERTILIZER PER SQUARE METER. A SECOND APPLICATION OF 10 - 6 - 4, AT THE SAME RATE SHALL BE MADE ON THE MULCHED AREAS AT THE END OF THE PERIOD OF ESTABLISHMENT.

**WATERING:**

ALL PLANTS SHALL BE WATERED IMMEDIATELY FOLLOWING PLANTING. WATERING FOR COMPACTION SHALL BE LIMITED TO TWO (2) WATERINGS WITHIN ONE DAY, WITH A MINIMUM ALLOWANCE OF FIVE (5) HOURS DRAW DOWN TIME. PLANTS SHALL HAVE A MINIMUM OF 14 WATERINGS BETWEEN APRIL 1 AND OCTOBER 1 (EVERY OTHER WEEK). THE INTERVALS BETWEEN WATERING OPERATIONS CAN BE MODIFIED IN WRITING BY THE LANDSCAPE ARCHITECT. EACH WATERING SHALL PROVIDE 2 GALLONS/ SQ. FT. (3" LAYER OF WATER). APPROXIMATE QUANTITIES FOR THE FULL CONTRACT CONSIST OF 14 WATERINGS, WITH EACH WATERING AS FOLLOWS: WETLAND PLANTING PLUGS (SP5) - 1 GALLON PER WATERING - AS NEEDED FOR ESTABLISHMENT. ALL LANDSCAPE MATERIAL PLANTED OUT OF SEASONS SHALL BE WATERED WITH A BIO STIMULANT LIQUID COMPLEX OF SEAWEED EXTRACT, HUMIC ACID EXTRACT, ENZYMES AND NON -IONIC WETTING AGENTS, AS APPROVED BY THE LANDSCAPE ARCHITECT. THE PRICE FOR THIS WORK SHALL BE INCLUDED IN THE COST OF THE LANDSCAPE ITEMS AND SHALL BE APPLIED AS PER THE MANUFACTURER'S RECOMMENDATIONS.

**WEEDING:**

PLANT BED WEEDING SHALL BEGIN ON JUNE 1 AND PLANTING BEDS SHALL BE WEED FREE BY JULY 1 AND BEGIN AGAIN ON AUGUST 14 AND PLANTING BEDS SHALL BE WEED FREE BY SEPTEMBER 1.

**611 - 4 METHOD OF MEASUREMENT:**

**PERIOD OF ESTABLISHMENT:**

THE CONTRACTOR SHALL BE REQUIRED TO CONTINUE THE WORK SPECIFIED UNDER THE ONE (1) YEAR PERIOD OF ESTABLISHMENT, FOLLOWING THE SATISFACTORY COMPLETION OF THE PLANTING ON THE CONTRACT AS CONFIRMED IN WRITING BY THE ENGINEER/CONSULTING LANDSCAPE ARCHITECT, OR FOR THE DURATION OF THE CONTRACT, WHICHEVER IS LATER. THE PERIOD OF ESTABLISHMENT APPLIES TO ALL PLANTINGS, UNLESS OTHERWISE SPECIFIED. THIS INCLUDES REPLACEMENT OF DEAD MATERIAL BEFORE THE END OF EACH SPRING AND FALL PLANTING SEASON FOR ONE YEAR.

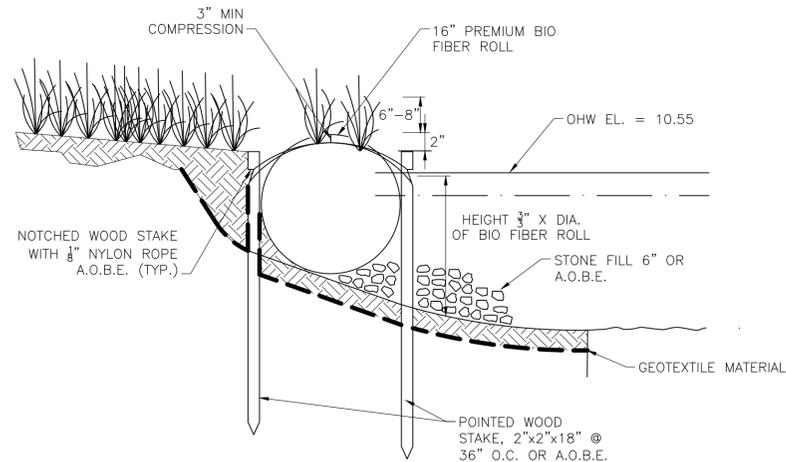
**REQUIREMENTS:**

ALL PLANTS THAT ARE DEAD, MISSING, OR IN AN UNHEALTHY OR BADLY IMPAIRED CONDITION, AS DETERMINED IN WRITING BY THE CONSULTING LANDSCAPE ARCHITECT SHALL BE REMOVED AND REPLACED WITH NEW HEALTHY PLANT MATERIAL AS SPECIFIED WITHIN TWO (2) WEEKS OF THAT DETERMINATION OR DURING THE FIRST TWO (2) WEEKS OF THE SUCCEEDING PLANTING SEASON IF THE DETERMINATION IS NOT MADE DURING A FAVORABLE PLANTING SEASON. ALL PLANTS SHALL RECEIVE THE SAME CARE AS REQUIRED FOR THE ORIGINAL PLANTS THROUGH THE PERIOD OF ESTABLISHMENT.

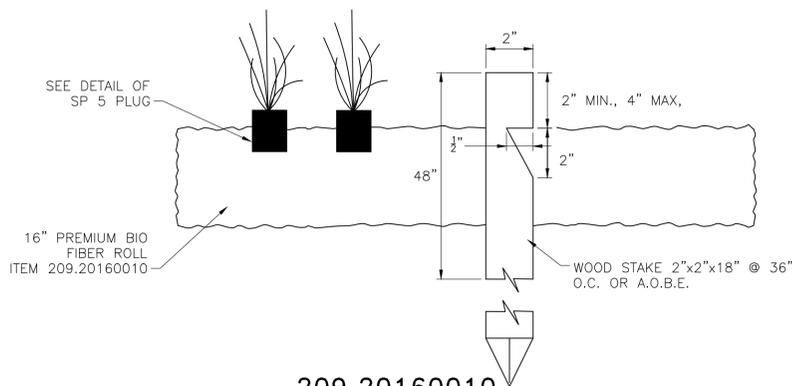
**611 - 5 BASIS OF PAYMENT:**

**611 - 5.01 PLANTING:**

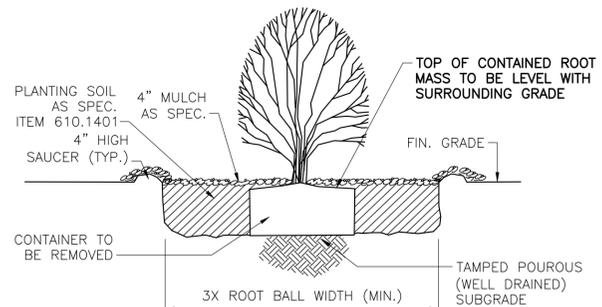
NO EXTRA PAYMENT WILL BE MADE FOR EXCAVATION OF PLANT PITS IN AREAS WHERE ROCK, STUMPS OR OTHER UNDESIRABLE MATERIAL IS ENCOUNTERED. NO PAYMENTS SHALL BE MADE TO THE CONTRACTOR UNTIL ALL PLANTINGS HAVE BEEN FULLY PLANTED, FERTILIZED, MULCHED, AND WATERED. WATERING DURING THE PERIOD OF ESTABLISHMENT WILL BE PAID FOR UNTIL FINAL ACCEPTANCE. NO SEPARATE PAYMENT WILL BE MADE FOR WATERING AFTER FINAL ACCEPTANCE.



**PLANTING & STAKING DETAILS FOR BIO-FIBER ROLLS**  
N.T.S



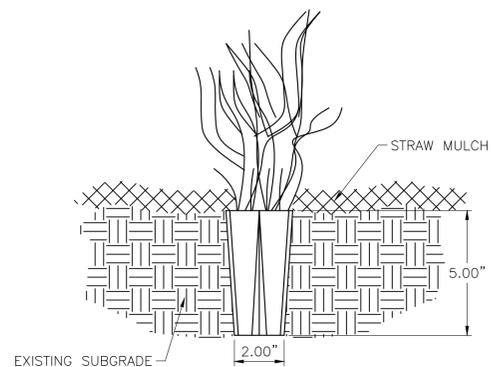
**209.20160010 NOTCHED WOOD STAKE DETAIL**  
N.T.S



**NOTE:**

- DIG 2'(MIN.) DEPTH TEST HOLE TO VERIFY SUBGRADE MATERIAL BELOW ROOT BALL. THE E.I.C. AND/OR LANDSCAPE ARCHITECT SHALL INSPECT THE HOLE PRIOR TO PLANT INSTALLATION.

**CONTAINER PLANTING DETAIL**  
NOT TO SCALE



**FRESHWATER WETLAND SP 5 HERBACEOUS PLANTING PLUG DETAIL**  
NOT TO SCALE

**NOTES:**

- FRESHWATER WETLAND PLUGS PLANTED WITHIN THE BIO-LOGS DO NOT REQUIRE MULCH
- ALL 2" PLUGS, UPLAND OF THE BIO-LOGS, SHALL HAVE 2" OF STRAW MULCH PLANTED WITH AN APPROVED TACKIFIER MATERIAL
- LIMITS OF EXCAVATION & DISTURBANCE TO REMAIN LANDWARD OF EXISTING WATERLINE.

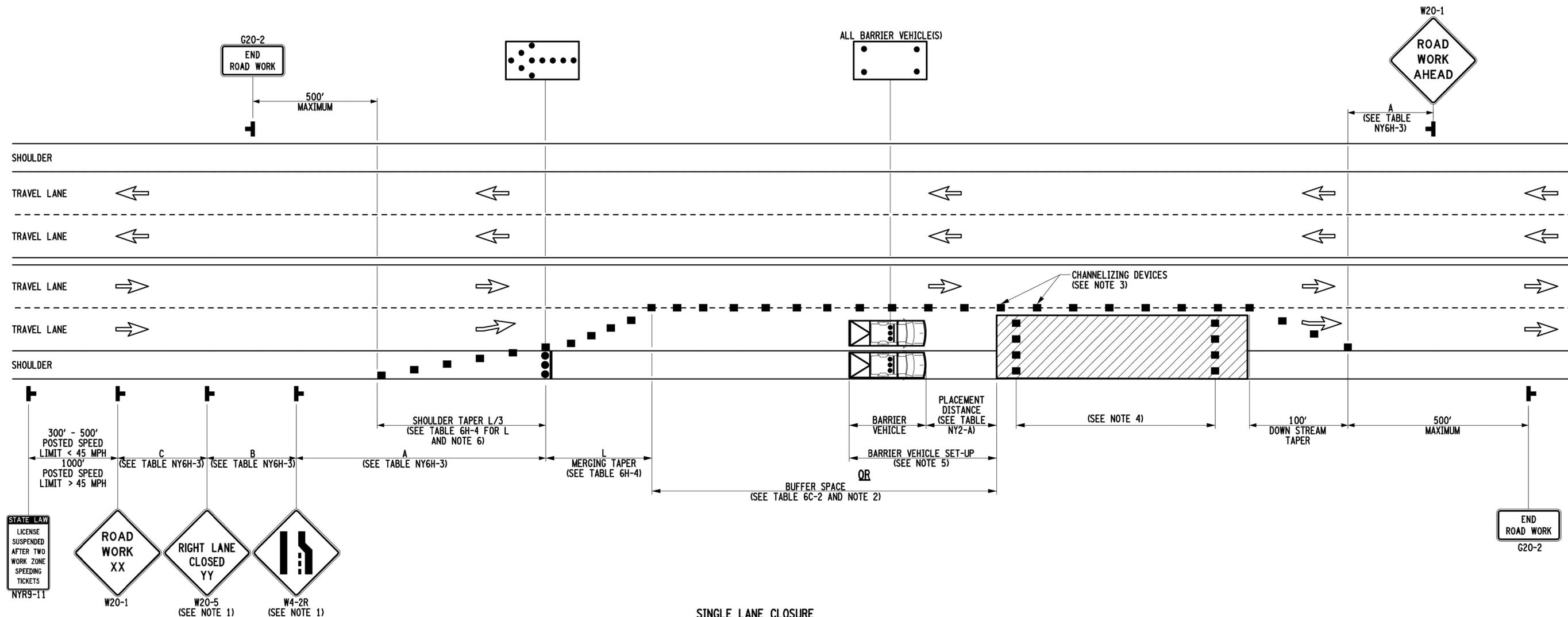
**PLANTING NOTES:**

- ALL PLANTS SHALL MEET THE MOST RECENT STANDARDS FOR NURSERY STOCK AS PUBLISHED BY THE AMERICAN NURSERYMEN ASSOCIATION.
- AFTER SETTING PLANT IN HOLE, REMOVE TOP 1/3 OF BURLAP. REMOVE AND DISCARD ALL SYNTHETIC FABRIC. CUT AND REMOVE ALL STRING, NURSERY CONTAINERS OR TOP 1/3 OF WIRE BASKETS. TO REMOVE NURSERY CONTAINERS, TIP PLANT ON SIDE AND HIT POT SIDES WITH FIST TO LOOSEN. SLIDE POT OFF. IF CONTAINER GROWN, CHECK FOR GIRDLING, CURLING ROOTS, AND IF FOUND CUT INTO ROOTMASS WITH KNIFE AT 3 EQUALLY SPACED INTERVALS AND LOOSEN ROOTS. IF TRANPLANTING WITH MECHANICAL TREE SPADE OR AUGER, SCORE OR CULTIVATE SIDES TO REMOVE GLAZING OF SOIL.
- PLANTING SOIL** - PLANTING SOIL SHALL BE GOOD TOPSOIL WITH NO ADMIXTURE OF REFUSE OR MATERIAL TOXIC TO PLANT GROWTH AND SHALL BE FREE FROM SUBSOIL, STUMPS, ROOTS, BRUSH, STONES, CLAY, LUMPS OR SIMILAR OBJECTS LARGER THAN 2 INCHES IN GREATEST DIAMETER. THE ORGANIC CONTENT SHALL NOT BE LESS THAN 5%, NOR MORE THAN 20% AS DETERMINED BY LOSS ON IGNITION OF MOISTURE FREE SAMPLES DRIED AT 100 DEGREES. IF SOIL IS EXCESSIVELY SANDY OR CLAYEY, AMEND WITH COMPOST/PEAT MOSS. CONTRACTOR SHALL SUBMIT HIS RESULTS TO THE EIC.
- ALL PLANTS SHALL HAVE A 3"-6" RAISED SAUCER AROUND PIT TO HOLD WATER.
- UPLAND PLANTING SHALL BE MULCHED WITH 2" TO 4" CLEAN MULCH OR WOOD CHIPS THAT EXTENDS FOR 6" OUTSIDE OF SOIL SAUCER. TURF AND WEEDS MUST BE REMOVED WHERE MULCH EXTENDS OUTSIDE PLANTING PIT. PULL MULCH AWAY FROM TRUNK TO AVOID MOISTURE BUILDING UP AGAINST IT. ALL SHRUB BEDS ARE CONSIDERED PLANTING BEDS AND THE ENTIRE AREA SHALL BE MULCHED TO THE LIMITS SHOWN ON THE PLANS. WHERE BEDS STAND ALONE WITHIN THE PROJECT, MULCH SHALL EXTEND 5'-0" PAST THE WATERING SAUCER AS ORDERED BY THE EIC (ENGINEER IN CHARGE).
- ONLY PRUNE OUT DAMAGED OR DEAD BRANCHES. LEAVES OR NEEDLES SHOULD NOT BE WILTED OR BROWNED. ALL PLANT MATERIALS SHOULD BE IN GOOD HEALTH. THE HEIGHT SPECIFIED ON THE PLANS IS THE HEIGHT AFTER PRUNING AND/OR THE PLANT HEIGHT AS MEASURED IN THE FIELD AFTER PLANTING.
- CONTRACTOR SHALL WATER PLANTINGS AND SEEDED AREAS AS PER SPEC.
- STAKED TREES SHALL HAVE TIES AROUND 1/2" NOTCH IN STAKE. CONTRACTOR IS RESPONSIBLE FOR CHECKING TIES 1 MONTH AFTER PLANTING.

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<b>LIKMA L. K. McLEAN ASSOCIATES, P.C.</b> <small>CONSULTING ENGINEERS 437 SOUTH COUNTRY RD., BROOKHAVEN, NY 11719</small>						
<b>COUNTY OF SUFFOLK</b> <b>DEPARTMENT OF PUBLIC WORKS</b> <b>YAPHANK, NEW YORK</b>						
<b>DARNELL TYSON, P.E., ACTING COMMISSIONER</b>						
<b>WOODHULL DAM FISH PASSAGE</b>						
<b>LANDSCAPING DETAILS 2</b>						
<b>SYMBOL</b>	<b>DESCRIPTION</b>	<b>APPROVED DATE</b>	<b>DATE</b>	<b>PROJECT NO.</b>	<b>SCALE</b>	<b>SHEET NO. 14 OF 15</b>
			JULY 2019	CP #7180	AS NOTED	
<b>REVISIONS</b>						

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**SINGLE LANE CLOSURE**  
**SHORT OR INTERMEDIATE TERM STATIONARY**  
**MULTI LANE HIGHWAY (UNDIVIDED)**  
 (NOT TO SCALE)

**NOTES:**

1. LEFT LANE CLOSURES ARE SYMMETRICAL TO RIGHT LANE CLOSURES. SUBSTITUTE LEFT LANE CLOSED SIGN (W20-5) AND THE CORRESPONDING LANE ENDS SIGN (W4-2L).
2. NO WORK ACTIVITY, EQUIPMENT, OR STORAGE OF VEHICLES, OR MATERIAL SHALL OCCUR WITHIN THE BUFFER SPACE AT ANY TIME.
3. CHANNELIZING DEVICE SPACING (CENTER TO CENTER) SHALL NOT EXCEED 40' IN THE ACTIVE WORK SPACE.
4. TRANSVERSE DEVICES SHALL BE REQUIRED (AS PER 619 STANDARD SPECIFICATIONS) WHEN A PAVED SHOULDER HAVING A WIDTH OF 8' OR GREATER IS CLOSED FOR A DISTANCE GREATER THAN 1500'.
5. FOR BARRIER VEHICLE USE REQUIREMENTS SEE TABLES NY1-A AND NY2-A ON THE STANDARD SHEET TITLED "WORK ZONE TRAFFIC CONTROL LEGENDS AND NOTES".
6. WHEN PAVED SHOULDERS HAVING A WIDTH OF 8' OR MORE ARE CLOSED, CHANNELIZING DEVICES SHALL BE USED TO CLOSE THE SHOULDER IN ADVANCE TO DELINEATE THE BEGINNING OF THE WORK SPACE AND TO DIRECT VEHICULAR TRAFFIC TO REMAIN IN THE TRAVELED WAY.

**LKMA** L. K. McLEAN ASSOCIATES, P.C.  
CONSULTING ENGINEERS 437 SOUTH COUNTRY RD., BROOKHAVEN, NY 11719

**COUNTY OF SUFFOLK**  
**DEPARTMENT OF PUBLIC WORKS**  
**YAPHANK, NEW YORK**  
 DARNELL TYSON, P.E., ACTING COMMISSIONER

WOODHULL DAM FISH PASSAGE

WORK ZONE TRAFFIC CONTROL

SYMBOL	DESCRIPTION	APPROVED DATE	DATE	PROJECT NO.	SCALE	SHEET NO. 15 OF 15
<b>REVISIONS</b>						
			JULY 2019	CP #7180	AS NOTED	

**NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION**

Division of Environmental Permits, Region 1  
SUNY @ Stony Brook, 50 Circle Road, Stony Brook, NY 11790  
P: (631) 444-0365 | F: (631) 444-0360  
www.dec.ny.gov

April 5, 2019



Suffolk County  
H Lee Dennison Building  
Hauppauge, NY 11788

Re: Permit No. 1-4736-06963/00006  
Facility/Program No.: DAM #253-5883

Dear Permittee:

In conformance with the requirements of the State Uniform Procedures Act (Article 70, ECL) and its implementing regulations (6NYCRR, Part 621) we are enclosing your permit for the referenced activity. Please carefully read all permit conditions and special permit conditions contained in the permit to ensure compliance during the term of the permit. If you are unable to comply with any conditions, please contact us at the above address.

Also enclosed is a permit sign which is to be conspicuously posted at the project site and protected from the weather and a Notice of Commencement/Completion of Construction. Please note, the permit sign and Notice of Commencement/Completion of Construction form are sent to either the permittee or the facility application contact, not both.

Sincerely,

John A. Wieland  
Permit Administrator

JAW/lis



Department of  
Environmental  
Conservation



**PERMIT**  
**Under the Environmental Conservation Law (ECL)**

**Permittee and Facility Information**

**Permit Issued To:**  
SUFFOLK COUNTY  
H LEE DENNISON BLDG  
HAUPPAUGE, NY 11788

**Facility:**  
DAM 720 WOODHULL'S POND  
MORICHES-RIVERHEAD RD (CO RTE 51)  
SOUTHAMPTON, NY

**Facility Application Contact:**  
LK MCLEAN ASSOCIATES PC  
437 S COUNTRY RD  
BROOKHAVEN, NY 11719  
(631) 286-8668

**Facility Location:** in SOUTHAMPTON in SUFFOLK COUNTY

**Facility Principal Reference Point:** NYTM-E: 696.443 NYTM-N: 4531.596  
Latitude: 40°54'42.8" Longitude: 72°40'02.7"

**Project Location:** Facility/Program No.: DAM #253-5883

**Authorized Activity:** Construct a fish/eel passage at Dam 720 - Woodhull's Pond. The proposal shall be in accordance with eight plan sheets prepared by L.K. McLean Associates, stamped NYSDEC approved on 04/01/2019.

**Permit Authorizations**

**Freshwater Wetlands - Under Article 24**

Permit ID 1-4736-06963/00006

New Permit Effective Date: 6/1/2019 Expiration Date: 2/29/2024

**Dam - Under Article 15, Title 5**

Permit ID 1-4736-06963/00007

New Permit Effective Date: 6/1/2019 Expiration Date: 2/29/2024

**Wild, Scenic & Recreational Rivers - Under Article 15, Title 27**

Permit ID 1-4736-06963/00008

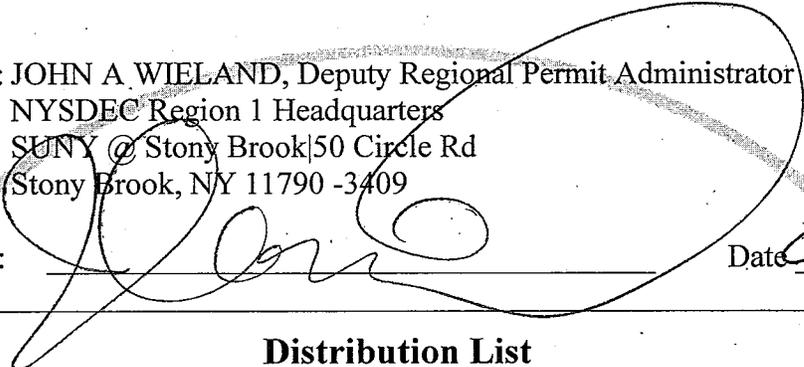
New Permit Effective Date: 6/1/2019 Expiration Date: 2/29/2024



**NYSDEC Approval**

By acceptance of this permit, the permittee agrees that the permit is contingent upon strict compliance with the ECL, all applicable regulations, and all conditions included as part of this permit.

Permit Administrator: JOHN A WIELAND, Deputy Regional Permit Administrator  
Address: NYSDEC Region 1 Headquarters  
SUNY @ Stony Brook 50 Circle Rd  
Stony Brook, NY 11790 -3409

Authorized Signature:  Date 04/08/2019

**Distribution List**

LK MCLEAN ASSOCIATES PC  
Habitat  
JOHN A WIELAND

**Permit Components**

NATURAL RESOURCE PERMIT CONDITIONS

GENERAL CONDITIONS, APPLY TO ALL AUTHORIZED PERMITS

NOTIFICATION OF OTHER PERMITTEE OBLIGATIONS

**NATURAL RESOURCE PERMIT CONDITIONS - Apply to the Following Permits: FRESHWATER WETLANDS; DAM; WILD, SCENIC & RECREATIONAL RIVERS**

- 1. Spawning Protection** To protect the spawning run of alewife AND the inland migration of American eel, all activities involving the disturbance of the bed or banks of Woodhull's Pond (a.k.a. Little River), the placement of fill in the stream, or any other activity which will increase the turbidity in the waterway are prohibited between the dates March 1 and May 31, inclusive, of any calendar year.
- 2. Work Area Limits** Any work, disturbance, and or storage of construction materials shall be confined to within the limit of clearing and ground disturbance shown on the approved plan.
- 3. Materials Disposed at Upland Site** Any demolition debris, excess construction materials, and/or excess excavated materials shall be immediately and completely disposed of on an approved upland site more than 100 feet from any regulated freshwater wetland. These materials shall be suitably stabilized so as not to re-enter any water body, wetland, or wetland adjacent area.



4. **Straw Bales** Prior to commencement of any construction activities, a continuous row of straw bales shall be staked end to end down slope of any areas of ground disturbance.
5. **Straw Bales to Be Entrenched** Straw bales shall be entrenched two to four inches into the ground.
6. **Maintain Bales** The bales shall be maintained, repaired and replaced as often as necessary to ensure proper function, until all disturbed areas are permanently vegetated. The average useful life of a bale is approximately 3-4 months. Sediments trapped by the bales shall be removed to an approved upland location before the bales themselves are removed.
7. **Clean Fill Only** All fill shall consist of clean soil, sand and/or gravel that is free of the following substances: asphalt, slag, flyash, broken concrete, demolition debris, garbage, household refuse, tires, woody materials including tree or landscape debris, and metal objects. The introduction of materials toxic to aquatic life is expressly prohibited.
8. **Equipment Storage 100' from Wetland, Water Body** All equipment and machinery shall be stored and safely contained greater than 100 feet landward of the regulated wetland or water body at the end of each work day. This will serve to avoid the inadvertent leakage of deleterious substances into the regulated area.
9. **Seed, Mulch Disturbed Areas** All areas of soil disturbance resulting from this project shall be seeded with an appropriate perennial grass, and mulched with straw immediately upon completion of the project, within two days of final grading, or by the expiration of the permit, whichever is first.
10. **Temporary Mulch, Final Seeding** If seeding is impracticable due to the time of year, a temporary mulch shall be applied and final seeding shall be performed at the earliest opportunity when weather conditions favor germination and growth but not more than six months after project completion.
11. **Minimum % Vegetative Cover** Suitable vegetative cover is defined as a minimum of 85 % area vegetative cover with contiguous unvegetated areas no larger than 1 square foot in size.
12. **Notice of Commencement** At least 48 hours prior to commencement of the project, the permittee and contractor shall sign and return the top portion of the enclosed notification form certifying that they are fully aware of and understand all terms and conditions of this permit. Within 30 days of completion of project, the bottom portion of the form must also be signed and returned, along with photographs of the completed work.
13. **Post Permit Sign** The permit sign enclosed with this permit shall be posted in a conspicuous location on the worksite and adequately protected from the weather.
14. **In Water Turbidity Control Required** A turbidity curtain weighted across the bottom and suspended above the water surface must be positioned from shore to shore, along the Limit of Clearing and Ground Disturbance as shown on the approved plans. No turbidity is permitted beyond the turbidity curtain.
15. **Wetland Creation Required** All that area (820 square feet) shown on the approved plans for the creation of additional wetlands must be contoured and planted as shown and noted on the approved plans. Wetland creation must be completed within one year of the submission of the Notice of Commencement.



**16. Planting Required** Areas A, B, C, D, E & F, as shown on the approved Landscape Development Plan must be planted as shown and noted on the Landscape Development Plan and on the Landscaping Details 1 & 2 plans. No Cultivars! Planting must be completed within one year of the submission of the Notice of Commencement.

**17. 2 Year Plant Survival** All plantings shown on the drawings made a part of this permit must survive for a minimum of two growing seasons. If mortality exceeds ten percent, or bare areas occur, dead plants must be replaced.

**18. Approved Construction Documents** All work shall be accomplished in strict conformance with the approved construction documents, as follows:

1. Drawing set titled, "County of Suffolk, Department of Public Works, Permit Plans for the Construction of a Fish Passage at Woodhull's Dam", dated August 2018, revised January 2019, received January 28, 2019, prepared by L.K. McLean Associates, P.C., signed and stamped by Raymond G. Dibiase, NY P.E.# 056985, sheet numbers 1-8.

2. Technical Specifications included in the design report.

**19. Dam Safety Section Contact Information** When used in this permit, the contact information for the Dam Safety Section is:

Dam Safety Section  
NYSDEC Headquarters  
625 Broadway  
Albany, NY 12233

**20. Substantial Deviations** Any substantial deviation from the approved construction documents must be approved in writing by the Dam Safety Section prior to implementation. All deviations from the approved plans shall be indicated in the "as-built" records.

**21. Construction Engineer** Within two weeks of the date of permit issuance, the permittee shall notify the Dam Safety Section, by certified mail (return receipt requested), of the name, address, telephone number and license number of the registered professional engineer responsible for oversight of the dam construction work (construction engineer) and for submission of the construction certification and "as-built" records required under this permit.

**22. Start of Construction** The permittee shall notify the Department's Dam Safety section of the proposed date of the preconstruction meeting. The permittee shall notify the Department's Dam Safety section of the proposed date for start of construction within 1 week after issuing the Notice to Proceed to the selected construction contractor.

**23. Construction Reports** Construction reports shall be submitted to the Dam Safety Section on a monthly basis and shall, at a minimum, consist of: a summary of major work completed, a summary of observations made by the on-site representative, a summary of observations made by the construction engineer during his/her site inspections; construction photos; and copies of all tab and field test results.



**24. Substantial Completion** At least two weeks before the anticipated date, the permittee shall cause the construction engineer to notify the Dam Safety Section in writing by certified mail (return receipt requested) that the work will be substantially complete and fit to impound water so that an inspection of the dam can be scheduled. The Department may waive the inspection in writing and/or issue an Approval to Fill letter after receiving this notification.

**25. Completion of Work** Within two weeks after the completion of the permitted work, the permittee shall provide the Dam Safety Section by certified mail (return receipt requested) an original signed and sealed statement from the construction engineer that the project has been completely constructed under his/her care and supervision and in accordance with the construction documents approved by the Department ("certification"), with a copy to the Regional Permit Administrator.

**26. As-Built Records** Within four weeks after completion of the permitted work, the permittee shall provide to the Dam Safety Section, one complete set of "as-built" records. "As-built" records shall include at a minimum:

photos of major work items, record drawings showing all deviations from the approved plans, concrete properties and construction history. The "as-built" record drawings shall be signed and sealed by the construction engineer and shall include identification of all changes to the approved construction documents.

The "as-built" records shall be signed and sealed by the construction engineer and shall include identification of all changes to the approved construction documents.

**27. State Not Liable for Damage** The State of New York shall in no case be liable for any damage or injury to the structure or work herein authorized which may be caused by or result from future operations undertaken by the State for the conservation or improvement of navigation, or for other purposes, and no claim or right to compensation shall accrue from any such damage.

**28. State May Order Removal or Alteration of Work** If future operations by the State of New York require an alteration in the position of the structure or work herein authorized, or if, in the opinion of the Department of Environmental Conservation it shall cause unreasonable obstruction to the free navigation of said waters or flood flows or endanger the health, safety or welfare of the people of the State, or cause loss or destruction of the natural resources of the State, the owner may be ordered by the Department to remove or alter the structural work, obstructions, or hazards caused thereby without expense to the State, and if, upon the expiration or revocation of this permit, the structure, fill, excavation, or other modification of the watercourse hereby authorized shall not be completed, the owners, shall, without expense to the State, and to such extent and in such time and manner as the Department of Environmental Conservation may require, remove all or any portion of the uncompleted structure or fill and restore to its former condition the navigable and flood capacity of the watercourse. No claim shall be made against the State of New York on account of any such removal or alteration.



**29. State May Require Site Restoration** If upon the expiration or revocation of this permit, the project hereby authorized has not been completed, the applicant shall, without expense to the State, and to such extent and in such time and manner as the Department of Environmental Conservation may lawfully require, remove all or any portion of the uncompleted structure or fill and restore the site to its former condition. No claim shall be made against the State of New York on account of any such removal or alteration.

**30. Conformance With Plans** All activities authorized by this permit must be in strict conformance with the approved plans submitted by the applicant or applicant's agent as part of the permit application. Such approved plans were prepared by L.K. McLean Associates, stamped NYSDEC approved on 04/01/2019.

**31. Precautions Against Contamination of Waters** All necessary precautions shall be taken to preclude contamination of any wetland or waterway by suspended solids, sediments, fuels, solvents, lubricants, epoxy coatings, paints, concrete, leachate or any other environmentally deleterious materials associated with the project.

**GENERAL CONDITIONS - Apply to ALL Authorized Permits:**

**1. Facility Inspection by The Department** The permitted site or facility, including relevant records, is subject to inspection at reasonable hours and intervals by an authorized representative of the Department of Environmental Conservation (the Department) to determine whether the permittee is complying with this permit and the ECL. Such representative may order the work suspended pursuant to ECL 71- 0301 and SAPA 401(3).

The permittee shall provide a person to accompany the Department's representative during an inspection to the permit area when requested by the Department.

A copy of this permit, including all referenced maps, drawings and special conditions, must be available for inspection by the Department at all times at the project site or facility. Failure to produce a copy of the permit upon request by a Department representative is a violation of this permit.

**2. Relationship of this Permit to Other Department Orders and Determinations** Unless expressly provided for by the Department, issuance of this permit does not modify, supersede or rescind any order or determination previously issued by the Department or any of the terms, conditions or requirements contained in such order or determination.



**3. Applications For Permit Renewals, Modifications or Transfers** The permittee must submit a separate written application to the Department for permit renewal, modification or transfer of this permit. Such application must include any forms or supplemental information the Department requires. Any renewal, modification or transfer granted by the Department must be in writing. Submission of applications for permit renewal, modification or transfer are to be submitted to:

Regional Permit Administrator  
NYSDEC Region 1 Headquarters  
SUNY @ Stony Brook|50 Circle Rd  
Stony Brook, NY11790 -3409

**4. Submission of Renewal Application** The permittee must submit a renewal application at least 30 days before permit expiration for the following permit authorizations: Dam, Freshwater Wetlands, Wild, Scenic & Recreational Rivers.

**5. Permit Modifications, Suspensions and Revocations by the Department** The Department reserves the right to exercise all available authority to modify, suspend or revoke this permit. The grounds for modification, suspension or revocation include:

- a. materially false or inaccurate statements in the permit application or supporting papers;
- b. failure by the permittee to comply with any terms or conditions of the permit;
- c. exceeding the scope of the project as described in the permit application;
- d. newly discovered material information or a material change in environmental conditions, relevant technology or applicable law or regulations since the issuance of the existing permit;
- e. noncompliance with previously issued permit conditions, orders of the commissioner, any provisions of the Environmental Conservation Law or regulations of the Department related to the permitted activity.

**6. Permit Transfer** Permits are transferrable unless specifically prohibited by statute, regulation or another permit condition. Applications for permit transfer should be submitted prior to actual transfer of ownership.



## NOTIFICATION OF OTHER PERMITTEE OBLIGATIONS

### **Item A: Permittee Accepts Legal Responsibility and Agrees to Indemnification**

The permittee, excepting state or federal agencies, expressly agrees to indemnify and hold harmless the Department of Environmental Conservation of the State of New York, its representatives, employees, and agents ("DEC") for all claims, suits, actions, and damages, to the extent attributable to the permittee's acts or omissions in connection with the permittee's undertaking of activities in connection with, or operation and maintenance of, the facility or facilities authorized by the permit whether in compliance or not in compliance with the terms and conditions of the permit. This indemnification does not extend to any claims, suits, actions, or damages to the extent attributable to DEC's own negligent or intentional acts or omissions, or to any claims, suits, or actions naming the DEC and arising under Article 78 of the New York Civil Practice Laws and Rules or any citizen suit or civil rights provision under federal or state laws.

### **Item B: Permittee's Contractors to Comply with Permit**

The permittee is responsible for informing its independent contractors, employees, agents and assigns of their responsibility to comply with this permit, including all special conditions while acting as the permittee's agent with respect to the permitted activities, and such persons shall be subject to the same sanctions for violations of the Environmental Conservation Law as those prescribed for the permittee.

### **Item C: Permittee Responsible for Obtaining Other Required Permits**

The permittee is responsible for obtaining any other permits, approvals, lands, easements and rights-of-way that may be required to carry out the activities that are authorized by this permit.

### **Item D: No Right to Trespass or Interfere with Riparian Rights**

This permit does not convey to the permittee any right to trespass upon the lands or interfere with the riparian rights of others in order to perform the permitted work nor does it authorize the impairment of any rights, title, or interest in real or personal property held or vested in a person not a party to the permit.



DEPARTMENT OF THE ARMY  
U.S. ARMY CORPS OF ENGINEERS, NEW YORK DISTRICT  
JACOB K. JAVITS FEDERAL BUILDING  
26 FEDERAL PLAZA  
NEW YORK NY 10278-0090

JAN 09 2017

REGULATORY BRANCH

SUBJECT: Permit Application File Number NAN-2016-01058-ESW by the County of Suffolk for Aquatic Ecosystem Enhancement at Woodhull's Dam in Little River in the Village of Riverhead, Town of Southampton, Suffolk County, New York

1. PERMITTEE:

County of Suffolk  
Attn: Kyle Swaringen  
335 Yaphank Avenue  
Yaphank, New York 11980  
(631) 852-4078

RECEIVED

JAN 18 2017

U.S. ARMY CORPS OF ENGINEERS  
CHIEF ENGINEER OFFICE  
NEW YORK DISTRICT

2. On July 18, 2016, the New York District of the U.S. Army Corps of Engineers received a request for Department of the Army authorization to construct a fish and eel passage in Woodhull's Dam in Little River off of the Peconic River. The regulated work consists of discharge of approximately 10 cubic yards of riprap in a footprint of 207 square feet in conjunction with the installation of a three-foot-wide by three-foot-long concrete entrance structure supported on timber piles in the Lower Pond. Approximately 47 linear feet of sheeting will be installed on both sides of the weirs. Nine (9) pools will be constructed along the sheeting between eight (8) 1.5-inch-thick and 4.5-foot-tall weirs elevated eight-and-a-half-inches higher than the previous. An aluminum grate will be installed on top of the vinyl sheeting. At the end of the weir will be a cofferdam that will lead to a 25 linear foot, 24-inch diameter reinforced concrete pipe that will lead to a second cofferdam at the three-foot-wide by three-foot-long concrete exit structure associated with the discharge of approximately 15 cubic yards of riprap in a footprint of 222 square feet. A separate 18-inch wide aluminum box equipped with a submersible pump will be installed directly south of the sheeting as an eel passage ramp. The project is located in the Village of Riverhead, Town of Southampton, Suffolk County, New York.

3. The specific applicant-provided details are as shown on the attached dated permit drawings.

4. This determination covers only the work described in the submitted material. Any major changes in the project may require additional authorizations from the New York District of the U.S. Army Corps of Engineers.

5. Based on the information submitted to this office and accomplishment of any required notification in accordance with the applicable federal requirements, our review of the subject work indicates that an individual Department of the Army permit is not required. It appears that the activities within the jurisdiction of this office could be accomplished under Department of the Army Nationwide General Permit Number 27, AQUATIC HABITAT RESTORATION, ESTABLISHMENT, AND ENHANCEMENT ACTIVITIES, in accordance with Section 404 of the Clean Water Act (33 USC 1344, as amended). The nationwide permits are prescribed at Reissuance of Nationwide Permits in the Federal Register dated February 21, 2012 (77 FR 10184). The subject work may be performed without further

SUBJECT: Permit Application File Number NAN-2016-01058-ESW by the County of Suffolk for Aquatic Ecosystem Enhancement at Woodhull's Dam in Little River in the Village of Riverhead, Town of Southampton, Suffolk County, New York

- 2 -

authorization from this office provided it complies with Number 27, AQUATIC HABITAT RESTORATION, ESTABLISHMENT, AND ENHANCEMENT ACTIVITIES, New York District regional conditions; the following work-specific Special Conditions listed below; and any applicable regional conditions added by the State of New York.

6. Other than the work-specific Special Conditions listed below, the 2012 nationwide general permits in the State of New York, including their final regional conditions, water quality certifications, and coastal zone concurrence statements are available at: [http://www.nan.usace.army.mil/Portals/37/docs/regulatory/geninfo/natp/NWP\\_PN\\_30M\\_AY12.pdf](http://www.nan.usace.army.mil/Portals/37/docs/regulatory/geninfo/natp/NWP_PN_30M_AY12.pdf)

If you require a specific paper copy, please contact our Regulator-of-the-Day at 917-790-8511 to request one be mailed to you. Please be sure to have the above eighteen-character file number readily available when you call.

7. Work-specific Special Conditions:

(A) The permittee understands and agrees that, if future operations by the United States require the removal, relocation, or other alteration, of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army or his authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, the permittee will be required, upon due notice from the Corps of Engineers, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the United States. No claim shall be made against the United States on account of any such removal or alteration.

(B) The permittee shall contact the appropriate state and local government officials to ensure that the subject work is performed in compliance with their requirements.

(C) The permittee shall sign and submit the attached compliance certification form to this office **within 30 days of COMPLETION** of the regulated activity authorized by this permit and any mitigation work required by Special Condition.

(D) The permittee, and their agents, shall take actions to prevent construction materials, including debris, from entering any waterway to become drift or pollution hazards.

8. Please note that this nationwide general permit (NWGP) verification is based on a preliminary jurisdictional determination (JD). A preliminary jurisdictional determination (JD) is not appealable. If you wish, prior to commencement of the authorized work you may request an approved jurisdictional determination (JD), which may be appealed, by contacting the New York District, US Army Corps of Engineers for further instructions. To

JAN 09 2017

SUBJECT: Permit Application File Number NAN-2016-01058-ESW by the County of Suffolk for Aquatic Ecosystem Enhancement at Woodhull's Dam in Little River in the Village of Riverhead, Town of Southampton, Suffolk County, New York

- 3 -

assist you in this decision and address any questions you may have on the differences between preliminary and approved jurisdictional determinations, please review US Army Corps of Engineers Regulatory Guidance Letter Number 08-02, which can be found at:

<http://www.usace.army.mil/Portals/2/docs/civilworks/RGLS/rgl08-02.pdf>

9. This verification is valid until March 18, 2017, unless the nationwide general permits are modified, reissued, or revoked before then. This verification will remain valid until March 18, 2017, if the subject work activity complies with the terms of any subsequent modifications of the nationwide general permits. If the nationwide general permits are suspended, revoked, or modified in such a way that the subject activity would no longer comply with the terms and conditions of a nationwide general permit, and the proposed work activity has commenced, or is under contract to commence, the permittee will have twelve (12) months from the date of such permit action to complete the regulated work.

**This authorization is conditional on the applicant's receipt of the required water quality certificate or waiver from the New York State Department of Environmental Conservation (NYSDEC). No work may be accomplished until the required approval from NYSDEC has been obtained.**

10. In order for us to better serve you and others, please complete our Customer Service Survey located at:

<http://www.nan.usace.army.mil/Missions/Regulatory/CustomerSurvey.aspx>

11. Any inquiries should be directed to our Regulator-of-the-Day at 917-790-8511. Please be sure to have the above eighteen-character file number readily available when you call.



Ronald R. Pinzon  
Chief, Eastern Section

Enclosures (2)

1. Dated Permit Drawings
2. Completion Form

Copies furnished:

L.K. McLean Associates  
Attn: Robert Steele  
437 South Country Road  
Brookhaven, New York 11719

**Appendix 2 - PRELIMINARY JURISDICTIONAL DETERMINATION (PJD) FORM**

**BACKGROUND INFORMATION**

**A. REPORT COMPLETION DATE FOR PJD:** September 19, 2016

**B. NAME AND ADDRESS OF PERSON REQUESTING PJD:** County of Suffolk Attn: Kyle Swaringen 335 Yaphank Avenue Yaphank, New York 11980

**C. DISTRICT OFFICE, FILE NAME, AND NUMBER:** NYD, Suffolk County, NAN-2016-01058-ESW

**D. PROJECT LOCATION(S) AND BACKGROUND INFORMATION:**

**(USE THE TABLE BELOW TO DOCUMENT MULTIPLE AQUATIC RESOURCES AND/OR AQUATIC RESOURCES AT DIFFERENT SITES)**

State: New York County/parish/borough: Suffolk City: Riverhead

Center coordinates of site (lat/long in degree decimal format):

Lat.: 40.911 Long.: -72.667

Universal Transverse Mercator:

Name of nearest waterbody: Little River

**E. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):**

Office (Desk) Determination. Date: September 19, 2016

Field Determination. Date(s):

**TABLE OF AQUATIC RESOURCES IN REVIEW AREA WHICH "MAY BE" SUBJECT TO REGULATORY JURISDICTION.**

Site number	Latitude (decimal degrees)	Longitude (decimal degrees)	Estimated amount of aquatic resource in review area (acreage and linear feet, if applicable)	Type of aquatic resource (i.e., wetland vs. non-wetland waters)	Geographic authority to which the aquatic resource "may be" subject (i.e., Section 404 or Section 10/404)
1	40.911	-72.667	0.085	Waters	10/404

- 1) The Corps of Engineers believes that there may be jurisdictional aquatic resources in the review area, and the requestor of this PJD is hereby advised of his or her option to request and obtain an approved JD (AJD) for that review area based on an informed decision after having discussed the various types of JDs and their characteristics and circumstances when they may be appropriate.
- 2) In any circumstance where a permit applicant obtains an individual permit, or a Nationwide General Permit (NWP) or other general permit verification requiring "pre-construction notification" (PCN), or requests verification for a non-reporting NWP or other general permit, and the permit applicant has not requested an AJD for the activity, the permit applicant is hereby made aware that: (1) the permit applicant has elected to seek a permit authorization based on a PJD, which does not make an official determination of jurisdictional aquatic resources; (2) the applicant has the option to request an AJD before accepting the terms and conditions of the permit authorization, and that basing a permit authorization on an AJD could possibly result in less compensatory mitigation being required or different special conditions; (3) the applicant has the right to request an individual permit rather than accepting the terms and conditions of the NWP or other general permit authorization; (4) the applicant can accept a permit authorization and thereby agree to comply with all the terms and conditions of that permit, including whatever mitigation requirements the Corps has determined to be necessary; (5) undertaking any activity in reliance upon the subject permit authorization without requesting an AJD constitutes the applicant's acceptance of the use of the PJD; (6) accepting a permit authorization (e.g., signing a proffered individual permit) or undertaking any activity in reliance on any form of Corps permit authorization based on a PJD constitutes agreement that all aquatic resources in the review area affected in any way by that activity will be treated as jurisdictional, and waives any challenge to such jurisdiction in any administrative or judicial compliance or enforcement action, or in any administrative appeal or in any Federal court; and (7) whether the applicant elects to use either an AJD or a PJD, the JD will be processed as soon as practicable. Further, an AJD, a proffered individual permit (and all terms and conditions contained therein), or individual permit denial can be administratively appealed pursuant to 33 C.F.R. Part 331. If, during an administrative appeal, it becomes appropriate to make an official determination whether geographic jurisdiction exists over aquatic resources in the review area, or to provide an official delineation of jurisdictional aquatic resources in the review area, the Corps will provide an AJD to accomplish that result, as soon as is practicable. This PJD finds that there "may be" waters of the U.S. and/or that there "may be" navigable waters of the U.S. on the subject review area, and identifies all aquatic features in the review area that could be affected by the proposed activity, based on the following information:

**SUPPORTING DATA. Data reviewed for PJD (check all that apply)**

Checked items should be included in subject file. Appropriately reference sources below where indicated for all checked items:

- Maps, plans, plots or plat submitted by or on behalf of the PJD requestor:  
Map: L.K. McLean Associates c/o Robert Steele Date of drawings: July 2016
- Data sheets prepared/submitted by or on behalf of the PJD requestor.
  - Office concurs with data sheets/delineation report.
  - Office does not concur with data sheets/delineation report. Rationale: \_\_\_\_\_
- Data sheets prepared by the Corps: \_\_\_\_\_
- Corps navigable waters' study: \_\_\_\_\_
- U.S. Geological Survey Hydrologic Atlas: \_\_\_\_\_
  - USGS NHD data.
  - USGS 8 and 12 digit HUC maps.
- U.S. Geological Survey map(s). Cite scale & quad name: \_\_\_\_\_
- Natural Resources Conservation Service Soil Survey. Citation: \_\_\_\_\_
- National wetlands inventory map(s). Cite name: \_\_\_\_\_
- State/local wetland inventory map(s): \_\_\_\_\_
- FEMA/FIRM maps: \_\_\_\_\_
- 100-year Floodplain Elevation is: \_\_\_\_\_.(National Geodetic Vertical Datum of 1929)
- Photographs:  Aerial (Name & Date): \_\_\_\_\_  
or  Other (Name & Date): Existing Structures, July 2016
- Previous determination(s). File no. and date of response letter: \_\_\_\_\_
- Other information (please specify): Environmental Questionnaire, FCAF

**IMPORTANT NOTE: The information recorded on this form has not necessarily been verified by the Corps and should not be relied upon for later jurisdictional determinations.**

SWITZER.AMANDA.MICH  
ELLE.1384973287

Digitally signed by SWITZER.AMANDA.MICH.ELLE.1384973287  
DN: cn=SWITZER.AMANDA.MICH.ELLE.1384973287, ou=US  
Date: 2016.12.01 11:12:03 -0500

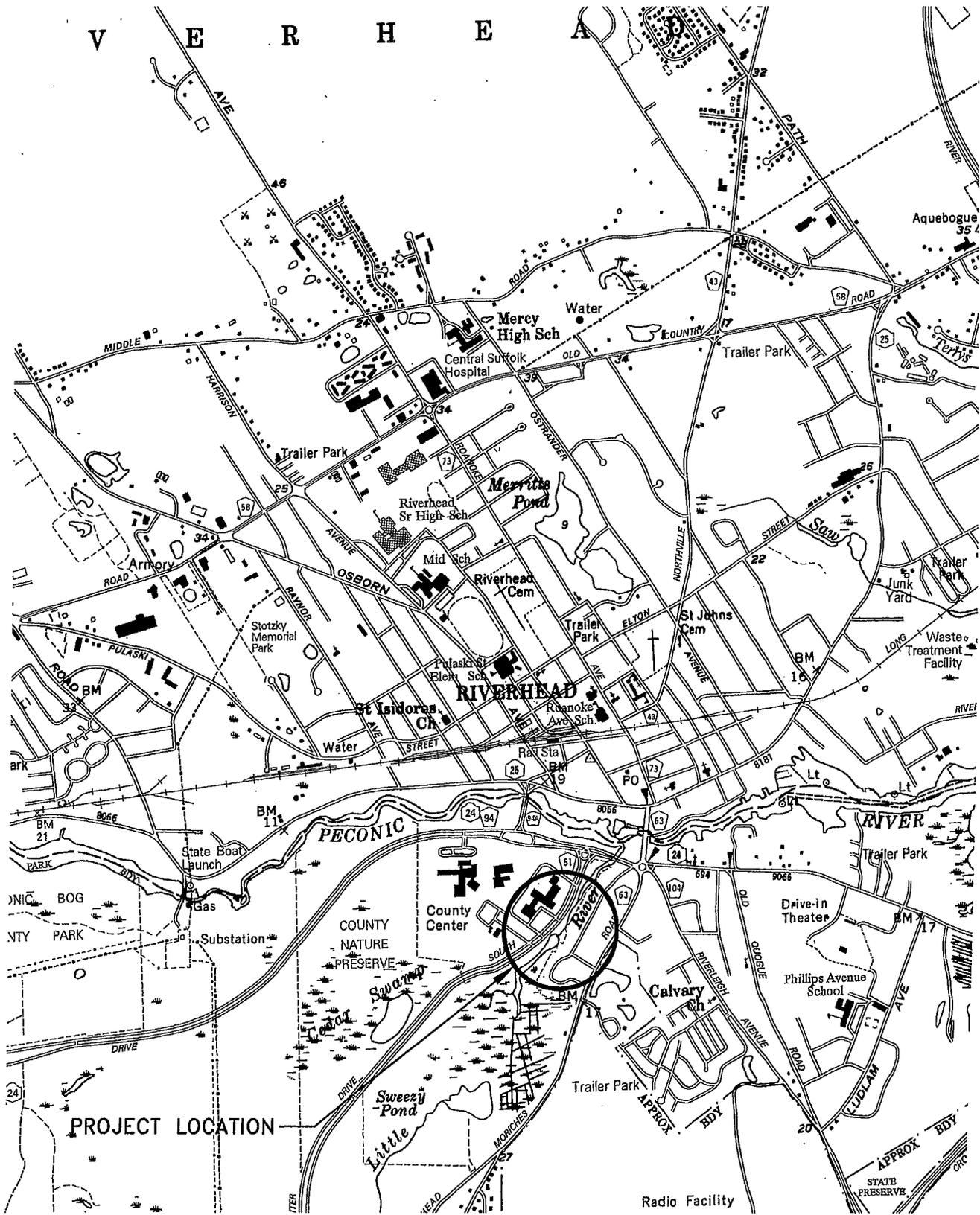
Signature and date of  
Regulatory staff member  
completing PJD

Signature and date of  
person requesting PJD  
(REQUIRED, unless obtaining  
the signature is impracticable)<sup>1</sup>

<sup>1</sup> Districts may establish timeframes for requestor to return signed PJD forms. If the requestor does not respond within the established time frame, the district may presume concurrence and no additional follow up is necessary prior to finalizing an action.

V E R H E A

GRID NORTH



# WOODHULL'S DAM VICINITY MAP

SUFFOLK COUNTY DPW  
RIVERHEAD, NEW YORK

0 2,000

1" = 2,000'

JAN 09 2017

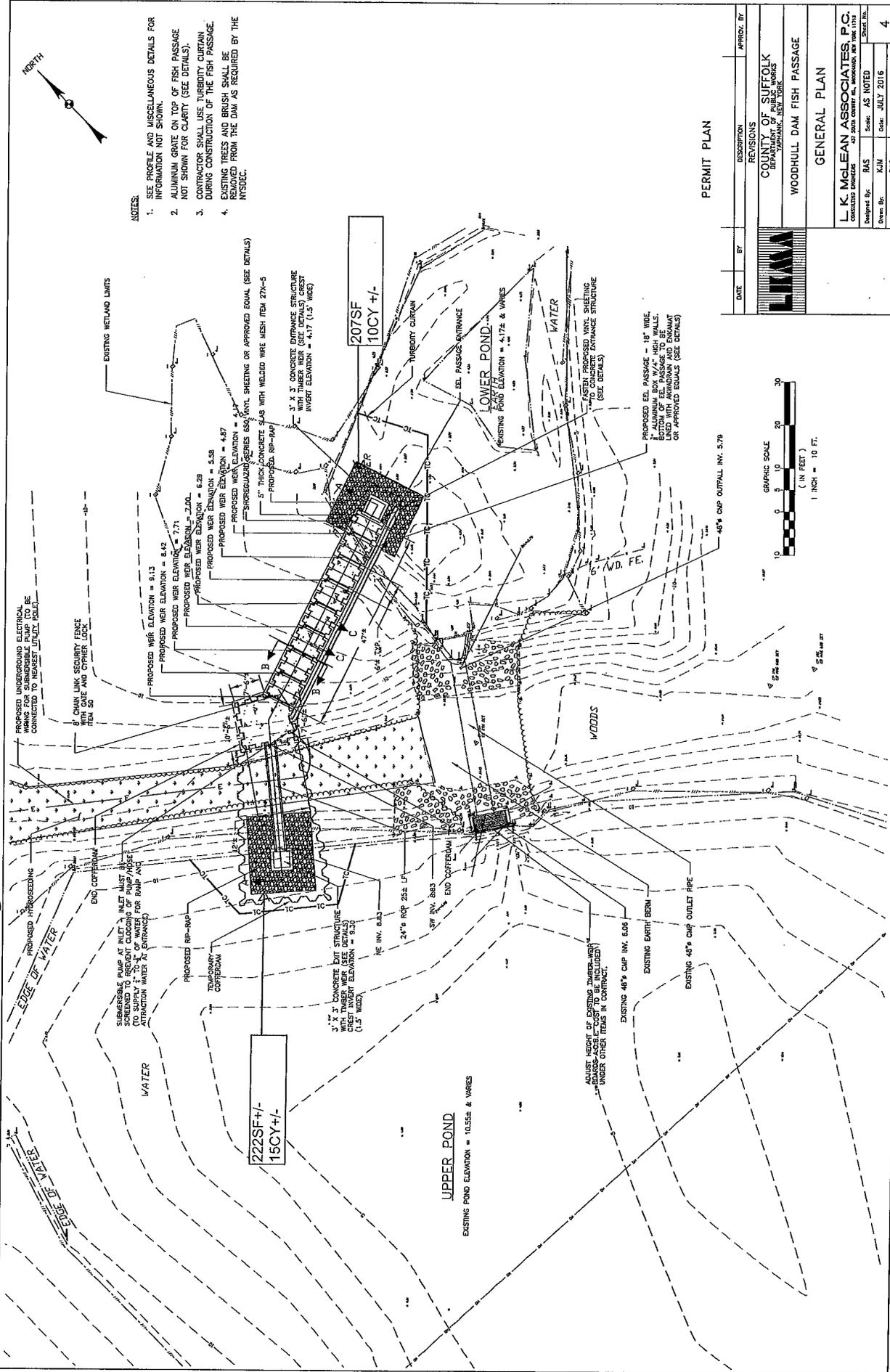
JULY 2016  
11084.000



L. K. McLEAN ASSOCIATES, P.C.

Jul 07, 2016 - 12:56pm  
©\Work\Working Folders\15084.000\Design Files\Contract Drawings\15084.000\_DFW\_DFW\_Vicinity Map\_0.dwg

OSACE FILE: NAN-2010-01058-ESW



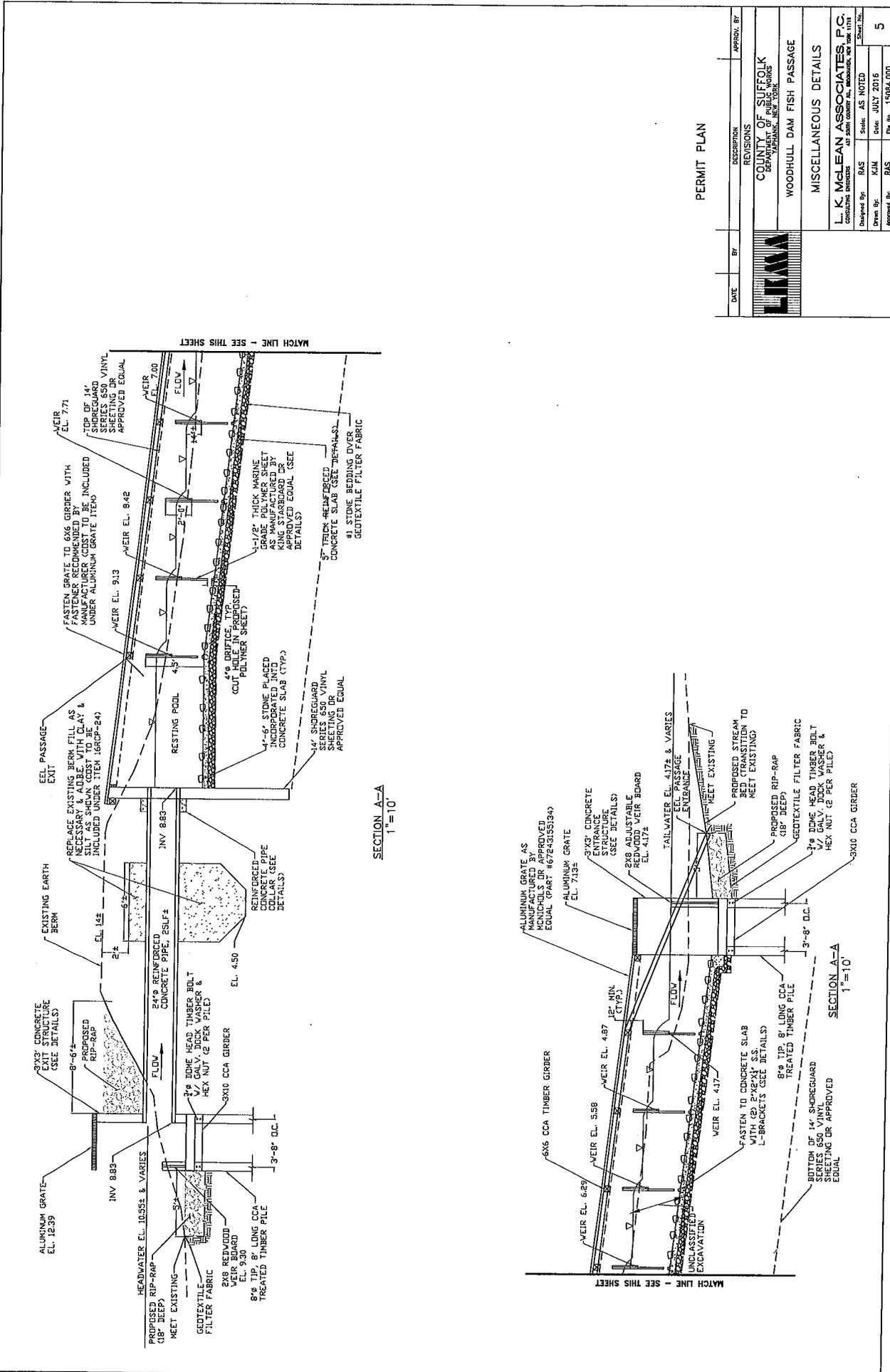
- NOTES:
1. SEE PROFILE AND MISCELLANEOUS DETAILS FOR INFORMATION NOT SHOWN.
  2. ALUMINUM GRATE ON TOP OF FISH PASSAGE NOT SHOWN FOR CLARITY (SEE DETAILS).
  3. CONTRACTOR SHALL USE TURBIDITY CURTAIN DURING CONSTRUCTION OF THE FISH PASSAGE.
  4. EXISTING TREES AND BRUSH SHALL BE REMOVED FROM THE DAM AS REQUIRED BY THE NYSDC.

PERMIT PLAN

DATE	BY	DESCRIPTION	APPROV. BY
<p>REVISIONS</p> <p>COUNTY OF SUFFOLK DEPARTMENT OF PUBLIC WORKS YAPHANK, NEW YORK</p> <p>WOODHULL DAM FISH PASSAGE</p>			
<p>GENERAL PLAN</p>			
<p>L. K. McLEAN ASSOCIATES, P.C. CONSULTING ENGINEERS 40 SOUTH COUNTY ST., WESTBOROUGH, MA 01581</p>			
Designed By:	RAS	Scale:	AS NOTED
Drawn By:	KJM	Date:	JULY 2016
Approved By:	RAS	File No.:	15084-000
			Sheet No.:
			4



USACE FILE: NAN-2010-01058-ESW



SECTION A-A  
1"=10'

SECTION A-A'  
1"=10'

PERMIT PLAN

DATE	BY	DESCRIPTION	APPROV. BY
		REVISIONS	
COUNTY OF SUFFOLK DEPARTMENT OF PUBLIC WORKS PARKING, NEW YORK			
WOODHULL DAM FISH PASSAGE			
MISCELLANEOUS DETAILS			
L. K. McLEAN ASSOCIATES, P.C. <small>CONSULTING ENGINEERS 417 SOUTH COUNTY RD., ROCKY HILL, CT 06111</small>			
Drawn By:	RAS	Scale:	AS NOTED
Check By:	KJM	Date:	JULY 2015
Approved By:	RAS	Sheet No.:	5
		File No.:	15084.000

PAGE 3 OF 3

JAN 09 2017

Dec 13, 2016 - 08:31am C:\v\work\working folder\15084\000\Design Files\Contract Drawings\15084\000\_DFP\_Misc\_Details\_0.dwg

**NATIONWIDE GENERAL PERMIT**  
**COMPLIANCE CERTIFICATION**  
**AND REPORT FORM**

Permit File Number: NAN-2016-01058-ESW

Permittee: County of Suffolk

Location: Woodhull's Dam in Little River, Village of Riverhead, Town of Southampton, Suffolk County, New York

Date Permit Letter Issued: JAN 09 2017

Within 30 days of the completion of the activity authorized by this nationwide general permit and any mitigation required in the verification letter, please sign this certification and return it to the address at the bottom of this form.

Please note that your permitted activity is subject to a compliance inspection by a U.S. Army Corps of Engineers representative. If you fail to comply with the permit's terms and conditions you are subject to permit suspension, modification or revocation.

I hereby certify that the work authorized by the above referenced nationwide general permit has been completed in accordance with the terms and conditions of said permit, and required mitigation was completed in accordance with the permit conditions.

\_\_\_\_\_  
Signature of Permittee

\_\_\_\_\_  
Date

FOLD THIS FORM INTO THIRDS, WITH THE BOTTOM THIRD FACING OUTWARD.  
TAPE IT TOGETHER AND MAIL TO THE ADDRESS BELOW OR FAX (212) 264-4260.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

PLACE  
STAMP  
HERE

DEPARTMENT OF THE ARMY  
NEW YORK DISTRICT CORPS OF ENGINEERS  
JACOB K. JAVITS FEDERAL BUILDING  
ATTN: CENAN-OP-RE  
NEW YORK, NEW YORK 10278-0090

STATE OF NEW YORK  
**DEPARTMENT OF STATE**

ONE COMMERCE PLAZA  
99 WASHINGTON AVENUE  
ALBANY, NY 12231-0001  
WWW.DOS.NY.GOV

ANDREW M. CUOMO  
GOVERNOR

ROSSANA ROSADO  
SECRETARY OF STATE

OCT 17 2016

October 12, 2016

Robert A. Steele P.E.  
L.K. McLean Associates, P.C.  
437 South Country Road  
Brookhaven, New York 11719

RE: F-2016-0643  
U.S. Army Corps of Engineers/New York District  
Permit Application  
Suffolk County DPW (Fish and Eel Passage)  
Construction of a Fish and Eel Passage at Woodhull's  
Dam.  
Little River, Town of Southampton, Suffolk County  
**General Concurrence**

Dear Mr. Steele:

The Department of State received your Federal Consistency Assessment Form and consistency certification and supporting information for this proposal on July 18, 2016.

The Department of State has determined that this proposal meets the Department's general consistency concurrence criteria. Therefore, further review of the proposed activity by the Department of State, and the Department's concurrence with an individual consistency certification for the proposed activity, are not required.

This General Concurrence is without prejudice to and does not obviate the need to obtain all other applicable licenses, permits, other forms of authorization or approval that may be required pursuant to existing State statutes. Specifically, it appears that you may require authorization from the New York State Department of Environmental Conservation (DEC). Please contact the DEC region 1 office to determine if their authorization is required.

When communicating with us regarding this matter, please contact us at (518) 474-6000 and refer to our file #F-2016-0643.

Sincerely,



Jeffrey Zappieri  
Supervisor, Consistency Review Unit  
Office of Planning and Development

JZ/WF/dc

cc: COE/New York District – Steve Ryba  
DEC/Region 1 – Roger Evans (#1-4736-06963/00006)



**Department  
of State**

**RESOLUTION NO. 959-2017, MAKING A SEQRA DETERMINATION IN CONNECTION WITH THE PROPOSED WOODHULL'S DAM FISH AND EEL PASSAGE, TOWN OF RIVERHEAD**

**WHEREAS**, the Suffolk County Council on Environmental Quality (CEQ) reviewed a project designated as the "Proposed Woodhull's Dam Fish and Eel Passage, Town of Riverhead", pursuant to Local Law No. 22-1985, which project involves the construction of a fish passage and an eel passage at Woodhull's Dam located on the Little River which is a tributary to the Peconic River in Riverhead, NY; and

**WHEREAS**, the project is proposed to restore and improve the ecosystem and fisheries of the Peconic River (located downstream of Woodhull's Dam) and Cranberry Bog County Park and Wildwood Lake (located upstream of Woodhull's Dam); and

**WHEREAS**, the proposed project will also be designed and constructed to insure that the fish and eel passage will not alter the volume of flow through the Dam or the upstream or downstream water levels; and

**WHEREAS**, an Environmental Assessment Form (EAF) was prepared and submitted to the CEQ office by the Suffolk County Department of Public Works and a presentation was made by representatives of the Department of Parks, Recreation and Conservation, the Department of Public Works and McClean Engineering; the EAF was sent out to all concerned parties; and

**WHEREAS**, at its October 18, 2017 meeting, the CEQ reviewed the EAF and the information submitted by the Suffolk County Department of Public Works; and

**WHEREAS**, the CEQ recommended that the above activity be considered an Unlisted Action, pursuant to the provisions of Title 6 NYCRR, Part 617 and Chapter 450 of the Suffolk County Code; and

**WHEREAS**, the CEQ has advised the County Legislature and the County Executive by memo dated October 23, 2017 of said recommendations; and

**WHEREAS**, Section 450-5(H) of the SUFFOLK COUNTY CODE requires the Presiding Officer to introduce legislation for an appropriate SEQRA determination; and

**WHEREAS**, the Suffolk County Legislature has reviewed the EAF and the CEQ recommendations; now, therefore be it

**1st RESOLVED**, that this Legislature hereby determines that the Proposed Woodhull's Dam Fish and Eel Passage, Town of Riverhead constitutes an Unlisted Action, pursuant to the provisions of Title 6 NYCRR, Part 617 and Chapter 450 of the Suffolk County Code that the proposed project will not have significant adverse impacts on the environment for the following reasons:

1. the proposed action will not exceed any of the criteria in Section 617.7 of Title 6 NYCRR, which sets forth thresholds for determining significant adverse impacts on the environment, as demonstrated in the Environmental Assessment Form;
2. the proposal does not significantly threaten any unique or highly valuable environmental or cultural resources as identified in or regulated by the Environmental Conservation Law of the State of New York or the Suffolk County Charter and the Suffolk County Code; and
3. to mitigate for the wetlands that will be disturbed as part of the proposed project, the project includes the creation of additional wetland area which will be located in close proximity to Woodhull Dam and done in accordance with New York State Department of Environmental Conservation requirements;
4. to minimize turbidity impacts to the surrounding waterways a turbidity curtain will be employed during construction activities;
5. to minimize the need for maintenance the eel and fish passages will be constructed with durable materials that are resistant to breakage;
6. the proposed fish and eel passage will not alter the volume of flow through Woodhull's Dam and will not alter the upstream or downstream water levels;
7. all necessary permits/approvals will be obtained from all applicable Federal, State, County and Town regulatory agencies prior to the commencement of project construction; and
8. the proposed fish and eel passage is anticipated to improve the ecosystem of the Peconic River as well as the upstream ecosystem of Cranberry Bog County Park and Wildwood Lake;

and be it further

**2nd RESOLVED**, that a copy of this Resolution shall be filed with the Suffolk County Clerk, the initiating unit of said project, and with the CEQ; and be it further

**3rd RESOLVED**, that in accordance with Section C1-4(1)(d) of the SUFFOLK COUNTY CHARTER and Section 450-5(C)(4) of the SUFFOLK COUNTY CODE, the CEQ is hereby directed to prepare and circulate a SEQRA notice of determination of non-significance in accordance with this Resolution.

DATED: November 21, 2017

APPROVED BY:

/s/ Steven Bellone  
County Executive of Suffolk County

Date: November 29, 2017

Suffolk County SWCD  
423 Griffing Avenue  
Suite 110  
Riverhead, NY 11901  
www.SuffolkSWCD.org



Corey Humphrey, CPESC  
District Manager  
(631) 852-3285

Rob Carpenter  
Chairman



Frank Castelli  
Chief Environmental Analyst  
Suffolk County Department of Economic Development and Planning  
100 Veterans Memorial Highway, 2<sup>nd</sup> Floor  
Hauppauge, NY 11788

11/25/2019

Dear Mr. Castelli:

I am writing on behalf of Suffolk County Soil and Water Conservation District in support of the Suffolk County Department of Parks, Recreation and Conservation, in partnership with the Peconic Estuary Program, in its request for grant funds through the Water Quality Protection and Restoration Program and Land Stewardship Initiatives (WQPRP) grant opportunity to fund the *Woodhull Dam Fish Passage and Peconic River Connectivity: Project Implementation and Monitoring*.

The project proposes implementation of a diadromous fish passage and river connectivity project located at Woodhull Dam on the Little River, a major tributary of the Peconic River. The project will restore aquatic habitat connectivity and foster species recovery, contributing to ecosystem resilience. Permanent fish passage at Woodhull Dam will create access to 95 acres of high quality spawning habitat within the protected lands of Cranberry Bog Nature Preserve and Wildwood Lake. The fish passage will more than double the available spawning habitat for one of the top river herring runs on Long Island and provide access for American eel to additional freshwater habitat.

By creating links between upstream and downstream habitats, the completion of the Woodhull Dam Fish Passage and River Connectivity project is the critical next step in the overall comprehensive plan to restore 300 acres of spawning and maturation habitat along the Peconic River for diadromous fish. Increased alewife populations enhance biodiversity of the Peconic Estuary and supports commercially and recreationally important species, such as Bluefish and Striped Bass. In addition, increased populations of river herring will contribute to the essential cycling of nutrients within this ecosystem.

The proposed project is heavily supported by the local community and partner organizations, and the local, state and federal government. Suffolk County Soil and Water Conservation District encourages you to consider providing essential support for this important initiative.

Sincerely,  
Corey Humphrey, C.P.E.S.C.

A handwritten signature in black ink, appearing to read "Corey Humphrey", written over a horizontal line. A small "x" is at the end of the line.



THE ASSEMBLY  
STATE OF NEW YORK  
ALBANY

COMMITTEES  
Ways and Means  
Environmental Conservation  
Oversight, Analysis and Investigation  
Transportation

FRED W. THIELE, JR.  
Assemblyman 1<sup>st</sup> District

CHAIR  
Committee on  
Local Governments

December 2, 2019

Mr. Frank Castelli  
Chief Environmental Analyst  
Suffolk County Department of Economic Development and Planning  
100 Veterans Memorial Highway, 2<sup>nd</sup> Floor  
Hauppauge, NY 11788

Dear Mr. Castelli:

As the New York State Assemblyman representing the 1<sup>st</sup> Assembly District, I am writing in support of Suffolk County Parks, Recreation and Conservation in partnership with the Peconic Estuary Program (PEP) in its request for grant funds through the Water Quality Protection and Restoration Program and Land Stewardship Initiatives (WQPRP) grant opportunity to fund the *Woodhull Dam Fish Passage and Peconic River Connectivity: Project Implementation and Monitoring*.

The project, which involves the installation of a fishway at the Woodhull Dam on the Little River, a major tributary to the Peconic River, will support fish habitat restoration and foster species recovery, contributing to ecosystem and community resilience. Permanent fish passage at Woodhull Dam will open access for diadromous fish, namely river herring and American eel, to two miles of river and reconnect 95 acres of prime spawning habitat within the preserved lands of Wildwood Lake and Cranberry Bog Preserve. This would more than double the available spawning habitat for one of the top river herring runs on Long Island.

By creating links between upstream and downstream habitats, the completion of the Woodhull Dam Fish Passage and River Connectivity project is the critical next step in the overall comprehensive plan to restore 300 acres of spawning and maturation habitat along the Peconic River and produce a sustainable population of river herring. An increased river herring population enhances biodiversity of the Peconic Estuary by supporting commercially and recreationally important fish species, migratory birds and mammals.

I believe this project proposal is in alignment with the long-term priorities of Suffolk County Parks and the PEP and would greatly benefit the residents of Suffolk County and New York State. With that said, I encourage you to provide support for this important initiative.

Sincerely,

Fred W. Thiele, Jr.  
Member of Assembly



December 2, 2019

Frank Castelli  
Chief Environmental Analyst  
Suffolk County Department of Economic Development and Planning  
100 Veterans Memorial Highway, 2<sup>nd</sup> Floor  
Hauppauge, NY 11788

Dear Mr. Castelli:

I am writing on behalf of the Seaturck Environmental Association (Seaturck) to express our support for the application of the Suffolk County Department of Parks, Recreation & Conservation and the Peconic Estuary Program (PEP) for funding through the Water Quality Protection and Restoration Program and Land Stewardship Initiatives (WQPRP) for the ***Woodhull Dam Fish Passage and Peconic River Connectivity: Project Implementation and Monitoring.***

For the past decade, Seaturck (which chairs the Long Island Diadromous Fish Workgroup) has been working across the region to reconnect rivers and streams and restore populations of diadromous fish. Long Island's dense development over the past two centuries has severely impacted these ecologically important fish. River herring were nearly extirpated from the island, with only a few rivers and streams harboring remnant populations. One of those waterways was the Peconic River, where a small remnant population has grown since the installation of fish passage at the river's primary barrier over a decade ago. It is now the most important river herring run on Long Island, with potential for considerably more growth. However, only a quarter mile upstream on the Little River tributary, the run's progress is stuck at the Woodhull Dam barrier.

Funding for fish passage at Woodhull will provide critically important access to miles of prime spawning and rearing habitat, including a large natural kettle pond, all within a fully protected and publicly owned corridor. It will more than double the available riverine habitat and give the river herring population the potential to expand exponentially – which will support the ecological health of the entire the Peconic Estuary. Put simply, the Woodhull Dam project is one of the most important diadromous fish restoration efforts on Long Island.

For these reasons, Seaturck strongly supports the Suffolk County Parks / PEP proposal.

Very truly yours,

*Enrico Nardone*

---

ENRICO NARDONE  
Executive Director  
[egnardone@seatuck.org](mailto:egnardone@seatuck.org)

SEATUCK ENVIRONMENTAL ASSOCIATION  
P.O. Box 31 Islip, NY 11751 • (631) 581-6908 • [www.seatuck.org](http://www.seatuck.org)

Frank Castelli  
Chief Environmental Analyst  
Suffolk County Department of Economic Development and Planning  
100 Veterans Memorial Highway, 2<sup>nd</sup> Floor  
Hauppauge, NY 11788

*November 26, 2019*

Dear Mr. Castelli:

I am writing on behalf of the Peconic River Fish Restoration Commission, a group of local Riverhead and Southampton citizens who have supported the development of Fish Passage on the Peconic River since 1997. We strongly support the Suffolk County Department of Parks, Recreation and Conservation, in partnership with the Peconic Estuary Program, request for grant funds through the Water Quality Protection and Restoration Program and Land Stewardship Initiatives (WQPRP) grant opportunity to fund the *Woodhull Dam Fish Passage and Peconic River Connectivity: Project Implementation and Monitoring*.

I personally have been working on Alewife restoration in the Peconic River since 1995 and whole-heartedly support any efforts that can help to bring the Woodhull Dam fish passage project to fruition. Completion of this project will be a huge success for the Peconic Estuary Program, Suffolk County Department of Parks and Recreation, the Peconic River Fish Commission, and other partners.

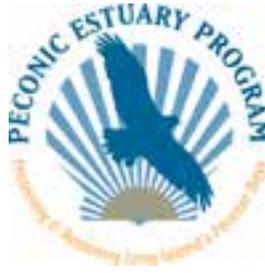
The project will finalize diadromous fish passage and river connectivity for Little River at Woodhull Dam, a major tributary of the Peconic River. The project will restore aquatic habitat connectivity and foster species recovery, contributing to ecosystem resilience. Permanent fish passage at Woodhull Dam will create access to 95 acres of high quality spawning habitat for Alewives within the protected lands of Cranberry Bog Nature Preserve and Wildwood Lake. The fish passage will more than double the available spawning habitat for one of the top river herring runs on Long Island. In addition, the proposed eel pass will provide and improve access for American eel to additional freshwater nursery habitat for this species.

The completion of the Woodhull Dam Fish Passage and River Connectivity project is a critical next step in the overall comprehensive plan to restore 300 acres of spawning and maturation habitat along the Peconic River for diadromous fish. Increased alewife populations enhance biodiversity of the Peconic Estuary and supports commercially and recreationally important species, such as Bluefish and Striped Bass. Increased populations of river herring will contribute to the essential cycling of nutrients within this ecosystem and provide prey sources for other species such as the Osprey, Bald Eagle, Raccoons, River Otter, Egrets and Herons locally. Once the alewives leave the Peconic Estuary they provide food for a whole host of Marine fishes, birds, and mammals.

The proposed project is highly anticipated and is strongly supported by the local community, partner organizations, and the local, state and federal government agencies. In closing we wish to provide our support for this application to fund the completion of the Woodhull Dam fish passage project.

Sincerely,

Byron Young  
New York's Citizen Advisory Committee Member  
to the ASMFC Shad and River Herring  
Management Board, and  
For the Peconic River Fish Restoration  
Commission



---

Frank Castelli  
Chief Environmental Analyst  
Suffolk County Department of Economic Development and Planning  
100 Veterans Memorial Highway, 2<sup>nd</sup> Floor  
Hauppauge, NY 11788

November 27, 2019

Dear Mr. Castelli:

I am writing on behalf of the Peconic Estuary Program in support of Suffolk County Parks, Recreation and Conservation in its request for grant funds through the Water Quality Protection and Restoration Program and Land Stewardship Initiatives (WQPRP) grant opportunity to fund the *Woodhull Dam Fish Passage and Peconic River Connectivity: Project Implementation and Monitoring*.

The project, which involves the installation of a fishway and eel passage at the Woodhull Dam on the Little River, a major tributary to the Peconic River, will support fish habitat restoration and foster species recovery, contributing to ecosystem resilience. Permanent fish passage at Woodhull Dam will open access for diadromous fish, namely river herring and American eel, to two miles of river and reconnect 95 acres of prime spawning habitat within the preserved lands of Wildwood Lake and Cranberry Bog Nature Preserve. The project will create links between upstream and downstream habitats and achieve the critical next step in the overall comprehensive plan to restore 300 acres of spawning and maturation habitat along the Peconic River. Increased river connectivity enhances biodiversity of the Peconic Estuary and contributes to the essential cycling of nutrients within this ecosystem.

The project aligns with the PEP Comprehensive Conservation and Management Plan (CCMP), Habitat and Living Resources Management Plan action HLR-12.2: to “Identify, protect, and restore key shellfish and finfish spawning, nursery, and feeding habitats in the Peconic Estuary to enhance shellfish and fish stocks...”, and aligns with the PEP Habitat Restoration Plan (HRP) that identifies Woodhulls Pond/Wildwood Lake Diadromous Fish Passage Restoration as a priority restoration site to restore alewife and American eel passage. The project advances the goals of the Suffolk County Comprehensive Water Resources Management Plan as Section 6.2.4 of the Plan highlights the PEP CCMP Habitat and Living Resources Management Actions and the recommendations for the most effective and high priority activities that Suffolk County and PEP will need to collaborate on to improve Peconic Estuary Water Quality and Habitat.

The Peconic Estuary Program is committed to working with Suffolk County Parks to ensure the success of the project, including providing guidance, assisting with post-project monitoring, and helping disseminate results throughout the Peconic region.

Sincerely,

Joyce Novak, Ph.D.

Director, Peconic Estuary Program

## NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

### Division of Marine Resources

205 North Belle Mead Road, Suite 1, East Setauket, NY 11733  
P: (631) 444-0430 | F: (631) 444-0434 | FW.Marine@dec.ny.gov  
www.dec.ny.gov

Frank Castelli  
Chief Environmental Analyst  
Suffolk County Dept. of Economic Development and Planning  
100 Veterans Memorial Highway, 2nd Floor  
Hauppauge, NY 11788

November 27, 2019

Dear Mr. Castelli,

I am writing on behalf of the New York State Department of Environmental Conservation's Division of Marine Resources, in support of Suffolk County Parks, Recreation and Conservation, in partnership with the Peconic Estuary Program (PEP), in its request for grant funds through the Suffolk County Water Quality Protection and Restoration Program to fund the *Woodhull Dam Fish Passage and Peconic River Connectivity Project*.

The project, which involves the installation of a fishway at the Woodhull Dam on the Little River, a major tributary to NY's Peconic River, will support fish habitat restoration and foster species recovery, contributing to ecosystem and community resilience. Permanent fish passage at Woodhull Dam will open access for diadromous fish, namely river herring and American eel, to two miles of river and reconnect 95 acres of prime spawning habitat within the preserved lands of Wildwood Lake and Cranberry Bog Preserve. This would more than double the available spawning habitat for one of the largest river herring runs on Long Island.

By creating links between upstream and downstream habitats, the completion of the Woodhull Dam Fish Passage and River Connectivity project is the critical next step in the overall comprehensive plan to restore 300 acres of spawning and maturation habitat along the Peconic River and produce a sustainable population of river herring. An increased river herring population enhances biodiversity of the Peconic Estuary by supporting commercially and recreationally important fish species, migratory birds, and mammals.

This restoration project is in alignment with the Division of Marine Resources' mission that includes managing, restoring, and enhancing diadromous fisheries resources and their habitats.

Sincerely,



Julia Socrates  
Bureau Chief Marine Habitat  
Phone: 631-444-0473  
[julia.socrates@dec.ny.gov](mailto:julia.socrates@dec.ny.gov)

# SUFFOLK COUNTY LEGISLATURE



**AL KRUPSKI**  
LEGISLATOR 1ST DISTRICT

## **COMMITTEES**

CHAIRMAN - PUBLIC WORKS, TRANSPORTATION & ENERGY  
VICE CHAIRMAN - ENVIRONMENT, PLANNING &  
AGRICULTURE  
MEMBER - VETERANS & SENIORS  
SEWER INFRASTRUCTURE COMMITTEE

## **BOARDS & COMMISSIONS**

AGRICULTURE & FARMLAND PROTECTION BOARD  
SOIL & WATER CONSERVATION DISTRICT  
SEWER AGENCY  
SPACE MANAGEMENT STEERING COMMITTEE  
DREDGE PROJECT SCREENING COMMITTEE

December 3, 2019

Frank Castelli  
Chief Environmental Analyst  
Suffolk County Department of Economic Development and Planning  
100 Veterans Memorial Highway, 2<sup>nd</sup> Floor  
Hauppauge, NY 11788

Dear Mr. Castelli:

I am writing in strong support of Suffolk County Department of Parks, Recreation and Conservation, in partnership with the Peconic Estuary Program, in its request for grant funds through the Water Quality Protection and Restoration Program and Land Stewardship Initiatives (WQPRP) grant opportunity to fund the *Woodhull Dam Fish Passage and Peconic River Connectivity: Project Implementation and Monitoring*.

The project proposes implementation of a diadromous fish passage and river connectivity project located at Woodhull Dam on the Little River, a major tributary of the Peconic River. The project will restore aquatic habitat connectivity and foster species recovery, contributing to ecosystem resilience. Permanent fish passage at Woodhull Dam will create access to 95 acres of high quality spawning habitat within the protected lands of Cranberry Bog Nature Preserve and Wildwood Lake. The fish passage will more than double the available spawning habitat for one of the top river herring runs on Long Island and provide access for American eel to additional freshwater habitat.

By creating links between upstream and downstream habitats, the completion of the Woodhull Dam Fish Passage and River Connectivity project is the critical next step in the overall comprehensive plan to restore 300 acres of spawning and maturation habitat along the Peconic River for diadromous fish. Increased alewife populations enhance biodiversity of the Peconic Estuary and supports commercially and recreationally important species, such as Bluefish and Striped Bass. In addition, increased populations of river herring will contribute to the essential cycling of nutrients within this ecosystem.

The proposed project is heavily supported by the local community and partner organizations, and the local, state and federal government. I encourage you to consider providing essential support for this important initiative.

Sincerely,

Albert J. Krupski, Jr.  
Suffolk County Legislator

OFFICE OF THE COUNTY LEGISLATURE  
COUNTY OF SUFFOLK

**Bridget Fleming**  
Second Legislative District

**Chair**  
Ways & Means Committee

**Vice-Chair**  
Health Committee



**Committee Member**  
Public Safety  
Environment, Planning  
and Agriculture  
Public Works, Transportation  
and Energy

December 3, 2019

Frank Castelli, Chief Environmental Analyst  
Suffolk County Department of Economic Development and Planning  
100 Veterans Memorial Highway - 2<sup>nd</sup> Floor  
Hauppauge, NY 11788

Dear Mr. Castelli:

As Suffolk County Legislator of the Second Legislative District, I am writing in support of the Suffolk County Department of Parks, Recreation & Conservation, in partnership with the Peconic Estuary Program, in its request for grant funds through the Water Quality Protection and Restoration Program and Land Stewardship Initiatives (WQPRP) grant opportunity to fund the *Woodhull Dam Fish Passage and Peconic River Connectivity: Project Implementation and Monitoring*.

The project proposes implementation of a diadromous fish passage and river connectivity project located at Woodhull Dam on the Little River, a major tributary of the Peconic River. The project will restore aquatic habitat connectivity and foster species recovery, contributing to ecosystem resilience. Permanent fish passage at Woodhull Dam will create access to 95 acres of high quality spawning habitat within the protected lands of Cranberry Bog Nature Preserve and Wildwood Lake. The fish passage will more than double the available spawning habitat for one of the top river herring runs on Long Island and provide access for American eel to additional freshwater habitat.

By creating links between upstream and downstream habitats, the completion of the Woodhull Dam Fish Passage and River Connectivity project is the critical next step in the overall comprehensive plan to restore 300 acres of spawning and maturation habitat along the Peconic River for diadromous fish. Increased alewife populations enhance biodiversity of the Peconic Estuary and supports commercially and recreationally important species, such as Bluefish and Striped Bass. In addition, increased populations of river herring will contribute to the essential cycling of nutrients within this ecosystem.

The proposed project is heavily supported by the local community and partner organizations, and the local, state and federal government. I encourage you to consider providing essential support for this important initiative.

Sincerely,

Bridget Fleming  
Suffolk County Legislator  
Second Legislative District

BF/car