GENERAL NOTES:

1. Show wetland limits and ordinary high water (OHW) (bold) on all plan views. Include these limits in the project description and any other applicable plans.

2. State of Connecticut map with Town shaded and call-out of the project location and project number.

3. Show Floodway lines, if present (bold). This would be graphical FEMA lines. Label as "MAPPED FEMA 100-YR FLOOD LIMIT"

4. Flow arrows (existing and proposed) on plan views (bold).

5. If present in survey file, include stream line and/or edge of project area.

6. PLAN DATE (Latest revision date of sheet. Dates do not need to match within plan set)

7. For Permit Plans, remove references to Contract Drawings as these drawings are not provided as part of the permit plan set.

NOTE: The sample project has been altered from the actual project to produce the sample set of plans.

IMPORTANT FOR PERMIT PLAN DEVELOPMENT:

DESIGNED:
PRELIMINARY PERMIT PLAN DEVELOPMENT SHOULD BE INITIATED AFTER THE 30% DESIGN REVIEW HAS BEEN COMPLETED. THEREFORE, PLEASE ENSURE ANY PERTINENT/APPLICABLE 30% DESIGN REVIEW COMMENTS ARE INCORPORATED INTO THE PERMIT PLANS.

NOTE:  This sample project has been altered from the actual project to produce this sample
Engineering judgement should be used to determine the amount of area the contractor needs related to the project, both temporary and permanent. On this project, additional impact to the project area.

8 1/2" x 11" FEMA map is provided within the permit application. No floodway is present in the project area.

The culvert was designed for a 100-year storm. The sample project falls within a mapped roadway overbuild in the staging, therefore, an access road is not needed for construction.

The following sample project involves replacing an existing large pipe with a three-sided sedimentation control. The project will address a known erosion point. The plans contained herein will aid in streamlining the permitting process. The surrounding area will be reclaimed once the project is completed.

SEDIMENTATION CONTROL GUIDELINES AND THE 2004 STORMWATER QUALITY MANUAL.

These documents are not provided to the regulators unless requested. These documents are not provided to the regulators unless requested. These documents are not provided to the regulators unless requested.

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1. Include wetland & OHW lines (both bold). Typically, wetland lines are shown as "STATE WETLAND" as determined by soil scientist. & Federal regulated areas do not coincide, identify/call-out those areas identified as "STATE/FEDERAL WETLANDS". In some cases where the State
2. Include flood limit lines (bold). SCS does not need to be shown.
3. Plan to clearly depict temporary and permanent impacts. To maintain clarity, do not show existing or proposed contours. Avoid showing patterns for items which interfere with clearly understanding
4. Call-out limits of impact. Limits of impact should be clearly shown and may or may not coincide with the R.O.W. line or easement lines.
5. Limits of impact should be defined based on enough space for the project may be constructed and provide enough area to allow the Contractor to perform the work. The Designer should carefully consider how
6. Contractors shall not work within the limits of the wetlands and watercourses with the exception of those areas delineated as temporary or permanent impacts to the wetlands and watercourse. All contoured areas shall be removed.
7. Include wetland and watercourse impact table. Quantify impacts to wetlands associated impacts noted in the table (these numbers will correspond with the associated wetland report).
8. Add note to Contractor for restriction of work in regulated areas (often found on long linear projects) should be numbered (ex. WL1, WL2) and
9. Include note regarding CTDOT submittals for revisions.

Legend:
- TEMPORARY WETLAND/WATERCOURSE IMPACT
- PERMANENT WETLAND/WATERCOURSE IMPACT

Environmental Permit Plans
Plan Date: November 5, 2021

Temporary Wetland/Watercourse Impact
Permanent Wetland/Watercourse Impact

Wetland Impact Table

<table>
<thead>
<tr>
<th>Wetland Site No.</th>
<th>Wetland Impacts</th>
<th>Watercourse Impacts</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Permanent Impacts</td>
<td>1,200 S.F. (0.023 A)</td>
<td>1,200 S.F. (0.023 A)</td>
<td>2,400 S.F. (0.046 A)</td>
</tr>
<tr>
<td>Temporary Impacts</td>
<td>1,200 S.F. (0.023 A)</td>
<td>1,200 S.F. (0.023 A)</td>
<td>2,400 S.F. (0.046 A)</td>
</tr>
<tr>
<td>Total Impacts</td>
<td>2,400 S.F. (0.046 A)</td>
<td>2,400 S.F. (0.046 A)</td>
<td>4,800 S.F. (0.093 A)</td>
</tr>
</tbody>
</table>
The conditions of actual quantities investigations by the state and is noted in the plan as part of the project should also be evaluated.

Contractor the ability for minor variation in construction methods. Utility the project may be constructed and provide enough area to allow the Contractor to perform the work. The Designer should carefully consider how limits of impact should be defined based on enough space for the field of temporary or permanent impacts.

- Permanent impacts are locations that contain an overall cut or fill from the original grade and also includes placement of project areas for the impact. Do not quantify the plan view impact area (S.F.). These values can be rounded up. Do not quantify volume in cubic yards (values can be rounded up).

1. This sheet is not necessary if there are no impacts to a Flood Impact Plan:

2. Include floodplain (and floodway if present) limits (bold). Floodplain plans "entire project area located within FEMA flood zone". (U N D E R  P V M 'T )

3. Plan view to clearly depict temporary and permanent impacts to floodplain/floodway. The flood impact plan can use the same base map from the wetland impact plan, but would show the flood impact areas.

4. Include floodplain impact table. Only provide the permanent volume of impact in cubic yards (values can be rounded up). Do not quantify volume from the original grade and also includes placement of project areas for the impact. Do not quantify the plan view impact area (S.F.). These values can be rounded up. Do not quantify volume in cubic yards (values can be rounded up).

5. Show wetland and OHW limits (bold). SCS does not need to be shown.

6. Call-out limits of impact. The limits of impact should be clearly shown.

7. Limits of impacts should be defined based on enough space for the field of temporary or permanent impacts. Do not quantify the plan view impact area (S.F.). These values can be rounded up. Do not quantify volume in cubic yards (values can be rounded up).

Avoid showing patterns for items which interfere with clearly understanding the impacts. Construction call-outs not required.

- Permanent impacts are locations that contain an overall cut or fill from the original grade and also includes placement of project areas for the impact. Do not quantify the plan view impact area (S.F.). These values can be rounded up. Do not quantify volume in cubic yards (values can be rounded up).

Legend:

- The Department of Transportation will only submit revisions to the plan for changes to the design that will affect the noted regulated areas.
**HYDRAULIC DATA**

**OPENNESS RATIO (OR):**
- QA = OPEN AREA / STRUCTURE LENGTH
- QB = 104 ft. x 9.5 ft. / 78 ft.
- 2.6 R > 0.82 R (RECOMMENDED MINIMUM)

**BANKFULL WIDTH (BFW):**
- 12.2 x 36 ft.
- 12 ft. > 16 ft. (RECOMMENDED MINIMUM)

**HYDRAULIC DATA**

<table>
<thead>
<tr>
<th>Frequency</th>
<th>100 Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Design Elevation</td>
<td>87.25 ft.</td>
</tr>
<tr>
<td>Elevation</td>
<td>EL. 87.25</td>
</tr>
<tr>
<td>Invert</td>
<td>EL. 86.5</td>
</tr>
<tr>
<td>Water Surface</td>
<td>EL. 86.5</td>
</tr>
<tr>
<td>Water Surface</td>
<td>EL. 86.5</td>
</tr>
</tbody>
</table>

**NATIVE STREAMBED MATERIAL NOTES:**

1. NATIVE STREAMBED MATERIAL EXCAVATED DURING THE PRECAST CONCRETE THREE SIDED PRECAST CONCRETE TRENCH SHOULD BE STORED AND REPLACED WITHIN THE PRECAST CONCRETE TRENCH. IF REQUIRED BY THE ENGINEER, SUCH MATERIAL MAY BE EXCAVATED DURING THE PRECAST CONCRETE TRENCH.

2. ADJACENT STREAMBED MATERIAL, IF REQUESTED BY THE ENGINEER, SUCH MATERIAL MAY BE EXCAVATED DURING THE PRECAST CONCRETE TRENCH.

3. THE STOCKPILE SHALL BE LOCATED OUTSIDE THE WETLAND LIMITS AND PROTECTED WITH SEDIMENTATION CONTROL SYSTEM.

**ENVIRONMENTAL PERMIT PLANS**

**REPLACEMENT OF BRIDGE NO. XXXX**

**ROUTE X OVER A BROOK**

**ELEVATION AND SECTION PLAN**

**DEEP Fisheries**
PROPOSED WATER HANDLING SCHEMATIC FOR PROJECT

WATER HANDLING NOTES:

1. The Contractor shall monitor and maintain the temporary water handling system as indicated by the Department of Transportation and applicable owners.
2. The Contractor shall confirm the regulatory Time-of-Year (TOY) restriction, the proposed work of construction within wetlands/watercourses, and the installation of items such as pump systems and baffles.

UNCONFINED IN-STREAM WORK BMP NOTE:

The Contractor shall confirm the regulatory Time-of-Year (TOY) restriction, the proposed work of construction within wetlands/watercourses, and the installation of items such as pump systems and baffles.

SUGGESTED SEQUENCE OF CONSTRUCTION

Construction of this project will be performed by shifting stages as indicated:

STAGE 1:
1. Install sedimentation control system (SCS), including diversion and sedimentation control.
2. Perform cleaning and grubbing, as necessary.
3. Install temporary dewatering basin. Basin to remain through all stages.
4. Install temporary water handling system including water handling contingencies and temporary use of water handling system to remain through all stages.
5. Construct temporary roadway widening.

STAGE 2:
1. Shift traffic to north. Construct micropiles and footings on north side.
2. Partially remove top and side portions of existing culvert and construct the final channel outside the temporary pipes.

STAGE 3:
1. Shift traffic to south. Construct micropiles and footings on south side.
2. Partially remove top and side portions of existing culvert and construct the final channel outside the temporary pipes.

STAGE 4:
1. Remove the remaining portion of the existing culvert and complete channel construction.
2. Construct temporary water handling system, install channel widening.
3. Perform final grading and planting.
4. Remove drainage and sedimentation control upon permanent stabilization.

ENVIRONMENTAL PERMIT PLANS

Plan Date: March 8, 2022

REPLACEMENT OF BRIDGE NO. XXXX
ROUTE X OVER A BROOK

TOWN: STAGING/WATER HANDLING PLAN

XXX-XXX

PMT-06
Note to designers for permit planting plans:
A designer is required to submit a hand sketch showing the shaded area that depicts the area available for planting, the amount of area in S.F. also needed, 1/8" to provide the designer with the table of proposed plantings for the project planting plan and preserve.

SCHEMATIC PLANTING

Wetland was established by the invasive vegetation control (required for EPA to provide the designers with the table of proposed plantings for the project planting plan and preserve.

PERMIT PLANT LIST

<table>
<thead>
<tr>
<th>BOTANICAL NAME</th>
<th>COMMON NAME</th>
<th>SIZE</th>
<th>QTY</th>
<th>SPACING</th>
<th>WETLAND INDICATOR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aesculus comosus</td>
<td>Serviceberry</td>
<td>12'' R C P</td>
<td>20</td>
<td>F 7</td>
<td>F 7</td>
</tr>
<tr>
<td>Cornus racemosa</td>
<td>Serviceberry</td>
<td>15'' R C P</td>
<td>20</td>
<td>F 7</td>
<td>F 7</td>
</tr>
<tr>
<td>Acer Rubrum</td>
<td>Sugar Maple</td>
<td>20'' R C P</td>
<td>20</td>
<td>F 7</td>
<td>F 7</td>
</tr>
<tr>
<td>Amelanchier canadensis</td>
<td>Serviceberry</td>
<td>30'' R C P</td>
<td>20</td>
<td>F 7</td>
<td>F 7</td>
</tr>
<tr>
<td>Prunus penssifolia</td>
<td>Serviceberry</td>
<td>36'' R C P</td>
<td>20</td>
<td>F 7</td>
<td>F 7</td>
</tr>
</tbody>
</table>

ENVIRONMENTAL PERMIT PLANS

NOTES

REPLACEMENT OF BRIDGE NO. XXXX OVER A BROOK

STATE OF CONNECTICUT

OFFICE OF ENGINEERING

DEPARTMENT OF TRANSPORTATION

TOWN

PERMIT PLANTING PLAN

DATE: 3/4/2022