

TYPICAL X-SECTION OF WETLAND REPLICATION AREA
NOT TO SCALE

- TOP SOIL IN REPLICATION AREA TO BE REMOVED AND REPLACED WITH TOP SOIL EXCAVATED FROM FILL AREAS.
- REPLICATION AREA TO BE PLANTED IN AN 18" GRID PATTERN WITH SPRIGS OF WETLAND SPECIES SHOWN TO THRIVE IN THE ADJACENT WETLANDS.
- THREE SPECIES TO BE NURSERY GROWN IN TWO GALLON CONTAINERS AND PLANTED AT NINE FOOT INTERVALS AND UNDERSTORY SPECIES TO BE PLANTED AT INTERMEDIATE GRID POINTS.
- WETLAND SPECIES IN REPLICATION AREA TO BE 75% ESTABLISHED IN TWO YEARS OF PLANTING OR ADDITIONAL PLANTING WILL BE PERFORMED.

SILT / EROSION CONTROL BARRIER NO. 2
NOT TO SCALE

NOTE: TO BE USED OUTSIDE OF 100' BUFFER ZONE.

FIRE HYDRANT INSTALLATION
NOT TO SCALE

TYPICAL R.C.P. DRAIN TRENCH DETAIL
NOT TO SCALE

2.0 PROPOSED WETLANDS REPLICATION

2.1 Objectives And Work Schedule

The overall objective is to replace 1,810 sq-ft of B/W Edge areas with similarly vegetated areas totaling 1,810 sq-ft. The replication area will be established within 50' of the perimeter of a final limit of conditions, weather conditions permitting. This work will be completed complete at least 75 percent of the planted vegetation is successfully established wetlands. Work for the remainder of the second growing season.

2.2 Erosion Control

Prior to the beginning of the replication work, a silt fence and all fence erosion control barrier will be installed along and above the edge of B/W, throughout of all replication areas. The erosion control barriers will be constructed in accordance with the attached details.

2.3 Excavation and Grading of Replication Areas

The organic topsoil within the replication areas will be removed and stockpiled within the contiguous upland areas. The subsoil will then be removed one foot (1') below the surface elevation of the immediately adjacent wetlands. The resulting surface slope between the replicated replication area and the adjacent upland will be cut to a 2:1 slope. Next, the stockpiled organic topsoil will be regraded throughout the replication areas to the same elevation as the immediately adjacent wetlands. Where there is insufficient organic topsoil available for the purpose, additional material will be brought in from off-site.

2.4 Planting Specifications - Shrub Species

An approximately equal combination of the following wetland shrub species is proposed:

- Acer rubrum (Red Maple)
- Cetonia dubia (Sweet Pepperbush)
- Vaccinium corymbosum (Highbush Blueberry)

Planting stock will be one to two year old bare root seedlings. Lines will be spaced to achieve a pH of 5.5 according to a soil test, or in the absence of a soil test, at the rate of 10 lbs. per 100 square feet. Slow release fertilizer formulated for seedlings shall be applied in accordance with the manufacturer's specifications. Seedlings will be laid out and planted at all times until planted. They will be planted 36 inches on center at the appropriate depth previously planted. Roots will be planted uncrowded with surrounding organic topsoil pocket firmly after setting.

2.5 Planting Specifications - Herbaceous Species

Upon completion of the regrading and woody species planting, a wetland wildflower and grass mixture will be spread containing at least five (5) of the following or similar herbaceous species:

- Equisetum perfoliatum (Scouring Rush)
- Epilobium maculatum (See-Through)
- Veronica hastata (Blue Veronica)
- Aster macrocarpa (See-Through)
- Acrois colona (Sweet Flag)
- Luzula exaristata (See-Through)
- Salpiglossis (Panicum)

STC, Inc. is proposing this high quality flower and grass mixture for quick establishment the first year. Eventually, the shrub community will establish and overtake these flowers and grasses and natural plant succession will take over all the herbaceous plant.

The seed mixture will be spread evenly throughout the replication area, around the planted wetland shrubs. It will be worked into the top 1/4 inch of the soil and mulch. Mulch will then be applied to cover seed and soil surfaces.

2.6 Monitoring And Reporting

We propose to notify the Conservation Commission in writing within two weeks after completion of regrading and planting of the wetland replication area.

We not propose to submit a field report to the Commission at the end of the first growing season summarizing the results of the first growing season and any follow-up planting required to achieve the 75 percent success rate for the first growing season.

Finally, we propose to send a letter to the Conservation Commission at the end of the second growing season either requesting a site inspection to verify the 75 percent success rate or 3) requesting approval to complete additional planting to achieve the 75 percent success rate after a third growing season.

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WOOD GUARD RAIL DETAIL
NOT TO SCALE

BRIDGE PLAN
NOT TO SCALE

ANTI-TRACKING PAD
NOT TO SCALE

FOUNDATION PLAN
NOT TO SCALE

UPSTREAM END ELEVATION
NOT TO SCALE

DOWNSTREAM END ELEVATION
NOT TO SCALE

GENERAL NOTES

- This bridge has been designed for general site conditions. The project engineer shall be responsible for the structure's suitability to the existing site conditions and for the hydraulic evaluation, including scour and foundation of soil conditions.
- Prior to construction, contractor must verify all elevations shown through the engineer.
- Only CONCRETE SYSTEMS, INC., NEW ENGLAND, the CON/SPAN® approved manufacturer in Massachusetts may provide the structure designed in accordance with these plans.
- The use of another precast structure with the design assumptions used for the CON/SPAN® structure may lead to serious design errors. Use of any other precast structure with this design and drawings voids any certification of this design and warrants CON/SPAN® Bridge Systems Ltd. assumes no liability for design of any alternate or similar type structures.

DESIGN DATA

Design Loading:
Bridge Loads: HS20-44
Headwater: Earth Pressure & Live Load Impact
Windwater: Earth Pressure & Live Load Surcharge
Design FH Height: Varies from 1'-0" min. to 2'-3" max. from top of crown to top of pavement.
Design Allowable Soil Bearing: 4000 PSF (Verify)
Assumed Allowable Soil Bearing: 4000 PSF (Verify)

MATERIALS

Precast units shall be constructed and installed in accordance with CON/SPAN® Specifications.
Concrete for footings shall have a minimum compressive strength of 4000 psi. Reinforcing steel for footings shall conform to ASTM 615, A615 or A617-Grade 60.

DESIGN DATA

DESIGN PERC RATE: 1" IN < 2 MINUTES
DESIGN FLOW: 4 BEDROOMS X 110 GPD/BR = 440 GPD REQUIRED
LEACHING FIELD DESIGN: 440 GPD / 0.74 GPD/S.F. = 595 S.F. REQUIRED
USING 2 - 2' WIDE, 50' LONG LEACHING TRENCHES:
SIDEWALL AREA: 2 X 2 TR. X 2' H X 50' L = 400 S.F.
BOTTOM AREA: 2 TR. X 2' W X 50' L = 200 S.F.
TOTAL LEACHING AREA: 400 S.F. + 200 S.F. = 600 S.F. > 595 S.F.
THEREFORE, USE 2 - 2' WIDE X 50' LONG LEACHING TRENCHES.

TYPICAL SYSTEM PLAN VIEW
SCALE: 1" = 20'

NOTE: SYSTEM MAY BE MIRROR REVERSED.

T.O.F.	A	B	C	D	E	F	G	H	I	J	K	L
81.50	73.00	81.00	79.00	78.70	78.45	78.33	78.15	78.15	77.90	75.90	80.50	
81.00	74.50	80.50	78.50	78.20	77.95	77.83	77.65	77.65	77.40	75.40	80.00	
80.00	72.50	79.50	77.50	77.20	76.95	76.83	76.65	76.65	76.40	74.40	79.00	
79.50	72.00	79.00	77.00	76.70	76.45	76.33	76.15	76.15	75.90	73.90	78.50	
79.00	71.50	78.50	76.50	76.20	75.95	75.83	75.65	75.65	75.40	73.40	78.00	
78.50	71.00	78.00	76.00	75.70	75.45	75.33	75.15	75.15	74.90	72.90	77.50	
77.50	70.00	77.00	75.00	74.70	74.45	74.33	74.15	74.15	73.90	71.90	76.50	

CONTRACTOR NOTES

- THIS SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH THE TOWN OF SEBOROK BOARD OF HEALTH REGULATIONS.
- DOUBLE WASHED CRUSHED STONE SHALL BE FREE OF ALL DIRT, DUST AND FINES.
- ALL ELEVATIONS ARE BASED ON MSL ELEVATION DATUM.
- HEAVY EQUIPMENT SHALL NOT BE ALLOWED TO OPERATE OVER THE LIMITS OF THE OF THE SEWAGE DISPOSAL SYSTEM DURING THE COURSE OF CONSTRUCTION.
- NO FIELD MODIFICATIONS TO THE SEWAGE DISPOSAL SYSTEM SHALL BE MADE WITHOUT PRIOR WRITTEN APPROVAL OF THE DESIGN ENGINEER AND THE LOCAL BOARD OF HEALTH.
- UNLESS OTHERWISE NOTED ALL SYSTEM COMPONENTS SHALL BE INSTALLED IN ACCORDANCE WITH TITLE V OF THE STATE ENVIRONMENTAL CODE AND ANY LOCAL REGULATIONS.
- SEPTIC TANK AND DISTRIBUTION BOX SHALL BE MANUFACTURED BY A. ROTONDO & SONS OR APPROVED EQUAL.
- GROUP TO BE USED AT ALL POINTS WHERE PIPES ENTER OR LEAVE ALL CONCRETE STRUCTURES IN ORDER TO PROVIDE A WATERPROOF SEAL.
- ALL SHIRLAP JOINTS IN THE SEPTIC TANK SHALL BE SEALED WITH NEOPRENE GASKETS OR ASPHALT CEMENT.
- EXCAVATE ALL UNSUITABLE MATERIAL IN LEADING AREA AND BACKFILL WITH CLEAN GRANULAR SAND AS REQUIRED BY THE SEBOROK BOH AND TITLE V.
- THIS SYSTEM IS NOT DESIGNED FOR A GARBAGE DISPOSAL UNIT.

SYSTEM PROFILE
NOT TO SCALE

DESIGN DATA

DESIGN PERC RATE: 1" IN < 2 MINUTES
DESIGN FLOW: 4 BEDROOMS X 110 GPD/BR = 440 GPD REQUIRED
LEACHING FIELD DESIGN: 440 GPD / 0.74 GPD/S.F. = 595 S.F. REQUIRED
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SEPTIC TANK
NOT TO SCALE

TYPICAL TRENCH CROSS SECTION
NOT TO SCALE

DISTRIBUTION BOX
NOT TO SCALE

TEST PIT DATA

TP - 1	TP - 2	TP - 3	TP - 4	TP - 5	TP - 6	TP - 7	TP - 8	TP - 9	TP - 10
PERFORMED BY: DAN AGUIAR WITNESSED BY: J.R. CHENEVERT DATE: 1-11-05	PERFORMED BY: DAN AGUIAR WITNESSED BY: J.R. CHENEVERT DATE: 1-11-05	PERFORMED BY: DAN AGUIAR WITNESSED BY: J.R. CHENEVERT DATE: 1-11-05	PERFORMED BY: DAN AGUIAR WITNESSED BY: J.R. CHENEVERT DATE: 1-11-05	PERFORMED BY: DAN AGUIAR WITNESSED BY: J.R. CHENEVERT DATE: 1-11-05	PERFORMED BY: DAN AGUIAR WITNESSED BY: J.R. CHENEVERT DATE: 1-11-05	PERFORMED BY: DAN AGUIAR WITNESSED BY: J.R. CHENEVERT DATE: 1-11-05	PERFORMED BY: DAN AGUIAR WITNESSED BY: J.R. CHENEVERT DATE: 1-11-05	PERFORMED BY: DAN AGUIAR WITNESSED BY: J.R. CHENEVERT DATE: 1-11-05	PERFORMED BY: DAN AGUIAR WITNESSED BY: J.R. CHENEVERT DATE: 1-11-05
A LOAMY LOAM	A LOAMY LOAM	A SANDY LOAM	A SANDY LOAM	A LOAMY LOAM	A LOAMY LOAM	A LOAMY LOAM	A LOAMY LOAM	A LOAMY LOAM	A LOAMY LOAM
B LOAMY SAND	B LOAMY SAND	B LOAMY SAND	B LOAMY SAND	B LOAMY SAND	B LOAMY SAND	B LOAMY SAND	B LOAMY SAND	B LOAMY SAND	B LOAMY SAND
C1 LOAMY SAND	C1 LOAMY SAND	C1 COARSE SAND	C1 COARSE SAND	C1 LOAMY SAND	C1 LOAMY SAND	C1 MEDIUM SAND	C1 MEDIUM SAND	C1 MEDIUM SAND	C1 MEDIUM SAND
C2 LOAMY SAND	C2 LOAMY SAND	C2 FINE SAND	C2 FINE SAND	C2 LOAMY SAND	C2 LOAMY SAND	C2 VERY FINE SAND	C2 VERY FINE SAND	C2 VERY FINE SAND	C2 VERY FINE SAND
C3 LOAMY SAND	C3 LOAMY SAND	C3 COARSE SAND	C3 COARSE SAND	C3 LOAMY SAND	C3 LOAMY SAND	C3 MEDIUM SAND	C3 MEDIUM SAND	C3 MEDIUM SAND	C3 MEDIUM SAND
PERC AT 48" PERC RATE: <2 MPH NO WATER ENC.	PERC AT 48" PERC RATE: <2 MPH NO WATER ENC.	PERC AT 48" PERC RATE: <2 MPH NO WATER ENC.	PERC AT 48" PERC RATE: <2 MPH NO WATER ENC.	PERC AT 48" PERC RATE: <2 MPH NO WATER ENC.	PERC AT 48" PERC RATE: <2 MPH NO WATER ENC.	PERC AT 48" PERC RATE: <2 MPH NO WATER ENC.	PERC AT 48" PERC RATE: <2 MPH NO WATER ENC.	PERC AT 48" PERC RATE: <2 MPH NO WATER ENC.	PERC AT 48" PERC RATE: <2 MPH NO WATER ENC.