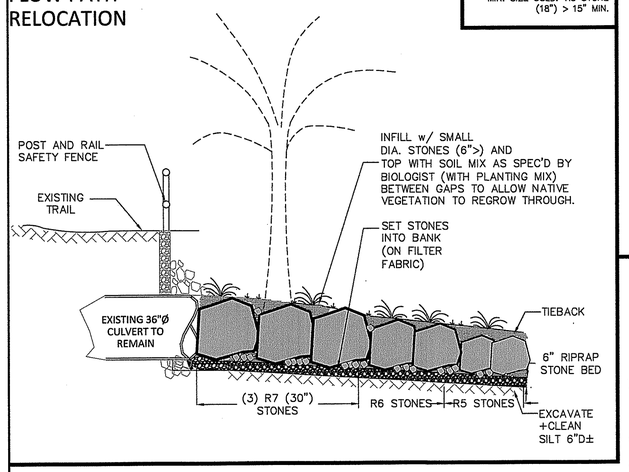
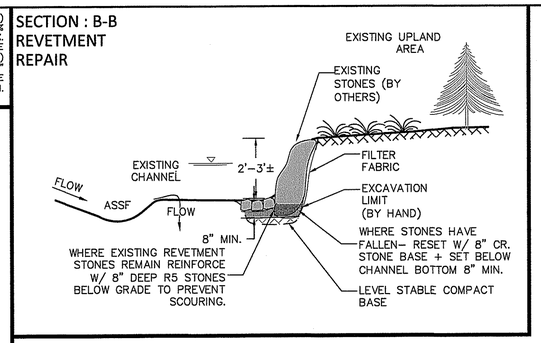
SECTION : A-A
CULVERT FLOW PATH RELOCATION

DEPTH OF ASSF: 24" (~61cm)
SLOPE OF ASSF: APPROX 5%
MAX. MIN STONE SIZE (x=15.6x61x0.04) =~(38cm) 15"
MIN. SIZE USED: R5 STONE (18") > 15" MIN.



SECTION : B-B
REVETMENT REPAIR



NEW ENGLAND WETLAND PLANTS, INC

820 WEST STREET, AMHERST, MA 01002
PHONE: 413.548.8000 FAX: 413.549.4000
EMAIL: INFO@NEWP.COM WEB ADDRESS: WWW.NEWP.COM

USE SPECIFIED SEED MIX OR EQUAL

New England Wetmix (Wetland Seed Mix)

BOTANICAL NAME	COMMON NAME	IND.
CAREX VULPINOIDEA	FOX SEDGE	OBL
CAREX LURIDA	LURID SEDGE	OBL
CAREX SCOPARIA	BLUNT BROOM SEDGE	FACW
VERBENA HASTATA	BLUE VERVAIN	FACW
SCIRPUS ATROVIRENS	GREEN BULRUSH	OBL
CAREX LUPULINA	HOP SEDGE	OBL
BIDENS CERNUA	NODDING BUR MARIGOLD	OBL
CAREX COMOSA	BRISTLY COSMOS SEDGE	OBL
CAREX CRINITA	FRINGED SEDGE	OBL
JUNCUS EFFUSUS	SOFT RUSH	FACW+
SCIRPUS CYPERINUS	WOOL GRASS	FACW
GLYCERIA GRANDIS	AMERICAN MANNA GRASS	OBL
EUPATORIUM MACULATUM	SPOTTED JOE PYE WEED	FACW
EUPATORIUM PERFOLIATUM	BONESET	FACW
ALISMA SUBCORDATUM	MUD PLANTAIN	OBL
ASTER PUNICEUS	PURPLE STEMMED ASTER	OBL
GLYCERIA CANADENSIS	RATTLESNAKE GRASS	OBL
SCIRPUS VALIDUS	SOFT STEM BULRUSH	OBL
ASCLEPIAS INCARNATA	SWAMP MILKWEED	OBL
MIMULUS RINGENS	SQUARE STEMMED MONKEY FLOWER	OBL

PRICE PER LB. $125.00
REQ. QUANTITY 1 LBS.
TOTAL $125.00
APPLY: 1 LBS/ACRE
MINIMUM QUANTITY: 1 LBS

The New England Wetmix (wetland seed mix) contains a wide variety of native seeds which are suitable for most wetland restoration sites that are not permanently inundated. All species are best suited to moist disturbed ground as found in most wet meadows, scrub/shrub, or forested wetland restoration areas. This mix is well suited for detention basin borders, and the bottom of detention basins not generally under standing water. The seeds will not germinate under inundated conditions. During the first year of growth, several species will produce seeds, while other species will produce seeds after the second growing season. Not all species will grow in all wetland situations. This mix is composed of the wetland species most likely to grow in created/restored wetlands and should produce more than 75% ground cover in two full growing seasons. Always apply on clean bare soil. The mix may be applied by hydro-seeding, by mechanical spreader, or on small sites it can be spread by hand. Lightly rake, or roll to ensure proper seed to soil contact. Best results are obtained with a spring seeding. Late spring and early summer seeding will benefit with a light mulching of clean weed-free straw to conserve moisture. If conditions are drier than usual, watering may be required. Late fall and winter dormant seeding require an increase in the seeding rate. Fertilization is not recommended. Preparation of a clean weed free seed bed is necessary for optimal results.

New England Wetland Plants, Inc. may modify seed mixes at any time depending upon seed availability. The design criteria and ecological function of the mix will remain unchanged.

Price is $/bulk pound, FOB warehouse, plus S&H and applicable taxes.

NARRAGANSETT ENGINEERING INC.

MAIN OFFICE:
3102 EAST MAIN ROAD,
PORTSMOUTH, RI 02871
TEL : (401) 683-6630

www.nei-cds.com

Environmental Management
JUL 24 2012
Office of Water Resources

SHEET TITLE:
SAKONNET GREENWAY TRAIL PHASE 1A REPAIR WETLAND PRELIMINARY DETERMINATION PLAN

PROJECT APPLICANT:
AQUIDNECK LAND TRUST
790 AQUIDNECK AVE.
MIDDLETOWN, R.I. 02842

LOT 177: MILLER PAUL R & DEBORAH E

LOCATION:
SAKONNET GREENWAY TRAIL
PORTSMOUTH, R.I. 02871

PLAT: 62 LOT: 177
PLAT: 62 LOT: 21

KAMAL R. HINGORANY
NO. 4089
REGISTERED PROFESSIONAL ENGINEER
07.20.12

PROJECT #	DATE	DRAWN	CHECK
060140	07-05-12	RBP	NKH

REVISIONS

NO.	DATE	DESCRIPTION	BY

GENERAL NOTES

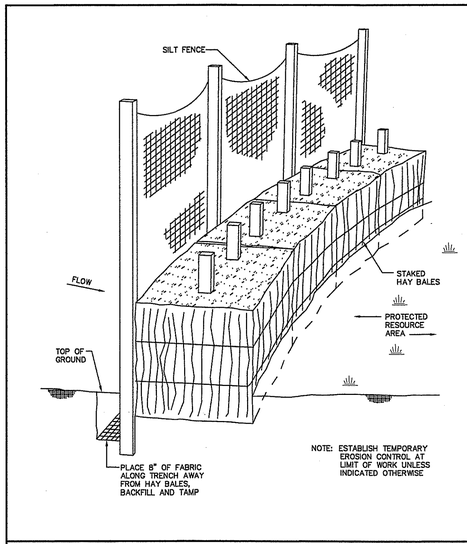
1. ALL WORK PERFORMED HEREIN SHALL BE GOVERNED BY THE R.I. STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (REVISION OF 1997) WITH ALL CORRECTIONS AND ADDENDA AND THE 1998 R.I. STANDARD DETAILS WITH ALL CORRECTIONS AND ADDENDA.
2. EMBANKMENT SLOPES AND ALL DISTURBED AREAS ARE TO RECEIVE 4" OF TOPSOIL AND SEEDED.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ESTABLISHING, MAINTAINING AND FINAL REMOVAL OF ALL TEMPORARY SEDIMENTATION AND EROSION CONTROLS.
4. IN ALL EXCAVATION AND REPLACEMENT OF FILL, THE CONTRACTOR SHALL PERFORM THE WORK IN FULL COMPLIANCE WITH THE R.I. STANDARD SPECIFICATION SECTION 202.
5. ALL EXCESS SOIL, STUMPS, TREES, ROCKS, BOULDERS AND OTHER REFUSE SHALL BE DISCARDED OFF SITE OUTSIDE OF ALL WETLANDS AND WETLANDS SETBACK AREAS UNLESS OTHERWISE SPECIFIED.
6. ALL WORK SHALL BE PERFORMED IN STRICT COMPLIANCE WITH THE REQUIREMENTS OF ALL STATE AND TOWN REGULATIONS AND PERMITS.

ORDER OF PROCEDURE

1. PRIOR TO ANY CONSTRUCTION OR EXCAVATION, HAYBALES OR SILT FENCE SHALL BE INSTALLED AT THE PROPERTY LINE OR LIMIT OF DISTURBANCE. TEMPORARY HAYBALES OR SILT FENCE SHALL BE INSTALLED AT THE LIMIT OF WORK ACTIVITY IF CONSTRUCTION IS TO BE DONE IN PHASES.
2. ALL EROSION AND SEDIMENTATION CONTROL STRUCTURES SHALL BE PERIODICALLY MAINTAINED AS PER THE RESPECTIVE PROGRAMS FOR TEMPORARY CONTROL.
3. IF WORK PROGRESS IS TO BE INTERRUPTED AT ANY TIME, REFERENCE EROSION AND SEDIMENTATION PROGRAMS FOR TEMPORARY CONTROL.
4. TEMPORARY HAYBALES AND SANDBAGS ALONG AND AT THE ENDS OF ROADWAYS MAY ALSO BE REMOVED AFTER FINAL SOIL STABILIZATION HAS BEEN ACHIEVED AND APPROVED.
5. HAYBALES LOCATED AT DRAINAGE INLETS OR OUTLETS MUST REMAIN UNTIL SUCH TIME THAT A DESIREABLE STAND OF GRASS OR GROUND COVER HAS BEEN ESTABLISHED AND THE PROJECT RECEIVES A FAVORABLE APPROVAL FOR FINAL ACCEPTANCE FROM THE AILT.

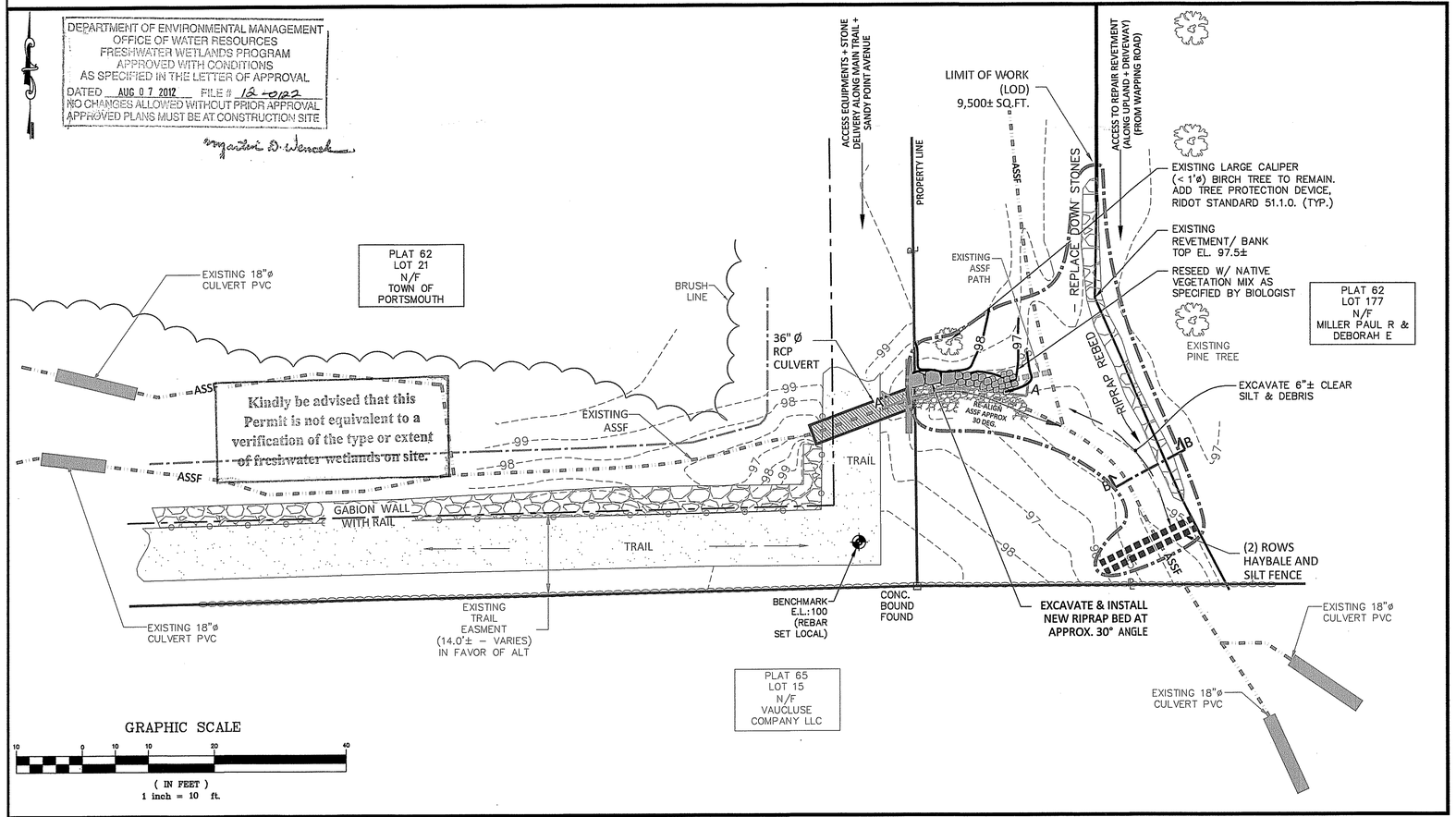
EROSION CONTROL & SOIL STABILIZATION PROGRAM

1. DENUDED SLOPES SHALL NOT BE UNATTENDED OR EXPOSED FOR EXCESSIVE PERIODS OF TIME SUCH AS THE INACTIVE WINTER SEASON.
2. ALL DISTURBED SLOPES, EITHER NEWLY CREATED OR EXPOSED PRIOR TO OCTOBER 15, SHALL BE SEEDED OR PROTECTED BY THAT DATE FOR ANY WORK COMPLETED DURING EACH CONSTRUCTION YEAR.



HAYBALE AND SILT FENCE EROSION CONTROL
N.T.S.

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED AUG 07 2012 FILE # 12-0122
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE



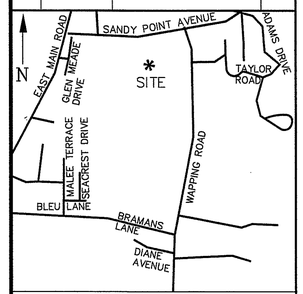
SCALE: 1" =10'
PLAN - CULVERT DETAIL

LEGEND:

- PROPERTY LINE
- 100 EXISTING CONTOUR
- 100 PROPOSED CONTOUR
- EXISTING STONE WALL
- EXISTING FENCE
- ASSF
- TREELINE/EDGE OF WOODS
- BOUND FOUND
- EXISTING TREE
- BENCHMARK

NOTES:

- DATUM IS LOCAL.
- REFERENCE PERMIT NUMBER # 06-0411 (2007).
- ALL WORK TO OCCUR IN AUGUST/ SEPTEMBER 2012 IN DRY PERIOD W/ NO SIGNIFICANT RAINFALL.
- PURPOSE OF PROJECT IS TO CORRECT 36" DIA. OUTFALL ORIENTATION. ORIGINAL PROJECT COMPLETED IN 2007, PIPE ORIENTATION LACKED HEADWALL. PURPOSES IT TO RETROFIT DIRECTION AND ALIGN FLOW WITH ORIGINAL ASSF LOCATION.
- CONTACT ENGINEER TO REVIEW ALL STAGES OF WORK, INCLUDING BUT NOT LIMITED TO GRADING AND PLACEMENT OF STONES
- PROJECT WILL NOT RESULT IN DISTURBANCE OF LAND AREA OF 10,000 SQ.FT.; RESULTS IN NO INCREASE IN FLOW DURATION, VOLUME, IMPERVIOUS OR INTENSITY AND ONLY REDIRECTS FLOW PATHS OVER A SHORT SPAN (~15')
- ACCORDING TO STD. 3.2.6 – 2010 STORMWATER MANUAL WILL NOT APPLY TO THIS PROJECT
- BASED ON ACTUAL OBSERVED FLOWS (SINCE 2007), CULVERT HAS NOT EXCEEDED 80% CAPACITY



LOCUS MAP

SHEET	SCALE
1 OF 1	1"=10'

N:\PROJECTS\060140_AILT(MASON-SAKONNET-GREENWAY)\Y1-WETLANDS PD - FORMAL\PHASE 1A\060140_ALT_G1 SVY CULVERT_RBP_07-11-2012.dwg, G1 CULVERT DETAIL, 7/23/2012 4:39:46 PM, \\NET410\HP Designjet T770 24in HPGL2, Oversize: Arch D, 1:10