

From: marsh.mike@epamail.epa.gov
To: [Minkin, Paul NAE](#); [Sneeringer, Paul J NAE](#)
Subject: Fw: revised planting table (Rivers End)
Date: Tuesday, October 30, 2012 3:07:31 PM
Attachments: [171408D005C-WORKSHEET.pdf](#)

latest plan... this is what we were working off of when I had a conversation with B+T on Rivers End Park design.

Michael Marsh
Office of Ecosystem Protection
U.S. Environmental Protection Agency - New England
5 Post Office Square
Suite 100 (OEP05-2)
Boston, MA 02109-3912

Tel: 617.918.1556
Fax: 617.918.0556
email: marsh.mike@epa.gov

----- Forwarded by Mike Marsh/R1/USEPA/US on 10/30/2012 03:03 PM -----

From: "Stacy Minihane" <sminihane@btiweb.com>
To: Mike Marsh/R1/USEPA/US@EPA
Cc: "Christopher Morris" <CMorris@apexcos.com>, "Chet Myers" <cmyers@apexcos.com>, "Eric Las" <elas@btiweb.com>
Date: 10/30/2012 01:02 PM
Subject: RE: revised planting table (Rivers End)

Mike- please see the attached in-progress pdf of the grading to facilitate discussion. I will call you to discuss your below comments.

Thank you,

Stacy H. Minihane, PWS
Associate

BEALS AND THOMAS, INC.
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From: marsh.mike@epamail.epa.gov [<mailto:marsh.mike@epamail.epa.gov>
<<mailto:marsh.mike@epamail.epa.gov>>]
Sent: Tuesday, October 30, 2012 11:45 AM
To: Stacy Minihane
Cc: Christopher Morris; Chet Myers; Eric Las

Subject: Re: revised planting table (Rivers End)

Stacy - Hopefully you are doing well after yesterday's hurricane.

This table is improved from the first draft. The table should note that the proposed elevation ranges are subject to adjustment in accordance with observations of the reference wetlands (existing on-site salt marsh).

Also both plans and cross sections should indicate planting zones for various species. Also, the existing salt marsh should be shown on plans and cross sections.

I also have some initial comments and questions about the revised plans submitted in your previous email (below) . I am hoping to discuss the plan revisions with the Corps this morning, so there may be some additional questions or comments to follow.

1. It would be helpful to have plans that show only the existing grading, features.etc. and the proposed grading features etc. I realize that this is a conceptual sketch, but both the Corps and I were having some difficulty discerning various elevations, etc., with the older grading contours and features (e.g., berms, etc.) shown.
2. It appears that the revised plan would involve grading within the existing salt marsh. Any work in the existing salt marsh should be avoided, with exception of the very small fringe areas in the northern end of the site that I discussed with Chris Morris at our meeting at EPA. But the revised design should ensure that all other existing salt marsh areas should not be impacted.
3. Please provide revised cross sections corresponding to the revised plans
4. With regard to your question about mitigation credit, we would give credit for any area that meets the definition of salt marsh - both high and low marsh.
5. Please confirm the HTL and MHW (3.71 and 2.61 feet (NGVD 1929), respectively, correct?), and indicate their location on plans and cross sections.
6. Please clarify the photo location. I assume the flag is on the post, although there appear to be two posts in the photo. Please clarify the elevation of the flagging, and your comment that the photo shows *Spartina alterniflora* extends beyond elevation ~2.0'. Assuming MHW is 2.61', I would expect *Spartina alterniflora* to grow at ~2.0' (and higher... up to ~MHW). The Corps had commented to us that they thought that target elevations may be higher than 2.0 feet. In any event, as noted before, it is our recommendation that the appropriate elevation ranges for various species be determined from using the existing on-site salt marsh as a reference site.
7. Please specify that 100% biodegradable materials will be used for erosion and sedimentation controls. The Corps noted that some erosion control materials include non-biodegradable structural elements.
8. Please clarify the design and function of the proposed fencing.
9. Plans should specify the removal of rip rap at the northern end of the site, and indicate salt marsh restoration/creation in that area.
10. Please clarify the purpose of the existing foundation at the northern end of the site. Are there future plans to construct something on that foundation, and if so, what? Could future use at this foundation have an adverse impact on mitigation project?

I'll let you know if we have further comments or questions after I have spoken to the Corps.

Thanks,

Mike

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Date: 10/30/2012 09:12 AM
Subject: revised planting table (Rivers End)

Good Morning, Mike-

Please find a revised planting table below, for your input. I believe this addresses your comments, but please advise as soon as possible if you have other changes. (Note: the colors, areas and plant numbers will be completed upon finalization).

Thank you-

Stacy H. Minihane, PWS
Associate

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Planting List

Legend	Tidal Regime	Elevation	Area (sf)	Plant Species	% Coverage/Spacing	Size
Color 1	Low Marsh					
(Regular Inundation)		Up to El. 2.6'	#	Smooth cordgrass (Spartina alterniflora)		100% at 1.5'
		on center, 2 culms per hole	(___ plants)	plugs		

Color 2a High Marsh
 (Periodic Inundation) El. 2.6' – 3.2' # Salt meadow grass (*Spartina patens*) 60% at 1' on center (___ plants) plugs
 Spike grass (*Distichlis spicata*) 30% at 1' on center (___ plants) plugs
 Black grass (*Juncus gerardii*) 10% at 1' on center (___ plants) Plugs

Color 2b High Marsh
 (Periodic Inundation) El. 3.2' – 3.7' # Salt meadow grass (*Spartina patens*) 60% at 1' on center (___ plants) plugs
 Spike grass (*Distichlis spicata*) 30% at 1' on center (___ plants) plugs
 Black grass (*Juncus gerardii*) 10% at 1' on center (___ plants) plugs
 New England Coastal Salt Tolerant Grass Mix 100% at 1250 sf per pound

seed
 Marsh elder (*Iva frutescens*) ___ plants @ 4' on center 2'-3'

Color 2c High Marsh (Infrequent Inundation) El. 3.7' – 4.5' # New England Coastal Salt Tolerant Grass Mix 100% at 625 sf per pound seed
 Seaside goldenrod (*Solidago sempervirens*) 25% at 950 sf per pound

seed
 Marsh elder (*Iva frutescens*) ___ plants @ 4' on center 2'-3'

Color 3 Upland El. 4.5' and up # New England Coastal Salt Tolerant Grass Mix 100% at 625 sf per pound seed
 Eastern showy aster (*Eurybia spectabilis*) 25% at 950 sf per pound seed
 Threadleaf coreopsis (*Coreopsis verticillata*) 25% at 950 sf per pound seed
 Beach plum (*Prunus maritima*) ___ plants at 6' on center 2'-3'
 Northern bayberry (*Myrica pensylvanica*) ___ plants at 6' on center 2'-3'

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For further information, please contact the EPA Call Center at (866) 411-4EPA (4372). The TDD number is (866) 489-4900.

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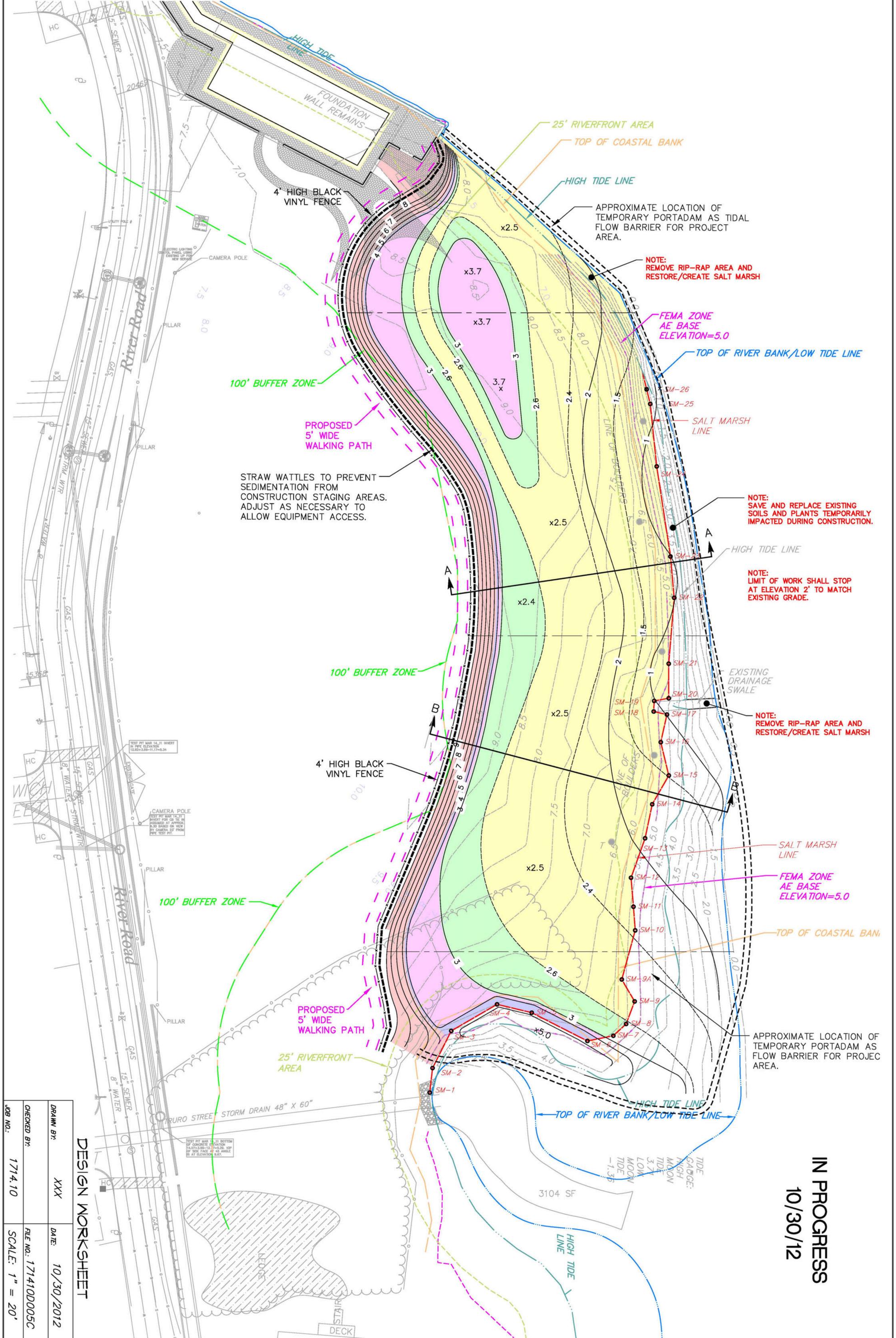
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STRAW WATTLES TO PREVENT SEDIMENTATION FROM CONSTRUCTION STAGING AREAS. ADJUST AS NECESSARY TO ALLOW EQUIPMENT ACCESS.

NOTE: REMOVE RIP-RAP AREA AND RESTORE/CREATE SALT MARSH

NOTE: SAVE AND REPLACE EXISTING SOILS AND PLANTS TEMPORARILY IMPACTED DURING CONSTRUCTION.

NOTE: LIMIT OF WORK SHALL STOP AT ELEVATION 2' TO MATCH EXISTING GRADE.

NOTE: REMOVE RIP-RAP AREA AND RESTORE/CREATE SALT MARSH

FEMA ZONE AE BASE ELEVATION=5.0

APPROXIMATE LOCATION OF TEMPORARY PORTADAM AS FLOW BARRIER FOR PROJECT AREA.

DESIGN WORKSHEET

JOB NO.:	1714.10
CHECKED BY:	XXX
DATE:	10/30/2012
FILE NO.:	171410D0005C
SCALE:	1" = 20'

IN PROGRESS
10/30/12