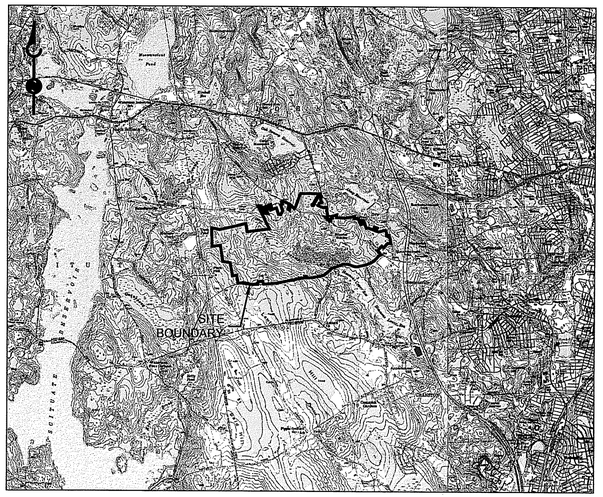
# PHASE VI LANDFILL
# PERMIT MODIFICATION
# RIDEM FRESHWATER WETLANDS
# REQUEST FOR A PRELIMINARY DETERMINATION
# CENTRAL LANDFILL

## 65 SHUN PIKE
## JOHNSTON, RHODE ISLAND




SITE LOCUS

**PREPARED FOR:**

RHODE ISLAND RESOURCE RECOVERY CORPORATION

JOHNSTON, R.I.

PREPARED BY:

Brown AND Caldwell

*151 Campanelli Drive, Suite B*
*Middleborough, Massachusetts 02346*
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**JANUARY, 2014**

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED MAR 14 2014 FILE # 07-0179
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

## DRAWING INDEX

| SHEET NO. | DRAWING | TITLE |
|---|---|---|
| 1 | C-1R | COVER SHEET |
| 2 | C-2.1* | PROPERTY LINE PLAN* |
| 3 | C-2.2* | HALF MILE RADIUS* |
| 4 | C-3.1* | OVERALL SITE PLAN* |
| 5 | C-3.2R | EXISTING CONDITIONS PLAN 1 |
| 6 | C-3.3R | EXISTING CONDITIONS PLAN 2 |
| 7 | C-3.4* | CURRENT BORROW PIT CONDITIONS PLAN* |
| 8 | C-4.1R | PROPOSED BASELINER SUBGRADE PLAN 1 |
| 9 | C-4.2R | PROPOSED BASELINER SUBGRADE PLAN 2 |
| 10 | C-4.3R | PROPOSED TOP OF BASELINER GRADING PLAN 1 |
| 11 | C-4.4R | PROPOSED TOP OF BASELINER GRADING PLAN 2 |
| 12 | C-5.1R | FILLING PLAN AREA 1 - NO. 1 |
| 13 | C-5.2R | FILLING PLAN AREA 1 - NO. 2 |
| 14 | C-5.3R | FILLING PLAN AREA 3 - NO. 1 |
| 15 | C-5.4R | FILLING PLAN AREA 3 - NO. 2 |
| 16 | C-5.5R | FILLING PLAN AREA 2 - NO. 1 |
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## DRAWING INDEX

| SHEET NO. | DRAWING | TITLE |
|---|---|---|
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| 22 | C-6.1* | TYPICAL SIDE SLOPE DETAILS (1 OF 3)* |
| 23 | C-6.2* | TYPICAL SIDE SLOPE DETAILS (2 OF 3)* |
| 24 | C-6.3* | TYPICAL SIDE SLOPE DETAILS (3 OF 3)* |
| 25 | C-6.4R | TYPICAL SIDE SLOPE DETAILS |
| 26 | C-7.1R | CAPPING PLAN 1 |
| 27 | C-7.2R | CAPPING PLAN 2 |
| 28 | C-7.3* | CAPPING DETAILS* |
| 29 | C-8.1R | PROPOSED CONSTRUCTION SECTION PROFILES 1 |
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| 31 | C-9.1* | SEDIMENTATION POND DETAILS* |
| 32 | C-9.2* | SEDIMENTATION POND DETAILS* |
| 33 | C-9.3* | EROSION AND SEDIMENTATION CONTROL DETAILS* |
| 34 | C-9.4* | STORMWATER AND E&S CONTROL MAINTENANCE NOTES* |
| 35 | C-9.5 | SEDIMENTATION POND DETAILS |
| 36 | C-10.1* | POND OUTLET PROFILES* |
| 37 | C-10.2* | POND OUTLET PROFILES* |
| 38 | C-10.3* | POND OUTLET PROFILES* |

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* Not included in this plan set. Refer to original approved plan set: "RIDEM Freshwater Wetlands Request for a Preliminary Determination", Pare June 2009.

JR FREY
No. 10184
REGISTERED PROFESSIONAL ENGINEER
CIVIL
1-15-14

## GENERAL NOTES:

1. This plan set includes only sheets which are part of the "Phase VI Permit Modification to the RIDEM Freshwater Wetlands Request for a Preliminary Determination", Brown and Caldwell January 2014. Some sheets in this set refer to one or more sheets in the original approved plan set: "RIDEM Freshwater Wetlands Request for a Preliminary Determination", Pare June 2009. Sheets in this plan set which include an "R" in the drawing number are revised versions of the corresponding sheet of the original approved plan set. Information shown on a revised ("R") drawing supersedes information shown on the original drawing, except as noted.
2. The Limit of Revised Grading indicates the extent of grading changes made by Brown and Caldwell to the original approved plan set.

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W:\north\Projects\RIRRC\144857.200\RC_Phase6_Wetlands_Permit_Mod\CADD\2-Sheets\C-Civil\2x36 Mod Plans 2013\BC-cover.dwg

MATCH TO C-3.3R EXISTING CONDITIONS PLAN 2

PROPOSED PHASE VI AREA-3 (32.1 ACRES)

EXISTING ELECTRIC GENERATING FACILITY

EXISTING LEACHATE PRETREATMENT FACILITY

EXISTING SEDIMENTATION POND 3

EXISTING SEDIMENTATION POND 2

PROPOSED PHASE VI AREA-1 (22.7 ACRES)

OLIN PUMP AND TREAT SYSTEM

PROPOSED PHASE VI AREA-1A (12.4 ACRES)

PROPOSED PHASE VI AREA-3A (37.5 ACRES)

EXISTING PHASE I LANDFILL

EXISTING PHASE V LANDFILL

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MAR - 5 2014
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GENERAL NOTES:

1. TOPOGRAPHIC INFORMATION AND EXISTING SITE FEATURES WERE TAKEN FROM A PLAN ENTITLED "EXISTING CONDITIONS PLAN, PHASE VI LANDFILL, LICENSING PERMIT APPLICATION", DATED APRIL 2007, PREPARED BY GZA GEOENVIRONMENTAL, INC./PARE CORPORATION.

2. LIMIT OF WETLAND DELINEATION WAS TAKEN FROM A PLAN ENTITLED "EXISTING CONDITIONS PLAN, PHASE VI LANDFILL, LICENSING PERMIT APPLICATION", DATED APRIL 2007, PREPARED BY GZA GEOENVIRONMENTAL, INC./PARE CORPORATION.

3. THE HORIZONTAL AND VERTICAL DATUM SHOWN HEREON IS BASED UPON RHODE ISLAND STATE GRID.

4. THESE PLANS HAVE BEEN PREPARED AS A MODIFICATION TO PREVIOUSLY APPROVED SET OF PLANS ENTITLED "PHASE VI LANDFILL RIDEM FRESHWATER WETLANDS REQUEST FOR PRELIMINARY DETERMINATION", DATED APRIL 2008 (REVISED NOVEMBER 2009), PREPARED BY PARE CORPORATION.

LEGEND

- EXISTING CONTOUR
- PROPOSED PHASE V FINAL CONTOUR
- PROPERTY BOUNDARY
- LIMIT OF WETLANDS
- EXISTING PHASE LINE
- LIMIT OF PROPOSED PHASE VI LANDFILL
- LIMIT OF PROPOSED AREAS
- LIMIT OF DISTURBANCE
- EXISTING ROAD
- EXISTING WELL
- EXISTING CULVERT
- EXISTING BUILDING
- EXISTING UNDERGROUND ELECTRIC LINE
- EXISTING GAS LINE

0 100 200
SCALE IN FEET

GENERAL NOTES:
(SEE SHEET 1 OF 38)

REVISIONS

| ZONE | REV. | DESCRIPTION | BY | DATE | APP. |
|---|---|---|---|---|---|

JR FREY No. 10184 REGISTERED PROFESSIONAL ENGINEER CIVIL

Brown and Caldwell

LINE IS 2 INCHES AT FULL SIZE (IF NOT 2" - SCALE ACCORDINGLY)

DESIGNED:
DRAWN:
CHECKED:
CHECKED:
APPROVED:

RHODE ISLAND RESOURCE RECOVERY CORPORATION
CENTRAL LANDFILL, 65 SHUN PIKE, JOHNSTON, RHODE ISLAND

RIDEM WETLANDS PERMIT MODIFICATION APPLICATION
RIRRC CENTRAL LANDFILL - PHASE VI
EXISTING CONDITIONS PLAN 1

BC PROJECT NUMBER
140152

FIGURE NUMBER
C-3.2R

SHEET NUMBER
5 OF 38

Jan 14, 2014 - 2:20pm cward
\\bcmldfp01\projects\RIRRC\144867_RIRRC_PhaseVI_Wetlands_Permit_Mod\CADD\2-Sheets\C-Civil\24x36 Mod Plans 2013\BC-3.2 and 3.3.dwg

GENERAL NOTES:

1. TOPOGRAPHIC INFORMATION AND EXISTING SITE FEATURES WERE TAKEN FROM A PLAN ENTITLED "EXISTING CONDITIONS PLAN, PHASE VI LANDFILL, LICENSING PERMIT APPLICATION", DATED APRIL 2007, PREPARED BY GZA GEOENVIRONMENTAL, INC./PARE CORPORATION.

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LIMIT OF PROPOSED PHASE VI LANDFILL (152.7 ACRES)

PROPOSED PHASE VI AREA-5 (13.5 ACRES)

PROPOSED PHASE VI AREA-4 (20.5 ACRES)

PROPOSED PHASE VI AREA-2 (13.9 ACRES)

EXISTING RECOVERMAT FACILITY

EXISTING MATERIAL RECYCLING FACILITY

EXISTING FACILITY ENTRANCE

EXISTING ADMINISTRATION BUILDING

EXISTING TIPPING FACILITY

EXISTING RETAINING WALL

50' PERIMETER WETLAND

WETLAND SERIES "B"

SHUN PIKE

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MATCH TO C-3.2R EXISTING CONDITIONS PLAN 1

0 100 200
SCALE IN FEET

GENERAL NOTES:
(SEE SHEET 1 OF 38)

LEGEND

- 440 — EXISTING CONTOUR
- 440 — PROPOSED PHASE V FINAL CONTOUR
- PROPERTY BOUNDARY
- LIMIT OF WETLANDS
- EXISTING PHASE LINE
- LIMIT OF PROPOSED PHASE VI LANDFILL
- LIMIT OF PROPOSED AREAS
- LIMIT OF DISTURBANCE
- EXISTING ROAD
- EXISTING WELL
- EXISTING CULVERT
- EXISTING BUILDING
- UE — EXISTING UNDERGROUND ELECTRIC LINE
- GAS — GAS — EXISTING GAS LINE

| ZONE | REV. | DESCRIPTION | BY | DATE | APP. |
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CIVIL

Brown AND Caldwell

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RHODE ISLAND RESOURCE RECOVERY CORPORATION
CENTRAL LANDFILL, 65 SHUN PIKE, JOHNSTON, RHODE ISLAND

RIDEM WETLANDS PERMIT MODIFICATION APPLICATION
RIRRC CENTRAL LANDFILL - PHASE VI
EXISTING CONDITIONS
PLAN 2

BC PROJECT NUMBER
140152

FIGURE NUMBER
C-3.3R

SHEET NUMBER
6 OF 38

Jan 14, 2014 - 2:21pm
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oward

MATCH TO C-4.2R PROPOSED BASELINER SUBGRADE PLAN 2

PROPOSED PHASE VI AREA-1

FUTURE PHASE VI AREA-1A

FUTURE PHASE VI AREA-3

FUTURE PHASE VI AREA-3A

EXISTING PHASE I LANDFILL

EXISTING LEACHATE PRETREATMENT FACILITY

EXISTING SEDIMENTATION POND 3

EXISTING LEACHATE EQUALIZATION & AERATING BASIN

EXISTING

0 100 200
SCALE IN FEET

## LEGEND

- EXISTING CONTOUR
- PROPOSED PHASE V FINAL CONTOUR
- LIMIT OF WETLANDS
- EXISTING PHASE LINE
- PROPOSED PHASE LINE
- LIMIT OF PROPOSED AREAS
- LIMIT OF REVISED GRADING
- PROPOSED SUBGRADE CONTOUR
- PROPOSED ACCESS ROAD
- PROPERTY BOUNDARY
- LIMIT OF DISTURBANCE
- EXISTING ROAD
- EXISTING WELL
- EXISTING CULVERT
- EXISTING BUILDING
- EXISTING UNDERGROUND ELECTRIC LINE
- EXISTING GAS LINE

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## GENERAL NOTES:

(SEE SHEET 1 OF 38)

NOTES:

1. REFER TO SHEETS 26 AND 27 (OF 38) FOR DETAILED INFORMATION REGARDING THE STORMWATER MANAGEMENT SYSTEM.

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
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Martin D. Wenck

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Brown AND Caldwell

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RHODE ISLAND RESOURCE RECOVERY CORPORATION
CENTRAL LANDFILL, 65 SHUN PIKE, JOHNSTON, RHODE ISLAND

**RIDEM WETLANDS PERMIT MODIFICATION APPLICATION**
RIRRC CENTRAL LANDFILL - PHASE VI
# PROPOSED BASELINER SUBGRADE PLAN 1

BC PROJECT NUMBER
140152

FIGURE NUMBER
C-4.1R

SHEET NUMBER
8 OF 38

Jan 15, 2014 - 3:05pm cward
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## GENERAL NOTES:

(SEE SHEET 1 OF 38)

NOTES:

1. REFER TO SHEETS 26 AND 27 (OF 38) FOR DETAILED INFORMATION REGARDING THE STORMWATER MANAGEMENT SYSTEM.

2. SEE INSET 'A' FOR PROPOSED POND OUTLET ALIGNMENT ON FIGURE C-4.2 OF THE APPROVED PLAN SET.

## LEGEND

- EXISTING CONTOUR
- PROPOSED PHASE V FINAL CONTOUR
- LIMIT OF WETLANDS
- EXISTING PHASE LINE
- PROPOSED PHASE LINE
- LIMIT OF PROPOSED AREAS
- LIMIT OF REVISED GRADING
- PROPOSED SUBGRADE CONTOUR
- PROPOSED ACCESS ROAD
- PROPERTY BOUNDARY
- LIMIT OF DISTURBANCE
- EXISTING ROAD
- EXISTING WELL
- EXISTING CULVERT
- EXISTING BUILDING
- EXISTING UNDERGROUND ELECTRIC LINE
- EXISTING GAS LINE

0 100 200

SCALE IN FEET

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PROPOSED POND 13

PROPOSED PRE-TREATMENT BUILDING

FUTURE PHASE VI AREA-5

PROPOSED 55' WIDE ACCESS ROAD

FUTURE PHASE VI AREA-2

FUTURE PHASE VI AREA-4

PROPOSED SEDIMENTATION POND 14

EXISTING FACILITY ENTRANCE

SHUN PIKE

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MATCH TO C-4.1R PROPOSED BASELINER SUBGRADE PLAN 1

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JR FREY
No. 10184
REGISTERED PROFESSIONAL ENGINEER
CIVIL
1-15-14

Brown AND Caldwell

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APPROVED:

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CENTRAL LANDFILL, 65 SHUN PIKE, JOHNSTON, RHODE ISLAND

**RIDEM WETLANDS PERMIT MODIFICATION APPLICATION**
RIRRC CENTRAL LANDFILL - PHASE VI
# PROPOSED BASELINER SUBGRADE PLAN 2

BC PROJECT NUMBER
140152

FIGURE NUMBER
C-4.2R

SHEET NUMBER
9 OF 38

MATCH TO C-4.4R PROPOSED TOP OF AREA 1 BASELINER GRADING PLAN 2

PROPOSED
PHASE VI
AREA-1
(PRIMARY BASELINER ELEVATIONS)

PROPOSED
PHASE VI
AREA-3
(SUBGRADE ELEVATIONS)

PROPOSED
PHASE VI
AREA-1A
(PRIMARY BASELINER ELEVATIONS)

FUTURE
PHASE VI
AREA-3A

EXISTING
PHASE I
LANDFILL

EXISTING LEACHATE
PRETREATMENT
FACILITY

PROPOSED
(2) 18" RCP CULVERT
W/ FLARED END SECTIONS
(EXISTING BOX CULVERTS TO
BE REMOVED)

EXISTING
SEDIMENTATION
POND 2
(SEE NOTE #1)

EXISTING
SEDIMENTATION
POND 3 (TO BE
REMOVED)

PROPOSED
SOUTH WEST
DETENTION BASIN

EXISTING OU1 PUMP AND TREAT SYSTEM
(TO BE REMOVED)

S= 0.02 (MIN.)

0 100 200
SCALE IN FEET

## LEGEND

- EXISTING CONTOUR
- PROPOSED PHASE V FINAL CONTOUR
- LIMIT OF WETLANDS
- EXISTING PHASE LINE
- PROPOSED PHASE LINE
- LIMIT OF PROPOSED AREAS
- LIMIT OF REVISED GRADING
- PROPOSED CONTOUR
- EXISTING ACCESS ROAD
- PROPOSED ACCESS ROAD
- PROPERTY BOUNDARY
- LIMIT OF DISTURBANCE
- EXISTING ROAD
- EXISTING WELL
- EXISTING CULVERT
- EXISTING BUILDING
- EXISTING UNDERGROUND ELECTRIC LINE
- EXISTING GAS LINE

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Office of Water Resources
MAR - 6 2014

## GENERAL NOTES:

(SEE SHEET 1 OF 38)

NOTES:

1. FOR DETAILED INFORMATION REGARDING PROPOSED SEDIMENTATION PONDS AND ASSOCIATED CULVERTS REFER TO FIGURES C-9.1 AND C-9.2 OF APPROVED PLAN SET AND FIGURE C-9.5 OF THIS PLAN SET.

REVISIONS

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J R FREY
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REGISTERED
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CIVIL

Brown AND Caldwell

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CENTRAL LANDFILL, 65 SHUN PIKE, JOHNSTON, RHODE ISLAND

**RIDEM WETLANDS PERMIT MODIFICATION APPLICATION**
RIRRC CENTRAL LANDFILL - PHASE VI
PROPOSED TOP OF AREA 1
BASELINER GRADING PLAN 1

BC PROJECT NUMBER
140152

FIGURE NUMBER
C-4.3R

SHEET NUMBER
10 OF 38

Jan 15, 2014 - 3:01pm cward
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NOTES:

1. FOR DETAILED INFORMATION REGARDING PROPOSED SEDIMENTATION PONDS AND ASSOCIATED CULVERTS REFER TO FIGURES C-9.1 AND C-9.2 OF APPROVED PLAN SET AND FIGURE C-9.5 OF THIS PLAN SET.

2. SEE INSET 'A' FOR PROPOSED POND OUTLET ALIGNMENT ON FIGURE C-4.4 OF THE APPROVED PLAN SET.

## GENERAL NOTES:

(SEE SHEET 1 OF 38)

0 100 200
SCALE IN FEET

## LEGEND

- EXISTING CONTOUR
- PROPOSED PHASE V FINAL CONTOUR
- LIMIT OF WETLANDS
- EXISTING PHASE LINE
- PROPOSED PHASE LINE
- LIMIT OF PROPOSED AREAS
- LIMIT OF REVISED GRADING
- PROPOSED CONTOUR
- EXISTING ACCESS ROAD
- PROPOSED ACCESS ROAD
- PROPERTY BOUNDARY
- LIMIT OF DISTURBANCE
- EXISTING ROAD
- EXISTING WELL
- EXISTING CULVERT
- EXISTING BUILDING
- EXISTING UNDERGROUND ELECTRIC LINE
- EXISTING GAS LINE

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PROPOSED POND 13 (SEE NOTE #1)

FUTURE PHASE VI AREA-5

FUTURE PHASE VI AREA-4

FUTURE PHASE VI AREA-2

EXISTING MATERIAL RECYCLING FACILITY

EXISTING RECOVERMAT FACILITY

EXISTING ACCESS ROAD WIDTH VARIES

PROPOSED TEMPORARY ACCESS ROAD

TEMPORARY POND 1

TEMPORARY POND 2

EXISTING ADMINISTRATION BUILDING

10' WIDE OUTLET WEIR CREST EL.= 317.30

TEMPORARY 3' HDPE CULVERT
INV. IN= 312.00
INV. OUT= 308.00
(EXISTING CULVERT TO BE REMOVED)

TEMPORARY 24" HDPE CULVERT
INV. IN= 307.30
INV. OUT= 305.86
(EXISTING CULVERT TO BE REMOVED)

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MATCH TO C-4.3R PROPOSED TOP OF AREA 1 BASELINER GRADING PLAN 1

| REVISIONS | | | | |
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JR FREY
No. 10184
REGISTERED PROFESSIONAL ENGINEER
CIVIL

Brown AND Caldwell

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APPROVED:

RHODE ISLAND RESOURCE RECOVERY CORPORATION
CENTRAL LANDFILL, 69 SHUN PIKE, JOHNSTON, RHODE ISLAND

RIDEM WETLANDS PERMIT MODIFICATION APPLICATION
RIRRC CENTRAL LANDFILL - PHASE VI

# PROPOSED TOP OF AREA 1 BASELINER GRADING PLAN 2

BC PROJECT NUMBER
140152

FIGURE NUMBER
C-4.4R

SHEET NUMBER
11 OF 38

Jan 15, 2014 - 3:01pm
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MATCH TO C-5.2R FILLING PLAN AREA 1 – NO. 2

PROPOSED 50' WIDE LANDFILL ACCESS ROAD

PROPOSED PHASE VI AREA-1 (INTERMEDIATE FILL ELEVATIONS)

PROPOSED PHASE VI AREA-3 (PRIMARY BASELINER ELEVATIONS)

PROPOSED PHASE VI AREA-3A (PRIMARY BASELINER ELEVATIONS)

PROPOSED PHASE VI AREA-1A (INTERMEDIATE FILL ELEVATIONS)

20' WIDE MID-SLOPE BENCH (SEE DETAIL B/16)

EXISTING PHASE I LANDFILL

EXISTING SEDIMENTATION POND 2

0 100 200
SCALE IN FEET

## LEGEND

- EXISTING CONTOUR
- PROPOSED PHASE V FINAL CONTOUR
- LIMIT OF WETLANDS
- EXISTING PHASE LINE
- PROPOSED PHASE LINE
- LIMIT OF PROPOSED AREAS
- LIMIT OF REVISED GRADING
- PROPOSED CONTOUR
- EXISTING ACCESS ROAD
- PROPOSED ACCESS ROAD
- PROPERTY BOUNDARY
- LIMIT OF DISTURBANCE
- EXISTING ROAD
- EXISTING WELL
- EXISTING CULVERT
- EXISTING BUILDING
- EXISTING UNDERGROUND ELECTRIC LINE
- EXISTING GAS LINE

## GENERAL NOTES:

(SEE SHEET 1 OF 38)

Environmental Management
MAR – 6 2014
Office of Water Resources

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED MAR 14 2014 FILE # 07-0179
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

REVISIONS

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J R FREY No. 10184 REGISTERED PROFESSIONAL ENGINEER CIVIL 1-15-14

Brown and Caldwell

LINE IS 2 INCHES AT FULL SIZE (IF NOT 2" SCALE ACCORDINGLY)

DESIGNED:
DRAWN:
CHECKED:
CHECKED:
APPROVED:

RHODE ISLAND RESOURCE RECOVERY CORPORATION
CENTRAL LANDFILL, 65 SHUN PIKE, JOHNSTON, RHODE ISLAND

**RIDEM WETLANDS PERMIT MODIFICATION APPLICATION**
RIRRC CENTRAL LANDFILL - PHASE VI
# FILLING PLAN AREA 1 NO. 1

BC PROJECT NUMBER
140152

FIGURE NUMBER
C-5.1R

SHEET NUMBER
12 OF 38

Jan 15, 2014 - 2:58pm cward
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PROPOSED POND 13

FUTURE PHASE VI AREA-5

FUTURE PHASE VI AREA-4

FUTURE PHASE VI AREA-2

EXISTING MATERIAL-RECYCLING FACILITY

EXISTING RECOVERMAT FACILITY

EXISTING ADMINISTRATION BUILDING

Kindly be advised that this Permit is not equivalent to a verification of the type or extent of freshwater wetlands on site.

MATCH TO C-5.1R FILLING PLAN AREA 1 – NO. 1

## GENERAL NOTES:

(SEE SHEET 1 OF 38)

0 100 200
SCALE IN FEET

## LEGEND

- EXISTING CONTOUR
- PROPOSED PHASE V FINAL CONTOUR
- LIMIT OF WETLANDS
- EXISTING PHASE LINE
- PROPOSED PHASE LINE
- LIMIT OF PROPOSED AREAS
- LIMIT OF REVISED GRADING
- PROPOSED CONTOUR
- EXISTING ACCESS ROAD
- PROPOSED ACCESS ROAD
- PROPERTY BOUNDARY
- LIMIT OF DISTURBANCE
- EXISTING ROAD
- EXISTING WELL
- EXISTING CULVERT
- EXISTING BUILDING
- EXISTING UNDERGROUND ELECTRIC
- EXISTING GAS LINE

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Brown and Caldwell

LINE IS 2 INCHES AT FULL SIZE
(IF NOT 2" - SCALE ACCORDINGLY)

DESIGNED:
DRAWN:
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RHODE ISLAND RESOURCE RECOVERY CORPORATION
CENTRAL LANDFILL, 65 SHUN PIKE, JOHNSTON, RHODE ISLAND

**RIDEM WETLANDS PERMIT MODIFICATION APPLICATION**
RIRRC CENTRAL LANDFILL - PHASE VI
# FILLING PLAN AREA 1 NO. 2

BC PROJECT NUMBER
140152

FIGURE NUMBER
C-5.2R

SHEET NUMBER
13 OF 38

Jan 15, 2014 - 2:59pm cward
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MATCH TO C-5.4R FILLING PLAN AREA 3 – NO. 2

PROPOSED 50' WIDE ACCESS ROAD

PROPOSED PHASE VI AREA-1

PROPOSED PHASE VI AREA-3 (INTERMEDIATE FILL ELEVATIONS)

PROPOSED PHASE VI AREA-3A (INTERMEDIATE FILL ELEVATIONS)

PROPOSED PHASE VI AREA-1A

EXISTING PHASE I LANDFILL

EXISTING SEDIMENTATION POND 2

PROPOSED 20' WIDE MID-SLOPE BENCH (SEE DETAIL B/25)

PROPOSED MID-SLOPE BENCH TO CONNECT TO EXISTING LET-DOWN CHANNEL

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DATED MAR 14 2014 FILE # 07-0179
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

0 100 200
SCALE IN FEET

## LEGEND

- EXISTING CONTOUR
- PROPOSED PHASE V FINAL CONTOUR
- LIMIT OF WETLANDS
- EXISTING PHASE LINE
- PROPOSED PHASE LINE
- LIMIT OF PROPOSED AREAS
- LIMIT OF REVISED GRADING
- PROPOSED CONTOUR
- EXISTING ACCESS ROAD
- PROPOSED ACCESS ROAD
- PROPOSED MID-SLOPE BENCH
- PROPERTY BOUNDARY
- LIMIT OF DISTURBANCE
- EXISTING ROAD
- EXISTING WELL
- EXISTING CULVERT
- EXISTING BUILDING
- EXISTING UNDERGROUND ELECTRIC LINE
- EXISTING GAS LINE

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## GENERAL NOTES:

(SEE SHEET 1 OF 38)

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Brown AND Caldwell

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CENTRAL LANDFILL, 65 SHUN PIKE, JOHNSTON, RHODE ISLAND

**RIDEM WETLANDS PERMIT MODIFICATION APPLICATION**
RIRRC CENTRAL LANDFILL - PHASE VI
FILLING PLAN AREA 3 NO. 1

BC PROJECT NUMBER
140152

FIGURE NUMBER
C-5.3R

SHEET NUMBER
14 OF 38

Jan 15, 2014 - 2:55pm cward
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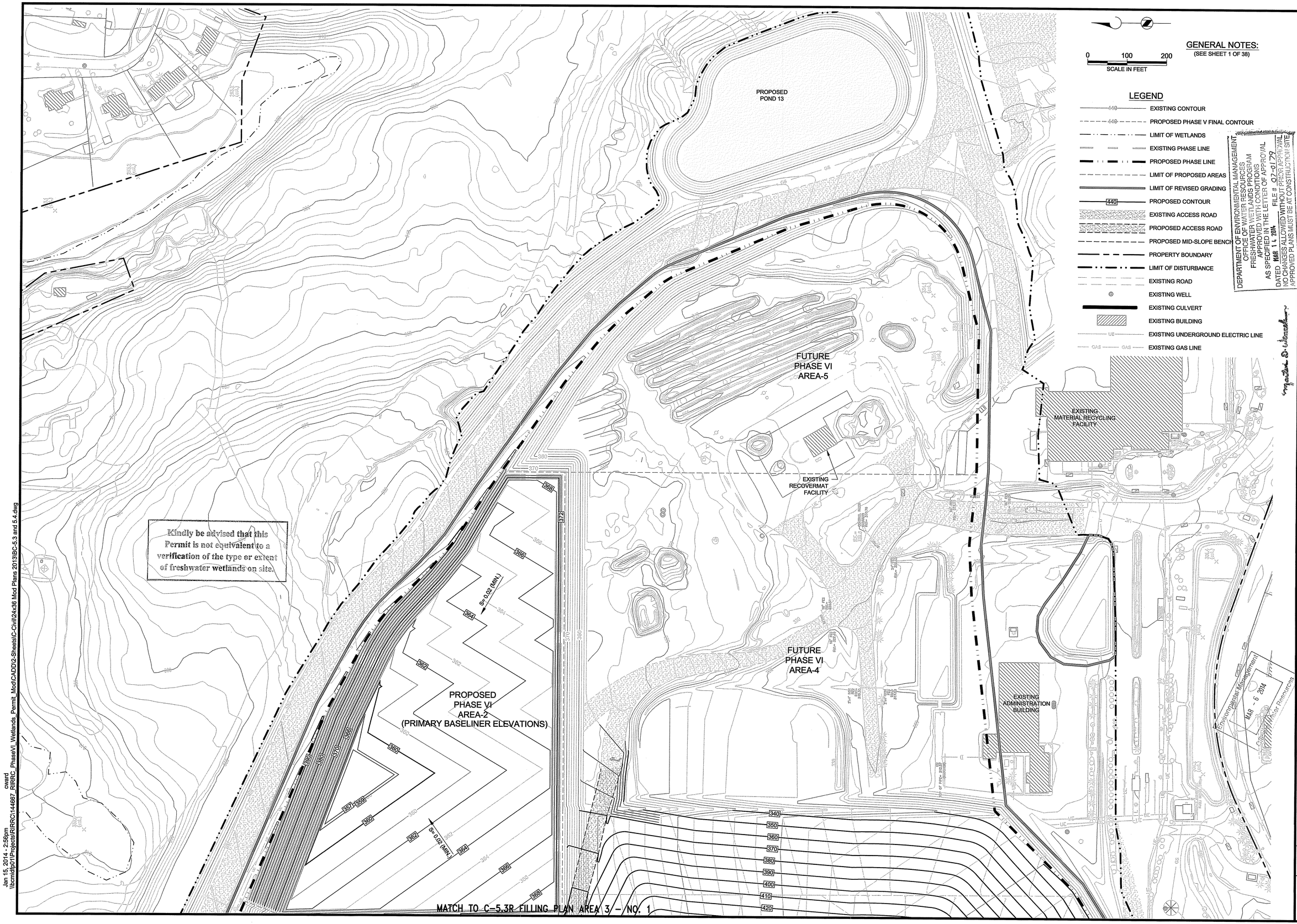


## GENERAL NOTES:

(SEE SHEET 1 OF 38)

0 100 200
SCALE IN FEET

## LEGEND

- EXISTING CONTOUR
- PROPOSED PHASE V FINAL CONTOUR
- LIMIT OF WETLANDS
- EXISTING PHASE LINE
- PROPOSED PHASE LINE
- LIMIT OF PROPOSED AREAS
- LIMIT OF REVISED GRADING
- PROPOSED CONTOUR
- EXISTING ACCESS ROAD
- PROPOSED ACCESS ROAD
- PROPOSED MID-SLOPE BENCH
- PROPERTY BOUNDARY
- LIMIT OF DISTURBANCE
- EXISTING ROAD
- EXISTING WELL
- EXISTING CULVERT
- EXISTING BUILDING
- EXISTING UNDERGROUND ELECTRIC LINE
- EXISTING GAS LINE

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OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED MAR 14 2014 FILE # 92-0179
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
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J R FREY
No. 10184
REGISTERED PROFESSIONAL ENGINEER
CIVIL

Brown AND Caldwell

LINE IS 2 INCHES AT FULL SIZE
(IF NOT 2" - SCALE ACCORDINGLY)

DESIGNED:
DRAWN:
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APPROVED:

RHODE ISLAND RESOURCE RECOVERY CORPORATION
CENTRAL LANDFILL, 65 SHUN PIKE, JOHNSTON, RHODE ISLAND

RIDEM WETLANDS PERMIT MODIFICATION APPLICATION
RIRRC CENTRAL LANDFILL - PHASE VI
FILLING PLAN AREA 3
NO. 2

BC PROJECT NUMBER
140152

FIGURE NUMBER
C-5.4R

SHEET NUMBER
15 OF 38

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cward

MATCH TO C-5.6R FILLING PLAN AREA 2 - NO. 2

TRANSITION LET-DOWN CHANNEL INTO SWALE

PROPOSED 20' WIDE MID-SLOPE BENCH (SEE DETAIL B/25)

FUTURE LET-DOWN CHANNEL (TYP.)

PROPOSED PHASE VI AREA-1

PROPOSED PHASE VI AREA-1A

PROPOSED PHASE VI AREA-3

PROPOSED PHASE VI AREA-3A

EXISTING PHASE I LANDFILL

EXISTING SEDIMENTATION POND 2

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS/ITEM
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED MAR 1, 2014 FILE # 02-0179
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

0 100 200
SCALE IN FEET

LEGEND

- EXISTING CONTOUR
- PROPOSED PHASE V FINAL CONTOUR
- LIMIT OF WETLANDS
- EXISTING PHASE LINE
- PROPOSED PHASE LINE
- LIMIT OF PROPOSED AREAS
- LIMIT OF REVISED GRADING
- PROPOSED CONTOUR
- EXISTING ACCESS ROAD
- PROPOSED ACCESS ROAD
- PROPOSED MID-SLOPE BENCH
- EXISTING MID-SLOPE BENCH
- PROPERTY BOUNDARY
- LIMIT OF DISTURBANCE
- EXISTING ROAD
- EXISTING WELL
- EXISTING CULVERT
- EXISTING BUILDING
- EXISTING UNDERGROUND ELECTRIC LINE
- EXISTING GAS LINE

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GENERAL NOTES:
(SEE SHEET 1 OF 38)

REVISIONS

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JR FREY No. 10164 REGISTERED PROFESSIONAL ENGINEER CIVIL

Brown AND Caldwell

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RHODE ISLAND RESOURCE RECOVERY CORPORATION
CENTRAL LANDFILL, 65 SHUN PIKE, JOHNSTON, RHODE ISLAND

**RIDEM WETLANDS PERMIT MODIFICATION APPLICATION**
RIRRC CENTRAL LANDFILL - PHASE VI
# FILLING PLAN AREA 2 NO. 1

BC PROJECT NUMBER
140152

FIGURE NUMBER
C-5.5R

SHEET NUMBER
16 OF 38

Jan 15, 2014 - 2:53pm cward
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PROPOSED POND 13

FUTURE PHASE VI AREA-5

EXISTING RECOVERMAT FACILITY

EXISTING MATERIAL RECYCLING FACILITY

PROPOSED SEDIMENTATION POND 14

PROPOSED PHASE VI AREA-4 (PRIMARY BASELINER ELEVATIONS)

PROPOSED PHASE VI AREA-2 (INTERMEDIATE FILL ELEVATIONS)

PROPOSED 50' WIDE ACCESS ROAD

Kindly be advised that this Permit is not equivalent to a verification of the type or extent of freshwater wetlands on site.

MATCH TO C-5.5R FILLING PLAN AREA 2 – NO. 1

## GENERAL NOTES:

(SEE SHEET 1 OF 38)

0 100 200

SCALE IN FEET

## LEGEND

- EXISTING CONTOUR
- PROPOSED PHASE V FINAL CONTOUR
- LIMIT OF WETLANDS
- EXISTING PHASE LINE
- PROPOSED PHASE LINE
- LIMIT OF PROPOSED AREAS
- LIMIT OF REVISED GRADING
- PROPOSED CONTOUR
- EXISTING ACCESS ROAD
- PROPOSED ACCESS ROAD
- PROPOSED MID-SLOPE BENCH
- EXISTING MID-SLOPE BENCH
- PROPERTY BOUNDARY
- LIMIT OF DISTURBANCE
- EXISTING ROAD
- EXISTING WELL
- EXISTING CULVERT
- EXISTING BUILDING
- EXISTING UNDERGROUND ELECTRIC LINE
- EXISTING GAS LINE

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
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DATED MAR 1 2014 FILE # 07-0179
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APPROVED PLANS MUST BE AT CONSTRUCTION SITE

Environmental Management
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JR PREY
No. 10184
REGISTERED PROFESSIONAL ENGINEER
CIVIL

Brown AND Caldwell

LINE IS 2 INCHES AT FULL SIZE
IF NOT 2" - SCALE ACCORDINGLY

DESIGNED:
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CHECKED:
CHECKED:
APPROVED:

RHODE ISLAND RESOURCE RECOVERY CORPORATION
CENTRAL LANDFILL, 65 SHUN PIKE, JOHNSTON, RHODE ISLAND

**RIDEM WETLANDS PERMIT MODIFICATION APPLICATION**
RIRRC CENTRAL LANDFILL - PHASE VI
# FILLING PLAN AREA 2 NO. 2

BC PROJECT NUMBER
140152

FIGURE NUMBER
C-5.6R

SHEET NUMBER
17 OF 38

Jan 15, 2014 - 2:54pm cward
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MATCH TO C-5.8R FILLING PLAN AREA 4 – NO. 2

PROPOSED PHASE VI AREA-1

PROPOSED PHASE VI AREA-1A

PROPOSED PHASE VI AREA-3

PROPOSED PHASE VI AREA-3A

EXISTING PHASE I LANDFILL

EXISTING SEDIMENTATION POND 2

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED MAR 14 2014 FILE # 07-0179
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

0 100 200
SCALE IN FEET

## LEGEND

- 440 EXISTING CONTOUR
- 440 PROPOSED PHASE V FINAL CONTOUR
- LIMIT OF WETLANDS
- EXISTING PHASE LINE
- PROPOSED PHASE LINE
- LIMIT OF PROPOSED AREAS
- LIMIT OF REVISED GRADING
- 440 PROPOSED CONTOUR
- EXISTING ACCESS ROAD
- PROPOSED ACCESS ROAD
- PROPOSED MID-SLOPE BENCH
- EXISTING MID-SLOPE BENCH
- PROPERTY BOUNDARY
- LIMIT OF DISTURBANCE
- EXISTING ROAD
- EXISTING WELL
- EXISTING CULVERT
- EXISTING BUILDING
- UE EXISTING UNDERGROUND ELECTRIC LINE
- GAS GAS EXISTING GAS LINE

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## GENERAL NOTES:

(SEE SHEET 1 OF 38)

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JR FREY
No. 10184
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Brown AND Caldwell

LINE IS 2 INCHES AT FULL SIZE (IF NOT 2" - SCALE ACCORDINGLY)

DESIGNED:
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RHODE ISLAND RESOURCE RECOVERY CORPORATION
CENTRAL LANDFILL, 65 SHUN PIKE, JOHNSTON, RHODE ISLAND

**RIDEM WETLANDS PERMIT MODIFICATION APPLICATION**
RIRRC CENTRAL LANDFILL - PHASE VI
# FILLING PLAN AREA 4 NO. 1

BC PROJECT NUMBER
140152

FIGURE NUMBER
C-5.7R

SHEET NUMBER
18 OF 38

Jan 15, 2014 - 2:50pm cvard
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NOTES:

1. SEE INSET 'B' FOR PROPOSED POND OUTLET ALIGNMENT ON FIGURE C-5.8 OF THE APPROVED PLAN SET.

## GENERAL NOTES:
(SEE SHEET 1 OF 38)

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED MAR 14 2014 FILE # 07-0179
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

Kindly be advised that this Permit is not equivalent to a verification of the type or extent of freshwater wetlands on site.

PROPOSED POND 13

PROPOSED PHASE VI AREA-5 (PRIMARY BASELINER ELEVATIONS)

PROPOSED PHASE VI AREA 4 (INTERMEDIATE FILL ELEVATIONS)

PROPOSED PHASE VI AREA-2

PROPOSED 20' WIDE MID-SLOPE BENCH (TYP.) (SEE DETAIL B/25)

EXISTING MATERIAL RECYCLING FACILITY

PROPOSED SEDIMENTATION POND 14

FUTURE LET-DOWN CHANNEL (TYP.)

MATCH TO C-5.7R FILLING PLAN AREA 4 – NO. 1

0 100 200
SCALE IN FEET

## LEGEND

- 440 — EXISTING CONTOUR
- 440 — PROPOSED PHASE V FINAL CONTOUR
- LIMIT OF WETLANDS
- EXISTING PHASE LINE
- PROPOSED PHASE LINE
- LIMIT OF PROPOSED AREAS
- LIMIT OF REVISED GRADING
- 440 — PROPOSED CONTOUR
- EXISTING ACCESS ROAD
- PROPOSED ACCESS ROAD
- PROPOSED MID-SLOPE BENCH
- EXISTING MID-SLOPE BENCH
- PROPERTY BOUNDARY
- LIMIT OF DISTURBANCE
- EXISTING ROAD
- EXISTING WELL
- EXISTING CULVERT
- EXISTING BUILDING
- UE — EXISTING UNDERGROUND ELECTRIC LINE
- GAS — GAS — EXISTING GAS LINE

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JR FREY No. 10184 REGISTERED PROFESSIONAL ENGINEER CIVIL

Brown AND Caldwell

LINE IS 2 INCHES AT FULL SIZE (IF NOT 2" - SCALE ACCORDINGLY)

DESIGNED:
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CHECKED:
CHECKED:
APPROVED:

RHODE ISLAND RESOURCE RECOVERY CORPORATION
CENTRAL LANDFILL, 65 SHUN PIKE, JOHNSTON, RHODE ISLAND

**RIDEM WETLANDS PERMIT MODIFICATION APPLICATION**
RIRRC CENTRAL LANDFILL - PHASE VI
# FILLING PLAN AREA 4 NO. 2

BC PROJECT NUMBER
140152

FIGURE NUMBER
C-5.8R

SHEET NUMBER
19 OF 38

Jan 15, 2014 - 2:51pm cward
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MATCH TO C-5.10R FILLING PLAN AREA 5 – NO. 2

PROPOSED PHASE VI AREA-1

PROPOSED PHASE VI AREA-3

PROPOSED PHASE VI AREA-1A

PROPOSED PHASE VI AREA-3A

EXISTING PHASE I LANDFILL

EXISTING SEDIMENTATION POND 2

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
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NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

0 100 200
SCALE IN FEET

## LEGEND

- 440 — EXISTING CONTOUR
- 440 — PROPOSED PHASE V FINAL CONTOUR
- LIMIT OF WETLANDS
- EXISTING PHASE LINE
- PROPOSED PHASE LINE
- LIMIT OF PROPOSED AREAS
- LIMIT OF REVISED GRADING
- 440 — PROPOSED CONTOUR
- EXISTING ACCESS ROAD
- PROPOSED ACCESS ROAD
- PROPOSED MID-SLOPE BENCH
- EXISTING MID-SLOPE BENCH
- PROPERTY BOUNDARY
- LIMIT OF DISTURBANCE
- EXISTING ROAD
- EXISTING WELL
- EXISTING CULVERT
- EXISTING BUILDING
- UE — UE — EXISTING UNDERGROUND ELECTRIC LINE
- GAS — GAS — EXISTING GAS LINE

## GENERAL NOTES:

(SEE SHEET 1 OF 38)

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J.R. FREY
No. 10184
REGISTERED PROFESSIONAL ENGINEER
CIVIL

Brown AND Caldwell

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**RIDEM WETLANDS PERMIT MODIFICATION APPLICATION**
RIRRC CENTRAL LANDFILL - PHASE VI

# FILLING PLAN AREA 5 NO. 1

BC PROJECT NUMBER
140152

FIGURE NUMBER
C-5.9R

SHEET NUMBER
20 OF 38

Jan 15, 2014 - 2:48pm cward
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NOTES:

1. SEE INSET 'B' FOR PROPOSED POND OUTLET ALIGNMENT ON FIGURE C-5.10 OF THE APPROVED PLAN SET.

## GENERAL NOTES:

(SEE SHEET 1 OF 38)

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
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Kimberly D. Howell

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PROPOSED POND 13

PROPOSED PHASE VI AREA-5 (INTERMEDIATE FILL ELEVATIONS)

PROPOSED PHASE VI AREA-4

PROPOSED PHASE VI AREA-2

EXISTING MATERIAL RECYCLING FACILITY

FUTURE LET-DOWN CHANNEL (TYP.)

PROPOSED 20' WIDE MID-SLOPE BENCH (SEE DETAIL B/25)

PROPOSED SEDIMENTATION POND 14

MATCH TO C-5.9R FILLING PLAN AREA 5 – NO. 1

0 100 200
SCALE IN FEET

## LEGEND

- EXISTING CONTOUR
- PROPOSED PHASE V FINAL CONTOUR
- LIMIT OF WETLANDS
- EXISTING PHASE LINE
- PROPOSED PHASE LINE
- LIMIT OF PROPOSED AREAS
- LIMIT OF REVISED GRADING
- PROPOSED CONTOUR
- EXISTING ACCESS ROAD
- PROPOSED ACCESS ROAD
- PROPOSED MID-SLOPE BENCH
- EXISTING MID-SLOPE BENCH
- PROPERTY BOUNDARY
- LIMIT OF DISTURBANCE
- EXISTING ROAD
- EXISTING WELL
- EXISTING CULVERT
- EXISTING BUILDING
- EXISTING UNDERGROUND ELECTRIC LINE
- EXISTING GAS LINE

| ZONE | REV. | DESCRIPTION | BY | DATE | APP. |
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REVISIONS

JR FREY No. 10184 REGISTERED PROFESSIONAL ENGINEER CIVIL

Brown AND Caldwell

LINE IS 2 INCHES AT FULL SIZE (IF NOT 2" - SCALE ACCORDINGLY)

DESIGNED:
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RHODE ISLAND RESOURCE RECOVERY CORPORATION
CENTRAL LANDFILL, 65 SHUN PIKE, JOHNSTON, RHODE ISLAND

RIDEM WETLANDS PERMIT MODIFICATION APPLICATION
RIRRC CENTRAL LANDFILL - PHASE VI

# FILLING PLAN AREA 5 NO. 2

BC PROJECT NUMBER
140152

FIGURE NUMBER
C-5.10R

SHEET NUMBER
21 OF 38

Jan 15, 2014 - 2:49pm oward
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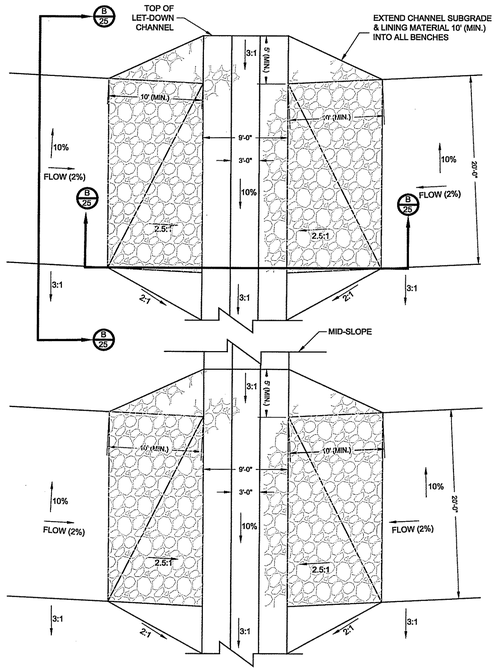
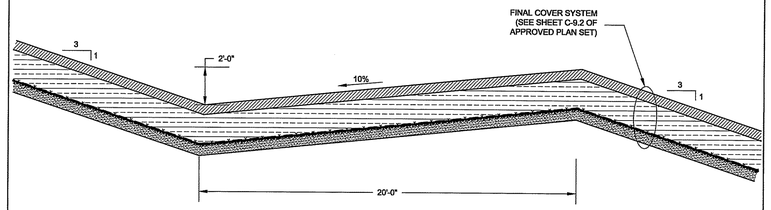
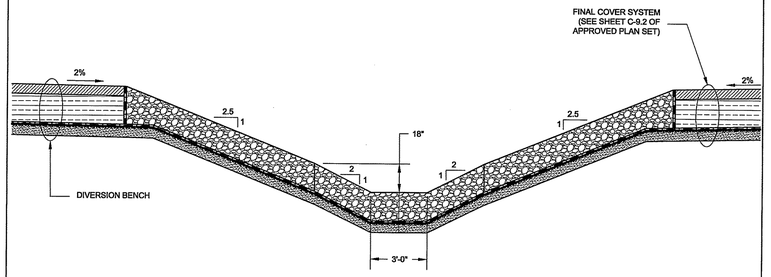



## FINAL COVER LET-DOWN CHANNEL INLET DETAIL
NOT TO SCALE

A



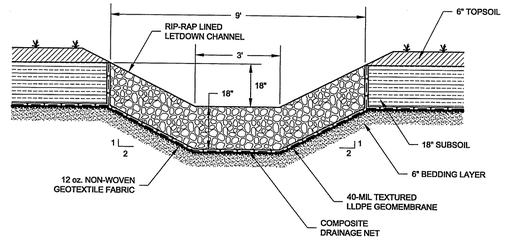

## CROSS SECTION - PROPOSED DIVERSION BENCH
NOT TO SCALE




## CROSS SECTION - PROPOSED DIVERSION BENCH INLET TO LET-DOWN CHANNEL
NOT TO SCALE

B

GENERAL NOTES:
(SEE SHEET 1 OF 38)




NOTES:

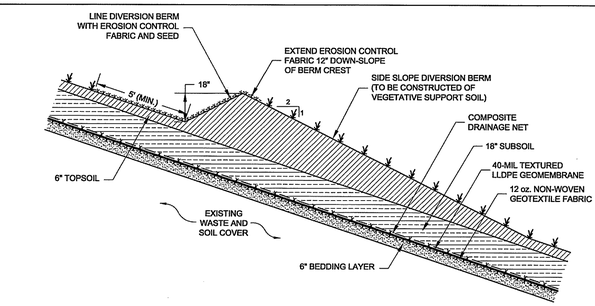
1. RIP-RAP USED IN LET-DOWN CHANNEL SHALL CONSIST OF WELL GRADED RIP-RAP, CONSISTING OF A D50 OF 6-INCHES A MAXIMUM STONE SIZE OF 15-INCHES, WITHIN THE FOLLOWING LIMITS:

| STONE SIZE | % OF MASS |
|---|---|
| 4" - 6" | 30 - 60 |
| 2" - 4" | 30 - 40 |
| 1" - 2" | 10 - 20 |
| LESS THAN 1" | 0 - 10 |

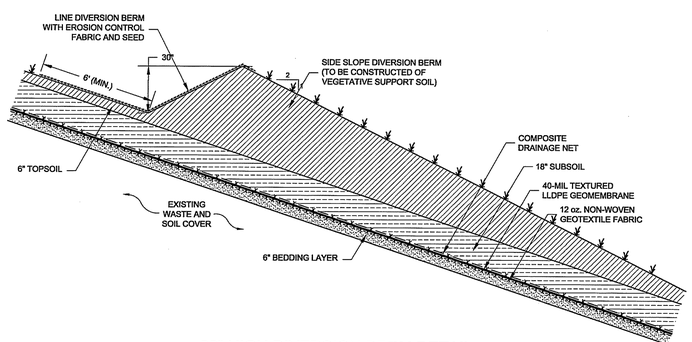
2. GEOSYNTHETIC MATERIALS ARE NOT TO SCALE. THEY HAVE BEEN ENLARGED TO SHOW DETAIL.

## LETDOWN CHANNEL
NOT TO SCALE

C

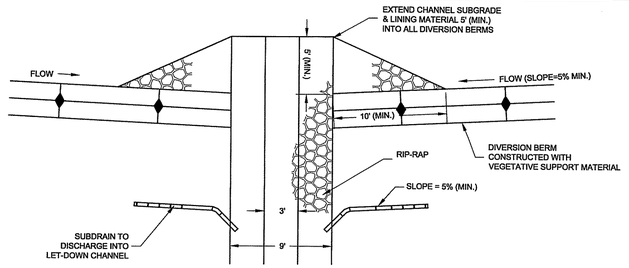



## 18" HIGH DIVERSION BERM DETAIL
NOT TO SCALE

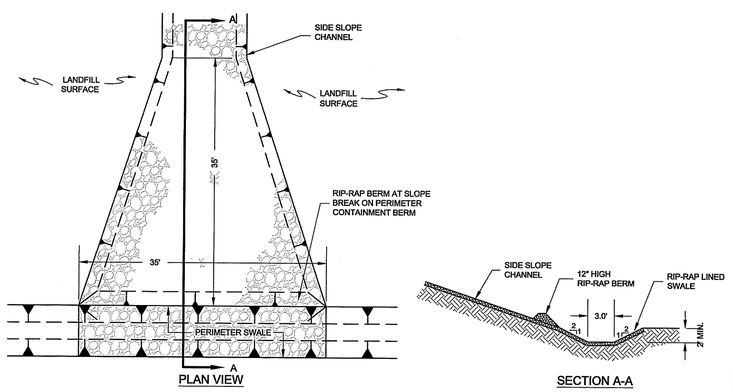



## 30" HIGH DIVERSION BERM DETAIL
NOT TO SCALE

D

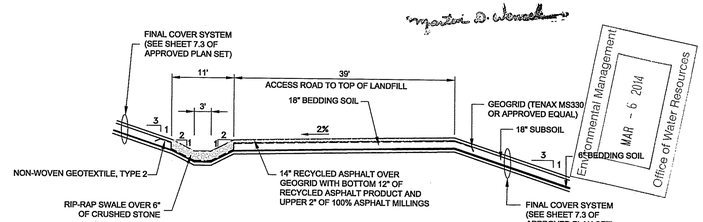



## FINAL COVER LET-DOWN CHANNEL INLET DETAIL
NOT TO SCALE




## FINAL COVER LET-DOWN CHANNEL OUTLET DETAIL
NOT TO SCALE

E




DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED MAR 14 2014 FILE # 07-0079
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NOTE:

1. RIPRAP TO BE R-3 FOR THE TOP SECTION OF SWALE (SLOPE = 2.3%) AND R-5 FOR BOTTOM SECTION OF SWALE (SLOPE = 10%). R-3 RIPRAP TO BE PLACED IN 18" THICK LAYER. R-5 RIPRAP TO BE PLACED IN 24" THICK LAYER.

## ON-LANDFILL ACCESS ROAD AND SWALE DETAIL
NOT TO SCALE

F

| ZONE | REV. | DESCRIPTION | BY | DATE | APP. |
|---|---|---|---|---|---|
| | | REVISIONS | | | |

JR FREY
No. 10184
REGISTERED PROFESSIONAL ENGINEER
CIVIL

Brown AND Caldwell

LINE IS 2 INCHES AT FULL SIZE (IF NOT 2" - SCALE ACCORDINGLY)

DESIGNED:
DRAWN:
CHECKED:
CHECKED:
APPROVED:

RHODE ISLAND RESOURCE RECOVERY CORPORATION
CENTRAL LANDFILL, 65 SHUN PIKE, JOHNSTON, RHODE ISLAND

RIDEM WETLANDS PERMIT MODIFICATION APPLICATION
RIRRC CENTRAL LANDFILL - PHASE VI
TYPICAL SIDE SLOPE DETAILS

BC PROJECT NUMBER
140152

FIGURE NUMBER
C-6.4R

SHEET NUMBER
25 OF 38

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Jan 14, 2014 - 3:13pm
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MATCH TO C-7.2R CAPPING PLAN 2

PROPOSED LET-DOWN CHANNEL INLET (SEE DETAIL A/23)

STAGE 4
FINAL COVER AREA
(48.14 ACRES)

PROPOSED LET-DOWN CHANNEL INLET (SEE DETAIL E/25)

PROPOSED PHASE VI AREA-3

PROPOSED PHASE VI AREA-1

SIDE SLOPE DIVERSION BERM (TYP.) (SEE DETAIL D/23)

PROPOSED (2) 18" RCP CULVERT W/ FLARED END SECTIONS (EXISTING CULVERTS TO BE REMOVED)

EXISTING SEDIMENTATION POND 2 (SEE NOTE #2)

SOUTH WEST NATURAL DEPRESSION

C

PROPOSED ACCESS ROAD SWALE (SEE DETAIL F/25)

STAGE 1
FINAL COVER AREA
(14.25 ACRES)

EXISTING 8'W x 4'H CONCRETE BOX CULV W/ END WALLS

SOUTH WEST DETENTION POND

PROPOSED 30" HIGH DIVERSION BERM (SEE DETAIL D/23)

PROPOSED SIDESLOPE DIVERSION BERMS TO CONNECT TO EXISTING SWALE

PROPOSED PHASE VI AREA-1A

STAGE 2
FINAL COVER AREA
(55.18 ACRES)

PROPOSED PHASE VI AREA-3A

EXISTING LET-DOWN CHANNEL

B

A

EXISTING PHASE I LANDFILL

0 100 200
SCALE IN FEET

## LEGEND

- EXISTING CONTOUR
- PROPOSED PHASE V FINAL CONTOUR
- LIMIT OF WETLANDS
- EXISTING PHASE LINE
- PROPOSED PHASE LINE
- LIMIT OF PROPOSED AREA
- LIMIT OF REVISED GRADING
- PROPOSED CONTOUR
- PROPOSED ACCESS ROAD
- PROPOSED LET-DOWN CHANNEL
- PROPOSED DIVERSION BERM (TYP.)
- PROPOSED 30" HIGH DIVERSION BERM
- PROPERTY BOUNDARY
- LIMIT OF DISTURBANCE
- EXISTING ROAD
- EXISTING WELL
- EXISTING CULVERT
- EXISTING BUILDING
- EXISTING UNDERGROUND ELECTRIC LINE
- EXISTING GAS LINE
- EXISTING BENCH
- EXISTING LET-DOWN CHANNEL

Department of Environmental Management
Office of Water Resources
MAR - 6 2014
Office of Water Resources

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED MAR 14 2014 FILE # 07-0179
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NOTES:

1. PROPOSED PHASE VI CONTOURS REPRESENT TOP OF FINAL COVER ELEVATIONS.
2. FOR DETAILED INFORMATION REGARDING PROPOSED SEDIMENTATION PONDS AND ASSOCIATED CULVERTS REFER TO FIGURES 9.1 AND 9.2 OF APPROVED PLAN SET AND FIGURE 9.5 OF THIS PLAN SET.
3. PLANAMETRIC AREAS DO NOT INCLUDE SLOPE FACTOR.
4. REFER TO SHEETS 29 AND 30 OF 38 FOR CROSS-SECTIONS.

GENERAL NOTES:
(SEE SHEET 1 OF 38)

REVISIONS

| ZONE | REV. | DESCRIPTION | BY | DATE | APP. |
|---|---|---|---|---|---|
| | | | | | |

JR PREY
No. 10184
REGISTERED PROFESSIONAL ENGINEER
CIVIL

Brown AND Caldwell

LINE IS 2 INCHES AT FULL SIZE
(IF NOT 2" - SCALE ACCORDINGLY)

DESIGNED:
DRAWN:
CHECKED:
CHECKED:
APPROVED:

RHODE ISLAND RESOURCE RECOVERY CORPORATION
CENTRAL LANDFILL, 65 SHUN PIKE, JOHNSTON, RHODE ISLAND

RIDEM WETLANDS PERMIT MODIFICATION APPLICATION
RIRRC CENTRAL LANDFILL - PHASE VI
CAPPING PLAN 1

BC PROJECT NUMBER
140152

FIGURE NUMBER
C-7.1R

SHEET NUMBER
26 OF 38

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0 100 200
SCALE IN FEET

## LEGEND

- EXISTING CONTOUR
- PROPOSED PHASE V FINAL CONTOUR
- LIMIT OF WETLANDS
- EXISTING PHASE LINE
- PROPOSED PHASE LINE
- LIMIT OF PROPOSED AREAS
- LIMIT OF REVISED GRADING
- PROPOSED CONTOUR
- PROPOSED ACCESS ROAD
- PROPOSED LET-DOWN CHANNEL
- PROPOSED DIVERSION BERM (TYP.)
- PROPOSED 30" HIGH DIVERSION BERM
- PROPERTY BOUNDARY
- LIMIT OF DISTURBANCE
- EXISTING ROAD
- EXISTING WELL
- EXISTING CULVERT
- EXISTING BUILDING
- EXISTING UNDERGROUND ELECTRIC LINE
- EXISTING GAS LINE
- EXISTING BENCH
- EXISTING LET-DOWN CHANNEL

NOTES:

1. PROPOSED PHASE VI CONTOURS REPRESENT TOP OF FINAL COVER ELEVATIONS.
2. FOR DETAILED INFORMATION REGARDING PROPOSED SEDIMENTATION PONDS AND ASSOCIATED CULVERTS REFER TO FIGURES 9.1 AND 9.2 OF APPROVED PLAN SET AND FIGURE 9.5 OF THIS PLAN SET.
3. PLANAMETRIC AREAS DO NOT INCLUDE SLOPE FACTOR.
4. REFER TO SHEETS 29 AND 30 OF 38 FOR CROSS-SECTIONS.

GENERAL NOTES:
(SEE SHEET 1 OF 38)

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED MAR 1 6 2014 FILE # 07-0179
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

Kindly be advised that this Permit is not equivalent to a verification of the type or extent of freshwater wetlands on site.

POND 13 OUTLET STRUCTURE
CONTROL STANDPIPE INV.= 343.30
CULVERT INV.= 340.00

PROPOSED SEDIMENTATION POND 13 (SEE NOTE #2)

30" DIA. RCP PIPE

DMH-1
RIM= 344.09
INV. (IN)= 337.5
INV. (OUT)= 337.40

30" DIA. RCP PIPE

30" DIA. RCP PIPE

DMH-3
RIM= 331.29
30" INV. IN= 324.50
30" INV. OUT= 324.40

EXIST. DMH
RIM= 327.42
30" INV. IN= 319.32
48" INV. OUT= 318.12

DMH-2
RIM= 346.00
INV. (IN)= 335.00
INV. (OUT)= 334.90

S= 1%
S= 1.90%
S= 3.71%
S= 0.00%

PROPOSED 10'W x 5'H CONCRETE BOX CULVERT

PROPOSED PHASE VI AREA-5

STAGE 5
FINAL COVER AREA
(25.44 ACRES)

EXISTING MATERIAL RECYCLING FACILITY

PROPOSED 8'W x 4'H CONCRETE BOX CULVERT W/ END WALLS

SOUTH DETENTION POND

PROPOSED LET DOWN CHANNEL (TYP.) (SEE DETAIL C/25)

PROPOSED (2) 18" RCP CULVERTS
S= 0.01 FT/FT
INV. (IN)= 386.0
INV. (OUT)= 383.5

PROPOSED PHASE VI AREA-4

PROPOSED PHASE VI AREA-2

STAGE 3
FINAL COVER AREA
(9.75 ACRES)

PROPOSED SEDIMENTATION POND 14 (SEE NOTE #2)

POND 14 DETENTION BASIN

PROPOSED LET-DOWN CHANNEL OUTLET (SEE DETAIL E/25)

PROPOSED 4' W x 2' H CONCRETE BOX CULVERT W/ END WALLS

POND 14 OUTLET STRUCTURE
CONTROL STANDPIPE INV.= 309.30
CULVERT INV.= 306.00

30" DIA. RCP PIPE

S= 1.9%

OUTLET TO EXISTING SWALE
INV. OUT = 298.00

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MATCH TO C-7.1R CAPPING PLAN 1

A' B' C D D'

| REVISIONS | | | | |
|---|---|---|---|---|
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JR FREY No. 10164 REGISTERED PROFESSIONAL ENGINEER CIVIL

Brown and Caldwell

LINE IS 2 INCHES AT FULL SIZE (IF NOT 2" - SCALE ACCORDINGLY)

DESIGNED:
DRAWN:
CHECKED:
CHECKED:
APPROVED:

RHODE ISLAND RESOURCE RECOVERY CORPORATION
CENTRAL LANDFILL, 65 SHUN PIKE, JOHNSTON, RHODE ISLAND

RIDEM WETLANDS PERMIT MODIFICATION APPLICATION
RIRRC CENTRAL LANDFILL - PHASE VI
CAPPING PLAN 2

BC PROJECT NUMBER
140152

FIGURE NUMBER
C-7.2R

SHEET NUMBER
27 OF 38

Jan 15, 2014 - 2:44pm award
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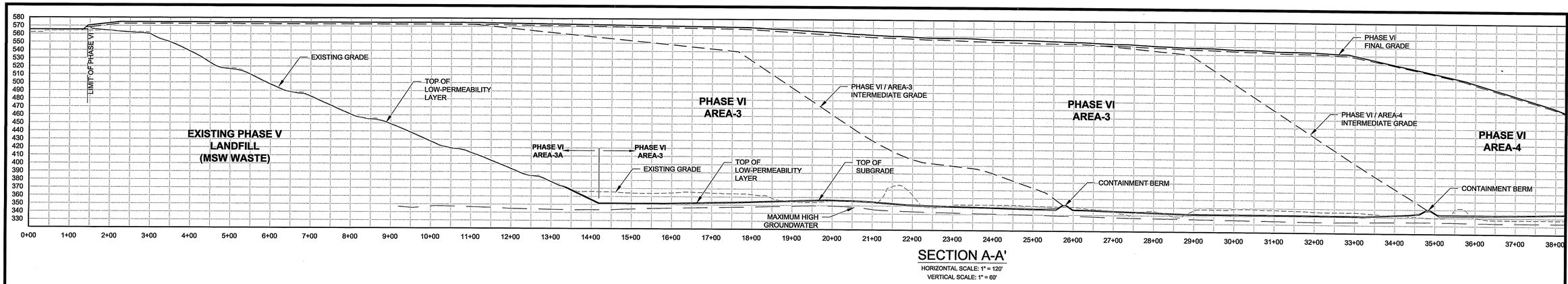
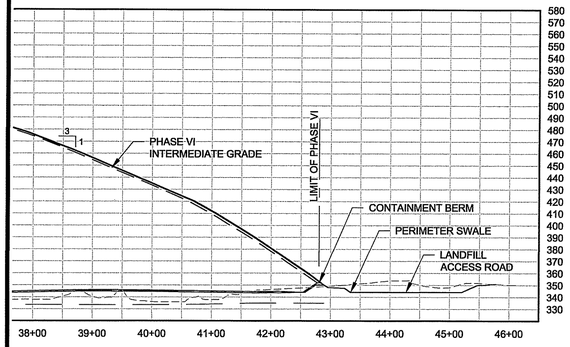


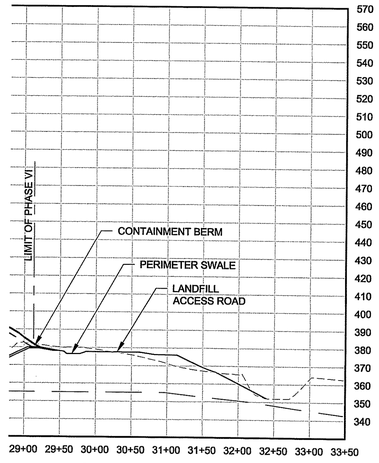

## SECTION A-A'

HORIZONTAL SCALE: 1" = 120'
VERTICAL SCALE: 1" = 60'




## SECTION A-A' (CONT.)

HORIZONTAL SCALE: 1" = 120'
VERTICAL SCALE: 1" = 60'




## SECTION B-B' (CONT.)

HORIZONTAL SCALE: 1" = 100'
VERTICAL SCALE: 1" = 40'

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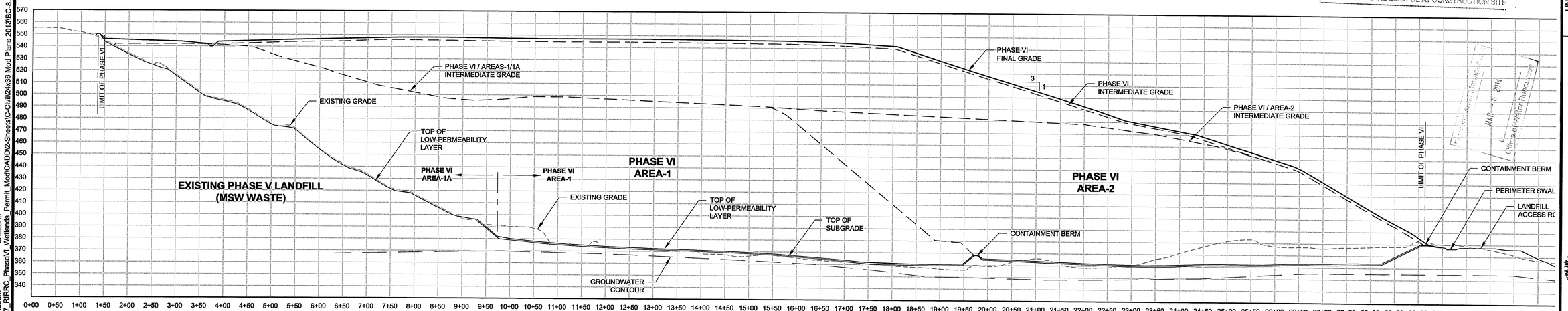


## SECTION B-B'

HORIZONTAL SCALE: 1" = 100'
VERTICAL SCALE: 1" = 40'

**GENERAL NOTES:**
(SEE SHEET 1 OF 38)

NOTE:

1. REFER TO SHEETS 26 AND 27 FOR LOCATIONS OF CROSS-SECTIONS.

REVISIONS

| ZONE | REV. | DESCRIPTION | BY | DATE | APP. |
|---|---|---|---|---|---|

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DESIGNED:
DRAWN:
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CHECKED:
APPROVED:

RHODE ISLAND RESOURCE RECOVERY CORPORATION
CENTRAL LANDFILL, 65 SHUN PIKE, JOHNSTON, RHODE ISLAND

**RIDEM WETLANDS PERMIT MODIFICATION APPLICATION**
RIRRC CENTRAL LANDFILL - PHASE VI
PROPOSED CONSTRUCTION
SECTION PROFILES 1

BC PROJECT NUMBER
140152

FIGURE NUMBER
C-8.1R

SHEET NUMBER
29 OF 38

Jan 15, 2014 - 9:29am LRoberts
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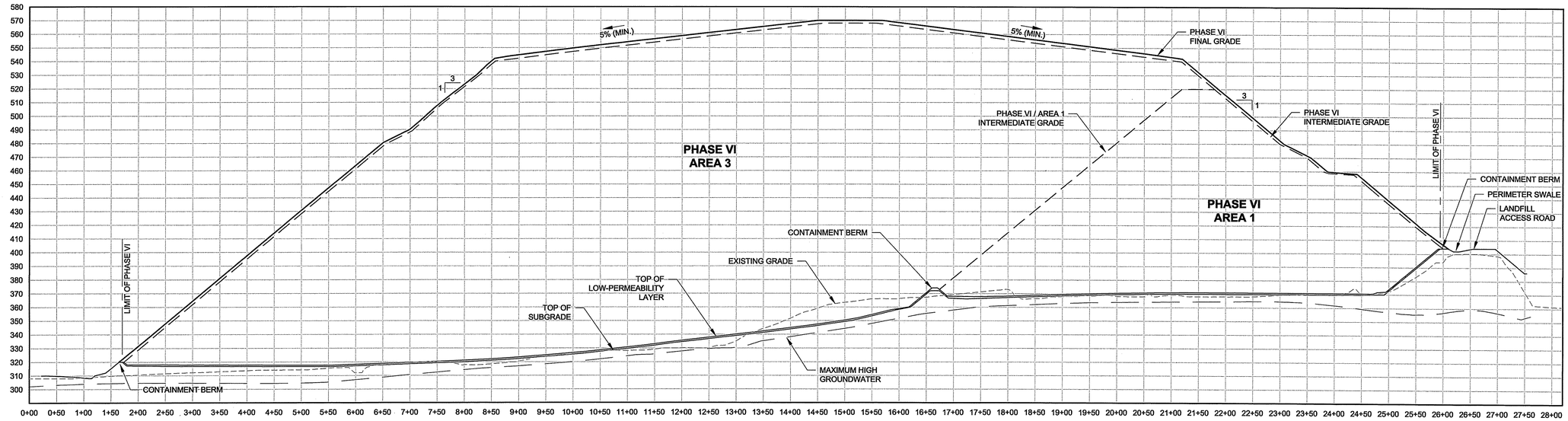
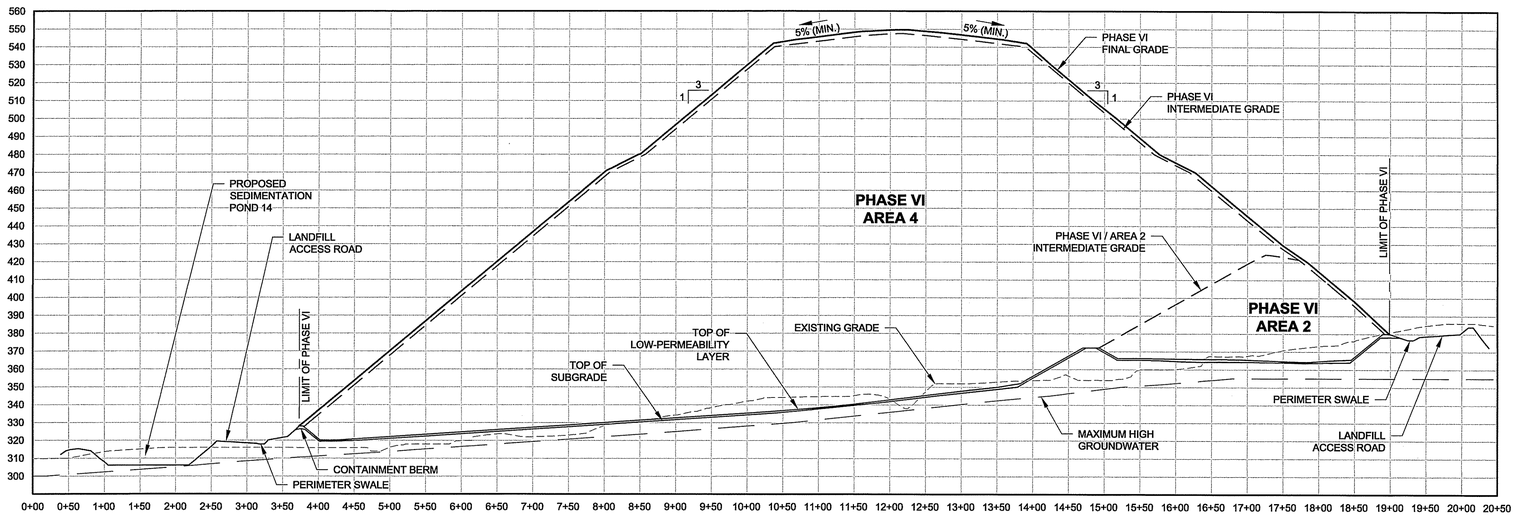



## SECTION C-C'

HORIZONTAL SCALE: 1" = 100'
VERTICAL SCALE: 1" = 40'




## SECTION D-D'

HORIZONTAL SCALE: 1" = 100'
VERTICAL SCALE: 1" = 40'

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### GENERAL NOTES:

(SEE SHEET 1 OF 38)

NOTE:

1. REFER TO SHEETS 26 AND 27 FOR LOCATIONS OF CROSS-SECTIONS.

REVISIONS

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|---|---|---|---|---|---|

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Brown AND Caldwell

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CHECKED:
APPROVED:

RHODE ISLAND RESOURCE RECOVERY CORPORATION
CENTRAL LANDFILL, 65 SHUN PIKE, JOHNSTON, RHODE ISLAND

**RIDEM WETLANDS PERMIT MODIFICATION APPLICATION**
RIRRC CENTRAL LANDFILL - PHASE VI
# PROPOSED CONSTRUCTION SECTION PROFILES 2

BC PROJECT NUMBER
140152

FIGURE NUMBER
C-8.2R

SHEET NUMBER
30 OF 38

Jan 15, 2014 - 9:28am LRoberts
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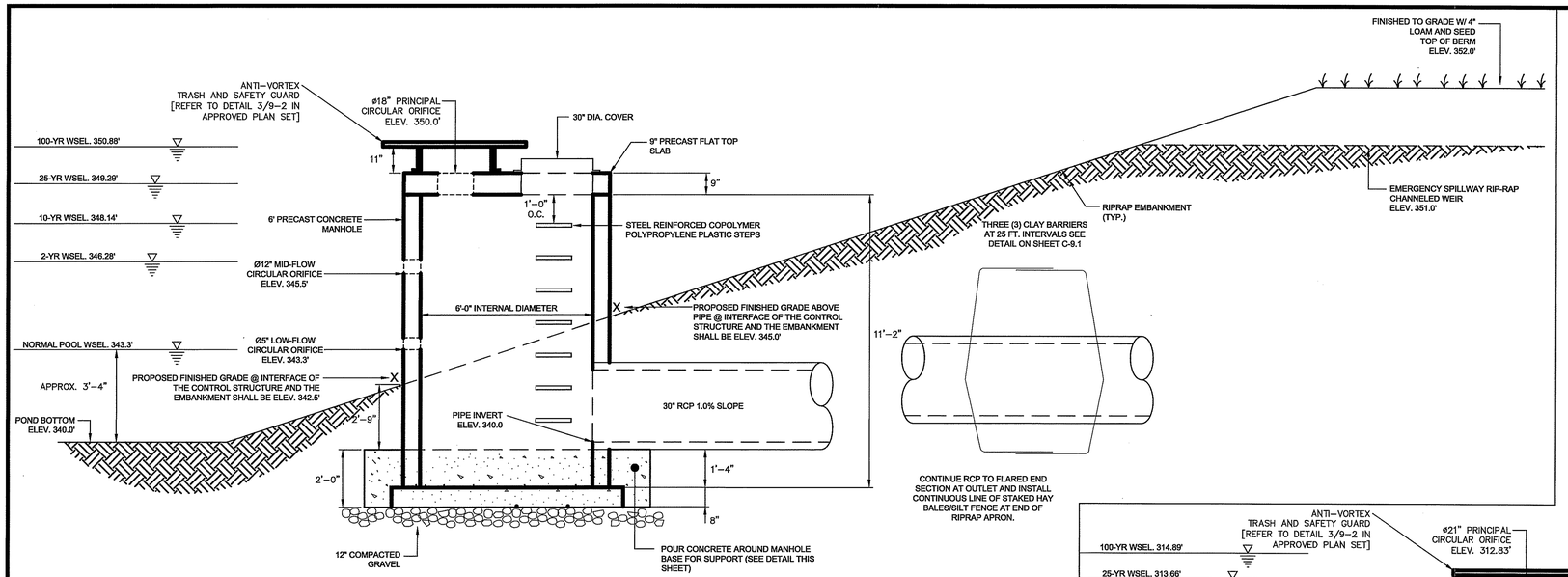
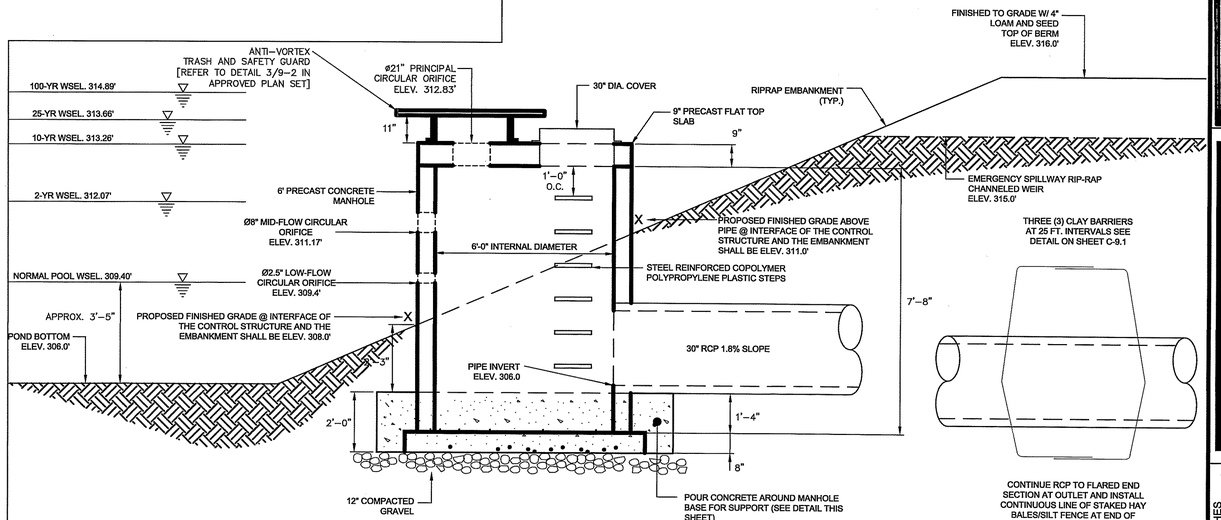



## CROSS-SECTION AT POND 13 OUTFLOW DEVICE (1 / C-9.5)

NOT TO SCALE

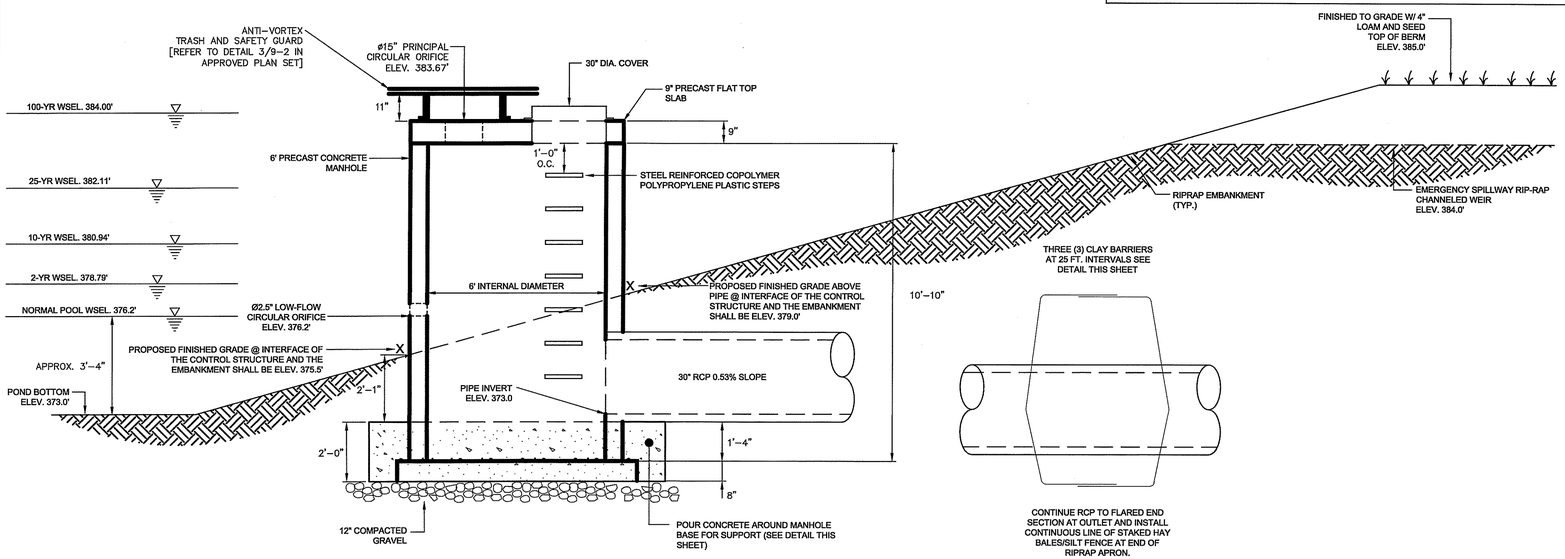
NOTE: THIS DETAIL SUPERCEDES DETAIL 1/9-1 FROM THE APPROVED APPLICATION.




## CROSS-SECTION AT POND 14 OUTFLOW DEVICE (2 / C-9.5)

NOT TO SCALE

NOTE: THIS DETAIL SUPERCEDES DETAIL 2/9-1 FROM THE APPROVED APPLICATION.




## CROSS-SECTION AT POND 4 OUTFLOW DEVICE (3 / C-9.5)

NOT TO SCALE

NOTE: THIS DETAIL SUPERCEDES DETAIL 8/9-2 FROM THE APPROVED APPLICATION.

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
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## GENERAL NOTES:

(SEE SHEET 1 OF 38)

REVISIONS

| ZONE | REV. | DESCRIPTION | BY | DATE | APP. |
|---|---|---|---|---|---|

J R FREY No. 10184 REGISTERED PROFESSIONAL ENGINEER CIVIL

Brown AND Caldwell

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DRAWN:
CHECKED:
CHECKED:
APPROVED:

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CENTRAL LANDFILL, 65 SHUN PIKE, JOHNSTON, RHODE ISLAND

**RIDEM WETLANDS PERMIT MODIFICATION APPLICATION**
RIRRC CENTRAL LANDFILL - PHASE VI
# SEDIMENTATION POND DETAILS

BC PROJECT NUMBER
140152

FIGURE NUMBER
C-9.5

SHEET NUMBER
35 OF 38

Jan 14, 2014 - 11:55am cward
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# Rhode Island Resource Recovery Corporation

*65 Shun Pike, Johnston, Rhode Island 02919*

# Phase VI Landfill
# RIDEM Freshwater Wetlands
# Request for a Preliminary Determination

Application No. 07-0179

RECEIVED
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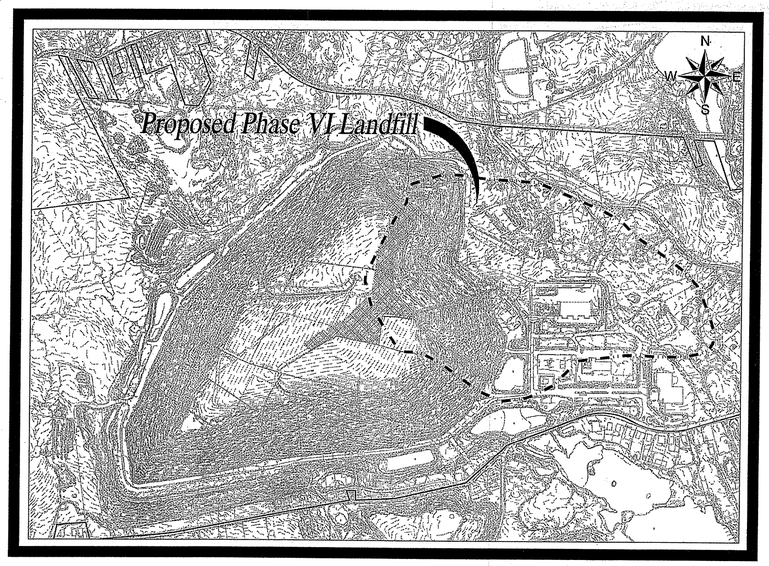
OFFICE OF WATER RESOURCES




Location Map

Scale: 1" = 800'

## Index of Drawings

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| 7 | C-3.4 | CURRENT BORROW PIT CONDITIONS PLAN |
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| 24 | C-6.3 | TYPICAL SIDE SLOPE DETAILS (3 OF 3) |
| 25 & 26 | C-7.1 & 7.2 | CAPPING PLAN |
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| 28 | C-8.1 | PROPOSED CONSTRUCTION SECTION PROFILES |
| 29 & 30 | C-9.1 & 9.2 | SEDIMENTATION POND DETAILS |
| 31 | C-9.3 | EROSION AND SEDIMENTATION CONTROL DETAILS |
| 32 | C-9.4 | STORMWATER AND E&S CONTROL MAINTENANCE NOTES |
| 33 - 35 | C-10.1 - C-10.3 | POND OUTLET PLANS & PROFILES |

## Subject Properties

PLAT 31 / LOTS 7, 13&14, 44, & 56
PLAT 43 / LOTS 1, 15, 20-25, 30, 44, 112, 116-123, 125-130, 137-142, 194, 234&235, 279-283, 402, 433, 592 & 593

NOTE: TOPOGRAPHIC INFORMATION OBTAINED FROM ON SITE SURVEY AND AERIAL PHOTOGRAMMETRY.
CLASS OF SURVEY
TOPOGRAPHY: CLASS III
BOUNDARY: CLASS I

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FRESHWATER WETLANDS PROGRAM
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AS SPECIFIED IN THE LETTER OF APPROVAL
DATED JAN 19 2010 FILE # 07-0179
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PARE CORPORATION
ENGINEERS - SCIENTISTS - PLANNERS
8 BLACKSTONE VALLEY PLACE
LINCOLN, RI 02865
401-334-4100

## RIRRC Central Landfill

Johnston, Rhode Island
Pare Project No. 03053.20
Original Submission: April 2008
Revised: November 2009

ARMANDO J. RICCI
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CENTRAL AVENUE
JASMINE LANE
RESERVOIR AVENUE
ALMY RESERVOIR
OFF-SITE PROPERTY OWNED BY RIRRC
RIRRC ON-SITE PROPERTY LINE
EXISTING LANDFILL
PROPOSED PHASE VI LANDFILL
PHASE VI LANDFILL PROJECT LIMIT OF DISTURBANCE
SHUN PIKE
GREEN HILL ROAD
UPPER SIMMONS RESERVOIR
OFF-SITE PROPERTY OWNED BY RIRRC

| REV# | DESCRIPTION | BY | DATE |
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PARE

SCALE: 1"=400'
BAR SCALE 0 0.5" 1.0"

PROJ. MGR.: AJR
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RHODE ISLAND RESOURCE RECOVERY CORPORATION
CENTRAL LANDFILL, 65 SHUN PIKE, JOHNSTON, RHODE ISLAND

# PHASE VI LANDFILL
# RIDEM WETLANDS PERMIT APPLICATION
# PROPERTY LINE PLAN

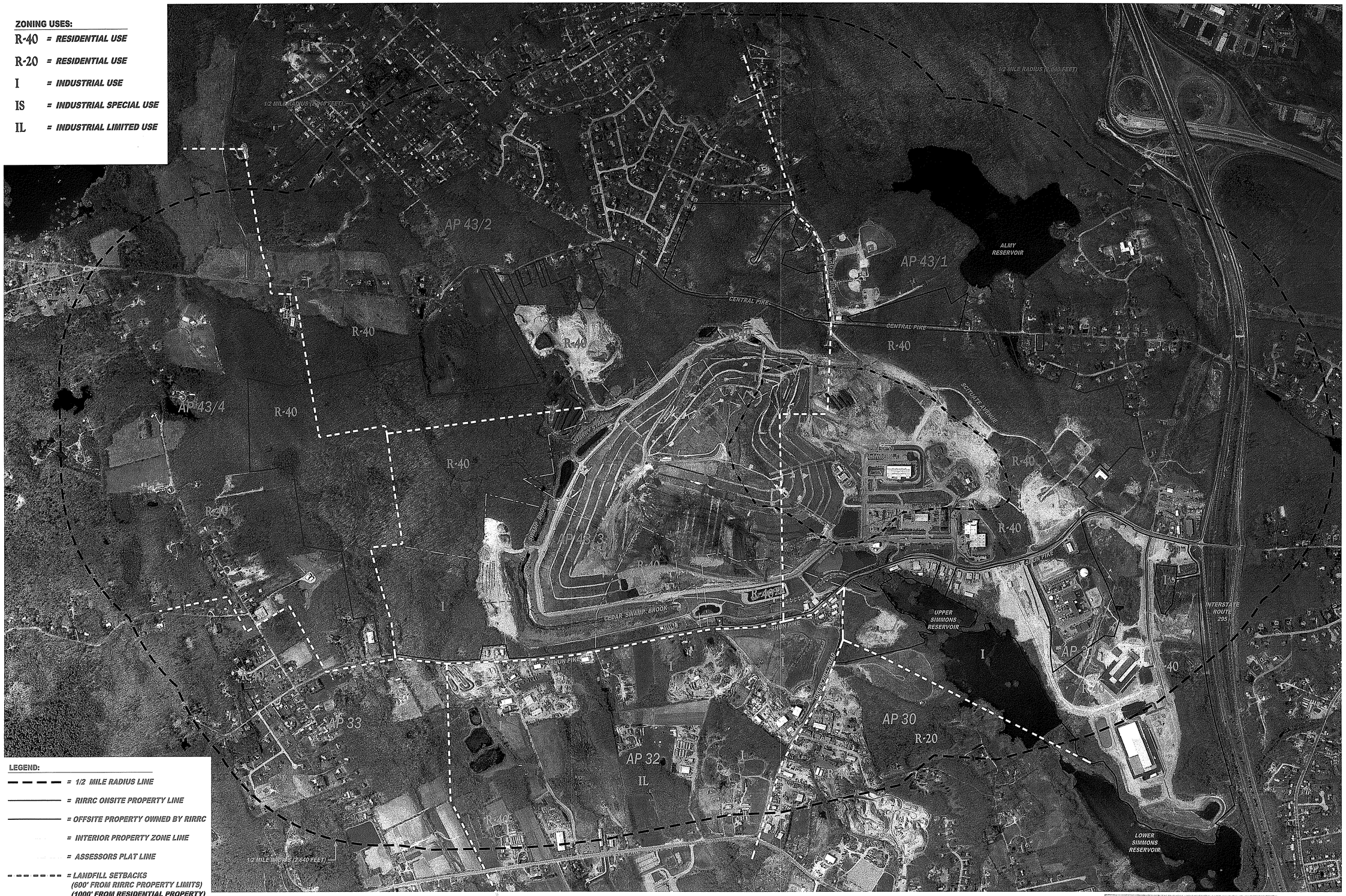
PROJECT NO.
03053.20

FIGURE NO.
C-2.1

SHEET 2 OF 35

**ZONING USES:**

| | |
|---|---|
| R-40 | = RESIDENTIAL USE |
| R-20 | = RESIDENTIAL USE |
| I | = INDUSTRIAL USE |
| IS | = INDUSTRIAL SPECIAL USE |
| IL | = INDUSTRIAL LIMITED USE |




**LEGEND:**

- = 1/2 MILE RADIUS LINE
- = RIRRC ONSITE PROPERTY LINE
- = OFFSITE PROPERTY OWNED BY RIRRC
- = INTERIOR PROPERTY ZONE LINE
- = ASSESSORS PLAT LINE
- = LANDFILL SETBACKS (600' FROM RIRRC PROPERTY LIMITS) (1000' FROM RESIDENTIAL PROPERTY)
- = PHASE VI LANDFILL LICENSING LIMIT

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PARE

1-6-2010

SCALE: 1"=600'

0.5" 0 1.0"
BAR SCALE

| | |
|---|---|
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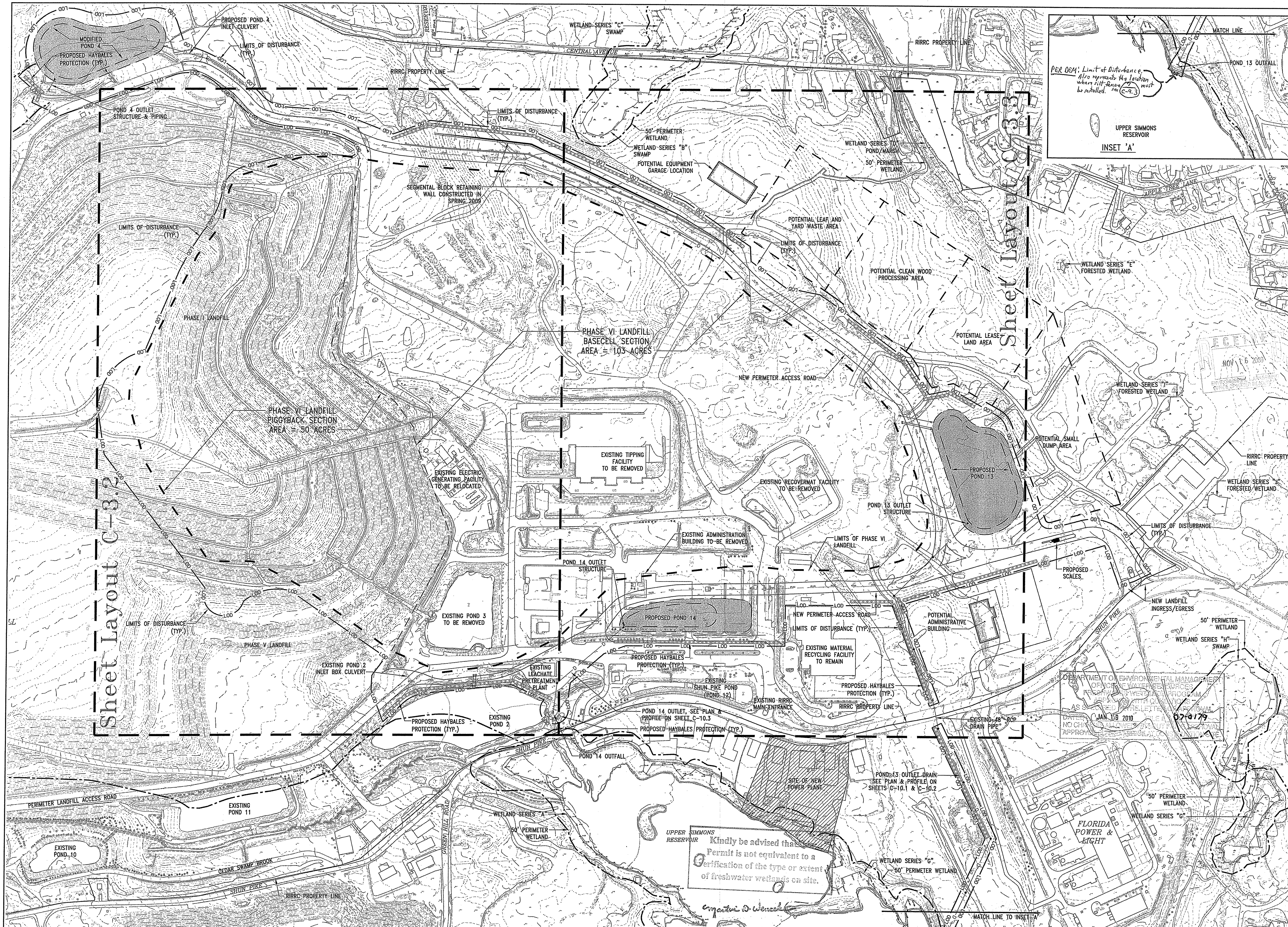
RHODE ISLAND RESOURCE RECOVERY CORPORATION
CENTRAL LANDFILL, 65 SHUN PIKE, JOHNSTON, RHODE ISLAND

# PHASE VI LANDFILL
# RIDEM WETLANDS PERMIT APPLICATION
# HALF MILE RADIUS PLAN

PROJECT NO.
03053.20

FIGURE NO.
**C-2.2**
SHEET 3 OF 35

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0.5" 0 1.0"
BAR SCALE

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CENTRAL LANDFILL, 65 SHUN PIKE, JOHNSTON, RHODE ISLAND

# PHASE VI LANDFILL
# RIDEM WETLANDS PERMIT APPLICATION
# OVERALL SITE PLAN

PROJECT NO. 03053.20

FIGURE NO. C-3.1

SHEET 4 OF 35

MATCH TO C3.3 EXISTING CONDITIONS PLAN 2

*PROPOSED PHASE VI AREA 3B 9.3 ACRES*

*PROPOSED PHASE VI AREA 1A 13.9 ACRES*

*PROPOSED PHASE VI AREA 1B 13.4 ACRES*

*PROPOSED PHASE VI AREA 3A 11.0 ACRES*

ELECTRIC GENERATING FACILITY

LEACHATE PRETREATMENT PLANT

POND 2

POND 3

PHASE VI LANDFILL LIMITS

OU1 CAP AREA 1 (PERMANENT CAP IN PLACE) 7.28 ACRES

OU1 CAP AREA 3 (PERMANENT CAP IN PLACE) 15.18 ACRES

OU1 CAP AREA 4 NORTH (PERMANENT CAP IN PLACE) 15.26 ACRES

OU1 CAP AREA 4 SOUTH (PERMANENT CAP IN PLACE) 10.40 ACRES

OU1 CAP AREA 5 (PERMANENT CAP IN PLACE) 43.22 ACRES

OU1 CAP AREA 6 (PERMANENT CAP IN PLACE) 20.65 ACRES

OU1 CAP AREA 2 (PERMANENT CAP IN PLACE) 10.46 ACRES

PHASE I LANDFILL

PHASE V LANDFILL

AREA 2

PHASE VI LANDFILL PIGGYBACK SECTION AREA = 50 ACRES

PHASE V

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Engineer D. Wenzel

**NOTE:**
THE CONDITIONS SHOWN ON EXISTING CONDITIONS PLANS ARE REPRESENTATIVE OF THE MOST RECENT PHOTOGRAMMETRIC SITE-WIDE SURVEY, PERFORMED IN 2008. MODIFICATIONS MADE TO SITE IN VICINITY OF PHASE VI SINCE THIS SURVEY ARE DEPICTED ON SHEET C-3.4.

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SCALE: 1"=100'

BAR SCALE 0.5" 0 1.0"

| | |
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RHODE ISLAND RESOURCE RECOVERY CORPORATION
CENTRAL LANDFILL, 65 SHUN PIKE, JOHNSTON, RHODE ISLAND

# PHASE VI LANDFILL
## RIDEM WETLANDS PERMIT APPLICATION
## EXISTING CONDITIONS PLAN 1

PROJECT NO.
03053.20

FIGURE NO.
**C-3.2**

SHEET 5 OF 35

WETLAND SERIES "D"

50' PERIMETER WETLAND

RIRRC PROPERTY BOUNDARY

POND/MARSH

RIRRC PROPERTY BOUNDARY

*PROPOSED*
*PHASE VI AREA 5B*
*9.9 ACRES*

RECOVERMAT FACILITY

MATERIAL RECYCLING FACILITY

*PROPOSED*
*PHASE VI AREA 5A*
*13.7 ACRES*

PHASE VI LANDFILL LIMITS

RIRRC MAIN ENTRANCE

50' PERIMETER WETLAND

WETLAND SERIES "B"

SWAMP

*PROPOSED*
*PHASE VI AREA 2*
*15.4 ACRES*

*PROPOSED*
*PHASE VI AREA 4*
*16.5 ACRES*

TIPPING FACILITY

ADMINISTRATION BUILDING

RIRRC PROPERTY BOUNDARY

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MATCH TO C3.2 EXISTING CONDITIONS PLAN 1

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SCALE: 1"=100'

BAR SCALE 0 0.5" 1.0"

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CENTRAL LANDFILL, 65 SHUN PIKE, JOHNSTON, RHODE ISLAND

# PHASE VI LANDFILL
# RIDEM WETLANDS PERMIT APPLICATION
# EXISTING CONDITIONS PLAN 2

PROJECT NO.
03053.20

FIGURE NO.
**C-3.3**

SHEET 6 OF 35

50' PERIMETER WETLAND

WETLAND SERIES "B" SWAMP WETLANDS

PROPOSED PHASE VI AREA 2 15.4 ACRES

FUTURE PERIMETER ACCESS ROAD

20' WIDE FLAT BENCH ALONG TOE OF SLOPE APPROX. EL.=360

PHASE VI LANDFILL LIMITS

REVISED TREELINE APPROXIMATELY 9 ACRES OF TREES REMOVED FOR BORROW PIT OPERATIONS

GRADES SHOWN REPRESENT EXISTING CONDITIONS PRIOR TO REGRADING AND INSTALLATION OF RETAINING WALL IN SUMMER 2009.

PROPOSED PHASE VI AREA 1A 13.9 ACRES

"PAVESTONE" SEGMENTAL BLOCK RETAINING WALL CONSTRUCTED AT SIDESLOPE BETWEEN ELEVATIONS 361 AND 385. SLOPE ABOVE RETAINING WALL WILL BE 3:1 AND IS TO BE LOAMED AND SEEDED.

TEMPORARY ACCESS ROAD

EXTENTS OF BORROW PIT/PERIMETER ROAD PROJECT AREA

PROPOSED PHASE VI AREA 1B 13.4 ACRES

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PROPOSED PHASE VI AREA 4 16.5 ACRES

TIPPING FACILITY

ADMINISTRATION BUILDING

LEACHATE PRETREATMENT PLANT

PROPOSED PHASE VI AREA 3B 9.3 ACRES

PROPOSED PHASE VI AREA 3A 11.0 ACRES

ELECTRIC GENERATING FACILITY

POND 3

OU1 CAP AREA 4 NORTH (PERMANENT CAP IN PLACE) 11.20 ACRES

OU1 CAP AREA 4 SOUTH (PERMANENT CAP IN PLACE) 10.40 ACRES

NOTE:
CONDITIONS TO EAST OF EXISTING LANDFILL HAVE BEEN MODIFIED STARTING IN LATE 2007 AS PART OF BORROW PIT EXCAVATION. MODIFICATIONS HAVE INCLUDED CLEARING AND GRUBBING, BORROW EXCAVATION, GRADING OF TEMPORARY ROADWAYS, AND SLOPE GRADING. THE BORROW AREA WILL EVENTUALLY BE GRADED FURTHER TO FORM THE SUBGRADE SURFACE FOR THE PROPOSED PHASE VI LANDFILL AREA 1 BASELINER. EXISTING CONDITIONS SHOWN ON THIS DRAWING REPRESENT CONDITIONS OF THE BORROW PIT AREA AS OF MARCH 2009.

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SCALE: 1"=100'

BAR SCALE 0.5" 0 1.0"

| | |
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RHODE ISLAND RESOURCE RECOVERY CORPORATION
CENTRAL LANDFILL, 65 SHUN PIKE, JOHNSTON, RHODE ISLAND

# PHASE VI LANDFILL
# RIDEM WETLANDS PERMIT APPLICATION
# CURRENT BORROW PIT CONDITIONS PLAN

PROJECT NO.
03053.20

FIGURE NO.
C-3.4

SHEET 7 OF 35

MATCH TO C4.2 PROPOSED BASELINER SUBGRADE PLAN 2

CHAIN LINK FENCE AT TOP OF RETAINING WALL

LOAM AND SEED 3:1 SLOPE ABOVE RETAINING WALL

"PAVESTONE" SEGMENTAL BLOCK RETAINING WALL

HAYBALES TO BE INSTALLED ALONG TOE OF SLOPE

PERIMETER DRAINAGE CHANNEL 10' WIDE, 2' DEEP S = 0.017 FT/FT

50' WIDE PERIMETER ACCESS ROAD WITH 5' SHOULDER, 2% CROSS SLOPE TOWARDS DRAINAGE CHANNEL

6' WIDE DRAINAGE CHANNEL S = 0.012 FT/FT

BERM TO BE CONSTRUCTED AT MAXIMUM 3:1 SLOPE

4' HIGH BERM BETWEEN BASELINER AREAS

*PROPOSED PHASE VI AREA 1A 13.9 ACRES*

*PROPOSED PHASE VI AREA 1B 13.4 ACRES*

*PROPOSED PHASE VI AREA 3A 11.0 ACRES*

*PROPOSED PHASE VI AREA 3B 9.3 ACRES*

EXISTING POND 2

HAY BALES (TYP.)

LIMITS OF DISTURBANCE (TYP.)

PERIMETER DRAINAGE CHANNEL 6' WIDTH DOWNSTREAM OF POND 14 BOX CULVERT

50LF – (2) 18" CL. V RCP S= 0.015 FT/FT INV. IN = 301.0 INV. OUT = 300.25

EXISTING 8'x4' BOX CULVERT

STILLING BASIN AT BOTTOM OF DOWNCHUTE

SOUTHWEST DOWNCHUTE, DOWNCHUTE TO BE CONSTRUCTED DURING PHASE V CAPPING

OU1 CAP AREA 1 (PERMANENT CAP IN PLACE) 7.99 ACRES

OU1 CAP AREA 2 (PERMANENT CAP IN PLACE) 10.40 ACRES

OU1 CAP AREA 3 (PERMANENT CAP IN PLACE) 15.18 ACRES

OU1 CAP AREA 4 NORTH (PERMANENT CAP IN PLACE) 11.29 ACRES

OU1 CAP AREA 4 SOUTH (PERMANENT CAP IN PLACE) 10.40 ACRES

OU1 CAP AREA 5 (NOT CAPPED) 43.22 ACRES

OU1 CAP AREA 6 (NOT CAPPED) 7.85 ACRES

MATCH LINE TO INSET "A"

MATCH LINE

INSET "A"
SCALE: 1"=100'

235LF – 24" CL. V RCP S= 0.025 FT/FT INV. IN = 393.0 INV. OUT = 387.0

FLARED END WITH RIPRAP APRON

EXTEND EXIST. RCP TO POND WITH FLARED END AND RIPRAP APRON

PROPOSED POND 4
BASE EL. 373.0
TOP BERM EL. 385.0
EMERGENCY SPILLWAY EL. 384.0
NORM. WSEL. 376.3
MAX. 100-YR WSEL. 383.22

POND 4 OUTLET STRUCTURE [REFER TO DETAILS FOR SPECIFICS]

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## LEGEND:

- LOD — LIMIT OF DISTURBANCE
- LANDFILL AREA DIVISION LINE
- P5–5 MONITORING WELL.
- (325.2) GROUND WATER ELEVATION AS RECORDED ON MAY 19, 2006 BY GZA PERSONNEL.
- (DRY) MONITORING WELL WAS DRY AT THE TIME OF MEASUREMENT.
- (*) ELEVATION WAS OMITTED FROM CONTOUR DEVELOPMENT.
- ARROW INDICATES DIRECTION OF VERTICAL GRADIENT BETWEEN SHALLOW AND DEEP WELL CLUSTERS.

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PARE

SCALE: 1"=100'

BAR SCALE 0 0.5" 1.0"

| | |
|---|---|
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RHODE ISLAND RESOURCE RECOVERY CORPORATION
CENTRAL LANDFILL, 65 SHUN PIKE, JOHNSTON, RHODE ISLAND

# PHASE VI LANDFILL
# RIDEM WETLANDS PERMIT APPLICATION
# PROPOSED BASELINER SUBGRADE PLAN 1

PROJECT NO. 03053.20

FIGURE NO. **C-4.1**

SHEET 8 OF 35

L:\03053.20 Phase VI Landfill\cad 001 - Permit Application\dwg\HORIZON WETLANDS\A1-4-C2 baseliner subgrade plan.dwg, 11/2/2009 11:16:59 AM

INSET "A"
SCALE: 1"=100'

DMH 6
DMH 7
DMH 5
DMH 4
SEE PROFILE POND 13 SHEETS C-10.1 AND C10.3
HAYBALES (TYP.)
STORMWATER DISCHARGE LOCATION TO UPPER SIMMONS RESERVOIR INVERT= 282.0
50-FT PERIMETER WETLAND
EW 1
PER DEM: Limit of Disturbance May represent the locations where siltfence has been (or) must be installed.

PROPOSED POND 13
BASE EL. 340.0
TOP BERM EL. 352.0
EMERGENCY SPILLWAY EL. 351.0
NORM. WSEL. 343.30
MAX. 100-YR WSEL. 351.0

PROVIDE R-5 RIPRAP PROTECTION AT CULVERT INLETS TO POND
LIMITS OF DISTURBANCE (TYP.)
HAY BALES (TYP.)
POND 13 OUTLET STRUCTURE [REFER TO DETAILS FOR SPECIFICS]

SEE PROFILE POND 13 SHEETS C-10.1 AND C10.2
DMH 1
DMH 3
DMH 4
EX DMH RIM= 327.42 PROP. INV. IN= 320.32' EX. INV. IN= 318.32 EX. INV. OUT= 318.12
HAYBALES (TYP.)
DMH 2
EX DMH RIM= 328.0 INV. IN=317.20 INV. OUT=317.19

160LF - (2)-30" CL. V RCP
S= 0.019 FT/FT
INV. IN = 355.5
INV. OUT = 352.5
DEEPEN PERIMETER DRAINAGE CHANNEL AT ENTRANCE TO CULVERT
8'W X 4'H CONCRETE BOX CULVERT
INV. IN = 354.0'
INV. OUT = 352.5'
RIRRC PROPERTY BOUNDARY
LOAM AND SEED 3:1 SLOPE
BERM TO BE CONSTRUCTED AT MAXIMUM 3:1 SLOPE
10' WIDE PERIMETER DRAINAGE CHANNEL SLOPE VARIES BETWEEN 0.013 FT/FT AND 0.03 FT/FT
EXISTING MATERIALS RECYCLING FACILITY TO REMAIN
10' WIDE PERIMETER DRAINAGE CHANNEL S = 0.017 FT/FT MN. DEPTH = 2 FT

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Kimberly D. Wenck

Kindly be advised that this Permit is not equivalent to a verification of the type or extent of freshwater wetlands on site.

50' WIDE PERIMETER ACCESS ROAD WITH 5' SHOULDER, 2% CROSS SLOPE TOWARDS DRAINAGE CHANNEL
220LF - (2) 18" CL. V RCP
S= 0.01 FT/FT
INV. IN = 385.0
INV. OUT = 382.8
HAYBALES (TYP.)
10' WIDE DRAINAGE CHANNEL AVERAGE SLOPE EQUALS 1.5% MIN. DEPTH = 2 FT
"PAVESTONE" SEGMENTAL BLOCK RETAINING WALL
50' WIDE PERIMETER ACCESS ROAD WITH 5' WIDE SHOULDER
4' HIGH SEPARATION BERM BETWEEN BASELINER AREAS
PERIMETER DRAINAGE CHANNEL 6' WIDE, 2' DEEP S = 0.017 FT/FT

PROPOSED PHASE VI AREA 5B 9.9 ACRES
PROPOSED PHASE VI AREA 5A 13.7 ACRES
PROPOSED PHASE VI AREA 2 15.4 ACRES
PROPOSED PHASE VI AREA 4 16.5 ACRES

NELF 26A&26B (26A–336.0) (26B–336.3)
NELF 28A&28B (28A–331.6) (28B–321.9)
NELF 24A&24B (24A–357.1) (24B–349.0)
NELF 14A&14B (14A–339.2) (14B–337.6)
NELF 16A&16B (16A–326.3) (16B–322.6)
NELF 21A&21B (21A–308.1) (21B–308.1)
NELF 6A&6B (6A–349.8) (6B–348.9)
NELF 2A&2B (2A–360.1) (2B–360.1)
NELF 4A&4B (4A–363.5) (4B–350.4)
NELF 10A&10B (10A–347.1) (10B–342.0)
NELF 13A&13B (13A–341.6) (13B–341.2)
NELF 18A&18B (18A–315.0) (18B–316.6)
NELF 20A&20B (20A–305.5) (20B–304.5)
NELF 29A&29B (29A–336.8) (29B–336.2)
NELF 27A&27B (27A – 338.0) (27B – 337.6)
NELF 25A&25B (25A–337.9) (25B–336.8)
WE02-8 (326.3)
MW-33 (307.7)
MW-49 (346.4)

PROPERTY BOUNDARY
8'Wx4'H CONCRETE BOX CULVERT INV. IN = 315.0 INV. OUT = 314.0
EXISTING SHUN PIKE POND (POND 12)
PROPOSED POND 14
BASE EL. 308.0
TOP BERM EL. 316.0
EMERGENCY SPILLWAY EL. 315.0
NORM. WSEL. 309.4
MAX. 100-YR WSEL. 315.0
POND 14 OUTLET STRUCTURE [REFER TO DETAILS FOR SPECIFICS]
SEE PROFILE POND 14 SHEET C-10.3

MATCH TO C4.1 PROPOSED BASELINER SUBGRADE PLAN 1

| REV# | DESCRIPTION | BY | DATE |
|---|---|---|---|
| 2 | REVISED PER RIDEM REVIEW COMMENTS | | NOV 2009 |
| 1 | REVISED PER RIDEM REVIEW COMMENTS | | JUNE 2009 |

ARMANDO J. RICCI No. 7128 REGISTERED PROFESSIONAL ENGINEER CIVIL

PARE CORPORATION
ENGINEERS SCIENTISTS PLANNERS
8 BLACKSTONE VALLEY PLACE
LINCOLN, RI 02865
401-334-4100

PROJ. MGR.: AJR
DESIGNED: BMB
DRAWN: RPB
CHECKED: AJR
DATE: APRIL 11, 2008

SCALE: 1"=100'
0.5" 0 1.0"
BAR SCALE

RHODE ISLAND RESOURCE RECOVERY CORPORATION
CENTRAL LANDFILL, 65 SHUN PIKE, JOHNSTON, RHODE ISLAND

PHASE VI LANDFILL
RIDEM WETLANDS PERMIT APPLICATION
PROPOSED BASELINER SUBGRADE PLAN 2

PROJECT NO. 03053.20

FIGURE NO. C-4.2

SHEET 9 OF 35

L:\03053.20 Phase VI Landfill\Task 00j - Permit Application\Dwg\SEQ01 WETLANDS\C4-1-2 baseliner subgrade plan.dwg, 11/2/2009 11:16:53 AM

MATCH TO C4.4 PROPOSED TOP OF BASELINER PLAN 2

PROPOSED PHASE VI AREA 3B 9.3 ACRES

PROPOSED PHASE VI AREA 1A 13.9 ACRES

PROPOSED PHASE VI AREA 1B 13.4 ACRES

PROPOSED PHASE VI AREA 3A 11.0 ACRES

CHAIN LINK FENCE AT TOP OF RETAINING WALL

LOAM AND SEED 3:1 SLOPE ABOVE RETAINING WALL

"PAVESTONE" SEGMENTAL BLOCK RETAINING WALL

HAYBALES TO BE INSTALLED ALONG TOE OF SLOPE

PERIMETER DRAINAGE CHANNEL 10' WIDE, 2' DEEP S = 0.017 FT/FT

BERM TO BE CONSTRUCTED AT MAXIMUM 3:1 SLOPE

4' HIGH BERM BETWEEN BASELINER AREAS

50' WIDE PERIMETER ACCESS ROAD WITH 5' SHOULDER, 2% CROSS SLOPE TOWARDS DRAINAGE CHANNEL

110LF – 18" CL. V RCP S= 0.01 FT/FT INV. IN = 404.1 INV. OUT = 403.0

6' WIDE DRAINAGE CHANNEL S = 0.012 FT/FT

MATCH LINE TO INSET "A"

OU1 CAP AREA 1 (PERMANENT CAP IN PLACE) 11.1 ACRES

OU1 CAP AREA 2 NORTH (PERMANENT CAP IN PLACE) 11.8 ACRES

OU1 CAP AREA 2 SOUTH (PERMANENT CAP IN PLACE) 10.62 ACRES

OU1 CAP AREA 3 (PERMANENT CAP IN PLACE) 15.15 ACRES

OU1 CAP AREA 5 (NOT CAPPED) 43.22 ACRES

OU1 CAP AREA 6 (NOT CAPPED)

DMH 8

EXISTING POND 2

HAY BALES (TYP.)

LIMITS OF DISTURBANCE (TYP.)

4' HIGH BERM BETWEEN BASELINER AREAS

PERIMETER DRAINAGE CHANNEL 6' WIDTH DOWNSTREAM OF POND 14 BOX CULVERT

50LF – (2) 18" CL. V RCP S= 0.015 FT/FT INV. IN = 300.1 INV. OUT = 300.25

EXISTING 8'x4' BOX CULVERT

STILLING BASIN AT BOTTOM OF DOWNCHUTE

SOUTHWEST DOWNCHUTE, DOWNCHUTE TO BE CONSTRUCTED DURING PHASE V CAPPING

INSET "A"
SCALE: 1"=100'

235LF – 24" CL. V RCP S= 0.025 FT/FT INV. IN = 393.0 INV. OUT = 387.0

FLARED END WITH RIPRAP APRON

EXTEND EXIST. RCP TO POND WITH FLARED END AND RIPRAP APRON

PROPOSED POND 4
BASE EL. 373.0
TOP BERM EL. 385.0
EMERGENCY SPILLWAY EL. 384.0
NORM. WSEL. 376.3
MAX. 100-YR WSEL. 383.22

POND 4 OUTLET STRUCTURE [REFER TO DETAILS FOR SPECIFICS]

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED JAN 1-8 2010 FILE # 07-0179
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

## LEGEND:

- LOD — LIMIT OF DISTURBANCE
- LANDFILL AREA DIVISION LINE
- P5–5 MONITORING WELL.
- (325.2) GROUND WATER ELEVATION AS RECORDED ON MAY 19, 2006 BY GZA PERSONNEL.
- (DRY) MONITORING WELL WAS DRY AT THE TIME OF MEASUREMENT.
- (*) ELEVATION WAS OMITTED FROM CONTOUR DEVELOPMENT.
- ARROW INDICATES DIRECTION OF VERTICAL GRADIENT BETWEEN SHALLOW AND DEEP WELL CLUSTERS.

| REV# | DESCRIPTION | DATE | BY |
|---|---|---|---|
| 1 | REVISED PER RIDEM REVIEW COMMENTS | NOV 2009 | |
| 2 | REVISED PER RIDEM REVIEW COMMENTS | JUNE 2009 | |

ARMANDO J. RICCI
No. 7128
REGISTERED PROFESSIONAL ENGINEER
CIVIL

PARE CORPORATION
ENGINEERS & CONSULTANTS
8 BLACKSTONE VALLEY PLACE
LINCOLN, RI 02865
401.334-1100

PARE

SCALE: 1"=100'

BAR SCALE 0 0.5" 1.0"

| | |
|---|---|
| PROJ. MGR.: | AJR |
| DESIGNED: | BMB |
| DRAWN: | RPB |
| CHECKED: | AJR |
| DATE: | APRIL 11, 2008 |

RHODE ISLAND RESOURCE RECOVERY CORPORATION
CENTRAL LANDFILL, 65 SHUN PIKE, JOHNSTON, RHODE ISLAND

# PHASE VI LANDFILL
# RIDEM WETLANDS PERMIT APPLICATION
# PROPOSED TOP OF BASELINER PLAN 1

PROJECT NO.
03053.20

FIGURE NO.
**C-4.3**

SHEET 10 OF 35

L:\03053.20 Phase VI Landfill\Task 001 - Permit Application\dwgs\RIDEM WETLANDS\Sht A3-4-4 Revised primary.dwg, 11/12/2009 11:27:18 AM

INSET "A"
SCALE: 1"=100'

DMH 6
DMH 7
DMH 5
DMH 4
SEE PROFILE POND 13 SHEETS C-10.1 AND C10.3
HAYBALES (TYP.)
STORMWATER DISCHARGE LOCATION TO UPPER SIMMONS RESERVOIR INVERT= 292.0
50-FT PERIMETER WETLAND
EW #1
PER DEM: Limit of Disturbance - this represents the location where silt fence & ext must be installed. (C-93)

PROPOSED POND 13
BASE EL. 340.0
TOP BERM EL. 352.0
EMERGENCY SPILLWAY EL. 351.0
NORM. WSEL. 343.30
MAX. 100-YR WSEL. 351.0

PROVIDE R-6 RIPRAP PROTECTION AT CULVERT INLETS TO POND
LIMITS OF DISTURBANCE (TYP.)
HAY BALES (TYP.)
POND 13 OUTLET STRUCTURE [REFER TO DETAILS FOR SPECIFICS]

SEE PROFILE POND 13 SHEETS C-10.1 AND C10.2
DMH 1
DMH 4
DMH 3
DMH 2
EX DMH RIM= 327.42 PROP INV. IN= 320.32 EX. INV. IN= 319.32 EX. INV. OUT= 318.12
EX DMH RIM=328.0 INV. IN=317.20 INV. OUT=317.19
HAYBALES (TYP.)

160LF - (2) 30" CL. V RCP
S= 0.019 FT/FT
INV. IN = 355.5
INV. OUT = 352.5

DEEPEN PERIMETER DRAINAGE CHANNEL AT ENTRANCE TO CULVERT
STILLING BASIN AT BOTTOM OF DOWNCHUTE
LOAM AND SEED 3:1 SLOPE
RIRRC PROPERTY BOUNDARY

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED JAN 19 2010 FILE # 07-0179
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

8'W X 4'H CONCRETE BOX CULVERT INV. IN = 354.0' INV. OUT = 352.5'

NELF 25A&25B (25A-337.9) (25B-336.8)
NELF 27A&27B (27A-336.5) (27B-335.4)
NELF 29A&29B (29A-335.5) (29B-335.0)

PROPOSED PHASE VI AREA 5B 9.9 ACRES

BERM TO BE CONSTRUCTED AT MAXIMUM 3:1 SLOPE

NELF 26A&26B (26A-336.0) (26B-335.3)
NELF 28A&28B (28A-331.6) (28B-121.9)

10' WIDE PERIMETER DRAINAGE CHANNEL SLOPE VARIES BETWEEN 0.013 FT/FT AND 0.03 FT/FT

EXISTING MATERIALS RECYCLING FACILITY TO REMAIN

10' WIDE PERIMETER DRAINAGE CHANNEL S = 0.017 FT/FT MIN. DEPTH = 2 FT

50' WIDE PERIMETER ACCESS ROAD WITH 5' SHOULDER, 2% CROSS SLOPE TOWARDS DRAINAGE CHANNEL

NELF 24A&24B (24A-337.1) (24B-336.0)
NELF-14A&14B (14A-338.2) (14B-337.9)
NELF-16A&16B (16A-326.2) (16B-322.6)

PROPOSED PHASE VI AREA 5A 13.7 ACRES

CONCRETE STILLING BASIN AT BOTTOM OF DOWNCHUTE
NELF-21A&21B (21A-308.1) (21B-305.9)
8'Wx4'H CONCRETE BOX CULVERT INV. IN = 315.0 INV. OUT = 314.0
PROPERTY BOUNDARY
EXISTING SHUN PIKE POND (POND 12)

220LF - (2) 18" CL. V RCP
S= 0.01 FT/FT
INV. IN = 385.0
INV. OUT = 382.8

Kindly be advised that this Permit is not equivalent to a verification of the type or extent of freshwater wetlands on site.

4' HIGH SEPARATION BERM BETWEEN BASELINER AREAS

WEO2-8 (328.3)

PROPOSED POND 14
BASE EL. 308.0
TOP BERM EL. 316.0
EMERGENCY SPILLWAY EL. 315.0
NORM. WSEL. 309.4
MAX. 100-YR WSEL. 315.0

HAYBALES (TYP.)
10' WIDE DRAINAGE CHANNEL AVERAGE SLOPE EQUALS 1.5% MIN. DEPTH = 2 FT

NELF-7A&7B (7A-353.5) (7B-350.8)
NELF-10A&10B (10A-347.1) (10B-342.9)
NELF 13A&13B (13A-345.4) (13B-342.2)
NELF18A&18B (18A-315.0) (18B-314.6)

PROPOSED PHASE VI AREA 2 15.4 ACRES
PROPOSED PHASE VI AREA 4 16.5 ACRES

"PAVESTONE" SEGMENTAL BLOCK RETAINING WALL
50' WIDE PERIMETER ACCESS ROAD WITH 5' WIDE SHOULDER
NELF-2A&2B (2A-349.2) (2B-348.9)
NELF-6A&6B (6A-349.8) (6B-348.9)
MW-49 (346.4)
NELF-9A&9B (9A-342.4) (9B-341.8)

POND 14 OUTLET STRUCTURE [REFER TO DETAILS FOR SPECIFICS]
SEE PROFILE POND 14 SHEET C-10.3
NELF-20A&20B (20A-308.5) (20B-304.9)
PERIMETER DRAINAGE CHANNEL 6' WIDE, 1' DEEP S = 0.017 FT/FT

MATCH TO C4.3 PROPOSED TOP OF BASELINER PLAN 1

N E S W

| NO. | DESCRIPTION | DATE | BY |
|---|---|---|---|
| 2 | REVISED PER RIDEM REVIEW COMMENTS | NOV 2009 | |
| 1 | REVISED PER RIDEM REVIEW COMMENTS | JUNE 2009 | |
| REV# | DESCRIPTION | DATE | BY |

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ENGINEERS ● SCIENTISTS
8 BLACKSTONE VALLEY PLACE
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401-334-4100

PROJ. MGR.: AJR
DESIGNED: BMB
DRAWN: RPB
CHECKED: AJR
DATE: APRIL 11, 2008

SCALE: 1"=100'
0.5" 0 1.0"
BAR SCALE

RHODE ISLAND RESOURCE RECOVERY CORPORATION
CENTRAL LANDFILL, 65 SHUN PIKE, JOHNSTON, RHODE ISLAND

PHASE VI LANDFILL
RIDEM WETLANDS PERMIT APPLICATION
PROPOSED TOP OF BASELINER PLAN 2

PROJECT NO.
03053.20

FIGURE NO.
C-4.4

SHEET 11 OF 35

L:\03053.20 Phase VI Landfill\Task 001 - Permit Application\Dwgs\02200\WETLANDS\dp3-4-4 finished pmtwrv.dwg, 11/2/2009 11:28:46 AM

MATCH TO C5.2 FILLING PLAN AREA 1 – No.2

FLOW DIRECTION (TYP.)

CHAIN LINK FENCE AT TOP OF RETAINING WALL

LOAM AND SEED 3:1 SLOPE ABOVE RETAINING WALL

"PAVESTONE" SEGMENTAL BLOCK RETAINING WALL

HAYBALES TO BE INSTALLED ALONG TOE OF SLOPE

PERIMETER DRAINAGE CHANNEL 10' WIDE, 2' DEEP S = 0.017 FT/FT

50' WIDE PERIMETER ACCESS ROAD WITH 5' SHOULDER, 2% CROSS SLOPE TOWARDS DRAINAGE CHANNEL

110LF – 18" CL. V RCP
S= 0.01 FT/FT
INV. IN = 404.1
INV. OUT = 403.0

6' WIDE DRAINAGE CHANNEL S = 0.012 FT/FT

MATCH LINE TO INSET "A"

*PROPOSED PHASE VI AREA 1A 13.9 ACRES*

TEMPORARY DIVERSION BENCH FLOW DIRECTION (TYP.)

20' WIDE TEMPORARY DOWNCHUTE TO BE INSTALLED ALONG SLOPE FOR RUNOFF FROM TEMPORARY DIVERSION BENCHES. DOWNCHUTE TO DISCHARGE INTO TEMPORARY SWALE AT TOE OF SLOPE.

*PROPOSED PHASE VI AREA 1B 13.4 ACRES*

20' WIDE TEMPORARY DIVERSION BENCH (TYP.)

*PROPOSED PHASE VI AREA 3B 9.3 ACRES*

CONTOURS SHOWN REPRESENT FINISHED PRIMARY

FLOW DIRECTION (TYP.)

TEMPORARY DRAINAGE SWALE DURING PHASE VI, AREA 1 FILLING OPERATIONS AVG. SLOPE = 0.012 FT/FT

*PROPOSED PHASE VI AREA 3A 11.0 ACRES*

CONTOURS SHOWN REPRESENT FINISHED PRIMARY

NEW PERIMETER ACCESS ROADWAY

PHASE VI FILLING AREA LIMITS (TYP.)

DMH 8

FE 1

EXISTING POND 2

HAY BALES (TYP.)

LIMITS OF DISTURBANCE (TYP.)

4' HIGH BERM BETWEEN BASELINER AREAS

PERIMETER DRAINAGE CHANNEL 6' WIDTH DOWNSTREAM OF POND 14 BOX CULVERT

50LF – (2) 18" CL. V RCP
S= 0.015 FT/FT
INV. IN = 301.0
INV. OUT = 300.25

EXISTING 8'x4' BOX CULVERT

DOWNCHUTE TO BE REMOVED DURING PREPARATION OF PIGGYBACK PORTION OF PHASE VI AREA 3 BASELINER

STILLING BASIN AT BOTTOM OF DOWNCHUTE

DOWNCHUTE TO BE REMOVED DURING PREPARATION OF PIGGYBACK PORTION OF PHASE VI AREA 3 BASELINER

EXISTING LANDFILL PHASING LIMITS (TYP.)

SOUTHWEST DOWNCHUTE. DOWNCHUTE TO BE CONSTRUCTED DURING PHASE V CAPPING

PHASE VI PIGGYBACK AREA = 50 ACRES

HAYBALE CHECK DAM (TYP.)

EXISTING OU-1 DOWNCHUTE TO REMAIN. TEMPORARY BENCHES ALONG NORTH SIDE OF PHASE VI AREA 1 TO SLOPE TOWARDS DOWNCHUTE.

LIMITS OF DISTURBANCE (TYP.)

PHASE VI LICENSING LIMITS (TYP.)

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED JAN 19 2010 FILE # 07-0179
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

MATCH LINE

INSET "A"
SCALE: 1"=100'

235LF – 24" CL. V RCP
S= 0.025 FT/FT
INV. IN = 393.0
INV. OUT = 387.0

FLARED END WITH RIPRAP APRON

EXTEND EXIST. RCP TO POND WITH FLARED END AND RIPRAP APRON

PROPOSED POND 4
BASE EL. 373.0
TOP BERM EL. 385.0
EMERGENCY SPILLWAY EL. 384.0
NORM. WSEL. 376.3
MAX. 100-YR WSEL. 383.22

POND 4 OUTLET STRUCTURE [REFER TO DETAILS FOR SPECIFICS]

| REV# | DESCRIPTION | DATE | BY |
|---|---|---|---|
| 2 | REVISED PER RIDEM REVIEW COMMENTS | NOV 2009 | AJR |
| 1 | REVISED PER RIDEM REVIEW COMMENTS | JUNE 2009 | BMB |

ARMANDO J. RICCI
No. 7128
REGISTERED PROFESSIONAL ENGINEER
CIVIL

PARE CORPORATION
ENGINEERS, SCIENTISTS, PLANNERS
8 BLACKSTONE VALLEY PLACE
LINCOLN, RI 02865
401-334-4100

PARE

PROJ. MGR.: AJR
DESIGNED: BMB
DRAWN: RPB
CHECKED: AJR
DATE: APRIL 11, 2008

SCALE: 1"=100'

BAR SCALE 0 0.5" 1.0"

RHODE ISLAND RESOURCE RECOVERY CORPORATION
CENTRAL LANDFILL, 65 SHUN PIKE, JOHNSTON, RHODE ISLAND

# PHASE VI LANDFILL
# RIDEM WETLANDS PERMIT APPLICATION
# FILLING PLAN AREA 1 - No. 1

PROJECT NO.
03053.20

FIGURE NO.
**C-5.1**

SHEET 12 OF 35

L:\03053\3.20 Phase VI Landfill\Task 005 - Permit Application\Dwgs\05RIDEM WETLANDS\05-5.2 Filling Area 1.dwg, 11/2/2009 1:48:12 PM

NOTE:
TEMPORARY SEDIMENT BASIN SHOWN (TEMPORARY POND 14) IS AN INTERIM MEASURE TO BE UTILIZED DURING FILLING IN AREAS 1A, 1B, 3A, 3B. THIS POND WILL BE ABANDONED AT THE COMPLETION OF FILLING PHASE 3B. PERMANENT POND 14 WILL BE CONSTRUCTED PRIOR TO BEGINNING FILLING PHASE 2.

LIMITS OF DISTURBANCE (TYP.)

HAY BALES (TYP.)

RIRRC PROPERTY LINE

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED JAN 19 2010 FILE # 07-0179
ANY CHANGES ALLOWED WITHOUT PRIOR APPROVAL.
APPROVED PLANS MUST BE AT CONSTRUCTION SITE.

RECEIVED
NOV 16 2009
DEPT. OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES

RIRRC PROPERTY BOUNDARY

RIRRC PROPERTY BOUNDARY

*PROPOSED*
*PHASE VI AREA 5B*
***9.9 ACRES***
FEATURES SHOWN REPRESENT EXISTING CONDITIONS

RECOVERMAT FACILITY TO BE REMOVED

EXISTING MATERIAL RECYCLING FACILITY TO REMAIN

*PROPOSED*
*PHASE VI AREA 5A*
***13.7 ACRES***
FEATURES SHOWN REPRESENT EXISTING CONDITIONS

TEMPORARY ACCESS ROAD TO BE USED THROUGH PHASE VI AREA 4 FILLING OPERATIONS

3:1 SIDE SLOPES WITH LOAM AND SEED

RIRRC MAIN ENTRANCE

10' WIDE RIPRAP SPILLWAY ELEV. 312.0'

TEMPORARY SEDIMENT BASIN PHASE VI, AREA 1 & 3 FILLING OPERATIONS BASE EL. = 306.0 TOP EL. = 314.0

SHUN PIKE POND (POND 12)

Kindly be advised that this Permit is not equivalent to a verification of the type or extent of freshwater wetlands on site.

Department of Environmental Management

PROPOSED TEMPORARY DRAINAGE SWALE 6' WIDE, 2' DEEP SLOPE VARIES BETWEEN 0.03 FT/FT AND 0.07 FT/FT

RUNOFF FLOW DIRECTION (TYP.)

EXISTING CULVERT

EXISTING DRAINAGE SWALE

EXISTING CULVERT

LIMITS OF DISTURBANCE (TYP.)

HAYBALES (TYP.)

10' WIDE DRAINAGE CHANNEL AVERAGE SLOPE EQUALS 1.5% MIN. DEPTH = 2 FT

*PROPOSED*
*PHASE VI AREA 2*
***15.4 ACRES***
FEATURES SHOWN REPRESENT EXISTING CONDITIONS

*PROPOSED*
*PHASE VI AREA 4*
***16.5 ACRES***
FEATURES SHOWN REPRESENT EXISTING CONDITIONS

ADMINISTRATIVE BUILDING TO BE RELOCATED

HAY BALES (TYP.)

RIRRC PROPERTY LINE

EXISTING DRAINAGE SWALE

EXISTING CULVERT

TIPPING FACILITY TO BE REMOVED

EXISTING DRAINAGE SWALE

"PAVESTONE" SEGMENTAL BLOCK RETAINING WALL

50' WIDE PERIMETER ACCESS ROAD WITH 5' WIDE SHOULDER

INSTALL APPROX. 470-FT OF THE PERMANENT POND 14 OUTFALL PIPE @ 0.02 FT/FT TO CONVEY THE DRAINAGE DITCH) STORMWATER INVERT= 305.0'

PROPOSED TEMPORARY DRAINAGE SWALE TO BE USED DURING PHASE VI AREAS 1 & 3 FILLING AVERAGE SLOPE = 0.032 FT/FT

MATCH TO C5.1 FILLING PLAN AREA 1 – No.1

| REV# | DESCRIPTION | BY | DATE |
|---|---|---|---|
| 2 | REVISED PER RIDEM REVIEW COMMENTS | | NOV 2009 |
| 1 | REVISED PER RIDEM REVIEW COMMENTS | | JUNE 2009 |

ARMANDO J. RICCI
No. 7128
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PARE CORPORATION
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8 BLACKSTONE VALLEY PLACE
LINCOLN, RHODE ISLAND
401-334-4100

PARE

SCALE: 1"=100'

BAR SCALE 0 0.5" 1.0"

PROJ. MGR.: AJR
DESIGNED: BMB
DRAWN: RPB
CHECKED: AJR
DATE: APRIL 11, 2008

RHODE ISLAND RESOURCE RECOVERY CORPORATION
CENTRAL LANDFILL, 65 SHUN PIKE, JOHNSTON, RHODE ISLAND

# PHASE VI LANDFILL
# RIDEM WETLANDS PERMIT APPLICATION
# FILLING PLAN AREA 1 - No. 2

PROJECT NO.
03053.20

FIGURE NO.
**C-5.2**
SHEET 13 OF 35

L:\03053.20 Phase VI Landfill\Civil 000 - Permit Application\Dwg\ASSEMBLY\03053.20-5.2 Filling area 1.dwg, 11/2/2009 1:04:43 PM

MATCH TO C5.4 FILLING PLAN AREA 3 - No.2

FLOW DIRECTION (TYP.)

CHAIN LINK FENCE AT TOP OF RETAINING WALL

LOAM AND SEED 3:1 SLOPE ABOVE RETAINING WALL

"PAVESTONE" SEGMENTAL BLOCK RETAINING WALL

HAYBALES TO BE INSTALLED ALONG TOE OF SLOPE

PERIMETER DRAINAGE CHANNEL 10' WIDE, 2' DEEP S = 0.017 FT/FT

50' WIDE PERIMETER ACCESS ROAD WITH 6' SHOULDER, 2% CROSS SLOPE TOWARDS DRAINAGE CHANNEL

110LF - 18" CL. V RCP S= 0.01 FT/FT INV. IN = 404.1 INV. OUT = 403.0

6' WIDE DRAINAGE CHANNEL S = 0.012 FT/FT

MATCH LINE TO SHEET 4

*PROPOSED PHASE VI AREA 1A 13.9 ACRES*

*PROPOSED PHASE VI AREA 1B 13.4 ACRES*

*PROPOSED PHASE VI AREA 3B 9.3 ACRES*

*PROPOSED PHASE VI AREA 3A 11.0 ACRES*

PHASE VI RIGGYBACK AREA = 50 ACRES

LIMITS OF DISTURBANCE (TYP.)

PHASE VI LICENSING LIMITS (TYP.)

TEMPORARY DIVERSION BENCH FLOW DIRECTION (TYP.)

20' WIDE TEMPORARY DIVERSION BENCH

HAYBALE CHECK DAM (TYP.)

EXISTING LANDFILL PHASING LIMITS (TYP.)

EXISTING PRETREATMENT FACILITY

PERIMETER DRAINAGE CHANNEL

NEW PERIMETER ACCESS ROADWAY

HAY BALES (TYP.)

LIMITS OF DISTURBANCE (TYP.)

PERIMETER DRAINAGE CHANNEL 6' WIDTH DOWNSTREAM OF POND #4 BOX CULVERT

50LF - (2) 48" CL. V RCP S= 0.018 FT/FT INV. IN = 391.0 INV. OUT = 390.25

EXISTING POND 2

EXISTING 8'x4' BOX CULVERT

STILLING BASIN AT BOTTOM OF DOWNCHUTE

CAPPING BENCHES ALONG SOUTH SIDE OF PHASE VI AREA 3 TO DRAIN TO DOWNCHUTE

SOUTHWEST DOWNCHUTE, DOWNCHUTE TO BE CONSTRUCTED DURING PHASE V CAPPING

MATCH LINE

INSET "A"
SCALE: 1"=100'

235LF - 24" CL. V RCP S= 0.025 FT/FT INV. IN = 393.0 INV. OUT = 387.0

FLARED END WITH RIPRAP APRON

EXTEND EXIST. RCP TO POND WITH FLARED END AND RIPRAP APRON

PROPOSED POND 4
BASE EL. 373.0
TOP BERM EL. 385.0
EMERGENCY SPILLWAY EL. 384.0
NORM. WSEL. 376.3
MAX. 100-YR WSEL. 383.22

POND 4 OUTLET STRUCTURE [REFER TO DETAILS FOR SPECIFICS]

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED JAN 19 2010 FILE # 07-0179
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL.
APPROVED PLANS MUST BE AT CONSTRUCTION SITE.

Emanuel D. Wenck

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| REV# | DESCRIPTION | BY | DATE |
|---|---|---|---|
| 2 | REVISED PER RIDEM REVIEW COMMENTS | BMB | NOV 2009 |
| 1 | REVISED PER RIDEM REVIEW COMMENTS | RPB | JUNE 2009 |

ARMANDO J. RICCI
No. 7128
REGISTERED PROFESSIONAL ENGINEER
CIVIL

PARE CORPORATION
ENGINEERS & CONSULTANTS
8 BLACKSTONE VALLEY PLACE
LINCOLN, RI 02865
401-334-4100

PARE

SCALE: 1"=100'

BAR SCALE 0 0.5" 1.0"

| | |
|---|---|
| PROJ. MGR.: | AJR |
| DESIGNED: | BMB |
| DRAWN: | RPB |
| CHECKED: | AJR |
| DATE: | APRIL 11, 2008 |

RHODE ISLAND RESOURCE RECOVERY CORPORATION
CENTRAL LANDFILL, 65 SHUN PIKE, JOHNSTON, RHODE ISLAND

**PHASE VI LANDFILL**
**RIDEM WETLANDS PERMIT APPLICATION**
**FILLING PLAN AREA 3 - No. 1**

PROJECT NO.
03053.20

FIGURE NO.
**C-5.3**

SHEET 14 OF 35

I:\03053.20 Phase VI Landfill\Task 001 - Permit Application\Dwgs\RIDEM WETLANDS\03053-25-C-filling area 3.dwg, 11/2/2009 2:58:53 PM

**NOTE:**
TEMPORARY SEDIMENT BASIN SHOWN (TEMPORARY POND 14) IS AN INTERIM MEASURE TO BE UTILIZED DURING FILLING IN AREAS 1A, 1B, 3A, 3B. THIS POND WILL BE ABANDONED AT THE COMPLETION OF FILLING PHASE 3B. PERMANENT POND 14 WILL BE CONSTRUCTED PRIOR TO BEGINNING FILLING PHASE 2.

LIMITS OF DISTURBANCE (TYP.)

HAY BALES (TYP.)

RIRRC PROPERTY LINE

RIRRC PROPERTY BOUNDARY

RIRRC PROPERTY BOUNDARY

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
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*PROPOSED*
*PHASE VI AREA 5B*
***9.9 ACRES***
FEATURES SHOWN REPRESENT EXISTING CONDITIONS

EXISTING MATERIAL RECYCLING FACILITY TO REMAIN

RECOVERMAT FACILITY TO BE REMOVED

*PROPOSED*
*PHASE VI AREA 5A*
***13.7 ACRES***
FEATURES SHOWN REPRESENT EXISTING CONDITIONS

TEMPORARY ACCESS ROAD TO BE USED UP THROUGH PHASE VI AREA 4 FILLING OPERATIONS

RIRRC MAIN ENTRANCE

10' WIDE RIPRAP SPILLWAY ELEV. 312.0'

TEMPORARY SEDIMENT BASIN PHASE VI, AREA 1 & 3 FILLING OPERATIONS

SHUN PIKE POND (POND 12)

**Kindly be advised that this Permit is not equivalent to a verification of the type or extent of freshwater wetlands on site.**

LIMITS OF DISTURBANCE (TYP.)

PROPOSED TEMPORARY DRAINAGE SWALE 6' WIDE, 2' DEEP SLOPE VARIES BETWEEN 0.03 FT/FT AND 0.07 FT/FT

EXISTING CULVERT

50' WIDE PERIMETER ACCESS ROAD WITH 5' WIDE SHOULDER

HAYBALES (TYP.)

PHASE VI FILLING AREA LIMITS (TYP.)

EXISTING CULVERT

ADMINISTRATIVE BUILDING TO BE RELOCATED

10' WIDE DRAINAGE CHANNEL AVERAGE SLOPE EQUALS 1.5% MIN. DEPTH = 2 FT

RIRRC PROPERTY LINE

HAY BALES (TYP.)

*PROPOSED*
*PHASE VI AREA 2*
***15.4 ACRES***
CONTOURS SHOWN REPRESENT FINISHED PRIMARY

*PROPOSED*
*PHASE VI AREA 4*
***16.5 ACRES***
FEATURES SHOWN REPRESENT EXISTING CONDITIONS

EXISTING SWALE

EXISTING CULVERT

"PAVESTONE" SEGMENTAL BLOCK RETAINING WALL

50' WIDE PERIMETER ACCESS ROAD WITH 5' WIDE SHOULDER

TIPPING FACILITY TO BE REMOVED

FLOW DIRECTION (TYP.)

PROPOSED TEMPORARY DRAINAGE SWALE TO BE USED DURING PHASE I VI AREAS 1 & 3 FILLING AVERAGE SLOPE = 0.032 FT/FT

MATCH TO C5.3 FILLING PLAN AREA 3 - No.1

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|---|---|---|---|
| 2 | REVISED PER RIDEM REVIEW COMMENTS | | NOV 2009 |
| 1 | REVISED PER RIDEM REVIEW COMMENTS | | JUNE 2009 |

ARMANDO J. RICCI
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ENGINEERS, SCIENTISTS, PLANNERS
8 BLACKSTONE VALLEY PLACE
LINCOLN, RI 02865
(401) 334-4100

PARE

SCALE: 1"=100'

BAR SCALE 0 0.5" 1.0"

| | |
|---|---|
| PROJ. MGR.: | AJR |
| DESIGNED: | BMB |
| DRAWN: | RPB |
| CHECKED: | AJR |
| DATE: | APRIL 11, 2008 |

RHODE ISLAND RESOURCE RECOVERY CORPORATION
CENTRAL LANDFILL, 65 SHUN PIKE, JOHNSTON, RHODE ISLAND

**PHASE VI LANDFILL**
**RIDEM WETLANDS PERMIT APPLICATION**
**FILLING PLAN AREA 3 - No. 2**

PROJECT NO.
03053.20

FIGURE NO.
**C-5.4**

SHEET 15 OF 35

L:\03053.20 Phase VI Landfill\Task 004 - Permit Application\dwg\RIDEM WETLANDS\05.3-5.4 filling area 3.dwg, 11/12/2009 3:26:56 PM

MATCH TO C5.6 FILLING PLAN AREA 2 – No.2

*PROPOSED*
*PHASE VI AREA 3B*
*9.3 ACRES*

*PROPOSED*
*PHASE VI AREA 1A*
*13.9 ACRES*

*PROPOSED*
*PHASE VI AREA 1B*
*13.4 ACRES*

*PROPOSED*
*PHASE VI AREA 3A*
*11.0 ACRES*

FLOW DIRECTION (TYP.)

CHAIN LINK FENCE AT TOP OF RETAINING WALL

LOAM AND SEED 3:1 SLOPE ABOVE RETAINING WALL

"PAVERSTONE" SEGMENTAL BLOCK RETAINING WALL

HAYBALES TO BE INSTALLED ALONG TOE OF SLOPE

PERIMETER DRAINAGE CHANNEL 10' WIDE, 2' DEEP S = 0.017 FT/FT

50' WIDE PERIMETER ACCESS ROAD WITH 5' SHOULDER, 2% CROSS SLOPE TOWARDS DRAINAGE CHANNEL

110LF – 18" CL V RCP
S= 0.01 FT/FT
INV. IN = 404.1
INV. OUT = 403.0

6' WIDE DRAINAGE CHANNEL S = 0.012 FT/FT

MATCH LINE TO INSET "A"

ACCESS RAMP TO TOP OF LANDFILL

PHASE VI RIGGYBACK AREA = 50 ACRES

LIMITS OF DISTURBANCE (TYP.)

OUT CAP AREA 5 (NOT CAPPED) 43.22 ACRES

PHASE VI LICENSING LIMITS (TYP.)

OUT CAP AREA 6 (NOT CAPPED) ACRES

EXISTING LANDFILL PHASING LIMITS (TYP.)

DMH 8

EXISTING PRETREATMENT FACILITY

EXISTING POND 2

HAY BALES (TYP.)

LIMITS OF DISTURBANCE (TYP.)

PERIMETER DRAINAGE CHANNEL 6' WIDTH DOWNSTREAM OF POND 1-4 BOX CULVERT

80LF – (2) 18" CL V RCP
S= 0.018 FT/FT
INV. IN = 301.0
INV. OUT = 300.25

EXISTING 8'x4' BOX CULVERT

STILLING BASIN AT BOTTOM OF DOWNCHUTE

BENCHES ALONG SOUTH SIDE OF PHASE VI AREA 3 TO DRAIN TO DOWNCHUTE

SOUTHWEST DOWNCHUTE. DOWNCHUTE TO BE CONSTRUCTED DURING PHASE V CAPPING

HAYBALE CHECK DAM (TYP.)

MATCH LINE

**INSET "A"**
SCALE: 1"=100'

235LF – 24" CL V RCP
S= 0.025 FT/FT
INV. IN = 393.0
INV. OUT = 387.0

FLARED END WITH RIPRAP APRON

EXTEND EXIST. RCP TO POND WITH FLARED END AND RIPRAP APRON

PROPOSED POND 4
BASE EL. 373.0
TOP BERM EL. 385.0
EMERGENCY SPILLWAY EL. 384.0
NORM. WSEL. 376.3
MAX. 100-YR WSEL. 383.22

POND 4 OUTLET STRUCTURE [REFER TO DETAILS FOR SPECIFICS]

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED 1 JAN 19 2010 FILE # 07-0179
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE.

Emartwi D. Wenzel

| BY | DATE | DESCRIPTION | REV# |
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| | | | |
| AJR | JUNE 2009 | REVISED PER RIDEM REVIEW COMMENTS | 1 |
| AJR | NOV 2009 | REVISED PER RIDEM REVIEW COMMENTS | 2 |

ARMANDO J. RICCI
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PARE CORPORATION
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LINCOLN, RI 02865
401-334-4100


PARE

SCALE: 1"=100'

BAR SCALE 0 0.5" 1.0"

| | |
|---|---|
| PROJ. MGR.: | AJR |
| DESIGNED: | BMB |
| DRAWN: | RPB |
| CHECKED: | AJR |
| DATE: | APRIL 11, 2008 |

RHODE ISLAND RESOURCE RECOVERY CORPORATION
CENTRAL LANDFILL, 65 SHUN PIKE, JOHNSTON, RHODE ISLAND

**PHASE VI LANDFILL**
**RIDEM WETLANDS PERMIT APPLICATION**
**FILLING PLAN AREA 2 - No. 1**

PROJECT NO.
03053.20

FIGURE NO.
**C-5.5**

SHEET 16 OF 35

L:\03053.20 Phase VI Landfill\Task_001 - Permit Application\Design\2020H WETLANDS\03053-5-5-6 Bldg area 2.dwg, 11/2/2009 3:24:53 PM

NOTE:
TEMPORARY POND 14 IS REMOVED UPON THE COMPLETION OF AREA 2 PRIMARY AND CONSTRUCTION OF PERMANENT POND 14 AND CONTROL STRUCTURE.

LIMITS OF DISTURBANCE (TYP.)

HAY BALES (TYP.)

RIRRC PROPERTY LINE

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
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*PROPOSED*
*PHASE VI AREA 5B*
***9.9 ACRES***
FEATURES SHOWN REPRESENT EXISTING CONDITIONS

RECOVERMAT FACILITY TO BE REMOVED

*PROPOSED*
*PHASE VI AREA 5A*
***13.7 ACRES***
FEATURES SHOWN REPRESENT EXISTING CONDITIONS

PROPOSED TEMPORARY DRAINAGE SWALE 10' WIDE, 2' DEEP SLOPE VARIES BETWEEN 0.03 FT/FT AND 0.07 FT/FT

TEMPORARY ACCESS ROAD TO BE USED UP THROUGH AREA 4 FILLING OPERATIONS

RIRRC MAIN ENTRANCE

PROPERTY BOUNDARY

Kindly be advised that this Permit is not equivalent to a verification of the type or extent of freshwater wetlands on site.

220LF – (2) 18" CL V RCP
S= 0.01 FT/FT
INV. IN = 388.0
INV. OUT = 382.8

8'Wx4'H CONCRETE BOX CULVERT
INV. IN = 315.0
INV. OUT = 314.0

EXISTING SHUN PIKE POND (POND 12)

FLOW DIRECTION (TYP.)

PHASE VI FILLING AREA LIMITS (TYP.)

TEMPORARY POND 14 RECLAIMED FOR AREA 4/BASELINER

CONSTRUCT NEW SECTION OF TEMPORARY DRAINAGE SWALE TO CONVEY FLOW TO NEW SEDIMENTATION POND 14. SWALE TO BE 10' WIDE, 2' DEEP WITH A SLOPE OF 0.02 FT/FT.

20' WIDE TEMPORARY DOWNCHUTE TO BE INSTALLED ALONG SLOPE FOR RUNOFF FROM TEMPORARY DIVERSION BENCHES. DOWNCHUTE TO DISCHARGE INTO TEMPORARY SWALE AT TOE OF SLOPE.

DRAINAGE SWALE (TYP.)

PROPOSED POND 14
BASE EL. 308.0
TOP BERM EL. 316.0
EMERGENCY SPILLWAY EL. 315.0
NORM. WSEL. 309.4
MAX. 100-YR WSEL 315.0

LIMITS OF DISTURBANCE (TYP.)

HAYBALES (TYP.)

10' WIDE DRAINAGE CHANNEL AVERAGE SLOPE EQUALS 1.5% MIN. DEPTH = 2 FT

*PROPOSED*
*PHASE VI AREA 2*
***15.4 ACRES***

*PROPOSED*
*PHASE VI AREA 4*
***16.5 ACRES***

"PAVESTONE" SEGMENTAL BLOCK RETAINING WALL

50' WIDE PERIMETER ACCESS ROAD WITH 5' WIDE SHOULDER

ACCESS RAMP TO TOP OF LANDFILL

CONTOURS SHOWN REPRESENT FINISHED PRIMARY

NEW PERIMETER ACCESS ROADWAY

POND 14 OUTLET STRUCTURE [REFER TO DETAILS FOR SPECIFICS]

SEE PROFILE POND 14 SHEET C-10.3

PERIMETER DRAINAGE CHANNEL 6' WIDE, 2' DEEP S = 0.017 FT/FT

MATCH TO C5.5 FILLING PLAN AREA 2 – No.1

| REV# | DESCRIPTION | BY | DATE |
|---|---|---|---|
| 2 | REVISED PER RIDEM REVIEW COMMENTS | | NOV 2009 |
| 1 | REVISED PER RIDEM REVIEW COMMENTS | | JUNE 2009 |

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401-334-4100

PROJ. MGR.: AJR
DESIGNED: BMB
DRAWN: RPB
CHECKED: AJR
DATE: APRIL 11, 2008

SCALE: 1"=100'

0.5" 0 1.0"
BAR SCALE

RHODE ISLAND RESOURCE RECOVERY CORPORATION
CENTRAL LANDFILL, 65 SHUN PIKE, JOHNSTON, RHODE ISLAND

PHASE VI LANDFILL
RIDEM WETLANDS PERMIT APPLICATION
FILLING PLAN AREA 2 - No. 2

PROJECT NO.
03053.20

FIGURE NO.
C-5.6

SHEET 17 OF 35

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MATCH TO C5.8 FILLING PLAN AREA 4 – No.2

*PROPOSED*
*PHASE VI AREA 3B*
*9.3 ACRES*

*PROPOSED*
*PHASE VI AREA 1A*
*13.9 ACRES*

*PROPOSED*
*PHASE VI AREA 1B*
*13.4 ACRES*

*PROPOSED*
*PHASE VI AREA 3A*
*11.0 ACRES*

FLOW DIRECTION (TYP.)

CHAIN LINK FENCE AT TOP OF RETAINING WALL

LOAM AND SEED 3:1 SLOPE ABOVE RETAINING WALL

"PAVESTONE" SEGMENTAL BLOCK RETAINING WALL

HAYBALES TO BE INSTALLED ALONG TOE OF SLOPE

PERIMETER DRAINAGE CHANNEL 10' WIDE, 2' DEEP S = 0.017 FT/FT

50' WIDE PERIMETER ACCESS ROAD WITH 5' SHOULDER, 2% CROSS SLOPE TOWARDS DRAINAGE CHANNEL

110LF – 18" CL V RCP
S= 0.01 FT/FT
INV. IN = 404.1
INV. OUT = 403.0

6' WIDE DRAINAGE CHANNEL S = 0.012 FT/FT

MATCH LINE TO INSET "A"

LIMITS OF DISTURBANCE (TYP.)

PHASE VI LICENSING LIMITS (TYP.)

PHASE VI PIGGYBACK AREA = 50 ACRES

DMH 8

EXISTING PRETREATMENT FACILITY

EXISTING POND 2

HAY BALES (TYP.)

LIMITS OF DISTURBANCE (TYP.)

PERIMETER DRAINAGE CHANNEL 6' WIDTH DOWNSTREAM OF POND 4 BOX CULVERT

50LF – (2) 18" CL V RCP
S= 0.015 FT/FT
INV. IN = 301.0
INV. OUT = 300.25

EXISTING 8'x4' BOX CULVERT

STILLING BASIN AT BOTTOM OF DOWNCHUTE

BENCHES ALONG SOUTH SIDE OF PHASE VI AREA 3 TO DRAIN TO DOWNCHUTE

SOUTHWEST DOWNCHUTE, DOWNCHUTE TO BE CONSTRUCTED DURING PHASE V CAPPING

HAYBALE CHECK DAM (TYP.)

MATCH LINE

INSET "A"
SCALE: 1"=100'

235LF – 24" CL V RCP
S= 0.025 FT/FT
INV. IN = 393.0
INV. OUT = 387.00

FLARED END WITH RIPRAP APRON

EXTEND EXIST. RCP TO POND WITH FLARED END AND RIPRAP APRON

PROPOSED POND 4
BASE EL. 373.0
TOP BERM EL. 385.0
EMERGENCY SPILLWAY EL. 384.0
NORM. WSEL. 376.3
MAX. 100-YR WSEL. 383.22

POND 4 OUTLET STRUCTURE [REFER TO DETAILS FOR SPECIFICS]

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
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NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

Stephen D. Wenck

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WETLANDS APPLICATION REVIEW

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| 2 | REVISED PER RIDEM REVIEW COMMENTS | | NOV 2009 |
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ARMANDO J. RICCI
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LINCOLN, RI 02865
401-334-4100

SCALE: 1"=100'

BAR SCALE 0 0.5" 1.0"

| | |
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RHODE ISLAND RESOURCE RECOVERY CORPORATION
*CENTRAL LANDFILL, 65 SHUN PIKE, JOHNSTON, RHODE ISLAND*

# PHASE VI LANDFILL
# RIDEM WETLANDS PERMIT APPLICATION
# FILLING PLAN AREA 4 - No. 1

PROJECT NO.
03053.20

FIGURE NO.
**C-5.7**
SHEET 18 OF 35

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INSET 'B'

DMH 6
DMH 7
DMH 5
DMH 4
SEE PROFILES POND 13 SHEETS C-10.1 AND C10.3
HAYBALES (TYP.)
STORMWATER DISCHARGE LOCATION TO UPPER SIMMONS RESERVOIR INVERT= 297.0
50-FT PERIMETER WETLAND
PER DEM: Limit of disturbance may encroach 50 ft into wetland where silt fence must be installed.

PROPOSED POND 13
BASE EL. 340.0
TOP BERM EL. 352.0
EMERGENCY SPILLWAY EL. 351.0
NORM. WSEL. 343.30
MAX. 100-YR WSEL. 351.0

PROVIDE R-6 RIPRAP PROTECTION AT CULVERT INLETS TO POND
LIMITS OF DISTURBANCE (TYP.)
HAY BALES (TYP.)
POND 13 OUTLET STRUCTURE [REFER TO DETAILS FOR SPECIFICS]
SEE PROFILE POND 13 SHEETS C-10.1 AND C10.2
MATCH LINE TO INSET 'B'
DMH 1
DMH 3
HAYBALES (TYP.)
EX. DMH RIM= 327.42 PROP. INV. IN= 320.32 EX. INV. IN= 319.32 EX. INV. OUT= 318.12
EX. DMH RIM=328.0 INV. IN=317.20 INV. OUT=317.19
DMH 2
10' WIDE PERIMETER DRAINAGE CHANNEL SLOPE VARIES BETWEEN MAXIMUM 0.075 FT/FT AND 0.03 FT/FT
NEW PERIMETER ACCESS ROADWAY
EXISTING MATERIALS RECYCLING FACILITY TO REMAIN
DRAINAGE SWALE (TYP.)
RIRRC MAIN ENTRANCE
PROPERTY BOUNDARY
8'W x 4'H CONCRETE BOX CULVERT INV. IN = 315.0 INV. OUT = 314.0
EXISTING SHUN PIKE POND (POND 12)
PROPOSED POND 14 BASE EL. 306.0 TOP BERM EL. 316.0 EMERGENCY SPILLWAY EL. 315.0 NORM. WSEL. 309.4 MAX. 100-YR WSEL. 315.0
POND 14 OUTLET STRUCTURE [REFER TO DETAILS FOR SPECIFICS]
SEE PROFILE POND 14 SHEET C-10.3
PERIMETER DRAINAGE CHANNEL 6' WIDE, 2' DEEP S = 0.017 FT/FT

160LF - (2) 30" CL. V RCP S= 0.019 FT/FT INV. IN = 355.5 INV. OUT = 352.5
8'W X 4'H CONCRETE BOX CULVERT INV. IN = 354.0' INV. OUT = 352.5'
DEEPEN PERIMETER DRAINAGE CHANNEL AT ENTRANCE TO CULVERT
STILLING BASIN AT BOTTOM OF DOWNCHUTE
LOAM AND SEED 3:1 SLOPE
RIRRC PROPERTY BOUNDARY

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
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AS SPECIFIED IN THE LETTER OF APPROVAL
DATED JAN 19 2010 FILE # 07-0129
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE.

*PROPOSED PHASE VI AREA 5B*
*9.9 ACRES*

BERM TO BE CONSTRUCTED AT MAXIMUM 3:1 SLOPE
FEATURES SHOWN REPRESENT TOP OF BASELINER GRADES
PHASE VI FILLING AREA LIMITS (TYP.)
*PROPOSED PHASE VI AREA 5A*
*13.7 ACRES*
REMOVE AND REGRADE TEMPORARY ROAD TO TOP OF BASELINER GRADES
20' WIDE TEMPORARY DOWNCHUTE TO BE INSTALLED ALONG SLOPE FOR RUNOFF FROM TEMPORARY DIVERSION BENCHES. DOWNCHUTE TO DISCHARGE INTO TEMPORARY SWALE AT TOE OF SLOPE.
CONCRETE STILLING BASIN AT BOTTOM OF DOWNCHUTE

10' WIDE PERIMETER DRAINAGE CHANNEL S = 0.017 FT/FT MIN. DEPTH = 2 FT
50' WIDE PERIMETER ACCESS ROAD WITH 5' SHOULDER, 2% CROSS SLOPE TOWARDS DRAINAGE CHANNEL
220LF - (2) 18" CL. V RCP S= 0.01 FT/FT INV. IN = 385.0 INV. OUT = 382.8
Kindly be advised that this Permit is not equivalent to a verification of the type or extent of freshwater wetlands on site.
Martin D. Wencek
HAYBALES (TYP.)
10' WIDE DRAINAGE CHANNEL AVERAGE SLOPE EQUALS 1.5% MIN. DEPTH = 2 FT
"PAVESTONE" SEGMENTAL BLOCK RETAINING WALL
50' WIDE PERIMETER ACCESS ROAD WITH 5' WIDE SHOULDER
ACCESS RAMP TO TOP OF LANDFILL

*PROPOSED PHASE VI AREA 2*
*15.4 ACRES*
*PROPOSED PHASE VI AREA 4*
*16.5 ACRES*

MATCH TO C5.7 FILLING PLAN AREA 4 - No.1

N E S W

| REV# | DESCRIPTION | BY | DATE |
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| 2 | REVISED PER RIDEM REVIEW COMMENTS | | NOV 2009 |
| 1 | REVISED PER RIDEM REVIEW COMMENTS | | JUNE 2009 |

ARMANDO J. RICCI
No. 7128
REGISTERED PROFESSIONAL ENGINEER
CIVIL

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PARE CORPORATION
ENGINEERS • SCIENTISTS • PLANNERS
8 BLACKSTONE VALLEY PLACE
LINCOLN, RHODE ISLAND
401-334-4100

SCALE: 1"=100'
BAR SCALE 0 0.5" 1.0"

| | |
|---|---|
| PROJ. MGR.: | AJR |
| DESIGNED: | BMB |
| DRAWN: | RPB |
| CHECKED: | AJR |
| DATE: | APRIL 11, 2008 |

RHODE ISLAND RESOURCE RECOVERY CORPORATION
CENTRAL LANDFILL, 65 SHUN PIKE, JOHNSTON, RHODE ISLAND

# PHASE VI LANDFILL
# RIDEM WETLANDS PERMIT APPLICATION
# FILLING PLAN AREA 4 - No. 2

PROJECT NO.
03053.20

FIGURE NO.
**C-5.8**

SHEET 19 OF 35

L:\03053.20 Phase VI Landfill\Civil\ 100 - Permit Application\dwgs\03053VIWETLANDS\05-5.8 filling area 4.dwg, 11/2/2009 2:33:39 PM

MATCH TO C5.10 FILLING PLAN AREA 5 - No.2

FLOW DIRECTION (TYP.)

CHAIN LINK FENCE AT TOP OF RETAINING WALL

LOAM AND SEED 3:1 SLOPE ABOVE RETAINING WALL

"PAVERSTONE" SEGMENTAL BLOCK RETAINING WALL

HAYBALES TO BE INSTALLED ALONG TOE OF SLOPE

PERIMETER DRAINAGE CHANNEL 10' WIDE, 2' DEEP S = 0.017 FT/FT

50' WIDE PERIMETER ACCESS ROAD WITH 5' SHOULDER, 2% CROSS SLOPE TOWARDS DRAINAGE CHANNEL

110LF - 18" CL V RCP S= 0.01 FT/FT INV. IN = 404.1 INV. OUT = 403.0

6' WIDE DRAINAGE CHANNEL S = 0.012 FT/FT

MATCH LINE TO INSET "A"

*PROPOSED PHASE VI AREA 1A 13.9 ACRES*

*PROPOSED PHASE VI AREA 1B 13.4 ACRES*

*PROPOSED PHASE VI AREA 3B 9.3 ACRES*

*PROPOSED PHASE VI AREA 3A 11.0 ACRES*

DMH 8

EXISTING PRETREATMENT FACILITY

EXISTING POND 2

HAY BALES (TYP.)

LIMITS OF DISTURBANCE (TYP.)

PERIMETER DRAINAGE CHANNEL 6' WIDTH DOWNSTREAM OF POND 1-4 BOX CULVERT

50LF - (2) 18" CL V RCP S= 0.035 FT/FT INV. IN = 381.0 INV. OUT = 380.25

EXISTING 6'x4' BOX CULVERT

STILLING BASIN AT BOTTOM OF DOWNCHUTE

BENCHES ALONG SOUTH SIDE OF PHASE VI AREA 3 TO DRAIN TO DOWNCHUTE

SOUTHWEST DOWNCHUTE, DOWNCHUTE TO BE CONSTRUCTED DURING PHASE V CAPPING

PHASE VI PIGGYBACK AREA = 50 ACRES

HAYBALE CHECK DAM (TYP.)

OUT CAP AREA 5 (NOT CAPPED) 43.22 ACRES

OUT CAP AREA 6 (NOT CAPPED) 7 ACRES

PHASE VI LICENSING LIMITS (TYP.)

EXISTING LANDFILL PHASING LIMITS (TYP.)

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
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DATED JAN 19 2010 FILE # 09-0179
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL.
APPROVED PLANS MUST BE AT CONSTRUCTION SITE.

Kristen D. Wenick

INSET "A"
SCALE: 1"=100'

MATCH LINE

235LF - 24" CL V RCP S= 0.025 FT/FT INV. IN = 393.0 INV. OUT = 387.0

FLARED END WITH RIPRAP APRON

EXTEND EXIST. RCP TO POND WITH FLARED END AND RIPRAP APRON

PROPOSED POND 4
BASE EL. 373.0
TOP BERM EL. 385.0
EMERGENCY SPILLWAY EL. 384.0
NORM. WSEL. 376.3
MAX. 100-YR WSEL. 383.22

POND 4 OUTLET STRUCTURE [REFER TO DETAILS FOR SPECIFICS]

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ARMANDO J. RICCI
No. 7128
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8 BLACKSTONE VALLEY PLACE
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401-334-4100

PARE

SCALE: 1"=100'

BAR SCALE 0 0.5" 1.0"

| | | |
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RHODE ISLAND RESOURCE RECOVERY CORPORATION
CENTRAL LANDFILL 65 SHUN PIKE, JOHNSTON, RHODE ISLAND

PHASE VI LANDFILL
RIDEM WETLANDS PERMIT APPLICATION
FILLING PLAN AREA 5 - No. 1

PROJECT NO.
03053.20

FIGURE NO.
C-5.9

SHEET 20 OF 35

L:\03053.20 Phase VI Landfill\Task\06 - Permit Application\Dwg\RIDEM WETLANDS\fig05-9-5-10 filling area 5.dwg, 11/2/2009 3:52:28 PM

DMH 6
DMH 7
DMH 5
DMH 4
SEE PROFILE POND 13
SHEETS C-10.1 AND C10.3
HAYBALES (TYP.)
STORMWATER DISCHARGE LOCATION
TO UPPER SIMMONS RESERVOIR
INVERT= 282.0
50-FT PERIMETER WETLAND
LOD
001
D
EW
INSET 'B'

PROPOSED POND 13
BASE EL. 340.0
TOP BERM EL. 352.0
EMERGENCY SPILLWAY EL. 351.0
NORM. WSEL 343.30
MAX. 100-YR WSEL 351.0

PROVIDE R-6 RIPRAP PROTECTION AT CULVERT INLETS TO POND
LIMITS OF DISTURBANCE (TYP.)
HAY BALES (TYP.)
POND 13 OUTLET STRUCTURE
[REFER TO DETAILS FOR SPECIFICS]

160LF - (2) 30" CL. V RCP
S= 0.019 FT/FT
INV. IN = 355.5
INV. OUT = 352.5
DEEPEN PERIMETER DRAINAGE CHANNEL AT ENTRANCE TO CULVERT
STILLING BASIN AT BOTTOM OF DOWNCHUTE
LOAM AND SEED 3:1 SLOPE
8'W X 4'H CONCRETE BOX CULVERT
INV. IN = 354.0
INV. OUT = 352.5

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
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RIRRC PROPERTY BOUNDARY
10' WIDE PERIMETER DRAINAGE CHANNEL
S = 0.017 FT/FT
MIN. DEPTH = 2 FT
50' WIDE PERIMETER ACCESS ROAD WITH 5' SHOULDER, 2% CROSS SLOPE TOWARDS DRAINAGE CHANNEL

Kindly be advised that this Permit is not equivalent to a verification of the type or extent of freshwater wetlands on site.

Maureen D. Wencek

220LF - (2) 18" CL. V RCP
S= 0.01 FT/FT
INV. IN = 385.0
INV. OUT = 382.8
LIMITS OF DISTURBANCE (TYP.)
HAYBALES (TYP.)
10' WIDE DRAINAGE CHANNEL
AVERAGE SLOPE EQUALS 1.5%
MIN. DEPTH = 2 FT
"PAVESTONE" SEGMENTAL BLOCK RETAINING WALL
50' WIDE PERIMETER ACCESS ROAD WITH 5' WIDE SHOULDER

*PROPOSED*
*PHASE VI AREA 5B*
*9.9 ACRES*

20' WIDE TEMPORARY DOWNCHUTE TO BE INSTALLED ALONG SLOPE FOR RUNOFF FROM TEMPORARY DIVERSION BENCHES. DOWNCHUTE TO DISCHARGE INTO TEMPORARY SWALE AT TOE OF SLOPE.

*PROPOSED*
*PHASE VI AREA 5A*
*13.7 ACRES*

*PROPOSED*
*PHASE VI AREA 2*
*15.4 ACRES*

*PROPOSED*
*PHASE VI AREA 4*
*16.5 ACRES*

MATCH TO C5.9 FILLING PLAN AREA 5 - No.1

SEE PROFILE POND 13
SHEETS C-10.1 AND C10.2
DMH 1
DMH 3
DMH 2
HAYBALES (TYP.)
EX DMH
RIM= 327.42
PROP INV. IN= 320.32
EX. INV. IN= 319.32
EX. INV. OUT= 318.12
EX DMH
RIM=328.0
INV. IN=317.20
INV. OUT=317.19
10' WIDE PERIMETER DRAINAGE CHANNEL
SLOPE VARIES BETWEEN 0.013 FT/FT AND 0.03 FT/FT
EXISTING MATERIALS RECYCLING FACILITY TO REMAIN
RIRRC MAIN ENTRANCE
PROPERTY BOUNDARY
8'Wx4'H CONCRETE BOX CULVERT
INV. IN = 315.0
INV. OUT = 314.0
EXISTING SHUN PIKE POND (POND 12)
PROPOSED POND 14
BASE EL. 308.0
TOP BERM EL. 316.0
EMERGENCY SPILLWAY EL. 315.0
NORM. WSEL. 309.4
MAX. 100-YR WSEL 315.0
HAY BALES (TYP.)
EXISTING SCALES TO REMAIN IN USE
POND 14 OUTLET STRUCTURE [REFER TO DETAILS FOR SPECIFICS]
SEE PROFILE POND 14 SHEET C-10.3
PERIMETER DRAINAGE CHANNEL 6' WIDE, 2' DEEP S = 0.017 FT/FT
CONCRETE STILLING BASIN AT BOTTOM OF DOWNCHUTE
MATCH LINE TO WEST

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LINCOLN, RI 02865
401.334-4100

PARE

SCALE: 1"=100'
0.5" 0 1.0"
BAR SCALE

| | |
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RHODE ISLAND RESOURCE RECOVERY CORPORATION
CENTRAL LANDFILL 65 SHUN PIKE, JOHNSTON, RHODE ISLAND

**PHASE VI LANDFILL**
**RIDEM WETLANDS PERMIT APPLICATION**
**FILLING PLAN AREA 5 - No. 2**

PROJECT NO.
03053.20

FIGURE NO.
**C-5.10**

SHEET 21 OF 35

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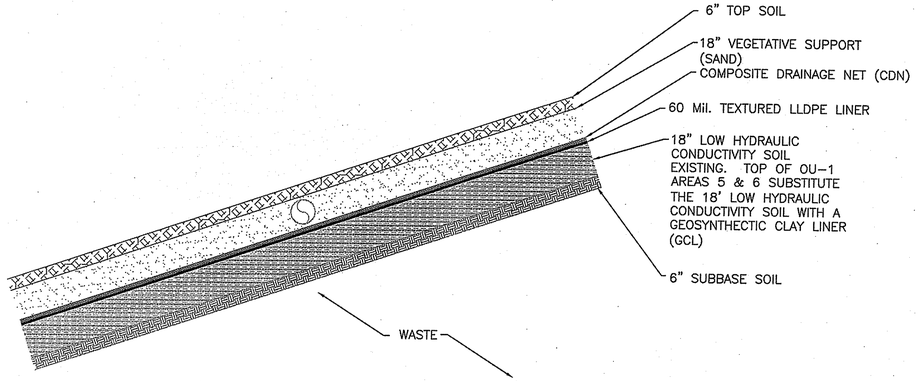
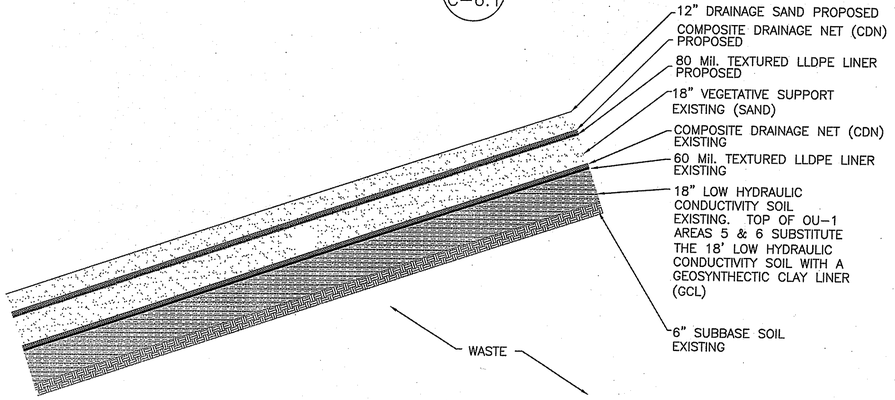


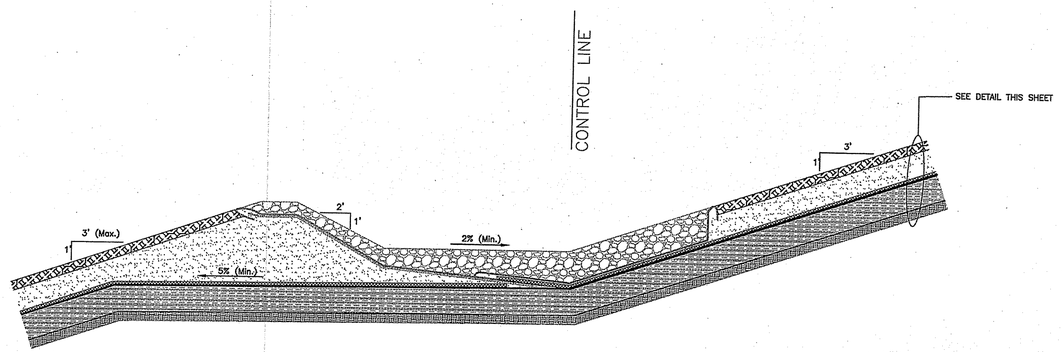

EXISTING CONDITIONS
OU-1 AREA 3,4,5 & 6 FINAL CAP
SIDE SLOPE DETAIL

SCALE : 1" = 3' — 1 / C-6.1



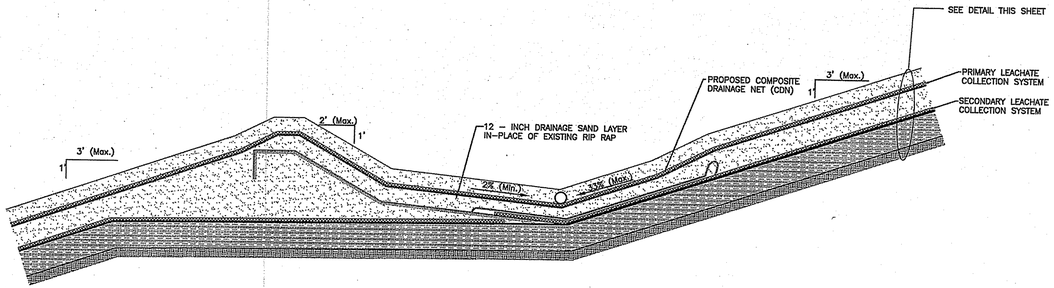

PROPOSED PHASE VI BASE LINER
OU-1 AREA 3,4,5 & 6 FINAL CAP
SIDE SLOPE DETAIL

SCALE : 1" = 3' — 1 / C-6.1




EXISTING CONDITIONS
OU-1 AREA 3,4,5 & 6 FINAL CAP
DIVERSION BENCH DETAIL

SCALE : 1" = 4' — 3 / C-6.1




PROPOSED PHASE VI BASELINER
OU-1 AREAS 3,4,5 & 6
DIVERSION BENCH DETAIL
PRIMARY & SECONDARY LEACHATE
COLLECTION BENCH HEADER

SCALE : 1" = 4' — 3 / C-6.1

## NOTES :

1. THE 80 MIL TEXTURED LLDPE AND ALL MATERIALS SHOWN ABOVE THE EXISTING 60 Mil PRIMARY LINER WILL BE CONSTRUCTED AS PART OF THE PHASE VI PRIMARY BASE LINER SYSTEM.

2. OU-1 AREAS 3,4,5, & 6 DETAILS ARE BASED ON CONSTRUCTION PLANS ENTITLED " CENTRAL LANDFILL OPERABLE UNIT 1 CAP CONSTRUCTION, AREAS 3-6 CONSTRUCTION DRAWINGS RFQ/RFP NO. 957 ", DATE : FEBRUARY 1998 BY: LOUIS BERGER & ASSOCIATES / CH2MHILL.

## LEGEND :

- INDICATES EXISTING LOW HYDRAULIC CONDUCTIVITY SOIL
- INDICATES EXISTING SUBBASE SOIL
- INDICATES EXISTING GRADE R-3 RIP RAP
- INDICATES PROPOSED 80 Mil. TEXTURED HDPE LINER
- INDICATES EXISTING 60 Mil. TEXTURED LLDPE LINER
- INDICATES EXISTING 30 Mil. TYPE 2 LLDPE LINER
- INDICATES EXISTING GEO-TEXTILE
- INDICATES COMPOSITE DRAINAGE NET (CDN)
- INDICATES PROPOSED 8 - INCH PERF. HDPE PRIMARY LEACHATE COLLECTION PIPE.

DETAIL
SCALE: AS SHOWN

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Cynthia D. Wenck

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GZA
GeoEnvironmental, Inc.
Engineers and Scientists
148 Broadway
Providence, Rhode Island 02903

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0 0.5" 1.0"
BAR SCALE

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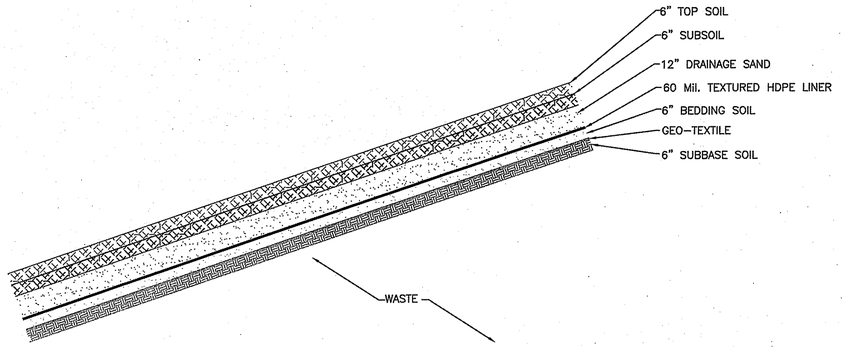
RHODE ISLAND RESOURCE RECOVERY CORPORATION
CENTRAL LANDFILL, 65 SHUN PIKE, JOHNSTON, RHODE ISLAND

**PHASE VI LANDFILL**
**RIDEM WETLANDS PERMIT APPLICATION**
**TYPICAL SIDESLOPE DETAILS (1 OF 3)**

PROJECT NO.
03053.20

FIGURE NO.
**C-6.1**

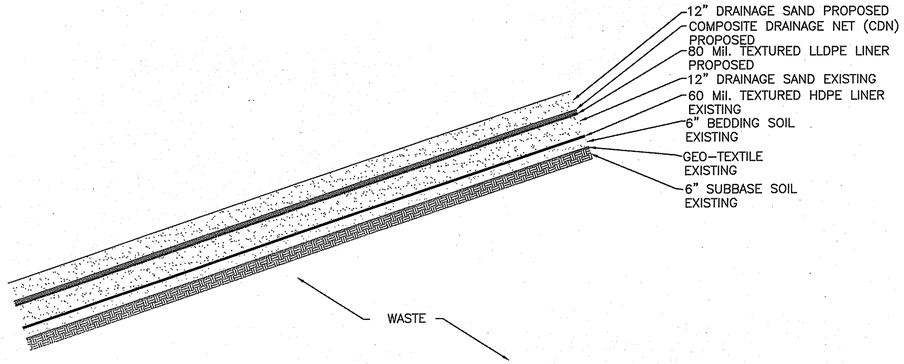
SHEET 22 OF 35




EXISTING CONDITIONS
OU–1 AREA 1 FINAL CAP
SIDE SLOPE DETAIL

SCALE : 1" = 3'

3
C–6.2




PROPOSED PHASE VI BASE LINER
OU–1 AREA 1 FINAL CAP
SIDE SLOPE DETAIL

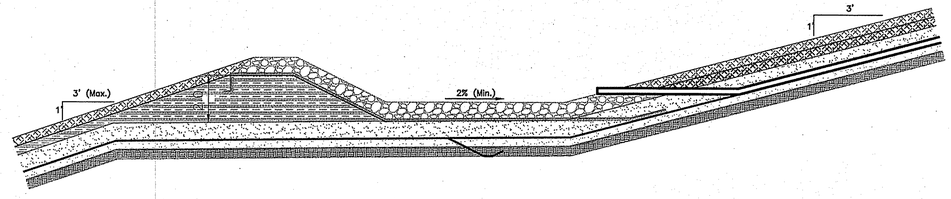
SCALE : 1" = 3'

3
C–6.2

## NOTES :

1. THE 80 MIL TEXTURED LLDPE AND ALL MATERIALS SHOWN ABOVE THE EXISTING 60 Mil PRIMARY LINER WILL BE CONSTRUCTED AS PART OF THE PHASE VI PRIMARY BASE LINER SYSTEM.
2. OU–1 AREA 1 DETAILS ARE BASED ON CONSTRUCTION PLANS ENTITLED " CONSTRUCTION PLANS FOR THE CLOSURE OF AREA 1 AND AREA 2 OF PHASE I ", DATE : MAY 1989 PREPARED BY WEHRAN ENVIROTECH.

DETAIL
SCALE: AS SHOWN




EXISTING CONDITIONS
OU–1 AREA 1 FINAL CAP
DIVERSION BENCH DETAIL

SCALE : 1" = 4'

5
C–6.2

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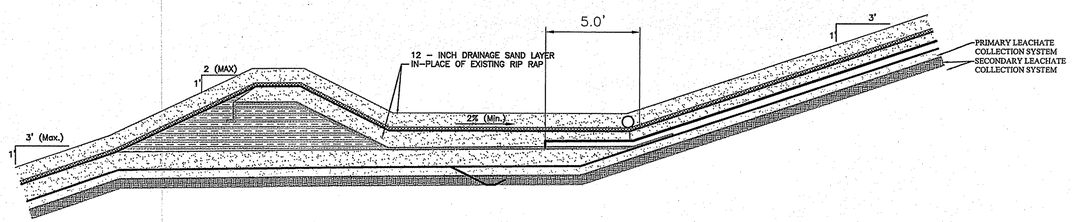


PROPOSED PHASE V BASELINER
OU–1 AREA 1
DIVERSION BENCH DETAIL
PRIMARY & SECONDARY LEACHATE
COLLECTION BENCH HEADER

SCALE : 1" = 4'

5
C–6.2

## LEGEND :

- – INDICATES EXISTING LOW HYDRAULIC CONDUCTIVITY SOIL
- – INDICATES EXISTING SUBBASE SOIL
- – INDICATES EXISTING GRADE R–3 RIP RAP
- – INDICATES PROPOSED 80 Mil. TEXTURED HDPE LINER
- – INDICATES EXISTING 60 Mil. TEXTURED LLDPE LINER
- – INDICATES EXISTING 30 Mil. TYPE 2 LLDPE LINER
- – INDICATES EXISTING GEO–TEXTILE
- – INDICATES COMPOSITE DRAINAGE NET (CDN)
- – INDICATES PROPOSED 8 – INCH PERF. HDPE PRIMARY LEACHATE COLLECTION PIPE.

## NOTE :

EXISTING RIP RAP SHALL BE REMOVED FROM THE DIVERSION BENCHES TO ALLOW FOR A 12 – INCH (MIN) SEPARATION BETWEEN THE TOP OF REMAINING RIP RAP AND BOTTOM OF THE PROPOSED PRIMARY 80 MIL LINER. THE AREAS WHERE RIP RAP IS REMOVED, SHALL BE BACK FILLED WITH DRAINAGE SAND PRIOR TO PLACING THE 80 MIL TEXTURED HDPE LINER SYSTEM.

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OFFICE OF WATER RESOURCES
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Martin D. Wencek

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NOT TO SCALE

0 0.5" 1.0"
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PROJ. MGR.: TRG
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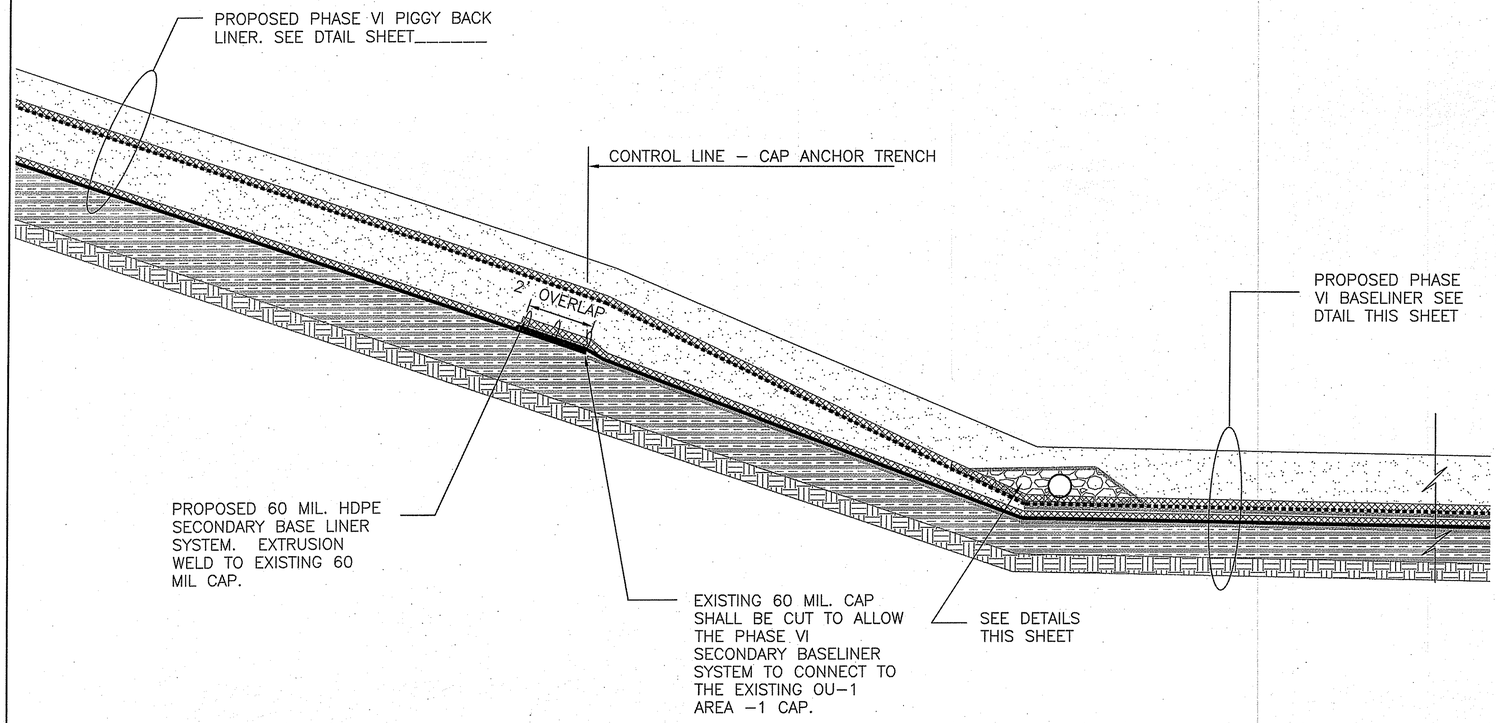
RHODE ISLAND RESOURCE RECOVERY CORPORATION
CENTRAL LANDFILL, 65 SHUN PIKE, JOHNSTON, RHODE ISLAND

**PHASE VI LANDFILL**
**RIDEM WETLANDS PERMIT APPLICATION**
**TYPICAL SIDESLOPE DETAILS (2 OF 3)**

PROJECT NO.
03053.20

FIGURE NO.
**C-6.2**

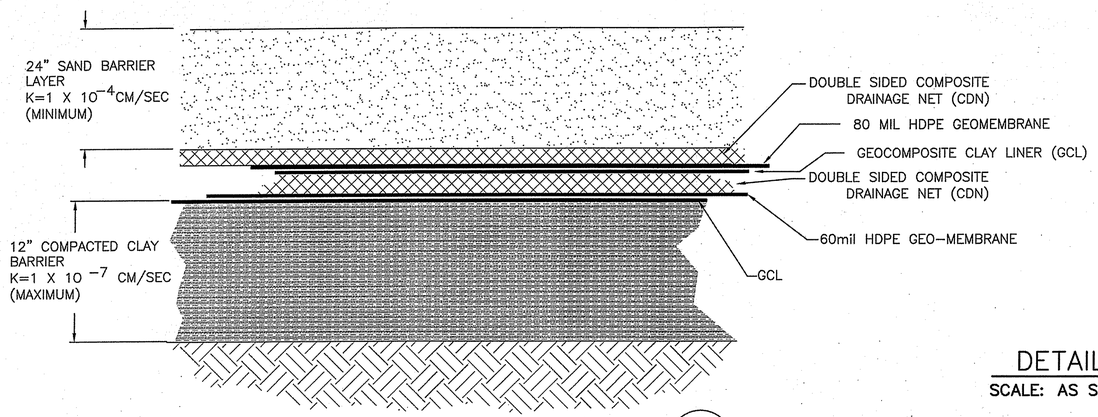
SHEET 23 OF 35




## PROPOSED PHASE VI BASELINER – OU–1 AREAS 3,4,5 & 6 TOE OF SLOPE CONNECTION TO PHASE V BASELINER SYSTEM PRIMARY & SECONDARY LEACHATE COLLECTION

SCALE: 1"=2'

8 / C–6.3




## TYPICAL LINER DETAIL:

NOT TO SCALE

7 / C–6.3

DETAIL

SCALE: AS SHOWN

## NOTES :

1. THE 80 MIL TEXTURED HDPE AND ALL MATERIALS SHOWN ABOVE THE PROPOSED 60 Mil PRIMARY LINER WILL BE CONSTRUCTED AS PART OF THE PHASE VI PRIMARY BASELINER SYSTEM.
2. THE EXISTING 4"ø SLOPE DRAIN LINES ARE TO BE MODIFIED TO DISCHARGE DIRECTLY ON TOP OF THE EXISTING GEO–TEXTILE AND 30 MIL BENCH LINER.
3. THE EXISTING 4"ø LATERAL CAP DRAIN PIPES ARE LOCATED 40 –FT ON CENTER UP THE SIDE SLOPE. THE 4"ø DISCHARGE STUBS ARE LOCATED 200 – FT ON CENTER ALONG THE UP SLOPE SIDE OF THE EXISTING DIVERSION BENCHES.
4. OU–1 AREA 1 DETAILS ARE BASED ON CONSTRUCTION PLANS ENTITLED " CONSTRUCTION PLANS FOR THE CLOSURE OF AREA 1 AND AREA 2 OF PHASE I ", DATE : MAY 1989 PREPARED BY WEHRAN ENVIROTECH.
5. THE PROPOSED 8"ø PRIMARY LEACHATE COLLECTION PIPE SHALL BE INSTALLED AT THE BENCH INVERT.

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
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Cynthia D. Wenck

## LEGEND :

- – INDICATES EXISTING LOW HYDRAULIC CONDUCTIVITY SOIL
- – INDICATES EXISTING SUBBASE SOIL
- – INDICATES EXISTING GRADE R–3 RIP RAP
- – INDICATES PROPOSED 80 Mil. TEXTURED HDPE LINER
- – INDICATES EXISTING 60 Mil. TEXTURED LLDPE LINER
- – INDICATES EXISTING 30 Mil. TYPE 2 LLDPE LINER
- – INDICATES EXISTING GEO–TEXTILE
- – INDICATES COMPOSITE DRAINAGE NET (CDN)
- – INDICATES PROPOSED 8 – INCH PERF. HDPE PRIMARY LEACHATE COLLECTION PIPE.

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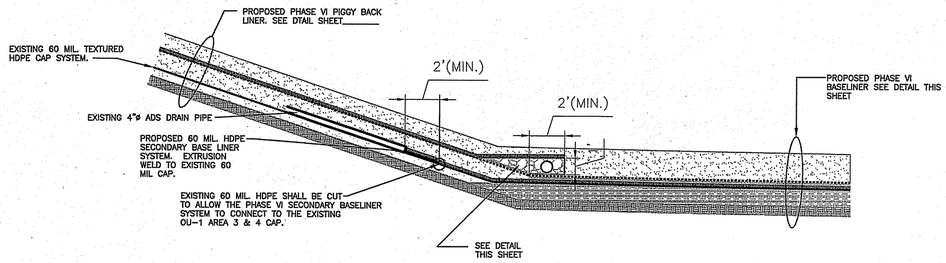
## NOTE :

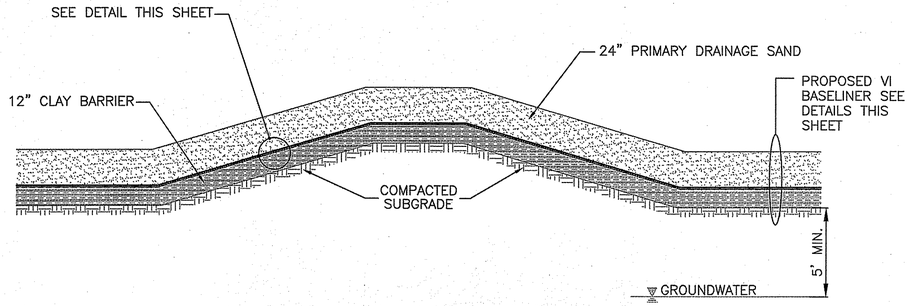
EXISTING RIP RAP SHALL BE REMOVED FROM THE DIVERSION BENCHES TO ALLOW FOR A 12 – INCH (MIN) SEPARATION BETWEEN THE TOP OF REMAINING RIP RAP AND BOTTOM OF THE PROPOSED PRIMARY 80 Mil LINER. THE AREAS WHERE RIP RAP IS REMOVED, SHALL BE BACK FILLED WITH DRAINAGE SAND PRIOR TO PLACING THE 80 MIL TEXTURED HDPE LINER SYSTEM.




## PROPOSED PHASE VI BASELINER – OU–1 AREAS 1 TOE OF SLOPE CONNECTION TO PHASE VI BASELINER SYSTEM PRIMARY & SECONDARY LEACHATE COLLECTION

SCALE : 1" = 4'

5 / C–6.3




## TYPICAL INTERMEDIATE BERM BETWEEN AREA

NOT TO SCALE

6 / C–6.3

| REV# | DESCRIPTION | BY | DATE |
|---|---|---|---|
| 2 | REVISED PER RIDEM REVIEW COMMENTS | | NOV 2009 |
| 1 | REVISED PER RIDEM REVIEW COMMENTS | | JUNE 2009 |

ARMANDO J. RICCI
No. 7128
REGISTERED PROFESSIONAL ENGINEER
CIVIL

PARE CORPORATION
ENGINEERS, SCIENTISTS, PLANNERS
8 BLACKSTONE VALLEY PLACE
LINCOLN, RI 02865
401-334-4100

GZA
GeoEnvironmental, Inc.
Engineers and Scientists
140 Broadway
Providence, Rhode Island 02903

NOT TO SCALE
BAR SCALE 0.5" 0 1.0"

| PROJ. MGR.: | TRG |
|---|---|
| DESIGNED : | TRG |
| DRAWN : | CRB |
| CHECKED : | PPV |
| DATE : | APRIL 11, 2008 |

RHODE ISLAND RESOURCE RECOVERY CORPORATION
CENTRAL LANDFILL, 65 SHUN PIKE, JOHNSTON, RHODE ISLAND

**PHASE VI LANDFILL**
**RIDEM WETLANDS PERMIT APPLICATION**
**TYPICAL SIDESLOPE DETAILS (3 OF 3)**

PROJECT NO.
03053.20

FIGURE NO.
**C-6.3**

SHEET 24 OF 35

MATCH TO C7.2 CAPPING PLAN 2

CHAIN LINK FENCE AT TOP OF RETAINING WALL

LOAM AND SEED 3:1 SLOPE ABOVE RETAINING WALL

"PAVESTONE" SEGMENTAL BLOCK RETAINING WALL

HAYBALES TO BE INSTALLED ALONG TOE OF SLOPE

PERIMETER DRAINAGE CHANNEL 10' WIDE, 2' DEEP S = 0.017 FT/FT

1 C9.1

50' WIDE PERIMETER ACCESS ROAD WITH 5' SHOULDER, 2% CROSS SLOPE TOWARDS DRAINAGE CHANNEL

110LF - 18" CL. V RCP S= 0.01 FT/FT INV. IN = 404.1 INV. OUT = 403.0

6' WIDE DRAINAGE CHANNEL S = 0.012 FT/FT

MATCH LINE TO INSET "A"

*PROPOSED PHASE VI AREA 1A 13.9 ACRES*

*PROPOSED PHASE VI AREA 1B 13.4 ACRES*

*PROPOSED PHASE VI AREA 3B 9.3 ACRES*

*PROPOSED PHASE VI AREA 3A 11.0 ACRES*

50' WIDE LANDFILL ACCESS RAMP TO TOP OF LANDFILL

ACCESS RAMP DRAINAGE SWALE

DIVERSION BENCH FLOW DIRECTION (TYP.)

LIMITS OF DISTURBANCE (TYP.)

OUT OF AREA 5 (NOT CAPPED) 43.22 ACRES

PHASE VI LICENSING LIMITS (TYP.)

OUT OF AREA 6 (NOT CAPPED)

4 I89.1

DMH 8

RE 1

EXISTING PRETREATMENT FACILITY

EXISTING POND 2

HAY BALES (TYP.)

LIMITS OF DISTURBANCE (TYP.)

PERIMETER DRAINAGE CHANNEL 6' WIDTH DOWNSTREAM OF POND 1 & BOX CULVERT

50LF - (2) 18" CL. V RCP S= 0.018 FT/FT INV. IN = 309.0 INV. OUT = 308.25

1 C8.0

EXISTING 8'x5' BOX CULVERT

STILLING BASIN AT BOTTOM OF DOWNCHUTE

SOUTHWEST DOWNCHUTE, DOWNCHUTE TO BE CONSTRUCTED DURING PHASE V CAPPING

EXISTING LANDFILL PHASING LIMITS (TYP.)

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESH WATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED JAN 19 2010 FILE # 09-0179
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL.
APPROVED PLANS MUST BE AT CONSTRUCTION SITE.

Samantha D. Wencek

INSET "A"
SCALE: 1"=100'

MATCH LINE

235LF - 24" CL. V RCP S= 0.025 FT/FT INV. IN = 393.0 INV. OUT = 387.0

FLARED END WITH RIPRAP APRON

EXTEND EXIST. RCP TO POND WITH FLARED END AND RIPRAP APRON

PROPOSED POND 4
BASE EL. 373.0
TOP BERM EL. 385.0
EMERGENCY SPILLWAY EL. 384.0
NORM. WSEL 376.3
MAX. 100-YR WSEL. 383.22

POND 4 OUTLET STRUCTURE [REFER TO DETAILS FOR SPECIFICS]

N E S W

| REV# | DESCRIPTION | DATE | BY |
|---|---|---|---|
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| 1 | REVISED PER RIDEM REVIEW COMMENTS | JUNE 2009 | |

ARMANDO J. RICCI
No. 7128
REGISTERED PROFESSIONAL ENGINEER
CIVIL

RECEIVED
NOV 16 2009
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

PARE CORPORATION
ENGINEERS · SCIENTISTS · PLANNERS
8 BLACKSTONE VALLEY PLACE
LINCOLN, RI 02865
401-334-4100

SCALE: 1"=100'

BAR SCALE 0 0.5" 1.0"

| | |
|---|---|
| PROJ. MGR.: | AJR |
| DESIGNED : | BMB |
| DRAWN : | RPB |
| CHECKED : | AJR |
| DATE : | APRIL 11, 2008 |

RHODE ISLAND RESOURCE RECOVERY CORPORATION
CENTRAL LANDFILL, 65 SHUN PIKE, JOHNSTON, RHODE ISLAND

# PHASE VI LANDFILL
# RIDEM WETLANDS PERMIT APPLICATION
# CAPPING PLAN 1

PROJECT NO.
03053.20

FIGURE NO.
**C-7.1**

SHEET 25 OF 35

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED: JAN 19 2010 FILE # 07-0179
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RIRRC PROPERTY BOUNDARY

PROPOSED POND 13
BASE EL. 340.0
TOP BERM EL. 352.0
EMERGENCY SPILLWAY EL. 351.0
NORM. WSEL 343.30
MAX. 100-YR WSEL. 351.0

PROVIDE R-5 RIPRAP PROTECTION AT CULVERT INLETS TO POND

LIMITS OF DISTURBANCE (TYP.)

HAY BALES (TYP.)

POND 13 OUTLET STRUCTURE [REFER TO DETAILS FOR SPECIFICS]

160LF - (2) 30" CL. V RCP
S= 0.019 FT/FT
INV. IN = 355.5
INV. OUT = 352.5

DEEPEN PERIMETER DRAINAGE CHANNEL AT ENTRANCE TO CULVERT

STILLING BASIN AT BOTTOM OF DOWNCHUTE

LOAM AND SEED 3:1 SLOPE

8'W x 4'H CONCRETE BOX CULVERT
INV. IN = 354.0
INV. OUT = 352.5

PROPOSED PHASE VI EAST DOWNCHUTE

*PROPOSED PHASE VI AREA 5B*
*9.9 ACRES*

10' WIDE PERIMETER DRAINAGE CHANNEL
S=-0.01Z FT/FT
MN. DEPTH = 2 FT

50' WIDE PERIMETER ACCESS ROAD WITH 5' SHOULDER, 2% CROSS SLOPE TOWARDS DRAINAGE CHANNEL

*PROPOSED PHASE VI AREA 5A*
*13.7 ACRES*

220LF - (2) 18" CL. V RCP
S= 0.01 FT/FT
INV. IN = 389.0
INV. OUT = 382.8

HAYBALES (TYP.)

10' WIDE DRAINAGE CHANNEL AVERAGE SLOPE EQUALS 1.5% MIN. DEPTH = 2 FT

*PROPOSED PHASE VI AREA 2*
*15.4 ACRES*

*PROPOSED PHASE VI AREA 4*
*16.5 ACRES*

"PAVESTONE" SEGMENTAL BLOCK RETAINING WALL

50' WIDE PERIMETER ACCESS ROAD WITH 5' WIDE SHOULDER

CONCRETE STILLING BASIN AT BOTTOM OF DOWNCHUTE

PROPOSED PHASE VI SOUTH DOWNCHUTE

PERIMETER DRAINAGE CHANNEL 6' WIDE, 2' DEEP S = 0.01% FT/FT

MATCH TO C7.1 CAPPING PLAN 1

SEE PROFILE POND 13 SHEETS C-10.1 AND C10.2

DMH 1

DMH 3

EX DMH
RIM= 327.42
PROP INV. IN= 320.32
EX. INV. IN= 319.32
EX. INV. OUT= 318.12

HAYBALES (TYP.)

DMH 2

EX DMH
RIM=328.0
INV. IN=317.20
INV. OUT=317.19

10' WIDE PERIMETER DRAINAGE CHANNEL SLOPE VARIES BETWEEN 0.013 FT/FT AND 0.03 FT/FT

EXISTING MATERIALS RECYCLING FACILITY TO REMAIN

PROPERTY BOUNDARY

8'Wx4'H CONCRETE BOX CULVERT
INV. IN = 315.0
INV. OUT = 314.0

EXISTING SHUN PIKE POND (POND 12)

PROPOSED POND 14
BASE EL. 306.0
TOP BERM EL. 316.0
EMERGENCY SPILLWAY EL. 315.0
NORM. WSEL 309.4
MAX. 100-YR WSEL. 315.0

POND 14 OUTLET STRUCTURE [REFER TO DETAILS FOR SPECIFICS]

SEE PROFILE POND 14 SHEET C-10.3

NOV 16 2009

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ARMANDO J. RICCI
No. 7128
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CIVIL

PARE CORPORATION
ENGINEERS · SCIENTISTS · PLANNERS
8 BLACKSTONE VALLEY PLACE
LINCOLN, RI 02865
401.334-4100

SCALE: 1"=100'

BAR SCALE 0 0.5" 1.0"

| | |
|---|---|
| PROJ. MGR.: | AJR |
| DESIGNED : | BMB |
| DRAWN : | RPB |
| CHECKED : | AJR |
| DATE: | APRIL 11, 2008 |

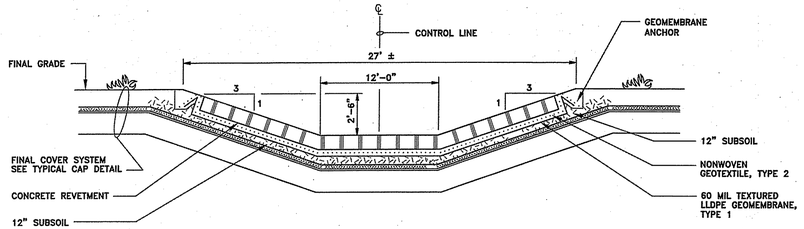
RHODE ISLAND RESOURCE RECOVERY CORPORATION
CENTRAL LANDFILL, 65 SHUN PIKE, JOHNSTON, RHODE ISLAND

**PHASE VI LANDFILL**
**RIDEM WETLANDS PERMIT APPLICATION**
**CAPPING PLAN 2**

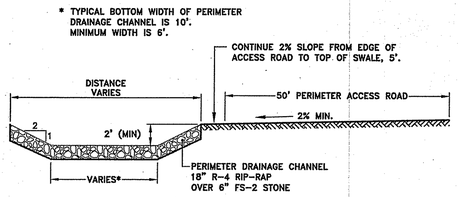
PROJECT NO.
03053.20

FIGURE NO.
**C-7.2**

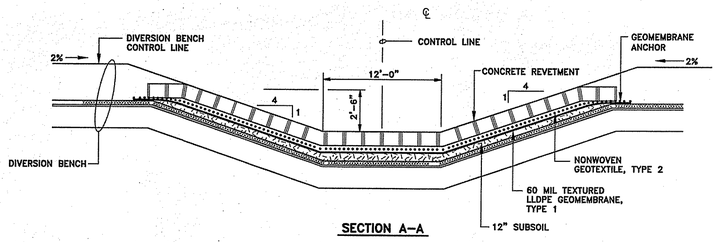
SHEET 26 OF 35



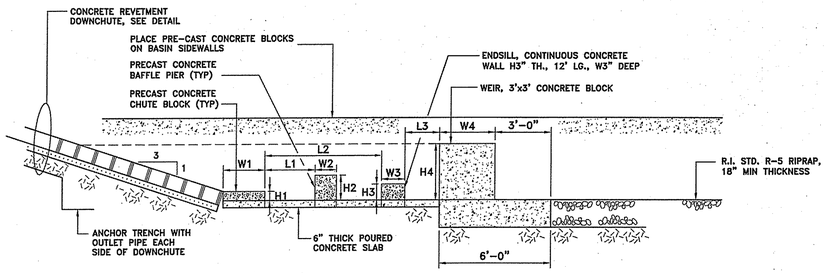

## DOWNCHUTE TYPICAL SECTION
NOT TO SCALE




## PERIMETER ACCESS ROAD AND DRAINAGE CHANNEL DETAIL
NOT TO SCALE




## SECTION A-A




**NOTES:**

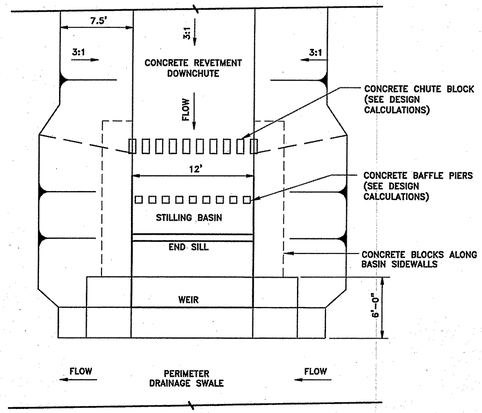
1. FOR ADDITIONAL DIMENSIONS, SEE STILLING BASIN DETAIL PLAN.
2. CONCRETE CHUTE BLOCKS AND BAFFLE PIERS TO BE EMBEDDED 24" INTO GABION OR ARTICULATED CONCRETE BLOCK MAT AS SHOWN AND GROUTED IN PLACE.

### STILLING BASIN DESIGN TABLE

| STILLING BASIN LOCATION | BLOCK WIDTHS | | | | BLOCK HEIGHTS | | | | DISTANCES | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | W1 | W2 | W3 | W4 | H1 | H2 | H3 | H4 | L1 | L2 | L3 |
| EAST DOWNCHUTE | 9" | 12" | 24" | 36" | 9" | 15" | 12" | 15" | 4'-0" | 11'-0" | 5'-0" |
| SOUTHWEST DOWNCHUTE | 9" | 12" | 24" | 36" | 9" | 15" | 12" | 16" | 4'-3" | 12'-0" | 5'-0" |
| SOUTH DOWNCHUTE | 6" | 9" | 24" | 36" | 6" | 12" | 9" | 6" | 2'-6" | 7'-0" | 5'-0" |

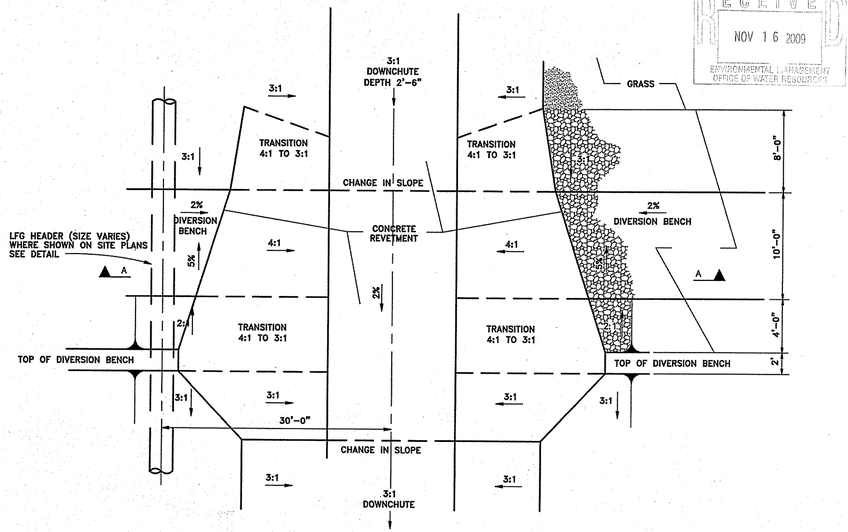
PROFILE

## STILLING BASIN DETAIL
NOT TO SCALE



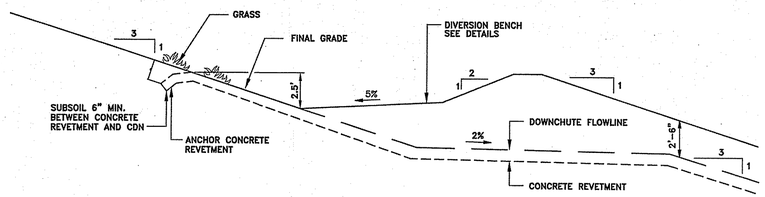

PLAN

## STILLING BASIN DETAIL
NOT TO SCALE

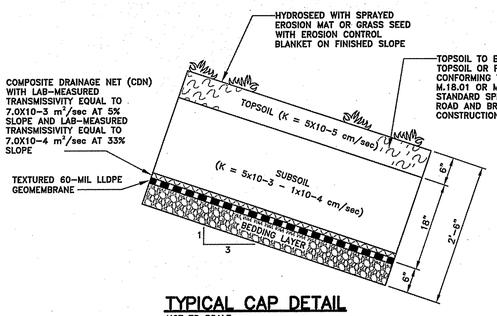



PLAN

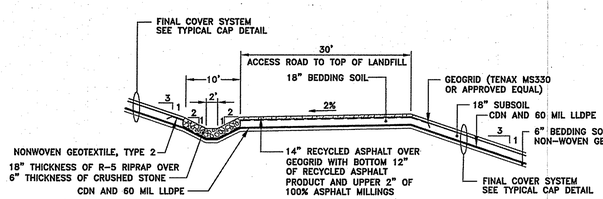
## DIVERSION BENCH INLET TO DOWNCHUTE
NOT TO SCALE




## TOP OF DOWNCHUTE
NOT TO SCALE




## TYPICAL CAP DETAIL
NOT TO SCALE




## CAP ACCESS ROAD TYPICAL SECTION
NOT TO SCALE

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED JAN 19 2010 FILE # 07-0179
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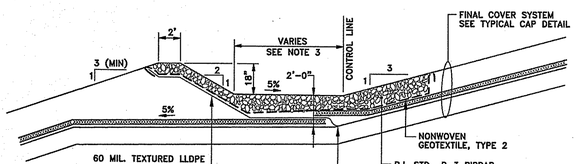
APPROVED PLANS MUST BE AT CONSTRUCTION SITE.

Maureen D. Wenceck




**NOTES:**

1. IN BENCHES WHERE SLOPES EXCEED 6%, GRADE R-4 RIPRAP SHALL BE USED.
2. THIS DETAIL APPLIES TO PROPOSED DIVERSION BENCHES TO BE CONSTRUCTED AS PART OF THE FINAL CAPPING SYSTEM.
3. WIDTH OF DIVERSION BENCH VARIES BETWEEN 5 FEET AND 10 FEET. SEE FINAL CAPPING SYSTEM PLAN.

## CROSS SECTION PROPOSED DIVERSION BENCH
NOT TO SCALE

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| 1 | REVISED PER RIDEM REVIEW COMMENTS | JUNE 2009 | |

ARMANDO J. RICCI
No. 7128
REGISTERED PROFESSIONAL ENGINEER
CIVIL

PARE CORPORATION
ENGINEERS AND SCIENTISTS
8 BLACKSTONE VALLEY PLACE
LINCOLN, RI 02865
401.334.4100

PARE

SCALE: AS NOTED
BAR SCALE 0 0.5" 1.0"

| | | | |
|---|---|---|---|
| PROJ. MGR.: | AJR | | |
| DESIGNED: | BMB | | |
| DRAWN: | RPB | | |
| CHECKED: | AJR | | |
| DATE: | APRIL 11, 2008 | | |

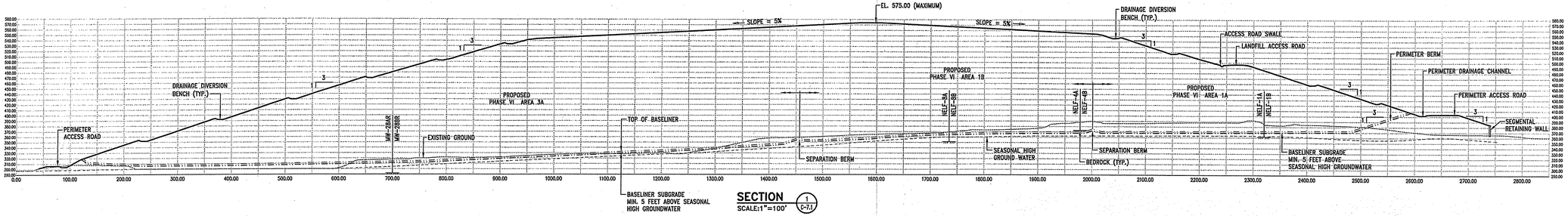
RHODE ISLAND RESOURCE RECOVERY CORPORATION
CENTRAL LANDFILL, 65 SHUN PIKE, JOHNSTON, RHODE ISLAND

# PHASE VI LANDFILL
# RIDEM WETLANDS PERMIT APPLICATION
# CAPPING DETAILS

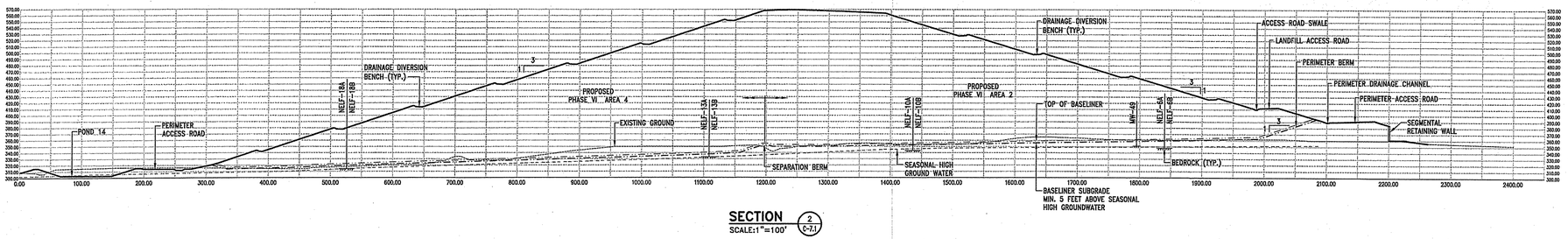
PROJECT NO.
03053.20

FIGURE NO.
**C-7.3**

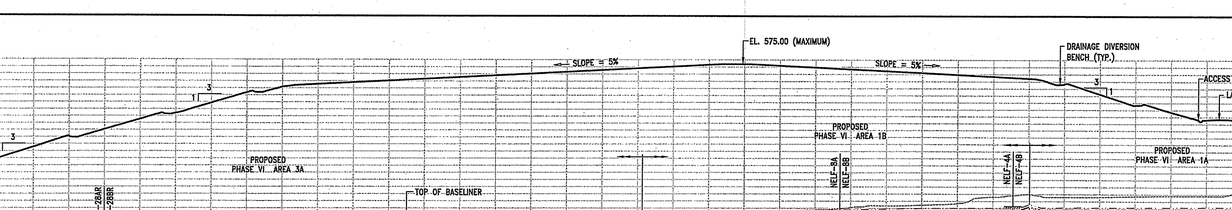
SHEET 27 OF 35




**SECTION** (1 / C-7.1)
SCALE:1"=100'




**SECTION** (2 / C-7.1)
SCALE:1"=100'




**SECTION** (3 / C-7.1)
SCALE:1"=100'

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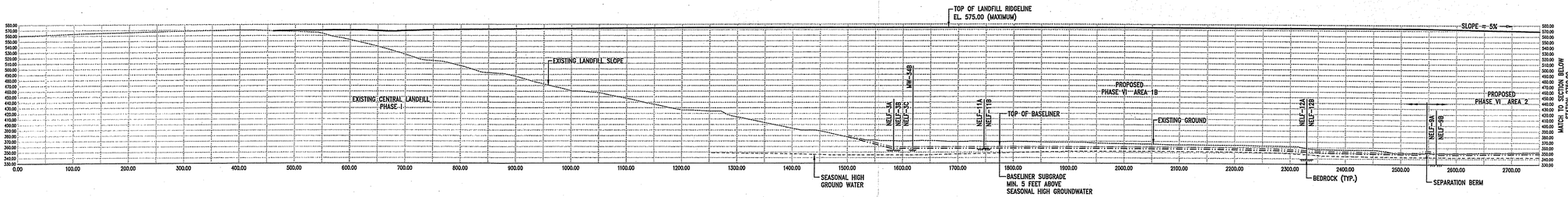
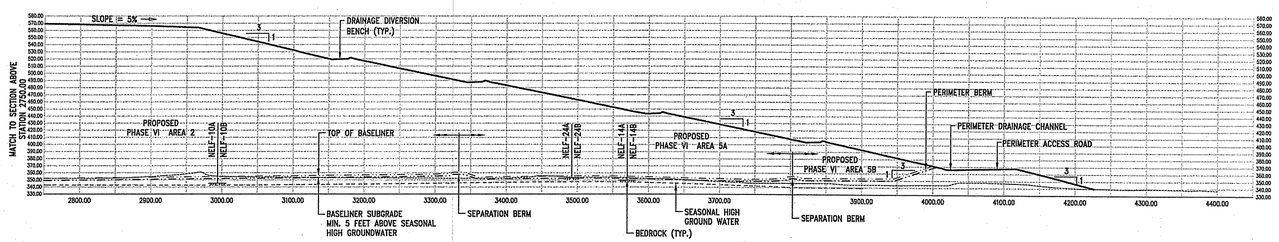
Martin D. Wencek




**SECTION** (4 / C-7.1)
SCALE:1"=100'

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CIVIL


PARE CORPORATION
ENGINEERS • SCIENTISTS • PLANNERS
8 BLACKSTONE VALLEY PLACE
LINCOLN, RI 02865
401-334-4100


SCALE: AS NOTED
BAR SCALE 0.5" 0 1.0"

| | |
|---|---|
| PROJ. MGR.: | AJR |
| DESIGNED : | BMB |
| DRAWN : | RPB |
| CHECKED : | AJR |
| DATE : | APRIL 11, 2008 |

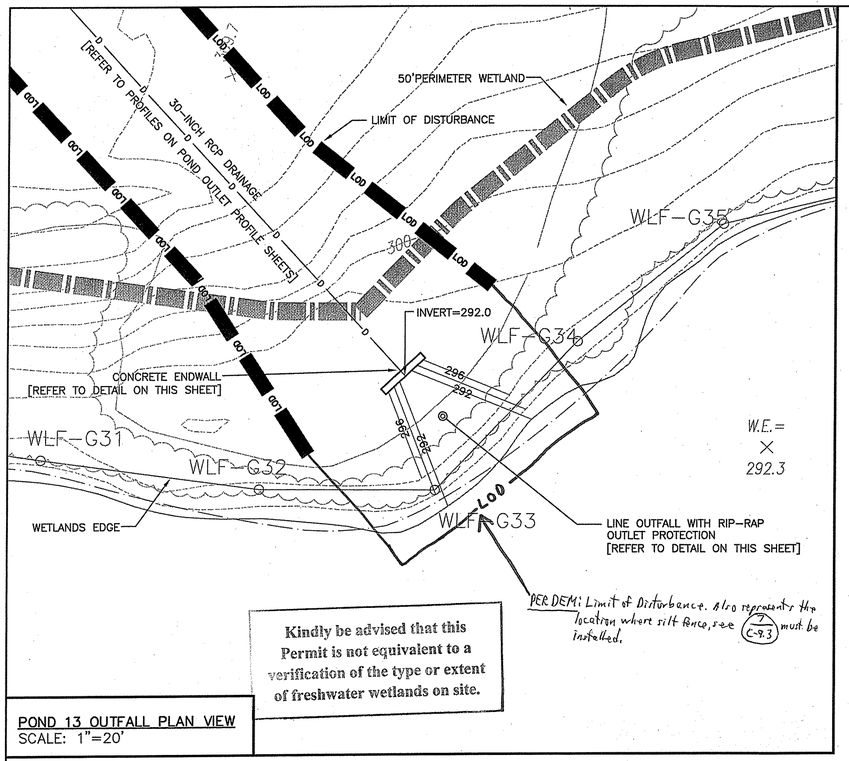
RHODE ISLAND RESOURCE RECOVERY CORPORATION
CENTRAL LANDFILL, 65 SHUN PIKE, JOHNSTON, RHODE ISLAND

**PHASE VI LANDFILL**
**RIDEM WETLANDS PERMIT APPLICATION**
**PROPOSED SECTION PROFILES**

PROJECT NO.
03053.20

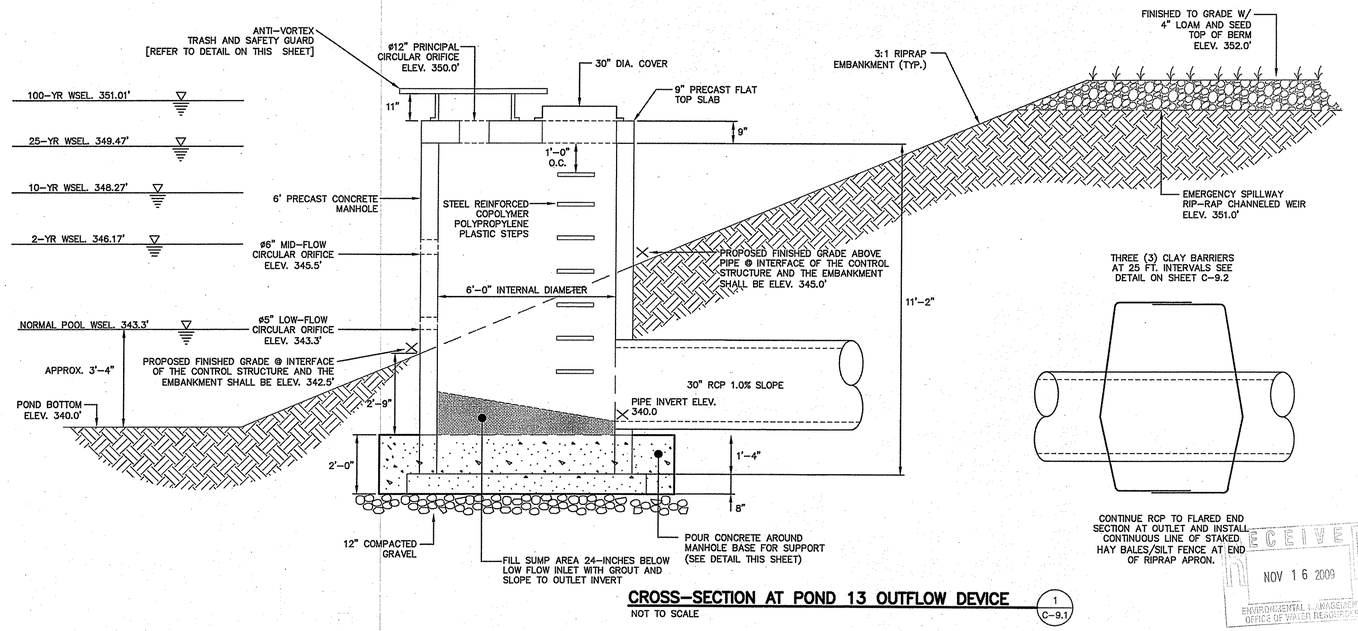
FIGURE NO.
**C-8.1**

SHEET 28 OF 35

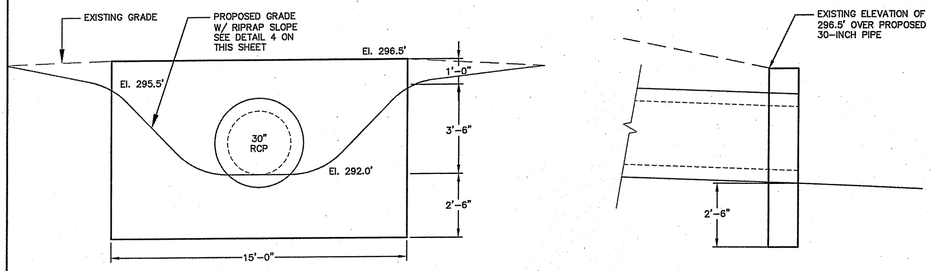



Kindly be advised that this Permit is not equivalent to a verification of the type or extent of freshwater wetlands on site.

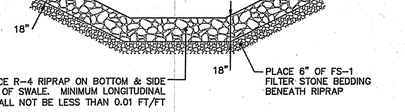
POND 13 OUTFALL PLAN VIEW
SCALE: 1"=20'




CROSS-SECTION AT POND 13 OUTFLOW DEVICE (1/C-9.1)
NOT TO SCALE

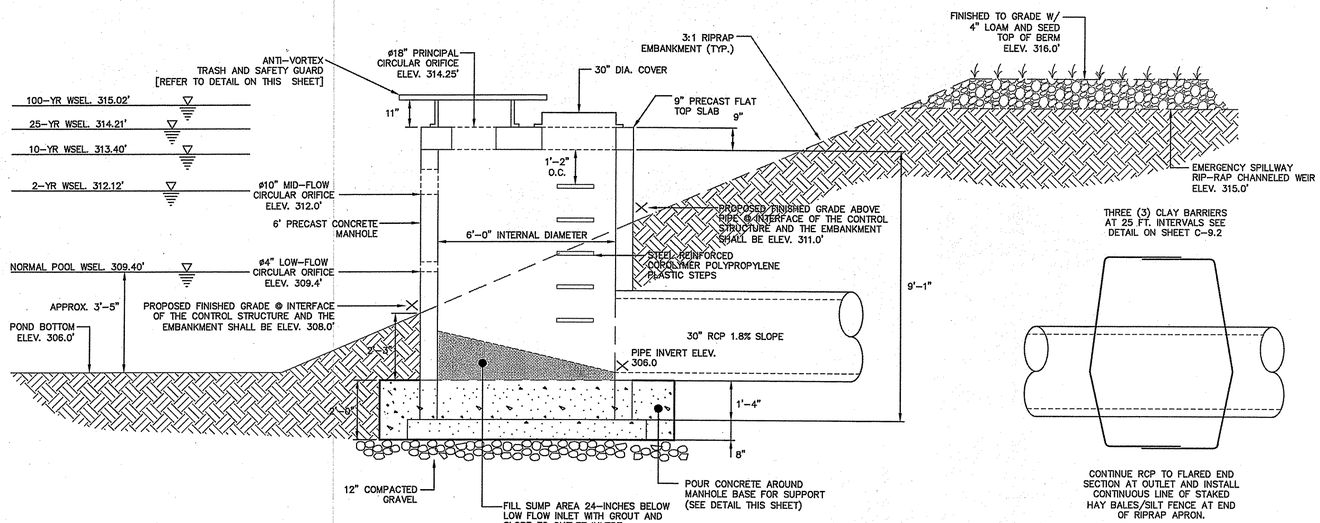



POND 13 DRAINAGE OUTLET ENDWALL (3/C-9.1)
NOT TO SCALE

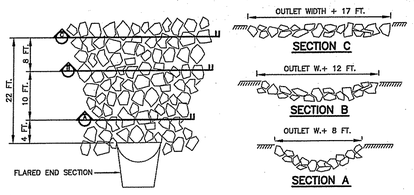



POND 13 DRAINAGE OUTLET PROTECTION DETAIL (4/C-9.1)
NOT TO SCALE

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED JAN 19 2010 FILE # 07-0179
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL.
APPROVED PLANS MUST BE AT CONSTRUCTION SITE.

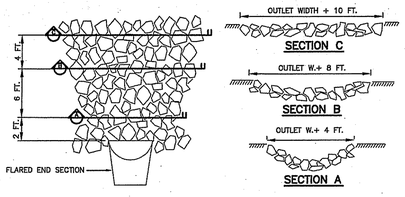



CROSS-SECTION AT POND 14 OUTFLOW DEVICE (2/C-9.1)
NOT TO SCALE




NOTES:
1. PLACE R-4 RIPRAP OVER FS-1 FILTER STONE BEDDING.
2. DIMENSIONS MAY BE MODIFIED BY ENGINEER TO MEET FIELD CONDITIONS.
3. UNLESS OTHERWISE SPECIFIED, DUMPED RIPRAP SHALL BE USED.
4. DEPTH OF RIPRAP TO BE 18", DEPTH OF RIPRAP GRAVEL BEDDING TO BE 6".

RIPRAP AT POND 14 OUTLET (5/C-9.1)
NOT TO SCALE




NOTES:
1. PLACE RIPRAP OVER FS-1 FILTER STONE BEDDING. RIPRAP SIZE TO BE INDICATED ON SITE PLANS.
2. DIMENSIONS MAY BE MODIFIED BY ENGINEER TO MEET FIELD CONDITIONS.
3. UNLESS OTHERWISE SPECIFIED, DUMPED RIPRAP SHALL BE USED.
4. DEPTH OF RIPRAP TO BE 18" FOR R-4 RIPRAP, 24" FOR R-5 RIPRAP, AND 30" FOR R-6 RIPRAP. DEPTH OF GRAVEL BEDDING TO BE 6".

RIPRAP AT OUTLETS (TYP.) (6/C-9.1)
NOT TO SCALE

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| 2 | REVISED PER RIDEM REVIEW COMMENTS | AJR | NOV 2009 |
| 1 | REVISED PER RIDEM REVIEW COMMENTS | AJR | JUNE 2009 |

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SCALE: AS NOTED
BAR SCALE 0 0.5" 1.0"

| | |
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| PROJ. MGR.: | AJR |
| DESIGNED: | BMB |
| DRAWN: | RPB |
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| DATE: | APRIL 11, 2008 |

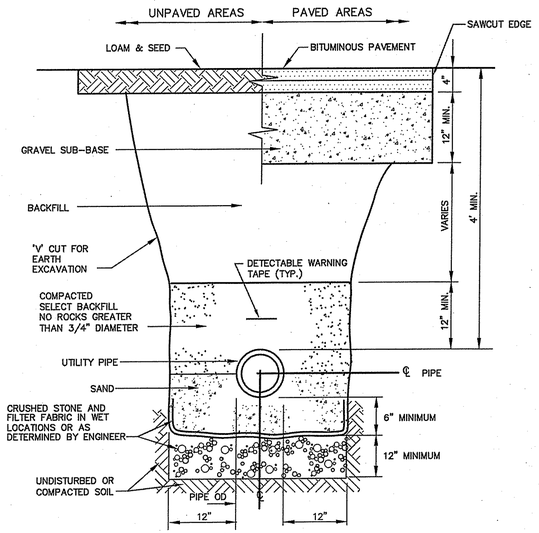
RHODE ISLAND RESOURCE RECOVERY CORPORATION
CENTRAL LANDFILL, 65 SHUN PIKE, JOHNSTON, RHODE ISLAND

PHASE VI LANDFILL
RIDEM WETLANDS PERMIT APPLICATION
SEDIMENTATION POND DETAILS NO.1

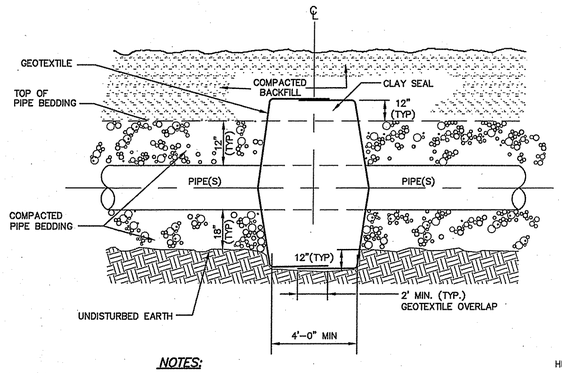
PROJECT NO.
03053.20

FIGURE NO.
C-9.1

SHEET 29 OF 35



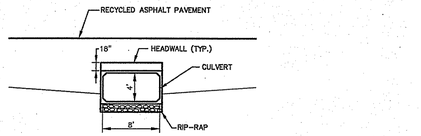

## UTILITY PIPE TRENCH SECTION
NOT TO SCALE
1 C-9.2



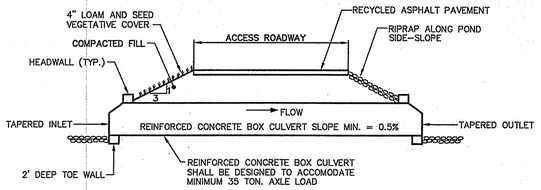

***NOTES:***

1. GEOTEXTILE SHALL BE HAND PLACED TO REMAIN IN TIGHT CONTACT WITH PIPELINE AND UNDISTURBED EARTH.
2. THE PERIMETER OF THE CLAY SEAL SHALL BE ANCHORED BY EXTENDING 12" BEYOND BEDDING.
3. CLAY SEAL SHALL BE MOISTENED AND HAND TAMPED IN 6 INCH LIFTS.
4. THE CLAY SEAL SHALL BE A MIXTURE OF 95% SAND, 5% BENTONITE (BY WEIGHT) WITH SUFFICIENT WATER ADDED TO AID COMPACTION.

## CLAY BARRIER CHECK DAM
NOT TO SCALE
2 C-9.2

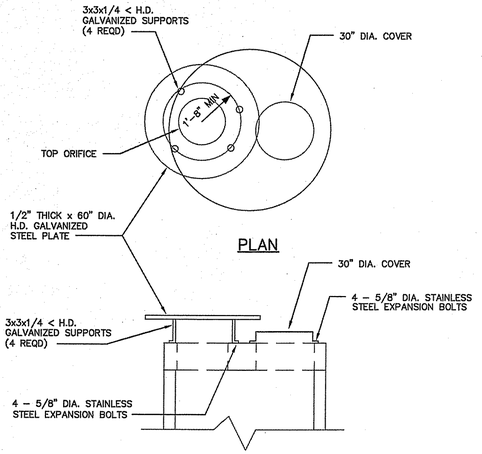



## SECTION

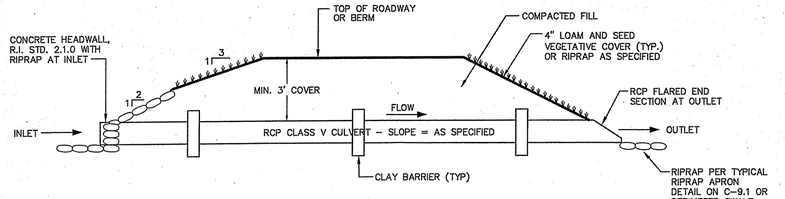



## PROFILE

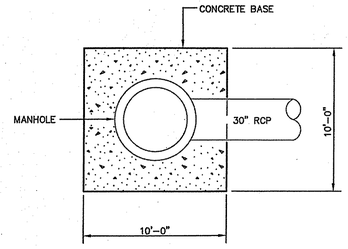
## 8'Wx4'H CONCRETE BOX CULVERT
NOT TO SCALE
3 C-9.2




## ANTI-VORTEX, TRASH & SAFETY GUARD
NOT TO SCALE
4 C-9.2



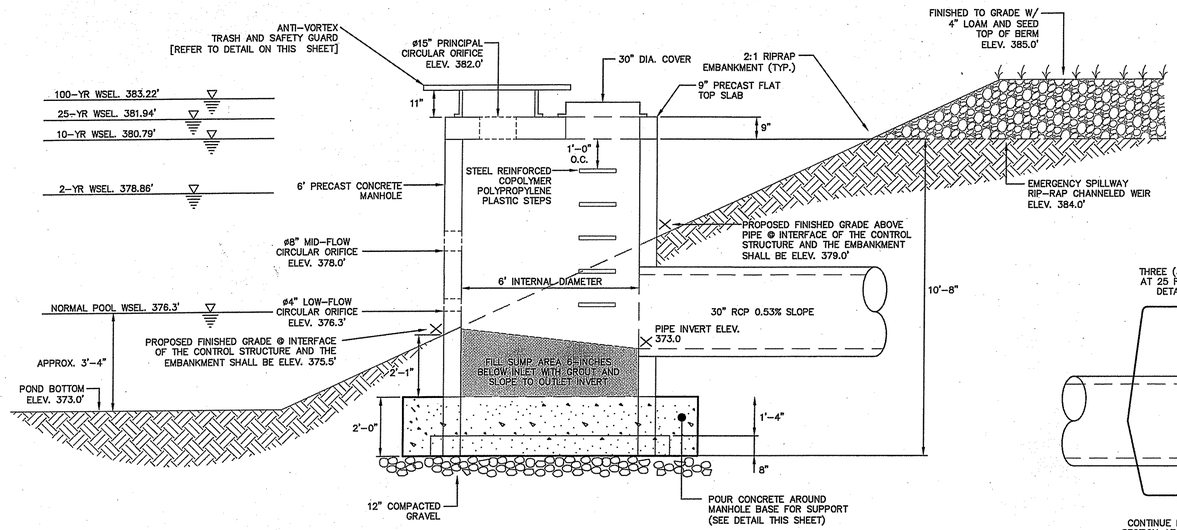

## CROSS SECTION - TYPICAL CROSS CULVERT
NOT TO SCALE
5 C-9.2



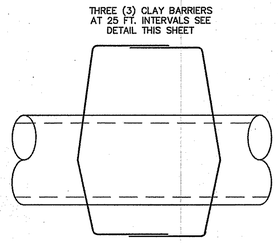

## PLAN VIEW AT OUTFLOW DEVICE
NOT TO SCALE
6 C-9.2




## SEDIMENTATION POND LINER DETAIL
NOT TO SCALE
7 C-9.2




## CROSS-SECTION AT POND 4 OUTFLOW DEVICE
NOT TO SCALE
8 C-9.2

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SCALE: AS NOTED
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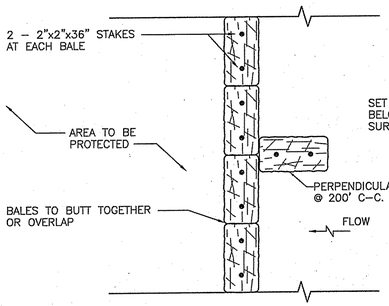
RHODE ISLAND RESOURCE RECOVERY CORPORATION
CENTRAL LANDFILL, 65 SHUN PIKE, JOHNSTON, RHODE ISLAND

**PHASE VI LANDFILL**
**RIDEM WETLANDS PERMIT APPLICATION**
**SEDIMENTATION POND DETAILS NO.2**

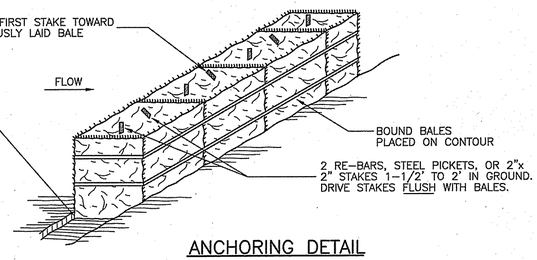
PROJECT NO.
03053.20

FIGURE NO.
**C-9.2**

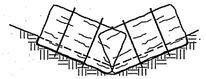
SHEET 30 OF 35




PLAN




ANCHORING DETAIL

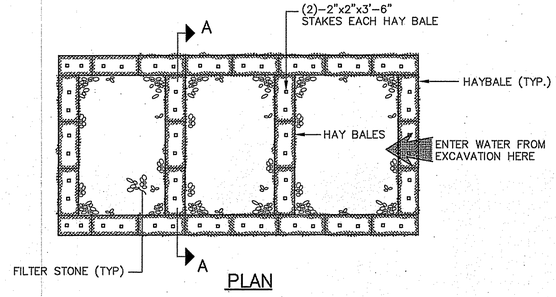


HAYBALE CHECK DAM

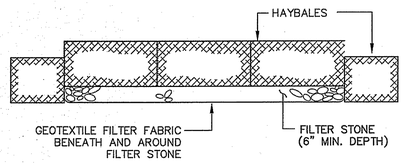
**CONSTRUCTION SPECIFICATIONS**

1. HAYBALES ARE TO BE INSTALLED IN LOCATIONS AS SHOWN ON SITE PLANS AND ALONG SLOPE CUTS, TO PROTECT WETLAND AREAS FROM SILTATION. AT APPROXIMATELY 200–FOOT INTERVALS, A HAYBALE IS TO ABUT PERPENDICULARLY.
2. BALES SHALL BE PLACED AT THE TOE OF A SLOPE OR ON THE CONTOUR, AND IN A ROW WITH ENDS TIGHTLY ABUTTING THE ADJACENT BALES.
3. EACH BALE SHALL BE EMBEDDED IN THE SOIL, A MINIMUM OF (4) INCHES, AND PLACED SO THE BINDINGS ARE HORIZONTAL.
4. BALES SHALL BE SECURELY ANCHORED IN PLACE BY EITHER TWO STAKES OR RE–BARS DRIVEN THROUGH THE BALE. THE FIRST STAKE IN EACH BALE SHALL BE DRIVEN TOWARD THE PREVIOUSLY LAID BALE, AT AN ANGLE, TO FORCE THE BALES TOGETHER. STAKES SHALL BE DRIVEN FLUSH WITH THE BALE.
5. INSPECTION SHALL BE FREQUENT AND REPAIR/REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.
6. BALES SHALL BE REMOVED WHEN THEY HAVE SERVED THIER USEFULLNESS SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.

## HAYBALE DETAILS (1 / C-9.3)
NOT TO SCALE



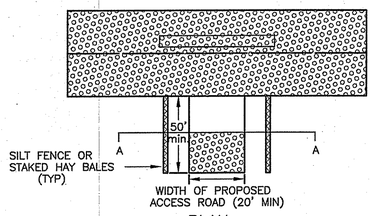

PLAN



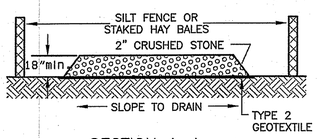

SECTION A–A

**NOTE:**
1. REQUIRED SIZE OF FILTER BASIN TO BE DETERMINED DURING CONSTRUCTION TO ENSURE DISCHARGE IS CLEAR OF SEDIMENT.
2. FILTER FABRIC TO LINE INSIDE OF BASIN AS SHOWN IN SECTION.

## FILTER BASIN (4 / C-9.3)
NOT TO SCALE



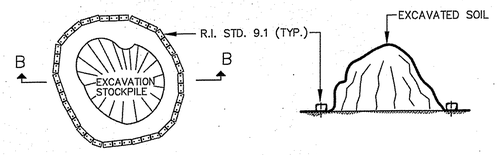

PLAN




SECTION A–A

## STABILIZED CONSTRUCTION ENTRANCE (5 / C-9.3)
NOT TO SCALE

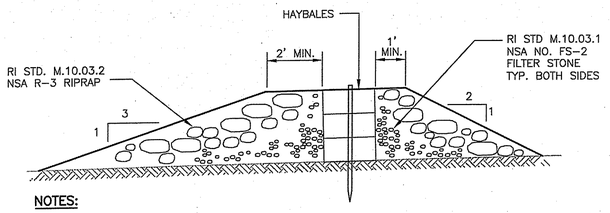
**NOTES:**
1. THE PURPOSE OF A STABILIZED CONSTRUCTION ENTRANCE IS TO REDUCE THE TRACKING OR FLOWING OF SEDIMENT ONTO LOCAL STREETS.
2. BEFORE INSTALLATION, THE AREA OF THE ENTRANCE SHOULD BE CLEARED OF ALL VEGETATION, ROOTS AND OTHER OBJECTIONABLE MATERIAL TO THE DIMENSIONS SHOWN.
3. PLACE EITHER A WOVEN OR NONWOVEN CONSTRUCTION FABRIC ON SUBGRADE PRIOR TO GRAVEL PLACEMENT.
4. THE ENTRANCE SHOULD BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO THE STREET. THIS WILL REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE OR ADDITIONAL LENGTH AS CONDITIONS DEMAND.




PLAN

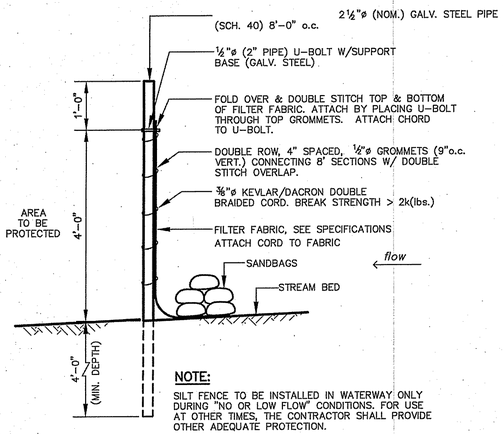
SECTION B–B

## DEWATERING STOCKPILE BASIN (2 / C-9.3)
NOT TO SCALE



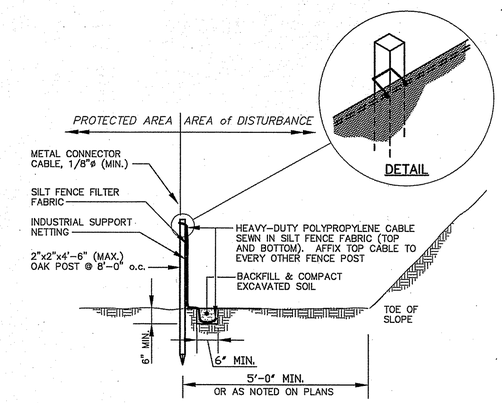

**NOTES:**
1. STONE WEIRS SHALL BE USED AS TEMPORARY CHECK DAMS WHERE REQUIRED.
2. STONE SHALL BE PILED TO A HEIGHT OF AT LEAST TWO FEET WITH SIDE SLOPES AT A NATURAL ANGLE OF REPOSE.
3. SIDE SLOPES SHALL NOT EXCEED 2:1.
4. BARRIERS SHALL BE PLACED SO THAT WATER CANNOT BYPASS THEM AROUND THE ENDS AND, WHEN SERVING AS CHECK DAMS, WILL BE CONSTRUCTED SO THAT THE CENTER IS AT LEAST SIX INCHES LOWER IN ELEVATION THAN THE ENDS.
5. WHERE BARRIERS ARE USED AS SUCCESSIVE CHECK DAMS, THEIR MAXIMUM SPACING WILL PROVIDE FOR A MATCHING OF THE ELEVATION AT THE BASE OF THE UPSTREAM DAM AND THE ELEVATION OF THE CREST OF THE DOWNSREAM DAM.

## STONE WEIR AND STONE BARRIER DETAIL (3 / C-9.3)
NOT TO SCALE




**NOTE:**
SILT FENCE TO BE INSTALLED IN WATERWAY ONLY DURING "NO OR LOW FLOW" CONDITIONS. FOR USE AT OTHER TIMES, THE CONTRACTOR SHALL PROVIDE OTHER ADEQUATE PROTECTION.

## SILT FENCE (WATERWAY) (6 / C-9.3)
NOT TO SCALE




**NOTE:**
SILT FENCE FABRIC SHALL NOT BE SLIT. HAY BALE POST SHALL BE DRIVEN THROUGH SILT FENCE FABRIC.

## SILT FENCE EROSION CHECK (7 / C-9.3)
NOT TO SCALE

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BAR SCALE 0.5" 0 1.0"

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RHODE ISLAND RESOURCE RECOVERY CORPORATION
CENTRAL LANDFILL, 65 SHUN PIKE, JOHNSTON, RHODE ISLAND

**PHASE VI LANDFILL**
**RIDEM WETLANDS PERMIT APPLICATION**
**EROSION AND SEDIMENTATION CONTROL DETAILS**

PROJECT NO.
03053.20

FIGURE NO.
**C-9.3**

SHEET 31 OF 35

## GENERAL INSPECTION AND MAINTENANCE PROGRAM NOTES

A. STORMWATER, EROSION, AND SEDIMENTATION CONTROL INSPECTION AND MAINTENANCE PROGRAM SHALL BE PERFORMED UNDER THE DIRECTION OF AN "EROSION CONTROL OFFICER" DESIGNATED BY THE RIRRC AND IN ACCORDANCE WITH THE CURRENT EROSION AND SEDIMENTATION CONTROL PLAN.

B. THE EROSION CONTROL OFFICER SHALL PERFORM, OR ASSIGN OTHER QUALIFIED INDIVIDUALS TO PERFORM ROUTINE INSPECTIONS OF THE SITE.

C. INSPECTIONS SHALL BE PERFORMED AT A MINIMUM OF ONCE PER WEEK. WHEN POSSIBLE, INSPECTIONS SHALL BE PERFORMED FOLLOWING RAIN EVENTS. ADDITIONAL INSPECTIONS SHALL BE PERFORMED FOLLOWING SIGNIFICANT RAINSTORMS OF 1" OR MORE OF PRECIPITATION.

D. DAILY INSPECTIONS MAY BE REQUIRED DURING TIMES OF CONTINUOUSLY HEAVY RAINFALL OR SNOW MELT, AT THE DISCRETION OF THE EROSION CONTROL OFFICER.

E. INSPECTION REPORTS SHALL BE PREPARED BY EROSION CONTROL OFFICER FOLLOWING EACH INSPECTION. THESE REPORTS WILL INCLUDE DOCUMENTED EROSION AND SEDIMENTATION CONTROL PROBLEMS, THEIR LOCATION(S), PROPOSED REMEDIES, AND MANPOWER AND MATERIALS NECESSARY TO ADEQUATELY ADDRESS THE DEFICIENCIES. PREVIOUSLY DOCUMENTED EROSION AND SEDIMENTATION CONTROL PROBLEMS THAT HAVE BEEN ADDRESSED SINCE THE LAST INSPECTION WILL ALSO BE SUMMARIZED IN THIS REPORT.

F. AT A MINIMUM, FIVE (5) YEARS OF INSPECTION REPORTS WILL BE MAINTAINED ON FILE AT RIRRC ADMINISTRATIVE'S OFFICES.

G. AN EROSION AND SEDIMENTATION CONTROL SUMMARY REPORT WILL BE SUBMITTED TO THE RIDEM SEMI-ANNUALLY. THIS REPORT WILL INCLUDE THE WEEKLY INSPECTION REPORTS, EROSION AND SEDIMENTATION CONTROL MAINTENANCE PERFORMED, TURBIDITY MONITORING RESULTS, PRIORITY POLLUTANT SCANS, BENCHMARK MONITORING, AND SUMMARY OF THE RESULTS OF THE BATHOMETRIC SURVEYS CONDUCTED IN THE PREVIOUS SIX (6) MONTHS.

## EROSION AND SEDIMENTATION CONTROLS INSPECTION AND MAINTENANCE

A. ESTABLISHED VEGETATION

1. PERFORM PERIODIC INSPECTIONS TO ENSURE VEGETATIVE COVER IS IN PLACE AND NOT COMPROMISED. INSPECT WEEKLY AND AFTER MAJOR STORM EVENTS.
2. FERTILIZE AND RESEED AREAS WHERE VEGETATIVE COVER IS DEFICIENT.
3. REMOVE OR MOW EXCESSIVE VEGETATION AS NECESSARY AND APPROPRIATE.

B. NEWLY SEEDED / MULCHED AREAS

1. PERFORM PERIODIC INSPECTION TO ENSURE SEED AND MULCH IN PLACE AND NOT WASHED AWAY. PERFORM INSPECTIONS WEEKLY AND/OR FOLLOWING MAJOR RAINSTORMS.
2. RESEED AND/OR REMULCH SURFACES WHERE DEFICIENCIES ARE DOCUMENTED.
3. REMOVE VOLUNTEER TREE AND SHRUB GROWTH AS APPROPRIATE.
4. CONTINUE INSPECTIONS UNTIL PERMANENT VEGETATION HAS BEEN ESTABLISHED, TO A MINIMUM HEIGHT OF 3 INCHES.

C. STRAW / HAY BALE BARRIERS

1. PERFORM PERIODIC INSPECTIONS WEEKLY AND/OR FOLLOWING MAJOR RAINSTORMS TO ASSESS INTEGRITY OF STRAW/HAY BALE BARRIERS AND CHECK SEDIMENT ACCUMULATION.
2. REMOVE SEDIMENT FROM BEHIND BARRIERS ONCE IT REACHES A HEIGHT OF 1/2 THE HEIGHT OF THE BARRIER. REMOVE SEDIMENT BY EXCAVATOR OR SHOVEL AND DISPOSE ON LANDFILL OR REUSE AS COVER MATERIAL.
3. REMOVE AND REPLACE DAMAGED BARRIERS PROMPTLY AS NEEDED. SCATTER LOOSE STRAW BEHIND BALES. INSTALL BALES 4" BELOW THE SURROUNDING GROUND AND ANCHOR WITH WOOD STAKES.
4. BALES SHALL ABUT TIGHTLY TO AVOID FLOW DIVERTING BETWEEN ADJACENT BALES.

D. FILTER FENCE

1. PERFORM PERIODIC INSPECTIONS WEEKLY AND/OR FOLLOWING MAJOR RAINSTORMS TO ASSESS INTEGRITY OF FILTER FENCES.
2. REMOVE SEDIMENT FROM BEHIND FENCES WHEN ACCUMULATION HAS REACHED 1/3 THE HEIGHT OF THE FILTER FENCE. REMOVE SEDIMENT BY EXCAVATOR OR SHOVEL AND DISPOSE ON LANDFILL OR REUSE AS COVER MATERIAL.
3. REPLACE FILTER FENCE WHEN INSPECTION REVEALS DAMAGE HAS RESULTED SUCH THAT FENCE WILL NO LONGER FUNCTION AS INTENDED.
4. ANCHOR FENCE FABRIC 6" BELOW GRADE. INSTALL FENCE POSTS 8' ON CENTER.

E. STONE BARRIERS

1. PERIODICALLY INSPECT STONE BARRIERS TO ENSURE RUNOFF IS NOT BYPASSING BARRIER OR CAUSING "END RUN" EROSION.
2. PERIODICALLY EVALUATE SEDIMENT ACCUMULATION BEHIND BARRIER. REMOVE SEDIMENT IF DETERMINED TO INTERFERE WITH PROPER FUNCTION OF BARRIER.
3. ROUTINELY EVALUATE INTEGRITY OF BARRIER TO ENSURE CENTER OF BARRIER IS AT LEAST 6" BELOW ENDS.

F. DIVERSION BENCHES, DRAINAGE SWALES, AND DOWNCHUTES

1. PERIODICALLY INSPECT BENCHES AND SWALES TO DETERMINE WHETHER THEY REMAIN SUFFICIENTLY INTACT TO CONVEY RUNOFF AS INTENDED.
2. MONTHLY INSPECTION OF ALL DIVERSION BENCHES TO EVALUATE WHETHER LANDFILL SETTLEMENT HAS ADVERSELY IMPACTED THE GRADE OF THE BENCH.
3. DISLODGED STONE AND RIPRAP SHOULD BE REPLACED TO ENSURE EROSION OF SUBGRADE SOILS DOES NOT OCCUR.
4. EXCAVATE SEDIMENT FROM BENCHES AND SWALES WHEN ACCUMULATION RESULTS IN RESTRICTION OF FLOW.
5. REMOVE VEGETATION FROM RIPRAP SWALES AND BENCHES WHEN GROWTH BECOMES RESTRICTIVE TO FLOW.
6. PERIODICALLY INSPECT CONCRETE REVEMENT AND GABIONS TO ENSURE THEY ARE FUNCTIONING PROPERLY AND HAVE NOT BEEN UNDERMINED.

G. SEDIMENTATION PONDS

1. INSPECT PONDS PERIODICALLY TO ENSURE THAT THE INTEGRITY OF SIDE SLOPES, SPILLWAYS, AND OUTLETS ARE MAINTAINED.
2. PERFORM SEMI-ANNUAL BATHYMETRIC SURVEYS OF EACH POND TO DETERMINE SEDIMENT ACCUMULATION.
3. SEDIMENTATION PONDS SHALL BE DREDGED AND SEDIMENT REMOVED ONCE ACCUMULATION REACHES 2/3 OF THE AVAILABLE STORAGE AREA OF THE POND.
4. INSPECT SILT BOOMS WHERE IN USE TO ENSURE THAT ANCHORING SYSTEMS ARE SECURELY FASTENED, FLOTATION IS ADEQUATE, AND PANEL JOINTS REMAIN INTACT. REPLACE BOOMS WHERE DAMAGE HAS OCCURRED. REMOVE SEDIMENT FROM POND ONCE ACCUMULATION REACHES THE BOTTOM OF THE SILT BOOM.
5. DAILY VISUAL INSPECTIONS OF SEDIMENT BASINS AND WEEKLY MONITORING OF SEDIMENT BASIN TURBIDITY.

H. RIPRAP

1. INSPECT ALL NEWLY PLACED RIPRAP AFTER ALL STORM EVENTS (>1") FOR 1 YEAR.
2. REMOVE ACCUMULATED SEDIMENT THAT RESTRICTS FLOW.
3. REPLACE DISLODGED STONES TO PREVENT EROSION OF SUBGRADE.
4. IF RIPRAP BEING USED IS DEEMED INADEQUATE, REPLACE WITH LARGER SIZE.

I. ACTIVE LANDFILL AND CONSTRUCTION AREAS

1. INSPECT ACTIVE AREAS OF THE LANDFILL FOR LEACHATE BREAK OUTS. IF BREAKOUT IS FOUND IMPLEMENT CORRECTIVE MEASURES TO PREVENT DISCHARGE OF LEACHATE TO SURFACE WATERS.
2. AREAS UNDER CONSTRUCTION ARE TO HAVE APPROPRIATE CONTROLS IN PLACE TO MITIGATE EROSION AND SEDIMENTATION OF SITE.
3. STOCKPILES ARE TO BE MAINTAINED IN ACCORDANCE WITH THE EROSION AND SEDIMENTATION CONTROL PLAN.

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FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED JAN 19 2010 FILE # 07-0179
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APPROVED PLANS MUST BE AT CONSTRUCTION SITE.

Maureen D. Wenck

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|---|---|---|---|
| 2 | REVISED PER RIDEM REVIEW COMMENTS | NOV 2009 | |
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ARMANDO J. RICCI
No. 7128
REGISTERED PROFESSIONAL ENGINEER
CIVIL

PARE CORPORATION
ENGINEERS • SCIENTISTS • PLANNERS
8 BLACKSTONE VALLEY PLACE
LINCOLN, RI 02865
401-334-4100

SCALE: AS NOTED
BAR SCALE 0.5" 0 1.0"

| | | | |
|---|---|---|---|
| PROJ. MGR.: | AJR | | |
| DESIGNED: | BMB | DRAWN: | RPB |
| CHECKED: | AJR | DATE: | APRIL 11, 2008 |

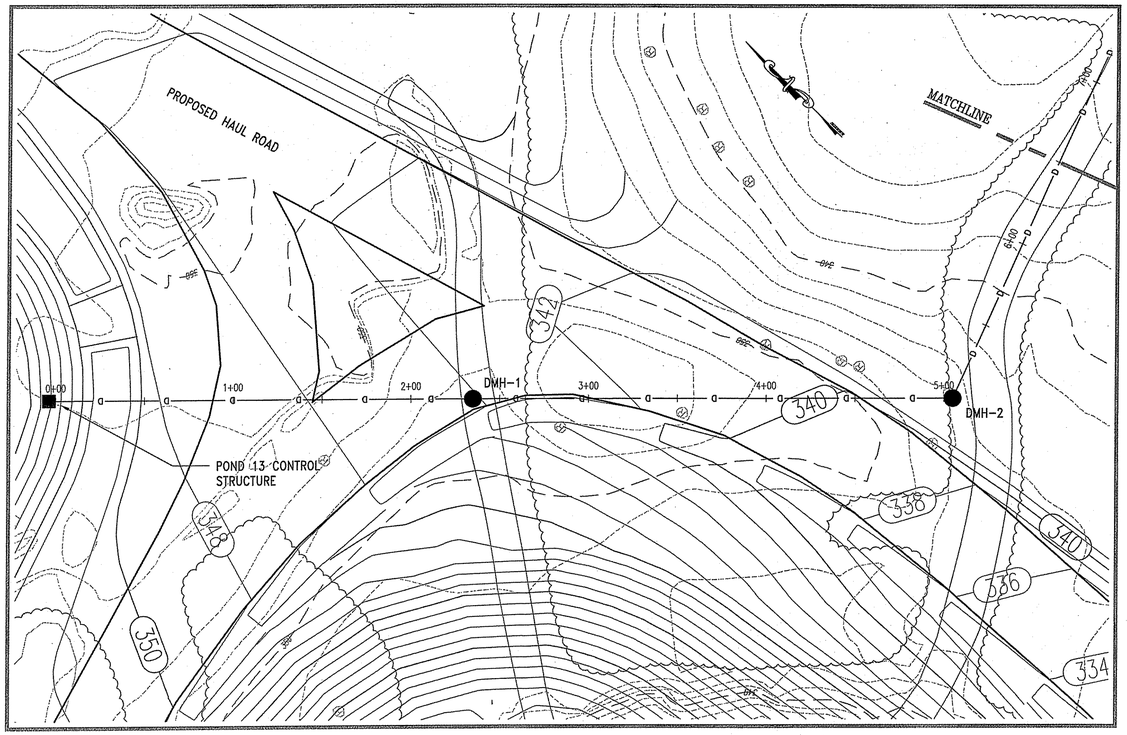
RHODE ISLAND RESOURCE RECOVERY CORPORATION
CENTRAL LANDFILL, 65 SHUN PIKE, JOHNSTON, RHODE ISLAND

**PHASE VI LANDFILL**
**RIDEM WETLANDS PERMIT APPLICATION**
**STORMWATER AND E&S CONTROL MAINTENANCE NOTES**

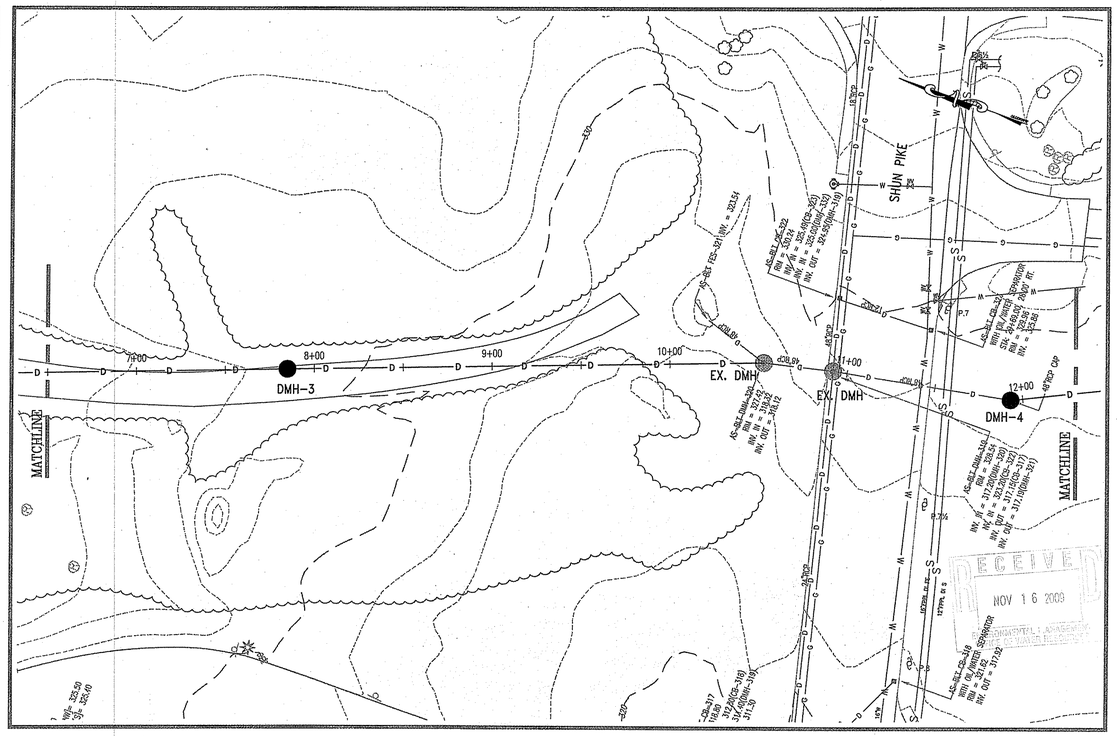
PROJECT NO.
03053.20

FIGURE NO.
**C-9.4**

SHEET 32 OF 35




PLAN
SCALE: 1"=40'




PLAN
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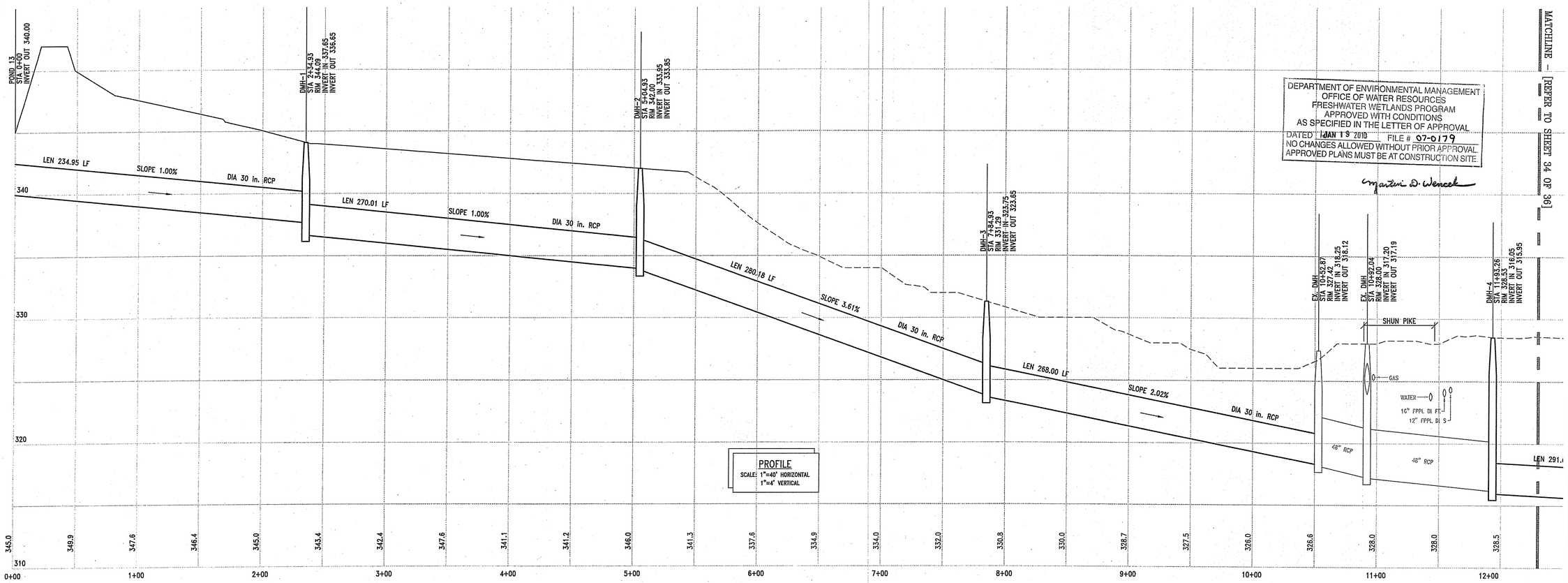


PROFILE
SCALE: 1"=40' HORIZONTAL
1"=4' VERTICAL

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SCALE: 1"=40'
BAR SCALE 0 0.5" 1.0"

| | | | |
|---|---|---|---|
| PROJ. MGR.: | AJR | DRAWN : | AJR |
| DESIGNED : | MTZ | CHECKED : | AJR |
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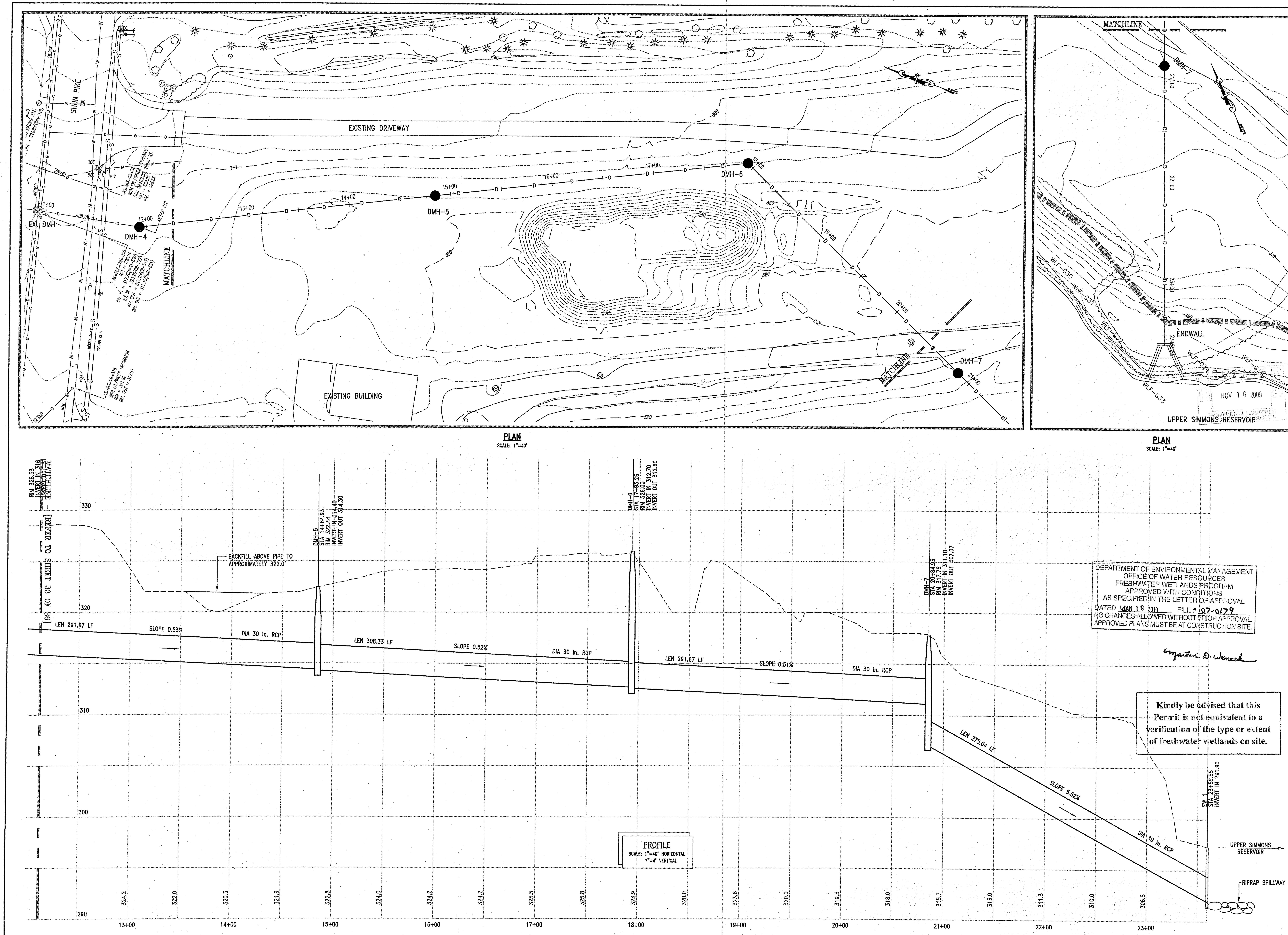
RHODE ISLAND RESOURCE RECOVERY CORPORATION
CENTRAL LANDFILL, 65 SHUN PIKE, JOHNSTON, RHODE ISLAND

**PHASE VI LANDFILL**
**RIDEM WETLANDS PERMIT APPLICATION**
**PROFILE NO. 1 POND 13**

PROJECT NO.
03053.20

FIGURE NO.
**C-10.1**

SHEET 33 OF 35

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Martin D. Wencek

**Kindly be advised that this Permit is not equivalent to a verification of the type or extent of freshwater wetlands on site.**

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SCALE= 1"=40'
0.5" 0 1.0"
BAR SCALE

PROJ. MGR.: AJR
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CHECKED : AJR
DATE : JUNE 2009

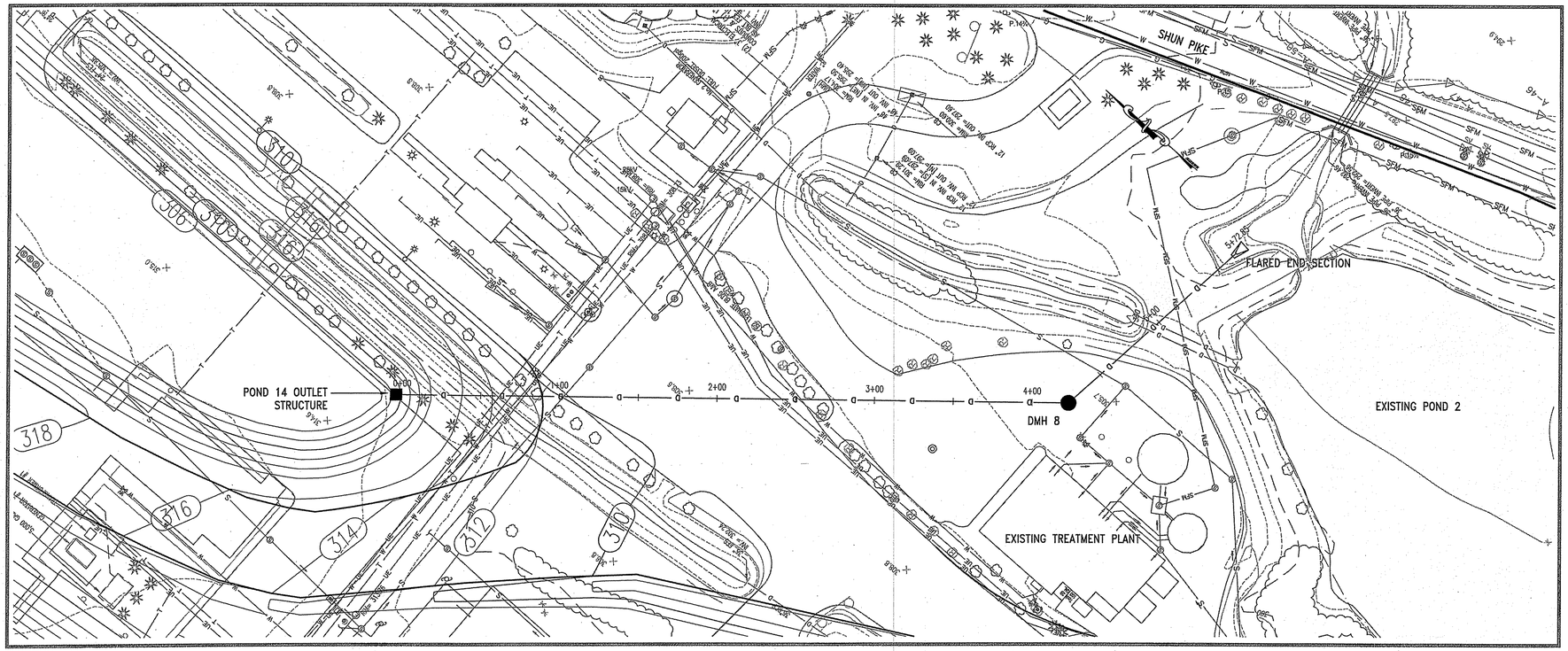
RHODE ISLAND RESOURCE RECOVERY CORPORATION
CENTRAL LANDFILL, 65 SHUN PIKE, JOHNSTON, RHODE ISLAND

**PHASE VI LANDFILL**
**RIDEM WETLANDS PERMIT APPLICATION**
**PROFILE NO. 2 POND 13**

PROJECT NO.
03053.20

FIGURE NO.
**C-10.2**

SHEET 34 OF 35




PLAN
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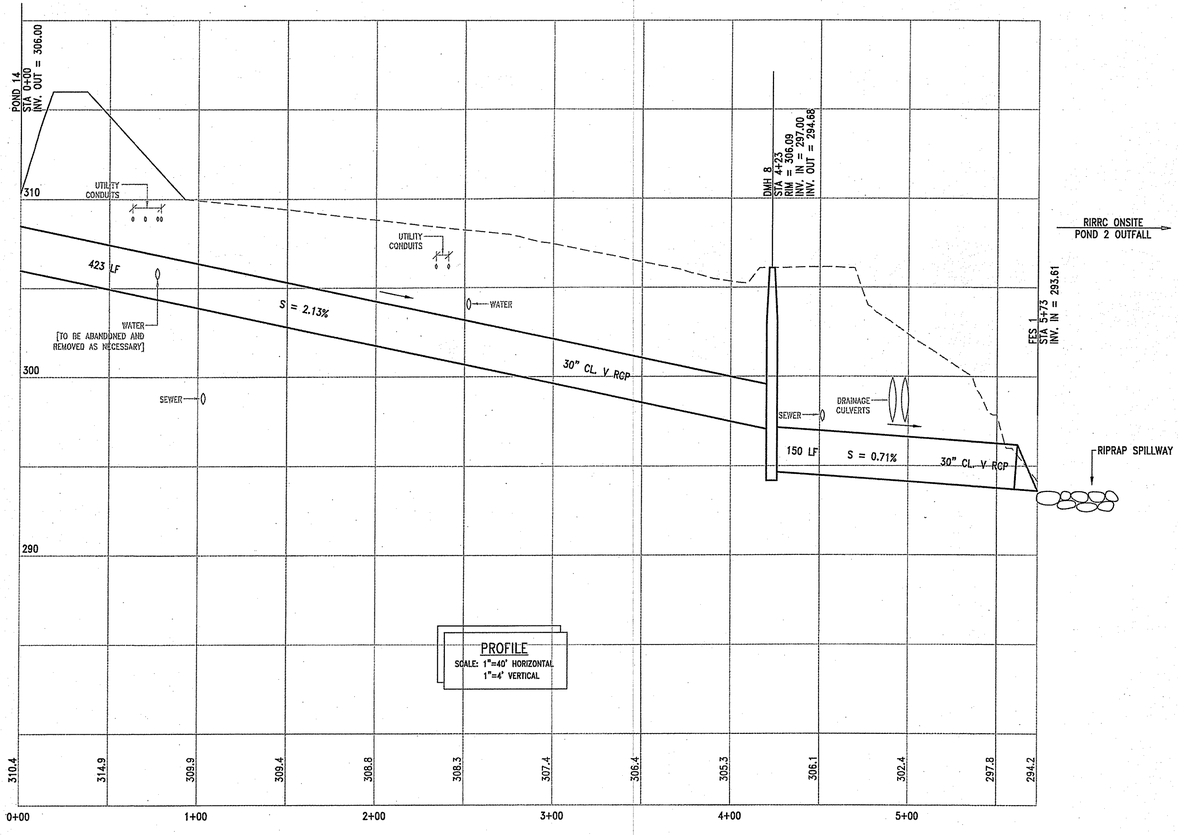


PROFILE
SCALE: 1"=40' HORIZONTAL
1"=4' VERTICAL

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PARE

SCALE: 1"=40'
BAR SCALE 0 0.5" 1.0"

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| DRAWN : | MTZ |
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| DATE : | JUNE 2009 |

RHODE ISLAND RESOURCE RECOVERY CORPORATION
CENTRAL LANDFILL, 65 SHUN PIKE, JOHNSTON, RHODE ISLAND

# PHASE VI LANDFILL
# RIDEM WETLANDS PERMIT APPLICATION
# PROFILE POND 14

PROJECT NO.
03053.20

FIGURE NO.
C-10.3

SHEET 35 OF 35

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