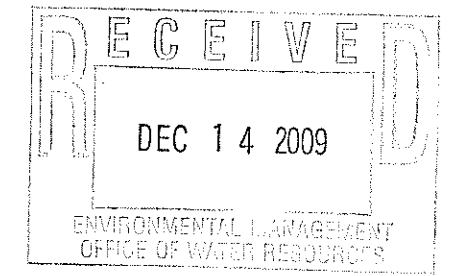
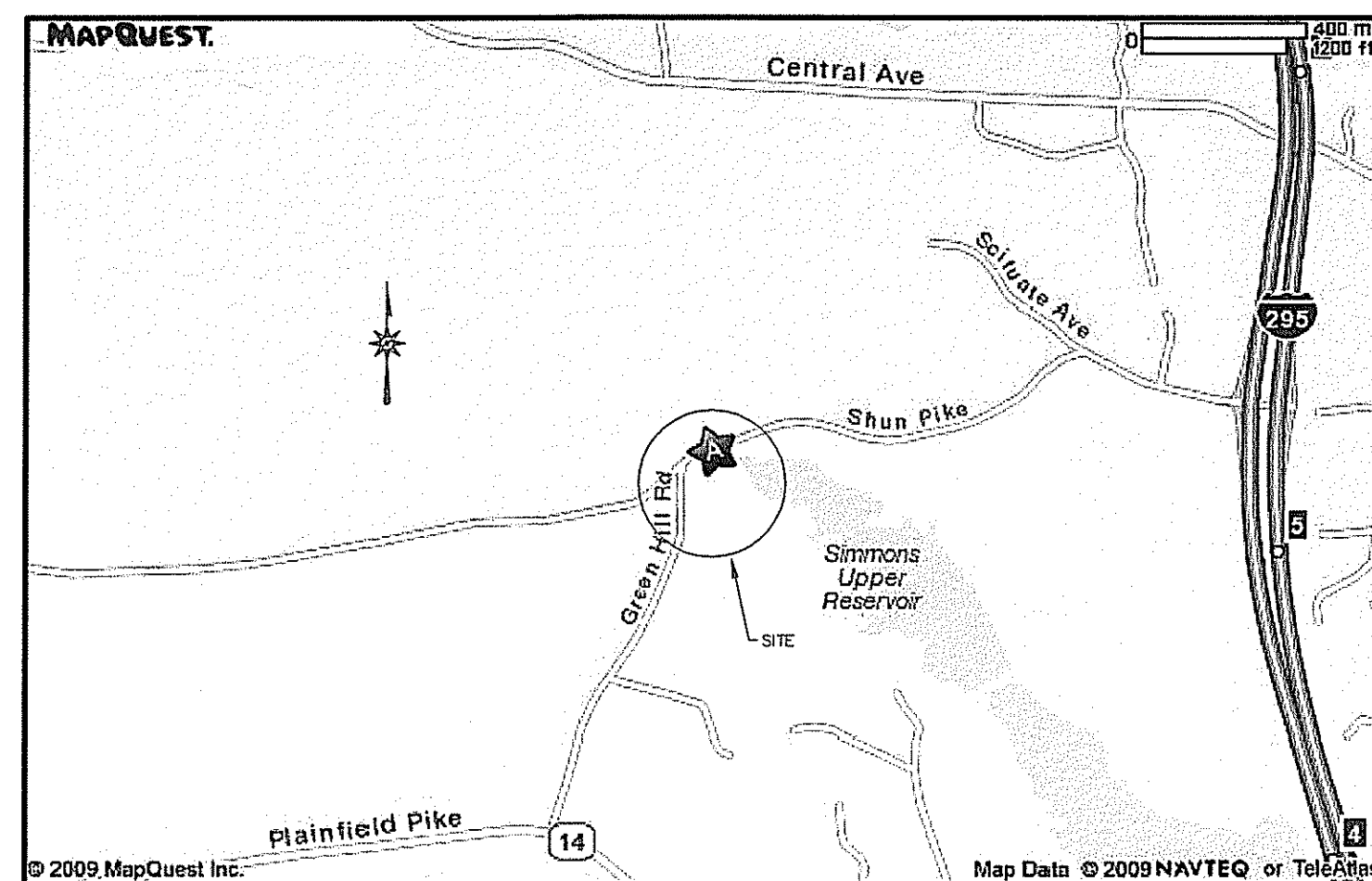


PROPOSED SEDIMENTATION BASIN

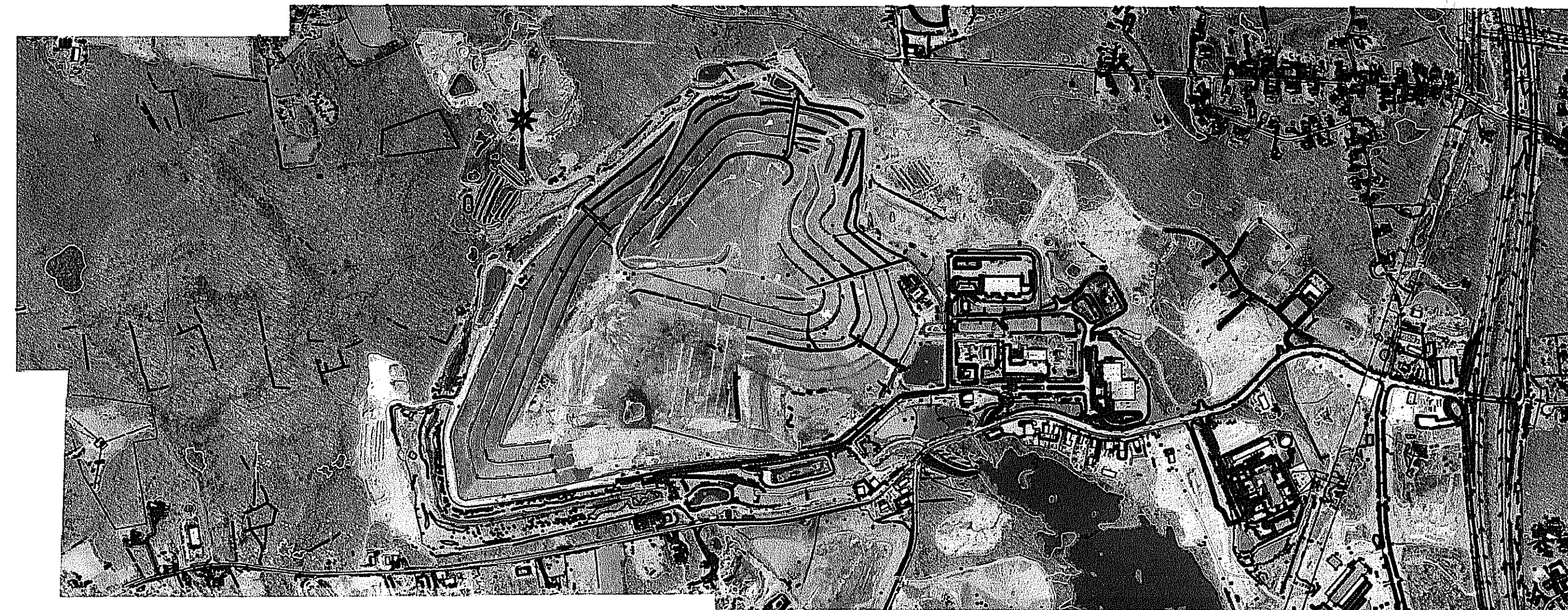
A.P. 31, LOT 2
SHUN PIKE
JOHNSTON, RHODE ISLAND



PRELIMINARY WETLAND DETERMINATION



LOCUS
NTS

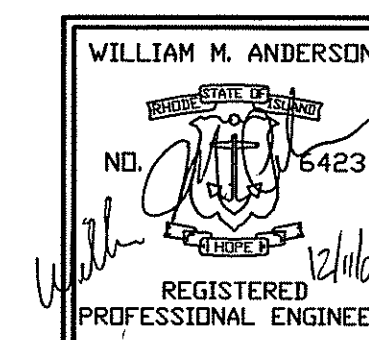


AERIAL PHOTO
1" = 1000'

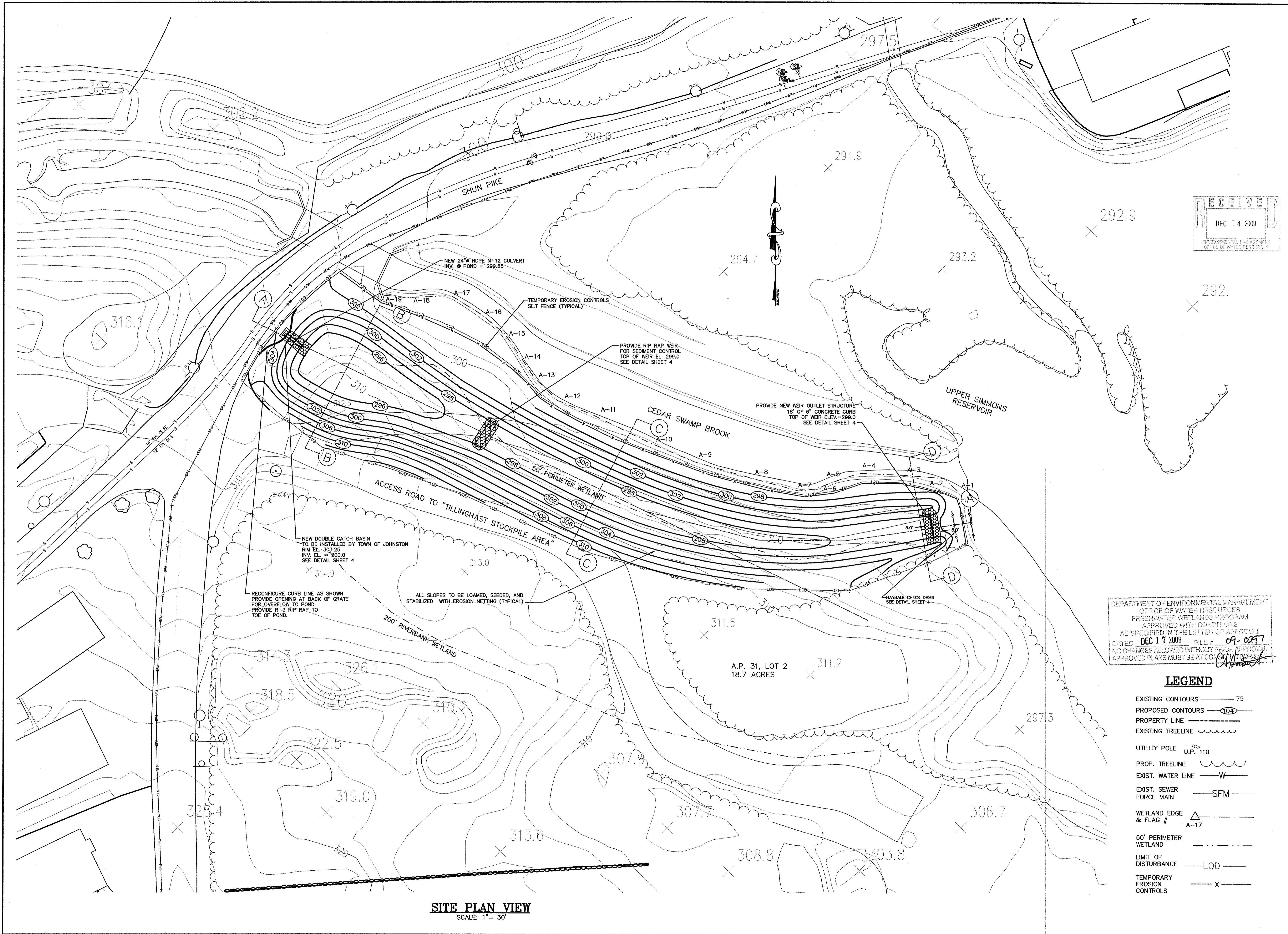
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED DEC 17 2009 FILE # 09-0297
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CO *Chabert*

DECEMBER 2009

APPLICATION NO.
CO-COVER SHEET
1 OF 5



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



NO.	DATE	MADE BY	CHECKED BY	REVISIONS

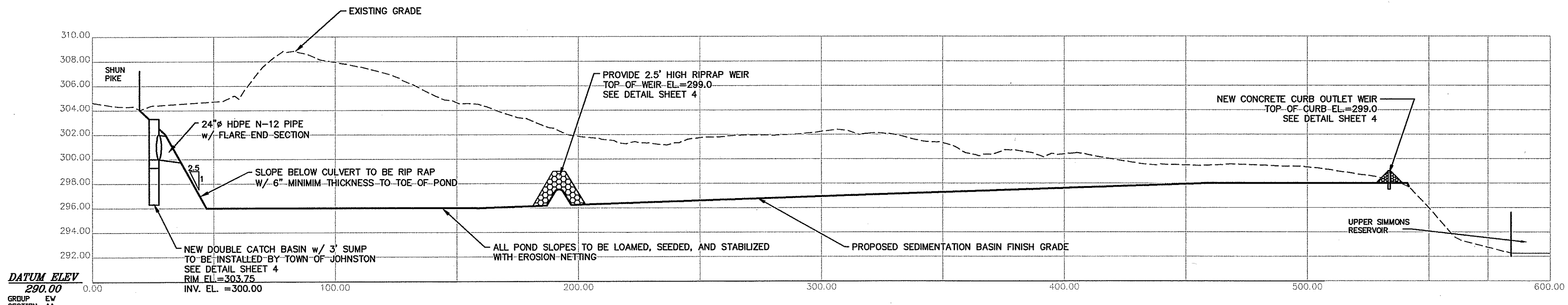
WILLIAM M. ANDERSON
NO. 0423
REGISTERED PROFESSIONAL ENGINEER

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

Proj. Mgr.: WMA
Designed: WMA
Drawn: WMA
Checked: IL
Scale: 1"=30'
Date: DEC. 2009

PRELIMINARY WETLAND DETERMINATION SITE PLAN FOR RI RESOURCE RECOVERY

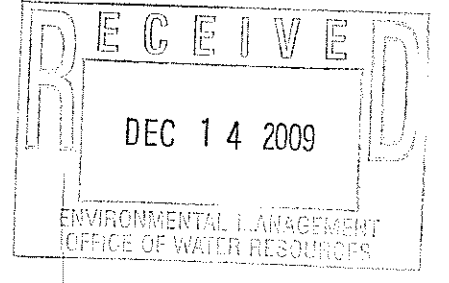
A.P. 31, LOT 2, SHUN PIKE
JOHNSTON, RHODE ISLAND



DATUM ELEV
290.00
GROUP 14
SECTION AA

SEDIMENTATION BASIN STORM ROUTING DATA
 2 YEAR STORM ELEVATION = 299.72'
 STORAGE VOLUME = 35,631 CF
 10 YEAR STORM ELEVATION = 300.33'
 STORAGE VOLUME = 45,571 CF
 25 YEAR STORM ELEVATION = 300.63'
 STORAGE VOLUME = 51,311 CF
 100 YEAR STORM ELEVATION = 301.14'
 STORAGE VOLUME = 60,930 CF

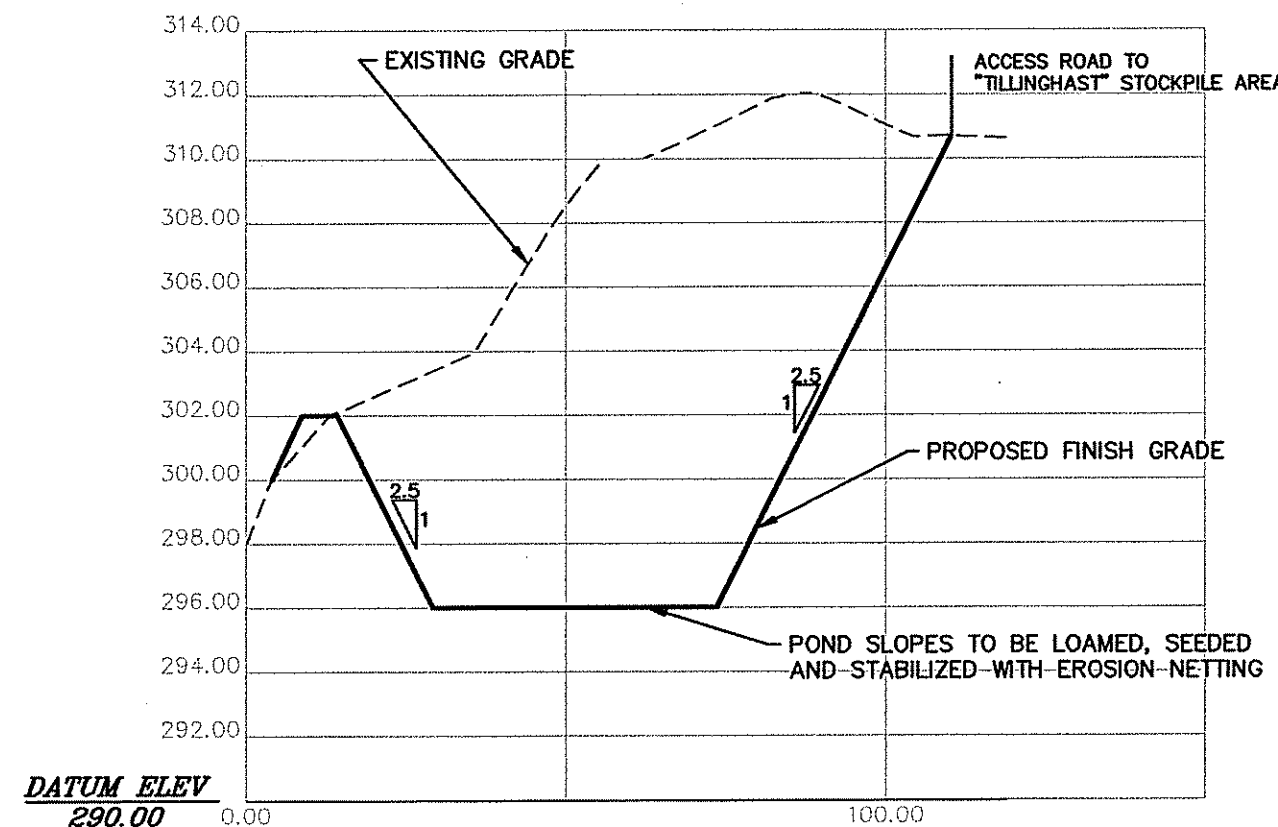
SEDIMENTATION BASIN SECTION A - A
 HORIZONTAL SCALE: 1" = 30'
 VERTICAL SCALE: 1" = 6'



WILLIAM M. ANDERSON
 NO. 0923
 REGISTERED PROFESSIONAL ENGINEER

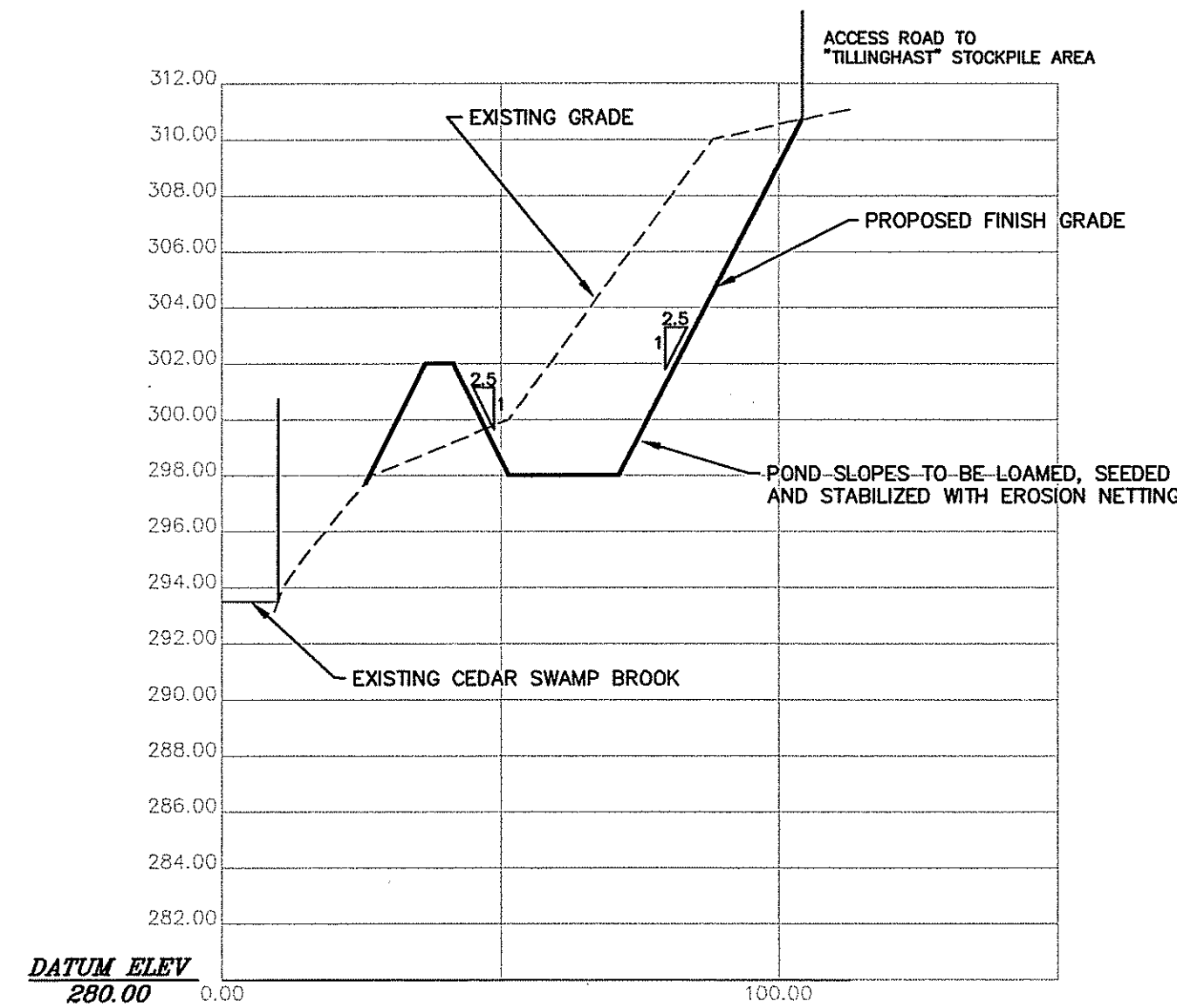
RHODE ISLAND RESOURCE RECOVERY CORPORATION
 CENTRAL LANDFILL, 65 SHUN PIKE, JOHNSTON, RHODE ISLAND

Proj. Mgr: WMA
 Designed: WMA
 Drawn: WMA
 Checked: IL
 Scale: AS NOTED
 Date: DEC. 2009



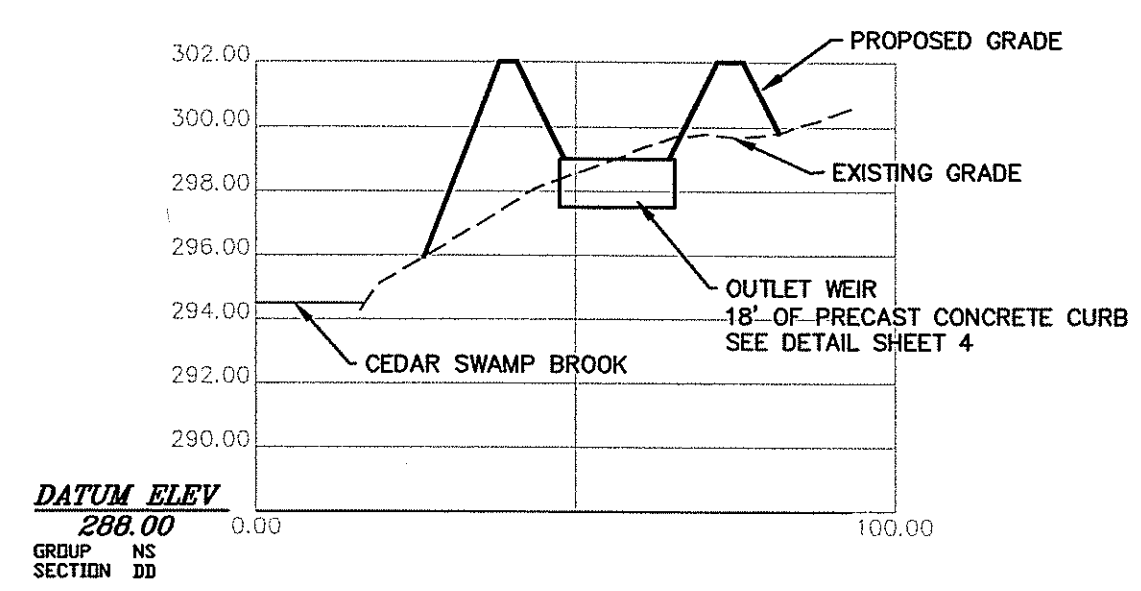
DATUM ELEV
290.00
GROUP NS
SECTION BB

SEDIMENTATION BASIN SECTION B - B
 HORIZONTAL SCALE: 1" = 30'
 VERTICAL SCALE: 1" = 6'



DATUM ELEV
280.00
GROUP NS
SECTION CC

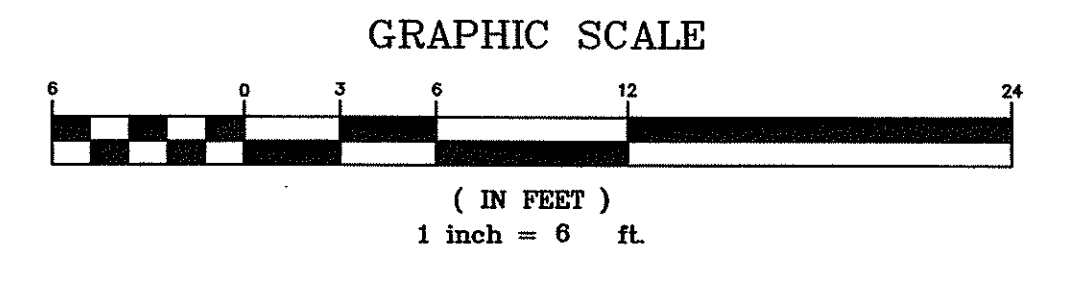
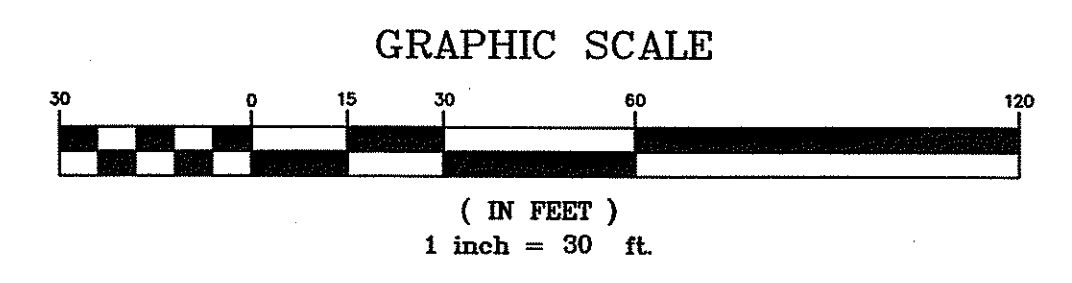
SEDIMENTATION BASIN SECTION C - C
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 VERTICAL SCALE: 1" = 6'



DATUM ELEV
280.00
GROUP NS
SECTION DD

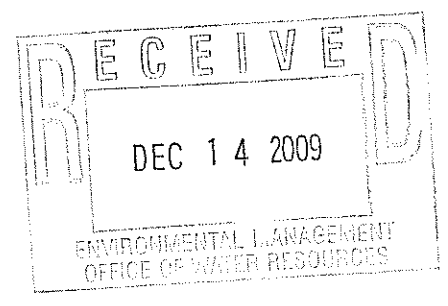
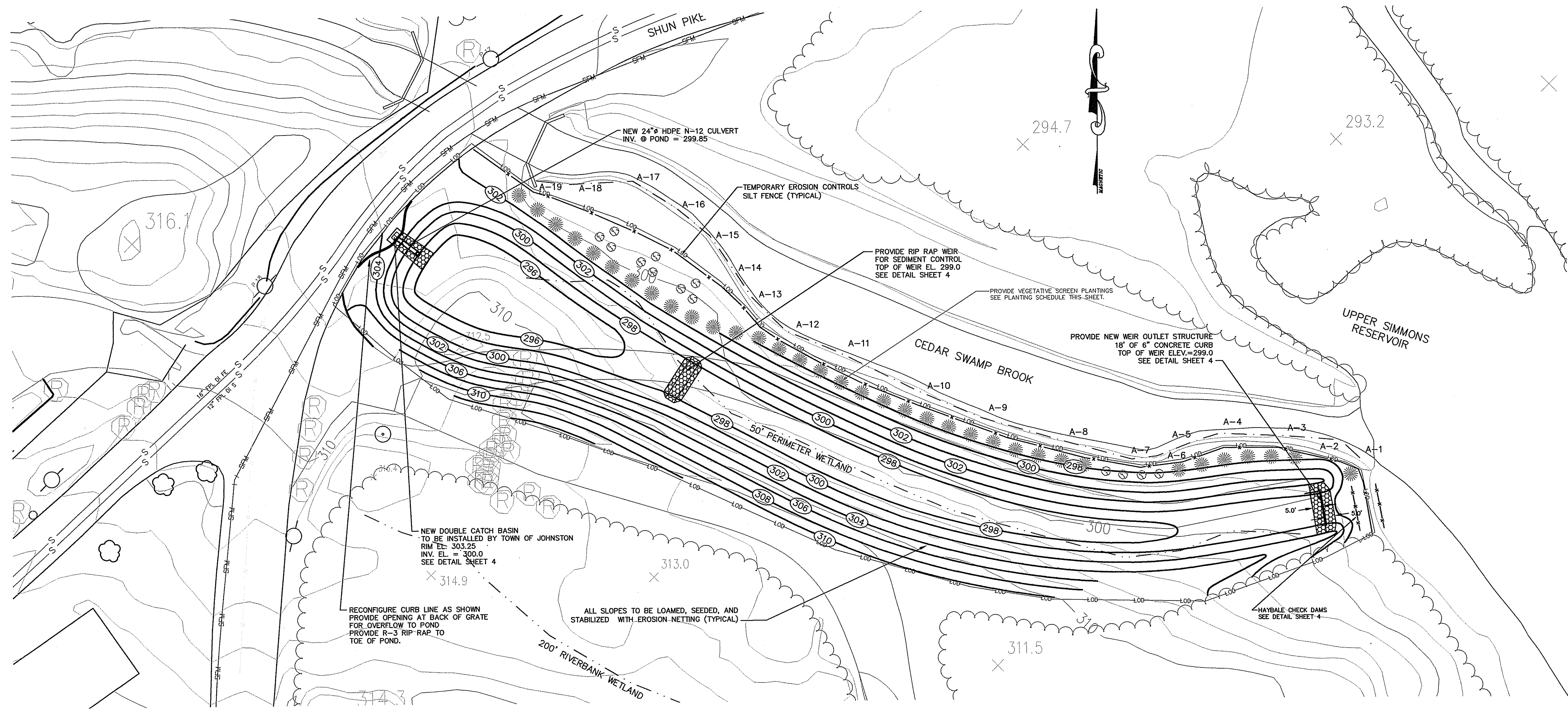
SEDIMENTATION BASIN SECTION D - D
 HORIZONTAL SCALE: 1" = 30'
 VERTICAL SCALE: 1" = 6'

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
 OFFICE OF WATER RESOURCES
 FRESHWATER WETLANDS PROGRAM
 APPROVED WITH CONDITIONS
 AS SPECIFIED IN THE LETTER OF APPROVAL
 DATED DEC 17 2009 FILE # 09-0217
 NO CHANGES ALLOWED WITHOUT THE APPROVAL
 APPROVED PLANS MUST BE AT THE BOTTOM OF THE SHEET



PRELIMINARY WETLAND DETERMINATION CROSS SECTIONS FOR RI RESOURCE RECOVERY
 A.P. 31, LOT 2, SHUN PIKE
 JOHNSTON, RHODE ISLAND

Proj. No.
 Dwg. No.



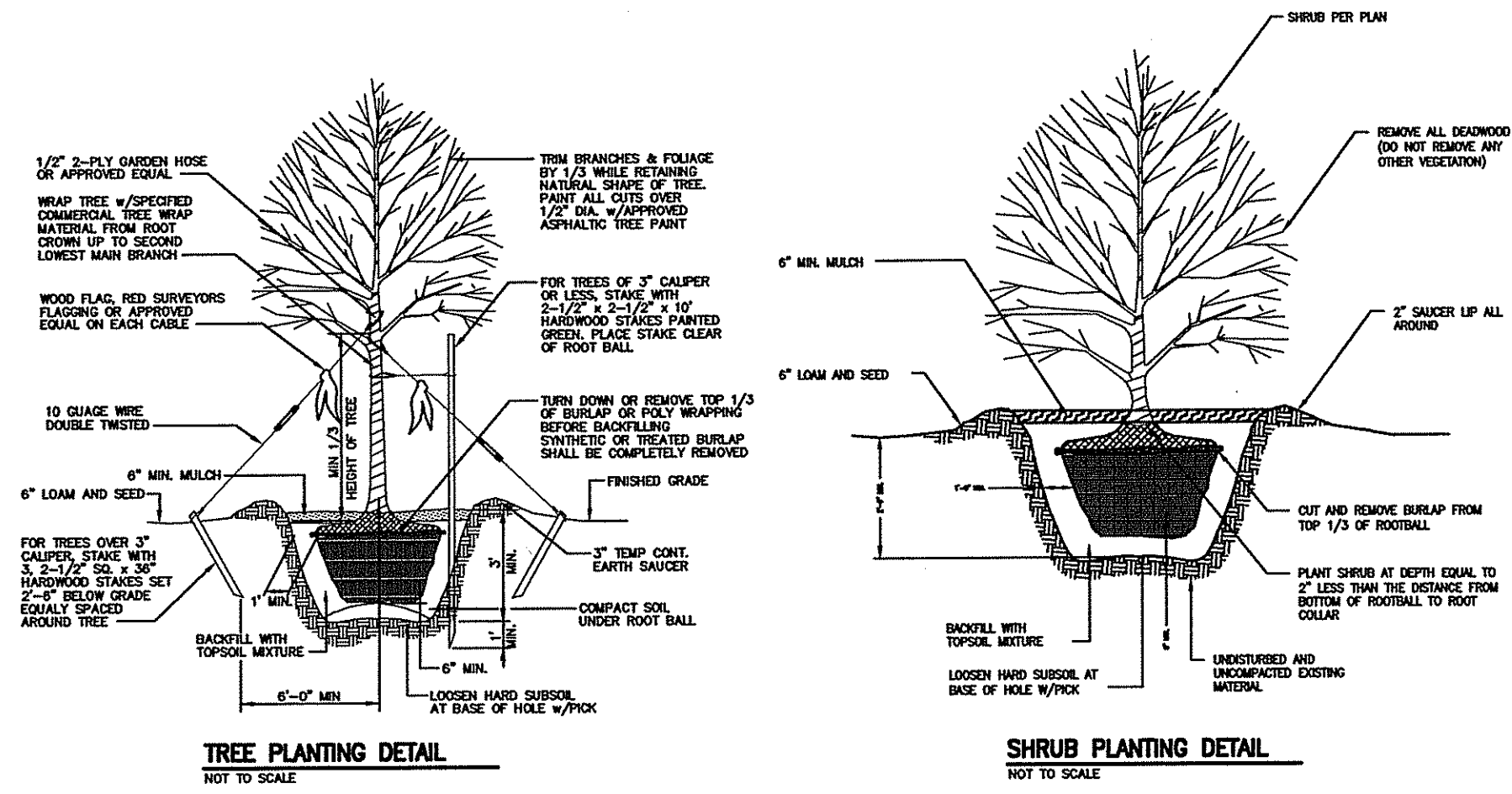
NUMBER	DATE	MADE BY	CHECKED BY	DESCRIPTION

WILLIAM M. ANDERSON
 NO. 4223
 REGISTERED PROFESSIONAL ENGINEER

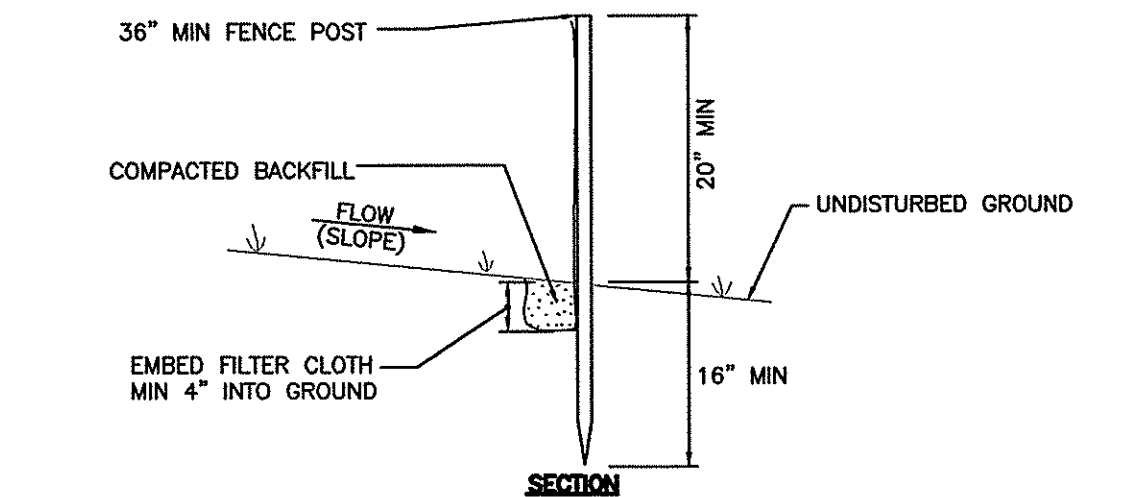
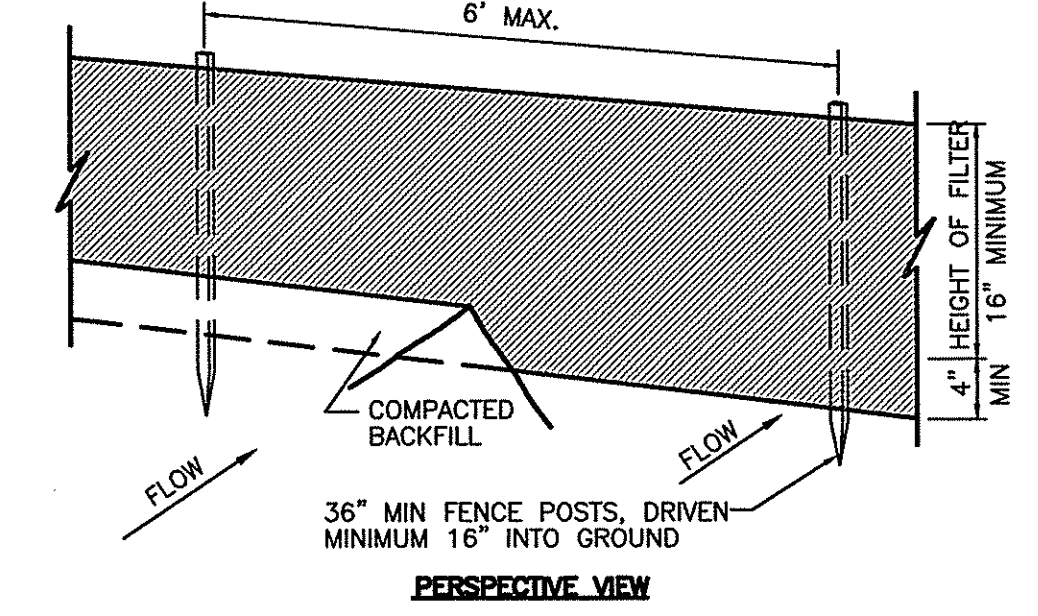
RHODE ISLAND RESOURCE RECOVERY CORPORATION
 CENTRAL LANDFILL, 65 SHUN PIKE, JOHNSTON, RHODE ISLAND

Proj. Mgr: WMA
 Designed: WMA
 Drawn: WMA
 Checked: IL
 Scale: 1"=30'
 Date: DEC. 2009

PROPOSED PLANTING PLAN
 SCALE: 1" = 30'



- NOTES**
1. THE SILT FENCE AND/OR HAYBALES SHALL BE INSTALLED PRIOR TO ANY EARTHWORK ACTIVITY AS SHOWN ON DETAIL SHEETS. RIRRC TO INSPECT AND MAINTAIN INTEGRITY OF TEMPORARY EROSION CONTROLS UNTIL CONSTRUCTION HAS BEEN COMPLETED AND REVEGETATION HAS TAKEN PLACE. TEMPORARY EROSION CONTROLS SHALL BE INSTALLED ALONG ENTIRE DOWNGRADIENT LIMIT OF DISTURBANCE "LOD" AS SHOWN ON SITE PLAN.
 2. WETLAND DETERMINATION CONDUCTED BY PARE CORPORATION IN OCTOBER 2009.
 3. REFERENCE RIDEM OFFICE OF COMPLIANCE AND INSPECTION CONSENT AGREEMENT FILE NO. WATER POLLUTION 05-02 FOR MORE INFORMATION.



DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
 OFFICE OF WATER RESOURCES
 FRESHWATER WETLANDS PROGRAM
 APPROVED WITH CONDITIONS
 AS SPECIFIED IN THE LETTER OF APPROVAL
 DATED DEC 17 2009 FILE # 09-0277
 NO CHANGES ALLOWED WITHOUT PREVIOUS APPROVAL
 APPROVED PLANS MUST BE AT COMPLY WITH

LEGEND

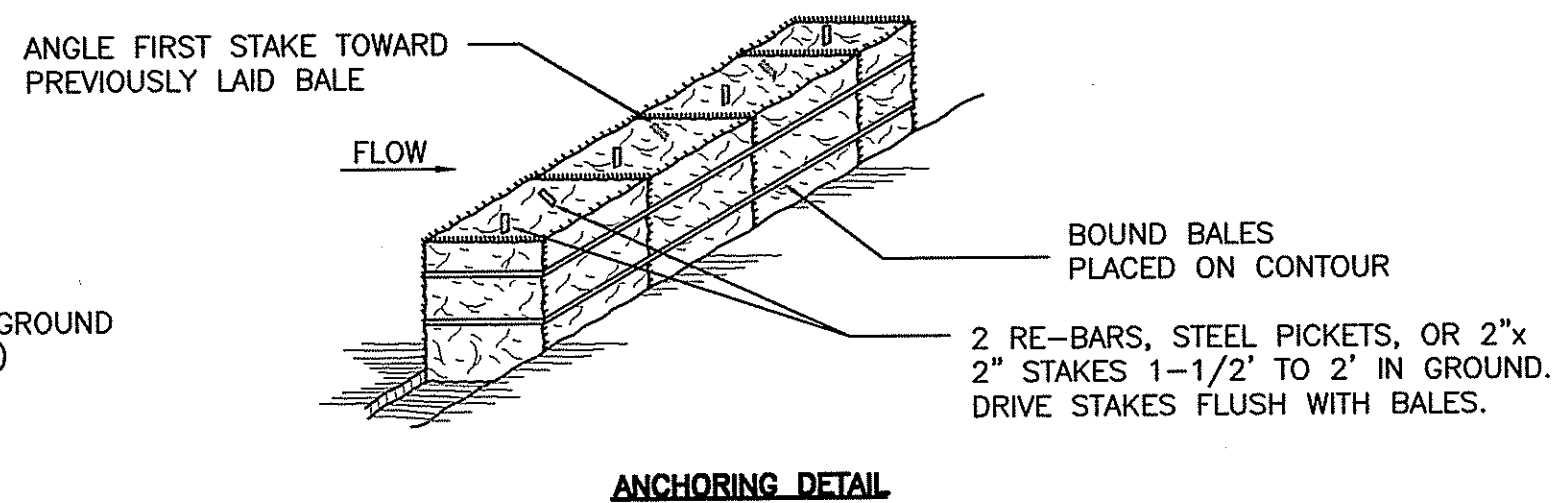
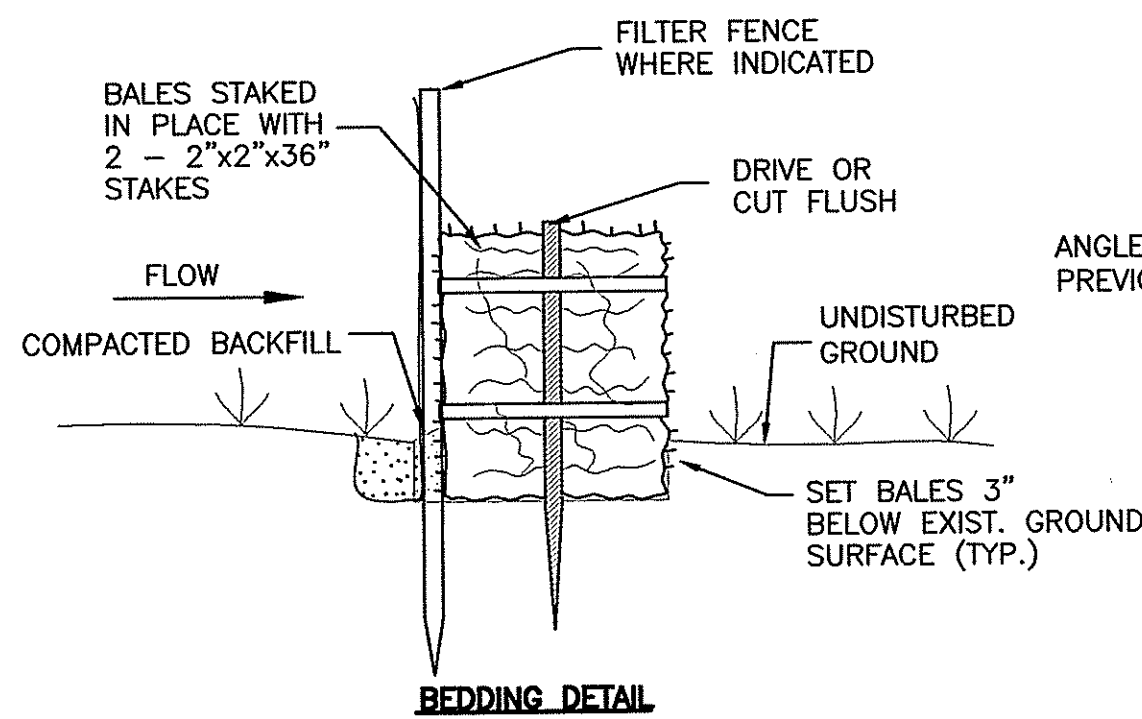
EXISTING CONTOURS	75
PROPOSED CONTOURS	104
PROPERTY LINE	---
EXISTING TREELINE	~~~~~
UTILITY POLE	U.P. 110
PROP. TREELINE	~~~~~
EXIST. WATER LINE	W
EXIST. SEWER FORCE MAIN	SFM
WETLAND EDGE & FLAG #	A-17
50' PERIMETER WETLAND	---
LIMIT OF DISTURBANCE	LOD
TEMPORARY EROSION CONTROLS	X

PROPOSED PLANTING SCHEDULE

EST. QUANTITY	BOTANICAL (COMMON) PLANT NAME	SIZE (ROOT)	MINIMUM SPACING	PLAN SYMBOL
35	PINUS STROBUS (WHITE PINE)	5'-6" B&B	12' o.c.	☼
13	MYRICA PENNSYLVANICA (BAYBERRY)	2 GAL. 15"-18"	GROUPS OF 3 (8' o.c.) @ 25' o.c.	☼

PRELIMINARY WETLAND DETERMINATION
 PLANTING PLAN
 FOR RI RESOURCE RECOVERY
 A.P. 31, LOT 2, SHUN PIKE
 JOHNSTON, RHODE ISLAND

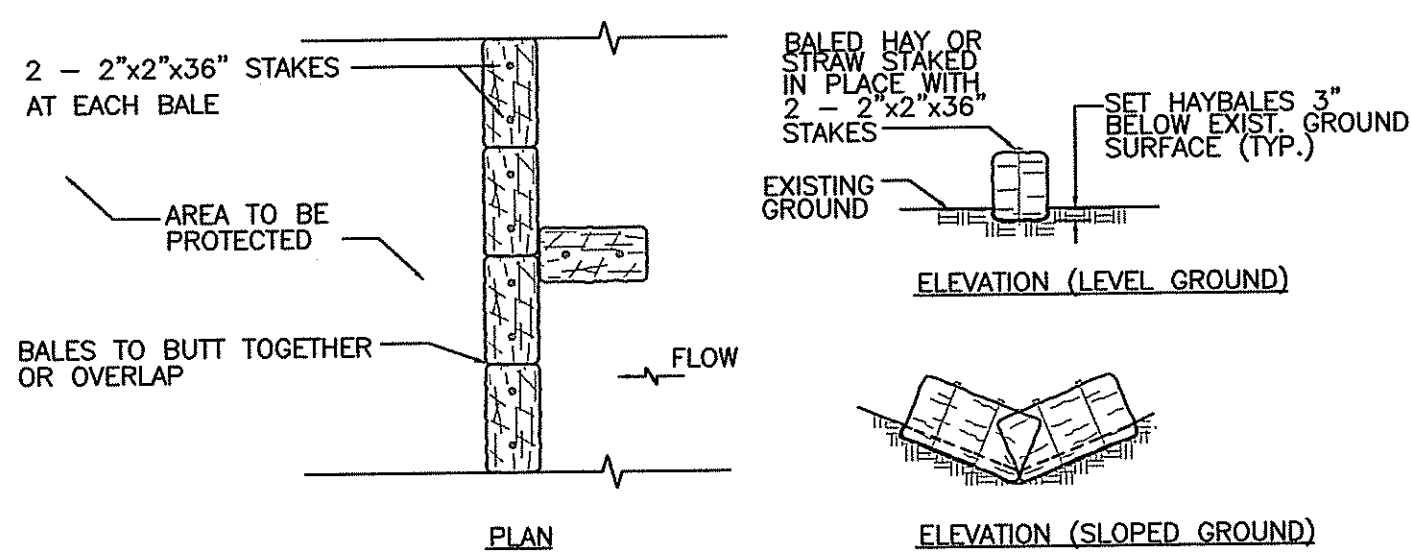
Proj. No.
 Dwg. No.
 3
 Sheet 4 of 5



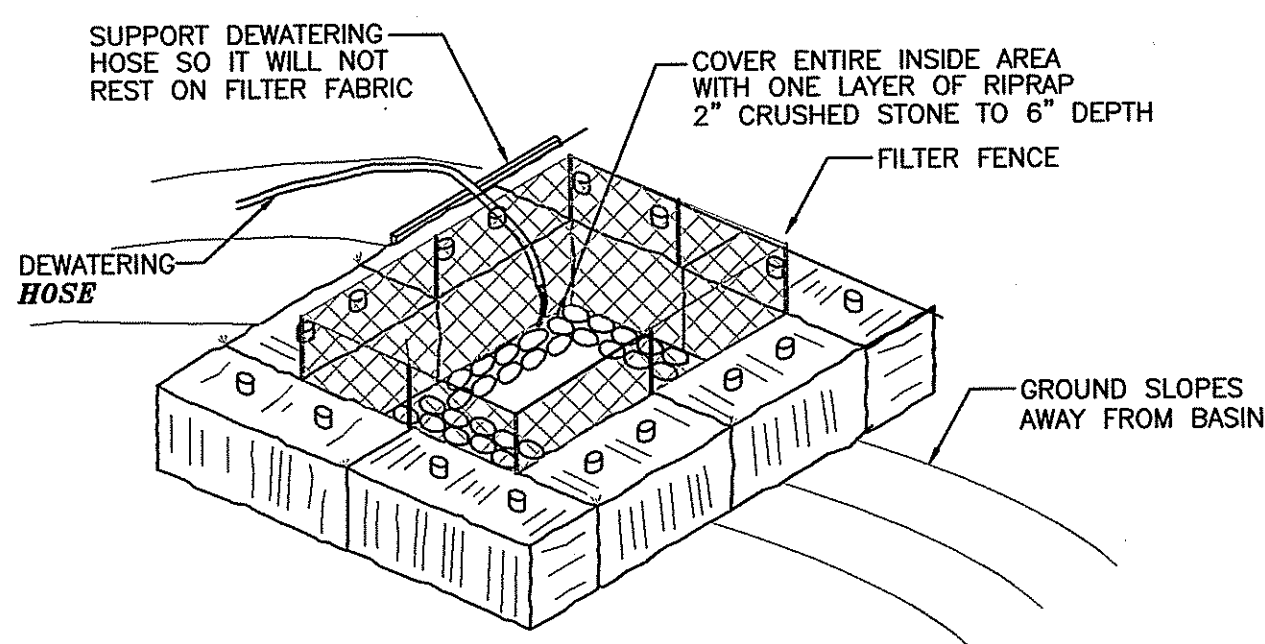
CONSTRUCTION SPECIFICATIONS

1. 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.
2. EACH BALE SHALL BE EMBEDDED IN THE SOIL, A MINIMUM OF (4) INCHES, AND PLACED SO THE BINDINGS ARE HORIZONTAL.
3. 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.
4. INSPECTION SHALL BE FREQUENT AND REPAIR/REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED. REMOVE ACCUMULATED SEDIMENT PROMPTLY.
5. BALES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFULNESS SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.

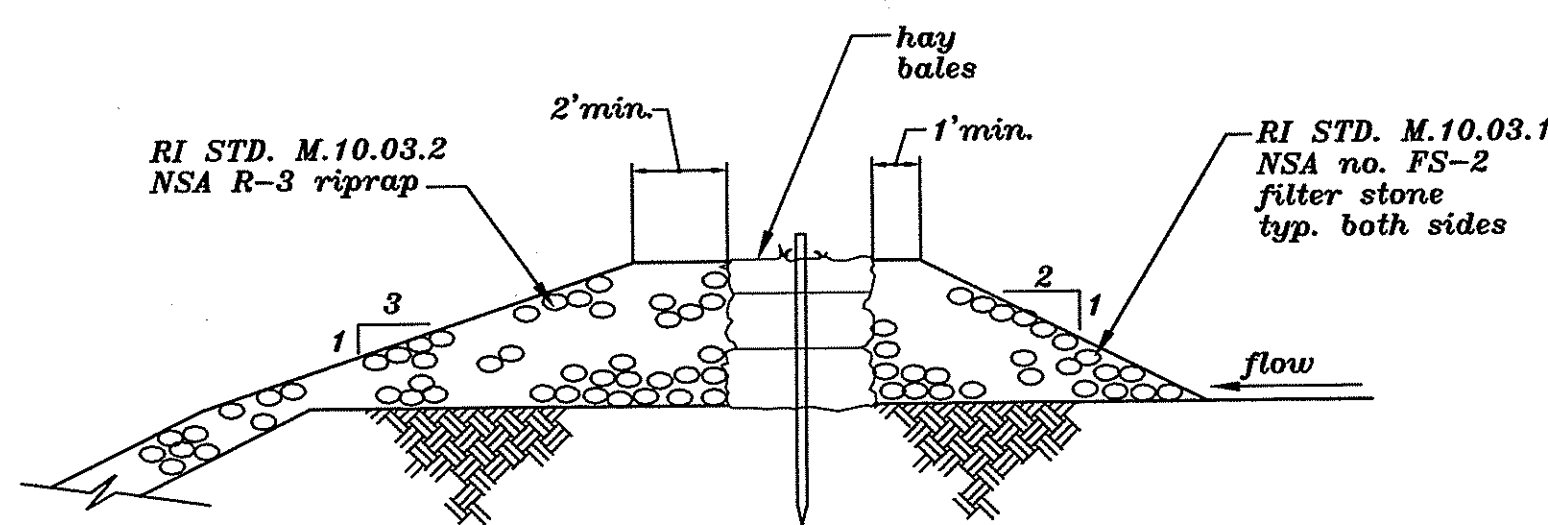
STRAW BALE BARRIER DETAIL
N.T.S.



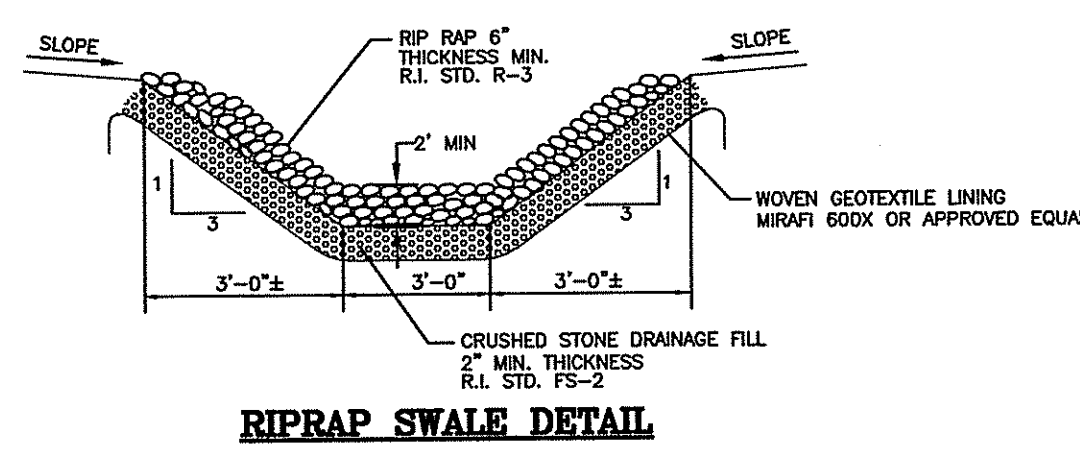
HAY BALE CHECK DAM
N.T.S.



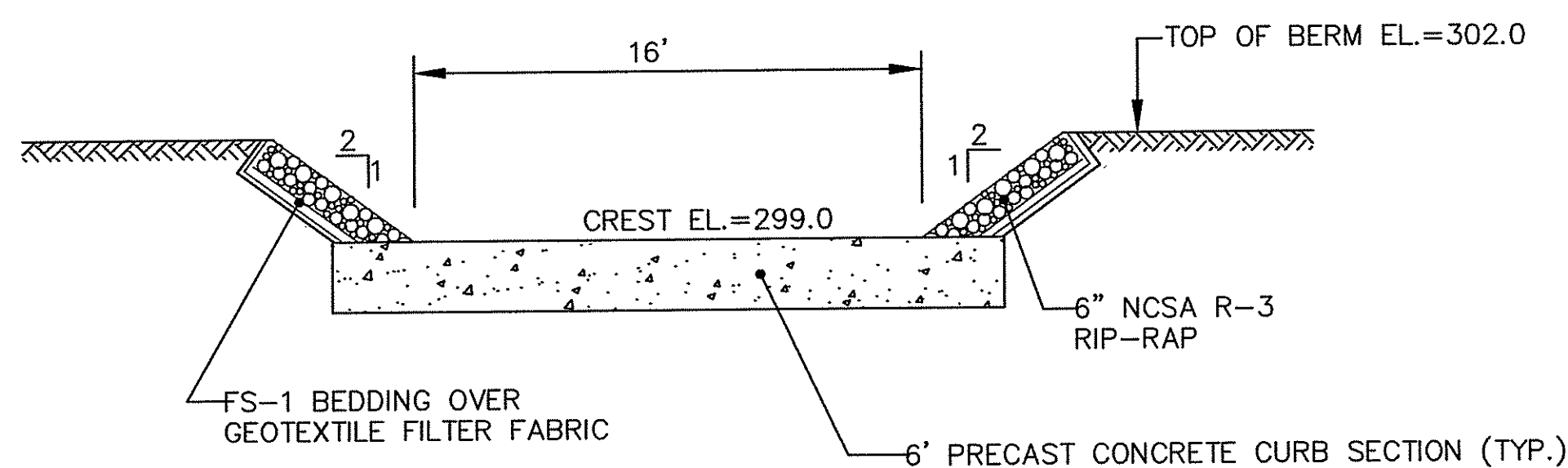
DEWATERING SEDIMENT TRAP
N.T.S.



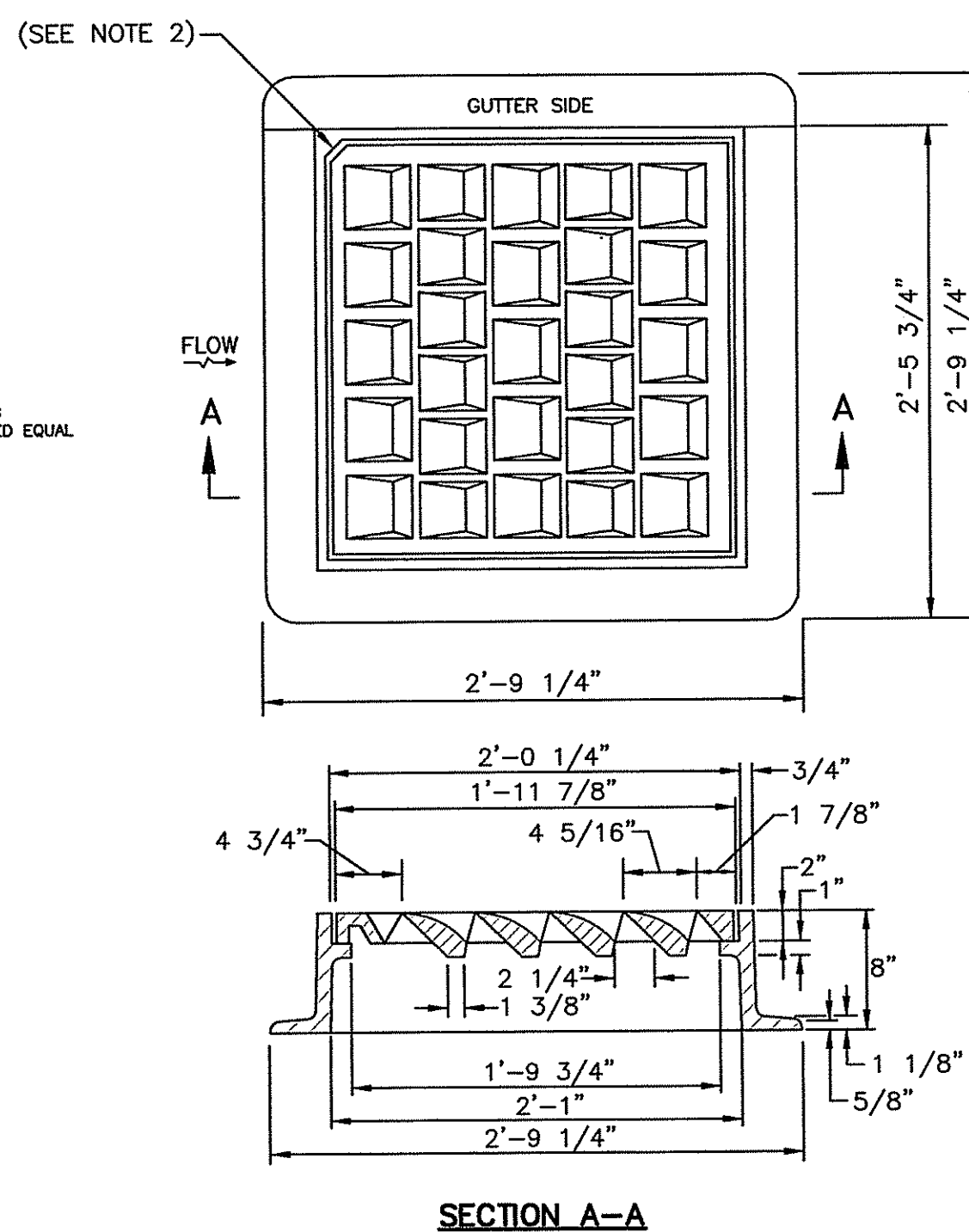
STONE WEIR DETAIL
NOT TO SCALE



RIPRAP SWALE DETAIL
N.T.S.



OUTLET WEIR DETAIL
NOT TO SCALE



NOTES:

1. SPECIFICATIONS.
2. THIS CORNER LEFT FOR "LEFT" GRATE, DIAGONALLY OPPOSITE CORNER FOR "RIGHT" GRATE TO FIT IN KEYED FRAME.

HIGH CAPACITY FRAME AND GRATE (BICYCLE SAFE)
R.I. STD., 6.3.4
NOT TO SCALE

SEDIMENTATION BASIN MAINTENANCE

1. GRASSES MUST BE PLANTED AROUND AND WITHIN THE BASIN ON ALL AREAS NOT RIP RAPPED IMMEDIATELY FOLLOWING CONSTRUCTION TO STABILIZE THE SLOPES AND PREVENT EROSION.
2. SIDE-SLOPES, EMBANKMENTS, AND THE UPPER STAGE OF THE BASIN MUST BE MOWED AT LEAST ONCE DURING THE GROWING SEASON BY AUGUST 15TH. ALL TRASH AND LITTER SHALL BE REMOVED FROM THE BASIN DURING MOWING OPERATIONS.
3. SEDIMENTS MUST BE REMOVED FROM THE BASIN AT A MINIMUM 5-YEAR INTERVAL AND AS NECESSARY.
4. THE OUTLET WEIR AND ALL OUTFLOW CHANNELS MUST BE INSPECTED ANNUALLY. INSPECTIONS DURING THE FIRST SIX (6) MONTHS OR OPERATIONS MUST BE ACCOMPLISHED OFTEN, ESPECIALLY AFTER RAIN EVENTS.
5. THE GRASSED AREAS OF THE BASIN MUST BE INSPECTED AT LEAST TWICE PER YEAR TO CHECK FOR EROSION. PROBLEM AREAS MUST BE RESEDED IMMEDIATELY.
6. SIDE-SLOPES, EMBANKMENTS, AND THE UPPER STAGE OF THE BASIN SHALL BE MOWED AT LEAST ONCE PER GROWING SEASON, TO PREVENT UNWANTED WOODY GROWTH.
7. ALL TRASH AND LITTER AND OTHER DEBRIS SHALL BE REMOVED FROM ANY STORMWATER FACILITY INCLUDING INLET AND OUTLET STRUCTURES. THIS MUST BE ACCOMPLISHED AT LEAST TWICE A YEAR, PREFERABLY SPRING AND FALL.
8. INSPECTIONS OF ALL DRAINAGE STRUCTURES IN THIS AREA SHALL OCCUR ON AN ANNUAL BASIS TO CHECK FOR DEBRIS REMOVAL (SEDIMENT AND HYDROCARBONS) AND STRUCTURAL INTEGRITY OR DAMAGE. SUCH DEFICIENCIES MUST BE CORRECTED IMMEDIATELY.
9. THE TOWN OF JOHNSTON WILL BE RESPONSIBLE FOR LONG-TERM MAINTENANCE ON ALL SWALES, SEDIMENTATION BASIN, AND OTHER DRAINAGE STRUCTURES IN THIS AREA.
10. REPAIRS OR REPLACEMENT OF INLET / OUTLET STRUCTURES, RIP-RAP CHANNELS, OR OTHER ELEMENTS OF THE FACILITY MUST BE DONE WITHIN 30 DAYS OF THE DEFICIENCY REPORTS. IF AN EMERGENCY SITUATION IS IMMINENT THEN REPAIR / REPLACEMENT MUST BE DONE IMMEDIATELY.
11. TREES OR SHRUBS SHALL NOT BE PLANTED ON IMPOUNDING BERMS, OR WITHIN THE BASIN. GRASSES ARE CONSIDERED THE ONLY ACCEPTABLE VEGETATION FOR PLANTING OR STABILIZING EMBANKMENTS.

SEDIMENTATION BASIN CONSTRUCTION NOTES

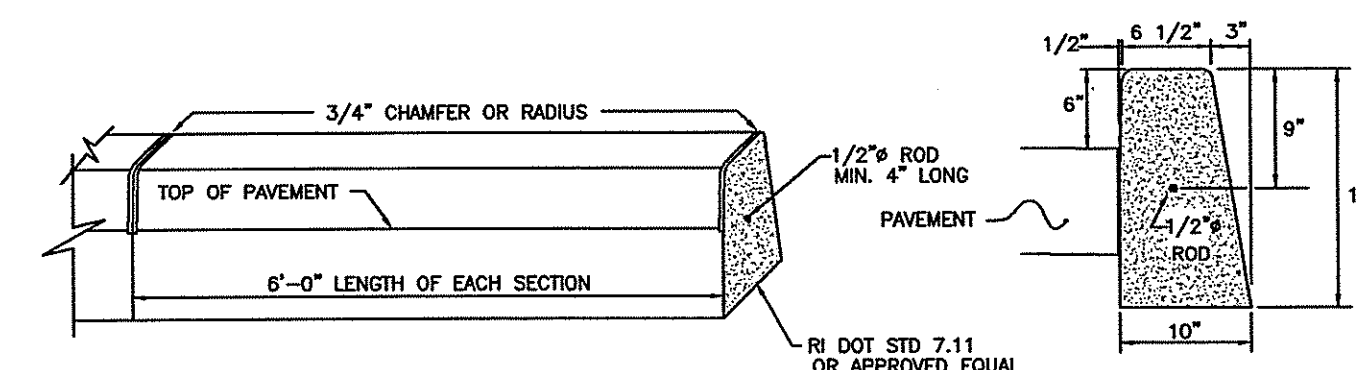
1. SEDIMENTATION BASIN BERM AREAS ARE TO BE CONSTRUCTED WITH COMMON BORROW COMPACTED TO 90% OF THE MODIFIED PROCTOR AND THEN LOAMED AND SEEDED.
2. TREES AND SHRUBS SHALL NOT BE PLANTED ON ANY IMPOUNDING EMBANKMENT.
3. DISTURBED AREAS ARE TO BE LOAMED A MINIMUM OF 4" AND SEEDED WITH A CONSERVATION TYPE MIX.
4. ALL CONTROL PRACTICES MUST BE IN ACCORDANCE WITH THE MOST RECENT EDITION OF THE "RI SOIL EROSION AND SEDIMENT CONTROL HANDBOOK".

CATCH BASIN AND DRAINAGE SWALE MAINTENANCE

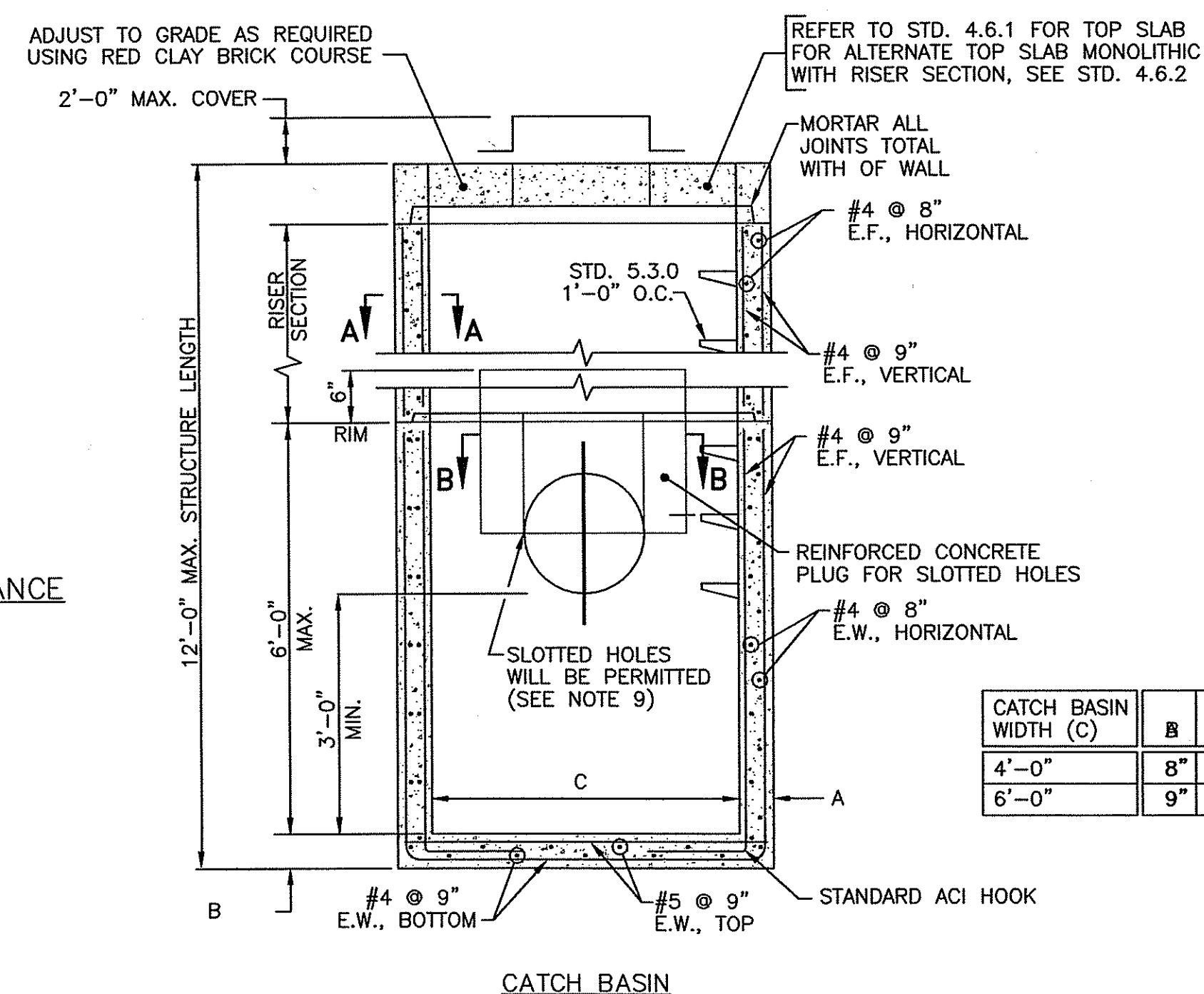
1. ALL SEDIMENT SHALL BE REMOVED FROM ANY CATCH BASIN SUMP AND DRAINAGE SWALE SEDIMENT TRAPS ON A SEMI-ANNUAL BASIS OR MORE FREQUENTLY AS NEEDED BY THE TOWN OF JOHNSTON.

PARTY RESPONSIBLE FOR DRAINAGE MAINTENANCE

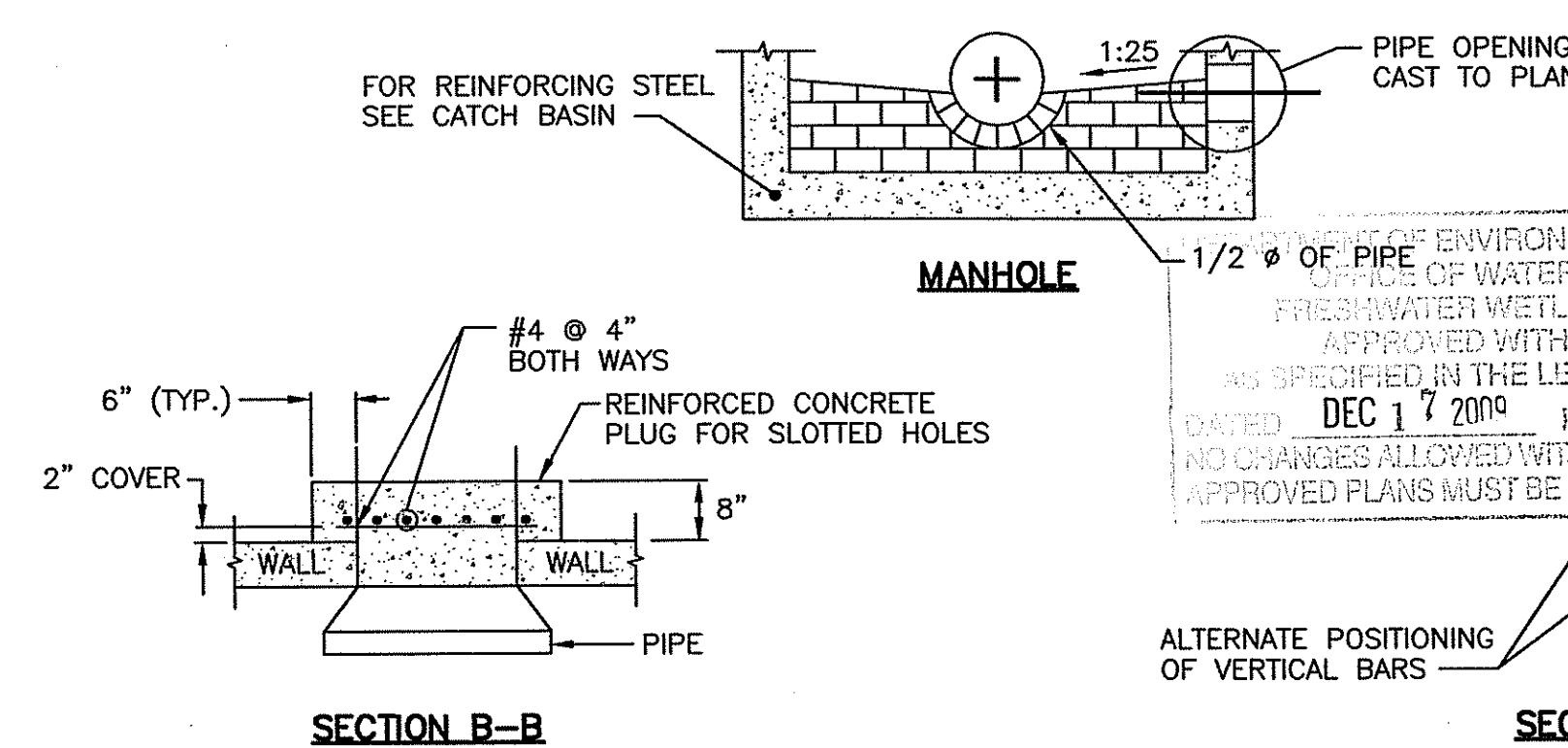
1. PER CONSENT AGREEMENT FILE NO. WATER POLLUTION 05-02, THE TOWN OF JOHNSTON SHALL BE RESPONSIBLE FOR ALL INSPECTION, MAINTENANCE AND REPAIRS TO THE PROPOSED SEDIMENTATION BASIN, AS WELL AS ALL OTHER DRAINAGE FACILITIES/APPURTENANCES PROVIDED FOR THIS AREA. RIRRC SHALL BE RESPONSIBLE FOR ALL CONSTRUCTION ACTIVITIES, EXCLUDING INSTALLATION OF THE DOUBLE CATCH BASIN AND CONNECTING CULVERT. UPON COMPLETION OF BASIN CONSTRUCTION, THE TOWN OF JOHNSTON WILL ASSUME ALL RESPONSIBILITY FOR THE BASIN.
2. THE PARTY RESPONSIBLE FOR THE LONG-TERM INSPECTION, MAINTENANCE, AND REPAIRS TO THE PROPOSED SEDIMENTATION BASIN, AS WELL AS ALL OTHER DRAINAGE FACILITIES/APPURTENANCES PROVIDED FOR THIS PROJECT SHALL BE THE TOWN OF JOHNSTON.



TYPICAL PRE-CAST CONCRETE CURB
N.T.S.



CATCH BASIN WIDTH (C)	B
4'-0"	8"
6'-0"	9"



SECTION B-B

SECTION A-A

NOTES:

1. SHALL BE IN ACCORDANCE WITH SECTION 702 OF THE R.I. STANDARD SPECIFICATIONS.
2. ANY NECESSARY ADJUSTMENTS DURING CONSTRUCTION WILL BE DONE BY SAW-CUTTING AND/OR CORING ONLY. NO JACKHAMMERS, HAMMERS OR CHISELS OR PNEUMATIC TOOLS WILL BE ALLOWED.
3. THE CENTERLINE OF THE OPENING MUST BE WITHIN 2'-0" FROM THE STEPS.
4. TOP SLAB, RISER AND BASE SECTIONS HAVE BEEN REINFORCED TO MEET OR EXCEED HS-25 LOADINGS WITH EARTH PRESSURES INCLUDED. THIS IMPLIES THAT THE TOP SLAB, RISER AND BASE SECTIONS ARE DESIGNED FOR AXLE LOAD OF NO GREATER THAN 20 TONS.
5. THERE IS TO BE 2" MINIMUM COVER ON ALL REBAR.
6. ALL REBARS ARE TO HAVE MINIMUM 2" CLEARANCE FROM OPENING.
7. STEPS SHALL CONFORM TO STD. 5.3.0 AND SHALL BE INSTALLED AT THE CASTING PLANT.
8. THE SPLICE LENGTHS ON TIES ARE TO BE A MINIMUM OF 17".
9. WHERE THE CLEARANCE FROM THE TOP OF THE PIPE TO THE RIM IS "B" OR LESS, PLUGS SHALL BE USED IN CONJUNCTION WITH SLOTTED HOLES. NO SLOTTED HOLE WILL BE PERMITTED WHERE THE CLEARANCE IS GREATER THAN 8". IN CASES WHERE SLOTTED HOLES ARE NOT USED AND THE WALL OPENING COMES WITHIN 1'-3" OF THE RIM, AN ADDITIONAL #8 BAR SHALL BE USED ABOVE THE OPENING THE WIDTH "C" OF THE WALL.

PRECAST 4'-0" OR 6'-0" SQUARE MANHOLE OR CATCH BASIN
R.I. STD., 4.3.0
NOT TO SCALE

NO.	DATE	MADE BY	CHECKED BY	DESCRIPTION

WILLIAM M. ANDERSON
NO. 1465
REGISTERED PROFESSIONAL ENGINEER

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

Proj. Mgr.: WMA
Designed: WMA
Drawn: WMA
Checked: IL
Scale: AS NOTED
Date: DEC. 2009

PRELIMINARY WETLAND DETERMINATION TYPICAL DETAILS FOR RI RESOURCE RECOVERY
A.P. 31, LOT 2, SHUN PIKE
JOHNSTON, RHODE ISLAND

Proj. No.

Dwg. No.