

SITE PLANS FOR RIDEM PRELIMINARY DETERMINATION APPLICATION SMM NEW ENGLAND CORPORATION JOHNSTON PROCESSING FACILITY JOHNSTON, RI

April 16, 2012
Revised June 8, 2012

SITE LAYOUT:

Moffatt & Nichol
1616 East Millbrook Road, Suite 160
Raleigh, NC 27609

STORMWATER MANAGEMENT & GRADING:
ESS Group, Inc.

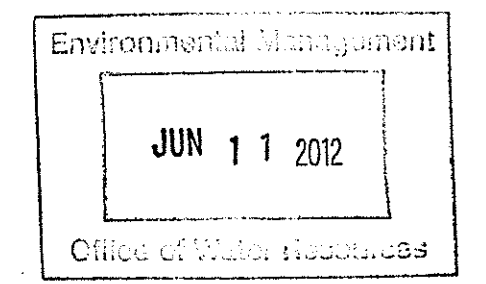
EROSION & SEDIMENTATION CONTROL:
ESS Group, Inc.

WETLAND DELINEATION:

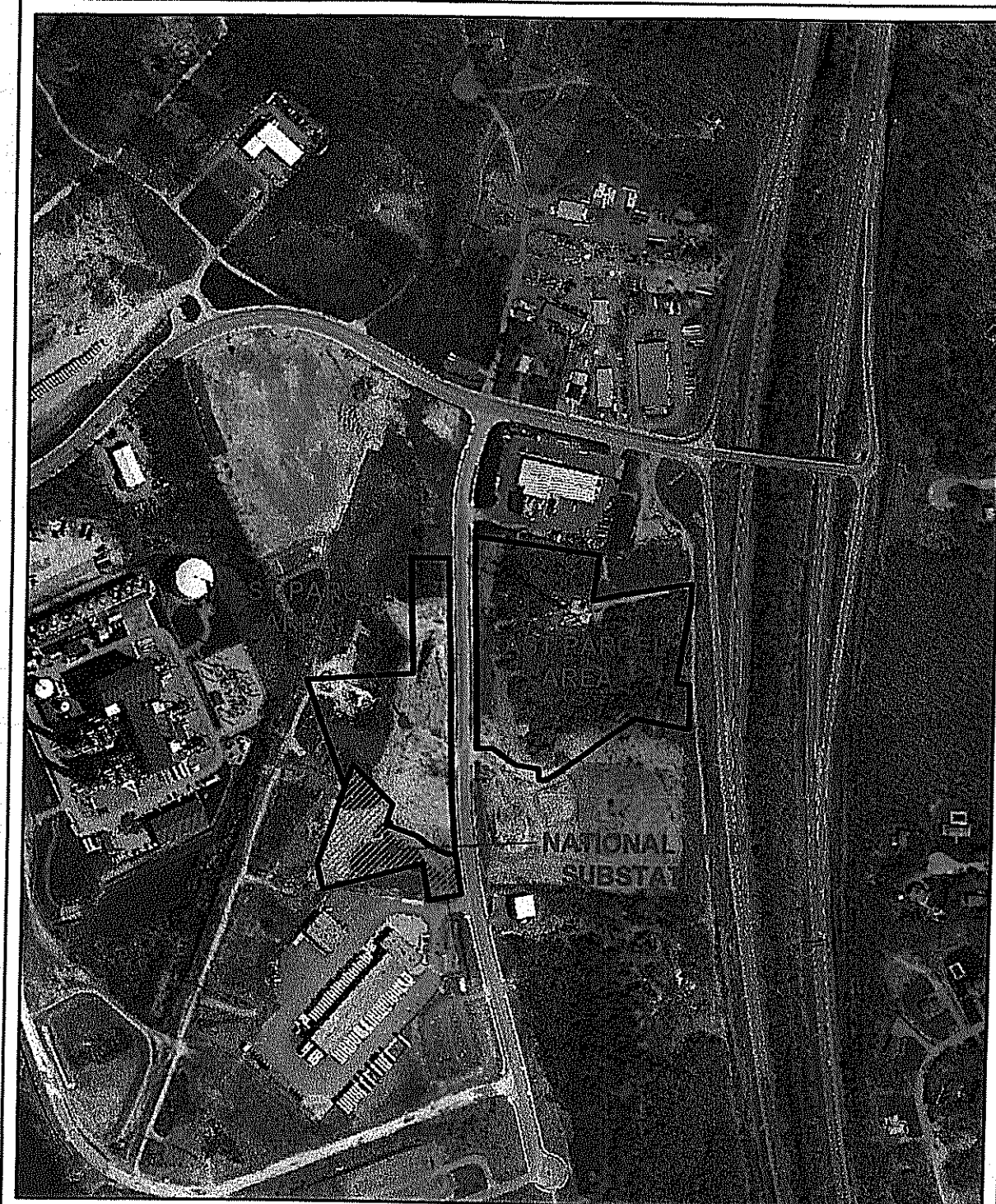
Natural Resources Services, Inc.
P.O. Box 311
Harrisville, RI 02830

SURVEYOR:

Crossman Engineering, Inc.
151 Centerville Road
Warwick, RI 02866



SMM New England Corporation
365 Eddy Street
Providence, RI 02903



LOCATION MAP

SCALE: 1"=500'
SOURCE: RI GIS

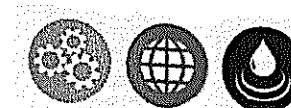


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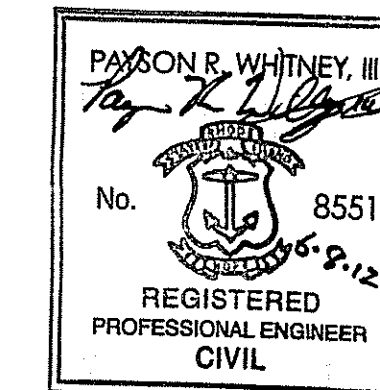
environmental consulting
& engineering services

100 Fifth Avenue, 5th Floor
Waltham, Massachusetts 02451
p 781.419.7696
www.essgroup.com



DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
ENVIRONMENTAL FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED AUG 22, 2012 FILE # 12-0052
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

Paul Whitley



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FOR PERMITTING PURPOSES ONLY

NOTES FROM EXISTING CONDITIONS SURVEY PLAN:

1. SURVEY FIELD WORK PERFORMED BY CROSSMAN ENGINEERING DURING THE MONTH OF FEBRUARY 2012.
2. OWNER AND ABUTTER INFORMATION OBTAINED FROM THE TOWN OF JOHNSTON TAX ASSESSOR'S OFFICE AND ON-LINE DATABASE DURING OCTOBER 2011 AND FEBRUARY 2012. THIS INFORMATION IS NOT INTENDED TO BE A CERTIFICATION TO OWNERSHIP OR TITLE FOR THE PROPERTIES SHOWN.
3. UTILITY NOTE: THE UTILITIES SHOWN HEREON ARE PLOTTED FROM FIELD LOCATION OF VISIBLE ABOVE GROUND STRUCTURES AND INFORMATION OBTAINED FROM VARIOUS MUNICIPAL AND PRIVATE UTILITY COMPANIES. ALL UNDERGROUND UTILITY INFORMATION SHOWN HEREON MUST BE VERIFIED IN THE FIELD PRIOR TO ANY EXCAVATION OR CONSTRUCTION ON THIS SITE. THE CONTRACTOR OR USERS OF THIS PLAN SHOULD CONTACT DIGSAFE PRIOR TO ANY WORK. CROSSMAN ENGINEERING ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OR COMPLETENESS OF THE INFORMATION SHOWN.
4. HORIZONTAL DATUM IS NAD83 AND VERTICAL DATUM IS NGVD88 ELEVATIONS TRANSFERRED TO SITE FROM NGS DISK JO 003.
5. STATUS OF EASEMENTS SHOWN ALONG WESTERLY SIDE OF PROPOSED LOT 1 UNKNOWN AS OF THE DATE OF THIS SURVEY.
6. PATHS, TRAILS EXIST WITHIN THE PARCEL LIMITS.
7. LOTS SUBJECT TO EASEMENTS AND RIGHTS OF WAYS OF RECORD.
8. AS OF THE DATE OF THIS SURVEY GREEN EARTH AVENUE ADJACENT TO SITE IS AN IMPROVED ROAD WITH UNDERGROUND UTILITIES.
9. SOME OF THE UTILITY INFORMATION SHOWN PROVIDED BY RHODE ISLAND RESOURCE RECOVERY CORPORATION.
10. IT WAS NOTED DURING THE CROSSMAN FIELD SURVEY THAT MONITORING WELLS WERE BEING INSTALLED.
11. WETLAND FLAGS A1 THROUGH A9 AND B1 THROUGH B9 WERE FLAGGED BY NATURAL RESOURCE SERVICES DURING THE WEEK OF FEBRUARY 13TH THROUGH FEBRUARY 17TH, 2012 AND FIELD LOCATED BY CROSSMAN ENGINEERING. THE OTHER FLAGS AND WETLAND EDGES SHOWN WERE TAKEN FROM PLANS OF RECORD SHOWING PREVIOUSLY FLAGGED WETLANDS, SEE WETLAND NOTES.
12. ELUR AREA AND PROPOSED PROPERTY LINES TAKEN FROM PLAN REFERENCE NO. 6; AS OF THE DATE OF THIS SURVEY THIS PLAN WAS NOT RECORDED.
13. FEATURES SHOWN ON LOTS 31/63 AND 31/64 WERE TAKEN FROM DESIGN PLANS AND NOT FIELD VERIFIED.
14. AS OF THE DATE OF THIS SURVEY THERE WAS ONGOING CONSTRUCTION ACTIVITY (NARRAGANSETT ELECTRIC) IN THE AREA OF THE 250' NARRAGANSETT ELECTRIC EASEMENT. WETLAND EDGE IN THIS AREA COULD NOT BE ESTABLISHED.

CROSSMAN SURVEY REFERENCES

1. ADMINISTRATIVE SUBDIVISION PLAN PREPARED FOR RHODE ISLAND RESOURCE RECOVERY CORPORATION, PLAT 31, LOT 64 BY CROSSMAN ENGINEERING, INC., APRIL 2009, RECORDED IN TOWN OF JOHNSTON LAND EVIDENCE SLIDE NO. 160.
2. DIVISION OF LAND PREPARED FOR RHODE ISLAND RESOURCE RECOVERY CORPORATION "PROPOSED LOT 1 AND PROPOSED LOT 2 BY CROSSMAN ENGINEERING, INC., JUNE 2008.
3. SUBDIVISION PLANS 1 THROUGH 5 PREPARED FOR RHODE ISLAND RESOURCE RECOVERY CORPORATION, APRIL 2005 ENTITLED "LAKESIDE COMMERCE CENTER" BY CROSSMAN ENGINEERING, INC., SHEETS 12-16 OF 181.
4. ALTA/ACSM LAND TITLE SURVEY PLAN NO. 1 & 2, SEPTEMBER 2009, PREPARED FOR FRENCH DESIGN BUILDERS, PROJECT TITLE "BALLARD MACK SALES AND SERVICE, LOT 1, LAKESIDE COMMERCE CENTER, JOHNSTON, RI".
5. RHODE ISLAND DEPARTMENT OF TRANSPORTATION HIGHWAY PLATS 1442 & 2612.
6. PROPOSED LAND DIVISION PLAN LAKESIDE COMMERCE CENTER, GREEN EARTH AVENUE, JOHNSTON, RHODE ISLAND PREPARED FOR R.I. RESOURCE RECOVERY CORPORATION BY ATLAS LAND SURVEYING, LLC DATED DECEMBER 15, 2011.

WETLAND NOTES:

1. THE SITE WAS INSPECTED BY "NATURAL RESOURCE SERVICES INC". DURING NOVEMBER 2002 AND JUNE 2003.
2. THE PROJECT RECEIVED APPROVAL FROM THE R.I. DEPARTMENT OF ENVIRONMENTAL MANAGEMENT UNDER APPLICATION NO. 03-0552 (REVISED: 10-27-06).

LEGEND FROM EXISTING CONDITIONS SURVEY PLAN:

LEGEND	
---	PROPERTY LINE
AP	ASSESSORS PLAT
N/F	NOW OR FORMERLY
D.B., PG.	DEED BOOK, PAGE
XXX	CONTOUR LINE
XX.XX	SPOT GRADE
DMH	DRAINAGE MANHOLE
CB	CATCH BASIN
CI	CURB INLET
SMH	SEWER MANHOLE
MH	MANHOLE
①	TELEPHONE MANHOLE
○	UTILITY POLE
—	GUY ANCHOR
*	LIGHT POLE
FD	FIRE HYDRANT
WG	WATER GATE
GG	GAS GATE
EH	ELECTRIC HANDHOLE
●	BOLLARD
MW	MONITORING WELL
○	CHAIN LINK FENCE
—	STONE WALL
D	DRAIN LINE
S	SEWER LINE
W	WATER LINE
G	GAS LINE
E	ELECTRIC LINE
T	TELEPHONE LINE
—	TREELINE
AB	2007 WETLAND DELINEATION
AG	2012 NRS WETLAND DELINEATION

PROPOSED CONDITIONS LEGEND:

⊗	PROPOSED CATCHBASIN (CB)
⊗⊗	PROPOSED DOUBLE CATCHBASIN (DCB)
⊙	PROPOSED DRAIN MANHOLE (DMH)

SEDIMENTATION & EROSION CONTROL NOTES:

1. SOIL AND EROSION CONTROLS SHALL BE PLACED PRIOR TO ANY CONSTRUCTION ACTIVITIES.
2. STRAW BALES AND SILT FENCE TO BE INSTALLED AS INDICATED ON THE DRAWINGS AND AS SPECIFIED BY THE SITE ENGINEER.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR IMPLEMENTING EROSION CONTROL MEASURES IN ORDER TO PREVENT OFF-SITE TRACKING OF EARTH, SEDIMENT AND DEBRIS.
4. AREAS TO REMAIN UNSTABILIZED FOR A PERIOD OF MORE THAN 14 DAYS SHALL BE TEMPORARILY SEEDED AND BARK MULCHED.
5. ALL DISTURBED AREAS NOT OCCUPIED BY PAVEMENT, SIDEWALK OR RIP RAP SHALL BE COVERED WITH 4" (MIN.) OF LOAM AND SEEDED.
6. PERMANENT SEEDING SHALL OCCUR BETWEEN MARCH 1 AND JUNE 15, OR BETWEEN AUGUST 15 AND OCTOBER 15.
7. SOILS TO BE STOCKPILED FOR A PERIOD OF MORE THAN 14 DAYS SHALL BE SURROUNDED BY EROSION CONTROL BARRIERS AND TEMPORARILY SEEDED AND MULCHED.
8. TEMPORARY STORAGE OF MATERIALS ON-SITE IS TO BE LOCATED AS FAR FROM WETLAND AREAS AS FEASIBLE, AND AS DIRECTED BY THE ENGINEER. THERE IS TO BE NO LONG TERM STORAGE OF MATERIAL ON-SITE. MATERIAL NOT USED ON-SITE IS TO BE TRUCKED TO AN ACCEPTABLE OFF-SITE DISPOSAL LOCATION.
9. EROSION CONTROL MEASURES SHALL BE INSPECTED EVERY (7) CALENDAR DAYS, AND WITHIN 24 HOURS FOLLOWING A RAINFALL EVENT OF GREATER THAN 0.5 INCHES OF RAIN PER 24 HOUR PERIOD. ANY NECESSARY REPLACEMENT OR REPAIR SHALL BE PERFORMED PROMPTLY BY THE CONTRACTOR AT HIS/HER EXPENSE.
10. DUST SHALL BE CONTROLLED AS NECESSARY THROUGH THE USE OF WATER, THE USE OF CALCIUM CHLORIDE FOR DUST CONTROL IS NOT ALLOWED, UNLESS OTHERWISE SPECIFIED BY THE ENGINEER.
11. SCHEDULE FOR SITE STABILIZATION
TEMPORARY MEASURES EFFECTIVE DATE: WITHIN 14 DAYS OF WHEN CONSTRUCTION TEMPORARILY CEASES

TEMPORARY SEEDING: TEMPORARY SEEDING SHALL BE APPLIED TO ALL DISTURBED AREAS WITH SLOPES 3:1 OR FLATTER (INCLUDING STOCKPILES) THAT WILL NOT BE DISTURBED AGAIN FOR MORE THAN 21 DAYS. SEEDING AND PLANTING SHALL BE IMPLEMENTED AS SOON AS PRACTICABLE.

EROSION CONTROL BLANKETS: DEGRADABLE STABILIZATION BLANKETS SHALL BE USED ON SLOPES STEEPER THAN 3:1 AND WHERE IT IS NOT PRACTICAL TO APPLY TEMPORARY SEEDING DUE TO SEASONAL GROWING RESTRICTIONS (WINTER).

MULCHING: MULCHING SHALL BE USED AT THE DISCRETION OF THE SITE OPERATOR TO AID IN THE GROWTH OF VEGETATION; APPLIED IMMEDIATELY AFTER TEMPORARY SEEDING. MULCH ANCHORING MAY BE USED ON SLOPES 3:1 OR FLATTER AND IN DIVERSIONS OR CHANNELS.

TACKIFIERS: THE USE OF TACKIFIERS TO STABILIZE SOIL CONDITIONS ONCE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY CEASED MAY BE IMPLEMENTED TO ENSURE EFFECTIVE TREATMENT OF EROSION CONTROLS. TACKIFIERS MAY BE USED ALONE FROM APRIL 1 TO JUNE 15 AND SEPTEMBER 1 TO OCTOBER 15 ON SLOPES 4:1 OR FLATTER WHICH HAVE BEEN ROUGHENED. TACKIFIERS SHALL BE SELECTED THAT ARE APPROPRIATELY SUITED TO THE TYPES OF SOILS EXPOSED DURING CONSTRUCTION AND APPLIED USING DOSING SPECIFICATIONS PROVIDED BY THE SUPPLIER. STORE ALL TACKIFIERS IN LEAK-PROOF CONTAINERS KEPT UNDER STORM-RESISTANT COVER. TACKIFIERS SHALL BE USED AT THE DISCRETION OF THE SITE OPERATOR AS A LAST EFFORT TO PROVIDE STABILIZATION. MULCHING SHALL BE THE PREFERRED OPTION IF ADDITIONAL STABILIZATION IS REQUIRED.
PERMANENT MEASURES EFFECTIVE DATE: WITHIN 14 DAYS OF WHEN CONSTRUCTION PERMANENTLY CEASES

SEEDING: PERMANENT SEEDING SHALL BE APPLIED TO ALL DISTURBED AREAS WITH SLOPES 3:1 OR FLATTER. PERMANENT SEEDING IS REQUIRED TO ESTABLISH UNIFORM VEGETATION THAT PROVIDES 70% OR MORE OF THE DENSITY OF COVERAGE PROVIDED BY VEGETATION PRIOR TO COMMENCING EARTH-DISTURBING ACTIVITIES.

EROSION CONTROL BLANKETS: DEGRADABLE STABILIZATION BLANKETS SHALL BE USED ON SLOPES STEEPER THAN 3:1 AND IN AREAS WHERE IT IS NOT PRACTICAL TO APPLY PERMANENT SEEDING DUE TO SEASONAL GROWING RESTRICTIONS (WINTER).

MULCHING: MULCHING SHALL BE USED IN AREAS SUBJECT TO EROSION AND WHERE CONDITIONS ARE UNFAVORABLE FOR PLANT ESTABLISHMENT AND GROWTH.

ARMORING: RIP-RAP SHALL BE INSTALLED WHERE STORMWATER RUNOFF HAS HIGH VELOCITIES AND VOLUMETRIC FLOW RATES PRECLUDE THE USE OF OTHER STABILIZATION PRACTICES. STABILIZATION COMPLETE
EFFECTIVE DATE: CONSTRUCTION COMPLETION

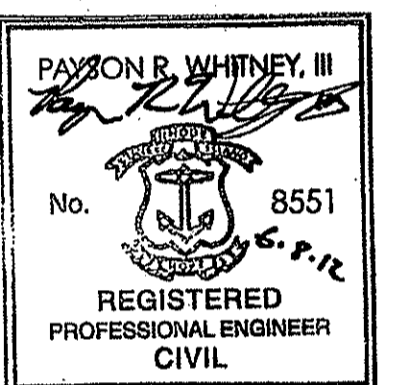
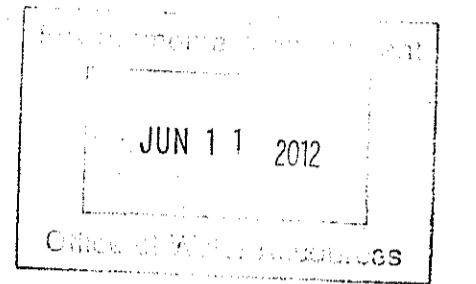
THE SITE SHALL BE CONSIDERED STABILIZED WHEN PERMANENT UNIFORM VEGETATION PROVIDES 70% OR MORE OF THE DENSITY OF COVERAGE AND ALL PERIMETER CONTROLS AND SEDIMENT BARRIERS CAN BE REMOVED PRIOR TO THE SITE OPERATOR LEAVING THE SITE.

UTILITY NOTES:

1. THE CONTRACTOR SHALL CALL "DIG SAFE" AT 1-888-344-7233 AND ALSO REQUEST OWNER INFORMATION ON UTILITY LOCATIONS AT LEAST 72 HOURS PRIOR TO EXCAVATION.
2. CONTRACTOR SHALL NOTIFY ALL APPROPRIATE AGENCIES AND UTILITY COMPANIES, IN WRITING, 48 HOURS PRIOR TO ANY CONSTRUCTION WITHIN 10 FEET OF A UTILITY LINE.
3. THE LOCATIONS OF UTILITIES SHOWN HEREON ARE THE RESULT OF SURFACE EVIDENCE AS LOCATED BY FIELD SURVEY, PLANS OF RECORD AND OTHER AVAILABLE SOURCES. THIS PLAN DOES NOT NECESSARILY DEPICT THE EXACT LOCATION OF THESE UTILITIES AND MAY NOT SHOW ALL OF THE UTILITIES WHICH EXIST WITHIN THE PREMISES SURVEYED. THE LOCATIONS AND ELEVATIONS OF ALL EXISTING UTILITIES SHALL BE CONSIDERED APPROXIMATE AND MUST BE VERIFIED BY THE CONTRACTOR PRIOR TO ANY UTILITY CONNECTIONS OR CROSSINGS OF PROPOSED OR EXISTING UTILITIES. THE CONTRACTOR SHALL REPORT ANY DISCREPANCIES TO THE ENGINEER. THE CONTRACTOR SHALL CONTACT THE RESPECTIVE UTILITY COMPANIES RELATIVE TO THE LOCATIONS AND ELEVATIONS OF THESE LINES. THE CONTRACTOR IS RESPONSIBLE FOR HIS/HER OWN DETERMINATION AS TO THE TYPE AND LOCATION OF THE EXISTING UTILITIES AS MAY BE NECESSARY TO AVOID THEIR DAMAGE AND TO FACILITATE THE PROPOSED CONNECTION(S).
4. ALL UTILITY CONNECTIONS ARE SUBJECT TO THE APPROVAL OF AND GRANTING OF PERMITS BY THE TOWN OF JOHNSTON. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO SEE THAT ALL PERMITS AND APPROVALS ARE OBTAINED.
5. BEFORE STARTING CONSTRUCTION, THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR MAKING ALL NECESSARY ARRANGEMENTS AND FOR PERFORMING ANY NECESSARY WORK INVOLVED IN CONNECTION WITH THE DISCONTINUANCE OR JURISDICTION OF THE UTILITY COMPANIES, SUCH AS ELECTRICITY, TELEPHONE, WATER, AND ANY SYSTEM OR SYSTEMS WHICH WILL BE AFFECTED BY THE WORK TO BE PERFORMED UNDER THIS CONTRACT.
6. CONSTRUCTION SHALL NOT INTERFERE WITH OR INTERRUPT UTILITIES WHICH ARE TO REMAIN IN OPERATION.
7. THE CONTRACTOR SHALL EXERCISE EXTREME CARE WHEN EXCAVATING NEAR AND BACKFILLING IN THE VICINITY OF EXISTING UTILITIES AND STRUCTURES, INCLUDING THE USE OF HAND EXCAVATION WHERE APPROPRIATE.
8. ALL EXISTING PIPING AND STRUCTURES EXPOSED DURING EXCAVATION SHALL BE ADEQUATELY SUPPORTED, BRACED, OR OTHERWISE PROTECTED DURING CONSTRUCTION ACTIVITIES.
9. WHERE AN EXISTING UTILITY IS FOUND TO CONFLICT WITH THE PROPOSED WORK, THE LOCATION, ELEVATION AND SIZE OF THE UTILITY SHALL BE ACCURATELY DETERMINED WITHOUT DELAY BY THE CONTRACTOR AND THE INFORMATION FURNISHED TO THE ENGINEER AND OWNER FOR RESOLUTION OF THE CONFLICT.
10. UNLESS OTHERWISE NOTED, A MINIMUM HORIZONTAL CLEARANCE OF 10 FEET SHALL BE MAINTAINED BETWEEN WATER AND SEWER LINES.

CONSTRUCTION NOTES:

1. LIMITS OF WORK HAVE BEEN SET ON THE DRAWINGS; HOWEVER, THESE MAY BE EXTENDED OR REDUCED AT THE DISCRETION OF THE ENGINEER TO MEET WITH FIELD CONDITIONS EXCEPT NEAR WETLAND RESOURCE AREAS.
2. THE CONTRACTOR SHALL, UNDER THE DIRECTION OF THE OWNER, ESTABLISH "CONSTRUCTION LIMITS" ON THE SITE BY ACCEPTABLE VISIBLE MARKERS. ALL WORK AND EQUIPMENT SHALL BE CONFINED TO WITHIN THESE LIMITS, UNLESS OTHERWISE SPECIFICALLY AUTHORIZED.
3. NO CHANGES ARE TO BE MADE UNLESS AUTHORIZED BY THE DESIGN ENGINEER AND THE APPLICANT/OWNER.
4. THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE FEDERAL, STATE AND LOCAL SAFETY CODES, REGULATIONS, LEGAL REQUIREMENTS, PERMIT CONDITIONS, ETC.
5. THE CONTRACTOR SHALL TAKE ADEQUATE PRECAUTIONS TO PROTECT ALL WALKS, STREETS, PAVEMENTS, HIGHWAY GUARDS, CURBING, EDGING, TREES AND PLANTINGS ON OR OFF THE PREMISES, AND SHALL REPAIR AND REPLACE OR OTHERWISE MAKE GOOD AT HIS/HER OWN EXPENSE AS DIRECTED BY THE ENGINEER ANY ITEMS DAMAGED AS A RESULT OF THE CONTRACTOR'S WORK.
6. THE CONTRACTOR SHALL REMOVE FROM THE PROJECT SITE ALL STUMPS, RUBBISH, MAN-MADE FEATURES AND DEBRIS FOUND THERE ON, UNLESS OTHERWISE NOTED STORAGE OF SUCH MATERIALS ON THE PROJECT SITE WILL NOT BE PERMITTED. ALL MATERIALS TO BE REMOVED SHALL BE DISPOSED OR RECYCLED IN ACCORDANCE WITH ALL APPLICABLE CODES AND REGULATIONS. THE CONTRACTOR SHALL LEAVE THE PROJECT SITE IN SAFE AND CLEAN CONDITION UPON COMPLETION OF THE SITE WORK.
7. THE CONTRACTOR SHALL PROVIDE ADEQUATE BRACING AND SHORING OF ALL EXCAVATIONS IN ACCORDANCE WITH THE REQUIREMENTS OF ALL GOVERNING CODES AND REGULATIONS.
8. ALL SURFACES DISTURBED BY THIS WORK SHALL BE RESTORED TO THEIR ORIGINAL CONDITION AS DETAILED OR AS SPECIFIED BY THE ENGINEER AND OWNER.
9. CONSTRUCTION SEQUENCE SHALL BE COORDINATED TO MINIMIZE DISTURBANCE OF EXISTING CONDITIONS AND OPERATIONS.
10. ALL NECESSARY FEES AND PERMITS SHALL BE OBTAINED AND PAID FOR BY THE CONTRACTOR.
11. WHERE NEW PAVEMENT MEETS EXISTING PAVEMENT (INCLUDING DRIVEWAYS), SAW CUT EXISTING PAVEMENT AS SHOWN ON THE DETAILS. SAW CUTS SHALL BE SMOOTH AND STRAIGHT. WHERE NEW BITUMINOUS CONCRETE MEETS EXISTING BITUMINOUS CONCRETE SURFACES, SAW CUT EDGES ARE TO BE SEALED WITH BITUMEN AND BACKSANDS.
12. ALL CONSTRUCTION ACTIVITIES SHALL BE PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS OF THE ENVIRONMENTAL MANAGEMENT ACT AND THE WETLANDS PROGRAM AS SPECIFIED IN THE LETTER OF APPROVAL DATED Aug 22, 2011 FILE # 12-0052. NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL APPROVED PLANS MUST BE AT CONSTRUCTION SITE



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Waltham, Massachusetts 02451
p 781.419.7696
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No.	REVISION	DATE	APP BY
1	REVISIONS PER RIDEM COMMENTS	6/8/12	PRW
DRAWN BY: DJG		CHECKED BY: PRW	
DESIGNED BY: DJG		APPROVED BY: PRW	

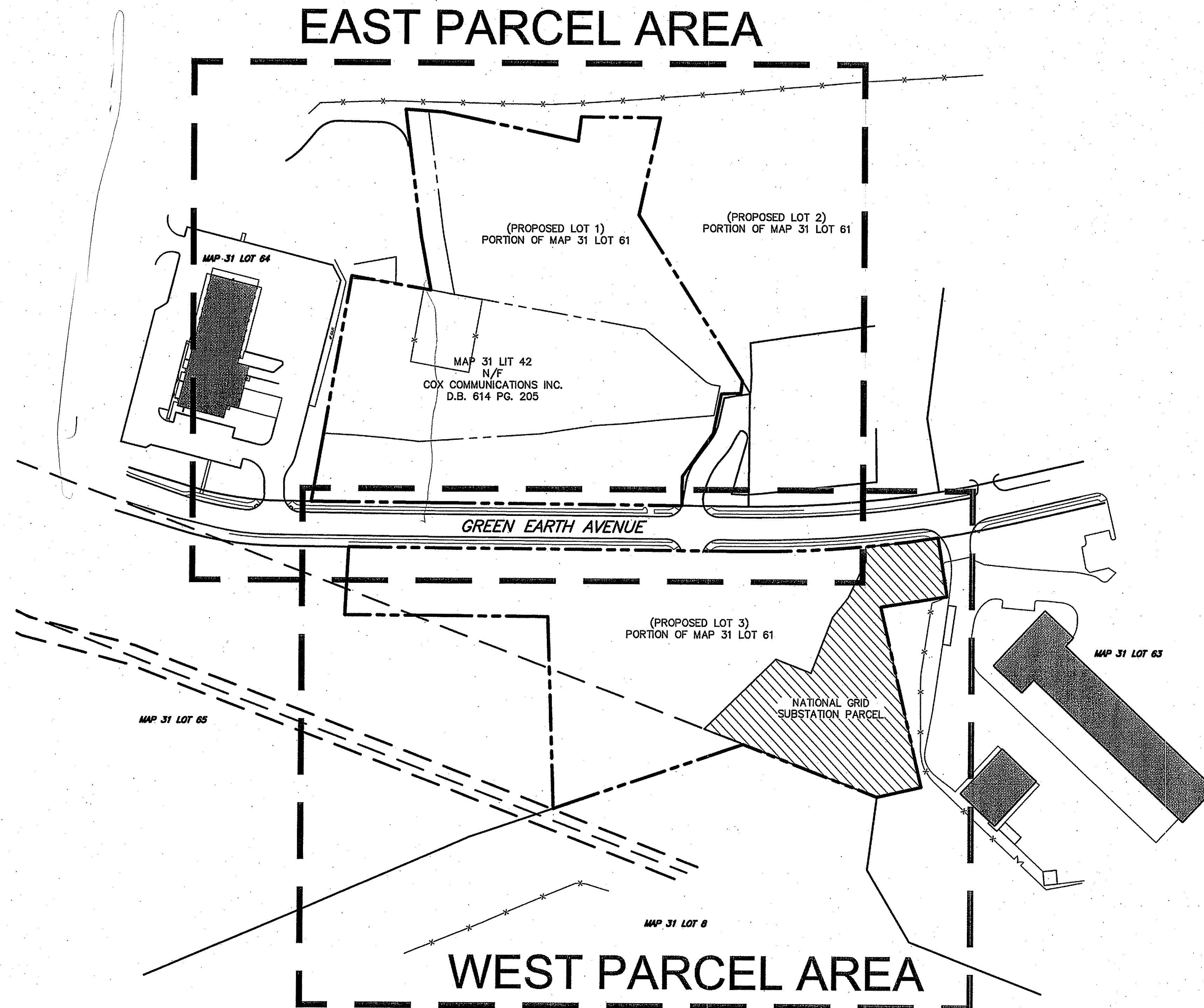
SMM New England Corporation
Johnston Processing Facility
Johnston, RI

GENERAL NOTES
&
LEGEND

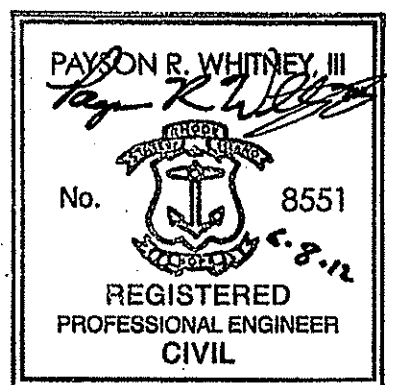
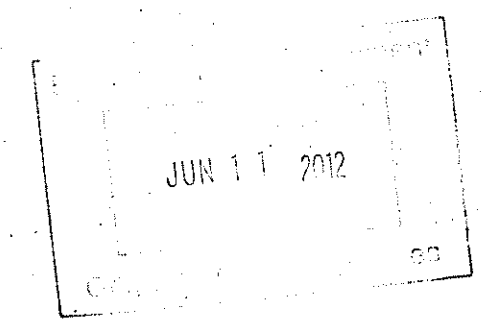
PROJECT No.: S444-000	DRAWING No.
DATE OF ISSUE: April 16, 2012	PD-1
SHEET No.:	
SCALE: N.T.S.	

JOHNSTON PROCESSING FACILITY

PLAT MAP 31, LOT 42
and PORTION OF LOT 61
GREEN EARTH AVENUE
JOHNSTON, RHODE ISLAND



KEY PLAN



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100 Fifth Avenue, 5th Floor
Waltham, Massachusetts 02451
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No.	REVISION	DATE	APP BY
1	REVISIONS PER RIDEM COMMENTS	6/8/12	PRW

DRAWN BY: DJG CHECKED BY: PRW
 DESIGNED BY: DJG APPROVED BY: PRW

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
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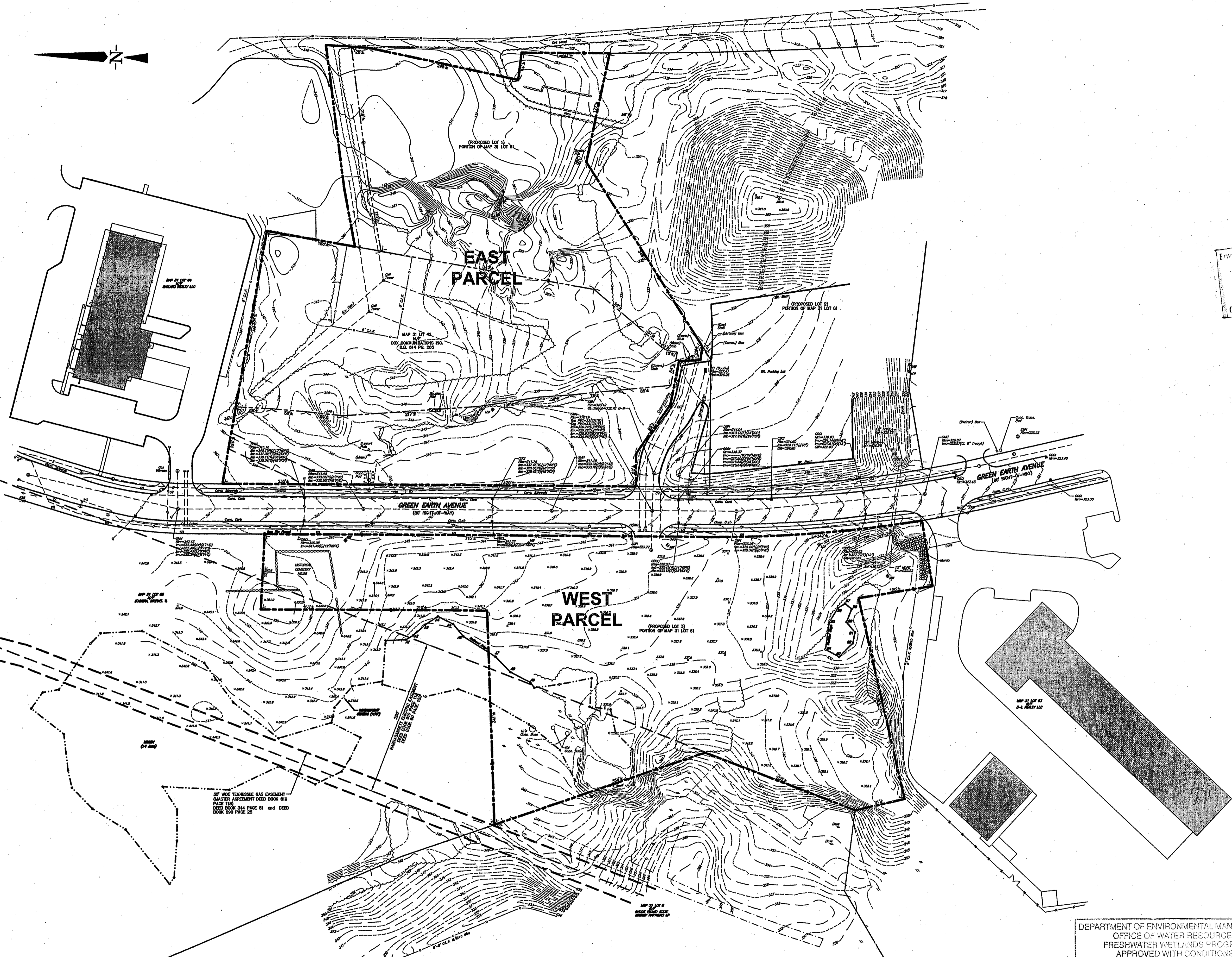
Payson R. Whitney III

SMM New England Corporation
Johnston Processing Facility
Johnston, RI

Key Plan

PROJECT No.: 5444-000	DRAWING No.
DATE OF ISSUE: April 16, 2012	PD-2
SHEET No.:	
SCALE: N.T.S.	

PD-2 - Jun 16, 2012 - 12:17 PM
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Environmental Stamp
JUN 11 2012
Office of Environmental Management

PAYSON R. WHITNEY, III
No. 8551
REGISTERED PROFESSIONAL ENGINEER
CIVIL

0 80 160
SCALE IN FEET

ess
group
environmental consulting
& engineering services

100 Fifth Avenue, 5th Floor
Waltham, Massachusetts 02451
p 781.419.7696
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1	REVISIONS PER RIDEM COMMENTS	6/8/12	PRW
	DRAWN BY: DJC	CHECKED BY: PRW	
	DESIGNED BY: DJG	APPROVED BY: PRW	

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OFFICE OF WATER RESOURCES
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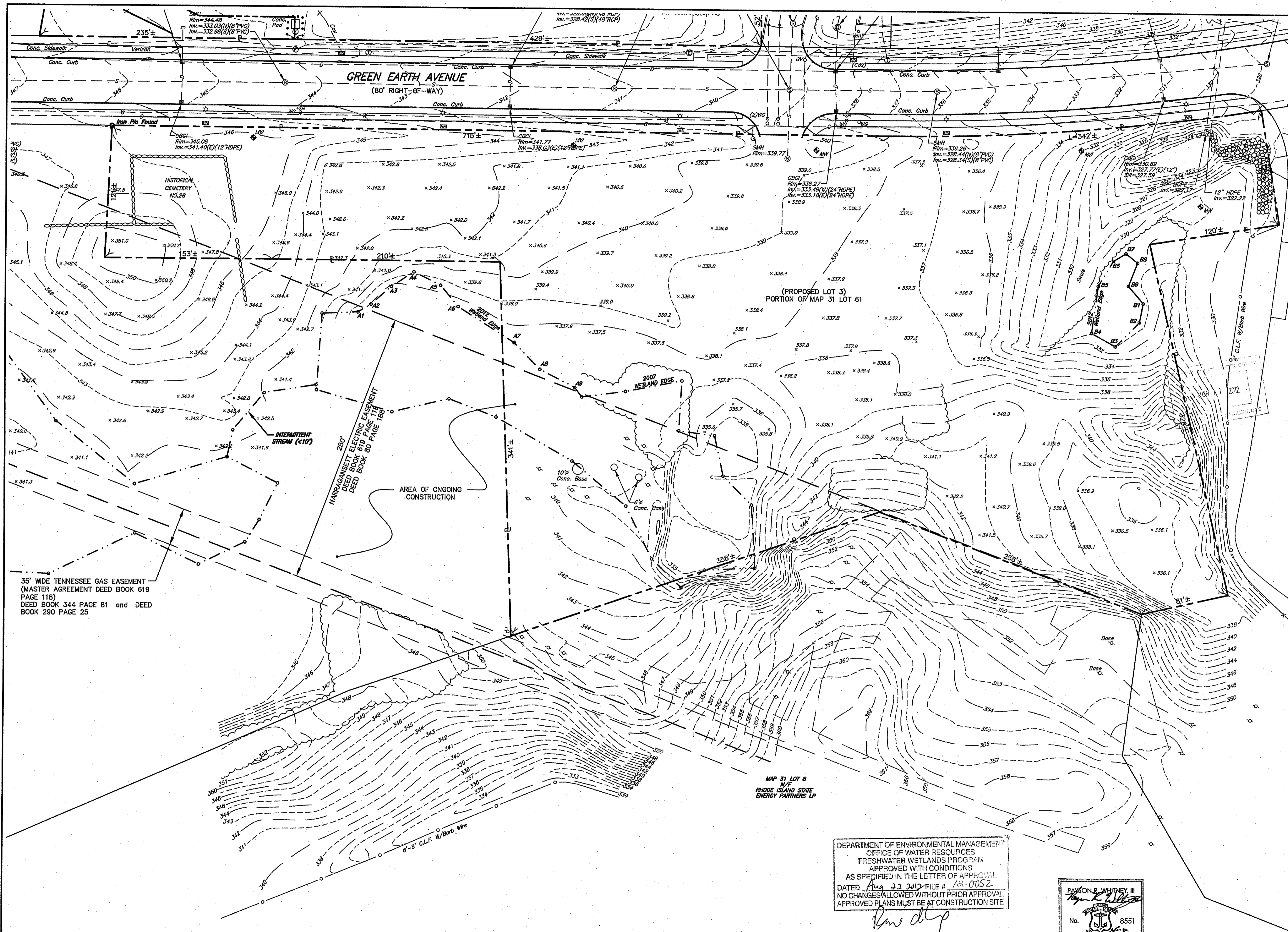
ZONING INFORMATION:

ZONE: INDUSTRIAL-I DISTRICT
DIMENSIONAL REGULATIONS:
MINIMUM DISTANCE OF STRUCTURE FROM
RESIDENTIAL ZONE BOUNDARY = 100'
FRONT YARD SETBACK = 50'
SIDE YARD SETBACK = 50'
REAR YARD SETBACK = 50'
MAXIMUM BUILDING COVERAGE = 40%
MAXIMUM BUILDING HEIGHT = 40'

SMM New England Corporation
Johnston Processing Facility
Johnston, RI

Overall
Existing Conditions

PROJECT No.: S444-000	DRAWING No.
DATE OF ISSUE: April 16, 2012	PD-3
SHEET No.:	
SCALE:	



- LEGEND**
- PROPERTY LINE
 - A.P. ASSESSORS PLAT
 - N/F NOW OR FORMERLY
 - D.B., PG. DEED BOOK, PAGE
 - XXX CONTOUR LINE
 - XX.XX SPOT GRADE
 - ⊙ DMH DRAINAGE MANHOLE
 - ⊞ CB CATCH BASIN
 - CI CURB INLET
 - ⊙ SMH SEWER MANHOLE
 - ⊙ MH MANHOLE
 - ⊙ TMH TELEPHONE MANHOLE
 - ⊙ UTY UTILITY POLE
 - GA GUY ANCHOR
 - ⊙ LP LIGHT POLE
 - ⊙ FH FIRE HYDRANT
 - WG WATER GATE
 - GG GAS GATE
 - ⊞ EHH ELECTRIC HANDHOLE
 - ⊙ BOLLARD
 - ⊙ MW MONITORING WELL
 - CLF CHAIN LINK FENCE
 - SW STONE WALL
 - D DRAIN LINE
 - S SEWER LINE
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 - 2012 NRS WETLAND DELINEATION

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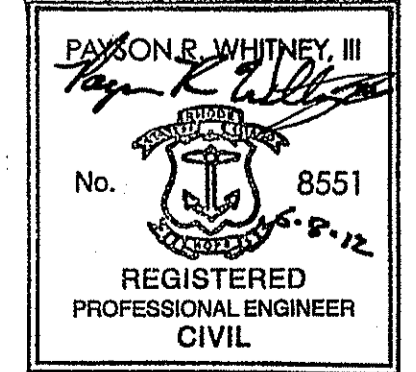
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DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED Aug 22 2012 FILE # 12-0052
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

Rose Chap



SMM New England Corporation
Johnston Processing Facility
Johnston, RI

West Parcel
Existing Conditions

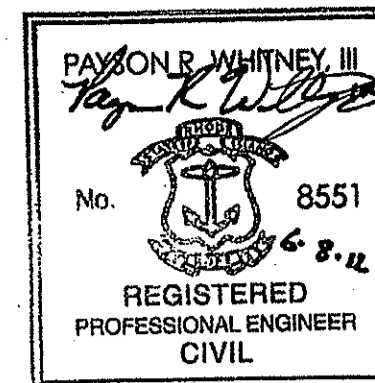
PROJECT No.: S444-000
DRAWING No.:
DATE OF ISSUE: April 16, 2012
SHEET No.:
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PD-4

SEE SHEET PD-1 FOR SURVEY NOTES

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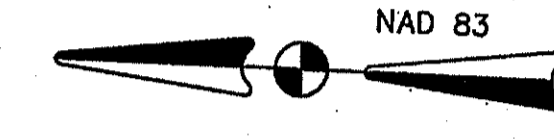
SEE SHEET PD-1 FOR SURVEY NOTES



LEGEND

- PROPERTY LINE
- AP ASSESSORS PLAT
- N/F NOW OR FORMERLY
- D.B., Pg. DEED BOOK, PAGE
- CONTOUR LINE
- XXX SPOT GRADE
- XX.XX
- DMH DRAINAGE MANHOLE
- CB CATCH BASIN
- CI CURB INLET
- SMH SEWER MANHOLE
- MH MANHOLE
- TMH TELEPHONE MANHOLE
- U.P. UTILITY POLE
- G.A. GUY ANCHOR
- L.P. LIGHT POLE
- F.H. FIRE HYDRANT
- W.G. WATER GATE
- G.G. GAS GATE
- E.H. ELECTRIC HANDHOLE
- BOLLARD
- MW MONITORING WELL
- CLF CHAIN LINK FENCE
- SW STONE WALL
- D DRAIN LINE
- S SEWER LINE
- W WATER LINE
- G GAS LINE
- E ELECTRIC LINE
- T TELEPHONE LINE
- TR TRELINE
- 2007 WETLAND DELINEATION
- 2012 NRS WETLAND DELINEATION

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SCALE IN FEET



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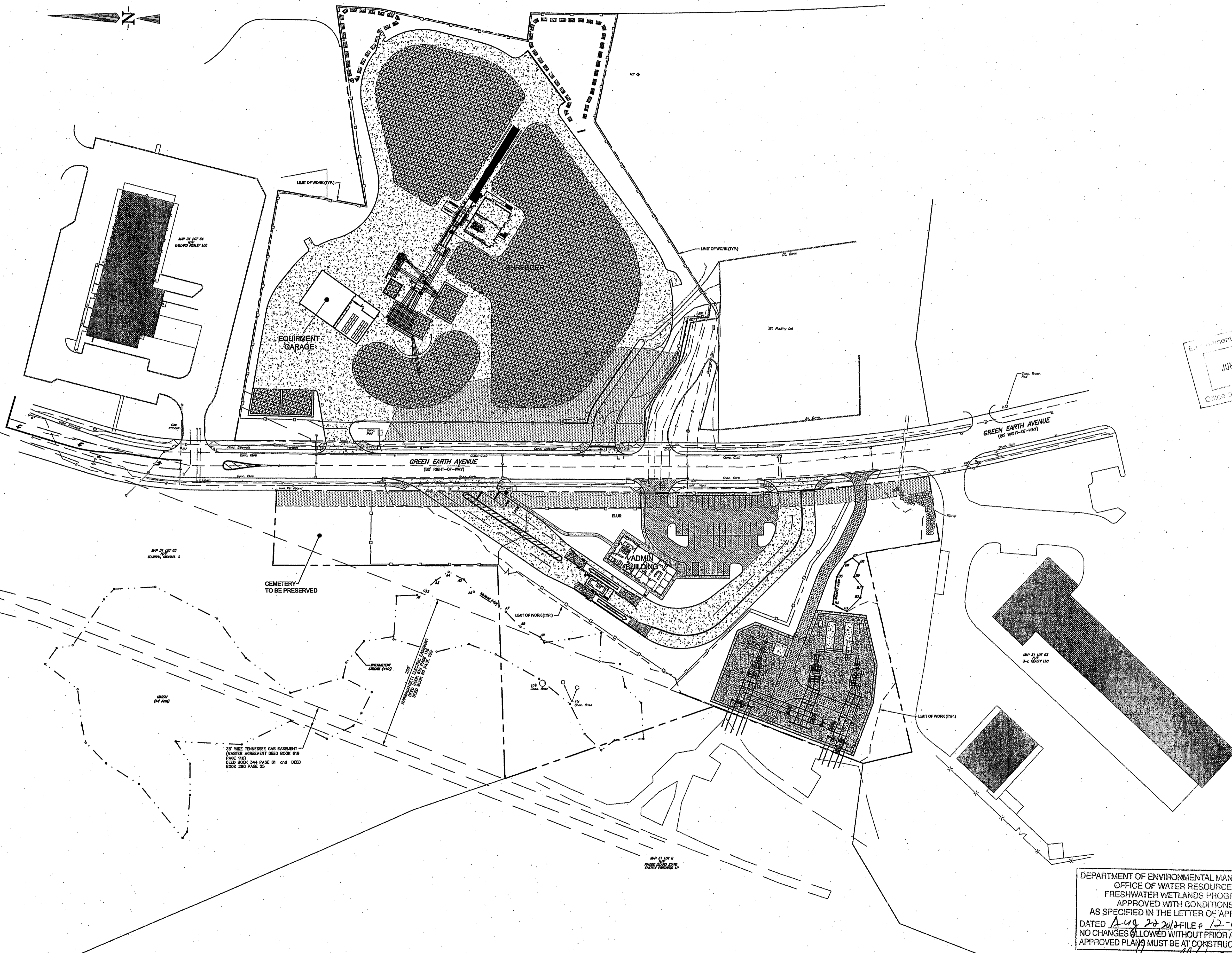
SMM New England Corporation
Johnston Processing Facility
Johnston, RI

East Parcel
Existing Conditions

PROJECT No.: S444-000
 DATE OF ISSUE: April 16, 2012
 SHEET No.:
 SCALE: 1"=40'

DRAWING No.
PD-5

DATE: Jun 08, 2012, 10:30PM
 DRAWING: S:\S444-000\001_SMM_01\01_SMM_Preliminary_Determination\001 - Response to R020\0414 PD-045_01.dwg
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JUN 11 2012
Office of Water Resources

PAYMON R. WHITNEY, III
No. 8551
REGISTERED
PROFESSIONAL ENGINEER
CIVIL

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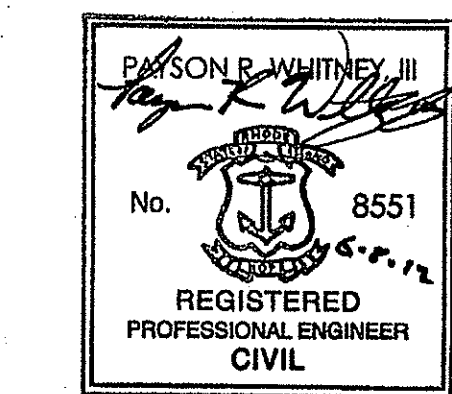
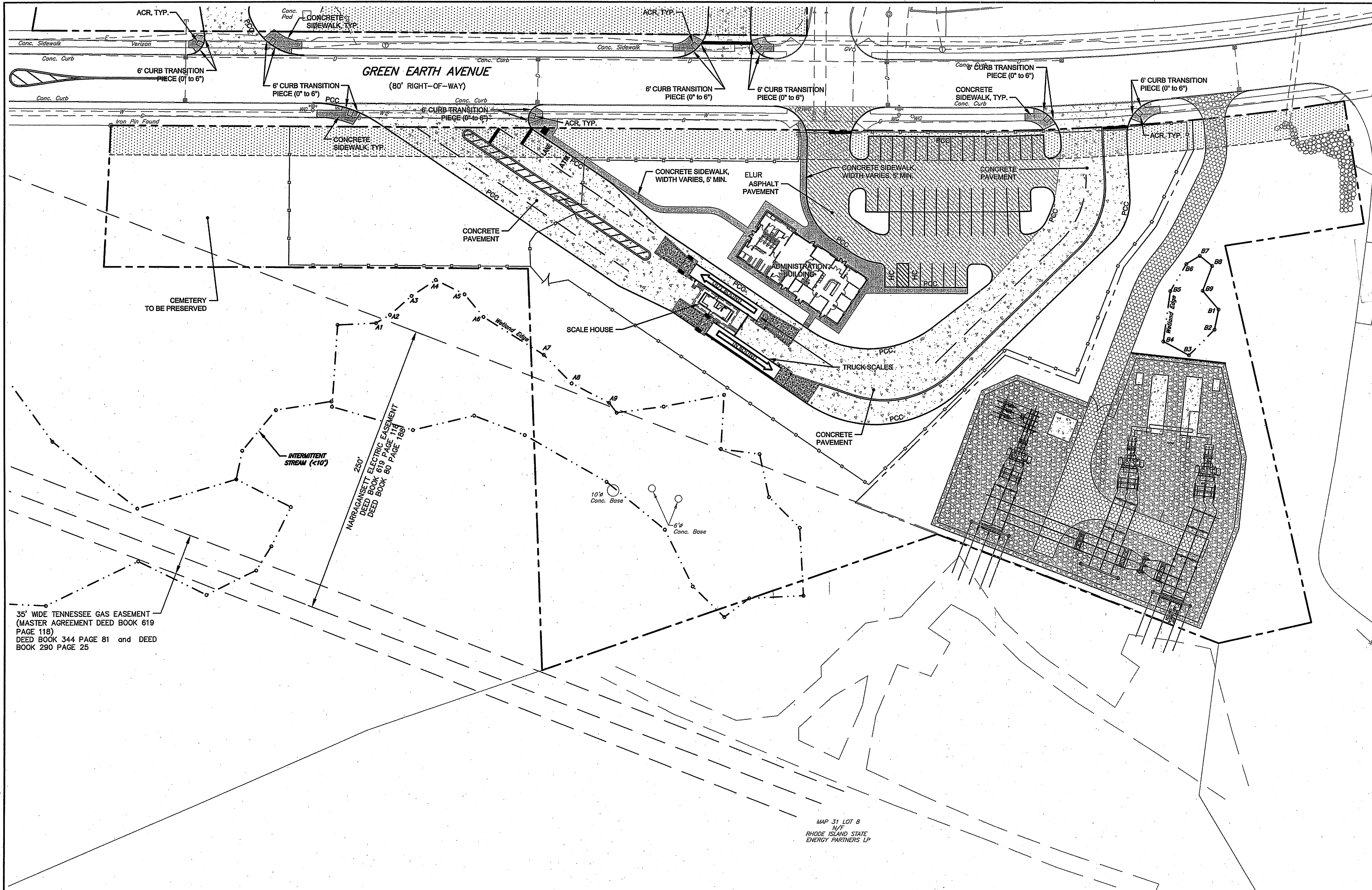
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Johnston, RI

Overall
Site Layout & Materials Plan

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OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
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DATED Aug 23 2012 FILE # 12-0052
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PROJECT No.: S444-000
DRAWING No.: **PD-6**
DATE OF ISSUE: April 16, 2012
SHEET No.:
SCALE:



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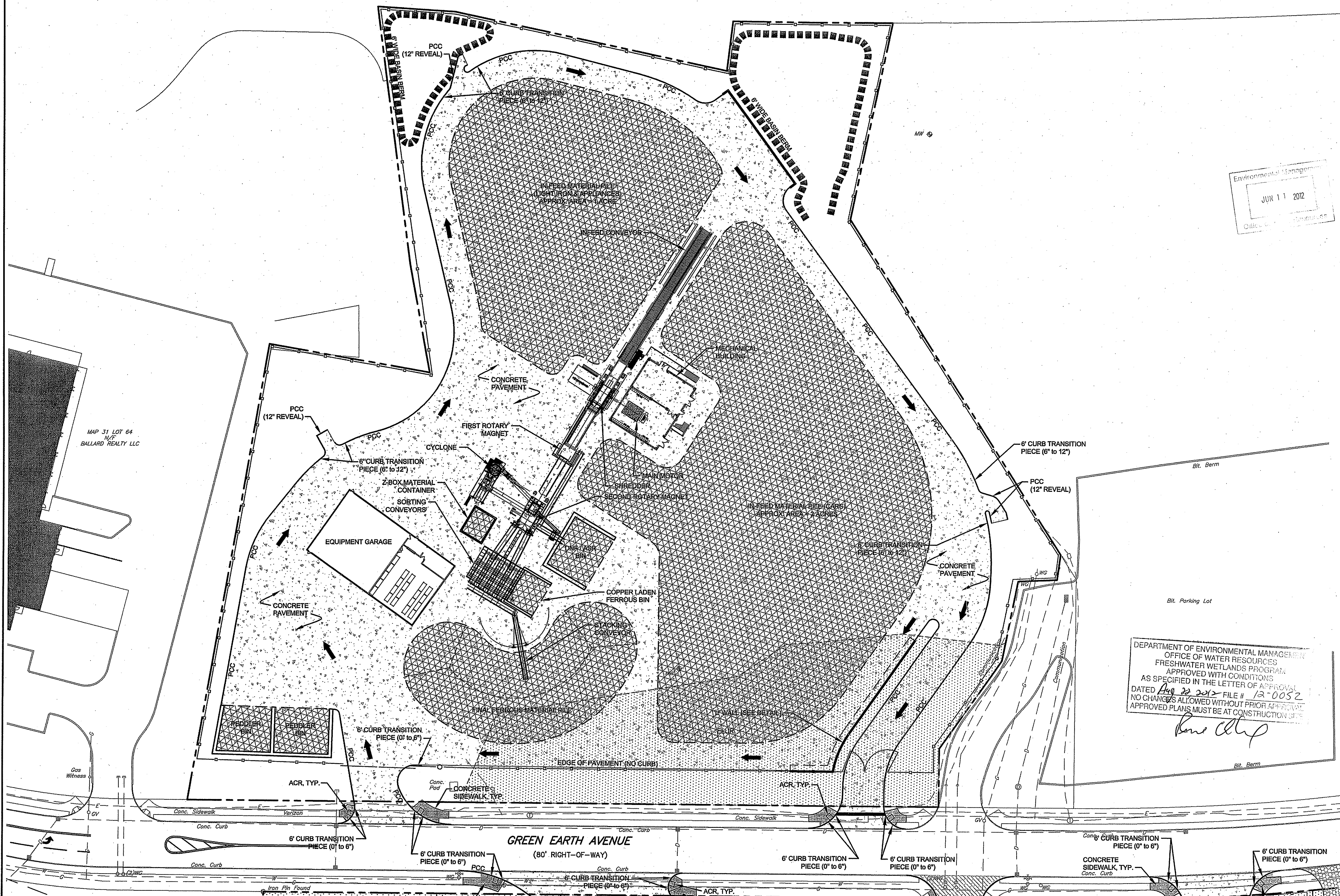
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West Parcel
Site Layout & Materials Plan

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Paul Whitney

PROJECT No.: S444-000 DRAWING No.
DATE OF ISSUE: April 16, 2012 **PD-7**
SHEET No.:
SCALE: 1"=40'



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 JUN 11 2012
 Office of Environmental Management

PAYSON R. WHITNEY, III
 No. 8551
 REGISTERED PROFESSIONAL ENGINEER
 CIVIL

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Bone Altop

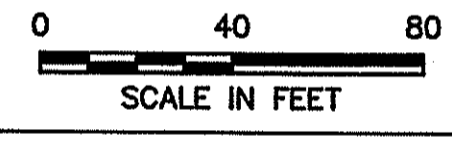
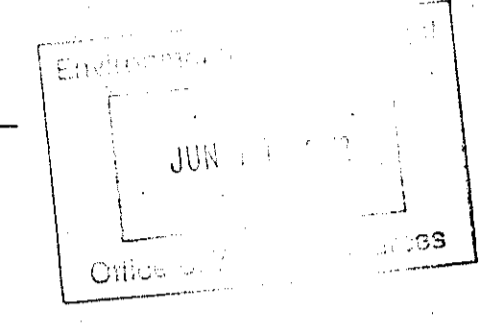
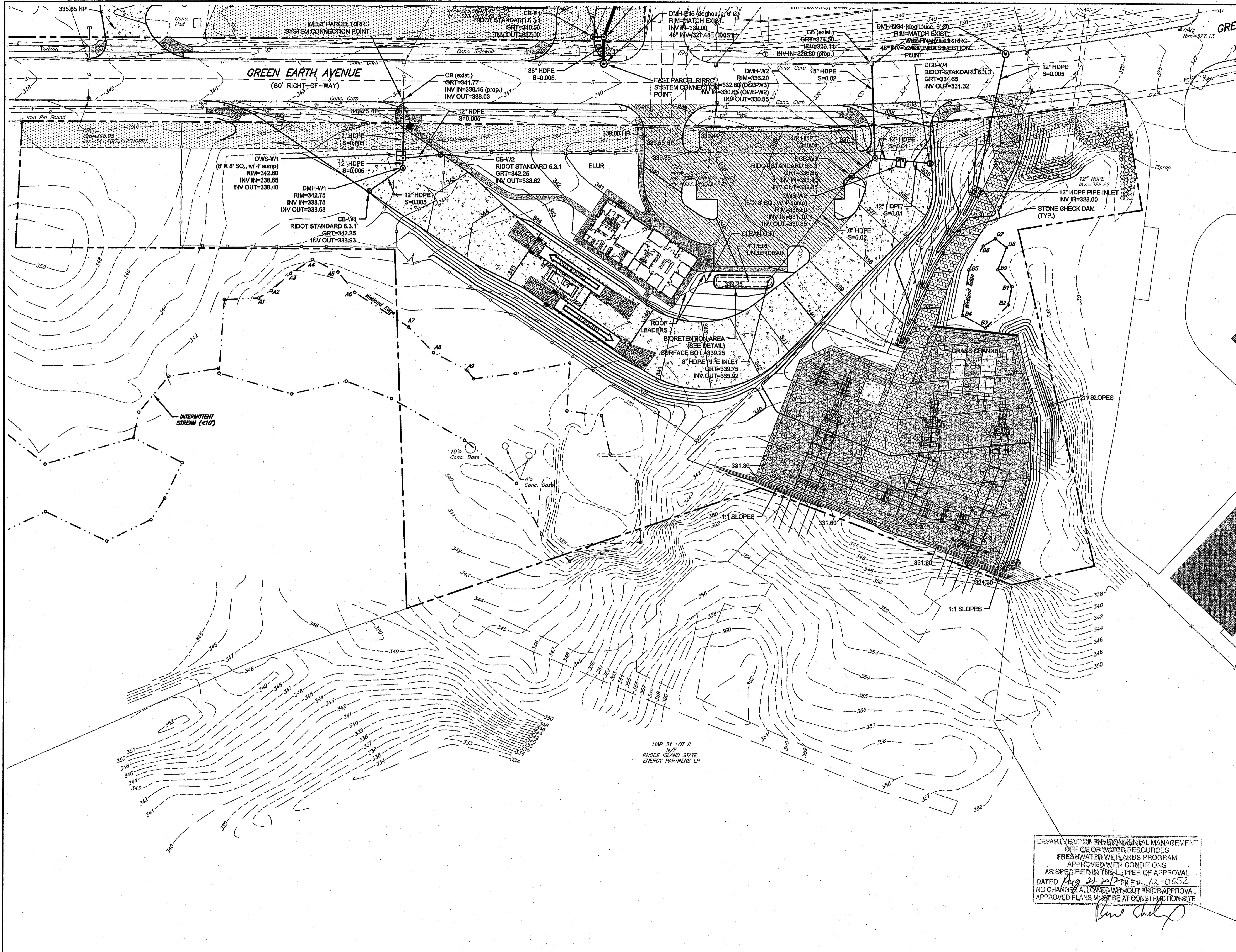
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Johnston, RI

East Parcel
Site Layout & Materials Plan

PROJECT No.: S444-000
 DATE OF ISSUE: April 16, 2012
 SHEET No.:
 SCALE: 1"=40'

DRAWING No.:
PD-8

DATE: Jun 09, 2012 - 10:31PM
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 REVISIONS TO: ESDS\0444 PD-768 Site Plan.dwg
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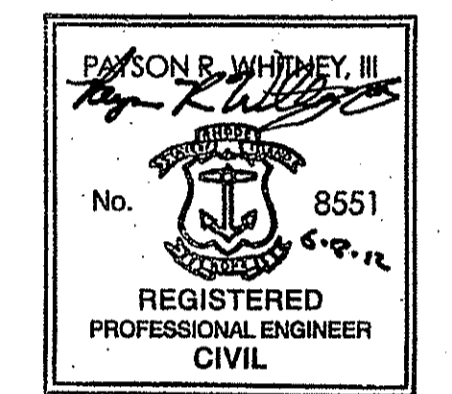
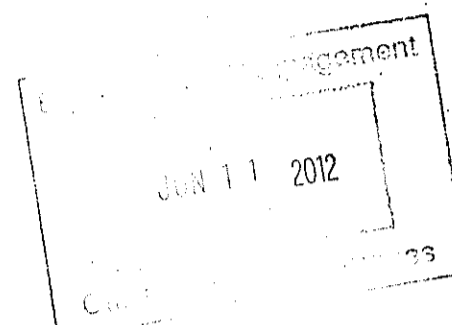
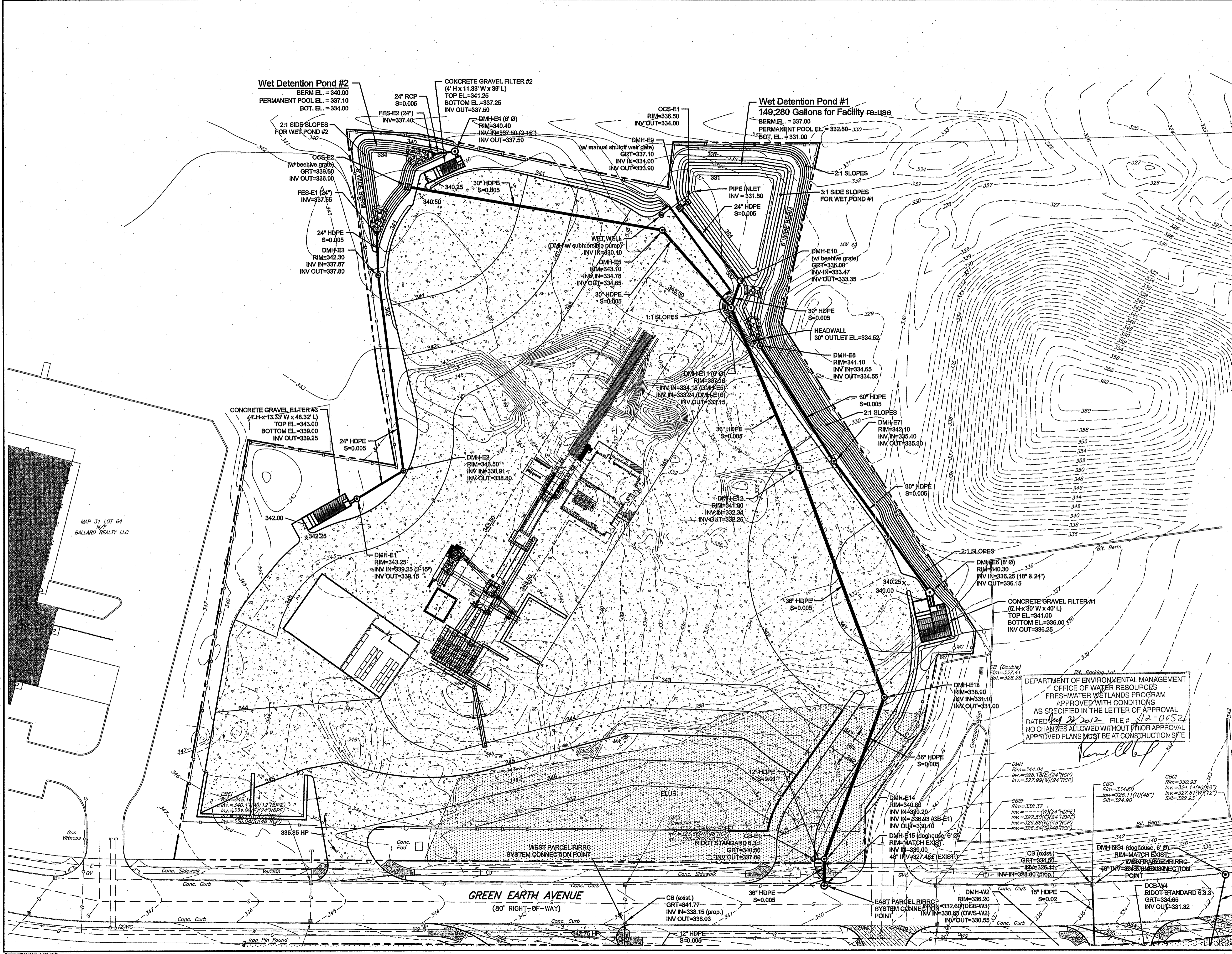
West Parcel
Site Grading & Drainage Plan

PROJECT No.: S444-000	DRAWING No.
DATE OF ISSUE: April 16, 2012	PD-9
SHEET No.:	
SCALE: 1"=40'	

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Paul Chelley

DATE: Jun 05, 2012, 1:53PM
 FILENAME: I:\S444-000_SMM_Johnston_Vetinary_Determination\West - Response to RIDEM\444 PD-9\16 Site Grading Drainage.dwg
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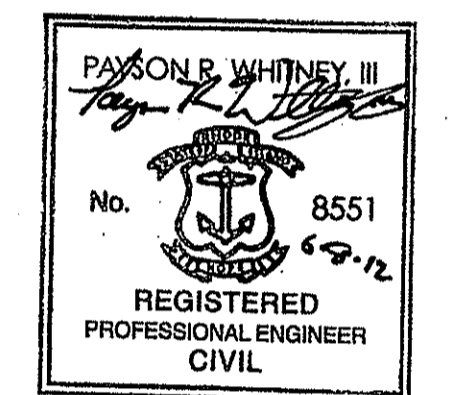
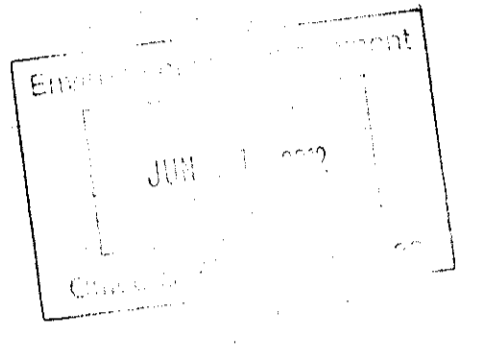
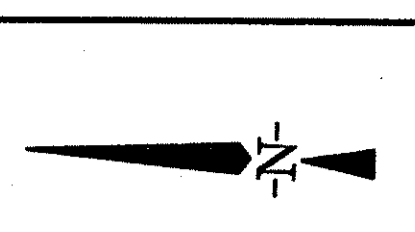
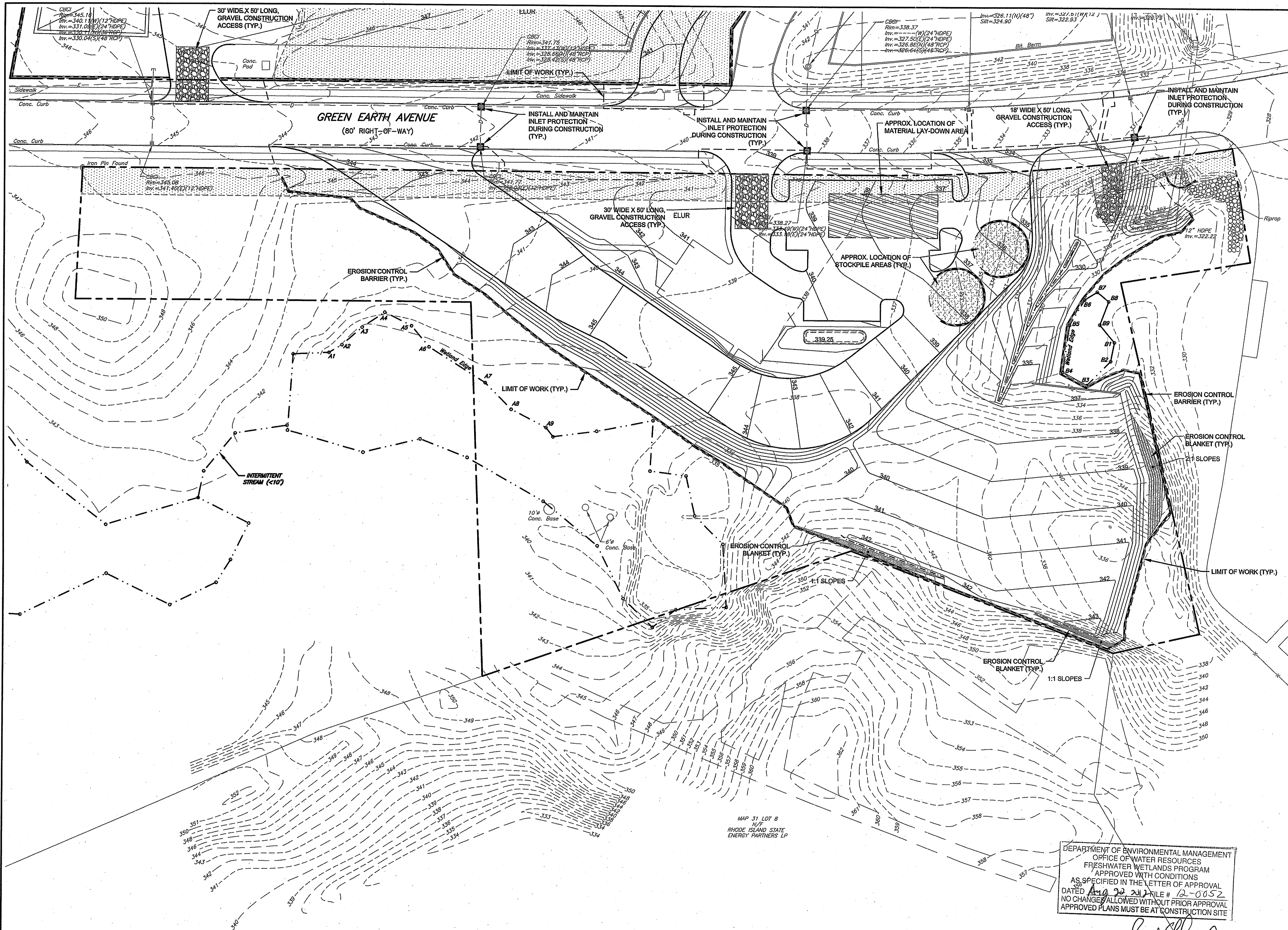
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East Parcel
Site Grading & Drainage Plan

PROJECT No.: S444-000 DRAWING No.
DATE OF ISSUE: April 16, 2012
SHEET No.: PD-10
SCALE: 1"=40'

DATE: Jun 03, 2012 1:13:28 PM
FILENAME: H:\S444-000\DWG\JohnstonProcessingFacility\SiteGrading\SiteGrading.dwg
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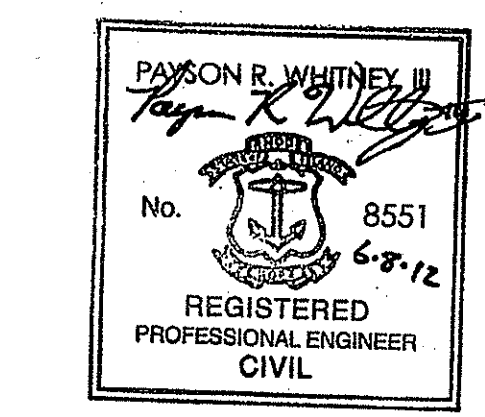
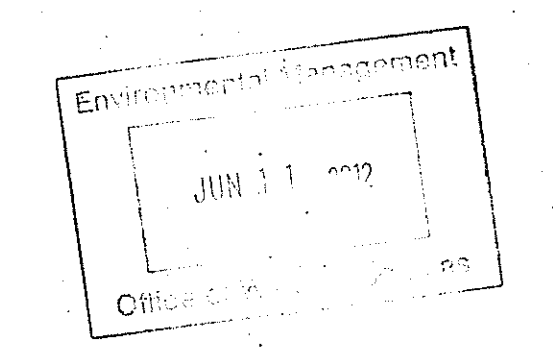
West Parcel
Erosion Control Plan

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
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DATED April 22, 2012 FILE # 12-0052
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Paul Whitney

PROJECT No.: S444-000	DRAWING No.
DATE OF ISSUE: April 16, 2012	PD-11
SHEET No.:	
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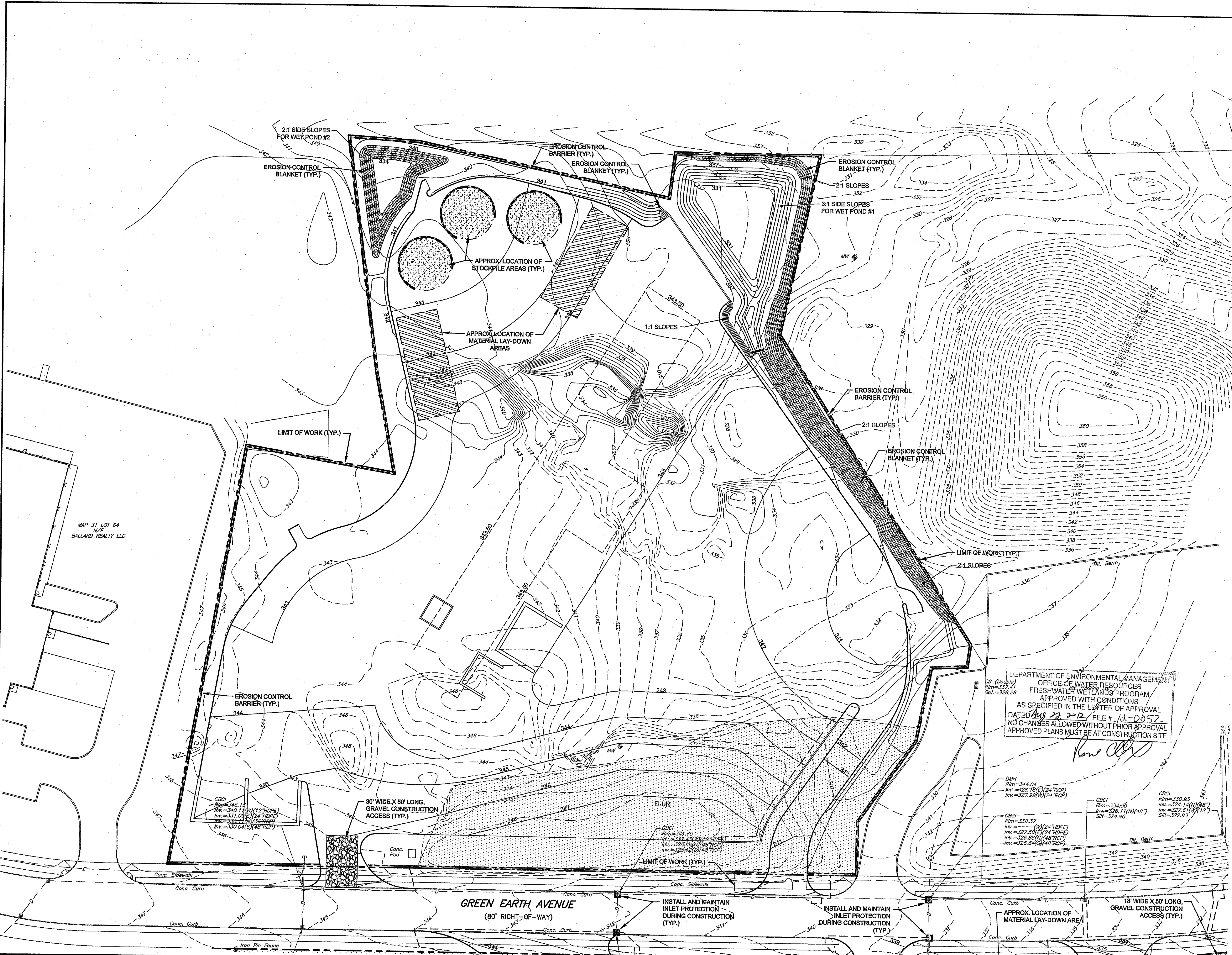
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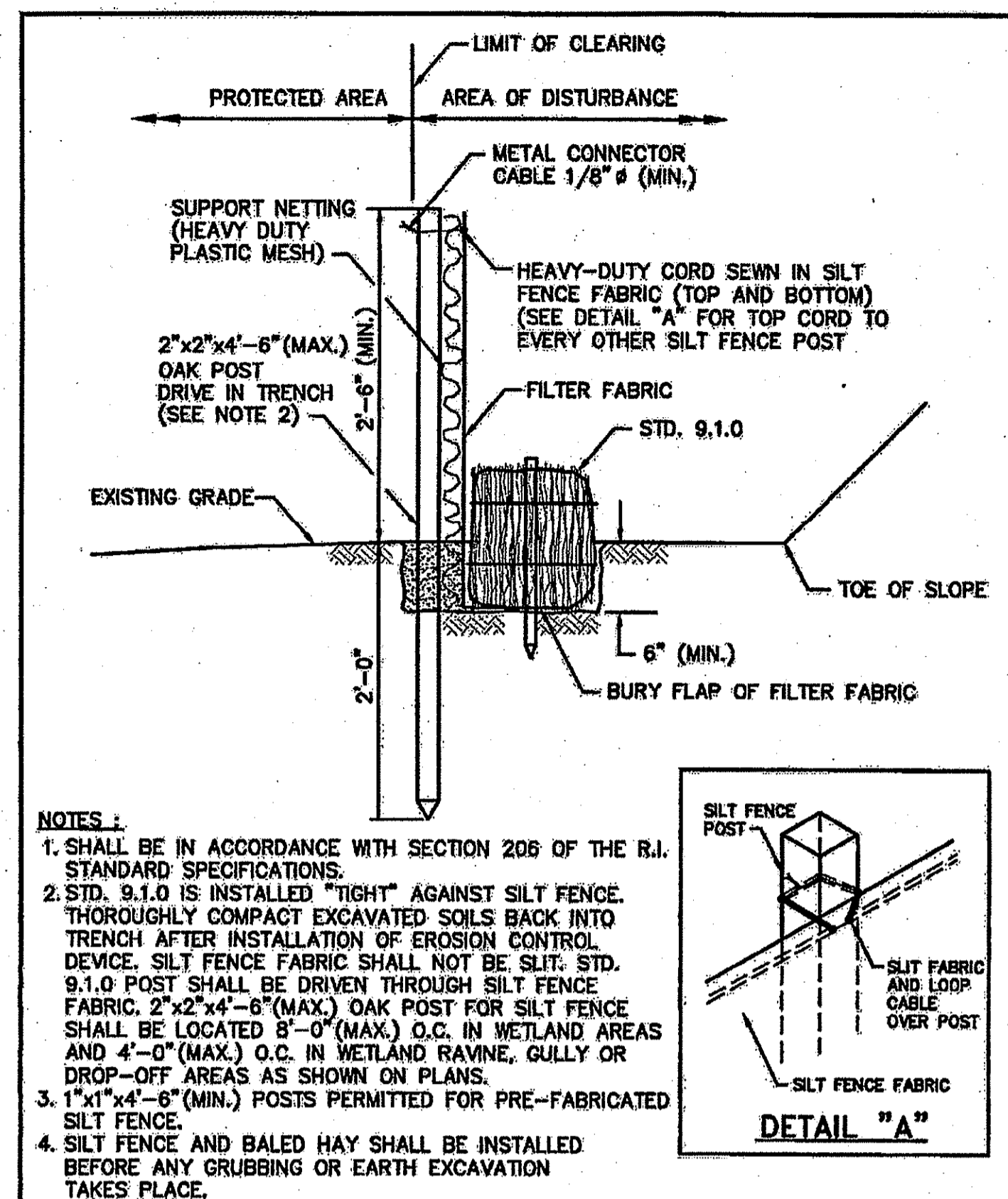
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Johnston, RI

East Parcel
Erosion Control Plan

PROJECT No.: S444-000
DATE OF ISSUE: April 16, 2012
SHEET No.: **PD-12**
SCALE: 1"=40'



DATE: Jun 08, 2012 - 1:08PM
 REVISION: S444-000 SMM Johnston Preliminary Information/Plan02 - Response to RDEM S444 Pp-1&12 Erosion Control/Plan



NOTES:

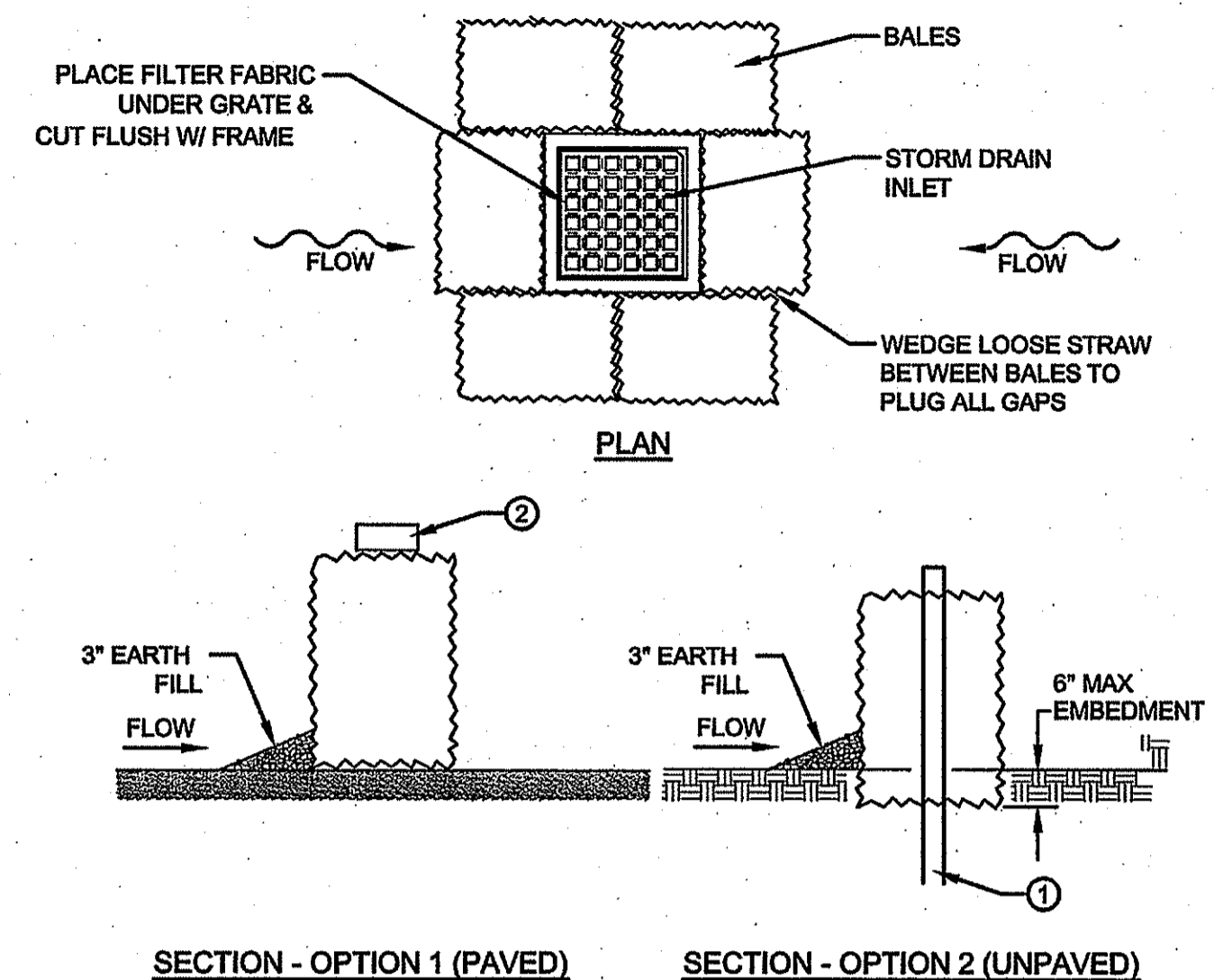
- SHALL BE IN ACCORDANCE WITH SECTION 206 OF THE R.I. STANDARD SPECIFICATIONS.
- STD. 9.1.0 IS INSTALLED "TIGHT" AGAINST SILT FENCE. THOROUGHLY COMPACT EXCAVATED SOILS BACK INTO TRENCH AFTER INSTALLATION OF EROSION CONTROL DEVICE. SILT FENCE FABRIC SHALL NOT BE SLIT. STD. 9.1.0 POST SHALL BE DRIVEN THROUGH SILT FENCE FABRIC. 2"x2"x4"-6" (MAX.) OAK POST FOR SILT FENCE SHALL BE LOCATED 8'-0" (MAX.) O.C. IN WETLAND AREAS AND 4'-0" (MAX.) O.C. IN WETLAND RAVINE, GULLY OR DROP-OFF AREAS AS SHOWN ON PLANS.
- 1"x1"x4"-6" (MIN.) POSTS PERMITTED FOR PRE-FABRICATED SILT FENCE.
- SILT FENCE AND BALED HAY SHALL BE INSTALLED BEFORE ANY GRUBBING OR EARTH EXCAVATION TAKES PLACE.

DETAIL "A"

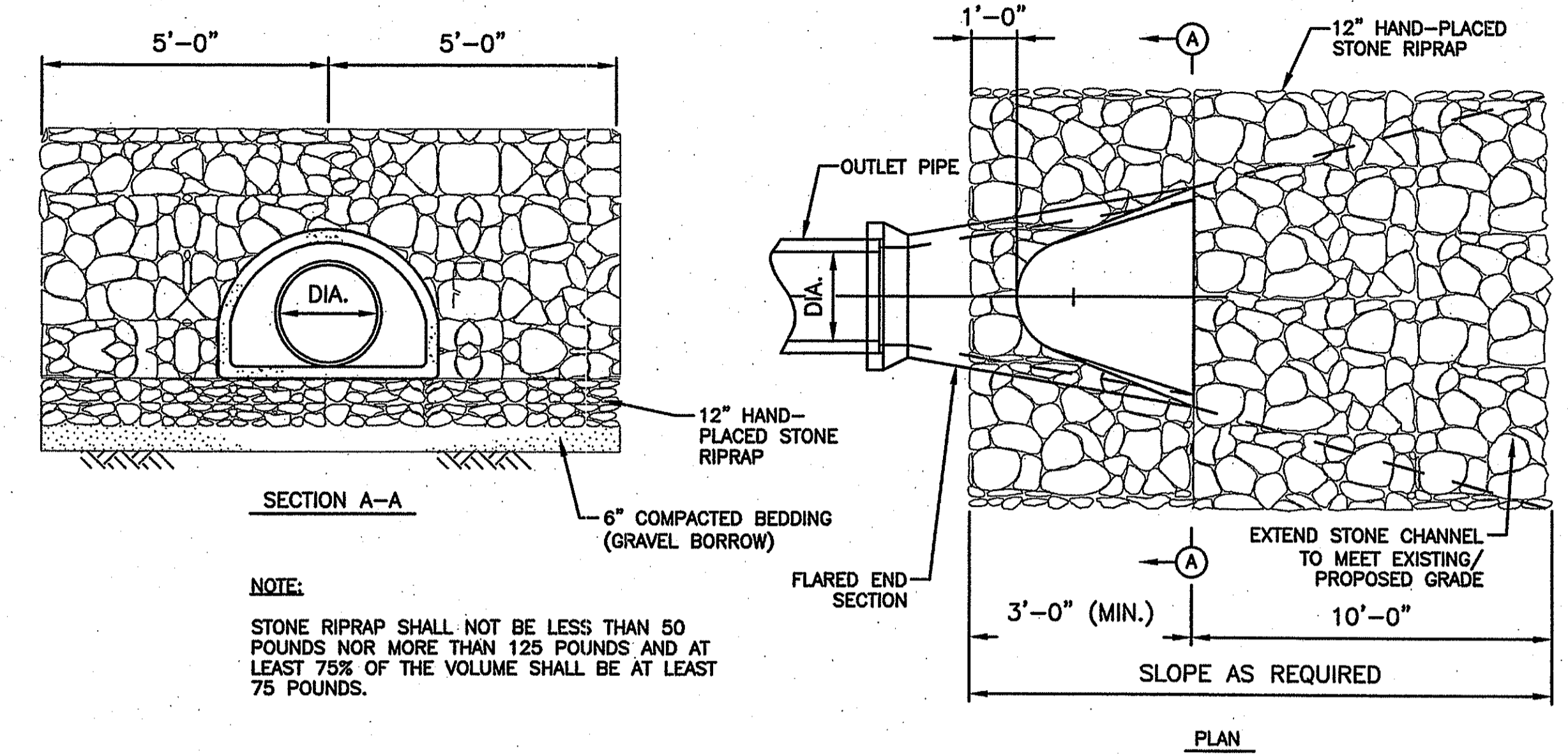
RHODE ISLAND DEPARTMENT OF TRANSPORTATION

BALED HAY EROSION CHECK AND SILT FENCE COMBINED

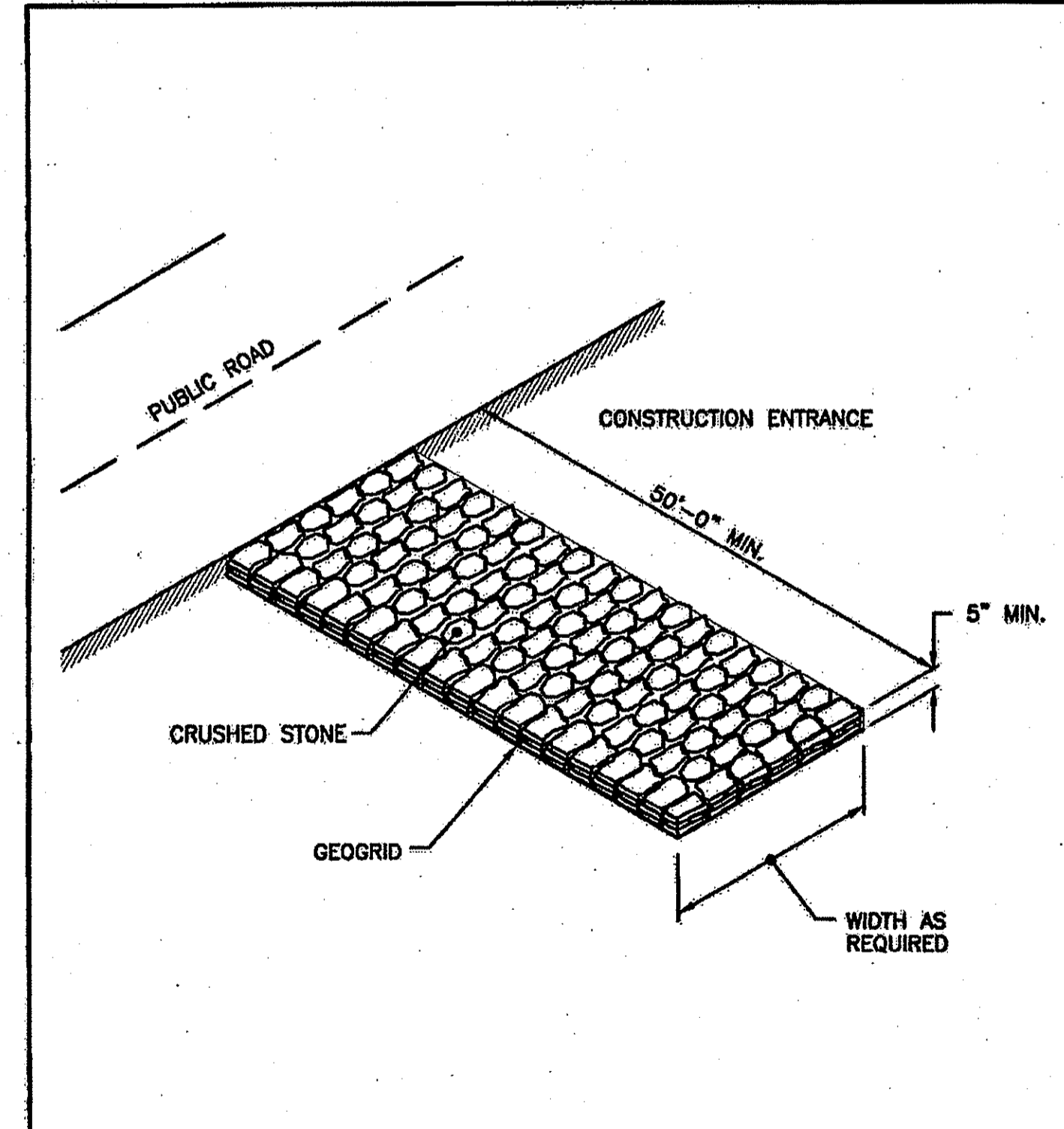
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HAYBALE EROSION CONTROL AT DRAIN INLETS
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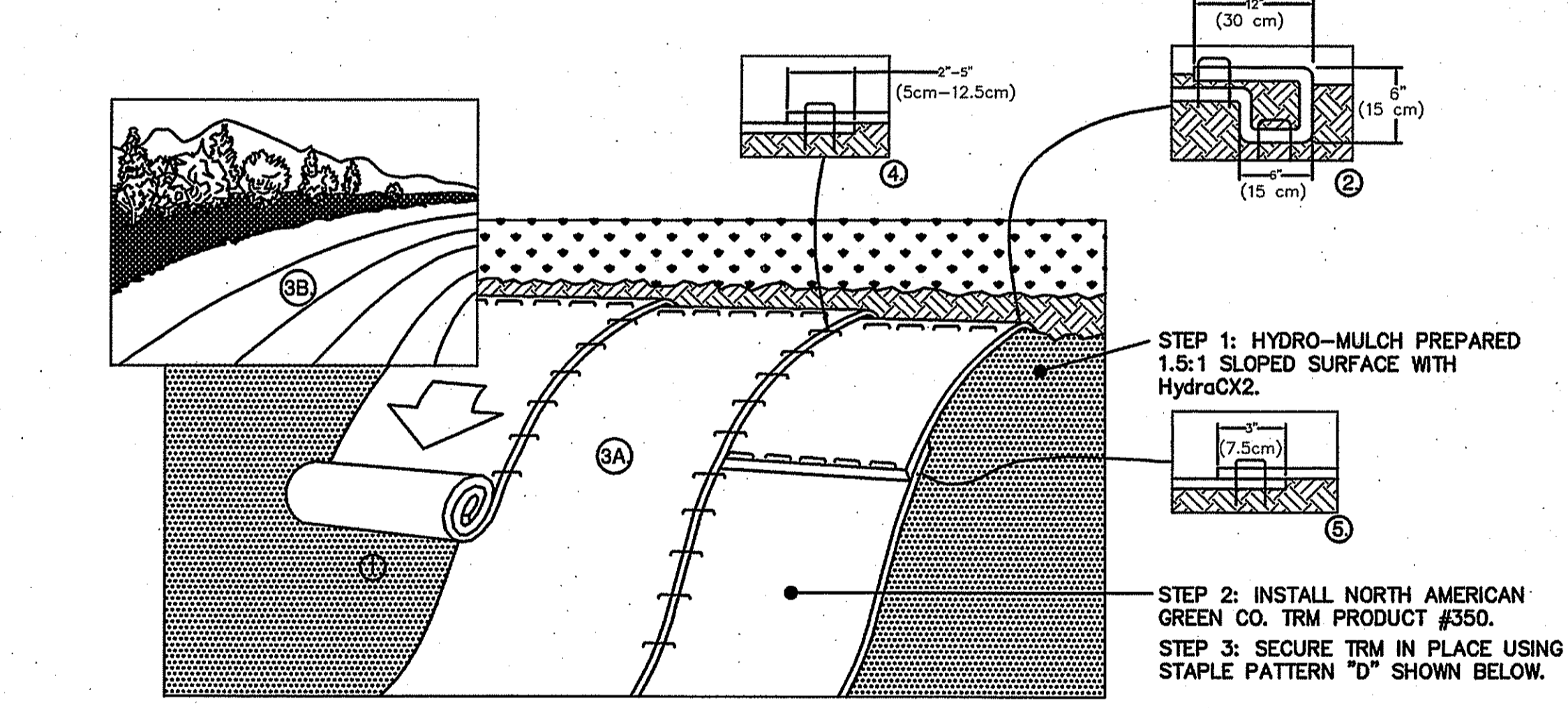
STONE END TREATMENT FOR FLARED END SECTIONS
NOT TO SCALE



RHODE ISLAND DEPARTMENT OF TRANSPORTATION

CONSTRUCTION ACCESS

NO.	BY	DATE

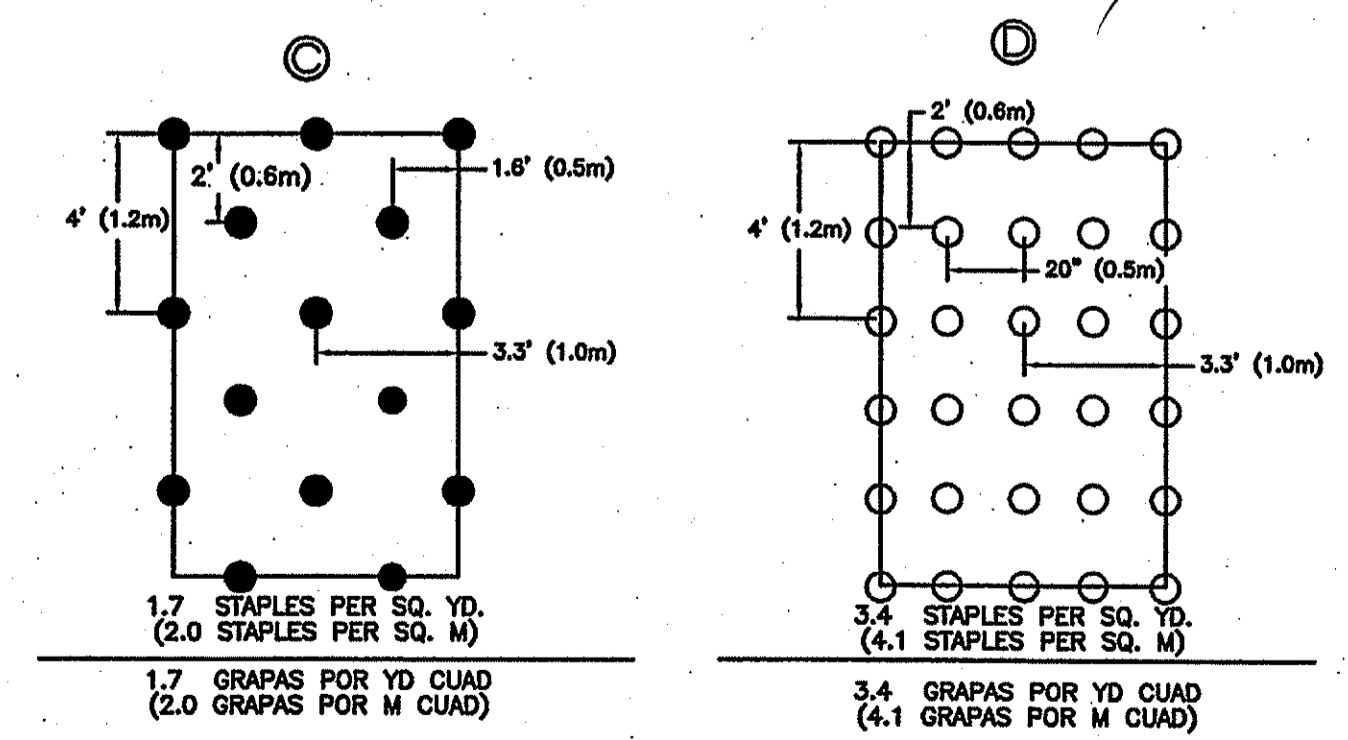


- PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED. NOTE: WHEN USING CELL-O-SEED DO NOT SEED PREPARED AREA. CELL-O-SEED MUST BE INSTALLED WITH PAPER SIDE DOWN.
 - BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE BLANKET IN A 6" (15cm) DEEP X 6" (15cm) WIDE TRENCH WITH APPROXIMATELY 12" (30cm) OF BLANKET EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE BLANKET WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" (30cm) APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" (30cm) PORTION OF BLANKET BACK OVER SEED AND COMPACTED SOIL. SECURE BLANKET OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" (30cm) APART ACROSS THE WIDTH OF THE BLANKET.
 - ROLL THE BLANKETS (A) DOWN OR (B) HORIZONTALLY ACROSS THE SLOPE. BLANKETS WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL BLANKETS MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE. WHEN USING OPTIONAL DOT SYSTEM, STAPLES/STAKES SHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN.
 - THE EDGES OF PARALLEL BLANKETS MUST BE STAPLED WITH APPROXIMATELY 2"-5" (5cm-12.5cm) OVERLAP DEPENDING ON BLANKET TYPE. TO ENSURE PROPER SEAM ALIGNMENT, PLACE THE EDGE OF THE OVERLAPPING BLANKET (BLANKET BEING INSTALLED ON TOP) EVEN WITH THE COLORED SEAM STITCH ON THE PREVIOUSLY INSTALLED BLANKET.
 - CONSECUTIVE BLANKETS SPICED DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STYLE) WITH AN APPROXIMATE 3" (7.5cm) OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" (30cm) APART ACROSS ENTIRE BLANKET WIDTH.
- NOTE: *IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" (15cm) MAY BE NECESSARY TO PROPERLY SECURE THE BLANKETS.

EROSION CONTROL BLANKET/TURF REINFORCEMENT MAT (TRM) DETAIL
NOT TO SCALE

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Kevin Kelly



STAPLE PATTERN GUIDE - 6.67' STANDARD WIDE ROLLS

EROSION CONTROL BLANKET/TURF REINFORCEMENT MAT (TRM) STAPLE PATTERNS
N.T.S.

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Kevin Kelly

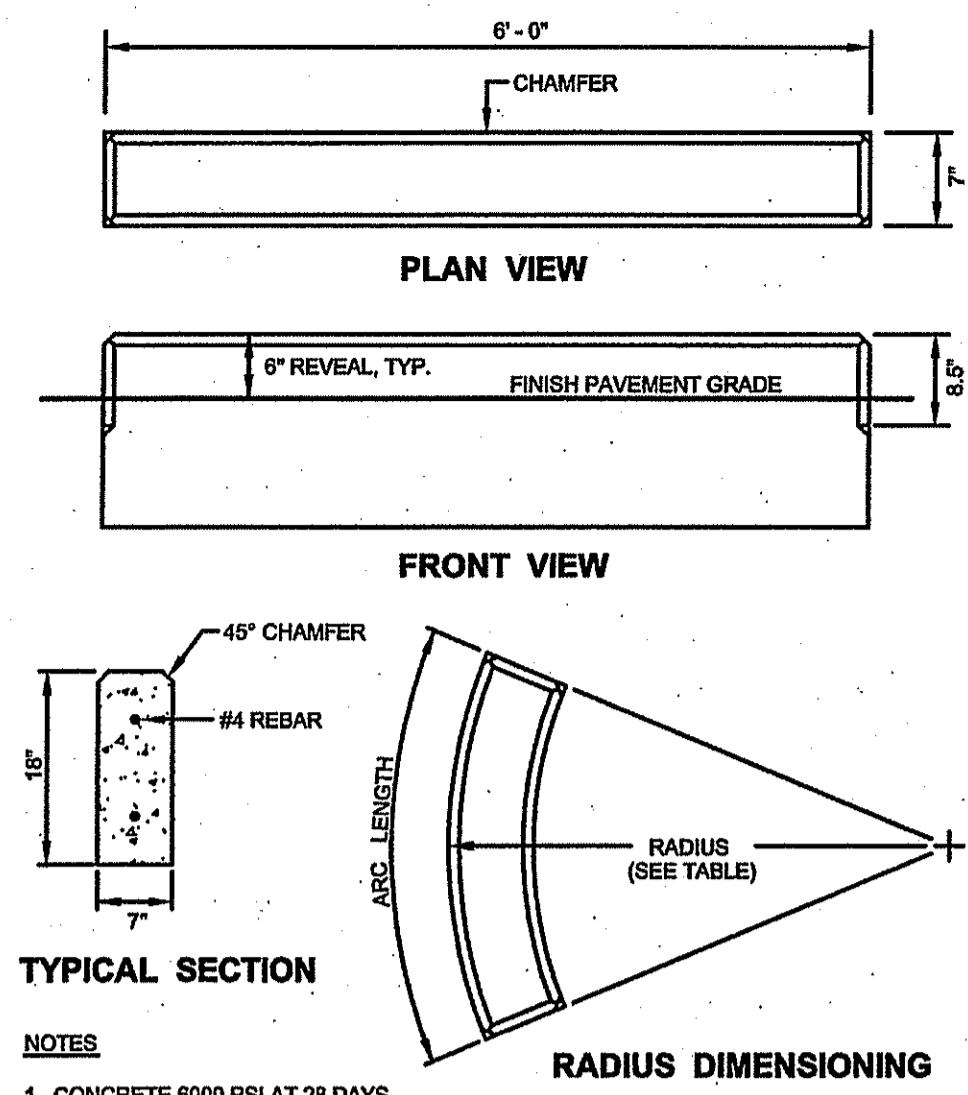
NO.	REVISION	DATE	APP BY
1	REVISIONS PER RIDEM COMMENTS	6/8/12	PRW

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 DESIGNED BY: DJG APPROVED BY: PRW

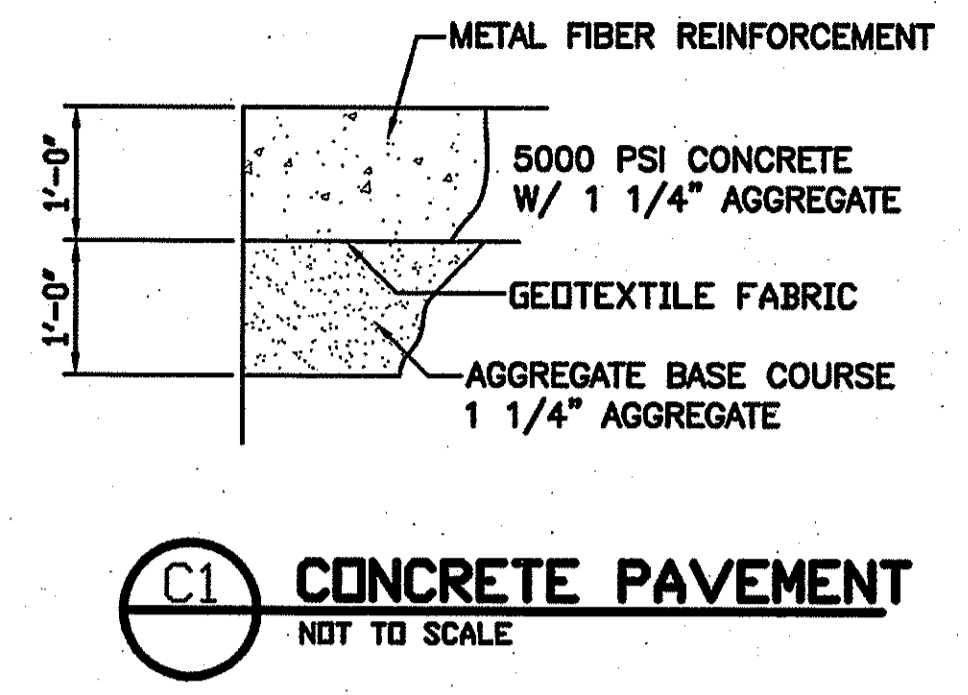
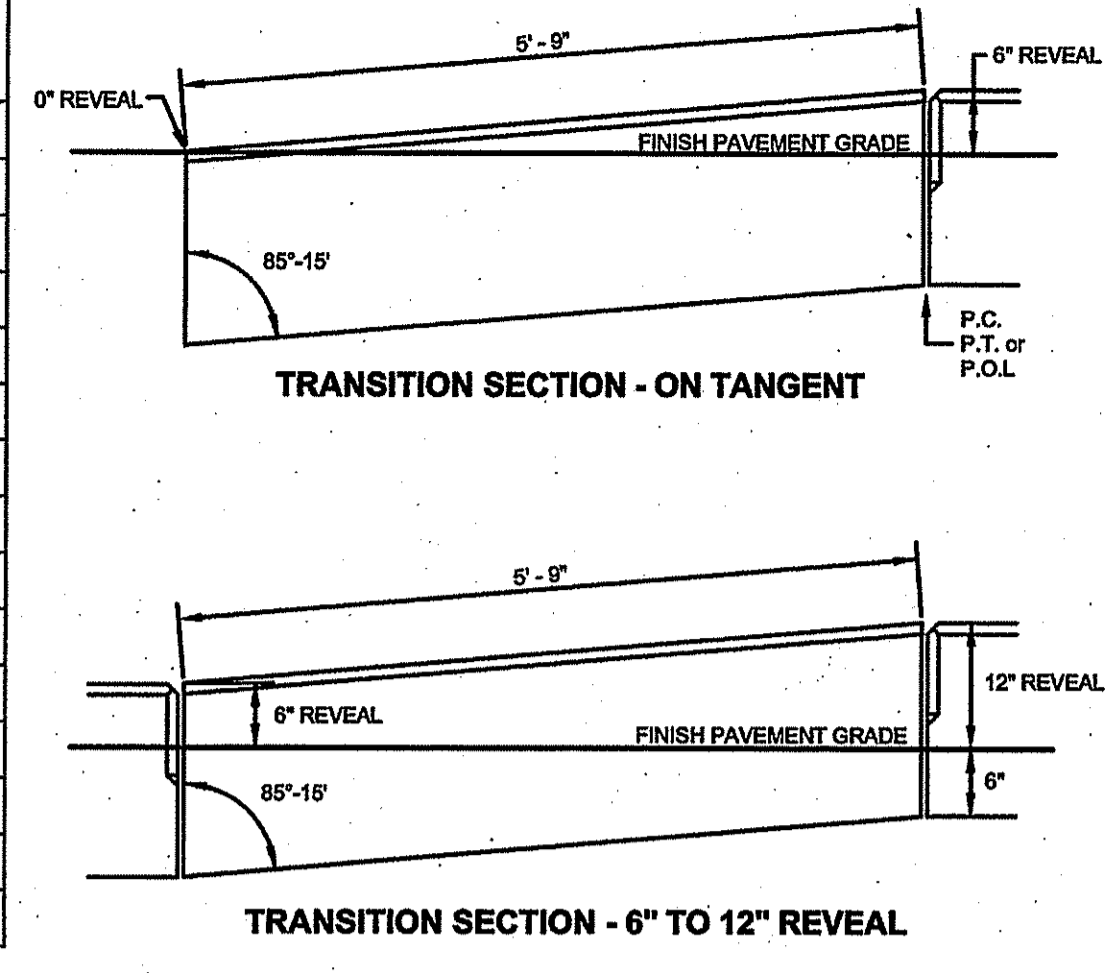
SMM New England Corporation
Johnston Processing Facility
Johnston, RI

Erosion Control Details

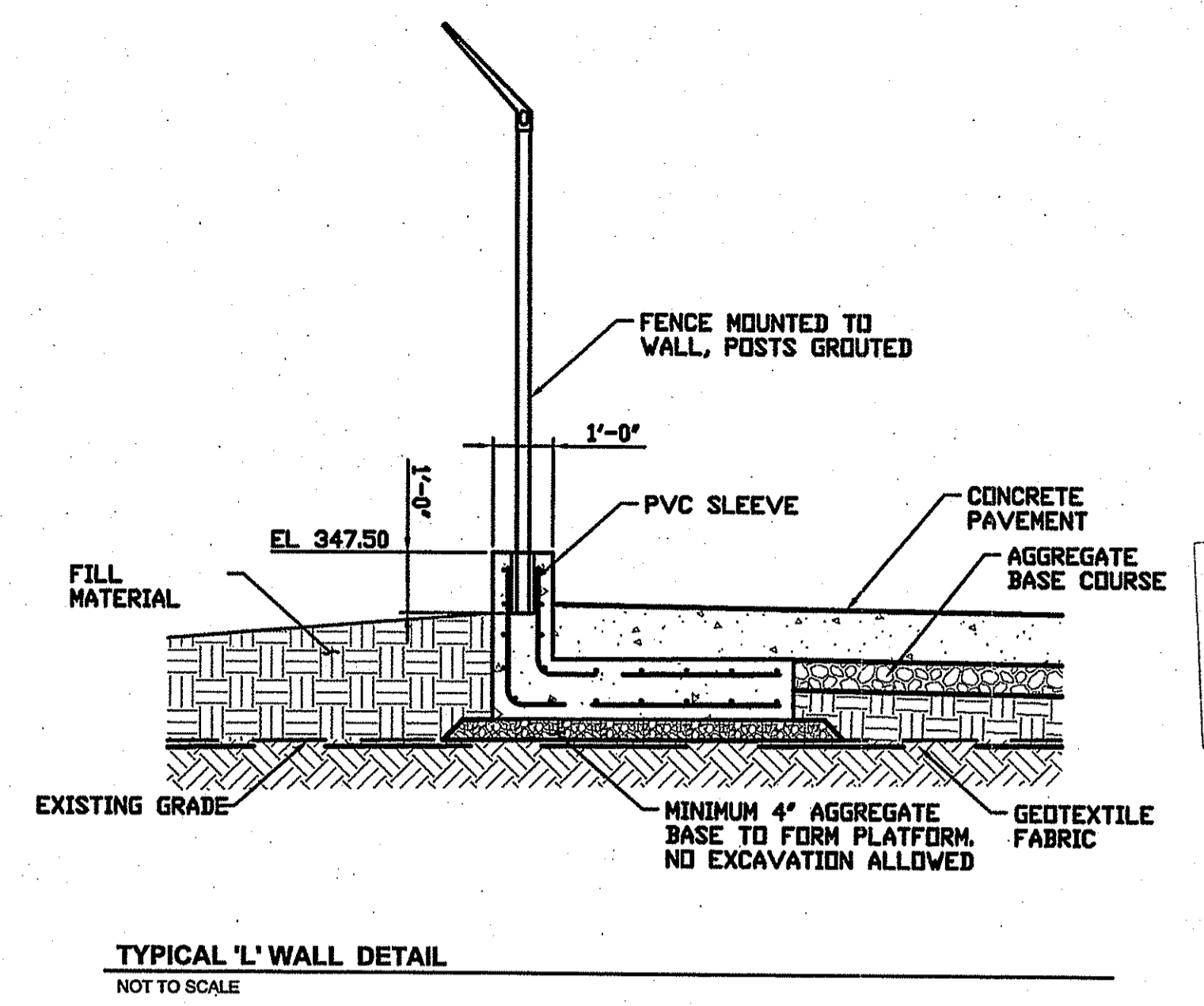
PROJECT No.: S444-000 DRAWING No. **PD-13**
 DATE OF ISSUE: April 16, 2012
 SHEET No.:
 SCALE:



CURB RADIUS TABLE				
ITEM #	TYPE	LENGTH	QUANTITY FOR 90° ANGLE	WEIGHT (LBS)
E-201	STRAIGHT	6'-0"	2	760
E-202	2' RAD	3'-1 3/4"	1	400
E-203	3' RAD	4'-8 1/2"	1	640
E-204	5' RAD	3'-11 1/2"	2	560
E-205	9' RAD	4'-8 1/2"	3	600
E-206	10' RAD	5'-2 7/8"	3	680
E-207	15' RAD	5'-10 3/4"	4	800
E-208	20' RAD	5'-2 7/8"	6	560
E-209	25' RAD	5'-7 3/8"	7	680
E-210	30' RAD	5'-10 3/4"	8	800
E-211	35' RAD	5'-9"	10	760
E-212	40' RAD	5'-8 1/2"	11	760
E-213	45' RAD	5'-10 3/4"	12	800
E-214	50' RAD	5'-7 3/8"	14	680
E-215	60' RAD	5'-10 3/4"	16	800



C1 CONCRETE PAVEMENT
NOT TO SCALE



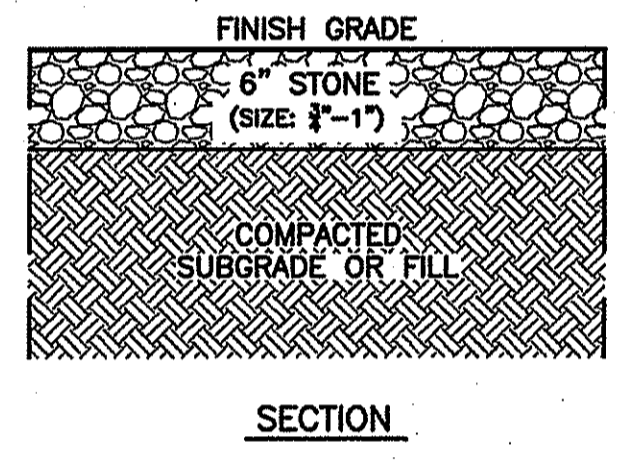
TYPICAL 'L' WALL DETAIL
NOT TO SCALE

Environmental Management
JUN 11 2012
Office of Water Resources

- NOTES**
1. CONCRETE 6000 PSI AT 28 DAYS.
 2. REINFORCING WITH (2) - #4 REBARS.
 3. APPROXIMATE WEIGHT 130 LBS/L.F.
 4. RADIUS LARGER THAN 50 FEET ARE FORMED FROM STRAIGHT SECTIONS.
 5. ALL CURBING SHOULD BE COATED WITH A CLEAR SEALER EACH FALL TO PROTECT FROM ROAD SALT DAMAGE. CONSULT MANUFACTURER FOR THE APPROPRIATE TYPE OF SEALER.

ITEM NUMBERS REFERENCE PRECAST CONCRETE PRODUCTS OF MAINE, INC.

TYPICAL PRECAST CONCRETE CURB DETAILS
NOT TO SCALE



YARD STONE DETAIL
NOT TO SCALE

PAVSON B. WHITNEY, III
No. 8551
REGISTERED PROFESSIONAL ENGINEER CIVIL

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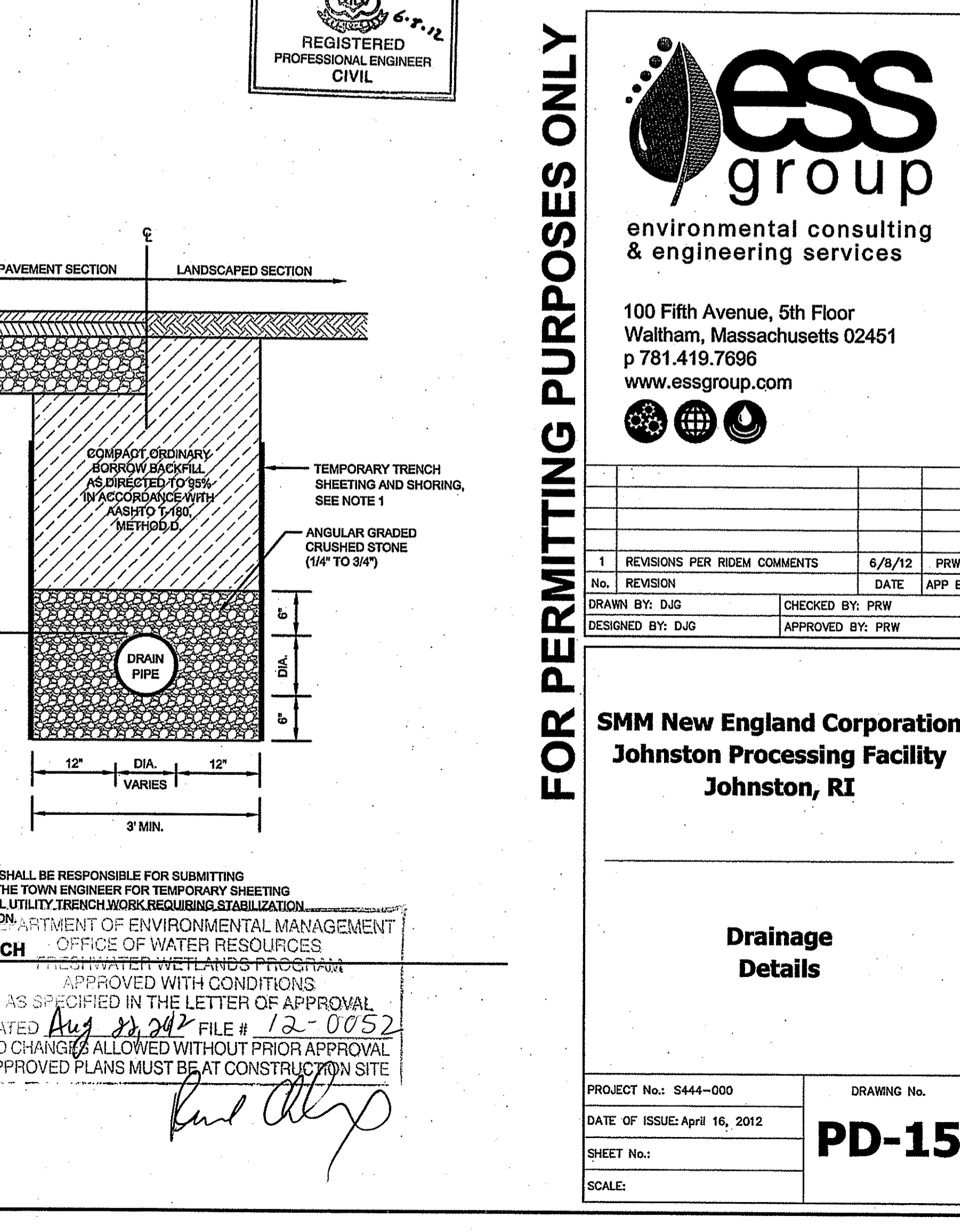
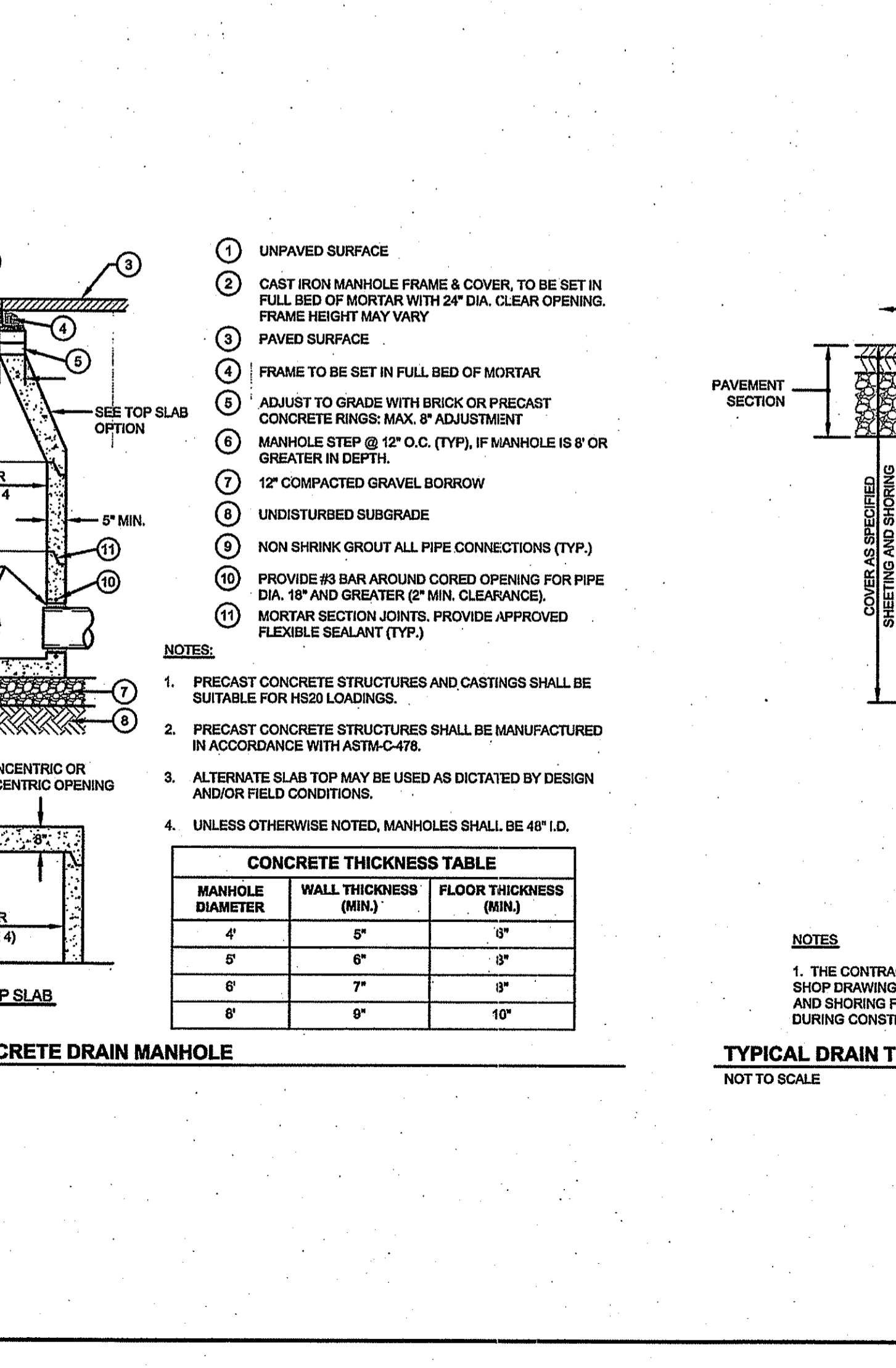
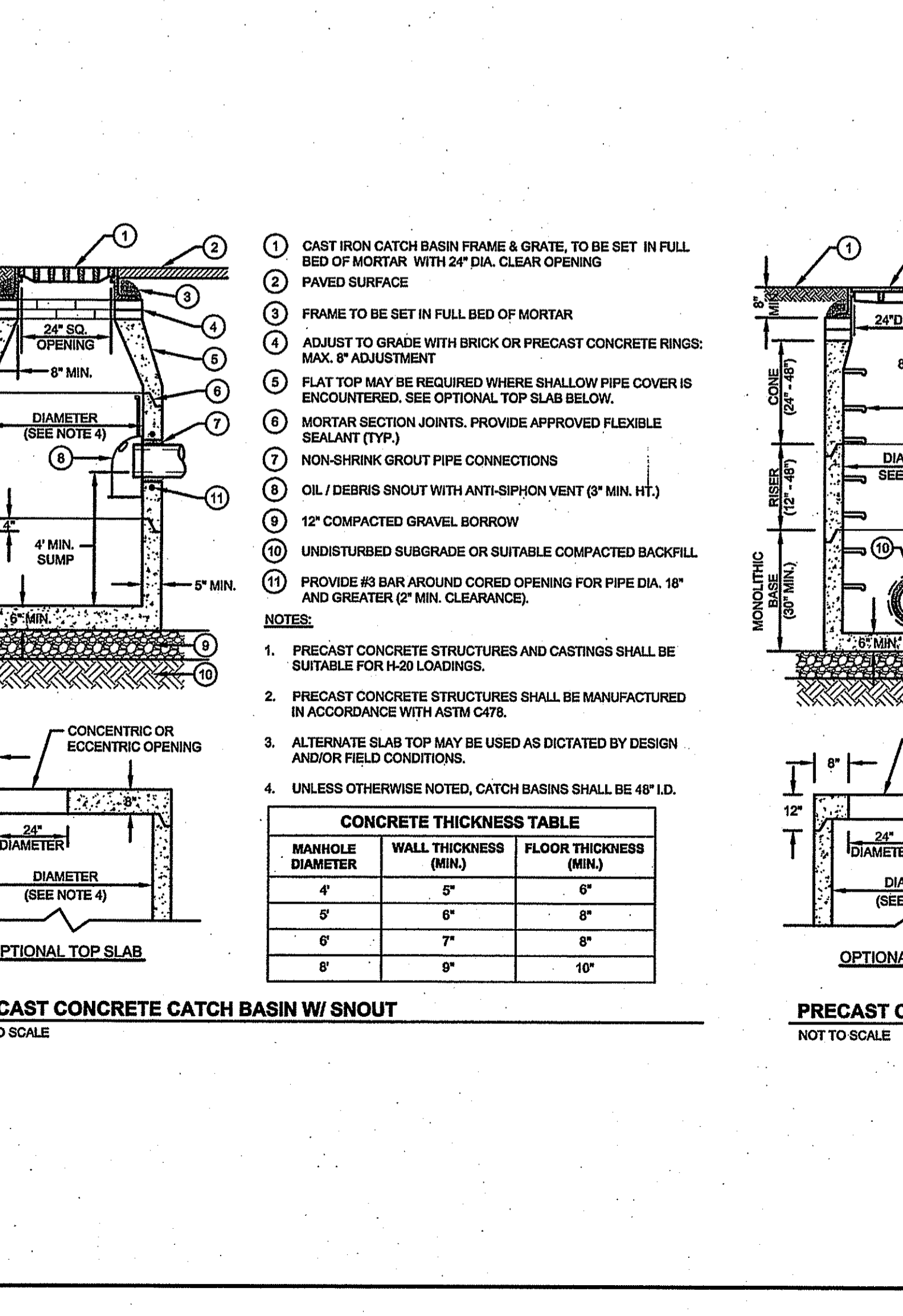
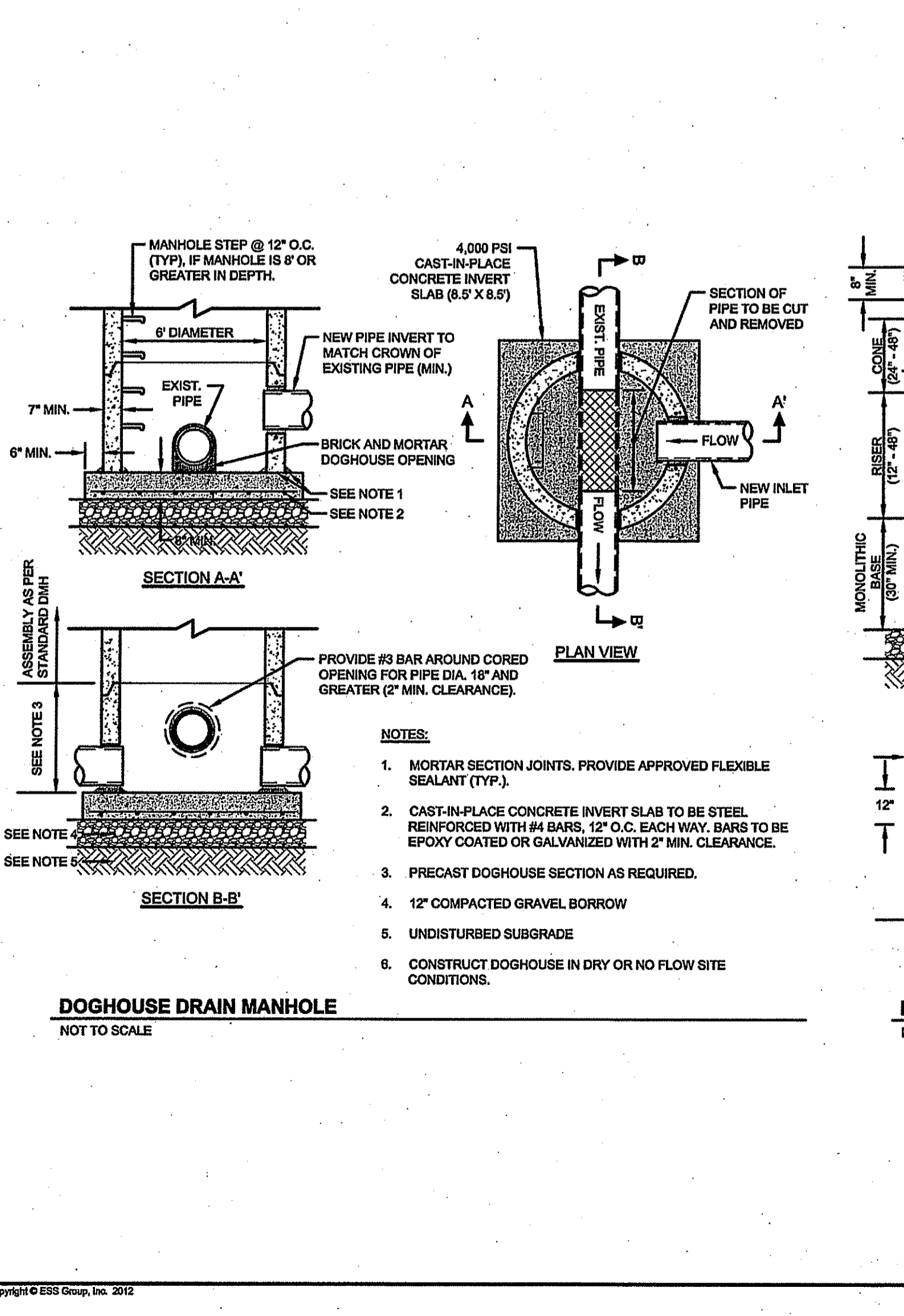
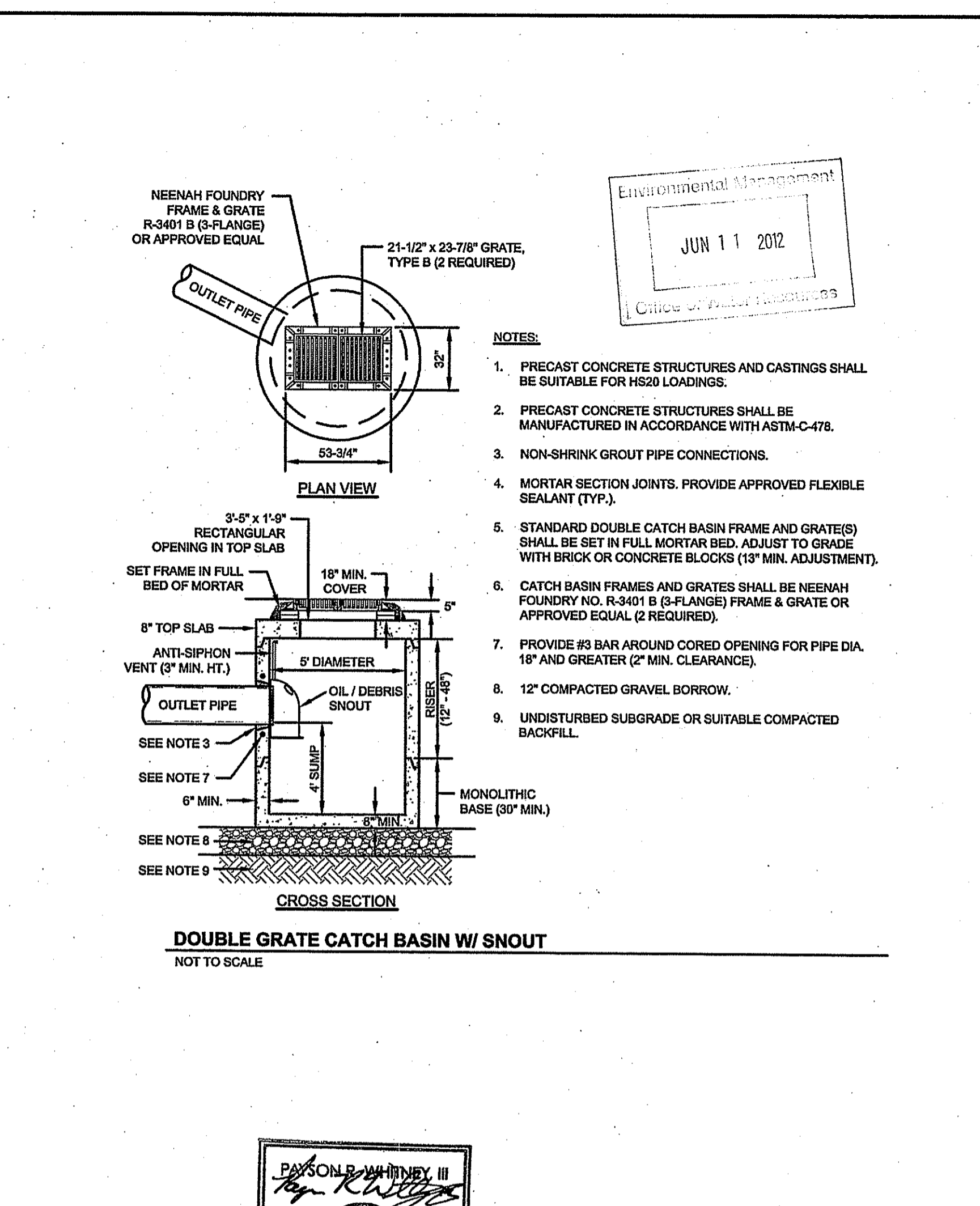
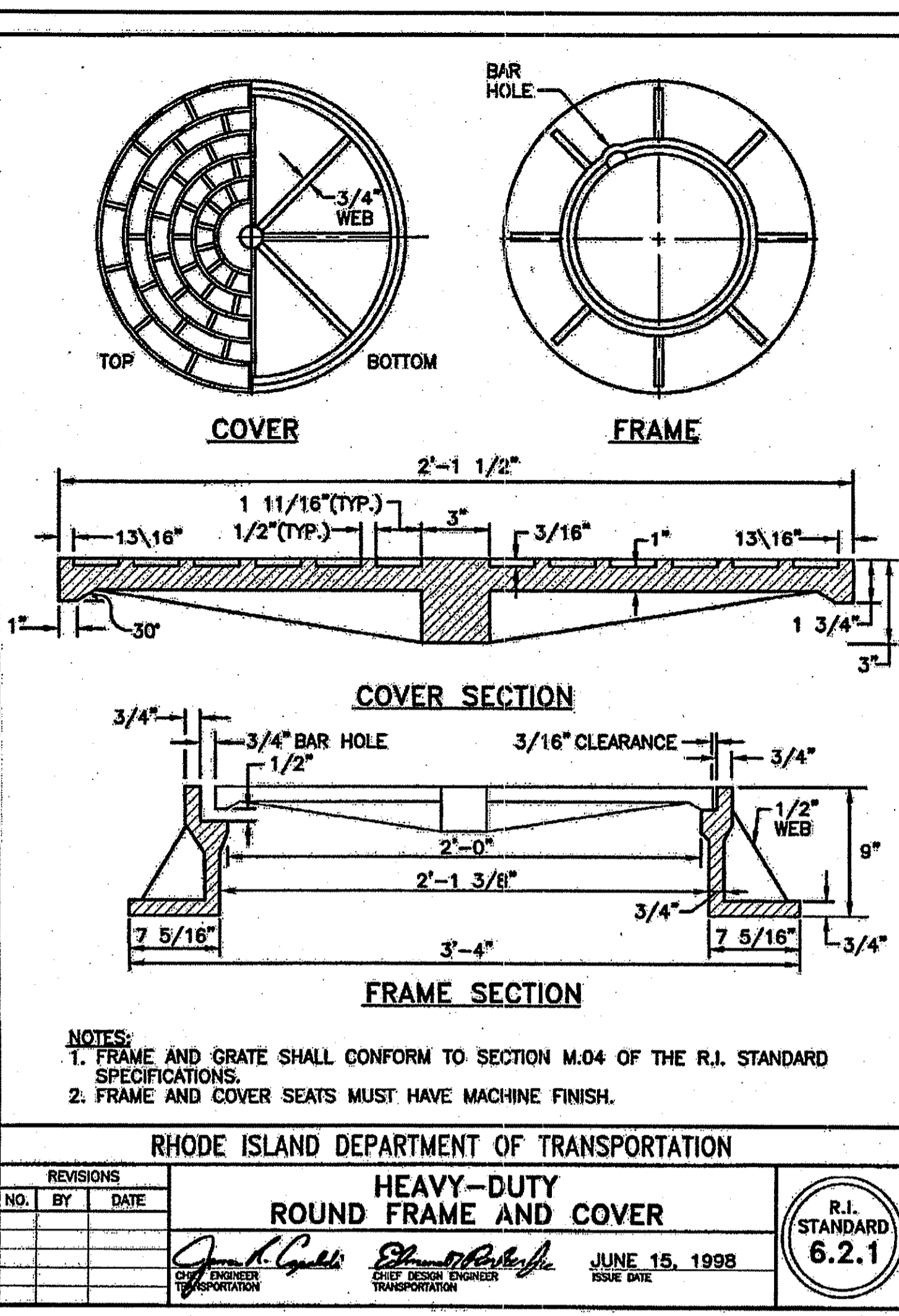
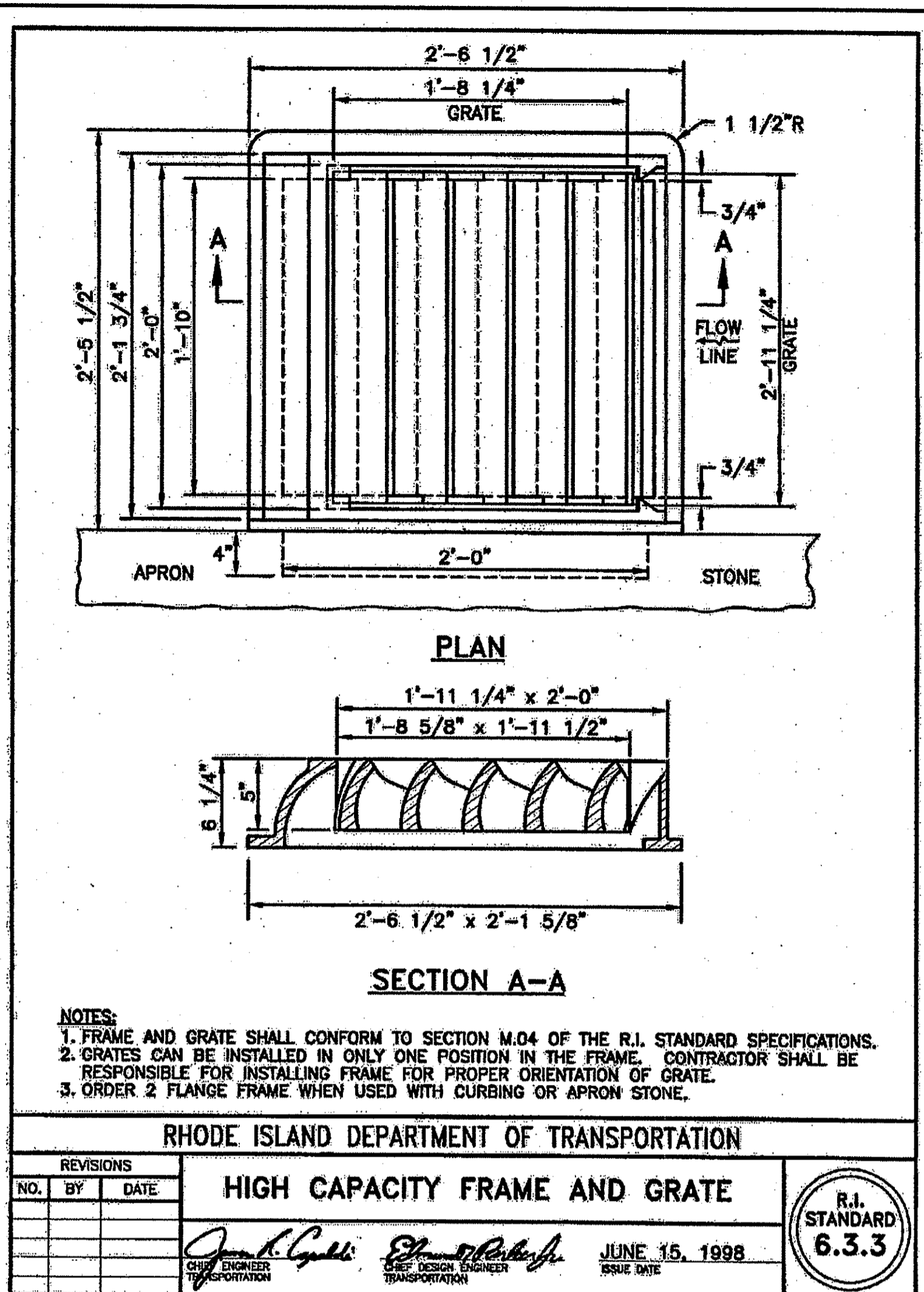
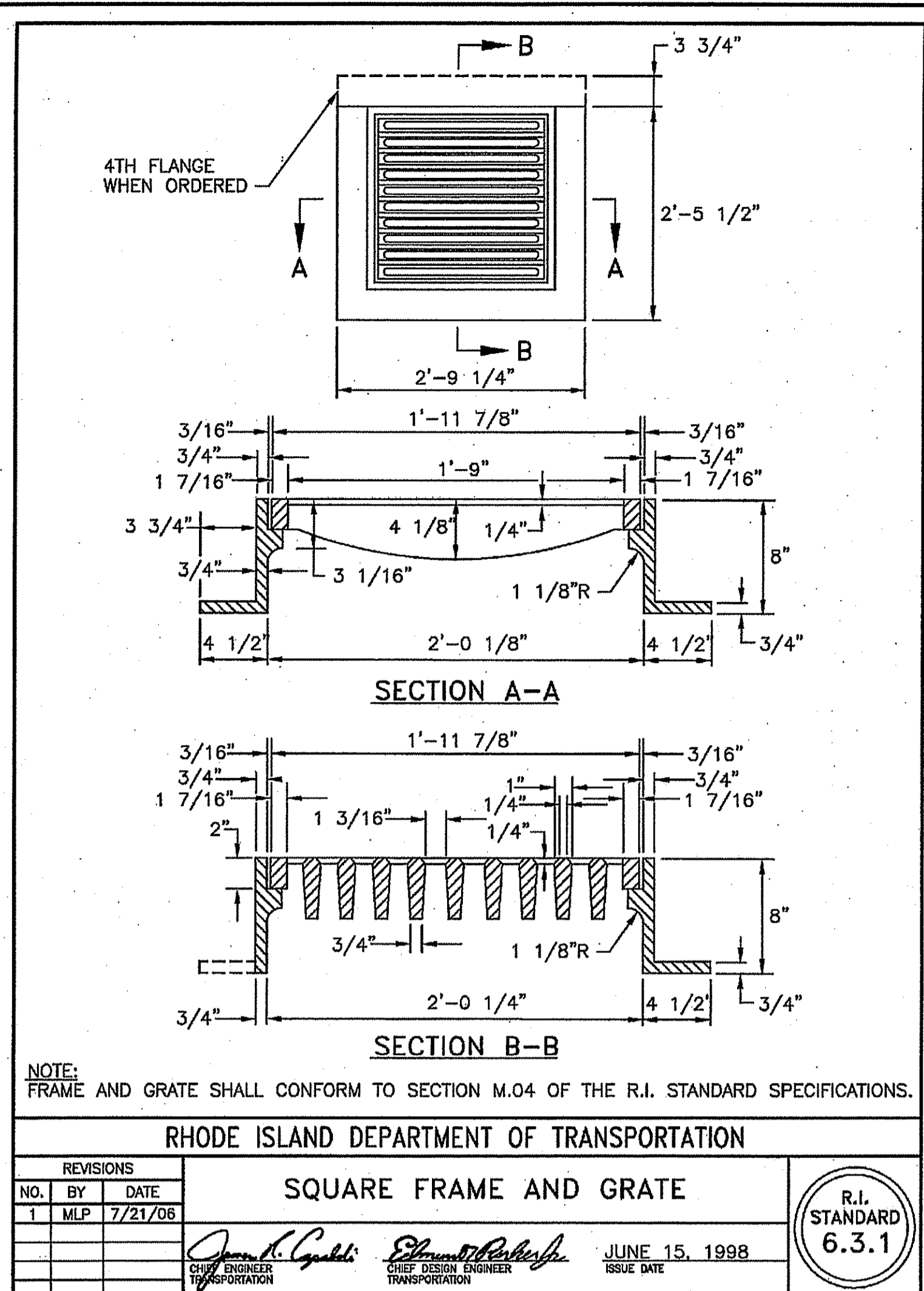
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL.
DATED May 22 2012 FILE # 12-0052
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL.
APPROVED PLANS MUST BE AT CONSTRUCTION SITE.

Paul [Signature]

SMM New England Corporation
Johnston Processing Facility
Johnston, RI

Site Details

PROJECT No.: S444-000
DATE OF ISSUE: April 16, 2012
SHEET No.:
SCALE:
DRAWING No.:
PD-14



DATE: Jun 05, 2012, 2:21PM
 DRAWING: R:\S444-000\Sheet\Drawings\Drainage\Drainage\PD-15.dwg
 REVISIONS: 1. MLP 7/21/08
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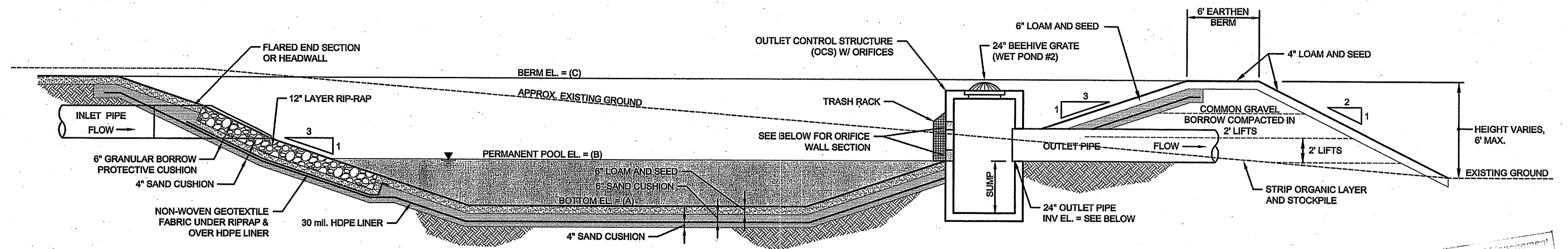
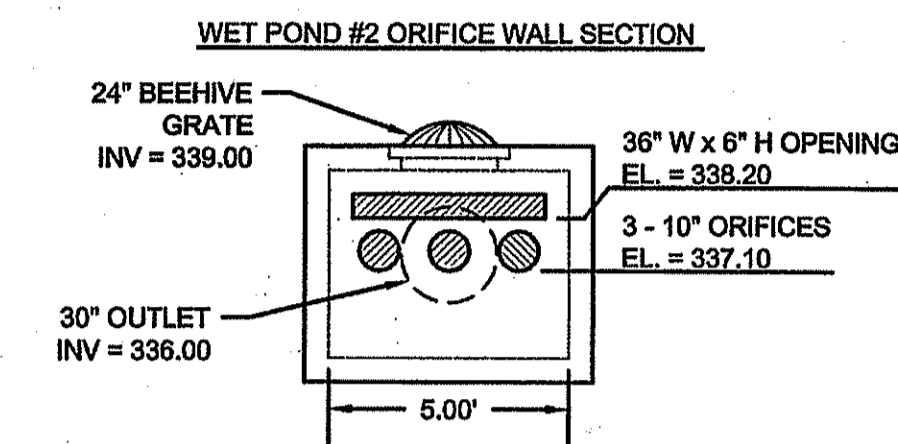
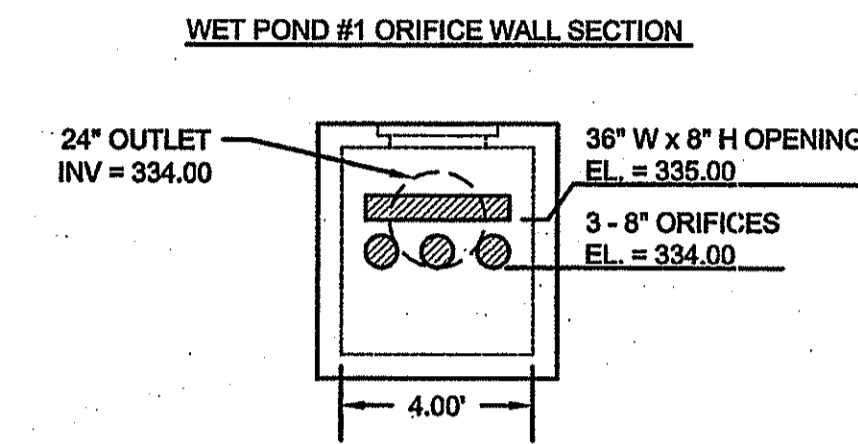
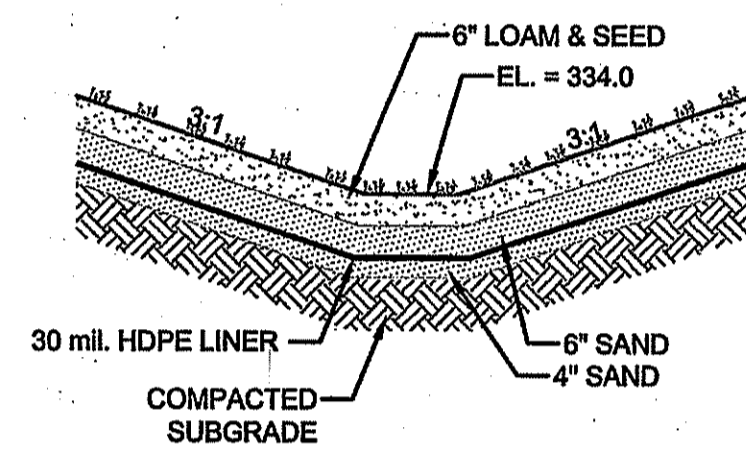


TABLE 1: POND ELEVATIONS

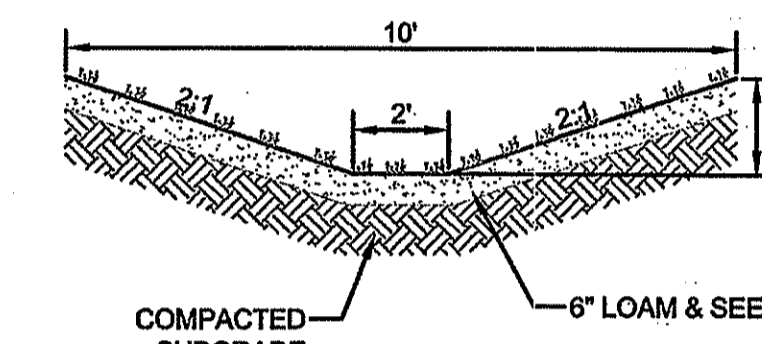
	(A)	(B)	(C)
WET POND 1	331.00	332.50	337.00
WET POND 2	334.00	337.10	340.00



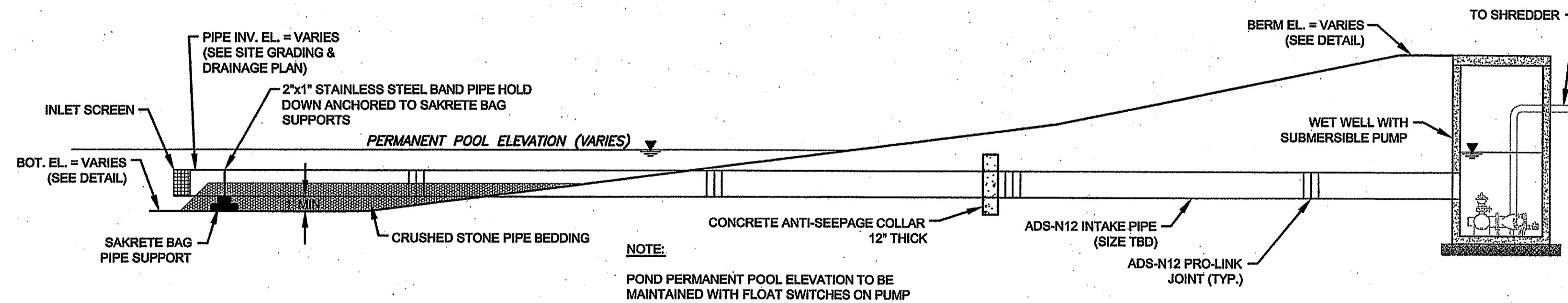
WET DETENTION POND DETAIL
N.T.S.



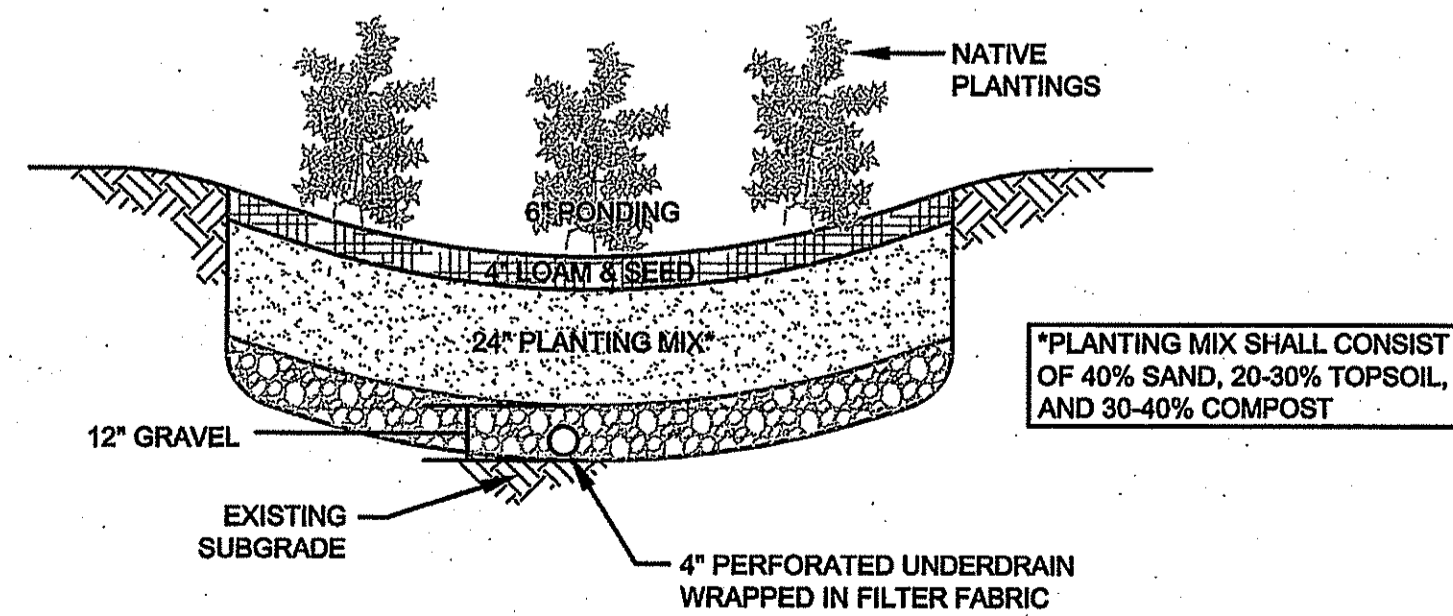
SEDIMENT FOREBAY (FOR WET POND #1) DETAIL
N.T.S.



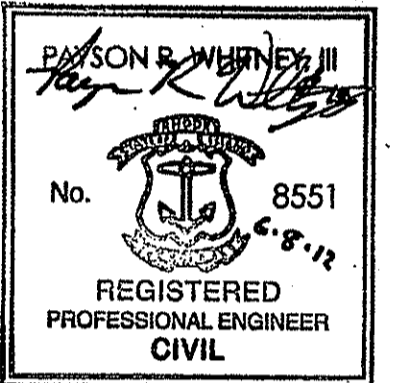
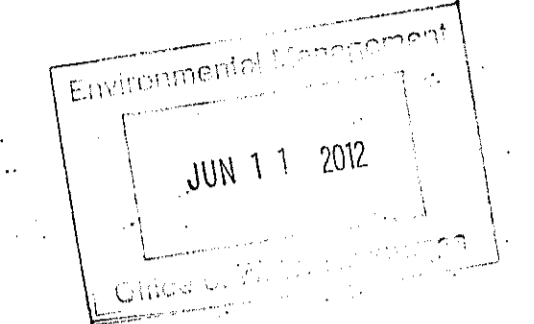
GRASS CHANNEL DETAIL
N.T.S.



WET DETENTION POND INTAKE AND WET WELL SECTION
N.T.S.



BIORETENTION AREA DETAIL
NOT TO SCALE



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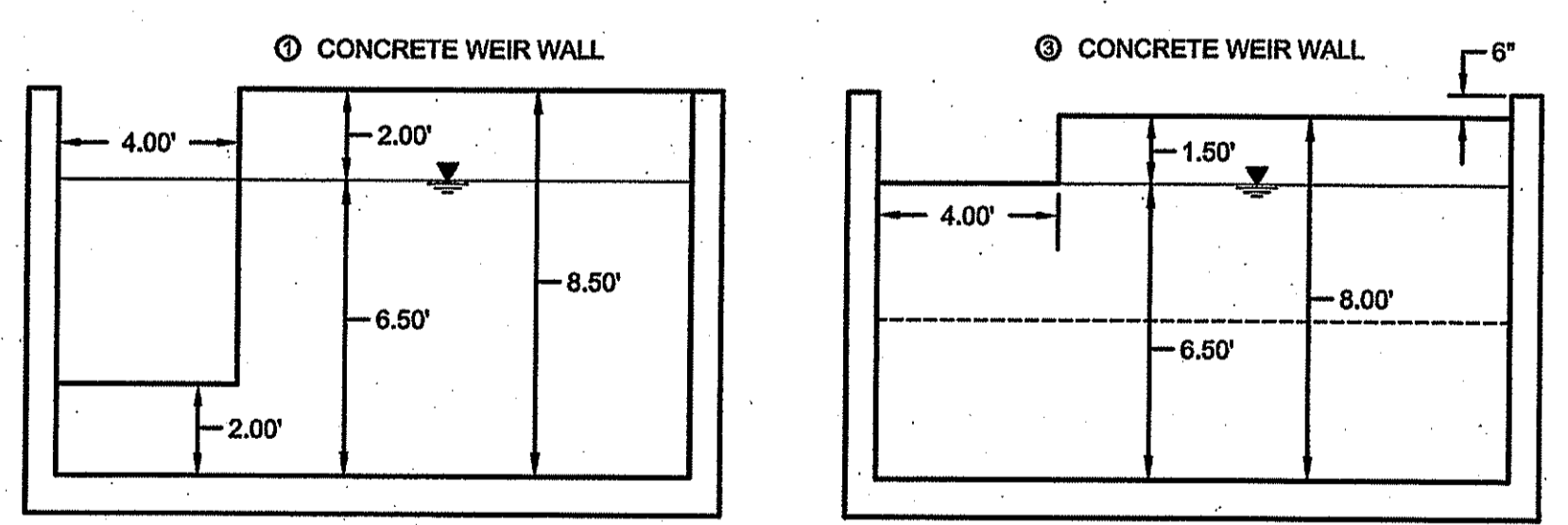
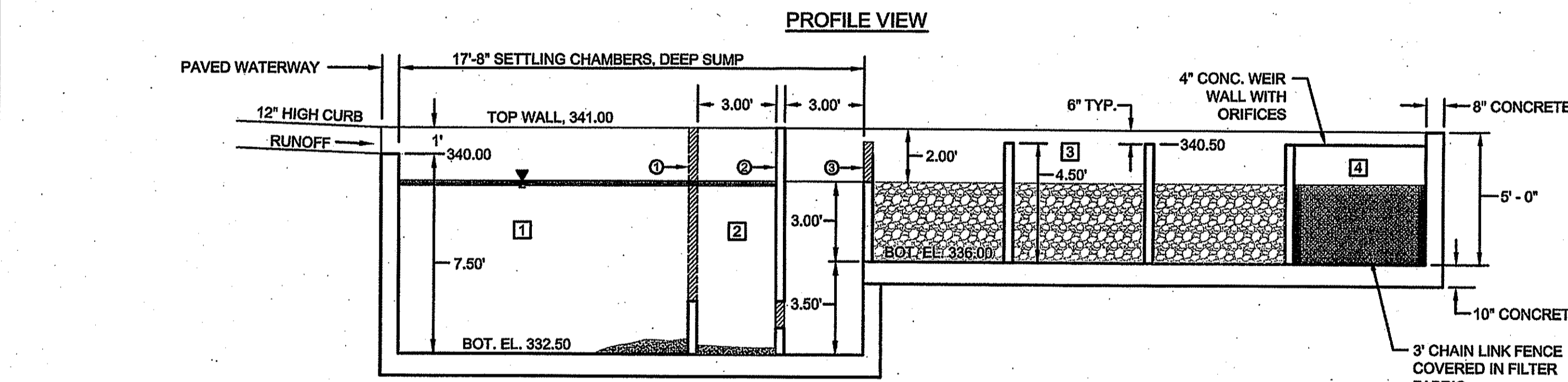
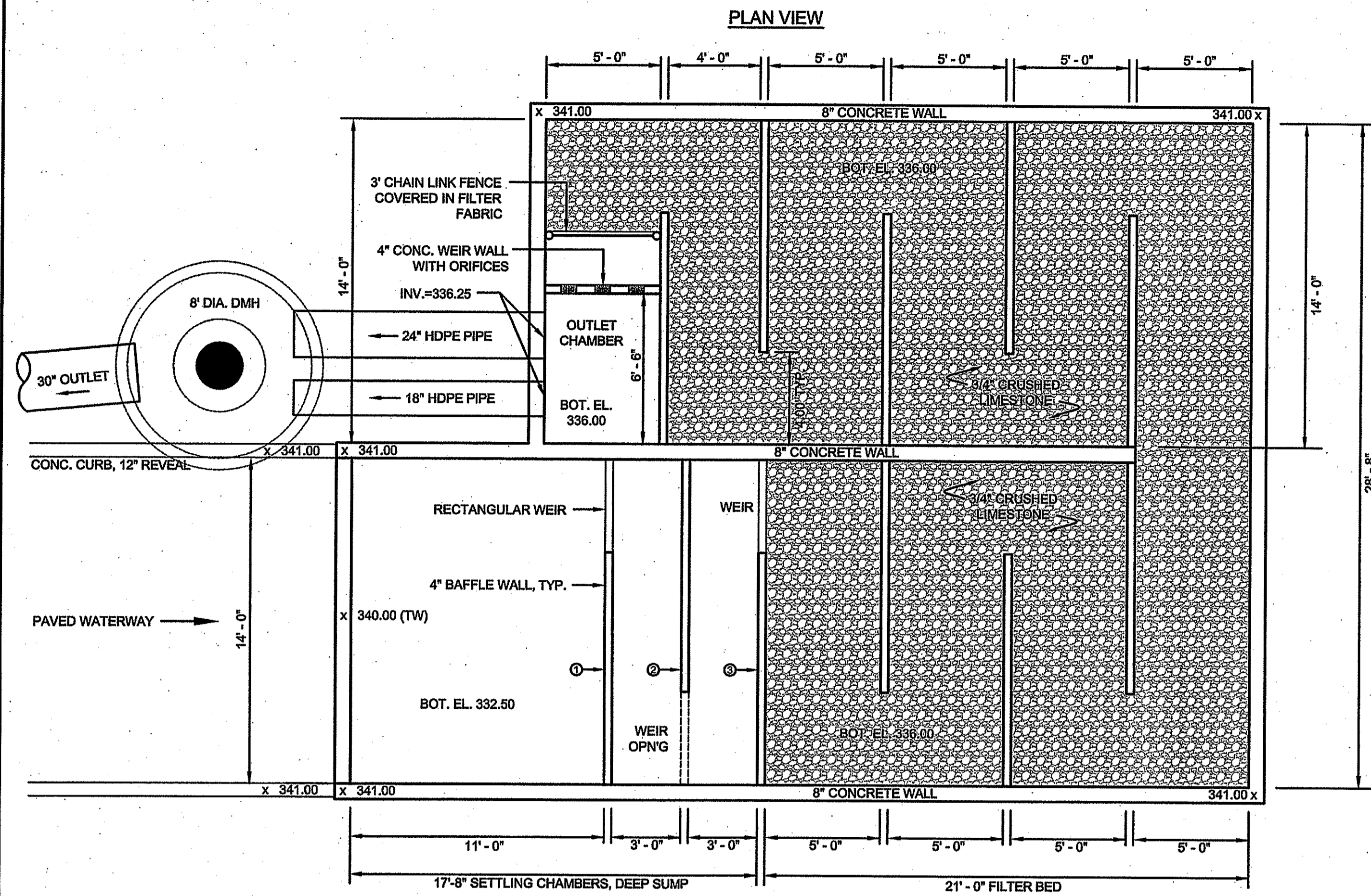
**Drainage
Details**

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FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED 4/22/2012 FILE # 12-0052
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

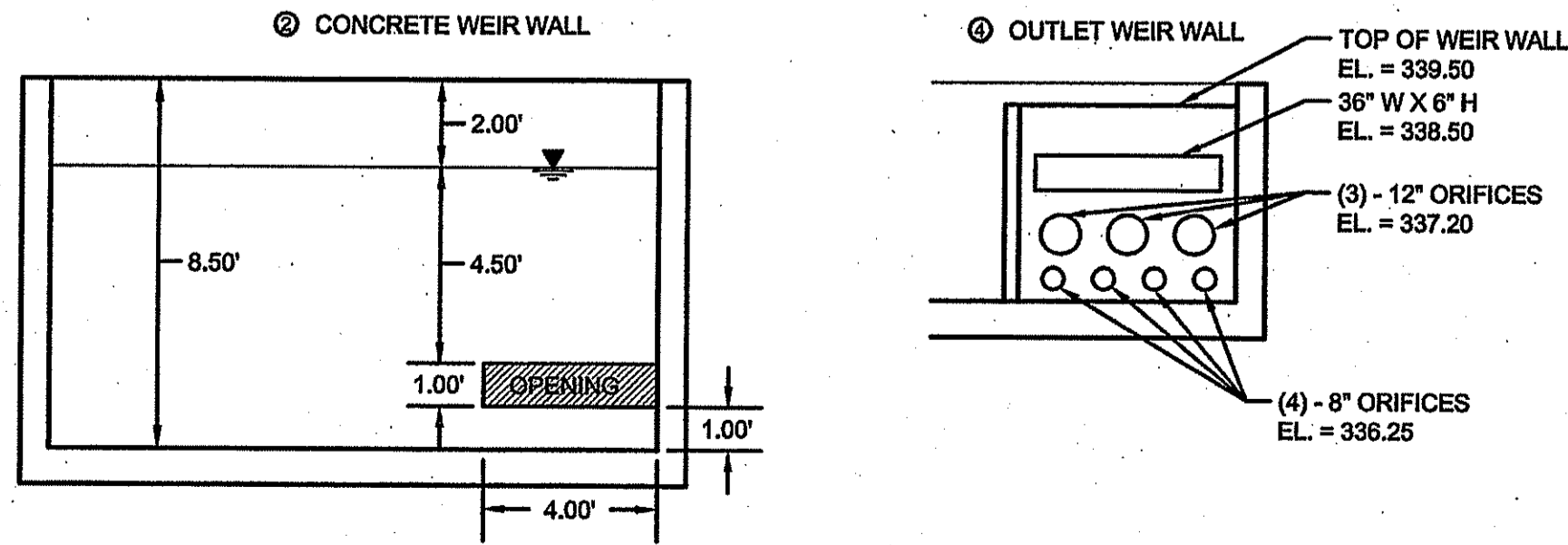
Payson R. Wherney, Jr.

PROJECT No.: S444-000	DRAWING No.
DATE OF ISSUE: April 16, 2012	PD-16
SHEET No.:	
SCALE:	

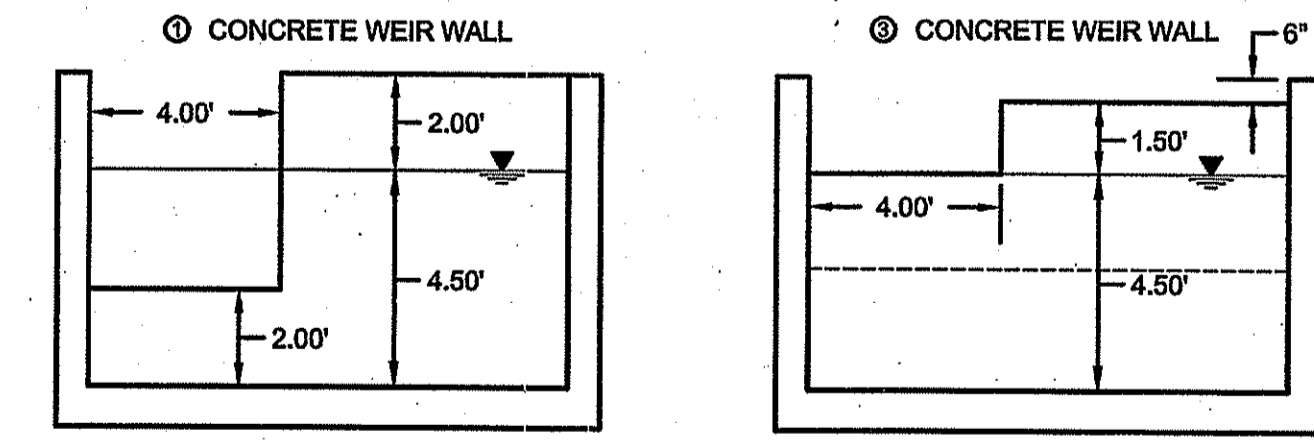
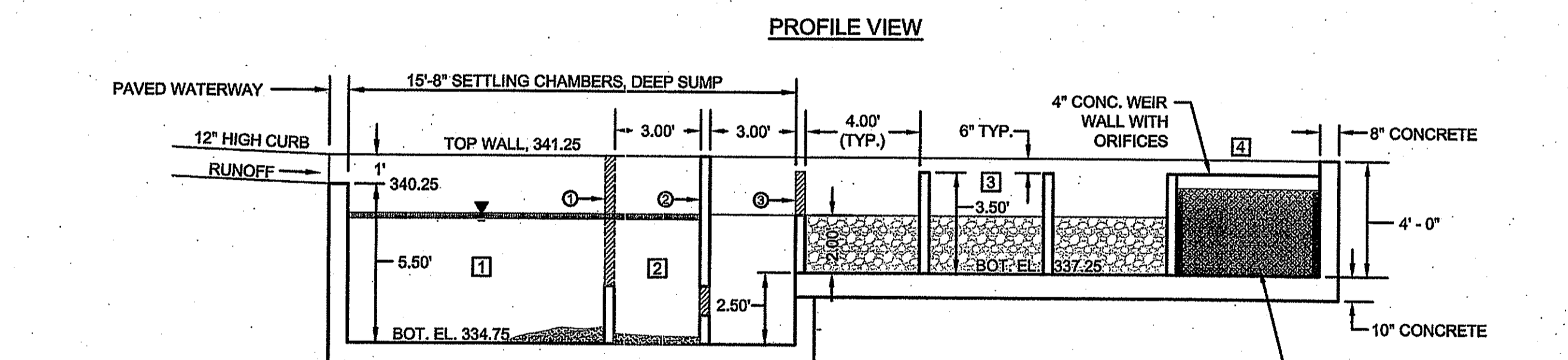
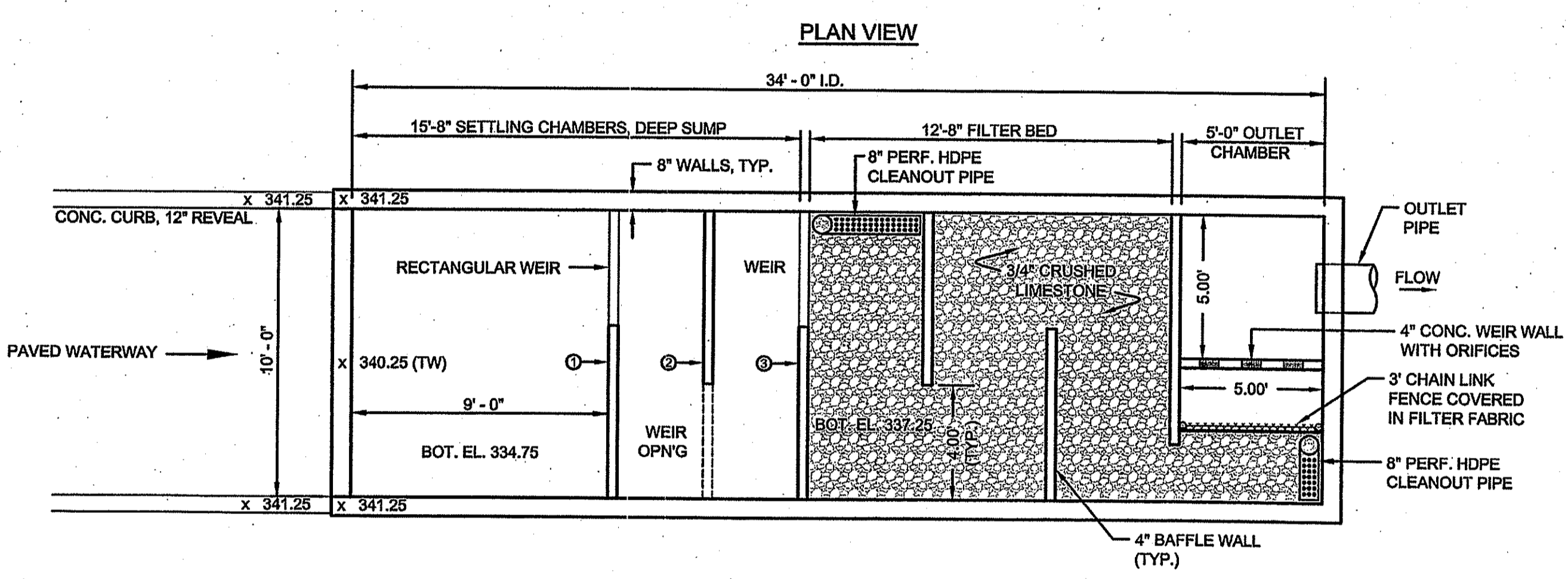
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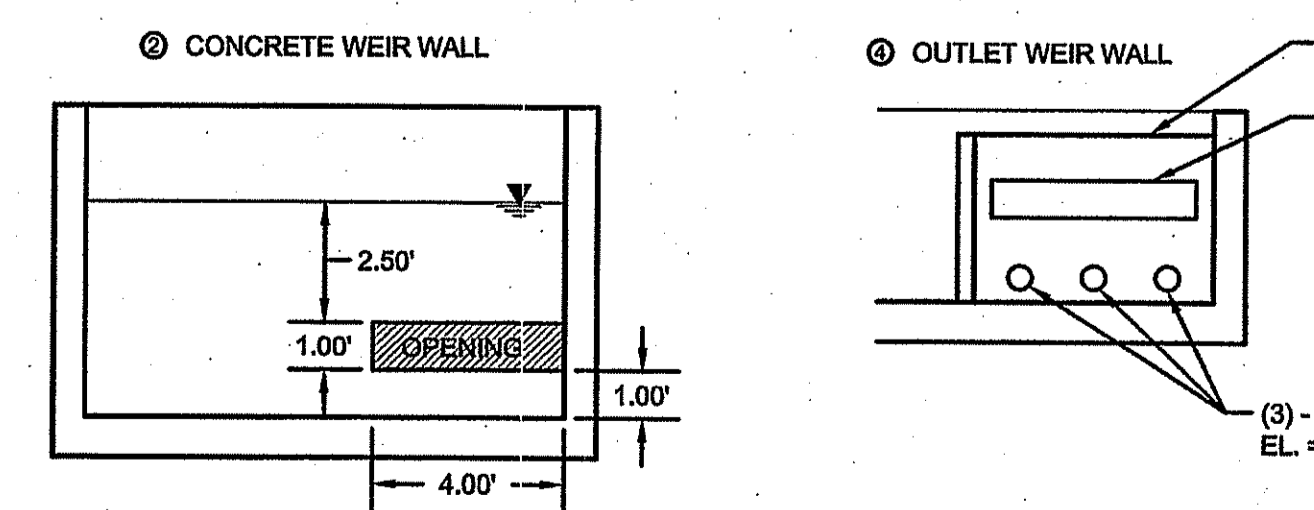
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- 1 STORMWATER COLLECTION/SEDIMENT SETTLING
 - 2 OIL / WATER SEPARATION
 - 3 GRAVEL FILTERING
 - 4 OUTLET



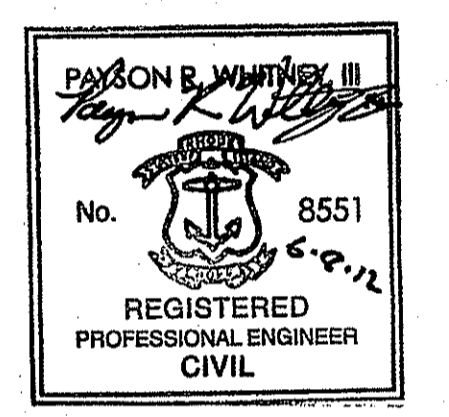
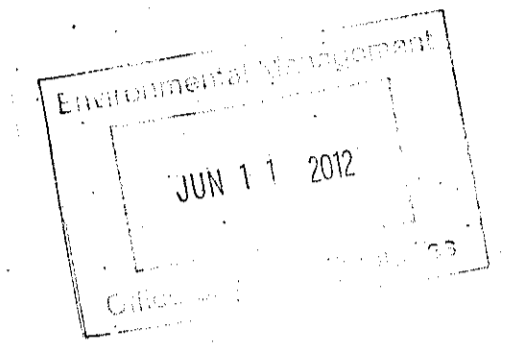
CONCRETE GRAVEL FILTER NO.1
Scale: 1"=4'



- GRAVEL FILTER CHAMBERS**
- 1 STORMWATER COLLECTION/SEDIMENT SETTLING
 - 2 OIL / WATER SEPARATION
 - 3 GRAVEL FILTERING
 - 4 OUTLET



CONCRETE GRAVEL FILTER NO. 2
Scale: 1"=4'



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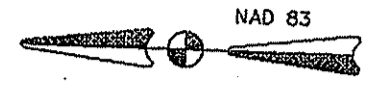
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	DRAWN BY: DJG	CHECKED BY: PRW	
	DESIGNED BY: DJG	APPROVED BY: PRW	

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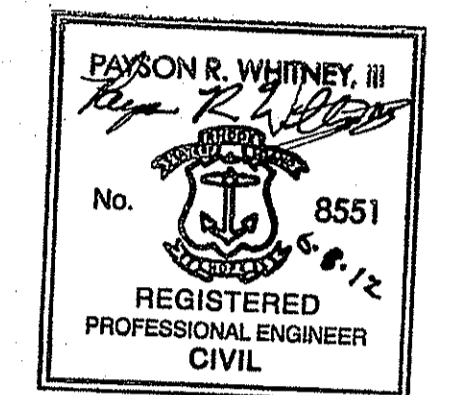
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Concrete Drainage Structure Details

PROJECT No.: S444-000	DRAWING No.
DATE OF ISSUE: April 16, 2012	PD-17
SHEET No.:	
SCALE:	



Environmental Management
 JUN 11 2012
 Office of Water Resources



NOTE:
 BMP NUMBERS CORRESPOND TO RIDEM
 STORMWATER CHECKLIST TABLE A.2-1.

0 40 80
 SCALE IN FEET

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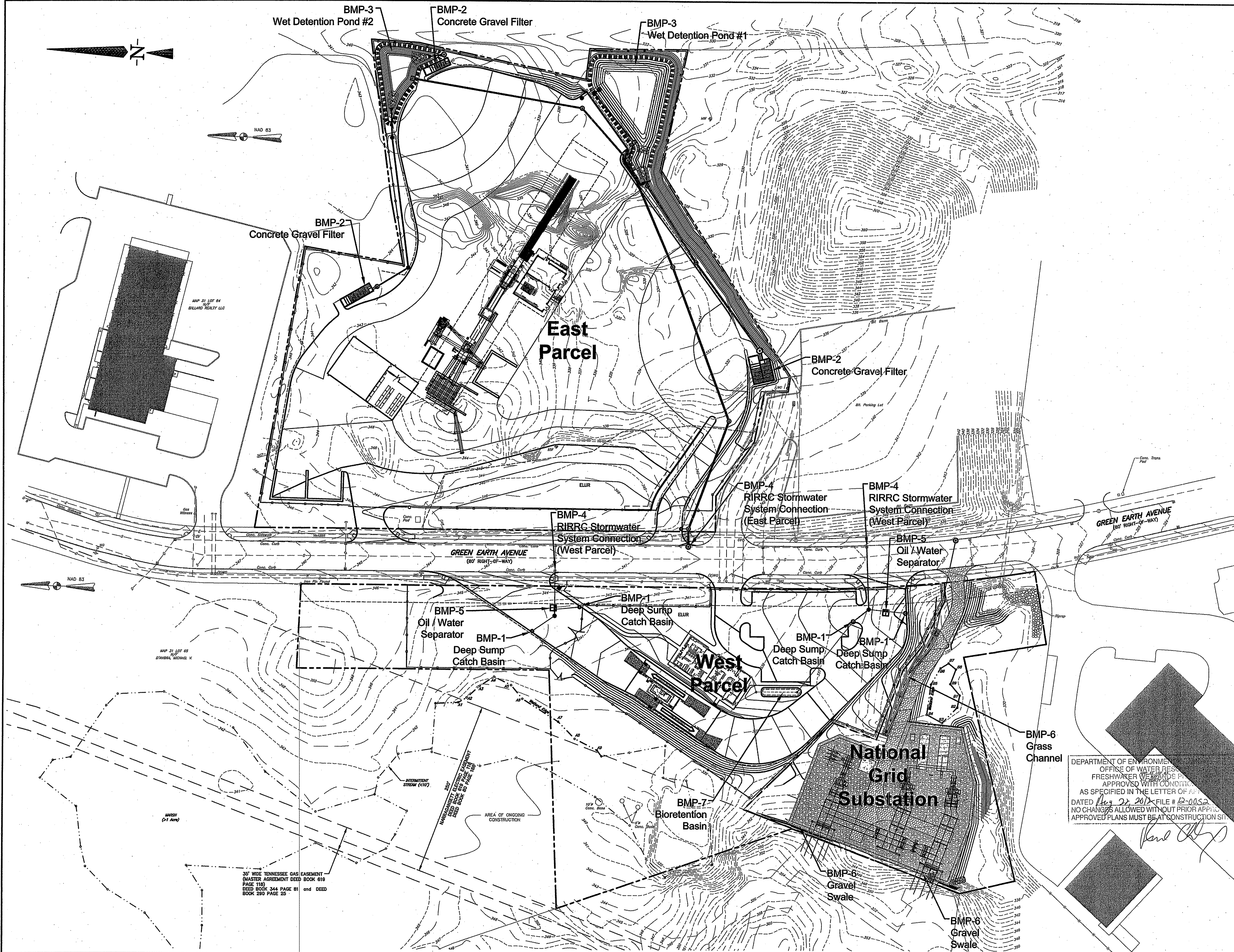
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Location of BMPs

PROJECT No.: S444-000 DRAWING No.:
 DATE OF ISSUE: APRIL 16, 2012
 SHEET No.: **PD-19**
 SCALE: 1"=40'



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 FRESHWATER WETLANDS PERMITTING
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 AS SPECIFIED IN THE LETTER OF FINDING
 DATED May 22, 2012 FILE # B-0052
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Paul Kelly

DATE: Jun 05, 2012 10:57 AM L:\SMM\Projects\444-S444\Drawings\PD-19 BMP Location Plan.dwg
 DRAWN BY: DJG CHECKED BY: PRW APPROVED BY: PRW
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35' WIDE TENNESSEE GAS EASEMENT
 (MASTER AGREEMENT DEED BOOK 619
 PAGE 110)
 DEED BOOK 344 PAGE 81 and DEED
 BOOK 290 PAGE 25

MAP 31 LOT 65
 DAMIAN, MICHAEL V.

MAP 31 LOT 64
 BILLARD REALTY LLC

AMSHY
 (D-1 Area)

AREA OF ONGOING
 CONSTRUCTION

10' CON. BASE

**National
 Grid
 Substation**

**East
 Parcel**

**West
 Parcel**

GREEN EARTH AVENUE
 (80' RIGHT-OF-WAY)

GREEN EARTH AVENUE
 (80' RIGHT-OF-WAY)

BMP-2
 Concrete Gravel Filter

BMP-3
 Wet Detention Pond #2

BMP-2
 Concrete Gravel Filter

BMP-3
 Wet Detention Pond #1

BMP-2
 Concrete Gravel Filter

BMP-4
 RIRRC Stormwater
 System Connection
 (East Parcel)

BMP-4
 RIRRC Stormwater
 System Connection
 (West Parcel)

BMP-5
 Oil/Water
 Separator

BMP-5
 Oil/Water
 Separator

BMP-1
 Deep Sump
 Catch Basin

BMP-1
 Deep Sump
 Catch Basin

BMP-1
 Deep Sump
 Catch Basin

BMP-7
 Bioretention
 Basin

BMP-6
 Gravel
 Swale

BMP-6
 Gravel
 Swale

BMP-6
 Grass
 Channel