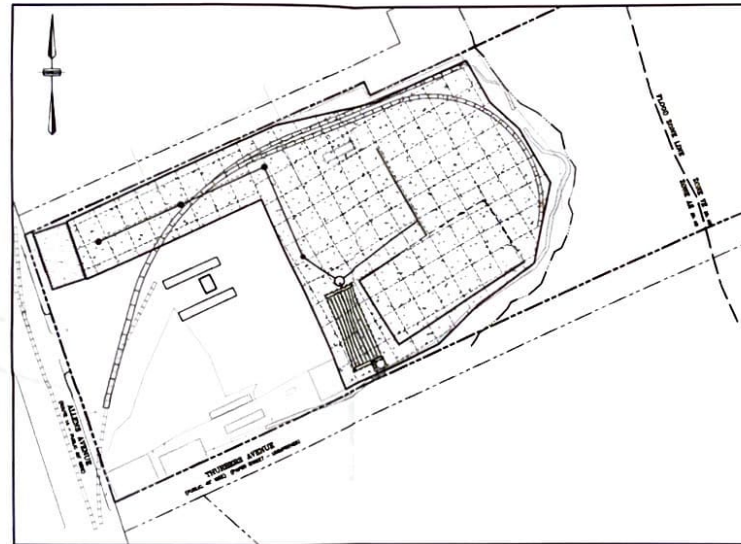


RHODE ISLAND RECYCLED METALS CONSTRUCTION PERIOD SWPPP SITE PLANS

434 ALLENS AVENUE
PROVIDENCE, RHODE ISLAND 02903



RI GIS 2005 AERIAL PHOTO
SCALE: 1 INCH = 1,000 FEET



SCALE: 1 INCH = 80 FEET

DESCRIPTION	SHEET
COVER SHEET	1
EXISTING CONDITIONS	2
PROPOSED SITE LAYOUT	3
PROPOSED SITE GRADING & DRAINAGE	4
CONSTRUCTION SEQUENCING & EROSION CONTROL PLAN	5
SITE CONSTRUCTION DETAILS	6-8

PREPARED FOR:
ACR REALTY, LLC.
15 BRANCH PIKE
SMITHFIELD, RHODE ISLAND 02917

PREPARED ON:
FEBRUARY 2, 2012
REVISED AUGUST 23, 2012



4 FIRST STREET, BRIDGEWATER, MASSACHUSETTS 02324
PHONE: 508.697.3191 • FAX: 508.697.5996 • E-MAIL: admin@coneco.com
WEBSITE: http://www.coneco.com

ENGINEER:
DAVID A. HARRINGTON, P.E.
CONECO ENGINEERS & SCIENTISTS
BRIDGEWATER, MA 02324



RHODE ISLAND REGISTERED PROFESSIONAL ENGINEER #9214
DATE: August 23, 2012

SURVEYOR:
TIMOTHY S. BODAH, P.L.S.
CONECO ENGINEERS & SCIENTISTS
BRIDGEWATER, MA 02324



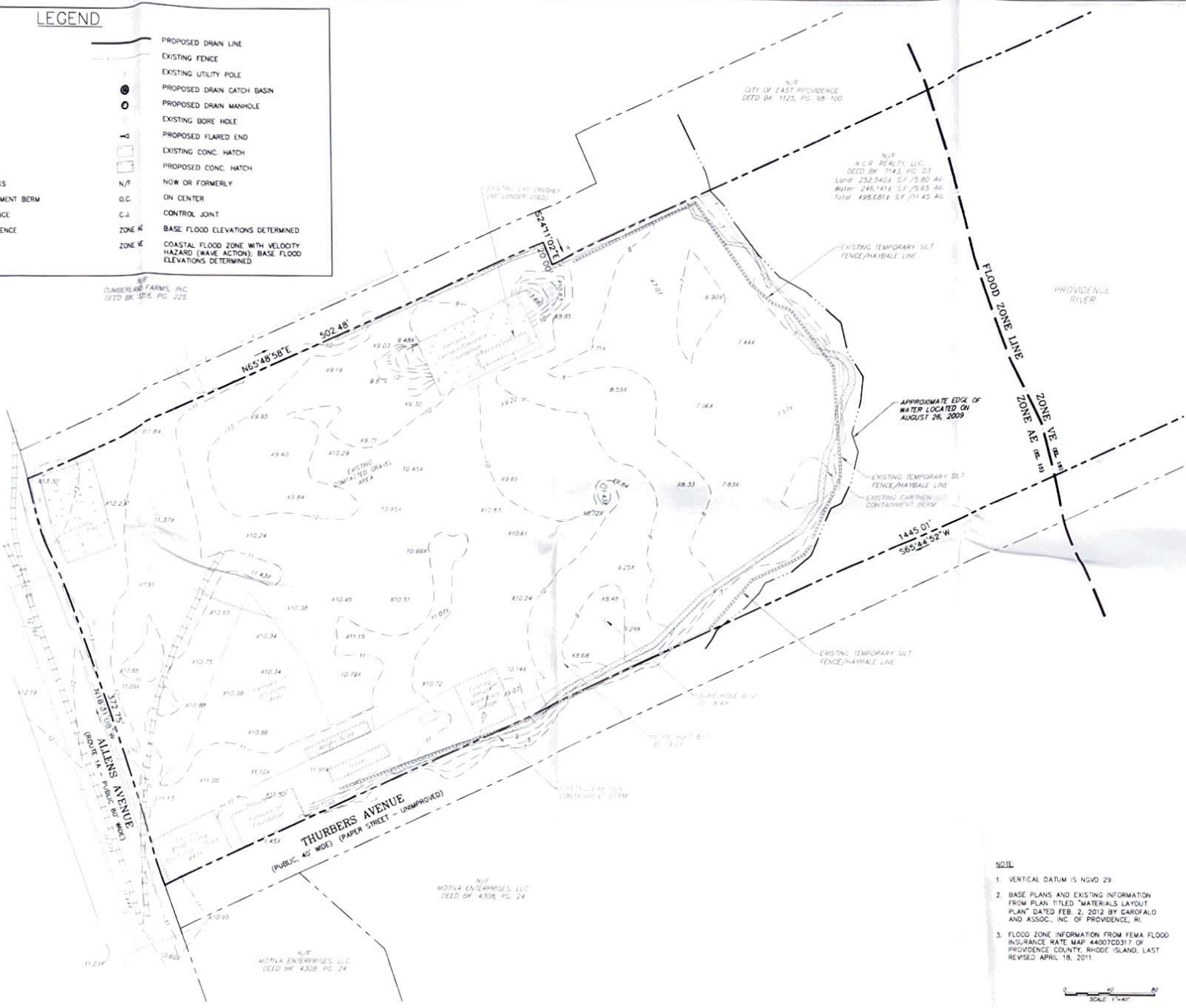
RHODE ISLAND REGISTERED PROFESSIONAL LAND SURVEYOR #1185
DATE: AUG 23 2012

NO.		DATE		REVISIONS
				DESCRIPTION
1	8/23/12	DMR	COMMENT	REVISIONS: REVISED DRAINAGE COMPONENTS

SURVEYING
ECOLOGICAL SERVICES
ENVIRONMENTAL CONSULTING
CIVIL ENGINEERING
CONECO

LEGEND

- PROPERTY LINE ADJUTER
- - - PROPERTY LINE LOCUS
- - - EDGE OF WATER
- - - FLOOD ZONE BOUNDARY
- - - EXISTING BUILDING
- - - PROPOSED BUILDING
- - - EXISTING CONTOUR LINE
- - - PROPOSED CONTOUR LINE
- - - EXISTING RAILROAD TRACKS
- - - PROPOSED RAILROAD TRACKS
- - - EXISTING EARTHEN CONTAINMENT BERM
- - - EXISTING HAYBALE SILT FENCE
- - - PROPOSED HAYBALE SILT FENCE
- PROPOSED DRAIN LINE
- EXISTING FENCE
- EXISTING UTILITY POLE
- PROPOSED DRAIN CATCH BASIN
- PROPOSED DRAIN MANHOLE
- EXISTING BORE HOLE
- PROPOSED FLARED END
- EXISTING CONC. HATCH
- PROPOSED CONC. HATCH
- NOW OR FORMERLY
- ON CENTER
- CONTROL JOINT
- BASE FLOOD ELEVATIONS DETERMINED
- COASTAL FLOOD ZONE WITH VELOCITY HAZARD (WAVE ACTION), BASE FLOOD ELEVATIONS DETERMINED



THOMY S. BODAH
 P.E.
 1985
 PROFESSIONAL ENGINEER
 STATE OF RHODE ISLAND

NO.	DATE	DESCRIPTION	BY/CHK	ENG/ADM
1	8/15/12	CONTRACT COMMENTS, REVISIONS		

ACR REALTY, LLC
 15 BRANCH PIKE
 SMITHFIELD, RHODE ISLAND 02917

RHODE ISLAND RECYCLED METALS
 CONSTRUCTION PERIOD SWPPP
 434 ALLENS AVENUE
 PROVIDENCE, RHODE ISLAND 02903

CONECO
 Engineers, Scientists & Surveyors
 4 FIRST STREET, BOSTONIA, MASSACHUSETTS 02524
 TEL: 617-252-1100 FAX: 617-252-1101
 WWW.CONECO.COM

DATE	08/15/2012
DRAWN/CHECK	DMG/SMD
SCALE	1" = 40'
PROJECT #	7400.0
SHEET NO	2 OF 08

- NOTE**
- VERTICAL DATUM IS NGVD 29.
 - BASE PLANS AND EXISTING INFORMATION FROM PLAN TITLED "MATERIALS LAYOUT PLAN" DATED FEB. 2, 2012 BY GAROFALO AND ASSOC., INC. OF PROVIDENCE, RI.
 - FLOOD ZONE INFORMATION FROM FEMA FLOOD INSURANCE RATE MAP 440070317 OF PROVIDENCE COUNTY, RHODE ISLAND, LAST REVISED APRIL 18, 2011.





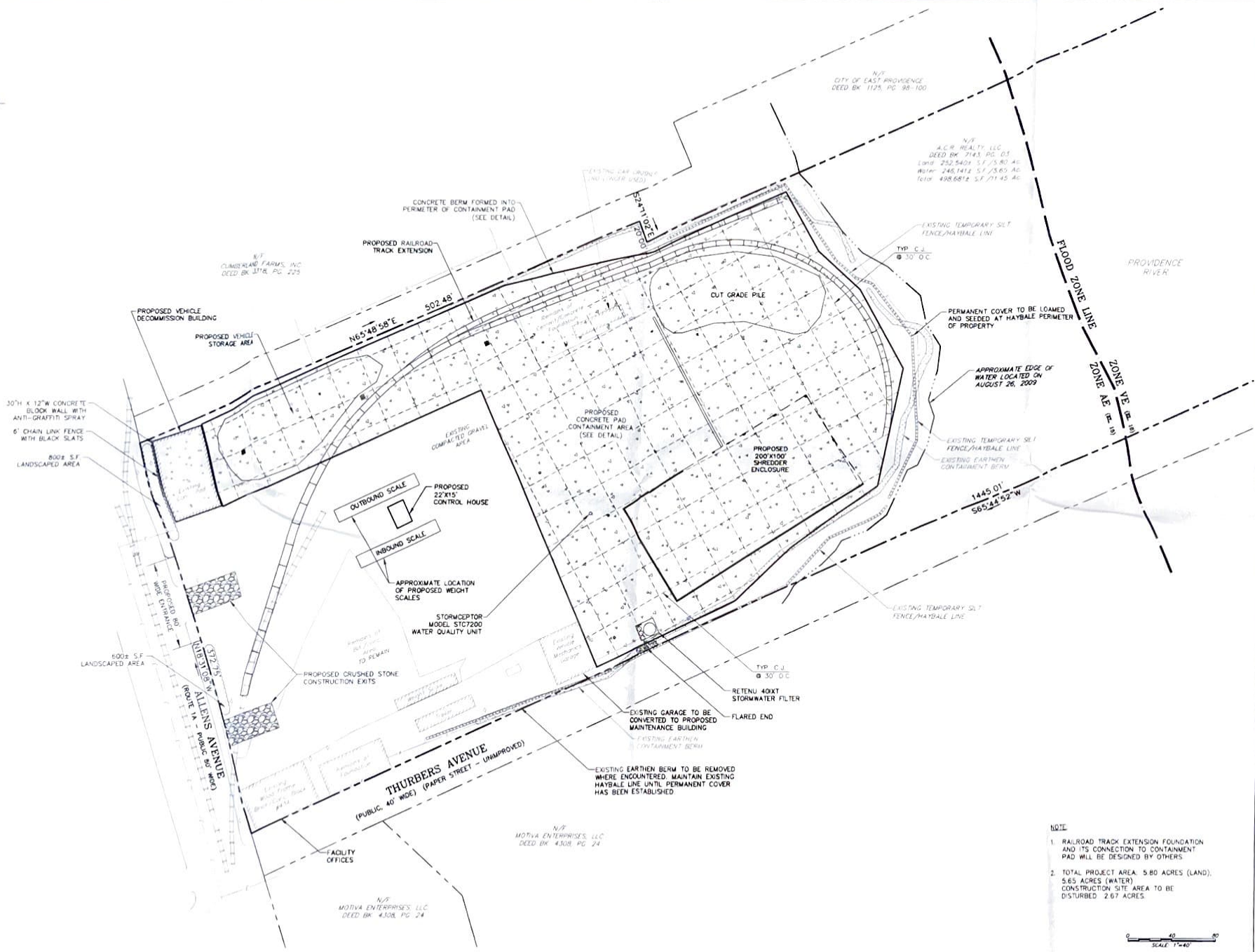
REV'S	DATE	DESCRIPTION
1	8/27/13	DMG COMPANY'S RECYCLED BRANKE

ACR REALTY, LLC
 15 BRANCH PIKE
 SMITHFIELD, RHODE ISLAND 02917

RHODE ISLAND RECYCLED METALS
 CONSTRUCTION PERIOD SPPFP
 434 ALLEN AVENUE
 PROVIDENCE, RHODE ISLAND 02903

CONNECO
 Engineers, Scientists & Surveyors
 1 FIRST STREET, BROOKFIELD, MASSACHUSETTS 02814
 508-897-3916 • 800-448-2330 • FAX 508-897-3996
 EMAIL: DAVID@CONNECO.COM • WEB SITE: WWW.CONNECO.COM

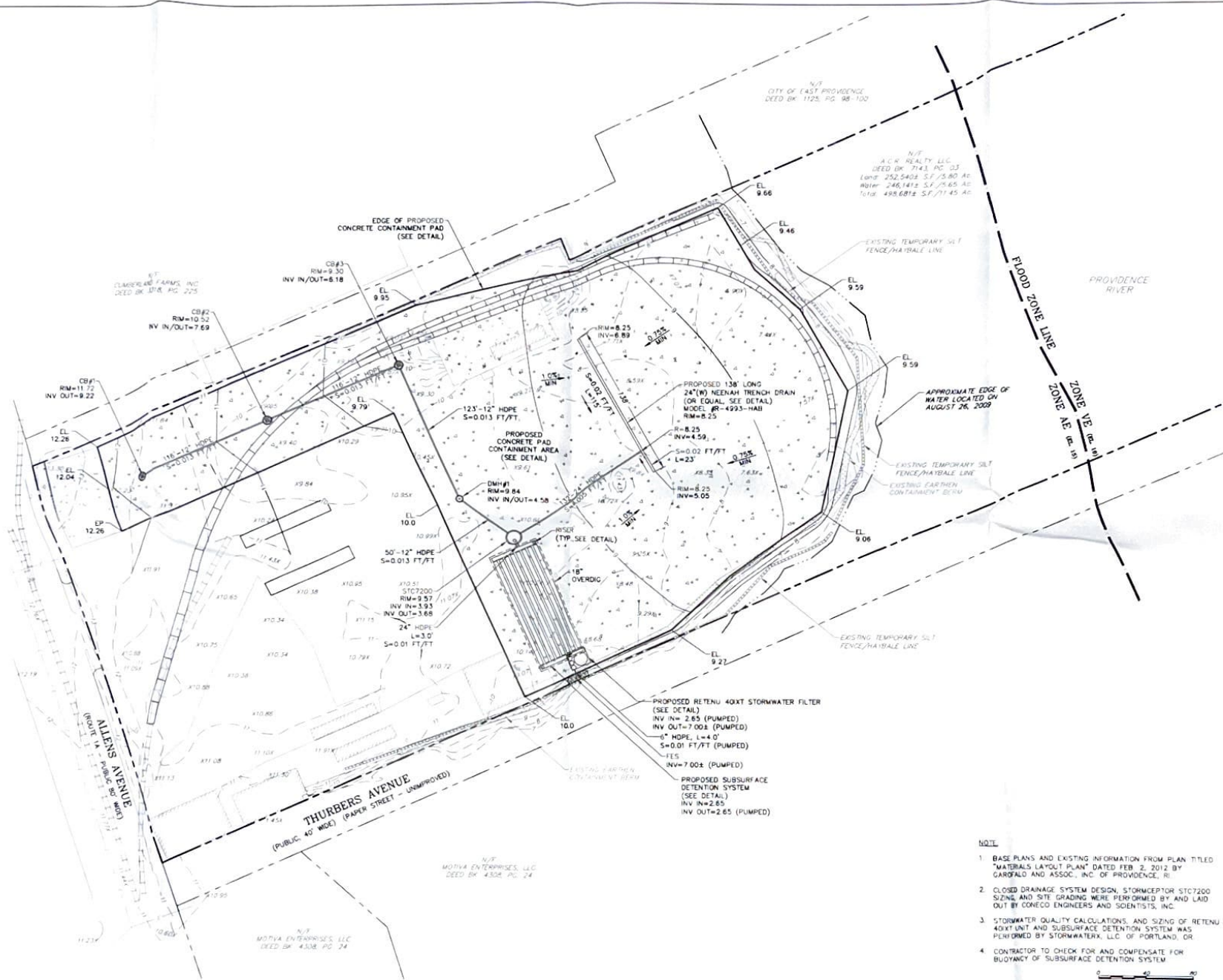
DATE:	08/15/2012
DRAWN/CHECK:	DMG/SMD
SCALE:	1" = 40'
PROJECT #	7400.0
SHEET NO.	3



- NOTE
- RAILROAD TRACK EXTENSION FOUNDATION AND ITS CONNECTION TO CONTAINMENT PAD WILL BE DESIGNED BY OTHERS.
 - TOTAL PROJECT AREA: 5.80 ACRES (LAND), 5.65 ACRES (WATER). CONSTRUCTION SITE AREA TO BE DISTURBED 2.67 ACRES.



N/A CLAMBERLAND FARMS, INC. DEED BK 3178, PG. 225
 N/A CITY OF EAST PROVIDENCE DEED BK 1125, PG. 98-100
 N/A A.C.R. REALTY, LLC DEED BK 7143, PG. 63 L&P# 295,840; S.F./A.C. AC. 101# 248,141; S.F./A.C. AC. 101# 498,681; S.F./A.C. AC.
 N/A MOTVA ENTERPRISES, LLC DEED BK 4308, PG. 24
 N/A MOTVA ENTERPRISES, LLC DEED BK 4308, PG. 24



DAVID A. HARRINGTON
 No. 9214
 REGISTERED PROFESSIONAL ENGINEER
 CIVIL

NO.	DATE	DESCRIPTION
1	8/23/12	ONE COMMENT REVISION

ACH REALTY, LLC
 15 BRANCH PIKE
 SMITHFIELD, RHODE ISLAND 02917

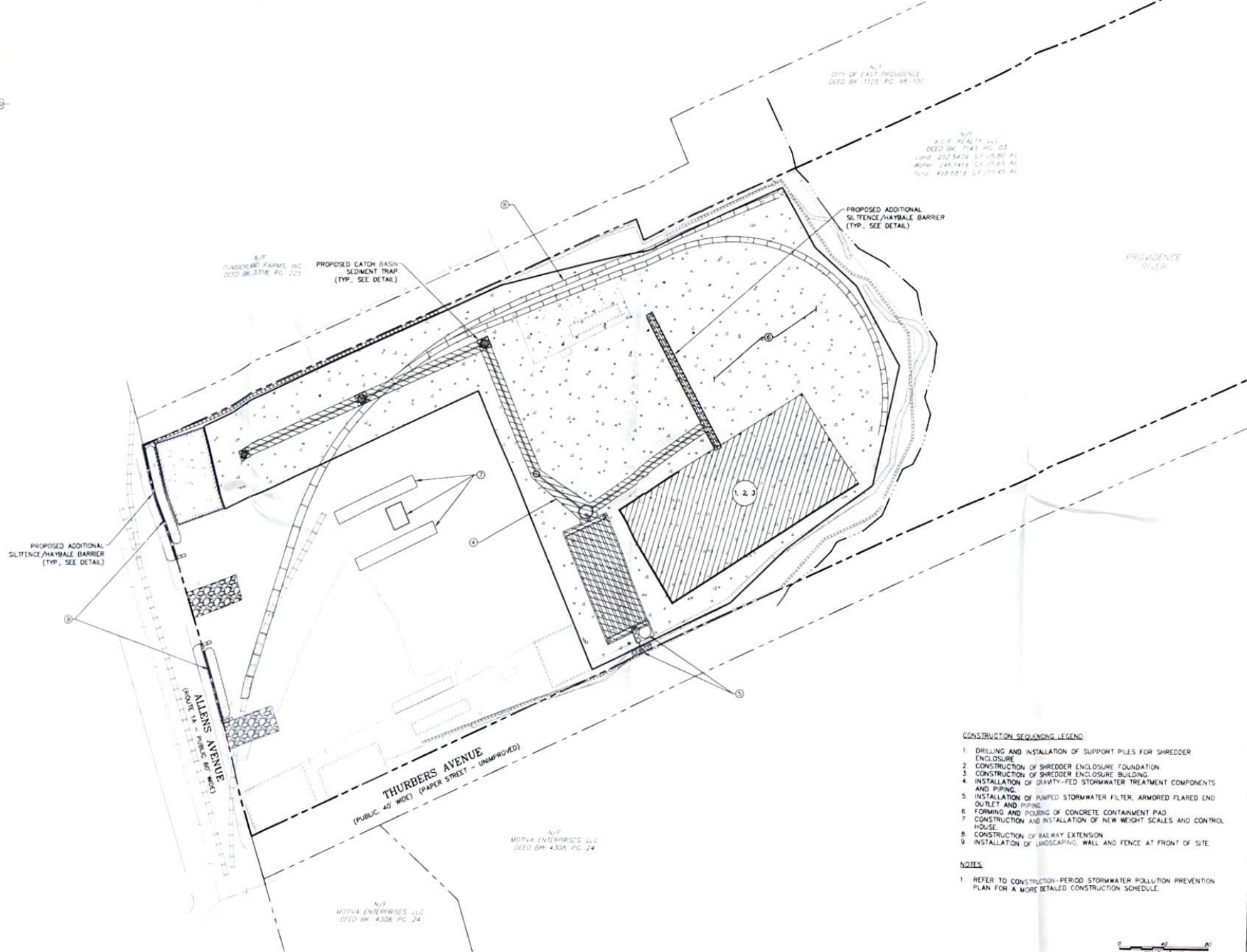
RHODE ISLAND RECYCLED METALS
 CONSTRUCTION PERIOD SWPPP
 434 ALLENS AVENUE
 PROVIDENCE, RHODE ISLAND 02903

CONECO
 Engineers, Scientists & Surveyors
 4 FIRST STREET, SMITHFIELD, RHODE ISLAND 02914
 PHONE: 401-887-2171 • FAX: 401-887-5996
 EMAIL: info@coneco.com • WEB SITE: http://www.coneco.com

DATE:	08/15/2012
DRAWN/ CHECKED:	DMG/SMD
SCALE:	1" = 40'
PROJECT #	7400.0
SHEET NO.	4 OF 08

- NOTE**
- BASE PLANS AND EXISTING INFORMATION FROM PLAN TITLED "MATERIALS LAYOUT PLAN" DATED FEB. 2, 2012 BY CARBALD AND ASSOC., INC. OF PROVIDENCE, RI
 - CLOSED DRAINAGE SYSTEM DESIGN, STORMCEPTOR STC7200 SIZING AND SITE GRADING WERE PERFORMED BY AND LAID OUT BY CONECO ENGINEERS AND SCIENTISTS, INC.
 - STORMWATER QUALITY CALCULATIONS, AND SIZING OF RETENU 40XT UNIT AND SUBSURFACE DETENTION SYSTEM WAS PERFORMED BY STORMWATER, LLC OF PORTLAND, OR
 - CONTRACTOR TO CHECK FOR AND COMPENSATE FOR BUOYANCY OF SUBSURFACE DETENTION SYSTEM





CONSTRUCTION SEQUENCING LEGEND:

1. DRILLING AND INSTALLATION OF SUPPORT PILES FOR SHREDDER ENCLOSURE
2. CONSTRUCTION OF SHREDDER ENCLOSURE FOUNDATION
3. CONSTRUCTION OF SHREDDER ENCLOSURE BUILDING
4. INSTALLATION OF GRAVITY-FED STORMWATER TREATMENT COMPONENTS AND PIPING
5. INSTALLATION OF PUMPED STORMWATER FILTER, ARMORED FLARED END OUTLET AND PIPING
6. FORMING AND POURING OF CONCRETE CONTAINMENT PAD
7. CONSTRUCTION AND INSTALLATION OF NEW WEIGHT SCALES AND CONTROL HOUSE
8. CONSTRUCTION OF RAILWAY EXTENSION
9. INSTALLATION OF LANDSCAPING, WALL AND FENCE AT FRONT OF SITE

NOTES:

1. REFER TO CONSTRUCTION-PERIOD STORMWATER POLLUTION PREVENTION PLAN FOR A MORE DETAILED CONSTRUCTION SCHEDULE.



DAVID A. HARRINGTON
 No. 9214
 REGISTERED PROFESSIONAL ENGINEER
 CIVIL

NO.	DATE	REVISIONS
1	02/27/12	DRY REVISION DWG COMMENTS RE: LEGD DRAINAGE

ACR REALTY, LLC
 15 BRANCH PIKE
 SMITHFIELD, RHODE ISLAND 02917

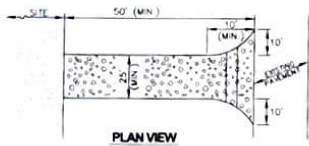
CONSTRUCTION SEQUENCING AND
 EROSION CONTROL PLAN

RHODE ISLAND RECYCLED METALS
 CONSTRUCTION PERIOD SWPPP
 434 ALLENS AVENUE
 PROVIDENCE, RHODE ISLAND 02903

CONSTRUCTION PERIOD
 SWPPP SITE PLANS

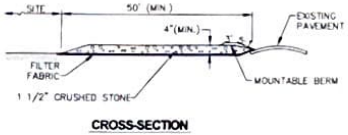
CONECO
 Engineers, Scientists & Surveyors
 1001 STREET, PROVIDENCE, MASSACHUSETTS 02914
 PHONE: 401-863-2444 FAX: 401-861-5886
 E-MAIL: info@coneconet.com WWW: www.coneconet.com

DATE: 08/15/2012
 DRAWN/CHECK: DMC/SMO
 SCALE: 1" = 40'
 PROJECT #: 7400 D
 SHEET NO: **5**
 OF 08

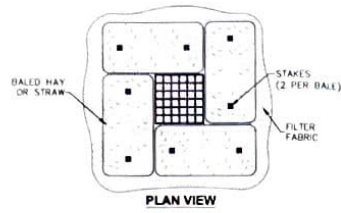


NOTES

- ENTRANCE WIDTH SHALL BE A TWENTY-FIVE (25) FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS.
- THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH SHALL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAYS. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR OR CLEANOUT OF ANY MEASURES USED TO REAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE PERMITTED IMMEDIATELY.
- PERIODIC INSPECTION AND MAINTENANCE SHALL BE PROVIDED AS NEEDED.

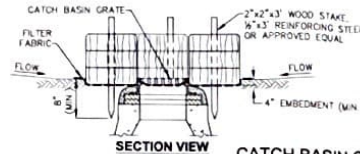


STABILIZED CONSTRUCTION EXIT
N.T.S.

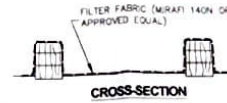
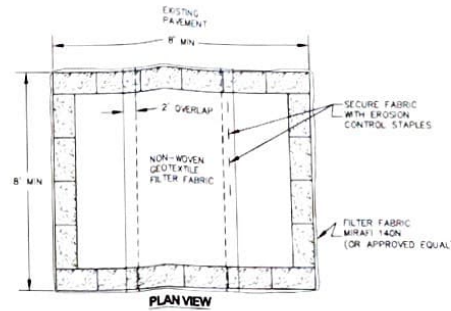


NOTES

- ENCLOSE STRUCTURE WITH HAYBALES IMMEDIATELY AFTER CATCH BASIN CONSTRUCTION. MAINTAIN UNITS. CONCRETE PAVING IS COMPLETE OR A PERMANENT STAND OF GRASS HAS BEEN ESTABLISHED.
- IF GRATE IS AGAINST EXISTING CURB THEN HAYBALES ARE TO BE PLACED AROUND THREE FEET OF GRATE ONLY.
- WHEN STAKES MUST BE DRIVEN INTO PAVEMENT THE CONTRACTOR SHALL USE REINFORCING STEEL STAKES OR DRILL HOLES.
- GRATE TO BE PLACED OVER FILTER FABRIC.
- BALES SHALL BE INSPECTED PERIODICALLY AND AFTER ALL STORM EVENTS AND REPAIR OR REPLACEMENT SHALL BE PERFORMED PROMPTLY AS NEEDED.

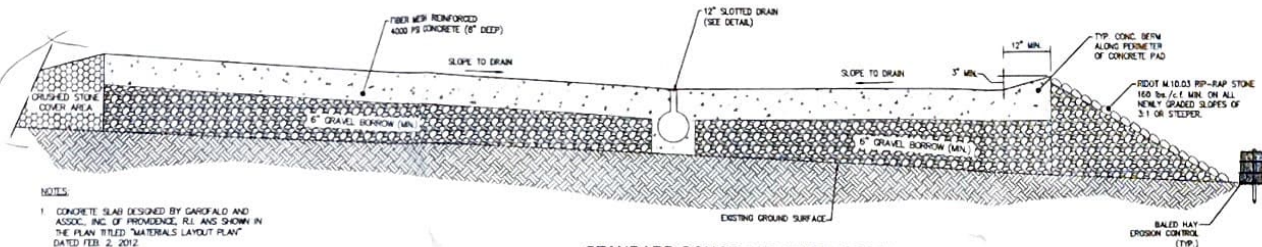


CATCH BASIN SEDIMENT TRAP
N.T.S.



- NOTES**
- NUMBER OF BALES MAY VARY DEPENDING ON SITE CONDITIONS.
 - EQUIPMENT WASH OFF BASIN TO BE USED AS NECESSARY.
 - KEEP AS FAR FROM WETLANDS AS PRACTICAL.
 - CLEAN AND REMOVE AS SOON AS PRACTICAL.

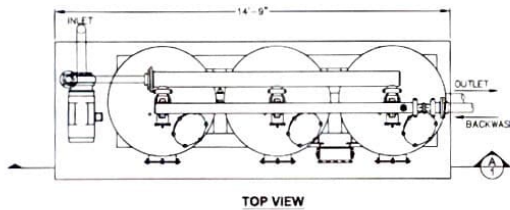
TYPICAL WASHOFF HAYBALE BASIN
N.T.S.



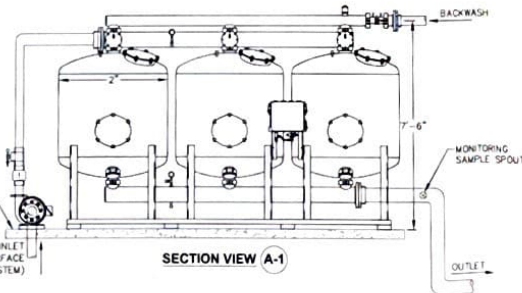
- NOTES**
- CONCRETE SLAB DESIGNED BY GARFIELD AND ASSOC. INC. OF PROVIDENCE, R.I. AND SHOWN IN THE PLAN TITLED "MATERIALS LAYOUT PLAN" DATED FEB. 2, 2012.

STANDARD CONCRETE COVER SECTION

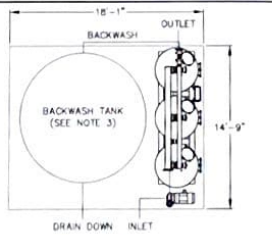
- GENERAL NOTES**
- RETENU BASIC FILTRATION SYSTEM BY STORMWATERX LLC - PORTLAND, OREGON - 800.880.5545
 - RETENU MODEL 40 HAS AN OPERATING RANGE OF 200 GPM TO 480 GPM, WHICH IS BASED ON POLLUTANT LOADING CONDITIONS. RETENU AVAILABLE IN FOLLOWING CONFIGURATIONS: 1. IIT, ITX AND IXT MODEL 40 INCLUDES 20 HP END SUCTION PUMP & CONTROL PANEL AND THREE SKID-MOUNTED PRESSURE FILTER VESSELS. ADDITIONAL COMPONENTS LISTED BELOW.
 - INTERNAL APPURTENANCES BY STORMWATERX INCLUDE INTERCONNECTING PIPING, 50# SS UNDERDRAIN, 55# PRESSURE GAUGES, INLET AND OUTLET SAMPLE PORTS, BACKWASH FLOW CONTROL VALVE (SET AT 189 GPM), AND SYSTEM CONTROLLER (ADVANCED SOLID STATE AUTOMATION WITH ELAPSED TIME AND PRESSURE DIFFERENTIAL CONTROL).
 - SKID MOUNTED FILTER VESSELS, AND INLET/BACKWASH TANKS REQUIRE A CONCRETE LEVEL PAD WITH LOAD BEARING CAPACITY OF 20,000 LBS FOR FILTER VESSEL AND 145,000 LBS FOR EACH 10,000 GAL. TANK. FILTER VESSELS AND HOPE TANKS ONLY TO BE MOVED WHEN SYSTEM IS EMPTY (EMPTY VESSEL WEIGHT 3,000 LBS, EMPTY TANK WEIGHT 2,280 LBS).
 - RETENU REQUIRES 120V, 5 AMP SERVICE TO SYSTEM CONTROLLER AND THREE PHASE POWER TO PUMP CONTROL PANEL (230V/60HZ OR 480V/30A).
 - INLET AND OUTLET PIPING CONNECTIONS SPECIFIED BY STORMWATERX AND PROVIDED BY OTHERS. MODELS IIT, ITX, AND IXT INCLUDE INTERCONNECTING PLUMBING BETWEEN FILTER VESSELS AND TANKS.
 - DETAIL PROVIDED, AND FILTER DESIGNED AND SIZED, BY STORMWATERX LLC OF PORTLAND, OR.



TOP VIEW

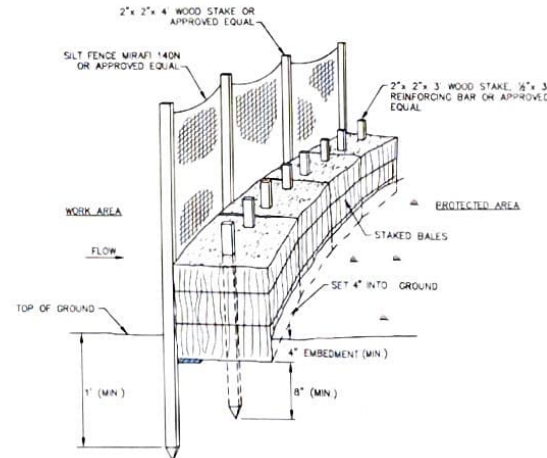


SECTION VIEW A-1



MODEL 40IXT SCHEMATIC

STORMWATERX RETENU 40IXT INDUSTRIAL STORMWATER FILTER
N.T.S.



SILT FENCE / HAYBALE BARRIER
N.T.S.

NO.	DATE	DESCRIPTION
1	8/27/12	DMG COMMUNITY RECYCLED GRANULES
2		
3		
4		
5		

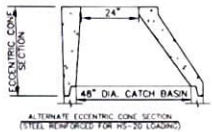
ACR REALTY, LLC
BRANCH PIKE
SMITHFIELD, RHODE ISLAND 02917

DETAIL SHEET

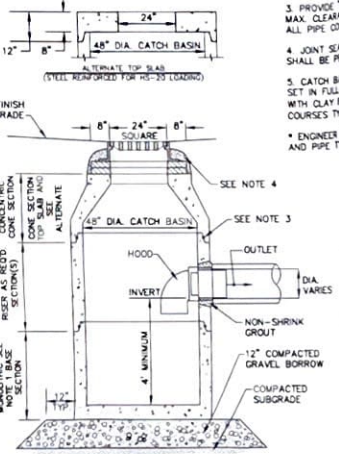
RHODE ISLAND RECYCLED METALS
CONSTRUCTION PERIOD SWPPP
434 ALLENS AVENUE
PROVIDENCE, RHODE ISLAND 02903

CONSTRUCTION PERIOD
SWPPP SITE PLANS

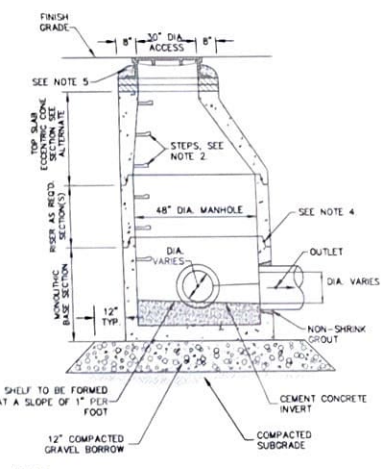
DATE	08/15/2012
DRAWN/CHECK	DMG/SMO
SCALE	AS NOTED
PROJECT #	7400 0
SHEET NO.	6



- NOTES:
1. ALL SECTIONS SHALL BE DESIGNED FOR HS-20 LOADING.
 2. COPOLYMER MANHOLE STEPS SHALL BE INSTALLED AT 12" O.C. FOR THE FULL DEPTH OF THE STRUCTURE.
 3. PROVIDE 7" KNOCKOUTS FOR PIPES WITH 2" MAX. CLEARANCE TO OUTSIDE OF PIPE. MORTAR ALL PIPE CONNECTIONS.
 4. JOINT SEALANT BETWEEN PRECAST SECTIONS SHALL BE PERFORMED BUTYL RUBBER.
 5. CATCH BASIN FRAME AND GRATE SHALL BE SET IN FULL MORTAR BED. ADJUST TO GRADE WITH CLAY BRICK AND MORTAR (2 BRICK COURSES TYPICALLY, 5 BRICK COURSES MAXIMUM).
- * ENGINEER TO COORDINATE FRAME & COVER AND PIPE TYPE.



CATCH BASIN (CB) WITH TRAP
N.T.S.



- NOTES:
1. ALL SECTIONS SHALL BE DESIGNED FOR HS-20 LOADING.
 2. COPOLYMER MANHOLE STEPS SHALL BE INSTALLED AT 12" O.C. FOR THE FULL DEPTH OF THE STRUCTURE.
 3. PROVIDE 7" KNOCKOUTS FOR PIPES WITH 2" MAX. CLEARANCE TO OUTSIDE OF PIPE. MORTAR ALL PIPE CONNECTIONS.
 4. JOINT SEALANT BETWEEN PRECAST SECTIONS SHALL BE PERFORMED BUTYL RUBBER.
 5. DRAIN MANHOLE FRAME AND COVER SHALL BE SET IN FULL MORTAR BED. ADJUST TO GRADE WITH CLAY BRICK AND MORTAR (2 BRICK COURSES TYPICALLY, 5 BRICK COURSES MAXIMUM).
- * ENGINEER TO COORDINATE FRAME & COVER AND PIPE TYPE.

DRAIN MANHOLE (DMH)
N.T.S.

Note: The suggested forming procedures shown in this catalog are general suggestions to qualified professionals and may not be appropriate for every installation.

R-4993 & R-4994 Superior Durability Frame Series for Airports, Ports, Industrial Sites and Roads

Superior Duty Frames

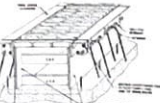
Designers have the option to utilize either of these new frames in locations where it is deemed that traditional angle frames could break loose from concrete due to extraordinary conditions. A few examples of such conditions are braking forces of ultra heavy vehicles, torsional forces due to turning aircraft and container port vehicles, heavy armored and industrial applications, highway tunnels, certain highway applications. Neenah offers two frame choices each with its own unique benefits. Items are furnished standard with grate BOLTED to frame.



- Illustrating R-4993 with Type T Frame
- 75# square inches of masonry contact surface per foot
 - 120 square inches of masonry bearing surface per foot
 - Frame top surface provides traction platform with off-grating surface.
 - Provision for bolting successive frame sections together.
 - Provides significant redundancy due to geometry.
 - Bolt holes are drilled clear through cantilevered seal and will not tear debris.



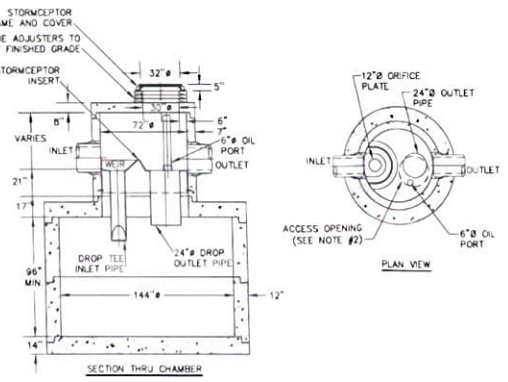
- Illustrating R-4994 with Type S Frame
- 20# square inches of masonry contact surface per foot
 - 40 square inches of masonry bearing surface per foot
 - L-Shape Frame shape allows the steel opening to be wider than typical.
 - Bolt holes are drilled clear through cantilevered seal and will not tear debris.
 - Provision for bolting successive frame sections together.
 - Provides significant redundancy due to geometry.
 - Frame is designed with the concrete slab.
 - Available with drilled hole and steel connector. See R-4999-HALM on Page 199.



Note: Typical "L" shaped angle frame has about 120 inches of masonry contact surface per foot and about 84 inches of masonry bearing surface per foot.

Type T	Type S	Catalog No.	Dimensions in inches										
			A	B	C	E	Type A	Type C	Type D	Type E	Type L	Type P	Type G
Heavy Duty													
R-4993-AB	R-4994-AB	8	11.2	8	19.14	4	18	x	x	x	x	x	
R-4993-BB	R-4994-BB	10	11.2	8	21.14	6	20	x	x	x	x	x	
R-4993-CB	R-4994-CB	12	11.2	10	23.14	8	22	x	x	x	x	x	
R-4993-DB	R-4994-DB	14	11.2	12	25.14	10	24	x	x	x	x	x	
R-4993-EB	R-4994-EB	17	11.2	15	26.14	13	27	x	x	x	x	x	
R-4993-FB	R-4994-FB	20	11.2	18	31.14	16	30	x	x	x	x	x	
R-4993-GB	R-4994-GB	25	11.2	23	34.14	19	33	x	x	x	x	x	
R-4993-HB	R-4994-HB	28	11.2	24	37.14	22	36	x	x	x	x	x	
R-4993-JB	R-4994-JB	30	2	28	41.14	28	40	x	x	x	x	x	
R-4993-KB	R-4994-KB	35	2	31	44.14	29	43	x	x	x	x	x	
R-4993-LB	R-4994-LB	38	2	34	47.14	32	46	x	x	x	x	x	
R-4993-MB	R-4994-MB	39	2	37	50.14	36	49	x	x	x	x	x	
R-4993-NB	R-4994-NB	45	2	43	56.14	41	55	x	x	x	x	x	
R-4993-OB	R-4994-OB	51	2	49	62.14	47	61	x	x	x	x	x	
Airport, Port, Industrial Leads													
R-4993-AAB	R-4994-AAB	8	2	6	19.14	4	18	x					
R-4993-SAB	R-4994-SAB	10	2	8	21.14	6	20	x					
R-4993-CAB	R-4994-CAB	12	2	10	23.14	8	22	x					
R-4993-DAB	R-4994-DAB	14	2	12	25.14	10	24	x					
R-4993-EAB	R-4994-EAB	17	2	15	26.14	13	27	x					
R-4993-FAB	R-4994-FAB	20	2	18	31.14	16	30	x					
R-4993-HAB	R-4994-HAB	28	2	24	37.14	22	36	x					
R-4993-KAB	R-4994-KAB	34	2	30	45.14	28	44	x					
R-4993-OAB	R-4994-OAB	51	2	49	62.14	47	61	x					

* Includes availability



- NOTES:
1. THE USE OF FLEXIBLE CONNECTION IS RECOMMENDED AT THE INLET AND OUTLET WHERE APPLICABLE.
 2. THE COVER SHOULD BE POSITIONED OVER THE OUTLET DROP PIPE AND THE OIL PORT.
 3. THE STORMSECTOR SYSTEM IS PROTECTED BY ONE OR MORE OF THE FOLLOWING U.S. PATENTS: #4905148, #5408331, #5725760, #5753115, #549191, #6208765, #6571690.
 4. DETAIL PROVIDED BY RINKER MATERIALS CORPORATION OF HOUSTON, TX.

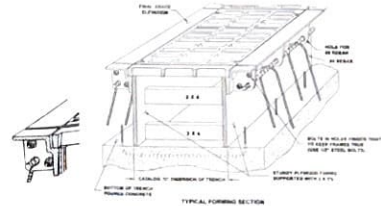
RINKER STORMSECTOR STC7200 WATER QUALITY UNIT
N.T.S.

Forming Procedures R-4993 & R-4994 Bolted Trench Series

Bolted frames and grates are furnished assembled, and therefore require different forming procedures than unbolted trenches. AT NO TIME SHOULD THE UNITS BE DISASSEMBLED DURING INSTALLATION. VERIFY THAT THE 3/16" PER SIDE MAXIMUM GAP BETWEEN FRAME AND LID HAS NOT CHANGED DURING TRANSPORT WHEN SATISFIED THE GAP IS CORRECT TORQUE BOLTS TO ASSURE THE PIECES REMAIN IN THAT ORIENTATION.

R-4993 Forming Procedures

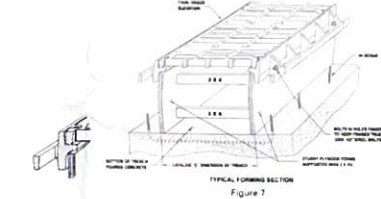
- Follow forming procedures for bolted trench on page 268. The following exceptions apply:
- Use Figure 6 as a guide.
 - Frame pieces can be bolted together making sure that bolts are only finger tight.
 - Reinforcing bar can be installed per Figure 6.



R-4994 Forming Procedures

Follow forming procedures for bolted trench on page 268. The following exceptions apply:

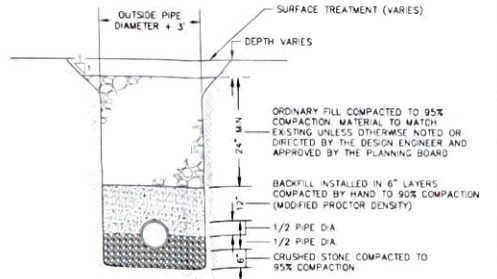
- Use Figure 7 as a guide.
- The frame seat for the R-4994 series cantilevers over the trench opening. This requires the distance between sidewalls to be set accordingly. In the case, bolted assemblies are set upon the sidewalk forms with the contact area being on the top of the form and the underside of the cantilever seat (see Figure 6a on previous page).
- The inside distance between concrete sidewalks correspond with the CS dimension shown on page 268 of the catalog.
- Frame pieces can be bolted together making sure that bolts are only finger tight.
- Reinforcing bar can be installed per Figure 7.



STANDARD TRENCH DRAIN DETAIL
N.T.S.

DETAIL PROVIDED BY NEENAH FOUNDRY OF NEENAH, WI

- NOTES:
1. NUMBER OF BALES MAY VARY DEPENDING ON SITE CONDITIONS.
 2. EQUIPMENT WASH OFF BASIN TO BE USED AS NECESSARY.
 3. KEEP AS FAR FROM WETLANDS AS PRACTICAL.
 4. CLEAN AND REMOVE AS SOON AS PRACTICAL.



- NOTES:
1. AT WATER/SEWER CROSSINGS WHEN SEWER IS ABOVE OR WITHIN 18" OF WATER, THE DEEPER UTILITY SHALL BE CAST IN 6" OF CONCRETE, EXTENDING 10' IN EITHER DIRECTION.

TYPICAL UTILITY TRENCH DETAIL FOR RCP/HDPE
N.T.S.



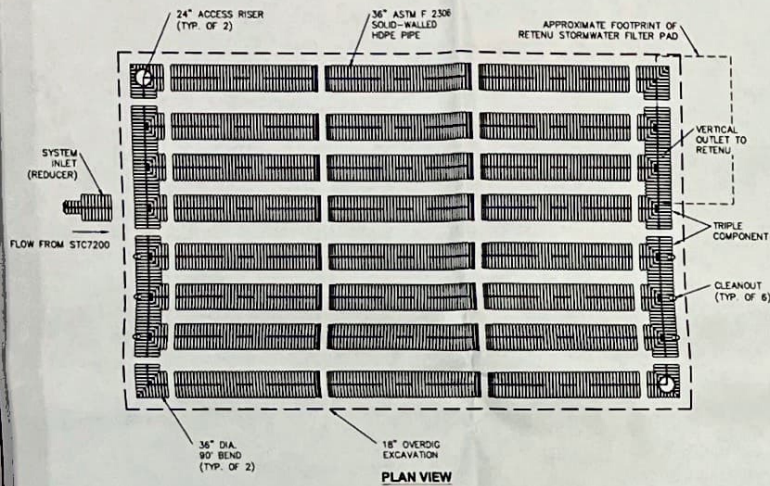
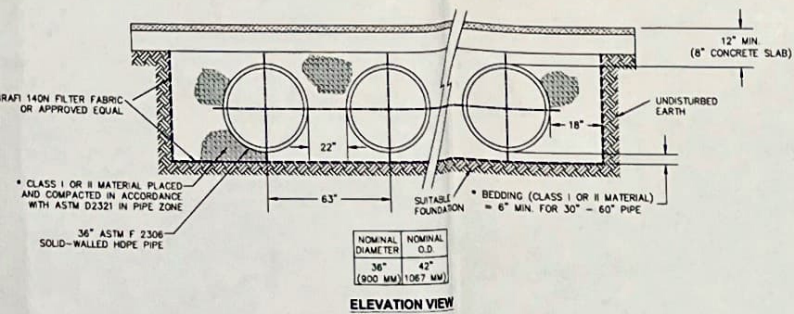
NO.	DATE	DESCRIPTION	BY	CHKD.
1	8/23/12	REVISED DRAINAGE		

ACR REALTY, LLC
15 BRANCH PIKE
SMITHFIELD, RHODE ISLAND 02917

RHODE ISLAND RECYCLED METALS
CONSTRUCTION PERIOD SWPPP
434 ALLENS AVENUE
PROVIDENCE, RHODE ISLAND 02903

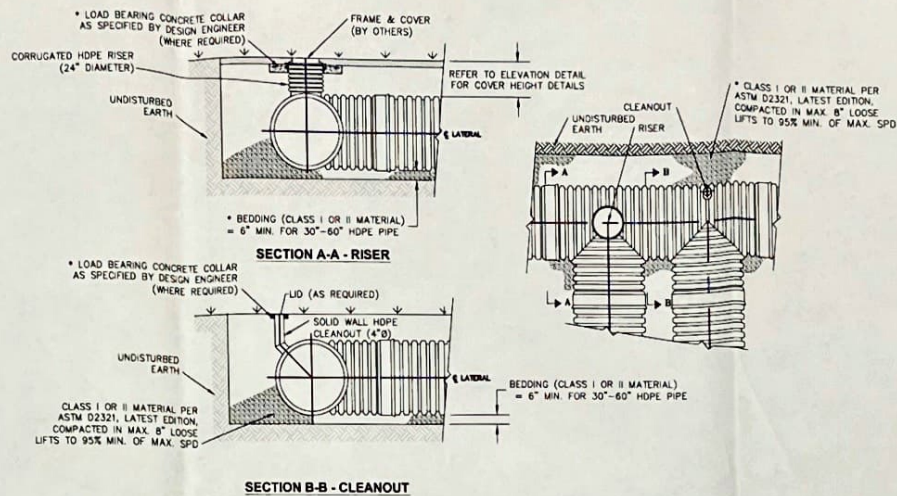


DATE: 08/15/2012
DRAWN/CHECK: DMG/SWO
SCALE: AS NOTED
PROJECT #: 7400.0
SHEET NO: 7 OF 08



- NOTES:**
- ALL REFERENCES TO CLASS I OR II MATERIAL ARE PER ASTM D2321 "STANDARD PRACTICE FOR UNDERGROUND INSTALLATION OF THERMOPLASTIC PIPE FOR SEWERS AND OTHER GRAVITY FLOW APPLICATIONS", LATEST EDITION.
 - ALL RETENTION AND DETENTION SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH ASTM D2321, LATEST EDITION AND THE MANUFACTURER'S PUBLISHED INSTALLATION GUIDELINES.
 - MEASURES SHOULD BE TAKEN TO PREVENT THE MIGRATION OF NATIVE FINES INTO THE BACKFILL MATERIAL, WHEN REQUIRED. SEE ASTM D2321.
 - FILTER FABRIC:** MIRAFI 140N FILTER FABRIC, OR AN APPROVED EQUAL SHALL BE USED TO PREVENT THE MIGRATION OF FINES FROM THE NATIVE SOIL INTO THE SELECT BACKFILL MATERIAL.
 - FOUNDATION:** WHERE THE TRENCH BOTTOM IS UNSTABLE, THE CONTRACTOR SHALL EXCAVATE TO A DEPTH REQUIRED BY THE ENGINEER AND REPLACE WITH SUITABLE MATERIAL AS SPECIFIED BY THE ENGINEER. AS AN ALTERNATIVE AND AT THE DISCRETION OF THE DESIGN ENGINEER, THE TRENCH BOTTOM MAY BE STABILIZED USING A GEOTEXTILE MATERIAL.
 - BEDDING:** SUITABLE MATERIAL SHALL BE CLASS I OR II. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. UNLESS OTHERWISE NOTED BY THE ENGINEER, MINIMUM BEDDING THICKNESS SHALL BE 6" (150mm) FOR 30"-60" (750mm-900mm) DIAMETER PIPE.
 - INITIAL BACKFILL:** SUITABLE MATERIAL SHALL BE CLASS I OR II IN THE PIPE ZONE EXTENDING NOT LESS THAN 6" ABOVE CROWN OF PIPE. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. MATERIAL SHALL BE INSTALLED AS REQUIRED IN ASTM D2321, LATEST EDITION.
 - MINIMUM COVER:** MINIMUM COVER OVER ALL RETENTION/DETENTION SYSTEMS IN NON-TRAFFIC APPLICATIONS (GRASS OR LANDSCAPE AREAS) IS 12" FROM TOP OF PIPE TO GROUND SURFACE. ADDITIONAL COVER MAY BE REQUIRED TO PREVENT FLOATATION. FOR TRAFFIC APPLICATIONS, MINIMUM COVER IS 12" UP TO 36" DIAMETER PIPE AND 24" OF COVER FOR 42" - 60" DIAMETER PIPE, MEASURED FROM TOP OF PIPE TO BOTTOM OF FLEXIBLE PAVEMENT OR TO TOP OF RIGID PAVEMENT.
 - DETAIL PROVIDED BY ADS INC., 3300 RIVERSIDE DRIVE, COLUMBUS OH 43221.

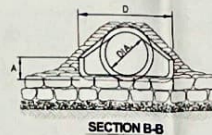
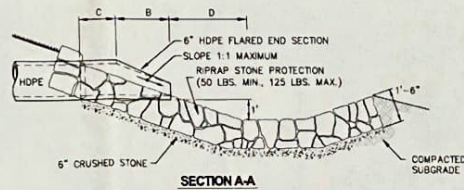
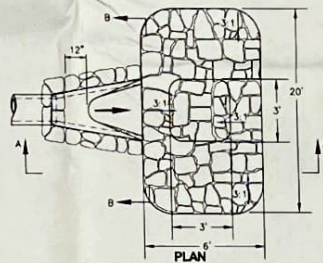
ADS SUBSURFACE DETENTION AREA
N.T.S.



NOTES:

- * CLASS I BACKFILL REQUIRED AROUND 60" DIAMETER FITTINGS.
- * LOAD BEARING CONCRETE COLLAR SHALL BE CONSTRUCTED IN TRAFFIC AREAS SUCH THAT THE LIVE LOAD IS TRANSMITTED TO THE SURROUNDING SOIL AND NOT DIRECTLY TO THE RISER.
- DETAIL PROVIDED BY ADS INC., 3300 RIVERSIDE DRIVE, COLUMBUS OH 43221.

ADS SUBSURFACE DETENTION RISER/CLEANOUT DETAILS
N.T.S.



NOTES:

- THE FLARED END SECTION PIPE JOINT SHALL BE SIMILAR TO THE MAIN RUN OF PIPE JOINTS.
- FLARED END SECTIONS SHALL CONFORM AS SHOWN IN THE TABLE OR AS APPROVED BY THE ENGINEER.

FLARED END SECTION WITH STONE PROTECTION
N.T.S.

PIPE DIA.	DIMENSIONAL TABLE					
	A	B	C	D	E	R
6"-12"	4"	2'-0"	4'-0"	2'-0"	2"	9"
15"	6"	2'-3"	3'-10"	2'-6"	2"	11"
18"	9"	2'-3"	3'-10"	3'-0"	2"	12"
24"	9"	3'-7"	2'-6"	4'-0"	3"	14"
30"	12"	4'-6"	1'-7"	5'-0"	3"	15"
36"	15"	5'-3"	2'-10"	6'-0"	4"	20"
42"	21"	5'-3"	2'-11"	6'-6"	4"	22"
48"	24"	6'-0"	2'-2"	7'-0"	5"	22"
54"	27"	5'-5"	2'-11"	7'-6"	5"	24"
60"	30"	5'-0"	3'-3"	8'-0"	6"	24"

DAVID A. HARRINGTON
No. 9214
REGISTERED PROFESSIONAL ENGINEER (CIVIL)

NO.	DATE	REVISIONS
1	8/25/12	DATE DESCRIPTION
		DATE DESCRIPTION
		DATE DESCRIPTION
		DATE DESCRIPTION
		DATE DESCRIPTION

ACR REALTY, LLC
15 BRANCH PIKE
SMITHFIELD, RHODE ISLAND 02917

DETAIL SHEET

RHODE ISLAND RECYCLED METALS
CONSTRUCTION PERIOD SWPPP
100 ALLENS AVENUE
PROVIDENCE, RHODE ISLAND 02903

CONSTRUCTION PERIOD SWPPP SITE PLANS

CONECO
Engineers, Scientists & Surveyors
PHONE: 508-872-7377 • FAX: 508-872-3996
EMAIL: info@coneco.com • WEB SITE: http://www.coneco.com

DATE: 08/15/2012
DRAWN/CHECKED: DMG/SMO
SCALE: AS NOTED
PROJECT #: 7400.0
SHEET NO. 8 OF 08