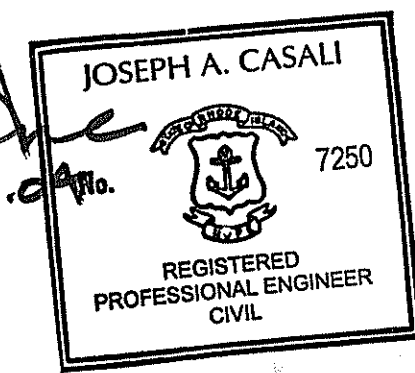


LOCUS MAP  
NOT TO SCALE

ZONING CRITERIA	
ZONING DISTRICT	RA
MINIMUM LOT AREA	65,000 sq.ft.
MINIMUM LOT FRONTAGE	200'
MINIMUM FRONT YARD SETBACK	40'
MINIMUM SIDE YARD SETBACK	25'
MINIMUM REAR YARD SETBACK	30'
MAXIMUM LOT COVERAGE	25%
MAXIMUM BUILDING HEIGHT	35'

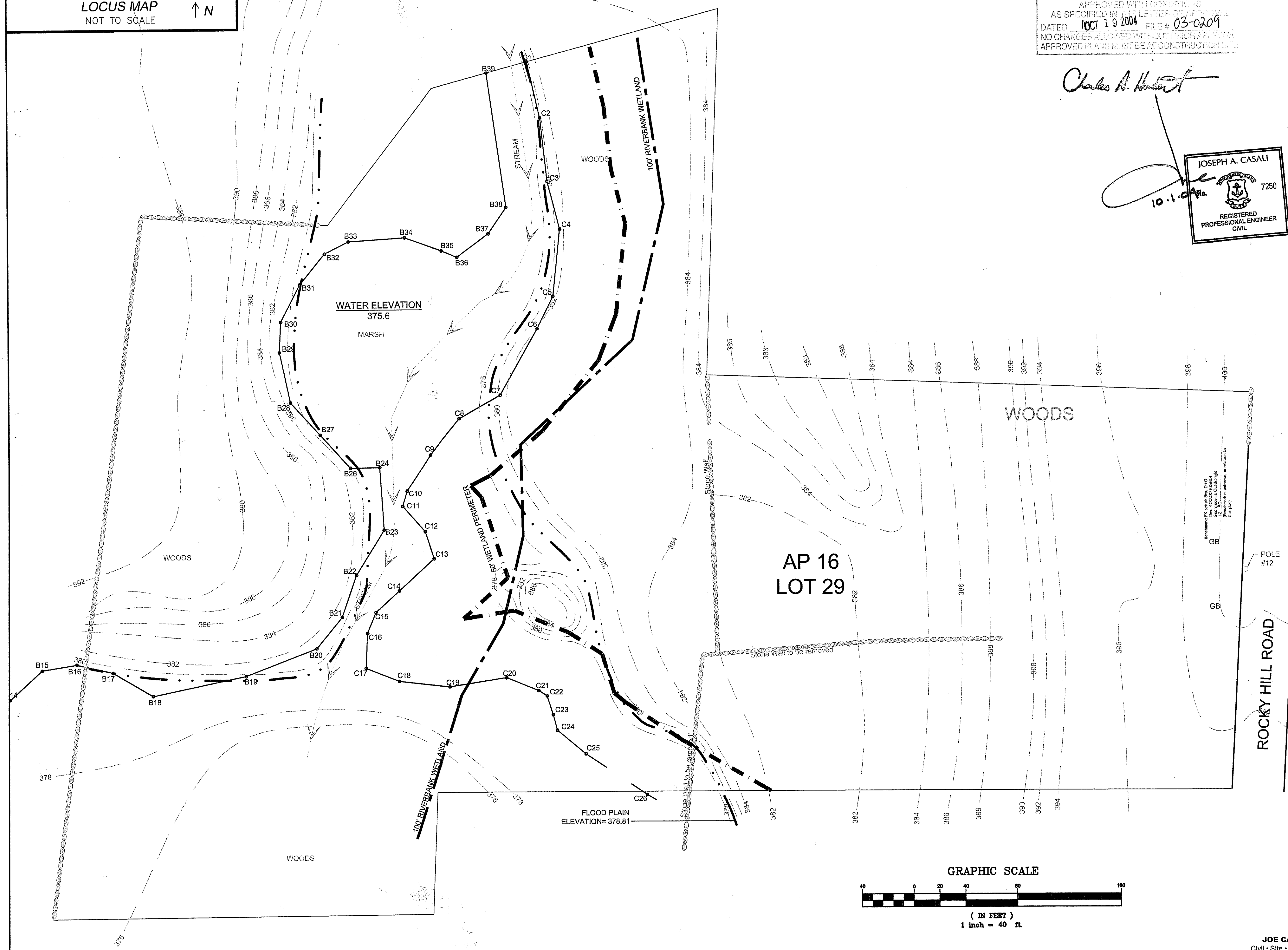
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF WATER RESOURCES  
FRESHWATER WETLANDS PROGRAM  
APPROVED WITH CONDITIONS  
AS SPECIFIED IN THE LETTER OF APPROVAL  
DATED **10 OCT 19 2004** FILE # **03-0209**  
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL  
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

*Charles A. Casali*

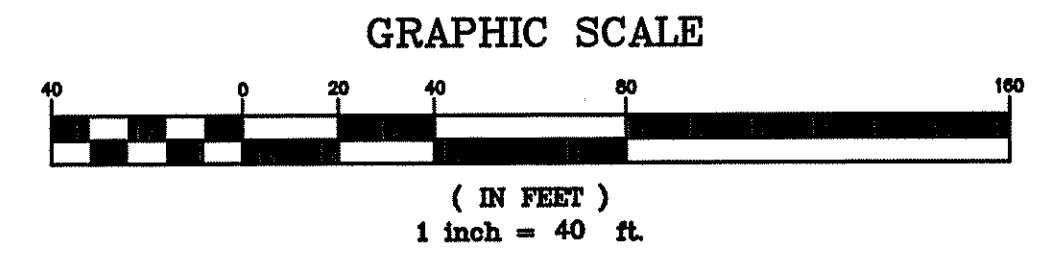


LAND DIVISION DATA	
ZONING CLASSIFICATION	RA
TOTAL AREA OF AP 16 LOT 29	28.61 Acres
TOTAL NUMBER OF PROPOSED LOTS	3
TOTAL AREA OF ROADWAY	28,500 Sf
MINIMUM LOT AREA (65,000 SF) LOTS 1&2 LOT 3	130,000 Sf 24.97 Acres
MINIMUM LOT FRONTAGE	200 Lf

ABUTTER'S LIST A.P. 16 NORTH SMITHFIELD	
LOT#	OWNER
14	N/F GERALD RENDEAU & ROBERT FREIBERGER
15	N/F DONALD & ELEANOR GARDNER
29	N/F ADAM RODZIK
52	N/F ROGER & ELAINE THERIEN
53	N/F FRANCES MELNYK
66	N/F LEO & ELIZABETH FLEURY
67	N/F BENNY MELNYK
85	N/F ROGER & ELAINE THERIEN



- NOTES:
- EXISTING CLASS III TOPOGRAPHIC MAPPING AND BOUNDARY SURVEY WAS COMPLETED BY DAVID M. GARRIGAN PLS OF CUMBERLAND, RI.
  - THE LOCATION AND DEPTH OF EXISTING UTILITIES ARE APPROXIMATE AND HAVE BEEN PLOTTED FROM THE LATEST AVAILABLE INFORMATION. THE UTILITY LOCATIONS ARE APPROXIMATE AND MAY NOT BE ALL INCLUSIVE. THE CONTRACTOR SHALL CHECK AND VERIFY THE LOCATIONS OF ALL EXISTING UTILITIES, BOTH OVERHEAD AND UNDERGROUND, AND "DIG-SAFE" MUST BE NOTIFIED PRIOR TO COMMENCING ANY CONSTRUCTION OPERATIONS. RESTORATION AND REPAIR OF DAMAGE TO EXISTING UTILITIES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR WITH NO ADDITIONAL COST TO THE OWNER. NO EXCAVATION SHALL COMMENCE UNTIL ALL INVOLVED UTILITY COMPANIES AND/OR TOWN WHOSE FACILITIES MIGHT BE AFFECTED BY ANY WORK TO BE PERFORMED BY THE CONTRACTOR ARE NOTIFIED AT LEAST 72 HOURS IN ADVANCE.
  - THIS SITE LIES OUTSIDE OF A DELINEATED 100-YEAR FLOOD PLAIN, AS SHOWN ON FEMA MAP TOWN OF NORTH SMITHFIELD, RI COMMUNITY PANEL NO. 440021 0010 C. MAP REVISED DECEMBER 3, 1993.
  - THE INTERMITTENT STREAM LOCATED TO THE NORTH OF THE PROPOSED SITE IMPROVEMENTS, HAS A 100-YEAR FLOODPLAIN, DEVELOPED THROUGH ANALYSIS IN THE DESIGN REPORT FOR THIS APPLICATION TITLED "HYDROLOGIC ANALYSIS PREPARED FOR ADAM RODZIK, ASSESSOR'S PLAT 16, LOT 29".
  - THE PROPOSED IMPROVEMENTS DO NOT ENCROACH WITHIN THE 100-YEAR FLOODPLAIN.
  - WETLAND DELINEATION WAS VERIFIED BY THE DEM IN THE FALL OF 2002. THERE ARE APPROXIMATELY 2.3 ACRES OF WETLANDS ON THE SITE (APP # 03-0209).
  - THERE ARE NO KNOWN HISTORIC CEMETERIES WITHIN OR ADJACENT TO THIS SUBDIVISION.
  - THERE ARE NO EXISTING OR PROPOSED PRIVATE WELLS WITHIN 200' OF THE PROPOSED SUBDIVISION OTHER THAN THOSE SHOWN ON THE PLAN.
  - THERE ARE NO EXISTING OR PROPOSED PUBLIC WELLS WITHIN 400' OF THE PROPOSED SUBDIVISION.
  - AFTER A DILIGENT SEARCH OF DEM, ISDS RECORDS, THERE ARE NO ABUTTING PARCELS WITHIN 200' OF THIS PROJECT ON RECORD OTHER THAN THOSE SHOWN ON THE PLAN, ALL WELL AND EXISTING ISDS ARE APPROXIMATE.



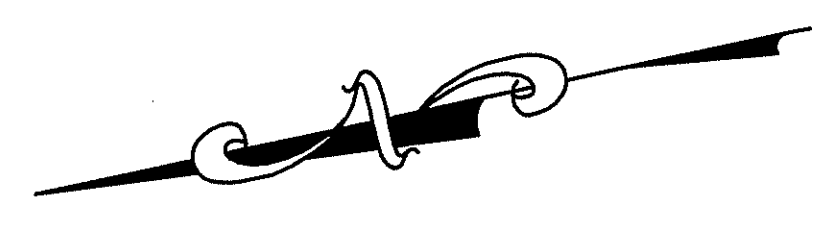
**JCE**  
JOE CASALI ENGINEERING, Inc.  
Civil • Site • Drainage • Development • SDS  
63 Wilson Avenue Johnston, RI 02919  
(401) 272-3600 (401) 272-3602 fax jcasali@cox.net

**ADAM RODZIK**  
ROCKY HILL ROAD  
NORTH SMITHFIELD, RI  
AP 16 / LOT 29

**EXISTING CONDITIONS**

SEPTEMBER 2004

03-0209

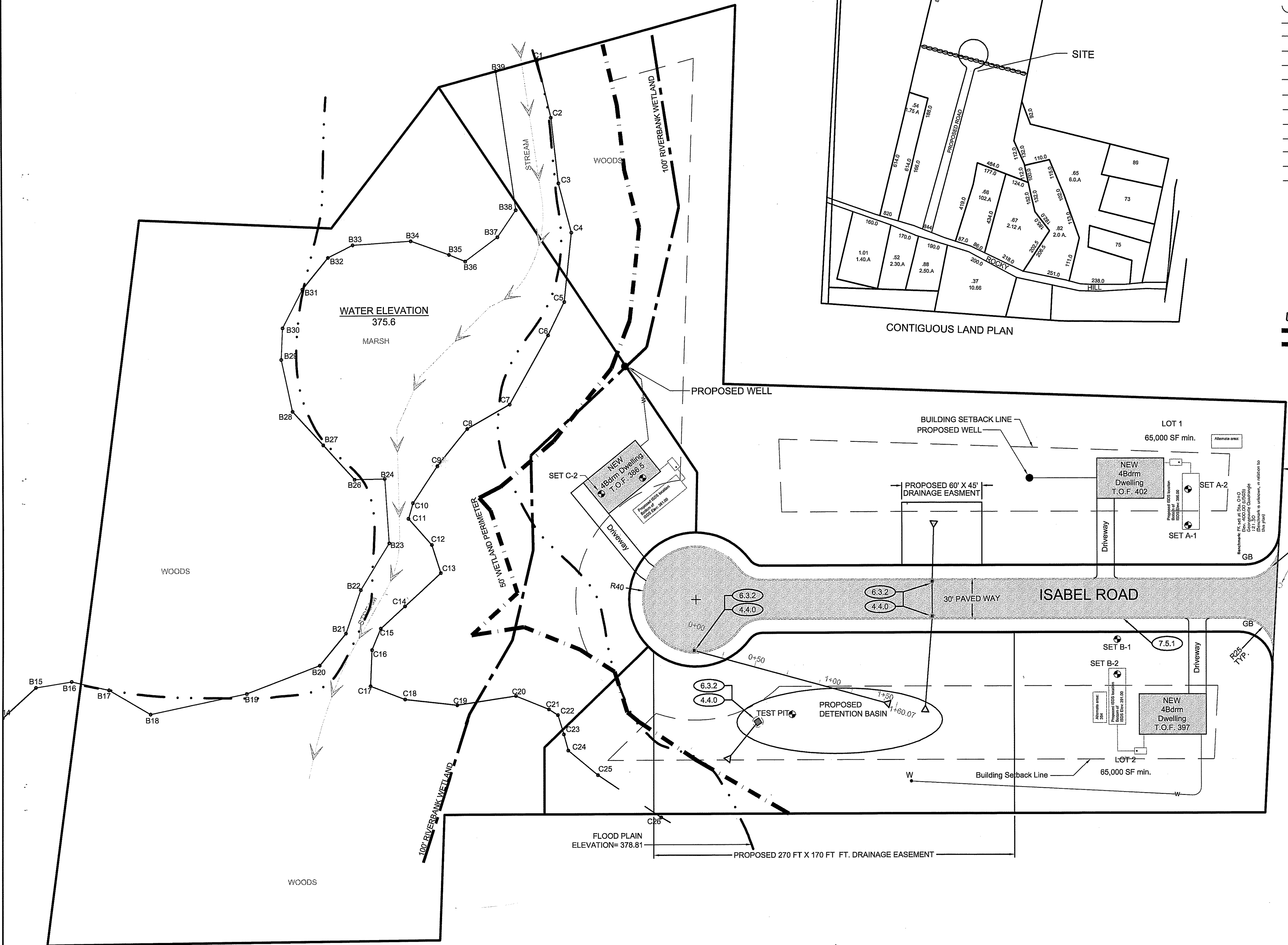
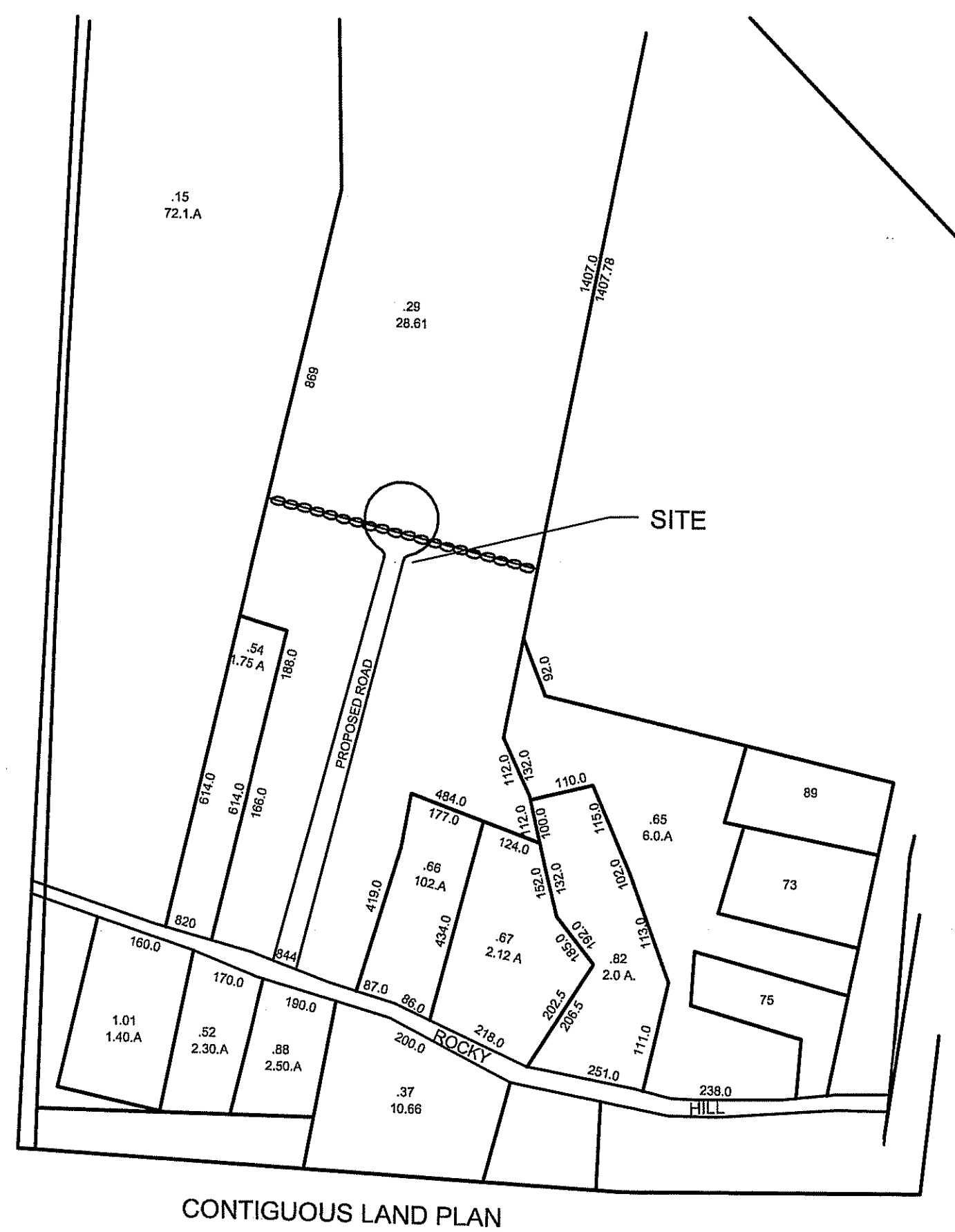


# LEGEND

NOT TO SCALE

- IRON PIN
- DRILL HOLE
- HUB & TACK
- CONCRETE BOUND WELL
- UTILITY POLE
- STONE WALL
- GUARD RAIL
- BARBED WIRE FENCE
- TREE LINE
- CHAIN LINK FENCE
- RETAINING WALL
- EXISTING CONTOUR
- PROPOSED CONTOUR
- LIMIT OF DISTURBANCE (SILT FENCE)
- STOCKADE FENCE
- DRAIN LINE
- SEWER LINE
- WATER LINE
- ELECTRIC LINE
- TELEPHONE LINE
- CABLE-CCTV LINE
- AP
- R.O.W.
- STA.
- N/F
- Tc
- FLOW
- CATCH BASIN
- FLARED END SECTION
- HAY BALE AND LIMIT OF DISTURBANCE
- 50' WETLAND PERIMETER
- 100' RIVERBANK WETLAND

- INSPECTION, MAINTENANCE AND REPAIR PLAN:
1. THE TOWN OF NORTH SMITHFIELD SHALL BE RESPONSIBLE FOR INSPECTION, MAINTENANCE AND REPAIR OF DRAINAGE FACILITIES AFTER THE CONSTRUCTION APPROVAL BY THE TOWN ENGINEER AND AFTER THE TOWN HAS ACCEPTED THE ROAD.
  2. THE BASIN SHALL BE INSPECTED AFTER MAJOR STORM EVENTS DURING THE FIRST YEAR OF OPERATION, TO ENSURE PROPER STABILIZATION AND FUNCTION. AFTER THE FIRST YEAR, ANNUAL INSPECTIONS OF THE BASIN SHALL BE CONDUCTED.
  3. AT LEAST ONCE PER YEAR, PREFERABLY AFTER AUGUST 15TH, THE SIDESLOPES, EMBANKMENTS AND UPPER STAGE OF THE BASIN(S) SHALL BE MOWED.
  4. RE-SEEDING OF ANY ERODED OR BARE SPOTS IN OR AROUND THE BASIN MUST BE DONE IMMEDIATELY FOLLOWING INSPECTIONS. GRASSED AREAS OF THE BASIN SHALL BE INSPECTED AT LEAST TWICE PER YEAR TO CHECK FOR EROSION PROBLEMS.
  5. THE INLETS, EMERGENCY SPILLWAY AND RIPRAP SHALL BE INSPECTED AFTER STORM EVENTS DURING THE FIRST YEAR OF BASIN OPERATION, THEN ANNUALLY THEREAFTER.
  6. SEDIMENT SHALL BE REMOVED FROM THE BASIN DURING THE FIRST YEAR OF OPERATION AND EVERY TEN YEARS THEREAFTER, UNLESS THE SEDIMENT STORAGE CAPACITY IS EXCEEDED EARLIER, AT WHICH TIME MORE FREQUENT SEDIMENT REMOVAL SHALL BE CONDUCTED. THE SEDIMENT STORAGE AREA IS BETWEEN ELEVATIONS 380.00 AND 380.50. SEDIMENT MAY BE SPREAD ON THE EXTERIOR BASIN SIDE SLOPES. SEDIMENT MUST NOT BE SPREAD ON THE INTERIOR BASIN SIDE SLOPES. APPLY SEED AND MULCH TO THE EXCAVATED MATERIAL AND OTHER DISTURBED AREAS. IF THERE IS ANY SUSPICION THAT THE SEDIMENT IS CONTAMINATED, THE SEDIMENT SHALL BE TAKEN TO AN APPROPRIATE DISPOSAL SITE.
  7. THE BASIN SHOULD DRAIN OUT COMPLETELY IN NO MORE THAN 72 HOURS AFTER A STORM EVENT. SHOULD STANDING WATER BE FOUND IN THE BASIN AFTER 72 HOURS, THE BASINS SHALL BE INSPECTED TO DETERMINE THE CAUSE AND IMMEDIATE REPAIRS SHALL BE CONDUCTED.



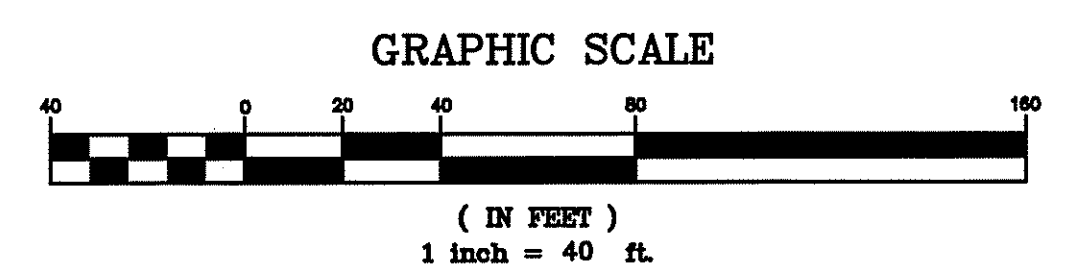
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
 OFFICE OF WATER RESOURCES  
 FRESHWATER WETLANDS PROGRAM  
 APPROVED WITH CONDITIONS  
 AS SPECIFIED IN THE LETTER OF APPROVAL  
 DATED 10/11/04 FILE # 03-0209  
 NO CHANGES ALLOWED WITHOUT PREVIOUS  
 APPROVED PLANS MUST BE AT CONSTRUCTION TIME

*Charles A. Hester*

### RHODE ISLAND STANDARDS

- PRECAST 4'-0", 5'-0", OR 6'-0" ROUND CATCH BASIN
- FRAME AND GRATE (BICYCLE SAFE)
- BITUMINOUS BERM

JOSEPH A. CASALI  
 REGISTERED PROFESSIONAL ENGINEER  
 CIVIL  
 7250



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JOE CASALI ENGINEERING, Inc.  
 Civil • Site • Drainage • Development • SDS  
 63 Wilson Avenue • Johnston, RI 02919  
 (401) 272-3600 (401) 272-3802 fax jcasali@ccn.net

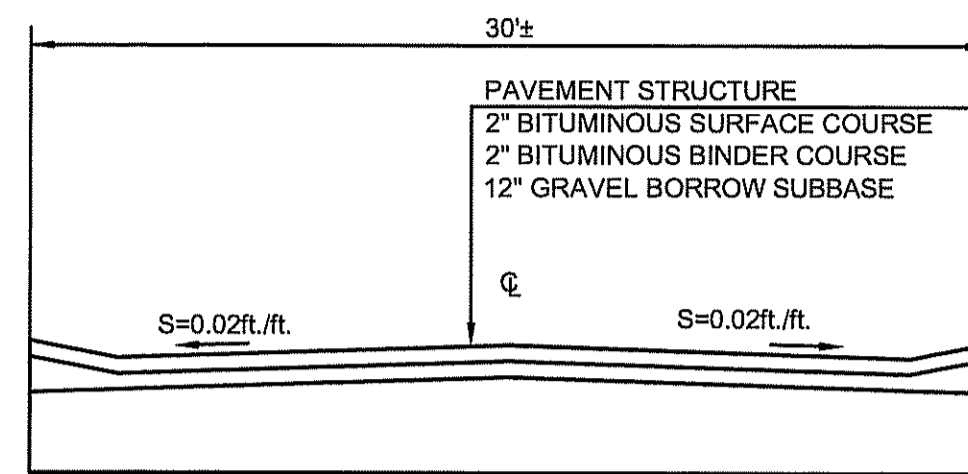
ADAM RODZIK  
 ROCKY HILL ROAD  
 NORTH SMITHFIELD, RI  
 AP 16 / LOT 29

### PROPOSED SITE PLAN

SEPTEMBER 2004

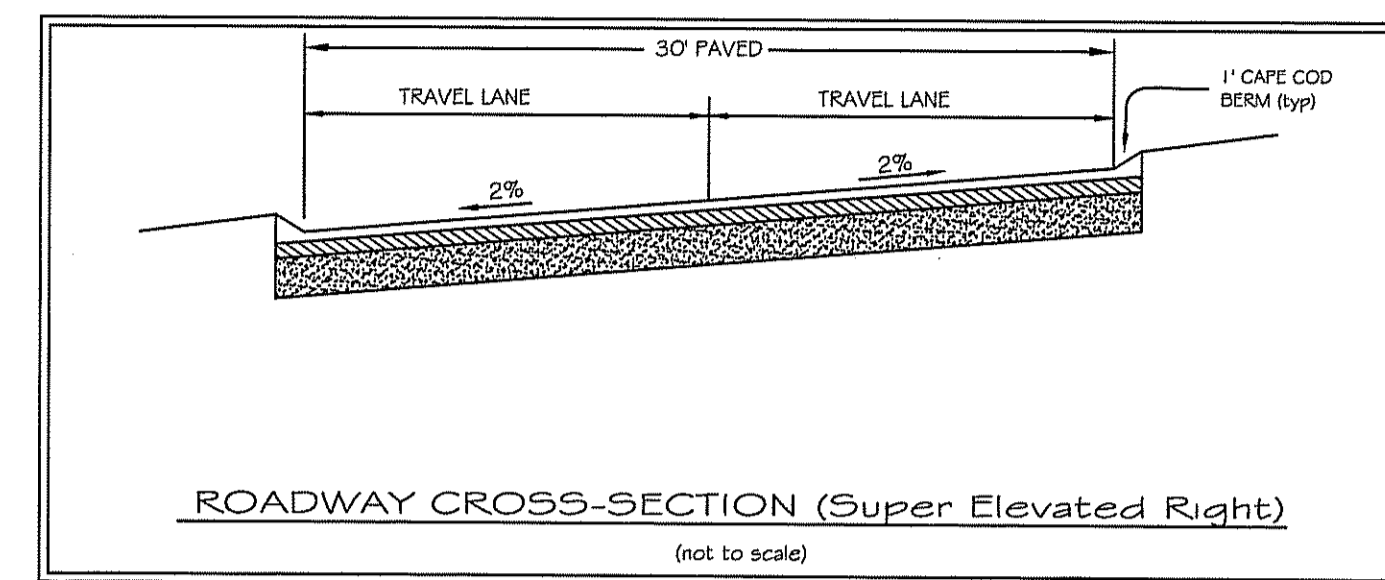
PAGE 2 OF 6



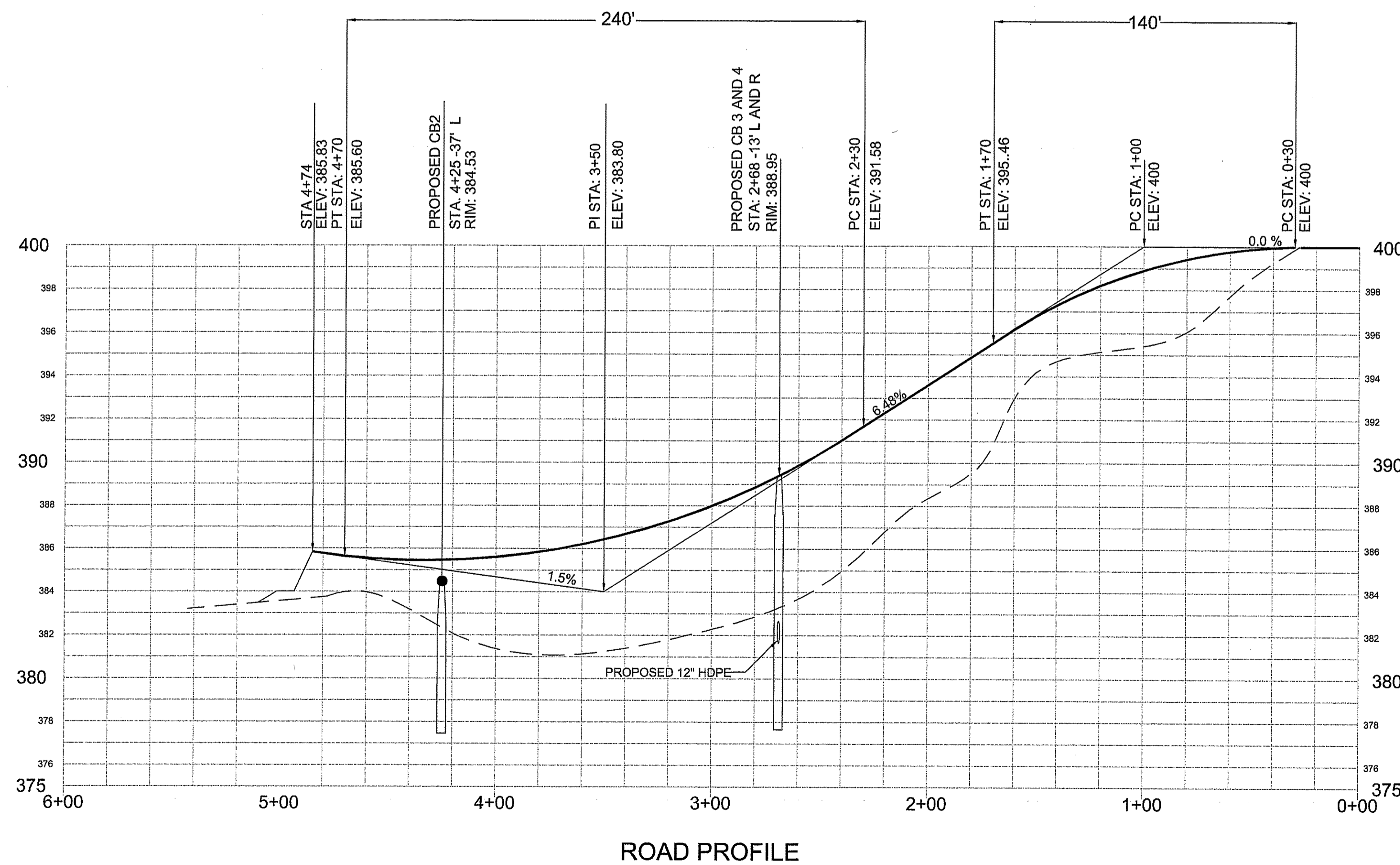


TYPICAL ROADWAY SECTION  
NO SCALE

NOTE: SEE DETAIL FOR BITUMINOUS BERM



STA. 3+00 TO 3+50 - TRANSITION FROM TYPICAL CROSSSECTION TO "SUPER ELEVATION RIGHT"  
STA. 3+50 TO 4+85 - SUPER ELEVATE RIGHT



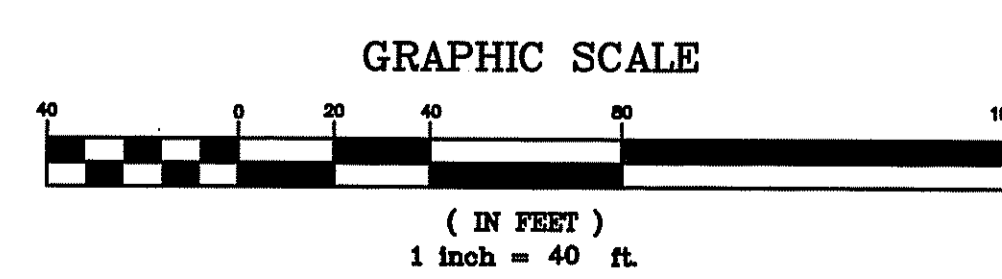
VERTICAL CURVE DATA TABLE

CURVE 1	STATION	ELEVATION	
PC	0+30	400.00	
	0+65	399.72	
	1+00	398.87	
	1+35	397.45	
	1+70	395.46	
PT			
CURVE 2	STATION	ELEVATION	
	PC	2+30	391.58
		2+55	390.06
		2+80	388.76
		3+05	387.66
		3+30	386.76
		3+50	386.08
		3+75	386.60
		4+00	385.33
		4+25	385.27
PT	4+70	385.60	

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
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DATED OCT 11 9 28 AM FILE # 03-0209  
NO CHANGES ALLOWED WITHOUT PROJECT NO. APPROVED PLANS MUST BE AT CONSTRUCTION

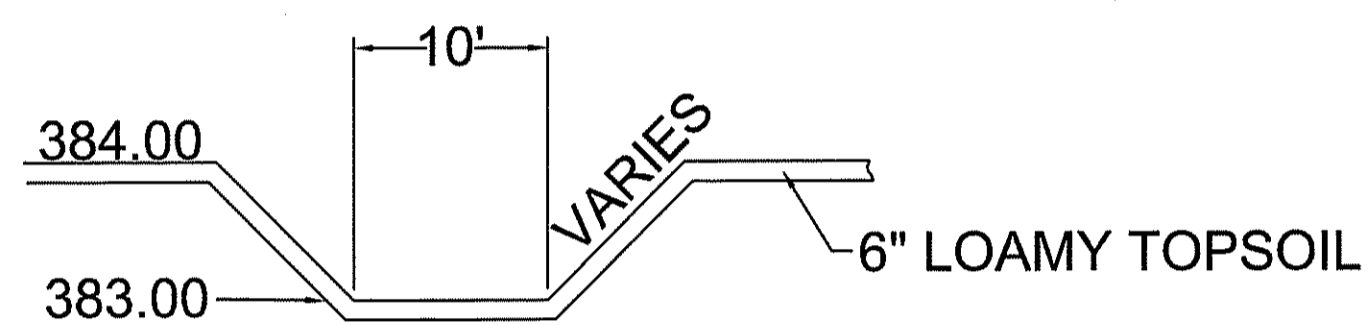
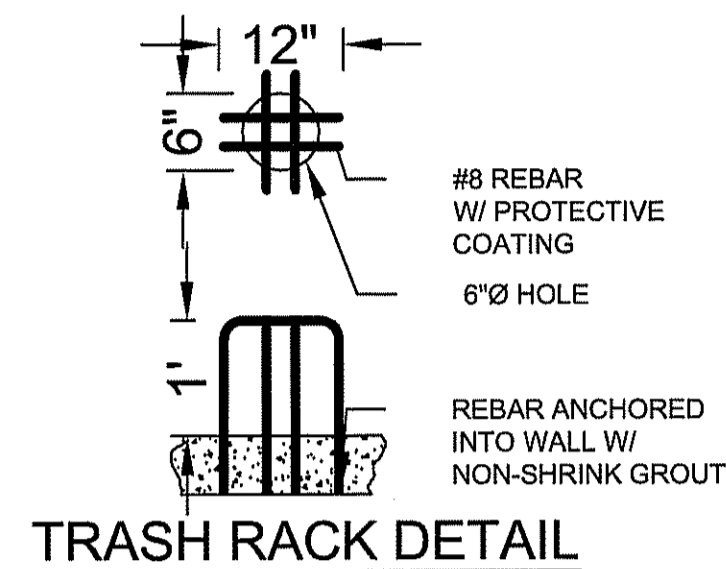
*Charles A. H...*

*J. J. ...*  
JOSEPH A. CASALI  
REGISTERED PROFESSIONAL ENGINEER  
CIVIL  
7250

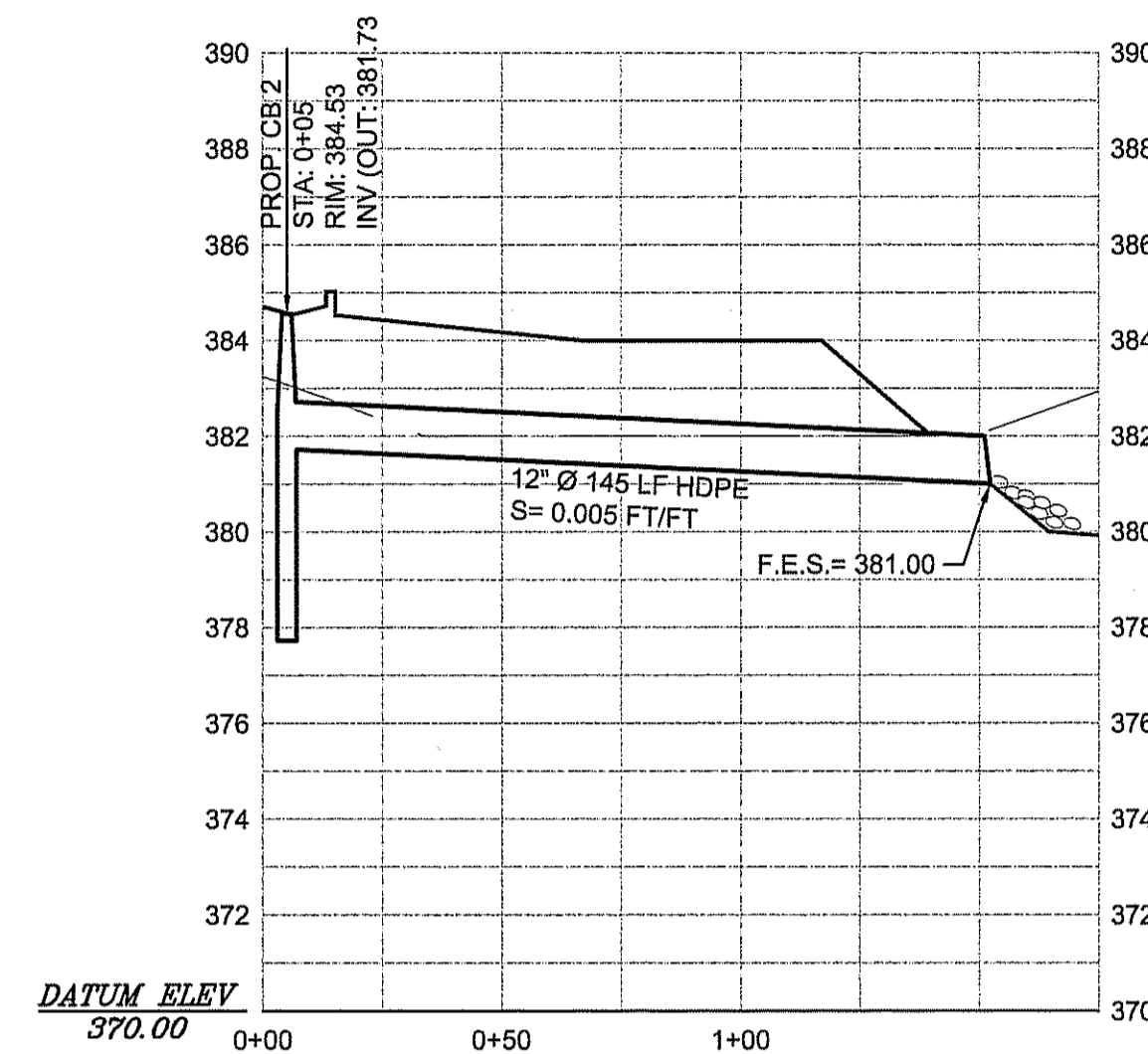


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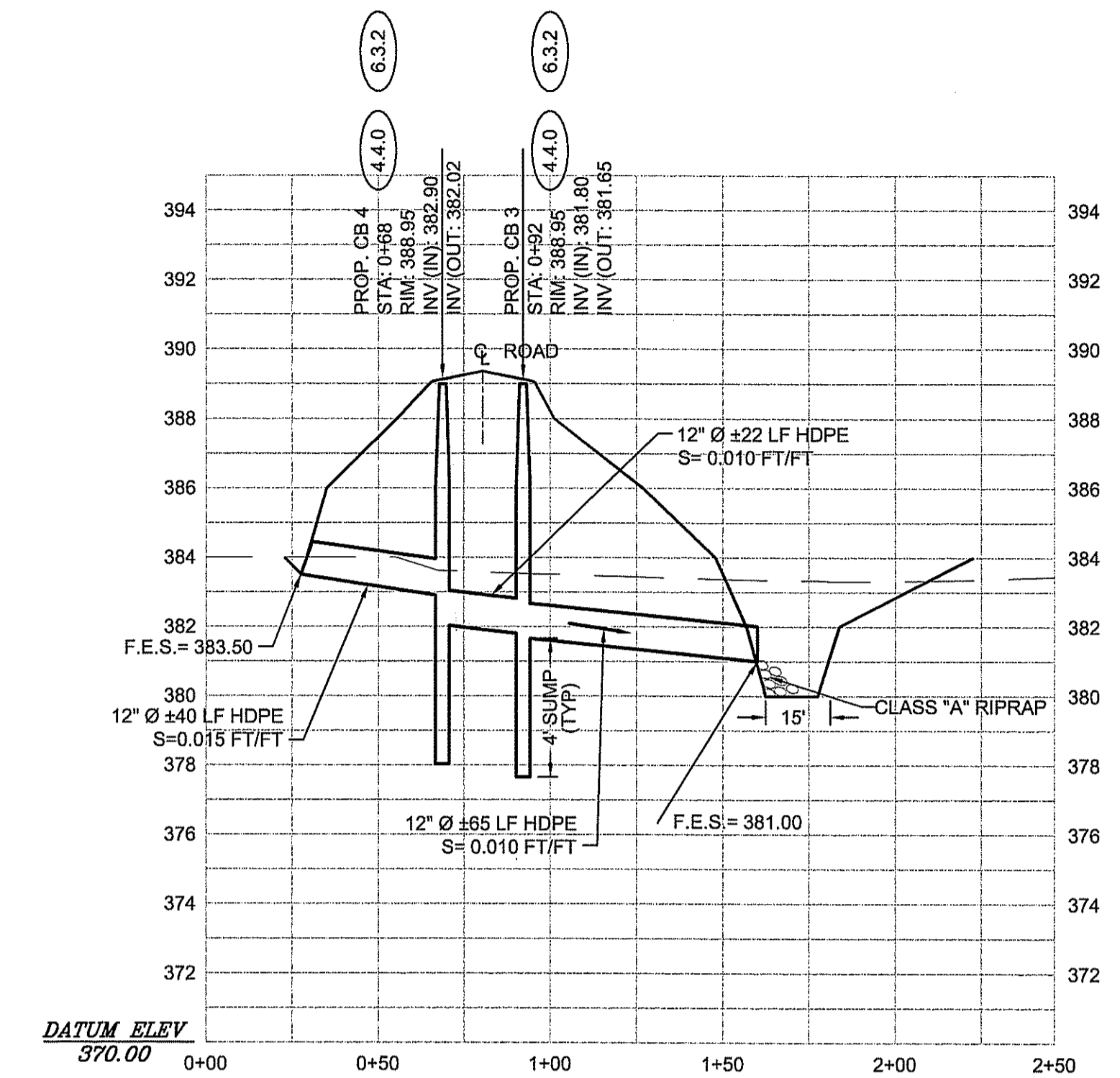
**ADAM RODZIK**  
ROCKY HILL ROAD  
NORTH SMITHFIELD, RI  
AP 16 / LOT 29  
**ROAD PROFILE**  
SEPTEMBER 2004 PAGE 4 OF 6



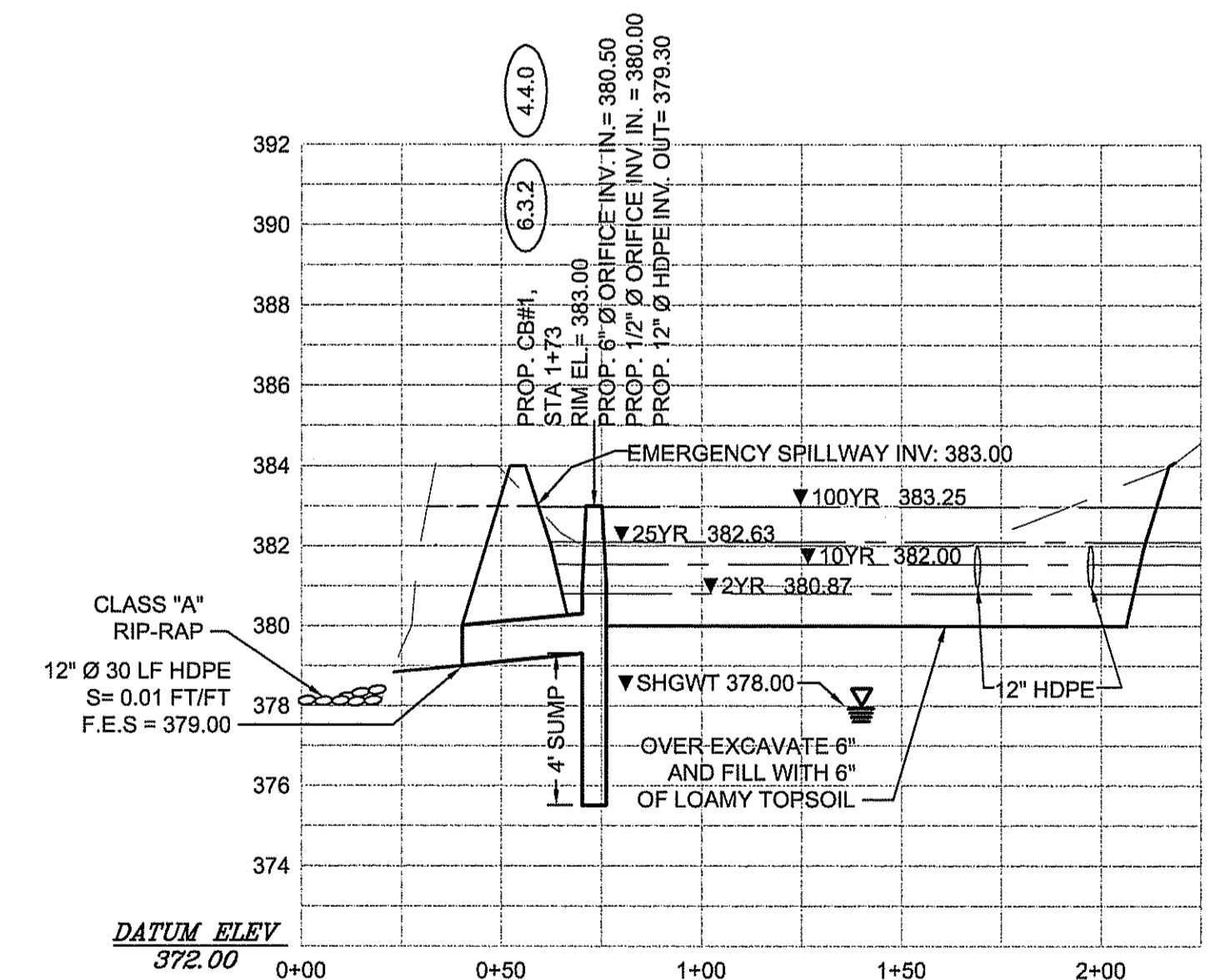
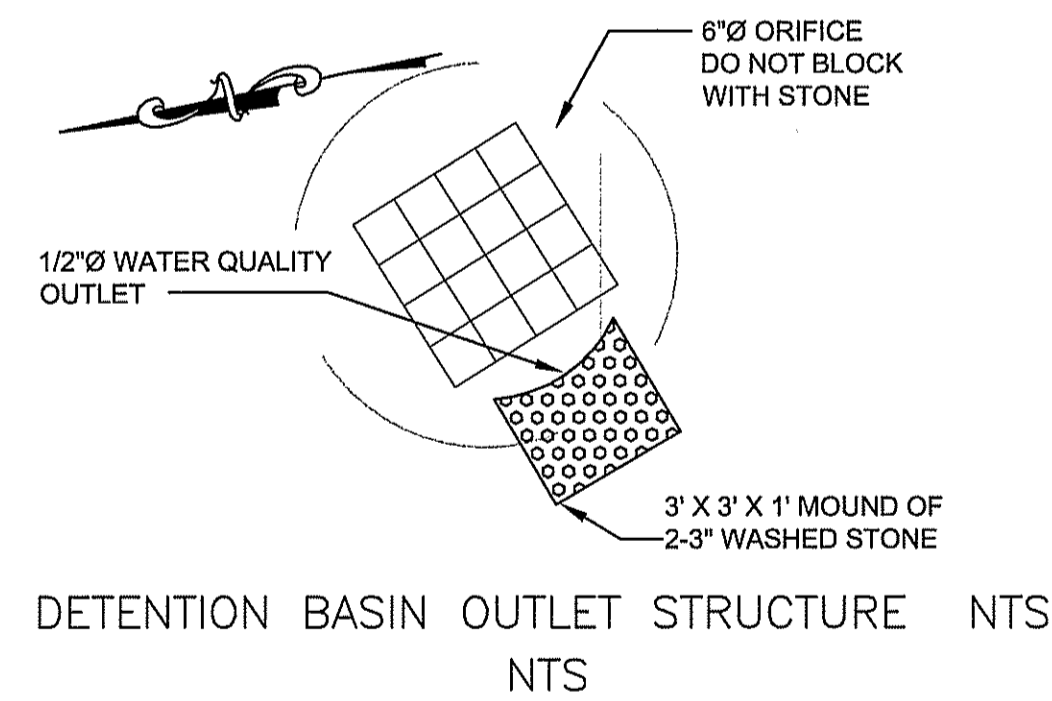
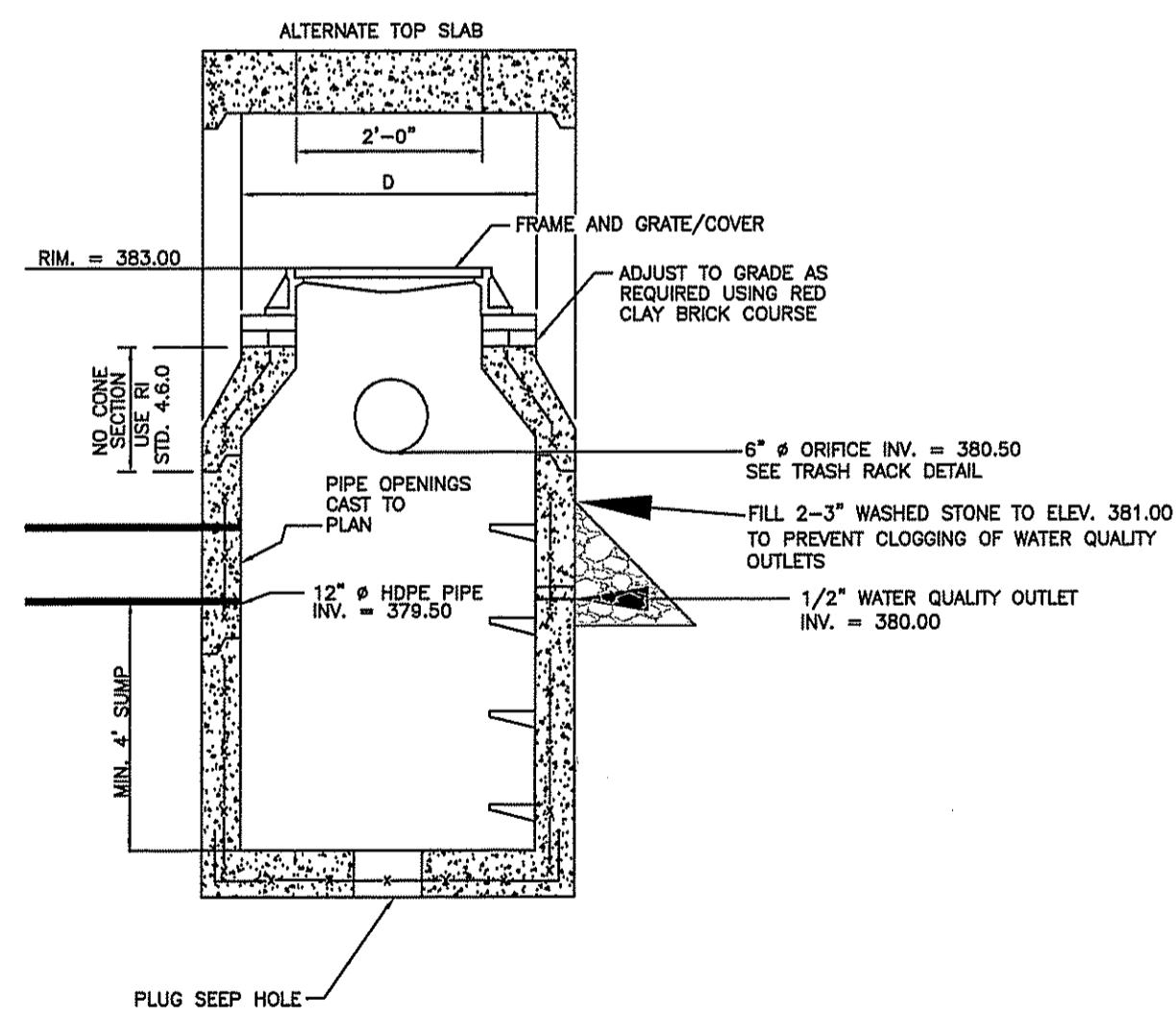
**SECTION B-B  
EMERGENCY SPILLWAY  
NTS**



**SECTION D-D**  
HORIZ: 1"= 40'  
VERT: 1"= 4'



**SECTION C-C**  
HORIZ: 1"= 40'  
VERT: 1"= 4'



**SECTION A-A**  
HORIZ: 1"= 40'  
VERT: 1"= 4'

10-1-04

**JOSEPH A. CASALI**  
REGISTERED PROFESSIONAL ENGINEER  
CIVIL  
7250

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF WATER RESOURCES  
FRESH WATER DIVISION  
APRIL 2, 2004  
AS SPECIFIED IN THE LETTER OF ADOPTION  
DATED OCT 19 2004 FILE # 03-0209  
NO CHANGES ALLOWED WITHOUT THE APPROVAL OF THE ENGINEER  
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

Charles A. H...  
REGISTERED PROFESSIONAL ENGINEER  
CIVIL

- RHODE ISLAND STANDARDS**
- 446 PRECAST 4'-0", 5'-0", OR 6'-0" ROUND CATCH BASIN
  - 447 FRAME AND GRATE (BICYCLE SAFE)
  - 448 BITUMINOUS BERM
  - 449 BALED HAY EROSION CHECK
  - 450 CONSTRUCTION ACCESS

OCT 4 2004

ENSURE WASHED STONE DOES NOT COVER 6" Ø ORIFICE

**JCE**

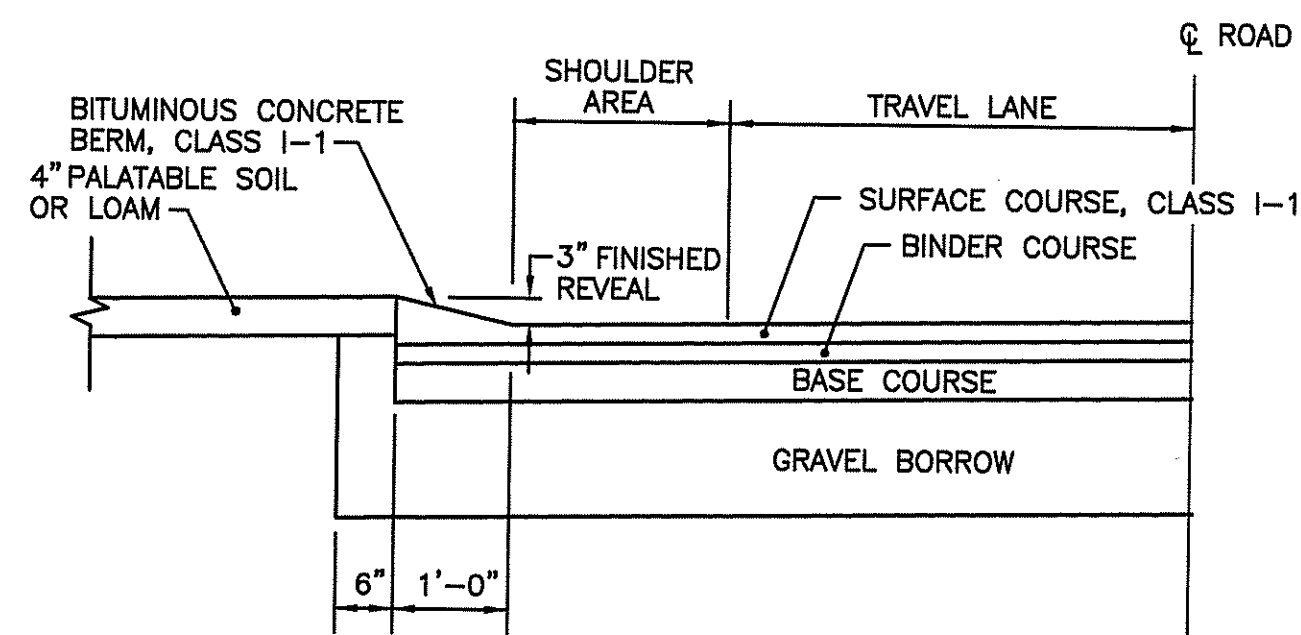
JOE CASALI ENGINEERING, Inc.  
Civil • Site • Drainage • Development 4SDS  
63 Wilson Avenue Johnston, RI 02919  
(401) 272-3600 (401) 272-3602 fax jcasali@cox.net

**ADAM RODZIK**  
ROCKY HILL ROAD  
NORTH SMITHFIELD, RI  
AP 16 / LOT 29

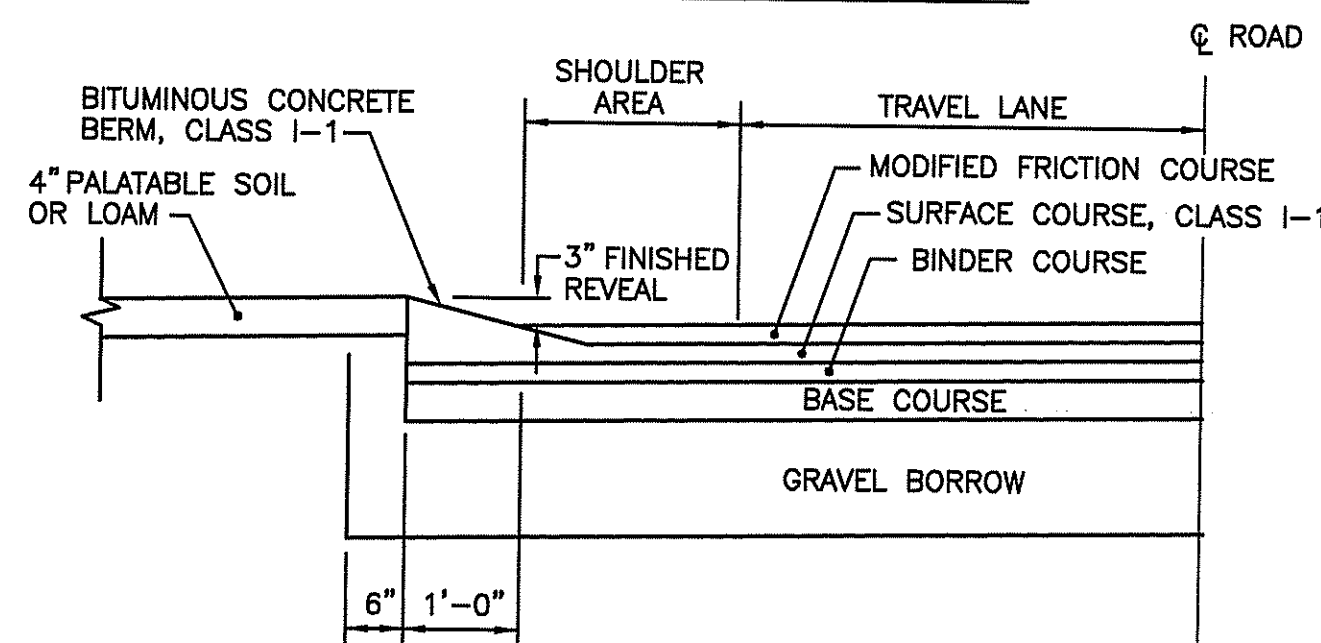
**DRAINAGE SECTIONS**

SEPTEMBER 2004

PAGE 5 OF 6



CONSTRUCTION METHOD A



CONSTRUCTION METHOD B

- NOTES:
1. SHALL BE IN ACCORDANCE WITH SECTION 905 OF THE R.I. STANDARD SPECIFICATIONS.
  2. BITUMINOUS BERM CAN BE PLACED AT THE SAME TIME THAT THE SURFACE COURSE LAYER IS PLACED ON THE PROJECT ROADWAY, OR IT CAN BE INSTALLED IN A SEPARATE OPERATION.

BITUMINOUS BERM  
R.I. STANDARD 7.5.1

FLARED END SECTIONS

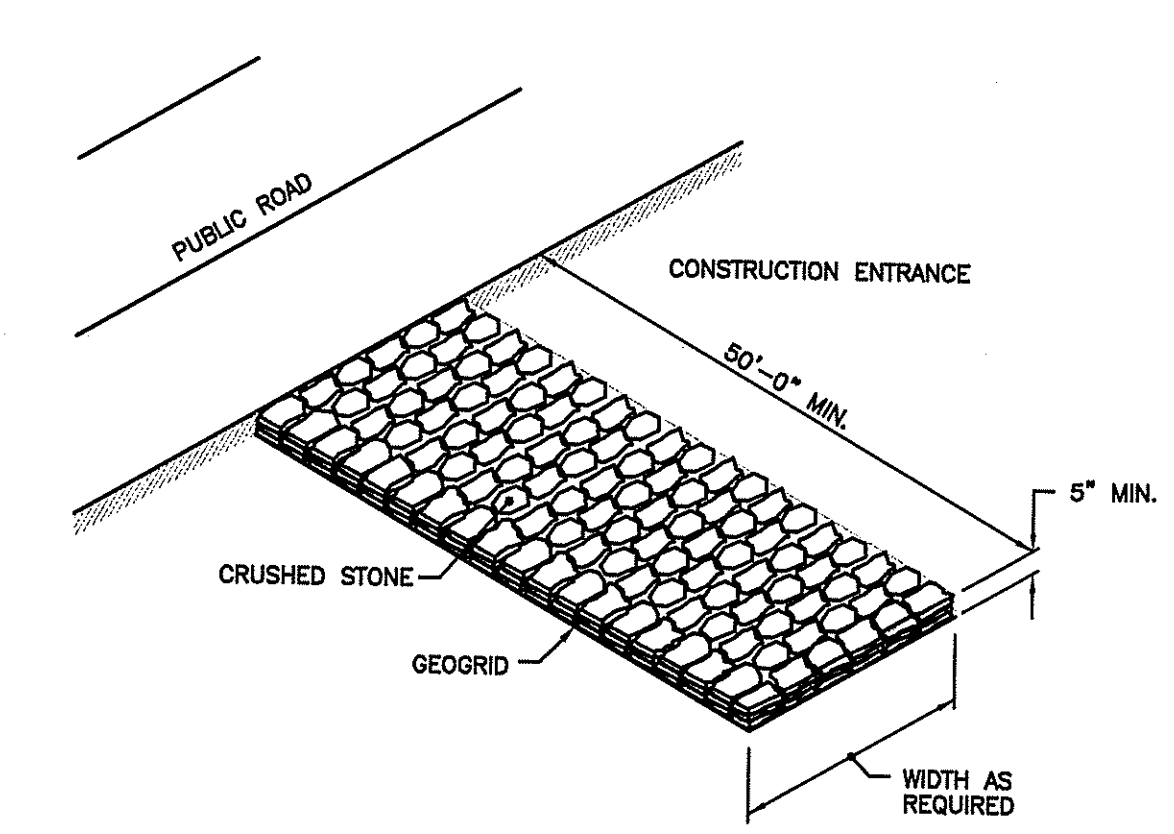
PART #	PIPE SIZE	A	B (MAX)	H	L	W
1210NP	12 in (300 mm)	6.50 in (165 mm)	10.00 in (254 mm)	6.50 in (165 mm)	25.00 in (635 mm)	29.00 in (737 mm)
1510NP	15 in (375 mm)	6.50 in (165 mm)	10.00 in (254 mm)	6.50 in (165 mm)	25.00 in (635 mm)	29.00 in (737 mm)
1810NP	18 in (450 mm)	7.50 in (191 mm)	15.00 in (381 mm)	6.50 in (165 mm)	32.00 in (813 mm)	35.00 in (889 mm)
2410NP	24 in (600 mm)	7.50 in (191 mm)	18.00 in (457 mm)	6.50 in (165 mm)	36.00 in (914 mm)	45.00 in (1143 mm)
3012NP	30 in (750 mm)	10.50 in (267 mm)	N/A	7.00 in (178 mm)	53.00 in (1346 mm)	68.00 in (1727 mm)
3612NP	36 in (900 mm)	10.50 in (267 mm)	N/A	7.00 in (178 mm)	53.00 in (1346 mm)	68.00 in (1727 mm)

NOTE: PE THREADED ROD W/WING NUTS PROVIDED FOR END SECTIONS 12"-24", 30" & 36" END SECTIONS TO BE WELDED TO PIPE PER MANUFACTURER'S RECOMMENDATIONS.

NOTE: ALL DIMENSIONS ARE NOMINAL

ADS  
REGISTERED GEOTECHNICAL ENGINEERING, INC.  
6070

REVISIONS  
BY DATE



NOTE: SHALL BE IN ACCORDANCE WITH SECTION 211 OF THE R.I. STANDARD SPECIFICATIONS.

CONSTRUCTION ACCESS  
R.I. STANDARD 9.9.0

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
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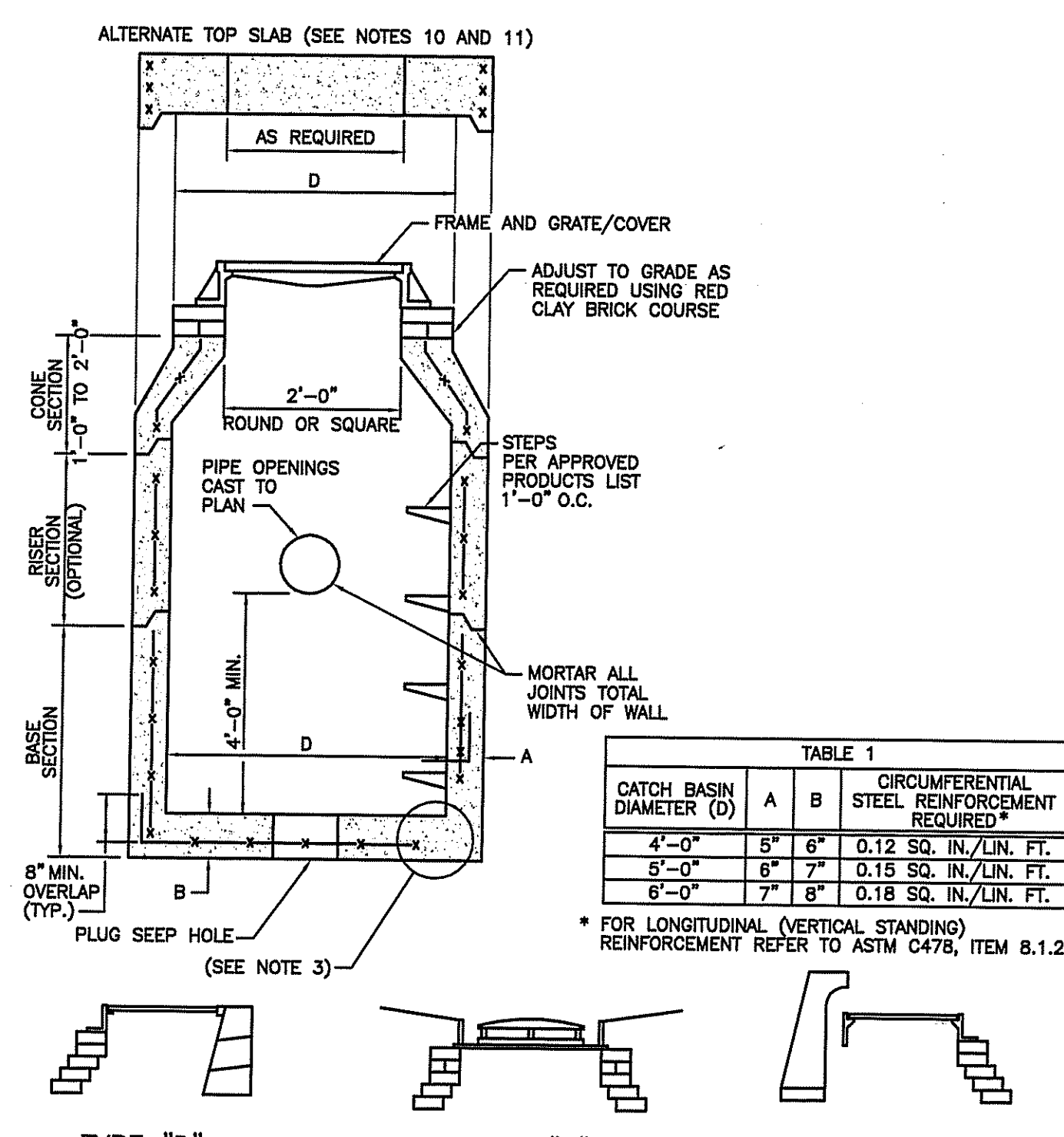


TABLE 1

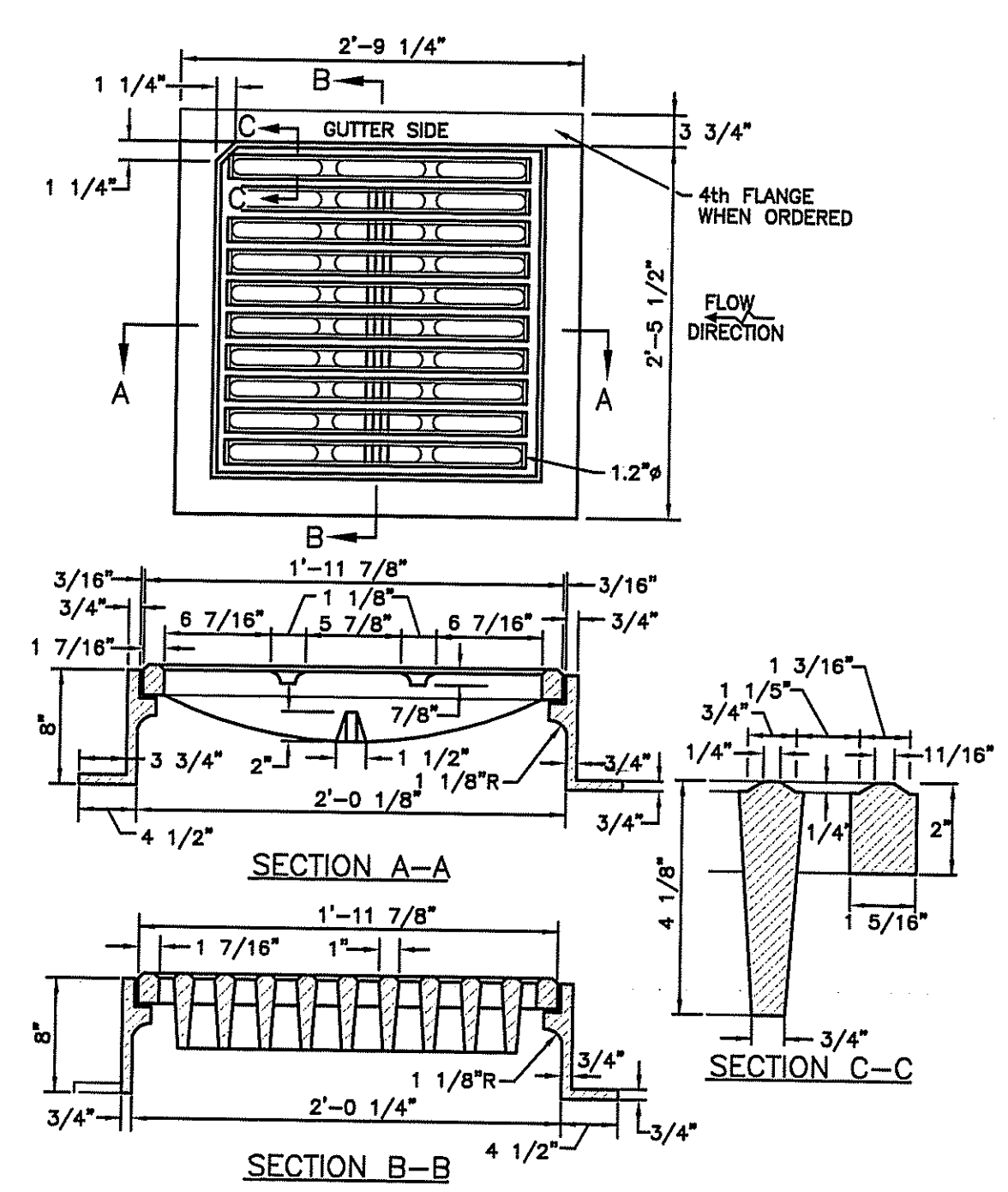
CATCH BASIN DIAMETER (D)	A	B	CIRCUMFERENTIAL STEEL REINFORCEMENT REQUIRED*
4'-0"	5"	6"	0.12 SQ. IN./LIN. FT.
5'-0"	6"	7"	0.15 SQ. IN./LIN. FT.
6'-0"	7"	8"	0.18 SQ. IN./LIN. FT.

\* FOR LONGITUDINAL (VERTICAL STANDING) REINFORCEMENT REFER TO ASTM C478, ITEM 8.1.2

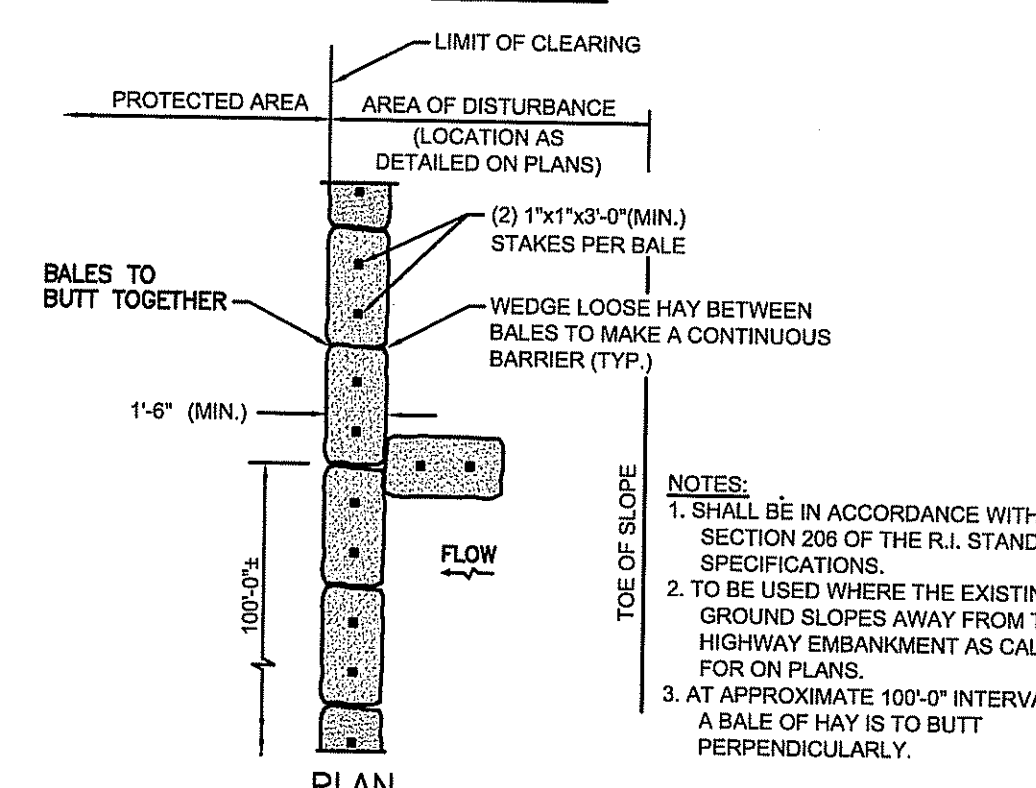
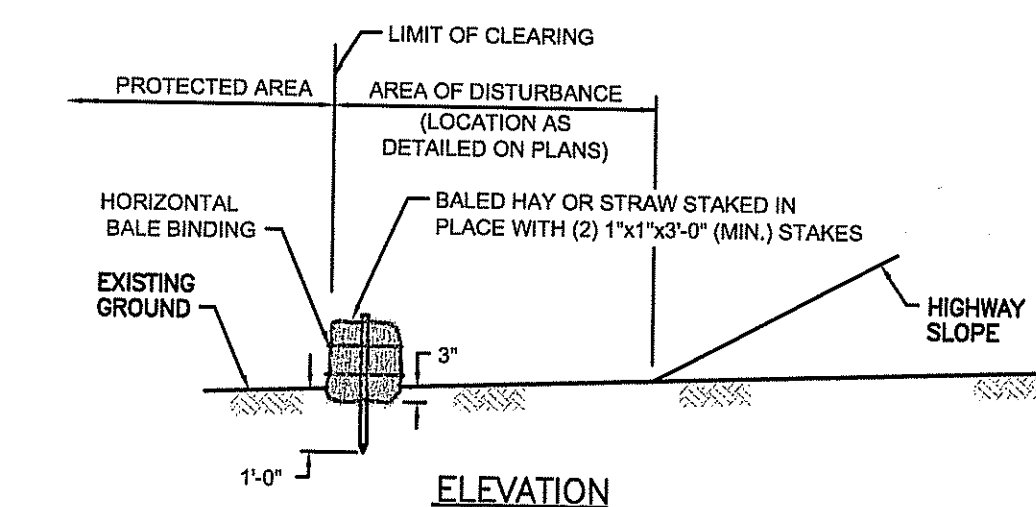
- NOTES:
1. SHALL BE IN ACCORDANCE WITH SECTION 702 OF THE R.I. STANDARD SPECIFICATIONS.
  2. SEE TABLE 1 FOR STEEL REINFORCEMENT REQUIREMENTS.
  3. STEEL REINFORCEMENT FOR BASE SECTION BOTTOM SHALL BE A MINIMUM OF 0.12 SQ. IN./LIN. FT. (BOTH WAYS).
  4. STEPS SHALL CONFORM TO STD. 5.3.9 AND SHALL BE INSTALLED AT THE CASTING PLANT.
  5. ONE POUR MONOLITHIC BASE SECTION.
  6. ANY NECESSARY ADJUSTMENTS DURING CONSTRUCTION WILL BE DONE BY SAW-CUTTING AND/OR CORING ONLY. NO JACKHAMMERS, HAMMERS AND CHISELS OR PNEUMATIC TOOLS WILL BE ALLOWED.
  7. CORBEL MADE OF RED CLAY BRICK WILL BE PERMITTED FOR THE "CONE SECTION" OF THE 4'-0" CATCH BASIN ONLY.
  8. FOR CATCH BASIN TYPES "D" AND "E" STEPS MUST BE INSTALLED ON THE CURB SIDE OF THE STRUCTURE.
  9. THE CENTERLINE OF THE OPENING MUST BE WITHIN 2'-0" FROM THE STEPS.
  10. ALTERNATE TOP SLAB IS STEEL REINFORCED TO MEET OR EXCEED H-25 LOADING (SEE STD. 4.7.2).
  11. ALTERNATE TOP SLAB IS ONLY FOR USE WHEN REDUCING SECTION DOES NOT FIT BECAUSE OF STRUCTURE DEPTH.
  12. REFER TO STD. 5.2.0 FOR MAXIMUM PIPE SIZES.

PRECAST 4'-0", 5'-0", OR 6'-0" ROUND CATCH BASIN  
USE 6'-0" Ø TO ACCOMMODATE HOOD/FLOW CONTROL TEE AND CATCHBASIN CLEANOUT

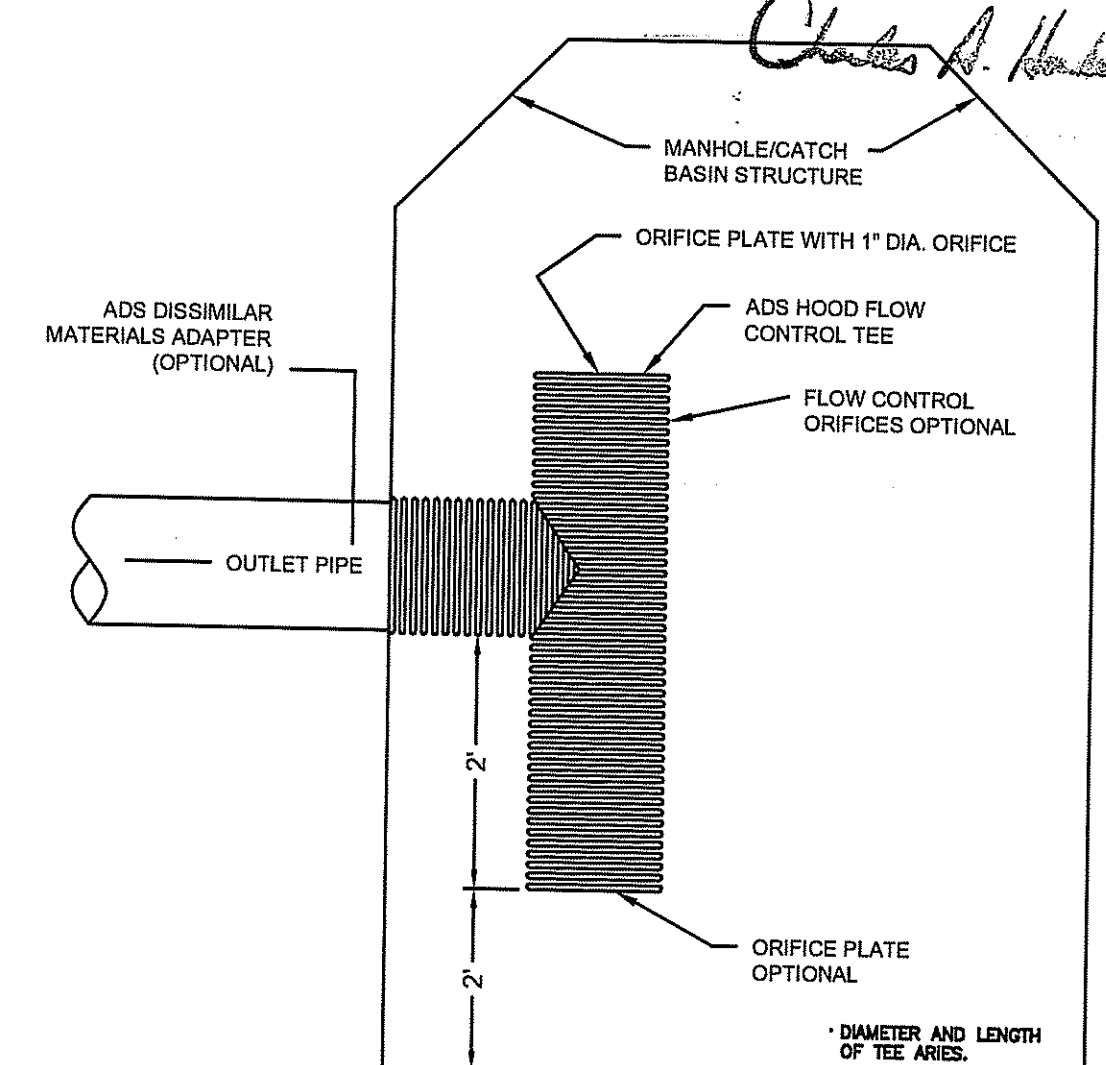
R.I. STANDARD 4.4.0



SQUARE FRAME AND GRATE (BICYCLE SAFE)  
R.I. STANDARD 6.3.2



BALED HAY EROSION CHECK  
R.I. STANDARD 9.1.0



- NOTES:
1. FOR RETROFIT INSTALLATIONS OR DISSIMILAR MATERIALS ADAPTING, TEE SHALL BE FABRICATED WITH N-12 DISSIMILAR MATERIALS ADAPTER (SHOWN ABOVE).
  2. FOR NEW INSTALLATIONS CONNECTING TO HDPE PIPE, CONNECTION FROM OUTLET PIPE TO TEE SHALL BE MADE WITH ADS SPLIT COUPLER. JOINT SHALL BE LOCATED AT MIDPOINT OF STRUCTURE WALL AND SHALL EITHER BE GROUTED OR BOOTED IN PLACE.
  3. TEE SHALL BE SUPPORTED WITH A MINIMUM OF THREE STAINLESS STEEL STRAPS AT APPROXIMATE LOCATIONS SHOWN.
  4. STAINLESS STEEL STRAPS SHALL BE ANCHORED INTO STRUCTURE WITH FASTENERS.
  5. IF ORIFICES ARE INCORPORATED FOR FLOW CONTROL, CARE SHALL BE TAKEN SO AS TO NOT INSTALL STRAPS OVER THE ORIFICE.
  6. FINAL DIAMETER AND LENGTH OF TEE AND SIZE AND LOCATION OF ORIFICES (EITHER ON PLATE OR IN THE TEE) SHALL BE DETERMINED BY THE ENGINEER.
  7. TYPICAL ALL CATCH BASINS

HOOD/FLOW CONTROL TEE INSTALLATION DETAIL  
POND OUTLET CATCHBASIN

OCT 4 2004

ADAM RODZIK  
ROCKY HILL ROAD  
NORTH SMITHFIELD, RI  
AP 16 / LOT 29

DETAILS

SEPTEMBER 2004

PAGE 6 OF 6

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JOE CASALI ENGINEERING, Inc.  
Civil • Site • Drainage • Development • SDS  
63 Wilson Avenue Johnston, RI 02919  
(401) 272-3600 (401) 272-3602 fax jcasali@cox.net

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CIVIL