

**LOCUS**  
NOT TO SCALE



**GENERAL NOTES:**

- PROPERTY LINE AND TOPOGRAPHIC INFORMATION FROM PLANS BY SCITUATE SURVEYS, INC. AND CHERENZIA & ASSOCIATES, LTD.
- THE PROJECT DEVELOPMENT AREA IS WITHIN A FLOOD HAZARD ZONE X (AREA DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN) PER F.I.R.M. PANEL NO. 44009C008BH, DATED OCT. 19, 2010. THERE IS A 100 YEAR FLOOD HAZARD ZONE A (NO BASE FLOOD ELEV. DETERMINED) ASSOCIATED WITH THE PERENNIAL RIVERS. NO GRADE CHANGE OR FILLING IS PROPOSED WITHIN THE 100 YEAR FLOOD PLAIN.
- THE DEVELOPMENT AREA IS WITHIN ZONE PD PER RICHMOND ZONING.
- PROPOSED DEVELOPMENT TO BE SERVICED BY A NEW TOWN WATER SERVICE TO BE INSTALLED FROM ROUTE 138. THE EXISTING PUBLIC DRINKING WATER WELLS SHALL BE ABANDONED IN ACCORDANCE WITH RI DEPT. OF HEALTH REGULATIONS UPON CONNECTION OF THE NEW WATER SERVICE.
- EROSION CONTROL MEASURES SHALL BE THE FIRST ITEM OF CONSTRUCTION AND SHALL BE MAINTAINED UNTIL ALL DISTURBED AREAS ARE PERMANENTLY STABILIZED. SEE SHEET 6.
- ALL WORK SHALL CONFORM TO ALL LOCAL AND STATE PERMITS AND SPECIFICATIONS.
- ALL WORK SHALL BE ACCURATELY LOCATED AND CONSTRUCTION STAKED PRIOR TO COMMENCEMENT OF ANY WORK.
- ALL DISTURBED AREAS SHALL BE STABILIZED WITH 4" LOAM AND SEED OR SOD.
- EXISTING UTILITY LOCATIONS ARE APPROXIMATE ONLY. CONTRACTOR SHALL VERIFY UTILITIES IN ACCORDANCE WITH DIG-SAFE RULES AND EXCAVATE EXPLORATORY TEST PITS AS REQUIRED.
- ALL CURBING, SIDEWALKS OR PAVEMENT DISTURBED BY CONSTRUCTION OPERATIONS SHALL BE REPLACED AND RESTORED BY THE CONTRACTOR.
- EARTH STOCKPILE AREAS SHALL BE AWAY FROM WETLANDS AND SURROUNDED BY HAYBALES OR SILT FENCE.
- SEE SHEETS 2 AND 3 FOR DETAILS OF PROPOSED SITE IMPROVEMENTS.

**SCITUATE SURVEYS, INC.**  
410 TIOGUE AVENUE  
COVENTRY, RHODE ISLAND 02816  
4 0 1 8 2 1 8 1 0 1  
LAND SURVEYING / MAPPING / SITE PLANNING  
PROJECT NO. 522580

**SURVEY NOTES**

- A LIMITED EXISTING CONDITIONS SURVEY OF PHYSICAL FEATURES AND TOPOGRAPHIC CONDITIONS WAS CONDUCTED ON-THE-GROUND IN JULY AND SEPTEMBER, 2014 USING A CONVENTIONAL TOTAL STATION INSTRUMENT. SURVEY LOCATION OF FEATURES AND TOPOGRAPHY WAS LIMITED TO THE AREA BETWEEN THE EXISTING CLUBHOUSE AND WETLAND FLAG LINE "E". IN ADDITION, THE EXISTING BRIDGE, PARKING LOT AND WETLANDS BELONGING TO THE IDENTITY OF THE EXISTING BRIDGE WERE ALSO LOCATED BY GROUND SURVEY. FEATURES AND TOPOGRAPHY DEPICTED OUTSIDE OF THESE LIMITED AREAS WAS COMPILED FROM THIRD-PARTY SOURCES, AND CONFORMS TO A CLASS III MEASUREMENT STANDARD ONLY.
- THE VERTICAL DATUM EMPLOYED IN THE DATA COLLECTION IS NAVD83 AND WAS ESTABLISHED USING GLOBAL POSITIONING TECHNOLOGY. TO CONVERT ELEVATIONS TO HARIORE SUBSTRAT D.B.P. BY THE UNDERGROUND.
- THE LOCATION OF THE BASE FLOOD ELEVATION HAS NOT BEEN EVALUATED OR DETERMINED BY THE UNDERGROUND.
- THIS PLAN IS DESIGNED TO BE VIEWED AT THE STATED SCALE, AND MUST CONTAIN THE ORIGINAL SIGNATURE OF THE SURVEYOR AND A "NET" STAMP. ANY OTHER FORM OF THIS MAP IS NOT AN AUTHENTIC VERSION.
- AS QUALIFIED ABOVE THIS DATA ACCUMULATION SURVEY CONFORMS TO A CLASS III ACCURACY STANDARD AS ADOPTED BY THE RHODE ISLAND STATE BOARD OF REGISTRATION FOR PROFESSIONAL LAND SURVEYORS.

BY: *[Signature]* DECEMBER 10, 2014  
JOHN MENSINGER, PROFESSIONAL LAND SURVEYOR NO. 1806  
SCITUATE SURVEYS, INC. CERTIFICATION OF AUTHORIZATION NO. LS-A30



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

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF WATER RESOURCES  
FRESHWATER WETLANDS PROGRAM  
APPROVED WITH CONDITIONS  
AS SPECIFIED IN THE LETTER OF APPROVAL  
DATED JAN 29 2015 FILE # 14-0224  
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL  
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

PORTION OF A.P. 5B LOT 38  
UNDER P&S AGREEMENT  
N/F CARD  
20± ACRES

**ZONING DATA**

PLANNED DEVELOPMENT		RESIDENTIAL R-2	
MIN. LOT AREA	2 Ac.	MIN. LOT AREA	2 Ac.
MIN. FRONTAGE	200'	MIN. FRONTAGE	200'
MIN. YARDS: FRONT	50'	MIN. YARDS: FRONT	50'
SIDE	35'	SIDE	35'
REAR	100'	REAR	100'
BUILDING HEIGHT	40'	BUILDING HEIGHT	35'

**PARKING DATA**

CLUBHOUSE: 403 + 4 = 101 SPACES  
RETAIL: 2500 S.F. + 90+2 = 30 SPACES  
OTHER: 4500 S.F. + 250 = 18 SPACES  
RESIDENTIAL: 4 UNITS X 2 = 8 SPACES  
TOTAL PARKING REQ'D. = 157 SPACES  
PARKING PROVIDED = 159 SPACES  
EXISTING PARKING = 139 SPACES

**LOT AREAS**

LOT 4 TOTAL 173.68± Ac.  
LOT 4 PD ZONE 24.24± Ac.  
LOT 38 ADDITION 20± Ac.

**DEVELOPMENT DATA**

CLUBHOUSE: GFA 18,200 S.F. CAPACITY = 403  
RETAIL/OFFICE BLDG.: GFA = 7,056 S.F.  
POOL CABANA: GFA = 1,296 S.F.  
4 UNIT RESIDENTIAL: GFA = 7,880 S.F.

**LEGEND**

- 120--- EXIST. CONTOUR
- ~~~~~ EXIST. TREELINE
- EXIST. STONE WALL
- ▲--- FLAGGED WETLAND 1994
- FLAGGED WETLAND 2014
- ~~~~~ PROP. TREE LINE
- 100--- 100 YEAR FLOOD ZONE
- --- LIMIT OF DISTURBANCE

**UTILITY NOTES:**

- LOCATIONS AND SIZES OF EXISTING UTILITIES IS PLOTTED FROM BEST AVAILABLE INFORMATION. THE CONTRACTOR SHALL VERIFY ALL INFORMATION WITH THE APPROPRIATE UTILITY AUTHORITY AND DIG SAFE PRIOR TO ANY CONSTRUCTION OR EXCAVATION.
- EXPLORATORY TEST PITS SHALL BE EXCAVATED TO CONFIRM LOCATION AND DEPTH AT ANY CRITICAL AREAS, AS REQUIRED.
- CONTRACTOR SHALL COORDINATE SERVICE LOCATIONS WITH THE D.W.P.S. PLANS AND THE ARCHITECTURAL PLANS.
- STORM DRAINAGE PIPES SHALL BE CORRUGATED HIGH DENSITY POLYETHYLENE (ADS-1120 OR EQUAL) OR SDR-35 PVC.
- WATER MAINS, SERVICES AND METERS SHALL BE IN CONFORMANCE WITH THE REQUIREMENTS OF THE RICHMOND WATER DEPT.
- CABLE, ELECTRIC AND TELEPHONE SERVICES SHALL BE AS PER APPROPRIATE UTILITY AUTHORITY.
- UTILITY SERVICE INSTALLATIONS SHALL BE APPROVED AND INSPECTED BY THE APPROPRIATE UTILITY COMPANY.

REVISION

DATE

PREPARED FOR:  
THE PRESERVE AT BOULDER HILL, LLC  
2091 MOOSENECK HILL RD.  
COVENTRY, R.I. 02816

THE PRESERVE AT BOULDER HILLS  
ASSESSOR'S PLAT 6B LOT 4 AND  
PORTION OF A.P. 5B LOT 38  
87 KINGSTOWN ROAD  
IN RICHMOND, R.I.

OVERALL CLUBHOUSE SITE PLAN

S.F.M. ENGINEERING ASSOCIATES  
410 TIOGUE AVENUE  
COVENTRY, RI 02816  
PHONE: 401-826-3736  
FAX: 401-826-1711  
SCOTT@SFM.NECOMAIL.COM

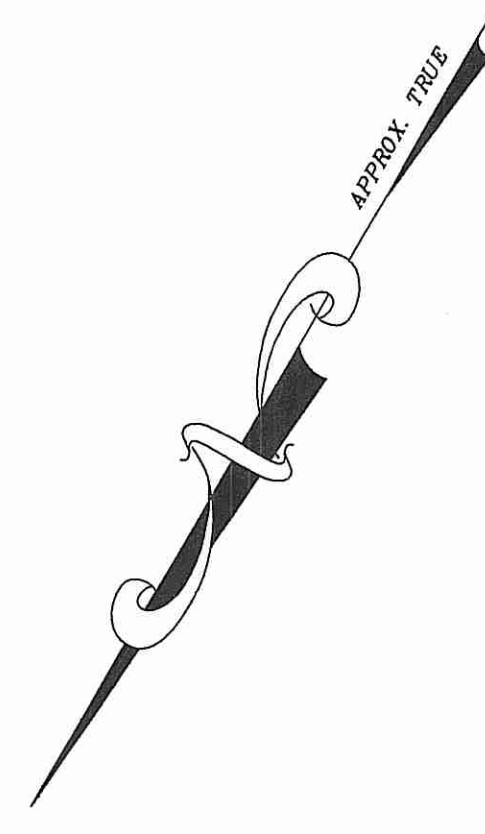
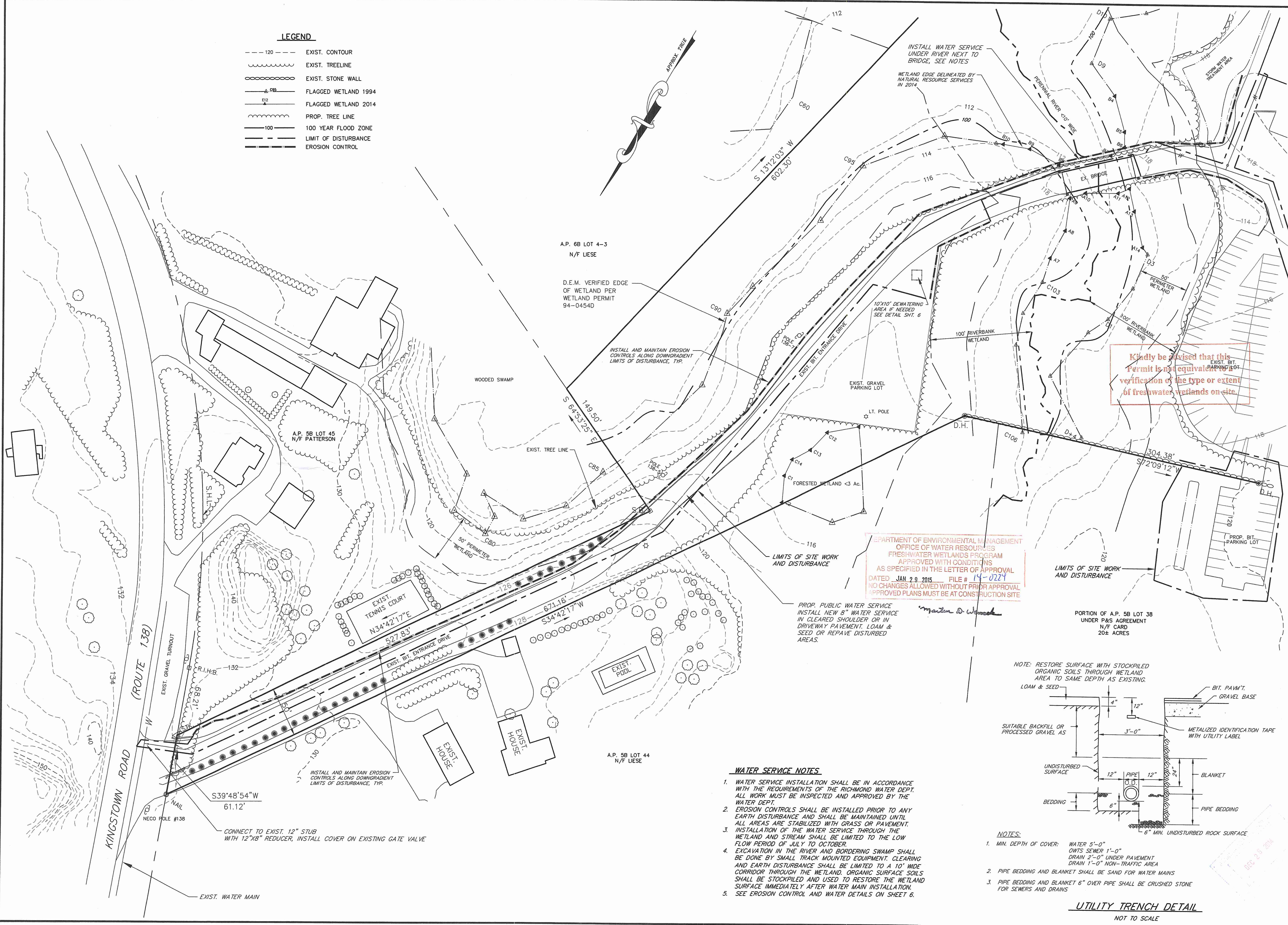
DRN. BY: LBC  
CHK. BY: SFM  
SCALE: 1"= 80'  
DATE: DEC. 10, 2014  
DWG: SFM199A-CHP1  
SHEET 1 OF 6

PRELIMINARY SUBMISSION

C1

**LEGEND**

- 120 --- EXIST. CONTOUR
- ~~~~~ EXIST. TREELINE
- EXIST. STONE WALL
- △ FWS FLAGGED WETLAND 1994
- △ FWS FLAGGED WETLAND 2014
- ~~~~~ PROP. TREE LINE
- 100 YEAR FLOOD ZONE
- LIMIT OF DISTURBANCE
- EROSION CONTROL



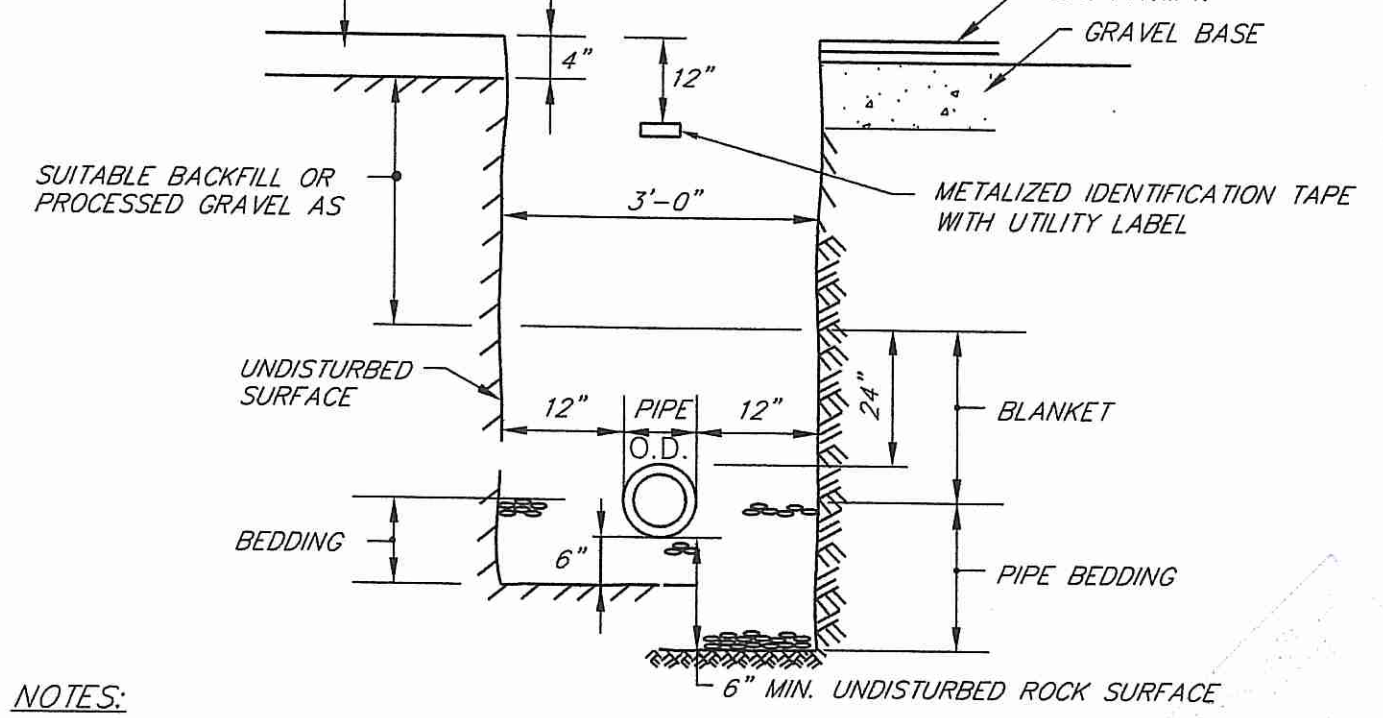
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OFFICE OF WATER RESOURCES  
FRESHWATER WETLANDS PROGRAM  
APPROVED WITH CONDITIONS  
AS SPECIFIED IN THE LETTER OF APPROVAL  
DATED JAN 29 2015 FILE # 14-0221  
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL  
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

**WATER SERVICE NOTES**

1. WATER SERVICE INSTALLATION SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE RICHMOND WATER DEPT. ALL WORK MUST BE INSPECTED AND APPROVED BY THE WATER DEPT.
2. EROSION CONTROLS SHALL BE INSTALLED PRIOR TO ANY EARTH DISTURBANCE AND SHALL BE MAINTAINED UNTIL ALL AREAS ARE STABILIZED WITH GRASS OR PAVEMENT.
3. INSTALLATION OF THE WATER SERVICE THROUGH THE WETLAND AND STREAM SHALL BE LIMITED TO THE LOW FLOW PERIOD OF JULY TO OCTOBER.
4. EXCAVATION IN THE RIVER AND BORDERING SWAMP SHALL BE DONE BY SMALL TRACK MOUNTED EQUIPMENT. CLEARING AND EARTH DISTURBANCE SHALL BE LIMITED TO A 10' WIDE CORRIDOR THROUGH THE WETLAND. ORGANIC SURFACE SOILS SHALL BE STOCKPILED AND USED TO RESTORE THE WETLAND SURFACE IMMEDIATELY AFTER WATER MAIN INSTALLATION.
5. SEE EROSION CONTROL AND WATER DETAILS ON SHEET 6.

NOTE: RESTORE SURFACE WITH STOCKPILED ORGANIC SOILS THROUGH WETLAND AREA TO SAME DEPTH AS EXISTING.  
LOAM & SEED



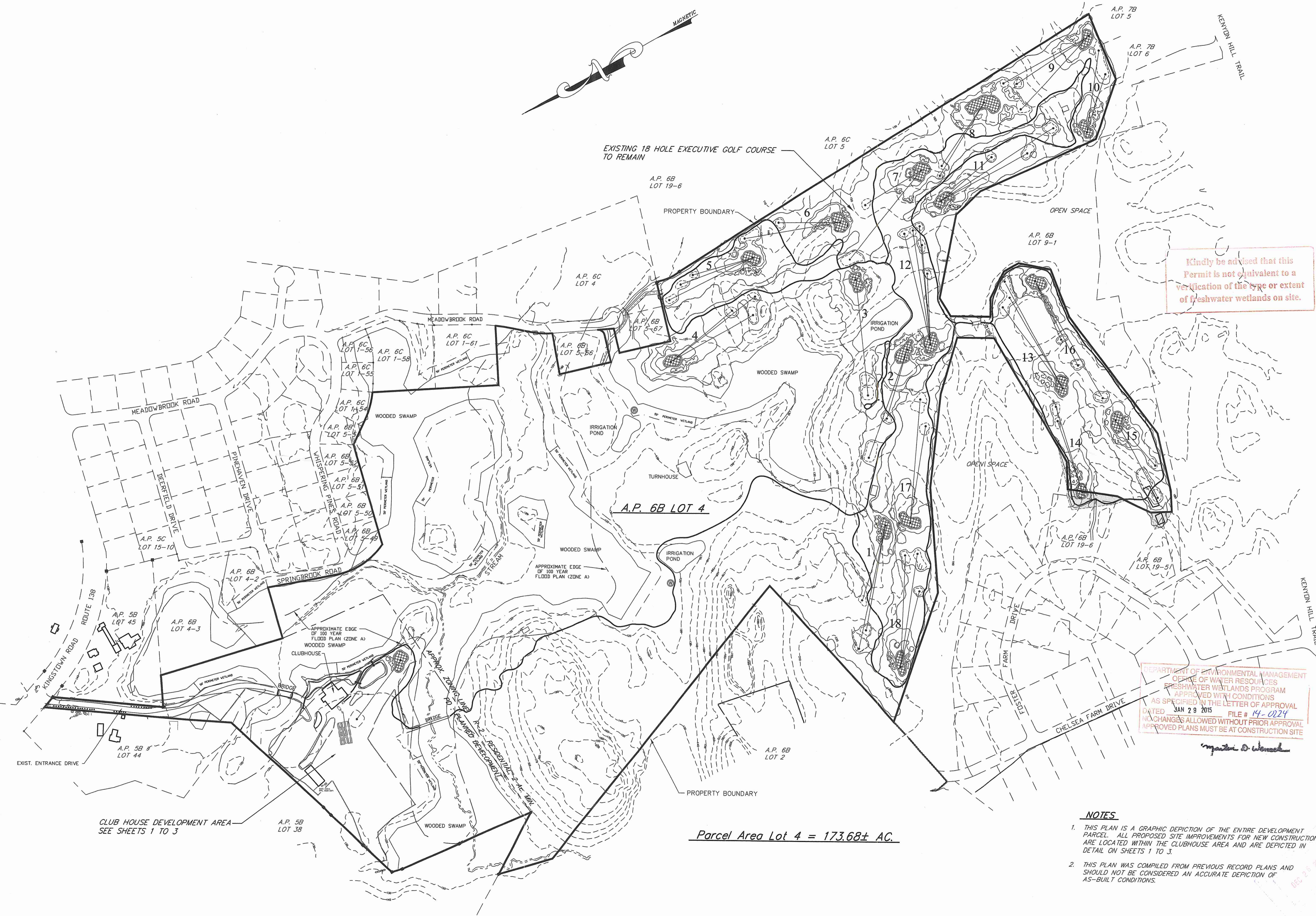
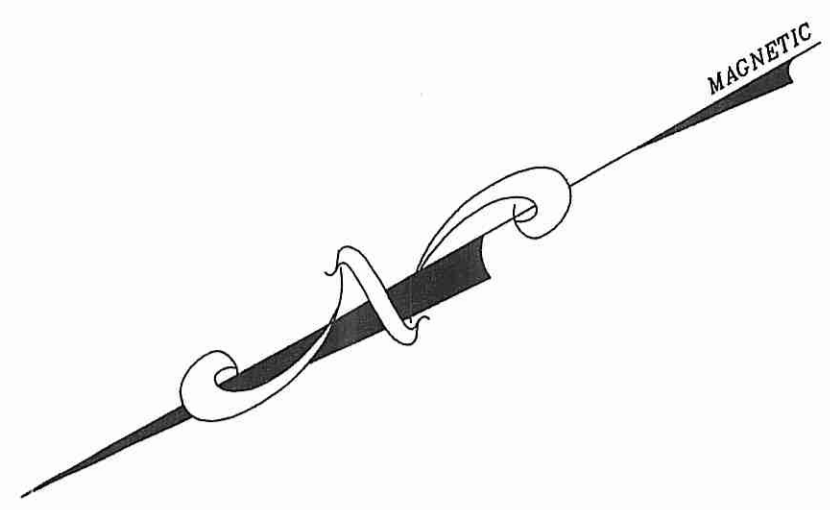
**NOTES:**

1. MIN. DEPTH OF COVER: WATER 5'-0" OWTS SEWER 1'-0" DRAIN 2'-0" UNDER PAVEMENT DRAIN 1'-0" NON-TRAFFIC AREA
2. PIPE BEDDING AND BLANKET SHALL BE SAND FOR WATER MAINS
3. PIPE BEDDING AND BLANKET 6" OVER PIPE SHALL BE CRUSHED STONE FOR SEWERS AND DRAINS

**UTILITY TRENCH DETAIL**  
NOT TO SCALE

<p>DATE</p> <p>REVISION</p>	<p>SCOTT F. MOOREHEAD REGISTERED PROFESSIONAL ENGINEER NO. 4288</p>	<p>PREPARED FOR: THE PRESERVE AT BOULDER HILL, LLC 2091 NOOSENECK HILL RD. COVENTRY, R.I. 02816</p>
<p>DATE</p> <p>REVISION</p>	<p>SCOTT F. MOOREHEAD REGISTERED PROFESSIONAL ENGINEER NO. 4288</p>	<p>THE PRESERVE AT BOULDER HILLS ASSESSOR'S PLAT 6B LOT 4 AND PORTION OF A.P. 5B LOT 38 87 KINGSTOWN ROAD IN RICHMOND, R.I.</p>
<p>ENTRANCE DRIVE AND WATER MAIN PLAN</p>		
<p>S.F.M. ENGINEERING ASSOCIATES 410 TIGUE AVENUE COVENTRY, RI 02816 PHONE: 401-826-3736 FAX: 401-826-1711 SCOTT@SFM.NECOMAIL.COM</p>	<p><b>SFM</b></p>	
<p>DRN. BY: LBC CHK. BY: SFM SCALE: 1"= 40' DATE: DEC. 10, 2014 DWG: SFM199A-CHP2 SHEET 2 OF 6 PRELIMINARY SUBMISSION</p>	<p>C2</p>	





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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 JAN 29 2015 FILE # 14-0224  
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*Scott F. Moorehead*

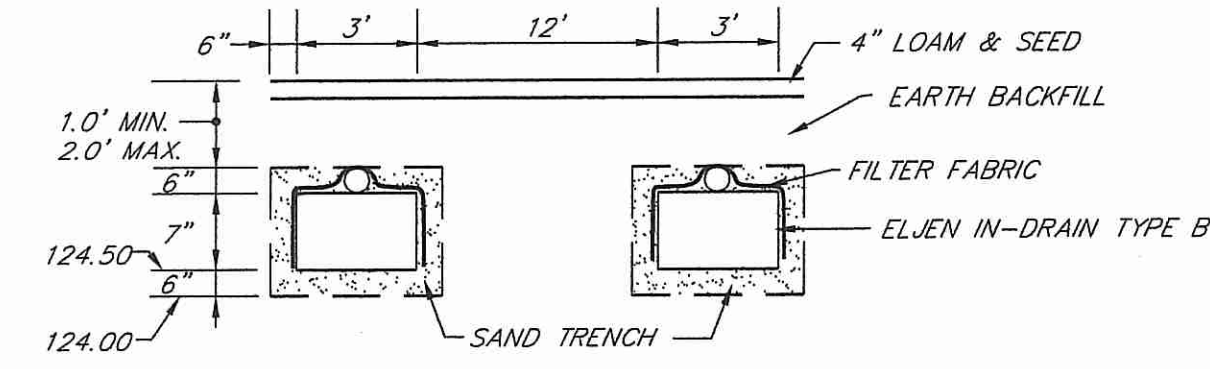
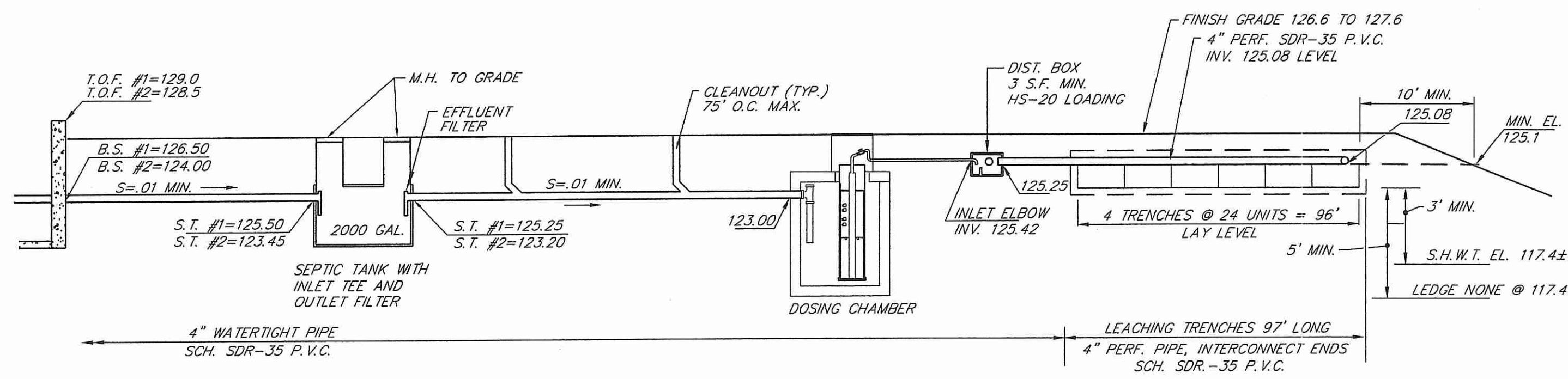
Parcel Area Lot 4 = 173.68± AC.

**NOTES**

1. THIS PLAN IS A GRAPHIC DEPICTION OF THE ENTIRE DEVELOPMENT PARCEL. ALL PROPOSED SITE IMPROVEMENTS FOR NEW CONSTRUCTION ARE LOCATED WITHIN THE CLUBHOUSE AREA AND ARE DEPICTED IN DETAIL ON SHEETS 1 TO 3.
2. THIS PLAN WAS COMPILED FROM PREVIOUS RECORD PLANS AND SHOULD NOT BE CONSIDERED AN ACCURATE DEPICTION OF AS-BUILT CONDITIONS.

CLUB HOUSE DEVELOPMENT AREA  
SEE SHEETS 1 TO 3

REVISION	
DATE	
PREPARED FOR: <b>THE PRESERVE AT BOULDER HILL, LLC</b> 2091 MOOSENECK HILL RD. COVENTRY, R.I. 02816	
THE PRESERVE AT BOULDER HILLS ASSESSOR'S PLAT 6B LOT 4 AND PORTION OF A.P. 5B LOT 3B 87 KINGSTOWN ROAD IN RICHMOND, R.I.	
<b>OVERALL DEVELOPMENT SITE PLAN</b>	
S.F.M. ENGINEERING ASSOCIATES 410 TICQUE AVENUE COVENTRY, RI 02816 PHONE: 401-826-3736 FAX: 401-826-1711 SCOTT@SFM.NECOMAIL.COM	
DRN. BY: LBC	
CHK. BY: SFM	
SCALE: 1" = 200'	
DATE: DEC. 10, 2014	
DWG: SFM199A-OSP2	
SHEET 4 OF 6	
PRELIMINARY SUBMISSION	<b>C4</b>



**TYPICAL LEACHING SYSTEM**  
SCALE: NO SCALE

**O.W.T.S. NOTES:**

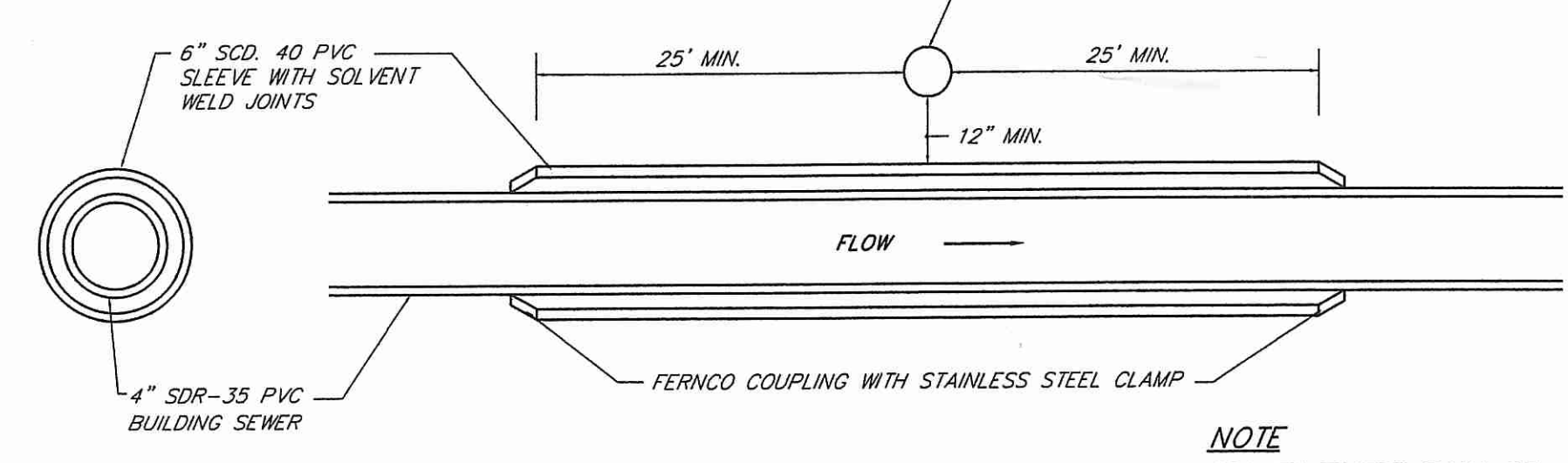
1. IN-DRAIN UNITS ARE 4' LONG, 3' WIDE AND 7" HIGH, 105 REQ'D.
2. SAND FOR TRENCHES SHALL BE CONCRETE SAND CONFORMING TO ASTM C-33.
3. ENDS OF TRENCHES SHALL BE CONNECTED WITH 3 IN-DRAIN UNITS.
4. LAY IN-DRAIN UNITS LEVEL WITH TOP 2" BELOW DISTRIBUTION BOX OUTLET INVERT.
5. CLEAR AND REMOVE ALL BRUSH & TREES 10' AROUND SYSTEM.
6. STRIP ALL TOPSOIL & SUBSOIL WITHIN THE SYSTEM AND BACKFILL WITH CLEAN, COARSE GRAVEL TO EL. 124.5.
7. THE BOTTOM OF EXCAVATION SHALL BE LEVEL AND SCARIFIED.
8. NO EXISTING OR PROPOSED WELLS, WATERCOURSES OR DRAINS WITHIN 200' OF SYSTEM NOR PUBLIC WELLS WITHIN 500' OF SYSTEM, EXCEPT AS NOTED.
9. NO SEWAGE SYSTEM WITHIN 100' OF WELL, EXCEPT AS SHOWN.
10. MIN. DISTANCE FROM LEACHING AREA TO SUBSURFACE DRAIN, FOUNDATION DRAIN, & WATER SUPPLY LINE = 25' (EXIST. OR PROP.)
11. ALL WORK SHALL CONFORM TO THE R.I.D.E.M. RULES & REGULATIONS.
12. ELEVATION AT GROUNDWATER TEST HOLE = 127.4

**O.W.T.S. DESIGN DATA**

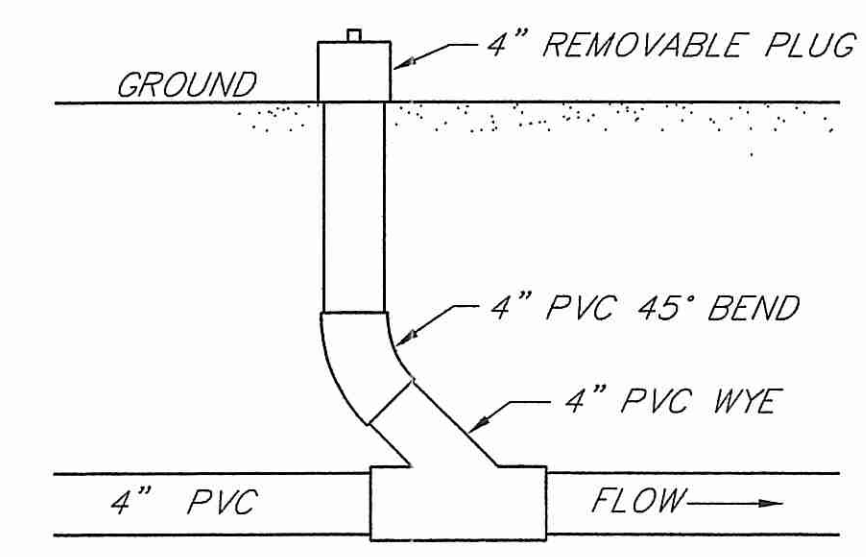
DESIGN FLOW:  
 8 BEDROOMS X 115 GPD/BDRM = 920 GPD  
 RETAIL/OFFICE/POOL: 50 PERSONS X 15 GPD/PERSON = 750 GPD  
 TENNIS COURTS: 2 X 100 GPD/COURT = 200 GPD  
**TOTAL DESIGN FLOW = 1870 GPD**

SOILS IN SYSTEM AREA ARE SAND, SOIL CATEGORY 1.  
 DESIGN APPLICATION RATE = 0.70 GPD/S.F.  
 REQ'D. LEACHING AREA = 1870 ÷ .70 = 2672 S.F.

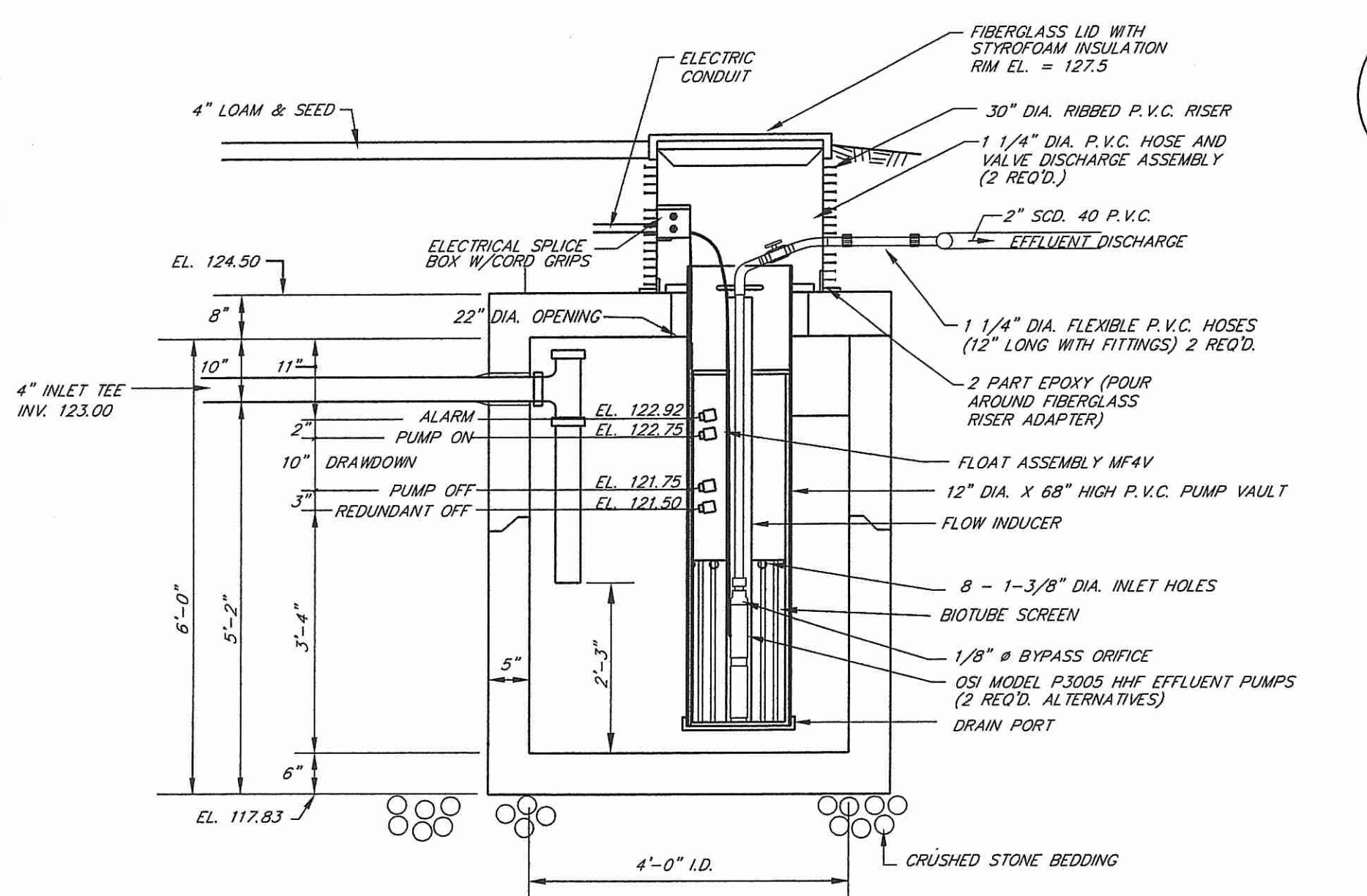
EFFECTIVE LEACHING AREA = 105 ELVIENS X 28 S.F./ELVIEN = 2940 S.F.  
 SYSTEM OVERSIZED BY 10%



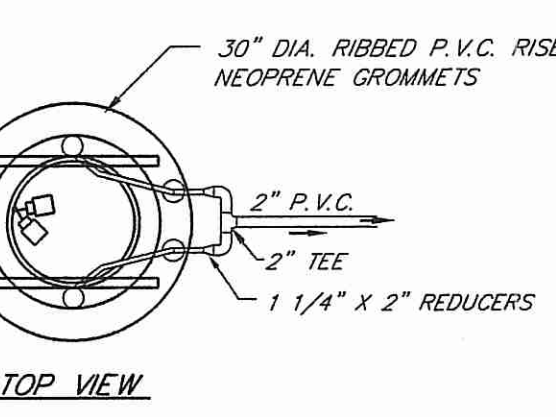
**TYPICAL SEWER SLEEVE DETAIL**  
NOT TO SCALE



**CLEANOUT DETAIL**  
NOT TO SCALE



**DOSING CHAMBER**  
NOT TO SCALE



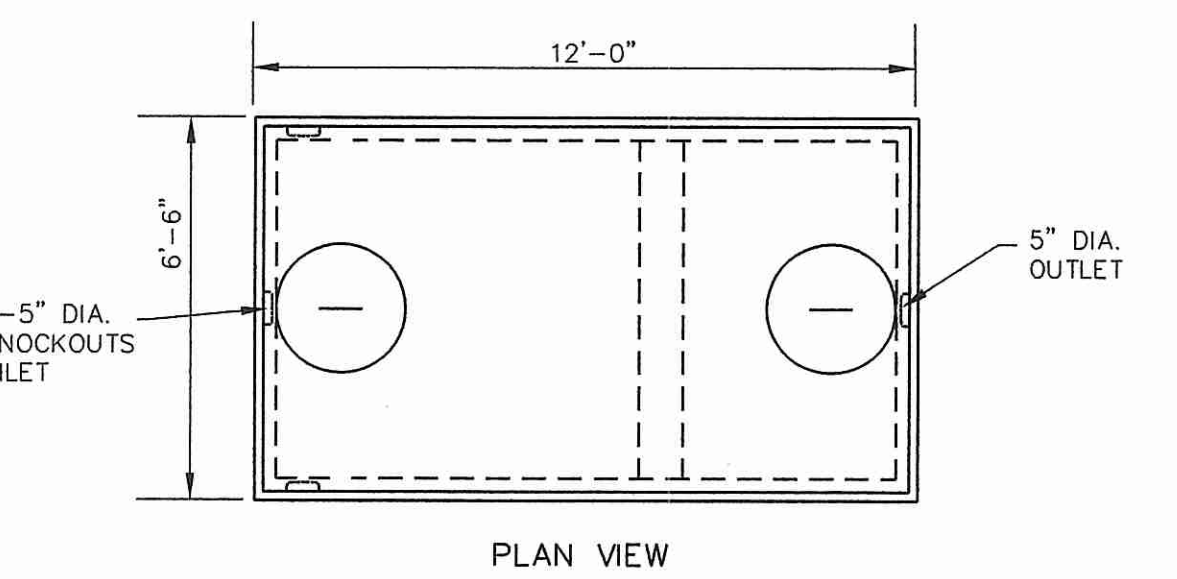
**TOP VIEW**

**DOSING CHAMBER NOTES**

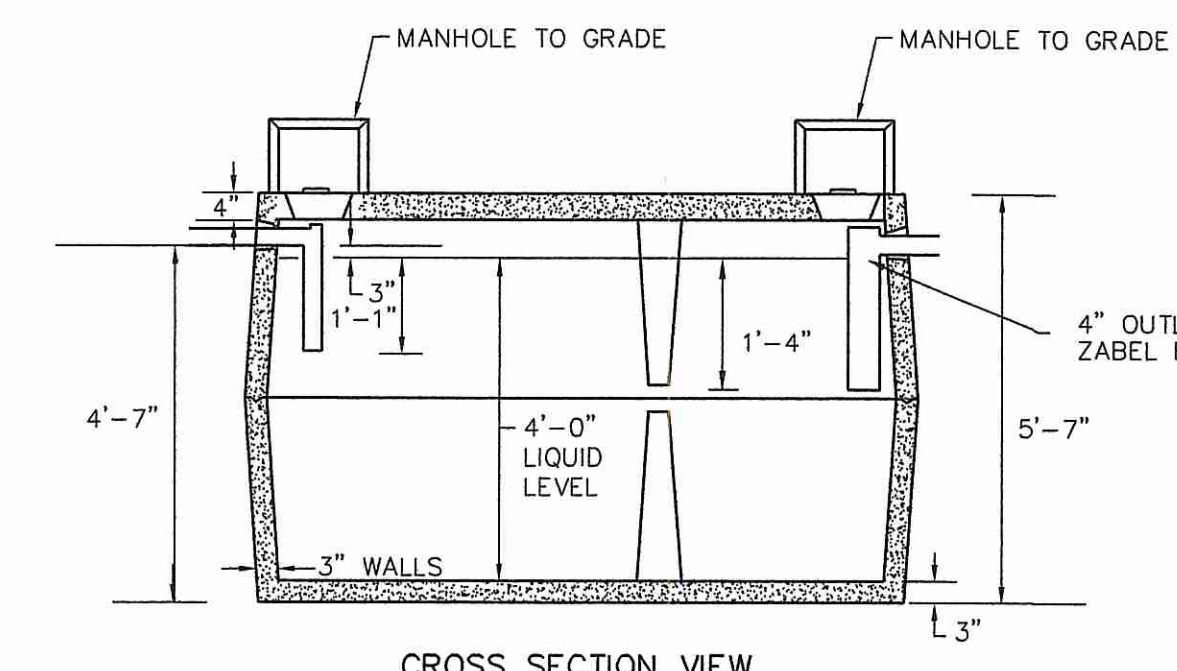
1. DOSING CHAMBERS SHALL BE PRECAST WATERTIGHT CONCRETE 4' I.D. MANHOLE OR EQUIVALENT.
2. PUMP VAULT SHALL BE ORENCO SYSTEMS MODEL PVU68-1819-L OR EQUIVALENT.
3. EFFLUENT PUMPS SHALL BE ORENCO SYSTEMS 1/2 H.P. MODEL P3005 HHF OR EQUIVALENT. (2 REQ'D.)
4. DISCHARGE ASSEMBLIES SHALL BE ORENCO SYSTEMS MODEL MV125X-DB OR EQUIVALENT (2 REQ'D.)
5. FLOAT ASSEMBLY SHALL BE ORENCO SYSTEMS MODEL MF4V OR EQUIVALENT.
6. CONTROL PANEL AND ALARM SHALL BE ORENCO SYSTEMS DAX2
7. P.V.C. RISER MANHOLES SHALL BE ORENCO SYSTEMS MODEL RR30X RISERS MODEL FL30G LIDS AND MODEL RRFT30 TANK ADAPTER OR EQUIVALENT.
8. DISCHARGE LINES SHALL HAVE 12" MIN. COVER AND SHALL BE SLOPED TO DRAIN BACK TO DOSING CHAMBER

**DOSING CALCULATIONS**

DOSE VOL. = 78 GAL. PER DOSE  
 MDV: 1870 GAL. ÷ 78 = 24 DOSES PER DAY  
 ADF: 935 GAL. ÷ 78 = 12 DOSES PER DAY  
 VOL. OF TRENCH PIPES = 280 GAL.  
 78 GAL. = 28% OF PIPE VOL.

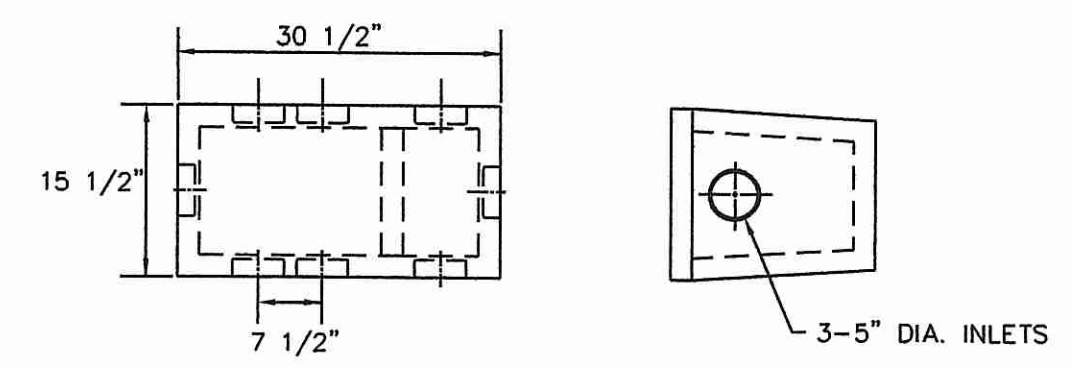


**PLAN VIEW**

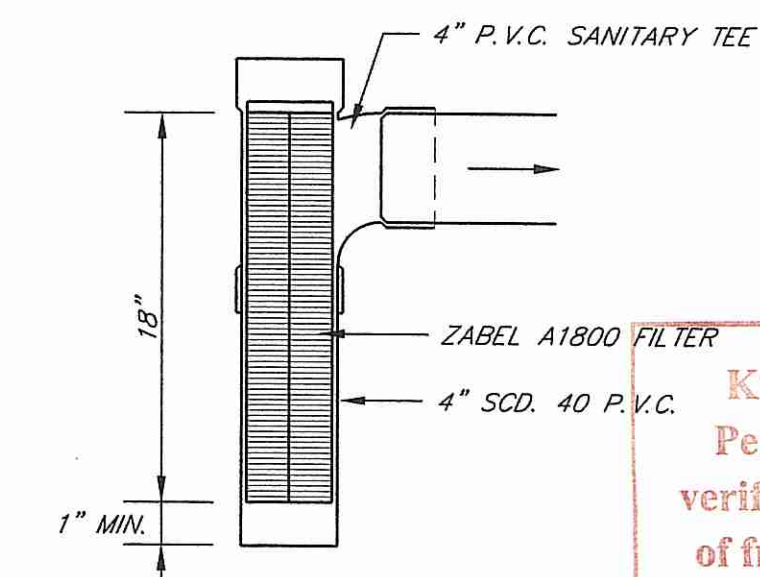


**CROSS SECTION VIEW**

**2000 GALLON TWO COMPARTMENT PRECAST SEPTIC TANK**  
NOT TO SCALE

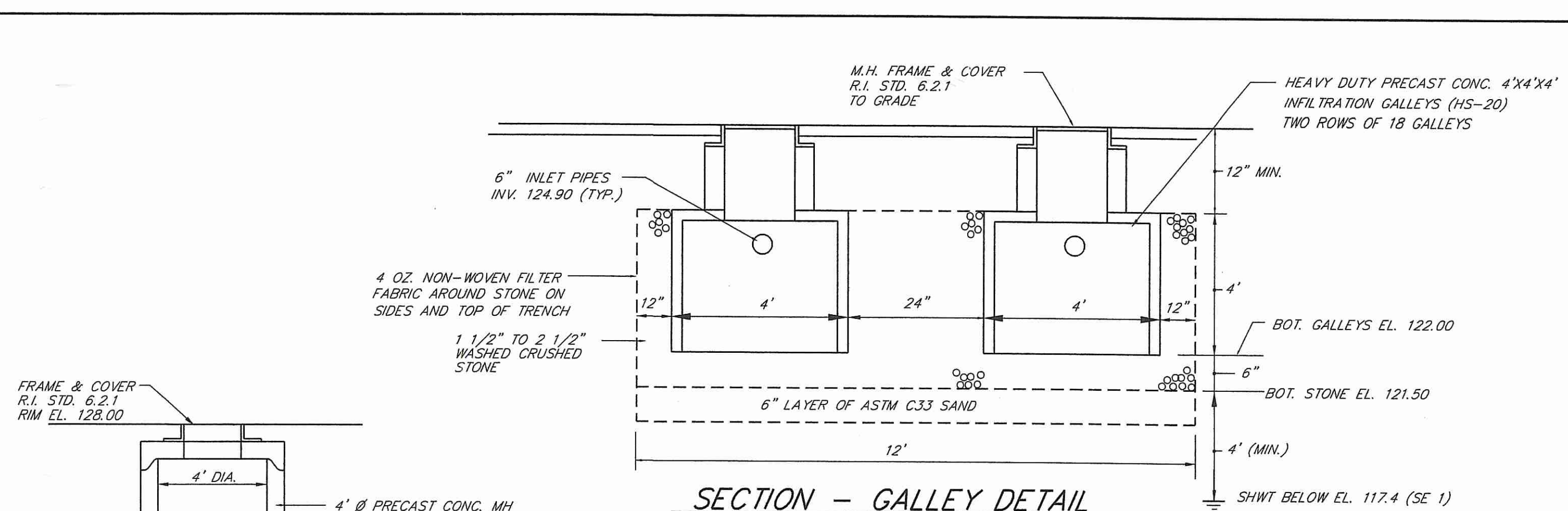


**PRECAST DISTRIBUTION BOX**  
NOT TO SCALE



**ZABEL A1800 FILTER**  
NOT TO SCALE

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**SECTION - GALLEY DETAIL**  
NOT TO SCALE

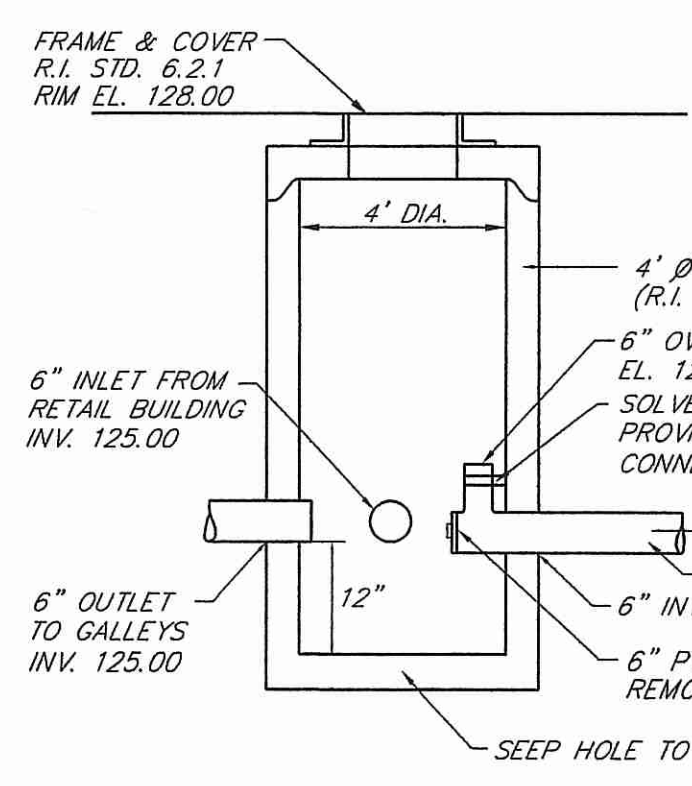
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
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**INFILTRATION SYSTEM MAINTENANCE NOTES**

1. DURING CONSTRUCTION AND THE FIRST 6 MONTHS OF OPERATION, THE INFILTRATION SYSTEM SHALL BE INSPECTED WITHIN 24 HOURS OF EACH RAINFALL EVENT THAT GENERATES .25 INCHES OF RAIN IN A 24 HOUR PERIOD. AFTER THE FIRST SIX MONTHS OF OPERATION, THE INFILTRATION SYSTEM SHALL BE INSPECTED TWICE PER YEAR.
2. THE GALLEYS SHALL BE INSPECTED VIA THE INSPECTION MANHOLES. IN THE EVENT THAT THE SYSTEM HAS STANDING WATER FOR MORE THAN 72 HOURS AFTER A RAINFALL EVENT THE SYSTEM SHALL BE CONSIDERED FAILED. A FAILED SYSTEM MUST BE REPLACED BY THE RESPONSIBLE PARTY.
3. THE GALLEYS SHALL BE INSPECTED AND MAINTAINED A MINIMUM OF TWICE PER YEAR (SPRING AND FALL) UPON COMPLETION OF CONSTRUCTION. DEBRIS AND SEDIMENTS SHALL BE REMOVED AS NECESSARY AND DISPOSED OF AT A LICENSED FACILITY.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSPECTION AND MAINTENANCE OF ALL DRAINAGE FACILITIES, AS OUTLINED HEREIN UNTIL FINAL ACCEPTANCE BY THE OWNER.
5. UPON FINAL ACCEPTANCE, THE OWNER SHALL BE RESPONSIBLE FOR ALL DRAINAGE INSPECTION AND MAINTENANCE AS OUTLINED HEREIN.
6. ANY INADVERTENT OR DELIBERATE DISCHARGE OF WASTE OIL OR ANY OTHER POLLUTANT TO THE STORMWATER DISPOSAL SYSTEM REQUIRES IMMEDIATE NOTIFICATION OF THE RIDEM-LIC PROGRAM.
7. ANY INCIDENT OF GROUNDWATER CONTAMINATION RESULTING FROM THE IMPROPER DISCHARGE OF CONTAMINANTS TO THE DISPOSAL SYSTEM SHALL BE THE RESPONSIBILITY OF THE PROPERTY OWNER. THE RIDEM WILL REQUIRE THE PROPERTY OWNER TO REMEDIATE ANY INCIDENTS THAT MAY ADVERSELY IMPACT THE QUALITY OF THE GROUNDWATER.

**INFILTRATION SYSTEM INSTALLATION NOTES**

1. THE GALLEY UNITS SHALL BE INSTALLED IN CONFORMANCE WITH THE MANUFACTURER'S SPECIFICATIONS.
2. THE INFILTRATION SYSTEM SHALL BE PROTECTED FROM SILTATION AT ALL TIMES. OPEN INLET PIPES SHALL BE FITTED WITH TEMPORARY WATER TIGHT CAPS.
3. THE SYSTEM SHALL BE COVERED WITH GRAVEL IMMEDIATELY AFTER INSTALLATION.
4. THE SYSTEM SHALL BE PROTECTED FROM CONSTRUCTION EQUIPMENT UNTIL PAVEMENT IS INSTALLED.
5. FILTER FABRIC LINER SHALL BE MIRAFI 180-N 4 OR AMOCO 4552 OR EQUAL.
6. RISERS & COVERS SHALL BE INSTALLED AS SHOWN ON PLANS.
7. GALLEY INFILTRATION SYSTEM AREAS SHALL BE PROTECTED PRIOR TO COMMENCEMENT OF CONSTRUCTION TO PREVENT COMPACTION OF BOTTOM AREA.



**OUTLET MANHOLE DETAIL**  
NOT TO SCALE

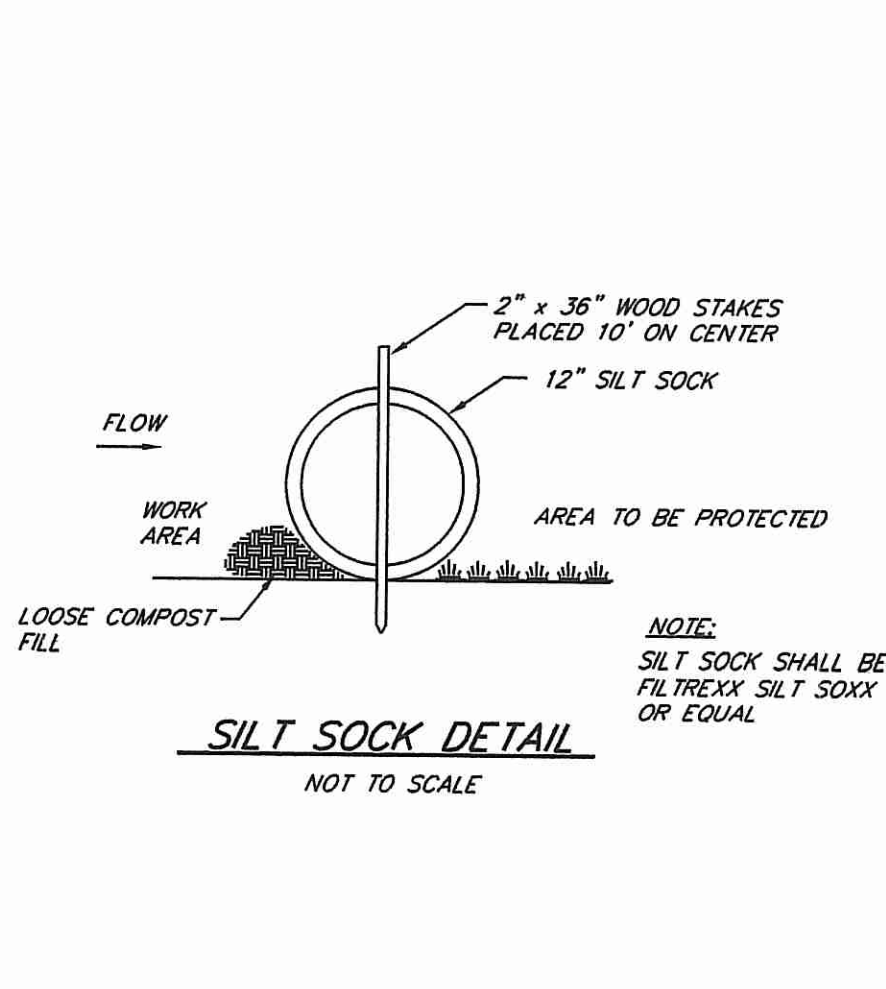
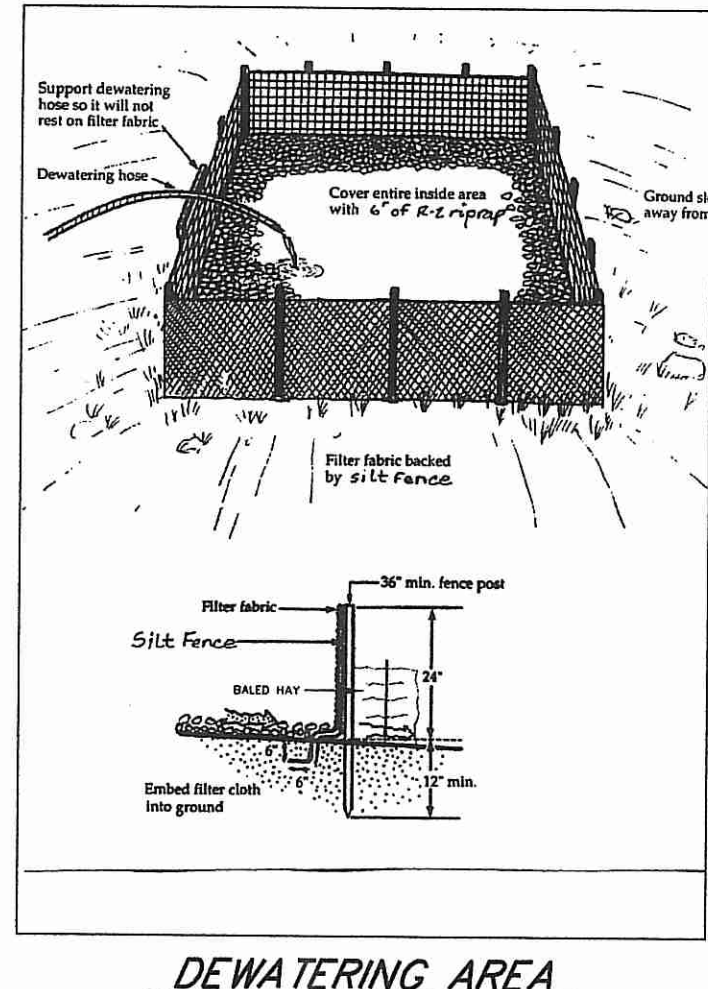
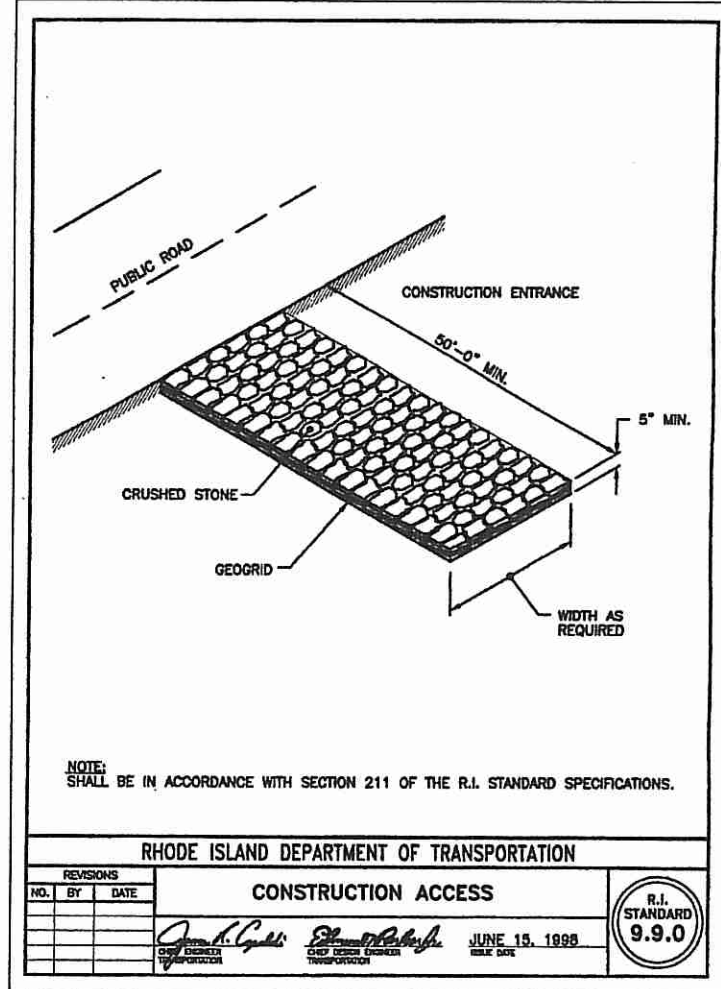
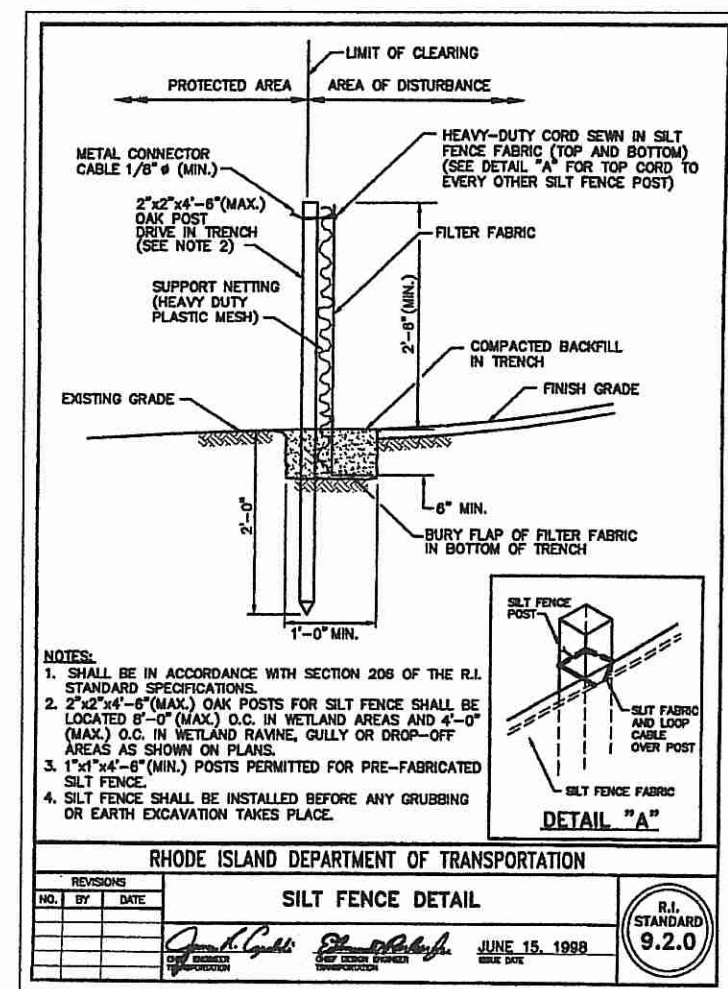
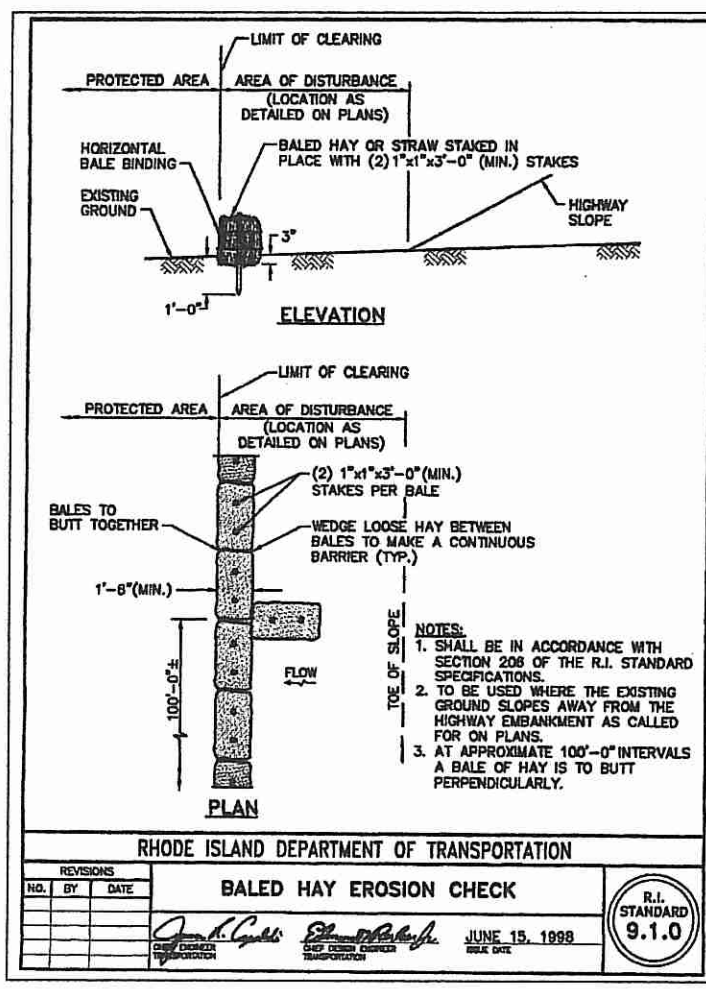
REVISION	
DATE	
SCOTT F. MOOREHEAD	REGISTERED PROFESSIONAL ENGINEER

PREPARED FOR:  
 THE PRESERVE AT BOULDER HILL, LLC  
 2091 NOOSENECK HILL RD.  
 COVENTRY, R.I. 02816

THE PRESERVE AT BOULDER HILLS  
 ASSESSOR'S PLAT 6B LOT 4 AND  
 PORTION OF A.P. 5B LOT 3B  
 87 KINGSTOWN ROAD  
 IN RICHMOND, R.I.

S.F.M. ENGINEERING ASSOCIATES  
 410 TOGUE AVENUE  
 COVENTRY, RI 02816  
 PHONE: 401-826-3736  
 FAX: 401-826-1711  
 SCOTT@SFM.NECOMAIL.COM

DRN. BY: LBC
CHK. BY: SFM
SCALE: AS NOTED
DATE: DEC. 10, 2014
DWG: SFM198A-D
SHEET 5 OF 6
PRELIMINARY SUBMISSION



**GENERAL NOTES**

- ALL WORK PERFORMED HEREIN SHALL BE GOVERNED BY THE R.I. STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (REVISION OF 12-2010) WITH ALL CORRECTIONS AND ADDENDA AND THE 12-1-2010 R.I. STANDARD DETAILS WITH ALL CORRECTIONS AND ADDENDA.
- EMBANKMENT SLOPES AND ALL DISTURBED AREAS ARE TO RECEIVE 4" OF TOPSOIL AND SEED. SEE EROSION CONTROL PROGRAM.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ESTABLISHING AND MAINTAINING ALL TEMPORARY SEDIMENTATION AND EROSION CONTROLS.
- IN ALL EXCAVATION AND REPLACEMENT OF FILL, THE CONTRACTOR SHALL PERFORM THE WORK IN FULL COMPLIANCE WITH THE R.I. STANDARD SPECIFICATION SECTION 202.
- ALL EXCESS SOIL, STUMPS, TREES, ROCKS, BOULDERS AND OTHER REFUSE SHALL BE DISCARDED OFF SITE OUTSIDE OF ALL WETLANDS AND WETLANDS SETBACK AREAS UNLESS OTHERWISE SPECIFIED.
- CONSTRUCTION WASTE SHALL BE COLLECTED, REMOVED AND DISPOSED OF OFF-SITE IN ACCORDANCE WITH ALL STATE AND TOWN REQUIREMENTS. TRASH SHALL BE COLLECTED ROUTINELY AND REMOVED FROM SITE FOR DISPOSAL.
- ALL WORK SHALL BE PERFORMED IN STRICT COMPLIANCE WITH THE REQUIREMENTS OF ALL STATE AND TOWN REGULATIONS AND PERMITS.

**SEDIMENTATION CONTROL PROGRAM**

- EXTREME CARE SHALL BE EXERCISED SO AS TO PREVENT ANY SEDIMENTS FROM ENTERING THE WETLANDS OR ADJOINING PROPERTIES.
- BANKS OR SLOPES OVER 5 PERCENT SHALL BE SEED AS SOON AS POSSIBLE AND SHALL BE PROTECTED WITH A HAY, STRAW OR FIBER MULCH.
- DURING CONSTRUCTION, THE CONTRACTOR AND/OR DEVELOPER SHALL BE RESPONSIBLE FOR MAINTAINING DRAINAGE AND RUNOFF FLOW DURING STORMS AND PERIODS OF RAINFALL.
- SEDIMENTATION CONTROL DEVICES SHALL BE INSPECTED CLOSELY AND MAINTAINED PROMPTLY AFTER EACH RAINFALL.
- CARE SHALL BE TAKEN SO NOT TO PLACE "REMOVED SEDIMENTS" WITHIN THE PATH OF EXISTING, NEWLY CREATED (BOTH TEMPORARY AND PERMANENT) OR PROPOSED WATERCOURSES OR THOSE AREAS SUBJECT TO STORM WATER FLOW.
- ADDITIONAL HAYBALES, SILT FENCE OR SANDBAGS SHALL BE LOCATED AS CONDITIONS WARRANT OR AS DIRECTED BY THE ENGINEER.
- REFERENCE THE "R.I. EROSION AND SEDIMENT CONTROL HANDBOOK" PREPARED BY THE U.S. DEPT. OF AGRICULTURE, SOIL CONSERVATION SERVICE, 1989, AS A GUIDE.

**ORDER OF PROCEDURE**

- PRIOR TO THE COMMENCEMENT OF CONSTRUCTION OR EXCAVATION, THE SITE CONTRACTOR SHALL PHYSICALLY MARK THE ENTIRE LIMIT OF DISTURBANCE. EROSION CHECKS SHALL BE ESTABLISHED AT ALL DOWN GRADIENT LIMITS OF DISTURBANCE AND AS DEPICTED ON THE SITE PLANS. TEMPORARY EROSION CHECKS SHALL BE INSTALLED AT EROSION CHECKS CONSIST OF HAYBALES, SILT FENCE OR SILT SOCKS.
- THE CONTRACTOR SHALL PHYSICALLY MARK THE BOTTOM AREAS OF THE BIO-RETENTION AND ROOF INFILTRATION AREAS TO PREVENT SOIL COMPACTION OF THE BOTTOMS.
- ONLY AREAS THAT CAN BE REASONABLY EXPECTED TO HAVE ACTIVE CONSTRUCTION WORK BEING PERFORMED WITHIN 14 DAYS OF DISTURBANCE SHALL BE CLEARED AND GRUBBED AT ONE TIME. IF CONSTRUCTION ACTIVITY HAS TEMPORARILY OR PERMANENTLY CEASED FOR MORE THAN 14 DAYS, STABILIZATION PRACTICES SHALL BE INITIATED. REFERENCE THE EROSION CONTROL & SEDIMENTATION PROGRAMS FOR TEMPORARY CONTROLS.
- ALL EROSION AND SEDIMENTATION CONTROL STRUCTURES SHALL BE PERIODICALLY MAINTAINED AS PER THE RESPECTIVE PROGRAMS FOR TEMPORARY CONTROL.
- EROSION CHECKS ALONG AND AT THE ENDS OF ROADWAYS MAY ALSO BE REMOVED AFTER FINAL SOIL STABILIZATION HAS BEEN ACHIEVED AND APPROVED.
- EROSION CHECKS LOCATED AT DRAINAGE INLETS OR OUTLETS MUST REMAIN UNTIL SUCH TIME THAT A DESIRABLE STAND OF GRASS OR GROUND COVER HAS BEEN ESTABLISHED AND THE PROJECT RECEIVES A FAVORABLE APPROVAL FOR FINAL ACCEPTANCE FROM THE ENGINEER.

**EROSION CONTROL & SOIL STABILIZATION PROGRAM**

- DENUDE SLOPES SHALL NOT BE UNATTENDED OR EXPOSED FOR EXCESSIVE PERIODS OF TIME SUCH AS THE INACTIVE WINTER SEASON.
- ALL DISTURBED SLOPES, EITHER NEWLY CREATED OR EXPOSED PRIOR TO OCTOBER 15, SHALL BE SEED OR PROTECTED BY THAT DATE FOR ANY WORK COMPLETED DURING EACH CONSTRUCTION YEAR.
- THE TOP SOIL SHALL HAVE A SANDY LOAM TEXTURE RELATIVELY FREE OF SUBSOIL MATERIAL, STONES, ROOTS, LUMPS OF SOIL, TREE LIMBS, TRASH OR CONSTRUCTION DEBRIS AND SHALL CONFORM WITH R.I. STANDARD SPECIFICATION M. 20.
- THE SEED MIX SHALL BE INOCULATED WITHIN 24 HOURS BEFORE MIXING AND PLANTING, WITH APPROPRIATE INOCULUM FOR EACH VARIETY.
- THE DESIGN MIX SHALL BE COMPRISED OF THE FOLLOWING PERMANENT SEEDING MIXTURES:

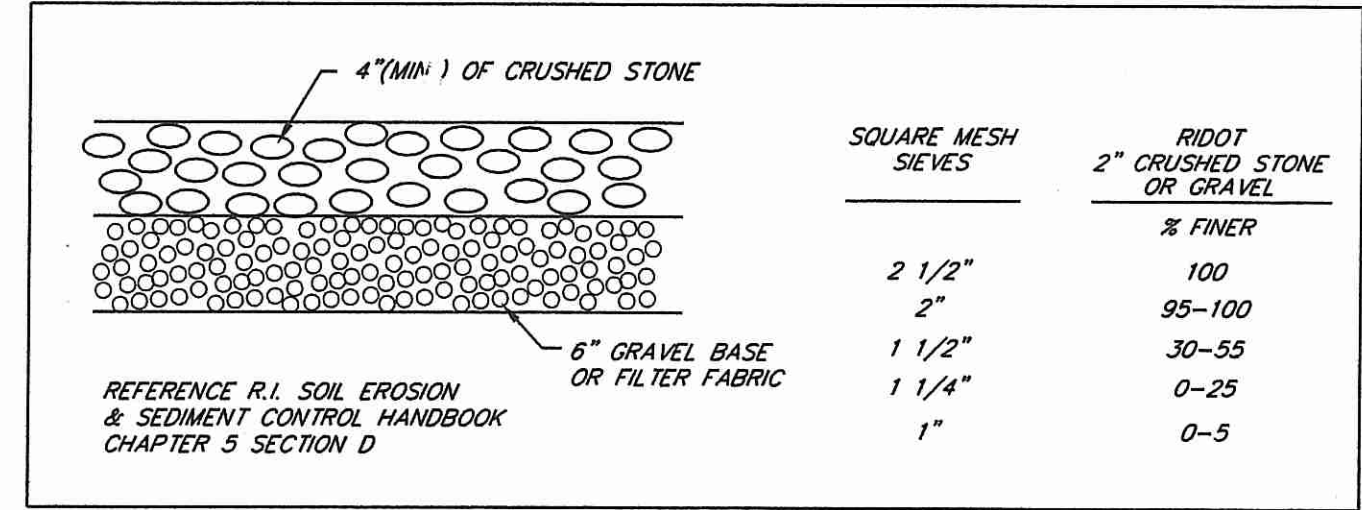
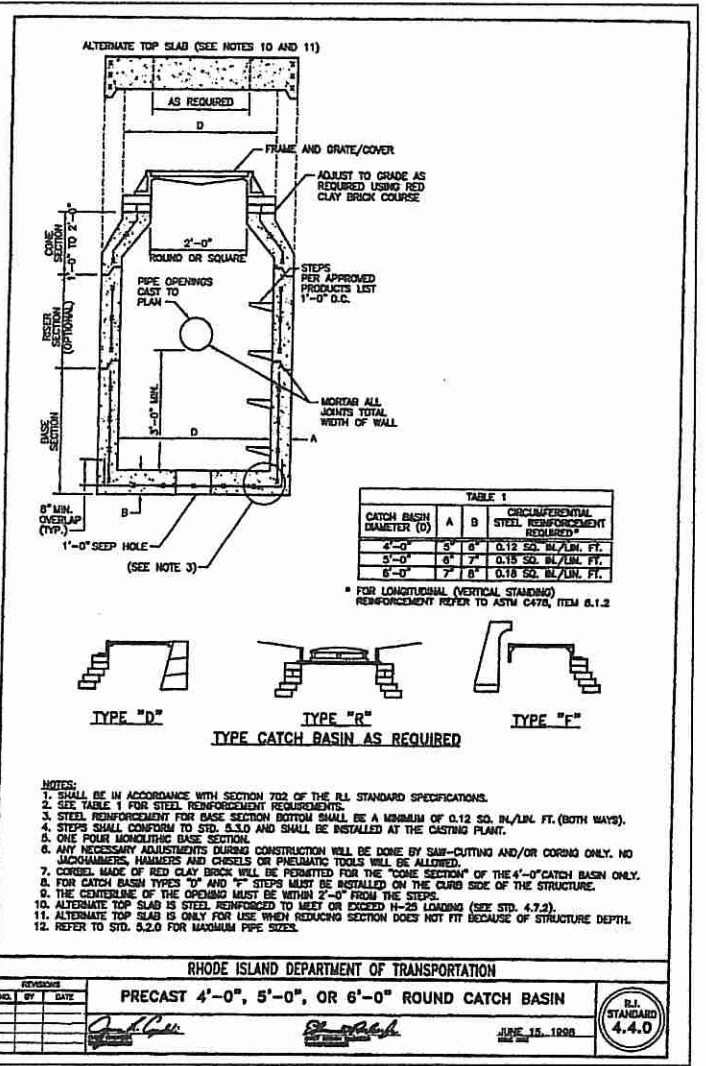
MIXTURE	% BY WT.	SEEDING DATES
RED FESCUE	70	APRIL 1-JUNE 15
KENTUCKY BLUEGRASS	15	AUG. 15-OCT. 15
COLONIAL BENTGRASS	5	
PERENNIAL RYEGRASS	10	
TOTAL	200 LBS/AC	

MIXTURE	% BY WT.	SEEDING DATES
RED FESCUE	70	APRIL 1-JUNE 15
COLONIAL BENTGRASS	5	AUG. 15-OCT. 15
PERENNIAL RYEGRASS	10	
BIRDSEED TREFOIL	15	
TOTAL	100 LBS/AC	

MIXTURE	% BY WT.	SEEDING DATES
RED FESCUE	32	APRIL 1-JUNE 15
PERENNIAL RYEGRASS	24	AUG. 15-OCT. 15
MILLET	18	
REED CANARY GRASS	15	
RETOP	7	
TOTAL	200 LBS/AC	

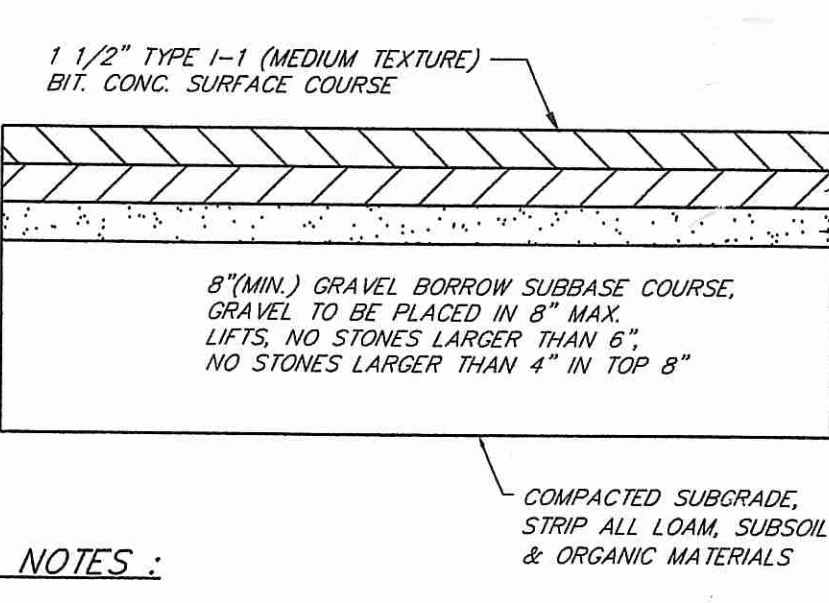
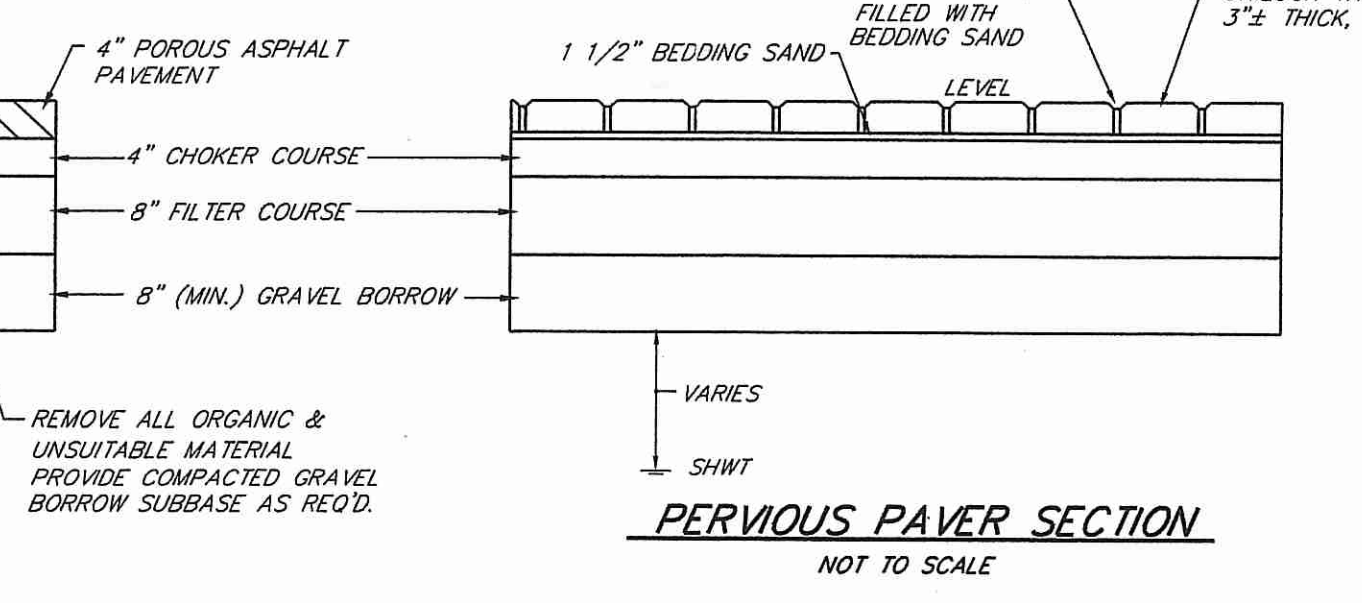
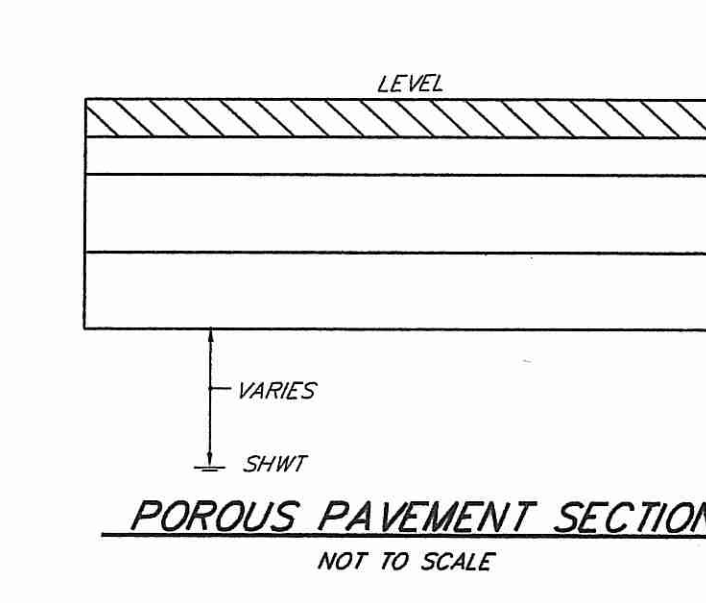
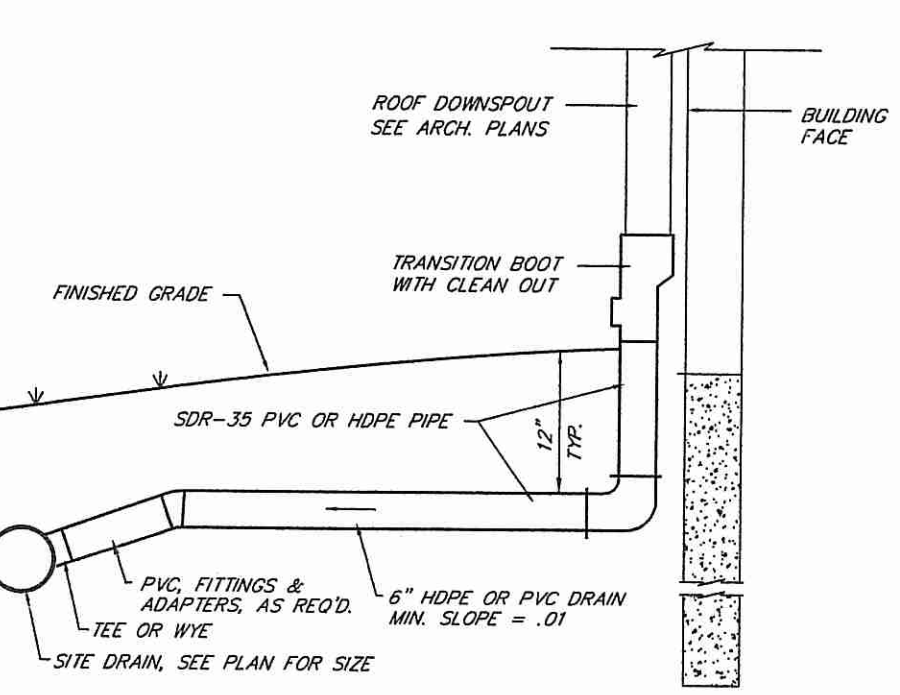
SPECIES	LBS./1,000 S.F.	LBS./Ac.	SEEDING DATES
ANNUAL RYEGRASS	1.0 - 1.5	40 - 60	3/1 - 6/1
PERENNIAL RYEGRASS	1.0 - 1.5	40 - 60	3/1 - 6/1
SUDAN GRASS	0.7 - 1.0	30 - 40	5/15 - 8/15
MILLET	0.7 - 1.0	30 - 40	5/15 - 6/15
WINTER RYE	3.0	120	4/15 - 6/15

- TEMPORARY TREATMENTS SHALL CONSIST OF A HAY, STRAW, OR FIBER MULCH OR PROTECTIVE COVERS SUCH AS A MAT OR FIBER LINING (BURLAP, JUTE, FIBERGLASS NETTING, EXCELSIOR BLANKETS) THEY SHALL BE INCORPORATED INTO THE WORK AS WARRANTED OR AS ORDERED BY THE ENGINEER.
- HAY OR STRAW APPLICATIONS SHOULD BE IN THE AMOUNT OF 3,000-4,000 LBS/AC.
- ALL HAYBALES OR TEMPORARY PROTECTION SHALL REMAIN IN PLACE UNTIL AN ACCEPTABLE STAND OF GRASS OR APPROVED GROUND COVER IS ESTABLISHED. IF NEEDED, TEMPORARY SEEDING CAN HELP TO MINIMIZE EROSION. A TEMPORARY SEEDING GUIDE MUST BE INCLUDED AS A REFERENCE. THE FOLLOWING SPECIES ARE RECOMMENDED:
- THE CONTRACTOR MUST REPAIR AND/OR RESEED ANY AREAS THAT DO NOT DEVELOP WITHIN THE PERIOD OF ONE YEAR AND HE SHALL DO SO AT NO ADDITIONAL EXPENSE.
- THE NORMAL ACCEPTABLE SEASONAL SEEDING DATES ARE APRIL 1 - OCTOBER 15.
- ALL FILL SHALL BE THOROUGHLY COMPACTED UPON PLACEMENT IN STRICT CONFORMANCE WITH THE R.I.D.P.W. STD. SPECIFICATIONS SECTION 202.
- STABILIZATION OF ONE FORM OR ANOTHER AS DESCRIBED ABOVE SHALL BE ACHIEVED WITHIN 15 DAYS OF FINAL GRADING.
- STOCKPILES OF TOPSOILS SHALL NOT BE LOCATED NEAR WATERWAYS. THEY SHALL HAVE SIDE SLOPES NO GREATER THAN 30% AND STOCKPILES SHALL ALSO BE SEED AND/OR STABILIZED.
- ON BOTH STEEP AND LONG SLOPES, CONSIDERATION SHOULD BE GIVEN TO "CRIMPING" OR "TRACKING" TO TACK DOWN MULCH APPLICATIONS.
- REFERENCE THE SEDIMENTATION CONTROL PROGRAM AND ORDER OF PROCEDURE FOR PROPER COORDINATION.



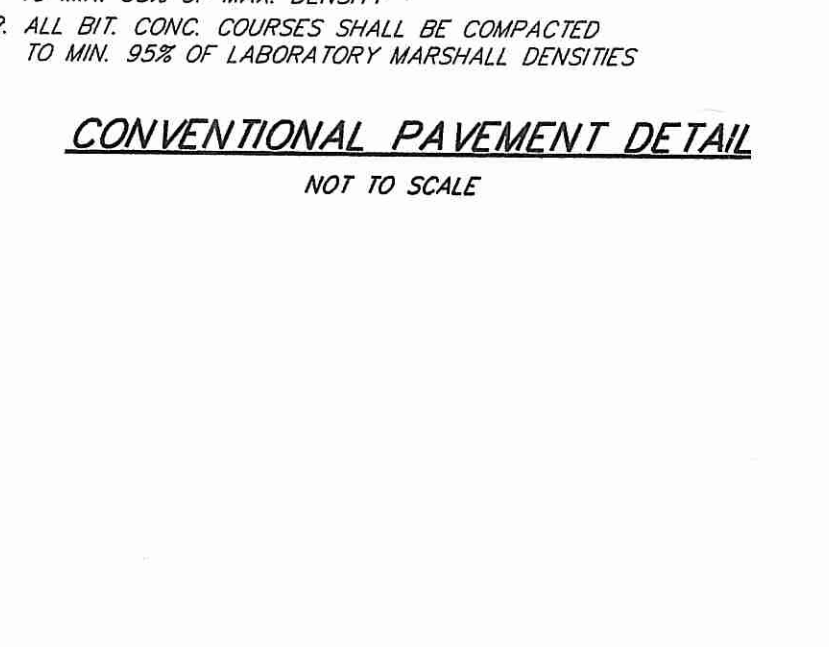
SQUARE MESH SIEVES	RIDOT CRUSHED STONE OR GRAVEL	% FINER
2 1/2"	100	95-100
2"	1 1/2"	30-55
1 1/2"	1 1/4"	0-25
1"	1"	0-5

REFERENCE R.I. SOIL EROSION & SEDIMENT CONTROL HANDBOOK CHAPTER 5 SECTION D



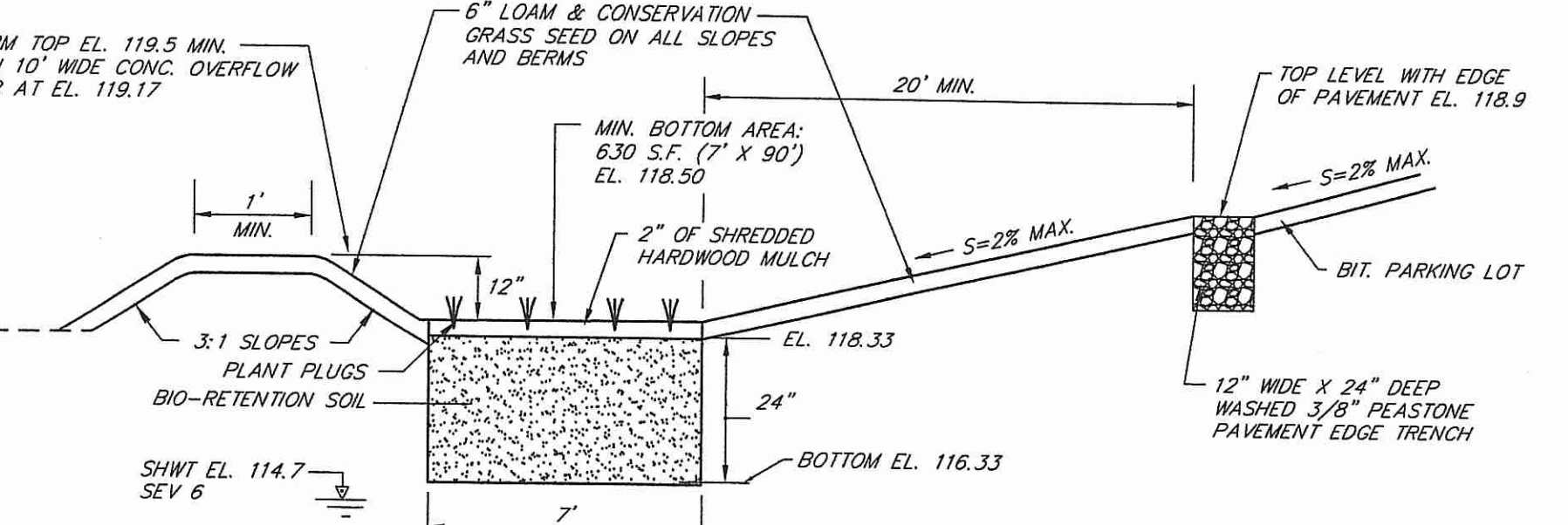
POROUS ASPHALT MIX	CHOKER COURSE	FILTER COURSE	PAVER NOTES:
<b>SIEVE SIZE</b>	<b>PERCENT PASSING</b>	<b>AASHTO M-57</b>	
3/4"	100	1 1/2"	1. CONCRETE PAVERS SHALL BE AS MANUFACTURED BY UNILOCK OR APPROVED EQUAL. PAVERS SHALL BE THORNBURY, COLOR SELECTED BY OWNER.
1/2"	85 - 100	1"	2. PAVERS SHALL BE INSTALLED IN CONFORMANCE WITH MANUFACTURER'S SPECIFICATIONS.
3/8"	55 - 75	1/2"	3. PERMEABLE PAVER & CRUSHED STONE INSTALLATION MUST BE INSPECTED AND APPROVED BY THE PROJECT
NO. 4	10 - 25	NO. 4	
NO. 200	2 - 4	NO. 8	
BINDER CONTENT	6 - 6.5%	NO. 200	
FIBER CONTENT	0.3% CELLULOSE OR 0.4% MINERAL		
RUBBER SOLIDS (SBR) CONTENT	1.5 - 3%		
AIR VOID CONTENT	16.0 - 22.0%		
DRAINDOWN	< 0.3%		
RETAINED TENSILE STRENGTH	> 80%		
CANTABRO ABRASION TEST (UNAGED)	< 20%		
CANTABRO ABRASION TEST (7 DAY)	< 30%		

GRAVEL BORROW SUBBASE	PAVER NOTES:
<b>SIEVE SIZE</b>	<b>PERCENT PASSING</b>
3"	60 TO 100
1 1/2"	50 TO 85
3/8"	45 TO 80
NO. 4	40 TO 75
NO. 40	0 TO 45
NO. 200	0 TO 10



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

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF WATER RESOURCES  
FRESHWATER WETLANDS PROGRAM  
APPROVED WITH CONDITIONS  
AS SPECIFIED IN THE LETTER OF APPROVAL  
DATED JAN 29 2015 FILE # H-0224

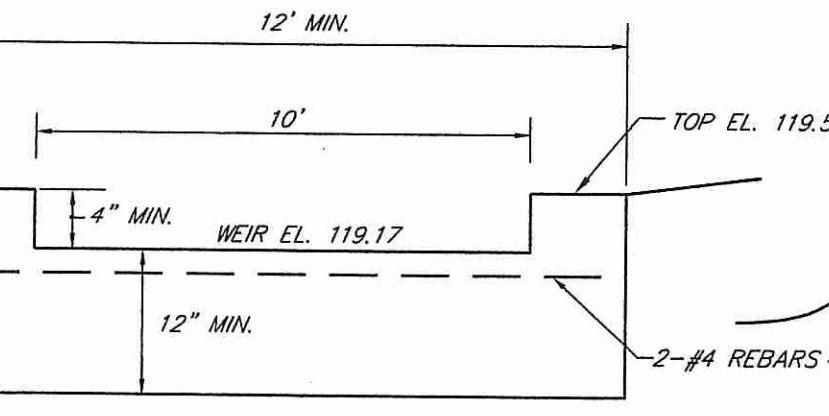


**POROUS ASPHALT SPECIFICATIONS**

- MATERIALS SHALL MEET THE REQUIREMENTS OF THE NAPA DESIGN, CONSTRUCTION AND MAINTENANCE OF OPEN GRADED FRICTION COURSES, INFORMATION SERIES 115 (2002) EXCEPT WHERE NOTED OR OTHERWISE APPROVED IN WRITING BY THE ENGINEER.
- THE ASPHALT BINDER SHALL BE A POLYMER OR FIBER MODIFIED PERFORMANCE GRADED ASPHALT BINDER, PG 64-28 SBS OR SBR WITH 5 POUNDS OF FIBER PER TON OF ASPHALT MIX.
- AGGREGATE COURSES SHALL BE COMPACTED TO A STANDARD PROCTER DENSITY OF 50% MIN., 95% MAX.
- THE MIXING PLANT, HAULING AND PLACING EQUIPMENT, AND CONSTRUCTION METHODS SHALL BE IN CONFORMANCE WITH NAPA IS 131 AND APPLICABLE SECTIONS OF THE RIDOT SPECIFICATIONS FOR ASPHALT MIXES.
- THE POROUS ASPHALT SHALL BE PLACED EITHER IN A SINGLE APPLICATION AT 4 INCHES THICK OR IN TWO LIFTS IF MORE THAN ONE LIFT IS USED. GREAT CARE SHALL BE TAKEN TO INSURE THAT THE POROUS ASPHALT LAYERS JOIN COMPLETELY. THE CONTRACTOR SHALL PROTECT ALL EXPOSED SURFACES FROM DAMAGE DURING ALL PHASES OF THE PAVEMENT OPERATION.
- THE FULL PERMEABILITY OF THE PAVEMENT SURFACE SHALL BE TESTED BY APPLICATION OF CLEAN WATER AT THE RATE OF AT LEAST 5 GPM OVER THE SURFACE. ALL APPLIED WATER SHALL INFILTRATE DIRECTLY WITHOUT LARGE PUDDLE FORMATION OR SURFACE RUNOFF, AND SHALL BE OBSERVED BY THE ENGINEER.
- TESTING AND INSPECTION: AN INSPECTION FIRM ACCEPTABLE TO THE ENGINEER SHALL BE RETAINED TO PERFORM SOIL INSPECTION SERVICES, MATERIALS TESTING AND INSPECTION, AND PAVEMENT INSTALLATION INSPECTION. THE INSPECTION SCHEDULE AND LISTS OF TESTS SHALL BE REVIEWED AND APPROVED IN WRITING BY THE ENGINEER PRIOR TO CONSTRUCTION. ALL THE TEST REPORTS MUST BE SIGNED BY A LICENSED ENGINEER.

**POROUS PAVEMENT & PERVIOUS PAVERS MAINTENANCE NOTES:**

- PAVEMENT, PAVERS AND CRUSHED STONE SHALL NOT BE INSTALLED UNTIL THE SITE IS READY FOR BITUMINOUS PAVEMENT INSTALLATION AND ALL UPGRADING AREAS ARE STABILIZED WITH TURF OR MULCH.
- POROUS PAVEMENT AND PAVER AREAS SHALL BE PROTECTED AT ALL TIMES FROM EROSION AND SILTATION UNTIL THE SITE IS PERMANENTLY STABILIZED.
- PAVEMENT AND PAVER SURFACES SHALL BE INSPECTED AFTER RAIN EVENTS BY MAINTENANCE PERSONNEL. ACCUMULATED DEBRIS AND SEDIMENTS SHALL BE REMOVED AS SOON AS POSSIBLE.
- THE USE OF DE-ICING SAND AND SALT SHALL BE KEPT TO THE MINIMUM NECESSARY.
- PAVEMENT SURFACES SHALL BE VACUUM CLEANED WITH PAVEMENT SWEEPERS THREE TIMES PER YEAR AT END OF WINTER, MID-SUMMER AND AFTER AUTUMN LEAF DROP.
- IF PONDING ON THE SURFACE OCCURS AND ROUTINE CLEANING DOES NOT RESTORE INFILTRATION, THEN RECONSTRUCTION OF THE AREA OF FAILURE SHALL BE REQUIRED. POROUS PAVEMENT SHALL BE REMOVED, CRUSHED STONE CLOGGED WITH SILTS SHALL BE REPLACED AND POROUS PAVEMENT REINSTALLED.
- DO NOT REPAVE OR RESEAL WITH IMPERMEABLE MATERIALS.



- BIO-RETENTION AREA SHALL BE MAINTAINED BY THE CONTRACTOR UNTIL FINAL APPROVAL OF CONSTRUCTION. AFTER FINAL APPROVAL THE AREA SHALL BE MAINTAINED BY THE OWNER.
- DURING THE SIX MONTHS IMMEDIATELY AFTER CONSTRUCTION, BIO-RETENTION AREA SHALL BE INSPECTED FOLLOWING THE FIRST TWO RAIN EVENTS EQUAL TO OR GREATER THAN THE 1-YEAR, 24 HOUR TYPE II STORM EVENT. AFTER THAT PERIOD, IT SHALL BE INSPECTED TWICE PER YEAR.
- SOIL EROSION QUALITY SHALL BE REPAIRED WHEN THEY OCCUR.
- IF STANDING WATER REMAINS 48 HOURS AFTER A RAINFALL EVENT, THE BOTTOM SHALL BE ROTO-TILLED THEN RE-SEED.
- MULCH LAYER SHALL BE REPLENISHED TO ORIGINAL DEPTH EVERY OTHER YEAR. PREVIOUS MULCH LAYER SHALL BE REMOVED.
- PRUNING OR REPLACEMENT OF VEGETATION SHOULD OCCUR WHEN DEAD OR DYING VEGETATION IS OBSERVED.
- SILT AND DEBRIS SHALL BE REMOVED WHEN ACCUMULATION EXCEEDS 1".
- GRASS SHALL BE MOWED THREE(3) TIMES BETWEEN THE MONTHS OF MAY AND OCTOBER. MOWED HEIGHT OF VEGETATION SHALL NOT BE LESS THAN TWO INCHES.

**GRASS FILTER STRIP MAINTENANCE NOTES:**

- ENSURE THAT GRASS HAS ESTABLISHED; IF NOT REPLACE WITH AN ALTERNATIVE SPECIES.
- FILTER STRIPS SHALL BE INSPECTED AT LEAST QUARTERLY DURING THE FIRST YEAR OF OPERATION AND SEMIANNUALLY THEREAFTER. EVIDENCE OF EROSION AND CONCENTRATED FLOWS WITHIN THE FILTER STRIP MUST BE CORRECTED IMMEDIATELY. ERODED SPOTS MUST BE RESEEDED AND MULCHED TO ENHANCE VIGOROUS GROWTH AND PREVENT FUTURE EROSION PROBLEMS.
- THE BULK OF ACCUMULATED SEDIMENTS WILL BE TRAPPED AT THE INITIAL ENTRY POINT OF THE FILTER STRIP. THESE SEDIMENTS SHALL BE REMOVED MANUALLY AT LEAST ONE PER YEAR OR WHEN ACCUMULATING SEDIMENTS CAUSE A CHANGE IN THE GRADE ELEVATION. RESEEDING MAY BE NECESSARY TO REPAIR AREAS DAMAGED DURING THE SEDIMENT REMOVAL PROCESS.
- FILTER STRIPS MUST BE PROTECTED BY PROPER SOIL EROSION AND SEDIMENT CONTROL TECHNIQUES (E.G. HAY BALES AND SILT FENCES) DURING ALL PHASES OF CONSTRUCTION. THESE MEASURES MUST BE PROPERLY MAINTAINED UNTIL FINAL SITE STABILIZATION AND SUBSEQUENT REMOVAL OF ALL TRAPPED SEDIMENTS HAS OCCURRED.

**BIO-RETENTION AREA NOTES**

- BIO-RETENTION AREAS SHALL BE PROTECTED FROM COMPACTION PRIOR TO AND DURING CONSTRUCTION.
- ALL LOAM & SUBSOIL SHALL BE STRIPPED AND THE AREA EXCAVATED TO DESIGN BOTTOM GRADE. BIO-RETENTION SOIL SHALL BE PLACED TO A DEPTH OF 24" AND COVERED WITH 2" OF MULCH.
- MULCH SHALL BE SHREDDED HARDWOOD MULCH.
- BOTTOM OF BIO-RETENTION AREA SHALL BE PLANTED WITH AN EQUAL MIXTURE OF BLUEGRASS, WOOD GRASS AND PICKEREL WEEB PLUGS AT 18" ON CENTER. PLANTINGS SHALL COMPLY WITH APPENDIX B.9.3 OF THE R.I. STORMWATER DESIGN AND INSTALLATION STANDARDS MANUAL (OCTOBER 2010).
- BIO-RETENTION AREA PLANTINGS SHALL BE INSTALLED BY A LANDSCAPE CONTRACTOR. SURVIVAL SHALL BE GUARANTEED FOR ONE YEAR.
- BIO-RETENTION SOIL SHALL HAVE A LOAMY SAND TEXTURE AND CONFORM TO THE FOLLOWING GRADATION:  
SAND: 85 - 98%  
SILT: 6 - 12%  
CLAY: 0 - 2%  
ORGANIC MATTER: 3 - 5%

REVISION  
DATE

SCOTT F. MOOREHEAD  
No. 4298  
REGISTERED PROFESSIONAL ENGINEER

PREPARED FOR:  
THE PRESERVE AT BOULDER HILL, LLC  
2091 MOOSENECK HILL RD.  
COVENTRY, R.I. 02816

THE PRESERVE AT BOULDER HILLS  
ASSESSOR'S PLAT 68 LOT 4 AND  
PORTION OF A.P. 58 LOT 38  
87 KINGSTOWN ROAD  
IN RICHMOND, R.I.

S.F.M. ENGINEERING ASSOCIATES  
410 TIOGUE AVENUE  
COVENTRY, RI 02816  
PHONE: 401-826-3736  
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SCOTT@SFM-ENGINEERING.COM

**SFM**

DRN. BY: JZL  
CHK. BY: SFM  
SCALE: AS NOTED  
DATE: DEC. 10, 2014  
DWG: SFM199A-D2  
SHEET 6 OF 6  
PRELIMINARY SUBMISSION

CONSTRUCTION DETAILS - 2