Design Calculations

1. DESIGN FLOW = 4 BEDROOMS (BR) HOME X 115 GAL/BR = 460 GALLONS/DAY
2. DESIGN LOADING RATE = 0.52 GAL/SF/DAY
   DESIGN GWT = 4.5'
   DESIGN DEPTH TO IMPERVIOUS = 10.5'
3. MINIMUM LEACHING AREA= 460 GAL/DAY ÷ 0.52 GAL/SF/DAY = 884.6 S.F. 50% REDUCTION= 442.3 S.F.
4. FLOW DIFFUSORS = 1.0 FT. STONE BELOW UNIT
   1.0 FT. ALL SIDES
   4 END UNITS x 78 +
   3 INT UNITS x 64 = 504 S.F.
5. LEACHING AREA = 2 LINES – 6' WIDE EA.
   26' & 34' L.F. LONG WITH 6' SPACING
6. LEACHING AREA PROVIDED= 504 S.F.

Soil Testing

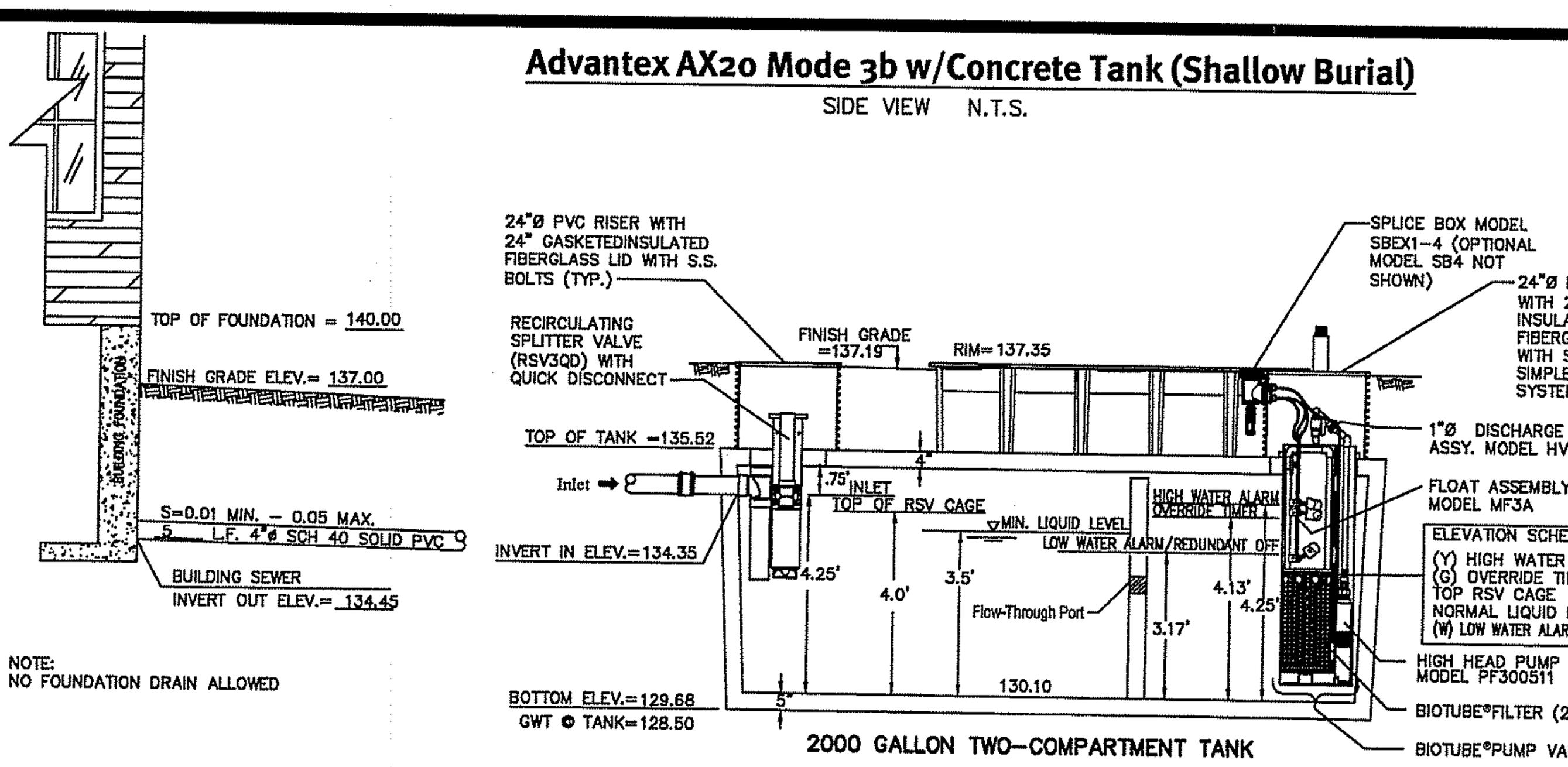
R.I.D.E.M. DIVISION OF OWTS APPROVAL
1. SITE SUITABILITY NO. NA , DATE: NA
2. SITE TESTING DATE OF EXCAVATION 04-07-95

TH 6

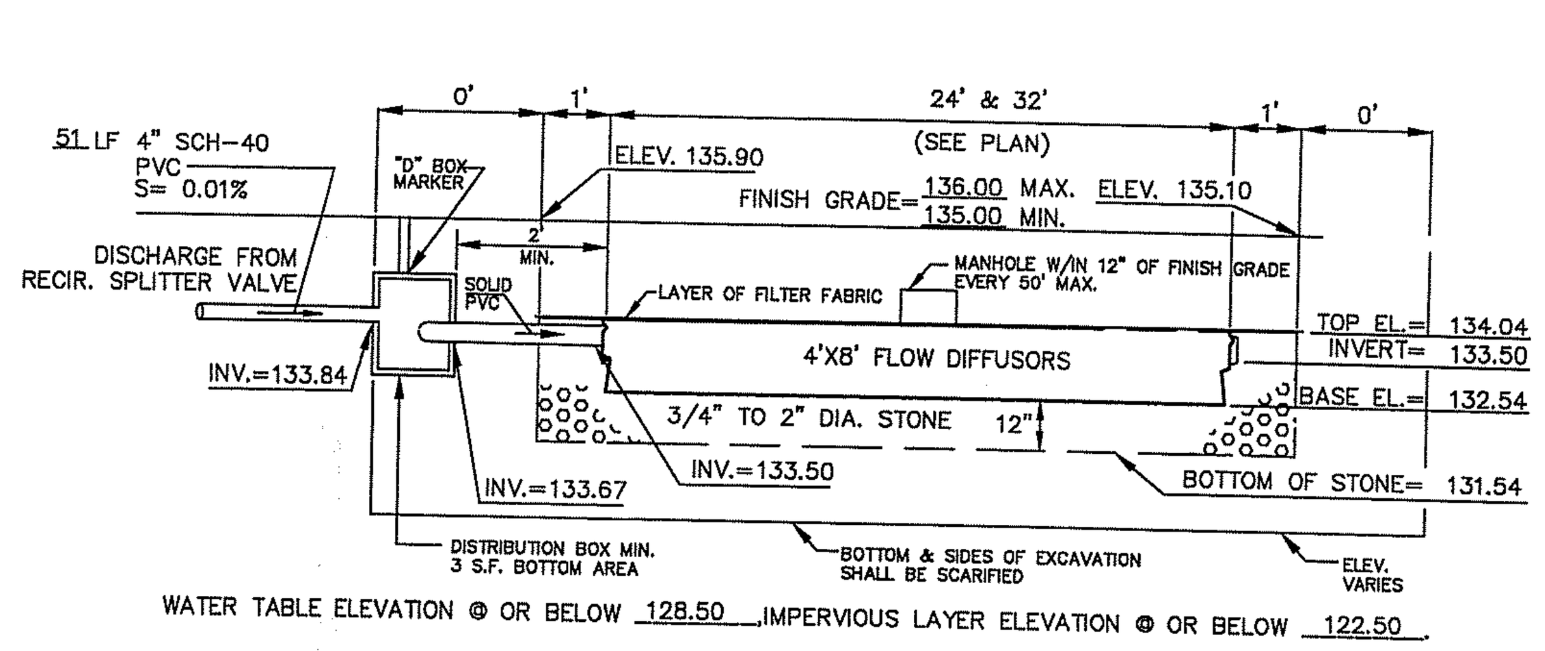
SOIL STRATA:	SOIL CATEGORY:
0–17" 10YR LM, DK.BR, (UC)	4
17–38" SLT, SUB, OR/BR (UC)	4
38–60" VFS, 2FS, GR/BR (LC)	7
60"–10.5' 10.5 2VFS, 2FS, GR (LC)	1

Advantex AX20 Mode 3b w/Concrete Tank (Shallow Burial)

SIDE VIEW N.T.S.

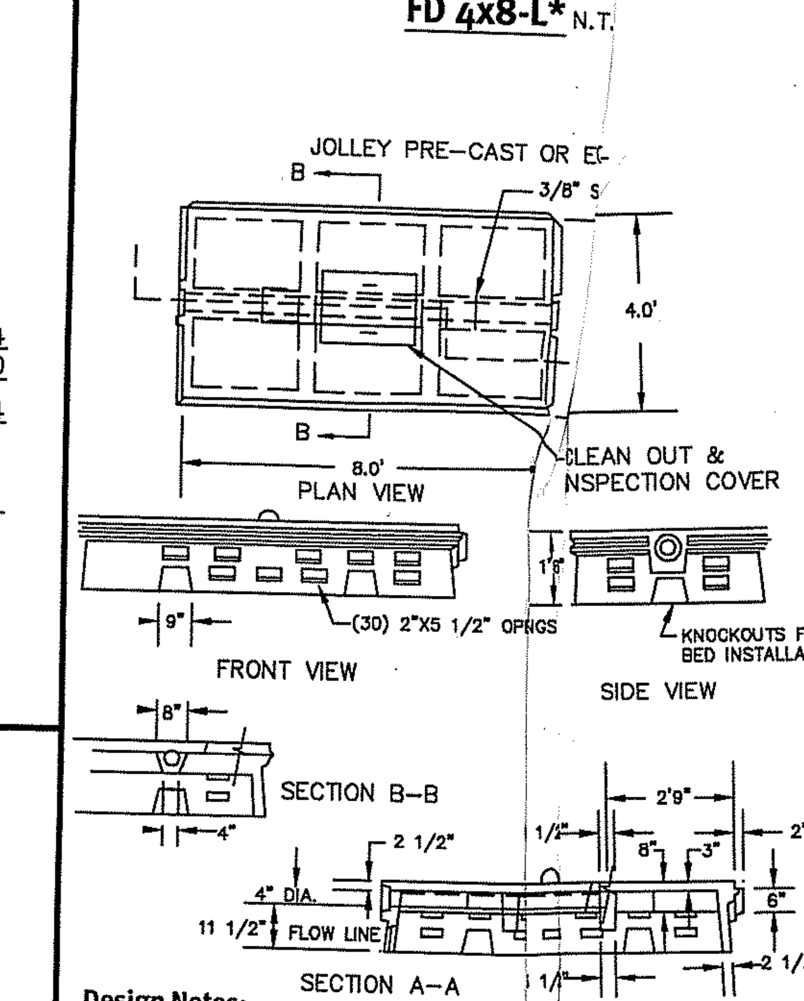


Treatment System Profile N.T.S.



WATER TABLE ELEVATION @ OR BELOW 128.50 , IMPERVIOUS LAYER ELEVATION @ OR BELOW 122.50 .

Precast Leaching Chamber FD 4x8-L* N.T.S.



Design Notes:
1. CONCRETE –5,000 P.S.I. MINIMUM STRENGTH @ 28 DAYS
2. STEEL REINFORCEMENT – ASTM A–615, GRADE 60
3. COVER TO STEEL – 1" MINIMUM
4. DESIGN LOADING – STANDARD UNITS – LIGHT DUTY
5. EARTH COVER – 0 TO 5 FEET
6. VENT HOLES AND INSPECTION MANHOLES – OPTIONAL
7. CONSTRUCTION JOINT – TONGUE & GROOVE
* USE FD 4X8–D UNITS WHERE PIPE CONNECTIONS TO THE SIDE OF THE UNIT ARE REQUIRED.

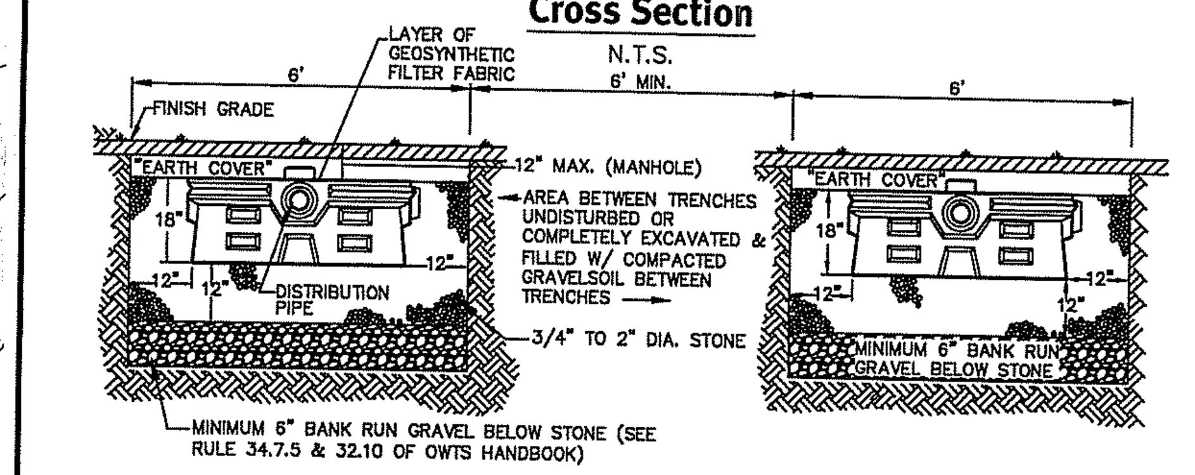
General Notes

1. DIPRETE ENGINEERING CERTIFIES TO THE SOIL CONDITIONS AND LOADING RATE ONLY IN AREA TESTED. INSTALLER TO NOTIFY DESIGNER IF SOIL CONDITIONS ARE FOUND DIFFERENT THAN STATED ON OWTS APPLICATION.
2. THE BOUNDARY LINES DEPICTED HEREON ARE APPROXIMATE ONLY UNLESS OTHERWISE NOTED. THIS PLAN DOES NOT REPRESENT A BOUNDARY OPINION.
3. TOPOGRAPHY OBTAINED FROM LIDAR . ELEVATIONS IN U.S. SURVEY FEET ARE REFERENCED TO NAVD 88' DATUM .
4. NO DRAINS OR WATERLINES TO BE INSTALLED WITHIN 25' OF LEACHING AREA.
5. NO GARBAGE GRINDERS SHALL BE INSTALLED.
6. THERE ARE NO EXISTING OR PROPOSED WELLS WITHIN 200' OF THE PROPOSED OWTS.
7. THERE ARE NO KNOWN EXISTING OR PROPOSED DRAINS WITHIN 200 FEET OF THE PROPOSED OWTS OTHER THAN SHOWN.
8. THERE ARE NO EXISTING OR PROPOSED OWTS WITHIN 100' OF A PROPOSED OR EXISTING WELL.
9. THERE ARE NO PROPOSED OR EXISTING PUBLIC WELLS WITHIN 500' OF THE PROPOSED OWTS.
10. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING FINISH GRADING AND DRAINAGE AROUND THE BUILDING TO ENSURE SURFACE WATER AND/OR GROUND WATER ARE DIRECTED AWAY FROM THE STRUCTURE. THIS PLAN SHOWS GENERAL GRADING ONLY AND ADDITIONAL DETAIL MAY BE REQUIRED.
11. THE CONTRACTOR IS RESPONSIBLE FOR ALL OF THE MEANS, METHODS, SAFETY PRECAUTIONS AND REQUIREMENTS, AND OSHA CONFORMANCE IN THE IMPLEMENTATION OF THIS PLAN AND DESIGN.
12. THE FINAL LANDSCAPING, SOIL STABILIZATION AND EROSION CONTROL IS TO BE COMPLETED BY THE OWNER PER THE APPROVED PLAN. ALTERATIONS TO THIS DESIGN ARE TO BE IDENTIFIED BY THE HOMEOWNER IN WRITING TO THE DESIGN ENGINEER FOR APPROVAL AND POSSIBLE RESUBMISSION TO THE RIDEM.
13. THE CONTRACTOR SHALL COORDINATE WITH ALL OF THE APPROPRIATE UTILITY COMPANIES FOR AGREEMENTS TO SERVICE THE PROPOSED BUILDING. THIS SHALL BE DONE PRIOR TO CONSTRUCTION. NO REPRESENTATIONS ARE MADE BY DIPRETE ENGINEERING THAT UTILITY SERVICE IS AVAILABLE.
14. ALL EXISTING UTILITIES SHOWN ARE FROM VISIBLE INFORMATION, DRAWINGS BY OTHERS, OR INFORMATION PROVIDED TO DIPRETE ENGINEERING AND ARE SUBJECT TO CHANGE. NO ONE SHOULD RELY ON THE UTILITY LOCATIONS SHOWN FOR CONSTRUCTION AND DIG SAFE MUST BE NOTIFIED PRIOR TO ANY WORK.
15. THIS SITE IS REVIEWED UNDER RIDEM WETLANDS APPLICATION # PENDING , DATED .
16. THE PROPOSED LOCATION OF THE HOUSE & OWTS IS LOCATED IN ZONE X, AREAS OF MINIMAL FLOODING. A PORTION OF THE SITE IS LOCATED IN ZONE A AS PER (F.E.M.A.) COMMUNITY PANEL NO.44009C0185H, DATED 10/19/2010 TOWN OF SOUTH KINGSTOWN.
17. ALL OWTS SHOULD BE MAINTAINED BY THE HOMEOWNER ON AN ANNUAL BASIS OR MORE FREQUENTLY IF REQUIRED BY LOCAL REGULATIONS.
18. DESIGNER REQUIRES A MINIMUM OF THREE (3) INSPECTIONS: BOTTOM INSPECTION, COVER INSPECTION & FINAL INSPECTION.

DiPrete Engineering
Two Stafford Court Cranston, RI 02920
tel 401-943-1000 fax 401-464-6006 www.DiPrete-Eng.com
Engineers • Planners • Surveyors

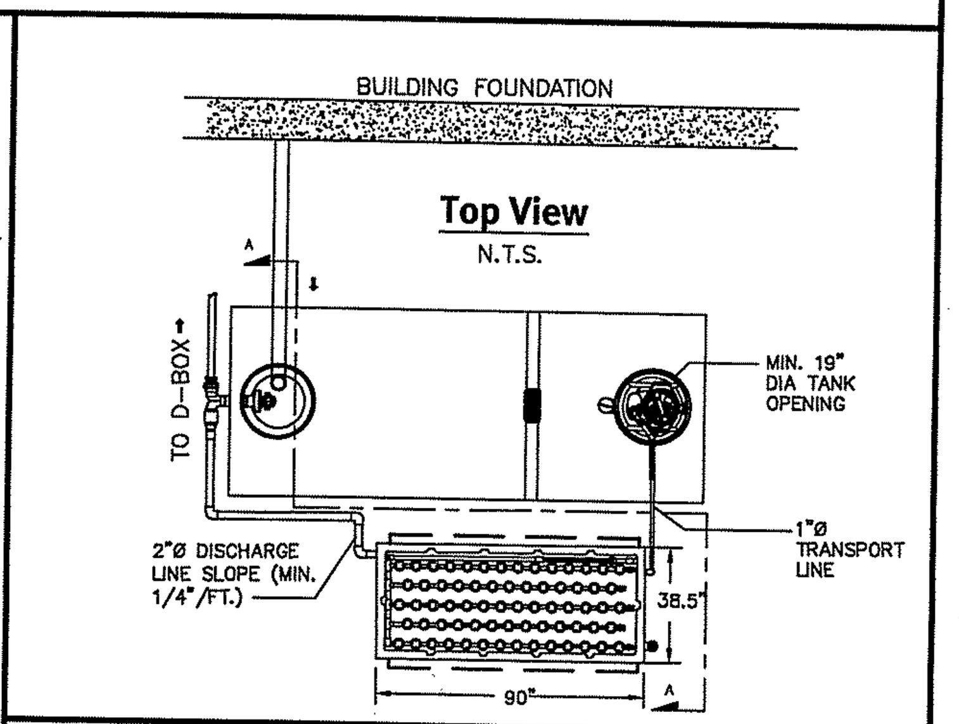
KEVIN C. MORIN
No. 7051
REGISTERED PROFESSIONAL ENGINEER CIVIL
05/01/2017

Cross Section N.T.S.



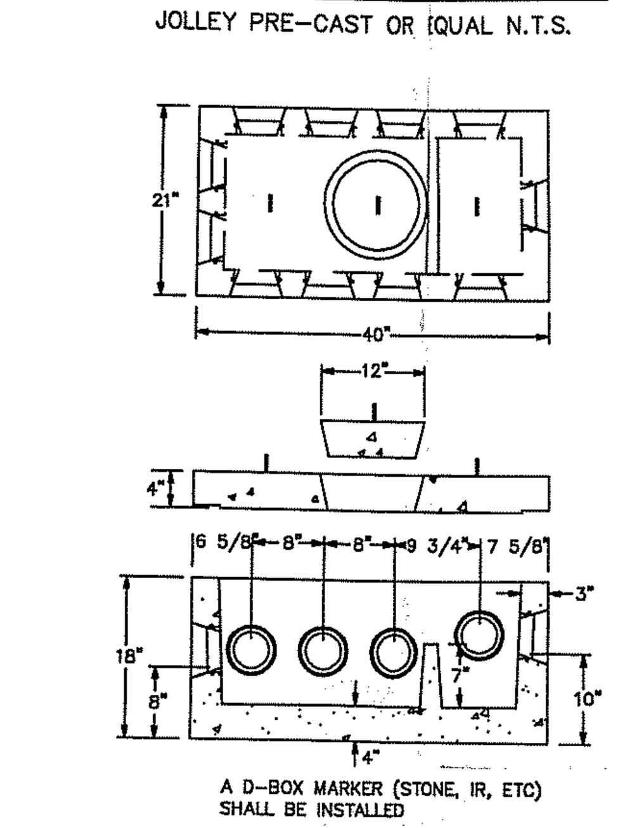
Notes:
1. 6' MIN.SEPARATION BETWEEN TRENCHES.
2. PROVIDE INLET AT LEAST EVERY 25'
3. CONCRETE CHAMBER TO BE JOLLEY PRECAST CONCRETE FD 4X8 –L OR EQUAL.
4. ALL UNUSED SIDE INLETS TO BE CAPPED OFF OR CEMENTED.
5. NO CEMENT FRAGMENTS ALLOWED WITHIN THE FLOW DIFFUSOR LINES.
6. FLOW DIFFUSOR MANHOLES TO BE WITHIN ONE FOOT OF FINISH GRADE.

Top View N.T.S.



Precast Distribution Box DB-11

JOLLEY PRE–CAST OR EQUAL N.T.S.

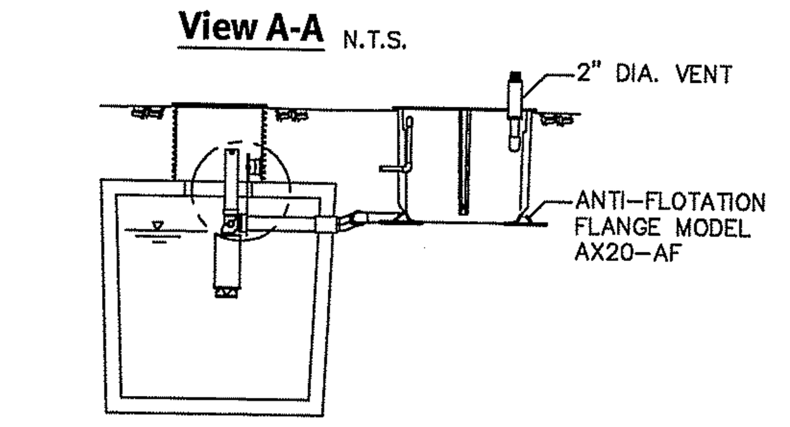


Design Notes:
1. CONCRETE MIN. STRENGTH – 5,000 P.S.I. @ 28 DAYS
2. STEEL REINFORCEMENT–ASTM A–615 GRADE 60, 1" MIN.COVER

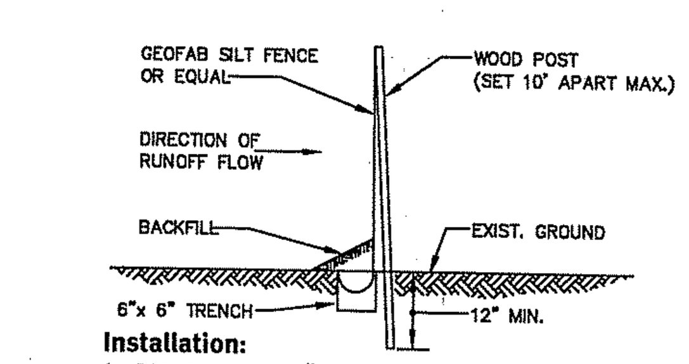
Construction Notes

1. CONSTRUCTION SHALL CONFORM TO THE RHODE ISLAND SPECIFICATIONS SET FORTH IN THE "DEPARTMENT OF ENVIRONMENTAL MANAGEMENT – RULES AND REGULATIONS" ESTABLISHING MINIMUM STANDARDS RELATING TO LOCATION & CONSTRUCTION OF ONSITE WASTEWATER TREATMENT SYSTEMS, LATEST EDITION.
2. THE FILL AROUND THE SYSTEM SHALL BE COARSE SAND, OR BANK RUN GRAVEL.
3. INSTALLER TO REMOVE ALL TREES AND SHRUBS FROM LEACHING AREA, AND 10' ON ALL SIDES.
4. BUILDING SEWER PIPE TO BE MINIMUM 4" SCH 40 PVC. ALL OWTS PIPING TO BE MINIMUM 4" SDR 35.
5. TREATMENT TANK RISERS TO BE AT FINISH GRADE
6. INSTALLER TO MAINTAIN OWTS INVERT EL. 133.50 FOR 10' FILL PERIMETER.
7. MAXIMUM 3:1 SLOPE FOR 25' FROM LEACHFIELD.
8. BENCH MARK = TOP OF STAKE ELEV.= 137.4
9. ALL STAGES OF THE OWTS INSTALLATION MUST BE SUPERVISED BY THE DESIGN ENGINEER.
10. DIG SAFE IS REQUIRED TO BE NOTIFIED PRIOR TO START OF ANY CONSTRUCTION.

View A-A N.T.S.



Erosion Control N.T.S.



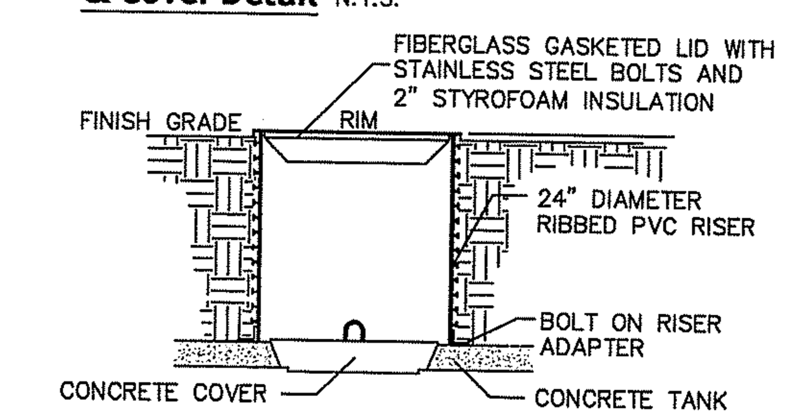
Installation:
1. DIG TRENCH 6" DEEP.
2. SET FENCE POST 10' APART MAX. AT SLIGHT ANGLE TOWARD RUNOFF DIRECTION.
3. ATTACH GEOFAB TO POST.
4. LOWER 6" OF GEOFAB IN TRENCH CURLED TOWARD RUNOFF DIRECTION & BACKFILL.
5. FENCE TO BE INSTALLED AS INDICATED ON THE SITE PLAN OR AS DIRECTED BY THE ENGINEER.

Note:
EROSION CONTROL IS REQUIRED AROUND THE LIMIT OF CONSTRUCTION IN THE EVENT THAT THE DOWN GRADIENT LOT IS ALREADY IMPROVED AND LANDSCAPED.

Sequence of Construction

1. CONTRACTOR TO OBTAIN ALL REQUIRED FEDERAL, STATE AND MUNICIPAL PERMITS, AND TO NOTIFY "DIG SAFE" PRIOR TO CONSTRUCTION.
2. SET EROSION CONTROL AT LIMIT OF WORK. MAINTAIN CONTINUOUS FENCE LINE DURING CONSTRUCTION AND REPAIR AS NEEDED.
3. CONTACT DESIGNER 24 HR. PRIOR TO OWTS CONSTRUCTION
4. BEGIN OWTS BOTTOM EXCAVATION
5. CONTACT DESIGNER 24 HR. PRIOR TO OWTS BOTTOM EXCAVATION COMPLETION FOR INSPECTION
6. BEGIN OWTS CONSTRUCTION –
7. CONTACT DESIGNER 24 HR. PRIOR TO OWTS COMPLETION FOR INSPECTION
8. COVER OWTS COMPONENTS AND COMPLETE FINISH GRADING
9. CONTACT DESIGNER 24 HR. PRIOR TO OWTS FINAL GRADING FOR INSPECTION
10. COMPLETE SOIL STABILIZATION BY LOAM AND SEEDING DISTURBED AREAS.

Treatment Tank Riser & Cover Detail N.T.S.



Minimum Lot Requirements

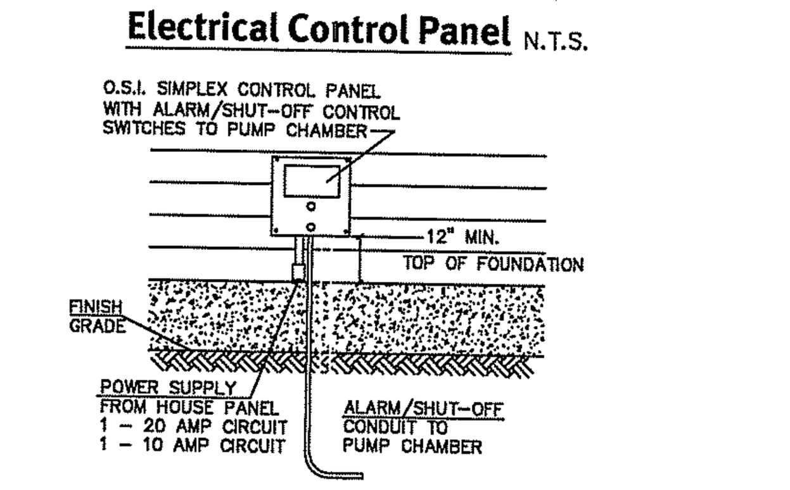
MIN. LOT AREA	80,000 SQ.FT.
FRONTAGE	200 FT.
FRONT YARD	50 FT.
SIDE YARD	40 FT.
REAR YARD	50 FT.
CORNER SIDE YARD	40 FT.

No.	Date	Description	By:
1	05-01-2017	OWTS Comments	J.P.C.
0	03-17-2017	OWTS/Wetlands Submission	J.P.C.

Drawn By: E.H.J. Design By: E.H.J.

Environmental Management JUN 22 2017 Office of Water Resources

Electrical Control Panel N.T.S.

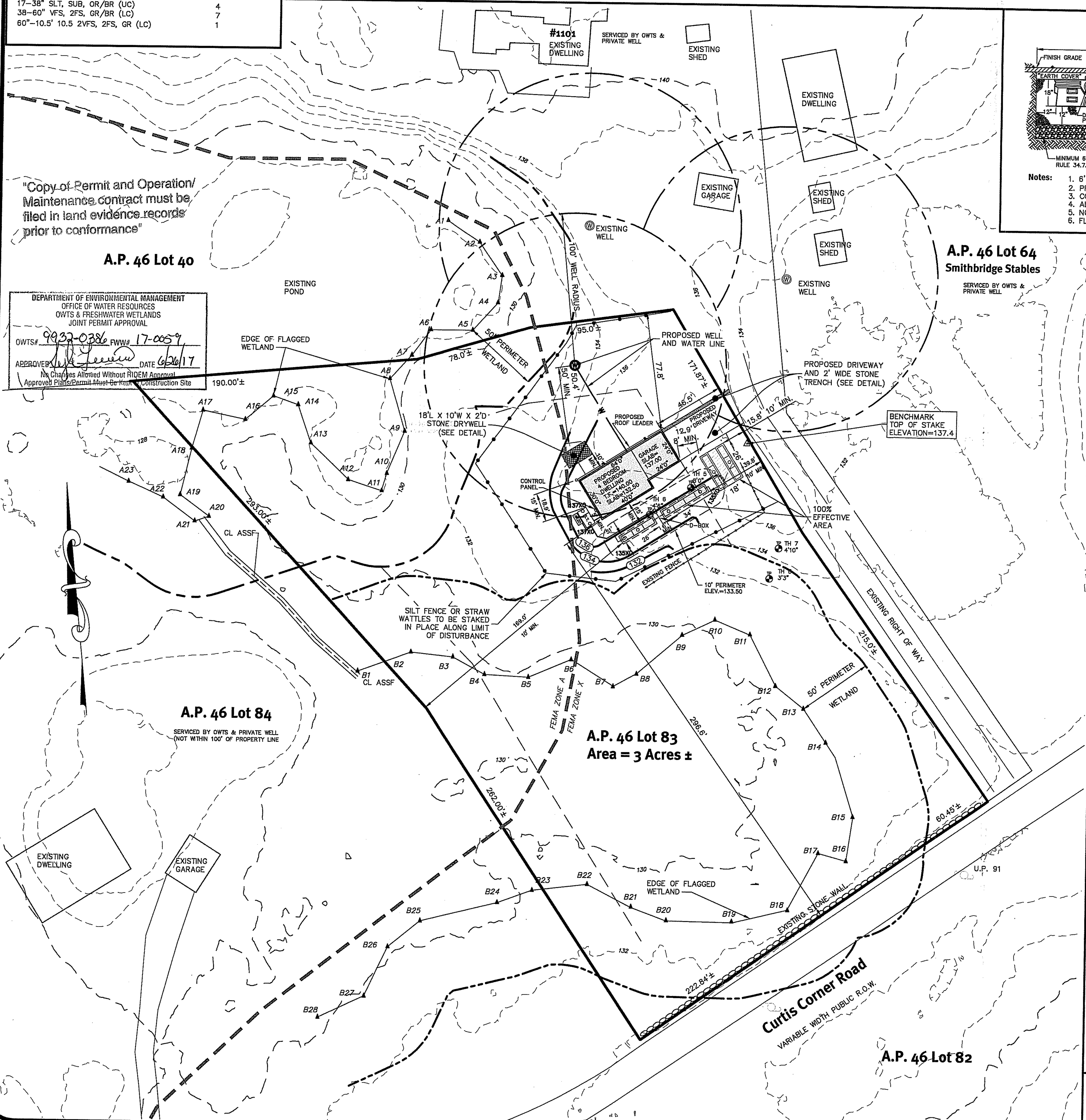


Note:
FINAL LOCATION OF CONTROL PANEL TO BE DETERMINED BY DESIGN ENGINEER & HOMEOWNER AT TIME OF INSTALLATION

Legend

EXIST./PROPOSED WELL	W
SOIL EVAL./TEST PIPE	SEV TP
LEDGE TESTING	LT #TH LEDGE
EXISTING CONTOUR	160
PROPOSED CONTOUR	92
PROPOSED SPOT GRADE	+312
EXISTING SPOT GRADE	+45.3
WATER SERVICE LINE	W
100' WELL RADIUS	100' WELL RADIUS
DRAINAGE LINE	
BENCHMARK	
DRILL HOLE	
CATCH BASIN	
UTILITY POLE	
PROPOSED BOUND	

Vicinity Map N.T.S.



"Copy of Permit and Operation/ Maintenance contract must be filed in land evidence records prior to conformance"

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
OWTS & FRESHWATER WETLANDS
JOINT PERMIT APPROVAL
OWTS# 9932-0386 FWW# 17-0059
APPROVED [signature] DATE 6/26/17
No Changes Allowed Without RIDEM Approval
Approved Plans/Permit Must Be Kept On Construction Site

Scale: 1"=40'
0 20' 40' 80'

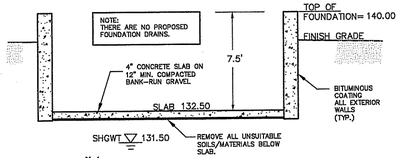
Onsite Wastewater Treatment System
Curtis Corner Road

A.P. 46, Lot 83
South Kingstown, Rhode Island

Applicant
Michele Donatelli Revocable Trust
c/o Clark Donatelli
351 Reynolds Street, Kingston, PA 18704-5207

Foundation Detail

N.T.S.

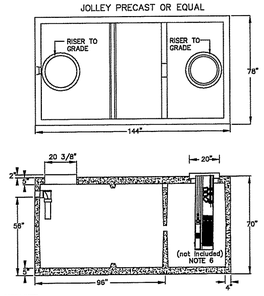


Note:

CONTRACTOR TO CONTACT DESIGN ENGINEER TO VERIFY FOUNDATION SOIL EXCAVATION PRIOR TO FORMING.

Precast Septic Tank, (9.2 Tons) 2000 Gallon OSI 2 Compartment

JOLLEY PRECAST OR EQUAL



DESIGN NOTES:
1. ALL JOINT SEALED WITH BUTYL RUBBER SEALANT
2. TANK INLET IS 4" CAST-A-SEAL RUBBER BOOT WITH CLAMP
3. TANK INCLUDES CAST IN PLACE 24" OSI RISER ADAPTORS
4. MEETS ASTM C-1227-97A
5. CONCRETE STRENGTH 5000 PSI MIN. 28 DAYS
6. TANK WILL ACCEPT OSI BAFFLE FILTER, NOT INCLUDED

GWT = 128.50
BOTTOM OF TANK = 129.68
BUOYANT EFFECT = NONE
THE BUOYANT FORCE IS NEGATED BY TANK & SOIL WEIGHTS

Note:

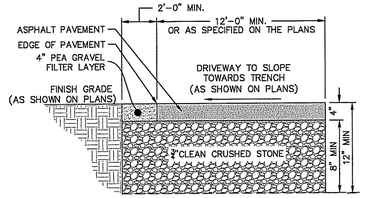
THE DISTANCE BETWEEN THE SEPTIC TANK AND THE EDGE OF THE LEACHFIELD SHALL BE A MINIMUM OF TEN (10) FEET.

SEQUENCE OF CONSTRUCTION OF CONSTRUCTION AND STAGING OF LAND DISTURBING ACTIVITIES

1. CONTRACTOR IS RESPONSIBLE FOR SOIL EROSION AND SEDIMENT CONTROL (SE & SC) ONSITE. SEQUENCE OF CONSTRUCTION PROVIDED MAY BE MODIFIED AS FIELD CONDITIONS WARRANT WITH PRIOR APPROVAL FROM OWNER OR THEIR REPRESENTATIVE.
2. CONSTRUCTION TO BEGIN IN THE SPRING 2017 OR UPON RECEIPT OF ALL NECESSARY APPROVALS.
3. SURVEY AND STAKE THE DRAINAGE BMPS (DRYWELLS AND/OR OTHER DRAINAGE FEATURES), DRAIN LINES, WATER LINES, OWTS AND LIMIT OF SEDIMENTATION BARRIERS/LIMIT OF DISTURBANCE.
4. PLACE SEDIMENTATION BARRIERS (STRAW WATTLE OR SILT FENCE) AS SHOWN ON THE PLANS AND STAKED OUT IN THE FIELD. IN NO CASE IS THE LIMIT OF WORK TO EXTEND BEYOND THE SEDIMENTATION BARRIERS.
6. INSTALL TEMPORARY SEDIMENTATION CONTROL MEASURES AND DEVICES AS WARRANTED. ALL TEMPORARY CONTROL DEVICES SHALL BE INSTALLED PER THE RHODE ISLAND SOIL EROSION AND SEDIMENTATION CONTROL HANDBOOK.
7. BEGIN CLEARING AND GRUBBING IN AREA OF THE BUILDING, DRAINAGE BMPS, DRIVEWAY AND OTHER AREAS AS INDICATED ON THE PLANS. TOPSOIL IS TO BE STRIPPED AND STOCKPILED IN APPROVED LOCATIONS. TOPSOIL STOCKPILES ARE TO BE PROTECTED BY A ROW OF SEDIMENTATION BARRIERS AND COVERED OR TEMPORARILY SEEDED.
10. BEGIN EARTHWORK OPERATIONS AND CONSTRUCTION OF THE BUILDING FOUNDATION AND STRUCTURE.
11. BEGIN CONSTRUCTION OF DRAINAGE BMP'S AND OWTS.
12. ONCE THE SITE IS STABILIZED THE DRAINAGE BMPS AND DRAINAGE NETWORK MAY BE BROUGHT ONLINE WITH THE APPROVAL OF THE DESIGN ENGINEER.
13. REMOVE ALL TEMPORARY SOIL EROSION AND SEDIMENTATION CONTROL MEASURES FOLLOWING VEGETATIVE ESTABLISHMENT OF ALL DISTURBED AREAS.

NOTE:

CONTRACTOR TO GRADE DRIVEWAY AWAY FROM STRUCTURES FOUNDATION & TOWARDS STONE TRENCH



Typical Driveway Pavement & Stone Trench Cross Section

NOT TO SCALE

NON-STRUCTURAL MEASURES

1. CONSTRUCTION TRAFFIC SHALL BE LIMITED TO THE ACCESS ROAD, UTILITY EASEMENTS AND AREAS TO BE GRADED.
2. TOPSOIL SHALL BE STRIPPED FROM AREAS TO BE GRADED AND STOCKPILED FOR LATER USE. STOCKPILE LOCATION SHALL BE SUBJECT TO APPROVAL BY THE PROJECT ENGINEER. A SEDIMENT BARRIER SHALL SURROUND ALL TOPSOIL STOCKPILES.
3. ALL TYPES OF WASTE GENERATED AT THE SITE SHALL BE DISPOSED OF IN A MANNER CONSISTENT WITH STATE LAW AND TOWN REGULATIONS. CONSTRUCTION DEBRIS SHALL BE DISPOSED OF DAILY TO AVOID EXPOSURE TO PRECIPITATION.
4. THE CONSTRUCTION SUPERINTENDENT SHALL HAVE OVERALL RESPONSIBILITY FOR PLAN IMPLEMENTATION OF NON-STRUCTURAL MEASURES AND FOR SEEING THAT THE APPROPRIATE WORKERS ARE AWARE OF THE PROVISIONS OF THE PLAN.
5. REFERENCE THE "RHODE ISLAND SOIL EROSION AND SEDIMENT CONTROL HANDBOOK" PREPARED BY THE USDA SOIL CONSERVATION SERVICE, REVISED 2014, AS A GUIDE.

MAINTENANCE: SHORT TERM / LONG TERM

1. THE STONE STABILIZATION PADS AT THE SITE ENTRANCE SHALL BE MAINTAINED BY THE CONTRACTOR. THE MAINTENANCE SHALL INCLUDE TOP DRESSING WITH ADDITIONAL STONE OR ADDITIONAL LENGTH AS CONDITIONS DEMAND OR AS DIRECTED BY THE ENGINEER. ALL SEDIMENTS SPILLED, DROPPED, WASHED, OR TRACKED ON THE PUBLIC RIGHT OF WAY MUST BE REMOVED IMMEDIATELY BY THE CONTRACTOR.
2. ALL STRAW WATTLE/SILT FENCE, TEMPORARY TREATMENTS, AND TEMPORARY PROTECTION SHALL BE MAINTAINED BY THE CONTRACTOR THROUGHOUT CONSTRUCTION. STRAW WATTLE/SILT FENCE SHALL BE INSPECTED BY THE CONTRACTOR WITHIN 24 HOURS AFTER EACH STORM EVENT OR EVERY 7 DAYS, WHICHEVER COMES FIRST, FOR UNDERMINING AND DETERIORATION. A STORM EVENT SHALL BE DEFINED AS 0.25 INCHES OF RAIN WITHIN A 24-HOUR PERIOD. THE STRAW WATTLE/SILT FENCE SHALL BE REPAIRED OR REPLACED AS WARRANTED. THE CONTRACTOR SHALL CLEAN THE ACCUMULATED SEDIMENT IF HALF OF THE ORIGINAL HEIGHT OF THE STRAW WATTLE/SILT FENCE BECOMES FILLED IN WITH SEDIMENT. THE STRAW WATTLE/SILT FENCE SHALL REMAIN IN PLACE UNTIL AN ACCEPTABLE STAND OF GRASS OR APPROVED GROUND COVER IS ESTABLISHED. FOLLOWING CONFIRMATION FROM THE OWNER AND OR THE PROJECT ENGINEER THAT AN ACCEPTABLE STAND OF GRASS OR APPROVED GROUND COVER HAS BEEN ESTABLISHED THE STRAW WATTLE/SILT FENCE SHALL BE REMOVED.
3. THE CONTRACTOR SHALL MAINTAIN ALL TOPSOIL STOCKPILES AND SEDIMENT BARRIERS THROUGHOUT CONSTRUCTION. EXTREME CARE SHALL BE TAKEN TO ENSURE THAT SEDIMENTS DO NOT SPILL OVER THE SEDIMENT BARRIER. STRAW WATTLE OR SILT FENCE SHALL BE STAKED AROUND THE STOCKPILES.
4. ALL DISTURBED SLOPES EITHER NEWLY CREATED OR CURRENTLY EXPOSED SHALL BE SEEDED, PROTECTED, AND MAINTAINED BY THE CONTRACTOR FOLLOWING FINAL GRADING AND CONSTRUCTION. THE CONTRACTOR SHALL CHECK ALL SEEDED AREAS REGULARLY TO SEE THAT A GOOD STAND OF VEGETATION IS MAINTAINED. THE CONTRACTOR MUST REPAIR OR RESEED ANY AREAS THAT DO NOT DEVELOP WITHIN THE PERIOD OF ONE YEAR AND SHALL DO SO AT NO ADDITIONAL EXPENSE TO THE OWNER.
5. THE CONTRACTOR IS RESPONSIBLE FOR MAINTENANCE AND INSPECTION OF THE DRAINAGE BMPS DURING AND UP TO A YEAR AFTER COMPLETION OF CONSTRUCTION AND ACCEPTANCE BY THE OWNER. THE OWNER IS RESPONSIBLE FOR INSPECTIONS AND MAINTENANCE THEREAFTER. THE DRAINAGE BMPS SHALL BE INSPECTED/MAINTAINED AS DETAILED BELOW.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSPECTION, MAINTENANCE AND REPAIR TO ALL DRAINAGE STRUCTURES AND RELATED APPURTENANCES ON SITE DURING CONSTRUCTION AND IMMEDIATELY FOLLOWING CONSTRUCTION FOR A MAXIMUM OF ONE YEAR, OR UNTIL ACCEPTANCE BY THE ENGINEER AND THE OWNER. THE OWNER IS RESPONSIBLE FOR INSPECTIONS AND MAINTENANCE THEREAFTER.
7. A LEGALLY BINDING AND ENFORCEABLE MAINTENANCE AGREEMENT SHALL BE EXECUTED BETWEEN THE OWNER AND THE RESPONSIBLE AUTHORITY TO ENSURE THE FOLLOWING MAINTENANCE SCHEDULES ARE FOLLOWED.
8. DURING THE FIRST SIX (6) MONTHS OF OPERATIONS, INSPECTIONS SHALL BE ACCOMPLISHED IN EACH DRAINAGE BMP AFTER EVERY RAINFALL EVENT, TO CHECK FOR CLOGGING OR, CONVERSELY, TOO RAPID A STORMWATER RELEASE. FOLLOWING THE SIX (6) MONTHS, INSPECTIONS SHALL BE CONDUCTED, AT A MINIMUM, ANNUALLY.
9. IF STANDING WATER IS OBSERVED WITHIN THE DRAINAGE BMPS FOR MORE THAN THREE (3) DAYS AFTER A RAINFALL, THEN FAILURE OF THE SYSTEM MAY HAVE OCCURRED AND SHALL BE ADDRESSED THROUGH REPAIR OR REPLACEMENT.
10. THE CONSTRUCTION SUPERINTENDENT SHALL HAVE OVERALL RESPONSIBILITY FOR THE MAINTENANCE PROGRAM DURING THE CONSTRUCTION PHASE AND FOR A PERIOD OF ONE YEAR AFTER CONSTRUCTION. THE SUPERINTENDENT SHALL SEE THAT THE APPROPRIATE WORKERS ARE AWARE OF THE PROVISIONS OF THE PLAN.
11. AFTER ACCEPTANCE OF THE SITE BY THE OWNER, THE OWNER SHALL HAVE OVERALL RESPONSIBILITY FOR IMPLEMENTING THE MAINTENANCE PROGRAM FOR THE STORMWATER MANAGEMENT PLAN.
12. THE RESPONSIBLE PARTY FOR THE STORMWATER MANAGEMENT PROGRAM IS THE OWNER OF THE SITE. THE FUNDING FOR THE STORMWATER MANAGEMENT PROGRAM IS BY THE OWNER. IF THE PROPERTY IS SOLD, THE RESPONSIBILITY OF THE STORMWATER MANAGEMENT PROGRAM WILL BE TRANSFERRED TO THE NEW OWNER.

THE FOLLOWING MAINTENANCE PROCEDURES SHALL BE FOLLOWED FOR THE STONE TRENCHES.

1. INFILTRATION PRACTICES SHALL BE INSPECTED ANNUALLY AND REPAIRED IF NECESSARY TO ENSURE PROPER DRAINAGE.
2. ACCUMULATED SEDIMENT AND DEBRIS SHALL BE REMOVED FROM THE SURFACE OF THE INFILTRATION PRACTICE ANNUALLY.
3. THE CONTRACTOR IS RESPONSIBLE FOR MAINTENANCE AND INSPECTION OF THE STONE TRENCHES DURING AND UP TO A YEAR AFTER COMPLETION OF CONSTRUCTION AND ACCEPTANCE BY THE OWNER. THE OWNER IS RESPONSIBLE FOR INSPECTIONS AND MAINTENANCE THEREAFTER. THE CONTRACTOR'S MAINTENANCE/INSPECTION RESPONSIBILITIES SHALL INCLUDE REPLACING THE STONE WITHIN THE TRENCHES IF STORMWATER REMAINS IN THE STONE TRENCHES LONGER THAN 48 HOURS. THE CONTRACTOR SHALL INSPECT STONE TRENCHES AFTER EACH STORM GREATER THAN 0.5 INCHES AND REPAIR AS NECESSARY. THE OWNER SHALL INSPECT THE STONE TRENCHES SEMIANNUALLY AND AFTER RAIN FILL EVENTS GREATER THAN ONE INCH. IF REPAIRS ARE NEEDED, THEY SHALL BE CARRIED OUT IMMEDIATELY. REPAIRS ARE NECESSARY IF STORMWATER REMAINS IN THE STONE TRENCHES LONGER THAN 48 HOURS.

THE FOLLOWING MAINTENANCE PROCEDURES SHALL BE FOLLOWED FOR THE DRYWELLS:

1. INFILTRATION PRACTICES SHALL BE INSPECTED ANNUALLY AND REPAIRED IF NECESSARY TO ENSURE PROPER DRAINAGE.
2. THE CONTRACTOR IS RESPONSIBLE FOR MAINTENANCE AND INSPECTION DURING AND UP TO A YEAR AFTER COMPLETION OF CONSTRUCTION AND ACCEPTANCE BY THE OWNER. THE OWNER IS RESPONSIBLE FOR INSPECTIONS AND MAINTENANCE THEREAFTER. THE CONTRACTOR'S MAINTENANCE/INSPECTION RESPONSIBILITIES SHALL INCLUDE REPLACING THE STONE WITHIN THE DRYWELL IF STORMWATER REMAINS IN THE DRYWELL LONGER THAN 48 HOURS. THE CONTRACTOR SHALL INSPECT DRYWELLS AFTER EACH STORM GREATER THAN 0.5 INCHES AND REPAIR AS NECESSARY. THE OWNER SHALL INSPECT THE DRYWELL SEMIANNUALLY AND AFTER RAIN FILL EVENTS GREATER THAN ONE INCH. IF REPAIRS ARE NEEDED, THEY SHALL BE CARRIED OUT IMMEDIATELY. REPAIRS ARE NECESSARY IF STORMWATER REMAINS IN THE DRYWELL LONGER THAN 48 HOURS.

STRUCTURAL MEASURES

1. RUNOFF WATER QUALITY IS IMPROVED UTILIZING DRYWELLS AND STONE TRENCHES. CONSTRUCTION OF THE BMPS SHALL BE SUPERVISED BY THE PROJECT ENGINEER.
2. A STONE STABILIZATION PAD IS LOCATED AT THE SITE ENTRANCE TO REDUCE THE TRACKING OR FLOWING OF SEDIMENT ONTO THE PUBLIC RIGHT OF WAY.
3. STRAW WATTLE OR SILT FENCE SHALL BE INSTALLED DOWNSTREAM OUTSIDE THE LIMITS OF ANY PROPOSED CONSTRUCTION AS SHOWN ON THE SITE PLANS AND PRIOR TO THE COMMENCEMENT OF THE PROPOSED ALTERATION.
4. TEMPORARY BERMS AND / OR SWALES SHALL BE USED DURING CONSTRUCTION TO DIRECT SURFACE TO TEMPORARY SEDIMENTATION BASINS TO CAPTURE AND TREAT THE MAXIMUM AMOUNT OF STORM WATER.
5. THE DRYWELL AND STONE TRENCH AREAS ARE NOT TO BE USED AS SEDIMENTATION BASINS DURING CONSTRUCTION AND SHALL BE PROTECTED FROM CONSTRUCTION ACTIVITIES (I.E. HEAVY MACHINERY) TO PREVENT COMPACTION. THE CONTRACTOR SHALL CONSTRUCT ANY SEDIMENTATION BASINS WHICH ARE REQUIRED TO MEET ALL GUIDELINES IN THE RHODE ISLAND SOIL EROSION SEDIMENT CONTROL HANDBOOK.
6. THE CONSTRUCTION SUPERINTENDENT SHALL HAVE THE OVERALL RESPONSIBILITY FOR STRUCTURAL MEASURE IMPLEMENTATION AND FOR SEEING THAT THE APPROPRIATE WORKERS ARE AWARE OF THE PROVISIONS OF THE PLAN.
7. REFERENCE THE "RHODE ISLAND SOIL EROSION AND SEDIMENT CONTROL HANDBOOK" PREPARED BY THE USDS SOIL CONSERVATION SERVICE, REVISED 2014, AS A GUIDE.

ESTABLISHMENT OF VEGETATIVE COVER

1. SLOPES SHALL NOT BE LEFT UNATTENDED OR EXPOSED FOR EXCESSIVE PERIODS OF TIME SUCH AS THE INACTIVE WINTER SEASON. THE CONTRACTOR SHALL INITIATE APPROPRIATE VEGETATIVE PRACTICES ON ALL DISTURBED AREAS AS SOON AS POSSIBLE BUT NOT MORE THAN FOURTEEN (14) DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT AREA HAS TEMPORARILY OR PERMANENTLY CEASED, UNLESS THE ACTIVITY IS TO RESUME WITHIN TWENTY-ONE (21) DAYS.
2. ALL DISTURBED SLOPES EITHER NEWLY CREATED OR CURRENTLY EXPOSED SHALL BE SEEDED OR PROTECTED.
3. THE TOPSOIL 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 RHODE ISLAND DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, M.20.
4. THE TEMPORARY SEEDING DESIGN MIX SHALL BE COMPRISED OF THE FOLLOWING:

TYPE	% BY WEIGHT
ANNUAL RYEGRASS	40
PERENNIAL RYEGRASS	60

5. THE NEW ENGLAND EROSION CONTROL/RESTORATION SEED MIX SHALL BE COMPRISED OF THE FOLLOWING:

TYPE	% BY WEIGHT
UPLAND BENTGRASS	1.0
CREEPING BENTGRASS	1.0
BIG BLUESTEM	8.0
NEW ENGLAND ASTER	1.0
FOX SEDGE	8.0
VIRGINIA WILD RYE	28.0
BONESET	1.0
GRASS LEAVED GOLDENROD	1.0
CREEPING RED FESCUE	24.0
SOFT RUSH	0.5
SENSITIVE FERN	1.0
SWITCH GRASS	8.0
LITTLE BLUESTEM	15.0
GREEN BULLRUSH	1.0
WOOL GRASS	0.5
BLUE VERVAIN	1.0

6. THE GENERAL PURPOSE SEED MIX SHALL BE COMPRISED URI #2 OF THE FOLLOWING:

TYPE	% BY WEIGHT
CREEPING RED FESCUE	40
IMPROVED PERENNIAL RYE GRASS	20
IMPROVED KENTUCKY BLUEGRASS	30
KENTUCKY BLUEGRASS	10

EARLY SPRING OR LATE SUMMER SEEDING IS RECOMMENDED. SEEDING SCHEDULE SHOULD CONFORM WITH RHODE ISLAND DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, L.02.03.1 SEEDING DATES. PERMANENT SEEDING SHALL BE DURING THE APRIL 1 TO MAY 31 OR AUGUST 15 TO OCTOBER 15. TEMPORARY SEEDING MAY BE DONE ANYTIME BETWEEN MARCH 15 AND NOVEMBER 15 WITH THE APPROVAL OF THE ENGINEER OF RECORD. FERTILIZE AS REQUIRED BY SOIL TESTING TO COMPLIMENT OR UPGRADE EXISTING CONDITIONS. THE SEED MIX SHALL BE INOCULATED WITHIN 24 HOURS AND BEFORE MIXING AND PLANTING, WITH APPROPRIATE INOCULUMS FOR EACH VARIETY.

7. TEMPORARY TREATMENTS SHALL CONSIST OF HAY, STRAW, OR FIBER MULCH OR PROTECTIVE COVERS SUCH AS A MAT OR FIBER LINING. TEMPORARY HAY MULCH TO BE TACKED IN PLACE WITH NYLON MESH NETTING. SIDE SLOPES OF BASINS SHALL BE TREATED WITH NORTH AMERICAN GREEN EROSION CONTROL BLANKETS SUCH AS S150 OR APPROVED EQUAL. THEY SHALL BE INCORPORATED INTO THE WORK AS WARRANTED OR AS ORDERED BY THE ENGINEER. HAY OR STRAW APPLICATIONS SHALL BE IN THE AMOUNT OF 2 TONS/ACRE.
8. ALL STRAW WATTLE OR TEMPORARY PROTECTION SHALL REMAIN IN PLACE UNTIL AN ACCEPTABLE STAND OF GRASS OR APPROVED GROUND COVER IS ESTABLISHED.
9. ALL FILL SHALL BE THOROUGHLY COMPACTED UPON PLACEMENT IN STRICT CONFORMANCE WITH RHODE ISLAND DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION PART 200.
10. STOCKPILES OF TOPSOIL SHALL NOT BE LOCATED NEAR WATERWAYS. THEY SHALL HAVE SIDE SLOPES NO GREATER THAN 2:1 AND SHALL BE TEMPORARILY SEEDED AND/OR STABILIZED.
11. ALL AREAS PROPOSED TO BE VEGETATED THAT ARE DISTURBED BY CONSTRUCTION SHALL BE STABILIZED WITH PERMANENT SEEDING IMMEDIATELY FOLLOWING FINISH GRADING. PERMANENTLY SEEDED AREAS SHALL BE PROTECTED DURING ESTABLISHMENT WITH MULCH. ALL SEEDED AREAS SHALL BE CHECKED REGULARLY TO SEE THAT A GOOD STANDARD IS MAINTAINED. WELL ESTABLISHED VEGETATION SHALL BE MAINTAINED. BARE OR ERODED AREAS SHALL BE IMMEDIATELY REPAIRED AND RESEEDED BY THE CONTRACTOR. ACTIVITIES SHALL BE CONFINED TO WITHIN THE LIMIT OF WORK AS SHOWN ON THE PLANS.
12. MAXIMUM PERMANENT GRADED SLOPE WITHIN THE SITE IS TO BE 3:1 UNLESS NOTED OTHERWSE.
13. THE CONSTRUCTION SUPERINTENDENT SHALL HAVE OVERALL RESPONSIBILITY FOR PLAN IMPLEMENTATION AND FOR SEEING THAT THE APPROPRIATE WORKERS ARE AWARE OF THE PROVISIONS OF THE PLAN. THE CONTRACTOR MUST REPAIR AND/OR RESEED ANY AREAS THAT DO NOT DEVELOP WITHIN THE PERIOD OF ONE YEAR AND SHALL DO SO AT NO ADDITIONAL EXPENSE TO THE OWNER.
14. REFERENCE THE "RHODE ISLAND SOIL EROSION AND SEDIMENTATION CONTROL HANDBOOK" PREPARED BY THE USDA SOIL CONSERVATION SERVICE, REVISED 2014, AS A GUIDE.

SIZING NOTE:

1. DRYWELL SIZED USING TABLE 11 OF THE STATE OF RHODE ISLAND STORMWATER MANAGEMENT GUIDANCE FOR INDIVIDUAL SINGLE-FAMILY RESIDENTIAL LOT DEVELOPMENT
2. GROUNDWATER TABLE DATA:

   SOIL EVALUATIONS INDICATE A SEASONAL HIGH GROUNDWATER TABLE DEPTH OF 54"-96" BELOW EXISTING GRADE.

SIZING DATA

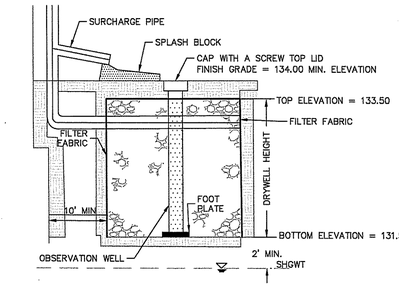
SOIL CONDITIONS	–	SANDY SOILS
DRYWELL DEPTH	–	24" DEPTH
GWT DEPTH	–	SEE NOTE #2 ABOVE

DRYWELL SIZING CALCULATION:

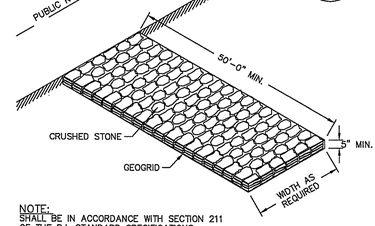
IMPERVIOUS AREA = 1,776 SF

96 S.F. (DRYWELL SURFACE AREA) / 1,000 S.F. (IMPERVIOUS SURFACE AREA) = X S.F. / 1,776 S.F. = 171 S.F. DRYWELL REQ.

DRYWELL AREA PROVIDED = 180 SF



RESIDENTIAL DRYWELL

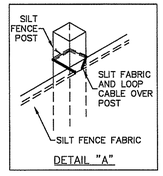


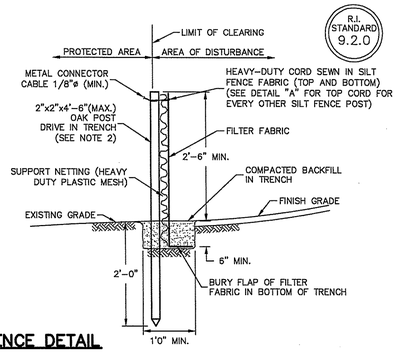
NOTE:
SHALL BE IN ACCORDANCE WITH SECTION 211 OF THE R.I. STANDARD SPECIFICATIONS.

CONSTRUCTION ACCESS

NOT TO SCALE

NOTES:
1. SHALL BE IN ACCORDANCE WITH SECTION 206 OF THE R.I. STANDARD SPECIFICATIONS.
2. 2"x2"x4'-6"(MAX.) OAK POSTS FOR SILT FENCE SHALL BE LOCATED 6'-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.
3. 1"x1"x4'-6"(MIN.) POSTS PERMITTED FOR PRE-FABRICATED SILT FENCE.
4. SILT FENCE SHALL BE INSTALLED BEFORE ANY GRUBBING OR EARTH EXCAVATION TAKES PLACE.





SILT FENCE DETAIL

NOT TO SCALE

DiPrete Engineering
Engineers • Planners • Surveyors
Two Stafford Court Cranston, RI 02920
tel 401-943-5000 fax 401-464-6006 www.DiPrete-Eng.com

KEVIN C. MORIN
No. 10051
REGISTERED PROFESSIONAL ENGINEER
CIVIL

No.	Date	Description	By:
0	03-17-2017	OWTS/Wetlands Submission	J.P.C
			Design By: E.H.J.
			Drawn By: E.H.J.

Detail Sheet

Curtis Corner Road

A.P. 46, Lot 83
South Kingstown, Rhode Island

Applicant
Michele Donatelli Revocable Trust
c/o Clark Donatelli
351 Reynolds Street, Kingston, PA 18704-5207

DE Job No.: 2394-001

SHEET 2 OF 2