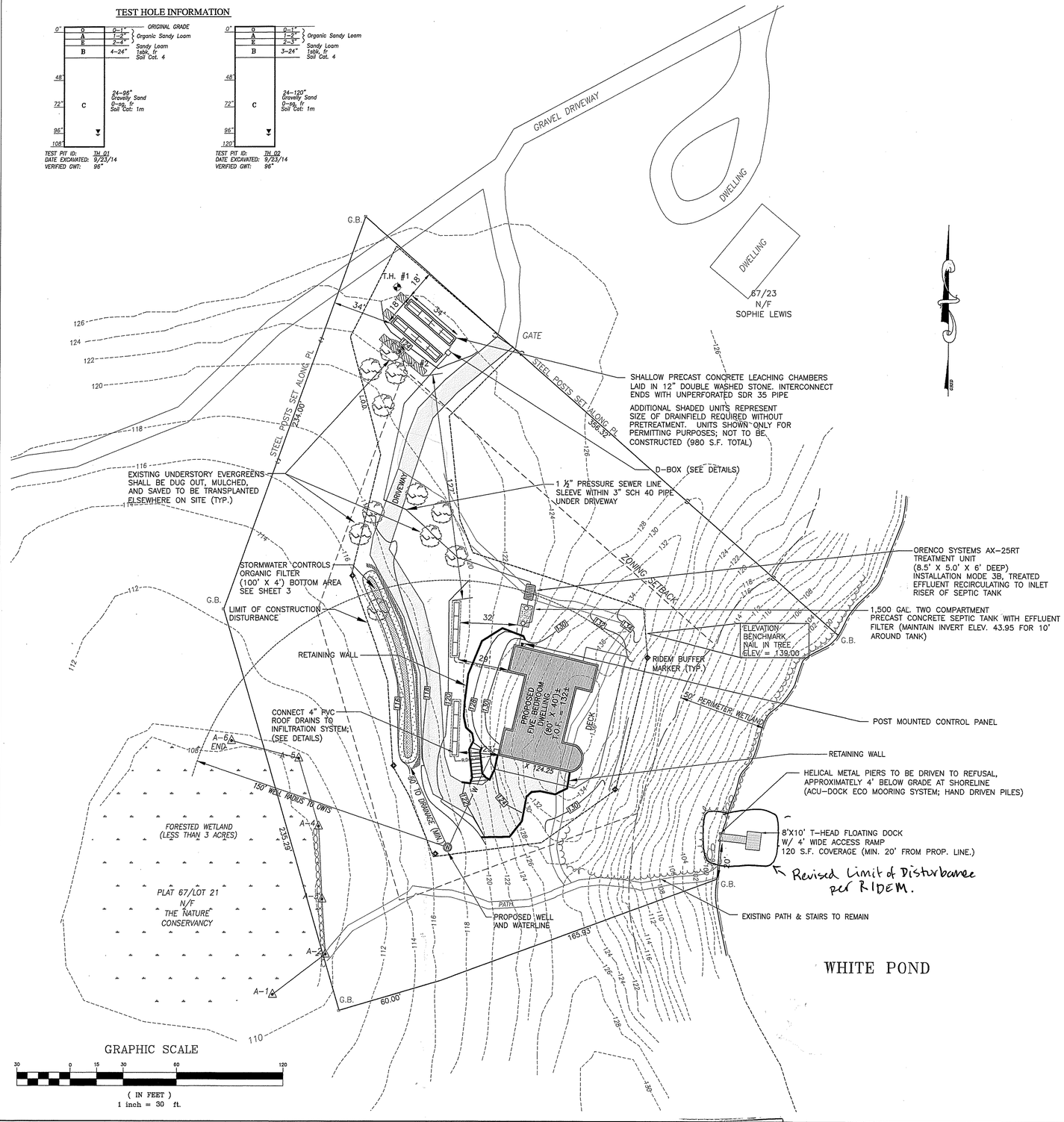
TEST HOLE INFORMATION



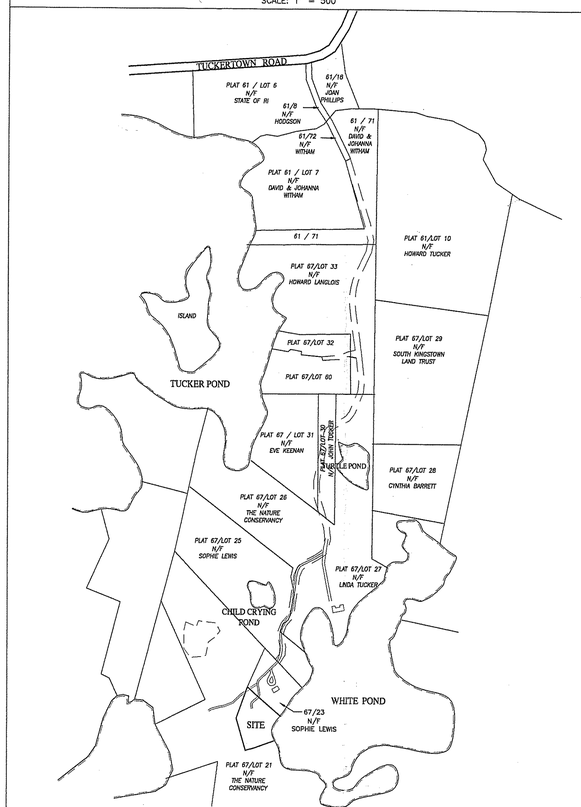
GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

SITE ACCESS

SCALE: 1" = 500'

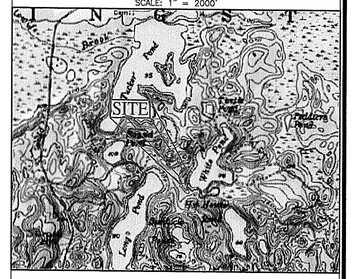


LOCUS MAP

SCALE: 1" = 2500'

USGS TOPO MAP

SCALE: 1" = 2000'



ZONING DIMENSIONAL REGULATIONS

ZONING DISTRICT: R80

	REQUIRED	SITE
MINIMUM LOT AREA	80,000 S.F.	88,431 S.F
MINIMUM LOT FRONTAGE	200 FT.	
MINIMUM LOT WIDTH	200 FT.	
MAXIMUM BUILDING COVERAGE	20%	
MINIMUM YARD SETBACKS-		
PRIMARY STRUCTURE		
FRONT	50 FT.	---
SIDE	40 FT.	---
ON SIDE	40 FT.	---
REAR	50 FT.	
ACCESSORY STRUCTURE		
SIDE	20 FT.	---
REAR	20 FT.	---
MAXIMUM BUILDING HEIGHT		
PRIMARY STRUCTURE	35 FT.	
ACCESSORY STRUCTURE	20 FT.	

GENERAL NOTES:

1. THIS SITE IS LOCATED WITHIN A NATURAL HERITAGE AREA.
2. THE SITE IS LOCATED WITH THE SALT POND CRITICAL RESOURCE AREA AS DEFINED BY CRMC & RIDEM.
3. THIS PARCEL IS NOT LOCATED WITHIN THE TOWN OF SOUTH KINGSTOWN HISTORIC OR ZONING OVERLAY DISTRICTS.
4. ACCORDING TO FEMA FLOOD INSURANCE RATE MAP COMMUNITY PANEL NUMBER 44009C0191H REVISED 10/19/2010, THE PORTION OF THE SITE ADJACENT TO WHITE POND WITHIN FLOOD ZONE X, SHADED "OTHER FLOOD AREAS." THIS ZONE IS DEFINED AS AREAS SUBJECT TO INUNDATION BY THE 0.2% ANNUAL-CHANCE FLOOD EVENT WITH AVERAGE DEPTHS LESS THAN 1 FOOT OR WITH DRAINAGE AREAS LESS THAN 1 SQUARE MILE. NO BASE FLOOD ELEVATIONS (BFES) OR FLOOD DEPTHS HAVE BEEN DETERMINED.
5. THIS SITE IS NOT LOCATED WITHIN A WELL-HEAD PROTECTION AREA, GROUNDWATER RECHARGE ZONE, OR GROUNDWATER RESERVOIR.
6. LONG POND (RI0010043L-07) IS LISTED AS A SPECIAL RESOURCE PROTECTION WATER (SRPW).
7. ONSITE SOILS ARE CLASSIFIED BY THE RHODE ISLAND SOIL SURVEY AS GhC & GhD SOILS (GLOUCESTER-HINKLEY VERY STONY SANDY LOAMS) - SOILS SUITABLE FOR DEVELOPMENT.

GENERAL OWTS NOTES:

1. ALL DESIGN, CONSTRUCTION AND MAINTENANCE REQUIREMENTS SHALL BE IN CONFORMANCE WITH THE LATEST AMENDED VERSION (JULY 2014) OF THE RHODE ISLAND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT, OFFICE OF WATER RESOURCES, "RULES ESTABLISHING MINIMUM STANDARDS RELATING TO LOCATION, DESIGN, CONSTRUCTION, AND MAINTENANCE OF ONSITE WASTEWATER TREATMENT SYSTEMS (OWTSs)," HEREIN REFERRED TO AS THE "REGULATIONS."
2. BENCHMARK IS SET WITHIN 150' OF PROPOSED OWTS (SEE SITE PLAN).
3. ALL STORM & SUBSURFACE DRAINS WITHIN FIFTY FEET (50') OF THE PROPOSED OWTS HAVE BEEN SHOWN.
4. ALL PRIVATE DRINKING WATER WELLS WITHIN 200' OF THE PROPOSED OWTS HAVE BEEN SHOWN. ALL PUBLIC WELLS WITHIN 500' OF THE SITE HAVE BEEN SHOWN. PUBLIC WATER SERVICE IS PROVIDED IN THIS NEIGHBORHOOD.
5. PUBLIC SEWERS ARE NOT AVAILABLE AT THIS TIME TO THE SITE.
6. THE LOCATION OF ALL WETLANDS WITHIN 100' OF THE PARCEL ARE SHOWN.
7. ADDITIONAL OWTS DETAILS & REQUIREMENTS PROVIDED ON SHEET 4

O.W.T.S. DESIGN DATA:

PROPOSED USE:	RESIDENTIAL DWELLING
NUMBER OF UNITS:	5 BEDROOMS
DESIGN FLOW PER UNIT:	115 GPD/BEDROOM
TOTAL DESIGN FLOW:	575 GALLONS PER DAY
SEPTIC TANK REQUIREMENTS:	1,500 GALLONS
SEPTIC TANK PROVIDED:	1,500 GALLON 2-COMPARTMENT

DRAINFIELD REQUIREMENTS:

DESIGN LOADING RATE: 0.61 GAL/DAY/SF

REQUIRED SQUARE FOOTAGE = $\frac{575\ GPD}{0.61\ GPD/SF}$ = 942.6 SF [100% DESIGN FLOW]

DRAINFIELD REDUCTION FOR ADVANCED TREATMENT 942.6 * 50% = 471.3 SF

PROVIDED SQUARE FOOTAGE = FLOW DIFFUSORS WITH 12" STONE UNDER AND AROUND
4 END UNITS & 4 INTERIOR UNITS = 8 UNITS
END UNITS: 78 SF/UNIT
INTERIOR UNITS: 64 SF/UNIT
4*78 SF/UNIT & 4*64 SF/UNIT = 568 SF

O.W.T.S. ELEVATION SCHEDULE

BUILDING SEWER INVERTS:

MAIN DWELLING INVERT:	ELEV. 122.00

TANK ELEVATIONS:

1,500 GAL. SEPTIC TANK	
TOP OF TANK:	ELEV. 122.80
BASE OF TANK:	ELEV. 117.20
4" PVC INLET INV:	ELEV. 121.80
4" PVC OUTLET INV:	ELEV. 121.55
1 ½" RECIRC IN.	ELEV. 121.80
ADVANTEX AX-RT25	
AX-RT LID ELEVATION	ELEV. 123.50
AX-RT BASE	ELEV. 117.50
GRAVITY 4" PVC INLET	ELEV. 121.4
PRESSURE 1½" TO S.T.	ELEV. 121±
PRESSURE TO DRAINFIELD	ELEV. 121±
DRAINFIELD	
D-BOX IN:	ELEV. 122.34
D-BOX OUT:	ELEV. 122.17
DRAINFIELD INVERT:	ELEV. 122.00
BOTTOM OF STONE:	ELEV. 120.00
DESIGN ELEVATION:	ELEV. 123.00
GROUNDWATER:	ELEV. 115.00
COVER OVER SYSTEM MIN.	ELEV. 123.5±
COVER OVER SYSTEM MAX.	ELEV. 124.5±

LEGEND

ELEV. — EXISTING CONTOURS	120 — PROPOSED CONTOUR
EXISTING SITE CONDITIONS	PROPOSED SITE CONDITIONS
P — EXISTING PROPERTY LINE	PROPOSED PROPERTY LINE
EXISTING SETBACKS	USDA SOIL BOUNDARIES
EXISTING FIELD STONEWALLS	PROPOSED RETAINING WALLS
TYPE — EXISTING FENCE	PROPOSED FENCE
EXISTING WELLS	PROPOSED WELLS
W — EXISTING WATERLINE	PROPOSED WATERLINE
RD — EXISTING ROOF DRAIN	RD — PROPOSED ROOF DRAIN
EXISTING UTILITY POLE	PROPOSED UTILITY POLE
(SIZE)S — EXISTING SANITARY SEWER	(SIZE)S — PROPOSED SANITARY SEWER
TEST HOLES/LEDGE PROBES	WOOD OR BRUSH LINE
BIOLOGICAL WETLANDS	L.O.D. — LIMIT OF DISTURBANCE
50' WETLANDS SETBACK	EROSION CONTROLS
STREAM CHANNEL	R.I.D.O.T STANDARD DETAIL
GRANITE BOUND (EXISTING)	
BUFFER ZONE MARKER (TO BE SET)	

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
OWTS & FRESHWATER WETLANDS
JOINT PERMIT APPROVAL
OWTS# 1452/1251 FWW# 140225
APPROVED Jenifer Rapp DATE 2.27.15
No Changes Allowed Without RIDEM Approval
Approved Plans/Permit Must Be Kept at Construction Site

DEC 23 2014

SITE PLAN

PROPOSED INGARI RESIDENCE

ASSESSOR'S PLAT 67 / LOT 22
TUKERTOWN ROAD
SOUTH KINGSTOWN, RHODE ISLAND

PREPARED BY:
JEFFREY J. CAMPOPIANO, P.E.
16 WEST MAIN STREET
WICKFORD, RHODE ISLAND 02852
PHONE: 401-295-3037
jeff@campopiano-eng.com

JEFFREY CAMPOPIANO, P.E.
No. 9282
REGISTERED
PROFESSIONAL ENGINEER

DATE: DECEMBER 4, 2014

REVISIONS:

NO.	DATE	DESCRIPTION

DRAWN BY: TAG
CHECKED BY: JJC

SHEET NUMBER
1

EROSION & SEDIMENT CONTROL NOTES:

1. EXTREME CARE SHALL BE EXERCISED TO PREVENT ANY UNSUITABLE MATERIAL FROM ENTERING A WETLAND, STREET, OR NEIGHBORING PROPERTY. THE CONTRACTOR SHALL IMMEDIATELY CLEAN AND RESTORE ANY DISTURBED AREAS.
2. ALL EROSION CONTROL METHODS, MATERIALS, AND MAINTENANCE SHALL BE ACCOMPLISHED ACCORDING TO THE RHODE ISLAND SOIL EROSION AND SEDIMENT CONTROL HANDBOOK, PREPARED BY THE UNITED STATES DEPARTMENT OF AGRICULTURE.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ESTABLISHING ALL TEMPORARY EROSION AND SEDIMENT CONTROLS, AS SHOWN ON THE PLANS AND DIRECTED BY THE ENGINEER. ALL RUNOFF SHALL BE CONTROLLED. IN NO CASE SHALL ANY DIRECT RUNOFF BE ALLOWED TO ENTER ONTO ABUTTING PROPERTIES OR INTO THE WETLAND BUFFERS.
4. HAYBALES/SILTFENCING SHALL BE PLACED IMMEDIATELY DOWN SLOPE OF SOIL DISTURBANCE AREAS AS SHOWN ON THE PLANS. BALED HAY EROSION CHECKS SHALL BE PLACED AT ALL DRAINAGE STRUCTURE INLETS, EXISTING AND PROPOSED, DURING CONSTRUCTION. ADDITIONAL HAYBALES OR SANDBAGS SHALL BE LOCATED AS CONDITIONS WARRANT OR AS DIRECTED BY THE ENGINEER.
5. SPOIL AND STOCKPILE MATERIALS REMAINING EXPOSED FOR LONGER THAN 30 DAYS SHALL BE ENCIRCLED WITH SILT FENCING OR HAYBALES AND COVERED WITH EROSION CONTROL MIX (NOTE 9).
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF ALL SEDIMENT AND EROSION CONTROLS UNTIL ALL AREAS ARE STABILIZED. CONTROLS SHALL REMAIN IN PLACE UNTIL A GOOD STAND OF VEGETATION IS ESTABLISHED.
7. SEEDING – SEED IS TO BE DISTRIBUTED EVENLY OVER THE TOP 1 INCH OF TOPSOIL. SEED SHALL BE URI #2, OR APPROVED EQUAL. APPLY AT A RATE OF 5–7 # / 1,000 S.F.
8. SLOPE PROTECTION BLANKETS USED AT THIS PROJECT SHALL BE THE 100% BIODEGRADABLE STRAW AND COCONUT FIBER BLANKETS WHICH SHALL DISINTEGRATE IN–PLACE, NOT REQUIRING FUTURE MAINTENANCE.

SHOULD THE VEGETATION PLANTING SEASON BE PASSED, WINTER MULCHING OF ALL EXPOSED SURFACES SHALL BE COMPLETED BY DECEMBER 1. WINTER MULCHING SHALL CONSIST OF THE FOLLOWING EROSION CONTROL MIX.

EROSION CONTROL MIX

USE EROSION CONTROL MIX AS A LONG–TERM SOIL COVER THAT WILL EVENTUALLY ALLOW THE GROWTH OF VEGETATION, IF DESIRED.

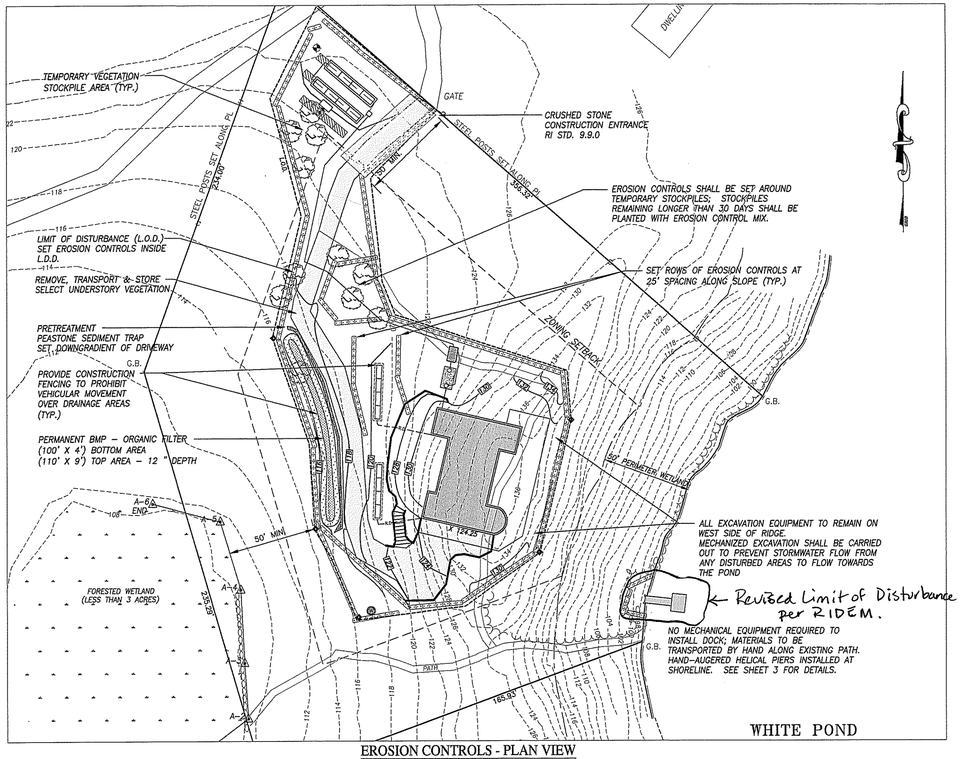
- EROSION CONTROL MIX INCLUDES SHREDDED OR COMPOSTED BARK, STUMP GRINDINGS, OR OTHER COMPOSTED WOOD PRODUCTS. WOOD CHIPS. GROUND CONSTRUCTION DEBRIS, OR PROCESSED WOOD ARE NOT ACCEPTABLE.
- APPLY THE EROSION CONTROL MIX AS A LAYER AT LEAST THREE INCHES THICK. DO NOT COMPACT THE MIX WITH EQUIPMENT.

HAY MULCH

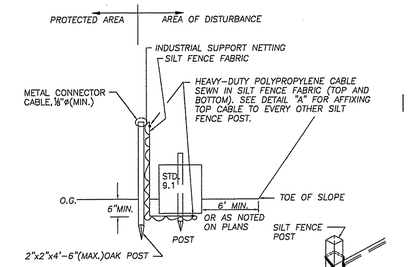
- USE HAY MULCH AS A TEMPORARY MEASURE TO PROTECT BARE SOILS OR TO COVER NEWLY SEEDED AREAS.
- APPLY AT A RATE OF TWO SQUARE BALES (70–90 POUNDS) PER 1000 SQ FT OR 1.5 TO 2 TONS (90–100 BALES) PER ACRE.
- ANCHOR THE HAY MULCH USING ONE OF THE FOLLOWING METHODS:
  - ** STAPLE JUTE OR PLASTIC NETTING OVER THE MULCH ACCORDING TO THE NET OR JUTE MANUFACTURER'S RECOMMENDATION.
  - ** STRETCH TWINE BETWEEN PEGS IN A CRISS–CROSS PATTERN OVER THE MULCH (4–6 PEGS PER SQ YD).
- MULCHING SHALL FOLLOW GUIDELINES IN THE RI SOIL EROSION AND SEDIMENT CONTROL HANDBOOK, CHAPTER 4 & CHAPTER 5, A TEMPORARY MULCHING. STRAW / HAY SHALL BE APPLIED AT 90# / 1,000 S.F. FREE FROM WEEDS AND ANCHORED WITH MULCH NETTING.

SEQUENCE OF CONSTRUCTION:

1. INSTALL PERIMETER SEDIMENT CONTROL MEASURES:
   - A. PERFORM SELECTIVE VEGETATION REMOVAL FOR SILT FENCE INSTALLATION
   - B. INSTALL SILT FENCE/HAYBALES PER R.I. STATE STANDARD AROUND L.O.D.
   - C. INSTALL CONSTRUCTION ENTRANCE
   - D. INSTRUCT CONTRACTOR THAT ABSOLUTELY NO WORK OR DUMPING IS PERMITTED BEYOND THE LIMIT OF THE EROSION CONTROL BARRIERS!
2. CLEAR AND GRUB AREA WITHIN PERMITTED WORKZONE. SELECT TREES FOR TRANSPLANTING; DIG, TRANSPORT & MULCH PLANTS TO TEMPORARY LOCATION.
3. STRIP & STOCKPILE TOPSOIL, AS NECESSARY. PROVIDE TEMPORARY STABILIZATION AROUND STOCKPILE (SEED PILE AND INSTALL SILT FENCE AROUND TOE OF SLOPE).
4. CONSTRUCT SITE AMENITIES.
5. PERFORM MAINTENANCE INSPECTIONS OF HAYBALES AND SILT FENCE CONDITIONS WEEKLY AND AFTER EVERY RAINFALL EVENT WITH ½" OR MORE. REPLACE OR REPAIR THE CONTROLS AS REQUIRED AND REMOVE ANY SEDIMENT WHICH ACCUMULATES UP TO ONE–HALF THE HEIGHT OF THE BALE/FENCE.
6. TEMPORARILY OR PERMANENTLY STABILIZE ALL DISTURBED AREAS WITHIN 7 DAYS OF CEASING WORK.
7. CONSTRUCT FINAL LANDSCAPING. INSTALL MONUMENTATION POSTS.
8. PERMANENTLY STABILIZE LOT.
9. REMOVE ALL TEMPORARY SOIL AND SEDIMENT EROSION CONTROLS AFTER THE SITE IS FULLY STABILIZED WITH VEGETATION.



EROSION CONTROLS - PLAN VIEW
1" = 40'



NOTES:
1. STD. 9.1 IS INSTALLED "TIGHT" AGAINST SILT FENCE, THOROUGHLY COMPACT EXCAVATED SOILS BACK INTO TRENCH AFTER INSTALLATION OF EROSION CONTROL DEVICES. SILT FENCE FABRIC SHALL NOT BE SLIT–STD. 9.1 POST SHALL BE DRIVEN THROUGH SILT FENCE FABRIC. 2"x2"x4'–6"MAX.)OAK POST FOR SILT FENCE SHALL BE LOCATED ON 8'–0"(MAX.) CENTERS IN WETLAND AREAS AND LOCATED ON 4'–0"(MAX.) CENTERS IN WETLAND RAVINE, GULLY OR DROPOFF AREAS AS SHOWN ON PLANS
2. R.I. STD. 9.1 AND SILT FENCE WILL BE PAID FOR UNDER THE APPROPRIATE PAY ITEMS, COMPLETE IN–PLACE.

HAYBALE WITH SILT FENCE

R.I. STANDARD 9.9.0

MAINTENANCE REQUIREMENTS

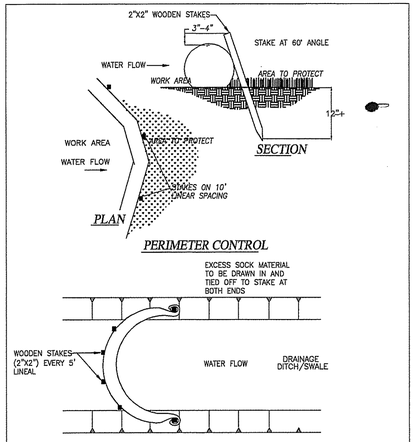
1. THE DEVELOPER SHALL FOLLOW ALL ADDITIONAL REQUIREMENTS REQUIRED BY THE RIDEM WETLANDS PERMIT.
2. THE DEVELOPER SHALL FOLLOW ALL REQUIREMENTS REQUIRED BY SOUTH KINGSTOWN CODE OF ORDINANCES, "SUPPLEMENTAL DRAINAGE".
3. A LEGALLY BINDING MAINTENANCE AGREEMENT SHALL BE RECORDED IN THE LAND EVIDENCE RECORDS OUTLINING THE MAINTENANCE PROCEDURES FOR EACH ELEMENT OF THE DRAINAGE SYSTEM.

SHORT TERM – OPERATIONAL NOTES / MAINTENANCE

1. THE CONSTRUCTION SUPERINTENDENT SHALL HAVE OVERALL RESPONSIBILITY OF THE MAINTENANCE PROGRAM AND THE IMPLEMENTATION OF ALL STRUCTURAL AND NON–STRUCTURAL BEST MANAGEMENT PRACTICES (BMPs) DURING CONSTRUCTION. THE SUPERINTENDENT SHALL IMPLEMENT A REGULAR INSPECTION SCHEDULE AND PROVIDE THE APPROPRIATE LABOR AND MATERIALS TO REMEDY ANY SUBSTANDARD ELEMENTS.
2. ALL EROSION CONTROLS SHALL BE MAINTAINED IN WORKING ORDER BY THE CONTRACTOR THROUGHOUT THE CONSTRUCTION PERIOD AND SHALL REMAIN IN–PLACE UNTIL AN APPROVED GROUND COVER IS ESTABLISHED.
3. ALL DISTURBED SLOPES SHALL BE RE–SEEDED OR PROTECTED PRIOR TO OCTOBER 15. AFTER THIS DATE, WINTER MULCHING SHALL BE PROVIDED IN AREAS WHERE VEGETATION HAS NOT BEEN ESTABLISHED.
4. HAYBALES AND SILT FENCE SHALL BE CHECKED BY THE CONTRACTOR ON A DAILY BASIS AND AFTER EVERY RAINFALL EVENT FOR EFFECTIVENESS. THE CONTRACTOR SHALL REPLACE OR REPAIR THE CONTROLS AS REQUIRED AND SHALL ALSO REMOVE ANY SEDIMENT WHICH ACCUMULATES UP TO ONE–HALF THE HEIGHT OF THE BALE/FENCE.
5. CONSTRUCTION ENTRANCES PROTECTED BY STONE STABILIZATION PADS SHALL BE DRESSED WITH ADDITIONAL STONE FOR THICKNESS OR LENGTH AS CONDITIONS WARRANT. AS WITH ALL EROSION CONTROLS, THE PAD SHALL BE INSPECTED EITHER PRIOR TO OR FOLLOWING ALL RAINFALL EVENTS. SEDIMENTS TRACKED OR CARRIED ONTO THE PUBLIC RIGHT OF WAY SHALL BE IMMEDIATELY REMOVED BY THE CONTRACTOR.
6. AT THE COMPLETION OF THE PROJECT, ACCUMULATED SEDIMENTS IN CATCHBASINS, PIPES, AND ALL DRAINAGE COMPONENTS SHALL BE REMOVED BY THE CONTRACTOR. ACCUMULATED SILTS OR SEDIMENTS SHALL BE REMOVED FROM THE GRASSED AREAS. ANY MECHANICAL MAINTENANCE SHALL BE DONE SO AS TO NOT COMPACT LOAM WITHIN LANDSCAPED AREAS. ANY SEDIMENTS OR DEPOSITED MATERIAL SHALL BE REMOVED AND DISPOSED OF IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL REGULATIONS.
7. THE CONTRACTOR IS RESPONSIBLE FOR THE PROPER GROWTH OF ALL VEGETATIVE FEATURES FOR A PERIOD OF ONE YEAR FOLLOWING CONSTRUCTION. ALL AREAS UNDEVELOPED SHALL BE TOPSOILED, PLANTED, SEEDED, OR SODDED AT NO ADDITIONAL COST TO THE OWNER.

LONG TERM – OPERATIONAL NOTES / MAINTENANCE

1. LONG TERM MAINTENANCE SHALL BE THE RESPONSIBILITY OF THE OWNER UPON FINAL ACCEPTANCE OF THE PROJECT.
2. VEGETATION SHALL BE PRESENT IN ALL REQUIRED AREAS. GRASSES SHALL BE RE–SEEDED AND PLANTINGS REPLANTED AS REQUIRED TO THE INTENT OF THESE PROVISIONS.
3. ANY SEDIMENTS OR DEPOSITED MATERIAL SHALL BE REMOVED AND DISPOSED OF IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL REGULATIONS.
4. ALL MAINTENANCE REQUIREMENTS AS OUTLINED IN THE APPROVED STORMWATER MANAGEMENT SYSTEM OPERATION AND MAINTENANCE (O&M) AGREEMENT (PREPARED BY JEFFREY J. CAMPOPIANO, P.E.) SHALL BE STRICTLY FOLLOWED. THE O&M AGREEMENT SHALL BE RECORDED IN THE LAND EVIDENCE RECORDS OF THE TOWN OF SOUTH KINGSTOWN.



NOTE: FOLLOW MANUFACTURER'S SPECIFICATION
Modified from Filtrexx Standard Specification and Design Manual, Version 5.0, 2008

NOTES:
1. SEDIMENT CONTROL SHOULD BE INSTALLED PARALLEL TO THE BASE OF THE SLOPE OR OTHER DISTURBED AREA, IN EXTREME CONDITIONS (I.E., 2:1 SLOPES), A SECOND SEDIMENT CONTROL SHALL BE CONSTRUCTED AT THE TOP OF THE SLOPE.
2. EFFECTIVE SOX HEIGHT IN THE FIELD SHOULD BE AS FOLLOWS:
   - 8" DIAMETER SEDIMENT CONTROL = 6.5" HIGH,
   - 12" DIAMETER SEDIMENT CONTROL = 9.5" HIGH,
   - 18" DIAMETER SEDIMENT CONTROL = 14.5" HIGH
   - 24" DIAMETER SEDIMENT CONTROL = 19" HIGH.
3. STAKES SHALL BE INSTALLED THROUGH THE MIDDLE OF THE SEDIMENT CONTROL ON 10 FT (3M) CENTERS, USING 2 IN (50MM) BY 2 IN (50MM) BY 3 FT (1M) HARDWOOD STAKES. IN THE EVENT STAKING IS NOT POSSIBLE, I.E., WHEN SEDIMENT CONTROL IS USED ON PAVEMENT, HEAVY CONCRETE BLOCKS SHALL BE USED BEHIND THE SEDIMENT CONTROL TO HELP STABILIZE DURING RAINFALL/RUNOFF EVENTS.
4. STAKING DEPTH FOR SAND AND SILT LOAM SOILS SHALL BE 12 IN (300MM), AND 8 IN (200MM) FOR CLAY SOILS.
5. SOCK IS TYPICALLY FILLED WITH 100% INERT, WEED/SEED/DISEASE FREE RECYCLED KILN–DRIED INDUSTRIAL WOOD WASTE BUT CAN ALSO BE FILLED WITH LOCALLY PRODUCED COMPOST OR CHIPPED TIMBER DEBRIS. FOLLOW MANUFACTURER'S INSTRUCTIONS.

COMPOST FILTER SOCK (OPTIONAL EROSION CONTROL)

ACCEPTABLE PLANTING MATERIALS:

PREPARATION: AREAS TO BE SEEDED SHALL BE BROUGHT TO AN ELEVATION 6" BELOW THE PROPOSED FINISHED GRADE. THE SUBGRADE IS TO BE SCARIFIED TO A DEPTH OF 12" WITH THE TEETH OF A BACKHOE TO RESULT IN UNCOMPACTED SOIL. THEN A 6" LAYER OF LOAM TOPSOIL IS TO BE APPLIED AND RAKED TO FINISHED GRADE. LOAM IS TO BE GOOD QUALITY TOPSOIL, FRIABLE, FERTILE AND FREE OF WEEDS, STICKS, & STONES OVER 1" IN SIZE.

GENERAL LAWN:

MIXTURES WHICH REQUIRE REGULAR FERTILIZATION SHALL NOT BE UTILIZED.

GENERAL USE – TURFGRASS SEED MIX: (URI #2)

APPLICATION RATE: 5–7 LBS / 1,000 S.F.

MIX	*% BY VOLUME*
CREEPING RED FESCUE	*40*
IMPROVED KENTUCKY BLUEGRASS	*20*
KENTUCKY BLUE 98/85	*20*
PERENNIAL RYEGRASS	*20*

SHADE / LOW MAINTENANCE TURFGRASS SEED MIX: (URI #3)

APPLICATION RATE: 4–5 LBS / 1,000 S.F.

MIX	*% BY VOLUME*
CHEWING FESCUE	*50*
KENTUCKY BLUE 98/85	*40*
COLONIAL BENTGRASS	*10*

REGULATED AREAS & WATERWAYS

DISTURBED AREAS IN BUFFER ZONES WILL BE SEEDED WITH A WILDLIFE CONSERVATION MIX.

BUFFER ZONES / WETLAND AREAS:

APPLICATION RATE: 5 LBS / 1,000 S.F.

MIX	*% BY VOLUME*
PERENNIAL RYEGRASS	*25*
CREEPING RED FESCUE	*25*
ANNUAL RYE	*25*
TALL FESCUE	*17*
KENTUCKY BLUEGRASS	*5*
COLONIAL BENTGRASS	*1*
RED TOP	*1*
*WHITE CLOVER**	*1*

* CLOVER SEED TO BE INOCULATED

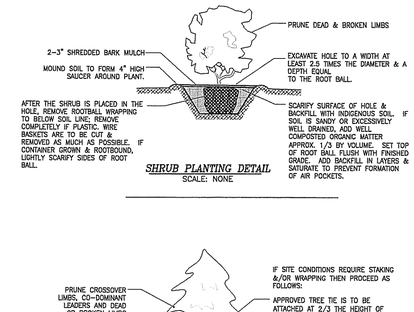
SOD WATERWAYS & DRAINAGE DITCHES:

IT IS IMPORTANT TO PROVIDE A SEED MIXTURE THAT CAN HANDLE FLUCTUATING WATER LEVELS AND/OR HIGH VELOCITIES. FERTILIZER CANNOT BE USED IN THESE AREAS.

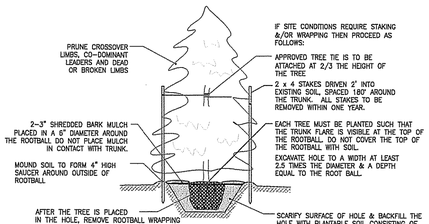
APPLICATION RATE: 5 LBS / 1,000 S.F.

MIX	*% BY VOLUME*
*CREEPING RED FESCUE * *	*50*
TALL FESCUE OR REED CANARYGRASS	*50*

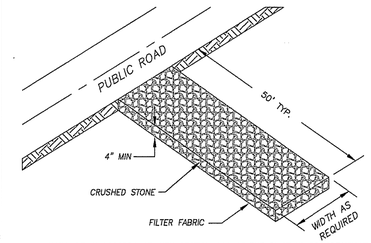
** CREEPING RED FESCUE FOR SLOPES 0–5% ONLY*
SUBSTITUTE SMOOTH BROME FOR SLOPES 5–10% &
SUBSTITUTE BUFFALO GRASS FOR SLOPES > 10%



SHRUB PLANTING DETAIL
SCALE: NONE



EVERGREEN PLANTING DETAIL
SCALE: NONE

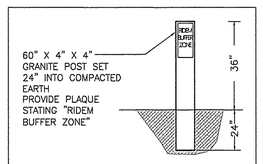


1. SHALL BE IN ACCORDANCE WITH SECTION 211 OF THE RI STANDARD SPECIFICATIONS.
2. CRUSHED STONE SHALL CONFORM TO THE FOLLOWING GRADATION:

U.S. STANDARD SIEVE SIZE	*% PASSING BY WEIGHT*
3"	100
2"	90–100
½"	30–55
¼"	0–25
#4	0–5

CONSTRUCTION ENTRANCE
NOT TO SCALE

R.I. STANDARD 9.9.0



BUFFER ZONE MARKER

BioNet SC150BN Double Net Straw–Coconut Blanket

TOP NET: Leno woven, 100% biodegradable jute fiber 9.30 lbs/1000 ft2 (4.53 kg/100 m2) approx wt

STRAW/COCONUT MATRIX:
70% straw at 0.35 lbs/yd2 (0.19 kg/m2)
30% coconut at 0.15 lbs/yd2 (0.08 kg/m2)

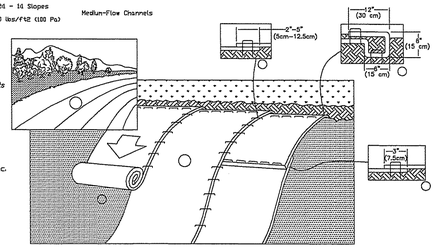
BOTTOM NET: Woven, 100% biodegradable jute fiber 7.70 lbs/1000 ft2 (3.76 kg/100 m2) approx wt

THREAD: Biodegradable

STANDARD ROLL SPECIFICATIONS
Width: 6.67 Ft (2.03 m)
Length: 108 Ft (32.90 m)
Area: 80 yd2 (66.89 m2)
Approx. Weight: 32 lbs (23.59 kg)

TYPICAL APPLICATIONS: Medium–Flow Channels; Slopes
Permissible Shear Stress: 2.10 lbs/ft2 (100 Pa)

SLOPE INSTALLATION



NORTH AMERICAN GREEN
ErosionControl Products Guaranteed Solutions
14649 HIGHWAY 41 NORTH
EVANSVILLE, IN 47725
800–772–2040
www.nagreen.com

DISTRIBUTED BY:
Everett J. Prescott, Inc.
80 Gilbane
Warwick, RI 02886
(401) 730–7611
Fax (401) 738–2824
Contact: Jack Blade

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

REV. 2, 3 2014

SEDIMENT & EROSION CONTROL PLAN (SECR)

PROPOSED INGARI RESIDENCE

ASSESSOR'S PLAT 67 / LOT 22
TUKERTOWN ROAD
SOUTH KINGSTOWN, RHODE ISLAND

PREPARED BY:
JEFFREY J. CAMPOPIANO, P.E.
16 WEST MAIN STREET
WICKFORD, RHODE ISLAND 02852
PHONE: 401-295-3037
jeff@campopiano-eng.com

JEFFREY CAMPOPIANO, P.E. 6282 REGISTERED PROFESSIONAL ENGINEER

APPLICANT:

OWNER:

DATE: DECEMBER 4, 2014
REVISIONS:

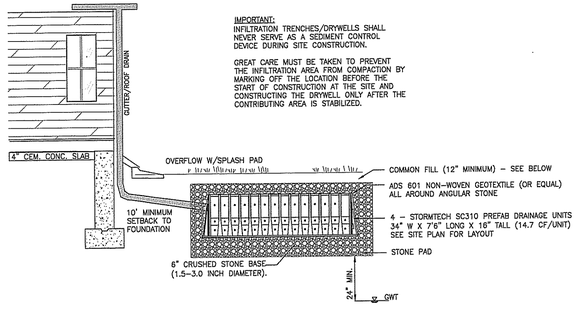
NO.	DATE	DESCRIPTION

DRAWN BY: TAG
CHECKED BY: JJC

SHEET NUMBER
2

INFILTRATION SYSTEM CONSTRUCTION NOTES

1. INFILTRATION TRENCH OR CHAMBER SYSTEMS MAY NOT RECEIVE RUN-OFF UNTIL THE ENTIRE CONTRIBUTING DRAINAGE AREA TO THE INFILTRATION SYSTEM HAS RECEIVED FINAL STABILIZATION.
2. CONSTRUCTION EQUIPMENT AND TRAFFIC SHALL BE RESTRICTED FROM TRAVELING OVER THE INFILTRATION AREAS TO MINIMIZE COMPACTION OF THE SOIL.
3. EXCAVATE THE INFILTRATION CHAMBER TO THE DESIGN DIMENSIONS. EXCAVATED MATERIALS SHALL BE PLACED AWAY FROM THE TRENCH/CHAMBER SIDES TO ENHANCE TRENCH WALL STABILITY. LARGE TREE ROOTS MUST BE TRIMMED FLUSH WITH THE TRENCH SIDES IN ORDER TO PREVENT FABRIC PUNCTURING OR TEARING OF THE FILTER FABRIC DURING SUBSEQUENT INSTALLATION PROCEDURES. THE SIDE WALLS OF THE TRENCH/CHAMBER SHALL BE ROUGHENED WHERE SHEARED AND SEALED BY HEAVY EQUIPMENT.
4. INFILTRATION CHAMBERS SHOULD CONSIST OF STORMTECH RC-310 UNITS. ANY SUBSTITUTIONS MUST BE OF EQUAL SIZE (STORAGE CAPACITY & HEIGHT) AND COMPRISED OF HIGH MOLECULAR WEIGHT HIGH DENSITY POLYETHYLENE (HDPE).
5. AASHTO M288 CLASS 2 NON-WOVEN GEOTEXTILE CLASS "C" GEOTEXTILE OR BETTER SHALL INTERFACE BETWEEN THE TRENCH/CHAMBER SIDE WALLS AND BETWEEN THE STONE RESERVOIR AND GRAVEL FILTER LAYERS. A PARTIAL LIST OF NONWOVEN FILTER FABRICS THAT MEET THE CLASS CRITERIA IS CONTAINED INCLUDES (MIRAFI 180-N, AMOCO 4552, WEBTEC N70, GEOLON N70, CARTHAGE FX-80SS).
6. THE WIDTH OF THE GEOTEXTILE MUST INCLUDE SUFFICIENT MATERIAL TO CONFORM TO TRENCH/CHAMBER PERIMETER IRREGULARITIES AND FOR A 6-INCH MINIMUM TOP OVERLAP. THE FILTER FABRIC SHALL BE TUCKED UNDER THE STONE LAYER ON THE BOTTOM OF THE INFILTRATION TRENCH/CHAMBER FOR A DISTANCE OF 6 TO 12 INCHES.
7. THE STONE AGGREGATE SHOULD BE PLACED IN 8" LIFTS AND LOOSELY COMPACTED. THE GRAVEL STONE FOR THE INFILTRATION TRENCH/CHAMBER SHALL BE WASHED AND MEET ONE OF THE FOLLOWING AASHTO STD. M-43; SIZE NO. 2 OR NO. 3.
8. CARE SHALL BE EXERCISED TO PREVENT NATURAL OR FILL SOILS FROM INTERMIXING WITH THE STONE AGGREGATE. ALL CONTAMINATED STONE AGGREGATE SHALL BE REMOVED AND REPLACED WITH UNCONTAMINATED STONE AGGREGATE.
9. VOIDS CAN BE CREATED BETWEEN THE FABRIC AND THE EXCAVATION SIDES AND SHALL BE AVOIDED. REMOVING BOULDERS OR OTHER OBSTACLES FROM THE TRENCH WALLS IS ONE SOURCE OF SUCH VOIDS; THEREFORE, NATURAL SOILS SHOULD BE PLACED IN THESE VOIDS AT THE MOST CONVENIENT TIME DURING CONSTRUCTION TO ENSURE FABRIC CONFORMITY TO THE EXCAVATION SIDES.
10. PVC SHOULD BE IN ACCORDANCE WITH RIDOT SPECIFICATION SECTION M.04 DRAINAGE AND THE FOLLOWING PROVISIONS, AS APPLICABLE. PVC DISTRIBUTION PIPES SHALL BE SCHEDULE 40 AND MEET ASTM STD. D 1784. ALL FITTINGS AND PERFORATIONS (1/2 INCH IN DIAMETER) SHALL MEET ASTM STD. D 2729.
11. THE CONTRACTOR MUST REFER TO STORMTECH'S INSTALLATION INSTRUCTIONS FOR A TABLE OF ACCEPTABLE VEHICLE LOADS AT VARIOUS DEPTHS OF COVER. THIS INFORMATION IS ALSO AVAILABLE AT STORMTECH'S WEBSITE: **WWW.STORMTECH.COM**. THE CONTRACTOR IS RESPONSIBLE FOR PREVENTING VEHICLES THAT EXCEED STORMTECH'S REQUIREMENTS FROM TRAVELING ACROSS OR PARKING OVER THE STORMWATER SYSTEM. TEMPORARY FENCING, WARNING TAPE AND APPROPRIATELY LOCATED SIGNS ARE COMMONLY USED TO PREVENT UNAUTHORIZED VEHICLES FROM ENTERING SENSITIVE CONSTRUCTION AREAS.



IMPORTANT:
INFILTRATION TRENCHES/DRYWELLS SHALL NEVER SERVE AS A SEDIMENT CONTROL DEVICE DURING SITE CONSTRUCTION.

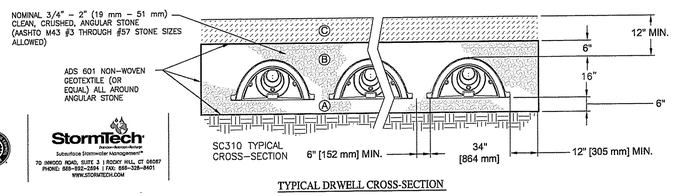
GREAT CARE MUST BE TAKEN TO PREVENT THE INFILTRATION AREA FROM COMPACTION BY MARKING OFF THE LOCATION BEFORE THE START OF CONSTRUCTION AT THE SITE AND CONSTRUCTING THE DRYWELL ONLY AFTER THE CONTRIBUTING AREA IS STABILIZED.

TYPICAL DRYWELL PROFILE

ACCEPTABLE FILL MATERIALS: STORMTECH SC-310 CHAMBER SYSTEMS

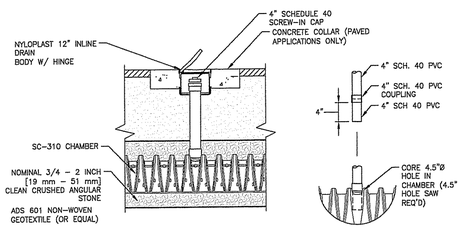
MATERIAL LOCATION	DESCRIPTION	AASHTO M43 DESIGNATION [1]	COMPACTION/DENSITY REQUIREMENT
(C) FILL MATERIAL FOR LAYER "C" STARTS FROM THE TOP OF THE EMBEDMENT STONE TO 12" [457 mm] ABOVE THE TOP OF THE CHAMBER. NOTE THAT PAVEMENT SUB-BASE MAY BE A PART OF THIS LAYER.	GRANULAR WELL-GRADED SOIL/AGGREGATE MIXTURES, < 35% FINES. MOST PAVEMENT SUB-BASE MATERIALS CAN BE USED IN LIEU OF THIS LAYER.	3, 357, 4, 467, 5, 56, 57, 6, 67, 68, 7, 78, 8, 89, 9, 10	BEGIN COMPACTION AFTER 12" [305 mm] OF MATERIAL OVER THE CHAMBERS IS REACHED. COMPACT ADDITIONAL LAYERS IN 6" [152 mm] LIFTS TO A MIN. 95% STANDARD PROCTOR DENSITY. ROLLER GROSS VEHICLE WEIGHT NOT TO EXCEED 12,000 lbs [53 kN]. DYNAMIC FORCE NOT TO EXCEED 20,000 lbs [89 kN].
(B) EMBEDMENT STONE SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE TO THE "C" LAYER ABOVE.	CLEAN, CRUSHED, ANGULAR STONE, NOMINAL SIZE DISTRIBUTION BETWEEN 3/4 – 2 INCH [19 – 51 mm]	3, 357, 4, 467, 5, 56, 57	NO COMPACTION REQUIRED.
(A) FOUNDATION STONE BELOW CHAMBERS FROM THE SUBGRADE UP TO THE FOOT (BOTTOM) OF THE CHAMBER.	CLEAN, CRUSHED, ANGULAR STONE, NOMINAL SIZE DISTRIBUTION BETWEEN 3/4 – 2 INCH [19 – 51 mm]	3, 35, 4, 467, 5, 56, 57	PLATE COMPACT OR ROLL TO ACHIEVE A 95% STANDARD PROCTOR DENSITY [2].

PLEASE NOTE:
1. THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR NO. 4 (AASHTO M43) STONE".
2. AS AN ALTERNATE TO PROCTOR TESTING AND FIELD DENSITY MEASUREMENTS ON OPEN GRADED STONE, STORMTECH COMPACTION REQUIREMENTS ARE MET FOR 'A' LOCATION MATERIALS WHEN PLACED AND COMPACTED IN 9" [229 mm] (MAX) LIFTS USING TWO FULL COVERAGES WITH AN APPROPRIATE COMPACTOR.



TYPICAL DRWELL CROSS-SECTION

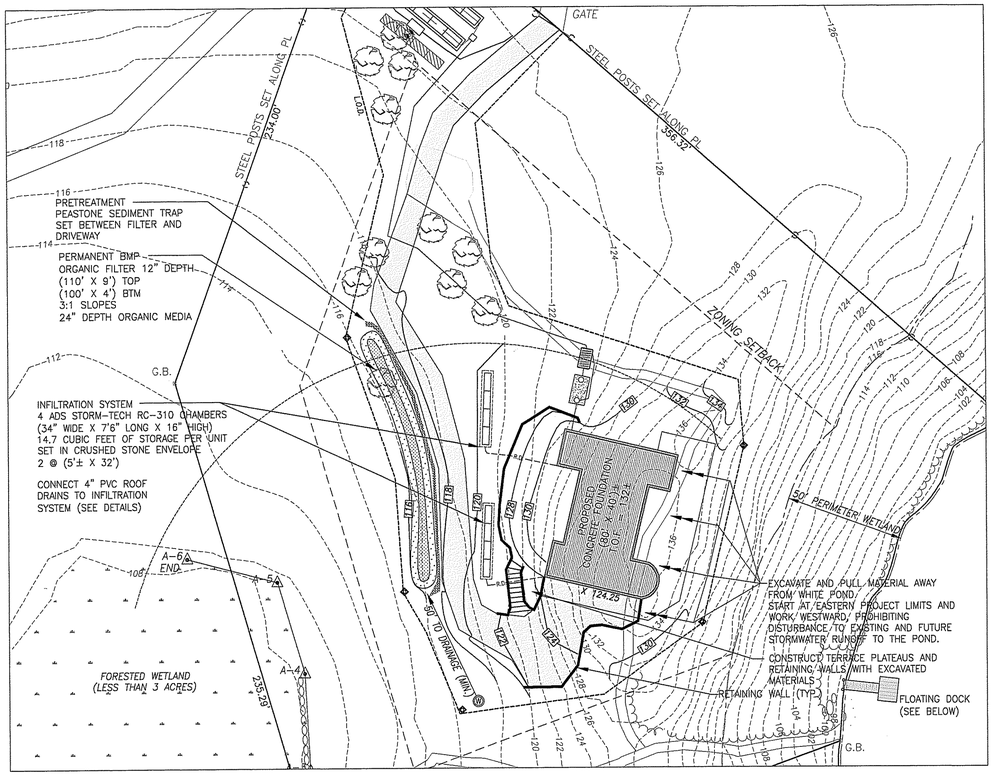
StormTech
Subsurface Stormwater Management
70 INWOOD ROAD, SUITE 3 | ROCKY HILL, CT 06067
PHONE: 860-952-2888 | FAX: 860-328-8401
WWW.STORMTECH.COM



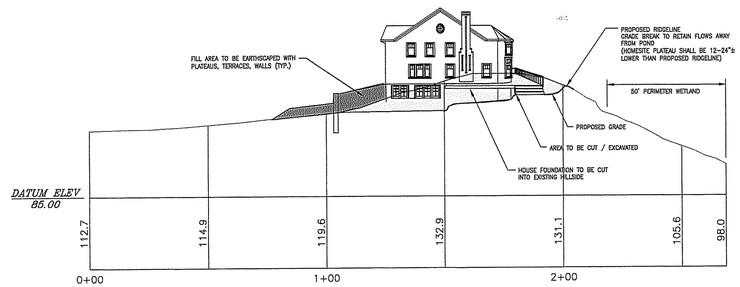
DRYWELL INSPECTION PORT

CONNECTION DETAIL
NTS

INFILTRATION SYSTEM INVERT SCHEDULE	
FINISHED GRADE ABOVE SYSTEM	ELEV. 120±
TOP OF STONE ABOVE CHAMBER	ELEV. 119.50
TOP OF CHAMBER	ELEV. 119.00
BASE OF CHAMBER – INVERT	ELEV. 117.67
BOTTOM OF STONE	ELEV. 117.17
ESTIMATED GWT	ELEV. 111±



GRADING PLAN
SCALE: 1" = 30'



PROFILE PLAN
SCALE: 1" = 30'

ORGANIC FILTER CONSTRUCTION NOTES:

1. THE ORGANIC FILTER AREA SHALL BE CONSTRUCTED FOLLOWING THE COMPLETION AND STABILIZATION OF OTHER SITE WORK. COMPACTION OF THE AREA PRIOR TO AND DURING CONSTRUCTION MUST BE AVOIDED. EXCAVATION SHALL BE COMPLETED USING LIGHT EQUIPMENT WITH WIDE TRACKS. IF THE AREA DOES BECOMES COMPACTED, SOIL MUST BE TILLED TO A MINIMUM DEPTH OF 12".
2. IF SPECIFIED, UNDERDRAINS SHALL BE PLACED ON A MINIMUM OF 3'0" WIDE SECTION OF FILTER CLOTH, OVERLAIN BY GRAVEL BEDDING FREE FROM FINES. PIPE SHALL BE SLOPED A MINIMUM OF 0.5%.
3. FOLLOW SOIL SPECIFICATIONS TO PROVIDE A MEDIA WITH ADEQUATE NUTRIENTS. ORGANIC MEDIA SHALL BE PLACED IN 12" LIFTS.

MATERIALS

PLANTING MEDIA – THE MATERIAL TO BE FURNISHED SHALL BE A UNIFORM MIX FREE OF SUBSOIL, REFUSE, STUMPS, ROOTS, ROCKS, BRUSH, WEEDS OR OTHER MATERIAL WHICH WOULD PREVENT THE FORMATION OF A SUITABLE SEED BED. THE MEDIA SHALL CONSIST OF THE 4 PARTS PLANTING SOIL & 1 PART WELL AGED, AERATED, LEAF COMPOST.

PLANTING SOIL:
SAND: 85–98%
SOIL FINES: 8–12% (NO MORE THAN 2% CLAY)
ORGANIC MATTER: 3–5%

A TEXTURAL ANALYSIS IS REQUIRED TO ENSURE THE BIORETENTION SOIL MEETS THE SPECIFICATION LISTED ABOVE. THE BIORETENTION SOIL SHOULD ALSO BE TESTED FOR THE FOLLOWING CRITERIA:
- PH RANGE 5.2 – 7.0
- MAGNESIUM NOT TO EXCEED 32 PPM
- PHOSPHORUS P2O5 NOT TO EXCEED 69 PPM
- POTASSIUM K2O NOT TO EXCEED 78 PPM
- SOLUBLE SALTS NOT TO EXCEED 500 PPM

ALL BIORETENTION AREAS SHOULD HAVE A MINIMUM OF ONE TEST. EACH TEST SHOULD CONSIST OF BOTH THE STANDARD SOIL TEST FOR PH, PHOSPHORUS, AND POTASSIUM AND ADDITIONAL TESTS OF ORGANIC MATTER, AND SOLUBLE SALTS. SINCE DIFFERENT LABS CALIBRATE THEIR TESTING EQUIPMENT DIFFERENTLY, ALL TESTING RESULTS SHOULD COME FROM THE SAME TESTING FACILITY.

SHOULD THE PH FALL OUT OF THE ACCEPTABLE RANGE, IT MAY BE MODIFIED (HIGHER) WITH LIME OR (LOWER) WITH IRON SULFATE PLUS SULFUR.

INSTALLATION

1. IT IS VERY IMPORTANT TO MINIMIZE COMPACTION OF BOTH THE BASE OF THE AREA AND THE REQUIRED BACKFILL. WHEN POSSIBLE, USE EXCAVATION HOES TO REMOVE ORGINAL SOIL. IF AREA IS EXCAVATED USING A LOADER, THE CONTRACTOR SHOULD USE WIDE TRACK OR MARSH TRACK EQUIPMENT, OR LIGHT EQUIPMENT WITH TURF TYPE TIRES. USE OF EQUIPMENT WITH NARROW TRACKS OR NARROW TIRES, RUBBER TIRES WITH LARGE LUGS, OR HIGH PRESSURE TIRES ARE NOT ACCEPTABLE.
2. COMPACTION CAN BE ALLEVIATED AT THE BASE OF THE FACILITY BY USING A PRIMARY TILLING OPERATION SUCH AS A CHISEL PLOW, RIPPER, OR SUBSOILER. THESE TILLING OPERATIONS ARE PERFORMED TO REFRACTURE THE SOIL PROFILE THROUGH THE 12-IN COMPACTION ZONE. SUBSTITUTE METHODS MUST BE APPROVED BY THE ENGINEER. ROTOTILLERS TYPICALLY DO NOT TILL DEEP ENOUGH TO REDUCE THE EFFECTS OF COMPACTION FROM HEAVY EQUIPMENT.
3. WHEN BACKFILLING THE FACILITY, PLACE SOIL IN LIFTS 12IN OR GREATER. DO NOT USE HEAVY EQUIPMENT. HEAVY EQUIPMENT CAN BE USED AROUND THE PERIMETER OF THE BASIN TO SUPPLY SOILS AND SAND. GRADE ORGANIC MATERIALS WITH LIGHT EQUIPMENT SUCH AS A COMPACT LOADER OR A DOZER/LOADER WITH MARSH TRACKS.

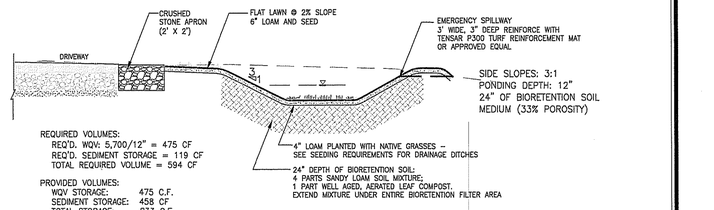
PLANT INSTALLATION
1. THE PLANT ROOT BALL SHOULD BE PLANTED SO 1/8TH OF THE BALL IS ABOVE FINAL GRADE SURFACE.
2. ROOT STOCK OF THE PLANT MATERIAL SHOULD BE KEPT MOIST DURING TRANSPORT AND ON-SITE STORAGE. THE DIAMETER OF THE PLANTING PIT SHOULD BE AT LEAST SIX INCHES LARGER THAN THE DIAMETER OF THE PLANTING BALL. SET AND MAINTAIN THE PLANT STRAIGHT DURING THE ENTIRE PLANTING PROCESS. THOROUGHLY WATER GROUND BED COVER AFTER INSTALLATION.
3. TREES SHOULD BE BRACED USING 2 IN X 2 IN STAKES ONLY AS NECESSARY AND FOR THE FIRST GROWING SEASON ONLY. STAKES ARE TO BE EQUALLY SPACED ON THE OUTSIDE OF THE TREE BALL. GRASSES AND LEGUME SEED SHOULD BE TILLED INTO THE SOIL TO A DEPTH OF AT LEAST ONE INCH.

MULCH SPECIFICATIONS.
A FINELY SHREDDED, WELL-AGED ORGANIC HARDWOOD MULCH IS THE PREFERRED ACCEPTED MULCH; A FINELY SHREDDED, WELL-AGED ORGANIC DARK PINE MULCH MAY BE ACCEPTED ON A CASE-CASE BASIS.

SHREDDED MULCH MUST BE WELL AGED (6–12 MONTHS) FOR ACCEPTANCE. MIX APPROXIMATELY ½ THE SPECIFIED MULCH LAYER INTO THE PLANTING SOIL TO A DEPTH OF APPROXIMATELY 4 INCHES TO HELP FOSTER A HIGHLY ORGANIC SURFACE LAYER.

MAINTENANCE:

MAINTENANCE: REPLACE DEAD PLANTS, MULCH ANNUALLY; MOW 3 X ANNUALLY; 12" MAX HEIGHT; FERTILIZER SHALL NOT BE UTILIZED, AMEND SOIL YEARLY WITH A COMPOST MIX.



REQUIRED VOLUMES:
REQ'D. WQV: 5,700/12" = 475 CF
REQ'D. SEDIMENT STORAGE = 119 CF
TOTAL REQUIRED VOLUME = 594 CF

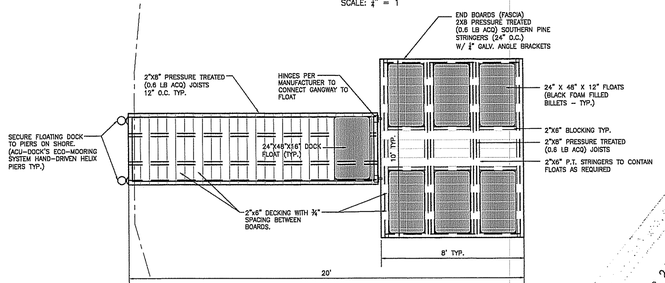
PROVIDED VOLUMES:
WQV STORAGE: 475 C.F.
SEDIMENT STORAGE: 458 CF
TOTAL STORAGE: 833 C.F.

PROVIDED DIMENSIONS:
FILTER MEDIUM :
100' X 4'± =400± SF
BOTTOM AREA:
100' X 4'± = 400 SF
TOP AREA:
110' X 8'± = 900± SF

DOCK CONSTRUCTION NOTES:

1. ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF WATER RESOURCES, THE RHODE ISLAND STATE BUILDING CODE (SBC-2), THE LOCAL BUILDING INSPECTION OFFICE IN THE TOWN OF SOUTH KINGSTOWN AND/OR ANY APPROPRIATE AUTHORITY HAVING JURISDICTION AT THE PROJECT LOCATION.
2. TIMBER CONSTRUCTION SHALL CONFORM TO PART II "DESIGN SPECIFICATIONS" AS PUBLISHED IN THE TIMBER CONSTRUCTION MANUAL (AITC 1974) AND TO "NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION" (1982).
3. NEW TIMBER FOR STRUCTURAL USE SHALL HAVE A 19% MOISTURE CONTENT AS SPECIFIED IN THE "NATIONAL SPECIFICATION FOR WOOD CONSTRUCTION" (1982).
4. ALL HANGERS AND FASTENERS SHALL BE HOT DIPPED GALVANIZED OR STAINLESS STEEL.
5. ALL LUMBER SHALL BE TREATED WITH 0.6 LB/CF OF AMMONIACAL COPPER QUATERNARY (ACQ) OR APPROVED EQUAL FOR WOOD PRESERVATION IN FRESH WATER IN ACCORDANCE WITH AMERICAN WOOD PROTECTION ASSOCIATION REQUIREMENTS (AWPA) FOR AQUATIC USE. CHROMATED COPPER ARSENATE (CCA) SHALL NOT BE USED IN FRESH WATER APPLICATIONS.
6. INSTALL ACU DOCK ECO MOORING SYSTEM WITH HAND DRIVEN HELIX PIERS.

PLAN VIEW
SCALE: 1" = 1



DEC 23 2014

SITE GRADING & STORMWATER CONTROLS

PROPOSED INGARI RESIDENCE

ASSESSOR'S PLAT 67 / LOT 22
TUKERTOWN ROAD
SOUTH KINGSTOWN, RHODE ISLAND

PREPARED BY:
JEFFREY J. CAMPOPIANO, P.E.
16 WEST MAIN STREET
WICKFORD, RHODE ISLAND 02852
PHONE: 401-295-3037
jeff@campopiano-eng.com

JEFFREY CAMPOPIANO, P.E. No. 6252 PROFESSIONAL ENGINEER

APPLICANT:

OWNER:

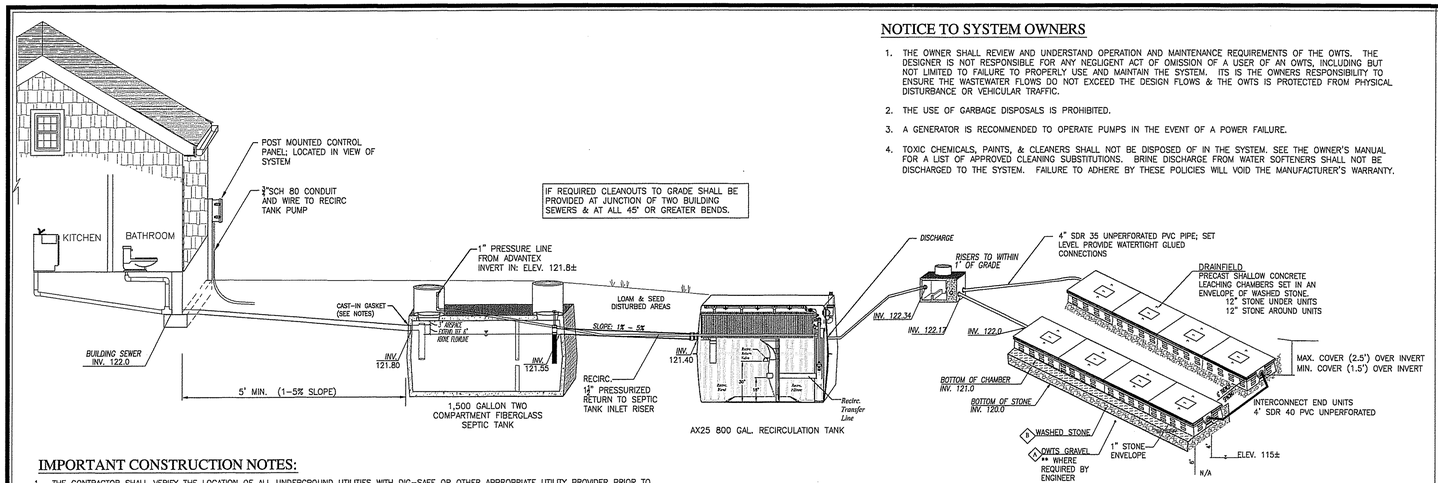
DATE: DECEMBER 4, 2014

REVISIONS:

NO.	DATE	DESCRIPTION

DRAWN BY: TAG
CHECKED BY: JJC

SHEET NUMBER
3



NOTICE TO SYSTEM OWNERS

1. THE OWNER SHALL REVIEW AND UNDERSTAND OPERATION AND MAINTENANCE REQUIREMENTS OF THE OWTS. THE DESIGNER IS NOT RESPONSIBLE FOR ANY NEGLIGENT ACT OF OMISSION OF A USER OF AN OWTS, INCLUDING BUT NOT LIMITED TO FAILURE TO PROPERLY USE AND MAINTAIN THE SYSTEM. ITS IS THE OWNERS RESPONSIBILITY TO ENSURE THE WASTEWATER FLOWS DO NOT EXCEED THE DESIGN FLOWS & THE OWTS IS PROTECTED FROM PHYSICAL DISTURBANCE OR VEHICULAR TRAFFIC.
2. THE USE OF GARBAGE DISPOSALS IS PROHIBITED.
3. A GENERATOR IS RECOMMENDED TO OPERATE PUMPS IN THE EVENT OF A POWER FAILURE.
4. TOXIC CHEMICALS, PAINTS, & CLEANERS SHALL NOT BE DISPOSED OF IN THE SYSTEM. SEE THE OWNER'S MANUAL FOR A LIST OF APPROVED CLEANING SUBSTITUTIONS. BRINE DISCHARGE FROM WATER SOFTENERS SHALL NOT BE DISCHARGED TO THE SYSTEM. FAILURE TO ADHERE BY THESE POLICIES WILL VOID THE MANUFACTURER'S WARRANTY.

IMPORTANT CONSTRUCTION NOTES:

1. THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL UNDERGROUND UTILITIES WITH DIG–SAFE OR OTHER APPROPRIATE UTILITY PROVIDER PRIOR TO CONSTRUCTION.
2. CLEAR ALL TREES AND STUMPS WITHIN 10' OF THE SYSTEM. STRIP ALL TOPSOIL, SUBSOIL, AND/OR UNSUITABLE MATERIAL WITHIN THE PROPOSED FIELD. BOTTOM AND SIDES OF LEACHING FIELD SHALL NOT BE SMEARED OR COMPACTED, SCARIFY PRIOR TO PLACING STONE.
3. A FIVE (5') PERIMETER STRIP IS NOT REQUIRED FOR THIS INSTALLATION.
4. TO PREVENT FREEZING IN THE TRANSPORT LINE, THE CONTRACTOR SHALL ENSURE FREE DRAINBACK FROM THE DRAINFIELD TO THE PUMP CHAMBER, AS SUCH; PROVIDE ADEQUATE (95% MAXIMUM DRY DENSITY) COMPACTION OF THE TRANSPORT LINE TRENCH; AND ENSURE THE PUMP QUICK DISCONNECT IS POSITIONED HORIZONTALLY TO ALLOW FREE DRAINING OF THE TRANSPORT LINE. CHECK VALVE SHOULD NOT BE USED ON THE PUMP.
5. ALL BACKFILL AROUND THE TANKS SHALL BE CLEAN AND FREE OF FINES TO ALLOW FOR DISPERSAL OF STORMWATER AWAY FROM THE TANKS & TREATMENT UNITS.

CONSTRUCTION PROCEDURE:

1. THE INSTALLER MUST NOTIFY THE LICENSED DESIGNER AT LEAST 10 DAYS PRIOR TO THE START OF CONSTRUCTION WITH A VALID INSTALLERS LICENSE NUMBER. A PRE–CONSTRUCTION MEETING WITH THE ENGINEER, INSTALLER, AND HOMEOWNER SHALL THEN BE SCHEDULED PRIOR TO COMMENCING ANY WORK.
2. THE INSTALLER SHALL VERIFY THE LOCATION OF ALL UNDERGROUND UTILITIES WITH DIGSAFE OR OTHER APPROPRIATE UTILITIES PRIOR TO CONSTRUCTION. UTILITIES ARE SHOWN APPROXIMATE FOR PLANNING PURPOSES. ALL EXISTING INVERTS ELEVATIONS SHALL BE CONFIRMED PRIOR TO CONSTRUCTION. DAMAGE TO ANY UNDERGROUND UTILITIES BY THE CONTRACTOR SHALL BE THE CONTRACTORS RESPONSIBILITY.
3. THE INSTALLER SHALL PROVIDE THE DESIGNER WITH THE A LIST OF ALL MATERIALS USED, THEIR SOURCE, AND THE DATE DELIVERED TO THE SITE.
4. THE INSTALLER SHALL NOTIFY THE ENGINEER OF HIS/HER PROGRESS SO THAT THE ENGINEER CAN INSPECT AND MAKE MEASUREMENTS AND INSPECTIONS PRIOR TO BACKFILL.
5. IF CONDITIONS ARE ENCOUNTERED DURING CONSTRUCTION WHICH INDICATE THE SYSTEM CAN NOT BE INSTALLED IN ACCORDANCE WITH THE APPROVED PLANS, THE INSTALLER SHALL NOTIFY THE ENGINEER AS SOON AS POSSIBLE AND SUSPEND CONSTRUCTION.
6. CONTRACTOR SHALL BE RESPONSIBLE FOR ADDITIONAL ITEMS & TERMS LISTED ON THE APPROVED OWTS APPLICATION.

BUILDING SEWER REQUIREMENTS

1. ALL BUILDING SEWERS SHALL BE CONSTRUCTED WATERTIGHT & MEET THE REQUIREMENTS IN RULE 24 OF THE REGULATIONS.
2. THE BUILDING SEWER SHALL BE CONSTRUCTED OF DOMESTICALLY PRODUCED RIGID POLYVINYL CHLORIDE (PVC) SOLID WALL, SCHEDULE 40 PIPE. ALL PIPE SHALL MEET THE REQUIREMENTS OF ASTM D2665.
3. ALL JOISTS SHALL BE FIRMLY CONNECTED AND GLUED WATERTIGHT WITH PVC SOLVENT CEMENT MEETING THE REQUIREMENTS OF ASTM D2564.
4. THE BUILDING SEWER SHALL BE LAID IN STRAIGHT LINE WHERE POSSIBLE. CHANGES IN DIRECTION GREATER THAN 45° SHALL REQUIRE THE INSTALLATION OF MANHOLE, UNLESS A 36" SWEEP RADIUS IS UTILIZED. CLEANOUTS ARE REQUIRED FOR BUILDING SEWERS GREATER THAN 75' AND AT JUNCTIONS OF TWO OR MORE PIPES.
5. THE SLOPE OF THE BUILDING SEWER TO THE SEPTIC TANKS SHALL NOT BE LESS THAN 1% NOR GREATER THAN 5%.

SEPITC TANK REQUIREMENTS

1. ALL TANKS & APPARATUS SHALL BE WATERTIGHT & MEET THE REQUIREMENTS IN RULE 24–27 OF THE REGULATIONS.
2. ALL TANKS & APPURATUS SHALL BE WATERTIGHT, TWO–COMPARTMENT, & MEET THE REQUIREMENTS IN RULE 24–27 OF THE REGULATIONS. TANKS ASSEMBLED ONSITE SHALL BE CERTIFIED WATERTIGHT VIA EITHER A 24–HOUR WATER PRESSURE TEST OR A VACUUM TEST IN ACCORDANCE WITH THE REGULATIONS.
3. MANUFACTURING STANDARDS: CONCRETE TANKS SHALL BE MANUFACTURED IN ACCORDANCE WITH THE ASTM STANDARD SPECIFICATIONS FOR PRECAST CONCRETE SEPTIC TANKS C–1227–02 OR THE LATEST AMENDED VERSION. FIBERGLASS SEPTIC TANKS AND POLYETHYLENE SEPTIC TANKS SHALL CONFORM TO THE INTERNATIONAL ASSOCIATION OF PLUMBING AND MECHANICAL OFFICIALS "AMERICAN NATIONAL STANDARD FOR PREFABRICATED SEPTIC TANKS IAPMO/ANSI Z1000–2007" AND ANY UPDATES THERETO.
4. CONCRETE TANKS SHALL BE SEALED WITH BUTYL RUBBER MASTIC BETWEEN SECTIONS AND WRAPPED WITH A 6" OF BUTYL MASTIC WRAP AROUND EXTERIOR OF SEAM.
5. ALL BACKFILL AROUND THE TANK & APPARATUS SHALL BE CLEAN AND FREE OF FINES TO ALLOW FOR DISPERSAL OF STORMWATER AWAY FROM THE TANK.
6. ALL INLETS AND OUTLETS SHALL BE FITTED WITH RESILIENT CONNECTORS MEETING ASTM C 923. TANKS SHALL BE SUPPLIED WITH A RUBBER CAST IN PLACE GASKET AT THE INLET AND OUTLET. STAINLESS STELL CLAMPS SHALL BE USED TO FASTEN RUBBER GASKET AROUND PIPE.
7. ALL TANKS SHALL HAVE A MANHOLE OPENINGS WITH REINFORCED RISERS TO GRADE.
8. SEPTIC TANKS SHALL ALSO MEET THE FOLLOWING REQUIREMENTS:

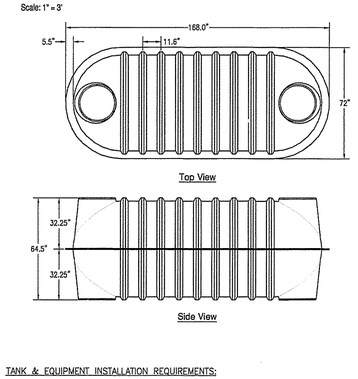
CONFIGURATION:
- COMPARTMENTS: TWO COMPARTMENTS WITH 1ST CONTAINING APPROXIMATELY ⅔" OF THE LIQUID VOLUME.
- SHAPE: DISTANCE BETWEEN INLET & OUTLET ENDS SHALL BE NO LESS THAN SIX (6) FEET.
- HEIGHT: NOT LESS THAN 39" NOR MORE THAN 8'

SRD 35 PVC TEES:
- INLET TEE DEPTH: EXTEND TO 12" BELOW FLOW LINE
- OUTLET TEE DEPTH: EXTEND TO ⅓ TANK DEPTH
- TOP OF TEES: 6" ABOVE FLOW LINE
- VENTILATION: TEES TO BE LEFT OPEN; ENSURE A 3" MIN. AIR SPACE BETWEEN TOP OF TEE & TANK.

ACCESS OPENINGS & RISERS:
- MINIMUM SIZE: TWENTY FOUR (24") INSIDE DIAMETER
- LOCATION: OVER OUTLET TEE (MANDATORY) – OVER INLET TEE (REQUIRED).
- RISER COVERS: GASKETED FIBERGLASS LIDS W/ STAINLESS STEEL BOLTS OR CONCRETE OR METAL LID W/ A MINIMUM WEIGHT OF 59 (LBS) PROVIDE AN "NON–CORROSIVE LABEL ON EACH RISER WARNING "ENTRANCE TO TANK COULD BE FATAL" PROVIDE LABEL STATING "SEPTIC TANK"

ORENCO FIBERGLASS TANK - 1,500 GALLON

Scale: 1" = 3'



Orenco Systems Incorporated
814 ARMHY AVENUE
SUTHERLIN, OREGON
97479–9012
TOLL FREE: (800) 348–9843
TELEPHONE: (541) 459–4449
FACSIMILE: (541) 459–2884

TANK & EQUIPMENT INSTALLATION REQUIREMENTS:

ALL TANKS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S REQUIREMENTS

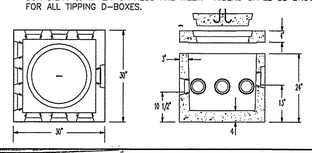
ALL TANKS SHALL BE INSTALLED ON A LEVEL, STABLE BASE THAT WILL NOT SETTLE.

ALL BACKFILL SHALL BE PLACED AROUND THE TANK IN AN MANNER AS TO AVOID DAMAGE. BACKFILL SHALL BACKFILL MATERIAL SHALL BE COMPOSED OF HARD, DURABLE STONE AND COARSE TO FINE SAND, FREE OF PEAT, VEGETABLE OR ORGANIC MATTER, CLAY LUMPS & OTHER DEBRIS. THE GRANULAR FILL SHALL BE READILY COMPACTABLE AND SHALL NOT CONTAIN ANY STONES THAT ARE IN EXCESS OF 6". BACKFILL AROUND TANKS AND PUMP CHAMBERS SHALL MEET THE FOLLOWING GRADATION:

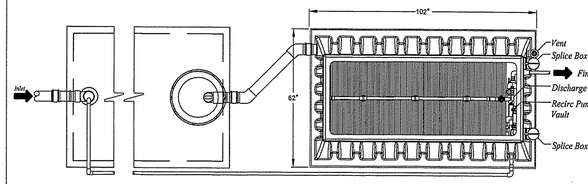
SIEVE SIZE	% PASSING
6"	100%
#4	30–100%
#200	0–5%

DISTRIBUTION BOX REQUIREMENTS

1. THE DISTRIBUTION BOX SHALL BE CONCRETE OR OTHER APPROVED DURABLE MATERIAL CAPABLE OF CARRYING THREE HUNDRED POUNDS PER SQUARE FOOT (300 PSF) WITH MINIMAL SIDEWALL DEFLECTION, & MEET THE REQUIREMENTS IN RULE 31 OF THE REGULATIONS.
2. MINIMUM SIZE: BOTTOM AREA SHALL BE 3 SQUARE FEET
3. INLET & OUTLET PIPES: DISTRIBUTION PIPING SHALL EXTEND INTO THE BOX ONE INCH. JOINTS SHALL BE WATERTIGHT & MADE WITH A NON–SHRINKING GASKET MATERIAL; INLET BAFFLE OR TEE IS REQUIRED.
4. ACCESS OPENINGS & RISERS: MINIMUM SIZE: TWENTY INCH (20") INSIDE DIAMETER MIN. CONSTRUCTION: GASKETED FIBERGLASS LIDS W/ STAINLESS STEEL BOLTS OR CONCRETE OR METAL LID W/ A MINIMUM WIEGHT OF 59 (LBS)
   –– IT IS RECOMMENDED UNDER THE DISCRETION OF THE OWNER THAT THIS RISER BE BROUGHT TO GRADE. ––
5. INSTALLATION: D–BOX LIDS, RISERS & INLET PIPING SHALL BE INSTALLED WATERTIGHT & INSTALLED ON A LEVEL COMPACTED BASE.
6. SUBSTITUTION: A TIPPING D–BOX MAY BE USED AS LONG AS ALL OTHER REQUIREMENTS FOR DURABILITY & WATERTIGHTNESS ARE MEET. RISERS SHALL BE BROUGHT TO GRADE FOR ALL TIPPING D–BOXES.



AX25RT Treatment System - Pump Discharge



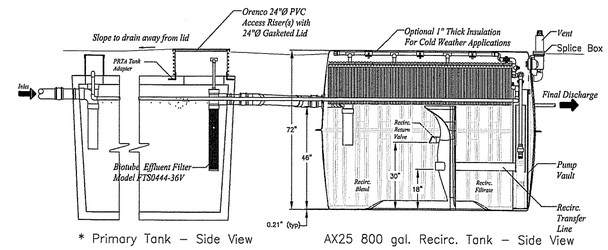
* Primary Tank – Top View

AX25 800 gal. Recirc. Tank – Top View

DESIGN NOTES:
1. FOR RESIDENTIAL STRENGTH WASTE UP TO 6 BEDROOMS.
2. INSTALLATION TO BE PERFORMED BY AN ADVANTEX AUTHORIZED INSTALLER ONLY.
3. START–UP AND SERVICE TO BE PERFORMED BY AN ADVANTEX AUTHORIZED SERVICE PROVIDER ONLY.
4. VALUES REPRESENT INITIAL TIMER SETTINGS; SERVICE PROVIDER SHALL ESTABLISH RE–ESTABLISH TIMER SETTINGS BASED UPON ACTUAL FLOW RATES.

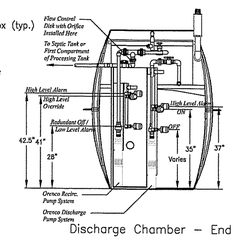
TIMER SETTINGS FOR ADVANTEX DOSE RATE

REQUIRED RECIRCULATION RATIO: 4:1 OR 2,300 GAL. RECIRC. PER 575 GAL. DESIGN FLOW
PUMP CAPACITY: 50 GPM
DAILY REQUIRED RUN TIME: $\frac{2,300\ GPD}{50\ GPM} = 46$ MINUTES
DOSE INTERVALS:3 DOSES PER HOUR – 72 DOSES PER DAY
TIMER SETTINGS: 46 MINUTES / 72 DOSES = 38 SEC ON; 19 MIN. & 22 SEC. OFF
OVERRIDE SETTINGS: 38 SECONDS ON; 9 MINUTES & 41 SECONDS OFF



* Primary Tank – Side View

AX25 800 gal. Recirc. Tank – Side View



Discharge Chamber – End View

Orenco Systems® Incorporated

Drawn By: BEN SMITH
Drawn For:

DRAINFIELD CONSTRUCTION:

SITE PREPARATION: AVOID COMPACTION OF THE DRAINFIELD & SURROUNDING SOILS: IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THE AREA IS TAPED OFF AND PROTECTED FROM VEHICULAR MOVEMENT PRIOR TO & FOLLOWING CONSTRUCTION OF THE OWTSs.

CLEARING: ALL TREES, SHRUBS, AND STUMPS WITHIN 10' OF THE SYSTEM SHALL BE REMOVED.

PERIMETER STRIP: NO PERIMETER STRIP SHALL BE REQUIRED FOR THIS INSTALLATION; PROTECT SOILS ADJACENT TO TRENCH FROM OVER–COMPACTION.

EXCAVATION:

REQUIRED AREA: EXCAVATE ONLY THE TRENCHES WITHIN THE DRAINFIELD AREA.

EXCAVATION DEPTH: EXCAVATE TO A MINIMUM DEPTH OF 6" BELOW THE BASE OF THE STONE. IF "B" HORIZON SOILS SOILS ARE ENCOUNTERED BENEATH THIS DEPTH CONTINUE TO EXCAVATE UNTIL A SUITABLE SOIL HORIZON IS ENCOUNTERED. FINAL EXCAVATION DEPTH TO BE APPROVED BY JEFFREY CAMPOPIANO, P.E.

TRENCH INSTALLATION: PROVIDE A 12" LEVEL STONE BASE
INSTALL DISTRIBUTION HEADERS (4" SDR 35 UNPERFORATED PVC PIPE) FROM DISTRIBUTION BOX; SET LEVEL
PROVIDE WATERTIGHT GLUED CONNECTIONS. INTERCONNECT UNITS EVERY 25' ALONG TRENCH; INTERCONNECT END UNITS.

MATERIALS:

A GRAVEL: MATERIAL SHALL BE FREE OF FINES, ORGANICS AND OTHER FOREIGN SUBSTANCES, & SHALL MEET THE FOLLOWING CRITERIA:

SIEVE SIZE	% PASSING
3/4"	100%
#4	55%–100%
#10	40%–100%
#40	10%–50%
#100	0%–20%
#200	0%–5%

B STONE: STONE SHALL BE DOUBLE WASHED, FREE OF FINES, ORGANICS AND OTHER FOREIGN SUBSTANCES, & SHALL MEET THE FOLLOWING CRITERIA:

SIEVE SIZE	% PASSING
2"	100%
3/4"	0%

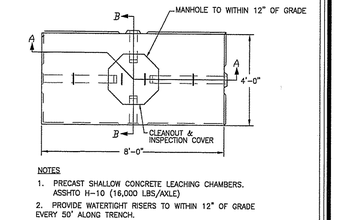
C BACKFILL: BACKFILL MATERIAL SHALL BE COMPOSED OF HARD, DURABLE STONE ANDFILL SHALL MEET THE FOLLOWING: COARSE TO FINE SAND, FREE OF PEAT, VEGETABLE OR ORGANIC MATTER, CLAY LUMPS & OTHER DEBRIS. THE GRANULAR FILL SHALL BE READILY COMPATIBLE AND SHALL NOT CONTAIN ANY STONES THAT ARE IN EXCESS OF 6".

SIEVE SIZE	% PASSING
6"	100%
#4	30–100%
#200	0–5%

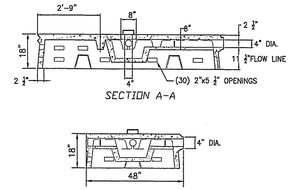
D LOAM: LOAM – THE CONTRACTOR SHALL PROVIDED A MINIMUM OF FOUR (4") INCHES OF LOAM ON AREAS UP TO 10% IN GRADE. ALL OTHER AREAS OVER 10% GRADE SHALL RECEIVE A MINIMUM OF SIX (6") INCHES. THE MATERIAL TO BE FURNISHED SHALL CONSIST OF LOOSE, FRIABLE, SANDY LOAM OR LOAM TOPSOIL FREE OF SUBSOIL, REFUSE, STUMPS, ROOTS, ROCKS, BRUSH, WEEDS OR OTHER MATERIAL WHICH WOULD PREVENT THE FORMATION OF A SUITABLE SEED BED.

SEED – THE ACCEPTABLE PLANTING SEASON SHALL BE BETWEEN APRIL 1ST AND OCTOBER 15TH. IF THE DISTURBANCE DOES NOT FALL WITHIN THIS PERIOD THE CONTRACTOR SHALL PROVIDE TEMPORARY MULCHING UNTIL THE AREA CAN BE SEEDED.

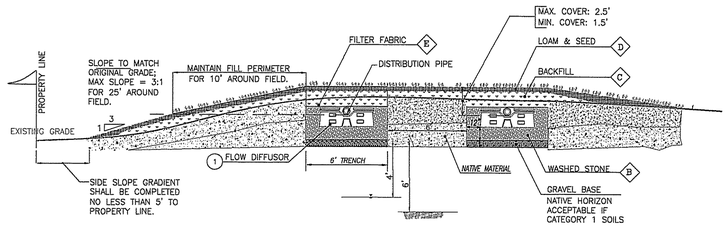
E FILTER FABRIC: NON–WOVEN SYNTHETIC FABRIC [Mirafi 140N, Mirafi 140NC, Synthetic Industries 401, or AMOCO 4545 or 4535 FILTER FABRIC]



NOTES
1. PRECAST SHALLOW CONCRETE LEACHING CHAMBERS. ASSHTO H–10 (16,000 LBS/AXLE)
2. PROVIDE WATERTIGHT RISERS TO WITHIN 12" OF GRADE EVERY 50' ALONG TRENCH.



PRE–CAST SHALLOW LEACHING CHAMBER (1)



DEC 2 3 2014

ONSITE WASTEWATER TREATMENT SYSTEM (OWTS) DETAILS	PREPARED BY:	APPLICANT:	DATE: DECEMBER 4, 2014	DRAWN BY: TAG
PROPOSED INGARI RESIDENCE ASSESSOR'S PLAT 67 / LOT 22 TUKERTOWN ROAD SOUTH KINGSTOWN, RHODE ISLAND	JEFFREY J. CAMPOPIANO, P.E. 16 WEST MAIN STREET WICKFORD, RHODE ISLAND 02852 PHONE: 401-295-3037 jeff@campopiano-eng.com	OWNER:	REVISIONS: NO. | DATE | DESCRIPTION	CHECKED BY: JJC
	JEFFREY CAMPOPIANO, P.E. No. 6202 REGISTERED PROFESSIONAL ENGINEER			SHEET NUMBER 4