

**DESIGN CALCULATIONS \***

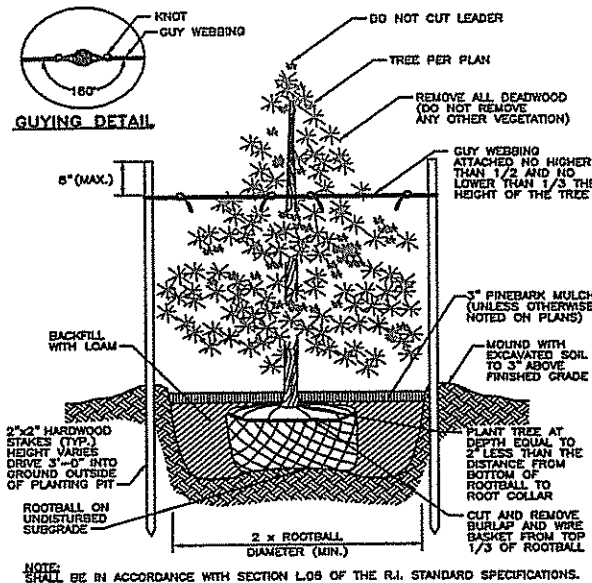
- DESIGN FLOW 3 BEDROOM X 115 GAL/BEDROOM/DAY = 345 GALLONS/DAY
- DESIGN GWT= 5"
- DESIGN DEPTH TO IMPERVIOUS= N/A
- ADVANTEX-AX 20 MODE 3B TREATMENT
- BOTTOMLESS SAND FILTER= 2.3 GAL./S.F./DAY
- MINIMUM LEACHING AREA= 345 GAL/DAY - 2.3 GAL/DAY/S.F. 345 ÷ 2.3 = 150 S.F.
- LEACHING AREA PROVIDED= 150 S.F.

**BUOYANT CALCULATIONS  
SEPTIC TANK**

BUOYANT EFFECT (3.56 X 5.67 X 10.5) 62.4 = 13,300 LBS  
 WEIGHT OF TANK = 12,600 LBS  
 SOIL COVER OVER TANK = 10,000 LBS (@ 95 lb / ft<sup>3</sup>)  
 TOTAL WEIGHT = 22,600 LBS > BUOYANT FORCE 13,300 LBS  
 THERE IS NO BUOYANT FORCE ON TANK

**PUMP CHAMBER**

(3.14 X 2.02) X 62.4 LBS/CF = 490.1 LBS BUOYANT EFFECT  
 WEIGHT OF CONCRETE COLLOR = 1755 LBS  
 TOTAL WEIGHT=1775 LBS > BUOYANT WEIGHT= 490.1 LBS  
 THERE IS NO BUOYANT FORCE ON CHAMBER



EVERGREEN TREE PLANTING DETAIL  
(4'-0" HIGH AND GREATER)



"MAY NOT BE REQUIRED"

**"RULES AND REGULATIONS"**

SECTION 17.6.4 PAGE 31  
 1. DEPTH TO GROUNDWATER FROM ORIGINAL GROUND SURFACE IS LESS THAN (12) INCHES.

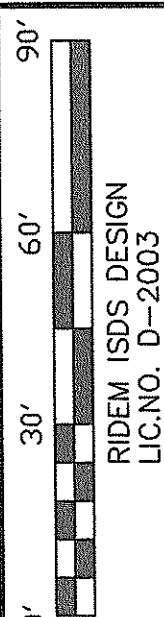
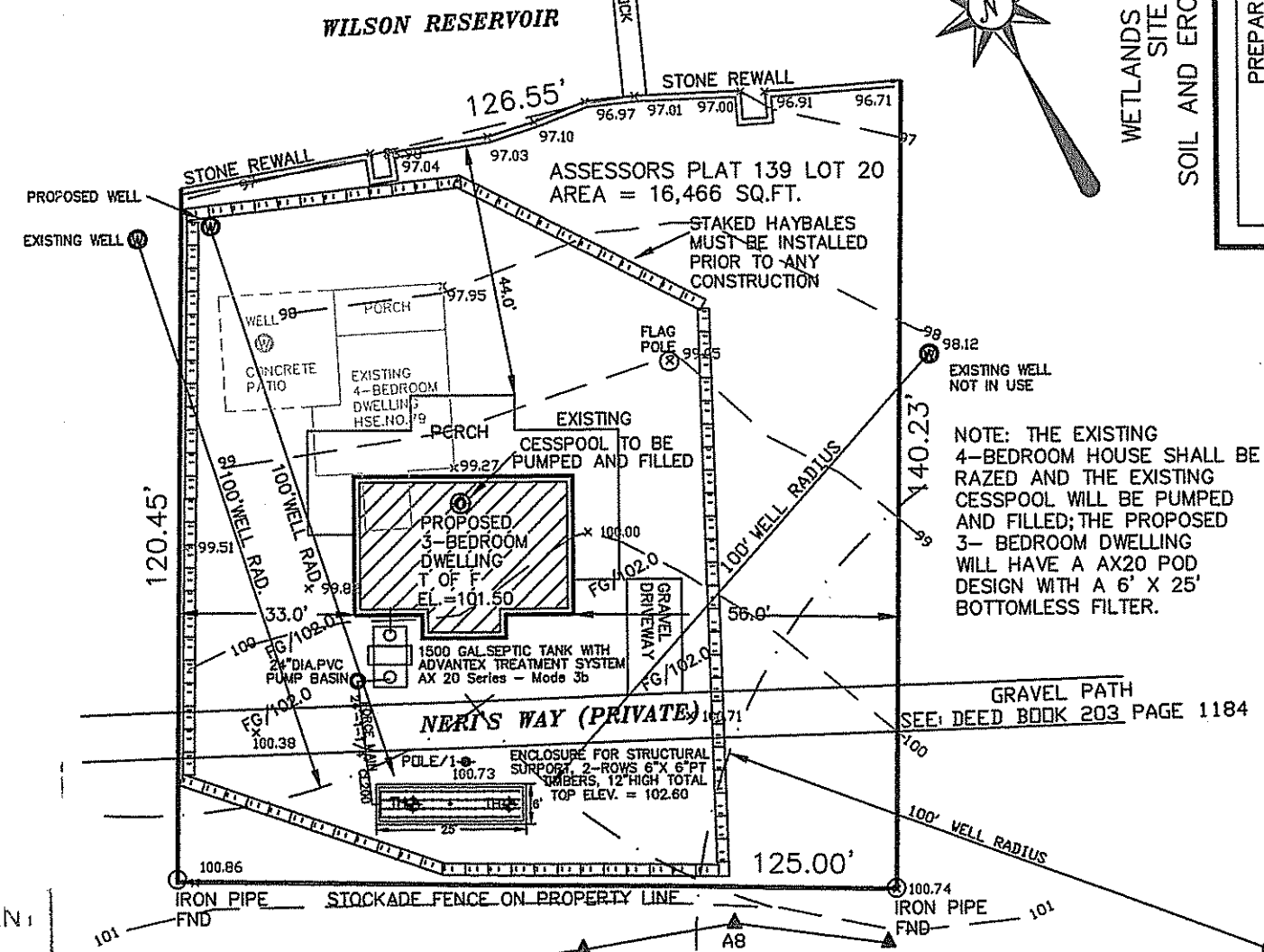
FIRM FLOOD INSURANCE RATE MAP  
 TOWN OF BURRILLVILLE, RHODE ISLAND  
 PROVIDENCE COUNTY  
 COMMUNITY-PANEL NUMBER 44003-0003B  
 ZONE X  
 MAP REVISED: JUNE 16, 1992

OWTS NO. 0903-0366

WETLANDS SUBMISSION  
 SITE PLAN  
 SOIL AND EROSION CONTROL

PREPARED FOR  
**PAUL RAYMOND**

LOCATION  
 ASSESSORS PLAT 139 LOT NO. 20  
 79 NERI'S WAY  
 BURRILLVILLE, RHODE ISLAND  
 DATE: 10/03/2009  
 SCALE: 1" = 30'



RIDEM ISDS DESIGN  
 LIC. NO. D-2003

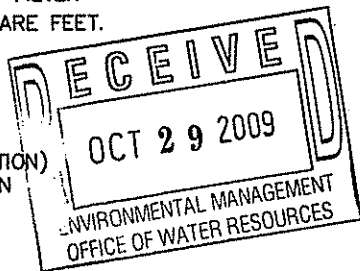
SHEET 1  
 OF  
 SHEETS 2

**DESIGN CALCULATIONS**

- BOTTOMLESS SAND FILTER 6' X 25'  
 USE 36" OF CLASSIFIED SAND MEDIA IN AND AROUND FILTER  
 TOTAL LEACHING AREA PROVIDED = 150 SQUARE FEET.  
 DESIGN SOIL CATEGORY 4  
 2.3 GAL/SF/DAY LOADING RATE

**SITE TESTING**

- R.I.D.E.M. DIVISION OF WATER RESOURCES (ISDS SECTION)
- SOIL EVALUATION OR GROUND WATER VERIFICATION  
 NO. 0903-0366 DATED: 05/12/09
  - SITE SUITABILITY REPORT  
 NO. N/A DATED:
  - SITE TESTING DATE OF EXCAVATION
  - GROUND WATER TABLE DESIGN  
 TH 1 5 TH 2 5  
 DATE: DATE
  - SOIL STRATA: SEE: SOIL EVALUATION REPORT

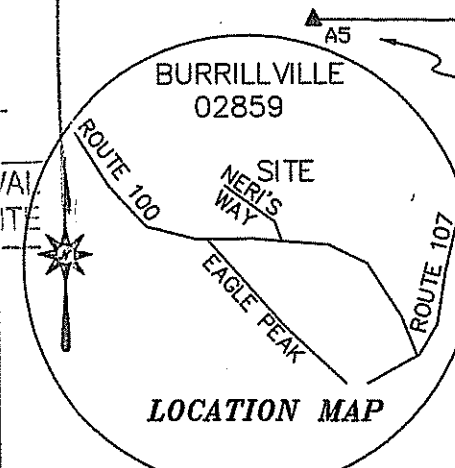


**LEGEND**

- ◆ SOIL EVALUATION TEST HOLE
- ◆ LEDGE TEST PIT
- 98- EXISTING CONTOUR
- 100- PROPOSED CONTOUR
- w-w- WATER SERVICE LINE
- BENCHMARK
- 26 RECORD LOT NO.
- 139/20 ASSESSORS PLAT/LOT
- CATCH BASIN
- STONE WALL
- EDGE OF PAVEMENT
- WELL (PROPOSED OR EXISTING)
- X100.25 SPOT GRADE

APPROVED WITH CONDITIONS  
 AS SPECIFIED IN THE LETTER OF APPROVAL  
 DEC 3 2009 FILE # 09-0279

*Nancy L. Freeman*



**BENCHMARK: NAIL IN POLE/1  
 ELEV. = 102.00**

NOTE: EXCAVATE BELOW AND TO A 5' PERIMETER OF PROPOSED BOTTOMLESS SAND FILTER TO ELEV. 98.85 AND REFILL WITH BANK RUN GRAVEL TO ELEV. 100.25 MIX 3" OF SUBSOIL AND 3" OF TOPSOIL AND PLACE ON GRAVEL BED TO ELEV. 100.75.

ROBERT J. CURRAN  
 NO. 1619  
 PROFESSIONAL  
 LAND SURVEYOR

CURRAN ASSOCIATES  
 P.O. BOX 707  
 EAST GREENWICH, RI 02818  
 (401) 884-3400  
 DRAWN BY: ELC DWG. NO.

SEDIMENTATION CONTROL PROGRAM

1. EXTREME CARE SHALL BE EXERCISED SO AS TO PREVENT ANY SEDIMENTS FROM ENTERING THE WETLANDS OR ADJOINING PROPERTIES.
2. BANKS OR SLOPES OVER 5 PERCENT SHALL BE SEEDED AS SOON AS POSSIBLE AND SHALL BE PROTECTED WITH A HAY, STRAW OR FIBER MULCH.
3. DURING CONSTRUCTION, THE CONTRACTOR AND/OR DEVELOPER SHALL BE RESPONSIBLE FOR MAINTAINING DRAINAGE AND RUNOFF FLOW DURING STORMS AND PERIODS OF RAINFALL.
4. SEDIMENTATION CONTROL DEVICES SHALL BE INSPECTED CLOSELY AND MAINTAINED PROMPTLY AFTER EACH RAINFALL.
5. 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 SUBJECTED TO STORM WATER FLOW.
6. ADDITIONAL HAYBALES, SILT FENCE OR SANDBAGS SHALL BE LOCATED AS CONDITIONS WARRANT OR AS DIRECTED BY THE ENGINEER.
7. REFERENCE THE "R.I. EROSION AND SEDIMENT CONTROL HANDBOOK" PREPARED BY THE U.S. DEPT. OF AGRICULTURE, SOIL CONSERVATION

ORDER OF PROCEDURE

1. PRIOR TO ANY CONSTRUCTION OR EXCAVATION, HAYBALES OR SILT FENCE SHALL BE INSTALLED AT THE PROPERTY LINE OR LIMIT OF DISTURBANCE. TEMPORARY HAYBALES OR SILT FENCE SHALL BE INSTALLED AT THE LIMIT OF WORK ACTIVITY IF CONSTRUCTION IS
2. ALL EROSION AND SEDIMENTATION CONTROL STRUCTURES SHALL BE PERIODICALLY MAINTAINED AS PER THE RESPECTIVE PROGRAMS FOR TEMPORARY CONTROL.
3. IF WORK PROGRESS IS TO BE INTERRUPTED AT ANY TIME, REFERENCE EROSION AND SEDIMENTATION PROGRAMS FOR TEMPORARY CONTROL.
4. TEMPORARY HAYBALES AND SANDBAGS ALONG AND AT THE ENDS OF ROADWAYS MAY ALSO BE REMOVED AFTER FINAL SOIL STABILIZATION HAS BEEN ACHIEVED AND APPROVED.
5. HAYBALES 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.

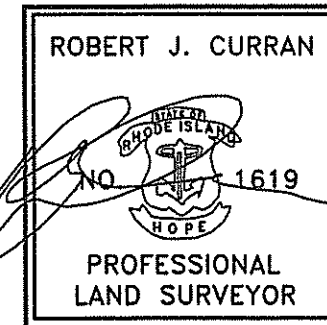
GENERAL NOTES

1. TOPOGRAPHY AND ELEVATIONS SHOWN ARE FROM A FIELD TOPOGRAPHIC SURVEY CONDUCTED IN SEPTEMBER, 2009 BY: CURRAN ASSOCIATES THE MAXIMUM POSSIBLE VERTICAL ERROR IS 1/2 THE CONTOUR INTERVAL. THE HORIZONTAL DATUM IS BASED UPON ASSUMED DATUM AND WAS OBTAINED BY ACTURAL ON THE GROUND FIELD SURVEY OF ENVIRONMENTAL MANAGEMENT DEPARTMENT OF ENVIRONMENTAL MANAGEMENT FRESHWATER WETLANDS PROGRAM A MAXIMUM POSSIBLE ERROR OF 1.5'±. THE BENCH MARK USED FOR THE SURVEY OF THE NAIL SET IN POLE NO.1 SOUTH SIDE OF NERI'S WAY ELEV. = 102.00 ASSUMED DATUM) LOCATED AT THE SOUTHWESTERLY OF LOT 20 APPROVED WITH CONDITIONS ADDITIONAL LOCATION WAS BASED UPON AN ACTUAL SURVEY CONDUCTED IN SEPTEMBER, 2009 TO A CLASS II STANDARD AS ADOPTED BY THE RHODE ISLAND BOARD OF REGISTRATION OF PROFESSIONAL LAND SURVEYORS. DATED DEC 3 2009 FILE # 09-0279 NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL APPROVED PLANS MUST BE AT CONSTRUCTION SITE
2. SITE IS WITHIN FLOOD HAZARD ZONE X (AREAS DETERMINED TO BE OUTSIDE 500 YEAR FLOODPLAIN) REFERENCE F.I.R.M. MAP PANEL NO.44003-0003B
3. WETLANDS EDGE DELINEATED BY NATURAL RESOURCE SERVICES, INC., SEPT. 14, 2009 *Nancy L. Freeman*
4. THERE ARE NO EXISTING OR PROPOSED PUBLIC WATER SUPPLY SOURCES WITHIN 500' OF PROPOSED OWTS EXCEPT AS SHOWN.
5. THERE ARE NO EXISTING OR PROPOSED SEWAGE DISPOSAL SYSTEMS WITHIN 100' OF THE PROPOSED SEWAGE DISPOSAL SYSTEMS OTHER THAN THOSE SHOWN ON PLAN.
6. THERE ARE NO EXISTING OR PROPOSED INDIVIDUAL WATER SUPPLIES WITHIN 200' OF THE PROPOSED SEWAGE DISPOSAL SYSTEMS OTHER THAN THOSE SHOWN ON PLAN.
7. FOR SOIL EVALUATION DATA SEE RHODE ISLAND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT VERIFICATION OF GROUNDWATER DEPTH APPLICATION # 0330-0657
8. EXCEPT WHERE INDICATED SITE IS WELL KEPT GRASS.
9. HAYBALE EROSION CHECK (R.I. STANDARD 9.1.0) AND/OR SILT FENCE SHALL BE INSTALLED AT ALL LIMITS OF DISTURBANCE PRIOR TO EARTH DISTURBING ACTIVITIES AND SHALL BE MAINTAINED UNTIL ALL DISTURBED AREAS ARE PERMANENTLY STABILIZED.
10. NO WORK IS ALLOWED WITHIN STATE REGULATED WETLANDS EXCEPT AS SPECIFICALLY SHOWN.
11. ALL IMPROVEMENTS SHALL BE ACCURATELY LOCATED AND STAKED PRIOR TO COMMENCEMENT OF CONSTRUCTION.
12. ALL DISTURBED AREAS SHALL BE STABILIZED WITH 4" LOAM AND SEED OR SOD, PROPOSED SLOPES SHALL BE 3:1 (MAXIMUM).
13. EXISTING UTILITY LOCATIONS ARE APPROXIMATE ONLY. DIG SAFE AND APPROPRIATE UTILITY COMPANIES SHALL BE NOTIFIED PRIOR TO ANY CONSTRUCTION FOR ACCURATE UTILITY LOCATIONS.
14. ALL WORK SHALL BE PERFORMED IN STRICT CONFORMANCE WITH THE REQUIREMENTS OF THE D.E.M. WETLANDS PERMIT AND IN COMPLIANCE WITH ALL TOWN REGULATIONS.
15. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ESTABLISHING AND MAINTAINING ALL TEMPORARY SEDIMENTATION AND EROSION CONTROLS.
16. 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.
17. A ROW OF ARBORVITAE (THUJA OCCIDENTALS) WILL BE PLANTED AT THE LIMIT OF DISTURBANCE, AS SHOWN. PLANTINGS WILL BE INSTALLED 10' O.C AND 5-6' IN HEIGHT AFTER PLANTING "MAY NOT BE REQUIRED"

OWTS NO. 0903-0366

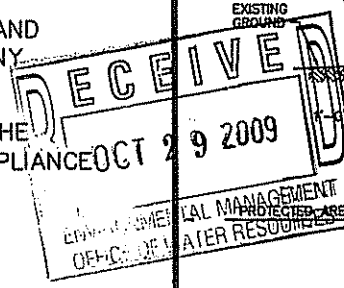
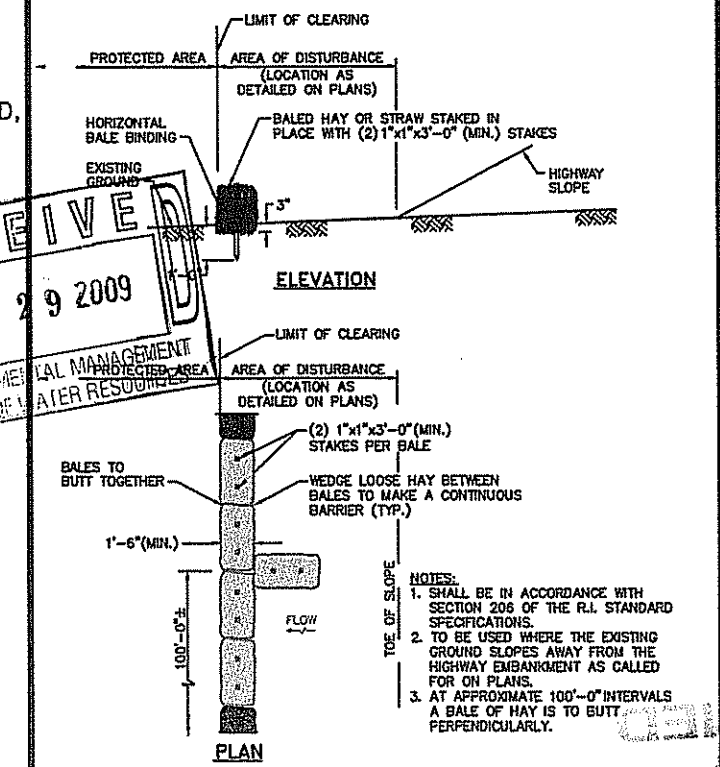
WETLANDS SUBMISSION SITE PLAN SOIL AND EROSION CONTROL

PREPARED FOR  
**PAUL RAYMOND**  
LOCATION  
ASSESSORS PLAT 139 LOT NO.20  
79 NERI'S WAY  
BURRILLVILLE, RHODE ISLAND  
DATE: 10/02/2009  
SCALE: NONE



RIDEM ISDS DESIGN  
LIC. NO. D-2003

**BALED HAY EROSION CHECK**



SHEET 2  
OF  
SHEETS 2

CURRAN ASSOCIATES  
P.O. BOX 707  
EAST GREENWICH, RI 02818  
(401) 884-3400  
DRAWN BY: ELC DWG. NO.