

**Diprete Engineering**  
 Engineers • Planners • Surveyors

Two Stafford Court  
 Cranston, Rhode Island 02920  
 Tel: (401) 943-1000 Fax: (401) 464-6006

Date: February, 2008

REV.	DESCRIPTION	DATE
0	OWTS SUBMISSION	2/08

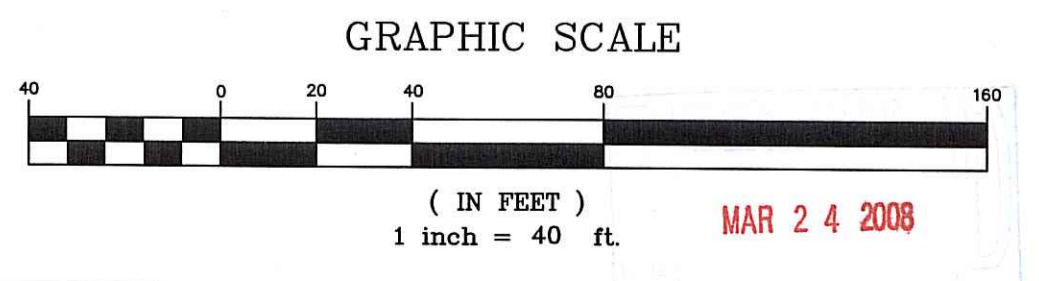
**Onsite Wastewater Treatment System**

A.P. 42 Lot 36  
**Linfield Circle**  
 Smithfield, Rhode Island

PREPARED FOR:  
 David Dexter  
 PO Box 756  
 Cranston, RI 02914  
 (401) 413-5325

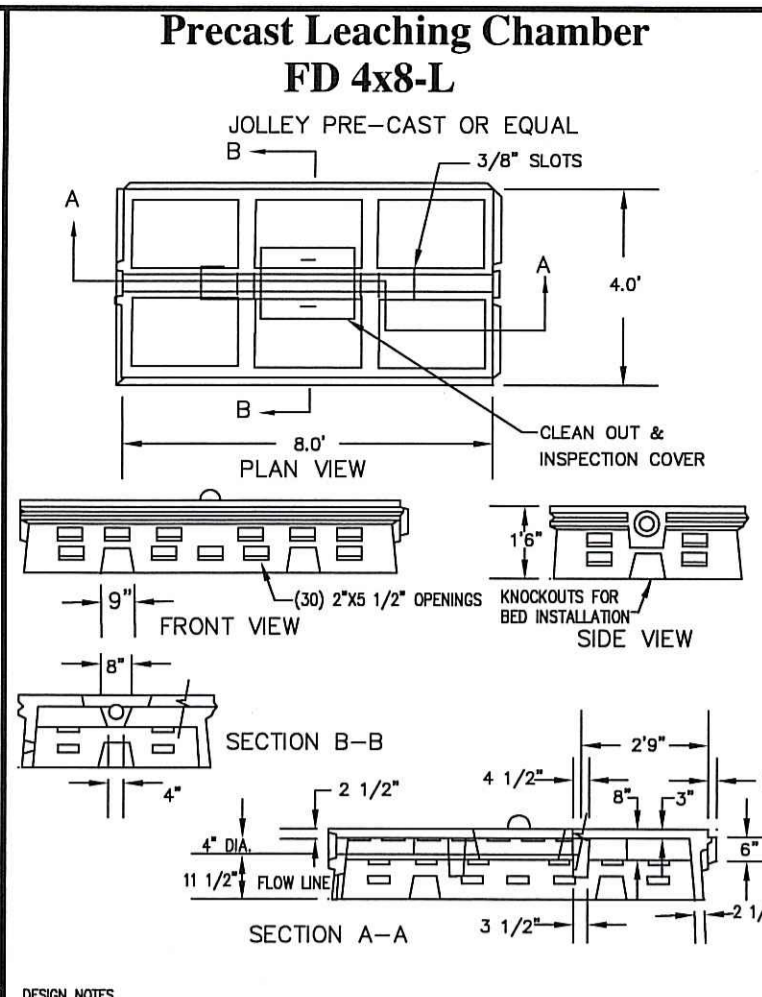
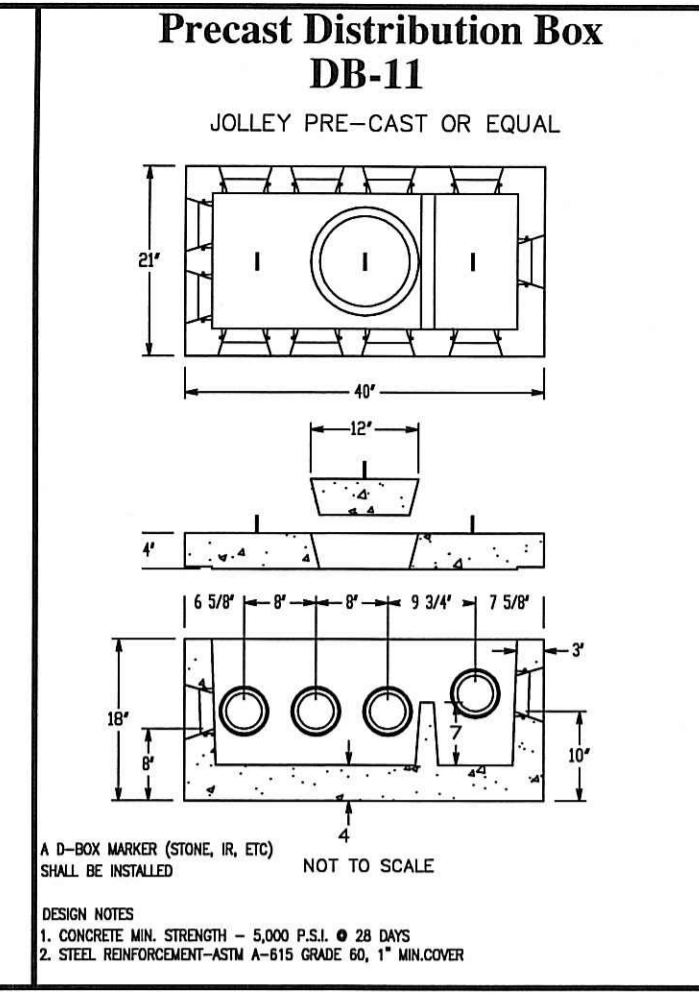
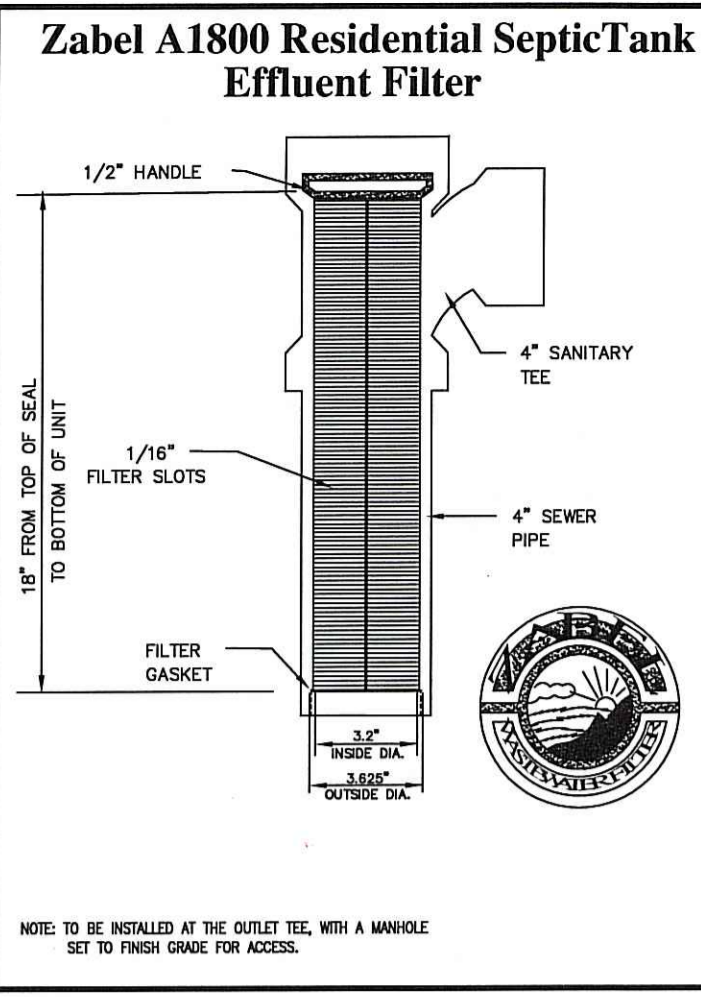
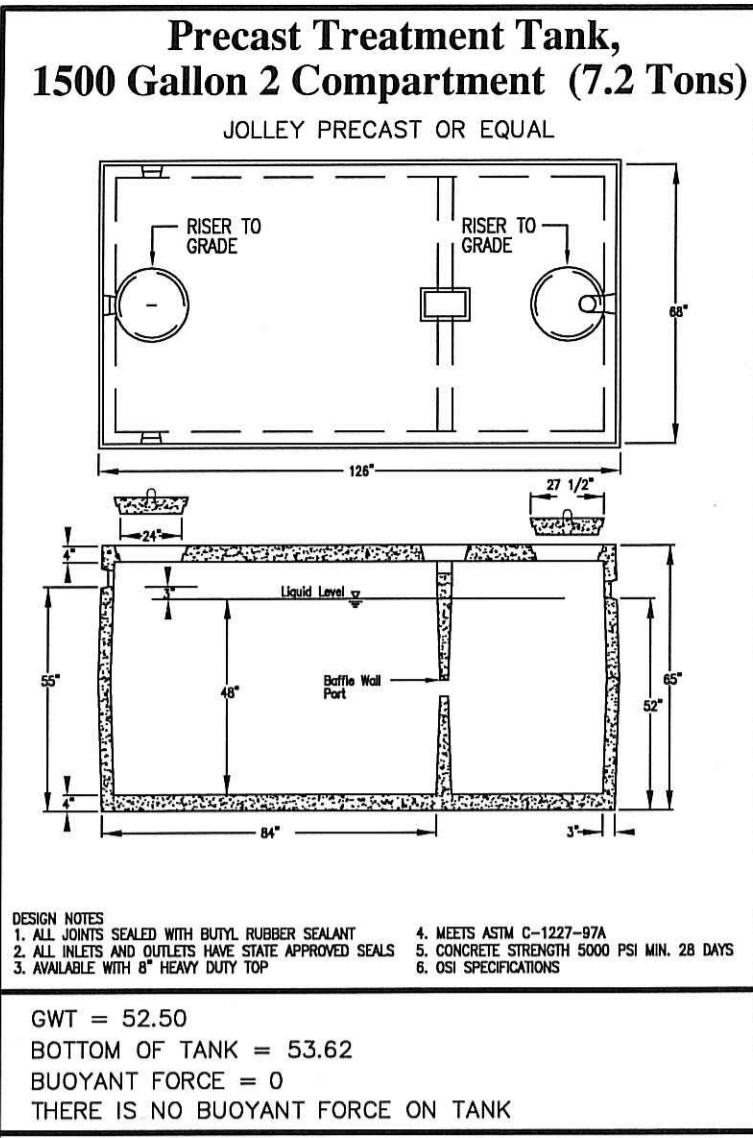
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
 OFFICE OF WATER RESOURCES  
 FRESHWATER WETLANDS PROGRAM  
 PERmits and Conditions  
 AS SET FORTH IN THE LETTER OF APPROVAL  
 DATED APR 25 2008 FILE # 06-0111  
 NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL  
 APPROVED PLANS MUST BE AT CONSTRUCTION SITE

*Nancy L. Freeman*



KEVIN C. MORIN  
 No. 7051  
 REGISTERED PROFESSIONAL ENGINEER  
 CIVIL

DEA# 1053-001  
 SHEET 1 OF 2



### Design Calculations

- DESIGN FLOW = 4 BEDROOMS (BR) HOME X 115 GAL/BR = 460 GALLONS/DAY
- DESIGN LOADING RATE = 0.61 GAL/SF/DAY  
DESIGN GWT = 52.5
- DESIGN DEPTH TO IMPERVIOUS = 10.0'  
MINIMUM LEACHING AREA = 460 GAL/DAY ÷ 0.61 GAL/SF/DAY = 755 S.F.
- FLOW DIFFUSORS = 1.0 FT. STONE BELOW UNIT  
1.0 FT. ALL SIDES  
6 END UNITS x 7.8' = 852 S.F.
- LEACHING AREA = 3 LINES - 6' WIDE EA. 34.34 x 34 L.F. LONG WITH 6' SPACING
- LEACHING AREA PROVIDED = 852 S.F.

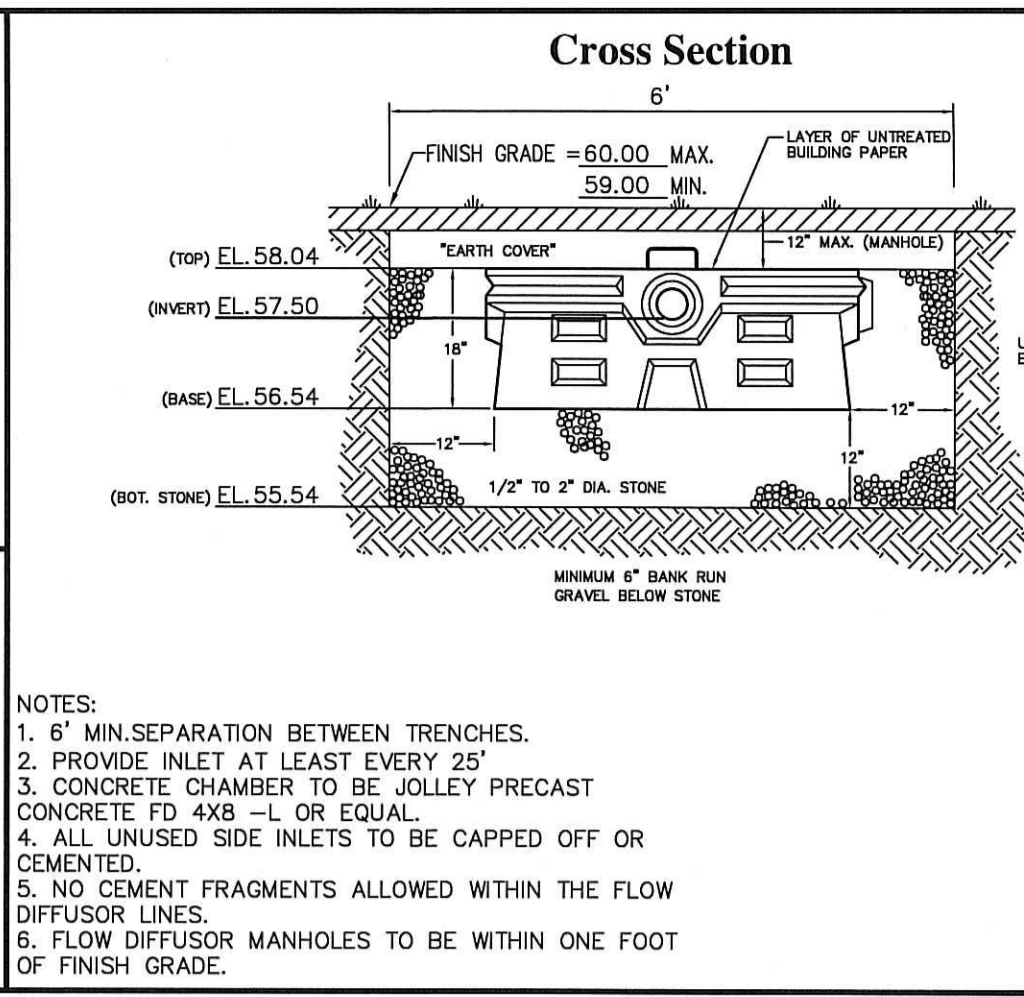
### Soil Testing

R.I.D.E.M. DIVISION OF OWTS APPROVAL  
 1. SITE SUITABILITY NO. 0531-0018, DATE: 2/22/05  
 2. SITE TESTING DATE OF EXCAVATION 1/28/05

TH 3  
 SOIL STRATA: Ap 0-4" 10YR 2/2 fsl 1-sbk fr 3  
 Bw 4-33" 10YR 5/6 fsl 1-sbk fr 3  
 C 33-66" 2.5Y 5/3 ls 0-m fr 6\*  
 C2 66-120" 2.5Y 5/2 ls 0-m fr 6

SOIL CATEGORY: 3  
 3  
 6\*

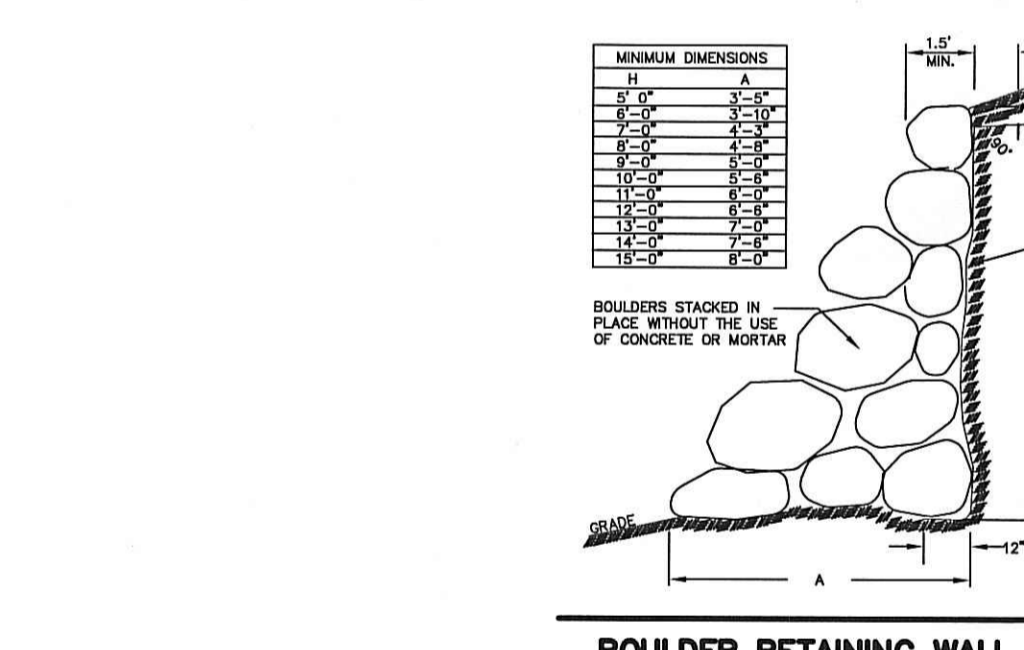
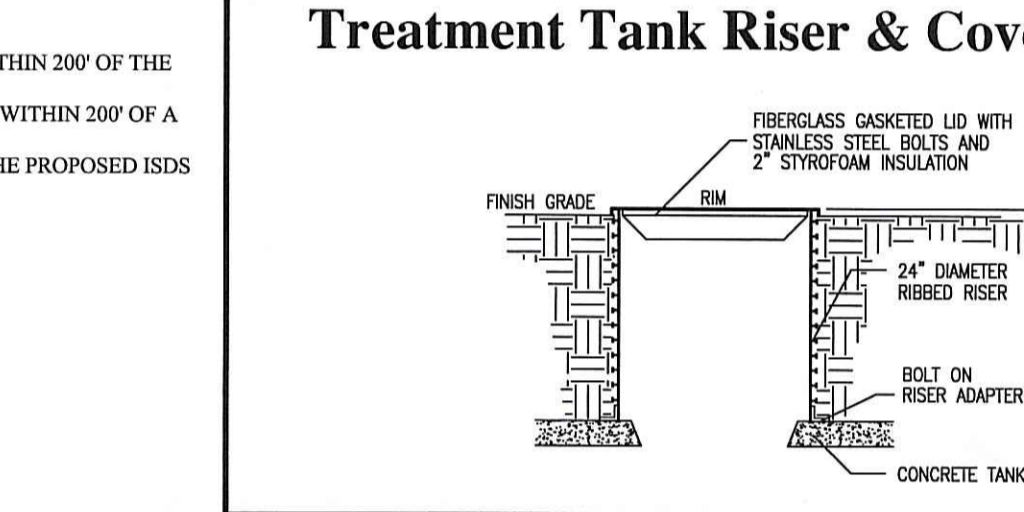
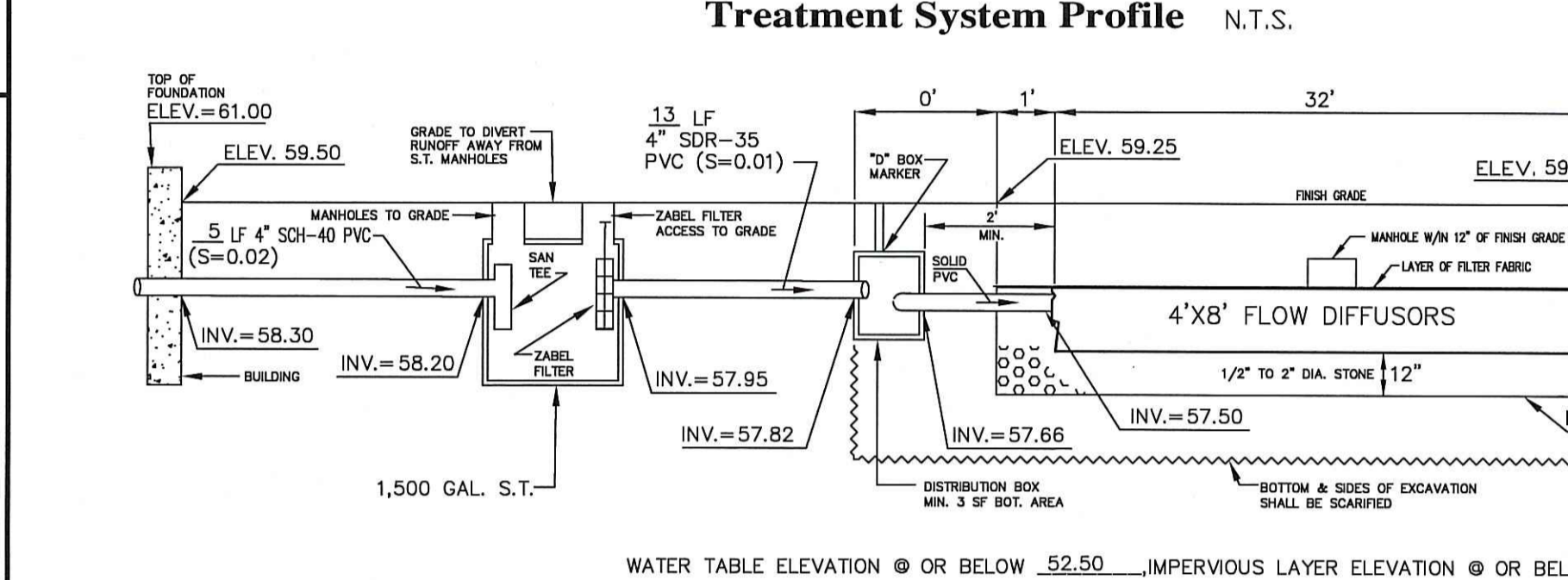
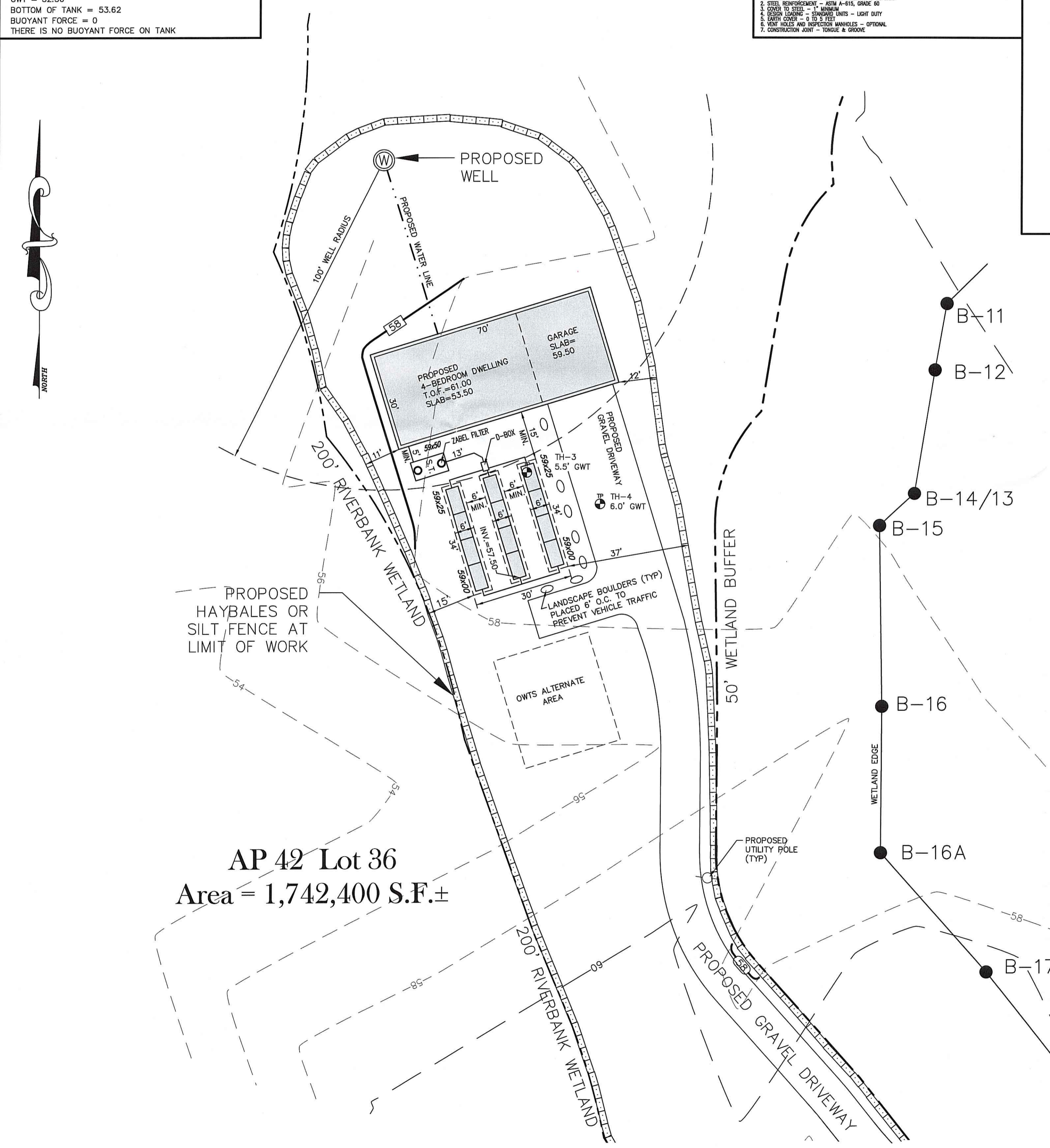
\*LOADING RATE=0.61 GAL/SF/DAY



### General Notes

- THERE IS NO FLOOD PLAIN LOCATED ON SITE AS PER (F.E.M.A.) COMMUNITY PANEL NO.440025 0009 B, TOWN OF SMITHFIELD, DATED MARCH 4, 1991.
- DIPRETE ENGINEERING ASSOC., INC. CERTIFIES TO THE SOIL CONDITIONS AND PERC RATE ONLY IN AREA TESTED. INSTALLER TO NOTIFY DESIGNER IF SOIL CONDITIONS ARE FOUND DIFFERENT THAN STATED ON OWTS APPLICATION.
- PROPERTY BOUNDARY LINE SURVEY BY DIPRETE ENGINEERING ASSOC. INC. AND IS CONSIDERED PRELIMINARY AT THIS TIME. TOPOGRAPHY OBTAINED FROM DIPRETE ENGINEERING ASSOC. INC., CRANSTON, RI. DATUM IS ASSUMED.
- NO DRAINS OR WATERLINES TO BE INSTALLED WITHIN 25' OF LEACHING AREA.
- NO GARAGE GRINDERS SHALL BE INSTALLED.
- THERE ARE NO EXISTING OR PROPOSED WELLS WITHIN 200' OF THE PROPOSED SYSTEM.
- THERE ARE NO KNOWN EXISTING OR PROPOSED DRAINS WITHIN 200 FEET OF THE PROPOSED SYSTEM OTHER THAN SHOWN.
- THERE ARE NO EXISTING OR PROPOSED SYSTEMS WITHIN 100' OF A PROPOSED OR EXIST. WELL.
- THERE ARE NO PROPOSED OR EXISTING PUBLIC WELLS WITHIN 500' OF THE PROPOSED SYSTEM.
- THIS PLAN IS SUBSTANTIALLY CORRECT IN ACCORDANCE WITH A CLASS IV STANDARD AS ADOPTED BY THE RHODE ISLAND BOARD OF REGISTRATION FOR PROFESSIONAL LAND SURVEYORS. THIS PLAN IS NOT TO BE CONSTRUED AS AN ACCURATE BOUNDARY SURVEY AND MAY BE SUBJECT TO CHANGES AS AN ACCURATE BOUNDARY SURVEY MAY DISCLOSE.
- 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.
- NO REPRESENTATIONS ARE MADE BY DEA THAT UTILITY SERVICE IS AVAILABLE.
- ALL EXISTING UTILITIES SHOWN ARE FROM VISIBLE INFORMATION, DRAWINGS BY OTHERS, OR INFORMATION PROVIDED TO DEA AND ARE SUBJECT TO CHANGE.

THIS SITE IS REVIEWED UNDER RIDEM WETLANDS APPLICATION # 06-0111, DATED 10-09-07



### Construction Notes

- 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 EST. JOB
- THE FILL AROUND THE SYSTEM SHALL BE COARSE SAND, OR BANK RUN GRAVEL
- ALL STONE SHALL BE DOUBLE WASHED STONE CONTAINING LESS THAN 2% FINES.
- INSTALLER TO REMOVE ALL TREES AND SHRUBS FROM LEACHING AREA, AND 10' ON ALL SIDES.
- BUILDING SEWER PIPE TO BE MINIMUM 4" SCH 40 PVC. ALL OWTS PIPING TO BE MINIMUM 4" SDR 35.
- TREATMENT TANK MANHOLES TO BE AT FINISH GRADE AS PER 2008 DEM REGULATIONS.
- INSTALLER TO STRIP TOP AND SUBSOIL OF LEACHING AREA DOWN TO SUBSTRATA, 0 FT. ON ALL SIDES. AN ADDITIONAL 6" MAY NEED TO BE REMOVED IF FINES ARE PRESENT IN THE SUBSTRATA, AS DETERMINED BY THE ENGINEER OR R.I.D.E.M. OFFICIALS.
- INSTALLER TO MAINTAIN OWTS INVERT EL. 57.50 FOR 10' FILL PERMETER.
- BENCH MARK = \_\_\_\_\_ HUB SET IN GROUND  
ELEV. = 57.53 (SEE SHEET #1)
- ALL STAGES OF THE OWTS INSTALLATION MUST BE SUPERVISED BY THE DESIGN ENGINEER.
- DIG SAFE IS REQUIRED TO BE NOTIFIED PRIOR TO START OF ANY CONSTRUCTION.

### Sequence of Construction

- CONTRACTOR TO OBTAIN ALL REQUIRED FEDERAL, STATE AND MUNICIPAL PERMITS, AND TO NOTIFY "DIG SAFE" PRIOR TO CONSTRUCTION.
- SET SILT FENCING AT LIMIT OF WORK. MAINTAIN CONTINUOUS FENCE LINE DURING CONSTRUCTION AND REPAIR AS NEEDED.
- CONTACT DESIGNER 24 HR. PRIOR TO OWTS CONSTRUCTION.
- BEGIN OWTS BOTTOM EXCAVATION.
- CONTACT DESIGNER 24 HR. PRIOR TO OWTS BOTTOM EXCAVATION COMPLETION FOR INSPECTION.
- BEGIN OWTS CONSTRUCTION.
- CONTACT DESIGNER 24 HR. PRIOR TO OWTS COMPLETION FOR INSPECTION.
- COVER OWTS COMPONENTS AND COMPLETE FINISH GRADING.
- CONTACT DESIGNER 24 HR. PRIOR TO OWTS FINAL GRADING FOR INSPECTION.
- COMPLETE SOIL STABILIZATION BY LOAM AND SEEDING DISTURBED AREAS.

NOTE: DESIGNER REQUIRES A MINIMUM OF THREE(3) INSPECTIONS: BOTTOM INSPECTION, COVER INSPECTION, & FINAL INSPECTION

### Minimum Lot Requirements

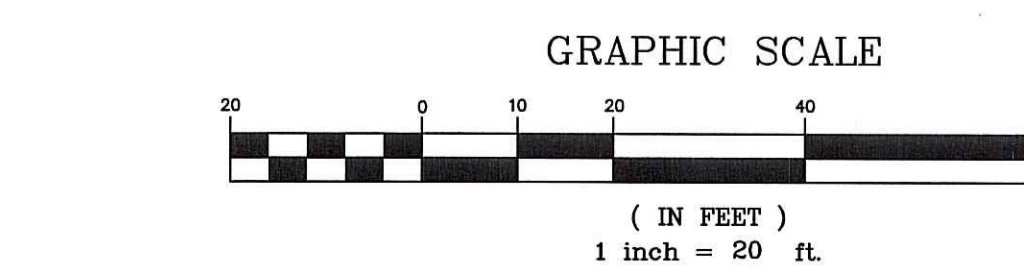
MIN. LOT AREA	80,000 SQ.FT.
FRONTAGE	200 FT.
FRONT YARD	40 FT.
SIDE YARD	25 FT.
REAR YARD	75 FT.
CORNER SIDE YARD	N/A FT.

### Legend

□	SOIL EVALUATION
○	CATCH BASIN
— 40 —	EXISTING CONTOUR
— 40 —	PROPOSED CONTOUR
40x50	PROPOSED GRADING
40x50	EXISTING GRADE
— W —	WATER SERVICE LINE
— D —	DRAINAGE LINE
⊕	BENCHMARK
⊙	WELL

### Erosion Control

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.



Date: February, 2008

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NO.	DATE	DESCRIPTION
0	2/08	OWTS SUBMISSION

DRAWN: ACAD DESIGNED: GTS CHECKED: KCM

### Onsite Wastewater Treatment System

A.P. 42 Lot 36  
 Linfield Circle  
 Smithfield, Rhode Island  
 PREPARED FOR: David Dexter  
 P.O. Box 756  
 Chepachet, RI 02814  
 (401) 413-5229

KEVIN C. MORIN  
 No. 7051  
 REGISTERED PROFESSIONAL ENGINEER  
 CIVIL

DEA# 1053-001  
 SHEET 2 OF 2