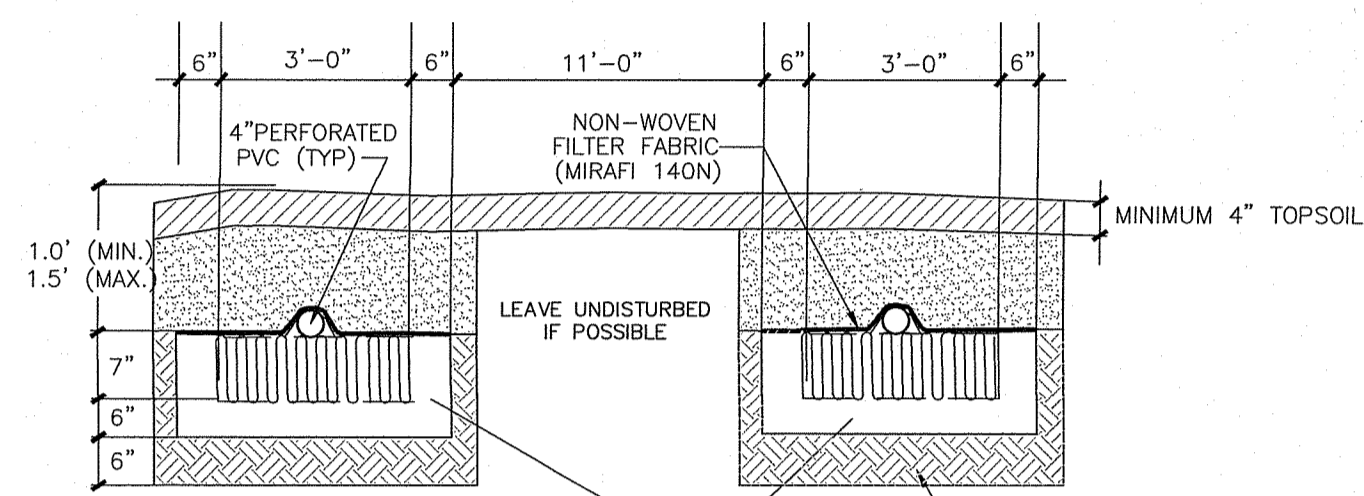


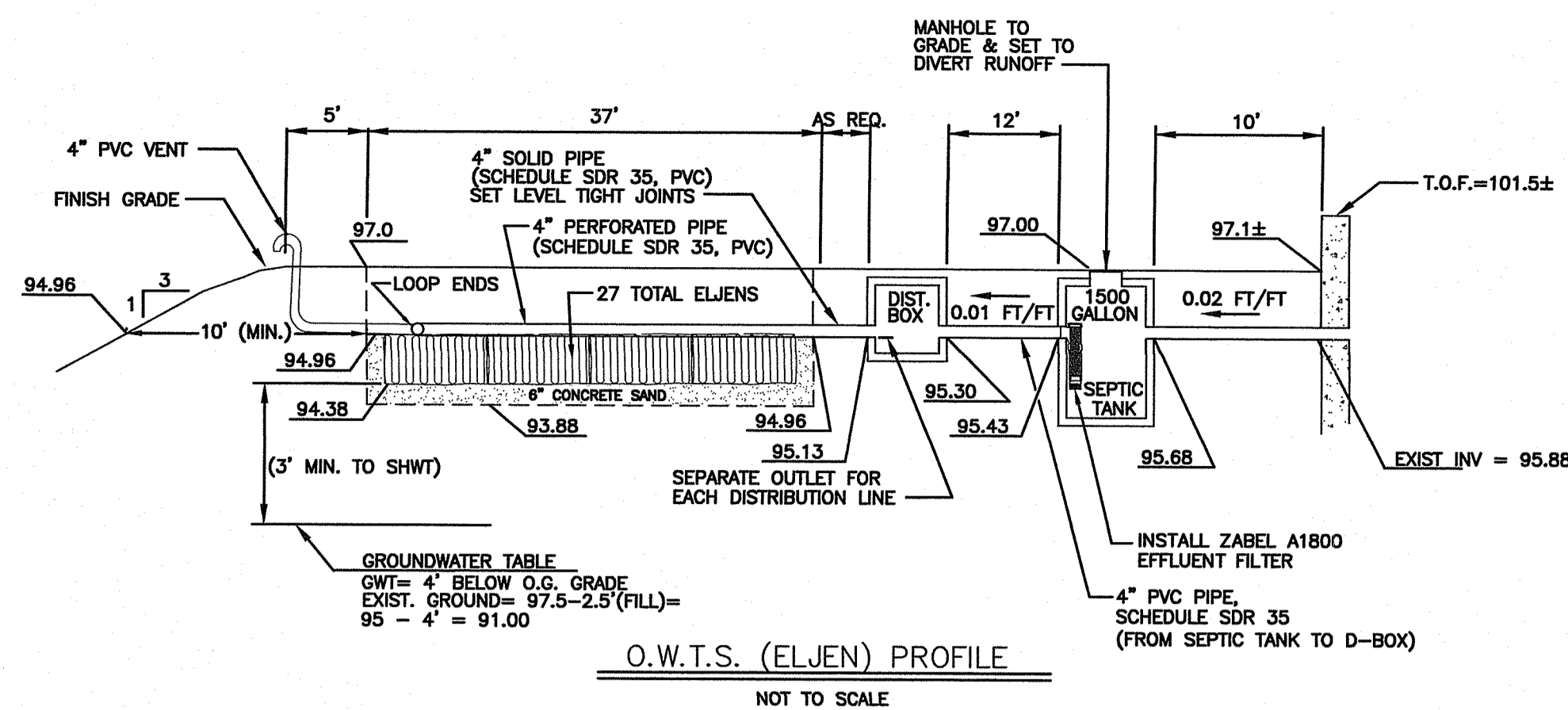
SILT FENCE DETAIL
NOT TO SCALE



ELJEN "IN-DRAIN" CROSS SECTION
NOT TO SCALE

GENERAL NOTES

1. THE OWTS INSTALLER SHALL INSTALL AND MAINTAIN ALL EROSION CONTROL MEASURES DEPICTED ON THIS PLAN.
2. THE INSTALLER SHALL NOTIFY THIS DESIGNER 48 HOURS PRIOR TO THE START OF CONSTRUCTION.
3. THE DESIGNER SHALL BE CONTACTED IF ANY DISCREPANCIES ARE FOUND IN THE FIELD.
4. THE INSTALLER SHALL CONTACT THE DESIGNER AT LEAST 24 HOURS IN ADVANCE FOR BOTTOM AND COVER INSPECTIONS.
5. EXISTING TOPOGRAPHY & SURVEY FROM BY BOYER & ASSOCIATES, INC. EXISTING CONDITIONS TO BE VERIFIED BY THE CONTRACTOR.



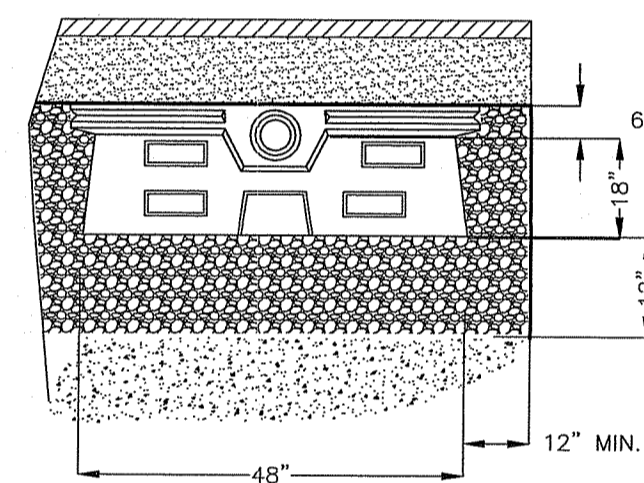
O.W.T.S. (ELJEN) PROFILE
NOT TO SCALE

DESIGN CALCULATION

- 4 BEDROOMS X 115 GALLONS PER BEDR/DAY = 460 GALLONS PER DAY
- PERC. RATE = SOIL CAT 6 = 0.61 GAL/S.F./DAY
- 460 GPD / 0.61 GAL/S.F./DAY = 754 S.F. LEACHING AREA REQUIRED
- 754 S.F. / 28 S.F. PER ELJEN UNIT = 27 ELJENS REQ'D
- TOTAL AREA PROVIDED = 756 S.F. > 754 S.F.

Infiltration System Notes:

1. 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 INFILTRATION PRACTICE LAST.
2. INFILTRATION PRACTICES SHALL BE INSPECTED ANNUALLY AND REPAIRED IF NECESSARY TO ENSURE PROPER DRAINAGE. THE INSPECTION PORT SHALL BE UTILIZED DURING INSPECTION FRO STANDING WATER.



FLOWDIFFUSOR ROOF INFILTRATION CROSS SECTION

ROOF INFILTRATION SIZING CALCULATIONS

- Impervious Roof = 900 s.f.
- Soil type: Sand
- Design Infiltration Rate = 8.27 in/hr
- Intensity = 1-inch
- Water Quality Volume Needed: 900 s.f. x 0.083 (1") = 75 c.f.

Surface Area at Bottom of the system:

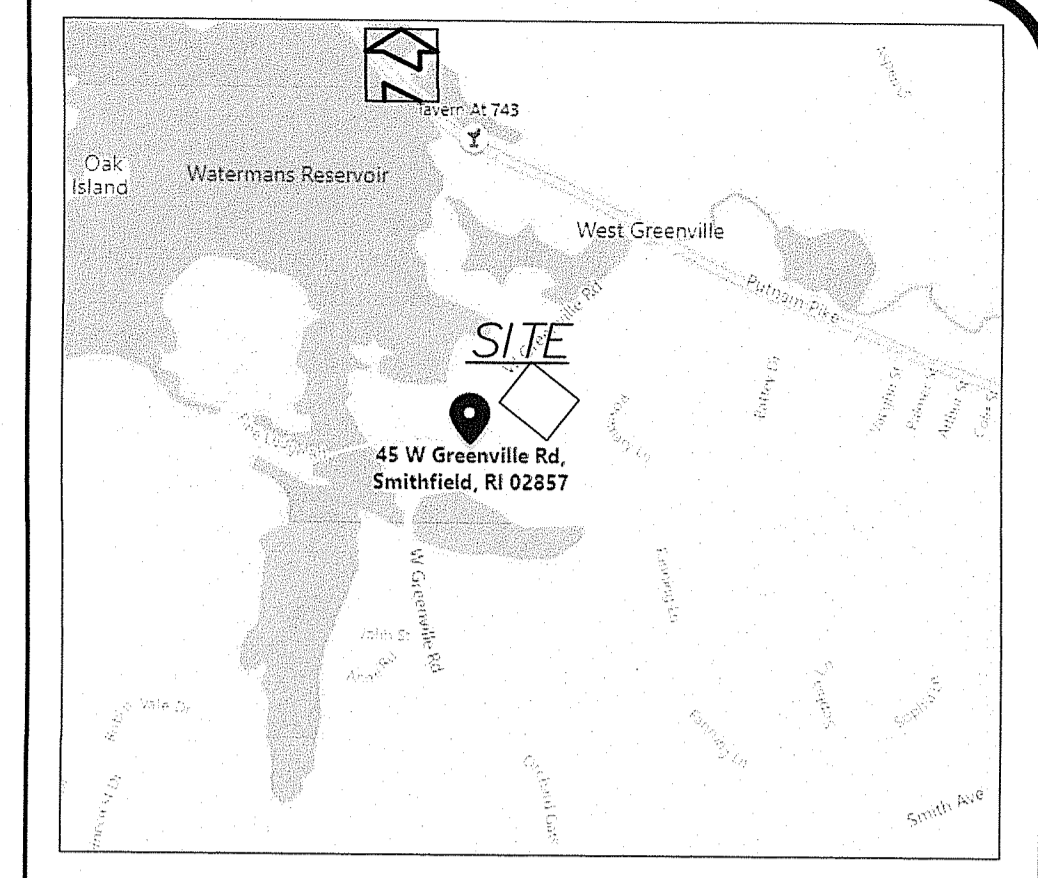
$$L = (WQv) / [(wvd) - (\#Acn) + (\#Ac) + (wt/12)]$$

Where:

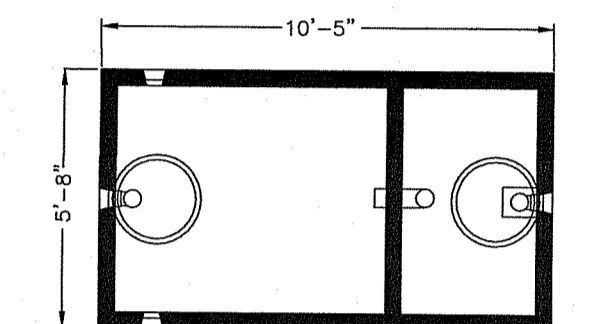
- L = Length of the filter bed (ft)
- d = Filter bed depth (ft) = 1.5 ft
- f = design infiltration rate (use 8.27 in/hr)
- n = Porosity (assume 0.33)
- t = Time to fill chambers (assume 2 hours for design purposes)
- w = Width of infiltration system
- # = Number of rows = 1
- Ac = Cross-sectional area of chamber = 6 sf

$$L = 75 / [(4 \times 1.5 \times 0.33) - (1 \times 6 \times 0.33) + (1 \times 6) + (4 \times 8.27 \times 12)]$$

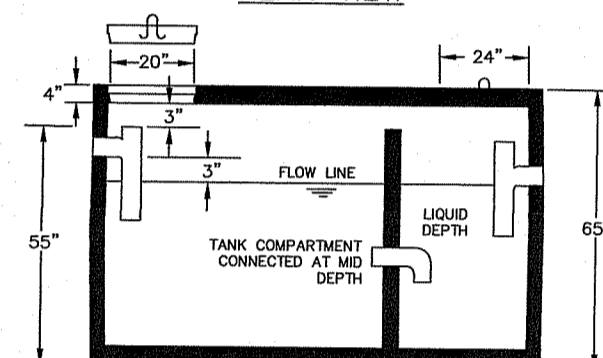
$$L = 6.5 \text{ ft use 2 flowdiffusers w/ 1' of stone on the sides \& bottom}$$



LOCUS MAP NOT TO SCALE



PLAN VIEW

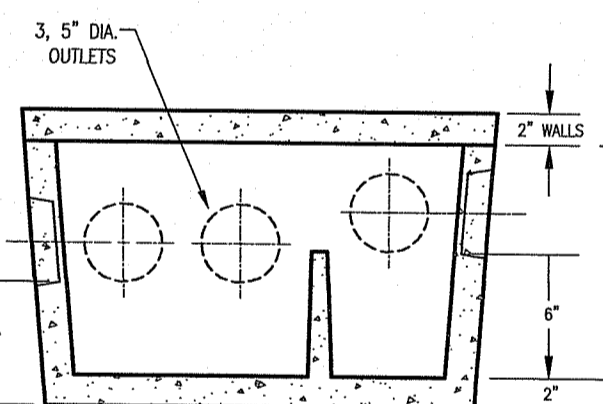


CROSS SECTION VIEW

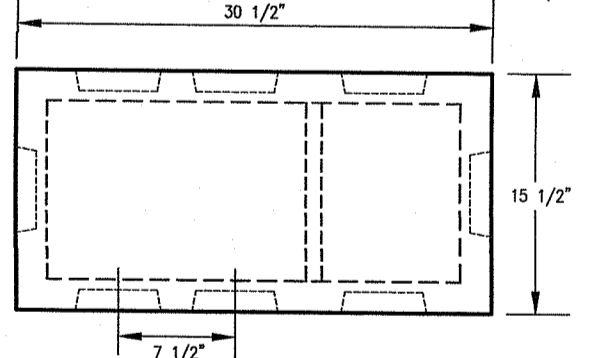
- DESIGN NOTES:
- 1) ALL JOINTS SEALED WITH BUTYL RUBBER SEALANT
 - 2) ALL INLETS AND OUTLETS HAVE STATE-APPROVED SEALS
 - 3) AVAILABLE WITH 8" HEAVY DUTY TOP
 - 4) MEETS ASTM C 1227-97A
 - 5) CONCRETE STRENGTH 5000 PSI MIN. 28 DAYS
 - 6) FIRST COMPARTMENT SHALL HAVE 2/3 TANK CAPACITY.

1500 GALLON 2-COMPARTMENT SEPTIC TANK

JOLLY PRECAST OR EQUAL
NOT TO SCALE



CROSS SECTION VIEW

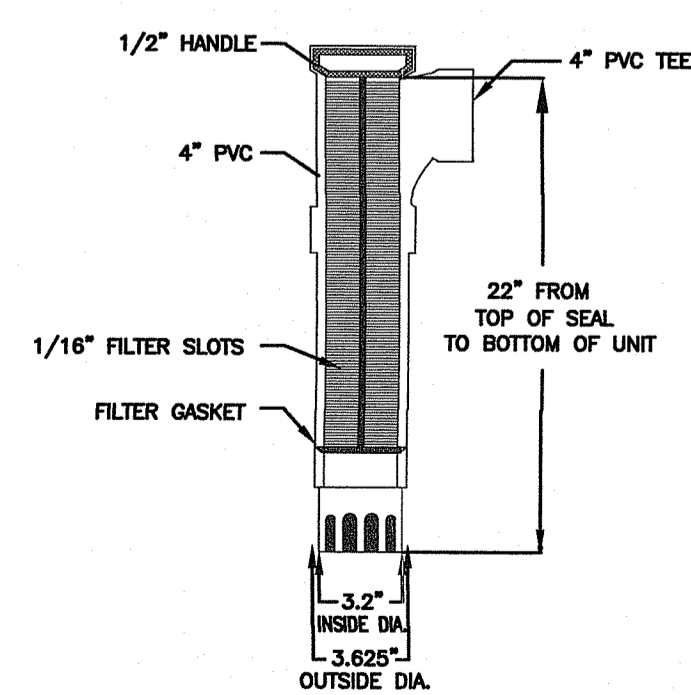


PLAN VIEW

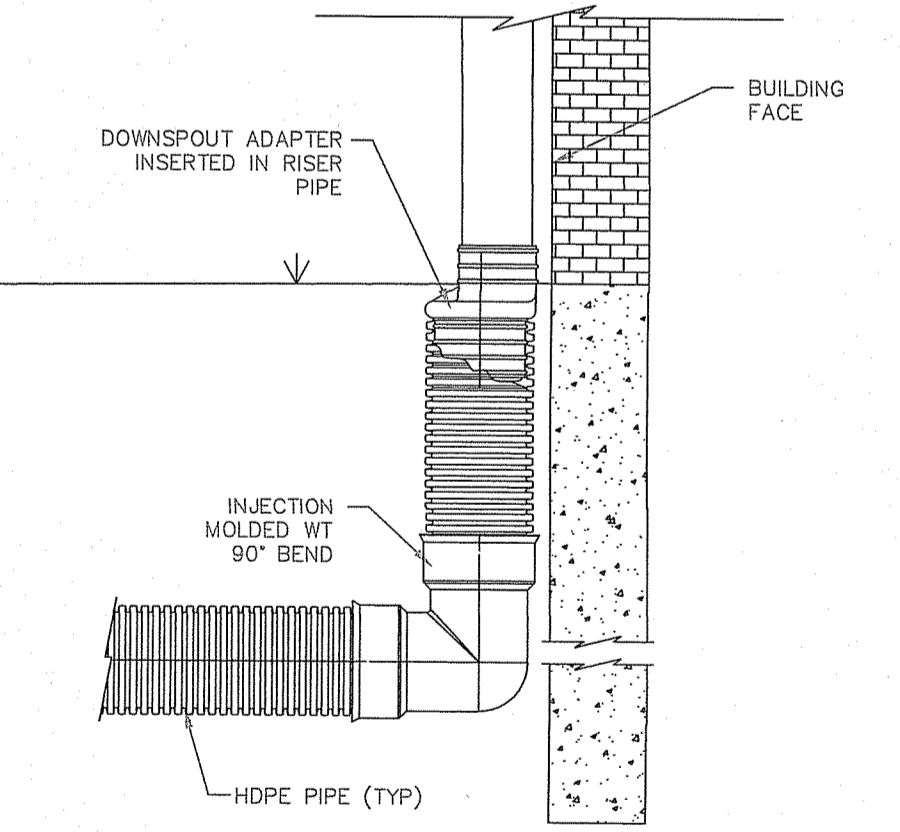
DISTRIBUTION BOX DB-5 W/ BAFFLE
H-20 RATED
NOT TO SCALE

LEGEND

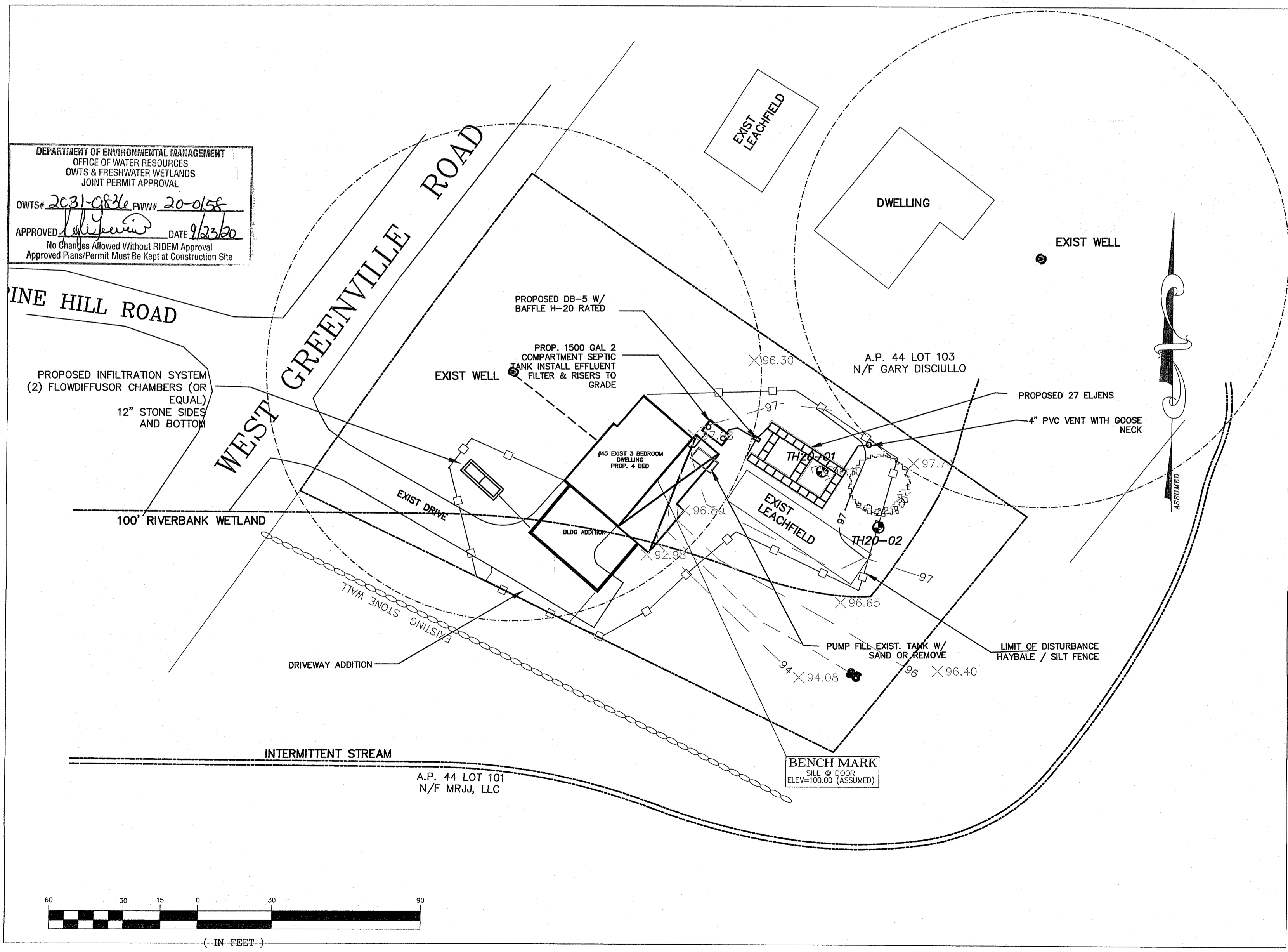
- EX. CONTOUR
- ZONE SETBACK
- ABUTTER PROPERTY LINE
- OWNER PROPERTY LINE
- 270-
- PROPOSED CONTOUR
- WET SEASON EVALUATION
- PERCOLATION TEST
- LEDGE PROBES
- WETLAND FLAG



CROSS SECTION VIEW
ZABEL A1800 EFFLUENT FILTER
NOT TO SCALE

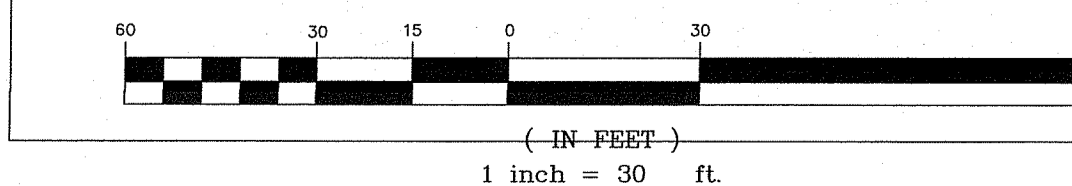


ROOF DRAIN DOWNSPOUT CONNECTION
NOT TO SCALE



DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
OWTS & FRESHWATER WETLANDS
JOINT PERMIT APPROVAL

OWTS# 2031-0816 PWW# 20-0158
APPROVED: [Signature] DATE: 9/23/20
No Changes Allowed Without RIDEM Approval
Approved Plans/Permit Must Be Kept at Construction Site



OWTS SITE PLAN & DETAILS
OWTS ALTERATION
A.P. 44 LOT 102
45 WEST GREENVILLE ROAD SMITHFIELD, RI

PREPARED FOR:
JOSHUA SMITH
45 WEST GREENVILLE ROAD SMITHFIELD, RI 02828

ADVANCED CIVIL DESIGN, INC.
CIVIL ENGINEERS

88 PEEPTOAD ROAD
SCITUATE, RI 02857

NICHOLAS J. PIAMPIANO
No. 6512
REGISTERED PROFESSIONAL ENGINEER (CIVIL)
D3059

NO.	DATE	DESCRIPTION
1	5/7/18/20	PER RIDEM

DATE: JULY 3, 2020
SCALE: AS NOTED
DESIGN/CHECK BY: C.S.R.
SHEET NO. **1** OF 1

P1: (401) 644-8656
P2: (401) 473-4404