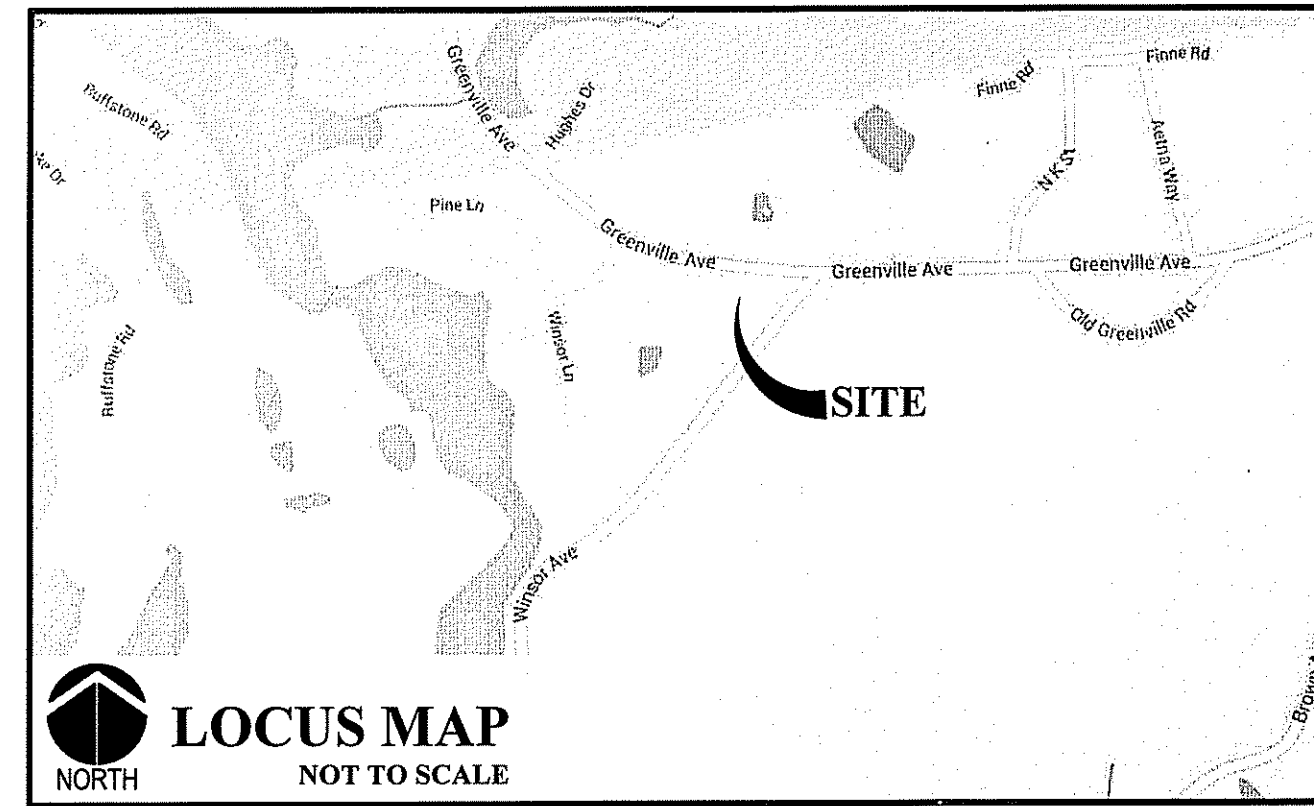


SITE IMPROVEMENTS for a Proposed 2,100 SF SINGLE FAMILY DWELLING

GREENVILLE AVENUE & WINSOR AVENUE
JOHNSTON, RHODE ISLAND
AP 61-1, LOT 293
ZONING DISTRICT: R-40



OWNER/APPLICANT
ORCHARD OAKS BUILDERS
10 ORCHARD AVENUE
GREENVILLE, RI 02888

CIVIL ENGINEER
JOE CASALI ENGINEERING, INC.
300 POST ROAD
WARWICK, RI 02888
PHONE: 401-944-1300
FAX: 401-944-1313

SURVEYOR
INTERNATIONAL MAPPING &
SURVEYING, CORP.
19 INDUSTRIAL DRIVE
SMITHFIELD, RI 02917
PHONE: 401-232-2620
FAX: 401-232-3820

TEST HOLE RESULTS
DATE OF TEST 11/6/2014

TEST HOLE 1
SURFACE ELEV: 280.50
WATER TABLE 277.50 (36")
LEDGE AT 271.50 (108")

TEST HOLE 2
SURFACE ELEV: 281.50
WATER TABLE 278.50 (36")
LEDGE AT 272.50 (108")

PERCOLATION TEST
LOADING RATE = .46 GAL/SF/DAY
PER LEACHING SOIL LAYER CATEGORY 8

DESIGN DATA

DESIGN FLOW
per table 22.1 Wastewater Design Flows
Single family residence: 115 gal/day/bedroom

4 BEDROOM DWELLING: 460 GAL/DAY

DESIGN VALUE: 460 GAL/DAY

460 GAL/DAY @ 0.46 GAL/SF/DAY = 1,000 SF

LEACHFIELD DESIGN
ELJEN IN-DRAIN (TYPE B): 7 SF/LF
ELJEN IN-DRAIN UNIT LENGTH: 4 FT

1,000 SF / 28 SF PER UNIT = 35.71 OR 36 UNITS

37 ELJEN IN-DRAIN UNITS PROVIDED = 1,036 SF

1,036 SF ≥ 1,000 SF ∴ OK

SEPTIC TANK DESIGN:
per 28.1.1 Residential Buildings: For three (3) bedrooms
or less the minimum capacity shall be one thousand (1000) gallons.
For each additional bedroom, add two hundred and fifty (250) gallons.

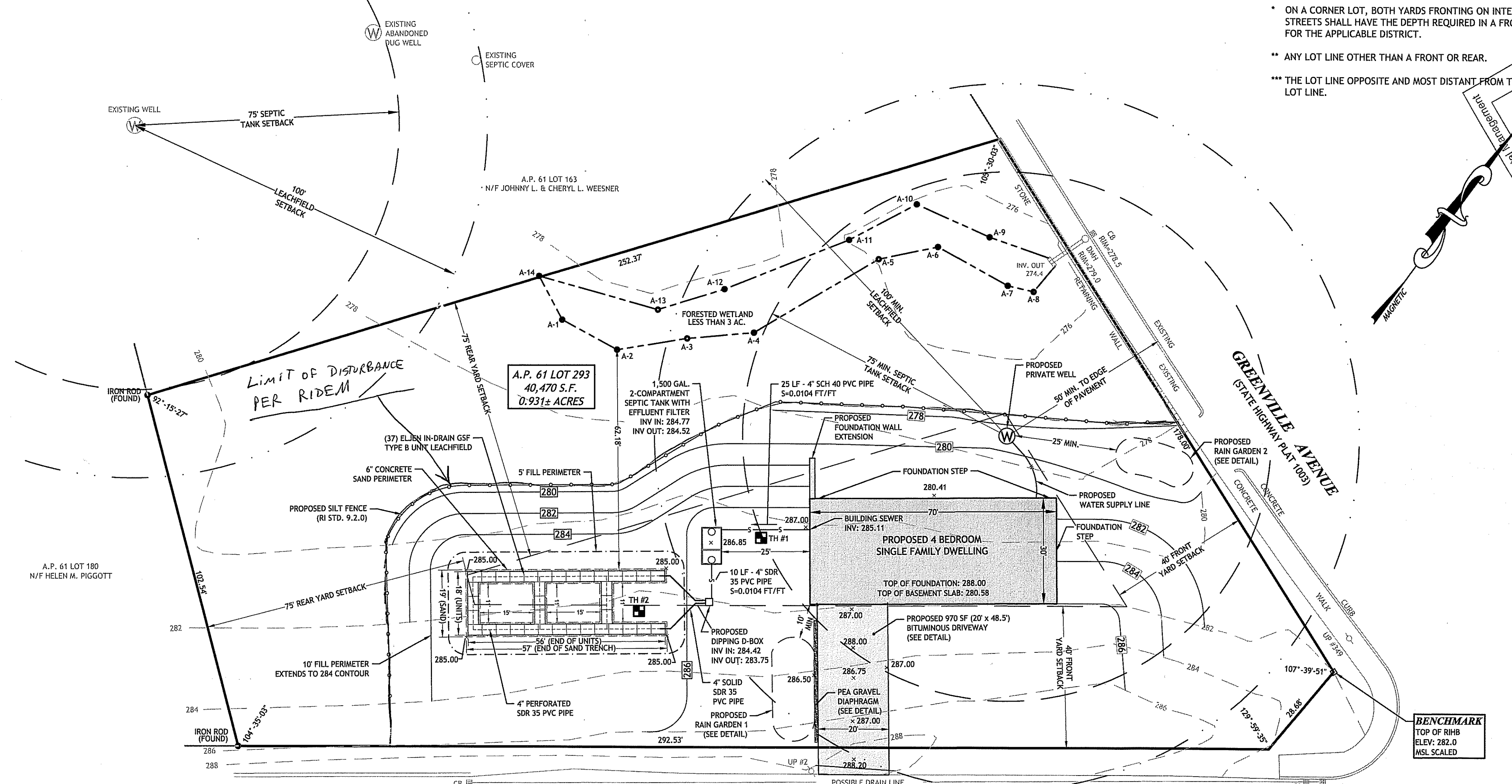
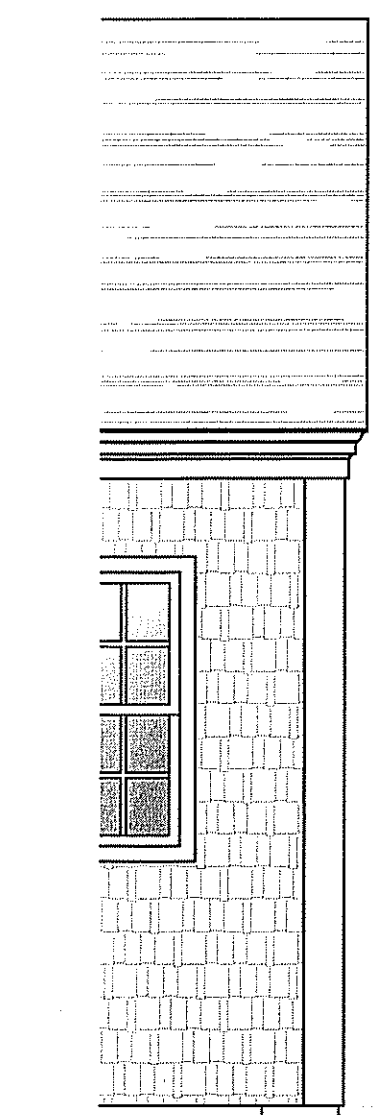
REQUIRED VOLUME: 4 BEDROOMS: 1,250 GALLONS
PROVIDED VOLUME: 1,500 GALLONS

SYSTEM ELEVATIONS:

4" INV. OUT OF DWELLING	285.03
4" INV. IN SEPTIC TANK	284.77
4" INV. OUT SEPTIC TANK	284.52
4" INV. IN DIST. BOX	284.42
4" INV. OUT DIST. BOX	283.75
4" AT BEGINNING OF ELJEN SYSTEM	283.58

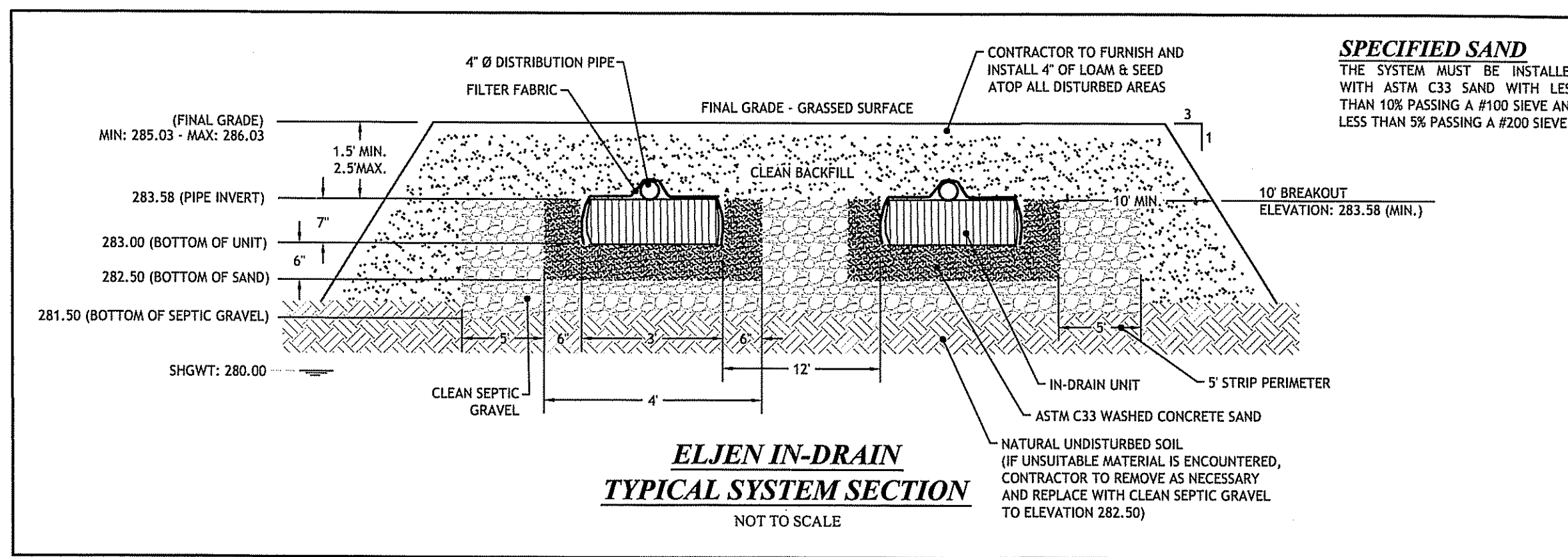
PROPOSED GRADE OVER LEACHING SYSTEM

4" INVERT AT END OF UNITS	285.03
ELEV. AT BOTTOM OF UNITS	283.58
ESTIMATED SHGWT	280.00
ESTIMATED LEDGE	N/A
SEPARATION FROM SHGWT	3.00'



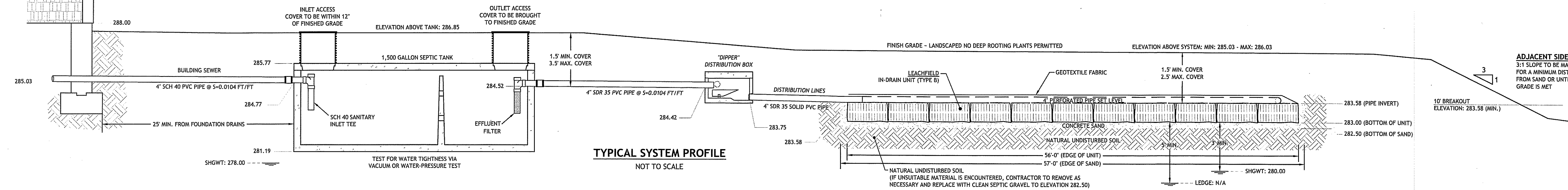
ZONING CRITERIA	REQUIRED	PROPOSED
ZONING DISTRICT	R-40	R-40
MINIMUM LOT AREA	40,000 SF	40,470 SF
MINIMUM LOT FRONTAGE	140 FT	292 FT
MINIMUM LOT FRONTAGE ON CUL-DE-SAC	60 FT	N/A
MINIMUM FRONT YARD SETBACK	40 FT	40 FT
MINIMUM SIDE YARD SETBACK	35 FT	N/A
MINIMUM REAR YARD SETBACK	75 FT	82 FT
MAXIMUM BUILDING HEIGHT	30 FT	<30 FT

* ON A CORNER LOT, BOTH YARDS FRONTING ON INTERSECTING STREETS SHALL HAVE THE DEPTH REQUIRED IN A FRONT YARD FOR THE APPLICABLE DISTRICT.
** ANY LOT LINE OTHER THAN A FRONT OR REAR.
*** THE LOT LINE OPPOSITE AND MOST DISTANT FROM THE FRONT LOT LINE.



SPECIFIED SAND
THE SYSTEM MUST BE INSTALLED WITH ASTM C33 SAND WITH LESS THAN 10% PASSING A #100 SIEVE AND LESS THAN 5% PASSING A #200 SIEVE

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
REVIEWED SITE PLAN APPLICATION NO.: 15-0107
DATED JUN 29 2015
SEE LETTER OF SAME DATE.



JCE
JOE CASALI ENGINEERING, INC.
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JOSEPH A. CASALI
No. 7250
REGISTERED PROFESSIONAL ENGINEER
CIVIL

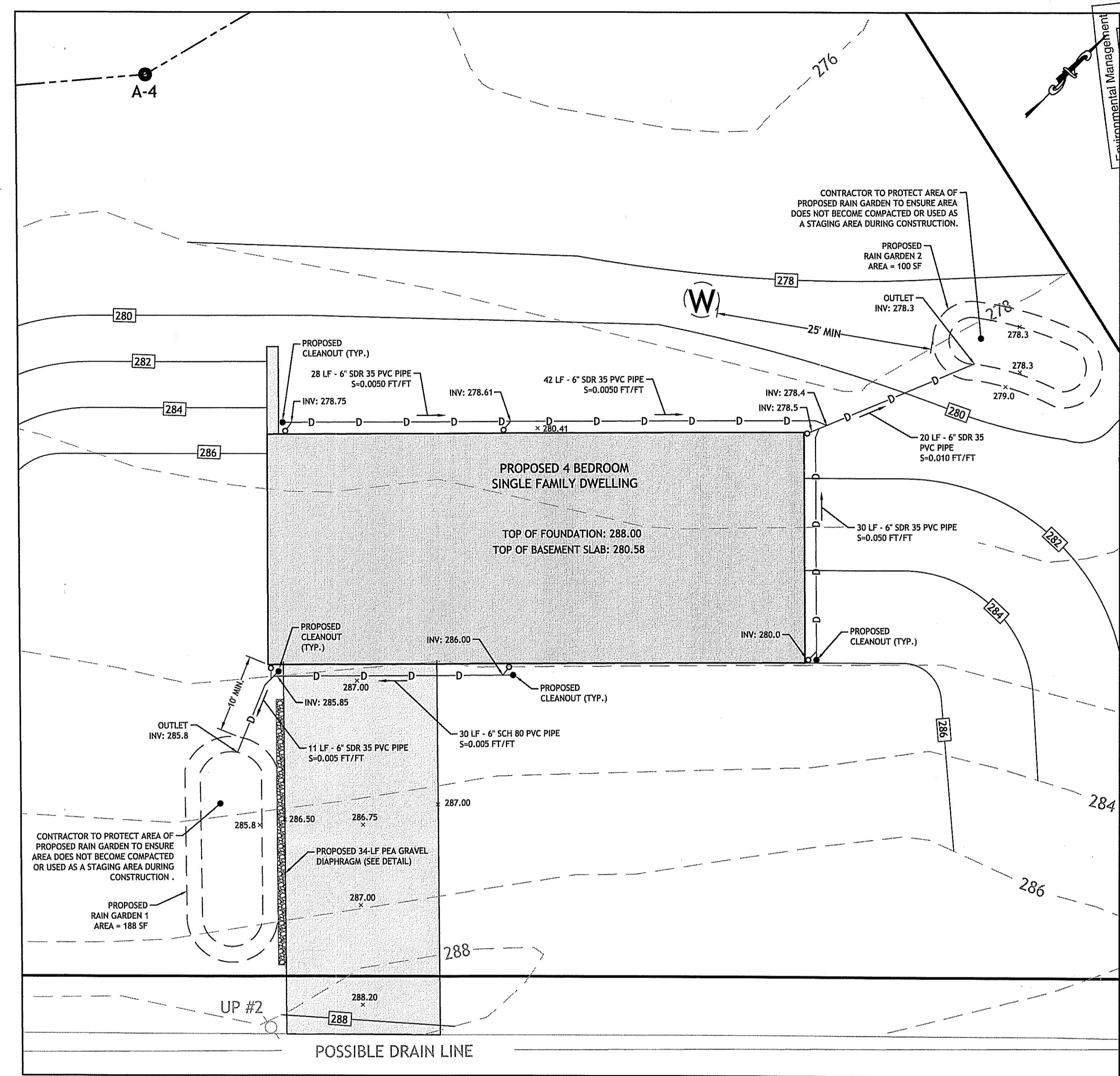
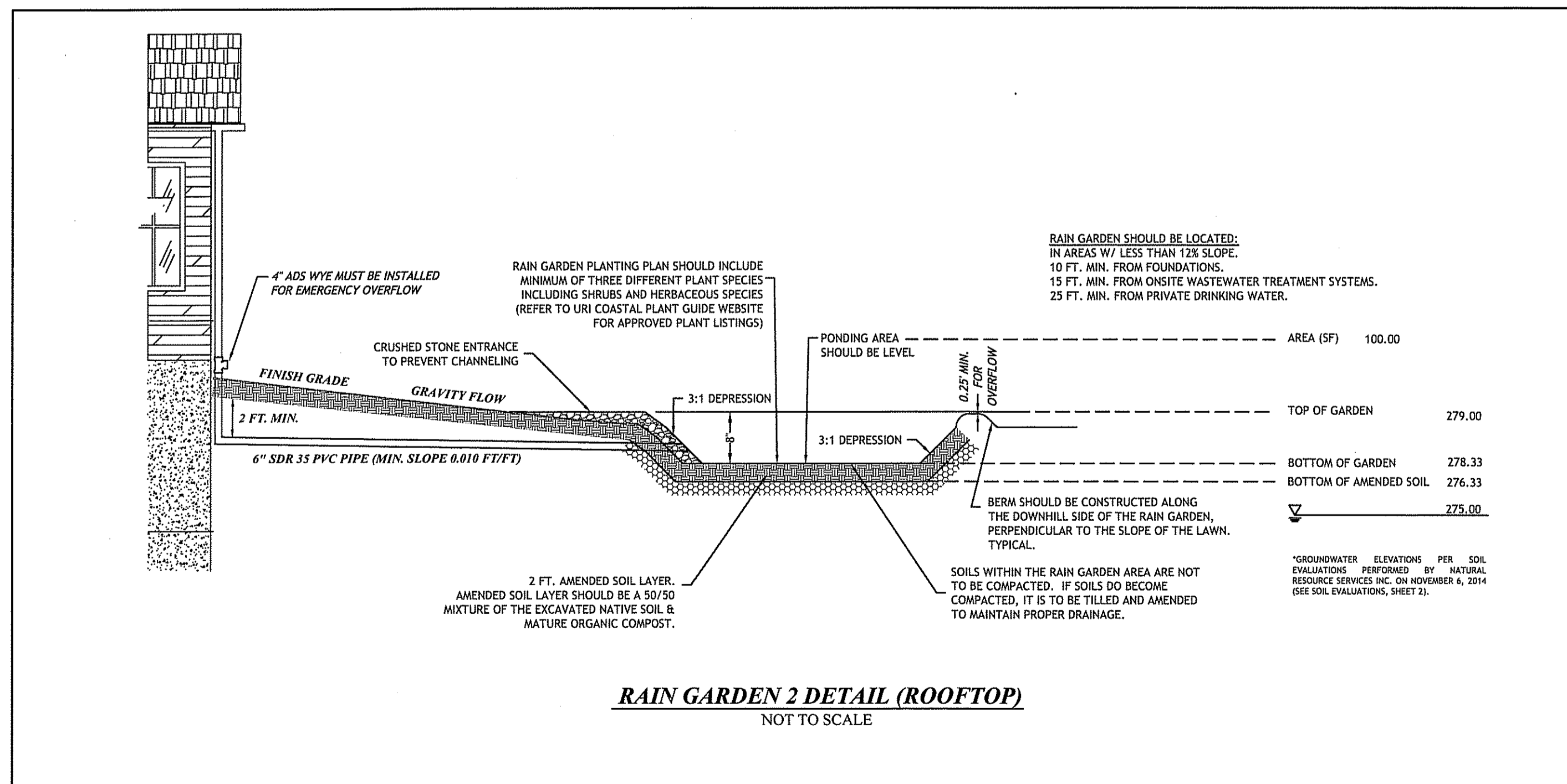
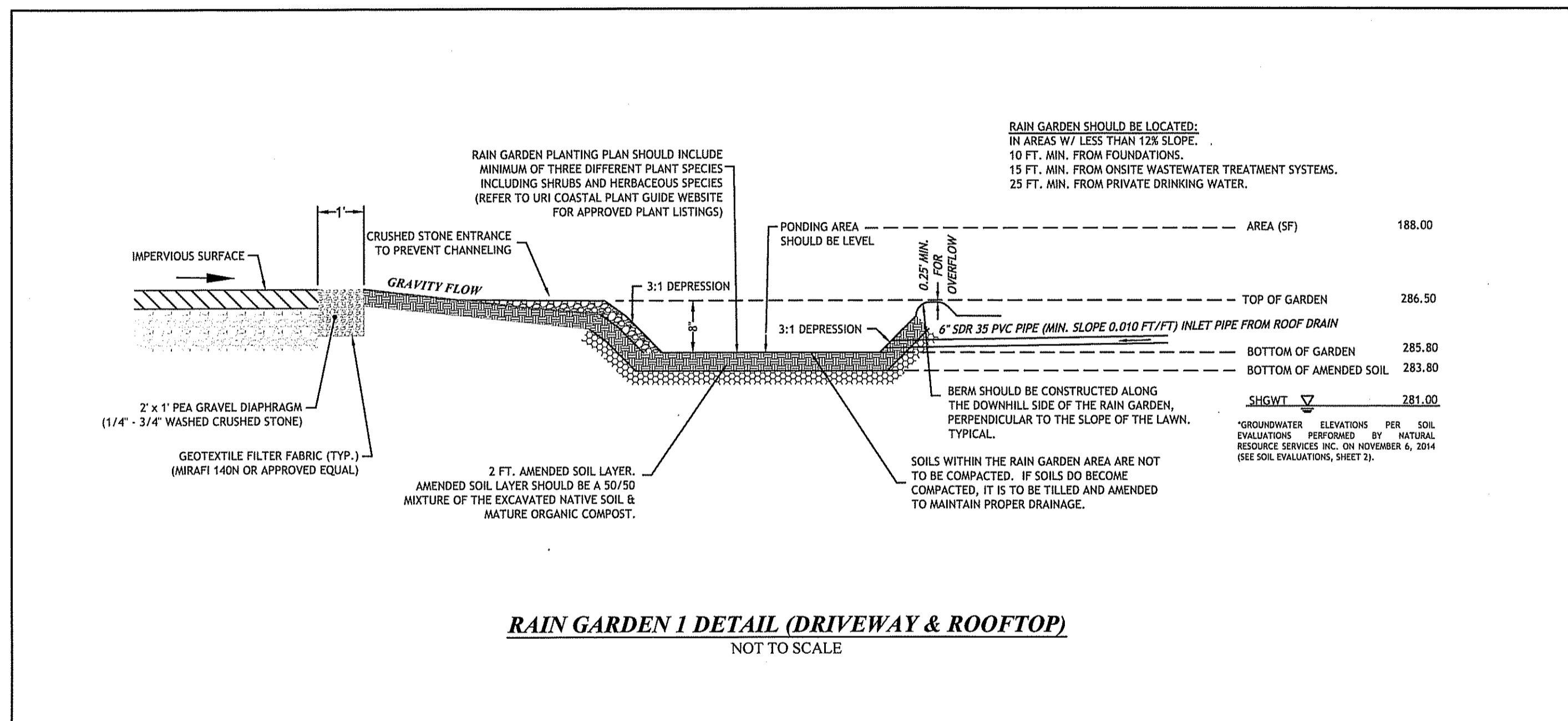
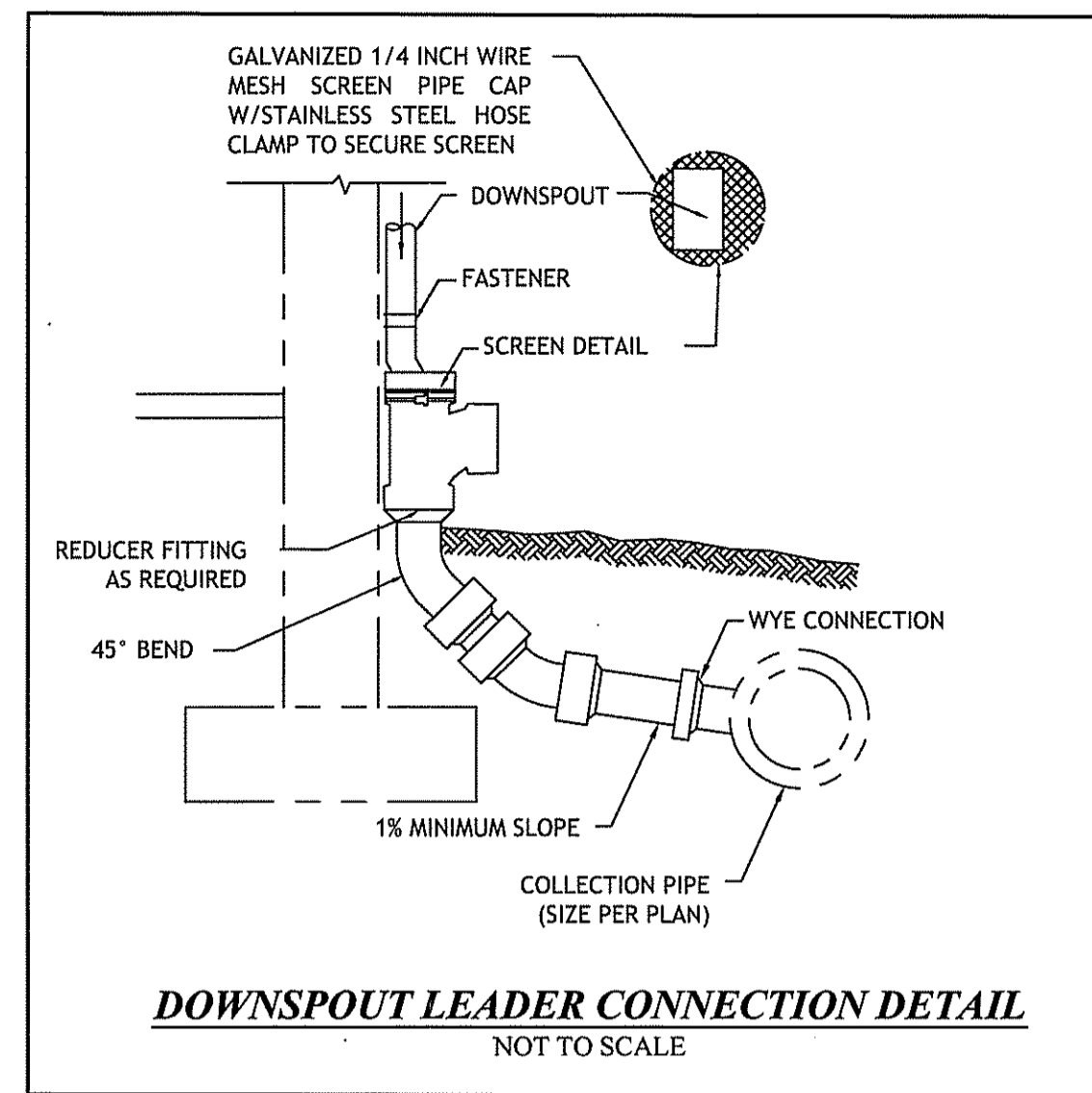
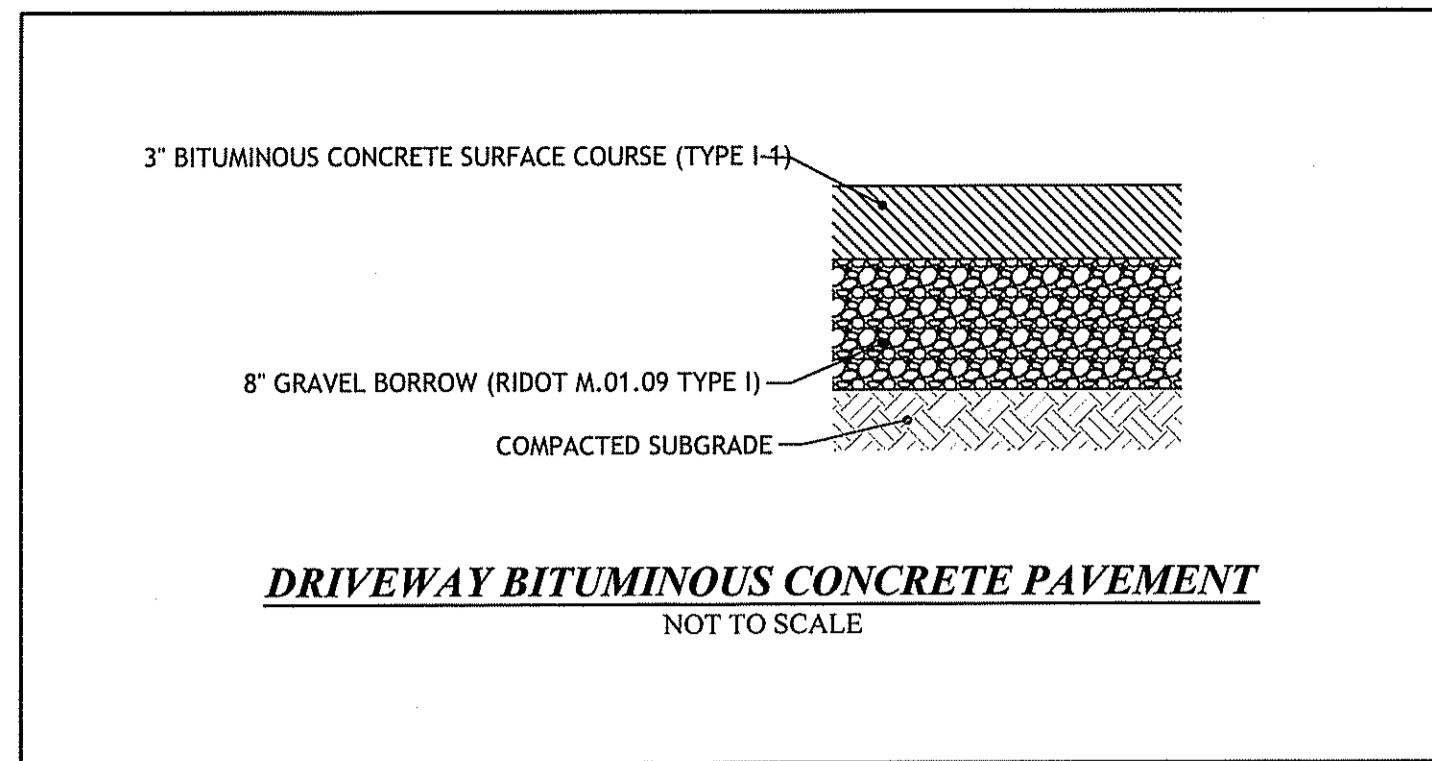
SINGLE FAMILY HOME
GREENVILLE AVENUE & WINSOR ROAD
JOHNSTON, RHODE ISLAND

REVISIONS:

NO.	DATE	DESCRIPTION

DESIGNED BY: WMLJR/JWH
DRAWN BY: JWH
CHECKED BY: JAC
DATE: MAY 6, 2015
PROJECT NO: 14-238

OWTS SITE PLAN
SHEET 1 OF 3



DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
REVIEWED SITE PLAN APPLICATION NO. 15-009
DATED JUN 29 2015
SEE LETTER OF SAME DATE.

RAIN GARDEN NOTES

- RAIN GARDENS SHALL BE INSPECTED FOLLOWING AT LEAST THE FIRST TWO PRECIPITATION EVENTS OF AT LEAST 1.0 INCH TO ENSURE THAT THE SYSTEM IS FUNCTIONING PROPERLY. THEREAFTER, THE RAIN GARDEN SHALL BE MONITORED AND MAINTAINED TO ASSURE PROPER FUNCTIONING, PLANT GROWTH AND SURVIVAL. PLANTS SHALL BE REPLACED ON AN AS-NEEDED BASIS DURING GROWING SEASON.
- SILTS/SEDIMENT SHALL BE REMOVED FROM THE RAIN GARDEN WHEN ACCUMULATION EXCEEDS ONE INCH, OR WHEN WATER PONDS ON THE SURFACE OF THE RAIN GARDEN FOR MORE THAN 48 HOURS. THE TOP FEW INCHES OF MATERIAL SHALL BE REMOVED AND SHALL BE REPLACED WITH FRESH SOIL MIXTURE & MULCH.
- PRUNING OR REPLACEMENT OF WOODY VEGETATION SHALL OCCUR WHEN DEAD OR DYING VEGETATION IS OBSERVED.
- SOIL EROSION GULLIES SHALL BE REPAIRED AS THEY OCCUR.
- FERTILIZER OR PESTICIDES SHALL NOT BE APPLIED TO PLANTS WITHIN RAIN GARDENS.
- PERENNIAL PLANTS AND GROUND COVER SHALL BE REPLACED AS NECESSARY TO MAINTAIN AN ADEQUATE VEGETATED GROUND COVER. ANNUAL PLANTS MAY ALSO BE USED TO MAINTAIN GROUND COVER.

Environmental Management
JUN - 3 2015
Office of Water Resources
JCE
JOE CASALI ENGINEERING, INC.
CIVIL, SITE DEVELOPMENT, TRANSPORTATION,
DRAINAGE, WETLANDS, ISDS, TRAFFIC, FLOODPLAIN
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JOSEPH A. CASALI
No. 7250
REGISTERED PROFESSIONAL ENGINEER
CIVIL
6.21.15

SINGLE FAMILY HOME
GREENVILLE AVENUE & WINSOR RAOD
JOHNSTON, RHODE ISLAND

REVISIONS:

NO.	DATE	DESCRIPTION

DESIGNED BY: WML/R/JWH
DRAWN BY: JWH
CHECKED BY: JAC
DATE: MAY 6, 2015
PROJECT NO: 14-23a

DRAINAGE DETAILS