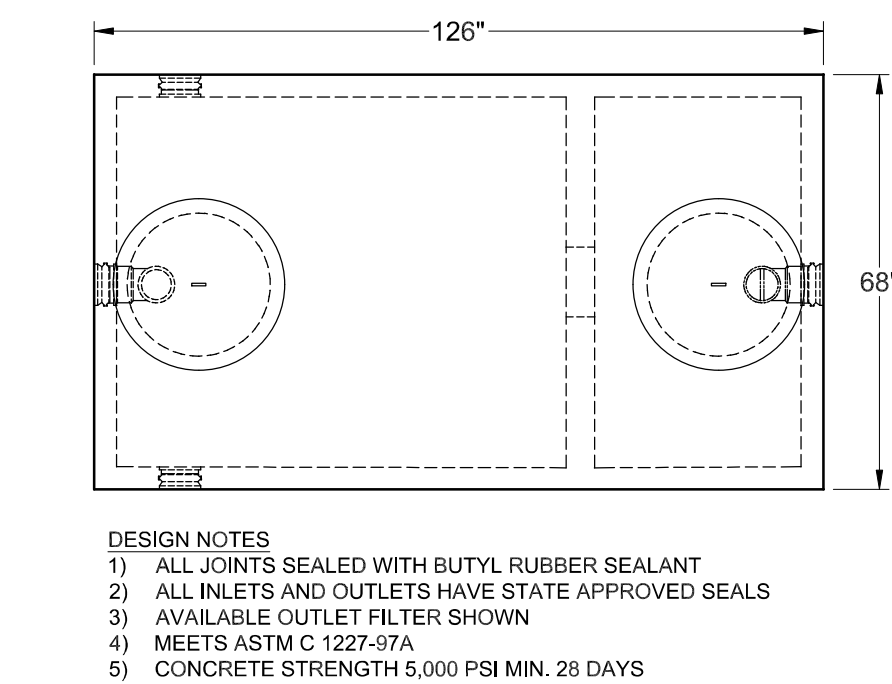
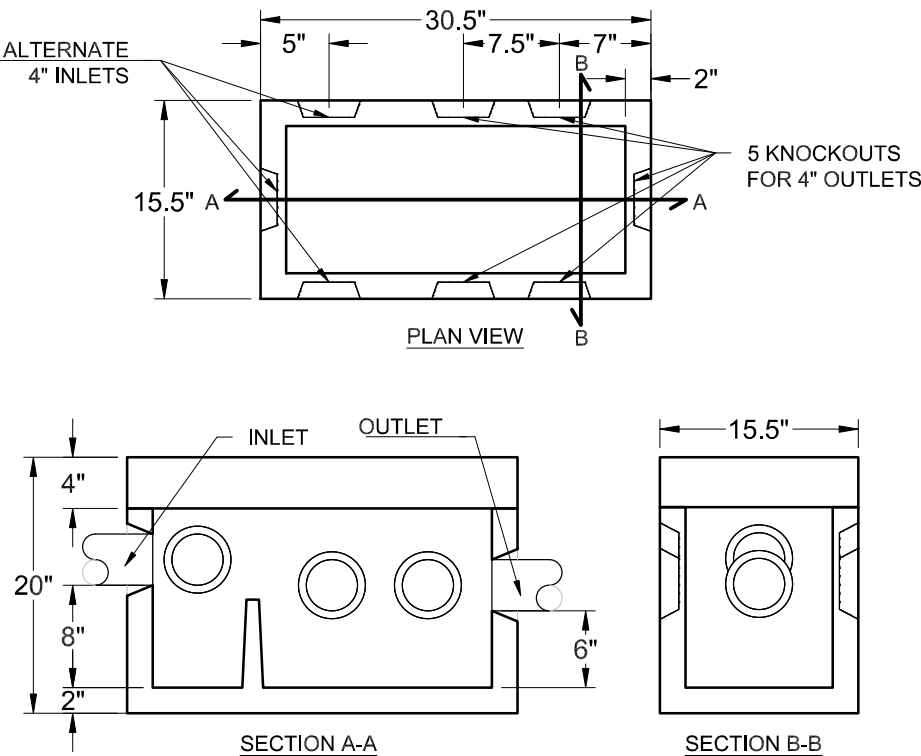


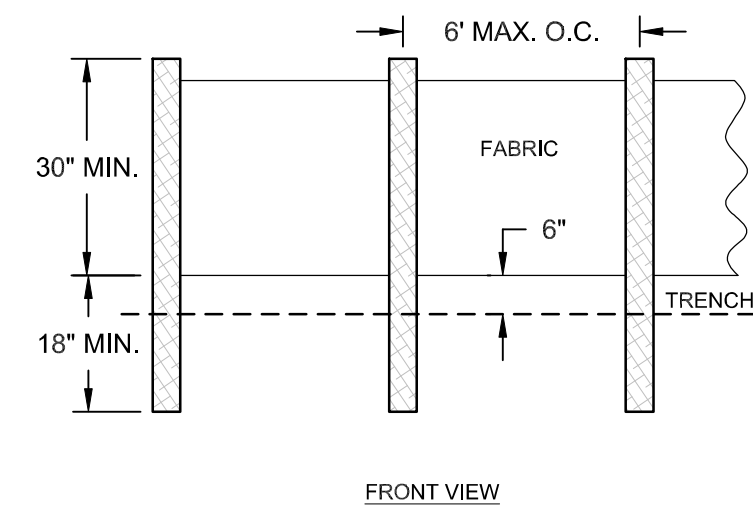
2 GST 62 SECTION A-A
SCALE: NTS



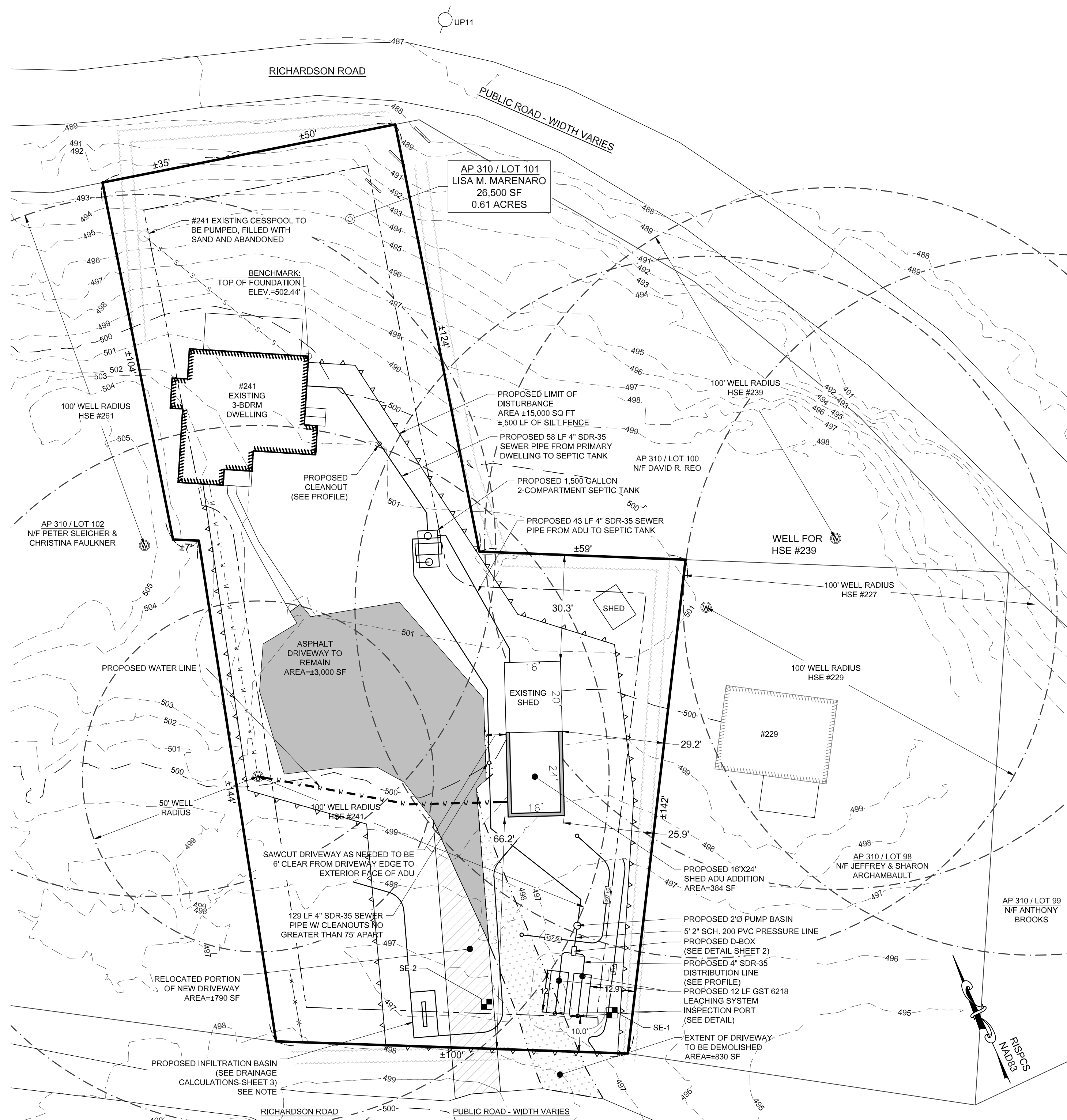
4 1,500 GAL. 2-COMP. SEPTIC TANK (PLAN)
SCALE: NTS DETAIL FROM JOLLEY PRECAST INC.



6 5-OUTLET DISTRIBUTION BOX
SCALE: NTS DETAIL FROM CONCRETEPRODUCTSINC.COM



8 SILT FENCE DETAIL FRONT VIEW
SCALE: NTS



A PROPOSED OWTS PLAN
SCALE: 1"=20'

DRAINAGE CALCULATIONS:

AREA OF ASPHALT TO BE REMOVED (CREDITED) = 830 SF

AREA OF NEW ASPHALT DRIVEWAY TO BE INSTALLED=790 SF

AREA OF ADU ADDITION=384 SF

PROPOSED - CREDITED = DRAINAGE AREA REQUIRED
 $(790+384) - 830 = 344$ SF OF IMPERVIOUS AREA REQUIRING DRAINAGE

INFILTRATION BASIN SIZING:

TOP DIMENSIONS= 13' X 7'
BOTTOM DIMENSIONS=1' X 7'
BASIN HEIGHT= 1'







$((\text{TOP AREA} + \text{BOTTOM AREA}) / 2) \text{ BASIN HEIGHT}) > (\text{REQUIRED AREA} / 12)$

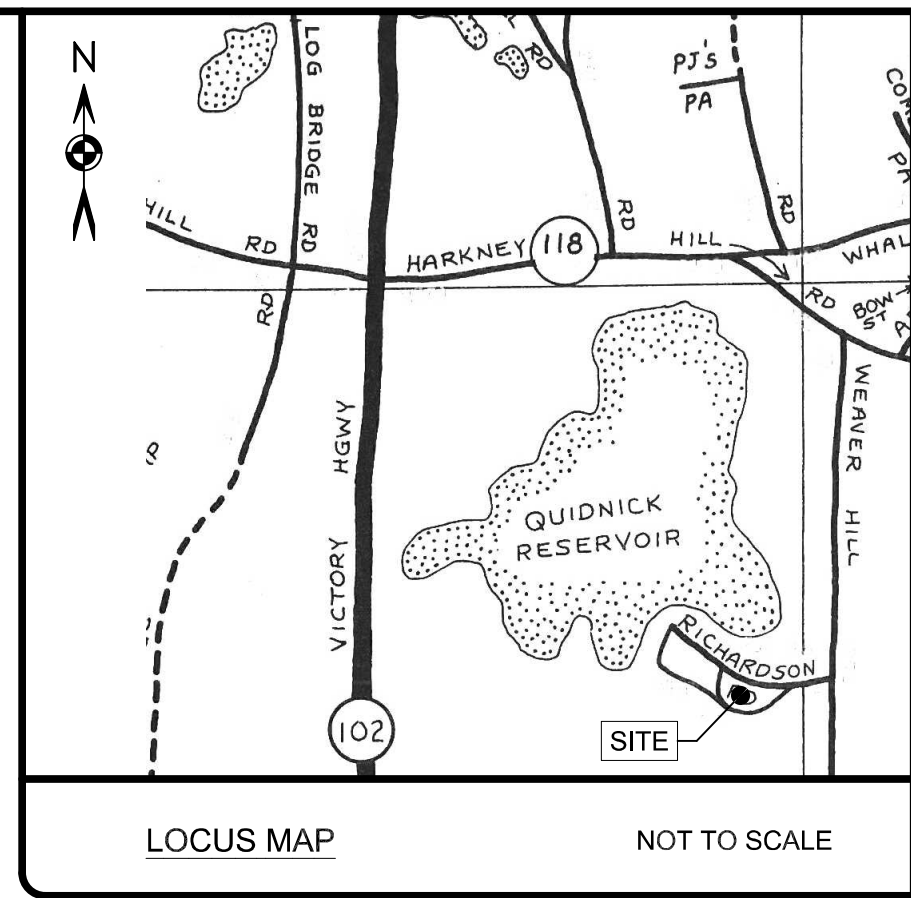
$((91+7) / 2) \cdot 1 = 49 \text{ CF} > (344 / 12) = 29 \text{ CF}$

49 CF PROVIDED > 29 CF REQUIRED

OWTS NOTES:

- 1) EXCAVATE THE OWTS AREA AND 5 FEET ALL AROUND TO ELEV. $\pm 280.58'$ OR TO REMOVE SUBSOIL AND FINES (AS NECESSARY).
- 2) INSTALL SEPTIC GRAD TO ELEV. $\pm 281.05'$.
- 3) INSTALL 3" OF CONCRETE SAND, THEN INSTALL THE GST G216 TEMPLATES.
- 4) FOLLOW THE RHODE ISLAND GST INSTALLATION MANUAL.
- 5) LOCATION OF UNDERGROUND UTILITIES IS APPROXIMATE AND SHOULD BE VERIFIED BY THE CONTRACTOR PRIOR TO ANY CONSTRUCTION ACTIVITIES.
- 5) THE INSTALLER SHALL CONTACT THE DESIGNER PRIOR TO THE START OF CONSTRUCTION.
- 6) THE INSTALLER SHALL PROVIDE COPIES OF ANY STATE INSPECTION REPORTS AND RECEIPTS FOR MATERIALS AND COMPONENTS.

LEGEND / ABBREVIATIONS / SYMBOLS		
AP	ASSESSOR'S PLAT	SUBJECT PROPERTY LINE
OG	ORIGINAL GRADE	EXISTING GRADE CONTOUR
FG	FINISH GRADE	PROPOSED GRADE CONTOUR
WT	WATER TABLE	EDGE OF CLEARING
TD	TOTAL DEPTH	WATER LINE
LF	LINEAR FEET	OVERHEAD ELECTRIC LINE
UP#2	UTILITY POLE	EXISTING BUILDING ENCLOSURE
	SOIL EVALUATION	PROPOSED BUILDING
	CATCH BASIN	IMPERVIOUS AREA TO BE DEMOLISHED
	WELL	CONCRETE
	HYDRANT	ASPHALT DRIVEWAY
	OAK TREE	DECK
	BEECH TREE	WALKWAY



- GENERAL NOTES:
- 1) THE PROPOSED EROSION CONTROL ON THIS PLAN SHALL BE INSTALLED PRIOR TO ANY CONSTRUCTION ACTIVITY.
 - 2) REFER TO 80106-0425 FOR SOIL EVALUATION DATA.
 - 3) DO NOT PARK ON OWTS AREA.
 - 4) SEED OWTS AREA WITH GRASS.
 - 5) EXTEND SEPTIC TANK MANHOLES TO GRADE AS SHOWN IN PROFILE. GRADE TO DIVERT RUNOFF AWAY.
 - 6) REMOVE ALL VEGETATION AND TREES WITHIN 10' OF THE PROPOSED OWTS.
 - 7) NO LOTS EXIST OR ARE PROPOSED WITHIN 200' OF THE PROPOSED OWTS, EXCEPT AS SHOWN.
 - 8) NO PUBLIC WELLS EXIST OR ARE PROPOSED WITHIN 500' OF THE PROPOSED OWTS.
 - 9) LOT LINES SHOWN ARE APPROXIMATE AND SHOULD BE VERIFIED PRIOR TO CONSTRUCTION ACTIVITY.
 - 10) USE 4" DIAMETER SEWER PIPE (SP-30) WITH WATERTIGHT JOINTS.
 - 11) DESIGNER MUST SUPERVISE ALL PHASES OF THE OWTS INSTALLATION.
 - 12) THE DATUMS ARE NAD83 & NAVD83.
 - 13) THE DISTANCE BETWEEN ANY EVER EVALUATION RUNS SHALL NOT BE GREATER THAN 75 FEET.

- OWTS NOTES:**
- 1) EXCAVATE THE OWTS AREA AND 5 FEET ALL AROUND TO ELEV. $\pm 493.50'$ OR TO REMOVE SUBSOIL AND FINES (AS NECESSARY).
 - 2) INSTALL SEPTIC GRAVEL TO ELEV. $\pm 494.00'$.
 - 3) INSTALL 3" OF CONCRETE SAND, THEN INSTALL THE GST #219 TEMPLATES. FOLLOW THE RHODE ISLAND GST INSTALLATION MANUAL.
 - 4) LOCATION OF UNDERGROUND UTILITIES IS APPROXIMATE AND SHOULD BE VERIFIED BY THE CONTRACTOR PRIOR TO ANY CONSTRUCTION ACTIVITIES.
 - 5) THE INSTALLER SHALL CONTACT THE DESIGNER PRIOR TO THE START OF CONSTRUCTION.
 - 6) THE INSTALLER SHALL PROVIDE COPIES OF ANY STATE INSPECTION REPORTS AND RECEIPTS FOR MATERIALS AND COMPONENTS.

CERTIFICATION

THIS SURVEY HAS BEEN CONDUCTED AND THE PLAN HAS BEEN PREPARED PURSUANT TO SECTION 435-RICR-00-00-1.9 OF THE RULES AND REGULATIONS ADOPTED BY THE RHODE ISLAND STATE BOARD OF REGISTRATION FOR PROFESSIONAL LAND SURVEYORS ON NOVEMBER 25, 2015, AS FOLLOWS:

(A) TYPE OF BOUNDARY SURVEY: NOT A BOUNDARY SURVEY - CLASS 4

(B) OTHER TYPE OF SURVEY: DATA ACCUMULATION SURVEY - LOCATION OF SITE FEATURES AND TOPOGRAPHY - CLASS 3

(C) STATEMENT OF PURPOSE: THE PURPOSE OF THIS SURVEY AND PLAN IS TO ESTABLISH RECORD BOUNDARY LINES AND SHOW THEIR RELATIONSHIP TO EXISTING SITE FEATURES SUFFICIENT TO PREPARE AN OWTS DESIGN FOR A DWELLING ADDITION.

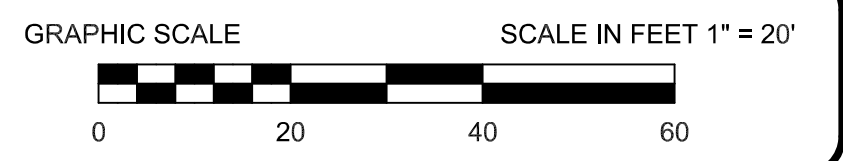
BY: Samuel Suon Jun. 9, 25
REGISTERED PROFESSIONAL LAND
SURVEYOR SIGNATURE

Samuel R. Suorsa, PLS
REGISTERED PROFESSIONAL LAND
SURVEYOR PRINTED NAME

A-68
CERTIFICATE OF AUTHORIZATION NO.

OWTS PLAN FOR EXISTING DWELLING & PROPOSED ADU

241 RICHARDSON ROAD
COVENTRY, RHODE ISLAND
ASSESSOR'S PLAT 310 / LOT 101
PREPARED FOR: LISA MARENARO
241 RICHARDSON ROAD, COVENTRY, RI 02816
401-451-7965 | lmarenaro@cox.net

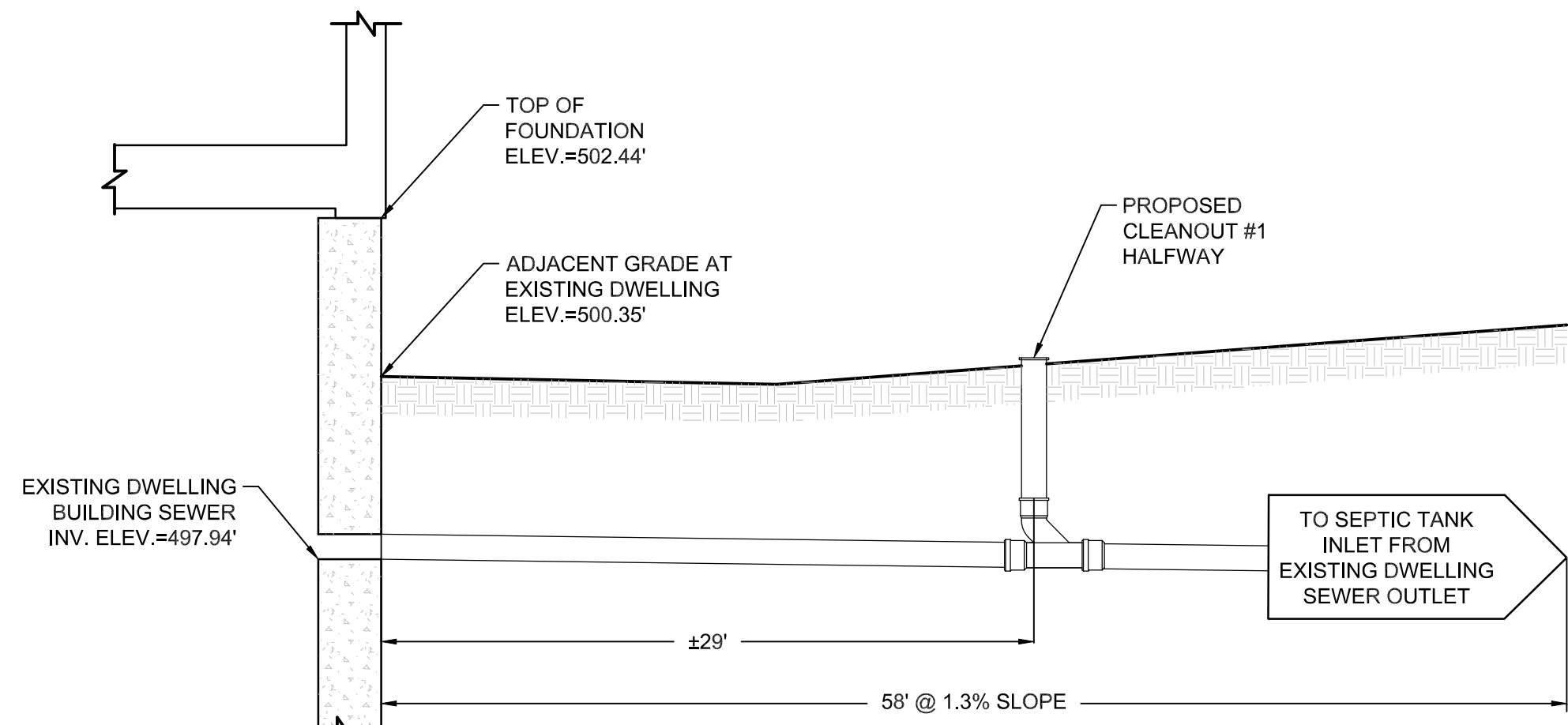


DRAWN BY:	RC	DATE	SHEET
CHECKED BY:	SRS		
APPROVED BY:	SRS		
APPROVED BY:	JWH		
		Jun. 9, 25	1 OF 2

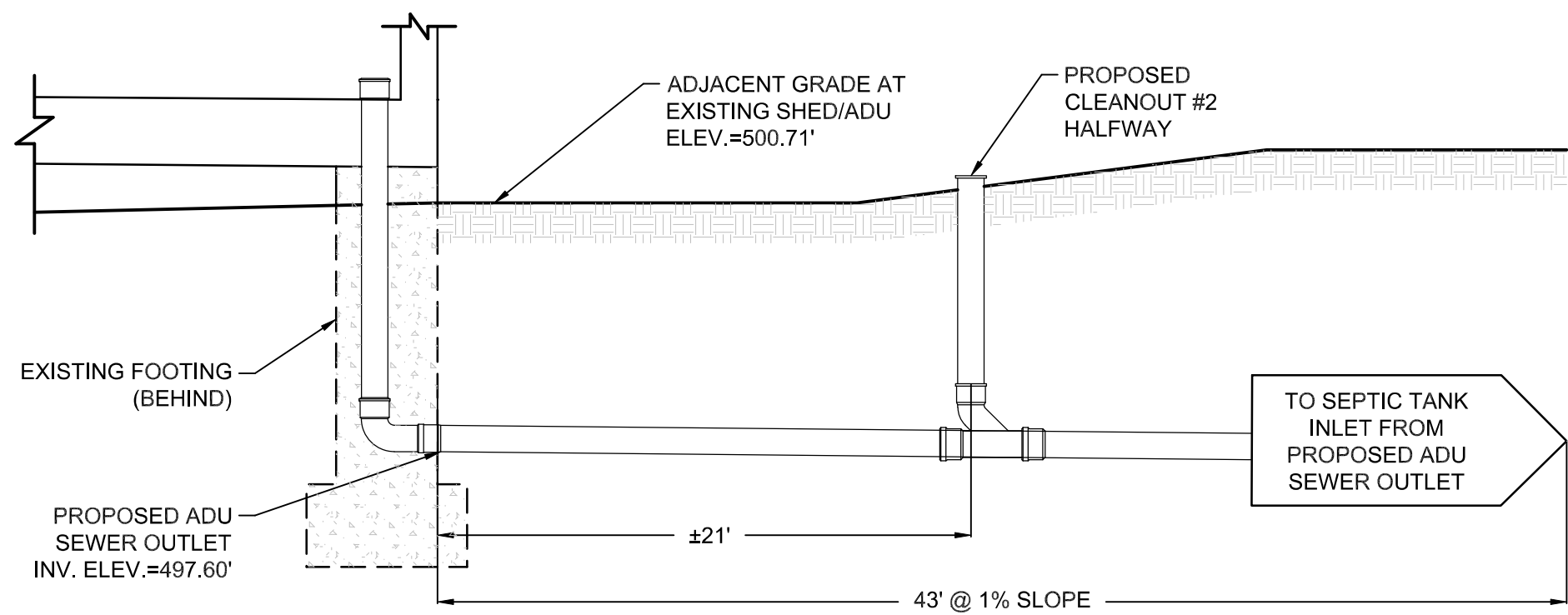
REVISIONS:



CSDG
Coventry Survey Design Group
46 South Main Street
Coventry, RI 02816
401-823-5028
coventrysurvey.com



9 SEPTIC PROFILE
EXISTING HOUSE TO TANK
SCALE: NTS



12 SEPTIC PROFILE
PROPOSED ADU TO TANK
SCALE: NTS

GST 6218 LEACHING SYSTEM DESIGN DATA TABLE:

EXISTING GRADE ELEVATION AT AREA OF LEACHFIELD = 497.00'
MAXIMUM GROUND WATER ELEVATION AT AREA OF LEACHFIELD = 491.00'

RECEIVING SOILS = CATEGORY 1 & 5
CATEGORY 1 TECHNOLOGY LOADING RATE = 2.3 GAL/SF/DAY
NUMBER OF UNITS = 4 BEDROOM (BR)

4 BR x 115 GAL/BR/DAY = 460 GAL/DAY x 1 DAY/2.3 GAL/SF = 200 SF REQUIRED
GST 6218 PROVIDES 24.8 SF/LF = 200 SF/ 24.8 SF/LF = 8.06 LINEAR FEET REQUIRED

SYSTEM AREA PROPOSED = (1) 16 LF TRENCH X 24.8 SF/LF = 396 SQUARE FEET PROVIDED

CONCRETE TANK BUOYANCY CALCULATION:

WEIGHT OF 1,500 GALLON CONCRETE TANK:
82.67 FT³ (150LB/FT³)=12,400 WEIGHT OF TANK

WEIGHT OF SOIL
8.5'X4.83'X0.41'X90 LB/FT³=1,515 LBS OF SOIL ABOVE TANK

BUOYANCY OF WATER
8.5'X4.83'X3.33'X62.4 LB/FT³=8,530 LBS OF BUOYANT FORCE

TANK+COVER SOIL > BUOYANT FORCE
13,915 LBS > 8,530 LBS

ADVANTECH AX-20 FILTER PUMP DOSE VOLUME CALCULATION

TOTAL DAILY FLOW =460 GALLONS/DAY
DOSING RATE OF FILTER/ZONE:
70 ORIFICES @ .18 GAL/ORIFICE/DOSE= 12.6 GALLONS/CYCLE
460 GAL/DAY ÷ 12.6 GAL/CYCLE = 36.51 = 37 CYCLES/DAY
1440 MINUTES/DAY ÷ 37 CYCLES/DAY = 38.9 MINUTES/CYCLE
TOTAL CYCLES PER DAY: 37 CYCLES X 12.6 GALLON/CYCLE = 466.2 GPD
PUMP TIME ON=25 SECONDS - 12.6 GAL./CYCLE X 2.4 = 30.2 GPM
PUMP TIME OFF=19.70 MINUTES

ADVANTECH AX-20 FILTER PUMP DOSE VOLUME CALCULATION

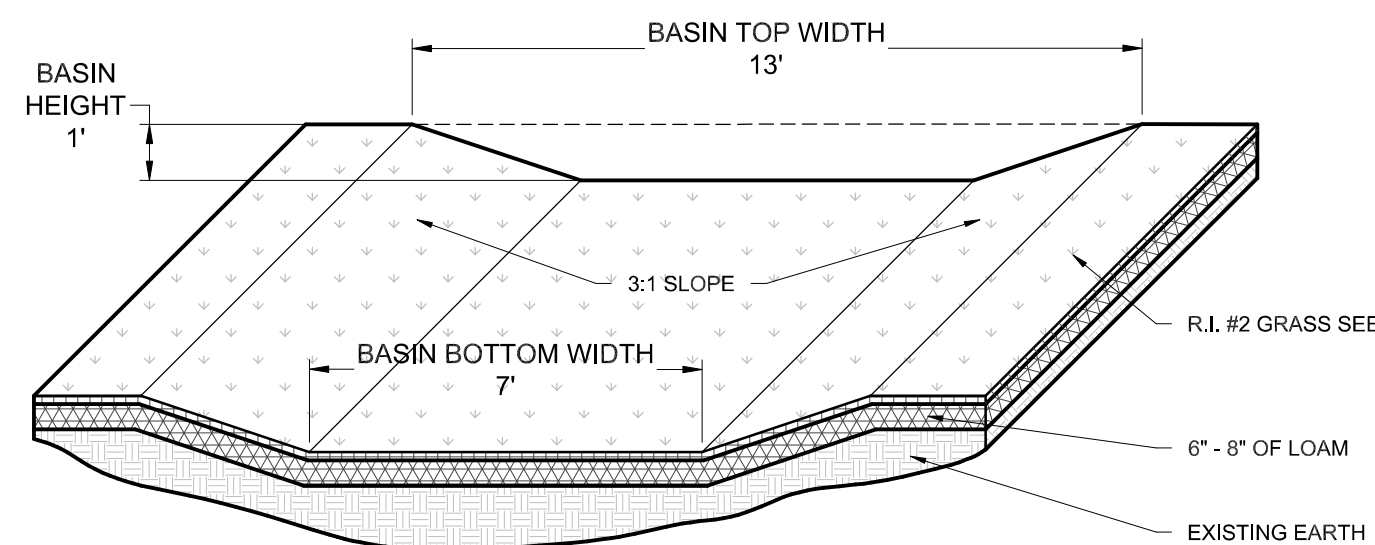
TOTAL DAILY FLOW =460 GALLONS/DAY
DOSING RATE OF FILTER/ZONE:
70 ORIFICES @ .18 GAL/ORIFICE/DOSE= 12.6 GALLONS/CYCLE
CYCLE TIME = 20 MINUTES (1440 MINUTES/DAY/20 =72 CYCLES)
TOTAL CYCLES PER DAY: 72 CYCLES X 12.6 GALLON/CYCLE = 907 GPD
PUMP TIME ON=25 SECONDS - 12.6 GAL./CYCLE X 2.4 = 30.2 GPM
PUMP TIME OFF=19.80 MINUTES

DISCHARGE PUMP FLOAT SETTING CALCULATIONS
(PUMP CHAMBER TO D-BOX)

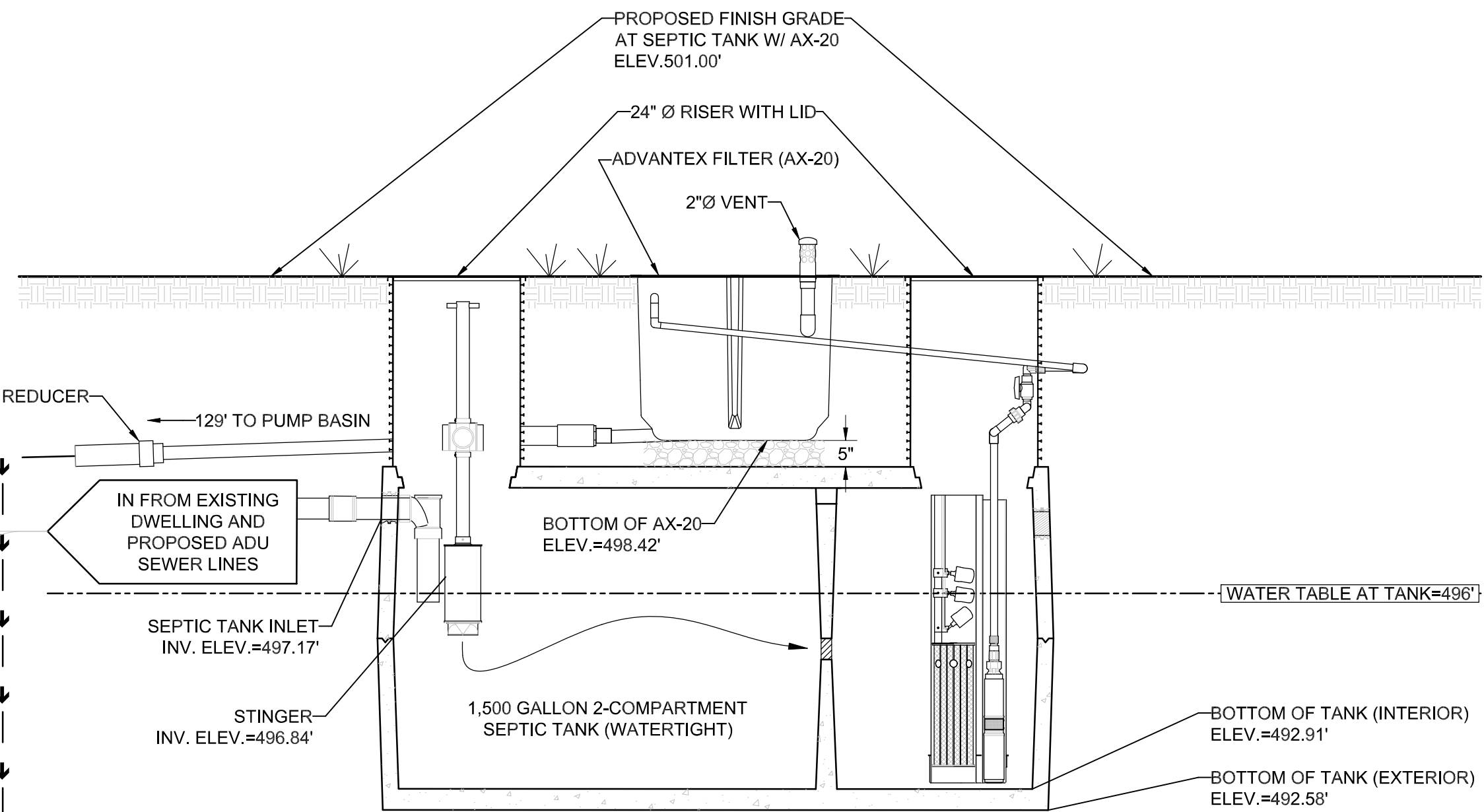
TOTAL DAILY FLOW =230 GALLON/DAY DOSING RATE OF BSF/ZONE: 70 ORIFICES @0.77 GAL/DOSE= 53.9 GALLONS
RESIDUAL VOLUME IN PIPE=0.90 GALLONS
TOTAL CYCLES PER DAY:230 GALLONS/53.9 GALLON/CYCLE = 4 FULL CYCLES
DOSE SETTINGS: 47.1 GALLON DOSE ÷ 136.16 GALLON/LIQ. FT. = 0.35 FT

AX20RT ELEVATIONS:
COVER = 279.73'
OUTLET = 277.66'
INLET = 277.40'
HWA = 276.95'
PUMP ON = 276.75'
PUMP OFF = 276.40'
BOTTOM AX20RT= 273.84'

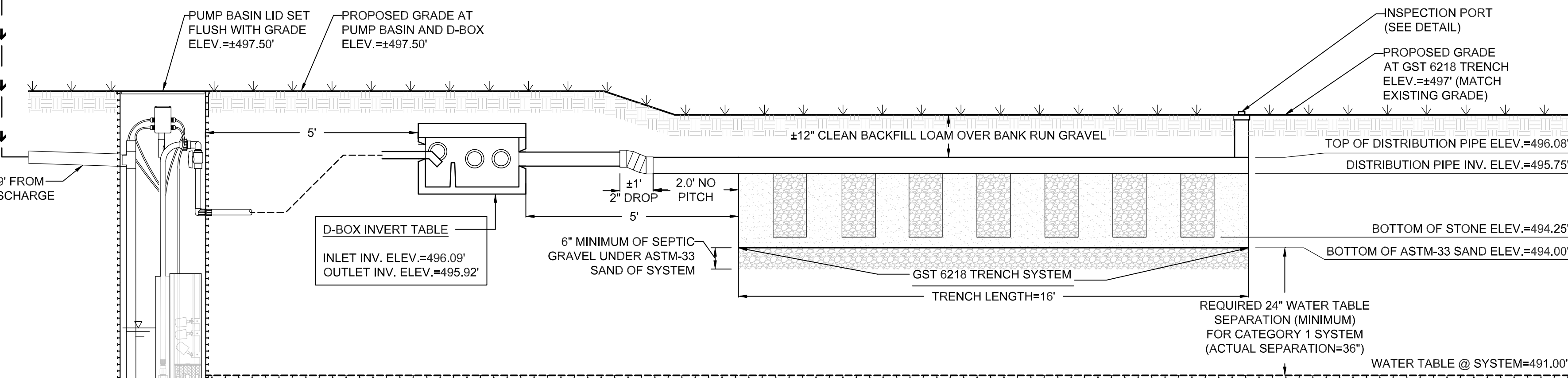
- OWTS NOTES:**
- EXCAVATE THE OWTS AREA AND 5 FEET ALL AROUND TO ELEV.=±280.58' OR TO REMOVE SUBSOIL AND FINES (AS NECESSARY).
 - INSTALL SEPTIC GRAVEL TO ELEV.=281.08'
 - INSTALL 3" OF CONCRETE SAND, THEN INSTALL THE GST 6218 TEMPLATES. FOLLOW THE RHODE ISLAND GST INSTALLATION MANUAL.
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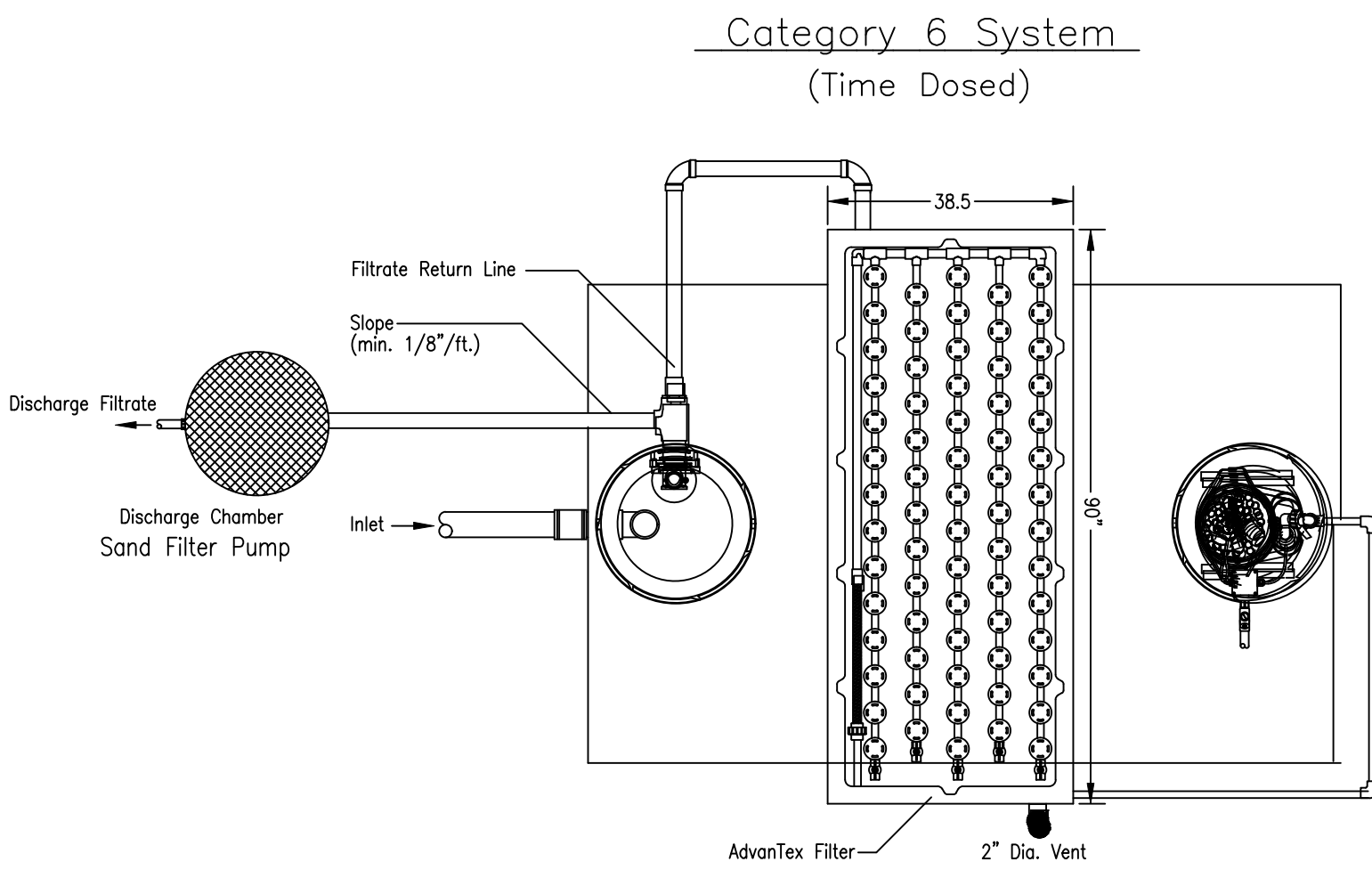
14 INFILTRATION BASIN ISOMETRIC DETAIL
SCALE: NTS



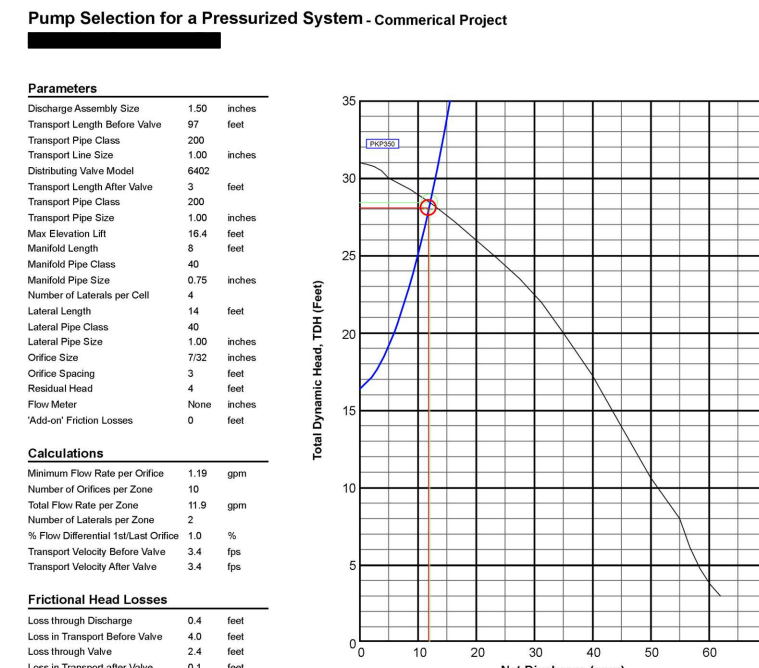
10 SEPTIC TANK PROFILE VIEW
SCALE: NTS



13 SEPTIC PROFILE VIEW
FILTER TO LEACHFIELD
SCALE: NTS



11 ADVANTECH AX-20 DETAIL
SCALE: NTS



15 PUMP BUOYANCY CALCULATION
SCALE: NTS

CERTIFICATION

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BY: *Samuel R. Suorsa* Jun. 9, 25
REGISTERED PROFESSIONAL LAND SURVEYOR SIGNATURE

Samuel R. Suorsa, PLS
REGISTERED PROFESSIONAL LAND SURVEYOR PRINTED NAME

A-68
CERTIFICATE OF AUTHORIZATION NO.

**PROPOSED OWTS PLAN
FOR EXISTING DWELLING
& PROPOSED ADU**

241 RICHARDSON ROAD
COVENTRY, RHODE ISLAND
ASSESSOR'S PLAT 310 / LOT 101

PREPARED FOR: LISA MARENARO
241 RICHARDSON ROAD, COVENTRY, RI 02816
401-451-7965 | lmarensa@cox.net

GRAPHIC SCALE SCALE VARIES

DRAWN BY: RC
CHECKED BY: JWH
APPROVED BY: JWH

DATE: Jun. 9, 25
SHEET: 2 OF 2

REVISIONS:

