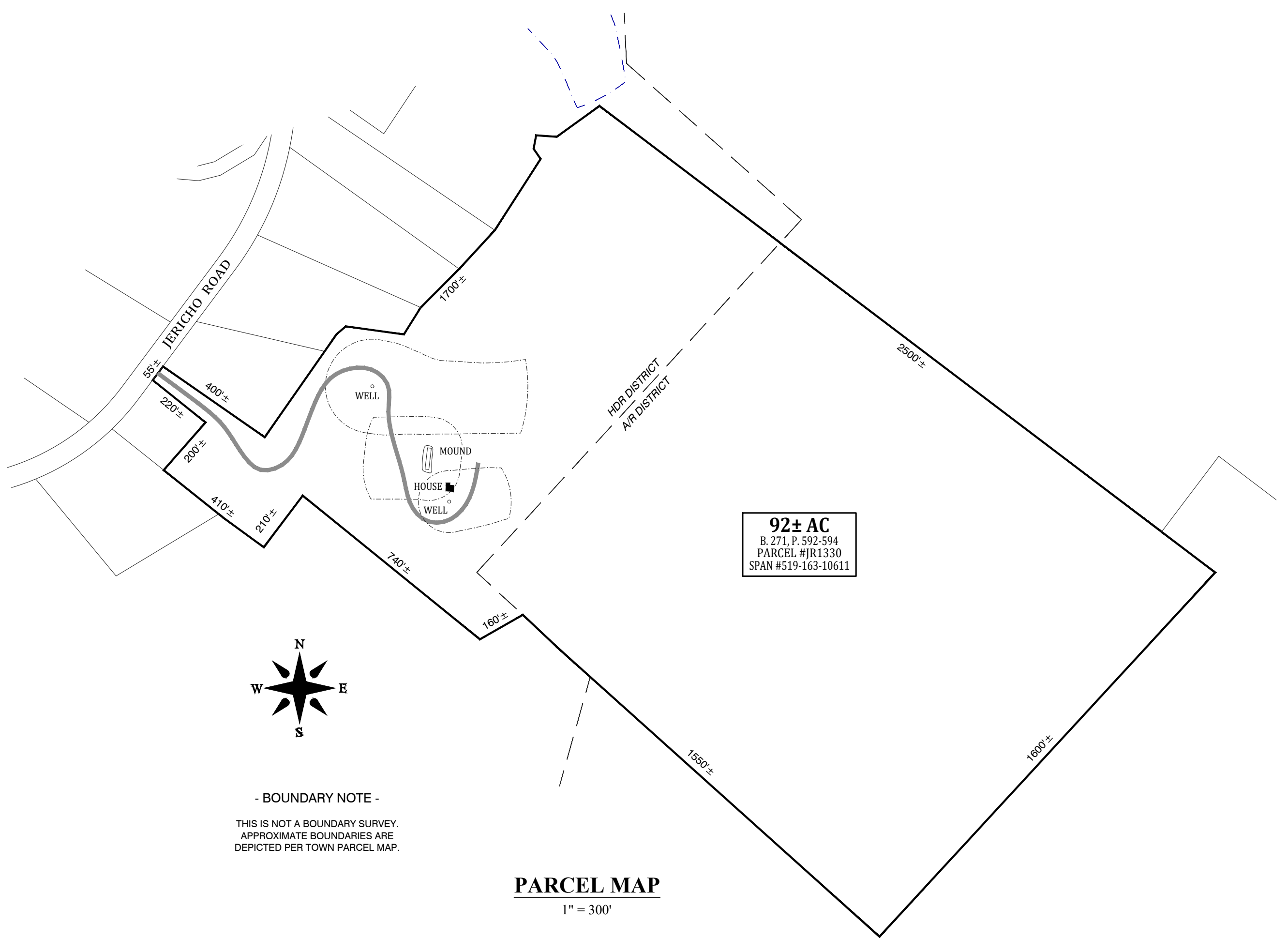
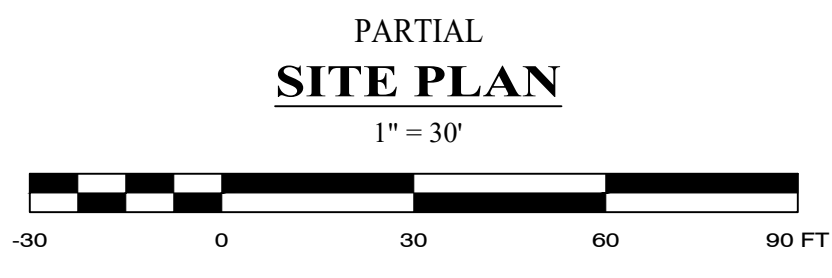


- TOPOGRAPHY NOTE -
 2 CONTOURS ARE DEPICTED PER VCGI 2014 LIDAR DATA AND FIELD BASED MEASUREMENTS USING A ROBOTIC TOTAL STATION & RTK GPS RECEIVER. (NAVD 88 DATUM)

CALL DIG SAFE DIAL 811 PRIOR TO ANY EXCAVATION



- BOUNDARY NOTE -
 THIS IS NOT A BOUNDARY SURVEY. APPROXIMATE BOUNDARIES ARE DEPICTED PER TOWN PARCEL MAP.

- MOUND NOTE -
 THE AREA 25 FEET DOWNGRADIENT OF THE MOUND, AS MEASURED FROM THE EDGE OF THE MOUND FILL MATERIAL IS THE EFFLUENT DISPERSAL AREA AND SHALL NOT BE DISTURBED BY REMOVAL OF SOIL OR ANY DEVELOPMENT, INCLUDING BUILDING CONSTRUCTION, SWIMMING POOLS, ROADWAYS, AND PARKING AREAS. DO NOT DISTURB SOIL WITHIN 10' OF ALL OTHER TOES.
 NO CONSTRUCTION, VEHICULAR TRAFFIC OR PARKING IS PERMITTED ON TOP OF THE MOUND OR SUBSURFACE TANKS. CONTACT THE DESIGNER AS NECESSARY FOR MORE INFORMATION.

LEGEND

	TEST PIT (DEPTH TO SHWT)
	CONTROL POINT (IF SPIKE IN GROUND)
	BOUNDARY CORNER
	UTILITY POLE
	DRILLED WELL
	SHALLOW WELL
	EXISTING CONTOURS
	APPROX. BOUNDARY
	EASEMENT
	TREE LINE
	STONE WALL
	STREAM
	FM - FORCE MAIN
	W - WATER LINE
	OE - OH UTILITIES
	UE - U/G UTILITIES

WASTEWATER SYSTEM BASIS OF DESIGN

PROJECT
 WASTEWATER SYSTEM FOR PROPOSED SINGLE FAMILY RESIDENCE CONTAINING UP TO 6 BEDROOMS.

DESIGN FLOWS
 RESIDENCE 3 BRx140 GPD + 3 BRx70 GPD = 630 GPD.

ELIEN CORPORATION
 GSF - GEOTEXTILE SAND FILTER
 VERMONT DESIGN & INSTALLATION MANUAL (JUNE 2020)

TABLE 3. BED SIZING CHART (DEFAULT FOR MOUND SYSTEM)

SOIL TEXTURE	- VFSL
SOIL STRUCTURE	- GR
APPLICATION RATE	- 1.0 GDSF
3 BR	= 420.0 SF
3 BR	= 210.0 SF (3 BRx70 GPD)
TOTAL	= 630.0 SF (MIN. BED AREA REQUIRED)

SYSTEM CONFIGURATION
 NUMBER OF B43 MODULES REQUIRED
 1.0 GDSF APPLICATION RATE = 8 MODULES PER 150 GPD FLOWS.
 NUMBER OF MODULES: 8(630 GPD/150) = 33.6 MODULES, USE 34 B43.

CALCULATE MINIMUM BED LENGTH USING 2 ROWS IN BED SYSTEM
 34 MODULES/2 = 17 MODULES/ROW.
CALCULATE MINIMUM ROW LENGTH
 17 MODULES x 4 FT +1 FT = 69.0 FT.

MINIMUM BED WIDTH
 BED WIDTH: 630 SF/69 = 9.1 FT. ROUND UP TO 9.5 FT.

LATERAL SPACING
 LATERAL TO LATERAL = 5.5 FT.
 LATERAL TO EDGE = 2.0 FT.

FINAL DIMENSION LAYOUT
 BED LENGTH = 69.0 FT
 BED WIDTH = 9.5 FT
 MIN. NUMBER OF UNITS = 34 B43 MODULES
 MODULES PER ROW = 17 MODULES
 LATERAL TO LATERAL SPACING = 5.5 FT
 LATERAL TO EDGE SPACING = 2.0 FT
 SYSTEM AREA = 655.5 SF (69.0'x9.5')

MOUND BASAL AREA
 630/0.74 GDSF = 851.4 SF = 69.0'x12.3'W.

VERMONT
 DEPARTMENT OF ENVIRONMENTAL CONSERVATION
 Drinking Water & Groundwater Protection Division
 THIS IS SUBJECT TO PROVISIONS OR CONDITIONS LISTED IN PERMIT
 Permit # WW-4-6187
 Date: 09/06/2024

STATE OF VERMONT
JAY T. WILLIS
 NO. 152-012564-S
 LICENSED DESIGNER

WILLIS DESIGN ASSOC., INC.
 432 BROWN TRACE, JERICHO, VERMONT 05465 (802) 858-9228

SITE PLAN
WASTEWATER SYSTEM & WATER SUPPLY

JAY T. McCORMACK
 1330 JERICHO ROAD
 RICHMOND - VERMONT

DRAWN: JTW
 DESIGN: JTW
 DATE: 8/1/24
 PROJECT: 23-039
 DRAWING: 23039-1

SCALE: NOTED
 SHEET: 1