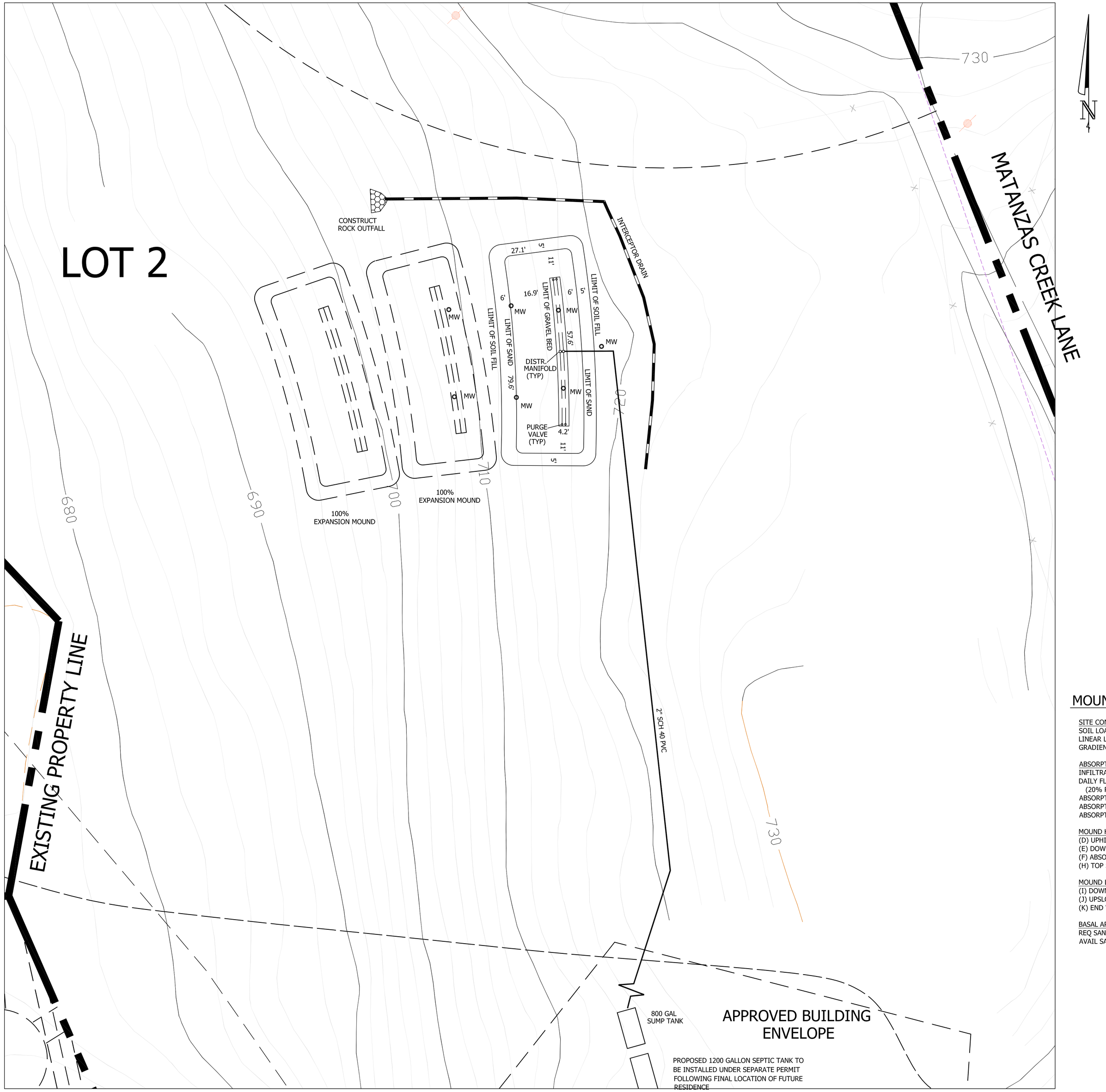

MOUND CALCULATIONS - LOT 2

SITE CONDITIONS & FIELD TEST RESULTS:	
SOIL LOADING RATE (BASED ON PERC)	SLR = 0.370 GAL/SF/DAY (BASED ON 57 MPI PERC RATE)
LINEAR LOADING RATE	LLR = 5.0
GRADIENT	14%
ABSORPTION AREA SIZING:	
INFILTRATION RATE (RESIDENTIAL, 1.2 GAL/SF/DAY)	1.2 GAL/SQ FT/DAY
DAILY FLOW (120 GAL/DAY x NO. BEDROOMS, GAL/DAY) (20% REDUC FOR LOW FLOW FIXTURES)	(120)(3) - (0.20)(360) = 288 GALLONS
ABSORPTION AREA REQUIRED (DAILY FLOW/INF RATE, SF)	288 GAL/1.2 = 240 SF
ABSORPTION WIDTH (A)	A = LLR/SAND LLR = 5/1.2 = 4.17 FT
ABSORPTION LENGTH (B)	B = FLOW RATE/LLR = 288/5 = 57.6 FT
MOUND HEIGHT:	
(D) UPHILL FILL DEPTH = 1 FT (CONSTANT)	D = 1'
(E) DOWNHILL FILL DEPTH (D + (GRADIENT)(TRENCH WIDTH)	E = 1 + (0.14)(6) = 1.84'
(F) ABSORPTION AREA (RESID = 0.75)	F = 0.75'
(H) TOP SOIL DEPTH (1.5 MIN)	18" @ CENTER (12" @ EDGES OF SAND BED)
MOUND LENGTH AND WIDTH:	
(I) DOWNSLOPE WIDTH (E + F + 1)(3)(SCF FROM TABLE 1)	I = (1.84+0.75+1)(3)(1.57) = 16.9'
(J) UPSLOPE WIDTH (D + F +1)(3)(SCF FROM TABLE 1)	J = (1+0.75+1)(3) (0.73) = 6.02'
(K) END WIDTH ((D + E)(0.5) + F + H)(3)	K = ((1+1.84)(0.5) + 0.75 +1.5)(3) = 11.0'
BASAL AREA:	
REQ SAND BASAL AREA = FLOW/INF CAP OF SOIL	(288 GAL)/(0.37 GAL/SF/DAY)= 778.4 SF
AVAIL SAND BASAL AREA = (B)(W) FOR FLAT GROUND = (B)(A+1) ON SLOPED GROUND	(57.6)(4.17 + 16.9) = 1213.6 SF

REGISTERED PROFESSIONAL ENGINEER
RICKARD T. SWATH
No. 60906
Exp. 12/31/10
CIVIL
STATE OF CALIFORNIA

NO.	DATE	REVISION DESCRIPTION	BY	CHK

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PARCEL MAP MNS05-0044

SEPTIC DESIGN - LOT 2
7170 BENNETT VALLEY ROAD
SANTA ROSA, CALIFORNIA
APN 055-150-006

SCALE: 1"=20'

DATE:	7.1.09
DESIGNED BY:	RTS
CHECKED BY:	RTS
JOB NO.:	05.125.00

SHEET NO.:

SS2 OF SS4