

PERCOLATION REPORT

FOR

STR TAKEOVER,LLC
% ART MARQUEZ
57170 SPENCER RD
YUCCA VALLEY, CA 92284
APN# 0596-221-13 -0000

FOR NEW 2 BR SFR

AT

57170 SPENCER RD
YUCCA VALLEY, CA 92284

BY

JAMES MCCANN, PE
4 THORNHILL TRAIL
BROWNSVILLE, TX 78

JAMESMCCANN7@HOTMAIL.COM

[TEL:\(956\) 433-1937](tel:(956)433-1937)



A handwritten signature in cursive script that reads "James McCann".

LICENSE EXPIRES 06-30-2024

Percolation Report for Onsite Wastewater Treatment System

APN 0596-221-13 (57170 SPENCER RD, YUCCA VALLEY, CA 92284) |

THIS PERCOLATION REPORT IS MADE IN ACCORDANCE WITH THE SAN BERNARDINO COUNTY PUBLIC HEALTH "PERCOLATION TESTING AND REPORTING STANDARDS FOR ONSITE WASTEWATER TREATMENT SYSTEMS" MANUAL.

1.1 A PERC REPORT IS REQUIRED BY EHS FOR:
NEW RESIDENTIAL CONSTRUCTION

1.2 PREPARER REQUIREMENTS:
JAMES MCCANN, PE IS A LICENSED CIVIL ENGINEER (C72655) IN THE STATE OF CA.

2.1 DESCRIPTION OF SITE AND PROPOSAL

a) EHS WAS NOTIFIED 9/28/2023

b) PREPARED FOR:

STR TAKEOVER,LLC
% ART MARQUEZ
57170 SPENCER RD
YUCCA VALLEY, CA 92284

c) LOCATION OF LAND

MAPS INCLUDED IN APPENDIX 1, PAGES 1-4
APN# 0596-221-13 -0000 – YUCCA VALLEY, CA
LOT 112 SEC 24 T1N R5E
LAT 34°09'11" N, LON 116°24'59" W

2.2 PROPOSED LAND USE

a) SINGLE FAMILY HOME

b) PROJECT IS ONE 5 ACRE LOT

c) CONVENTIONAL ON-SITE WASTEWATER SYSTEM WITH TANK AND LEACH LINES

d) MINOR GRADING TO LEVEL THE HOUSE IS BEING PROPOSED

e) CA PLUMBING CODE 2016 CHAPTER 15, SECTION 1502.8.1

2.3 DESCRIPTION OF SITE

a) SITE SLOPES DOWNWARD AT APPROXIMATELY 2.0 % TO THE NIORTHEAST.

b) NO WATER COURSES WERE SEEN ON THE PROPERTY.

c) VEGETATION CONSISTS OF VARIOUS DESERT GRASSES AND JOSHUA TREES. NO REEDS OR OTHER EVIDENCE OF GROUNDWATER IN THE AREA.

d) EXISTING STRUCTURES.

1) CLOSEST HOME IS 300 FEET TO THE SOUTH, NEXT NEAREST HOME IS 400 FEET TO THE WEST.

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2) PROPOSED SYSTEM IS NOT CLOSE TO ANY WELLS. LOT IS SERVED BY A WATER COMPANY. FUTURE SYSTEMS IN THE AREA WILL NOT AFFECT THIS SYSTEM.

3) THERE ARE NO SEWER SYSTEMS WITHIN MILES OF THIS SITE.

f) ROCK OUTCROPPINGS – THERE ARE NUMEROUS ROCK OUTCROPPINGS AND ON THE PROPERTY AND WITHIN THE VICINITY.

g) GROUNDWATER – USGS TEST WELL IS LOCATED 2.4 MILES NORTH OF THE PROJECT:

Latitude 34°11'25.24", Longitude 116°25'55.13" NAD83

Land-surface elevation 3,639.1 feet above NAVD88

The depth of the well is 222 feet below land surface.

h) PROPERTY IS VERY TYPICAL OF THE AREA.

2.4 EQUIPMENT

STANDARD MOTORIZED AUGER WAS USED TO DEVELOP EIGHT INCH DIAMETER HOLES DOWN 36 INCHES. A METAL YARDSTICK WAS INSTALLED ALONG THE SIDEWALL TO MEASURE WATER LEVELS.

3.1 LOCATION OF BORING

BORINGS WERE MADE APPROXIMATELY 157 FEET NORTH AND 137 FEET WEST OF THE SOUTHEAST PROPERTY CORNER. FAVORABLE SOIL CONDITIONS WERE FOUND WITH NO ROCK FOUND IN THE BORINGS.

3.2 NUMBER OF BORINGS

ONE BORINGS (HOLE #3) WAS MADE FOR THIS RESIDENTIAL LOT.

a) ABANDONMENT – HOLE WAS FILLED AND COMPACTED UPON COMPLETION.

b) BEDROCK – NONE ENCOUNTERED.

c) BORING RESULTS – SOIL STRATA IS CONSISTENTLY SANDY LOAM. COLOR – SAND WAS DRY AND COLOR WAS CONSISTENTLY A LIGHT TAN TO 48 INCHES THEN GRAVEL TO 8 FEET.

d) FREEWATER – NO WATER WAS FOUND

e) MOISTURE – NO MOISTURE WAS FOUND.

f) ROOTS – MINOR ROOTS WERE FOUND DOWN TO 12 INCHES.

g) SOIL LITHOLOGY – SOIL WAS CONSISTENTLY SANDY LOAM TO 48" THEN GRAVEL TO 8 FEET.

h) SOIL PROFILE – SOIL WAS CONSISTENTLY SANDY LOAM TO 54" THEN GRAVEL TO 8 FEET.

i) NOT A SEVERE SITE.

j) SANDY LOAM TO 48" THEN GRAVEL TO 8 FEET..

4.1 TEST HOLES ARE MADE IN THE LOCATION OF THE PROPOSED LEACH FIELD. FOUR TESTS WERE PERFORMED.

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4.2 TEST HOLES WERE MADE AT PROPOSED LEACH LINE ELEVATION.

- 1) 8" TEST HOLES WERE USED.
- 2) NO CORRECTION FACTOR NEEDED.
- 3) TEST HOLES WERE 36".
- 4) ALL LOOSE MATERIAL WAS REMOVED.
- 5) 2" OF ¾" GRAVEL WAS PLACED IN HOLE

PRESOAK

- 1) HOLE WAS FILLED WITH WATER.
- 2) WATER WAS GONE IN 30 MINUTES.
- 3) NOT NEEDED.

TESTING AND RECORDING

- 1) TESTING COMMENCED THE SAME DAY AFTER PRESOAKING.
- 2) HOLES WERE FILLED TO 8" AND ALLOWED TO DRAIN FOR 25 MINUTES.
- 3) FIVE TESTS WERE COMPLETED FOR EACH HOLE.

4.3 CONTINUOUS PRESOAK METHOD NOT USED

4.4 TEST RESULTS ARE ON SPREADSHEET IN APPENDIX

4.5 APPLICATION RATES

4.7 MPI -> $1.2 \text{ FT}^2/\text{G}/\text{D}$ -> **0.55 GSTC**

4.6 ALL FIVE TESTS WERE WITHIN ¼ OF THE MEAN MPI. THERE IS LITTLE LIKELIHOOD OF ERROR(S) IN THE CALCS FOR THIS SITE.

4.7 GENERAL CRITERIA – LEACH LINES

- a) ENGINEER RECOMMENDS USING MOST CONSERVATIVE RESULT OF 4.7 MPI.
- b) GROUNDWATER IS FAR BELOW THE SOIL ABSORPTION SYSTEM.
- c) IT IS NOT PRACTICAL TO RUN THIS TEST AS GROUNDWATER IS AT 200 FEET BELOW GROUND LEVEL.
- d) PER OWTS POLICY 2012 (2 BEDROOM HOME) TABLE 202.1(1), THEREFORE USE STANDARD 750 TANK WHICH ALLOWS FOR 500 GAL/DAY.

4.8 PERCOLATION TIMES TO LEACH LINE DESIGN RATES

4.7 MPI => $1.2 \text{ FT}^2/\text{G}/\text{D}$ => 0.55 GSTC

0.55 GSTC * 750 GAL => 413 SQ FT AREA

413 SQ FT / 3 FT TRENCH = 138 FT TRENCH(1 FT DEEP X 3 FT WIDE)

138 FT TRENCH / 2 TRENCHS = 2 – 69 LINEAR FT TRENCHES WITH MIN 7' SEPARATION

5.1 SEEPAGE PITS – N/A

5.2 SEEPAGE PITS – N/A

5.3 SEEPAGE PITS – N/A

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- 5.4 SEEPAGE PITS – N/A
- 5.5 SEEPAGE PITS – N/A
- 5.6 SEEPAGE PITS – N/A
- 6.1 NUMBER OF BEDROOMS – NOT TO EXCEED TWO FOR SFR
- 6.2 CONFLUENT SYSTEMS – N/A
- 6.3 CREDIT FOR ALTERNATING FIELD – N/A
- 6.4 SPECIAL SOIL CONDITIONS – N/A
- 6.5 SPECIAL DISCHARGE CONDITIONS – N/A
- 6.6 ALTERNATIVE TREATMENT SYSTEMS – N/A
- 6.7 ALTERNATIVE SEWAGE DISPOSAL OPTIONS – N/A
- 7.1 PLOT PLAN – SHOWN IN APPENDIX
- 7.2 LOT SALES – N/A
- 7.3 GRADING – NONE EXPECTED
- 7.4 DWELLING SEWAGE DISPOSAL SYSTEM SHALL BE GRAVITY FLOW.
- 7.5 CONSTRUCTION DETAILS TO BE PROVIDED BY BUILDER
- 7.6 COMMERCIAL PROJECT – N/A
- 8.1 LOT HAS SUFFICIENT AREA TO SUPPORT INITIAL CONSTRUCTION AND EXPANSION AS WELL AS FUTURE SWIMMING POOL IF EVER NEEDED. NO GRADING IS EXPECTED ON THE LOT.
- 8.2 LOT WILL NOT BE COMMERCIAL OR INDUSTRIAL.
- 8.3 “TAKING CARE OF YOUR SEPTIC SYSTEM” WILL BE PROVIDED TO THE OWNER.

APPENDIX

PAGE 1 – VICINITY MAP

PAGE 2 – APN MAP

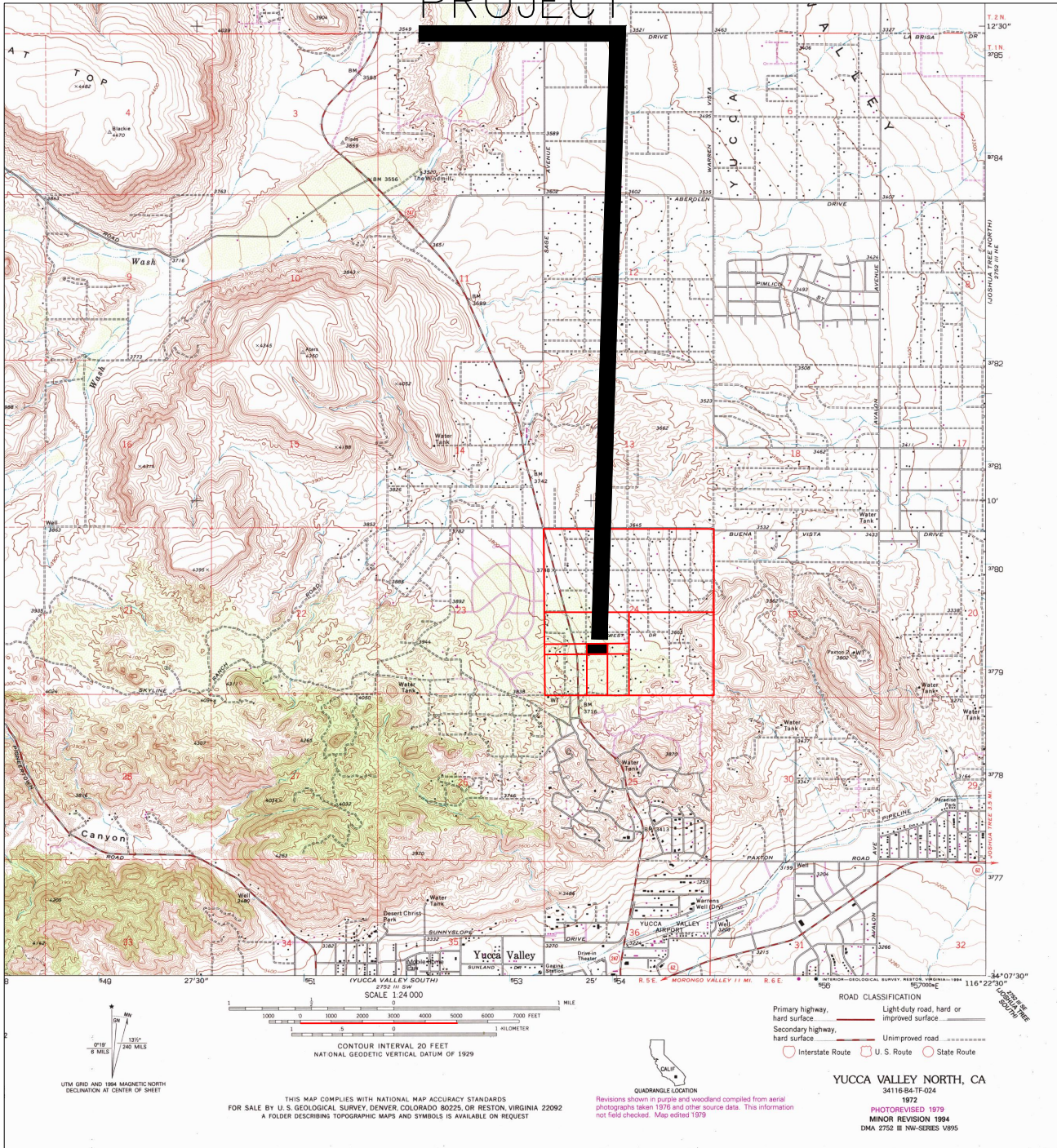
PAGE 3 – TOPO MAP

PAGE 4 – BUILDING LAYOUT

PAGE 5 – PERCOLATION SPREADSHEET

PAGE 6 – SOIL PROFILE

PROJECT



VICINITY
MAP

OWNER

STR TAKEOVER, LLC
%ART MARQUEZ
YUCCA VALLEY, CA
art@bluhausdesign.com
(626) 235-8751

ENGINEER

JAMES MCCANN, PE, PLS
4 THORNHILL TR
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956-433-1937
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SCALE

1"=5000'

PLOT DATE

10/10/2023

FILE NAME

SPENCER.DWG

SHEET NUMBER

P1

APN
MAP

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SCALE SHEET NUMBER

1"=500'

PLOT DATE

10/10/2023

P2

FILE NAME

SPENCER.DWG

PROJECT
SITE

THIS MAP IS FOR THE PURPOSE
OF AD VALOREM TAXATION ONLY.



S.1/2, S.W.1/4 Fractional Sec.24, T.1N.,R.5E., S.B.B.&M. Town of Yucca Valley 0596-22
Tax Rate Area
23003

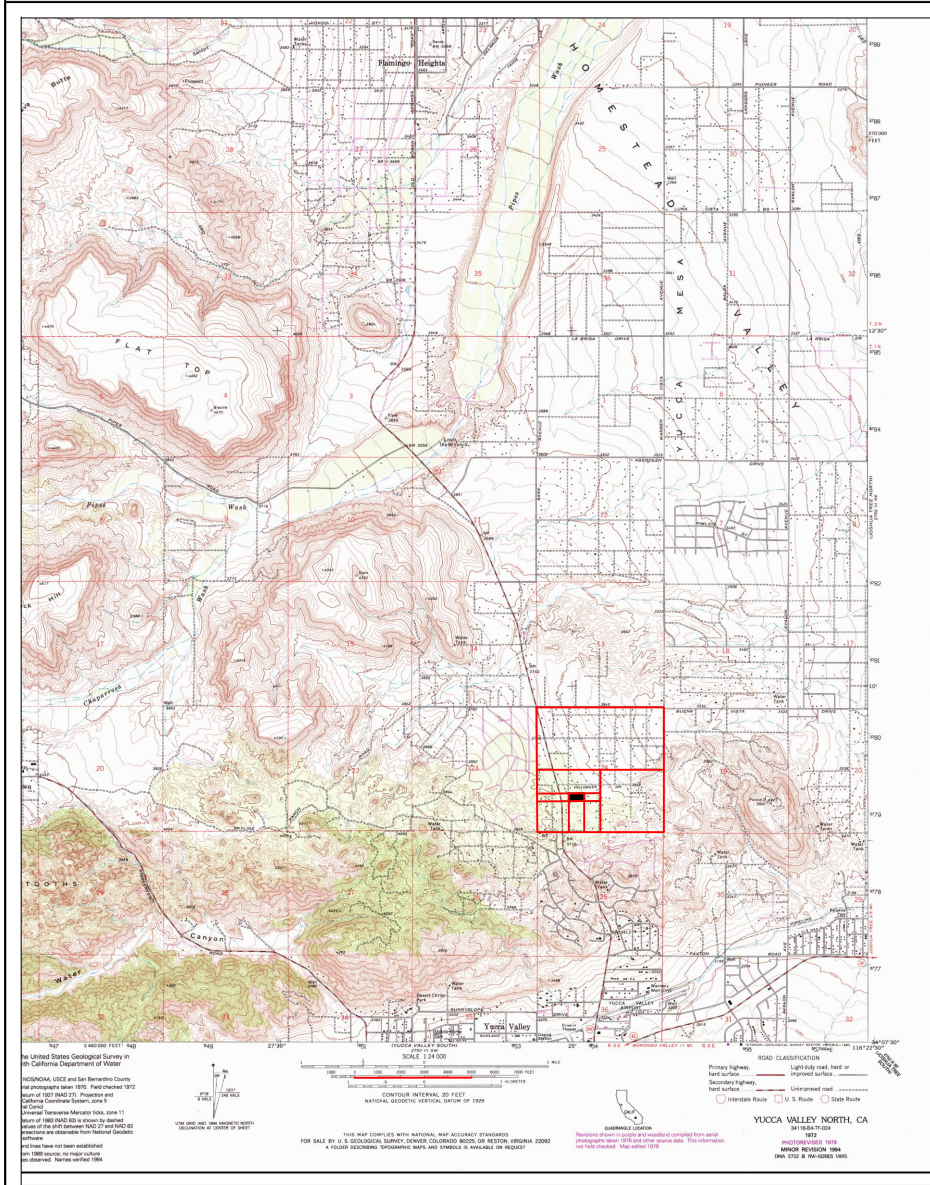
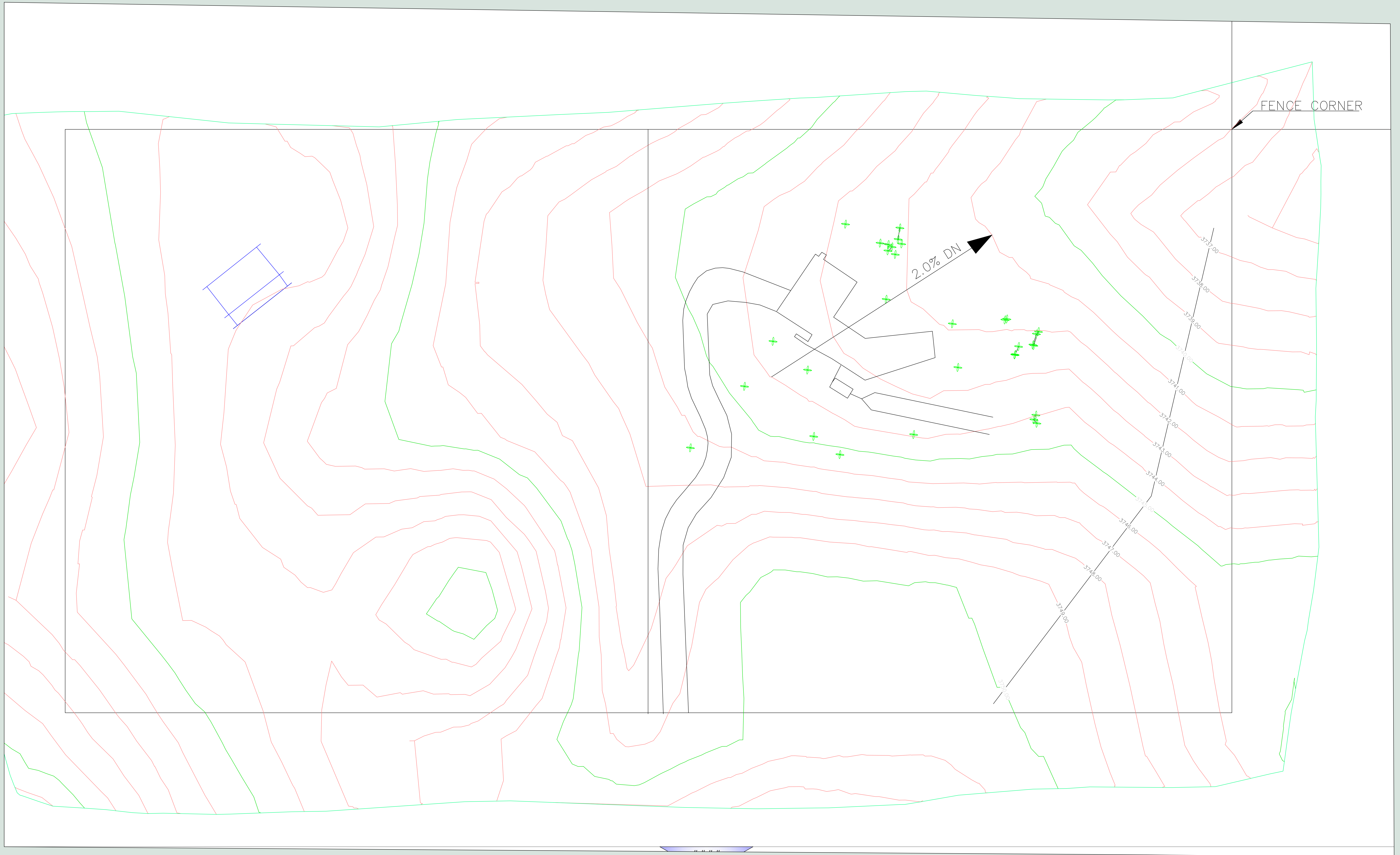


January 2005

Parcel Map No. 11413, P.M. 126/89-90
Parcel Map No. 10613, P.M. 119/1-2
Parcel Map No. 325, P.M. 3/76

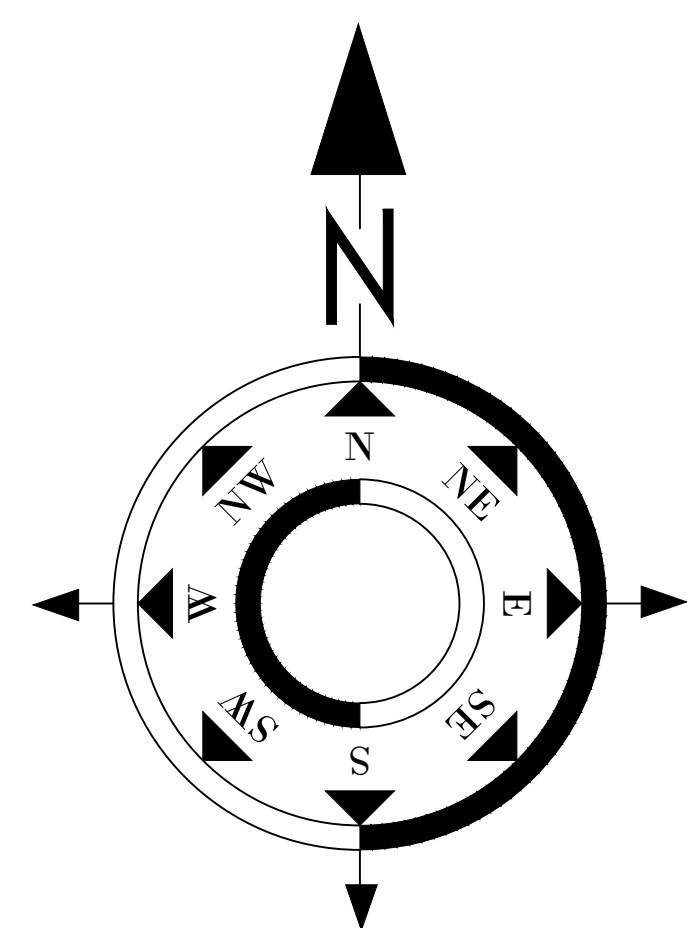
Assessor's Map
Book 0596 Page 22
San Bernardino County

REVISED
03/09/12 RU
06/01/12 LH
07/10/12 LH
02/01/13 CW
03/09/13 LH
05/17/13 BK

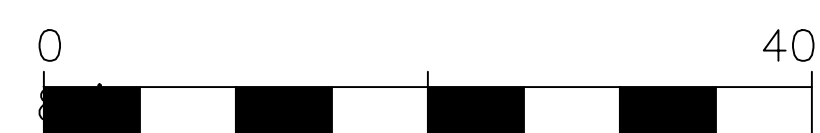


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PERC TEST



1" = 20'

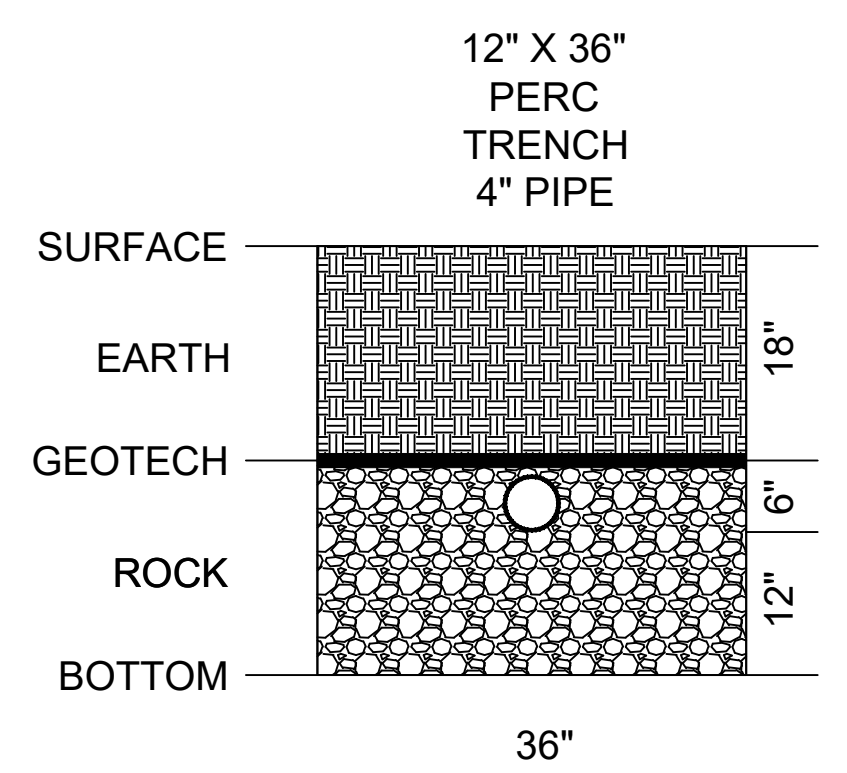
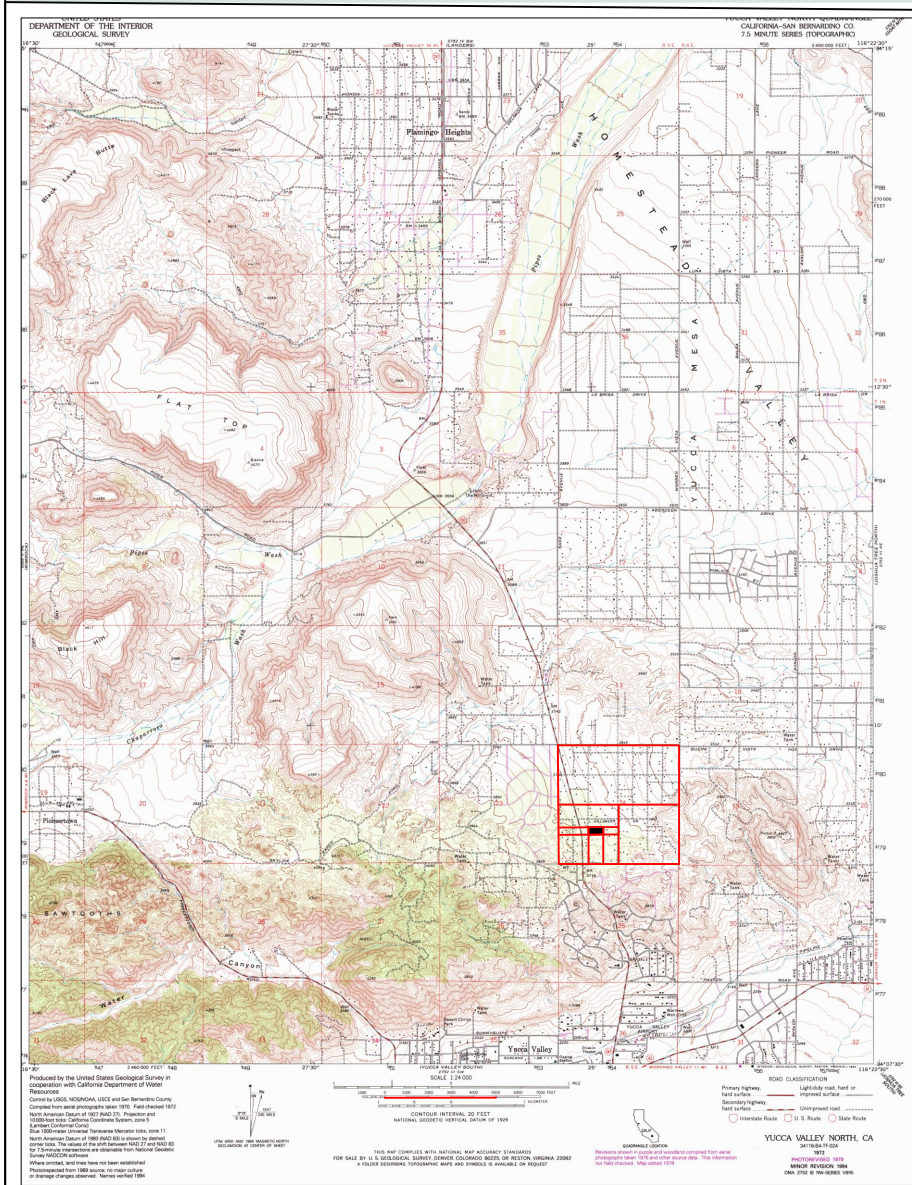
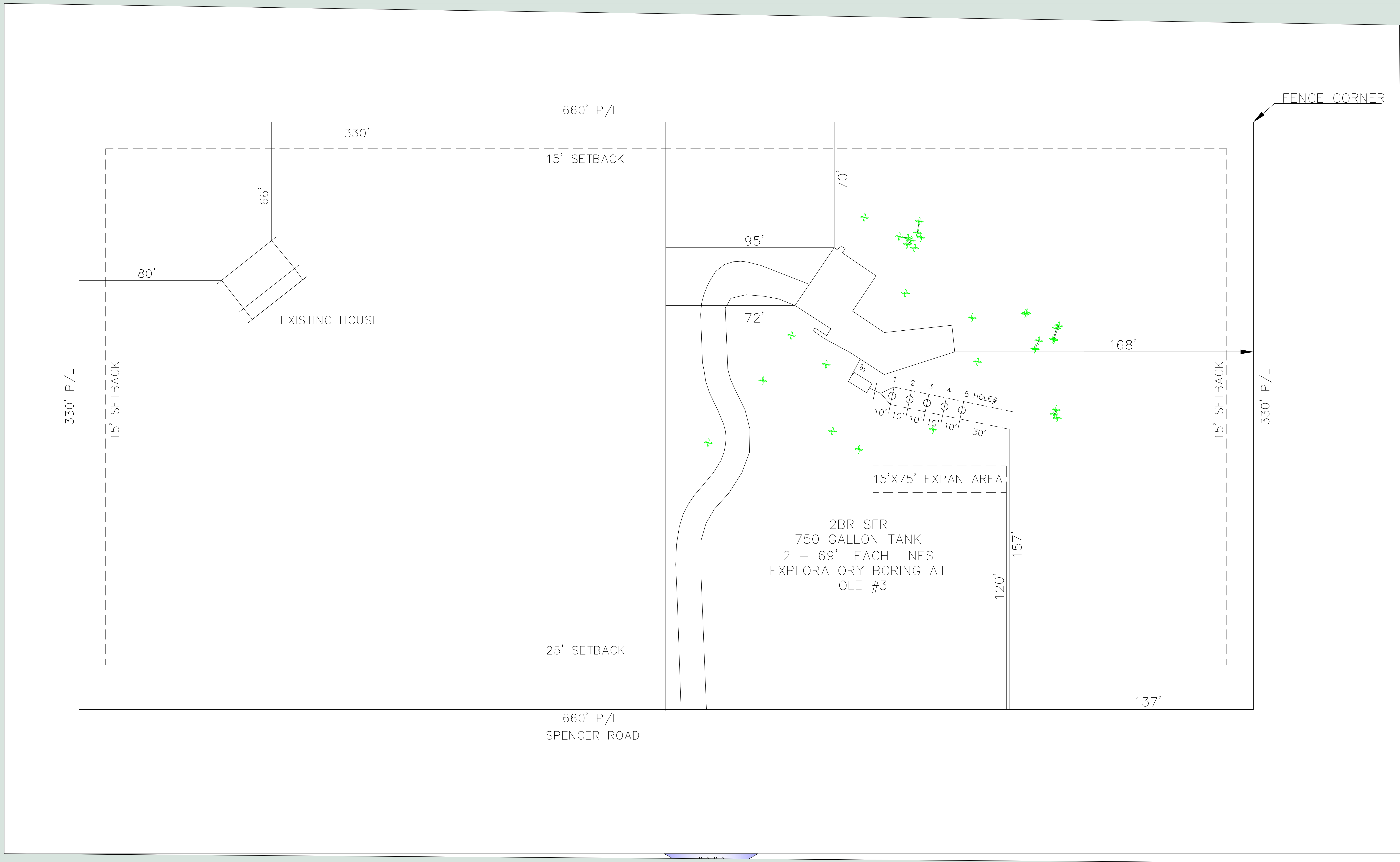
REVISIONS

NO.	BY	DATE	DESCRIPTION
1	JM		ADDED DRAINAGE COURSE (NDC)

TOPO_MAP

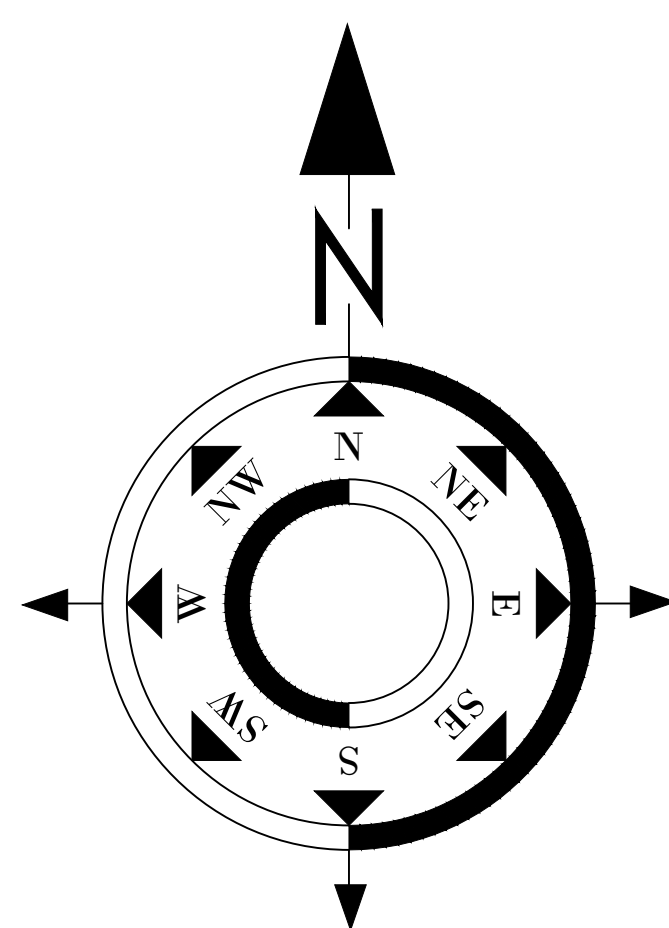
CONTACT_NAME
 CONTACT_PHONE
 CONTACT_EMAIL

P3

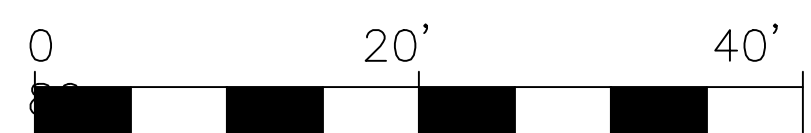


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PERC TEST



1" = 20'

REVISIONS

NO.	BY	DATE	DESCRIPTION

SITE_MAP

CONTACT_NAME
CONTACT_PHONE
CONTACT_EMAIL

P4

SOIL PROFILE					
PROJECT: SPENCER RD		DEPTH: 8 FEET		9/30/2023	
JAMES MCCANN, PE, PLS 956-433-1937		STR TAKEOVER, LLC %ART MARQUEZ			
4 THORNHILL TR		57170 SPENCER RD			
BROWNSVILLE, TX 78521		JOSHUA TREE, CA 92284			
START TIME: 4 PM		FINISH TIME: 7 PM		APN#: 0596-221-13-0000	
Depth (feet)	SOIL	Sample			Sample Descriptions: soil, color, classification, observation Example: Silty clay, dark gray, hard, moist, strong odor
		No.	Type*		
0.25	[Dotted pattern]				SANDY LOAM
0.50					SANDY LOAM
0.75					SANDY LOAM
1.00					SANDY LOAM
1.25					SANDY LOAM
1.50					SANDY LOAM
1.75					SANDY LOAM
2.00					SANDY LOAM
2.25					SANDY LOAM
2.50					SANDY LOAM
2.75					SANDY LOAM
3.00					SANDY LOAM
3.25					SANDY LOAM
3.50					SANDY LOAM
3.75					SANDY LOAM
4.00					SANDY LOAM
4.25	[Gravel pattern]				GRAVEL
4.50					GRAVEL
4.75					GRAVEL
5.00					GRAVEL
5.25					GRAVEL
5.50					GRAVEL
5.75					GRAVEL
6.00					GRAVEL
6.25					GRAVEL
6.50					GRAVEL
6.75					GRAVEL
7.00					GRAVEL
7.25				GRAVEL	
7.50				GRAVEL	
7.75				GRAVEL	
8.00				GRAVEL	
* Sample Types: Split Spoon (SS) Continuous Core (CC)		** Drilling Method Options: Rotary Auger, Push Probe, Hand Auger, Air drilling, Hollow Stem Auger, Other (Describe)		Symbols to Use: v – Static Water Level s – sample collected	
Observation Date:					
Time					
Static Water Level (ASL)					

SOIL PROFILE

OWNER

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SCALE	SHEET NUMBER
-------	--------------

N/A
PLOT DATE
10/10/2023

P5

FILE NAME
SPENCER.DWG

PERCOLATION TEST RESULTS

TEST FOR PRESOAK
SANDY SOIL TEST

5 GALLONS PERCOLATED IN ADVANCE OF TESTING
CASE III - 1" OR MORE GONE IN 30 MIN

	TIME	TEST TIME (MIN)	WATER LEVEL READING	STARTING LEVEL OF WATER	MPI
BEGIN	16:05:00	21.00			
READ #1	16:26:00		2.00	8.00	3.50
REFILLED	16:35:00	23.00			
READ #2	16:58:00		2.00	8.00	3.83
REFILLED	17:05:00	25.00			
READ #3	17:30:00		2.00	8.00	4.17
REFILLED	17:35:00	26.00			
READ #4	18:01:00		2.00	8.00	4.33
REFILLED	18:05:00	14.00			
READ #4	18:19:00		5.00	8.00	4.67
				AVERAGE:	4.10

HOLE#	1	TEST DATE:	9/30/2023
HOLE DIM	8 "	HOLE DEPTH	36 "
PRESOAK TIME (MIN)	10	PRESOAKED	5 GAL
SOIL ENCOUNTERED:	SANDY LOAM		
DATE DUG:	9/30/2023		
OWNER OF RECORD:	STR TAKEOVER, LLC		
APN:	0596-221-13-0000		
PM	LOT 112 SEC 24 T1N R5E		
RESULTS:	CONSISTENT - ALL WITHIN 25%		

JAMES MCCANN, PE, PLS
1009 BEACH BLVD
PORT ISABEL, TX 78578
(956) 433-1937
LIC EXP 6-30-2024



PROJECT - SPENCER

57170 SPENCER RD YUCCA VALLEY

10/10/2023

PERCOLATION TEST RESULTS

TEST FOR PRESOAK
SANDY SOIL TEST

5 GALLONS PERCOLATED IN ADVANCE OF TESTING
CASE III - 1" OR MORE GONE IN 30 MIN

	TIME	TEST TIME (MIN)	WATER LEVEL READING	STARTING LEVEL OF WATER	MPI	
BEGIN	16:10:00	20.00				
READ #1	16:30:00		2.00	8.00	3.33	
REFILLED	16:40:00	22.00				
READ #2	17:02:00		2.00	8.00	3.67	
REFILLED	17:10:00	23.00				
READ #3	17:33:00		2.00	8.00	3.83	
REFILLED	17:40:00	24.00				
READ #4	18:04:00		2.00	8.00	4.00	
REFILLED	18:10:00	13.00				
READ #4	18:23:00		5.00	8.00	4.33	
				AVERAGE:	3.83	

HOLE#	2	TEST DATE:	9/30/2023
HOLE DIM	8 "	HOLE DEPTH	36 "
PRESOAK TIME (MIN)	10	PRESOAKED	5 GAL
SOIL ENCOUNTERED:	SANDY LOAM		
DATE DUG:	9/30/2023		
OWNER OF RECORD:	STR TAKEOVER, LLC		
APN:	0596-221-13-0000		
PM	LOT 112 SEC 24 T1N R5E		
RESULTS:	CONSISTENT - ALL WITHIN 25%		

JAMES MCCANN, PE, PLS 1009 BEACH BLVD PORT ISABEL, TX 78578 (956) 433-1937 LIC EXP 6-30-2024		PROJECT - SPENCER 57170 SPENCER RD YUCCA VALLEY 10/10/2023
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PERCOLATION TEST RESULTS

TEST FOR PRESOAK
SANDY SOIL TEST

5 GALLONS PERCOLATED IN ADVANCE OF TESTING
CASE III - 1" OR MORE GONE IN 30 MIN

	TIME	TEST TIME (MIN)	WATER LEVEL READING	STARTING LEVEL OF WATER	MPI
BEGIN	16:15:00	20.00			
READ #1	16:35:00		2.00	8.00	3.33
REFILLED	16:45:00	21.00			
READ #2	17:06:00		2.00	8.00	3.50
REFILLED	17:15:00	23.00			
READ #3	17:38:00		2.00	8.00	3.83
REFILLED	17:45:00	24.00			
READ #4	18:09:00		2.00	8.00	4.00
REFILLED	18:15:00	13.00			
READ #4	18:28:00		5.00	8.00	4.33
				AVERAGE:	3.80

HOLE#	4	TEST DATE:	9/30/2023
HOLE DIM	8 "	HOLE DEPTH	36 "
PRESOAK TIME (MIN)	10	PRESOAKED	5 GAL
SOIL ENCOUNTERED:	SANDY LOAM		
DATE DUG:	9/30/2023		
OWNER OF RECORD:	STR TAKEOVER, LLC		
APN:	0596-221-13-0000		
PM	LOT 112 SEC 24 T1N R5E		
RESULTS:	CONSISTENT - ALL WITHIN 25%		

JAMES MCCANN, PE, PLS 1009 BEACH BLVD PORT ISABEL, TX 78578 (956) 433-1937 LIC EXP 6-30-2024	PROJECT - SPENCER 57170 SPENCER RD YUCCA VALLEY 10/10/2023
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PERCOLATION TEST RESULTS

TEST FOR PRESOAK
SANDY SOIL TEST

5 GALLONS PERCOLATED IN ADVANCE OF TESTING
CASE III - 1" OR MORE GONE IN 30 MIN

	TIME	TEST TIME (MIN)	WATER LEVEL READING	STARTING LEVEL OF WATER	MPI	
BEGIN	16:20:00	22.00				
READ #1	16:42:00		2.00	8.00	3.67	
REFILLED	16:50:00	22.00				
READ #2	17:12:00		2.00	8.00	3.67	
REFILLED	17:20:00	25.00				
READ #3	17:45:00		2.00	8.00	4.17	
REFILLED	17:50:00	26.00				
READ #4	18:16:00		2.00	8.00	4.33	
REFILLED	18:20:00	14.00				
READ #4	18:34:00		5.00	8.00	4.67	
				AVERAGE:	4.10	

HOLE#	5	TEST DATE:	9/30/2023
HOLE DIM	8 "	HOLE DEPTH	36 "
PRESOAK TIME (MIN)	10	PRESOAKED	5 GAL
SOIL ENCOUNTERED:	SANDY LOAM		
DATE DUG:	9/30/2023		
OWNER OF RECORD:	STR TAKEOVER, LLC		
APN:	0596-221-13-0000		
PM	LOT 112 SEC 24 T1N R5E		
RESULTS:	CONSISTENT - ALL WITHIN 25%		

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57170 SPENCER RD YUCCA VALLEY

10/10/2023