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Subject: Onsite Wastewater Disposal Testing & Design Report, New 4Bdrm Residence, , Lot 613 Tr. 3566,1513 Zermatt Drive, Pine Mountain Club, California, APN: 328-122-11-00-0

Mr. Laszlo:

Submitted herewith is the Onsite Wastewater Disposal Testing & Design Report made for the proposed residence on the subject site.

SCOPE

This investigation was made on the site of a proposed three bedroom single family residence on a vacant lot known as Lot 613 Tr. 3566, 1513 Zermatt Drive, Pine Mountain Club, California, APN: 328-122-11-00-0. It was made to determine the suitability of the soils within the site the use of a septic tank-leach line sewage disposal system.

The investigation consisted of a site inspection, digging test holes, field classification of the soils in the test holes, and field percolation tests.

SITE CONDITIONS AND DEVELOPMENT CONSIDERATIONS

The site is located on the west side of Zermatt Drive about 800 feet south from the south intersection with StAnton Dr Pine Mountain Club, Kern County, California. A site plan is attached.

The site of the proposed leach line is located in the auto-court about 13 feet above street grade. Native vegetation in the area consists of forest of oaks and pines and native shrub.

At the time of this investigation the lot was unimproved except for a water supple meter and a shared driveway. The meter is located at the south-east property corner and set back from the proposed leach lines.

Sewage disposal for the proposed single family dwelling will be by means of septic tank-leach field systems located as shown on the attached plan.

The property will be serviced by metered community water.

FIELD WORK

General

The field work was done on November 14 and 15, 2021. A 16 foot deep observation hole, two 5 foot percolation test holes were made with a backhoe at the locations shown on the attached plan.

The weather at the time of this investigation was clear and cool with a maximum daytime temperature of about 59 degrees F.

Soil Profile

The soils encountered in the observation and test holes were field classified, in accordance with the Unified Soil Classification System, and may be generally described as follows:

> Firm and dry silty sand, fn-med with gravel and cobbles (SM) from the surface to a depth of about 7feet underlain by slightly firm silty sand, gravely and cobbles and small boulders, trace clay (SM) to a depth of 12.5 feet underlain by bouldery fan deposits with silty ,sandy gravelly mix, damp (no seepage) (SM) to a maximum depth of 16.

A soils log for the observation hole is attached.

Ground Water

No ground water was encountered in the test holes. Ground water is at a depth greater than 16 feet in the area of the proposed leach field as indicated by the observation hole.

Percolation Tests

Three percolation tests were taken in accordance with the procedure prescribed by the Kern County Environmental Health Department as follows:

> Two pits were excavated with a backhoe to a depth of the test; and a test hole about 12 inches in diameter and 14 inches deep was made in the bottom of the pit. The bottom 2 inches of the test hole was filled with pea gravel. An 8 inch diameter by 12 inch long well screen was inserted in the hole and the annular space around the screen (well screen) was filled with pea gravel. The test hole was then filled with clear water and allowed to percolate for a day (24 hours). After saturation the rates of fall of water in the test holes were measured.

The measured percolation rates were as follows:

Test No.	Depth	Percolation Rate	Soil Type (C.P.C.)
1	5.0 ft.	8 minutes/inch	III
2	5.0 ft.	8 minutes/inch	III

CONCLUSIONS AND RECOMMENDATIONS

General

The soils encountered in this investigation may be generally firm and dry silty sand, fn-med with gravel and cobbles (SM) from the surface to a depth of about 7feet underlain by slightly firm silty sand, gravely and cobbles and small boulders (SM) to a depth of 12.5 feet underlain by bouldery fan deposits with silty ,sandy gravelly mix, damp (no seepage) (SM) to a maximum depth of 16.

The soils are suitable for use of a septic tank-leach line sewage disposal system to serve the proposed single family dwelling if the recommendations below are followed.

Sewage Disposal

The minimum septic tank capacity should be 1200 gallons for the proposed four bedroom dwelling. The leach field should be constructed in accordance with the requirements of the California Plumbing Code and sized for Type III soil, in accordance with Kern County requirements. This results a minimum of 480 square feet of absorption area. This area can be obtained with a 69 foot leach trench 36 inches wide with high capacity infiltrator units (plastic leaching chambers). The leach lines should be placed at a depth of 5 feet (bottom of trench) below the existing ground surface.

CONDITIONS

The conclusions and recommendations contained in this report are based on data obtained from 1 observation hole and 2 percolation tests located as shown on the

attached plan. They do not reflect variations, which may occur between test holes. Soil deposits may vary in type and other important properties between test holes.

Additionally, ground water and soil moisture conditions can vary seasonally and for other reasons. Therefore, it must be recognized that we do not and cannot have a complete knowledge of the subsurface conditions underlying the subject site.

This report has been prepared in accordance with generally accepted soil mechanics practices in the area and no other warranties are made, either expressed or implied, as to the professional advice provided.

This report is subject to review by the controlling authorities for this project.

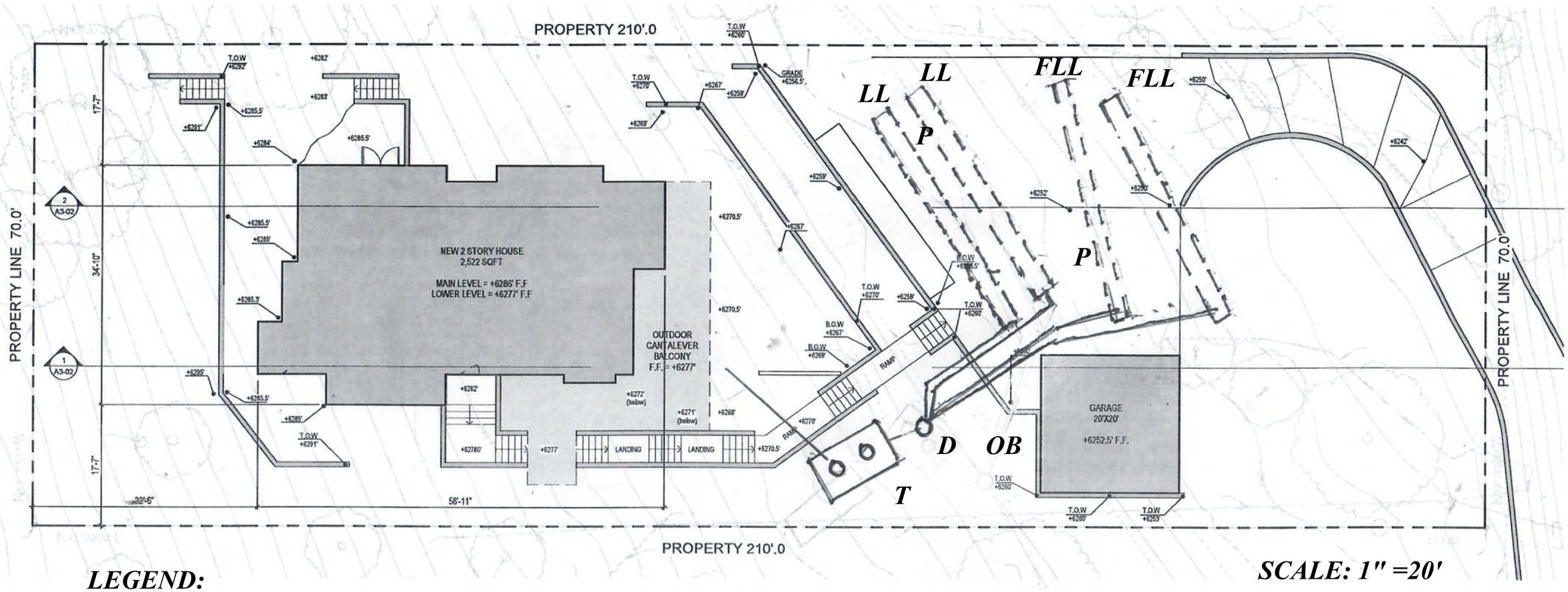
We appreciate this opportunity to be of service to you.

Respectfully submitted,
STRATA-TECH, INC.

Roland Acuna, CEG 2113
President

SEWGE DISPOSAL PLAN

LOT 613, TR 3566 --1315 ZERMATT DR.
COUNTY OF KERN
APN: 328-122-00-0



SCALE: 1" =20'

LEGEND:

T = SEPTIC TANK (1200GAL)
LL = LEACH LINE(ONE - 69 LF - 36" X 30")
FLL = POSSIBLE FUTURE LEACH LINES (100% EXPANSION)
D B = DISTRIBUTION BOX
P = PERCOLATION TEST
OB = OBSERVATION BORING

PERCOLATION TEST DATA LOG

COMPLETE THE FOLLOWING SHEET AND SUBMIT WITH PERCOLATION REPORT

SITE ADDRESS: 1513 Zermatt Dr. PMC, Lot 613, Tr 3566

APN: 328-122-11-00-0 TEST PERFORMED BY: R Acuna

TEST DATE: 11-15-2021 TEST HOLES WERE PRESATURATED FOR 5 HOURS

HOLE #	1				2				3			
DEPTH	14" in 5' pit				14" in 5' Pit							
	TIME (MIN)		WATER LEVEL DROP (IN)	PERC RATE (MIN/IN)	TIME (MIN)		WATER LEVEL DROP (IN)	PERC RATE (MIN/IN)	TIME (MIN)		WATER LEVEL DROP (IN)	PERC RATE (MIN/IN)
	INITIAL	FINAL			INITIAL	FINAL			INITIAL	FINAL		
	1:55	2:05	2 3/8	4	1:57	2:07	2 1/4	4				
	2:05	2:15	2	5	2:07	2:17	1 7/8	5				
	2:15	2:25	1 1/4	8	2:17	2:27	1 1/4	8				

MINIMUM OF 2 TEST HOLES REQUIRED; MINIMUM OF 3 TEST PER HOLE REQUIRED; AVERAGE PERC RATE MAY BE USED IF 5 OR MORE TEST PER HOLE ARE PERFORMED, OTHERWISE SLOWEST PERC RATE SHALL BE USED.

NUMBER OF TESTS PER HOLE: 3

FINAL RATE TO BE USED IN DESIGN: 8 MINUTES PER INCH. SOIL TYPE THREE