



ENTECH
ENGINEERING, INC.

505 ELKTON DRIVE
COLORADO SPRINGS, CO 80907
PHONE (719) 531-5599
FAX (719) 531-5238

June 8, 2022

Tech Contractors
3575 Kenyon Street, Suite 200
San Diego, California 92110

Attn: Raul Guzman

Re: Cement Stabilized Subgrade Results - Laboratory Testing
Rolling Hills at Meridian Ranch Filing No. 3
El Paso County, Colorado

APPROVED
Engineering Department
06/22/2022 8:44:57 AM
dsdnijkamp
EPC Planning & Community
Development Department

Dear Mr. Guzman:

As requested, personnel of Entech Engineering, Inc. have performed strength testing on two sets of three soil/cement composite samples for the above reference project. Testing was performed on soil samples prepared with 2% and 4% Portland Cement Type 1/2, from Martin Marietta, near Pueblo, Colorado.

A minimum compression strength of 160 psi is recommended for cement stabilized subgrade. The 7-day average strength value of the 2% mix was 190 psi. The 7-day average strength value of the 4% mix was 235 psi. A 2% mix is recommended based on the laboratory test results. A summary of the testing results is attached.

Pending the results of the field density testing, microfracturing of the stabilized subgrade will likely be required. Soil strengths in excess 200 psi require microfracturing.

We trust this has provided you with the information you required. if you have any questions or need additional information, please do not hesitate to contact us.

Respectfully Submitted,

ENTECH ENGINEERING, INC.

Daniel P. Stegman

DPS/am

Encl.

Entech Job No. 220780
AAprojects/2022/220780 - cssr — lab

Reviewed by:



Joseph C. Goode, Jr., P.E.
President

SUMMARY OF CTS TEST RESULTS LAB TESTING

CLIENT TECH CONTRACTORS
 PROJECT MERIDIAN RANCH, FILING 3
 FIELD SAMPLE ID TB-17 @ 0-3', A-1-b
 SOIL ADDITIVE TYPE I/II CEMENT

JOB NO 220780
 DATE 5/25/22
 BY BL

<i>ADDITIVE %</i>	<i>WATER %</i>	<i>DENSITY (dry)</i>	<i>AGE (days)</i>	<i>STRENGTH (psi)</i>
2	6.8	126.1	7	197
2	6.8	126.0	7	185
2	6.8	125.9	7	188
AVERAGE:				190
4	6.8	126.2	7	224
4	6.8	126.1	7	231
4	6.8	125.7	7	250
AVERAGE:				235

CURING METHOD

100° HUMIDIFIED OVEN