



ENTECH
ENGINEERING, INC.

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

November 24, 2021

FLRD #6
2138 Flying Horse Club Drive
Colorado Springs, CO 80921

Attn: Jim Boulton

Re: Density Testing – Sanitary Sewer
Forest Lakes Residential Development, Filing 6
Colorado Springs, Colorado
Report No. 16, Tests 841 – 870

Dear Mr. Boulton,

As requested, personnel of Entech Engineering, Inc. have performed density testing at the above referenced site.

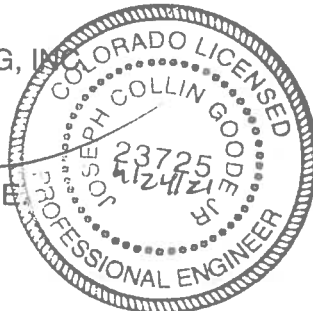
Density testing on this site was performed on November 15, 2021 – November 19, 2021. The density testing indicates that the materials have been adequately compacted at the depths and in the locations noted. Results of the density tests are enclosed with this letter.

We trust that this has provided you with the information you require. Should you have any questions or need further information, please do not hesitate to contact us.

Respectfully Submitted,

ENTECH ENGINEERING, INC.


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



JCG/kw

Enclosure

Entech Job No. 201326

F:\AA projects\2020\201326-FLRD-Forest Lakes F6-110-ConMat\201326_2cl16.doc

Client: FLRD #6	Entech Job #: 201326.2	Proctor Value Key: M = modified, ASTM D-1557
Project: Forest Lakes Residential Development, Filing 6	Tested By: J. Claton	S = standard, ASTM D-698
Subject: Sanitary Sewer	Report Date: 11-24-2021	T = AASHTO, T-180

Test #	Test Location	Testing Date	Percent Compaction	Percent Required	Percent Moisture	Soil Type	Proctor Type/Value	Pass/Fail
841	Sanitary Sewer Manhole on Mesa Top Drive North, 1' north, 12' below grade.	11/15/21	98	98	8.3	SM	M - 130.3 @ 7.6	<input type="checkbox"/>
842	Sanitary Sewer Manhole on Mesa Top Drive North, 1' west, 10' below grade.	11/15/21	98	98	7.9	SM	M - 130.3 @ 7.6	<input type="checkbox"/>
843	Sanitary Sewer Manhole on Mesa Top Drive North, 1' east, 8' below grade.	11/15/21	98	95	6.7	SM	M - 130.3 @ 7.6	<input type="checkbox"/>
844	Sanitary Sewer Manhole on Mesa Top Drive North, 1' south, 6' below grade.	11/15/21	97	95	7.2	SM	M - 130.3 @ 7.6	<input type="checkbox"/>
845	Sanitary Sewer Manhole on Mesa Top Drive North, 2' north, 4' below grade.	11/15/21	97	95	6.5	SM	M - 130.3 @ 7.6	<input type="checkbox"/>
846	Sanitary Sewer Manhole on Mesa Top Drive North, 2' west, 2' below grade.	11/15/21	97	95	7.1	SM	M - 130.3 @ 7.6	<input type="checkbox"/>
847	Sanitary Sewer Manhole on Mesa Top Drive North, 2' east, at grade.	11/16/21	96	95	7.0	SM	M - 130.3 @ 7.6	<input type="checkbox"/>
848	Sanitary Sewer Main, Station #7 + 50 on Mesa Top Drive North, 13' below grade.	11/16/21	99	98	8.1	SM	M - 130.3 @ 7.6	<input type="checkbox"/>
849	Sanitary Sewer Main, Station #7 + 50 on Mesa Top Drive North, 11' below grade.	11/16/21	99	98	8.2	SM	M - 130.3 @ 7.6	<input type="checkbox"/>
850	Sanitary Sewer Main, Station #7 + 50 on Mesa Top Drive North, 9' below grade.	11/16/21	98	95	7.5	SM	M - 130.3 @ 7.6	<input type="checkbox"/>

Comments:

Scope of Observation: PERIODIC; CONTRACTOR'S OR CLIENT'S REPRESENTATIVE ADVISED

All dimensions are approximate. Cl. = Centerline



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FIELD DENSITY RESULTS

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

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Test #	Test Location	Testing Date	Percent Compaction	Percent Required	Percent Moisture	Soil Type	Proctor Type/Value	Pass/Fail
851	Sanitary Sewer Main, Station #7 + 50 on Mesa Top Drive North, 7' below grade.	11/16/21	97	95	8.5	SM	M - 130.3 @ 7.6	<input type="checkbox"/>
852	Sanitary Sewer Main, Station #7 + 50 on Mesa Top Drive North, 5' below grade.	11/16/21	96	95	8.7	SM	M - 130.3 @ 7.6	<input type="checkbox"/>
853	Sanitary Sewer Main, Station #7 + 50 on Mesa Top Drive North, 3' below grade.	11/17/21	98	95	9.2	SM	M - 130.3 @ 7.6	<input type="checkbox"/>
854	Sanitary Sewer Main, Station #7 + 50 on Mesa Top Drive North, 1' below grade.	11/17/21	95	95	9.4	SM	M - 130.3 @ 7.6	<input type="checkbox"/>
855	Sanitary Sewer Main, Station #7 + 50 on Mesa Top Drive North, at grade.	11/17/21	97	95	8.5	SM	M - 130.3 @ 7.6	<input type="checkbox"/>
856	Sanitary Sewer Main, Station #5 + 00 on Mesa Top Drive North, 12' below grade.	11/17/21	99	98	7.0	SM	M - 130.3 @ 7.6	<input type="checkbox"/>
857	Sanitary Sewer Main, Station #5 + 00 on Mesa Top Drive North, 10' below grade.	11/17/21	98	98	7.2	SM	M - 130.3 @ 7.6	<input type="checkbox"/>
858	Sanitary Sewer Main, Station #5 + 00 on Mesa Top Drive North, 8' below grade.	11/17/21	97	95	6.5	SM	M - 130.3 @ 7.6	<input type="checkbox"/>
859	Sanitary Sewer Main, Station #5 + 00 on Mesa Top Drive North, 6' below grade.	11/18/21	97	95	6.8	SM	M - 130.3 @ 7.6	<input type="checkbox"/>
860	Sanitary Sewer Main, Station #5 + 00 on Mesa Top Drive North, 4' below grade.	11/18/21	97	95	8.3	SM	M - 130.3 @ 7.6	<input type="checkbox"/>

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861	Sanitary Sewer Main, Station #5 + 00 on Mesa Top Drive North, 2' below grade.	11/18/21	96	95	8.4	SM	M - 130.3 @ 7.6	<input type="checkbox"/>
862	Sanitary Sewer Main, Station #5 + 00 on Mesa Top Drive North, at grade.	11/18/21	97	95	7.9	SM	M - 130.3 @ 7.6	<input type="checkbox"/>
863	Sanitary Sewer Manhole #7 on Mesa Top Drive North, 1' north, 13' below grade.	11/18/21	99	98	7.1	SM	M - 130.3 @ 7.6	<input type="checkbox"/>
864	Sanitary Sewer Manhole #7 on Mesa Top Drive North, 1' south, 11' below grade.	11/18/21	99	98	6.5	SM	M - 130.3 @ 7.6	<input type="checkbox"/>
865	Sanitary Sewer Manhole #7 on Mesa Top Drive North, 1' west, 9' below grade.	11/19/21	97	95	6.2	SM	M - 130.3 @ 7.6	<input type="checkbox"/>
866	Sanitary Sewer Manhole #7 on Mesa Top Drive North, 1' east, 7' below grade.	11/19/21	97	95	5.9	SM	M - 130.3 @ 7.6	<input type="checkbox"/>
867	Sanitary Sewer Manhole #7 on Mesa Top Drive North, 1' north, 5' below grade.	11/19/21	97	95	5.7	SM	M - 130.3 @ 7.6	<input type="checkbox"/>
868	Sanitary Sewer Manhole #7 on Mesa Top Drive North, 1' south, 3' below grade.	11/19/21	96	95	6.0	SM	M - 130.3 @ 7.6	<input type="checkbox"/>
869	Sanitary Sewer Manhole #7 on Mesa Top Drive North, 1' east, 1' below grade.	11/19/21	96	95	6.3	SM	M - 130.3 @ 7.6	<input type="checkbox"/>
870	Sanitary Sewer Manhole #7 on Mesa Top Drive North, 1' west, at grade.	11/19/21	96	95	6.8	SM	M - 130.3 @ 7.6	<input type="checkbox"/>

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