



ENTECH
ENGINEERING, INC.

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PHONE (719) 531-5599

March 4, 2025

TimberRidge Development Group, LLC
2138 Flying Horse Club Drive
Colorado Springs, CO 80921

Attn: Austin Lenz

Re: Pavement Design Addendum
Vollmer Road Shoulder Widening
El Paso County, Colorado
Entech Job No. 241657

Ref: *Pavement Design Report Arroya Lane*, Entech Engineering, Inc. dated December 30,
2024
Entech Job No. 241657

Dear Mr. Lenz:

As requested, personnel of Entech Engineering, Inc. (Entech) completed a pavement design for Arroya Lane within the Retreat at TimberRidge, Filing No. 3. Refer to our pavement design report referenced above for information on the subsurface exploration program, laboratory testing, and pavement design parameters. The subgrade conditions found in the previous test borings were considered for the additional pavement recommendations. The previous pavement design recommendations presented in above above-referenced pavement design report remain valid and this addendum does not supersede any previous recommendations.

Subgrade Conditions:

Five test borings were completed for the *Arroya Lane Pavement Design Report* dated December 30, 2024, by Entech. The subsurface conditions for the proposed widening are anticipated to be consistent with the soils as considered in the original report: "Subsurface conditions along the proposed roadway consisted of medium dense to loose clayey sand fill (Soil Type 1, AASHTO A-1-b, A-2-4, A-2-6) and native medium dense to dense slightly silty to silty sand and sand with silt (Soil Type 2, AASHTO A-1-b). Very weak sandstone bedrock, or very dense silty sand when classified as a soil (Soil Type 3, AASHTO A-1-b), was encountered in two of the test borings (TB-1 and TB-3) underlying Soil Types 1 and 2." Entech should observe the subgrade prior to installing base course to verify the subgrades are consistent with the pavement design referenced above.

Pavement Design:

The pavement section for the shoulder widening was determined utilizing the *El Paso County Pavement Design Criteria Manual* minimum pavement section.

Soil Type 1 subgrades are anticipated to be encountered during the construction of the Vollmer Road shoulder widening. Vollmer Road is classified as a minor rural arterial roadway with an ESAL of 689,850. We recommend using the county minimum recommended pavement section for the minor rural arterial roadway shoulder widening, which is summarized in Exhibit 1.



Exhibit 1: Recommended Pavement Sections

Pavement Area	Design ESAL	Alternative ¹
Vollmer Road Shoulder Widening	689,850	1. 4.0 inches HMA over 8.0 inches ABC/RCB

ABC = Aggregate Base Course; ESAL = Equivalent Single Axle Loads; HMA = Hot Mix Asphalt;
RCB = Recycled Concrete Base

Notes:

1. All pavement alternatives meet the minimum sections required per the *El Paso County Engineering Criteria Manual*.

Remarks:

The recommendations provided in this letter are intended for use by TimberRidge Development Group, LLC with application to the paving of Arroya Lane – Vollmer Road shoulder widening in El Paso County, Colorado. In conducting the engineering evaluation, and reporting, Entech Engineering, Inc. endeavored to work in accordance with generally accepted professional geotechnical and geologic practices and principles consistent with the level of care and skill ordinarily exercised by members of the geotechnical profession currently practicing in the same locality and under similar conditions. No other warranty, expressed or implied, is made. During final design and/or construction, if conditions are encountered that appear different from those described in this report, Entech Engineering, Inc. requests to be notified so that the evaluation and recommendations presented herein can be reviewed and modified as appropriate.

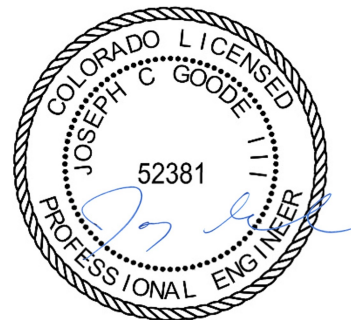
If there are any questions regarding the information provided herein, or if Entech Engineering, Inc. can be of further assistance, please do not hesitate to contact us.

Respectfully Submitted,

ENTECH ENGINEERING, INC.

Zachary C. Gutierrez, E.I.T.
Geotechnical Engineering Staff

Reviewed by:



Joseph C. Goode III, P.E.
Sr. Engineer

ZCG:JCG/jcg

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