

TASK ORDER B
ATTACHMENT TO
PROFESSIONAL SERVICES AGREEMENT
BETWEEN SPONSOR AND ENGINEER,
DATED October 8, 2024

FURTHER DESCRIPTION OF SERVICES OF ENGINEER

1. This Attachment is made a part of and incorporated by reference into the Professional Services Agreement made on September 26, 2022, between **FREMONT COUNTY, COLORADO (Sponsor)** and **LOCHNER, (Engineer)** providing for professional engineering services. The Services of Engineer as described in Section 1 of the Agreement are amended or supplemented as indicated below and the time periods for the performance of certain services are stipulated as indicated below.

2. **LOCATION** – Fremont County Airport, Canon City, Colorado

3. **WORK PROGRAM** – Attached

Element 1 – *Geotechnical Investigation - Taxiway C*

4. **FEES** - The fees will be as noted below. (All lump sums)

Geotechnical Investigation	\$25,000.00
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Analysis and Recommendation Report	\$19,300.00
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Engineering Total	\$44,300.00
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5. **ATTACHMENTS** - Required Contract Provisions for A/E Contracts Under Airport Improvement Program

SPONSOR:
FREMONT COUNTY, COLORADO



Dwayne McFall, Chairman
Board of County Commissioners

ENGINEER:
LOCHNER

Erik Vliek, Business Manager

SCOPE OF WORK
FREMONT COUNTY AIRPORT

ELEMENT #1 GEOTECHNICAL INVESTIGATION - TAXIWAY C

1. This project consists of a geotechnical investigation to aid in the design for the reconstruction of the pavement on Taxiway C. Taxiway C (formerly part of Runway 17/35) is assumed to have been paved around 1999 or 2000 (exact year is unknown). The pavement has reached design life and is in need of reconstruction. The included project sketch depicts the general layout for the project.
 - 1.1. This work will involve conducting a geotechnical investigation in order to characterize the pavement section and subsurface conditions.
 - 1.2. Following the investigation, an analysis will be performed on the testing data in order to develop an appropriate course, or courses, of action based on the observed conditions.
 - 1.3. Based on the identified course, or courses, of action, detailed cost estimates will be developed in order to most accurately plan and program for future construction funding.



I. GEOTECHNICAL INVESTIGATION

The geotechnical investigation will be performed by a geotechnical subconsultant and will consist of the following tasks:

1. **Field Investigation.** Core and drill six (6) soil borings to depths between 10 to 15 feet below surface grades at pre-determined locations as indicated on the provided sketch. The surficial asphalt layer will be cored prior to drilling/sampling. Borings will be drilled within the existing asphalt surfaced taxiway only as necessary. Sampling of the subsurface below any base cores may be performed without auger drilling as applicable. Nightwork is not anticipated for this project. Drilling will utilize 4-inch solid stem auger depending on drilling conditions and ability to obtain undisturbed samples. Our investigation will include the following:
 - a. Layout and mark boring locations and obtain utility locates prior to drilling. We understand private locates will be performed by the geotechnical subconsultant for the 6 locations within the airport property.
 - b. Observe airport safety procedures including placement and removal of safety barriers and closure crosses as necessary.
 - c. Core and drill six (6) locations and retrieve relatively undisturbed samples for limited testing. After the core is removed, base course thickness will be measured by hand, where possible. A modified California and SPT sampler will be used for retrieving samples below the base course. We anticipate our investigation will extend to between 10 and 15 feet below surface grades. Bulk samples will be taken to perform CBR testing.
 - d. Perform standard blow counts during drilling.
 - e. Properly backfill borings.
2. **Laboratory Testing and Summary Report** to include the following:
 - a. One Dimensional Incremental Consolidation testing (ASTM D4546) on different soil types may be performed. Samples will include initial in-situ density and moisture and a subsequent gradation after consolidation testing.
 - b. Density, moisture, classification analysis testing shall be performed on a minimum of one subgrade sample per location. Moisture and classification analysis shall be performed on all base course material, if encountered. All samples tested shall be classified by AASHTO and Unified Soil Classification System (USCS) and for FAA Frost Group (AC 150/5320-6G, Table 2-2). Limited Hydrometer testing may be performed.
 - c. Bulk sample testing shall include CBR testing, gradation and Atterburg Limits testing.

II. ANALYSIS AND RECOMMENDATIONS REPORT

The analysis and recommendations report will consist of the following tasks:

1. Conduct one (1) design site visit by the Project Engineer for familiarity with the site.
2. Analyze and process geotechnical investigation data. Develop design conclusions based on the data presented and establish input values for pavement design software.
3. Prepared preliminary pavement section design utilizing FAA FAARFIELD pavement design software.
4. Prepare estimate of probable construction cost for each identified project area. The estimate will be based on information obtained from previous projects, contractors, material suppliers, and other databases available.
5. Develop summary narrative report that summarizes: findings of geotechnical investigation, pavement section design analysis, and the estimated construction costs. Report will include graphics that clearly depict the identified future project areas.
6. Prepare an update to the Airport Capital Improvement Plan that incorporates the estimated costs and project areas identified through this project.