FMG ENGINEERING 3700 Sturgis Road, Rapid City, SD 57702 • fmgengineering.com • 605-342-4105



April 4th 2025

## **Bidding Contractors**

## Re: Proposal for Construction Material Testing Services Deadwood Hill Parking Lot Deadwood, South Dakota

## Dear Bidders:

Thank you for this opportunity to provide a proposal for construction period services for the referenced project. We have reviewed the plans and specifications and have developed the following scope of work based upon typical testing frequencies for projects of similar scope.

## TASK 1 – Earthwork Testing

We have assumed our field technician would make multiple site visits to perform density tests on earthwork using a Troxler nuclear density gauge. There will also be soil laboratory testing such as moisture-density relationships (proctors), and laboratory testing on any proposed engineered fill material with compliance specifications.

### **Assumptions:**

- We have assumed that one soil technician would be on-site on a part time basis for the compaction testing of all earthwork related tasks including retaining wall backfill, storm sewer backfill, subgrade scarification/re-compaction, and base course in pavement areas.
- We have assumed 8 trips to the site for earthwork testing.
- FMG will observe "Proof Rolls" of the pavement subgrade prior to placement of gravel base, and of gravel base prior to bituminous paving.
- Moisture Density Relationships in accordance with current ASTM standards will be prepared for all different material types. General compliance testing (Atterberg limits, gradations, etc.,) will be performed as required in accordance with applicable ASTM standards.
- All laboratory testing will be performed at the materials lab of FMG in Rapid City.

# TASK 2 – Inspection and Testing of Concrete Construction

A concrete testing technician will make multiple trips to the site for concrete testing and inspections. Our field technician would cast one set of 4" x 8" test cylinders for compressive strength testing at the specified frequency We have assumed 5 trips to the site for concrete inspections.

- We have assumed concrete testing for light pole footings, valley gutters, and curb and gutter.
- We assume no inspection of rebar prior to placements.
- FMG has assumed that any safety measures required to perform these inspections will be provided by the contractor.
- Cylinders will be picked up within 24-48 hours and transported to FMG Rapid City Laboratory.
- Compressive strength testing will be conducted on strength specimens at 7 and 28 days.
- Test reports will be issued for each set/test and reported via email.

Civil Engineering Geotechnical Engineering Materials Testing Laboratory Land Surveying Environmental Services Water Resources



# TASK 3 – Asphalt Pavement Density Testing

Field density testing would be performed using a Troxler nuclear density gauge on the new asphalt pavement during placement operations.

#### **Assumptions:**

- Assumed density tests on the bottom lift and top lift of new asphalt pavement.
- Assumed 2 trips for in place density testing.
- Assumed FMG will use contractor provided theoretical maximum density (RICE) in a mix design from this season's production to be used to calculate % standard on in-place density.
- All laboratory testing will be performed at the materials lab of FMG in Rapid City.

### **Summary**

We know that project cost is always a concern, and we will make every effort to coordinate with the contractor to consolidate as much testing as we can on each visit to the job site.

## Estimated Fees

Please find our general estimate of the construction testing costs for this project. The testing costs are an estimate based on our experience with projects of similar size and scope, so the actual testing costs could vary from this estimate. Additional testing services beyond the scope of work indicated in this proposal would be performed only with the owner's prior authorization to do so.

Billing rate schedules can be provided if requested.

Based on the time frames, personnel and assumptions provided above we have the following estimates.

| Task   | <b>Estimated Cost</b> |
|--|-----------------------|
| Task 1 – Earthwork Testing                               | \$3,893.00            |
| Task 2 – Inspection and Testing of Concrete Construction | \$3,692.50            |
| Task 3 – Asphalt Pavement Density Testing                | \$5,882.00            |
| Subtotal   | \$13,467.50           |
| <u>Tax (6.2%)</u>  | \$834.99              |
| Total  | \$14,302.49           |

If contracted, we will not exceed this estimate without prior authorization.

Although dollar values have been provided for each task FMG retains the right to reallocate monies to other tasks subject to the maximum limiting fee shown above.

If you have any questions, or desire any additional information, please call us at your earliest convenience. *Thank you for the opportunity to be of service*.

Sincerely, Hyle Jacobson

Kyle Jacobson FMG Engineering