

Scope of Work
SH 13 Corridor Reconstruction – Garfield County
North Rifle to Rio Blanco County Line

Description:

The general planned improvement is to widen SH 13 in Garfield County from MP 4 (North Rifle) to MP 16.9 (Rio Blanco County Line). The design along SH 13 will include horizontal and vertical alignment adjustments, design of climbing and passing lanes, slope stabilization, various structures, wildlife over/underpasses, and replacement of existing drainage structures. During the design process, the design team is encouraged to consider preservation of the existing roadway template to enhance constructability, traffic handling, and economy.

The Consultant will provide specialty engineering support as part of a blended team effort. CDOT will be responsible for the roadway design, while Consultant specialty support will be utilized to deliver several corridor reconstruction projects.

All work under this Task Order is anticipated to be completed by November 31, 2018.

Scope of Work:

The Consultant shall provide specialty design support as requested. All work shall be in accordance with CDOT's manuals, standards, and generally accepted practices.

Roadway Design

Provide roadway design support associated with the reconstruction of SH 13 from MP 4 to MP 16.9. The road design will seek to utilize the existing road sections to the greatest extents possible while correcting any horizontal and vertical alignments to meet a design speed of 65 mph, which is generally 10 mph greater than the existing design. Where the grade of the existing road can be replicated a "saddle-bag" structural section of the roadway will be used for the creation of the new roadway template. The existing road template consists of 12' lanes with shoulders ranging from 2' – 4', the proposed road template will have 8' shoulders.

The Consultant may provide phasing plans, constructability reports, and independent plan review for the various corridor projects if requested by CDOT.

Design support will be required on an "on-call" basis to assist and mentor the CDOT designers during the development of alignment and profile, roadway geometry, modeling, and as needed during the development of the SH 13 corridor projects.

Traffic

Perform traffic engineering, signing, striping and design to support the reconstruction of SH 13. Provide FIR, FOR and final stamped plans and specifications. Construction traffic control plans and tabulations will be provided for the various projects.

The Consultant will also assist CDOT Roadway designer with layout of acceleration and deceleration lanes, and passing and climbing lanes.

Hydraulic Analysis and Recommendations

Provide hydraulic analysis on the drainage basins and existing crossing drainage structures and provide recommendations and documentation for sizing of proposed drainage structure improvements in a Report or Technical Memo format.

The Consultant shall develop structure cross sections and calculate quantities for all minor structure items.

The Consultant will provide FIR, FOR and final stamped drainage plans and specifications.

Environmental Support

No environmental support work is included in this scope of work. It is anticipated that CDOT will prepare and submit a categorical exclusion for this project. CDOT will also prepare and submit any necessary permits.

CDOT will obtain required environmental clearances.

The Consultant will prepare Storm Water Management Plans for the various projects.

Survey

Aerial and ground surveying have been completed for the referenced SH 13 corridor. Additional “on-call” surveying may be required for debris flow areas, and areas where structures or wildlife crossing structures may be constructed, or supplemental surveying is required. The Consultant will provide on-call surveying as directed.

Right-of-way

It is anticipated that Right-of-way plans will be done by CDOT. If workload is such that CDOT’s ROW Unit needs support with preparation of ROW plans, the Consultant will be asked to provide supplemental support on an as-needed basis. Any necessary property negotiations and transfers will be handled by CDOT.

Utilities

CDOT will identify utility conflicts and necessary relocations. Agreements and negotiations with the utility companies will be handled by CDOT.

Geotechnical Engineering and Materials

Pavement design and associated material recommendations and requirements will be performed by CDOT.

Deep roadway cuts are anticipated along the corridor alignment. The Consultant will provide geotechnical borings up to 50' in depth on an as-needed basis that will include soil profile, blow counts, soil properties and classification, and water table information.

The Consultant will investigate debris flows along the corridor and provide mitigation recommendations.

The Consultant will prepare stamped plans and specifications for the mitigation of embankment fill failures on Rio Blanco Hill at approximately SH 13 MP 15.8.

Structures

The Consultant will design various structures (bridges, retaining walls, CBC's, wildlife over/underpasses, debris flow structures, etc) and provide drawings and specifications.

CDOT Staff Bridge will provide a peer-review of the structure designs.

The Consultant will provide FIR, FOR and final stamped structure plans and specifications.

Additional Services

Traffic control will be required to perform various tasks.

Provide additional work on other tasks as directed by CDOT.

Quality Assurance/ Quality Control Checks

Provide QA and QC checks on all work performed by the Consultant. Provide additional QC checks or reviews of work performed by others as requested by CDOT.

Schedule

Within the first month of receiving the Notice to Proceed, the Consultant will work with the CDOT Project Manager to develop a delivery schedule of prioritized and future tasks.