City of Flagstaff
Work Plan
for
Construction Manager at Risk Contract

Florence-Walnut Railroad Underpass

Federal Transportation Enhancement Project No.
TEA-FLA 0(005)A

ADOT TRACS
No. 0000 CN FLA SL549 01D

City of Flagstaff

October 6, 2010

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Introduction

The City of Flagstaff submits this work plan for review and approval for design phase and construction services using a Construction Manager at Risk (CM@Risk) delivery method for the Florence-Walnut Railroad Underpass presented here under the provisions of Special Experimental Project No. 14 (SEP 14) for the use of innovative contracting practices. Both the City of Flagstaff and the State of Arizona approve this contract method as defined in Arizona Revised Statutes, Title 34.

The City of Flagstaff has successfully completed six CM@Risk projects in the past: the Empire Avenue Extension Project, the Alpha Shade Hangers at the City of Flagstaff Pulliam Airport, the Fourth Street Overpass Project, Wildcat Hill Waste Water Treatment Plant Upgrade, Cedar Avenue Bridge and the Aquatic & Multigenerational Center.

General Description of CM@Risk:

CM@Risk is a delivery method wherein the CM@Risk firm participates in the design phase by evaluating cost, schedule, implications of alternative designs, constructability reviews and value engineering. During construction, the CM@Risk assumes the risk for price based on a Guaranteed Maximum Price (GMP) and schedule. The CM@Risk contracts directly with the trades and subcontractors and has a single point of responsibility for the delivery of the project.

CM@Risk contractors are chosen on a qualification based selection process, similar to selection of Architectural/Engineering consulting services. The owner advertises for Statements of Qualifications, forms a selection committee and proceeds to evaluate, interview and select the contractor based on qualifications provided.

The advantages of CM@Risk are:

- Team approach from project inception
- Increased owner control
- Continuous budget control
- Value Engineering with design phase services
- Construction planning
- Phased construction option
- Controlled purchasing
- Change management by owner
- Open book financial approach

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Purpose and Expectations

CM@Risk has been chosen for this project, allowing us to use the contractor's railroad experience and expertise, while minimizing or eliminating construction delays. All of the CM@Risk advantages listed in the prior section will be utilized when working with the BNSF Railway on this unique project.

Recently a City project did require a Contractor to work within the BNSF right-of-way and one difference between the traditional competitive bid process versus a qualification based selection was highlighted. The competitively bid process requires bidding the project and the City Council awarding the project before a contractor starts acquiring the project insurance. Specifically, in the creation of a Quiet Zone in Flagstaff where the BNSF insurance endorsement requirements were emphasized at the pre-bid conference, a smaller contractor competitively bid and subsequently was awarded the project. The Contractor was not able to obtain the BNSF insurance endorsements and the City concurred that the contractor exhausted all practical means to obtain the insurance. The City had to terminate the contract then used a qualification based method to select a contractor that had recent experience working within the BNSF right-of-way.

This work will be within the BNSF right-of-way and the City's previous experience has shown the insurance endorsements required by BNSF cannot be obtained unless the contracting company is of a certain size or has previous work experience within the BNSF right-of-way. The City expectation is by utilizing the qualifications based CM@Risk process to have some certainty that the chosen contractor can obtain the BNSF insurance endorsements.

Project Description and Scope of Work

General Project Description

The underpass is planned for a location just west of downtown, in an area where the BNSF tracks separate two historic neighborhoods; the Townsite neighborhood on the north side and La Plaza Vieja on the south side.

The underpass will be about 50 feet in length, 14 feet in width, and 9 feet in height. The exact length will be determined by BNSF in their design process, and will be long enough to accommodate the planned third track. The width is planned at this time for 14 feet; however the City is exploring whether it is possible to make the tunnel wider to make it more inviting for users.

A short section of concrete trail, about 225 feet in length and 10-12 feet in width, is planned to connect Walnut Street on the north side with Florence Street on the south side through the underpass.

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Existing grades are very favorable for an underpass at this location; the tracks are elevated on a berm that is high enough to allow the underpass without lowering the surface of the trail. The running grade of the connecting trail between the two streets will be less than two percent.

The City is considering other amenities to make the facility more inviting, such as hardscaping, seating, and public art.

An updated cost estimate for the underpass is $567,440. The City will fund the $67,440 overmatch through its FUTS program.

Benefits of the underpass

The proposed underpass, as a stand-alone project, will significantly enhance mobility for pedestrians and bicyclists in this area:

- Residential neighborhoods on the north side of the tracks, north and west of downtown, serve as "generators" of bicycle and pedestrian trips; while several large trip "attractors," including Northern Arizona University and commercial areas at Milton Road, Route 66, and Woodlands Village, are located south of the tracks to the south and west of downtown.

  Because there are no legal track crossings west of Milton Road, bicyclists and pedestrians traveling between generators and attractors are forced east to cross the tracks at one of the at-grade crossings at Milton Road, Beaver Street, or San Francisco Street.

  For these bicycles and pedestrians, the underpass will significantly reduce out-of-direction travel by creating a route that is much more direct and convenient for trips across the tracks.

- The underpass would also help bicyclists and pedestrians avoid traffic congestion in downtown Flagstaff, reduce the number of crossings at busy streets and arterials, eliminate delays caused by waiting for trains, and create routes that consist of non-motorized trails and quiet residential streets.

- School children from neighborhoods south of the tracks will have a direct route to both Flagstaff Middle School and Flagstaff High School, which are located about a half-mile north of the proposed underpass. Currently school children on foot or bike have to travel east to cross the tracks at Milton Road, Beaver Street, or San Francisco Street.

- There is currently a significant volume of illegal track crossings in this area; the underpass would improve safety by reducing the incidence of illegal crossings.

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- The project has the support of the City of Flagstaff Council by the adoption of Resolution 2003-58 authorizing the grant application and acceptance. The Project also has support from the Bicycle Advisory Committee, Pedestrian Advisory Committee, the City of Flagstaff Traffic Commission, and BNSF. The Arizona Department of Transportation (ADOT) has endorsed this project and is providing supplemental funding through a TEA 21 Round 11 Grant.

Scope of Work

The CM@Risk contractor will begin the project with a design phase services support role to the City. The contractor will work with the designer, through the City Project Manager, to offer value engineering and constructability assessments.

Design phase services by the CM@Risk may include the following:

- provide detailed cost estimating and knowledge of marketplace conditions;
- provide project planning and scheduling;
- provide alternate system evaluation and constructability studies;
- advise City of ways to gain efficiencies in project delivery;
- provide long-lead procurement studies and initiate procurement of long-lead items;
- assist in all applicable permitting processes;
- protect the owner's sensitivity to quality, safety, environmental factors, and City of Flagstaff delivery processes.

Prior to construction, the City and the CM@Risk contractor will negotiate a GMP to construct and deliver the project. The CM@Risk will be responsible for construction means and methods, and will be required to solicit bids from pre-qualified subcontractors to perform the work. The CM@Risk is responsible for self-performing a minimum of 45% of the construction work.

Construction phase services by the CM@Risk may include:

- construction of the pedestrian tunnel according to final plans;
- construction of the pedestrian enhancements according to final plans;
- coordinate with various City of Flagstaff departments, other agencies, utility companies, etc.;
- arrange for procurement of materials and equipment;
- schedule and manage site operations;
- bid, award, and manage all construction related contracts while meeting city bid requirements;
- provide quality controls;
- bond and insure the construction;
- address all federal, state and local permitting requirements;
- deal with owner issues; and

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- maintain a safe work site for all project participants
- Sign an agreement with BNSF Railways

The CM@Risk method will include the following sequential phasing:

Phase I - Construction Manager at Risk Selection Process

The Request for Statement of Qualifications (RSOQ) will advertise according to State of Arizona and City of Flagstaff procurement requirements and will include a general description of the project, scope, and project evaluation criteria.

The RSOQ evaluation criteria includes:

1. General Information; provide a general description of the firm and/or team. Provide organization chart showing key personnel and identify the location from which they will perform their work. (10 points)

2. Experience and qualifications of the proposed team members in providing these services on similar projects. (20 points)

3. Experience and qualifications of the Project Manager. (20 points)

4. Understanding the project and approach to performing the required services. (10 points)

5. Principal office location. (10 points)

6. Capability to meet schedule commitments and ability to manage multidisciplinary project. (20 points)

7. Overall evaluation of the team's capability to provide the required services. (10 points)

Maximum Score = 100 points

The evaluation committee members will score the Statement of Qualifications (SOQ). Upon review of the SOQs, the committee reserves the option of interviewing the three most qualified firms. After interviews have been completed, the committee will select the most qualifying team to perform as the CM@Risk contractor.

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After the CM@Risk contractor has been selected, the City and the contractor will prepare the project scope and negotiate a fee for the design phase services and construction services. If an agreement cannot be reached with the first firm selected, the City reserves the right to contact subsequently ranked firms for negotiation to enter into a contract for CM@Risk services.

Phase II - Design Phase Services

Design phase services include the CM@Risk contractor working with the design consultant, through the City's Project Manager, to develop plans, specifications, and special provisions. The CM@Risk contractor will also lead the effort for value engineering and constructability reviews during this phase.

Design Phase services will also include:

- Prepare scope and fee for construction services
- Negotiate and execute a GMP construction contract at the owners request
- Obtain necessary permits
- Obtain approvals

Phase III - Construction Services

The CM@Risk and the City will negotiate a GMP based on the current design and the CM@Risk estimate for the remaining design features. The primary duties of the CM@Risk during the Construction Phase will be to:

1. Manage and coordinate design and construction activities
2. Obtain necessary insurance, permits and railroad agreements
3. Address and satisfy all Federal requirements
4. Complete projects as described by the final plans and specifications
5. Coordinate all activities with the City's Construction Manager
6. Address project close out and warranty issues.

Schedule

On the following page is a schedule for the completion of the project.

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Measures & Reporting

In the City's experience, the CM@Risk process provides innovations in project development, design and construction, and ultimately result in reduced project duration and budget savings. Aside from budget and schedule goals, the emphasis of this process will be on project quality and value.

Two separate reports will serve as important measurements in project delivery. The initial report will describe the selection process for the CM@Risk contractor. This includes the development of the scope, fee negotiation, reactions by the industry if applicable, any innovations proposed by respondents and any major problems encountered and how they were resolved.

The second and final report will be submitted upon completion of the contract and project acceptance by the City. The final report will contain an overall evaluation of the project from the City and the Contractor along with any suggestions and recommendations for improving the process. In addition, the City will discuss the relationship with the Contractor, quality of the final product, number of changes to the original scope of work, additional cost, problems encountered and benefits received. Both reports will be forwarded to FHWA Headquarters.

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