

# **CITY OF OREM**

# SMALL ROUNDABOUTS AND FEASIBILITY DESIGN

**REQUEST FOR PROPOSALS** 

October 20, 2014

#### **1.0 INTRODUCTION**

The City of Orem is located in central Utah County and is surrounded by Provo, Lindon and Vineyard. Over the last ten years, the City's population has increased from 84,324 to 88,892, making it the fifth largest city in the State of Utah. The City has an Intelligent Transportation System that is used to monitor and coordinate traffic signals on its roadway network.

Because of the growth that has happened and is projected to continue, the City of Orem is undertaking an upgrade of its Intelligent Transportation System. The purpose of the upgrade is to reduce congestion and meet the demand of its continuous population growth. The corridor of 800 West from 2000 North to 800 South is part of the upgrade plan and is the focus of this RFP. This corridor is a non-State route maintained by the City and is a major collector conducting traffic between four major arterials. It is one of the longest north-south through streets in the City. The details and scope of this portion of the upgrade project are contained in later sections.

#### 2.0 PROJECT DESCRIPTION AND SCOPE OF SERVICES

This project's focus is the evaluation of four all-way stops along the 800 West corridor(see Figure 1) to determine the feasibility of converting these intersections into small roundabouts. One of the main goals of the City is to reduce the number of all-way stops along this busy corridor. The intent of doing so is to reduce delay and improve safety for pedestrians and bicyclists while maintaining traffic flow of various sized motor vehicles. The City believes the change to roundabouts will also serve to force traffic to respect the designated speed along the corridor.

The scope of work (SOW) would include determining necessary right of way acquisitions are, providing safe pedestrian access, accommodating bicycles, identifying and addressing public perception concerns of roundabouts, accommodating truck and large vehicle access, and addressing crash prevention through proper design techniques.

Respondents should include in their response the specific roundabout concept, size of roundabout (which must conform to APWA specifications), estimated costs of implementation, including purchase of rights of way required to construct no more than four roundabouts.



Figure 1: Aerial Photography of the 800 West Corridor (source: Google Maps)

#### 3.0 OUTCOME AND PERFORMANCE STANDARDS

The awarded respondent will have access to a variety of data, including GIS data, volume counts, speed data, crash data, and population density and growth rates. The awarded respondent will also have access to the National Cooperative Highway Research Program manual on roundabouts. Any additional data can be requested and supplied if available. Some of this data can be used by respondent for simulation modeling purposes. Teams will provide the work "as is", meaning that there is no engineering stamp certifying the work.

For a greater understanding of the project and successful design, the awarded respondent may conduct site visits to the selected intersections along the project corridor as needed and appropriate.

#### 4.0 DELEVERABLES

The deliverables include the following elements:

- A final report with design alternatives for the project that include economic and environmental considerations.
- A poster reflecting a summary of your design project.
- A presentation summarizing your design project.

All deliverables are due Friday April 1. During the week of April 4th both a presentation to sponsors and a poster session for students, faculty and other interested people will be organized.

### 5.0 TERM OF CONTRACT

Undergraduate students are to work during winter semester eight hours/week/student with at least 3 hours working together as a team. Any class time or time spent on class assignments counts towards the minimum eight hours.

## 6.0 PAYMENTS, INCENTIVES, AND PENALTIES

Much of the capstone work is graded by graduate student mentors, for the evaluation items that include the following components:

- Team process (how well you work together to accomplish the goals)
- Project proposal
- Project Management Plan (PMP)
- 50% complete status report
- Final report, poster, and presentation
- Overall satisfaction of the client in meeting their specific deliverables

### 7.0 CONTRACTUAL TERMS AND CONDITIONS

There will be no monetary compensation with respect to the work completed, and all work is completed and delivered on a "best effort" basis. Each member of your team will be asked to sign a non-disclosure agreement that simply states the work you do belongs to the project sponsor.

### 8.0 EVALUATION AND AWARD PROCESS

Three different graduate students will evaluate proposals blindly, and the average of their scores will be the grade you will be given on your proposals and used for granting awards where competition exists. They will be evaluating the proposal from the exact rubric found in section 10.0.

### 9.0 PROCESS SCHEDULE

# October 21, 4:00 pm - Request for Proposals will be available online: <u>http://cecapstone.groups.et.byu.net/content/winter-2015-projects</u>

- October 27, 4:50 pm Question and Answer period with respect to the proposal and submission procedures. The period where you can register your intent to propose on a project will begin on October 20. Each team will need to identify the primary target of their proposal and three other alternatives (no proposal necessary). Public knowledge of intent to propose should help distribute proposals more evenly.
- \*November 17, 4:00 pm Three copies of the proposal must be submitted at the beginning of class.
- \*November 17, 4: 00 pm Team video interviews of your team members should be made available online or on disc and referenced in the proposal.
- December 1 Award notification

\*The review committee reserves the right to reject any proposal or presentation that is not submitted in a timely fashion or in accordance with the instructions given in this RFP.

# **10.0 SUBMITTAL REQUIREMENTS FOR THE PROPOSAL**

The submittal documents should include three copies of the proposal accompanied the follow:

- Cover letter
- Executive summary, 1 page or less (by itself)
- Work plan that outlines the approach to solving the problem and how the team will work together (including weekly work schedule that shows the hours each team member will work and the time block the team will be together).
- Necessary tools, data, equipment, etc. A couple of paragraphs or a bullet list with one sentence explanation for each item.
- Schedule indicating important milestones.
- Engineering Design Budget, which is an estimate of the design phase cost.
- Statement of qualifications that outlines the background, experience, education, and organizational structure of the team, including some discussion of how you plan to become a "high functioning" team in the course of completing the project.
- Outside consultants (professors or others) that are necessary to "make this work."
- Appendices:
  - Appendix A: 1 page resume for each member of the team
  - Appendix B: (if necessary)

## **11.0 CONTACTS**

Should any questions arise during the application process, respondents are advised to contact at <u>danykat08@gmail.com</u> or call him at 801 494-4263.