

REQUEST FOR PROPOSALS

Statement of Purpose

This project is a design of a new detention basin in Riverton, Utah that will include a basketball and/or tennis court facility for use during dry weather. The detention basin will require adequate capacity for storm water detention during specified events.

The design could include the actual facilities (slabs of concrete and other structures) as well as the hydrologic/hydraulic functionality of the detention basin.

Background Information

Riverton is a city in Salt Lake County that had a population of about 39,751 as of 2008. It is one of the fastest growing cities in the state of Utah and was even ranked number sixty on the top 100 places to live in the United States by Business Weekly in 2005.

The departments that the City of Riverton operates for the benefit of the local community include engineering as well as other typical, related departments such as stormwater, planning and zoning, streets and purchasing.

Scope of Work

The problem that this project will address is mainly flooding potential of stormwater runoff. New development causes an increased risk of flooding due to more impermeable area. Detention basins are often used as a flood control structure in these types of situations.

Detention basins are designed to reduce peak stormwater discharges by storing a portion of the runoff, reducing the risk of flooding and preventing downstream channel scouring. In addition to serving these purposes, the land purchased for this project will also be utilized for recreation facilities such as basketball or tennis courts.

The design might include analyses using hydrologic models such as HEC-HMS, HEC-1, or the detention basin calculator in the Watershed Modeling System (WMS) developed by Aquaveo.

The constraints for this project include but might not be limited to technical, economic, and aesthetic factors. The basin and all other structures designed should meet applicable local and regional regulations.

Once the proposal is submitted and the project is awarded, the key milestones for the project will include meetings with supervisors (project manager and city contact), drafts of the design, a final report, poster and presentation.

A CAD drawing will be provided as well as all applicable and available data about the design. This may include design and historical flow data, aerial photographs of the area, elevation data, references for design requirements imposed by the governing bodies in charge of the facility, etc.

It is expected that at least one visit with the city contact (Trace Robinson, Public Works Director, City Engineer of Riverton City) to get more information about the project and the expectations that he has. Visit(s) with Trace will be vital to the success of the project as information about the requirements and expected outcomes are currently limited. It is also recommended that the project team visit the site to better understand the project.

Ultimately, the scope is to deliver a design that meets the given criteria.

Requirement for Proposal Preparation

Three copies of the proposal that should include the following items should be submitted by the deadline.

- Cover letter
- 1 page or less executive summary
- No more than 2 pages statement of qualifications that outlines the background, experience, education, and organizational structure of the team. This section should include some discussion of how you plan to become a "high functioning" team in the course of completing the project. Any outside consultants (professors or others) that will help should also be included.
- No more than 2 pages work plan that outlines there approach to solving the problem, how there team will work together (including weekly work schedule that shows the hours each will work and the time block the team will be together).
- No more than 1 page (probably just a few lines) indicating necessary tools, data, equipment necessary.
- No more than 1 page schedule indicating important milestones.
- No more than 1 page Engineering Design Budget that would be primarily their time and effort.
- In the appendix include a 1 page resume for each member of the team

Outcome and Performance Standards

The team selected will provide this work "as is", meaning that there will be no engineering stamp to certify the work. However, our ability to continue receiving help from outside sponsors will be contingent on the good work that you do. You represent the BYU Civil & Environmental Engineering Department and it is expected that you will interact in a professional manner at all times with your mentor and project sponsor, treating them with the utmost respect and consideration of their busy schedules.

While successful completion of the design project is fundamental to the outcome of the work, it is expected that you will also learn important team dynamics and leadership principles. This means that in the process of completing the project you are also seeking to help each member of your team grow and develop confidence in engineering abilities.

Deliverables

- Report – this should include design alternatives for the project that include economic and environmental considerations
- Poster
- Presentation

Term of Contract

The length of the contract will be over the course of the Winter 2012 semester. Each student is expected to work six hours per week on the project. This 6 hours should include at least 3 hours working together. The project deadline is ??????

Payments, Incentives, and Penalties

For your effort on this project you will receive a grade that is awarded according to the following breakdown:

- Time Card - putting in the requisite time (10%)
- Project Notebook - demonstrating productivity in the hours spent (10%)
- Milestones met - each project will outline the expectations for milestones (20%)
- Final report (35%)
- Poster/Presentation (10%)
- Teamwork Portfolio and Peer evaluation (10%)
- Cooperation (5%)

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.

Evaluation and Award Process

Your team's proposal will be evaluated by a panel that will use the following criteria:

- Firm Resources/Ability/Experience (20%)
- Key Project Personnel (20%)
- Work Plan and Understanding of the Project (40%)
- Technical Proposal and Presentation (20%)

Process Schedule

The following dates and times are for the proposal process for this project.

1. October 31 @ 4:00 pm - Request for Proposals will be available online at <http://cecapstone.groups.et.byu.net/Winter2012.htm>
2. November 7 @ 4:50 pm - Question and Answer period with respect to the proposal and submission procedures
3. November 21 @ 4:00 pm - Three copies of the proposal must be submitted at the beginning of class
4. November 21 @ 4:00-5:30 pm - 5 minute interview (presentation) by your team of the proposal
5. November 30 - Award notification

*Please note that the review committee reserves the right to reject any proposal or presentation that is not submitted in a timely fashion.

Contacts

A complete list of people on the project team should be included with names, titles, responsibilities, and the different ways to contact each team member.

Supervisor: Trace Robinson, Public Works Director, City Engineer (phone: 801-208-3137, email: trobinson@rivertoncity.com)

Graduate Student: Todd Wood (phone: 707-205-7792, email: twood0406@gmail.com)