Ivins City Staff Report
City Council Meeting 12/18/2014

Agenda Item: Approve expenditure for professional services to update Storm Drain Master Plan and Impact Fee Facilities Plan

Submitted by: Charles R. Gillette, P.E., City Engineer

Recommended City Council Action:
Approve expenditure of $34,000 for professional services to update Storm Drain Master Plan and Impact Fee Facilities Plan

BACKGROUND:

Recent major storm events have identified the possibility that the City may be subject to larger storms at a higher frequency than anticipated by the data provided to us from the National Weather Service. If this is the case we potentially have deficiencies in the City's drainage system. There is a need to review the current plan and City standards to identify whether changes are needed.

FINDINGS AND ANALYSIS:

Staff solicited for proposals from engineering firms and received submittals from four excellent engineering firms. The proposals were scored by the selection committee based on an equal weight of qualifications, project approach, past performance/references, evaluation of sample report, and cost. Bowen Collins & Associates scored the highest based on this evaluation criteria. Bowen Collins scored high due to providing a team that is highly specialized in hydrology and hydraulic analysis in Utah that provides a combination of expertise and efficiency.

SUPPORT MATERIALS:

- Request for Proposals
- Composite Scoring Sheet

FINANCIAL IMPACT:

GL 53-42-876: Not to exceed $34,000, budgeted item eligible to be paid with impact fees

Respectfully Submitted: _____
Charles R. Gillette, P.E., City Engineer

Content Review: _____
Dale Coulam, City Manager

Ivins City
Request
for Proposals for
Engineering Services to update the
Storm Drain Master Plan and Impact Fee Facilities Plan

Ivins City, Utah is soliciting competitive sealed proposals from qualified engineers to provide services as outlined in the **SCOPE OF SERVICES SECTION** of this request.

I. Background:

Ivins City's current master plan for the storm drain is the 2006 Storm Drain Capital Facilities Plan prepared by Alpha Engineering. Most of the projects proposed by this master plan have been completed, however, recent storm activity has identified opportunities for improvement in the drainage system and the need to re-evaluate the criteria used for designing drainage facilities. Ivins City is seeking professional engineering services to update the master plan with recommendations for drainage improvements and changes to design criteria. In addition, the City is requesting services to update the GIS databases as needed, including any potential survey work.

The following information will be provided by the City:

- GIS Database including the following feature classes:
  - Catch Basins, point data
  - Storm Drain Manholes, point data
  - Storm Drain Pipes, line data
  - Storm Drain Culverts, line data
  - 2006 Drainage Basins, polygon data
  - Local Drainage Basins, polygon data (10% complete, used only when City is evaluating a particular problem area)
  - City Discharge Points, point data
  - Major Washes, line data
  - FEMA Floodplains, polygon data
  - Minor Washes and drainage channels, line data
  - Outlet Risers for Detention Dams, point data
  - Dams, line data
  - Detention Storage Areas, polygon data
  - USDA Soils in Ivins
  - Land Use Plan
  - Zoning Map
  - Planning Points (Identifies each existing property with a point feature and identifies current use and anticipated future use based on the land use plan)

- 2006 Aerial Photogrammetry, 1" = 100', 2' contours
- 2012 LiDAR Aerial Topography, 1 meter point cloud and processed 2' contours
- 2006 Storm Drain Capital Facilities Plan files including Word Files and AutoCAD files
- Ivins City SewerGEMS drainage models
- March 2014 Aerial Photography by Pictometry, 3-inch pixels
- As-builts of City and Developer projects can be provided as needed

As a note, the 2006 analysis looked at an alternative density land-use plan. This update will not look at alternative densities. Only the current land-use plan will be assessed.

II. Scope of Services:

The following is the scope of services that should be considered during the preparation of the cost proposal:

A. Provide GPS Survey and GIS Mapping Input
   i. Ivins City storm drain system GIS mapping is outdated in some areas and needs to be brought to date. Provide a unit price per 100 data points to collect field data and input the data into the City GIS databases.
   ii. The following data should be collected in the field and input into the database: rim elevation, invert elevation and pipe diameter of all pipes entering the catch basin/manhole.

B. Land Use /Population Analysis
   i. Incorporate analysis prepared by City.

C. Hydrologic/Hydraulic Criteria
   i. Review precipitation gage data and work with City Engineer to determine an adjustment of rainfall intensity-duration-frequency curves for Ivins City.
   ii. Review method of assigning curve numbers to landuse.
   iii. Review and consider incorporation of a requirement to model connected impervious areas as part of the hydrology analysis.
   iv. Provide recommendations to update the City's current Standard Specifications based on criteria analysis.

D. Existing Condition Analysis
   i. Update the SewerGEMS drainage model for existing conditions.
   ii. Evaluate hydrology of existing conditions, calibrate based on recent storm activity.
   iii. Update the model to include latest detention structures and stage-storage-discharge tables.
   iv. Update the model to include latest improvements to storm drain system.
   v. Evaluate hydraulics of pipe systems and road networks and identify locations where drainage facilities are deficient.
   vi. Work with City staff to identify problem locations and calibrate model to check ability of model to identify capacity problems.

E. Build-out Condition Analysis

i. Update the SewerGEMS drainage model for future fully developed conditions.
ii. Evaluate the hydrology and calibrate.
iii. Identify facilities that will be needed to address existing deficiencies and future development.
iv. Update the model to include the recommended facilities.
v. Evaluate the hydraulics of the pipe systems and road networks to ensure that all design criteria will be satisfied.

F. Capital Facilities Planning
i. Identify facilities that will be needed to address existing deficiencies and possible future deficiencies.
ii. Identify costs for each capital facility recommended in the plan.
iii. Identify an implementation/phasing plan identifying the year each facility is anticipated to be needed and installed.
iv. Identify which facilities are eligible to be funded either fully or partially with impact fees meeting the requirements of State Laws for an impact fee facility plan. (The impact fee analysis which calculates the recommended impact fee will be prepared in a separate analysis by others.)

III. Compensation for Services:

Ivins City intends to enter into a professional services contract with the successful engineer. Compensation for the services rendered, is to be based upon a time-expended basis with an agreed maximum not to exceed value. **The selection of the engineer or engineering firm will not be based solely on the fee.**

IV. Evaluation Criteria and Selection Process

Selection of the successful Engineer will be based upon a matrix giving a predetermined value to each of the submissions required in this section. The award of contract will go to the engineer receiving the most points based on the following:

A. Qualifications of the firm (Staff strength & similarity of projects) (20 POINTS AVAILABLE)
B. Project Approach (20 POINTS AVAILABLE)
C. Past performance/references (20 POINTS AVAILABLE)
D. Evaluation of Sample Report from Previous Project (20 POINTS AVAILABLE)
E. Cost Proposal (20 POINTS AVAILABLE)

V. Proposal Format and Content

Proposals are to follow the format and are to contain information listed in this section. In order to be considered, proposals must address all the items listed in this section and adhere to page limitations.

A. Letter of transmittal introducing firm and nature of proposal.
B. Project Team and Approach (Two pages maximum)

C. Firm Experience and References (Two pages maximum)
   1. List similar projects completed by firm (minimum two).
   2. Provide names and telephone numbers for each of the projects listed.

D. Cost Proposal (Two pages maximum)
   1. Provide cost of meeting the requirements of the Scope of Services in Section II.
   2. Identify billing rates of each member of project team and number of hours required for project tasks as well as estimated direct charges.
   3. Cost shall be reasonably itemized based on Scope of Services. The following specified items are required to be separately itemized for cost allocation and possible scope adjustments in final contract negotiations:

E. Appendices
   1. Resumes (1 or ½ page per person) – Include principal-in-charge and key technical/professional personnel to be assigned to the project. Identify the role assigned for each person.
   2. Provide copy of report from a previous project that is most similar to this project.

VII Submittal Requirements

Proposals are due on Tuesday, November 25th at 3:00 p.m.

The proposal should be submitted electronically in a PDF format to jchapman@ivins.com. Large files may be transmitted by including a link to an FTP site on the email. Hard copies will not be accepted.

Inquiries regarding the RFP should be directed to Chuck Gillette, P.E., City Engineer or David Glenn, Public Works Director at (435) 634-0689, or by inquiry to the address above. The City reserves the right to award the contract to the highest ranked firm without further consideration or discussion. **The City reserves the right to reject any and all proposals received.** The City also reserves the right to waive any irregularity, informality, or technicality in the proposals in its best interest, and is not obligated to award a contract based upon the lowest price submission. If terms cannot be mutually agreed upon, The City will enter into negotiations with the secondary engineer/firm.

2015 Storm Drain Master Plan and Impact Fee Facilities Plan

Composite Scoring of Selection Committee

Firm	Qualifications	Approach	Past Performance	Sample Report	Cost		Total	Major Advantages
Possible	20	20	20	20		20	100	
Alpha	17.5	17.5	16.0	17.5	$ 21,667.00	20.0	88.5	Low Cost, SewerGEMS Model, Ivins Experience
Bowen Collins	20.0	16.5	19.0	19.0	$ 34,000.00	17.0	91.5	Best Expertise, 3rd Party Review
Sunrise	17.5	15.0	16.0	17.5	$ 43,100.00	15.0	81.0	Santa Clara Experience, 3rd Party Review
Rosenberg	19.5	16.5	16.5	19.0	$ 46,585.00	15.0	86.5	Excellent Expertise, 3rd Party Review