

**REQUEST FOR PROPOSALS**  
**for**  
**ELM AVENUE DRAINAGE STUDY & PRELIMINARY**  
**STORM SEWER DESIGN**  
**PROJECT NO. DR03-1332**

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**PROJECT DESCRIPTION**

The City of Rapid City proposes to reconstruct Elm Avenue from St. Patrick Street south to Utah St. In order to design the project the City is undertaking a study to determine the drainage infrastructure that should be incorporated into the final design. The Elm Ave reconstruction may be performed in multiple phases thus this study shall be conducted so as to provide a comprehensive analysis of the storm sewer infrastructure needs for the entire project.

The City proposes to construct storm sewer and inlets on Elm Ave. from Nevada St to St Patrick St.. Storm sewer is anticipated to extend on to the intersecting streets with Elm Ave. in order to collect storm runoff prior to its confluence with Elm Ave.. Sizing of the storm sewer on Elm Ave as well as the intersecting streets will be necessary so that the allowable street flows per the Drainage Criteria Manual are met and the future reconstruction of the intersecting streets can be accomplished by having the appropriate outfall storm sewer available.

As shown on the attached exhibit, the study area encompasses an area outside the immediate anticipated Elm Ave reconstruction Limits. Its is expected that upstream and downstream improvements may be needed to the major storm sewer conveyances as well as under Elm Ave in the Meade St intersection area.

The existing concrete open channel up and downstream of Elm Ave. is noted in the Meade Hawthorne DBDP as being undersized and improvements are necessary. The consultant shall extend their preliminary design service to this area to evaluate the improvements necessary as part of the Elm Ave. reconstruction, as well as evaluation of construction phasing for these major upstream and downstream drainage improvements.

**General**

A copy of the approximate project study area is shown on the enclosed exhibit. The consultant shall evaluate the study area shown and make necessary changes to the study area limits to effectively evaluate the drainage area directly impacting Elm Ave. in the

reconstruction area and upstream/ downstream improvements that may be needed in conjunction with the reconstruction.

Design criteria and information for the project will be as contained in the "City of Rapid City Standard Specifications"; the "City of Rapid City Drainage Criteria Manual" the Meade Hawthorne Drainage Basin Design Plan and City GIS data;

## SCOPE OF SERVICES REQUESTED

### 1. PRELIMINARY DESIGN PHASE

#### 1.1. Review existing data including the following:

- 1.1.1. Elements 41,42,141,142, and Basins 41 and 42 from the Meade Hawthorne Drainage Basin Design Plan;
- 1.1.2. City maps and drawings;
- 1.1.3. Existing utility locations,
- 1.1.4. Survey records and existing land ownership, plats, rights of way and easement information from Pennington County Courthouse records;

#### 1.2. Perform a detailed topographic survey as needed in order to determine hydraulic characteristics of the existing facilities so that preliminary recommendations can be made for use in the final design; Owner will obtain rights of entry for private property. The field survey will be tied to the existing horizontal and vertical control network of the City.

#### 1.3. Provide preliminary plans for the storm sewer in Elm Ave. and intersecting streets. Note: the City desires look at options to ease the future constructability of the major drainage facilities up and downstream of the Elm/ Meade intersection.

Recommend options for all storm sewer identified in the Meade Hawthorne Drainage Basin Design Plan for the elements identified above;

Explore the option of providing storm sewer in Meade St. to the east of Elm St in conjunction with future Meade St. sanitary sewer reconstruction project. This option analysis is deemed relevant in that upon reconstruction of the existing concrete channel south of Meade St., an alternate stormwater bypass may be necessary for the reconstruction as well as aiding in the needed capacity for this sector of the storm system as identified in the DBDP;

#### 1.4. Prepare preliminary opinion of probable construction cost; costs shall be broken down for the different options and phasing as appropriate.

#### 1.5. Define the scope of geotechnical investigations as may be necessary for final design;

#### 1.6. Prepare preliminary systems layout, including limits of all recommended improvements, channel construction, road crossing profiles, and cross sections to clearly show the intent of the improvement, the consultant shall consider future design geometry including future and existing utilities, of Elm Ave. and meet with the City to identify locations of possible conflict with future design of Elm Ave. and the design of improvements per this proposal.

#### 1.7. Prepare Preliminary Design Report, including hydrologic and hydraulic analysis for existing and design plan conditions, with recommendations for review and comment by City staff, and conduct a review meeting with City staff.

## 2. FINAL DESIGN

2.1. The scope of final design of the drainage shall be performed under separate contract as part of the overall design of the Elm Ave Reconstruction Project.

## 3. MEETINGS AND SUBMITTALS

3.1 Project team members will include the consultant; City staff from Engineering Division (project management, design and construction coordination).

3.2 Meetings requiring the Consultant's participation will include:

- Kick-off Meeting
- 50% Preliminary Plan and Design Report Presentation & Discussion
- Preliminary Design Report Presentation and Discussion

3.3 Submittals required during the design phase include:

- 50% Preliminary Plan and Design Report
- Preliminary Plan & Design Report

### **PROJECT SCHEDULE**

Contract Negotiations Complete	9/15/03
Notice to Proceed with Design	9/22/03
50% Preliminary Plan and Design Report	11/30/03
Preliminary Design Submittal	12/31/03

### **PROPOSAL SUBMISSION**

Please submit three (3) copies of your proposal no later than August 29, 2003 Interviews will be the first week of September.